REPORT

ON

GRID C

MAGNETOMETER AND ELECTROMAGNETIC SURVEYS
WALKER TOWNSHIP
DISTRICT OF COCHRANE
LARDER LAKE MINING DIVISION
ONTARIO

November 21, 1980

W. G. Wahl Limited

W. G. WAHL LIMITED

CONSULTANTS: GEOLOGY - GEOPHYSICS

350 BAY ST. - 10TH FLR. - TORONTO, CANADA M5H 2S6
TEL. (416) 363-8761 - CABLE: WAHLCO - TORONTO

November 21, 1980

Mr. J. A. Harquail
President
Surveymin Limited
330 Bay Street
Suite 1107
Toronto, Ontario
M5H 2S8

Dear Mr. Harquail:

Submitted herewith is our report entitled:

GRID C

MAGNETOMETER AND ELECTROMAGNETIC SURVEYS
WALKER TOWNSHIP
DISTRICT OF COCHRANE
LARDER LAKE MINING DIVISION
ONTARIO

The ground geophysical surveys extended and further defined the regional geology as mapped by the Ontario Division of Mines.

Two magnetically inferred fault zones were identified during the course of the survey, both of which are believed to be related to the Pipestone Fault system and reflect two periods of structural deformation. Conductivity along the fault zone is unremarkable. Conductor C-2, located in the south-central portion of the survey area exhibits a very weak conductivity response and is interpreted to be either a zone of finely disseminated sulfide mineralization or a region of highly conductive overburden.

In light of the structural significance of the Pipestone Fault system as a known channel way for gold bearing mineralizing solutions, it is recommended that additional ground geophysical investigations be carried out in the vicinity of the Pipestone Fault in order to further define the magnetically inferred location

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of the Pipestone Fault. The ground geophysics would consist of several selected I.P. profiles carried out across the fault zone in an attempt to define possible disseminated sulfide zones (<5% sulfides). The ground geophysics will be followed up by detailed section diamond drilling along the fault trace.

GENERAL

The following geophysical report details the results of the ground magnetometer and electromagnetic surveys undertaken by W. G. Wahl Limited on behalf of Surveymin Limited.

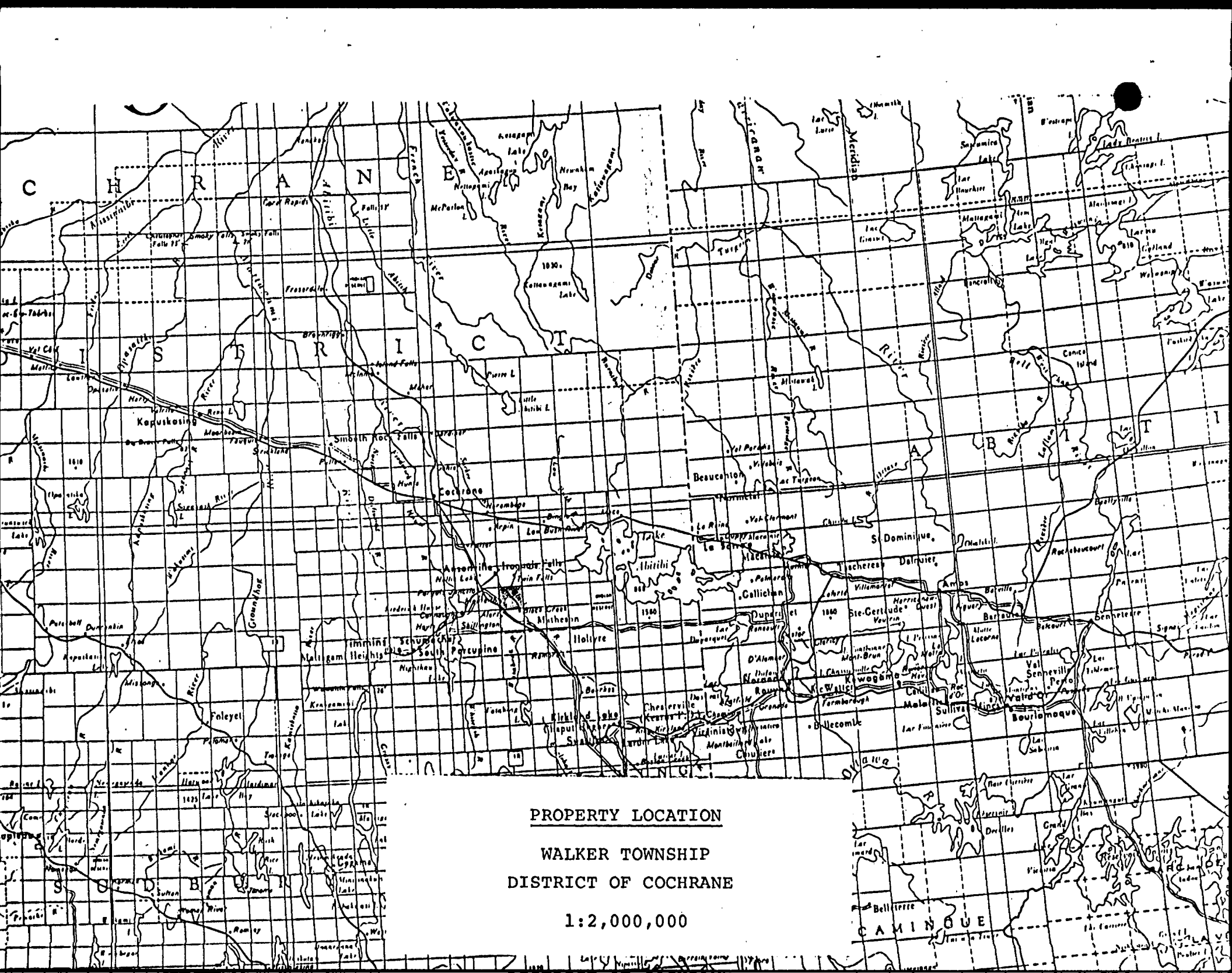
The property lies in the southwest corner of Walker Township, District of Cochrane and is accessible by truck approximately 1 mile east from the village of Monteith on Highway 626, then west onto a Lot line which swings south along the eastern boundary of the property.

