

ARCHER, CATHRO

86-014 VOL. 1

ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

1016-510 WEST HASTINGS STREET
VANCOUVER, B.C. V6P 1L8

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YEIP
86-014
Vol. 1

SUMMARY REPORT ON GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL SURVEYS AND HAND TRENCHING

MARG PROPERTY

TUDL 1-32 CLAIMS (YA76768-YA76799)

MAYO M.D., YUKON - NTS 106D/1

64°01'N; 134°28'W

EIP Designation Number 86-014

FOR

ALL-NORTH RESOURCES LTD.

ALL-NORTH RESOURCES LTD.

DATE DUE

R.J. Cathro, B.A.Sc., P.Eng.

December, 1985

ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

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February 26, 1987

Mr. Rod Hill,
Yukon Economic Development,
Mines and Small Business,
Box 2703,
2071 - 2nd Avenue,
Whitehorse, Yukon.

Dear Sir:

Enclosed please find one copy of the Marg Property Report, Tudl claims,
to fulfill the requirements for EIP Designation Number 86-~~104~~₀₁₄.

Please do not hesitate to call me if you have any questions.

Yours truly,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED


R.O. Cathro.

/mc
Encl.



ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

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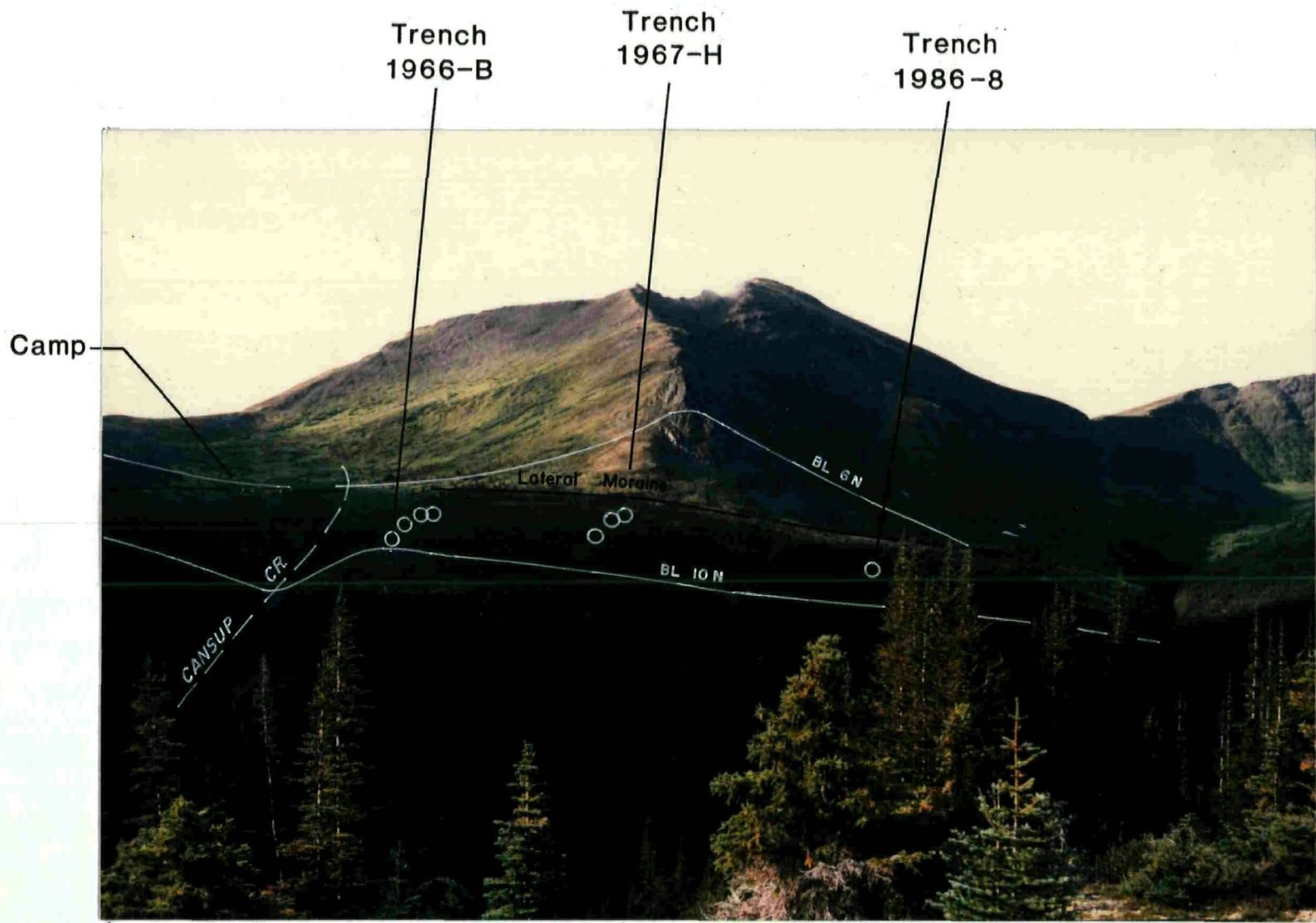


Plate 1: Marg Property, View South

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SUMMARY AND RECOMMENDATIONS

The Marg Property was initially identified by reconnaissance stream sediment surveys conducted by the Geological Survey of Canada (GSC) in 1964 and was first staked by Canadian Superior Exploration Ltd. and United Keno Hill Mines Ltd. in April, 1965. From 1965 to 1967, the property was explored by linecutting, soil geochemistry (lead and zinc only) and hand trenching which outlined a large area of strongly anomalous lead and zinc soil response but failed to locate significant bedrock mineralization. The property received no exploration until 1982, when it was restaked by ZX-Sentinel Joint Venture (Chevron Minerals Ltd., SMD Mining Co. Ltd. and Enterprise Exploration Ltd.), which performed limited sampling and hand trenching in 1982 and 1984 before entering into an option with All-North Resources Ltd. in 1986.

The 1986 field program described in this report was performed by All-North between August 8 and 31. It consisted of linecutting, baseline surveys, multi-element geochemistry, geophysical surveys (HLEM, VLFEM, magnetic, IP and resistivity), hand trenching and geological mapping.

The property lies within a narrow 400 km long belt of predominantly metasedimentary rocks that are now believed to be allochthonous and Mississippian in age. The Keno Hill silver-lead vein camp, located about 40 km southwest of the property, also lies within the belt. Most of the productive veins are hosted by a competent formation called the Central Quartzite but a few are developed within the recessive and lithologically more variable Lower Schist. Although GSC regional mapping shows the Marg Property is underlain by the Central Quartzite, detailed property mapping suggests it lies, in fact, within the Lower Schist.

Three apparently conformable units have been identified on the property (Chlorite, Graphite and Quartzite Units) and petrological studies indicate all three have a significant volcanic component. The sequence generally appears to form a northwest-striking, moderately southwest-dipping homocline but detailed mapping shows at least three phases of deformation. Although bedrock exposure is extremely limited, making geological interpretation difficult, it appears that all geochemical anomalies and mineralization are related to the Graphite Unit.

Grid soil geochemistry has been conducted over a 1400 by 500 m area in the centre of the property and has outlined a series of multi-element anomalies that stretch across the entire length of the grid. Most of the targets have anomalous response for at least four of six metals (gold, silver, lead, zinc, copper and arsenic) and some are anomalous for all six. While individual anomalies have a maximum length of 360 m, some appear to be fault offsets of others and most are obscured at one or both ends by glacial till or talus slides. Interpretation of geochemical data from soils, stream sediments and ferricrete deposits suggests that hydromorphic transport has played an important role in metal dispersion and that the more mobile metals are often displaced from the less mobile ones. In at least one area, paleogroundwaters that formed a lead-rich ferricrete appear to have had extremely low pH (<4). Acidity in this range is difficult to obtain within the surface environment unless large quantities of sulphides are oxidized. Even where this criteria is met, lead-rich ferricretes are extremely rare.

The geophysical surveys produced mixed results. HLEM and VLFEM data outlined a series of conductors, many of which lie slightly north of the

apparent source of the soil geochemical anomalies, suggesting a conductive graphitic horizon in the footwall of the mineralization. Although a few of the HLEM anomalies could be due to massive sulphides, that seems unlikely as effective depth of penetration was only 15 to 30 m and sulphides at that depth would be largely oxidized. Magnetic response was relatively flat and of little use, while IP and resistivity surveys were ineffective because the power source was too weak for the combination of resistant overburden and highly conductive bedrock.

Hand trenching was done before 1986 soil geochemical results were available and therefore was largely directed toward geophysical targets, most of which are downhill from the probable source of the soil anomalies. Most trenches did not reach bedrock and most sampling was limited to soil and float. Despite the problems, mineralization was located in three widely separated areas. In each case, the mineralization was highly oxidized and exhibited strong laminations with small scale folding similar to that in the surrounding host rocks. Where exposed in bedrock, the mineralization formed three limonitic horizons that are conformable with bedding. The best assays obtained to date from mineralized float are 14.4% Cu, 9.0% Pb, 3.3% Zn, 1.3% As, 169.40 g/t Ag and 2.6 g/t Au, while the best values from bedrock are 1.4% Cu, 9.1% Pb, 0.5% Zn, 323.1 g/t Ag and 8.1 g/t Au over 0.12 m. Metal ratios from mineralization in the three areas are highly variable and it is not known whether this is due to primary metal zoning within a single mineralized horizon, different metal signatures from more than one horizon, or differential leaching and/or enrichment of metals by supergene processes.

Based on the textures, metal ratios, and conformable nature of the mineralization and volcanic affinity of the host rocks, the most probable exploration target at the Marg Property appears to be a volcanogenic massive sulphide deposit. Although no deposits of this type have been recognized elsewhere in the belt of rocks containing the Marg Property, they do occur in similar Mississippian age rocks elsewhere in the Yukon. Recent mapping throughout the Cordillera has identified numerous belts of allochthonous rocks that are lithologically distinct from the surrounding rocks and some of the more exciting discoveries in recent years have been made by recognizing these exotic terranes and exploring them for deposits that occur in similar rocks elsewhere in the Cordillera.

In order to explore for the source of the geochemical anomalies and mineralized float and to test the validity of the volcanogenic model, a \$400,000 program of bulldozer trenching and diamond drilling is proposed. The diamond drilling should be done on a series of section lines spaced about 300 m apart while the bulldozer will be used to provide drill support and bedrock exposure in areas with relatively shallow overburden. The proposed budget is as follows:

Diamond Drilling, 1000 m HQ @ \$115/m	\$115,000
Labour	75,000
Helicopter, 80 hrs @ \$600/hr	48,000
Bulldozer, D7 with ripper, incl fuel, 400 hrs @ \$115/hr..	46,000
Field Expenses, 600 mandays @ \$60/day	36,000
Assays, 1000 rock samples for ICP + Au @ \$17.00	17,000
185 for Au,Ag,Pb,Zn,Cu @ \$32.50	6,500

Transportation	\$ 15,000
Office Costs	15,000
Accounting and Expediting	10,000
Management	<u>17,000</u>

TOTAL - \$400,000

Respectfully submitted

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



R.J. Cathro

/mc

INTRODUCTION

A program of linecutting, baseline surveying, soil sampling, geophysical surveys, hand trenching (with explosives) and geological mapping was conducted between August 8 and 31, 1986 at the the Marg Property. The program was carried out by Archer, Cathro and Associates (1981) Limited on behalf of All-North Resources Ltd., which has optioned the claims from Chevron Minerals Ltd. and SMD Mining Co. Ltd.

The crew was led by K. Sax and consisted of M. Boulding, M. Gazetas, T. Knight, K. Capnerhurst, L. Robinson, and P. Gilchrist (cook). Geological mapping and field supervision was provided by R.C. Carne and the program was planned and managed by R.J. Cathro.

Electromagnetic, magnetic and induced polarization surveys were performed under contract by G. Hendrickson and S. Cosman of Delta Geoscience Ltd., Vancouver between August 16 and 22.

Consulting geologist J.P. Franzen visited the property from August 16 to 18.

The author's Statement of Qualifications is attached as Appendix A.

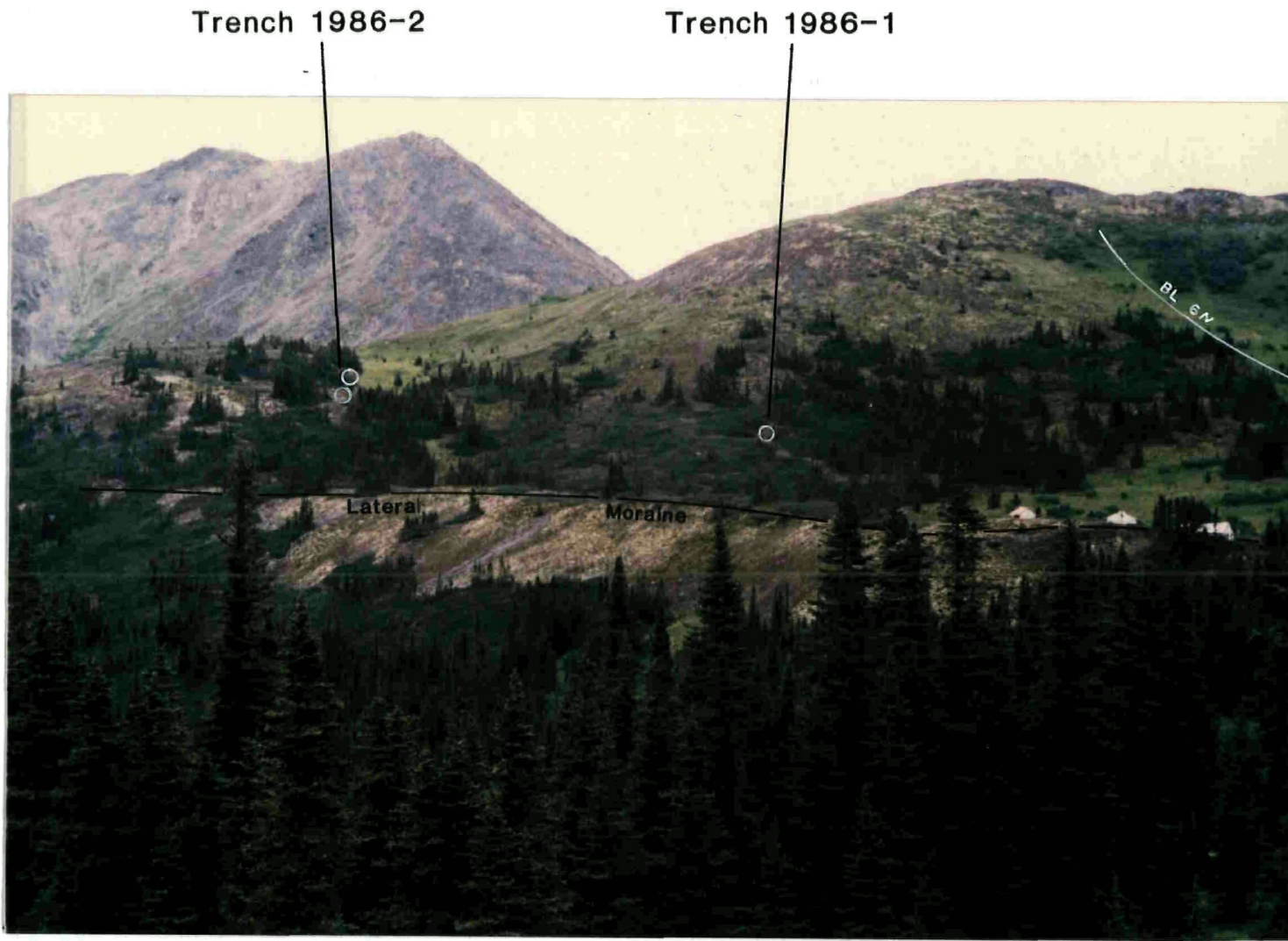


Plate 2: Marg Property, View East over Cansup Creek

LOCATION AND ACCESS

The Marg Property is centered at 64°01'N and 34 28'W within NTS map sheet 106D/1. It is situated 80 km NE of Mayo, 52 km NE of Elsa (the mill site and administrative centre for United Keno Hill Mines Ltd.'s silver-lead mines) and 32 km from the nearest road point (see Figures 1 and 2). Access in 1986 was by helicopter operating from a seasonal base at Mayo, which is 407 km by road from Whitehorse, the Yukon capital. Mayo can also be reached by scheduled aircraft service from Whitehorse.

CLAIM DATA

The property consists of 32 contiguous claims registered at the Mayo Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited. A claim map is shown on Figure 3 while pertinent claim data is listed below.

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Tudl 1-32	YA76768-YA76799	September 14, 1990

The claims were staked in August, 1982 on behalf of ZX-Sentinel Joint Venture (Chevron, SMD and Enterprise Exploration Limited). Enterprise Exploration subsequently abandoned its interest.

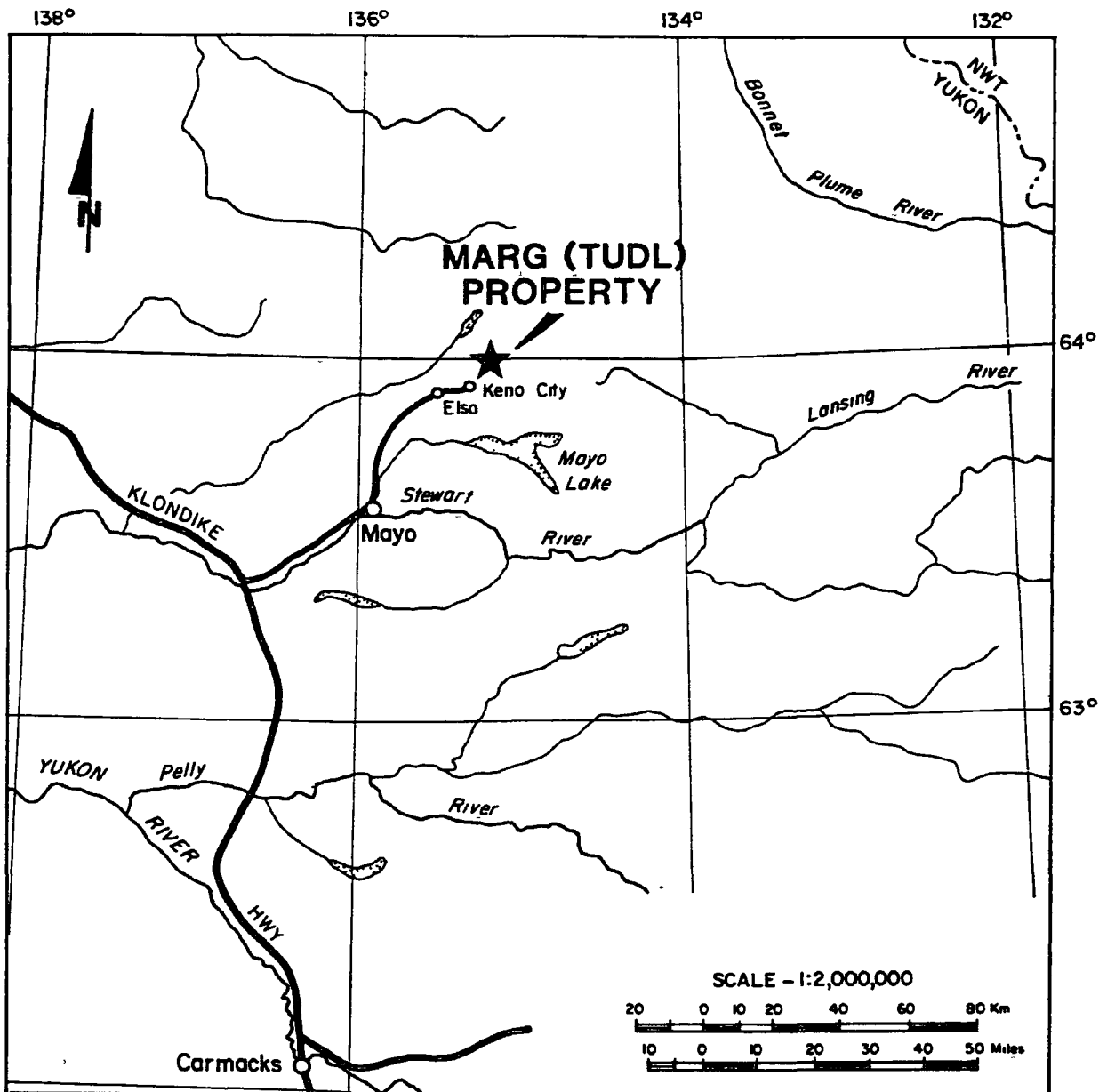


Figure 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

LOCATION MAP

MARG (TUDL) PROPERTY

ALL-NORTH RESOURCES LTD.

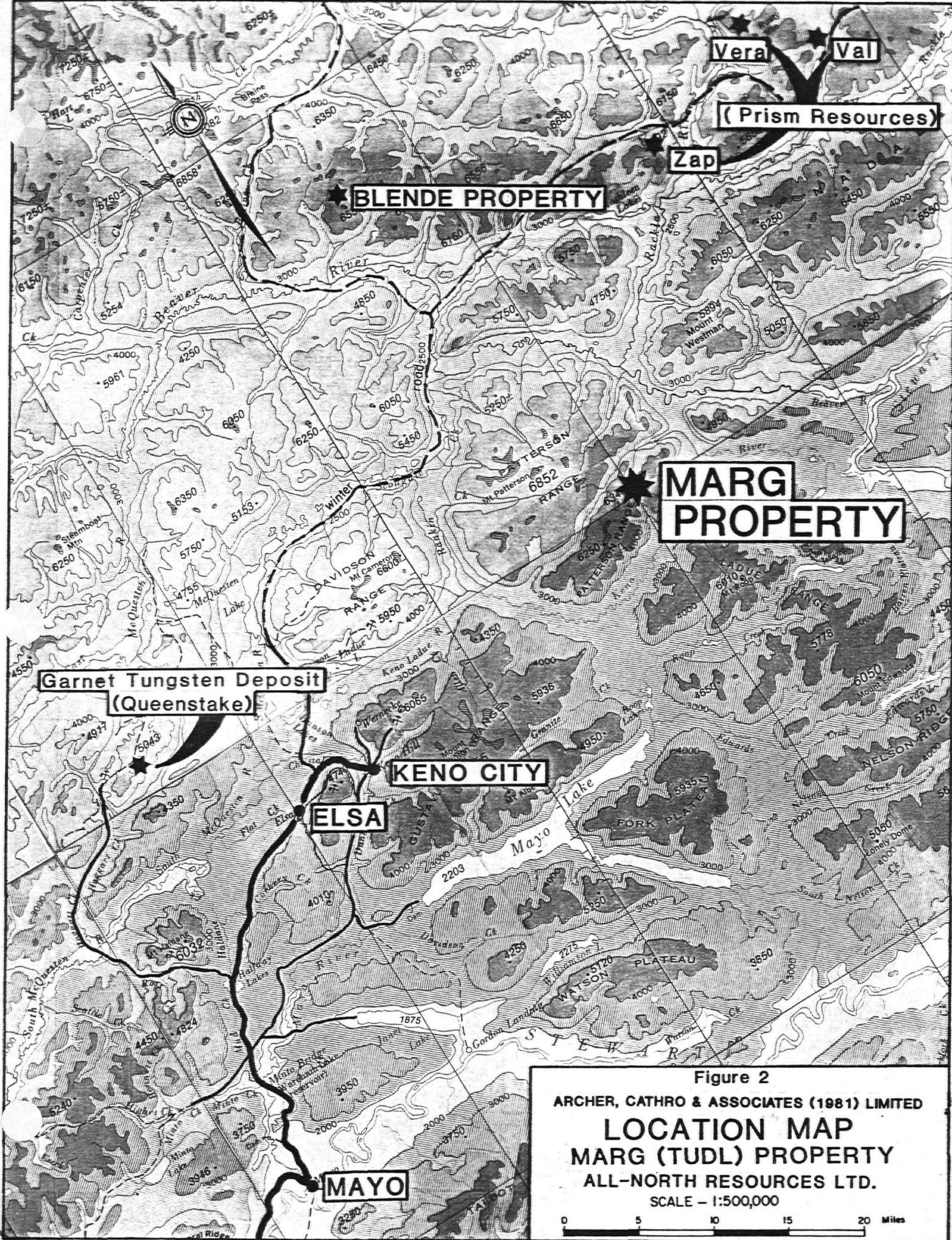
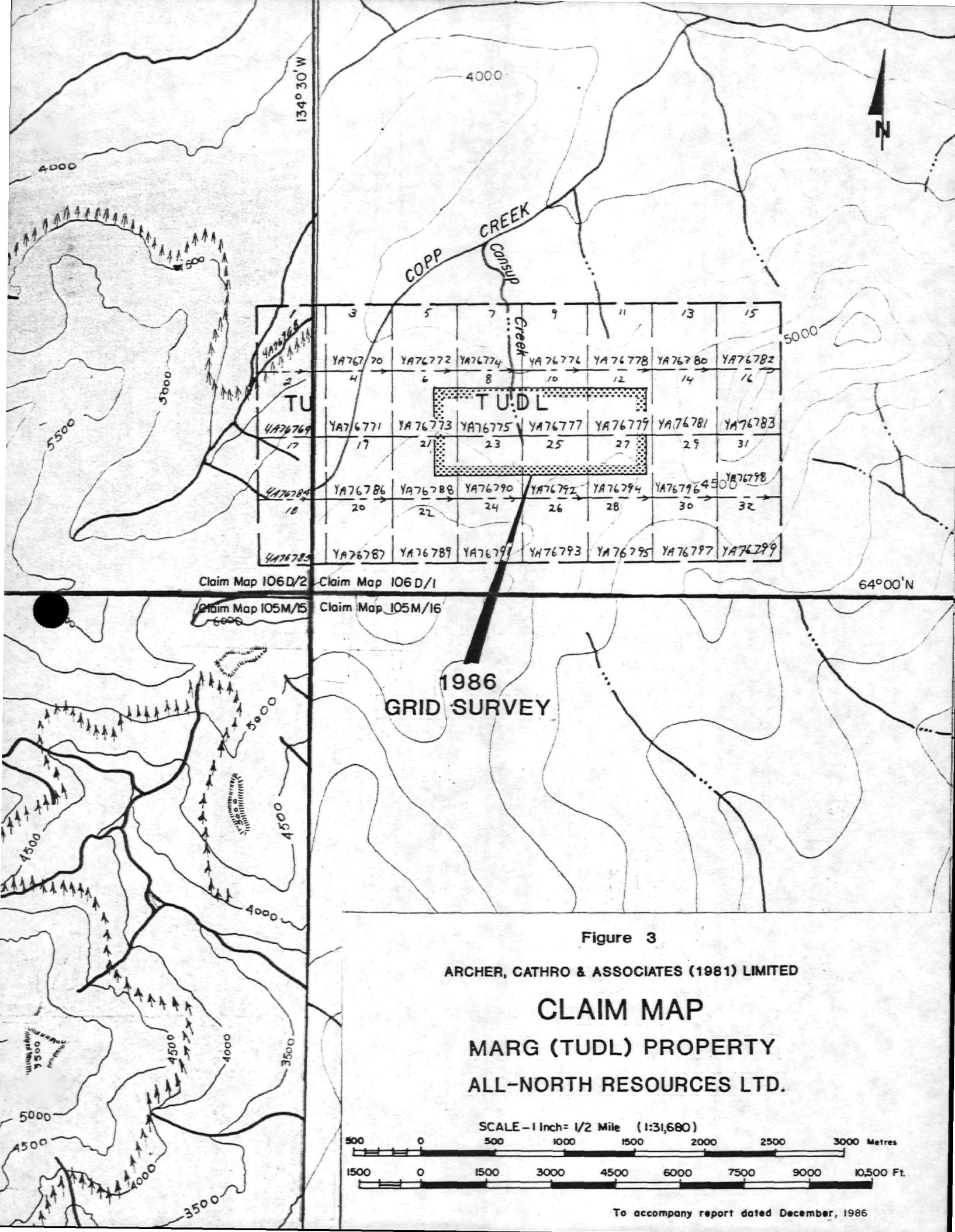


