



010

REPORT ON
GEOPHYSICAL SURVEY
FOR MID-CANADA EXPLORATIONS SERVICES LTD.
NEEPAWA ISLAND AREA (MINNITAKI LAKE)
SIOUX LOOKOUT, ONTARIO

February 1981

R.J. Meikle
Rayan Exploration Ltd.

SURVEY LOCATION - CLAIM GROUP

The claim group is located in the Parnes Lake area, district of Kenora, Ontario. The claim group surrounds five old mining claims on Neepewa Island, Minnitaki Lake. The five patented claims are:

Pa 31714

Pa 31711

Pa 31712

Sv 106

Sv 107

The claims on which the current geophysics was carried out on are:

437491, 437492, 437493, 437494, 437495, 437496,

437497, 437498, 437499, 437500, 485001, 485002

485003, 485004, 485005, 485006, 485007

WORK PERFORMED

LINECUTTING:

A total of 22.12 miles (35.61 Km) of lines were cut and picketed. Line spacing was 400 ft. with pickets every 100 ft.

VLF SURVEY:

A total of 15.34 miles (24.7 Km) of VLF survey was conducted using a Geonics EM 16 instrument, recording both dip angles and quadrature response. All readings were taken facing in a northerly direction at right angles to the transmitter station direction.

MAGNETOMETER SURVEY:

A total of 15.34 miles (24.7 Km) of Proton Precession Magnetometer Survey was conducted using a Barringer magnetometer. A staff was used for all readings. Baselines and tielines were used for diurnal control and the survey accuracy should be +/- 5 gammas.

GENERAL GEOLOGY

While the geology of the area is not familiar to the author, the surveyed area appears to be underlain by a mixture of mafic volcanics and younger interbedded metasediments.

RESULTS

MAGNETOMETER SURVEY:

As per map #1, the area has numerous magnetic occurrences. Generally the magnetic highs are flanking the E.M. conductors with some exceptions such as L60E - 10N where there is direct correlation between the two.

Readings were taken every 100 ft. with 50 ft. on anomalies. The magnetic distribution is very erratic and difficult to contour with 400 ft. line spacings.

Magnetic disturbances and diurnal variation were at an extreme low throughout the survey period.

The cause of the magnetic anomalies is probably due to mafic volcanics and or gabbro/diorite. These mafic units are generally erratic in distribution and composition.

Areas on the maps with 'NR' indicate where the magnetic gradient was too high and the sensor could not be placed far enough away from bedrock to obtain a reading.

VLF SURVEY:

As per map #2 & #3 the area is quite active electrically. This is probably due to the interbedded sediments found in the area. There are several east-west trending conductors some of which some are quite strong. The dip angles were filtered by Fraser's Method and contoured (map #3). This provides an excellent structured picture of the area while delineating the more conductive regions.

The strongest anomaly was formed on L60E - 32+00N, just off the north end of the grid. The line was extended by compass to define this very strong conductor which correlates with a topographic low (swamp). Most of the conductors are long and quite strong which leads the author to think they are caused by graphitic sediments. However, this would require some more work, including mapping to determine this.

CONCLUSION:

The survey performed, outlined several conductors as well as various magnetic occurrences.

The first step in any future work should consist of detailed, geological mapping since bedrock exposure is relatively good on the islands.

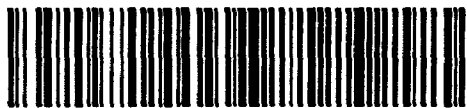
If the geology is encouraging in an economic sense, the geophysics should be re-evaluated and more detail done.

Respectfully yours,



R.J. Meikle

Rayan Exploration Ltd.



52G13NW0014 52G13NW0020 PARNES LAKE

Resources

File _____

900



**GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT**

**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) Magnetometer & E.M.

Township or Area PARNES LAKE AREA

Claim Holder(s) PETER G HUNKIN

Survey Company ROYAN EXPLORATION LTD

Author of Report R.D. MEIKLE

Address of Author 131 K.E.K. DRIVE NORTH BAY ONT.

