SOIL GEOCHEMISTRY, GEOLOGY and PROSPECTING

of the

SLEEPING GIANT GROUP (89 metric units)

Canim Lake Area

Clinton Mining Division

(NTS 92P/15W)

Lat. 51'49" Long. 121'49"

by

D.W. RIDLEY (owner-operator)

November 1990

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INTRODUCTION:

The Sleeping Giant claim group is situated in the Canim Lake area of south-central B.C. and lie within the Quesnel Trough, a belt of mixed sediments and volcanics which are intruded by several stocks of the alkali syenite to diorite suite and are host to numerous Cu and/or Cu-Au porphyry deposits. Work in the early 1970's confirmed the presence of low grade copper mineralization associated with an augite diorite stock and syenitic dykes or plugs north of Howard Lake, and quartz-pyrite-chalcopyrite fracture-fillings in syenodiorite of the Canim stock. Past work on the ground defined several anomalies which were never followed up.

The present property was staked in Aug. 1989. During the summer of 1990 two grids were established and subsequently soil sampled and mapped. This program resulted in 186 soil and 16 rocks samples.

Copper anomalies were found on the North grid and a high order gold anomaly was detected on the Canim grid. In addition several anomalous rock samples were found during reconnaissance prospecting traverses on scattered portions of the property.

Further work in the form of detailed prospecting, geological mapping, soil and geophysical surveys is recommended.

LOCATION and ACCESS:

The property is located in south-central B.C. in the central portion of the Quesnel tectonic belt. It is easily reached by paved and gravel roads approximately 45 kms. northeast of the village of 100 Mile House.

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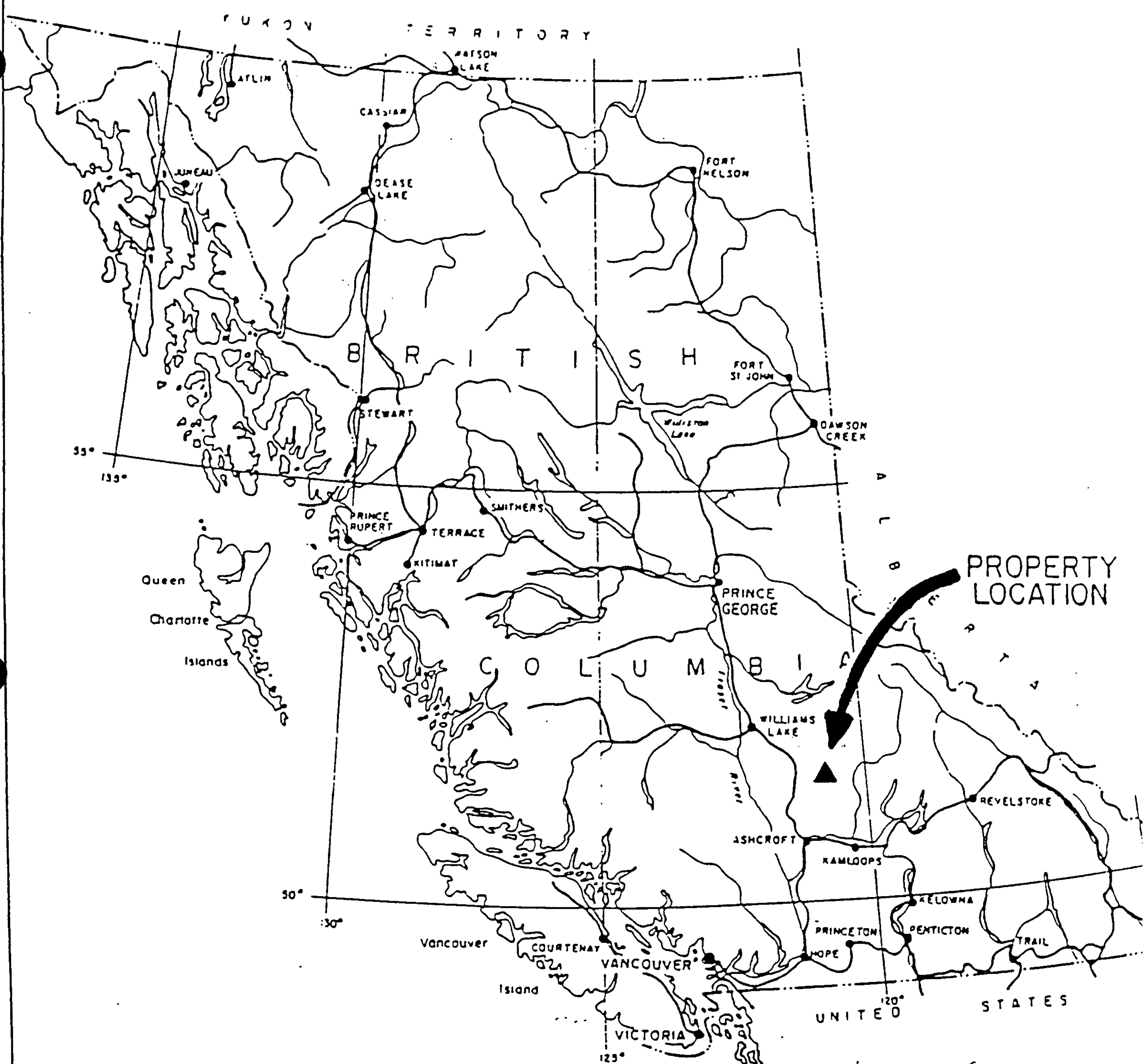


PROPERTY LOCATION FIG. 1

SLEEPING GIANT CLAIM GROUP

Clinton Mining Division

N.T.S. 92P/15W

D.W. Ridley.	0 100 200 miles
Nov. 1990	0 100 200 300 kilometers

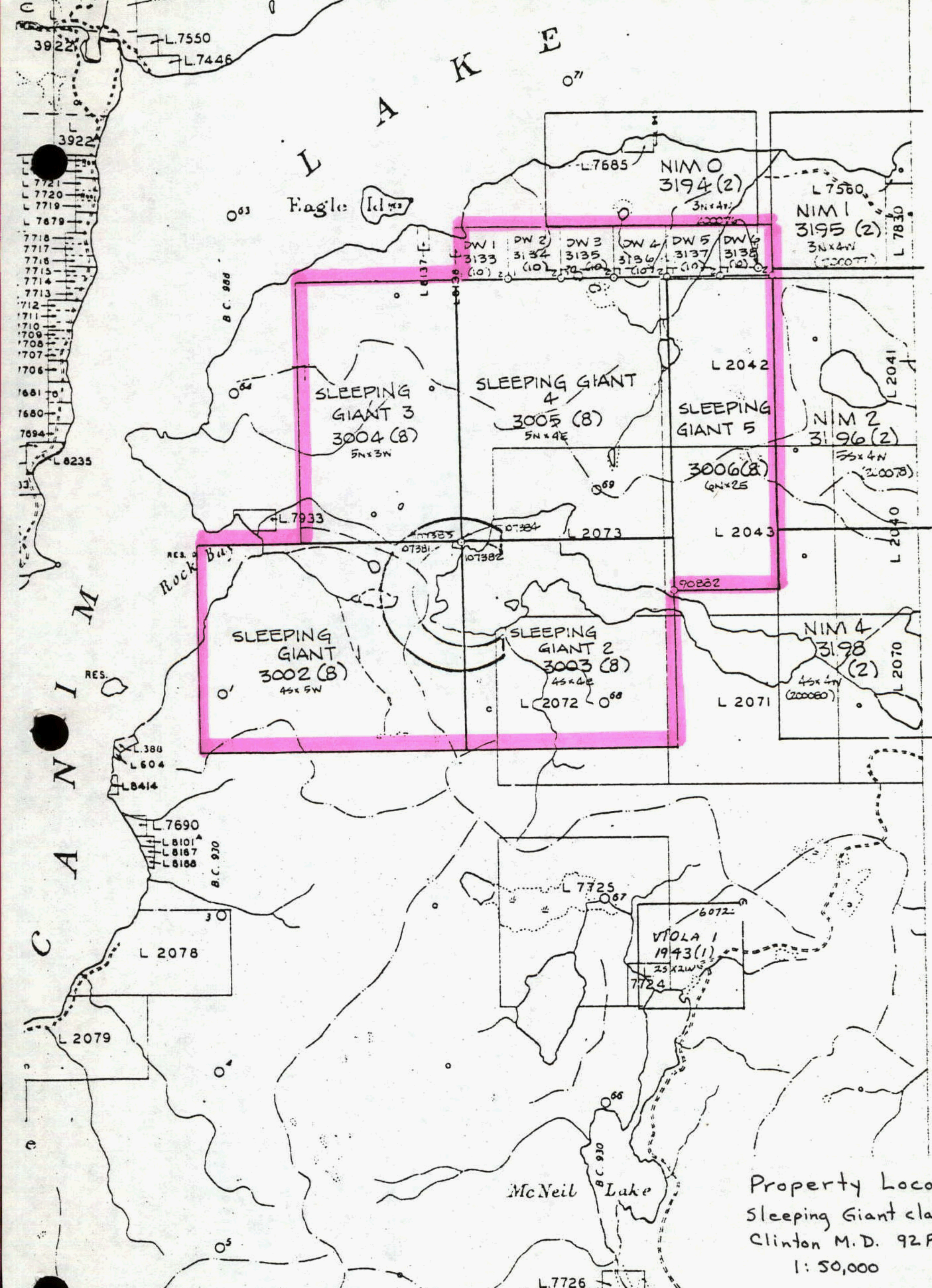
The main road into the property is in very good shape and is accessible for two-wheel drive vehicles. The road is not usually open during the winter months. Several old logging roads are found through-out the entire property allowing easy access to all portions of the claims. Several lakes, ponds and year-round creeks provide an abundant supply of water for drilling. A B.C. Hydro transmission line follows the main Canim Lake South road and is approximately within 4 kms. of the center of the property. A work force is readily available in the village of 100 Mile House and surrounding communities. Several lodges on the shores of Canim Lake provide accomodation and one offers room and board at competitive rates.

The area lies on a dissected plateau averaging 1000 metres in elevation. Topography consists of moderately steep slopes with the steepest slopes being found along Canim Lake and on two hills north of Howard Lake. The rest of the property is gently rolling hills. Elevation ranges from 750 to 1200 metres. Work may normally be carried out from April to November.

DESCRIPTION of PROPERTY:

The Sleeping Giant property consists of 83 modified grid units and 6 two-post units for a total of 89 contiguous units. The property is 100% jointly owned by Dave Ridley (General Delivery, Eagle Creek, B.C. VOK 1LO - 397-2771) and Alan Harvey (Box 67, Clinton, B.C. VOK 1LO - 459-7730). Pertinent data relating to the claims is listed below:

Claim Name	Record Number	No. of units	Record Date
Sleeping Giant 1	3002	20	August 24 1989
Sleeping Giant 2	3003	16	August 24 1989
Sleeping Giant 3	3004	15	August 21 1989
Sleeping Giant 4	3005	20	August 22 1989
Sleeping Giant 5	3006	12	August 22 1989



Property Location FIG.2
Sleeping Giant claims
Clinton M.D. 92P/15W
1: 50,000

Ministry of Energy, Mines and Petroleum Resources

Miles 1 0.5 0 1 2 Miles
Metres 1000 500 0 1000 2000 3000 Metres
Kilometres 1 0.5 0 1 2 3 Kilometres

UNLESS VERIFIED OR SURVEYED, THE MAP POSITION OF A LEGAL CORNER POST IS BASED ON THE LOCATOR'S SKETCH. FOR FURTHER INFORMATION, APPLY TO THE OFFICE OF THE MINING DIVISION CONCERNED.

DATE OF MICROFILM : 1990-AUG-07

MAP 92 P/10 W

) PETROLEUM RESOURCES

This map is prepared only as a guide to the location of mineral claims and Placer Mining Leases as

Claim Name	Record Number	No. of Units	Record Date
DW 1	3133	1	October 27 1989
DW 2	3134	1	October 27 1989
DW 3	3135	1	October 27 1989
DW 4	3136	1	October 27 1989
DW 5	3137	1	October 27 1989
DW 6	3138	1	October 27 1989

The Nim property was staked for Cominco Ltd. during the winter 1990. This property adjoins the Sleeping Giant claims to the north and east.

HISTORY:

The earliest mention of the Canim Lake area is found in the B.C. Minister of Mines Annual Report for year 1903 where a vague reference is made concerning the occurrence of lead-silver-bearing quartz veins. No location is given although it is assumed this refers to an area near the east end of the lake in black phyllites.

The first documented exploration in the vicinity of the present property is found in an internal report by Cominco Ltd. (1968) when a reconnaissance program uncovered low-grade copper mineralization related to the Canim stock. Thirty claims were staked (the Kim claims) and were mapped on a scale of 1" : ½ mile. Some soil and silt sampling was also carried out which did not provide any encouragement and the property was allowed to lapse on the first anniversary date.

Dome Petroleum staked a large land position in 1972 (the RM claims, 250 two-post units, MI 92P-128). During 1972 to 1974 they carried out a substantial exploration program consisting of geological mapping, soil, silt and rock sampling, ground magnetometer surveys, bulldozer trenching and IP surveys.

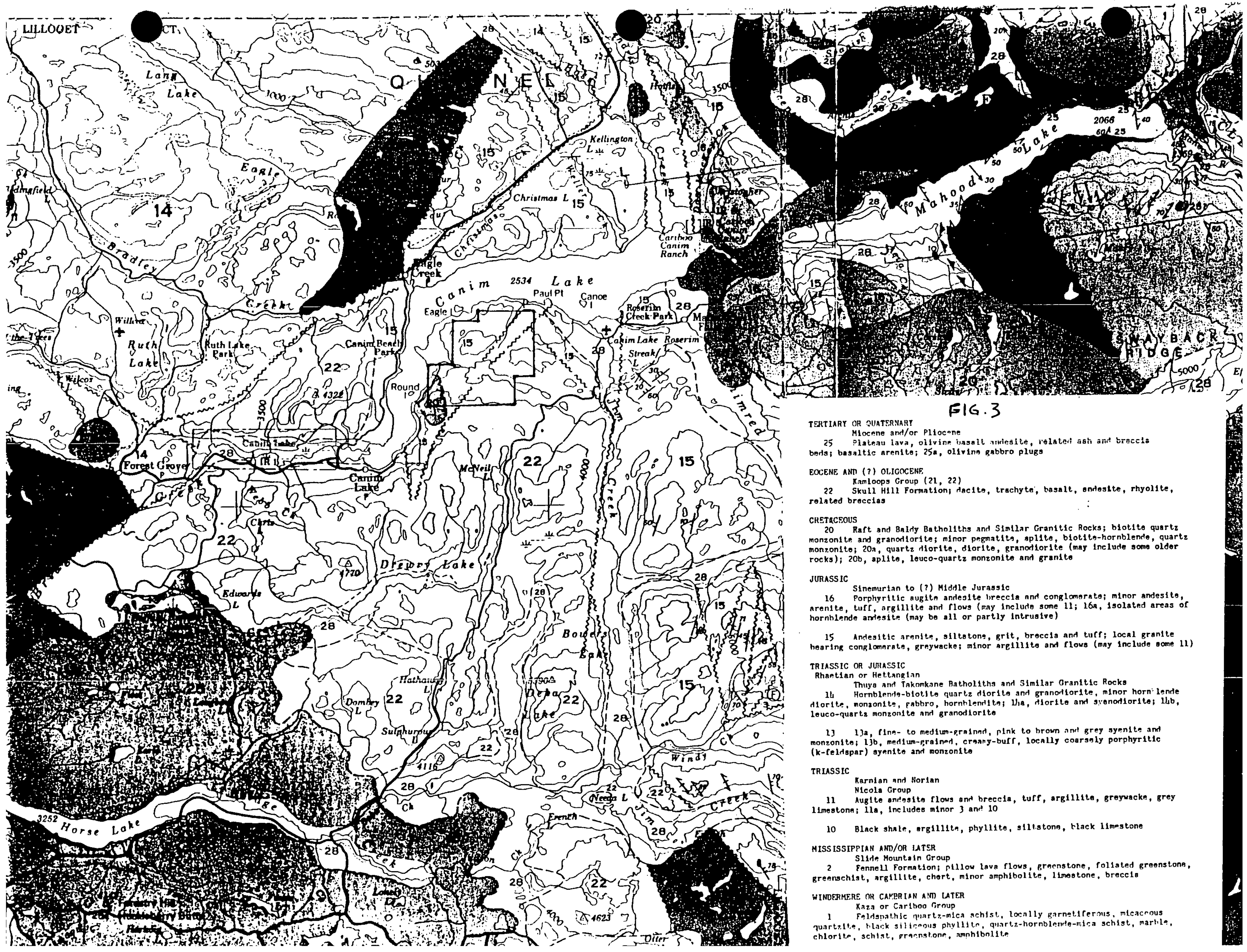


FIG. 3

TERTIARY OR QUATERNARY

Miocene and/or Pliocene

25 Plateau lava, olivine basalt andesite, related ash and breccia beds; basaltic arenite; 25a, olivine gabbro plugs

EOCENE AND (?) OLIGOCENE

Kamloops Group (21, 22)