Figure 2
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
LOCATION MAP
MARG (TUDL) PROPERTY
 ALL-NORTH RESOURCES LTD.
 SCALE - 1:500,000

0 5 10 15 20 Miles



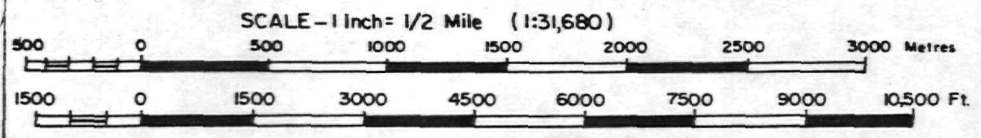
Claim Map IO6D/2 Claim Map IO6D/1
 Claim Map IO5M/15 Claim Map IO5M/16

1986
 GRID SURVEY

Figure 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM MAP
MARG (TUDL) PROPERTY
ALL-NORTH RESOURCES LTD.



To accompany report dated December, 1986

HISTORY AND PREVIOUS WORK

The area was first staked in April, 1965 as Jack 1-8 claims by Canadian Superior Exploration Ltd. and United Keno Hill Mines Ltd. immediately following release of regional geochemical results by the GSC for samples collected in summer, 1964 during Operation Keno. The target was a stream sediment sample collected at the mouth of Cansup Creek which yielded strongly anomalous values of 300 ppm lead, 2400 ppm zinc, 230 ppm copper and 2.5 ppm antimony. In 1985, the companies performed a program of linecutting, soil sampling and hand trenching before adding 16 Marg, Heather and Jack claims in September. Additional sampling and hand trenching were done in 1966 by both companies and in 1967 by Canadian Superior under the supervision of Archer, Cathro.

While the 1965 to 1967 programs outlined an impressive soil geochemical anomaly, they were unable to locate a mineralized source because of overburden cover. Since the primary target was a Keno Hill-type galena vein with a high silver content, the owners soon lost interest in the Marg Property when it did not appear to host such a target.

After the Jack, Marg and Heather claims lapsed, the target remained idle until 1977 when Archer, Cathro encouraged Mountaineer Mines Ltd. to restaked it as the Flash claims. These lapsed in 1978 without receiving any work. Archer, Cathro returned in 1982 and staked the Tudl 1-32 claims on behalf of ZX-Sentinel Joint Venture. ZX-Sentinel performed limited sampling and hand trenching in 1982 and 1984 before entering into the current option with All-North Resources Ltd. Petrology done by ZX-Sentinel showed that the

property is largely underlain by metavolcanic rocks, rather than strictly metasedimentary rocks as shown on GSC maps, and that primary sulphide mineralization within the area of geochemical response is intensely weathered and almost totally converted to iron, copper, lead, zinc and arsenic oxide minerals and supergene sulphide minerals such as covellite.

GEOMORPHOLOGY

The claims lie along the southern margin of the rugged Patterson Range and cover a series of short, steep, north-facing drainages. Local elevation range from 1200 to 1675 m with the main area of interest straddling treeline at about 1400 m. Typical vegetation consists of stunted balsam, buckbrush and grasses giving way to moss and lichen at higher elevations. The upper limit of Pleistocene valley glaciation crosses the property and a lateral moraine forms a pronounced terrace that rises from 1300 m near Copp Creek to 1350 m on the east side of Cansup Creek. Outcrop is limited to the ridge crest along the southern edge of the property. Seeps and springs are unusually abundant and occur either at the base of the glacial terrace or along a break in slope about 50 to 100 m above the terrace. Many of the seeps are associated with vegetation anomalies or, as they are commonly referred to, kill zones.

GEOLOGY

Regional

The Marg Property lies near the eastern end of a narrow, approximately 400 km long belt of predominantly metasedimentary rocks of disputed age and origin. The belt hosts the Keno Hill silver-lead vein camp and consists of Lower Schist, Central Quartzite and Hanging Wall Schist Units. Most mapping and exploration has been directed toward the Central Quartzite which hosts most of the silver-lead mines. The two schist units are less well mapped because they are more recessive and do not usually host productive veins.

Although geology in the immediate vicinity of Keno Hill has been mapped in varying detail by a number of GSC geologists, including Keele (1904), Cairnes (1915), Cockfield (1921-22), Stockwell (1926), Bostock (1938-42), Roddick and Green (1957), Boyle (1956-57), McTaggart (1960), and Green (1970), only Green's regional scale mapping extended far enough east to cover the Marg Property. Other GSC geologists who have worked within the belt include Blusson (1977) who mapped to the east on NTS map sheets 105N and 106C and Tempelman-Kluit (1970) who reinterpreted the stratigraphy in the Tombstone Mountains near Dawson on NTS map sheet 116B.

GSC regional mapping has shown that Lower Schist appears to conformably underlie the Central Quartzite throughout the belt. The Hanging Wall Schist is absent in the western part of the belt and, where present, is thrust over the other units. The relationship between the Lower Schist and underlying, relatively undeformed and unmetamorphosed Selwyn Basin rocks is not well understood. Tempelman-Kluit (1970 and 1979) assigned the Central Quartzite and Lower Schist Cretaceous and Jurassic ages, respectively, based on a

controversial fossil locality near Dawson and felt they were deposited over the Selwyn Basin rocks in a foreland molasse basin. Blusson (1977) described units that resemble those at the Marg Property and assigned them an Upper Devonian age. The most recent work by GSC and Department of Indian and Northern Affairs geologists, which includes a zircon age date performed by Mortensen (1986), suggests that the Lower Schist is Mississippian in age and that it and Central Quartzite are allochthonous. If this interpretation is correct, a correlation may exist between the Lower Schist and Mississippian age metavolcanic rocks south of Ross River which host syngenetic massive sulphide occurrences such as the MM deposit.

Marg Property

Although GSC mapping suggests the Marg Property lies within the Central Quartzite, mapping carried out in conjunction with prospecting and trenching programs suggests that most rocks belong to the Lower Schist.

Geological mapping of the Marg Property has been severely hampered by glacial till cover below the upper limit of valley glaciation, deep weathering above this elevation and the recessive nature of some units. However, three units have been recognized and have been given the field names Chlorite Unit, Graphite Unit and Quartzite Unit. They form an apparently conformable sequence that strikes N60°W and dips about 50° to the southwest. A petrographic study of representative specimens from the property by J. Mortensen in 1982 showed that, in spite of the deep weathering superimposed on lower greenschist facies metamorphism, there is a strong suggestion of an intermediate volcanic parentage for the Chlorite Unit, a pyroclastic component in the Graphite Unit, and a dominantly volcanoclastic protolith for the Quartzite Unit. Detailed

geology of the main area of interest is shown on Figure 4 while unit descriptions follow.

Chlorite Unit

The basal Chlorite Unit consists of resistant, thick-bedded to massive, chloritic grit and grey quartzite. In thin section, the rocks are composed of a fine-grained chlorite groundmass with variably abundant quartz eyes. Field and petrographic evidence suggest deposition as volcanic flows and pyroclastics of intermediate composition. Irregular masses of medium-grained gabbro located structurally below the main area of interest on the property are probably feeder dykes and sills for the volcanics.

Graphite Unit

The Graphite Unit overlies the Chlorite Unit with apparent conformity. It consists of grey to black weathering, variably pyritic, calcareous and graphitic phyllites interbedded with chloritic phyllite and feldspathic quartzite. Many individual subunits contain abundant sericite. Brown weathering dolomitic intervals are common throughout the unit. Consistent stratigraphic sequences are mapable in individual parts of the grid area but they cannot be correlated across overburden-covered areas. This indicates that detailed structural and stratigraphic relationships are more complex than the broad-scale property geology suggests.

All geochemical anomalies, gossans and mineralized float occurrences are associated with this unit.

Quartzite Unit

This resistant unit consists of brown weathering, finely laminated, slightly calcareous chloritic quartzite. It contains minor intervals of graphitic phyllite, thin- and thick-bedded phyllitic quartzite, limestone and chloritic phyllite. No thick sequences of clean orthoquartzite similar to the Central Quartzite observed in Keno Hill area are present but such rocks do occur across Copp Creek, northwest of the property.

Structure

In a broad sense, structural geology appears fairly simple with three major map units exposed across the property as a uniform homoclinal sequence. In detail, however, the Graphite Unit displays at least three phases of deformation. The oldest is reflected by a south-dipping, well developed cleavage related to north-verging, moderately inclined, isoclinal folds with east-plunging axes. These have been transposed by a northeast-directed strain regime represented by a southeast-plunging crenulation cleavage. F1 and F2 structures appear to be further modified by east-trending culminations.

North-northeast-trending faults displace earlier structures and stratigraphy but are not observed as they occupy overburden-filled, recessive linears.

MINERALIZATION

Significant mineralization has been encountered in hand trenches in three areas on the Marg Property. In each instance, the mineralization consists of intensely oxidized and leached material with little megascopic evidence of sulphide minerals. These occurrences are located on Figure 4 and described below.

Area 1

Mineralization in this area was exposed in two sets of trenches:

- (a) Trench L - The first mineralization was found on the ridge west of Cansup Creek in 1967. It consisted of a single, small, oxide-coated fragment recognized in a panning concentrate. Under microscopic study, it was found to consist of about 40% sphalerite, 20% chalcopyrite and a trace of covellite, chalcocite, pyrargyrite and tetrahedrite.
- (b) Trenches B, O & P - Three small hand specimens were obtained in 1982 from Trench B (north), situated about 120 m north of Trench L. The three specimens, which ranged up to 10 cm in length, were composed of fine-grained mineralization within a banded limonitic gangue of carbonate and foliated graphite. A photograph and photomicrograph from one of these specimens is shown on the following page. The 1982 assays from the three specimens were as follows:

<u>Specimen</u>	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag g/t</u>	<u>Au g/t</u>
AA (25681)	14.4	7.5	3.3	161.1	1.9
EE (25685)	13.8	9.0	2.0	169.4	2.6
FF (25686)	10.2	7.5	1.4	149.5	2.4

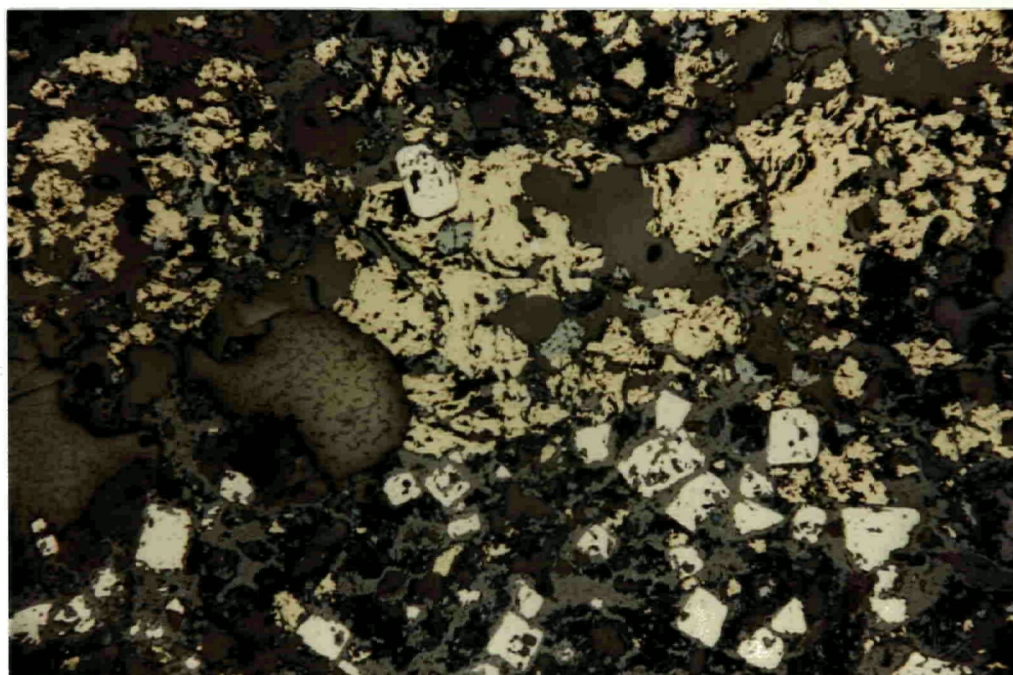


PLATE 3

SPECIMEN FF (25686) FROM TRENCH B (NORTH)

Oxidized sulphide interlamination with quartz-sericite. Sulphides are mainly chalcopyrite (30%), pyrite (12%), and sphalerite (3%). Primary sulphides are partially oxidized to barthite(?) (25%), covellite (10%), limonite and hematite.

The specimen assayed 10.2% Cu, 7.5% Pb, 1.4% Zn, 0.63% As, 149.5 g/t Ag and 2.4 g/t Au.

Polished thin section study showed that these specimens were composed of crumbly, weathered euhedral pyrite (about 20%) and chalcopyrite (15%) with lesser amounts of covellite (6%), sphalerite (about 0.5%) and galena (trace). The latter two minerals were found mainly as inclusions in the pyrite while the covellite was found as intergrowths within the gangue and secondary minerals such as limonite and plumbojarosite. Since the assays were higher than the sulphide content would suggest, it was concluded that a major part of the values were present in supergene oxide minerals such as barthite ($3ZnO.CuO.3As_2O_5.2H_2O$).

Further trenching and sampling in this area in 1984 exposed three thin, conformable, isoclinally folded limonite-clay horizons. The upper horizon was exposed in Trench B (north), the middle horizon in Trenches O and P and the lower horizon in Trench B (west). The 1984 sampling gave the following assays from the upper and middle horizons:

<u>Trench</u>	<u>Thickness (m)</u>	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag g/t</u>	<u>Au g/t</u>
B(North)	0.2	0.8	10.0	0.2	197.9	2.3
	1.3	0.4	3.7	0.1	82.3	1.4
O	0.12	1.4	9.1	0.5	323.1	8.1

The lower horizon was sampled in Trench B (west) and returned low values.

Mapping of these trenches showed that the mineralization occurs in a phyllitic sequence that is more graphitic at the top and sericitic at the bottom.

Area 2

The following low zinc values were obtained from 1982 sampling of an old trench (Trench H) situated about 250 m west of Area 1:

<u>Specimen</u>	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag g/t</u>	<u>Au g/t</u>
GG (25702)	0.2	tr	2.1	0.2	tr
KK (25706)	0.1	tr	1.6	0.1	tr
OO (25706)	0.1	tr	2.0	0.1	tr
SS (25714)	0.1	tr	1.5	0.3	tr

These specimens consisted of limonitic quartz-sericite schist and an albite-siderite-pyrite assemblage. No other sulphide minerals were recognized.

Area 3

Laminated limonite float was found in a new area (Trenches 86-2 and 3) about 500 m east of Trenches B, L and O in 1986. This mineralization, which consists of limonitic quartz-sericite phyllite, is intensely leached and traces of pyrite and chalcopyrite were the only sulphides recognized under the microscope. Rock and soil sample assays from these trenches are shown on Figure 12, along with similar results from Trench 86-1, which is situated 280 m southwest.

Photographs of two specimens that were studied under the microscope are shown on the following pages. Assays of the best specimens are as follows:

<u>Specimen</u>	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>As%</u>	<u>Ag g/t</u>	<u>Au g/t</u>
SM-1	0.1	2.2	<0.3	1.0	52.1	1.1
SM-2	0.2	1.7	<0.1	0.4	15.4	0.5
4038	0.1	4.0	tr	1.3	110.0	0.8
7318	tr	2.1	tr	0.3	37.6	1.2

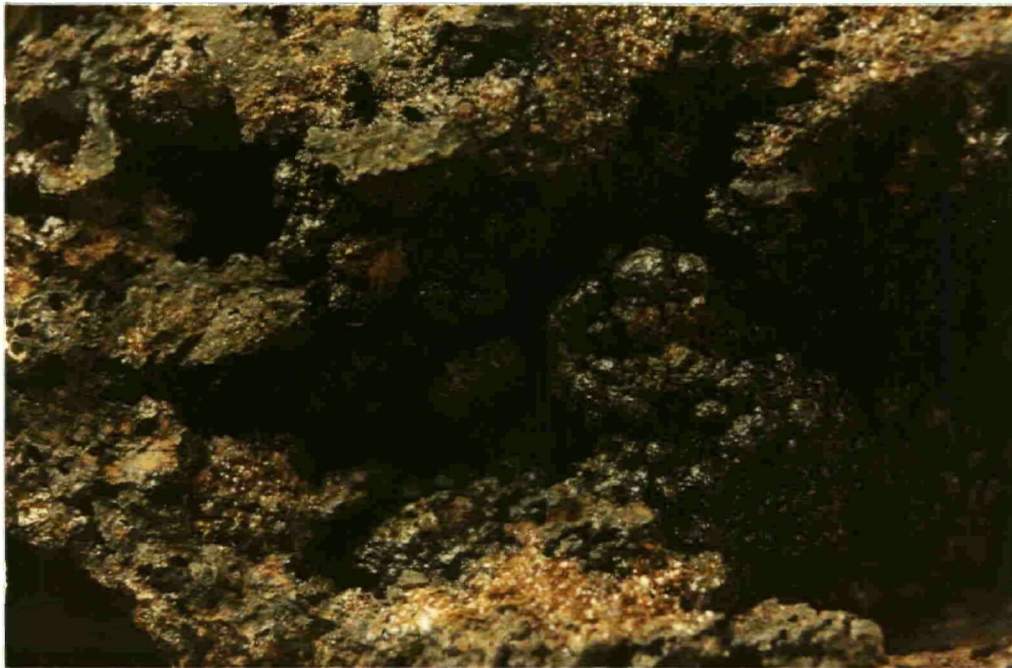


PLATE 4

SPECIMEN SM-2 FROM TRENCH 86-2

Intensely oxidized and leached quartz-sericite-hematite schist from Trench 86-2. All sulphides have been oxidized and removed except for finely disseminated pyrite and chalcopyrite within quartz granules.

This specimen assayed 0.19% Cu, 1.72% Pb, 0.02% Zn, 0.39% As, 15.4 g/t Ag, and 0.54 g/t Au.



PLATE 5

SPECIMEN SM-1 FROM TRENCH 86-3

Contorted quartz-sericite-hematite schist from Trench 86-3. Only the sulphides pyrite and chalcopyrite are preserved and only within quartz granules. All other sulphides have been oxidized to iron oxides and barthite (Cu-Zn hydroxide).

This specimen assayed 0.11% Cu, 2.24% Pb, 0.05% Zn, 52.1 g/t Ag and 1.1 g/t Au.

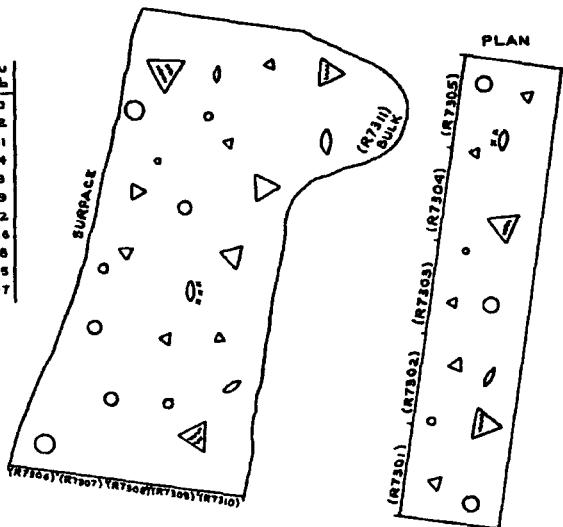
While the values are all subeconomic, the relatively high lead, arsenic, silver and gold values are certainly encouraging from such strongly weathered material. Metal ratios in Area 3 are quite different from those in Areas 1 and 2 and, in particular, copper and zinc contents are much lower.

In addition to the work done in the three main areas of interest, trenches were also dug in four other areas to test geochemical and geophysical anomalies. Figure 4 shows the location of these trenches, while Figures 12, 13 and 14 illustrate geology and assay results. None of the trenches reached bedrock and assay results were generally low. The best assay values were up to 0.48% Pb, 15 ppm Ag and 291 ppb Au from soil and float samples taken from Trench 86-1.

The widespread distribution of mineralized float and bedrock occurrences on the Marg Property indicates a sizable exploration target. Examination of metal ratios suggests that two types of mineralization are present, one of which is polymetallic and the other rich in lead, gold, silver and arsenic but depleted in zinc and copper. This could indicate either mineral zoning within a single deposit, the presence of two or more horizons with different metal signatures or selective leaching of some metals in the surficial environment. Both types are laminated and apparently conformable with enclosing Graphite Unit strata.

