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MINING LANDS SECTION

REPORT

ON

A PROGRAMME OF HUMUS GEOCHEMISTRY

ON

MINERAL CLAIMS

489739, 489740, 489745, 489746, 489747, 489748 & 490220

ECHO BAY AREA, LAKE OF THE WOODS,

KENORA MINING DIVISION, ONTARIO

NTS 52 E/10, MNR PLAN 1949

49°39'30"N, 94°51'30"W

BY

H. G. TIBBO

CLEARWATER BAY, ONTARIO

AUGUST 17, 1981

SUMMARY

Gold occurs in two separate areas of a group of nine contiguous 40 acre mineral claims staked by the writer in 1979. The claims are located in the Echo Bay area of Lake of the Woods, approximately 20 miles south-west of Kenora, Ontario.

A north-easterly trending quartz carbonate shear zone within pyritiferous andesites was trenched and samples in 1973 and yielded gold values ranging from 0.01 to 0.3 ounces per short ton over widths of three to ten feet.

A separate zone of sheared, fissile pyritiferous acid tuffs and quartz veins yielded gold values of 0.02 to 0.98 ounces per short ton from grab samples taken by the writer in October, 1979.

During September, October and November, 1980, the writer carried out a programme of line cutting, humus sampling and geological mapping over most of the area of the claim group as well as trenching and channel sampling of a selected area of Claim 489747.

The results of the 1980 programme were sufficient to warrant geophysical surveys of the claims as well as additional humus geochemical sampling. The results of the geophysical surveys are the subject of a report by I.G. Park, M. Sc., consulting geophysicist and that report has been submitted to the Ontario Ministry of Natural Resources.

This report discusses the results of the 1981 humus geochemical programme and makes recommendations as to further work.

INTRODUCTION

The writer holds one hundred per cent interest in nine contiguous mineral claims in the Echo Bay area of Lake of the Woods, Ontario.

During September, October and November, 1980, the writer carried out a programme of line cutting, humus geochemical sampling and geological mapping over most of the area of the claim group. An auriferous zone located by the writer in 1979 on the western portion of Claim 489747 was trenched and sampled.

The results of the 1980 work programme were sufficient to warrent further work on the claims.

In May, 1981, ground magnetometer and VLF-EM surveys were carried out over most of the area of the claim group.

The results of the 1980 work programme together with the results of the geophysical surveys were such that additional work was wattered including humus geochemical sampling, the results of which when combined with the 1980 humus geochemical results would further define coincident geochemical and geophysical anomalies located previously.

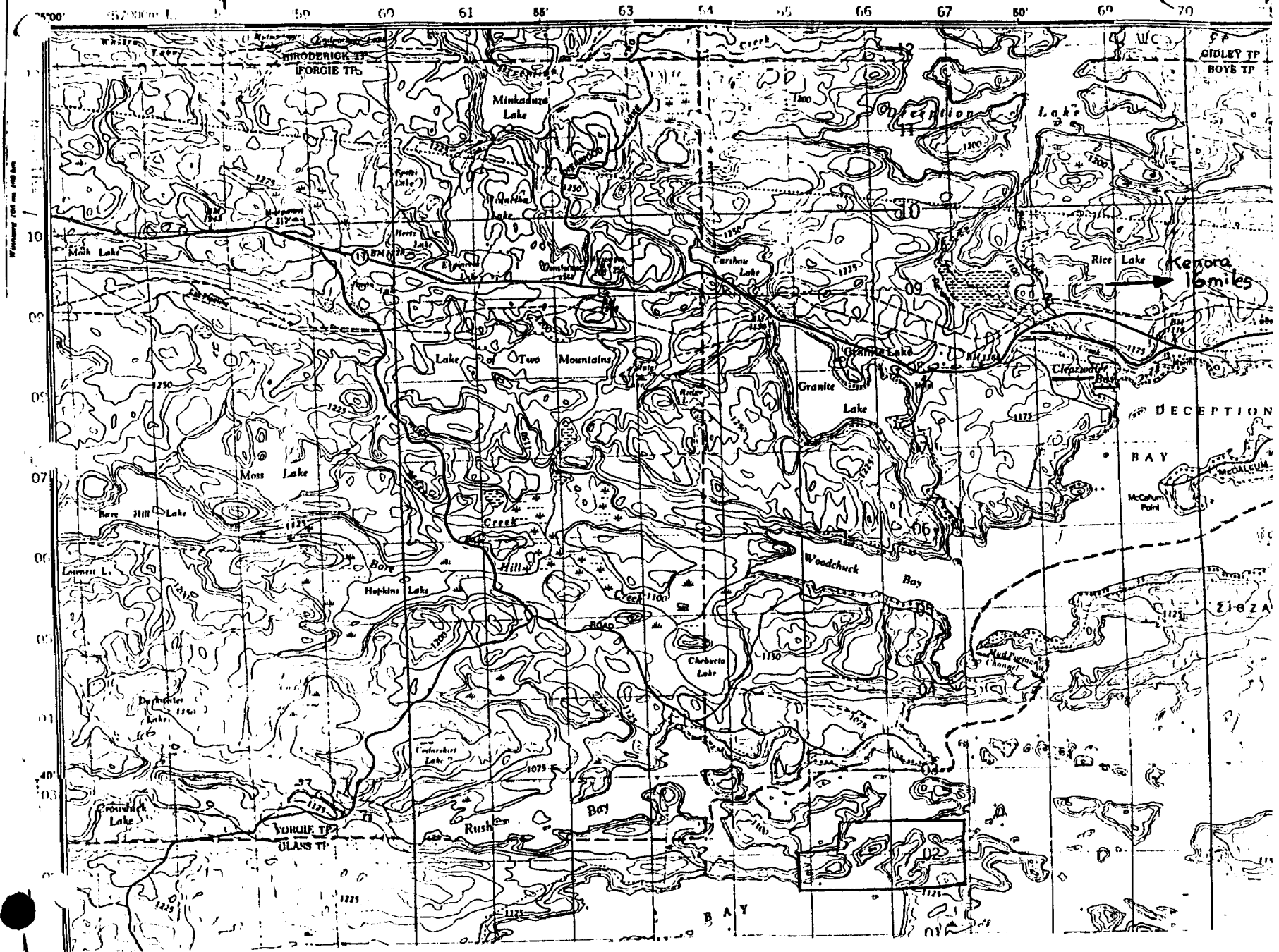
This report contains the details of the 1981 humus geochemical programme, discusses the results of same and makes recommendations as to further work on the claim group.

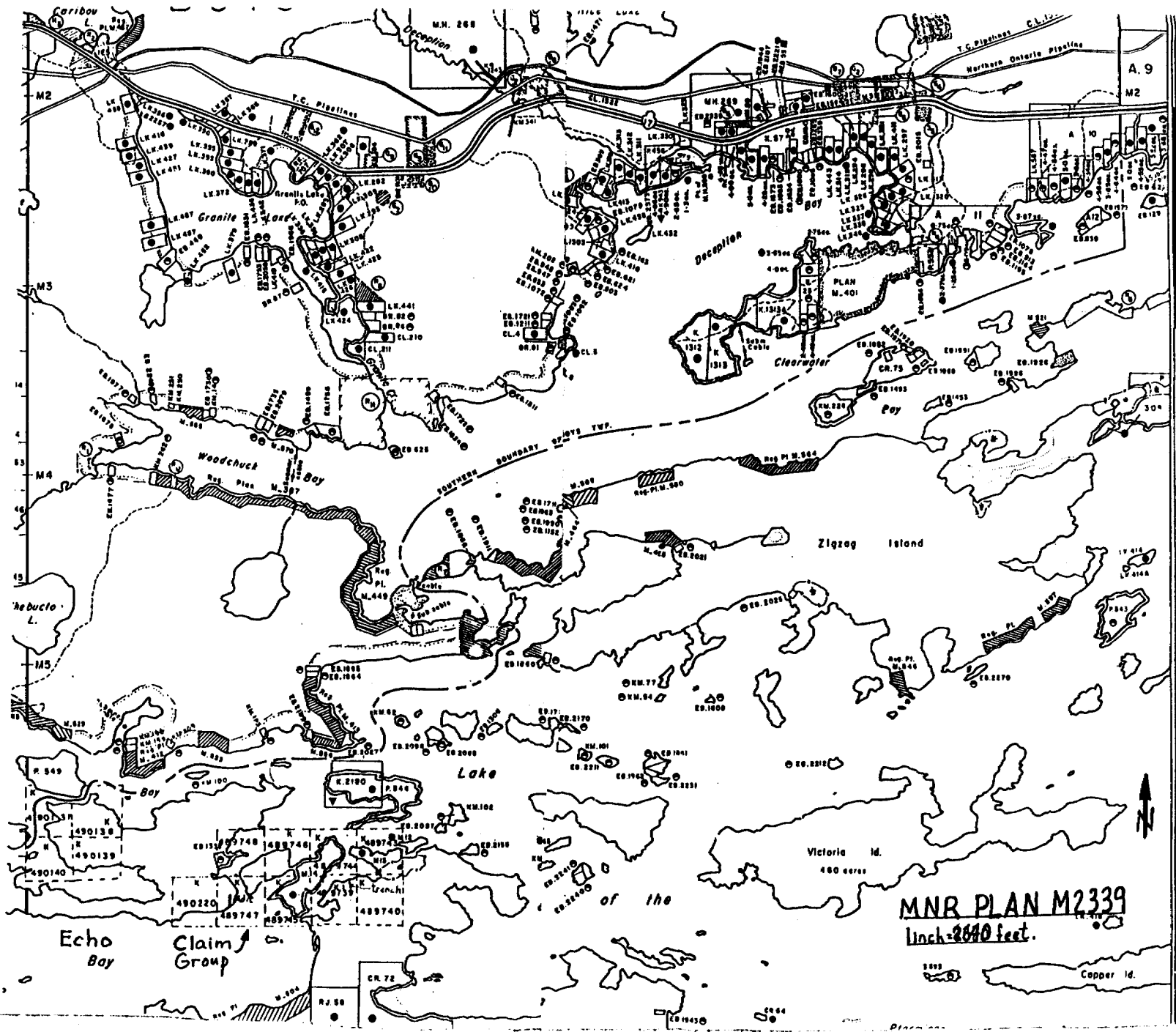
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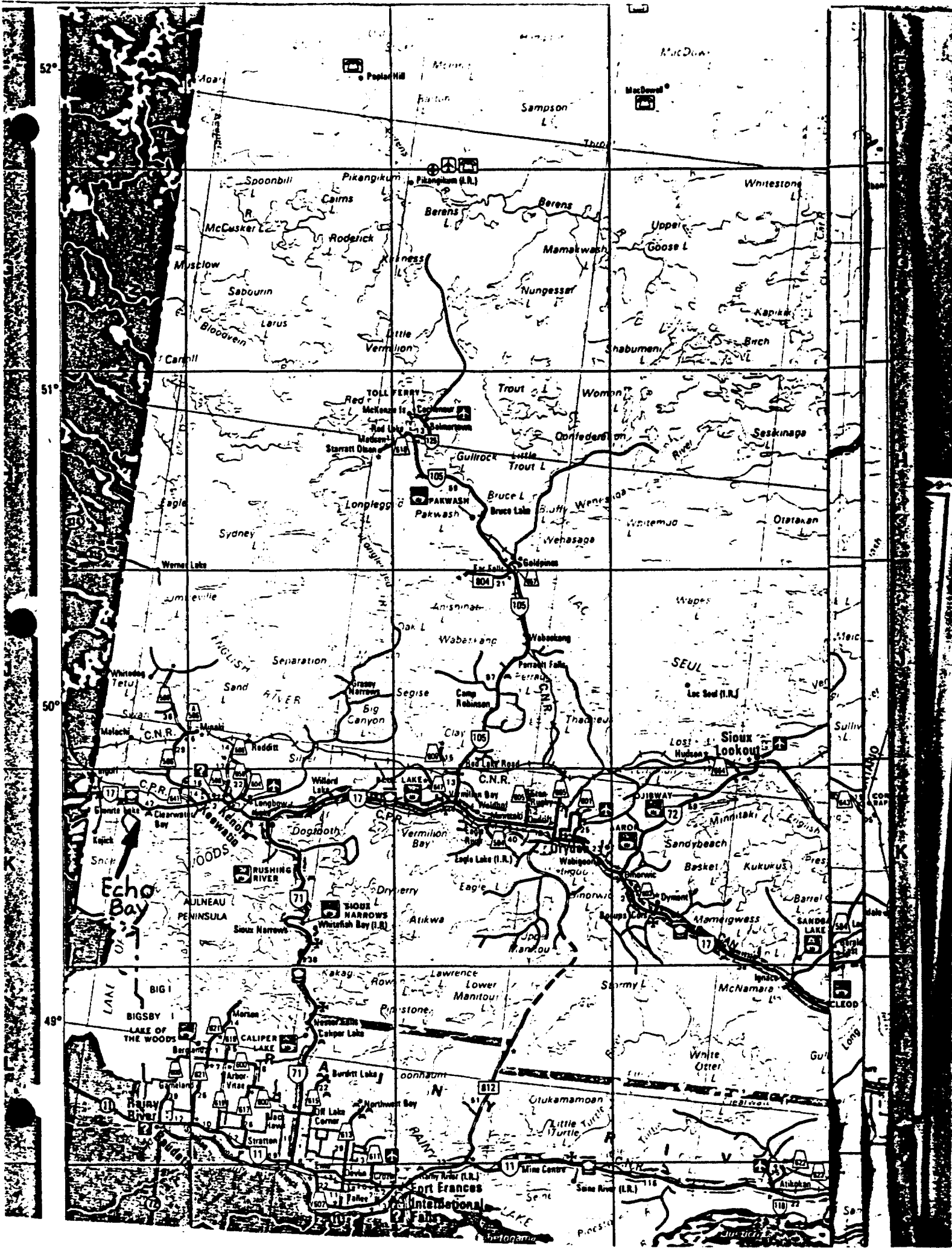
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52 E 10

Winnipeg







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50°

49°

Moore

Poplar Hill

Morris

Sampson

MacDow

MacDow

Spoonbill

Pikangikum

Pikangikum (L.R.)

Whitestone

McCusker L.

Cairns

Berens

Berens

Upper

Musclow

Roderick

Mamakwash

Nungesser

Sabourin

Larus

Little

Vermilion

Kapik

Bloodwin

Carroll

Shabumen

Brch

Eagle

Sydney

Werne Lake

Trout

Woman

Seskinaga

Red

TOLL FERRY

McKenzie Is.

Confederation

Starratt

Starratt

Medan

Starratt

Guillock

Little

Trout L.

Wenasaga

Longplagg

Pakwash

Bruce L.

Bruce Lake

Buffy

Whitemud

Werne Lake

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LOCATION AND ACCESS

The Echo Bay claim group is located 20 miles west south-west of Kenora (population 12, 000), in the Kenora Mining Division, Ontario, (49°39'30" N, 94°51'30" W, MTS 52 E 10). Refer to Ontario Ministry of Natural Resources Echo Bay - Boys Township Plan M1940.

