

LOG NO: 12-17 RD.

ACTION:

FILE NO:

GEOCHEMICAL REPORT 1990

M & M 12 & 13 CLAIMS

**LIARD MINING DIVISION
BRITISH COLUMBIA**

**57° 05' NORTH LATITUDE
130° 55' WEST LONGITUDE
NTS 104G/2**

Work Period: August 24 - 27, 1990

Prepared for: Owner and Operator
KESTREL RESOURCES LTD.
506 - 675 West Hastings Street
Vancouver, B.C.
V6B 1N2

By: John Buchholz

December 1990

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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INTRODUCTION

During the late fall of 1989, Kestrel Resources Ltd. completed a reconnaissance silt sample program on its ARC and M & M claims situated approximately 10 kilometres due south of Arctic Lake within the Liard Mining Division of Northwestern British Columbia. The program was undertaken to assess the mineral potential of the property and to provide information, so far as possible, required to outline additional exploration work. A total of 14 claims were investigated in 1989. During the summer of 1990, M&M 12 & 13 were similarly explored completing the program for the entire block of claims.

LOCATION, ACCESS AND TOPOGRAPHY

The property is located within the Liard Mining Division approximately 10 kilometres due south of Arctic Lake and covers a small western portion of the drainage system of the central west fork of More Creek, west of Mess Creek. Latitude 57°05' North and Longitude 130°55' West pass through M & M 12 mineral claim near the center of the group. Access to the property is via fixed wing aircraft from Smithers or Terrace to Bronson, which is located 110 kilometres northwest of Stewart, British Columbia, or to Forrest Kerr base camp 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.

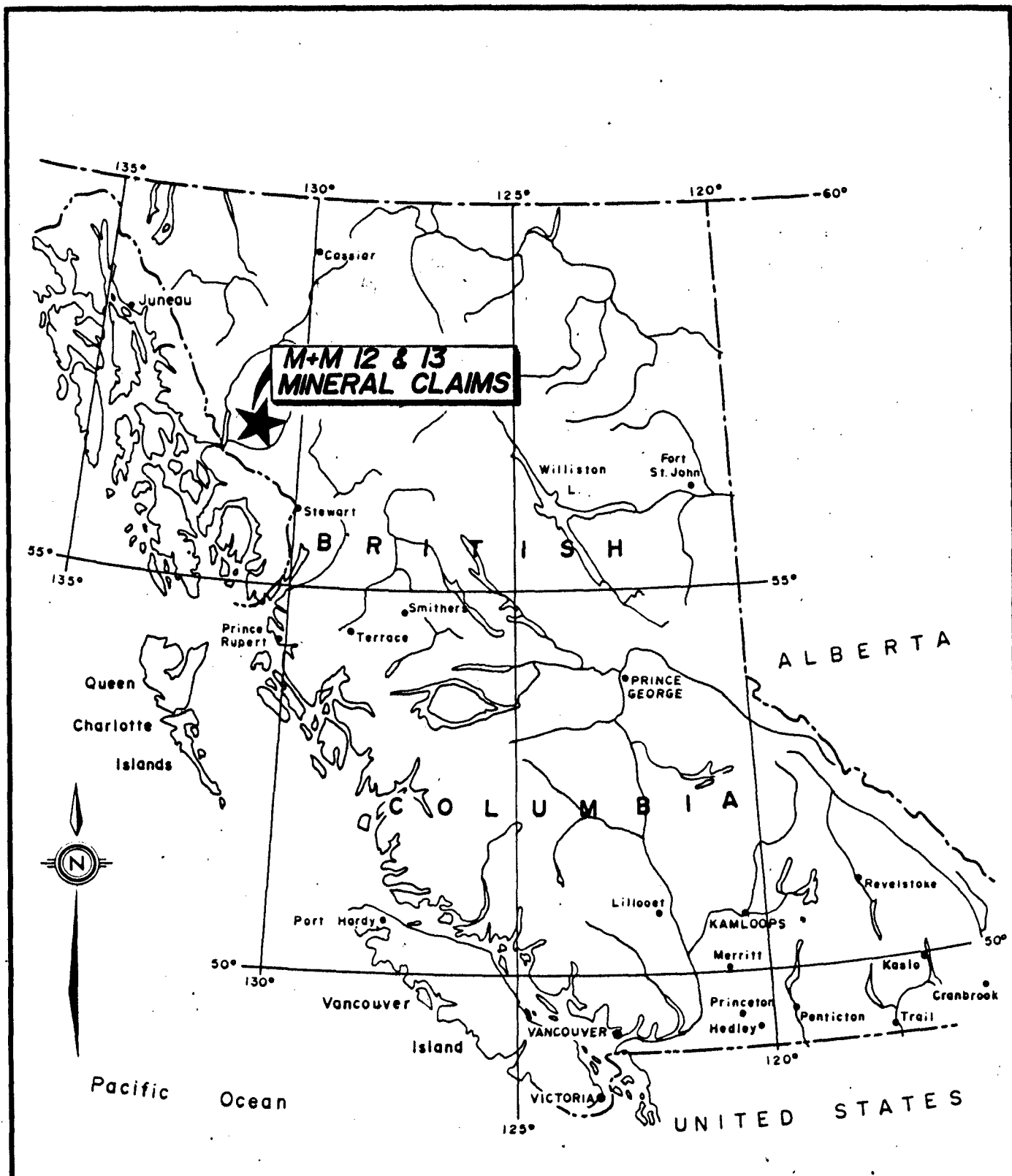
Most of the property is accessible by foot or helicopter. Elevations range from 1,000 metres to 1,220 metres A.S.L. Most of the property is covered with the usual coast mountain evergreens, devils club and alder except for the western portion which is covered with river gravels of More Creek. Outcrop is scarce. Precipitation exceeds 4,000 millimetres annually; temperatures range from -40° to +25° centigrade.

