



53F04NW0133 2.3831 HERONRY LAKE

010

TECK EXPLORATIONS LIMITED

NORTH BAY, ONTARIO

ASSESSMENT REPORT

ON THE

GEOPHYSICAL SURVEYS

ON

GROUP KL-2, HERONRY LAKE

FOR

THE SULPHIDE SYNDICATE

by

K. Thorsen

REPORT NO. 708NB

N.T.S. 52 F/4

81-3-16

SUMMARY AND RECOMMENDATIONS

Detailed geophysical surveys have outlined two parallel conductors dipping east and striking northwest-southeast for 200m and open in both directions. The west conductor is associated with a strong magnetic trend with scattered highs to 9000 gammas. The east conductor does not have any magnetic expression.

Winter geophysical surveys are recommended to delineate the extension of these conductors under Kakagi Lake.

INTRODUCTION

An airborne anomaly in the Area of Heronry Lake near Chase Point is covered by six contiguous claims numbered K475465, K475466, K475467, K475468, K475469 and K475470 recorded in the name of Teck Explorations Limited. Detailed geophysical follow-up consisted of VLF (Radem), vertical and horizontal loop EM and magnetometer surveys carried out during 80/9/23-25 and 81/1/12-16 on a compass and pace grid. The work was done by Teck Explorations Limited personnel under the supervision of Mr. K. Thorsen, district manager.

Access to the area is by boat in the summer and snow machine in the winter from Highway 71 at the west end of Kakagi Lake.

PREVIOUS WORK

One diamond drill hole (Hudson Bay Oil & Gas, 1975) was located on L 3+50W near 1+25mN. Old trenches were found on L 0+00 and 0 +25E near 1+50S. The area is underlain by intermediate to mafic tuffs with interbedded cherty sediments.

GEOPHYSICAL SURVEYS

Two grids were established at 25m, 50m and 100m line spacing with readings at 12.5m and 25m stations for a total of 1.5 line kilometers of VLF, 0.75 line kilometers of vertical loop EM including a search square and 0.4 line kilometers of horizontal loop EM. The magnetic survey covered six lines for a total of 1.5 line kilometers read at 12.5m stations with fill-in readings in areas of high magnetic response. The magnetic readings were corrected for diurnal change hourly or less at an established base station. A total of 246 electromagnetic readings and 72 magnetic readings were taken on the claims.

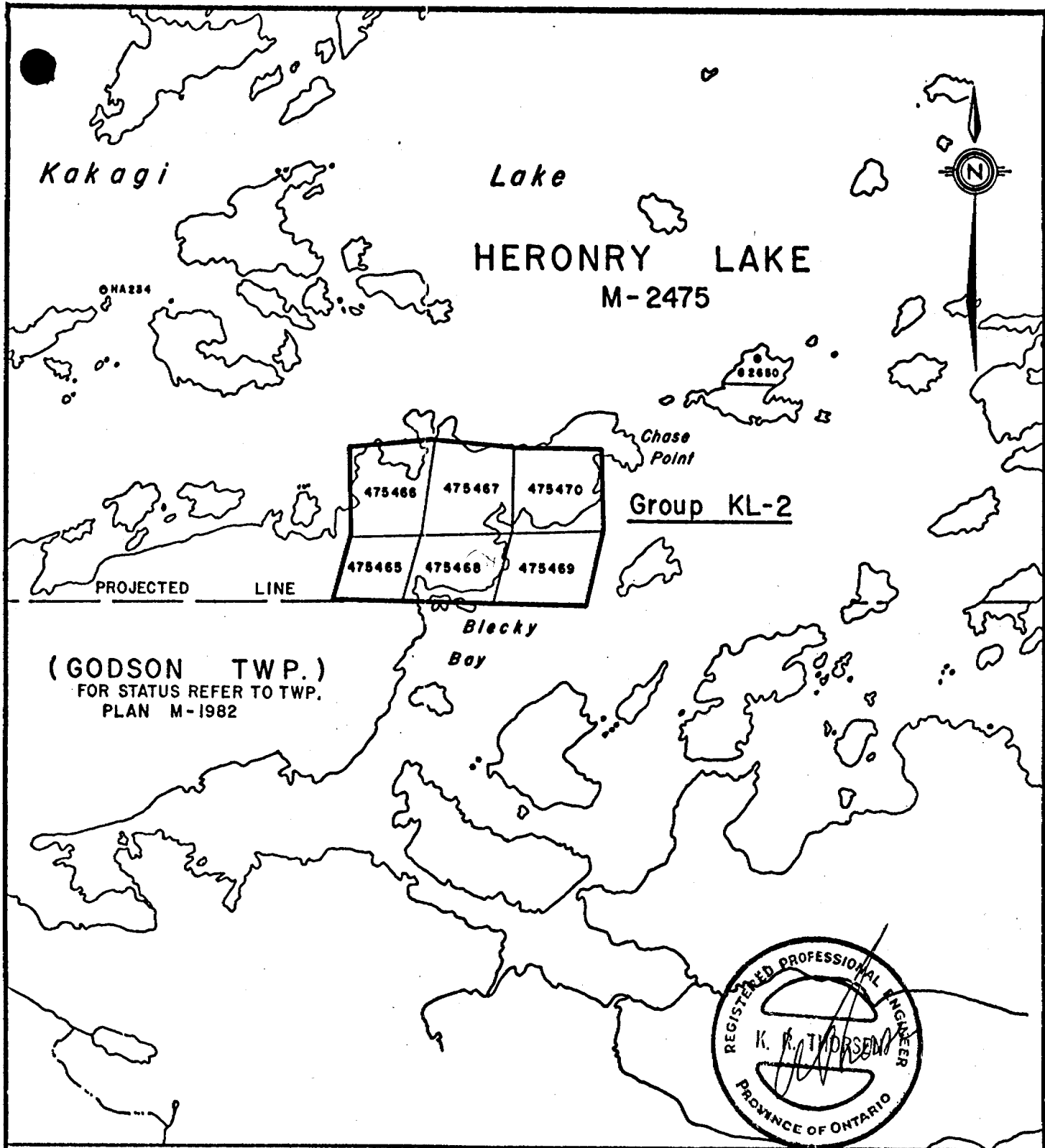
Specifications of the instruments used are included in the Appendix.

