LOG NO: 0527 RD.

ACTION:

FILE NO:

REPORT ON THE

TIC GROUP (TIC 6-7, ARC 8-9 MINERAL CLAIMS)
ARC 10 GROUP (ARC 10, TIC 8-9 MINERAL CLAIMS)

1990 GEOCHEMICAL SAMPLING PROGRAM

LOG NO: NOV 22 1991 RD.

ACTION:

FILE NO:

ISKUT RIVER AREA
LIARD MINING DIVISION
BRITISH COLUMBIA

56°48' NORTH LATITUDE
130°46' WEST LONGITUDE
N.T.S. 104 B/15

RECEIVED
MAY 23 1991
Gold Commissioner's Office
VANCOUVER, B.C.

Work Period: July 1, 1990 to September 15, 1990

Owner and Operator: KESTREL RESOURCES LTD.
506 - 675 West Hastings Street
Vancouver, B.C.
V6B 1N2
(604) 683-9177

By: S. J. Tennant

May 10, 1991

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,350

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INTRODUCTION

During the summer of 1990, Kestrel Resources carried out a lithogeochemical sampling program on a selected area of the ARC-TIC claims, located 10 kilometres southeast of Newmont Lake, within the Liard Mining Division of northwestern British Columbia.

The claims are accessible by helicopter from a base camp at the Forrest Kerr airstrip located 15 kilometres to the north. A total of 86 rock chip samples were collected.

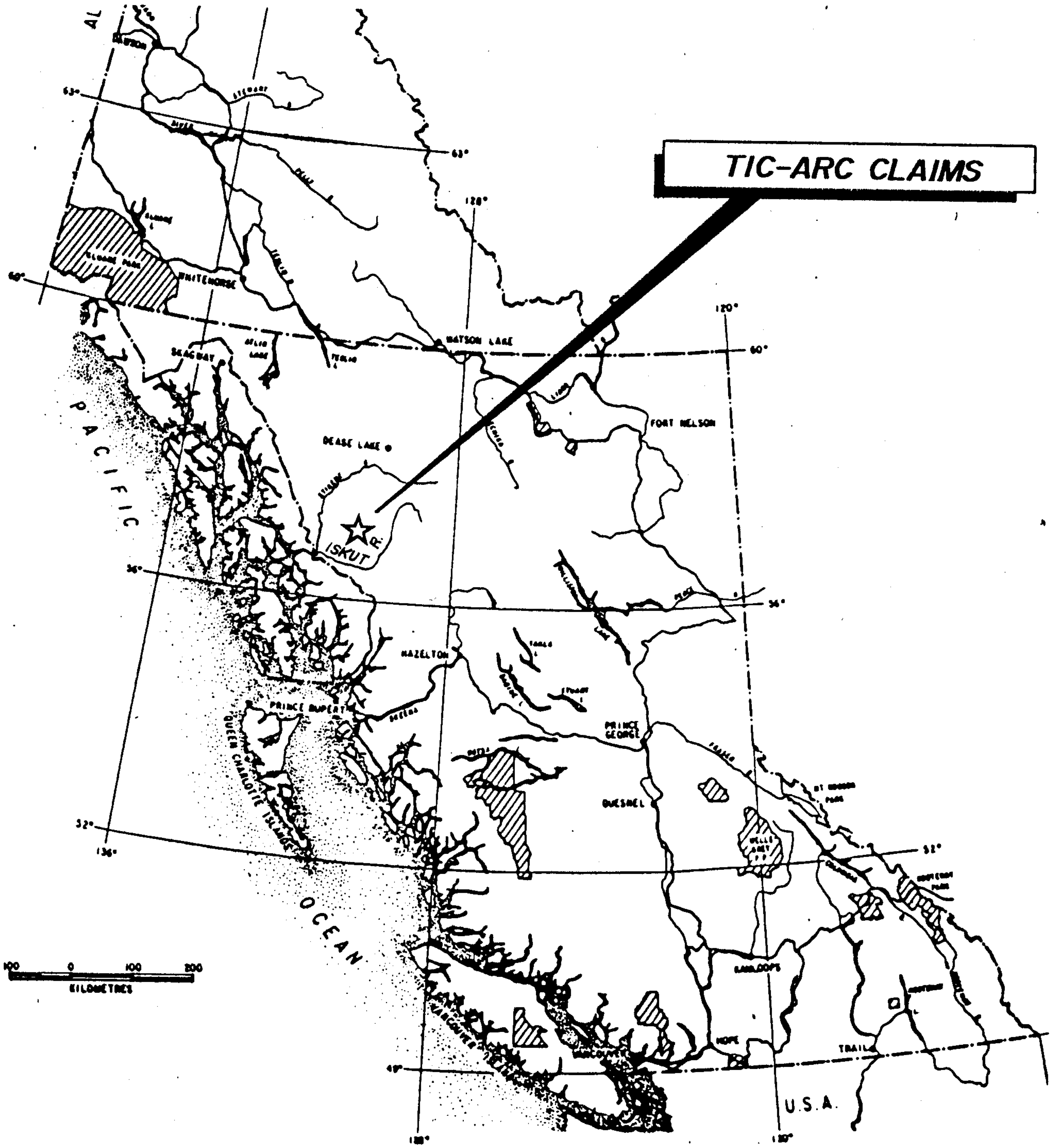
The claims are predominantly underlain by a composite Jurassic intrusive with a wedge of Paleozoic metavolcanics-metasediments and limestone outcropping in the eastern part of the claim block.

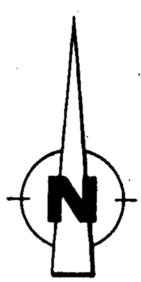
Results of the 1990 exploration program are discussed in the text of this report and the data plotted on the accompanying map.

LOCATION, ACCESS AND TOPOGRAPHY

The claims are located approximately 10 kilometres southeast of Newmont Lake within the Liard Mining Division of northwestern British Columbia. Access to the property is via fixed wing aircraft from Smithers or Terrace to Bronson, which is located 110 kilometres northwest of Stewart, or the Forrest Kerr airstrip located at the headwaters of the Forrest Kerr River. Access from Bronson or Forrest Kerr is via helicopter and via foot traverse within the claims.

Most of the property is accessible by foot or helicopter. Elevations range from 900 metres to 1,800 metres A.S.L. Above 1,200 metres the claims are devoid of vegetation except grasses and shrubs, and exhibit abundant outcrop. Below 1,200 metres, the usual coast mountain evergreens, alder and devils club predominate. Precipitation exceeds 4,000 millimetres annually; temperatures range from -40^{o} to $+25^{o}C$





KESTREL RESOURCES LTD.

LOCATION MAP

LIARD MINING DIVISION, B.C.

STU TENNANT

SCALE:	DATE:	MAP:	N.T.S.
NOTED	APRIL 91	1	104B/15

PROPERTY AND LIST OF CLAIMS

Claim Name	Record No.	No. of Units	Record Date	Expiry Date
TIC 6	4505	20	Feb. 24, 1988	Feb. 24, 1991
TIC 7	4506	12	Feb. 24, 1988	Feb. 24, 1991
TIC 8	4507	20	Feb. 26, 1988	Feb. 24, 1991
TIC 9	4508	12	Feb. 24, 1988	Feb. 24, 1991
ARC 8	4497	20	Feb. 24, 1990	Feb. 24, 1991
ARC 9	4498	20	Feb. 24, 1990	Feb. 24, 1991
ARC 10	4499	20	Feb. 24, 1990	Feb. 24, 1991

So far as the writer is aware, the claims were properly staked and recorded and are in good standing as indicated by the expiry dates.

