



52L01SW0004 2.12952 FORGOTTEN LAKE

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REPORT ON
GEOLOGICAL, MAGNETIC AND VLF-EM SURVEYS
CLAIM K1019544
FORGOTTEN LAKE AREA
KENORA MINING DIVISION
NTS: 52L/01

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by

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1. SUMMARY

The Hawes copper-nickel prospect lies within a diabase-gabbro body emplaced in granitoid rocks of the English River Subprovince. The body is believed to be part of a regional Middle to Late Precambrian diabase dyke traceable to possibly as far south as Fort Frances.

The known copper-nickel mineralization, consisting of disseminated to reticulated pyrrhotite, local chalcopyrite and rare pentlandite, occurs adjacent to the barren western chilled contact (diabasic) phase of the dyke; it is best exposed in a number of small pits in three areas over a discontinuous (mostly unexposed) strike length of about 100 metres. The principle mineralization occurs in a lens about 12 metres in length; the zone averages 0.44% Cu and 0.39% Ni across 0.88 m.

Drilling by Stratmat Limited in 1956 shows that the principle lens on surface cannot be traced laterally or vertically for any significant distance. Significant mineralization (assays not available) was encountered in only 4 short X-Ray holes in the immediate vicinity of the surface showing. This does not preclude, however, that other sulphide zones could not occur elsewhere on the contact.

Magnetic data reveal a $\pm 1,300$ nT anomaly in the vicinity of the mineralization. Other anomalies may be due to magnetite-enriched diabase/gabbro (as evidenced by Stratmat drilling), but sulphide (pyrrhotite) mineralization is possible.

VLF-EM profiles show a very weak conductor near a portion of the eastern contact of the dyke, but not over the western (locally sulphidic) contact.

2. LOCATION AND ACCESS

The claims are located at 50°00'18" N latitude and 94°24'26" W longitude, 3 kilometers north of the town of Redditt, and about 0.8 km west of the English River Road. Redditt is situated on the transcontinental C.N.R. tracks (Fig. 1).

Access is readily gained by a 5-minute walk from the Redditt baseball field on the English River Road. This is an approximately 30 kilometer drive for Kenora which lies to the south.

3. PHYSIOGRAPHY AND VEGETATION

The area consists of a large, low ridge of outcrop and outcrop area extending from about $\frac{1}{2}$ km east of the claim, to the western part of the claim, terminating to the north at a small lake, and lessening in elevation to the south. Outcrops in the western part of the claim are low-lying. Overburden is overall quite thin, except in swampy areas.

Outcrop areas are predominated by pure jackpine stands, whereas areas of somewhat thicker overburden are vegetated by poplar and balsam. Black spruce and alders dominate wet areas.

4. THE PROPERTY

The property presently consists of one claim. The status is:

<u>Claim</u>	<u>Recorded</u>	<u>Expiry Date</u>
K1019544	19-09-88	15-12-89*

* on extension

The work discussed in this report is to be applied for assessment credit; approval of all work will extend the expiry date to September 21, 1991.

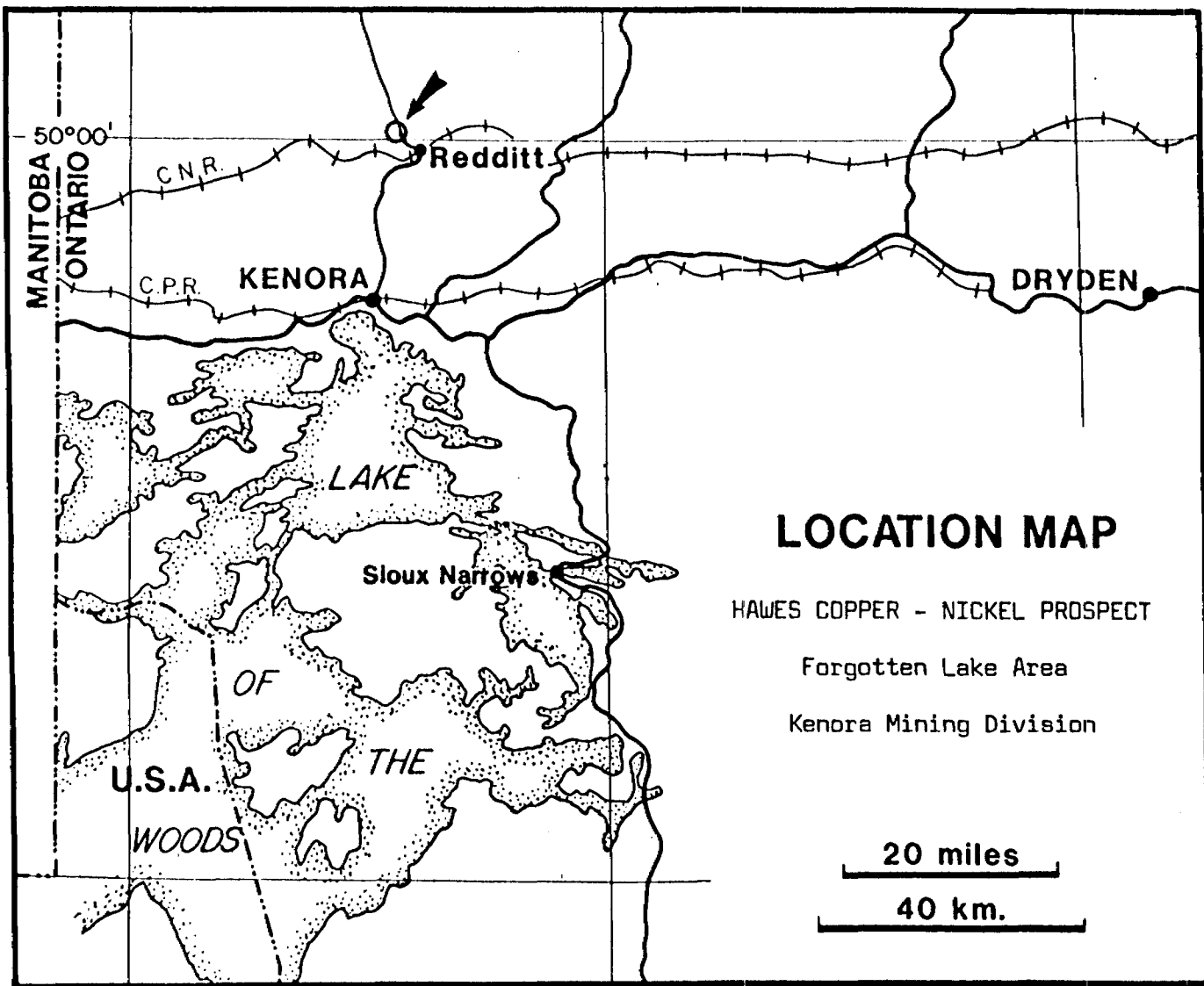




















FIGURE 1

LEGEND

LEGEND MAP 2175

- CENOZOIC**
- PLEISTOCENE AND RECENT**
Sand, gravel, clay
- UNCONFORMITY
- PRECAMBRIAN**
- ARCHEAN**
- FELSIC IGNEOUS AND METAMORPHIC ROCKS**
- GRANITIC ROCKS**
-  5 Undifferentiated granitic rocks.
5a Biotite and (or) hornblende-quartz-feldspar gneiss, augen gneiss, migmatite, granite gneiss, hybrid granite gneiss, amphibolite gneiss.
5b Granite, granodiorite, quartz monzonite, quartz diorite, porphyritic granite and quartz monzonite, pegmatite, quartz porphyry, feldspar porphyry.
- INTRUSIVE CONTACT**
- MAFIC AND ULTRAMAFIC IGNEOUS ROCKS**
-  4 Undifferentiated.
4a Gabbro, metagabbro, metadiorite.
4b Peridotite, serpentinite.
- INTRUSIVE CONTACT**
- METASEDIMENTS^a**
-  3 Undifferentiated.
3a Conglomerate, arkose, greywacke, siltstone, argillite, slate, and derived schists.
3b Metasediments with some metavolcanics.
3c Paragneiss, lit-par-lit gneiss.
-  Iron formation.
- METAVOLCANICS^b**
- FELSIC TO INTERMEDIATE METAVOLCANICS**
-  2 Undifferentiated.
2a Rhyolitic and dacitic tuff, agglomerate and flows.
2b Tuff with some metasediments.
-  Iron formation.
- MAFIC METAVOLCANICS**
-  1 Undifferentiated.
1a Massive lava, pillow lava, tuff, agglomerate, amphibolite, and derived schists and gneisses.
1b Metavolcanics with some metasediments.
-  Iron formation.
- S Sulphide mineralization.**

LEGENDS FOR FIGURE 2

- PHANEROZOIC**
- CENOZOIC** MAP 2443
- QUATERNARY**
PLEISTOCENE AND RECENT
- Sand, gravel, clay.
- UNCONFORMITY
- PRECAMBRIAN**
- MIDDLE TO LATE PRECAMBRIAN**
- MAFIC INTRUSIVE ROCKS**
-  10 Diabase dikes.
- INTRUSIVE CONTACTS**
- EARLY PRECAMBRIAN^a**
- FELSIC AND INTERMEDIATE INTRUSIVE ROCKS**
-  9 Unsubdivided
9a Massive to foliated, equigranular and porphyritic quartz monzonite, granodiorite, ironhjemetite, quartz diorite, and granite.
9b Gneissic to foliated ironhjemetite, quartz monzonite, granodiorite, quartz diorite.
9c Quartz and feldspar porphyries.
-  8 Unsubdivided equigranular and porphyritic monzonite, syenodiorite, syenite, diorite and quartz diorite
8a Monzonite, syenodiorite, syenite
8b Diorite, quartz diorite.
- METAMORPHOSED MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS**
-  7 Unsubdivided mafic intrusive rocks
7a Gabbro, norite, diorite
7b Anorthosite, anorthositic gabbro
-  6 Peridotite, pyroxenite
- INTRUSIVE CONTACTS^b**
- METASEDIMENTS**
- CHEMICAL METASEDIMENTS**
-  5 Unsubdivided ironstone.
5a Magnetite ironstone.
5b Pyrite ironstone.
5c Chert.
- CLASTIC METASEDIMENTS**
-  4 Unsubdivided
4a Pebble and boulder conglomerate
4b Sandstone, siltstone, argillite, and derived schists.
4c Migmatite, metatexite.
- METAVOLCANICS**
- ALKALIC MAFIC METAVOLCANICS**
-  3 Unsubdivided
3a Flows^c
- FELSIC TO INTERMEDIATE METAVOLCANICS**
-  2 Unsubdivided.
2a Flows^d
2b Tuff, agglomerate, and breccia^e
2c Migmatite.
- MAFIC METAVOLCANICS**
-  1 Unsubdivided
1a Massive and pillowed flows.
1b Tuff, agglomerate, and breccia
1c Amphibolite, amphibolite gneiss, and migmatite

