

LOG NO: 23-01

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ACTION:

FILE NO:

1990 GEOCHEMICAL REPORT
ON THE
EAGLE 7 CLAIM

LIARD MINING DIVISION

NTS: 104I/6E
LATITUDE: 58'29'N
LONGITUDE: 129'08'W

OWNER: HOMESTAKE CANADA LIMITED
#1000 - 700 West Pender Street
Vancouver, B.C. V6C 1G8

AND

NUSPAR RESOURCES LIMITED
#702 - 626 West Pender Street
Vancouver, B.C. V6B 1V8

OPERATOR: HOMESTAKE CANADA LIMITED

BY: M.D. McPherson

January 18, 1991

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,856

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SUMMARY

The Eagle 7 claim is located approximately 48km east of Dease Lake, in northern B.C. The claim consists of 18 units, and is owned by Nuspar Resources Limited and Homestake Canada Limited. Access to the property is by float plane to the southeast side of Eaglehead Lake, 9km northwest of the property, and then by helicopter.

The claim is underlain by the granodioritic, Jurassic Eaglehead batholith, which lies in fault contact with the Upper Triassic Kutcho Formation volcanic and sedimentary rocks. Copper mineralization occurs within quartz and/or calcite filled fractures within the batholith, in the northeast corner of the claim.

Copper mineralization was initially discovered in granitic float near Eaglehead Lake by Kennco Explorations Ltd. in 1963, and exploration has been carried out since that time. Past work includes geological, geochemical and geophysical surveys, as well as diamond drilling, by Kennco Explorations Ltd., Nuspar Resources Ltd. and Esso Minerals Canada Ltd. Homestake Canada Ltd. purchased Esso's interest in the property in 1989. Previous work has concentrated on exploring for additional copper mineralization, and therefore little work has been done with respect to the potential for gold and silver mineralization on the claim.

The 1990 exploration program consisted of the collection of 98 soil samples over 4.8 line kilometres of grid. This geochemical survey was designed to evaluate the potential for shear hosted gold and silver mineralization associated with the fault contact between the Jurassic Eaglehead batholith and the Upper Triassic Kutcho Formation.

Results from the geochemical survey suggest that the potential for gold and silver mineralization associated with the fault contact is limited. Although several weakly defined, northwest trending gold and silver anomalies were delineated, the values are too low (<57 ppb Au) to warrant further investigation at this time. Copper values were moderately to strongly anomalous (up to 3940 ppm Cu) within the batholith, as was expected from previous surveys, but very weak within the Kutcho Formation rocks. All three elements show similar

spatial distribution, concentrated within the batholith, and moderately well developed value correlations, suggesting that any gold and silver mineralization is related to the copper mineralization.

Due to the limited potential indicated for gold and silver mineralization, no further work is recommended on the Eagle 7 claim at this time.

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1.0 INTRODUCTION

1.1 Location and Access:

The Eagle 7 claim is located within the Liard Mining Division in northern B.C., approximately 48km east of Dease Lake, B.C. (Fig. 1.1). The claim is located on NTS map sheet 104I/6E, at latitude 58'29'N, longitude 129'08'W. Access to the property is by float plane from Dease Lake to the southeast side of Eaglehead Lake, 9km northwest of the property, and then by helicopter or foot trail.

1.2 Claim Status

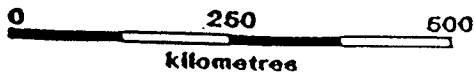
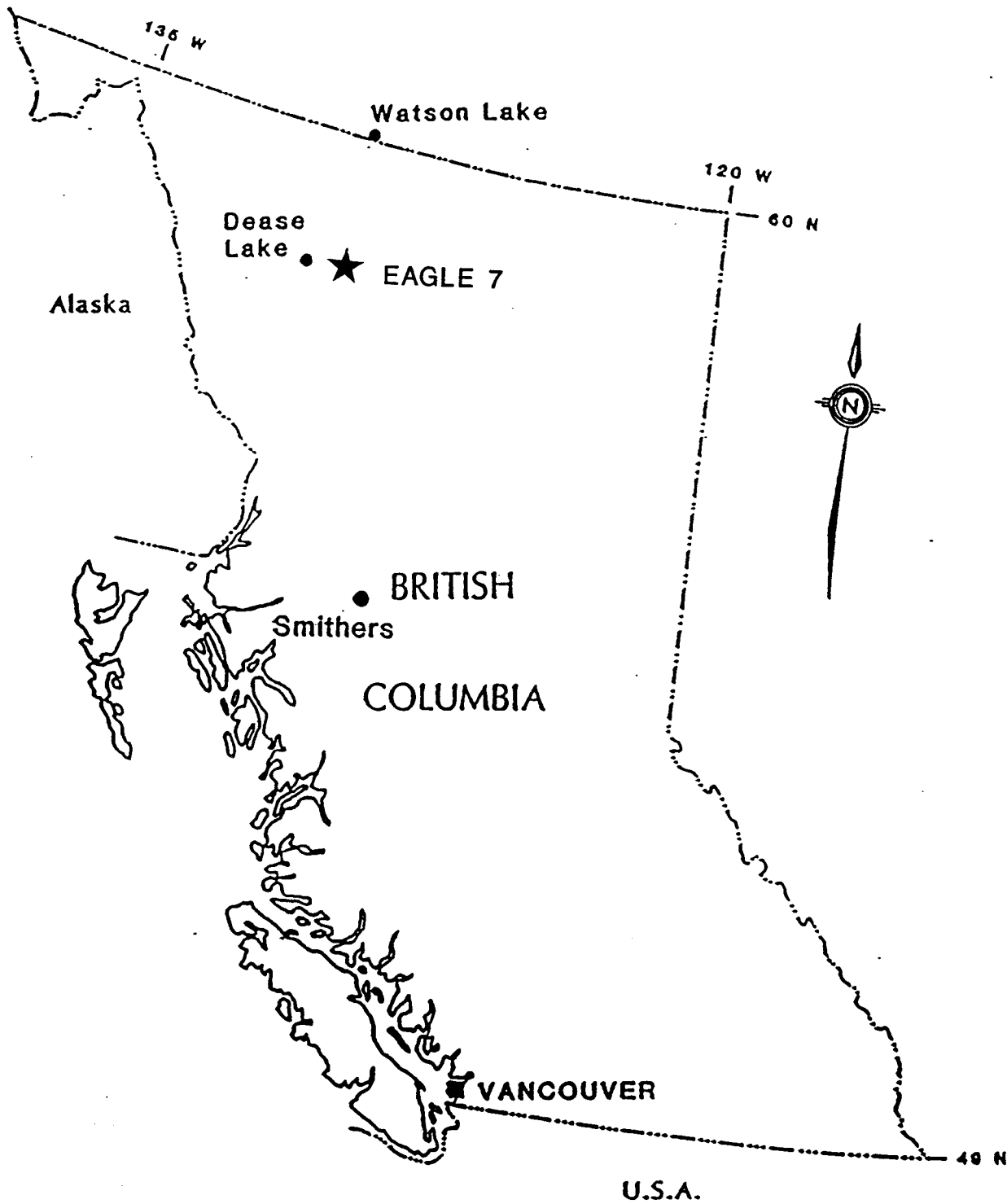
The 18-unit Eagle 7 claim is owned by Homestake Canada Limited and Nuspar Resources Limited. Claim location is shown in figure 1.2.

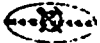
<u>Claim</u>	<u>Units</u>	<u>Record #</u>	<u>Record Date</u>	<u>Expiry Date</u>
Eagle 7	18	2158	Oct. 22, 1981	Oct. 22, 1992

1.3 Physiography

The Eagle 7 claim lies within the Stikine Ranges of the Cassiar Mountains. The claim lies at or above treeline, with elevations ranging from 1430m to 1900m, occupying a northwest trending drift-filled valley. Northeast facing ridges are typically scalloped by steep cirques, while southwest facing slopes are rounded with more gentle slopes. The valley floor is extensively drift covered, and characterized by kame terraces, kettle holes and eskers.

Vegetation is predominantly "bunch grass" and slide alder. A fringe of scrub alpine spruce and balsam occurs on lower ridge slopes. The upper slopes are grassy and commonly covered by felsenmeer.



HOMESTAKE MINING (CANADA) LIMITED 			
EAGLE 7			
LOCATION MAP			
DRAWN MDM	DATE 01/91	NTS 1041/6E	Fig. 1.1
<small>Revised</small>			

Eaglehead Lake

Hard Lake

Hard Cr.



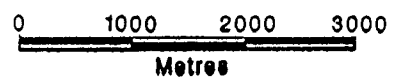
129°15'
58°30'

EAGLE 7

HOMESTAKE
MINING (CANADA) LIMITED

EAGLE 7
CLAIM LOCATION MAP

DRAWN JMH	DATE 07/90	NTS 1041/6E	Fig.1.2
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1.4 Exploration History

Copper mineralization was initially discovered in granitic float near Eaglehead Lake by Kennco Explorations Ltd. in 1963. Kennco conducted geochemical, geophysical and geological surveys, and limited diamond drilling from 1963 to 1965. The claims were allowed to lapse, and were restaked by Spartan Explorations in 1970. Esso Resources Canada Limited (Imperial Oil) optioned the property in 1971, and continued with geological, geochemical and geophysical work, and diamond drilling (thirty holes) until 1976.

In 1979, Nuspar Resources Ltd. (reorganized from Spartan Explorations) assumed control of the property, and work resumed from 1979 to 1981 under the supervision of Pamicon Developments Ltd. Exploration entailed additional geological, geophysical and geochemical surveys and twenty-five diamond drill holes.

Esso Resources Canada Ltd. re-assumed control of the property in 1982, and completed a compilation of exploration data from 1971 to 1982. This study included an alteration-mineralization-structural assessment of the property, re-evaluation of some of the diamond drilling, and a stream geochemical compilation of the Eaglehead batholith.

No further work was done until the fall of 1990.

1.5 Present Work

The 1990 exploration program on the Eagle 7 claim consisted of the collection 98 soil samples over 4.8 line km of grid. The survey was designed to cover the fault contact between the Jurassic Eaglehead Batholith and the Upper Triassic Kutcho Formation, in order to evaluate the potential for shear hosted gold mineralization. The work was conducted from October 10-12, 1990 and was hampered by the presence of 15 to 30cm of snow and poor flying weather.

