

| | | |
|----------|--------------|-----|
| LOG NO: | [FEB 01 1993 | RD. |
| ACTION: | | |
| FILE NO: | | |

**1992 GEOCHEMICAL REPORT
ON THE
EAGLE 92 GROUP
EAGLEHEAD PROPERTY**

**LIARD MINING DIVISION
NTS: 1041/6E
LATITUDE: 58'29'N
LONGITUDE: 129'08'W**

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

AND

**NUSPAR RESOURCES LIMITED
5900 No. One Road
Richmond, BC V7C 1T2**

OPERATOR: HOMESTAKE CANADA LTD.

BY: M.D. McPherson, P.Geo

January 15, 1993

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

22,760

**SUB-RECORDER
JAN 15 1993
M.D. McPherson
Vancouver B.C.**

Distribution:
HCL Files - 1 copy
Nuspar - 1 copy
BCMEMP - 2 copies

SUMMARY

The Eagle 92 Group is located approximately 48km east of the town of Dease Lake, in northern B.C. The group is comprised of 52 units in three claims, owned by Nuspar Resources Limited and Homestake Canada Ltd. Access to the property is by helicopter from Dease Lake, BC.

The claims are underlain by the Jurassic Eaglehead granodiorite batholith, which lies in fault contact with Upper Triassic Kutcho Formation volcanic and sedimentary rocks. Copper mineralization occurs within quartz and/or calcite filled fractures within the batholith, in the Camp and Pass Zones, on the Eagle 7 and 8 claims.

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. In 1990, a small orientation soil sampling program was completed over a portion of the contact between the granodiorite and Kutcho Formation volcanic rocks, to test the potential for fault related precious metal mineralization.

The 1992 exploration program consisted of the collection of 72 soil samples over 3.4 line kilometres of grid. This geochemical survey was designed to further 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. The 1992 grid lies immediately southeast of the 1990 geochemistry grid.

Results from the 1992 geochemical survey indicate that anomalous gold, silver and

copper values occur predominantly within the intrusive rocks of the Eaglehead Batholith. In the northeast part of the 1992 grid, gold correlates well with copper values, suggesting that the gold mineralization is associated with the porphyry copper mineralization within the batholith, and not with the fault contact between the batholith and the Kutcho Fm. This anomaly trends southeast off of the gridded area, and should be investigated further for porphyry copper-gold potential. Sampling did not indicate any association between precious metal mineralization and the fault contact, and therefore no further work of this nature is recommended on the Eagle 92 group.

TABLE OF CONTENTS

| | <u>PAGE</u> |
|--|-------------|
| SUMMARY | i |
| 1.0 INTRODUCTION | 1 |
| 1.1 Location and Access | 1 |
| 1.2 Claim Status | 1 |
| 1.3 Physiography | 1 |
| 1.4 Exploration History | 4 |
| 1.5 Present Work | 5 |
| 2.0 GEOLOGY | 5 |
| 2.1 Regional Setting | 5 |
| 2.2 Property Geology | 7 |
| 2.2.1 Stratigraphy | 7 |
| 2.2.2 Structure | 8 |
| 2.3 Alteration and Mineralization | 10 |
| 3.0 GEOCHEMISTRY | 11 |
| 3.1 Introduction | 11 |
| 3.2 Method of Survey | 11 |
| 3.3 Results | 12 |
| 4.0 CONCLUSIONS AND RECOMMENDATIONS | 17 |
| 5.0 REFERENCES | 18 |
| 6.0 STATEMENT OF COSTS | 19 |
| 7.0 STATEMENT OF QUALIFICATIONS | 20 |
| APPENDIX I: Geochemical Data | 21 |

LIST OF FIGURES

| <u>FIGURE</u> | | <u>PAGE</u> |
|---------------|------------------------------------|-------------|
| 1.1 | Location Map | 2 |
| 1.2 | Claim Map | 3 |
| 2.1 | Regional Geology | 6 |
| 2.2 | Property Geology and Grid Location | 9 |
| 3.1 | Contoured Gold in Soils Plot | 14 |
| 3.2 | Contoured Silver in Soils Plot | 15 |
| 3.3 | Contoured Copper in Soils Plot | 16 |

1.0 INTRODUCTION

1.1 Location and Access:

The Eagle 92 Group is located within the Liard Mining Division in northern B.C., approximately 48km east of the town of Dease Lake, B.C. (Fig. 1.1). The group 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. Alternatively, the property may be accessed by helicopter direct from Dease Lake.