A private road which is an extension of the Rush Bay road ends approximately 4000 feet north of the claim group however the most direct access to the claims is via boat from Clearwater Bay. Clearwater Bay is situated 15 miles west of Kenora on Ontario Highway 17 (Trans Canada Highway). Boats are available on a daily rental basis at the Shell Marina in Clearwater Bay. The claim group is situated 7 miles by boat south-west of Clearwater Bay.

Cottages situated 4000 feet north of the property are served by Ontario Hydro. The main Hydro line runs parallel to the Trans Canada Highway and the Trans Canada Pipeline, all of which lie 3 miles north of the property.

Heavy equipment such as diamond drill rigs could be transported directly to the property on a barge via a deep water route from Kenora or over the ice in the winter months.

PROPERTY TITLE

The writer staked nine contiguous 40 acre claims in the Echo Bay area in 1979. The claims have all been recorded in the writer's name at the office of the Mining Recorder, 808 Robertson Street, Kenora, and the writer holds 100 per cent, undivided interest in the claims.

<u>CLAIM NO.</u>	<u>DATE STAKED</u>	<u>DATE RECORDED</u>
489739	June 18, 1979	June 21, 1979
489740	June 20, 1979	June 21, 1979
489743	July 15, 1979	July 26, 1979
489744	July 15, 1979	July 26, 1979
489745	October 11, 1979	October 29, 1979
489746	October 11, 1979	October 29, 1979
489747	October 11, 1979	October 29, 1979
489748	October 12, 1979	October 29, 1979
490220	October 12, 1979	October 29, 1979

It should be noted that portions of Claims 489739, 489743, 489744, 489745, 489746 and 489748 as staked out, overlie portions of islands which are patented mining claims and therefore the area of the patented land is excluded from the writer's claims. (See claim sketch attached to this report).

TOPOGRAPHY AND VEGETATION

Approximately 35 to 40 per cent of the area of the claim group is covered by the waters of Lake of the Woods. The normal water level in the area is approximately 1060 feet above mean sea level however water levels may drop by as much as three feet in early autumn. The highest point of land in the area is 1175 feet AMSL.

The topography of the area of the claims reflects the bed-rock. The claims are underlain by a series of northeast trending basic to acid volcanic rocks intruded (?) by gabbros. The whole sequence has been sheared in the direction of strike thereby giving rise to a series of abrupt escarpments.

The very uneven topography supports a growth of large, mature cedar and pine with younger spruce and fir on the well-drained areas. Poplar and willow grows on the less well drained land.

It is noteworthy that portions of the claims apparently underlain by sheared acid tuffs support only a sparse growth of malformed scrub oak.

Outcrop is abundant and soil cover, mainly grey clay and humus, is thin and poorly developed.

HISTORY OF THE CLIAM GROUP

During the period 1895 to 1905, the Lake of the Woods - Shoal Lake area enjoyed a staking rush which resulted in the discovery of many (?) gold occurrences, several of which became producing gold mines.

The area of the claim group was staked in 1907 by a Mr. J. Gauthier. On one occasion it is said to have been sold for \$10,000 to American interests who however, did no prospecting and allowed the claims to lapse.

About 1943, the area which is now covered by the writer's claims 489739 and 489740 was staked by Mr. A. Gauthier and optioned to Sylvanite Gold Mines Ltd. in 1943. Mr. G. Holbrooke of Sylvanite carried out a programme of rock trenching and sampling on what is now claim 489739.

Sylvanite channel sampled twelve rock trenches blasted at irregular intervals over a 880 foot strike length in a series of parallel pyritiferous quartz carbonate veins within a sequence of andesites, dacites and tuffs. The longest trench was 31.6 feet and averaged 0.06 oz. Au/s. ton over that length including 0.1 oz. Au/s. ton over 10 feet.

The Sylvanite sampling was done to test the validity of assays reported from a previous sampling programme. The two programmes combined cut a total of 84 samples; 32 reported trace while 52 reported values ranging from 0.01 oz. /s.t. to 0.3 oz./s.t. over 3 feet. None of the samples reported nil gold.

Sylvanite dropped it's option on the claim group in 1944. In 1947, Mr. R. Thomson, at that time resident geologist of the Ontario Department of Mines in Kenora, visited the property. Mr. Thomson's report concludes that,

" No gold occurrences, with possibilities of being developed into a commercial ore body, was shown to the writer. The occurrences are of interest in showing the presence of gold and suggesting that further prospecting of the group might lead to worthwhile discoveries".

In 1949, a prospector named Hawes drilled two diamond drill holes underneath one of the old trenches blasted in 1940-1943. The azimuths of the holes were at approximately 180 degrees to one another and apparently intersected a zone assaying \$2.80 Au over 7.6 feet and \$5.90 Au over 7.0 feet. At \$35/oz. this translates to 0.08 oz. over 7.6 feet and 0.17 oz. over 7.0 feet.

HISTORY OF THE CLAIM GROUP, (CONT'D)

The area of what is now the writer's claim 489747 was staked in the early 1900's as claim K9451. A 6 ft. x 6 ft. flat adit was driven 72 feet northwards from just above the lake level into the hillside presumably to intersect an auriferous zone in acid tuffs 50 feet from the portal of the adit. The adit is free standing, is dry and in good condition.

There are no reports in ODM files or elsewhere of any assay results from this work. Thomson (1947), quotes Mr. A. Gauthier as stating that "zincblende" occurs in the adit. Thomson (1947), reports that "some diamond drilling" was done but the writer has not located any drill hole sites.

Thomson (1947), also records verbal reports by A. Gauthier of other gold occurrences in the general area of the writer's claims.

(1) M-12, M-13 and M-14, (see claim sketch in this report).

" A quartz vein with strike a little north of east is reported to occur on these three islands. On this vein, on Island M-12, the Nonesuch Shaft was put down to 150 feet The vein is stated to be of quartz with plentiful zincblende and to show visible gold commonly. Ore was shipped from the mine to Keewatin Reduction Works; Albert Gauthier said he had seen the returns (since destroyed) and that they had shown an average of \$12.50 per ton (gold at \$20.67 per ounce) at 70 % recovery on the amalgam plates. "

(2) Claim K9954 (now Claim 489739)

" A gold occurrence at the lake shore is stated to have a south-easterly strike".

(3) Claim K9792 (now Claim 489739).

" A body of pyrrhotite is said to occur in the central part of the claim".

Prior to staking the existing nine claims in June, July and October, 1979, the writer took grab samples from one of the trenches on 489739 samples by Sylvanite in 1944. The grab samples assayed from nil to 0.05 oz. Au/s. ton.

A grab sample taken from a siliceous pyritiferous tuff above the adit on Claim 489747 assayed 0.55 oz. Au/s. ton. The writer took additional grab samples from the area of the adit in October 1979.

HISTORY OF THE CLAIM GROUP, (CONT'D)

The grab samples assayed gold as follows (in ounces per short ton), 0.44, 0.16, 0.02, 0.24, 0.04, 0.97, 0.98 and 0.55.

The samples were assayed by X-Ray Assay Laboratories Limited of 1885 Leslie Street, Don Mills, Ontario. The analytical technique was fire assay with a detection limit of 0.001 ounces per short ton.

In 1980, the writer established a grid on the claim group and carried out a humus geochemical sampling programme over the grid. A total of 214 humus and/or soil samples were run for gold and copper by X-Ray Assay Labs.

Also in 1980, the writer channel sampled the auriferous zone above the adit on Claim 489747 as well as two other pyritiferous zones on Claim 490220. A total of 64 rock samples were assayed by X-Ray Assay Labs for gold and silver. The assay and geochem results are included in the writer's assessment work report dated January 10, 1981.

In May, 1981, ground magnetometer and VLF-EM surveys were carried out over the grid established in 1980. The results of the geophysical surveys are contained in a report by I.G. Park, M. Sc., consulting geophysicist. The report has been filed for assessment work credit.

LOG OF THE AREA OF THE CLAIM GROUP

The Echo Bay area lies within the Wabigoon Volcanic Plutonic of the Superior structural province of the Canadian Shield.

The area immediately west of the claim group was mapped by Davies in 1965, (see ODM Geological Report No. 41). Davies mapped the area immediately south of the claim group in 1968, (ODM Preliminary Geological Map P 528). The area of the claim group has not been mapped in any detail as part of a large regional mapping programme but was covered in broad detail by a large scale regional mapping programme carried out by L. Greer for the Ontario Department of Mines in 1929. (See Map 39e, Annual Report, Vol.39, Part 3, 1930).

Greer (1929), describes the area of the claims as being overlain by Keewatin "greenstones with small amounts of slaty siltstones intruded by Algomian felsite and quartz porphyry".

During October, 1980, the writer carried out detailed geological mapping of part of the claim group, namely, portions of 480220, 480748, 480747, 480746 and 480745. The area is overlain by rocks similar to those described by Davies (1965), and therefore represents an eastward continuation of the regional geology as mapped by Davies (1965).

A grid with cross lines each 400 feet (picketed each 100 feet) was used as control during the mapping. The writer's observations on local lithology and structure are contained in two geological maps which are part of the writer's report dated January 10, 1981.

All of the area mapped except the north-west corner of claim 480748 are underlain by north-east striking sheared Keewatin basalts, andesites and intercolated acid tuffs. Relict flow structures are evident in an altered basic lava flow outcrop in the north-east corner of Claim 480747. On the eastern portion of Claim 480747, (traversing south to north) andesites are intercolated with an approximately 200 foot thick sequence of north-easterly trending, thinly bedded (locally fissile) rhyolite and dacite tuffs, all of which dip northwesterly, 50 to 85 degrees.

The fissile acid tuff sequence carries fine-grained disseminated pyrite (0.5 to 2 %) and sinuous, discontinuous quartz veins variable in width from 0.5 inches to 18 inches. A 1/2 inch quartz vein exposed by trenching in the area above the outcrop on Claim 480747 assays gold values from 0.3 to 0.97 ounces per short ton. This area was stripped and channel sampled by the writer during October, 1980, and the results of that work are disseminated in the writer's report of January 10, 1981.

LOGY OF THE AREA OF THE CLAIM GROUP (CONT'D)

The fissile, acid tuffs outcrop intermittently along part of the north shore of Echo Bay covered by Claims 47 and 40220. Traversing south to north, occasional cores of more mafic fissile tuff bands may be seen. On claim 480748, the volcanic sequence has been intruded by a large mass of sheared quartz diorite porphyry of unknown dimensions.

Interpretation of gross structural features from aerial photographs and observations during mapping suggests two prominent directions of shearing in the area of the claims.

Shearing is evident in the plane of regional strike, i.e., north-easterly. A second set of faults trending north-south is prominent. Both sets of faults give rise to prominent abrupt topographic changes. The faulting is probably directly related to the intrusion of the Archean Canoe Lake quartz diorite stock which crops approximately $\frac{1}{2}$ mile south of the south boundary of the claim group.

RESULTS OF THE 1981 HUMUS GEOCHEMICAL PROGRAMME

During October and November, 1980, the writer collected a total of 214 humus samples from the grid areas on Claims 489739, 489740, 489745, 489746, 489747, 489748 and 490220. Samples were taken each 100 feet along parallel grid lines cut 400 feet apart. The samples were analysed for gold and copper content and the analytical results are contained in six geochemical plans which are part of the writer's report dated January 10, 1981.

The 1980 geochemical programme outlined two separate zones anomalously high in gold and two separate zones (separate from the "gold zones") high in copper. In order to further define the apparently geochemically anomalous areas located in 1980, the writer collected 193 humus samples over parts of the grid area during June, 1981.

The samples were taken at 50 foot intervals from the 1980 sample sites and were analysed for gold and copper by X-Ray Assay Laboratories Limited, 1885 Leslie Street, Don Mills, Ontario. The results of the 1981 geochemical programme have been added to the data compiled from the 1980 programme and all of the data is contained in six separate plans which accompany this report.

The combined results of the 1980 and 1981 geochemical programmes show quite clearly that the auriferous zone which occurs in the area of the adit on Claim 489747 extends north-easterly on to Claim 489746, a distance of approximately 2400 feet.

The anomalous zone on Claim 489739 is most clearly outlined on Line 20 West from 050 North to 150 North. This geochemical zone is part of the north-easterly trending auriferous zone partially defined by trenching in 1943. (See the writer's report, January 10, 1981). However the gold values in the humus samples are not nearly as high as are the values from the zone on Claim 489747 although the assays of channel samples cut in bedrock across the zones are similar, i.e., Claim 489747, 0.1 oz. Au/ short ton over 15 feet and 0.1 oz. Au/ short ton over 30 feet on Claim 489739. The humus samples on Claim 489747 contain gold values as high as 2500 parts per billion, i.e., 2.5 grams/tonne or 0.08 oz. Au/ short ton. This sample was taken from soil cleared from the area channel sampled and therefore may be "contaminated" however it will be noted that other humus samples taken along the north-easterly trending zone on Claim 489747 are from "undisturbed" areas and they contain values as high as 890 parts per billion. The highest geochemical value for gold on Claim 489739 is 51 parts per billion. The factors which influence the biogeochemical cycle are given below as a means of comparing and assessing the significance of the anomalies and the "value" of humus geochemical prospecting for gold in this area.

RESULTS OF THE 1981 HUMUS GEOCHEMICAL PROGRAMME, (CONT'D)CLAIM 489747

'soil' cover is thin, generally less than 6 inches and consists of 60-90% organic material, decaying plant material, grass and moss.

Vegetation is malformed scrub oak and coarse grass but it should be noted that anomalous gold values in humus on Line 4 East on Claim 489748 occur where soil and vegetation conditions are similar if not identical to the area of Line 16 West/4 North on Claim 489739.

Thinly bedded pyritiferous (5 - 20%) acid tuffs with sinuous, discontinuous quartz veins 1 to 10 inches thick, underly the area.

CLAIM 489739

same as 489747 around Line 20W, 050 North to 150 North but soil cover thickens north-easterly along the zone and consists of 1 to 3 ft. of red soil generally classified as C horizon. 2 - 20 inches of grey, sandy clay separates the "C horizon" from bedrock.

except for the area of Line 20, 050 N to 150 N, the area supports a thick growth of mature pine and balsam fir with some cedar and poplar.

the auriferous zone is a quartz carbonate shear zone in andesites.

The substantial difference in humus geochemical values may, however, be due to another factor unrelated to soil and/or vegetation conditions and that is that the gold assays reported in the channel sampling done by the writer in 1980 in the area of the adit on Claim 489747 may be wrong, i.e., too low.

Prior to staking the claims in 1979, the writer took grab samples from the area above (north of) the adit portal on Claim 489747. Some of the grab samples gave assays as high as 0.98 ounces gold per short ton. The writer systematically channel sampled the same area in 1980 and the best sampled section ran 14.5 ounces gold per short ton over 14.5 feet. The writer acknowledges that channel sampling is naturally more representative than grab samples but the best 3 foot sample section from all of 64 samples cut in 1980 assayed only 0.32 ounces gold per short ton. That disparity notwithstanding, what is more disconcerting is that all of the samples were assayed a total of three times by different laboratories and in four samples in particular significantly different assay results were reported, for example,

GEOLOGY OF THE AREA OF THE CLAIM GROUP

The Echo Bay area lies within the Wabigoon Volcanic Plutonic Belt of the Superior structural province of the Canadian Shield.

