MINOREX LIMITED

ASSESSMENT REPORT

HANSON-WELSH OPTION

CAIRO TOWNSHIP

LARDER LAKE MINING DIVISION

Richard J. Horne
Exploration Geologist
Minorex Limited

August 1981

L.D

ASSESSMENT REPORT - HANSON-WELSH OPTION

1.0 INTRODUCTION

Four (4) contiguous mining claims, L511446-49 inclusively, located in Cairo Township, Larder Lake Mining Division, were optioned by Minorex Limited from Mrs. E. Welsh and Mr. H. Hanson during the latter part of 1980. These four (4) claims encompass an area previously explored for copper, molybdenum and gold. Uneconomic values of these elements have been reported by this previous exploration.

Between the last part of March 1981 and the end of June 1981, Minorex Limited personnel completed geophysical surveys as well as detailed geological mapping on the property.

The following report detailing these surveys is being submitted as per the Special Provision Credits for Performance and Coverage.

2.0 LOCATION AND ACCESS

The claim group is situated within the southwest quarter of Cairo Township, approximately 1.75 miles northeast of the townsite of Matachewan.

Access is obtained by travelling 4 kilometers east from Matachewan on highway 65 and at this point, heading north on the Matachewan Indian Reserve (No.72) road. After one kilometer, an old lumber road heading east extends onto the property; road shown on accompanying maps.

3.0 HOLDERS OF CLAIMS

At the time of recording work, the claims were held by Mrs. E. Welsh; however, they are now in the process of being transferred to Minorex Limited.

4.0 SUBMITTERS OF WORK

Minorex Limited (wholly owned subsidiary of Asbestos Corporation Ltd), P.O. Box 7, Thetford-Mines, Quebec, G6G 5R9.

ASSESSMENT REPORT - HANSON-WELSH OPTION

5.0 CLAIMS

The property consists of four (4) contiguous mining claims; L511446, L511447, L511448 and L511449.

6.0 LINECUTTING

A total of 8.58 miles (13.7 kilometers) of grid lines were cut, covering the four (4) claims. The lines are spaced 200 feet apart and are marked with chained pickets at every 100 feet.

7.0 TOPOGRAPHY AND VEGETATION

Gentle to moderately sloping hills generally trending east-west, rise from the south towards the north. Local north-south trending ridges indicate the presence of diabase dykes or sand ridges (eskers?).

Vegetation consists predominantly of second growth alders, moose maple with intermittent stands of poplar. Minor swampy ground is found around the unnamed lake and in local low areas.

8.0 PREVIOUS WORK

During 1966, Midrim Mining Company Limited drilled eleven (11) diamond drill holes for a total of 3,749 feet. This was subsequent to geophysical and geochemical surveys. Bulldozing and trenching were also performed, exposing a low grade Cu-Mo-Au showing.

Roy Newman also drilled two (2) diamond drill holes totalling 317 feet, sometime during 1973.

9.0 GEOLOGY SURVEY

General

Timiskaming sediments consisting of conglomerate, greywacke and argillite underlay the majority of the claim group. These have been intruded by Algoman age silicic rocks with north-south trending Matachewan age diabase dykes cutting both of the above lithologies.

ASSESSMENT REPORT - HANSON-WELSH OPTION

9.1 Table of Formations

Precambrian

Archean

Mafic Intrusive Rocks
(Matachewan)

- Diabase

---Intrusive Contact---

Silicic Intrusive Rocks
(Algoman)

- Syenite and Mafic Syenite

---Intrusive Contact---

Sedimentary Rocks
(Timiskaming)

- Conglomerate, Greywacke, Argillite

9.2 Description of Lithologies

Timiskaming sediments are comprised of pebble to cobble conglomerate with lesser amounts of interbedded greywacke and argillite. Some cross-bedding structures are present within the greywackes, although it is generally massive. The argillite is thinly laminated; lamination averaging a few millemeters thick. The conglomerate varies widely in clast size and ratio of clast to matrix. Usually, the clasts vary in composition, silicic intrusives, sediments and volcanics, although locally it is monolithic, the clasts consisting only of cherty fragments.

