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ARC 6,7 and New 1 Mineral Claims

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1988 PROSPECTING PROGRAM

ISKUT RIVER AREA

56° 52' North Latitude 130° 55' West Longitude

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	FEB	23	1989	
M.R.	# VANCO	JVER,	\$ B.C.	
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in the

Liard Mining Division British Columbia

For

KESTREL RESOURCES LTD.

Вy

RAYMOND D. COURNOYER, PROSPECTOR

February 16, 1989



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SUMMARY

A preliminary program of prospecting and sampling was conducted on the Arc 6, 7 and New 1 mineral claims during the summer of 1988 for Kestrel Resources Ltd.

A base camp was established at the headwaters of Forrest Kerr Creek and a helicopter was utilized to access the claims. A total of 18 rock chip samples and 6 silt samples were collected.

The Arc 6, 7 and New 1 claim group is composed of a metasedimentary unit with underlying limestone. A minor porphyry intrusive unit is seen on the southeast part of the block. Assays returned values of up to 540 ppb gold in quartz.

INTRODUCTION

The Arc 6, 7 and New 1 mineral claims, a total of 22 units were staked in February and June of 1988. The claims are situated 7 kilometres east of Newmont Lake in the Iskut River Area (NTS 104B/15W).

The claims cover favourable geology, north of Gulf International Minerals McLymont Claims where high grade veins of quartz-pyrite-chalcopyrite are presently being explored.

A program of preliminary prospecting and sampling was conducted by Rangex Services during the summer of 1988 to evaluate the potential of the property.

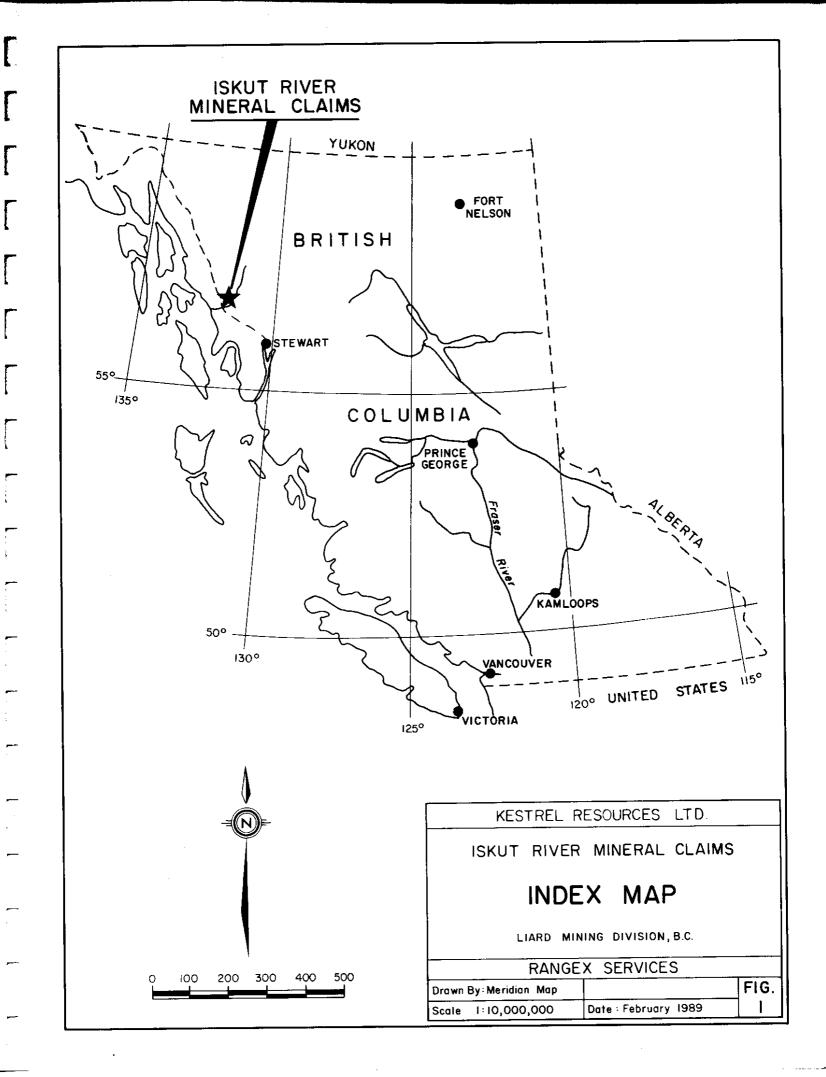
LOCATION, ACCESS AND GEOGRAPHY

The claim group is situated approximately 130 km north of Stewart, B.C. centered at 56° 52' north latitude 130° 55' west longitude in the Liard Mining Division of British Columbia.