22 Skull Hill Formation; dacite, trachyte, basalt, andesite, rhyolite, related breccias

CRETACEOUS

20 Raft and Baldy Batholiths and Similar Granitic Rocks; biotite quartz monzonite and granodiorite; minor pegmatite, aplite, biotite-hornblende, quartz monzonite; 20a, quartz diorite, diorite, granodiorite (may include some older rocks); 20b, aplite, leuco-quartz monzonite and granite

JURASSIC

Sinemurian to (?) Middle Jurassic

16 Porphyritic augite andesite breccia and conglomerate; minor andesite, arenite, tuff, argillite and flows (may include some 11; 16a, isolated areas of hornblende andesite (may be all or partly intrusive)

15 Andesitic arenite, siltstone, grit, breccia and tuff; local granite bearing conglomerate, greywacke; minor argillite and flows (may include some 11)

TRIASSIC OR JURASSIC

Rhaetian or Hettangian

Thuya and Takomkane Batholiths and Similar Granitic Rocks

14 Hornblende-biotite quartz diorite and granodiorite, minor hornblende diorite, monzonite, gabbro, hornblendite; 14a, diorite and syenodiorite; 14b, leuco-quartz monzonite and granodiorite

13 13a, fine- to medium-grained, pink to brown and grey syenite and monzonite; 13b, medium-grained, creamy-buff, locally coarsely porphyritic (k-feldspar) syenite and monzonite

TRIASSIC

Karnian and Norian

Nicola Group

11 Augite andesite flows and breccia, tuff, argillite, greywacke, grey limestone; 11a, includes minor 3 and 10

10 Black shale, argillite, phyllite, siltstone, black limestone

MISSISSIPPIAN AND/OR LATER

Slide Mountain Group

2 Fennell Formation; pillow lava flows, greenstone, foliated greenstone, greenschist, argillite, chert, minor amphibolite, limestone, breccia

WINDERMERE OR CAMBRIAN AND LATER

Kaza or Cariboo Group

1 Feldspathic quartz-mica schist, locally garnetiferous, micaceous quartzite, black siliceous phyllite, quartz-hornblende-mica schist, marble, chlorite, schist, greenstone, amphibolite

This work resulted in the recognition of several anomalous zones of which only one was tested by percussion drilling in 1974. The result of which indicated some anomalous gold in five of eighteen holes. One of these encountered gold values of 0.11 ppm in the final 50 ft. of the hole. In addition, drill-hole #13 was ended after 250 ft. and returned 0.09% Cu in the final 10 ft. The overall drill results were generally poor and the ground was again allowed to lapse without testing any of the other anomalous zones.

In 1976 Cominco Ltd. restaked a portion of their old Kim property and drilled 10 percussion holes in one of the untested IP anomalies west of Howard Lake. This work failed to find any significant mineralization and the ground was allowed to lapse in 1983.

In 1985 the Canim #1 claim consisting of 4 metric units was staked over a portion of the Canim stock, (MI 92P-158). Quartz-filled fractures were found to contain up to 2% copper and 1420 ppb gold in a syenitic portion of the stock. The area was not examined by any of the past operators although prospecting by the author had shown that gold values of +500 ppb are relatively widespread locally within the stock. (Ridley, 1986, A.R. #14924).

The present property was staked after reveiwing the past work programs and examining the ground.

REGIONAL GEOLOGY:

The most recent regional mapping was carried out by Tipper and Campbell and is presented in G.S.C. Memoir 363 (1971). The oldest rocks in the area are upper Triassic Nicola Group augite andesite flows and breccias, tuff, argillite and minor limestone. These rocks are found northwest of Canim Lake where they are intruded by Takomkane batholith, a large intrusive body consisting of hornblende-biotite quartz monzonite and granodiorite with minor hornblende diorite to hornblendite. This intrusive contains the Boss Mountain molybdenum mine, 30 kms. north of Canim Lake. (Soregaroli 1975)

Lower Jurassic andesitic sediments, breccia and tuff with minor argillite and flows, outcrop extensively in the area east of Takomkane Batholith. These rocks are host to numerous mineral occurrences north and southeast of Canim Lake. Much of the ground north of Canim Lake has been held for many years and has been subjected to substantial exploration during the past 20 years.

Cretaceous stocks, related to the Raft and Baldy batholiths, consisting of biotite-quartz monzonite, granodiorite and locally diorite to syenodiorite intrude the lower Jurassic volcanic sediments along the eastern shore of Canim Lake and to the north east. Many of these stocks appear to be related to major fault structures. On the northern part of the property two stocks outcrop along the Howard Lake fault which is also believed to be an important control to the mineralization found in this area. The Howard stock consisting of augite diorite surrounding an intrusive breccia stock-like body and containing low grade disseminated copper mineralization was the focal point of previous work, (Fox 1973).

It is interesting to note that the Boss Mountain molybdenum mine is hosted in a Cretaceous quartz monzonite stock which is emplaced within the Takomkane batholith. In addition a relationship can be seen between Cretaceous intrusives and copper and/or copper-gold prophyry-related deposits and showings over the length of the Quesnel Trough.

Lower Tertiary Skull Hill formation consisting of dacite to rhyolite flows and related breccias are in apparent fault contact with older rocks. This formation covers much of the higher ground in the area and commonly forms cliff faces.

The youngest rocks in the vicinity are Miocene and younger plateau basalts possibly related to the Chilcoton plateau basalts west of the Fraser river. These rocks effectively cover all the terrain southwest of Canim Lake and west from 100 Mile House to the Fraser River. Scattered exposures east and northeast of Canim Lake are responsible for many of the scenic waterfalls in the Well's Gray area.

PROPERTY GEOLOGY:

Exposure on the property is low overall with approximately 85% of the property covered by overburden. Depth to bedrock varies greatly around the property and ranges between nil to a greatest depth of 82 ft. near Potlicker Lake, east of the property (Rebagliati 1974).

The property is underlain by an upper Triassic volcanic sequence of flows, sediments, tuff and coeval intrusive rocks. The volcanics are believed to be correlative to Nicola Group rocks farther south. Sediments and tuff underlie the western half of the property and are faulted against andesitic flows, breccia and intrusive rocks to the east. Complex volcanic breccias of the Kamloops Group unconformably overlie the Triassic assemblage. (Fox, 1973)

Fox (1973) provides a detailed account of the geology on the property although it was not included for credit. A summary is included below and the geology map is represented in the figures as ......

LITHOLOGY: (from Fox, 1973)

Volcanic sediments (unit 1) comprise a conformable sequence of finely banded and laminated tuff, siltstone and greywacke and massive, poorly bedded greywacke and sandstone (unit 1b). Beds strike northeasterly and dip either vertically or steeply east or west. Close to Howard Lake, beds are vertical and strike parallel to the Howard Lake fault. A broad hornfels zone has formed in the sediments west and northwest of Howard Lake adjacent to the Canim Lake stock, a large body of diorite and syenodiorite outcropping along the shore and steep bluffs near Canim Lake. Sediments have been hardened, bleached along fracture planes, fractured and laced with numerous seams and fine stringers of pyrite and occasionally chalcopyrite and bornite. Finely disseminated sulphides and crystal aggregates are also common. Pyrite content decreases to the north and beyond the hornfels zone, the sediments contain only a few widely disseminated grains, lenses and streaks of pyrite parallel to bedding planes.

Basalt and andesite (unit 2) outcrop north and west of Potlicker Lake and south of Howard Lake. These rocks are massive, structureless rocks, generally highly weathered and poorly exposed. Volcanic rocks of this unit appear to be interlayered with breccias of unit 3 and are cut by intrusive rocks of unit 4. They are dark coloured, fine grained, equigranular to slightly prophyritic augite andesite and basalt. Dark, lath-shaped plagioclase predominates associated with black pyroxene altered to chlorite and epidote. Small amounts of disseminated pyrite are common but south of Howard Lake outcrops of basalt contain up to 10% pyrite and are highly altered to epidote and chlorite.

Volcanic breccia (unit 3) and conglomerate form massive, blocky outcrops weathering brown, fresh surfaces are dark grey to black. These rocks outcrop east of Paul Creek and near Potlicker Lake. The breccia consists of subrounded fragments ranging from a few millimeters to 5 cm. enclosed by a dark, fine grained, friable matrix composed of feldspar and mafic minerals. Fragments range considerably in lithology, outcrops near Paul Creek contain rounded volcanic fragments of augite porghyry, porphyritic andesite, reddish fine grained andesite or dacite and amygdular basalt. Outcrops east of Potlicker Lake contain volcanic fragments and rounded grey and pinkish diorite and syenite in a dark basaltic matrix. Many of the diorite and syenite fragments are mineralized with disseminated pyrite and chalcopyrite. Volcanic fragments enclosed by a hard basalt matrix predominate in breccia outcropping west of Potlicker Lake.

Intrusive rocks (unit 4) comprise the Canim Lake, Howard Lake and Paul Point stocks. The Canim Lake body consists of grey, light coloured diorite, which outcrops along the Rocky Point access road and on steep bluffs farther east towards Howard Lake. The stock is composed almost entirely of medium grained, hypidiomorphic-granular diorite locally altered to syneodiorite and possibly monzonite. A dark, hornblende-rich marginal phase occurs along the east edge of the stock where it lies against hornfelsed sediments of the Nicola Group. The diorite phase is grey, composed of blocky hornblende and grey to white tabular plagioclase. Elsewhere, the diorite is altered to pinkish syneodiorite and monzonite composed of about equal amounts of greenish plagioclase, hornblende, and pinkish potassic feldspar that forms coarse poikilitic grains up to 5 mm. in size.

Chalcopyrite, bornite and pyrite occur on joint surfaces in syneodiorite and monzonite exposed on steep bluffs east of the main access road to Howard Lake. Fracture fillings contain quartz along with the sulphide grains and a narrow envelope of pinkish feldspar has developed along the joint surface.

Valley slopes north of Howard Lake are underlain by rocks of the Howard Lake stock. It is finer grained and darker than the Canim Lake stock and is a multiphase body composed of diorite, syenodiorite and locally monzonite and syenite. Rocks are highly fractured, usually pyritic, and weather to brownish gossanous outcrops. The stock is cut by small porphyry dykes, and apparently by intrusive breccia and syenite of units 5 and 6. Rocks range from gray equigranular diorite composed of pyroxene, hornblende, and grey lath-shaped plagioclase to coarser grained varieties consisting of mottled grey and pink syenodiorite and monzonite.

Disseminated pyrite and chalcopyrite are common accessory constituents of the stock but the tenor of this material is very low. Malachite and disseminated sulphide grains occur in highly sheared and altered diorite exposed in road cuts along the main access road leading to Pat Lake.

The Paul Point stock outcrops east of Paul Creek. It is faulted against sediments of unit 1 to the west and appears to be enclosed by volcanic rocks and breccia of units 2 and 3 to the south and east. It is a dark diorite rich in pyroxene, hornblende, magnetite, and dark tabular plagioclase. The stock is much darker than either the Canim Lake body or the Howard Lake stock, and in some outcrops approaches gabbro in composition. Much of the stock is rich in magnetite and exposures on the hilltop northwest of Potlicker Lake contain abundant pyrite.

Syenite and syenite breccia (unit 5) outcrop along several logging roads west of Pat Lake. The syenite is a complex intrusive breccia composed of sub-angular dioritic and syenitic fragments set in a pinkish monzonite or syenite matrix. The breccia is in many places cut by narrow stringers and veinlets of coarse grained syenite. Disseminated pyrite and chalcopyrite occur in both fragments and matrix and occasionally on fractures. This body was known as the "Pat Lake" showings.

Intrusive breccia (unit 6) occurs 500 ft. to the south. This breccia is much darker than the syenite breccia and is typically a gray rock mottled pink and green. It appears to form a stock-like body 2000 x 1400 ft. The breccia is composed of pinkish syenitic and monzonitic subangular to subrounded fragments enclosed by a chlorite-rich dioritic matrix. Stringers of epidote and pinkish feldspar are common. Some of the fragments have pinkish mantles and these tend to merge with the enclosing groundmass.

Pyrite, chalcopyrite, and bornite occur on fractures and disseminated in breccia fragments and enclosing matrix. Epidote, pink feldspar, chlorite and magnetite are associated with the sulphides and form irregular patches and alteration envelopes along the fractures. This body was known as the "Breccia" showings.

A variety of porphyry dykes (unit 7) cut sedimentary and volcanic rocks of unit 1 and intrusive rocks of units 4 and 6. Most of the dykes are light to dark grey feldspar porphyry. Similar dykes containing hornblende phenocrysts cut intrusive breccia of unit 6. Pinkish trachyte or dacite porphyry occurs north of Potlicker Lake.

Most of the dykes are barren except for the hornblende-bearing porphyries south of Pat Lake. These rocks are weakly mineralized with pyrite and chalcopyrite but cut well mineralized breccia. It is suggested that the porphyries here are intramineral dykes.

Breccias of the Kamloops Group (unit 8) cap high hills north and south of Howard Lake. These rocks consist of large rounded fragments enclosed by a brownish friable matrix of lapilli and tuff. The breccia (or agglomerate) rests unconformably on sediments of unit 1 and on the Howard Lake stock.

MINERALIZATION: (from Fox, 1973)

Pat Lake Showing

Fine grained disseminated pyrite and chalcopyrite occur in syenitic rocks exposed along an old logging road west of Pat Lake over an area about 300 by 200 ft. Disseminated sulphides occur in fresh unweathered syenite; fracture fillings of pyrite and chalcopyrite also occur but these are extensively oxidized leaving a coating of limonite and malachite.

Grade of the Pat Lake showings appears to be low-visual estimates indicate 0.1% to 0.2% copper. Assays of two samples of drill chips (about 10 lbs. each) collected by W. Deans range from 0.34% to 0.45% copper. One sample collected for geochemical purposes returned 0.15% copper.

Breccia Showing

Altered diorite outcrop between the Pat Lake showings and those associated with intrusive breccia 500 ft. to the south. Small amounts of disseminated pyrite and chalcopyrite were discovered during initial prospecting in the region and subsequent trenching revealed up to 900 ft. of low grade sulphides in trenches 2 and 3. Pyrite predominates, up to 3% by volume, but chalcopyrite and occasionally bornite can be found over the length of both trenches, and in the west end of trench 5 and nearby outcrops. Copper tenor of this material appears to be 0.1% to 0.2%. Sulphides occur disseminated in breccia fragments and in the enclosing matrix. The host breccia is highly fractured and altered to pink feldspar, epidote, chlorite and magnetite. The overall sulphide zone is 1100 by 1000 ft. Disseminated pyrite and chalcopyrite also occur in highly altered, oxidized, and sheared diorite and syenodiorite exposed in road cuts some 800 ft. west of the breccia zone.