1.2 Claim Status

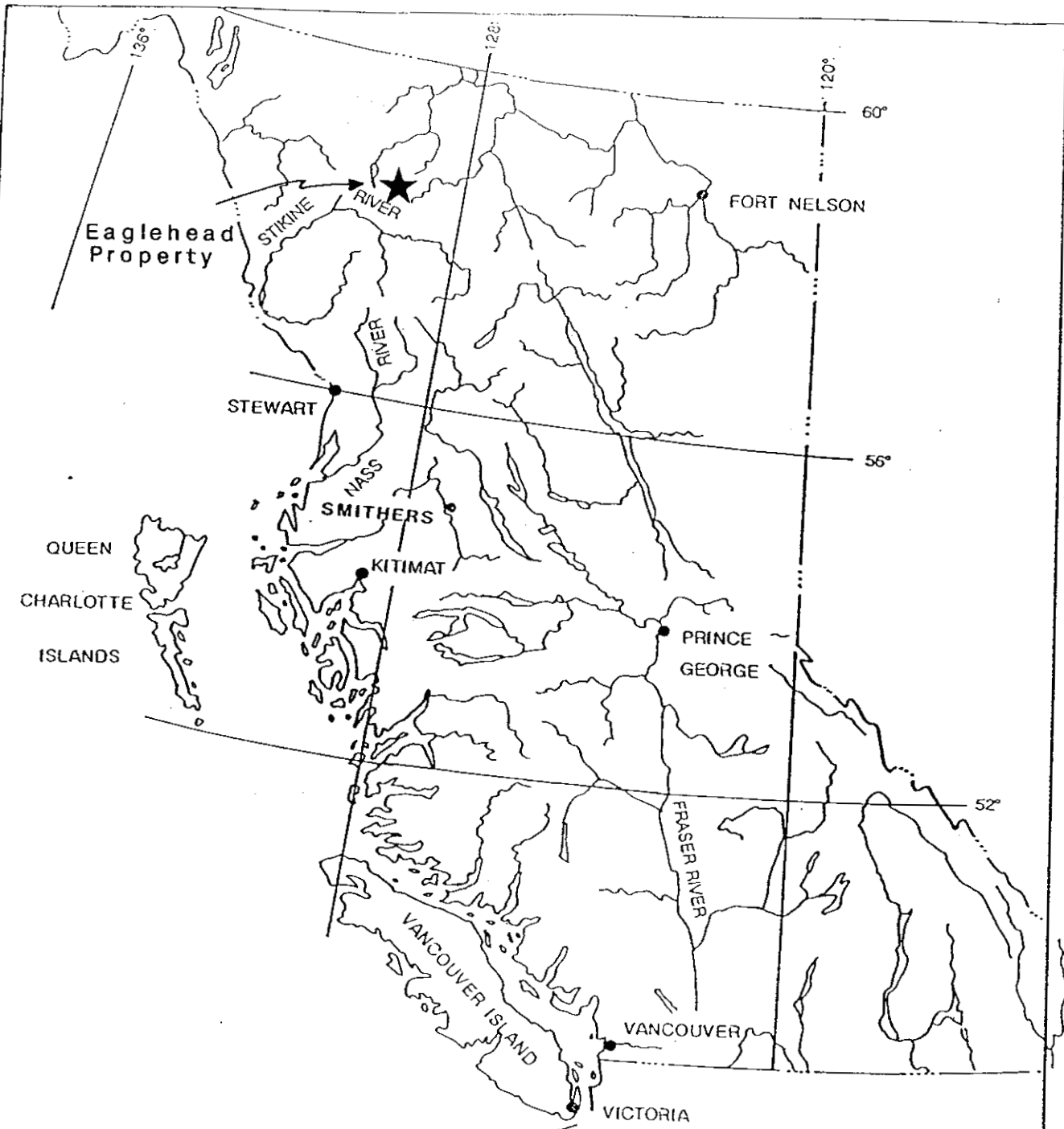
The Eagle 92 Group consists of three claims, owned by Homestake Canada Ltd. and Nuspar Resources Limited. The group forms part of the larger, 161 unit, Eaglehead Property, also owned by Homestake Canada Ltd. and Nuspar Resources Limited. The location of the claims are shown in figure 1.2.

| <u>Claim</u> | <u>Units</u> | <u>Record #</u> | <u>Record Date</u> | <u>Expiry Date*</u> |
|--------------|--------------|-----------------|--------------------|---------------------|
| Eagle 7 | 18 | 222144 | Oct. 22, 1981 | Oct. 22, 1993 |
| Eagle 4 | 16 | 222141 | Oct. 22, 1981 | Oct. 22, 1995 |
| Eagle 8 | 18 | 222145 | Oct. 22, 1981 | Oct. 22, 1996 |


* with the filing of this assessment work

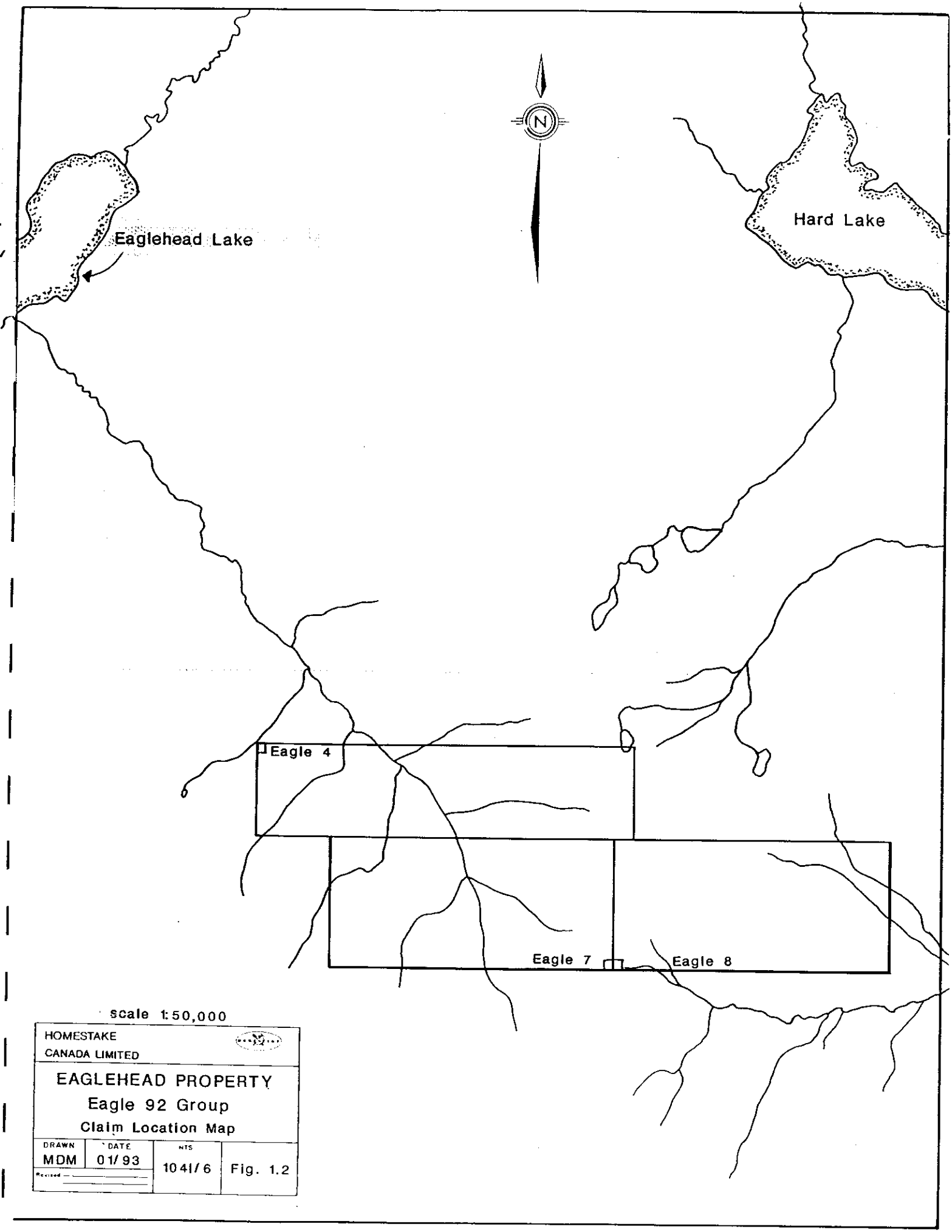
1.3 Physiography


The Eagle 92 Group lies within the Stikine Ranges of the Cassiar Mountains. The claims lie at or above treeline, with elevations ranging from 1430m to 1900m, and occupy a northwest trending drift filled valley. Northeast facing ridges are typically scalloped by steep cirques, while southwest facing slopes are more gentle. The valley floor is extensively drift covered, and characterized by kame terraces, kettle holes and eskers.