Locally, the sediments have been altered resulting in epidotization, silicification and carbonatization. Pyrite mineralization is commonly present on fracture surfaces as well as disseminated throughout the rock.

Silicic Intrusive Rocks

The syenite rocks present are medium to coarse grained, brown to pink and locally porphyritic. Generally, a porphyritic syenite is found at the contact with sediments and the matrix is composed of fine, often schistose, biotite and chlorite among other minor constituents.

Arguements could be made to suggest that this porphyritic phase represents highly metamorphosed sediments in which feldspars have grown.

Locally, the syenite carries as much as 15% disseminated sulfides.

Diabase dykes

Two north-south trending diabase dykes cross-cut both the sediments and the syenite. These dykes form long, narrow topographic highs and are probably the cause of the abundant outcrop through the middle of the property. Other minor discontinuous segments of dykes are also present. The diabase is medium-coarse grained, displays good diabasic texture and usually contains large greenish phenocrysts averaging one inch in diameter.

10.0 ECONOMIC GEOLOGY

Cu, Mo, F mineralization is present within trenches made by Midrim Mining Company Limited. This mineralization is confined to quartz carbonate veins which are present in both the syenite rocks and sediments. Diamond drilling by this same company showed no economic significance to this showing.

Low gold values from surface sampling have been obtained by the present holders.

ASSESSMENT REPORT - HANSON-WELSH OPTION

11.0 GEOPHYSICAL SURVEYS

11.1 Fluxgate Magnetometer

A magnetometer survey, using a McPhar M-700 model fluxgate magnetometer was completed between April 3, 1981 and April 17, 1981.

A total of 987 readings were recorded every fifty feet along each line. Traverses at 400N and 800N footage were performed to locate cross-cutting formations. Traverses over the lakes were performed before spring thaw.

Drift corrections were made by linearly distributing the error on each traverse line by holding the base line values fixed.

11.1.1 Survey Results

A number of anomalous zones were outlined by the magnetometer survey. The somewhat north-south trending highs through the centre of the claim group represent the presence of diabase dykes, which are moderately magnetic. The strong magnetic high trending southwest-northeast between L12+00W/8+00N and L4+00E/14+00N is completely covered by swamps.

Because the picket lines paralleled the diabase dykes, the anomalies are not as clear as would have been if the lines were oriented in an east-west direction.

11.2 VLF-EM Survey

Between April 6, 1981 and April 13, 1981 a VLF-EM survey, utilizing a Geonics EM-16 unit was performed on the property. A total of 870 readings were recorded at fifty feet intervals over the cut grid. The survey was performed before the spring thaw.

ASSESSMENT REPORT - HANSON-WELSH OPTION

11.2 VLF-EM Survey (Cont'd)

The instrument is operated by a single person, whom in this case faced north while taking the reading. Both in-phase and quadrature phase values are obtained by tilting the instrument until nulling on the audio tone is obtained.

11.2.1 Survey Results

Three conductive zones have been established within the property. The middle zone, extending between L8+00W/7+00S and L14+00E/6+00S is caused by disseminated pyrite within syenite. The southern zone is due to conductive overburden. The northern conductor is flanked by a magnetic high and is probably caused by magnetite rich sediments (iron formation).

12.0 RECOMMENDATIONS

Five (5) diamond drill holes are proposed to test the middle conductor and check the old diamond drilling with reported high gold values. Total footage of this proposed drilling is 1,500 feet.

C E R T I F I C A T E

I, Richard Horne, of the town of Dane, Province of Ontario, do hereby certify that:-

(1) I am an Exploration Geologist, presently residing at R.R.#1, Dane, Ontario.

(2) I hold a Bachelor of Science (Hons.) degree from Dalhousie University, Halifax, Nova Scotia.

(3) I personally conducted or supervised the geological/geophysical work completed on the area mentioned in this report.