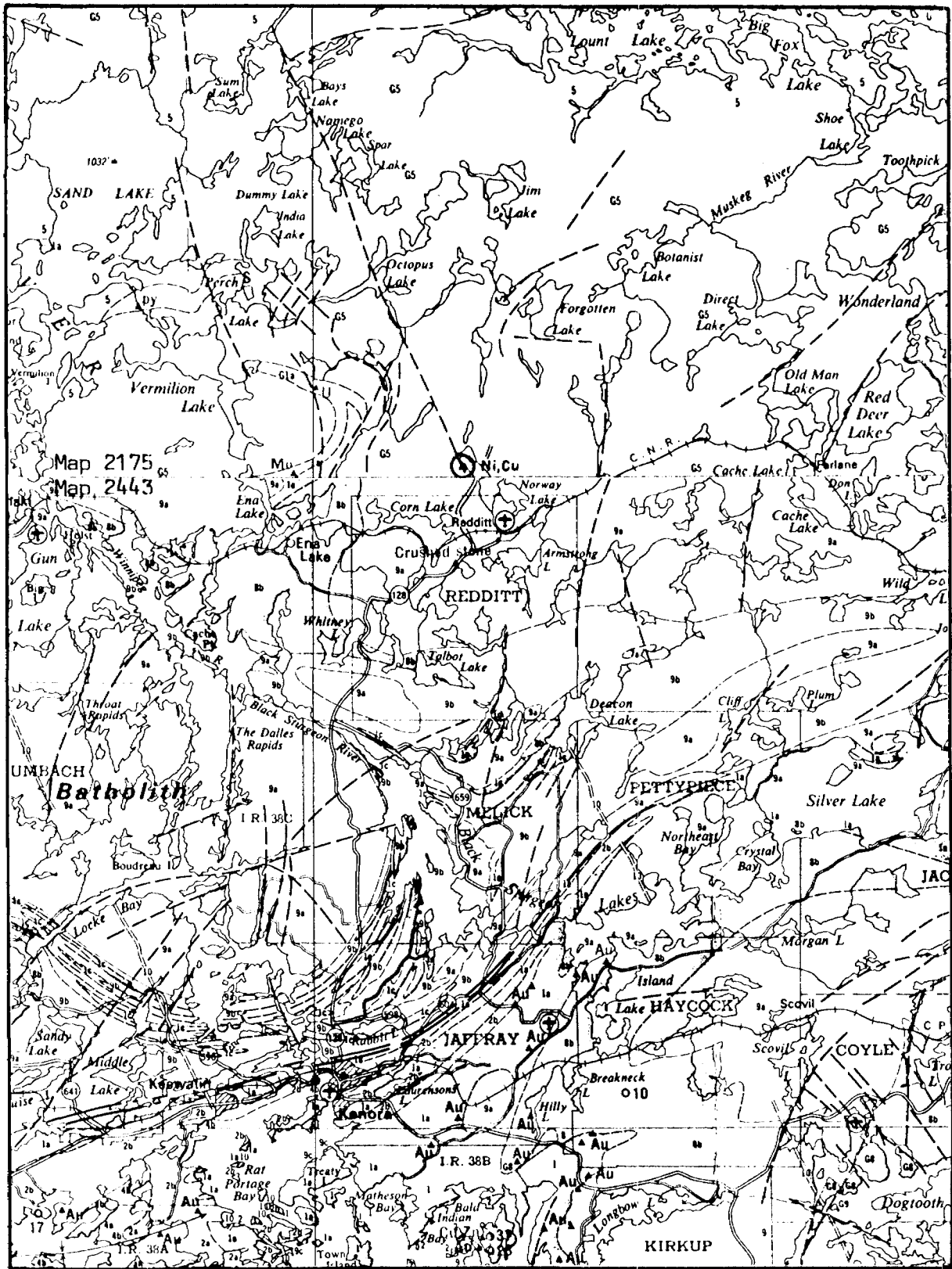


Figure 2. Regional geology and location of Hawes Cu-Ni prospect. From Ont. Geol. Survey Maps 2175 and 2443. Scale: 1 inch=4 miles

5. PREVIOUS WORK

Because the area is not located in a greenstone terrane, available maps mostly consist of compilations of available data (e.g. Davies, 1965). In 1974, the area around the property was mapped at a scale of 1 inch = 1 mile as part of Operation Kenora - Sydney Lake (Breaks et al., 1975); very little outcrop was examined in the vicinity of the property (mafic body not shown), although the location of the copper-nickel occurrence is shown.

In 1956, Stratmat Limited trenched the mineralization and drilled 11 XRay and 5 AX diameter drill holes, totalling 1,623.5 ft (495.0 m) into the 'gabbro' on the present claim (Hawes, 1956); a sixth AX hole (150.0 ft, or 45.7 m) was drilled approximately 2,300 ft (701 m) north-northwest of the pits. Thomson (1957) and Shklanka (1969) report that a mineralized zone (size unspecified) contained 2% combined Cu+Ni, but the source of their information is uncertain since no assays were reported in Stratmat's drill logs. In addition, the government Mineral Deposit Inventory Record (MDIR) for the prospect indicates that Stratmat conducted geophysical surveys, but there is no record of such work in the assessment files. The diamond drilling is discussed more fully below (8.2).

Airborne geophysical surveys in the area consist of the 1961 flying of a magnetic survey by the Ontario Department of Mines and the Geological Survey of Canada (sheet 52L/1, Lount Lake, Geophysics Paper 1180).

6. THE PRESENT SURVEY

All work described in this report was carried out by the author.

On September 16, 1988, the Stratmat pits were located and sampled; a portion of the samples were analyzed in 1988.

Between September 23 and October 1, 1989, a flagged topofil - compass grid was established and VLF-EM (station NLK), magnetic and geological mapping surveys carried out. The magnetic survey was done by looping using a Geometrics GB16 proton magnetometer; the VLF-EM survey with a Geonics EM-16 unit. All readings were taken at 20-metre intervals, with local 10-metre readings during the magnetic survey.

7. GEOLOGY

7.1 Regional Geology

The property lies in the English River Subprovince of the Superior Province. In the general area, bedrock is dominated by Early Precambrian granitoid rocks including: massive porphyritic biotite-granodiorite, and; equigranular, massive biotite-quartz monzonite and granite (Breaks et al., 1975).

Other than the host unit of of the Hawes Prospect, there are no known mafic rocks in the general area.

7.2 Property Geology

7.2.1 Lithologic Units

Granitic Rocks.

Most of the claim is underlain by pink, massive, fine- to medium-grained biotite-granite. It is typically composed of 45% pink K-feldspar, 25% white plagioclase, 25% quartz, 5% biotite and minor epidote. Grain size is in the order of 2-3 mm. Although the unit is overall quite uniform, individual outcrops locally show some variability in composition, with finer-grained, relatively quartz-poor (occasionally less than 5%, or syenitic) varieties containing coarse-grained quartz-rich(+30%) segregations.

Diabase - Gabbro

Previous workers (e.g. Hawes, 1956, and compilation maps) referred to the mafic unit as a gabbro. Indeed, many outcrops display a grain size varying up to 3 mm (aggregates up to 5 mm) and a distinct gabbroic texture. Other outcrops (and old drill core) show local fine-grained (1 mm), marginal chilled phases with distinct diabasic texture, and intermediate grain size varieties (1-2 mm) with a less discernable diabasic texture.

The unit is very fresh, and consists of about equal amounts of plagioclase and pyroxene. The plagioclase occurs in laths in the fine-grained varie-

ties, and aggregates and laths in the coarse-grained rocks. The dark green to black pyroxene is probably augitic, although minor orthopyroxene is suspected. The marginal (chilled) varieties are non-magnetic, whereas the coarser-grained types contain about 3-5% disseminated magnetite and traces of very fine-grained pyrrhotite.

There are local suggestions of faint magmatic differentiation in the dyke, although evidence is obscured by highly variable grain size. The sulphide mineralization in the area of the pits (see 8.1 and Fig. 3) occurs in a probably somewhat more mafic variety of rock than on the eastern side of the same outcrop. There is no banding.

The diabasic - gabbroic unit is about 40-45 metres wide, and the individual offset segments strike at N20°W to N30°W (overall about N22°W).

It is strongly indicated that the mafic rocks are not related to the Early Precambrian English River complex, but rather the regional Middle to Late Precambrian diabase dyke system in the Kenora - Fort Frances area. This is supported by:

- A diabase dyke has been intermittently mapped from Loonhaunt Lake (and probably as far south as Fort Frances) to the southeast corner of Redditt Township, approximately 13 km southeast of the Hawes Prospect. Allowing for lateral offsets, the dyke is virtually onstrike with that on the property (Fig. 2). A linear extending 20 km north-northwest of the Hawes occurrence is probably a continuation of the dyke. The total inferred strike length of this dyke system may therefore be in the order of 125 to 170 km.

- The segments of the dyke on the claim have a strike virtually identical to that of the segments of the dyke to the southeast (about N20°W)

- The regional diabase dyke was examined by the author on a Highway 71 roadcut about 38 km southeast of Kenora, and 54 km southeast of the Hawes occurrence. There, the dyke is texturally identical to that on the Forgotten Lake property, and it contains minor (<1%) very fine-grained, disseminated pyrrhotite.

7.2.2 Structure

Both the granitic and diabase - gabbro units show no sign of post-intrusive deformation.