Other Showings

Scattered occurrences of disseminated chalcopyrite and bornite occur in outcrops of pyritic hornfels west of Howard Lake. There are also several small showings in rocks of the Canim Lake stock (Canim Showings) not far from the Rocky Point logging road. These are situated on steep west-facing bluffs visible from the road. The showings consist of pyrite-chalcopyrite-bornite-quartz fracture fillings. Several of these structures occur on the cliff face separated by several feet or more of barren diorite.

WORK PROGRAM:

During the spring of 1990 a preliminary exploration program was instituted on the Sleeping Giant claims, consisting of a compilation of all available literature pertaining to the area. Reconnaissance prospecting and soil sampling coupled with geological mapping of two widely separated grids completed the program. The field work employed two prospectors for 15 days.

Reconnaissance prospecting traverses were carried out in selected portions of the property to determine which rock units were present and to search for additional mineralized and/or altered outcrops. This work resulted in the collection of rock and 5 silt samples. Sample locations are shown on figure , and analysis results are included at the end of this report.

PROSPECTING:

Prospecting traverses were carried out in preparation for detailed grid work. Rock samples were collected from areas of mineralization and/or alteration. In addition, silt samples were obtained from active drainages.

In general, rock sample results were disappointing, however, a few anomalous results were encountered and are believed to be of sufficient significance to warrant further work.

The first area is near the west-central boundary of the Sleeping Giant 3. Here massive stibnite (#41563) float was found near the base of low west-facing cliffs a short distance east of the main Canim Lake South road. The float was angular and due to the soft character of stibnite, it is assumed that the material has not travelled far from source.

Prospecting upslope failed to uncover additional material, although low grade copper mineralization was found in a carbonate-filled volcanic breccia (#41564). Breccia fragments consist of andesite or basalt which is altered to chlorite and supported by a carbonate matrix. Disseminated sulphide grains are found in both the fragments and carbonate matrix and consist of scattered pyrite with minor chalcopyrite. This mineralization outcrops sporadically over about 150 metres along the hillside and is interspersed by augite andesite flows (?) and black argillite lenses several metres thick. The breccia unit is believed to represent a submarine volcanic vent. This area has received only cursory examination and is recommended for further work.

The second area is found about 1.2 kms. southeast on the Sleeping Giant 3. Here subcrop exposures of massive pyrrhotite interspersed with minor pyrite and chalcopyrite and enclosed in a dark green fine-grained volcanic is found in a single road cut (#41562). Several scattered copper anomalies were detected during earlier work in this region (Fox, 1973) further work is contemplated.

The third area occurs in the north-central portion of the Sleeping Giant 4. It is situated a bout 800 metres west of the "Pat Lake" showing and consists of limonitic, fractured, milky-white, quartz float containing minor disseminated pyrite (#41559). While values are low this material is anomalous in gold and arsenic (105 ppb and 136 ppm respectively). The presence of quartz veining in this area may be related to the porphyry system outlined in the Paul Creek-Pat Lake area. Research has shown that porphyry systems in general are often associated with base and precious metal mineralization in quartz veins peripheral to the main porphyry core. It follows then, that this area should be considered a viable target for further work.

SILT SAMPLING:

Three drainages were sampled during prospecting traverses and include i) Paul Creek, in the northeast ii) Neff Creek, in the west-central area and iii) an un-named creek a short distance southwest of the southwest boundary. No significant anomalies were detected although the latter mentioned drainage was found to contain elevated concentrations of copper, arsenic, iron and strontium (90-DS-1).

Stockwork-style quartz ± carbonate veinlets containing minor disseminated pyrite and occasional chalcopyrite was located in the creek but not sampled. Further work is warranted in this area.

SOIL GEOCHEMISTRY:

Two widely separated grids were established on the property; i) the North grid, located in the Paul Creek valley north of Howard Lake and ii) the Canim grid situated west of Howard Lake and overlooking Canim Lake. Both grids have baselines oriented north-south with lines every 100 metres running east-west. Samples were collected at 50 metre intervals along the lines.

Samples were collected from "B" horizon material and soil development was good overall. Areas of thick overburden may not accurately represent underlying bedrock conditions because the overburden-bedrock interface is generally fresh and unweathered. This may unduly inhibit the detection of mineralized zones in areas where overburden depth exceeds 4 metres (Fox, 1973).

A total of 166 soil samples were collected and subsequently shipped to Acme Analytical Labs, Vancouver, B.C. where they were subjected to 30-element ICP and geochem gold analysis.

NORTH GRID

This grid consists of 4.6 line kilometers situated on the southwest shore of a pond north of Howard Lake on the main access road to Pat Lake. This area was not soil sampled during previous work even though mineralized outcrops and an IP anomaly were found.

The Howard Lake fault cuts through the grid roughly following the upper logging road. West of the fault the rocks are volcanic sediments of unit 1 and are quite pyritic with 3-5% pyrite being the norm. Kamloops Group breccias of unit 8 are found on the higher hills west and north of the grid and along the baseline from L45N.

East of the Howard Lake fault outcrops of highly fractured, and locally, highly altered augite diorite of unit 4 predominates. This unit does not form large outcrops probably due to its shattered nature. Pyrite, magnetite and minor chalcopyrite is common particularily at BL45E;L40N where the diorite is highly altered with pink potash feldspar selvages along fractures and over-printed by pervasive chlorite-epidote alteration. Sulphide grains appear on fracture planes and as disseminations. A sample collected during earlier work in the area returned values of 1628 ppm copper and 142 ppb gold (Ridley, 1987). This outcrop produced the highest copper soil value on the grid.

A copper anomaly in the +100 ppm range is found in the southeast corner of the grid and is open to the south and east. This anomaly corresponds, in part, to the mineralized outcrop and to a linear magnetic anomaly striking southeasterly towards Howard Lake which was detected during earlier work.

Several spot anomalies of +100 ppm copper are scattered around the grid although no significance can be attached to them at this time. A low order copper anomaly (70-100 ppm) occurs from L39N:39E to L42N:41+50E in the volcanic sediments of unit 1.

Gold values on this grid were very low with a single spot anomaly over 25 ppb (L40N:40+50E). A linear zinc anomaly of +180 ppm occurs between L42N:41E and L45N:42E in the northwest portion of the grid. This area is underlain by pyritic volcanic sediments. Strontium reaches a high of 957 ppm in the vicinity of highly altered mineralized augite diorite at L40N:45+10E. Cadmium correlates with zinc a anomalies.

Canim Grid:

This grid consists of 3.6 line-kilometers and is situated above the steep bluffs overlooking Canim Lake where quartz-pyrite-chalcopyrite-bornite fracture fillings in syenodiorite of the Canim stock are located. These fractures were found to contain copper values of 0.6% to 2.9% and gold values of +500 ppb over narrow widths (Ridley, 1986).

The Canim grid is underlain mainly by diorite and syenodiorite of the Canim Lake stock except for in the southeast portion which appears to be underlain by pyritic tuffs of unit 1. Exposures in this area are poor and the contact is not exposed.

In the area of the grid, the Canim Lake stock xonsists of syneodiorite interspersed with local zones of biotite diorite and coarsely porphyritic syenite. Minor hornblendite breccia with a syenitic matrix is found in the south on L17N.

Epidote-chlorite alteration occurs locally within the main body and sporadically in the biotite diorite.

Two hornblende porphyry basaltic dykes cut the intrusive and appear to be spatially related to the Canim showings. They are not mineralized however. Known mineralization occurs along the steep cliffs on the west side of the grid with samples as high as 2% copper and 1420 ppb gold (Ridley, 1986) and roughly correspond to the present soil results.

Copper results were low overall with a highest value of 164 ppm (L23N:13E). A linear anomaly of +80 ppm copper occurs from L23N:11E to L21N:11E and from L19N:9+50E to L18N:9+50E. The latter anomaly corresponds with anomalous gold values.

Gold reaches a high of 520 ppb and forms a linear anomaly along the top of the steep cliffs at the west end of the grid. The anomaly is open to the south and west.

Zinc anomalies of +100 ppm tend to flank the copper anomalies. The largest of these can be traced along the baseline from L22N to L18N where it swings southeastward leaving the grid at L17N:11E. Cadmium anomalies are not neccessarily co-incident with zinc anomalies. The cause of this is not know at the present time.

Silver anomalies are virtually non-existant and apparently are not related to gold anomalies.

CONCLUSIONS:

Based on a compilation of past data it can be concluded that;

i) A syenitic porphyry copper environment exists on ground covered by the present property.

ii) Several untested anomalous zones supported by a combination of mineralized outcrops, soil giochemistry, ground magnetometer and IP surveys, are scattered about the property.

Based on the present work program it can be concluded that;

i) New showings can be found by detailed prospecting, as at the vent, pyrrhotite and quartz vein occurrences.

ii) A high-order copper anomaly occurs in the southeastern portion of the North grid.

iii) A high-order gold anomaly exists in the southwestern portion of the Canim grid.

RECOMMENDATIONS:

The Sleeping Giant property contains an excellent geological environment for the occurrence of copper and/or copper-gold porphyry-related mineralization. It also possesses a certain potential for base and/or precious metal-bearing quartz veins peripheral to the weakly mineralized porphyry system north of Howard Lake. This target was never fully assessed by past operators.

It is recommended that further work be carried out on the property in the form of;

i) Detailed prospecting of the "volcanic vent", pyrrhotite, and quartz vein occurrences. Follow-up work in the form of detailed geological mapping, soil sampling, and ground geophysics would depend on results received during the initial stages.

ii) The North grid should be extended south towards Howard Lake and east across the Paul Creek Valley. Soil sampling, prospecting, geological mapping, and ground magnetometer surveys would then be carried out to assess an area which was untested during Fox's work.

iii) The Canim grid should be extended south to the property boundary and west where possible. In addition, two or three lines may be established to the north to determine whether weak copper and zinc anomalies continue in this direction. On the expanded grid rock and soil sampling, geological mapping and prospecting would be carried out. Geophysical surveys may be carried out depending on preliminary results.

iv) Detailed prospecting and geological mapping of the area south of Howard Lake known as Zone II in Fox's report (1973). This area has a magnetic signature in many way similar to that over the Howard Lake stock, and IP anomaly and soil anomalies obtained from a depth of 3 ft. (Fox, 1973). Very little is known of bedrock conditions in this area as it is covered by a generally thick layer of glacial overburden. This zone has never been drill-tested.

v) Prospecting in the creek south of the property to determine the nature of lowly anomalous silt samples taken from this drainage.

vi) Prospecting traverses in the Neff Creek area to examine and sample showings indicated during earlier work (Fox, 1973).

ROCK SAMPLE DESCRIPTIONS:

41559: quartz sub-crop with limonite stain and minor pyrite, wallrock is well-bedded ash tuff. Sleeping Giant #4.

41560: grab from outcrop across 2.5 metres; light gray rusty-weathering amygdaloidal basalt flow; no visible sulphides, from Howard Lake fault zone; Sleeping Giant #1.

41561: grab across 2 meters of outcrop; pyritic tuff (up to 15%) minor pyrrhotite, Sleeping Giant #1.

41562: massive pyrrhotite cobble-size float; minor chalcopyrite; in dark green fine grained basalt; Sleeping Giant #4.

41563: float; heavy gray metallic mineral with long slender crystals (stibnite) in quartz.

41564: talus float; limestone-vemented green volcanic breccia; carbonate-chlorite alteration; calcite stringers carry trace pyrite-chalcopyrite and malachite stain; probable source located up slope was found but not sampled.

41565: grab across 1.5 metres of subcrop; chlorite altered andesite (highly fractured) with up to 15% pyrite, Sleeping Giant #4.

41566: grab across 1.5 metres, west end of Trench 5; K-spar-epidote-chlorite altered 'intrusive breccia' carrying up to 3% pyrite, Sleeping Giant #4

41567: grab across 2 meters of Trench 3; epidote-chlorite altered intrusive breccia with 3-5% pyrite as disseminations and fracture fillings; minor magnetite, Sleeping Giant #4.

41568: grab along 2 metres of Trench 3, (25 metres north of 41567); similar to 41567 although up to 10% pyrite along fracture planes and dissem anated. Sleeping Giant #4.

41569: grab along 1.5 metres of Trench 2 (center portion); augite diorite with 3-5% dissemanted pyrite; very little alteration, S.G. #4.

FINANCIAL STATEMENT

for

Sleeping Giant 1989 - 1990 Work Program

WAGES:	D. Ridley, prospector, 15 days @ $175/day		$2625.00
	C. Ridley, prospector, 15 days @ $150/day		$2250.00
TRAVEL:	i) Truck rental: 15 days @ $40/day		$ 600.00
	ii) Fuel:		$ 135.00
SAMPLE ANALYSIS:	i) Soils; 168 @ $ 8.60 ea.	$1444.80	
	ii) Silts; 5 @ $ 8.60 ea.	$ 43.00	
	iii) Rocks; 11 @ $10.75 ea.	$ 118.25	
TOTAL ANALYSIS COSTS:	....		$1606.05
FIELD SUPPLIES:	(sample bags, flagging, topofil, etc.) ...		$ 125.00
REPORT PREPARATION:			
	i) Drafting; 7 days @ $125/day	$ 875.00	
	ii) Photocopying;	$ 63.00	
	iii) Typing; 20 hours @ $ 10/hr.	$ 200.00	
TOTAL REPORT PREPARATION COSTS:	....		$1138.00
TOTAL OF ALL COSTS:	....		$8479.05

November 14, 1990

D.W. Ridley

STATEMENT of QUALIFICATIONS:

I, David Wayne Ridley of Eagle Creek, B.C. state;

1) All statements pertaining to this report are true and correct as I know them.

2) I have prospected independently for ten years. (1980 - 1990)

3) I have been enployed in the exploration industry for seven years as a prospector. (1983 - 1990)

4) I graduated from the Mineral Exploration Course for Prospectors held by Ministry staff at Mesachie Lake, B.C., 1984.

5) I attended "Petrology for Prospectors" short course held by the Snithers Exploration Group in Smithers during March, 1990.