PROPERTY AND LIST OF CLAIMS

The M & M property consists of two claims totalling 20 units as described below.

Name	Record No.	No. of Units	Record Date
M & M 12	6402	16	Sept 15/89
M & M 13	6403	4	Sept 15/89

The claims appear to have been correctly recorded so far as the writer is aware.



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INDEX MAP

M + M 12 & 13 M.C.

LIARD MINING DIVISION, B.C.

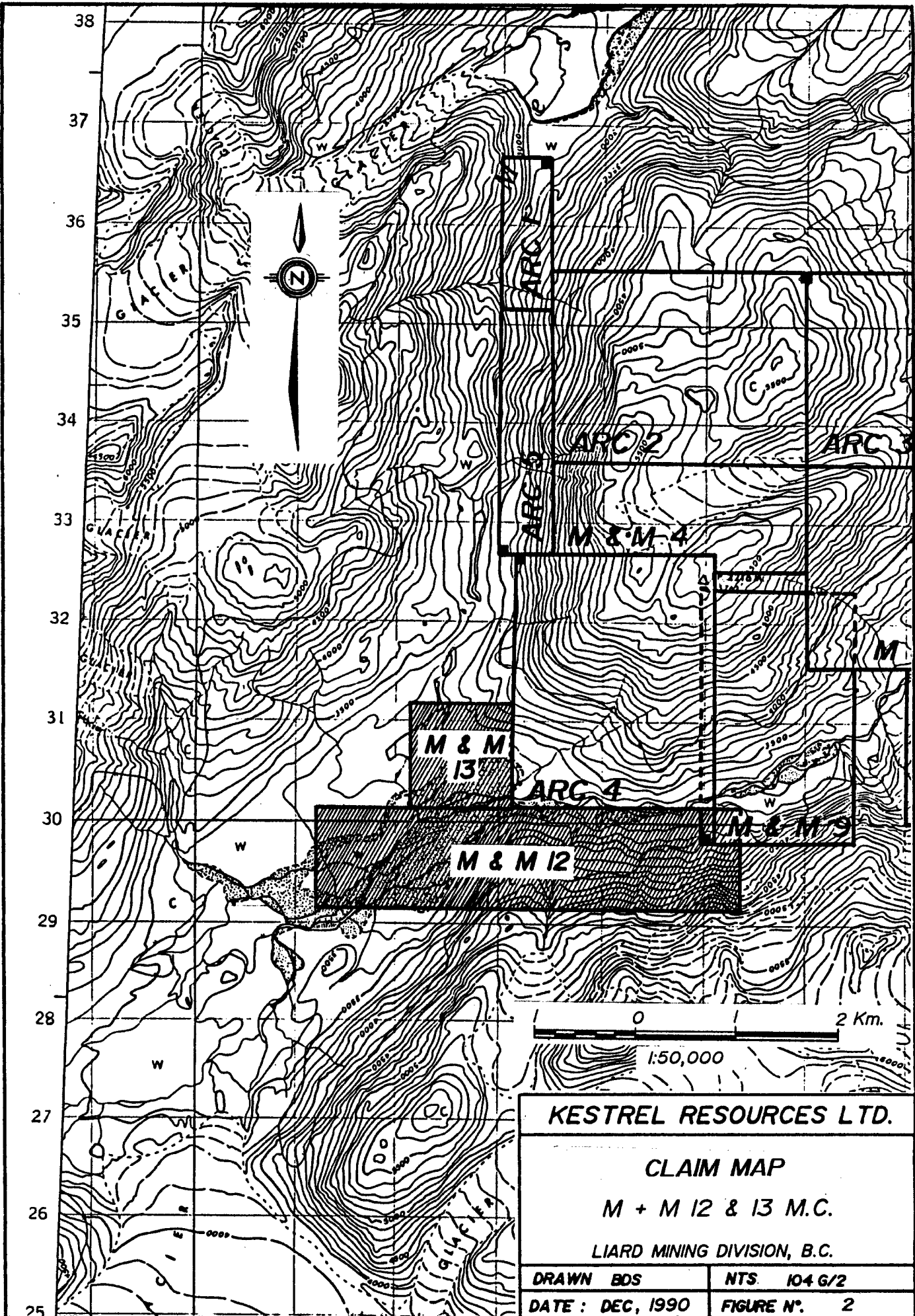
DRAWN: BDS

NTS: 104G/2,104B/15

DATE: DEC, 1990

FIGURE: 1

100 0 100 200 300 400 Km.
Approx. 1:9,000,000



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CLAIM MAP

M + M 12 & 13 M.C.

LIARD MINING DIVISION, B.C.

DRAWN BDS	NTS 104 G/2
DATE : DEC, 1990	FIGURE N°. 2

HISTORY

Sporadic exploration efforts have continued intermittently in the Iskut River area since the turn of the century, with early activity concentrated in the area of the Stewart mining camp. As prospecting and exploration continued northward, various placer gold operations were discontinuously active along both the Iskut and Unuk Rivers.

In 1907, a prospecting party from Wrangell, Alaska staked nine mineral claims north of Johnny Mountain, the first recorded work in the area. The claims were subsequently explored and mined by the Iskut Mining Company, who 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).

Little is known about subsequent work until 1954 when 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. These claims were eventually allowed to lapse after an initial evaluation.