GEOPHYSICAL SURVEY RESULTS

The VLF conductor does not coincide with the vertical loop EM conductors. The VLF survey located one east-west conductor just south of Blacky Bay whereas the vertical and horizontal loop EM surveys outlined two poorly defined parallel conductors with east dips striking northwest-southeast and open at both ends. The west conductor is associated with a strong magnetic trend containing a 9000 gamma high. The east conductor does not have any magnetic expression. The extension of these conductors into Kakagi Lake will be delineated by winter geophysical surveys.



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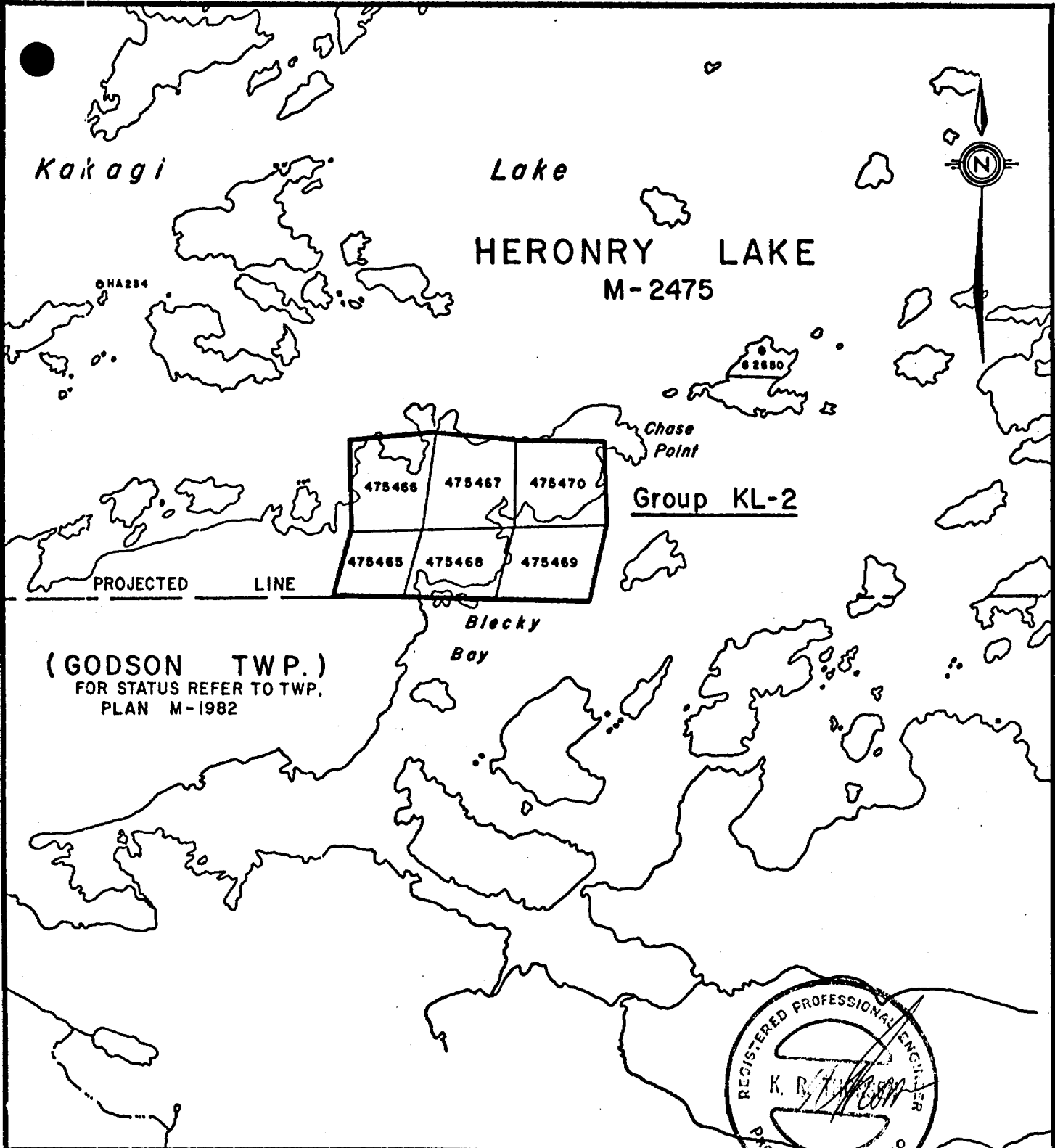
AREA KL

CLAIM LOCATION MAP

JOB 1167

MAY. 1980

Scale 1" = 2640'



