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REPORT

on

ELECTROMAGNETICS AND PROSPECTING PROGRAMME

DETOUR LAKE PROJECT

for

AUDAX GAS AND OIL LIMITED

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December, 1983  
Toronto, Ontario

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## SUMMARY

During the period September to October 1983 an exploration programme was conducted on behalf of Audax Gas and Oil Ltd. of Calgary, Alberta by MPH Consulting Limited of Toronto, Ontario on the former's Detour Lake project in Northeastern Ontario.

The exploration programme consisted of horizontal loop Maxmin II, and biogeochemical surveying and prospecting over approximately 40% of the total property area.

Previous exploration work on the property consisted of various ground electro-magnetic, and magnetic surveys. A number of anomalous features were outlined and followed up by limited diamond drilling. Drilling in 1959-1960 by Conwest Exploration Limited consisted of one hole in the southwestern portion of the property. During 1974-1975 Amoco Canada Petroleum Limited drilled, as part of a larger drill programme, two holes in the southwestern area of the property. All of the drilling that was carried out intersected sulphide mineralization. It is not known if the mineralization encountered was assayed for gold.

In 1981 Abitibi Price Inc. established a grid on the property and conducted VLF-EM and ground magnetic surveys.

The present surveying is designed to further delineate and evaluate the electro-magnetic and magnetic anomalies located during the 1981 surveying and allow selection of targets prior to diamond drilling.

The horizontal loop surveying successfully outlined nine conductive zones of which four of these zones constitute a long conductive (and magnetic) trend (Anomaly 'A') which transects the property. The remainder of the zones, with the exception of Anomaly 'B' do not display any magnetic correlation.

Of the zones which outline Anomaly 'A' three, 'A1', 'A2' and the western portion of 'A4', also display a coincident biogeochemical anomalous Au values. On this basis, these three zones are recommended for diamond drilling to test their economic potential.

Anomalous Zn values observed to coincide with a weakly conductive relative magnetic low (western portion of Anomaly 'B') are also deemed of interest and are recommended for drilling.

Following drilling, it is strongly recommended that a complete analysis of the drilling results be conducted with respect to the geophysical and biogeochemical responses prior to the undertaking of any further exploration decision.

1. INTRODUCTION

During the period September to October 1983, MPH Consulting Limited of Toronto, Ontario conducted an exploration programme on behalf of Audax Oil and Gas Limited of Calgary, Alberta on the latter's Detour Lake project in Northeastern Ontario.

The exploration programme consisted of horizontal loop electromagnetic surveying, prospecting and biogeochemical sampling.

The geophysical surveying proposed was designed to cover all the significant electromagnetic anomalies outlined by a previous VLF-EM survey. The proposed coverage of the biogeochemical survey was confined to a broad strip of ground the southern portion of the area which, from magnetic interpretation was believed to be underlain by an iron formation.

The exploration programme was conducted under the field direction of Mr. S. Bate, M.Sc. of MPH Consulting Ltd., with overall supervision provided by Mr. D. Jones, P.Eng. of MPH Consulting Ltd. Additional assistance was provided by G. L. Colborne, P.Eng. of Gerald L. Colborne Resource Consultants Ltd.

This report described the exploration techniques employed and presents the results of the ground exploration and provides recommendation for further exploration of the property.

2. LOCATION AND ACCESS

The property is located in the Lower Detour Lake and Atkinson Lake Areas in the Porcupine Mining Division, District of Cochrane. (Figure 1).

The property consists of 85 unpatented mining claims in one contiguous block and are numbered as follows in the Lower Detour Lake Area:

<u>Claim Number</u>	
P595668-P595702	35
P595709-P595714	6
P595721-P595726	6
P595733-P595739	7

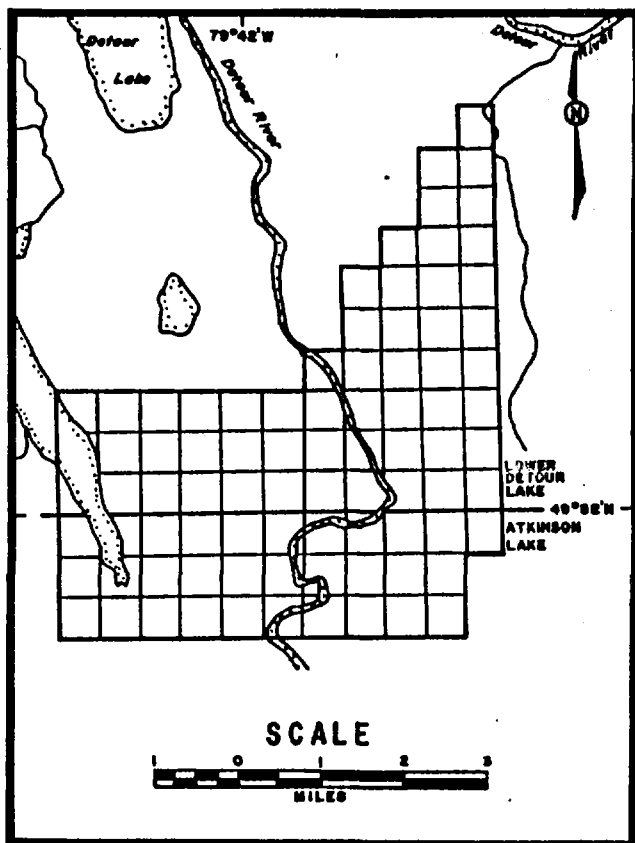
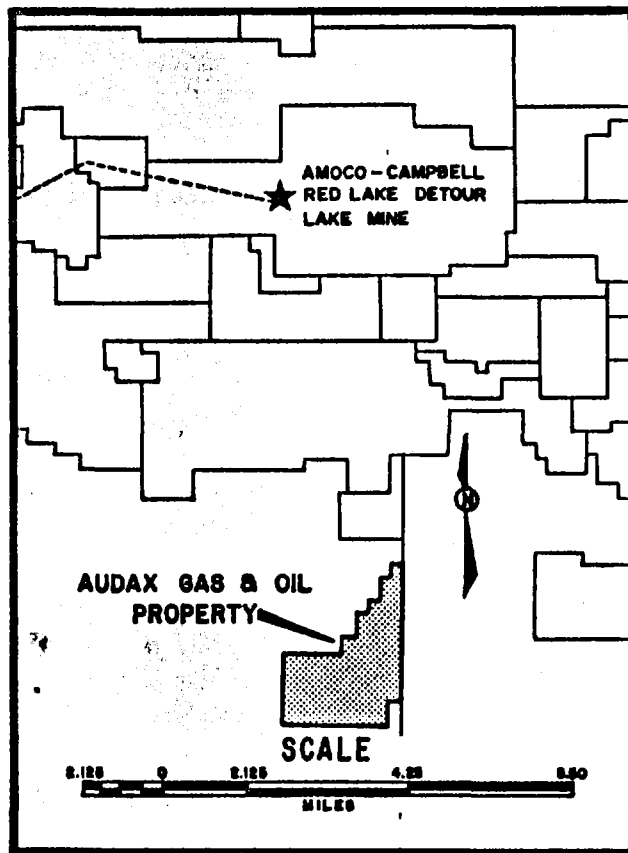
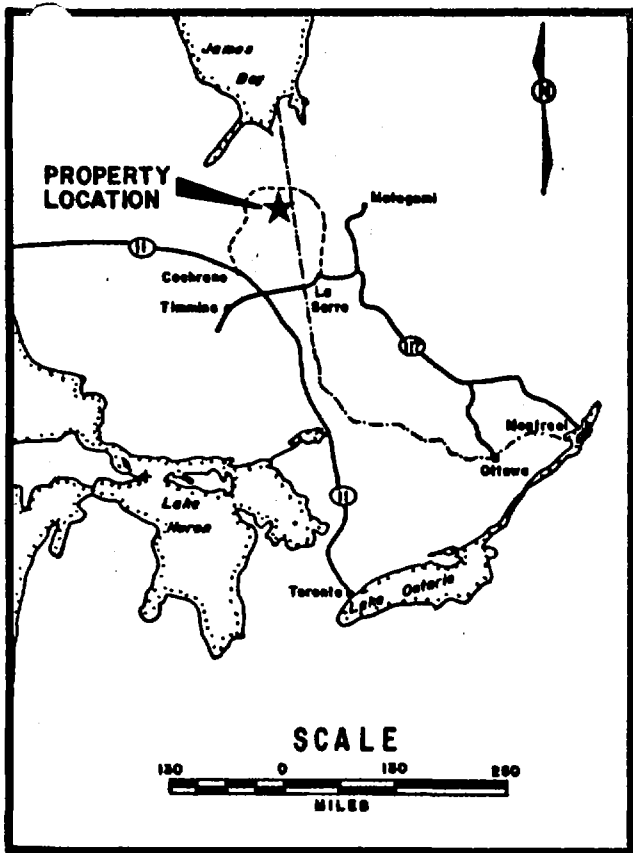
and in the Atkinson Lake Area:

P595703-P595708	6
P595715-P595720 ✓	6
P595727-P595732	6
P595740-P595744	5
P595660-P595667	8

for a total of 85 claims.

The property is approximately 150 kilometres northwest of Cochrane in Northeastern Ontario and approximately 125 kilometers north of La Sarre in Northwestern Quebec.





# AUDAX GAS & OIL DETOUR LAKE PROJECT LOCATION MAP

Project No. C-815	By S. Bate
Scale	Drawn G.C.S. Limited
Drawing No. Figure 1	Date October, 1983



**MPH Consulting Limited**

Access to the property is via fixed wing aircraft based either at Timmins or at Cochrane. An all weather road from Cochrane to the Detour Lake gold deposit, approximately 20 kilometers north of the property, is now completed and possibly will soon allow easier access to the property.

### 3. SURVEY PARAMETERS

#### 3.1 Linecutting and re-establishment of grid

A grid established in 1981 was located with station 0+00 of line 0 at the #1 part of claim number P595667. The baseline was driven due west at 270° for a distance of 14,400 ft. Crosslines were turned off this baseline at 400 ft. intervals and were driven due north and south to the property boundary.

During the 1983 surveying, a portion of the grid was re-established. The co-ordinate system was identical to the 1981 grid system to allow easy cross-correlation between survey information.

Approximately 50 km. of survey line was re-established within the area bounded by lines 124+00W and line 0+00W and between stations 30+00S and 70+00N.

#### 3.2 Horizontal loop electromagnetic survey

For this survey a Maxmin II system built by Apex Parametrics was utilized. Approximately 50 km of surveying was conducted. A coil spacing of 400 ft. was used between the transmitter and receiver with readings taken at frequencies of 444 Hz and 1777 Hz. Station interval for this survey was 100 ft. Approximately 8 km of additional surveying was conducted using a 200 ft. cable to detail several of the anomalies.

#### 3.3 Biogeochemical Survey

For this survey biogeochemical samples were taken at 100 ft. intervals. The area covered by the survey extended from line

124+00W to line 16+00W, and from approximately 0+00 to between 10+00S and 30+00S.

### 3.4 Personnel

The MPH personnel involved with the project are:

D. Jones, P. Geoph., Senior Geophysicist, Toronto, Ontario

J. Siriunas, P.Eng., Senior Geologist, Toronto, Ontario

S. Bate, M.Sc., Geophysicist, Toronto, Ontario

D. Hall, Senior Operator, Toronto, Ontario

#### 4. GEOLOGY

##### 4.1 Regional Geology

The Detour Lake region is underlain predominantly by an east-west trending folded belt of supracrustal, mafic metavolcanic rocks of Archean age. The metavolcanic rocks contain minor proportions of intermediate to felsic metavolcanic, clastic metasedimentary and chemical metasedimentary rocks. These rocks are bounded to the north, south and west by granitic rocks which are also intrusive into some areas within the metavolcanic belt. Metamorphism ranges from upper greenschist to amphibolite facies. Pleistocene and recent overburden deposits covers most of the region. The Archean units form part of the northern extremity of the Abitibi orogenic belt.

##### 4.2 Economic Geology

The Detour Lake mine, approximately 20 km. north of the property area is the newest deposit to come into production in the North Abitibi region. To the east of this deposit within similar time stratigraphic lithologies are the polymetallic deposits at Matagami and Brouillian Townships and a gold deposit (Agnico-Eagle) at Joutel.

At Matagami, Quebec a number of massive sulphide ore bodies associated with felsic metavolcanic rocks have been mined. Typical ore grade was in the range of 8.5% Zn, 0.65% Cu, 1 oz. Ag/Ton and .055 oz. Au/Ton.

In Brouillian Township, about 40 km. to the east of the property area, massive sulphides at Les Mines Selbaie are associated with intermediate to felsic pyroclastic rocks.

Reserves in the larger of the two ore zones are 32 M. tonnes grading 2.3% zinc, 0.3% copper, 1.02 oz silver/ton and .009 oz gold/ton.

At the Agnico-Eagle Mine in Joutel, Quebec gold is associated with a massive pyrite zone within altered felsic, probably pyroclastic, metavolcanic rocks. Reserves at this deposit are quoted as 1.23 M. tons grading 0.191 oz gold/ton.

To date there are no gold deposits of the komatiitic or tholeiitic association other than the Detour Mine, known in the North Abitibi region.

#### 4.3 Property Geology

Rock on the Audax Gas & Oil property as mapped by Abitibi-Price Inc. (internal report) is reported to consist predominantly of mafic to intermediate volcanics as both flows and tuffaceous rocks. Lithogeochemical work has shown that these volcanics are of basaltic and Fe-rich tholeiitic affinity. Clastic and chemical metasedimentary rocks are reported in the eastern portion of the property. Granitic rocks are observed at the western edge of the property. The observed bedding strikes approximately northeast-southwest with dips reported as being shallow to steep to the northwest.

Diamond drilling on the property by previous exploration companies (Amoco (1975), Conwest (1959)) intersected mafic to intermediate volcanic flows, garnet-amphibolite mudstone (iron formation) and graphitic metasediments.

Overburden on the property varies from 0 to approximately 100 feet in depth and consists largely of glacially transported material.

#### 4.4 Detour Gold Deposit

The Audax property is located approximately 15 km southwest of the Detour Lake gold mine now in production by Campbell Red Lake Mines Ltd. in a joint venture with Amoco and Dome Mines Ltd. Pre-production reserves total some 30 million tonnes of approximately 0.10 oz Au/ton. The deposit consists essentially of a quartz fracture zone containing pyrrhotite, chalcopyrite and gold centered on a cherty tuff unit and extending into overlying basalt rocks. Gold values are found to occur within the cherty tuff unit and also extend into the stratigraphically underlying altered ultramafic rocks. The "cherty tuff" unit is, in fact, a cherty sulphide facies iron formation with local sections of massive pyrrhotite, pyrite and chalcopyrite.

The main quartz fracture zone has an indicated strike length of approximately 275-300 meters and is arcuate in plan.

The main gold zone is generally 6 m to 12 m in width and consists of a system of quartz veins which contain 10-15% pyrrhotite, 0.5% - 1% chalcopyrite and 1%-5% pyrite within the veins and as selvages.

Exploration leading to the original discovery was geophysically orientated. The deposit was found during a diamond drill follow-up programme to an INPUT survey. The airborne survey had located a strong conductive zone of 8 to 15 mhos accompanied by a coincident magnetic response.

Ground surveying showed a strong electromagnetic conductor of 20 mhos with a coincident magnetic anomaly of approximately 2500 nT.

Additional surveys conducted after the discovery included vertical loop EM and IP. The vertical loop method proved to be particularly useful in tracing the sulphide-bearing cherty tuff horizon, while the other surveys outlined the main concentration of sulphides. The IP survey was a pole-dipole survey with an "a" spacing of 200 ft. and  $n = 1, 2, 3$  and 4. As with the other surveys, the IP also outlined the main zone of sulphides very well, with chargeabilities of 60 to 70 milliseconds over a background of 5 to 10 with a corresponding resistivity low of 10 ohm-m against a background of 1,000 ohm-m.

The original anomaly which ultimately proved to represent the gold-bearing zone was selected for drilling on the basis of the strong EM response with good magnetic correlation. This was believed to be indicative of a sulphide zone.



5. INSTRUMENTATION AND FIELD PROCEDURES

5.1 MaxMin II Horizontal Loop Electromagnetic System

The system makes use of moving transmitter and receiver coils at a constant coil separation. The coils are horizontal and coplanar and are connected by a reference cable. The in-phase and out-of-phase components of the generated secondary field from electrically conductive zones are measured at the receiver coil. These are expressed as percentages of the primary transmitted field.

Five frequencies of primary field varying from 222 Hz to 3555 Hz are available for use on the Maxmin II. Two frequencies are usually read during a horizontal loop survey. A set of 6 cable lengths are also available. For this survey, lines were spaced at 400 ft. intervals and stations of 100 ft. and frequencies of 444 Hz and 1777 Hz were utilized.

Specifications for the Maxmin II horizontal loop system are presented in Appendix 3.

The interpretation of horizontal loop EM data is based on classical interpretation curves calculated from model studies of tabular conductive bodies. From these curves information concerning the nature of the conductor, i.e. its depth, dip and quality can be extracted.

Phenomenon described in the literature such as thickness effect and current gathering result in the decrease of the in-phase quadrature ratio and consequently in an

underestimation of both the conductor depth and the conductivity-thickness product.

There is a critical conductor thickness at which the conductor response does not behave as in a thin dyke model. This critical thickness which is not exceeded when constructing the model curves is given by the formula:

$$\text{Critical thickness} = \frac{300}{\sqrt{\text{frequency} \times \text{conductivity}}} \quad \text{metres}$$

Considering two of the frequencies used in this survey - 444 Hz and 1777 Hz - we can write:

$$\text{CT (444 Hz)} = 2 \times \text{CT (1777 Hz)}$$

This indicates that when using the Maxmin II at 444 Hz, the conductor can be twice as thick as when employing the 1777 Hz frequency before the response recorded deviates from a thin dyke model. This is one of the main reasons why the interpretation at the higher frequencies tends to give lower estimates of both the conductivity-thickness product and depth to the top of the conductor than those found with lower frequency data.

Current gathering can also affect interpretation. This phenomenon occurs when the conductor is itself in a conductive environment. Eddy currents induced in the conductive host rock are concentrated in the upper portion of the conductor. The resulting amplitude increase is more notable in the out-of-phase component of the secondary field and thus the in-phase/out-of-phase ratio decreases. This results in a lowering of the depth and conductivity-thickness product estimates of the conductor.

## 5.2 Geochemical Survey

Since the property is largely covered by transported and recent (organic) overburden of considerable thickness in some areas, it was decided that a biogeochemical survey could prove more effective in delineating possible anomalies than a soil geochemical survey. Case histories, (Wolfe, 1976; Girling et al., 1979, Dilablio et al., 1982; Dunn, 1983; Hoffman and Brooker, 1983; Leonard and Erdman, 1983; Smith and Fournier, 1983), have been documented in base metal and gold exploration where biogeochemical surveys provide at least comparable results to coincident soil surveys.

Second and third year growth (twigs and needles) from black spruce (*Picea mariana*) was submitted to Nuclear Activation Services Ltd. in Hamilton for neutron activation analysis for Au, As and Zn. Sample preparation involved the mulching or maceration of the samples, after which they were compressed into disks for irradiation and subsequent counting. A total of 461 samples were collected at a spacing of 100 feet along north-south crosslines.

The particular suite of elements analyzed was selected on the basis of their pathfinder abilities for gold (Au, As) and base metal mineralization (Zn, As). A second requirement was the amenability of those elements to the instrumental neutron activation analysis analytical method being used.

Certificate of analysis for the biogeochemical samples is presented in Appendix 1.

In addition, a total of 30 rock samples were submitted to Swastika Laboratories Limited for trace element analyses (Au, Ag, Cu, Zn). Certificate of analysis for these samples is presented in Appendix 2.

6. PRESENTATION OF FIELD DATA

All the field data is presented in a series of maps at a horizontal scale of 1:2400.

On the horizontal loop MaxMin II maps the inphase and out-of-phase components have been plotted at a vertical scale of 1 cm = 10%. In interpreting each conductor, axis location and where possible its estimated width (meters), depth to top (meters), conductivity thickness product (mhos), and the conductor dip is given.

Accompanying this report are a series of maps:

Map 1	Horizontal Loop 444 H	1 : 2400
Map 2	Horizontal Loop 444 Hz	1 : 2400
Map 3	Horizontal Loop 1777 Hz	1 : 2400
Map 4	Horizontal Loop 1777 Hz	1 : 2400
Map 5	Detailed Horizontal Loop	1 : 2400
Map 6	Detailed Horizontal Loop	1 : 2400
Map 7	Detailed Horizontal Loop	1 : 2400
Map 8	Detailed Horizontal Loop	1 : 2400
Map 9	Biogeochemical Analysis	1 : 2400
Map 10	Biogeochemical Analysis	1 : 2400

## 7. RESULTS AND INTERPRETATION

### 7.1 General Comments

The geophysical surveying conducted during the present exploration programme outlined several conductive zones which are presented on maps 1 through 4. To serve as background, and to provide perspective to this surveying it is proposed to briefly review information gathered from the previous surveying conducted by Abitibi Price Inc. during 1981.

### 7.2 Previous Surveying

#### a) Magnetics

In general the magnetic survey displays a relatively quiet homogenous nature with a background of approximately 350 nT. Close inspection of the magnetic values displayed indicate a fairly large amplitude (approximately 250 - 550 nT) high frequency content to the data which may in some cases suppress anomalous trends.

Several large amplitude magnetic highs are outlined with a basic east northeast magnetic trend which is conformable with the geology.

The main anomalous zone is a long linear feature which displays magnetic amplitude of up to 6,000 nT and is traced from line 116+00W to line 0+00. This formational unit is believed to reflect iron formation. The apparently discontinuous 'pod like' nature of this magnetic anomaly is fairly typical of iron formation in the area and possibly reflects variations in sulphide content or facies change along the strike length of the magnetic zone. A sharp flexure is observed in the

strike direction at 16 + 00W with the magnetic anomaly curving northeast for approximately 400 - 500 feet before continuing in an easterly fashion to line 0+00. At this flexure in strike the magnetic anomaly widens to approximately 200 feet and is probably the thickest portion of the unit.

Several other satellites of magnetic highs are outlined north of the main feature. They are mainly small short (800 - 1200 feet) narrow zones and possibly reflect sulphitic rich flows within the metavolcanics.

One of those zones was drilled by Amoco in 1975. Pyrite and pyrrhotite were intersected in the drill hole with traces of chalcopyrite.

b) VLF-EM (Radem)

This survey outlined several conductive zones. The main conductive horizon observed was outlined by the survey as three anomalous zones A, C & D. These zones are probably one continuous unit and they show semi-coincidence with the previously described magnetic horizon. Several other short VLF-EM features were outlined. Re-interpretation of the VLF-EM added several anomalous trends. The lack of topographic information prevented the discrimination of the features which could be attributed to lateral changes in surface conductivity and thus no indication could be gained from the VLF-EM as to the conductive quality of any of the electromagnetic anomalies.

Because of this it was recommended to conduct horizontal loop surveying over each VLF-EM zone to locate, delineate and to allow the interpretation of anomaly parameters which describe the conductive sources.

### 7.3 Horizontal Loop Maxmin II Survey

The horizontal loop survey outlined five conductive horizons on the property, labelled A through E on maps 1 - 4 and on the detailed Maps 5 - 8.

#### Anomaly A

Anomaly A is a long conductive trend located between lines 124+00W and line 0+00. At line 124+00W the anomaly is located at 10+00S. The zone strikes east northeast and intersects the baseline at line 16+00W. At line 16+00W the conductive trend veers sharply northeast before proceeding east-northeast at line 4+00W.

