010

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

SUMMARY REPORT OF WORK - 1992

SIX MILE LAKE - PROJECT 1320

N.T.S. 52G/14 and 52G/15

NORTHWEST ONTARIO DISTRICT

2.15020

2.3297.

Qual. 1/0.

THUNDER BAY, ONTARIO
JANUARY, 1993

REG FELIX
SR. PROJECT GEOLOGIST

W9330.00022

Table of Contents

List of Attachments

		Scale
Figure 1	Location Map	1:2,000,000
Figure 2	Six Mile Lake Properties Location Sketch	1" = 2 miles (approx)
Figure 3	Regional Geology Map	1" = 2 miles (approx)
Figure 4	Total Field Magnetics - Six Mile Lake Area	1:100,000
Figure 5	AFM Plot - Cobb Lake West Grid Samples	
Figure 6A	(Zr/10) - (Ti/100) - (Y) Plot - Cobb Lake West Grid Samples	
Figure 6B	(Zr/10) - (Ti/100) - (Y) Plot - Cobb Lake East Grid Samples	
Figure 7	(Zr/10) - (Ti/100) - (Y) Plot - Cobb Bay Grid Samples	
Figure 8	(Zr/10) - (Ti/100) - (Y) Plot - Fish Lake Grid Samples	
Map 1	Claim Sketch - Six Mile Lake Area	1" = ½ mile
Map 2	Claim Sketch - Penassi Lake Area	1" = ½ mile
Map 3	Geocompilation - Six Mile Lake Area	1:20,000
Map 4	Geology - Penassi Lake Grid	1:5,000
Map 5	Geology - Cobb Lake Grid	1:5,000
Map 6	Geology - Cobb Bay Grid	1:5,000
Map 7	Geology - Fish Lake Grid	1:5,000
Map 8	Total Field Magnetic Values - Penassi Lake Grid	1:5,000
Map 9	Total Field Magnetic Contours - Penassi Lake Grid	1:5,000
Map 10	HLEM Survey - 440 Hz - Penassi Lake Grid	1:5,000
Map 11	HLEM Survey - 1760 Hz - Penassi Lake Grid	1:5,000
Map 12	HLEM Survey - 3520 Hz - Penassi Lake Grid	1:5,000
Map 13	Total Field Magnetic Values - Cobb Lake Grid	1:5,000
Map 14	Total Field Magnetic Contours - Cobb Lake Grid	1:5,000
Map 15	HLEM Survey - 880 Hz - Cobb Lake Grid	1:5,000
Map 16	HLEM Survey - 1760 Hz - Cobb Lake Grid	1:5,000
Map 17	HLEM Survey - 3520 Hz - Cobb Lake Grid	1:5,000
Map 18	Soil Geochemistry - Cu/Zn Values - Penassi Lake Grid	1:5,000
Map 19	Soil Geochemistry - Cu/Zn Values - Cobb Lake Grid	1:5,000
Map 20	Soil Geochemistry - Cu/Zn Values - Cobb Bay Grid	1:5,000
Map 21	Soil Geochemistry - Cu/Zn Values - Fish Lake Grid	1:5,000
Appendix I	Petrographic Descriptions	
Appendix II	Lithosample Descriptions and Analyses	
Appendix III	Soil Geochemistry Laboratory Procedures and Analyses	

1.0 INTRODUCTION

Past successes such as the discoveries of deposits like Isle Dieu and Aur-Louvem are strong arguments to pursue exploration opportunities in existing mining camps such as the Sturgeon Lake Camp. Although the discovery of Mattabi in 1969 sparked a wave of exploration over the entire Sturgeon Lake greenstone belt in the late 1960's and early 1970's, all of the six base metal deposits found as yet are hosted within the South Sturgeon Lake Volcanic Assemblage on the south limb of a broad regional syncline. The Six Mile Lake area is situated on the northern limb. Most of the deposits in the South Sturgeon Lake volcanics are hosted by thick bedded, high porosity, subaqueous, felsic quartz crystal pyroclastic flow deposits overlain by massive shallower-water, fine grained, ash flow tuff cap rocks. Alteration zones are characteristically huge and widespread semi-conformable to conformable with local more intense lenses or pods beneath deposits and associated synvolcanic faults. Bedded and massive pyroclastic flow deposits of comparable size and morphology to the immediate host rocks of the South Sturgeon Lake VMS deposits are present within the second volcanic cycle (the Six Mile Lake Cycle) in the Six Mile Lake area. Previous testing of 1960's AEM targets has not located any economic mineralization. AEM and AMAG surveys of the Six Mile Lake area completed in 1990 by the OGS did not provide any new isolated AEM targets to act as a focal point. However, very little lithogeochemistry has been applied to the evaluation of the Six Mile Lake area for VMS deposits. In 1992, data released by the OGS reported lithogeochemical alteration indicative of footwall alteration associated with VMS and pyroclastic hosted gold deposits was present in samples collected from the Six Mile Lake cycle volcanics.

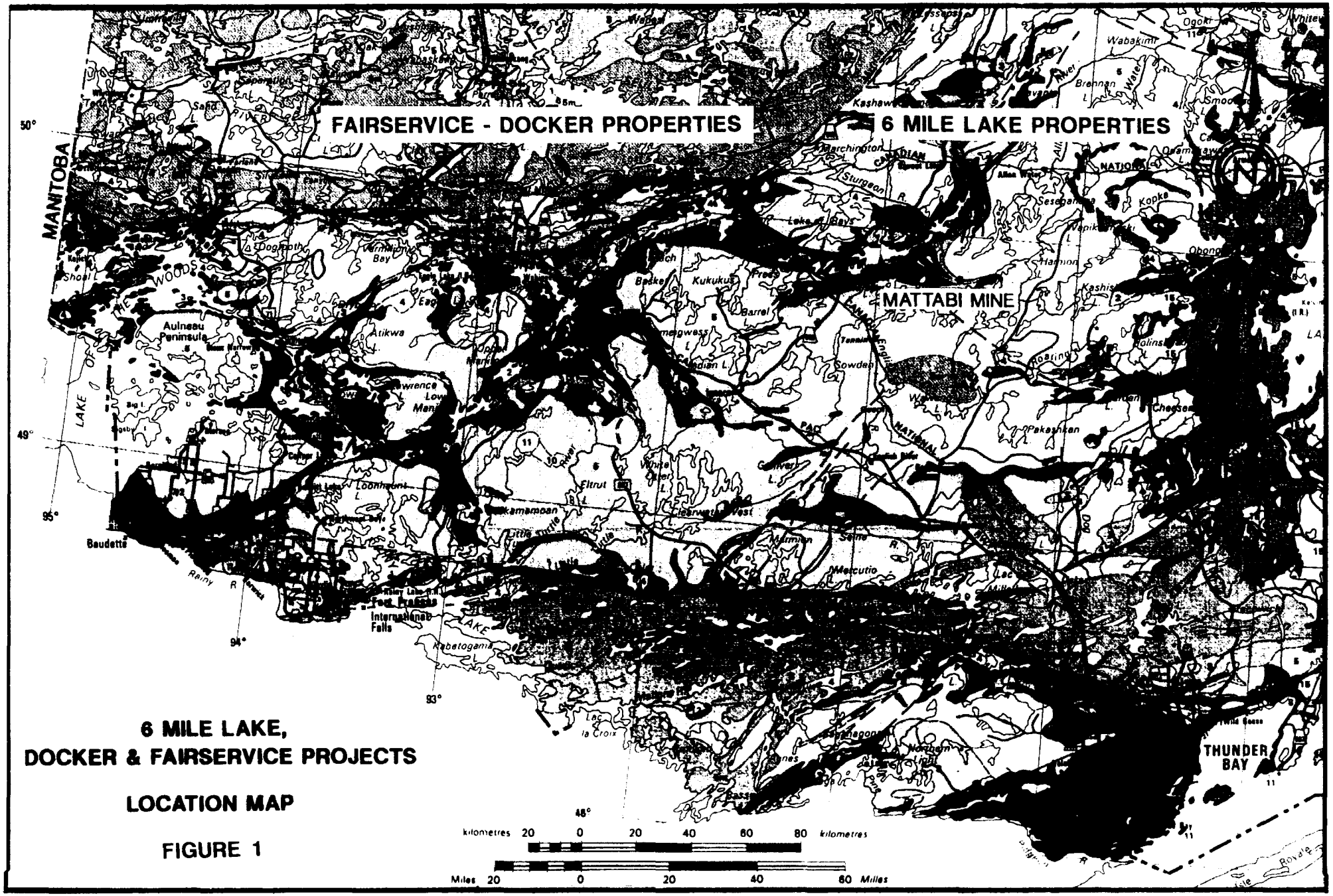
Consequently, a program was initiated in 1992 to further evaluate the geologic, geophysical and geochemical setting of the Six Mile Lake area for VMS deposits. Compilation and re-interpretation of existing data, including existing AEM data, was completed. Claim staking, linecutting, geological, lithogeochemical and soil geochemical surveys were undertaken within selected areas underlain by the Six Mile Lake Cycle volcanics. By year end ground geophysics was also initiated on two of the selected properties. The objective of these programs was to identify any alteration cells and/or untested geophysical anomalies diagnostic of potential VMS mineralization and to help develop viable drill targets.

2.0 LOCATION AND ACCESS (Figures 1, 2)

The Six Mile Lake area is located in the Sturgeon Lake-Savant Lake region, NTS 52G/14 and 52G/15, approximately 215 km northwest of Thunder Bay, Ontario. The area is bounded by latitudes 50°05'N and 49°52'N and longitudes 91°08'W and 90°46'W. The community of Savant Lake is situated 40 km north; Highway 599 provides access from Ignace, Ontario, 80 km to the south. Logging and tourist camp roads referred to locally as the Six Mile Lake road, the Handcuff Lake road, the Cobb Bay road and the McLeod Lake road, in conjunction with local lakes, afford additional access to the Six Mile Lake properties.

3.0 PROPERTY DISPOSITION (Figure 2)

As of December 31, 1992, the Six Mile Lake project is comprised of five properties encompassing a total of 20 unpatented mining claims (249 claim units, 3984 hectares). These claims lie in the Penassi Lake and the Six Mile Lake areas - claim sheets G.2526 and G.2561. They were staked by Noranda Exploration which holds a 100% interest. The claims listed below can be found on Maps 1 and 2 at the end of this report.



6 MILE LAKE,
DOCKER & FAIRSERVICE PROJECTS

LOCATION MAP

FIGURE 1

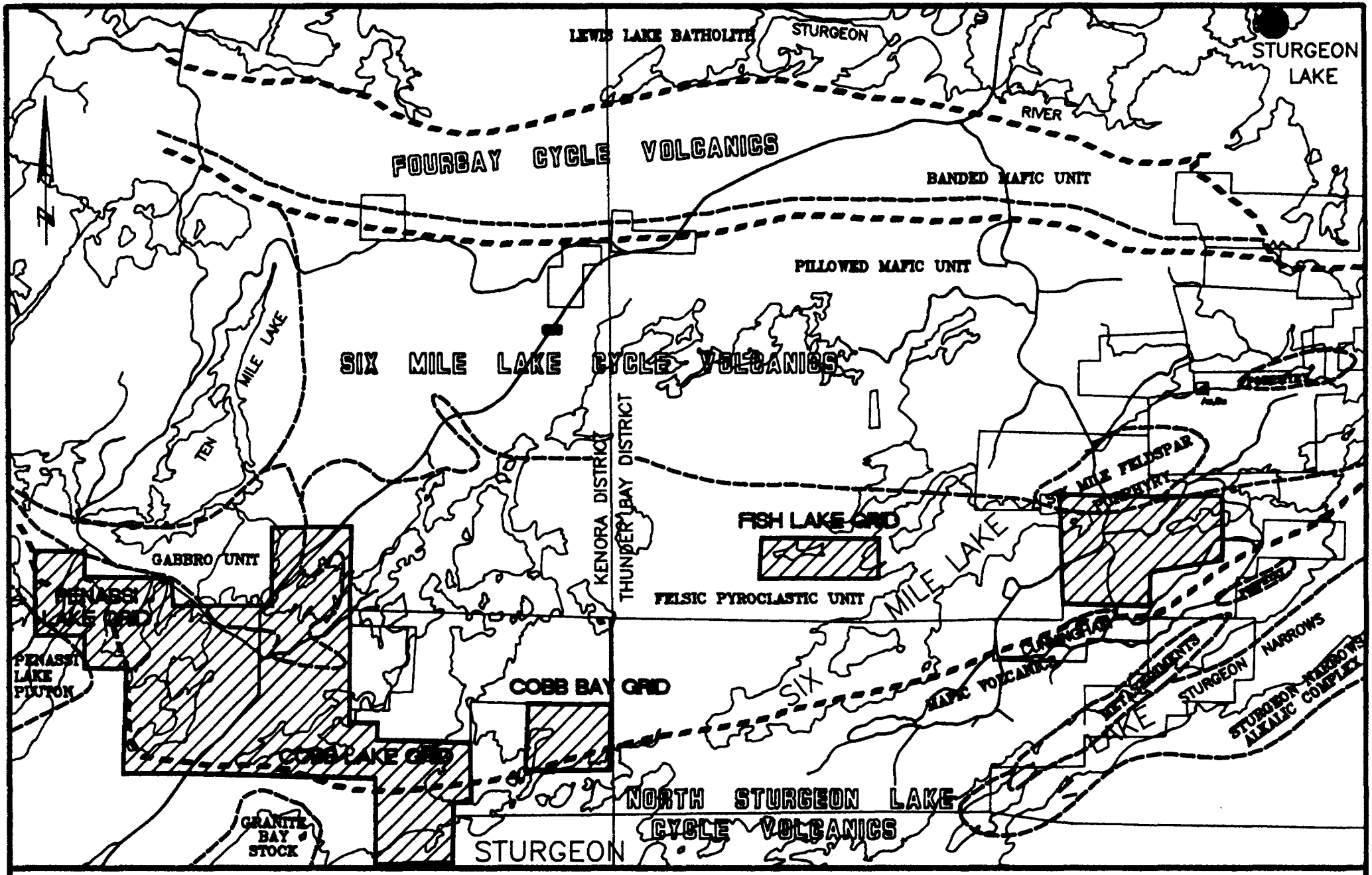


FIGURE 2

SIX MILE LAKE PROPERTIES

CLAIM BLOCK	# OF CLAIM UNITS	AREA	RECORDING DATE
PA 1195525	15	Penassi Lake	04/22/92
PA 1195526	15	Penassi Lake	04/22/92
PA 1195527	16	Penassi Lake	05/04/92
PA 1195554	12	Six Mile Lake	04/27/92
PA 1195574	12	Six Mile Lake	04/22/92
PA 1195575	15	Penassi Lake	04/22/92
PA 1195577	16	Penassi Lake	04/22/92
PA 1195578	15	Penassi Lake	05/04/92
PA 1195579	16	Penassi Lake	05/04/92
PA 1195580	15	Penassi Lake	05/04/92
PA 1195581	16	Penassi Lake	05/04/92
PA 1195582	3	Penassi Lake	05/04/92
PA 1195584	15	Penassi Lake	05/04/92
PA 1195585	15	Penassi Lake	05/04/92
PA 1195802	3	Penassi Lake	08/19/92
PA 1195803	12	Six Mile Lake	08/19/92
PA 1195804	6	Six Mile Lake	08/19/92
PA 1195805	4	Six Mile Lake	08/19/92
PA 1195806	16	Six Mile Lake	08/19/92
PA 1195807	12	Six Mile Lake	08/19/92

4.0 PREVIOUS WORK

The Six Mile Lake area was previously mapped by Trowell (1974, 1976, 1983). Beggs (1975) completed a north-south traverse across the north limb stratigraphy as part of a thesis on the petrology and geochemistry of the Six Mile Lake area. The Ontario Geological Survey completed airborne magnetic and electromagnetic surveys for the entire Sturgeon Lake-Savant Lake area in 1990. Most recently, the central and eastern portions of the area have been geologically mapped by Don Robinson (OGS, 1992).

The Six Mile Lake area has undergone two major episodes of exploration activity. Discovery of Mattabi in 1969 sparked a wave of exploration for base metals in the late 1960's and early 1970's. Rio Tinto Exploration Ltd., Granges Ltd., Noranda Exploration, Conwest, Selco, as well as Mattagami

Lake Mines Ltd. completed massive sulphide exploration programs with no success. Approximately 3 km west of Sturgeon Narrows, a massive pyritic sulphide lens up to 5m thick, hosted by the Six Mile Lake Cycle felsic pyroclastic unit that is capped by a Fe-carbonate alteration zone was geologically mapped in 1973 by Santa Maria Mines Ltd. IP later traced this zone for 1200 meters strike length. However, drilling of this zone as recently as 1985 yielded only trace amounts of base and precious metals. The second period of exploration activity centered around the "rediscovery" of gold in the early 1980's at King Bay. Several drilling campaigns by companies such as Steep Rock Resources, Hudson Bay Exploration, Falconbridge Ltd., Almanden Resources, Abermin Corp., W.G. Wahl Ltd., and Primrose Gold have subsequently tested the occurrence and surrounding area. Gold values over narrow and irregular quartz vein widths were intersected in drilling programs.

Geological data inventory folios have been completed for the Fourbay Lake, Six Mile Lake and Penassi Lake areas (OGS, 1986, 1987 and 1989), summarizing the previous exploration for the area. The following is a brief summary of previous exploration on each of the Six Mile Lake properties which are covered by this report. The reader should refer to Figure 2 and Map 3 for property locations and previous drill holes and geophysical anomalies.

(I) Penassi Lake Grid Area

1969-70: Mattagami staked 16 claims over AEM Anomaly H; anomaly had coincident airborne EM and Mag; follow-up Crone JEM and fluxgate mag in 1970 outlined 3 strong , narrow conductors with magnetic coincidence; a Radem survey later in 1970 outlined three more areas of weak, non-magnetic conductivity; drilled two holes; intersected .7 meters of 0.2% Zn in graphitic tuff in one hole and andesite - no assays - in second hole; remaining four conductors have never been tested.

1970-71: Labow, L.F., staked 10 claims between Graystone and Cobb Lakes, bordered on the west by Highway 599 (Daering Explorers Option) and 15 claims immediately east of Daering property (Win-Eldrich Mines); completed ground mag, radem VLF surveys and geologic mapping; delineated 4 conductive zones on Daering property and 2 discontinuous conductive zones without mag anomalies on Win-Eldrich Mines property; drilled 7 holes totalling 918 meters testing conductors, intersected felsic volcanics, no economic mineralization.

1971-72: Imperial Oil Limited staked 100 claims in McKee Lake area; carried out geological mapping; HLEM and mag surveys, picked up 3 conductors; drilled 3 holes totalling 288m testing all 3 conductors, one hole tested the southern extension of the Mattagami conductor 8-1 and intersected 0.6 meters of 0.06% Cu and 0.10% Zn in a siliceous tuff.

(II) Cobb Lake Grid Area

1970-72: Scandia Mining and Exploration staked 26 claims in the Cobb Lake - Granite Bay area; completed ground mag and HLEM, no EM conductors; optioned by Noranda Exploration in 1972; carried out CEM and VLEM surveys, found 3 weak CEM anomalies; also completed soil geochem survey, found 5 zones of coincident zinc and copper concentrations, weak conductors were never drilled.

1970: Mattagami Lake Mines Limited staked 9 claims (Group 9) on north shore of Sturgeon Lake immediately south of Cobb Bay; carried out ground mag and JEM. 2 conductive zones delineated. 2 drill holes totalling 415 meters encountered no economic

mineralization.

1973: Granges carried out EM-17 on 269 claims east of Cobb Lake and Granite Bay.

(III) Cobb Bay Grid Area

1971: Spooner Mines and Oils Ltd. staked 484 claims within southern portion of Cobb Lake and Cobb Bay, Byline Lake and south over Sturgeon Lake; completed airborne Mag and EM surveys.

1972: Granges Exploration Ltd. optioned Spooner claims; completed 5 drill holes over northern portion of Sturgeon Lake and south of Cobb Bay. No economic mineralization encountered; in hole SPO-14 just south of Cobb Bay, intersected graphite and chert beds carrying 2-5% disseminated pyrite within rhyolitic to dacitic lapillistone.

(IV) Fish Lake Grid Area

1971-72: Dome Exploration Ltd. staked 33 claims north of Six Mile Lake and east of Saunders Lake; completed airborne mag, flat except for SE corner near Fish Lake; carried out ground mag and EM, many narrow mag anomalies delineated, no conductors.

1970-72: Rio Tinto Canadian Exploration Ltd. held 161 claims from Byline Lake to northwestern portion of Six Mile Lake (Byline, Hydra and Pamike properties); conducted soil geochem, ground mag, TURAM EM and geological mapping, delineated a 400 meter thick rhyolite flow breccia in a thick sequence of felsic pyroclastics; minor Zn and Cu mineralization was reported associated with rhyolite flow breccia unit, four copper occurrences and one zinc occurrence were reported, two of them occur with Turam conductors and were drilled with 4 holes, no economic mineralization was intersected, a grab sample south of Fish Lake ran 0.51% Zn and was never drilled.

(V) Dumbell Lake Claim Group Area

1970: Ross Kidd staked 20 claims east of Six Mile Lake, carried out airborne mag and EM, no anomalies.

1970-71: Bordun Mining (Quebec) Ltd. staked 16 claims NE of Six Mile Lake; completed ground mag and EM-16 and SE-200, delineated 3 narrow mag anomalies within mafic flows, no SE-200 anomalies, several EM-16 conductors.

1970: Rio Tinto Canadian Exploration Ltd. held the Amalgamated Beau Belle Option claim group east of Six Mile Lake; completed ground mag and EM, geology and 2 drill holes totalling 276 meters testing a Turam conductor in mafic intrusives, no economic mineralization was encountered.

1971: Dome Exploration held 15 claims east of Six Mile lake, carried out ground mag and EM.

1970-71: Conwest held claims on the Dumbell Lake - King Bay area; completed geology, airborne mag and EM.

5.0 PERSONNEL

Archive and compilation studies were completed by the author. Geologic, prospecting and lithosampling surveys were carried out by R. Felix, C. MacDougall, A. Smith, M. Stares and S. Stares, all employees of Noranda Exploration Company, Limited. Linecutting was contracted to Vytyl Exploration Services of Thunder Bay, Ontario. A review and re-interpretation of AEM/AMAG data from the 1990 OGS survey tapes was completed by R. DeCarle of Toronto. Ground geophysics was carried out by Northwest Geophysics of Thunder Bay. The soil geochemistry survey was completed by Stares Contracting Ltd. of Thunder Bay and lithogeochemical and soil geochemical plots were provided by M. Leahey, Bayshore Geology Inc. of Thunder Bay. All programs were supervised by the author, John Sullivan - District Geologist, Northwest Ontario and John Gingerich - District Geophysicist, Northwest Ontario.

6.0 REGIONAL GEOLOGY (Figure 3)

The regional geology has been described by Trowell (1974, 1976, 1983) and Robinson (1992). The area occurs within the western region of the Wabigoon Subprovince and is underlain by an Archean supracrustal succession. The Six Mile Lake area is situated on the northern limb of a broad regional syncline in the Sturgeon Lake greenstone belt; the south limb (South Sturgeon Lake Assemblage) is host to all base metal deposits found as yet, including the former producing (VMS) Zn-Cu-Pb-Ag deposits at Mattabi, Sturgeon Lake and Lyon Lake. OGS mapping indicates that the geology of the Six Mile Lake area consists of south-facing, homoclinal sequence of two mafic to felsic volcanic cycles overlain by a third mafic volcanic cycle (Map 3). The lower 1900 meter mafic to felsic cycle is referred to as the Fourbay Cycle. The overlying 6,000-10,000 meter mafic to felsic cycle is referred to as the Six Mile Lake Cycle and the uppermost 1,500-2,000 meter mafic cycle with thin (< 100m) discontinuous felsic volcanic lenses is the North Sturgeon Cycle. The thickness of the entire South Sturgeon Lake volcanic pile is equivalent to the second volcanic cycle - the Six Mile Lake Cycle. Robinson (1992) suggested that the western half of the second volcanic cycle's felsic pyroclastic unit represents a more proximal VMS environment. Mafic dykes, sills and sheets as well as quartz feldspar porphyry and feldspar porphyry dikes and sills are characteristically numerous throughout the Six Mile Lake Cycle. Two feldspar porphyry stocks, up to 1500m by 5000m, occur at and near the stratigraphic top of the second mafic cycle near King Bay and Six Mile Lake. The volcanic succession is bounded to the north by the Lewis Lake Batholith, to the west by the Penassi Lake Pluton and to the south by clastic sedimentary rocks of the Sturgeon Narrows Group. The sedimentary rocks face north and are in disconformable contact with the North Sturgeon Lake Volcanic Assemblage. The sedimentary rocks have been subsequently intruded by the Sturgeon Narrows Alkalic Syenite complex. All supracrustal rocks have been metamorphosed under greenschist and locally almandine-amphibolite facies conditions.

7.0 1992 PROGRAMS

A preliminary evaluation and compilation of archive geologic, geochemical and geophysical data covering the Six Mile Lake Area was initiated in early 1992. Existing AEM and AMAG data were reviewed and screened for previously untested AEM conductors and potentially untested (synvolcanic?) lineaments. Staking was initiated in April to cover:

a) untested strong conductors with magnetic coincidence on the northwest side of Penassi Lake.

b) untested zinc occurrence (0.51% Zn) associated with siliceous rhyolite flow breccia immediately

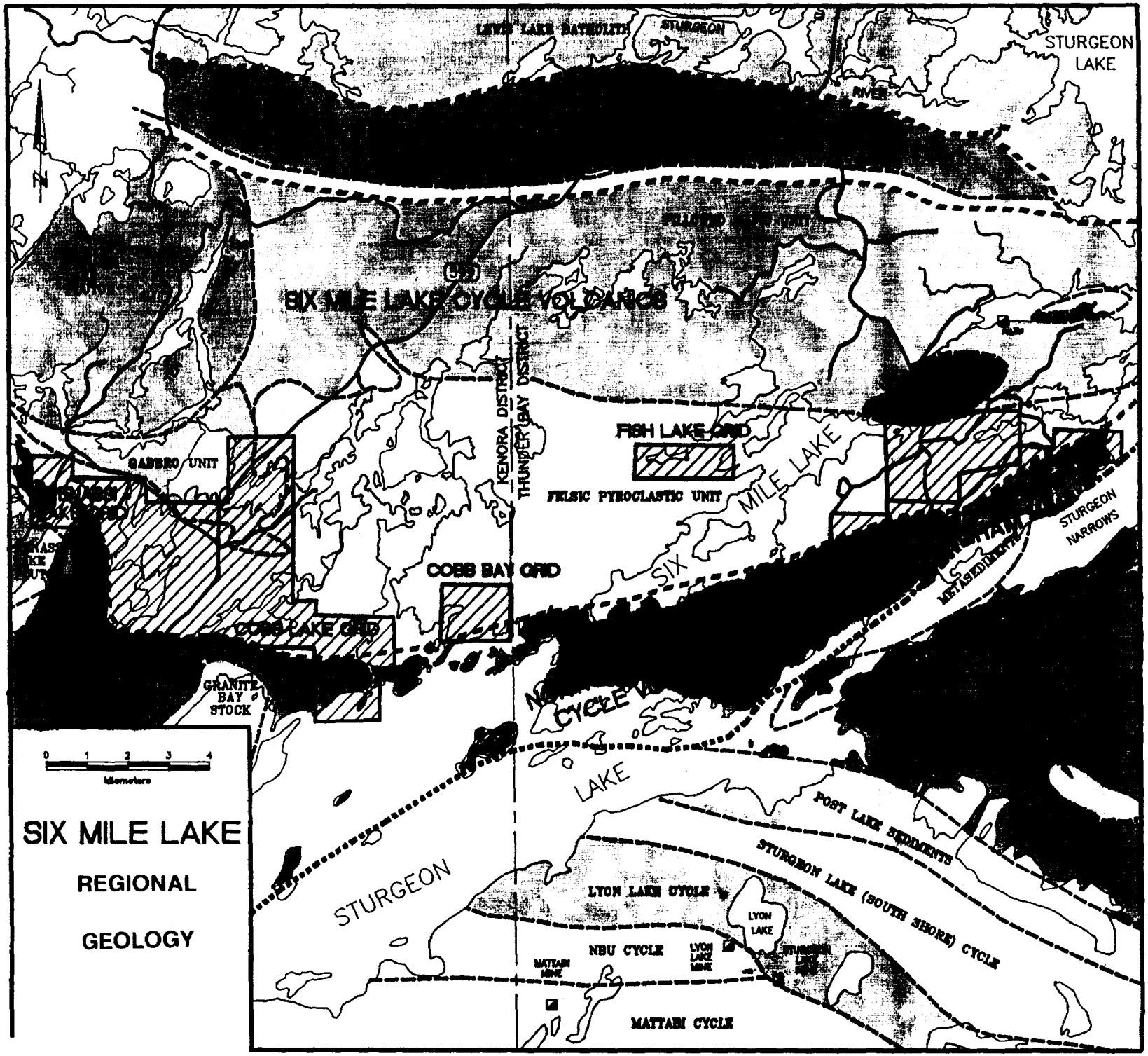


FIGURE 3

SOUTH STURGEON LAKE ASSEMBLAGE | NORTH STURGEON LAKE ASSEMBLAGE

south of a Turam conductor previously delineated by Rio Tinto (1970) within an area east of Six Mile Lake; the zinc occurrence is along strike from some weak AEM responses with magnetic coincidence which were re-interpreted by R. DeCarle.

c) untested CEM anomalies with 5 zones of coincident Zn + Cu in soil concentrations on the west side of Cobb Lake.

d) potentially favourable felsic stratigraphy near the top of the Six Mile Lake felsic pyroclastic unit. Magnetic data interpretation suggests associated (synvolcanic?) lineaments/faults (see Figure 4). Approximately 11.5 km of favourable felsic volcanic stratigraphy was acquired. One day after Noranda began staking, BHP-Utah began to blanket stake the area and has subsequently acquired a large land position. Another group of claims covering 7 km of the Six Mile Lake felsic stratigraphy and a sulphide zone up to 30 meters wide situated in the eastern region of the belt was optioned by Noranda from L. Cunningham. An exploration program is in progress and is reported under separate cover (Cunningham Option Property).

Linecutting was followed up with geologic mapping, lithogeochemical sampling and soil geochemistry on four separate gridded areas. The mapping and lithosampling was augmented by a small amount of petrographic examination work. HLEM and Mag surveys were carried out on two of the gridded areas. All of these programs are discussed below.

7.1 Gridding (Map 3)

At the end of 1992, gridding was initiated within four separate areas. One grid was cut over an area in the northwest region of Penassi Lake to cover untested AEM conductors with magnetic coincidence. A total of 3.8 km of line was cut and picketed every 25 meters; lines were spaced 100 meters apart in the eastern region of the grid and 200 meters apart in the western region.

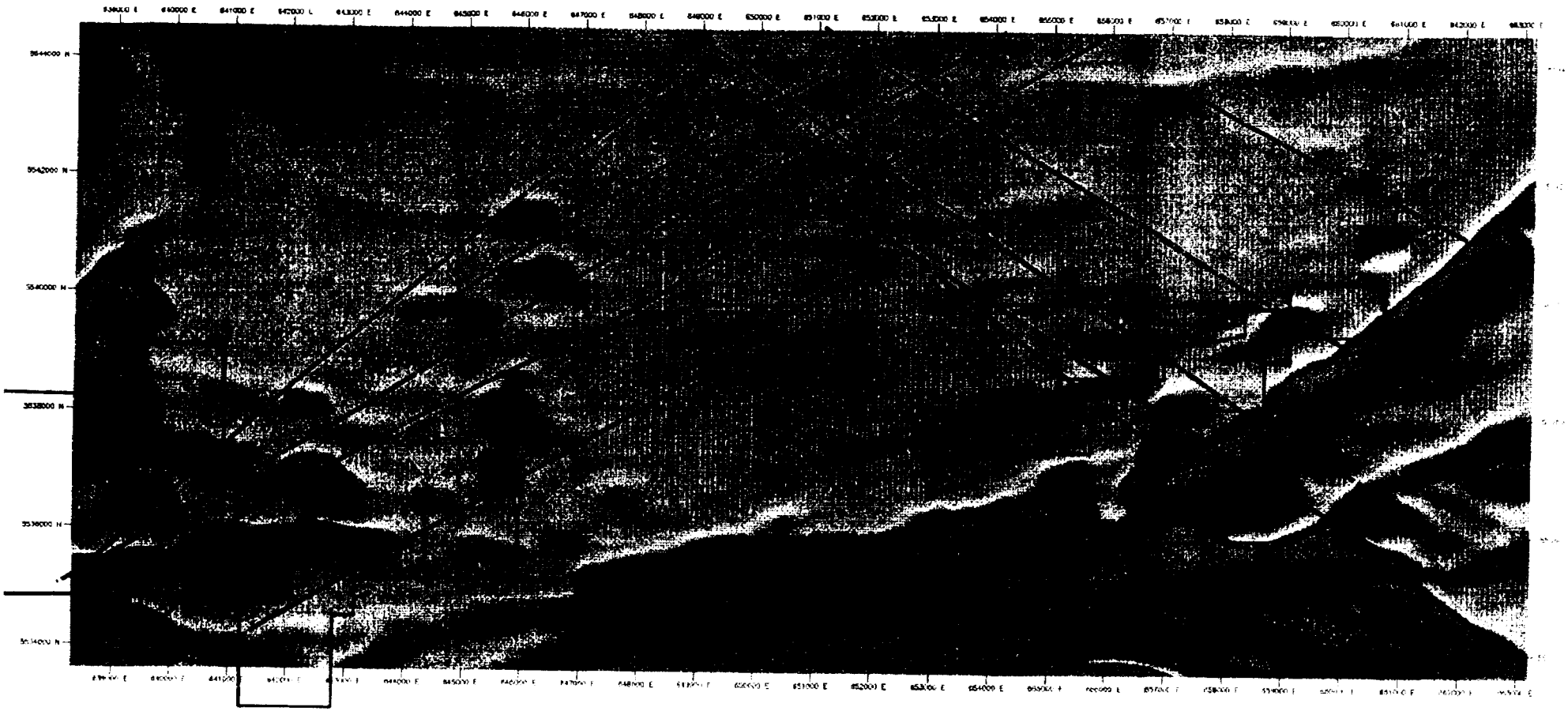
Another grid was cut in the Cobb Lake region from Cobb Bay at the eastern end to McLeod Lake at the western boundary. A total of 14.8 line kilometers was cut with line spacing every 1000 meters to act as control for preliminary prospecting and reconnaissance investigations. The area was subject to a forest fire in the early 1980's and subsequent 'blow-down' sections and a second dense growth of closely spaced pine trees has restricted traversing without cut lines. In the area between Highway 599 and the western region of Cobb Lake, closer spaced lines at 200 meters apart were cut. This is the area where previous exploration (Noranda 1970) located 3 weak CEM conductive zones with 2 main zones of copper-zinc soil anomalies.

Two other control grids with widely spaced lines were cut in the Cobb Bay area and the Fish Lake area, again to aid field investigations where traversing was severely hampered by bad 'blow down' and dense bush conditions. A total of 3.7 line kilometers was cut on the Cobb Bay claim which is underlain by the top of the favourable Six Mile Lake felsic pyroclastic unit in contact with the overlying North Sturgeon Lake mafic volcanic unit. The Fish Lake grid covers an area where previous work by Rio Tinto (1970-72) delineated a zinc showing (0.51% Zn) hosted by a thick sequence of felsic pyroclastics. A total of 3.5 kilometers was cut on the Fish Lake claim group.

7.2 Geology and Lithogeochemistry

Geologic mapping was conducted along cut lines on each of the gridded properties. Data has been plotted at a scale of 1:5,000 on Maps 4,5,6, and 7. In addition, 46 rock samples were submitted to Accurassay Labs Ltd. of Thunder Bay for copper-zinc analyses and 98 rock samples were forwarded to TSL Labs of Mississauga, Ontario for whole rock determinations. This includes 25 samples collected by Don Robinson during his mapping of the Six Mile Lake area and not previously analyzed or reported.

TOTAL FIELD MAGNETICS



SIX MILE LAKE AREA

KILOMETERS

FIGURE 4

The samples were selected by Norex and the cost of the analyses was paid by Norex. Geologic data and sample locations are plotted on Maps 3,4,5,6 and 7 and sample descriptions and geochemical analyses are appended.

7.3 Geophysics

Ground magnetometer and horizontal loop electromagnetic surveys were contracted out to Northwest Geophysics of Thunder Bay. These surveys were carried out over portions of the Penassi Lake and Cobb Lake grids.