TR86-1

SAMPLE	Pb %	Ag ppm	Au ppb
(7301)	0.34	10.4	180
(7302)	0.44	14.4	182
(7303)	0.44	10.8	251
(7304)	0.36	11.2	184
(7305)	0.38	12.0	183
(7306)	0.37	12.0	189
(7307)	0.33	10.0	182
(7308)	0.42	12.4	236
(7309)	0.32	11.4	158
(7310)	0.40	12.0	225
(7311)	0.48	15.0	247



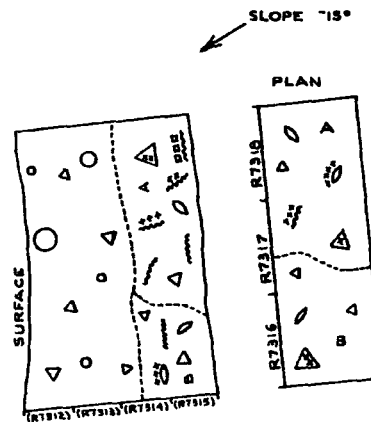
ALL UNITS PRESENT AS FLOAT

← SLOPE ~21°

TR86-2

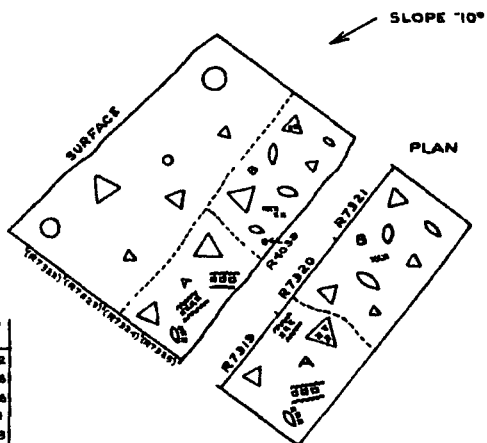
SAMPLE	Pb %	Ag ppm	Au ppb	As %
(7312)	0.12	4.4	107	0.02
(7313)	0.15	7.4	154	0.02
(7314)	0.15	8.0	173	0.02
(7315)	0.16	10.0	194	0.02
7316	0.18	8.2	154	0.02
7317	0.87	27.0	675	0.15
7318	2.10	37.0	1190	0.32

SUBCROP;
NO STRUCTURE
APPARENT



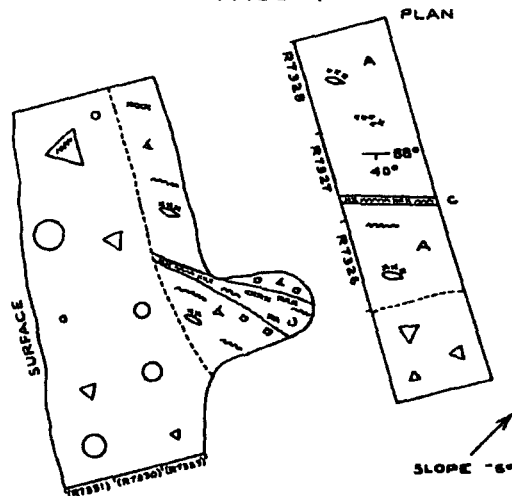
TR86-3

SUBCROP,
NO STRUCTURE
APPARENT



SAMPLE	Pb %	Ag ppm	Au ppb	As %	Cu %
7319	0.84	18.4	378	0.16	0.02
7320	2.80	60.0	767	0.48	0.06
7321	1.68	50.0	583	0.82	0.08
(7324)	8.11	4.6	109	0.03	0.01
(7325)	1.60	32.0	359	0.33	0.03
408B	4.00	110.0	815	1.24	0.12

TR86-4



LEGEND

- GLACIAL TILL, TALUS
- PHYLLITE WITH >60% GRAPHITE
- PHYLLITE WITH <60% GRAPHITE
- SERICITIC PHYLLITE
- QUARTZITE
- PYRITE BOXWORK
- LIMONITE
- FOLIAFORM QUARTZ
- WHITE QUARTZ SWEAT

R---- ROCK SAMPLE

(R----) SOIL SAMPLE

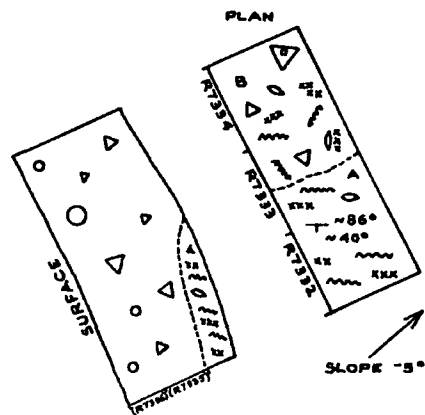
ONLY ASSAYS EXCEEDING: 0.1% Pb, Zn, Cu, & As;
7 ppm Ag; & 100 ppb Au, ARE LISTED. FOR OTHER
ASSAYS, REFER TO APPENDIX

Figure 12
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

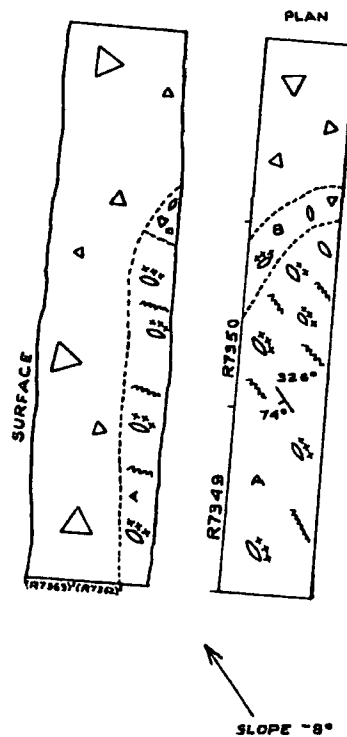
TRENCH PLANS & SECTIONS
TRENCHES 86-1 to 86-4
MARG (TUDL) PROPERTY
ALL-NORTH RESOURCES LTD.



TR86-5

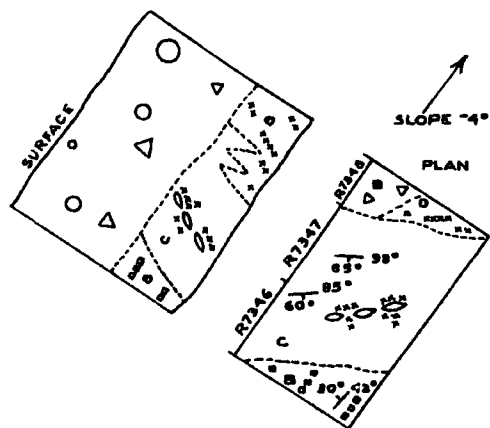


TR-86-8



TR86-7

SAMPLE	Zn %
7348	0.11



LEGEND

- GLACIAL TILL, TALUS
- PHYLLITE WITH >50% GRAPHITE
- PHYLLITE WITH <50% GRAPHITE
- SERICITIC PHYLLITE
- QUARTZITE
- PYRITE BOXWORK
- LIMONITE
- FOLIAFORM QUARTZ
- WHITE QUARTZ SWEAT
- ROCK SAMPLE
- (R----) SOIL SAMPLE

ONLY ASSAYS EXCEEDING 0.1% Pb, Zn, Cu & Ag;
7 ppm Ag, & 100 ppb Au, ARE LISTED FOR OTHER
ASSAYS, REFER TO APPENDIX

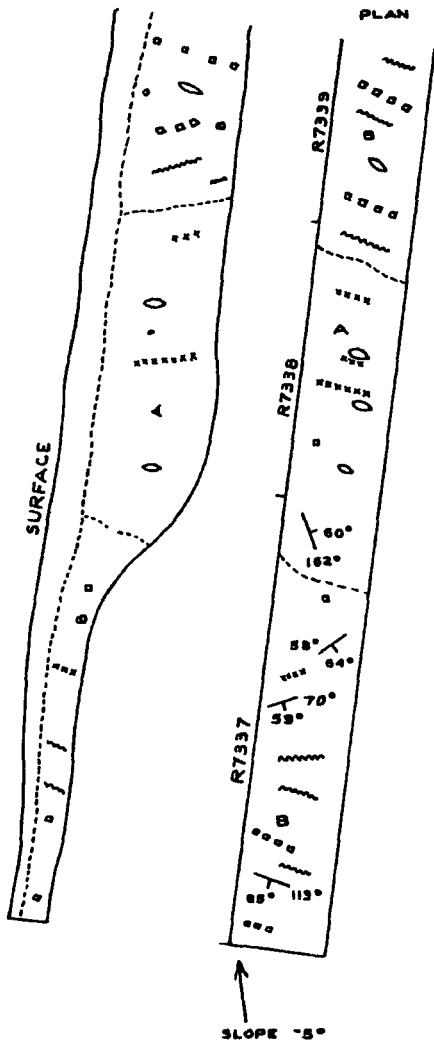
Figure 13
ARCHER, CATRO & ASSOCIATES (1981) LIMITED

TRENCH PLANS & SECTIONS
TRENCHES 86-5, 86-7, 86-8

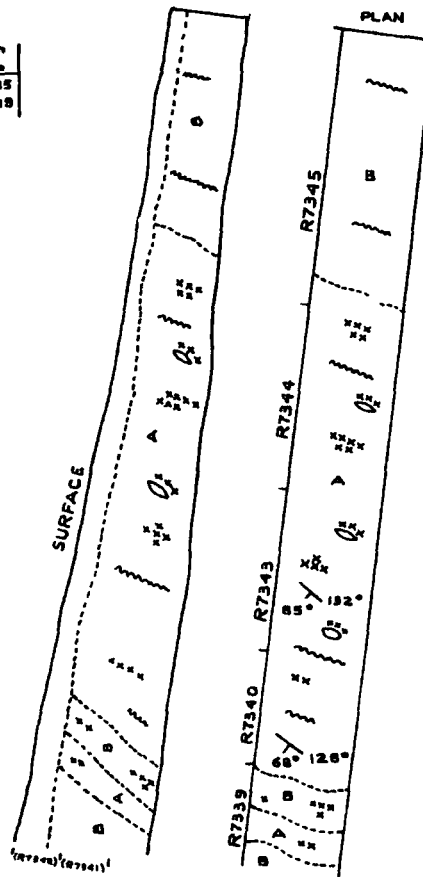
MARG (TUDL) PROPERTY
ALL-NORTH RESOURCES LTD.