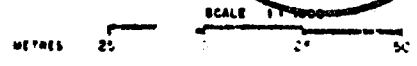
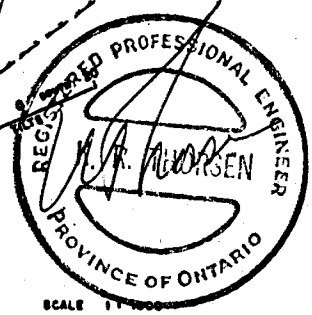
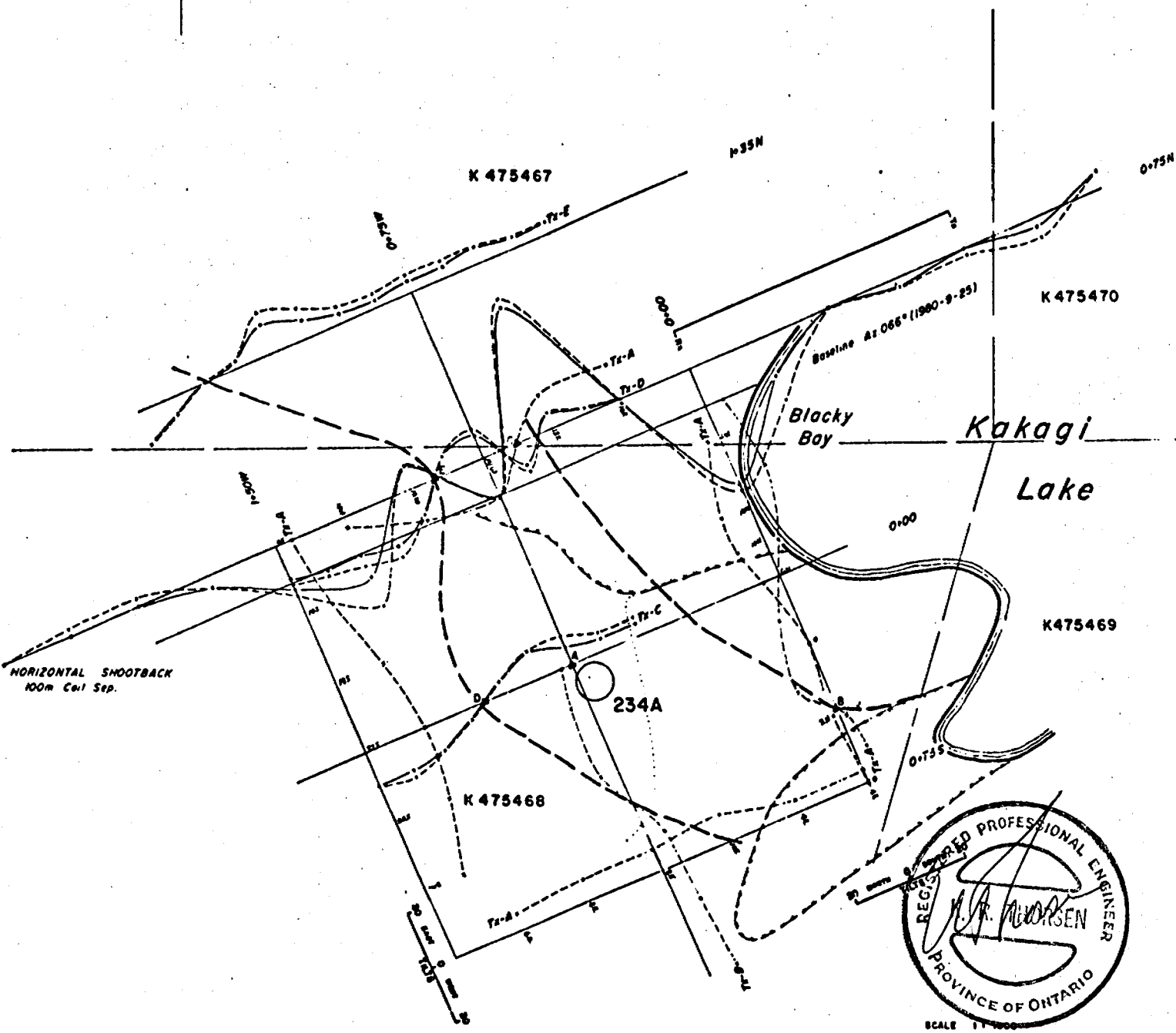
AREA KL

CLAIM LOCATION MAP

JOB 1167

MAY. 1980

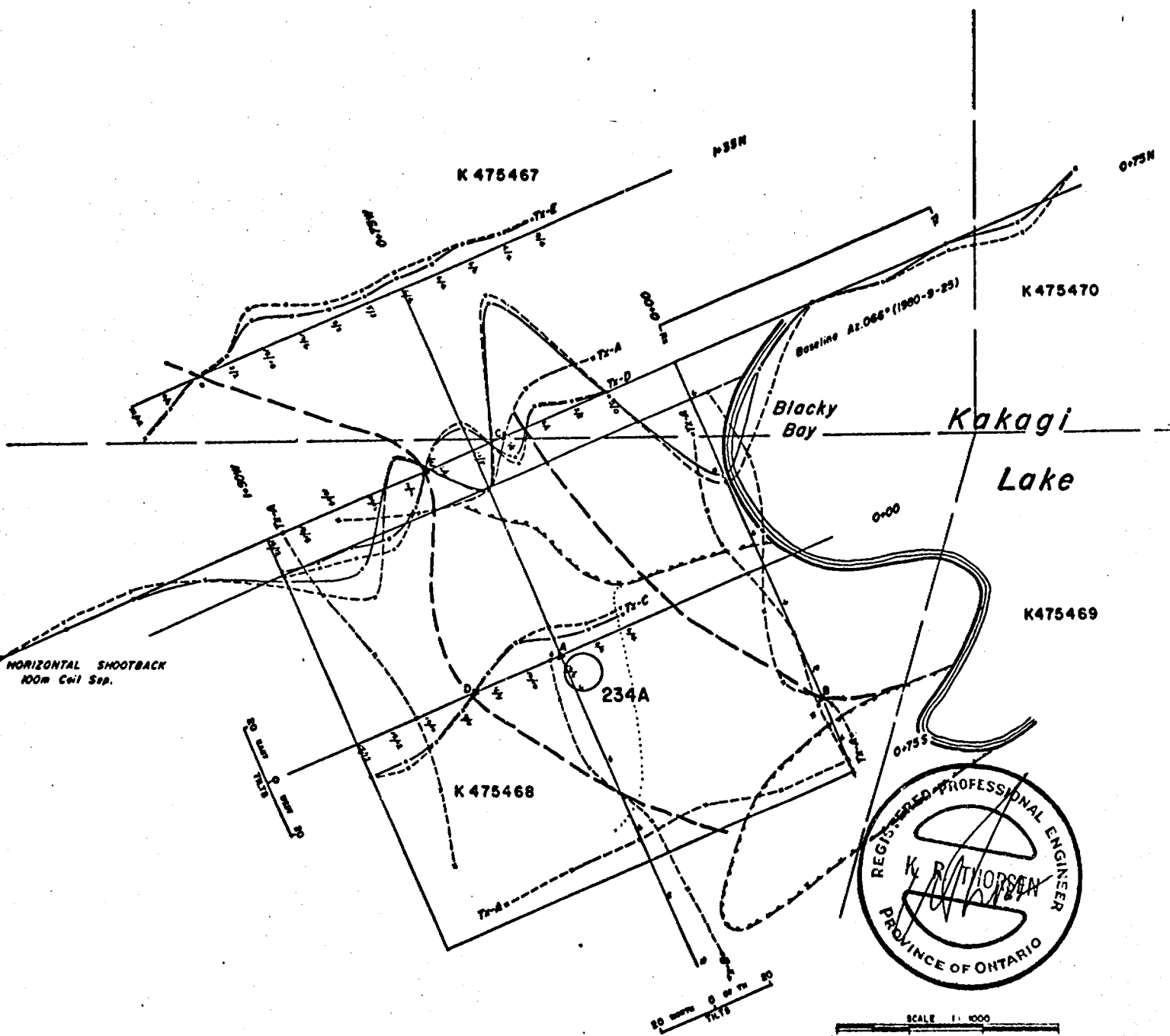
Scale 1" = 2640'