The area immediately west of the claim group was mapped by J.C. Davies in 1965, (see ODM Geological Report No. 41). Davies mapped the area immediately south of the claim group in 1968, (see ODM Preliminary Geological Map P 528). The area of the claim group has not been mapped in any detail as part of a large regional mapping programme but was covered in broad detail by a large scale regional mapping programme carried out by L. Greer of the Ontario Department of Mines in 1929. (See Map 39e, ODM Annual Report, Vol.39, Part 3, 1930).

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A grid with cross lines each 400 feet (picketed each 100 feet) was used as control during the mapping. The writer's observations as to local lithology and structure are contained in two geological maps which are part of the writer's report dated January 10, 1981.

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The fissile acid tuff sequence carries fine-grained disseminated pyrite (0.5 to 2 %) and sinuous, discontinuous quartz veins variable in width from 0.5 inches to 18 inches. A 12 inch quartz vein exposed by trenching in the area above the adit on Claim 489747 assays gold values from 0.3 to 0.97 ounces per short ton. This area was stripped and channel sampled by the writer during October, 1980, and the results of that work are discussed in the writer's report of January 10, 1981.

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The combined results of the 1980 and 1981 geochemical programmes show quite clearly that the auriferous zone which occurs in the area of the adit on Claim 489747 extends north-easterly on to Claim 489746, a distance of approximately 2400 feet.

The anomalous zone on Claim 489739 is most clearly outlined on Line 20 West from 050 North to 150 North. This geochemical zone is part of the north-easterly trending auriferous zone partially defined by trenching in 1943. (See the writer's report, January 10, 1981). However the gold values in the humus samples are not nearly as high as are the values from the zone on Claim 489747 although the assays of channel samples cut in bedrock across the zones are similar, i.e., Claim 489747, 0.1 oz. Au/ short ton over 15 feet and 0.1 oz. Au/ short ton over 30 feet on Claim 489739. The humus samples on Claim 489747 contain gold values as high as 2500 parts per billion, i.e., 2.5 grams/tonne or 0.08 oz. Au/ short ton. This sample was taken from soil cleared from the area channel sampled and therefore may be "contaminated" however it will be noted that other humus samples taken along the north-easterly trending zone on Claim 489747 are from "undisturbed" areas and they contain values as high as 890 parts per billion. The highest geochemical value for gold on Claim 489739 is 51 parts per billion. The factors which influence the biogeochemical cycle are given below as a means of comparing and assessing the significance of the anomalies and the "value" of humus geochemical prospecting for gold in this area.

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1. "soil" cover is thin, generally less than 6 inches and consists of 60-90% organic material, decaying plant material, grass and moss.
2. vegetation is malformed scrub oak and coarse grass but it should be noted that anomalous gold values in humus on Line 4 East on Claim 489748 occur where soil and vegetation conditions are similar if not identical to the area of Line 16 West/4 North on Claim 489739.
3. thinly bedded pyritiferous (5 - 20%) acid tuffs with sinuous, discontinuous quartz veins 1 to 10 inches thick, underly the area.

CLAIM 489739

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except for the area of Line 20, 050 N to 150 N, the area supports a thick growth of mature pine and balsam fir with some cedar and poplar.

the auriferous zone is a quartz carbonate shear zone in andesites.

The substantial difference in humus geochemical values may, however, be due to another factor unrelated to soil and/or vegetation conditions and that is that the gold assays reported from the channel sampling done by the writer in 1980 in the area of the adit on Claim 489747 may be wrong, i.e., too low.

Prior to staking the claims in 1979, the writer took grab samples from the area above (north of) the adit portal on Claim 489747. Some of the grab samples gave assays as high as 0.98 ounces gold per short ton. The writer systematically channel sampled the same area in 1980 and the best sampled section ran 0.1 ounces gold per short ton over 14.5 feet. The writer acknowledges that channel sampling is naturally more representative than grab samples but the best 3 foot sample section from all of the 64 samples cut in 1980 assayed only 0.32 ounces gold per short ton. That disparity notwithstanding, what is more disconcerting is that all of the samples were assayed a total of three times by two different laboratories and in four samples in particular significantly different assay results were reported, for example,

RESULTS OF THE 1981 HUMUS GEOCHEMISTRY PROGRAMME, (CONT'D)

0.008 ounces Au/short ton versus 0.32 ounces Au/short ton;
0.110 ounces Au/short ton versus "not detected". All of the
assay results are contained in the writers report of January
10, 1981.

The anomalous gold zones and separate copper zones were
defined as well by ground magnetometer and VLF-EM surveys
carried out over the area of the claims in May, 1981. (See
I.G. Park, M.Sc. report of June, 1981.)

CONCLUSIONS AND RECOMMENDATIONS

The results of the 1981 humus geochemical programme further defined the two separate auriferous zones and the two separate copper zones located on the claim group in 1980 and further outlined by geophysical surveys carried out over the claims in May, 1981.

The most promising zone extends approximately 2400 feet north-easterly from the area of the adit on Claim 489747. This zone should be explored more fully by additional soil (humus) geochemistry and rock trenching. No other work is recommended for the other three zones at this stage.

The following work is recommended to determine the significance of the geochemical anomaly on Claim 489747.

1. Cut and chain the following grid lines - Lines 14 (450 feet south from base line) and 18 (350 feet south from base line). On the Island part of Claim 489747, cut and chain Lines 2 east, 6 east and 10 east each the full width (north-south) of the island.
2. Collect humus (or soil) samples each 25 feet along the new lines as well as along the Lines 16, 0, 4, 8 and 12 previously sampled and test all samples geochemically for gold and copper.
3. When the geochemical results are known, trenches should be blasted each 200 feet along the zone identified as being anomalous. The trenches should be channel sampled.
4. If the 200 foot interval trenches yeild significant gold values (i.e., as to grade and width), then trenches should be blasted and channel sampled so that the entire strike length of the zone is thus sampled on surface each 100 feet. Diamond drilling, if warranted, would be the next step in exploring the zone.

The channel samples cut should not be assayed by fire assay technique. Each sample should be completely crushed and pulverized and the aliquot taken by a large number (25) of sub-samples. The gold should be extracted by hot acid (aqua regia) leach and precipitated. Provided that great care is taken in preparing the aliquot, the assay results by leaching, when compared to the results obtained by fire assay from the rock samples cut in 1980, will yeild higher gold values and be more representative of the true value of the gold actually contained in the pyritiferous acid tuff.

Respectfully submitted,


H. G. Tibbo

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- Davies, J.C., 1969 Preliminary Geological Map P.528, North Shoal Lake Area (East Sheet), District of Kenora, Ontario Department of Mines.
- Holbrooke, G.L., 1945, Report on Thrasher-Gauthier Property, Echo Bay, Lake of the Woods, Ontario Department of Mines Assessment File, Kenora.
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- Tibbo, H. G., 1981 Report on the Results of a Programme of Channel Sampling, Humus Geochemistry and Geological Mapping on Mineral Claims 489739, 489740, 489745, 489747, 489748 & 490220, Echo Bay Area, Lake of the Woods, Kenora Mining Division, Ontario
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SAMPLE	AU OZ/TON	AU PPS	CU %	CU PPM
1000	--	15	--	10
1001	--	7	--	10
1002	--	<1	--	15
1003	--	3	--	10
1004	--	3	--	<5
1005	--	6	--	<5
1006	--	<1	--	10
1007	--	6	--	10
1008	--	<1	--	5
1009	--	2	--	5
1010	--	7	--	10
1011	--	3	--	10
1012	--	<1	--	20
1013	--	<1	--	10
1014	--	2	--	10
1015	--	8	--	15
1016	--	<1	--	5
1017	--	NH	--	NH
1018	--	3	--	5
1019	--	<1	--	5
1020	--	<1	--	15
1021	--	<1	--	10
1022	--	4	--	5
1023	--	15	--	10
1024	--	15	--	<5
1025	--	NH	--	NH
1026	--	8	--	10
1027	--	3	--	10
1028	--	<1	--	20
1029	--	1	--	<5
1030	--	3	--	10
1031	--	<1	--	5
1032	--	4	--	30
1033	--	<1	--	25
1034	--	NH	--	NH
1035	--	<1	--	20
1036	--	8	--	5
1037	--	51	--	20
1038	--	7	--	10
1039	--	<1	--	<5
1040	--	1	--	5
1041	--	<1	--	5
1042	--	7	--	25
1043	--	2	--	10
1044	--	<1	--	20
1045	--	<1	--	15
1046	--	<1	--	5
1047	--	<1	--	15
1048	--	<1	--	15
1049	--	2	--	10
1050	--	2	--	20
1051	--	4	--	220
1052	--	<1	--	15
1053	--	4	--	5
1055	--	NH	--	<5

SAMPLE	AU UZ/TDN	AU PPB	CU %	CU PPM
1056	--	NH	--	5
1057	--	NH	--	<5
1058	--	NH	--	NH
1059	--	2	--	10
1060	--	<1	--	10
1061	--	2	--	20
1062	--	1	--	10
1063	--	1	--	10
1064	--	1	--	10
1065	--	2	--	5
1066	--	<1	--	15
1067	--	1	--	10
1068	--	2	--	5
1069	--	<1	--	<5
1070	--	<1	--	20
1071	--	<1	--	10
1072	--	NH	--	10
1073	--	<1	--	5
1074	--	2	--	15
1075	--	4	--	10
1076	--	3	--	15
1077	--	6	--	10
1078	--	4	--	20
1079	--	2	--	15
1080	--	<1	--	20
1081	--	<1	--	10
1082	--	4	--	10
1083	--	NH	--	NH
1084	--	4	--	10
1085	--	NH	--	NH
1086	--	4	--	<5
1087	--	NH	--	NH
1088	--	3	--	15
1089	--	19	--	10
1090	--	<1	--	10
1091	--	<1	--	<5
1092	--	<1	--	10
1093	--	5	--	10
1094	--	<1	--	10
1095	--	<1	--	<5
1096	--	<1	--	5
1097	--	5	--	15
1098	--	<1	--	5
1099	--	2	--	<5
1100	--	38	--	15
1101	--	21	--	10
1102	--	1	--	10
1110	--	2	--	<5
1111	--	<1	--	<5
1112	--	3	--	15
1113	--	1	--	10
1114	--	1	--	15
1115	--	8	--	5
1116	--	1	--	15
1117	--	2	--	20
1118	--	3	--	10

SAMPLE	AU OZ/TON	AU PPB	CU %	CU PPM
1119	--	18	--	10
1120	--	6	--	20
1121	--	<1	--	20
1122	--	4	--	5
1123	--	4	--	20
1124	--	12	--	<5
1125	--	5	--	10
1126	--	230	--	30
1127	--	12	--	20
1128	--	<1	--	15
1129	--	2	--	20
1130	--	67	--	30
1131	--	<1	--	20
1132	--	7	--	25
1133	--	18	--	15
1134	--	64	--	15
1135	--	37	--	10
1136	--	7	--	10
1137	--	53	--	15
1138	--	18	--	20
1139	--	<1	--	15
1140	--	5	--	25
1141	--	2	--	15
1142	--	10	--	10
1143	--	8	--	10
1144	--	<1	--	5
1145	--	17	--	10
1146	--	6	--	10
1147	--	1	--	15
1148	--	9	--	15
1149	--	32	--	15
1150	--	3	--	10
1151	--	NH	--	NH
1152	--	9	--	15
1153	--	2	--	20
1154	--	12	--	15
1155	--	<1	--	30
1156	--	1	--	20
1157	--	9	--	10
1158	--	48	--	15
1159	--	36	--	20
1160	--	890	--	30
1161	--	NH	--	NH
1162	--	65	--	30
1163	--	380	--	25
1164	--	NH	--	NH
1165	--	<1	--	15
1166	--	NH	--	NH
1167	--	2	--	10
1168	--	NH	--	NH
1169	--	5	--	20
1170	--	6	--	20
1171	--	5	--	25
1172	--	<1	--	<5
1173	--	NH	--	NH
1174	--	13	--	<5

SAMPLE	AU OZ/TON	AU PPB	CU %	CU PPM
1175	--	16	--	15
1176	--	4	--	10
1177	--	1	--	10
1178	--	<1	--	<5
1179	--	<1	--	10
1180	--	7	--	30
1181	--	20	--	190
1182	--	<1	--	5
1183	--	<1	--	10
1184	--	NH	--	NH
1185	--	5	--	20
1186	--	9	--	25
1187	--	13	--	<5
1188	--	11	--	15
1189	--	11	--	40
1190	--	9	--	15
1191	--	44	--	20
1192	--	31	--	20
1193	--	19	--	20
1194	--	78	--	<5
1195	--	<10	--	10
1196	--	<10	--	20
1197	--	11	--	15
1198	--	16	--	20
1199	--	2	--	5
1200	--	100	--	65
ELR-1	0.001	--	0.15	--
ELR-2	NIL	--	0.02	--
ELR-3	0.004	--	0.03	--
ELR-4	0.002	--	0.01	--
ELR-5	TRACE	--	0.09	--

NH - NOT HUMUS

22/9/81

X-RAY ASSAY LABORATORIES LIMITED
1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4
PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: H.G. TIBBO,
322 EGLINTON AVE., APT. 1101,
TORONTO, ONTARIO.
M4P 1L6

CUSTOMER NO. 303
DATE SUBMITTED
20-AUG-81

REPORT 12566

REF. FILE 8391-P1

87 SOILS ON HAND W.O.#7746-RPT.#12344 W.O.#8263

WERE ANALYSED AS FOLLOWS:

	UNITS	METHOD	DETECTION LIMIT
AU	PPB	FADCP	2.000
CU	PPM	AA	1.000

X-RAY ASSAY LABORATORIES LIMITED
CERTIFIED BY

DATE 16-SEP-81

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD REJECTS ***
30 DAYS AND PULPS 180 DAYS FROM DATE OF THIS REPORT

SAMPLE AU PPB CU PPM SAMPLE AU PPB CU PPM

Echo Bay

SAMPLE	AU PPB	CU PPM	SAMPLE	AU PPB	CU PPM
1017	2	13	1672	5	7
1025	<2	17	1674	2	
1034	4	12	1675	16	
1055	<2	12	1683	3	
1056	2	7	1684	<2	
1057	<2	5	1686	?	
1058	<2	7	1705		
1072	3	23	1707		
1075	3	15	1715		
1078	7	22	1717		
1083	4	10	1720		
1085	6	68	1722		
1087	5	26	1723		
1151	7	16	1726		
1161	400	69	1728		
1164	10	22	1729		
1166	7	21	1733		
1168	25	11	1737		
1173	11	7	17		
1184	11	10			

Eagle Lake

1600	<2	8
1604	3	3
1616	3	
1617	<2	
1621	3	
1622	5	
1627	1	
1630		
1632		
1634		
1635		
1637		
1638		
1639		
1642		
1646		
1649		
1650		
1651		