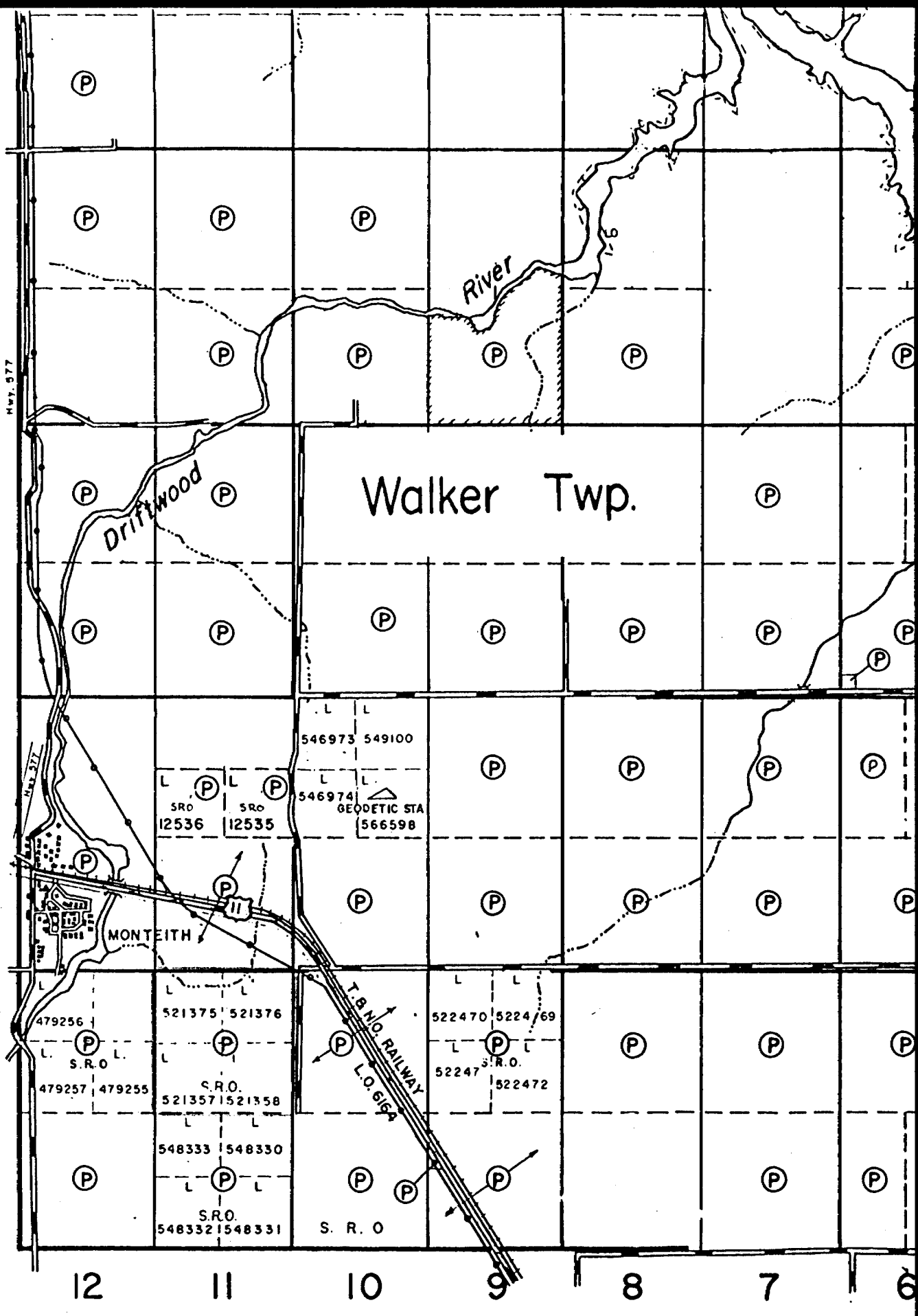
The West Railway property consists of the following four unpatented mining claims, all of which are duly recorded with Mr. G. J. Koleszar, Mining Recorder, Larder Lake Mining Division.