Several major mining companies initiated reconnaissance exploration programs in the 1960s in the Iskut River Area. Of these, Cominco Ltd. drilled several core holes in search of pyritic mineralization on Johnny Mountain. Interest in the Johnny Mountain area potential to host significant sulphide mineralization increased with Skyline Exploration Ltd.'s discovery of mineralized float on the Bronson Creek glacier in 1969, resulting in that company staking the Inel property. In 1980, the company staked the REG property on Johnny Mountain after the discovery of high grade gold-bearing veins. Exploration on both their Inel and REG properties continued to 1989.

Skyline Exploration Ltd. reported in late fall of 1989, geological reserves of their Stonehouse deposit of 740,000 tons grading 0.52 opt gold with significant silver and copper values. Underground work commenced in 1988, and after some initial production difficulties, the mine began operating at 350 tons per day.

It ceased operating in September of 1990 having exhausted all proven ore reserves.

The joint venture partners of Prime Resources Corporation and Cominco Ltd. are currently in the final stages of a feasibility study of their SNIP property, located immediately north of the REG property on the northern slopes of Johnny Mountain. The latest combined geological reserve for the property is 1,000,000 tons grading 0.80 opt gold. In the summer of 1990 the partner announced that the mine would begin operations in January of 1991.

Other advanced prospects currently undergoing intense exploration efforts in the area include Inel Resources Ltd.'s Inel property, Gulf International Minerals Ltd.'s McLymont property, Placer Dome Ltd.'s Kerr deposit and Calpine's 21 Zone Discovery.

The discovery of the Eskay Creek gold prospect (Calpine 21 Zone) in November of 1988 has done much to stimulate exploration activity in the Iskut region. The deposit occurs essentially at the upper contact of a relatively flat lying, hydrothermally-altered andesite breccia (Rhyolite) within Middle Jurassic Hazelton Group volcanic and sedimentary rocks. The effects of faulting and folding are not clearly understood at this date. The zone remains open to the northeast and

downdip, although fill-in drilling at 25 metre spacing is continuing. Spectacular results have been obtained in drill core assays, particularly those in Hole No. 109, which returned 201.2 metres (660 feet) grading 30 grams per tonne gold (0.876 opt). 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. Significant values in lead and zinc are present as well. This prospect is without doubt the most important precious metal deposit ever discovered in British Columbia.

REGIONAL GEOLOGY

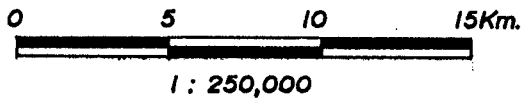
The Stewart - Iskut - Eskay Creek gold silver area is situated along the western margin of the Intermontaine belt of volcanic and sedimentary rocks where they join the Coast Plutonic Complex of intrusive and metamorphic rocks. The most significant host of gold-silver mineralization in the area is the Triassic to Jurassic volcanic-sedimentary Stewart complex (Hazelton group). Triassic to Tertiary plutonic rocks of the Coast Intrusion are considered to be the source of the mineralization. Jurassic sedimentary rocks of the Bowser Basin are extensively underlain by rocks of the Stewart Complex.

Within the Stewart Complex of volcanics and sedimentary rocks both narrow fractures and wide shear zones carry gold, silver and often, copper and molybdenum values associated with quartz veining. These mineralized areas are frequently close to felsic porphyry sills and dykes. The northern portion of the district appears to contain higher frequency of gold quartz veins grading to increased silver toward the south and increased copper toward the west.

The recently discovered 21 Zone on the Stikine Silver/Calpine claims to the southeast of the M & M 12 and 13 claims, is hosted in the Mount Dilworth formation of the upper Hazelton group. The Dilworth formation has been traced to the northwest from the 21 Zone.

PROPERTY GEOLOGY

Geological Survey Map 11-1971, prepared by J.G. Souther, shows the geology of the M & M 12 & 13 claims at a scale of 1:250,000. More detailed maps are unavailable from Government sources and Kestrel has not completed reconnaissance mapping on this property. According to Souther's work, the claims are underlain by foliated rocks of Paleozoic age, minor limestone, and associated intermediate intrusive rocks of Jurassic-Triassic age. Foliated rocks consist of phyllite, greenstone, quartz sericite - chlorite schist, argillaceous quartzite, minor chert and schistose tuff. Regional north/south faulting occupies the valley of More Creek, east of the claims. Northerly trending quartz veins northeast of the claims appear to be related to this regional system but where examined and sampled, did not carry visible sulphides or significant values in precious metals.



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GEOLOGY MAP
M + M 12 & 13 M.C.

LIARD MINING DIVISION, B.C.

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NTS. 104 G/2

DATE : DEC, 1990

FIGURE N°. 3

LEGEND

CENOZOIC

QUATERNARY

PLEISTOCENE AND RECENT

- 29 Fluvialite gravel; sand, silt; glacial outwash, till, alpine moraine and colluvium
- 28 Hot-spring deposit, tufa, aragonite
- 27 Olivine basalt, related pyroclastic rocks and loose tephra; younger than some of 29

TERTIARY AND QUATERNARY

UPPER TERTIARY AND PLEISTOCENE

- 26 Rhyolite and dacite flows, lava domes, pyroclastic rocks and related sub-volcanic intrusions; minor basalt
- 25 Basalt, olivine basalt, dacite, related pyroclastic rocks and subvolcanic intrusions; minor rhyolite; in part younger than some 26

CRETACEOUS AND TERTIARY

UPPER CRETACEOUS AND LOWER TERTIARY

SLOKO GROUP

- 24 Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived sediments
- 22 23 22. Biotite leucogranite, subvolcanic stocks, dykes and sills
23. Porphyritic biotite andesite, lava domes, flows and (?) sills