TR86-6



SAMPLE	Zn %
7340	0.15
7343	0.19



LEGEND

- △ GLACIAL TILL, TALUS
- A PHYLLITE WITH >50% GRAPHITE
- B PHYLLITE WITH <50% GRAPHITE
- C SERICITIC PHYLLITE
- D QUARTZITE
- PYRITE BOXWORK
- x LIMONITE
- ~~~~ FOLIAFORM QUARTZ
- WHITE QUARTZ SWEAT
- R--- ROCK SAMPLE
- (R---) SOIL SAMPLE

ONLY ASSAYS EXCEEDING 0.1% Pb, Zn, Cu & Ag, 7 ppm Ag, & 100 ppb Au ARE LISTED. FOR OTHER ASSAYS, REFER TO APPENDIX

Figure 14
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TRENCH PLANS & SECTIONS
TRENCH 86-6

MARG (TUDL) PROPERTY
ALL-NORTH RESOURCES LTD.



1986 GEOCHEMICAL SURVEY

General

A total of 294 soil samples were collected from the property in 1986. Sampling was performed using the grid established in 1965-67 which was brushed out, surveyed and repicketed metrically. Samples were collected at 40 m intervals on lines spaced about 50 m apart. They consisted of brown clay B horizon soil and were generally taken at depths of about 20 cm. In addition to the grid soil samples, five water and silt samples were taken from springs and creeks on the grid and 22 soil and 31 rock samples were collected from hand trenches.

All samples were sent to Chemex Labs in North Vancouver. Soil and silt samples were sieved to minus 35 mesh and ring pulverized to minus 100 mesh whereas rock samples were prepared for assay using a standard crushing and pulverizing procedure. Water samples were tested for pH and SO₄ and analyzed semi-quantitatively by induced coupled plasma (ICP) technique for 24 metals. All other samples were analyzed for gold using fire assay preconcentration and neutron activation analyses (NAA) and for 30 other metals by ICP.

Lead and silver results are plotted on Figure 5, arsenic and gold on Figure 6 and copper and zinc on Figure 7. Although the other metals have not been plotted, sample locations are plotted on Figure 8 and assay certificates are included as Appendix A to this report.

With such a small sample population, it is our experience that statistical analyses of the results are of little value and are often misleading. Using our extensive experience in interpreting geochemical dispersion in the Northern Cordillera and information gained in 1986 on the surficial and bedrock geology

of the property, assay levels have been selected that outline continuous and sizable anomalous areas. The anomalous patterns are consistent with known mineralization.

Results

The 1986 soil geochemical results produced a much different pattern than the 1965 to 1967 survey, even though the same grid and a similar sample spacing was used. This is perhaps due to the collection of deeper or more reliable samples in 1986. Lead values in the 1986 survey were comparable in magnitude to the earlier values whereas zinc generally gave a lower response in 1986. The other metals were not routinely assayed for during the 1965 to 1967 surveys.

Based on a careful review of the 1986 geochemical results, the following values were selected to provide a clear contrast with background levels and produce contourable patterns apparently related to mineralization:

<u>Metal</u>	<u>Threshold</u>	<u>Strongly Anomalous</u>
Lead	100 ppm	500 ppm
Arsenic	50 ppm	100 ppm
Copper	140 ppm	400 ppm
Silver	1.0 ppm	3.0 ppm
Gold	15 ppb	30 ppb

Anomaly A

Although it was identified in the 1965 to 1967 lead survey, this anomaly had not been trenched. The current work has outlined a 270 m long, intensely anomalous target that lies uphill from the top of the glacial moraine. The target is anomalous in lead, silver, arsenic and gold whereas copper and zinc values are only at background levels. The upper edge of the anomaly has been interpreted as trending northeast, subparallel to the contours. Since the strike of the anomaly does not correlate with either geological or geophysical

trends, the pattern may be reflecting overburden complications rather the position of the bedrock source. Trenches 86-1, 86-2 and 86-3 were dug within this anomaly and samples taken from them returned similarly high lead and arsenic and low copper and zinc values.

Anomaly B

This target is defined by a single sample which is only anomalous in lead (432 ppm). However, it is significant because the sample was collected from an iron-stained, kill zone along the front of the glacial moraine. Springs draining from this area flow into Cansup Creek at the head of a large ferricrete deposit that formed in modern times and is now eroding away. Ferricrete is a field term used to describe modern talus and gravel that has been cemented by iron oxides precipitated from spring waters because of a sudden change in pH. High contents of zinc are common in ferricrete but high copper values are rare and lead is almost never present.

As described earlier, strongly anomalous values in lead, zinc and copper were obtained from a stream sediment sample collected by the GSC in 1964 at the mouth of Cansup Creek. The anomalous values have been duplicated in samples collected upstream as far as the ferricrete deposit but do not occur above.

A sample consisting of ferricrete with no visible sulphide grains was collected in 1967 from the vicinity of Anomaly B and returned 15,000 ppm Pb. Two adjacent soil samples taken at 7.5 m intervals on the same line also yielded strongly anomalous values of 4,000 and 1,000 ppm Pb. The presence of such high lead contents suggests that the waters from which the lead was precipitated had extremely low pH as lead is insoluble in the surface weathering environment at pH greater than 4. The absence of zinc and copper

can be explained by their greater mobility at moderate pH which would allow them to remain in solution when the ferricrete was forming. Water samples taken in 1986 from the spring above the ferricrete were near neutral, suggesting that leaching of the source and precipitation of metals in the ferricretes are no longer active.

The interpreted source of Anomaly B is shown on Figure 11 as lying on the south side of a strong HLEM conductor located immediately uphill from the ferricrete under the glacial moraine. However, it is conceivable that the ferricrete represents the bottom end of a 300 m long dispersion train related to Anomaly A.

Anomaly C

This could be termed the Discovery Anomaly as it is associated with the first mineralization recognized on the property (Area 1). The anomalous values lie on the south side of a strong HLEM conductor near an interpreted sharp flexure and are situated along a bedrock ridge that disappears beneath the moraine to the east and are blanketed by thin but extensive overburden to the west. Thus, the potential target could be larger than the 50 m length of the soil anomaly would indicate.

Recent results are not as intense as those from the earlier sampling, even though this area has been subsequently contaminated by blasting. All six major metals (copper, zinc, lead, arsenic, silver and gold) are anomalous in soils, which is consistent with the assays obtained from the mineralization in the trenches. It is noteworthy that the geochemical signature here is quite different from Anomaly A, reflecting the different mineralization found in trenches in the two areas.

Anomaly D

This anomaly, which was only crudely defined by the 1965 to 1967 sampling, extends for a 360 m length and may be the faulted off extension of Anomaly C. It is arsenic rich at the east end, lead and arsenic rich in the centre and weakly anomalous for lead at the west end. High copper values and occasional moderately high zinc values occur farther downhill along nearly the entire length of the anomaly. The copper-zinc response is interpreted as having been derived from the same source as the lead and arsenic but dispersed farther downhill because of higher mobility. The apparent source of this anomaly trends southwesterly subparallel to an HLEM conductor that lies to the north and the contact between the Graphite and Chlorite Units. No trenching has been performed near the interpreted source.

Anomaly E

This anomaly appeared to be the upper part of Anomaly D in the 1965 to 1967 sampling but the current survey has shown that it is derived from a separate source. Anomaly E is 290 m long and is principally a lead target with a local zone of zinc and copper enrichment occurring near its middle. As lead is the least mobile of the metals used in the survey, a nearby source is indicated. Like most of the anomalies, Anomaly E is situated just south of a strong HLEM conductor.

The only trenching done in the vicinity of this anomaly were Trenches H, 86-6 and 86-7, which are situated downhill over a second HLEM conductor. Rock and soil samples taken from near bedrock in both 1986 trenches were weakly anomalous in copper whereas those from Trench H returned zinc values between 1.5 and 2.1%. All other metals returned low values.

Anomaly F

This could be considered an extension of Anomaly E but has been interpreted as a separate anomaly because it has different metal ratios and appears to be on the opposite side of a transverse fault. This anomaly, which is 65 m long, trends under glacial material to the west and is strongly anomalous in lead, arsenic, silver, gold and copper. Intense zinc and copper dispersion occurs downhill where it is associated with an extensive cluster of ferricrete gossans and kill zones. Overburden cover is thicker and widespread in this part of the property and little is known about bedrock geology. The anomaly is situated just to the south of a strong HLEM conductor. Trench 86-8, which is located nearby, returned weakly anomalous copper values but lead values were only 50 ppm or less near bedrock compared with surface sample values of 194 and 262 ppm.

Unlike Cansup Creek, stream sediment in Copp Creek, which drains this anomaly, contains low metal values, possibly because Copp Creek is larger and most of its sediment is derived from several kilometres upstream.

Anomaly G

Unlike most of the other targets, Anomaly G occurs well uphill from the glacial moraine near the Quartzite-Graphite Unit contact. It is 80 m long and is masked at both ends by talus slides. Most samples are only anomalous for arsenic but a few at the east end are lead rich. Although prospecting and trenching are likely to be useful in locating a bedrock source for this anomaly, it is one of the smallest and least significant targets.

Anomaly H

This is 65 m long anomaly which is partially obscured by a talus slide and disappears to the east beneath the glacial moraine. It exhibits coincident lead-arsenic-silver-gold response and lies just to the south (uphill) from an HLEM conductor. No hand trenching has been performed in the vicinity of this anomaly.

GEOPHYSICAL SURVEY

This phase of the 1986 program was contracted to Delta Geoscience Ltd. and consisted of VLFEM, horizontal co-planar loop EM (HLEM) and magnetic surveys over the entire grid (about 12 linear km), plus five lines (about 2 linear km) of test IP and resistivity surveys. The Delta Geoscience report, prepared by Grant A. Hendrickson, is included as Appendix B to this report and highlights are summarized below.

HLEM results are plotted on Figure 9. Although the survey outlined numerous conductors, most appear to be due to conductive phyllite horizons. While some of the conductors may be related to sulphide mineralization, it is unlikely as the effective penetration of the survey was only 15 to 30 m and, at this depth, most sulphides were probably oxidized. Fraser-filtered VLFEM data generally agrees with HLEM results but the HELM better defines folding and faulting.

Magnetic data is shown on Figure 10 and exhibits relatively low response, except in the northwest corner of the grid.

Test resistivity and IP surveys used only a 250 W transmitter and produced unsatisfactory results due to a combination of resistive overburden and highly conductive bedrock.

DISCUSSION AND CONCLUSIONS

Figure 11 is an interpretative compilation map that illustrated the following:

- major geological contacts and faults;
- axes of HLEM conductors;
- interpreted source of the soil geochemical anomalies;
- trenches and the location of mineralized float and bedrock; and,
- principal elements of surficial geology that influence the effectiveness of soil sampling, mapping and prospecting and interpretation of results, including lateral moraine deposits, talus and extensive areas of thick soil and mixed overburden devoid of outcrop or local bedrock float.

The geochemical surveys have outlined several strong multi-element anomalies, many of which appear to be partially obscured by glacial moraines or talus slides. Interpretation of stream sediment and soil geochemical data along Cansup Creek indicates that hydromorphic transport has played an important role in disposition of metal on the Marg Property. Most of the soil anomalies lie uphill from HLEM conductors, which probably represent conductive graphitic horizons in the footwall of the source beds.

The hand trenches were dug before the 1986 soil geochemical results were available but, despite this, significant mineralization was located in three wide spaced areas. All of the mineralization exhibits strong lamination with small scale folding similar to that in the host rocks and is intensely leached to porous residue of oxides, silicates and supergene sulphides. Mineralization found in bedrock is conformable with bedding. Metal ratios suggest that two

