REPORT ON

STRIPPING PROGRAM

DIABASE DIKE PROPERTY

EBY TOWNSHIP

LARDER LAKE MINING DIVISION

ONTARIO

A. Black

November, 1991

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INTRODUCTION

Location/Access

The property herein described consists of two contiguous 32 ha mining claims covering the South 1/2 of Lot 11, Concession I, Eby Township, Larder Lake Mining Division, Ontario. Highway 66 traverses the property about 7 miles south-west of the junction of highways 66 and 11 at Kenogami. A poorly maintained dirt road leads west from Highway 66 across the northwest quarter of the property.

History

The area was mapped by H. Lovell in 1967 and '68. No assessment work has ever been filed on the area at the Resident Geologist Office in Kirkland Lake - check overlay!

GEOLOGY

The claims are mostly underlain by granitic rocks of the Round Lake Batholith. A small package of highly altered mafic metavolcanics straddles the south boundary of the group along the Blain - Eby township line. A diabase dike of the Matachewan group intrudes both the granite and metavolcanics. The dike strikes N - S through the centre of the group. This particular dike is noteworthy in that it has a glomeroporphyritic texture resulting in a pleasing green spotted pattern.

PURPOSE OF PROGRAM

The limited amount of stripping undertaken was designed to expose the diabase well enough to get an idea of its true width and to see how many fractures were present. A site was chosen that would be amenable to the removal of a substantial sample for evaluation as a building stone source. Several slabs were cut and polished for promotional purposes and critical evaluation by experts in the field.

DESCRIPTION OF PROGRAM

A John Deere 792 Excavator with a 1.8 yard bucket was contracted for seven hours to bare enough bedrock for closer examination and to ascertain the dimension of the dike.

RESULTS OF PROGRAM

Several thousand square feet of rock were exposed near the centre of the property. The contact between the diabase and granite was exposed revealing a NW strike at that point. This finding does not conform with Lovell's mapping and may indicate branching of the dike previously masked by overburden.

The dike appears to have few fractures and, except for fine grained zones along the granite contact, maintains a relatively uniform glomeroporphyritic texture.

CONCLUSION

The dike seems to be worthy of further study since it appears to be competent and consistent over a large area. Assuming a 50' width and 1000' strike length and a lift of 50' above the surrounding terrain, a reserve of 2.5 million cubic feet of easily removable material could be proven up quite readily.

RECOMMENDATIONS

The dike material should be examined by experts in the field of building stone and evaluated for its suitability for various purposes. If preliminary conclusions are positive a follow up program of bulk sampling should be undertaken to further evaluate the material. Only a very limited amount of drilling would then be needed to prove up tonnage in anticipation of production.

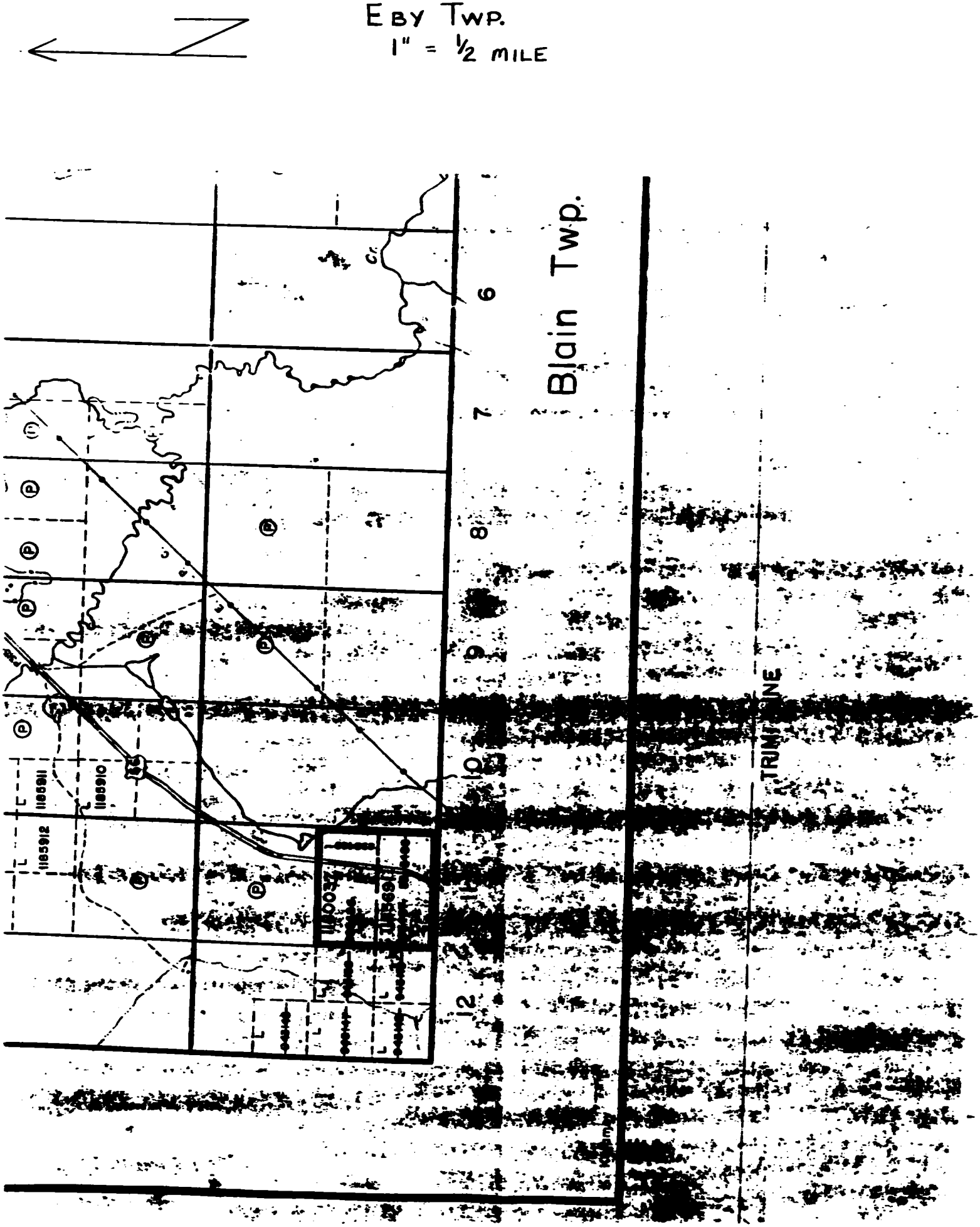
REFERENCES

GR 99, Eby and Otto Area, ODM, H. Lovell, 1972.

- accompanying Map 2239.

Ann Black

APPENDIX I


EBY TWP.
1" = ½ MILE
Blain Twp.
6
7
8
9
10
12
TRIMBLE
1185911
1185910
1185912

PLAN of STRIPPING

DIABASE DIKE PROPERTY

Eby Township

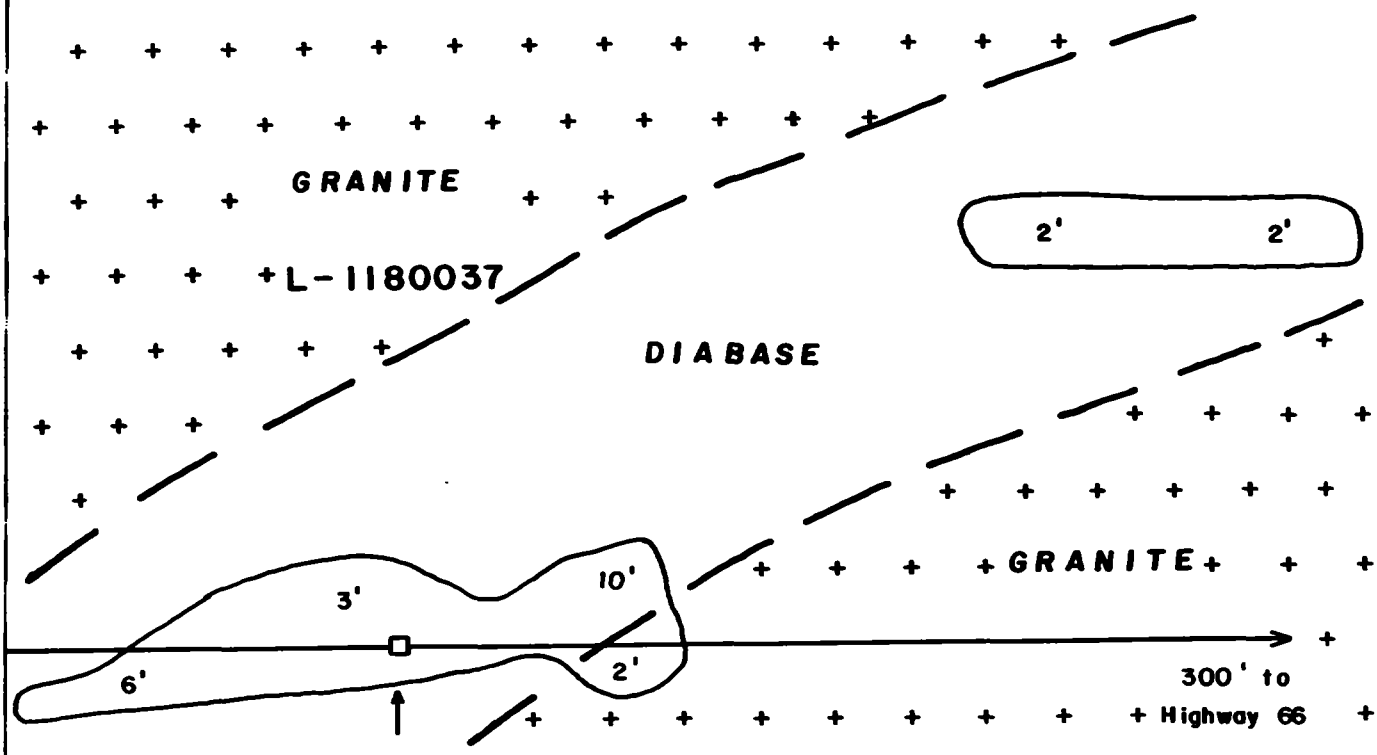
Scale

1" = 50'

1:600

0 50

feet



LINE POST

400 metres East to No. 1 POST

400 metres South to Eby / Blain Twp. boundary

L-1185691

S ½ Lot 11 Con. 1

N

ASTRONOMIC

LEGEND

Geological Boundary

Exposed Bedrock

Excavation Depth 2'

Claim Post

Appendix IV

CERTIFICATE

THIS IS TO CERTIFY:

1. I am a graduate in Prospecting Techniques from the Northern College of Applied Arts and Technology, Haileybury campus, 1976 and have completed the Haileybury School of Mines, Geophysical Field School, 1990, and the Interpretation of Ground and Airborne Geophysical Data Course, 1991. I have been active as a prospector and exploration contractor since 1974.

2. I am a member in good standing of the P.D.A., past president of the N.P.A., and director of O.M.E.F., and C.I.M.M.

3. I reside and hold office at 139 Carter Ave., Kirkland Lake, Ontario, P2N 2A1.

4. I have an interest in the property.

5. My report is based upon having personally participated in each program herein described, a review of published information on the property, consultation with local geologists and upon my familiarity and experience as a prospector in the Kirkland Lake camp.

REPORT on

VLF - EM - 16 SURVEY

and SAMPLING

HINCKS TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO

M. Leahy

December, 1991

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INTRODUCTION

Location:

The property herein described consists of fourteen contiguous unpatented claims near the northwest corner of Hincks Township, Larder Lake Mining Division, Ontario. The nearest settlements are a cottage subdivision on Austen Lake, about five miles to the south. The town of Matachewan lies about twenty miles to the east. The claims are numbered as follows: L-1168899, L-1168900. L-1168901, L-1168902, L-1168903, L-1168904, L-1168905, L-118906, L-1168907, L-118908, L-1168880, L-1168881, L-1168882 and L-1168883.

Access:

The property is accessible only by foot trail from the rapids at the northern outlet of Austen Lake. Access to that point is via boat for five miles up Austen Lake, then twenty miles east along a gravel road and Highway 566 to Matachewan.

History:

Although airborne surveys have been flown over the area, no ground work has ever been recorded on the property. The most recent airborne, (ODM Map No. 1017, 1975) detected two conductive zones which were staked in early February, 1991. At that time, a base metal discovery in nearby Robertson Twp. rekindled interest in the area and a privately produced geology map of the area was made available. This map, a copy of which is attached, indicates a contact between calc-alkalic and Tholeitic volcanics runs across the property near the known airborne conductors. This contact forms the nose of an easterly plunging syncline with the calc-alkalics overlying the Tholeites.

Geology:

As indicated above, the claims are underlain by mafic to intermediate Tholeitic and calc-alkaline flow near the nose of an easterly plunging syncline. Whole rock analyses were done on all samples taken and several plots were done to aid in rock classification, (see charts attached: Jensen 1976, Miyashiro 1974, Cox et al, 1979). The rocks are all part of the Abitibi supergroup which extends for over one hundred miles across the Ontario - Quebec border. The cherty exhalite sample #8575 is similar to rocks near the Robertson Twp. massive sulfide discovery.

PROSPECTING

In May, 1991, a reconaissance traverse was done across the group and several rock samples were taken from out crops encountered. See chart, plots and map attached, for details.

VLF-EM16 Survey

In the fall of 1991, a picket line grid was cut over the two claims covering the south airborne EM conductor. Five lines were cut at 100M intervals with stations established every 25M. A Ronka VLF-EM16 was used to read the 2.5km grid. Cutler, Maine, at 24.0 khz was used as transmitter and readings were all taken facing north. A total of 173 readings were taken and profiles were plotted on a map with a scale of 1:5000.

RESULTS OF VLF-EM16 SURVEY

The survey succeeded in defining weak conductive zones indicated by dip angle profiles but the out of phase (quadrature) readings remained very flat suggesting electrolytic overburden sources for the conductivity.

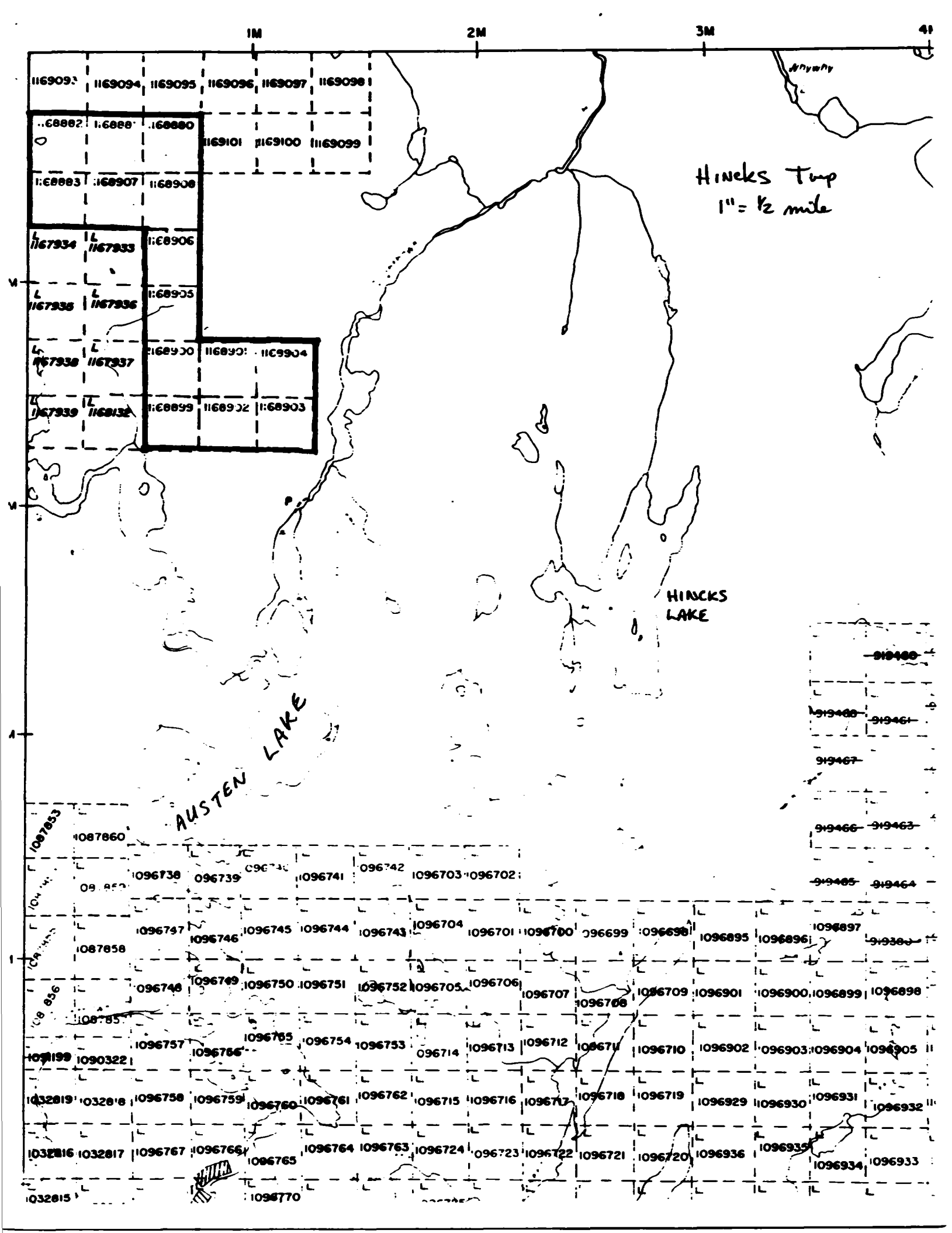
CONCLUSIONS and RECOMMENDATIONS

No shallow massive sulfide or graphite conductors were detected by the survey. The airborne EM conductor may be caused by an overburden source. Follow-up work in 1992 should consist of the following:

1. Using the existing grid the area around the south conductor should be mapped and further sampled.

2. The north conductor should be read with ground VLF and the area around it should be prospected.

Michael Leahy
Dec 91


1M
2M
3M
Hincks Twp
1" = ½ mile
HINCKS LAKE
AUSTEN LAKE

SAMPLING PLAN

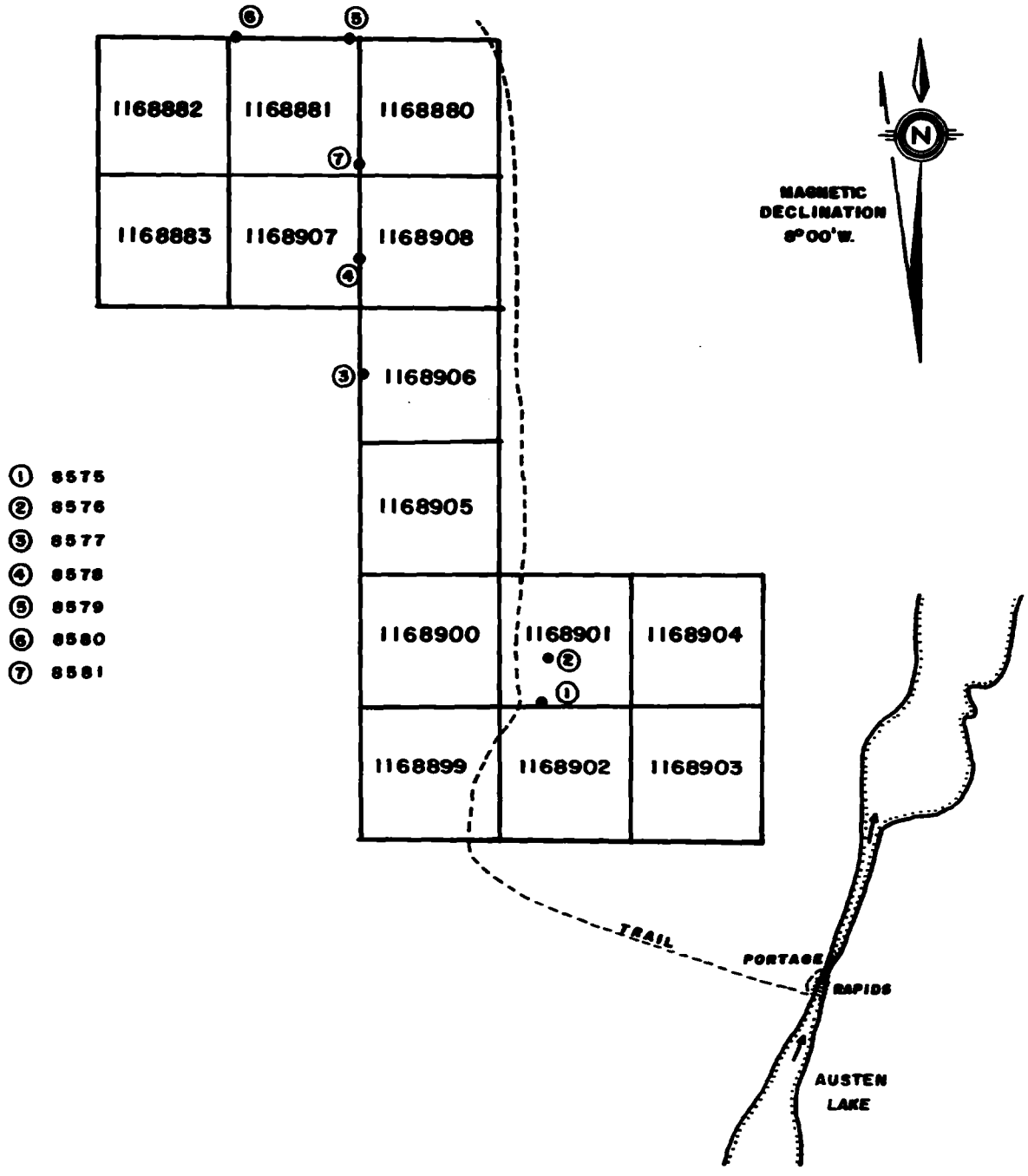
Hincks Township

ONTARIO

SCALE: 1 : 20,000

400 200 0 400

METRES



① 8575
② 8576
③ 8577
④ 8578
⑤ 8579
⑥ 8580
⑦ 8581

Hincks Twp. Property Sample Descriptions

Location #	Sample #	Description
1	8575	Basalt - Black, cherty exhalite, weakly magnetic, 1-2% py.
2	8576	Basalt - Black, silicified, fine grained iron amphibole, recrystallized.
3	8577	Intermediate Volcanic - Green, fine grained.
4	8578	Basalt - Black, carbonatized, chloritic, weakly foliated, slightly magnetic, some py, recrystallized.
5	8579	Basalt - Black, fragmental, (hyaloclastite), 1-2% py.
6	8580	Basalt - Black, silicified, fine grained iron amphibole, recrystallized.
7	8581	Basalt - Black, hyaloclastite.

ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

40027 # Certificate of Analysis

June 10 1991

Mr. Mike Leahy
139 Carter Ave.,
Kirkland Lake, ON
P2N 2A1

Work Order # 910628
Project:

SAMPLE NUMBER Accurassay	Customer	SiO2 ICAP %	Al2O3 ICAP %	Fe2O3 ICAP %	MgO ICAP %
243460	8575	57.33	10.86	16.73	4.19
243461	8576	54.33	11.83	19.02	2.42
243462	8577	58.39	12.37	12.33	4.48
243463	8578	62.67	12.22	10.93	2.77
243464	8579	53.47	12.35	16.02	3.95
243465	8580	54.12	12.01	15.73	3.86
243466	8581	51.98	12.37	17.02	4.31

SAMPLE NUMBER Accurassay	Customer	CaO ICAP %	Na2O ICAP %	K2O ICAP %	TiO2 ICAP %
243460	8575	4.81	1.44	0.47	1.735
243461	8576	4.09	3.98	0.37	1.578
243462	8577	4.76	1.98	0.16	1.224
243463	8578	4.46	3.99	0.17	1.246
243464	8579	7.86	3.30	0 20	1 735
243465	8580	7.79	2.60	0.19	1.768
243466	8581	9.28	1.05	0.20	1.785

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr G. Duncan
CHEMIST

LF-30

Per: G. Duncan

ORIGINAL

ACCURASSAY LABORATORIES

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40053 # Certificate of Analysis

June 10 1991

Mr. Mike Leahy
139 Carter Ave.,
Kirkland Lake, ON
P2N 2A1

Work Order # 910628
Project:

SAMPLE NUMBER Accurassay	Customer	P2O5 ICAP %	LOI FURN %	SUMOX CALC %	Ag ICAP ppm
243460	8575	0.25	2.80	100.6	<3
243461	8576	0.78	2.55	100.9	<3
243462	8577	0.32	3.85	99.86	<3
243463	8578	0.41	1.70	100.5	<3
243464	8579	0.25	1.75	100.9	<3
243465	8580	0.27	2.40	100.7	<3
243466	8581	0.30	2.55	100.8	<3

SAMPLE NUMBER Accurassay	Customer	Ba ICAP ppm	Cd ICAP ppm	Co ICAP ppm	Cr ICAP ppm
243460	8575	162	9	40	1190
243461	8576	86	<5	47	250
243462	8577	54	<5	<30	411
243463	8578	41	8	<30	1120
243464	8579	40	10	<30	319
243465	8580	56	11	<30	299
243466	8581	49	18	30	292

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
G. Duncan
CHEMIST

LF-30

Per: G. Duncan

ORIGINAL

ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
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President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

40063 # Certificate of Analysis

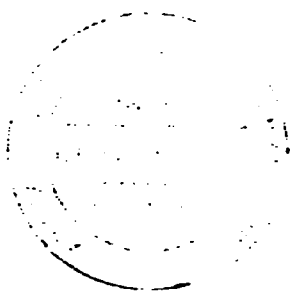
June 10 1991

Mr. Mike Leahy
139 Carter Ave.,
Kirkland Lake, ON
P2N 2A1

Work Order # 910628
Project:

SAMPLE NUMBER Accurassay	Customer	Cu ICAP ppm	Mn ICAP ppm	Ni ICAP ppm	Pb ICAP ppm
243460	8575	83	1930	250	60
243461	8576	13	1900	271	60
243462	8577	24	1110	160	70
243463	8578	42	981	120	70
243464	8579	81	1640	160	60
243465	8580	81	1850	120	70
243466	8581	99	1810	230	120

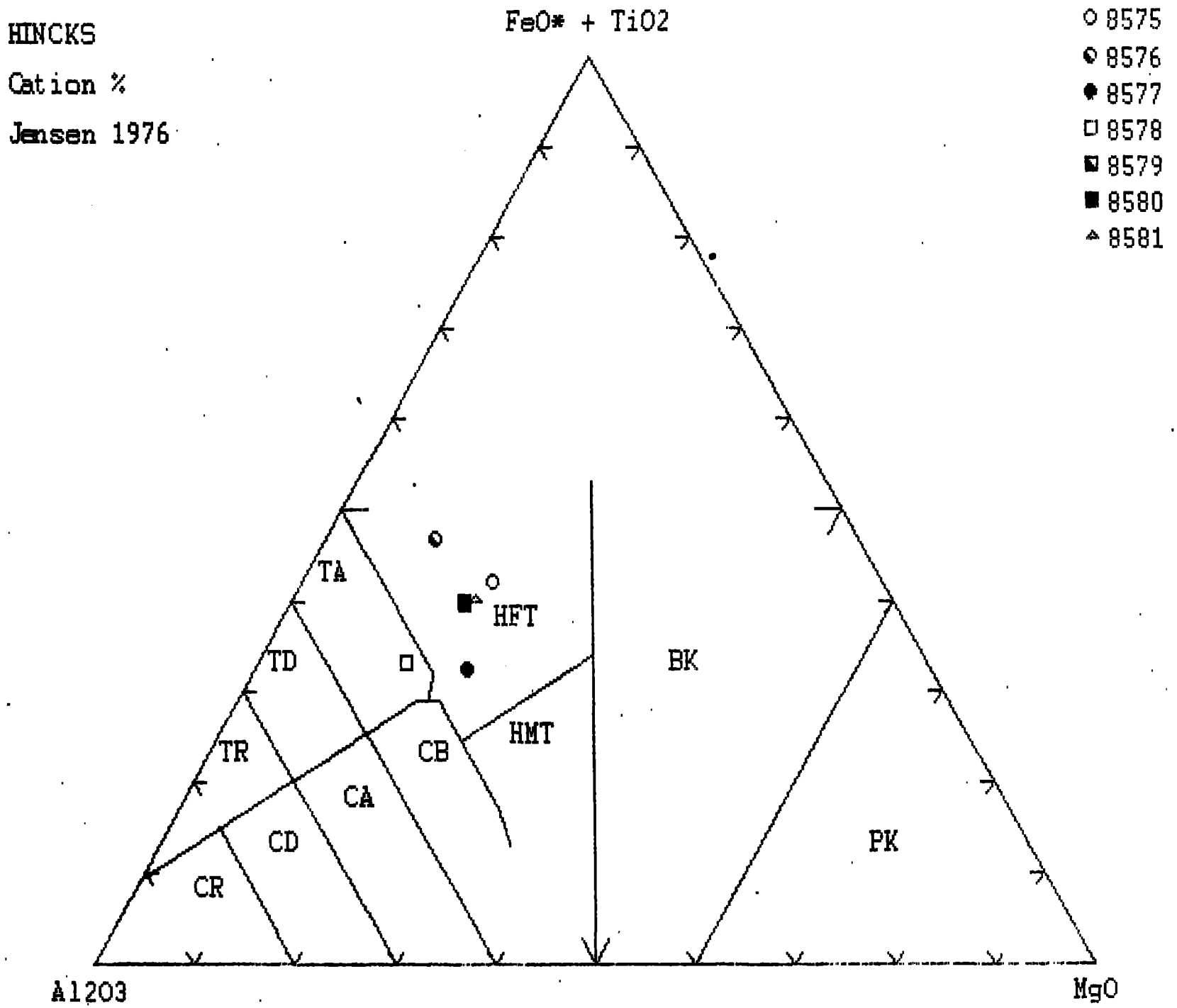
SAMPLE NUMBER Accurassay	Customer	Sr ICAP ppm	V ICAP ppm	Zn ICAP ppm	Zr ICAP ppm
243460	8575	191	447	208	150
243461	8576	46	140	196	220
243462	8577	91	220	156	220
243463	8578	86	127	153	260
243464	8579	80	474	189	150
243465	8580	151	456	194	140
243466	8581	211	492	215	150

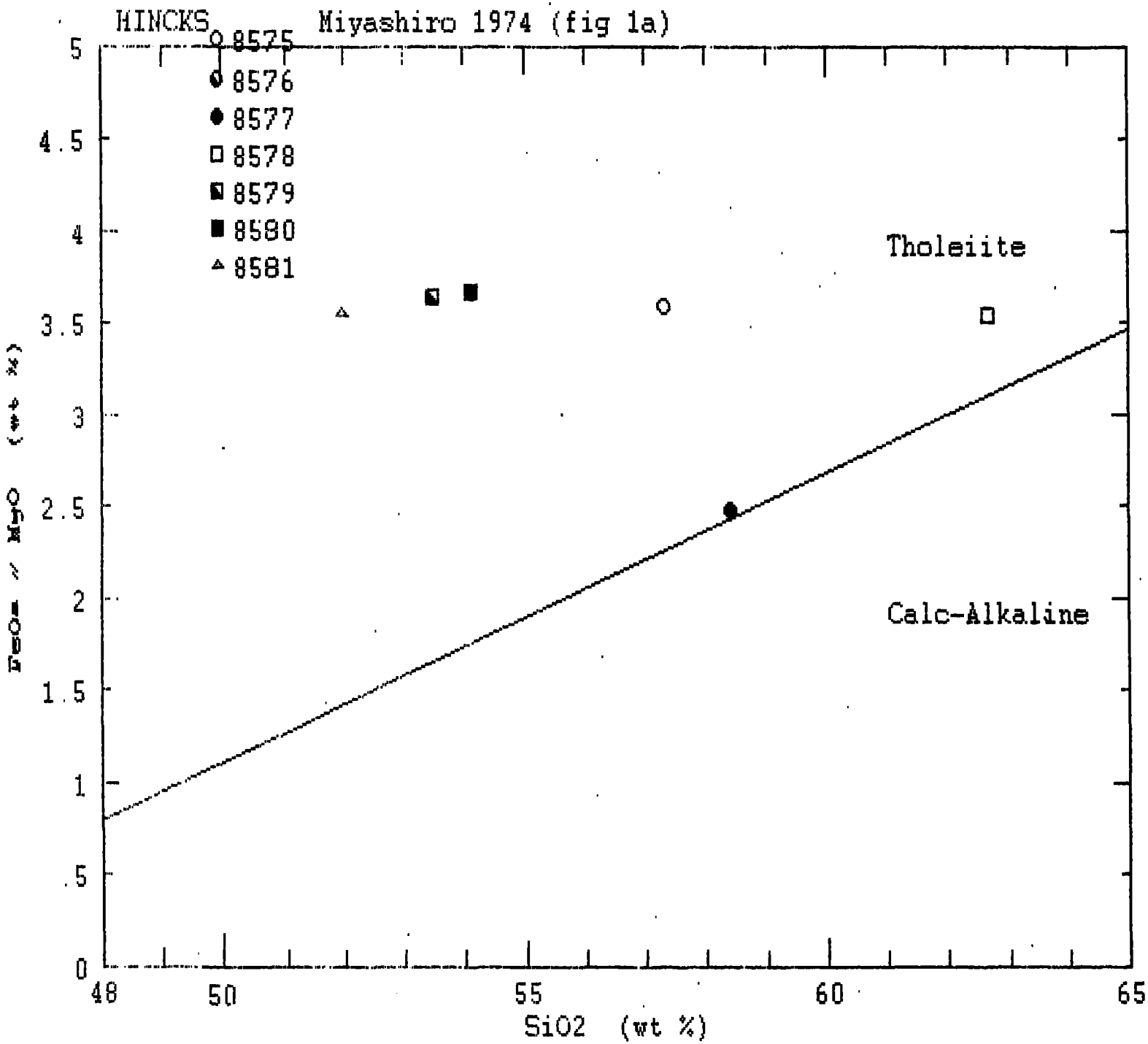


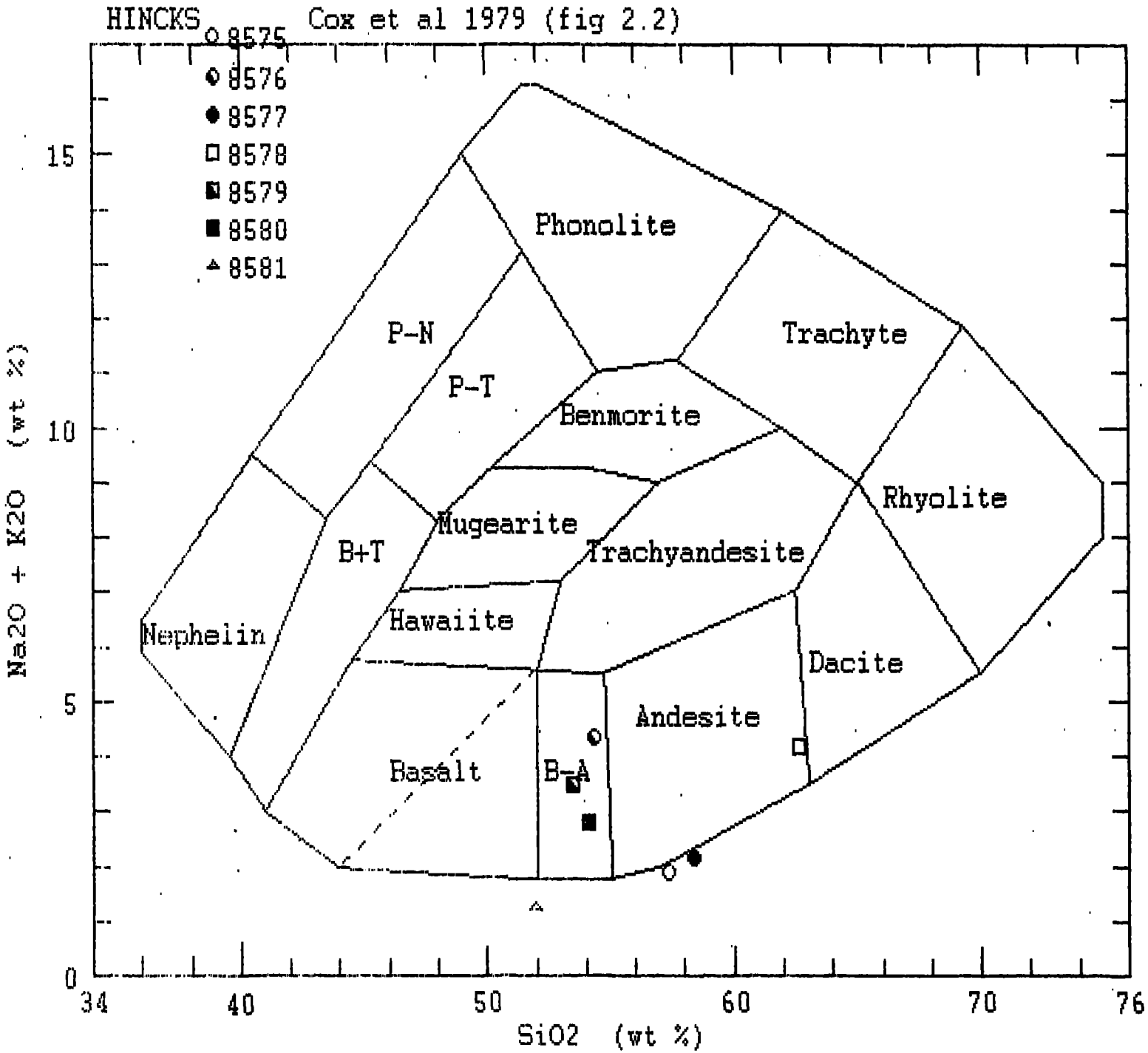
LF-30

Per: G. Duncan

ORIGINAL


HINCKS
Cation %
Jensen 1976
FeO* + TiO2
8575
8576
8577
8578
8579
8580
8581
TA
TD
TR
CR
CD
CA
CB
HMT
HFT
BK
PK
Al2O3
MgO