Instrumentation

The ground magnetometer survey employed the EDA OMNI plus (± .1 nT) proton precession magnetometer. Readings of the earth's geomagnetic field were taken at 12.5m intervals and diurnal corrections were made by integrating synchronized field readings with base stations readings.

The HLEM survey utilized the APEX MaxMin I system. A 100m coil separation was employed as were 4 operational frequencies (440, 880, 1770, 3520 Hz). The in-phase and quadrature components of the secondary field are recorded in percentage of primary field (± 1% full scale).

Data has been plotted on Maps 8 to 17.

7.4 Soil Geochemistry

Soil samples were collected at 25 meters along cut lines. A total of 671 B-horizon soil and 256 humus samples were collected and analyzed for copper and zinc at the Norex Laboratory in Bathurst, NB. Analytical techniques and results are appended. Cu-Zn values are plotted on Maps 18,19,20 and 21.

8.0 DISCUSSION OF RESULTS

8.1 Penassi Lake Grid

8.1.1 Geology and Lithogeochemistry

Outcrop exposure in general was very good. The area gridded is underlain predominantly by a mafic metavolcanic sequence comprised of pillowed flows and banded mafic tuffs. The metavolcanics are intruded in the southern region by a mafic stock of gabbroic composition. Pillow structures are strongly attenuated; tops cannot be ascertained. The rocks are characteristically fresh and pristine; little alteration is evident. The HLEM conductor which is discussed in the next section occurs along the contact of the pillowed flows with the banded tuffs. The main rock types are described as follows:

Mafic Metavolcanic Rocks

These rocks are fine to medium grained, medium to dark greenish black on fresh exposure and weather pale green. Pillow textures display chlorite ± epidote rinds, varying from 0.5 to 2 cm with a pale green interior. The banded tuffs appear to be in conformable contact with the pillowed units. The tuffs are grey to green, fine grained, with a pronounced color banding which may be due to local hydrothermal alteration mineral assemblages. The essential minerals within the mafic metavolcanic units include subhedral, green to greenish black prismatic amphibole and anhedral to euhedral, tabular plagioclase. Accessory minerals include chlorite, epidote ± carbonate. Foliation is the dominant

structural element striking easterly to southeasterly, steeply dipping to vertical.

Mafic Intrusive Rocks

Dykes and sills of fine to coarse grained gabbro occur within the Penassi Lake grid area and make up about 15-20% of the area mapped. The mafic intrusives are massive to porphyritic, dark green, amphibole-plagioclase rich rocks.

A distinctive gossan zone with widths up to 15 meters is exposed intermittently across the property at the contact of the pillowed unit with the banded tuff unit. Pyrite is the most common metallic sulphide mineral with local concentrations of graphite and garnet. A second narrow gossan is hosted by the banded mafic tuff unit near Line 3W/1 + 50N and is comprised mainly of pyrite, magnetite and garnet.

No copper-zinc values of significance were realized from the lithosamples collected during the mapping. No apparent alteration was evident in samples run for whole rock determinations.

8.1.2 Geophysics

A strong conductor crosses the grid between the baseline and 50N, is about 10 to 25m deep, roughly vertical, and shows very strong conductivity-thicknesses. The anomaly is coincident with magnetic lows. On line 100W it appears to be 30m thick. The conductor is about 50m left-offset by an apparent fault between 200W and 300W and the western continuation of the conductor has consistently narrow widths. This may indicate that the eastern, thick conductor is in a structurally deformed part of the mineralized horizon, providing a better trap for economic size mineralization.

The magnetics show a lot of high relief, small size anomalies. A fault coincident with that interpreted from the HLEM data is observable, but any number of faults can be postulated from a small grid with high relief.

Extension of the grid both east and west to follow the anomaly is recommended.

8.1.3 Soil Geochemistry

Anomalous thresholds were arbitrarily established after a review of the data and are summarized below for Cu-Zn.

	Copper (ppm)	Zinc (ppm)
Maximum Value	145	158
Minimum Value	2	4
Arithmetic Mean	20 (103 data points)	43 (103 data points)
One Standard Deviation (calculated)	22	33
Anomaly Threshold	50	100

There is a weakly enriched zone of Cu-Zn values which occurs as follows:

L 1W - 1+00S to 0+75S	39 ppm Cu to 52 ppm Cu, 100 to 158 ppm Zn
L 2W - 1+25S to 0+25N	26 to 40 ppm Cu, 60 ppm Zn
L 3W - 2+00S to 0+25N	40 to 145 ppm Cu, 60-96 ppm Zn
L 5W - 2+00S to 1+50N	61 to 119 ppm Cu, 56-136 ppm Zn
L 7W - 2+00S to 1+25N	46 to 76 ppm Cu, 110 to 142 ppm Zn

Two additional spot Zn anomalies occur at L1W - 2+00S and L7W - 2+25N to 2+50N. In general, Cu-Zn values which exceed the arbitrary threshold values of 50 ppm Cu and 100 ppm Zn occur sporadically in narrow discontinuous zones.

8.2 Cobb Lake Grid

8.2.1 Geology and Lithogeochemistry

Outcrop exposure in general was moderate to locally poor especially at the north end of the grid. The mapped area includes the top section of the Six Mile Lake Cycle felsic pyroclastic unit in contact with the overlying North Sturgeon Lake Cycle mafic metavolcanics. The extrusive material is intruded by mafic and porphyritic felsic sills and dykes. The Cobb Lake felsic belt is traceable across the entire map area from Cobb Bay to the west end of McLeod Lake, a distance of 5.7 kilometers. Tuffs, lapilli tuffs, pyroclastic breccia and quartz-feldspar porphyries are found in the unit. Agglomerate exposures were encountered in the southwest area of Cobb Lake and on Cobb Bay. Lapilli fragment sizes average 5 cm in the Cobb Lake area and from a few millimeters to 10's of centimeters in the Cobb Bay area. The matrix and the fragments are the same composition. Along strike and interdigitating with the felsic pyroclastic rocks are outcrops of felsic porphyritic flows. They are generally porphyritic in feldspar and in some outcrops in quartz. They possibly are coarse ash (crystal tuff) deposits in the pyroclastic unit. There appears to be a fining of pyroclastic deposits away from the southeastern region of Cobb Lake. A large massive quartz feldspar porphyry sill/small stock was encountered along with some coarse mafic intrusive bodies between the eastern end of Cobb Lake and Cobb Bay. The QFP appears compositionally gradational with the felsic pyroclastic unit and probably is a subvolcanic equivalent for the unit. A notable mafic intrusive sill at least 1200 meters long occurs between Highway 599 and the western end of Cobb Lake. The sill is up to 150 meters thick. The Cobb Lake felsics are overlain to the south by andesitic to basaltic flow and tuffs, pillowed flows with minor interbeds of felsic tuff and agglomerate. The contact between the two units was observed in a number of places including L2+00E/1+00S, L21+75E/BL and L32+00E/1+25S. Contacts suggest local interfingering of the two units.

The stratigraphic section is considered to be a steeply south dipping homoclinal sequence with tops to the south. Foliation directions are predominantly east-west except near Cobb Bay where they trend south of east. No major faults can at present be inferred from the mapping program.

Chlorite, sericite and carbonate schists mark local zones of alteration within a more pervasive setting of weak to moderate sericitization and carbonatization over the entire map area. Two areas of particular note are: (1) the southeastern region of Cobb Lake where possible chert/exhalite textures were identified in a sample of quartz-carbonate, chlorite-pyrite breccia (sample TS 1320-8); (2) the region between Cobb Lake and McLeod Lake where a number of angular pieces of quartz-sericite-carbonate schist float (1316 F to L) are mineralized with 2-10% disseminated pyrite. The float is believed to be near source and coincidently borders a swamp where anomalous zinc in soil concentrations was realized (see Soil Geochemistry below).

A description of the main rock types of the map area are as follows:

Mafic Metavolcanics

They are fine to medium grained and medium to dark green on fresh surfaces. Weathered varieties are brownish in color. Massive as well as foliated forms are common, suggesting the presence of thick flows containing coarser centres. Pillow forms are 10 to 40 cm bun to tube shaped with thin pillow selveges. Amygdules and vesicules were both observed and some rocks contain pale green amphibole and feldspar phenocrysts locally forming a subophitic texture. Epidote and carbonate constitutes <5 to >25% of the mafic rock.

Felsic Metavolcanics

These rocks are generally fine grained to aphanitic and medium to light grey in color. They weather buff to grey and white. Fresh surfaces may carry a brown or greenish cast. Quartz eyes, 1mm to 3mm in size and in amounts varying up to 5% are usually present. Locally feldspar phenocrysts of a small size also occur. The felsic stratigraphy is dominated by coarse ash/crystal tuff deposits but there is interdigitation with coarse pyroclastic deposits characterized by poorly sorted, clast supported lapilli tuffs and tuff breccias. Fragments and matrix are composed of subangular to subrounded crystals of quartz and feldspar. The coarser fragmental rocks contain up to 25% mafic minerals in the matrix. Altered varieties typically contain accessory chlorite, carbonate, epidote and rutile. Sericite is the most common accessory mineral in amounts from 5 to 30%.

Mafic Intrusives

Several sills and dikes of gabbro occur throughout the map area, however they are most conspicuous within the felsic pyroclastic unit. Gabbro exposures are massive, fine grained, dark green to blackish green in color. Accessory minerals include quartz and magnetite. Some amphiboles are locally altered to carbonate.

Felsic Intrusives

These rocks are generally porphyritic in quartz and occasionally in feldspar as well. Small exposures of intrusive porphyry and what may be porphyritic tuff or flow material are difficult to differentiate between. Intrusives are generally medium grained, porphyritic with a light grey to green or pinkish hue. Weathered exposures are usually white. Mineralogically, they are composed of 2 to 15%, 2 to 5mm, subrounded quartz phenocrysts and 5 to 15%, 2 to 4mm, subhedral white plagioclase crystals within a fine grained felsitic groundmass.

There were no significant copper-zinc values realized in any of the grab samples collected during the mapping program. This was not unexpected as there were no massive sulphide horizons encountered. However, there are some felsic pyroclastic exposures weakly mineralized with disseminated pyrite that occur in areas which have weak AEM responses, e.g. 21+75E/2+50N, 6+00W/3+25N.

Partial geochemical analyses were obtained for 45 representative hand specimens of some of the major rock types in the map area. Six of the samples of the felsic pyroclastics collected from the area in between Cobb Lake and McLeod Lake plot in the calc-alkaline field on the AFM ternary diagram (Figure 5).

COBB LAKE

Cation %

Jensen 1976

E:\TEMP\COB.ROC

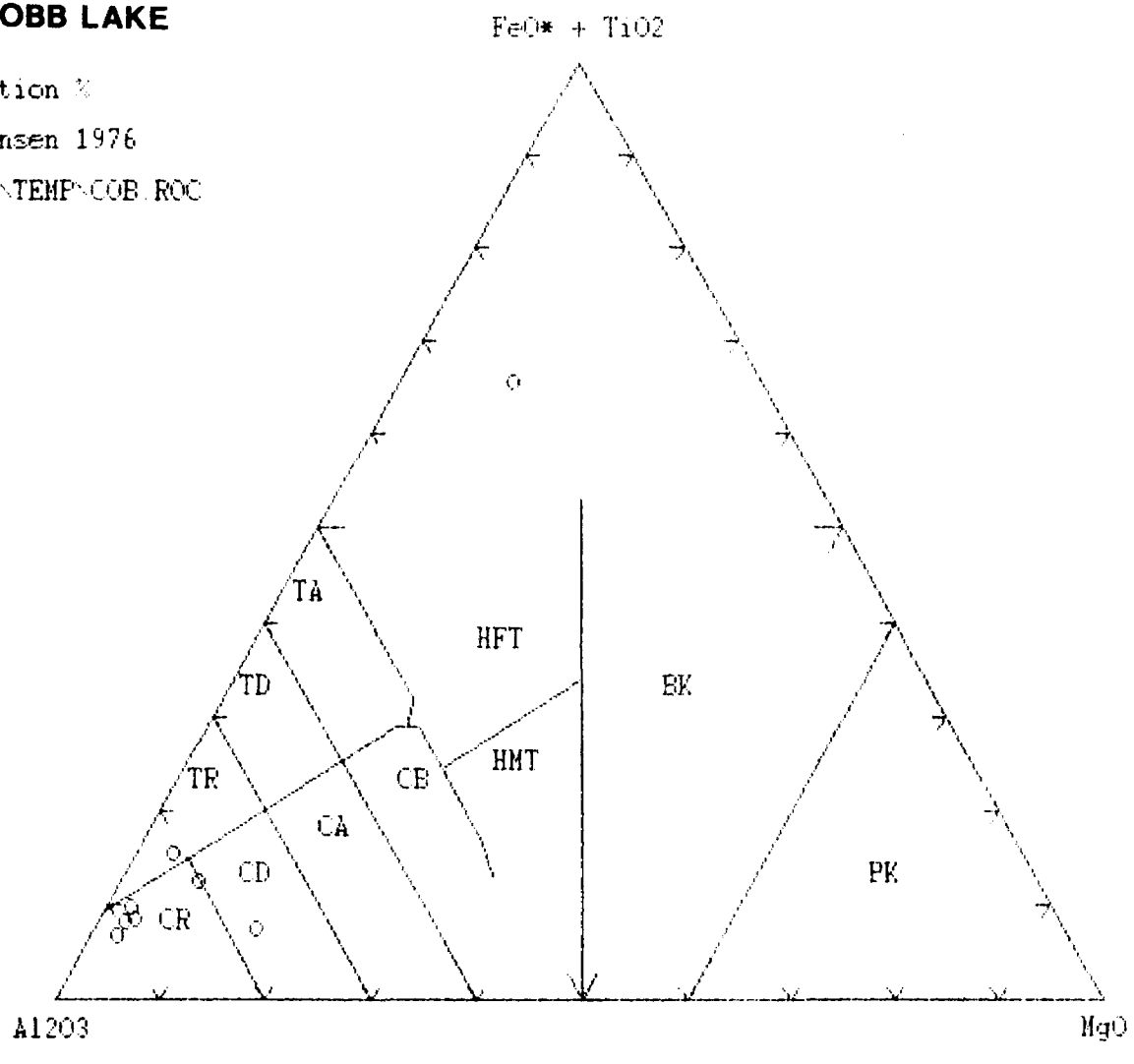


FIGURE 5

COBB LAKE WEST

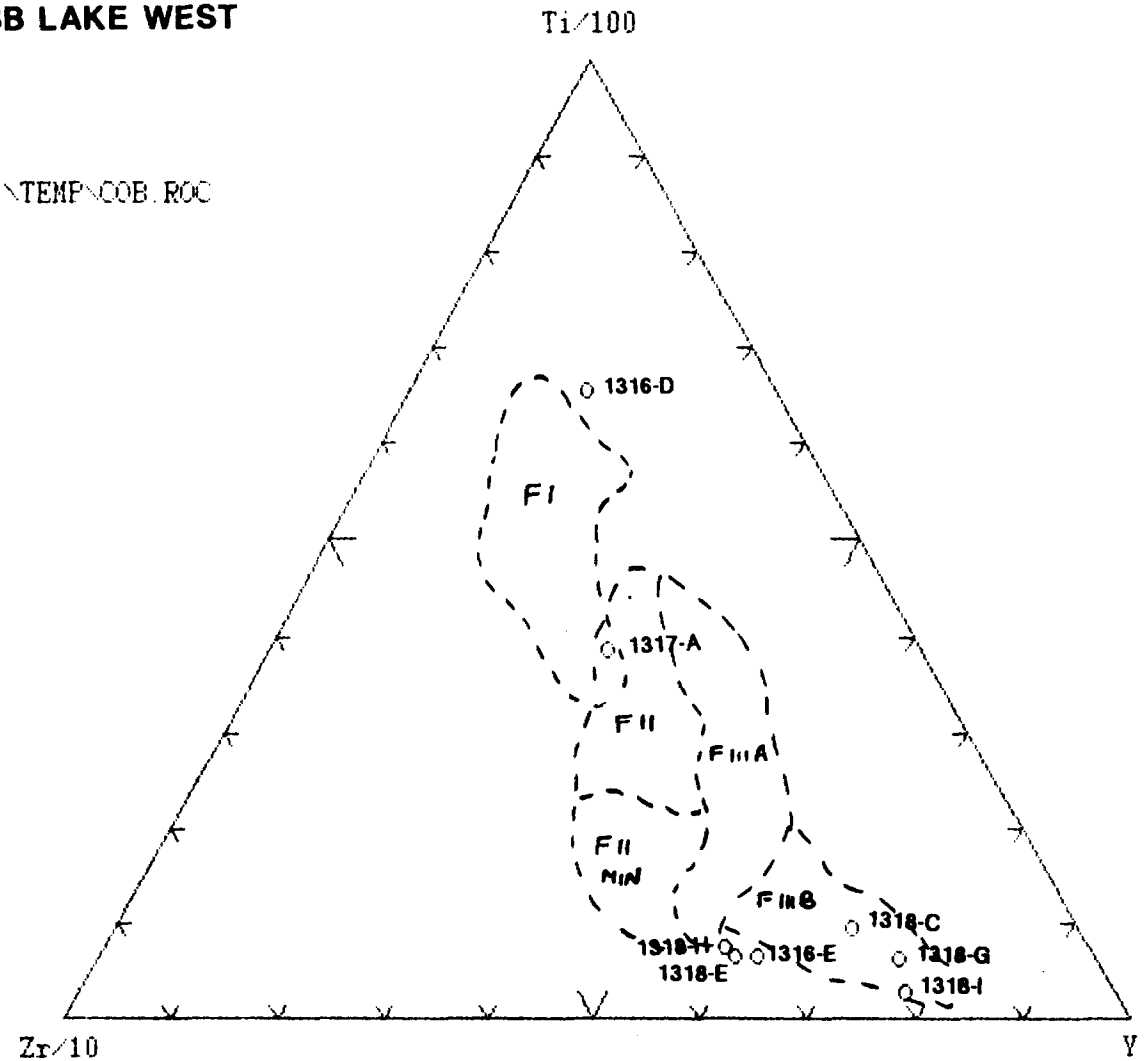


FIGURE 6A

COBB LAKE EAST

G:\MWL\COBBLAKE.ROC

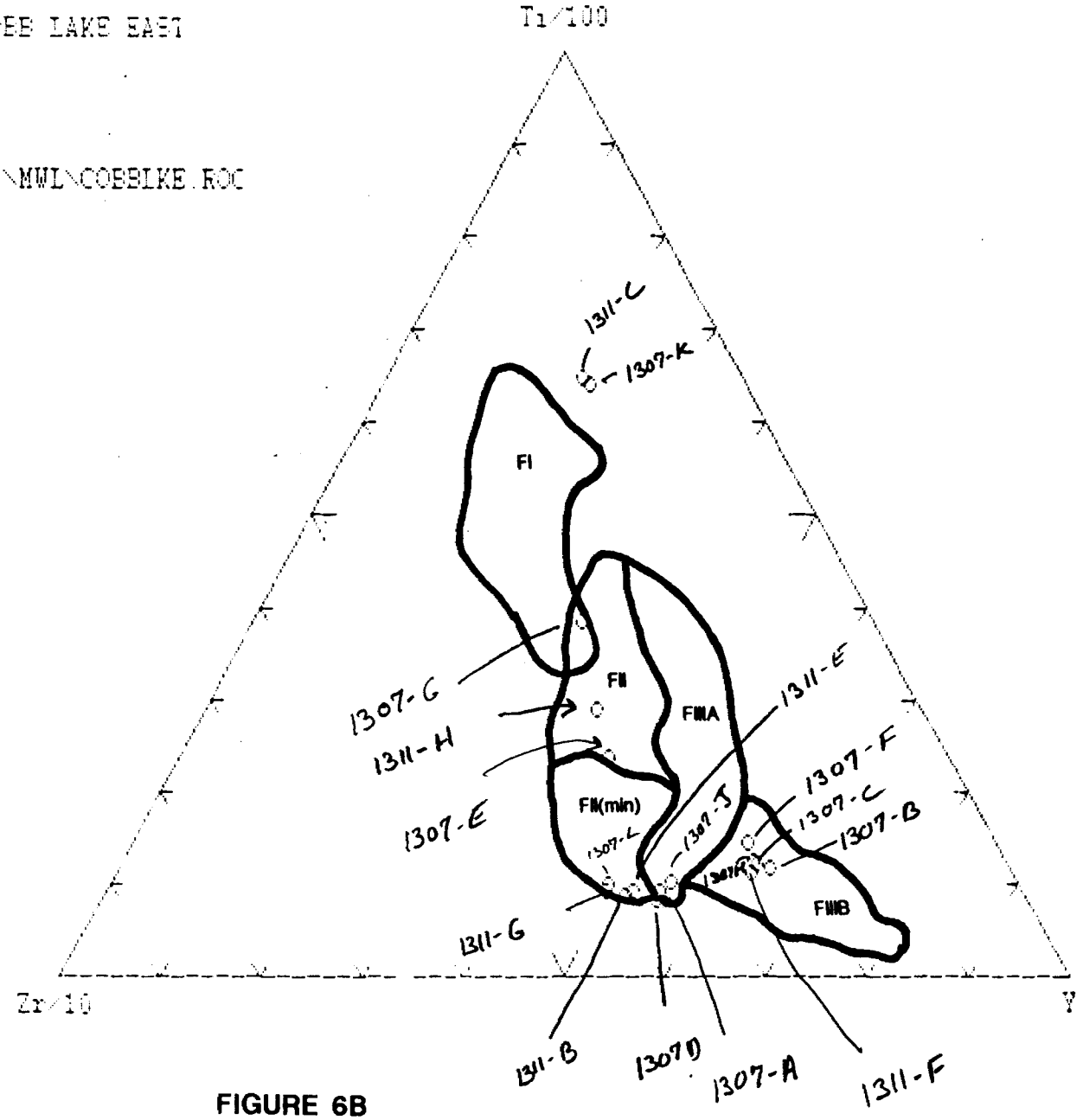


FIGURE 6B

D.J. Robinson in his publication on Geology of the Six Mile Lake Area (OGS Open File Report 5838) stated that:

'In studies around the Fukazawa Kuroko volcanic massive sulphide (VMS) deposits of Japan, Date et al. (1985) utilized the Hashimoto alteration index to measure the intensity of rock alteration spatially related to ore. The index is defined as:

$$K_2O + MgO/K_2O + MgO + Na_2O + CaO * 100.$$

The index reflects sodium and calcium depletion and potassium and magnesium enrichment in the footwall rocks spatially associated with VMS deposits and pyroclastic-hosted lode Au deposits. The alteration index (A.I.) varies directly with distance from the ore deposit, whereby an A.I. greater than 90 represents pervasively altered rock in the immediate footwall of the deposit, and an A.I. less than 60 reflects unaltered rock. A very low A.I., less than 25, may also be indicative of a sodium enrichment associated with both VMS and lode Au deposits.'

There were three samples which have an alteration index of 60 or greater:

SAMPLE #	A.I.	LOCATION
1318-H	74	6W/3+20N
1318-I	60	4+25W/5+00N
029-O	60	4+00E/1+25N

Sample 1318-H is a piece of angular float of schistose porphyritic felsic metavolcanic which appears to be a major component of the roadbed for Highway 599 in that area. Sample 1318-I is a sample of cherty quartz eye felsic metavolcanic outcropping approximately 200 meters north from 1318-H on the roadside. Both sample locations are immediately south of an area with weak AEM responses. Sample 029-O is a quartz eye felsic metavolcanic along strike to the east on the south shore of Cobb Lake. Samples with very low A.I. and exhibiting sodium enrichment include:

SAMPLE	A.I.	Na_2O (%)	LOCATION
660B	17	5.67	22+00E/7+75N
1316D	12	4.79	8+00W/2+50N

Finally, ternary plots were made of the trace element, geochemistry for titanium, zirconium and yttrium on a (Zr/10) - (Ti/100) - Y projection. According to Lesher et at, 1986, samples of the felsic metavolcanics from the region between Cobb Lake and McLeod Lake fall within or near the F II (min) fields or F III and are prime exploration targets (Figure 6A). Several samples of the QFP and the pyroclastics near the QFP contact between Cobb Lake and Cobb Lake also fall within the prime exploration fields (Figure 6B).

8.2.2 Geophysics

There is a conductor trending northeast which is apparently coincident with and presumably due to the powerline adjacent to the road. A weak conductor also exists at 250S on L400W and 300S on L200W. This conductor was not fully measured by the HLEM survey, so quantitative interpretation is

difficult.

The magnetic survey shows a strong east-west anomaly at 125N which is non-conductive. It may represent a mafic to ultramafic body.

8.2.3 Soil Geochemistry

After a review of the data, anomalous thresholds were arbitrarily established. The Cu-Zn soil geochemistry is summarized below:

	Copper (ppm)	Zinc (ppm)
Maximum Value	630	878
Minimum Value	1	3
Arithmetic Mean	17 (596 data points)	45 (596 data points)
One Standard Deviation (calculated)	36	61
Anomaly Threshold	50	100

A number of Cu-Zn trends were evidenced within the western region of the Cobb Lake grid (Map 5). Several small pockets of anomalous concentrations of Cu-Zn were also delineated east of L4 + 00E. However, most data points are restricted to the baseline since wingline sampling was spaced at 1000 meter intervals from L4 + 00E to 39 + 00E. At least six zones of anomalous Cu, Zn concentration can be delineated as follows:

Zone A: This zone extends from L8 + 00W to 12 + 00W and is still open to the west. Values up to 878 ppm zinc were returned from samples within this zone and anomalous zinc concentrations were noted from an area 175 meters across on L8 + 00W. This anomaly is immediately north and west of the area near Highway 599 where promising altered felsic metavolcanics are located (see previous section on Geology and Lithogeochemistry).

Zone B: This Cu-Zn trend extends from L6 + 00W to L18 + 00W (1200 meters strike) and is still open to the west. Values up to 630 ppm Cu and 310 ppm Zn were realized. This zone is underlain by mafic metavolcanics at the bottom of the North Sturgeon Lake Cycle. Some of the base metal enrichment is probably related to narrow lenses of felsic metavolcanic within the North Sturgeon Lake Cycle unit, e.g., L8 + 00W/1 + 75S.

Zone C: This zone extends from 2 + 00E to 2 + 00W (≤600 meters strike length), north of Cobb Lake. It is also along strike to the east of outcrops of quartz eye felsic metavolcanic on Highway 599. An alteration index of 60 was noted in these rocks. Values up to 116 ppm Zn and 150 ppm Cu are noted in soils from Zone C.

Zone D: This narrow zone occurs south of Cobb Lake from L0 + 00 to 3 + 25E. The area is underlain by felsic quartz eye tuff and cherty tuffs at the top of the Six Mile Lake felsic pyroclastic unit in contact with the North Sturgeon Lake mafic metavolcanics. Values up to 36 ppm Cu with accompanying concentrations of zinc up to 142 ppm are noted.

Zone E: This predominantly Zn enriched trend occurs southeast of Cobb Lake across Line 32 + 00E at the baseline. The bedrock stratigraphy is mapped as interbedded porphyritic felsic metavolcanic flows and crystal tuffs with felsic lapilli tuffs at the southern contact of a quartz feldspar porphyry intrusive stock/sill. Values up to 46 ppm Cu and 284 ppm Zn were returned from this zone.

Zone F: This zone of Cu-Zn enrichment extends from 4 + 25S to 6 + 25S (200 meters across) on L32 + 00E south of Zone E. The zone is underlain by narrow felsic lapilli tuffs encompassed by mafic metavolcanic flows of the North Sturgeon Lake Cycle metavolcanics.

Other anomalous concentrations of Cu, Zn were noted at:

(i)	L18 + 00W - 2 + 50S to 2 + 75S	(76-101 ppm Cu)
(ii)	B.L. - 9 + 25E	(150 ppm Zn)
(iii)	L12 + 00E - 2 + 00N	(43 ppm Cu, 662 ppm Zn)
(iv)	L12 + 00E - 0 + 25S	(48 ppm Cu, 162 ppm Zn)
(v)	B.L. - 15 + 25W	(228 ppm Zn)
(vi)	B.L. - 20 + 75W	(48 ppm Cu, 292 ppm Zn)
(vii)	B.L. - 23 + 50W	(128 ppm Zn)
(viii)	L32 + 00E - 3 + 25N to 3 + 50N	(46 ppm Cu, 126-302 ppm Zn)
(ix)	B.L. - 37 + 25W	(136 ppm Zn)

8.3 Cobb Bay Grid

8.3.1 Geology and Lithogeochemistry

Outcrop exposure was very poor with bedrock exposed essentially on two east-west ridges, one along the baseline and the other between L5 + 00W and L10 + 00W at the northend of the grid. The area mapped is underlain by the contacts of steeply south dipping felsic pyroclastic units with overlying mafic metavolcanics to the south. A small quartz feldspar porphyry body was noted at the western end of the baseline intruding the mafic metavolcanic sequence. A subvolcanic origin for the felsic intrusive is favoured as this rock contains anhedral quartz phenocrysts and a quartzo-feldspathic matrix. The compositional and textural similarities of this QFP body with that mapped on the Cobb Lake grid suggests that all of the stratigraphy observed on the Cobb Bay grid is within the Six Mile Lake Cycle unit. The contact with the North Sturgeon Lake Cycle volcanics is inferred to be further south. The felsic pyroclastic rocks on the property form two east-west trending belts. The northern member is comprised of pyroclastic crystal tuff and where exposed is strongly sericitized and carbonatized (see samples 1320-4, Appendix I). A sample (1305-H) of an outcrop within this unit was microscopically identified as an altered diorite because of the high percentage of hornblende and epidote (see Appendix I - sample 1320-5). The author believes this outcrop possibly represents intensely altered feldspar porphyry or a feldspar phyric flow. The second felsic member occurs just north of the baseline and is comprised essentially of pyroclastic lapilli tuff. It averages 50 meters in thickness and is in contact to the north with massive and locally strongly carbonatized fine to medium grained mafic metavolcanic flows. To the south of the felsic lapillistone is a series of porphyritic (feldspar) and pillowed mafic lava flows. Local 5-10% pyrite-pyrrhotite mineralization occurring in pod-like form was noted in this sequence. These mafics are also characteristically strongly carbonatized. The main rock types are described as follows:

Mafic Metavolcanics

These rocks are medium to dark green on fresh surfaces, either fine to medium grained or coarse grained lava flows. Essential minerals include subhedral, colourless to pale yellow-green prismatic amphibole and anhedral to euhedral feldspar both as matrix and occasionally as phenocrysts. Accessory

minerals include chlorite, carbonate, epidote and local sulphide minerals. Pillow textures display a dark green chlorite ± epidote rind, up to 2 cm wide, with a pale green pillow interior. Pillowed sequences form bun shapes from 20 cm to 50 cm long and are generally attenuated. Mafic volcanic rocks in the Cobb Bay grid area are typically chloritic and carbonate altered, which is especially evident on the weathered surface.

Felsic Metavolcanics

These rocks display a prominent foliation. They occur either as porphyritic crystal tuffs or lapillistone and locally as quartz-carbonate-sericite schists. The coarse ash deposits (crystal tuff) are composed predominantly of blocky, subhedral to elongate fragments and broken crystals of feldspar up to 3 or 4 mm in size, with subordinate quartz crystals. Altered varieties contain accessory sericite, carbonate and chlorite forming up to 30% of the rock with sericite as the most abundant alteration mineral. Lithic fragments are absent. The petrographic description of sample TS 1320-4 suggests that the accessory carbonate includes a ferruginous component (ankerite or siderite). The lapilli tuffs contain 25 to 50% porphyritic juvenile lithic fragments in a fine to coarse ash matrix. Juvenile lithic fragments are composed of very fine grained to microcrystalline quartz and feldspar, with pristine subhedral to euhedral feldspar and subrounded quartz microphenocrysts.

Quartz Feldspar Porphyry

This rock consists of phenocrysts of 2 to 5% subrounded quartz and subhedral plagioclase, up to 5mm in size, scattered through a microgranular felsite groundmass composed predominantly of feldspar. There is a notable lack of mafics with only traces of carbonate and pyrite. The feldspars generally show a weak sericitization.

Feldspar Porphyry/Altered Diorite

This rock consists of coarse, sub-prismatic, buff-coloured, phenocrysts/fragments, up to 1 cm in size set in a dark matrix forming a 'leopard-rock' like texture. The phenocryst-like features are believed to be intensely altered feldspars. Microscopically, they have been identified as epidote aggregates (see Appendix I - TS 1320-5). The dark matrix is comprised essentially of hornblende with intergrown microgranular plagioclase.

No significant sulphide mineralization, except for local pods of 5-10% pyrite-pyrrhotite within the mafic metavolcanics, was noted within the map area. Five of the eight representative hand specimens of the major rock types which were run for whole rock geochemistry have a Hashimoto alteration index less than 25 and are relatively sodium enriched.

SAMPLE #	A.I.	Na_2O %	LOCATION
1305-A	15	5.93	B.L./12+60W
1305-C	17	6.52	B.L./10+75W
1305-D	15	4.04	10+00W/1+00N
1305-F	22	4.33	7+00W/4+00N
1305-G	24	4.53	7+00W/4+00N

A ternary plot was made of the trace element geochemistry for titanium, zirconium and yttrium on a (Zr/10) - (Ti/100) - Y projection. None of the samples fall within the prime exploration target fields (see Figure 7).

8.3.2 Soil Geochemistry

	Copper (ppm)	Zinc (ppm)
Maximum Value	38	186
Minimum Value	2	6
Arithmetic Mean	11 (135 data points)	39 (135 data points)
One Standard Deviation	8	31
Anomaly Threshold	25	75

There appear to be three sites/zones of Cu, Zn-enrichment. One zone extends from L5+00W/3+75N to L10+00W/1+50N is up to 100 meters across, and is underlain by the northern felsic crystal tuff member. Values up to 31 ppm Cu and 112 ppm Zn were noted in this zone. Although they are very weak enrichments, they are still 2 to 3 time the concentrations of these metals in the soil bordering this zone. A second zone occurs just south of the baseline on L10+00W - 0+50S to 1+00S and crosses the baseline at 6+50W and 4+75W. Values up to 38 ppm Cu and 166 ppm zinc occur within this zone. The third zone stretches across L5+00W - 0+75S to 1+50S northeasterly and crosses the baseline between 2+00W and 0+75W. Cu values up to 26 ppm and zinc values up to 106 ppm were noted within this zone.

8.4 Fish Lake Grid

8.4.1 Geology and Lithogeochemistry

Outcrop exposure was poor to moderate and mapping was restricted to cut grid lines. The Six Mile Lake Cycle felsic metavolcanic rocks encompassed within the map area are comprised of coarse to fine pyroclastic deposits including: pyroclastic breccia, lapilli tuff, crystal tuff and finely bedded ash tuff. The felsic sequence is cut by numerous, north to northeast and northwest trending mafic and quartz feldspar porphyry dykes and sills. A north trending feldspar porphyry dyke also transects the felsic pyroclastic sequence at the eastern end of the map area. The intrusions make up up to 50% of the property stratigraphy. Within the mapped area, there appears to be a rough fining of the pyroclastic deposits from north to south. Block and ash breccia was noted within the northwest quadrant of the property and bedded ash tuffs occur near the baseline at 5+25W.

Foliation directions are roughly east-west with dips steeply to the south. Most of the rock exhibited a fresh, pristine character except for some strong sericitization developed in the felsic tuffs near the presumed location of the Rio zinc occurrence (0.51% Zn) south of Fish Lake. Some chlorite and carbonate alteration with minor disseminated pyrite was also noted (see Appendix I - TS 1320-2). The QFP body occurring within the northeastern quadrant of the property displays strong chloritization with traces of pyrite mineralization. Malachite staining was observed in an outcrop of bedded ash tuff at 5+25W/0+05N. Additional gridding with closer spaced wing lines is required to further evaluate the significance of this alteration and weak mineralization.