INSTRUMENT: CRONE CEM UNIT
OPERATOR: M. Garland, D. Owens

GULPHIDE SYNDICATE
AREA KL - ANOMALY 234A
E.M. SURVEY
DATE 1980-9-25 JOL 1167

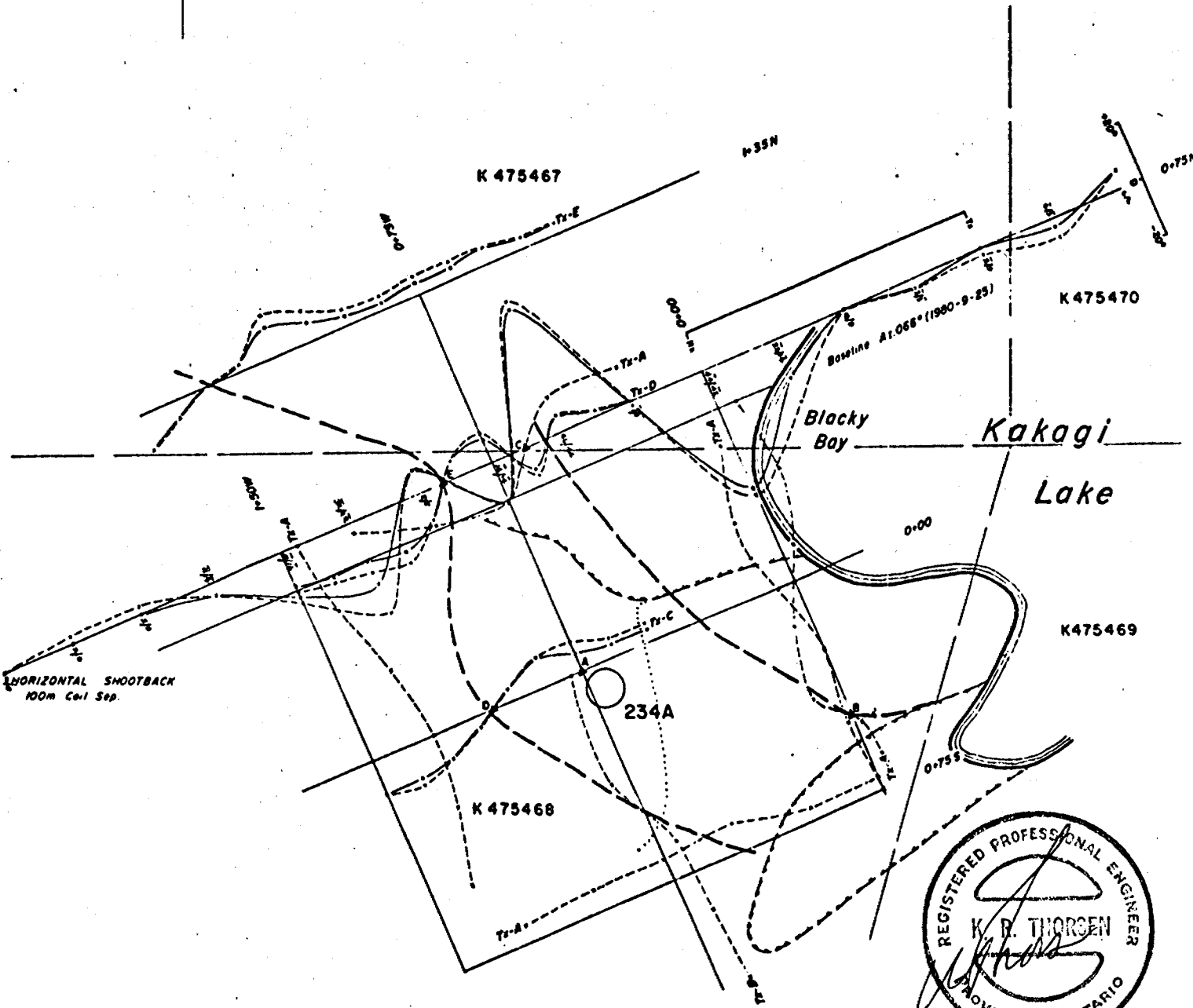
REVISED 1981-1-15



INSTRUMENT: CRONE C.E.M. UNIT
OPERATOR: M. Garland, D. Owens.

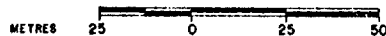
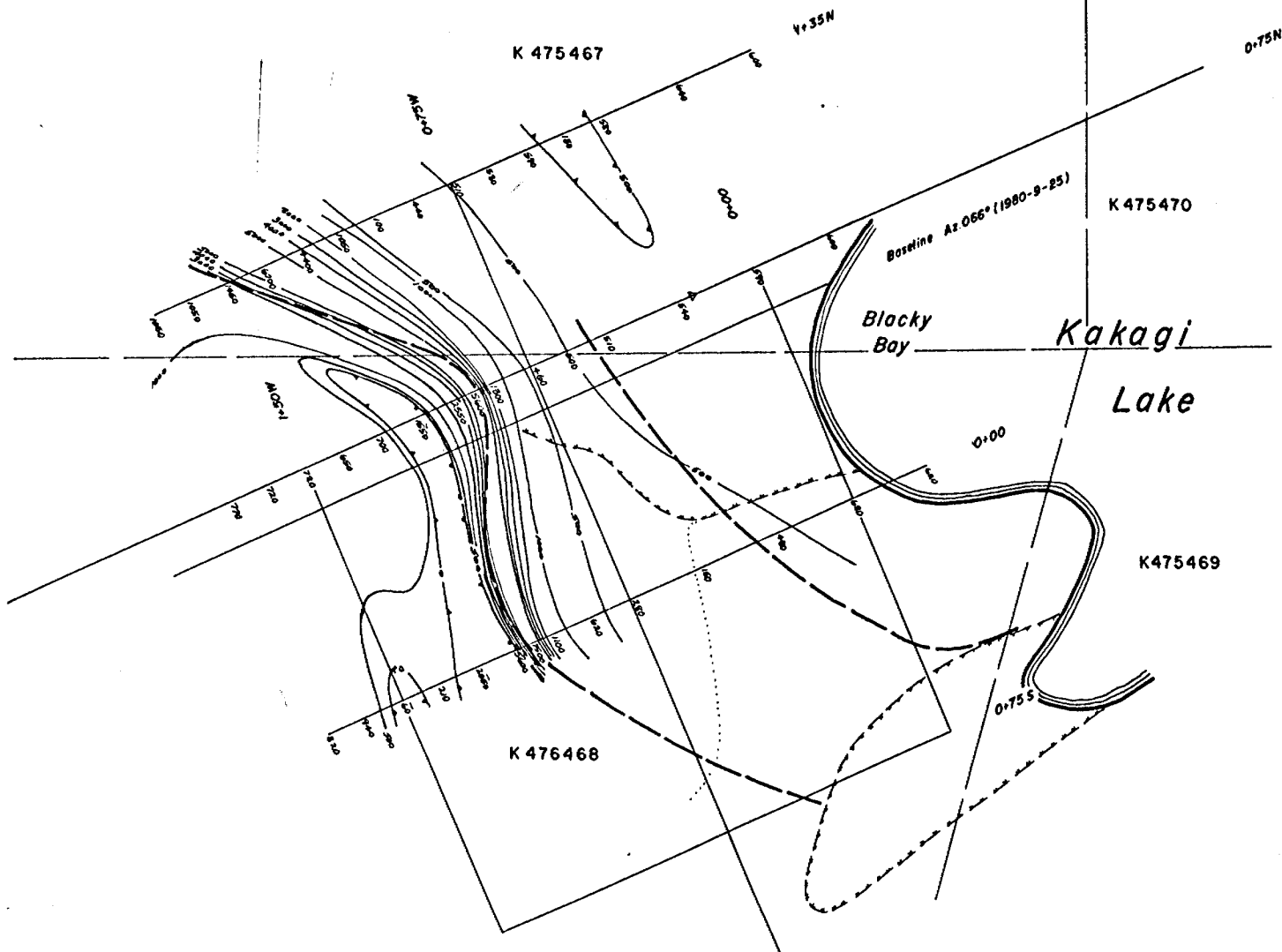
SULPHIDE SYNDICATE
AREA: KL - ANOMALY 234A
E.M. SURVEY
DATE: 1980-9-25 JOB 1167