MINCKS
Miyashiro 1974 (fig 1a)
8575
8576
8577
8578
8579
8580
8581
Tholeiite
Calc-Alkaline
FeOt / MgO (wt %)
SiO2 (wt %)
0
.5
1
1.5
2
2.5
3
3.5
4
4.5
5
48
50
55
60
65


HINCKS
Cox et al 1979 (fig 2.2)
8575
8576
8577
8578
8579
8580
8581
Phonolite
Trachyte
P-N
P-T
Benmorite
Rhyolite
Mugearite
B+T
Trachyandesite
Hawaiite
Nephelin
Dacite
Andesite
Basalt
B-A
Na2O + K2O (wt %)
SiO2 (wt %)
0
5
10
15
34
40
50
60
70
76

V.L.F. EM-16 SURVEY

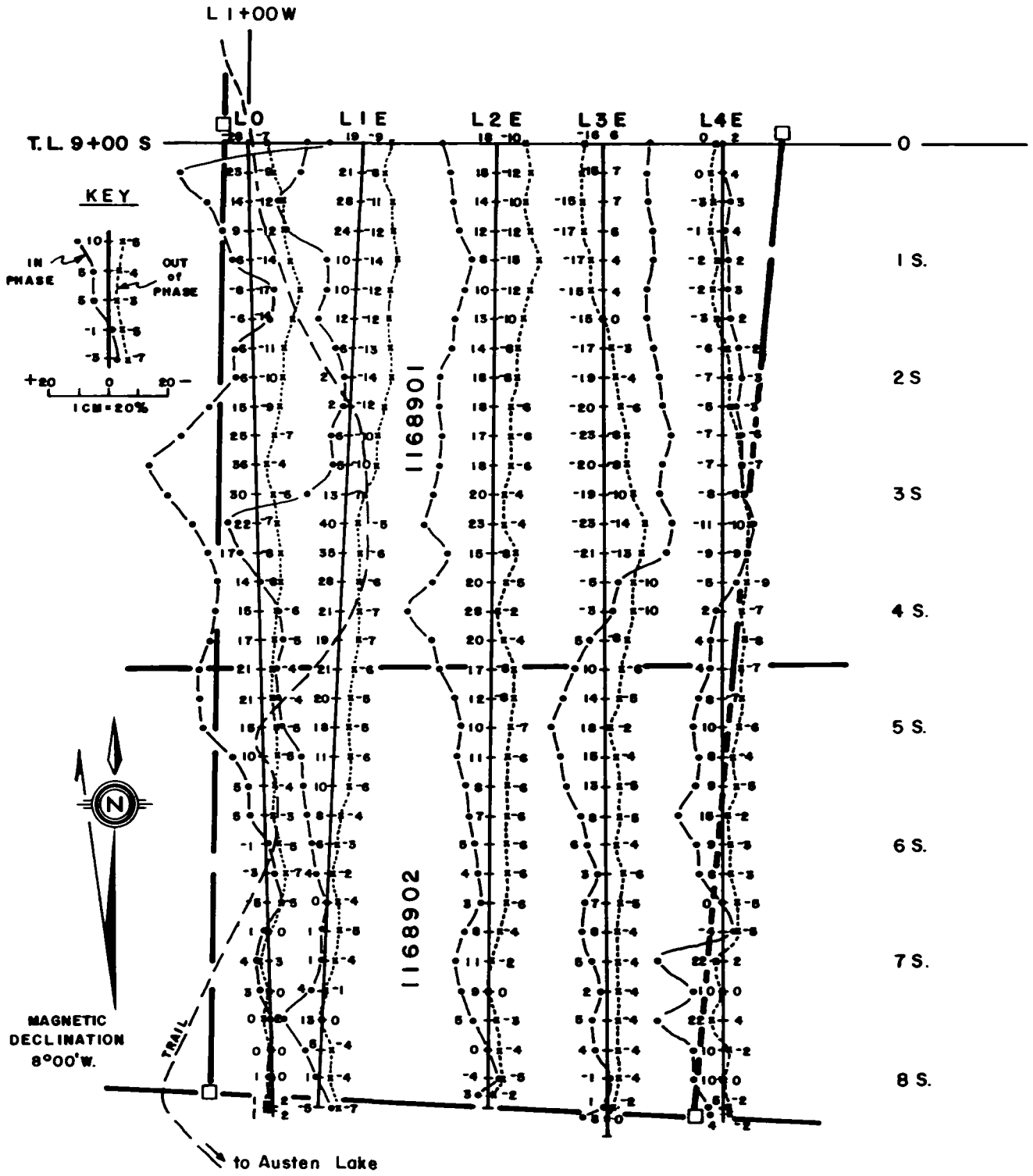
Hincks Township

ONTARIO

SCALE: 1 : 5,000

100 50 0 100

METRES



Michael Leahy Dec 91

EM16

77

VLF Electromagnetic Unit

Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

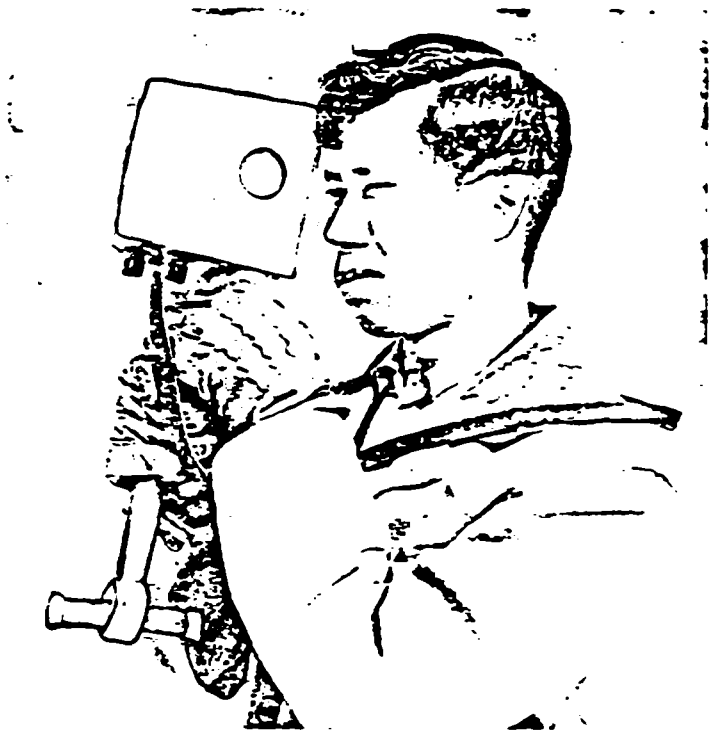
Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature* components of the secondary field *with the polarities indicated.*

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

Principle of Operation
The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.

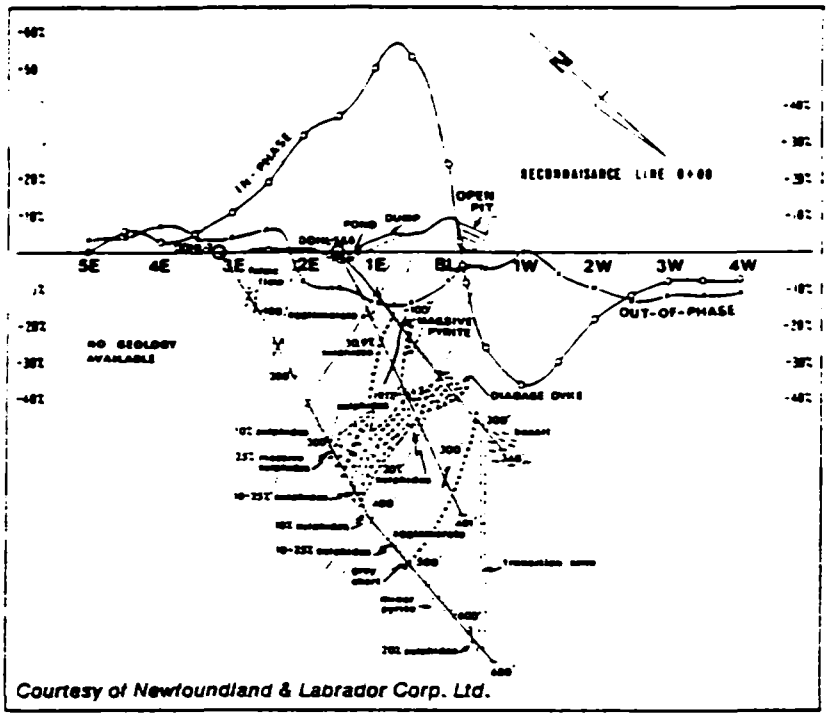


Specifications

Source of primary field	VLF transmitting stations.
Transmitting stations used	Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.
Operating frequency range	About 15-25 kHz.
Parameters measured	(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).
Method of reading	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone.
Scale range	In-phase ± 150%; quadrature ± 40%.
Readability	± 1%.
Reading time	10-40 seconds depending on signal strength.
Operating temperature range	—40 to 50° C.
Operating controls	ON-OFF switch, battery testing push button, station selector switch, volume control, quadrature dial ± 40%, inclinometer dial ± 150%.
Power Supply	6 size AA (penlight) alkaline cells. Life about 200 hours.
Dimensions	42 x 14 x 9 cm (16 x 5.5 x 3.5 in.)
Weight	1.6 kg (3.5 lbs.)
Instrument supplied with	Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional), set of batteries.
Shipping weight	4.5 kg (10 lbs.)

GEONICS LIMITED Designers & manufacturers of geophysical instruments

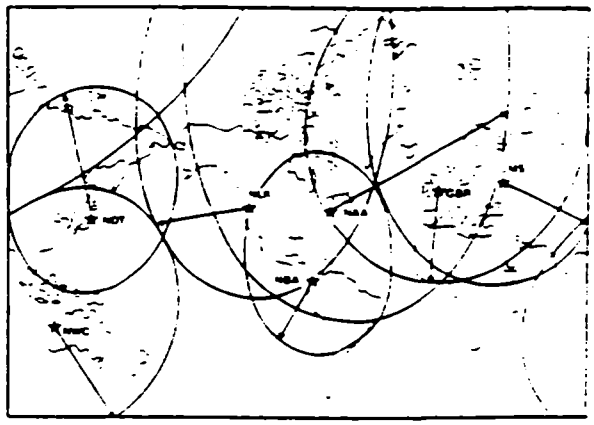
2 Thorncliffe Park Drive
Toronto/Ontario/Canada
M4H 1H2
Tel: (416) 425-1821
Cables: Geonic's



Courtesy of Newfoundland & Labrador Corp. Ltd.

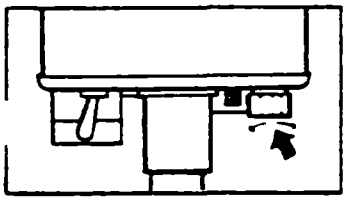
EM 16 Profile over Lockport Mine Property, Newfoundland

Additional case histories on request.



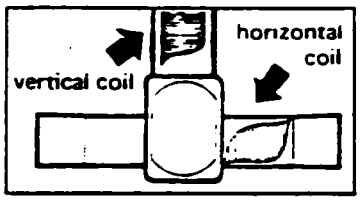
Areas of VLF Signals

Coverage shown only for well-known stations. Other reliable, fully operational stations exist. For full information regarding VLF signals in your area consult Geonics Limited. Extensive field experience has proved that the circles of coverage shown are very conservative and are actually much larger in extent.



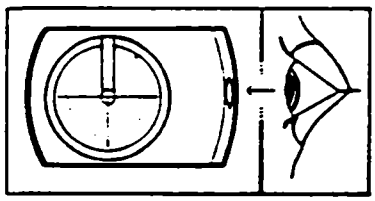
Station Selector

Two tuning units can be plugged at one time. A switch selects .her station.



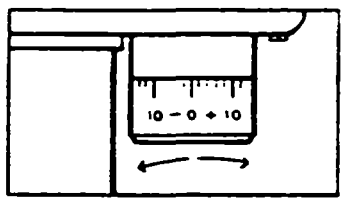
Receiving Coils

Vertical receiving coil circuit in instrument picks up any vertical signal present. Horizontal receiving coil circuit, after automatic 90° signal phase shift, feeds signal into quadrature dial in series with the receiving coil.



In-Phase Dial

shows the tilt-angle of the instrument for minimum signal. This angle is the measure of the vertical in-phase signal expressed in percentage when compared to the horizontal field.



Quadrature Dial

is calibrated in percentage markings and nulls the vertical quadrature signal in the vertical coil circuit.

By selecting a suitable transmitter station as a source, the EM 16 user can survey with the most suitable primary field azimuth.

The EM 16 has two receiving coils, one for the pick-up of the horizontal (primary) field and the other for detecting any anomalous vertical secondary field. The coils are thus orthogonal, and are mounted inside the instrument "handle".

The actual measurement is done by first tilting the coil assembly to minimize the signal in the vertical (signal) coil and then further sharpening the null by using the reference signal to buck out the remaining signal. This is done by a calibrated "quadrature" dial.

The tangent of the tilt angle is the measure of the vertical in-phase component and the quadrature reading is the signal at right angles to the total field. All readings are obtained in per centages and do not depend on the absolute amplitude of the primary signals present.

The "null" condition of the measurement is detected by the drop in the audio signal emitted from the patented resonance loudspeaker. A jack is provided for those preferring the use of an earphone instead.

The power for the instrument is from 6 penlight cells. A battery tester is provided.

Appendix x

CERTIFICATE

THIS IS TO CERTIFY:

1. I am a graduate in Prospecting Techniques from the Northern College of Applied Arts and Technology, Haileybury campus, 1976 and have completed the Haileybury School of Mines, Geophysical Field School, 1990, and the Interpretation of Ground and Airborne Geophysical Data Course, 1991. I have been active as a prospector and exploration contractor since 1974.

2. I am a member in good standing of the P.D.A., past president of the N.P.A., and director of O.M.E.F., and C.I.M.M.

3. I reside and hold office at 139 Carter Ave., Kirkland Lake, Ontario, P2N 2A1.

4. I have an interest in the property.

5. My report is based upon having personally participated in each program herein described, a review of published information on the property, consultation with local geologists and upon my familiarity and experience as a prospector in the Kirkland Lake camp.

Michael Leahy
Dec 91

REPORT ON

MAGNETIC & VLF ELECTROMAGNETIC SURVEYS

AND

GEOLOGICAL MAPPING & SAMPLING

ON

CRYSTAL LAKE PROPERTY

TOWER HILL CLAIMS

LEBEL TOWNSHIP

LARDER LAKE MINING DIVISION, ONTARIO

M. Leahy

December, 1991

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INTRODUCTION

Location & Access:

The property herein described consists of two contiguous, unpatented mining claims, (L-1045589, L-1046795) covering part of the Tower Hill along the south shore of Crystal Lake, Lebel Township, Larder Lake Mining Division, Ontario. Highway 66, running roughly E-W, passes parallel to and a few hundred feet south of the south boundary of L-1045589. The town of Kirkland lake lies about 6 miles to the west.

History:

Both claims were patented many years ago but no record of work could be found in the Resident Geologist's files in Kirkland Lake. During the process of mapping, however, several old trenches and diamond drill casings were found probably dating back to the 1950's or earlier. In 1990 the claims were prospected for one day, by A. Black and M. Leahy.

Geology:

Tower Hill lies along the east boundary of Lebel Township which is underlain by a highly complex, both structurally and stratigraphically, assemblage of Timiskaming age sediments and volcanics. Alteration varies from moderate to intense and is accompanied by strong deformation, spotted textures and complete obliteration of the original rock type in places.

The object of the 1991 program was to search for gold bearing zones within the trachytes using the Morris Kirkland Gold Mine as a model. Ore at the Morris, one mile to the west of the property, was found in and adjacent to north trending felsic dikes cross cutting the trachyte. Just south of the property in a rock cut on Highway 66, gold occurs in trachyte adhacent to a syenite dike with a roughly north - south trend.