2.0 GEOLOGY

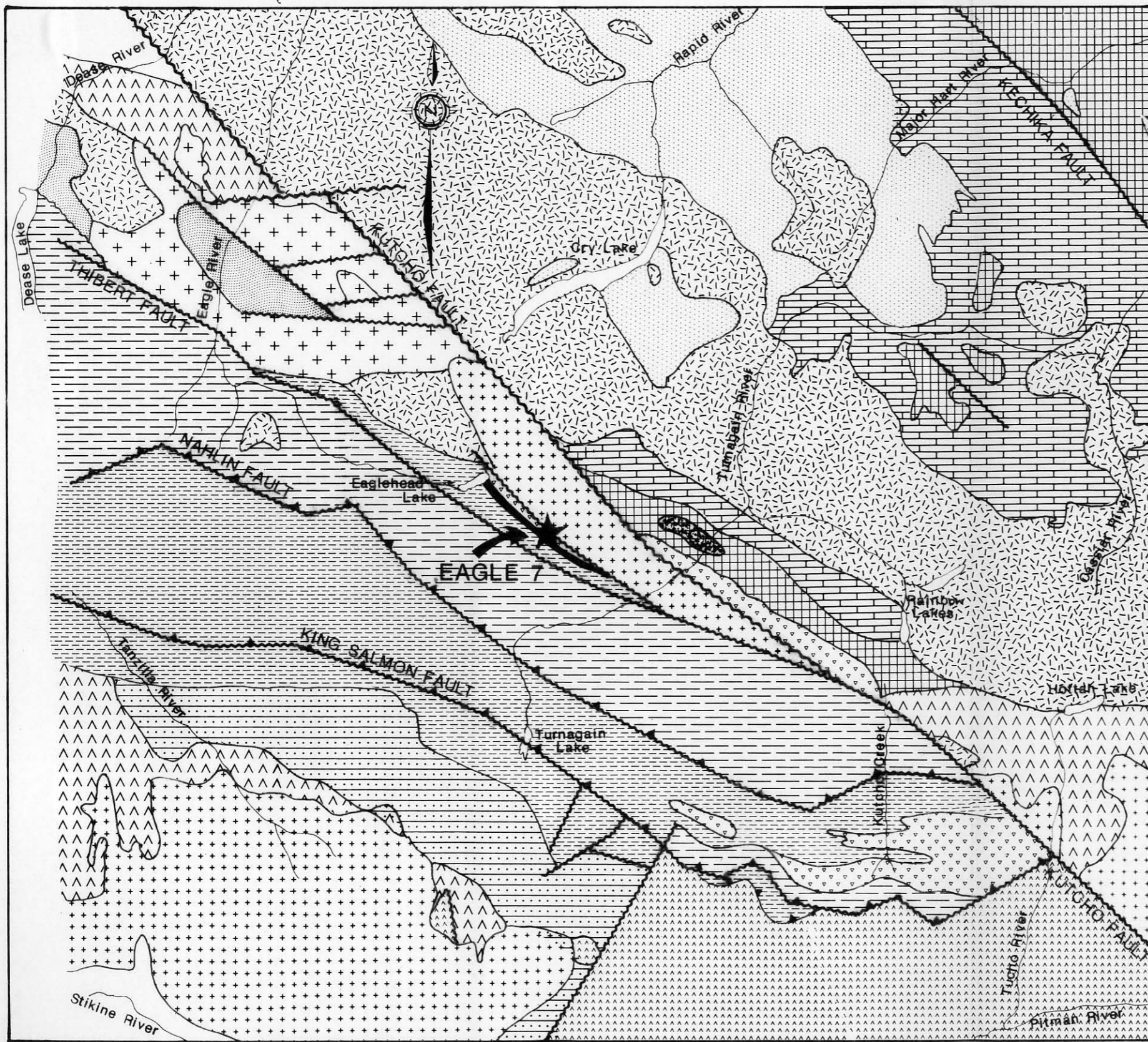
2.1 Regional Setting

The Eagle 7 claim lies along the southwest flank of a zoned, early to late Jurassic granodioritic batholith centred on Eaglehead Lake, and termed the Eaglehead batholith. The batholith is elongate along a northwest trend, sub-parallel to the regional structural fabric (Fig. 2.1).

To the northeast, the batholith is bounded by the Kutcho Fault, which trends northwest and shows several tens of kilometres of right-lateral displacement. This fault zone is characterized by strongly cataclasized, foliated and mylonitized rocks over widths of 1500 to 3000m. North of the Kutcho Fault the rocks are predominantly mid-Cretaceous and younger elements of the Cassiar Batholith.

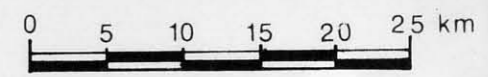
The southwestern flank of the batholith is bounded by volcanic and sedimentary rocks of the Upper Triassic Kutcho and Stuhini Formations, which are overlain unconformably by the Sinwa Limestone, and sedimentary rocks of the Lower Jurassic Inklin Formation (Gabrielse, 1978). A major, northwest trending fault zone separates the intrusive rocks from the Kutcho Formation rocks in the vicinity of the Eagle 7 claim. This fault may be a splay of the Thibert Fault, a high angle, right lateral fault (Gabrielse, 1982), which forms the contact between the Inklin rocks and the Upper Paleozoic Cache Creek Group rocks further to the southwest. The Thibert Fault trends northwest and is thought to originate from the Kutcho Fault near the Turnagain River. Within this area the Cache Creek Group has been thrust over Lower Jurassic Inklin Formation rocks along the Nahlin Thrust Fault.

Individual plutons of the Eaglehead batholith are confined to the region between the Kutcho and Thibert Faults, and show a moderate zonation. West of Eaglehead Lake the batholithic rocks are medium to coarse grained hornblende diorite, hornblende quartz diorite, monzonite and granodiorite. East of Eaglehead Lake the intrusive is a medium to coarse grained granodiorite characterized by coarse quartz eyes and a variable hornblende-biotite



LEGEND

- CRETACEOUS**
- MID-CRETACEOUS**
 Quartz monzonite, granite, granodiorite; Kgd, granodiorite, in part foliated, age uncertain; Kqm, kaolinized feldspar-quartz porphyry
- JURASSIC**
- MIDDLE JURASSIC**
 Granodiorite, diorite; includes younger phases of Hotalluh Batholith, hornblende-biotite syenite, granite and monzonite, hornblende diorite and syenodiorite; mjgd, granodiorite
- Andesite flows, tuff, breccia, agglomerate; conglomerate, siltstone
- LOWER JURASSIC**
 TOANGIAN
 Maroon and grey weathering andesite, dacite and rhyolite flows, tuff and breccia; jvb, argillite, tuff, calc-silicate, hornfels
- Granodiorite
- UPPER AND LOWER PLIENSCHACHIAN**
 TAKMAHONI FORMATION: greywacke, shale, minor conglomerate
- UPPER SINEMURIAN**
 Andesite breccia and tuff
- Shale, dark grey to black; siltstone, tuff, minor greywacke
- Coarse conglomerate
- INKLIN FORMATION: Greywacke, phyllitic slate, conglomerate; may be in part younger
- TRIASSIC AND JURASSIC**
- UPPER TRIASSIC AND LOWER JURASSIC**
 Feldspar porphyry; agglomerate, breccia, tuff, in part maroon weathering
- TRIASSIC**
- UPPER TRIASSIC**
 EDMA FORMATION: limestone, commonly argillaceous and fetid
- Peridotite, dunite, serpentinite
- STUBINI FORMATION:** augite and coarse-bladed plagioclase porphyry breccia and flows; local basal conglomerate, siltstone, greywacke
- 'KUTCHO FORMATION':** dacitic breccia, tuff; dacitic to rhyolitic flows, chlorite schist, argillite, conglomerate; quartz-feldspar sericitic schist; UKK, undivided 'Kutcho' and Inklin formations
- HOTALLUH BATHOLITH, OLDER PHASES:** hornblende syenodiorite to granodiorite; UKgd biotite-hornblende gabbro, diorite, hornblende pyroxenite; UKW, hornblende pyroxenite, gabbro, diorite
- MISSISSIPPIAN TO PERMIAN**
- CACHE CREEK GROUP: MPT, TESLIN FORMATION: limestone, Permian; MPc, chert, slate, argillite, minor basic volcanics; MPC, limestone; MPV, basic volcanics; MPJ, coarse grained to pegmatitic gabbro; MPU, peridotite, dunite, pyroxenite, commonly serpentinitized
- DEVONIAN TO PERMIAN**
- UPPER DEVONIAN TO PERMIAN**
 SYLVESTER GROUP: lower part, chert pebble conglomerate, chert arenite, shale, Upper Devonian, in fault contact with overlying chert; DPSV, chloritized and saussuritized tholeiitic basalt, breccia, tuff; DPSU, serpentinite, peridotite, pyroxenite; MN, WIZI FORMATION: crinoidal and cherty limestone, basal pebble conglomerate, Upper Mississippian; PC, limestone, Pennsylvanian; DPSC, limestone
- PALEOZOIC UNDIVIDED**
- Crystalline limestone, metasedimentary and minor metavolcanic rocks
- Basal nodular argillaceous limestone of Cambrio-Ordovician age overlain by black, crenulated phyllite of Road River and younger rocks
- SILURIAN AND DEVONIAN**
- UPPER SILURIAN (?) TO MIDDLE DEVONIAN (GIVETIAN)**
 Includes four units, in ascending order, sandstone, dolomitic sandstone, laminated dolomite; laminated dolomite; dark grey fetid limestone and dolomite, dolomite breccia (Givetian); platy limestone
- SILURIAN AND MINOR DEVONIAN**
 Mainly dolomite of SANDPILE FORMATION
- CAMBRIAN, ORDOVICIAN AND SILURIAN**
- UPPER CAMBRIAN TO MIDDLE SILURIAN**
 KECHIKA AND ROAD RIVER FORMATIONS, UNDIVIDED: lower part, Upper Cambrian and Lower Ordovician Kechika Group, argillaceous limestone, calcareous shale; upper part, relatively thin Ordovician black graptolitic shale, minor quartzite and Silurian graptolitic siltstone
- LOWER CAMBRIAN**
 ATAN FORMATION: iCAq, lower member, quartzitic sandstone, siltstone, slate, phyllite; iCAC, upper member, limestone; iCA, undivided micaceous quartzite, mica schist, minor crystalline limestone; iCAN, quartzite and schist, age uncertain
- HADRYNIAN**
- INGENIKA GROUP
- STELKIZ FORMATION: interbedded chloritic sandstone, shale, limestone, phyllite; includes distinctive green and maroon weathering members; HS₁, includes iCAq
- ESPEE FORMATION: crystalline limestone, sandy limestone, dolomite
- SHANNELL AND TSAYDIZ FORMATIONS, UNDIVIDED: sericite and chlorite phyllite, schist, calcareous siltstone, micaceous quartzite and pebble conglomerate



scale 1 : 500,000

After Gabrielse et al; 1978, 1982

20,856

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HOMESTAKE MINING (CANADA) LIMITED

EAGLE 7

REGIONAL GEOLOGY

DRAWN MDM	DATE 01/91	NTS 1041/6E	Fig.2.1
Revised _____			

content.