The conductive zone pinches and swells along its length and also shows variations in the conductivity thickness product. The zone parallels and is at times coincident with the major magnetic anomaly described earlier. The anomaly can be split into four sections: 'A1', 'A2', 'A3', and 'A4'.

#### Anomaly 'A1'

Zone 'A1' is the strongest (i.e. largest amplitude) conductive target on the property, and is located between lines 8+00W to 36+00W. The anomaly appears to be dipping to the north at approximately 60°, with a depth estimate ranging from 5 to 20 meters. The widest portion of the anomaly is between lines 20+00W and 24+00W where the conductivity thickness product is approximately 120-240 mhos. This portion of the anomaly correlates very well with the magnetic anomaly indicating the presence of massive sulphides as a probable causative source. The very large conductivity



thickness values however possibly indicate the added presence of graphite in varying amounts.

The very sharp drop off in anomaly amplitude and the increase in apparent width on line 16+00W is attributed to the change in anomaly strike. The survey line intersects the anomaly at an oblique angle thus increasing the apparent width of the zone.

The quadrature signature of the horizontal loop response between lines 12+00W and 28+00W indicates the presence of a second anomalous zone north of the main horizon. This zone is probably narrower and of poorer conductivity thickness than 'A1'.

The trace of this zone is outlined by anomaly 'C' in maps 2 and 4. The eastern portion of zone C on lines 0+00, 4+00W and 8+00W show good in-phase/out-of-phase ratio and a conductivity thickness product of approximately 100 (444 Hz data). Where the zone approaches 'A', the in-phase signature of 'C' is lost and the zone can only be traced by its quadrature response. No discrimination of zones was possible from the magnetic data.

A diamond drill hole (not located in the field) was reportedly located intersecting anomaly 'A1'. The hole is believed to have intersected sulphides (pyrite and pyrrhotite) in three separate zones. No base or precious metal content was reported from this drilling.

#### Anomaly 'A2'

Zone 'A2' is located between lines 44+00W and 56+00W approximately 300 feet south of the baseline. The presence

of the Detour River unfortunately cut the coverage to the south, however the regularity of the adjacent profiles allowed extrapolation with a small degree of confidence.

The zone is interpreted to dip north at  $60^\circ$  and is estimated to be at a depth of approximately 20 - 30 meters. Conductivity thickness is estimated at approximately 50 mhos (444 Hz data).

The conductive horizon is not directly coincident with the magnetic anomaly but parallels the magnetic anomaly approximately 50 - 100 feet north of the main magnetic peak.

There is however, a direct correlation between the location of the highest conductivity thickness amplitudes and the highest magnetic values possibly indicating a single causative effect for both geophysical response.

#### Anomaly 'A3'

Zone 'A3' is located between line 72+00W and 80+00W although the strong conductive portion of the zone is only located on two lines (76+00W and line 80+00W). The remaining strike length of this anomaly displays an in-phase/out-of-phase ratio of less than one.

Interpretation of the strongest profiles outlines a zone which is 600 feet long and dipping to the north at approximately  $45^\circ$  to  $60^\circ$ . Depth estimate for the zone is approximately 15 to 20 meters with a conductivity thickness product of approximately 10 - 15 mhos. The strongest portion of the horizontal loop anomaly corresponds with a magnetic anomaly of approximately 2,000 - 3000 nT. The abrupt decrease in the

conductivity thickness product both to the east and west corresponds to a sharp decline in magnetic activity. This leads to a hypothesis that the mineralized horizon undergoes a sulphide to oxide facies change.

Anomaly 'A4'

This conductive horizon located between line 96+00W and 124+00W is a narrow, generally weakly conductive feature. The strongest portion of the zone is located at the western extent of the zone on lines 120+00W and 124+00W, where interpretation of these profiles shows a conductivity thickness product of approximately 30 mhos. Depth estimates for the zone is approximately 30 meters with the unit dipping at approximately 60° to the north. The zone shows correlation with a magnetic anomaly which is approximately 1000 to 3000 nT above background.

The central portion of the horizontal loop anomaly, i.e. line 104+00W and line 108+00W displays a positive value in the in-phase response. These two lines correlate with the strongest magnetic values. The magnetic signature coupled with the horizontal loop Max-Min II response indicates magnetite bearing iron formation or a causitive source in the vicinity of these two lines grading into a more sulphitic iron formation towards the western portion of the grid.

Anomaly 'B'

Anomaly 'B' is located between line 92+00W and 112+00W for a total of 2,000 feet strike length. The zone strikes northeasterly and is bisected by the baseline at line 100+00W.

The zone is interpreted to dip steeply north to vertical. Depth estimates at lines 100+00W and 96+00W indicate 5 to 10 meters of overburden. The quadrature response indicates the presence of two conductive features whilst the in-phase shows the response due to a wide body. In all probability anomaly 'B' consists of two narrow steeply dipping units. The western portion of the zone is coincident with a magnetic anomaly, however the magnetic signature does not appear to cross the baseline. Close inspection of the magnetic data however shows very erratic readings, which may be suspect.

Drilling of anomaly 'B' by Amoco in 1975 intersected pyrite and pyrrhotite in varying amounts up to 10%.

#### Anomaly 'D'

Anomaly 'D' is located between line 48+00W and line 4+00W. The anomaly is striking northeast. Interpretation of the profiles estimates that the zone is dipping to the north at approximately 60°. Depth estimates vary from 5 to 25 meters (444 Hz data). The in-phase out of phase ratio is less than one, indicating a poor conductor calculation of the conductivity-thickness product shows a variation of values from 0.1 to 0.25 mhos.

The corresponding conductivity thickness product with the high frequency (1,777 Hz) data shows values of approximately 3 mhos. This indicates that the causative source is possibly an overburden response rather than a bonafide bedrock conductor. The anomaly shows an apparent width of approximately 50 - 100 feet between lines 24+00W and 36+00W. East of line 24+00W, both the anomaly amplitude and apparent width shows a marked decrease.

Anomaly 'D' does not have any magnetic correlation, but appears to be reflecting a weak VLF-EM trace outlined by the previous surveying.

Anomaly 'E'

Anomaly 'E' is a short, narrow zone, parallel to and south of anomaly 'D'. The anomaly is located between lines 16+00W and 8+00W.

From interpretation of these profiles, the zone appears to be dipping at approximately 60° to the south, however, this interpretation is probably biased by mutual interference with zone 'D'.

Depth estimates of anomaly 'E' are approximately 25 - 35 meters with a conductivity thickness product ranging from 16 to 50 mhos. The strongest portion of this zone is located on line 8+00W. The zone shows no magnetic correlation.

Anomalies 'F' and 'G'

Anomalies 'F' and 'G' located on line 0+00 and 4+00W are weakly conductive largely out-of-phase responses. Prospecting in this area outlined a geologic strike of approximately 340 - 360° (Map 6), thus the survey lines are crosscutting the geology at a fairly oblique angle. This will obviously lead to a 'skewed' profile which does not lend itself to ready interpretation. This anomalous signature is in an area of active magnetics. However, in that the geophysical surveys are not on a favourable azimuth to the geology, it is difficult to interpret direct correlation between surveys.

The other small areas surveyed within the property boundaries were to cover zones outlined from the VLF-EM survey. No conductive responses were observed with the horizontal loop system.

## 7.4 Geochemistry

### 7.4.1 General Comments

A total of 461 samples of second and third year growth from black spruce trees was submitted for neutron activation analysis of Au, As and Zn. These samples were collected over the most favourable portion of the property, based on the previous geophysical work that had been carried out.

During prospecting, 30 rock samples were also collected. These were submitted for analysis for Au, Ag, Cu and Zn.

The region has generally low relief with much of the surface area covered by swamps and muskeg bogs. The broad rolling features which characterize much of the Abitibi Upland further to the south and west are here mantled by Pleistocene deposits associated with the Cochrane Ice Front.

The overburden is commonly comprised of pebbly clay till overlain with minor sand and gravel. Overburden may reach depths in excess of 50 m but the average depth is probably about half of that. A strong glacial fabric trends south-southeast - north-northwest throughout the region.

Outcrops of bedrock are locally abundant, especially on the topographically higher ground immediately north of the area that was surveyed geochemically.

#### 7.4.2 Biogeochemical Survey

The following thresholds for possibly anomalous samples (upper 5% of population) and probably anomalous samples (upper 2.5% of population) were selected based on  $\log_{10}$ -transformed data and assuming all populations to be log-normally distributed:

<u>Element</u>	<u>Detection Limit</u>	<u>Possibly Anomalous Threshold</u>	<u>Anomalous Threshold</u>
Au	0.5 ppb	3.9 ppb	8.0 ppb
As	0.1 ppm	0.27 ppm	0.30 ppm
Zn	5.0 ppm	70 ppm	78 ppm

Statistical information for the samples is presented in Appendix 1.

Five zones of anomalous geochemical response were outlined in the survey area; these are indicated from east to west as Zones 1 through 5 on Maps 9 and 10.

Zone 1, across lines 16+00W and 20+00W, though anomalous samples are few in number, exhibits the most intense (i.e. highest) anomalies in Au (190 ppb) and As (1.0 ppm, 14.0 ppm). The zone is open to the east.

Zone 2 extends from line 40+00W to 56+00W. A number of samples, possibly or probably anomalous in Au (up to 38 ppb Au) occur over a width of about 600 ft. The zone is actually open to the north (i.e. north of the base line); it is possible that a dispersion fan from a source north of the base line could be the cause of the anomalous values here.

Zone 3 is located between lines 80+00W and 92+00W. It is the only zone characterized by anomalous values in Zn. Overall, the population of Zn values shows a rather well defined log-normal distribution and the range of values is comparatively small (approx. 30 to 100 ppm). In this respect, the actual peak-to-background ratio for anomalous values is rather small and statistically anomalous samples are less intense and therefore, smaller analytical variations may easily mask real anomalies or enhance false ones. One isolated high Au value (48 ppb) is located just to the south of this zone.

Zone 4 is located just to the west of Zone 3. It is characterized by a widely dispersed number of anomalous Au values (up to 28 ppb Au). Two separate parts of this zone may, in fact, exist. Between lines 96+00W and 104+00W, these two separate parts occur at approximately 8+00S and 15+00S.

Zone 5 is characterized by a number of possibly and probably anomalous As values from 0+00 to 10+00S on line 120+00W. Unfortunately, this zone is open both to the north and west, so it is not possible to ascertain the zone's geometry or possible cause.



#### 7.4.3 Trace Element Lithochemistry

The rock samples that were analyzed for Au, Ag, Cu and Zn returned very little of interest. These samples were collected during prospecting on the property. Samples that were analyzed were observed, in the field, to contain better than about 1% sulphide minerals (i.e. pyrite, pyrrhotite). Only one sample (AD-83-18R) which returned 200 ppb Au was the only one to show more than 10 ppb Au.

#### 7.4.4 Integration of Exploration Data

Integration of the biogeochemical data with the horizontal loop maxmin II survey results has enhanced the exploration potential of several of the anomalies.

Horizontal loop anomaly 'A1' is the strongest (largest amplitude) electromagnetic target on the property. The zone, coincident with a magnetic anomaly, is believed to represent a sulphitic iron formation. Anomalous biogeochemical samples collected in the area immediately south of and directly downslope from the electromagnetic anomaly, though not prolific, were the most intense encountered in the survey (190 ppb Au, 14 ppm Ag).

Maxmin II anomaly 'A2', located between lines 40+00W and line 56+00W, dips north at a depth of approximately 30 meters. It is not directly coincident with the magnetic anomaly, but parallels the magnetic anomaly approximately 50 to 100 feet north of the main magnetic plate. The zone itself is directly coincident with a discrete biogeochemical zone

anomalous in gold and minor arsenic. The gold values here reach 38 ppb. The extent of the anomalous zone is exactly coincident with the electromagnetic zone and as such, is a priority target warranting further exploration.

The third biogeochemical target area (Zones 3 and 4) is anomalous in both Zn and Au. There appears to be a zonation in anomalous responses with the Zn values being confined to the eastern extent of the area (Zone 3) and the gold values being at the western end of the area (Zone 4).

This target area is directly coincident with both the western end of Zone 'A3' and the eastern portion of 'A4'.

The western portion of Zone 'A3' is a well defined, weakly conductive maximum II zone. The in-phase/out of phase ratio is poor, generally being less than 1 and the zone is also coincident with a magnetic low.

This western portion of the zone shows good coincidence with elevated zinc values. The distribution of anomalous zinc in biogeochemical samples shows that the zinc is only coincident with that portion of the horizontal loop displaying weak conductivity. The increase in conductivity thickness product and the presence of high magnetic value along strike on lines 80+00W and 76+00W does not show any geochemical anomalous trends.

This leads to the hypothesis that the iron formation in the area of anomaly 'A3' exhibits a relative decrease in both pyrite and pyrrhotite content and thus a relative increase in zinc (though not necessarily sphalerite) content.

The westward extension of anomaly 'A3' changes character between lines 92+00W and 96+00W and shows a larger conductivity thickness product between lines 100+00W and 108+00W. In addition, this portion of the zone also shows a coincidence with a magnetic anomaly. This portion of the anomaly is also coincident with an area biogeochemically anomalous in gold (Zone 4). The geophysical anomaly appears more diffuse here than those previously described, however, the presence of the geochemically anomalous samples has certainly upgraded the horizontal loop maximum II anomaly.

No other electromagnetic zone displayed any significant anomalous biogeochemical coincidence.

8. CONCLUSIONS

The surveys conducted on the property were successful in delineating a number of anomalous values which are of interest.

The horizontal loop survey outlined nine anomalous zones of which four zones ('A1', 'A2', 'A3', and 'A4') formed the major anomaly 'A' which transects the property. This zone is believed to represent an iron formation. The zone is semi-coincident with a magnetic anomaly (Abitibi Price internal report).

Of the electromagnetic anomalies located in Zone A, three 'A1', 'A2' and the eastern portion of 'A4', showed coincidence with magnetic anomalies and all three zones are believed to be reflecting sulphide iron formation. These three zones also showed a good correlation with areas that are biogeochemically anomalous in gold.

Analyzing these results shows a one to one correlation between the electromagnetic, magnetic and geochemical response.

In the area between line 56+00W and 64+00W, a magnetic zone not accompanied by an electromagnetic response displayed no anomalous gold values. At lines 120+00W and 124+00W, an electromagnetic response which displayed no magnetic correlation also did not show any anomalous geochemical response.

The positive correlation of electromagnetic, magnetic and anomalous Au biogeochemical response possibly indicates an exploration procedure to indicate exploration targets. Zones displaying these features are worthy of further testing by diamond drilling.

An area of samples biogeochemically anomalous in Zn located between 80+00W and 92+00W is coincident with a weak horizontal loop anomaly (western portion of 'A3') and a relative low magnetic zone.

The other electromagnetic anomalies with the exception of anomaly 'B' did not show any magnetic signature. Anomaly 'B' was coincident with a magnetic anomaly. The zone did not display any biogeochemical signature. Drilling by Amoco in 1974-75 found pyrite, pyrrhotite and trace chalcopyrite as conductive and magnetic minerals which probably explain the geophysical responses.

In conclusion, the presence of good conductive responses coupled with strong magnetic anomalies indicate the presence of sulphitic iron formation. The presence of the anomalous biogeochemical gold values coincident with these targets enhance the priority of these zones and warrants further exploration by diamond drilling.

9. RECOMMENDATIONS

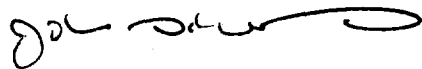
To further explore the economic potential of this property, diamond drilling of four targets is recommended as follows:

<u>Hole</u>	<u>Target</u>	<u>Collar Coordinate</u>	<u>Azmuth</u>	<u>Dip</u>	<u>Length</u>
1	'A1'	Line 20+00W, 2+00N	Grid S	60°	350 ft.
2	'A2'	Line 56+00W, 2+00S	Grid S	60°	300 ft.
3	'A4'	Line 100+00W, 9+50S	Grid S	60°	300 ft.
4	'A3'	Line 84+00S, 6+50S	Grid S	60°	300 ft.

Following this, a complete re-evaluation of all the data should be undertaken to assimilate and correlate exploration results prior to any further recommendations.

Respectfully submitted,

Simon J. Bate, M.Sc.

  
J.M. Siriunas, P.Eng.

CERTIFICATE

I, Simon J. Bate of Toronto, Ontario hereby certify that:

- 1) I hold a Bachelor of Science degree in Physics from the University of Bristol, England, and a Master of Science degree in Applied Geophysics and Diploma of Imperial College from Imperial College, London, England.
- 2) I have practised my profession in exploration continuously since graduation.
- 3) I have based my conclusions and recommendations contained in this report on my experience. All geophysical field work conducted on the property during July, 1983 was carried out under my supervision.
- 4) I hold no interest, directly or indirectly, in this property other than professional fees, nor do I expect to receive any interest in the property or in Audax Gas and Oil Limited or any of its subsidiary companies.

Toronto, Ontario, Canada  
December, 1983

Simon J. Bate, M.Sc.

CERTIFICATE

I, J.M. Siriunas, of 2803 Hollington Cres., Mississauga, Ontario, certify that:

- 1) I hold a Bachelor of Applied Science Degree in Geological Engineering and a Master of Applied Science Degree in Geology from the University of Toronto.
- 2) I am a member of the Association of Professional Engineers of the Province of Ontario and have practised my profession continuously since graduation.
- 3) I have based my conclusions and recommendations contained in this report on my experience and knowledge of geology, geochemistry and mineral deposits.
- 4) I hold no interest, directly or indirectly, in this project other than professional fees, nor do I expect to receive any interest in Audax Gas and Oil Ltd., or any of its subsidiary companies.

Toronto, Ontario  
December, 1983

*J.M. Siriunas*  
J.M. Siriunas M.A.Sc.





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Appendix 1

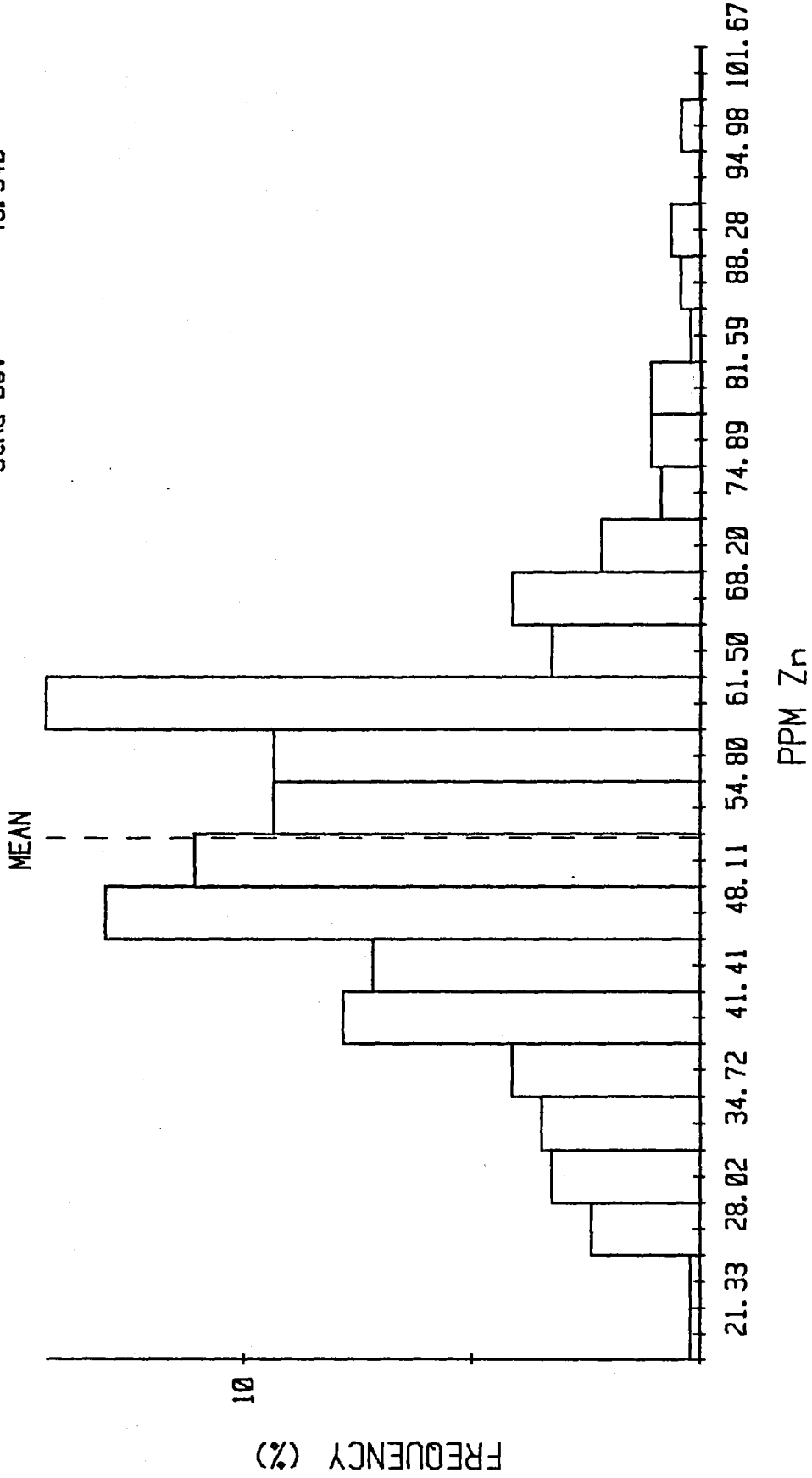
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(Log10 Transformed Data)

ELEMENT/ OXIDE	No SAMPLES	MEAN	STND DEV	COEF VAR	
PPM Zn	461	51.404	2.442	.227	
PPB Au	461	.626	72.297	9.153	<---!!
PPM As	461	.137	5.641	.871	<---

**SUMMARY STATISTICS**

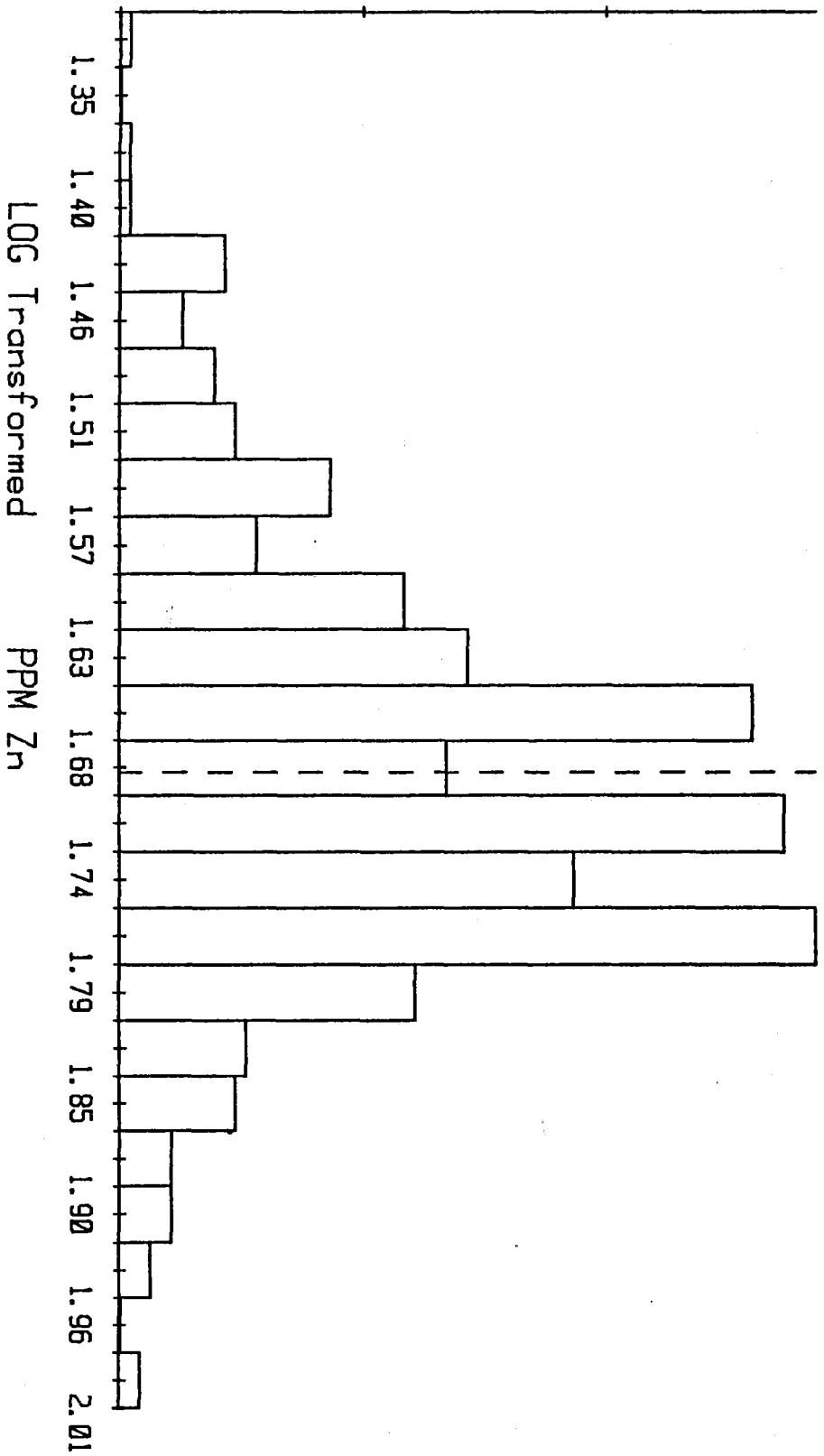
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PPB Au	461	1.881	35.239	18.734	<---!!
PPM As	461	.180	2.410	13.375	<---!!