types of mineralization are present but this could be due to either variations in the primary mineralogy or differential leaching. The metal ratios, laminar textures and conformable nature of the mineralization, coupled with the composition of the host rocks are most compatible with a volcanogenic massive sulphide environment. Some trenches here exposed more than one mineralized horizon and this, plus different metal ratios, the distribution of the geochemical anomalies and the abundance of geophysical conductors, suggests that significant mineralization may not be confined to a single stratigraphic horizon.

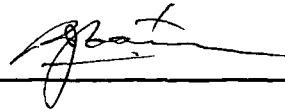
The presence of significant base and precious metal values, in what appears to be a relatively untested volcanogenic environment, makes the Marg Property an attractive exploration target and justifies a program of bulldozer trenching and diamond drilling. The objectives of the program are to delineate thickness and grade at widely scattered locations, to determine the number of mineralized horizons present, to study the stratigraphic controls and structural style of the mineralization, and to indicate regional exploration potential by confirming the volcanogenic massive model.

APPENDIX A

STATEMENT OF QUALIFICATIONS

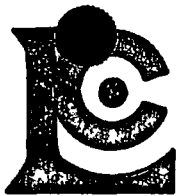
I, Robert J. Cathro, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia, and residential address in West Vancouver, British Columbia, do hereby declare:

1. I am a 1959 graduate of the University of British Columbia in geological engineering.
2. I have been engaged in geological engineering for over 25 years, of which the past 20 have been as a consultant.
3. I am a registered professional engineer in British Columbia and in Yukon Territory.
4. I have supervised the work described in this report.



Robert J. Cathro, B.A.Sc., P.Eng.

APPENDIX B



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A861 31


To: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
VANCOUVER, B.C.
V6B 1L8

Page No. : 1-B
Tot. Pages: 1
Date : 18-SEP-86
Invoice # : I-8617831
P.O. # : NONE

Project : ALL-NORTH MARL
Comments :

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Tl %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm						
4038	205 -	0.02	< 1	2960	>10000	610	73	< 0.01	< 10	< 10	150	< 10	560						

CERTIFICATION : 



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-1C1
 PHONE (604) 984-0211

CERTIFICATE OF ANALYSIS A861

55

To: ARCHER CATHRO & ASSOC. (1981) LTD.

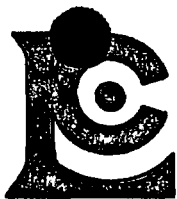
1016 - 510 W. HASTINGS ST.
 VANCOUVER, B.C.
 V6B 1L8

Page No. 2-A
 Tot. Pages 2
 Date: 24-SEP-86
 Invoice #: I-8617855
 P.O. # NONE

Project: MARG
 Comments:

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
R 7041	203 238	15	1.50	0.2	40	220	< 0.5	2	0.18	< 0.5	5	81	107	2.55	< 10	0.11	20	0.40	221	2
R 7042	203 238	13	1.23	2.4	110	130	< 0.5	2	0.10	< 0.5	3	72	96	2.58	< 10	0.09	30	0.30	134	2
R 7043	203 238	8	1.54	0.4	50	130	< 0.5	< 2	0.10	< 0.5	9	66	87	3.40	< 10	0.08	20	0.38	385	2
R 7044	203 238	1	1.48	0.2	20	170	< 0.5	< 2	0.17	< 0.5	16	86	37	3.55	< 10	0.08	20	0.40	890	3
R 7045	203 238	4	1.42	0.2	20	130	< 0.5	2	0.12	< 0.5	9	73	35	3.04	< 10	0.09	20	0.39	306	1
R 7306	203 238	199	1.17	12.0	400	180	< 0.5	14	0.17	< 0.5	5	106	102	3.06	< 10	0.11	30	0.22	189	8
R 7307	203 238	182	1.21	10.0	350	150	< 0.5	10	0.19	< 0.5	7	71	114	2.92	< 10	0.10	20	0.27	257	6
R 7308	203 238	236	1.18	12.4	450	180	< 0.5	18	0.21	< 0.5	7	84	127	3.03	< 10	0.12	30	0.27	289	8
R 7309	203 238	158	1.17	11.4	360	160	< 0.5	12	0.20	< 0.5	7	68	114	3.00	< 10	0.11	30	0.27	320	6
R 7310	203 238	225	1.02	13.0	530	170	< 0.5	14	0.15	< 0.5	5	76	157	3.16	< 10	0.10	20	0.20	198	7
R 7312	203 238	107	1.58	4.4	170	170	< 0.5	8	0.11	< 0.5	6	68	77	3.63	< 10	0.10	20	0.29	379	7
R 7313	203 238	154	1.41	7.6	190	150	< 0.5	8	0.13	< 0.5	7	70	134	4.13	< 10	0.09	20	0.29	304	9
R 7314	203 238	173	1.29	8.0	200	150	< 0.5	8	0.14	< 0.5	7	79	123	3.83	< 10	0.08	20	0.26	328	9
R 7315	203 238	194	1.17	10.0	210	140	< 0.5	10	0.14	< 0.5	7	78	128	3.70	< 10	0.07	20	0.24	310	11
R 7322	203 238	20	1.42	0.6	80	110	< 0.5	< 2	0.09	< 0.5	9	74	34	3.41	< 10	0.07	20	0.24	384	2
R 7323	203 238	36	1.47	1.2	130	130	< 0.5	2	0.11	< 0.5	9	88	37	3.36	< 10	0.08	20	0.25	381	3
R 7324	203 238	105	1.35	4.6	330	150	< 0.5	14	0.13	< 0.5	9	72	59	3.14	< 10	0.10	30	0.23	341	4
R 7325	203 238	359	0.66	32.0	3260	230	< 0.5	80	0.04	< 0.5	2	61	349	5.26	< 10	0.17	20	0.06	104	20
R 7329	203 238	16	1.13	0.2	40	170	< 0.5	< 2	0.07	< 0.5	6	64	41	3.22	< 10	0.11	20	0.20	272	25
R 7330	203 238	11	1.45	0.2	30	190	< 0.5	< 2	0.09	< 0.5	7	81	26	3.50	< 10	0.12	20	0.25	336	15
R 7331	203 238	1	1.39	0.2	20	190	< 0.5	< 2	0.12	< 0.5	6	71	27	3.26	< 10	0.10	20	0.25	355	3
R 7335	203 238	11	1.11	0.4	80	150	< 0.5	< 2	0.07	4.0	25	78	407	10.65	< 10	0.11	30	0.11	1500	24
R 7336	203 238	9	1.59	1.0	50	150	< 0.5	< 2	0.15	< 0.5	13	95	67	4.39	< 10	0.11	20	0.36	547	8
R 7341	203 238	17	1.26	0.4	80	160	< 0.5	< 2	0.05	< 0.5	8	87	135	5.62	< 10	0.09	20	0.29	219	2
R 7342	203 238	14	1.11	0.8	40	110	< 0.5	< 2	0.06	< 0.5	8	63	130	5.98	< 10	0.08	10	0.27	236	1
R 7362	203 238	23	1.27	0.2	110	200	< 0.5	< 2	0.16	1.0	13	74	300	6.27	< 10	0.10	20	0.31	389	1
R 7363	203 238	10	1.55	0.2	60	120	< 0.5	< 2	0.17	< 0.5	15	70	144	4.68	< 10	0.07	20	0.34	394	1
R 10475	203 238	1	0.54	0.2	30	110	< 0.5	< 2	0.63	< 0.5	19	55	42	4.64	< 10	0.11	30	0.14	559	5
R 10476	203 238	3	0.45	0.2	10	160	< 0.5	< 2	0.33	< 0.5	12	48	29	3.25	< 10	0.08	30	0.06	820	4
R 10477	203 238	3	1.26	0.2	20	220	< 0.5	< 2	0.09	< 0.5	13	72	48	5.07	< 10	0.10	10	0.24	370	5
R 10478	203 238	2	0.91	0.2	20	140	< 0.5	< 2	0.06	< 0.5	6	77	20	3.37	< 10	0.10	10	0.16	219	4
R 10479	203 238	3	1.27	0.2	40	110	< 0.5	< 2	0.07	< 0.5	6	84	27	5.09	< 10	0.07	20	0.20	183	7
R 10480	203 238	6	1.46	0.2	30	190	< 0.5	< 2	0.11	< 0.5	11	70	42	4.36	< 10	0.12	20	0.35	376	6
R 10481	203 238	3	1.52	0.2	30	180	< 0.5	< 2	0.17	2.0	15	77	90	4.51	< 10	0.09	20	0.47	467	4
R 10482	203 238	< 1	1.48	0.2	20	160	< 0.5	< 2	0.10	< 0.5	6	68	31	2.93	< 10	0.10	20	0.33	178	9
R 10483	203 238	6	1.44	0.2	20	80	< 0.5	< 2	0.07	< 0.5	6	69	16	2.87	< 10	0.05	20	0.17	263	1
R 10484	203 238	4	1.78	0.2	10	100	< 0.5	< 2	0.09	< 0.5	5	68	12	3.18	< 10	0.07	20	0.26	202	1
R 10485	203 238	3	1.14	0.2	10	80	< 0.5	< 2	0.13	< 0.5	7	60	24	3.19	< 10	0.03	20	0.25	344	1

CERTIFICATION :



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A861 55

To: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
VANCOUVER, B.C.
V6B 1L8

Page No. : 2-B
Tot. Pages: 2
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P.O. # NONE

Project : MARO
Comments.

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Tl %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm						
R 7041	203 238	0.01	19	630	132	< 10	17	0.04	< 10	< 10	43	< 10	194						
R 7042	203 238	0.01	13	620	398	< 10	14	0.02	< 10	< 10	43	< 10	100						
R 7043	203 238	0.01	22	730	220	< 10	14	0.03	< 10	< 10	55	< 10	130						
R 7044	203 238	0.01	26	840	34	< 10	17	0.02	< 10	< 10	63	< 10	94						
R 7045	203 238	0.01	26	730	30	< 10	13	0.04	< 10	< 10	47	< 10	102						
R 7306	203 238	0.01	20	1390	3720	60	32	0.02	< 10	< 10	45	< 10	114						
R 7307	203 238	0.01	24	1210	3310	40	28	0.03	< 10	< 10	41	< 10	122						
R 7308	203 238	0.01	26	1210	4220	60	35	0.03	< 10	< 10	43	< 10	134						
R 7309	203 238	0.01	25	1160	3200	50	28	0.03	< 10	< 10	40	< 10	128						
R 7310	203 238	0.01	19	1160	4010	70	26	0.02	< 10	< 10	36	< 10	116						
R 7312	203 238	0.01	17	990	1250	30	20	0.03	< 10	< 10	65	< 10	92						
R 7313	203 238	0.01	23	980	1480	30	17	0.03	< 10	< 10	51	< 10	116						
R 7314	203 238	0.01	22	1050	1500	40	16	0.03	< 10	< 10	47	< 10	116						
R 7315	203 238	0.01	24	1090	1650	40	15	0.03	< 10	< 10	42	< 10	122						
R 7322	203 238	0.01	25	800	316	< 10	12	0.02	< 10	< 10	43	< 10	106						
R 7323	203 238	0.01	27	840	510	< 10	14	0.02	< 10	< 10	45	< 10	112						
R 7324	203 238	0.01	27	950	1135	< 10	17	0.02	< 10	< 10	36	< 10	124						
R 7325	203 238	0.03	8	1750	>10000	90	39	< 0.01	< 10	< 10	34	< 10	272						
R 7329	203 238	0.01	18	530	118	< 10	10	0.03	< 10	< 10	45	< 10	314						
R 7330	203 238	0.01	20	570	96	< 10	12	0.04	< 10	< 10	55	< 10	284						
R 7331	203 238	0.01	14	640	100	< 10	14	0.03	< 10	< 10	63	< 10	156						
R 7335	203 238	0.02	73	3260	88	< 10	15	< 0.01	< 10	< 10	25	< 10	824						
R 7336	203 238	0.01	29	1620	96	< 10	16	0.04	< 10	< 10	43	< 10	200						
R 7341	203 238	0.01	25	1290	534	< 10	17	0.03	< 10	< 10	33	< 10	164						
R 7342	203 238	< 0.01	19	1390	376	< 10	12	0.04	< 10	< 10	30	< 10	140						
R 7362	203 238	0.01	35	1090	262	< 10	16	0.04	< 10	< 10	37	< 10	564						
R 7363	203 238	0.01	35	880	194	< 10	14	0.05	< 10	< 10	36	< 10	392						
R 10475	203 238	0.01	51	2400	24	< 10	16	< 0.01	< 10	< 10	6	< 10	152						
R 10476	203 238	0.01	33	1770	20	< 10	14	< 0.01	< 10	< 10	7	< 10	102						
R 10477	203 238	0.01	43	1090	22	< 10	15	0.01	< 10	< 10	56	< 10	254						
R 10478	203 238	0.01	20	650	22	< 10	15	0.02	< 10	< 10	43	< 10	110						
R 10479	203 238	0.01	24	1750	20	< 10	13	0.03	< 10	< 10	66	< 10	136						
R 10480	203 238	0.01	45	1200	20	< 10	22	0.03	< 10	< 10	63	< 10	188						
R 10481	203 238	0.01	59	1450	16	< 10	50	0.02	< 10	< 10	53	< 10	286						
R 10482	203 238	0.01	23	920	24	< 10	35	0.02	< 10	< 10	56	< 10	116						
R 10483	203 238	< 0.01	17	620	68	< 10	9	0.05	< 10	< 10	60	< 10	72						
R 10484	203 238	< 0.01	13	590	28	< 10	13	0.06	< 10	< 10	78	< 10	54						
R 10485	203 238	< 0.01	24	800	20	< 10	10	0.03	< 10	< 10	34	< 10	84						

CERTIFICATION :

B. C. J.



Chemex Labs Ltd.

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 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A861 56

To: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
 VANCOUVER, B.C.
 V6B 1L8

Page No. : 1-A
 Tot. Pages : 1
 Date : 24-SEP-86
 Invoice # : I-8617856
 P.O. # : NONE

Project : MARG
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Pb ppm
R 7301	205 219	180	0.86	10.6	620	130	< 0.5	12	0.11	< 0.5	5	66	159	2.90	< 10	0.09	10	0.23	192	6
R 7302	205 219	182	0.76	14.4	800	140	< 0.5	16	0.08	< 0.5	4	58	195	2.89	< 10	0.10	10	0.15	144	9
R 7303	205 219	291	0.88	10.8	780	180	< 0.5	14	0.09	< 0.5	5	91	195	3.29	< 10	0.12	20	0.17	178	8
R 7304	205 219	184	0.83	11.2	640	140	< 0.5	12	0.08	< 0.5	3	74	149	2.82	< 10	0.10	10	0.15	145	7
R 7305	205 219	183	0.75	12.0	620	120	< 0.5	12	0.06	< 0.5	4	79	188	2.76	< 10	0.09	10	0.15	160	6
R 7311	205 —	247	0.90	15.0	800	150	< 0.5	18	0.08	< 0.5	5	77	218	3.22	< 10	0.10	10	0.24	165	7
R 7316	205 219	154	0.39	8.2	220	350	< 0.5	8	0.02	< 0.5	1	92	108	1.92	< 10	0.10	20	0.05	57	8
R 7317	205 219	675	0.22	27.0	1500	200	< 0.5	44	0.01	< 0.5	< 1	56	336	4.27	< 10	0.06	< 10	0.01	39	22
R 7318	205 219	1190	0.16	37.6	3220	370	< 0.5	78	< 0.01	< 0.5	< 1	60	743	7.07	< 10	0.09	< 10	0.01	50	27
R 7319	205 219	379	0.33	18.6	1590	250	< 0.5	38	0.01	< 0.5	1	75	163	2.16	< 10	0.16	< 10	0.03	49	29
R 7320	205 219	767	0.33	60.0	4820	290	< 0.5	94	0.02	< 0.5	< 1	72	606	8.93	< 10	0.28	< 10	0.03	30	38
R 7321	205 219	593	0.59	50.0	5180	210	< 0.5	74	0.06	< 0.5	1	65	595	12.30	< 10	0.16	10	0.16	99	30
R 7326	205 219	17	0.45	1.0	70	200	< 0.5	2	0.02	< 0.5	1	127	33	1.18	< 10	0.16	20	0.03	39	11
R 7327	205 219	8	0.44	0.6	30	130	< 0.5	< 2	0.02	< 0.5	2	94	94	2.22	< 10	0.13	10	0.06	34	16
R 7328	205 219	5	0.37	0.6	20	110	< 0.5	< 2	0.02	< 0.5	1	92	89	2.38	< 10	0.11	10	0.02	32	11
R 7332	205 219	< 1	0.40	0.4	30	90	< 0.5	< 2	0.05	< 0.5	7	61	142	3.89	< 10	0.12	10	0.03	271	13
R 7333	205 219	< 4	0.42	0.8	20	130	< 0.5	< 2	0.04	< 0.5	5	107	101	3.46	< 10	0.13	10	0.04	92	13
R 7334	205 219	< 1	0.34	0.4	20	100	< 0.5	< 2	0.02	< 0.5	9	50	130	3.50	< 10	0.11	20	0.03	381	8
R 7337	205 219	4	0.96	0.4	10	210	< 0.5	2	0.04	< 0.5	5	76	37	3.23	< 10	0.11	10	0.43	73	7
R 7338	205 219	22	0.78	0.6	40	120	< 0.5	4	0.02	< 0.5	3	62	57	2.99	< 10	0.06	10	0.28	68	4
R 7339	205 219	10	0.82	1.0	20	350	< 0.5	< 2	0.03	< 0.5	1	76	43	2.02	< 10	0.14	20	0.29	34	7
R 7340	205 219	4	2.91	0.8	30	130	< 0.5	< 2	0.37	4.0	48	56	871	9.40	< 10	0.03	20	1.18	1450	1
R 7343	205 219	3	2.92	0.6	20	170	< 0.5	< 2	0.18	11.0	30	65	724	10.20	< 10	0.04	20	1.24	955	1
R 7344	205 219	5	1.46	0.4	20	160	< 0.5	2	0.04	1.0	7	73	171	4.17	< 10	0.08	10	0.62	177	4
R 7345	205 219	2	1.17	0.4	30	150	< 0.5	< 2	0.04	3.0	10	88	286	4.68	< 10	0.06	10	0.36	272	2
R 7346	205 219	< 6	2.21	0.8	80	200	< 0.5	< 2	0.08	< 0.5	11	61	542	6.88	< 10	0.06	10	0.89	188	9
R 7347	205 219	< 1	3.13	0.6	70	120	< 0.5	< 2	0.12	< 0.5	10	55	718	10.50	< 10	0.03	10	1.23	151	1
R 7348	205 219	< 1	2.17	0.8	40	180	< 0.5	< 2	0.19	2.5	17	78	503	6.79	< 10	0.07	20	0.86	364	4
R 7349	205 219	5	0.38	0.6	30	140	< 0.5	< 2	0.03	< 0.5	5	50	88	2.87	< 10	0.11	20	0.05	98	11
R 7350	205 219	8	0.36	0.8	40	180	< 0.5	< 2	0.06	< 0.5	4	63	78	2.19	< 10	0.10	10	0.07	69	17
R 7364	205 219	1	0.51	1.0	40	100	< 0.5	< 2	0.02	< 0.5	7	56	201	4.05	< 10	0.06	< 10	0.11	107	11

CERTIFICATION :



Chemex Labs Ltd.

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BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

CERTIFICATE OF ANALYSIS A861 80

To ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
VANCOUVER, B.C.
V6B 1L8

Page No. : 1-B
Tot. Pages 6
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Invoice # : I-8616880
P.O. # : NONE

Project : ALL NORTH
Comments :

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm						
R 7051	203 238	0.03	84	1040	28	< 10	36	0.03	< 10	< 10	55	< 10	1870						
R 7052	203 238	0.03	64	850	46	< 10	25	0.07	< 10	< 10	87	< 10	1475						
R 7053	203 238	0.02	46	1000	710	< 10	20	0.05	< 10	< 10	53	< 10	1145						
R 7054	203 238	0.02	26	910	54	< 10	27	0.04	< 10	< 10	49	< 10	472						
R 7055	203 238	0.04	89	1280	62	< 10	37	0.04	< 10	< 10	53	< 10	2720						
R 7056	203 238	0.04	30	1140	58	< 10	34	0.05	< 10	< 10	54	< 10	328						
R 7057	203 238	0.02	27	740	62	< 10	18	0.05	< 10	< 10	48	< 10	186						
R 7058	203 238	0.02	25	860	50	< 10	20	0.05	< 10	< 10	40	< 10	162						
R 7059	203 238	0.02	15	710	48	< 10	15	0.10	< 10	< 10	79	< 10	106						