Covering Dates of Survey Jan 12/61 Feb 1/61
(linecutting to office)

Total Miles of Line Cut 22.12

MINING CLAIMS TRAVERSED
List numerically

P.A.	437491
(prefix)	(number)
PA	437492
PA	437493
PA	437494
PA	437495
PA	437496
PA	437497
PA	437498
PA	437499
PA	437500
PA	485001
PA	485002
PA	485003
PA	485004
PA	485005
PA	485006
PA	485007
TOTAL CLAIMS <u>17</u>	

If space insufficient, attach list

**SPECIAL PROVISIONS
CREDITS REQUESTED**

DAYS
per claim

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

ENTER 20 days for each
additional survey using
same grid.

- Geophysical
 - Electromagnetic _____
 - Magnetometer _____
 - Radiometric _____
 - Other _____
- Geological _____
- Geochemical _____

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

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

DATE: _____ SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications this file

Previous Surveys

File No.	Type	Date	Claim Holder

R.D.

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations MAC SWAY 974 F.M. 837 Number of Readings MAC 974 F.M. 837
Station interval MAC 50' & 100' F.M. 100' Line spacing 400'
Profile scale _____
Contour interval 1000 GAMMAS MAC. F.M. +10 +25 +50 +75 & +100

MAGNETIC

Instrument ROPER'S PROTON GM122
Accuracy - Scale constant +1-5 GAMMAS
Diurnal correction method _____
Base Station check-in interval (hours) ONE
Base Station location and value 0+00 60120 GAMMAS

ELECTROMAGNETIC

Instrument GEONICS F.M. 16
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency CUTLER MAINE NAA
(specify V.L.F. station)
Parameters measured _____

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 _____



Ministry of
Natural
Resources

Ontario

Your file: 524/13 NW (30)

1982 03 25

Our file: 2.3860

Albert Hanson
Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

Re: Geophysical (Electromagnetic and Magnetometer) Survey
submitted under Special Provisions (credit for
Performance and Coverage) on Mining Claims Pa 437491
et al in the Parnes Lake Area

The Geophysical (Electromagnetic and Magnetometer) Survey
assessment work credits as listed with my Notice of Intent
dated February 3, 1982 have been approved as of the above
date.

Please inform the recorded holder of these mining claims
and so indicate on your records.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