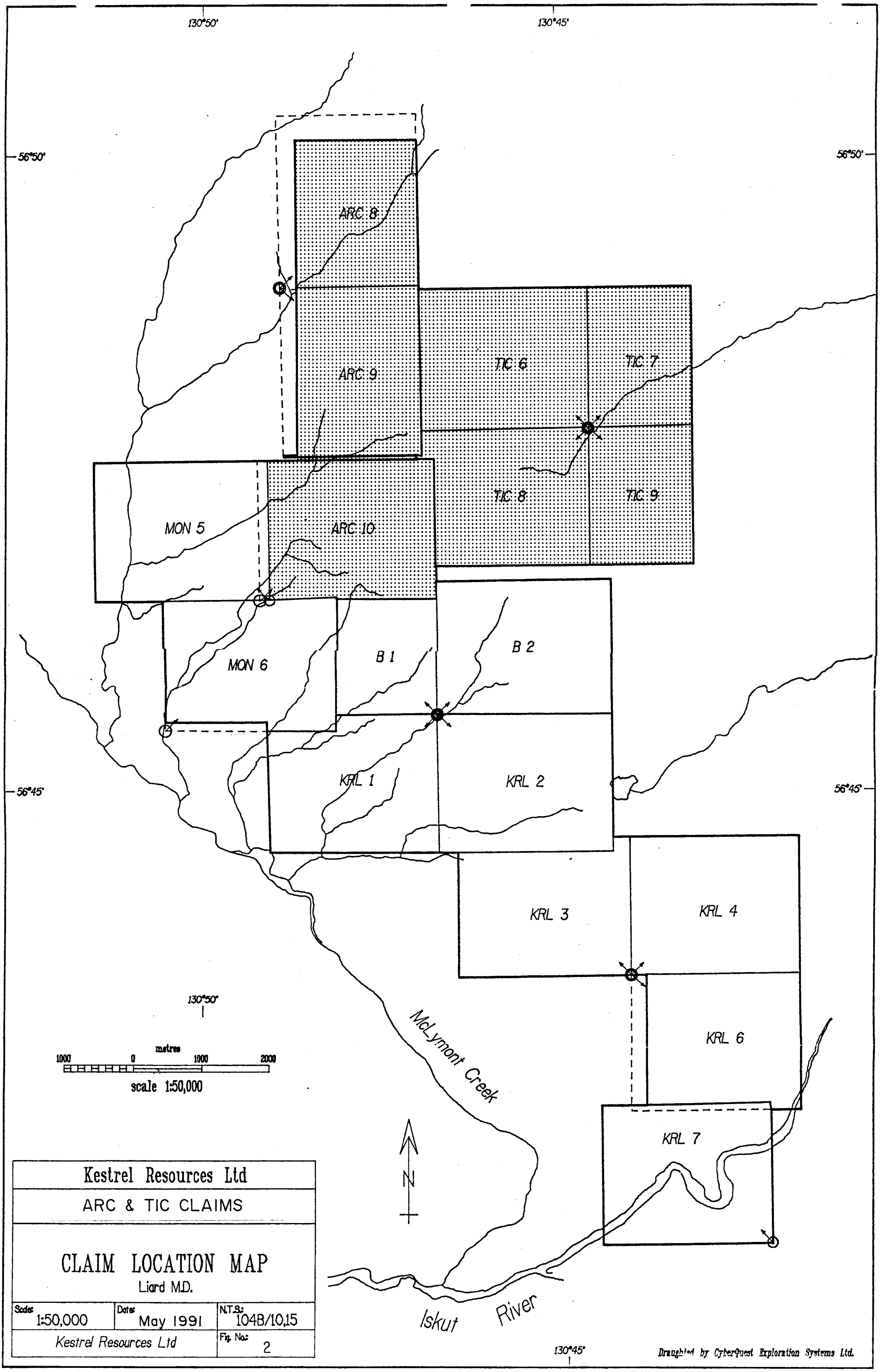
AREA HISTORY

The first recorded work from the Iskut River region was in 1907 when a staking party from Wrangell, Alaska recorded nine mineral claims north of Johnny Mountain. The Iskut Mining Company worked the claims and in 1917 shipped a ton of high grade ore which reportedly assayed $1.20 gold, 44.2 ounces silver and 12.45% copper (B.C.M.M.A.R., 1917).

In 1954 Hudson Bay Mining and Smelting Limited discovered high grade gold-silver-lead-zinc mineralization, known as the "Pickaxe" showing, on the slopes of Johnny Mountain.

Throughout the 1960's several major mining companies undertook reconnaissance prospecting and exploration programs in search for porphyry copper-molybdenum deposits resulting in the location of several claims on Johnny Mountain and on Sulphurets Creek.

Skyline Exploration Limited staked the Inel property in 1969 following the discovery of massive sulphide in float on the Bronson Creek glacier. In 1980 the company



Kestrel Resources Ltd		
ARC & TIC CLAIMS		
CLAIM LOCATION MAP Liard M.D.		
Scale: 1:50,000	Date: May 1991	N.T.S.: 104B/10,15
Kestrel Resources Ltd		Fig. No.: 2

staked the Reg property. During the 1980's, Skyline has developed both these properties discovering high grade veins and polymetallic massive sulphide mineralization on the Inel and Reg properties.

The joint venture partners of Cominco Ltd. and Prime Resources Corporation have developed their Snip property which is located immediately north of the Reg property on the northern slopes of Johnny Mountain. The combined geological reserve for the Snip property is 1,000,000 tons grading 0.80 opt gold.

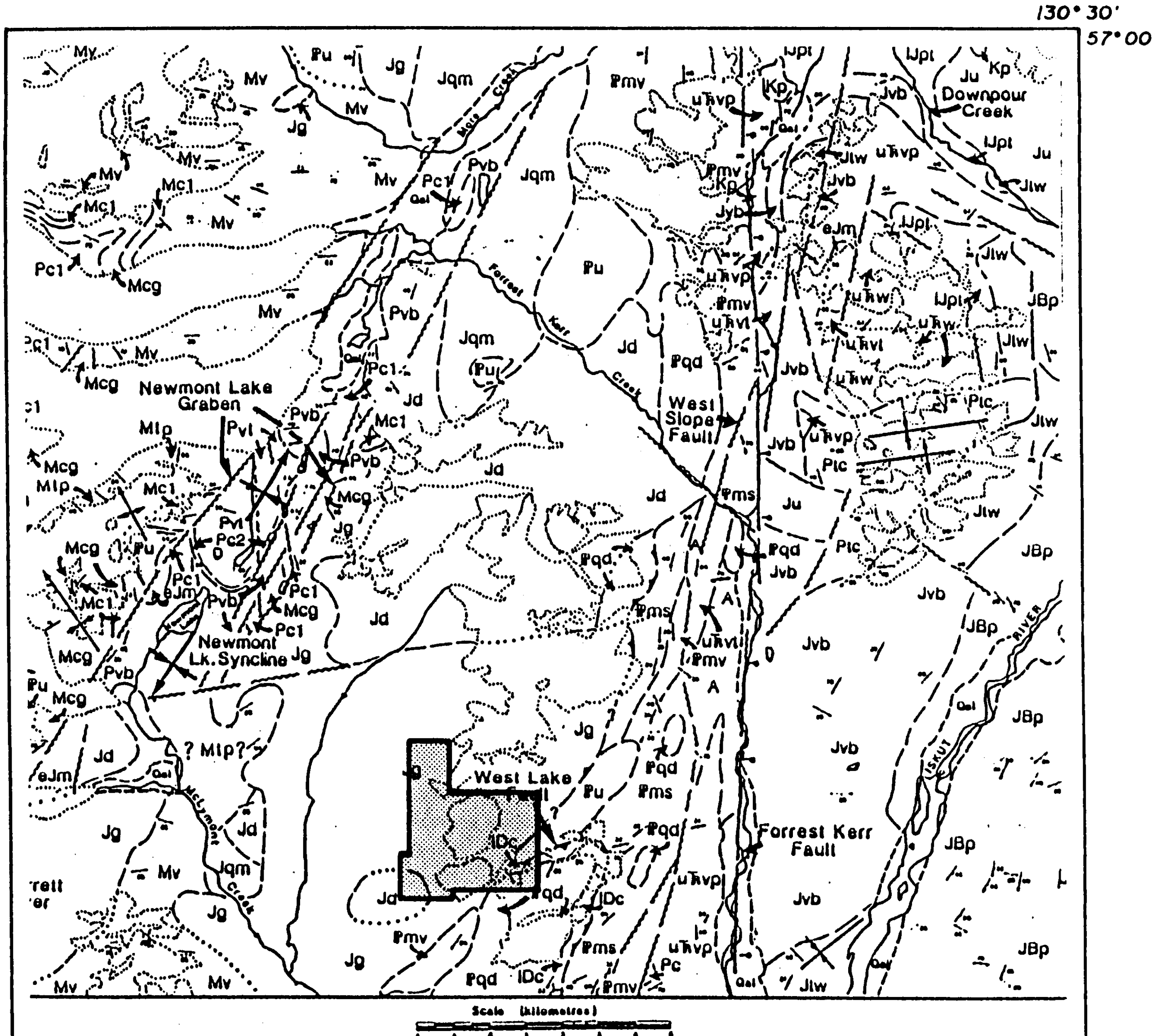
Other advanced prospects currently undergoing intense exploration efforts in the area include Gulf International Mineral Ltd.'s Inel and McLymont properties, Placer Dome Ltd.'s Kerr porphyry copper-gold deposit and Calpine's Eskay Creek gold deposit, as well as the redevelopment of the Silback Premier/Big Missouri mines by Westmin.

