GEOPHYSICAL ASSESSMENT REPORT ON

NAT RIVER PROPERTY

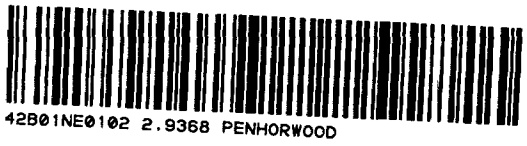
PENHORWOOD TOWNSHIP

NTS: 42 B/1

Submitted by:

P.A. Diorio
Senior Geophysicist
Utah Mines Ltd.
Toronto, Ontario
August, 1986

NAT RIVER PROPERTY
PENHORWOOD TOWNSHIP



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I INTRODUCTION

The Nat River property is owned by W.O. Karvinen and Associates Ltd. under option to Utah Mines Ltd. The surveys discussed herein are part of an ongoing gold exploration program.

II LOCATION AND ACCESS

The claim group is located approximately 65 kilometres southwest of Timmins and may be reached via the Kenogaming lumber road from highway 101, (Figure 1a and 1b). A network of secondary logging roads provide access to all parts of the property.

III CLAIMS COVERED BY THE SURVEY

The property consists of 17 contiguous claims, (650387, 661737-8, 733800-8 and 733810-14 inclusive). All claims were covered by each of the four surveys discussed here, however, claims 650387, 661737 and 661738 have previously recorded magnetometer data and are included here only for completeness.

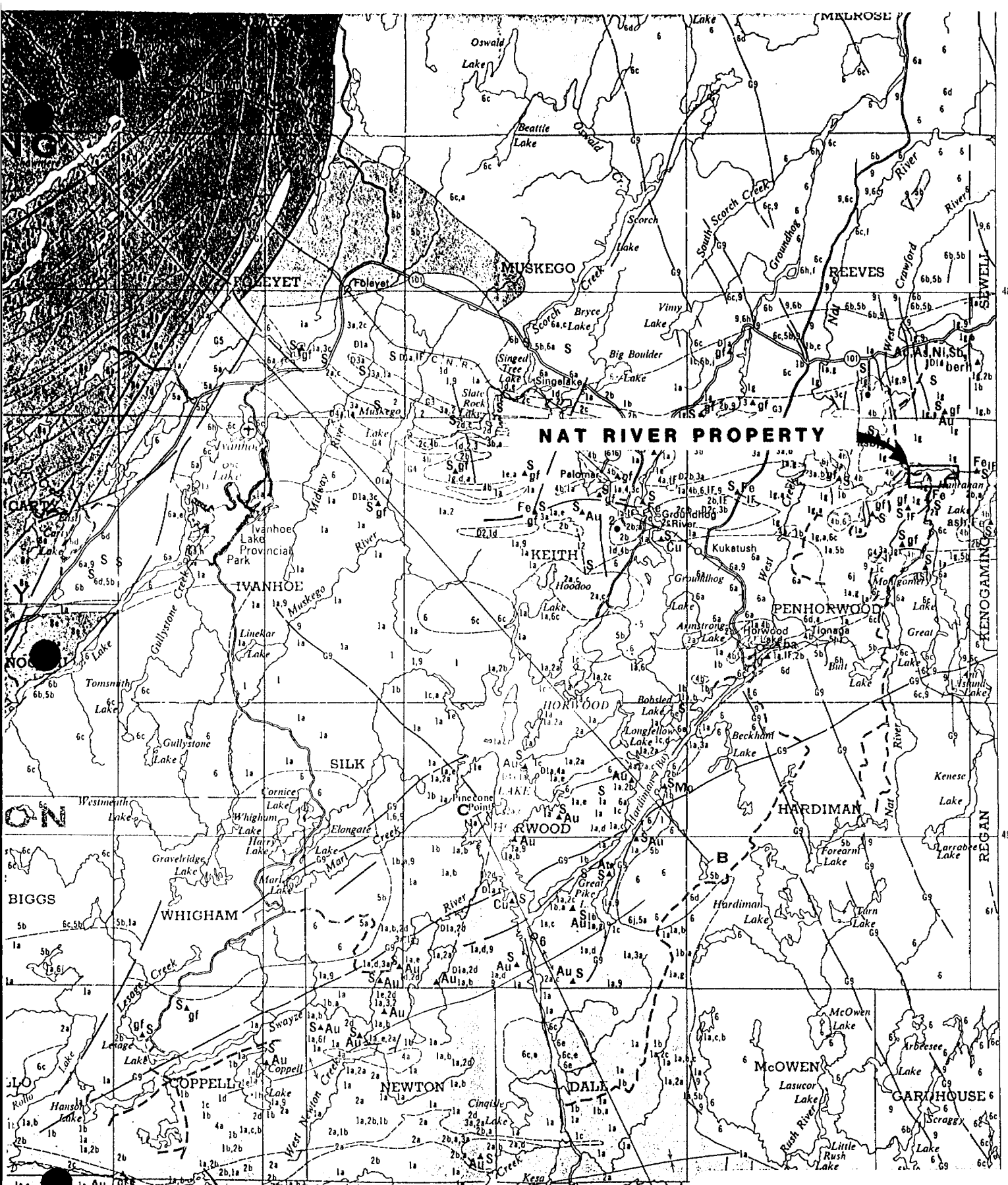


FIGURE 1a. NAT RIVER

Property location, (1" = 4 miles) from G.S.C. Map 2221

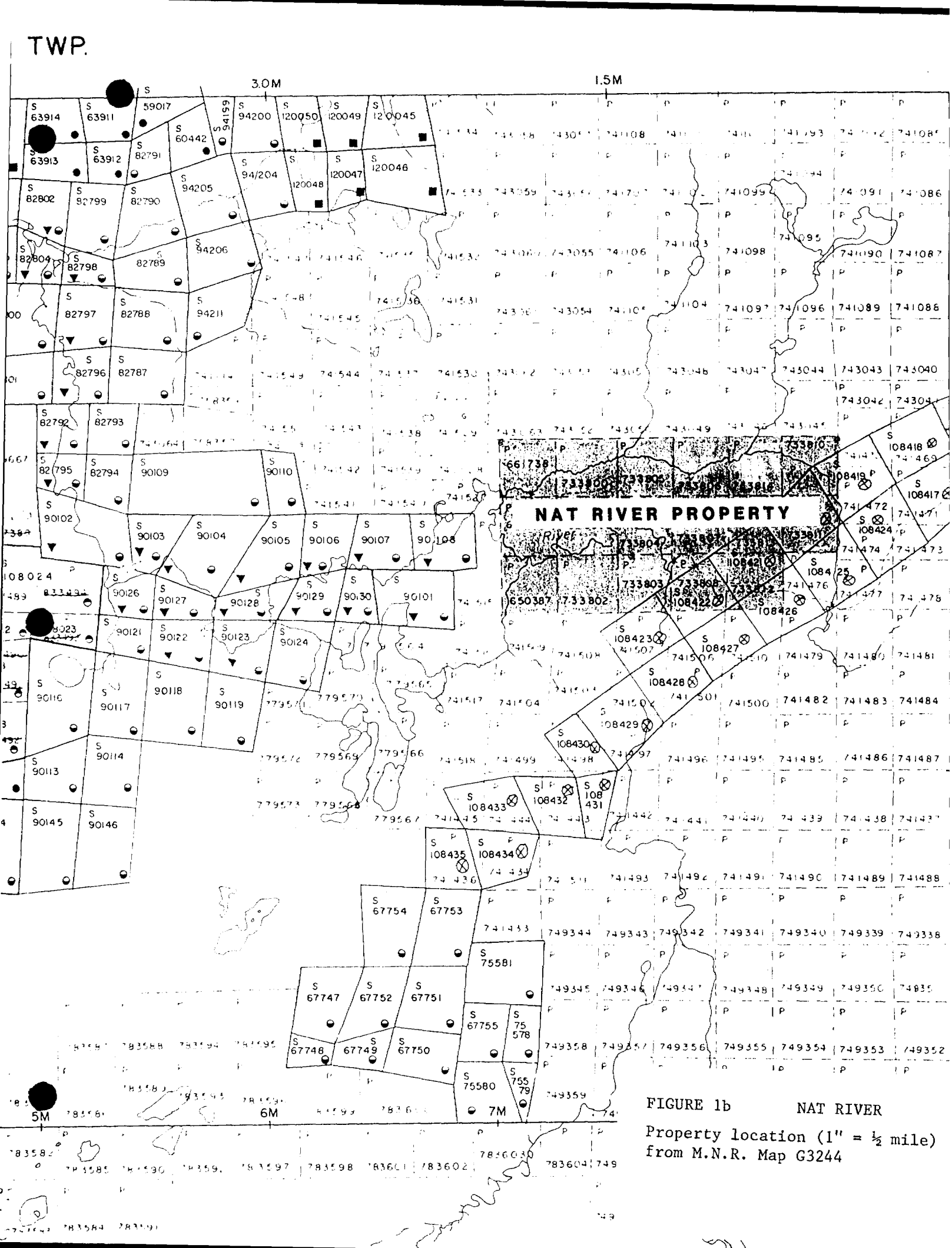


FIGURE 1b NAT RIVER

Property location (1" = ½ mile) from M.N.R. Map G3244

IV GEOLOGY

Regional geology is described by (Karvinen, 1985) as follows:

> "Bedrock in the area consists predominantly of metavolcanics of the large Archean Abitibi Greenstone Belt. Detailed mapping by Milne, (1972) for the Ontario Government, indicates this part of Penhorwood Township to be underlain by felsic tuffs, oxide and sulphide iron formation, mafic and ultramafic volcanics and some small felsic intrusive bodies. Regional reconnaissance of the area by the writer indicates that the large package of felsic rocks overlain by the Nat River iron formation may correlate with the Upper Volcanic Formation of the Deloro Group in Timmins (see Pyke, 1982). Similarly, the overlying ultramafic flows and tuffs would correspond to the Lower Volcanic Formation of the Tisdale Group."

For a detailed discussion of local geology the reader is referred to (Karvinen, 1985).

V PREVIOUS EXPLORATION HISTORY

No record of exploration work is noted prior to 1982, however, (Karvinen, 1985) mentions evidence of trenching, probably dating back to the early part of the century.

Recent exploration history is summarized as follows:

1982: - 17 claims staked based on veined and altered boulders in the vicinity of showing #1. Trenching and prospecting yielded anomalous gold samples (up to 718 ppb).

1983: - Winkie drilling demonstrates that #1 showing is a large (12') boulder. Till sampling returned a value of .17 oz/T Au in the heavy mineral concentrate.

- Property optioned to Highland Crow and Quinterra. More trenching in the vicinity of No. 1 showing. Grid was established and a magnetometer survey carried out.

1984: - Trenching and prospecting, particularly around pyritic iron formations. No assays exceeded 1000 ppb and most of the claims were allowed to lapse.

- Claims were restaked.

1985: - Grid was re-established and systematic mapping undertaken as well as SP survey in the vicinity of showing #2.

1986: - Property optioned by Utah Mines Ltd. Detailed mapping, prospecting, mag, EM and IP surveys.

VI METHOD OF GEOPHYSICAL SURVEYS

(a) Magnetic Survey

The magnetic survey was carried out using a Scintrex MP-4 hand held Proton Precession magnetometer. Magnetometers of this type make use of the phenomena called Nuclear Magnetic Resonance. The phenomena is observable when the nuclei of certain materials are first aligned to some direction by an intense magnetic field and then allowed to precess about a "weak" magnetic field. In the case of this survey the "weak" field is dominated by the earth's magnetic field. The intense magnetic field is produced by a D.C. current through a coil surrounding a proton rich fluid (kerosene). When the current is switched off, the protons precess about the earth's field with a frequency directly proportional to that field. The proportionality appears to be fundamental property of the nuclei and is not influenced by temperature or chemical variations. The frequency is measured by observing the current induced in a coil surrounding the fluid. A magnetometer based on this principle is effectively free from drift. The Scintrex magnetometer used for this survey employs a sensor mounted on a staff which is held at arm's length from the operator, thereby reducing possible magnetic or electromagnetic effects introduced by the operator. The output is in the form of a 6 digit display yielding the total field

measurement in gammas (nanoteslas). The resolution and accuracy of this unit is ± 0.1 gamma.

Magnetic readings must be corrected for the time varying component of the geomagnetic field. This was done by correcting all readings with respect to a base station located on the grid at the baseline (LON) and L76W. The correction was carried out automatically using this syncronized base station magnetometer.

(b) VLF-EM Survey

The electromagnetic survey was carried out using a Scintrex VLF-4 electromagnetic system. The VLF-4 is a receiver that measures the VLF magnetic field component from transmitter stations normally used for navigation and military submarine communications. The survey at Nat River made use of the VLF transmitter in Cutler Maine operating at a frequency of 24.0 K Hz.

The VLF-4 measures three components of the VLF-magnetic field:

1. the horizontal amplitude vector in a direction perpendicular to a line joining the operator to the station;

2. vertical in-phase amplitude and;

3. vertical quadrature amplitude.

These components are recorded simultaneously for a given station. The vertical components are expressed as a percentage of the horizontal field.

(c) Horizontal Loop Survey

The electromagnetic survey was carried out by Utah Mines Ltd. personnel using an Apex Max-Min II EM system. The Max-Min II EM unit consists of a transmitter coil and console which generates an alternating primary field at one of five operating frequencies (111, 222, 444, 1777, 7110 Hz). The choice of frequencies is made primarily on the type and depth of overburden and the type, size and depth of target being sought. In general a lower frequency will result in less geologic noise, have increased depth penetration, but at the same time will reduce sensitivity to conductors of interest.

The transmitter coil of the Apex Max-Min unit is connected to the receiving coil and console by a reference cable of suitable length. The choice of cable length depends on the desired depth penetration and resolution. While an increased cable length gives greater depth of exploration, it also reduces the resolution of the system.

The receiving console gives an automatic readout of the real and imaginary components of the secondary field as a percentage of the primary field. With no conductor present, no secondary field is produced and only the primary field is

present at the receiver. Under these conditions, Ø in-phase and Ø out-of-phase are recorded.