November 14, 1990

D.W. Ridley

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GEOCHEMICAL ANALYSIS CERTIFICATE

Lodestone Exploration Co. Ltd. PROJECT SLEEPING GIANT File # 90-2129 Page 1

General Delivery, Eagle Creek BC V0K 1L0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
C L23N 9+00E	1	37	7	71	.1	29	13	332	3.51	6	5	ND	4	48	.8	2	2	63	.72	.048	14	43	.65	116	.18	6	2.22	.03	.26	2	1
C L23N 9+50E	1	88	12	72	.1	44	18	618	4.23	17	5	ND	5	67	.8	2	2	83	1.00	.086	17	49	1.22	127	.18	4	2.28	.06	.28	1	1
C L23N 10+00E	1	16	9	76	.1	23	9	212	2.67	8	5	ND	3	35	.6	2	2	52	.45	.048	8	32	.52	107	.17	6	1.99	.04	.15	1	3
C L23N 10+50E	1	55	13	60	.1	32	14	291	3.90	11	5	ND	4	48	.4	2	3	76	.64	.039	19	47	.77	121	.19	8	2.41	.04	.28	1	3
C L23N 11+00E	1	81	13	66	.1	39	15	339	4.38	7	5	ND	5	53	1.1	2	2	81	.70	.044	23	54	.86	126	.19	5	2.66	.03	.30	1	7
C L23N 11+50E	1	78	12	70	.1	47	16	342	4.87	14	5	ND	6	51	1.2	2	2	89	.71	.046	22	59	.89	141	.20	4	3.12	.03	.38	1	4
C L23N 12+00E	1	21	12	87	.1	29	9	381	2.89	2	5	ND	2	34	.5	2	2	49	.52	.038	9	32	.44	149	.15	11	2.13	.03	.18	1	1
C L23N 12+50E	1	28	3	59	.1	28	12	213	3.31	6	5	ND	4	40	.5	2	2	65	.62	.028	11	42	.62	99	.18	11	2.05	.03	.24	1	1
C L23N 13+00E	1	164	11	144	.2	42	13	753	3.62	8	5	ND	3	34	.8	2	2	55	.81	.016	15	39	.51	100	.18	16	3.24	.03	.13	1	6
C L23N 13+50E	1	6	6	70	.1	14	5	461	1.57	3	5	ND	1	25	.4	2	5	32	.30	.067	5	18	.24	121	.11	5	1.19	.02	.10	1	1
C L23N 14+00E	1	20	2	84	.1	29	8	212	2.73	4	5	ND	2	38	.6	2	2	55	.55	.074	8	32	.52	122	.15	4	2.06	.03	.14	1	2
C L22N 9+00E	1	9	9	129	.1	7	4	579	1.22	2	5	ND	1	65	.4	2	2	31	.57	.091	3	6	.15	194	.07	8	.67	.02	.08	1	8
C L22N 9+50E	1	36	2	48	.1	33	13	204	3.36	3	5	ND	4	47	.3	2	2	71	.52	.036	15	51	.69	98	.17	2	1.91	.02	.20	1	8
C L22N 10+00E	1	54	12	40	.1	27	10	225	3.55	2	5	ND	3	70	.3	2	2	73	.65	.040	13	35	.59	92	.15	5	1.94	.03	.22	1	9
C L22N 10+55E	1	109	8	53	.1	30	13	470	3.46	6	5	ND	3	69	.5	2	4	80	1.27	.062	15	38	.77	94	.16	13	1.74	.05	.16	1	5
C L22N 11+00E	1	68	14	52	.1	22	10	447	3.32	9	5	ND	4	57	.2	2	2	71	.66	.077	9	28	.51	102	.13	9	2.05	.02	.17	1	7
C L22N 11+50E	1	12	6	90	.1	14	7	299	1.54	2	5	ND	1	23	.3	3	2	33	.26	.066	3	12	.16	95	.09	6	1.21	.02	.07	1	2
C L22N 12+00E	1	14	5	79	.1	15	6	229	1.79	2	5	ND	1	32	.4	3	2	39	.38	.048	4	16	.24	101	.11	6	1.55	.03	.11	1	3
C L22N 12+50E	1	22	9	79	.1	17	7	253	2.35	7	5	ND	2	45	.5	2	4	48	.46	.035	6	19	.37	110	.13	5	1.90	.02	.11	1	1
C L22N 13+00E	1	27	7	87	.1	25	11	434	2.58	5	5	ND	3	45	.2	2	5	55	.54	.068	8	30	.50	136	.15	7	1.88	.03	.15	1	1
C L22N 13+50E	1	12	2	80	.1	19	7	393	2.02	2	5	ND	1	36	.6	2	2	42	.44	.049	5	22	.34	125	.13	2	1.64	.03	.10	1	1
C L22N 14+00E	1	24	6	123	.1	30	11	321	2.70	14	5	ND	2	32	.4	2	2	45	.37	.223	6	28	.47	145	.14	3	2.53	.02	.14	1	1
C L21N 9+22E	1	125	5	83	.1	17	10	394	4.02	2	5	ND	3	81	.2	2	2	78	.90	.038	11	25	.51	214	.15	3	3.46	.03	.08	1	21
C L21N 9+50E	1	5	6	174	.1	7	4	300	1.30	2	5	ND	1	31	.2	2	2	30	.33	.065	3	7	.13	148	.08	7	.97	.03	.06	1	6
C L21N 10+00E	1	11	3	110	.1	17	6	325	1.61	5	5	ND	1	30	.2	2	2	33	.25	.125	4	15	.18	143	.10	5	1.32	.02	.11	1	6
C L21N 10+64E	1	83	11	60	.1	30	14	480	3.49	10	5	ND	4	75	.8	3	2	73	1.10	.074	15	38	.86	115	.15	5	1.86	.05	.19	1	6
C L21N 11+06E	1	74	11	53	.1	30	13	370	3.84	9	5	ND	5	72	.6	2	2	84	.91	.091	16	39	.85	88	.16	7	2.01	.05	.15	1	17
C L21N 11+50E	1	20	2	131	.1	27	10	839	2.49	2	5	ND	1	31	.3	2	2	44	.43	.067	6	22	.35	156	.14	10	2.58	.03	.13	1	2
C L21N 12+00E	1	37	17	59	.1	20	9	302	3.11	2	5	ND	3	52	.3	2	2	73	.60	.037	9	29	.51	84	.17	12	1.85	.03	.19	1	25
C L21N 12+50E	1	22	2	55	.1	21	9	577	2.62	2	5	ND	2	47	.2	2	2	57	.52	.030	7	34	.46	127	.16	4	1.67	.03	.12	1	3
C L21N 13+00E	1	12	6	107	.2	19	7	1027	1.91	4	5	ND	1	43	.2	2	2	40	.51	.065	5	18	.29	172	.11	3	1.43	.02	.09	1	1
C L21N 13+50E	1	12	5	77	.1	16	7	347	1.97	5	5	ND	1	37	.3	2	3	42	.44	.062	5	19	.34	93	.12	4	1.60	.02	.11	1	1
C L21N 14+00E	1	24	11	74	.1	11	7	306	2.15	2	5	ND	2	37	.3	2	2	53	.44	.097	4	14	.23	76	.11	3	1.31	.02	.06	1	3
C L20N 8+82E	1	63	7	52	.1	18	10	374	3.99	2	5	ND	4	115	.8	2	3	93	.80	.044	12	27	.56	115	.13	7	2.66	.02	.13	2	46
C L20N 9+00E	1	40	5	41	.1	13	8	580	2.80	5	5	ND	2	48	.3	2	2	54	.48	.019	7	20	.32	118	.13	13	1.98	.02	.17	1	56
C L20N 9+50E	1	42	18	93	.1	15	9	631	3.23	2	5	ND	3	61	1.3	2	2	57	.62	.049	9	20	.29	152	.14	19	2.50	.02	.19	1	45
STANDARD C/AU-S	18	63	42	132	7.2	69	30	1030	4.09	41	19	7	37	49	18.7	14	19	59	.52	.092	37	60	.92	181	.08	35	1.94	.06	.14	11	48

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-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-P5 Soil P6 Silt P7 Rock AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 29 1990 DATE REPORT MAILED: July 6/90 SIGNED BY. C. Leong ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
C L20N 10+00E	1	9	5	125	.2	5	3	515	1.04	2	5	ND	2	33	.2	2	2	25	.31	.099	3	7	.09	182	.06	7	.64	.02	.05	1	28
C L20N 10+50E	1	36	6	76	.2	22	9	352	3.23	12	5	ND	3	62	.2	2	2	73	.63	.104	8	25	.52	128	.13	5	2.02	.02	.14	1	11
C L20N 11+00E	1	60	7	54	.2	24	11	493	3.20	9	5	ND	4	61	.2	2	2	75	.80	.105	11	31	.67	119	.14	3	1.80	.05	.15	1	19
C L20N 11+50E	1	19	8	63	.2	16	6	218	2.12	10	8	ND	3	36	.2	2	2	48	.41	.131	6	15	.29	89	.10	4	1.71	.03	.09	1	9
C L20N 12+00E	1	24	9	85	.1	13	6	206	2.44	4	5	ND	3	29	.2	2	2	49	.43	.092	4	15	.31	79	.11	4	2.01	.02	.09	1	26
C L20N 12+50E	1	15	6	81	.2	18	7	340	2.09	2	5	ND	2	36	.2	2	2	40	.39	.088	5	15	.31	134	.12	3	1.69	.02	.11	1	8
C L20N 13+00E	1	6	7	36	.1	8	4	346	1.36	2	5	ND	1	27	.2	2	2	30	.33	.098	3	9	.16	93	.08	3	.92	.02	.06	1	4
C L20N 13+50E	1	7	10	62	.3	11	5	185	1.62	3	5	ND	2	28	.2	2	2	36	.35	.110	4	9	.17	74	.09	2	1.24	.02	.07	1	5
C L20N 14+00E	1	72	11	120	.1	44	15	217	4.16	23	5	ND	3	47	.2	3	2	80	.46	.106	7	28	.65	138	.15	3	3.35	.02	.10	1	7
C L19N 9+50E	1	93	10	89	.1	17	10	1103	4.23	2	5	ND	7	64	.2	2	2	87	.71	.042	12	23	.40	196	.14	9	2.82	.02	.24	1	240
C L19N 10+00E	1	22	6	103	.2	13	6	337	2.71	2	5	ND	4	58	.2	2	2	61	.45	.072	7	19	.37	145	.14	7	1.75	.03	.09	1	31
C L19N 10+50E	1	20	8	60	.2	13	7	274	2.95	4	7	ND	4	54	.2	2	2	69	.45	.044	7	18	.44	101	.15	9	1.98	.02	.10	1	16
C L19N 11+00E	1	2	6	49	.3	5	3	209	1.14	2	6	ND	1	22	.2	2	2	28	.26	.142	3	6	.09	73	.08	5	.72	.02	.04	2	7
C L19N 11+50E	1	31	8	84	.3	25	8	277	3.53	8	6	ND	4	36	.2	2	2	92	.46	.129	7	25	.48	137	.12	4	2.28	.02	.12	1	11
C L19N 12+00E	1	48	9	70	.2	25	10	259	4.70	9	5	ND	6	52	.2	2	2	123	.66	.200	11	25	.62	113	.12	5	2.31	.02	.14	1	19
C L19N 12+50E	1	19	8	85	.2	15	6	206	2.17	8	5	ND	2	27	.2	2	2	48	.33	.119	4	15	.30	74	.11	4	1.81	.02	.07	1	9
C L19N 13+00E	1	12	8	59	.1	11	5	247	1.88	2	5	ND	2	26	.2	2	2	45	.28	.080	4	8	.22	63	.10	2	1.40	.02	.05	1	10
C L18N 9+50E	1	98	12	58	.2	19	10	410	3.87	2	5	ND	4	51	.2	2	2	104	.52	.030	11	26	.47	106	.15	3	2.15	.02	.16	1	520
C L18N 10+00E	1	12	8	165	.3	13	5	697	1.54	2	5	ND	2	53	.2	2	2	31	.66	.132	4	12	.19	215	.09	9	1.46	.02	.11	1	17
C L18N 10+50E	1	18	11	103	.1	24	8	259	2.85	6	6	ND	4	34	.2	2	2	60	.44	.068	8	28	.48	149	.16	4	2.36	.03	.10	1	27
C L18N 11+00E	1	75	5	62	.2	22	11	466	3.73	9	5	ND	5	60	.2	2	2	96	.68	.086	12	35	.67	102	.17	6	2.18	.03	.15	1	29
C L18N 11+50E	1	26	7	80	.3	14	6	298	2.10	2	5	ND	3	24	.2	2	2	46	.28	.127	6	14	.27	88	.11	5	1.68	.03	.10	1	11
C L18N 12+00E	1	19	8	78	.3	11	4	232	1.53	5	5	ND	1	18	.2	2	2	34	.28	.078	4	11	.17	55	.09	5	1.29	.02	.08	2	9
C L18N 12+50E	1	10	7	47	.2	5	4	316	1.51	2	5	ND	3	23	.2	2	2	38	.24	.091	3	6	.15	68	.09	4	.96	.02	.04	1	21
C L18N 13+00E	1	13	9	80	.6	13	6	297	1.55	2	5	ND	2	34	.2	2	2	31	.39	.143	4	11	.23	103	.10	3	1.47	.02	.08	1	4
C L17N 9+50E	1	25	7	69	.1	12	6	184	2.80	2	5	ND	4	36	.2	2	2	67	.41	.032	6	18	.31	104	.14	6	1.66	.02	.13	1	144
C L17N 10+00E	1	25	8	92	.1	17	6	251	2.51	2	5	ND	2	29	.2	2	2	60	.41	.047	5	20	.35	123	.12	6	1.66	.02	.08	2	16
C L17N 10+50E	1	29	8	90	.1	19	8	456	2.54	4	5	ND	2	45	.2	2	2	57	.57	.098	6	19	.44	131	.12	6	1.76	.02	.08	1	13
C L17N 11+00E	1	28	9	146	.2	47	11	513	2.27	2	5	ND	3	46	.2	2	2	48	.76	.129	6	47	.73	161	.15	10	2.16	.02	.11	1	7
C L17N 11+50E	1	60	8	96	.1	16	7	384	2.98	2	5	ND	7	43	.2	2	2	69	.54	.085	7	13	.39	140	.13	9	2.11	.02	.10	1	27
C L17N 12+00E	1	5	7	45	.1	6	3	366	1.03	5	5	ND	1	21	.2	2	2	22	.27	.204	2	5	.11	105	.08	2	.93	.02	.04	1	2
C L17N 12+50E	1	19	2	22	.1	5	3	108	.78	2	5	ND	1	9	.2	2	2	16	.13	.022	2	5	.15	29	.05	2	.64	.01	.02	1	16
C L17N 13+00E	1	8	2	48	.1	15	6	305	1.36	14	5	ND	1	20	.2	4	2	24	.32	.049	2	15	.27	66	.08	4	1.09	.01	.05	1	9
C BL10E 22+50N	1	12	2	33	.1	12	4	167	1.45	6	5	ND	1	22	.2	3	2	28	.25	.032	5	15	.26	50	.06	4	.86	.01	.09	1	9
C BL10E 21+50N	1	29	6	25	.1	18	6	133	2.12	9	5	ND	2	30	.2	2	2	41	.37	.025	13	23	.40	55	.09	2	1.28	.02	.13	1	2
C BL10E 20+50N	1	15	10	176	.1	12	4	450	1.56	2	5	ND	2	50	.2	2	2	33	.50	.154	6	10	.17	185	.08	3	1.32	.03	.09	1	5
STANDARD C/AU-S	17	58	36	132	7.6	67	27	1015	3.94	40	22	7	38	47	18.7	15	19	60	.50	.093	39	57	.92	179	.07	32	1.94	.06	.14	14	55