The dyke is offset sinistrally and dextrally by at least three presumed east-northeast trending faults. This pattern is typical of the main dyke to the southeast.

In areas where the dyke contacts are at least approximately exposed, the dip is not measurable, but it is clear to be steeply dipping. The Stratmat drilling pattern implies that dip is to the east.

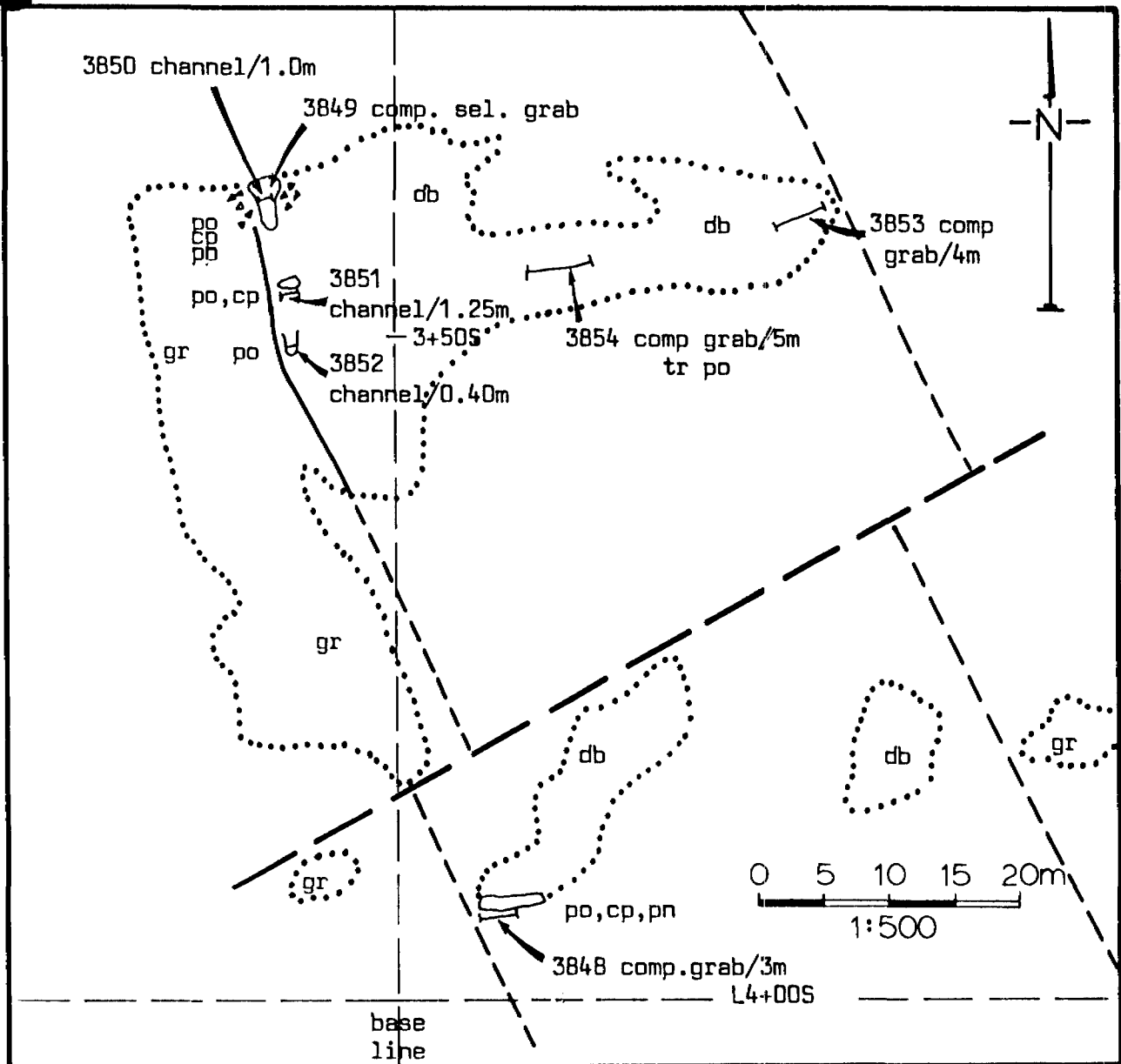
B. MINERALIZATION

8.1 Surface Occurrences and Sampling Results

The sulphide mineralization is exposed in several pits in the southern part of the claim. Plan 1 shows the general distribution, while Figure 3 shows in detail the pits and sampling in the main area. Descriptions of samples and analytical results are given in Appendix I; analytical certificates in Appendix II.

At the southern claim boundary (Plan 1), a shallow blasted pit exposes gabbroic diabase with minor pyrrhotite. This material was not analyzed for copper-nickel, but a composite grab sample (3845) was checked for precious metals (see below).

Just northeast of BL/4+00S, a trench near the western contact of the diabase-gabbro dyke is in relatively mafic, magnetite-bearing rock containing up to 5% blebby-disseminated pyrrhotite, minor chalcopyrite and possible pentlandite (Fig. 3). A composite grab sample (3848) returned 0.19% Cu and 0.03% Ni across 3 metres.



- db diabase, gabbroic
- gr granitic rocks
- ⋯ outcrop
- contact, observed, approx.
- - - fault, approx.
- 3850/
1.0m channel or composite
grab sample interval
- po pyrrhotite
- cp chalcopyrite
- pn pentlandite

FIGURE 3
HAWES COPPER-NICKEL PROSPECT
 Forgotten Lake Area
 Kenora Mining Division

AREA OF PITS
Detailed Plan and Sample Locations

R.M. Kuehnbaum October, 1989

Approximately 50 metres to the north are 3 shallow pits in the best exposed sulphide mineralization (Fig. 3), covering a strike length of about 12 metres. Pyrrhotite predominates, and is disseminated to blebby to net-textured. Chalcopyrite occurs intergrown with, and in rough proportion to the pyrrhotite; pentlandite is rare. On hand specimen scale, total sulphide contents vary from 1-15% (chalcopyrite absent to about 5%). The mineralization lies close to, but not at the dyke/granite contact in a fine-grained (diabasic) phase of the dyke which is also possibly somewhat more mafic than the relatively coarse-grained and plagioclase-rich part of the dyke.

From the main pits, channel sampling returned the following (Fig. 3):

#3850	0.45% Cu, 0.03% Ni / 1.0 m
#3851	0.41% Cu, 0.80% Ni / 1.25 m
#3852	0.49% Cu, 0.02% Ni / 0.40 m
average	<hr/> 0.44% Cu, 0.39% Ni / 0.88 m

A composite grab of selected sulphide-rich rubble from the northern pit (3849) returned 0.76% Cu and 0.15% Ni.

All of the sulphide-bearing rocks from all pits were analyzed for gold, palladium and platinum (3845, 3848, 3849, 3850, 3851, 3852). They contain 22-88 ppb Au, 14-50 ppb Pd and 35-100 ppb Pt (49-144 ppb Pd + Pt). Although the contents are anomalous, they cannot be considered economically significant. A 24-element ICP-AES scan of sample 3849 was also done (see Appendix II for results). Metal contents are normal.

In order to test the PGM-bearing potential of the unmineralized portions of the mafic unit, composite grab samples were taken across the central and eastern portions of the dyke at two localities (Plan 1 and Fig. 3; 3846, 3847, 3853 and 3854). The last two samples contain 54 and 65 ppm Cu, and 16 and 18 ppm Ni, respectively. All samples contain <2-6 ppb Au, <2 ppb Pd and <5 ppb Pt.

8.2 Stratmat Diamond Drilling

The precise locations of 1956 diamond drill holes, and the relative locations of the AX and XRay holes are in some doubt. A sketch map of the drill holes provided by Hawes (1956) does not correspond well to the logs of either set of holes. The collar locations and attitudes of holes shown on Plan 1 is based on the following assumptions:

- the AX and XRay holes are referenced to the same grid.
- the 4 XRay holes with the best mineralization are beneath the set of three pits west of the base line near 3+40 to 3+50S; this is supported by the assumption that the initial holes would have tested the best mineralization (XR-1 to XR-4). A drill hole was found in bedrock just east of the pits.
- dumped AX core found on outcrop on line 3+00S at 0+20W is probably from a drill hole (AX-5) drilled on that outcrop.

It should be noted that, although approximate, XRay hole locations are probably within 5-10 metres of their actual locations. The locations of the AX holes may differ substantially.

A summary of the 16 drill holes is given in Appendix III. Stratmat referred to the body as 'gabbro'.

In the approximately 160 metres of strike length drill tested, sulphide mineralization encountered is mostly weak. The exceptions are holes XR-1 to XR-4 where fine- to coarse-grained (blebby), "fair" to "good" (Stratmat terms) pyrrhotite + chalcopyrite mineralization occur over intersections of 2.5 to 7.4 ft (0.76 to 2.25 m); unfortunately, no assays are available. Other holes are barren, or carry trace or "minor" sulphides. Pyrite appears to be a local, late-stage mineral, occurring largely on fracture planes in the 'gabbro'.

The XRay holes consistently encountered a 2.0-9.9 ft (0.6-3.0 m) chilled western (diabasic) contact phase of the dyke. This grades into a fine-grained 'gabbro' phase and, in turn, a coarse-grained 'gabbro' phase to the east. The

chilled phase rarely contains sulphides, and the coarser phase contains magnetite. The sulphide mineralization in holes XR-1 to -4, as on surface, lies on the eastern margin of the chilled contact (diabasic) phase.

As indicated by the surface mapping, the 1956 diamond drilling showed that the pyrrhotite-chalcopyrite mineralization in the pit area is in a lens near the western contact. The drilling, however, covered no more than 150 m of strike length, and the possibility of other sulphide lenses either along strike or at depth is not precluded.

9. GEOPHYSICAL INTERPRETATION

9.1 Magnetic Survey (Plan 2)

Magnetic response over the granitic rocks varies from slightly less than 60,000 nT to just over 60,300 nT, mostly in the range 60,050 to 60,150 nT.

The diabase-gabbro dyke is roughly demarcated by the 60,200 nT contour. Peak amplitudes across the dyke vary up to +61,500 nT (BL/3+60S). The highest reading is at the western contact of the dyke and likely reflects sulphide mineralization exposed in the pits just to the north.