Richard J. Horne
Exploration Geologist
Minorex Limited

Richard J Horne

August 1981

L 12 W | L 10 W | L 8 W | L 6 W | L 4 W | L 2 W | L 0 | L 2E | L 4E | L6E | L 8E | L 10 E | L 12 E | L 14 E

Lake

Swamp

Sand

511446

511447

511448

511449

Webb Lake

Base Line 0+00

N

LEGEND

PRECAMBRIAN

ARCEAN

MAFIC INTRUSIVE ROCKS (Matachewan)

3 - Diabase ; Undifferentiated.

----- Intrusive Contact -----

SILICIC INTRUSIVE ROCKS (Algoman)

- Syenite and mafic syenite.

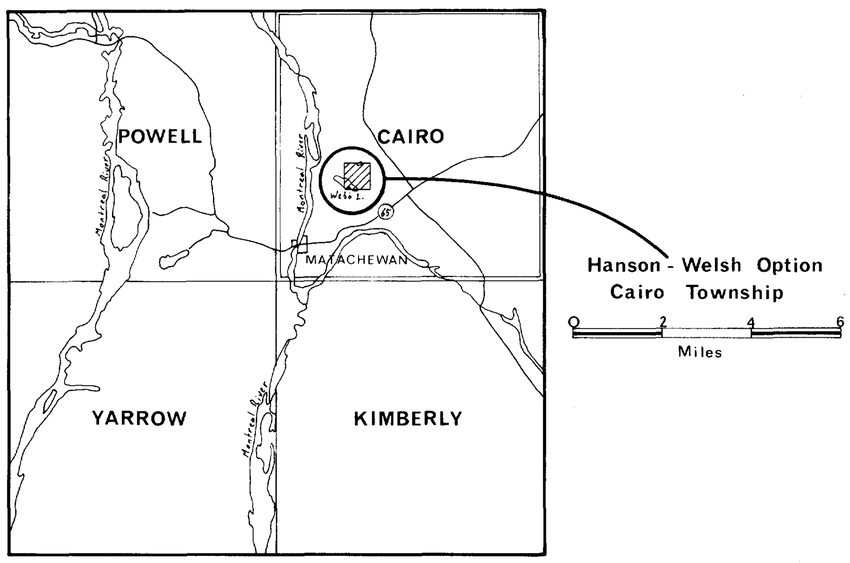
----- Intrusive Contact -----

SEDIMENTARY ROCKS (Timiskaming)

- Interbedded Conglomerate, Greywacke and Argillite.

- GEOLOGICAL CONTACT; DEFINED , APPROXIMATE.
- OUTCROP BOUNDARY
- BEDDING
- FOLIATION / SHEARING
- JOINT ; INCLINED , VERTICLE
- FAULT
- TRENCH
- DIAMOND DRILL HOLE
- ROAD