In the presence of a conductor, a secondary field is produced. Negative, real and quadrature readings are recorded immediately over the conductor. As the leading coil approaches a conductor, positive readings are observed (positive shoulder). When the coils have moved to a point where the conductor lies somewhere between the transmitter and receiver, negative values are observed, the minimum lying when the two coils straddle the conductor. As both coils move off the opposite end of the conductor, a second positive shoulder is observed. The readings are plotted as percentages of the primary field at the mid-point between the transmitter and receiver coils. The values are then profiled to outline anomalous regions.

The depth of penetration of this system is a function of the coil separation and frequency employed, but is generally regarded as being one half of the distance between transmitting and receiving coils. The nominal sensitivity of the instrument is about .2% of the primary field.

This survey was conducted using a 400 foot coil separation with readings taken at frequencies of 222, 1777 and 7110 Hz. The values of real and quadrature readings for each frequency at 665 stations are plotted on the accompanying maps of the grid.

(d) IP Survey

This survey employed a Phoenix Geophysics Ltd. IPT1 2kw time domain transmitter and a Scintrex Ltd. IPR-11 induced polarization receiver. Both were operated with a 2 second "on" and 2 second "off" cycle. The IPR-11 measures and records primary voltage and 10 chargeability slices. For the sake of convenience, the chargeability (see Table 1 and Table 2) data has been reduced to a "Newmont standard" chargeability with a Ø.45 sec. delay and Ø.65 sec. integration time. The IPR-11 is capable of measuring and recording up to 6 dipoles simultaneously. During this survey, 4 dipoles (N = 1 to 4) were measured simultaneously with and "A" spacing of 200'.

The survey was performed with a 5-man crew. Two men were used to operate the transmitter and move the single roving transmitter electrode. Three more men operated the receiver and set up the 4 receiver dipoles. Both transmitter and receiver electrodes consisted of 3 foot stainless steel rods. Standard 18 gauge "IP wire" was used for all connections.

Table 1. IPR-11 Timing Data

MODE Sec.	SLICE	DURATION ms	FROM ms	TO ms	MID-POINT ms
0.2	0	3	3	6	4.5
	1	3	6	9	7.5
	2	3	9	12	10.5
	3	3	12	15	13.5
	4	18	15	33	24
	5	18	33	51	42
	6	18	51	69	60
	7	36	69	105	87
	8	36	105	141	123
	9	36	141	177	159
1.0	0	15	15	30	22.5
	1	15	30	45	37.5
	2	15	45	60	52.5
	3	15	60	75	67.5
	4	90	75	165	120
	5	90	165	255	210
	6	90	255	345	300
	7	180	345	525	435
	8	180	525	705	615
	9	180	705	885	795
2.0	0	30	30	60	45
	1	30	60	90	75
	2	30	90	120	105
	3	30	120	150	135
	4	180	150	330	240
	5	180	330	510	420
	6	180	510	690	600
	7	360	690	1050	870
	8	360	1050	1410	1230
	9	360	1410	1770	1590
4.0	0	60	60	120	90
	1	60	120	180	150
	2	60	180	240	210
	3	60	240	300	270
	4	360	300	660	480
	5	360	660	1020	840
	6	360	1020	1380	1200
	7	720	1380	2100	1740
	8	720	2100	2820	2460
	9	720	2880	3540	3180

Table 2. IPR-11 Timing Data, Vp Integration

MODE Sec.	DURATION ms	FROM ms	TO ms	MID-POINT ms
0.2	512	384	896	640
1.0	512	384	896	640
2.0	1024	768	1792	1280
4.0	2048	1536	3584	2560

VII PLOTTED RESULTS

Data included here are plotted in at least one of three forms: contoured plan, stacked profiles or contoured stacked pseudosections. The first two are conventional formats. The contoured stacked pseudosections show IP data, plotted in pseudosection format with each pseudosection aligned along an idealized representation of the survey grid. Note that true plan map scale is maintained only in the north-south direction. Survey lines are represented as straight, parallel and with a constant separation. The pseudosections employ the mid-point between the closest transmitter and receiver electrode as a plotting point.

All data has been plotted at 1" = 400'. The mag data was also plotted at a scale of 1" = 200' in order to accommodate posted data values and as an aid to geologic mapping at this scale.

TABLE 3 - Maps Accompanying Report

TOTAL FIELD MAG SURVEY

Mag Contours (50 Gamma Cont. Int.) (1" = 200')

Stacked Profiles (2000 Gammas/Inch) with data values (1" = 200')

Stacked Profiles (10000 Gammas/Inch) (1" = 400')

POLE-DIPOLE IP SURVEY (1" = 400')

N = 1 Resistivity Contours

N = 1 Chargeability Contours (2 Msec. Cont. Int.)

Resistivity contoured stacked pseudosections with data values

Chargeability contoured stacked pseudosections with data values

VLF SURVEY (Cutler; Maine) (1" = 400')

Vertical Real, Quadrature and Horizontal Field Stacked Profiles

Horizontal Field Contours (2 unit Cont. Int.)

Vertical Real Component Data Values

Vertical Quadrature Component Data Values

Horizontal Component Data Values

MAXMIN II SURVEY (400' Coil Separation) (1" = 400')

7110 Hz Profiles (at 40%/Inch) with data values

1777 Hz Profiles (at 40%/Inch) with data values

222 Hz Profiles (at 20%/Inch) with data values

BASE MAP (1" = 400')

GEOPHYSICS COMPILATION (1" = 400')

VIII INTERPRETATION

(a) Regional Magnetics

Regional magnetic data are represented on GSC aeromag maps (2263G at 1" = 1 mile; 7085G and 7086G at 1:250,000; and at 1:1,000,000). The property sits within an east-west trending belt of dominantly volcanic rocks with ultramafic, mafic and felsic intrusives. At 1:1,000,000 two major lineaments are seen to pass close to the property. Both of these extend for hundreds of km, almost as far as Chibougamau, and represent diabase dykes throughout most of their extent. The northern of these two passes through the eastern edge of the property. A splay off this zone appears to originate close to, or within the property (figure 3). In the region of Penhorwood Twp. both the northern zone and the "splay" are the site of emplacement of small ultramafic bodies. Interestingly, the Nat River iron formation, which marks the boundary between felsic volcanics to the southeast and mafic volcanics to the northwest, appears to coincide with the splay. These major dyke systems also show the effects of a set of northwest trending faults. A north-northwest swarm of diabase dykes is also apparent.

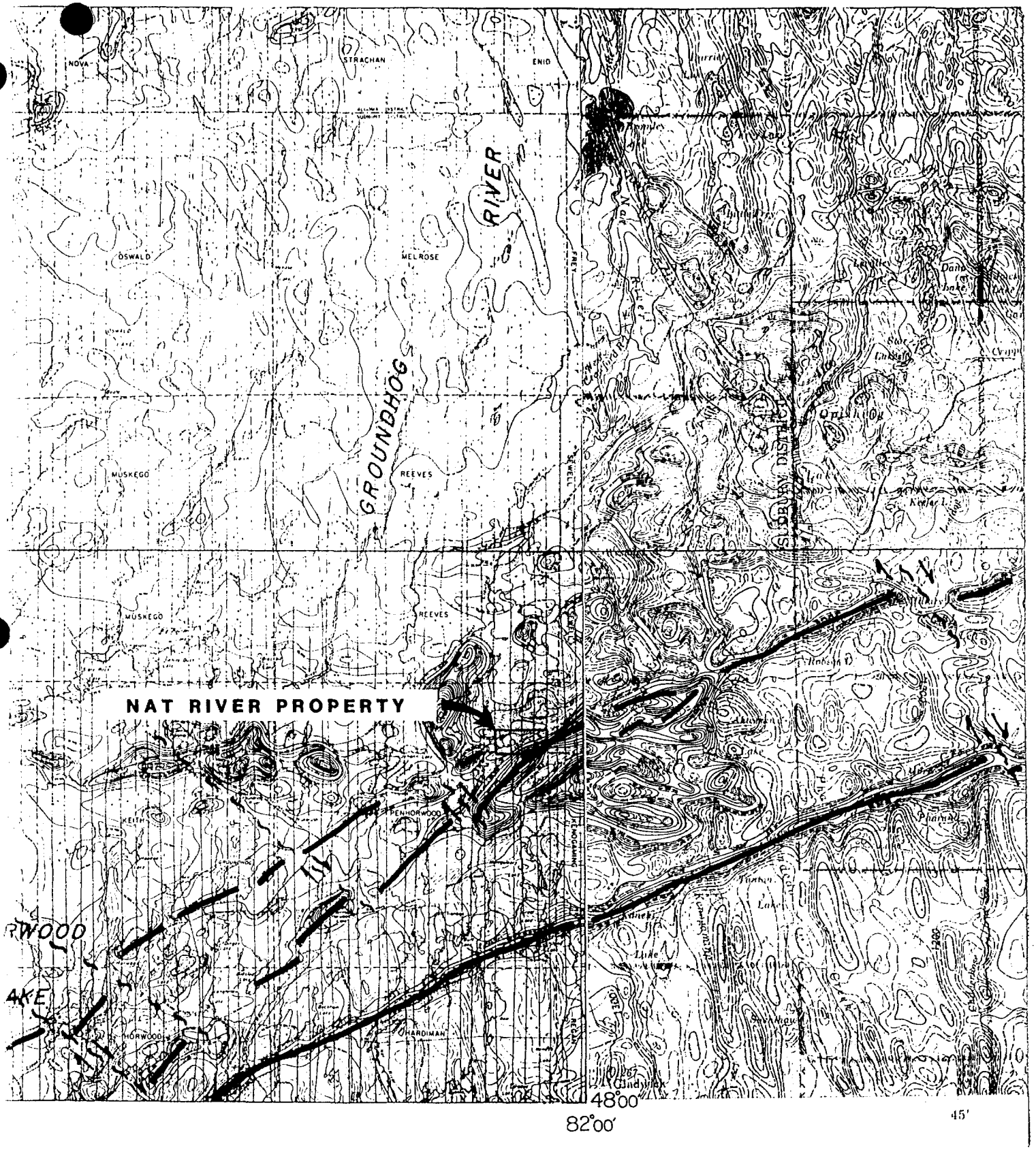


FIGURE 3: Regional Magnetics 1:250,000 (from Aeromag maps G7085, G7086)

(b) Local Magnetic Data

The detailed mag data clearly shows the general east-west strike direction of rocks on the western part of the property and the east-northeast striking units related to the regional structures described above. Units outlined on the compilation map are admittedly subjective and other interpretations are possible. In detail there is only a loose correlation between mag data and the geology as previously mapped.

Two possible faults are suggested by the mag data. In both cases, the exact location is open to interpretation however, the direction and approximate location is suggested by disruption of the anomaly pattern.

(c) IP Anomalies

Chargeability anomalies are annotated on the Geophysics Compilation map which is reproduced here as Figure 4. IP anomalies fall into 3 categories:

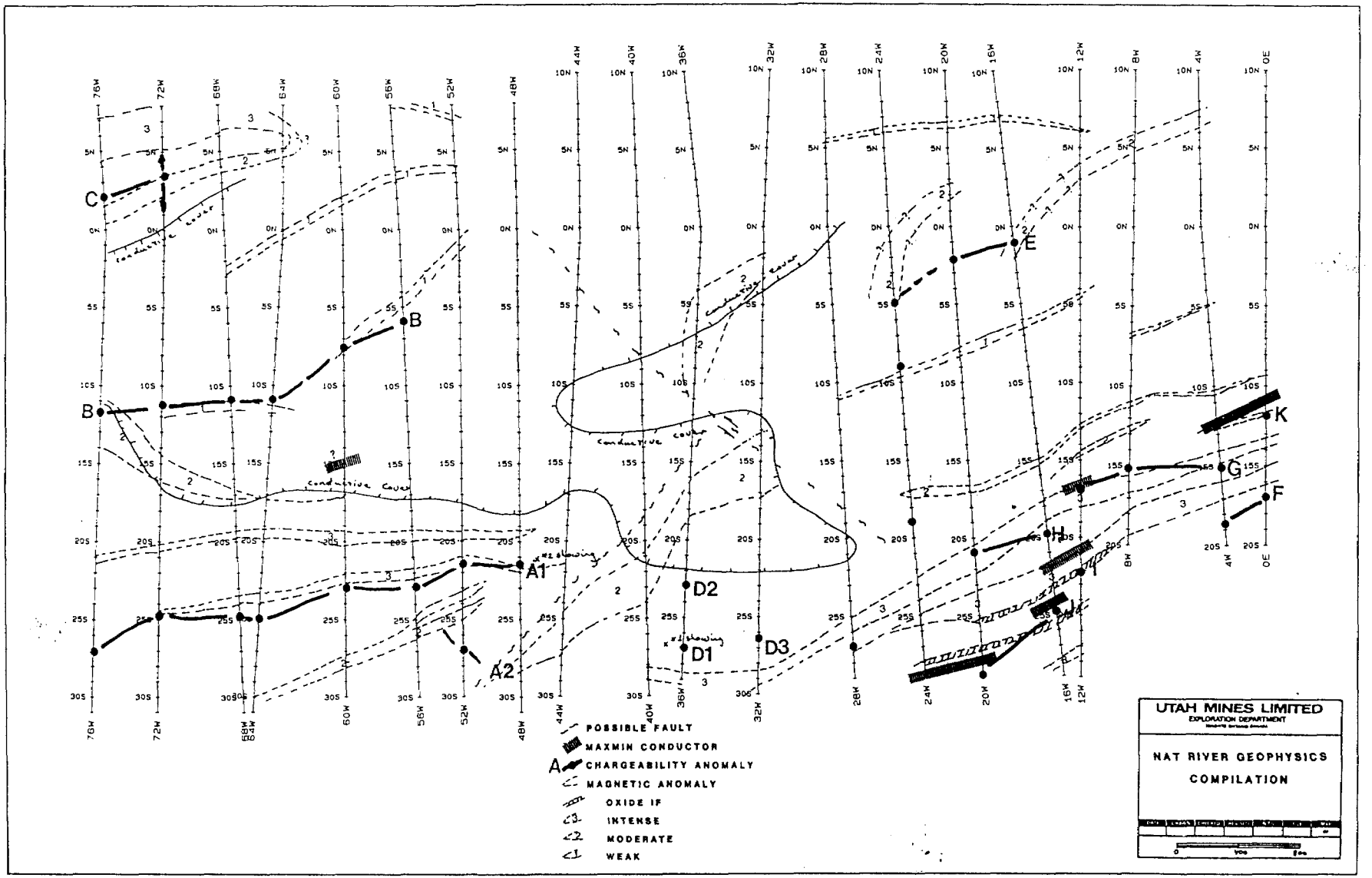


FIGURE 4: Geophysics Compilation

Chargeability highs with coincident resistivity highs. (A1, A2, C). The high resistivity suggested not only that the bedrock resistivity is high, but that there is little or no conductive cover. This in turn implies that the observed chargeability of the rock will more closely represent the observed chargeability than a similar magnitude anomaly in a covered area. In other words, there is less dilution of the chargeability effect. The high resistivity itself implies that we are not observing the response from a large volume of sulphides, however, it is easy to imagine "alteration" processes which would increase chargeability and resistivity (eg. sulphidization and silicification). Finally, we may be observing intrinsic chargeability response from a weakly polarizable, but unmineralized rock such as ultramafic. The coincident linear magnetic highs associated with these anomalies support this hypothesis. Detailed IP, sampling and physical property testing should be sufficient to test this theory.

