REPORT OF GEOLOGICAL AND GEOCHEMICAL EXPLORATION ON THE NORTHEASTERN PART OF THE GIM PROPERTY

GIM R3723(12)

Liard Mining Division

N.T.S 104 B/10

56° 40' N., 130° 56' W.

Owner:

GULF INTERNATIONAL MINERALS LTD.

200-675 West Hastings Street
Vancouver, British Columbia
V6B 4Z1

For:

CONSOLIDATED KYLE RESOURCES INC.

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By:

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October 31, 1990

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SUMMARY

The writer was retained by Consolidated Kyle Resources Inc. of Vancouver, B.C. through Cassiar East Yukon Expediting Ltd. to conduct surface exploration on the GIM Property during summer, 1990.

The GIM Property is located in the Boundary Ranges of the Coast Mountains of northwestern British Columbia. The property comprises the GIM 3723(12) claim centred on 56° 40' north and 130° 53' west in the Liard Mining Division of B.C.

The GIM 3723(12) claim is owned by Gulf International Minerals Ltd. of Vancouver, B.C. Consolidated Kyle has an option with Gulf to acquire a 100% interest in the claim by paying to Gulf $180,000 and by spending $1,000,000 on the GIM claim by 1992. Upon completion of the option, Gulf can "back in" for a 50% working interest in the claim.

Smithers and Terrace are the two main supply centres for the property-area. They are about 100 km (61 mi) southeast of the property.

During the 1990 program; supplies, equipment and crew went by road from Vancouver and Terrace, B.C. to Northern Mountain Helicopters' base at Bell 2 on B.C. Hwy. 37. From there, the camp was taken onto the property by a Bell 205 in three trips taking 2.8 hours of helicopter time. Supplies were flown from Terrace to Bronson Creek at 10-day intervals on Trans Provincial Airways scheduled flight and conveyed from there to the property by a Northern Mountain Hughs 500D.

The GIM Property occupies part of the lower eastward-facing slope of Snippaker Mountain. The western claim boundary is near tree-line at an elevation of about 1220 m (4000 ft) a.s.l. There is a gradual transition down into hemlock, spruce and fir forest on the lower part of the slope near the centre of the claim.

DuPont Exploration Canada Ltd. conducted the first recorded exploration on the property-area from 1980 to 1981. An area of uncommonly high concentrations of base and precious metals in soils and rock-chip

samples were discovered in the Cave Zone area and near tree-line in the western part of the property-area.

DuPont held its claim in the property-area from 1980 to 1984.

The GIM claim was staked in 1986, acquired by Gulf International Minerals Ltd. and optioned to Kyle Resources Inc.

Kyle contracted with Pamicon Developments to explore the claim from 1987 until 1989. Pamicon's crew sampled the Stringer Zone, discovered the VG Vein and identified a linear northeasterly trending soil-gold anomaly in the Cave Zone with concentrations from 185 to 700 ppb gold.

The current exploration reported upon herein comprised 1:5000 scale geological mapping and soil sampling on an orthogonal grid with 50 m (164 ft) line and sample intervals; trenching and/or sampling was conducted on showings found in the grid-area.

The northwestern part of the GIM claim is underlain by generally flat-lying mafic to intermediate volcanics of the Triassic-age Stuhini Group. Beds and lenses of marble outcrop within the volcanics between elevations of 884 to 945 m (2900 to 3100 ft) a.s.l.

The soil survey revealed that the areas of soil-copper and zinc enrichment are mostly the result of illuviation or the reflection of base-metal rich horizons in underlying volcanic rocks. Soil-lead, silver and gold anomalies are predominantly associated with northeasterly striking faults. In the northern part of the soil grid-area northwesterly trending structures seem to be most important for the development of soil-lead, silver and gold anomalies.

Several mineralized showings and zones were examined during the 1990 exploration program. Their economic potential ranged from low to high.

Showings with low economic potential include the stratigraphic sphalerite and fault-related pyrite occurrences at Mineral Gulch, the Camp and Stringer zones, and the large shear zone in the Zappa Creek canyon.

The VG Vein is a very high-grade, gold-bearing vein assaying up to

20.7 oz/ton gold. Its location at the northern boundary of the claim and its narrowness precludes it from becoming an high-priority exploration target. However, it may be a model for either wider northwesterly trending structures associated with soil-metal anomalies in the northern part of the main-grid area.

The exploration targets with the highest economic potential yet known on the property are in the southeastern part of the 1990 soil grid. Mineralization in this area is related to a series of steeply dipping, northeasterly striking faults. Intensity of mineralization increases with each successive fault toward the southeastern corner of the grid and the unexplored central part of the claim.

Where the Mineral Gulch Fault crosses the northern end of the Cave Zone, soil-metal contents are sub-anomalous and nearby quartz-pyrite veins have little economic mineralization. In the Cave Zone about 250 m (820 ft) south of the Mineral Gulch Fault is the J37 showing. There, a 2 m (6.6 ft) thickness of disseminated pyrite and chalcopyrite assays up to 0.285 oz/ton gold. Soils near the fault north of this showing run up to 700 ppb gold.

Soils between the J37 showing in the Cave Zone and the J55 discovery outcrop in the A-J Zone commonly contain high gold concentrations.

The J55 outcrop is at the centre of the A-J Zone, about 300 m (984 ft) south of the Cave Zone. The A-J Zone, unlike the Cave Zone, coincides with an abrupt local magnetic anomaly. A composite chip sample of disseminated pyrite with chalcopyrite and traces of pyrrhotite in chloritic andesite taken from a 3 m (9.8 ft) width across the J55 outcrop assays 1.486 oz/ton gold. Adjacent soils returning up to 6270 ppb gold and the distribution of mineralized outcrops and float boulders indicate that the A-J Zone is at least 50 m (164 ft) wide and 170 m (558 ft) long. Like other mineralization in the area, the A-J Zone mineralization is spacially related to northeasterly striking faults.

An intense soil-metal anomaly at the southeastern corner of the

grid just south of the A-J Zone suggests that the intensity of economic mineralization increases in that direction. It is probable that the area of most intense economic mineralization is east of the A-J Zone in a yet unexplored part of the GIM claim.

A multi-phase program of exploration comprising: geological mapping, soil sampling, trenching and rock sampling, and diamond drilling is recommended.

REPORT OF GEOLOGICAL AND GEOCHEMICAL EXPLORATION ON THE NORTHWESTERN PART OF THE GIM PROPERTY

1.0 INTRODUCTION

1.1 Terms of Reference

The writer was retained by Consolidated Kyle Resources Inc. of Vancouver, British Columbia through Cassiar East Yukon Expediting Ltd. to explore and report on the economic mineral potential of the northwestern part of the GIM Property.

Exploration was conducted on the GIM project from August 10 until September 2, 1990. Data compilation and processing continued until October 31, 1990.

This report is a record of exploration work conducted on the GIM Property during 1990.

1.2 Location and Access

The GIM Property is located in the Boundary Ranges of the Coast Mountains of northwestern British Columbia (Figure 1). The property comprises one claim of 20 claim-units covering about 500 ha (1200 A) centred on 56° 40' north latitude and 130° 53' west longitude in the Liard Mining Division of British Columbia (Figure 2).

The GIM Property is located about 1.5 km (0.9 mi) south of the confluence of Iskut River and Snippaker Creek in the southwestern part of the Stikine Arc gold camp. It is about 95 km (58 mi) northwest of the town of Stewart, British Columbia in an area that until recently was quite inaccessible.

Since the development of Skyline Gold Corp.'s Johnny Mountain Mine about 5 km (3 mi) west of the GIM Property in the early 1980's, intensive exploration in the area has facilitated the development of the local transportation infrastructure.

The two main supply and service centres from the Iskut River gold camp are the towns of Smithers and Terrace which are both located on B.C. Hwy. 16 about 100 km (61 mi) southeast of the camp. Terrace is 1367 km (834 mi) from Vancouver, B.C. via highways 1, 97 and 16. Canadian

Airlines International and Air B.C. operate daily flights from Vancouver to Terrace and Smithers.

There are four good gravel airstrips near the GIM Property. The runways at the Johnny Mountain Mine and at Bronson Creek are large enough to accommodate Hercules aircraft. The strips at Snippaker and Forrest Kerr creeks can take small fixed-wing aircraft.

The airstrip at Bronson Creek is located 6 km (3.6 mi) west of the GIM claim. It is the most appropriate strip from which to expedite to the property. Trans Provincial Airways operates daily flights Monday to Friday from Terrace to Bronson Creek. Central Mountain Air operates flights to Bronson Creek from Smithers on Monday, Wednesday and Friday. Northern Mountain Helicopters Ltd. maintains a base at the Bronson Creek airstrip making helicopter access from Bronson Creek to the GIM Property very cost-effective. Northern Mountain Helicopters also operates a major base at Bell 2 where B.C. Hwy. 37 crosses Bell-Irving River about 55 km (34 mi) east of the GIM Property. This is one of the closest points of road access to the claim at present.

Construction of a road along the southern side of the Iskut River valley from Bob Quinn Lake at B.C. Hwy. 37 to Bronson Creek seems imminent. That would bring road access to within 2 km (1.2 mi) of the GIM Property which would reduce exploration and development costs on the property substantially.

The State of Alaska may extend the Iskut road westward to Wrangell, Alaska, a fishing port about 110 km (67 mi) west of Bronson Creek. This would facilitate access from the property-area to tide water which would expedite the shipment of ore and equipment during mining.

During the 1990 program; supplies, equipment and crew went by road from Vancouver and Terrace, B.C. to the helicopter base at Bell 2 on B.C. Hwy. 37. From there, the camp was taken directly to the property by a Bell 205 helicopter in three trips taking a total of 2.8 hours of flying time.

Supplies were forwarded by Black's Expediting in Terrace, B.C. at 10-day intervals during the program. Supplies were flown from Terrace to Bronson Creek by Trans Provincial Airways at a cost of $0.74/lb. Northern Mountain Helicopters flew supplies from Bronson Creek to the property in a Hughs 500D taking 0.2 hours of flying time each return trip. The very short helicopter transit time from the property to Bronson Creek also made helicopter transport to remote parts of the property practical during the 1990 program.

1.3 Terrain and Vegetation

The GIM Property is located in the Boundary Ranges of the Coast Mountains of northwestern British Columbia.

Holland (1976) described the Boundary Ranges around the Iskut River and the GIM Property as follows:

> The Boundary Ranges reach their greatest heights in the granite peaks of Mount Ratz (10,290 feet), Mussel Peak (10,260 feet), Noel Peak (10,040 feet), and Kates Needle (10,002 feet) north of the Stikine River. South and west of Bowser Lake the highest summits are Mount Jancowski (9,800 feet) and Mount Patullo (8,951 feet), but elsewhere in the ranges the summits range between 7,000 and 8,500 feet in elevation. The fact that the summits are close to the coast and that the streams draining them fall rapidly to sea-level emphasizes the great relief in the mountains.
>
> In the ranges between Stewart and Mount Foster (north of Skagway) a very high percentage of the area is under a cover of glacial ice, through which isolated peaks project as nunataks. The Taku Icefield (see Plate XLIA) is a very large icefield which extends southward from Skagway to the Taku River. From it the Meade, and Mendenhall Glaciers and others flow westward to the sea, the Llewellyn Glacier flows eastward to Atlin Lake, and the Tulsequah Glacier flows southward to the head of Tulsequah River. Another extensive icefield lies north of Iskut River and south of the heads of Scud River and Mess Creek; other icefields lie between the Unuk and Salmon Rivers and between the heads of the Kitsault and Bear Rivers.
>
> Timberline is at an elevation of 3,500 to 4,000 feet, and below that level the slopes are heavily forested and underbrush is dense.
>
> The ranges have been heavily glaciated, the high peaks have matterhorn forms produced by well-developed cirque glaciation, peaks and ridges below about 6,500 feet are rounded and subdued by the effects of ice-sheet erosion, and valley walls have been steepened and spurs truncated so as to produce typical U-shaped profiles. The steep topography, combined with heavy undergrowth below timberline, makes the region exceedingly difficult for ground travel.
>
> During the Pleistocene the land was heavily loaded with ice, and near the coast was submerged beneath the sea. Deposits of marine origin occur at elevations up to 100 feet above present sea-level along the Taku River, and terraces and benches up to 500 feet above sea-level may be delta deposits of marine origin that indicate a submergence of 500 feet. In the Alice Arm and Portland Canal

areas, marine clays, deltas, and old beaches now at considerable height above sea-level indicate a maximum submergence there of 485 feet below present sea-level.

The ranges are crossed by the Taku, Whiting, Stikine, Iskut, Unuk, Bear, and Kitsault Rivers. These were antecedent rivers whose valleys, incised before the Pleistocene, served as main drainage-ways for the westward flow of glacial ice. The valleys are over-deepened by the passage through them of very large amounts of ice, with the formation of the many hanging valleys which are characteristic of the region. Cirque erosion was an important phase of the late stage of glaciation, and large well-developed cirque basins carved on the north and northeast sides of peaks and ridges are characteristic of the landscape.

A remarkable feature of the ranges between Portland Canal and the Nass River is the abundance of northeasterly trending lineaments in the granitic rocks. These are marked by Observatory Inlet and by the Kincolith, Iknouk, and Nass Rivers, as well as by numerous minor topographic features visible on aerial photographs.

Holland, S.S.; 1976: p.40.

The GIM Property occupies part of the lower eastward-facing slope of Snippaker Mountain and the lower half of the Zappa Creek valley (Figure 2). Zappa Creek flows northward through a 30 m (100 ft) deep canyon across the south-central part of the claim to Snippaker Creek near the property's eastern boundary. Snippaker Creek joins the Iskut River about 1.5 km (0.9 mi) north of the property. The Iskut River forms the major drainage in the region. It flows westward through the Coast Mountains to join the Pacific Ocean about 70 km (43 mi) west of the GIM Property.

The southwestern corner of the claim is above treeline which is generally between elevations of 1067 m and 1220 m (3500 to 4000 ft) above sea level. Treeline descends to about 701 m (2300 ft) at Zappa Creek in the southwestern part of the property. Alpine ground cover comprises mostly a thick carpet of heather. Sedges and grasses predominate in boggy areas.

There is a wide transition zone of open park extending for about 200 m (600 ft) vertically below treeline on the eastward facing nose of the ridge. There, open heather-covered meadows are interspersed with groves of blue spruce, hemlock, balsam and fir.

Below the transition zone is a forest of predominantly fir, hemlock and spruce with an undergrowth of huckleberry bushes. The ground cover is thickest on shady slopes.

The steep south-facing slope above Zappa Creek in the southwestern part of the property is covered with an horrendous growth of devil's club and salmonberry bushes that makes traversing very difficult.

The lower parts of the Zappa and Snippaker Creek valleys are covered with a forest dominated by large hemlock trees and floored with huckleberry and devil's club.

There is abundant timber on the GIM Property suitable for mining purposes.

Soil development on the GIM Property is quite variable. Its character is related directly to local relief, elevation, slope angle and recent alpine glaciation.

The Zappa Creek valley occupies the southern part of the property (Figure 2). It is a typical glacial "U" shaped valley in the southwestern part of the claim.

This valley has been reincised through recent uplift and erosion resulting in canyon excavation below the 671 m (2200 ft) elevation on the eastern part of the property.

Until recently, the upper part of the valley was completely covered with ice. The short time of exposure and steep slopes there, have precluded the development of mature soil profiles. Soil profiles are quite well-developed over the rest of the property. In the 1990 soil survey area (Figure 3), soil profiles typically comprise a 1 to 5 cm (0.4 to 2.0 in) thick black "A" horizon at surface, a 3 to 20 cm (1.2 to 7.9 in) thick red-brown "B" horizon and a grey-brown "C" horizon of varying thickness. On gentler slopes, a thin layer of white volcanic ash is commonly present near the base of the "A" horizon.

Most soils on the property are developed on a thin deposit of ablation till mixed with frost-shattered and heaved regolith derived from local bedrock. Soil-metal concentrations seem to relate closely to the distribution of metals in underlying rocks. Consequently, soil geochemical survey is very useful on the GIM Property for the location of areas of mineralized bedrock.

The area around the GIM Property is subject to cool summers and moderately cold winters. Average annual precipitation in the Iskut River area is about 432 cm (170 in), much of which falls as wet snow. The western part of the property is usually snow-covered from November until May. The duration of snow-cover is shorter on the eastern part of the property where elevations are lower.

1.4 Property

The GIM Property comprises the following claim located in the Liard Mining Division of British Columbia:

Claim Name	Record No.	No. of Units	Record Date
GIM	3723(12)	20	December 5, 1986

The claim is owned 100% by Gulf International Minerals Ltd. of Vancouver, British Columbia. Consolidated Kyle Resources Inc. has an option to acquire 100% interest in the claim upon paying a total of $180,000 in payments to Gulf and by spending a total of $1,000,000 on exploration and development of the GIM claim by 1992. The writer believes the option to be in good standing at present.

Upon completion of the Gulf International-Consolidated Kyle option, Gulf has a right to back in for a 50% working interest in the future development of the property by agreeing to pay for half of the subsequent development costs. Consolidated Kyle Resources Inc. would be the operator of that joint venture.

The writer has personally inspected the legal corner post and the cut line along the western boundary of the GIM claim (Figures 2 and 3). In his opinion, the claim was staked in accordance with the laws and regulations of the Province of British Columbia.

1.5 Previous Work

DuPont of Canada Exploration Limited undertook the earliest recorded exploration in the property-area. During 1980 DuPont conducted a regional silt sampling program in the Snippaker Creek valley (Korenic and Kowalchuk, 1982). A 7000 ppb gold analysis was obtained from a silt

sample taken upstream from the Canyon Zone on Zappa Creek (Figure 3). Consequently, the Zappa 1456(7) claim was staked on July 14, 1980 over the area now covered by the GIM 3723(12) claim (Figure 2).

Late in 1980 a short program of silt and rock sampling was conducted over the property-area. The Cave Zone and Mineral Gulch geochemical anomalies were probably located at that time.

DuPont conducted a property examination in 1981. During that program, the first grid was sampled over the Cave Zone resulting in the discovery of a linear soil-gold anomaly in that area.
The Zappa claim lapsed during the mid 1980's, probably to a regional claim inventory reduction by DuPont during a period of extremely low gold prices.

The area was restaked by Ian Hagomoen and recorded as the GIM 3723(12) claim on December 5, 1986. The ground was owned by Gulf International Minerals Ltd. who optioned it to Kyle Resources Inc.

Kyle contracted with Pamicon Developments to conduct reconnaissance mapping and sampling on the property from 1987 until 1989. Pamicon's crew resampled DuPont's Cave grid-area in 1987 and 1988 (Todoruk and Ikona, 1990). They identified a northeasterly trending soil-gold anomaly with gold concentrations ranging from 185 ppb to 700 ppb.

The Stringer grid-area (Figure 3) was sampled to test a base-metal silt anomaly. The results of that survey were inconclusive.

A soil sampling program comprising contour traverses was conducted in various areas over much of the western half of the property including the Canyon Zone area. The survey indicated that the area around the Cave Zone contained comparatively high soil-metal contents. The source of DuPont's 7000 ppb gold result in silt was not identified.

During the program, one of the prospectors on the crew found the VG Vein near the northwestern corner of the property (Figure 3). That high-grade gold showing helped focus attention on the northwestern part of the property near its boundary with the Stu claims which were being explored at that time by Hector Resources Inc.

Work by Kyle and Hector along the boundary prompted Kyle to cut out a compass line along the western boundary of the GIM claim in 1988 (Figure 3).

Some areas on the claim have been repeatedly flagged. The following is a list of the flagging colours commonly used since 1980:

Year	Location	Flagging Tape Colour
1980	DuPont grid	pink glo
1987 and 1988	sampling lines	orange + blue
1988	western claim line	red + pink glo
1988	sampling lines	pink glo + blue
1990	soil lines	lime glo
1990	rock sample sites	lime glo + pink glo

Kyle Resources Inc participated in regional airborne magnetic and electromagnetic surveys conducted by Aerodat Limited in 1987 and 1988 (Todoruk and Ikona, 1990)(Figure 7).

1.6 Summary of Present Work

Field work on the GIM Property was conducted from August 10 until September 2, 1990. The work was undertaken by:

John Ostler; M.Sc., P.Geol. West Vancouver, B.C.	Consulting Geologist
Don W. Tully, P.Eng. West Vancouver, B.C.	Consulting Engineer
David P. Nunuk, B.Sc. Aldergrove, B.C.	Geological Technician
David R. Jones, B.Sc. Vancouver, B.C.	Geological Technician
Albert Gerry, M.A.(Arc.) Vancouver, B.C.	Geological Technician
W. Adam Foran Toronto, Ont.	Geological Technician

The 1990 work program on the GIM Property included the following:

1.6(i) Physical Work

A. Machine Trenching: 67 m^3 of rock, soil and regolith was excavated by a John Deere 15 mini excavator from trenches at the Camp Zone (showing J34) and at Mineral Gulch (showing J36) (Figures 3, 19 and 20).	2.5 man-days

B. Hand Trenching: 60 m^3 of rock and regolith excavated using hand tools and dynamite at the Cave Zone (J24 and J37) and at Mineral Gulch (J12 and DN2) (Figures 3, 19 and 21).	9.0 man-days
C. Hand Clearing of Trees 0.008 ha was cleared at the A-J Zone and west of the Canyon Zone for the construction of helipads (Figure 3).	1.5 man-days
D. Transport, expediting and camp set-up time apportioned to physical work	5.5 man-days
Total time apportioned to physical work	18.5 man-days

1.6(ii) Geological and Geochemical Work

A. Geological Mapping 95 ha mapped at a scale of 1:5000 (Figures 3 and 8).	13.5 man-days
B. Soil Geochemical Survey 21.1 km of compass line was flagged and sampled at 50 m intervals comprising the main 1990 grid where 438 samples were taken. 1.1 km of compass line was flagged and sampled at 10 m intervals in two fill-in grids where 111 samples were taken. All samples were analyzed for Cu, Pb, Zn, Ag and Au (Figures 3, 9 to 13 and 14 to 18, Appendices A and C).	30.0 man-days
C. Rock Geochemical Sampling 0.01 ha of trenches were sampled and mapped at detailed scales at locations: J12, DN2, J15, J24, J34, J36, J37, J49 and J55 to J59 (Figures 3 and 19 to 22)(Appendices A and B).	13.5 man-days
D. Transportation, expediting, camp set-up, data compilation, drafting and report time apportioned to geological and geochemical work.	81.75 man-days
Total time apportioned to geological and geochemical work	138.75 man-days
Total time spent on the 1990 work program	157.25 man-days

1.7 Claims Worked On

During 1990, work was done on the following claim:

Claim Name	Record No.	No. of Units	Current Expiry Date
GIM	3723(12)	20	December 5, 1990

2.0 GEOLOGY AND GEOPHYSICS

2.1 Regional Geology

A most succinct account of the geology of the region around the GIM Property was written recently by Todoruk and Ikona (1990).

Their description of that geology is adapted as follows:

The geology of the Iskut-Galore-Eskay-Sulphurets area has undergone considerable study in the past few years by industry, federal and provincial geologists (Figures 4 and 5). Much of this work stemmed from Grove's mapping of the Stewart Complex (Grove, 1969, 1970, 1973, 1982, 1987). Earliest geological mapping of the area was carried out by Kerr (1948) during the 1920s and 1930s although Operation Stikine undertaken by the Geological Survey of Canada in 1957 produced the first publications. R.G. Anderson of the Geological Survey of Canada is presently mapping the area within NTS 104B.

Grove defined a northwest trending assemblage of Upper Triassic and Jurassic volcanics and sedimentary rocks extending from Alice Arm in the south to the Iskut River in the north as the Stewart Complex. Palaeozoic limestone and volcanics underlie the complex while Mesozoic to Tertiary aged intrusives cut the units. Tertiary felsic plutons forming the Coast Plutonic Complex bound the area to the west while clastic sediments of the Spatsizi and Bowser Lake Groups overlap on the east.

Age dating of mineralization within the various mining districts suggests a close cospatial and coeval relationship with early Jurassic volcanics and intrusives within the Hazelton Group. This has directed exploration efforts toward these members

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2.1(i) Palaeozoic Stikine

Palaeozoic Stikine Assemblage rocks commonly occur as uplifted blocks associated with major intrusive bodies as exposed along the southwest flanks of Johnny Mountain and Zappa Mountain.

At the base of the Stikine assemblage stratigraphic column, at least four distinctive limestone members have been differentiated interlayered with mafic volcaniclastics, felsic crystal tuffs, pebble conglomerate and siliceous shale.

Mississippian rocks consist of thick-bedded limestone members interbedded with chert, pillowed basalt and epiclastic rocks.

Lower Permian units comprise thin- to thick-bedded corraline limestone interbedded with mafic to felsic volcanic flows, tuffs and volcaniclastics.

2.1(ii) Mesozoic Volcanics and Sediments

A. Stuhini Group
Upper Triassic Stuhini Group volcanic and sedimentary rocks are characterized by a distinct facies change from bimodal mafic to felsic flows and tuffs interbedded with thick sections of limestone in the northwest to predominantly mafic volcanics with minor shale members in the southeast.