R 7060	203 238	0.02	47	770	36	< 10	23	< 0.01	< 10	< 10	23	< 10	188						
R 7061	203 238	0.01	48	590	30	< 10	27	< 0.01	< 10	< 10	16	< 10	158						
R 7062	203 238	0.03	31	820	24	< 10	18	0.01	< 10	< 10	44	< 10	102						
R 7063	203 238	0.01	10	440	74	< 10	12	0.06	< 10	< 10	59	< 10	90						
R 7064	203 238	0.01	11	740	120	< 10	12	0.05	< 10	< 10	68	< 10	130						
R 7065	203 238	0.02	26	820	90	< 10	19	0.05	< 10	< 10	69	< 10	318						
R 7066	203 238	0.01	8	770	38	< 10	13	0.05	< 10	< 10	88	< 10	68						
R 7067	203 238	0.02	40	1520	4690	< 10	15	0.03	< 10	< 10	45	< 10	1230						
R 7068	203 238	0.02	26	890	148	< 10	19	0.07	< 10	< 10	54	< 10	338						
R 7069	203 238	0.04	45	750	78	< 10	22	0.04	< 10	< 10	45	< 10	1430						
R 7070	203 238	0.02	17	440	24	< 10	21	0.09	< 10	< 10	78	< 10	852						
R 7071	203 238	0.01	73	2510	26	< 10	35	0.02	< 10	< 10	33	< 10	2260						
R 7072	203 238	0.02	36	1430	36	< 10	30	0.06	< 10	< 10	64	< 10	1450						
R 7073	203 238	0.01	6	510	14	< 10	11	0.04	< 10	< 10	67	< 10	66						
R 7074	203 238	0.01	6	1040	18	< 10	9	0.01	< 10	< 10	42	< 10	60						
R 7075	203 238	0.02	39	880	38	< 10	14	0.05	< 10	< 10	44	< 10	762						
R 7076	203 238	0.01	7	820	34	< 10	9	0.05	< 10	< 10	44	< 10	2630						
R 7077	203 238	0.02	21	2330	3460	< 10	9	0.01	< 10	< 10	18	< 10	508						
R 7078	203 238	0.04	28	1230	1145	< 10	18	0.03	< 10	< 10	52	< 10	722						
R 7079	203 238	0.06	53	1040	342	< 10	25	0.05	< 10	< 10	61	< 10	376						
R 7080	203 238	0.03	55	1130	46	< 10	21	0.06	< 10	< 10	54	< 10	270						
R 7081	203 238	0.02	31	750	30	< 10	19	0.10	< 10	< 10	85	< 10	98						
R 7082	203 238	0.02	28	680	664	< 10	15	0.05	< 10	< 10	44	< 10	280						
R 7083	203 238	0.02	63	820	238	< 10	15	0.05	< 10	< 10	50	< 10	236						
R 7084	203 238	0.03	42	930	38	< 10	24	0.16	< 10	< 10	111	< 10	136						
R 7085	203 238	0.05	36	880	38	< 10	33	0.13	< 10	< 10	108	< 10	128						
R 7086	203 238	0.05	37	770	652	< 20	20	0.01	< 10	< 10	27	< 10	378						
R 7087	203 238	0.03	10	900	1030	< 10	17	0.04	< 10	< 10	57	< 10	294						
R 7088	203 238	0.01	11	470	74	< 10	12	0.07	< 10	< 10	59	< 10	114						
R 7089	203 238	0.04	15	990	2070	< 10	19	0.03	< 10	< 10	51	< 10	288						
R 7090	203 238	0.01	8	440	28	< 10	13	0.07	< 10	< 10	75	< 10	80						

CERTIFICATION :



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
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CERTIFICATE OF ANALYSIS A86 180

To ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
 VANCOUVER, B.C.
 V6B 1L8

Page No. : 2-A
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 Date : 03-SEP-86
 Invoice # : I-8616880
 P.O. # : NONE

Project : ALL NORTH

Comments:

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
R 7091	203 238	43	1.85	0.2	10	320	< 0.5	< 2	0.22	0.5	5	100	97	3.49	< 10	0.12	20	0.38	210	3
R 7092	203 238	< 1	1.66	0.2	30	240	< 0.5	< 2	0.26	2.0	34	70	275	9.06	< 10	0.10	10	0.41	1160	2
R 7093	203 238	55	1.86	0.2	20	140	< 0.5	< 2	0.14	< 0.5	8	116	42	5.25	< 10	0.11	20	0.43	314	2
R 7094	203 238	< 1	1.85	0.2	10	140	< 0.5	< 2	0.09	< 0.5	5	69	15	4.16	< 10	0.10	10	0.30	262	2
R 7095	203 238	13	2.63	0.2	20	350	< 0.5	< 2	1.00	< 0.5	39	97	382	9.04	< 10	0.19	20	1.19	1600	1
R 7096	203 238	< 3	1.81	0.6	40	160	< 0.5	< 2	0.23	< 0.5	14	73	217	4.21	< 10	0.10	20	0.58	474	2
R 7097	203 238	< 1	2.16	0.4	40	210	< 0.5	< 2	0.30	< 0.5	22	149	178	4.84	< 10	0.15	40	0.58	359	2
R 7098	203 238	3	1.59	0.2	50	180	< 0.5	< 2	0.13	< 0.5	14	76	115	4.63	< 10	0.13	30	0.42	306	4
R 7099	203 238	< 4	1.72	0.2	60	230	< 0.5	< 2	0.20	< 0.5	16	189	134	4.92	< 10	0.19	40	0.58	345	3
R 7100	203 238	< 1	1.75	0.4	40	340	< 0.5	< 2	0.10	< 0.5	11	128	75	4.56	< 10	0.25	30	0.33	242	5
R 7101	203 238	7	1.32	0.2	40	280	< 0.5	< 2	0.13	< 0.5	6	92	277	4.37	< 10	0.15	40	0.30	159	4
R 7102	203 238	2	2.09	0.6	50	220	< 0.5	< 2	0.16	< 0.5	13	79	663	8.27	< 10	0.15	20	0.47	449	3
R 7103	203 238	18	1.42	0.2	10	150	< 0.5	< 2	0.11	< 0.5	5	157	86	2.70	< 10	0.12	20	0.24	199	2
R 7104	203 238	< 1	1.41	0.2	20	150	< 0.5	< 2	0.12	< 0.5	5	79	239	3.13	< 10	0.11	20	0.27	158	2
R 7105	203 238	2	2.15	0.6	30	350	< 0.5	< 2	0.48	5.0	37	171	644	6.98	< 10	0.15	20	0.46	1500	3
R 7106	203 238	< 1	1.57	0.6	10	210	< 0.5	< 2	0.41	0.5	11	94	110	2.80	< 10	0.08	20	0.41	280	1
R 7107	203 238	3	2.38	1.4	30	210	< 0.5	< 2	0.36	1.0	27	105	562	4.32	< 10	0.14	20	0.49	854	3
R 7108	203 238	14	2.50	2.6	40	160	< 0.5	< 2	0.15	< 0.5	7	69	747	4.73	< 10	0.14	20	0.44	163	3
R 7109	203 238	< 1	1.39	0.4	30	140	< 0.5	< 2	0.09	< 0.5	7	151	173	5.09	< 10	0.09	20	0.27	178	2
R 7110	203 238	6	1.70	0.4	40	360	< 0.5	< 2	0.14	< 0.5	4	126	130	3.67	< 10	0.20	30	0.29	137	3
R 7111	203 238	< 1	1.94	0.4	30	320	< 0.5	< 2	0.09	< 0.5	8	170	50	3.71	< 10	0.21	20	0.32	285	5
R 7112	203 238	4	1.12	0.2	50	420	< 0.5	< 2	0.07	< 0.5	12	110	68	4.45	< 10	0.19	50	0.26	151	6
R 7113	203 238	2	1.67	0.4	50	280	< 0.5	< 2	0.15	< 0.5	13	161	74	4.54	< 10	0.20	30	0.29	191	3
R 7114	203 238	1	1.88	0.6	60	200	< 0.5	< 2	0.19	< 0.5	21	105	165	6.06	< 10	0.16	20	0.53	440	6
R 7115	203 238	2	3.08	0.2	50	200	< 0.5	< 2	0.70	< 0.5	78	165	1620	6.19	< 10	0.11	20	1.54	1645	3
R 7116	203 238	< 1	2.60	0.2	30	270	< 0.5	< 2	0.81	< 0.5	41	106	349	7.48	< 10	0.18	20	1.01	1250	2
R 7117	203 238	< 1	2.42	0.4	50	280	< 0.5	< 2	0.18	< 0.5	29	198	160	5.49	< 10	0.20	40	0.58	640	3
R 7118	203 238	1	2.93	0.2	70	150	< 0.5	< 2	0.32	< 0.5	63	145	310	6.31	< 10	0.09	30	1.36	1140	3
R 7119	203 238	< 1	2.86	0.2	30	170	< 0.5	< 2	0.59	< 0.5	32	143	645	5.69	< 10	0.11	10	1.23	742	2
R 7120	203 238	2	0.98	0.4	40	480	< 0.5	< 2	0.06	< 0.5	4	81	47	4.03	< 10	0.23	50	0.17	59	5
R 7121	203 238	< 1	1.94	0.4	40	480	< 0.5	< 2	0.12	< 0.5	16	238	89	5.62	< 10	0.34	30	0.33	296	7
R 7122	203 238	< 1	1.46	0.4	30	490	< 0.5	< 2	0.09	< 0.5	8	122	40	3.75	< 10	0.23	30	0.27	254	4
R 7123	203 238	3	1.96	0.8	30	140	< 0.5	< 2	0.12	< 0.5	5	88	597	3.74	< 10	0.13	20	0.27	257	3
R 7124	203 238	< 1	1.83	0.2	30	230	< 0.5	< 2	0.12	< 0.5	10	152	66	4.64	< 10	0.16	20	0.30	600	2
R 7125	203 238	7	1.99	0.4	60	290	< 0.5	< 2	0.21	0.5	21	216	154	6.02	< 10	0.19	30	0.51	662	4
R 7126	203 238	1	2.04	0.2	30	210	< 0.5	< 2	0.20	< 0.5	11	76	125	4.12	< 10	0.14	20	0.52	345	3
R 7127	203 238	2	1.87	0.6	10	170	< 0.5	< 2	0.11	< 0.5	31	279	700	10.40	< 10	0.11	10	0.29	906	2
R 7128	203 238	< 1	1.58	0.8	20	180	< 0.5	< 2	0.15	< 0.5	5	74	327	3.42	< 10	0.12	10	0.33	148	2
R 7129	203 238	< 1	1.39	0.8	20	120	< 0.5	< 2	0.12	< 0.5	4	153	63	2.91	< 10	0.07	10	0.26	131	2
R 7130	203 238	94	1.72	8.0	140	230	< 0.5	< 2	0.19	< 0.5	5	88	242	3.77	< 10	0.18	20	0.42	150	4

CERTIFICATION :

B. C. C.



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CERTIFICATE OF ANALYSIS A861 80

To: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
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Project : ALL NORTH
 Comments

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
R 7131	203 238	6	1.60	0.4	30	150	< 0.5	< 2	0.14	< 0.5	10	74	157	4.68	< 10	0.10	20	0.41	553	2
R 7132	203 238	23	1.36	1.4	100	200	< 0.5	< 4	0.09	< 0.5	3	86	186	5.74	< 10	0.12	30	0.34	125	6
R 7133	203 238	< 1	1.48	0.8	20	130	< 0.5	< 2	0.12	< 0.5	5	127	22	3.18	< 10	0.07	20	0.27	193	2
R 7134	203 238	6	1.38	0.4	30	260	< 0.5	< 2	0.13	< 0.5	7	58	57	3.02	< 10	0.10	40	0.40	223	3
R 7135	203 238	4	0.89	0.6	50	270	< 0.5	< 2	0.06	< 0.5	6	61	60	3.44	< 10	0.12	40	0.20	135	4
R 7136	203 238	5	1.32	0.6	70	240	< 0.5	< 2	0.09	< 0.5	21	172	120	6.98	< 10	0.18	40	0.24	224	8
R 7137	203 238	5	1.52	0.6	30	210	< 0.5	< 2	0.07	< 0.5	12	145	95	5.09	< 10	0.15	40	0.36	207	9
R 7138	203 238	559	2.22	0.2	30	130	< 0.5	< 2	0.28	< 0.5	21	124	192	4.04	< 10	0.05	10	1.03	467	1
R 7139	203 238	8	0.70	1.2	60	230	< 0.5	< 2	0.06	< 0.5	10	150	76	4.16	< 10	0.13	40	0.14	122	6
R 7140	203 238	5	1.87	0.4	30	180	< 0.5	< 2	0.24	< 0.5	15	162	105	4.94	< 10	0.12	30	0.74	325	7
R 7141	203 238	3	1.58	0.8	20	170	< 0.5	< 2	0.17	< 0.5	10	218	89	4.12	< 10	0.12	30	0.51	233	5
R 7142	203 238	7	1.50	1.2	30	230	< 0.5	< 2	0.14	< 0.5	11	168	88	5.08	< 10	0.16	40	0.48	197	7
R 7143	203 238	3	1.10	0.4	40	290	< 0.5	< 2	0.10	< 0.5	11	180	63	4.48	< 10	0.15	40	0.27	197	7
R 7144	203 238	5	1.49	1.2	40	280	< 0.5	< 2	0.14	< 0.5	13	230	78	4.83	< 10	0.18	40	0.37	281	5
R 7145	203 238	3	1.01	0.6	50	250	< 0.5	< 2	0.09	< 0.5	3	64	57	3.08	< 10	0.10	50	0.32	80	4
R 7146	203 238	3	2.08	0.6	30	220	< 0.5	< 2	0.14	< 0.5	8	90	38	4.53	< 10	0.20	20	0.42	508	3
R 7147	203 238	39	1.45	2.4	100	150	< 0.5	< 2	0.12	< 0.5	5	124	142	3.68	< 10	0.09	30	0.30	132	3
R 7148	203 238	2	1.33	2.0	30	240	< 0.5	< 2	0.11	< 0.5	2	193	29	1.79	< 10	0.15	20	0.14	85	2
R 7149	203 238	4	1.65	2.0	40	160	< 0.5	< 2	0.16	< 0.5	4	123	417	3.54	< 10	0.11	20	0.35	125	3
R 7150	203 238	2	2.02	1.2	50	230	< 0.5	< 2	0.26	1.0	8	104	722	4.20	< 10	0.11	20	0.41	206	3
R 7151	203 238	< 1	1.38	0.4	70	180	< 0.5	< 2	0.24	1.5	26	159	709	4.80	< 10	0.08	20	0.39	772	2
R 7152	203 238	4	1.49	0.6	30	120	< 0.5	< 2	0.11	< 0.5	5	89	89	3.11	< 10	0.08	20	0.32	147	2
R 7153	203 238	1	1.39	0.4	80	120	< 0.5	< 2	0.14	< 0.5	5	80	147	3.89	< 10	0.06	20	0.34	156	2
R 7154	203 238	6	1.49	1.0	40	150	< 0.5	< 2	0.12	< 0.5	4	94	73	4.43	< 10	0.09	30	0.30	107	3
R 7155	203 238	4	1.34	0.8	30	120	< 0.5	< 2	0.13	< 0.5	8	121	59	3.49	< 10	0.08	20	0.29	437	2
R 7156	203 238	1	1.55	0.4	20	150	< 0.5	< 2	0.15	< 0.5	9	85	32	3.61	< 10	0.10	20	0.43	391	1
R 7157	203 238	13	1.40	1.0	50	170	< 0.5	< 2	0.11	< 0.5	4	88	80	3.05	< 10	0.09	30	0.31	124	3
R 7158	203 238	< 1	1.59	0.4	20	240	< 0.5	< 2	0.16	< 0.5	16	94	49	3.71	< 10	0.15	20	0.31	927	4
R 7159	203 238	6	2.10	0.6	30	310	< 0.5	< 2	0.38	< 0.5	20	82	206	4.10	< 10	0.18	20	0.50	656	6
R 7160	203 238	< 1	1.79	0.4	30	230	< 0.5	< 2	0.21	< 0.5	15	108	60	4.07	< 10	0.15	20	0.55	636	5
R 7161	203 238	3	1.51	0.4	20	150	< 0.5	< 2	0.21	< 0.5	14	110	67	4.16	< 10	0.08	30	0.60	373	5
R 7162	203 238	14	1.67	1.2	80	210	< 0.5	< 4	0.13	< 0.5	6	110	104	3.16	< 10	0.13	20	0.39	177	4
R 7163	203 238	< 1	1.99	0.4	20	230	< 0.5	< 2	0.22	< 0.5	17	186	60	4.30	< 10	0.13	20	0.60	682	4
R 7164	203 238	1	2.70	0.4	20	310	< 0.5	< 2	0.38	< 0.5	16	112	72	4.88	< 10	0.15	20	0.89	522	3
R 7165	203 238	33	1.57	1.4	170	220	< 0.5	< 6	0.13	< 0.5	7	111	149	4.30	< 10	0.14	40	0.46	168	6
R 7166	203 238	8	1.83	0.6	30	120	< 0.5	< 2	0.11	< 0.5	6	106	54	3.76	< 10	0.07	20	0.26	224	2
R 7167	203 238	5	1.50	0.4	50	230	< 0.5	< 2	0.10	< 0.5	4	208	43	3.68	< 10	0.13	20	0.21	256	3
R 7168	203 238	4	1.60	0.2	20	130	< 0.5	< 2	0.14	< 0.5	7	118	25	3.82	< 10	0.08	20	0.33	327	2
R 7169	203 238	3	1.57	0.2	10	120	< 0.5	< 2	0.14	< 0.5	8	83	24	3.59	< 10	0.08	20	0.33	340	2
R 7170	203 238	< 1	1.59	0.4	10	130	< 0.5	< 2	0.10	< 0.5	4	76	17	3.30	< 10	0.09	10	0.28	164	1

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CERTIFICATE OF ANALYSIS A861/ 10

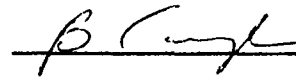
To ARCHER CATHRO & ASSOC. (1981) LTD.

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 Tot. Pages: 6
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Project ALL NORTH
 Comments:

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Pb ppm
R 7171	203 238	9	1.43	0.4	20	120	< 0.5	< 2	0.15	< 0.5	6	116	30	3.75	< 10	0.09	20	0.36	190	2
R 7172	203 238	8	1.72	0.6	50	150	< 0.5	< 2	0.13	< 0.5	7	84	94	4.48	< 10	0.09	20	0.37	247	3
R 7173	203 238	1	2.06	0.2	10	170	< 0.5	< 2	0.23	< 0.5	7	131	25	3.47	< 10	0.13	20	0.46	259	2
R 7174	203 238	< 1	1.99	0.4	10	160	< 0.5	< 2	0.19	< 0.5	6	94	20	3.89	< 10	0.09	20	0.33	220	1
R 7175	203 238	3	2.56	0.6	10	310	< 0.5	< 2	0.31	< 0.5	6	345	46	2.95	< 10	0.27	20	0.34	284	6
R 7176	203 238	53	1.88	4.2	130	270	< 0.5	< 10	0.62	< 6.5	16	108	700	4.22	< 10	0.13	60	0.55	1965	5
R 7177	203 238	< 1	2.11	6.0	30	170	< 0.5	< 2	0.15	< 0.5	15	63	126	4.02	< 10	0.10	20	0.30	599	2
R 7178	203 238	2	2.01	0.4	10	170	< 0.5	< 2	0.21	< 0.5	10	79	21	3.25	< 10	0.12	20	0.45	561	5
R 7179	203 238	2	1.66	0.4	20	410	< 0.5	< 2	0.08	< 0.5	4	63	30	2.08	< 10	0.13	40	0.73	163	2
R 7180	203 238	9	1.43	0.4	30	260	< 0.5	< 2	0.18	< 0.5	6	102	82	2.85	< 10	0.11	40	0.50	187	3
R 7181	203 238	5	1.90	0.8	30	510	< 0.5	< 2	0.28	< 0.5	6	129	69	2.87	< 10	0.15	30	0.46	253	2
R 7182	203 238	16	1.35	0.6	70	190	< 0.5	< 2	0.19	< 0.5	8	79	79	3.07	< 10	0.07	30	0.42	264	3
R 7183	203 238	< 1	1.71	0.4	20	290	< 0.5	< 2	0.20	< 0.5	13	79	28	3.35	< 10	0.10	20	0.38	1090	3
R 7184	203 238	4	1.67	0.2	10	180	< 0.5	< 2	0.22	< 0.5	8	94	27	3.21	< 10	0.10	30	0.41	312	2
R 7185	203 238	4	1.37	0.2	10	180	< 0.5	< 2	0.25	< 0.5	10	75	17	2.94	< 10	0.08	20	0.34	584	1
R 7186	203 238	1	1.45	0.2	10	170	< 0.5	< 2	0.21	< 0.5	8	128	21	3.07	< 10	0.12	30	0.38	283	1
R 7187	203 238	5	1.43	0.2	20	160	< 0.5	< 2	0.16	< 0.5	6	87	31	3.16	< 10	0.10	30	0.34	237	2
R 7188	203 238	10	1.51	0.2	30	180	< 0.5	< 2	0.28	< 0.5	8	84	52	2.84	< 10	0.10	30	0.44	242	2
R 7189	203 238	< 1	1.64	0.4	10	270	< 0.5	< 2	0.28	< 0.5	6	109	24	2.61	< 10	0.11	30	0.38	259	1
R 7190	203 238	7	1.42	0.4	40	250	< 0.5	< 2	0.18	< 0.5	5	99	55	2.80	< 10	0.08	40	0.39	168	3
R 7191	203 238	4	1.76	0.6	30	560	< 0.5	< 2	0.36	< 1.0	6	80	234	2.55	< 10	0.13	20	0.47	209	3
R 7192	203 238	7	1.89	0.6	30	270	< 0.5	< 2	0.15	< 0.5	7	108	170	3.02	< 10	0.10	30	0.52	305	3
R 7193	203 238	5	1.91	1.4	50	310	< 0.5	< 2	0.18	< 0.5	7	116	109	3.56	< 10	0.15	30	0.41	316	8
R 7194	203 238	< 1	1.34	0.8	30	160	< 0.5	< 2	0.13	< 0.5	4	116	92	3.86	< 10	0.10	20	0.23	128	3
R 7195	203 238	< 1	1.46	0.8	20	180	< 0.5	< 2	0.21	< 0.5	4	117	49	3.50	< 10	0.09	20	0.33	157	3
R 7196	203 238	< 1	1.89	0.4	10	150	< 0.5	< 2	0.13	< 0.5	5	93	21	3.25	< 10	0.13	20	0.31	320	2
R 7197	203 238	2	1.97	0.4	10	190	< 0.5	< 2	0.14	< 0.5	6	77	20	3.21	< 10	0.14	20	0.40	251	2
R 7201	203 238	2	1.35	0.4	10	360	< 0.5	< 2	0.26	< 0.5	10	96	31	3.24	< 10	0.14	30	0.30	966	4
R 7202	203 238	< 1	1.15	0.6	10	250	< 0.5	< 2	0.12	< 0.5	7	116	19	3.30	< 10	0.15	30	0.15	772	5
R 7203	203 238	3	1.36	1.4	10	190	< 0.5	< 2	0.08	< 0.5	11	107	40	4.56	< 10	0.14	20	0.27	362	5
R 7204	203 238	12	1.27	1.6	40	330	< 0.5	< 2	0.12	< 0.5	6	197	43	4.03	< 10	0.24	20	0.21	212	11