REVISED: 1981-1-15



INSTRUMENT CRONE CEM UNIT
OPERATOR M. Goriand, D. Owens.

SULPHIDE SYNDICATE
AREA KL - ANOMALY 234A
E.M. SURVEY
DATE 1980-9-25 JOB 1167



INSTRUMENT : SCINTREX MF-2 UNIT
OPERATOR : W. Kendricks.

SULPHIDE SYNDICATE
AREA KL - ANOMALY 234A
MAG. SURVEY

REVISED : 1981-1-15

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DATE 1980-9-25

JOB 1167

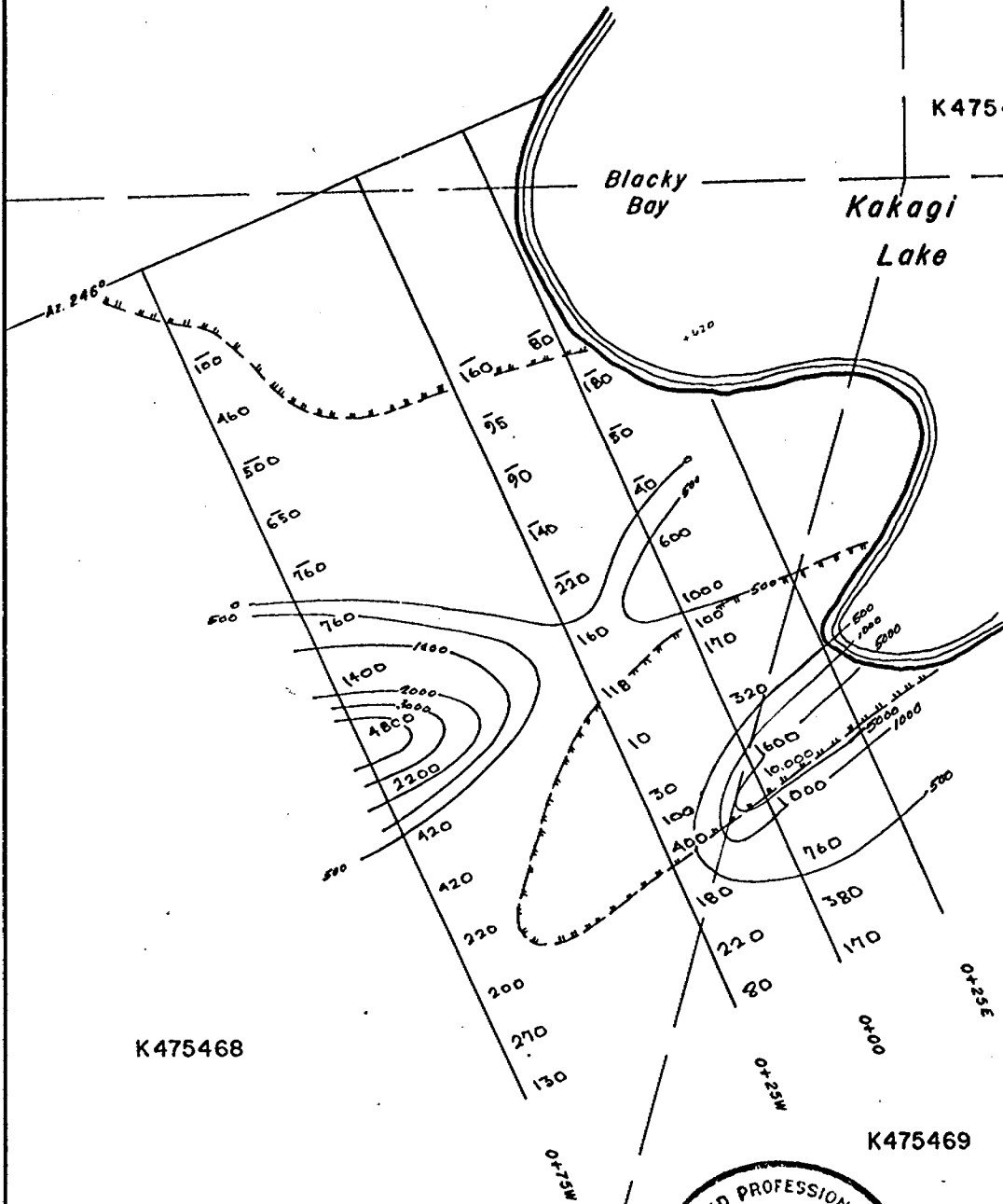