Total number of samples = 461  
 Bar width = 3.348 ( .073 s)  
 Mean = 52.872  
 Stnd Dev = 45.940



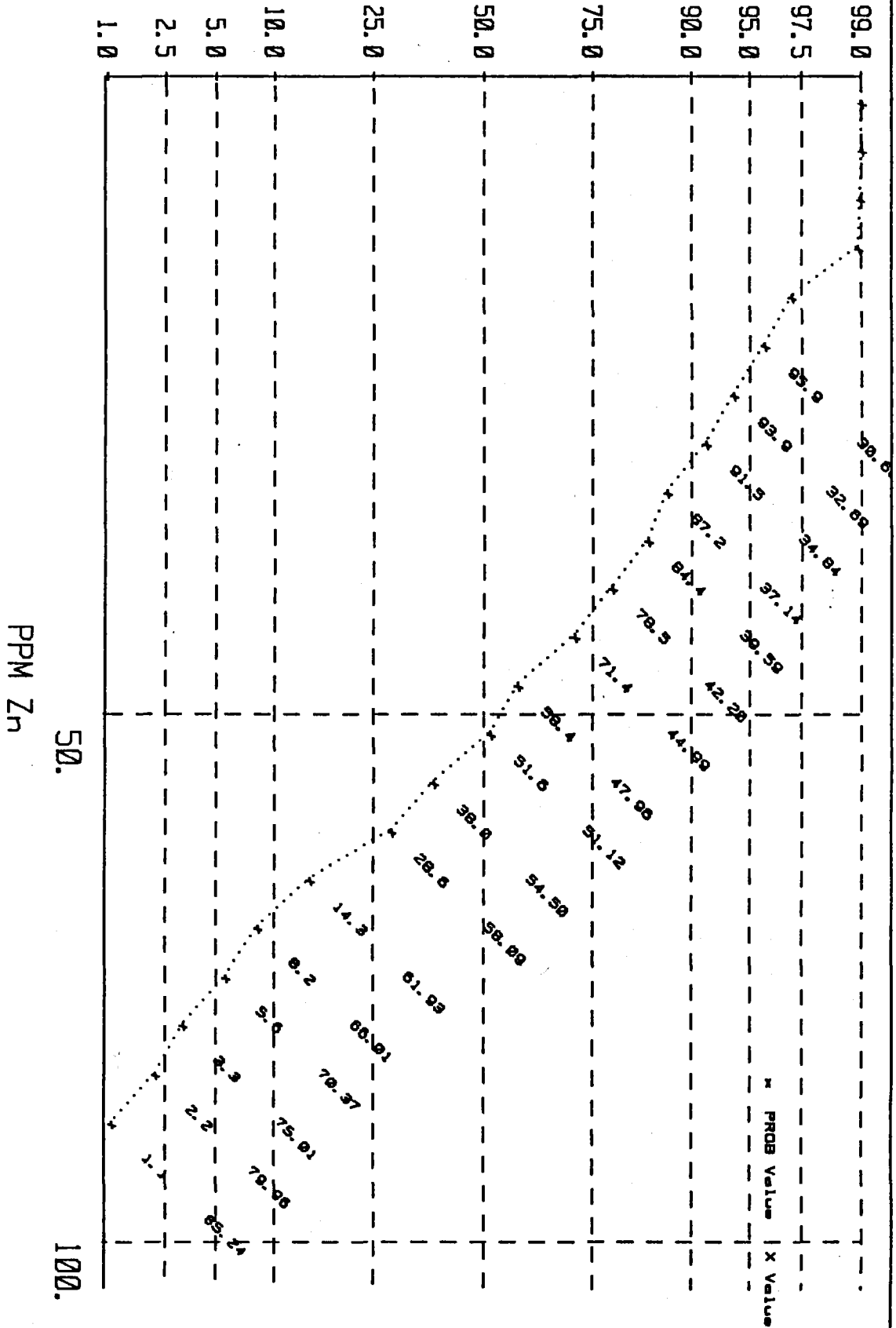
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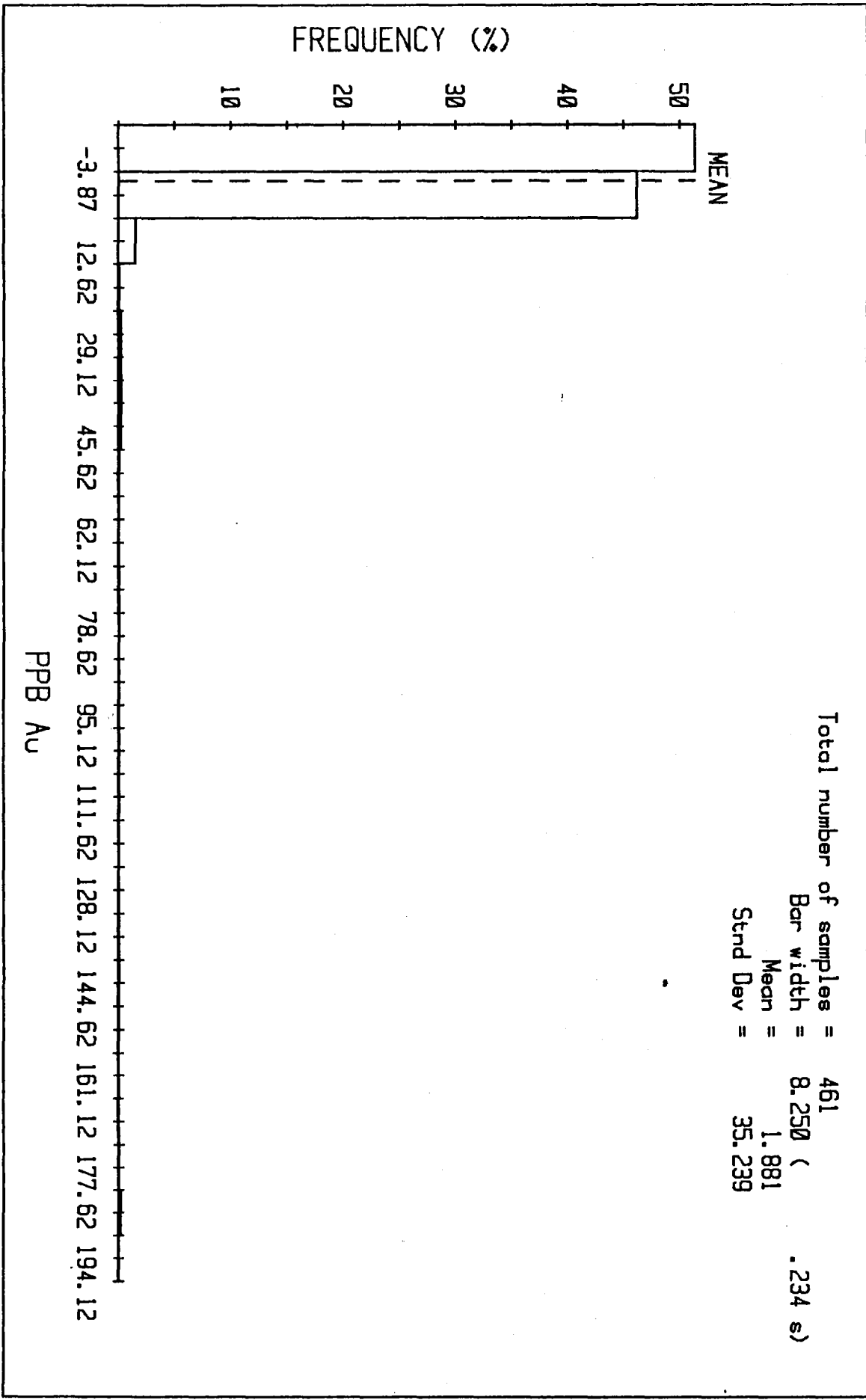
FREQUENCY (%)



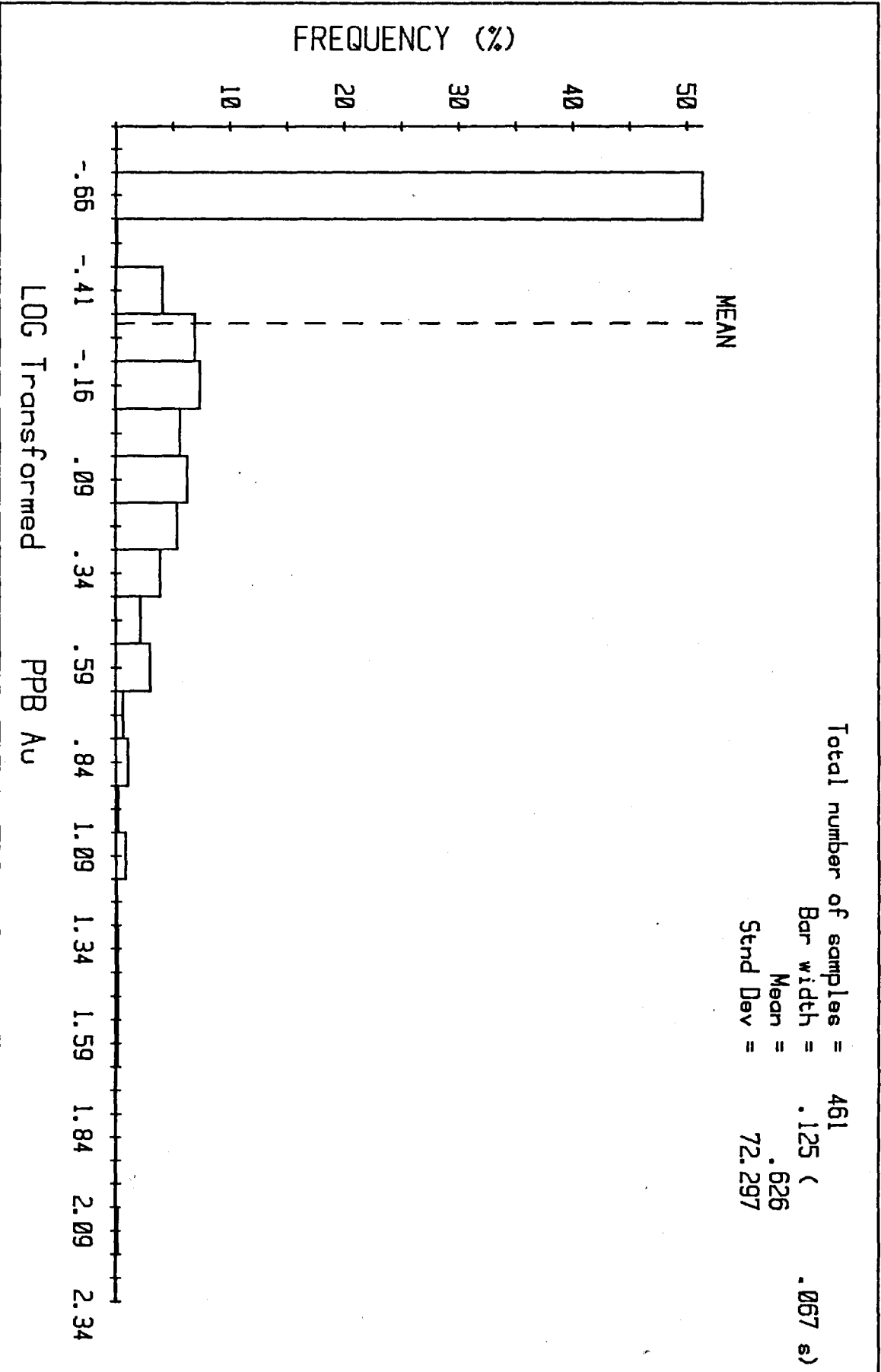
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Mean = 51.404  
Stand Dev = 2.442  
.072 s)

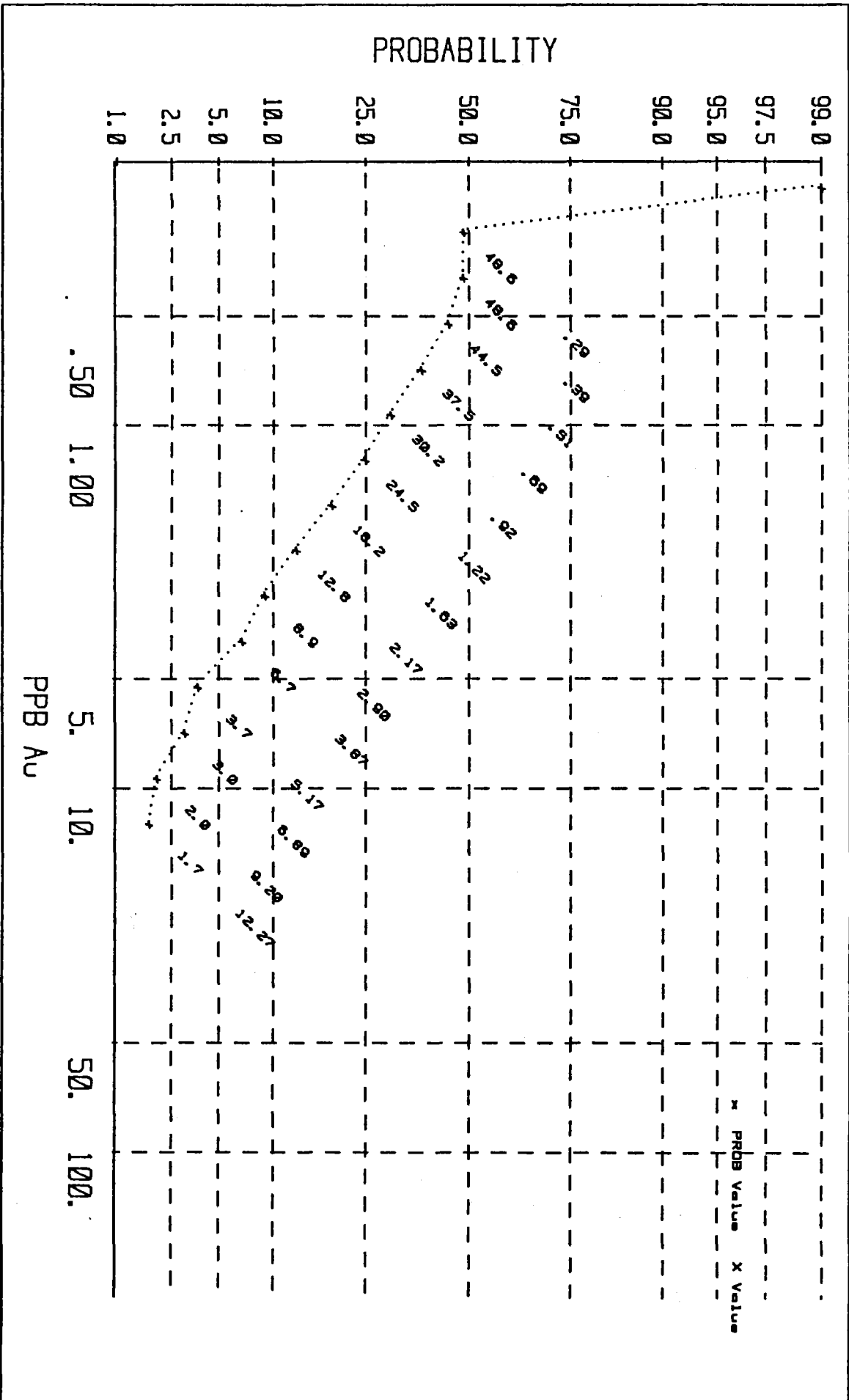
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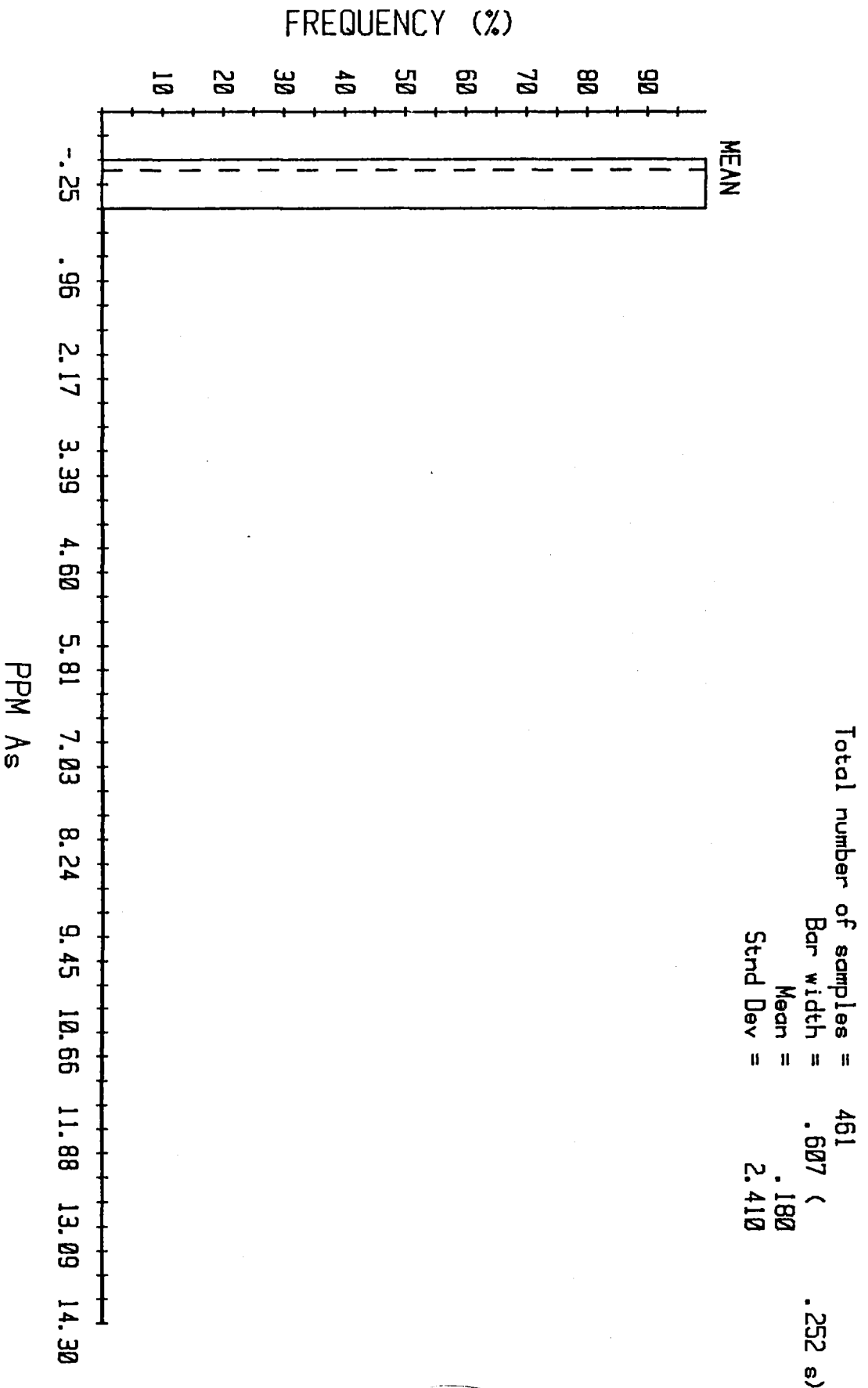