B. Hazelton Group
Lower Jurassic Hazelton Group volcanic and sedimentary rocks predominantly occur in the southeast, northwest corners and central portions of the Galore-Iskut-Sulphurets area. Hazelton Group stratigraphy consists of the lowermost Unuk River Formation (Grove, 1986) comprised of mafic to intermediate volcanics with interbedded shale, argillite and greywacke sediments; the Betty Creek Formation (Grove, 1986) overlying the Unuk River Formation consists of maroon and green volcanic conglomerate and breccia, with the youngest uppermost member of the Hazelton Group consisting of welded tuff and tuff breccia correlative with Grove's (1986) Salmon River Formation and Alldrick's Dilworth Formation.

Lower Jurassic volcanics of the area are commonly correlated with the Telkwa Formation of the Hazelton Group. A close spatial and coeval relationship has long been recognized (Alldrick, 1986, 1987 and others) between Lower Jurassic volcanism and Early Jurassic intrusive activity and its metallogenic importance in precious metal mineralization (Premier Porphyry). Because of the relationship, lower members of the Hazelton Group are considered the most favourable targets for exploration.

C. Spatsizi Group
Spatsizi Group shales, tuffs and limestone of upper Lower and lower Middle Jurassic age overlay Hazelton Group rocks in the eastern part of the map area. Buff, sandy bivalve and belemnite fossile bearing limestone units decrease in abundance in the northern parts of the area at the expense of shale. Here, black radiolarian-bearing siliceous shale alternately interbeds with white tuffs giving the units an informal name of 'pyjama beds'. This pyjama bed sequence serves as an important marker for identifying the favourable underlying Hazelton Group.

D. Bowser Group
Bowser Group Middle and Upper Jurassic clastic sediments cover most of the northeast quadrant of the map area. Interbedded shale and greywacke units predominate in the south while thick-bedded shales dominate toward the north. Near the highlands toward the northern reaches of the Bowser Basin, basal chert-rich conglomerates identify the Bowser Group as an overlap assemblage.

2.1(iii) Cenozoic Volcanics

Recent mafic flows and ash of the Hoodoo Formation, Iskut Formation and Lava Fork Formation cap specific areas within the region.

2.1(iv) Plutonic Rocks

The Coast Plutonic Complex, forming the western boundary of the Stewart Complex, is generally characterized by felsic Tertiary plutons. Late Triassic Stuhini Group and Early Jurassic Hazelton Group plutonic styles

suggest coeval and cospatial relationships with surrounding volcanics via distinctive porphyritic dykes such as the Premier Porphyry. Tertiary Coast Complex plutons lack these dykes and volcanic equivalents.

Todoruk and Ikona, 1990; pp.8-11.

2.2 Regional Geophysics

The Department of Energy, Mines and Resources conducted an airborne magnetic survey of the Iskut River area during the late 1970s (Figure 6).

The area south of the confluence of Snippaker Creek and Iskut River coincides with a gentle transition from a magnetic low west of Snippaker Mountain to a mild magnetic high east of Snippaker Creek (Figure 6). This magnetic profile reveals no anomalous areas near the GIM Property.

During 1987 and 1988 Kyle Resources Inc. participated in airborne magnetic and electromagnetic surveys of the region around the GIM Property (Figure 7). That survey revealed more magnetic detail than did the previous Energy, Mines and Resources survey.

A north-south trending magnetic trough transects the centre of the GIM Property. It is flanked to east and west by arcuate magnetic highs.

It is believed by the writer that these magnetic features are related to generally flat-lying rock units that outcrop around the nose of the eastward trending spur of Snippaker Mountain (Figures 2, 7 and 8).

2.3 Property Geology

About 95 ha on the northwestern part of the GIM Property was mapped at a scale of 1:5000 during the 1990 work program (Figure 8).

This map-area is underlain by volcanics and marble assigned to the Late Triassic-age Stuhini Group (Alldrick et al., 1990) which forms the lower volcanisedimentary sequence of the Stewart Complex. In the Snippaker Creek area the Stuhini Group comprises medium to dark green, mafic to intermediate volcanic and volcaniclastic rocks and thick sequences of brown, black and grey, immature sedimentary rocks. Minor

amounts of limestone occur within the sedimentary and volcanic stratigraphy as beds, lenses and clasts (Alldrick et al., 1990).

Rocks mapped on the GIM Property during 1990 were a sequence of upright, generally flat-lying mafic to intermediate volcanics containing minor amounts of marble (Figure 8).

2.3(i) Stratigraphy

The lowermost rock unit mapped on the property is a porphyritic andesite. This rock type is mapped in Zappa Creek between elevations of 457 m and 610 m (1500 to 2000 ft) above sea level. A very similar porphyritic andesite outcrops below elevations of about 900 m (2950 ft) on the northwestern part of the claim. Further mapping in the north-central part of the claim will probably reveal that these two occurrences of porphyritic andesite form parts of a contiguous rock unit.

This lower porphyritic andesite is at least 150 m (500 ft) thick. It is light grey-green on fresh surfaces that weather a to rusty brown matrix containing conspicuous white plagioclase phenocrysts. These phenocrysts are euhedral to subhedral and have long axes commonly up to 4 mm (0.15 in) long. The most common matrix minerals are plagioclase, blue-green hornblende and biotite. Minor amounts of retrograde chlorite and fine-grained pyrite are also present.

This unit seems to have been deposited as a sequence of thick, massive flows. Flow tops are very indistinct. The writer has the impression that this unit thins from west to east, possibly indicating a westerly volcanic source. More mapping is needed to substantiate this.

Above the lower porphyritic andesite is a sequence of massive and pillowed andesite. This unit is exposed at elevations from 838 m to 990 m (2750 to 3250 ft) above sea level in the northwestern part of the claim where it is overlain by tuff and agglomerate. This andesite is about 150 m (500 ft) thick.

These andesites are generally massive to porphyritic, containing equal amounts of plagioclase and hornblende phenocrysts with rare diopside phenocrysts. Rarely do phenocrysts in this unit exceed 2 mm (0.08 in) in

length. This rock unit is dark grey-green on fresh surfaces which weather to brown.

The massive andesites are commonly pillowed. Horizontal pillow axes are up to 2 m (6.5 ft) in length. It is not known how much of this length is due to deformation. Pillows are commonly very difficult to identify due to chemical weathering and moss cover on most outcrops. Identification is further hampered by a lack of amygdales and spherulitic textures in pillow selvages.

Within the lower massive andesite is a comparatively thin band of porphyritic andesite (Figure 8) which attains a maximum thickness of 40 m (131 ft) at soil station 600 S, 600 E which is 550 m south and 650 m east of the GIM legal corner post. It may be contiguous with the lower porphyritic andesite in the area covered by the Stu claims west of the GIM Property.

The only metasedimentary rocks mapped on the property during the 1990 program are marbles located from about 600 m east to 1000 m east, and from about 750 m south to 1350 south of the GIM legal corner post (Figure 8). This marble occurs as a semi-contiguous series of lenses and beds within the lower massive andesite.

The marble is a medium grey massive crystalline carbonate that weathers grey to tan due to variable degrees of dolomitization. The siliceous clast content in this unit ranges up to about 10%.

The marble weathers recessively, producing outcrops that are commonly heavily pitted and well-rounded due to rapid chemical weathering. Soil-covered areas underlain by marble have a distinctive mini-karst topography of sink holes up to 5 m (16 ft) deep.

Andesite tuff, agglomerate and pillowed basalt flows overlie the lower massive andesite in the northwestern part of the property (Figure 8). These rock units form a stratigraphic cuplet that thins steeply southward and is not exposed south of 1100 m south of the GIM i.c.p.

The andesite tuff and agglomerate are dark grey-green on fresh surfaces that weather to rusty brown. The tuffs contain up to 25% dark

green fuami of biotite and chlorite in a matrix of plagioclase, blue-green hornblende, biotite and chlorite. Minor amounts of fine-grained subhedral pyrite occur throughout this unit.

Abundant pebble to cobble-size volcanic clasts within andesitic matrix form the agglomerates. Rock types forming the volcanic clasts are very similar to those on the rest of the property. The numbers of porphyritic and massive clasts are roughly equal. Intrusive clasts invariably comprise less than 5% of the total number of clasts in any agglomerate outcrop. They are diorite and gabbro, assumed to be derived from subvolcanic intrusions within Stuhini Group volcanic stratigraphy.

This unit attains a maximum thickness of about 30 m (100 ft) near the western boundary of the property about 550 m south of the GIM 1.c.p. (Figure 8).

Pillowed basalt and mafic andesite overlie the andesite tuff and agglomerate. These mafic rocks are exposed from the horseshoe-shaped pond 800 m south and 600 m east of the GIM 1.c.p., to the western boundary of the claim (Figure 8) where they are about 100 m (300 ft) thick.

The basalts are massive dark green rocks that weather mid-green. Blue-green chlorite and yellowish green epidote are common in fractures and on weathered surfaces. On fresh surfaces, small hornblende and diopside phenocrysts are sparsely disseminated throughout a green matrix of hornblende, biotite, plagioclase and chlorite.

Both the basalts and interlayered mafic andesites commonly are pillowed.

Mafic andesites in this unit are generally massive but may contain sparsely disseminated mafic phenocrysts and amygdales. Weathered mafic andesite surfaces are green like those of the basalt. However, on weathered mafic andesite surfaces, epidote is much less pervasive and plagioclase phenocrysts are more apparent than on weathered exposures of basalt.

The upper massive andesite overlies basalt and mafic andesite north of 1000 m south (Figure 8). Farther south, the upper massive

andesite overlies the lower massive andesite. There, the contact between the two massive andesite units is undetectable.

The descriptions of the upper and lower massive andesites are identical. They probably represent continual deposition from the same volcanic source.

The upper massive andesite is about 100 m (328 ft) thick where it is exposed near the western boundary of the property.

The uppermost stratigraphic unit exposed on the property is a porphyritic andesite.that outcrops at the western boundary of the property near 1000 m south (Figure 8).

This porphyritic andesite closely resembles those exposed lower in the stratigraphy on the GIM Property. All of the porphyritic andesites on the property may have the same magma source.

Two sub-circular rhyolite plugs are exposed in massive andesite on the property. They are located at 1150 south and 150 m east and at 1400 m south, 600 east (Figure 8).

The plugs are about 70 m (230 ft) in diameter. They contain flow-banded, white-weathering, grey rhyolite that contains small quartz and feldspar phenocrysts in a hard felsic matrix with almost no iron-rich minerals.

2.3(ii) Provenance

All of the rocks mapped on the GIM Property during the 1990 program were deposited in a deep ocean basin near a series of volcanic vents. The lack of amygdales around pillow selvages in the massive andesites and basalt indicate that they were deposited on a sea floor under sufficient water pressure to prevent lava frothing; indicative of deposition in deep water.

The presence of carbonates indicates that reefs were being built in shallow water somewhere in the basin during the deposition of the massive andesite. The dimensions of some of the carbonate lenses suggest that they may have been deposited as bioherms which would indicate deposition within the photic zone near the surface of the sea. This seems

unlikely in light of the depth of water beneath which the adjacent andesites were deposited.

It is more probable that the carbonates are bioclastic turbidite deposits resulting from the transport of reef detritus down into the depositional basin from reefs built elsewhere in the region. The present shapes of the carbonate lenses are probably due to ductile deformation.

The lack of sedimentary interbeds reveals that volcanism proceeded almost continually throughout the time of deposition of the stratigraphy on the property.

The volcanics on the GIM Property emanated from several vents containing different magma types.

Three units of felsic porphyritic andesite are exposed on the northwestern part of the property. They seem to thicken westward and may coalesce west of the claim-area suggesting that the source of the porphyritic andesite is west of the property. The stratigraphy on the claim may be a record of interfingering units of porphyritic andesite and massive andesite and basalt representing a facies change at the eastern margin of a porphyritic andesitic pile.

Mapping of the massive and pillowed andesite has not been sufficiently intensive to reveal the direction to their source-area.

The mafic andesite tuff and agglomerate and overlying basalt seem to thin southward, perhaps indicating that they came from a source north of the property. More intensive mapping would be required to confirm this.

The rhyolite plugs are probably feeder pipes to volcanic units deposited above the andesites that are lost to erosion in the property-area.

2.3(iii) Deformation and Metamorphism

Mapping deformation on the GIM Property was a most frustrating experience. It was obvious that these rocks had undergone several phases of deformation; however, all major cleavages were fracture cleavages and the lack of minor structures in most outcrops precluded relating cleavages

to phases of deformation. A detailed microscopic study of oriented thin sections of samples would be required to resolve this.

From pillow-top determinations it is apparent that the volcanics on the GIM Property are an upright succession that has been closely folded along northwestward trending axes, sub-parallel with the trends of the major fracture cleavages. It is most probable that the close folding occurred during the first two phases of deformation.

The lack of easily recognizable minor structures is probably related to a lack of ductility differences among the various intermediate to mafic volcanic units. It seems that deformation was accommodated evenly throughout the stratigraphy inhibiting the development of outcrop-scale structures.

A persistent steep northeastward trending fracture cleavage may be related to a third phase of deformation. Extensive high-angle normal and transcurrent faults that cross the property-area also may be related to that deformational phase. Economic mineralization on the property seems to be spatially related to this extensive fault system.

Rocks on the property were regionally metamorphosed to biotite grade within the greenschist facies of metamorphism early during deformation.

A significant amount of fluid migration and economic mineral deposition occurred along generally northeasterly trending faults late during or after the last phase of deformation. All showings of economic mineralization seem to have been concentrated at that time.

3.0 SOIL GEOCHEMISTRY

3.1 1990 Soil Survey

The 1990 soil survey was conducted over the northwestern part of the GIM 3723(12) claim. Soil lines comprising the main 1990 grid were run east-west at 50 m (164 ft) intervals from the 1988 cut line near the western boundary of the claim. A total of 21.1 km (12.9 mi) of lines were surveyed by hip chain and compass in laying out the main grid, which comprised 22 lines covering 110 ha (264 A)(Figures 3 and 14 to 18). Soil

stations were located at 50 m (164 ft) intervals along the lines of the main grid.

The 900 m south picket of the 1988 cut line was used as a starting point for the 1990 main grid. Picket co-ordinates along that unsurveyed line do not coincide exactly with similar co-ordinates along the western claim boundary south of the GIM legal corner post. This combined with magnetic deflection and minor compassing and slope correction errors accumulate to make the 1990 grid station co-ordinates different from true co-ordinates south and east of the legal corner post (Figures 14 to 18).

Two fill-in grids were laid out in the Cave and A-J-Zone areas within the main grid (Figures 3 and 14 to 18) comprising 1.1 km (0.67 mi) of line at 25 m (82 ft) intervals sampled at 10 m (33 ft) intervals on each line.

Soil survey results comprise Appendix C. . These results are contoured on Figures 14 to 18.

At most sample stations, soils were sufficiently developed to enable collection of a sample from an illuviated "B" horizon. Sampling depths varied from about 0.1 to 0.3 m (0.3 to 1.0 ft).

Soils on the northwestern part of the GIM claim are typical of those formed on glaciated lower alpine slopes where a thin layer of ablation till formed the initial regolith for soil development. Periglacial processes such as cryoturbation caused mixing with underlying rock. Subsequent post-glacial organic activity developed soil profiles. This resulted in well-developed soil horizons and comparatively mature soil profiles derived mostly from local parent rock.

Consequently, soil-metal concentrations commonly reflect the metal content of the underlying parent rock.

Soil samples were shipped in undyed kraft paper envelopes to Chemex Labs Limited of North Vancouver, B.C. A total of 438 samples were taken from the main grid and 111 samples were taken from the two fill-in grids. All samples were analyzed for copper, lead, zinc, silver and gold (Appendix C). The method of analysis forms part of Appendix A.

A statistical analysis using the methods of LePeltier (1969) with minor graphic variation was performed on the soil geochemical data (Figures 9 to 13). Through this method, graphic representations of cumulative frequency curves resulted in the separation of data into common and anomalous populations.

Accepting the assumption that the common logs of the soil data naturally tend to form a normal distribution, these populations reflect the elimination of data below the 50th., 84th. and 97.5th. centiles and represent regional background, sub-anomalous and anomalous thresholds respectively.

LePeltier's (1969) method was most appropriate to analyze date from a region containing mineral occurrences within a comparatively large area of soil containing average metal concentrations. To maintain that aspect of the soil sample population in the statistical analysis, samples from the two fill-in grids were excluded from statistical analysis. The fill-in grids were sampled intensively in small areas over known soil-metal anomalies. To include them in the analysis would have introduced a bias that would have unduly raised statistical threshold levels.

Once threshold values were established over the main grid-area, all data were included in the soil-metal contour maps (Figures 14 to 18).

Geochemical contour intervals of the common logs of data from the main grid for copper, lead, zinc, silver and gold were plotted (Figures 9 to 13). They reflected the upper first and second standard deviations derived from graphic analysis as follows:

	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au* ppb
84th. Centile (sub-anomalous)	60	23	146	1.06	24
97.5th. Centile (anomalous)	185	74	392	2.4	185

* gold was not contoured

Graphic representations of copper, lead, zinc, silver and gold in soils from the main grid on the GIM claim confirm this.

The shape of the curve for silver above 0.2 ppm resembles a straight line (Figure 12). It is similar to LePeltier's (1969) example of a log-normal distribution of soil-metal contents with a common provenance. The shape of the silver curve below 0.02 ppm; the detection limit of the analysis, is unknown.

The copper, lead and zinc curves are close to straight lines below their sub-anomalous thresholds (Figure 9 to 11). They are positively skewed above the 84th. centile representing an excess of high soil-metal concentrations with regard to these metals. The positively skewed upper parts of these curves all plot close to straight lines with flatter slopes than those of the log-normal plots of the lower parts of the corresponding curves. This could reflect the presence of two log-normal populations of soil-metal concentrations of copper, lead and zinc; the populations of lower concentrations representing regional background levels and populations of higher concentrations resulting from local mechanisms of soil-metal concentration. The distribution of soil-metal concentrations across the grid-area confirms this (Figures 14 to 16).

The writer's interpretation of the gold distribution curve (Figures 13 and 18) is similar to those of copper, lead and zinc. However, interpretation of the soil-gold distribution is more tenuous than that of the other metals because more than 50% of the soil-gold concentrations are below 5 ppb; the lower analytical detection limit for gold.

Because gold travels through soil as mechanical particles, the concentration of gold in two adjacent samples can not be used to predict the concentration of gold at a location between those sample sites. For this reason, gold concentrations are not contoured on Figure 18. Despite this "nugget effect", soil-gold concentrations are plotted in the assumption that groups of adjacent samples with high gold concentrations indicate the possible location of a gold-bearing rock formation beneath the soil.

3.2 Interpretation of 1990 Soil Survey Results

3.2(i) Interpretation of Copper in Soils

Copper is the most mobile of the metals analyzed from the 1990 soil survey. It is commonly concentrated in illuviated soils at slope bottoms below primary sources. There are two major primary sources of copper in the survey-area; mafic rocks with relatively high background copper contents and fault-related mineralized rocks.

The most obvious example of a copper-soil anomaly occurring over copper-rich mafic volcanics is near soil station 750 S, 250 E where a 780 ppm soil-copper content overlies the J15 showing (Figures 8 and 14). This showing is in a basaltic skree containing sparely disseminated chalcopyrite, malachite and azurite. The area near the J24 veins at grid location 700 S, 550 E also has an elevated soil-copper content of 360 ppm.

The largest soil-copper anomaly in the northwestern part of the grid-area is near line 400 S at station 200 E (Figure 14). There, high soil-copper concentrations are interpreted to be related to illuviation in a large skree emanating from mafic andesite cliffs above (Figure 8). The mafic andesite source rocks contain no visible concentrations of copper-rich minerals.

Illuviation on relatively flat areas down-slope from the Cave and A-J Zone mineral occurrences is responsible for the broad soil-copper anomalies north and east of those zones. These copper anomalies extend in an arcuate band across the soil grid-area from soil station 600 S, 750 E southward to 1100 S, 950 E on the grid (Figure 14). The mobility of copper in soils is particularly evident near the Cave Zone where northeast and easterly trending gullies draining this zone are all enriched with copper.

Soil-copper anomalies in and south of the A-J Zone and at the Stringer Zone are coincident with fault-related sulphide mineralization in those zones (Figures 8 and 14).

The reason for the area of copper enrichment at the southeastern corner of the grid is unknown.

3.2(ii) Interpretation of Lead in Soils

There seem to be three distinct primary sources of soil-lead enrichment in the main grid-area, galena-bearing carbonates, mineralization associated with faults, and sulphide mineralization at flow tops and in pillow selvages near the top of the upper massive andesite.

A group of carbonate lenses and beds outcrop within the volcanic stratigraphy from the Cave Zone to southeast of the A-J Zone. Near those areas, the carbonates contain small amounts of disseminated galena. This is probably the primary source of the high concentrations of lead in soils from soil station 700 S, 700 E to 1100 S, 950 E on the grid (Figures 8 and 15).

The 220 ppm soil-lead anomaly at line 700 S, station 700 E (Figure 15) is probably related to a northeasterly trending fault and not to the presence of galena-bearing carbonates.

A broad area of soil-lead enrichment near line 350 S, station 450 E (Figure 15) is probably related to the intersection of northeasterly and northwesterly trending faults (Figure 8). This is coincident with soil-metal enrichments of copper, silver and gold (Figures 16 and 18).

The fault extending northeasterly through the Stringer and Camp zones coincides with a elongate area of high soil-lead concentrations. The three soil-lead anomalies near this fault (Figure 15) are located in areas where showings have developed in mineralized flow tops and pillow selvages near the top of the upper massive andesite (Figures 8 and 15).

3.2(iii) Interpretation of Zinc in Soils

High zinc concentrations in soils in the 1990 survey-area seem to have three distinct kinds of sources: stratigraphic units with comparatively high zinc contents, illuviation and zinc related to mineralization near faults.

Two major areas of zinc enrichment in soil associated with stratigraphy are in the southwest and southeastern corners of the survey-area (Figure 16). Near the southwestern corner of the grid-area at the Camp and Stringer zones, and at Mineral Gulch, high soil-zinc

concentrations occur in the upper massive andesite just below its contact with the upper porphyritic andesite (Figures 8 and 16). There, galena and sphalerite concentrations occur in mineralized flow tops and pillow selvages. Soil-zinc contents seem to be less closely related to the major northeasterly trending faults in the area than are soil-lead contents.

There is a large area of high soil-zinc concentrations near the southeastern corner of the main grid-area (Figure 16). It is partially explained by the presence of small amounts of sphalerite in the marble that outcrops there (Figures 8 and 16). However, the absence of soil-zinc anomalies over the carbonates near the Cave Zone suggests that the high concentrations of zinc in soils east of the A-J Zone may be related to more than just the presence of carbonate.

Pyritic andesite retrieved from this area by the soil crew is similar to that of the A-J Zone discovery outcrop at sample station J55 (Figures 8 and 22). Coincident soil-geochemical anomalies of copper, gold, silver and lead near line 1050 S, station 1000 E suggest that fault associated mineralization similar to that of the A-J Zone may be present at the southeastern corner of the main grid-area.

The large skree at soil line 350 S near station 200 E is enriched in zinc as well as copper (Figures 8, 14 and 16). This is the most obvious example of a soil-zinc anomaly generated by illuviation in the grid-area.

Some areas of fault-related mineralization do not correspond with large soil-zinc anomalies. For example, the J37 showing in the Cave Zone (Figures 8 and 16) has no corresponding soil-zinc anomaly. The amount of soil-zinc enrichment at the A-J Zone, the J15 copper showing and at the fault intersection along soil line 350 S near station 450 E is minimal.

The source of a significant soil-zinc anomaly at 600 S, 950 E on the soil grid is unknown.

3.2(iv) Interpretation of Silver in Soils

The statistical curve of the population of soil-silver concentrations from the 1990 survey indicates that there is no outstanding

pattern of silver enrichment in soils in the northwestern part of the GIM Property (Figure 12).

The pattern of elevated soil-silver contents near Mineral Gulch and at the fault intersection at soil line 350 S, station 450 E suggests that these are due to underlying fault-related mineralization (Figure 17). The small soil-silver anomalies overlying the J24 and J37 sample sites in the Cave Zone and the J55 discovery outcrop at the A-J Zone are all probably due to mineralization circulating along northeasterly trending faults (Figures 8 and 17).

A large silver anomaly around the Camp Zone is probably related to showings of mineralized pillow selvages like those exposed at the J34 trench where samples have assayed up to 12 oz/ton silver (Figure 20). The primary source of mineralization at this showing is assumed to be the Camp Zone Fault (Figure 8).

The large soil-metal anomaly near the southeastern corner of the grid-area remains unexplained.

3.2(v) Interpretation of Gold in Soils

Because gold generally travels through soil as mechanical particles and not as a chemical wash, gold concentrations in two adjacent samples can not be used to predict gold concentrations in samples taken between them. Also, the concentration of gold in a sample may be due more to the size of a single chance particle taken in that sample than to the abundance of gold in the area where the sample is taken. This "nugget effect" mitigates the usefulness of a single high gold analysis. Soil-gold anomalies are best-defined as areas with several adjacent sample locations that return high soil-gold contents.

There are six areas within the main grid with clusters of samples with high soil-gold contents.