R 7205	203 238	2	1.71	1.0	20	220	< 0.5	< 2	0.11	< 0.5	8	118	42	4.51	< 10	0.16	20	0.30	260	6
R 7206	203 238	3	1.89	0.8	20	430	< 0.5	< 2	0.17	< 0.5	13	288	47	4.62	< 10	0.24	30	0.39	472	6
R 7207	203 238	4	1.39	0.4	20	200	< 0.5	< 2	0.23	< 0.5	9	105	36	3.75	< 10	0.12	20	0.41	237	5
R 7208	203 238	19	1.57	1.4	40	190	< 0.5	< 2	0.16	< 0.5	7	116	42	3.19	< 10	0.13	20	0.35	268	4
R 7209	203 238	1	2.42	0.4	10	140	< 0.5	< 2	0.12	< 0.5	8	73	24	4.06	< 10	0.09	20	0.43	351	2
R 7210	203 238	5	1.90	0.6	20	90	< 0.5	< 2	0.12	< 0.5	9	71	42	4.07	< 10	0.05	20	0.36	374	2
R 7211	203 238	< 1	2.18	0.2	10	150	< 0.5	< 2	0.15	< 0.5	14	78	67	4.03	< 10	0.13	20	0.53	690	2
R 7212	203 238	1	1.70	0.4	20	100	< 0.5	< 2	0.11	< 0.5	6	59	30	3.59	< 10	0.08	20	0.29	225	2
R 7213	203 238	< 1	1.66	0.2	10	110	< 0.5	< 2	0.11	< 0.5	5	57	16	3.19	< 10	0.09	20	0.25	201	2

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Project: ALL NORTH
 Comments:

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Pb ppm
R 7214	203 238	2	1.56	0.2	20	140	< 0.5	< 2	0.13	< 0.5	6	89	31	3.33	< 10	0.10	20	0.28	220	2
R 7215	203 238	38	1.84	9.2	60	230	< 0.5	< 2	0.17	< 0.5	6	71	96	3.10	< 10	0.12	20	0.38	311	3
R 7216	203 238	18	1.39	0.4	20	190	< 0.5	< 2	0.08	< 0.5	7	100	21	3.10	< 10	0.11	20	0.25	335	3
R 7217	203 238	6	1.38	0.4	20	200	< 0.5	< 2	0.06	< 0.5	7	139	30	3.65	< 10	0.12	20	0.24	308	3
R 7218	203 238	< 1	1.63	0.4	20	300	< 0.5	< 2	0.09	< 0.5	9	109	25	3.90	10	0.22	20	0.22	528	4
R 7219	203 238	4	1.57	1.0	40	310	< 0.5	< 2	0.19	< 0.5	9	111	40	3.63	< 10	0.21	30	0.28	317	8
R 7220	203 238	4	1.98	0.4	20	430	< 0.5	< 2	0.08	< 0.5	9	166	31	4.37	< 10	0.31	30	0.29	430	7
R 7221	203 238	8	1.80	0.4	10	270	< 0.5	< 2	0.07	< 0.5	6	89	22	3.63	< 10	0.19	20	0.23	268	9
R 7222	203 238	< 1	1.62	0.2	10	200	< 0.5	< 2	0.11	< 0.5	9	90	23	3.50	< 10	0.18	30	0.33	540	2
R 7223	203 238	< 1	1.84	0.2	10	260	< 0.5	< 2	0.11	< 0.5	7	89	20	3.11	< 10	0.18	20	0.32	413	2
R 7224	203 238	< 1	1.92	0.4	20	340	< 0.5	< 2	0.12	< 0.5	11	79	36	3.62	< 10	0.20	20	0.32	710	4
R 7225	203 238	6	2.01	0.6	20	510	< 0.5	< 2	0.22	< 0.5	9	222	47	3.83	< 10	0.28	30	0.39	296	3
R 7226	203 238	4	1.85	0.4	20	230	< 0.5	< 2	0.17	< 0.5	11	109	32	3.31	< 10	0.16	30	0.35	546	2
R 7227	203 238	21	1.74	0.8	60	210	< 0.5	< 2	0.14	< 0.5	7	110	45	3.59	< 10	0.15	30	0.29	251	3
R 7228	203 238	143	1.41	8.8	240	200	< 0.5	8	0.25	< 0.5	8	91	101	2.92	< 10	0.13	30	0.29	270	6
R 7229	203 238	20	1.67	0.8	60	190	< 0.5	< 2	0.16	< 0.5	7	81	58	3.30	< 10	0.10	20	0.37	255	2
R 7230	203 238	4	1.44	0.2	20	160	< 0.5	< 2	0.13	< 0.5	6	166	69	3.24	< 10	0.09	20	0.26	182	2
R 7231	203 238	10	1.63	0.4	30	110	< 0.5	< 2	0.13	< 0.5	12	104	30	4.71	< 10	0.06	10	0.22	540	3
R 7232	203 238	< 1	1.77	0.2	10	150	< 0.5	< 2	0.09	< 0.5	4	84	24	4.05	< 10	0.09	20	0.28	189	3
R 7233	203 238	3	1.67	0.8	40	1110	< 0.5	< 2	0.19	0.5	18	163	62	3.74	< 10	0.33	20	0.27	989	28
R 7234	203 238	< 1	2.43	0.6	10	300	< 0.5	< 2	0.18	< 0.5	7	78	125	3.58	< 10	0.19	20	0.48	285	2
R 7235	203 238	7	2.01	0.2	20	200	< 0.5	< 2	0.10	< 0.5	7	105	27	4.11	< 10	0.13	20	0.33	250	2
R 7236	203 238	< 1	1.82	0.2	20	220	< 0.5	< 2	0.16	< 0.5	9	194	35	4.08	< 10	0.13	20	0.26	508	2
R 7237	203 238	< 1	2.38	0.2	10	170	< 0.5	< 2	0.15	< 0.5	7	85	16	3.67	< 10	0.14	20	0.38	322	2
R 7238	203 238	91	1.70	3.4	200	200	< 0.5	6	0.25	< 0.5	6	105	83	3.30	10	0.14	30	0.33	181	4
R 7239	203 238	105	1.53	6.6	300	180	< 0.5	8	0.21	< 0.5	6	122	119	3.28	< 10	0.12	30	0.28	220	4
R 7240	203 238	40	2.16	1.4	60	230	< 0.5	< 2	0.22	< 0.5	7	94	67	3.56	< 10	0.13	20	0.40	241	2
R 7241	203 238	10	1.81	1.4	40	280	< 0.5	< 2	0.24	< 0.5	8	108	36	3.18	< 10	0.13	30	0.40	506	2
R 7242	203 238	22	1.46	1.0	60	220	< 0.5	< 2	0.18	< 0.5	9	99	42	3.47	< 10	0.12	20	0.31	531	3
R 7243	203 238	4	1.43	0.8	20	270	< 0.5	< 2	0.13	< 0.5	9	97	50	3.33	< 10	0.11	20	0.28	502	2
R 7244	203 238	5	1.73	0.2	20	560	< 0.5	< 2	0.22	< 0.5	12	125	38	3.64	< 10	0.14	20	0.39	498	3
R 7245	203 238	3	1.58	0.4	20	200	< 0.5	< 2	0.16	< 0.5	8	102	29	3.15	< 10	0.10	30	0.37	259	1
R 7246	203 238	7	1.63	0.2	20	300	< 0.5	< 2	0.20	< 0.5	12	125	48	3.09	< 10	0.15	30	0.39	354	2
R 7247	203 238	13	2.04	0.6	30	520	< 0.5	< 2	0.28	< 0.5	10	113	28	3.41	< 10	0.17	20	0.48	382	2
R 7248	203 238	4	2.58	0.6	20	530	< 0.5	< 2	0.39	< 0.5	12	107	97	3.43	< 10	0.22	30	0.61	426	1
R 7249	203 238	< 1	2.59	0.2	10	230	< 0.5	< 2	0.17	< 0.5	10	176	19	3.84	< 10	0.23	20	0.48	523	1
R 7250	203 238	5	2.47	0.6	30	310	< 0.5	< 2	0.20	< 0.5	12	246	44	4.11	< 10	0.25	20	0.45	584	2
R 7251	203 238	6	2.00	0.4	20	230	< 0.5	< 2	0.17	< 0.5	11	167	42	3.74	< 10	0.16	20	0.32	448	2
R 7252	203 238	< 1	1.81	0.4	10	210	< 0.5	< 2	0.11	< 0.5	8	111	16	3.70	< 10	0.17	20	0.30	471	2
R 7253	203 238	< 1	1.91	0.4	10	300	< 0.5	< 2	0.12	< 0.5	7	157	18	3.59	10	0.24	20	0.24	389	2

CERTIFICATION :

B. T. J.



Chemex Labs Ltd.

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 BRITISH COLUMBIA, CANADA V7J-2C1
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CERTIFICATE OF ANALYSIS A86 80

To: ARCHER CATHRO & ASSOC. (1981) LTD.

1016 - 510 W. HASTINGS ST.
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Page No. 6-A
 Tot. Pages 6
 Date 03-SEP-86
 Invoice # I-8616880
 P.O. # NONE

Project . ALL NORTH

Comments:

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cl ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
R 7254	203 238	< 1	2.44	0.2	10	390	< 0.5	< 2	0.21	< 0.5	17	104	34	4.11	< 10	0.22	20	0.48	716	2
R 7255	203 238	< 1	1.88	0.2	20	240	< 0.5	< 2	0.19	< 0.5	9	192	59	3.50	< 10	0.12	30	0.34	307	1
R 7256	203 238	< 1	2.17	0.2	20	340	< 0.5	< 2	0.14	< 0.5	9	157	68	4.29	< 10	0.21	20	0.38	410	2
R 7257	203 238	< 1	2.20	0.2	10	310	< 0.5	< 2	0.10	< 0.5	7	138	23	3.76	< 10	0.24	20	0.29	756	1
R 7258	203 238	< 1	1.74	0.2	20	170	< 0.5	< 2	0.12	< 0.5	7	194	30	4.64	< 10	0.10	20	0.28	233	1
R 7259	203 238	< 1	1.80	0.2	20	280	< 0.5	< 2	0.11	< 0.5	7	239	23	5.35	< 10	0.22	20	0.21	579	1
R 7260	203 238	< 1	2.47	0.4	20	300	< 0.5	< 2	0.21	< 0.5	14	192	30	4.22	< 10	0.23	20	0.49	640	2
R 7261	203 238	< 1	1.69	0.2	10	220	< 0.5	< 2	0.14	< 0.5	5	154	25	3.17	< 10	0.15	20	0.28	227	2
R 7262	203 238	< 1	2.02	0.4	20	320	< 0.5	< 2	0.20	< 0.5	10	180	44	3.78	< 10	0.17	30	0.34	422	3
R 7263	203 238	< 1	2.04	0.2	20	260	< 0.5	< 2	0.20	< 0.5	8	176	25	4.65	< 10	0.15	30	0.34	529	1
R 7264	203 238	< 3	2.18	0.2	10	240	< 0.5	< 2	0.17	< 0.5	8	146	22	3.07	< 10	0.20	20	0.39	377	1
R 7265	203 238	< 1	1.79	0.2	10	290	< 0.5	< 2	0.21	< 0.5	9	157	71	2.94	< 10	0.17	20	0.39	366	1
R 7266	203 238	< 1	1.93	0.2	20	460	< 0.5	< 2	0.28	< 0.5	10	122	26	3.04	< 10	0.16	20	0.48	400	1
R 7267	203 238	< 1	2.04	0.2	10	350	< 0.5	< 2	0.50	< 0.5	10	142	27	3.19	< 10	0.19	30	0.46	392	1
R 7268	203 238	6	1.29	0.2	10	300	< 0.5	< 2	0.29	< 0.5	9	112	28	2.65	< 10	0.12	30	0.36	353	1
R 7269	203 238	5	1.67	0.2	20	410	< 0.5	< 2	0.37	< 0.5	9	113	24	3.07	< 10	0.13	30	0.42	402	1
R 7270	203 238	4	1.17	0.2	20	320	< 0.5	< 2	0.22	< 0.5	12	158	45	3.42	< 10	0.15	30	0.25	511	2
R 7271	203 238	4	1.46	0.2	20	320	< 0.5	< 2	0.24	< 0.5	10	115	75	3.53	< 10	0.07	20	0.31	389	2
R 7272	203 238	2	1.51	0.2	10	170	< 0.5	< 2	0.13	< 0.5	10	143	40	3.21	< 10	0.07	20	0.27	384	1
R 7273	203 238	< 1	1.57	0.2	20	260	< 0.5	< 2	0.10	< 0.5	8	170	36	3.38	< 10	0.12	10	0.26	346	2
R 7274	203 238	< 1	1.53	0.2	20	330	< 0.5	< 2	0.23	< 0.5	7	105	24	2.98	< 10	0.09	20	0.31	296	2
R 7275	203 238	24	1.61	0.2	20	170	< 0.5	< 2	0.28	< 0.5	14	99	43	3.47	< 10	0.09	30	0.36	614	1
R 7276	203 238	< 1	1.40	0.2	20	160	< 0.5	< 2	0.11	< 0.5	5	117	67	4.50	< 10	0.09	10	0.21	242	1
R 7277	203 238	2	1.63	0.2	20	220	< 0.5	< 2	0.28	< 0.5	13	101	54	3.71	< 10	0.08	20	0.39	472	1
R 7278	203 238	5	1.57	0.2	10	140	< 0.5	< 2	0.16	< 0.5	8	66	36	3.25	< 10	0.08	20	0.35	323	1
R 7279	203 238	< 1	1.61	0.2	10	290	< 0.5	< 2	0.23	< 0.5	8	93	31	3.10	< 10	0.09	20	0.32	362	1
R 7280	203 238	3	1.69	0.2	10	130	< 0.5	< 2	0.09	< 0.5	7	91	45	3.62	< 10	0.07	20	0.27	234	2
R 7281	203 238	5	1.58	0.6	30	250	< 0.5	< 2	0.22	0.5	13	70	133	5.16	< 10	0.08	20	0.25	1110	5
R 7282	203 238	< 1	1.21	0.2	10	230	< 0.5	< 2	0.10	< 0.5	3	81	54	2.53	< 10	0.11	20	0.15	152	4
R 7283	203 238	< 1	1.10	0.2	20	110	< 0.5	< 2	0.10	< 0.5	4	82	28	2.91	< 10	0.06	20	0.24	156	2
R 7284	203 238	< 1	0.93	0.6	20	140	< 0.5	< 2	0.06	< 0.5	3	57	80	2.73	< 10	0.04	20	0.13	126	3
R 7285	203 238	3	1.22	0.2	20	210	< 0.5	< 2	0.31	< 0.5	9	65	36	2.73	< 10	0.05	20	0.32	590	2
R 7286	203 238	3	1.69	0.2	20	320	< 0.5	< 2	0.38	< 0.5	9	75	41	2.90	< 10	0.07	20	0.40	396	1
R 7287	203 238	4	1.64	0.2	10	420	< 0.5	< 2	0.54	< 0.5	7	73	21	2.62	< 10	0.10	20	0.38	260	1
R 7288	203 238	3	1.69	0.2	20	300	< 0.5	< 2	0.34	< 0.5	9	79	30	3.40	< 10	0.09	30	0.41	334	2
R 7289	203 238	< 1	1.28	0.2	40	210	< 0.5	< 2	0.34	< 0.5	12	95	39	4.51	< 10	0.11	20	0.27	471	2
R 7290	203 238	< 1	1.88	0.2	20	450	< 0.5	< 2	0.63	< 0.5	11	124	24	3.31	< 10	0.13	30	0.50	523	1
R 7291	203 238	2	1.34	0.2	10	250	< 0.5	< 2	0.26	< 0.5	11	62	24	2.82	< 10	0.11	30	0.28	1060	1

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B. C. [Signature]



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CERTIFICATE OF ANALYSIS A861 78

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Comments:

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
R 7351	203 238	5	1.26	0.6	60	2570	< 0.5	< 2	0.38	3.5	22	89	508	6.25	< 10	0.10	20	0.32	971	4
R 7352	203 238	3	0.99	1.0	20	1090	< 0.5	< 2	0.70	19.0	4	85	182	1.94	< 10	0.09	20	0.31	122	1
R 7353	203 238	2	0.61	0.6	640	550	< 0.5	< 2	0.34	21.0	224	15	403	36.0	< 10	< 0.01	10	0.11	7040	< 1
R 7354	203 238	4	2.85	2.6	20	230	< 0.5	< 2	0.17	1.0	103	67	723	3.25	< 10	0.07	20	0.40	2490	1
R 7361	203 238	2	1.29	0.4	80	790	< 0.5	< 2	0.34	6.5	13	45	1925	6.06	< 10	0.05	20	0.26	295	1
R 7387	203 238	9	1.05	2.8	10	950	< 0.5	< 2	0.92	2.5	6	94	1040	1.58	< 10	0.07	30	0.25	266	< 1

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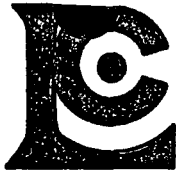
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Comments :

PARAMETER DESCRIPTIONS	SAMPLE R 7882	SAMPLE R 7883	SAMPLE R 7884	SAMPLE R 7885	SAMPLE R 7886	SAMPLE R 7888				
Sample preparation code	221	221	221	221	221	221	---	---	---	---
Sulphate/SO2/SO3 (mg/L)	7.3 12.00	6.5 160.0	6.2 41.0	6.2 25.0	7.1 12.00	6.7 7.00				

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 P.O. # NONE

Project: MARO
 Comments:

SAMPLE DESCRIPTION	PREP CODE		Mb ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)
	R 7382	221	232	< 2	< 20	17	< 20	4	< 4	< 1.0	< 2	< 2	55	< 0.20	< 2	< 20
R 7383	221	232	< 2	< 20	3620	< 20	4	< 4	12.0	< 2	54	35	< 0.20	< 2	< 20	23.0
R 7384	221	232	< 2	< 20	1490	35	4	< 4	6.0	< 2	32	30	1.40	40	< 20	7.40
R 7385	221	232	< 2	< 20	465	< 20	4	< 4	1.0	< 2	10	40	0.50	15	< 20	4.00
R 7386	221	232	< 2	< 20	170	< 20	4	< 4	4.0	< 2	6	60	< 0.20	< 2	< 20	3.00
R 7388	221	232	< 2	< 20	12	35	4	< 4	< 1.0	< 2	< 2	125	< 0.20	< 2	< 20	1.70

CERTIFICATION :

APPENDIX C

GEOPHYSICAL REPORT

ON

MARG PROPERTY
MAYO MINING DISTRICT, Y.T.

BY

DELTA GEOSCIENCE LTD.

NOVEMBER, 1986

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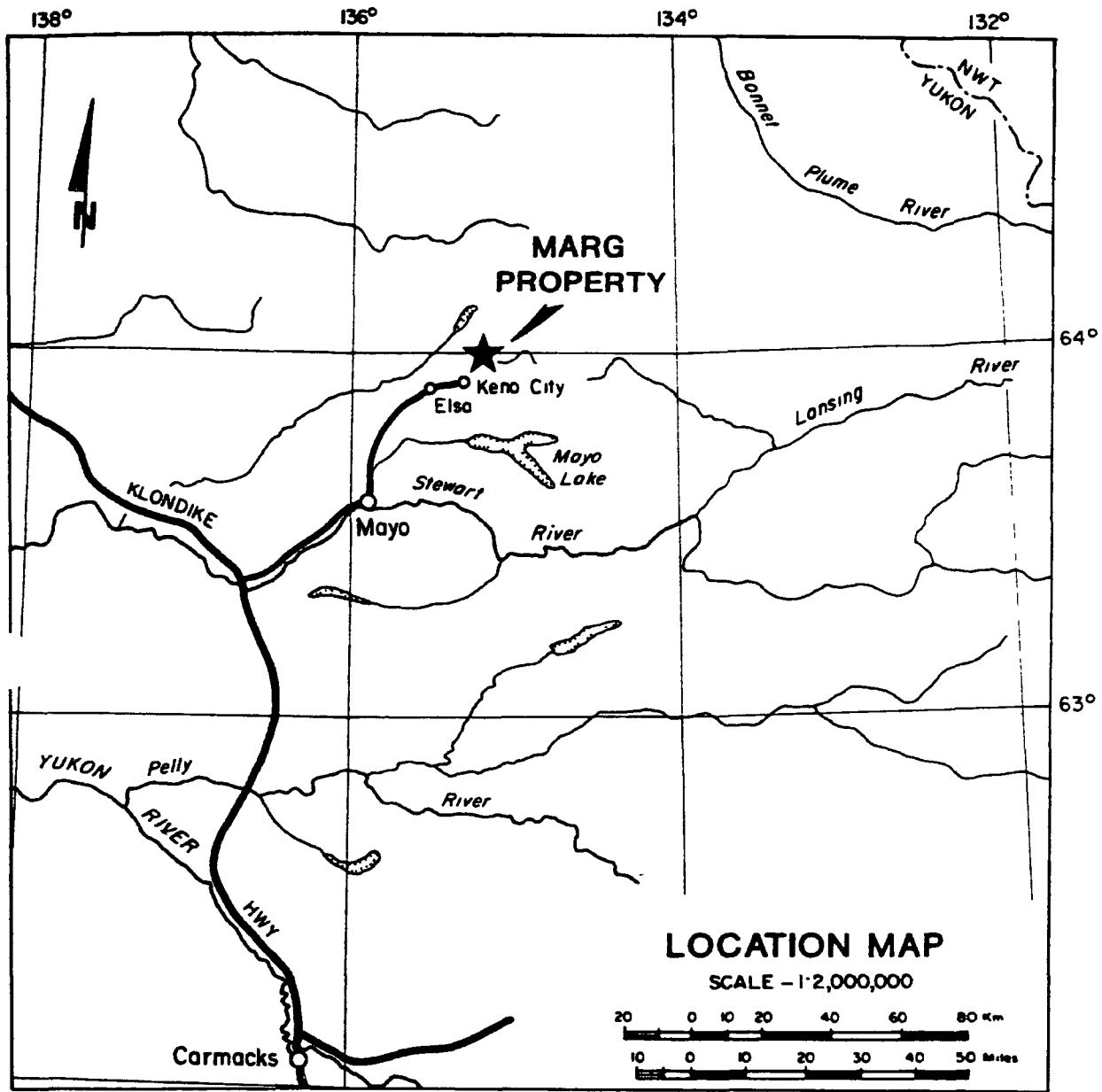
Introduction

This report discusses a ground geophysical program conducted by Delta Geoscience Ltd., on Archer, Cathro & Associates Marg property. The property is located approximately 8 km. northeast of Keno City, in the Yukon Territories of Canada.

The geophysical program was commissioned by Bob Cathro of Archer, Cathro & Associates. Mr. Cathro was present at the start of the survey, at which time Grant Hendrickson of Delta Geoscience Ltd., was given an overview of the property.

The geology of the property will be described in Archer, Cathro's report, to which the reader is referred. However, it should be noted here that the grid area is largely underlain by graphitic Phyllites and Quartzites.

Twenty-six lines, 24+60E to 11+00E, totalling approximately 12 km. were surveyed with V.L.F., Magnetics and Horizontal Co-Planer Loop Electromagnetics. In addition, five lines (2 km.) were surveyed with Induced Polarization and Resistivity in an attempt to evaluate electromagnetic conductors as to their sulphide content.



Personnel

Grant Hendrickson	}	Geophysicists, Delta Geoscience Ltd.
Scott Cosman		
Kevin Capnerhurst	}	Junior Geologist, Archer, Cathro & Associates.
Extra Helper		

Equipment

- 1 - Apex Parametrics Ltd. MAXMIN 1+ horizontal loop electromagnetic system.
- 1 - Scintrex I.G.S. II System (configured as a V.L.F/MAG).
- 1 - Scintrex MP-3 base station magnetometer.
- 1 - Scintrex I.P.R. 10A (time domain induced polarization receiver).
- 1 - Scintrex I.P. 250w. transmitter.
- 1 - H.P. 110 portable computer, complete with printer and disc drive.

Data Presentation

The data is presented both in section and plan. Plans, at a scale of 1:1000 show the correlation of V.L.F. and H.L.E.M. conductors, plus the magnetic total field contours.

Sections of the H.L.E.M. and I.P. data are presented at a scale of 1:2000, with the topography profile at the bottom of the page.

In addition, computer listings and plots of the V.L.F/MAG data are provided at the back of this report.

Survey Procedures

Horizontal Co-Planer Loop E.M.:

Slope corrected chaining and topography profiles provided by Archer, Cathro & Associates, gave the information necessary to keep the coils co-planer and to correct the in-phase data for coil separation variations.

An 80m. coil separation was used to maximize resolution and to cut down the response of the host rock, which was expected to be weakly conductive.

Maximum depth of investigation for vertical bodies with this coil separation is 40 metres.

Two frequencies were used, 3555 Hz. and 444 Hz. The higher frequency was expected to respond to all conductivity, whereas the lower frequency would only respond to good conductivity. This discrimination provided a means of evaluating conductors and eliminates most of the host rock response.