On lines 3S and 2S, there are two peaks across the dyke; these may reflect two parallel anomalies somewhat obscured by the contouring bias. Stratmat drill holes thought to lie near L3S encountered no significant sulphides, suggesting that the anomalies are due to magnetite enrichment. The magnetic disturbance on L2S may also be due to magnetite, but the possibility of sulphide (pyrrhotite) mineralization cannot be excluded.

9.2 VLF-EM Survey (Plan 3)

The locations of the conductors shown on Plan 3 were interpreted by F.L. Jagodits, Consulting Geophysicist, Excalibur International Geoconsultants Ltd., Mississauga, Ontario.

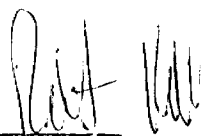
Coupling between the trend of the dyke (and any possible sulphide mineralization) and the transmitter (NLK) is poor. Nonetheless, some response is apparent.

A very weak conductor lies on the eastern margin of the diabase-gabbro dyke between lines 2S and 4S; it probably reflects the eastern contact.

A north-northwest trending, relatively moderate to strong conductor lies 40 to 60 metres west of the dyke and is traceable from L0 to L4S. The location corresponds to the western limit of the outcrop ridge where it abuts somewhat swampy ground. Although the conductor may be due entirely to, or at least partly enhanced by the wet terrane, the trend of the conductor, which is parallel to the diabase-gabbro dyke, suggests that the ridge edge itself may reflect a fault or fracture.

Since no test line was run over the exploration pits, the VLF-EM response over the best known sulphide mineralization is unknown.

Respectfully submitted,



Robert M. Kuehnbaum, M.Sc., F.G.A.C.

December 7/89.

date

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Breaks, F.W., Bond, W.D., McWilliams, G.H., Gower, C.F., and Stone, Denver, 1975. Operation Kenora - Sydney Lake, Kenora - Minaki Sheet, District of Kenora. Ont. Div. Mines Prelim. Map P.1030. Geol. Ser. Scale 1 inch to 1 mile, or 1:63,360.

Davies, J.F., 1965. Lake of the Woods Sheet. Ont. Dept. Mines Prelim. Map P.281. Scale 1 inch to 2 miles, or 1:31,680.

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AUTHOR'S QUALIFICATIONS

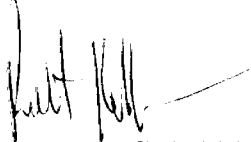
I, Robert Martin Kuehnbaum, of 3101 D'Hagan Drive, Mississauga, Ontario, L5C 2C4, hereby certify that:

1. I am a graduate of the University of Toronto with B.Sc. (1971) and M.Sc. (1973) degrees in Geology.
2. I have been continuously practicing my profession since 1974 as an employee of mining exploration firms and, since 1986, as a Consulting Geologist (RMK Resource Management).
3. I am a Fellow of the Geological Association of Canada, and a Member of the Canadian Institute of Mining and Metallurgy.
4. I am the registered holder of the claim described in this report.
5. This report is based on examination of published government information and a review of assessment data contained in the Kenora Resident Geologists's and Toronto files, and field work carried out by myself on Septmeber 16, 1988 (initial sampling examination), and the period September 23 to October 1, 1989 (geological, magnetic and VLF-EM surveys).

Signed and sealed

This 7th day of December, 1989

at Mississauga, Ontario



Robert M. Kuehnbaum, M.Sc., F.G.A.C.

APPENDIX I
ROCK DESCRIPTIONS

3845. Composite grab of blasted rubble and bedrock in pit. Medium-grained gabbroic diabase. <1 to 5-10% disseminated and reticulated pyrrhotite.
34 ppb Au, 34 ppb Pd, 40 ppb Pt
3846. Composite grab of 7-metre interval of medium-grained gabbroic diabase. 6-13 m east of western contact. 50% plagioclase, 50% pyroxene. Abundant magnetite. Barren of sulphides.
4 ppb Au, <2 ppb Pd, <5 ppb Pt, 54 ppm Cu, 16 ppm Ni
3847. Composite grab of diabase of 4 m interval at eastern contact. 2 m interval at contact somewhat chilled and non-magnetic; medium-grained and magnetic away from contact. Trace very fine-grained pyrrhotite.
6 ppb Au, <2 ppb Pd, <5 ppb Pt, 65 ppm Cu, 18 ppm Ni
3848. Composite grab/ 3 metres. in trench. Limonite-stained, relatively mafic gabbroic diabase. Magnetite-bearing, 1-5% fine- to coarse-grained blebs of pyrrhotite, <1% fine-grained chalcopyrite.
22 ppb Au, 14 ppb Pd, 35 ppb Pt, 0.19% Cu, 0.04% Ni
3849. Composite grab of selected sulphide-rich rubble of gabbroic diabase from pit. Average about 8% pyrrhotite, 2% chalcopyrite.
88 ppb Au, 58 ppb Pd, 85 ppb Pt, 0.76% Cu, 0.15% Ni
3850. Chip/1.0 m. Mineralized mafic gabbroic diabase. 2-15% sulphides.
78 ppb Au, 40 ppb Pd, 100 ppb Pt, 0.45% Cu, 0.03% Ni
3851. Chip/1.25 m. Gabbroic diabase. 2-15% pyrrhotite + chalcopyrite (up to 5%). Central pit.
62 ppb Au, 50 ppb Pd, 70 ppb Pt, 0.41% Cu, 0.80% Ni
3852. Chip/0.40 m. Limonite-stained gabbroic diabase. Sulphide-poor (1% pyrrhotite).
50 ppb Au, 46 ppb Pd, 98 ppb Pt, 0.49% Cu, 0.02% Ni
3853. Composite grab of 4 m interval on east side of outcrop. Gabbroic diabase.
<2 ppb Au, <2 ppb Pd, <5 ppb Pt
3854. Composite grab of 5 m interval of gabbroic diabase about 6-11 m east of pits. Trace pyrrhotite.
<2 ppb Au, <2 ppb Pd, <5 ppb Pt

APPENDIX II

ANALYTICAL CERTIFICATES



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
450 MATHESON BLVD. E. UNIT 54, MISSISSAUGA,
ONTARIO, CANADA L4Z-1R5
PHONE (416) 890-0310

To: KUEHNBAUM, MR. ROBERT

3101 O'HAGAN DR.
MISSISSAUGA, ON
L5C 2C4

Project:
Comments:

**Page No. : 1
Tot. Pages: 1
Date : 5-OCT-88
Invoice # : I-8824349
P.O. # :

CERTIFICATE OF ANALYSIS A8824349

SAMPLE DESCRIPTION	PREP CODE	Au ppb AFS	Pd ppb AFS	Pt ppb AFS	Cu %	Ni %				
3845	205 ---	34	34	40	---	---				
3849	205 ---	88	58	85	0.76	0.15				
3851	205 ---	62	50	70	0.41	0.80				
3853	205 ---	< 2	< 2	< 5	---	---				
3854	205 ---	< 2	< 2	< 5	---	---				

B. Swartz



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
450 MATHURON BLVD., E. UNIT 54, MISSISSAUGA,
ONTARIO, CANADA L4Z-1R3
PHONE (416) 590-0310

To: KUBHNBAUM, MR. ROBERT

3101 O'HAGAN DR.
MISSISSAUGA, ON
L3C 2C4

Project: FORGOTTEN LAKE
Comments: ATN: R. KUBHNBAUM

Page No. : 1
Tot. Pages : 1
Date : 4-DEC-89
Invoice # : 1-8930654
P.O. # :

CERTIFICATE OF ANALYSIS A8930654

SAMPLE DESCRIPTION	PREP CODE	Au ppb AFS	Pd ppb AFS	Pt ppb AFS	Cu ppm	Ni ppm	Cu %	Ni %			
3846	208	4	< 2	< 5	54	16	---	---			
3847	208	6	< 2	< 5	65	18	---	---			
3848	208	22	14	35	---	---	0.19	0.04			
3850	208	78	40	100	---	---	0.45	0.03			
3852	208	50	46	98	---	---	0.49	0.02			

CERTIFICATION :

B. Caughlin

12/05/89

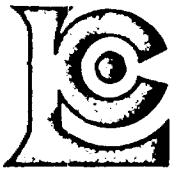
10:08

0804984 0218

CHEMEX LABS

--- CHEMEX ON

003/003



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
450 MATHESON BLVD. E. UNIT 54 MISSISSAUGA
ONTARIO, CANADA L4Z-1R5
PHONE (416) 890-0310

3101 O'HAGAN DR.
MISSISSAUGA, ON
L5C 2C4

Project :
Comments :

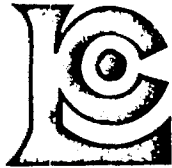
tot. Pages: 1
Date : 4-OCT-88
Invoice #: I-8824350
P.O. #

CERTIFICATE OF ANALYSIS A8824350

SAMPLE DESCRIPTION	PREP CODE	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)
3849	299-232	< 1	40	156	590	< 2	< 2	< 0.5	115	1074	130	13.45	1490	101	2.48

CERTIFICATION :

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
450 MATHESON BLVD. E. UNIT 54, MISSISSAUGA,
ONTARIO, CANADA L4Z-1R5
PHONE (416) 890-0310

To: KUEHNBAUM, MR. ROBERT

3101 O'HAGAN DR.
MISSISSAUGA, ON
L5C 2C4

Project :
Comments:

**Page No. : 1-B
Tot. Pages: 1
Date : 4-OCT-88
Invoice # : I-8824350
P.O. #

CERTIFICATE OF ANALYSIS A8824350

SAMPLE DESCRIPTION	PREP CODE		V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
	3849	299	232	364	5.49	< 0.5	5.05	7000	2.0	1.06	83	1.40

CERTIFICATION :

B. Coughlin

APPENDIX III

Summary of Stratmat Limited diamond drill hole results.