Soils over the Cave and A-J zones commonly have high gold concentrations. Soils in the Cave Zone run up to 660 ppb gold. At the A-J Zone, soils contain up to 6270 ppb gold (Figure 18). Gold in soils in

both of these areas seems to be associated with fault-controlled pyrite-chalcopyrite mineralization in andesite (Figures 21 and 22).

North of the Cave Zone near line 600 S, station 650 E is a northeasterly trending area of gold-enriched soils that is probably related to a northeasterly trending fault (Figures 8 and 18).

There is a broad area of soils with moderately high gold concentrations in the southwestern part of the grid-area near the Camp and Stringer zones. This area is coincident with areas of silver and lead enrichment in soils. It is probably related to sulphide mineralization deposited near the Camp Zone and Mineral Gulch Faults (Figures 8, 15, 17 and 18).

The fault intersection at line 350 S near station 450 E in the northern part of the grid-area is associated with an area of slightly elevated soil-gold contents. Copper, lead and silver enrichment is present there also (Figures 8, 14, 15, 17 and 18).

An area of high soil-gold concentrations near line 50 S, 700 E near the northeastern corner of the grid-area can not be explained yet. It may be associated with a northwesterly trending vein similar to the VG Vein (Section 4.7, this report).

4.0 ECONOMIC MINERALIZATION

4.1 Showings near Mineral Gulch

Mineral Gulch is located near the western boundary of the claim about 1050 m south of the GIM legal corner post (Figures 8 and 19).

There are two types of mineral showing in this area; disseminated pyrite in chloritic andesite and quartz lenses containing massive purple or coarse-grained yellow sphalerite and blue-grey galena.

Disseminated fine-grained, subhedral pyrite occurs throughout boulders of dark green chloritic andesite at the DN2 showing. A composite chip sample from this location contains 0.24 oz/ton gold with no significant base-metal values (Figure 19).

This mineralization is interpreted to be related to an easterly striking fault that joins the Camp Zone Fault at the J33 showing (Figure

8). It is perplexing that although mineralized andesites from the DN2 and J33 showings look identical, a composite chip sample from the DN2 showing assays 0.24 oz/ton gold and a similar sample from the J33 showing runs only 0.006 oz/ton gold (Appendix B).

Massive and disseminated sphalerite with minor galena and trace amounts of pyrite occur in quartz lenses in massive andesite just below its contact with porphyritic andesite in the Mineral Gulch area (Figures 8 and 19). These mineralized quartz lenses are up to 3 m (9.8 ft) long and 10 cm (0.3 ft) thick. They occupy flow-top planes and pillow selvages.

Assays from samples of this mineralization return up to 21.5% zinc and 6.88% lead with minor amounts of copper and very low precious metal values. Samples of massive fine-grained purple sphalerite mineralization and disseminated coarse-grained yellow sphalerite in quartz return similar zinc-assay concentrations.

These zinc-lead occurrences are interpreted to be the result of local mineral concentration during metamorphism from a zinc and lead-rich horizon near the top of the upper massive andesite.

4.2 Camp and Stringer Zones

The Camp Zone J34 showing is located 1100 m south and 200 m east of the GIM legal corner post. The Stringer Zone is located near the western claim boundary about 1250 m south of the GIM 1.c.p.

Both the Camp and Stringer zones are located along the Camp Zone Fault (Figure 8). This fault is associated with a linear area of high lead, silver and gold concentrations in soils (Figures 15, 17 and 18). It is possible that these two mineralized zones may lie along a mineralized trend that contains other yet undiscovered mineral showings.

An intensive soil-geochemical survey was conducted over the Stringer Zone during the 1988 exploration program. That work resulted in the identification of a soil-zinc anomaly below massive andesite bluffs near the western property boundary. The 1990 soil survey confirmed that

high soil-zinc concentrations were accompanied by high lead, silver and sub-anomalous gold concentrations (Figures 14 to 18).

It was found that the massive andesite bluffs were sparsely mineralized with small veinlets and concentrations of pyrite with minor sphalerite. Sample STG 1 (Appendix B) of sulphide-bearing vein material returned very low base and precious-metal values.

It was concluded from the 1990 soil survey and geological examination that soil-zinc concentrations near the Stringer Zone was related to a slight enrichment in massive andesite in the area just below its contact with porphyritic andesite. It appeared to be a less-developed version of the Mineral Gulch sphalerite showings.

Soil-lead, silver and gold concentrations were presumed to be related to mineralization along the Camp Zone Fault. However, no localization of mineralization was evident near the Stringer Zone.

The Camp Zone J34 showing was discovered through the investigation of mineralized quartz found in the hillside just below the 1990 camp site.

White quartz containing up to 30% pyrite and traces of galena occupies pillow selvages in the massive andesite at the J34 trench (Figure 20). Mineralized quartz is up to 30 cm (1 ft) thick and assays up to 12 oz/ton silver and 0.122 oz/ton gold with small amounts of base metals.

Although this mineralization is stratabound, the lack of base metals at the J34 showing and the local pattern of gold, silver and lead in soils (Figures 15, 17 and 18) indicates that the Camp Zone mineralization is related to the Camp Zone Fault. It probably migrated from near the fault plane into fractures following zones of weakness along pillow contacts.

4.3 J15 Copper Showing, J33 Pyrite Showing and J24 Veins

The J15 copper showing is located at a cliff and skree where the Camp Zone and Mineral Gulch faults cross basalt and mafic andesite (Figure 8). This showing is about 900 m south and 280 m east of the GIM legal corner post.

In the J15 area, small blebs and stringers of chalcopyrite are sparsely disseminated throughout massive basalt. Chalcopyrite weathering produces blue and green blooms of azurite and malachite on fracture surfaces.

This showing was sampled during the 1988 program. It returned very low copper and gold values and consequently, was not resampled during the 1990 exploration program.

The visible copper mineralization at the J15 showing is presumed to have been concentrated from background copper concentrations in the basalt by fluids circulating along the planes of the Camp Zone and Mineral Gulch faults.

The J33 showing is located at the creek just down-hill from the J15 skree (Figure 8) at the intersection of the Camp Zone and Mineral Gulch Faults. At the J33 outcrop, pyrite is disseminated throughout chloritic mafic volcanic rock. As has been mentioned previously, samples from the DN2 and J33 showings look identical. However, unlike the DN2 showing sample, that from the J33 outcrop contained very low base and precious-metal concentrations (Appendix B).

The J24 veins outcrop near the Mineral Gulch Fault at the northwestern margin of the Cave Zone. They are 770 m south and 650 m east of the GIM legal corner post (Figure 8).

Three heavily pyritized quartz veins outcrop in massive andesite at this showing. These sub-vertical, northwesterly striking veins are up to 20 cm (0.68 ft) thick and are up to 2 m (6.5 ft) apart.

Sampling from the outcrop surface during the 1988 program (Todoruk and Ikona, 1990) indicated that the veins at the J24 sample location contained very low precious and base-metal concentrations. Trenching and resampling of these veins at 1 m (3.3 ft) below surface during the 1990 program confirmed that the J24 veins contained no economic potential.

4.4 Cave Zone and J37 Trench

During their 1981 examination of the GIM Property-area, DuPont's crew discovered an area of high concentrations of metals in soils (Korenic and Kowalchuk, 1982). Later, that area became known as the Cave Zone.

A soil survey conducted over the Cave Grid area during 1988 revealed a northeasterly trending soil-gold anomaly with gold concentrations up to 700 ppb gold (Todoruk and Ikona, 1990). Soil sampling during the 1990 program confirmed that there was an extensive area of soil-metal enrichment in the Cave Zone area (Figures 14 to 18). Concurrent mapping indicated that mineralization was spatially related to a northeasterly striking fault where it crossed a carbonate rock unit in andesite.

The J37 showing is located where the northeasterly striking fault crosses a marble-andesite contact at the eastern end of the Cave Zone soil grid (Figures 8, 14 to 18 and 21). It is about 900 m south and 800 m east of the GIM legal corner post.

At the J37 trench, a 1 m (3.3 ft) thickness of a rock bluff was blown off for a length of about 15 m (49.2 ft) and a height of about 3 m (9.8 ft).

Disseminated pyrite with minor chalcopyrite and traces of pyrrhotite is concentrated in a 2 m (6.6 ft) thickness of andesitic agglomerate above a moderately dipping carbonate contact at the J37 location. Mineralization extends upward for at least 4 m (13.1 ft) above the carbonate contact along steeply dipping, northwesterly striking fracture planes.

Assays from samples of mineralized andesite at this location contain up to 0.285 oz/ton gold with minor amounts of silver and base metals.

It is believed that mineralization at the J37 trench migrated to its present location from the plane of a northeasterly striking fault located near the soil-gold anomaly just north of the trench. It is

possible that the intensity of mineralization increases significantly in the rocks beneath the soil cover near the fault north of the J37 showing.

4.5 A-J Zone

The A-J Zone is located south of the Cave Zone. It is 1150 m south and 800 m east of the GIM legal corner post (Figure 8).

This zone was discovered during the 1990 program through the deflection of main-grid compass lines by a magnetic anomaly. Several outcrops of altered andesite pervasively mineralized with pyrite, minor chalcopyrite and pyrrhotite were found in the middle of the onion shaped deflection of the grid lines by the magnetic anomaly. An intensive soil survey conducted over the central part of the anomaly returned soil-gold contents of up to 6270 ppb gold and elevated concentrations of other metals (Figures 14 to 18).

The J55 discovery outcrop is located in the centre of the A-J Zone (Figures 8 and 22). It consists of highly chloritized andesite containing disseminated pyrite with minor chalcopyrite and pyrrhotite. Sulphides are most abundant along cleavage planes but commonly occur as blebs, stringers and flecks throughout the rock.

A composite chip sample of 20 chips taken from a 3 m (9.8 ft) width across the J55 outcrop assayed 1.486 oz/ton gold. A similar sample taken over the same area by D. Tully, P.Eng. graded 1.181 oz/ton gold. Similar mineralization at outcrop J57 located over 20 m (65.6 ft) south of the J55 showing assayed 0.192 oz/ton gold (Figure 22, Appendix B).

The presence of medium-grained undeformed actinolite in the andesite of the J55 outcrop indicates that mineralizing fluids may have circulated from a carbonate host to the J55 showing. The nearest carbonate outcrop is about 50 m (164 ft) east and down-hill from the J55 sample site, suggesting that mineralizing fluids have circulated through a convection cell in the rock for a distance of at least 50 m. (Figure 22).

The nearest carbonate outcrop to the J55 showing is the J56 sample site where galena and sphalerite is disseminated near the contact of marble and massive andesite.

A-J Zone mineralization contains a very low magnetic mineral content comprising small amounts of pyrrhotite and probably trace amounts of magnetite. For mineralization with such a paucity of magnetic minerals to induce a magnetic disturbance the intensity of that coincident with the A-J Zone, it would have to be quite large.

The distribution of anomalous soil-gold analyses and mineralized outcrops indicates that A-J Zone gold mineralization extends for at least 50 m (164 ft) from north to south . Mineralized float boulders found in a meadow about 120 m (393.6 ft) west and up-hill from the J55 showing suggest that mineralization could extend for at least 170 m (557.6 ft) east-west (Figure 22). The exact shape and depth of this mineralization is unknown at present.

Mapping in the A-J Zone revealed that a series of closely spaced northwesterly striking faults crosses the zone. It is assumed that these faults are the regional conduits for fluids responsible for the A-J Zone mineralization.

4.6 Canyon Zone

The Canyon Zone is an area of orange-brown gossan extending from 1450 m south, 1350 m east to 900 m south, 2150 m east of the GIM legal corner post. It is readily seen in the Zappa Creek Canyon from the air (Figure 8).

The Canyon Zone was examined and sampled at tow locations; J22 and J23 (Figure 8). There, felsic porphyritic andesite has been pervasively altered and mineralized across a width of at least 70 m (229.6 ft) in a northeasterly striking, steeply northwesterly dipping shear zone.

Near the margins of the shear, feldspar is converted to epidote muscovite and chlorite. Near the centre of the shear, the rock is composed entirely of quartz, chlorite pyrite and marcasite. Narrow veins

of quartz and pyrite oriented parallel with the shear zone sporadically occur near the centre of the shear zone.

Samples from the Canyon Zone contain very small amounts of economic minerals (Appendix B).

The presence of marcasite indicated that the temperature of fluids migrating through this structure was too low to induce gold concentration.

4.7 VG Vein and Northwesterly Trending Structures

The VG Vein is located at the northern claim boundary about 200 m east of the GIM legal corner post (Figure 8).

This vein was discovered during the 1988 exploration program on the property. At that time, the VG Vein was trenched and sampled . Assays ran up to 3.7 oz/ton gold.

The VG Vein is a northwesterly striking, steeply northeasterly dipping fissure exposed on a cliff of porphyritic andesite. The vein is 1 to 4 cm (0.4 to 1.6 in) thick and contains pyrite, hematite, goethite and free gold in quartz. At this location; J49, the writer obtained assays as high as 20.7 oz/ton gold with 2.98 oz/ton silver (Appendix B).

Although it is very interesting geologically, the VG Vein is too narrow to warrant development. However, this type of mineralization may occur in wider northwesterly trending structures in the northern part of the claim.

Gold analyses from the 1990 soil survey indicate that structures similar to the VG Vein may occur at soil line 50S, station 700 E and at the fault intersection near line 350 S near station 450 E (Figures 8 and 18).

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1(i) Geology

The northwestern part of the GIM 3723(12) claim is underlain by flat-lying mafic and intermediate volcanics of the Triassic-age Stuhini

Group. Beds of marble outcrop within the volcanics between elevations of 884 to 945 m (2900 to 3100 ft) a.s.l.

5.1(ii) Soil Survey

A soil survey conducted on the northwestern part of the claim confirms that soil-metal contents generally reflect metal concentrations in underlying stratigraphy. Areas of soil-copper and zinc enrichment are generally the result of illuviation or the reflection of base-metal rich horizons in underlying volcanic rocks. Soil-lead, silver and gold anomalies are predominantly associated with northeasterly striking faults in most of the grid-area. In the northern part of the grid, northwesterly trending structures seem to be most important for the development of soil-lead, silver and gold anomalies.

5.1(iii) Stratigraphic Sphalerite and Chalcopyrite Mineralization along the Camp Zone and Mineral Gulch Faults

Massive and disseminated sphalerite-galena mineralization at the Stringer Zone and at Mineral Gulch is probably related to local concentration of zinc and lead during metamorphism. The source of this mineralization is a horizon in the upper massive andesite that is slightly enriched in base metals. These showings have little economic potential.

Similarly, chalcopyrite mineralization at the J15 copper showing is the result of slight concentration of background copper values in basalt near the intersection of the Camp Zone and Mineral Gulch faults.

5.1(iv) Fault-related Pyrite Mineralization along the Camp Zone and Mineral Gulch Faults

At the DN2 trench, disseminated pyrite in chloritic andesite boulders graded up to 0.24 oz/ton gold. Although the local source of the boulders was not found, it was assumed that it was close by, near the Mineral Gulch Fault plane.

Quartz-pyrite veins in pillow selvages at the J34 trench in the Camp Zone assayed up to 0.122 oz/ton gold and 12 oz/ton silver with low base-metal concentrations. The lack of base metal values and the

distribution of high soil-lead, silver and gold concentrations in the area indicated that Camp Zone mineralization was fault generated also.

Although they show some economic promise, these showings are relatively unimportant and should receive a moderately low exploration priority during future programs.

5.1(v) Canyon Zone

The Canyon Zone is hosted by a large northeasterly striking, northwesterly dipping shear. Despite its size, this structure is of little interest. It hosts only pyrite and marcasite that contains very low precious-metal concentrations. No further exploration should be conducted on this structure.

5.1(vi) VG Vein and Northwesterly Trending Structures

The VG Vein is a very high-grade gold-bearing vein assaying up to 20.7 oz/ton gold. Its location on the northern claim boundary and narrowness preclude it from being an high-priority exploration target. However, it may be a model for other wider northwesterly trending structures associated with soil-metal anomalies in the northern part of the main grid-area. These anomalies should be investigated.

5.1(vii) Cave and A-J Zones

A series of northeasterly striking faults crosses the grid-area from the Cave Zone to the southeastern corner of the grid. The intensity of fault-related sulphide mineralization increases dramatically southeastward with each successive fault.

Near the Mineral Gulch Fault at the northwestern end of the Cave Zone, soil-metal contents are sub-anomalous at best. The nearby J24 quartz-pyrite veins contain almost no economic mineralization.

In the Cave Zone, about 250 m (820 ft) southeast of the J24 veins is the J37 trench. At that trench a 2 m (6.6 ft) thickness of disseminated pyrite and chalcopyrite assays up to 0.285 oz/ton gold. Soils near the northeasterly striking fault a few metres north of the J37 trench run up to 700 ppb gold.

The soils between the Cave Zone and the A-J Zone commonly contain high gold concentrations.

The J55 discovery outcrop is at the centre of the A-J Zone, about 300 m (984 ft) south of the J37 trench. The A-J Zone, unlike the Cave Zone, coincides with an abrupt local magnetic anomaly. A composite chip sample of disseminated pyrite with minor chalcopyrite and traces of pyrrhotite in chloritic andesite taken from a 3 m (9.8 ft) width assays 1.486 oz/ton gold. Adjacent soils running up to 6270 ppb gold and the local distribution of mineralized outcrops and float boulders indicate that this zone is at least 50 m (164 ft) wide and 170 m (558 ft) long. Like other mineralization in the area, the A-J Zone is spatially related to northeasterly striking faults.

An intense soil-metal anomaly south of the A-J Zone suggests that the intensity of economic mineralization increases in that direction. It is probable that the area of the most intense economic mineralization is east of the A-J Zone in an unexplored part of the property.

This area should receive the highest priority during subsequent exploration programs.

5.2 Recommendations

The area found during the 1990 program to host the greatest economic mineral potential was near the southeastern corner of the 1990 soil grid near the Cave and A-J zones.

At present, the central part of the GIM Property adjacent to the eastern boundary of the 1990 soil grid is unexplored. Soil sampling and geological mapping should be conducted there as soon as possible.

Trenching and detailed sampling of the Cave and A-J zones, and any similar newly discovered showings should be conducted concurrently with mapping and soil survey over the central part of the property. During this first phase of surface exploration the northwesterly trending structures in the northern part of the 1990 soil grid-area should be investigated also.

If reasonable encouragement is received from the results of trenching and sampling, a program of diamond drilling should be conducted to test mineralization for contiguity to depth.

To efficiently drill targets near the southeastern corner of the 1990 soil grid-area, it would be necessary to establish a new camp in the meadow just west and up-hill from the A-J Zone. The creek that drains the southern boundary of the 1990 soil grid-area would be the best source of drilling and camp water for that area.

Vancouver, British Columbia
October 31, 1990

John Ostler; M.Sc., P.Geol.
Consulting Geologist
Vice-president of Exploration,
Consolidated Kyle Resources Inc.

6.0 REFERENCES

Alldrick, D.J.; 1987: Geology and Mineral Deposits of the Salmon River Valley, Stewart Area, N.T.S. 104 A and 104 B; B.C. Min. Energy, Mines and Petr. Res., O.F. 1987-22.

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Korenic, J.A. and Kowalchuk, J.M.; 1982: DuPont of Canada Exploration Limited, 1981 Property Evaluation Report, Iskut River Area, Argonaut Rpoject; Company Report, pp. 78-84.

Lepeltier, C.; 1969: A Simplified Statistical Treatment of Geochemical Data by Graphical Representation; Econ. Geology, Vol. 64, pp. 538-550.

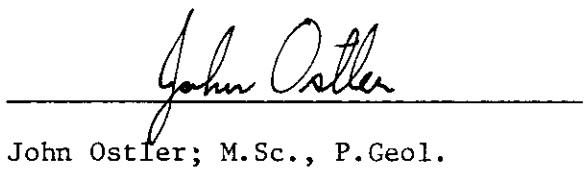
Todoruk, S.L. and Ikona, C.K.; 1990: Geological Report on the GIM Mineral Claim; Summary Report of Kyle Resources Inc., 18 p.

7.0 ITEMIZED COST STATEMENT FOR THE 1990 WORK PROGRAM

	Physical		Geological	
Wages:				
Don W. Tully, P.Eng.				
2 days @ $500/day			$ 1,000.00	
John Ostler; M.Sc., P.Geol.				
57.5 days @ $250/day	$ 625.00		$13,750.00	
Albert Gerry, M.A.(Arc)				
4 days @ $150/day			$ 600.00	
David Nunuk, B.Sc.				
47.75 days @ $190/day	$ 3,040.00		$ 6,032.50	
David Jones, B.Sc.				
21 days @ $185/day			$ 3,885.00	
W. Adam Foran				
25 days @ $155/day			$ 3,875.00	
	$ 3,665.00	$ 3,665.00	$29,142.50	$29,142.50
Transport:				
Helicopter;				
Bell 205, 4.6 hr @ $1600/hr + fuel	$ 2,765.44		$ 5,530.89	
Hughs 500D, 4 hr @ $670/hr + fuel	$ 1,058.13		$ 2,116.27	
Truck;				
1, 3/4-ton crew cab, Terrace to Bell 2 return	$ 25.88		$ 194.12	
1, 1-ton pick-up				
1 month @ $2400/month	$ 2,400.00			
1, 3/4-ton pick-up				
1 month @ $200/month	$ 235.29		$ 1,764.71	
Gasoline and oil	$ 487.15		$ 487.14	
Parking, highway tolls and repair	$ 24.20		$ 24.21	
	$ 6,996.09	$ 6,996.09	$10,117.34	$10,117.34
Camp:				
1 base camp inc. power				
1 month @ $1000/month	$ 117.65		$ 882.35	
2 chain saws				
1 month @ $150/month each	$ 270.00		$ 30.00	
Trenching, line cutting and traversing equipment				
1 month @ $600/month	$ 500.00		$ 100.00	
Naphtha and propane	$ 14.52		$ 108.92	
Camp and survey supplies	$ 120.54		$ 904.05	
1 John Deere 15 Mini-excavator rental	$ 2,737.12			
1 Pionjar rock drill rental	$ 763.20			
Drill steel	$ 300.00			
Insurance for excavator and rock drill	$ 250.00			
1 drum of diesel fuel	$ 107.66			
Explosives	$ 517.71			
Grease	$ 23.00			
	$ 5,721.40	$ 5,721.40	$ 2,025.32	$ 2,025.32
Balances carried forward		$16,382.49		$41,285.16

	Physical		Geological	
Balances carried forward		$16,382.49		$41,285.16
Crew Costs:				
Hotel	$ 44.43		$ 333.21	
Meals in transit	$ 64.47		$ 483.51	
Camp food	$ 161.12		$ 1,208.37	
	$ 270.02	$ 270.02	$ 2,025.09	$ 2,025.09
Communication:				
SBX 11A radio, 1 month @ $350/month	$ 41.18		$ 308.82	
Radiotelephone and long distance calls	$ 17.56		$ 113.21	
Expediting, 30 hr @ $20/hr	$ 70.59		$ 529.41	
Shipping of food, parts samples, and supplies during camp	$ 94.83		$ 711.22	
	$ 224.16	$ 224.16	$ 1,662.66	$ 1,662.66
Assay and Analysis:				
32 element ICP			$ 99.00	
Rock assay			$ 2,044.75	
Soil analysis			$ 7,803.00	
			$ 9,946.75	$ 9,946.75
Report Production:				
Production of 1:5,000 scale base map	$ 23.93		$ 179.51	
Photocopy and reduction			$ 273.58	
Blackline copy of large maps			$ 491.00	
	$ 23.93	$ 23.93	$ 944.09	$ 944.09
Prorated total costs		$16,900.60		$55,863.75

Total cost of 1990 work program = $72,764.35



John Ostler; M.Sc., P.Geol.
Vice-president of Exploration
Consolidated Kyle Resources Inc.

APPENDIX A

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

A9021616

Comments: ATTN:JOHN OSTLER. CC:ALBERT GERRY

CERTIFICATE A9021616

CASSIAR EAST YUKON EXPEDITING LTD.

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 3-SEP-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	7	Assay ring to approx 150 mesh
294	7	Crush and split (0-10 pounds)

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
398	7	Au oz/T: 1/2 assay ton	FA-AAS	0.002	20.00
385	7	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
331	7	As %: HClO4-HNO3 digestion	AAS	0.01	100.0
301	7	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0
312	7	Pb %: HClO4-HNO3 digestion	AAS	0.01	100.0
316	7	Zn %: HClO4-HNO3 digestion	AAS	0.01	100.0

Note:

For results, see Appendix B.

APPENDIX A

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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A9021710

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CERTIFICATE A9021710

CASSIAR EAST YUKON EXPEDITING LTD.

Project: GIM
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 4-SEP-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	8	Assay pulv, screen -150, roll
294	8	Crush and split (0-10 pounds)

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
398	8	Au oz/T: 1/2 assay ton	FA-AAS	0.002	20.00
385	8	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
301	8	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0
316	8	Zn %: HClO4-HNO3 digestion	AAS	0.01	100.0
331	8	As %: HClO4-HNO3 digestion	AAS	0.01	100.0

NOTE: For results, see Appendix B.

APPENDIX A

Chemex Labs Ltd.

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1016 - 470 GRANVILLE ST.
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A9022319

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CERTIFICATE A9022319

CASSIAR EAST YUKON EXPEDITING LTD.