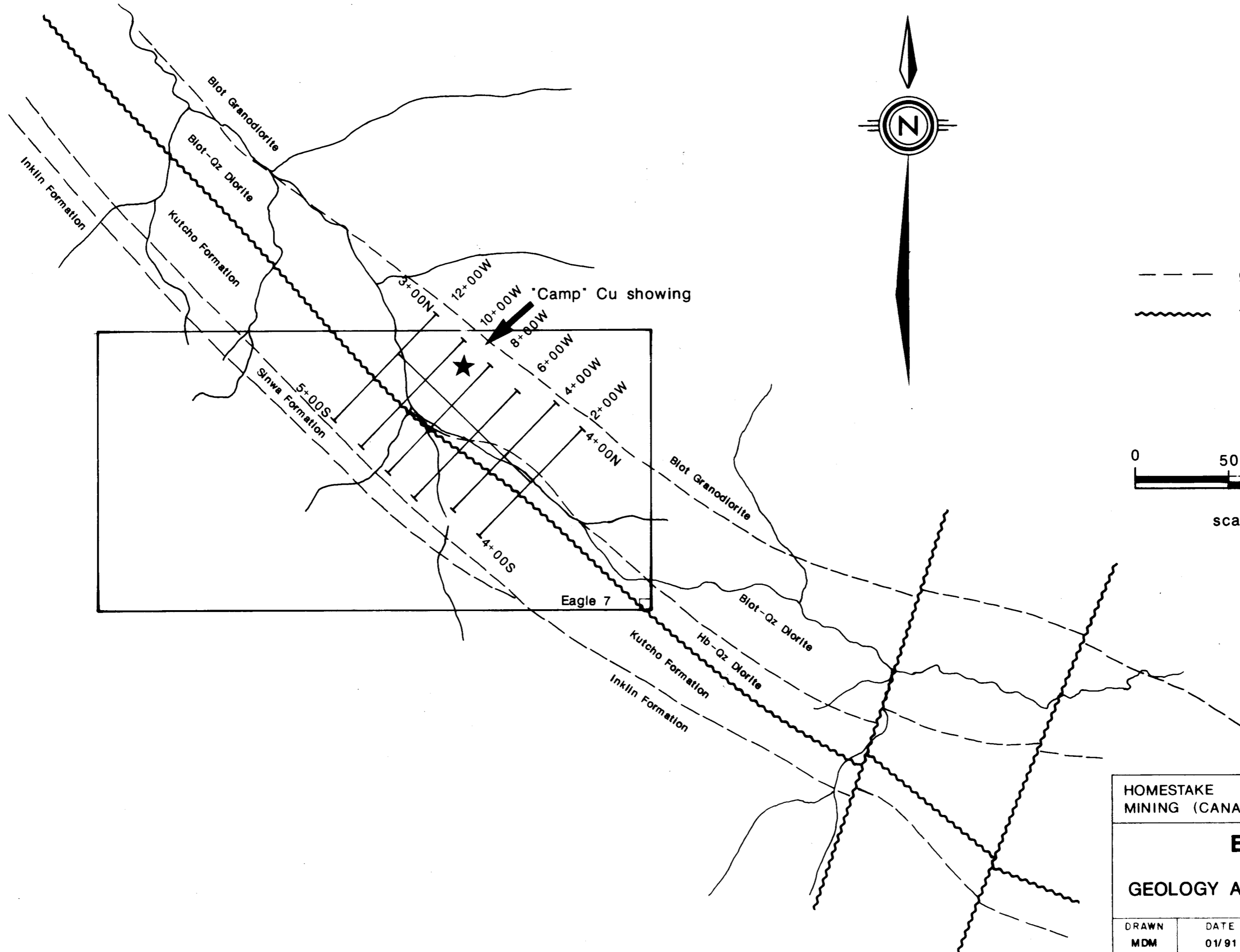
2.2 Property Geology

2.2.1 Stratigraphy

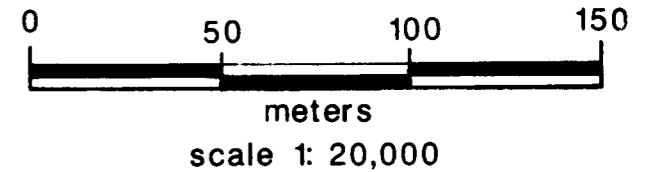
The Eagle 7 claim lies along the southwest flank of the Jurassic Eaglehead batholith. A major northwest trending fault zone marks the contact between the Eaglehead intrusives to the northeast and the Kutcho Formation to the southwest (Fig. 2.1). The batholith has been dated at 180 +/- 7 Ma. (uncorrected from Oddy and Morrice, 1972). The batholith is zoned and has been sub-divided into three phases (Everett et al, 1983). The phases, which consist of 1) hornblende granodiorite, 2) biotite granodiorite and 3) quartz and feldspar porphyritic granodiorite, are elongated in a northwesterly direction (Fig.2.2), with phase 1 occurring along the southwest edge of the pluton and phase 3 occurring to the northeast. Contacts between the phases are rarely observed but are presumed to be gradational. Marr (1974) suggests the phases are progressively younger from the southwest to the northeast.

Three types of dykes cross-cut the intrusive phases; quartz-feldspar porphyry, hornblende-feldspar porphyry and green "diabase" dykes. The first two types have only been seen in drill core, where they appear to cut the biotite granodiorite. The "diabase" dykes are seen to cut all three phases, and where unmineralized, are thought to be andesitic to trachyandesitic in composition. All of the dykes consistently trend north-northwest and dip west-northwest, sub-parallel to the regional structural fabric (Everett et al, 1983).

The southwest portion of the Eagle 7 claim is underlain by volcanic and sedimentary rocks of the Kutcho, Sinwa and Inklin Formations. Stratigraphy trends northwest, occurring as narrow, elongate bands sub-parallel to the dominant structural features in the area. The Upper Triassic Kutcho Formation is comprised of felsic volcanic and minor sedimentary rocks, and occurs in fault contact with the Eaglehead batholith. Conformably overlying the Kutcho Formation is a relatively thin band of Sinwa Limestone, which in turn is overlain by Lower Jurassic sedimentary rocks of the Inklin Formation. Southwest of the Eagle 7 claim, the