L. 521375 - N.W.¼, N½, Lot 11, Conc. I, Walker Township.
L. 521376 - N.E.¼, " " " " " " " .
L. 521357 - S.W.¼, " " " " " " " .
L. 521358 - S.E.¼, " " " " " " " .

LINE CUTTING

The linecutting was conducted under the direct supervision of Mr. Gordon McIntosh of Timmins, Ontario during the period from October 18, 1979 to March 27, 1980. The survey grid consisted of 0.7 kilometres of baseline trending E-W and 6.24 kilometres of grid line trending N-S, established at one hundred metre intervals along the entire baseline. Thirty


PROPERTY LOCATION
WALKER TOWNSHIP
DISTRICT OF COCHRANE
1:2,000,000



CLAIM MAP

(2 inches to 1 mile)

metre stations were established on all lines.

The thirty metre station interval was apparently established by the line cutting crews using an imperial chain on the grid lines with the assumption that 100 feet was equal to 30 metres.

MAGNETOMETER SURVEY

The magnetometer survey was carried out by R. Harwood of W. G. Wahl Limited during the period from August 14 to August 16, 1980, employing a Scintrex MP-2 total field proton precession magnetometer in conjunction with a Scintrex MBS-2 total field magnetic base station attached to a Simpson M2750 strip chart recorder.

The magnetic data was observed at a 15 metre station interval on all lines of the established grid. The data was corrected for diurnal fluctuations, reduced to a local datum and presented as a contoured interpretation of these data.

MAXMIN II HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

The horizontal loop electromagnetic survey was carried out by J. Palladini of W. G. Wahl Limited during the period drom August 14 to August 16, 1980, employing an Apex Parametrics MaxMin II horizontal loop survey unit in the maximum coupled mode. The inphase and quadrature response parameters were recorded at 444 Hz and 1777 Hz utilizing a 600 foot coil separation and a 30 metre station interval. These

data are presented in profile form.

DISCUSSION

The ground magnetometer survey extended and further defined the regional geology as mapped by the Ontario Division of Mines and presented on Map No. 2205.

Two magnetically inferred fault zones were identified during the course of the survey. These appear to be related to two distinct periods of structural deformation. In the south-central portion of the survey area, a fault zone, characterized by a trough of low magnetic relief of up to 250nT within a region of high magnetic relief, was mapped on line 5W at station 3+90S, trending east-northeasterly to a point 270 metres south of the baseline on line 1W. At this point the fault appears to be terminated by a north-northwesterly trending fault zone, characterized by moderately low, below background magnetic relief and the disruption of adjacent established magnetic trends.

A lenticular magnetic expression of up to 500nT, was mapped on line 2W at station 120S trending north-northwesterly across the property to a point 390 metres north of the baseline on line 3W.

The electromagnetic survey identified two anomalous conductive zones lying within the survey area, both of which will be discussed in the following section of the report. The somewhat erratic response parametres recorded on line 0 are

attributable to cultural interference and related to the township road which lies parallel to and coincident with line 0.

Conductor C-1:

Conductor C-1 transects the northwest corner of the area trending NE from L7W to L5W and is classified as a cultural anomaly, ie. caused by man-made bodies. Conductor C-1 is the mappable expression of a power transmission line.

Conductor C-2:

Conductor C-2 is located in the east-central portion of the survey area and was mapped on line 1W at station 45S trending southwesterly across the survey area to a point 100 metres south of the baseline on line 2W. This anomalous conductive zone exhibits a very poor conductivity response and has been interpreted to be either a zone of finely disseminated sulfide mineralization or a region of highly conductive overburden.

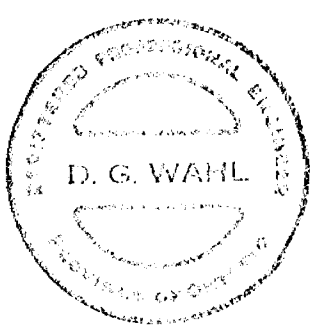
CONCLUSIONS

The ENE trending fault zone is believed to be a portion of the Pipestone Fault zone which has been offset by the NNW fault zone. Conductivity along the fault appears unremarkable as far as the electromagnetic data can be extrapolated; however, since the data does not extend far enough to the south, it is inconclusive.