Project: GIM
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 18-SEP-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	27	Assay pulv, screen -150, roll
294	27	Crush and split (0-10 pounds)

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
398	27	Au oz/T: 1/2 assay ton	FA-AAS	0.002	20.00
385	27	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
301	27	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0
312	27	Pb %: HClO4-HNO3 digestion	AAS	0.01	100.0
316	27	Zn %: HClO4-HNO3 digestion	AAS	0.01	100.0
331	26	As %: HClO4-HNO3 digestion	AAS	0.01	100.0

NOTE: For results, see Appendix B.

APPENDIX A

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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To: OSTLER, JOHN

1016 - 470 GRANVILLE ST.
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V6C 1V5

A9022553

Comments: ATTN: JOHN OSTLER CC: DON TULLY ENG. LTD.

CERTIFICATE A9022553

OSTLER, JOHN

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 18-SEP-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	9	Geochem ring to approx 150 mesh
294	9	Crush and split (0-10 pounds)
238	9	NITRIC-AQUA REGIA DIGESTION

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
922	9	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
921	9	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
923	9	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	9	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	9	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	9	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	9	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	9	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	9	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	9	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	9	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	9	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	9	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	9	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	9	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	9	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	9	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	9	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
938	9	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	9	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	9	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	9	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	9	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	9	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	9	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
944	9	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	9	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	9	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	9	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	9	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	9	W ppm: 32 element, soil & rock	ICP-AES	10	10000
950	9	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

NOTE: For results, see Appendix B.

APPENDIX A

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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PHONE: 604-984-0221

To: OSTLER, JOHN

1016 - 470 GRANVILLE ST.
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V6C 1V5

A9023609

Comments: ATTN: JOHN OSTLER CC: DON TULLY ENG. LTD

CERTIFICATE A9023609

OSTLER, JOHN

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 8-OCT-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
214	8	Received sample as pulp

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
396	8	Au oz/T: 1/2 assay ton	FA-GRAVIMETRIC	0.003	20.000
383	4	Ag oz/T	FA-GRAVIMETRIC	0.01	20.00
312	4	Pb %: HClO4-HNO3 digestion	AAS	0.01	100.0
316	4	Zn %: HClO4-HNO3 digestion	AAS	0.01	100.0
320	4	Cd %: HClO4-HNO3 digestion	AAS	0.001	100.00

NOTE: For results, see Appendix B.

APPENDIX A

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

A9021615

Comments: CC: JOHN OSTLER CC: ALBERT GERRY

CERTIFICATE A9021615

CASSIAR EAST YUKON EXPEDITING LTD.

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 3-SEP-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	113	Dry, sieve to -80 mesh
203	1	Dry, sieve to -35 mesh
205	1	Geochem ring to approx 150 mesh
217	10	Geochem ring entire sample
238	124	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	124	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
2	124	Cu ppm: HNO3-aqua regia digest	AAS	1	10000
4	124	Pb ppm: HNO3-aqua regia digest	AAS-BKGD CORR	1	10000
5	124	Zn ppm: HNO3-aqua regia digest	AAS	1	10000
6	124	Ag ppm: HNO3-aqua regia digest	AAS-BKGD CORR	0.2	100.0

NOTES: Certificate of analysis for soils.

Analytical proceedures are the same for all soils:

Certificates No. A9021615
A9021709
A9022024
A9022318
A9022459

For results of soil analyses, see Appendix C.

APPENDIX B

Chemex Labs Ltd.

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212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project :
Comments: ATTN:JOHN OSTLER. CC:ALBERT GERRY

Page Number : 1
Total Pages : 1
Invoice Date: 3-SEP-90
Invoice No. : I-9021616
P.O. Number :

CERTIFICATE OF ANALYSIS A9021616

SAMPLE DESCRIPTION	PREP CODE		Au oz/T	Ag oz/T	As %	Cu %	Pb %	Zn %	
CS1-1	208	294	0.028	0.39	0.03	< 0.01	0.17	0.15	← J34; Camp Zone
DN1-1	208	294	0.006	0.50	< 0.01	0.04	4.11	15.80	] J12 (DN1);sphalerite at Mineral Gulch
DN1-2	208	294	0.002	0.68	< 0.01	0.15	6.88	20.0	]
DN2-1	208	294	0.240	0.12	< 0.01	0.16	0.26	0.46	← DN2; pyrite showing at Mineral Gulch
JS-1	208	294	0.012	0.07	< 0.01	0.04	0.16	0.33	← Mineral Gulch float
J22-1	208	294	< 0.002	0.03	< 0.01	< 0.01	0.08	0.11	← J22; Canyon Zone
STG1-1	208	294	0.008	0.05	< 0.01	0.01	0.05	0.14	← J2; Stringer Zone, pyrite in quartz

CERTIFICATION: W. Ellis Armstrong

APPENDIX B

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Page Number : 1
Total Pages : 1
Invoice Date: 03-SEP-90
Invoice No. : I-9021710
P.O. Number :

CERTIFICATE OF ANALYSIS A9021710

SAMPLE DESCRIPTION	PREP CODE		Au oz/T	Ag oz/T	Cu %	Zn %	As %	
J22 DS	207	294	< 0.002	0.01	< 0.01	0.02	< 0.01	J22; Canyon Zone, pyrite in shear
J22 US	207	294	< 0.002	< 0.01	< 0.01	< 0.01	< 0.01	
J22 VEIN	207	294	< 0.002	< 0.01	< 0.01	< 0.01	< 0.01	J22; quartz-pyrite vein
J23	207	294	< 0.002	< 0.01	< 0.01	< 0.01	< 0.01	J23; Canyon Zone, pyrite-chlorite-quartz
J23 MAR	207	294	< 0.002	0.01	< 0.01	< 0.01	< 0.01	J23; Marcasite in quartz
J23 PY	207	294	< 0.012	0.01	< 0.01	< 0.01	< 0.01	J23; Massive pyrite
J24 VEIN	207	294	< 0.002	0.73	0.84	0.74	0.04	J24; Quartz-pyrite vein, north of Cave Zone
J24 GODGE	207	294	< 0.002	0.09	0.05	0.02	< 0.01	

CERTIFICATION: W. Ken Breamin

APPENDIX B

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 18-SEP-90
Invoice No. : I-9022319
P.O. Number :

CERTIFICATE OF ANALYSIS A9022319

SAMPLE DESCRIPTION	PREP CODE		Au oz/T	Ag oz/T	Cu %	Pb %	Zn %	As %	
BROWN	207	294	0.048	0.02	0.08	< 0.01	0.01	< 0.01	J24; altered andesite
GREEN	207	294	0.078	0.32	0.96	< 0.01	0.02	< 0.01	
J24-MV-1	207	294	0.004	0.60	0.12	0.03	0.01	0.10	J24; main vein, pyrite in quartz
J24-MV-2	207	294	0.012	0.39	0.13	0.09	0.02	0.20	
J24-MV-3	207	294	0.012	0.39	0.12	0.08	0.08	0.80	
J24-EV-1	207	294	0.004	0.10	0.02	0.02	0.07	0.13	J24; east vein
J24-WV-1	207	294	0.006	0.28	0.11	0.02	0.02	0.09	J24; west vein
J33-1	207	294	0.006	0.05	0.13	< 0.01	0.01	0.01	J33; disseminated pyrite in andesite
J34-1	207	294	0.012	12.00	0.02	0.22	0.03	0.02	J34; Camp Zone trench
J34-2	207	294	0.032	1.89	< 0.01	0.02	0.01	< 0.01	
J34-3	207	294	0.004	0.29	0.01	0.05	0.03	0.01	pyrite + galena in quartz
J34-4	207	294	0.002	0.09	0.01	0.01	< 0.01	< 0.01	
J36-1-1	207	294	< 0.002	0.03	0.01	0.01	< 0.01	< 0.01	J36; Mineral Gulch sphalerite lenses
J36-F1	207	294	0.004	1.58	0.02	0.01	15.50	< 0.01	
J36-F2	207	294	< 0.002	0.19	0.01	0.13	15.90	< 0.01	
J37-1-1	207	294	0.008	0.16	0.54	0.02	0.76	< 0.01	J37; Cave Zone trench, pyrite + chalco. in altered andesite above marble contact
J37-1-2	207	294	0.002	0.01	0.04	0.02	0.10	< 0.01	
J37-2-1	207	294	0.006	0.09	0.30	0.02	0.04	< 0.01	
J37-3-1	207	294	0.090	0.05	0.12	0.02	0.03	< 0.01	
J37-3-2	207	294	0.285	0.14	0.11	0.02	0.04	0.01	
J37-3-3	207	294	0.010	0.01	0.04	< 0.01	0.02	< 0.01	
J49-1-1	207	294	20.70	2.98	0.01	< 0.01	0.01	not/ss	J49; VG Vein, free gold + hematite
J49-1-2	207	294	1.404	0.51	0.01	0.01	0.01	0.02	
J55-1-1	207	294	1.486	0.14	0.07	< 0.01	0.02	< 0.01	J55; A-J Zone, Pyrite + chalco. inands.
J55-2-1	207	294	0.022	0.07	0.01	< 0.01	0.01	< 0.01	
J57-1	207	294	0.192	0.05	0.11	0.01	0.03	< 0.01	J57; "
J58-1-1	207	294	0.082	0.03	0.05	< 0.01	0.01	< 0.01	J58; "

CERTIFICATION: _____

APPENDIX B

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: OSTLER, JOHN

1016 - 470 GRANVILLE ST.
VANCOUVER, B.C.
V6C 1V5

Project :
Comments: ATTN: JOHN OSTLER CC: DON TULLY ENG. LTD.

Page Number : 1-A
Total Pages : 1
Invoice Date: 18-SEP-90
Invoice No. : I-9022553
P.O. Number :

CERTIFICATE OF ANALYSIS A9022553

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
T-CV-1	205	294	6.6	0.30	520	40	< 0.5	< 2	0.04	< 0.5	1	115	57	>15.00	< 10	< 1	0.13	< 10	0.06	245	184
T-J-12	205	294	3.6	0.64	25	50	< 0.5	6	6.52	>100.0	17	69	153	3.75	< 10	2	0.29	< 10	1.74	3140	10
T-J-36-F1	205	294	49.4	1.46	< 5	10	< 0.5	22	1.41	>100.0	24	81	178	4.00	< 10	5	0.09	< 10	1.42	1805	9
T-J-36-F2	205	294	10.8	0.58	< 5	10	< 0.5	28	2.04	>100.0	28	97	63	1.97	< 10	7	0.12	< 10	0.83	2130	16
T-J-37	205	294	1.0	2.63	95	< 10	< 0.5	6	4.76	14.0	185	43	841	12.70	< 10	< 1	0.08	< 10	0.77	1480	1
T-J-37-2	205	294	0.8	2.57	110	10	< 0.5	6	3.85	2.0	314	43	1175	>15.00	< 10	< 1	0.19	< 10	0.64	1510	2
T-J-55-1	205	294	3.2	0.22	10	< 10	< 0.5	368	1.21	< 0.5	139	9	1605	>15.00	< 10	< 1	0.01	< 10	0.05	395	3
T-J-56-1	205	294	5.2	0.32	< 5	10	< 0.5	16	2.05	>100.0	8	250	75	1.42	< 10	< 1	< 0.01	< 10	0.14	515	7
T-J-57-1	205	294	1.6	0.16	15	< 10	< 0.5	56	0.70	19.5	60	13	576	7.86	< 10	< 1	0.01	< 10	0.27	215	2

Part of 32 element ICP conducted on check samples by D. Tully, P. Eng.

CERTIFICATION: B. Caplin

APPENDIX B

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: OSTLER, JOHN

1016 - 470 GRANVILLE ST.
VANCOUVER, B.C.
V6C 1V5

Project :
Comments: ATTN: JOHN OSTLER CC: DON TULLY ENG. LTD.

Page Number : 1-B
Total Pages : 1
Invoice Date: 18-SEP-90
Invoice No. : I-9022553
P.O. Number :

CERTIFICATE OF ANALYSIS A9022553

SAMPLE DESCRIPTION	PREP CODE		Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
T-CV-1	205	294	0.01	5	210	60	5	1	3	< 0.01	< 10	< 10	4	50	30
T-J-12	205	294	0.01	57	760	>10000	< 5	3	153	< 0.01	< 10	< 10	18	60	>10000
T-J-36-F1	205	294	0.01	24	640	300	< 5	2	23	< 0.01	< 10	< 10	28	140	>10000
T-J-36-F2	205	294	0.01	9	440	>10000	< 5	1	33	< 0.01	< 10	< 10	11	150	>10000
T-J-37	205	294	0.08	15	870	230	< 5	5	27	0.13	< 10	< 10	65	70	1970
T-J-37-2	205	294	0.16	20	880	62	< 5	4	50	0.14	< 10	< 10	48	50	560
T-J-55-1	205	294	0.01	8	120	26	5	< 1	2	< 0.01	< 10	< 10	1	< 50	196
T-J-56-1	205	294	0.01	6	330	8010	< 5	< 1	20	< 0.01	< 10	< 10	6	70	>10000
T-J-57-1	205	294	0.01	2	140	216	< 5	< 1	2	< 0.01	< 10	< 10	< 1	30	1765

Part of 32 element ICP conducted on check samples by D. Tully, P.Eng.

CERTIFICATION: B. Caplin

APPENDIX B

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: OSTLER, JOHN

1016 - 470 GRANVILLE ST.
VANCOUVER, B.C.
V6C 1V5

Project :
Comments: ATTN: JOHN OSTLER CC: DON TULLY ENG. LTD

Invoice Date: 08-OCT-90
Invoice No. : I-9023609
P.O. Number :

CERTIFICATE OF ANALYSIS A9023609

SAMPLE DESCRIPTION	PREP CODE	Au FA oz/T	Ag FA oz/T	Pb %	Zn %	Cd %
T-CV-1	214 --	0.122	-----	-----	-----	-----
T-J-12	214 --	< 0.003	0.10	1.19	3.21	0.026
T-J-36-F1	214 --	< 0.003	1.46	0.05	16.20	0.129
T-J-36-F2	214 --	< 0.003	0.28	2.31	21.5	0.197
T-J-37	214 --	0.010	-----	-----	-----	-----
T-J-55-1	214 --	1.180	-----	-----	-----	-----
T-J-56-1	214 --	0.006	0.15	0.83	6.49	0.079
T-J-57-1	214 --	0.148	-----	-----	-----	-----

Reassay of some key elements from 32 element ICP conducted on D. Tully's check samples.

CERTIFICATION:

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project :
Comments: CC: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 3-SEP-90
Invoice No. : I-9021615
P.O. Number :

CERTIFICATE OF ANALYSIS A9021615

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
650S 000E	201 238	< 5	36	38	168	0.2					
650S 050E	201 238	< 5	76	30	100	1.0					
650S 100E	201 238	< 5	28	14	146	< 0.2					
650S 150E	201 238	< 5	54	22	340	0.8					
650S 200E	201 238	< 5	46	12	140	< 0.2					
650S 250E	201 238	< 5	70	12	72	< 0.2					
650S 300E	201 238	10	26	20	94	0.9					
650S 350E	201 238	< 5	16	14	78	0.3					
650S 400E	201 238	< 5	28	18	82	< 0.2					
650S 450E	201 238	< 5	26	16	86	0.3					
650S 500E	201 238	< 5	26	20	77	< 0.2					
650S 550E	201 238	5	20	22	52	0.4					
650S 600E	201 238	30	28	70	80	< 0.2					
650S 650E	201 238	< 5	20	22	76	0.6					
650S 750S	201 238	< 5	18	26	62	1.0					
650S 800S	201 238	< 5	80	22	375	0.6					
650S 850S	201 238	5	134	12	68	< 0.2					
650S 900S	201 238	5	40	20	48	1.8	SOILS:	1990 MAIN GRID			
650S 950S	201 238	10	16	14	55	< 0.2					
650S 1000E	201 238	< 5	28	20	94	< 0.2					
700S 000E	201 238	< 5	46	24	70	1.3					
700S 050E	201 238	15	40	14	100	< 0.2					
700S 100E	201 238	< 5	26	10	70	0.5					
700S 150E	201 238	< 5	14	16	91	< 0.2					
700S 200E	201 238	< 5	20	16	57	< 0.2					
700S 250E	201 238	< 5	18	12	68	1.2					
700S 300E	201 238	5	28	12	115	0.6					
700S 350E	201 238	10	48	15	88	1.0					
700S 400E	201 238	10	40	16	245	0.3					
700S 450E	201 238	5	110	18	240	< 0.2					
700S 500E	201 238	< 5	38	14	64	0.2					
700S 550E	201 238	220	360	220	210	4.6					
700S 600E	201 238	5	30	14	75	1.5					
700S 650E	201 238	115	124	26	175	1.4					
700S 700E	201 238	10	24	12	60	< 0.2					
700S 750E	201 238	145	70	64	126	2.0					
700S 800E	201 238	< 5	44	8	70	0.4					
700S 850E	201 238	5	24	14	54	0.5					
700S 900E	201 238	< 5	30	16	80	0.6					
700S 950E	201 238	10	230	14	46	0.9					

CERTIFICATION: Ivan Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project :
Comments: CC: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 3-SEP-90
Invoice No. : I-9021615
P.O. Number :

CERTIFICATE OF ANALYSIS A9021615

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
700S 1000E	201	238	< 5	20	14	50	0.4					
750S 000E	201	238	< 5	10	10	150	0.2					
750S 050E	201	238	5	14	16	61	0.6					
750S 100E	201	238	40	140	56	248	< 0.2					
750S 150E	201	238	< 5	40	18	90	0.7					
750S 200E	201	238	< 5	40	6	70	< 0.2					
750S 250E	203	205	230	780	26	285	1.7					
750S 300E	217	238	10	44	10	110	< 0.2					
750S 350E	217	238	< 5	18	15	95	< 0.2					
750S 400E	201	238	< 5	28	26	74	< 0.2					
750S 450E	201	238	< 5	14	14	46	< 0.2					
750S 500E	201	238	5	8	8	66	0.3					
750S 550E	201	238	< 5	20	18	80	0.2					
750S 600E	201	238	< 5	10	18	78	0.2					
750S 650E	201	238	10	100	17	126	1.1					
750S 700E	201	238	5	26	16	52	< 0.2					
750S 750E	201	238	10	32	22	88	1.3					
750S 800E	201	238	< 5	32	14	80	0.7	SOILS:	1990 MAIN GRID			
750S 850E	201	238	< 5	26	22	61	1.6					
750S 900E	201	238	< 5	20	19	65	1.3					
750S 950E	201	238	< 5	12	16	55	0.4					
750S 1000E	201	238	< 5	16	16	68	< 0.2					
800S 000E	201	238	< 5	12	14	102	< 0.2					
800S 050E	201	238	< 5	22	18	60	0.5					
800S 100E	201	238	< 5	18	18	70	< 0.2					
800S 150E	201	238	< 5	80	36	170	0.5					
800S 200E	201	238	< 5	18	16	108	1.2					
800S 250E	201	238	< 5	20	18	88	0.5					
800S 300E	201	238	50	48	38	55	0.8					
800S 350E	201	238	10	140	40	100	0.7					
800S 400E	201	238	5	20	20	61	< 0.2					
800S 450E	201	238	< 5	16	10	82	< 0.2					
800S 500E	201	238	< 5	26	14	100	1.5					
800S 550E	201	238	< 5	16	26	105	< 0.2					
800S 600E	201	238	< 5	10	14	105	< 0.2					
800S 650E	201	238	10	24	14	70	0.4					
800S 700E	201	238	< 5	20	12	78	< 0.2					
800S 750E	201	238	150	80	76	210	0.5					
800S 800E	201	238	85	18	48	68	0.3					
800S 850E	201	238	55	150	136	165	0.8					

CERTIFICATION: Stewart Bichler

APPENDIX C

Chemex Labs Ltd.

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212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project :
Comments: CC: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 3-SEP-90
Invoice No. : I-9021615
P.O. Number :

CERTIFICATE OF ANALYSIS A9021615

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
800S 900E	201 238	< 5	30	26	67	0.7					
800S 950E	201 238	< 5	64	16	80	< 0.2					
800S 1000E	201 238	< 5	16	19	63	< 0.2					
800S 1050E	201 238	< 5	40	10	48	< 0.2					
850S 000E	217 238	< 5	18	16	75	0.6					
850S 050E	201 238	< 5	20	16	112	< 0.2					
850S 100E	201 238	< 5	28	16	92	1.8					
850S 150E	217 238	25	64	12	110	< 0.2					
850S 200E	201 238	30	36	18	130	0.4					
850S 250E	201 238	60	136	30	100	1.0					
850S 300E	201 238	60	48	18	75	0.4					
850S 350E	201 238	5	22	12	56	0.6					
850S 400E	201 238	< 5	28	18	78	1.1					
850S 450E	201 238	< 5	22	18	75	0.4					
850S 500E	201 238	< 5	16	18	90	0.4					
850S 550E	217 238	< 5	22	16	55	0.5					
850S 600E	217 238	5	22	6	53	< 0.2					
850S 650E	217 238	5	24	14	51	0.5					
850S 700E	201 238	10	38	38	80	1.4	SOILS:	1990 MAIN GRID			
850S 750E	217 238	20	40	20	67	3.0					
850S 800E	217 238	65	20	10	59	0.5					
850S 850E	201 238	20	34	12	102	0.2					
850S 900E	201 238	5	76	22	52	0.8					
850S 950E	217 238	< 5	90	7	42	0.5					
850S 1000E	201 238	< 5	28	10	62	0.2					
900S 000E	201 238	< 5	36	18	115	0.5					
900S 050E	201 238	< 5	30	22	82	2.3					
900S 100E	201 238	< 5	18	12	100	0.9					
900S 200E	201 238	35	44	22	103	0.4					
900S 250E	201 238	10	60	30	85	0.8					
900S 350E	201 238	< 5	24	16	85	0.5					
900S 400E	201 238	50	42	14	67	0.7					
900S 450E	201 238	10	18	16	76	0.3					
900S 500E	201 238	15	26	16	74	0.4					
900S 550E	201 238	< 5	26	18	58	0.6					
900S 600E	201 238	< 5	18	20	63	< 0.2					
900S 650E	201 238	< 5	18	14	80	0.3					
900S 700E	201 238	10	40	16	70	0.8					
900S 750E	201 238	60	52	32	75	3.1					
900S 800E	201 238	680	42	150	125	1.9					

CERTIFICATION: Stan Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project :
Comments: CC: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 3-SEP-90
Invoice No. : I-9021615
P.O. Number :

CERTIFICATE OF ANALYSIS A9021615

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
900S 850E	201 238	< 5	20	15	94	0.3					
900S 900E	201 238	< 5	18	20	38	0.4					
900S 950E	201 238	5	140	20	310	0.3					
900S 1000E	201 238	< 5	30	16	47	0.5					
							SOILS:	1990 MAIN GRID			

CERTIFICATION: Jan Buchler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Page Number : 1
Total Pages : 3
Invoice Date: 3-SEP-90
Invoice No. : I-9021709
P.O. Number :

CERTIFICATE OF ANALYSIS A9021709

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	Cu ppm	Pb ppm	Zn ppm					
450S 0000E	201	238	60	0.2	66	24	200					
450S 0050E	201	238	< 5	< 0.2	22	14	76					
450S 0100E	201	238	< 5	< 0.2	22	12	71					
450S 0150E	201	238	< 5	< 0.2	20	24	55					
450S 0200E	201	238	< 5	0.4	265	16	280					
450S 0250E	201	238	225	< 0.2	28	14	94					
450S 0300E	203	205	< 5	0.3	10	4	51					
450S 0350E	203	205	15	0.9	20	15	37					
450S 0400E	201	238	< 5	1.3	62	16	295					
450S 0450E	201	238	< 5	0.9	60	16	248					
450S 0500E	201	238	< 5	< 0.2	16	16	50					
450S 0550E	201	238	< 5	< 0.2	16	20	55					
450S 0600E	201	238	< 5	< 0.2	36	16	85					
450S 0650E	201	238	< 5	< 0.2	20	22	68					
450S 0700E	201	238	15	< 0.2	18	16	40					
450S 0750E	201	238	< 5	0.3	20	14	62					
450S 0800E	201	238	< 5	0.2	18	10	42					
450S 0850E	201	238	25	< 0.2	32	22	58					
450S 0900E	201	238	15	0.7	24	10	74	SOILS:	1990	MAIN	GRID	
450S 0950E	201	238	< 5	< 0.2	14	16	106					
450S 1000E	201	238	< 5	< 0.2	20	16	59					
500S 0000E	201	238	< 5	< 0.2	14	12	85					
500S 0050E	201	238	< 5	< 0.2	30	14	48					
500S 0100E	201	238	< 5	< 0.2	20	20	58					
500S 0150E	201	238	< 5	< 0.2	18	20	78					
500S 0200E	201	238	< 5	0.3	28	22	44					
500S 0250E	201	238	< 5	< 0.2	20	20	50					
500S 0300E	201	238	< 5	< 0.2	44	14	134					
500S 0350E	201	238	25	1.0	50	14	63					
500S 0400E	201	238	< 5	0.3	16	16	49					
500S 0450E	201	238	15	0.5	54	24	75					
500S 0500E	201	238	15	< 0.2	76	10	102					
500S 0550E	201	238	< 5	< 0.2	66	18	54					
500S 0600E	201	238	< 5	< 0.2	14	18	96					
500S 0650E	201	238	< 5	0.3	34	20	70					
500S 0700E	201	238	< 5	< 0.2	24	20	51					
500S 0750E	201	238	< 5	< 0.2	24	18	88					
500S 0800E	201	238	< 5	< 0.2	38	14	72					
500S 0850E	201	238	80	0.2	44	12	50					
500S 0900E	201	238	10	< 0.2	24	12	47					