SUSTUT GROUP

- 21 Chert-pebble conglomerate, granite-boulder conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal
- 20 Felsite, quartz-feldspar porphyry, pyritiferous felsite, orbicular rhyolite; in part equivalent to 22
- 19 Medium-to coarse-grained, pink biotite-hornblende quartz monzonite

JURASSIC AND/OR CRETACEOUS

POST-UPPER TRIASSIC PRE-TERTIARY

- 18 Hornblende diorite
- 17 Granodiorite, quartz diorite; minor diorite, leucogranite and migmatite

MESOZOIC

JURASSIC

MIDDLE (?) AND UPPER JURASSIC

BOWSER GROUP

16 Chert-pebble conglomerate, grit, greywacke, subgreywacke, siltstone and shale; may include some 13

MIDDLE JURASSIC

15 Basalt, pillow lava, tuff-breccia, derived volcaniclastic rocks and related subvolcanic intrusions

LOWER AND MIDDLE JURASSIC

14 Shale, minor siltstone, siliceous and calcareous siltstone, greywacke and ironstone

LOWER JURASSIC

13 Conglomerate, polymictic conglomerate; granite-boulder conglomerate, grit, greywacke, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcaniclastic rocks

TRIASSIC AND JURASSIC

POST-UPPER TRIASSIC PRE-LOWER JURASSIC

12 Syenite, orthoclase porphyry, monzonite, pyroxenite

HICKMAN BATHOLITH

10 11 Hornblende granodiorite, minor hornblende-quartz diorite 11. Hornblende, quartz diorite, hornblende-pyroxene diorite, amphibolite and pyroxene-bearing amphibolite

TRIASSIC

UPPER TRIASSIC

9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)

8 Augite-andesite flows, pyroclastic rocks, derived volcaniclastic rocks and related subvolcanic intrusions; minor greywacke, siltstone and polymictic conglomerate

7 Siltstone, thin-bedded siliceous siltstone, ribbon chert, calcareous and dolomitic siltstone, greywacke, volcanic conglomerate, and minor limestone

6 Limestone, fetid argillaceous limestone, calcareous shale and reefoid limestone; may be in part younger than some 7 and 8

5 Greywacke, siltstone, shale; minor conglomerate, tuff and volcanic sandstone

MIDDLE TRIASSIC

4 Shale, concretionary black shale; minor calcareous shale and siltstone

PALEOZOIC

PERMIAN

MIDDLE AND UPPER PERMIAN

3 Limestone, thick-bedded mainly bioclastic limestone; minor siltstone, chert and tuff

PERMIAN AND OLDER


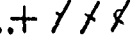
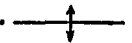






2 Phyllite, argillaceous quartzite, quartz-sericite schist, chlorite schist, greenstone, minor chert, schistose tuff and limestone

MISSISSIPPIAN

1 Limestone, crinoidal limestone, ferruginous limestone; maroon tuff, chert and phyllite

B Amphibolite, amphibolite gneiss; age unknown probably pre-Upper Jurassic

A Ultramafic rocks; peridotite, dunite, serpentinite; age unknown, probably pre-Lower Jurassic

- Geological boundary (defined and approximate, assumed) 
- Bedding (horizontal, inclined, vertical, overturned) 
- Anticline 
- Syncline 
- Fault (defined and approximate, assumed) 
- Thrust fault, teeth on hanging-wall side (defined and approximate, assumed). . 
- Fossil locality 
- Mineral property 
- Glacier 

GEOCHEMICAL PROGRAM

The program completed by Kestrel was designed to provide localized coverage with a minimum of time and cost expenditures and was successfully completed during the period, August 24 - 27, 1990. A total of 7 man days were spent in accumulating 15 rock and 41 soil contour samples. All of the sample results and locations are shown plotted on the attached sample location map (Figure 4). The samples were collected by Kestrel personnel, trained and under contract to Kestrel Resources Ltd. Kestrel supplied supervision.

Soil samples were collected during the traverse and stored in Kraft paper envelopes assigned a number whose location was marked on a topographic map and described in field books supplied for this purpose. Details recorded included depth of sample (approximately 20 centimeters average depth), slope angle, slope direction, colour of soil, type of soil, sulphides present and general observations. All samples were dried at ambient temperatures, then shipped to Loring Laboratories Ltd. for analysis.

A 25 element I.C.A.P. analysis, as well as a standard F.A. and A.A. result for gold, was obtained for each soil sample collected. Rock samples were analyzed for gold, silver and in half the samples collected for copper. Rock samples were analyzed by Vangeochem Laboratories of Vancouver.

DISCUSSION OF RESULTS

The results of assays obtained from the rock and soil sample program do not indicate any significant economic or precious metal targets. Values for silver (ppm) and gold (ppb) as well as Cu (%), are shown plotted on Figure 4 and are discussed below.

The highest value obtained is 70 ppb gold in Sample No. 81583. Silver values are consistently less than 1.0 ppm. Silver values therefore, are not useful in isolating anomalous conditions that may exist on the property. Copper values do not exceed 0.01 percent in both rock and soil samples.