SCALE 1: 7,500,000

| | | |
|---|-------------------|-----------------|
| HOMESTAKE CANADA LTD.  | | |
| EAGLEHEAD PROPERTY | | |
| LOCATION MAP | | |
| DRAWN AWK | DATE Nov. 1991 | NTS 10 41/ 6 |
| MDM 01/93 | | FIGURE 1.1 |



| | | | |
|-----------------------------|-------|---|----------|
| HOMESTAKE CANADA LIMITED | |  | |
| EAGLEHEAD PROPERTY | | | |
| Eagle 92 Group | | | |
| Claim Location Map | | | |
| DRAWN | DATE | HTS | |
| MDM | 01/93 | 1041/6 | Fig. 1.2 |
| Revised | | | |

Vegetation is predominantly slide alder and low alpine shrubs. A fringe of scrub alpine spruce and balsam occurs on lower ridge slopes, while upper slopes are grassy and commonly covered by felsenmeer.

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 re-staked 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 Development Ltd. Exploration included 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 all 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.

Homestake Canada Ltd. acquired Esso's interest in the property in the spring of 1989, and completed a small geochemical orientation survey in the fall of 1990. This program was designed to test the potential for gold mineralization either associated with the Eaglehead batholith itself, or related to the fault contact between the batholith and Upper Triassic volcanic rocks. No work was completed in 1991.

1.5 Present Work

The 1992 exploration program on the Eagle 92 Group consisted of the collection of 72 soil samples over 3.4 line km of grid. The survey was designed to cover the fault contact between the Jurassic Eaglehead Batholith and the Upper Triassic Kutcho Formation, southeast of the 1990 geochemical survey. Work was conducted from September 4 to 6, 1992.

2.0 GEOLOGY

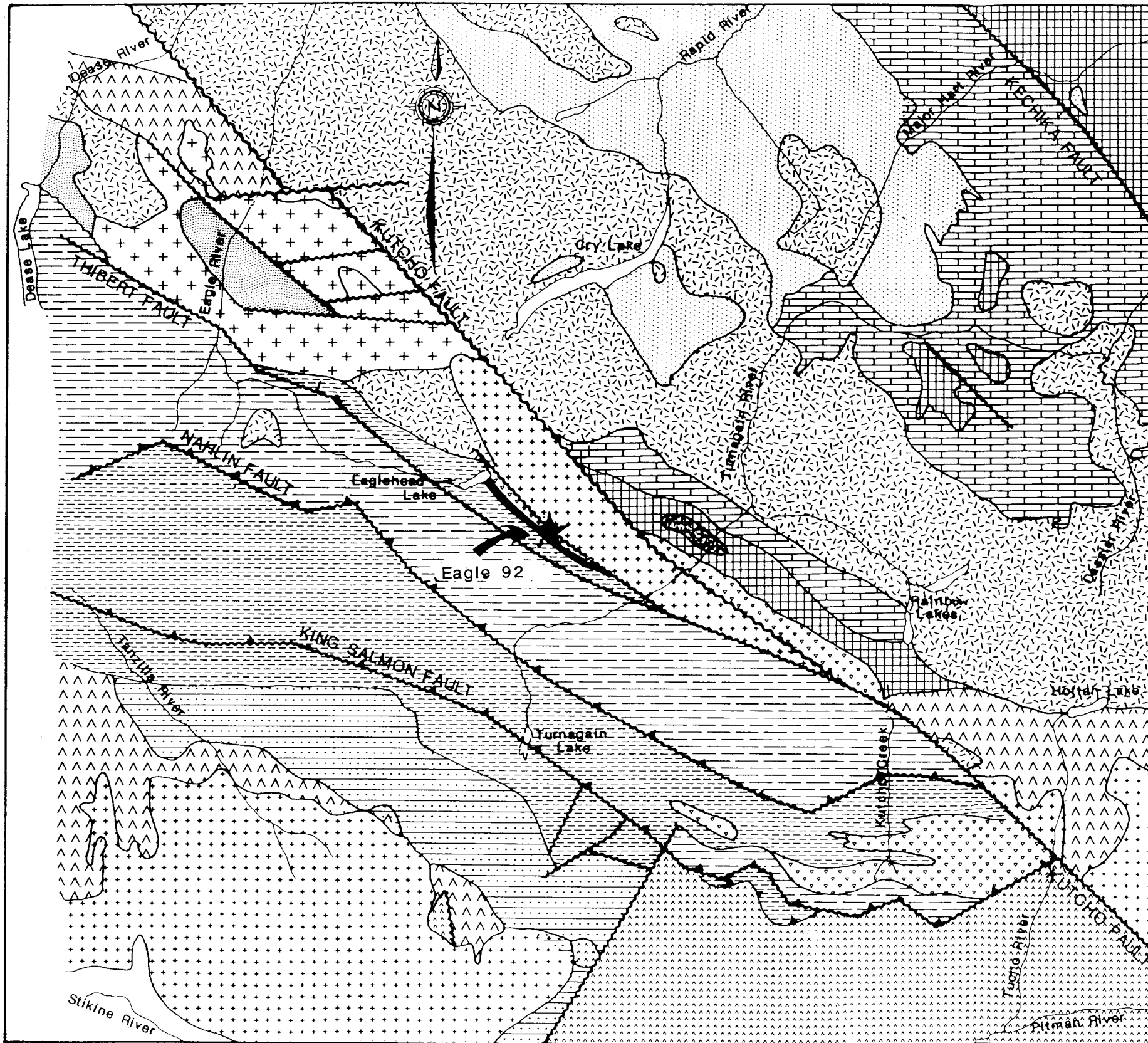
2.1 Regional Setting

The Eagle claims lie along the southwest flank of a zoned, early to late Jurassic granodiorite batholith, known as 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 cataclased, foliated and mylonitized rocks over widths of 1.5 to 3.0 km. North of the Kutcho Fault the rocks are predominantly mid-Cretaceous and younger elements of the Cassiar Batholith (McPherson, 1991).