Chargeability highs with nondescript resistivity association (B, D1, D2, D3, E). In some cases (eg. anomaly B) conductive cover effectively masks the resistivity of the bedrock. Chargeability has been suppressed (diluted). We can tell rather little about anomaly B and drill testing seems like the only viable option. Anomalies D1, D2, D3 and E do not seem to be strongly influenced by the effects of conductive cover. Detailed IP, in addition to pinpointing

the source will allow surveying to proceed closer to the property boundary.

Chargeability anomalies with resistivity lows (F,G,H,I,J)

On this property, such features are restricted to a zone in the southeast which is dominated by oxide and sulphide iron formations. In several places, coincident horizontal loop anomalies are noted. These may be simple facies variations of no economic interest, however, a group short strike length (<400') conductive zones is noted in the general vicinity of lines 16W and 12W. The possibility that these represent sulphidization of iron oxide hopefully with associated gold mineralization should be explored. These appear to be near surface features and trenching may be a viable method of testing.

(d) EM Anomalies

Aside from the above mentioned iron formation related conductors, no bedrock anomalies were observed. Many anomalies were detected, particularly with the high frequency survey, however, most of these are attributable to variations in overburden conductivity-thickness. This is manifested by larger than normal positive shoulders on the profiles.

(e) VLF Anomalies

Not surprisingly, the VLF response is strongly affected by variations in overburden conductivity-thickness. The east-west trending anomalies on the western part of the sheet are good examples of this. At first glance, these appear to represent discrete sources, however, examination of the IP resistivity data shows that these anomalies roughly outline a basin, probably a lacustrine clay layer. In defence of the VLF method, note that the conductors within the iron formation are well defined despite the fact that the coupling direction is rather poor for the Cutler Maine station. Data from the Seattle, Washington station was also obtained and shows similar results, however the signal is much weaker and the results much noisier. The Seattle data is not included here.

IX RECOMMENDATIONS

Virtually all chargeability anomalies require further attention. In many cases the next step should be detailed IP (A = 20' N = 1 to 4) using a symmetrical array (dipole-dipole) to pin-point the source of the anomalous response. This is particularly useful in evaluating anomalies for which a non-sulphide source is likely. (i.e. anomalies with coincident mag, chargeability and resistivity highs such as A and C). If a non-sulphide source is established, these anomalies will require no further attention.

Detail surveys may also be useful to trace the extent of possible sulphide sources in the immediate vicinity of known showings and alteration zones (D1, D2, D3 and E). This is recommended as a guide to trenching.

Anomaly B appears to be covered and can only be effectively evaluated by diamond drilling.

No further geophysical work is suggested for the host of anomalies on the southeast part of the property. A decision on drill testing should be deferred pending results from ongoing mapping and sampling.

Peter Diorio
Senior Geophysicist
Utah Mines Ltd.

PD/ca

REFERENCES

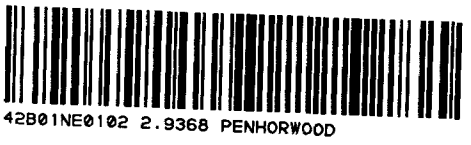
Karvinen, W.O. (1985) Geology of Nat River Gold Property, Penhorwood Twp. Assessment Report.

Karvinen, W.O. (1985) Report on SP Surveys on Nat River Property. (Unpublished)

Aeromag Map 7086G "Missinabi Lake" 1:250,000

Aeromag Map 7085G "Timmins" 1:253,440

Aeromag Map 2263G "Ground Hog Lake" 1:63,360



900

Mining Lands Section

File No 2.9368

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

P. Hurst

Signature of Assessor

Sept 3/86

Date

Dept Ld.

Sept 18

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#236/86.
2.9368

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
MAGNETOMETER	Penhorwood Township

Claim Holder(s)	Prospector's Licence No.
W.O. Karvinen and Associates	

Address: 32 Lakeland Point Dr., Kingston, Ontario, K6M 4E7

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Utah Mines Ltd.	15 06 86 (Day / Mo. / Yr.) 04 07 86 (Day / Mo. / Yr.)	0

Name and Address of Author (of Geo-Technical report)
P. Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. East, Toronto, Ontario M5C 1Y2

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	20
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

RECEIVED
MINING DIVISION
JUL 28 1986

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	733800	
	733801	
	733802	
	733803	
	733804	
	733805	
	733806	
	733807	
	733808	
	733810	
	733811	
	733812	
	733813	
	733814	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
AUG 19 1986
MINING LANDS SECTION

RECORDED
JUL 28 1986

Total number of mining claims covered by this report of work: 14

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
280	July 28/86	
	Date Approved as Recorded	Branch Director
	Aug. 9. 86	

Date	Recorded Holder or Agent (Signature)
July 22, 1986	P. Diorio

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
P. Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. East, Toronto, Ontario M5C 1Y2

Date Certified	Certified by (Signature)
July 22, 1986	P. Diorio

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#-237/86
2.9368

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Sept 18

Type of Survey(s): INDUCED POLARIZATION, VLF-EM, HORIZONTAL LOOP EM
Township or Area: PENHORWOOD TOWNSHIP

Claim Holder(s): W.O. Karvinen and Associates
Prospector's Licence No.:

Address: 32 Lakeland Point Dr., Kingston, Ontario K6M 4E7

Survey Company: UTAH MINES LTD.
Date of Survey (from & to): Day 15 Mo. 06 Yr. 86 | Day 04 Mo. 07 Yr. 86
Total Miles of line Cut: 0

Name and Address of Author (of Geo-Technical report): P.Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. E. Toronto, Ontario M5C 1Y2

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions: For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	20
	Geophysical - Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	IP - ~~Radiometric~~ XXXXXXX	20
	VLF - ~~Radiometric~~ XXXX	20
	Geological	
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	733800	
	733801	
	733802	
	733803	
	733804	
	733805	
	733806	
	733807	
	733808	
	733810	
	733811	
	733812	
	733813	
	733814	
	650387	20 IP 20 VLF
	661737	20 IP 20 VLF
	661738	20 IP 20 VLF

maximum reached.

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
AUG 19 1986
MINING LANDS SECTION

RECORDED
JUL 28 1986

Expenditures (excludes power stripping)

Type of Work Performed on Claim(s):

RECEIVED
JUL 28 1986
MINING LANDS SECTION

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right

Total number of mining claims covered by this report of work: 17

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	July 28/86	Stanley
	Date Approved as Recorded: 86.9.4	Branch Director

Date: July 22, 1986
Recorded Holder or Agent (Signature): P. Diorio

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
P. Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. East, Toronto, Ont. M5C 1Y2

Date Certified: July 22, 1986
Certified by (Signature): P. Diorio

1362 (81/9)

UTAH MINES LTD.

MINERAL EXPLORATION

SUITE 900, 25 ADELAIDE STREET EAST, TORONTO, ONTARIO, CANADA M5C 1Y2
(416) 368-3884

August 27, 1986

Mr. Ray Pichette
Supervisor Mining Land Section
Ministry of Natural Resources
Room 6610, Whitney Block
99 Wellesley Street, West
Toronto, Ontario

Dear Sir:

Please find enclosed an assessment report and related plan maps concerning geophysical surveys performed in Penhorwood Township. This covers work indicated in both of the "Report of Work" forms, copies of which are appended.

(A separate Report of Work was submitted for one of the surveys (Mag) because three claims had previously been awarded assessment credits for this survey). A separate "Technical Data Statement" is enclosed corresponding to each of the "Report of Work" forms.

Respectfully submitted

P. Diorio

P.A. Diorio
PAD/ca

Enclosures: Assessment Report
Plan Maps
Technical Data Statement

Ontario

Ministry of Natural Resources

File _____

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) ~~IP, HLEM, VLFEM~~

Township or Area ~~Penhorwood Township~~

Claim Holder(s) ~~W.O. Karvinen & Associates~~

~~32 Lakeland Pt. Drive, Kingston,Ont.~~

Survey Company ~~UTAH MINES LTD.~~

Author of Report ~~Peter A. Diorio~~

Address of Author ~~Suite 900, 25 Adelaide St. E. Toronto,Ont.~~

Covering Dates of Survey ~~June 15, 1986~~ – ~~August 27, 1986~~ (linecutting to office)

Total Miles of Line Cut ~~N/A~~

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim.
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	–Electromagnetic	20
	–Magnetometer	
ENTER 20 days for each additional survey using same grid.	–Radiometric ~~XXXXXXXXIP~~	20
	–Other ~~VLF~~	20
	Geological	
	Geochemical	

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

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

DATE: ~~August~~ 27/86 SIGNATURE: P. Diorio
Author of Report or Agent

Res. Geol. _____ Qualifications 2.4695

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	733800
	733801
	733802
	733803
	733804
	733805
	733806
	733807
	733808
	733810
	733811
	733812
	733813
	733814
	650387
	661737
	661738

TOTAL CLAIMS 17

If space insufficient, attach list

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: IP = 301; VLF = 1478, MaxMin = 665, — Number of Readings: IP = 2350; VLF = 1478 MaxMin = 3990

Station interval: VLF = 50', MaxMin = 100', IP=200' — Line spacing: 400'

Profile scale: (see maps)

Contour interval: (see maps)

MAGNETIC

Instrument

Accuracy – Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

	HORIZONTAL LOOP	VLF
Instrument	MaxMin II	Scintrex IGS II - VLF4
Coil configuration	Horizontal Loop	
Coil separation	400'	N/A
Accuracy	± .2%	± ∿ 1%

Method: ☒ Fixed transmitter (VLF) ☐ Shoot back ☒ In line (HLEM) ☐ Parallel line

Frequency: 7110 Hz, 1777 Hz and 222 Hz (%); Cutler Maine VLF 24.0 KHz. (specify V.L.F. station)

Parameters measured: Real and Quadrature (%); Vertical Real(%), Vertical Quadrature (%) and Horizontal Field Strength.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument: Transmitter: Phoenix IPT-1, Receiver: Scintrex IPR-11

Method: ☒ Time Domain ☐ Frequency Domain

Parameters – On time: 2 sec — Frequency

– Off time: 2 sec — Range

– Delay time: .45

– Integration time: .65

Power: 2 Kilowatt

Electrode array: pole - dipole

Electrode spacing: A = 200' N = 1 to 4

Type of electrode: Stainless Steel rod

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Ontario

Ministry of Natural Resources

File _____

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

Township or Area Penhorwood Township

Claim Holder(s) W.O. Karvinen and Associates
32 Lakeland Pt. Drive, Kingston, Ontario

Survey Company UTAH MINES LTD.

Author of Report Peter A. Diorio

Address of Author Suite 900, 25 Adelaide St. E.Toronto, Ont.

Covering Dates of Survey June 15, 1986 - August 27, 1986
(linecutting to office)

Total Miles of Line Cut N/A

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	
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

DATE: August 27, 1986 SIGNATURE: P. Diorio
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	733800
	733801
	733802
	733803
	733804
	733805
	733806
	733807
	733808
	733810
	733811
	733812
	733813
	733814

If space insufficient, attach list

TOTAL CLAIMS 14

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 1475 Number of Readings 1475

Station interval 50' Line spacing 400'

Profile scale (see maps)

Contour interval (see maps)

MAGNETIC

Instrument Scintrex IGS II - MP4

Accuracy – Scale constant +/- .1 Gamma

Diurnal correction method Continuously recording magnetometer

Base Station check-in interval (hours) N/A

Base Station location and value 58593.3 (Line 76W at Baseline)

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

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

Frequency (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

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

Ontario Ministry of Natural Resources

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

Instruct - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s): INDUCED POLARIZATION, VLF-EM, HORIZONTAL LOOP EM

Township or Area: PENHORWOOD TOWNSHIP

Claim Holder(s): W.O. Karvinen and Associates

Prospector's Licence No.:

Address: 32 Lakeland Point Dr., Kingston, Ontario K6M 4E7

Survey Company: UTAH MINES LTD.

Date of Survey (from & to): 15 06 86 / 04 07 86 (Day / Mo. / Yr.)

Total Miles of line Cut: 0

Name and Address of Author (of Geo-Technical report): P.Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. E. Toronto, Ontario M5C 1Y2

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	20 ✓
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	IP ~~Resistivity~~	20
	VLF ~~Magnetic~~	20 ✓
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: S ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
P	733800 ✓	
	733801 ✓	
	733802 ✓	
	733803 ✓	
	733804 ✓	
	733805 ✓	
	733806 ✓	
	733807 ✓	
	733808 ✓	
	733810 ✓	
	733811 ✓	
	733812 ✓	
	733813 ✓	
	733814 ✓	
	650387 ✓	
	661737 ✓	
	661738 ✓	

Prefix	Number	Expend. Days Cr.