CERTIFICATION: Ivan Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 3-SEP-90
Invoice No. : I-9021709
P.O. Number :

CERTIFICATE OF ANALYSIS A9021709

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	Cu ppm	Pb ppm	Zn ppm					
500S 0950E	201	238	< 5	< 0.2	14	20	56					
500S 1000E	201	238	< 5	< 0.2	34	12	40					
550S 0000E	201	238	< 5	2.8	24	46	75					
550S 0050E	201	238	< 5	1.0	26	14	103					
550S 0100E	201	238	< 5	1.0	68	40	310					
550S 0150E	201	238	105	< 0.2	70	16	270					
550S 0200E	201	238	< 5	< 0.2	14	18	68					
550S 0250E	201	238	< 5	2.2	68	20	94					
550S 0300E	201	238	< 5	< 0.2	18	10	65					
550S 0350E	201	238	10	0.7	22	19	68					
550S 0400E	201	238	< 5	< 0.2	32	20	60					
550S 0450E	201	238	< 5	< 0.2	18	38	60					
550S 0500E	201	238	< 5	0.2	30	10	86					
550S 0550E	201	238	< 5	< 0.2	10	14	85					
550S 0600E	201	238	10	0.4	38	14	51					
550S 0650E	201	238	< 5	< 0.2	20	20	70					
550S 0700E	201	238	35	< 0.2	14	8	45					
550S 0750E	201	238	< 5	< 0.2	20	14	68					
550S 0800E	201	238	< 5	< 0.2	44	12	70	SOILS:	1990 MAIN	GRID		
550S 0850E	201	238	< 5	< 0.2	22	14	50					
550S 0900E	201	238	< 5	< 0.2	20	10	48					
550S 0950E	201	238	< 5	< 0.2	6	6	20					
550S 1000E	201	238	< 5	0.6	30	18	72					
600S 0000E	201	238	< 5	< 0.2	28	16	84					
600S 0050E	201	238	< 5	< 0.2	18	16	70					
600S 0100E	201	238	< 5	< 0.2	18	18	73					
600S 0150E	201	238	< 5	< 0.2	60	16	75					
600S 0200E	201	238	< 5	< 0.2	14	14	60					
600S 0250E	201	238	< 5	< 0.2	48	24	57					
600S 0300E	201	238	< 5	< 0.2	20	16	96					
600S 0350E	201	238	15	1.0	30	28	60					
600S 0400E	201	238	< 5	1.0	24	16	61					
600S 0450E	201	238	< 5	1.1	38	20	66					
600S 0500E	201	238	< 5	< 0.2	38	18	98					
600S 0550E	201	238	< 5	0.3	18	20	65					
600S 0600E	201	238	290	2.4	60	66	84					
600S 0650E	203	205	100	0.3	60	88	74					
600S 0700E	201	238	45	1.4	38	18	46					
600S 0750E	201	238	< 5	< 0.2	350	20	105					
600S 0800E	201	238	< 5	0.6	16	20	48					

CERTIFICATION: Ivan Bucholz

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. **

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 3-SEP-90
Invoice No. : I-9021709
P.O. Number :

CERTIFICATE OF ANALYSIS A9021709

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Ag ppm Aqua R	Cu ppm	Pb ppm	Zn ppm
600S 0850E	201 238	15	0.8	60	20	63
600S 0900E	201 238	< 5	1.3	30	15	82
600S 0950E	201 238	10	0.2	150	12	920
600S 1000E	201 238	< 5	< 0.2	40	14	254

SOILS: 1990 MAIN GRID

CERTIFICATION: Hart Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. *

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 11-SEP-90
Invoice No. : I-9022024
P.O. Number :

CERTIFICATE OF ANALYSIS A9022024

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
0350S 0000E	201 238	< 5	26	16	68	0.2					
0350S 0050E	201 238	< 5	24	14	70	< 0.2					
0350S 0100E	201 238	< 5	24	24	41	0.8					
0350S 0150E	201 238	< 5	26	16	91	0.9					
0350S 0200E	201 238	< 5	180	16	630	1.2					
0350S 0250E	201 238	< 5	390	18	385	< 0.2					
0350S 0300E	201 238	< 5	30	16	90	0.2					
0350S 0350E	201 238	< 5	28	16	72	0.4					
0350S 0400E	201 238	45	78	46	295	0.7					
0350S 0450E	201 238	< 5	18	28	43	0.8					
0350S 0500E	201 238	115	42	46	158	1.8					
0350S 0550E	201 238	55	20	6	42	0.7					
0350S 0600E	201 238	< 5	18	14	60	0.2					
0350S 0650E	201 238	15	30	18	46	0.8					
0350S 0700E	201 238	< 5	26	20	57	0.8					
0350S 0750E	201 238	15	42	48	86	0.4					
0350S 0800E	201 238	< 5	24	18	65	< 0.2					
0350S 0850E	201 238	10	18	22	127	< 0.2					
0350S 0900E	201 238	< 5	22	18	105	< 0.2	SOILS:	1990MAIN	GRID		
0350S 0950E	201 238	10	150	24	114	< 0.2					
0350S 1000E	201 238	< 5	34	14	70	1.1					
0400S 0050E	201 238	< 5	34	16	66	0.5					
0400S 0100E	201 238	40	50	16	75	1.0					
0400S 0150E	201 238	< 5	66	20	245	0.6					
0400S 0200E	201 238	< 5	30	18	80	< 0.2					
0400S 0250E	201 238	< 5	94	18	265	0.5					
0400S 0300E	201 238	15	20	26	36	0.7					
0400S 0350E	201 238	20	50	16	66	0.8					
0400S 0400E	201 238	< 5	58	16	71	0.4					
0400S 0450E	201 238	< 5	36	18	55	< 0.2					
0400S 0500E	201 238	< 5	20	14	72	< 0.2					
0400S 0550E	201 238	< 5	20	26	68	0.3					
0400S 0600E	201 238	< 5	36	18	65	< 0.2					
0400S 0650E	201 238	< 5	40	16	59	0.2					
0400S 0700E	201 238	< 5	22	16	56	< 0.2					
0400S 0750E	201 238	20	16	24	40	< 0.2					
0400S 0800E	201 238	< 5	24	16	64	< 0.2					
0400S 0850E	201 238	< 5	24	16	33	0.3					
0400S 0900E	201 238	< 5	24	14	78	< 0.2					
0400S 0950E	201 238	< 5	20	18	57	0.3					

CERTIFICATION: Stewart Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. *

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 11-SEP-90
Invoice No. : I-9022024
P.O. Number :

CERTIFICATE OF ANALYSIS A9022024

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
0400S 1000E	201 238	< 5	24	14	80	< 0.2	← SOIL:	1990 MAIN GRID			
0725S 0600E	201 238	< 5	28	14	45	0.3					
0725S 0610E	201 238	25	18	16	52	0.2					
0725S 0620E	201 238	45	30	16	66	0.8					
0725S 0630E	201 238	< 5	20	20	48	0.5					
0725S 0640E	201 238	25	66	28	52	0.8					
0725S 0650E	201 238	< 5	34	18	38	1.8					
0725S 0660E	201 238	40	104	16	41	1.2					
0725S 0670E	201 238	< 5	28	14	64	< 0.2					
0725S 0680E	201 238	80	56	36	64	1.6					
0725S 0690E	201 238	< 5	18	16	75	0.5					
0725S 0700E	201 238	< 5	20	24	72	< 0.2					
0725S 0710E	201 238	< 5	6	28	28	< 0.2					
0725S 0720E	201 238	< 5	18	34	41	< 0.2					
0725S 0730E	201 238	15	22	46	48	0.7					
0725S 0740E	201 238	< 5	22	26	70	0.6					
0725S 0750E	201 238	50	120	160	125	4.0					
0750S 0610E	201 238	35	28	24	105	< 0.2	▶ SOILS:	1990 CAVE ZONE GRID			
0750S 0620E	201 238	15	18	18	50	0.4					
0750S 0630E	201 238	80	80	14	48	0.5					
0750S 0640E	201 238	< 5	18	24	81	0.8					
0750S 0660E	201 238	< 5	22	18	70	0.2					
0750S 0680E	201 238	< 5	30	16	53	0.7					
0750S 0690E	201 238	5	26	18	52	0.6					
0775S 0550E	201 238	20	16	22	77	0.2					
0775S 0560E	201 238	45	46	20	60	1.2					
0775S 0570E	201 238	330	160	20	105	0.5					
0775S 0580E	201 238	< 5	22	14	64	0.2					
0775S 0590E	201 238	< 5	12	12	62	0.5					
0775S 0600E	201 238	< 5	30	18	78	0.6					
0775S 0610E	201 238	< 5	56	22	87	0.9					
0775S 0620E	201 238	225	56	22	64	0.3					
0775S 0630E	201 238	160	50	16	100	0.7					
0775S 0640E	201 238	450	950	26	350	1.8					
0775S 0650E	201 238	55	36	20	108	0.7					
0775S 0660E	201 238	10	20	16	71	0.4					
0775S 0670E	201 238	30	30	20	98	0.4					
0775S 0680E	201 238	15	20	18	63	0.4					
0775S 0690E	201 238	< 5	24	24	77	0.2					
0775S 0700E	201 238	< 5	24	24	52	< 0.2					

CERTIFICATION: Ian Pitcher

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers .
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. *

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 11-SEP-90
Invoice No. : I-9022024
P.O. Number :

CERTIFICATE OF ANALYSIS A9022024

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
0800S 0560E	201 238	< 5	26	18	75	0.2					
0800S 0570E	201 238	10	28	16	90	0.2					
0800S 0580E	201 238	35	32	28	46	1.2					
0800S 0590E	201 238	20	44	36	80	0.4					
0800S 0610E	201 238	10	20	14	102	0.7					
0800S 0620E	201 238	15	20	26	82	0.5					
0800S 0630E	201 238	35	26	16	105	1.0					
0800S 0640E	201 238	15	18	20	52	0.8	SOILS:	1990 CAVE ZONE GRID			
0825S 0500E	201 238	10	18	16	52	0.3					
0825S 0510E	201 238	< 5	20	18	82	0.8					
0825S 0520E	201 238	< 5	18	16	78	< 0.2					
0825S 0530E	201 238	< 5	14	18	65	< 0.2					
0825S 0540E	201 238	< 5	20	20	68	< 0.2					
0825S 0550E	201 238	< 5	16	20	60	0.4					
0825S 0560E	201 238	15	22	22	66	0.6					
0825S 0570E	201 238	55	52	56	74	0.9					
0825S 0580E	201 238	15	36	16	110	0.7					
0825S 0590E	201 238	35	78	18	78	0.7					
0825S 0600E	201 238	170	60	18	56	0.7					
0825S 0610E	201 238	80	76	14	47	1.1					
0825S 0620E	201 238	30	74	18	69	0.3					
0825S 0630E	201 238	240	52	16	80	0.5					
0825S 0640E	201 238	15	20	20	70	0.6					
0825S 0650E	201 238	< 5	24	20	82	0.2					
0950S 0000E	201 238	30	24	220	165	1.8					
0950S 0050E	201 238	10	100	22	420	0.3					
0950S 0100E	201 238	< 5	42	20	210	0.2					
0950S 0150E	201 238	70	50	174	130	9.1	SOILS:	1990 MAIN GRID			
0950S 0200E	201 238	210	54	30	102	1.1					
0950S 0250E	201 238	35	20	20	68	0.3					
0950S 0300E	201 238	< 5	20	20	56	1.3					
0950S 0350E	201 238	60	36	22	73	1.3					
0950S 0400E	201 238	10	20	20	46	0.5					
0950S 0450E	201 238	< 5	18	24	78	0.9					
0950S 0500E	201 238	< 5	24	18	66	0.6					
0950S 0550E	201 238	< 5	38	22	84	0.9					
0950S 0600E	201 238	< 5	18	16	66	0.4					
0950S 0650E	201 238	20	26	24	52	0.5					
0950S 0700E	201 238	10	48	20	54	1.4					
0950S 0750E	201 238	< 5	100	18	128	0.7					

CERTIFICATION: Stuart Bechler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. *

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 11-SEP-90
Invoice No. : I-9022024
P.O. Number :

CERTIFICATE OF ANALYSIS A9022024

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
0950S 0800E	201	238	< 5	30	18	54	0.2					
0950S 0850E	201	238	85	28	18	66	0.6					
0950S 0900E	201	238	25	130	72	820	2.5					
0950S 0950E	201	238	< 5	60	12	54	0.7					
0950S 1000E	201	238	< 5	20	20	56	0.8					
1000S 0000E	201	238	50	64	58	94	0.8					
1000S 0050E	201	238	20	50	26	168	0.5					
1000S 0100E	201	238	120	88	64	430	0.8					
1000S 0150E	201	238	< 5	36	20	86	0.2	SOILS:	1990	MAIN	GRID	
1000S 0200E	201	238	< 5	16	16	80	0.3					
1000S 0250E	201	238	< 5	20	18	66	0.3					
1000S 0300E	201	238	< 5	32	16	55	0.2					
1000S 0350E	201	238	< 5	20	18	94	0.2					
1000S 0400E	201	238	< 5	18	14	86	0.2					
1000S 0450E	201	238	< 5	48	14	70	0.7					
1000S 0500E	201	238	< 5	24	18	50	0.7					
1000S 0550E	201	238	< 5	44	18	54	1.0					
1000S 0600E	201	238	< 5	40	18	50	1.2					
1000S 0650E	201	238	10	26	18	61	0.3					
1000S 0700E	201	238	1130	230	22	44	1.1					
1000S 0750E	201	238	25	84	24	370	1.2					
1000S 0800E	201	238	10	24	20	57	1.1					
1000S 0850E	201	238	10	30	18	56	0.8					
1000S 0900E	201	238	< 5	178	18	790	0.2					
1000S 0950E	201	238	< 5	22	22	98	0.3					
1000S 1000E	201	238	< 5	330	22	1150	3.1					

CERTIFICATION: David Sutherland

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD. *

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM PROJECT
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 17-SEP-90
Invoice No. : I-9022318
P.O. Number : NONE

CERTIFICATE OF ANALYSIS A9022318

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
050S 0100E	201 238	< 5	20	20	48	0.5					
050S 0150E	201 238	30	120	30	300	0.6					
050S 0200E	201 238	< 5	44	18	56	0.3					
050S 0250E	201 238	< 5	18	18	60	0.2					
050S 0300E	201 238	< 5	20	10	36	0.2					
050S 0350E	203 205	< 5	24	8	38	1.3					
050S 0400E	201 238	5	14	20	42	0.3					
050S 0450E	201 238	< 5	20	20	40	0.7					
050S 0500E	201 238	10	28	18	54	0.7					
050S 0550E	201 238	< 5	36	18	54	0.7					
050S 0600E	201 238	< 5	22	14	50	0.3					
050S 0650E	201 238	630	42	8	28	3.1					
050S 0700E	201 238	425	36	18	30	1.3					
100S 0100E	201 238	15	32	16	50	0.5	SOILS:	1990 MAIN	GRID		
100S 0150E	201 238	10	36	16	54	0.3					
100S 0200E	201 238	15	118	18	350	0.8					
100S 0250E	201 238	15	42	16	180	0.3					
100S 0300E	201 238	5	24	20	64	< 0.2					
100S 0350E	201 238	5	24	22	78	0.6					
100S 0400E	201 238	< 5	24	24	66	1.2					
100S 0450E	201 238	< 5	24	18	40	0.3					
100S 0500E	201 238	< 5	24	22	86	< 0.2					
100S 0550E	201 238	< 5	20	14	60	0.2					
100S 0600E	201 238	< 5	18	18	46	0.2					
100S 0650E	201 238	10	38	14	48	0.4					
100S 0700E	201 238	15	58	16	42	0.3					
675E 0950AS	201 238	5	16	18	48	< 0.2					
675E 0960AS	201 238	< 5	26	18	70	0.3					
675E 0970AS	201 238	< 5	24	20	50	0.5					
675E 0980AS	201 238	30	154	20	70	0.9					
675E 0990AS	201 238	85	28	18	52	0.5					
675E 1000AS	201 238	85	62	20	56	1.3					
675E 1010AS	201 238	< 5	26	20	50	0.4	SOILS:	1990 A-J	ZONE	GRID	
675E 1020AS	201 238	< 5	58	20	76	0.3					
675E 1030AS	201 238	< 5	160	18	260	0.5					
675E 1040AS	201 238	< 5	20	20	170	< 0.2					
675E 1050AS	201 238	< 5	20	18	66	< 0.2					
700E 0950AS	201 238	60	24	20	42	0.7					
700E 0960AS	201 238	25	20	20	42	1.4					
700E 0970AS	201 238	< 5	16	20	52	0.4					

CERTIFICATION: Ian Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Invoice Date: 17-SEP-90
Invoice No. : I-9022318
P.O. Number : NONE

Project : GIM PROJECT
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

CERTIFICATE OF ANALYSIS A9022318

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
700E 0980AS	201 238	125	360	56	600	1.0					
700E 0990AS	201 238	5	18	20	50	0.7					
700E 1010AS	201 238	3410	150	30	40	0.6					
700E 1020AS	201 238	6270	390	80	420	1.7					
700E 1030AS	201 238	55	38	22	60	2.9					
700E 1040AS	201 238	10	26	34	46	1.7					
700E 1050AS	201 238	20	24	34	46	0.9					
725E 0950AS	201 238	25	38	22	78	2.2					
725E 0960AS	201 238	< 5	70	14	50	1.2	SOILS:	1990 A-J	ZONE GRID		
725E 0970AS	201 238	< 5	18	20	90	1.6					
725E 0980AS	201 238	< 5	20	16	58	0.5					
725E 0990AS	201 238	< 5	28	20	74	0.8					
725E 1000AS	201 238	50	84	20	230	2.5					
725E 1010AS	201 238	730	120	32	90	3.8					
725E 1020AS	201 238	10	28	38	54	5.1					
725E 1030AS	201 238	15	38	34	106	0.6					
725E 1040AS	201 238	60	56	60	90	1.3					
725E 1050AS	201 238	5	34	18	160	0.8					
750E 0950AS	201 238	25	44	36	90	2.6					
750E 0960AS	201 238	5	30	16	60	0.9					
750E 0970AS	201 238	< 5	18	20	56	0.4					
750E 0980AS	201 238	< 5	18	20	54	1.2					
750E 0990AS	201 238	< 5	16	16	70	1.0					
750E 1010AS	201 238	< 5	18	18	52	0.3					
750E 1020AS	201 238	10	30	120	220	1.4					
750E 1030AS	201 238	30	70	26	90	0.5					
750E 1040AS	201 238	5	40	20	110	0.7					
750E 1050AS	201 238	< 5	34	24	78	0.6					

CERTIFICATION: Ian H Bucklen

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 17-SEP-90
Invoice No. : I-9022459
P.O. Number :

CERTIFICATE OF ANALYSIS A9022459

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
150S 000E	201 238	50	180	15	60	0.5					
150S 050E	201 238	< 5	10	6	56	< 0.2					
150S 100E	201 238	15	42	15	44	0.8					
150S 150E	201 238	< 5	80	20	250	0.6					
150S 200E	201 238	< 5	10	7	40	0.2					
150S 250E	201 238	< 5	14	23	44	0.3					
150S 300E	201 238	< 5	10	17	48	0.6					
150S 350E	201 238	< 5	16	20	64	0.4					
150S 450E	201 238	< 5	24	16	240	0.6					
150S 500E	201 238	< 5	24	20	46	2.0					
150S 550E	201 238	< 5	16	17	60	0.2					
150S 600E	201 238	10	22	22	48	0.3					
150S 650E	201 238	< 5	8	4	50	< 0.2					
150S 700E	201 238	100	14	14	44	0.9					
150S 750E	201 238	10	16	19	70	0.4					
150S 800E	201 238	15	20	6	60	0.4					
150S 850E	201 238	20	40	17	80	0.3					
200S 000E	201 238	15	32	21	52	< 0.2					
200S 050E	201 238	< 5	20	15	40	0.2	SOILS:	1990 MAIN GRID			
200S 100E	201 238	< 5	48	19	66	0.6					
200S 150E	201 238	55	60	25	50	0.6					
200S 200E	201 238	< 5	26	20	60	0.3					
200S 250E	201 238	< 5	56	16	56	1.0					
200S 300E	201 238	< 5	30	30	60	0.2					
200S 350E	201 238	< 5	14	16	60	0.3					
200S 450E	201 238	5	38	17	40	1.8					
200S 500E	201 238	< 5	24	10	40	0.3					
200S 550E	201 238	< 5	28	14	54	0.5					
200S 600E	201 238	< 5	24	19	50	0.3					
200S 650E	201 238	< 5	34	15	66	0.9					
200S 700E	201 238	< 5	40	18	44	1.6					
200S 750E	201 238	< 5	20	12	22	0.5					
200S 800E	201 238	< 5	34	10	58	0.4					
200S 850E	201 238	15	48	15	74	1.4					
200S 900E	201 238	< 5	46	17	64	0.5					
200S 950E	201 238	< 5	20	14	64	0.4					
200S 1000E	201 238	< 5	30	16	46	0.9					
250S 000E	201 238	50	86	62	64	1.4					
250S 050E	201 238	< 5	24	14	86	< 0.2					
250S 100E	201 238	200	100	8	80	0.6					

CERTIFICATION: Hartt Bichler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 17-SEP-90
Invoice No. : I-9022459
P.O. Number :

CERTIFICATE OF ANALYSIS A9022459

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
250S 150E	201 238	10	40	15	42	0.8					
250S 200E	201 238	< 5	18	13	60	< 0.2					
250S 250E	201 238	25	30	12	64	< 0.2					
250S 300E	201 238	< 5	20	20	46	0.7					
250S 350E	201 238	< 5	24	21	54	0.9					
250S 400E	201 238	< 5	44	16	54	0.4					
250S 450E	201 238	< 5	22	13	50	0.5					
250S 500E	201 238	< 5	34	16	50	0.7					
250S 550E	201 238	< 5	18	17	40	0.2					
250S 600E	201 238	< 5	26	18	56	0.6					
250S 650E	201 238	10	28	22	56	0.3					
250S 700E	201 238	< 5	18	16	44	0.3					
250S 750E	201 238	55	40	14	44	0.4					
250S 800E	201 238	< 5	16	17	44	0.4					
250S 850E	201 238	< 5	20	12	42	0.3					
250S 900E	201 238	< 5	24	10	52	< 0.2					
250S 950E	201 238	15	22	18	50	1.0					
250S 1000E	201 238	20	48	14	52	0.5					
300S 000E	201 238	< 5	20	18	50	0.6	SOILS:	1990 MAIN GRID			
300S 050E	201 238	< 5	22	19	60	1.2					
300S 100E	201 238	20	40	16	48	0.4					
300S 150E	201 238	< 5	10	18	40	0.5					
300S 200E	201 238	< 5	80	18	500	< 0.2					
300S 250E	201 238	< 5	24	18	60	2.4					
300S 300E	201 238	< 5	26	15	58	0.6					
300S 350E	201 238	40	64	13	140	< 0.2					
300S 400E	201 238	40	56	27	130	1.0					
300S 450E	201 238	25	66	13	60	1.1					
300S 500E	201 238	70	54	24	320	1.0					
300S 550E	201 238	50	54	17	54	0.8					
300S 600E	201 238	< 5	10	29	38	< 0.2					
300S 650E	201 238	< 5	18	22	50	0.4					
300S 700E	201 238	< 5	26	18	56	0.3					
300S 750E	201 238	< 5	36	15	70	0.2					
300S 800E	201 238	< 5	16	20	80	< 0.2					
300S 850E	201 238	20	26	36	136	< 0.2					
300S 900E	201 238	< 5	14	28	90	< 0.2					
300S 950E	201 238	< 5	32	24	60	0.2					
729S 673E	201 238	85	270	23	46	0.6	SOILS FROM 1988 CAVE GRID RETAKEN				
772S 663E	201 238	< 5	20	18	76	1.0					

CERTIFICATION: Stewart Buchler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Invoice Date: 17-SEP-90
Invoice No. : I-9022459
P.O. Number :

CERTIFICATE OF ANALYSIS A9022459

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
799S 607E	201 238	< 5	24	22	80	0.2	← SOIL FROM 1988 CAVE GRID RETAKEN				
1000AS 500E	201 238	< 5	30	24	60	1.4					
1000AS 550E	201 238	20	70	19	150	0.3					
1000AS 600E	201 238	15	40	19	60	0.9					
1000AS 650E	201 238	20	70	18	250	0.4					
1000AS 700E	201 238	5	30	18	78	0.2					
1000AS 750E	201 238	< 5	16	21	76	1.1					
1000AS 800E	201 238	85	38	17	80	0.8					
1000AS 850E	201 238	10	20	10	50	0.4					
1000AS 900E	201 238	< 5	24	18	114	< 0.2					
1000AS 950E	201 238	< 5	22	25	290	0.2					
1000AS 1000E	201 238	< 5	30	16	80	1.5					
1050S 000E	201 238	235	50	28	100	1.4					
1050S 050E	201 238	95	80	30	270	0.9					
1050S 100E	201 238	15	22	17	50	1.3					
1050S 150E	201 238	< 5	20	22	70	0.2					
1050S 200E	201 238	< 5	88	16	164	0.2					
1050S 250E	201 238	35	20	20	92	< 0.2	SOILS:	1990 MAIN GRID			
1050S 300E	201 238	< 5	24	18	74	0.2					
1050S 350E	201 238	< 5	20	16	60	0.5					
1050S 400E	201 238	< 5	14	19	42	0.5					
1050S 450E	201 238	30	56	29	60	2.1					
1050S 500E	201 238	5	20	21	54	0.5					
1100S 000E	201 238	5	20	19	54	0.5					
1100S 050E	201 238	300	60	112	270	0.6					
1100S 100E	201 238	< 5	30	17	140	< 0.2					
1100S 150E	201 238	< 5	22	16	76	0.3					
1100S 200E	201 238	10	26	19	66	0.4					
1100S 250E	201 238	< 5	18	19	86	0.5					
1100S 300E	201 238	< 5	30	16	90	< 0.2					
1100S 350E	201 238	< 5	20	16	72	0.2					
1100S 400E	201 238	< 5	22	14	60	0.3					
1100S 450E	201 238	< 5	60	30	200	< 0.2					
1100S 500E	201 238	10	20	18	70	1.0					
1100S 550E	201 238	20	40	33	90	0.4					
1100S 600E	201 238	25	460	22	350	< 0.2					
1100S 650E	201 238	< 5	20	16	76	< 0.2					
1100S 700E	201 238	< 5	48	18	60	0.7					
1100S 750E	201 238	< 5	24	95	430	0.3					
1100S 800E	201 238	15	20	25	66	0.9					

CERTIFICATION: Stewart Buchler

APPENDIX C

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: CASSIAR EAST YUKON EXPEDITING LTD.