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755

TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: H.G. TIBBO,
322 EGLINTON AVE., APT. 1101,
TORONTO, ONTARIO.
M4P 1L6

CUSTOMER NO. 303

DATE SUBMITTED
8-JUL-81

REPORT 12344

REF. FILE 7746-SR

198 SAMPLES

WERE ANALYSED AS FOLLOWS:

	UNITS	METHOD	DETECTION LIMIT
AU	OZ/TON	FA	0.001
AU	PPB	NA	1.000
CU	%	XRF	0.010
CU	PPM	EDX	5.000

DATE 26-AUG-81

X-RAY ASSAY LABORATORIES LIMITED
CERTIFIED BY 

NOTE: DETECTION LIMIT VARIES DUE TO PRESENCE OF INORGANICS

SAMPLE	AU OZ/TDN	AU PPB	CU %	CU PPM
1000	--	15	--	10
1001	--	7	--	10
1002	--	<1	--	15
1003	--	3	--	10
1004	--	3	--	<5
1005	--	6	--	<5
1006	--	<1	--	10
1007	--	6	--	10
1008	--	<1	--	5
1009	--	2	--	5
1010	--	7	--	10
1011	--	3	--	10
1012	--	<1	--	20
1013	--	<1	--	10
1014	--	2	--	10
1015	--	8	--	15
1016	--	<1	--	5
1017	--	NH	--	NH
1018	--	3	--	5
1019	--	<1	--	5
1020	--	<1	--	15
1021	--	<1	--	10
1022	--	4	--	5
1023	--	15	--	10
1024	--	15	--	<5
1025	--	NH	--	NH
1026	--	8	--	10
1027	--	3	--	10
1028	--	<1	--	20
1029	--	1	--	<5
1030	--	3	--	10
1031	--	<1	--	5
1032	--	4	--	30
1033	--	<1	--	25
1034	--	NH	--	NH
1035	--	<1	--	20
1036	--	8	--	5
1037	--	51	--	20
1038	--	7	--	10
1039	--	<1	--	<5
1040	--	1	--	5
1041	--	<1	--	5
1042	--	7	--	25
1043	--	2	--	10
1044	--	<1	--	20
1045	--	<1	--	15
1046	--	<1	--	5
1047	--	<1	--	15
1048	--	<1	--	15
1049	--	2	--	10
1050	--	2	--	20
1051	--	4	--	220
1052	--	<1	--	15
1053	--	4	--	5
1055	--	NH	--	NH

SAMPLE	AU OZ/TON	AU PPB	CU %	CU PPM
1056	--	NH	--	NH
1057	--	NH	--	NH
1058	--	NH	--	NH
1059	--	2	--	10
1060	--	<1	--	10
1061	--	2	--	20
1062	--	1	--	10
1063	--	1	--	10
1064	--	1	--	10
1065	--	2	--	5
1066	--	<1	--	15
1067	--	1	--	10
1068	--	2	--	5
1069	--	<1	--	<5
1070	--	<1	--	20
1071	--	<1	--	10
1072	--	NH	--	NH
1073	--	<1	--	5
1074	--	2	--	15
1075	--	4	--	10
1076	--	3	--	15
1077	--	6	--	10
1078	--	4	--	20
1079	--	2	--	15
1080	--	<1	--	20
1081	--	<1	--	10
1082	--	4	--	10
1083	--	NH	--	NH
1084	--	4	--	10
1085	--	NH	--	NH
1086	--	4	--	<5
1087	--	NH	--	NH
1088	--	3	--	15
1089	--	19	--	10
1090	--	<1	--	10
1091	--	<1	--	<5
1092	--	<1	--	10
1093	--	5	--	10
1094	--	<1	--	10
1095	--	<1	--	<5
1096	--	<1	--	5
1097	--	5	--	15
1098	--	<1	--	5
1099	--	2	--	<5
1100	--	38	--	15
1101	--	21	--	10
1102	--	1	--	10
1110	--	2	--	<5
1111	--	<1	--	<5
1112	--	3	--	15
1113	--	1	--	10
1114	--	1	--	15
1115	--	8	--	5
1116	--	1	--	15
1117	--	2	--	20
1118	--	3	--	10

SAMPLE	AU OZ/TON	AU PPB	CU %	CU PPM
1119	--	18	--	10
1120	--	6	--	20
1121	--	<1	--	20
1122	--	4	--	5
1123	--	4	--	20
1124	--	12	--	<5
1125	--	5	--	10
1126	--	230	--	30
1127	--	12	--	20
1128	--	<1	--	15
1129	--	2	--	20
1130	--	67	--	30
1131	--	<1	--	20
1132	--	7	--	25
1133	--	18	--	15
1134	--	64	--	15
1135	--	37	--	10
1136	--	7	--	10
1137	--	53	--	15
1138	--	18	--	20
1139	--	<1	--	15
1140	--	5	--	25
1141	--	2	--	15
1142	--	10	--	10
1143	--	8	--	10
1144	--	<1	--	5
1145	--	17	--	10
1146	--	6	--	10
1147	--	1	--	15
1148	--	9	--	15
1149	--	32	--	15
1150	--	3	--	10
1151	--	NH	--	NH
1152	--	9	--	15
1153	--	2	--	20
1154	--	12	--	15
1155	--	<1	--	30
1156	--	1	--	20
1157	--	9	--	10
1158	--	48	--	15
1159	--	36	--	20
1160	--	890	--	30
1161	--	NH	--	NH
1162	--	65	--	30
1163	--	380	--	25
1164	--	NH	--	NH
1165	--	<1	--	15
1166	--	NH	--	NH
1167	--	2	--	10
1168	--	NH	--	NH
1169	--	5	--	20
1170	--	6	--	20
1171	--	5	--	25
1172	--	<1	--	<5
1173	--	NH	--	NH
1174	--	13	--	<5

SAMPLE	AU OZ/TON	AU PPB	CU %	CU PPM
1175	--	16	--	15
1176	--	4	--	10
1177	--	1	--	10
1178	--	<1	--	<5
1179	--	<1	--	10
1180	--	7	--	30
1181	--	20	--	190
1182	--	<1	--	5
1183	--	<1	--	10
1184	--	NH	--	NH
1185	--	5	--	20
1186	--	9	--	25
1187	--	13	--	<5
1188	--	11	--	15
1189	--	11	--	40
1190	--	9	--	15
1191	--	44	--	20
1192	--	31	--	20
1193	--	19	--	20
1194	--	78	--	<5
1195	--	<10	--	10
1196	--	<10	--	20
1197	--	11	--	15
1198	--	16	--	20
1199	--	2	--	5
1200	--	100	--	65
ELR-1	0.001	--	0.15	--
ELR-2	NIL	--	0.02	--
ELR-3	0.004	--	0.03	--
ELR-4	0.002	--	0.01	--
ELR-5	TRACE	--	0.09	--

NH - NOT HUMUS



TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey humus geochemistry
Township or Area Echo Bay area
Claim Holder(s) Harold George Tibbo
1101-322 Eglinton Ave. E
Survey Company H.G. Tibbo Toronto
Author of Report H.G. Tibbo
Address of Author as above
Covering Dates of Survey June 11 - Aug. 18, 1981
Total Miles of Line Cut lines cut & reported in 1980 (4 line miles)

MINING CLAIMS TRAVERSED
List numerically
Table with columns for (prefix) and (number) containing entries like K 4897390, K 4897400, etc.

SPECIAL PROVISIONS CREDITS REQUESTED
Table with columns for Geophysical (Electromagnetic, Magnetometer, Radiometric, Other) and Geological (Geochemical) and a column for DAYS per claim.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Aug 20, 1981 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 63.2676

Previous Surveys
Table with columns: File No., Type, Date, Claim Holder

TOTAL CLAIMS 7

OFFICE USE ONLY

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

**INDUCED POLARIZATION
RESISTIVITY**

Instrument _____

Method Time Domain Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken 489739, 489740, 490220 and parts of 489745, 489746, 489747 & 489748

Total Number of Samples 193
Type of Sample humus (organic)
(Nature of Material)
Average Sample Weight 1 pound
Method of Collection Shovel

Soil Horizon Sampled NA
Horizon Development NA
Sample Depth Surface
Terrain rugged
Drainage Development poor
Estimated Range of Overburden Thickness 1"-2 ft.

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____
samples are organic material and are shaped into pellets prior to 10 day irradiation in nuclear reactor.
General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m. Cu
p. p. b. Au

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others Au

Field Analysis (NA tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (NA tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (193 tests)

Name of Laboratory X-Ray Assay Labs

Extraction Method _____

Analytical Method neutron activation

Reagents Used NA

General _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Reserve flooding rights to 1064' above mean sea level on all lands bordering on Lake of the Woods

AREAS WITHDRAWN FROM STAKING			
S.R. - SURFACE RIGHTS	M.R. - MINING RIGHTS		
Section	Order No.	Date	Disposition
43R.S.O. 1970)	W 65/75	19/11/76	S.R.

SAND and GRAVEL

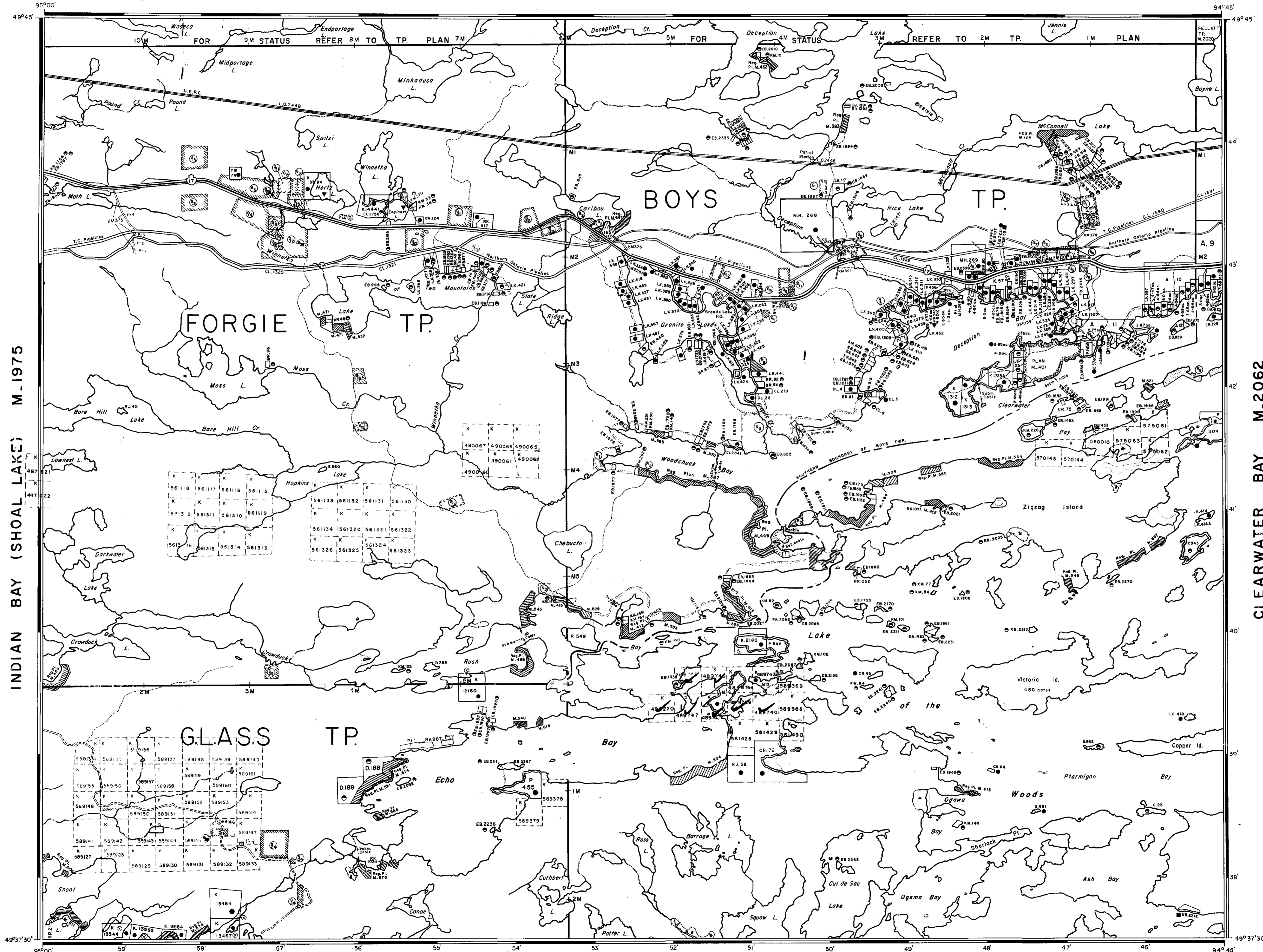
TYPE	FILE
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2	Gravel 163688
3	M.T.C. 438 163688
4	M.T.C. 1012 163688
5	M.T.C. 437 163688
6	Gravel File
7	M.T.C. 439 163688
8	M.T.C. 440 163688
9	M.T.C. 441 163688
10	M.T.C. 533
11	M.N.R. 35 122650
12	M.T.C. 442 163688
13	Gravel 120802
14	M.T.C. 424 99852
15	Gravel 99852
16	M.T.C. 1158
17	M.T.C. 429 99852
18	M.T.C. 1397
19	M.T.C. 1398
20	M.T.C. 422
21	M.T.C. 421 99852
22	M.T.C. 420 99852
23	M.T.C. 99852
24	Gravel 169181
25	M.N.R. 88 99852
26	Gravel File 169181

RESERVES

1	M.N.R. 77094 Vol 5
2	Crown Reserve(S.R.O.) 163473
3	M. 83811
4	Crown Reserve 163473
5	Public Reserve 122182
6	Crown Reserve 77054 Vol 6
7	Crown Reserve 163473 Vol 1
8	Crown Reserve
9	Public Use Reserve 163473 Vol 2
10	Tower Reserve 99852
11	400' shown thus S.R.O. Reserved to M.N.R. File 163473
12	Crown Reserve S.R.O. File 179645
13	GRAVEL FILE: 188793
14	" " 188740
15	" " 122650
16	" " 99852
17	M.T.C. 10-17
18	QUARRY PERMIT
19	M.T.C. 10-43

BRODERICK TP M-1953

GIDLEY TP M-1980



INDIAN BAY (SHOAL LAKE) M-1975

CLEARWATER BAY M-2062

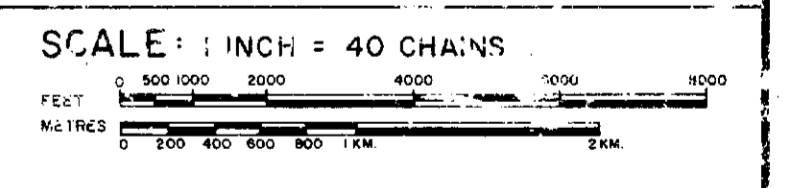
DATE OF ISSUE
NOV 25 1981
Ministry of Natural Resources
TORONTO

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES: LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
CROWN LAND SALE	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	