COBB BAY

G:\MWI\COBBBAY.ROC

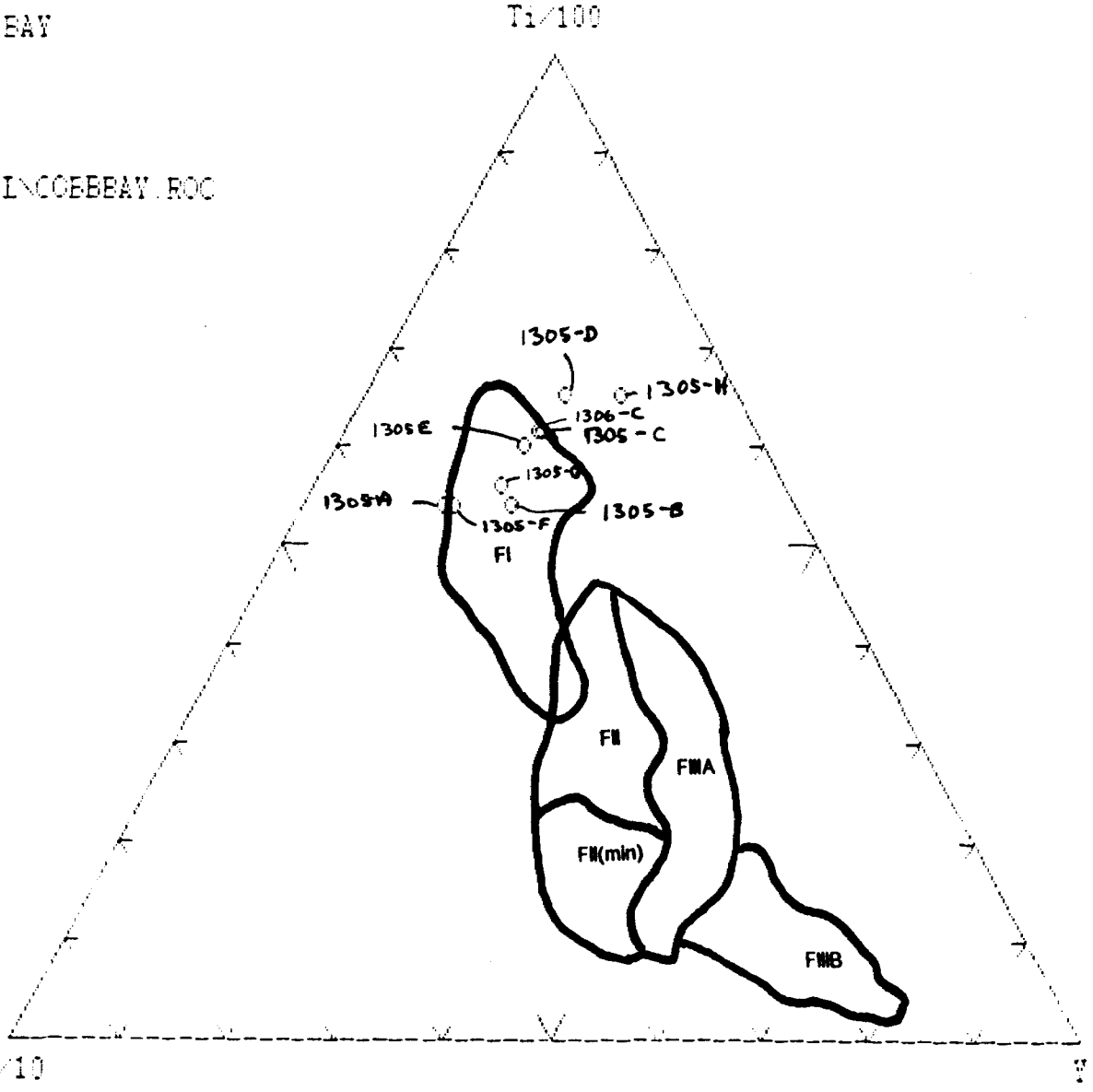


FIGURE 7

A description of the major rock types is as follows:

Felsic Metavolcanics

These rocks are comprised essentially of three types: pyroclastic breccia, coarse ash tuffs and fine ash tuff. The pyroclastic breccia generally appears as a distinct member within a composite pyroclastic flow deposit. It consists of up to 90% felsic juvenile lithic fragments, which are aphanitic, commonly quartz-phyric, tabular to elongate with white weathering and vesicular, ranging from coarse ash to 15 cm in size with a fine to coarse ash matrix. It is characterized by poor sorting, e.g. samples 1303-D, 1303-I. The coarse ash tuffs are composed essentially of angular to sub-rounded plagioclase crystals and angular quartz crystals ≤3mm in size set in a minutely fine grained felsitic matrix. The rocks are generally fine grained, weakly porphyritic, grey-white in color, and show weak banding/bedding. Accessories include sericite, chlorite and carbonate (samples 1303-B, 1303-G, 1303-H, 1303-L, and T.S. 1320-2). The bedded fine ash tuffs are very fine grained with a varved or laminated appearance. A petrographic description (Appendix I - 1320-3) indicates that the rocks are comprised essentially of plagioclase and sericite with darker laminae being composed of an abundance of chlorite.

Mafic Intrusive

These rocks are typically coarse grained, green, black and white in color, massive and non-foliated. Some portions are fine grained such as the mafics exposed on the baseline from 12+50W to 15+00W. They are comprised essentially of amphibole and plagioclase.

Quartz Feldspar Porphyry

These felsic intrusive rocks are generally porphyritic with quartz phenocrysts ≤1cm. They are typically grey-white in color however, when moderately chloritized display a light green color (1303-K, 1303-P). Samples from the QFP at the north end of L0+00 are strongly chloritized.

Feldspar Porphyry

The porphyry is composed of 5 to 15%, 1 to 5mm, white, tabular to equant, plagioclase phenocrysts within a dark colored, fine grained, quartzo-feldspathic groundmass.

There were no significant copper-zinc values returned from any of the grab samples collected. The strongest alteration which was noted megascopically during the mapping occurs between 3+00N and 4+00N from one end of the property to the other. Partial geochemical analyses for 19 grab samples indicate mainly fresh, unaltered rocks except for one. Samples 1303-S was collected at the end of the cut line 0+00 and its petrochemical data denotes an alteration index of 83. This was the highest value obtained in any of the samples analyzed to date in the project area. Since the A.I. varies directly with distance from the ore deposit, this area is of particular interest.

There are weak AEM targets with coincident magnetics as well in this region. More exploration is warranted to further evaluate this horizon.

Finally, a ternary plot was made of the titanium, zirconium and yttrium geochemistry. Three of the samples collected, 1303-A, 1303-I and 1303-J fall within the prime exploration fields (Figure 8).

FISH LAKE

G:\MWL\FISHLK.ROC

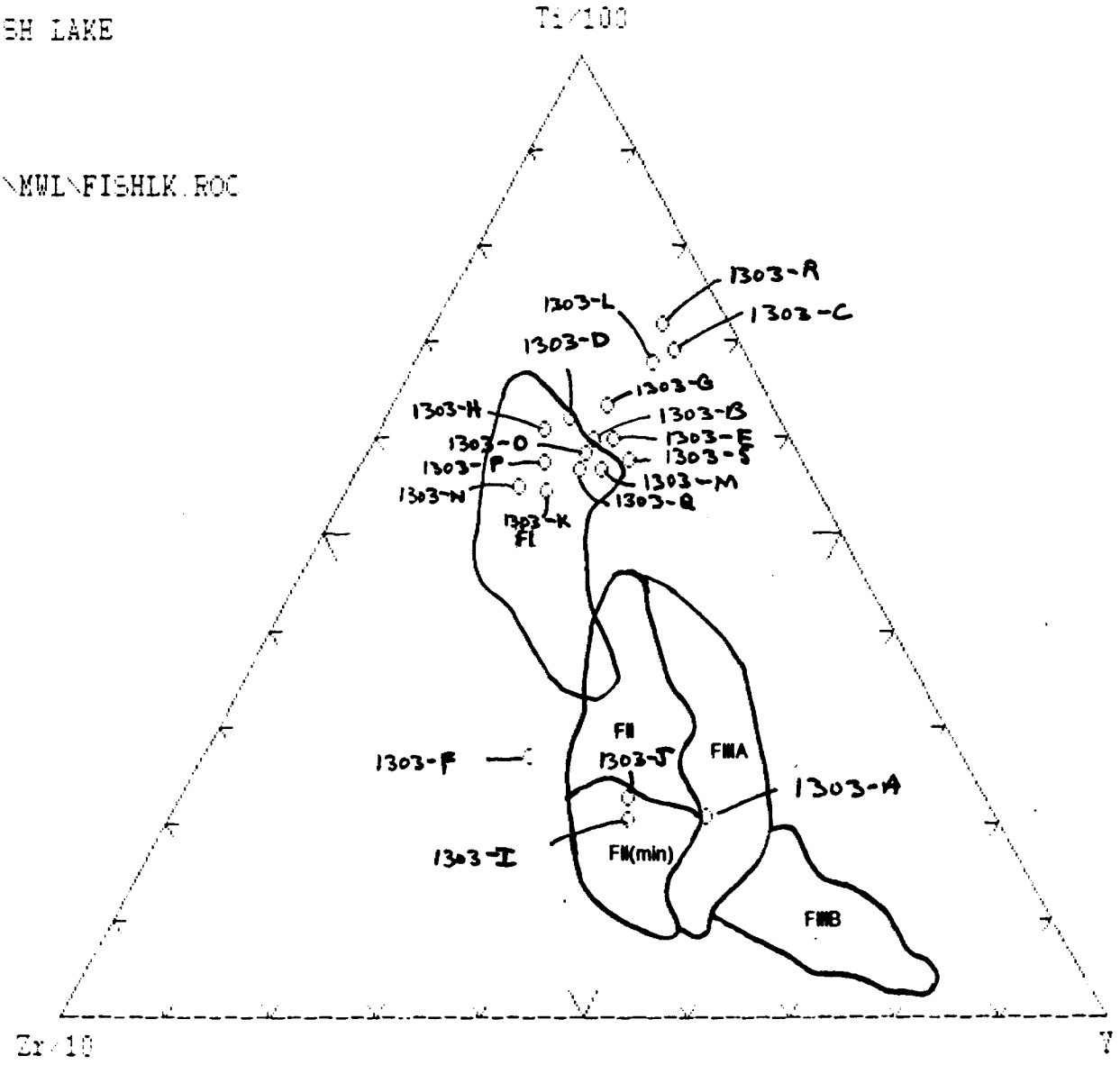


FIGURE 8

8.4.2 Soil Geochemistry

The Cu, Zn geochemistry is summarized below:

	Copper (ppm)	Zinc (ppm)
Maximum Value	251	214
Minimum Value	1	4
Arithmetic Mean	15 (93 data points)	25 (93 data points)
One Standard Deviation	29	24
Anomaly Threshold	50	100

The sparsity of data points lends to the difficulty of delineating Cu, Zn anomalous zones. However, there are a few pockets of Cu-Zn enrichment as follows.

(i)	L5+00W - 4+75N	122 ppm Cu, 58 ppm Zn
(ii)	L10+00W - 2+50N	29 ppm Cu, 214 ppm Zn
(iii)	L15+00W - 0+75N	251 ppm Cu, 44 ppm Zn
	L15+00W - 1+00N	43 ppm Cu, 26 ppm Zn
(iv)	L15+00W - 3+00N	64 ppm Cu, 44 ppm Zn

9.0 CONCLUSIONS AND RECOMMENDATIONS

The Western half of the Six Mile Lake Volcanic Cycle represents a proximal VMS environment and the thickness of the Six Mile Lake Volcanic Cycle is equivalent to the South Sturgeon Lake volcanic cycle which hosts the former producing deposits at Mattabi, Sturgeon Lake and Lyon Lake. A semi-conformable zone of iron carbonate occurs within the footwall of the Mattabi Mine. Similarly, an iron-carbonate alteration zone caps the Six Mile Lake cycle felsic pyroclastic unit. Geologic mapping to date of this unit in the western half of the Six Mile Lake cycle suggests vent or proximal facies rocks, ie. poorly sorted and thick bedded deep-water flow breccia fragmentals with quartz feldspar porphyry intrusions (Eastern Cobb Lake and Western Fish Lake grids), locally overlain and laterally progressing to shallower-water both thinly and thickly bedded lapilli tuff, crystal tuffs and ash tuffs. In some areas these units are all intercalated with mafic flows. (Western Cobb Lake, Cobb Bay grids).

Penassi Lake

The AEM/HLEM conductor on the Penassi Lake property was found to be a barren graphitic sulphide iron formation hosted by the mafic metavolcanic unit. No further work is recommended on the geophysical anomaly however, the contact between the felsic pyroclastic unit and the overlying mafic metavolcanics in this region should be located and sampled.

Cobb Lake

A small amount of HLEM and mag surveying in the Cobb Lake region did not delineate any drill targets. However, there are several zones of Cu, Zn enrichment exhibited in the soil geochemistry

which warrant further testing including trenching and more lithosampling. Quartz-sericite-carbonate schist float mineralized with 2-10% disseminated pyrite was noted in the 400 to 600 meter thick felsic pyroclastic belt between Cobb Lake and McLeod Lake. These occurrences are spatially related to a zone of anomalous soil geochemistry with weak untested AEM anomalies. An induced polarization survey is recommended to further evaluate this area. Chlorite, sericite and carbonate schists also mark local zones of alteration in the southeastern region of Cobb Lake where chert/exhalite textures have been identified. Limited lithosampling to date has produced petrochemical data suggestive of hydrothermal alteration patterns, ie. alteration indexes greater than 60 and trace elements plots within the Lesher FII (min) and FIII prime exploration target fields. Additional gridding and sampling is warranted to better define zones/anomalous areas with follow-up IP surveys, trenching and diamond drill testing.

Cobb Bay

A small amount of lithosampling on the Cobb Bay property did not produce any significant geochemical alteration pattern. The felsic crystal tuff member which occurs within the northern region of the Cobb Bay grid appears to be the best exploration target for potential VMS mineralization on this property. Intense altered portions of this unit are expressed as quartz-carbonate-sericite schists and have an accompanying weak zinc enrichment in the soil geochemistry. More gridding, mapping and sampling are needed to further evaluate the potential of these coarse ash deposits.

Fish Lake

Within the Fish Lake property located west of Six Mile Lake, the zinc occurrence previously reported by Rio Tinto was not located. A zone of strong sericite ± carbonate ± chlorite alteration occurs between 3 + 00N and 4 + 00N from one end of the property to the other hosted by the felsic pyroclastic unit. An alteration index of 83 was obtained for an intensely chloritized sample from the northeastern area of the property. There are weak AEM targets with coincident magnetics as well in this region. More mapping and sampling is also needed in this region with IP surveys contingent on continuing positive results.

Dumbell Lake

No work has been done yet on the Dumbell Lake property located east of Six Mile Lake. Lithogeochemical and soil geochemical studies along with geologic mapping are recommended.

In summary, it is recommended that an evaluation of the geologic and geochemical setting of the Six Mile Lake area for VMS deposits be continued. Further geologic mapping, ground geophysics and lithogeochemistry will aid in the development of drill targets. Drill testing of high chargeability trends/hydrothermal alteration cells would follow. A proposed budget is as follows:

Phase I			
Linecutting	40 km x $400/km	$16,000	
Mag	40 km x $100/km	4,000	
IP	12 days x $1000/day	12,000	
Geology	50 days x $300/km	15,000	
Rocks	120 samples x $25/s	3,000	$ 50,000
Phase II			
Diamond Drilling (3 holes)	450m x $70/m	$31,500	
Assaying/Core Splitting	60 samples x $25/s	1,500	
Engineering	20 days x $300/day	6,000	
Services		11,000	$ 50,000
	TOTAL		$100,000

Respectfully Submitted,

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

R Felix

Reg Felix
Sr. Project Geologist
Northwest Ontario District

Thunder Bay, Ontario
January 27, 1993

REFERENCES

Beggs, D.G., 1975:
Petrology and Geochemistry of Archean Volcanic Rocks, North of Sturgeon Lake; A thesis submitted in conformity with the requirements for the Degree of Master of Science in the University of Toronto.

Corstorphine, W., 1978:
Preliminary Report, Cobb Lake, Reconnaissance Geology Sturgeon Lake Area, Ontario for Mattagami Lake Exploration (Company Report).

Lesher, C.M., et al, 1985:
Trace element geochemistry of ore - associated with barren, felsic metavolcanic rocks in the Superior Province, Canada; Can. Journal Earth Sciences, Vol. 23, 1986, p.222-237.

Morton, R.L., et al, 1991:
The Early Development of an Archean Submarine Coldera Complex with emphasis on the Mattabi Ash-Flow Tuff and its Relationship to the Mattabi Massive Sulphide Deposit; Economic Geology, Vol. 86, No.5, August 1991, 11p.

Ontario Geological Survey:
Geological Data Inventory Folios, GDIF 328 - Six Mile Lake Area, GDIF 465 -Penassi Lake area, GDIF 348 - Fourbay Lake Area.
1990 Airborne electromagnetic and total intensity magnetic survey, Sturgeon Lake - Savant Lake Area, Maps 81487, 81488, 81489, 81492, 81493, 81494, 81495, scale 1:20,000.

Robinson, D.J., 1992:
Geology of the Six Mile Lake Area; Ontario Geological Survey, Open File Report 5838, 93p.

Steinert, G., 1976:
Preliminary Report on the North Sturgeon Lake Volcanic Belt for Mattagami Lake Mines Limited (Company Report).

Trowell, N.F., 1974:
Squaw Lake - Sturgeon Lake Area, Northeast Arm - Sturgeon Lake Sheet, District of Thunder Bay; Ontario Division of Mines, Preliminary Map P.968, Geological Series, scale 1;15,840. Geology 1972, 1973.
1976: Geology of the Quest Lake Area, Districts of Kenora and Thunder Bay; Ontario Division of Mines, Geoscience Report 154, 60p. Accompanied by Map 2335, scale 1:31,680.
1983: Geology of the Squaw Lake - Sturgeon Lake Area - District of Thunder Bay, Ontario Geological Survey, Report 227, 114p, Accompanied by Map 2420, scale 1:31,680.

Wallis, T.L., 1985:
Compilation of the area north of Sturgeon Lake, NTS 52G/14, 15, 52J/2, 3; Memorandum to W. MacIsaac, Noranda Exploration (Company Report).

APPENDIX I

PETROGRAPHIC DESCRIPTIONS

SAMPLE 1320-1 **QUARTZ FELDSPAR PORPHYRY**

Estimated mode

Quartz	20
Plagioclase	65
Sericite	15
Carbonate	trace
Rutile)	trace
Opaques)	

This is a rock of simple composition which is clearly recognizable as a felsic volcanic or hypabyssal intrusive (quartz feldspar porphyry).

It consists of phenocrysts of subhedral plagioclase and lesser quartz, 0.3 - 3.0mm in size, scattered through a microgranular groundmass of grain size 20 - 100 microns. The latter is composed predominantly of plagioclase, probably with an accessory component of intergrown quartz, plus sericite. Its even, holocrystallinne character suggests that it may have been recrystallized.

The sericite is in the form of minute flakes, intergranular to the quartzo-feldspathic aggregate. It also concentrates as felted wisps and semi-continuous schlieren which define a sinuous, microlenticular foliation. This could be the expression of a primary flow fabric, or a structurally superimposed feature related to metamorphic recrystallization.

The plagioclase phenocrysts show generally mild sericitization - partly following incipient microfracturing concordant with the sinuous groundmass schlieren.

The rock is notable for its complete lack of mafics. The only other constituents are rare traces of carbonate and micron-sized opaques - mainly rutile. A few tiny euhedra of partially oxidized pyrite are also seen.

SAMPLE 1320-2 **FELSIC TUFF**

Estimated mode

Quartz	3
Plagioclase	60
Sericite	23
Chlorite	6
Carbonate	8
Opaques	trace

Macroscopic examination of the off-cut indicates that this sample is a fine-grained rock showing gradational, banded, compositional variations. It contains abundant, tiny, lenticular, clast-like features, and clearly represents a bedded tuff.

In thin section it is found to consist of clasts 0.1 - 1.0mm in size, set in a minutely fine-grained felsitic matrix (grain size 2 - 10 microns) with intergranular sericite. Sericite locally concentrates as sinuous wisps and semi-continuous schlieren.

The clasts consist of angular to sub-rounded plagioclase crystals and rare quartz, plus lenticular lithic fragments of felsite, often outlined by the sinuous sericite wisps.

Accessories consist of carbonate and chlorite - as dispersed flecks, diffuse patches, and intimate intergrowths (partial replacements) in plagioclase crystals. The darker coloured half of the sectioned area contains a relatively higher abundance of chlorite and carbonate, whilst the lighter half has more abundant sericite - indicative of bedded differences in original composition (more mafic vs more felsic).

The mineralogy of the felsitic matrix cannot be reliably determined by optical means owing to its extremely fine-grained size, but the impression is that it is predominantly feldspathic rather than quartzose, and the overall composition of the rock is andesitic.

There is little evidence of recrystallization or deformation (other than normal compaction effects).

SAMPLE 1320-3 BEDDED ANDESITIC ASH TUFF

Estimated mode

Plagioclase	42
Quartz	1
Sericite	33
Carbonate	9
Chlorite	13
Opaques) Rutile)	2

This sample (see off-cut block) is a delicately varved or laminated, minutely fine-grained rock of porcellanitic appearance. It is most likely a bedded ash tuff.

Its pyroclastic character is confirmed in thin section, where it is found to consist of a matrix of felsitic material (probably mainly plagioclase) of grain size 2 - 10 microns, with more or less abundant intergrown sericite. Tiny crystal clasts of plagioclase and rare quartz, 20 - 70 microns in size, are distinguishable within the felsite in certain bands.

Other bands (the darker laminae in the off-cut) are characterized by relative abundance of chlorite, as individual spots (clusters) and semi-coalescent trains. These dark spots are of similar size to the plagioclase crystals and presumably represent altered mafic clasts. Carbonate, as dispersed flecks, sometimes concentrating as streaks and lenses, commonly shows spatial association with the chloritic spots.

The banding is further emphasized by variations in the relative proportions of sericite and felsite - some laminae consisting largely of minutely felted sericite. These may represent concentrations of altered vitric ash, or are intercalations consisting predominantly of argillaceous sedimentary detritus.

Dust-sized opaques (probably mainly rutile), 2 - 20 microns in size, occur dispersed throughout, but tend to be more abundant in the chlorite-rich laminae.

Sericite in this rock shows only rudimentary preferred orientation, without segregation as discrete schlieren. There is no evidence of metamorphic recrystallization, and small-scale primary textural features (clasts, layering) are perfectly preserved.

The overall composition closely resembles that of 1320-2.

SAMPLE 1320-4 **FELSIC CRYSTAL TUFF**

Estimated mode

Quartz	5
Plagioclase	62
Sericite	21
Carbonate	5
Chlorite	4
Ferruginous carbonate)	3
Limonite)	
Rutile)	trace
Opaques)	

This is another rock containing prominent clasts or phenocrysts. It resembles 1320-2 in general macroscopic character, but is less obviously foliated, and has slightly coarser clasts (up to 3 or 4mm in size).

In thin section an additional difference is apparent in that the clasts consist almost entirely of crystals (plagioclase plus minor quartz and altered mafics), and recognizable lithic fragments are absent.

The plagioclase crystals are blocky, subhedral to elongate, sub-rounded in form. In some cases they form aggregated clusters. They show mild to strong pervasive alteration to minutely fine-grained sericite.

Sporadic, irregular to lenticular patches of felted chlorite presumably represent a minor accessory mafic component.

The matrix is a homogenous aggregate of felsite (predominantly plagioclase) of grain size 5 - 30 microns, with minutely fine-grained sericite as an intergranular component. The latter typically shows essentially random orientation, and only locally concentrates as sub-parallel wisps - generally marginal to plagioclase crystal clasts. The abundance of sericite is notably consistent throughout.

The sporadic, irregular pockets and threads of unetched material visible in the off-cut block consist of clumps of microgranular carbonate and associated quartz. They are probably of authigenic redistributional origin, related to localized microfracturing.

The rock contains two readily distinguishable varieties of carbonate. The microgranular segregations described above are calcite, but there is also a ferruginous type (siderite or ankerite) which occurs as discrete, tiny rhombs - typically rimmed with limonite - moulded onto, or incorporated within, the calcite clumps. It is also seen as dispersed individuals scattered through the felsitic matrix (and occasionally within plagioclase crystal clasts).

The homogeneity of the matrix in this rock, and the absence of

Sample 1320-4 cont.

recognizable lithic clasts raises the possibility that it is an altered porphyry rather than a tuff. However, the distribution, partial rounding and incipient fracturing of the plagioclase crystals tend to favour a pyroclastic origin.

SAMPLE 1320-5 **ALTERED DIORITE**

Estimated mode

Plagioclase	12
Quartz	1
Hornblende	55
Epidote	30
Chlorite	2
Sphene	trace
Rutile)	trace
Opaques)	

This rock is clearly of different type to the felsic volcanics/ pyroclastics making up the bulk of the suite. Macroscopically (see off-cut) it consists of coarse, sub-prismatic, buff-coloured, phenocryst-like features set in a dark (mafic-rich), white-flecked matrix.

In thin section the buff-coloured patches are found to consist predominantly of epidote - mainly of sub-opaque cryptocrystalline type. The epidote aggregates show a diffuse anhedral/blocky (inherited?) internal fabric, and often incorporate more or less abundant, ragged, small inclusions of microgranular plagioclase, quartz, hornblende and chlorite.

The dark/speckled phase consists predominantly of hornblende, as varigranular aggregates ranging from anhedral grains of several mm in size to finer-grained, bladed, acicular masses, with intergrown microgranular plagioclase.

The hornblende is mainly perfectly fresh, but sporadic alteration to chlorite is seen - mainly peripheral to the epidote masses and/or associated with local microshears.

The texture of the amphibolitic phase is consistent with that of a medium-grained mafic aggregate of intrusive type - possibly partially recrystallized. The nature of the epidote is uncertain. There is some evidence that it has developed as a superimposed feature (small patches and wisps of it being seen in the matrix, both in areas of microgranular plagioclase and in hornblende). The presence of included remnants(?) of hornblende and microgranular plagioclase in some of the larger epidote masses suggests that these may also have developed, at least in part, by matrix replacement. Alternatively, it is possible that they may represent the intense alteration of original feldspar phenocrysts.

The rock most likely represents a modified intrusive diorite.

SAMPLE 1320-6 **SHEARED OR FELSIC VOLCANIC**

Estimated mode

Quartz	40(?)
Plagioclase	27
Sericite	28
Chlorite	2
Apatite	trace
Limonite	3

This rock contains augen-like clasts in a fine, streaky matrix. It has the macroscopic aspect of a metamorphosed, possibly sheared, conglomerate, tuff or porphyry. Some of the clasts appear porous and Fe-stained.

In thin section the clasts are found to consist of sub-angular to sub-rounded grains of quartz and fresh plagioclase, mostly in the 0.2 - 1.0mm size range, but occasionally up to 3.0mm. These commonly show fracturing and marginal recrystallization, and the quartz typically exhibits strain polarization. They often concentrate as lenticular clumps - sometimes having the aspect of fragmented coarser clasts.

The clasts (which make up some 25% of the rock) occur scattered through a matrix, of grain size 5 - 30 microns, composed of quartz, an indeterminate proportion of intergrown plagioclase, and sericite. Variations in the relative proportions of the quartzo-feldspathic and sericitic components show streaky/lenticular distribution, diverging around the strings of individual clasts and clast clusters. This defines a weak sinuous foliation.

Sporadic swarms or trains of small (0.1 - 0.3mm), discrete, sometimes lenticular patches of felted green chlorite occur, mainly in the finest (sericite-rich) streaks of the matrix.

The clusters of smaller clasts are commonly associated with (mantled and/or cemented by) lenticular segregations of microgranular quartz, slightly coarser than that of the matrix at large. This often contains clusters of limonite granules or limonite-stained cavities, partly concentrating in rimming relationship to individual clasts. This probably represents an accessory component of ferruginous carbonate, now totally oxidized and/or leached.

The section also includes a few contorted segregations (discordant hairline veinlets?) of microgranular quartz.

The exact nature of this rock remains uncertain, even in the light of the petrographic data. It clearly exhibits cataclastic features, but could equally well be derived from a sediment (tuffaceous siltstone with sandy/conglomeratic intercalations), a felsic tuff, or a quartz-feldspar porphyry.

SAMPLE 1320-7 **FELSIC TUFF(?)**

Estimated mode

Quartz	17
Plagioclase	60
Sericite	20
Carbonate	1
Biotite	2
Opaques) Limonite)	trace

This rock consists of a fine-grained, silky, locally lenticular textured, white-etched (plagioclase/sericite?) matrix, with sparsely scattered, small clasts or phenocrysts. The sectioned portion includes a few thin, sub-parallel laminae or veinlets of quartz.

In thin section the matrix is found to consist predominantly of a fine-grained felsitic aggregate (grain size 10 - 50 microns), probably composed mainly of plagioclase, plus minor accessory quartz. Sericite is the principal accessory, as minute, oriented flakes. These concentrate as sporadic swarms of en-echelon wisps which define an incipient foliation. Traces of fine-grained carbonate are locally associated with the sericite.

Sericite is much more abundant at one end of the section (the lenticular-textured area in the off-cut).

Quartz forms scattered, tiny pockets, and locally concentrates as irregular anasotomosing and/or contorted laminae. Some of these are concordant with the foliation, but the more prominent zones appear to be oblique to it. There are also occasional, clearly discordant threads of quartz, sometimes with minor intergrown carbonate.

The foliation is emphasized by the presence of short, en-echelon strings of minutely fine-grained, dark olive-brown biotite. These are visible on the surface of the off-cut as dark flecks.

The sparsely scattered, clast-like bodies consist of anhedral grains of quartz and fresh plagioclase, 0.5 - 2.0mm in size. These quartz grains often have embayed outlines like phenocrysts in a volcanic, and show partial recrystallization. The plagioclase grains are sometimes broken and/or cemented by carbonate.

The character of these grains (and hence of the rock itself) is ambiguous. They could equally well be sporadic crystal clasts in a fine-grained felsitic tuff, or phenocrysts in a sparsely porphyritic flow. The overall textural aspect of the matrix tends to favour the former possibility.

SAMPLE 1320-8 **EXHALITE(?) BRECCIA**

Estimated mode

Quartz	28
Plagioclase	5
Sericite	8
Chlorite	30
Carbonate	28
Rutile) Pyrite)	1

This sample differs significantly in mineralogy from the majority of the suite. It is a dark rock, rich in quartz, chlorite and carbonate, and (judging from the paucity of white etch reaction on the off-cut) strikingly low in feldspar. It contains abundant cryptofragmental bodies, 0.5 - 5.0mm or more in size.

It is of heterogenous appearance in thin section, and appears to be composed of close-packed, poly-lithic and mineral fragments.

There are two principal components. One consists predominantly of fine-grained quartz (grain size 10 - 30 microns) with various, but often abundant proportions of minutely intergranular chlorite. This lithotype commonly shows a contorted microfabric - possibly the effect of soft sediment compaction.

The other consists of carbonate, often with intimately intergrown accessory sericite. This occurs as equant to elongate grains, ranging in size from 0.2 - 2.0mm, commonly occurring as clusters cemented by wisps and pockets of felted chlorite. The carbonate is unreactive to dilute acid, and is presumably dolomite or ankerite.

Another prominent constituent - scattered randomly through the rock - is quartz, as individual, equant, sub-angular, mono-crystalline grains, 0.2 - 1.5mm in size. These closely resemble the quartz phenocrysts in a single, large (7mm) lithic clast of felsitic plagioclase with intergrown sericite and carbonate.

Chlorite also occurs in monomineralic form, as sporadic, felted-textured clasts, or interclast pockets.

Sporadic disseminated opaques consist of fine-grained rutile, plus a few individual grains and clumps (0.3 - 3.0mm in size0 of anhedral-subhedral pyrite.

The origin of this rock is uncertain. It appears to be a form of breccia. Except for one prominent fragment of felsic porphyry, and the scattered monocrystalline quartz grains (disaggregated phenocrysts?) the mineralogy of the constituent clasts is not that of the volcanic ejecta making up a normal tuff. The fine quartz/chlorite intergrowths (ferromagnesian cherts?) and carbonate constituting the predominant lithotypes are consistent with possible exhalative affinities. Fragment outlines are often ill-defined, and the rock could be a form of slump breccia.

SAMPLE 1320-9 **LAMINATED HORNFELS(?)**

Estimated mode

Quartz	33
Plagioclase	5
Sericite	3
Calcite	24
Biotite	10
Hornblende	14
Garnet	11
Opaques) Rutile)	11

This is a fine-grained, foliated rock of distinctly different character to the majority of the suite.

An even, microgranular (granoblastic?) matrix of quartz, of grain size 20 - 50 microns, is host to abundant, laminar/lenticular concentrations of biotite, hornblende and calcite. The same minerals also occur, along with minor sericite, in dispersed form within the siliceous aggregate. Feldspars appear minor to absent, though differentiation of quartz and plagioclase is difficult in this grain size range, and as an accessory component of intergrown plagioclase could be present.

The calcite occurs as discontinuous lenticles and strings of grains, 0.05 - 0.5mm in size.

The biotite and hornblende (both strongly coloured, pleochroic varieties) are often closely associated, and occur concentrated as thin, rather irregular schlieren (to 0.2mm in thickness) and wispy zones of tiny, anhedral-subhedral grains.

Lenticular augen-like textures are common throughout, and may, in part, represent relict fragmental features.

Sparsely scattered, individual, equant/sub-angular grains of quartz, 0.1 - 1.0mm in size ("quartz eyes"), occur randomly throughout.

A prominent feature is the presence of garnet. This forms sporadic, irregular/elongate patches (incipient porphyroblasts) 1 - 3mm or more in size - often of diffuse, wispy form, elongated concordant with the prevailing foliation. The garnet is of distinctive spongy (poikiloblastic) habit, densely sieved with tiny inclusions of the matrix quartz and, to a minor extent, the other intimately intergrown components.

This rock presents some contradictory features. The presence of garnet indicates that it is largely recrystallized, although there has apparently been very little coarsening, and the biotite and hornblende show no pronounced schistosity. Relict fragmental texture is partially preserved, and the wispy laminar distribution of the various constituents may also be largely an inherited one -

from a laminated sedimentary/volcanic protolith. The overall textural aspect is suggestive of hornfelsic affinities (recrystallization under predominantly thermal rather than dynamic conditions). The spongy/poikiloblastic form of the garnet is consistent with this origin.

Biotite and garnet are suggestive of a pelitic component in the protolith, whilst calcite and hornblende suggest an intermixed calcareous/ferromagnesian one. The paucity of feldspar is notable. The original rock could, perhaps, have been a tuffaceous, limy siltstone.

APPENDIX II

LITHOSAMPLE DESCRIPTIONS AND ANALYSES

NORANDA EXPLORATION COMPANY, LIMITED

Nº 188

White - Office
Yellow - Field

LAB Accusassay

PROJECT NO. 1311 PROPERTY Six Mile/Handcuff

N.T.S. 52G/14

CERT. NO. _____

GRID REFERENCE _____

DATE Nov 10/82

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	Shabandawan area py, chl, sericite mafics	Rock	½ metre	Au					
B	Beattie man Porphyry 1% calcite (Sturgeon Lk)	—		Au	Cu	~~Zn~~			
C	altered mafic 10% py, 1% cal 17.5Km North of Silver	Au		Dollar	Cu	Zn			
D	garnet tuffaceous mafic TR-py Handcuff Lake			Conductor					
E	" " " "	Au	Cu	Zn					
F	" " " "	Au	Cu	Zn					
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norex Form: C:\forms\Samprep.frm

NORANDA EXPLORATION COMPANY, LIMITED

№ 189

White - Office
Yellow - Field

LAB ~~[illegible]~~ T.S.L. PROJECT NO. ________ PROPERTY Copper Lake(?) N.T.S. 52G/14

CERT. NO. ________ GRID REFERENCE See claim Maps DATE Apr/20/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	~~[illegible]~~								N. Stu[illegible]
B	400 metres South of Post #1 of 1195526 Edge Vol(?)			WR					
C	West of LINE [illegible] 400 metres SOUTH OF POST #1 OF 1195526 175 metres WEST OF LINE POST	that is	400 metres	South of Post #1 of 195526				WR	
D	250 metres north of #3 POST OF 1195527							WR	
E	~~[illegible]~~ north of Pennies Lk. (See Claim map)							WR	
F	" " " " " "							~~[illegible]~~ WR	
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norm Form: C:\forms\Samprep.frm

NORANDA EXPLORATION COMPANY, LIMITED

Nº 660

White - Office
Yellow - Field

AB TSL

PROJECT NO. 1320 PROPERTY Sixmile Lake

N.T.S. 52G/14

CERT. NO.

GRID REFERENCE samples from along claimlines

DATE April 27/92

SAMPLE REPORT Au + Wholerock Analysis.

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			Location CO-ORDINATES		SAMPLER
A	Strongly sheared QE(blue) Porphyry/F.V., grey-white, minor sericite, tr. py.	grab					830m South of cl. #119	at Post #1	WB
B	Qtz. Porphyry - felsic, lt grey-pink, tr-0.5% py, massive	grab					345m West of cl. #119	of Post #2	WB
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norm Form: C:\forms\Samprep.frm

NORANDA EXPLORATION COMPANY, LIMITED

№ 192

White - Office
Yellow - Field

AB T.S.L

PROJECT NO. 1320 PROPERTY Six Mile

N.T.S. 52G/15

CERT. NO.