Hole No.	Location	Azimuth	Inclin.	Geology & Mineralization
XR-1	0+14.7SE/ 0+25NE	S52°W	-46°	0-2.5 ft. casing 2.5-24.5 gabbro. 'Good' fine- and coarse-grained po,cp 14.8-22.0 chilled barren phase 22.5-24.5
XR-2	0+14.7SE/ 0+25NE	S52°W	-60°W	0-3.0 casing 3.0-25.7 gabbro. 'Fair' to 'good' coarse-grained po,cp 14.4-21.8 chilled barren contact 23.5-35.7 25.7-30.0 granite
XR-3	0+14.7SE/ 0+75NE	S52°W	-45°	0-5.5 casing 5.5-61.8 gabbro. 'Fair' po,cp 56.5-59.0 chilled contact 59.0-61.8 61.8-62.0 granite
XR-4	0+14.7SE/ 0+75NE	S52°W	-60°	0-5.0 casing 5.0-8.0 syenite (granite) 8.0-84.5 gabbro. 74.5-77.5 'fair' to 'good' po, minor cp,py. chilled contact 79.0-84.5 84.5-86.0 granite
XR-5	0+70.7SE/ 0+25NE	S52°W	-45°	0-1.0 casing 1.0-29.0 gabbro. Minor po,py,cp 22.5-25.5 chilled contact 25.5-29.0
XR-6	0+70.7SE/ 0+50NE	S52°W	-45°	0-1.0 casing 1.0-60.0 gabbro, rare po 52.0-60.0 chilled contact 60.0-61.5 granite
XR-7	0+70.7SE/ 0+75NE	S52°W	-45°	0-1.0 casing 1.0-91.4 gabbro, barren 86.0-91.4 chilled contact 91.4-91.6 granite
XR-8	1+20SE/ 0+25NE	S52°W	-45°	0-1.0 casing 1.0-37.6 gabbro, rare po,cp,py 30.0-37.6 chilled contact 37.6 granite
XR-9	0+29NW/ 0+50NE	S52°W	-45°	0-7.0 casing 7.0-53.5 gabbro. Rare po,cp,py 47.0-53.5 chilled contact 53.5-55.9 granite
XR-10	0+00/ 0+50NE	S52°W	-65°	0-6.0 casing 6.0-64.6 gabbro. Rare cp,po,py 60.0-64.6 chilled contact 64.6-66.0 granite

Hole NO.	Location	Azimuth	Inclin.	Geology & Mineralization
XR-11	1+40Nw/ 0+44NE	S58°W	-40°	0-3.0 casing 3.0-62.5 gabbro, barren 52.6-62.5 chilled contact 62.5 granite
AX-1	0+00/ 0+75W	E?	?	0-9.0 overburden 9.0-161.0 granite 161.0-323.0 gabbro. Rare py on fractures
AX-2	1+00S/ 1+00E	W?	-45°	0-2.0 casing 2.0-28.5 gabbro, barren 28.5-36.0 syenite 36.0-115.0 gabbro, barren 115.0-212.0 granite
AX-4	2+00S/ 1+00E	SW	-45°	0-6.0 casing 6.0-122.0 gabbro, rare po,cp 122.0-129.0 granite
AX-5	1+00N/ 1+00E	W?	-45°	0-127.0 gabbro, barren 127.0-142.0 granite
AX-6	4+00S/ 1+00E	SW	-45°	0-4.0 casing 4.0-71.0 gabbro, barren 71.0-87.0 diorite, reddish- contaminated gabbro? 87.0-192.0 gabbro, barren 192.0-206.0 granite



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 954-0221

To: KUBHNBAUM, MR. ROBERT

3101 O'HAGAN DR.
MISSISSAUGA, ON
L5C 2C4

*** INVOICE NUMBER 18930654 ***

BILLING INFORMATION

Date : 4-DEC-89
Project : FORGOTTEN LAKE
P.O. # :
Account : EDL

Comments:

Billing : For analysis performed on
Certificate A8930654

Terms : Net payment in 30 Days
1.5% per month (18% per annum)
charged on overdue accounts.

Please remit payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J-2C1

NOTE: New charges for FAXING of data
Effective MAY 22/89, As follows:
\$0.50/data page inside N. America
\$2.00/data page outside N. America

CHEMEX CODE	ANALYSIS DESCRIPTION	SAMPLES ANALYZED	UNIT PRICE	AMOUNT
2	- Cu ppm			
8	- Ni ppm			
G15	- Au, Pd, Pt combi	2	18.50	37.00
301	- Cu %			
321	- Ni %			
G15	- Au, Pd, Pt combi	3	29.50	88.50
Sample preparation and other charges :				
208	- Assay - RING	5	3.75	18.75
Total Cost \$				144.25
TOTAL PAYABLE \$				144.25

PAID IN FULL
M. Hely

12/05/89 10:11 AM 400000

3101 O'Hagan Drive
Mississauga, Ont.
L5C 2C4
Oct. 12, 1988

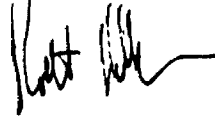
Chemex Labs Ltd.
212 Brooksbank Ave.
North Vancouver, B.C.
V7J 2C1

Dear sirs:

Re: Invoice #'s I8824349 & I8824350

Please find enclosed cheque #009 in the amount of \$114.50, representing payment in full for the above invoices (\$103.50 and \$11.00, respectively).

yours truly,



Robert M. Kuehnbaum

NAME Robert Kuehnbaum
ADDRESS: 3101 O'Hagan Dr.
CITY/TOWN Mississauga, Ont L5C 2C4
Pay to the order of Chemex Labs Ltd.

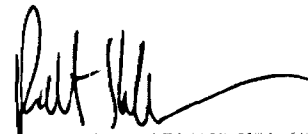
Oct 12 1988 009

\$114.50

One hundred fourteen and

50/100 dollars

THE TORONTO-DOMINION BANK
WESTDALE MALL
1151 DUNDAS ST. W.
MISSISSAUGA, ONTARIO L5C 1G6



Attn: Invoice 18824349, 50

⑈009⑈ ⑆ 18802⑈004⑆ 0653⑈0229089⑈



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: KUEHNBAUM, MR. ROBERT

**

3101 O'HAGAN DR.
MISSISSAUGA, ON
L5C 2C4

*** INVOICE NUMBER 18824350 ***

BILLING INFORMATION

Date : 4-OCT-88
Project :
P.O. # :
Account : EDL

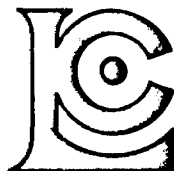
Billing : For analysis performed on
Certificate A8824350

Terms : Net payment in 30 Days
1.5% per month (18% per annum)
charged on overdue accounts.

Please remit payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J-2C1

CHEMEX CODE	ANALYSIS DESCRIPTION	SAMPLES ANALYZED	UNIT PRICE	AMOUNT
G24	- G-24 24 EL.	1	11.00	11.00
Sample preparation and other charges :				
299	- pulp	1	0.00	0.00
232	- Total ICP digestion	1	0.00	0.00
Total Cost \$				11.00
TOTAL PAYABLE \$				11.00



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE. NORTH VANCOUVER
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: KUEHNBAUM, MR. ROBERT

**

3101 O'HAGAN DR.
MISSISSAUGA, ON
L5C 2C4

* INVOICE NUMBER 18824349 *

BILLING INFORMATION

Date : 5-OCT-88
Project :
P.O. # :
Account : EDL

Billing : For analysis performed on
Certificate A8824349

Terms : Net payment in 30 Days
1.5% per month (18% per annum)
charged on overdue accounts.

Please remit payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J-2C1

CHEMEX CODE	ANALYSIS DESCRIPTION	SAMPLES ANALYZED	UNIT PRICE	AMOUNT
301	- Cu			
321	- Ni			
G15	- Pt, Au, Pd c	2	25.00	50.00
G15	- Pt, Au, Pd c	3	12.00	36.00
Sample preparation and other charges :				
205	- Rock Geochem - RING	5	3.50	17.50
Total Cost \$				103.50
TOTAL PAYABLE \$				103.50



Ministry of Northern Development and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT NO. MISSISSAUGA 276

- Instructions: -- Please type or print.
 -- If number of mining claims traversed exceeds space on this form, attach a list.
 Note: -- Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
 -- Do not use shaded areas below.

Mining Act

Type of Survey(s) **GEOLOGICAL MAPPING, MAGNETIC & VLF-EM** Township or Area **FORGOTTEN LAKE G.2618**
 Claim Holder(s) **ROBERT M. KUEHNBAUM** **2.12952** Prospector's Licence No. **A46654**
 Address **3101 O'HAGAN DRIVE MISSISSAUGA ONT L5C 2C4**
 Survey Company **R. M. KUEHNBAUM** Date of Survey (from & to) **23 09 89 01 10 89** Total Miles of line Cut **nil**
 Name and Address of Author (of Geo-Technical report) **as above**

Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Air Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)
 Type of Work Performed **ONTARIO GEOLOGICAL SURVEY**

Performed on Claim(s) **MAR 16 1990**

Circulation of Expenditure Days Credits		Total
Total Expenditures	Days Credits	Days Credits
\$ 258.75	15	17.25

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date **Dec 7, 1989** Received by Holder or Agent (Signature) *[Signature]*

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

Name and Postal Address of Person Certifying **ROBERT M. KUEHNBAUM 3101 O'HAGAN DRIVE MISSISSAUGA ONT L5C 2C4**
 Date Certified **Dec 7 / 89** Certified by (Signature) *[Signature]*

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
K	1019544	17.25			

RECEIVED
 DEC 15 1989
 MINING LANDS SECTION

KENORA MINING DIV.
 RECEIVED
 DEC 11 1989
 AM 8:15
 789 10 11 12 13 4 5 6 PM

1019544 Total number of mining claims covered by this report of work. **1**

For Office Use Only
 Total Days Cr. Recorded **77.25** Date Recorded **Dec 11/89**
 Date approved as Recorded **Feb 26/90** Mining Records Branch Director *[Signature]*



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

12952

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

Type of Survey(s) Geological, magnetic, VLF-EM
Township or Area Forgotten Lake
Claim Holder(s) Robert M. Kuehnbaum
Survey Company R.M. Kuehnbaum
Author of Report Same
Address of Author 3101 O'Hagan Dr. Mississauga, Ont L5C 2C4
Covering Dates of Survey _____
(linecutting to office)
Total Miles of Line Cut none - flagged topofil/compass line

MINING CLAIMS TRAVERSED
List numerically

K 1019544
(prefix) (number)

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

	DAYS per claim
Geophysical	
- Electromagnetic	<u>20</u>
- Magnetometer	<u>20</u>
- Radiometric	
- Other	
Geological	<u>20</u>
Geochemical	

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

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

DATE: Dec 7/89 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 2.8574

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 1

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations VLF-EM NLK Number of Readings mag-162 VLF 118

Station interval 20 m VLF 20m (but 10m) mag. Line spacing 100 m

Profile scale VLF 1 cm = 20%

Contour interval magnetic 200 nT

MAGNETIC

Instrument Geometrics G816 proton magnetometer

Accuracy - Scale constant ± 1 nT

Diurnal correction method looping to baseline

Base Station check-in interval (hours) 20 mins.