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 claims. This fault may be a splay of the Thibert Fault, a high angle right lateral fault which forms the contact between the Inklin rocks and the Upper Paleozoic Cache Creek Group rocks further southwest (Gabrielse and Dodds, 1982). The Thibert Fault trends northwest and is thought to originate from the Kutcho Fault near the Turnagain River. Within this area

LEGEND



CRETACEOUS

MID-CRETACEOUS
 Quartz monzonite, granite, granodiorite; Kgd, granodiorite, in part foliated, age uncertain; Kgn, kaolinized feldspar-quartz porphyry

JURASSIC

MIDDLE JURASSIC
 Granodiorite, diorite; includes younger phases of Metalluh Batholith, hornblende-biotite syenite, granite and monzonite, hornblende diorite and syenodiorite; mjgd, granodiorite

Andesite flows, tuff, breccia, agglomerate; conglomerate, siltstone

LOWER JURASSIC
TOARCIAN
 Maroon and grey weathering andesite, dacite and rhyolite flows, tuff and breccia; jvb, argillite, tuff, calc-silicate, hornfels

Granodiorite

UPPER AND LOWER PLIENSCHACHIAN
 TARMANOH 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
 SIMA FORMATION: limestone, commonly argillaceous and fossiliferous

Peridotite, dunite, serpentinite

STORIE 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 sericite schist; UTK, undivided 'kutcho' and Inklin formations

METALLUH BATHOLITH, OLDER PHASES: hornblende syenodiorite to granodiorite; Ugd, biotite-hornblende gabbro, diorite, hornblende pyroxenite; UEU, 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; MPY, coarse grained to pegmatitic gabbro; MPu, peridotite, dunite, pyroxenite, commonly serpentinitized

DEVONIAN TO PERMIAN

UPPER DEVONIAN TO PERMIAN
STYVEXTER GROUP: lower part, chert pebble conglomerate, chert arenite, shale, Upper Devonian, in fault contact with overlying chert; DPBV, chloritized and saussuritized tholeiitic basalt, breccia, tuff; DPBU, serpentinite, peridotite, pyroxenite; MURKIZI FORMATION: crinoidal and cherty limestone, basal pebble conglomerate, Upper Mississippian; PC, limestone, Pennsylvanian; DPBC, limestone

PALEOZOIC UNDIVIDED

Crystalline limestone, metasedimentary and minor metavolcanic rocks

Basal nodular argillaceous limestone of Cambrio-Ordovician age overlain by black, crumpled 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 fossiliferous 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

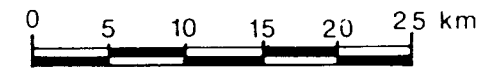
HADRYNIAN

INGERIKA GROUP

STELKIZI FORMATION: interbedded chloritic sandstone, shale, limestone, phyllite; includes distinctive green and maroon weathering members; HS₁, includes iCAq


ESPEZ 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

| | | | |
|---|---------------|---------------|----------|
| HOMESTAKE CANADA LTD. | | | |
|  | | | |
| EAGLEHEAD PROPERTY Eagle 92 Group Regional Geology | | | |
| DRAWN MDM | DATE 01/93 | NTS 1041/6 | Fig. 2.1 |

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 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 content.

2.2 Property Geology

2.2.1 Stratigraphy

The Eagle 92 Group lies along the southwest flank of the Jurassic Eaglehead batholith. A major northwest trending fault zone marks the contact between the intrusive rocks 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 has been sub-divided into three phases (Everett et al, 1983): 1) hornblende granodiorite, 2) biotite granodiorite, and 3) quartz and feldspar porphyritic granodiorite. These phases are elongated in a northwesterly direction, with phase 1 located along the southwest edge of the pluton and phase 3 further to the northeast (Fig. 2.2). 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 cut all three phases of the intrusive, 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).

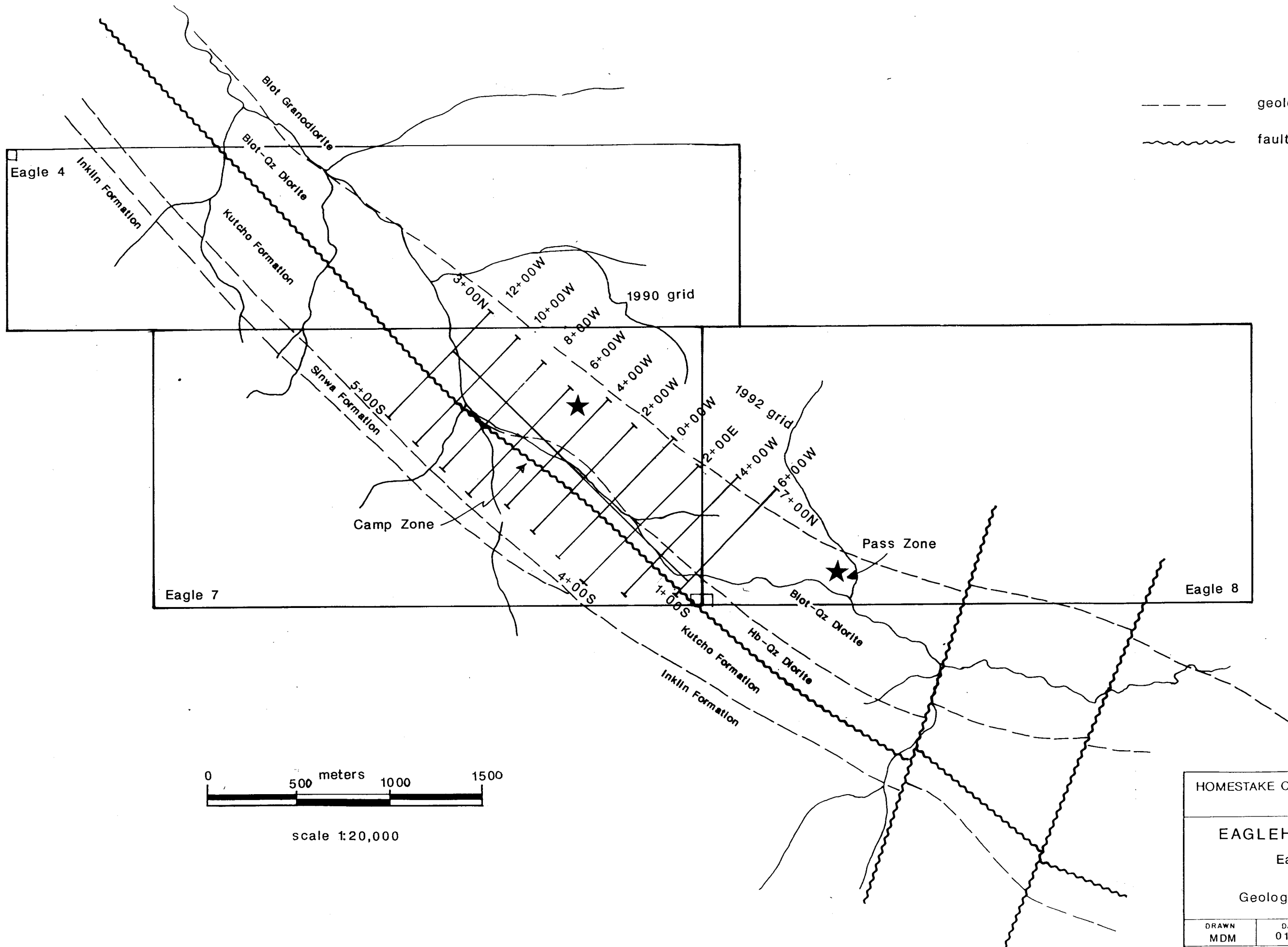
The southwest portion of the Eagle claims are underlain by narrow, northwest trending bands of volcanic and sedimentary rocks of the Kutcho, Sinwa and Inklin Formations. The Upper Triassic Kutcho Formation is comprised of felsic volcanic and minor sedimentary rocks, in fault contact with the Eaglehead 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 claims, the Thibert Fault brings Upper Paleozoic Cache Creek Group rocks in contact with the Inklin Formation sediments (Fig. 2.1).