GRID REFERENCE

DATE May 26/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	Felsic Lap Tuff / Agg								
B	" " " " w 5-10 % Py								
C	Felsic qtz xl tuff								
D	Gh-Py Gossan Argillite (15m. wide)								
E	" " " "								
F	" " " with 30 % Py								
G	" " " " " "								
H	Finely laminated Felsic tuff w blue qtz eyes								
I	Felsic Lapilli tuff								
J	Rhyolite Flow Breccia (Float) AND??								
K	Felsic Lithic Tuff / Tuff Bx								
L	Felsic Lapilli tuff								
M	Qtz xl lapilli tuff w blue qtz eyes								
N	Felsic Volcanic Flow finely fol'd silicified pink								
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norex Form: C:\forms\Samprep.frm

NORANDA EXPLORATION COMPANY, LIMITED

Nº 191

White - Office
Yellow - Field

LAB T.S.L. / Accurassay

PROJECT NO. 1320 PROPERTY Cunningham/Six Mile

N.T.S. 52G/15

CERT. NO. _____

GRID REFERENCE _____

DATE May 26/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	Felsic Lapilli Tuff	Grab							RF
B	Felsic Qtz. Crystal Tuff, strongly schistose	"							
C	Felsic qtz crystal tuff, strong carbonatization	"							
D	Float, Sulfide Fe.Fm 20-30% py-po, Qtz-Carb	"							
E	" " " " " "	"							
F	Felsic lapilli tuff, schistose, weak carbonatization	"							
G	Carbonate sericite schist	"							
H	Qtz sericite schist, intense carbonatization	"							
I	Qtz-eye sericite carbonate schist, carbonatized	"							
J	Qtz sericite carbonate schist	"							
K	" " " "	"							
L	Felsic crystal tuff ~~Qtz Ser. Schist~~	"							
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norex Form: C:\forms\Samprep.frm

№ 1307

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB T.S.L. PROJECT NO. 1320 PROPERTY Six Mile N.T.S. 52J/2

CERT. NO. GRID REFERENCE Cobb LAKE GRID DATE Sept 3/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS Whole Rock			CO-ORDINATES		SAMPLER
A	Felsic Lapilli Tuff (Pyroclastic Breccia) frag ≤10cm	Grab					39+00E	3+00S	R7
B	Quartz Porphyry (qtz 1-2mm) chl+ser [illegible] xl tuff	"					B.L	34+15E	"
C	Flow banded felsic ~~[illegible]~~ crystal tuff/qtz xls ≤ 5mm	"					31+50E	0+25S	"
D	Felsic Pyroclastic - lapilli tuff/Lapillistone	"					32+00E	[illegible]+00S	"
E	" " " "	"	3M				32+00E	5+25S	"
F	QFP, strong carbonatization, f??	"					32+00E	1+90N	"
G	" "	"					32+00E	4+75N	
H	Lithic crystal tuff: blue opalescent qtz eyes in f.g. matrix						22+00E	3+25N	
I	Carb-ser-qtz schist						22+00E	2+25N	
J	Felsic Pyroclastic Tuff Breccia						22+00E	1+20N	
K	Interflow Breccia						22+00E	B.L.	
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Name: Form: C:\forms\Samprep.fmt

№ 1306

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB Accusassay | PROJECT NO. 1320 | PROPERTY Six Mile | N.T.S. 52J/2

CERT. NO. | GRID REFERENCE Cobb Bay Grid | DATE Sept 3/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS Cu	ASSAYS Zn	CO-ORDINATES		SAMPLER
A	QFP w 1-2% pyrite	Grab		8	23	BL	12+65W	M.S.
B	Felsic Lapilli Tuff (Frag 2-5cm) w 1% py, trsph	Float Grab	Float	46	29	BL	10+25W	M.S
~~C~~	~~Felsic Lapilli Tuff w 1% py~~	~~Grab~~				~~10+60W~~	~~1+50N~~	~~M.S.~~
C	Int carbonatized mafic volc w 5-10% py-po	Grab		62	118	5+50W	2+50N	M.S.
E								
F								
G								
H								
I								
J								
K								
L								
M								
N								
O								
P								
Q								
R								
S								
T								
U								
V								
W								

Norast Form: C:\forms\Samprep.frm

№ 1305

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB T.S.L. PROJECT NO. 1320 PROPERTY Six Mile N.T.S. 52J/2

CERT. NO. _____ GRID REFERENCE Cobb Bay Grid DATE Sept 3/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
				Whole Rock					
A	QFP, f.g. greygreen, 1-3mm euhedral feldspar phenocrysts	Grab					B.L.	12+60W	RF
B	Qtz crystal felsic tuff; 2-3mm qtz xls	Grab					0+25N	12+40W	RF
C	Felsic Lapilli tuff; frag 2-5cm	Grab	ANGULAR Float				B.L.	10+75W	RF
D	Felsic Lapilli TUFF	Grab					4+00W	1+00N	RF
E	Felsic Lapilli TUFF	Grab					7+00W	0+50N	RF
G	Carbonate Sericite schist	Grab					7+00W	4+00N	RF
F	Intensely carbonatized felsic vol tuff	Grab					"	"	"
H	Carbonate-sericite-chlorite schist w/chert frag	Grab					"	3+50N	"
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Master Form: C:\forms\Samprep.frm

№ 1303

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB T.S.L PROJECT NO. 1320 PROPERTY Six Mile N.T.S. 52J/2

CERT. NO. GRID REFERENCE Six Mile Lake Grid DATE Aug 31/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS Whole Rock			CO-ORDINATES		SAMPLER
A.	Qtz porphyry, w qtz phenocrysts ≤1cm alt. to epid	Grab					L20+00W	1+35N	RF
B.	Por. Felsic Vol / Qtz Por w qtz xls ≤3mm green-white color	"					19+90W	3+80N	"
C	Coarse grained mafic intrusive	"					20+00W	4+25N	"
D	Felsic fragmental (block+ash)	"					19+25W	4+25N	"
E	Felsic Fragmental w green chloritized phenocrysts	"					17+50W	3+00N	"
F.	Qtz Porphyry	"					BL	6+00W	"
G.	Qtz ser. schist w tr. py, chloritized phenocrysts	"	21M				17+50W	3+25N	"
H.	Qtz sericite ± carbonate schist, tr. py						10+00W	3+70N	"
I	Felsic pyroclastic flow, fragments 10-15cm	"					10+00W	3+50N	"
J	" " " " "	"					10+00W	1+25N	"
K	Qtz phyric felsic pyroclastic/porphyry; qtz ≤1cm	"					10+00W	0+50N	"
L	Qtz -sericite schist (F. vol)	"					0+00	6+35W	"
M	Felsic ash tuff w malachite on bedding	"					0+05N	5+00W	"
N	Qtz phyric felsic pyroclastic / Qtz porphyry	"					0+00	3+25W	
O	Sericite schist (Int vol)	"					0+05S	3+15W	
P	Qtz phyric felsic pyroclastic / Qtz porphyry	"					0+00	1+25W	
Q	Felsic pyroclastic (block and ash)	"					0+00	1+00W	
R	Qtz feldspar porphyry, strong chloritization, tr py						L5+00W	4+25N	
S	" " " " " "						L5+00W	5+00N	
T									
U									
V									
W									

Norex Form: C:\forms\Samprep.frm

№ 1302

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB Accumassay | PROJECT NO. 1320 | PROPERTY Six Mile | N.T.S. 52J/2

CERT. NO. | GRID REFERENCE | DATE Aug 30/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	PPM ASSAYS Cu	PPM ASSAYS Zn		CO-ORDINATES		SAMPLER
A	Rusty MAFIC VOLCANIC BL/6+85W	GRAB		102	91		Co66 Lake Grid		
B	Chalky Felsic Breccia w 3-5% py L39E/3+00S	Grab	5M	78	242		" "	"	
C	F.G. MAFIC Int w 1-2% py L32+15E/3+00S	Grab		764	24		" "	"	
D	Felsic Fragmental w tr py L32+15E/3+25S	"		490	43		" "	"	
E	Qtz sericite schist w tr sulfides L17+50W/3+00N	"	1M	55	34		Six Mile Grid		
F							"	"	
G	Mafic Int (Gabbro) F.G. w 1-2% PD			187	120		11+30W	0+50S	
H	Felsic ash tuff w malachite, tr sulfides			592	50		0+05N	5+00N	
I	Mafic Volc; carbonatized, 10-15% py			548	50	Co66 LK	L32E	5+20S	
J				48	151				
K				106	25				
L				111	106				
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Name Form: C:\forms\Samprep.frm

№ 1311

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB _____ PROJECT NO. 1320 PROPERTY Six Mile Lk N.T.S. _____

CERT. NO. _____ GRID REFERENCE Cobb Lk Grid DATE _____

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	Rhy - Pyroclastic			WR.	Cobb	Lk	L-22E	1+20N	
B	Felsic tuff			WR		"	L22E	2+50N	
C	agglomerate			WR.		"	L-22E	0+75N	
D	Carb ser. schist altered Felsic Vol			WR	Cobb	Bay	L-7W	4+75N	
E	Felsic chty chert fragments			WR	Cobb	Lk	L-22E	2+60N	
F	Flow Banded felsic tuff			WR		"	L-31+50E	0+25S	
G	Felsic Pyroclastic Lapilli			WR		"	L-39E	3+00S	
H	Por-mafic Vol.			WR.		"	BL-	20+00E	
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norex Form: C:\forms\Samprep.frm

№ 1315

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB Accuracy — PROJECT NO. 1320 — PROPERTY Six Mile — N.T.S. 52J/2

CERT. NO. _____ — GRID REFERENCE Possil — DATE Oct 19/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS Cu	ASSAYS Zn	ASSAYS	CO-ORDINATES		SAMPLER
A	Gossanous S.I.F	Grab	2m				1W	0+00N	SS
B	" "	"	"				"	"	"
C	Allowed McVal to be copy	"					1W	1S	MS
D	Gossanous Rock in McMurdo to be copy						1+25W	1+50S	"
E	Gossanous S.I.F	Grab	2-3m				2+25W	0+00	SS
F	Gossanous Rock Allowed McVal	Grab					2+50W	0+00	SS
G	Gossan Rock in Allowed McVal	"					5W	2+00S	MS
H	Gossan SIF	Grab	5-10m				7W	0+55N	SS
I	" "						7W	0+65N	MS
J	" "	"	2-3m				5W	0+75N	SS
K	" "	"	"				5W	0+70N	MS
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norax Form: C:\forms\Samprep.frm

№ 1316

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB ~~T.S.L.~~ Accurassay

CERT. NO. ______

PROJECT NO. 1320   PROPERTY Six Mile   N.T.S. 52 J/2

GRID REFERENCE Panassi / Cobb Lk Creek   DATE Oct 19/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS Whole Rock			CO-ORDINATES		SAMPLER
A	Qtz ser sch to to sulfides ? Panassi	Grab					L1W	0+00	RZ
B	Fel - Int Vol. Tuff } Grid						0+25W	0+00N	
C									
D	Felsic Vol Float, fg, wea., to sulf	Grab					8W	2+50N	
E	Felsic Vol, w.sea, strongly Fol	"					8+25W	2+80N	
F	Int. Carb. Felsic Pyroclastic ...	"					8+00W	0+25S	
G	Felsic Vol / Qtz ser sch (carb, py, tr spl	"	Float				6W	3+20N	
H	" " " " "	"	"				6W	3+20N	
I	Qtz ser sch (carb, 5-10% py)	"	"				7W	2+00N	
J	"	"	"				"	"	
K	"	"	"				"	"	
L	"	"	"				"	"	
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Noranda Form: C:\forms\Samprep.frm

№ 1317

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB Accurassay PROJECT NO. 1320 PROPERTY Six Mile N.T.S. 52 D/2

CERT. NO. _____ GRID REFERENCE Pennsi Lk DATE Oct 22/82

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
				Cu	Zn				
A	S.I.F @ 30-50° Gt., 5-10 Po:tPy	Grab	3-5m				0+00	0+00	R.K
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norax Form: C:\forms\Samprep.frm

№ 1318

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB T.S.L

CERT. NO. ____

PROJECT NO. 1320 PROPERTY S14 Mile

GRID REFERENCE Cobb Lk Grid

N.T.S. 52J/2

DATE Oct 20/[illegible]

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS Whole Rx			CO-ORDINATES		SAMPLER
A	Felsic Pyroclastic (c[illegible])	Grab					L8W	0+25S	RZ
B	M. Vol, (epid, chlor)	v					L8W	0+60S	RZ
C	Q-eye Felsic volc. ([illegible])						8W	1+60S	
D	QFP / Por. Felsic Vol w/ [illegible] eyes	Float?					6W	0+20S	
E	Por. Felsic Volc.	Float					6W	0+25N	
F	Felsic Vol.						6W	0+40N	
G	Felsic Vol (c[illegible]) [illegible]						6W	3+25N	
H	Sheared/Schistose Por. Fel. Vol	Float					6W	3+80N	
I	Felsic Vol (cbl, carb, [illegible] clast)						4+25W	5+00N	
J	Felsic Vol (chlorite w 1-2 mm q-eyes)						4W	3+00N	
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Noranda Form: C:\forms\Samprep.frm

№ 1636

White - Office
Yellow - Field

NORANDA EXPLORATION COMPANY, LIMITED

LAB Van Peterborough Lab | PROJECT NO. 1320 | PROPERTY Six Mile Lk | N.T.S. 52J/2

CERT. NO. _____ | GRID REFERENCE Cobb Lk Grid | DATE Nov 6/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	Felsic Pyroclastic (Part) w carb	Grab					L6W	3+28N	RJ
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									

Norax Form: C:\forms\Samprep.frm

NORANDA EXPLORATION COMPANY, LIMITED Nº 029

White - Office
Yellow - Field

AB TSL Thunder Bay PROJECT NO. 1320 PROPERTY Cobb Lake N.T.S. 52G/14

CERT. NO. _____ GRID REFERENCE Norex Grid BL-090 Az DATE Oct 28/92

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS WR	ASSAYS Cu	ASSAYS Zn	CO-ORDINATES		SAMPLER
A	Qtz-Feld Porphyritic Rhyolite, wk ser, carb		grab	✓	3	10	L2+25W	3+50N	CM/AS
B	Qtz eye crystal, lithic tuff		grab	✓	29	400	L2+00W	5+00N	
C	Qtz-Feld Porphyritic Rhyolite, wk ser, carb		grab	✓	7	110	L0+30E	2+50N	
D	Qtz eye Rhyolite, wk. ser, carb		grab	✓	6	20	L4+20E	4+50N	
E	Qtz eye Rhyolite, wk-med ser-carb		grab	✓	5	27	L3+50E	4+00N	
F	Felsic Ash tuff, minor carb veinlets		grab	✓	51	35	L2+00E	0+25N	
G	Feld porphyritic Rhyolite		grab	✓	6.	61.	L2+00E	1+00S	
H									
I									
J									
K									
L									
M									
N									
O	felsic vol (qtz-eye rhyolite) w. wk ser.		grab	✓	✓ 2	✓ 18	L4+00E	1+45N	
P	sil, bx mafic vol w. wk chl		↓	✓	✓ 55	✓ 9	L7+50E	1+50S	
Q	bx mafic vol (fbw top), mod sil, wk carb	1-2% py		✓	✓ 45	✓ 55	L8+15E	0+10N	
R	sheared f.g mafic vol w. wk chl + carb alteration			✓	✓ 130	✓ 27	L12+10E	2+75S	
S	felsic qtz eye crystal tuff w. 20% ser crystals, 10% QE			✓	✓ 11	✓ 12	L12+00E	4+60N	
T	felsic qtz eye tuff w. mod fol; wk ser			✓	✓ 21	✓ 29	L12+00E	2+00N	
U	felsic qtz eye tuff w. 20% glassy QE's; wk carb			✓	✓ 4	✓ 50	L12+00E	1+60N	
V	hb-phyric med grned maf vol minor hem.			✓	✓ 21	✓ 90	L11+10E	0+16S	
W	Plag-phyric fine grned mafic vol w. minor chl			✓	✓ 59	✓ 53	L11+10E	0+35S	

Norex Form: C:\forms\Samprep.frm

ACCURASSAY LABS
A DIVISION OF ASSAY LABORATORIES SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

SL. 16 1302

10-Sep-92

NORANDA EXPLORATION CO. LTD.
960 Alloy Drive
Thunder Bay, ON
P7B 6A1

Page: 1
Copy: 1 of 2
Set : 1

Attn: R. Felix
Project: 1320 - Six Mile

Received: 8-Sep-92 06:39
PO #: 81838

Job: 9245801 Status: Final

Rock Samples

Sample	Cu AA ppm	Zn AA ppm
1302A	102	91
1302B	78	242
1302C	764	24
1302D	48	43
1302E	55	34
1302G	187	120
1302H	592	50
1302I	53	50
1302J	48	151
1302K	106	25
1302L	111	106
1306A	8	23
1306B	46	28
1306C	62	118

ACCURASSAY LABS
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

Noranda Exploration Co. Ltd
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

November 5 92

Work Order # : 924784
Project : 1359

SAMPLE NUMBERS Accurassay	Customer	Silver ppm	Copper ppm	Zinc ppm
18	16321		49	<1
19	1632U		120	<1
20	1632V		64	<1
21	1314A		530	<1
22	1314B		1200	<1

ACCURASSAY LABS

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

Noranda Exploration Co. Ltd
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

October 30 92

Work Order # : 924784
Project : 1359

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
18	1632T	1252	0.036	
19	1632U	12	<0.001	
19	1632U	12	<0.001	Check
20	1632V	7	<0.001	
21	1314A	7	<0.001	
22	1314B	11	<0.001	
22	1314B	8	<0.001	Check

ACCURASSAY LABS
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

NOV 10 1992

Noranda Exploration Co. Ltd
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

November 5 92

Work Order # : 924/84
Project : 1320

SAMPLE NUMBERS Accurassay	Customer	Silver ppm	Copper ppm	Zinc ppm
1	1315A		64	<1
2	1315B		140	<1
3	1315E		150	<1
4	1315F		54	<1
5	1315G		1400	<1
6	1315H		160	<1
7	1315I		47	<1
8	1315J		88	<1
9	1315K		94	<1
10	1316F		74	<1
11	1316G		86	<1
12	1316H		23	<1
13	1316I		110	<1
14	1316J		53	<1
15	1316K		110	<1
16	1316L		78	<1
17	491F	<1		

ACCURASSAY LABS
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

NOV 1 n

Noranda Exploration Co. Ltd
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

October 30 92

Work Order # : 924784
Project : 1320

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
1	1315A			
2	1315B			
3	1315E			
4	1315F			
5	1315G			
6	1315H			
7	1315I			
8	1315J			
9	1315K			
10	1316F	5	<0.001	
10	1316F	<5	<0.001	Check
11	1316G	<5	<0.001	
12	1316H	<5	<0.001	
13	1316I	<5	<0.001	
14	1316J	12	<0.001	
15	1316K	9	<0.001	
16	1316L	<5	<0.001	
17	491F	5	<0.001	

ACCURASSAY LABS
A DIVISION OF ASSAY LABORATORIES SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

10-Sep-92

NORANDA EXPLORATION CO. LTD.
960 Alloy Drive
Thunder Bay, ON
P7B 6A1

Page: 2
Copy: 1 of 2
Set : 1

Attn: R. Felix
Project: 1320

Received: 8-Sep-92 06:39
PO #: 81838

Job: 924580T

Status: Final

Signed:

.....

Jeffrey Davis, B.Sc.,C.Chem.
Manager, Thunder Bay Division

TSL LABORATORIES

2 - 302 - 48th STREET, EAST
SASKATOON, SASKATCHEWAN
S7K 6A4
(306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Noranda Exploration Co. Ltd.
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

REPORT No.
S4259

INVOICE #: 19450
P.O.: 81803/TB1881

SAMPLE(S) OF Rock

R. Felix
Project: 1320

	Au ppb	Cu ppm	Zn ppm
191-D	<5	1300	90
191-E	<5	670	59

COPIES TO: R. Felix
INVOICE TO: Noranda Expl.- Thunder Bay

Jun 05/92

SIGNED Bernie Quinn

CTA

For enquiries on this report, please contact Customer Service Department.
Samples, Pulps and Rejects discarded two months from the date of this report.

TSL LABORATORIES

2 - 302 - 48th STREET, EAST
SASKATOON, SASKATCHEWAN
S7K 6A4
(306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Noranda Exploration Co. Ltd.
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

REPORT No.
S4260

INVOICE #: 19451
P.O.: 81803/TB1882

SAMPLE(S) OF Rock

R. Felix
Project: 1320

	Au ppb	Cu ppm	Zn ppm
192-B	<5	26	36
192-D	<5	52	22
192-E	<5	86	210
192-F	<5	250	78
192-G	<5	59	49

COPIES TO: R. Felix
INVOICE TO: Noranda Expl.- Thunder Bay

Jun 05/92

SIGNED Bernie Dunn

CTA

For enquiries on this report, please contact Customer Service Department.
Samples, Pulps and Rejects discarded two months from the date of this report.

TSL LABORATORIES

2 - 302 - 48th STREET, EAST
SASKATOON, SASKATCHEWAN
S7K 6A4
(306) 931-1033 FAX: (306) 242-4717

MAY 20 1992

FILE COPY

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Noranda Exploration Co. Ltd.
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

REPORT No.
S4185

INVOICE #: 19357
P.O.: 81220/TB1861

SAMPLE(S) OF Rock

R. Felix
Project: 1320

	Au ppb	Cu ppm	Zn ppm
660-A	<5		
660-B	<5		
189-B	<5		
189-C	<5		
189-D	<5	120	10
189-E	<5		
189-F	<5		

COPIES TO: R. Felix
INVOICE TO: Noranda Expl.- Thunder Bay

May 12/92

SIGNED Bernie Quinn

CTA

For enquiries on this report, please contact Customer Service Department.
Samples, Pulps and Rejects discarded two months from the date of this report.

NOV 18 1992

TSL LABORATORIES

2 - 302 - 48th STREET, EAST
SASKATOON, SASKATCHEWAN
S7K 6A4
(306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Noranda Exploration Company Limited
960 Alloy Drive
Thunder Bay, Ontario
P7B 6A1

REPORT No.
S4961

INVOICE #: 20296
P.O.: PN:82023/TB2137

SAMPLE(S) OF Rock

Project: 1320

	Cu ppm	Zn ppm
029-A	3	10
029-B	29	400
029-C	7	110
029-D	6	20
029-E	5	37
029-F	51	35
029-G	6	61
029-O	2	18
029-P	55	9
029-Q	45	55
029-R	130	27
029-S	11	12
029-T	21	29
029-U	4	50
029-V	21	90
029-W	59	53

COPIES TO: R. Felix, A. Smith
INVOICE TO: Noranda Expl.- Thunder Bay

Nov 13/92

SIGNED Dennis Pilgrim

CTA

For enquiries on this report, please contact Customer Service Department.
Samples, Pulps and Rejects discarded two months from the date of this report.

ACCURASSAY LABS

A DIVISION OF ASSAY LABORATORIES SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
(807) 623-6448 FAX 623-6820

10-Sep-92

NORANDA EXPLORATION CO. LTD.
960 Alloy Drive
Thunder Bay, ON
P7B 6A1

Page: 1
Copy: 1 of 2
Set : 1

Attn: R. Felix
Project: 1320 - Six Mile

Received: 8-Sep-92 06:39
PO #: 81838

Job: 9245801

Status: Final

Rock Samples

Sample	Cu AA ppm	Zn AA ppm
1302A	102	91
1302B	78	242
1302C	764	24
1302D	48	43
1302E	55	34
1302G	187	120
1302H	592	50
1302I	53	50
1302J	48	151
1302K	106	25
1302L	111	106
1306A	8	23
1306B	46	28
1306C	62	118

duplicate

NORANDA EXPLORATION
THUNDER BAY, ONTARIO
ATTN: R. FELIX
TB-1861
PROJ:1320

T S L LABORATORIES
2-302-48TH STREET, SASKATOON, SASKATCHEWAN S7K 6A4
PHONE #: (306) 931 - 1033 FAX #: (306) 242 - 4717

FILE COPY

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

REPORT No. : T1449
Page No. : 1 of 1
File No. : MY11RA
Date : MAY-13-1992

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
660-A	70.52	16.80	3.24	0.45	0.53	4.60	2.02	0.35	0.06	0.12	634	149	100	14	3	2.23	100.89
660-B	78.23	11.84	2.07	0.37	0.31	5.67	0.94	0.15	0.03	0.06	304	118	250	32	4	1.01	100.68
189-B	71.74	14.06	3.59	1.58	1.00	4.40	2.08	0.43	0.05	0.14	591	171	214	24	7	1.49	100.55
189-C	69.66	13.62	3.16	2.41	1.00	4.89	1.44	0.39	0.04	0.12	203	75	193	20	6	1.41	98.13
189-D	46.32	0.53	36.88	13.82	2.03	0.11	0.02	0.03	0.47	0.08	42	8	8	< 2	< 1	<0.01	100.29
189-E	61.04	15.37	4.80	5.03	2.40	5.63	0.64	0.51	0.21	0.16	196	317	94	8	8	2.39	98.17
189-F	68.23	15.07	1.42	2.87	0.63	5.26	1.66	0.29	0.04	0.12	308	288	82	4	3	2.20	97.78

TSL/92

SIGNED :

NORANDA EXPLORATION

PROJ:1820

[redacted]

ATTN:R.FELIX

TB:1881

JUN 25 1992

T S L LABORATORIES

2-302-48TH STREET, SASKATOON, SASKATCHEWAN S7K 6A4

PHONE #: (306) 931 - 1033 FAX #: (306) 242 - 4717

REPORT No. : T1558

Page No. : 1 of 1

File No. : JN09RA

Date : JUN-15-1992

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
191-A	67.11	16.21	2.63	5.63	0.91	4.76	0.44	0.45	0.06	0.16	104	189	114	10	9	1.09	99.44
191-B	67.50	14.44	4.35	3.01	1.22	3.64	1.50	0.43	0.07	0.10	349	152	106	10	7	3.82	100.07
191-C	54.77	9.44	5.87	8.68	4.13	1.38	0.96	0.26	0.17	0.08	104	86	80	< 2	4	12.79	98.52
191-F	72.35	14.96	2.96	1.22	1.87	1.45	1.58	0.39	0.07	0.12	190	67	110	6	4	3.19	100.15
191	70.56	17.36	3.44	0.23	0.18	1.94	2.10	0.33	0.06	0.12	273	102	85	4	4	3.25	99.55
191-H	45.34	15.98	10.72	8.35	2.03	2.25	0.58	0.83	0.17	0.14	101	91	51	16	31	11.68	98.06
191-I	[redacted]	11.47	3.11	3.05	0.32	[redacted]	[redacted]	0.19	0.06	0.04	356	11	[redacted]	22	8	4.07	98.14
191-J	67.29	17.01	0.97	2.27	0.25	3.35	2.94	0.43	0.03	0.12	347	88	78	4	5	3.55	98.21
191-K	59.73	21.01	3.64	0.62	0.21	4.12	3.28	1.52	0.11	0.40	579	194	232	22	19	2.90	97.56
191-L	68.01	15.71	4.21	1.08	0.20	5.11	1.96	0.57	0.12	0.18	312	118	154	16	10	2.44	99.59

SIGNED : Ramj Saad

TSL/92

Laboratoires TSL/ASSAYERS Laboratories

780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6

PHONE #: 819-797-4653 FAX #: 819-797-4501

NORANDA EXPLORATION

THUNDER BAY ONT

[redacted]

TB-1882

[redacted]

JUN 25 1992

REPORT No. : T1561
Page No. : 1 of 1
File No. : JN1ORA
Date : JUN-11-1992

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
192-A	64.90	17.04	5.17	0.82	1.25	4.47	2.16	0.61	0.07	0.18	492	255	114	10	9	2.17	98.83
192-C	72.37	13.81	2.63	1.97	1.29	5.36	0.68	0.34	0.05	0.10	132	167	97	8	7	1.07	99.68
192-H	73.35	12.58	3.09	3.02	0.76	2.60	1.76	0.35	0.07	0.12	330	209	116	12	6	1.08	98.79
192-I	67.44	14.92	2.96	3.38	0.83	4.04	1.72	0.62	0.08	0.20	136	210	106	8	9	2.50	98.69
1[illegible]	57.66	15.31	5.57	4.56	2.38	2.43	3.54	0.51	0.10	0.16	585	172	110	10	11	6.78	98.98
192-K	[redacted]	10.46	1.68	0.36	0.21	4.04	1.72	0.13	0.02	0.06	201	76	186	32	4	0.71	97.79
192-L	[redacted]	12.09	2.25	0.30	0.42	2.58	3.62	0.11	0.02	0.06	309	76	219	48	5	1.06	99.97
192-M	[redacted]	12.64	1.92	0.44	0.16	4.07	2.90	0.20	0.03	0.06	491	79	145	20	3	0.80	98.30
192-N	[redacted]	9.24	2.57	0.21	0.07	3.00	2.72	0.08	0.03	0.02	482	30	202	38	< 1	0.60	99.19

TSL/92

SIGNED :

NORANDA
THUNDER BAY ONT.
TB-2079
ATTN:FELIX
PROJ.:1320

OCT 14

Laboratoires TSL/ASSAYERS Laboratories
780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6
PHONE #: 819-797-4653 FAX #: 819-797-4501

REPORT No. : T2026
Page No. : 1 of 1
File No. : SE25RA
Date : OCT-02-1992

J

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
1303-A	76.29	12.79	1.30	0.60	0.26	4.91	1.58	0.12	0.02	0.06	468	102	97	18	3	0.89	98.82
1303-B	60.13	14.76	5.78	5.58	3.05	2.83	1.42	0.47	0.09	0.12	267	153	90	10	12	6.59	100.80
1303-C	51.00	12.69	13.49	11.34	5.64	1.30	0.08	1.32	0.19	0.14	39	134	76	28	41	1.71	98.90
1303-D	63.47	15.43	5.11	3.17	2.58	4.34	0.96	0.58	0.07	0.12	214	164	113	10	12	4.11	99.74
1303-E	66.78	15.79	6.89	0.64	2.06	2.96	1.86	0.52	0.06	0.12	413	112	89	12	15	2.71	100.39
1303-F	76.82	11.96	1.70	0.26	0.10	4.28	1.42	0.17	0.03	0.04	447	91	158	12	4	1.13	97.91
1303-G	62.05	17.83	6.02	0.31	1.82	3.59	2.04	0.71	0.03	0.12	393	116	107	14	14	3.51	98.03
1303-H	67.97	15.33	6.52	0.76	1.29	3.48	0.98	0.38	0.05	0.10	230	216	87	6	8	2.55	99.41
1303-I	70.09	13.43	5.15	1.21	1.14	2.84	1.80	0.20	0.08	0.08	422	87	209	26	5	2.65	98.65
1303-J	76.44	13.71	1.16	0.65	0.45	3.75	2.40	0.21	0.01	0.08	452	49	191	24	3	1.39	100.25
1303-K	70.77	15.36	2.64	1.04	1.18	4.24	2.00	0.28	0.03	0.10	385	190	81	6	5	2.06	99.69
1303-L	53.41	15.06	13.37	3.13	7.30	1.97	0.02	0.89	0.19	0.10	41	118	74	18	35	4.73	100.17
1303-M	65.93	14.47	4.80	3.91	2.05	1.46	2.26	0.48	0.05	0.12	375	101	100	12	8	5.25	100.78
1303-N	72.49	14.56	2.33	0.39	0.97	6.55	0.54	0.33	0.03	0.10	129	97	103	6	4	1.03	99.31
1303-O	62.85	16.61	5.38	2.73	2.44	3.19	1.70	0.46	0.08	0.12	337	123	96	10	8	4.63	100.19
1303-P	70.63	15.91	3.10	0.73	1.21	4.03	2.06	0.43	0.03	0.12	372	170	112	8	6	1.97	100.22
1303-Q	67.86	16.21	4.11	1.97	1.30	5.94	0.76	0.44	0.06	0.12	303	227	102	10	7	1.41	100.17
1303-R	48.47	17.90	9.12	8.00	9.08	2.96	0.20	0.55	0.16	0.08	70	121	30	10	23	3.76	100.28
1303-S	65.23	14.16	6.01	1.20	3.85	0.20	2.92	0.45	0.06	0.10	396	19	78	12	11	3.79	97.98
1305-A	69.70	14.68	2.48	2.21	0.69	5.93	0.80	0.28	0.03	0.12	215	210	102	4	2	0.98	97.89
1305-B	69.93	15.66	1.42	0.38	0.69	4.69	2.82	0.28	0.01	0.22	838	98	83	6	3	1.49	97.59
1305-C	68.28	15.94	1.48	1.50	0.41	6.52	1.26	0.57	0.05	0.24	312	186	114	10	7	1.59	97.84
1305-D	60.09	14.04	4.88	8.45	1.61	4.04	0.54	0.47	0.16	0.12	137	394	70	8	13	5.93	100.30
1305-E	64.11	16.00	4.28	1.25	2.62	5.62	0.84	0.69	0.06	0.22	244	229	156	12	8	2.33	98.01
1305-F	66.73	14.07	4.26	2.65	0.68	4.33	1.24	0.52	0.06	0.16	292	153	184	8	6	3.48	98.17
1305-G	68.37	15.23	5.20	1.37	0.47	4.53	1.36	0.65	0.09	0.20	344	159	185	12	8	2.64	100.12
1305-H	50.75	15.53	9.24	5.10	4.35	4.70	0.84	1.37	0.19	0.30	317	129	137	30	25	8.46	100.83
1306-C	64.84	14.68	7.59	3.37	2.05	4.35	0.36	0.45	0.15	0.12	99	275	88	8	9	2.62	100.56
1307-A	81.06	10.03	1.10	1.07	0.21	3.16	3.00	0.10	0.02	0.04	480	212	235	36	3	0.38	100.16
1307-D	74.94	12.33	1.64	1.00	0.13	3.79	2.94	0.11	0.01	0.04	432	72	294	44	3	1.38	98.33
1307-E	83.40	8.29	2.37	1.11	0.77	0.97	2.14	0.13	0.02	0.06	580	49	110	14	3	1.35	100.60
1307-F	75.48	11.83	1.92	0.34	0.54	4.09	3.08	0.12	0.02	0.04	555	79	121	30	3	0.79	98.25
1307-G	71.64	13.80	3.41	1.66	0.89	3.97	2.40	0.43	0.05	0.14	572	153	195	22	8	1.74	100.13
1307-J	79.41	8.62	4.83	1.99	1.05	1.83	1.02	0.08	0.06	0.04	283	45	160	26	2	0.69	99.62

SIGNED : Bernie Dunn

TBL/92

Laboratoires TSL/ASSAYERS Laboratories

780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6

PHONE #: 819-797-4653 FAX #: 819-797-4501

NORANDA EXPLORATION

THUNDERBAY ONT.