Total number of mining claims covered by this report of work: 17

For Office Use Only

Total Days Cr. Recorded | Date Recorded | Mining Recorder

Date Approved as Recorded | Branch Director

Date: July 22, 1986

Recorded Holder or Agent (Signature): P. Diorio

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: P. Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. East, Toronto, Ont. M5C 1Y2

Date Certified: July 22, 1986

Certified by (Signature): P. Diorio

1362 (81/9)

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

Instruct – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): MAGNETOMETER

Township or Area: Penhorwood Township

Claim Holder(s): W.O. Karvinen and Associates

Prospector's Licence No.:

Address: 32 Lakeland Point Dr., Kingston, Ontario, K6M 4E7

Survey Company: Utah Mines Ltd.

Date of Survey (from & to): 15 06 86 (Day / Mo. / Yr.) — 04 07 86 (Day / Mo. / Yr.)

Total Miles of line Cut: 0

Name and Address of Author (of Geo-Technical report): P. Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. East, Toronto, Ontario M5C 1Y2

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P	733800	
	733801	
	733802	
	733803	
	733804	
	733805	
	733806	
	733807	
	733808	
	733810	
	733811	
	733812	
	733813	
	733814	

Prefix	Mining Claim Number	Expend. Days Cr.

Total number of mining claims covered by this report of work: 14

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits:

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded:

Date Recorded:

Mining Recorder

Date Approved as Recorded:

Branch Director

Date: July 22, 1986

Recorded Holder or Agent (Signature): P. Diorio

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: P. Diorio, Utah Mines Ltd. Suite 900, 25 Adelaide St. East, Toronto, Ontario M5C 1Y2

Date Certified: July 22, 1986

Certified by (Signature): P. Diorio

1362 (81/9)

REFERENCE

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

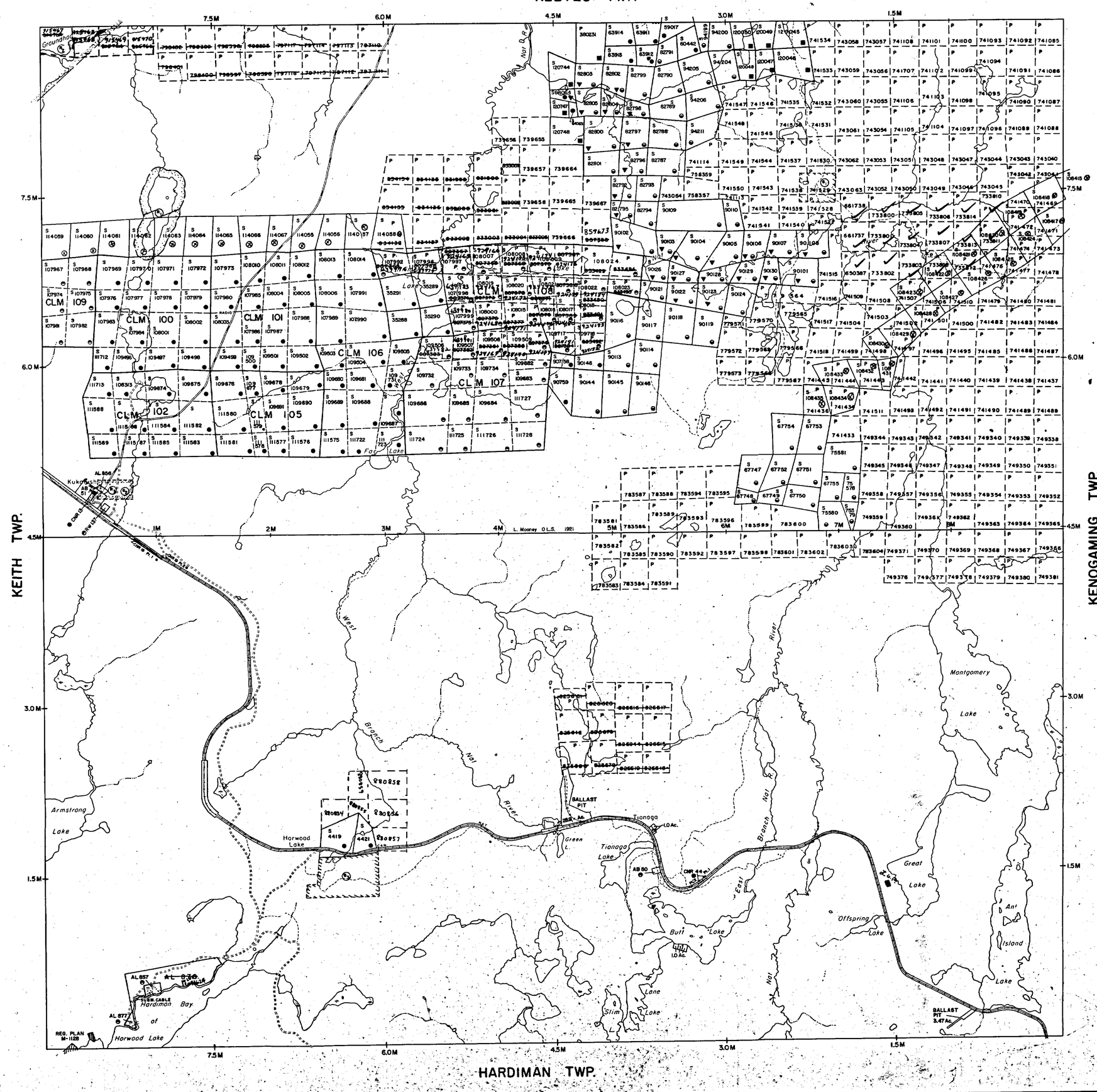
Description	Order No.	Date	Disposition	File
400' RESERVE			S.R.O.	135537
SEC. 43/70 W.91/72		27/12/72	S.R.O.	163006 V.2
SEC. 36/80		11/7/81	S.R.O.	135537

SAND AND GRAVEL

GRAVEL	FILE	38729
GRAVEL PIT	FILE	13555 V.6
GRAVEL	FILE	106274

NOTES

FLOODING RIGHTS ON HORWOOD LAKE RESERVED TO ONTARIO HYDRO TO CONTOUR ELEVATION 117' L.O. 7746



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	▣
" , MINING RIGHTS ONLY	▣
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊕
CANCELLED	⊗
SAND & GRAVEL	⊕

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

PENHORWOOD

M.N.R. ADMINISTRATIVE DISTRICT
CHAPLEAU
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY

Ontario Ministry of Natural Resources — Land Management Branch

Date MARCH 1985
checked June 14/85 L.P. L.S.

Number G-3244

29368

UTAH MINES LTD.

Exploration Dept.

Toronto ; CANADA

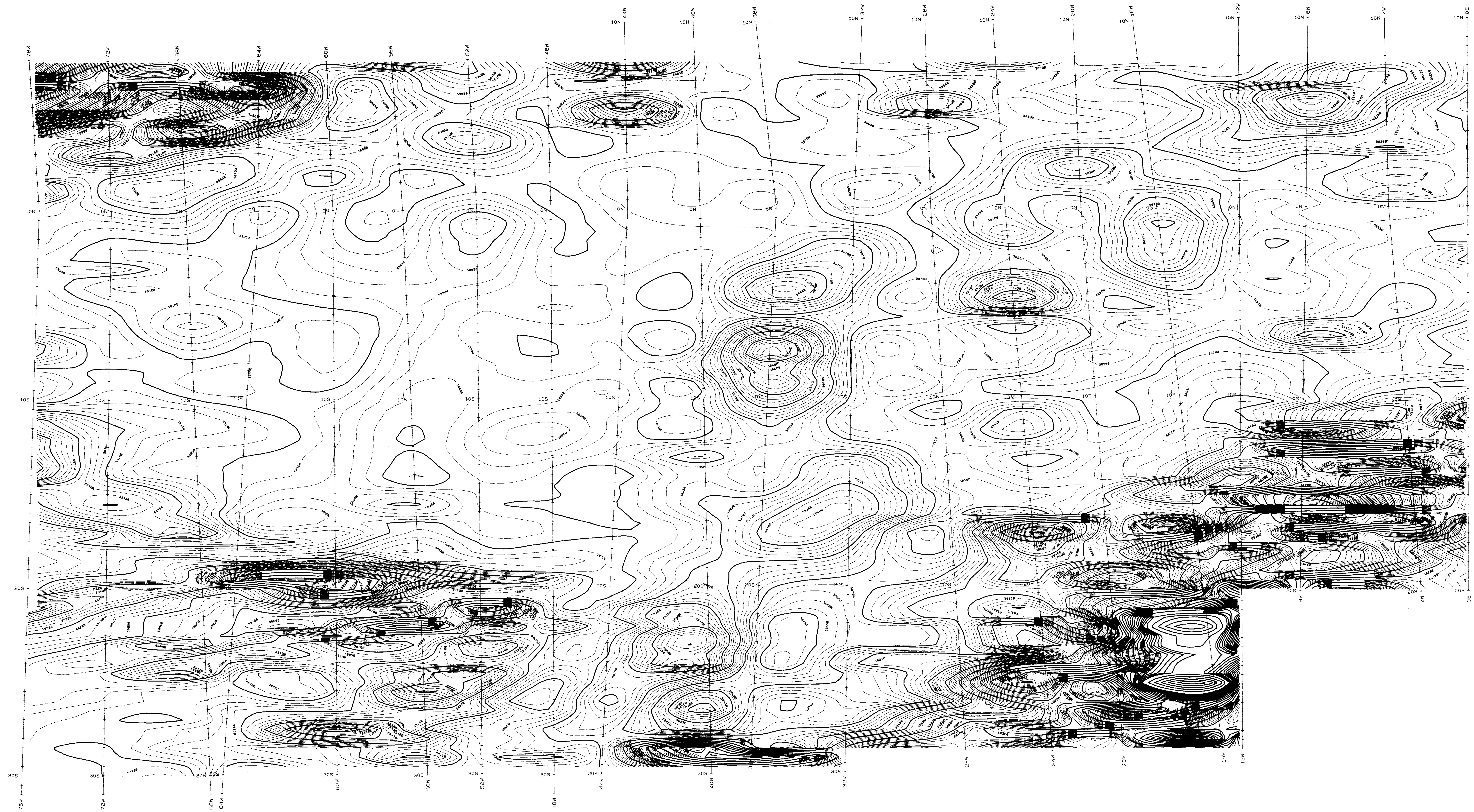
NAT RIVER PROPERTY
TOTAL FIELD MAG SURVEY
DATA VALUES in GAMMAS

Profiled at 2000 Gammas/Inch
with 59000 Gamma Background

Date	Drawn	Checked	Revised	NTS	File	Map
July 86	HP7585	PAD	-	42B/1	NRmgvf	1

0 200 400 600
Ft

210



29368.

UTAH MINES LTD.

Exploration Dept.

Toronto ; ONTARIO

NAT RIVER PROPERTY

TOTAL FIELD MAG SURVEY

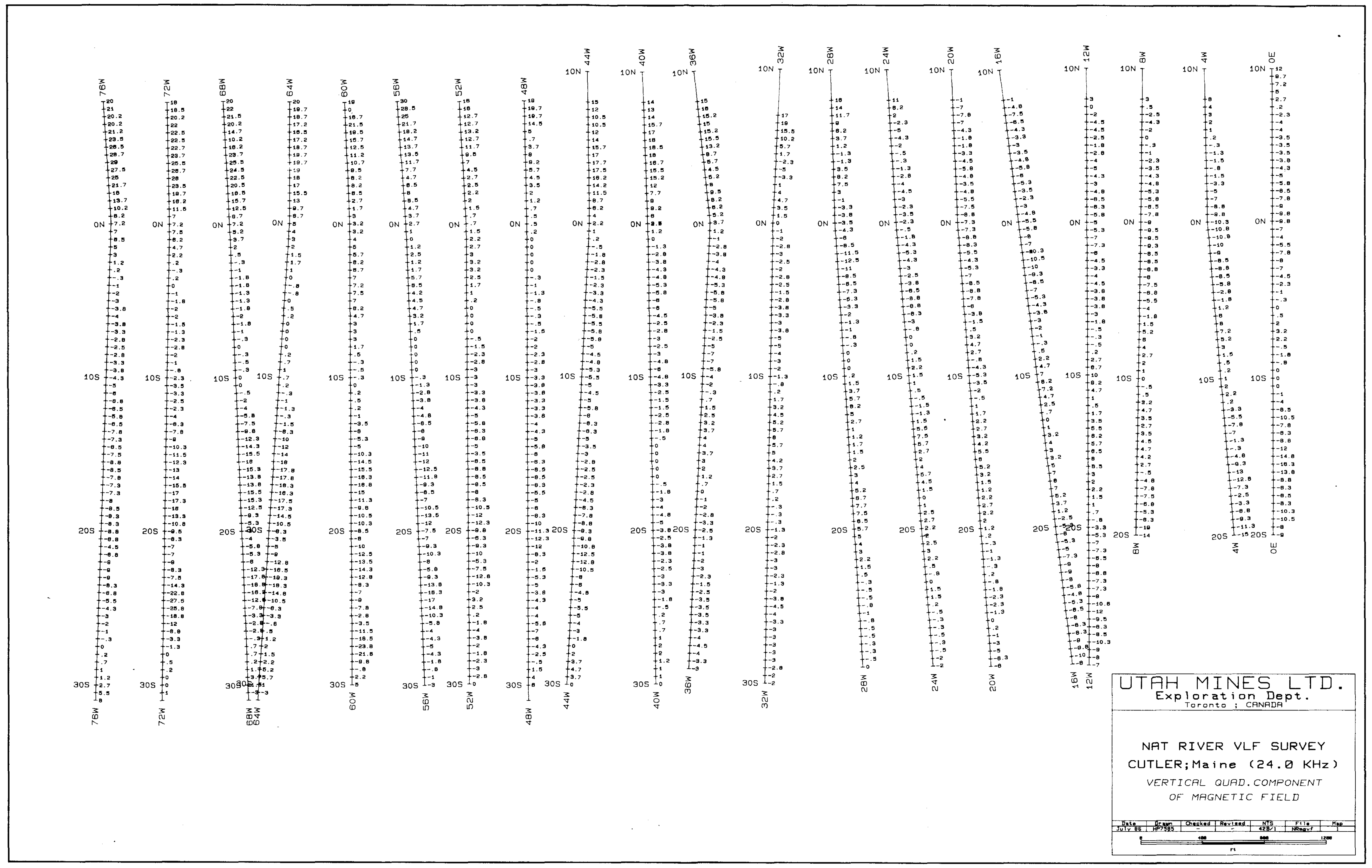
- 50 Gamma Contour Interval
- 250 Gamma Contour Interval