8.6 3.4
2.6
1.6
4
.6

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
C BL10E 19+50N	1	17	9	104	.1	6	4	203	1.37	2	5	ND	1	25	.2	2	2	28	.26	.084	3	7	.14	64	.07	6	.94	.02	.04	1	4
C BL10E 18+50N	1	5	3	130	.1	5	3	374	1.26	2	5	ND	1	32	.7	2	2	25	.32	.146	3	7	.11	177	.07	7	.95	.02	.04	1	1
C BL10E 17+50N	1	7	5	71	.1	8	3	226	1.11	4	5	ND	1	24	.4	2	2	25	.29	.082	2	8	.12	126	.07	4	.70	.02	.04	2	1
N L45N 41+00E	1	23	8	136	.1	15	10	321	3.81	2	5	ND	4	59	.8	2	2	49	.49	.145	10	30	.49	335	.17	6	3.60	.03	.18	1	2
N L45N 41+50E	1	24	13	109	.2	13	11	498	2.94	4	5	ND	4	59	.6	3	2	44	.51	.090	12	24	.40	280	.12	5	2.54	.03	.21	1	4
N L45N 42+00E	1	27	16	206	.1	23	9	1234	3.28	2	5	ND	1	48	1.4	2	2	40	.60	.212	9	26	.31	404	.14	9	2.66	.02	.18	1	1
N L45N 42+50E	1	31	10	104	.1	28	12	393	5.16	9	5	ND	5	66	1.0	3	2	78	.71	.077	20	39	.54	247	.19	4	2.80	.02	.29	1	6
N L45N 43+00E	1	23	11	71	.1	17	10	206	3.62	4	5	ND	5	49	1.1	2	2	60	.48	.044	15	34	.46	244	.18	6	2.11	.03	.17	1	2
N L45N 43+50E	1	17	6	68	.1	17	7	419	2.43	2	5	ND	2	34	.5	2	2	43	.49	.024	8	30	.38	122	.13	5	1.56	.02	.16	1	1
N L45N 44+00E	1	11	5	77	.1	12	5	216	2.25	4	5	ND	2	25	.2	2	2	38	.27	.038	6	23	.31	137	.12	4	1.47	.02	.16	1	6
N L45N 44+50E	1	5	3	96	.1	10	4	396	1.60	2	5	ND	1	23	.2	2	2	25	.22	.150	3	10	.16	235	.09	2	1.33	.02	.08	1	2
N L44N 40+00E	1	15	4	96	.1	13	7	388	2.71	2	5	ND	2	56	.6	2	2	41	.44	.050	7	26	.29	315	.16	4	2.36	.02	.15	1	4
N L44N 40+50E	1	12	9	110	.1	11	6	630	2.47	2	5	ND	3	46	.2	2	2	38	.34	.056	8	24	.25	338	.16	3	2.15	.03	.13	1	1
N L44N 41+00E	1	32	16	308	.1	22	19	2590	3.86	7	5	ND	1	57	.7	2	2	44	.74	.247	6	20	.27	490	.09	7	3.64	.01	.13	1	1
N L44N 41+50E	1	28	19	181	.1	55	14	843	5.13	8	5	ND	3	68	.9	2	2	51	1.09	.146	13	56	1.02	251	.24	11	4.08	.02	.38	1	3
N L44N 42+00E	1	80	6	98	.2	39	16	556	5.79	4	5	ND	5	39	.9	2	2	87	.79	.062	19	46	1.02	152	.19	4	2.89	.03	.28	1	9
N L44N 42+50E	1	13	7	81	.1	15	6	386	2.40	4	5	ND	1	22	.2	2	2	38	.32	.058	6	18	.30	106	.12	8	1.57	.02	.17	1	3
N L44N 43+00E	1	28	5	77	.1	21	10	341	3.69	4	5	ND	3	33	.7	2	2	59	.66	.085	10	33	.57	159	.16	8	2.16	.02	.19	1	2
N L44N 43+50E	1	56	5	87	.1	13	8	409	2.79	2	5	ND	1	23	.2	2	2	52	.37	.094	5	16	.63	93	.11	5	1.89	.02	.06	1	1
N L44N 44+00E	1	19	9	102	.1	10	6	484	2.18	3	5	ND	1	18	.2	2	2	40	.21	.131	3	15	.30	129	.09	3	1.57	.02	.06	1	1
N L44N 44+50E	1	5	2	76	.1	8	4	472	1.11	2	5	ND	1	18	.2	2	2	23	.30	.138	2	9	.15	108	.06	4	.80	.02	.05	1	3
N L43N 39+00E	1	28	12	188	.1	16	6	352	2.87	2	5	ND	3	41	.2	2	2	38	.45	.062	9	28	.43	329	.15	6	2.68	.02	.23	1	2
N L43N 39+50E	1	106	11	93	.3	30	19	755	5.54	3	5	ND	7	68	1.2	2	2	87	1.04	.067	19	45	.81	317	.23	6	3.59	.03	.12	1	1
N L43N 40+00E	1	15	14	147	.1	12	7	449	2.99	2	5	ND	2	32	.2	2	2	35	.38	.097	4	21	.27	309	.15	4	2.68	.02	.19	2	2
N L43N 40+50E	1	28	12	125	.1	28	15	630	4.66	3	5	ND	7	81	.4	2	2	70	.73	.162	26	39	.43	438	.25	6	3.36	.03	.22	1	1
N L43N 41+00E	1	31	14	181	.2	24	12	1322	4.22	3	5	ND	2	39	.2	2	6	61	.52	.187	9	29	.33	215	.14	8	3.64	.01	.15	2	1
N L43N 41+50E	1	58	20	111	.3	28	13	522	5.00	18	5	ND	5	35	.2	2	2	64	.77	.058	14	39	.68	139	.18	9	3.03	.02	.21	1	1
N L43N 42+00E	1	13	13	218	.1	20	9	1051	3.55	6	5	ND	1	41	.3	2	2	38	.66	.055	6	22	.26	233	.13	14	2.40	.02	.26	1	2
N L43N 42+50E	1	44	4	90	.3	22	10	374	3.11	5	5	ND	3	27	.2	3	2	51	.50	.037	16	33	.46	95	.13	10	2.25	.02	.17	1	1
N L43N 43+00E	1	10	7	118	.1	15	6	539	1.88	2	5	ND	1	19	.2	2	2	36	.24	.102	4	19	.31	111	.10	2	1.50	.01	.06	1	2
N L43N 43+50E	1	38	9	182	.1	13	11	733	3.18	18	5	ND	1	58	.2	2	2	56	.63	.218	3	26	.30	144	.09	3	1.66	.02	.06	1	1
N L43N 44+00E	1	31	9	112	.1	29	8	512	3.28	4	5	ND	1	28	.2	3	2	65	.48	.029	4	47	.58	67	.14	7	2.14	.02	.10	1	1
N L43N 44+50E	1	33	2	144	.1	27	10	611	3.22	8	5	ND	2	41	.2	2	2	65	.54	.073	6	38	.66	106	.14	4	2.10	.02	.14	1	4
N L42N 39+00E	1	19	9	149	.1	13	9	521	2.87	2	5	ND	2	51	.2	2	2	42	.48	.099	7	29	.34	356	.17	6	2.52	.02	.21	1	3
N L42N 39+50E	1	15	11	173	.1	17	7	552	2.91	2	5	ND	2	36	.2	2	2	31	.41	.111	6	18	.25	356	.16	8	2.57	.02	.26	1	1
STANDARD C/AU-S	17	60	43	132	7.2	67	28	1029	4.05	42	20	7	37	47	18.0	16	20	55	.52	.097	37	57	.92	178	.07	36	1.96	.06	.14	11	46

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
N L42N 40+00E	1	16	5	127	.1	13	5	505	2.51	2	5	ND	4	54	.2	2	2	36	.46	.036	12	21	.26	297	.14	4	2.04	.03	.24	1	4
N L42N 40+50E	1	37	13	147	.1	31	11	465	5.56	2	5	ND	7	63	.2	2	2	71	.86	.078	25	39	.55	262	.25	7	3.65	.03	.50	2	1
N L42N 41+00E	1	34	12	276	.1	35	19	954	5.41	10	5	ND	3	36	.5	2	2	66	1.00	.199	7	17	.43	149	.12	8	3.14	.02	.11	1	2
N L42N 41+50E	1	95	11	108	.2	34	15	646	4.99	7	5	ND	6	57	.3	2	2	89	1.13	.067	17	41	.96	114	.18	8	2.67	.03	.21	1	3
N L42N 42+00E	1	27	8	171	.3	20	8	353	2.94	2	5	ND	4	28	.2	2	2	54	.45	.163	9	34	.36	186	.15	5	2.01	.02	.17	1	1
N L42N 42+50E	1	35	9	143	.2	25	10	585	3.44	3	5	ND	4	27	.2	2	2	61	.72	.040	9	31	.54	141	.16	15	2.87	.02	.21	1	5
N L42N 43+00E	1	24	3	129	.1	16	7	473	2.18	6	5	ND	2	27	.2	2	2	50	.31	.060	5	20	.36	115	.12	2	1.68	.02	.09	1	1
N L42N 43+50E	1	41	6	141	.1	25	12	483	3.81	12	5	ND	4	38	.2	2	2	93	.54	.060	7	39	.74	83	.18	2	2.26	.02	.17	1	1
N L42N 44+00E	1	28	7	81	.2	24	8	399	2.83	7	5	ND	3	36	.2	2	2	64	.49	.043	6	41	.57	78	.17	2	1.99	.02	.20	1	3
N L42N 44+50E	1	71	6	92	.1	34	15	318	4.29	6	5	ND	5	65	.2	2	3	103	.64	.066	10	54	1.05	91	.20	2	2.54	.02	.18	1	6
N L41N 39+00E	1	65	11	124	.4	23	10	654	3.99	2	5	ND	6	54	.2	2	2	62	1.02	.065	21	32	.50	161	.21	5	3.22	.04	.20	1	3
N L41N 39+50E	1	68	10	86	.2	49	17	547	6.75	2	5	ND	7	62	.2	2	2	104	.96	.082	33	49	1.04	246	.23	2	3.47	.03	.37	1	6
N L41N 40+00E	1	33	7	126	.1	25	11	627	3.59	2	5	ND	4	46	.2	2	2	62	.70	.077	14	34	.55	181	.16	4	2.15	.03	.34	1	1
N L41N 40+50E	1	70	5	117	.2	32	11	388	3.95	7	5	ND	4	54	.2	2	2	92	.75	.105	8	35	.70	113	.16	5	2.58	.02	.14	1	4
N L41N 41+00E	1	38	8	81	.2	16	9	389	2.86	3	5	ND	3	34	.2	2	2	65	.51	.039	10	28	.45	98	.15	7	1.81	.02	.16	1	1
N L41N 41+50E	1	16	5	105	.3	14	5	464	2.01	2	5	ND	3	29	.2	2	2	41	.42	.085	6	19	.30	135	.12	3	1.55	.02	.13	1	1
N L41N 42+00E	1	28	10	125	.3	20	9	402	3.23	2	5	ND	3	30	.2	2	2	69	.50	.062	7	30	.58	90	.16	8	2.38	.02	.17	2	2
N L41N 42+50E	1	22	3	104	.3	21	7	390	2.32	4	5	ND	3	24	.2	2	2	47	.39	.079	6	26	.38	91	.12	4	1.69	.02	.13	1	1
N L41N 43+00E	1	119	9	114	.4	40	18	753	5.04	16	5	ND	5	75	.2	2	2	123	.99	.091	14	60	1.25	103	.19	3	3.04	.02	.24	1	7
N L41N 43+50E	1	116	13	91	.2	35	19	717	5.28	4	5	ND	7	77	.2	2	2	129	.94	.063	16	56	1.27	92	.20	3	3.11	.02	.30	1	6
N L41N 44+00E	1	115	11	107	.3	32	18	786	5.19	8	5	ND	6	60	.2	3	2	117	.79	.067	13	47	1.16	99	.17	4	3.15	.02	.18	1	5
N L41N 44+50E	1	113	14	87	.3	28	17	436	5.50	5	5	ND	5	105	.2	2	2	152	1.06	.082	8	45	1.16	68	.21	4	3.32	.01	.18	1	6
N L40N 39+00E	1	212	9	88	.7	39	10	1168	3.02	2	5	ND	4	47	.2	2	2	44	.95	.031	37	22	.44	121	.12	6	2.48	.03	.19	1	1
N L40N 39+50E	1	30	8	87	.3	14	7	299	2.70	2	5	ND	4	29	.2	2	2	54	.48	.043	8	23	.39	87	.14	4	1.82	.02	.19	1	2
N L40N 40+00E	1	97	15	109	.3	30	15	693	4.76	2	5	ND	5	66	.2	2	2	93	1.00	.069	19	42	.87	149	.17	4	2.63	.02	.36	1	4
N L40N 40+50E	1	43	9	110	.2	23	10	314	3.20	2	5	ND	4	39	.2	2	2	69	.52	.096	8	32	.61	88	.14	2	2.01	.02	.17	1	28
N L40N 41+00E	1	34	6	89	.2	20	9	320	3.22	2	5	ND	4	34	.2	2	2	70	.38	.082	9	29	.61	101	.15	2	1.97	.02	.15	1	1
N L40N 41+50E	1	111	15	111	.4	37	18	714	4.90	13	5	ND	5	69	.2	2	2	115	1.03	.099	14	53	1.21	110	.17	7	2.76	.02	.28	1	7
N L40N 42+50E	1	66	8	191	.4	22	13	1003	4.52	6	5	ND	4	70	.2	2	2	116	.70	.089	7	33	.98	144	.17	3	3.73	.02	.18	1	2
N L40N 43+00E	1	78	11	198	.3	28	16	431	4.96	2	5	ND	4	57	.2	3	2	111	.51	.100	7	32	1.16	122	.18	2	5.45	.02	.08	3	6
N L40N 43+50E	1	87	13	133	.4	20	12	377	4.44	8	5	ND	4	56	.2	2	2	118	.60	.067	6	32	.85	90	.19	2	3.08	.02	.10	1	7
N L40N 44+00E	1	71	9	109	.2	21	12	375	3.90	2	5	ND	4	50	.2	2	2	102	.55	.113	6	31	.78	103	.17	2	2.65	.02	.11	1	8
N L40N 44+75E	1	79	9	123	.4	20	11	471	4.02	2	5	ND	4	56	.2	2	2	114	.60	.082	9	33	.80	80	.15	2	2.43	.02	.13	1	7
N L39N 39+00E	1	80	9	158	.7	29	13	703	4.59	7	5	ND	6	49	.2	2	2	83	.85	.021	17	40	.86	145	.19	5	3.02	.03	.25	1	6
N L39N 39+50E	1	80	13	95	.4	27	15	702	4.50	2	5	ND	6	55	.2	2	2	92	.77	.069	16	42	.80	119	.19	2	2.61	.02	.31	1	4
STANDARD C/AU-S	17	62	38	131	7.7	67	27	994	3.89	42	22	7	37	47	18.4	15	19	59	.50	.096	40	57	.91	172	.07	34	1.89	.06	.14	11	50