The discovery of the Eskay Creek gold prospect in November 1988 has done much to stimulate exploration activity in the Iskut region. Drill hole intersections varying from 5 to 10 metres (16 to 33 feet) and grading to 100 grams gold per tonne (2.92 opt) with an average 1,000 grams or more of silver per tonne (29.2 opt), are not uncommon. The Eskay Creek deposit is probably the most significant precious metal deposit discovered in British Columbia.

Recently completed road access studies has resulted in a proposed shared cost road which would commence at the Stewart-Cassiar highway near Bob Quinn Lake and extend into the Iskut Valley.

REGIONAL GEOLOGY

Generally the area consists of a northerly trending succession of Upper Triassic and Jurassic volcanic and sedimentary rocks underlain in part by Paleozoic volcanic and sedimentary units. All of these units have been intruded by Mesozoic and Tertiary intrusive rocks and cut by extensive fault zones. These country rocks form the Stewart Complex bounded on the west by the main Coast Plutonic Complex, and on the east by the Bowser Basin sedimentary assemblage.



Geology map of the Forrest Kerr Creek map sheet 104B/15.

KESTREL RESOURCES LTD.

TIC - ARC CLAIMS

LIARD MINING DIVISION, B.C.

REGIONAL GEOLOGY MAP

STU TENNANT

DATE : APRIL 1991	SCALE : NOTED
NTS : 104B/15	FIGURE : 3

LEGEND

QUATERNARY

Qal	TILL, ALLUVIUM

STRATIFIED ROCKS

MIDDLE TO UPPER JURASSIC BOWSER LAKE GROUP

JBp	SILTSTONE, SANDSTONE, MINOR CONGLOMERATE

JURASSIC

Ju	UNDIVIDED VOLCANICS AND SEDIMENTS
Jtw	SILICEOUS WACKE, TUFF, CONGLOMERATE
Jvb	PILLOW BASALT, BRECCIA FLOWS, SILICEOUS SEDIMENTS
lJpl	SHALE, SANDSTONE, LESSER LIMESTONE, TUFF

UPPER TRIASSIC STUHINI GROUP

uTRvt	MAROON AND GREEN EPICLASTICS, AUGITE AND PLAGIOCLASE-PHYRIC VOLCANIC BRECCIAS
uTRvp	DARK GREEN PLAGIOCLASE-PHYRIC FLOWS
uTRva	GREY-GREEN APHANITIC TUFF
uTRw	TUFFACEOUS WACKE, ARGILLITE, LIMESTONE, CONGLOMERATE WITH LIMESTONE CLASTS, PLAGIOCLASE-PORPHYRITIC ANDESITE

MIDDLE TRIASSIC

mTRs	CARBONACEOUS CALCAREOUS SILTSTONE

PALEOZOIC STIKINE ASSEMBLAGE

Pu	UNDIVIDED METAVOLCANICS AND METASEDIMENTS

WESTERN ASSEMBLAGE

PERMIAN

Pvt	FELSIC WELDED TUFF, VOLCANIC SANDSTONE AND SILTSTONE, RHYOLITE FLOWS
Pc2	THIN-LAMINATED, GREY ALGAL LIMESTONE
Pvb	INTERMEDIATE TUFF AND EPICLASTICS, MAROON LAHAR, BRECCIA FLOWS
Pc1	MEDIUM-BEDDED BIOCLASTIC LIMESTONE WITH CHERTY INTERBEDS

MISSISSIPPIAN

Mtp	SILTSTONE, SANDSTONE, TURBIDITES, LESSER LAPILLI TUFF
Mcg	POLYMICTIC VOLCANIC CONGLOMERATE
Mc1	INTERBEDDED SILICEOUS SILTSTONE AND LIMESTONE, THICK-BEDDED CRINOIDAL CALCARENITE
Mv	PILLOW BASALT, HYALOCLASTITE, ASH-FLOW FELSIC TUFF

EASTERN ASSEMBLAGE

PERMIAN

Ptc	INTERMEDIATE TO MAFIC META-TUFF, THIN-BEDDED LIMESTONE AND METASEDIMENTS
Pc	MEDIUM-BEDDED BIOCLASTIC LIMESTONE

PERMIAN AND OLDER

Pms	SILICEOUS TURBIDITES, PHYLLITES, LESSER CHERTY TUFFS
Pmv	MAFIC TO FELSIC METAVOLCANICS, METASEDIMENTS, LIMESTONE LENSES

LOWER DEVONIAN

lDc	LIMESTONE, SILICEOUS TUFF

INTRUSIVE ROCKS

CRETACEOUS AND YOUNGER (?)

Kp	PLAGIOCLASE QUARTZ PORPHYRY

JURASSIC

Jg	PINK HORNBLENDE BIOTITE GRANITE
Jqm	QUARTZ MONZONITE
Jd	HORNBLENDE DIORITE, HORNBLENDE QUARTZ DIORITE

EARLY JURASSIC

eJm	HORNBLENDE-PLAGIOCLASE-PORPHYRITIC MONZONITE, SYENITE

PALEOZOIC

Pqd	DEFORMED HORNBLENDE QUARTZ DIORITE

UNKNOWN

A	ALTERED DIORITE

Since 1948, Government workers have attempted to clarify relationships and assign ages to various lithological units of the area. Work completed by Kerr, 1948, G.S.C. Memoir 246; G.S.C. maps 9-1957, 1481-1979-Iskut River, and Grove, E.W., 1986, Bulletin No. 58 B.C. Department of Mines, form the basis of earlier government mapping. Recently work completed by the G.S.C. - Open File o. 2094 (1989) and the B.C. Department of Mines Open File 1990-2 has greatly enhanced the geological data base.

The oldest known rock of the area are limestone, dolomite and low grade metamorphosed sediments (quartzite, slate, 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.

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

Cretaceous to Tertiary Coast Plutonic intrusions of granite, granodiorite and diorite occupy large portions 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.

The foliated rocks, present in the area, are not of great lateral extent and owe their origin to low grade 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 faulting system complicate the local geology, especially where folding of the strata, which is common, has occurred.

PROPERTY GEOLOGY

Open File Report No. 1990-2 - Geology, Geochemistry and Mineral Occurrences of the Forrest Kerr-Iskut River Area, Northwestern British Columbia, prepared by the British Columbia Department of Mines and released in the winter of 1990 describes the geology of the ARC-TIC property at a scale of 1:50,000 and reveals the distribution of Middle and Lower Jurassic volcanic-sedimentary rocks and their associated Coast plutonic intrusions. These rocks are significant in that a number of the precious metal vein occurrences such as the Big Missouri, Silbak-Premier and Sulphurets deposits are associated with them.

Figure 4 shows the location of intrusive rocks underlying the claims and surrounding area, as well as nearby volcanic and sedimentary units of Paleozoic age. Majority of the Jurassic intrusive phase that underlies the claims is a quartz-rich granitoid suite comprised principally of biotite granite. The granite is coarse- to medium-grained and deeply weathered producing a rubbly outcrop surface. In the southeastern part of the claim block is an older (age unknown) medium grained, locally foliated and altered hornblende quartz diorite. Paleozoic metavolcanics-metasediments and limestone outcrop as a wedge on the eastern margin of the claim block. The limestone unit is the oldest known unit in the Paleozoic assemblage. Interbedded with the limestone are pebble conglomerate, siliceous and carbonaceous shales and both mafic and felsic tuffs.

1990 EXPLORATION PROGRAM

The 1990 exploration program was undertaken to assess the exploration potential of a selected area on the ARC-TIC claims. The field program was conducted during the month of July.

Access was via helicopter (provided by Northern Mountain Helicopters) from a base camp at Forrest Kerr Airstrip some 15 kilometres to the north. Field work was conducted by employees of Kestrel Resources Ltd. under the supervision of the author. A total of 86 rock chip samples was collected.