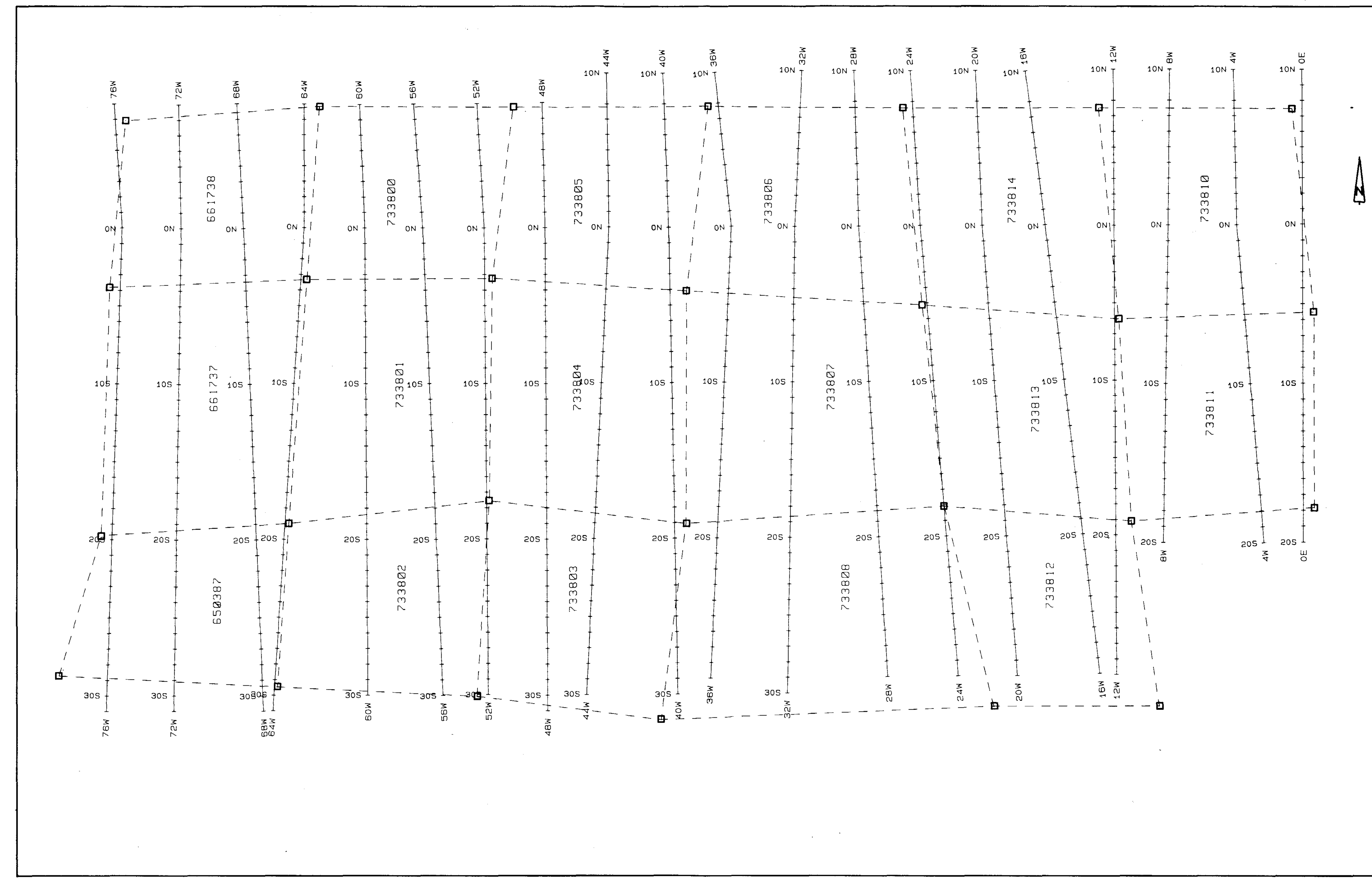
Date	Drawn	Checked	Revised	NTS	File	Map
July 86	HP7585	PRD	-	/	NRmgvf	1

0 200 400 600

Ft

220


UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER VLF SURVEY
CUTLER; Maine (24.0 KHz)
VERTICAL QUAD. COMPONENT
OF MAGNETIC FIELD


661738
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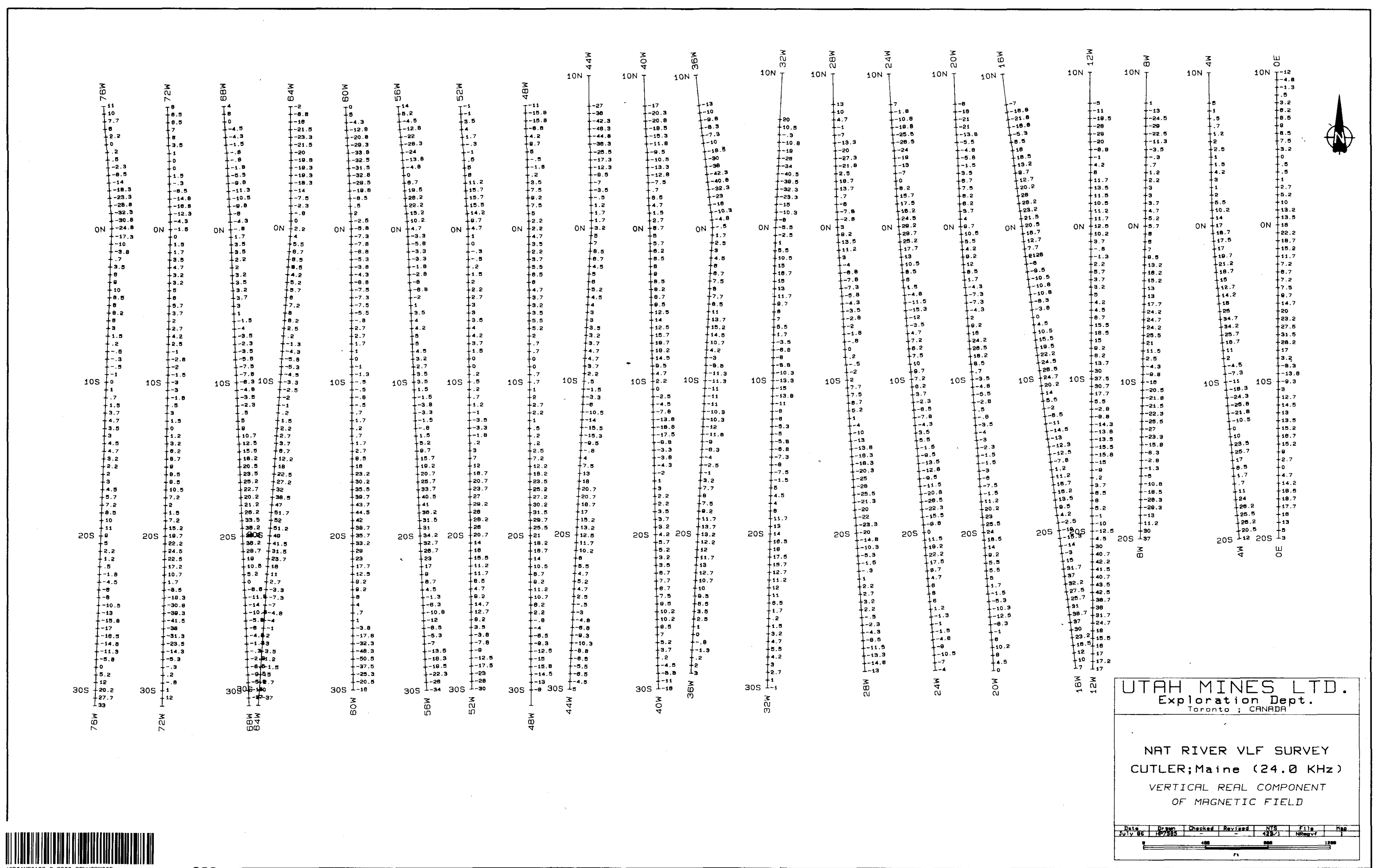
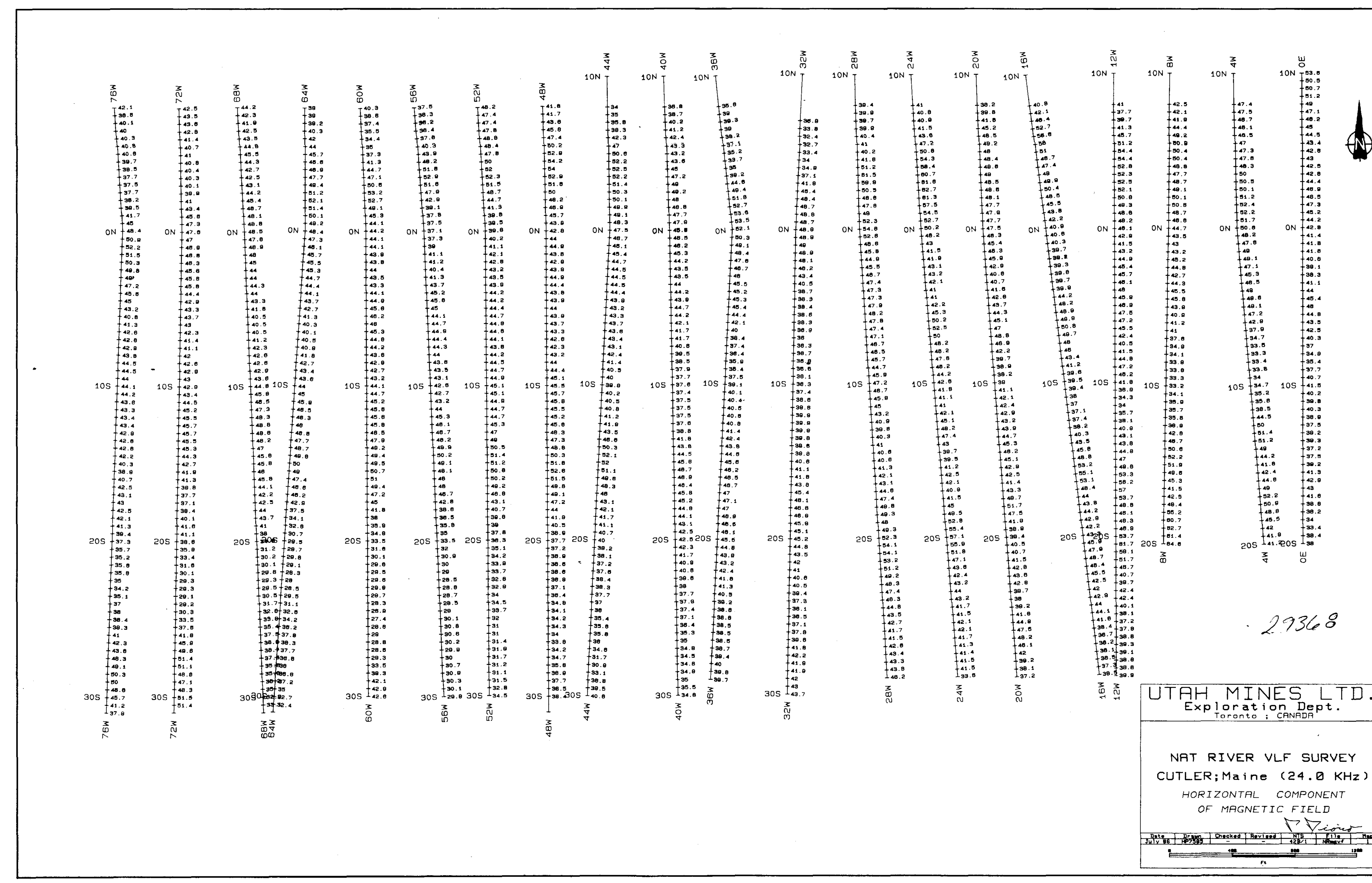
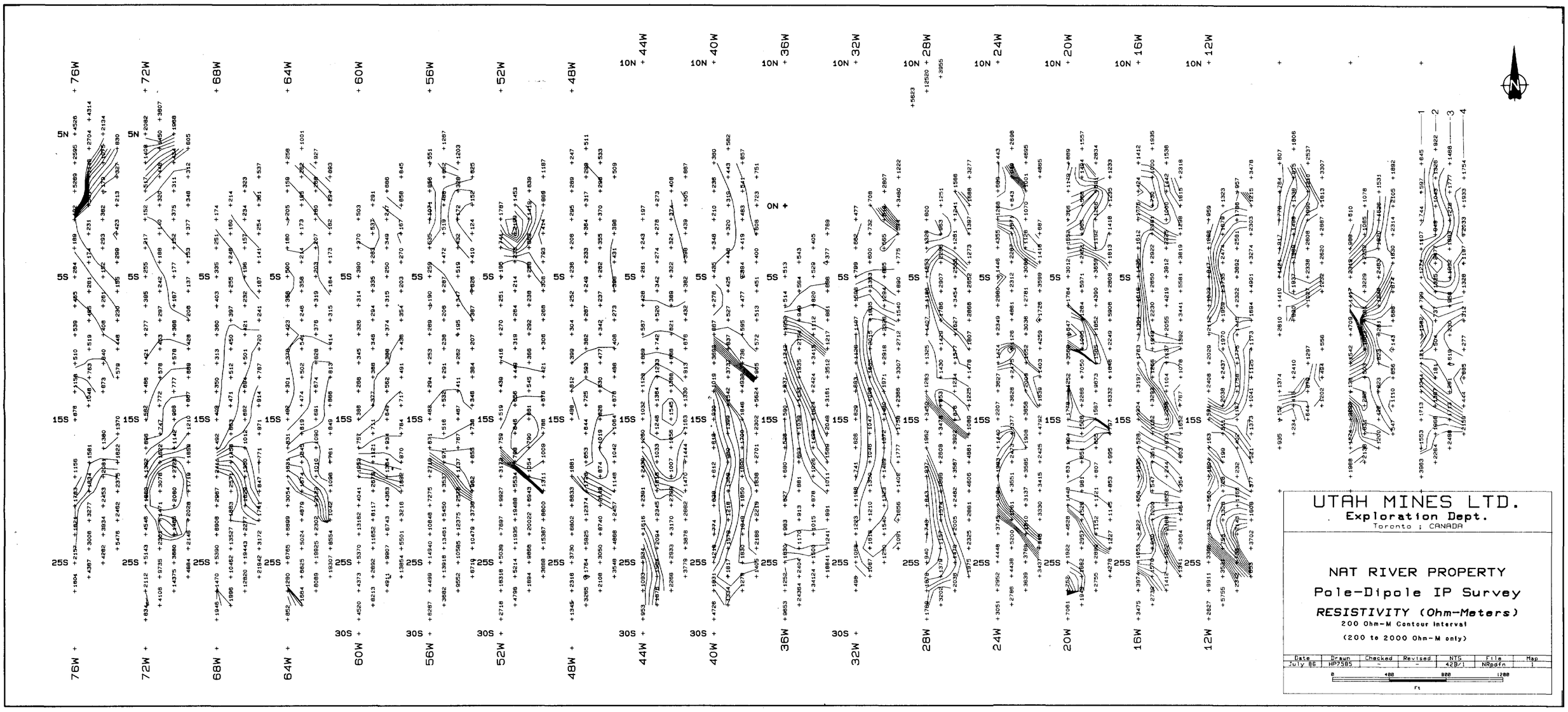
733812


UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER VLF SURVEY
CUTLER; Maine (24.0 KHz)
VERTICAL REAL COMPONENT
OF MAGNETIC FIELD


27368
UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER VLF SURVEY
CUTLER; Maine (24.0 KHz)
HORIZONTAL COMPONENT
OF MAGNETIC FIELD

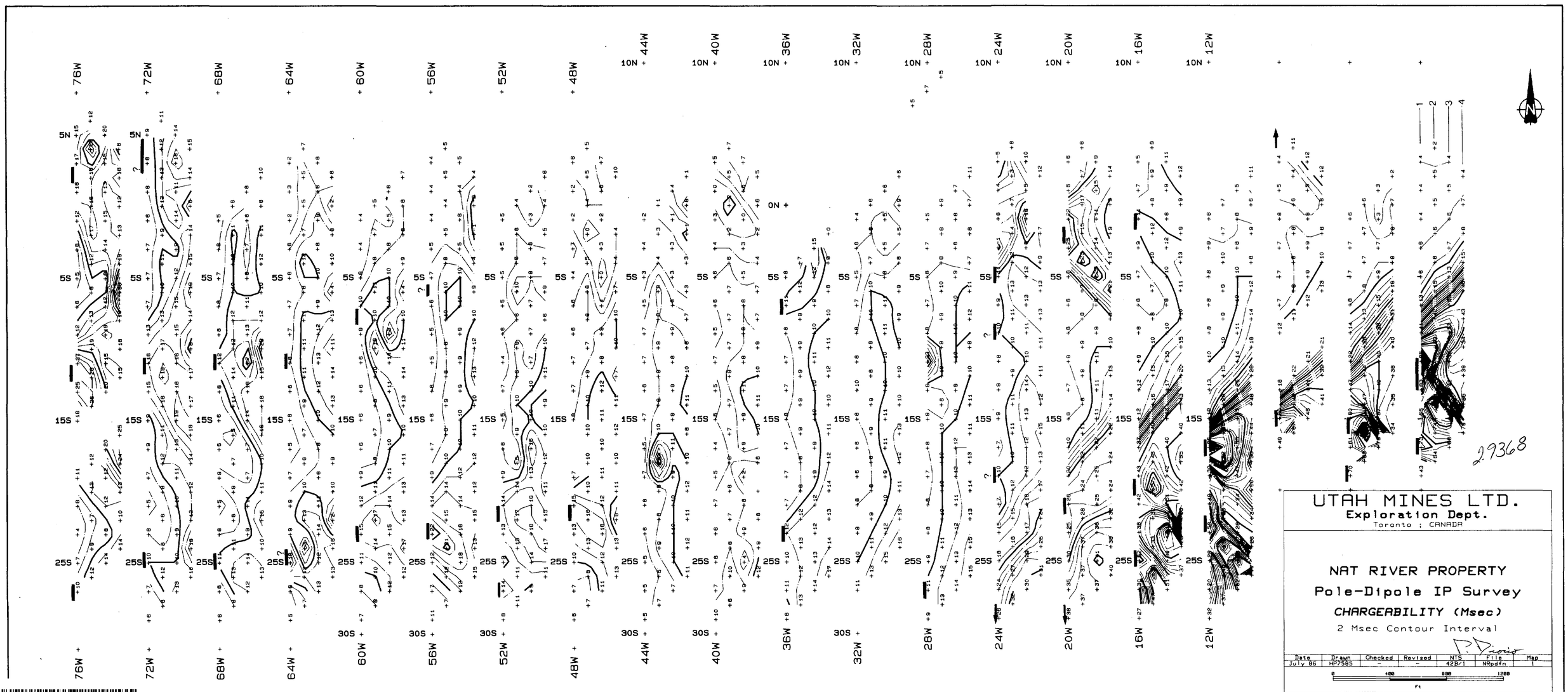


UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA

NAT RIVER PROPERTY
Pole-Dipole IP Survey
RESISTIVITY (Ohm-Meters)
200 Ohm-M Contour Interval
(200 to 2000 Ohm-M only)

Date	Drawn	Checked	Revised	NTS	File	Map
July 86	HP7585	-	-	42B/1	NRpdfn	1

0 400 800 1200 Ft



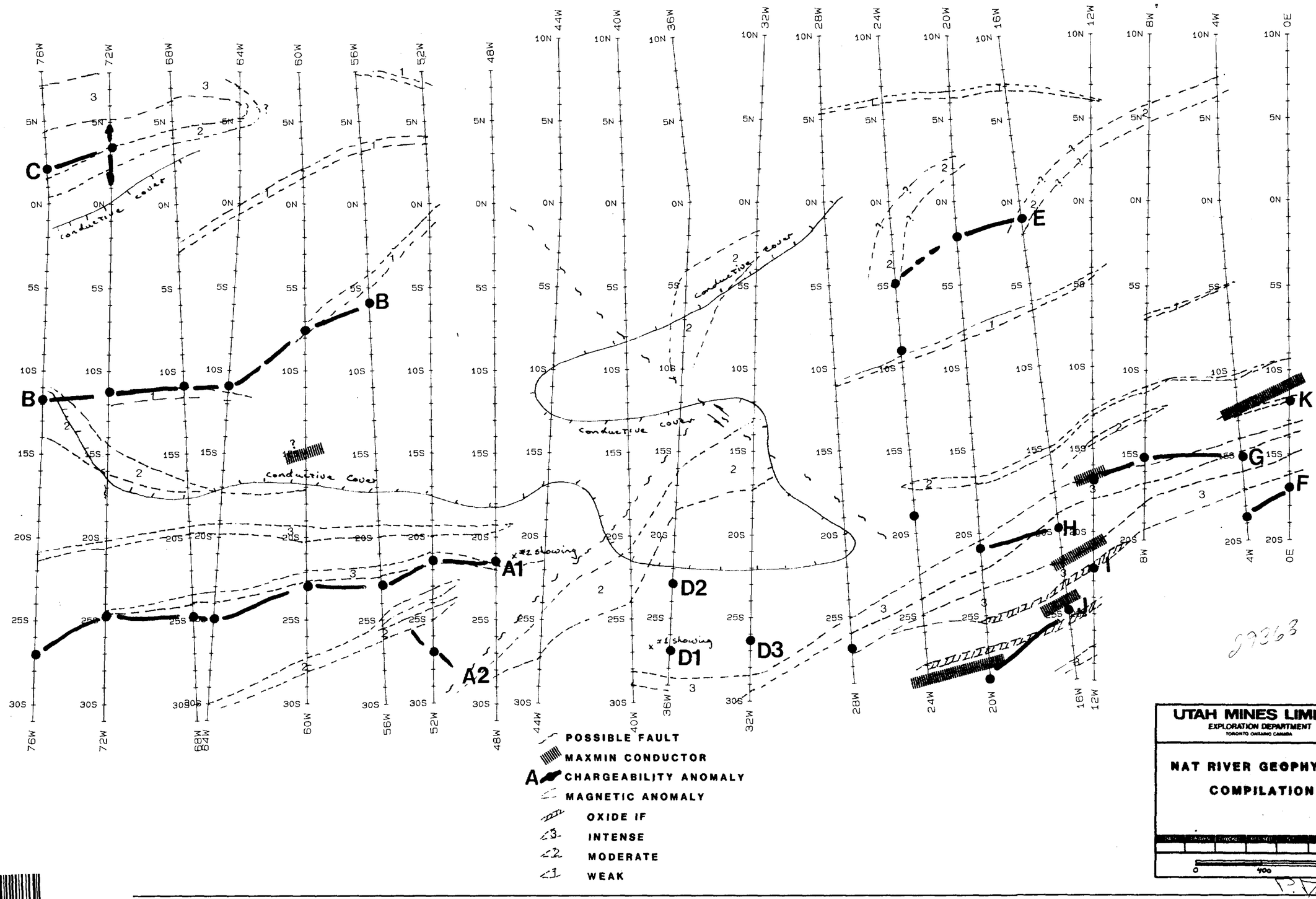
2.9368

UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA

NAT RIVER PROPERTY
Pole-Dipole IP Survey
CHARGEABILITY (Msec)
2 Msec Contour Interval