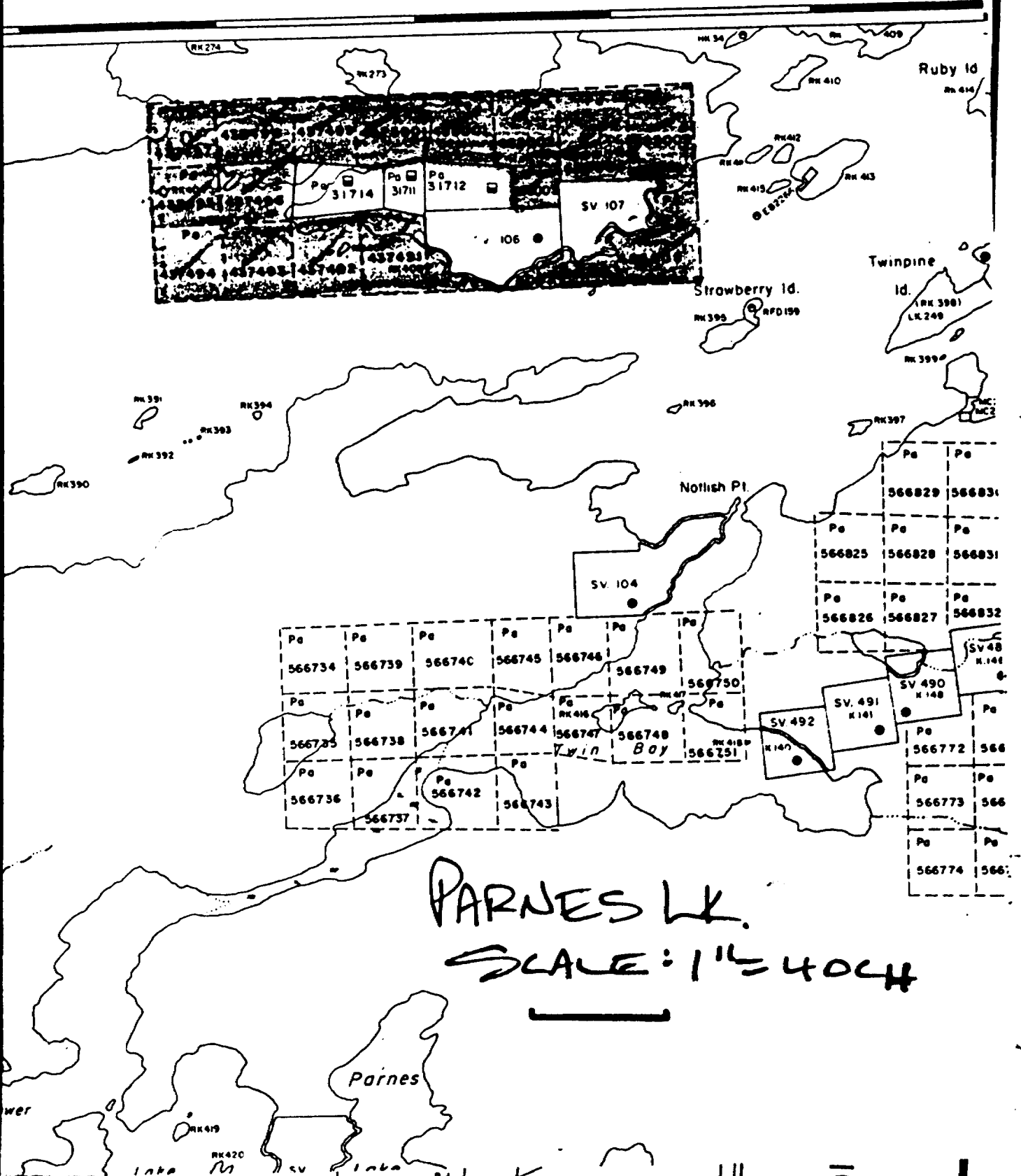
for
A. Barr/amc

cc: Peter G. Hunkin
Schumacher, Ontario

cc: Rayan Exploration Ltd.
North Bay, Ontario
Attn: R.J. Meikle

cc: ✓ Resident Geologist
Sioux Lookout, Ontario

DRAYTON TWP. M.2233



PARNES LK.
 SCALE: 1" = 40 FT

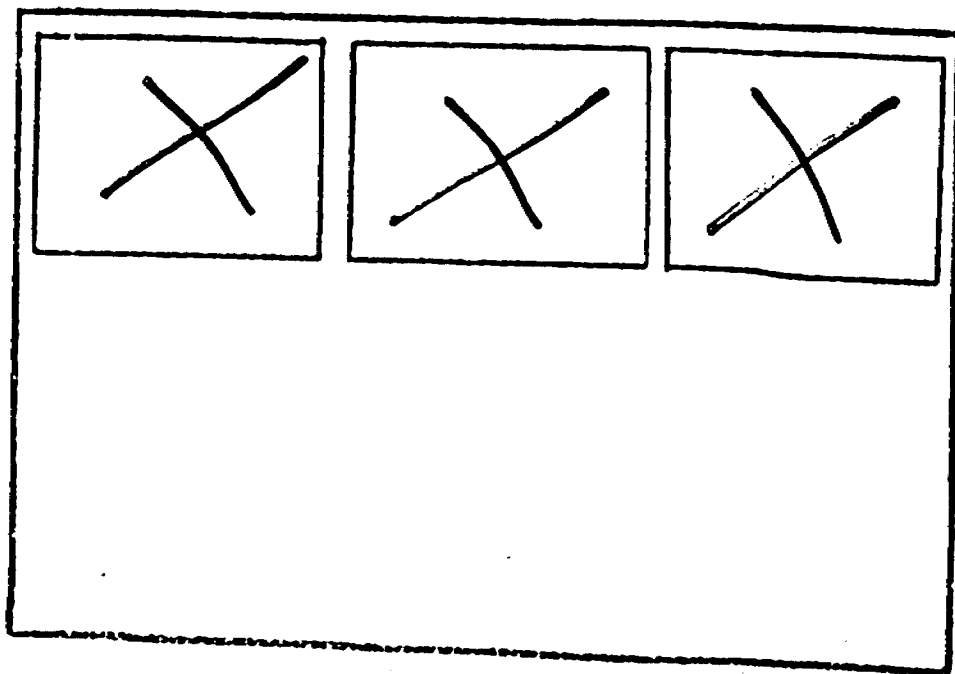