--- geologic contact
 ~~~~~ fault



|                                   |               |                |          |
|-----------------------------------|---------------|----------------|----------|
| HOMESTAKE MINING (CANADA) LIMITED |               |                |          |
| <b>EAGLE 7</b>                    |               |                |          |
| <b>GEOLOGY AND GRID LOCATION</b>  |               |                |          |
| DRAWN<br>MDM                      | DATE<br>01/91 | NTS<br>1041/6E | Fig. 2.2 |
| Revised                           |               |                |          |

Thibert Fault brings Upper Paleozoic Cache Creek Group rocks in contact with the Inklin Formation sediments (Fig. 2.1).

### 2.2.2 Structure

The orientation of the Cassiar and Eaglehead batholiths indicates that igneous events were largely controlled by northwest-trending structural features, on both a regional and local scale.

Structure on the Eagle 7 claim is dominated by the northwest-trending fault contact that separates the hornblende-quartz diorite phase of the Eaglehead batholith and the Upper Triassic Kutcho Formation (Fig.2.1). The amount of displacement along this fault is unknown, however similar trending faults in the area show right-lateral movement. Several east-northeast trending faults offset this major structure. Faults on the property are typically steeply dipping (>60 degrees), and typically exhibit a well developed foliation.

An understanding of faulting and fracturing on the property is important, as the copper mineralization discovered to date is predominantly fracture-controlled. Mineralized zones are often sheared and mylonitized, indicating the strong structural controls to mineralization. There could also be potential for the development of shear-hosted gold and silver mineralization associated with the intrusive - Kutcho Formation contact.

### 2.3 Alteration and Mineralization

Alteration and mineralization within the property area has been discussed in detail by Everett et al (1983), and so only a brief review is presented here. Copper mineralization within the property area is strongly structurally controlled. Relatively little disseminated mineralization has been noted, and where present, is generally associated with vein envelopes. The major alteration and mineralization zones are concentrated within the biotite granodiorite phase of the Eaglehead batholith.

Three mineralized zones have been discovered in the area to date; the Bornite Zone, the Pass Zone and the Camp Zone. The Camp Zone lies in the northeast corner of the Eagle 7 claim, and consists of chalcopyrite-pyrite mineralization hosted within northwest trending quartz and /or calcite-filled fractures. The zone trends northwest, and is estimated to contain 3 million tons grading 0.45% copper. Mineralized veins are typically steeply dipping, and are often sheared. Along the southern margin of the Camp Zone, shear cleavage dips steeply southwest.

Alteration within the Camp Zone consists of pervasive sericite overprinting potassium feldspar and possibly propylitic assemblages, grading into propylitic alteration away from the zone. Propylitic alteration is generally less intense on the northern margin of the zone. This asymmetry may be due in part to more extensive ground preparation closer to the major fault zone separating the intrusive rocks from the volcanic rocks. Carbonate alteration is widespread on the property, occurring as veins, along mineral grain boundaries, and replacing mafics.

Several quartz-sericite veins that do not carry copper mineralization have been noted on the property, and typically have the same attitudes as mineralized veins. This barren set of veins may be related to the same generation of mineralization as the copper, or could be related to some other hydrothermal or tectonic event, such as the emplacement of the northwest trending fault zone. If the latter case is true, these veins have the potential to host shear-related gold and silver mineralization.

### **3.0 GEOCHEMISTRY**

#### **3.1 Introduction**

Several geochemical surveys were completed on the Eagle 7 claim and surrounding ground prior to the 1990 program. However, these surveys were predominantly concerned with the copper-bearing potential of the Eaglehead Batholith, and did not adequately

investigate the possibility of gold-bearing structures associated with the Kutcho Formation-intrusive fault contact. The 1990 geochemical program was undertaken to evaluate the potential for gold and silver mineralization on the Eagle 7 claim. The grid was designed to test the ground on either side of the fault contact in the area south of the "Camp Zone" copper mineralization (Fig. 2.2).

### 3.2 Method of Survey

A total of 98 soil samples were collected over 4.80 line km of grid. Samples were collected at 50m intervals along lines spaced 200m apart. The grid lines were run perpendicular to a pre-existing, cut baseline which trends 135 degrees.

The soil samples were collected from the B-horizon at depths of 20 to 60cm, placed in standard Kraft paper sample bags, and air-dried before shipment. Analyses were performed by Acme Analytical Labs Ltd. of Vancouver, B.C., and consisted of thirty-element ICP and gold by atomic absorption. The samples were first oven dried, sieved to -80 mesh, and pulverized, and then a 0.5 gram subsample was digested in a hydrochloric-nitric acid solution at 90 degrees for one hour before the analysis. The digestion is partial for Mn, Fe, Ca, P, La, Cr, Ba, W, Na, and K. The geochemical results are included in Appendix II.

Contoured value plots were prepared for gold, silver and copper in order to identify any correlations between the three elements. Particular attention was given to whether or not the gold was spatially related to the copper mineralization, or to the position of the intrusive - Kutcho Formation fault contact (Figs. 3.1, 3.2, 3.3).

### 3.3 Results

#### Gold

Gold values were typically low, ranging from 1 to 57 ppb, with the higher values forming moderately well defined northwest trending anomalies (Fig. 3.1). Approximately 87%



of the values were less than or equal to 10 ppb Au, and only 2% were greater than 31 ppb Au. The gold values are typically higher within the batholith, and are concentrated in the northeast corner of the grid. The highest gold value (57 ppb Au) lies at the northwest end of a 50m wide, 250m long weakly anomalous band, sub-parallel and approximately 50m south of the projected intrusive - Kutcho Formation fault contact. This weak anomaly may be associated with the fault contact, but the surrounding low values do not indicate significant near-surface mineralization.

### Silver

Silver values ranged from 0.1 to 1.8 ppm, with approximately 72% of the values less than 0.4 ppm Ag, and 6% of the values greater than 0.9 ppm Ag (Fig. 3.2). As with gold values, anomalous silver values show well defined northwest trends, and seem to be concentrated within the batholith. A second, west-northwest trend of anomalous silver values is also evident, possibly indicating a conjugate fracture set.

The anomalous silver values show a moderate correlation with gold in the northwest to central section of the grid, but lack any correlation with the northwest trending gold anomaly lying just south of the fault contact.

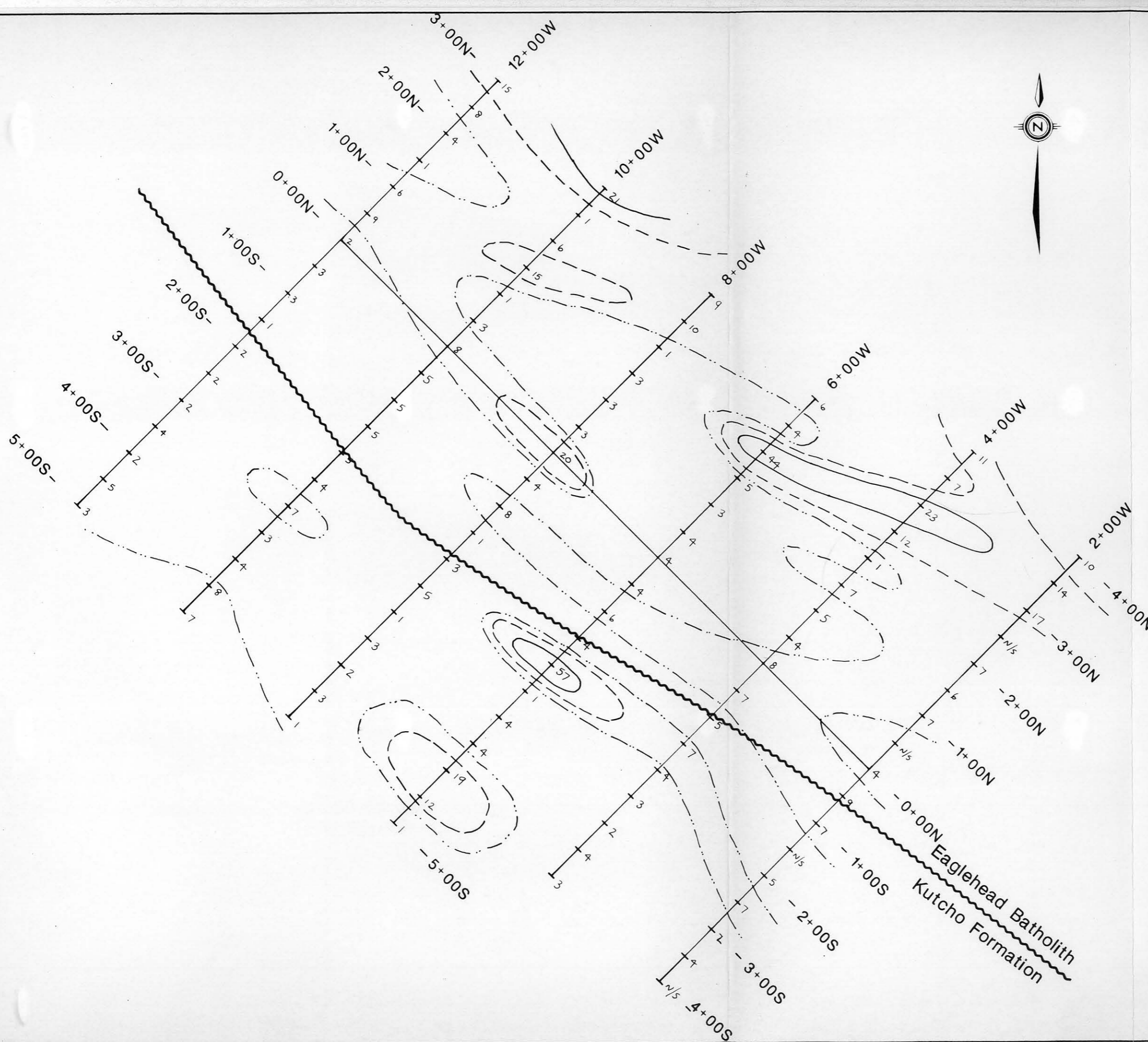
### Copper

As expected from previous work done in the area, copper values were much stronger within the batholith than within the Kutcho Formation (Fig.3.3). Values ranged from 1 to 100 ppm Cu for samples within the Kutcho Formation, and 16 to 3940 ppm Cu for samples within the Eaglehead Batholith. The highest values were located in the northwest corner of the grid, in the vicinity of the "Camp Zone" copper showing. As with gold and silver, anomalous copper values follow moderately well defined northwest trends.

Anomalous gold, silver and copper values occur predominantly within the intrusive rocks of the Eaglehead batholith, and correlate reasonably well. This suggests that almost

all gold and silver mineralization is related to the copper mineralization, and therefore no shear-related mineralization is indicated by the geochemical survey.

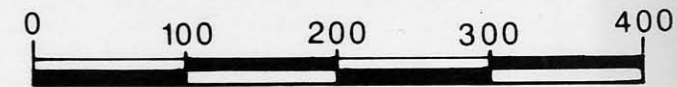
There is a corresponding "high" within all three elements at L8+00W, 0+00N (642 ppm Cu, 20 ppb Au, 1.8 ppm Ag). This sample location lies within the Eaglehead batholith, and may represent a small high-grade fracture, or be the result of glacial/mechanical dispersion.



- 6-10 ppb Au
- 11-20 ppb Au
- >21 ppb Au


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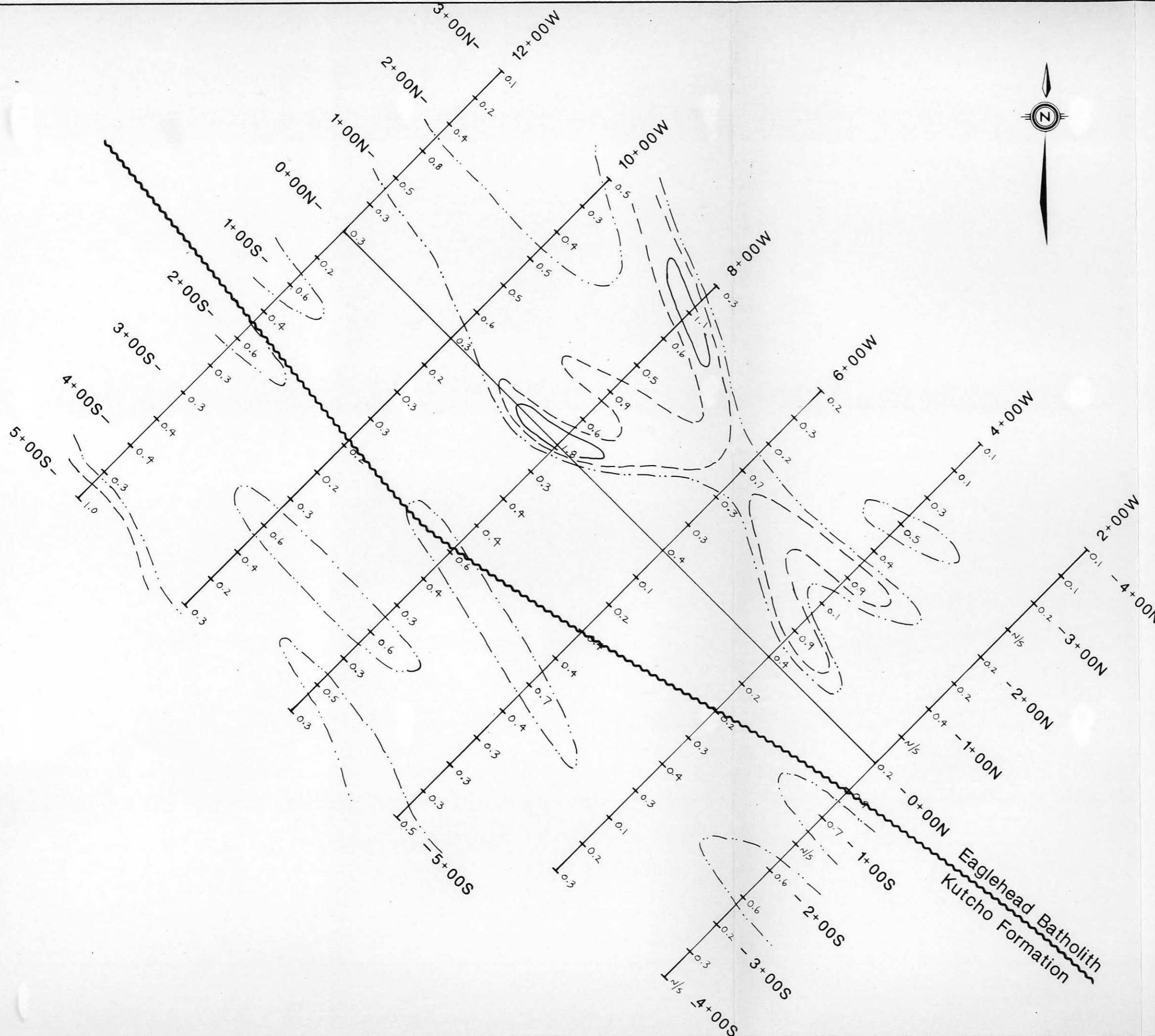
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METERS

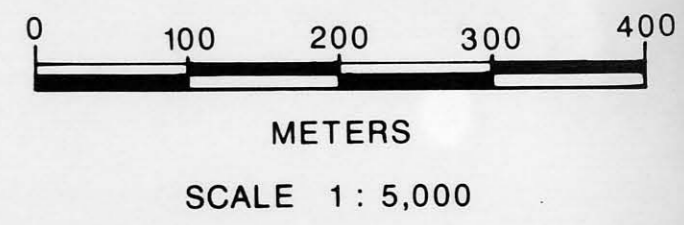
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|-----------------------------------|---------------|---------------------------------------------------------------------------------------|---------|
| HOMESTAKE MINING (CANADA) LIMITED |               |  |         |
| <b>EAGLE 7</b>                    |               |                                                                                       |         |
| Contoured Gold Value Plot         |               |                                                                                       |         |
| DRAWN<br>MDM                      | DATE<br>01/91 | NTS<br>1041/6E                                                                        | Fig.3.1 |
| Revised _____                     |               |                                                                                       |         |

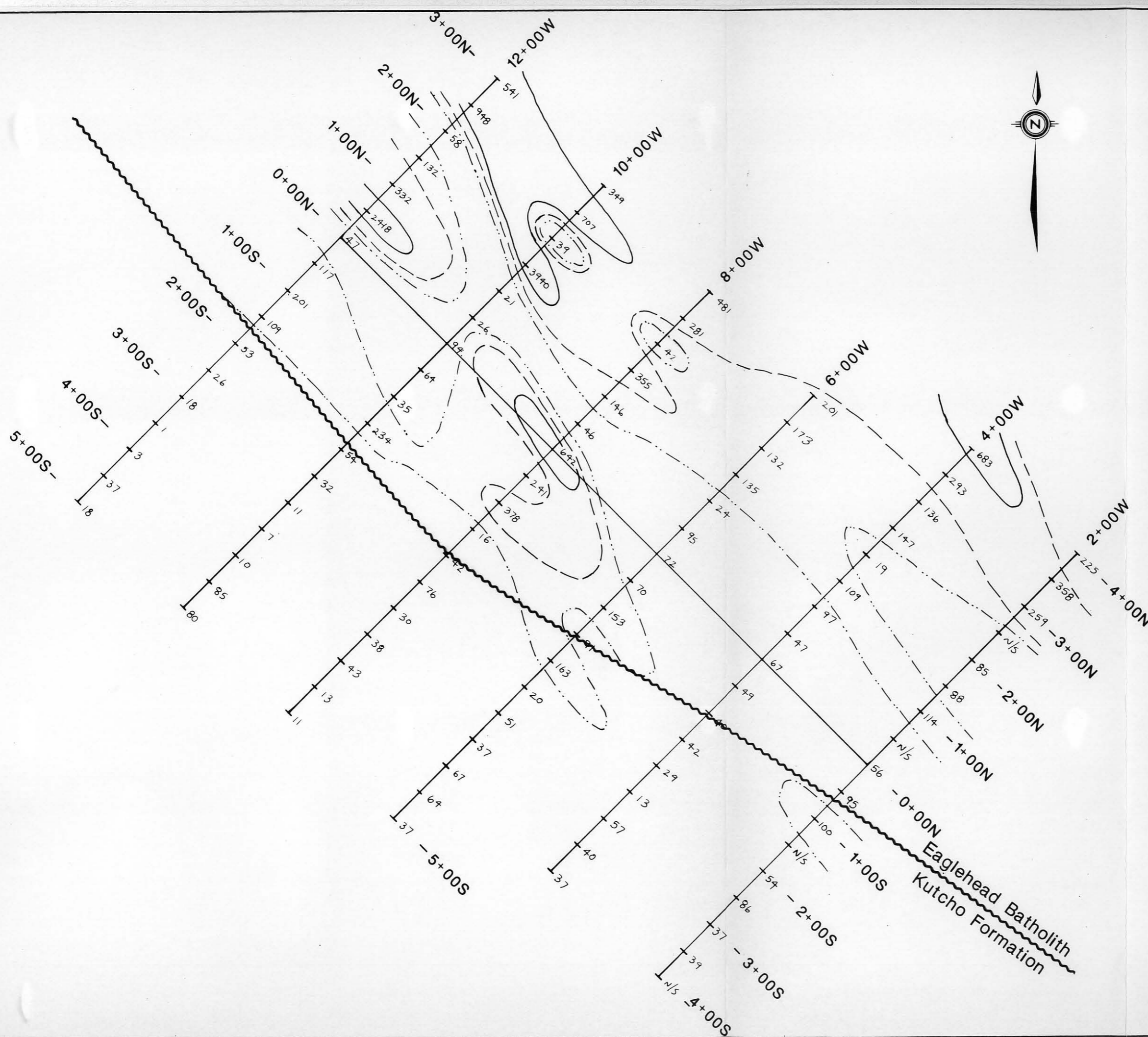


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ASSESSMENT REPORT**

**20,856**



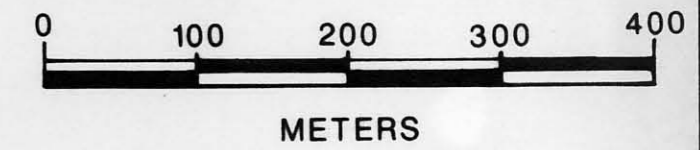
|                                   |               |                |         |
|-----------------------------------|---------------|----------------|---------|
| HOMESTAKE MINING (CANADA) LIMITED |               |                |         |