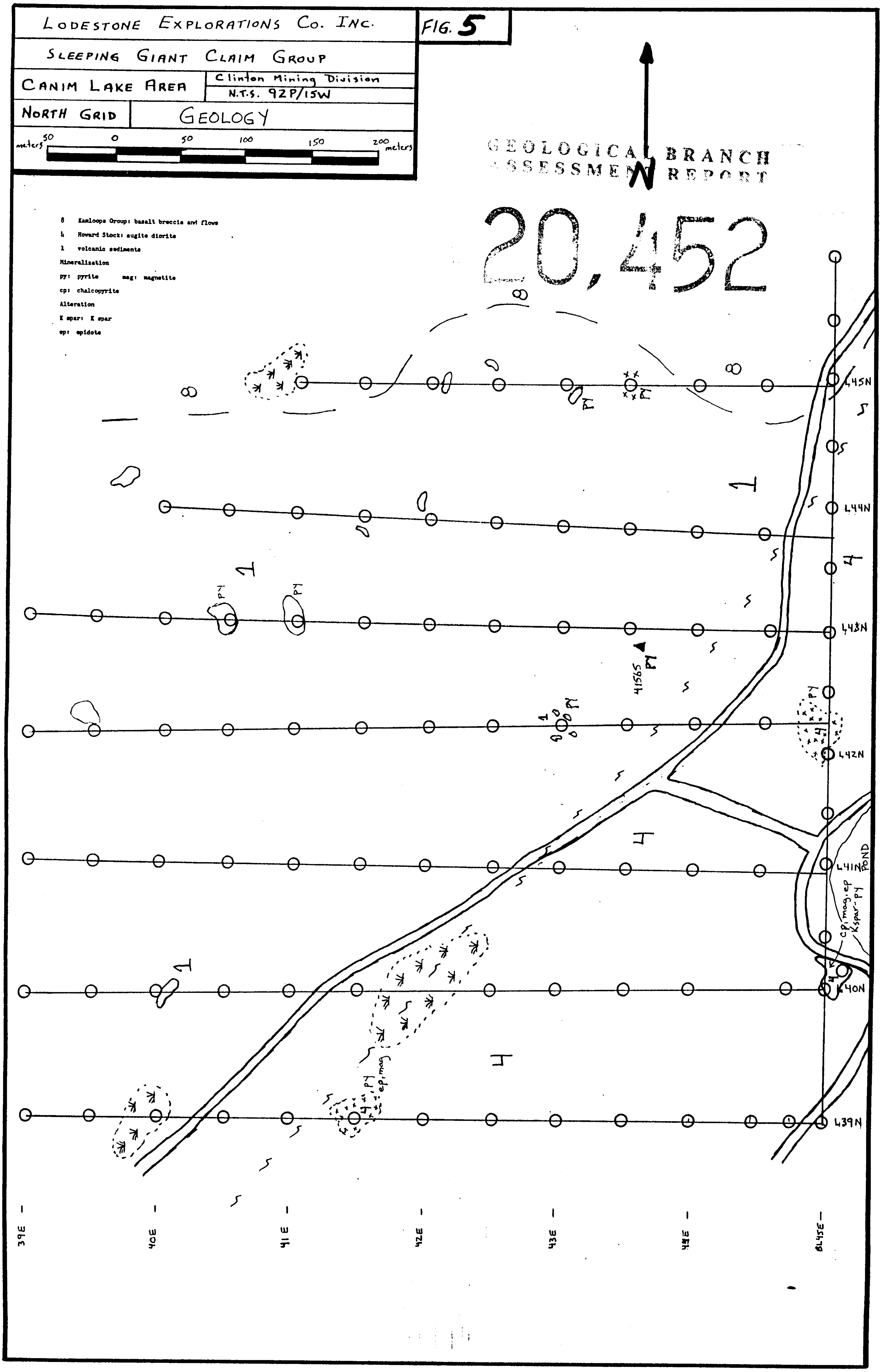
SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
N L39N 40+00E	1	73	12	74	.2	36	17	776	4.19	8	5	ND	6	55	.2	2	2	84	.86	.073	13	43	.88	123	.20	9	2.44	.03	.26	1	1
N L39N 40+50E	1	50	12	93	.2	27	17	444	4.22	11	5	ND	5	57	.3	2	2	90	.68	.075	11	45	.80	137	.20	12	2.73	.02	.18	1	3
N L39N 41+00E	1	35	8	164	.3	24	12	438	3.16	2	5	ND	5	42	.2	2	2	70	.45	.104	9	40	.66	104	.21	5	2.39	.02	.14	1	1
N L39N 41+50E	1	54	8	83	.2	30	17	361	4.61	6	5	ND	5	53	.2	2	2	140	.71	.046	10	54	1.04	60	.28	8	2.83	.03	.10	2	6
N L39N 42+00E	1	51	11	100	.1	25	15	451	3.99	6	5	ND	5	65	.3	2	2	102	.66	.076	9	41	.88	79	.24	8	2.49	.02	.15	1	1
N L39N 42+50E	1	190	13	99	.3	34	21	685	6.67	14	5	ND	7	114	.5	2	2	169	1.38	.080	26	51	1.54	82	.26	6	4.97	.02	.20	1	1
N L39N 43+00E	1	97	10	142	.1	25	16	728	4.88	3	5	ND	4	77	.3	2	2	131	.76	.090	9	39	.93	103	.27	8	3.19	.02	.16	1	1
N L39N 43+50E	1	56	6	119	.2	24	14	371	4.27	5	5	ND	4	51	.2	2	2	117	.57	.084	9	34	.80	82	.26	7	2.87	.02	.15	1	1
N L39N 44+00E	1	112	8	137	.1	26	14	629	4.45	4	5	ND	5	65	.4	2	2	118	.50	.075	10	35	.85	129	.20	5	3.48	.02	.11	1	3
N L39N 44+50E	1	159	12	136	.2	19	14	504	4.19	5	5	ND	4	91	.2	2	2	106	.58	.202	7	21	.84	79	.20	5	4.99	.02	.10	3	8
N L39N 44+75E	1	36	5	107	.2	18	10	446	2.84	4	5	ND	3	51	.2	2	2	72	.39	.100	7	24	.51	88	.18	10	2.23	.02	.09	1	2
N BL45E 46+00N	1	14	5	140	.1	12	5	376	2.17	2	5	ND	4	59	.2	2	2	36	.37	.063	6	21	.27	208	.20	9	1.81	.03	.22	1	1
N BL45E 45+50N	1	20	7	80	.1	19	9	364	2.77	7	5	ND	5	51	.2	2	2	56	.48	.056	12	31	.50	155	.20	11	1.88	.03	.16	1	1
N BL45E 45+00N	1	28	9	100	.2	28	12	266	3.49	5	5	ND	6	39	.2	2	2	68	.35	.081	12	41	.63	123	.20	3	2.42	.01	.16	1	1
N BL45E 44+50N	1	85	11	124	.3	81	24	696	5.40	16	5	ND	4	64	.2	3	2	121	.69	.091	6	136	1.66	97	.21	8	3.52	.01	.13	1	1
N BL45E 44+00N	1	24	8	107	.2	20	10	507	2.31	5	5	ND	2	37	.2	2	2	54	.40	.071	6	24	.46	92	.18	9	2.01	.02	.12	1	2
N BL45E 43+50N	1	36	10	118	.3	27	14	313	3.57	9	5	ND	5	54	.2	2	2	78	.49	.074	9	39	.75	106	.22	8	2.51	.02	.17	1	1
N BL45E 43+00N	1	50	8	89	.2	18	11	312	3.06	6	5	ND	4	42	.2	2	2	67	.31	.117	6	27	.59	62	.16	6	1.90	.02	.10	1	2
N BL45E 42+50N	1	65	11	110	.2	30	17	470	4.28	7	5	ND	5	66	.2	2	2	112	.61	.045	11	48	.91	75	.27	6	2.54	.02	.15	1	1
N BL45E 42+00N	1	22	10	145	.3	21	11	814	2.85	6	5	ND	4	42	.2	2	2	61	.39	.074	7	28	.51	105	.19	8	2.64	.02	.13	1	1
N BL45E 41+50N	1	41	7	138	.3	22	13	658	3.37	6	7	ND	4	55	.2	2	2	77	.40	.066	6	25	.63	82	.20	7	2.69	.02	.11	1	1
N BL45E 41+10N	1	82	11	77	.2	23	15	426	3.73	3	5	ND	4	70	.2	2	2	89	.87	.141	9	32	.60	58	.19	12	2.44	.03	.17	1	6
N BL45E 40+50N	1	110	11	104	.3	30	21	1075	4.79	5	5	ND	5	70	.2	2	2	120	.99	.095	11	43	.90	122	.19	10	2.93	.02	.13	1	1
N BL45E 40+00N	1	333	13	127	.4	15	24	556	5.27	5	5	ND	4	300	.2	2	2	167	1.49	.188	10	13	1.45	72	.26	7	5.45	.06	.09	4	10
N BL45E 40+00N A	1	551	8	114	.4	8	19	756	3.96	3	5	ND	4	957	.4	2	2	106	2.45	.155	10	6	1.24	81	.07	9	5.23	.20	.09	2	12
N BL45E 39+00N	1	112	10	74	.3	30	19	573	4.38	10	5	ND	7	84	.2	2	2	112	.74	.093	13	39	1.03	80	.22	6	2.63	.02	.15	1	10
STANDARD C/AU-S	18	58	38	131	7.2	71	31	1025	3.87	42	22	7	40	53	18.5	16	21	58	.49	.096	38	58	.89	181	.09	34	1.89	.06	.13	11	53

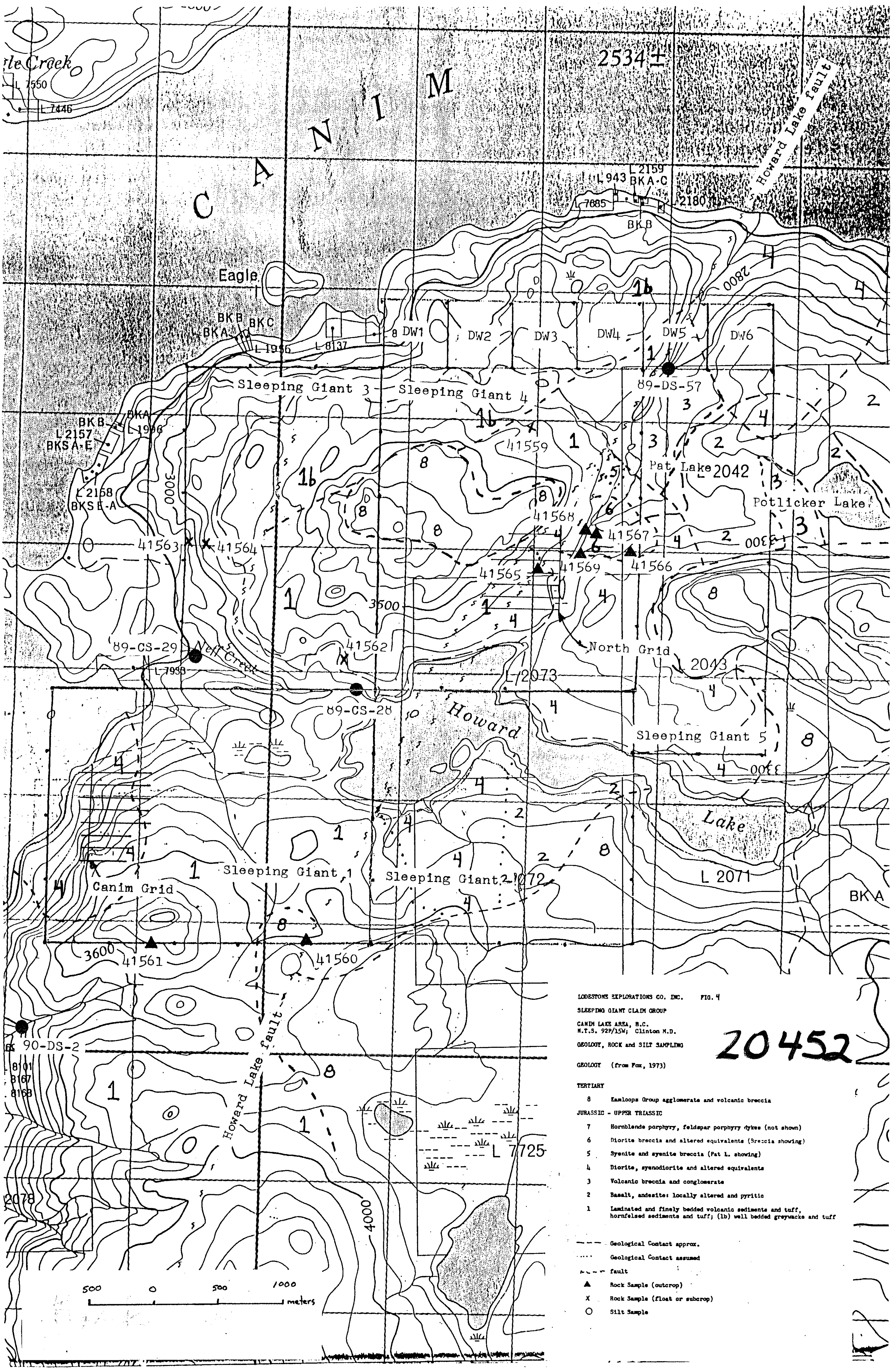
Fe o Mn

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
89-CS-28	1	25	8	99	.2	41	11	929	2.99	5	5	ND	3	88	.2	3	3	64	1.21	.135	11	48	1.19	136	.19	17	1.71	.04	.13	1	3
89-CS-29	1	51	7	164	.3	30	13	949	3.04	9	5	ND	4	95	.2	2	2	74	1.26	.098	13	38	.88	118	.16	19	1.61	.05	.17	2	3
89-DS-57	1	17	5	60	.1	33	11	422	2.53	4	5	ND	8	77	.2	2	2	27	1.56	.090	18	30	.85	58	.13	7	1.29	.03	.18	1	3
90-DS-1	1	98	11	87	.2	48	25	987	5.44	25	5	ND	6	151	.2	2	2	87	2.13	.099	24	50	1.34	237	.24	61	4.76	.04	.26	1	7
90-DS-2	1	99	10	83	.3	45	23	1114	5.09	12	5	ND	6	129	.2	2	2	85	1.82	.111	25	45	1.06	243	.22	37	3.40	.04	.22	1	2

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
E 41563	1	54	2	95	.2	5	1	42	.12	2	5	ND	1	5	.2	37234	2	1	.05	.001	2	3	.01	1	.01	4	.02	.01	.01	1	1
E 41564	1	621	10	106	1.1	21	21	553	4.12	17	5	ND	1	36	.8	387	2	97	6.40	.076	5	44	1.63	11	.15	6	2.79	.05	.03	1	25
E 41565	1	153	7	48	.3	9	18	605	6.81	6	5	ND	1	20	.8	60	4	184	1.75	.108	4	18	1.17	27	.16	25	2.45	.03	.06	2	1
E 41566	1	135	11	40	.4	11	29	483	4.16	6	5	ND	4	169	.6	353	2	130	1.93	.161	12	18	1.08	25	.15	20	1.97	.11	.06	1	200
E 41567	1	35	4	25	.1	6	13	406	3.94	2	5	ND	1	62	.4	20	2	98	2.04	.138	8	12	.89	42	.14	48	1.80	.13	.11	2	16
E 41568	1	7	6	36	.1	8	24	596	4.84	3	5	ND	1	53	.3	43	2	96	1.70	.109	6	15	1.37	46	.13	13	2.11	.06	.08	1	16
E 41569	1	9	5	40	.1	8	15	701	5.16	5	5	ND	1	40	.3	8	2	111	1.96	.113	3	13	1.71	15	.11	17	2.75	.05	.04	1	5
STANDARD C	18	57	38	125	7.2	67	31	951	3.67	43	17	7	36	50	18.2	15	19	56	.48	.092	37	55	.85	175	.08	34	1.79	.06	.14	11	-

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
E 41559	2	13	5	7	.1	95	5	352	1.61	136	5	ND	1	26	1	13	2	3	2.52	.004	2	9	.84	1	.01	2	.06	.01	.01	1	105
E 41560	1	32	14	68	.1	176	18	583	3.61	15	5	ND	8	278	1	2	2	97	1.30	.331	81	150	.99	379	.13	5	2.17	.06	.34	1	4
E 41561	3	779	98	31	.4	23	37	99	5.32	5	5	ND	1	25	1	2	2	44	.82	.074	4	16	.14	17	.15	3	.71	.06	.07	1	8
E 41562	1	1245	11	61	1.3	19	108	460	22.69	31	5	ND	1	25	1	2	3	19	1.49	.061	2	3	.21	42	.05	7	1.99	.06	.16	1	11
STD C/AU-R	19	61	43	133	6.9	68	31	1013	4.11	43	19	8	37	47	19	14	19	59	.49	.099	37	57	.95	176	.06	35	1.98	.06	.13	12	490


LODESTONE EXPLORATIONS Co. INC.
FIG. 5
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA
Clinton Mining Division
N.T.S. 92P/15W
NORTH GRID
GEOLOGY
meters 50 0 50 100 150 200 meters
N
8 Kamloops Group: basalt breccia and flows
4 Howard Stock: augite diorite
1 volcanic sediments
Mineralization
py: pyrite mag: magnetite
cp: chalcopyrite
Alteration
K spar: K spar
ep: epidote
L45N
L44N
L43N
L42N
L41N
L40N
L39N
POND
4156S
PY
cp, mag, ep
Kspar-PY
ep, mag
39E
40E
41E
42E
43E
44E
BL45E


CANIM
2534±
Howard Lake fault
L 943
L 2159
BKA-C
7685
2180
BKB
Eagle
BKB
BKC
BKA
L 1956
L 8137
DW1
DW2
DW3
DW4
DW5
DW6
1b
89-DS-57
Sleeping Giant 3
Sleeping Giant 4
BKB
BKA
L 2157
L 1996
BKSA-E
L 2158
BKSE-A
3000
41559
Pat Lake
2042
Potlicker Lake
41568
41567
41563
41564
41565
41569
41566
3500
North Grid
89-CS-29
Neff Creek
L 7958
41562
L 2073
2043
89-CS-28
Howard
Sleeping Giant 5
Lake
Sleeping Giant 1
Sleeping Giant 2
L 2071
Canim Grid
BK A
3600
41561
41560
90-DS-2
Howard Lake fault
L 7725
4000
2078
500 0 500 1000 meters
LODESTONE EXPLORATIONS CO. INC. FIG. 4
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA, B.C.
N.T.S. 92P/15W; Clinton M.D.
GEOLOGY, ROCK and SILT SAMPLING
20452
GEOLOGY (from Fox, 1973)
TERTIARY
8 Kamloops Group agglomerate and volcanic breccia
JURASSIC - UPPER TRIASSIC
7 Hornblende porphyry, feldspar porphyry dykes (not shown)
6 Diorite breccia and altered equivalents (Breccia showing)
5 Syenite and syenite breccia (Pat L. showing)
4 Diorite, syenodiorite and altered equivalents
3 Volcanic breccia and conglomerate
2 Basalt, andesite: locally altered and pyritic
1 Laminated and finely bedded volcanic sediments and tuff, hornfelsed sediments and tuff; (1b) well bedded greywacke and tuff
Geological Contact approx.
Geological Contact assumed
fault
Rock Sample (outcrop)
Rock Sample (float or subcrop)
Silt Sample