RECOMMENDATIONS

In light of the structural significance of the Pipestone Fault system as a known channel way for gold bearing mineralizing solutions, it is recommended that additional ground geophysical investigations be carried out in the vicinity of the Pipestone Fault in order to further define the magnetically inferred location of the Pipestone Fault. The ground geophysics would consist of several selected I.P. profiles carried out across the fault zone in an attempt to define possible disseminated sulfide zones (<5% sulfides). The ground geophysics will be followed up by detailed section diamond drilling along the fault trace.

All of which is respectfully submitted.



Sincerely yours,
W. G. WAHL LIMITED

D. G. Wahl, P.Eng.
Consulting Engineer

DGW/pl

Ontario

Ministry of N

GEOPHYSICAL – GEOL
TECHNICAL DA

42A10NE0066 2.3576 WALKER

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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-
Township or Area WALKER TOWNSHIP
Claim Holder(s) SURVEYMIN LIMITED
1107 - 330 Bay St., Toronto
Survey Company W. G. WAHL LIMITED
Author of Report D. G. WAHL, P. Eng.
Address of Author 1000 - 350 Bay St., Toronto
Covering Dates of Survey October 18, 1979 to November 21, 1980
(linecutting to office)
Total Miles of Line Cut 6.94 Km

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	20
–Magnetometer	40
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

DATE: Nov 21/80 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 63, 1121

Previous Surveys

File No.	Type	Date	Claim Holder
			LD

MINING CLAIMS TRAVERSED
List numerically

EM M

(prefix)		(number)
L	1/4	521375
L	1/4	521376
L	1/4	521377
L	1/4	521378

If space insufficient, attach list

TOTAL CLAIMS 4

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations MAG - 434 MaxMin - 208 Number of Readings MAG - 434 MaxMin 444Hz - 868
1777Hz - 868

Station interval MAG - 15. m MaxMin - 30m Line spacing 100 m

Profile scale 1 cm = 10 %

Contour interval 100 nT

MAGNETIC

Instrument SCINTREX MP-2

Accuracy – Scale constant ± 1nT

Diurnal correction method Relative time interpolation based on strip chart recording

Base Station check-in interval (hours) SCINTREX MBS-2

Base Station location and value Baseline - grid line intercepts were standardized to base station recording

ELECTROMAGNETIC

Instrument APEX PARAMETRICS MAXMIN II

Coil configuration Co-planar, maximum coupled mode

Coil separation 600 ft.

Accuracy ± 1 %

Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line

Frequency 444 Hz and 1777 Hz
(specify V.L.F. station)