LEGEND for Figure 4

(geology from BCMEMPR Open File 1990-2, J Logan, V Koyanagi and J Drobe)

Quarternary

Rv *recent volcanics.*

upper Triassic Stuhini Group

uTS *undivided volcanics and sediments.*

uTSwcg *maroon volcanic conglomerate with limestone clasts*

Permian and Older Eastern Stikine Assemblage

Pms *metasediments and minor limestone; siltstones are grey to light green phyllitic and interlayered with graphitic argillite and siliceous phyllite and thin lenses of dark brown limestone; green and white siliceous turbidite couplets and cherty tuffs (Pmst) occur high in the stratigraphy*

Pmv *mafic to felsic metavolcanics, rare limestone lenses; variably foliated to schistose, purple to dark green plagioclase porphyritic flows and tuffs*

lower Devonian Eastern Stikine Assemblage

lDc *deformed coralline limestones; lesser interbedded pebble conglomerate, siliceous and carbonaceous shales and both mafic and felsic tuffs*

INTRUSIVES

Jurassic and younger

Jg *biotite granite; pink coarse to medium grained, equigranular, to 'quartz eye' porphyritic, less commonly hornblende is the mafic constituent, quartz exceeds 30 percent, quartz rich phases (50 percent) are spatially related to fault structures*

Jqm *hornblende quartz monzonite to monzonite; coarse to medium grained hornblende averages 20 percent as 5 millimetre crystal laths and poikilitic clots, biotite where present is fine grained and less than 5 percent*

Jd *hornblende diorite, hornblende quartz diorite; hornblende is chloritic and comprises more than 40 percent of the rock*

middle Jurassic

Jdi *diorite to gabbro; coarse grained, occurs as stocks and sills, plagioclase crystals are euhedral and subhedral acicular clots which impart a distinctive felty interlocking texture, these subvolcanic intrusions may represent feeders to the pillow basalts (not on this map)*

early Jurassic

eJg *hornblende biotite potassium feldspar megacrystic granite*

age unknown

qd *hornblende quartz diorite; medium grained, locally foliated and altered, contains irregular mafic inclusions (up to 100 centimetres) of amphibolite*

d *altered diorite*

The lithogeochemical samples were properly bagged, described and labelled in the field. Later, they were shipped by air and ground freight to Vangeochem Lab Ltd. in Vancouver, B.C. for analysis under the supervision of professional assayers. All of the samples were analyzed for gold using fire assay and atomic absorption procedures, and for a 25-element suite by inductively coupled argon plasma (ICAP) methods.

At Vangeochem Lab Ltd., each rock sample was ground to -100 mesh and an 0.5 gram pulp was digested with 5 millilitres of 3:3:1 hydrochloric acids to nitric acid to water at 95°C for 90 minutes, and then diluted to 10 millilitres with water. The resulting precipitate was then analyzed by ICAP methods for: silver, aluminum, arsenic, barium, bismuth, calcium, cadmium, cobalt, chromium, copper, iron, potassium, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, antimony, tin, strontium, uranium, tungsten and zinc.

A 20.0 to 30.0 gram pulp was split from each of the ground samples, mixed with flux, fused at 1,900° to form a button, and subsequently digested in an aqua regia solution. This solution was then analyzed for gold by a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp.

Prospecting traverses and all sample locations are shown on Figure 5 of this report. The lithogeochemical sample descriptions and analytical results accompany this report as Appendices I and II respectively.

DISCUSSION OF RESULTS

A total of 12 man days was spent lithogeocheming a selected area of the ARC-TIC claims. As the majority of the property is underlain by Jurassic intrusives varying from biotite granite to hornblende quartz diorite, the lithogeochem program was designed to check the contact areas between the intrusives and the wedge of Paleozoic metavolcanics and metasediments on the eastern part of the claim block. It is a known fact that Paleozoic metasediments and volcanics in the immediate vicinity are known to carry gold-bearing quartz veins as at Kestrel (KRL claims) to the south and Avondale's Forrest claims to the east. Both Kestrel and Avondale completed diamond drill programs on their respective properties in 1990.

Generally assay results did not return significant values in gold or silver. Only two samples assayed better than 100 ppb gold, with the average value about 20 ppb gold. Silver assays averaged less than 1 ppm. Base metal analysis done by ICAP show that copper and zinc values tend to be erratic however, samples 92863 and 92866, taken in a skarn, assayed up to 2% zinc with coincident arsenic values greater than 2,000 ppm.

The metavolcanic-metasedimentary assemblage is cut by northeast-southwest trending shears and fractures. Mineralization is composed of pyrite, chalcopyrite, sphalerite, arsenopyrite, and zones of chloritic alteration and quartz. The limestone unit is a host for some skarn zones which contain massive sulphide lenses composed of magnetite, pyrite, arsenopyrite and sphalerite.

RECOMMENDATIONS

Paleozoic metasediments and metavolcanics in the general area are known to carry gold-bearing quartz veins as at Avondale (Forrest claims) and Kestrel (KRL claims). In addition, Gulf International Minerals has encountered a number of significant drill intersections within calcareous rocks on its McLymont property south of Newmont Lake.

Additional work on the ARC-TIC claims should continue to concentrate on the contact areas between the intrusives and metavolcanics as well as further sampling on the limestone skarns. Detailed geological mapping along with a geochem soil grid followed up by some trenching would further evaluate the mineral potential.

BIBLIOGRAPHY

Logan, J.M.; Koyanagi, Victor M.; Drobe, John R. Geology, Geochemistry and Mineral Occurrences of the Forrest Kerr-Iskut River Area, Northwestern British Columbia, Open File 1990-2, Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch.

GSC Open File No. 2094 (1989).

Kerr, 1948: GSC Memoir 246; GSC Maps 9 - 1957; GSC Maps 1481-1979" "Iskut River".

STATEMENT OF QUALIFICATIONS

I, STUART J. TENNANT, of Kestrel Resources Ltd., do hereby certify that:

1. I am a Geologist employed by Kestrel Resources Ltd. during the period October 1989 to present.

2. I am a graduate of the University of British Columbia with a B.Sc. in Geology in 1959.

3. From 1959 until present, I have been engaged in exploration primarily in Western Canada.

4. I personally supervised and participated in the field work and have compiled, reviewed and assessed the data resulting from the work.

Stuart J. Tennant

Stuart J. Tennant

DATED at Vancouver, British Columbia, this 10th day of May, 1991.

PROGRAM COSTS

S. Tennant Geologist	2 days @ $325/day	$	655
J. Buchholz Geologist	1 day @ $325/day		325
B. Chase Prospector	3 days @ $275/day		825
C. Bilquist Prospector	2 days @ $200/day		400
D. Witiuk Prospector	2 days @ $175/day		350
J. Lee Prospector	2 days @ $175/day		350
		$	**2,900**

Field Expense

Room and Board	12 man days @ $125/day	$	1,500
Helicopter	3.6 hours @ $800/hour		2,880
Assaying	86 @ $18/sample		1,376
Report Preparation			624
			6,380
TOTAL COST		$	**9,280**

APPENDIX I

Sample Assay Results

VGC 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.

REPORT NUMBER: 900123 GA   JOB NUMBER: 900123   SULLIVAN MANAGEMENT/KESTREL RES.

SAMPLE #	Ag ppm	Au ppb
92431	1.0	10
92432	.1	10
92433	.1	20
92435	.1	10
92436	nd	10
92437	nd	10
92438	.3	nd
92439	.2	nd
92440	.1	nd
92441	.1	10
92442	.2	10
92443	.1	20
92444	.4	20
92445	.4	40
92446	3.3	10
92447	.1	10
92448	.2	20
92449	.1	20
DETECTION LIMIT	0.1	5

nd = none detected   -- = not analysed   is = insufficient sample

VANGEOCHEM LAB LIMITED

1988 Triumph Street, Vancouver, V5L 1K5
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSES

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95° C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: Ryrathn

REPORT #: 900123 PA SULLIVAN MANAGEMENT / KESTREL RES. PROJECT: TIC 7/9 DATE IN: JULY 20 1990 DATE OUT: JULY 25 1990 ATTENTION: MR. JOHN BUCHHOLZ

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
92431	1.0	2.03	50	116	17	.53	5.9	22	37	3577	3.95	.08	1.21	884	14	.03	13	.06	62	11	13	26	15	5	127
92432	.1	2.15	45	387	17	>10.00	5.6	25	61	359	3.21	1.19	2.56	1412	10	.06	40	.06	48	5	11	206	29	23	70
92433	.1	1.43	33	115	7	2.03	4.5	10	73	49	2.63	.28	1.12	669	9	.04	18	.06	34	<2	7	32	9	<3	67
92434	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
92435	.1	1.55	36	36	8	>10.00	4.8	8	31	20	1.80	1.32	2.67	1386	11	.02	4	.02	41	3	10	343	38	25	51
92436	<0.1	3.03	55	30	12	7.62	4.8	40	94	24	4.07	.87	3.17	2053	13	.07	78	.07	59	12	14	142	32	29	131
92437	<0.1	1.55	53	57	11	1.11	4.7	70	65	22	5.92	.16	1.16	976	11	.05	121	.04	53	11	10	25	18	12	109
92438	.3	.14	29	21	12	>10.00	5.3	8	15	18	1.89	1.56	5.48	2240	9	.07	20	.04	35	<2	9	104	24	34	50
92439	.2	1.75	65	63	22	6.51	5.8	32	108	201	5.92	.78	2.02	2004	19	.03	144	.07	66	18	16	61	43	29	106
92440	.1	2.13	50	110	17	1.16	4.4	20	30	156	3.63	.18	1.17	663	12	.01	15	.06	52	11	11	22	22	12	89
92441	.1	1.27	31	70	5	4.58	3.2	7	49	31	1.90	.61	.67	1186	8	.01	<1	.05	33	2	7	58	25	14	58
92442	.2	.72	20	86	<3	>10.00	3.8	4	22	86	1.36	1.29	.43	1653	5	.02	7	.02	22	<2	2	658	25	19	54
92443	.1	.69	49	90	9	1.92	3.3	8	175	51	1.26	.28	.35	363	34	.01	50	.32	39	8	6	56	37	8	64
92444	.4	.63	79	98	5	.85	4.0	8	90	67	1.44	.13	.32	241	58	.01	70	.04	39	6	6	13	27	7	71
92445	.4	1.30	52	67	4	2.80	3.6	10	102	55	2.46	.39	.92	625	28	.01	27	.03	45	7	7	32	29	16	96
92446	3.3	3.19	130	190	23	9.97	32.3	18	22	1034	9.35	1.04	1.96	7335	18	.89	18	.05	793	28	20	86	30	56	4309
92447	.1	5.46	103	55	23	6.09	7.6	11	28	61	>10.00	.73	2.74	5344	27	.11	13	.05	125	38	24	118	39	43	359
92448	.2	1.51	51	52	7	1.72	4.7	16	23	93	3.10	.26	1.17	939	10	.02	11	.09	54	10	9	78	30	22	137
92449	.1	.97	39	29	7	2.89	4.1	10	130	45	2.85	.41	1.31	1260	9	.02	14	.05	38	6	7	122	29	20	87
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested

VGC 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.

REPORT NUMBER: 900105 GA   JOB NUMBER: 900105   SULLIVAN MANAGEMENT/KESTREL RES.

SAMPLE #	Ag ppm	Au ppb
92814	.5	40
92815	.4	30
92816	1.2	50
92817	3.5	150
92818	.3	20
92819	1.1	nd
92820	.4	20
92821	.9	nd
92822	1.1	nd
92823	.2	10
92824	.6	10
92825	.6	10
DETECTION LIMIT	0.1	5

nd = none detected   -- = not analysed   is = insufficient sample

1988 Triumph Street, Vancouve ... V5L 1K5
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSES

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95° C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 900105 PA SULLIVAN MANAGEMENT / KESTREL RES. PROJECT: TIC 7+9 DATE IN: JULY 16 1990 DATE OUT: JULY 20 1990 ATTENTION: MR. JOHN BUCHHOLZ

Sample Name	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sn ppm	Sr ppm	U ppm	W ppm	Zn ppm
92814	.5	2.94	114	63	12	2.13	3.9	33	134	158	4.76	.24	1.24	702	19	.02	144	.12	34	5	20	19	16	[illegible]	123
92815	.4	1.50	161	30	13	3.46	6.4	29	76	73	8.04	.32	.92	1474	123	.07	97	.05	56	21	17	74	20	41	326
92816	1.2	.47	245	290	24	>10.00	6.0	28	30	3934	8.19	.53	4.19	3953	12	.05	25	.14	85	28	15	120	10	77	54
92817	3.5	.80	163	26	37	>10.00	7.7	59	33	>20000	8.33	.49	4.58	3263	12	.09	33	.03	99	71	19	125	21	64	237
92818	.3	1.94	36	50	<3	1.44	2.2	16	103	594	2.72	.19	.92	543	6	.01	30	.05	16	<2	13	46	9	11	48
92819	1.1	1.97	270	12	23	4.60	7.9	53	91	277	>10.00	.36	.73	2649	37	.08	214	.06	100	55	26	12	21	57	48
92820	.4	1.96	57	65	<3	1.36	3.1	16	33	56	4.03	.18	1.29	957	9	.02	17	.06	17	<2	10	16	<5	12	55
92821	.9	.10	112	32	20	>10.00	6.0	7	9	[illegible]318	9.34	.53	3.13	8200	9	.05	23	.04	84	33	14	195	<5	62	29
92822	1.1	.08	137	18	21	>10.00	6.6	9	10	[illegible]597	>10.00	.51	3.93	9579	9	.07	23	.05	87	35	15	113	<5	59	31
92823	.2	1.78	36	38	<3	1.56	1.3	13	70	102	2.65	.20	.83	700	6	.01	24	.05	10	<2	11	44	<5	7	41
92824	.6	.24	137	169	23	>10.00	5.4	30	15	25	9.97	.49	3.06	7834	9	.06	25	.08	73	29	13	95	<5	65	22
92825	.6	.94	19	136	<3	.34	1.2	4	54	75	2.66	.06	.59	665	6	.01	16	.04	6	<2	4	8	<5	<3	30
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested

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BRANCH OFFICES
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BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 900114 GA JOB NUMBER: 900114 SULLIVAN MANAGEMENT/KESTREL RES.

SAMPLE #	Ag ppm	Au ppb
92826	.8	nd
92827	.8	nd
92828	.5	nd
92829	.3	nd
92830	.1	nd
92831	nd	nd
92832	.4	nd
92833	.7	nd
92834	.6	20
92835	.8	20
92836	.4	30
92837	nd	nd
92838	.2	30
92839	.5	30
92840	.8	10
92841	.4	10
92842	.2	40
92843	.2	50
92844	.1	10
92845	nd	20
92846	nd	50
92847	nd	40
92848	.1	30
92849	.1	50
92850	.4	nd
92851	.2	40
92852	1.3	30
92853	.2	20
92854	.3	20
92855	.4	30
92856	1.2	10
92857	.6	nd
92858	.4	60
92859	3.4	40
92860	.5	nd
92861	.2	nd
92862	.3	nd
92863	.3	40
92864	1.9	30
DETECTION LIMIT	0.1	5

nd = none detected -- = not analysed is = insufficient sample

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RENO, NEVADA, U.S.A.

REPORT NUMBER: 900114 GA   JOB NUMBER: 900114   SULLIVAN MANAGEMENT/KESTREL RES.

SAMPLE #	Ag ppm	Au ppb
92865	.2	100
92866	.5	50
92867	2.1	30
92868	.2	20
92869	.1	10
92870	.1	nd
92871	.1	nd
92872	.4	nd
92873	.2	nd
92874	.1	10
92875	.2	20
92876	.1	60
92877	.1	30
92878	.2	10
92879	.4	60
92880	.2	20
DETECTION LIMIT	0.1	5

nd = none detected   -- = not analysed   is = insufficient sample

[illegible] LIMITED

1988 Triumph Street, Vancouver, [illegible] V5L 1K5

Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSES

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95° C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 900114 PA   SULLIVAN MANAGEMENT / KESTREL RES.   PROJECT: TIC 7/9   DATE IN: JULY 18 1990   DATE OUT: JULY 23 1990   ATTENTION: MR. JOHN BUCHHOLZ