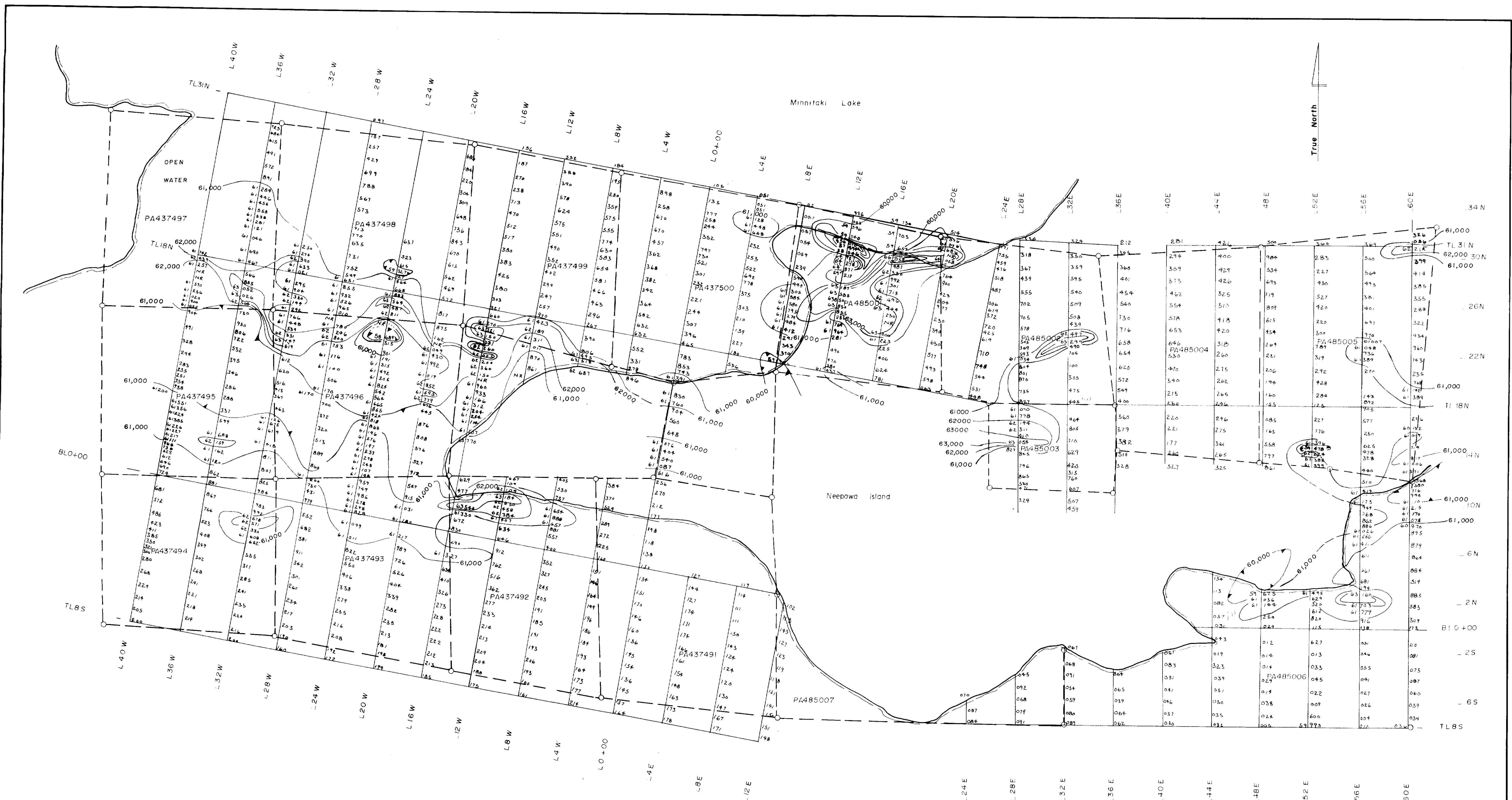
SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52G/13NW-0020-#1

-----#2

-----#3

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)





529/132W-0020-#1

RAYAN EXPLORATION LTD.
Client - Mid Canada Exploration Service

Magnetometer Survey

STIOUX LOOKOUT, ONT.