| <b>EAGLE 7</b>                    |               |                |         |
| Contoured Silver Value Plot       |               |                |         |
| DRAWN<br>MDM                      | DATE<br>01/91 | NTS<br>1041/6E | Fig.3.2 |
| Revised                           |               |                |         |



- 100-249 ppm Cu
- - - - - 250-499 ppm Cu
- >500 ppm Cu

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,856**



SCALE 1 : 5,000

|                                   |               |                |         |
|-----------------------------------|---------------|----------------|---------|
| HOMESTAKE MINING (CANADA) LIMITED |               |                |         |
| <b>EAGLE 7</b>                    |               |                |         |
| Contoured Copper Value Plot       |               |                |         |
| DRAWN<br>MDM                      | DATE<br>01/91 | NTS<br>1041/6E | Fig.3.3 |
| Revised _____                     |               |                |         |

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

The 1990 exploration program was designed to evaluate the potential for shear-hosted gold and silver mineralization associated with the fault contact between the Jurassic Eaglehead batholith and the Upper Triassic Kutcho Formation. To this end 98 soil samples were collected from 4.8 line kilometres of grid on the Eagle 7 claim.

The Eagle 7 claim hosts previously discovered porphyry copper style mineralization known as the "Camp Zone". This mineralization consists of chalcopyrite-pyrite bearing, quartz and/or calcite filled fractures within the biotite granodiorite phase of the Eaglehead batholith. The zone is estimated to contain approximately 3 million tons grading 0.45% copper. Most previous work on the claim has concentrated on the search for additional copper mineralization, and the potential for gold and silver mineralization has not been studied in detail.

Results from the 1990 geochemical survey indicate that there is limited potential for mineralization of this kind on the Eagle 7 claim. Although copper values were high (up to 3940 ppm Cu), gold values were typically low (<57 ppb Au), and silver values were only moderately anomalous (up to 1.8 ppm Ag). Anomalies for all three of the elements show well defined northwest trends, and have a similar geographical distribution, concentrated within the intrusive rocks. Moderately well developed value correlations were also indicated, particularly at one sample site where values of 3940 ppm Cu, 20 ppb Au, and 1.8 ppm Ag were recorded. This sample, located within the Eaglehead batholith, may represent a high-grade, mineralized fracture, but due to its isolated nature, is not of significant interest at this time.

The similar spatial distribution and corresponding value correlations between gold, silver, and copper indicated by the 1990 survey, suggest that almost all of the gold and silver is related to the copper mineralization. Based on the low gold values reported and the lack of significant gold and/or silver mineralization associated with the fault contact between the Eaglehead batholith and the Kutcho Formation, no further work is recommended on the Eagle

7 claim at this time. However, only a small portion of the contact was covered by the 1990 geochemical survey, and therefore potential still exists for gold and silver mineralization elsewhere along this fault contact.

## 5.0 REFERENCES

Everett, C., Britten, R., and Doborzynski, Z., (1983): Progress Report for 1982 - Eagle Project; and in-house report prepared for Esso Minerals Canada Ltd.

Gabrielse, H., (1978): Geology of the Cry Lake Map-Area (104I); Geological Survey of Canada, Open-File Report #610.

Gabrielse, H., and Dodds, C.J., (1982): Faulting and Plutonism in Northwestern Cry Lake and Adjacent Map Areas, British Columbia; Geological Survey of Canada, paper 82-01A, p.321-323.

Marr, J.M., (1974): 1974 Eagle Property Work Report; an in-house report prepared for Esso Minerals Canada Ltd.

Oddy, R.W., and Morrice, M.G., (1972): Geological, Geochemical, Geophysical and Drilling Report on the Eagle Property; an in-house report prepared for Esso Minerals Canada Ltd.



**6.0 STATEMENT OF COSTS****1) Salaries:**

|                                                |        |
|------------------------------------------------|--------|
| - M. McPherson (geologist) October 10-12, 1990 |        |
| 3 days @ \$180/day                             | \$ 540 |
| - D. Marud (geologist) October 10-12, 1990     |        |
| 3 days @ \$180/day                             | \$ 540 |

**2) Logistics:**

|                                                       |         |
|-------------------------------------------------------|---------|
| - Hotel; two rooms for three nights @ \$54/night each | \$ 324  |
| - Food; 6 man-days @ \$36/day                         | \$ 216  |
| - Truck Rental; 3 days @ \$45/day                     | \$ 135  |
| 600km @ \$0.18/km                                     | \$ 108  |
| gas                                                   | \$ 70   |
| - Air Support; 1-way Vancouver-Smithers (CAI)         | \$ 260  |
| - Helicopter Charter; 3.4 hours @ \$560/hr            | \$1,904 |
| 370.6l fuel @ \$0.66/l                                | \$ 245  |

**3) Analysis:**

|                                |        |
|--------------------------------|--------|
| - 98 soil samples @ \$9/sample | \$ 882 |
| - Freight                      | \$ 100 |

**4) Report Preparation:**


\$ 450

-----  
TOTAL \$5,774

## 7.0 STATEMENT OF QUALIFICATIONS

I, Margaret D. McPherson, of #303-2115 Cypress St, Vancouver, B.C., DO HEREBY CERTIFY THAT:

1. I am a geologist presently employed by Homestake Mineral Development Company, located at #1000-700 West Pender Street, Vancouver, B.C., V6C 1G8.
2. I graduated from the University of British Columbia in 1987, with a Bachelor of Science degree in Geology.
3. I have been employed in the mineral exploration industry since 1985.
4. I participated in, and supervised the work described in this report.
5. I do not own or intend to own any interest in Nuspar Resources Ltd.

  
Margaret D. McPherson

January 10, 1991  
Vancouver, B.C.

**APPENDIX I:  
GEOCHEMICAL DATA**

GEOCHEMICAL ANALYSIS CERTIFICATE

Homestake Mining (Canada) Limited PROJECT 3174 File # 90-5418 Page 1

1000 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: M. McPHERSON

| SAMPLE#         | Mo  | Cu   | Pb  | Zn  | Ag  | Ni  | Co  | Mn   | Fe   | As  | U   | Au  | Th  | Sr  | Cd   | Sb  | Bi  | V   | Ca   | P    | La  | Cr  | Mg   | Ba   | Tl  | B  | Al   | Na  | K   | W   | AU** |
|-----------------|-----|------|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|------|------|-----|-----|------|------|-----|----|------|-----|-----|-----|------|
|                 | ppm | ppm  | ppm | ppm | ppm | ppm | ppm | ppm  | %    | ppm | ppm | ppm | ppm | ppm | ppm  | ppm | ppm | ppm | %    | %    | ppm | ppm | %    | ppm  | %   | %  | %    | %   | ppm | ppb |      |
| L12+00W 3+00N   | 5   | 541  | 8   | 86  | .1  | 31  | 10  | 544  | 4.84 | 17  | 5   | ND  | 1   | 15  | .4   | 15  | 2   | 80  | .30  | .072 | 7   | 47  | .90  | 124  | .08 | 6  | 3.11 | .01 | .04 | 2   | 15   |
| L12+00W 2+50N   | 93  | 948  | 15  | 197 | .2  | 48  | 16  | 1164 | 6.16 | 45  | 5   | ND  | 1   | 17  | .7   | 24  | 3   | 107 | .15  | .071 | 10  | 69  | .93  | 344  | .08 | 7  | 3.32 | .01 | .10 | 1   | 8    |
| L12+00W 2+00N   | 5   | 58   | 8   | 122 | .4  | 35  | 12  | 706  | 6.14 | 30  | 5   | ND  | 2   | 10  | .7   | 16  | 3   | 84  | .16  | .076 | 22  | 49  | .66  | 78   | .29 | 7  | 4.14 | .03 | .05 | 1   | 4    |
| L12+00W 1+50N   | 65  | 132  | 8   | 108 | .8  | 23  | 9   | 518  | 5.43 | 26  | 5   | ND  | 1   | 63  | .7   | 12  | 2   | 93  | .41  | .062 | 22  | 49  | .44  | 370  | .29 | 3  | 3.29 | .02 | .04 | 1   | 1    |
| L12+00W 1+00N   | 46  | 332  | 13  | 163 | .5  | 28  | 13  | 1089 | 6.71 | 21  | 5   | ND  | 1   | 77  | 1.3  | 13  | 3   | 85  | .57  | .077 | 18  | 50  | .50  | 618  | .29 | 7  | 2.60 | .02 | .04 | 1   | 6    |
| L12+00W 0+50N   | 55  | 2418 | 3   | 171 | .3  | 29  | 9   | 860  | 4.75 | 29  | 5   | ND  | 2   | 74  | .9   | 13  | 2   | 60  | .54  | .100 | 37  | 44  | .35  | 835  | .21 | 3  | 3.63 | .02 | .05 | 1   | 9    |
| L12+00W 0+00N   | 3   | 47   | 5   | 84  | .3  | 48  | 11  | 523  | 5.14 | 27  | 5   | ND  | 1   | 18  | .9   | 11  | 2   | 103 | .25  | .082 | 12  | 66  | .91  | 61   | .26 | 7  | 2.75 | .02 | .03 | 1   | 2    |
| L12+00W 0+50S   | 2   | 117  | 6   | 78  | .2  | 56  | 13  | 462  | 3.75 | 23  | 5   | ND  | 2   | 30  | .5   | 9   | 2   | 91  | .33  | .048 | 7   | 64  | 1.06 | 130  | .14 | 4  | 1.82 | .02 | .05 | 1   | 3    |
| L12+00W 1+00S   | 10  | 201  | 5   | 129 | .6  | 37  | 10  | 514  | 5.64 | 28  | 5   | ND  | 2   | 41  | .9   | 15  | 2   | 80  | .45  | .071 | 27  | 42  | .46  | 518  | .29 | 6  | 3.83 | .02 | .04 | 1   | 3    |
| L12+00W 1+50S   | 2   | 109  | 7   | 110 | .4  | 53  | 14  | 703  | 4.56 | 39  | 5   | ND  | 1   | 52  | .9   | 14  | 2   | 87  | .76  | .069 | 15  | 67  | .92  | 362  | .19 | 5  | 2.98 | .01 | .04 | 1   | 1    |
| L12+00W 2+00S   | 3   | 53   | 7   | 162 | .6  | 30  | 13  | 1860 | 5.27 | 70  | 5   | ND  | 1   | 89  | 1.1  | 19  | 2   | 73  | 1.78 | .129 | 41  | 45  | .43  | 309  | .18 | 12 | 3.77 | .02 | .03 | 1   | 2    |
| L12+00W 2+50S   | 3   | 26   | 8   | 204 | .3  | 29  | 13  | 1454 | 6.06 | 29  | 5   | ND  | 1   | 52  | 1.3  | 13  | 2   | 79  | .71  | .131 | 31  | 46  | .39  | 133  | .20 | 6  | 3.53 | .02 | .04 | 1   | 2    |
| L12+00W 3+00S   | 3   | 18   | 7   | 119 | .3  | 29  | 12  | 818  | 5.39 | 23  | 5   | ND  | 3   | 24  | .9   | 14  | 2   | 53  | .46  | .079 | 23  | 39  | .61  | 80   | .26 | 4  | 5.52 | .04 | .04 | 1   | 2    |
| L12+00W 3+50S   | 4   | 1    | 13  | 75  | .4  | 11  | 5   | 412  | 5.33 | 11  | 5   | ND  | 1   | 14  | .4   | 4   | 2   | 110 | .12  | .039 | 19  | 38  | .17  | 87   | .42 | 2  | 1.43 | .02 | .02 | 1   | 4    |