Access to the claims is via helicopter from a base camp at the headwaters of Forrest Kerr Creek, 56° 56' north longitude, 130° 48' west longitude. Regular fixed wing flights from Smithers, B.C. service the Forrest Kerr camp.

Topographically, the Iskut area is extremely rugged, ranging in elevations from 100 metres to in excess of 2,000 metres. Spruce and alder represent the general vegetation while above treeline (900-1,000 m) alpine vegetation such as white and purple heather are present.

The Arc 6, 7 and New 1 claims are situated 7 kilometres east of Newmont Lake extending 11 kilometres in a north-south direction. The claims lie above treeline between 900 and 1,600 metres partly in a recently glaciated valley. Glaciers border the northeast portion of the claim block.



The area receives heavy precipitation, snow in excess of 6 metres being common during the winter. The field season extends from June to mid-October.

CLAIM INFORMATION

The Arc 6,7 and New 1 mineral claims consisting of 22 units are owned by Kestrel Resources Ltd.

Claim data is as follows:

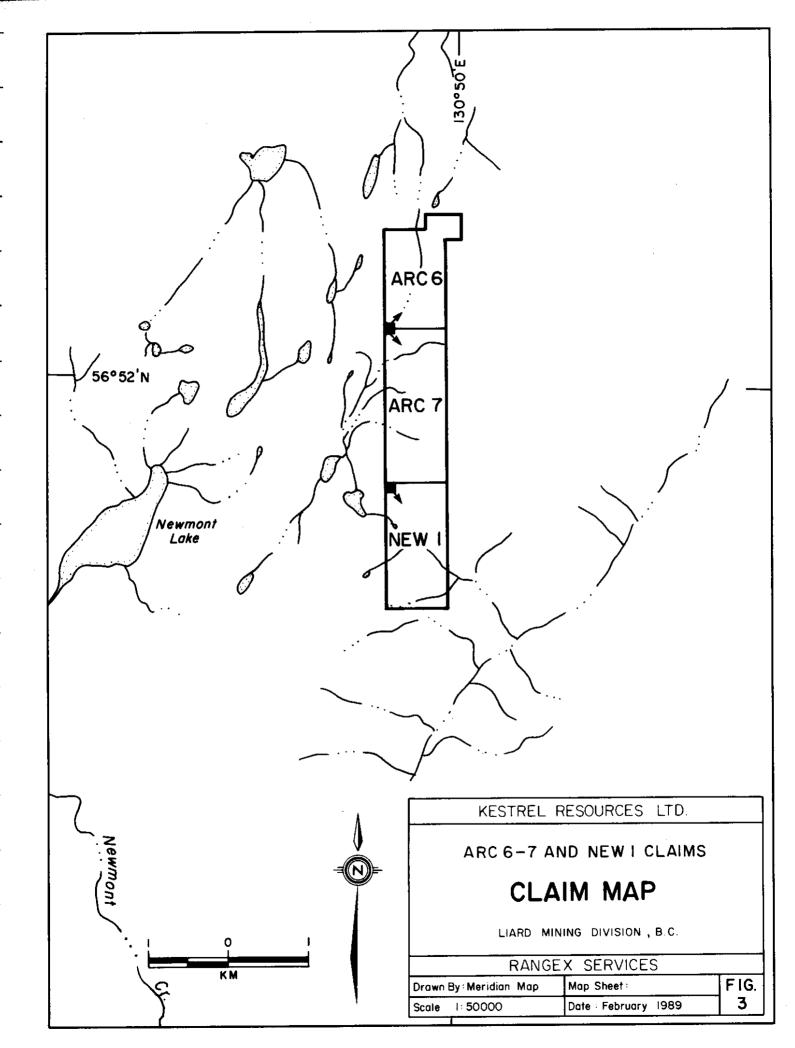
Claim Name	Units	Record #	Record Date
Arc 6	6	4495	February 24, 1988
Arc 7	10	4496	February 24, 1988
New 1	6	4741	June 28, 1988