Base Station location and value BL/4+005 60,116 nT

ELECTROMAGNETIC

Instrument Geonics EM-16

Coil configuration _____

Coil separation _____

Accuracy ± 1%

Method: Fixed transmitter Shoot back In line Parallel line

Frequency 24.8 KHz NLK Jim CREEK, WASH.
(specify V.L.F. station)

Parameters measured In-phase, quadrature

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

2.12952

3101 D'Hagan Drive
Mississauga, Ontario
L5C 2C4
ph. 416-276-6684
December 7, 1989

Mining Lands Section
Ministry of Northern Development
and Mines
880 Bay Street
Toronto, Ontario
M5S 1Z8

RECEIVED

DEC 07 1989

MINING LANDS SECTION

Dear sirs:

Re: Technical Reports, Claim 1019544, Forgotten Lake Area

Please find enclosed 2 copies of the Technical Report for magnetic, VLF-EM, and geological surveys, as well as expenditure credits (receipts attached) regarding claim K1019544.

The Report of Work has been simultaneously submitted to the Kenora Mining Recorder. A copy of that, and the letter to him, are attached here.

Yours truly



Robert M. Kuehnbaum

3101 D'Hagan Drive
Mississauga, Ontario
L5C 2C4
ph. 416-276-6684
December 7, 1989

S. Rivett
Mining Recorder, Kenora Division
Ministry of Northern Development
and Mines

P.O. Box 5200
808 Robertson Street
Kenora, Ontario
P9N 3X9

Dear Scott:

COPY

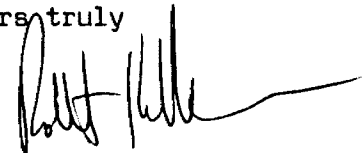
Re: Report of Work, Claim K1019544, Forgotten Lake

Please find attached a Report of Work for geological, magnetic and VLF-EM surveys, as well as expenditure credits for the above claim.

I am simultaneously submitting the Technical Report for the work to Mining Lands, with copies of this letter and the Report of Work. A copy of my letter to Mining Lands is attached.

Thank you.

Yours truly



Robert M. Kuehnbaum

Mining Act

Type of Survey(s): **GEOLOGICAL MAPPING, MAGNETIC & VLF-EM**

Claim Holder: **ROBERT M. KUEHNBAUM** **2, 12952**

Address: **3101 O'HAGAN DRIVE MISSISSAUGA ONT L5C 2C4**

Survey Company: **R. M. KUEHNBAUM**

Name and Address of Author (of Geo-Technical report): **as above**

Township or Area: **FORGOTTEN LAKE**

Prospector's Licence No.: **A46654**

Date of Survey (from & to): **23 09 89 01 10 89**

Total Miles of line Cut: **nil**

Credits Requested per Each Claim in Columns at right		
Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	20
	Geochemical	
	Geophysical	
	Geophysical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
K	1019544	17.25	<input checked="" type="checkbox"/>		

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: **\$ 258.75**

Total Days Credits: **15**

Result: **17.25**

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **Dec 7, 1989**

Recorded By or Agent (Signature): *[Signature]*

Total number of mining claims covered by this report of work: **1**

For Office Use Only

Total Days Cr. Recorded: _____ Date Recorded: _____ Mining Recorder: _____

Date Approved as Recorded: _____ Branch Director: _____

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: **ROBERT M. KUEHNBAUM 3101 O'HAGAN DRIVE MISSISSAUGA ONT L5C 2C4**

Date Certified: **Dec 7 / 89**

Certified By (Signature): *[Signature]*



Ministry of Northern Development and Mines

M.L.

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT NO. W8587-276

Instructions: - Please type or print. - If number of mining claims traversed exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. - Do not use shaded areas below.

Mining Act

Header section containing: Type of Survey(s) - GEOLOGICAL MAPPING, MAGNETIC & VLF-EM; Township or Area - FORGOTTEN LAKE G.2618; Claim Holder(s) - ROBERT M. KUEHNBAUM; Address - 3101 O'HAGAN DRIVE MISSISSAUGA ONT; Date of Survey - 23 09 89; Total Miles of line Cut - nil.

Main data table with columns: Special Provisions, Geophysical, Days per Claim, Mining Claim Prefix, Mining Claim Number, Expend. Days Cr., and Mining Claim Prefix, Mining Claim Number. Includes a 'RECEIVED' stamp from the Mining Lands Section.



900

ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAR 16 1990 RECEIVED

KENORA MINING DIV RECEIVED DEC 11 1989 AM 5:15 PM 789 10 11 12 13 4 5 6

Calculation of Expenditures: Total Expenditures \$ 258.75 ÷ Days Credits 15 = 17.25. Total number of mining claims covered by this report of work: 1.

For Office Use Only section with recorded dates: Dec 11/89, Dec 7/89, and Feb 26/90. Includes signatures and initials.

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

Person Certifying section: Name - ROBERT M. KUEHNBAUM; Address - 3101 O'HAGAN DRIVE MISSISSAUGA ONT; Date Certified - Dec 7/89.



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

2. 12932

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

Type of Survey(s) Geological, magnetic, VLF-EM

Township or Area Forgotten Lake

Claim Holder(s) Robert M. Kuehnbaum

Survey Company R.M. Kuehnbaum

Author of Report same

Address of Author 3101 O'Hagan Dr. Mississauga, Ont L5E 2C9

Covering Dates of Survey _____
(linecutting to office)

Total Miles of Line Cut none - flagged topofil/compass line

MINING CLAIMS TRAVERSED
List numerically

K
(prefix)

1019544
(number)

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	Geophysical	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic	<u>20</u>
	-Magnetometer	<u>20</u>
	-Radiometric	_____
ENTER 20 days for each additional survey using same grid.	-Other	_____
	Geological	<u>20</u>
	Geochemical	_____

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

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

DATE: Dec 7/89 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 2.8574

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 1

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations VLF-EM NLK Number of Readings mag-162 VLF 118
Station interval 20 m VLF 20m (but 10m) mag. Line spacing 100 m
Profile scale VLF 1 cm = 20%
Contour interval Magnetic 200 nT

MAGNETIC

Instrument Geometrics G816 proton magnetometer
Accuracy – Scale constant ± 1 nT
Diurnal correction method leaping to baseline
Base Station check-in interval (hours) 20 mins.
Base Station location and value BL/4+05 60,116 nT

ELECTROMAGNETIC

Instrument Geonics EM-16
Coil configuration _____
Coil separation _____
Accuracy ± 1%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 24.8 KHz NLK Jim Creek, WASH.
(specify V.L.F. station)
Parameters measured In-phase, quadrature

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____
Elevation accuracy _____

**INDUCED POLARIZATION
RESISTIVITY**

Instrument _____
Method Time Domain Frequency Domain
Parameters – On time _____ Frequency _____
– Off time _____ Range _____
– Delay time _____
– Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

2.12952

3101 O'Hagan Drive
Mississauga, Ontario
L5C 2C4
ph. 416-276-6684
December 7, 1989

Mining Lands Section
Ministry of Northern Development
and Mines
880 Bay Street
Toronto, Ontario
M5S 1Z8

RECEIVED

DEC 08 1989

MINING LANDS SECTION

Dear sirs:

Re: Technical Reports, Claim 1019544, Forgotten Lake Area

Please find enclosed 2 copies of the Technical Report for magnetic, VLF-EM, and geological surveys, as well as expenditure credits (receipts attached) regarding claim K1019544.

The Report of Work has been simultaneously submitted to the Kenora Mining Recorder. A copy of that, and the letter to him, are attached here.

Yours truly



Robert M. Kuehnbaum

3101 O'Hagan Drive
Mississauga, Ontario
L5C 2C4
ph. 416-276-6684
December 7, 1989

S. Rivett
Mining Recorder, Kenora Division
Ministry of Northern Development
and Mines

P.O. Box 5200
808 Robertson Street
Kenora, Ontario
P9N 3X9

Dear Scott:

COPY

Re: Report of Work, Claim K1019544, Forgotten Lake

Please find attached a Report of Work for geological, magnetic and VLF-EM surveys, as well as expenditure credits for the above claim.

I am simultaneously submitting the Technical Report for the work to Mining Lands, with copies of this letter and the Report of Work. A copy of my letter to Mining Lands is attached.

Thank you.