Date	Drawn	Checked	Revised	NTS	File	Map
July 86	HP7585	-	-	42B/1	NRpdfn	1

0 400 800 1200 Ft

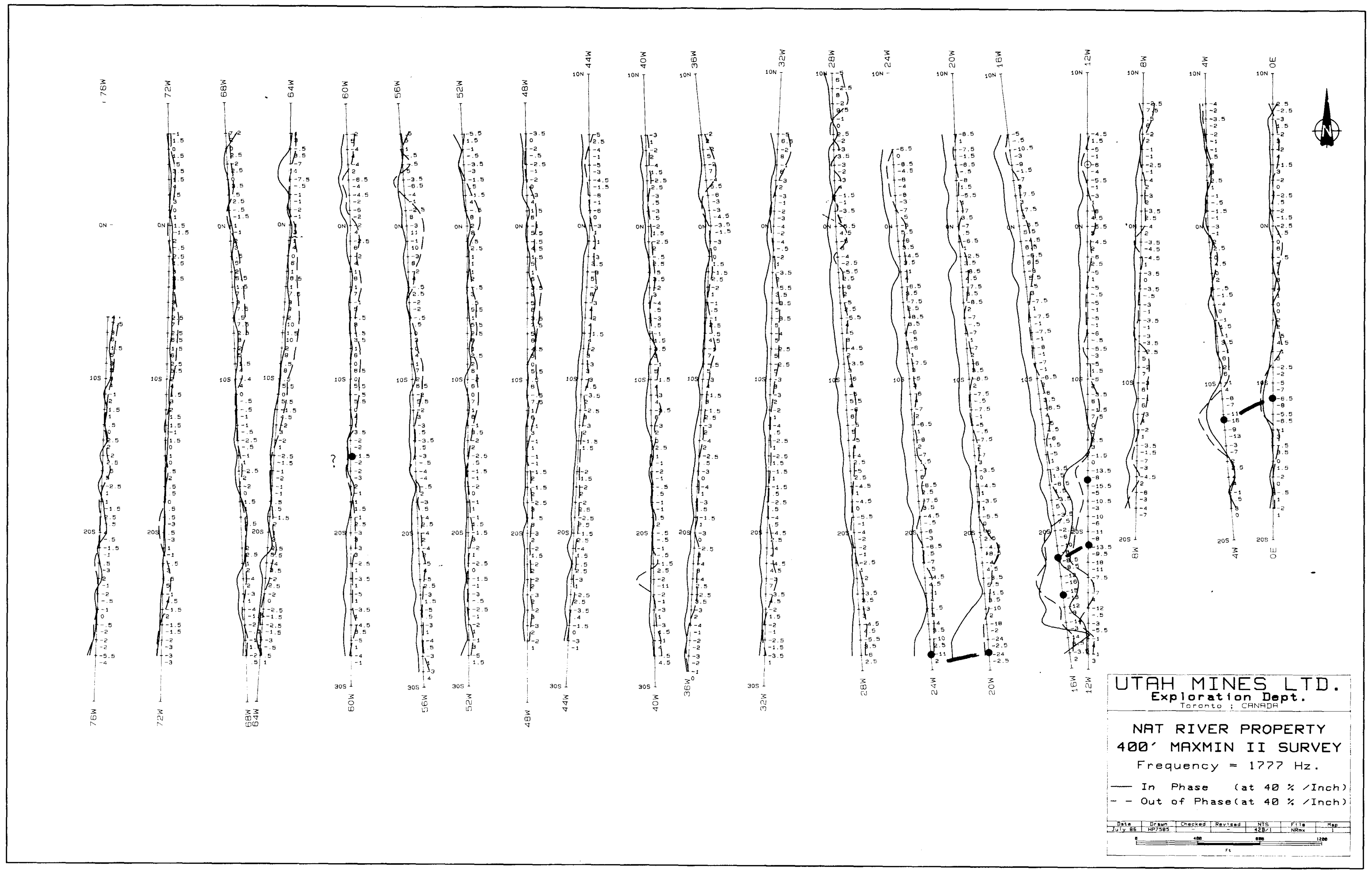


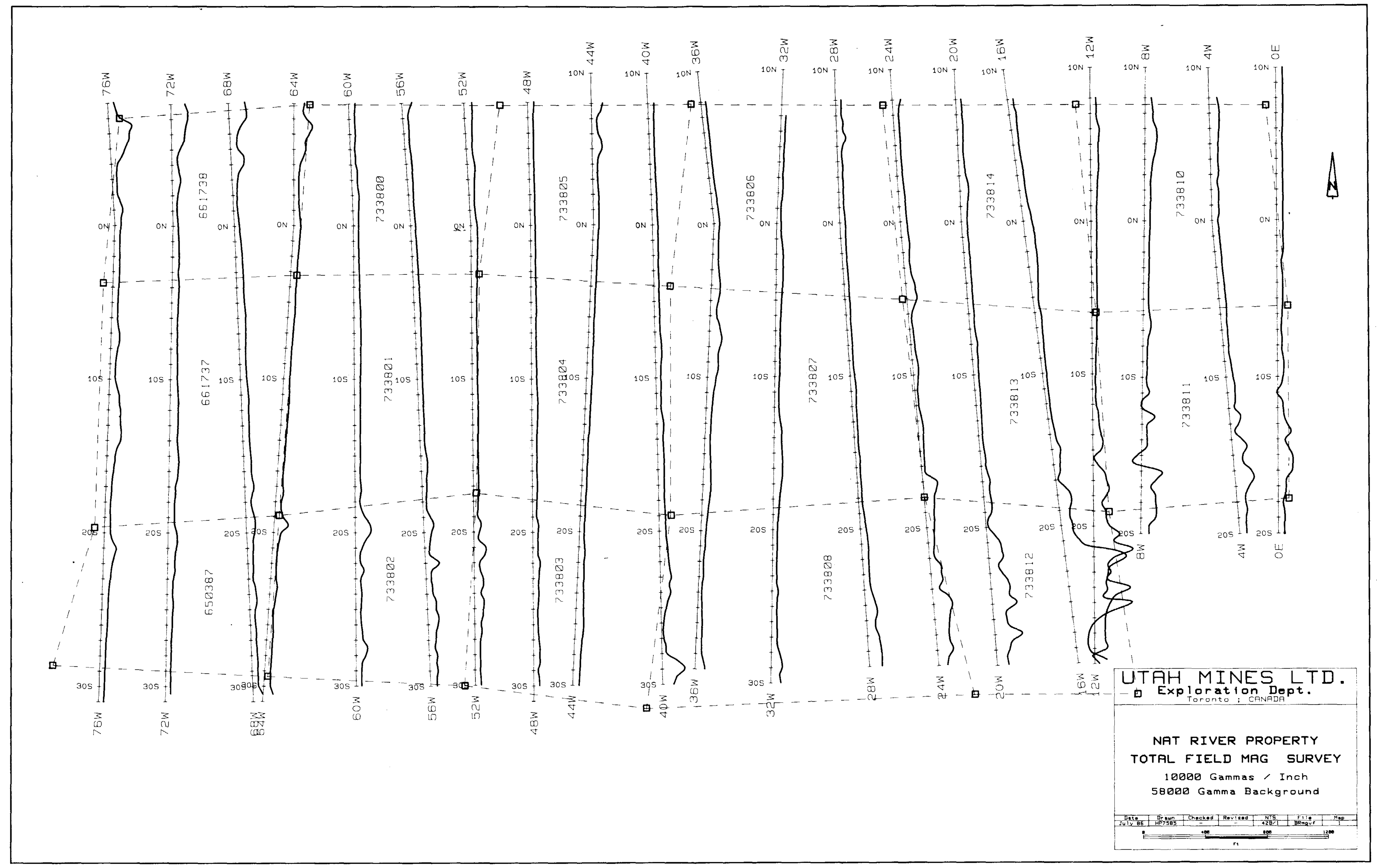
UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

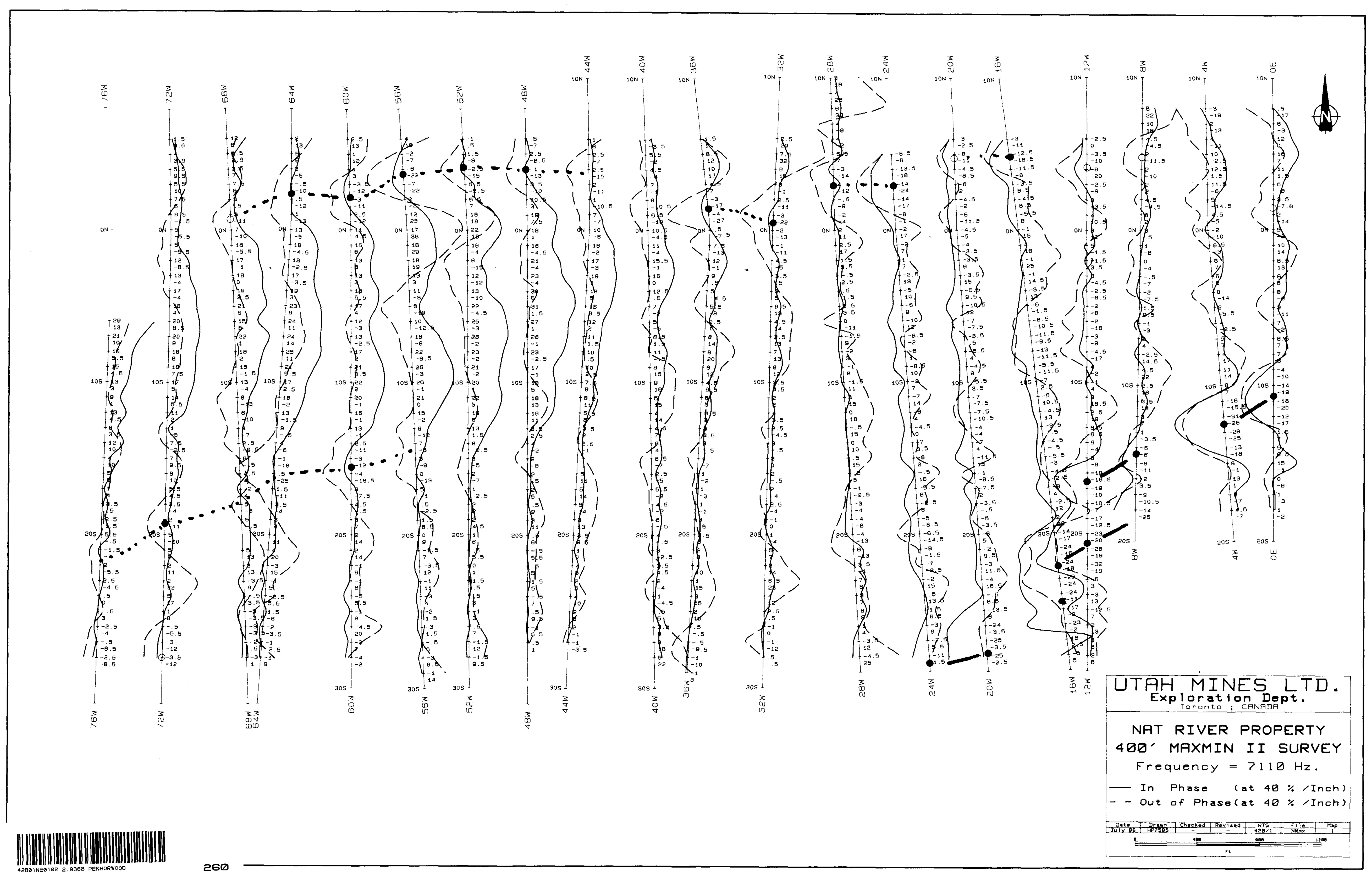
NAT RIVER GEOPHYSICS
COMPILATION

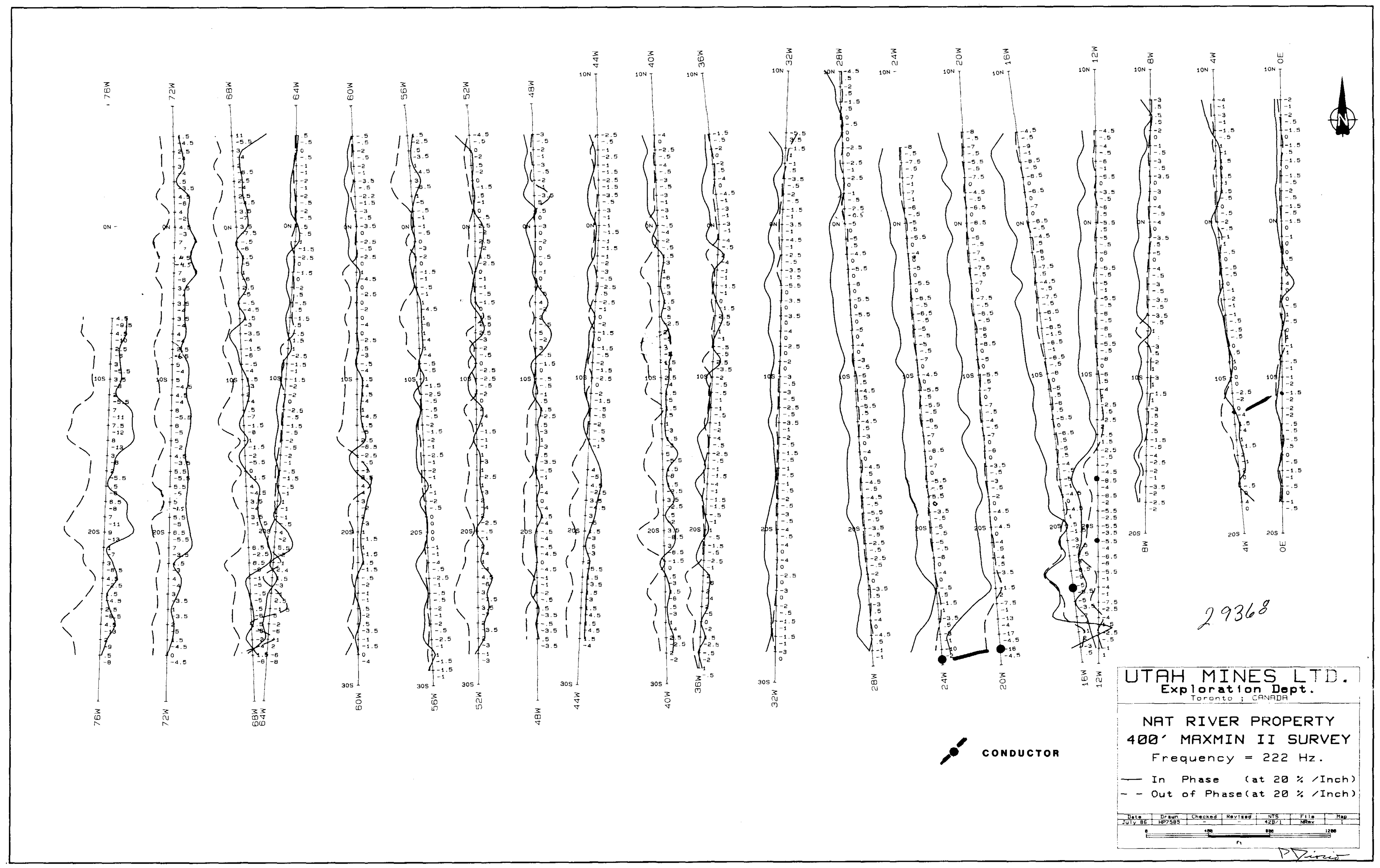
0 400 800

29363

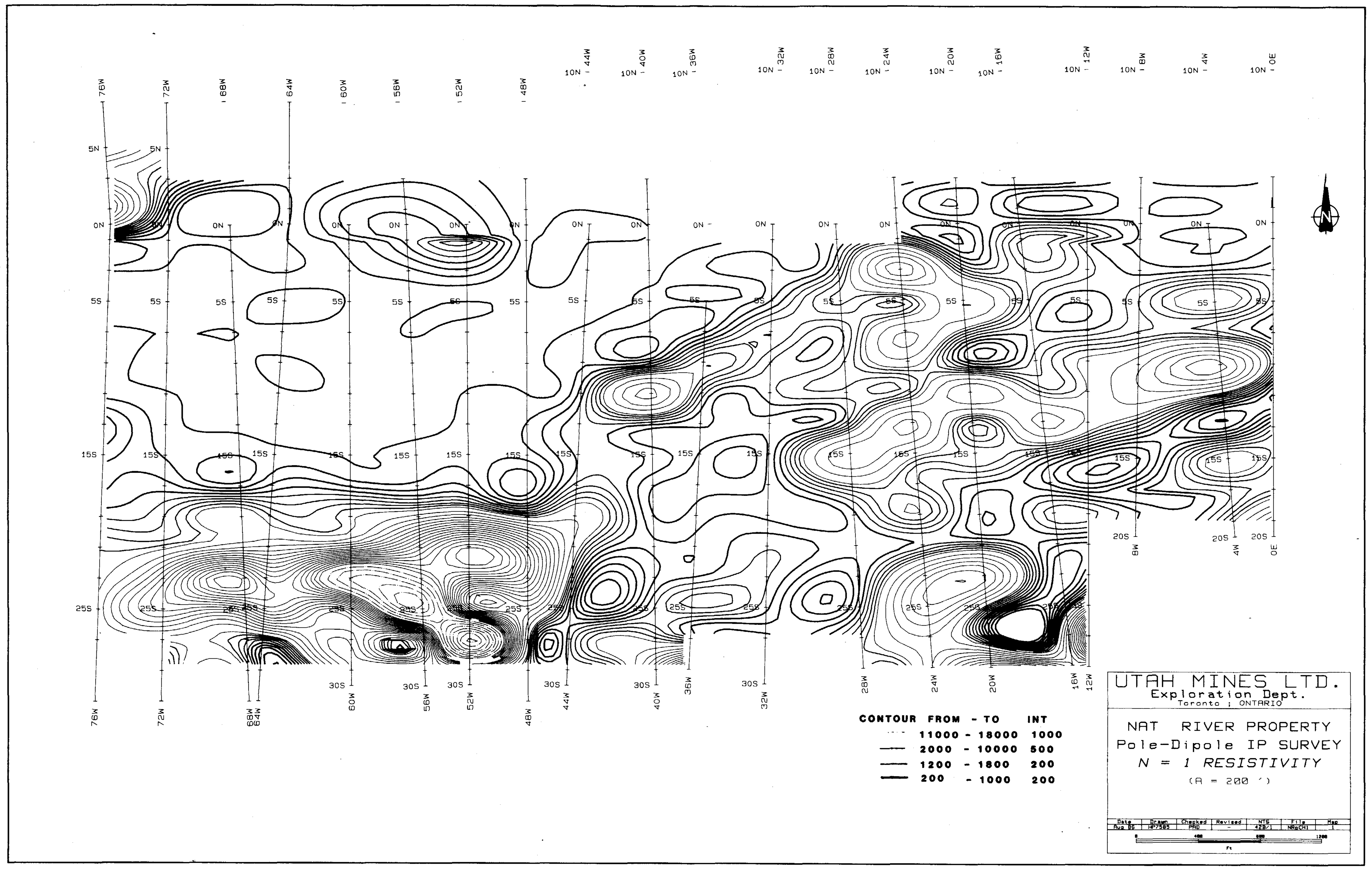

UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER PROPERTY
400' MAXMIN II SURVEY
Frequency = 1777 Hz.
— In Phase (at 40 % /Inch)
- - Out of Phase(at 40 % /Inch)