2.2.2 Structure

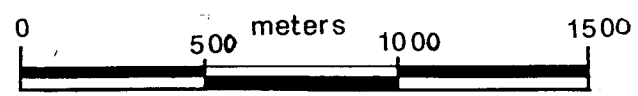
The orientation of the Cassiar and Eaglehead Batholiths indicates that igneous events were largely controlled by northwest-trending structural features, on both a regional and local scale.

Structure is dominated by the northwest-trending fault contact that separates the hornblende 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 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 is also potential for the development of shear-hosted gold and silver mineralization associated with the intrusive - Kutcho Formation contact.



----- geologic contact
 ~~~~~ fault



scale 1:20,000

|                                                                                                             |               |               |          |
|-------------------------------------------------------------------------------------------------------------|---------------|---------------|----------|
| HOMESTAKE CANADA LTD.  |               |               |          |
| <b>EAGLEHEAD PROPERTY</b><br>Eagle 92 Group<br>Geology and Grid Location                                    |               |               |          |
| DRAWN<br>MDM                                                                                                | DATE<br>01/93 | NTS<br>1041/6 | Fig. 2.2 |
| Revised _____                                                                                               |               |               |          |

### 2.3 Alteration and Mineralization

Copper mineralization on the Eaglehead property is strongly structurally controlled. Relatively little disseminated mineralization has been noted, and where present, is generally associated with vein envelopes (Everett et al, 1983). All of the major alteration and mineralization is concentrated within the biotite granodiorite phase of the Eaglehead Batholith.

Three mineralized zones have been discovered on the Eaglehead Property 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 the Pass Zone lies in the southwest corner of the Eagle 8 claim, both within the Eagle 92 Group.

The Camp Zone consists of chalcopyrite-pyrite mineralization hosted within northwest trending quartz and /or calcite-filled fractures. The zone trends northwest, and contains a drill indicated geologic resource of 3 million tonnes of 0.45% copper (Everett et al, 1983). Mineralized veins are typically steeply dipping, and often sheared. Along the southern margin of the Camp Zone, shear cleavage dips steeply southwest (Everett et al, 1983). 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.

The Pass Zone is an elongate, tabular zone approximately 1000m long trending west-southwest and dipping 40 to 50 degrees to the southwest. The zone contains a drill indicated geologic resources of 13 million tonnes of 0.52% copper (Everett et al, 1983). Alteration consists of moderate to strong pervasive sericite and local weak to moderate

potassium feldspar alteration. Mineralization consists of pyrite and chalcopyrite in fractures with trace bornite and molybdenite. There is a pyrite alteration halo in the hanging wall of the zone.