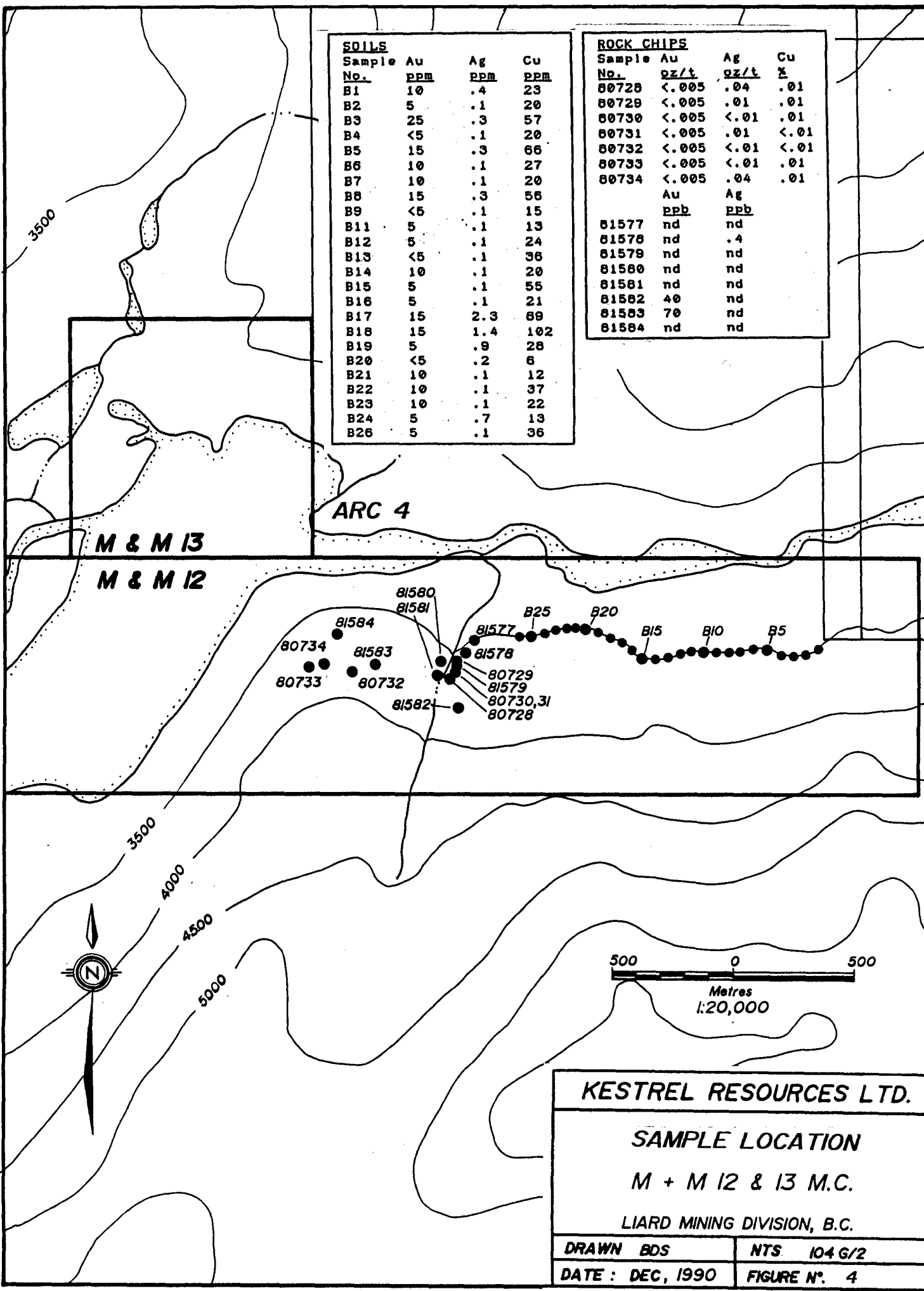
Rock samples assayed were taken from limonitic schistose argillites and cherty sediments containing stringers of massive pyrite as well as disseminated sulphides (pyrite?). These rocks are partly brecciated and silicified, as a result of north-south faulting and rupturing as expressed by the northerly trending drainage which exposed the areas sampled by Kestrel Resources.

SOILS

Sample No.	Au ppm	Ag ppm	Cu ppm
B1	10	.4	23
B2	5	.1	20
B3	25	.3	57
B4	<5	.1	20
B5	15	.3	66
B6	10	.1	27
B7	10	.1	20
B8	15	.3	56
B9	<5	.1	15
B11	5	.1	13
B12	5	.1	24
B13	<5	.1	36
B14	10	.1	20
B15	5	.1	55
B16	5	.1	21
B17	15	2.3	69
B18	15	1.4	102
B19	5	.9	28
B20	<5	.2	6
B21	10	.1	12
B22	10	.1	37
B23	10	.1	22
B24	5	.7	13
B26	5	.1	36

ROCK CHIPS

Sample No.	Au oz/t	Ag oz/t	Cu %
80728	<.005	.04	.01
80729	<.005	.01	.01
80730	<.005	<.01	.01
80731	<.005	.01	<.01
80732	<.005	<.01	<.01
80733	<.005	<.01	.01
80734	<.005	.04	.01
	Au ppb	Ag ppb	
81577	nd	nd	
81578	nd	.4	
81579	nd	nd	
81580	nd	nd	
81581	nd	nd	
81582	40	nd	
81583	70	nd	
81584	nd	nd	



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SAMPLE LOCATION

M + M 12 & 13 M.C.

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DRAWN BDS

NTS 104 G/2

DATE : DEC, 1990

FIGURE N°. 4

CONCLUSIONS

- 1) There is no history of work on the property prior to 1990.
- 2) The sampling program completed has not defined any obvious exploration targets requiring follow-up work

RECOMMENDATIONS

Further work is not recommended on this property at this time.