AREA HISTORY

There is no recorded work from the Iskut River region prior to 1907 when a staking party from Wrangell, Alaska, recorded nine mineral claims north of Johnny Mountain. Iskut Mining Company worked these crown granted claims undertaking trenching and drifting on veins yielding Galena, gold and silver. The 1917 Minister of Mines annual report states the Iskut Mining Company shipped a ton of ore which yielded, in 1917 currency, \$1.20 in gold, 44.2 ounces of silver and 12.45 percent copper.

Hudson Bay Mining & Smelting Ltd. located high grade gold, silver and lead in float during 1954. This was known as the Pick Axe showing and forms part of Skyline Explorations Stonehouse Gold deposit on Johnny Mountain.

Throughout the 1960's several major mining companies undertook exploration programs in the Johnny Mountain and Sulphurets Creek region. This work resulted in the discovery of several porphyry copper-molybdenum targets. Cominco completed several core holes on Johnny Mountain in 1965.



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Skyline staked and the Inel property in 1969 following the discovery of massive sulphide in float on the Bronson Glacier and later in 1980 restaked the Reg property. During the period of 1981 to present Skyline has developed both these properties discovering high grade veins and polymetallic massive sulphide mineralization on the Inel and Reg properties.

As of January, 1988, GROVE, E.W., reported reserves from the Stonehouse Gold Deposit of 851,170 tons grading 25.0 Au g/tonne 29.1 Ag g/tonne and 0.76% Cu.

Delaware Resources Ltd. completed 10,000 metres of diamond drilling on their Cominco Snip claims located directly north of the Stonehouse Gold Deposit. This exploration resulted in estimated reserves of 997,810 tonnes grading 24.0 Au g/tonne. During the 1988 season an underground program was initiated on this deposit.

Newmont Mining Corporation of Canada Ltd. staked 324 claims (Dirk Claim Group) west of Newmont Lake in 1962. An exploration program of geological mapping, airborne and ground magnetics survey, sampling and diamond drilling was conducted to explore the skarn type mineralization discovered on the Dirk and Ken showings. Intersections of 0.23% Cu and 3.4 Ag g/tonne over 15.85 metres were reported from the Ken showing while Hole 4 on the Dirk showing returned assays of 0.30% Cu over 1.83 metres.

Gulf International Minerals staked the McLymont claims south of Newmont Lake in 1986. These claims had been staked by Dupont Canada Explorations Ltd. in 1980 as the Warrior claims and optioned to Skyline Explorations Ltd. and Placer Development Ltd. Exploration has extended the existence of quartz - pyrite chalcopyrite veins which retain values of up to 102.8 Au g/tonne. Gulf International Minerals has conducted extensive diamond drilling on the McLymont claims reporting in their 1987 Annual Report, drilling results of up to 55.0 Au g/tonne, 1,362.1 Ag g/tonne and 0.97% Cu over 11.12 metres.

A number of exploration companies examined claims in the Arctic Lake area approximately 75 kilometres north of the Skyline Cominco deposits.

- 4 -

Kennco Exploration conducted a program of geological mapping on the Bam Claim group in 1965. Mitsui Mining and Smelting Co. Ltd. undertook geological mapping and silt sampling in the Arctic and Big A Groups during 1968.

REGIONAL GEOLOGY

The Iskut area lies within a complex geological setting of the Circum-Pacific orogenic belt of North America. Specifically it forms a part of the geological setting defined by Grove as the Stewart Complex. Grove E.W. (1986) states the following:

"The Stewart Complex lies along the contact between the Coast Plutonic Complex on the west, the Bowser Basin on the east, Alice Arm on the south and the Iskut River on the north."

Government workers have attempted, since 1948, to clarify relationships and assign ages to the various lithological units of the area, and to trace structural events affecting these units. This work has not been entirely successful, however, due to the extremely inaccessible terrain and difficult physical conditions confronting workers.