Parameters measured In-phase and Out-of-phase

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

– Off time

– Delay time

– Integration time

Frequency

Range

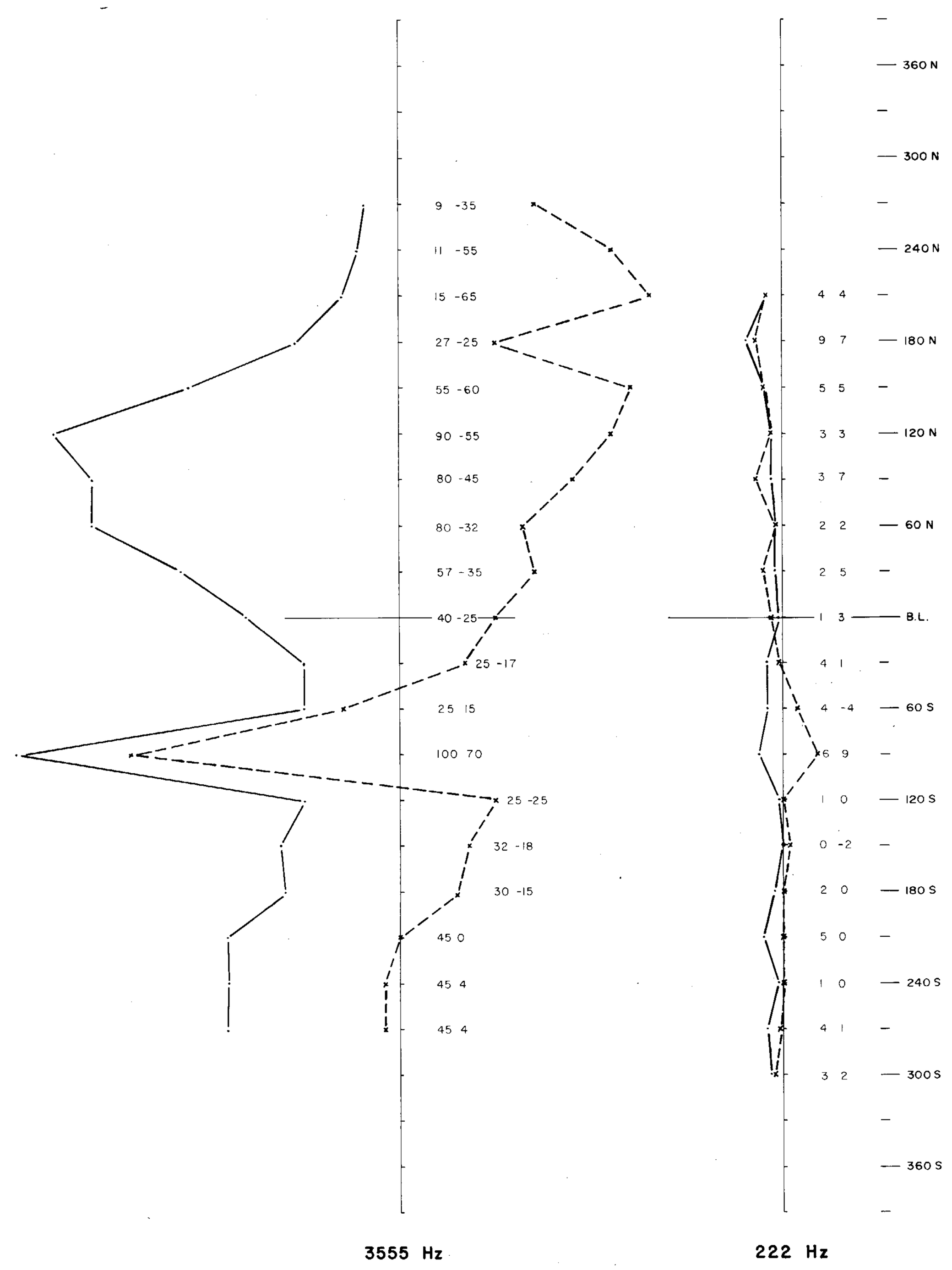
Power

Electrode array

Electrode spacing