Non-copper bearing quartz-sericite veins have been noted on the property, and typically have the same attitudes as copper-bearing veins. These may represent unmineralized veins of the same generation as the copper-bearing veins, or they could represent a different set of veins related to some other hydrothermal event. These veins may be related to the northwest trending fault zone, and if so, hold the potential for hosting gold and silver mineralization.

### **3.0 GEOCHEMISTRY**

#### **3.1 Introduction**

Several other geochemical surveys had been completed over the Eagle 92 Group and surrounding ground prior to the 1992 program (ie: Everett et al, 1983; Marr, 1974). Aside from the 1990 orientation survey, these surveys were predominantly concerned with the copper-bearing potential of the Eaglehead Batholith, and did not really look at the possibility of gold-bearing structures associated with the Kutcho Formation-intrusive fault contact. The 1990 program indicated some potential for gold mineralization associated with the fault contact, and therefore in 1992 additional sampling was completed further along the contact to the southeast (Fig. 2.2).

#### **3.2 Method of Survey**

A total of 72 soil samples were collected over 3.4 line km of grid. Samples were collected at 50m intervals on lines spaced 200m apart. The grid lines were run perpendicular to a pre-existing, cut baseline trending 135 degrees.



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 International Plasma Laboratory Ltd. of Vancouver, B.C., and consisted of thirty-element ICP and gold by fire assay/atomic absorption on a 20g sample. The samples were first oven dried, sieved to -80 mesh, and pulverized, then a 500g subsample was digested in a hydrochloric acid-nitric acid solution at 90 degrees for one hour prior to analysis. The digestion is partial for Mn, Fe, Ca, P, La, Cr, Ba, W, Na, and K. The geochemical results are included in Appendix I.

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 consistently below detection limit (<5 ppb Au), with the exception of four samples in the northern part of the grid (Fig. 3.1), which range from 11 ppb to 26 ppb Au. The four anomalous samples lie within the batholith, along trend with a 1100m long by 50 to 200m wide northwest trending gold soil anomaly identified in the 1990 survey, overlying the Camp Zone (McPherson, 1991). While weakly anomalous gold values were associated with the intrusive/Kutcho Fm. fault contact in the 1990 survey to the northwest, no anomalous values are associated with the contact in the 1992 survey.

Gold values from the 1990 survey to the northwest are consistently higher than the 1992 values, indicating a possible increase in gold content to the northwest within the batholith and the surrounding volcanic rocks.

### Silver

Silver values range from <0.1 to 1.8 ppm Ag, and form several northwest trending anomalies that connect well with silver anomalies from the 1990 survey (Fig. 3.2). The main anomaly lies at 2+00N, and extends from L12+00W to L2+00E. Several smaller anomalies, up to 250m long, lie south of the main anomaly, but do not seem to be associated with the fault contact. The northwest trending anomalies are modified by a more weakly developed west-northwest trend, possibly indicative of a conjugate fracture set.

Silver values correlate moderately well with gold values in the northwest to central part of the 1990 grid, but lack correlation over the 1992 grid.