K475467

K475470



Blacky Bay

Kakagi Lake



K475468

K475469

CLAIM GROUP KL-2



METRES 0 25 50

INSTRUMENT: SCINTREX MF-1 MAGNETOMETER
OPERATOR : O'CONNELL

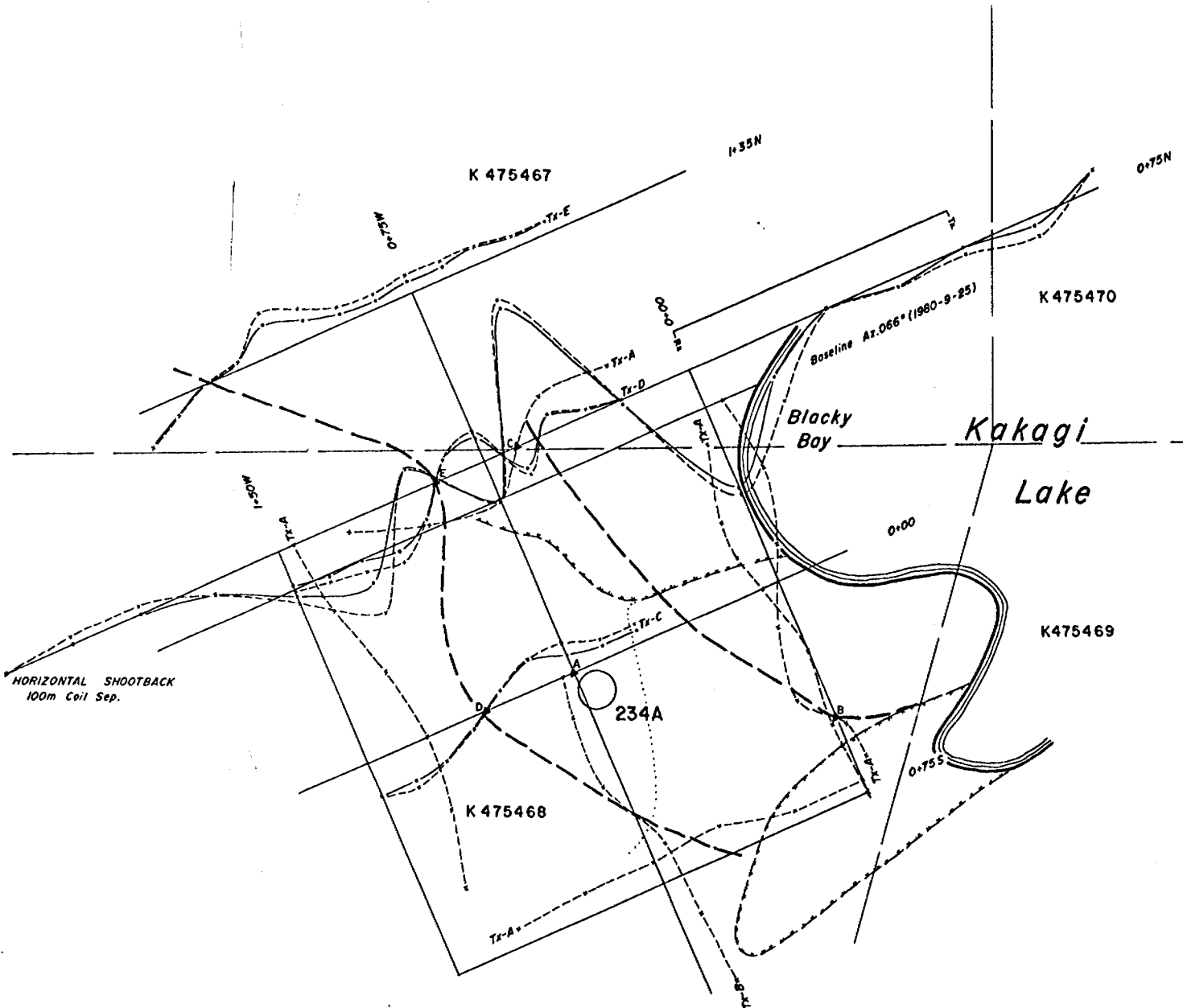
SULPHIDE SULPHIDE
AREA KL - ANOMALY 235A-236B

MAG. SURVEY

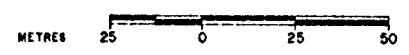
DATE 1980-9-25

JOB 1167

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HORIZONTAL SHOOTBACK
100m Coil Sep.