TB-2108

ATTN:FELIX

PROJ.:1320

NOV - 4 1992

REPORT No. : T2108

Page No. : 1 of 1

File No. : OC15RA

Date : OCT-28-1992

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
1307-B	73.67	13.36	2.89	1.75	0.98	2.56	2.62	0.15	0.05	0.06	462	244	183	50	5	1.29	99.38
1307-C	77.41	10.55	1.56	1.25	0.12	3.58	2.20	0.11	0.02	0.04	261	65	133	34	3	1.39	98.23
1307-H	79.68	11.26	1.31	0.43	0.20	2.69	3.86	0.12	0.02	0.04	553	132	143	36	4	0.75	100.35
1307-K	58.11	16.21	8.81	7.16	4.37	2.73	1.20	0.83	0.14	0.20	220	512	120	16	20	1.06	100.82
1	77.29	10.65	2.75	1.36	0.80	3.76	0.94	0.10	0.03	0.04	506	71	246	30	3	0.31	98.04
1311-B	82.93	9.77	1.19	0.11	0.02	2.93	2.58	0.10	0.02	0.04	383	37	275	36	1	0.74	100.44
1311-C	58.15	16.51	9.14	7.69	4.07	2.08	0.76	0.89	0.14	0.22	238	793	129	16	20	1.27	100.90
1311-D	50.68	12.84	7.45	6.73	4.32	4.46	0.62	1.10	0.16	0.36	191	161	170	22	18	10.29	99.00
1311-E	73.89	12.55	6.16	0.63	0.55	1.86	2.66	0.13	0.09	0.06	392	110	324	44	4	1.64	100.21
1311-F	77.43	11.12	1.63	1.97	0.16	3.43	2.54	0.12	0.02	0.06	327	78	164	40	3	2.04	100.51
1311-G	81.68	10.42	0.98	0.72	0.16	3.27	3.24	0.10	0.01	0.04	487	162	264	32	3	0.28	100.91
1311-I	62.12	11.02	14.50	7.40	0.76	0.22	1.18	0.32	0.72	0.10	112	45	214	26	7	2.18	100.50

SIGNED : Bernie Dunn

TSL/92

Laboratoires TSL/ASSAYERS Laboratories

780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6
PHONE #: 819-797-4653 FAX #: 819-797-4501

NORANDA EXPLORATION
THUNDER BAY
TB-2120
P.O.81788
PROJ.1320/1359

NOV 30 1992

REPORT No. : T2161
Page No. : 1 of 1
File No. : NO04RA
Date : NOV-19-1992

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
1316-A	62.30	18.78	2.78	7.13	1.74	2.56	0.84	0.58	0.22	0.10	190	201	90	6	10	2.35	99.37
1316-B	65.63	15.46	6.24	3.83	1.85	4.32	1.08	0.80	0.09	0.20	246	297	162	18	13	0.78	100.30
1316-D	65.43	16.72	3.60	2.85	1.24	4.79	0.98	0.52	0.06	0.16	213	254	84	8	6	1.60	97.93
1316-E	77.11	9.25	1.32	3.56	1.46	1.94	2.12	0.08	0.10	<0.02	268	293	232	46	3	2.96	99.86
131	40.37	8.19	35.39	9.12	2.98	0.26	0.16	0.32	2.11	0.04	11	68	145	16	11	<0.01	98.75
1318-A	62.06	13.64	8.18	5.61	3.03	4.22	0.18	0.63	0.12	0.12	75	163	116	16	14	2.51	100.29
1318-B	49.62	16.28	10.92	11.79	7.11	2.72	0.16	0.62	0.19	0.02	44	118	39	14	34	1.10	100.52
1318-C	77.63	12.25	1.33	0.42	0.29	3.74	4.04	0.11	0.02	0.02	670	59	145	48	4	0.61	100.47
1318-D	70.70	13.97	3.72	3.11	1.08	4.25	1.42	0.41	0.10	0.08	525	217	88	6	6	1.96	100.80
1318-E	81.59	10.83	1.53	0.18	0.33	3.29	1.84	0.10	0.03	<0.02	496	64	311	56	3	0.80	100.49
1318-F	59.46	14.98	8.36	5.06	3.46	4.43	0.22	0.64	0.10	0.14	82	193	130	16	14	2.34	99.18
1318-G	75.55	12.16	2.01	0.13	0.26	4.15	2.56	0.08	0.02	<0.02	560	23	141	58	4	0.76	97.66
1318-H	77.16	12.13	3.47	0.10	0.43	1.46	3.98	0.11	0.07	<0.02	649	21	301	52	2	1.92	100.82
1318-I	78.15	11.73	1.68	0.77	0.28	2.29	4.36	0.08	0.03	<0.02	565	41	130	52	3	1.17	100.52
1633-A	54.20	14.48	15.35	7.64	2.61	2.95	0.54	2.03	0.24	0.20	208	143	122	36	39	0.07	100.31
1633-B	67.74	16.51	2.26	4.21	0.64	3.54	1.78	0.47	0.05	0.14	1589	622	128	8	7	0.31	97.66
1633-C	64.70	19.71	1.47	2.61	0.32	1.49	5.40	0.53	0.03	0.26	598	623	112	6	7	1.41	97.92

SIGNED :

TSL/92

Laboratoires TSL/ASSAYERS Laboratories

780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6

PHONE #: 819-797-4653 FAX #: 819-797-4501

NORANDA EXPLORATION

THUNDER BAY ONT.

TB-2137

ATTN.:SMITH/FELIX

PROJ.:1320

DEC - 3 1992

REPORT No. : T2193

Page No. : 1 of 1

File No. : NO19RA

Date : NOV-26-1992

J

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba PPM	Sr PPM	Zr PPM	Y PPM	Sc PPM	LOI %	TOTAL %
029-A	78.84	11.16	2.07	0.47	0.30	3.40	3.58	0.09	0.02	0.02	631	40	116	40	3	0.67	100.63
029-B	76.54	11.26	2.13	1.63	0.23	3.36	2.78	0.10	0.05	0.02	445	45	277	58	2	2.44	100.54
029-C	76.84	9.87	2.49	2.01	0.10	2.88	3.08	0.08	0.08	<0.02	533	82	258	60	2	2.64	100.10
029-D	76.00	11.54	2.39	0.88	0.60	4.41	1.30	0.15	0.03	0.04	740	120	275	54	4	1.27	98.61
029-E	77.82	12.17	1.50	0.76	0.13	3.80	3.24	0.07	0.02	0.02	640	65	137	46	3	1.33	100.85
029-F	66.77	16.76	3.22	2.43	0.77	6.13	1.40	1.11	0.15	0.30	274	261	137	24	18	1.63	100.66
029-G	71.36	14.88	2.31	2.43	0.52	4.98	1.86	0.22	0.03	0.12	530	266	120	2	1	0.62	99.33
029-O	79.52	10.01	2.26	2.00	0.09	0.27	3.44	0.09	0.06	0.02	360	27	245	52	2	3.09	100.84
029-P	56.29	12.89	7.47	16.05	4.01	0.12	0.10	0.25	0.11	0.04	23	267	19	12	36	2.26	99.59
029-Q	56.02	15.20	7.80	7.42	3.68	4.36	0.64	0.91	0.18	0.24	209	271	116	22	19	2.55	98.98
029-R	51.92	15.21	14.48	7.81	6.06	3.54	0.14	0.57	0.22	0.06	43	63	38	22	55	0.92	100.91
029-S	78.53	10.99	0.79	1.59	0.18	4.90	1.74	0.10	0.04	0.18	520	70	270	54	4	1.65	100.67
029-T	77.73	11.32	1.68	1.67	0.27	3.65	2.28	0.10	0.05	<0.02	379	50	276	44	2	1.88	100.64
029-U	76.01	11.22	1.86	2.02	0.20	1.91	2.84	0.10	0.02	0.02	595	65	260	38	3	2.39	98.60
029-V	49.50	16.79	7.09	9.69	4.00	5.79	0.20	0.51	0.14	0.74	230	1882	284	36	15	6.14	100.59
029-W	49.37	18.32	10.65	5.73	6.36	4.15	1.18	0.49	0.19	0.10	456	240	49	12	49	3.11	99.65

TSL/92

SIGNED : Denis Pilotte

Laboratoires TSL/ASSAYERS Laboratories

780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6

PHONE #: 819-797-4653 FAX #: 819-797-4501

NORANDA EXPLORATION

2R-1596-RA1

ATTN:DON ROBINSON

REPORT No. : T2052
Page No. : 1 of 1
File No. : SE29RA
Date : OCT-22-1992

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
273701	74.29	12.33	2.15	2.07	0.78	4.17	1.12	0.16	0.04	0.06	184	56	112	14	6	0.76	97.94
273702	75.01	12.01	3.45	1.30	1.21	2.31	1.84	0.22	0.04	0.06	432	30	197	28	8	1.82	99.99
273703	70.53	11.42	5.81	2.64	1.05	3.11	1.28	0.32	0.20	0.08	269	115	125	14	7	3.09	99.50
273704	72.81	13.22	2.71	1.14	0.59	4.71	2.14	0.22	0.04	0.06	437	38	244	44	6	1.07	99.26
2[illegible]	67.23	13.80	2.78	5.07	1.60	2.96	1.32	0.38	0.08	0.08	365	191	106	12	6	4.67	99.97
273706	62.65	15.18	6.46	5.84	3.68	3.82	1.02	0.51	0.11	0.10	382	245	88	10	18	1.52	100.90
273707	64.23	14.95	5.61	3.13	1.72	2.25	2.14	0.40	0.06	0.10	294	60	80	6	7	3.76	98.58
273708	62.25	15.37	4.70	4.98	1.47	4.01	0.98	0.53	0.06	0.12	184	195	109	12	10	4.77	99.43
273709	76.97	12.39	2.08	0.76	0.24	4.61	1.38	0.21	0.03	0.06	395	90	165	12	5	1.04	100.54
273710	70.10	13.02	4.02	2.46	0.66	2.55	1.42	0.31	0.19	0.06	314	218	103	10	9	4.62	99.98
273711	61.36	14.57	6.41	7.22	2.08	2.49	0.94	0.48	0.16	0.08	197	190	103	12	13	2.29	98.05
273712	51.37	14.35	11.74	7.20	2.25	1.55	1.18	1.12	0.18	0.12	290	105	83	22	30	8.53	99.59
273713	60.62	12.27	7.63	6.23	3.77	4.63	0.28	0.63	0.16	0.08	180	119	131	14	15	1.96	98.26
273714	67.39	15.52	3.81	1.43	1.47	4.00	1.54	0.39	0.05	0.10	320	85	97	8	6	2.42	98.12
273715	71.54	15.17	2.42	1.81	0.67	2.86	2.50	0.28	0.04	0.08	510	237	108	4	4	2.37	99.73
273716	71.14	16.72	1.09	1.85	0.39	5.59	1.88	0.13	0.02	0.10	480	431	58	< 2	2	1.04	99.93
273717	63.14	16.86	3.72	3.98	1.32	3.90	1.04	1.11	0.05	0.12	288	239	138	14	15	4.83	100.17
273[illegible]	55.33	14.04	7.12	8.00	1.85	2.43	0.98	1.09	0.11	0.14	239	223	133	20	16	9.61	100.91
273.	69.00	13.84	3.89	2.06	1.73	0.48	3.20	0.34	0.05	0.08	303	41	84	6	12	3.89	98.57
273720	67.93	14.34	4.10	2.02	1.59	3.65	1.66	0.35	0.05	0.10	363	71	90	6	9	2.82	98.60
273721	68.92	14.51	3.10	3.26	1.31	3.78	1.64	0.37	0.05	0.08	348	162	107	12	6	3.11	100.14
273722	75.28	13.03	1.30	0.81	0.57	3.03	2.34	0.18	0.02	0.06	324	66	91	10	3	1.59	98.91
273723	70.82	14.65	2.42	2.04	0.66	1.68	1.82	0.34	0.06	0.10	281	289	84	6	6	3.14	97.72
273724	67.23	15.77	2.06	2.59	0.51	4.24	2.00	0.21	0.03	0.08	352	319	69	4	4	3.00	98.03
273725	63.73	14.56	4.82	4.45	1.84	3.61	1.80	0.57	0.08	0.10	363	223	84	10	14	4.55	100.35

SIGNED : M Paine

TSL/92

APPENDIX III

SOIL GEOCHEMISTRY LABORATORY PROCEDURES AND ANALYSES

REG Felix

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal Liability)

Silt, Soil and Rock Geochemistry

Laboratory Procedures

1. Mn, Cu, Pb Zn Ag, Ni - A 0.5 gram sample is attacked with 1:1:1 HCl, H_2O Nitric acid on hot plate for one hour. Sample is cooled, diluted and stirred. Elements are determined directly from digest with conventional atomic absorption spectrometric procedure.

2. Arsenic - An aliquot from Cu digest is diluted with potassium iodide and analyzed with a Varian Hydride.

3. Antimony - A 0.5 gram sample is attacked with 1:1 hydrocloric acid. An aliquot from digest is diluted with potassium iodide and analyzed with a Varian Hydride.

4. Gold - A 10 gram sample is digested with aqua regia. Gold is extracted with MIBK from the aqueous solution. AA is used to determine gold.

SEP 30 1992 F16 1320

NORANDA EXPLORATION CO. LTD.
P.O. BOX 30 BATHURST, N. B.
E2A 3Z1

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-0W	15	68	0	0	0	0	0	0	0
0-25W	10	62	0	0	0	0	0	0	0
0-25W	13	34	0	0	0	0	0	0	0
0-50W	15	30	0	0	0	0	0	0	0
0-50W	6	42	0	0	0	0	0	0	0
0-75W	5	24	0	0	0	0	0	0	0
0-75W	11	94	0	0	0	0	0	0	0
0-100W	16	74	0	0	0	0	0	0	0
0-100W	6	26	0	0	0	0	0	0	0
0-125W	18	84	0	0	0	0	0	0	0
0-125W	4	12	0	0	0	0	0	0	0
0-150W	26	106	0	0	0	0	0	0	0
0-150W	2	6	0	0	0	0	0	0	0
0-175W	6	44	0	0	0	0	0	0	0
0-175W	20	68	0	0	0	0	0	0	0
0-200W	14	92	0	0	0	0	0	0	0
0-225W	9	46	0	0	0	0	0	0	0
0-225W	7	20	0	0	0	0	0	0	0
0-250W	5	26	0	0	0	0	0	0	0
0-250W	3	10	0	0	0	0	0	0	0
0-275W	11	34	0	0	0	0	0	0	0
0-275W	3	26	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-300W	7	16	0	0	0	0	0	0	0
0-300W	4	10	0	0	0	0	0	0	0
0-325W	4	10	0	0	0	0	0	0	0
0-325W	5	12	0	0	0	0	0	0	0
0-350W	5	20	0	0	0	0	0	0	0
0-350W	11	42	0	0	0	0	0	0	0
0-375W	7	14	0	0	0	0	0	0	0
0-375W	24	28	0	0	0	0	0	0	0
0-400W	2	8	0	0	0	0	0	0	0
0-425W	7	44	0	0	0	0	0	0	0
0-425W	6	18	0	0	0	0	0	0	0
0-450W	16	82	0	0	0	0	0	0	0
0-450W	3	6	0	0	0	0	0	0	0
0-475W	23	116	0	0	0	0	0	0	0
0-475W	6	36	0	0	0	0	0	0	0
0-500W	19	72	0	0	0	0	0	0	0
0-525W	23	166	0	0	0	0	0	0	0
0-525W	14	32	0	0	0	0	0	0	0
0-550W	12	106	0	0	0	0	0	0	0
0-550W	23	24	0	0	0	0	0	0	0
0-575W	27	186	0	0	0	0	0	0	0
0-575W	28	70	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-600W	4	16	0	0	0	0	0	0	0
0-625W	6	26	0	0	0	0	0	0	0
0-625W	4	16	0	0	0	0	0	0	0
0-650W	32	60	0	0	0	0	0	0	0
0-650W	12	52	0	0	0	0	0	0	0
0-675W	10	68	0	0	0	0	0	0	0
0-675W	6	24	0	0	0	0	0	0	0
0-700W	6	34	0	0	0	0	0	0	0
0-700W	19	28	0	0	0	0	0	0	0
0-725W	5	20	0	0	0	0	0	0	0
0-725W	4	16	0	0	0	0	0	0	0
0-750W	15	20	0	0	0	0	0	0	0
0-750W	13	32	0	0	0	0	0	0	0
0-775W	9	28	0	0	0	0	0	0	0
0-775W	9	46	0	0	0	0	0	0	0
0-800W	10	64	0	0	0	0	0	0	0
0-825W	4	12	0	0	0	0	0	0	0
0-825W	8	36	0	0	0	0	0	0	0
0-850W	15	34	0	0	0	0	0	0	0
0-850W	11	36	0	0	0	0	0	0	0
0-875W	13	20	0	0	0	0	0	0	0
0-875W	25	36	0	0	0	0	0	0	0

NORANDA EXPLORATION CO. LTD.
P.O. BOX 30 BATHURST, N. B.
E2A 3Z1

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-900W	13	30	0	0	0	0	0	0	0
0-925W	29	50	0	0	0	0	0	0	0
0-925W	6	16	0	0	0	0	0	0	0
0-950W	6	28	0	0	0	0	0	0	0
0-950W	17	22	0	0	0	0	0	0	0
0-975W	8	16	0	0	0	0	0	0	0
0-975W	7	22	0	0	0	0	0	0	0
0-1025W	35	42	0	0	0	0	0	0	0
0-1025W	11	42	0	0	0	0	0	0	0
0-1050W	2	12	0	0	0	0	0	0	0
0-1050W	70	196	0	0	0	0	0	0	0
0-1075W	22	60	0	0	0	0	0	0	0
0-1075W	39	48	0	0	0	0	0	0	0
0-1100W	72	70	0	0	0	0	0	0	0
0-1125W	17	36	0	0	0	0	0	0	0
0-1125W	33	56	0	0	0	0	0	0	0
0-1150W	61	204	0	0	0	0	0	0	0
0-1150W	11	26	0	0	0	0	0	0	0
0-1175W	18	56	0	0	0	0	0	0	0
0-1175W	7	10	0	0	0	0	0	0	0
0-1200W	15	42	0	0	0	0	0	0	0
0-1225W	125	56	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-1225W	14	42	0	0	0	0	0	0	0
0-1250W	11	18	0	0	0	0	0	0	0
0-1250W	76	46	0	0	0	0	0	0	0
0-1275W	45	50	0	0	0	0	0	0	0
0-1275W	6	22	0	0	0	0	0	0	0
0-1300W	5	24	0	0	0	0	0	0	0
0-1300W	160	130	0	0	0	0	0	0	0
0-1325W	17	56	0	0	0	0	0	0	0
0-1325W	3	10	0	0	0	0	0	0	0
0-1350W	3	18	0	0	0	0	0	0	0
0-1350W	15	22	0	0	0	0	0	0	0
0-1375W	3	10	0	0	0	0	0	0	0
0-1375W	14	98	0	0	0	0	0	0	0
0-1400W	5	12	0	0	0	0	0	0	0
0-1400W	18	94	0	0	0	0	0	0	0
0-1425W	64	40	0	0	0	0	0	0	0
0-1450W	46	46	0	0	0	0	0	0	0
0-1475W	630	38	0	0	0	0	0	0	0
0-1500W	420	104	0	0	0	0	0	0	0
0-1525W	15	28	0	0	0	0	0	0	0
0-1550W	13	34	0	0	0	0	0	0	0
0-1575W	80	66	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-1600W	65	76	0	0	0	0	0	0	0
0-1625W	53	56	0	0	0	0	0	0	0
0-1650W	14	20	0	0	0	0	0	0	0
0-1675W	39	30	0	0	0	0	0	0	0
0-1700W	23	70	0	0	0	0	0	0	0
0-1725W	5	18	0	0	0	0	0	0	0
0-1750W	41	78	0	0	0	0	0	0	0
0-1775W	18	20	0	0	0	0	0	0	0
0-0N	4	8	0	0	0	0	0	0	0
0-25N	7	48	0	0	0	0	0	0	0
0-50N	8	18	0	0	0	0	0	0	0
0-75N	7	22	0	0	0	0	0	0	0
0-100N	20	16	0	0	0	0	0	0	0
0-125N	3	6	0	0	0	0	0	0	0
0-150N	6	26	0	0	0	0	0	0	0
0-175N	5	28	0	0	0	0	0	0	0
0-200N	7	22	0	0	0	0	0	0	0
0-225N	5	24	0	0	0	0	0	0	0
0-250N	6	20	0	0	0	0	0	0	0
0-250N	2	6	0	0	0	0	0	0	0
0-275N	7	22	0	0	0	0	0	0	0
0-275N	4	12	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-300N	7	20	0	0	0	0	0	0	0
0-300N	4	12	0	0	0	0	0	0	0
0-325N	8	16	0	0	0	0	0	0	0
0-325N	4	20	0	0	0	0	0	0	0
0-350N	3	20	0	0	0	0	0	0	0
0-350N	6	14	0	0	0	0	0	0	0
0-375N	6	12	0	0	0	0	0	0	0
0-375N	8	50	0	0	0	0	0	0	0
0-400N	5	10	0	0	0	0	0	0	0
0-400N	4	16	0	0	0	0	0	0	0
0-425N	5	8	0	0	0	0	0	0	0
0-425N	3	16	0	0	0	0	0	0	0
0-450N	20	50	0	0	0	0	0	0	0
0-450N	6	28	0	0	0	0	0	0	0
0-475N	12	20	0	0	0	0	0	0	0
0-475N	6	12	0	0	0	0	0	0	0
0-500N	8	18	0	0	0	0	0	0	0
0-500N	17	36	0	0	0	0	0	0	0
0-525N	150	36	0	0	0	0	0	0	0
0-550N	11	86	0	0	0	0	0	0	0
0-575N	25	84	0	0	0	0	0	0	0
0-600N	28	92	0	0	0	0	0	0	0

NORANDA EXPLORATION CO. LTD.
P.O. BOX 30 BATHURST, N. B.
E2A 3Z1

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-625N	8	72	0	0	0	0	0	0	0
0-650N	2	4	0	0	0	0	0	0	0
0-675N	3	8	0	0	0	0	0	0	0
0-700N	2	8	0	0	0	0	0	0	0
0-0E	9	60	0	0	0	0	0	0	0
0-25E	8	24	0	0	0	0	0	0	0
0-25E	9	24	0	0	0	0	0	0	0
0-50E	4	14	0	0	0	0	0	0	0
0-75E	8	26	0	0	0	0	0	0	0
0-100E	10	22	0	0	0	0	0	0	0
0-125E	11	28	0	0	0	0	0	0	0
0-150E	7	34	0	0	0	0	0	0	0
0-175E	4	16	0	0	0	0	0	0	0
0-225E	7	20	0	0	0	0	0	0	0
0-225E	3	20	0	0	0	0	0	0	0
0-250E	10	26	0	0	0	0	0	0	0
0-300E	18	20	0	0	0	0	0	0	0
0-325E	19	142	0	0	0	0	0	0	0
0-350E	15	22	0	0	0	0	0	0	0
0-375E	4	18	0	0	0	0	0	0	0
0-425E	2	8	0	0	0	0	0	0	0
0-450E	9	22	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-425E	15	54	0	0	0	0	0	0	0
0-525E	5	10	0	0	0	0	0	0	0
0-525E	16	34	0	0	0	0	0	0	0
0-550E	9	20	0	0	0	0	0	0	0
0-550E	13	50	0	0	0	0	0	0	0
0-600E	21	32	0	0	0	0	0	0	0
0-625E	9	50	0	0	0	0	0	0	0
0-650E	13	18	0	0	0	0	0	0	0
0-675E	13	30	0	0	0	0	0	0	0
0-700E	13	26	0	0	0	0	0	0	0
0-725E	36	50	0	0	0	0	0	0	0
0-750E	69	88	0	0	0	0	0	0	0
0-775E	16	24	0	0	0	0	0	0	0
0-800E	10	20	0	0	0	0	0	0	0
0-825E	20	30	0	0	0	0	0	0	0
0-850E	12	50	0	0	0	0	0	0	0
0-875E	4	36	0	0	0	0	0	0	0
0-900E	15	66	0	0	0	0	0	0	0
0-925E	19	150	0	0	0	0	0	0	0
0-950E	14	62	0	0	0	0	0	0	0
0-975E	8	34	0	0	0	0	0	0	0
0-1000E	15	12	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-1025E	17	32	0	0	0	0	0	0	0
0-1050E	8	14	0	0	0	0	0	0	0
0-1075E	8	24	0	0	0	0	0	0	0
0-1100E	46	92	0	0	0	0	0	0	0
0-1125E	7	18	0	0	0	0	0	0	0
0-1175E	14	22	0	0	0	0	0	0	0
0-1225E	25	42	0	0	0	0	0	0	0
0-1250E	29	132	0	0	0	0	0	0	0
0-1275E	5	14	0	0	0	0	0	0	0
0-1300E	4	8	0	0	0	0	0	0	0
0-1325E	11	26	0	0	0	0	0	0	0
0-1350E	40	42	0	0	0	0	0	0	0
0-1375E	13	32	0	0	0	0	0	0	0
0-1400E	24	98	0	0	0	0	0	0	0
0-1400E	3	6	0	0	0	0	0	0	0
0-1425E	33	84	0	0	0	0	0	0	0
0-1450E	24	84	0	0	0	0	0	0	0
0-1475E	7	12	0	0	0	0	0	0	0
0-1500E	25	38	0	0	0	0	0	0	0
0-1525E	31	228	0	0	0	0	0	0	0
0-1550E	7	28	0	0	0	0	0	0	0
0-1575E	9	28	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-1600E	21	48	0	0	0	0	0	0	0
0-1625E	11	20	0	0	0	0	0	0	0
0-1650E	16	20	0	0	0	0	0	0	0
0-1675E	7	22	0	0	0	0	0	0	0
0-1700E	10	34	0	0	0	0	0	0	0
0-1725E	4	28	0	0	0	0	0	0	0
0-1750E	8	32	0	0	0	0	0	0	0
0-1775E	8	26	0	0	0	0	0	0	0
0-1800E	19	22	0	0	0	0	0	0	0
0-1825E	3	8	0	0	0	0	0	0	0
0-1850E	21	32	0	0	0	0	0	0	0
0-1875E	25	36	0	0	0	0	0	0	0
0-1900E	4	10	0	0	0	0	0	0	0
0-1925E	11	18	0	0	0	0	0	0	0
0-1950E	12	100	0	0	0	0	0	0	0
0-1925E	12	42	0	0	0	0	0	0	0
0-2000E	6	18	0	0	0	0	0	0	0
0-2025E	14	16	0	0	0	0	0	0	0
0-2050E	20	32	0	0	0	0	0	0	0
0-2075E	48	292	0	0	0	0	0	0	0
0-2100E	19	52	0	0	0	0	0	0	0
0-2125E	38	72	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-2150E	11	36	0	0	0	0	0	0	0
0-2175E	15	22	0	0	0	0	0	0	0
0-2225E	3	10	0	0	0	0	0	0	0
0-2250E	13	32	0	0	0	0	0	0	0
0-2275E	8	20	0	0	0	0	0	0	0
0-2300E	15	24	0	0	0	0	0	0	0
0-2325E	25	48	0	0	0	0	0	0	0
0-2350E	26	128	0	0	0	0	0	0	0
0-2375E	15	48	0	0	0	0	0	0	0
0-2400E	13	32	0	0	0	0	0	0	0
0-2425E	23	46	0	0	0	0	0	0	0
0-2450E	17	58	0	0	0	0	0	0	0
0-2475E	7	40	0	0	0	0	0	0	0
0-2500E	7	26	0	0	0	0	0	0	0
0-2525E	19	62	0	0	0	0	0	0	0
0-2550E	14	34	0	0	0	0	0	0	0
0-2575E	7	26	0	0	0	0	0	0	0
0-2600E	37	58	0	0	0	0	0	0	0
0-2650E	16	38	0	0	0	0	0	0	0
0-2675E	9	40	0	0	0	0	0	0	0
0-2700E	17	34	0	0	0	0	0	0	0
0-2725E	2	10	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-2750E	6	54	0	0	0	0	0	0	0
0-2775E	5	22	0	0	0	0	0	0	0
0-2800E	5	14	0	0	0	0	0	0	0
0-2825E	6	12	0	0	0	0	0	0	0
0-2850E	2	6	0	0	0	0	0	0	0
0-2875E	21	22	0	0	0	0	0	0	0
0-2900E	3	10	0	0	0	0	0	0	0
0-2925E	8	36	0	0	0	0	0	0	0
0-2950E	2	6	0	0	0	0	0	0	0
0-2975E	19	46	0	0	0	0	0	0	0
0-3000E	12	54	0	0	0	0	0	0	0
0-3025E	7	28	0	0	0	0	0	0	0
0-3050E	15	54	0	0	0	0	0	0	0
0-3075E	4	18	0	0	0	0	0	0	0
0-3100E	12	28	0	0	0	0	0	0	0
0-3125E	5	302	0	0	0	0	0	0	0
0-3150E	7	16	0	0	0	0	0	0	0
0-3175E	20	140	0	0	0	0	0	0	0
0-3225E	2	16	0	0	0	0	0	0	0
0-3250E	17	134	0	0	0	0	0	0	0
0-3225E	7	54	0	0	0	0	0	0	0
0-3300E	2	8	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-3325E	3	10	0	0	0	0	0	0	0
0-3350E	34	284	0	0	0	0	0	0	0
0-3375E	7	32	0	0	0	0	0	0	0
0-3400E	3	8	0	0	0	0	0	0	0
0-3425E	4	22	0	0	0	0	0	0	0
0-3450E	3	8	0	0	0	0	0	0	0
0-3475E	3	14	0	0	0	0	0	0	0
0-3500E	20	38	0	0	0	0	0	0	0
0-3525E	3	6	0	0	0	0	0	0	0
0-3550E	4	22	0	0	0	0	0	0	0
0-3525E	6	16	0	0	0	0	0	0	0
0-3600E	6	18	0	0	0	0	0	0	0
0-3625E	6	30	0	0	0	0	0	0	0
0-3650E	4	18	0	0	0	0	0	0	0
0-3675E	8	64	0	0	0	0	0	0	0
0-3700E	7	24	0	0	0	0	0	0	0
0-3725E	5	136	0	0	0	0	0	0	0
0-3750E	2	8	0	0	0	0	0	0	0
0-3775E	26	62	0	0	0	0	0	0	0
0-3800E	8	54	0	0	0	0	0	0	0
0-3825E	7	36	0	0	0	0	0	0	0
0-3850E	5	24	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
0-3875E	10	24	0	0	0	0	0	0	0
0-3900E	6	28	0	0	0	0	0	0	0
0-3925E	5	12	0	0	0	0	0	0	0
0-25S	31	130	0	0	0	0	0	0	0
0-50S	36	112	0	0	0	0	0	0	0
0-75S	7	14	0	0	0	0	0	0	0
0-100S	2	6	0	0	0	0	0	0	0
0-100S	13	40	0	0	0	0	0	0	0
0-150S	5	12	0	0	0	0	0	0	0
0-175S	5	14	0	0	0	0	0	0	0
0-200S	7	36	0	0	0	0	0	0	0
0-225S	2	8	0	0	0	0	0	0	0
0-250S	10	28	0	0	0	0	0	0	0
0-275S	7	28	0	0	0	0	0	0	0
0-300S	4	10	0	0	0	0	0	0	0
2E-0N	3	10	0	0	0	0	0	0	0
2E-25N	36	254	0	0	0	0	0	0	0
2E-50N	3	8	0	0	0	0	0	0	0
2E-75N	21	14	0	0	0	0	0	0	0
2E-225N	3	18	0	0	0	0	0	0	0
2E-275N	13	40	0	0	0	0	0	0	0
2E-300N	5	14	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
2E-325N	9	16	0	0	0	0	0	0	0
2E-350N	8	34	0	0	0	0	0	0	0
2E-400N	6	16	0	0	0	0	0	0	0
2E-425N	6	32	0	0	0	0	0	0	0
2E-450N	3	8	0	0	0	0	0	0	0
2E-475N	16	116	0	0	0	0	0	0	0
2E-500N	6	48	0	0	0	0	0	0	0
2E-525N	5	36	0	0	0	0	0	0	0
2E-550N	5	30	0	0	0	0	0	0	0
2E-575N	10	30	0	0	0	0	0	0	0
2E-600N	6	38	0	0	0	0	0	0	0
2E-625N	10	32	0	0	0	0	0	0	0
2E-650N	20	46	0	0	0	0	0	0	0
2E-675N	9	50	0	0	0	0	0	0	0
2E-700N	22	56	0	0	0	0	0	0	0
2E-25S	20	30	0	0	0	0	0	0	0
2E-50S	4	18	0	0	0	0	0	0	0
2E-75S	6	28	0	0	0	0	0	0	0
2E-100S	18	42	0	0	0	0	0	0	0
2E-125S	5	18	0	0	0	0	0	0	0
2E-150S	23	68	0	0	0	0	0	0	0
2E-225S	5	18	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
2E-250S	5	12	0	0	0	0	0	0	0
2E-250S	8	26	0	0	0	0	0	0	0
2E-275S	8	26	0	0	0	0	0	0	0
2E-300S	11	54	0	0	0	0	0	0	0
2W-0N	5	22	0	0	0	0	0	0	0
2W-25N	9	28	0	0	0	0	0	0	0
2W-50N	13	26	0	0	0	0	0	0	0
2W-75N	19	66	0	0	0	0	0	0	0
2W-100N	14	30	0	0	0	0	0	0	0
2W-125N	6	28	0	0	0	0	0	0	0
2W-150N	7	18	0	0	0	0	0	0	0
2W-175N	15	40	0	0	0	0	0	0	0
2W-200N	15	52	0	0	0	0	0	0	0
2W-225N	8	34	0	0	0	0	0	0	0
2W-250N	2	8	0	0	0	0	0	0	0
2W-275N	16	32	0	0	0	0	0	0	0
2W-300N	16	30	0	0	0	0	0	0	0
2W-325N	21	68	0	0	0	0	0	0	0
2W-350N	8	28	0	0	0	0	0	0	0
2W-375N	20	40	0	0	0	0	0	0	0
2W-400N	37	46	0	0	0	0	0	0	0
2W-425N	5	16	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
2W-450N	7	36	0	0	0	0	0	0	0
2W-475N	6	40	0	0	0	0	0	0	0
2W-500N	41	112	0	0	0	0	0	0	0
2W-525N	10	20	0	0	0	0	0	0	0
2W-550N	9	38	0	0	0	0	0	0	0
2W-575N	12	24	0	0	0	0	0	0	0
2W-600N	14	56	0	0	0	0	0	0	0
2W-625N	26	46	0	0	0	0	0	0	0
2W-675N	4	16	0	0	0	0	0	0	0
2W-700N	4	10	0	0	0	0	0	0	0
2W-25S	9	26	0	0	0	0	0	0	0
2W-50S	5	20	0	0	0	0	0	0	0
2W-75S	2	6	0	0	0	0	0	0	0
2W-100S	2	8	0	0	0	0	0	0	0
2W-125S	5	52	0	0	0	0	0	0	0
2W-150S	7	34	0	0	0	0	0	0	0
2W-175S	6	50	0	0	0	0	0	0	0
2W-200S	4	10	0	0	0	0	0	0	0
2W-225S	15	14	0	0	0	0	0	0	0
2W-250S	2	6	0	0	0	0	0	0	0
2W-275S	11	22	0	0	0	0	0	0	0
2W-300S	9	56	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
4E-0N	7	24	0	0	0	0	0	0	0
4E-25N	8	20	0	0	0	0	0	0	0
4E-50N	5	14	0	0	0	0	0	0	0
4E-75N	11	20	0	0	0	0	0	0	0
4E-100N	15	16	0	0	0	0	0	0	0
4E-125N	4	8	0	0	0	0	0	0	0
4E-150N	6	16	0	0	0	0	0	0	0
4E-175N	11	38	0	0	0	0	0	0	0
4E-450N	3	6	0	0	0	0	0	0	0
4E-475N	2	12	0	0	0	0	0	0	0
4E-500N	7	32	0	0	0	0	0	0	0
4E-525N	9	54	0	0	0	0	0	0	0
4E-25S	4	14	0	0	0	0	0	0	0
4E-50S	14	22	0	0	0	0	0	0	0
4E-75S	2	6	0	0	0	0	0	0	0
4E-100S	20	26	0	0	0	0	0	0	0
4E-125S	18	46	0	0	0	0	0	0	0
4E-150S	6	28	0	0	0	0	0	0	0
4E-175S	17	58	0	0	0	0	0	0	0
4E-200S	7	30	0	0	0	0	0	0	0
4E-225S	2	8	0	0	0	0	0	0	0
4E-250S	2	10	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
4E-275S	3	12	0	0	0	0	0	0	0
4E-300S	3	14	0	0	0	0	0	0	0
4W-0N	14	44	0	0	0	0	0	0	0
4W-25N	4	14	0	0	0	0	0	0	0
4W-50N	3	20	0	0	0	0	0	0	0
4W-75N	2	10	0	0	0	0	0	0	0
4W-100N	3	14	0	0	0	0	0	0	0
4W-125N	2	10	0	0	0	0	0	0	0
4W-150N	10	30	0	0	0	0	0	0	0
4W-200N	8	48	0	0	0	0	0	0	0
4W-225N	6	42	0	0	0	0	0	0	0
4W-250N	4	20	0	0	0	0	0	0	0
4W-275N	6	28	0	0	0	0	0	0	0
4W-300N	6	12	0	0	0	0	0	0	0
4W-325N	10	80	0	0	0	0	0	0	0
4W-350N	9	54	0	0	0	0	0	0	0
4W-375N	15	32	0	0	0	0	0	0	0
4W-400N	10	26	0	0	0	0	0	0	0
4W-425N	5	18	0	0	0	0	0	0	0
4W-450N	9	20	0	0	0	0	0	0	0
4W-425N	15	22	0	0	0	0	0	0	0
4W-500N	2	6	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
4W-25S	6	24	0	0	0	0	0	0	0
4W-50S	4	16	0	0	0	0	0	0	0
4W-75S	4	26	0	0	0	0	0	0	0
4W-100S	3	20	0	0	0	0	0	0	0
4W-125S	14	30	0	0	0	0	0	0	0
4W-150S	6	26	0	0	0	0	0	0	0
4W-175S	27	56	0	0	0	0	0	0	0
4W-200S	5	60	0	0	0	0	0	0	0
4W-225S	8	18	0	0	0	0	0	0	0
4W-250S	11	72	0	0	0	0	0	0	0
4W-275S	14	36	0	0	0	0	0	0	0
4W-300S	9	38	0	0	0	0	0	0	0
TL4S-1025W	3	10	0	0	0	0	0	0	0
TL4S-1050W	9	26	0	0	0	0	0	0	0
TL4S-1075W	3	14	0	0	0	0	0	0	0
TL4S-1100W	16	50	0	0	0	0	0	0	0
TL4S-1125W	14	46	0	0	0	0	0	0	0
TL4S-1150W	13	34	0	0	0	0	0	0	0
TL4S-1175W	10	18	0	0	0	0	0	0	0
TL4S-1200W	3	14	0	0	0	0	0	0	0
TL4S-1225W	2	12	0	0	0	0	0	0	0
TL4S-1250W	4	32	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
TL4S-1275W	7	28	0	0	0	0	0	0	0
TL4S-1300W	2	20	0	0	0	0	0	0	0
TL4S-1325W	8	26	0	0	0	0	0	0	0
TL4S-1350W	6	24	0	0	0	0	0	0	0
TL4S-1375W	6	30	0	0	0	0	0	0	0
TL4S-1400W	5	20	0	0	0	0	0	0	0
TL4S-1425W	3	14	0	0	0	0	0	0	0
TL4S-1400W	12	26	0	0	0	0	0	0	0
RL5W-00N	14	46	0	0	0	0	0	0	0
RL5W-25N	5	22	0	0	0	0	0	0	0
RL5W-50N	16	40	0	0	0	0	0	0	0
RL5W-75N	6	16	0	0	0	0	0	0	0
RL5W-100N	12	44	0	0	0	0	0	0	0
RL5W-125N	6	32	0	0	0	0	0	0	0
RL5W-150N	2	10	0	0	0	0	0	0	0
RL5W-175N	2	10	0	0	0	0	0	0	0
RL5W-200N	6	48	0	0	0	0	0	0	0
RL5W-225N	7	16	0	0	0	0	0	0	0
RL5W-250N	12	50	0	0	0	0	0	0	0
RL5W-275N	14	18	0	0	0	0	0	0	0
RL5W-300N	6	8	0	0	0	0	0	0	0
RL5W-325N	3	10	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
RL5W-350N	3	10	0	0	0	0	0	0	0
RL5W-375N	14	20	0	0	0	0	0	0	0
RL5W-400N	25	34	0	0	0	0	0	0	0
RL5W-450N	23	42	0	0	0	0	0	0	0
RL5W-475N	122	58	0	0	0	0	0	0	0
RL5W-500N	16	24	0	0	0	0	0	0	0
5W-00N	11	52	0	0	0	0	0	0	0
5W-25N	6	42	0	0	0	0	0	0	0
5W-50N	7	36	0	0	0	0	0	0	0
5W-75N	7	56	0	0	0	0	0	0	0
5W-100N	10	14	0	0	0	0	0	0	0
5W-125N	11	22	0	0	0	0	0	0	0
5W-150N	3	8	0	0	0	0	0	0	0
5W-175N	10	20	0	0	0	0	0	0	0
5W-200N	5	18	0	0	0	0	0	0	0
5W-225N	8	18	0	0	0	0	0	0	0
5W-250N	3	8	0	0	0	0	0	0	0
5W-275N	10	30	0	0	0	0	0	0	0
5W-300N	9	24	0	0	0	0	0	0	0
5W-325N	24	54	0	0	0	0	0	0	0
5W-350N	16	40	0	0	0	0	0	0	0
5W-375N	22	112	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
5W-400N	26	106	0	0	0	0	0	0	0
5W-425N	6	8	0	0	0	0	0	0	0
5W-25S	14	56	0	0	0	0	0	0	0
5W-50S	11	44	0	0	0	0	0	0	0
5W-75S	25	120	0	0	0	0	0	0	0
5W-100S	12	26	0	0	0	0	0	0	0
5W-125S	24	60	0	0	0	0	0	0	0
5W-150S	24	124	0	0	0	0	0	0	0
5W-175S	10	26	0	0	0	0	0	0	0
5W-200S	5	18	0	0	0	0	0	0	0
5W-225S	7	20	0	0	0	0	0	0	0
5W-250S	8	36	0	0	0	0	0	0	0
5W-275S	8	20	0	0	0	0	0	0	0
5W-300S	13	34	0	0	0	0	0	0	0
6W-00N	6	22	0	0	0	0	0	0	0
6W-25N	4	14	0	0	0	0	0	0	0
6W-50N	5	14	0	0	0	0	0	0	0
6W-75N	5	16	0	0	0	0	0	0	0
6W-100N	11	18	0	0	0	0	0	0	0
6W-125N	17	38	0	0	0	0	0	0	0
6W-150N	3	6	0	0	0	0	0	0	0
6W-175N	8	36	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
6W-200N	10	50	0	0	0	0	0	0	0
6W-225N	6	24	0	0	0	0	0	0	0
6W-250N	24	62	0	0	0	0	0	0	0
6W-275N	17	42	0	0	0	0	0	0	0
6W-350N	10	16	0	0	0	0	0	0	0
6W-375N	5	16	0	0	0	0	0	0	0
6W-400N	3	14	0	0	0	0	0	0	0
6W-425N	6	24	0	0	0	0	0	0	0
6W-450N	7	46	0	0	0	0	0	0	0
6W-475N	8	26	0	0	0	0	0	0	0
6W-500N	10	28	0	0	0	0	0	0	0
6W-25S	12	108	0	0	0	0	0	0	0
6W-50S	15	80	0	0	0	0	0	0	0
6W-75S	35	82	0	0	0	0	0	0	0
6W-100S	37	160	0	0	0	0	0	0	0
6W-125S	12	42	0	0	0	0	0	0	0
6W-125S	4	10	0	0	0	0	0	0	0
6W-150S	6	22	0	0	0	0	0	0	0
6W-175S	5	24	0	0	0	0	0	0	0
6W-200S	10	36	0	0	0	0	0	0	0
6W-250S	1	6	0	0	0	0	0	0	0
6W-275S	19	60	0	0	0	0	0	0	0