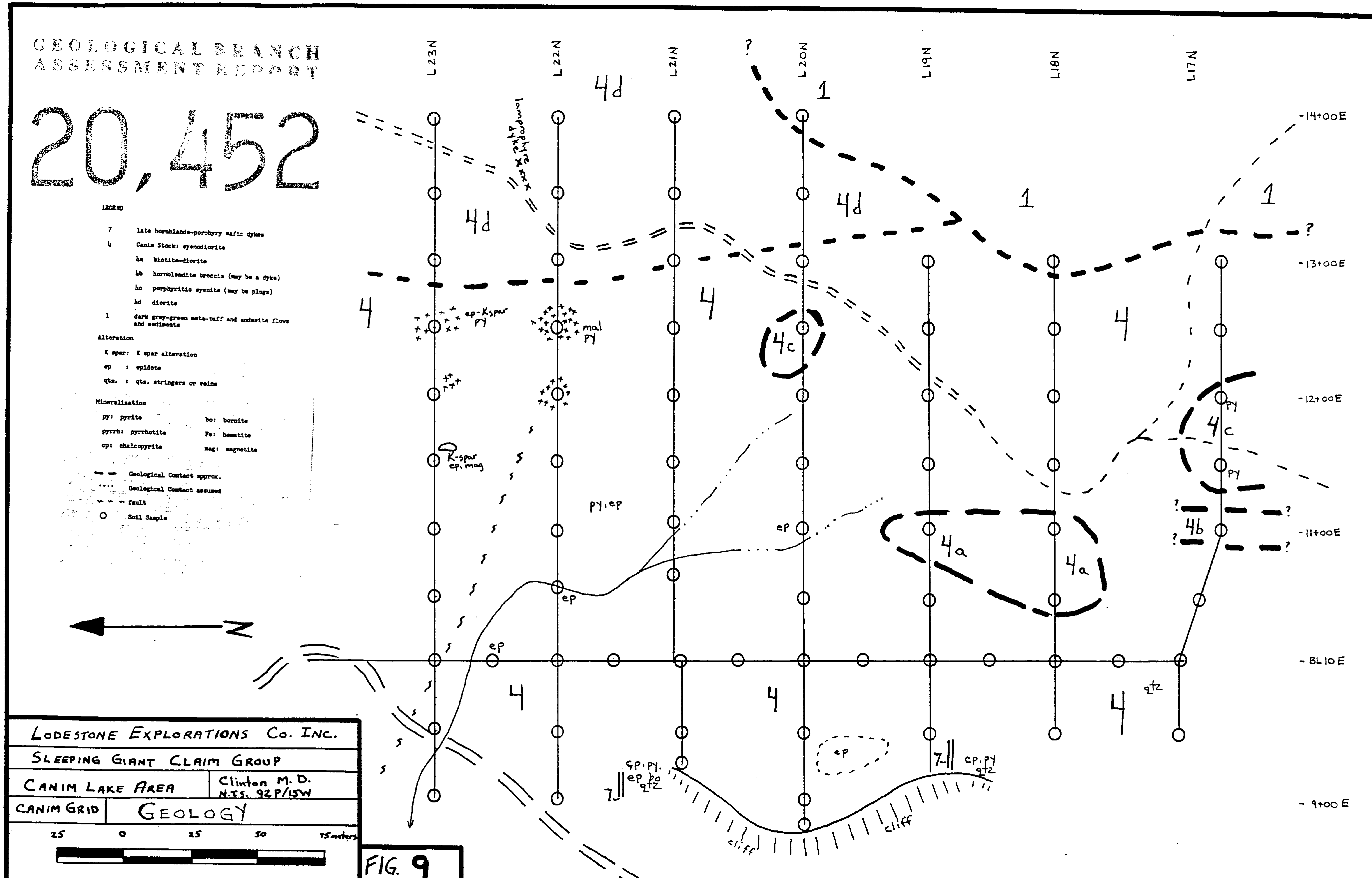
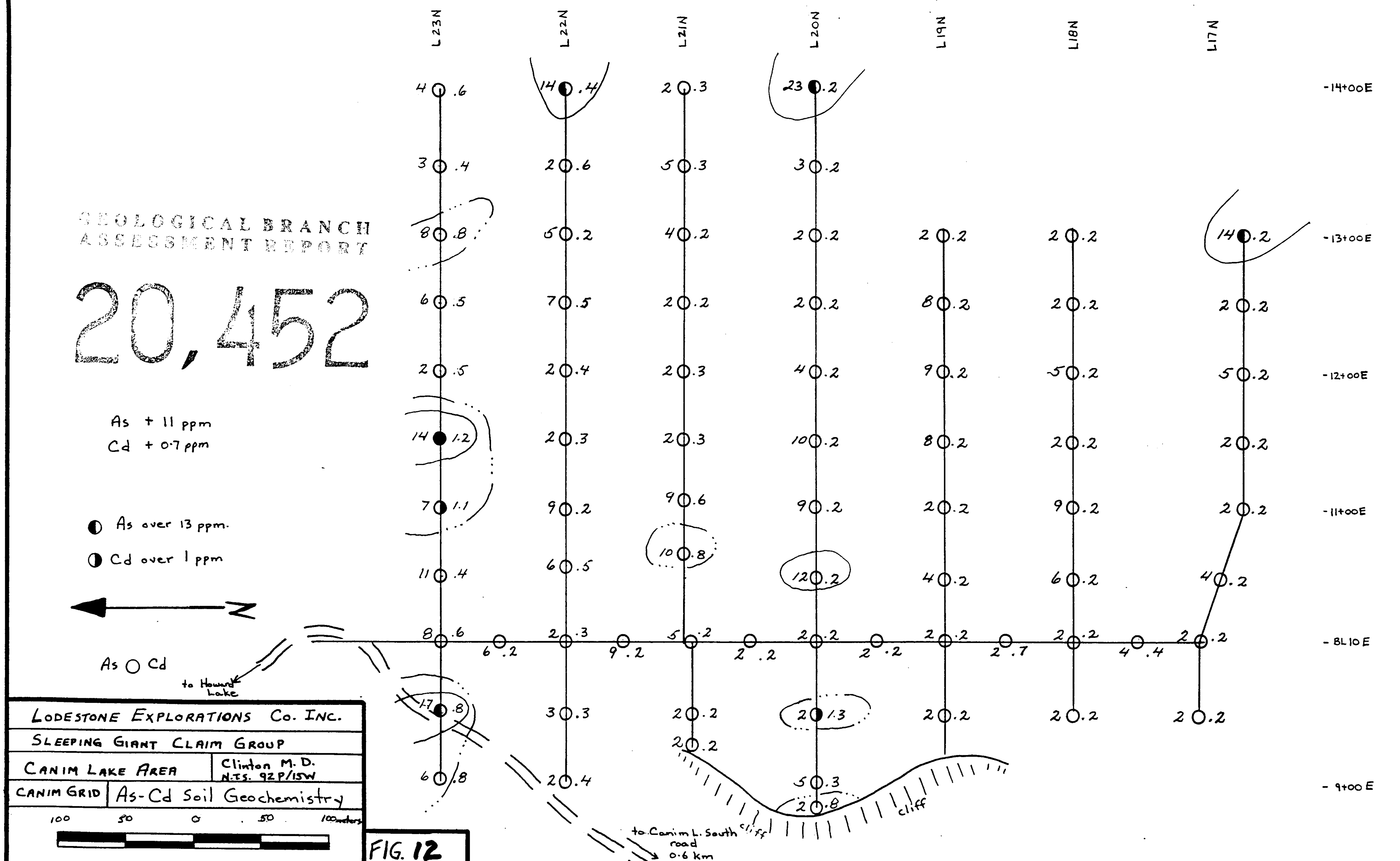

GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,452
LEGEND
7 late hornblende-porphyry mafic dykes
4 Canim Stock: syenodiorite
4a biotite-diorite
4b hornblendite breccia (may be a dyke)
4c porphyritic syenite (may be plugs)
4d diorite
1 dark grey-green meta-tuff and andesite flows and sediments
Alteration
K spar: K spar alteration
ep : epidote
qtz. : qtz. stringers or veins
Mineralisation
py: pyrite
pyrrh: pyrrhotite
cp: chalcopyrite
bo: bornite
Fe: hematite
mag: magnetite
Geological Contact approx.
Geological Contact assumed
fault
Soil Sample
N
L23N
L22N
L21N
L20N
L19N
L18N
L17N
-14+00E
-13+00E
-12+00E
-11+00E
- BL10E
- 9+00E
lamprophyre dyke
ep-Kspar py
mal py
K-spar ep, mag
py, ep
ep
cp.py. ep bo qtz
cp.py qtz
cliff
LODESTONE EXPLORATIONS Co. INC.
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA
Clinton M.D.
N.T.S. 92P/15W
CANIM GRID
GEOLOGY
25 0 25 50 75 meters

FIG. 9



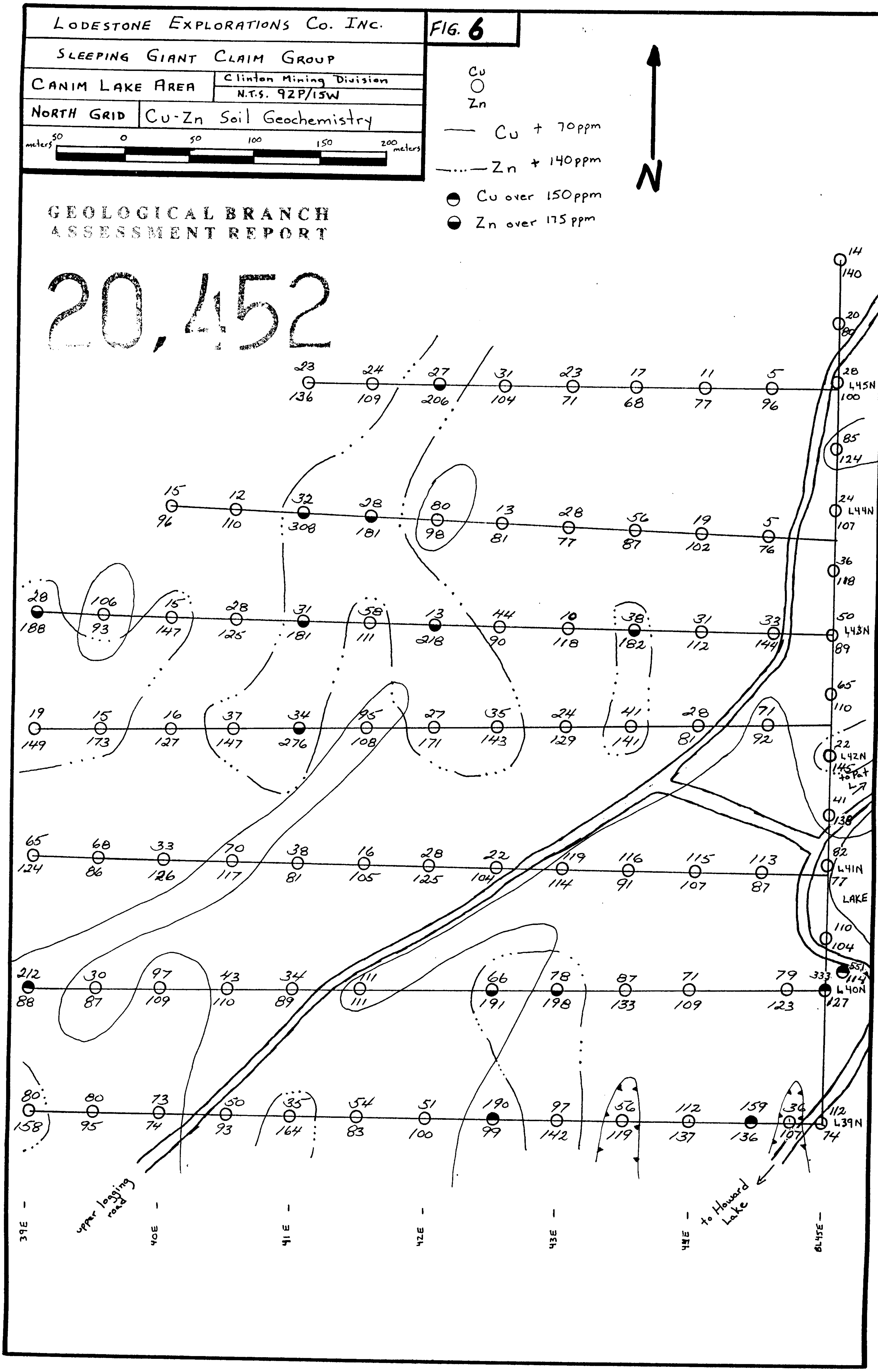
LODESTONE EXPLORATIONS Co. INC.