1016 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : GIM
Comments: ATTN: JOHN OSTLER CC: ALBERT GERRY

Page Number : 4
Total Pages : 4
Invoice Date: 17-SEP-90
Invoice No. : I-9022459
P.O. Number :

CERTIFICATE OF ANALYSIS A9022459

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R					
1100S 850E	201	238	5	28	40	140	0.9					
1100S 900E	201	238	10	70	18	170	0.3					
1100S 950E	201	238	110	52	31	1000	3.3					
1100S 1000E	201	238	10	30	22	140	2.4					

SOILS: 1990 MAIN GRID

CERTIFICATION: Hart Bichler

APPENDIX D

CERTIFICATE OF QUALIFICATION

I, John Ostler, of 2224 Jefferson Avenue in the City of West Vancouver, Province of British Columbia do hereby certify:

That I am a consulting geologist with business address at 1016-470 Granville Street, Vancouver, British Columbia;

That I am a graduate of the University of Guelph in Ontario where I obtained my Bachelor of Arts degree in Geography (Geomorphology) and Geology in 1973 and that I am a graduate of Carleton University of Ottawa, Ontario where I obtained my Master of Science degree in Geology in 1977;

That I am licenced to practice as a Professional Geologist by the Association of Professional Engineers, Geologists and Geophysicists of Alberta, and that I am a Fellow of the Geological Association of Canada;

That I have been engaged in the study and practice of the geological profession for over 20 years;

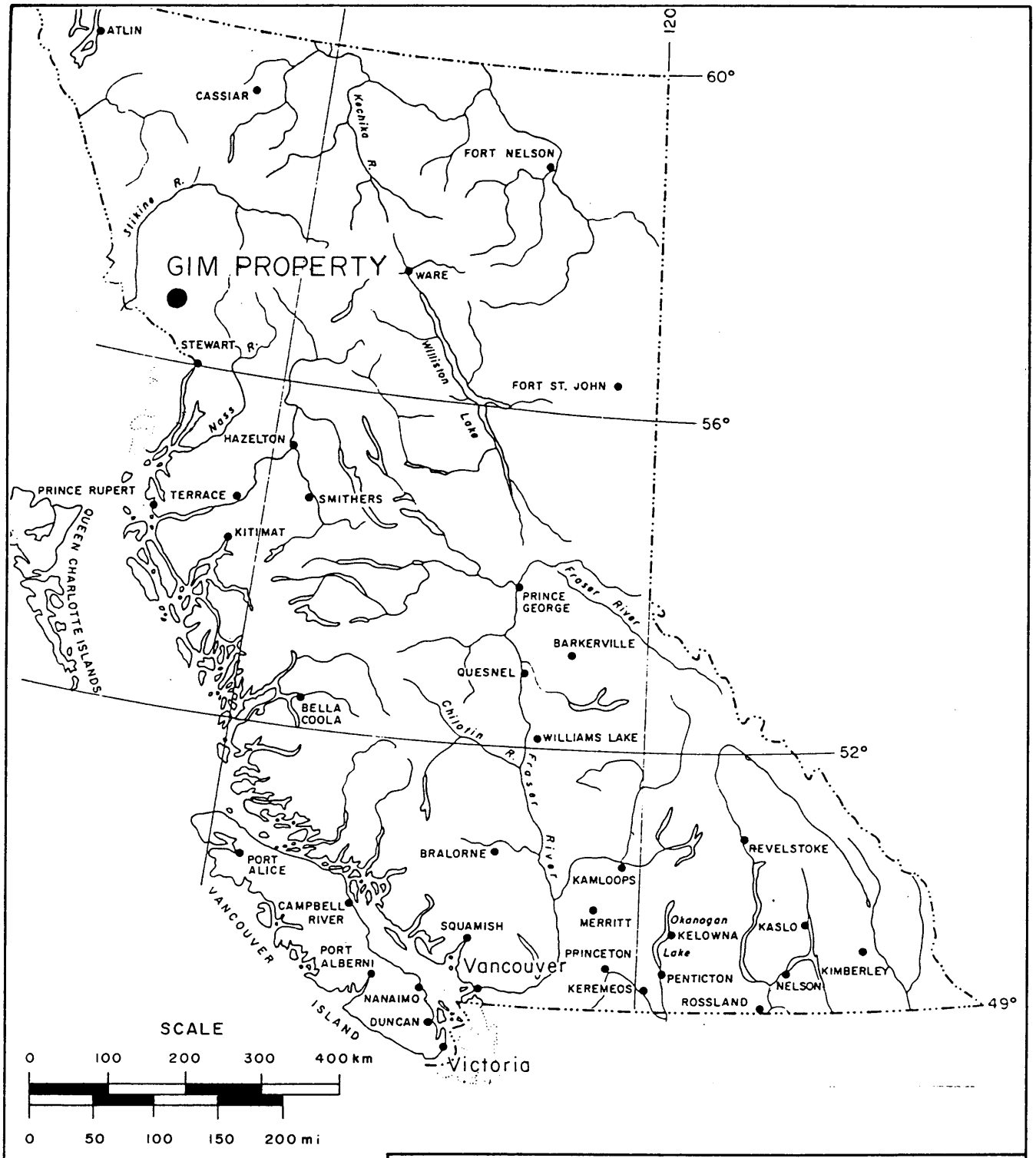
That this report is based on data in literature, most of which is readily available for public inspection, and work conducted by me on the GIM Property from August 13 to 31, 1990;

That I am Vice-president of Exploration of Consolidated Kyle Resources Inc. and that I have been granted a stock option by that company. Consolidated Kyle holds an option on the GIM Property.

Dated at Vancouver, British Columbia this 31st day of October, 1990.

John Ostler

John Ostler; M.Sc., P.Geol.
Consulting Geologist
Vice-president of Consolidated Kyle Resources Inc.



CONSOLIDATED KYLE RESOURCES INC.

GENERAL LOCATION

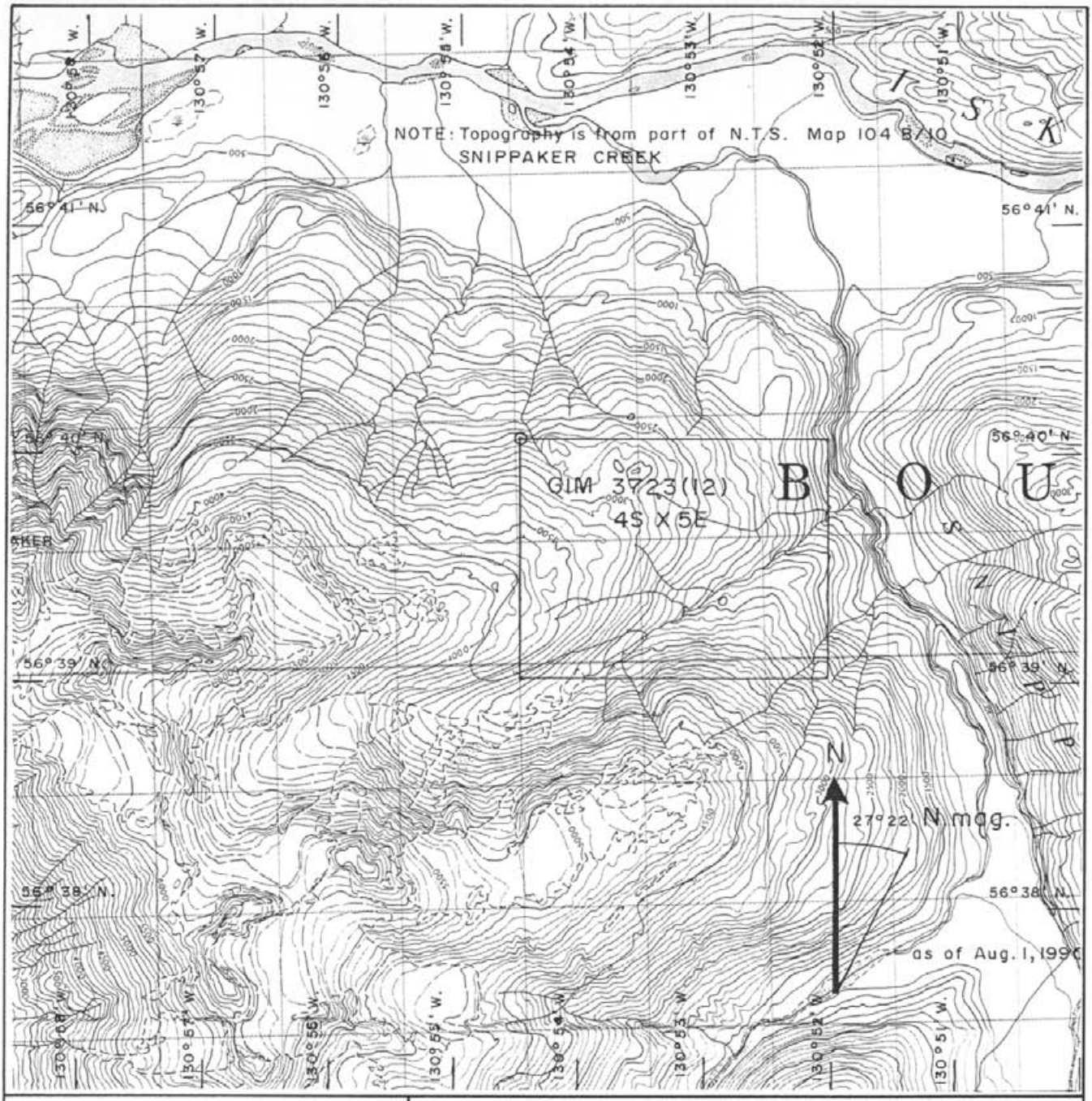
GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

Figure 1

CASSIAR EAST YUKON EXP. LTD.



LOCATION

Figure 2

CASSIAR EAST YUKON EXP. LTD.

SCALE

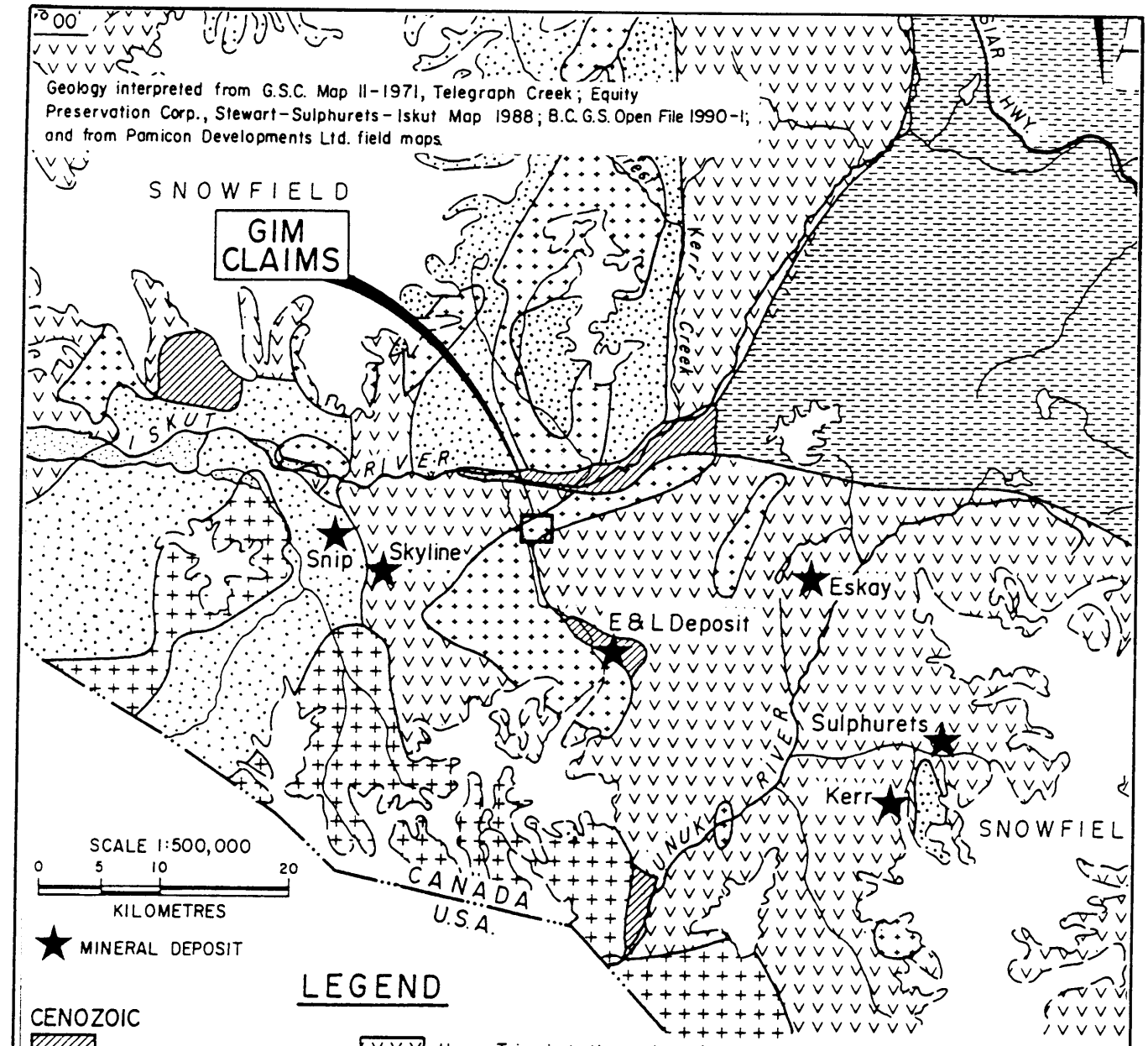
CONSOLIDATED KYLE RESOURCES INC.

LOCATION and TERRAIN

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990



LEGEND

CENOZOIC

- Recent basalt flows
- Early Tertiary felsic intrusives, primarily quartz monzonite

MESOZOIC

- Jurassic and Tertiary intrusives, felsic to intermediate
- Middle to Upper Jurassic Bowser Lake Group clastic sediments
- Upper Triassic to Upper Jurassic volcanics and sediments, Hazelton and Stuhini Groups

PALEOZOIC

- Permian and older clastic, limestone and volcanic rocks and metamorphic equivalents; includes metamorphic rocks of unknown age.

NOTE: This figure is adapted from Todoruk and Ikona, 1990; Figure 4.

N.

Figure 4

CASSIAR EAST YUKON EXP. LTD.

CONSOLIDATED KYLE RESOURCES INC.

REGIONAL GEOLOGY

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

FIGURE 5

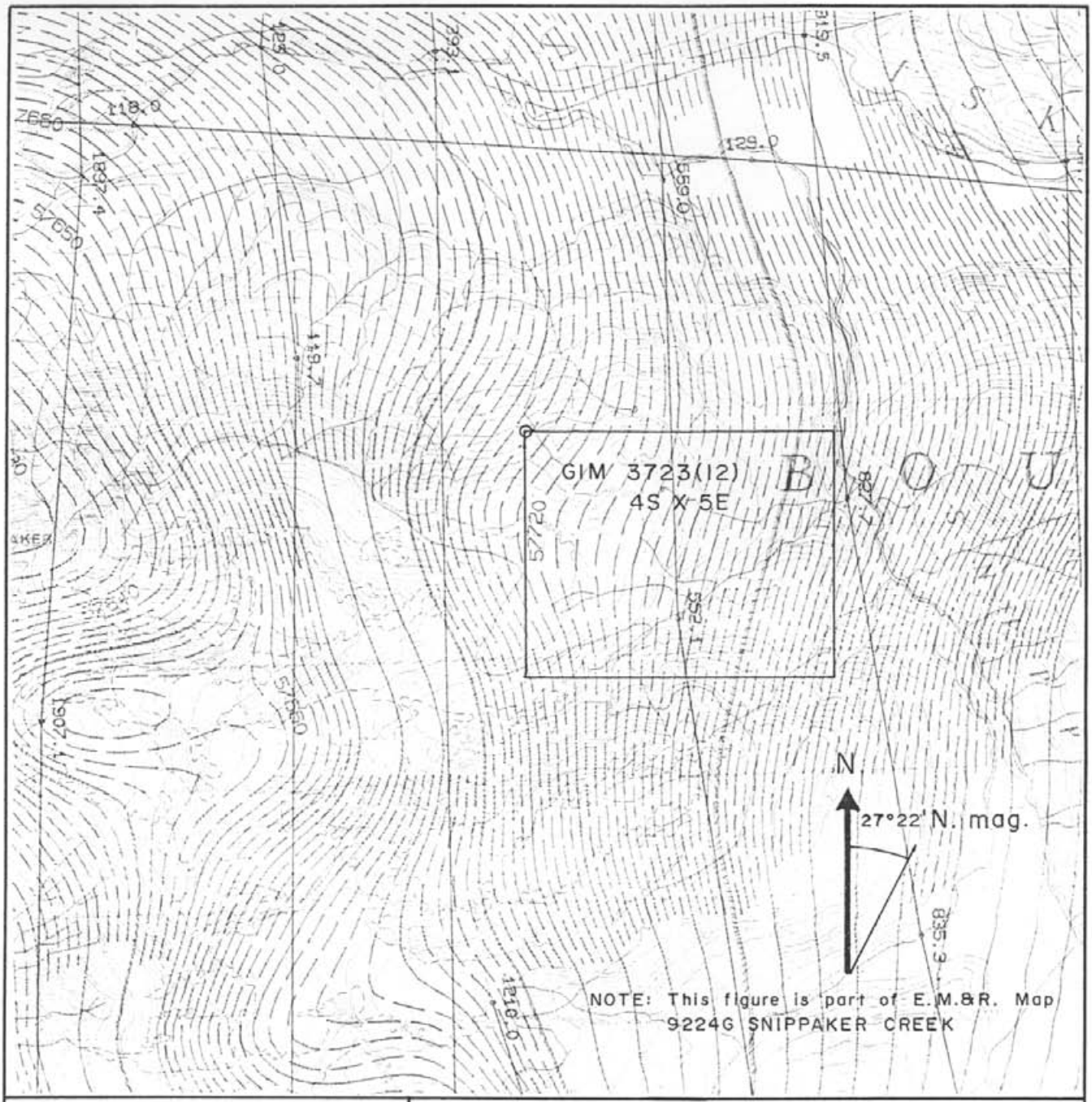
Stratigraphy of the Iskut River Area
(after descriptions by R.G. Anderson and J.M. Logan)

Stratigraphy	Lithology		Comments
BOWSER GROUP			
M. Jurassic	conglomerate, siltstone, sandstone, shale		Successor basin
	gradational to unconformable		
SPATSIZI GROUP			
L. Jurassic	shale, tuff, limestone		
	unconformable		
HAZELTON GROUP			
E. Jurassic	coeval alkalic/calc-alkalic		contractional event? Island Arc rocks
	gradational to unconformable		
STUHINI GROUP			
L. Triassic	intrusions; mafic volcanic rocks in the east, bimodal in the west		extensional in western area
	polymictic conglomerate basaltic to andesitic volcanics (plagioclase and hornblende)		no Triassic clasts; limestone clasts common
M. Triassic	sedimentary rocks		
	unconformable	contractional event	
STIKINE ASSEMBLAGE			
Permian	thin bedded coralline to crystalline limestone (over 1000 m thick), fossiliferous; intermediate flows and volcaniclastics		volcanic units resemble Hazelton Group rocks
E. Permian	rusty argillite		
	unconformable		
	'siliceous' turbidite, felsic lapilli tuff		extensional event
Missis-sippian	mafic meta-volcanics and metasediments	upper coralline limestone and conglomerate lower limestone with tuff layers	thick bedded limestone commonly bioclastic, coarse crinoids, corals
	unconformable		
E. Devonian	limestone; intermediate to felsic volcanics		contractional events; rocks highly deformed

Plutonic Rocks - Coast Plutonic Complex

L. Tertiary	granodiorite, diorite, basalt
	intrusive contacts
E. Tertiary	quartz diorite, granodiorite, quartz monzonite, feldspar porphyry, granite
	intrusive contact
M. Jurassic	quartz monzonite, feldspar porphyry, syenite
	intrusive contact
L. Jurassic	diorite, syenodiorite, granite
	intrusive contact
L. Triassic	diorite, quartz diorite, granodiorite
? Not determined	quartz diorite, ?

from Todoruk and Ikona, 1990; pp. 8-10.



LEGEND

ISOMAGNETIC LINES (absolute total field)

250 gammas .....

50 gammas .....

10 gammas .....

2 gammas .....

Magnetic depression .....

Flight lines 23

Flight altitude: 2700 m above sea level

(1 gamma = 1 nanotesla in SI units)

SCALE

0 1 2 3 km

0 1 2

CONSOLIDATED KYLE RESOURCES INC.

AEROMAGNETISM: E.M.R. MAP 9224G

GIM PROPERTY

56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

Figure 6

CASSIAR EAST YUKON EXP. LTD.

Magnetics

Total Field Magnetic Intensity
Contours in nT.

Cesium high sensitivity magnetometer.

Colours distributed on an equal area basis.

Sensor elevation 45m

Flight Path

Flight path recovery from VHS video tape.

Average terrain clearance 60m
Average line spacing 250m

Fault

HECTOR RESOURCES

STU 4

STU 5

OR RESOURCES INC.
SKY 4 & 5, SPRAY 1 & 2
MINERAL CLAIMS

KYLE
RESOURCES INC.
GIM

KESTREL RESOURCES
STU 2

SKX 2

N

	60070
	58020
	57840
	57730
	57660
	57610
	57570
	57530
	57500
	57465
	57435
	57410
	57375
	57330
	57240
	56825

TOTAL FIELD MAGNETICS
CONTOURS AND COLOURS

AREA 3

ISKUT RIVER, B.C.

SCALE 1:30,000

0 660 1320 2640 5280 feet

0 .5 1 2 kilometres

AERODAT LIMITED

DATE: MAY 88
NTS No: 104B
MAP No: 4 J87100

Figure 7

CONSOLIDATED KYLE RESOURCES INC.