Yours truly



Robert M. Kuehnbaum

Mining Act

Type of Survey(s): **GEOLOGICAL MAPPING, MAGNETIC & VLF-EM**

Township or Area: **FORGOTTEN LAKE**

Claim Holder: **ROBERT M. KUEHNBAUM** **2.12952**

Prospector's Licence No.: **A46654**

Address: **3101 O'HAGAN DRIVE MISSISSAUGA ONT L5C 2C4**

Survey Company: **R. M. KUEHNBAUM**

Date of Survey (from & to): **23 09 89** | **01 10 89**

Total Miles of line Cut: **nil**

Name and Address of Author (of Geo-Technical report): **as above**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
	- Electromagnetic	20
For first survey: Enter 40 days. (This includes line cutting)	- Magnetometer	20
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	20
Man Days	Geophysical	Days per Claim
	- Electromagnetic	
Complete reverse side and enter total(s) here	- Magnetometer	
	- Radiometric	
Airborne Credits	Geological	
	Geochemical	
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Geol.	Mining Claim	Expend. Days Cr.
K	1019544	17.25	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: **\$ 250.75**

÷ **15** = **17.25** Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **Dec 7, 1989**

Recorded by Holder or Agent (Signature): *[Signature]*

Total number of mining claims covered by this report of work: **1**

For Office Use Only

Total Days Cr. Recorded: **17.25** | Date Recorded: **Dec 7/89** | Mining Recorder: *[Signature]*

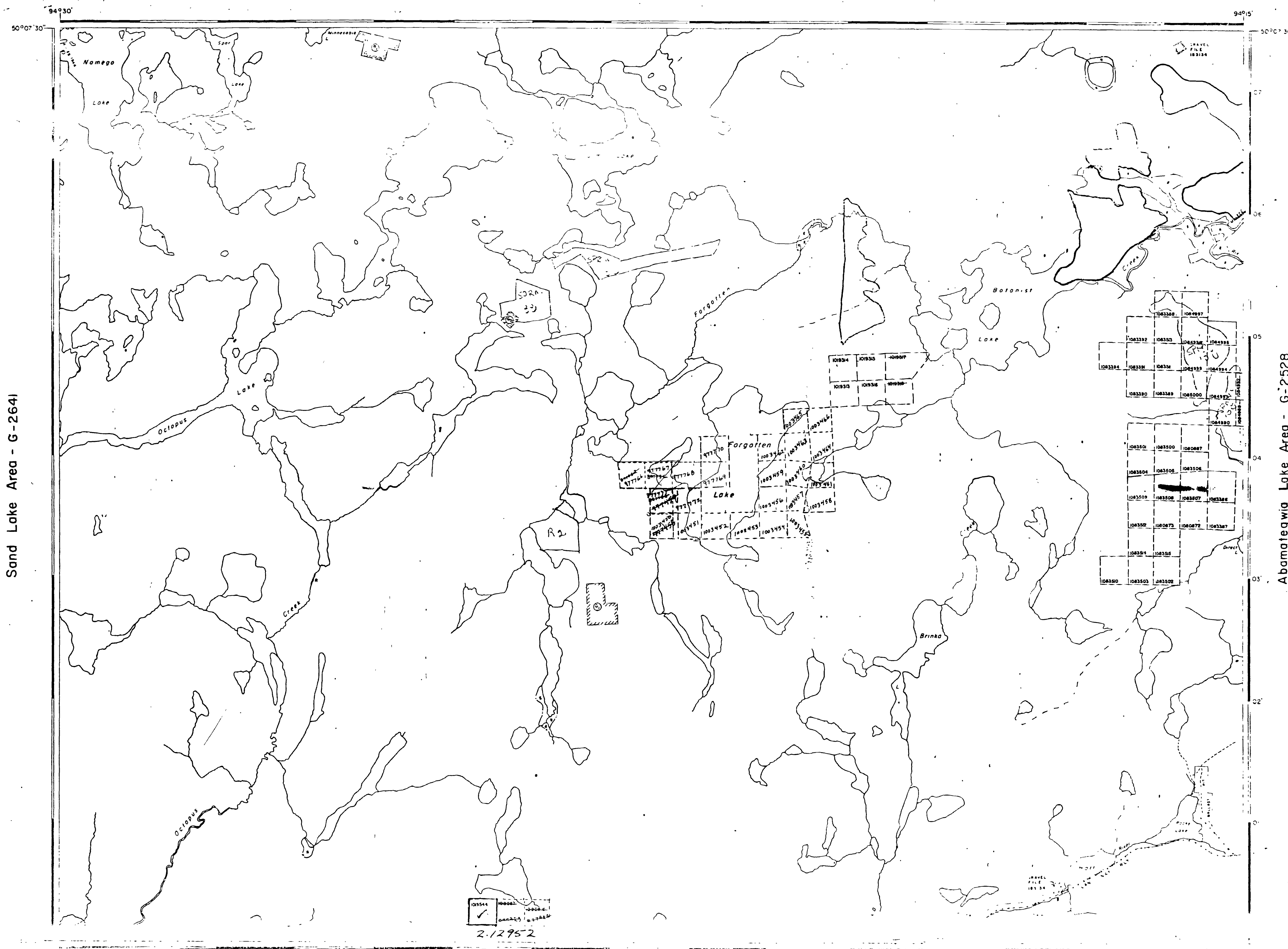
Date Approved as Recorded: **Dec 7/89** | Branch Director: *[Signature]*

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: **ROBERT M. KUEHNBAUM 3101 O'HAGAN DRIVE MISSISSAUGA ONT L5C 2C4**

Date Certified: **Dec 7/89** | Certified by (Signature): *[Signature]*



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-PERMANENT FLOOD	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESTRICTIONS	
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	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

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

REFERENCES

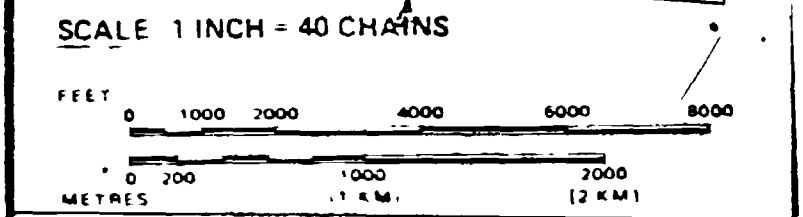
AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No	Date	Disposition	File
R2	W-24/86	MAR 20/86	BY MK	7598

RECEIVED
 FEB 12 1990
 789101112123456

Effective as shown



AREA FORGOTTEN LAKE

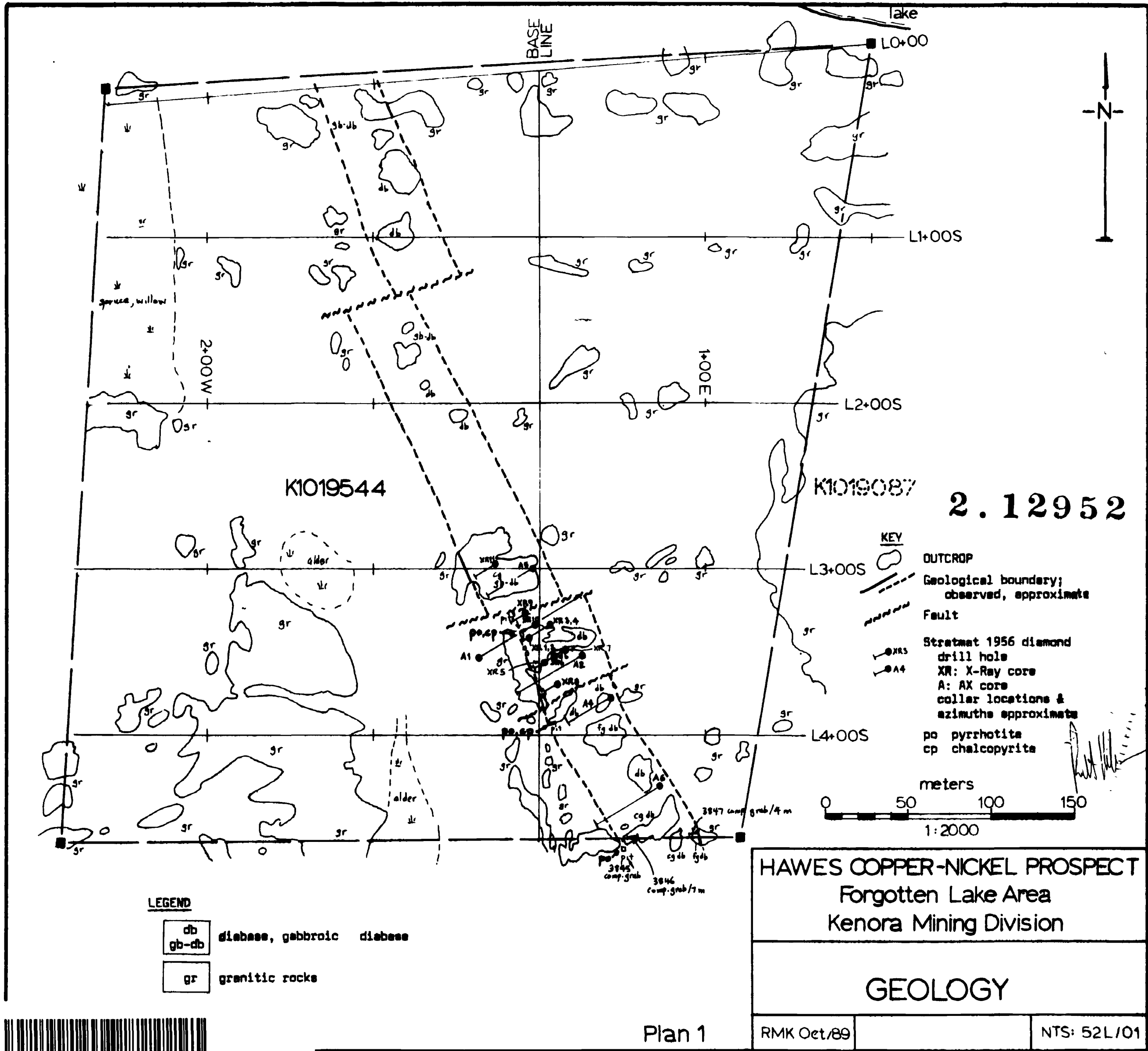
M.N.R ADMINISTRATIVE DISTRICT
 KENORA
 MINING DIVISION
 KENORA
 LAND TITLES / REGISTRY DIVISION
 KENORA

Sand Lake Area - G-2641

Abamategwia Lake Area - G-2528

03554 MODEL
 2.12.952



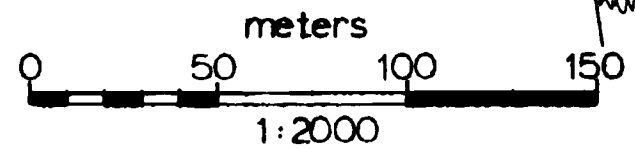


LEGEND

- db diabase, gabbroic diabase
- gb-db diabase, gabbroic diabase
- gr granitic rocks