1991 EXPLORATION PROGRAM

1. Line Cutting:

Picket lines were cut over both claims at 300' intervals using the north boundaries of each claim as base lines. A total of 2.5 miles were cut with stations every 100'.

2. Geological Survey:

Using the picket line grid and newly established (surveyed) patented claim boudaries for control the geology of the claims was mapped and sampled. Results were plotted on a map with a scale of 1" = 200' or 1:2400. Eleven grab samples were taken and assayed for Au with one sample also subject to whole rock analysis.

3. VLF-EM Survey:

On October 1, 1991, a VLF-EM survey was conducted over claim L-1046795 only, due to interference from the high voltage line traversing claim # L-1045589; a Ronka VLF-EM16 was used. Lines 0, 3W, 6W, 9W and 12W were read at 50' and 100' intervals with 109 readings taken. A total of 1.2 miles of line were traversed. The station used was Cutler, Maine, at 24.0khz. All readings were taken facing north.

4. Magnetic Survey:

A magnetic survey was conducted over both claims using a Geometrics proton magnetometer model 250, on October 1, 1991. Readings were taken at various intervals of 100' and less. A base station was established at the #2 post of L-1046795 but due to the slight diurnal variation no corrections were necessary. Results were plotted on a map with a scale of 1" = 200' and contoured at 500 gamma intervals.

RESULTS OF GEOLOGICAL SURVEY

Only one geological contact was noted between trachytes and tuffaceous rocks through the centre of claim L-1045589. South of the contact highly altered, deformed frine grained gray tuff dips vertically and strikes E-W. The area north of the contact is underlain by highly altered trachytes with red, green and black spotted textures. Rocks are locally silicified, carbonatized and pyritized. Several old trenches were mapped along barren quartz veins near the tower. At the base of the tower a narrow quartz breccia zone contains chalcopyrite and malachite. Whole rock analysis of sample #12-544, a black-spotted trachyte, were plotted, (Jensen Cation 1976, Cox et al, 1979), with charts attached.

RESULTS OF MAGNETIC SURVEY

The magnetic survey succeeded in defining the trachute - tuff contact north of the high voltage line. The trachyte show a relatibely low magnetic relief around 58,000 gammas while the tuffs have a higher and more variable magnetite content giving readings as high as 60,000 gammas. A small linear high extending west from the tower may be less altered than the surrounding rocks where magnetite may have been altered to hematite. Crystalline magnetite was observed in outcrop at L12E + 250S in bedded tuffs.

RESULTS OF ELECTROMAGNETIC SURVEY

The VLF-EM survey over L-1046795 only revealed no bedrock conductors. Interference from the low voltage power line to the tower, guy wires and the high boltage power lintto the south affected readings but does not seem to be masking any significant bedrock response.

CONCLUSIONS

1. No gold values were obtained from sampling.
2. No VLF-EM conductors were defined.
3. No magnetic features of interest were defined.
4. No strong shears or faults were defined.
5. No Morris-Kirkland type dikes were found.

RECOMMENDATIONS

No further work is recommended at this time. A stripping program recommended in 1990 could not be justified without some gold values.

Michael Leahy 91

APPENDIX II: LEBEL SAMPLE DESCRIPTIONS

# ON MAP	SAMPLE #	LOCATION	DESCRIPTION	Au PPB
1	8582	425W + 9S	Trachyte - light green, highly altered , 1% fine disseminated pyrite.	10
2	8583	450W + 950S	Mafic intrusive, medium grained amphibole in green matrix.	NIL
3	8584	425W + 925S	Trachyte - gray-green, silicified, pyrite and magnetite.	NIL
4	12-539	L3W + 880S	Trachyte - green matrix with dark red feldspar spots (from trench).	NIL
5	12-540	L6W + 850S + 10'W	Trachyte - very dark red, fine grained, silicified, pyrite.	NIL
6	12-541	L9W + 9S	Trachyte - dark red, porphyritic, 1% fine disseminated pyrite.	NIL
7	12-542	BL + 125E	Trachyte - green spotted, carbonatized, silicified.	NIL
8	12-543	L9E + 570S	Tuff, fine grained, gray.	NIL
9	12-544	L9E + 320S	Trachyte - gray matrix with black spots (See whole rock charts.)	NIL
10	12-545	L6E + 510S	Tuff, fine grained, gray.	NIL
11	12-546	250E + 5S	Tuff, gray-green, carbonatized, silicified, <1% pyrite.	NIL

Note: Samples # 12-539 to 12-540 inclusive, were tested with a scintillometer (Scintrex: model BGS 1S) on IKF (low) scale. All gave readings of 20 - 30 counts/sec. which was equivalent to background.

Lease

ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

41057 # Certificate of Analysis

Leahy, Mike
139 Carter Ave.
Kirkland Lake, Ontario
P2N 2A1

August 29 91

Work Order # : 911079
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
248043	12-539	<5	<0.001	
248044	12-540	<5	<0.001	
248045	12-541	<5	<0.001	
248046	12-542	<5	<0.001	
248047	12-543	<5	<0.001	
248048	12-544	<5	<0.001	
248049	12-545	<5	<0.001	
248050	12-546	<5	<0.001	
248050	12-546	<5	<0.001	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

Leicaf

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

1W-4471-RG1

Company: **M. LEAHY**

Date: NOV-21-91

Project:

Copy 1. 139 CARTER AVE, KIRKLAND LAKE

Attn:

We hereby certify the following Geochemical Analysis of 3 ROCK samples submitted NOV-19-91 by .

Sample Number	Au PPB
8582	10/10
8583	Nil
8584	Nil

Certified by _____

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705) 642-3300

ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

41096 # Certificate of Analysis

September 4, 1991

Mr. Mike Leahy
139 Carter Ave.,
Kirkland Lake, ON
P2N 2A1

Work Order # 911079
Project:

SAMPLE NUMBER		Al2O3 ICAP	Fe2O3 ICAP	MgO ICAP	CaO ICAP	Na2O ICAP
Accurassay	Customer	%	%	%	%	%
248048	12-544	20.4	5.11	1.17	1.78	1.50

SAMPLE NUMBER		K2O ICAP	TiO2 ICAP	MnO ICAP	Ag ICAP	Be ICAP
Accurassay	Customer	%	%	%	ppm	ppm
248048	12-544	8.33	0.664	0.14	<1	6.9

SAMPLE NUMBER		Cd ICAP	Co ICAP	Cr ICAP	Cu ICAP	Mo ICAP
Accurassay	Customer	ppm	ppm	ppm	ppm	ppm
248048	12-544	<1	<5	155	109	<20

SAMPLE NUMBER		Ni ICAP	Pb ICAP	Sr ICAP	Th ICAP
Accurassay	Customer	ppm	ppm	ppm	ppm
248048	12-544	16	76	611	51

SAMPLE NUMBER		V ICAP	Zn ICAP	Zr ICAP
Accurassay	Customer	ppm	ppm	ppm
248048	12-544	168	128	312

Per: G. Duncan

LF-30

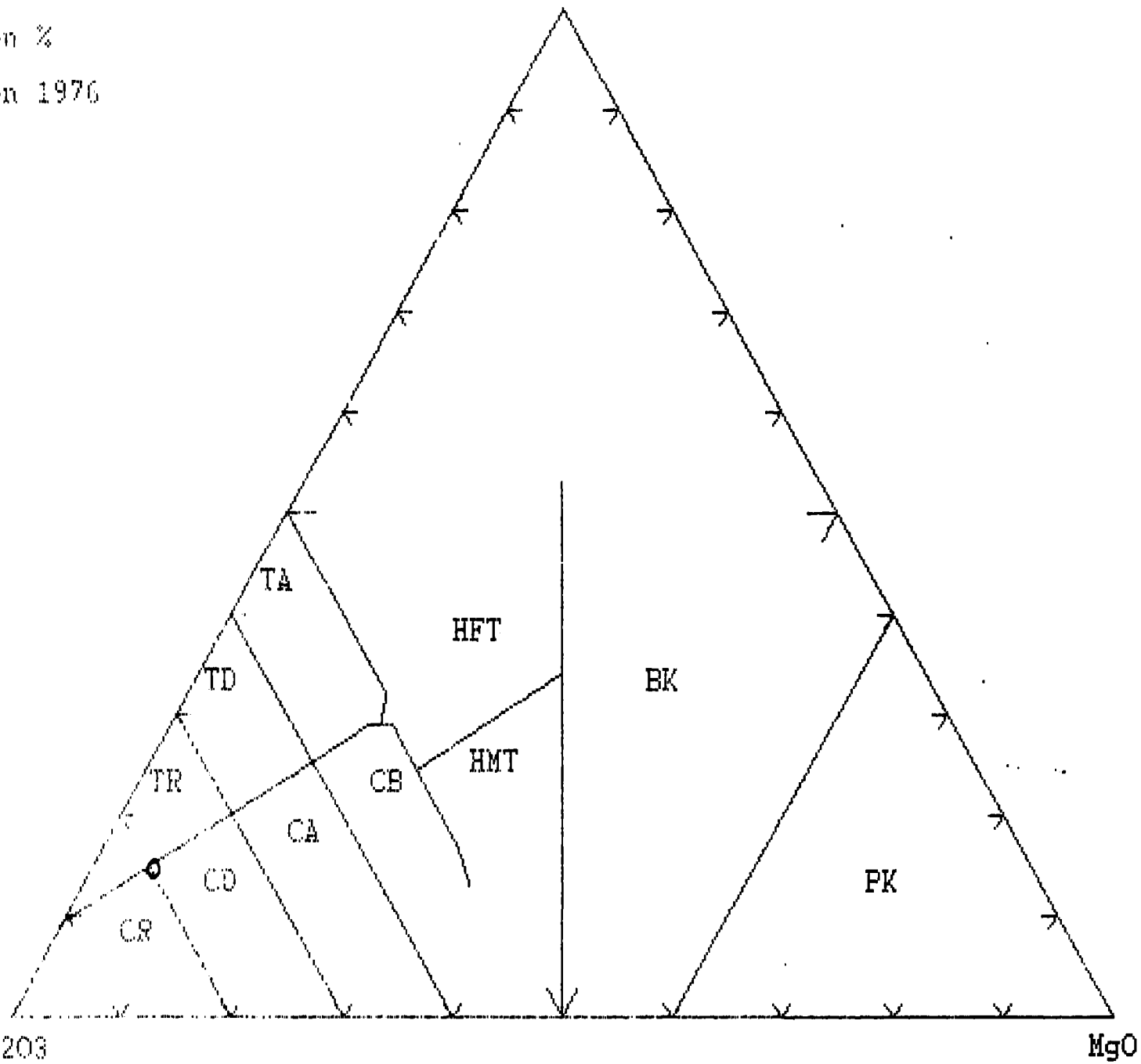
ORIGINAL

CRYSTAL LAKE

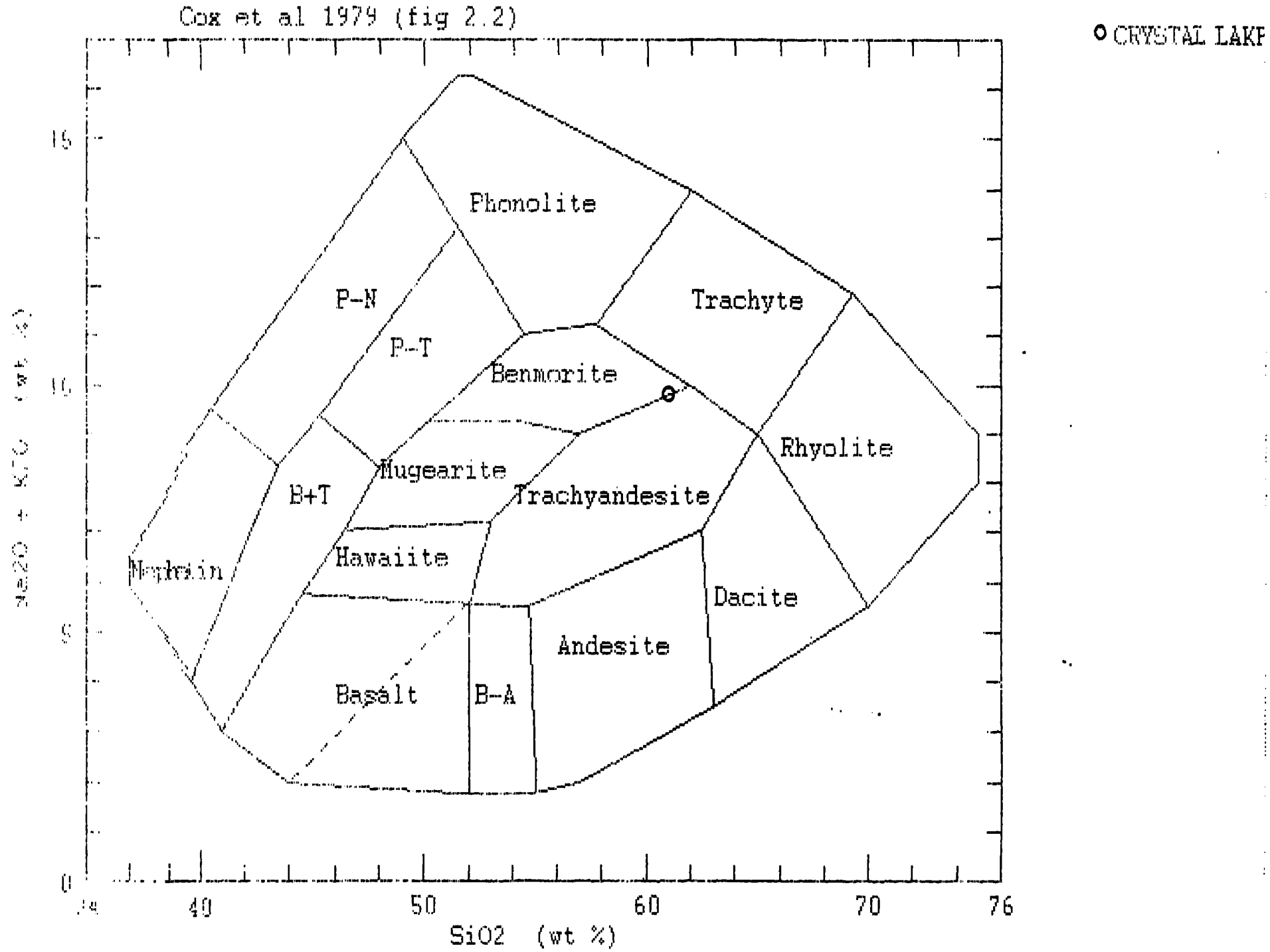
Cation %

Green 1970

FeO* + TiO2



CRYSTAL LAKE


Cox et al 1979 (fig 2.2)
CRYSTAL LAKE
Phonolite
Trachyte
P-N
P-T
Benmorite
Rhyolite
Mugearite
B+T
Trachyandesite
Hawaiite
Nephelinite
Dacite
Andesite
Basalt
B-A
15
10
5
0
40
50
60
70
76
SiO2 (wt %)

EM16

77 VLF Electromagnetic Unit

Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

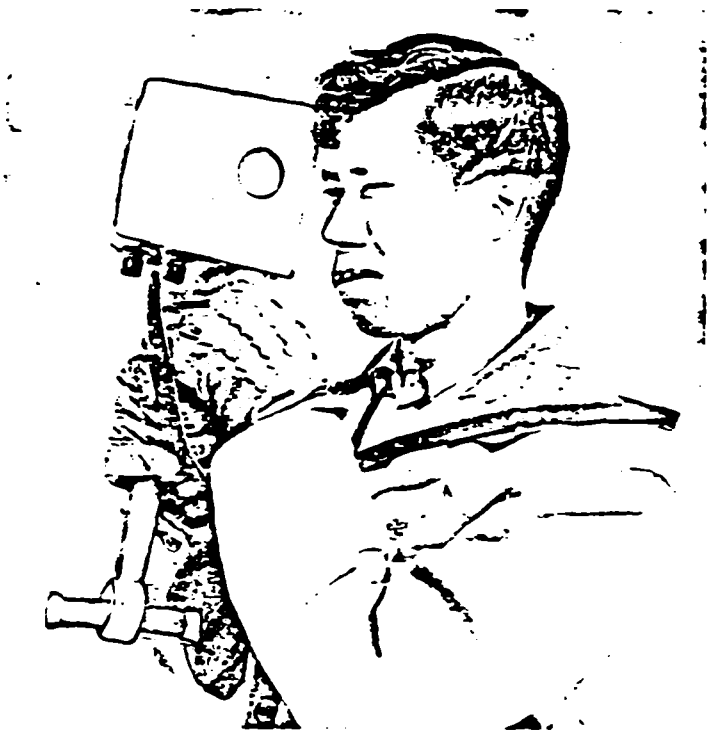
Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature* components of the secondary field *with the polarities indicated.*

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

Principle of Operation
The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.