| L12+00W 4+00S   | 2   | 3    | 3   | 130 | .4  | 36  | 14  | 693  | 5.37 | 18  | 5   | ND  | 4   | 20  | 1.5  | 7   | 3   | 62  | .31  | .078 | 28  | 40  | .58  | 77   | .29 | 2  | 5.19 | .03 | .03 | 1   | 2    |
| L12+00W 4+50S   | 1   | 37   | 2   | 125 | .3  | 48  | 18  | 1070 | 5.45 | 39  | 5   | ND  | 2   | 59  | 2.1  | 10  | 3   | 93  | 1.01 | .116 | 38  | 39  | 1.14 | 133  | .09 | 5  | 4.49 | .01 | .02 | 1   | 5    |
| L12+00W 5+00S   | 6   | 18   | 13  | 116 | 1.0 | 31  | 9   | 482  | 4.97 | 18  | 5   | ND  | 1   | 65  | 1.4  | 8   | 2   | 83  | .60  | .083 | 22  | 49  | .48  | 99   | .31 | 4  | 2.35 | .03 | .04 | 1   | 3    |
| L10+00W 3+00N   | 23  | 349  | 18  | 142 | .5  | 38  | 13  | 728  | 5.56 | 23  | 5   | ND  | 1   | 16  | .7   | 20  | 2   | 77  | .24  | .083 | 17  | 45  | .43  | 158  | .17 | 8  | 2.85 | .02 | .04 | 1   | 21   |
| L10+00W 2+50N   | 31  | 707  | 20  | 96  | .3  | 14  | 6   | 492  | 2.69 | 9   | 5   | ND  | 1   | 63  | .4   | 5   | 2   | 61  | .44  | .060 | 18  | 29  | .23  | 783  | .18 | 2  | 1.67 | .02 | .04 | 1   | 1    |
| L10+00W 2+00N   | 12  | 39   | 15  | 60  | .4  | 9   | 4   | 282  | 4.36 | 11  | 5   | ND  | 1   | 10  | .2   | 6   | 2   | 100 | .06  | .051 | 18  | 39  | .14  | 77   | .38 | 2  | 1.53 | .01 | .03 | 1   | 6    |
| L10+00W 1+50N   | 42  | 3940 | 7   | 226 | .5  | 65  | 20  | 1176 | 5.69 | 39  | 5   | ND  | 2   | 107 | .9   | 25  | 7   | 76  | .78  | .090 | 61  | 58  | 1.10 | 1650 | .15 | 7  | 3.64 | .03 | .09 | 1   | 15   |
| L10+00W 1+00N   | 6   | 21   | 6   | 130 | .5  | 34  | 12  | 648  | 5.89 | 19  | 5   | ND  | 6   | 9   | 1.1  | 13  | 4   | 62  | .18  | .072 | 29  | 39  | .63  | 77   | .33 | 4  | 4.92 | .04 | .04 | 1   | 1    |
| L10+00W 0+50N   | 8   | 26   | 8   | 114 | .6  | 24  | 9   | 813  | 5.99 | 18  | 5   | ND  | 2   | 12  | .2   | 6   | 2   | 71  | .14  | .109 | 15  | 53  | .44  | 92   | .20 | 3  | 2.93 | .02 | .03 | 1   | 3    |
| L10+00W 0+00N   | 2   | 94   | 4   | 125 | .3  | 46  | 15  | 691  | 4.19 | 40  | 5   | ND  | 1   | 18  | .7   | 14  | 2   | 69  | .30  | .097 | 7   | 65  | .92  | 70   | .09 | 6  | 2.61 | .01 | .04 | 1   | 8    |
| L10+00W 0+50S   | 5   | 64   | 13  | 125 | .2  | 50  | 19  | 1316 | 5.28 | 35  | 5   | ND  | 1   | 15  | .6   | 11  | 2   | 75  | .28  | .084 | 11  | 63  | 1.08 | 61   | .15 | 5  | 3.61 | .01 | .04 | 1   | 5    |
| L10+00W 1+00S   | 12  | 35   | 7   | 152 | .3  | 32  | 9   | 483  | 5.40 | 25  | 5   | ND  | 3   | 17  | .6   | 17  | 2   | 64  | .23  | .084 | 30  | 46  | .42  | 101  | .29 | 7  | 4.98 | .04 | .05 | 1   | 5    |
| L10+00W 1+50S   | 15  | 234  | 8   | 141 | .3  | 50  | 17  | 906  | 4.83 | 39  | 5   | ND  | 1   | 58  | .7   | 12  | 2   | 103 | .70  | .086 | 12  | 74  | 1.13 | 484  | .09 | 6  | 3.16 | .02 | .06 | 1   | 5    |
| L10+00W 2+00S   | 2   | 54   | 5   | 124 | .2  | 45  | 13  | 703  | 4.10 | 29  | 5   | ND  | 1   | 53  | .5   | 10  | 2   | 97  | .71  | .085 | 8   | 73  | 1.15 | 171  | .11 | 7  | 2.57 | .02 | .07 | 1   | 5    |
| L10+00W 2+50S   | 2   | 32   | 7   | 149 | .2  | 51  | 12  | 232  | 3.88 | 40  | 5   | ND  | 3   | 40  | .4   | 13  | 2   | 65  | .52  | .091 | 28  | 71  | .71  | 174  | .23 | 5  | 3.94 | .02 | .04 | 1   | 4    |
| L10+00W 3+00S   | 3   | 11   | 4   | 125 | .3  | 29  | 9   | 654  | 5.86 | 20  | 5   | ND  | 2   | 10  | .9   | 16  | 3   | 63  | .17  | .076 | 19  | 46  | .51  | 58   | .27 | 7  | 5.44 | .03 | .04 | 1   | 7    |
| L10+00W 3+50S   | 3   | 7    | 7   | 107 | .6  | 35  | 12  | 891  | 5.42 | 12  | 5   | ND  | 4   | 8   | .2   | 2   | 3   | 52  | .19  | .095 | 22  | 44  | .64  | 55   | .28 | 2  | 5.13 | .03 | .03 | 1   | 3    |
| L10+00W 4+00S   | 3   | 10   | 2   | 114 | .4  | 28  | 9   | 704  | 5.55 | 18  | 5   | ND  | 3   | 7   | .4   | 12  | 2   | 58  | .14  | .088 | 24  | 39  | .44  | 46   | .28 | 5  | 4.25 | .03 | .03 | 1   | 4    |
| L10+00W 4+50S   | 2   | 85   | 6   | 108 | .2  | 69  | 17  | 803  | 4.09 | 23  | 5   | ND  | 1   | 33  | .6   | 8   | 2   | 72  | .41  | .082 | 10  | 72  | 1.23 | 82   | .17 | 6  | 2.32 | .02 | .06 | 1   | 8    |
| L10+00W 5+00S   | 1   | 80   | 9   | 152 | .3  | 69  | 20  | 975  | 4.65 | 42  | 5   | ND  | 1   | 97  | .8   | 12  | 2   | 86  | 1.15 | .080 | 10  | 65  | 1.40 | 94   | .16 | 8  | 2.40 | .02 | .08 | 1   | 7    |
| L8+00W 3+00N    | 73  | 481  | 9   | 182 | .3  | 51  | 13  | 614  | 5.47 | 25  | 5   | ND  | 1   | 54  | .5   | 14  | 2   | 76  | .36  | .105 | 30  | 55  | .60  | 941  | .19 | 5  | 4.29 | .02 | .06 | 1   | 9    |
| L8+00W 2+50N    | 54  | 281  | 10  | 133 | 1.1 | 23  | 9   | 558  | 6.13 | 16  | 5   | ND  | 1   | 20  | .7   | 10  | 2   | 78  | .16  | .068 | 14  | 43  | .44  | 158  | .24 | 5  | 3.48 | .02 | .05 | 1   | 10   |
| STANDARD C/AU-S | 18  | 56   | 36  | 131 | 6.8 | 71  | 32  | 1050 | 3.95 | 39  | 25  | 6   | 40  | 53  | 18.5 | 19  | 22  | 54  | .45  | .089 | 37  | 55  | .89  | 182  | .07 | 32 | 1.89 | .06 | .14 | 12  | 49   |

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-MNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: P1 TO P3 SOIL P4 ROCK AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE

DATE RECEIVED: OCT 19 1990 DATE REPORT MAILED: Oct 24/90 SIGNED BY: ... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

| SAMPLE#         | Mo<br>ppm | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Ni<br>ppm | Co<br>ppm | Mn<br>ppm | Fe<br>% | As<br>ppm | U<br>ppm | Au<br>ppm | Th<br>ppm | Sr<br>ppm | Cd<br>ppm | Sb<br>ppm | Bi<br>ppm | V<br>ppm | Ca<br>% | P<br>% | La<br>ppm | Cr<br>ppm | Mg<br>% | Ba<br>ppm | Ti<br>% | B<br>ppm | Al<br>% | Na<br>% | K<br>% | W<br>ppm | Au+<br>ppb |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| L8+00W 2+00N    | 6         | 42        | 5         | 121       | .6        | 29        | 9         | 602       | 5.80    | 13        | 5        | ND        | 5         | 10        | .9        | 2         | 2         | 61       | .13     | .076   | 16        | 47        | .56     | 76        | .28     | 2        | 5.42    | .03     | .05    | 1        | 1          |
| L8+00W 1+50M    | 31        | 355       | 10        | 152       | .5        | 36        | 13        | 953       | 5.32    | 16        | 5        | ND        | 3         | 17        | .9        | 5         | 2         | 72       | .21     | .080   | 20        | 46        | .69     | 201       | .22     | 2        | 3.48    | .02     | .06    | 1        | 3          |
| L8+00W 1+00M    | 24        | 146       | 9         | 123       | .9        | 31        | 13        | 893       | 5.24    | 14        | 5        | ND        | 1         | 19        | .6        | 8         | 2         | 69       | .16     | .079   | 25        | 46        | .49     | 199       | .25     | 4        | 4.13    | .02     | .05    | 1        | 3          |
| L8+00W 0+50M    | 31        | 46        | 6         | 113       | .6        | 26        | 9         | 628       | 6.49    | 13        | 5        | ND        | 4         | 32        | .9        | 10        | 2         | 86       | .30     | .067   | 15        | 55        | .51     | 128       | .27     | 6        | 3.49    | .02     | .04    | 1        | 3          |
| L8+00W 0+00M    | 141       | 642       | 7         | 202       | 1.8       | 73        | 23        | 2766      | 5.87    | 52        | 5        | ND        | 1         | 125       | .9        | 14        | 2         | 102      | .99     | .198   | 48        | 103       | 1.07    | 1479      | .06     | 5        | 4.64    | .02     | .10    | 1        | 20         |
| L8+00W 0+50S    | 3         | 241       | 7         | 107       | .3        | 59        | 16        | 606       | 4.30    | 20        | 5        | ND        | 1         | 26        | .7        | 4         | 2         | 85       | .41     | .060   | 8         | 69        | 1.21    | 174       | .10     | 5        | 2.41    | .02     | .07    | 1        | 4          |
| L8+00W 1+00S    | 14        | 378       | 9         | 152       | .4        | 43        | 11        | 487       | 3.60    | 22        | 5        | ND        | 2         | 37        | .7        | 7         | 2         | 66       | .44     | .107   | 14        | 58        | .81     | 365       | .07     | 3        | 2.40    | .01     | .07    | 1        | 8          |
| L8+00W 1+50S    | 4         | 16        | 8         | 130       | .4        | 36        | 13        | 630       | 5.23    | 11        | 5        | ND        | 5         | 11        | .6        | 5         | 2         | 64       | .17     | .062   | 38        | 39        | .63     | 107       | .34     | 3        | 4.63    | .04     | .05    | 1        | 1          |
| L8+00W 2+00S    | 2         | 42        | 13        | 89        | .6        | 39        | 9         | 345       | 3.91    | 15        | 7        | ND        | 3         | 19        | .3        | 4         | 2         | 70       | .23     | .076   | 12        | 55        | .82     | 75        | .21     | 2        | 2.77    | .02     | .05    | 1        | 3          |
| L8+00W 2+50S    | 1         | 76        | 4         | 101       | .4        | 67        | 19        | 834       | 4.14    | 18        | 5        | ND        | 2         | 38        | .9        | 8         | 2         | 96       | .54     | .074   | 10        | 72        | 1.30    | 101       | .23     | 5        | 2.56    | .02     | .08    | 1        | 5          |
| L8+00W 3+00S    | 4         | 30        | 7         | 105       | .3        | 48        | 12        | 619       | 5.01    | 16        | 5        | ND        | 3         | 27        | .4        | 3         | 2         | 93       | .29     | .050   | 10        | 63        | 1.05    | 62        | .25     | 4        | 2.55    | .02     | .05    | 1        | 1          |
| L8+00W 3+50S    | 4         | 38        | 14        | 95        | .6        | 42        | 10        | 479       | 5.23    | 13        | 5        | ND        | 2         | 21        | .8        | 11        | 2         | 89       | .21     | .067   | 19        | 61        | .68     | 78        | .34     | 5        | 2.88    | .02     | .06    | 1        | 3          |