AEROMAGNETISM:
AERODAT LTD. SURVEY

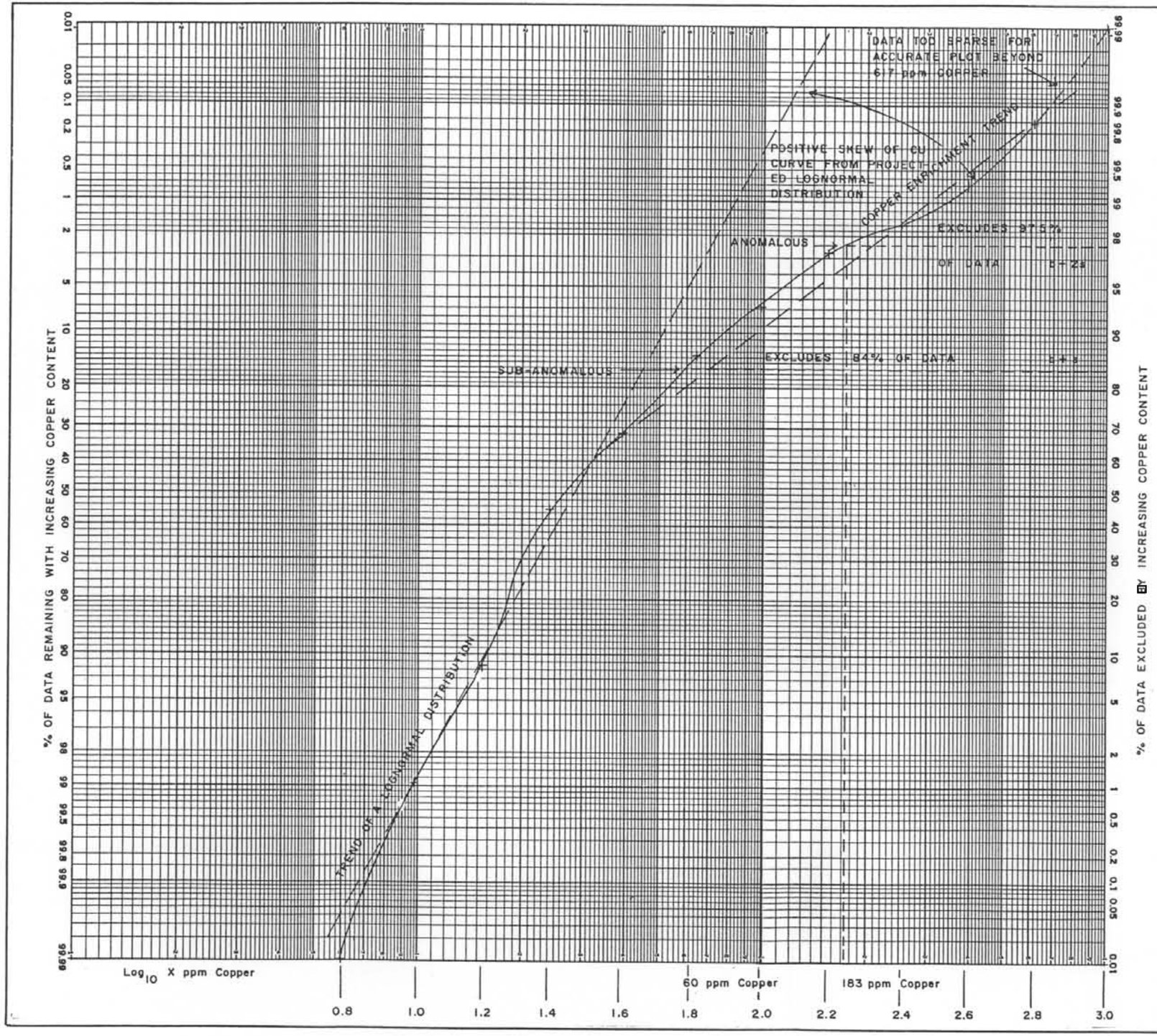
GIM PROPERTY

56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

CASSIAR EAST YUKON EXP. LTD.



LEGEND

N = 438 for the main 1990 grid.
b median value which approximates the mean value
b+s first positive standard deviation
b+2s second positive standard deviation

NOTE: For map of distribution of copper in soils, see Figure 14.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

CASSIAR EAST YUKON EXP. LTD.

Figure 9

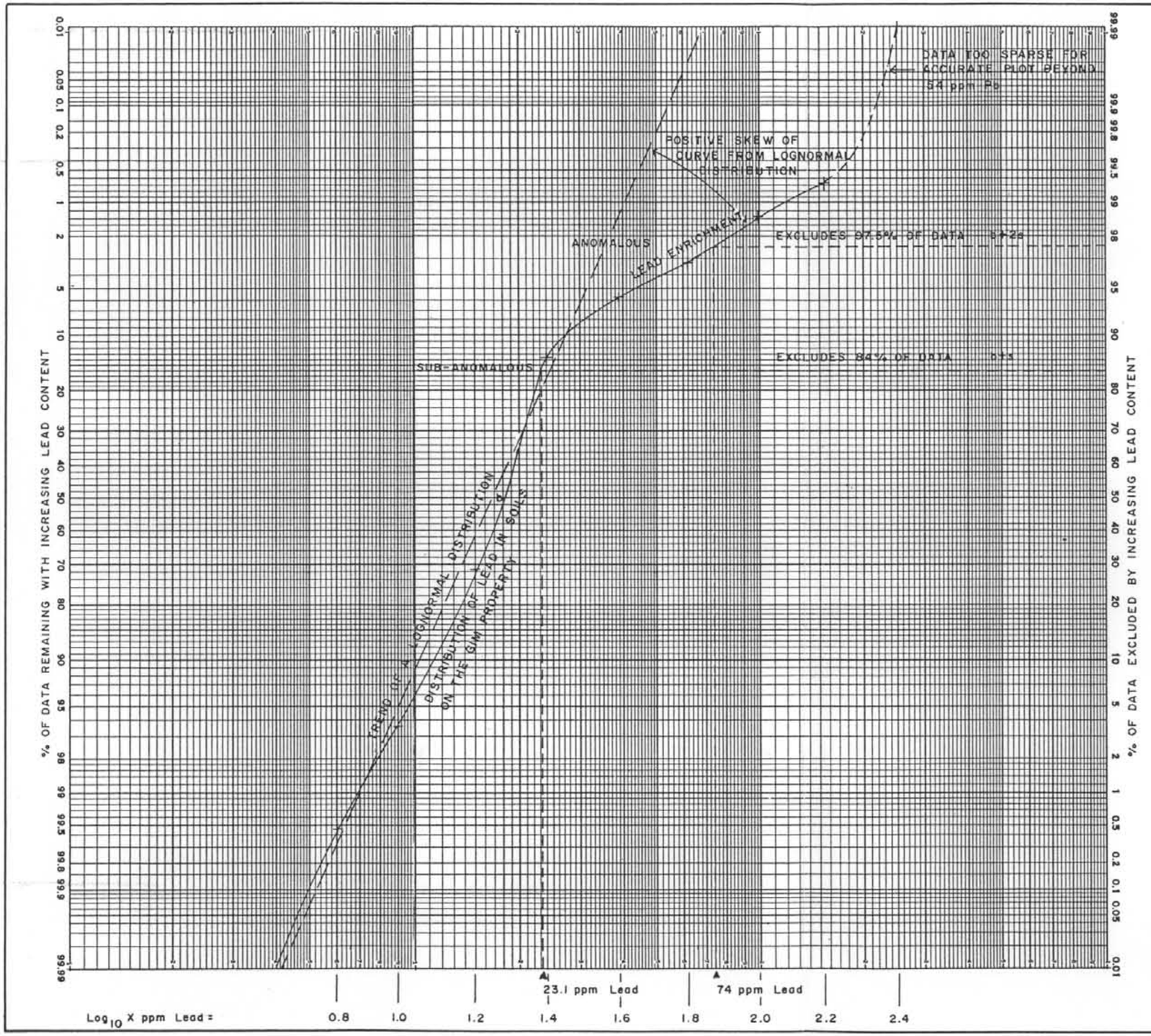
CONSOLIDATED KYLE RESOURCES INC.

1990 MAIN SOIL GRID: COPPER DISTRIBUTION CURVE

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990



LEGEND

N = 438 for the main 1990 grid.
b median value which approximates the mean value
b+s first positive standard deviation
b+2s second positive standard deviation

NOTE: For map of distribution of lead in soils, see Figure 15.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

CASSIAR EAST YUKON EXP. LTD.

Figure 10

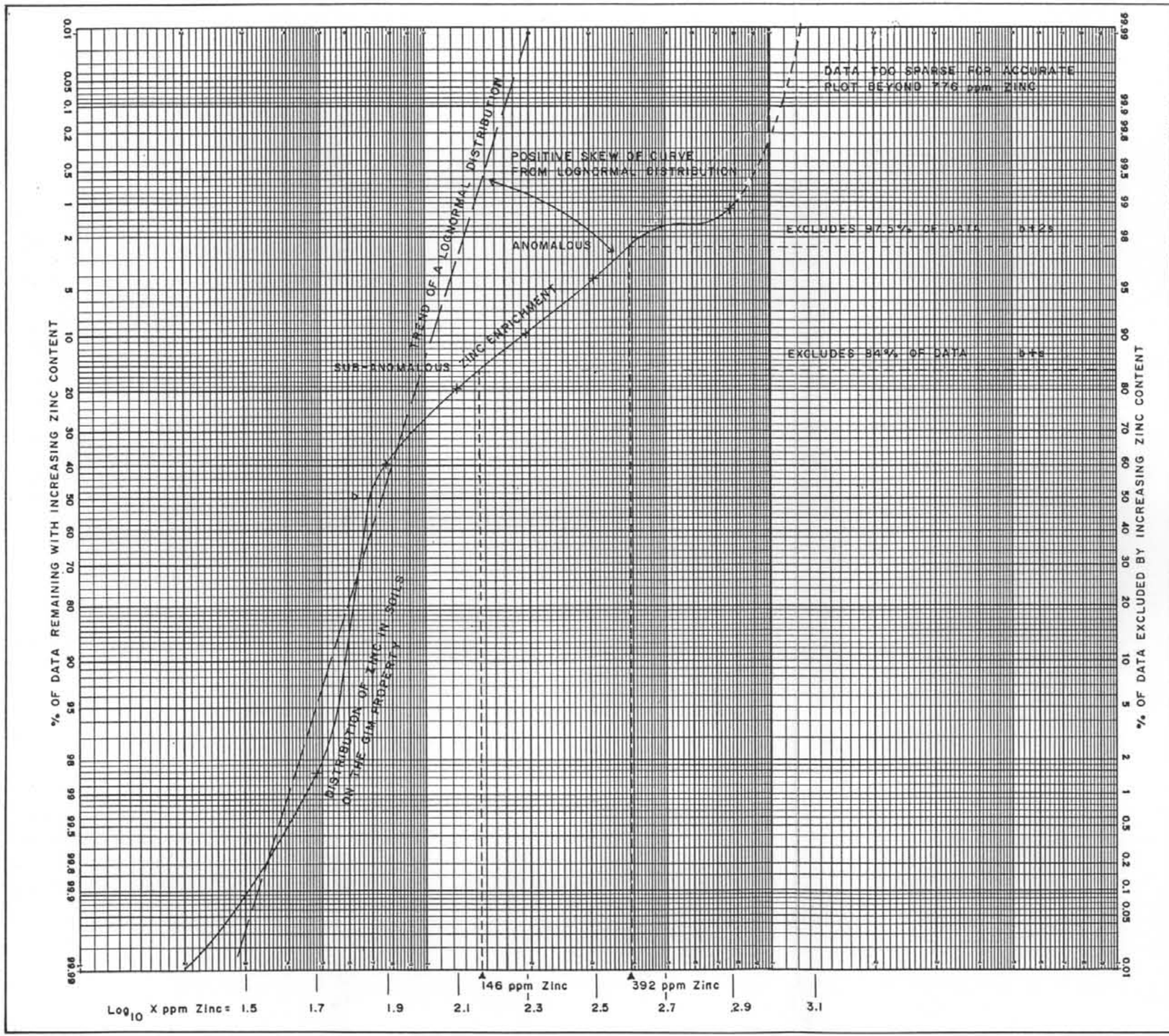
CONSOLIDATED KYLE RESOURCES INC.

1990 MAIN SOIL GRID: LEAD DISTRIBUTION CURVE

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990



LEGEND

N = 438 for the main 1990 grid.
b median value which approximates the mean value
b+s first positive standard deviation
b+2s second positive standard deviation

NOTE: For map of distribution of zinc in soils, see Figure 16.

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JOHN OSTLER
LICENSED TO PRACTISE

Figure 11

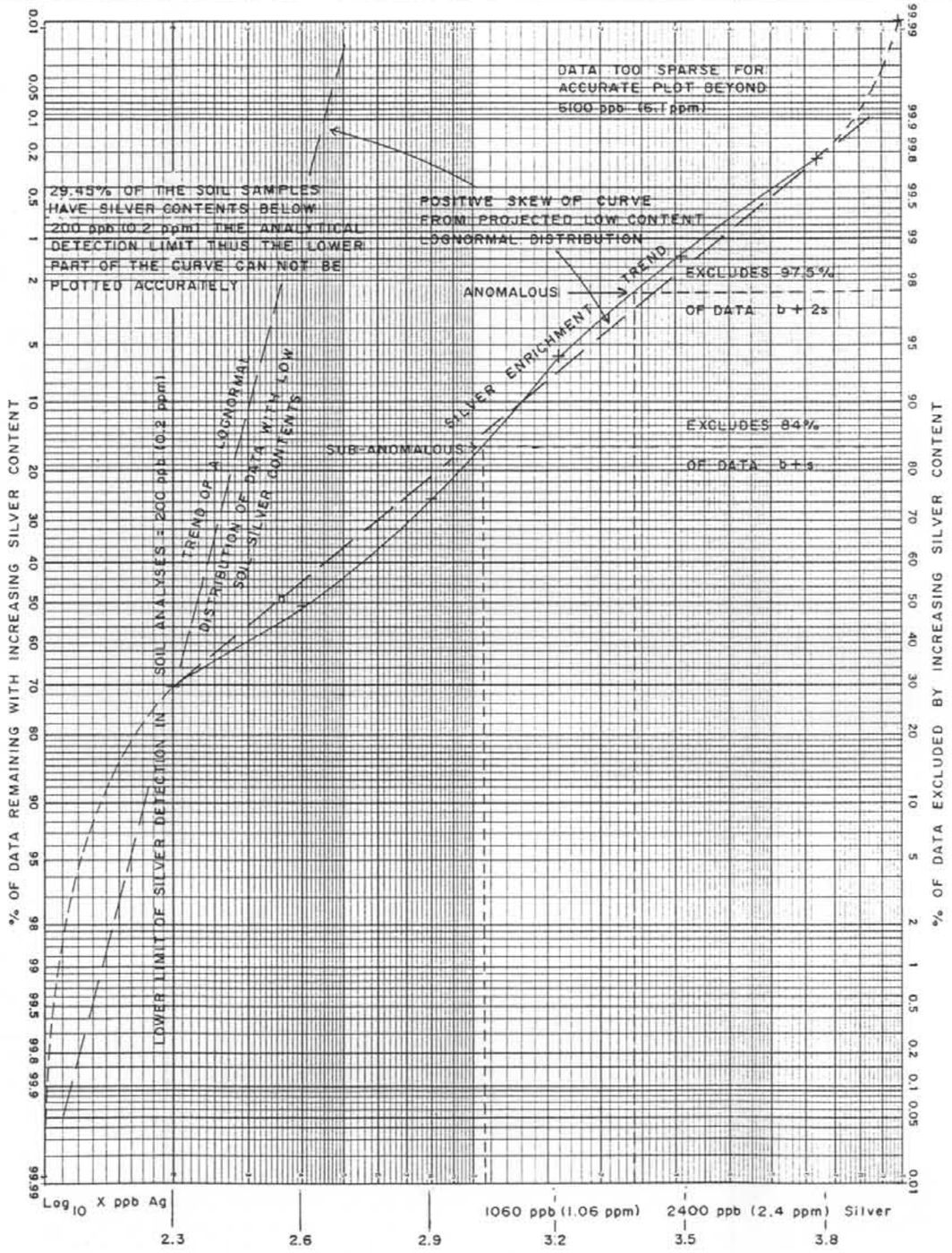
CASSIAR EAST YUKON EXP. LTD.

CONSOLIDATED KYLE RESOURCES INC.

1990 MAIN SOIL GRID: ZINC DISTRIBUTION CURVE

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10
JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990



LEGEND

N = 438 for the main 1990 grid.
b median value which approximates the mean value
b+s first positive standard deviation
b+2s second positive standard deviation

NOTE: For map of distribution of silver in soils, see Figure 17.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

Figure 12

CASSIAR EAST YUKON EXP. LTD.

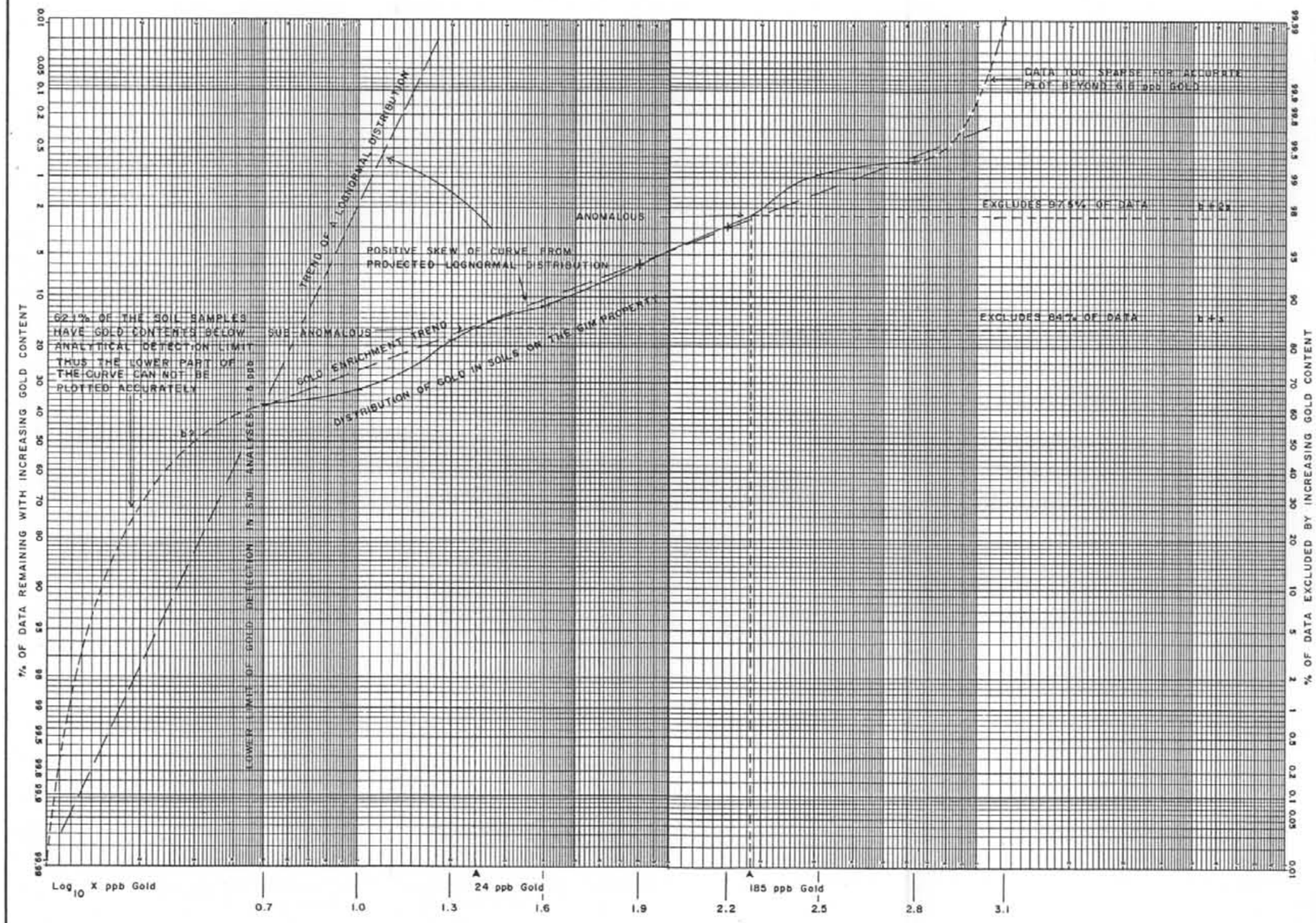
CONSOLIDATED KYLE RESOURCES INC.

1990 MAIN SOIL GRID: SILVER DISTRIBUTION CURVE

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990



LEGEND

N = 438 for the main 1990 grid.
b median value which approximates the mean value
b+s first positive standard deviation
b+2s second positive standard deviation

NOTE: For map of distribution of gold in soils, see Figure 18.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

CASSIAR EAST YUKON EXP. LTD.

Figure 13

CONSOLIDATED KYLE RESOURCES INC.

1990 MAIN SOIL GRID: GOLD DISTRIBUTION CURVE

GIM PROPERTY
56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

Sample No.	Cu %	Pb %	Zn %	Ag oz/t	Au oz/t	As %	Cd %
T-J-36-F1	153 ppm	0.05	16.20	1.46	<0.003	<5 ppm	0.129
J36-F1	0.02	0.01	15.50	1.58	0.004	<0.01	—
T-J-36-F2	63 ppm	2.31	21.50	0.28	<0.003	<5 ppm	0.197
J36-F2	0.01	0.13	15.90	0.19	<0.002	<0.01	—
J36-1-1	0.01	0.01	<0.01	0.03	<0.002	<0.01	—
DN1-1	0.04	4.11	15.80	0.50	0.006	<0.01	—
DN1-2	0.15	6.88	20.00	0.68	0.002	<0.01	—
T-J-12	153 ppm	1.19	3.21	0.10	0.003	<5 ppm	—
DN2-1	0.16	0.26	0.46	0.12	0.240	<0.01	—

50 m E

150 m E

1988 CUT LINE

[T-J-36-F2
[J36-F2

1000 m TRENCH J36

[J36-F1
[T-J-36-F1

LENSES OF SPHALERITE AND GALENA IN MASSIVE ANDESITE

1000 m S

J36-1-1

35

X
X

GALENA AND SPHALERITE IN FLOAT

LENSES OF SPHALERITE AND GALENA IN MASSIVE ANDESITE

DN2-1

TRENCH DN2

DISSEMINATED PYRITE IN MASSIVE ANDESITE

87
78

TRENCH J12 (DN1)

1050 m S

MINERAL GULCH

1050 m S

36
36

[DN1-1
DN1-2
T-J-12

1988 900S PICKET

PORPHYRITIC ANDESITE

MASSIVE ANDESITE

50 m E

100 m E

150 m E

CASSIAR EAST YUKON EXP. LTD.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

LEGEND

Topography:

limit of outcrop | cut | fill | creek | intermittant creek

Structure:

vein or lens attitude | fracture cleavage

Sampling: float X outcrop ●

NOTES: Samples reported in ppm are from 32 element ICP analysis. For results, see Appendix B.

For location on property, see Figure 8.

SCALE

0 10 20 30 m.
0 20 40 60 80 100 ft.

N.
27°22' N. mag.
as of August 1, 1990

Figure 19

CONSOLIDATED KYLE RESOURCES INC.

SHOWINGS near MINERAL GULCH

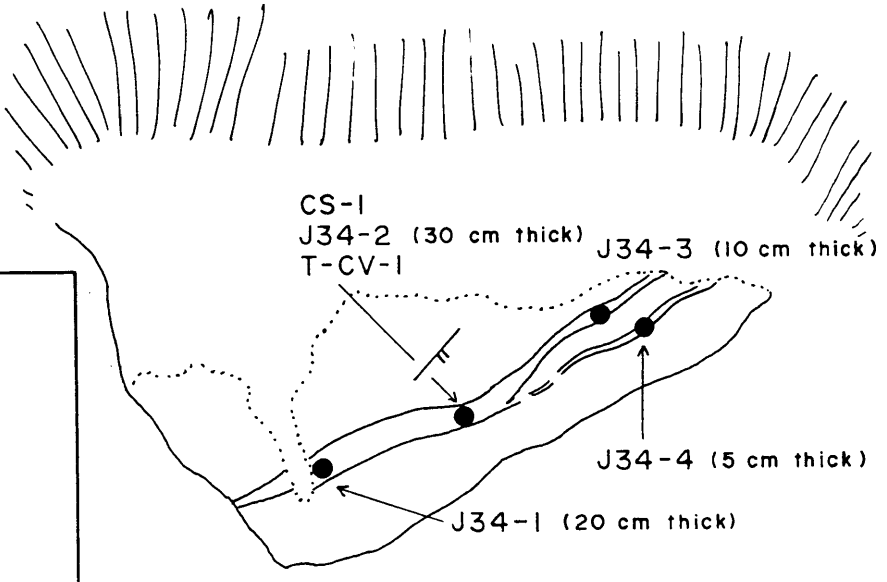
GIM PROPERTY

56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

Sample No.	Cu %	Pb %	Zn %	Ag oz/t	Au oz/t	As %
CS1-1	<0.01	0.17	0.15	0.39	0.028	0.03
T-CV-1	57ppm	60ppm	30ppm	6.6ppm	0.122	520ppm
J34-1	0.02	0.22	0.03	12.00	0.012	0.02
J34-2	<0.01	0.02	0.01	1.89	0.032	<0.01
J34-3	0.01	0.05	0.03	0.29	0.004	0.01
J34-4	0.01	0.01	<0.01	0.09	0.002	<0.01



PILLOWED MASSIVE ANDESITE WITH QUARTZ CONTAINING PYRITE AND TRACE AMOUNTS OF GALENA OCCUPYING PILLOW SELVAGES

LEGEND

Topography:

limit of outcrop cut fill

Geology and Structure:

contact sample site

bedding
tops unknown

NOTES:

Samples reported in ppm are from 32 element ICP analyses. For results, see Appendix B.

For location on property, see Figure 8.

N.

27°22' N. mag.

as of August 1, 1990

John Ostler

SCALE

0 1 2 3 m

0 2 4 6 8 10 ft

CONSOLIDATED KYLE RESOURCES INC.

CAMP ZONE: TRENCH J34 GIM PROPERTY 56°40'N., 130°53'W.