Sample Name	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sn ppm	Sr ppm	U ppm	W ppm	Zn ppm
92826	.8	1.00	29	40	<3	1.06	1.9	6	19	32	4.10	.16	.67	374	26	.03	8	.13	23	<2	5	18	<5	<3	71
92827	.8	.10	<3	7	<3	.06	.8	3	93	19	2.09	.01	.05	67	8	.01	11	.01	11	<2	2	2	<5	<3	19
92828	.5	.30	<3	47	<3	.03	1.2	4	272	29	.96	.01	.13	466	8	.01	20	.01	13	<2	3	4	<5	<3	53
92829	.3	.39	175	89	15	2.58	3.8	19	130	225	>10.00	.32	1.07	1506	18	.06	113	.06	29	6	8	46	<5	17	52
92830	.1	.93	36	65	<3	3.23	1.8	19	21	45	4.84	.40	1.07	1654	7	.02	18	.19	22	<2	6	59	<5	8	37
92831	<0.1	.22	<3	138	<3	1.35	.7	4	103	48	1.20	.20	.56	324	2	.01	12	.03	8	<2	3	100	<5	<3	13
92832	.4	2.42	227	24	8	.98	2.2	17	72	68	6.46	.14	.43	242	69	.03	33	.04	50	26	14	33	<5	5	46
92833	.7	1.14	52	181	<3	.11	1.3	5	89	36	2.99	.01	.54	144	12	.01	30	.09	31	7	6	9	<5	<3	48
92834	.6	.81	97	104	<3	.03	1.1	17	89	38	1.67	.01	.62	134	8	.01	124	.01	14	<2	3	4	<5	<3	32
92835	.8	.26	72	142	<3	.01	1.0	5	78	25	2.18	.01	.03	49	19	.01	34	.06	21	<2	3	5	18	<3	19
92836	.4	.56	19	173	<3	.20	.3	8	46	17	1.59	.03	.21	103	6	.01	24	.13	19	<2	4	13	<5	<3	16
92837	<0.1	.57	<3	>1000	16	>10.00	3.9	20	22	4	3.86	.75	4.91	3521	5	.04	41	.02	26	<2	6	292	<5	59	50
92838	.2	.43	<3	[illegible]	<3	>10.00	5.4	<1	19	26	.69	.80	.70	562	7	.05	29	.03	21	<2	2	286	<5	27	370
92839	.5	2.55	93	99	<3	2.69	2.1	22	39	85	4.56	.35	1.64	647	8	.03	17	.08	42	18	12	37	<5	23	70
92840	.8	3.88	214	12	59	.60	10.3	86	71	621	>10.00	.05	1.04	1379	32	.11	184	.07	224	123	24	7	<5	51	364
92841	.4	.91	128	12	27	1.47	4.6	28	105	183	>10.00	.19	.37	432	23	.04	174	.10	55	40	17	139	<5	16	60
92842	.2	3.84	123	32	6	2.87	5.9	19	44	78	4.66	.36	1.16	793	17	.04	25	.08	68	48	18	14	24	39	274
92843	.2	3.09	81	61	14	1.61	5.5	21	60	122	4.02	.23	1.56	693	51	.06	51	.06	47	29	15	7	<5	25	440
92844	.1	.18	129	40	83	2.05	10.6	8	35	7	>10.00	.23	3.98	8261	13	.12	49	.04	74	75	19	13	<5	106	28
92845	<0.1	.57	17	20	8	4.31	1.7	8	75	11	2.93	.49	1.71	1304	8	.01	19	.11	20	<2	7	159	23	23	25
92846	<0.1	.14	12	>1000	24	9.56	3.0	8	46	89	3.29	.73	4.30	1930	7	.03	37	.03	25	<2	7	557	<5	66	65
92847	<0.1	.08	<3	602	<3	4.68	1.8	7	127	419	1.74	.52	2.23	883	4	.01	23	.01	18	<2	6	288	26	27	41
92848	.1	2.05	98	31	9	3.97	2.6	27	43	122	6.93	.46	.87	1973	10	.03	46	.12	52	29	12	33	15	27	51
92849	.1	.68	47	38	15	>10.00	2.2	1	9	9	.90	.86	4.81	714	6	.02	13	.03	31	<2	6	300	<5	60	18
92850	.4	.46	41	32	<3	.61	1.3	20	21	53	3.59	.09	.10	91	5	.01	9	.18	30	7	5	43	26	<3	14
92851	.2	1.82	49	40	<3	1.25	1.7	16	82	47	2.58	.18	.80	432	7	.01	26	.06	37	18	12	45	30	7	40
92852	1.3	.41	84	36	<3	.21	1.1	21	64	639	3.70	.02	.04	27	7	.01	8	.16	31	3	5	48	13	<3	7
92853	.2	1.84	270	20	30	8.82	12.2	30	64	191	>10.00	.69	.42	2859	22	.13	289	.15	77	76	18	5	<5	49	858
92854	.3	2.64	110	27	22	.51	3.1	30	78	125	6.52	.07	1.81	757	13	.03	47	.05	57	35	15	11	<5	19	66
92855	.4	1.70	48	35	<3	1.28	1.3	13	50	53	3.15	.19	.70	532	7	.02	38	.06	25	9	9	31	<5	5	94
92856	1.2	.68	19	159	<3	.35	1.4	23	21	163	4.39	.05	.12	302	6	.01	11	.18	30	<2	5	60	<5	<3	30
92857	.6	.40	<3	75	<3	.39	.4	13	60	175	2.62	.06	.04	68	3	.01	4	.19	3	<2	3	103	5	<3	11
92858	.4	.50	<3	91	<3	.50	.5	15	54	74	2.45	.08	.06	181	3	.01	6	.19	10	<2	3	62	5	<3	8
92859	3.4	.33	70	22	31	>10.00	3.5	3	10	4120	2.91	.83	9.30	3109	6	.06	12	.02	25	<2	8	296	<5	83	165
92860	.5	2.05	44	128	6	1.55	1.6	10	70	1970	3.44	.23	1.26	713	>1000	.02	10	.07	28	4	8	53	<5	13	76
92861	.2	2.25	28	68	<3	2.72	1.2	9	49	78	3.46	.36	1.37	858	24	.02	8	.06	15	<2	6	42	<5	17	47
92862	.3	2.12	43	66	3	.41	1.1	5	44	2019	3.39	.06	1.38	621	10	.02	6	.06	14	<2	6	5	6	<3	60
92863	.3	1.04	>2000	18	78	.92	204.0	6	22	61	>10.00	.05	.48	6945	20	1.54	30	.04	629	216	24	15	<5	7	16614
92864	1.9	.29	1161	4	81	1.01	277.4	6	33	119	>10.00	.07	.38	9037	18	2.23	30	.03	2692	175	23	11	<5	<3	>20000
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - [illegible]

VANGEOCHEM LAB LIMITED
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ICAP GEOCHEMICAL ANALYSES

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95° C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 900114 PA SULLIVAN MANAGEMENT / KESTREL RES. PROJECT: TIC 7/9 DATE IN: JULY 18 1990 DATE OUT: JULY 23 1990 ATTENTION: MR. JOHN BUCHHOLZ

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
92865	.2	.09	>2000	17	81	.54	127.7	6	24	9	>10.00	.01	.20	7707	19	1.49	30	.02	188	251	23	6	<5	48	12048
92866	.5	.14	>2000	25	88	.21	62.8	6	17	21	>10.00	.01	.25	9594	18	.69	28	.04	237	263	24	3	<5	103	4739
92867	2.1	.63	>2000	3	61	1.52	19.8	7	47	56	>10.00	.16	.43	922	18	.30	33	.09	567	165	20	17	<5	53	1683
92868	.2	2.92	311	15	31	1.44	6.2	23	35	100	7.98	.20	1.64	809	23	.05	30	.07	91	53	18	25	7	39	231
92869	.1	7.64	348	18	62	.19	6.8	29	57	22	>10.00	.01	5.27	406	28	.08	76	.13	120	126	28	3	<5	90	128
92870	.1	1.53	147	202	8	.59	4.2	7	61	81	4.54	.09	.94	479	48	.05	111	.31	58	18	10	10	12	<3	399
92871	.1	1.84	44	40	<3	.84	1.3	11	66	44	2.60	.13	.80	373	6	.01	29	.06	28	<2	9	34	<5	<3	56
92872	.4	3.07	202	10	24	.70	4.7	30	57	108	>10.00	.10	1.11	358	29	.05	56	.12	71	53	19	14	<5	32	93
92873	.2	3.53	125	72	14	1.69	2.6	24	30	135	5.33	.24	1.52	781	13	.02	23	.09	57	36	15	16	<5	30	59
92874	.1	3.04	1909	15	20	1.51	3.3	38	64	121	7.28	.21	1.41	676	24	.03	53	.10	61	45	16	26	<5	35	67
92875	.2	3.82	324	8	38	1.05	5.6	67	70	269	>10.00	.14	2.95	991	32	.05	79	.14	87	72	22	10	<5	64	88
92876	.1	3.26	124	43	15	1.25	2.7	21	30	81	5.38	.19	1.48	355	12	.02	17	.08	55	37	14	17	<5	26	40
92877	.1	2.34	67	42	<3	1.26	1.2	22	28	138	3.47	.19	.98	227	9	.02	13	.07	31	9	11	5	<5	<3	26
92878	.2	4.09	121	15	23	1.55	3.6	55	29	152	6.34	.22	2.20	520	14	.03	22	.09	56	45	16	6	<5	28	36
92879	.4	.80	620	43	24	.13	4.7	76	34	31	>10.00	.01	.22	197	15	.05	33	.06	99	43	11	23	<5	4	22
92880	.2	2.53	103	149	7	.66	2.7	13	31	51	3.70	.10	1.16	456	12	.02	26	.06	52	26	13	21	<5	6	87
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

April 30, 1991

TO: Mr. Stuart Tennant
KESTREL RESOURCES LTD.
506 - 675 W. Hastings St.
Vancouver, BC V6B 1N2

FROM: VANGEOCHEM LAB LIMITED
1650 Pandora Street
Vancouver, BC V5L 1L6

SUBJECT: Analytical procedure for soil samples preprations.

1. <u>Method of Sample Preparation</u>

(a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags.

(b) Dried soil and silt samples were sifted by hands using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.

2. <u>Analysts</u>

The sample preparations were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Conway Chun
VANGEOCHEM LAB LIMITED

VANGEOCHEM SAMPLE ANALYSIS DESCRIPTION

The lithogeochemical samples were properly bagged, described and labelled in the field. Later, they were shipped by air and ground freight to Vangeochem Lab Ltd. in Vancouver, B.C. for analysis under the supervision of professional assayers. All of the samples were analyzed for gold, using fire assay and atomic absorption procedures, and for a 25-element suite by inductively coupled argon plasma (ICAP) methods.