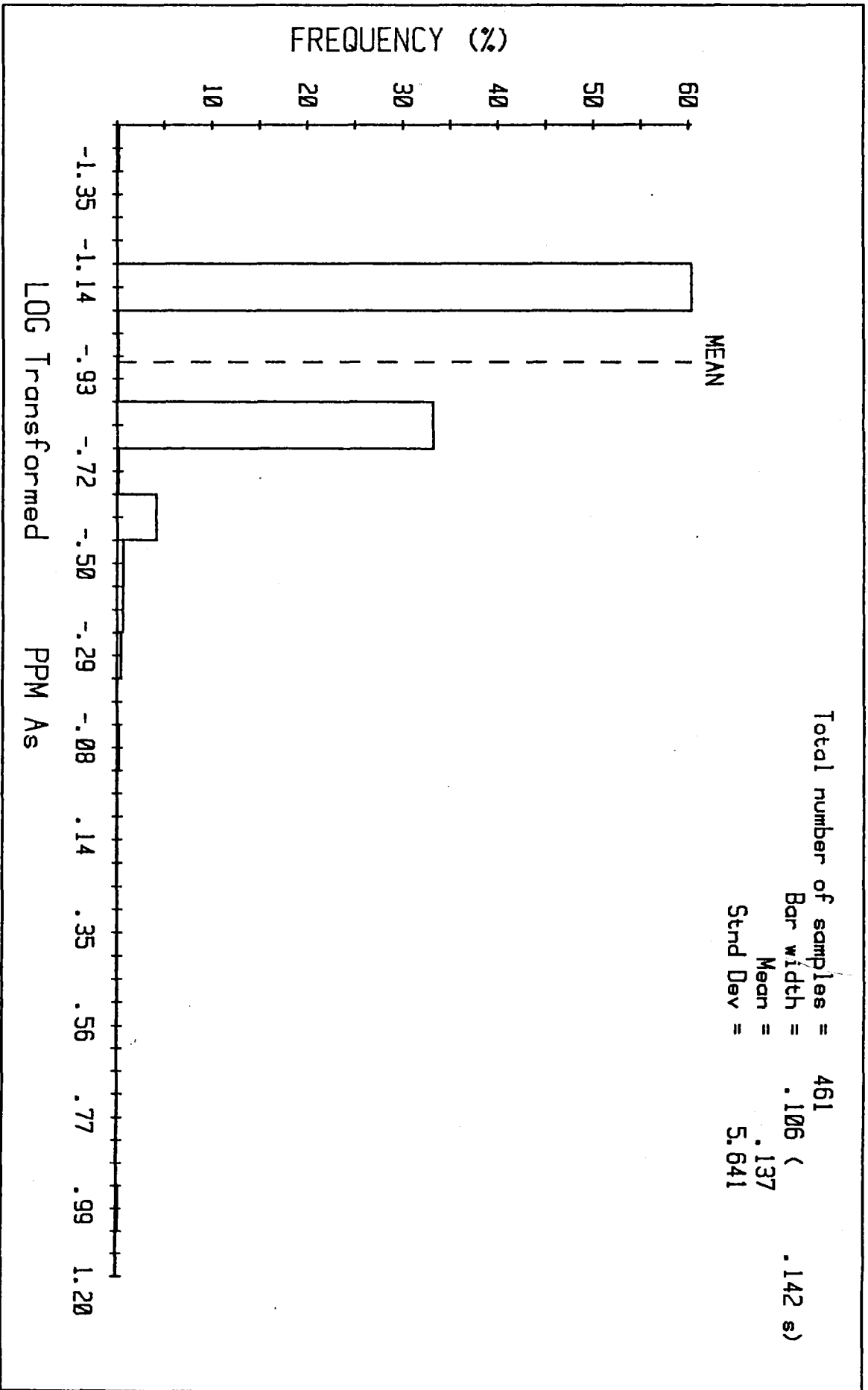


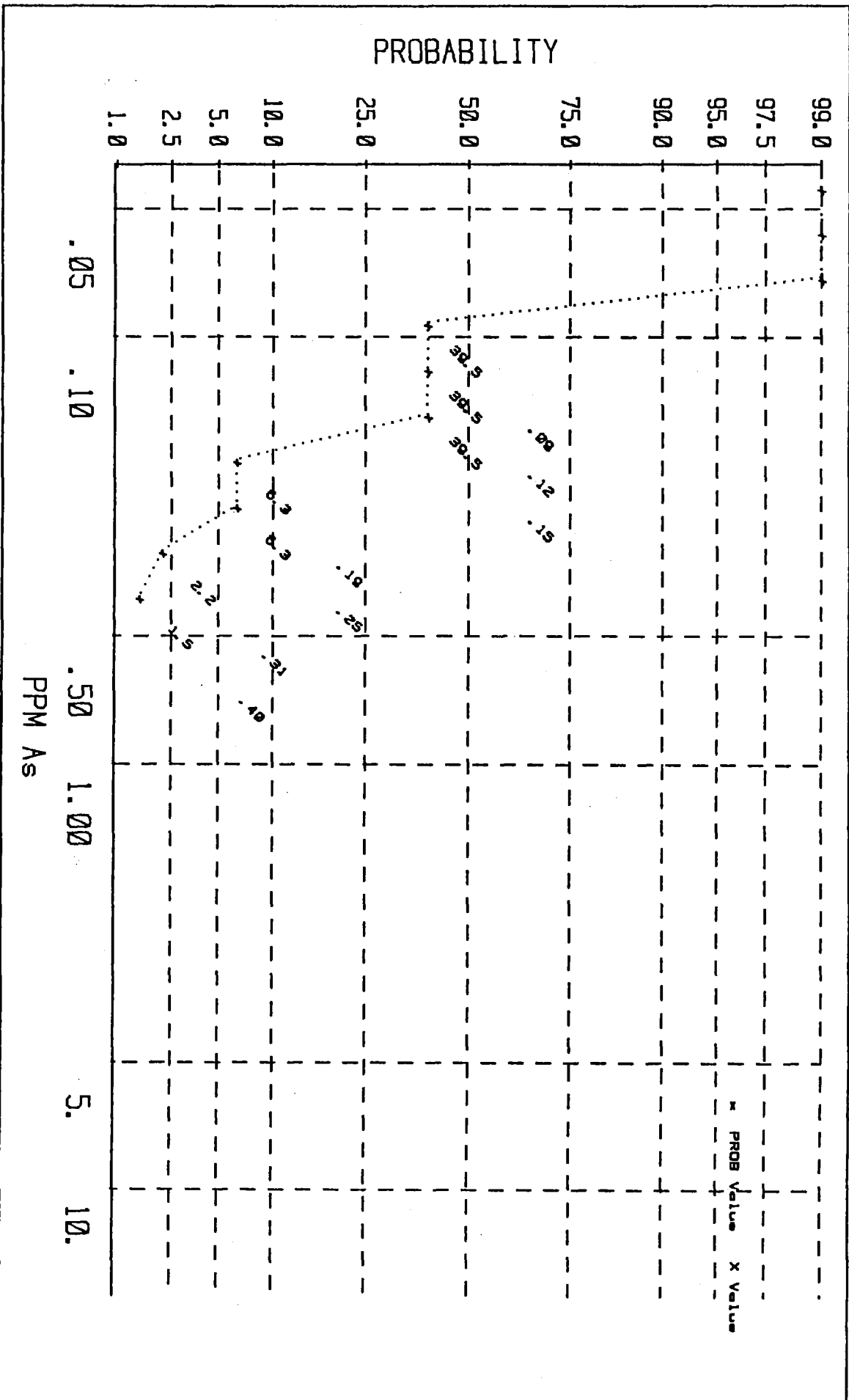












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TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: MPH CONSULTING LIMITED  
ATTN: BILL BRERETON  
120 ADELAIDE ST. W. SUITE 2406  
TORONTO, ONTARIO  
M5H 1W5

CUSTOMER NO. 230

DATE SUBMITTED  
24-OCT-83

REPORT: 2106

FILE NUMBER: 3247

465 HUMUS SAMPLES

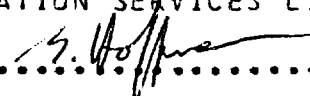
PROJECT NO C-615

WERE ANALYZED AS FOLLOWS:

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ZN	PPM	5.0000	AS	PPM	0.1000
AU	PPB	0.5000			

DATE 22-NOV-83

NUCLEAR ACTIVATION SERVICES LIMITED

CERTIFIED BY  .....

\*\*\* UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD ALL SAMPLES \*\*\*  
IRRADIATED SAMPLES AFTER 30 DAYS. ANY OTHER MATERIAL AFTER 120 DAYS

NUCLEAR ACTIVATION SERVICES LIMITED

DATE: 23-NOV-83

REPORT: 2106

FILE NUMBER: 3247

PAGE: 1

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AD-83-6	37	0.3	0.5
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AD-83-43	55	0.2	<0.5
AD-83-44	63	0.1	<0.5
AD-83-45	61	0.1	<0.5

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PAGE: 2

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PAGE: 3

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FILE NUMBER: 3247

PAGE: 4

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D-83-170	53	0.1	<0.5
D-83-171	29	0.1	<0.5
AD-83-172	28	0.1	0.8
D-83-173	48	0.2	<0.5
D-83-174	44	0.2	<0.5
AD-83-175	32	0.2	<0.5
AD-83-176	49	0.2	<0.5
D-83-177	52	0.1	<0.5
AD-83-178	54	0.2	<0.5
AD-83-179	57	0.2	<0.5
D-83-180	53	0.2	<0.5

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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-181	60	0.2	<0.5
D-83-182	63	0.2	<0.5
AD-83-183	46	0.2	<0.5
AD-83-184	44	0.3	<0.5
D-83-185	38	0.2	<0.5
D-83-186	29	0.1	<0.5
AD-83-187	59	0.2	<0.5
D-83-188	48	0.1	<0.5
D-83-189	52	0.1	<0.5
AD-83-190	53	0.2	<0.5
AD-83-191	71	0.1	<0.5
D-83-192	59	0.1	<0.5
AD-83-193	60	0.1	<0.5
AD-83-194	59	0.1	<0.5
D-83-195	47	0.2	<0.5
D-83-196	56	0.1	<0.5
AD-83-197	31	0.2	<0.5
D-83-198	43	0.2	<0.5
D-83-199	58	0.2	<0.5
AD-83-200	70	0.1	<0.5
AD-83-201	48	0.1	<0.5
D-83-202	52	0.1	<0.5
AD-83-203	56	0.1	<0.5
AD-83-204	64	0.1	<0.5
D-83-205	64	0.1	<0.5
D-83-206	52	0.1	<0.5
AD-83-500	51	0.2	<0.5
D-83-501	66	0.2	<0.5
D-83-502	69	0.2	<0.5
AD-83-503	43	0.2	<0.5
AD-83-504	60	0.1	<0.5
D-83-505	65	0.1	<0.5
AD-83-506	50	0.1	<0.5
AD-83-507	48	0.1	<0.5
D-83-508	59	0.1	<0.5
D-83-509	50	0.1	<0.5
AD-83-510	48	0.1	<0.5
D-83-511	51	0.1	<0.5
D-83-512	56	0.1	0.5
AD-83-513	48	0.1	<0.5
AD-83-514	53	0.2	<0.5
D-83-515	48	0.1	<0.5
AD-83-516	46	0.1	<0.5
AD-83-517	36	0.2	0.5
D-83-518	48	0.1	<0.5

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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-519	51	0.1	<0.5
A -83-520	43	0.1	<0.5
AD-83-521	39	0.1	<0.5
AD-83-522	54	0.2	<0.5
A -83-523	48	0.2	0.6
A -83-524	48	0.1	2.3
AD-83-525	40	0.2	0.5
A -83-526	38	0.1	0.6
A -83-527	48	0.2	1.3
AD-83-528	38	0.1	0.7
AD-83-529	36	0.2	0.7
A -83-530	27	0.2	1.2
AD-83-531	29	0.1	0.9
AD-83-532	46	0.1	1.9
A -83-533	63	0.1	6.9
A -83-534	63	0.1	2.6
AD-83-535	63	0.1	0.9
A -83-536	57	0.1	2.5
A -83-537	39	0.1	1.1
AD-83-538	48	0.1	1.4
AD-83-539	46	0.1	5.6
A -83-540	53	0.2	8.1
AD-83-541	48	0.2	2.4
AD-83-542	49	0.2	2.4
A -83-543	49	0.1	1.4
A -83-544	45	0.2	1.7
AD-83-545	38	0.2	1.7
A -83-546	56	0.1	<0.5
A -83-547	49	0.1	1.6
AD-83-548	41	0.2	1.0
AD-83-549	46	0.1	4.0
A -83-550	42	0.2	1.6
AD-83-551	33	0.2	0.8
AD-83-552	38	0.2	1.7
A -83-553	39	0.2	0.9
A -83-554	45	0.2	0.7
AD-83-555	44	0.1	0.9
A -83-556	41	0.1	1.9
A -83-557	52	0.1	1.9
AD-83-558	48	0.1	2.5
AD-83-559	45	0.1	1.8
A -83-560	47	0.2	5.4
AD-83-561	61	0.1	15
AD-83-562	50	0.2	3.0
A -83-563	63	0.1	1.7

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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-564	48	0.1	1.9
D-83-565	46	0.2	3.0
AD-83-566	56	0.2	1.6
AD-83-567	58	0.2	2.1
D-83-568	63	0.1	1.0
D-83-569	58	0.1	10
AD-83-570	48	0.1	3.9
D-83-571	53	0.1	3.0
D-83-572	54	0.1	1.6
AD-83-573	30	0.2	2.6
AD-83-574	34	0.1	5.8
D-83-575	29	0.2	3.9
AD-83-576	36	0.2	3.3
AD-83-577	32	0.1	2.3
D-83-578	61	0.2	1.3
D-83-579	61	0.1	2.5
AD-83-580	51	0.2	4.0
D-83-581	57	0.2	2.8
D-83-582	64	0.1	0.9
AD-83-583	47	0.2	2.7
AD-83-584	63	0.1	1.4
D-83-585	68	0.1	5.1
AD-83-586	56	0.1	28
AD-83-587	67	0.1	1.4
D-83-588	66	0.1	0.9
D-83-589	53	0.1	9.6
AD-83-590	35	0.1	1.7
D-83-591	53	0.1	2.4
D-83-592	65	0.2	4.3
AD-83-593	77	0.2	1.7
AD-83-594	51	0.2	5.3
D-83-595	63	0.3	3.3
AD-83-596	63	0.2	2.3
AD-83-597	62	0.2	3.1
D-83-598	53	0.1	4.2
D-83-599	59	0.2	3.4
AD-83-600	56	0.2	5.8
D-83-601	53	0.1	1.7
D-83-602	56	0.1	0.6
AD-83-603	56	0.1	0.6
AD-83-604	29	0.5	5.5
D-83-605	43	0.3	1.2
AD-83-606	41	0.3	1.6
AD-83-607	32	0.2	1.8
D-83-608	48	0.2	4.8

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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-609	59	0.2	3.1
AD-83-610	43	0.1	2.2
AD-83-611	59	0.1	3.2
AD-83-612	42	0.2	2.4
AD-83-613	43	0.2	8.1
AD-83-614	45	0.1	1.3
AD-83-615	56	0.2	2.3
AD-83-616	34	0.2	2.9
AD-83-617	51	0.1	15
AD-83-618	57	0.1	5.3
AD-83-619	47	0.1	5.0
AD-83-620	40	0.1	5.8
AD-83-621	34	0.1	3.3
AD-83-622	56	0.1	2.8
AD-83-623	44	0.1	8.4
AD-83-624	55	0.2	5.6
AD-83-625	63	0.1	3.9
AD-83-626	65	0.2	4.1
AD-83-627	52	0.2	15
AD-83-628	50	0.1	2.4
AD-83-629	46	0.1	16
AD-83-630	58	0.1	6.9
AD-83-631	57	0.2	11
AD-83-632	67	0.3	38
AD-83-633	55	0.2	1.8
AD-83-634	64	0.1	1.0
AD-83-635	65	0.1	6.3
AD-83-636	62	0.1	1.6
AD-83-637	56	0.1	0.9
AD-83-638	57	0.1	1.3
AD-83-639	50	0.1	1.6
AD-83-640	54	0.2	2.4
AD-83-641	47	0.1	1.4
AD-83-642	63	0.1	1.0
AD-83-643	55	0.1	0.6
AD-83-644	60	0.1	0.6
AD-83-645	63	0.1	0.6
AD-83-646	63	0.1	1.0
AD-83-647	92	0.2	0.5
AD-83-648	63	0.3	0.8
AD-83-649	61	0.3	0.6
AD-83-650	49	0.2	0.6
AD-83-651	62	0.2	1.6
AD-83-652	44	0.2	0.6
AD-83-653	44	0.1	0.6

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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-654	47	0.1	1.7
D-83-655	47	0.1	1.4
AD-83-656	55	0.2	1.6
AD-83-657	41	0.1	1.2
D-83-658	51	0.1	<0.5
D-83-659	47	0.1	1.0
AD-83-660	51	0.2	2.1
D-83-661	58	0.1	1.4
D-83-662	63	0.2	0.6
AD-83-663	57	0.2	1.0
AD-83-664	53	0.2	0.6
D-83-665	56	0.2	0.8
AD-83-666	48	0.4	2.5
AD-83-667	48	0.2	0.8
D-83-668	41	0.2	0.6
D-83-669	48	0.1	0.9
AD-83-670	61	0.1	0.9
D-83-671	56	0.1	0.5
D-83-672	69	0.1	0.6
AD-83-673	54	0.1	0.6
AD-83-674	53	0.2	1.4
D-83-675	56	0.1	1.7
AD-83-676	48	0.2	0.5
AD-83-677	54	0.2	<0.5
D-83-678	88	0.2	3.3
D-83-679	56	0.2	0.7
AD-83-680	81	0.1	2.9
D-83-681	69	0.1	0.5
D-83-682	41	0.1	<0.5
AD-83-683	49	0.1	<0.5
AD-83-684	50	0.1	48
D-83-685	30	0.1	0.9
AD-83-686	56	0.2	<0.5
AD-83-687	43	0.1	0.6
D-83-688	29	0.2	1.0
D-83-689	34	0.2	1.0
AD-83-690	35	0.2	1.6
D-83-691	37	0.1	1.2
D-83-692	64	0.1	1.1
AD-83-693	57	0.1	1.0
AD-83-694	56	14	0.7
D-83-695	62	1.0	<0.5
AD-83-696	56	0.2	<0.5
AD-83-697	60	0.3	0.5
D-83-698	60	0.1	1.9

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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-699	60	0.1	0.7
D-83-700	62	0.1	2.4
AD-83-701	60	0.1	1.0
AD-83-702	72	0.1	0.5
D-83-703	57	0.2	0.8
D-83-704	68	0.1	0.8
AD-83-705	67	0.1	1.2
D-83-706	59	0.1	<0.5
D-83-707	60	0.1	0.5
AD-83-708	50	0.1	1.5
AD-83-709	46	0.1	2.5
D-83-710	64	0.1	<0.5
AD-83-711	60	0.1	1.90
AD-83-712	42	0.1	1.1
D-83-713	45	0.1	1.6
D-83-714	45	0.2	2.2
AD-83-715	31	0.1	4.2
D-83-716	29	0.1	1.3
D-83-717	38	0.1	5.0
AD-83-718	38	0.1	0.7
AD-83-719	58	0.1	<0.5
D-83-720	33	0.1	<0.5
AD-83-721	35	0.1	0.9
AD-83-722	47	0.1	<0.5
D-83-723	55	0.1	<0.5
AD-83-724	61	0.1	<0.5
AD-83-725	42	0.1	1.4
D-83-726	43	0.1	1.8
D-83-727	43	0.1	<0.5
AD-83-728	50	0.1	<0.5
AD-83-729	49	0.1	<0.5
D-83-730	48	0.1	0.9
AD-83-731	45	0.1	0.6
AD-83-732	45	0.1	<0.5
D-83-733	47	0.3	1.0
AD-83-734	47	0.1	2.6
AD-83-735	54	0.1	<0.5
D-83-736	69	0.1	<0.5
D-83-737	82	0.1	<0.5
AD-83-738	61	0.1	0.6
AD-83-739	48	0.1	0.5
D-83-740	53	0.1	<0.5
AD-83-741	59	0.1	0.7
AD-83-742	53	0.1	5.6
D-83-743	42	0.1	1.2



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S A M P L E	ZN PPM	AS PPM	AU PPB
AD-83-744	32	0.2	1.5
AD-83-745	47	0.1	7.0
AD-83-746	65	0.1	0.9
AD-83-747	59	0.1	<0.5
AD-83-748	63	0.1	<0.5
AD-83-749	48	0.1	<0.5
AD-83-750	76	0.1	0.6
AD-83-751	48	0.1	<0.5
AD-83-752	51	0.1	0.5
AD-83-753	61	0.1	0.9
AD-83-754	62	0.1	1.2
AD-83-755	60	0.1	0.6
AD-83-756	58	0.1	1.2
AD-83-757	74	0.1	1.6
AD-83-758	81	0.1	1.8

Appendix 2



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0  
TELEPHONE: (705) 642-3244  
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 56352 Date: October 28, 1983  
Received October 19, 1983 29 Samples of Ore  
Submitted by M.P.H. Consulting Limited, Toronto, Ontario Attn: Mr. W. Brereton  
Job # C-615 Samples Per: Mr. Simon Bate

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SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM
AD-83-23R	Nil	Nil	16	68
AD-83-24R	Nil	0.2	13	34
AD-83-25R	Nil	0.3	140	41
AD-83-26R	Nil	Nil	50	26
AD-83-27R	Nil	Nil	45	27
AD-83-28R	Nil Nil	Nil	94	18
AD-83-29R	Nil	0.4	190	91
AD-83-30R	Nil	Nil	179	28
AD-83-31R	Nil	Nil	56	17

Per   
G. Lebel - Manager

ESTABLISHED 1928



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 56511

Date: November 11, 1983

Received November 2, 1983 1 Sample of Ore

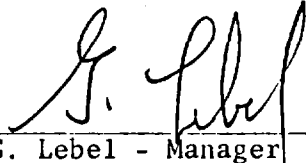
Submitted by M.P.H. Consulting Limited, Toronto, Ontario

Project # C-615

Attn: Mr. W. Brereton

SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM
AD-83-18R	200	Nil	46	34

Per

  
G. Lebel - Manager

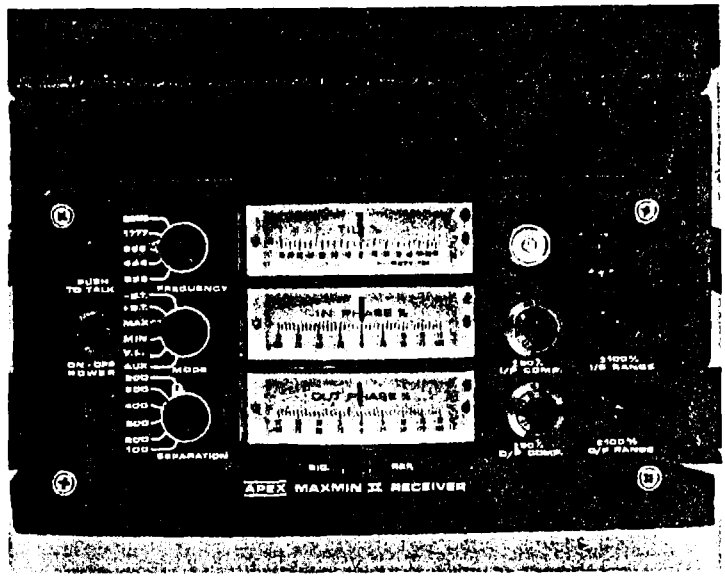
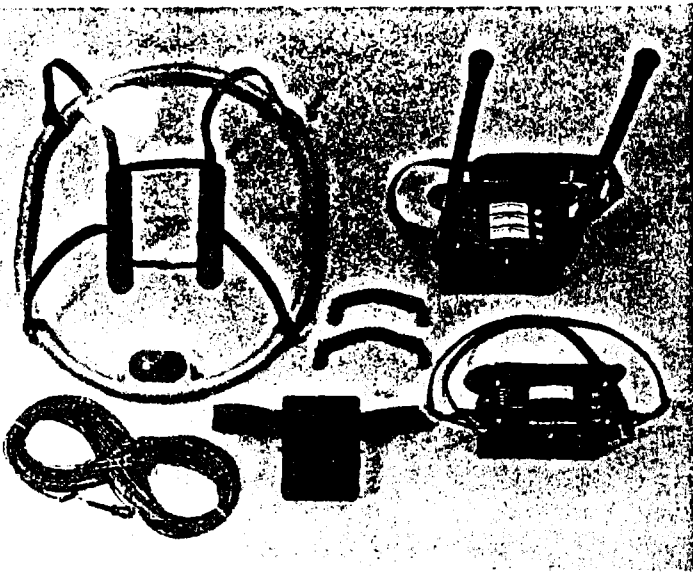
Appendix 3

# APEX

# MAXMIN II PORTABLE EM

- 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 180m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.





## SPECIFICATIONS :

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

**Modes of Operation:** MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. 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. (MMIF).  
 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 VL 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:  $\pm 20\%$ ,  $\pm 100\%$  by push-button switch.  
 Quadrature:  $\pm 20\%$ ,  $\pm 100\%$  by push-button switch.  
 Tilt:  $\pm 75\%$  slope.  
 Null (V.L.): Sensitivity adjustable by separation switch.

**Repeatability:** In-Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.

**Repeatability:**  $\pm 0.25\%$  to  $\pm 1\%$  normally, depending on conditions, frequencies and coil separation used.

**Transmitter Output:** - 222Hz : 220 Atm<sup>2</sup>  
 - 444Hz : 200 Atm<sup>2</sup>  
 - 888Hz : 120 Atm<sup>2</sup>  
 - 1777 Hz : 60 Atm<sup>2</sup>  
 - 3555Hz : 30 Atm<sup>2</sup>

**Receiver Batteries:** 9V trans. 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 and reference warning lights to indicate erroneous readings.