| L8+00W 4+00S    | 3         | 43        | 10        | 86        | .3        | 56        | 12        | 465       | 4.93    | 15        | 5        | ND        | 2         | 32        | .8        | 11        | 2         | 98       | .32     | .060   | 16        | 74        | .89     | 118       | .22     | 7        | 3.01    | .02     | .06    | 1        | 2          |
| L8+00W 4+50S    | 4         | 13        | 2         | 110       | .5        | 35        | 10        | 484       | 5.90    | 16        | 5        | ND        | 5         | 14        | .7        | 9         | 2         | 72       | .20     | .069   | 35        | 47        | .58     | 73        | .36     | 6        | 4.86    | .04     | .05    | 1        | 3          |
| L8+00W 5+00S    | 3         | 11        | 6         | 116       | .3        | 40        | 13        | 617       | 5.50    | 21        | 5        | ND        | 4         | 15        | .9        | 9         | 2         | 78       | .22     | .075   | 23        | 48        | .66     | 88        | .36     | 5        | 4.30    | .03     | .04    | 1        | 1          |
| L6+00W 3+00N    | 17        | 201       | 10        | 133       | .2        | 68        | 18        | 642       | 4.30    | 12        | 5        | ND        | 2         | 52        | .4        | 7         | 2         | 79       | .44     | .067   | 10        | 61        | 1.08    | 550       | .18     | 2        | 2.59    | .02     | .07    | 1        | 6          |
| L6+00W 2+50N    | 4         | 173       | 8         | 97        | .3        | 42        | 13        | 638       | 3.86    | 11        | 5        | ND        | 2         | 19        | .2        | 7         | 2         | 74       | .35     | .060   | 10        | 48        | .98     | 88        | .18     | 3        | 2.67    | .02     | .07    | 1        | 4          |
| L6+00W 2+00N    | 3         | 132       | 2         | 104       | .2        | 57        | 15        | 586       | 4.10    | 20        | 5        | ND        | 2         | 20        | .8        | 8         | 2         | 81       | .35     | .050   | 11        | 65        | 1.22    | 88        | .18     | 3        | 3.02    | .02     | .06    | 1        | 44         |
| L6+00W 1+69N    | 7         | 135       | 5         | 111       | .7        | 52        | 17        | 752       | 4.58    | 24        | 5        | ND        | 1         | 22        | .8        | 10        | 2         | 102      | .42     | .081   | 8         | 58        | 1.22    | 120       | .15     | 6        | 2.81    | .02     | .08    | 1        | 5          |
| L6+00W 1+00N    | 3         | 24        | 9         | 120       | .3        | 43        | 12        | 576       | 5.30    | 15        | 5        | ND        | 3         | 13        | .6        | 9         | 2         | 71       | .20     | .086   | 20        | 50        | .83     | 72        | .27     | 5        | 4.19    | .03     | .05    | 1        | 3          |
| L6+00W 0+50N    | 2         | 95        | 6         | 112       | .3        | 54        | 13        | 601       | 3.79    | 19        | 5        | ND        | 1         | 22        | .7        | 4         | 2         | 70       | .38     | .049   | 8         | 59        | 1.30    | 81        | .13     | 7        | 2.33    | .02     | .08    | 1        | 4          |
| L6+00W 0+00N    | 2         | 72        | 12        | 126       | .4        | 59        | 21        | 1004      | 5.54    | 27        | 5        | ND        | 3         | 20        | .7        | 9         | 2         | 97       | .37     | .094   | 19        | 62        | 1.29    | 101       | .25     | 7        | 3.97    | .03     | .07    | 1        | 4          |
| L6+00W 0+50S    | 1         | 70        | 2         | 144       | .1        | 60        | 24        | 886       | 5.53    | 29        | 5        | ND        | 2         | 22        | .9        | 11        | 2         | 99       | .41     | .077   | 11        | 61        | 1.40    | 86        | .19     | 8        | 3.63    | .02     | .08    | 1        | 4          |
| L6+00W 1+00S    | 2         | 153       | 7         | 100       | .2        | 51        | 12        | 459       | 3.90    | 28        | 5        | ND        | 1         | 18        | .5        | 11        | 2         | 77       | .29     | .043   | 6         | 63        | 1.06    | 90        | .09     | 5        | 2.47    | .01     | .05    | 1        | 6          |
| L6+00W 1+50S    | 2         | 91        | 12        | 127       | .4        | 53        | 18        | 853       | 4.93    | 45        | 5        | ND        | 2         | 23        | .9        | 7         | 2         | 94       | .35     | .094   | 11        | 59        | 1.18    | 100       | .15     | 6        | 3.21    | .02     | .07    | 1        | 4          |
| L6+00W 2+00S    | 1         | 163       | 9         | 117       | .4        | 70        | 21        | 741       | 4.75    | 35        | 5        | ND        | 2         | 34        | .3        | 13        | 2         | 90       | .52     | .092   | 12        | 68        | 1.43    | 102       | .14     | 7        | 2.31    | .02     | .08    | 1        | 57         |
| L6+00W 2+50S    | 4         | 20        | 17        | 84        | .7        | 27        | 8         | 464       | 5.07    | 13        | 5        | ND        | 1         | 15        | .4        | 10        | 2         | 85       | .18     | .090   | 21        | 49        | .47     | 62        | .29     | 5        | 3.05    | .03     | .04    | 1        | 1          |
| L6+00W 3+00S    | 2         | 51        | 7         | 122       | .4        | 59        | 20        | 1059      | 5.19    | 16        | 5        | ND        | 3         | 37        | .7        | 7         | 2         | 103      | .54     | .082   | 15        | 72        | 1.29    | 75        | .26     | 6        | 3.39    | .03     | .07    | 1        | 4          |
| L6+00W 3+50S    | 2         | 37        | 6         | 85        | .3        | 56        | 14        | 595       | 5.34    | 18        | 5        | ND        | 4         | 25        | 1.1       | 11        | 2         | 90       | .49     | .071   | 13        | 72        | 1.17    | 63        | .25     | 5        | 4.02    | .02     | .05    | 1        | 4          |
| L6+00W 4+00S    | 1         | 67        | 6         | 100       | .3        | 73        | 22        | 799       | 4.64    | 13        | 5        | ND        | 3         | 41        | .6        | 7         | 2         | 107      | .70     | .075   | 9         | 79        | 1.58    | 88        | .27     | 6        | 3.14    | .02     | .08    | 1        | 19         |
| L6+00W 4+50S    | 1         | 64        | 9         | 91        | .3        | 74        | 22        | 767       | 4.63    | 9         | 5        | ND        | 2         | 46        | .5        | 8         | 2         | 100      | .63     | .079   | 9         | 82        | 1.60    | 70        | .21     | 8        | 2.50    | .02     | .07    | 1        | 12         |
| L6+00W 5+00S    | 2         | 37        | 7         | 112       | .5        | 60        | 17        | 654       | 5.01    | 12        | 5        | ND        | 3         | 22        | .8        | 10        | 2         | 83       | .28     | .062   | 19        | 71        | 1.23    | 60        | .27     | 6        | 4.15    | .02     | .06    | 1        | 1          |
| L4+00W 4+00N    | 14        | 683       | 6         | 78        | .1        | 47        | 10        | 396       | 2.88    | 6         | 5        | ND        | 2         | 22        | .2        | 6         | 2         | 48       | .24     | .057   | 8         | 42        | .69     | 174       | .08     | 2        | 1.64    | .02     | .06    | 1        | 11         |
| L4+00W 3+50N    | 3         | 293       | 6         | 77        | .1        | 49        | 11        | 353       | 3.20    | 10        | 5        | ND        | 2         | 21        | .3        | 7         | 2         | 58       | .23     | .061   | 10        | 47        | .81     | 118       | .11     | 3        | 2.15    | .02     | .06    | 1        | 7          |
| L4+00W 3+00N    | 5         | 136       | 10        | 114       | .3        | 62        | 15        | 830       | 5.13    | 19        | 5        | ND        | 1         | 18        | .7        | 9         | 2         | 69       | .25     | .094   | 20        | 65        | 1.04    | 105       | .20     | 4        | 5.10    | .02     | .06    | 1        | 23         |
| L4+00W 2+50N    | 7         | 147       | 6         | 118       | .5        | 57        | 19        | 778       | 5.59    | 12        | 5        | ND        | 5         | 22        | .5        | 3         | 2         | 93       | .31     | .075   | 22        | 55        | 1.35    | 293       | .25     | 5        | 4.63    | .03     | .09    | 1        | 12         |
| STANDARD C/AU-S | 18        | 57        | 42        | 131       | 6.7       | 72        | 32        | 1048      | 3.94    | 38        | 17       | 7         | 40        | 52        | 18.5      | 18        | 22        | 54       | .45     | .090   | 36        | 56        | .90     | 182       | .07     | 33       | 1.90    | .06     | .14    | 11       | 54         |

| SAMPLE#         | Mo<br>ppm | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppm | Ni<br>ppm | Co<br>ppm | Mn<br>ppm | Fe<br>% | As<br>ppm | U<br>ppm | Au<br>ppm | Th<br>ppm | Sr<br>ppm | Cd<br>ppm | Sb<br>ppm | Bi<br>ppm | V<br>ppm | Ca<br>% | P<br>% | La<br>ppm | Cr<br>ppm | Mg<br>% | Ba<br>ppm | Ti<br>% | B<br>ppm | Al<br>% | Na<br>% | K<br>% | W<br>ppm | Al <sup>++</sup><br>ppb |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|-------------------------|
| L4+00W 2+00N    | 7         | 19        | 10        | 92        | .4        | 21        | 6         | 387       | 4.91    | 19        | 5        | ND        | 1         | 9         | .2        | 9         | 2         | 65       | .10     | .067   | 28        | 44        | .33     | 63        | .22     | 4        | 4.16    | .03     | .04    | 1        | 1                       |