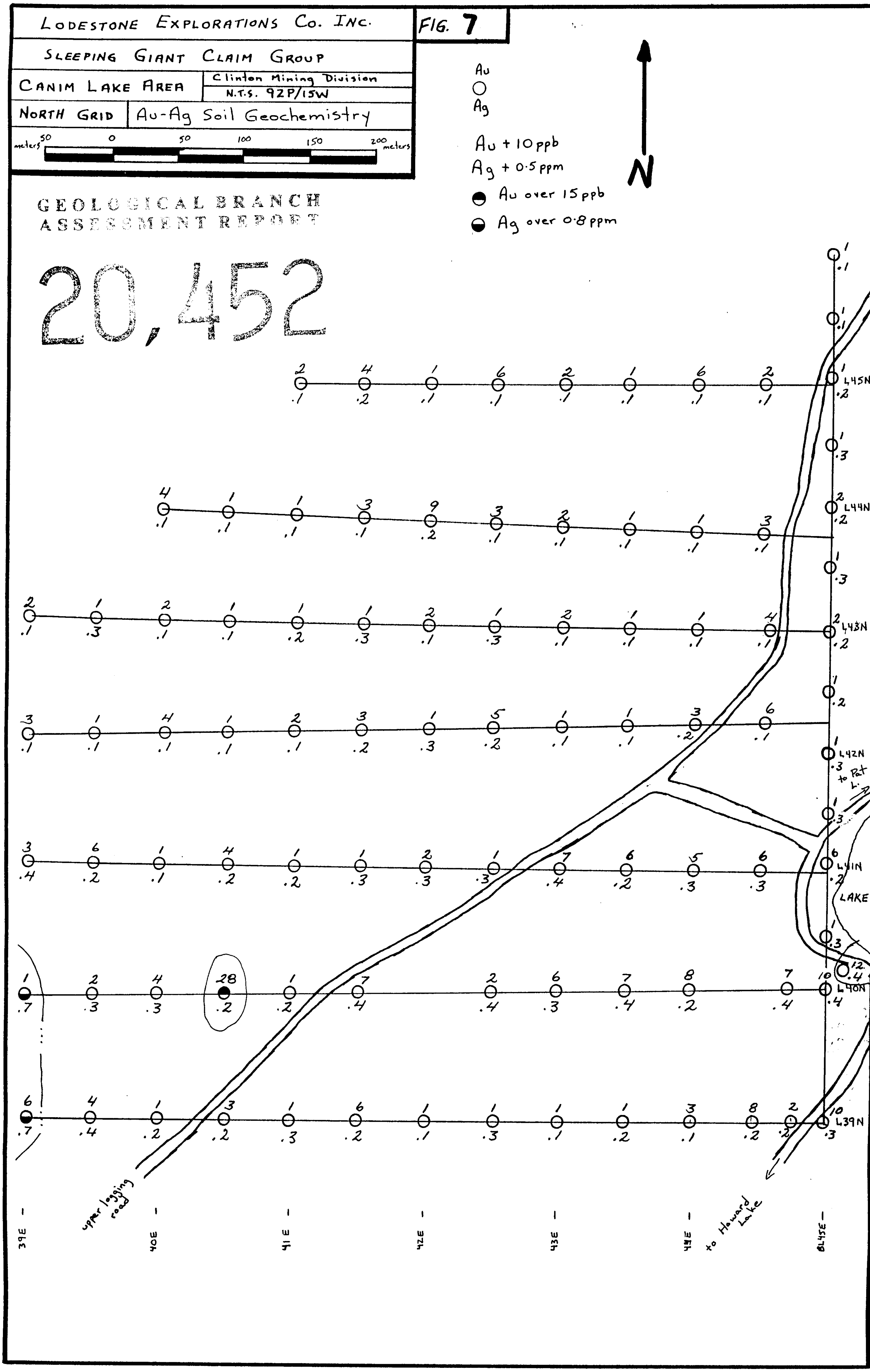
SLEEPING GIANT CLAIM GROUP

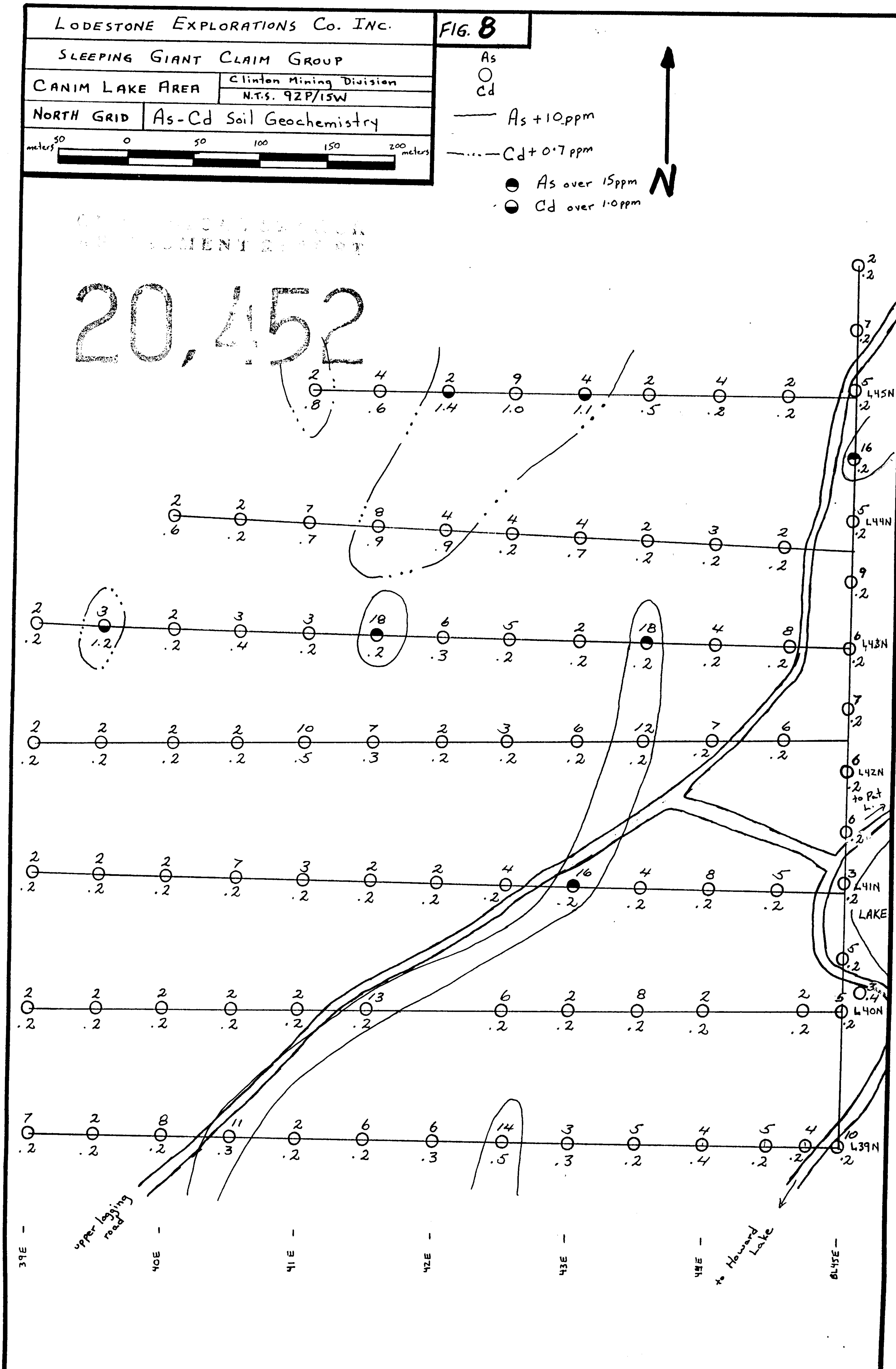
CANIM LAKE AREA	Clinton M.D. N.T.S. 92P/15W
CANIM GRID	As-Cd Soil Geochemistry

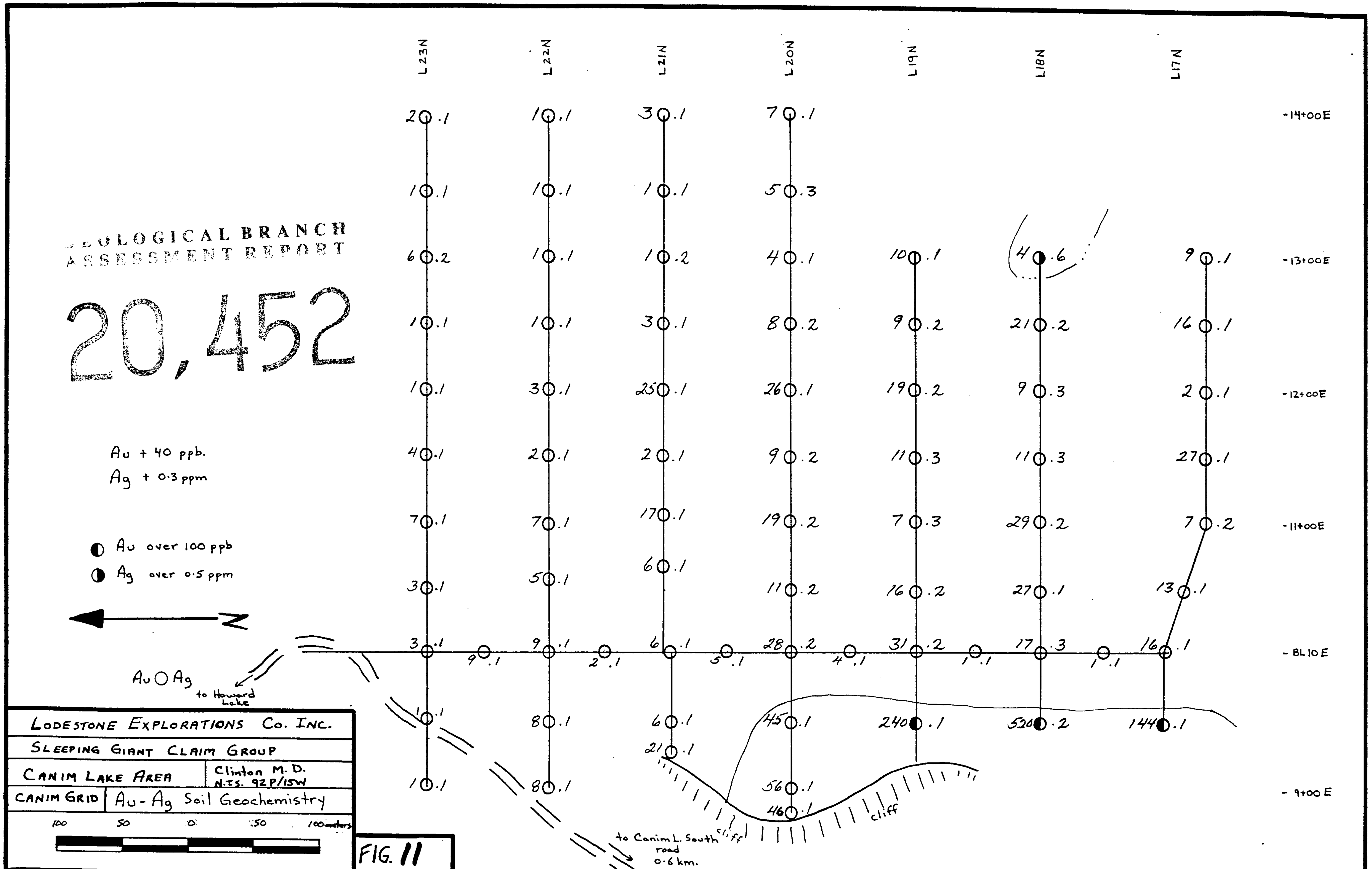
100 50 0 50 100 meters

FIG. 12


LODESTONE EXPLORATIONS CO. INC.
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA
Clinton Mining Division
N.T.S. 92P/15W
NORTH GRID
Cu-Zn Soil Geochemistry
meters 50 0 50 100 150 200 meters
FIG. 6
Cu
Zn
Cu + 70ppm
Zn + 140ppm
Cu over 150ppm
Zn over 175 ppm
N
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,452
L45N
L44N
L43N
L42N
L41N
L40N
L39N
to Pat L
LAKE
upper logging road
to Howard Lake
39E
40E
41E
42E
43E
44E
BL45E


LODESTONE EXPLORATIONS CO. INC.
FIG. 7
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA
Clinton Mining Division
N.T.S. 92P/15W
NORTH GRID
Au-Ag Soil Geochemistry
meters 50 0 50 100 150 200 meters
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,452
Au
Ag
Au + 10 ppb
Ag + 0·5 ppm
Au over 15 ppb
Ag over 0·8 ppm
N
L45N
L44N
L43N
L42N
L41N
L40N
L39N
to Pat L.
LAKE
upper logging road
to Howard Lake
39E
40E
41E
42E
43E
44E
BL45E


LODESTONE EXPLORATIONS Co. INC.
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA
Clinton Mining Division
N.T.S. 92P/15W
NORTH GRID
As-Cd Soil Geochemistry
meters 50 0 50 100 150 200 meters
FIG. 8
As
Cd
As +10 ppm
Cd + 0.7 ppm
As over 15ppm
Cd over 1.0 ppm
N
20,452
L45N
L44N
L43N
L42N
to Pat L.
L41N
LAKE
L40N
L39N
upper logging road
to Howard Lake
39E
40E
41E
42E
43E
44E
BL45E



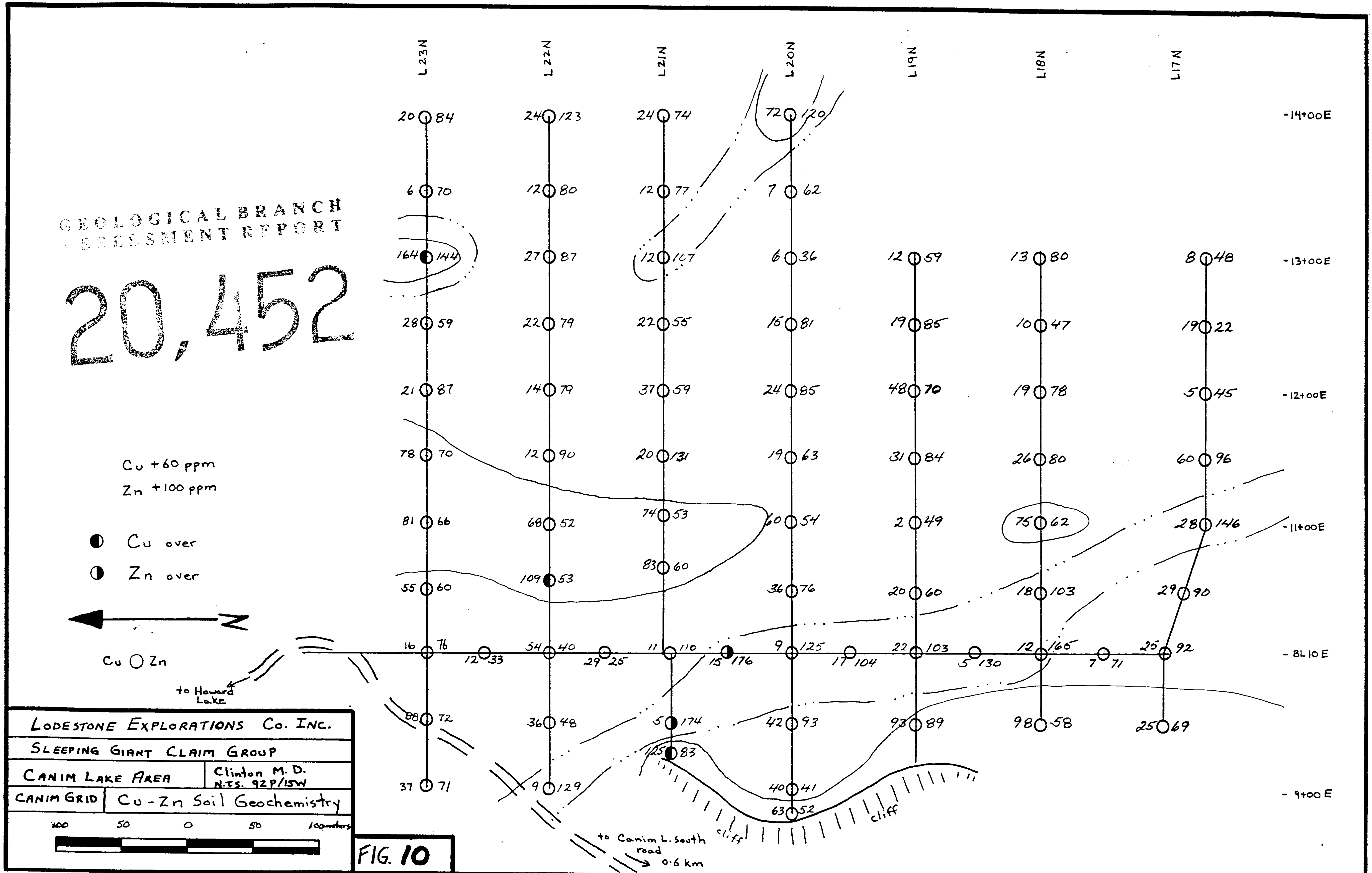
LODESTONE EXPLORATIONS Co. INC.

SLEEPING GIANT CLAIM GROUP

CANIM LAKE AREA	Clinton M.D. N.T.S. 92P/15W
CANIM GRID	Au-Ag Soil Geochemistry

100 50 0 50 100 meters

FIG. 11



GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,452
L23N
L22N
L21N
L20N
L19N
L18N
L17N
-14+00E
-13+00E
-12+00E
-11+00E
-BL 10 E
-9+00 E
20 84
6 70
164 144
28 59
21 87
78 70
81 66
55 60
16 76
88 72
37 71
24 123
12 80
27 87
22 79
14 79
12 90
68 52
109 53
54 40
36 48
9 129
24 74
12 77
12 107
22 55
37 59
20 131
74 53
83 60
11 110
5 174
125 83
72 120
7 62
6 36
16 81
24 85
19 63
60 54
36 76
9 125
42 93
40 41
63 52
12 59
19 85
48 70
31 84
2 49
20 60
22 103
93 89
13 80
10 47
19 78
26 80
75 62
18 103
12 165
98 58
8 48
19 22
5 45
60 96
28 146
29 90
25 92
25 69
12 33
29 25
15 176
17 104
5 130
7 71
Cu +60 ppm
Zn +100 ppm
Cu over
Zn over
N
Cu ○ Zn
to Howard Lake
to Canim L. South road 0·6 km
cliff
cliff
LODESTONE EXPLORATIONS Co. INC.
SLEEPING GIANT CLAIM GROUP
CANIM LAKE AREA
Clinton M.D.
N.T.S. 92P/15W
CANIM GRID
Cu-Zn Soil Geochemistry
100 50 0 50 100 meters

FIG. 10