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

**Receiver Weight:** 6kg (13 lbs.)

**Transmitter Weight:** 13kg (29 lbs.)

**Shipping Weight:** Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

**APEX PARAMETRICS LIMITED**  
 200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-966773 NORDVIK TOR

2.6514



32E13NE0036 2.6514 ATKINSON LAKE

900

1984 08 24

1 10 11

Your File: 27-84 & 25-84  
Our File: 2.6514

**Bruce W. Hanley  
Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4H 2S7**

**Dear Sir:**

**RE: Notice of Intent dated July 30, 1984  
Geophysical (Electromagnetic), Geochemical  
Survey and Data for Assaying Survey on  
Mining Claims P 595713 et al in the Lower  
Detour Lake and Atkinson Lake Areas**

---

**The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.**

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

**Yours sincerely,**

**S.E. Yundt  
Director  
Land Management Branch**

**Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1M3  
Phone: (416)965-4888**

**S. Hurst:mc**

**cc: Petromet Resources Ltd  
701 - 14th Street  
Suite 203  
Calgary, Alberta  
T2N 2A4**

**cc: Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario**

**cc: Resident Geologist  
Timmins, Ontario**

**Encl.**





Recorded Holder: PETROMET RESOURCES LTD
Township or Area: LOWER DETOUR AND ATKINSON LAKE AREA

Table with 2 columns: Type of survey and number of Assessment days credit per claim; Mining Claims Assessed. Includes categories like Geophysical, Geological, Geochemical and checkboxes for special provisions.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims
[X] not sufficiently covered by the survey
[ ] Insufficient technical data filed
P 595668-86-98

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)—80:



Recorded Holder <b>PETROMET RESOURCES LTD</b>
Township or Area <b>LOWER DETOUR AND ATKINSON LAKE AREA</b>

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ <b>17</b> days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<b>P 595713 to 716 inclusive</b> <b>595719</b> <b>595665</b> <b>595720-21-22</b> <b>595724 to 728 inclusive</b> <b>595732 to 735 inclusive</b> <b>595737 to 740 inclusive</b> <b>595664-66</b> <b>595669 to 675 inclusive</b> <b>595682 to 686 inclusive</b> <b>595688 to 691 inclusive</b> <b>595693</b> <b>595697-98-99</b>

**Special credits under section 77 (16) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey       Insufficient technical data filed

**P 595687**

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)—60:



Ministry of  
Natural  
Resources

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

# 27/84

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." column.  
- Do not use shaded areas below.

The Mining Act

man 18

Type of Survey(s) <b>Horizontal Loop Electromagnetic Survey</b>	Township or Area <b>Lower Detour L./Atkinson L.</b>
--	--

Claim Holder(s) <b>Petromet Resources Ltd.</b>	Prospector's Licence No. <b>T 1011</b>
---	---

Address  
**701-14th Street, Suite 203, Calgary, Alberta T2N 2A4**

Survey Company <b>MPH Consulting Limited</b>	Date of Survey (from & to) Day   Mo.   Yr.   Day   Mo.   Yr. <b>9   83   10   83</b>	Total Miles of line Cut
---	--	-------------------------

Name and Address of Author (of Geo-Technical report)  
**S.J. Bate, J.M. Siriunas, 120 Adelaide St. W., Toronto, Ontario M5H 1T1**

Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence)

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

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

**RECORDED**  
JAN 18 1984  
RECEIVED No. *CP*

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

Expenditures (excludes power stripping)

Type of Work Performed  
**EM**

Performed on Claim(s)  
**1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 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1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 281**



Ministry of  
Natural  
Resources

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

# 25/84

The 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.

man 18/84

2.6514

Type of Survey(s) <b>Biogeochemical Survey</b>		Township or Area <b>Lower Detour L./Atkinson</b>	
Claim Holder(s) <b>Petromet Resources Ltd.</b>		Prospector's Licence No. <b>T 1011</b>	
Address <b>701-14th St., N.W., Suite 203 Calgary, Alberta T2N 2A4</b>			
Survey Company <b>MPH Consulting Limited</b>		Date of Survey (from & to) Day   Mo.   Yr.   Day   Mo.   Yr. <b>9   83   9   83</b>	Total Miles of line Cut
Name and Address of Author (of Geo-Technical report) <b>S.J. Bate, J.M. Siriunas, 120 Adelaide St. W., Toronto, Ontario M5H 1P2</b>			

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

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

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

Airborne Credits	Days per Claim
Notes: Special provisions credits do not apply to Airborne Surveys.	

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
	595715 ✓	<del>10</del>		595715	
	595716 ✓	<del>10</del>		595716	
	595719 ✓	<del>10</del>		595719	
	595720 ✓	<del>10</del>		595720	
	595727 ✓	<del>10</del>		595727	
	595728 ✓	30			
	595732 ✓	25			
	595740 ✓	30			
	595664 ✓	35			
	595665 ✓	30			
	595666 ✓	30			
	595668 ✓	35			
	595669 ✓	20			
	595685 ✓	20			
	595686 ✓	20			
	595687 ✓	20			
	595688 ✓	20			
	595698 ✓	35			
	595699 ✓	30			

**RECORDED**  
JAN 18 1984  
Receipt No. 1

Expenditures (excludes power stringing)

Type of Work Performed  
**Biogeochemical Survey**

Performed on Claim(s)  
**220 A 77-19**

Calculation of Expenditure Days Credits	Total Days Credits
Total Expenditures <b>\$ 5,696.25</b>	
<b>+</b> <b>15</b>	<b>= 380</b>

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.

*See Reversed statement*

For Office Use Only		Mining Recorder	
Total Days Cr. Recorded	Date Recorded	[Signature]	Branch Director Mining Recorder
	<b>Jan 18/84</b>		
Date Approved as Recorded			

Date: **JAN 15/84**

Recorded Holder or Agent (Signature): *[Signature]*

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  
**W.E. BRETTE PEU; 2406 - 120 Adelaide St W. Toronto M5H 1T2**

Date Certified: **Jan 15/84**

Certified by (Signature): *[Signature]*

19



Recorded Holder <b>PETROMET RESOURCES LTD</b>
Township or Area <b>LOWER DETOUR AND ATKINSON LAKE AREA</b>

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days  Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/>  <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<b>\$5,696.25 SPENT ON ASSAYINGS TAKEN FROM MINING CLAIMS:</b> P 595728-32-40 595664-65-66-69 595685-87-88 595699 595715-16-19-20-27  <b>380 DAYS CREDIT ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 77(19)</b>

**Special credits under section 77 (16) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey                       Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)—60:



Aug 14/84

1984 07 30

Your File: 27-84, 25-84  
Our File: 2.6514

Bruce W. Hanley  
Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:


Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

  
S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3

 S. Hurst:mc

Encls.

cc: Petromet Resources Ltd  
701 - 14th Street  
Suite 203  
Calgary, Alberta  
T2N 2A4

cc: Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario



Ministry of  
Natural  
Resources

**Notice of Intent  
for Technical Reports**

**1984 07 30**

**2.6514/27-84,25-84**

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

0-93000-1370

FOR DEPOSIT ONLY TO ACCOUNTS  
OPENED AT A BANK OR FINANCIAL INSTITUTION

NUCLEAR ACTIVATION SERVICES LIMITED

*Max C. Ford*  
TREASURER

POP D POSTAL ACCOUNT OF CANADIAN EXPRESS BANK OF COMMERCE WINDSOR HAMILTON, ONT. 00562-010	ADDRESSEE'S NAME ADDRESS CITY PROVINCE POSTAL CODE
---	--

THE BANK OF

05201172





Ministry of  
Natural  
Resources

C-615

FILED  
Mining Branch

June 27, 1984

*Assay  
Receipt*

Your file:

Our file:

2.6514

Petromet Resources Ltd.  
Suite 203  
701-14th Street  
Calgary, Alberta  
T2N 2A4

*Swishka  
NAS.*

Dear Sir:

**RE: Geophysical (Electromagnetic), Geochemical Survey  
and Data for Assaying on Mining Claims P 595713 et  
al in Lower Detour Lake and Atkinson Lake Areas**

In order to complete the above described submission,  
please provide, in duplicate, proof of payment (receipts  
or cancelled cheques) for the \$5,696.25 expenditure  
credits claimed.

Please submit this information quoting file 2.6514.

For further information, please contact Mr. Ray Pichette  
at (416) 965-4888.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

*send to*

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416) 965-4888

S. Hurst:em

cc: Mining Recorder  
Timmins, Ontario

RECEIVED

JUL 25 1984

MINING LANDS SECTION

NUCLEAR ACTIVATION SERVICES LIMITED

1280 MAIN STREET WEST, HAMILTON, ONTARIO L8S 4K1

PHONE 416-522-5666

TELEX 06-986947

INVOICE 2106

REF. FILE 3247-

22-NOV-83

TO: MPH CONSULTING LIMITED  
ATTN: J.M. SIRUNAS  
120 ADELAIDE ST. W. SUITE 2406  
TORONTO, ONTARIO  
M5H 1W5

CUSTOMER NO. 23

DATE SUBMITTED  
24-OCT-83

465 HUMUS SAMPLES

YOUR PROJECT C-615

WERE ANALYSED.

METHOD	CODE	UNIT COST	AMOUNT
465 AU, AS, ZN HMNA-U LOW DL	6, 2	10.50	4982.50
465 MACERATE & BLEND TWIGS	675		813.75
PAYABLE IN CDN FUNDS			\$ 5676.25

70<sup>c</sup> prep  
 Au 65c  
 Cu } - 2.30  
 As } - .95  
 total metal 2.00 more

*paid*

R-7442

PLEASE RETURN WITH PAYMENT

TERMS NET 30 DAYS



**MPH Consulting Limited**

Suite 2406  
120 Adelaide Street West  
Toronto, Canada M5H 1T1

No. 4862

Toronto **DEC 30 1983** 19

Pay to the Order of **Nuclear Activation Services Limited**

**\$5,696.25**

----- **Five Thousand, Six Hundred and Ninety-six** ----- 25/100 Dollars

Canadian Imperial  
Bank of Commerce  
Bay & Richmond  
375 Bay Street  
Toronto, Ontario  
M5H 2V5

Per: 

Per: 

⑆00 10 2-0 10⑆ 67-344 13⑆

⑆00005696 25⑆

June 27, 1984

2.6514

Petromet Resources Ltd.  
Suite 203  
701-14th Street  
Calgary, Alberta  
T2N 2A4

Dear Sir:

RE: Geophysical (Electromagnetic), Geochemical Survey  
and Data for Assaying on Mining Claims P 595713 et  
al in Lower Detour Lake and Atkinson Lake Areas

In order to complete the above described submission,  
please provide, in duplicate, proof of payment (receipts  
or cancelled cheques) for the \$5,696.25 expenditure  
credits claimed.

Please submit this information quoting file 2.6514.

For further information, please contact Mr. Ray Pichette  
at (416) 965-4888.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416) 965-4888

S. Hurst:em

cc Mining Recorder  
Timmins, Ontario



Mining Lands Comments


To: Geophysics Mr. Barlow.

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date May 14/84	Signature RRL
--	---	----------------	---------------

To: Geology - Expenditures

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
-----------------------------------	---	------	-----------

To: Geochemistry DR. FORTESCUE.

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date May 28 <sup>th</sup> 1984	Signature JRA (Fortescue)
--	---	--------------------------------	---------------------------

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

- Apr. 2/84 - D.K..

ADDRESS:

Approved Reports of Work  
sent out

Notice of Intent filed

Approval after Notice of Intent  
sent out

Duplicate sent to Resident  
Geologist

Duplicate sent to A.F.R.O.

1984 03 23

Your File: 25 & 27  
Our File: 2.6514

**Mr. Bruce Hanley  
Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7**

**Dear Sir:**

**We have received reports and maps for a Geophysical (Electromagnetic) and Geochemical Survey submitted under Special Provisions (credit for Performance and Coverage) and Data for Assaying on Mining Claims P 595664 et al in the Areas of Lower Detour Lake and Atkinson Lake.**

**This material will be examined and assessed and a statement of assessment work credits will be issued.**

**Yours sincerely,**

**S.E. Yundt  
Director  
Land Management Branch**

**Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416)965-6918**

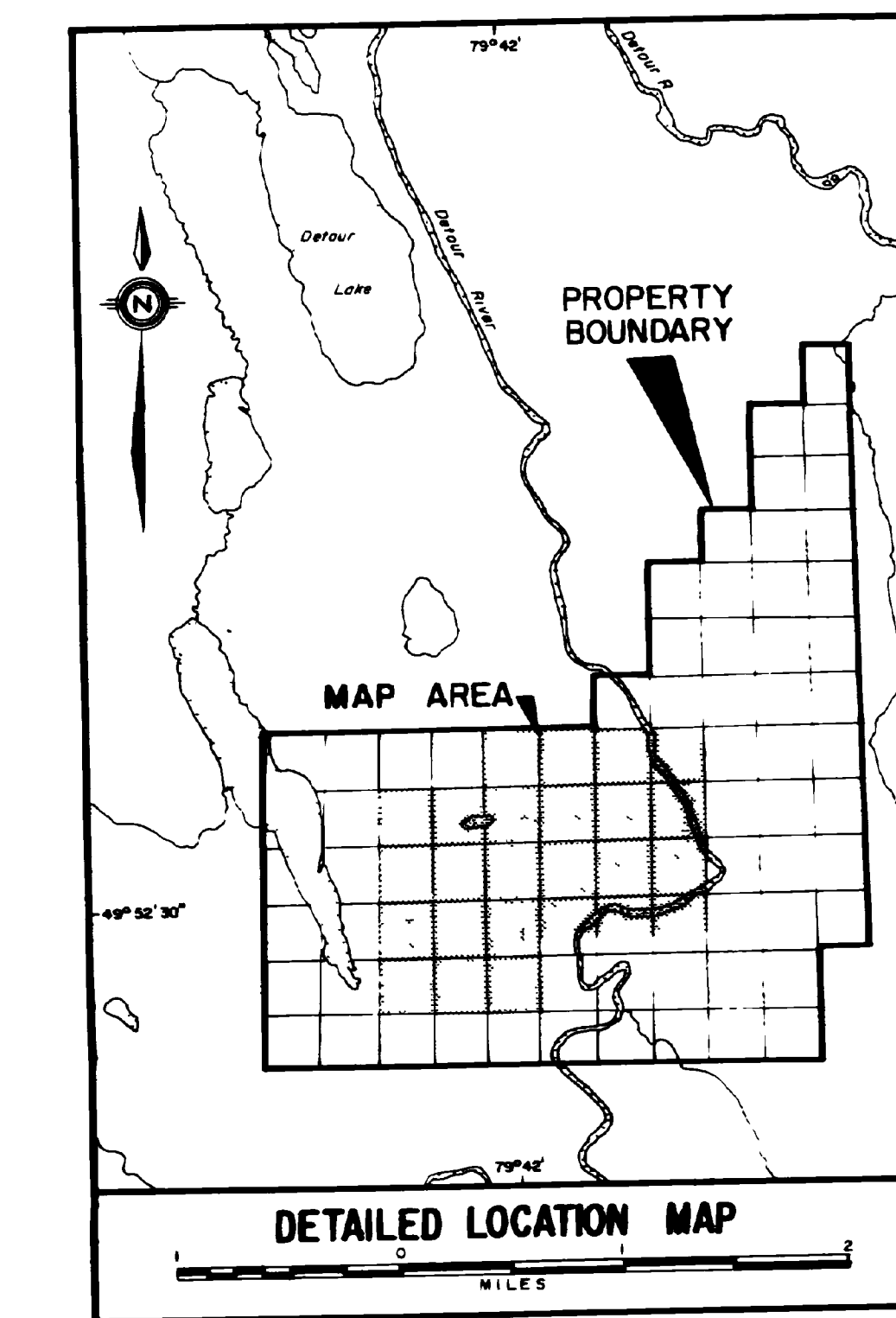
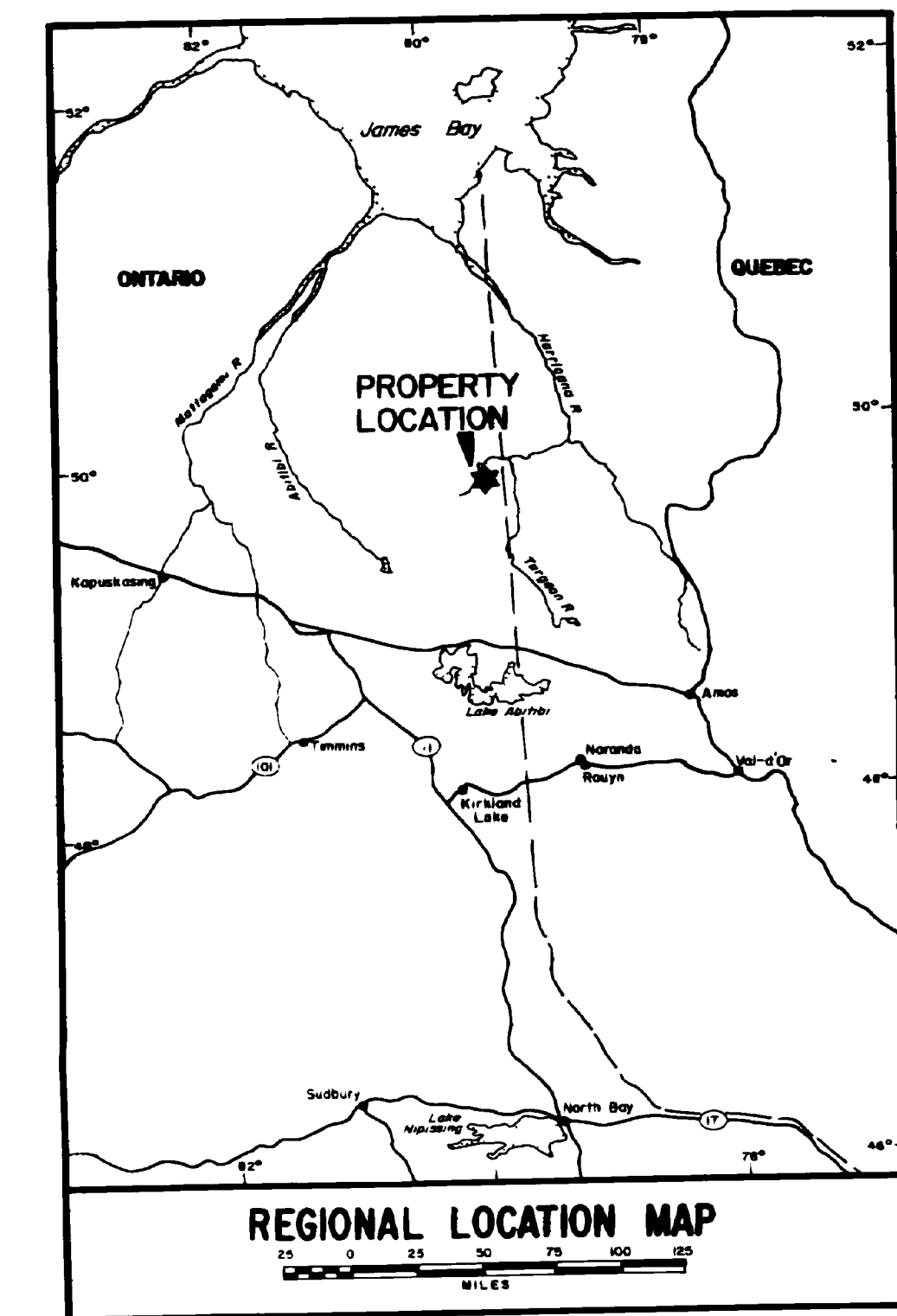
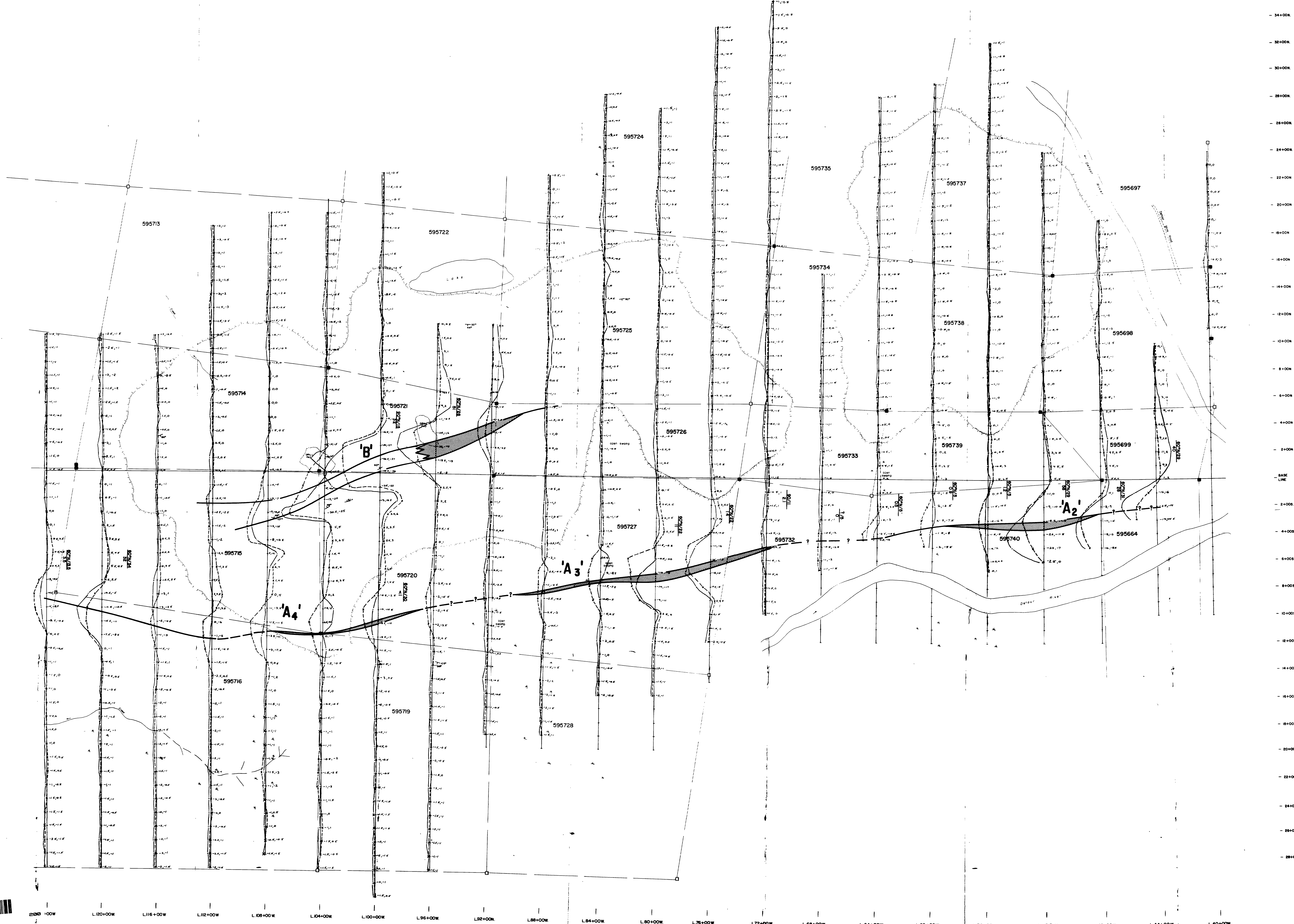
**A. Barr:mc**

**cc: Petromet Resources Ltd  
701 - 14 St. N.W.  
Suite 203  
Calgary, Alberta  
T2N 2A4**

**cc: M/P.H. Consulting Ltd  
120 Adelaide Street West  
Toronto, Ontario  
M5H 1T1  
Attention: S.J. Bate  
J.M. Sirunas**