0 200 400 600 800
FEET



Hanson - Welsh Option
Cairo Township
0 2 4 6
Miles

MINOREX LIMITED

GEOLOGY

HANSON WELSH OPTION

KIRKLAND LAKE AREA

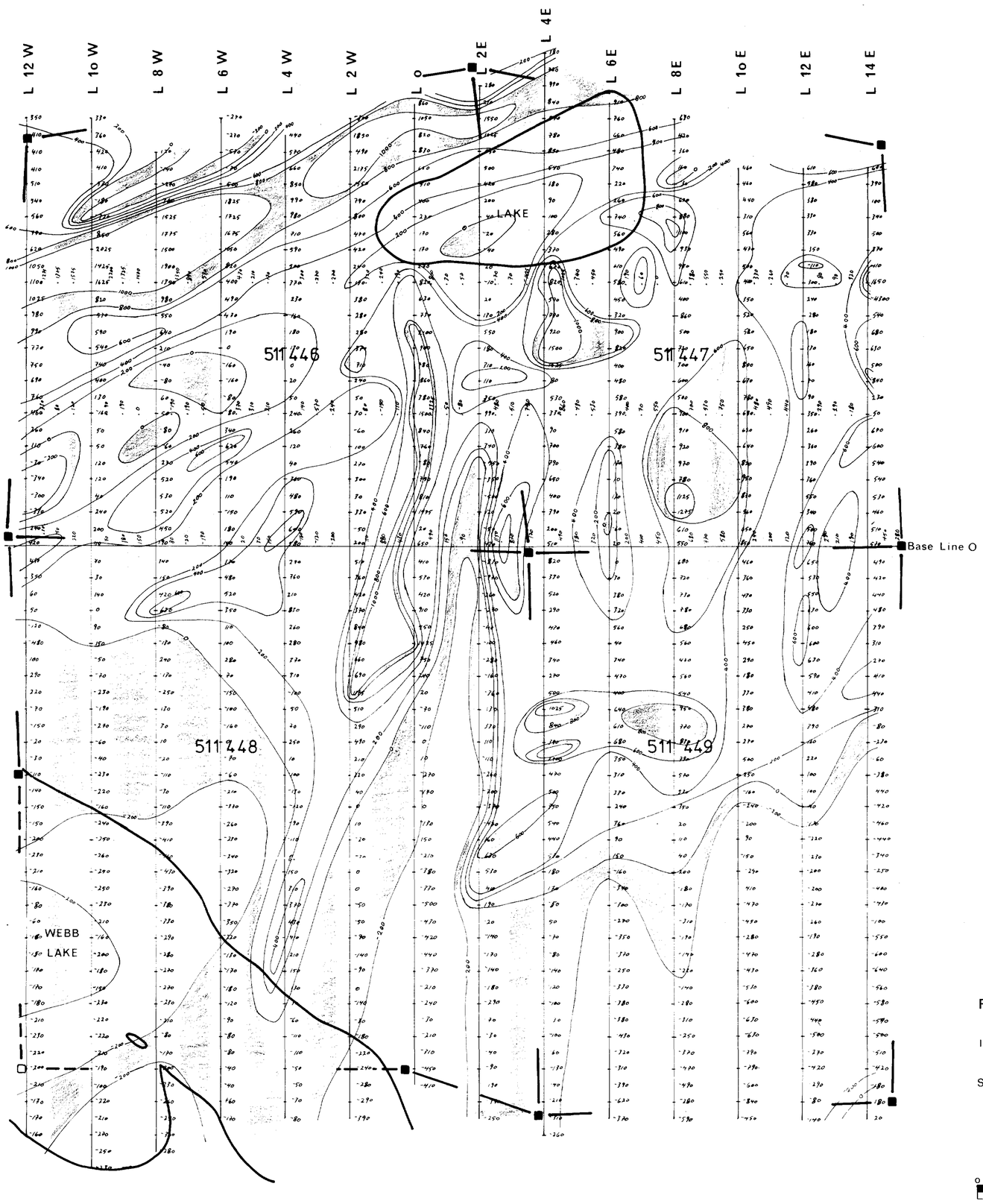
LARDER LAKE MINING DIVISION

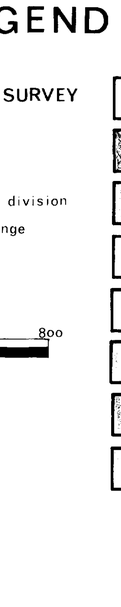
ONTARIO

DRAFTED BY KEVIN C AUSTIN

DATE	SCALE	DWG Nº
April 1981	1"=200 feet	

Richard J Horne





LEGEND

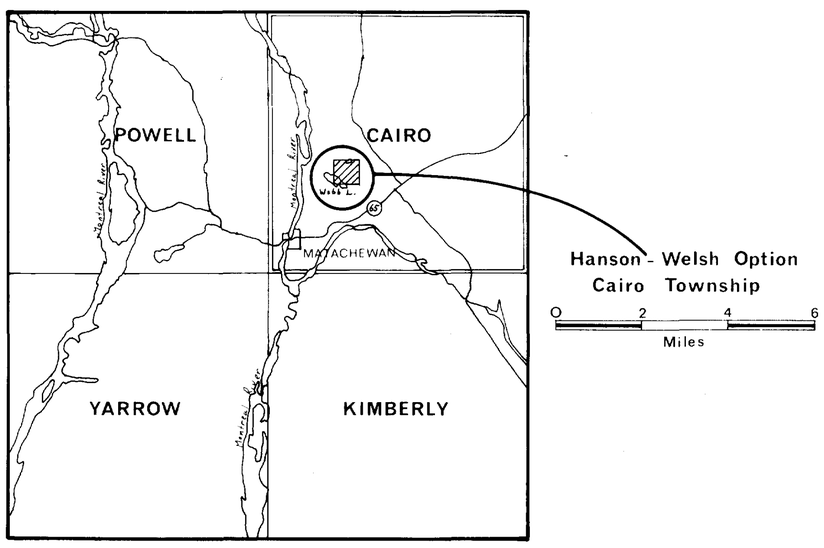