Scale 1" = 400' January, 1981

Instrument: Barringer Proton Mag

Sensitivity +/- 5 gammas (staff used)

Rdg. Interval: 100 ft. (less in anomalous areas)

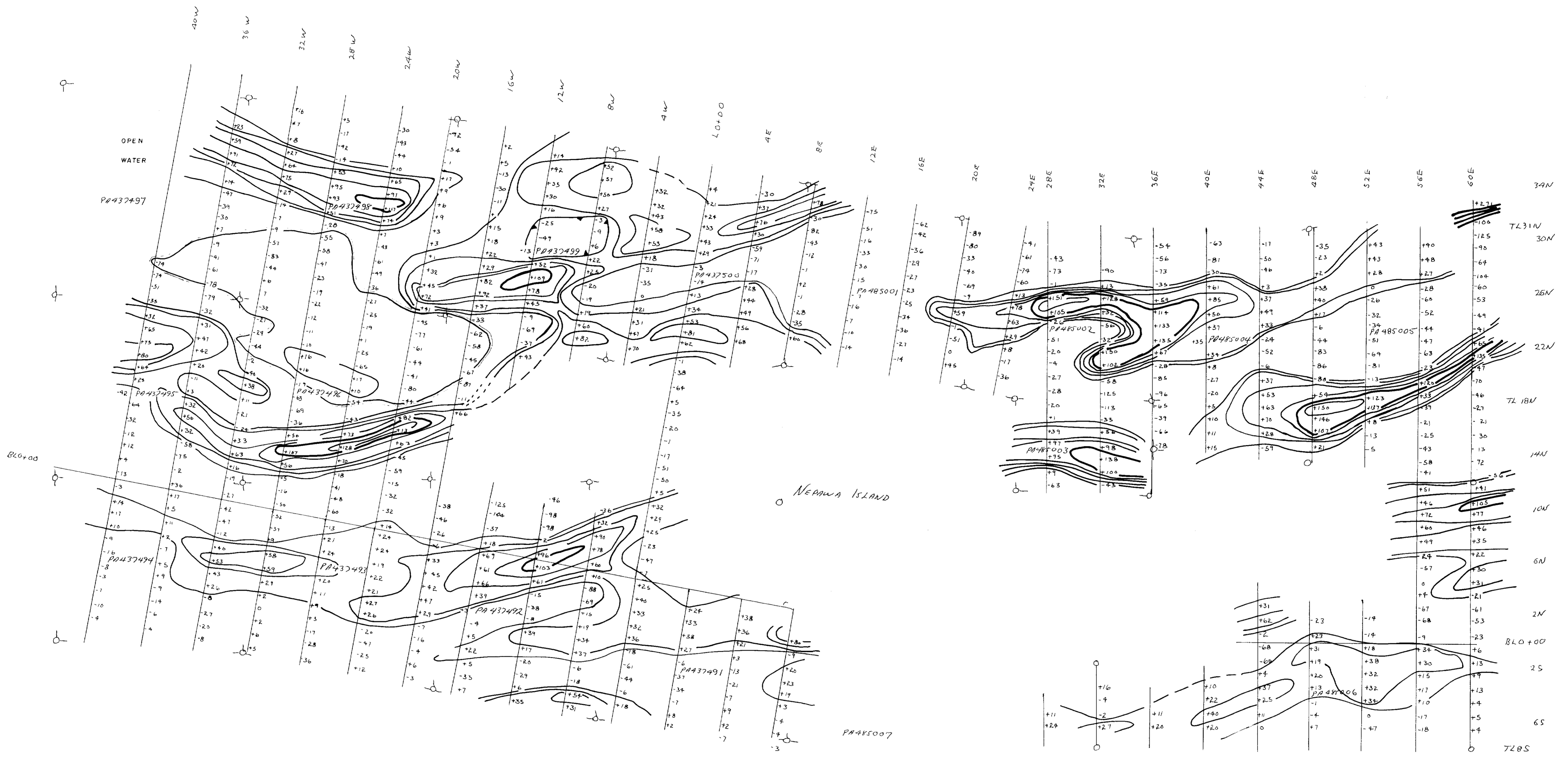
Note: Add 60,000 to all readings except where noted