Mineral exploration studies carried out by private companies have added significantly to the geological knowledge of the area, but are not generally available publicly. Work completed by Kerr, 1948, <u>G.S.C. Memoir 246</u>; G.S.C maps <u>9-1957</u> and <u>1418-1979</u> - "Iskut River", form the basis of government mapping. Private companies active in the area since the early 60's include Newmont, Kennco, Cominco, Skyline and others too numerous to list.

The oldest known rocks of the area are limestone, dolomite and low grade metamorphosed sediments (quartzite, slates, phyllite) of lower Cambrian age that have been correlated with the Cache Creek Group prevalent in the southern half of the province. The limestone unit contains fossil crinoids and is unconformably overlain by upper Triassic Hazelton Volcanics and sediments. Bivalve fossils found west of Newmont Lake date these rocks as late Triassic and correlation of these rocks with both Stuhini volcanics and Unuk River formation has been attempted by various workers.

- 5 -

Overlying the Triassic Hazelton volcanic-sedimentary assemblage is a similar group of volcanic-sedimentary rocks of middle Jurassic age named the Betty Creek Formation.

Cretaceous to Tertiary Coast Plutonic intrusions of granite, granodiorite, and diorite occupy large plutons of the map area. In addition smaller bodies of monzonite or syenite as well as subvolcanic acidic porphyries are sparsely distributed.

Tufa, hot spring deposits and pyroclastic material of Pleistocene and Recent age occur at several localities within the area, notably at Hoodoo Mountain.

Schistose rocks, although present in the area are not of great lateral extent and owe their origin to deformation metamorphism, rather than high temperature regional metamorphism.

Structurally, the map area is bisected by a prominent thrust fault along the Iskut River from Forrest Kerr Creek to the Stikine River Junction. The thrust separates unconformably, Mississippian-Pennsylvanian rocks from middle Jurassic strata and is thought to override rock formations to the south. Regionally, a dominant northeast trending and a subdominant northwest trending fault system complicate the local geology, especially where folding of the strata, which is common, has occurred.

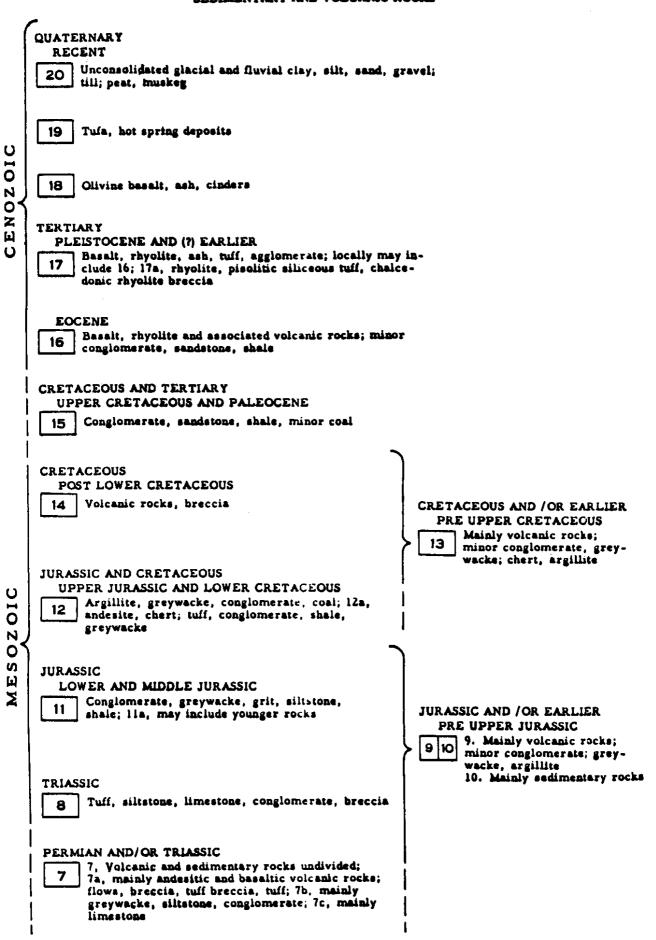
PROPERTY EXPLORATION

A crew of six people prospected and sampled the Arc 6, 7 and New 1 mineral claims throughout the summer of 1988. Work was undertaken from Forrest Kerr Camp.