FLUXGATE MAGNETOMETER SURVEY

INSTRUMENT: McPhar M 700

SENSITIVITY: 20 Gammas per scale division on 1K gamma range

0 200 400 600 800
FEET

- < -200 gammas
- -200 - 0
- 0 - 200
- 200 - 400
- 400 - 600
- 600 - 800
- 800 - 1000
- > 1000



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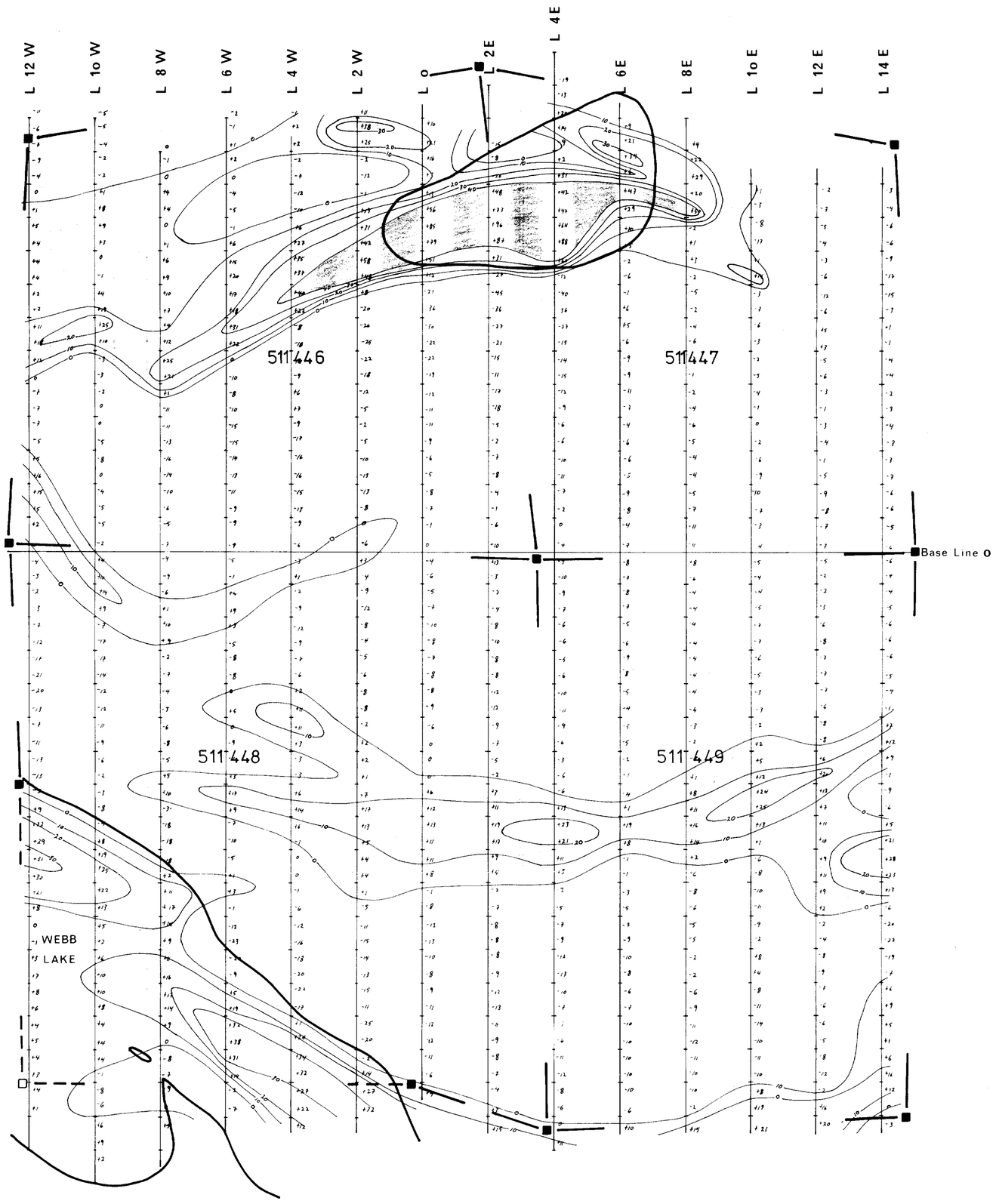
MAGNETOMETER SURVEY
HANSON WELSH OPTION
KIRKLAND LAKE AREA
LARDER LAKE MINING DIVISION
ONTARIO