Silver values are increasing in the extreme southern part of the grids, on lines 12+00W and 2+00E. This increase may be related to the proximity of the contact with slightly more silver enriched Inklin Fm. argillites to the south.

### Copper

Copper values range from 9 to 1488 ppm, with the highest values within the Eaglehead Batholith (Fig. 3.3). As with the gold and silver anomalies, the higher copper values follow moderately well developed northwest trends, and correlate well with the 1990 anomalies. The grid is dominated by a broad, 150 to 450m wide, northwest trending anomaly lying immediately northeast of the intrusive/Kutcho Fm. contact and extending the length of the grid. A second, much narrower anomaly lies parallel to the main anomaly, approximately 100m south of the fault contact.

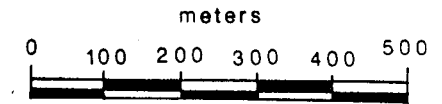
Copper values correlate well with gold values over both the 1990 and 1992 grids, and moderately well with silver values.

HOMESTAKE  
CANADA LIMITED

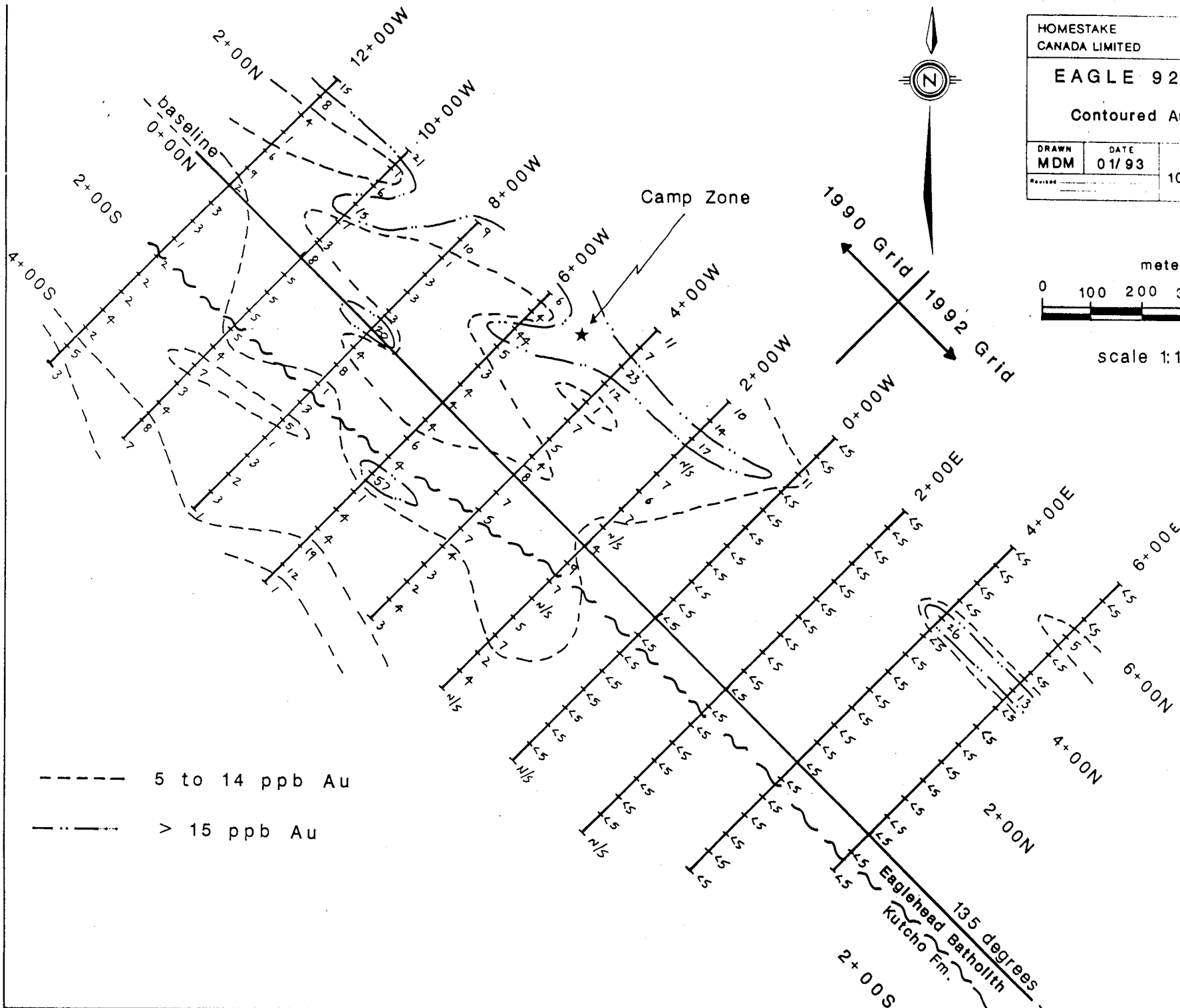
**EAGLE 92 GROUP**

Contoured Au In Soils

|              |               |               |          |
|--------------|---------------|---------------|----------|
| DRAWN<br>MDM | DATE<br>01/93 | WTS<br>1041/6 | Fig. 3.1 |
|--------------|---------------|---------------|----------|



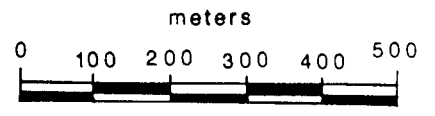
scale 1:10,000



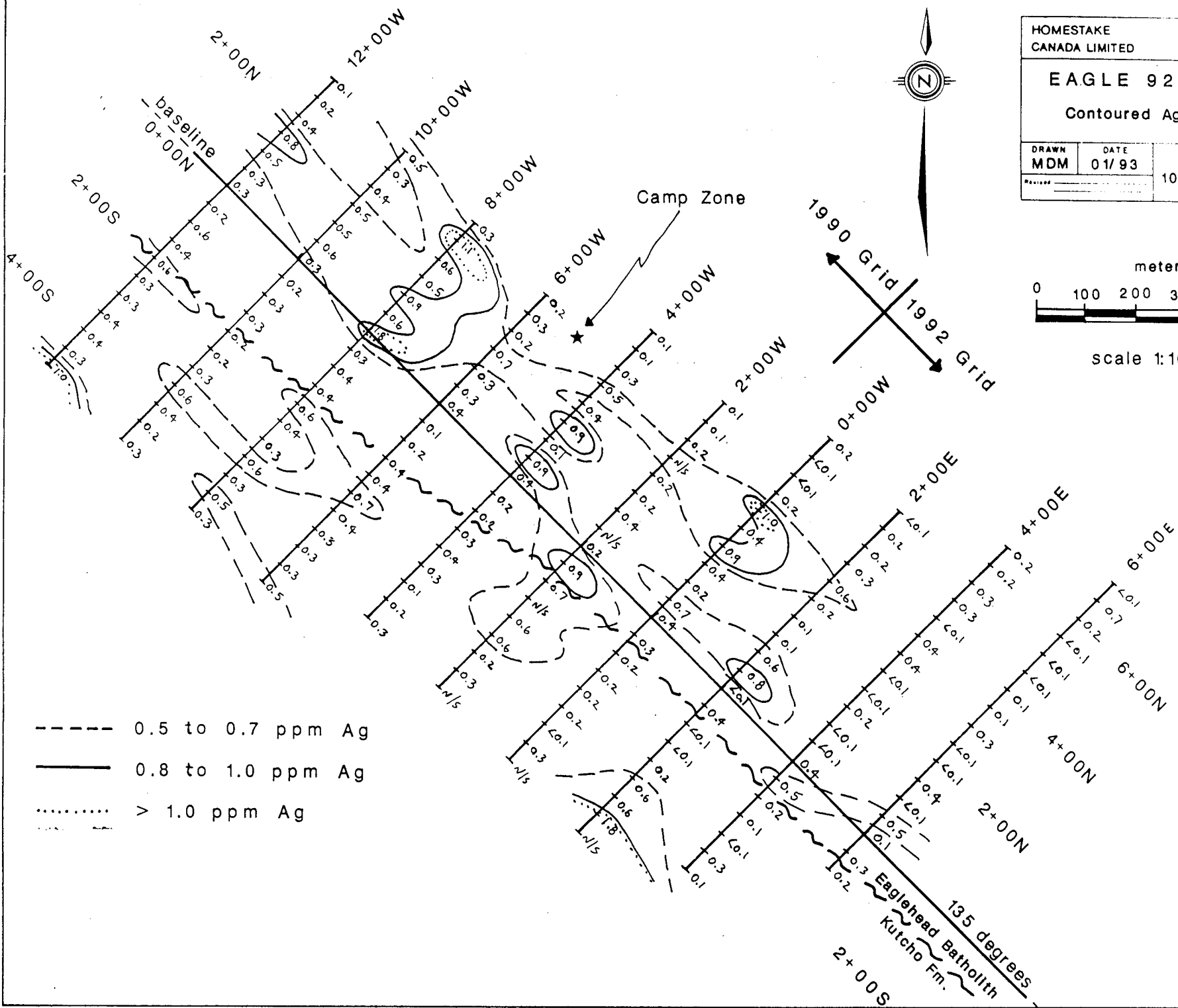
HOMESTAKE  
CANADA LIMITED

**EAGLE 92 GROUP**  
Contoured Ag In Soils

|              |               |               |          |
|--------------|---------------|---------------|----------|
| DRAWN<br>MDM | DATE<br>01/93 | NTS<br>1041/6 | Fig. 3.2 |
|--------------|---------------|---------------|----------|



scale 1:10,000



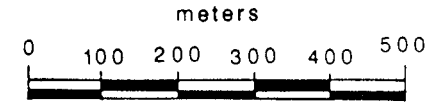
- 0.5 to 0.7 ppm Ag
- 0.8 to 1.0 ppm Ag
- ..... > 1.0 ppm Ag

HOMESTAKE  
CANADA LIMITED

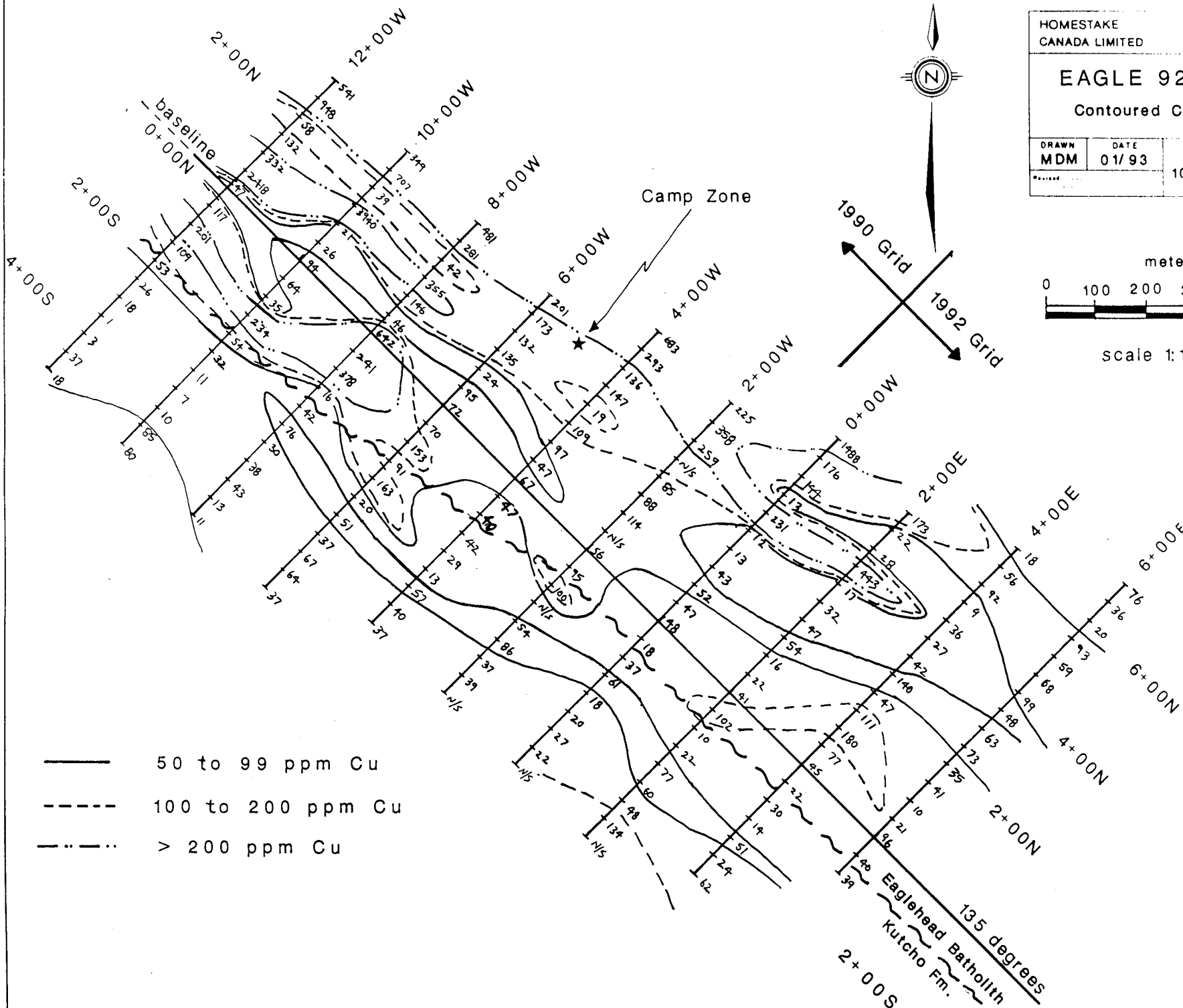
# EAGLE 92 GROUP

Contoured Cu in Soils

|                     |                      |                      |          |
|---------------------|----------------------|----------------------|----------|
| DRAWN<br><b>MDM</b> | DATE<br><b>01/93</b> | NIS<br><b>1041/6</b> | Fig. 3.3 |
|---------------------|----------------------|----------------------|----------|



scale 1:10,000



- 50 to 99 ppm Cu
- - - 100 to 200 ppm Cu
- · - · - · > 200 ppm Cu

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

The 1992 geochemical 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 72 soil samples were collected from 3.4 line kilometres of grid on the Eagle 92 Group.

The Eagle 92 Group hosts previously discovered copper mineralization in the Camp and Pass Zones. Mineralization consists of chalcopyrite-pyrite bearing, quartz and/or calcite filled fractures within the biotite granodiorite phase of the Eaglehead Batholith. The Camp Zone contains a drill indicated geologic resource of approximately 3 million tonnes of 0.45% copper, and the Pass Zone contains 13 million tonnes of 0.52% copper. Previous work on the claims 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 1992 geochemical survey indicate that anomalous gold, silver and copper values occur predominantly within the intrusive rocks of the