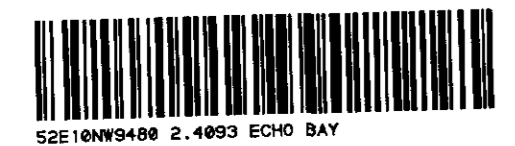
ACRES	HECTARES
40	16

AREA
ECHO BAY & BOYS TP.
DISTRICT
KENORA
MINING DIVISION
KENORA

24093

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

DATE 6th SEPTEMBER 1973 PLAN No.
NATIONAL TOPOGRAPHIC SERIES 52 E 10
M.1949



200

SHOAL LAKE M-2339

496 944

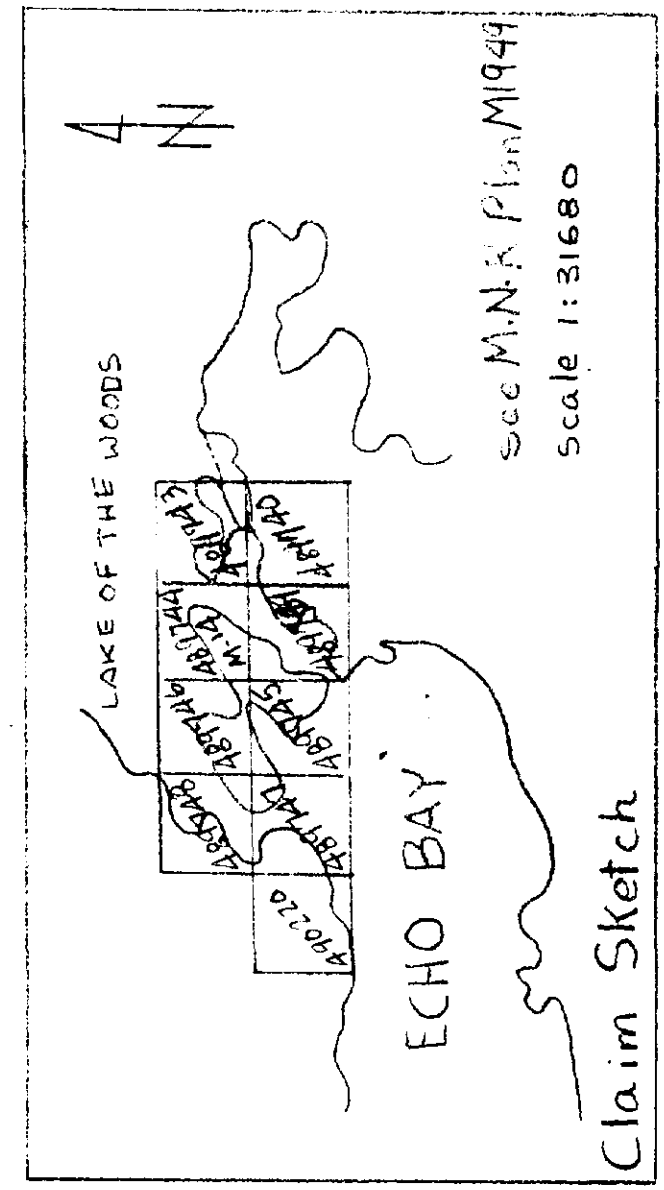
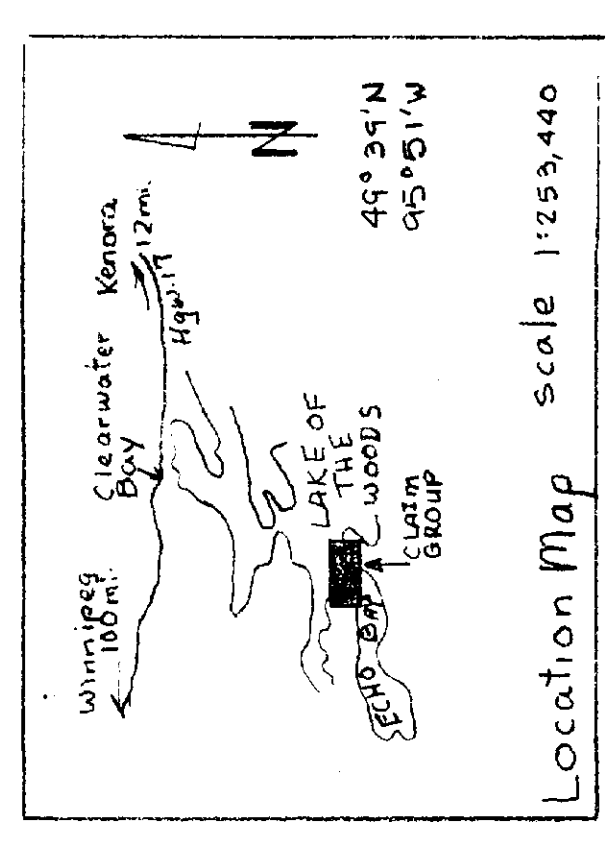
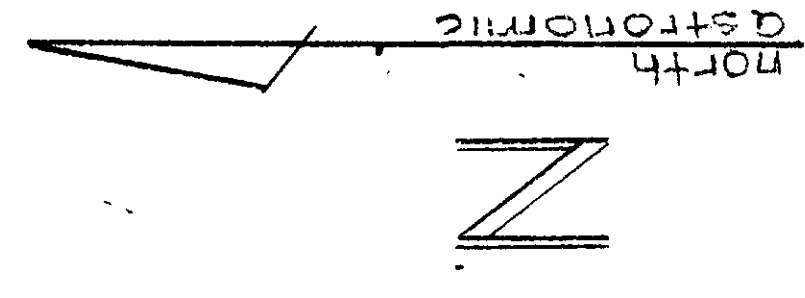
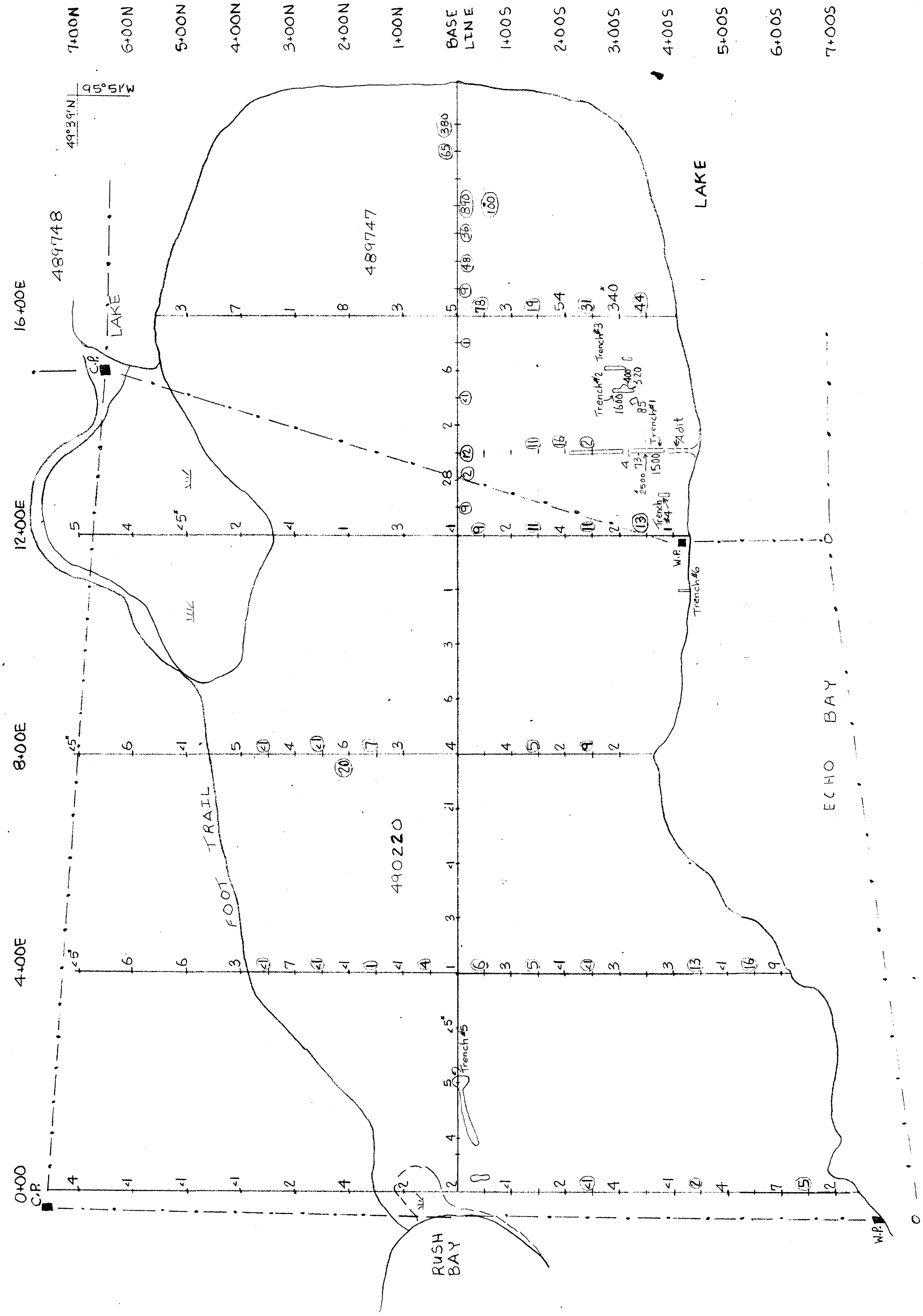
S Y M B O L S

- 54 Gold content of humus (in parts per billion). 1980 samples.
- 80 Gold content of humus (in parts per billion). 1981 samples.
- 340 Gold content of soil (in parts per billion). 1980 samples.
- 340 Gold content of soil (in parts per billion). 1981 samples.
- Claim number
- Flat, wet, poorly drained area
- Claim post (C.P.), witness post (W.P.), claim line

2,400.3

N O T E S

1. Samples of humus (or soil, where humus unavailable) were collected by H.G. Tibbo during the periods Oct. 7th to Oct. 10th, 1980, and June 11th to June 25th, 1981.
2. Each of the samples collected was put in a standard Kraft bag. The samples were analyzed for gold content by X-RAY ASSAY LABORATORIES LIMITED, 1885 LESLIE STREET, DON MILLS, ONTARIO.
3. Soil cover is variable in thickness from nil to 2ft. except in flat low-lying poorly drained areas where unknown thicknesses of gray clay have developed. The soil is poorly developed and was probably derived locally.
4. Vegetation consists of malformed scrub oak in areas underlain by siliceous tuffs, and mature cedar, pine, poplar and fir in areas underlain by more mafic rocks.

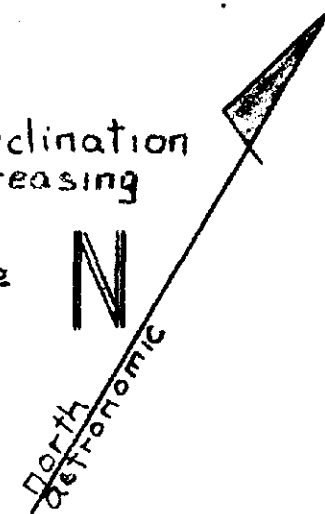


G O L D
SOIL GEOCHEMISTRY PLAN
OF PARTS OF
MINERAL CLAIMS 489747 & 490220
ECHO BAY AREA, LAKE OF THE WOODS,
KENORA MINING DISTRICT, ONTARIO
 BY
 H.G. TIBBO
 JULY, 1981
 SCALE 1:1200