BIBLIOGRAPHY

Souther, J.G., Geological Survey of Canada, Paper 71-44, Map 11-1971

APPENDIX I
Rock Sample Descriptions

APPENDIX II

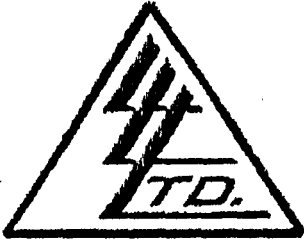
Analysis Method and Assay Certificates

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.



629 Beaverdam Rd. N.E.
Calgary, Alberta T2K 4W2

LORING LABORATORIES LTD.

Phone 274-2777

Preparation Procedures for Geochemical Samples

1 - Soil And Silts:

- a) The soil sample bags are placed in dryer to dry at 105°C.
- b) Each sample is passed through an 80 mesh nylon seive. The +80 mesh material is discarded.
- c) The -80 mesh sample is placed into a coin envelope and delivered to the laboratory for analysis.

2 - Lake Sediments:

- a) The sediment sample bags are placed into the dryer at 105°C until dry.
- b) The dried material is transferred to a ring and puck pulverizer and ground to -200 mesh.
- c) The -200 mesh pulp is then rolled for mixing, placed into a coin envelope, and taken to the laboratory for analysis.

3 - Rocks and Cores:

- a) The samples are dried in aluminum disposable pans at 105°C.
- b) They are then crushed to 1/8" in jaw crusher.
- c) the 1/8" material is mixed and split to sample pulp size.
- d) The sample is then pulverized to 100 mesh, using a ring and puck pulverizer.
- e) The -100 mesh material is rolled on rolling mat and transferred to sample bag. The sample is then sent to the laboratory for analysis.



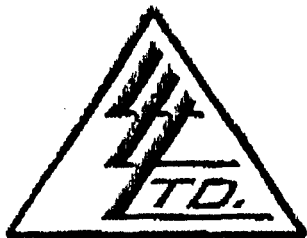
LORING LABORATORIES LTD.

629 Beavertdam Rd. N.E.
Calgary, Alberta T2K 4W7

Tel: (403) 274-2777
Fax: (403) 275-0541

ICP ANALYSES

- Weigh 0.5 g sample in 16 x 150 mm test tubes.
- Digest samples with 3 ml of 3-1-2 HCl-HNO₃-H₂O at 95°C for one hour.
- Cool sample and dilute to 10 ml with distilled water.
- Mix and allow to settle.
- Select the 30 element simultaneous program for ICP. Enter sample numbers into computer in proper sequence to which they will be analyzed, along with client name or project number.
- Transfer samples to sample cups on auto sampler.
- Analyze samples on ICP using auto sampler.
- Ensure control standards are within acceptable limits.
- Print out final report for client.



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Au Geochems (Soils & Sediments)

1. Weigh 10 g sample to fire assay crucible (carry blank)
 2. Place crucibles in fire assay furnace at fusion temperature for 15 minutes.
 3. Allow crucibles to cool on steel table.
 4. Add 1 tablespoon flux and 1 in quart to each crucible.
 5. Fuse for $\frac{1}{2}$ hr. at fusion temperature.
 6. Pour pots, remove slag and cupel.
 7. Place beads into 50 ml flasks.
 8. Pipette stds. and blank into 50 ml flasks.

1 ml of 10 ppm	=	1000 ppb
1 ml of 5 ppm	=	500
1 ml of 1 ppm	=	100
0 ml	=	0
 9. Add 5 mls H₂O, 3 mls HNO₃ and place on 1 switch plate for 5 minutes. Take off plate. Add 5 mls HCl.
 10. Digest until total dissolution approximately $\frac{1}{2}$ hr.
 11. Bulk flasks to approximately 25 mls with distilled H₂O. Cool to room temperature.
 12. Add 5 mls MIBK. Stopper and shake each flask for exactly 1 minute.
 13. Allow MIBK to settle.
 14. Set 1100 AA unit as follows:

mu	-	2428
slit	-	.5
lamp MA	-	3
flame	-	air-acetylene - extremely lean
- Stds.:
- | | | |
|----------|---|---------|
| 100 ppb | - | 10 |
| 1000 ppb | - | 100 |
| 500 ppb | - | reading |

15. Report directly in ppb. Detection limit 5 ppb at reading of .5.

*-1 - for rock geochems steps 2 and 3 can be eliminated.

*-2 - it is important to maintain as closely as possible standard conditions for all samples and standards in a series.

Reagents & Material

- MIBK - 4-Methyl-2-Pentanone
- HCl - conc
- HNO3 - conc
- Flux - 2980 g PbO
777 g Na2CO3
68 g Na2B4O7
68 g SiO2
167 g Flour

NOTE:

With rocks or drill core the amount of sample can vary from 10 grams to 30 grams. The fluxes are all adjusted according to the clients requirements.

REPORT NUMBER: 900409 GA

JOB NUMBER: 900409

SULLIVAN MANAGEMENT/KESTREL RES.