Eaglehead Batholith. In the northeast part of the 1992 grid, gold correlates well with copper values, suggesting that the gold mineralization is associated with the porphyry copper mineralization within the batholith, and not with the fault contact between the batholith and the Kutcho Fm. This anomaly trends southeast off of the gridded area, and should be investigated further for porphyry copper-gold potential. Sampling did not indicate any association between precious metal mineralization and the fault contact, and therefore no further work is recommended along the contact.

## 5.0 REFERENCES

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

Gabrielse, H., (1978): Geology of the Cry Lake Map-Area (1041); 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.

McPherson, M.D. (1991): 1990 Exploration Report on the Eagle 7 Claim; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report.

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.

Scott, T.C. and Caulfield, D.A. (1982): Geological Report on the Eaglehead Property; an in-house report prepared by Pamicon Development Corp. for Esso Minerals Canada Ltd.

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

|                                                                        |        |
|------------------------------------------------------------------------|--------|
| - M. McPherson (geologist) September 4-6, 1992<br>2.5 days @ \$200/day | \$ 500 |
| - A. Kaip (geologist) September 4-6, 1992<br>2.5 days @ \$150/day      | \$ 375 |

2) Logistics:

|                                                                          |         |
|--------------------------------------------------------------------------|---------|
| - Hotel; two rooms for three nights @ \$53/night ea.                     | \$ 318  |
| - Food; 5 man-days @ \$30/day                                            | \$ 150  |
| - Truck Rental; 2.5 days @ \$30/day                                      | \$ 75   |
| gas                                                                      | \$ 60   |
| - Helicopter Charter; 1.4 hours @ \$786/hr<br>Bell 206 (incl. fuel, oil) | \$1,101 |

3) Analysis:

|                                    |        |
|------------------------------------|--------|
| - 72 soil samples @ \$13.50/sample | \$ 972 |
| - Freight                          | \$ 50  |

4) Report Preparation:

|                                    |        |
|------------------------------------|--------|
| - M. McPherson; 2 days @ \$200/day | \$ 400 |
|------------------------------------|--------|

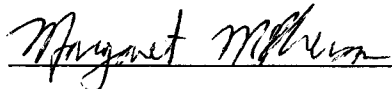
-----  
TOTAL \$4,001



## 7.0 STATEMENT OF QUALIFICATIONS

I, Margaret D. McPherson, of 4083 Parkway Drive, Vancouver, B.C., DO HEREBY CERTIFY THAT:

1. I am a geologist presently employed by Homestake Canada Ltd., 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 am a Professional Geoscientist in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
4. I have been employed in the mineral exploration industry since 1985.
5. I participated in, and supervised the work described in this report.
6. I do not own or intend to own any interest in Nuspar Resources Ltd.

  
Margaret D. McPherson, P.Ge

January 5, 1993

Vancouver, B.C.

**APPENDIX I:  
GEOCHEMICAL DATA**