At Vangeochem Lab Ltd., each rock sample was ground to -100 mesh and a 0.5 gram pulp was digested with 5 millilitres of 3:2:1 hydrochloric acid to nitric acid to water at 95°C for 90 minutes, and then diluted to 10 millilitres with water. The resulting precipitate was then analyzed by ICAP methods for: silver, aluminum, arsenic, barium, bismuth, calcium, cobalt, chromium, copper, iron, potassium, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, antimony, tin, strontium, uranium, tungsten and zinc.

A 20.0 to 30.0 gram pulp was split from each of the ground samples, mixed with flux, fused at 1,900°F to form a button, and subsequently digested in an aqua regia solution. This solution was then analyzed for gold by a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp.

APPENDIX II

Sample Descriptions

Geochemical Data Sheet - ROCK SAMPLING

NTS 104/6-2

Sampler DARRELL W + JASON.L. Project TIC 7-9 Location ISKUT

Date JULY 16/90 Property M.D. LIARD

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	DESCRIPTION Rock Type	Alteration	Mineralization	OBSERVATIONS	ASSAYS Au ppb	Ag ppm			
92431		ROCK	20cm		LIMEONITE STAINING	MALAKITE	SMALL OUTCROP ON SNOW SHOOT	10.	1.0			
92432		ROCK	15cm	SEDIMENTARY		PYRITE QUARTZ	STRIKE 320° W DIP 20° / CLIFF SAMPLE	10	0.1			
92433		"	30cm		LIMEONITE STAINING	QUARTZ PYRITE	DIRECTLY BELOW SAMPLE 92432	20	0.1			
92434		"	GRAB			QUARTZ PYRITE	EXPOSED ROCK IN SLIDE CHUTE					
92435		"	15cm			QUARTZ PYRITE	ELEPHANT SKIN COLOR STRIKE 110° VEIN 1/2 m WIDE 4m LONG DIP 10°	10	0.1			
92436		"	GRAB	VOLCANIC		QUARTZ	CARBONATE ROUGE COLOR	10	nd			
92437		"	GRAB	VOLCANIC			BLACK ROCK.	10	nd			

Geochemical Data Sheet - ROCK SAMPLING

NTS

Sampler J. LEE

Date JULY 17 / 90

Project

Property TIC 7-9

Location

M.D.

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	DESCRIPTION			OBSERVATIONS	ASSAYS				
				Rock Type	Alteration	Mineralization		Au ppb	Ag ppm			
92438	1490m	GRAB SAMP.	2m	ORANGE	CARBONATE	— HARD	ROCK.	nd	.3			
92439	1520m	"		LIMEONITE	STAINING,	QUARTZ,	KALCOE PYRITE.	nd	.2			
92440	1480m	"	15cm	GREEN	VOLCANIC	& BLACK	ROCK.	nd	.1			
92441	1490m	"		PYRITE,	QUARTZ,	GREEN	ROCK	10	.1			
92442	1470m	"	~~20~~	CHALCO/QUARTZ. 20 CM VEIN, 5M LONG.				10	.2			
92443	1580m	20cm		QUARTZ	VEIN	10cm WIDE	LIMEONITE STAINING, CHALCO, PYRITE IN BLEBS.	20	.1			
92444	1580m	GRAB		CHARCOAL	COLOR,	LIMEONITE STAINING, QUARTZ VEIN.	PYRITE.	20	.4			
92445	1580 m	"		"	"	"	" (3m NE OF 92444)	40	.4			
92446	1590m	20cm		MALIKITE	STAIN ON	OUTCROPPING,	PYRITE.	10	3.3			
92447	1590m	15cm		RED STAIN.	PYRITE.	QUARTZ, MALAKITE,	CHARCOAL COLOR ROCK. ANDISITE 20m W OF 92446	10	.1			
92448	1450m	15cm		QUARTZ.	PYRITE.	LIMEONITE	STAINING.	20	.2			
92449	1440m	20cm		QUARTZ	VEIN.	STRIKE	80° DIP 30° E	20	.1			

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Geochemical Data Sheet - ROCK SAMPLING

NTS 104 B/15

Sampler B Chase
Date July 11/90

Project Burmac Energy
Property TIC 7/9

Location adj. Avondale
M.D. LIARD

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	DESCRIPTION Rock Type	Alteration	Mineralization	OBSERVATIONS	ASSAYS				
92814	4230'	select grabs, talus	SC	med green volc	chlorite	massive sulphides	abundant angular float available @ △					
15	4105'	select chips boulder middle	SC	med green chert?	chlorite	dis to mas sulphid Cu	100 m W of ~~limestone~~ BC black cliffs. py, chalco.					
16	4120'	chips	10cm TW?	altered limestone	dis, stringer chalco	chlorite banding	80% for sure in place.					
17	4120'	chips	6 cm	"	chlorite py	abund. dis blebs chalco	angular float (in place?)					
18	4120'	select chips	1.0 m	pure white crystalline limestone	1/4 cm ankerite stringers	minor fine dis py, chalco	minor carb. alteration					
19	4130'	select chips, talus		uncertain	mang. oxide	heavily min. massive sulphide	angular float, talus fan					
92820	3925'	select chips	1.0 m	heavily altered felsic volc.	carbonate stringers	minor py (dis)	chloritic, fresh					
21	4020'	chips	1 m TW?	cryst. limestone	grey blebs chalco	grey banded sulphides	under waterfall (face) chlorite banding					
22	4020'	select chips	15 cm?	"	grey banded	abundant chalco	small section (bottom) of 92821.					
23	3960'	select chips	1.0 m	(120°)? limestone	pt carbonate ankerite	fine occ. py, chalco	south (uphill side limestone)					
24	3960'	chips	25 cm	limestone	strong carbonate	dis py						
92825	4180'	select chips	1 m	meta seds?	talc-chlorite qtz-flooding	dis py	very rusty					

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Geochemical Data Sheet - ROCK SAMPLING

NTS 104B/15

Sampler: Bill Chase
Date: July 13/90

Project: Clifton Star
Property: TIC 7/9
(con't) see also 92814-25

Location: west of Avondale
M.D. LIARD

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	DESCRIPTION: Rock Type	DESCRIPTION: Alteration	DESCRIPTION: Mineralization	OBSERVATIONS	ASSAYS: Au ppb	ASSAYS: Ag ppm.
92826	4585'	select grab	TALUS	green volc	siliceous chloritic	~~py~~, mang. stain 30% py	(mass, dissem.)	nd	0.8
27	"	talus grab		cherty? black rock	silicified	mass, dis sulphides	prob. argillite	nd	0.8
28	"	" "		metaseds? qtz vein	very large vugs	rusty		nd	0.5
29		chips	150 cm	qtz flooding in metaseds	stained orange, yellow, grey			nd	0.3
30	4430'	talus grab		green volc	pt carb. pt chloritic	fine dis py		nd	0.1
31	"	" "		"	siliceous chloritic	" " "	as per 92830, w/ bleached look to fresh face	nd	nd
32	"	" "		"	limonitic chloritic	dis, mass py		nd	0.4
33	4420'	" "		messed up shale?		fine py iron, mang stain		nd	0.7
34	"	" "		dk green volc	silicified	fine py		20	0.6
35	"	" "		med-grey cherty	bleached?	fine dis, mass. py	hard, not glassy	20	0.8
36	4270'	" "		shale	sheared	dis py	prob. dk unit of metaseds?	30	0.4
37	"	" "		mafic volc ?	pervasive chloritic pt carb.	rusty	epidote	nd	nd
38	"	" "		limestone		fine, distinct py cubes	(limestone ½ < white grey)	30	0.2
39	"	" "		med green volc	sheared	dis, blebs py	possible py shear healing	30	0.5
40	4250'	" "		" " "	silicified chloritic	dis, mass py	pos. silver sulphide	10	0.8
41	4200'	" "		med green volc	epidote rich	mass. sulphide		10	0.4
42	"	" "		" "	qtz flooding	" "	less altered than 92841	40	0.2
43	"	" "		black shale?	rusty	dis, stringers mass. sulphide	(prob same as 92836	50	0.2
44	"	" "		black shale (metaseds?)	carbonate breccia		carb. choc brown	10	0.1
45	4140'	" "		green volcs.	10cm QV major talc chlorite	sulphide? stringers	chalco, mal	20	nd

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Geochemical Data Sheet - ROCK SAMPLING

Sampler: Bill Chase
Date: July 13/90, " 14 "