Type of electrode

MULTI-FREQUENCY MAX-MIN SURVEY
L 0+00



LEGEND

In- Phase

Quadrature

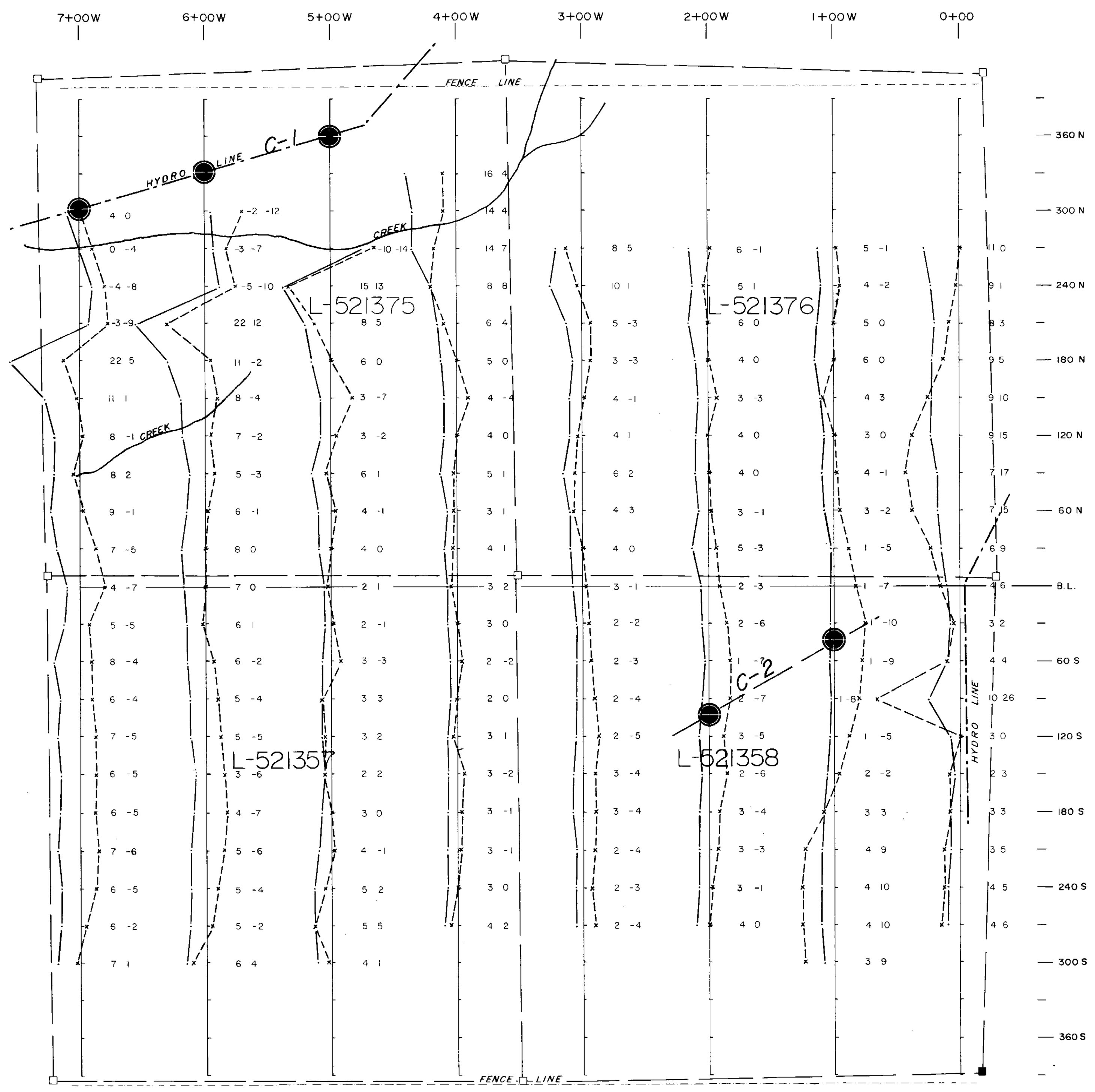
Conductor Axis

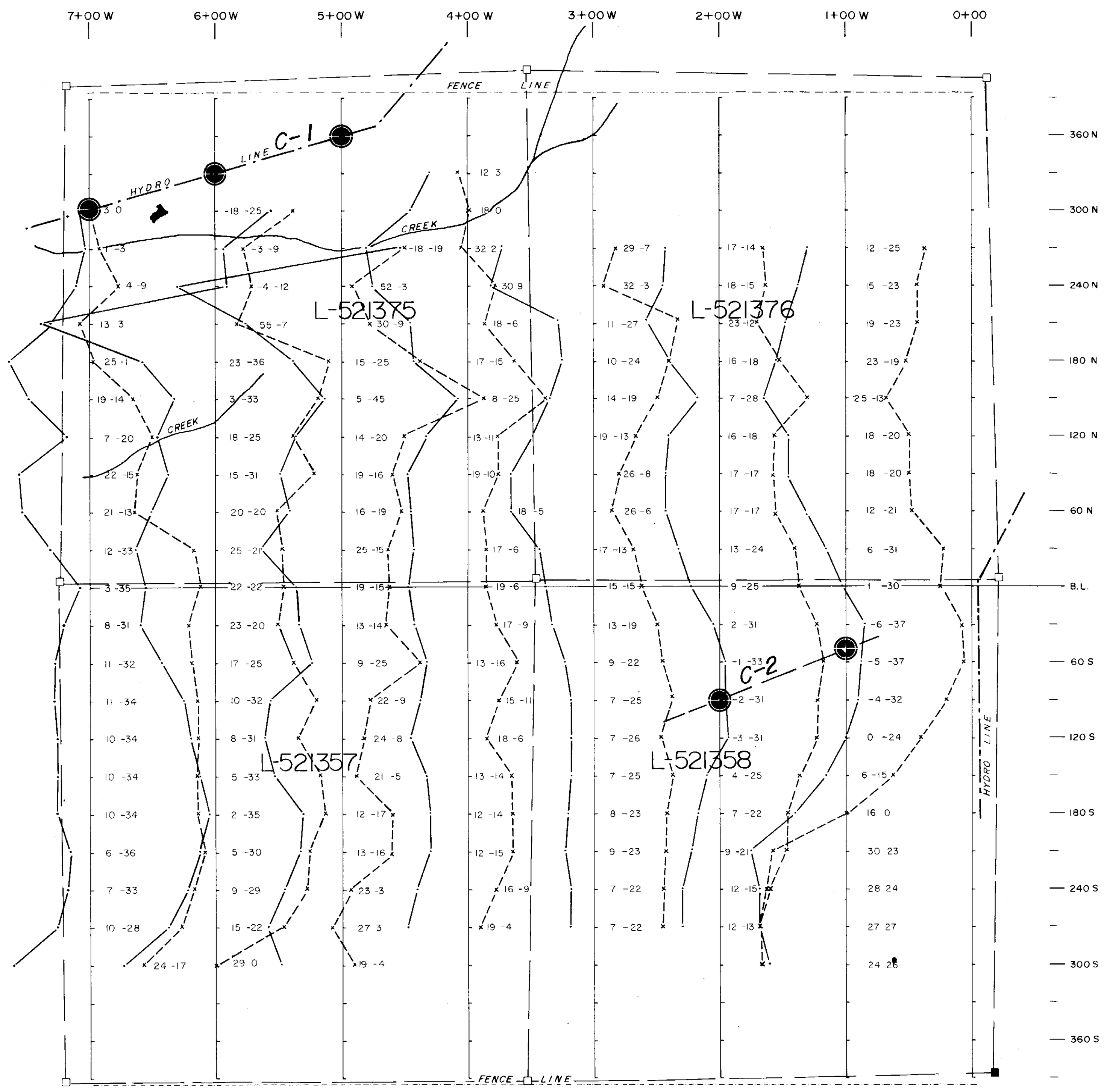
+20% −20%

Tx or Rx 60.0' Rx or Tx

Tx - Rx Separation
Drawn to Scale