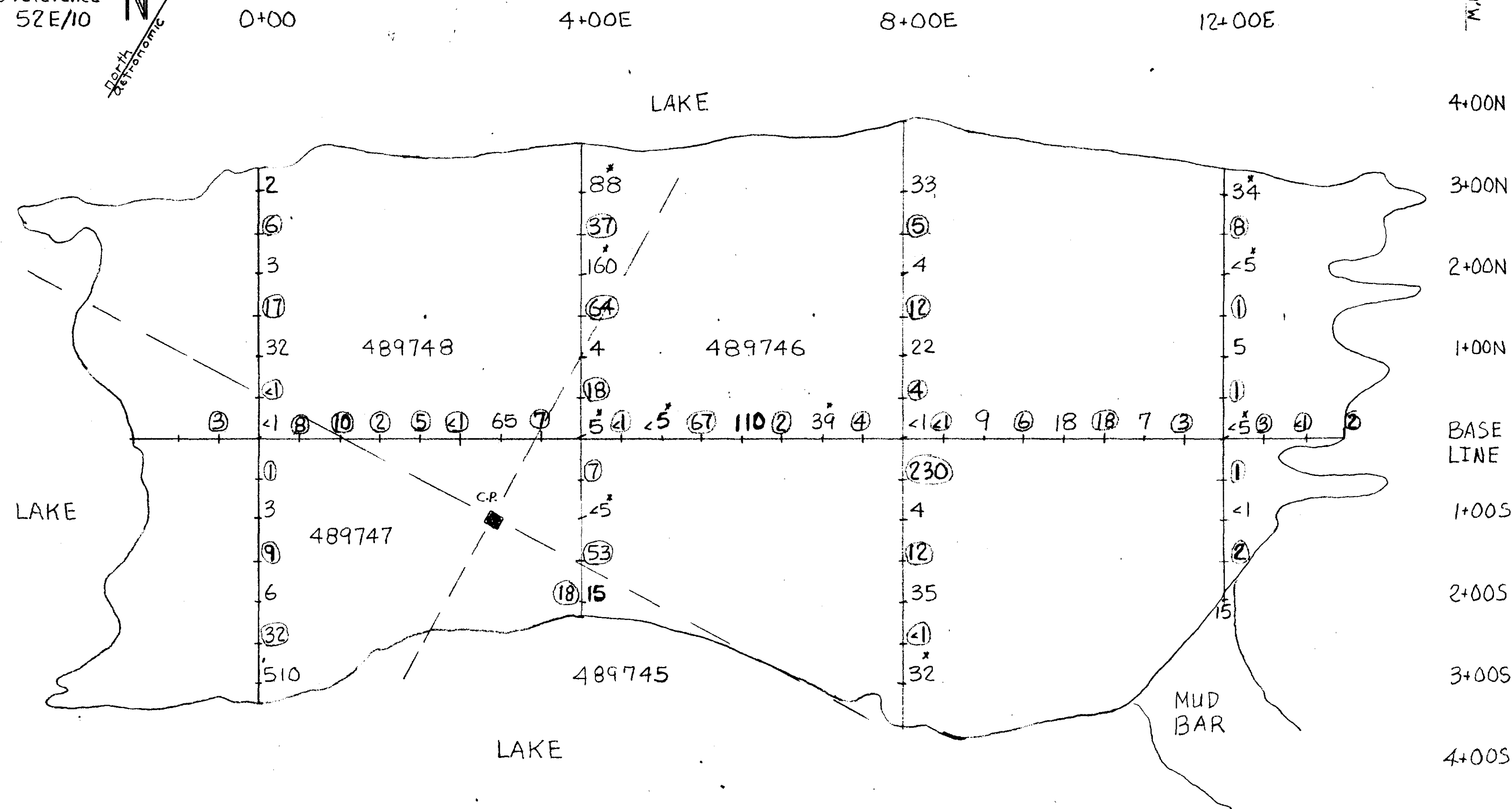
Appendix One



magnetic declination
1980, 7°41'E decreasing
4.5' annually
NTS reference
52E/10

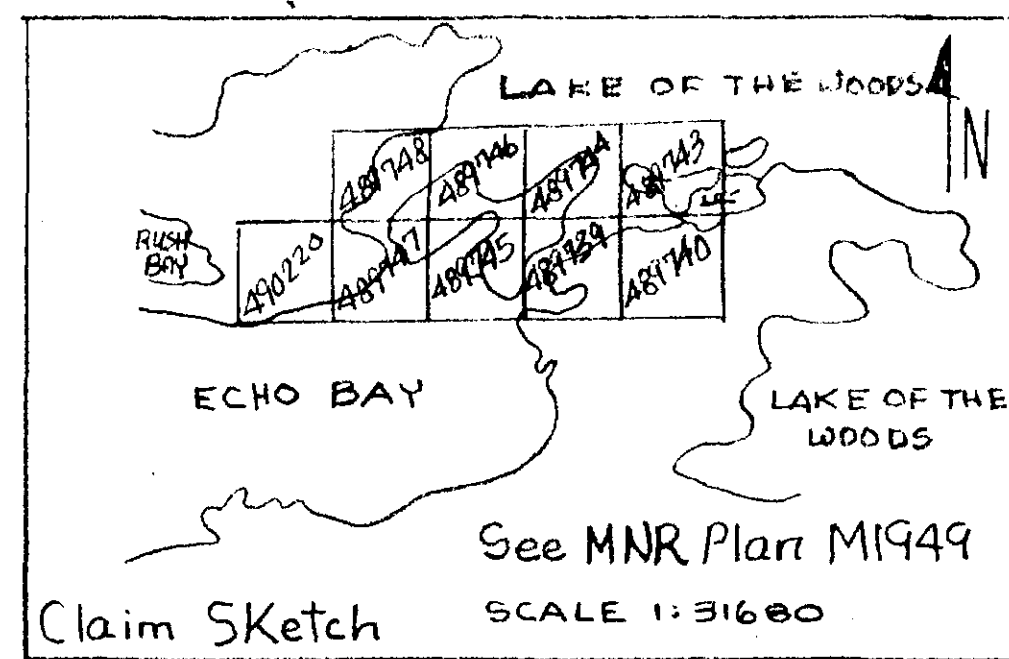
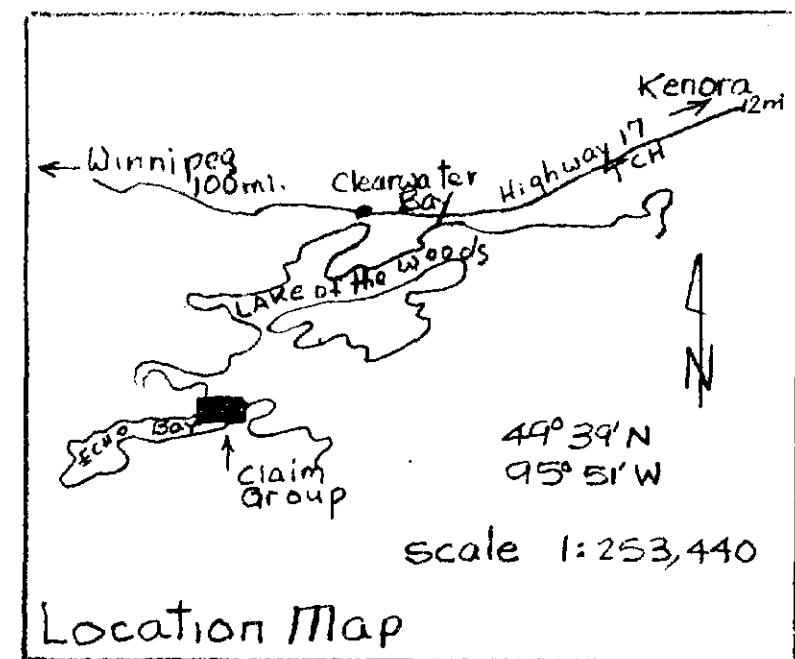


49° 39' N
95° 51' W



- ### SYMBOLS
- 25 Gold content of humus in parts per billion, 1980
 - 30 Gold content of humus in parts per billion, 1981
 - 34 Gold content of soil in parts per billion, 1980
 - 3 Gold content of soil in parts per billion, 1981
 - C.P. Claim Number
 - C.P. Claim Post (C.P.) & Claim Lines

- ### NOTES
1. Samples of humus (or soil, where humus unavailable) were collected by H.G. Tibbo during the periods Oct. 7th to Oct. 10, 1980 and June 11th to June 25th, 1981
 2. 214 samples were collected in 1980 and 193 samples in 1981. Each sample was put in a standard Kraft bag. Samples were dried, prepared for analysis and analyzed by K-RAY ASSAY LABORATORIES LTD., 1885 LESLIE ST., DON MILLS, ONTARIO.
 3. Soil cover is variable from nil to 2ft. thick except in flat, low-lying, poorly drained areas where unknown thicknesses of grey clay have developed. The soil is poorly developed and was probably locally derived.
 4. Vegetation consists of malformed scrub oak in areas underlain by siliceous tufts, and mature cedar, pine, poplar and fir in areas underlain by more mafic rocks.



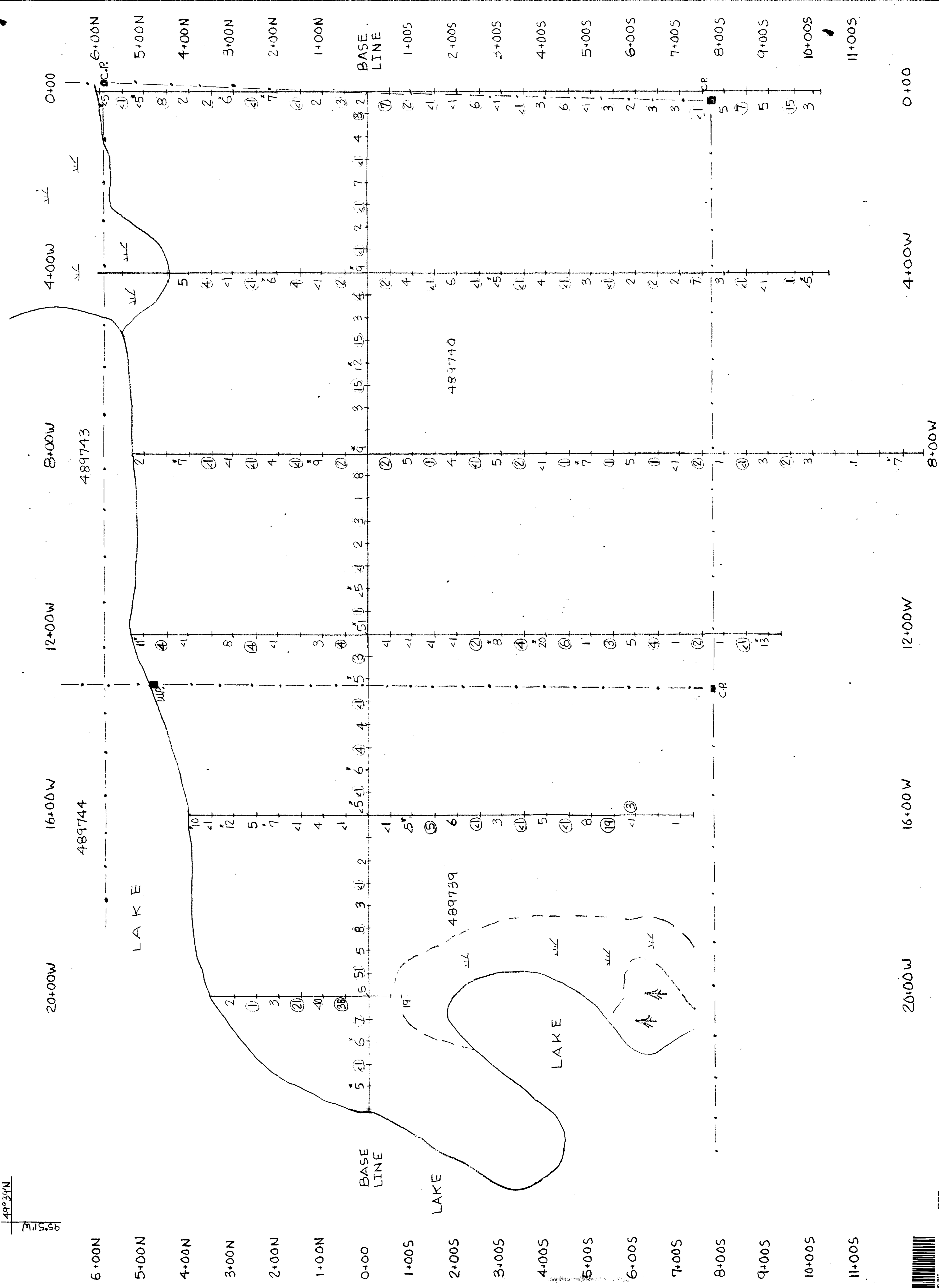
GOLD
SOIL GEOCHEMISTRY PLAN
OF PARTS OF
MINERAL CLAIMS 489745, 489746,
489747 & 489748
ECHO BAY AREA, LAKE OF THE WOODS
KENORA MINING DISTRICT, ONTARIO
BY
H.G. TIBBO
JULY, 1981
SCALE 1:1200

H.G. Tibbo

100 0 100 200 300 2,409.3



49° 33'N
95° 51'W

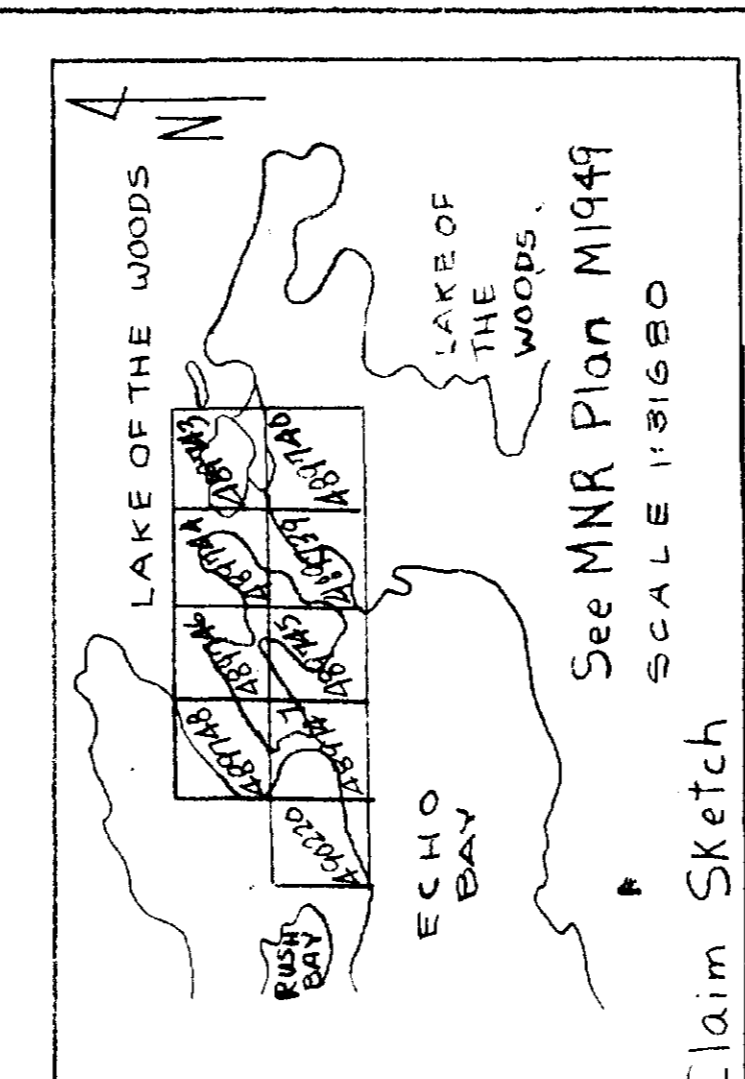
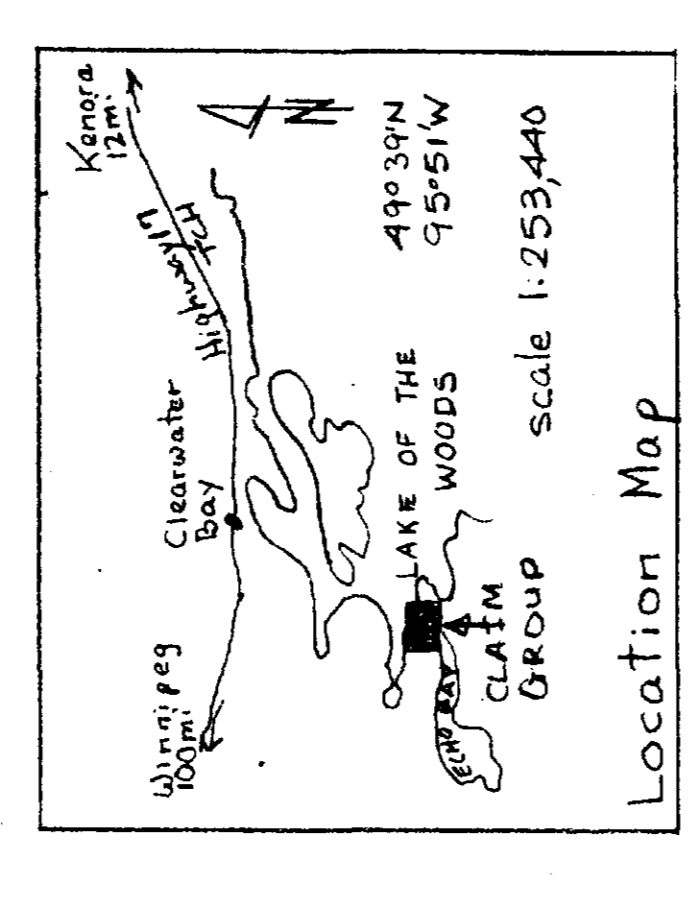


- SYMBOLS**
- 28 Gold content of humus in parts per billion (1980)
 - 15 Gold content of humus in parts per billion (1981)
 - 6 Gold content of soil in parts per billion (1980)
 - Gold content of soil in parts per billion (1981)
 - Claim Number
 - Wet, poorly drained area.
 - Claim post (CP), Witness Post (WP)
 - Claim lines