KEY

- OUTCROP
- Geological boundary; observed, approximate
- Fault
- Stratmat 1956 diamond drill hole
- XR: X-Ray core
- A: AX core
- collar locations & azimuths approximate
- po pyrrhotite
- cp chalcopyrite



HAWES COPPER-NICKEL PROSPECT
 Forgotten Lake Area
 Kenora Mining Division

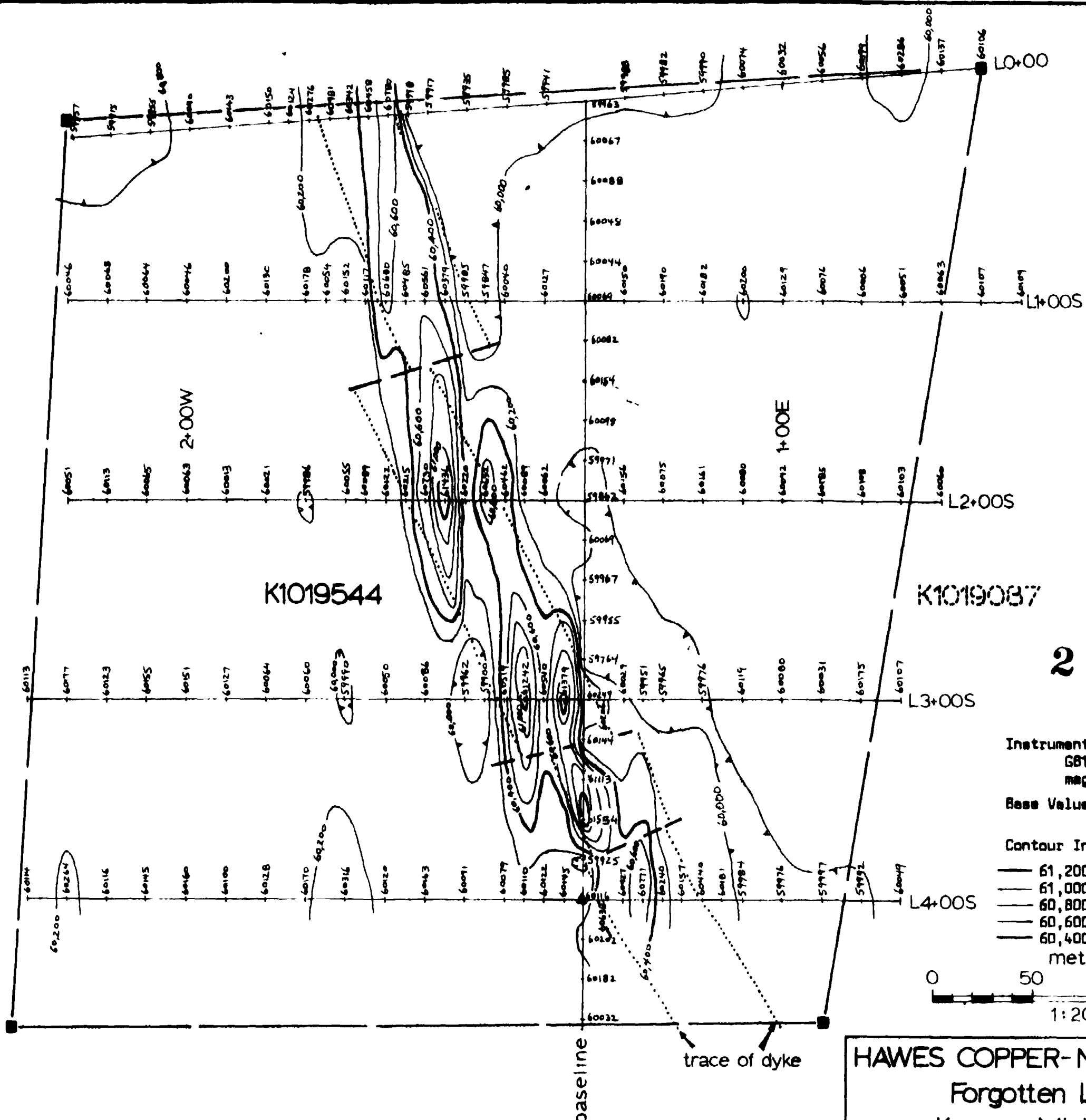
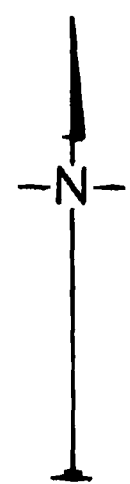
GEOLOGY

Plan 1

RMK Oct/89

NTS: 52L/01





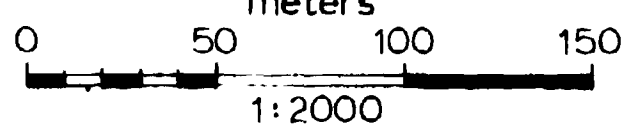
K1019544

K1019087

2.12952

Instrument: Geometrica
 GB16 proton
 magnetometer
 Base Value: BL/4+00S
 60,116 nT

Contour Intervals:
 — 61,200 nT
 — 61,000
 — 60,800
 — 60,600
 — 60,400
 — 60,200
 — 60,000



HAWES COPPER-NICKEL PROSPECT
 Forgotten Lake Area
 Kenora Mining Division

MAGNETIC SURVEY

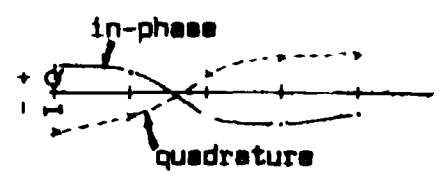
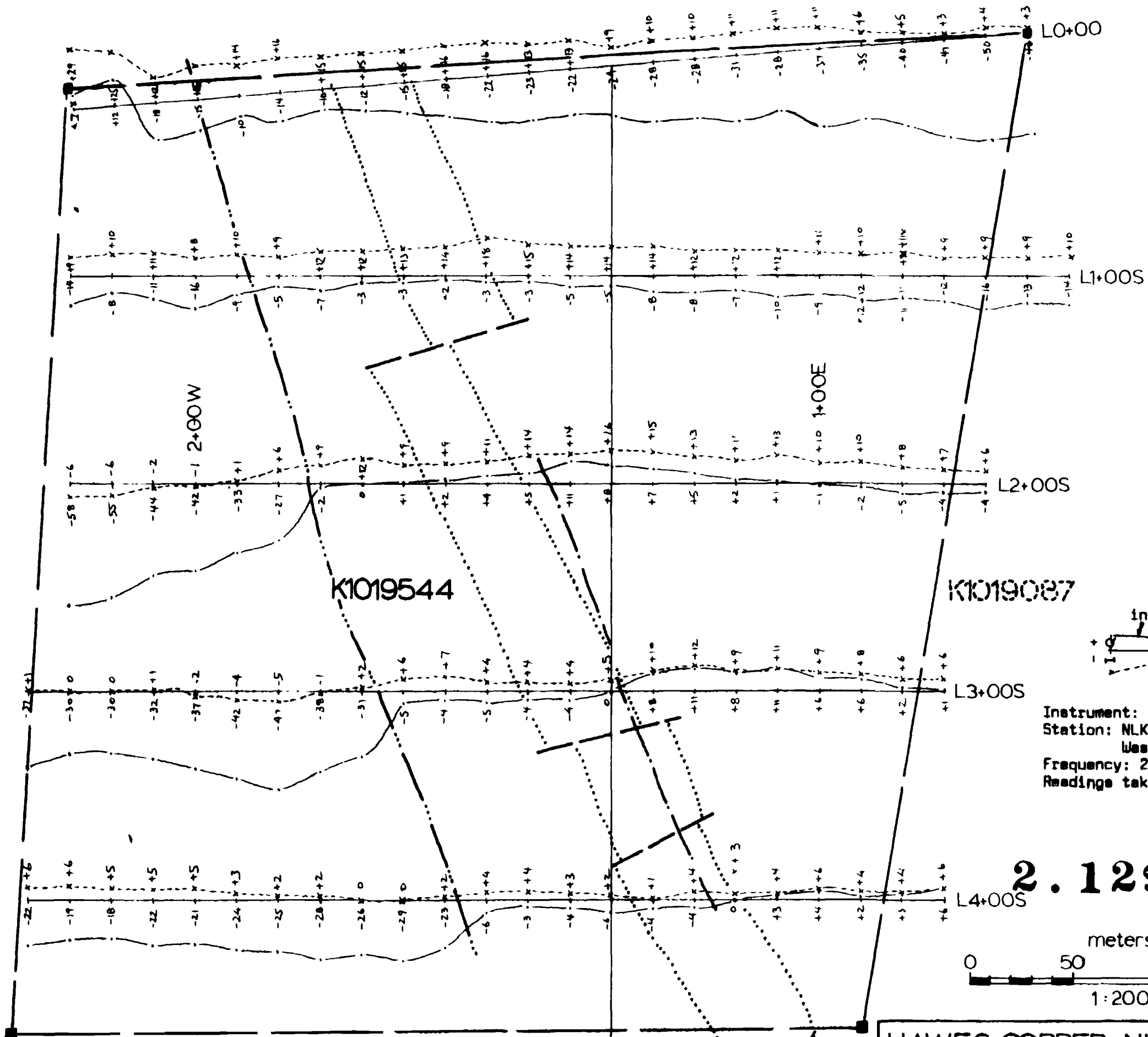
RMK Oct/89

NTS 52L/01



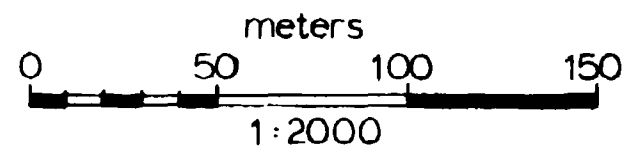
220

Plan 2



Instrument: Geonics EM-16
 Station: NLK Jim Creek
 Washington
 Frequency: 24.8 KHz
 Readings taken facing south

2.12952



Conductors
 weak ————
 moderate ————
 strong ————

HAWES COPPER-NICKEL PROSPECT
 Forgotten Lake Area
 Kenora Mining Division

VLF-EM SURVEY

Plan 3

RMK Oct/89

NTS 52L/01