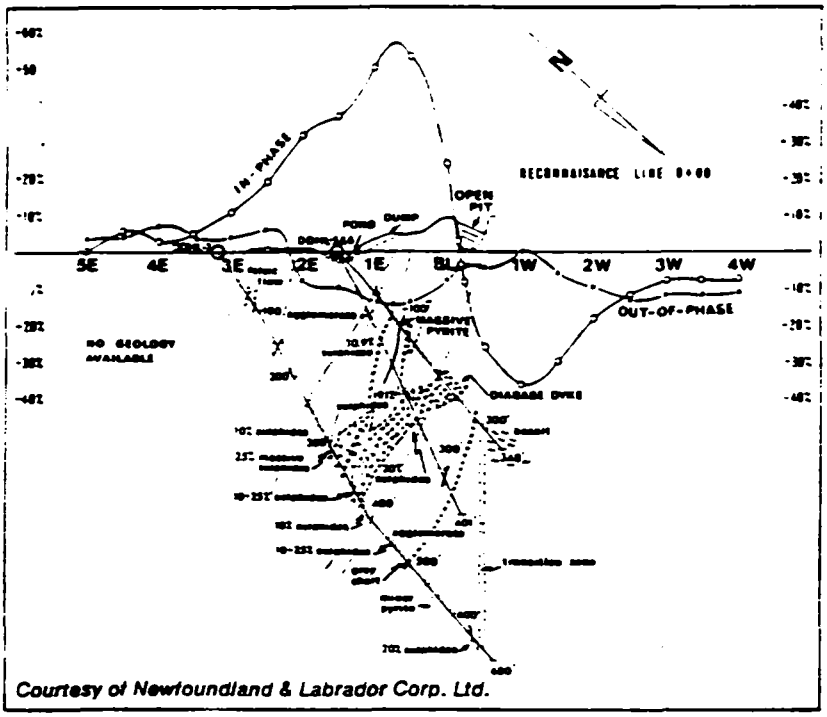


Specifications

Source of primary field	VLF transmitting stations.
Transmitting stations used	Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.
Operating frequency range	About 15-25 kHz.
Parameters measured	(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).
Method of reading	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone.
Scale range	In-phase ± 150%; quadrature ± 40%.
Readability	± 1%.
Reading time	10–40 seconds depending on signal strength.
Operating temperature range	—40 to 50° C.
Operating controls	ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature, dial ± 40%, inclinometer dial ± 150%.
Power Supply	6 size AA (penlight) alkaline cells. Life about 200 hours.
Dimensions	42 x 14 x 9 cm (16 x 5.5 x 3.5 in.)
Weight	1.6 kg (3.5 lbs.)
Instrument supplied with	Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional), set of batteries.
Shipping weight	4.5 kg (10 lbs.)

GEONICS LIMITED Designers & manufacturers of geophysical instruments

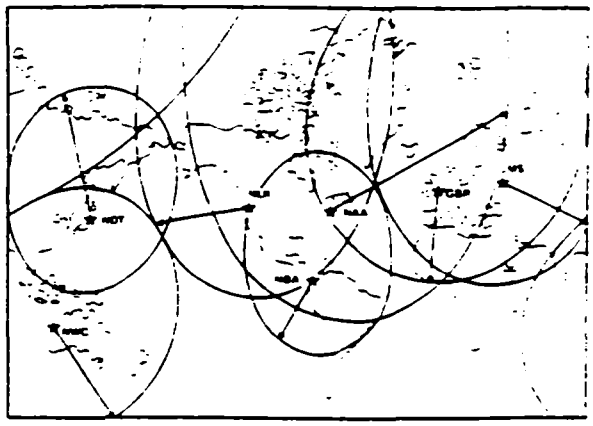
2 Thorncliffe Park Drive
Toronto/Ontario/Canada
M4H 1H2
Tel: (416) 425-1821
Cables: Geonic's



Courtesy of Newfoundland & Labrador Corp. Ltd.

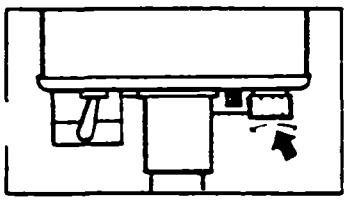
EM 16 Profile over Lockport Mine Property, Newfoundland

Additional case histories on request.



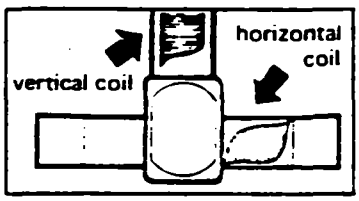
Areas of VLF Signals

Coverage shown only for well-known stations. Other reliable, fully operational stations exist. For full information regarding VLF signals in your area consult Geonics Limited. Extensive field experience has proved that the circles of coverage shown are very conservative and are actually much larger in extent.



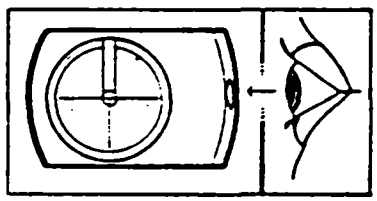
Station Selector

Two tuning units can be plugged at one time. A switch selects .her station.



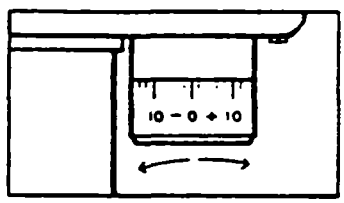
Receiving Coils

Vertical receiving coil circuit in instrument picks up any vertical signal present. Horizontal receiving coil circuit, after automatic 90° signal phase shift, feeds signal into quadrature dial in series with the receiving coil.



In-Phase Dial

shows the tilt-angle of the instrument for minimum signal. This angle is the measure of the vertical in-phase signal expressed in percentage when compared to the horizontal field.



Quadrature Dial

is calibrated in percentage markings and nulls the vertical quadrature signal in the vertical coil circuit.

By selecting a suitable transmitter station as a source, the EM 16 user can survey with the most suitable primary field azimuth.

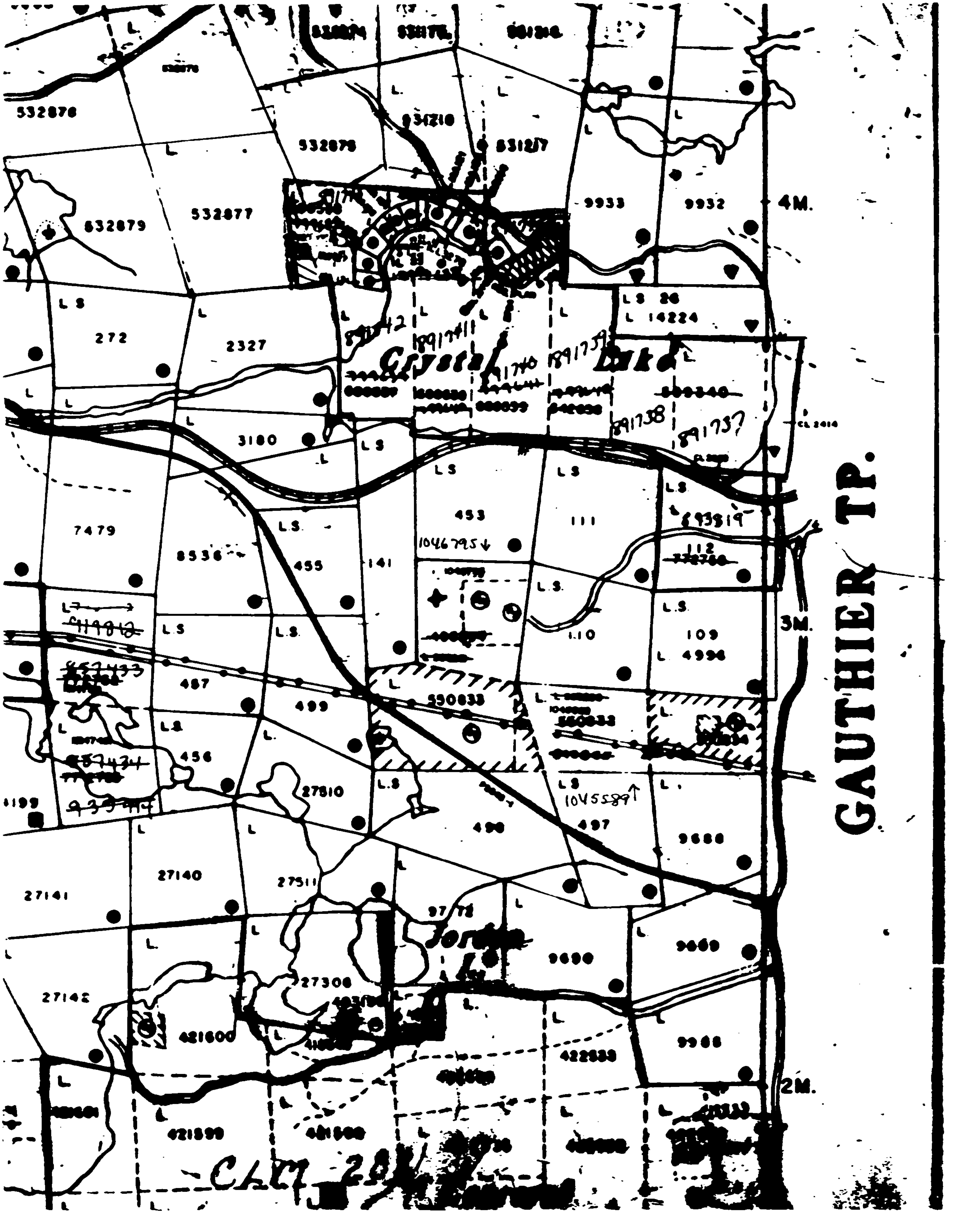
The EM 16 has two receiving coils, one for the pick-up of the horizontal (primary) field and the other for detecting any anomalous vertical secondary field. The coils are thus orthogonal, and are mounted inside the instrument "handle".

The actual measurement is done by first tilting the coil assembly to minimize the signal in the vertical (signal) coil and then further sharpening the null by using the reference signal to buck out the remaining signal. This is done by a calibrated "quadrature" dial.

The tangent of the tilt angle is the measure of the vertical in-phase component and the quadrature reading is the signal at right angles to the total field. All readings are obtained in per centages and do not depend on the absolute amplitude of the primary signals present.

The "null" condition of the measurement is detected by the drop in the audio signal emitted from the patented resonance loudspeaker. A jack is provided for those preferring the use of an earphone instead.

The power for the instrument is from 6 penlight cells. A battery tester is provided.


GAUTHIER TP.
Crystal Lake
4M.
3M.
2M.
532878
532877
532879
532875
9933
9932
272
2327
3180
LS 26
L 14224
7479
8536
455
141
453
111
112
110
109
L 4994
487
499
456
27510
27140
27141
27511
27142
421600
422533
421599
9688
9689
9690
9988
496
497
1046795
1045589
891738
891737
893819
97772
27308

Appendix

CERTIFICATE

THIS IS TO CERTIFY:

1. I am a graduate in Prospecting Techniques from the Northern College of Applied Arts and Technology, Haileybury campus, 1976 and have completed the Haileybury School of Mines, Geophysical Field School, 1990, and the Interpretation of Ground and Airborne Geophysical Data Course, 1991. I have been active as a prospector and exploration contractor since 1974.

2. I am a member in good standing of the P.D.A., past president of the N.P.A., and director of O.M.E.F., and C.I.M.M.

3. I reside and hold office at 139 Carter Ave., Kirkland Lake, Ontario, P2N 2A1.

4. I have an interest in the property.

5. My report is based upon having personally participated in each program herein described, a review of published information on the property, consultation with local geologists and upon my familiarity and experience as a prospector in the Kirkland Lake camp.

Michael Leahy

Dec 91

REPORT on

HLEM (MAX MIN) SURVEY

GEOLOGICAL SURVEY

DIAMOND DRILLING

LADY LOU PROPERTY

BOMPAS TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO

M Leahy

December, 1991

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INTRODUCTION

Location:

The property herein described consists of one unpatented mining claim, L-1110266, located about 1 1/4 mile north of the SE corner of Bompas Township, Larder Lake Mining Division, Ontario. The claim lies just west of the north end of Kenogami Lake and 1/2 mile northwest of Hotchkin (Little Kenogami) Lake. The town of Kirkland Lake lies about 11 miles to the east.

Access:

Grenfell Road leads west from Highway 11 at Kenogami and passes within 2,000' of the property along the eastern boundary of Bompas Township. The road is maintained year-round for about 3 miles from the Trans-Canada where it becomes passable only by pickup truck. A trail was cut in June of 1991, from Grenfell road to the #1 shaft. The trail is passable by light all-terrain vehicles, only.

History:

The property covers the old Lady Lou shaft area which was first discovered and worked around 1940. At that time, two shallow shafts (approximately 50' deep), were sunk and some surface trenching was done. In 1990, a Magnetic Survey, Electromagnetic Survey and Self-Potential Survey were performed.

Geology - Regional:

The property lies near Kirkland Lake in the Abitibi super-group of steeply dipping Archean metavolcanics and metasediments which straddles the Ontario - Quebec border. The famed E-W striking Larder - Cadillac break passes about 2 1/2 miles to the south. The property lies on a thin, 5 mile wide, N-S trending outlier of flat lying Huronian sediments bound on the east by mafic Kinojevis metavolcanics and on the west by the Watabeag batholith (Algoman).

Geology - Lady Lou Claim:

The property is underlain by Huronian sediments 1/4 mile west of the eastern edge of the above mentioned Huronian outlier. Mineralization and geology were described by Lovell, 1980.

"Mineralized rock in dumps consists of quartz veins cutting Cobalt Group Gowganda Formation Coleman Member feldspathic sandstone (arkose). The quartz veins are vuggy in places, with euhedral crystals of quartz as drusy linings of gas spaces. Metallic minerals in the veins are chalcopyrite, pyrite, sphalerite and gold.

Geology - Lacy Lou Claim, cont'd.:

Quartz veins of an aggregate width of about 0.6m (2') strike N 30 W and dip 75 SW, and cut Cobalt Group arkose. The veins contain pyrite. chalcopyrite and gold. A brecciated fracture zone containing pyrite, chalcopyrite and galena strikes across about perpendicular to the quartz band."

1991 EXPLORATION PROGRAM

Line Cutting Program:

Three new picket lines (L9W, L11W and L13W) were added to last year's grid, (2,200', in 1991). Deadfall was cleared from last year's grid and a trail was cut from Grenfell road to the #1 shaft.

Max Min Horizontal Loop EM Survey:

On September 20, 1991, three lines were read on the property in search of possible EM conductors beneath the flat - lying Huronian sediments. A total of 50 readings were taken at 50' or 100' intervals along L8W, L10W and the south part of the baseline. Two frequencies were read (444, 1777khz), along all lines at a 300' coil separation. Results were plotted on a map with a scale of 1" = 200'. No conductive zones were detected.

Geological Survey:

The entire claim was mapped using grid lines for control. All outcrops, pits. veins and topo features were noted and plotted on a map with a scale of 1" = 200'. The claims are underlain by Huronian arkose dipping very gently west. A few narrow quartz veins were found with minor pyrite, chalcopyrite and galena. At the #2 shaft dump angular, epidotized basalt and epidotized Huronian arkose were found indicating the shaft penetrated through to basement. Whole rock analyses define the basalt as a high magnesium Tholeite, (see Jensen Cation plot. attached). Several samples were taken, mostly from the shaft dumps, and all were assayed for gold with disappointing results.

1991 EXPLORATION PROGRAM

Diamond Drilling Program:

Three short diamond drill holes were put down as follows:

DDH LL - 1- Collared at L10W + 160S at #1 shaft.

- Bearing 40
- Dip 45
- Depth 60'
- Target: 1.- testing depth of Huronian sediments,
  2.- search for veins parallel to #1 shaft vein.
- Results: - hole stopped in Huronian sediments,
  - only a few narrow barren quartz veins encountered.
- Assays - none taken.

DDH LL - 2- Collared at L10W + 160S at #1 shaft.

- Bearing 90
- Dip 45
- Depth 28'
- Target: 1.-shear under gully & perpendicular to shaft vein,
  2.-collared in shaft vein to get core sample of chalcopyrite in quartz.
- Result: -hole caved, jammed rods at 28' after grinding core.
- Assays: - none taken.

1991 EXPLORATION PROGRAM

Diamond Drilling Program, cont'd.:

DDH LL -3- Collared at 1150W + 2S at #2 shaft.

- Bearing 315
- Dip 45
- Depth 12'
- Target: - shear zone joining #1 and #2 shafts.
- Result: - hole lost in cave; abandoned at 12'.
- Assays: - none taken.

The Boyle Bros. "XRay" diamond drill employed in the program was unable to core through broken ground or to collar through overburden. Anchor bolts had to be set in bedrock to hold the drill stationary. The two speed transmission did not give the flexibility needed to handle varying ground conditions. Even when operated by a professional driller, the "XRay" is difficult and dangerous to work with and should only be used under ideal drilling conditions.

Self - Potential Survey:

A follow-up S-P survey was done to further test subtle responses detected during the 1990 program. A Micronta model 22-185A LCD digital multimeter with an accuracy of +/- 0.8% of reading and +/- 0.2% of full scale was used with porous porcelain pots containing CuSO4 and H2O. The long wire technique was used giving readings relative to a single base point along the base line. Drought conditions during 1991 contrasted with wet soil conditions in 1990 which gave relatively high background potentials. The 1991 survey, under dry conditons gave smoother and lower readings effectively erasing the subtle responses (+ or - 100mv) recorded last year. A total of 79 readings were taken and plotted on a map with a scale of 1" = 200'. All the 1991 readings were low enough to be interpreted as zero.

CONCLUSIONS

Max Min HLEM Survey:

There were no conductors detected in traverses across the shaft vein or across the shear zone along the creek between the #1 and #2 shafts.

CONCLUSIONS

Geological Survey:

All out crops are gently dipping arkose with a few narrow quartz veins, some containing chalcopyrite, galena and pyrite. Underlying basalts are within about 50' of surface at the #2 shaft, as indicated by angular basalt boulders and epidotized arkose in shaft dump. There were no assays of economic interest; basement rocks have little base metal potential.

Diamond Drilling Program:

Short holes gave little information and many problems. The XRay drill has severe limitations. No mineralization of interest intersected.