NOTES

1. Samples of humus (or soil where humus unavailable) were collected by H.G. Tibbo during the periods Oct 7- Oct 10, 1980 and June 11th to June 25th, 1981.
2. Each of the samples collected was put in a standard Kraft bag. Samples were dried, prepared for analyses and analyzed by X-RAY ASSAY LABORATORIES LTD., 1885 LESLIE ST., DON MILLS, ONT.
3. Soil cover is variable from nil to 2ft thick except in flat, low-lying, poorly drained areas where unknown thicknesses of grey clay have developed. The soil is locally developed and was probably locally derived.
4. Vegetation consists of malbarred scrub oak in areas underlain by siliceous tuff and mature cedar, pine, poplar and fir in areas underlain by more mafic rocks.

magnetic declination
1980, 7°41'E decreasing 4.5
annually
NTS reference 52E/10



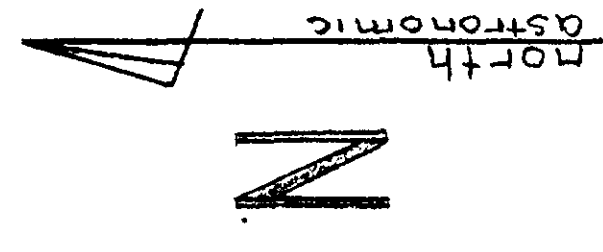
GOLD
SOIL GEOCHEMISTRY PLAN
OF
MINERAL CLAIMS 489739 & 489740
ECHO BAY AREA, LAKE OF THE WOODS,
KENORA MINING DISTRICT, ONTARIO
BY
H.G. TIBBO
JULY, 1981
SCALE 1:1200

2.4093
Appendix Three



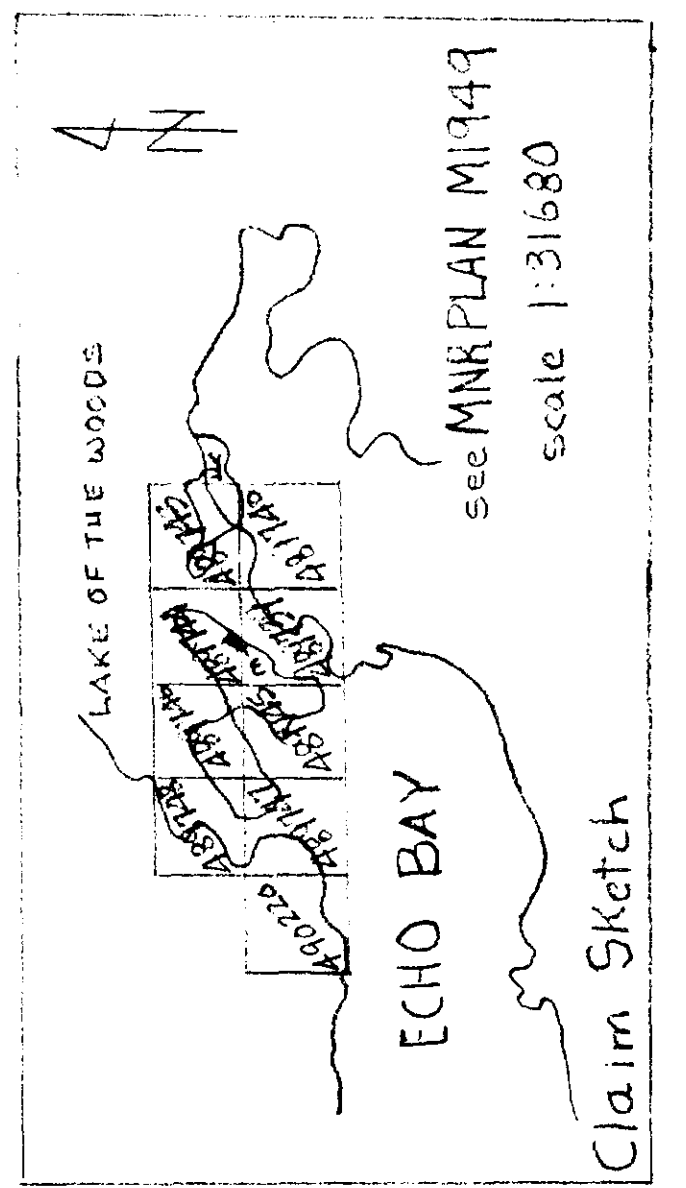
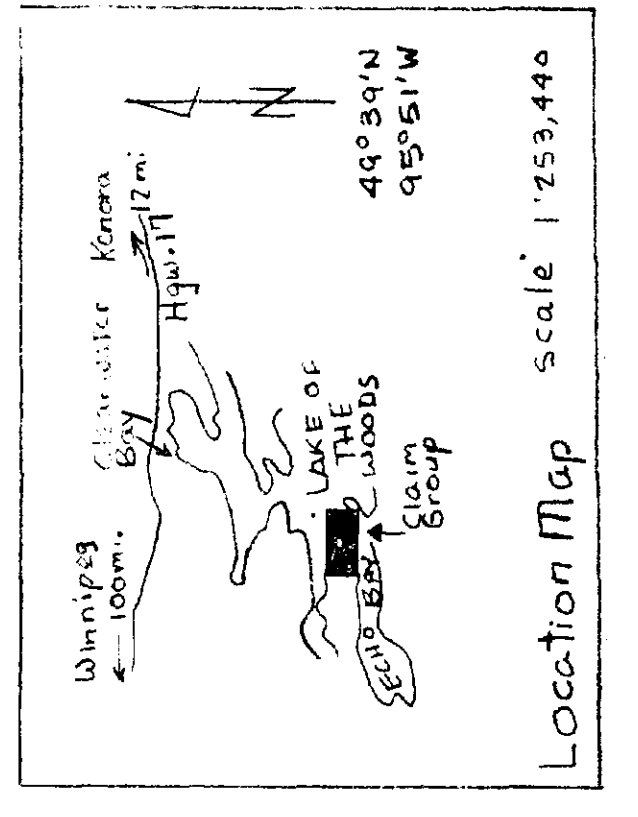
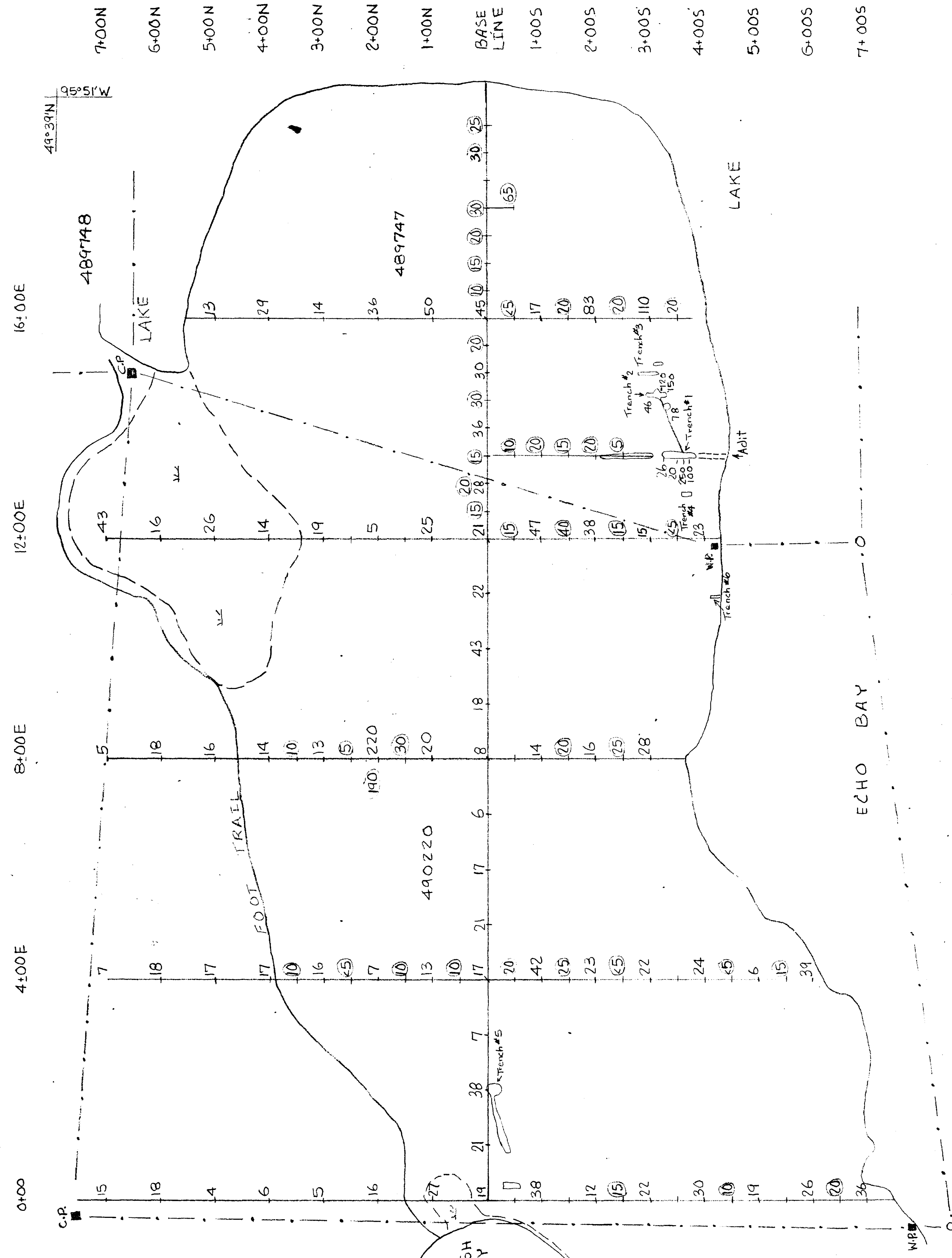
SYMBOLS

- Copper in parts per million, 1980 samples
- Copper in parts per million, 1981 samples
- Claim post (C.P.); Witness post (W.P.); claim lines
- Claim number
- Flat, wet, poorly drained area.



NOTES

1. Samples of humus (or soil, where humus unavailable) were collected by H.G. Tibbo during the periods Oct. 7th, to Oct. 10th, 1980 and June 11th to June 25th, 1981.
2. 214 samples were collected in 1980 and 193 samples in 1981. Each sample was put in a standard Kraft bag. The samples were dried, prepared for analyses and analysed by X-RAY ASSAY LABORATORIES, LIMITED, 1885 LESLIE STREET, DON MILLS, ONTARIO.
3. Analytical method for copper was atomic absorption.
4. Soil cover is variable from nil to 2 ft thick except in flat, low-lying, poorly drained areas where unknown thicknesses of grey clay have developed. The soil is poorly developed and was probably locally derived.
5. Vegetation consists of malformed scrub oak in areas underlain by siliceous tuffs; and mature cedar, pine, poplar and fir in areas underlain by more basic rocks.



COPPER
SOIL GEOCHEMISTRY PLAN
OF PARTS OF
MINERAL CLAIMS 489747 & 490220
ECHO BAY AREA, LAKE OF THE WOODS
KENORA MINING DISTRICT, ONTARIO