A total of 18 rock chip samples and 6 silt samples were collected from the property. The samples were shipped to Van Geochem Lab Ltd. for analysis for gold (ppb) and silver (ppm) using fire assay and atomic absorption techniques.

LEGEND

SEDIMENTARY AND VOLCANIC ROCKS



I	8
	 PERMIAN AND (?) EARLIER Limestone, greenstone, chert, argillite, phyllitic quartzite, greywacke; meta-andesite and meta- diorite locally abundant near ultramatic bodies. May include younger greenstone; 6a, Carboniferous or Permian, mainly andesitic flows, braccia, tuff; minor sedimentary rocks
	DEVONIAN AND MISSISSIPPIAN UPPER DEVONIAN AND MISSISSIPPIAN
	5 Chert, argillaceous quartaite, argillite, grey- wacke, greenstone, conglomerate, limestone
	DEVONIAN MIDDLE DEVONIAN
4	4 Limestons, dolomite, guartaite
	ORDOVICÍAN AND SILURIAN UPPER ORDOVICIAN AND LOWER SILURIAN
	3 Limestone, cherty limestone, quartzite, red and green chert, shale
	CAMBRIAN AND ORDOVICIAN MIDDLE AND (7) UPPER CAMBRIAN, LOWER AND MIDDLE ORDOVICIAN
	2 Shale, phyllite, slate, calcareous state, limestone
	CAMBRIAN Lower Cambrian
	1 Limestone, dolomite, quartzite, slate, phyllite
	INTRUSIVE AUCKS
	A Felsite, felsite porphyry
	B Mainly quarts monsonite, granodiorite, granite
	C Mainly diorite; minor gabbro
	D Granite porphyry, granophyre, symmet and related rocks
	E Serpentinite, peridotite; locally includes meta-andesite and meta-diorite

PALAEOZOIC

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METAMORPHIC ROCKS

TRIASSIC OR EARLIER

F

Phyllite, sericite schist, hornfels, granulite, fine-grained blottlehornblends gneiss; Fa, may include or be equivalent to 9

PERMIAN AND/OR EARLIER PRE MIDDLE PERMIAN

G

Ga, Gneiss; Gb, phyllite, quartzite, minor crystalline limestons, highly altered and sheared greywacks and volcanic rock