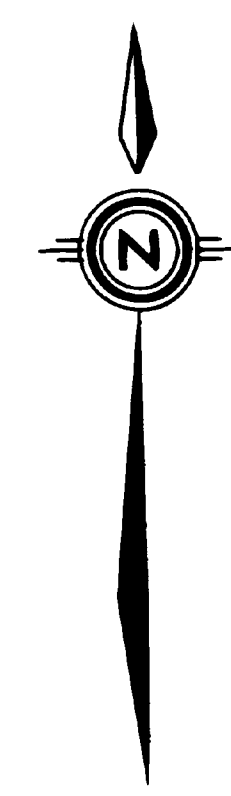
AM		EM		26514	
595713	1/4	595682	1/4		GC #
14	✓	83	✓	595728	✓
15	✓	84	✓	732	✓
16	✓	85	✓	740	✓
19	✓	86	NC	664	✓
595665	✓	87	1/4	65	✓
595720	✓	88	✓	66	✓
21	✓	89	✓	668	NC
22	1/4	90	✓	69	✓
724	1/2	91	1/4	685	✓
25	✓	693	3/4	86	NC
26	✓	697	3/4	87	✓
27	✓	98	1/4	88	✓
28	1/2	99	✓	698	NC
732	1/2		9:25	99	✓
33	✓				
34	✓	<del>44 × 20 = 880</del>			GC
35	1/2	<del>900 ÷ 54.25 = 16.5</del>		595715	✓
737	1/4			16	✓
38	✓	44 × 20 = 880		719	✓
39	✓	880 ÷ 53.25 = 16.5		20	✓
40	1/2	(17)		727	✓
595664	1/2				
666	✓				
669	✓				
670	✓				
71	✓				
72	✓				
73	3/4				
74	3/4				
75	1/2				





**LEGEND**

INSTRUMENT:	Apex Parametrics Max Min II
FREQUENCY:	444 Hz.
CABLE LENGTH:	400 FT.
	Profile Scale
	Plotting Designation
	Inphase Profile
	Quadrature Profile
	Depth (meters)
	Conductivity (microhm-cm)
	Anomaly Width
	Root
	Claim post, located
	Claim post, assumed
	Claim line
	Hill
	Swamp
	Creek showing flow
	River
	Lake
	Drill site
	Strike and dip



26514

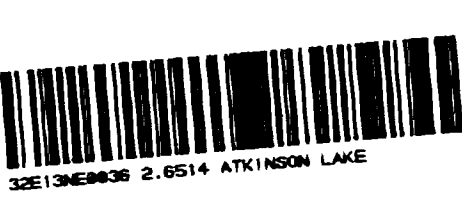
**AUDAX GAS AND OIL LTD.**

**DETOUR LAKE PROJECT**

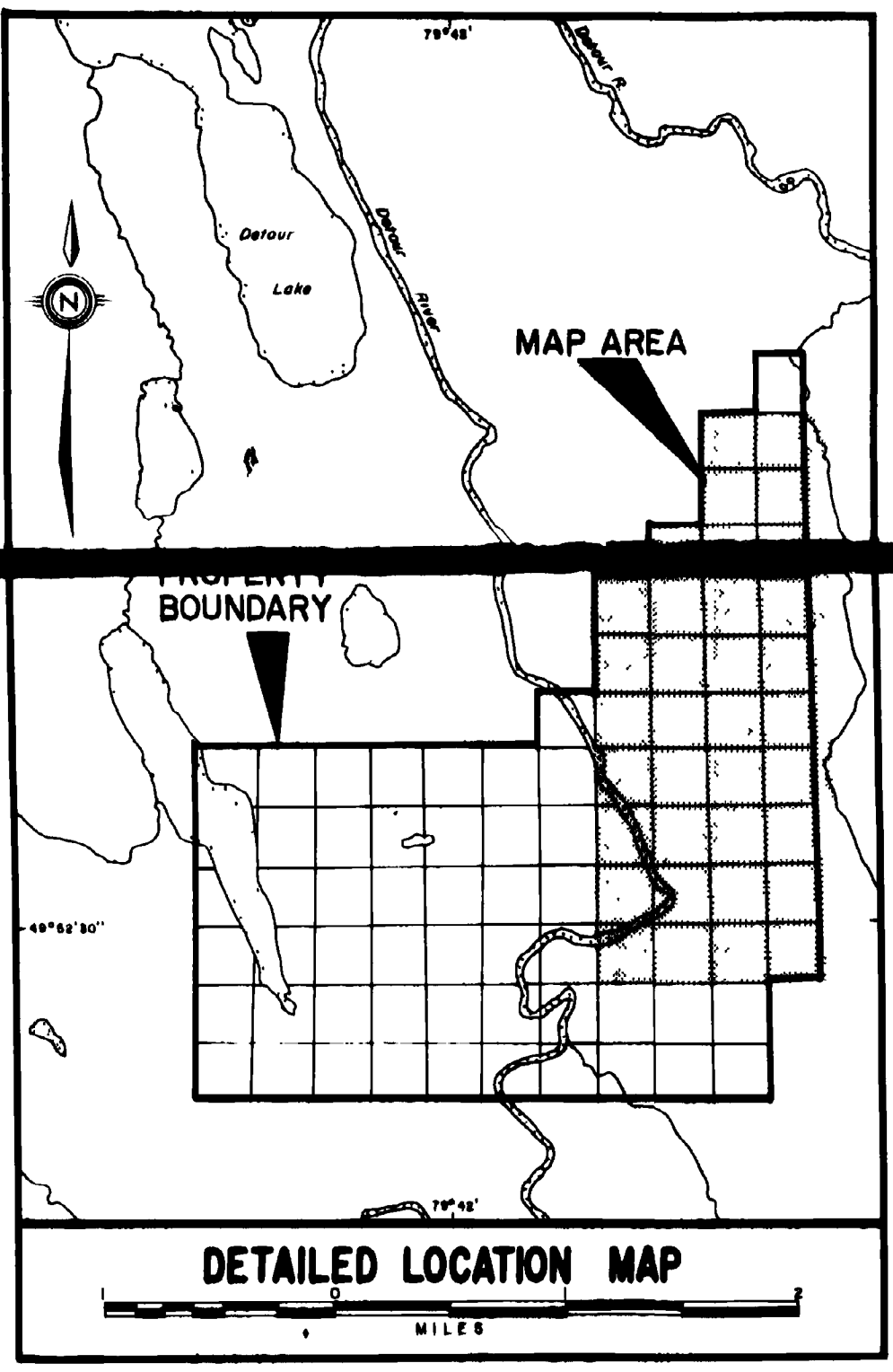
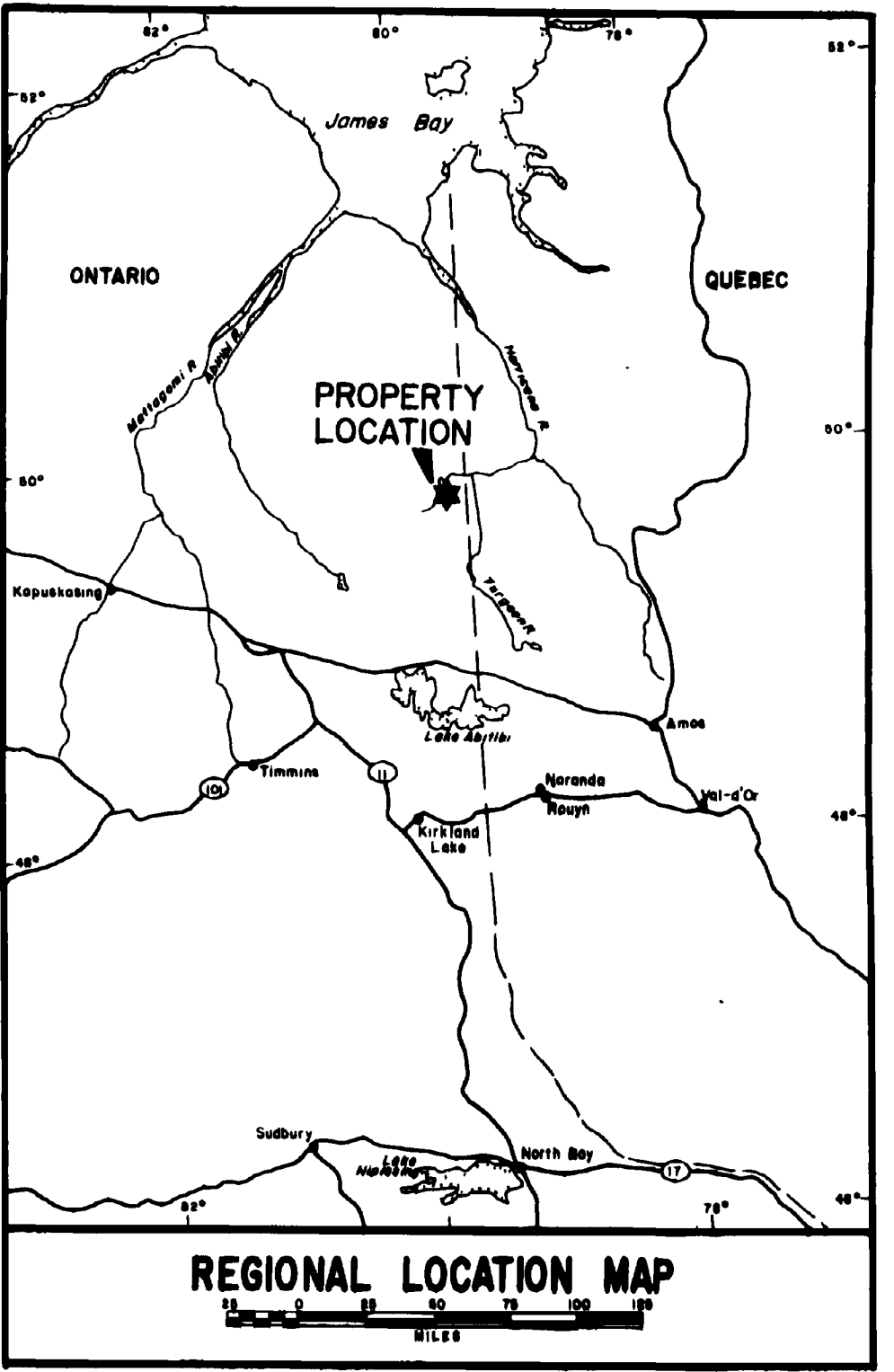
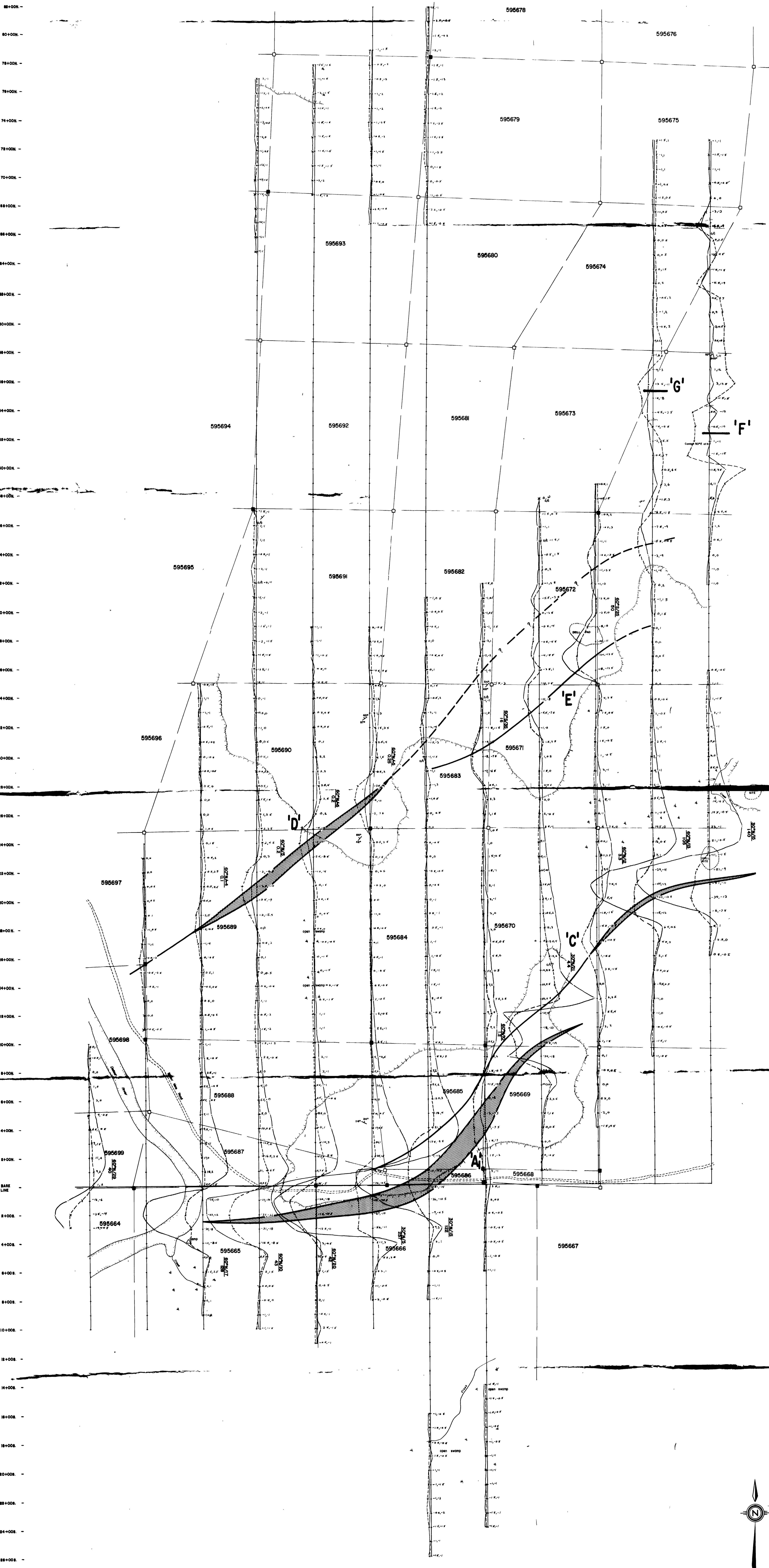
**MAX MIN II PROFILES (444Hz)**

Project No. C-65	By: S. Bell
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No. 1	Date: October, 1983

**MPH Consulting Limited**







**LEGEND**

- |               |                                 |
|---------------|---------------------------------|
| INSTRUMENT:   | Apex Parametric Max Min II      |
| FREQUENCY:    | 444 Hz.                         |
| CABLE LENGTH: | 400 Ft.                         |
|               | Profile Scale                   |
|               | Plotting Designation            |
|               | Impress Profile                 |
|               | Quadrature Profile              |
|               | Substrate/Depth Interval        |
|               | Conductivity Thickness Interval |
|               | Anomaly Width                   |
|               | Road                            |
|               | Claim post, located             |
|               | Claim post, assumed             |
|               | Claim line                      |
|               | Outcrop                         |
|               | Hill                            |
|               | Swamp                           |
|               | Creek showing flow              |
|               | River                           |
|               | Lake                            |
|               | Drill site                      |
|               | Strike and dip                  |



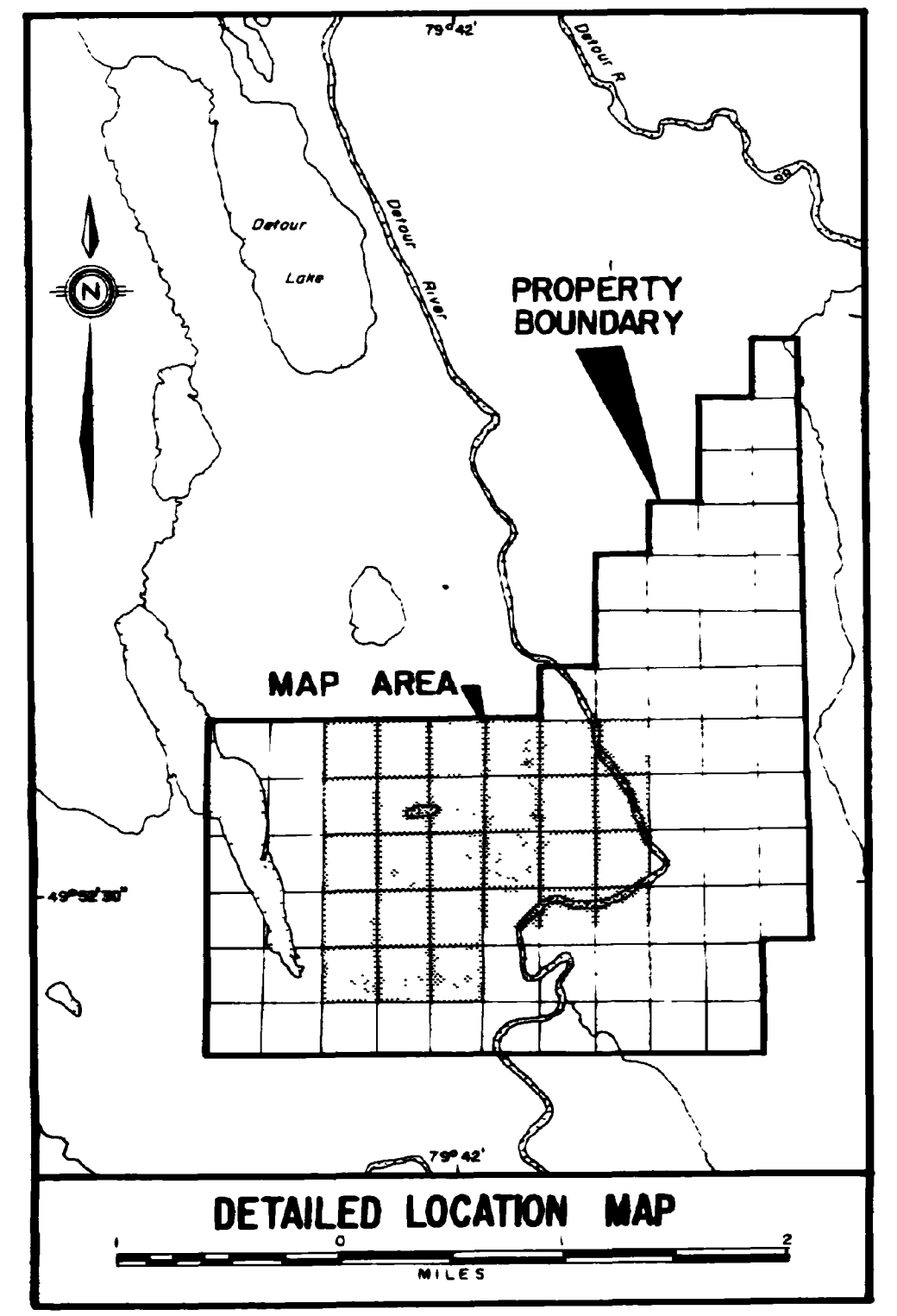
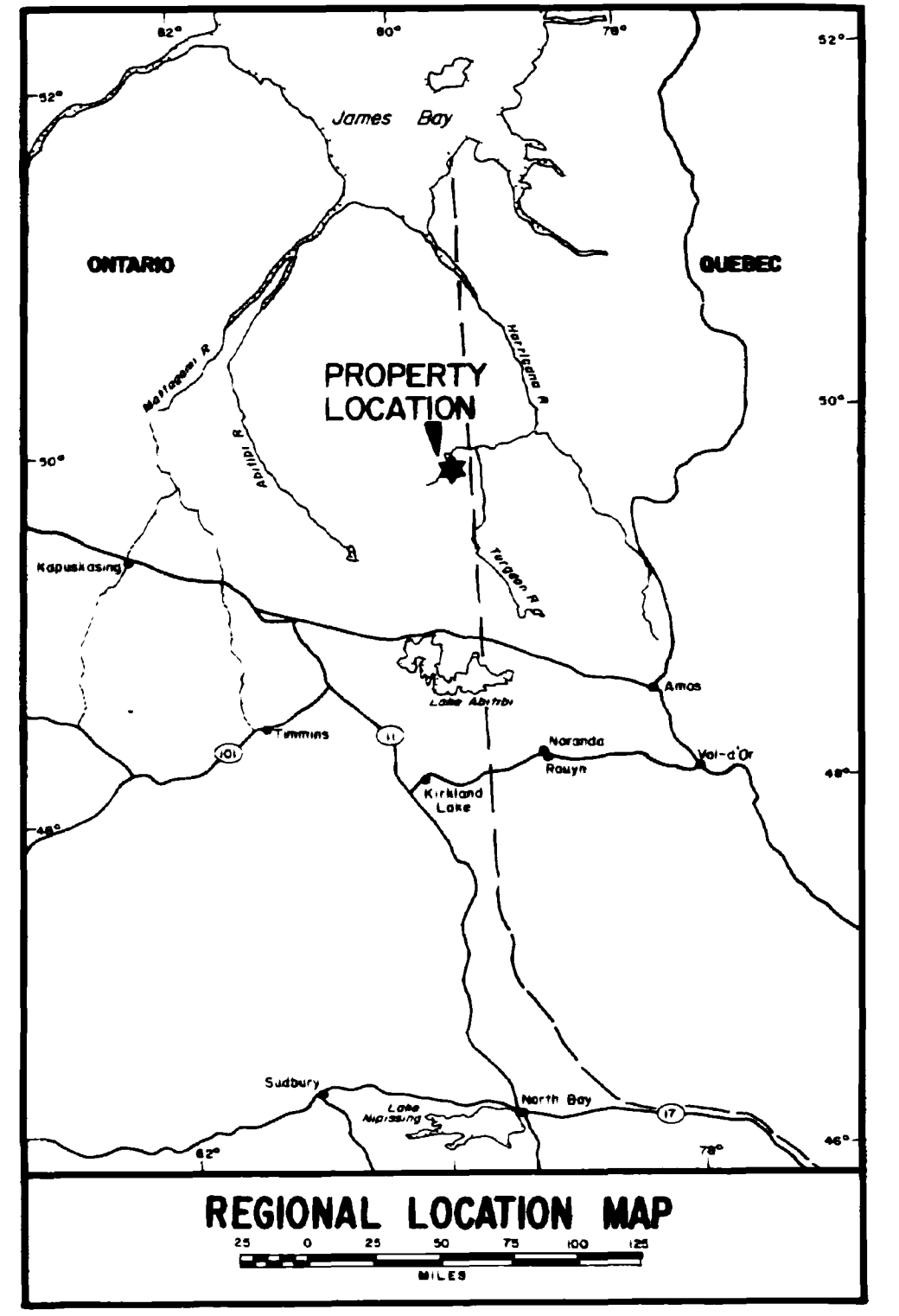
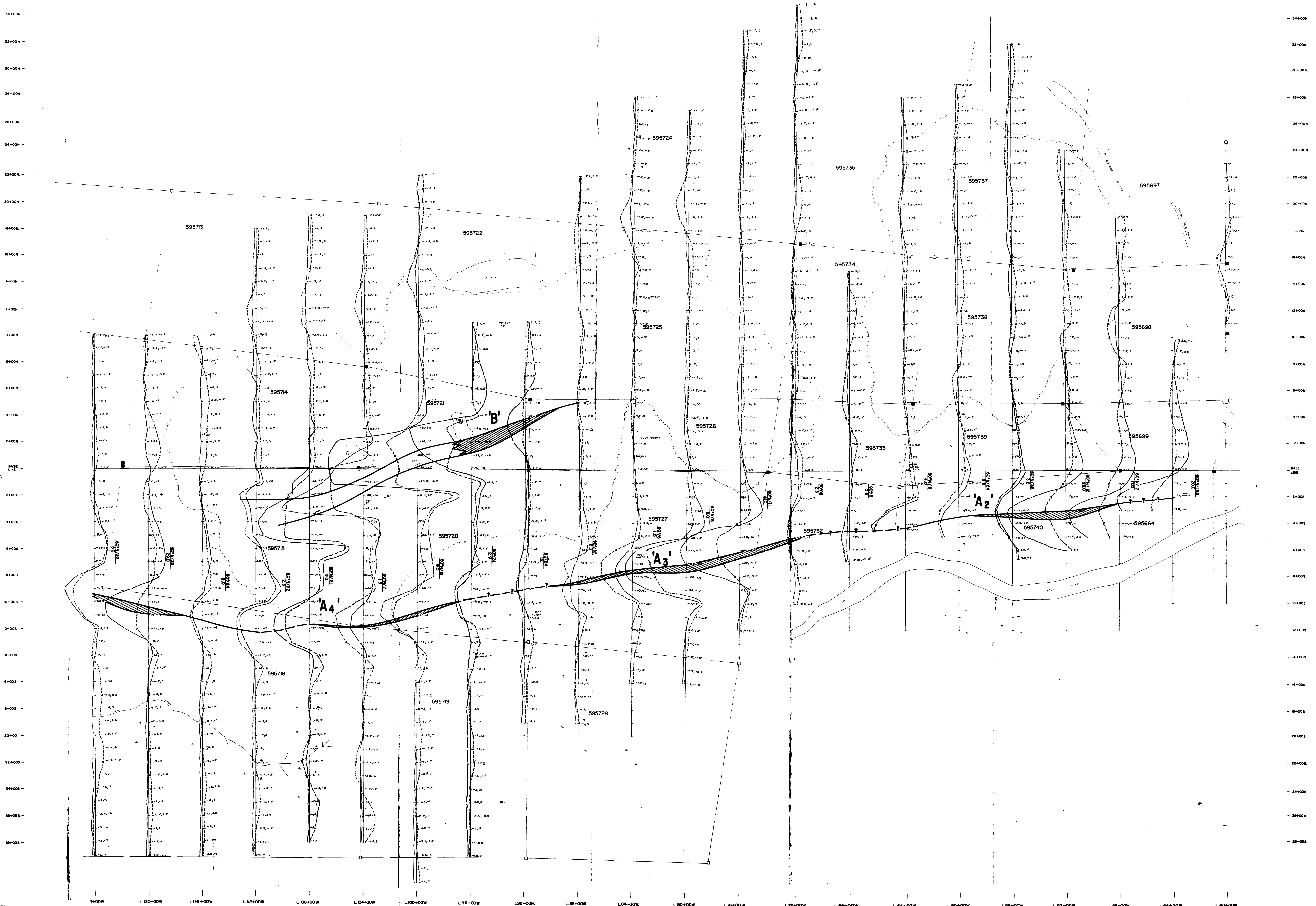
26514