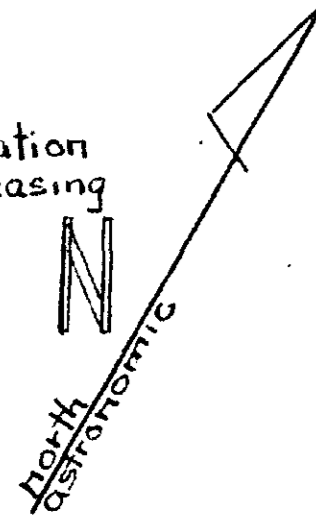
By

H.G. TIBBO

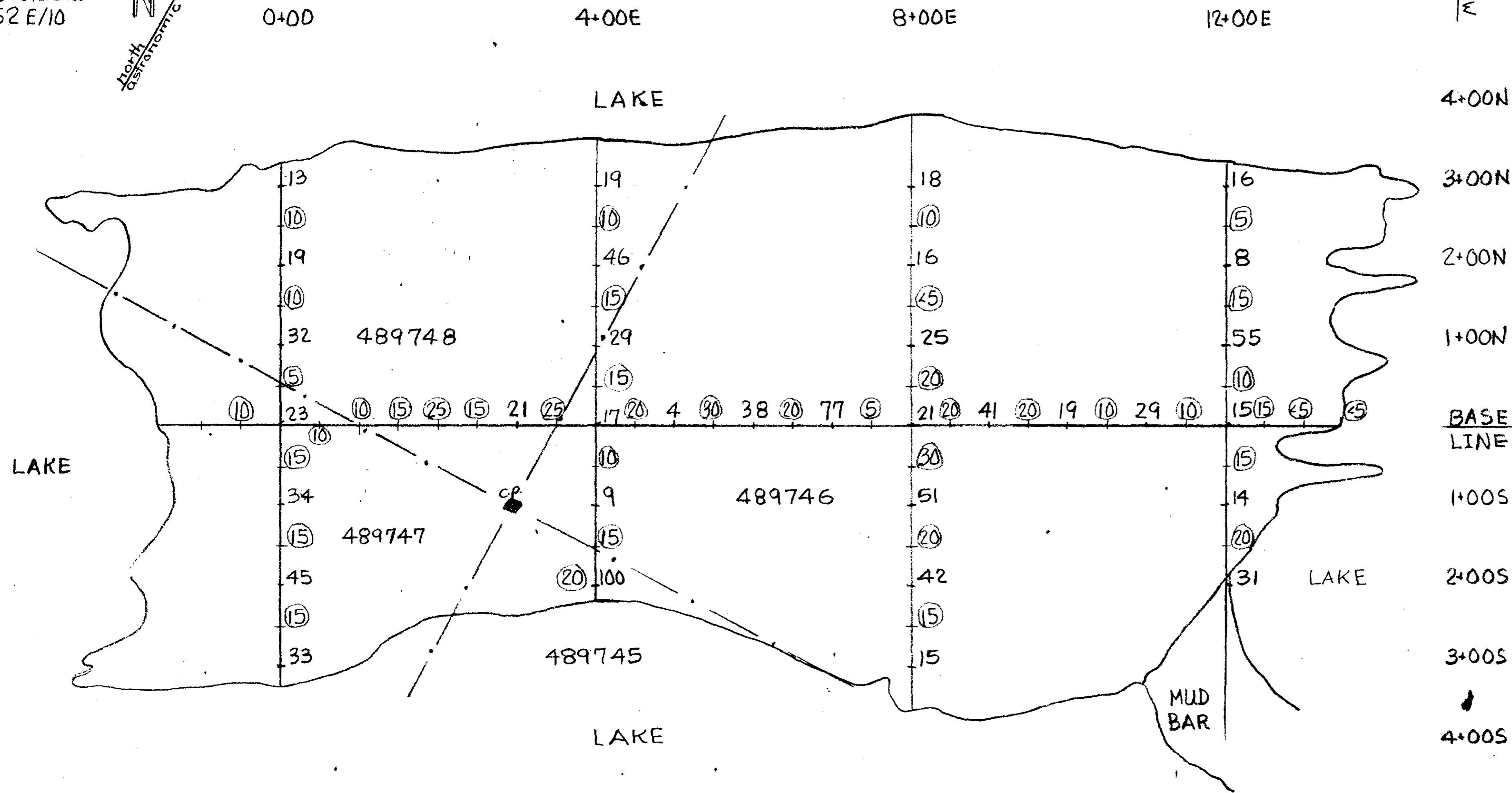
JULY, 1981 **SCALE 1:1200**



magnetic declination
1980, 7°41'E decreasing
4.5' annually
NTS reference
52 E/10



49°39'N
95°51'W

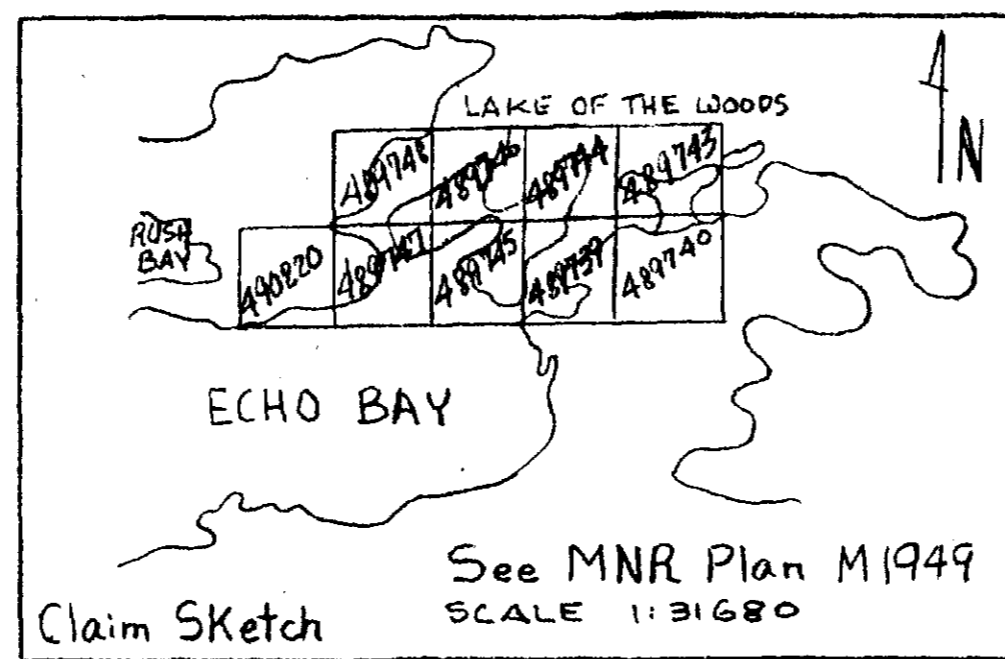
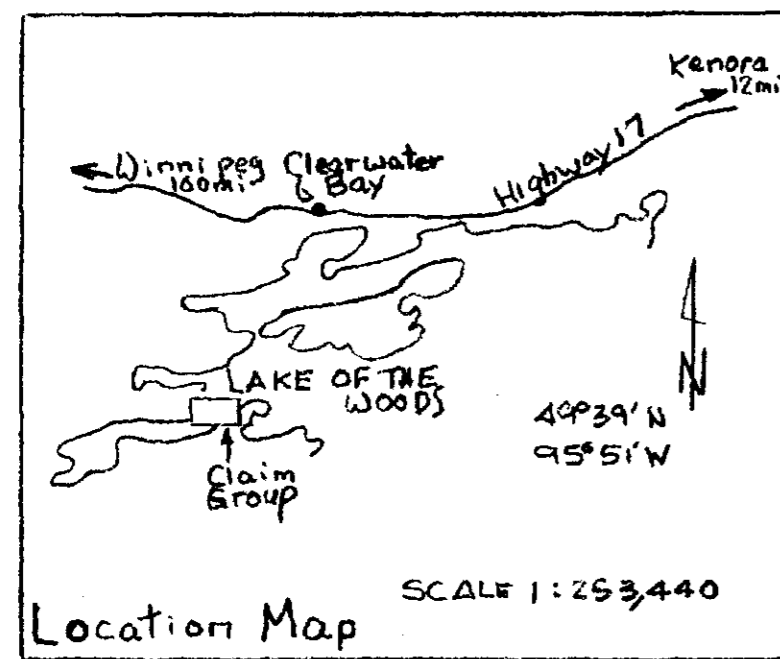


SYMBOLS

- 25 Copper, in parts per million 1980 sample
- + Claim post a claim line
- 10 Claim number
- 30 Copper, in parts per million, 1981 sample

NOTES

1. Samples of humus (or soil, where humus unavailable) were collected by H.G. Tibbo during the periods Oct. 7th to Oct 10, 1980 and June 11th to June 25th, 1981.
2. 214 samples were collected in 1980 and 193 samples in 1981. Each sample was put in a standard Kraft bag. The samples were dried, prepared for analyses and analysed by X-RAY ASSAY LABORATORIES LIMITED, 1885 LESLIE STREET, DON MILLS, ONTARIO
3. Analytical method for copper was atomic absorption.
4. Soil cover is variable from nil to 2ft. thick except in flat, low-lying, poorly drained areas where unknown thicknesses of grey clay have developed. The soil is poorly developed and is probably locally derived.
5. Vegetation consists of malformed scrub in areas underlain by siliceous tuffs and mature cedar, poplar and fir in areas underlain by more basic rocks.



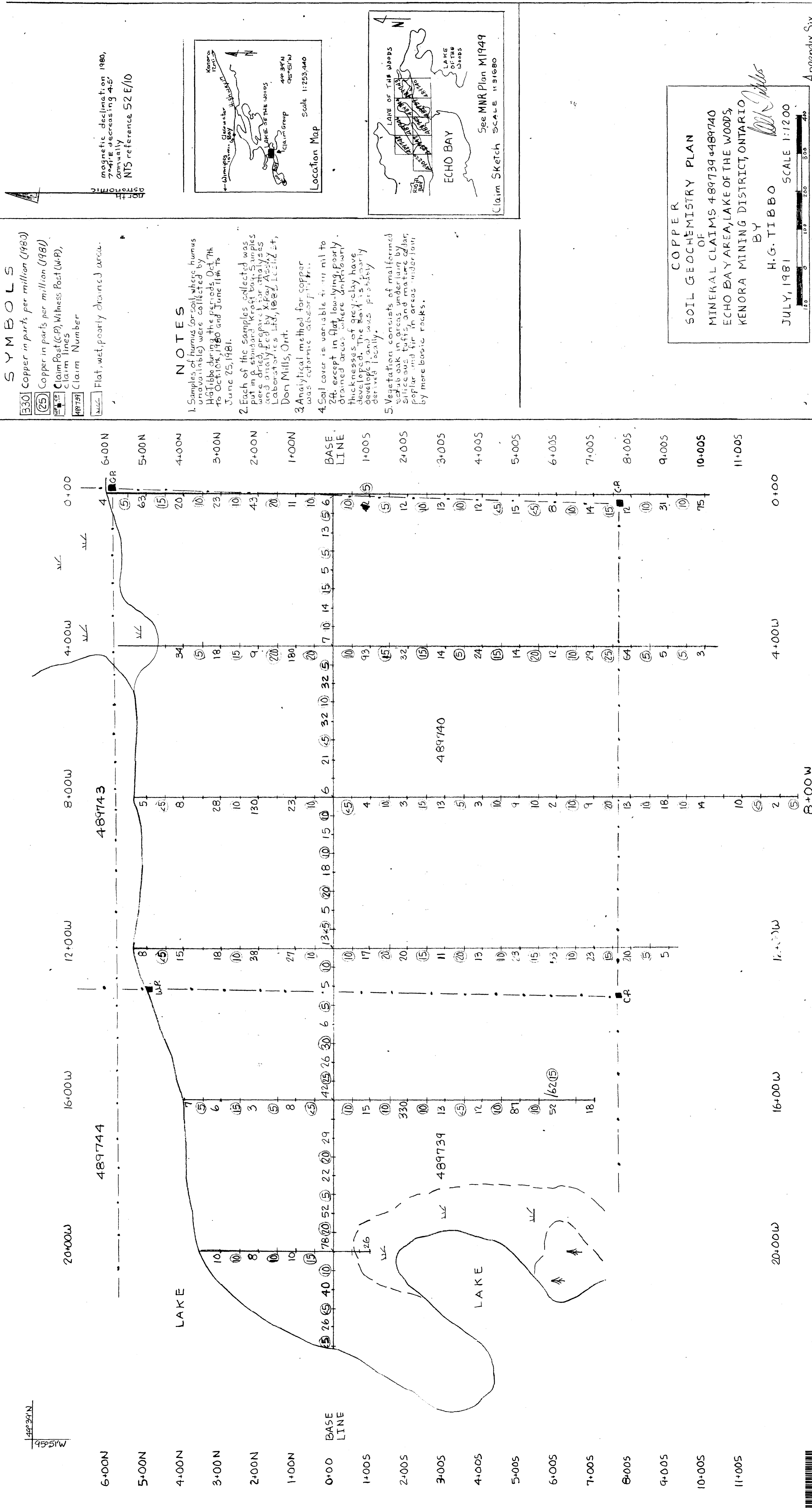
**COPPER
SOIL GEOCHEMISTRY PLAN
OF PARTS OF
MINERAL CLAIMS 489745, 489746,
489747 & 489748
ECHO BAY AREA, LAKE OF THE WOODS,
KENORA MINING DISTRICT, ONTARIO**

BY
H.G. TIBBO

JULY, 1981 SCALE 1:1200

2.4093
Appendix Five





SYMBOLS

330 Copper in parts per million (1980)

25 Copper in parts per million (1981)

CP Claim Post (C.P.) Witness Post (W.P.)

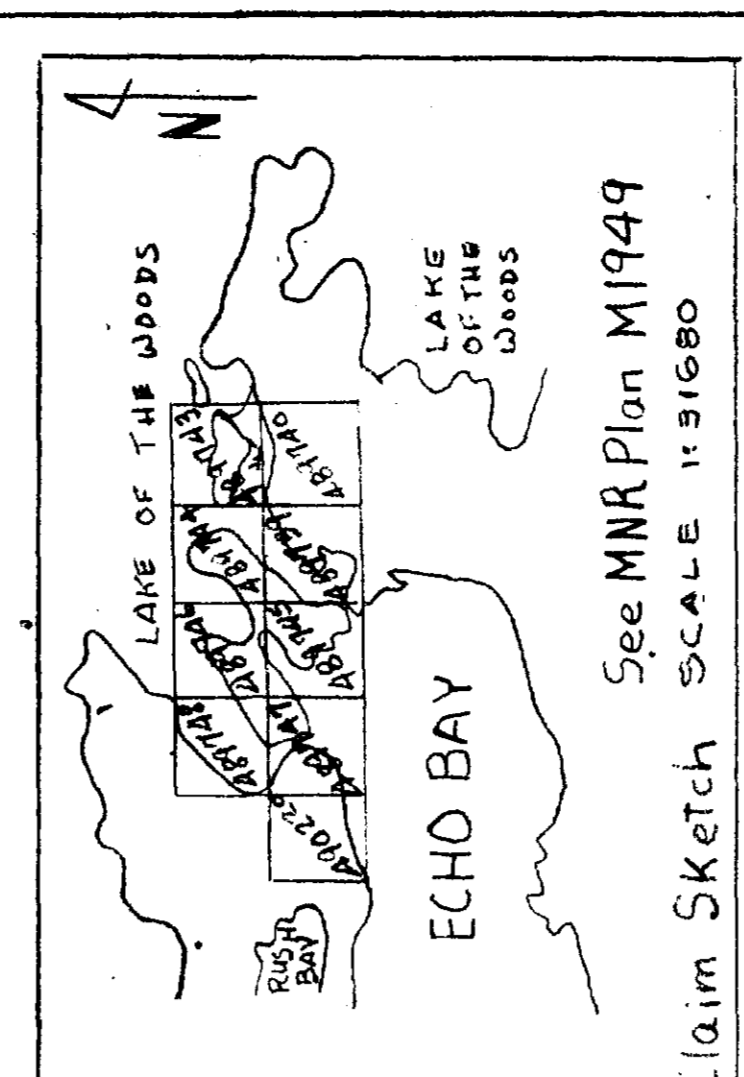
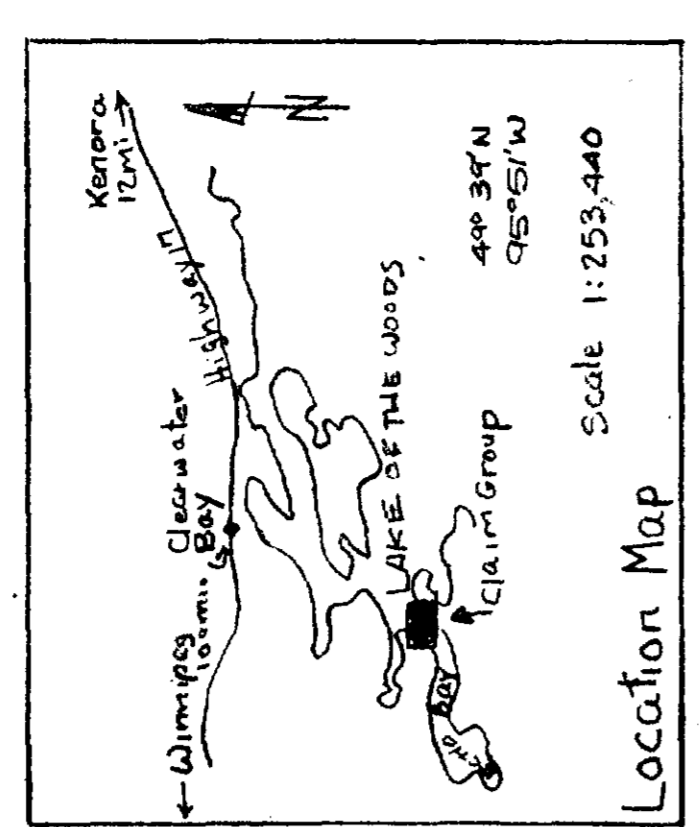
489743 Claim Number

Flat, wet, poorly drained areas.

NOTES

1. Samples of humus (or soil where humus unavailable) were collected by H.G. Tibbo during the periods Oct. 7th to Oct. 10th, 1980 and June 11th to June 25, 1981.
2. Each of the samples collected was put in a standard kraft bag. Samples were dried, prepared for analyses and analyzed by X-Ray Assay Laboratories Ltd., 1003 Leslie St., Don Mills, Ont.
3. Analytical method for copper was atomic absorption spectrophotometry.
4. Soil cover is variable from 100% to 25%, except in flat low-lying, poorly drained areas where ironstone concretions of grey clay have developed. The soil is probably derived locally.
5. Vegetation consists of malformed scrub oak in areas underlain by siliceous tuffs and mature cedar, poplar and fir in areas underlain by more basic rocks.

magnetic declination 1980, 7-41'E decreasing 4-5' annually
 NTS reference 52 E/10



COPPER
SOIL GEOCHEMISTRY PLAN
 OF
 MINERAL CLAIMS 489739 & 489740
 ECHO BAY AREA, LAKE OF THE WOODS,
 KENORA MINING DISTRICT, ONTARIO
 BY
 H. G. TIBBO
 JULY, 1981
 SCALE 1:1200