| L4+00W 1+50N    | 32        | 109       | 12        | 95        | .9        | 22        | 9         | 701       | 6.02    | 14        | 5        | ND        | 1         | 21        | .3        | 9         | 2         | 96       | .18     | .059   | 20        | 54        | .40     | 274       | .22     | 4        | 2.94    | .02     | .04    | 1        | 7                       |
| L4+00W 1+00N    | 2         | 97        | 17        | 117       | .1        | 54        | 16        | 658       | 3.63    | 79        | 5        | ND        | 1         | 21        | .2        | 12        | 2         | 51       | .25     | .069   | 10        | 46        | .75     | 110       | .07     | 3        | 2.16    | .01     | .05    | 1        | 5                       |
| L4+00W 0+50N    | 4         | 47        | 13        | 81        | .9        | 24        | 7         | 708       | 2.78    | 36        | 5        | ND        | 1         | 20        | .2        | 5         | 2         | 57       | .17     | .122   | 11        | 36        | .31     | 148       | .02     | 4        | 1.71    | .01     | .05    | 1        | 4                       |
| L4+00W 0+00N    | 2         | 67        | 14        | 312       | .4        | 72        | 14        | 887       | 5.62    | 155       | 5        | ND        | 3         | 53        | .5        | 32        | 2         | 65       | .55     | .102   | 34        | 87        | .86     | 214       | .18     | 6        | 4.01    | .03     | .06    | 1        | 8                       |
| L4+00W 0+50S    | 3         | 49        | 15        | 106       | .2        | 54        | 16        | 876       | 5.19    | 35        | 5        | ND        | 2         | 22        | .8        | 13        | 2         | 80       | .28     | .061   | 23        | 58        | .97     | 77        | .22     | 5        | 3.73    | .02     | .04    | 1        | 7                       |
| L4+00W 1+00S    | 2         | 40        | 8         | 110       | .2        | 34        | 12        | 711       | 4.02    | 82        | 5        | ND        | 1         | 19        | .4        | 8         | 2         | 64       | .22     | .072   | 8         | 38        | .72     | 92        | .08     | 4        | 2.00    | .01     | .05    | 1        | 5                       |
| L4+00W 1+50S    | 4         | 42        | 12        | 115       | .3        | 51        | 17        | 1072      | 6.17    | 26        | 5        | ND        | 1         | 18        | .4        | 8         | 2         | 95       | .20     | .076   | 15        | 71        | 1.02    | 72        | .21     | 3        | 3.52    | .01     | .04    | 1        | 7                       |
| L4+00W 2+00S    | 3         | 29        | 9         | 98        | .4        | 32        | 8         | 408       | 6.09    | 26        | 5        | ND        | 2         | 22        | 1.0       | 8         | 2         | 105      | .23     | .060   | 14        | 59        | .59     | 80        | .27     | 4        | 2.62    | .01     | .03    | 1        | 4                       |
| L4+00W 2+50S    | 5         | 13        | 11        | 76        | .3        | 21        | 7         | 513       | 5.58    | 21        | 5        | ND        | 2         | 14        | .2        | 7         | 2         | 69       | .16     | .077   | 30        | 34        | .32     | 62        | .27     | 2        | 3.38    | .02     | .03    | 2        | 3                       |
| L4+00W 3+00S    | 2         | 57        | 10        | 134       | .1        | 57        | 15        | 722       | 4.60    | 65        | 5        | ND        | 1         | 27        | .3        | 12        | 2         | 81       | .37     | .075   | 13        | 56        | 1.12    | 96        | .14     | 5        | 2.77    | .01     | .06    | 1        | 2                       |
| L4+00W 3+50S    | 1         | 40        | 8         | 114       | .2        | 50        | 15        | 604       | 4.46    | 49        | 5        | ND        | 1         | 19        | .3        | 7         | 2         | 84       | .31     | .058   | 10        | 58        | 1.10    | 53        | .18     | 6        | 2.55    | .02     | .04    | 1        | 4                       |
| L4+00W 4+00S    | 2         | 37        | 6         | 87        | .3        | 54        | 16        | 959       | 6.01    | 20        | 5        | ND        | 1         | 21        | .4        | 10        | 2         | 113      | .30     | .105   | 13        | 78        | 1.16    | 57        | .23     | 6        | 3.47    | .02     | .04    | 1        | 3                       |
| L2+00W 4+00N    | 6         | 225       | 8         | 86        | .1        | 40        | 10        | 546       | 4.17    | 15        | 5        | ND        | 3         | 12        | .3        | 10        | 2         | 63       | .13     | .063   | 14        | 42        | .58     | 107       | .20     | 3        | 2.63    | .02     | .06    | 2        | 10                      |
| L2+00W 3+50N    | 4         | 358       | 8         | 76        | .1        | 48        | 11        | 446       | 3.48    | 16        | 5        | ND        | 1         | 16        | .2        | 7         | 2         | 57       | .13     | .046   | 8         | 45        | .70     | 99        | .10     | 2        | 1.93    | .01     | .05    | 1        | 14                      |
| L2+00W 3+00N    | 4         | 259       | 5         | 51        | .2        | 24        | 7         | 277       | 2.71    | 12        | 5        | ND        | 1         | 14        | .2        | 5         | 2         | 55       | .12     | .056   | 6         | 36        | .49     | 64        | .06     | 2        | 1.59    | .01     | .04    | 1        | 17                      |
| L2+00W 2+00N    | 4         | 85        | 11        | 102       | .2        | 47        | 13        | 676       | 4.40    | 35        | 5        | ND        | 1         | 18        | .5        | 9         | 2         | 82       | .17     | .069   | 11        | 54        | .81     | 83        | .15     | 4        | 2.37    | .01     | .05    | 1        | 7                       |
| L2+00W 1+50N    | 3         | 88        | 7         | 116       | .2        | 51        | 14        | 713       | 4.20    | 55        | 5        | ND        | 1         | 21        | .7        | 12        | 2         | 62       | .22     | .075   | 8         | 51        | .77     | 108       | .07     | 3        | 2.29    | .01     | .04    | 1        | 6                       |
| L2+00W 1+00N    | 17        | 114       | 8         | 137       | .4        | 63        | 14        | 857       | 4.01    | 47        | 5        | ND        | 1         | 27        | .8        | 16        | 2         | 78       | .34     | .097   | 8         | 71        | 1.03    | 105       | .08     | 7        | 2.92    | .01     | .04    | 1        | 7                       |
| L2+00W 0+00N    | 3         | 56        | 21        | 161       | .2        | 47        | 17        | 1247      | 5.61    | 58        | 5        | ND        | 1         | 54        | 1.0       | 11        | 2         | 69       | .62     | .115   | 22        | 51        | .67     | 148       | .14     | 6        | 3.53    | .02     | .04    | 2        | 4                       |
| L2+00W 0+50S    | 2         | 95        | 10        | 113       | .4        | 36        | 15        | 982       | 3.65    | 59        | 5        | ND        | 2         | 28        | .4        | 14        | 2         | 43       | .31     | .067   | 11        | 27        | .67     | 197       | .07     | 9        | 1.19    | .02     | .04    | 2        | 9                       |
| L2+00W 1+00S    | 3         | 100       | 17        | 377       | .7        | 78        | 17        | 1485      | 5.85    | 247       | 5        | ND        | 1         | 98        | 1.3       | 22        | 2         | 69       | .84     | .117   | 25        | 71        | .93     | 426       | .08     | 9        | 3.76    | .02     | .09    | 1        | 7                       |
| L2+00W 2+00S    | 4         | 54        | 10        | 210       | .6        | 52        | 16        | 1127      | 5.88    | 100       | 5        | ND        | 1         | 50        | 1.0       | 15        | 2         | 75       | .58     | .106   | 36        | 47        | .73     | 213       | .15     | 8        | 3.78    | .02     | .05    | 1        | 5                       |
| L2+00W 2+50S    | 5         | 86        | 13        | 202       | .6        | 50        | 16        | 605       | 4.71    | 29        | 5        | ND        | 1         | 24        | 1.3       | 10        | 2         | 64       | .25     | .088   | 12        | 37        | .97     | 117       | .10     | 5        | 1.97    | .01     | .05    | 1        | 7                       |
| L2+00W 3+00S    | 2         | 37        | 6         | 126       | .2        | 190       | 22        | 984       | 5.59    | 20        | 5        | ND        | 2         | 28        | .8        | 8         | 2         | 85       | .42     | .092   | 15        | 118       | 1.20    | 88        | .20     | 6        | 2.88    | .02     | .05    | 1        | 2                       |
| L2+00W 3+50S    | 2         | 39        | 8         | 132       | .3        | 70        | 13        | 809       | 4.29    | 21        | 5        | ND        | 2         | 24        | .5        | 7         | 2         | 70       | .35     | .088   | 11        | 64        | .99     | 39        | .14     | 3        | 3.36    | .01     | .03    | 2        | 4                       |
| STANDARD C/AU-S | 19        | 58        | 38        | 131       | 7.0       | 72        | 31        | 1048      | 3.95    | 40        | 20       | 6         | 39        | 52        | 18.6      | 19        | 22        | 56       | .45     | .092   | 37        | 58        | .91     | 175       | .07     | 34       | 1.89    | .06     | .14    | 11       | 53                      |