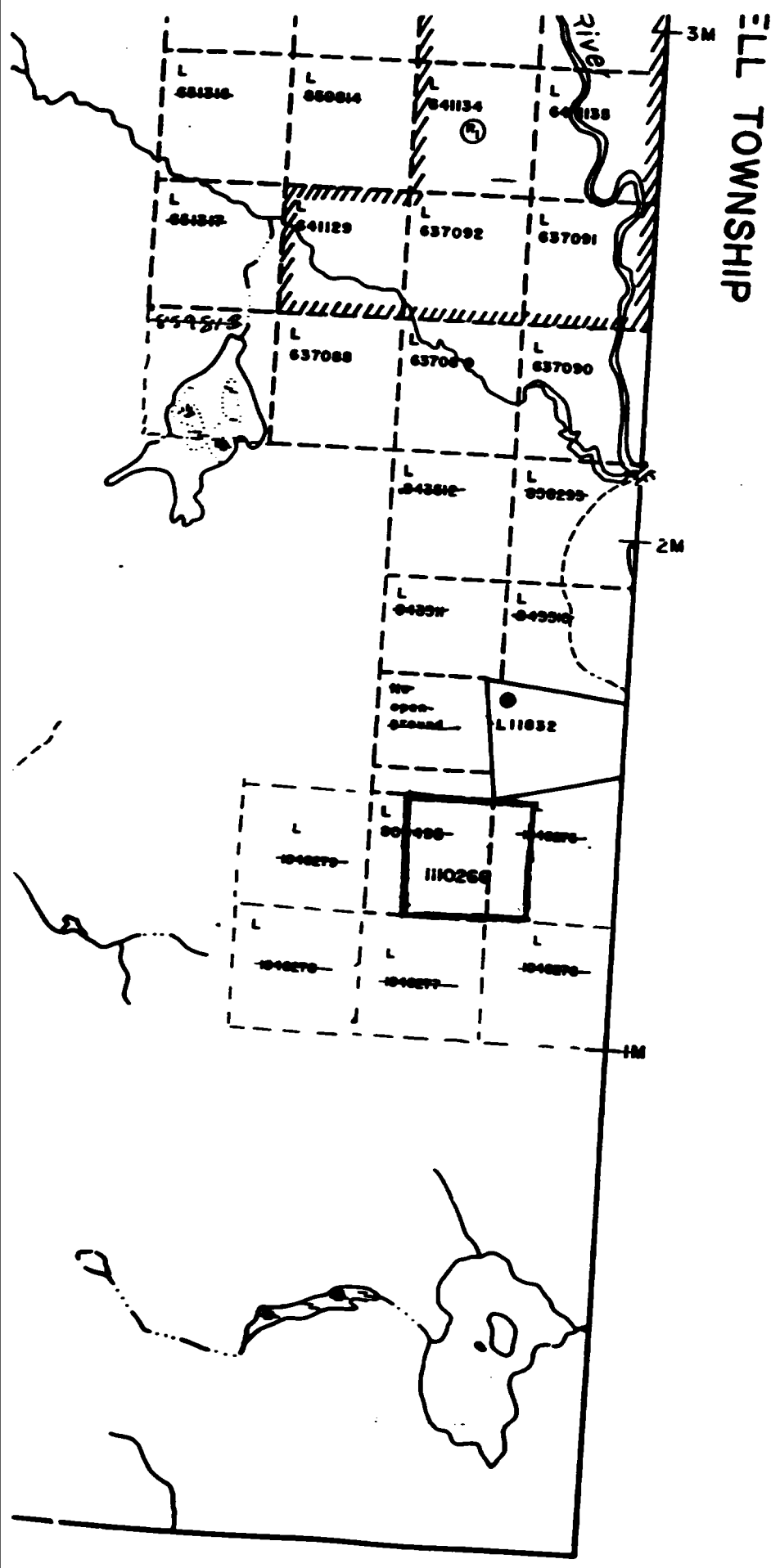
Self - Potential Survey:

Dry conditions in 1991, gave smoother, lower readings discounting the possibility that subtle highs from the 1990 survey were caused by sulfides.

RECOMMENDATIONS

The Lady Lou claim appears to have no economic potential at this time. No further exploration is recommended. The property does, however, have historic value. The shaft area is picturesque with a small intermittent stream flowing through the #1 shaft then down a narrow mossy canyon to the beaver ponds velow. The partially collapsed hoist room contains a steam powered hoist and water pump as well as parts of the boiler system and other artifacts. At the #2 shaft a short tramway runs for 50' along a moss covered muck pile. An old side-dump ore car and hoisting bucket lie nearby. Efforts should be made to preserve the site and equipment and consideration should be given to restoring the site as an historic landmark.

Michael Lasky
Dec 91



Appendix I
Claim Map #G-3605

LADY LOU

PROSPECT

THE INFO
APPEARS
HAS BEE
FROM VAR
AND ACC
GUARANT
WISHING
ING CLAIM
SULT WITH
RECORDER,
NORTHERN
MENT AND
DITIONAL
ON THE ST.
LANDS SHOW

March 28/90

TOWNSHIP

BOMPAS

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES / REGISTRY DIVISION

TIMISKAMING

Ontario

Ministry of Natural Resources

Ministry of Northern Development and Mines

LADY LOU SAMPLE DESCRIPTIONS, 1991

# on MAP	SAMPLE #	LOCATION	DESCRIPTION	Au	Cu	Pb
1	12-540-A	L12W + 450S	Arkose, fine to med. grained. 1% py.	NIL		
2	12-544-A	L9W + 50N + 40'SW	Arkose, fine grained, silicified, breccia, QV, Cp.	NIL	19	
3	12-550 *	#2 shaft dump	Basalt, black, fine grained weakly magnetic.	NIL		
4	12-547	#1 shaft dump	Arkose, QV.	NIL		
5	12-548	#1 shaft dump	Arkose, QV, Cp .	NIL	1760	
6	12-549	#2 shaft dump	Arkose, silicified, epidote, QCV, Py, galena .	NIL	444	2710
7	V-4792	#2 shaft dump	Arkose, med. grained, dark, > 1% fine diss. Py.	NIL		
8	V-4793 *	#2 shaft dump	Arkose, epidote, fine Py.	NIL		
9	V-4794	#2 shaft dump	Basalt, black, fine grained, epidote.	NIL		
10	V-4795 *	#2 shaft dump	Basalt, black, fine grained, carbonate stringers.	NIL		
11	V-4796	#2 shaft dump	Basalt, black, fine grained, rusty rind, slightly magnetic.	NIL		
12	V-4797	#2 shaft dump	Arkose, QV, epidote, Py.	NIL	4220	5540

* See Whole Rock Analysis.

ANN BLACK CO.

SWASTIKA LABORATORIES

P.O. BOX 10, SWASTIKA, ONTARIO
PHONE #: (705) - 642 - 3244 FAX #: (705) - 642 - 3300

REPORT No. : M9924
Page No. : 1 of 1
File No. : OC11RA
Date : OCT-23-1991

I.C.A.P. WHOLE ROCK ANALYSIS

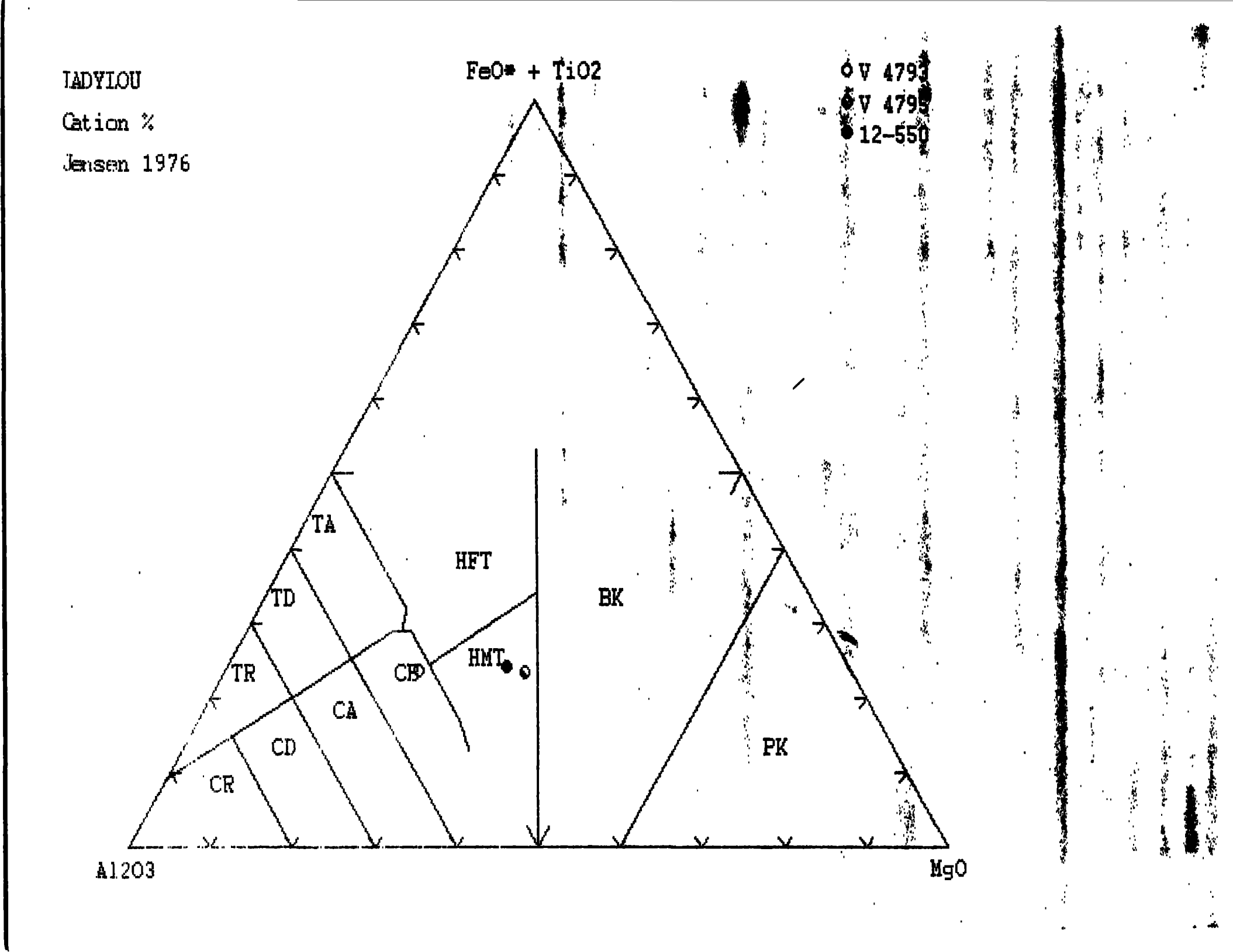
Lithium MetaBorate Fusion

1W-4125-RG1

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Sc ppm	LOI %	TOTAL %
V-4793	58.13	13.86	9.24	6.82	4.95	3.12	1.40	0.52	0.16	0.10	376	864	109	14	28	1.91	100.21
V-4795	46.52	13.90	11.99	4.42	10.13	2.60	1.76	0.76	0.27	0.08	247	45	61	18	49	7.72	100.13
12-550	49.19	13.43	11.51	8.14	8.71	2.14	2.48	0.71	0.21	0.08	804	293	77	14	51	2.26	98.87

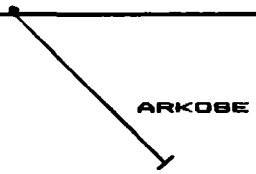
TSL/91

SIGNED : _____

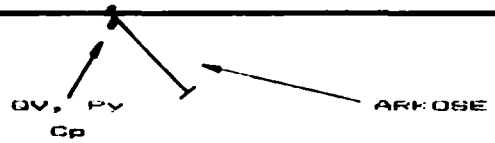

TADYLOU
Cation %
Jensen 1976
FeO* + TiO2
V 4793
V 4795
12-550
TA
TD
TR
CR
CD
CA
CF
HFT
HMT
BK
PK
Al2O3
MgO

DIAMOND DRILL SECTIONS
LADY LOU PROPERTY
BOMPAS TOWNSHIP
1" = 50'

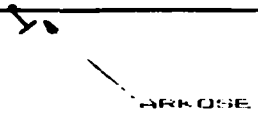
LL-1 AT L10W + 160S BEARING 40 DEPTH 60'



LL-2 AT L10W + 160S BEARING 90 DEPTH 28'



LL-3 AT 115OW + 200S BEARING 315 DEPTH 12'



Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

1W-4125-RG1

Company: ANN BLACK

Date: OCT-07-91

Project:

Copy 1. 139 CARTER AVE, KIRKLAND LAKE P2N 2A1

Attn:

2. 567-4696

We hereby certify the following Geochemical Analysis of 12 ROCK samples submitted OCT-04-91 by .

Sample Number	Au ppb	Cu ppm	Pb ppm	WRA ppm
V-4792	Nil			
V-4793	Nil			
V-4794	Nil			
V-4795	Nil			
V-4796	Nil			
V-4797	Nil/Nil	4220	5540	
12-540	Nil			
12-544	Nil	19		
12-547	Nil			
12-548	Nil	1760		
12-549	Nil	444	2710	
12-550	Nil			

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705) 642-3300

DIAMOND DRILL RECORD

Hole No. LL - 1 Sheet No. 1

Property Lady Lou L-1110266
Location Bompas Township
L10W + 160'S
core at K.L. core library
Latitude
Departure 45°
Bearing 40°

Dip
45°

Total Footage 60' - 7/8" E core

Elev. Collar
Datum
Date Started 18/09/91
Date Completed 24/09/91
Drilled by Richard Plaunt
Logged by Michael Leahy

Footage From	Footage To	Formation	Sample Number	Sample Footage	Sample Width	Gold Sample	Gold Sludge	Remarks
0	60	Arkose - pink feldspathic, fine to medium grained, "ground granite".						
		1 cm QV at 1' and 2'						
		Hairline QC filled fractures at 29', 32' and 36'; 45°-70° to CA.						
		- less than 1% fine, disseminated pyrite.						
		52' - 60' - mostly very broken core.						
		EOH						

Date of Examination November 18, 1991

Michael Leahy

DIAMOND DRILL RECORD

Hole No. LL - 2 Sheet No. 1

Property Lady Lou L-111 0266
Location Bompas Township
L10W + 160S
core at KL core library
Latitude 45°
Departure 90° (E.)
Bearing

Dip
45°
- 7/8" E core

Total Footage 28'

Elev. Collar
Datum
Date Started 24/09/91
Date Completed 25/09/91
Drilled by Richard Plaunt
Logged by Michael Leahy

Footage From	Footage To	Formation	Sample Number	Sample Footage	Sample Width	Gold Sample	Gold Sludge	Remarks
0	4'	Arkose - quartz - carbonate vein - breccia vuggy, white quartz and a few coarse (1.2 cm) blebs of chalcopyrite.						
4	24'	Arkose - feldspathic, medium to fine grained, "ground granite". - less than 1% fine disseminated pyrite.						
24	28'	Arkose - mostly ground and broken core.						
		EOH						

Date of Examination November 18, 1991

Michael Leahy

DIAMOND DRILL RECORD

Hole No. LL - 3 Sheet No. 1

Property Lady Lou L-1110266
Location Bompas Township
1150 W + 2S
core at KL core library
Latitude
Departure 45°
Bearing 315°

Dip
45°

Total Footage 12'-7/8" E core

Elev. Collar
Datum
Date Started 26/09/91
Date Completed 26/09/91
Drilled by Richard Plaunt
Logged by Michael Leahy

Footage From	Footage To	Formation	Sample Number	Sample Footage	Sample Width	Gold Sample	Gold Sludge	Remarks
0	7'	Arkose - pink feldspathic, medium grained, "ground granite" - less than 1% fine disseminated pyrite.						
7	12'	Ground core - caving at 12'.						
		EOH						

Date of Examination November 18, 1991

Michael Leahy

LADY LOU PROPERTY

Bompas Township, Ontario

Larder Lake Mining Division

(SELF-POTENTIAL SURVEY)

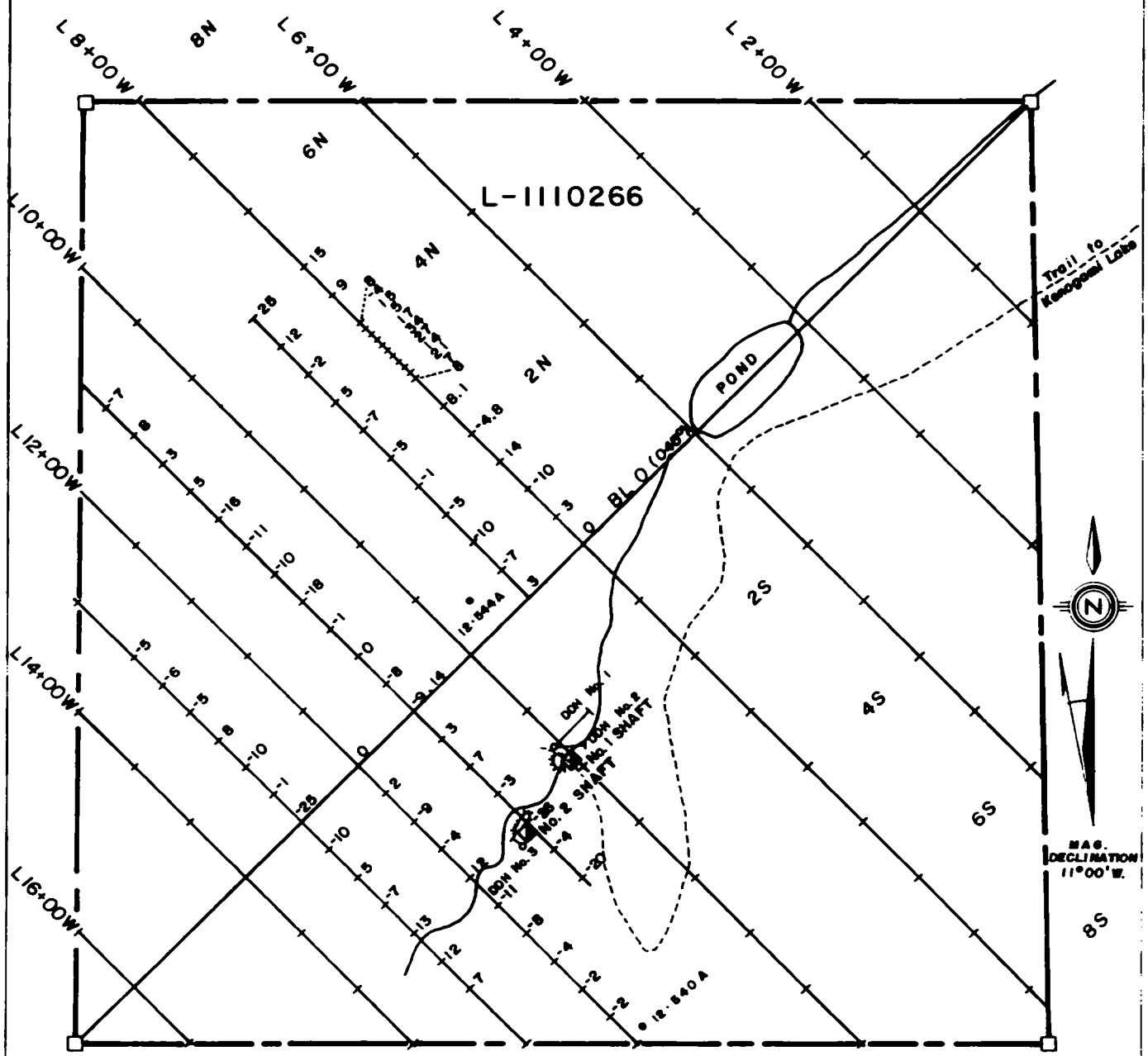
(Readings in Millivolts)

SCALE: 1" = 200ft.