**AUDAX GAS AND OIL LTD.**  
**DETOUR LAKE PROJECT**  
**MAX MIN II PROFILES (444 Hz)**

Project No. C-615	By: S. Bots
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No. 2	Date: October, 1993

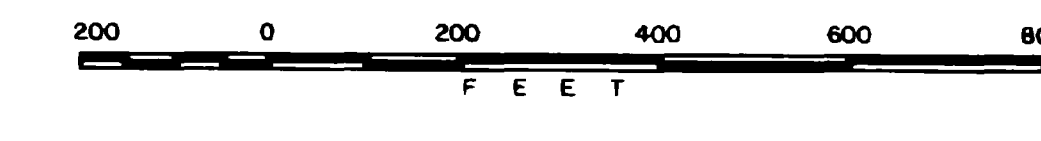
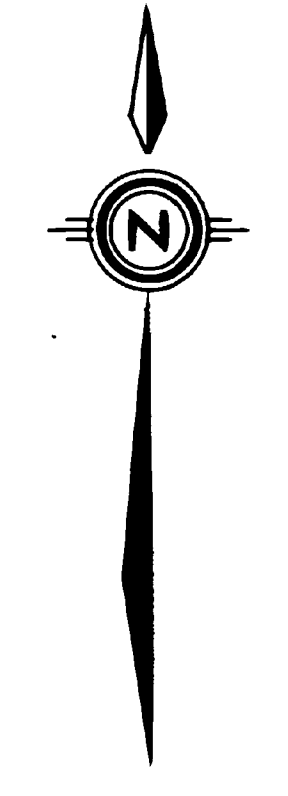






**LEGEND**

- |               |                               |
|---------------|-------------------------------|
| INSTRUMENT:   | Apex Parametric Max Min II    |
| FREQUENCY:    | 1777 Hz                       |
| CABLE LENGTH: | 400 FT.                       |
|               | Profile Scale                 |
|               | Plotting Designation          |
|               | Inphase Profile               |
|               | Quadrature Profile            |
|               | Displacement/Depth (meters)   |
|               | Conductivity Thickness (ohms) |
|               | Anomaly Width                 |
|               | Root                          |
|               | Clam post, located            |
|               | Clam post, assumed            |
|               | Clam line                     |
|               | Hill                          |
|               | Swamp                         |
|               | Creek showing flow            |
|               | River                         |
|               | Lake                          |
|               | Drill site                    |
|               | Strike and dip                |



26514

**AUDAX GAS AND OIL LTD.**

**DETOUR LAKE PROJECT**

**MAX MIN II PROFILES (1777Hz)**

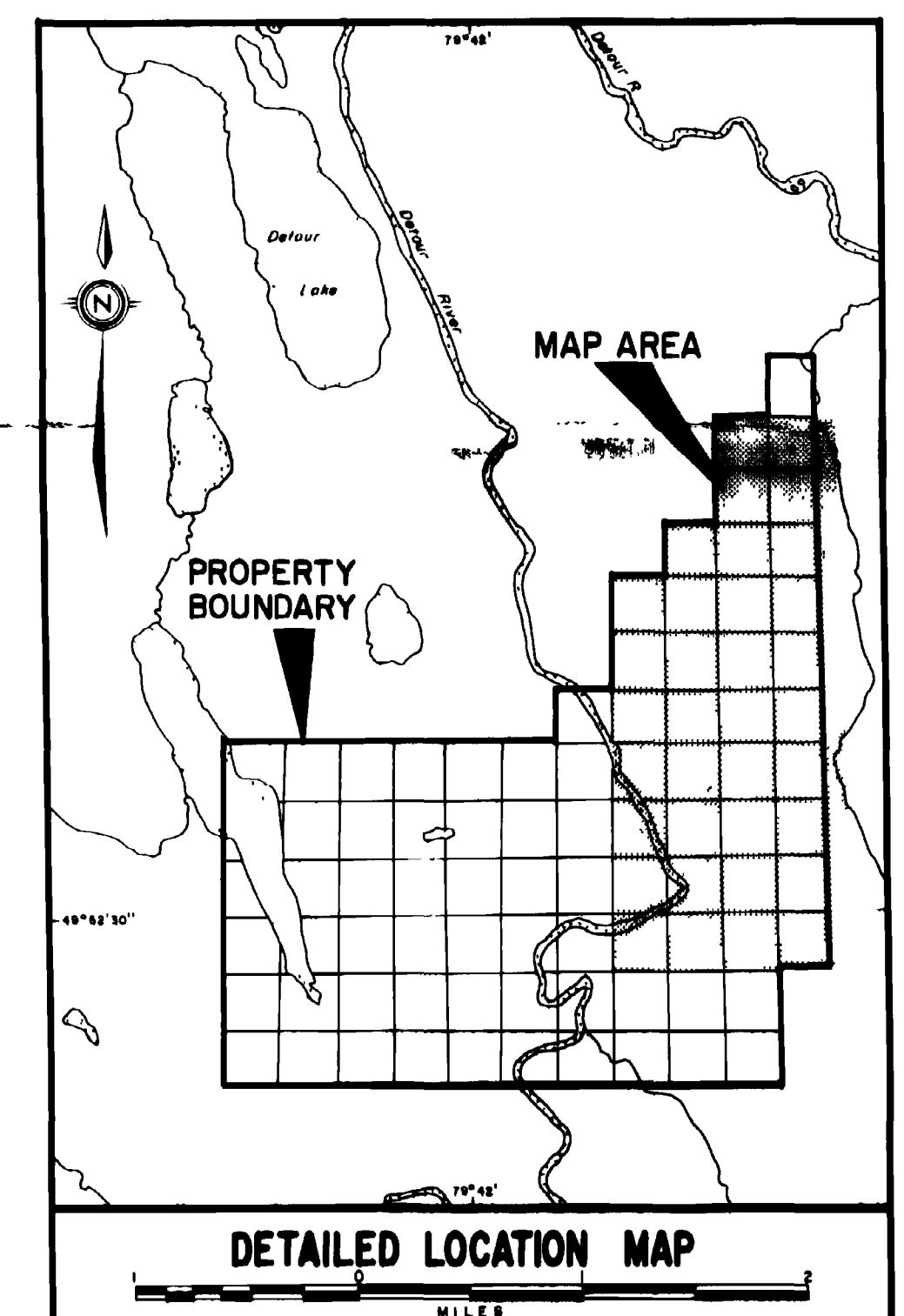
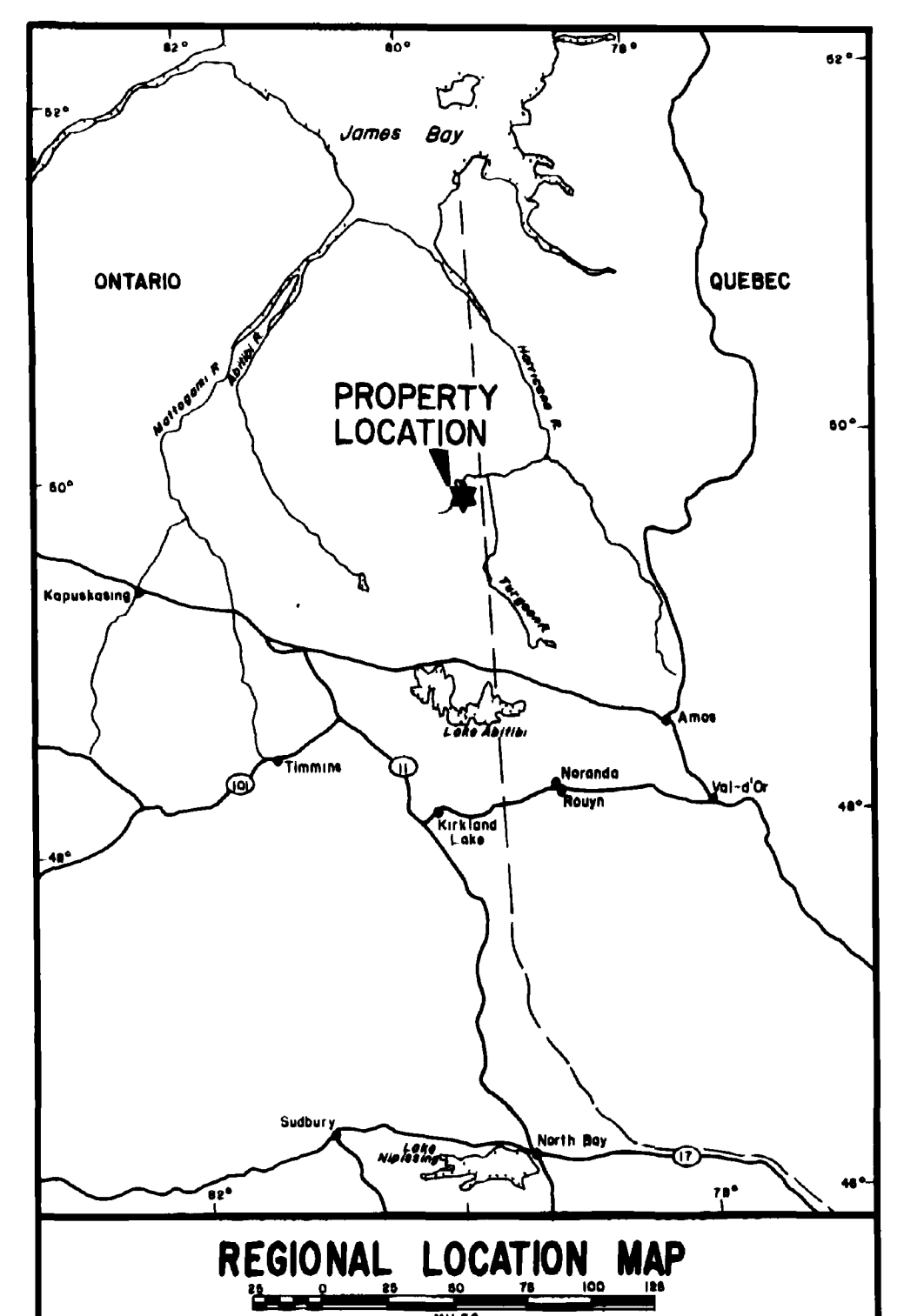
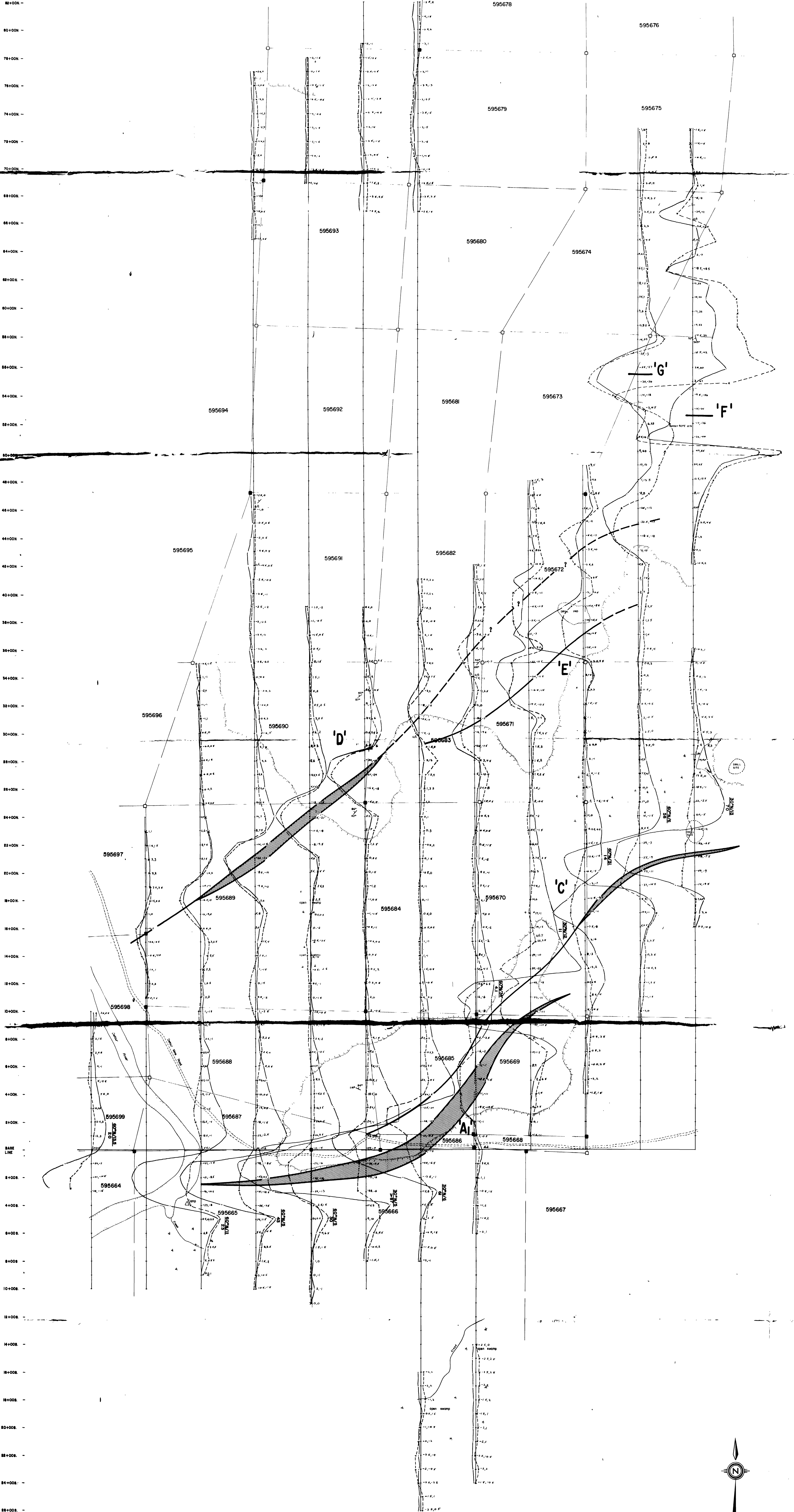
Project No. C-65	By: S. Galt
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No. 3	Date: October, 1983

**MPH Consulting Limited**



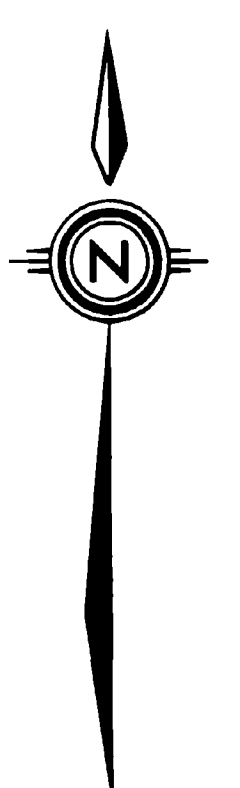


L 44+00W L 40+00W L 36+00W L 32+00W L 28+00W L 24+00W L 20+00W L 16+00W L 12+00W L 8+00W L 4+00W L 0+00



LEGEND

- INSTRUMENT: Apex Parametrics Max Min II
- FREQUENCY: 1777 Hz.
- CABLE LENGTH: 400 Ft.
- Profile Scale
- Plotting Designation
- Inphase Profile
- Quadrature Profile
- Dip (degrees)/Depth (metres)  
Conductivity Thickness (Mhos)
- Anomaly Width
- Road
- Claim post, located
- Claim post, assumed
- Claim line
- Outcrop
- Hill
- Swamp
- Creek showing flow
- Lake
- Drill site
- Strike and dip



26514

**AUDAX GAS AND OIL LTD.**  
**DETOUR LAKE PROJECT**  
**MAX MIN II PROFILES (1777Hz)**

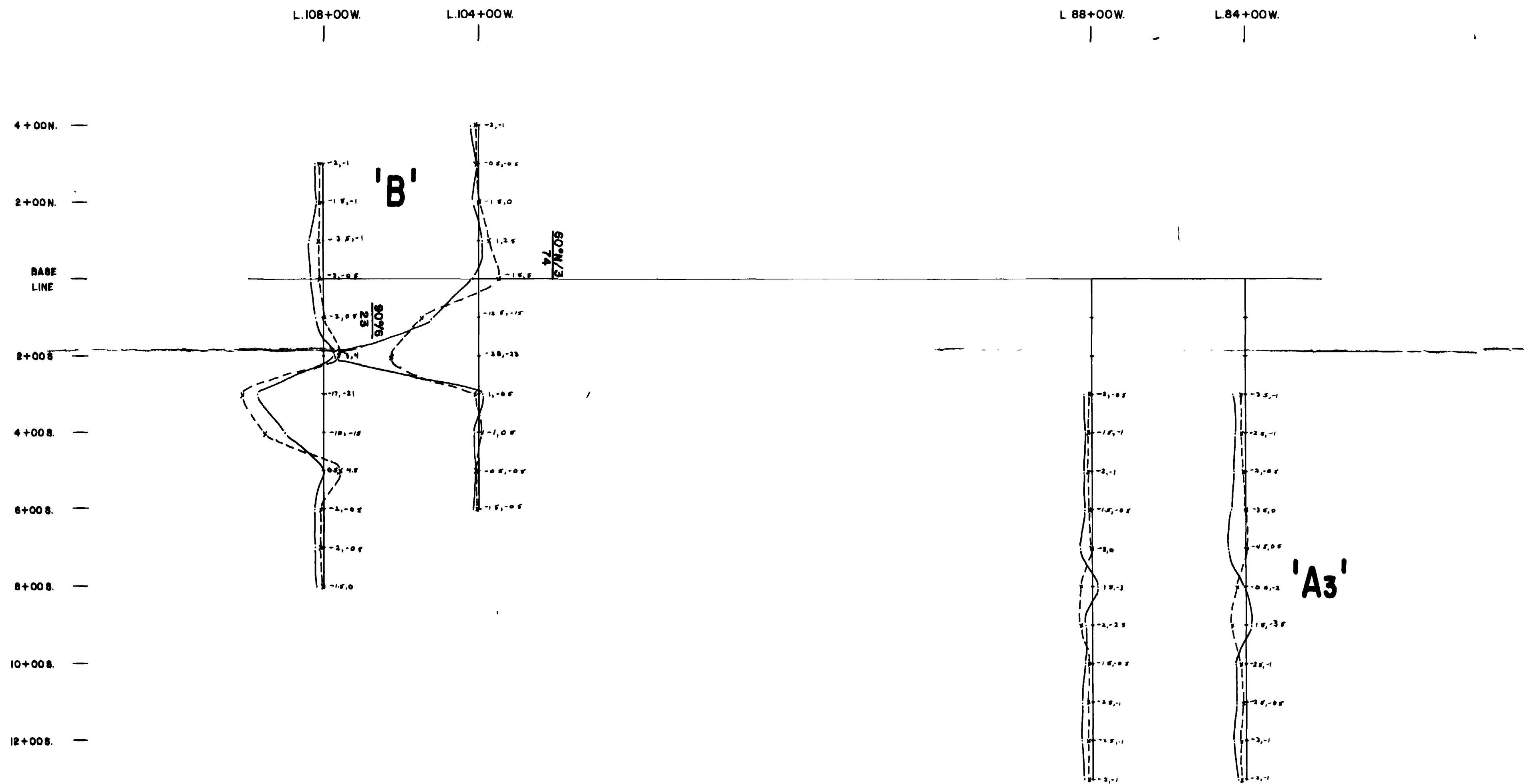
Project No. C-615	By: S. Bots
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No. 4	Date: October, 1983