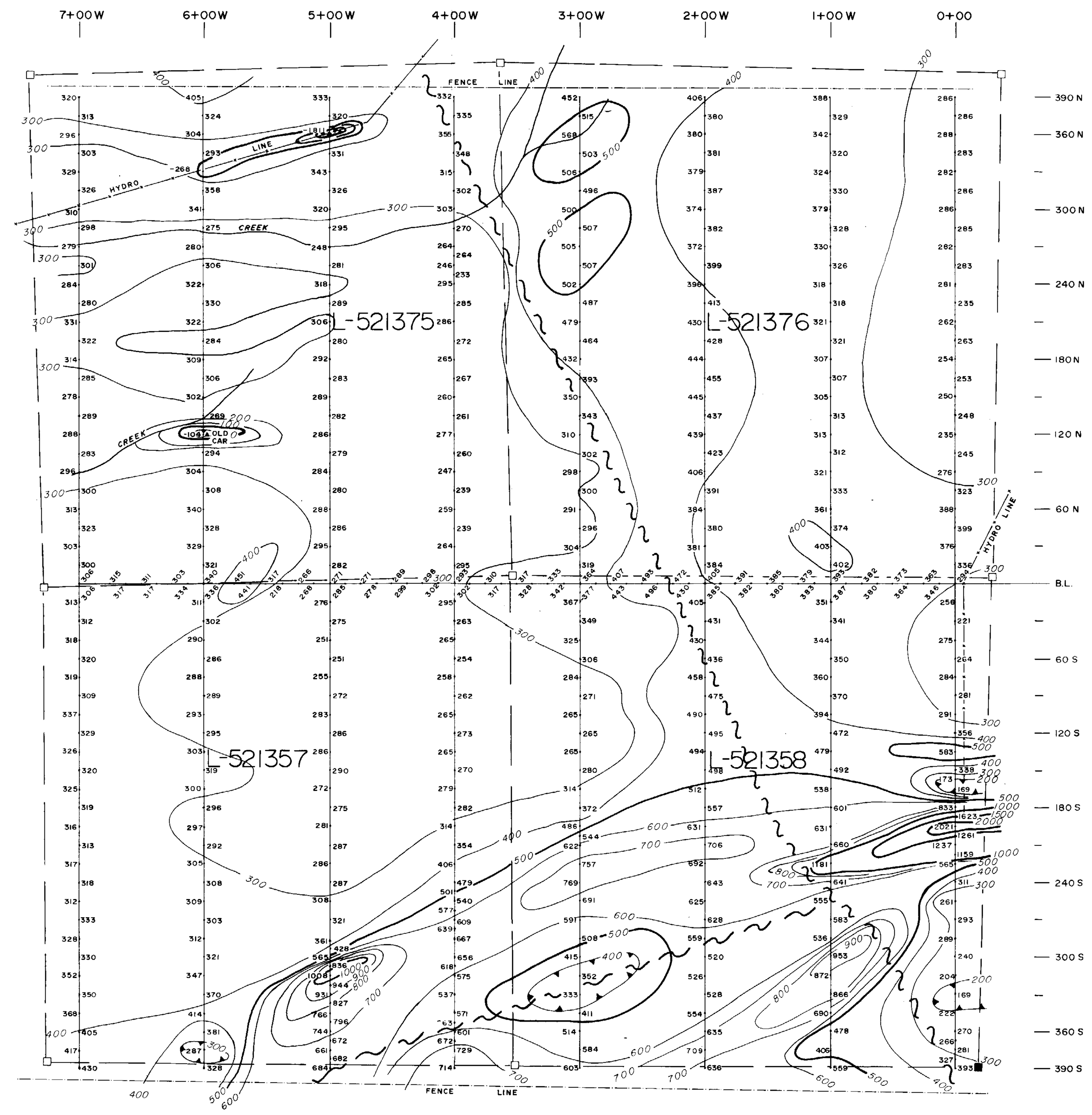
MAX - MIN SURVEY
FREQUENCY 444 Hz (Priority No.3)





MAX - MIN SURVEY
FREQUENCY 1777 Hz (Priority No. 3)

MAGNETOMETER SURVEY



MAGNETOMETER SURVEY LEGEND

Station and reading in gammas (Background 59,000)