PAGE 1 OF 1

SAMPLE #	Ag ppm	Au ppb
81577	nd	nd
81578	.4	nd
81579	nd	nd
81580	nd	nd
81581	nd	nd
81582	nd	40
81583	nd	70
81584	nd	nd

DETECTION LIMIT

0.1 5

nd = none detected

-- = not analysed

is = insufficient sample

VANOCHEM LAB LIMITED

1630 Pandora Street, Vancouver B.C. V5L 1L6
 Ph: (604) 251-5656 Fax: (604) 251-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO₃ to H₂O 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 #: 900409 PA SULLIVAN MANAGEMENT/KESTREL RES. PROJECT: M&N 12 DATE IN: SEPT 07 1990 DATE OUT: OCT 3 1990 ATTENTION: MR. JOHN BUCHHOLZ PAGE 1 OF 1

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
81577	<0.1	0.16	<3	26	<3	2.11	<0.1	7	114	5	1.46	0.15	0.82	527	7	0.01	17	0.03	7	6	2	33	<5	<3	12
81578	0.4	0.30	<3	179	<3	0.51	0.3	4	40	24	1.73	0.07	0.20	170	6	<0.01	21	0.06	17	<2	<2	36	<5	<3	33
81579	<0.1	0.31	<3	162	<3	5.25	1.5	9	87	23	3.47	0.25	2.13	1263	9	0.02	24	0.04	8	5	4	224	<5	<3	28
81580	<0.1	0.55	<3	164	<3	0.64	4.3	6	43	5	4.44	0.12	0.55	601	9	0.04	23	0.02	232	7	4	29	<5	<3	731
81581	<0.1	2.72	<3	965	<3	8.99	6.6	20	57	22	5.20	0.36	1.60	2024	14	0.09	29	0.21	538	<2	10	593	<5	<3	1152
81582	<0.1	0.19	<3	98	<3	3.46	0.8	8	35	2	2.11	0.20	1.41	680	7	0.02	29	0.02	21	5	3	139	<5	<3	41
81583	<0.1	0.65	<3	128	<3	0.13	0.4	<1	23	<1	1.94	0.10	0.12	970	11	0.07	2	<0.01	7	<2	4	14	<5	<3	29
81584	<0.1	1.01	<3	89	<3	0.17	<0.1	3	65	2	2.28	0.06	0.62	506	12	0.03	6	0.05	<2	<2	5	31	<5	<3	47
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	100.00	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.																								

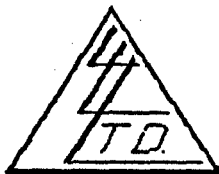
MPP MC AU CANADA

MPP MC AU CANADA

ESTREL RESOURCES LTD.

675 W. Hastings Street,
Vancouver, B.C.

ATTN: John Buchholz



File No. 33688-SM

Date September 28, 1990

Samples Soil

Smithers Ref. # 0023

Certificate of Assay LORING LABORATORIES LTD.

Page # 3

SAMPLE NO.

PPB
Au

Geochemical Analysis

M+M 12 B1	10
M+M 12 B2	5
M+M 12 B3	25
M+M 12 B4	<5
M+M 12 B5	15
M+M 12 B6	10
M+M 12 B7	10
M+M 12 B8	15
M+M 12 B9	<5
M+M 12 B11	5
M+M 12 B12	5
M+M 12 B13	<5
M+M 12 B14	10
M+M 12 B15	5
M+M 12 B16	5

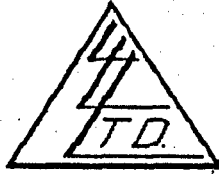
I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Samples retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.


Assayer

KESTREL RESOURCES LTD.
7, 675 W. Hastings Street,
Vancouver, B.C.

ATTN: John Buchholz



F1 No. 33688-SM
Date September 28, 1990
Samples Soil
Smithers Ref. # 0023

Certificate of Assay LORING LABORATORIES LTD.

Page # 4

SAMPLE NO.

PPB
AU

M+M 12 B17	15
M+M 12 B18	15
M+M 12 B19	5
M+M 12 B20	<5
M+M 12 B21	10
M+M 12 B22	10
M+M 12 B23	10
M+M 12 B24	5
M+M 12 B26	5

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.