MAINLY CARBONIFEROUS AND PERMIAN

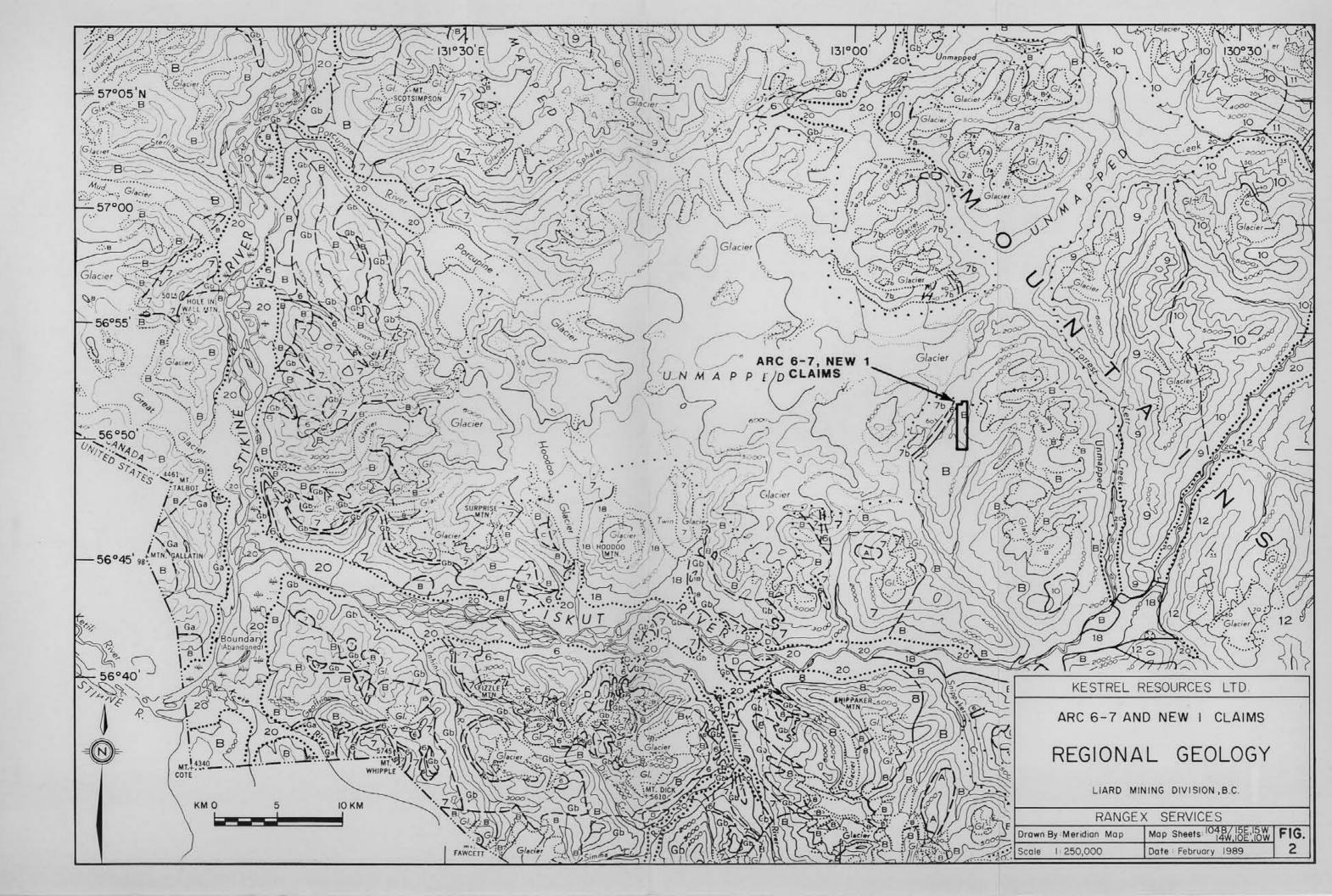
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Biotite-quarta-feldspar gasiss, biotite-muscovite schist, crystalline limestone, greenstone, quartaite, phyllite

MISSISSIPPIAN AND EARLIER

Gacise, schist, crystalline limestone, crystalline dolomite, guartaite



Sample locations and results are plotted on Figure 4. Analytical results are presented in Appendix IV.

PROSPECTOR'S REPORT

The claim group is underlain by a metasedimentary unit to the north and west with underlying limestone units with porphory intrusives to the south and east. There is a major fault running northeast-southwest through the Arc 6 property and a secondary northwest-southeast cross fault occurring on the southern end of the group.

Mineralization occurs in fractures and shear zones and consists of pyrite, tetrahedrite, barite, hematite, chlorite, magnetite, calcite and quartz. Gold values of up to 540 ppb were noted on the Arc 7 claim (Sample 32631) in a 5% pyrite chloritic alteration along the side of a quartz vein 3" wide by 3' long. Slight anomalous values were noted on the Arc 6 claim, Sample 32255 and 32256 running 20 ppb and 30 ppb gold respectively on an andesite-limestone contact.

RECOMMENDATIONS

A program of continued prospecting and sampling with soil geochemical surveys in the anomalous zones is proposed for 1989. A budget will be presented when required.

APPENDIX I

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PROGRAM COST

PROGRAM COSTS

Wages (July 4 - October 9, 1988)

Ray Cournoyer, Prospector	2 days @ \$225.00/day	\$ 450.00
Ron Riedel, Sampler	4 days @ \$200.00/day	800.00
Dave Hagemoen, Sampler	4 days @ \$175.00/day	700.00
John Buccholtz, Geologist	2 days @ \$225.00/day	450.00
Kelly Kaye, Sampler	.75 days @ \$200.00/day	150.00
Ian Hagemoen, Management	2.5 days @ \$250.00/day	 625.00

Total Wages

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and the second

\$ 3,175.00

Expenses

Room and board	2,141.50
Expendables	184.61
Rentals	65.33
Travel and accommodation	95.07
Freight	113.14
Expediting	72.48
Fixed wing	451.68
Helicopter	2,169.52
Assaying	258.00
Report costs	750.00

Total Expenses

5,551.33

TOTAL COST

<u>\$ 9,476.33</u>

APPENDIX II

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BIBLIOGRAPHY

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- Grove, E.W. (1986): Geological Report, Exploration and Development Proposal on the Skyline Exploration Ltd. Reg Property.
- Castin, C.T. (1973): Report on Geological, Geophysical and Physical Work Dirk Claim Group Newmont Mines.