NORANDA EXPLORATION CO. LTD.
P.O. BOX 30 BATHURST, N. B.
E2A 3Z1

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
6W-300S	8	34	0	0	0	0	0	0	0
8W-00N	17	42	0	0	0	0	0	0	0
8W-25N	16	44	0	0	0	0	0	0	0
8W-50N	17	28	0	0	0	0	0	0	0
8W-75N	3	12	0	0	0	0	0	0	0
8W-100N	14	26	0	0	0	0	0	0	0
8W-150N	19	28	0	0	0	0	0	0	0
8W-175N	15	30	0	0	0	0	0	0	0
8W-200N	12	40	0	0	0	0	0	0	0
8W-225N	10	56	0	0	0	0	0	0	0
8W-250N	9	22	0	0	0	0	0	0	0
8W-275N	9	172	0	0	0	0	0	0	0
8W-300N	9	156	0	0	0	0	0	0	0
8W-325N	17	256	0	0	0	0	0	0	0
8W-350N	26	212	0	0	0	0	0	0	0
8W-375N	16	130	0	0	0	0	0	0	0
8W-400N	10	116	0	0	0	0	0	0	0
8W-425N	9	166	0	0	0	0	0	0	0
8W-450N	6	32	0	0	0	0	0	0	0
8W-475N	4	62	0	0	0	0	0	0	0
8W-500N	5	38	0	0	0	0	0	0	0
8W-25S	36	76	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
8W-50S	19	68	0	0	0	0	0	0	0
8W-75S	15	32	0	0	0	0	0	0	0
8W-100S	74	56	0	0	0	0	0	0	0
8W-125S	24	68	0	0	0	0	0	0	0
8W-150S	23	30	0	0	0	0	0	0	0
8W-175S	32	310	0	0	0	0	0	0	0
8W-200S	10	24	0	0	0	0	0	0	0
8W-225S	19	36	0	0	0	0	0	0	0
8W-250S	7	14	0	0	0	0	0	0	0
8W-275S	18	158	0	0	0	0	0	0	0
8W-300S	46	130	0	0	0	0	0	0	0
RL10W-00N	12	58	0	0	0	0	0	0	0
RL10W-25N	8	28	0	0	0	0	0	0	0
RL10W-50N	34	36	0	0	0	0	0	0	0
RL10W-100N	22	30	0	0	0	0	0	0	0
RL10W-125N	3	12	0	0	0	0	0	0	0
RL10W-150N	6	878	0	0	0	0	0	0	0
RL10W-175N	3	6	0	0	0	0	0	0	0
RL10W-200N	8	62	0	0	0	0	0	0	0
RL10W-225N	12	34	0	0	0	0	0	0	0
RL10W-250N	17	26	0	0	0	0	0	0	0
RL10W-275N	24	36	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
10W-00N	3	16	0	0	0	0	0	0	0
10W-00N	22	26	0	0	0	0	0	0	0
10W-25N	21	56	0	0	0	0	0	0	0
10W-25N	12	24	0	0	0	0	0	0	0
10W-50N	18	74	0	0	0	0	0	0	0
10W-50N	10	36	0	0	0	0	0	0	0
10W-75N	20	26	0	0	0	0	0	0	0
10W-75N	4	14	0	0	0	0	0	0	0
10W-100N	6	12	0	0	0	0	0	0	0
10W-100N	10	14	0	0	0	0	0	0	0
10W-125N	10	22	0	0	0	0	0	0	0
10W-125N	11	10	0	0	0	0	0	0	0
10W-150N	21	84	0	0	0	0	0	0	0
10W-150N	16	16	0	0	0	0	0	0	0
10W-175N	11	82	0	0	0	0	0	0	0
10W-175N	11	14	0	0	0	0	0	0	0
10W-200N	2	4	0	0	0	0	0	0	0
10W-200N	31	36	0	0	0	0	0	0	0
10W-225N	28	26	0	0	0	0	0	0	0
10W-225N	12	14	0	0	0	0	0	0	0
10W-250N	29	214	0	0	0	0	0	0	0
10W-250N	9	22	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
10W-275N	19	80	0	0	0	0	0	0	0
10W-300N	17	26	0	0	0	0	0	0	0
10W-300N	32	28	0	0	0	0	0	0	0
10W-325N	11	26	0	0	0	0	0	0	0
10W-325N	7	12	0	0	0	0	0	0	0
10W-350N	9	66	0	0	0	0	0	0	0
10W-350N	5	10	0	0	0	0	0	0	0
10W-375N	21	54	0	0	0	0	0	0	0
10W-400N	8	60	0	0	0	0	0	0	0
RL10W-25S	26	34	0	0	0	0	0	0	0
RL10W-50S	21	50	0	0	0	0	0	0	0
RL10W-75S	62	48	0	0	0	0	0	0	0
RL10W-100S	60	44	0	0	0	0	0	0	0
RL10W-175S	18	48	0	0	0	0	0	0	0
RL10W-200S	6	18	0	0	0	0	0	0	0
RL10W-225S	26	20	0	0	0	0	0	0	0
RL10W-250S	20	20	0	0	0	0	0	0	0
RL10W-275S	3	8	0	0	0	0	0	0	0
RL10W-300S	7	12	0	0	0	0	0	0	0
10W-25S	21	60	0	0	0	0	0	0	0
10W-50S	38	54	0	0	0	0	0	0	0
10W-75S	19	40	0	0	0	0	0	0	0

NORANDA EXPLORATION CO. LTD.
P.O. BOX 30 BATHURST, N. B.
E2A 3Z1

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
10W-100S	38	68	0	0	0	0	0	0	0
10W-125S	12	38	0	0	0	0	0	0	0
10W-150S	12	58	0	0	0	0	0	0	0
10W-175S	13	74	0	0	0	0	0	0	0
10W-200S	4	16	0	0	0	0	0	0	0
10W-225S	12	42	0	0	0	0	0	0	0
10W-250S	6	14	0	0	0	0	0	0	0
10W-275S	7	16	0	0	0	0	0	0	0
10W-300S	5	12	0	0	0	0	0	0	0
10W-325S	3	12	0	0	0	0	0	0	0
10W-350S	6	26	0	0	0	0	0	0	0
10W-375S	11	22	0	0	0	0	0	0	0
10W-400S	2	6	0	0	0	0	0	0	0
10W-425S	2	12	0	0	0	0	0	0	0
10W-450S	9	20	0	0	0	0	0	0	0
10W-475S	6	26	0	0	0	0	0	0	0
10W-500S	8	28	0	0	0	0	0	0	0
12E-00N	15	70	0	0	0	0	0	0	0
12E-25N	6	32	0	0	0	0	0	0	0
12E-50N	24	64	0	0	0	0	0	0	0
12E-125N	12	14	0	0	0	0	0	0	0
12E-150N	8	20	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
12E-175N	4	22	0	0	0	0	0	0	0
12E-200N	43	662	0	0	0	0	0	0	0
12E-225N	10	32	0	0	0	0	0	0	0
12E-250N	10	30	0	0	0	0	0	0	0
12E-275N	5	26	0	0	0	0	0	0	0
12E-300N	2	10	0	0	0	0	0	0	0
12E-325N	7	12	0	0	0	0	0	0	0
12E-350N	11	22	0	0	0	0	0	0	0
12E-375N	5	24	0	0	0	0	0	0	0
12E-400N	5	12	0	0	0	0	0	0	0
12E-425N	5	16	0	0	0	0	0	0	0
12E-450N	11	48	0	0	0	0	0	0	0
12E-25S	48	162	0	0	0	0	0	0	0
12E-50S	8	38	0	0	0	0	0	0	0
12E-75S	8	20	0	0	0	0	0	0	0
12E-100S	6	42	0	0	0	0	0	0	0
12E-125S	19	54	0	0	0	0	0	0	0
12E-150S	6	24	0	0	0	0	0	0	0
12E-175S	9	20	0	0	0	0	0	0	0
12E-200S	6	14	0	0	0	0	0	0	0
12E-225S	12	20	0	0	0	0	0	0	0
12E-250S	45	66	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
12E-275S	16	32	0	0	0	0	0	0	0
12E-300S	21	24	0	0	0	0	0	0	0
RL12W-00N	21	24	0	0	0	0	0	0	0
RL12W-25N	24	76	0	0	0	0	0	0	0
RL12W-50N	24	50	0	0	0	0	0	0	0
RL12W-75N	17	40	0	0	0	0	0	0	0
RL12W-100N	16	90	0	0	0	0	0	0	0
RL12W-125N	8	24	0	0	0	0	0	0	0
RL12W-150N	9	18	0	0	0	0	0	0	0
RL12W-175N	29	46	0	0	0	0	0	0	0
RL12W-200N	13	172	0	0	0	0	0	0	0
RL12W-25S	14	50	0	0	0	0	0	0	0
RL12W-50S	39	68	0	0	0	0	0	0	0
RL12W-75S	3	8	0	0	0	0	0	0	0
RL12W-100S	11	40	0	0	0	0	0	0	0
RL12W-125S	8	22	0	0	0	0	0	0	0
RL12W-150S	8	30	0	0	0	0	0	0	0
RL12W-175S	11	42	0	0	0	0	0	0	0
RL12W-200S	13	44	0	0	0	0	0	0	0
RL12W-225S	19	32	0	0	0	0	0	0	0
RL12W-250S	30	54	0	0	0	0	0	0	0
RL12W-275S	4	8	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
RL12W-300S	29	28	0	0	0	0	0	0	0
RL15W-00N	4	8	0	0	0	0	0	0	0
RL15W-25N	10	16	0	0	0	0	0	0	0
RL15W-50N	22	30	0	0	0	0	0	0	0
RL15W-75N	251	44	0	0	0	0	0	0	0
RL15W-100N	43	26	0	0	0	0	0	0	0
RL15W-125N	15	16	0	0	0	0	0	0	0
RL15W-150N	6	10	0	0	0	0	0	0	0
RL15W-175N	10	14	0	0	0	0	0	0	0
RL15W-200N	24	34	0	0	0	0	0	0	0
RL15W-225N	25	22	0	0	0	0	0	0	0
RL15W-250N	10	12	0	0	0	0	0	0	0
RL15W-275N	7	14	0	0	0	0	0	0	0
RL15W-300N	64	44	0	0	0	0	0	0	0
RL15W-325N	10	16	0	0	0	0	0	0	0
RL15W-350N	11	56	0	0	0	0	0	0	0
RL15W-375N	31	18	0	0	0	0	0	0	0
18W-00N	59	70	0	0	0	0	0	0	0
18W-25N	34	36	0	0	0	0	0	0	0
18W-50N	6	14	0	0	0	0	0	0	0
18W-75N	7	10	0	0	0	0	0	0	0
18W-100N	178	22	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
18W-125N	23	24	0	0	0	0	0	0	0
18W-150N	17	48	0	0	0	0	0	0	0
18W-175N	4	10	0	0	0	0	0	0	0
18W-200N	4	16	0	0	0	0	0	0	0
18W-25S	33	34	0	0	0	0	0	0	0
18W-50S	32	18	0	0	0	0	0	0	0
18W-75S	67	74	0	0	0	0	0	0	0
18W-100S	48	36	0	0	0	0	0	0	0
18W-125S	32	26	0	0	0	0	0	0	0
18W-150S	11	12	0	0	0	0	0	0	0
18W-175S	53	26	0	0	0	0	0	0	0
18W-200S	10	20	0	0	0	0	0	0	0
18W-225S	13	26	0	0	0	0	0	0	0
18W-250S	101	58	0	0	0	0	0	0	0
18W-275S	76	72	0	0	0	0	0	0	0
18W-300S	2	16	0	0	0	0	0	0	0
20W-00N	4	12	0	0	0	0	0	0	0
20W-25N	6	18	0	0	0	0	0	0	0
20W-50N	8	22	0	0	0	0	0	0	0
20W-75N	5	14	0	0	0	0	0	0	0
20W-100N	16	22	0	0	0	0	0	0	0
20W-125N	7	14	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef	Undef	Undef	Undef	Undef	Undef	Undef
20W-150N	6	16	0	0	0	0	0	0	0
20W-175N	7	12	0	0	0	0	0	0	0
20W-200N	4	12	0	0	0	0	0	0	0
20W-225N	3	8	0	0	0	0	0	0	0
20W-250N	5	26	0	0	0	0	0	0	0
20W-275N	3	18	0	0	0	0	0	0	0
20W-300N	1	4	0	0	0	0	0	0	0
20W-325N	23	28	0	0	0	0	0	0	0
20W-350N	4	20	0	0	0	0	0	0	0
20W-375N	5	20	0	0	0	0	0	0	0
20W-400N	27	38	0	0	0	0	0	0	0
20W-425N	42	34	0	0	0	0	0	0	0
20W-450N	20	34	0	0	0	0	0	0	0
20W-475N	11	44	0	0	0	0	0	0	0
20W-500N	6	18	0	0	0	0	0	0	0
22E-00N	22	44	0	0	0	0	0	0	0
22E-25N	27	90	0	0	0	0	0	0	0
22E-50N	22	46	0	0	0	0	0	0	0
22E-75N	6	24	0	0	0	0	0	0	0
22E-100N	6	18	0	0	0	0	0	0	0
22E-125N	7	20	0	0	0	0	0	0	0
22E-150N	11	24	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
22E-175N	9	34	0	0	0	0	0	0	0
22E-200N	8	48	0	0	0	0	0	0	0
22E-225N	5	36	0	0	0	0	0	0	0
22E-250N	31	26	0	0	0	0	0	0	0
22E-275N	28	50	0	0	0	0	0	0	0
22E-300N	3	12	0	0	0	0	0	0	0
22E-325N	4	10	0	0	0	0	0	0	0
22E-25S	16	38	0	0	0	0	0	0	0
22E-50S	17	26	0	0	0	0	0	0	0
22E-75S	18	20	0	0	0	0	0	0	0
22E-100S	12	26	0	0	0	0	0	0	0
22E-125S	10	24	0	0	0	0	0	0	0
22E-150S	6	16	0	0	0	0	0	0	0
22E-175S	8	26	0	0	0	0	0	0	0
22E-200S	17	28	0	0	0	0	0	0	0
22E-225S	13	28	0	0	0	0	0	0	0
22E-250S	5	16	0	0	0	0	0	0	0
22E-275S	15	26	0	0	0	0	0	0	0
22E-300S	17	70	0	0	0	0	0	0	0
32E-00N	29	262	0	0	0	0	0	0	0
32E-25N	34	264	0	0	0	0	0	0	0
32E-50N	9	54	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
32E-75N	8	66	0	0	0	0	0	0	0
32E-100N	4	22	0	0	0	0	0	0	0
32E-125N	3	14	0	0	0	0	0	0	0
32E-150N	5	10	0	0	0	0	0	0	0
32E-175N	4	18	0	0	0	0	0	0	0
32E-200N	24	72	0	0	0	0	0	0	0
32E-225N	6	20	0	0	0	0	0	0	0
32E-250N	38	20	0	0	0	0	0	0	0
32E-275N	15	34	0	0	0	0	0	0	0
32E-300N	21	178	0	0	0	0	0	0	0
32E-325N	25	102	0	0	0	0	0	0	0
32E-350N	10	34	0	0	0	0	0	0	0
32E-375N	6	20	0	0	0	0	0	0	0
32E-400N	3	14	0	0	0	0	0	0	0
32E-425N	3	10	0	0	0	0	0	0	0
32E-450N	9	46	0	0	0	0	0	0	0
32E-475N	8	40	0	0	0	0	0	0	0
32E-500N	4	12	0	0	0	0	0	0	0
32E-25S	2	14	0	0	0	0	0	0	0
32E-50S	3	12	0	0	0	0	0	0	0
32E-75S	3	10	0	0	0	0	0	0	0
32E-100S	28	178	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
32E-125S	2	10	0	0	0	0	0	0	0
32E-150S	46	126	0	0	0	0	0	0	0
32E-175S	2	10	0	0	0	0	0	0	0
32E-200S	4	18	0	0	0	0	0	0	0
32E-225S	7	32	0	0	0	0	0	0	0
32E-250S	6	18	0	0	0	0	0	0	0
32E-275S	19	20	0	0	0	0	0	0	0
32E-300S	22	74	0	0	0	0	0	0	0
32E-325S	12	70	0	0	0	0	0	0	0
32E-350S	25	54	0	0	0	0	0	0	0
32E-375S	13	24	0	0	0	0	0	0	0
32E-400S	7	18	0	0	0	0	0	0	0
32E-425S	49	72	0	0	0	0	0	0	0
32E-450S	61	198	0	0	0	0	0	0	0
32E-475S	198	120	0	0	0	0	0	0	0
32E-500S	38	34	0	0	0	0	0	0	0
32E-525S	44	134	0	0	0	0	0	0	0
32E-550S	34	48	0	0	0	0	0	0	0
32E-575S	6	26	0	0	0	0	0	0	0
32E-600S	14	92	0	0	0	0	0	0	0
32E-625S	49	122	0	0	0	0	0	0	0
32E-650S	3	14	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
32E-675S	20	34	0	0	0	0	0	0	0
32E-700S	6	24	0	0	0	0	0	0	0
32E-725S	46	50	0	0	0	0	0	0	0
32E-750S	12	30	0	0	0	0	0	0	0
32E-775S	14	66	0	0	0	0	0	0	0
32E-800S	22	86	0	0	0	0	0	0	0
32E-825S	30	58	0	0	0	0	0	0	0
32E-850S	8	12	0	0	0	0	0	0	0
32E-875S	5	10	0	0	0	0	0	0	0
32E-900S	13	46	0	0	0	0	0	0	0
32E-925S	11	16	0	0	0	0	0	0	0
32E-950S	8	28	0	0	0	0	0	0	0
32E-975S	4	10	0	0	0	0	0	0	0
32E-1000S	4	16	0	0	0	0	0	0	0
32E-1025S	5	22	0	0	0	0	0	0	0
32E-1050S	4	16	0	0	0	0	0	0	0
32E-1075S	15	52	0	0	0	0	0	0	0
32E-1100S	21	58	0	0	0	0	0	0	0
1W-00N	39	100	0	0	0	0	0	0	0
1W-25N	19	28	0	0	0	0	0	0	0
1W-50N	15	60	0	0	0	0	0	0	0
1W-75N	12	16	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
1W-100N	4	12	0	0	0	0	0	0	0
1W-125N	9	14	0	0	0	0	0	0	0
1W-150N	4	4	0	0	0	0	0	0	0
1W-175N	6	16	0	0	0	0	0	0	0
1W-200N	15	58	0	0	0	0	0	0	0
1W-225N	4	14	0	0	0	0	0	0	0
1W-25S	10	18	0	0	0	0	0	0	0
1W-50S	52	158	0	0	0	0	0	0	0
1W-75S	14	108	0	0	0	0	0	0	0
1W-100S	39	70	0	0	0	0	0	0	0
1W-125S	22	32	0	0	0	0	0	0	0
1W-150S	3	6	0	0	0	0	0	0	0
1W-175S	41	28	0	0	0	0	0	0	0
1W-200S	36	110	0	0	0	0	0	0	0
1W-225S	3	16	0	0	0	0	0	0	0
1W-250S	2	14	0	0	0	0	0	0	0
2W-00N	10	28	0	0	0	0	0	0	0
2W-25N	40	60	0	0	0	0	0	0	0
2W-50N	4	36	0	0	0	0	0	0	0
2W-75N	11	26	0	0	0	0	0	0	0
2W-100N	14	16	0	0	0	0	0	0	0
2W-125N	3	8	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
2W-150N	18	24	0	0	0	0	0	0	0
2W-175N	14	30	0	0	0	0	0	0	0
2W-200N	6	12	0	0	0	0	0	0	0
2W-225N	13	38	0	0	0	0	0	0	0
2W-250N	10	34	0	0	0	0	0	0	0
2W-25S	5	14	0	0	0	0	0	0	0
2W-50S	29	16	0	0	0	0	0	0	0
2W-75S	10	26	0	0	0	0	0	0	0
2W-100S	12	18	0	0	0	0	0	0	0
2W-125S	26	54	0	0	0	0	0	0	0
2W-150S	4	12	0	0	0	0	0	0	0
2W-175S	4	14	0	0	0	0	0	0	0
2W-200S	9	26	0	0	0	0	0	0	0
2W-225S	12	24	0	0	0	0	0	0	0
2W-250S	12	16	0	0	0	0	0	0	0
3W-00N	5	12	0	0	0	0	0	0	0
3W-25N	40	96	0	0	0	0	0	0	0
3W-50N	5	16	0	0	0	0	0	0	0
3W-75N	14	28	0	0	0	0	0	0	0
3W-100N	5	18	0	0	0	0	0	0	0
3W-125N	16	24	0	0	0	0	0	0	0
3W-150N	22	30	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
3W-175N	9	20	0	0	0	0	0	0	0
3W-200N	12	18	0	0	0	0	0	0	0
3W-225N	16	36	0	0	0	0	0	0	0
3W-250N	15	22	0	0	0	0	0	0	0
3W-25S	18	44	0	0	0	0	0	0	0
3W-50S	17	26	0	0	0	0	0	0	0
3W-75S	145	60	0	0	0	0	0	0	0
3W-100S	32	20	0	0	0	0	0	0	0
3W-125S	32	34	0	0	0	0	0	0	0
3W-150S	45	68	0	0	0	0	0	0	0
3W-175S	35	48	0	0	0	0	0	0	0
3W-200S	41	86	0	0	0	0	0	0	0
3W-250S	3	38	0	0	0	0	0	0	0
5W-00N	24	72	0	0	0	0	0	0	0
5W-25N	21	36	0	0	0	0	0	0	0
5W-50N	36	42	0	0	0	0	0	0	0
5W-75N	22	62	0	0	0	0	0	0	0
5W-100N	20	118	0	0	0	0	0	0	0
5W-125N	12	60	0	0	0	0	0	0	0
5W-150N	10	56	0	0	0	0	0	0	0
5W-175N	3	20	0	0	0	0	0	0	0
5W-200N	6	26	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef:	Undef:	Undef:	Undef:	Undef:	Undef:	Undef
5W-225N	3	18	0	0	0	0	0	0	0
5W-250N	6	24	0	0	0	0	0	0	0
5W-25S	22	78	0	0	0	0	0	0	0
5W-50S	61	56	0	0	0	0	0	0	0
5W-75S	23	132	0	0	0	0	0	0	0
5W-100S	17	20	0	0	0	0	0	0	0
5W-125S	25	42	0	0	0	0	0	0	0
5W-150S	24	28	0	0	0	0	0	0	0
5W-175S	119	70	0	0	0	0	0	0	0
5W-200S	68	136	0	0	0	0	0	0	0
5W-225S	8	40	0	0	0	0	0	0	0
5W-225S	3	26	0	0	0	0	0	0	0
5W-250S	2	20	0	0	0	0	0	0	0
7W-00N	76	42	0	0	0	0	0	0	0
7W-25N	65	48	0	0	0	0	0	0	0
7W-50N	27	142	0	0	0	0	0	0	0
7W-75N	3	16	0	0	0	0	0	0	0
7W-100N	18	48	0	0	0	0	0	0	0
7W-125N	46	110	0	0	0	0	0	0	0
7W-150N	7	24	0	0	0	0	0	0	0
7W-175N	3	16	0	0	0	0	0	0	0
7W-225N	7	96	0	0	0	0	0	0	0

GCI NO.	RF192	NTS NO.	52 J/2
PROJECT NO.	1320	LOCATION	THUNDER BAY
ANALYST	GM BG	COLLECTOR	
MATERIAL	SOILS	STORAGE BOX	
NUMBER OF SAMPLES	957	DATE RECEIVED	09/16/92
DATE COMPLETED	09/24/92	DATE ENTERED	09/24/92
REMARKS	REG FELIX		

# / LOCATION	CU PPM	ZN PPM	Undef	Undef	Undef	Undef	Undef	Undef	Undef
7W-250N	5	114	0	0	0	0	0	0	0
7W-25S	7	32	0	0	0	0	0	0	0
7W-50S	24	53	0	0	0	0	0	0	0
7W-75S	14	34	0	0	0	0	0	0	0
7W-100S	31	48	0	0	0	0	0	0	0
7W-125S	3	30	0	0	0	0	0	0	0
7W-150S	21	78	0	0	0	0	0	0	0
7W-175S	10	44	0	0	0	0	0	0	0
7W-200S	18	82	0	0	0	0	0	0	0
7W-225S	11	48	0	0	0	0	0	0	0
7W-250S	7	42	0	0	0	0	0	0	0

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Willet Green Miller Centre
933 Ramsey Lake Rd., 6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

Our File: 2.15020
Transaction #: W9330.00022

August 4, 1993

Mining Recorder
Ministry of Northern
Development and Mines
Court House Building
P.O. Box 3000
Sioux Lookout, Ontario

Dear Madam:

RE: APPROVAL OF ASSESSMENT WORK ON MINING CLAIMS PA 1195525 ET.AL. IN THE PENASSI AND SIX MILE LAKE AREAS.

The Assessment Credits for GEOLOGY, GEOCHEMISTRY AND GEOPHYSICS sections 12, 13 and 14 of the Mining Act Regulations, as listed on the original submission, have been approved as of AUGUST 3, 1993.

Please indicate this approval on the claim record sheets.

If you have any questions please call Clive Stephenson at (705) 670-5856.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

CDS/dm

cc: Resident Geologist
Sioux Lookout, Ontario

Assessment Files Library
Toronto, Ontario

Ministry of Northern Development and Mines Ontario

MIN. LANDS

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9330.00022

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15020

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

1320

Recorded Holder(s)		Client No.
Noranda Exploration Company, Limited		176208
Address: c/o 960 Alloy Drive, Thunder Bay, Ontario P7B 6A1		Telephone No.: (807) 623-4339
Mining Division: Patricia	Township/Area: Penassi & Six Mile Lakes	M or G Plan No.: G-2526/G-2561
Dates Work Performed From: April 23, 1992	To: December 31, 1992	

Work Performed (Check One Work Group Only)

	Work Group	Type
x	Geotechnical Survey	Geology, Geophysics, Geochemistry, Linecutting
	Physical Work, Including Drilling	(W10) GEOL GCHEM MAG
	Rehabilitation	RECEIVED
	Other Authorized Work	MAY 1 7 1993
	Assays	
	Assignment from Reserve	MINING LANDS BRANCH

93 MAY 6 AM 10:31 MINING RECORDER PATRICIA MINING DIVISION

Total Assessment Work Claimed on the Attached Statement of Costs $ 46,150

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Reg Felix (Author)	c/o 960 Alloy Drive, Thunder Bay, Ontario P7B 6A1
J.Sullivan, J.Gingerich, C. MacDougall	c/o 960 Alloy Drive, Thunder Bay, Ontario P7B 6A1
A.Smith, M.Stares, S.Stares	c/o 960 Alloy Drive, Thunder Bay, Ontario P7B 6A1
For contractors See Attached List	

(attach a schedule if necessary)

93 MAY 7 AM 10:21 MINING RECORDER PATRICIA MINING DIVISION

Certification of Beneficial Interest * See Note No. 1 on reverse side

	Date	Recorded Holder or Agent (Signature)
I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Apr.28/93	C Barrett

Certification of Work Report

RECORDED MAY 7 1993 Receipt K

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying		
Cecilia M. Barrett, 960 Alloy Drive, Thunder Bay, Ontario P7B 6A1		
Telephone No.: (807) 623-4339	Date: Apr.28/93	Certified By (Signature): C Barrett

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
$46150	93 MAY 07		
	Deemed Approval Date: 93 AUG 05	Date Approved: 93 AUG 07	
	Date Notice for Amendments Sent: —		

0241 (03/91)

Details for Work Report # 1320-1

Work Report# for Applying Reserve	Claim Number (see note 2)	# of Claim Units	Value of Assesment Work Done on this Claim	Value Applied to this Claim	Values Assigned from this Claim	Reserve:Work to be Claimed at a Future Date
	PA 1,195,525	15	12,650.00	6,000.00	6,650.00	
	PA 1,195,526	15	5,600.00	6,000.00	0.00	
	PA 1,195,527	16	450.00	6,400.00	0.00	
	PA 1,195,554	12	4,850.00	4,800.00	0.00	50.00
	PA 1,195,574	12	4,900.00	4,800.00	0.00	100.00
	PA 1,195,575	15	4,100.00	6,000.00		
	PA 1,195,577	16	1,200.00		1,200.00	
	PA 1,195,578	15	600.00		600.00	
	PA 1,195,579	16	500.00		500.00	
	PA 1,195,580	15	800.00	6,000.00		
	PA 1,195,581	16	500.00		500.00	
	PA 1,195,582	3	200.00		200.00	
	PA 1,195,584	15	8,000.00		8,000.00	
	PA 1,195,585	15	900.00	6,000.00		
	PA 1,195,802	3	900.00		900.00	
	Total Number of Claims: 15	199 units	Total Value Work Done: 46,150.00	Total Value Work Applied: 46,000.00	Total Assigned From: 18,550.00	Total Reserve: 150.00

RECEIVED
MAY 17 1993
MINING LANDS BRANCH

MINING RECORDER
PATRICIA DIVISION
93 MAY 7 10:21

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (x) one of the following:

1. [ ] Credits are to be cut back starting with the claims listed last, working backwards.

2. [ ] Credits are to be cut back equally over all claims contained in this report of work.

3. [ ] Credits are to be cut back as priorized on the attatched appendix.

4. [x] Credits are to be cut back starting with the claims that have reserve credits.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option payments, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature: C Barrett	Date: Apr 28/93.

LIST OF CONTRACTORS

Vytyl Exploration Services	Thunder Bay, Ontario
Northwest Geophysics	Thunder Bay, Ontario
Stares Contracting Ltd.	Thunder Bay, Ontario
Bayshore Geology Inc.	Thunder Bay, Ontario
Accurassay Labs	Thunder Bay, Ontario
T.S.L. Labs	Mississauga, Ontario
Vancouver Petrographics	Fort Langley, B.C.