100 0 100 200

DATE: January, 1992

NTS: 42 A / SE



CERTIFICATE

THIS IS TO CERTIFY:

1. I am a graduate in Prospecting Techniques from the Northern College of Applied Arts and Technology, Haileybury campus, 1976 and have completed the Haileybury School of Mines, Geophysical Field School, 1990, and the Interpretation of Ground and Airborne Geophysical Data Course, 1991. I have been active as a prospector and exploration contractor since 1974.

2. I am a member in good standing of the P.D.A., past president of the N.P.A., and director of O.M.E.F., and C.I.M.M.

3. I reside and hold office at 139 Carter Ave., Kirkland Lake, Ontario, P2N 2A1.

4. I have an interest in the property.

5. My report is based upon having personally participated in each program herein described, a review of published information on the property, consultation with local geologists and upon my familiarity and experience as a prospector in the Kirkland Lake camp.

Michael Leahy
Dec 91

FEATURES

The MICRONTA® LCD Digital Multimeter is a portable 3-2/3 digit, compact-sized multimeter ideally suited for field, lab, shop, bench and home applications. Here is a review of some of the features that qualify your new digital multimeter as real "pro".

- The latest IC and display technology is used to achieve the lowest possible component count. This, in turn, ensures reliability, accuracy, stability and a really rugged, easy-to-handle instrument. Two analog-to-digital converters are used for many special features.
- Conveniently positioned range and function switch knobs for one-hand range/function control.
- Colored indication of the referential ranges to the selected function.
- Effective overload and transient protection on all ranges except DC/AC 10A range.
- Continuity function for quick continuity check — buzzer sounds when circuit resistance is approximately 300 ohms or less.

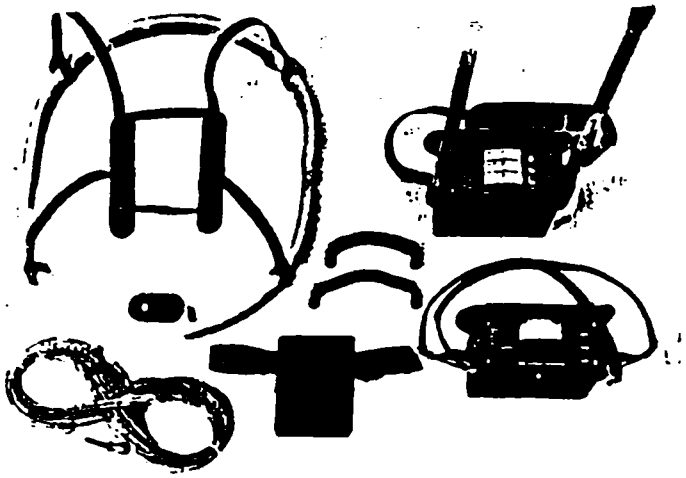
SPECIFICATIONS

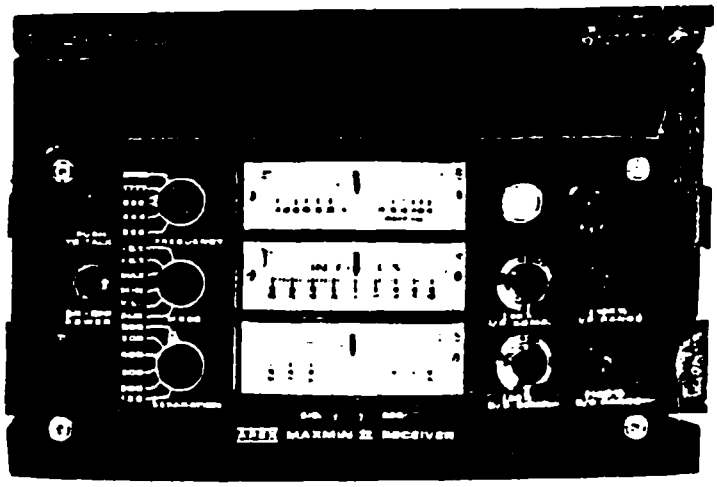
Ranges & Accuracy

DC VOLTS	
300 mV-3-30-300-3000 V (Maximum Measurement = 1000 Volts)	±0.8% of reading and ±0.2% of full scale, ±1 in last digit
AC VOLTS	
3-30-300-3000 V (Maximum Measurement = 750 Volts RMS) at 50/60 Hz	±1% of reading and ±0.5% of full scale, ±1 in last digit
45 Hz to 500 Hz at 30 Volt Range	±1.5% of reading and ±0.5% of full scale, ±1 in last digit
500 Hz to 10 kHz at 30 Volt Range	±10% of reading and ±0.5% of full scale, ±1 in last digit

APEX MAXM[illegible] PORTABLE[illegible]

- Five frequencies: 222, 444, 888, 1777 and 3555 Hz.
- Maximum coupled (horizontal-loop) operation with reference cable.
- Minimum coupled operation with reference cable.
- Vertical-loop operation without reference cable.
- Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.
- Reliable data from depths of up to 180 m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555Hz.

Modes of Operation:
MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.
MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF).
Coil separations in VL mode not restricted to fixed values.

Parameters Read:
- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:
- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in VL mode.

Scale Ranges:
In Phase: ±20%, ±100% by push-button switch.
Quadrature: ±20%, ±100% by push-button switch.
Tilt: ±75% slope.
Null (VL): Sensitivity adjustable by separation switch.

Reading: In Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.

Repeatability: ±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

Transmitter Output:
- 222Hz : 220 Atm^2
- 444Hz : 200 Atm^2
- 888Hz : 120 Atm^2
- 1777Hz : 60 Atm^2
- 3555Hz : 30 Atm^2

Receiver Batteries: 9V transistor radio type batteries (4) Life: approx 35hrs continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 6Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal [illegible] warning lights to indicate [illegible] readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F)

Receiver Weight: 6kg (13 lbs.)

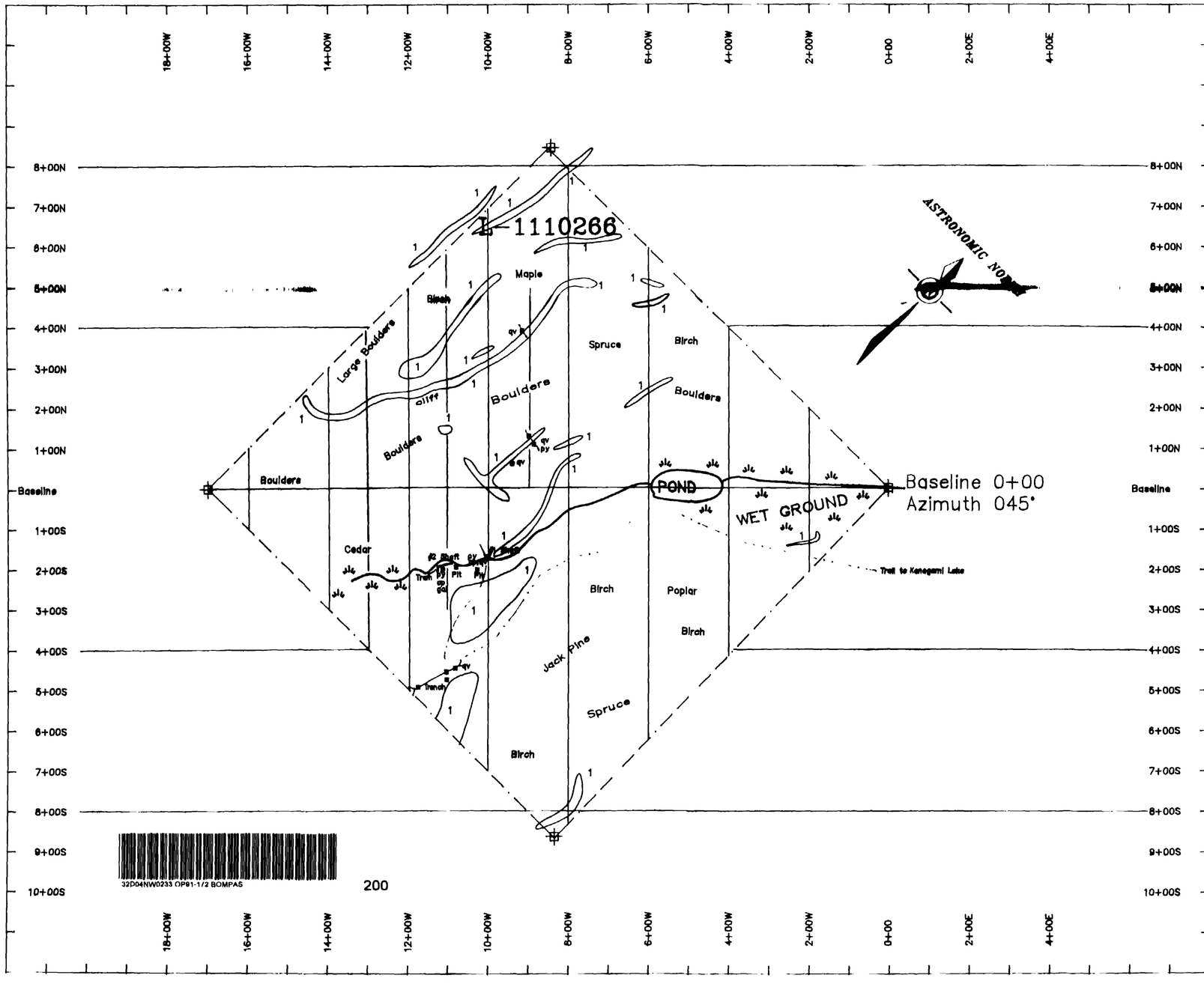
Transmitter Weight: 13kg (29lbs.)

Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and [illegible] Shipped [illegible]

Specifications subject to change without notice.

APEX PARAMETRICS LIMITED
[illegible] MARKHAM ONT CANADA [illegible]

Phone: (416) 495-1612 Cables: APEXPARA TORONTO Telex: 06-[illegible]



LEGEND

- Claim Post
- Claim Line
- Trail
- Outcrop Boundary
- Pit
- Shaft
- qv — Quartz Vein
- py — Pyrite
- cp — Chalcopyrite
- gal — Galena
- 1 — Arkose

SCALE 1"=200'

200 0 200 400 600

FEET

LADY LOU PROPERTY

SURFACE GEOLOGY

BOMPAS TOWNSHIP
DISTRICT OF TIMISKAMING
LARDER LAKE MINING DIVISION

Date: October, 1991	Scale: 1"=200 Ft.	Revised: Drawing No. 1
NTS 42 A/SE	Data by: M. Leahy	Project No. OP91-172

Michael Leahy

APPENDIX I

CRYSTAL LAKE PROPERTY

TOWER HILL CLAIMS

Lebel Township

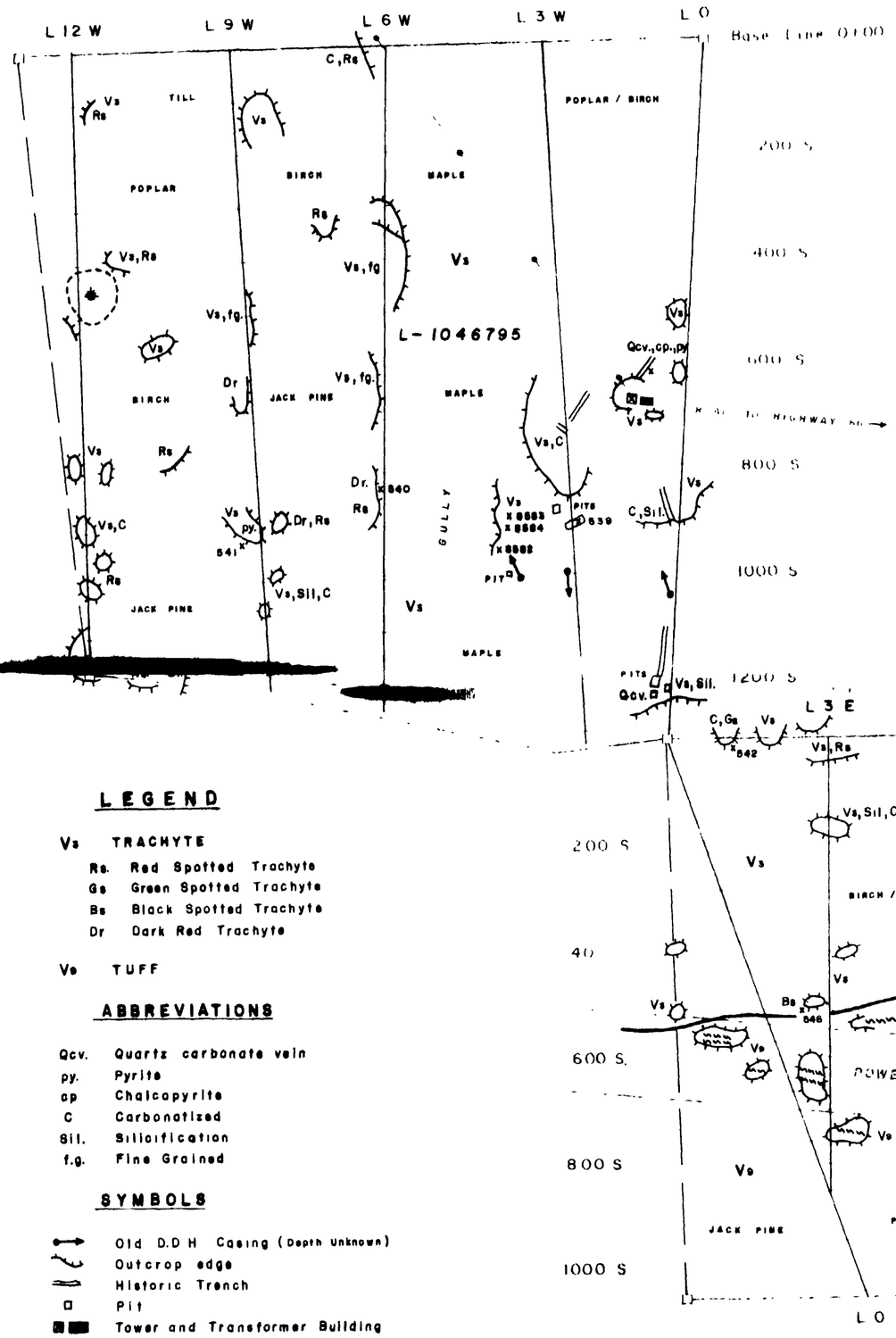
LARDER LAKE MINING DIVISION

GEOLOGY PLAN

Scale

100 0 100 200 300

1 Inch = 200 feet



LEGEND

Vs TRACHYTE

- Rs. Red Spotted Trachyte
- Gs Green Spotted Trachyte
- Bs Black Spotted Trachyte
- Dr Dark Red Trachyte

Vo TUFF

ABBREVIATIONS

Qcv.	Quartz carbonate vein
py.	Pyrite
cp	Chalcopyrite
C	Carbonatized
Sil.	Silicification
f.g.	Fine Grained

SYMBOLS

- Old D.D.H Casing (Depth Unknown)
- Outcrop edge
- Historic Trench
- Pit
- Tower and Transformer Building
- Low Voltage Power Line
- Edge of Wet Ground
- Deformation of Banded Tuff
- Geologic Contact