DRAFTED BY KEVIN C AUSTIN

DATE	SCALE	DWG Nº
April 1981	1=200 feet	

Richard J Horne



LEGEND

VLF-EM SURVEY
CONTOURED FRASER FILTERED DATA

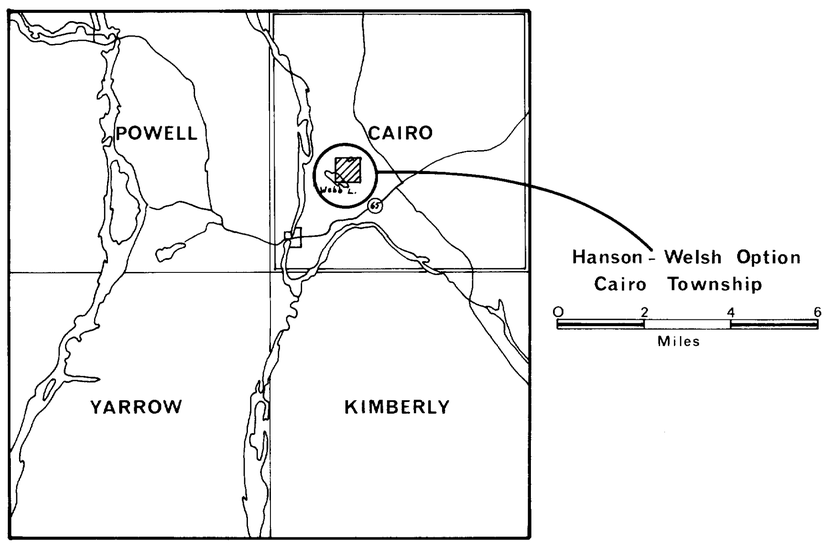
INSTRUMENT: Geonics EM-16

STATION: NLK Seatle Washington 18.6 KHz

SENSITIVITY: In Phase ± 150%
Quadrature Phase ± 40%

- 0 - 10%
- 10 - 20%
- 20 - 30%
- 30 - 40%
- > 40%

0 200 400 600 800
FEET



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V.L.F. - E.M. SURVEY
HANSON WELSH OPTION
KIRKLAND LAKE AREA
LARDER LAKE MINING DIVISION
ONTARIO

Kevin Austin
DRAFTED BY KEVIN C AUSTIN

DATE	SCALE	DWG Nº
April 1981	1=200 feet	

Richard J Horne