2.15020

STATEMENT OF COSTS

CONTRACTOR'S AND CONSULTANT'S FEES

Linecutting	9,975
Ground Geophysics	2,750
Soil Sampling	2,500
Petrographic Descriptions	1,030
Computer Plotting	370
Geochem Analyses	6,800
Total	23,425

April 28, 1993

RECEIVED

MAY 17 1993

MINING LANDS BRANCH

RECEIVED
'93 MAY 7 AM 11 23
MINING RECORDER
PATRICIA
MINING DIVISION
93 MAY 7 A10:21

W 9330.00022

Ministry of Northern Development and Mines

Ontario

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction
W9330.00022

2.15020

Personal information collected on this form is obtained under the authority of the **Mining Act**. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la **Loi sur les mines** et serviront à tenir à jour un registre des concessions minières. Adresser toute quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1320

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	6,500	
	Field Supervision Supervision sur le terrain	10,500	17,000
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type SEE ATTACHED		
	LIST		
			23,425
Supplies Used Fournitures utilisées	Type Flagging, markers,		
	Field Books, Sample Bags		
	& Boxes, Hammers, Maps &		
	Publications	925	925
Equipment Rental Location de matériel	Type Truck	600	
	Quadrunner	220	
	Boat & Motor	180	1,000
	Total Direct Costs Total des coûts directs		42,350

2. Indirect Costs/Coûts indirects

** **Note:** When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Ground Transport	900	
	Fixed Wing Aircraft	200	
	Freight	290	
	Repairs	310	
			1,700
Food and Lodging Nourriture et hébergement	Food & Lodging	2,100	2,100
Mobilization and Demobilization Mobilisation et démobilisation			
	Sub Total of Indirect Costs Total partiel des coûts indirects		3,800
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			8,470
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)	**Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles**		46,150

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

MINING LANDS SECTION RECEIVED MAY 7 1993 21 PM 3:03

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Lands Administrator I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

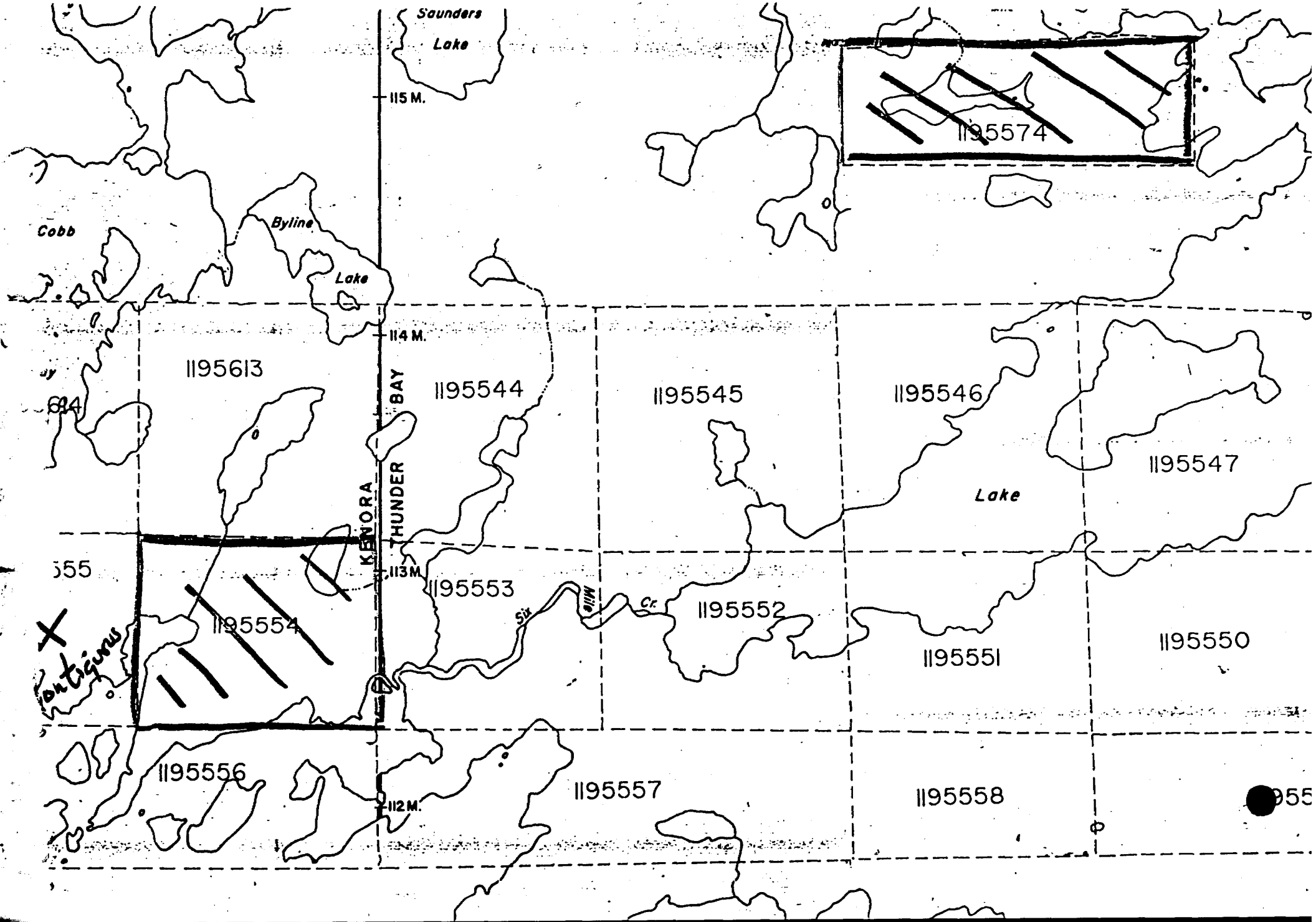
Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

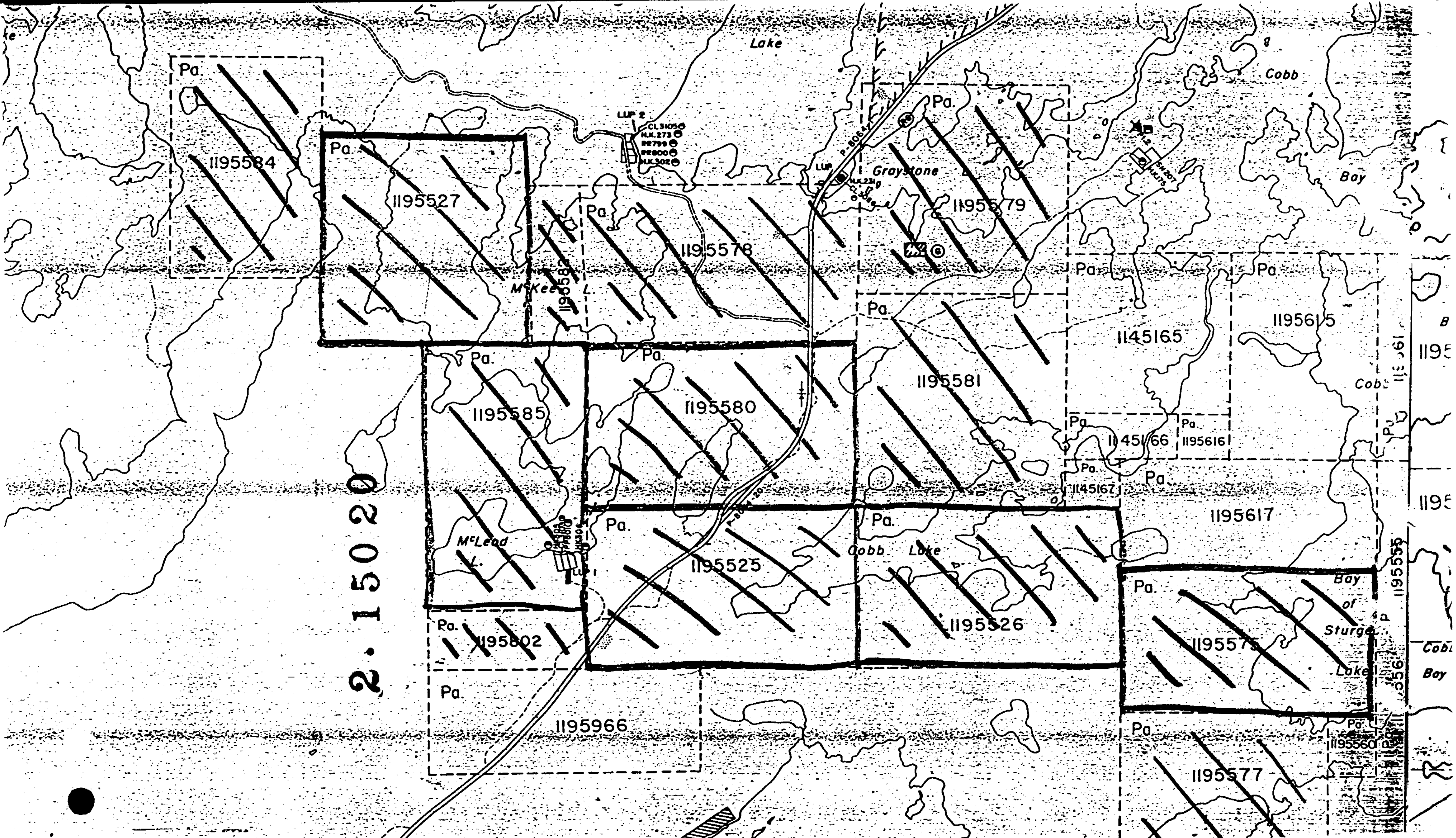
à faire cette attestation.

Signature	Date
	Apr.28/93

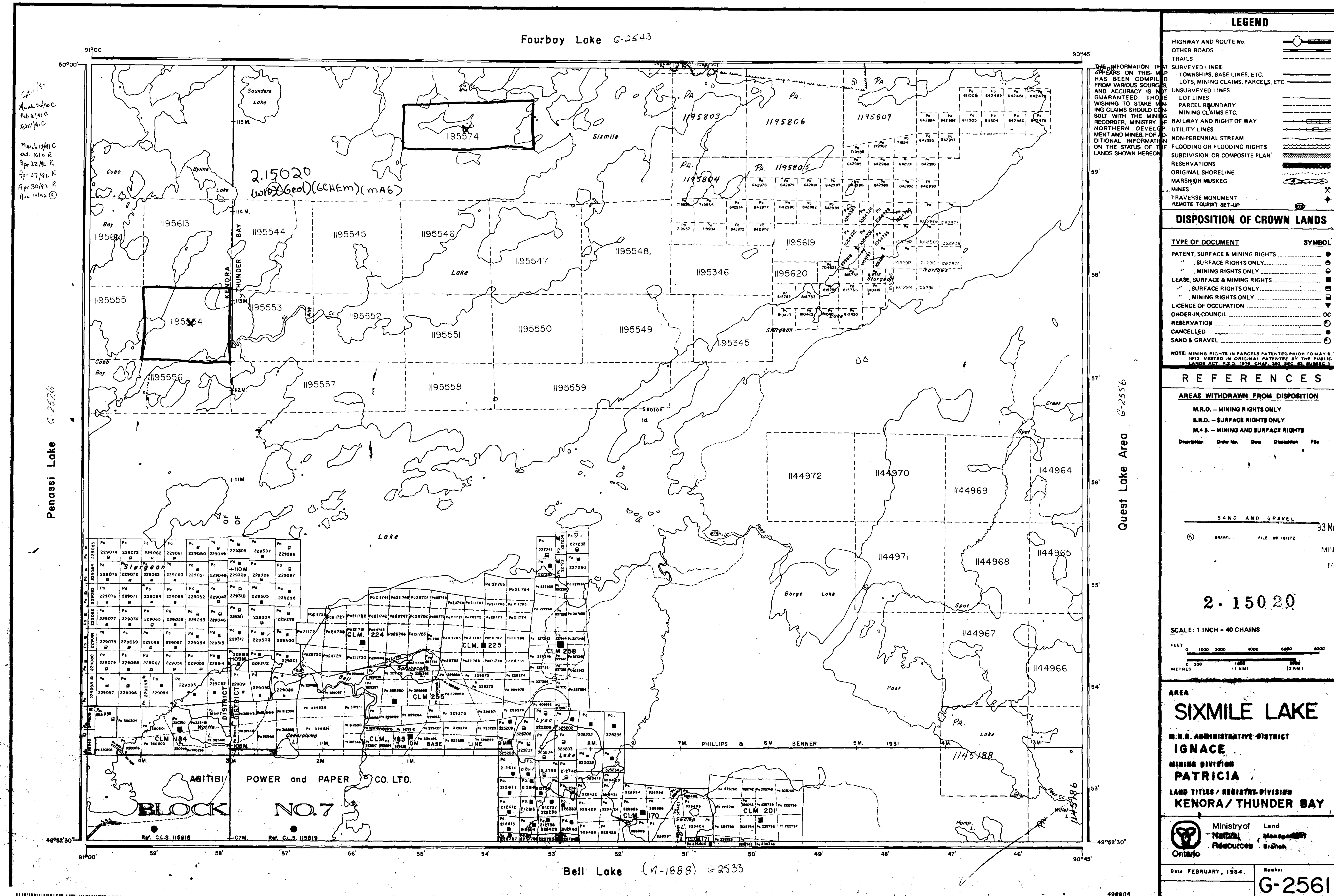
0212 (04/91)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.


Saunders
Lake
115 M.
1195574
Cobb
Byline
Lake
114 M.
1195613
1195544
1195545
1195546
1195547
Lake
KENORA
THUNDER BAY
113 M.
1195553
1195554
Six Mile Cr.
1195552
1195551
1195550
Contiguous
1195556
1195557
1195558
112 M.



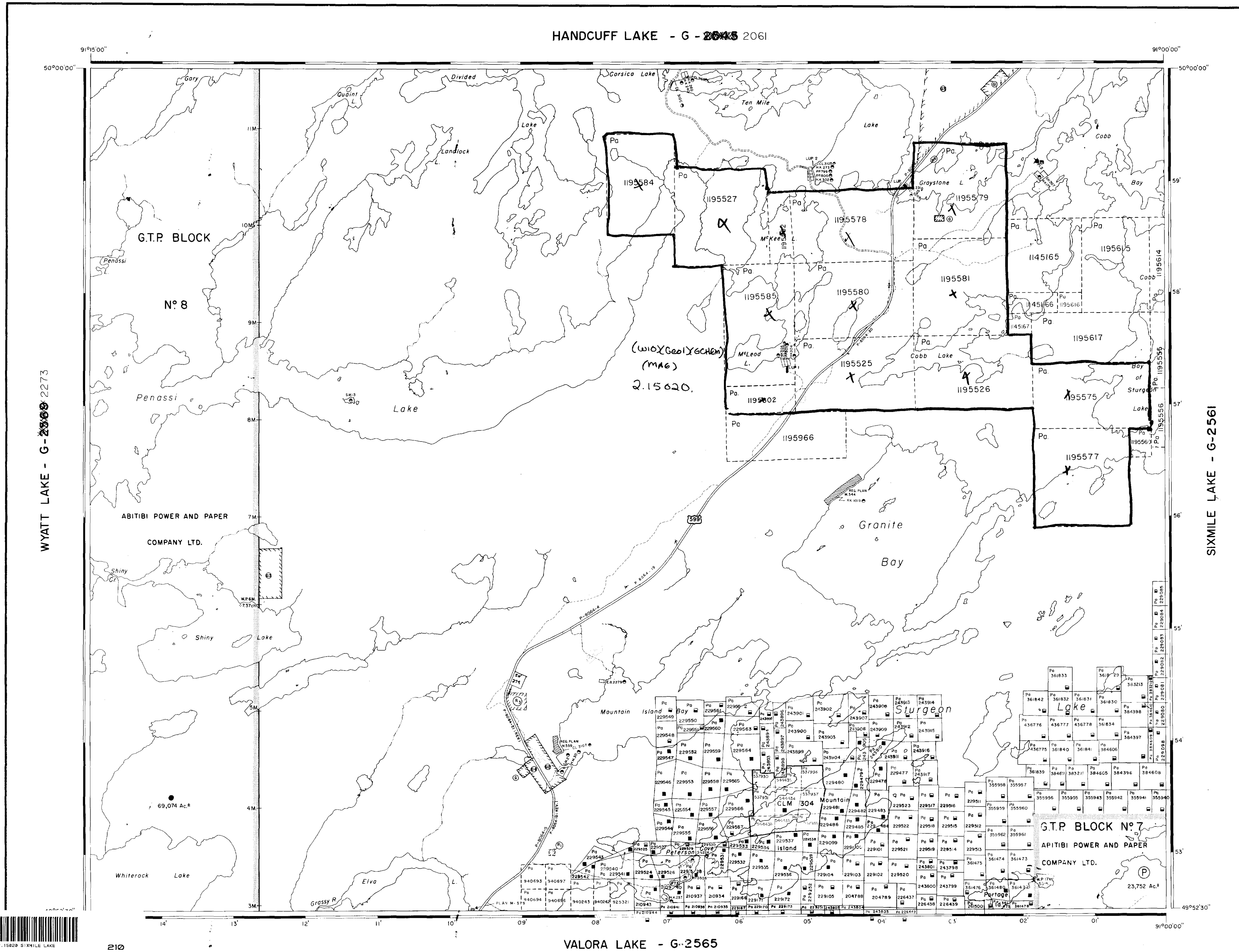
Lake
Cobb
Bay
Graystone
Pa.
1195584
1195527
1195578
1195579
1195583
1145165
1195615
1195581
1195585
1195580
1145166
1195616
1145167
1195617
M^cKee L.
M^cLead L.
1195525
Cobb Lake
1195526
Bay of Sturgeon Lake
1195575
1195802
1195966
1195577
1195560
LUP 2
2.15020



52G15NW1031 2.15020 SIXMILE LAKE

200

TRIM LINE



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 OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M.+ S. - MINING AND SURFACE RIGHTS

	Description	Order No.	Date	Disposition	File
R1	Sec. 36 Withdrawn	10/77	4/2/77	S.R.O.	181905
R2	O.P.P. Tower Site		12/09/86		

93 MAY 17 A9:37

MINING RECORDER
PATRICIA
MINING DIVISION

LUP - LAND USE PERMIT
RC - REMOTE COTTAGE
RTS - REMOTE TOURIST SETUP

SAND AND GRAVEL

G1 M.T.O. PIT No. 949 FILE 182148
G2 M.T.O. PIT No. 950
G3 GRAVEL FILE 182148
G3 GRAVEL FILE 181875, M.N.R. PIT No. 165
G QUARRY PERMIT

2.15020

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

AREA

PENASSI LAKE

M.N.R. ADMINISTRATIVE DISTRICT
DRYDEN
MINING DIVISION
PATRICIA
LAND TITLES / REGISTRY DIVISION
KENORA

RECEIVED
MAY 17 1993
MINING LANDS BRANCH

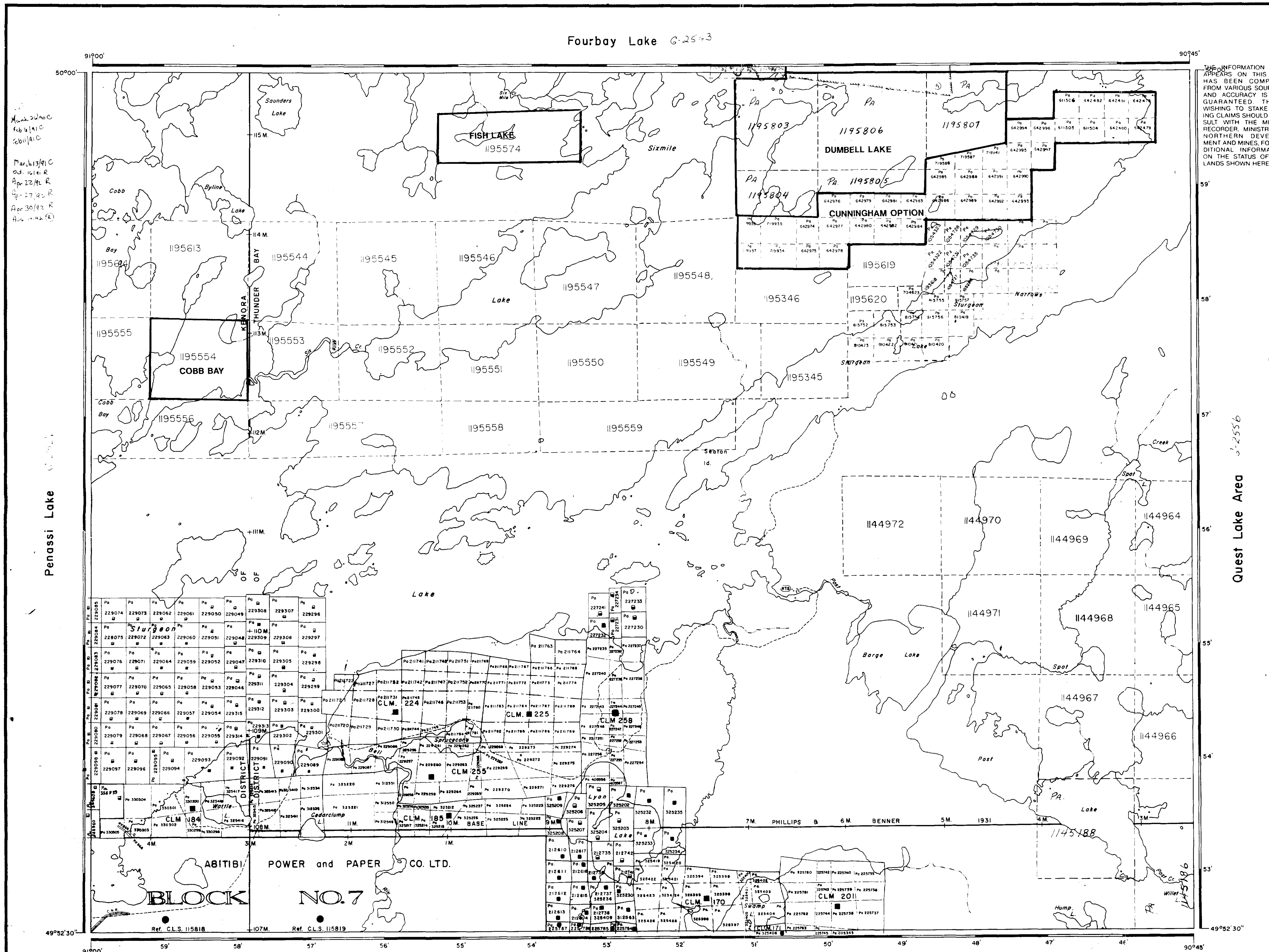
Ministry of Natural Resources
Ontario
Land Management Branch

Date FEBRUARY, 1984

Number G-2526

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

52G15NW1031 2.15020 SIXMILE LAKE



Fourbay Lake G-2543
Bell Lake
Penassi Lake
Quest Lake Area
91°00'
90°45'
50°00'
49°52'30"
FISH LAKE
1195574
DUMBELL LAKE
CUNNINGHAM OPTION
COBB BAY
1195554
Sixmile
Lake
Sturgeon
Narrows
Borge Lake
Spot
Post
Lake
Seaton Id.
Saunders Lake
Byline Lake
Cobb Bay
KENORA
THUNDER BAY
DISTRICT OF
CLM. 224
CLM. 225
CLM 258
CLM 255
CLM 184
CLM 185
CLM 170
CLM 201
Sprucecone
Cedarclump
Wattle
Lyon Lake
Swamp
Hump L.
Willet
BASE LINE
PHILLIPS & BENNER 1931
ABITIBI POWER and PAPER CO. LTD.
BLOCK NO.7
Ref. C.L.S. 115818
Ref. C.L.S. 115819
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

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 OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT
REMOTE TOURIST SET-UP

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊗
SAND & GRAVEL	⊙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

SAND AND GRAVEL

GRAVEL FILE No 18172

SCALE: 1 INCH = 40 CHAINS

AREA

SIXMILE LAKE

M.N.R. ADMINISTRATIVE DISTRICT
IGNACE

MINING DIVISION
PATRICIA

MAP 1

LAND TITLES / REGISTRY DIVISION
KENORA / THUNDER BAY

Ontario Ministry of Natural Resources
Land Management Branch

Date FEBRUARY, 1984

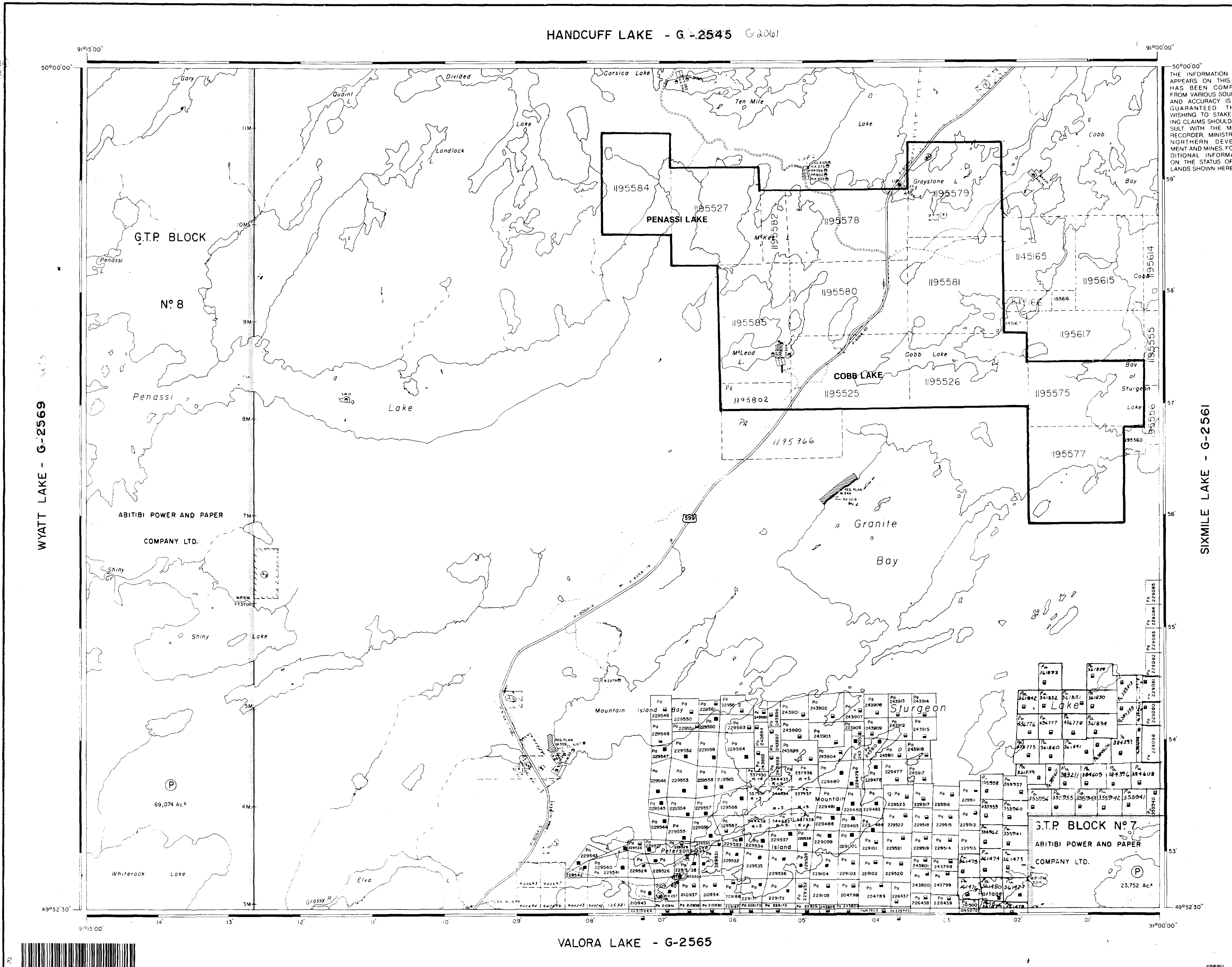
Number G-2561

MAP 1

498904

220

52G15NW1031 2.15820 SIXMILE LAKE



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 OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	
TRAVERSE MONUMENT	
REMOTE TOURIST SET-UP	
REMOTE COTTAGE	

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
SEC 36		4/2/77	S.R.O.	
P.T. POWER SITE		86.12.09	M+S.	Sec. 31(b)

LUP 2 - water lot - Ten Mile Lake Camp

SAND AND GRAVEL

M.T.C. PIT No 949 FILE No 182148
M.T.C. PIT No 950
GRAVEL FILE 182148
GRAVEL FILE 181875, M.N.R. PIT No 165
QUARRY PERMIT

SCALE: 1 INCH = 40 CHAINS

AREA

PENASSI LAKE

M.N.R. ADMINISTRATIVE DISTRICT
IGNACE

MINING DIVISION
PATRICIA

MAP 2

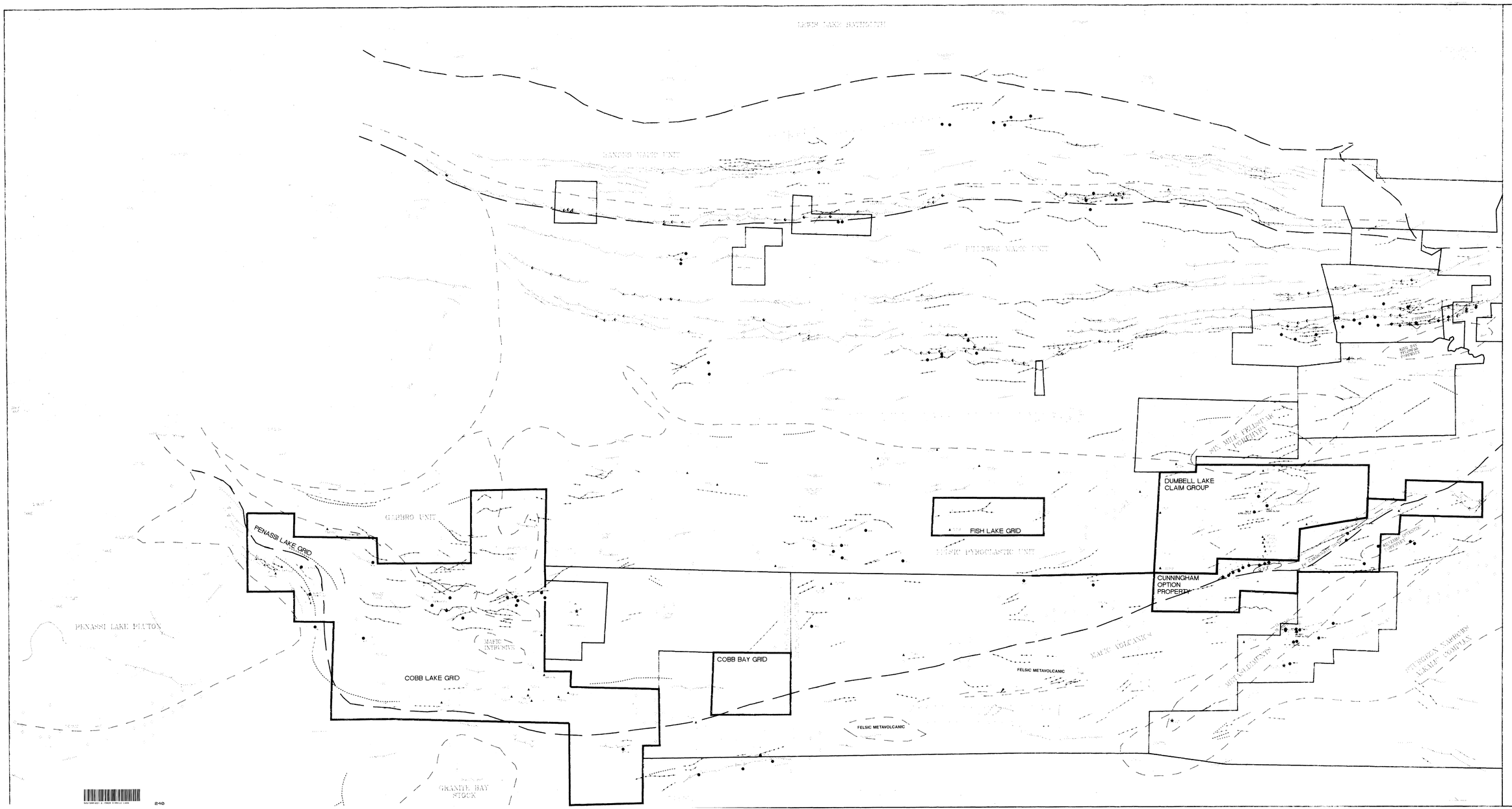
LAND TITLES / REGISTRY DIVISION
KENORA

Ontario — Ministry of Natural Resources — Land Management Branch

Date FEBRUARY, 1984

MAP 2

Number **G-2526**

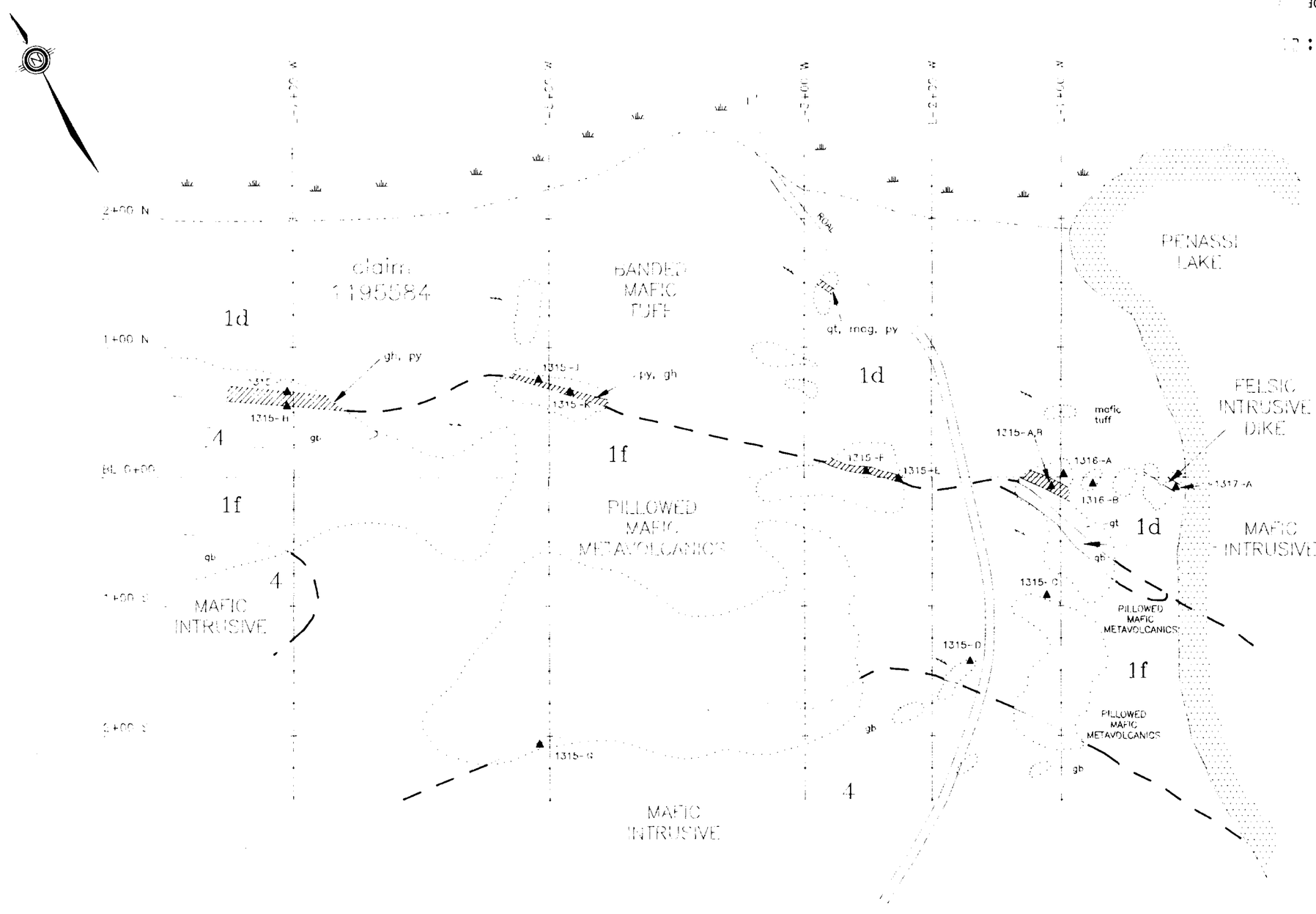


2·15020

MAP 3

noranda

6 MILE LAKE
PROJECT
COMPILATION



LEGEND

- 8 PORPHYRITIC FELSIC INTRUSIVE ROCKS
  - c quartz feldspar porphyry - med to c.g., massive, loc. chloritized, carbonitized
  - d feldspar porphyry - med. grained, massive
- 4 MAFIC INTRUSIVE ROCKS (GABBRO, DIORITE)
  - fine grained, massive, local carbonate, hematitic
- 3 CHEMICAL AND CLASTIC METASEDIMENTS
- 2 FELSIC METASEDIMENTS
  - a porphyritic flows
  - b tuff to lapilli stone
  - c pyroclastic breccia (felsic clasts)
  - d pyroclastic breccia (felsic to mafic clasts)
  - e carbonate-sericite-quartz schist
  - f cherty tuffs
- 1 MAFIC METAVOLCANICS
  - a fine to med grained lava flows, chlorite schist
  - b coarse grained lava flows
  - c porphyritic lava flows
  - d tuff, lapillistone and pyroclastic breccia
  - e flow top and flow breccia
  - f pillowed lava flows
  - g tuffaceous sedimentary rocks