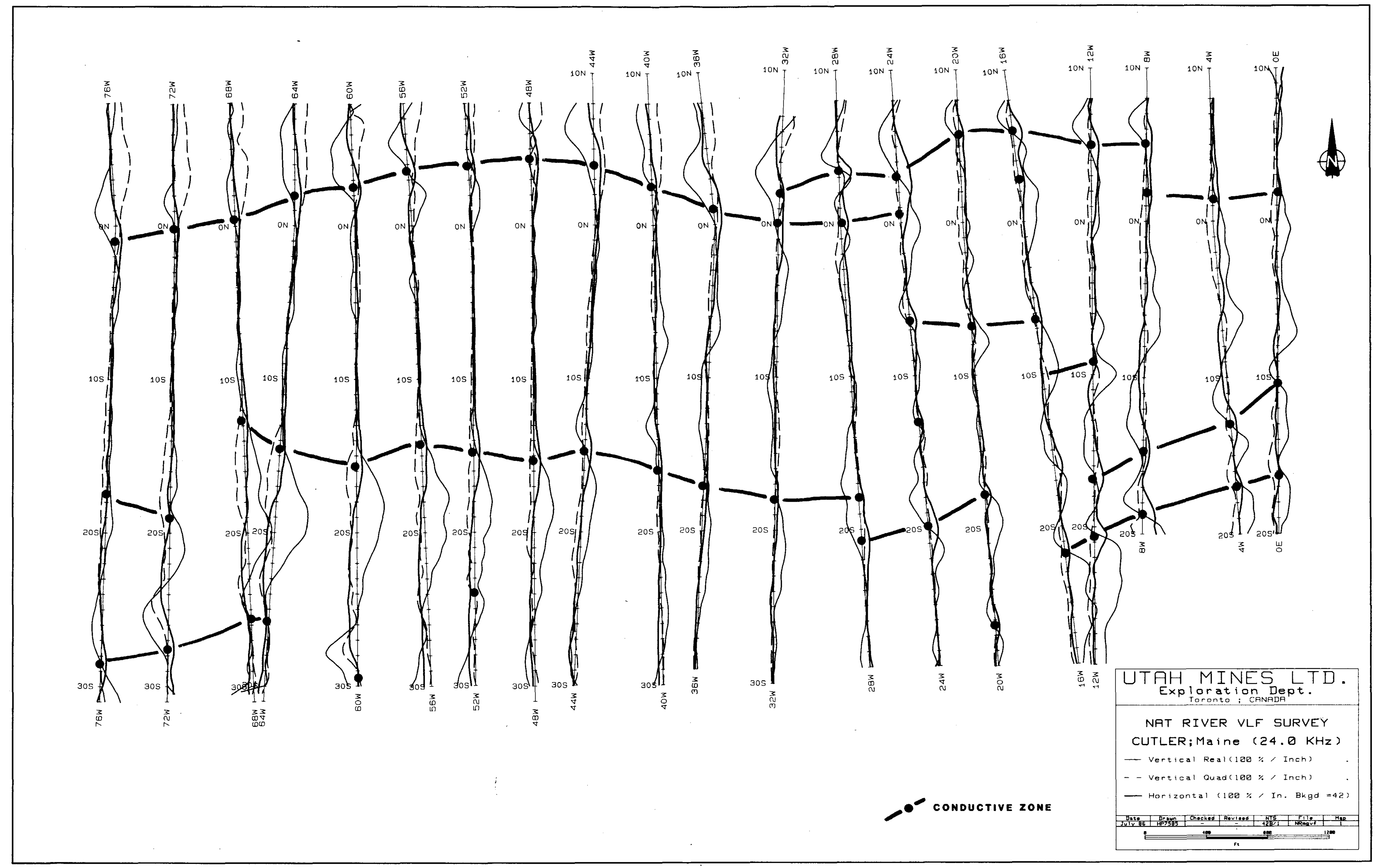

UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER PROPERTY
TOTAL FIELD MAG SURVEY
10000 Gammas / Inch
58000 Gamma Background

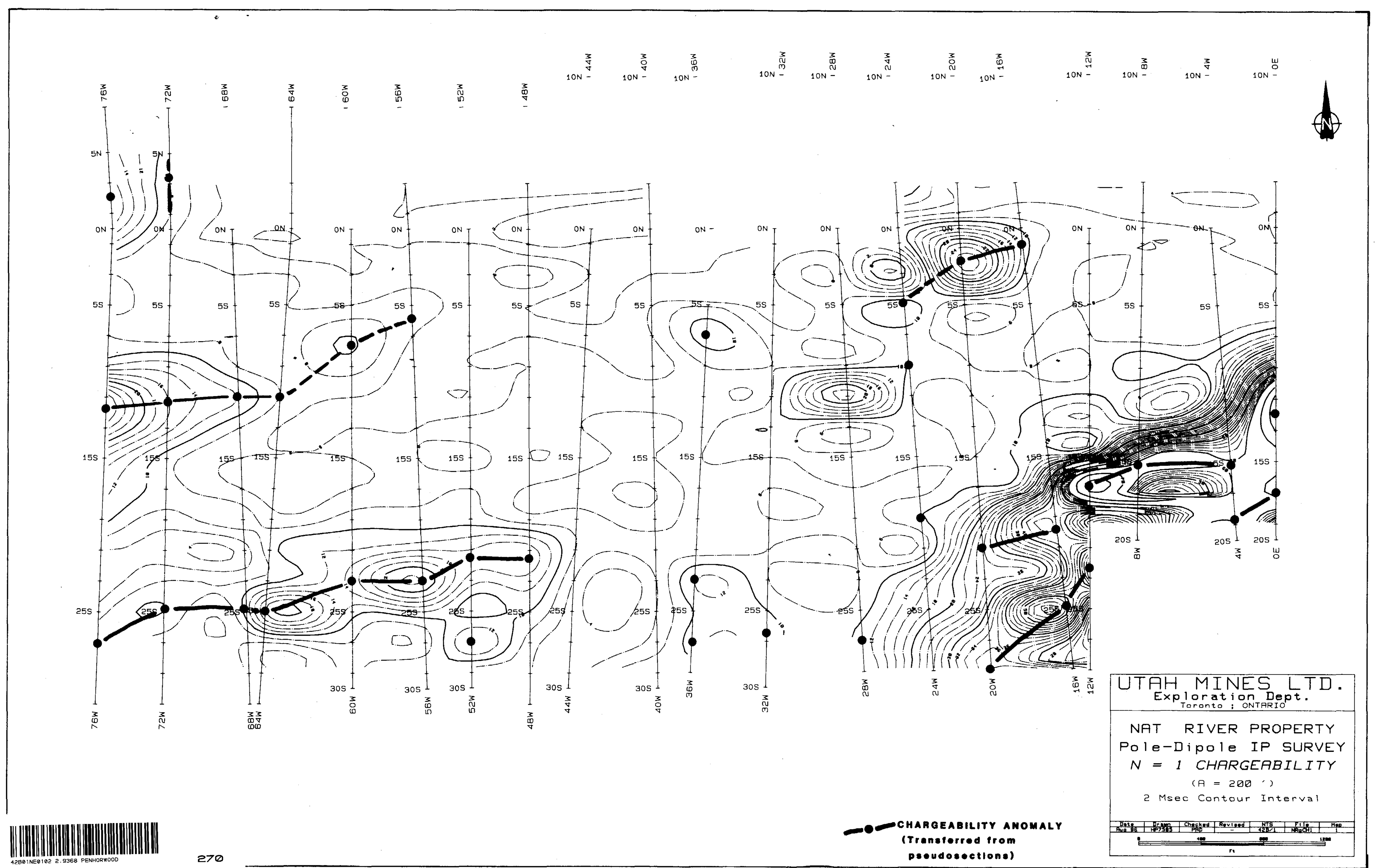

UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER PROPERTY
400' MAXMIN II SURVEY
Frequency = 7110 Hz.
— In Phase (at 40 % /Inch)
- - Out of Phase(at 40 % /Inch)

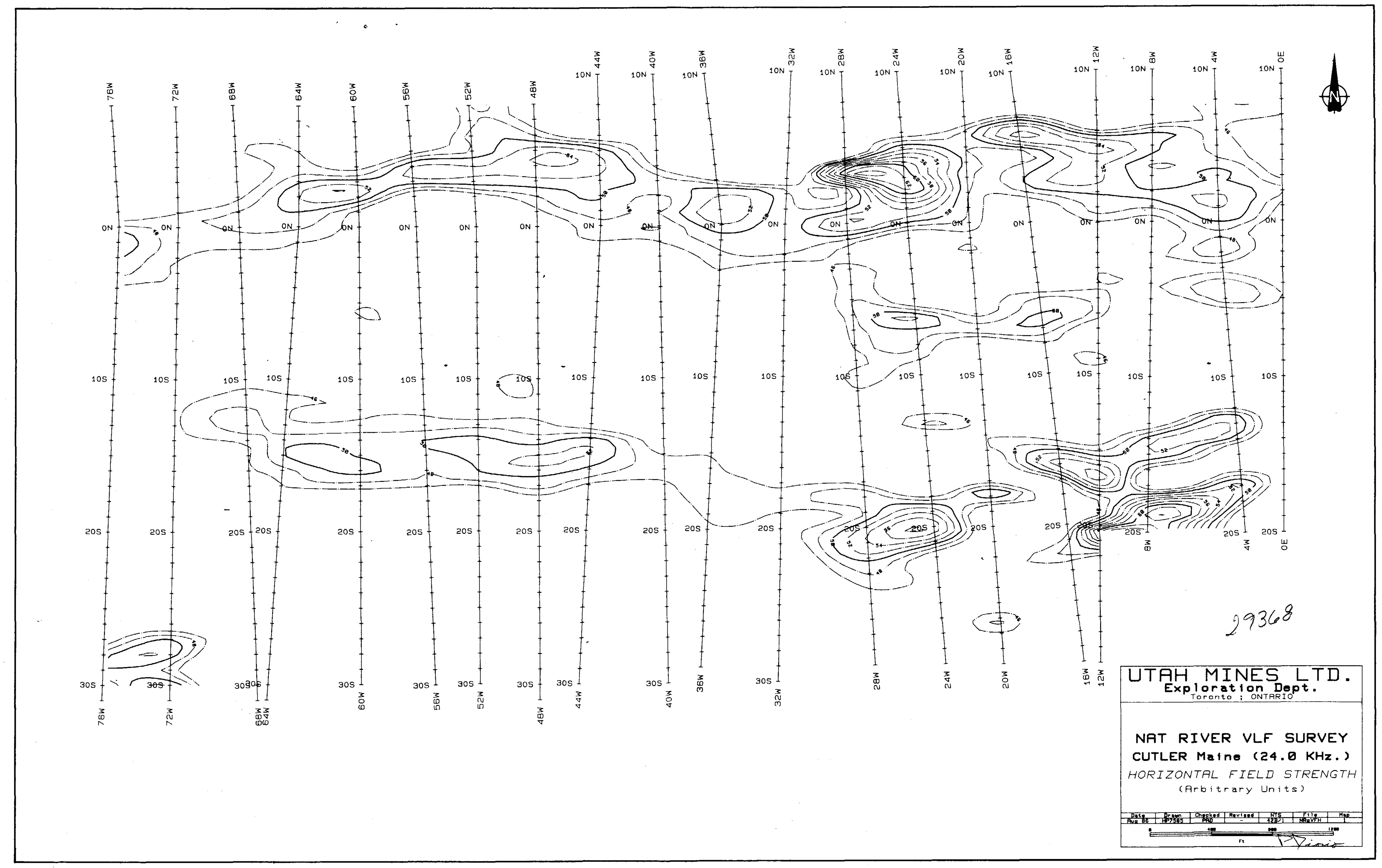

29368
CONDUCTOR
UTAH MINES LTD.
Exploration Dept.
Toronto ; CANADA
NAT RIVER PROPERTY
400' MAXMIN II SURVEY
Frequency = 222 Hz.
— In Phase (at 20 % /Inch)
- - Out of Phase(at 20 % /Inch)

260


UTAH MINES LTD.
Exploration Dept.
Toronto : ONTARIO
NAT RIVER PROPERTY
Pole-Dipole IP SURVEY
N = 1 RESISTIVITY
(A = 200 ')
CONTOUR FROM - TO INT
11000 - 18000 1000
2000 - 10000 500
1200 - 1800 200
200 - 1000 200


UTAH MINES LTD.
Exploration Dept.
Toronto : CANADA
NAT RIVER VLF SURVEY
CUTLER;Maine (24.0 KHz)
Vertical Real(100 % / Inch)
Vertical Quad(100 % / Inch)
Horizontal (100 % / In. Bkgd =42)
CONDUCTIVE ZONE


UTAH MINES LTD.
Exploration Dept.
Toronto : ONTARIO
NAT RIVER PROPERTY
Pole-Dipole IP SURVEY
N = 1 CHARGEABILITY
(A = 200 ')
2 Msec Contour Interval
CHARGEABILITY ANOMALY
(Transferred from
pseudosections)


29368
UTAH MINES LTD.
Exploration Dept.
Toronto : ONTARIO
NAT RIVER VLF SURVEY
CUTLER Maine (24.0 KHz.)
HORIZONTAL FIELD STRENGTH
(Arbitrary Units)