Assayer

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	B	Al	Na	K	M
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	
M+M12 A1	1	37	2	94	2	34	20	796	5.50	11	5	ND	1	145	2	2	55	1.70	192	15	33	1.54	66	12	4	1.77	.01	.07	1	
M+M12 A2	1	39	11	104	1	36	21	752	5.52	10	5	ND	1	158	2	2	57	1.66	169	13	37	1.65	53	11	2	1.86	.01	.06	1	
M+M12 A3	1	38	3	86	2	30	19	738	5.24	9	5	ND	2	164	2	2	53	1.76	185	16	33	1.47	57	12	4	1.71	.01	.07	1	
M+M12 A4	2	33	28	390	6	19	9	1089	3.73	2	5	ND	1	92	1.6	2	29	.79	106	55	14	.71	187	05	2	2.22	.02	.06	1	
M+M12 B1	2	23	2	142	4	18	14	4310	5.29	7	7	ND	1	25	1.3	2	34	.28	086	71	20	.50	70	12	2	6.37	.01	.05	1	
M+M12 B2	4	20	8	71	1	14	9	705	4.52	3	5	ND	1	26	1.2	2	68	.24	076	16	29	.67	65	12	2	1.86	.01	.04	1	
M+M12 B3	1	57	4	79	3	27	16	877	4.77	15	5	ND	1	45	2.2	2	45	.53	140	13	23	.89	79	08	8	1.16	.01	.03	1	
M+M12 B4	3	20	7	56	1	11	8	358	4.96	5	5	ND	1	29	2.2	2	68	.29	121	18	21	.78	49	08	2	2.24	.01	.06	1	
M+M12 B5	3	66	11	99	3	38	22	1544	6.98	19	5	ND	2	61	2.2	2	43	.76	107	14	30	1.33	173	08	2	1.39	.01	.08	1	
M+M12 B6	2	27	7	69	1	14	10	411	4.64	20	5	ND	1	29	2.2	2	78	.28	055	14	25	.87	62	11	2	2.22	.01	.06	1	
M+M12 B7	1	20	7	56	1	10	7	304	5.65	10	5	ND	2	17	2.2	2	81	.16	078	11	28	.66	26	13	2	3.33	.01	.04	1	
M+M12 B8	2	56	7	72	3	19	11	381	6.18	30	5	ND	1	40	2.2	2	41	.52	142	11	18	1.02	48	08	4	1.01	.01	.03	1	
M+M12 B9	1	15	8	30	1	6	3	232	1.97	3	5	ND	1	15	2.2	2	35	.15	055	15	11	.23	53	06	2	1.15	.02	.03	1	
M+M12 B11	1	13	6	26	1	5	4	286	1.74	3	5	ND	1	20	2.2	2	18	.25	038	19	7	.27	110	05	2	.78	.01	.04	1	
M+M12 B12	1	24	4	62	1	14	10	722	3.99	8	5	ND	2	22	2.2	2	65	.27	098	16	21	.79	89	09	2	1.63	.01	.04	1	
M+M12 B13	1	34	4	64	1	23	14	509	4.33	3	5	ND	1	25	2.2	2	59	.30	103	14	31	.95	33	12	6	2.26	.01	.05	1	
M+M12 B14	1	20	8	35	1	6	5	336	5.20	16	5	ND	2	13	2.2	2	89	.14	196	12	20	.33	31	13	2	2.70	.01	.03	1	
M+M12 B15	1	55	8	60	1	15	12	529	3.90	4	5	ND	3	25	2.2	2	60	.33	073	13	19	.87	77	12	8	2.29	.03	.04	1	
M+M12 B16	1	21	10	53	1	7	6	278	5.07	2	5	ND	2	18	2.2	2	104	.18	102	15	18	.55	48	14	2	2.13	.01	.04	1	
M+M12 B17	9	89	29	248	2.3	57	25	1583	7.21	80	5	ND	1	66	1.9	2	80	.25	222	28	12	.59	131	02	3	1.56	.01	.05	1	
M+M12 B18	5	102	32	202	1.4	55	23	2302	6.96	22	5	ND	1	34	1.7	2	33	.31	112	29	13	.42	244	05	2	1.53	.01	.04	1	
M+M12 B19	7	28	18	82	.9	10	12	3311	4.17	13	5	ND	1	24	1.4	2	54	.19	141	51	14	.40	128	06	3	2.38	.06	.06	1	
M+M12 B20	3	6	7	24	.2	1	1	41	.85	2	5	ND	2	4	1.2	2	5	.01	024	77	1	.05	51	01	2	1.32	.01	.04	1	
M+M12 B21	3	12	11	44	.1	6	4	182	6.96	12	5	ND	2	12	2.2	2	65	.09	033	22	21	.32	37	19	2	1.66	.01	.03	1	
M+M12 B22	4	37	16	266	.1	14	10	1437	4.41	52	5	ND	1	20	1.9	2	39	.10	125	100	17	.50	139	05	2	2.78	.02	.04	1	
M+M12 B23	1	22	10	46	.1	11	8	505	4.92	13	5	ND	1	15	2.2	2	58	.15	054	15	26	.52	32	12	2	2.30	.01	.01	1	
M+M12 B24	4	13	12	40	.7	4	3	323	4.79	5	5	ND	1	8	2.2	2	47	.08	043	27	13	.15	60	20	2	1.60	.01	.02	1	
M+M12 B26	1	36	6	67	.1	21	12	680	3.61	7	5	ND	1	40	1.2	2	49	.41	092	24	25	.90	107	12	4	1.65	.02	.06	1	

STANDARD C	18	62	37	132	7.2	72	31	1053	3.96	39	22	7	40	52	19.7	15	21	60	.47	096	40	61	.90	183	08	35	1.90	.06	.13	12
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APPENDIX III
Itemized Cost Statement

ITEMIZED COST STATEMENT

Salaries

J. Buchholz Geologist	1 day @ \$325/day	\$ 325.00
W. Chase Prospector	2 days @ \$275/day	550.00
M. Callaghan Prospector	2 days @ \$275/day	550.00
K. Forster Prospector	2 days @ \$200/day	400.00
W. Grier Helper	2 days @ \$200/day	400.00

Field Expenses

Room and Board	8 man days @ \$125/day	1,000.00
Helicopter	1 hour @ \$800/hour	800.00
Drafting		100.00
Freight and Miscellaneous		50.00
Assay 56 samples @ \$16/sample		<u>896.00</u>

TOTAL COSTS

\$5,071.00

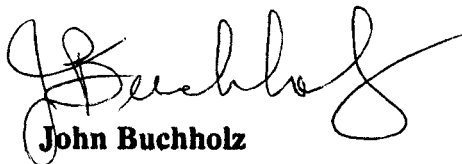
APPENDIX IV
Statement of Qualifications

CERTIFICATE

I, JOHN BUCHHOLZ, of 10370 Monte Bella Road, Winfield, British Columbia do hereby certify that:

1. I was employed by Kestrel Resources Ltd. since September of 1988 as Exploration Geologist to conduct geological mapping and property examinations on their Iskut River mineral claims.
2. I am a graduate of the University of British Columbia having obtained a degree in Geology (B.A.) in 1962.
3. I have practiced my profession during the periods 1962-1974 and 1987 to present on various exploration projects ranging from grassroots to underground programs.
4. I am familiar with and have personally examined the property described in the body of this report in August of 1990 and supervised the work, at which time I acted on behalf of Kestrel Resources Ltd. in conducting their on-going exploration program in the Iskut River area of British Columbia.

DATED at Vancouver, British Columbia, this 5th day of December, 1990.


John Buchholz