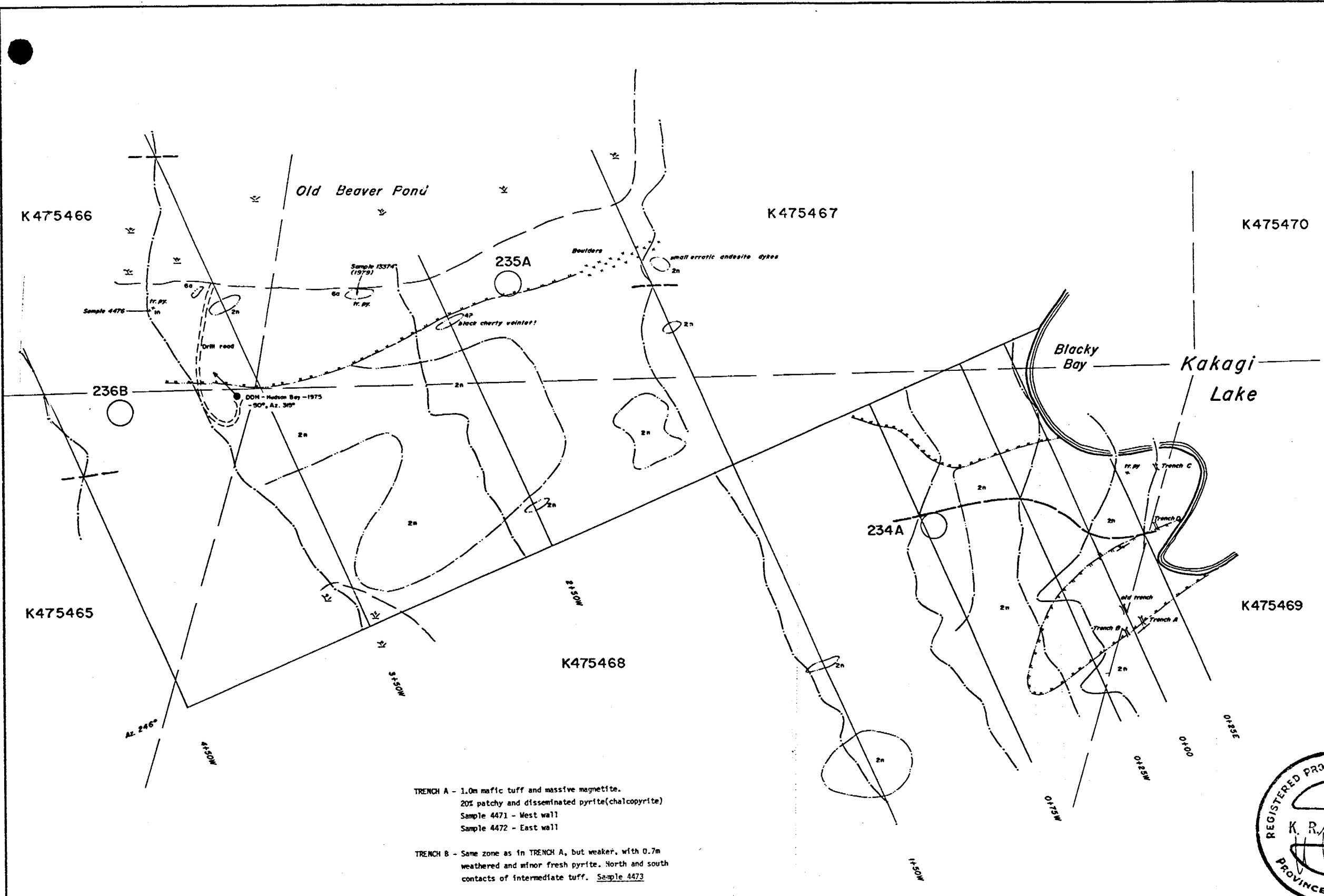


INSTRUMENT: CRONE C.E.M. UNIT
OPERATOR: M. Garland, D. Owens.

SULPHIDE SYNDICATE
AREA KL - ANOMALY 234A
E.M. SURVEY
DATE 1980-9-25 JOB 1167

REVISED: 1981-1-15

2.3831 mag

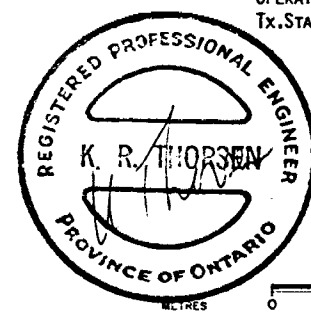


Sample	Cu ppm	Zn ppm	Ag oz/ton	Au oz/ton
4471	13600	64	0.54	0.05 /1m
4472	16400	86	0.45	0.02 /0.7m
4473	970	22	0.04	0.07 /5.0m
4474	682	31	0.04	0.01 /3.0m
4475	112	28	Tr.	0.01 /10cm
4476	170	83	N11	N11

Sample	Cu ppm	Zn ppm	Ag ppm	Au ppb
13374	89	163	0.5	40 /10cm

- TRENCH A - 1.0m mafic tuff and massive magnetite. 20% patchy and disseminated pyrite(chalcopyrite)
Sample 4471 - West wall
Sample 4472 - East wall
- TRENCH B - Same zone as in TRENCH A, but weaker, with 0.7m weathered and minor fresh pyrite. North and south contacts of intermediate tuff. Sample 4473
- TRENCH C - Mainly 2.0cm to 15.0cm massive pyrite at contact of thin mafic tuff and intermediate lapilli tuff. Sample 4474.
- TRENCH D - Intermediate tuff, mainly rusty, but some fresh massive and disseminated pyrite. Sample is of the best and widest(3.0m) part. Sample 4475.

GEOLOGY/GEOCHEM DONE BY O'CONNELL
 INSTRUMENT: CRONE RADEM V.L.F. UNIT
 OPERATOR : D. OWENS
 TX. STATION: SEATTLE, WASHINGTON



Claim Group KL-2

SULPHIDE SYNDICATE
 AREA KL - ANOMALY 234A/235A-236B
 E.M. - GEOLOGY
 DATE 1980-9-25 JOB 1167

2.3831 orig



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) Geophysical Surveys
Township or Area Heronry Lake M-2475
Claim Holder(s) Teck Explorations Limited
Survey Company Teck Explorations Limited
Author of Report K. Thorsen
Address of Author North Bay, Ontario
Covering Dates of Survey 1981-1-10 to 1981-2-15
Total Miles of Line Cut

MINING CLAIMS TRAVERSED
List numerically
Table with columns for prefix and number, listing claims K 475465 through K 475470.

SPECIAL PROVISIONS CREDITS REQUESTED
Table with columns for method (Geophysical, Geological, Geochemical) and DAYS per claim.

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

DATE: March 16, 1981 SIGNATURE: K. Thorsen
Author of Report or Agent

Res. Geol. Qualifications 2, 2012

Previous Surveys
Table with columns: File No., Type, Date, Claim Holder. Includes handwritten 'L.D.' and a diagonal line.

TOTAL CLAIMS 6

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 71 Number of Readings 124

Station interval 25m with some 12.5m stations Line spacing 75, 60 meters

Profile scale 1cm = 10°

Contour interval 100 gammas; 500 and 1000 gammas

MAGNETIC

Instrument Scintrex MF-1 Magnetometer and Scintrex MF-2 Magnetometer

Accuracy - Scale constant ± 10 gammas

Diurnal correction method Tie in at established base station

Base Station check-in interval (hours) hourly or less

Base Station location and value

ELECTROMAGNETIC

Instrument Crone EM 2 Coil System Crone VLF (Radem)

Coil configuration Vertical and Horizontal Vertical

Coil separation 100m Infinite

Accuracy ±0.5° ±2%

Method: [x] Fixed transmitter [x] Shoot back [] In line [] Parallel line

Frequency 390 & 1830HZ (specify V.L.F. station) Seattle, Washington

Parameters measured Horizontal & vertical components of a primary field

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

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

INDUCED POLARIZATION RESISTIVITY

HERONRY LAKE

DISTRICT OF KENORA

KENORA MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	● or ⊙
CROWN LAND SALE	C.S.
LEASES	⊙
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	⋈
CANCELLED	C.
PATENTED S.R.O.	⊙

NOTES

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

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)

Order No.	File	Date	Disposition
W 65/76	188521	19/11/76	S.R.O.