Contour Interval: 1000 gammas (mag is too erratic for more detailed contouring at 400' line spacing)

RJ Meehl

2.2.81





52 G/130W-0020-#2

Dip ANGLE	Filtered Values
16S	-34
29S	+32
45S	+32
36S	+30
7S	+28
16W	+60
20W	+10
49W	

EXAMPLE OF FRASER FILTER METHOD

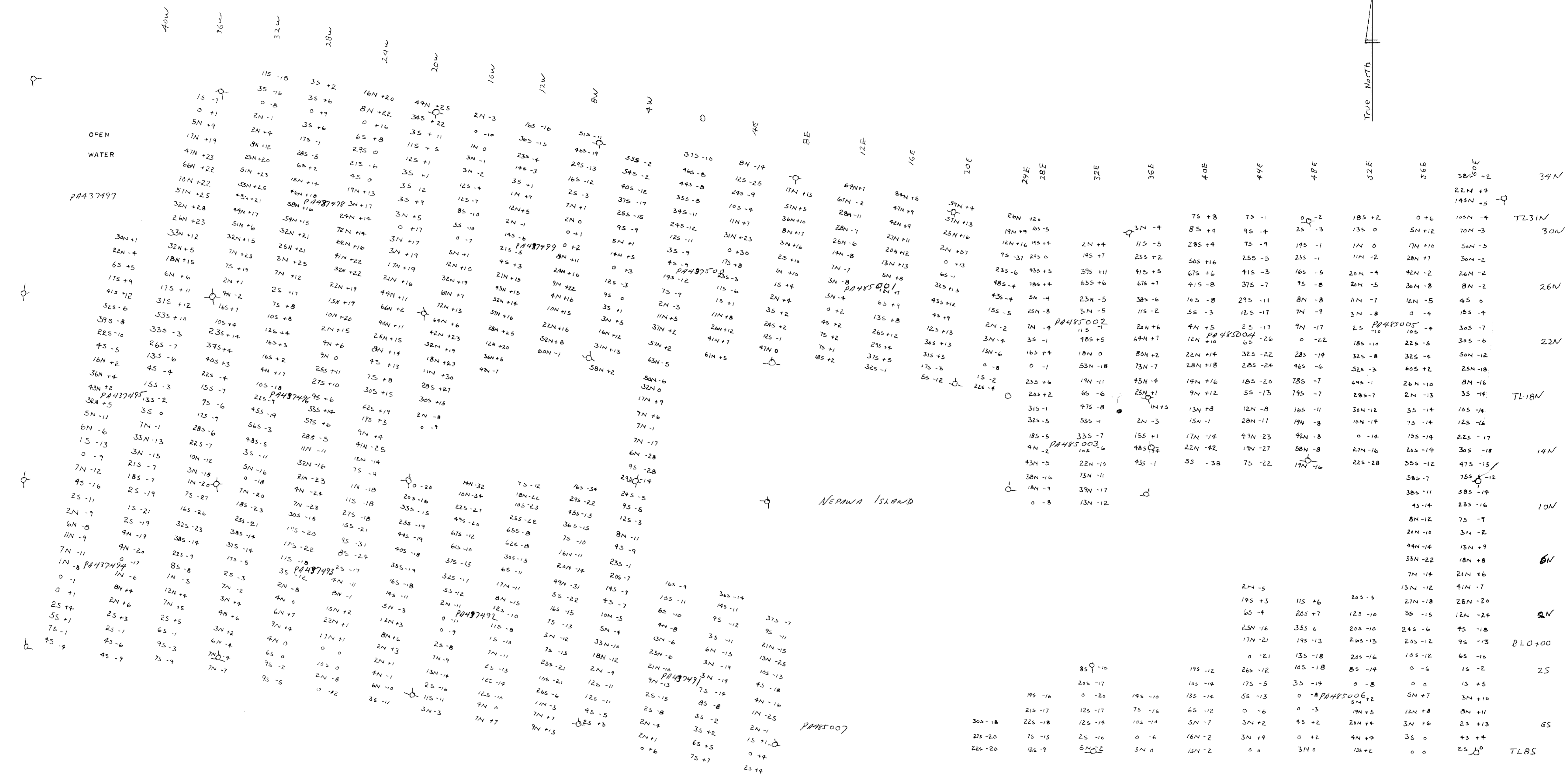
RAYAN EXPLORATION LTD
Client - Mid Canada Exploration Service