Project: Clifton Star
Property: TIC 7/9
cont from 92814-45 oc

NTS: 104B/15
Location: west of Avondale
M.D.: LIARD

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	Rock Type	Alteration	Mineralization	OBSERVATIONS	Au ppb	Ag ppb
92846	4120'	talus grab		green volcs	minor carb chlori, talc	fine dis, blebs py.	of sugary qtz	50	nd
47	"	" "		lt. coloured seds?	very silicified	dis py, chalco, mal,	pos. local, obvious banding in abundant float.	40	nd
48	4020'	" "		med green volc		mass sul. iron, mang. stain		30	0.1
49	3945'	" "		limestone		fine dis sulphides		50	0.1
50	"	" "			very siliceous	" "	much fine ~~laminated~~ dis py grey sulphides (blebs, dis)	nd	0.4
51	3920'	" " ~~chips~~	~~1.2m TW?~~	fresh green volc		minor bleb chal, mal	(diorite phase) pos bornite	40	0.2
52	3975'	talus grab		volc	highly siliceous	major dis mass py	chal, Bornite	30	1.3
53	"	" "		"		very massive sulphide float		20	0.2
54	4025'	" "		lt grey chert?	silicified	dis, mass sulph.		20	0.3
55	"	" "		volc	"	dis, mas sulph.		30	0.4
56	4625' directly above 48,9	chips	1.2m TW?	volc	chloritic dis. py	heavy mang, iron (red, yellow) stain on cliff.		10	1.2
57	4630'	"	14cm TW?	vol	highly siliceous	dis, mass py, ars?,	minor chal	nd	0.6
58	"	"	½m ?	green volc	pt. silicified	sulphide rich		60	0.4
59	4730'	"	18 cm TW	limestone	pt carb.	py, mal, chalco,	limestone 86°/plunge steep S	40	3.4
60	4810'	select chips	talus	diorite		py, chal, mal, az, molybdenum	sulphides: dis, frac. filling talus rubble.	nd	0.5
61	4820'	" "	1m.	"	major chlorite	chal. mal, az	(up to 5% chalco?)	nd	0.2
62	4820'	" "	2m	diorite		abund. dis, blebs	chal, mal.	nd	0.3
63	5060'	chips	150cm	skarn		mag, phyr, mas sul.	large purple gossan: sec. hematite skarn,	40	0.3
64	"	"	200cm	"		" "	adjacent limestone	30	1.9
65	"	"	200cm	"		" "		100	0.2

July 14/90

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Geochemical Data Sheet - ROCK SAMPLING

NTS 104B/15

Sampler Bill Chase

Date July 14/90

Project Clifton Star

Property TIC 7/9

cont from 92814-92865

Location West of Arondale

M.D. LIARD

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	DESCRIPTION: Rock Type	DESCRIPTION: Alteration	DESCRIPTION: Mineralization	OBSERVATIONS	ASSAYS: Au ppb	ASSAYS: Ag ppm			
92866	5060'	chips	200cm	skarn		mag, phyrr mass. sulp.	adjacent limestone	50	0.5			
67	"	"	20cm	"		massive sul.		30	2.1			
68	5580'	select grabs		green volc.	chlor.	semi to mass. sul.		20	0.2			
69	5580'	chips	25cm	contact @ limestone		rusty zone		10	0.1			
70	5600'	"	1.5m TW?	chert		fine dis py.		nd	0.1			
71	5620'	"	200cm	green volc		semi to mass sul.	zone strike N60°E	nd	0.1			
72	"	"	2.5m TW+	volc	bleached fractured	" "	" " " "	nd	0.4			
73	5670'	"	200cm	med green chert		weak to strong dis. py	adj. volcs	nd	0.2			
74	"	"	150cm	volc.		mass, dis py, ars?		10	0.1			
75	"	"	15cm TW+	"		mass. sulphide core of 92874.		20	0.2			
76	5790'	"	2 m	rhyolite	intense frac.	mass, dis py ars?	orange, yellow gossan strike N75°E?	60	0.1			
77	5860'	boulder rubble		med green chert		dis, smears py	(chert has distinct banding)	30	0.1			
78	"	"		fresh green volc		dis - mass py		10	0.2			
79	6000'	select chips	talus	subcr?	siliceous bleached	rusty, grey sul.	(white bleached)	60	0.4			
80	5880'	chips	1m	chert (green)	bleached vuggy	dis, frac filling massive py	also ND 32352	20	0.2			

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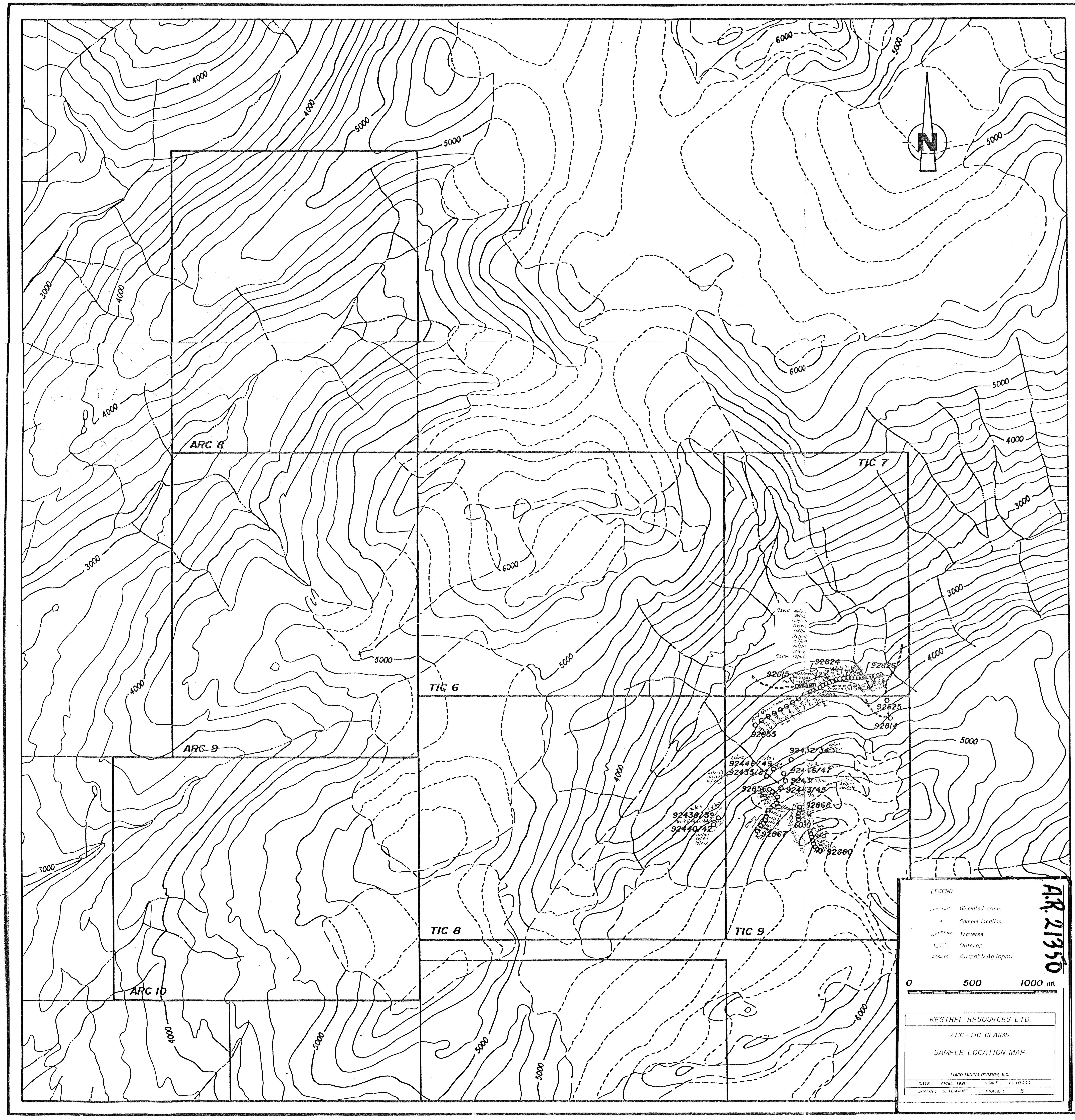

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92431
92856
92868
92438/39
92440/42
92867
92880
LEGEND
Glaciated areas
Sample location
Traverse
Outcrop
ASSAYS- Au(ppb)/Ag (ppm)
A.R. 21350
0 500 1000 m
KESTREL RESOURCES LTD.
ARC-TIC CLAIMS
SAMPLE LOCATION MAP
LIARD MINING DIVISION, B.C.
DATE: APRIL 1991
SCALE: 1:10000
DRAWN: S. TENNANT
FIGURE: 5