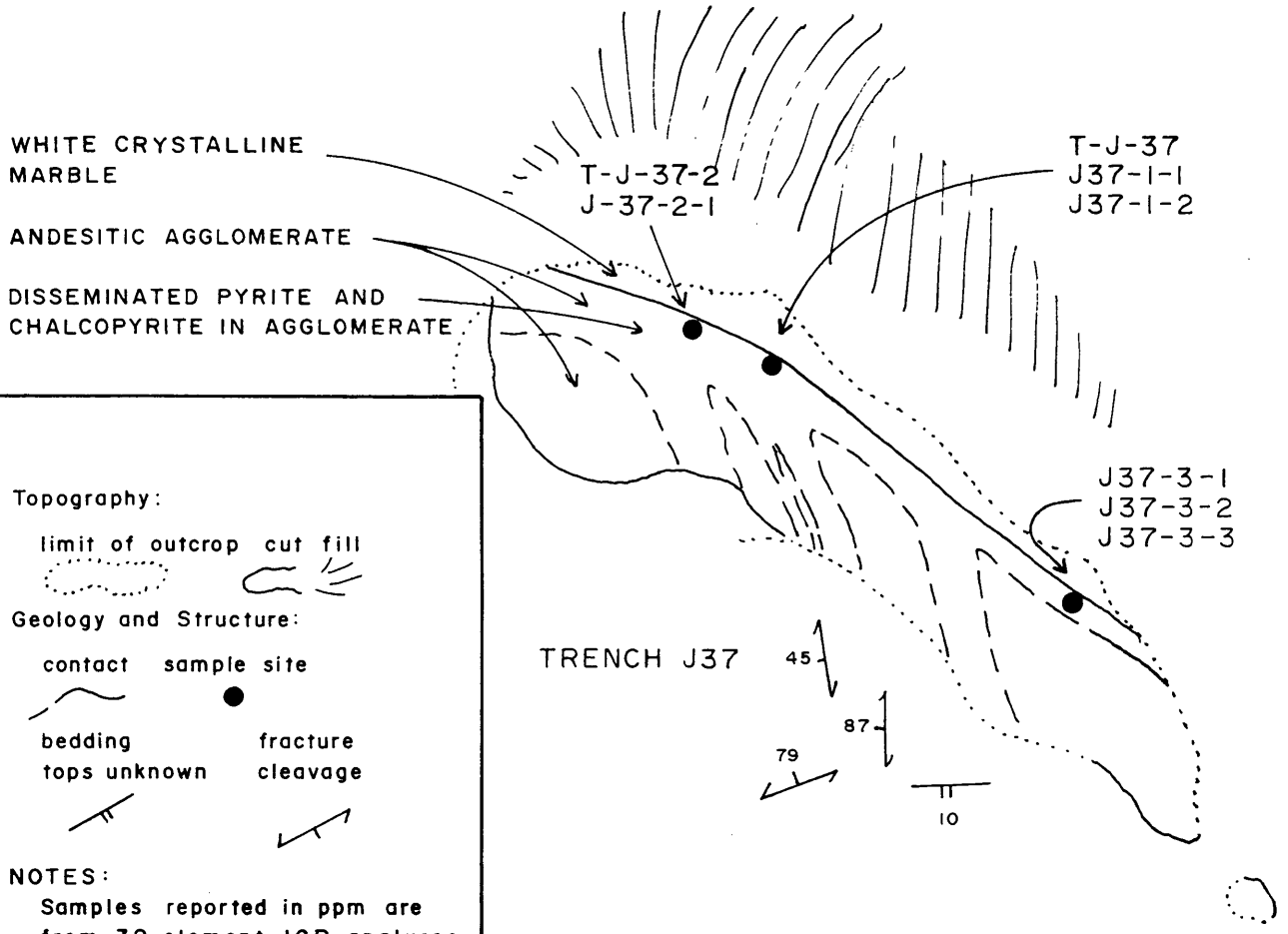
LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

Figure 20

CASSIAR EAST YUKON EXP. LTD.

Sample No.	Cu %	Pb %	Zn %	Ag oz/t	Au oz/t	As %	Cd ppm
T-J-37	185 ppm	230 ppm	1970 ppm	1.0 ppm	0.010	95 ppm	14.0 ppm
T-J-37-2	1175 ppm	62 ppm	560 ppm	0.8 ppm		110 ppm	2.0 ppm
J37-1-1	0.54	0.02	0.76	0.16	0.008	<0.01	
J37-1-2	0.04	0.02	0.10	0.10	0.002	<0.01	
J37-2-1	0.30	0.02	0.04	0.09	0.006	<0.01	
J37-3-1	0.12	0.02	0.03	0.05	0.090	<0.01	
J37-3-2	0.11	0.02	0.04	0.14	0.285	0.01	
J37-3-3	0.04	<0.01	0.02	0.01	0.010	<0.01	



Topography:

limit of outcrop cut fill

Geology and Structure:

contact sample site

bedding tops unknown

fracture cleavage

NOTES:

Samples reported in ppm are from 32 element ICP analyses. For results, see Appendix B.

For location on property, see Figure 8.

N.

27° 22' N. mag.

as of August 1, 1990

SCALE

0 1 2 3 4 5 m

0 5 10 15 ft

CONSOLIDATED KYLE RESOURCES INC.

CAVE ZONE: TRENCH J37

GIM PROPERTY

56°40'N., 130°53'W.

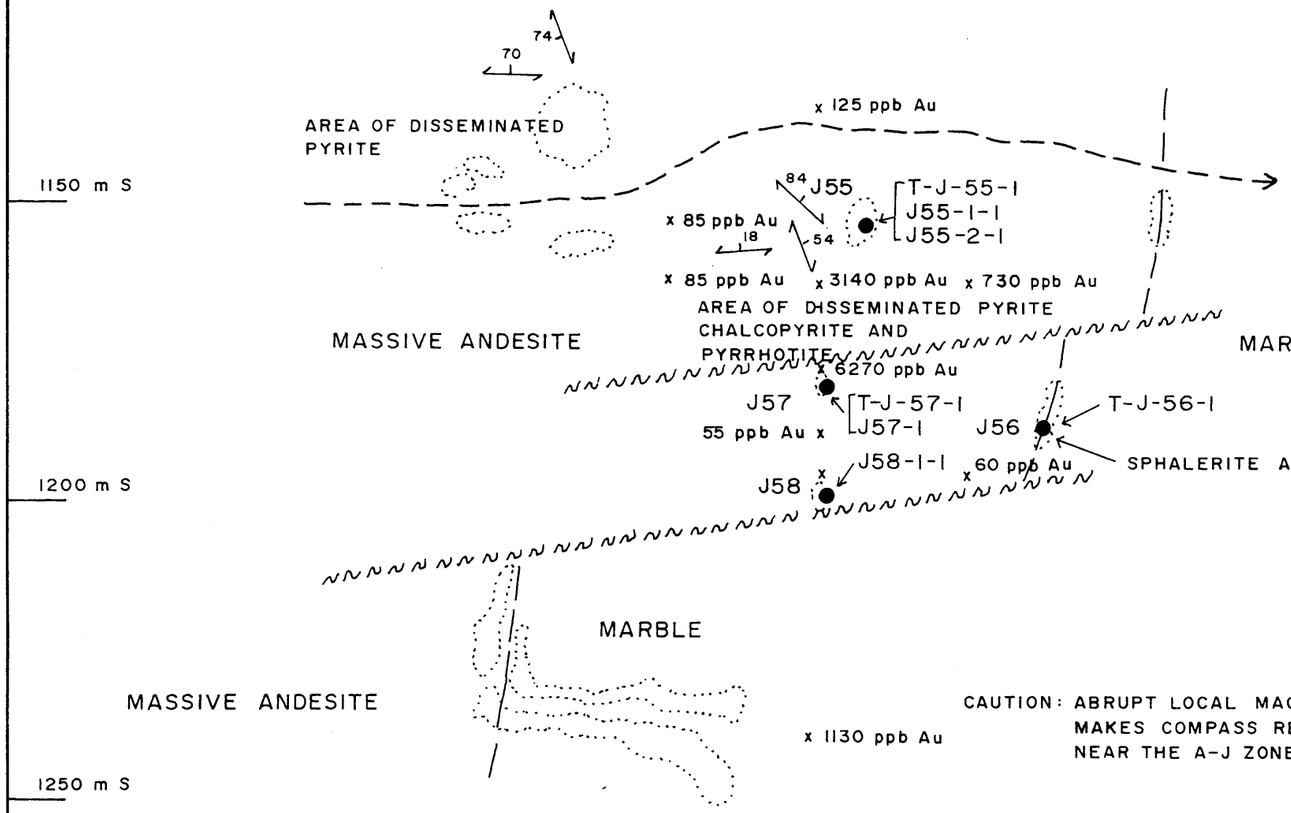
LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

Figure 21

CASSIAR EAST YUKON EXP. LTD.

Sample No.	Cu %	Pb %	Zn %	Ag oz/t	Au oz/t	As %	Cd %
T-J-55-1	1605 ppm	26 ppm	196 ppm	3.2 ppm	1.180	10 ppm	<0.5 ppm
T-J-56-1	75 ppm	0.83	6.49	0.15	0.006	<5 ppm	0.079
T-J-57-1	576 ppm	216 ppm	1765 ppm	1.6 ppm	0.148	15 ppm	19.5 ppm
J55-1-1	0.07	<0.01	0.02	0.14	1.486	<0.01	
J55-2-1	0.01	<0.01	0.01	0.07	0.022	<0.01	
J57-1	0.11	0.01	0.03	0.05	0.192	<0.01	
J58-1-1	0.05	<0.01	0.01	0.03	0.082	<0.01	



PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

LEGEND

Topography:

limit of outcrop | cut | fill | creek | intermittant creek

Structure:

vein attitude | bedding tops unknown | fracture cleavage | fault

Sampling: Soil X | outcrop ●

NOTES: Samples reported in ppm are from 32 element ICP analysis. For results, see Appendix B.

For location on property, see Figure 8.

SCALE

0 10 20 30 40 50 m

0 50 100 150 ft

N.

27°22' N. mag.

as of August 1, 1990

Figure 22

CONSOLIDATED KYLE RESOURCES INC.

SKETCH MAP of the A-J ZONE

GIM PROPERTY

56°40'N., 130°53'W.

LIARD M.D., BRITISH COLUMBIA, N.T.S.104B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

SKY 5 2572(9)
5N X 4W

STU 5 3722(12)
4N X 5E

STU 3
3720(12)
4S X 1W

GIM 3723(12)
4S X 5E

CAM 6
3755(12)
6N X 3E

CAM 5
3754(12)
4S X 3E

SLOCUM 1 2573(9)
5S X 4W

STU 2 3717(12) 3N X 6E

CASSIAR EAST YUKON EXP. LTD.

00 m E
500 m E
1000 m E
1500 m E
2000 m E
2500 m E
00 m S
500 m S
1000 m S
1500 m S
2000 m S

J49
VG VEIN
1988 CUT LINE
J24
CAVE ZONE
J15
J33
J37
DN3
MINERAL GULCH
J36
J12
(DN1)
DN2
J34
CAMP ZONE
1990 CAMP SITE
J55
A-J ZONE
STRINGER ZONE
J23
J22
CANYON ZONE
H
SNIPPAKER CREEK
ZAPPA CREEK
ICE

LEGEND

Topography: river, creek, pond, intermittant creek

Claims: legal corner post, claim line
STU 3 — claim name
3720(12) — record number
4S X 1W — size in 500m² units

1990 Exploration:
Grids: grid line, sample station
fill-in grid lines

Limit of 1990 geological mapping

Area of high gold concentrations in soil samples (generally >50 ppb and up to 6270 ppb gold)

1990 trench or major sampling site
J34 ← station reference number

Helicopter pad cut during 1990

H

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,459

SCALE

0 50 100 150 200 250 300 350 400 450 500 550 600 m
0 200 400 600 800 1000 1200 1400 1600 1800 2000 ft

N.
27°22' N. mag.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTISE

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

Figure 3

CONSOLIDATED KYLE RESOURCES INC.

1990 EXPLORATION
GIM CLAIM R3723(12)

GIM PROPERTY
56°40' 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

LEGEND

TABLE OF LITHOLOGIC UNITS

Stuhini Group, Triassic age

- R — Rhyolite: light grey weathering grey to white; contains abundant anhedral quartz and common subhedral feldspar phenocrysts in a felsic matrix.
- Ap — Porphyritic Felsic Andesite: grey-green weathering rusty brown with conspicuous white plagioclase phenocrysts up to 4 mm in length.
- Am — Massive Andesite; green weathering to brown; in part porphyritic with similar amounts of plagioclase and mafic phenocrysts in a greyish green matrix; commonly pillowed.
- At — Andesitic Tuff: green weathering to rusty brown; 3 mm long fuami composed of metamorphic chlorite and hornblende are readily visible on fresh surfaces.
- Aag — Andesitic Agglomerate: pebble and cobble-size volcanic and intrusive clasts in a greyish green matrix that weathers to brown; the volcanic-intrusive ratio is greater than 9:1.
- B — Basalt and Mafic Andesite: massive dark green rock that weathers green; segregations and ptigmatic veins of epidote and chlorite are common on weathered surfaces; pillowed in part.
- M — Marble: medium grained massive grey carbonate that weathers grey to tan, variously dolomitized.

STRUCTURE

Geologic contact — defined — approximate — assumed

Fault

Bedding (mostly pillows) — tops known (60) — tops unknown (71)

Fracture Cleavage (87)

TOPOGRAPHY

Drainage: river, creek, pond, intermittant creek

Limit of Outcrop

Contour in feet photo-expanded from N.T.S. Map 104B/10, SNIPPAKER CREEK (2500)

Limit of Permanent Ice

1990 trench or major sampling site

J34 station reference number

Claims: legal corner post, claim line

STU 3 claim name
3720(12) record number
4S X 1W size in 500m² units

SCALE

0 50 100 150 200 250 300 350 400 450 500 550 600 m
0 200 400 600 800 1000 1200 1400 1600 1800 2000 ft

N.
27°22' N. mag.

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

PROFESSIONAL GEOLOGIST ALBERTA JOHN OSTLER LICENSED TO PRACTISE

GEOLOGICAL BRANCH ASSESSMENT REPORT

20,459

Figure 8

CONSOLIDATED KYLE RESOURCES INC.

GEOLOGY: GIM CLAIM R3723(12), NORTHWESTERN PART

GIM PROPERTY
56°40' N., 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

VG VEIN

WESTERN CLAIM BOUNDARY

0 m E

500 m E

1000 m E

1500 m E

LINE 50 S

LINE 100 S

LINE 150 S

LINE 200 S

LINE 250 S

LINE 300 S

LINE 350 S

500 m S

LINE 400 S

LINE 450 S

LINE 500 S

LINE 550 S

LINE 600 S

LINE 650 S

LINE 700 S

LINE 725 S

LINE 750 S

LINE 775 S

LINE 800 S

LINE 825 S

LINE 850 S

1000 m S

LINE 900 S

LINE 950 S

LINE 1000 S

LINE 1000A S

LINE 1050 S

LINE 1100 S

1988 CUT LINE

1988 900 m S picket

MINERAL GULCH

CAMP ZONE

STRINGER ZONE

CAVE ZONE

A-J ZONE

675 E

700 E

725 E

750 E

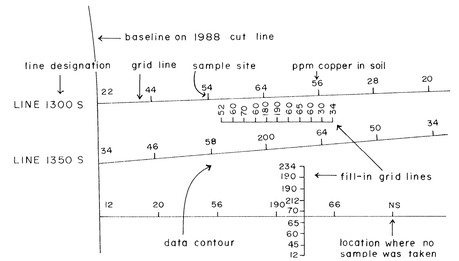
60 ppm

185 ppm

CASSIAR EAST YUKON EXP. LTD.

LEGEND

1990 Soil Grids:



Areas of High Soil-Copper Content

60 ppm copper contour (sub-anomalous) excludes 84 % of data

185 ppm copper contour (anomalous) excludes 97.5% of data

NOTES: For location on property, see Figure 3.

For statistical distribution curve of copper in soil, see Figure 9.

TOPOGRAPHY:

Drainage: river creek pond intermittant creek

SCALE

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 metres

0 100 200 300 400 500 600 700 800 900 1000 feet

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,459

27°22' N. mag.

PROFESSIONAL GEOLOGIST ALBERTA JOHN OSTLER LICENSED TO PRACTISE

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

Figure 14

CONSOLIDATED KYLE RESOURCES INC.

COPPER in SOILS: GIM CLAIM R3723(12), NORTHWESTERN PART

GIM PROPERTY

56°40' N., 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

VG VEIN

WESTERN CLAIM BOUNDARY

0 m E

500 m E

1000 m E

1500 m E

LINE 50 S

LINE 100 S

LINE 150 S

LINE 200 S

LINE 250 S

LINE 300 S

LINE 350 S

500 m S

LINE 400 S

LINE 450 S

LINE 500 S

LINE 550 S

1988 CUT LINE

LINE 600 S

LINE 650 S

LINE 700 S

LINE 725 S

LINE 750 S

LINE 775 S

LINE 800 S

LINE 825 S

LINE 850 S

1000 m S

LINE 900 S

LINE 950 S

LINE 1000 S

LINE 1000A S

LINE 1050 S

LINE 1100 S

1988 900 m S picket

MINERAL GULCH

CAMP ZONE

STRINGER ZONE

CAVE ZONE

A-J ZONE

675E

700E

750E

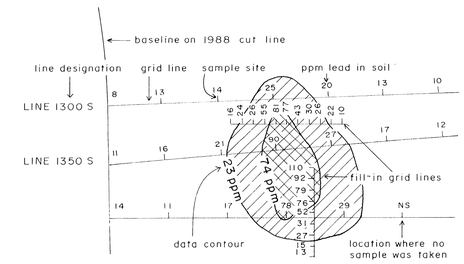
23 ppm

74 ppm

CASSIAR EAST YUKON EXP. LTD.

LEGEND

1990 Soil Grids:



Areas of High Soil-lead Content:

23 ppm lead contour (sub-anomalous) excludes 84% of data

74 ppm lead contour (anomalous) excludes 97.5% of data

NOTES: For location on property, see Figure 3.

For statistical distribution curve of lead in soil, see Figure 10.

TOPOGRAPHY:

Drainage: river creek pond intermittant creek

SCALE

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 metres

0 100 200 300 400 500 600 700 800 900 1000 feet

GEOLOGICAL BRANCH
ASSESSMENT REPORT

N. 20,459

27°22' N. mag.

PROFESSIONAL GEOLOGIST ALBERTA JOHN OSTLER LICENSED TO PRACTICE

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

Figure 15

CONSOLIDATED KYLE RESOURCES INC.

LEAD in SOILS: GIM CLAIM R3723(12), NORTHWESTERN PART

GIM PROPERTY

56°40' N., 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

VG VEIN

WESTERN CLAIM BOUNDARY

000 m E

500 m E

1000 m E

1500 m E

LINE 50 S

LINE 100 S

LINE 150 S

LINE 200 S

LINE 250 S

LINE 300 S

LINE 350 S

500 m S

LINE 400 S

LINE 450 S

LINE 500 S

LINE 550 S

LINE 600 S

LINE 650 S

LINE 700 S

LINE 725 S

LINE 750 S

LINE 775 S

LINE 800 S

LINE 825 S

LINE 850 S

1000 m S

LINE 900 S

LINE 950 S

LINE 1000 S

LINE 1000A S

LINE 1050 S

LINE 1100 S

146 ppm

392 ppm

MINERAL GULCH

1988 900 m S picket

CAMP ZONE

STRINGER ZONE

CAVE ZONE

A-J ZONE

675E

700E

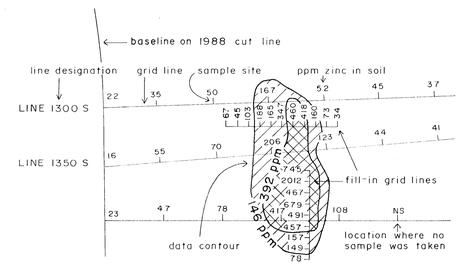
725E

750E

CASSIAR EAST YUKON EXP. LTD.

LEGEND

1990 Soil Grids:



Areas of High Soil-zinc Content:

146 ppm zinc contour (sub-anomalous) excludes 84% of data

392 ppm zinc contour (anomalous) excludes 97.5% of data

NOTES: For location on property, see Figure 3.

For statistical distribution curve of zinc in soil, see Figure 12.

TOPOGRAPHY:

Drainage: river creek pond intermittant creek

SCALE

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 metres

0 100 200 300 400 500 600 700 800 900 1000 feet

GEOLOGICAL BRANCH ASSESSMENT REPORT

20,459

N.

27°22' N. mag.

PROFESSIONAL GEOLOGIST ALBERTA JOHN OSTLER LICENSED TO PRACTICE

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

Figure 16

CONSOLIDATED KYLE RESOURCES INC.

ZINC in SOILS: GIM CLAIM R3723(12), NORTHWESTERN PART

GIM PROPERTY

56°40' N., 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

VG VEIN

WESTERN CLAIM BOUNDARY

0 m E

500 m E

1000 m E

1500 m E

LINE 50 S

LINE 100 S

LINE 150 S

LINE 200 S

LINE 250 S

LINE 300 S

LINE 350 S

500 m S

LINE 400 S

LINE 450 S

LINE 500 S

LINE 550 S

LINE 600 S

LINE 650 S

LINE 700 S

LINE 750 S

LINE 800 S

LINE 850 S

1000 m S

LINE 900 S

LINE 950 S

LINE 1000 S

LINE 1050 S

LINE 1100 S

1988 CUT LINE

1.06 ppm

2.4 ppm

CAVE ZONE

MINERAL GULCH

1988 900 m S picket

CAMP ZONE

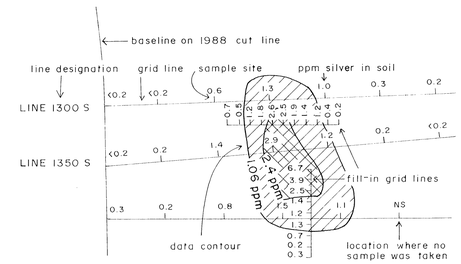
A-J ZONE

STRINGER ZONE

CASSIAR EAST YUKON EXP. LTD.

LEGEND

1990 Soil Grids:



Areas of High Soil-silver Content:

1.06 ppm silver contour (sub-anomalous) excludes 84% of data

2.4 ppm silver contour (anomalous) excludes 97.5% of data

NOTES: For location on property, see Figure 3.

For statistical distribution curve of silver in soil, see Figure 12.

TOPOGRAPHY:

Drainage: river creek pond intermittant creek

SCALE

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 metres

0 100 200 300 400 500 600 700 800 900 1000 feet

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,459

N 27°22' N. mcg.

PROFESSIONAL GEOLOGIST ALBERTA
JOHN OSTLER
LICENSED TO PRACTICE

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

Figure 17

CONSOLIDATED KYLE RESOURCES INC.

SILVER in SOILS GIM CLAIM R3723(12), NORTHWESTERN PART

GIM PROPERTY
56°40' N., 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990

VG VEIN

WESTERN CLAIM BOUNDARY

0 m E

500 m E

1000 m E

1500 m E

1988 CUT LINE

LINE 50 S

LINE 100 S

LINE 150 S

LINE 200 S

LINE 250 S

LINE 300 S

LINE 350 S

500 m S

LINE 400 S

LINE 450 S

LINE 500 S

LINE 550 S

LINE 600 S

LINE 650 S

LINE 700 S

LINE 725 S

LINE 750 S

LINE 775 S

LINE 800 S

LINE 825 S

LINE 850 S

1000 m S

LINE 900 S

1988 900 m S picket

LINE 950 S

LINE 1000 S

LINE 1000A S

LINE 1050 S

LINE 1100 S

CAVE ZONE

MINERAL GULCH

CAMP ZONE

A-J ZONE

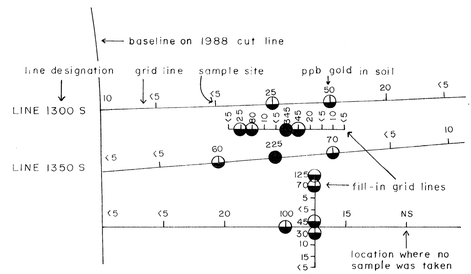
STRINGER ZONE

675E 700E 725E 750E

CASSIAR EAST YUKON EXP. LTD.

LEGEND

1990 Soil Grids:



Areas of High Soil-gold Content:

24 ppb gold contour (sub-anomalous) excludes 84% of data

185 ppb gold contour (anomalous) excludes 97.5% of data

NOTES: For location on property, see Figure 3.

For statistical distribution curve of gold in soil, see Figure 13.

TOPOGRAPHY:

Drainage: river creek pond intermittant creek

SCALE

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 metres

0 100 200 300 400 500 600 700 800 900 1000 feet

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,459

N.

27°22' N. mag.

PROFESSIONAL GEOLOGIST ALBERTA JOHN OSTLER LICENSED TO PRACTISE

Declination is for the northern part of N.T.S. Map 104 B/10 SNIPPAKER CREEK as of August 1, 1990. Declination decreases by 3.3' annually.

Figure 18

CONSOLIDATED KYLE RESOURCES INC.

GOLD in SOILS
GIM CLAIM R3723(12), NORTHWESTERN PART

GIM PROPERTY

56°40' N., 130°53' W.

LIARD MINING DIVISION, BRITISH COLUMBIA N.T.S. 104 B/10

JOHN OSTLER; M.Sc., P.Geol. OCTOBER, 1990