Magnetic Contour

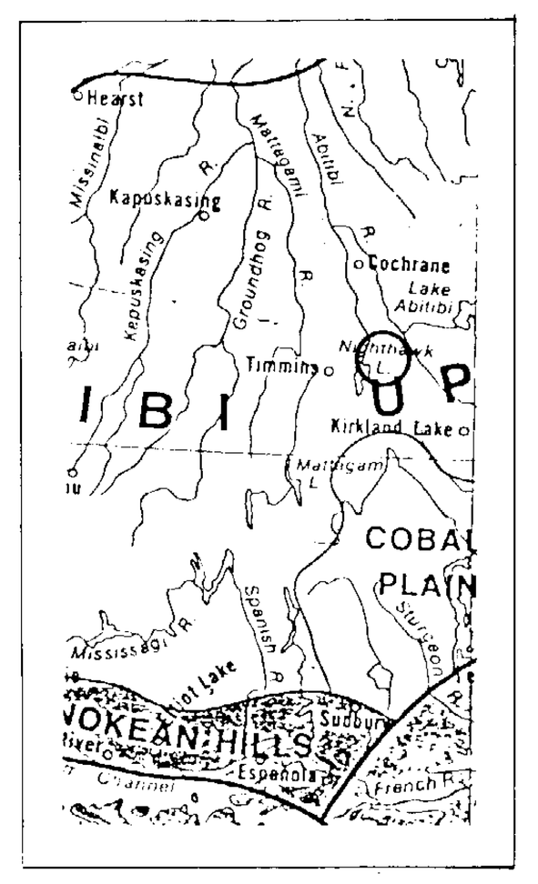
Magnetic Depression

Contours

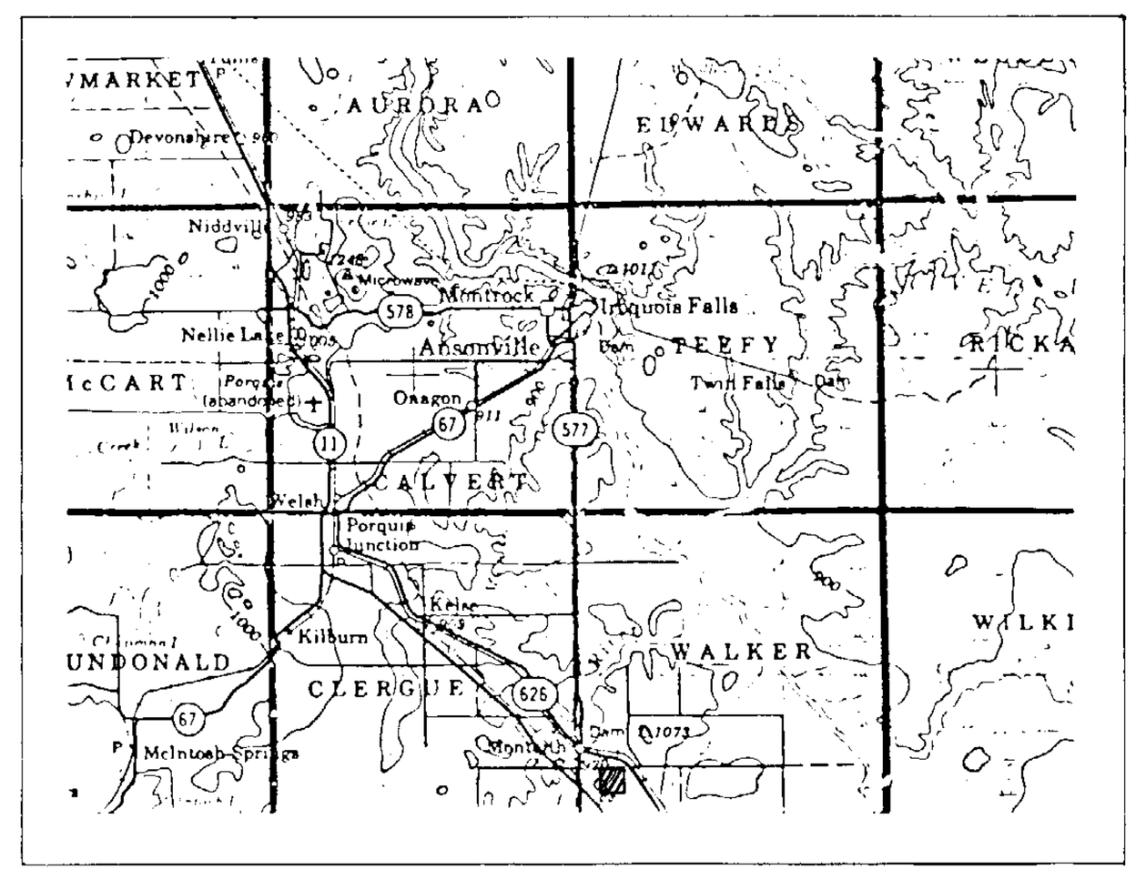
500 gammas

100 gammas

Contour interval 100 gammas



LOCATION MAP
1:5,000,000



INDEX MAP
1:250,000

SCALE - 1:2500

METRES

SURVEYMIN LIMITED	
WALKER TWP. PROJECT	DRAWN BY J. Palladini
	TRACED BY Carto-graphics
GEOPHYSICAL SURVEYS	APPROVED NOV 1980
	N.T.S. 42 A/10
W.G.WAHL LIMITED — SCALE: 1:2500	DWG. NO. GRID "C"

200