DATE OF ISSUE

MAR 29 1982

Ministry of Natural Resources
TORONTO

23831

NATIONAL TOPOGRAPHIC SERIES 52F4

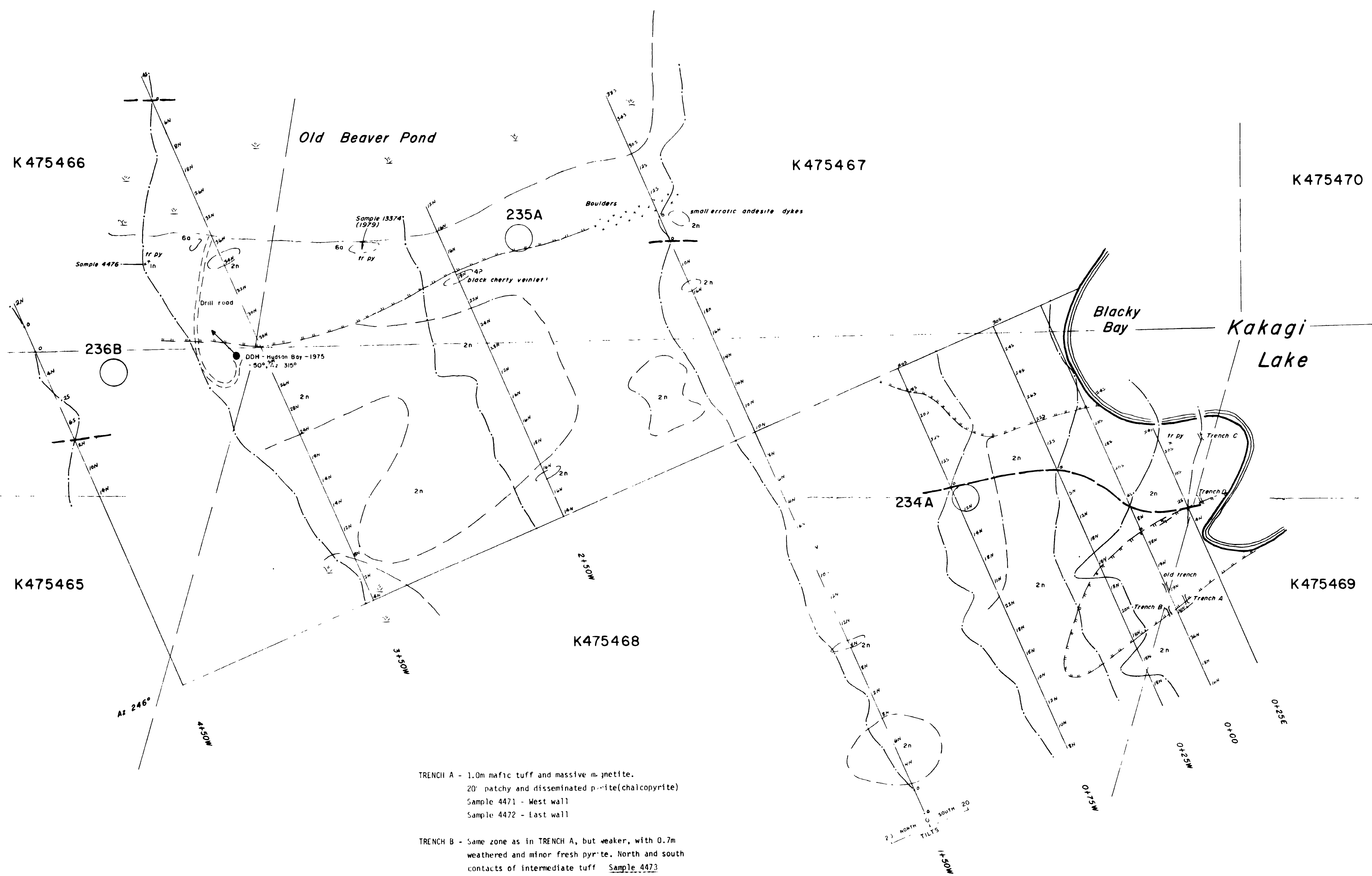
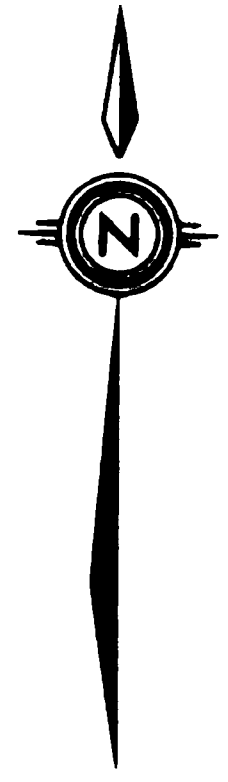
PLAN NO. M-2475

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

TURTLE LAKE M.2476

BROOKS LAKE M.2473





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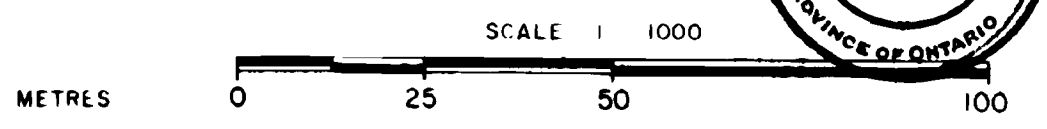
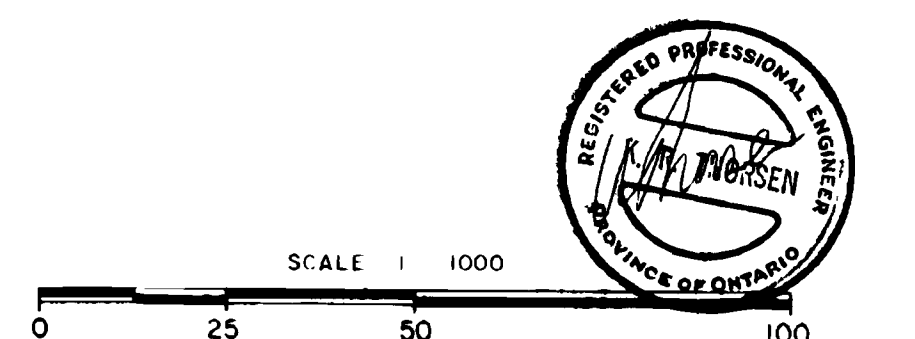
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Claim Group KL-2

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OPERATOR: D. OWENS
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SULPHIDE SYNDICATE
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E.M. - GEOLOGY
DATE 1980-9-25 JOB 1167