Assessment Report 4150 Province of B.C.

Davis R.E. (1987): Progress Report McLymont Claim Group - News Release for Gulf International Minerals Ltd.

APPENDIX III

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STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, RAYMOND D.E. COURNOYER, of Site L, R.R. 1, Kispiox Valley Road, Hazelton, B.C. in the Province of British Columbia do hereby certify:

- I am employed by Rangex Services with offices at 1124 470 Granville Street, Vancouver, B.C.
- 2) I am a graduate of the Ministry of Energy, Mines and Petroleum Resources' advanced prospecting course (1987).
- 3) I have practiced my profession of prospecting since 1980.
- 4) I have personally prospected the properties described within this report.
- 5) I have no interest in any of the properties described herein, nor do I expect to receive any such interest.
- 6) That I hereby authorize Kestrel Resources Ltd. to present this report or part thereof, in any prospectus or other documentation required by any regulatory body.

DATED at Vancouver, British Columbia, this 23 day of \overline{Fe} 1989.

D D.E. COURNOYER

APPENDIX IV

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ASSAY CERTIFICATES

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VANGEOCHEM LAB LIMITED

MAIN OFFICE 1988 TRIUMPH ST. VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

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REPORT #: 881865 DA		R	MIGEI	Projec	t: ARC 6	•					Page	1 of	1
Sample Number	Jobao	Ho	Cu	Pb	Zn	Ag	Au	¥	Ą	Au			
		pps	ppa	ppe	pge	ppa	ppb	ppe	oz/st	oz/st			
32043	881588												
32043	880835					0.4	<5						
32044	661588								+-				
32044	890835		**			<0.1	<5						
32045	881588		**										
32045	880835					1.1	(5						
32090	880835					<0.1	(5						
32091	880835					0.1	<5						
32254	881192					<0.1	<5						
32255	891192					0.1	20						
32256	881192					<0.1	30						
32257	801192					<0.1	<5						
Minimum Betection	650001	1	1	2	1	0.1	5	3	0.01	0.005			
Maximum Detection	999999	1000	20000	20000	20000	50.0	10000	1000	100.00	10.000			
< = Less than Miniaua	is = Insuff	icient	Sample		No saup	le >=	• Greater	than	Haxim				
	32255 32256 32257 Minimum Detection Maximum Detection	32255 881192 32256 881192 32257 881192 Minimum Betection 650001 Naxioum Betection 999999	32255 881192 32256 881192 32257 881192 Minimum Betection 650001 1 Naxioum Betection 999999 1000	32255 881192 32256 881192 32257 881192 Minimum Detection 650001 1 1 Maximum Detection 999999 1000 20000	32255 801192 32256 881192 32257 801192 Minimum Betection 650001 1 1 2 Naximum Betection 999999 1000 20000 20000	32255 881192 32256 881192 32257 881192 Minimum Betection 650001 1 1 2 1 Maximum Betection 999999 1000 20000 20000	32255 881192 0.1 32256 881192 0.1 32257 881192 <0.1	32255 881192 0.1 20 32256 881192 0.1 30 32257 881192 (0.1 30 32257 881192 (0.1 (5 Minimum Betection 650001 1 1 2 1 0.1 5 Naximum Betection 999999 1000 20000 20000 50.0 10000	32255 881192 0.1 20 32256 881192 0.1 30 32256 881192 <0.1	32255 881192 0.1 20 32256 881192 (0.1 30 32257 881192 (0.1 30 Minimum Betection 650001 1 1 2 1 0.1 5 3 0.01 Maximum Betection 999999 1000 20000 20000 50.0 10000 1000 1000 1000	32255 881192 0.1 20 32256 881192 (0.1) 30 32257 881192 <0.1	32255 881192 0.1 20 32256 881192 <0.1	32255 881192 0.1 20 32256 881192 (0.1 30 32257 881192 <(0.1