Filtered VLE Survey
(Fraser's Method)
SIOUX LOOKOUT, ONT

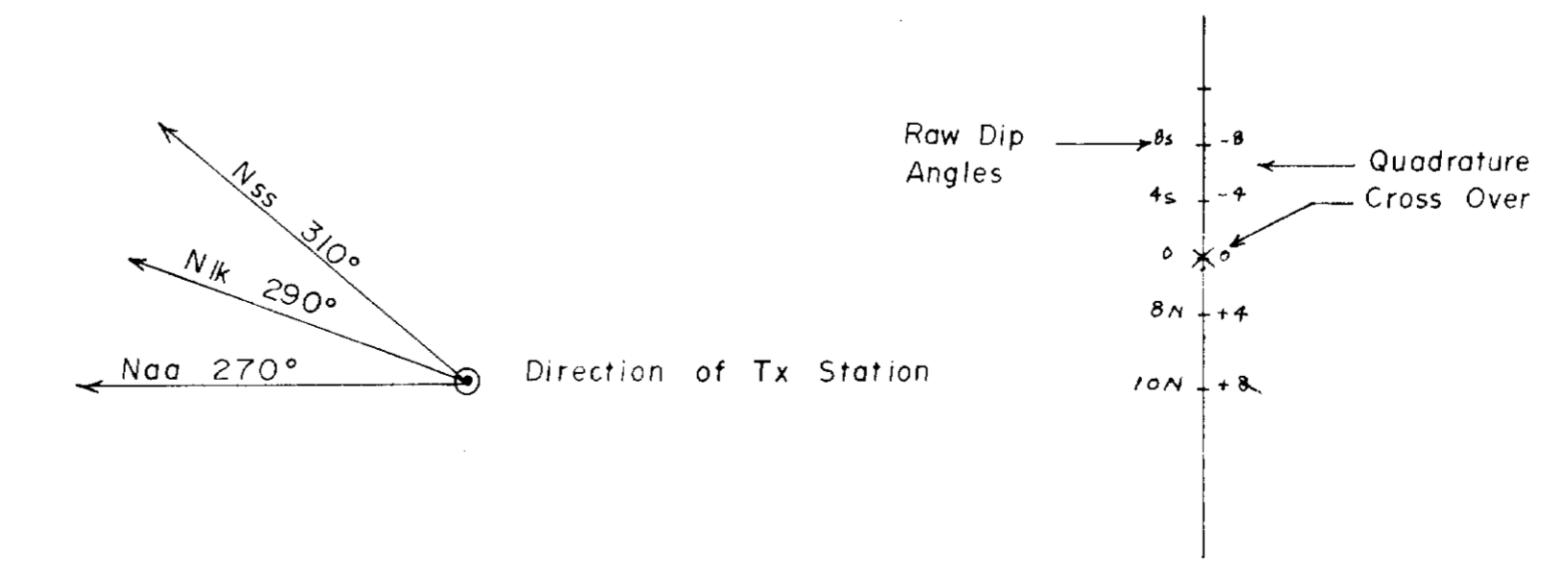
Instrument - Geonics EM-16
Dip angles filtered by Fraser's Method
Contour Intervals

+10 +25 +50 +75 +100
Scale 1" = 400' Jan / Feb 1981

PJ Meade



52G/13NW-0020-#3



RAYAN EXPLORATION LTD
 Client: Mid Canada Exploration Service

VLF SURVEY
 Raw Dip Angles
 SIOUX LOOKOUT, ONT

1" = 400' Jan 1981 R.J.M.
 Instrument: Geonics E.M. 16
 Tx Station: Naa - Cutler Maine
 Nss - Annapolis Md. where marked
 NIK - Seattle Wash.

R.J. Meckle