V.L.F/Magnetics:

The V.L.F. work was done using either the Cutler, Maine station (N.A.A.) transmitting at 24.0 khz., or Lualualui, Hawaii station (N.P.M.), transmitting at 23.4 khz. Station shutdowns or weak signals were the reason for station changes; however both stations were approximately in line with the expected strike of the conductors, thus provided good coupling. Three components of the V.L.F. field were measured: the horizontal field strength, vertical in-phase, and vertical quadrature. On the V.L.F. plan, the station used is mentioned at the south end of the lines. The V.L.F. data (vertical in-phase) was subsequently filtered to reduce topographical effects and to allow for contouring of the data.

Note: To facilitate filtering, the sign of the vertical in-phase was changed and should be noted when looking at the filtered listings.

The magnetic survey was done simultaneously with the V.L.F. survey. Magnetic total field strength readings were taken every 10 metres. The MP-3 base station magnetometer was used to correct the data for any diurnal change of the magnetic field. The earth's magnetic field proved quiet during the course of this survey.

Induced Polarization/Resistivity:

The I.P. work was done using the Schlumberger array. Current electrode separation was initially set at 180 metres, while potential electrode separation was set at 20 metres. This array gives excellent horizontal resolution, with the prime depth of investigation at the 20 to 30 metre depth. This array also gives better signal to noise response, when compared to other arrays for the same depth of investigation - an important consideration when using a small battery-powered transmitter.

Unfortunately, the combined effect of a thin, yet resistive, overburden and a very conductive (20 ohm.m) host rock, made it very difficult to do I.P. The transmitting line was shortened to 100 metres to improve the signal to noise response; however, near areas of interest, i.e. conductors, the signal was still unacceptable. Any future I.P. work would require a much larger transmitter.

Discussions of the Data

Induced Polarization/Resistivity:

The generally low resistivities created by the host Graphitic Phyllite, made it very difficult to acquire useful induced polarization data. Attempts to improve the signal to noise response were generally unsuccessful, particularly within areas of interest (near conductors). Therefore, I.P. surveying was limited to five lines, L.2300E, L.2100E, L.1900E, L.1780E and L.1380E. The chargeability background is quite high, approximately 60 msec, due to the Graphite. Areas of higher chargeability were recorded, however signal to noise problems in these areas made the readings suspect (see profiles). Resistivities were generally around 20 ohm.m, however thin areas of higher resistivity >200 ohm.m were noted. These high resistivities could be caused by Quartzite or Volcanics.

V.L.F.:

The V.L.F. work appears quite successful at mapping the zones of improved conductivity within the Graphitic Phyllite. Filtering (Fraser) helped in the interpretation and correlation of zones.

On this property, the V.L.F. has to be regarded only as a near surface tool, since the attenuation of V.L.F. fields in a conductive host rock is quite severe. The skin depth is in the 15 to 20 metre range. Skin depth is a useful parameter for describing the depth of penetration of electromagnetic signals, as a function of frequency and resistivity.

The filtered and contoured V.L.F. data indicates folding and subsequent faulting of two main conductive horizons. (See V.L.F. plan map). The correlation of the V.L.F. and H.L.E.M. data is quite good.

Magnetics:

It is readily apparent that the rocks within the grid area have a low magnetic susceptibility (flat response). The notable exception is the moderate magnetic anomaly (approx. 600γ) in the northwest corner. This thin anomaly is near surface and dipping approximately 60° to the south, and appears to have three (faulted) individual zones that perhaps were once connected. The lack of a directly coincident V.L.F. or H.L.E.M. anomaly suggests that the magnetic response is due to Magnetite.

Minor magnetic anomalies (<40%) were sometimes coincident with strong conductors. However, these weak anomalies were not consistent nor reliable enough to correlate line to line. When present, these weak anomalies do indicate a steep south dip and a very minor magnetic mineral component to the conductors (see computer magnetic plots).

Horizontal Co-Planer Loop E.M:

The conductive host rock and varying attitude of the conductive horizons have created interpretation problems. All the conductors appear near surface underneath a thin resistive overburden, probably averaging 3 metres in thickness. On the accompanying V.L.F. and H.L.E.M. conductor plan, the trace of the conductors and their relative strength are shown by black bars. The correlation with the V.L.F. is quite good. It should be noted that weak conductivity is widespread on this grid and the anomalies picked are conductors within conductors, i.e. the axis of the conductors. Conductor dip is indicated on the accompanying profiles, where possible. A general south dip is quite evident. Good depth extent is often indicated by strong shoulders to the H.L.E.M. responses, i.e. conductor at 820N on L.13+80E.

Correlation of conductors line to line has been possible. However, in the centre of the grid, folding and subsequent faulting is evident and difficult to interpret. There is very good evidence in the H.L.E.M. data for L.1900E that conductors at 8+80N and 10+00N are connected thru a synclinal structure at depth. This fact, plus the trace of V.L.F. and H.L.E.M. anomalies immediately to the west, suggest the large amplitude drag folds shown on the accompanying V.L.F./H.L.E.M. plan.

The crests of folds appear to be strong conductors, probably due to thickening and good graphite development from the heat and pressure generated by folding.

The accompanying plans and sections present what the author thinks is the most likely case, but is by no means the only possibility.

Conclusion

Conductive horizons, conformable with the stratigraphy, have been mapped across the grid. The trace of these conductive horizons has helped to understand the complicated geologic structure of the property. The V.L.F. and H.L.E.M. produced complimentary results; the H.L.E.M. data gives more structural and qualitative information on conductors.

Large areas of Graphitic Phyllite have made serious interpretation problems for the electromagnetic data. Sulphide mineralization may be causing some of these conductors, however most conductors are due to Graphite. Areas of strong conductivity may be due to the combined effects of conductive sulphide mineralization and Graphite.

Anomalous geochemistry will help to indicate which conductors or parts of conductors are most promising for Sulphides.

The magnetic anomaly in the northwest corner is probably due to magnetic bearing horizons, perhaps with minor Pyrrhotite.

The amount of Graphite and resulting low resistivities preclude the induced polarization technique from helping in the exploration of this property.

G. Hendrickson

Grant A. Hendrickson, P.Geoph.

November, 1986

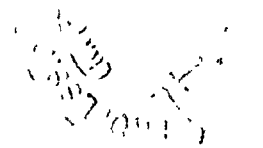
Statement of Qualification

Grant A. Hendrickson

- B.Science, U.B.C., 1971, Geophysics option.
- for the past 16 years, I have been actively involved in mineral exploration projects throughout Canada and the United States.
- I am a registered Professional Geophysicist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- I am a member of the S.E.G., E.A.E.G., and C.I.M.



Grant A. Hendrickson.



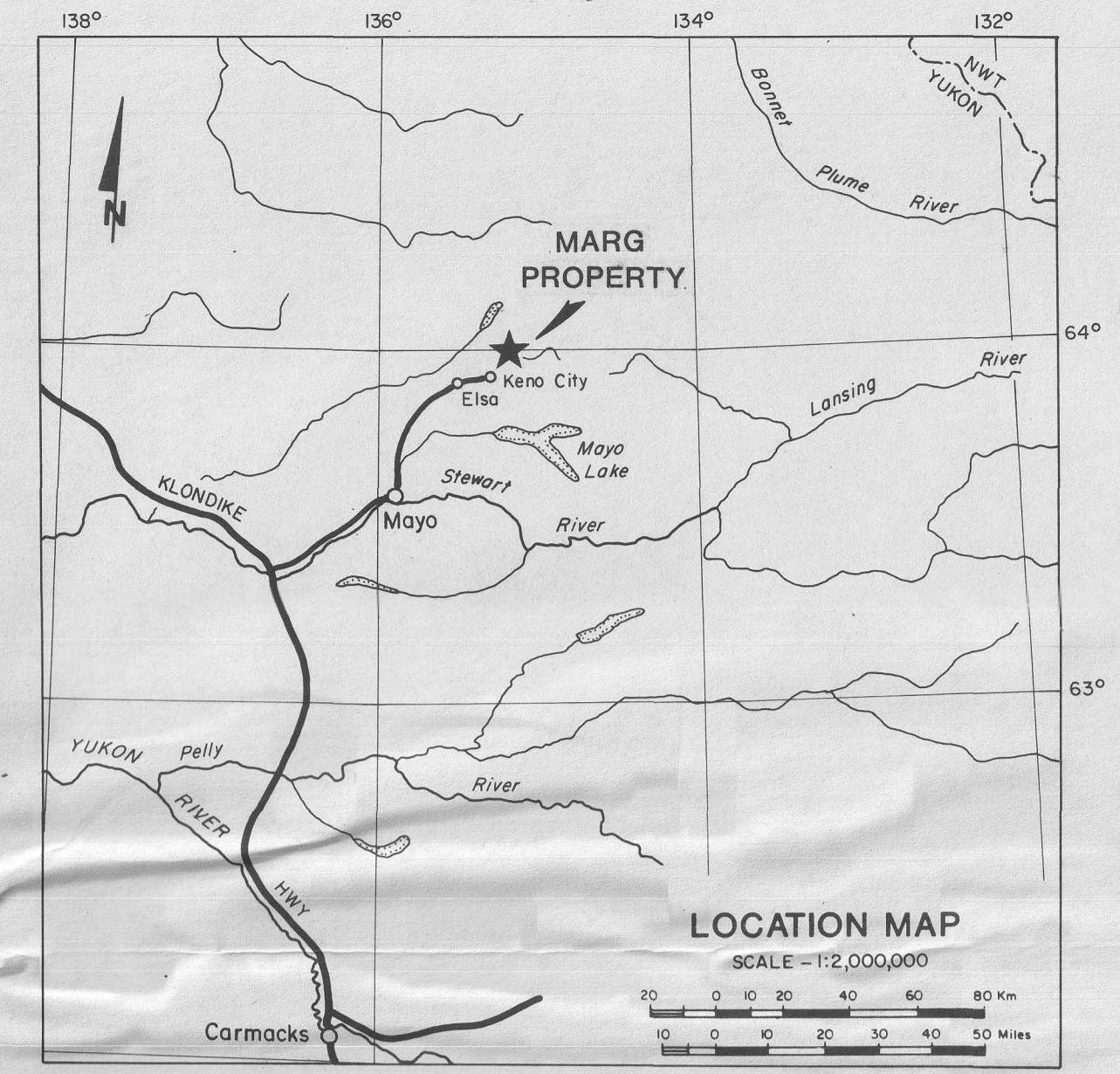
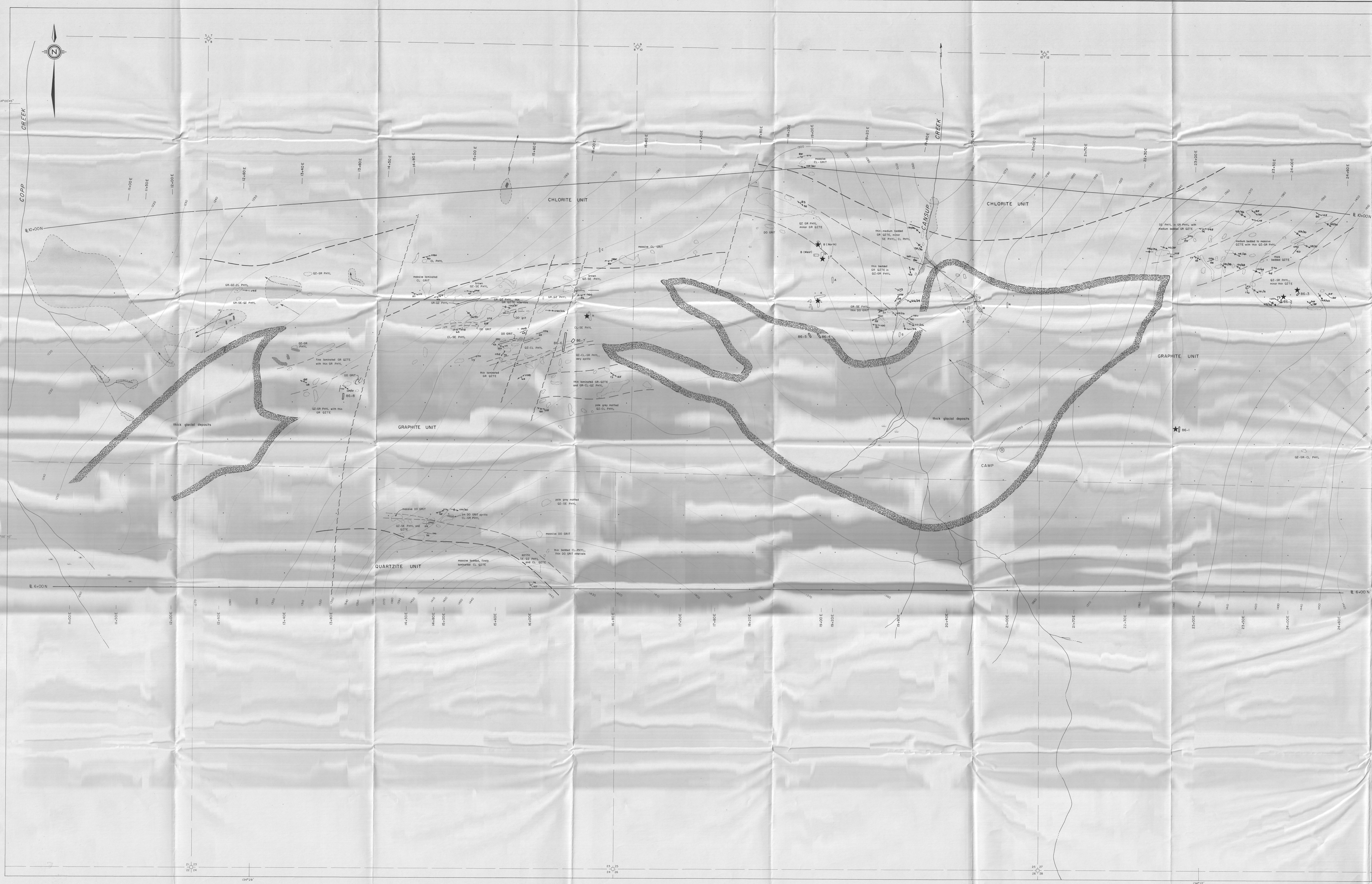


TABLE OF FORMATIONS

- PLEISTOCENE**
 unsorted glacial debris, lateral and terminal moraines of upper limit of valley glaciation.
- MISSISSIPPIAN (?)**
- QUARTZITE UNIT**
 brown weathering, finely laminated, slightly calcareous chertic quartzite with minor interbeds of graphitic phyllite, thin- and thick-bedded phyllitic quartzite, limestone and chertic phyllite.
- GRAPHITE UNIT**
 grey to black weathering, variably pyritic, calcareous and graphitic phyllites interbedded with chloritic phyllite and dolomitic grit. Minor subunits contain abundant sericite.
- CHLORITE UNIT**
 grey weathering, resistant, thick-bedded to massive chloritic grit and grey quartzite. Minor leucoidal medium-grained gabbro bodies are common north of the grid area.

- ABBREVIATIONS**
- Rocks: PHYL - phyllite
 QTZ - quartzite
 GRIT - grit
- Minerals: QZ - quartz
 SE - sericite
 CL - chlorite
 GR - graphite
 DO - dolomite

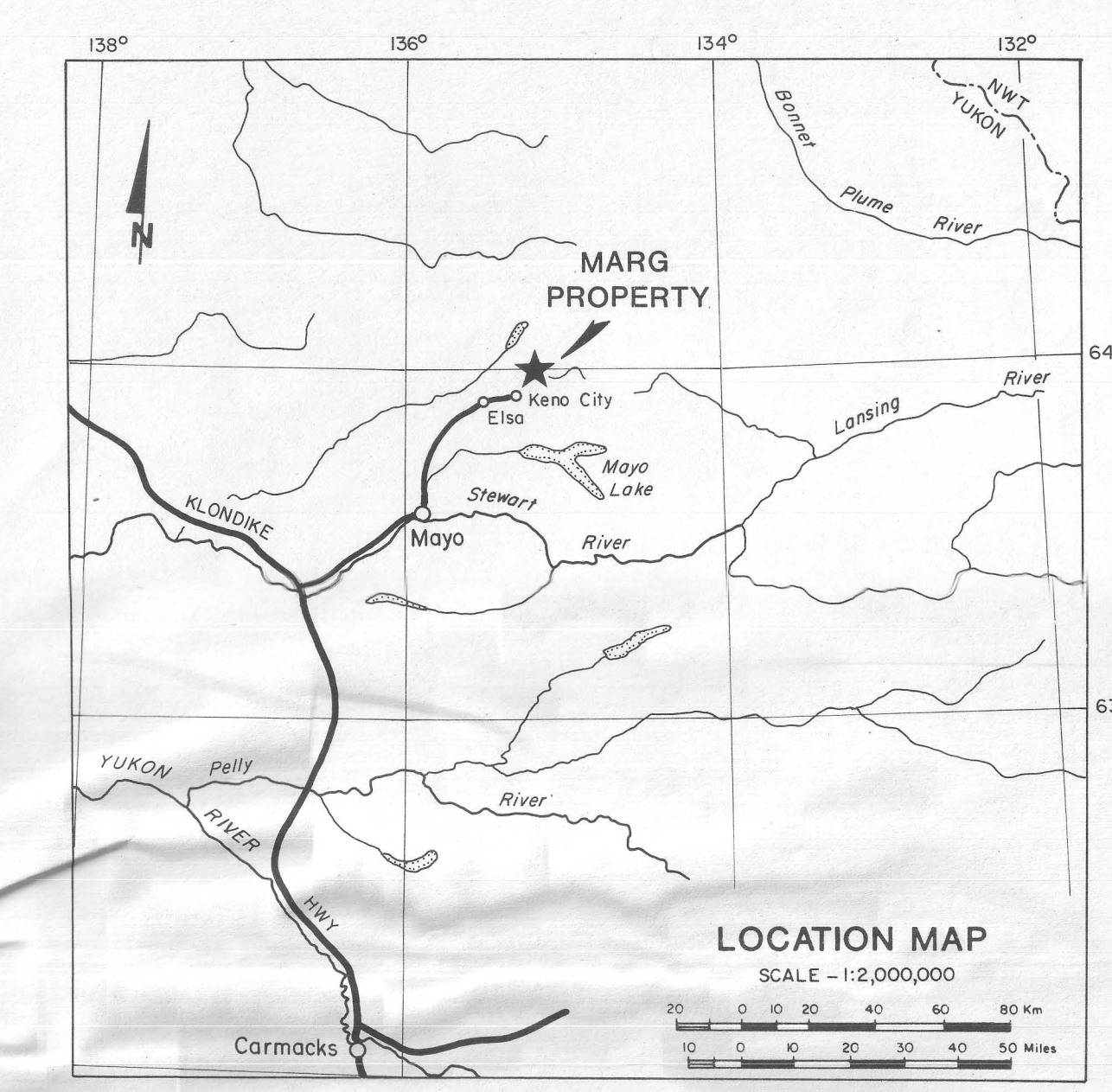
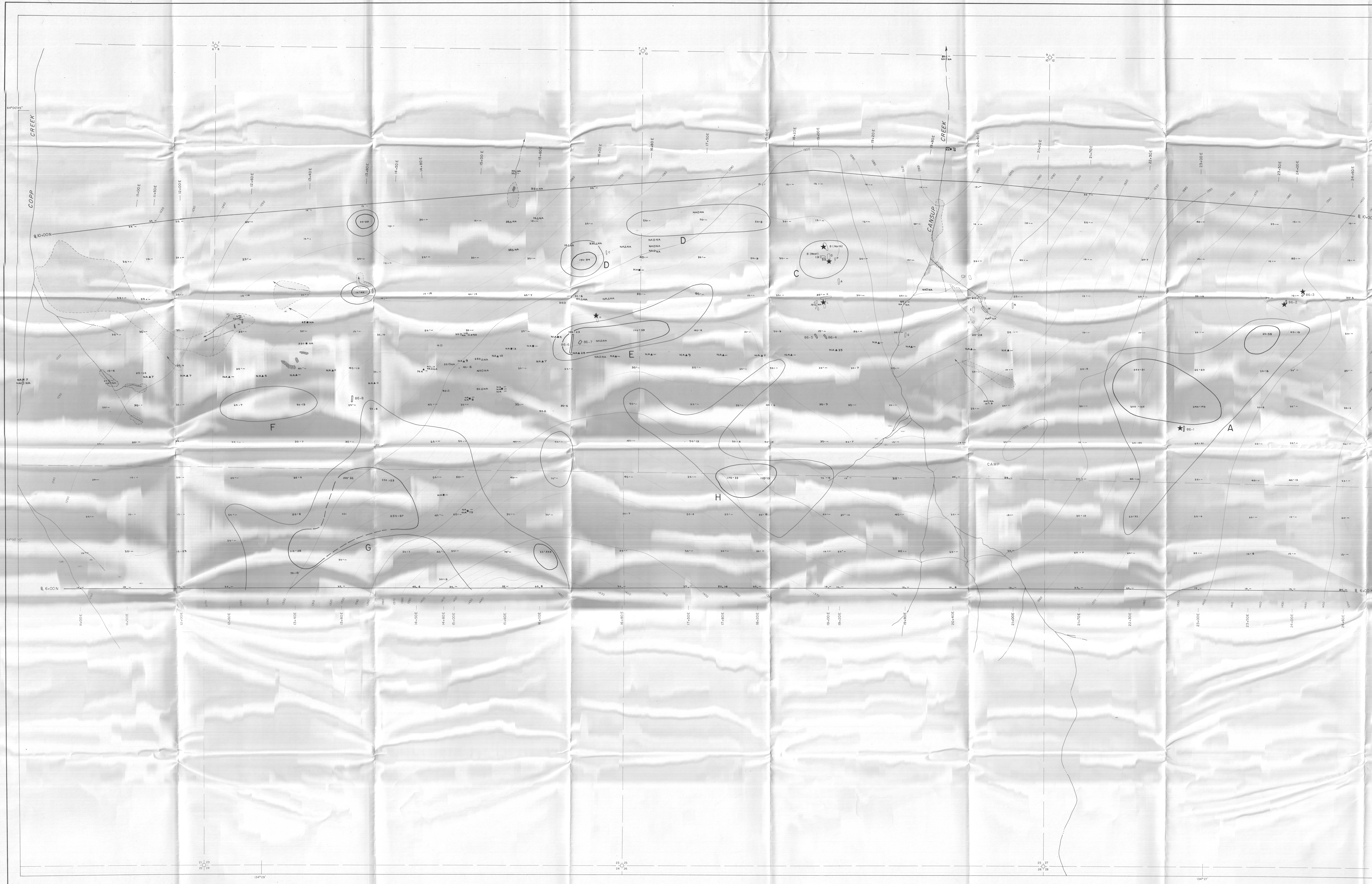
- GEOLOGICAL SYMBOLS**
- major lithological contact (approximate)
 - - - - - intraformational contact (approximate)
 - - - - - fault (inferred)
 S₁ (bedding)
 S₂ (early cleavage)
 S₃ (late cleavage)
 L₁ (early lineation)
 L₂ (late crenulation fold axis)
 — megeoscopic fold axis
 — quartz rods

- LEGEND**
- Vegetation kill zone
 □ Ferricrete glasson
 □ TUDL claim posts
 □ Helicopter pad
 * 1986 soil sample site
 + 1986 soil sample site
 + 1986 water sample site
 B6-4 1986 trench
 B6-7 or 1984 trench
 ★ Mineralization

Figure 4
 ARCHER, CATIRO & ASSOCIATES (1981) LIMITED

GEOLOGY
 MARG (TUDL) PROPERTY
 ALL-NORTH RESOURCES LTD.
 MAYO MINING DISTRICT, Y.T.
 SEPTEMBER, 1988
 SCALE 1:5000

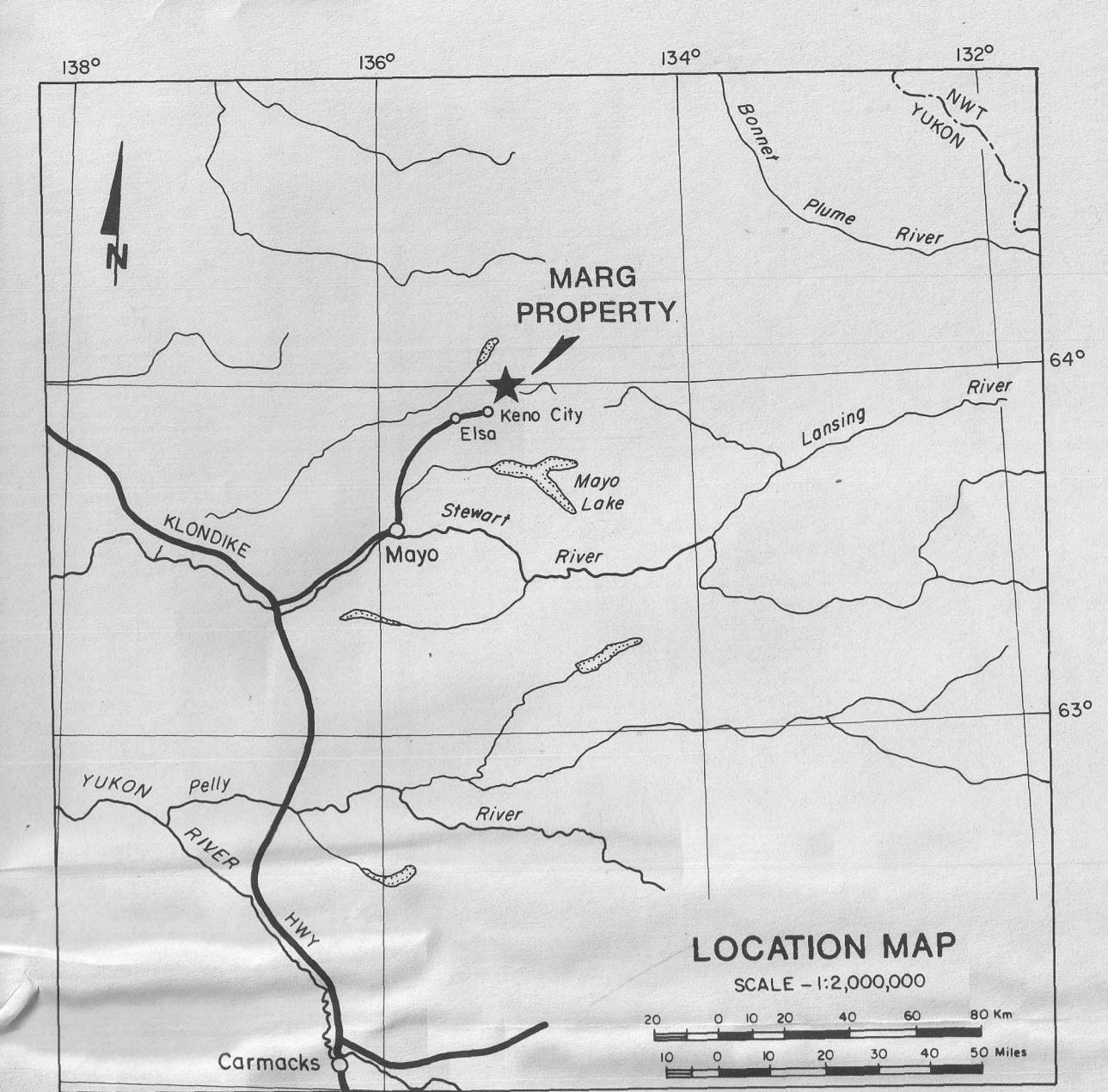
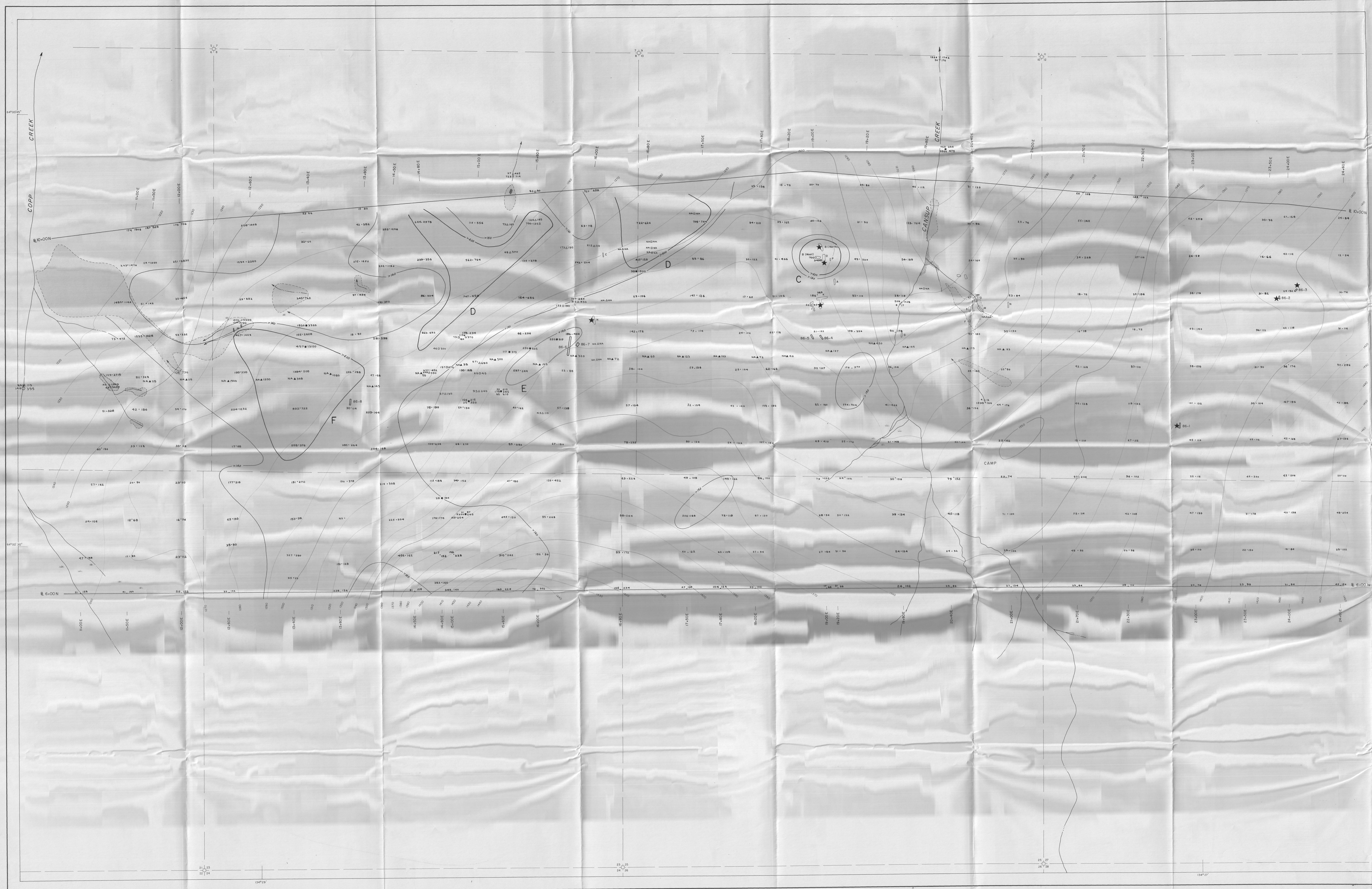
0 10 20 30 40 50 100 Metres
 0 50 100 200 300 Feet



- Anomalous Soil Patterns**
- >50 arsenic or >15 gold
 - >100 arsenic or >30 gold
 - Vegetation kill zone
 - Ferricrete gossan
 - TUDL claim posts
- Sample Sites**
- 1986 soil sample site
 - 1986 silt sample site
 - 1986 water sample site
 - 1986 trench
 - 1987 or 1984 trench
 - 1982 rock sample site
 - 1987 rock sample site
 - 1982 soil sample site
 - 1987 soil sample site
 - 1982 silt sample site
 - 1982 pan sample site
 - Mineralization
- All assays by Chemex Labs Ltd., N. Vancouver, B.C.
 - arsenic in ppm (except water values, which are in ppb)
 - gold in ppb

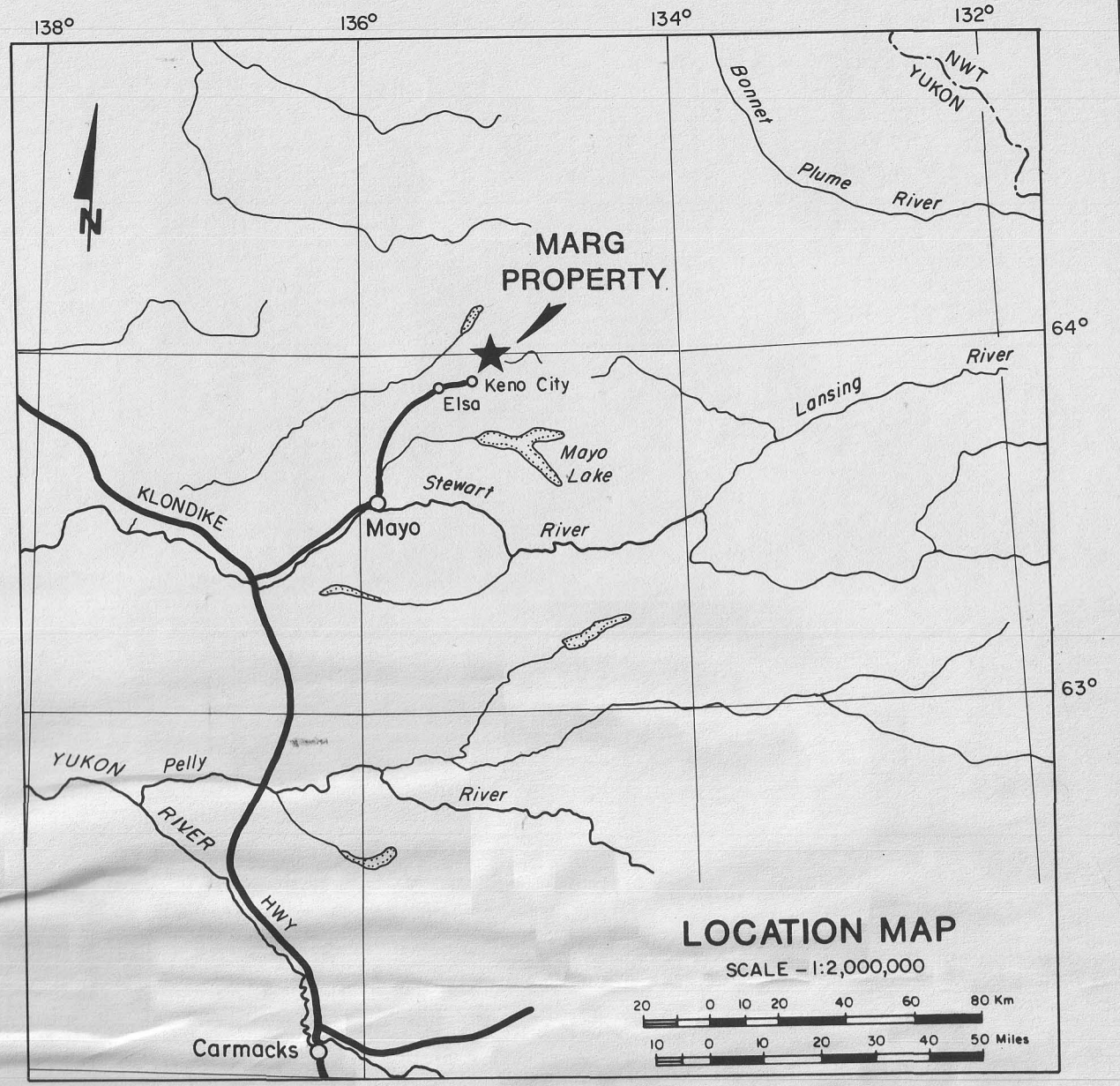
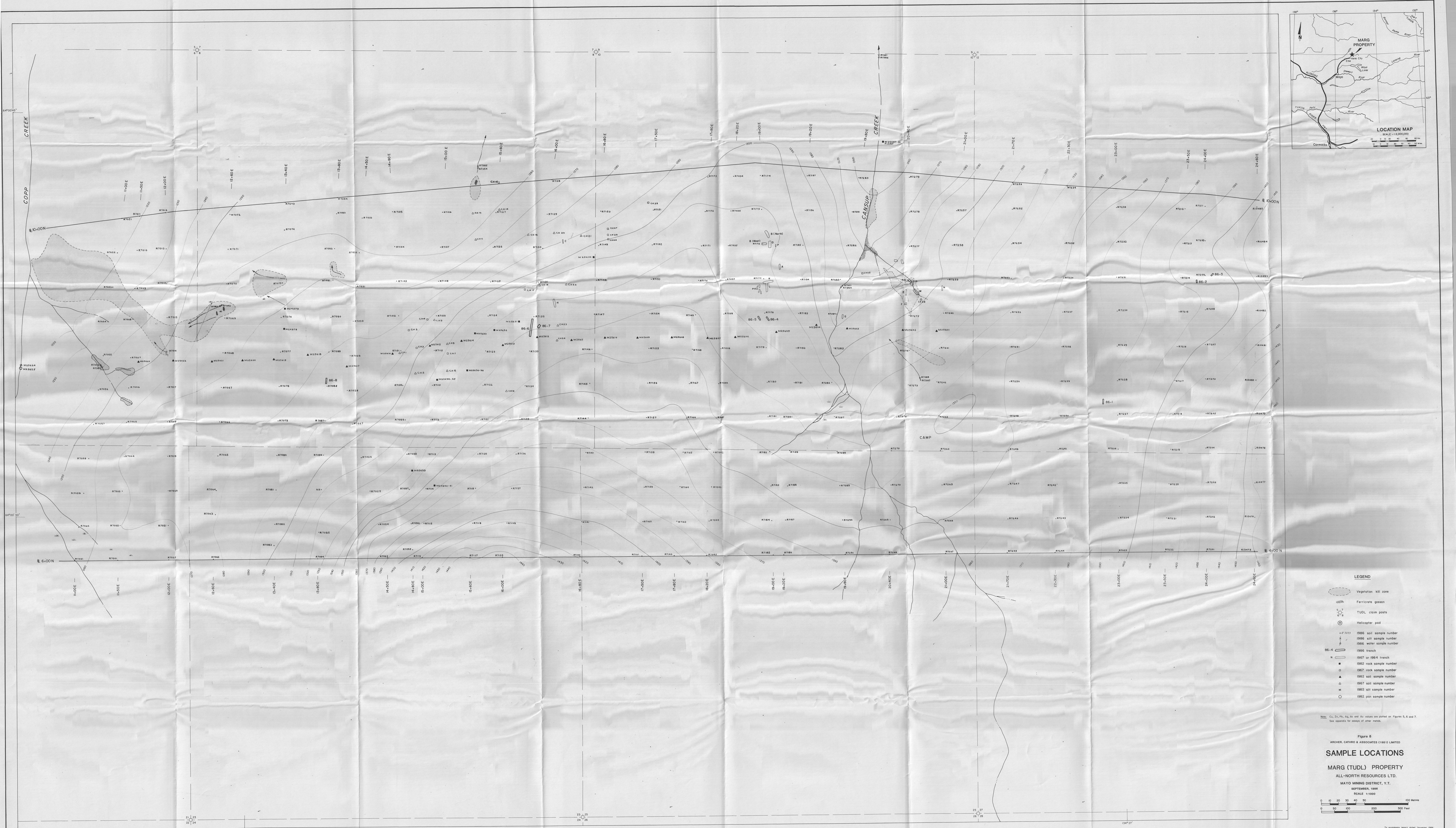
Note: Gold values less than 6 ppb are shown as -
 (refer to appendix for actual values)

Figure 6
 ARSINIC-GOLD GEOCHEMISTRY
 MARG (TUDL) PROPERTY
 ALL-NORTH RESOURCES LTD.
 MAYO MINING DISTRICT, Y.T.
 SEPTEMBER, 1986
 SCALE 1:1000



- Anonymous Soil Pattern**
- > 140 copper
 - > 400 copper
 - Vegetation kill zone
 - Ferricrete gneiss
 - TUDL claim posts
- Legend**
- 1986 soil sample site
 - 1986 silt sample site
 - 1986 water sample site
 - 1986 trench
 - 1987 or 1984 trench
 - 1982 rock sample site
 - 1982 soil sample site
 - 1987 soil sample site
 - 1982 silt sample site
 - 1982 pan sample site
 - Mineralization
- All assays in ppm by Chemex Labs Ltd, N Vancouver, BC (except water values which are in ppb)

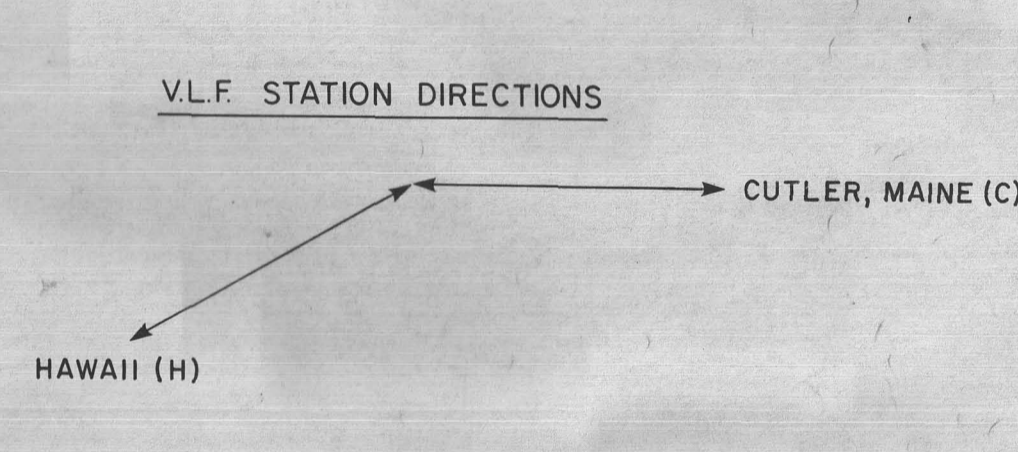
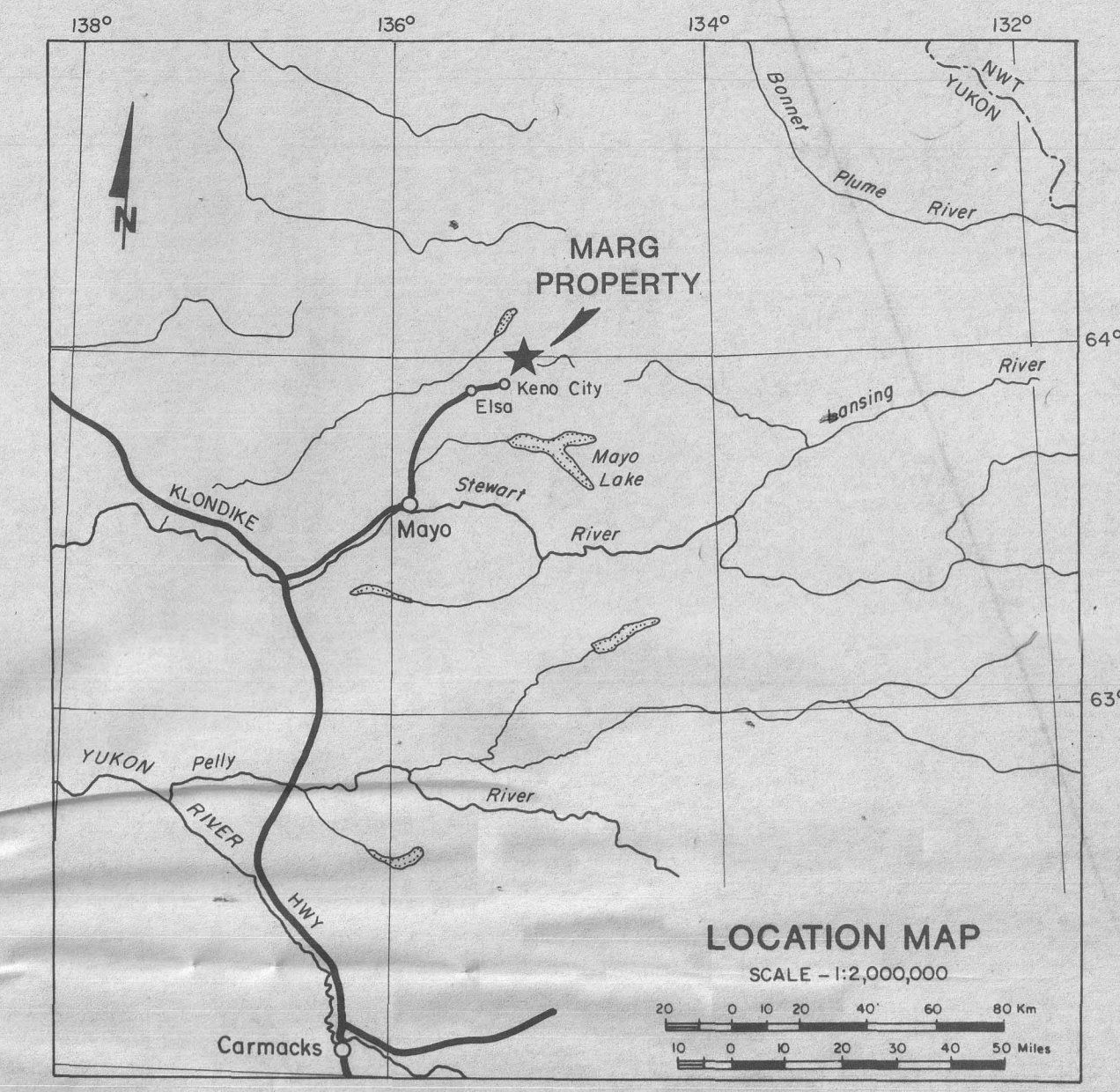
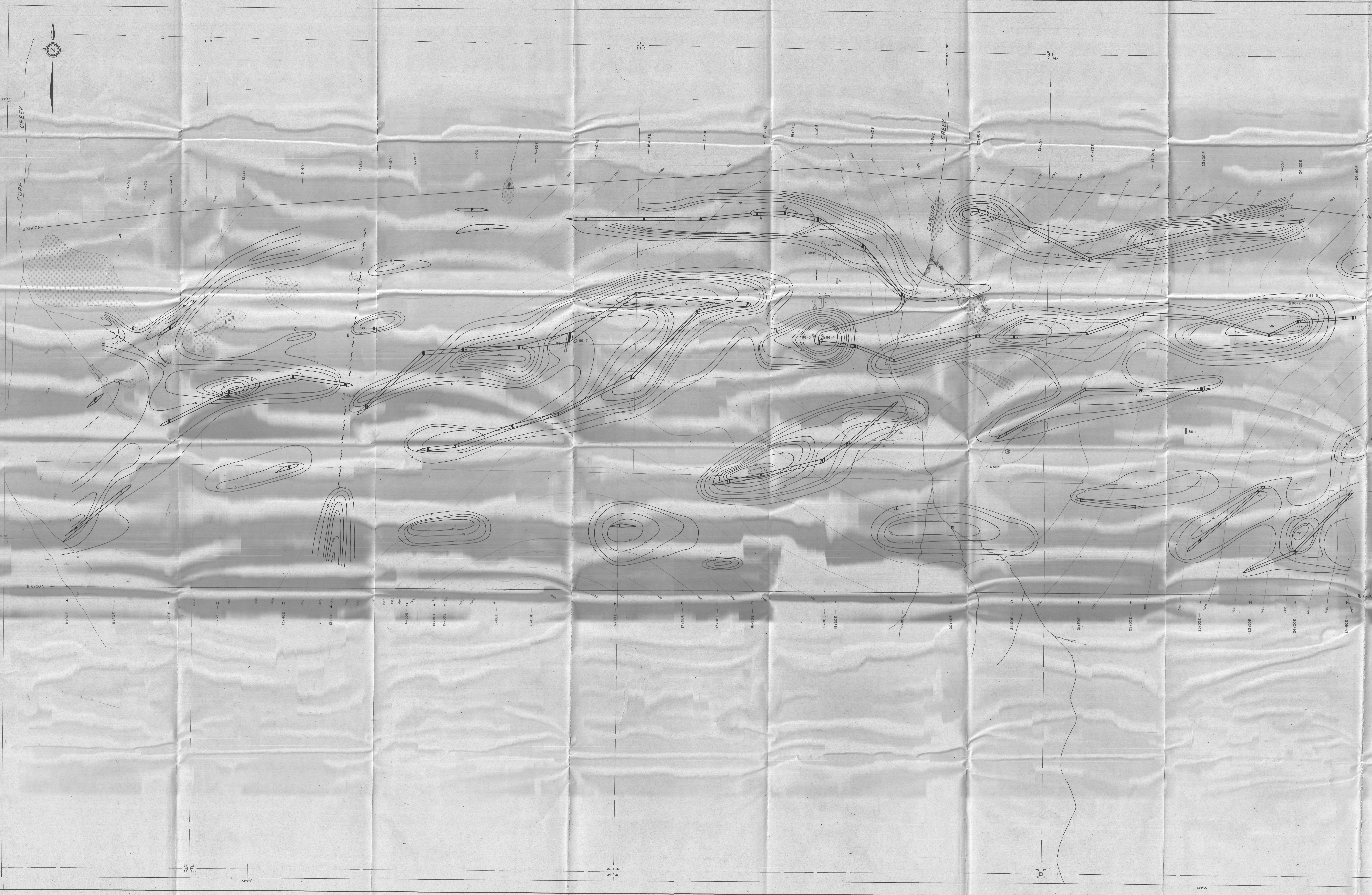
Figure 7
ARCHER, CAHRO & ASSOCIATES (1983) LIMITED
COPPER-ZINC GEOCHEMISTRY
MARG (TUDL) PROPERTY
ALL-NORTH RESOURCES LTD.
MAYO MINING DISTRICT, Y.T.
SEPTEMBER, 1986
SCALE 1:1000



- LEGEND**
- Vegetation kill zone
 - Ferricrete gossan
 - TUJL claim post
 - Helicopter pad
 - 1986 soil sample number
 - 1986 silt sample number
 - 1986 water sample number
 - 1986 trench
 - 1987 or 1984 trench
 - 1982 rock sample number
 - 1987 rock sample number
 - 1987 soil sample number
 - 1982 silt sample number
 - 1982 pit sample number

Note: Cu, Zn, Pb, Ag, As and Au values are shown on Figures 5, 6 and 7. See appendix for assays of other metals.

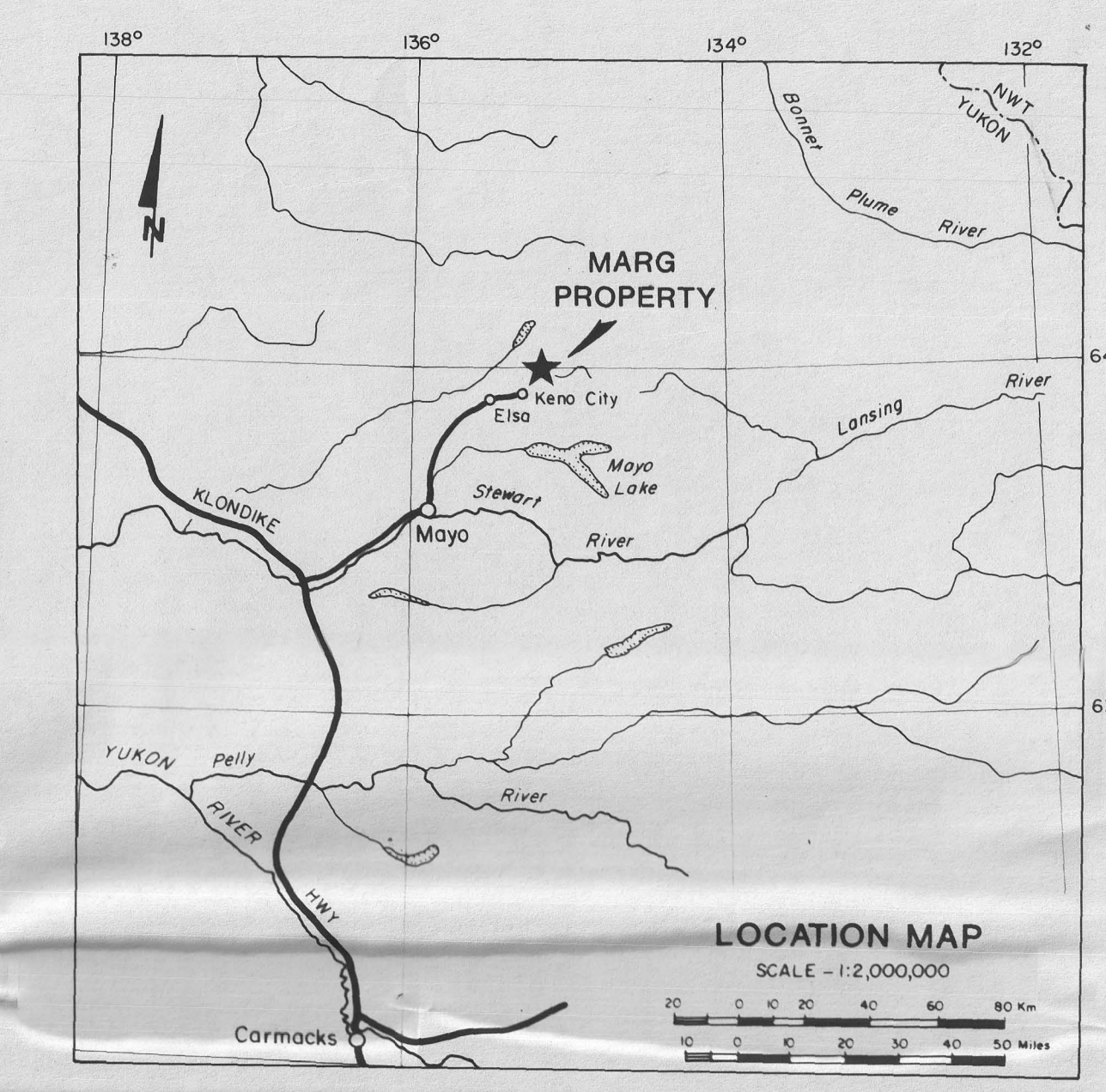
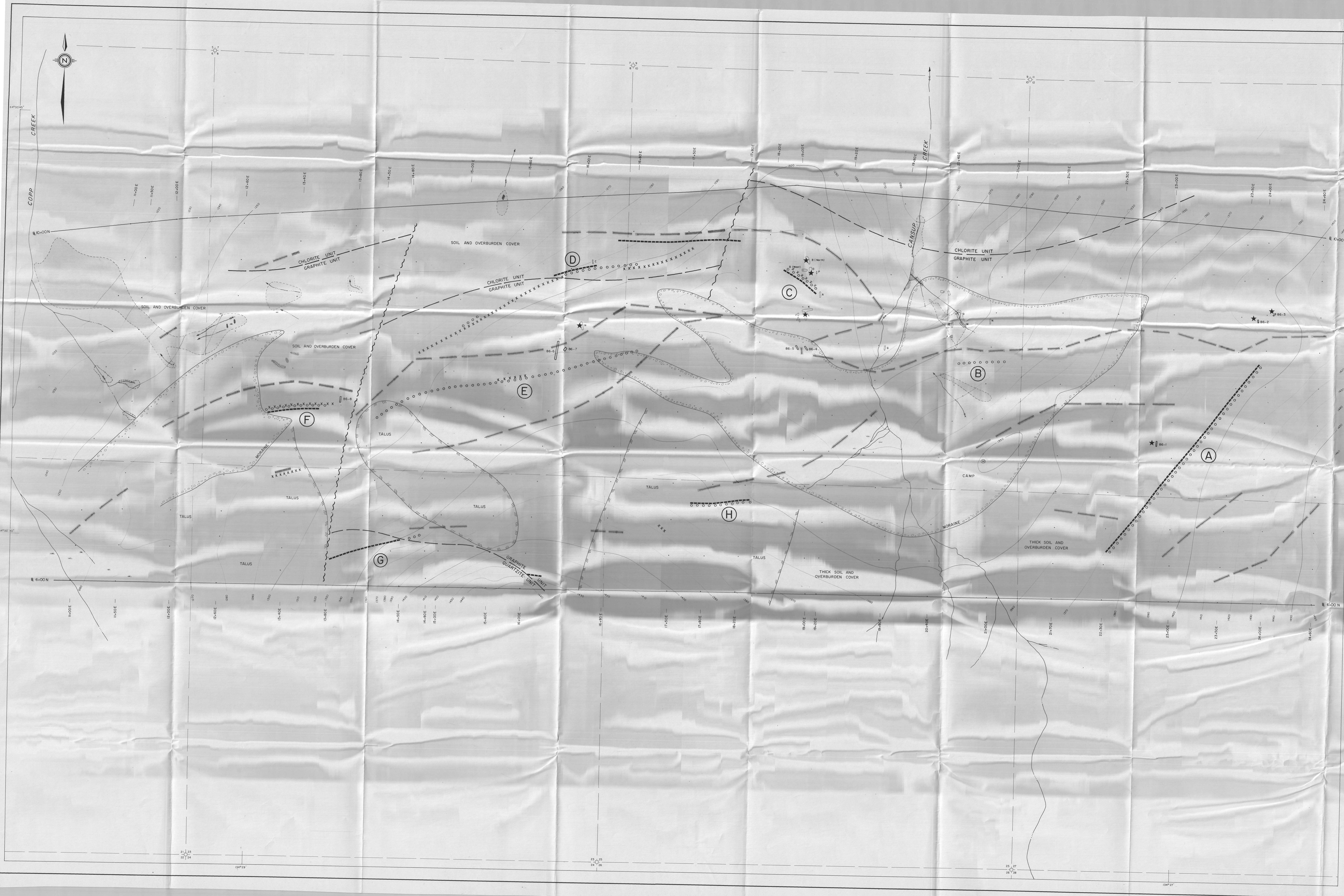
Figure 5
 ARCHER, CATIRO & ASSOCIATES (1983) LIMITED
SAMPLE LOCATIONS
 MARG (TUJL) PROPERTY
 ALL-NORTH RESOURCES LTD.
 MAYO MINING DISTRICT, Y.T.
 SEPTEMBER, 1984
 SCALE 1:1000
 0 10 20 30 40 50 100 METRES
 0 50 100 200 300 FEET



Survey performed by DELTA GEOSCIENCE LTD. using a Scintrex I.G.S. II system (configured as a VLF/MAG) and an Apol Parametrics Ltd. Mousen II Horizontal Loop EM system.

- LEGEND**
- Vegetation hill zone
 - Ferricrete gossan
 - TUDL claim posts
 - Helicopter pad
 - 1986 soil sample site
 - 1986 silt sample site
 - 1986 water sample site
 - 1986 trench
 - 1967 or 1994 trench
 - Contoured filtered VLF readings - contour interval = 5%
 - Horizontal Loop (Max - Min II) conductor axis with apparent dip

Figure 9
 ARCHER, CATIRO & ASSOCIATES (1981) LIMITED
**FILTERED VLF AND HORIZONTAL LOOP
 ELECTROMAGNETIC SURVEY**
 MARG (TUDL) PROPERTY
 ALL-NORTH RESOURCES LTD.
 MAYO MINING DISTRICT, V.T.
 SEPTEMBER, 1988
 SCALE 1:1000



- LEGEND**
- ★ Mineralization
 - Axis of EM conductor
 - ○ ○ ○ ○ Interpreted source of Lead-Silver soil anomaly
 - — — — — Interpreted source of Arsenic-Gold soil anomaly
 - X X X X X Interpreted source of Copper soil anomaly
 - Ⓞ Soil geochemical anomaly described in text
 - - - - - Interpreted contact between geological units

- Vegetation kill zone
- ⊕ Ferricrete gossan
- ⊕ TUOL claim posts
- ⊕ Helicopter pad
- ⊕ 1986 soil sample site
- ⊕ 1986 air sample site
- ⊕ 1986 water sample site
- ⊕ 1986 trench
- ⊕ 1967 or 1964 trench

Figure 11
 ARCHER, CATRO & ASSOCIATES (1983) LIMITED
INTERPRETIVE COMPILED MAP
 MARG (TUOL) PROPERTY
 ALL-NORTH RESOURCES LTD.
 MAYO MINING DISTRICT, Y.T.
 SEPTEMBER, 1986
 SCALE 1:1000
 0 10 20 30 40 50 100 METERS
 0 50 100 200 300 FEET