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1988 TRIUMPH ST. VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

Page 1 of 1

 REPORT #: 881865 DA		RA	NGEX	Projeci	t: ARC 7					
Sample Number	Johno	No	Cu	Pb	Zn	Ag	Au	N	Ag	Au
•		ppe	ppe	ppa	ppa	ppa	ppb	ppa	oz/st	oz/st
02151	881410					0.2	(5			
02152	881410					2.8	30			
32623	881364					<0.1	<5			
32629	881410					0.2	<5			
32 530	881410					0.1	<5			
32631	881410				*-	4.5	540	**		
Minimum Detection	650001	1	1	2	1	9.1	5	3	0.01	0.005
Maximum Detection	999999	1000	20000	20000	20000	50.0	10000	1000	100.00	10.000
<pre>< = Less than Minimum</pre>	is = Insuff	icient	Sample			£)=	Greater	than	Haxieu)

VGC		VANGEC Min Office and L 1988 Triumph Vancouver, LC. (604)251-5656 FR	ABORATORY	HEM LAB LIMITED MATORY Met 1630 PANDORA ST. VANCOLVER, B.C. V6L 1L4 (404) 251-4664								
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A6 RCS10 A6 RCS11	nd M	10 15										
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DETECTION LINIT 0.1 5 nd = none detected -- = not analysed is = insufficient sample

VANGEDCHEM LAB LIMITED

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MAIN OFFICE: 1988 TRIUMPH STREET, VANCOUVER B.C. VSL 1KS PH: (604)251-5656 TELEX:04-352578 BRANCH OFFICE: 1630 FANDORA STREET. VANCOUVER B.C. VSL 1L6 PH: (604)251-7282 FAX:(604).54-5717

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ICAP GEOCHEMICAL ANALYSIS

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A .5 GRAN SAMPLE IS DISESTED WITH S ML OF 3:1:3 HCL TO HNO3 "D H20 AT 95 DEG. ("DR 90 MINUTES AND IS DILUTED TO 10 HL WITH WATER. THIS LEACH IS PARTIAL FOR SN,RM,FE,CA,P,CR,MG,DA,PO,AL,NA,K,N,PT AND SR. AN AND PO DETECTION IS 3 PPD. IS= INSWFFTCIENT SAMPLE, ND= NDT DETECTED, -= NDT ANALYZED

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	32043 32044	4.	6 (1	1.11 .25	78 NB	110 215	19 252	5	51 7,16	2.5 1.1	32 6	50 44	140 14	8.94 3.08	.38 1,00	.93 2.54	550 3442	5 I	.04 .01	- 9 2	. 10 . 05	47 7	#0 118	40 100	ind Mill Mill	12 40	t) 30	NÐ NÐ	318 48	49 21	
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APPENDIX V

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SAMPLE DESCRIPTIONS

SAMPLE DESCRIPTIONS - ARC 6

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Sample <u>No.</u>	Sample Type	Sample <u>Width</u>	Description								
32043	Rock Chip	50 cm	Pyrite in fracture in argillite								
32044	"	50 cm	Pyrite in quartz vein								
32045	88	l m	Hematite in black shale / limestone contact								
32090	11	50 cm	Pyrite in calcite veins								
32091	Float		Cpy in quartz float								
32254	Rock Chip	50 cm	Calcite in andesite with py								
32255	и	50 cm	Py in calcite in breccia								
32256	"	50 cm	Py in calcite in andesite								
32257		1 m	Py in siliceous andesite								

SAMPLE DESCRIPTIONS - ARC 7

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Sample <u>No.</u>	Sample Type	Sample <u>Width</u>	Description							
02151	Rock Chip	1 m	Py in andesite							
02152	н	2 m	Py in pods in andesite							
32623	99	50 cm	Barite vein							
32629	11	2 m	Py and epidote in andesite							
32630	11	l m	Py in chloritic alt. limestone							
32631	11	50 cm	Quartz vein with py							