SYMBOLS

- mag : MAGNETITE
- gr : GRAPHITE
- py : PYRITE
- gt : GARNET
- GOSSAN ZONE
- 60 FOLIATION WITH DIP
- 1301-A ROCK SAMPLE LOCATION & NUMBER

50 0 100 200
METERS

noranda

NORANDA EXPLORATION Co., LTD. – THUNDER BAY
N.W. ONTARIO DISTRICT

SIX MILE LAKE PROJECT
PENASSI LAKE GRID

GEOLOGY GRID

Interpreted by : R. FELIX	Scale : 1:2500
Drawn by : R. KRUSE	NTS number :
Revised by :	Project number : 1320
Date : FEBRUARY 1993	File number : PENAS-GL

MAP 4


FELSIC PYROCLASTICS
MAFIC INTRUSIVE
Zn Soil Anomaly
MAFIC METAVOLCANIC FLOWS
QUARTZ FELDSPAR PORPHYRY
FELSIC CRYSTAL TUFF
2.15020
93 MAY 7 AIO:21
MINING RECORDER
PATRICIA
MINING DIVISION
400
METERS
MAP 5
noranda
N.W. ONTARIO DISTRICT
SIX MILE LAKE PROJECT
COBB LAKE GRID
GEOLOGY MAP
Drawn by : P. KRUSE
Revised by :
File number : COBBLAKE
260

LEGEND

5 PORPHYRITIC FELSIC INTRUSIVE ROCKS
- c quartz feldspar porphyry - med to c.g., massive, loc. chloritized, carbonitized
- d feldspar porphyry - med. grained, massive

4 MAFIC INTRUSIVE ROCKS (GABBRO, DIORITE)
- fine grained, massive, local carbonate, hematitic

3 CHEMICAL AND CLASTIC METASEDIMENTS

2 FELSIC METASEDIMENTS
- a porphyritic flows
- b tuff to lapilli stone
- c pyroclastic breccia (felsic clasts)
- d pyroclastic breccia (felsic to mafic clasts)
- e carbonate-sericite-quartz schist
- f cherty tuffs

1 MAFIC METAVOLCANICS
- a fine to med grained lava flows, chlorite schist
- b coarse grained lava flows
- c porphyritic lava flows
- d tuff, lapillistone and pyroclastic breccia
- e flow top and flow breccia
- f pillowed lava flows
- g tuffaceous sedimentary rocks

SYMBOLS

- (S) SULPHIDE OCCURRENCE
- 1301-A ▲ ROCK SAMPLE LOCATION & NUMBER
- T.S.1320-1 THIN SECTION SAMPLE NUMBER
- FOLIATION WITH DIP
- BEDDING WITH DIP

93 MAY 7 A10:21

MINING RECORDER
PATRICIA
MINING DIVISION

2.15020

50 0 100 200
METERS

MAP 6

noranda
NORANDA EXPLORATION Co., LTD. - THUNDER BAY
N.W. ONTARIO DISTRICT

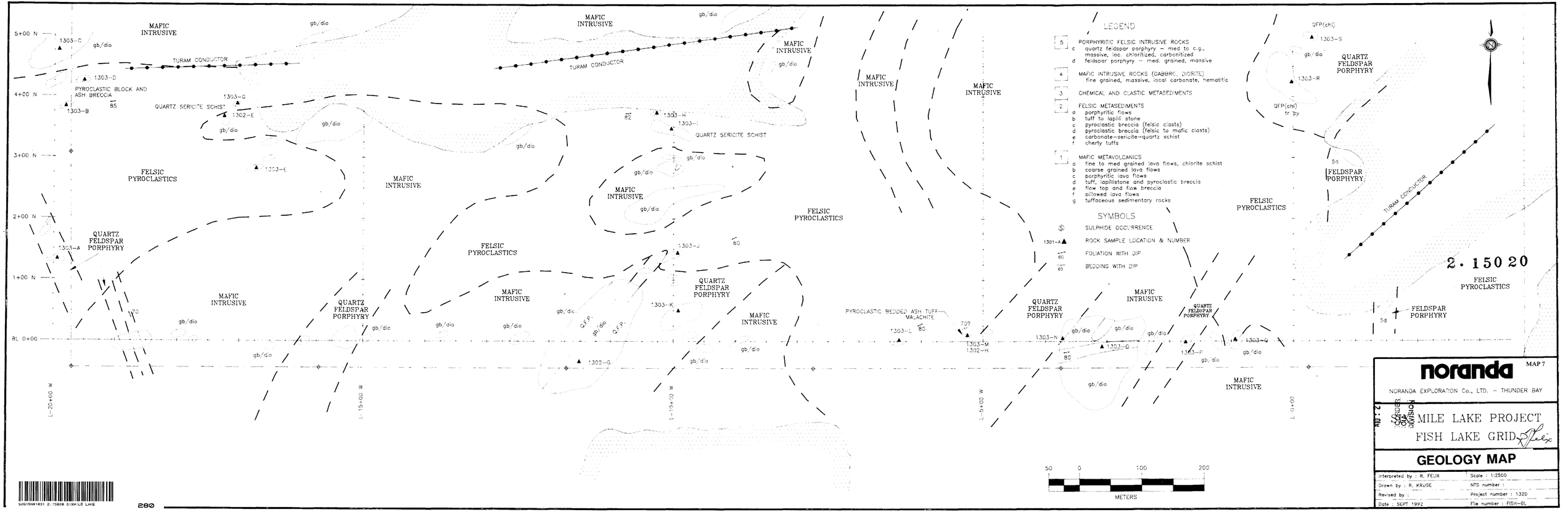
SIX MILE LAKE PROJECT
COBB BAY GRID

GEOLOGY GRID

Interpreted by : R. FELIX	Scale : 1:2500
Drawn by : R. KRUSE	NTS number :
Revised by :	Project number : 1320
Date : SEPT 1992	File number : COBB-BAY

52G15NW1031 2.15020 SIXMILE LAKE

270



noranda

MAP 7

NORANDA EXPLORATION Co., LTD. - THUNDER BAY

NOV 12 1992

MINERAL DEPOSITS DIVISION

MILE LAKE PROJECT

FISH LAKE GRID

GEOLOGY MAP

Interpreted by : R. FELIX	Scale : 1:2500
Drawn by : R. KRUSE	NTS number :
Revised by :	Project number : 1320
Date : SEPT 1992	File number : FISH-GL

S2G1SNW1831 2.15020 SIXMILE LAKE

800 W

600 W

400 W

200 W

200 N

200 N

PENASSI LAKE

Baseline 300 Deg.

0

0

200 S

200 S

800 W

600 W

400 W

200 W

Logging Road

Claim 1195584

Instrument : EDA OMNI IV
Profile Scale 500
Profile Base Value 600
Datum : 57700

Scale 1:5000

50 0 50 100 150 200
(meters)

PENASSI LAKE

MAGNETIC SURVEY

TOTAL FIELD

PROJECT : 1320 NUMBER : SIX MILE LAKE

BASELINE AZIMUTH : 120 deg

DATE : Sept. 1992 NTS : 52 J/2

SURVEY BY : Northwest Geophysics

FILE : m20pen

noranda
Exploration Company Ltd

MAP 8

900W

700W

500W

300W

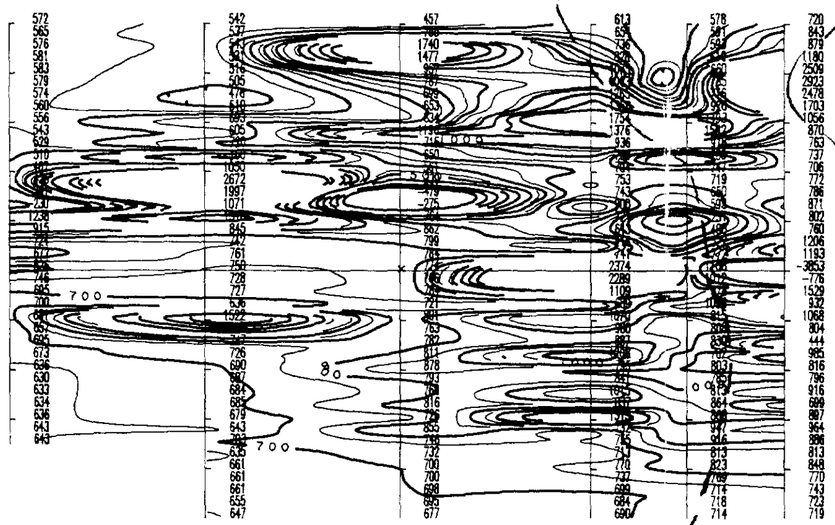
200W

100W

200N

0N BASELINE 120°

200S



PENASSI LAKE

CLAIM 1195584

logging road

Instrument	: OMNI
Field	: TOTAL
Datum	: 57700.0 nT
Contour Interval	: 50 nT
Conductor Axis	:

MAP 9

52G15NW1031 2.15020 SIXMILE LAKE

300

100m 50m 0m 100m 200m

PENASSI LAKE

MAGNETOMETER SURVEY

PROJECT: SIX MILE PROJECT # : 1320
BASELINE AZIMUTH : 120 Deg.

SCALE = 1 : 5000 DATE : 8/20/92
SURVEY BY : NORTH-W NTS : 52 J/2
FILE: M2OPEN
NORANDA EXPLORATION

900W

700W

500W

300W

100W

200N

ON BASELINE 120°

200S

PENASSI LAKE

CLAIM 1195584

logging road

Instrument : MM I
Coil Spacing : 100m
Vertical Scale: 1 cm = 10%
Frequency : 440 Hz
In Phase
Quadrature

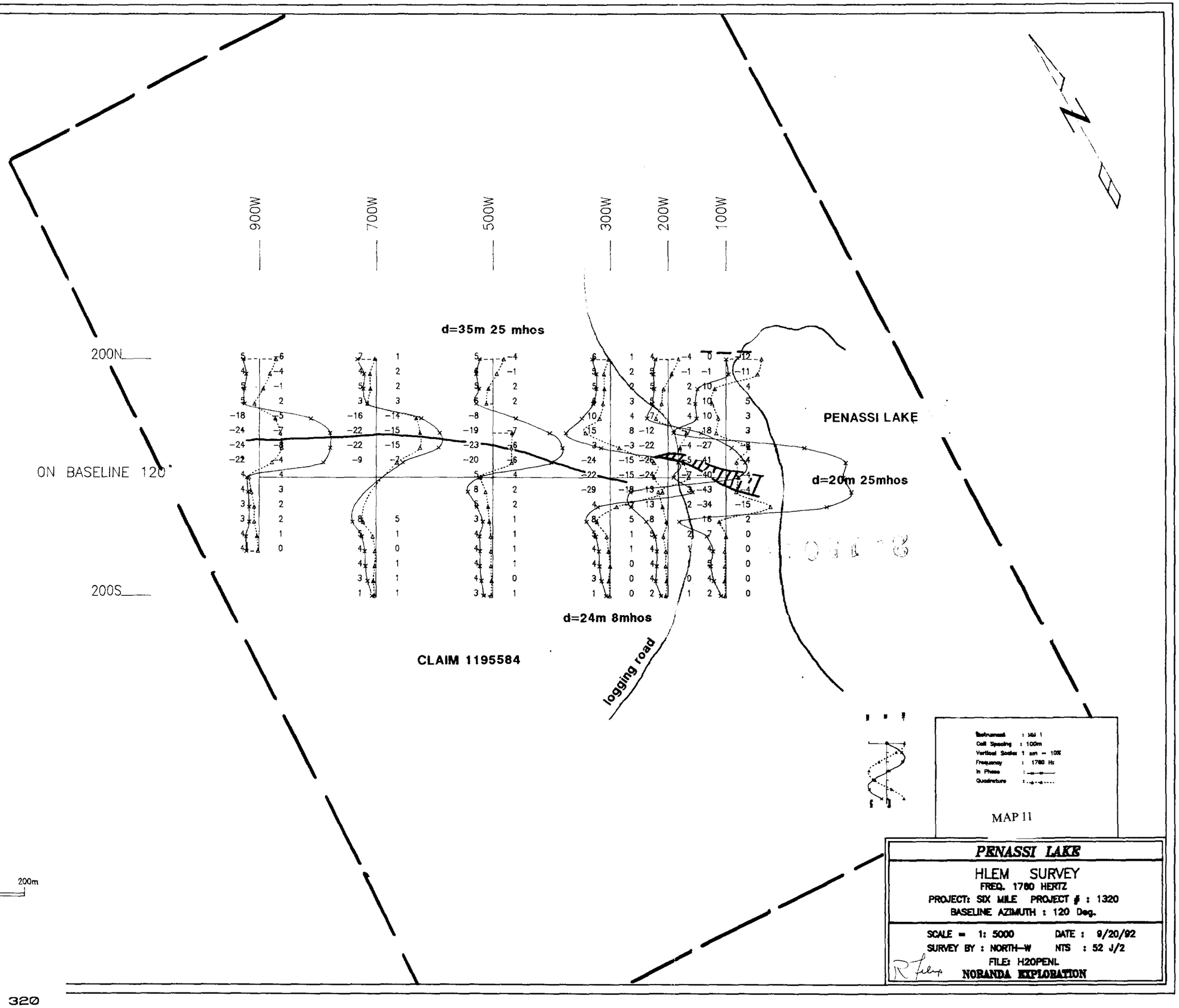
MAP 10

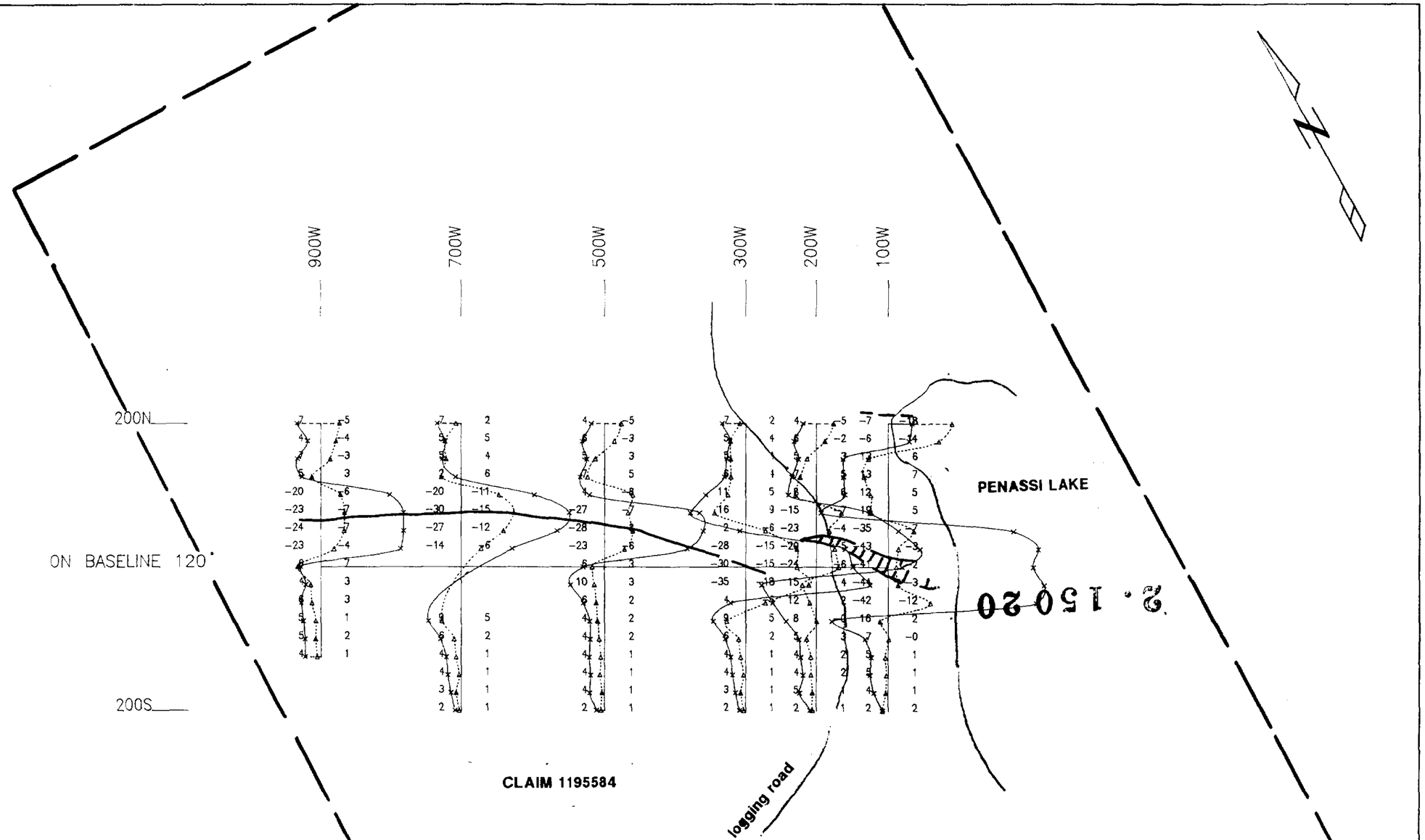
100m 50m 0m 100m 200m

PENASSI LAKE

HLEM SURVEY
FREQ. 440 HERTZ
PROJECT: SIX MILE PROJECT # : 1320
BASELINE AZIMUTH : 120 Deg.

SCALE = 1: 5000 DATE : 9/20/92
SURVEY BY : NORTH-W NTS : 52 J/2
FILE: H2OPENL
NORANDA EXPLORATION





McLEOD LAKE

1195580

800 W | 600 W | 400 W | 200 W | 0 | 200 E | 400 E

600 N

400 N

200 N

0

200 S

1195525

600 N

400 N

COBB LAKE

200 N

0

200 S

1195526

Instrument : EDA OMNI IV
Profile Scale 1000
Profile Base Value 0
Datum : 57700

Scale 1:5000
50 0 50 100 150 200
(meters)

800 W | 600 W | 400 W | 200 W | 0 | 200 E | 400 E

COBB LAKE

MAP 13

MAGNETIC SURVEY
TOTAL FIELD

PROJECT : 1320 NUMBER : SIX MILE LAKE
BASELINE AZIMUTH : 90 deg

DATE : Sept. 1992 NTS : 52 G/14
SURVEY BY : Northwest Geophysics
FILE : m320cob

noranda
Exploration_Company_Ltd

1195580

800W 600W 400W 200W 0E 200E 400E

800N

600N

400N

200N

ON BASELINE 90°

200S

400S

McLEOD LAKE

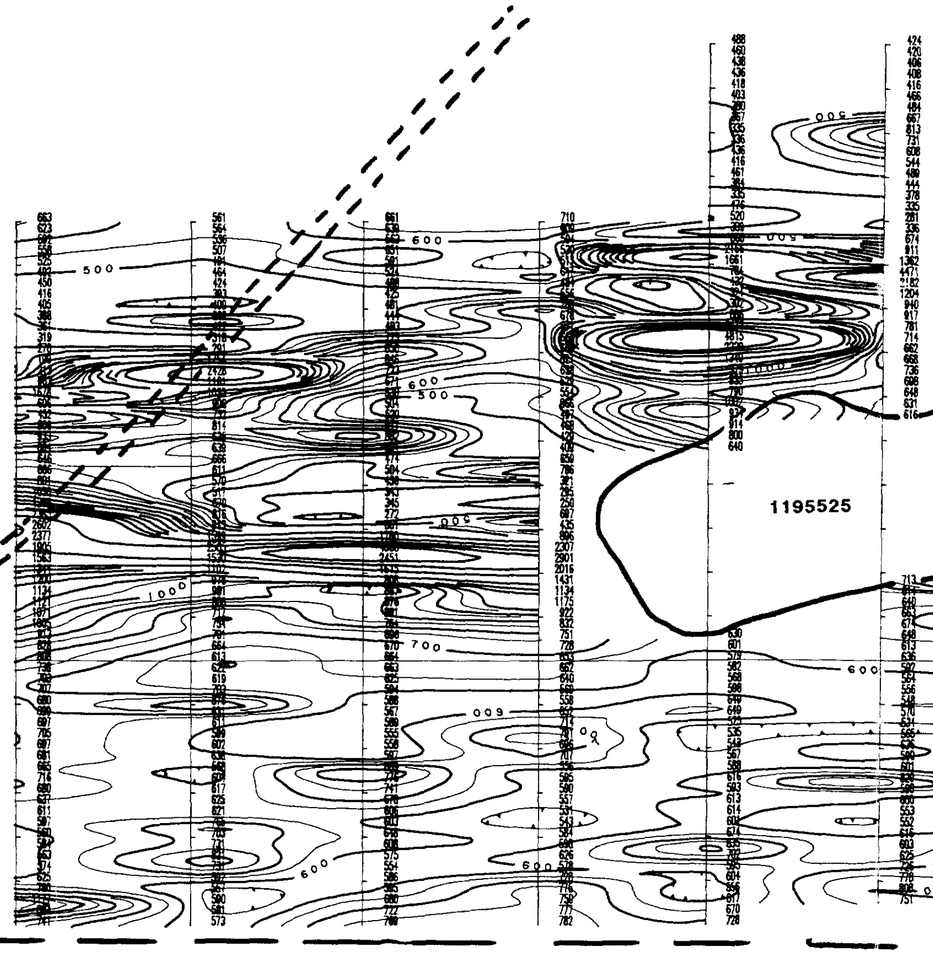
1195585

1195802

COBB LAKE

1195525

1195526



Instrument : 01
Field : TOTAL
Datum : 57700.0 nT
Contour Interval : 50 nT
Conductor Axis :

MAP 14

COBB LAKE

MAGNETOMETER SURVEY

PROJECT: SIX MILE LAKE PROJECT # : 1320
BASELINE AZIMUTH : 90 Deg.

SCALE = 1 : 5000 DATE : 9/25/92
SURVEY BY : NWEST GEOPH NTS : 52 G/14
FILE: M320COB
NORANDA EXPLORATION

00m 50m 0m 100m 200m

52G15NW1031 2.15020 SIXMILE LAKE

1195580

800W 600W 400W 200W 0E 200E 400E

McLEOD LAKE

600N

400N

200N

200S

1195525

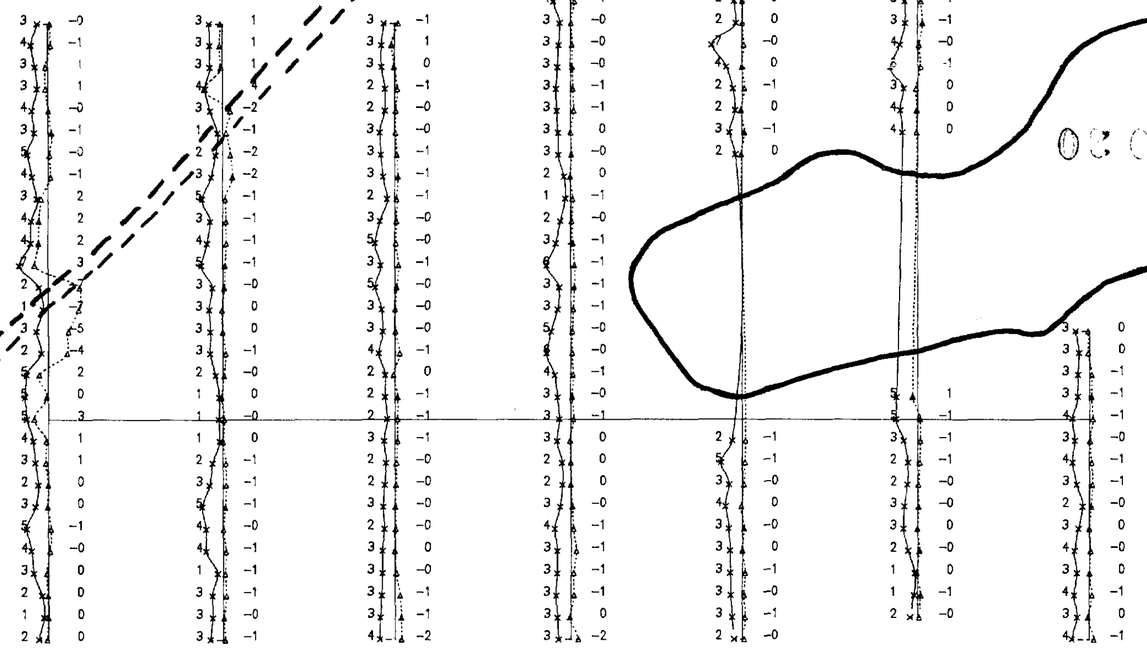
1195585

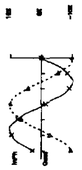
1195802

ON BASELINE 90°

COBB LAKE

1195526





Instrument : MM 1
Coil Spacing : 100m
Vertical Scale: 1 cm = 10%
Frequency : 880 Hz
In Phase :
Quadrature :

MAP 15

100m 50m 0m 100m 200m

COBB LAKE

HLEM SURVEY
FREQ. 880 HERTZ
PROJECT: SIX MILE LAKE PROJECT # : 1320
BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/25/92
SURVEY BY : NWEST GEOP NTS : 52 G/14
FILE: H20COLO
NORANDA EXPLORATION

1195580

800W 600W 400W 200W 0E 200E 400E

N

McLEOD LAKE

1195585

600N

400N

200N

ON BASELINE 90°

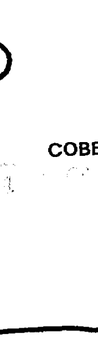
200S

1195802

1195525

COBB LAKE

1195526



Instrument : MM I
Coil Spacing : 100m
Vertical Scale: 1 cm = 10%
Frequency : 1770 Hz
In Phase :
Quadrature :

MAP 16

100m 50m 0m 100m 200m

52G15NW1031 2.15020 SIXMILE LAKE

370

COBB LAKE

HLEM SURVEY
FREQ. 1770 HERTZ
PROJECT: SIX MILE LAKE PROJECT # : 1320
BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/25/92
SURVEY BY : NWEST GEOP NTS : 52 G/14
FILE: H20COLO
NORANDA EXPLORATION

1195580

800W 600W 400W 200W 0E 200E 400E

N

McLEOD LAKE

600N

400N

200N

ON BASELINE 90°

200S

1195525

COBB LAKE

1195526

1195802

Instrument : MM 1
Coil Spacing : 100m
Vertical Scale: 1 cm = 10%
Frequency : 3520 Hz
In Phase :
Quadrature :

MAP 17

100m 50m 0m 100m 200m

COBB LAKE

HLEM SURVEY
FREQ. 3520 HERTZ
PROJECT: SIX MILE LAKE PROJECT # : 1320
BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/25/92
SURVEY BY : NWEST GEOP NTS : 52 G/14
FILE: H320COH
NORANDA EXPLORATION

700W 500W 300W 200W 100W

200N

BASELINE 300

200S

700W	500W	300W	200W	100W
5/114	6/24	15/22	10/34	
7/96	3/18	16/36	13/38	4/14
	6/26	12/18	8/12	15/58
3/16	3/20	9/20	14/30	6/16
7/24	10/56	22/38	18/24	4/4
46/110	12/80	16/24	3/8	9/14
18/48	20/118	5/18	14/16	4/12
3/16	22/82	14/28	11/26	12/16
27/142	36/42	5/18	3/36	15/80
85/48	21/36	40/86	40/80	19/28
78/42	24/72	5/12	10/28	39/100
7/32	22/78	18/44	5/14	10/18
24/52	61/56	17/26	29/16	52/158
14/34	23/132	145/60	10/26	14/108
31/48	17/20	32/20	12/18	39/70
3/20	25/42	32/34	26/54	22/32
21/78	24/28	45/88	4/12	3/6
10/44	119/70	35/48	4/14	41/28
18/82	68/136	41/86	9/26	36/110
11/48	3/26	3/26	12/24	3/16
7/39	2/20	3/28	12/16	2/14

CLAIM 1195584

PENASSI LAKE

logging road

100m 50m 0m 100m 200m

Contour Interval :

MAP 18

PENASSI LAKE

SOIL GEOCHEMICAL SURVEY

PPM Cu / PPM Zn

PROJECT: SIX MILE PROJECT # : 1320

BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 10/21/92

SURVEY BY : MWL NTS : 52G/14

FILE: C20PL

NORANDA EXPLORATION

52G15NW1031 2.15020 SIXMILE LAKE

1195580

1195581

1195585

1800W | 1200W | 1000W | 800W | 600W | 400W | 200W | 0W | 200E | 400E | 1700E | 2700E | 3200E

McLEOD LAKE

COBB LAKE

ZONE A

ZONE B

ZONE C

ZONE D

ZONE E

ZONE F

1195525

1195526

1195575

1195577

1195582

HWY 599

N

C.I. 50 20

Contour Interval :

100m 50m 0m 100m 200m

MAP 19

COBB LAKE

SOIL GEOCHEMICAL SURVEY

PPM Cu / PPM Zn

PROJECT: SIX MILE PROJECT # : 1320

BASELINE AZIMUTH : 90 Deg.

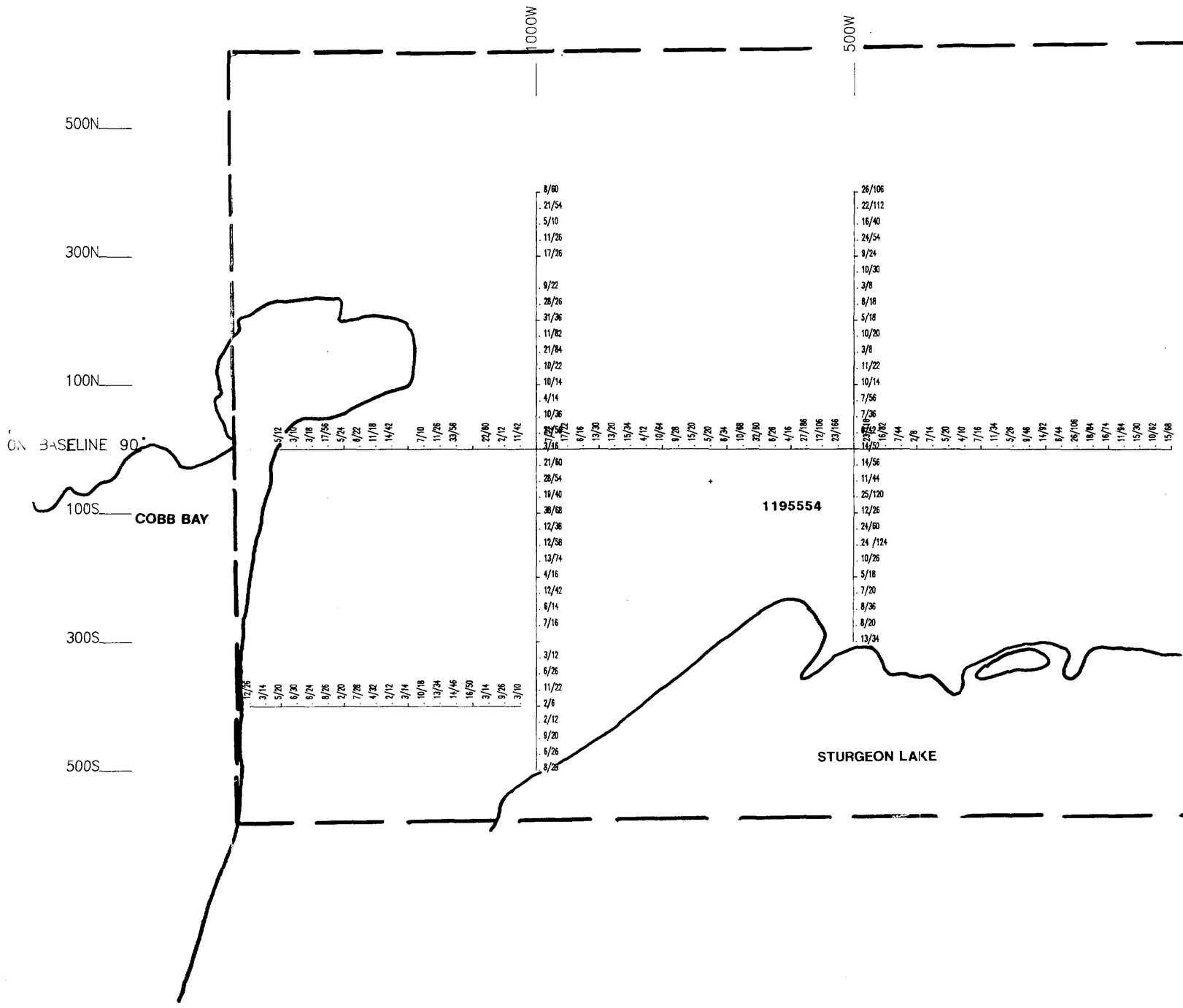
SCALE = 1: 5000 DATE : 10/22/9

SURVEY BY : NTS : 52G/14

FILE: C20CL

NORANDA EXPLORATION

400



COBB BAY

SOIL GEOCHEMICAL SURVEY

PPM Cu / PPM Zn

PROJECT: SIX MILE PROJECT # : 1320

BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 10/22/92

SURVEY BY : NTS : 52G/14

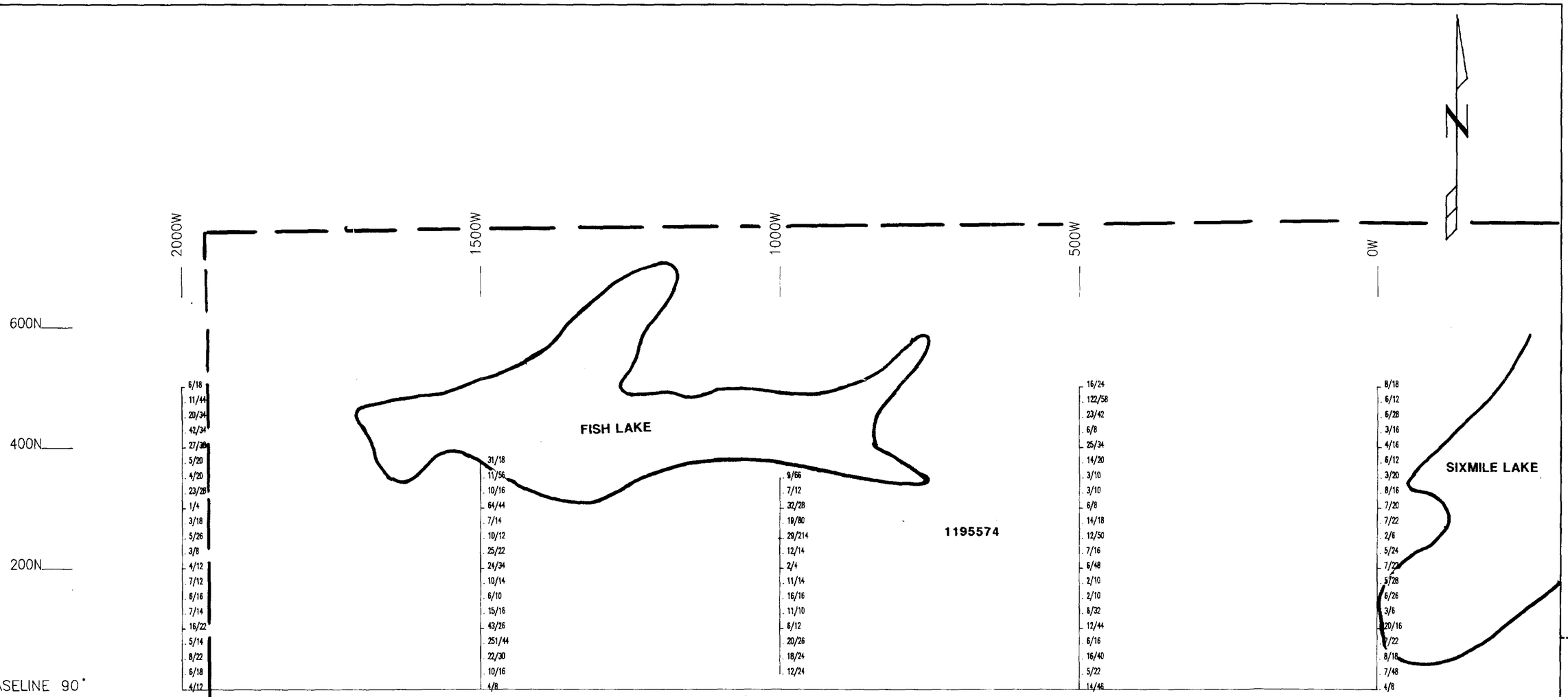
FILE: C20CB

NORANDA EXPLORATION

100m 50m 0m 100m 200m

52G15NW1031 2.15020 SIXMILE LAKE

410



2.15020

Contour Interval :

MAP 21

FISH LAKE

SOIL GEOCHEMICAL SURVEY

PPM Cu / PPM Zn

PROJECT: SIX MILE PROJECT # : 1320

BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 10/22/92

SURVEY BY : NTS : 52G/14

FILE: C20FL

NORANDA EXPLORATION

52G15NW1031 2.15020 SIXMILE LAKE