Michael Leahy

CRYSTAL LAKE PROPERTY

TOWER HILL CLAIMS

Lebel Township

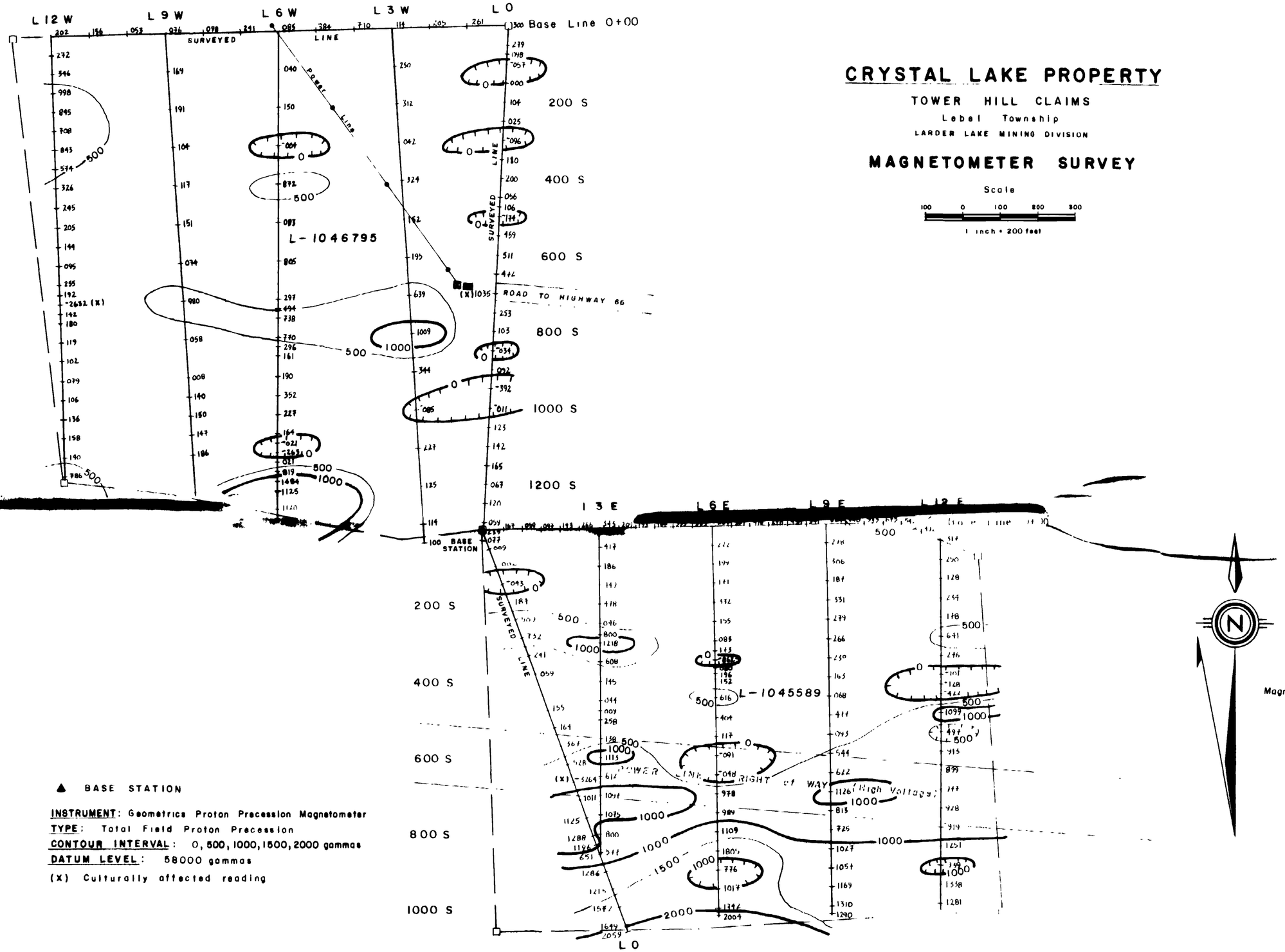
LARDER LAKE MINING DIVISION

MAGNETOMETER SURVEY

Scale

100 0 100 200 300

1 inch = 200 feet



▲ BASE STATION

INSTRUMENT: Geometrics Proton Precession Magnetometer

TYPE: Total Field Proton Precession

CONTOUR INTERVAL: 0, 500, 1000, 1500, 2000 gammas

DATUM LEVEL: 58000 gammas

(X) Culturally affected reading

Magnetic Declination
11°00' W

Michael Lesky 91

CRYSTAL LAKE PROPERTY

TOWER HILL CLAIMS

Lebel Township

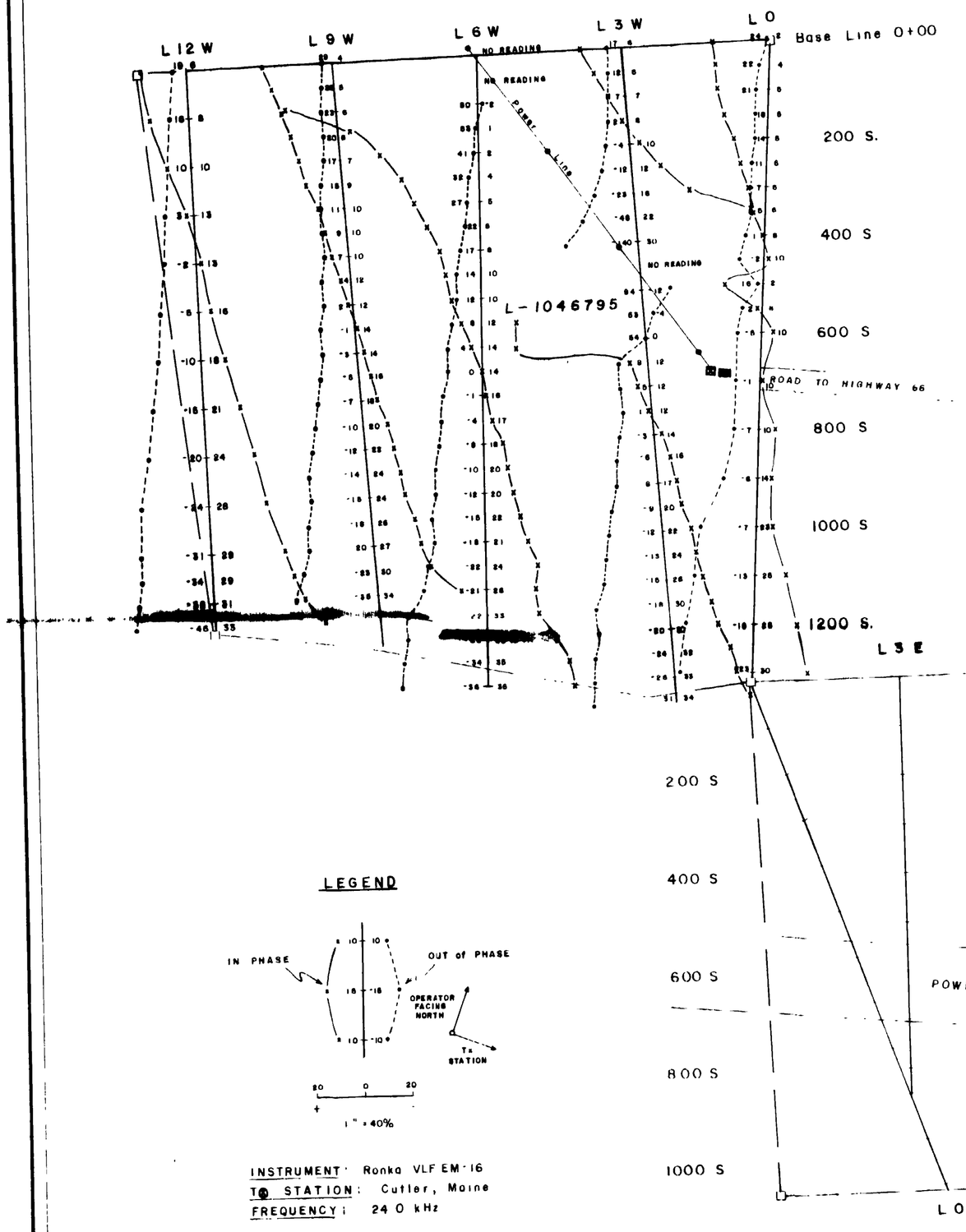
LARDER LAKE MINING DIVISION

V.L.F. EM-16 SURVEY

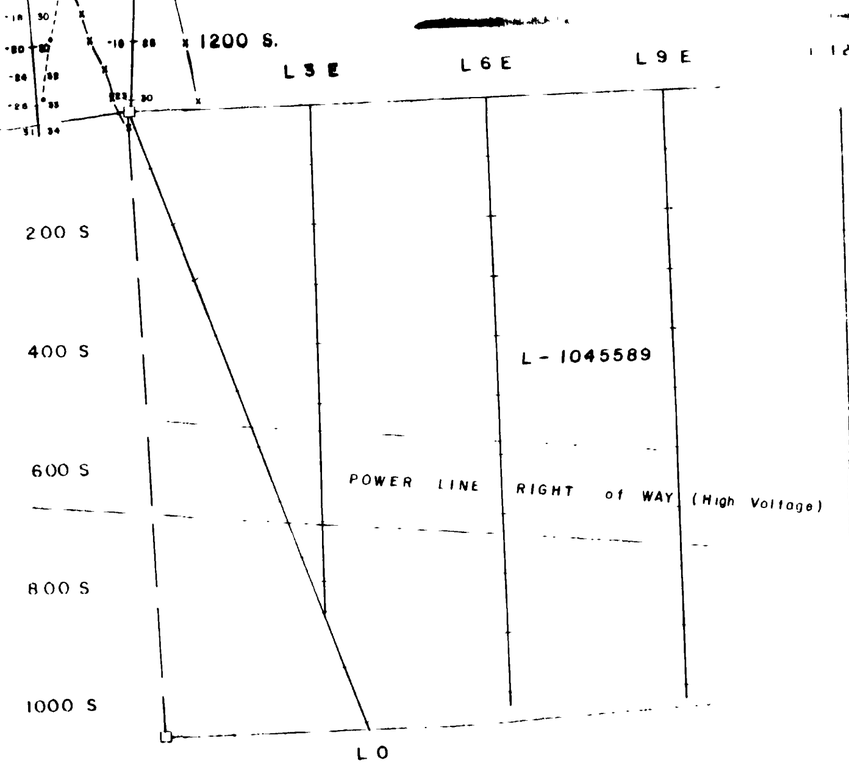
Scale

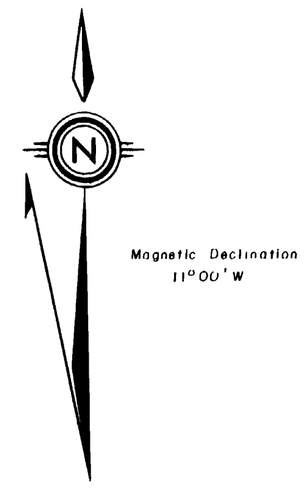
100 0 100 200 300

1 inch = 200 feet



Note Due to high voltage Power Line on claim 1045589
V L F EM Data cannot be obtained

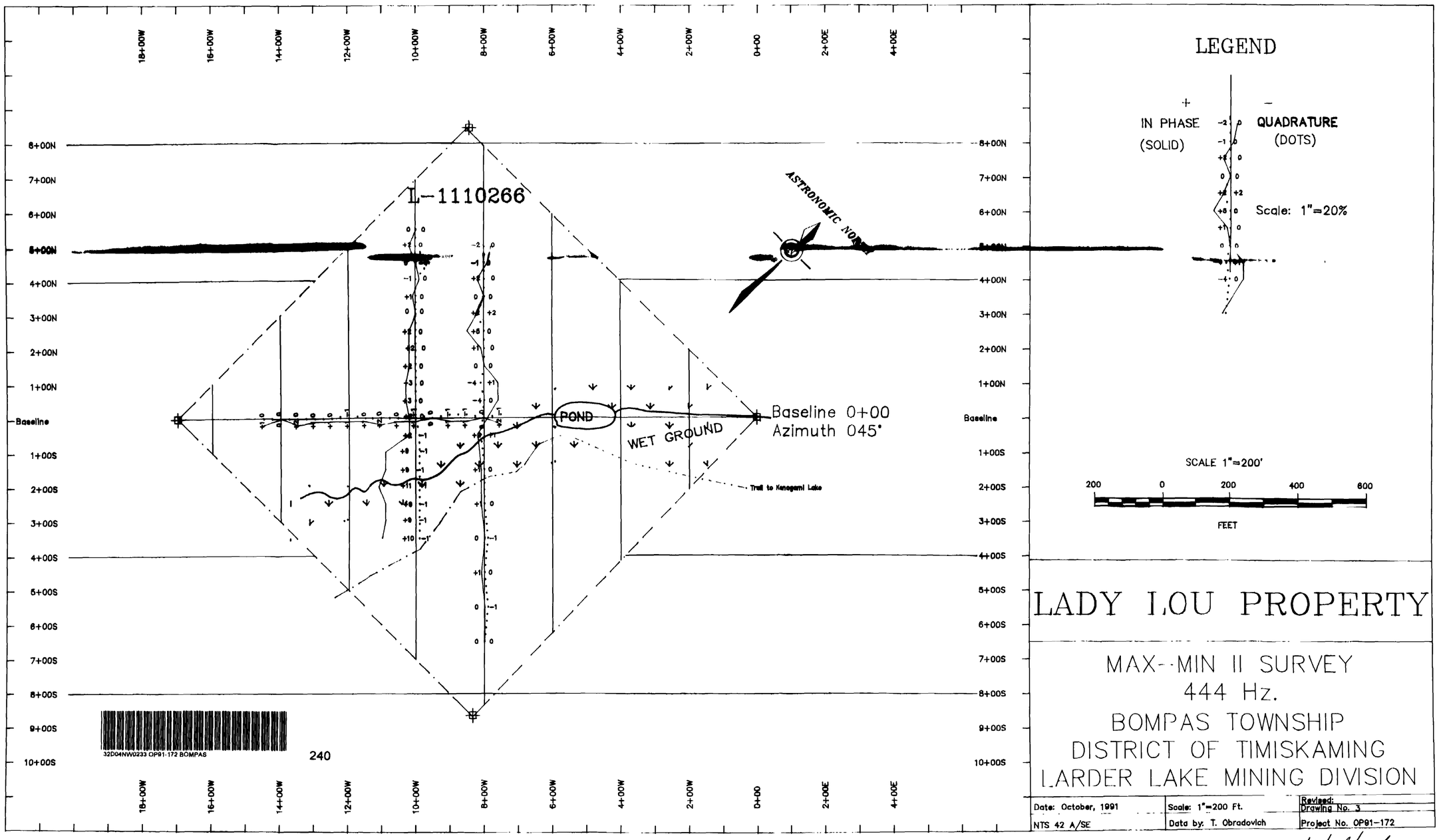




LEGEND

INSTRUMENT: Ronka VLF EM-16
TX STATION: Cutler, Maine
FREQUENCY: 24.0 kHz

Michael Lesby 91



LEGEND

IN PHASE (SOLID) + | QUADRATURE (DOTS) −

Scale: 1"=20%

SCALE 1"=200'

200 0 200 400 600

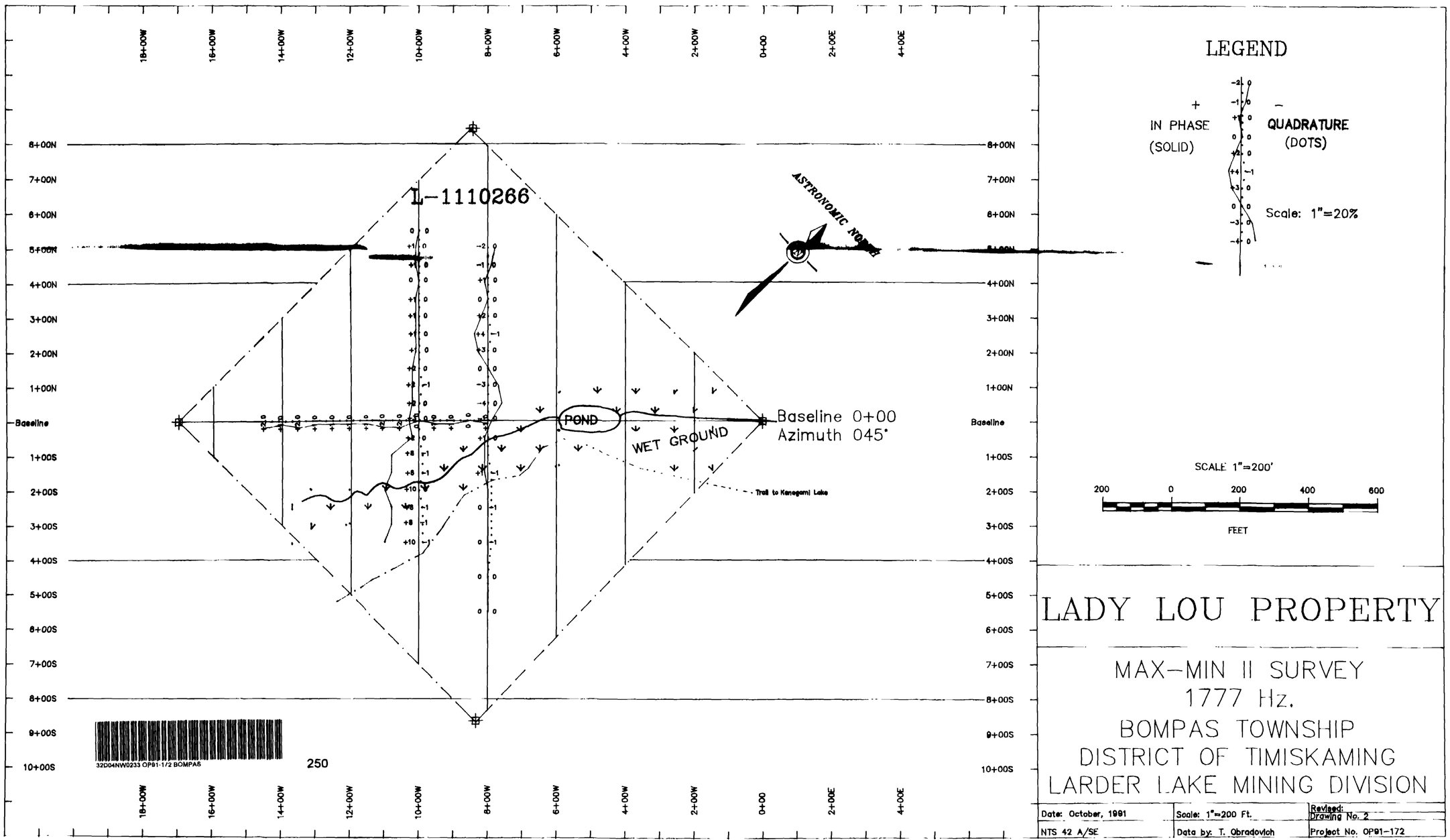
FEET

LADY LOU PROPERTY

MAX-MIN II SURVEY
444 Hz.
BOMPAS TOWNSHIP
DISTRICT OF TIMISKAMING
LARDER LAKE MINING DIVISION

Date: October, 1991	Scale: 1"=200 Ft.	Revised: Drawing No. 3
NTS 42 A/SE	Data by: T. Obradovich	Project No. OP91-172

Michael Lasky



LEGEND

\+ IN PHASE (SOLID)

\− QUADRATURE (DOTS)

Scale: 1"=20%

SCALE 1"=200'

200 0 200 400 600

FEET

LADY LOU PROPERTY

MAX-MIN II SURVEY
1777 Hz.
BOMPAS TOWNSHIP
DISTRICT OF TIMISKAMING
LARDER LAKE MINING DIVISION

Date: October, 1991	Scale: 1"=200 Ft.	Revised: Drawing No. 2
NTS 42 A/SE	Data by: T. Obradovich	Project No. OP91-172

Michael Leahy