**MPH Consulting Limited**

L 44+00W L 40+00W L 36+00W L 32+00W L 28+00W L 24+00W L 20+00W L 16+00W L 12+00W L 8+00W L 4+00W L 0+00

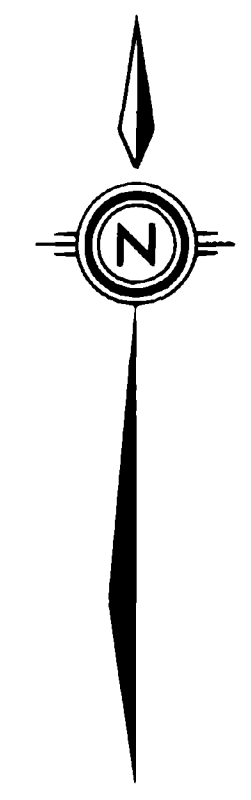
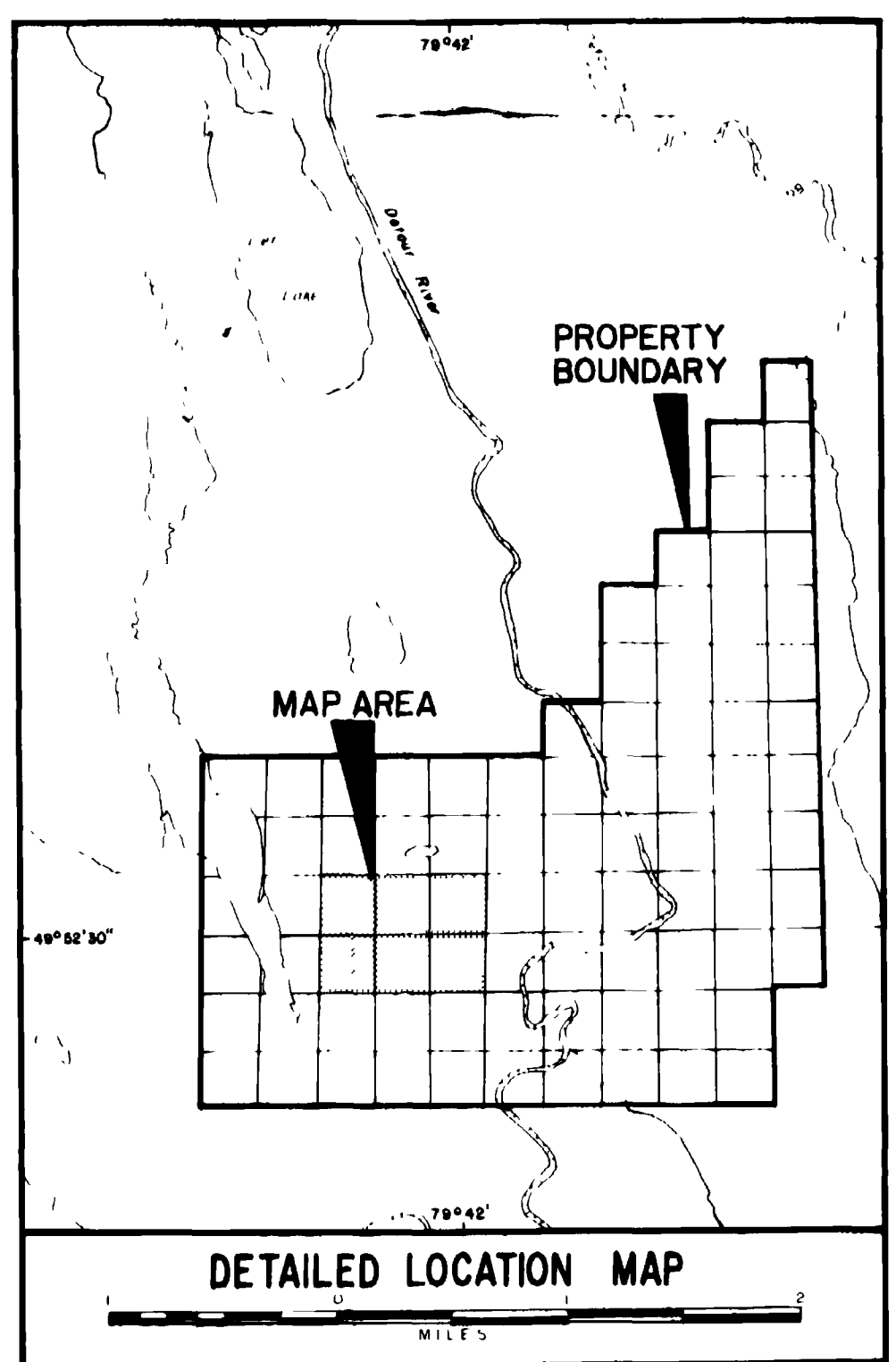
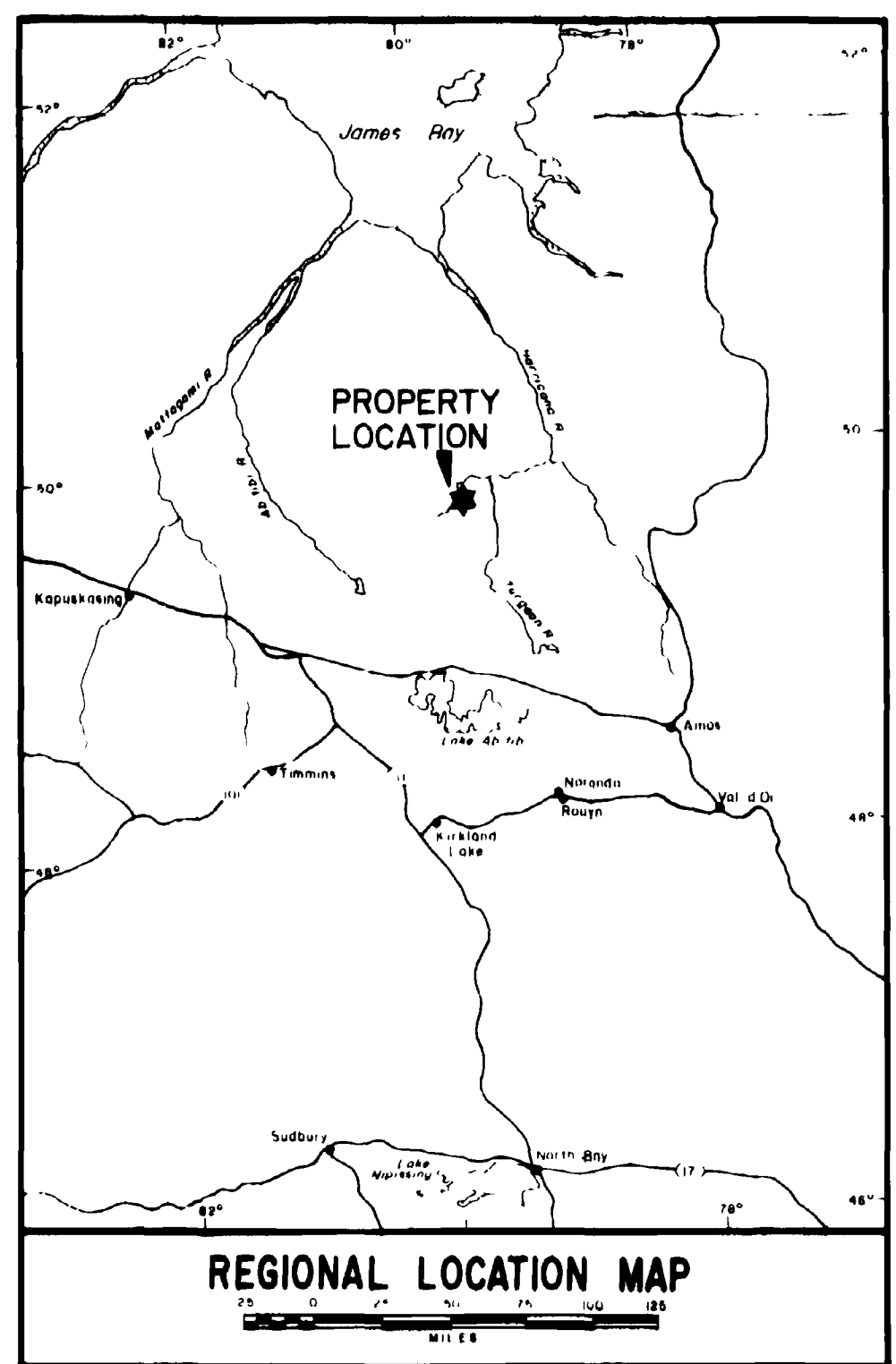


SHEET INDEX



**LEGEND**

INSTRUMENT	Apex Parametrics Max Min II
FREQUENCY	444Hz.
CABLE LENGTH	200 Ft
	Profile Scale
	Plotting Designation
	Inphase Profile
	Quadrature Profile
	Dip(degrees)/Depth(metres)
	Conductivity Thickness (Mhos)
	Anomaly Width



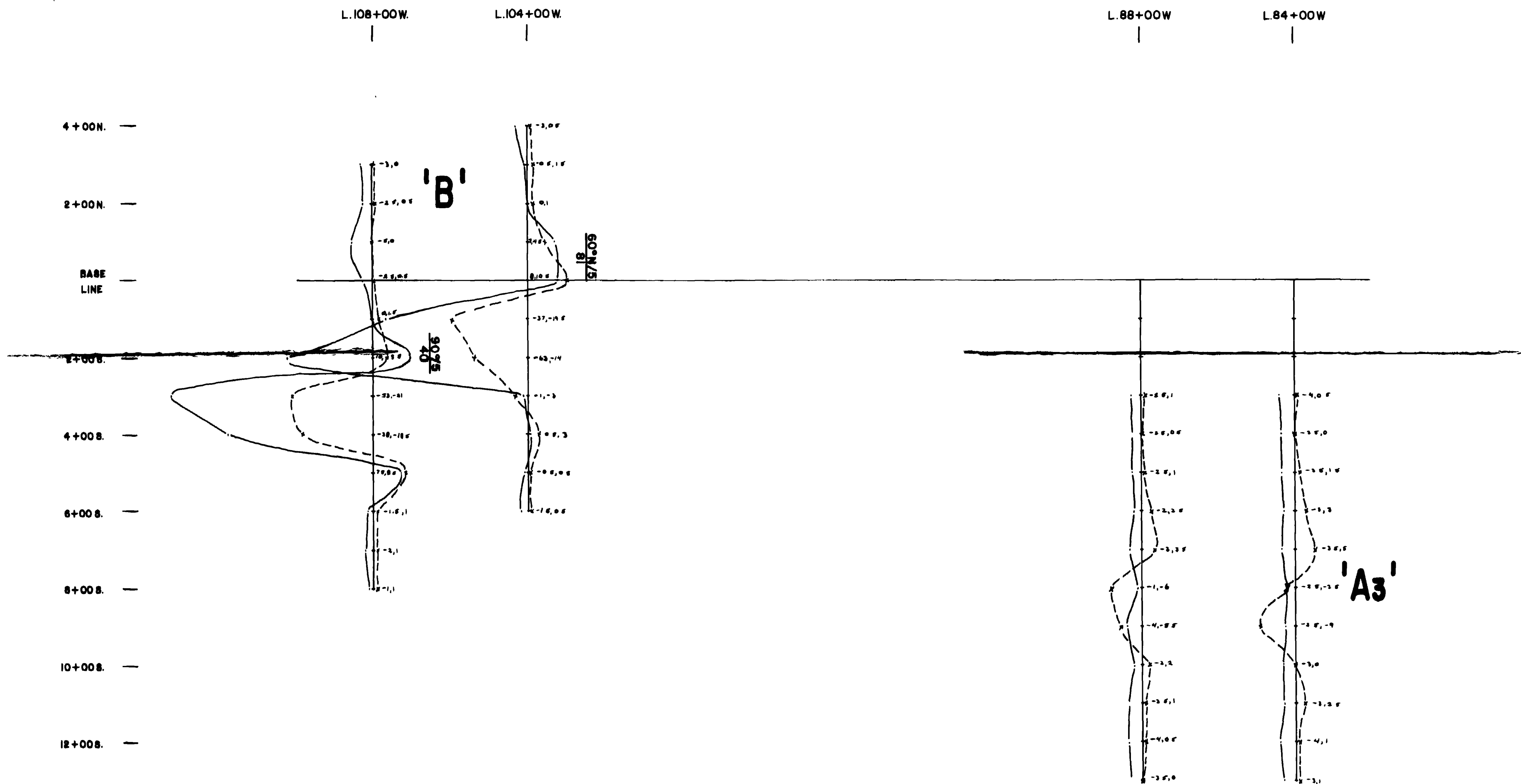
26514

**AUDAX GAS AND OIL LTD.**

**DETOUR LAKE PROJECT**  
**MAX MIN II PROFILES (444 Hz)**  
**DETAIL LINES**

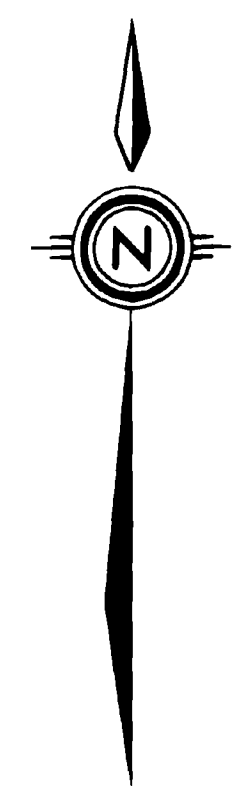
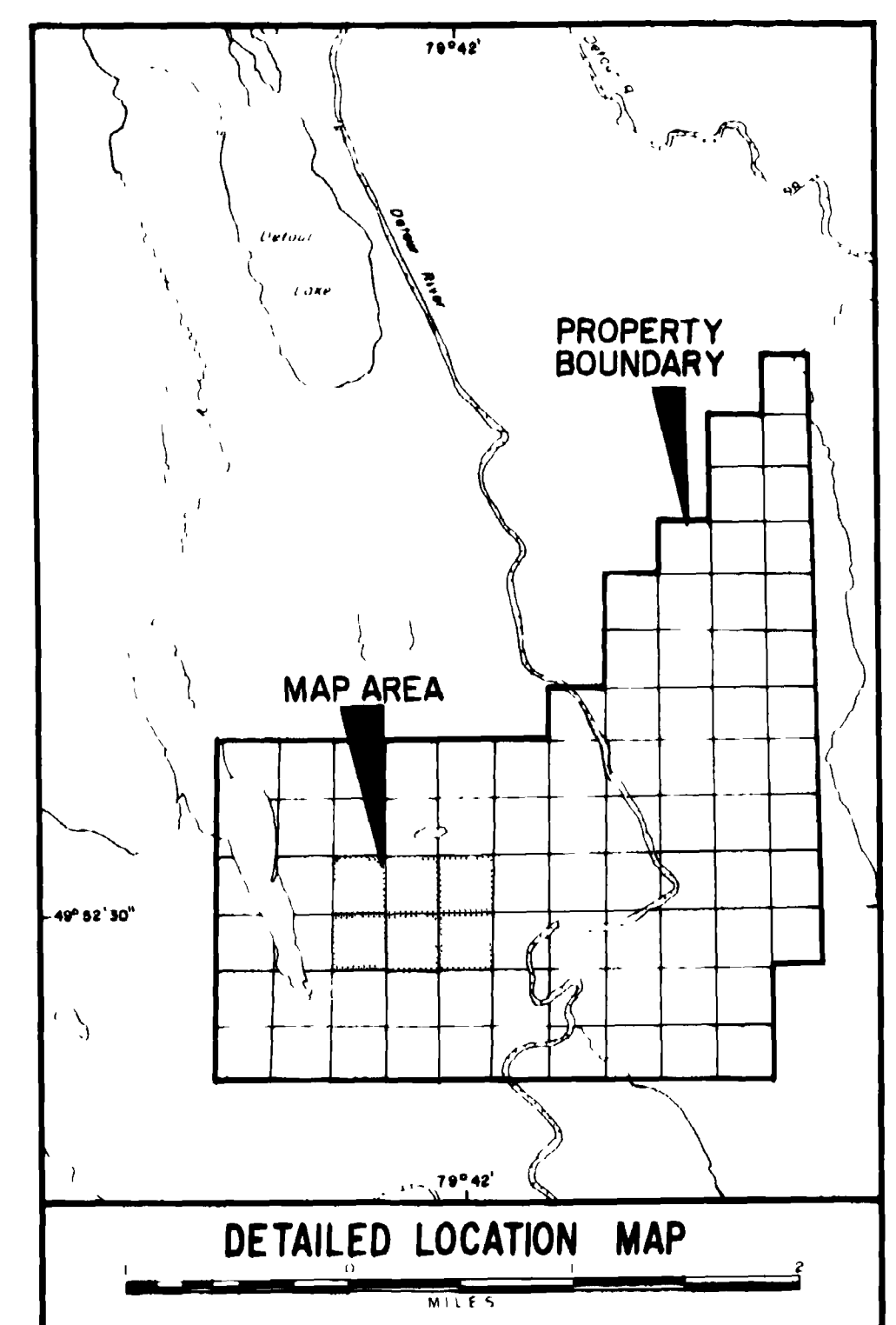
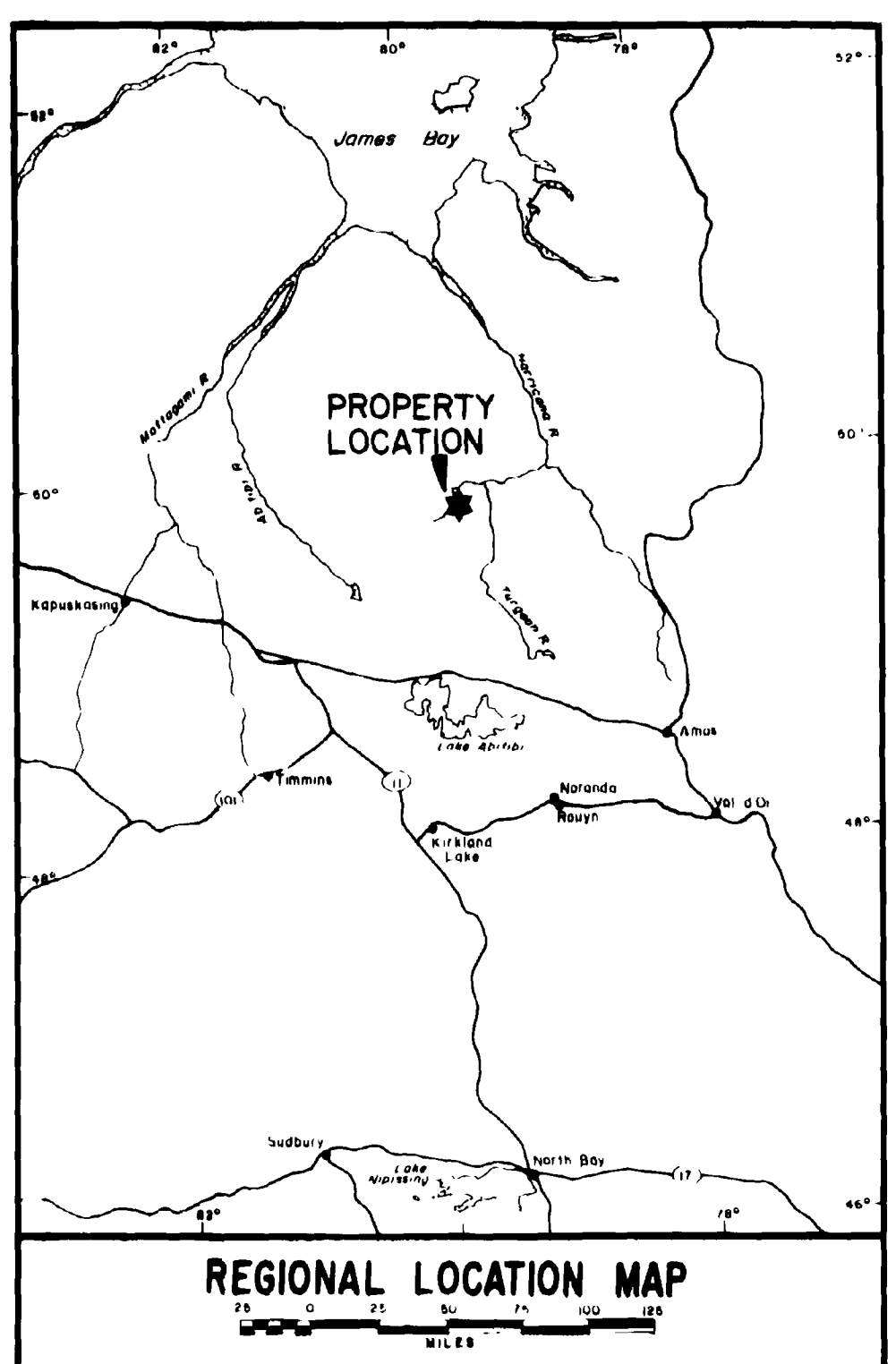
Project No: C-615	By: S. Bate
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No: 5	Date: October, 1983





**LEGEND**

INSTRUMENT	Apex Parametric Max Min II
FREQUENCY	1777 Hz.
CABLE LENGTH	200 Ft
	Profile Scale
	Plotting Designation
	Inphase Profile
	Quadrature Profile
	Dip(degree)/Depth(metres)
	Conductivity Thickness (Mhos)
	Anomaly Width



*26514*

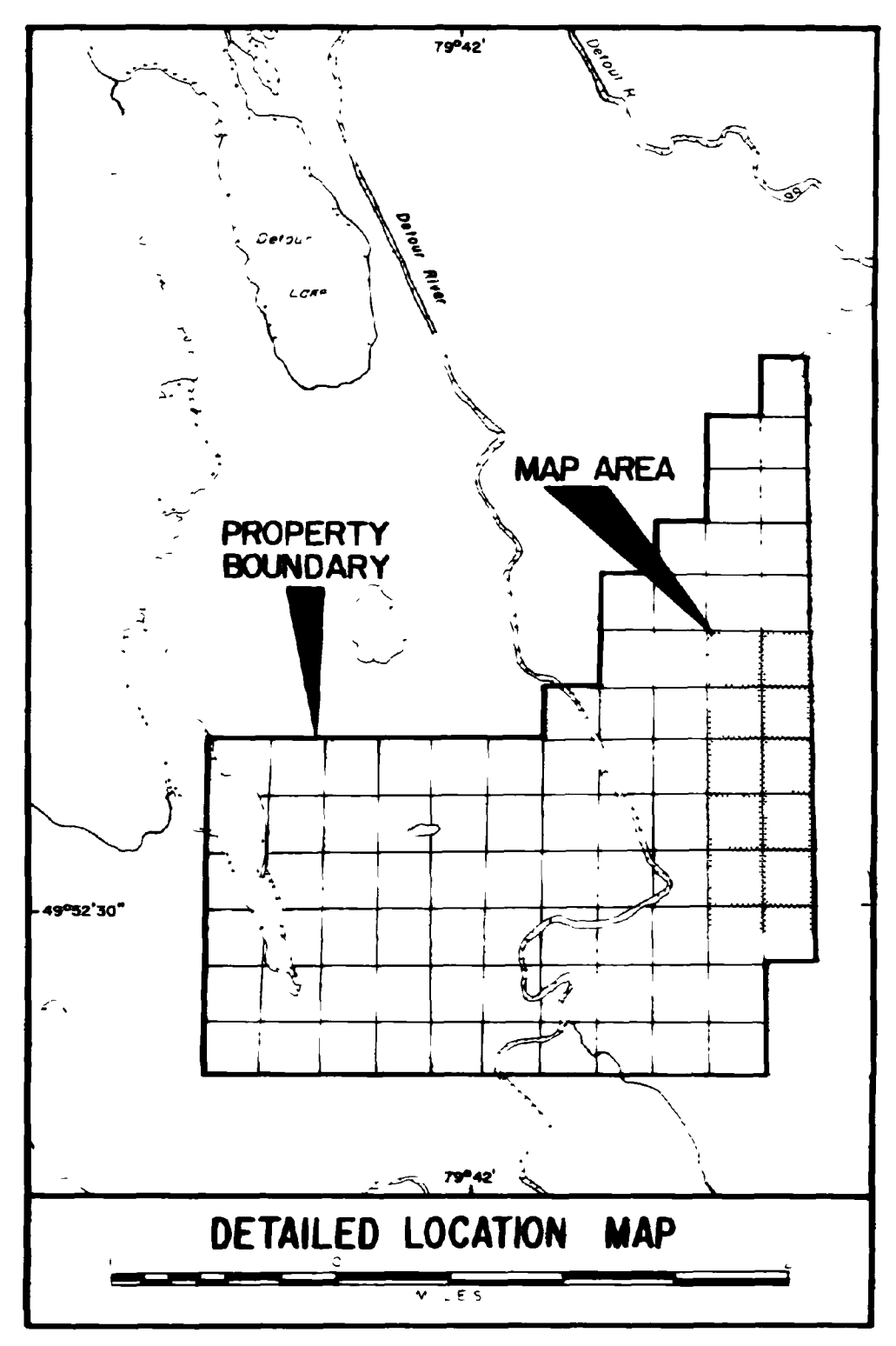
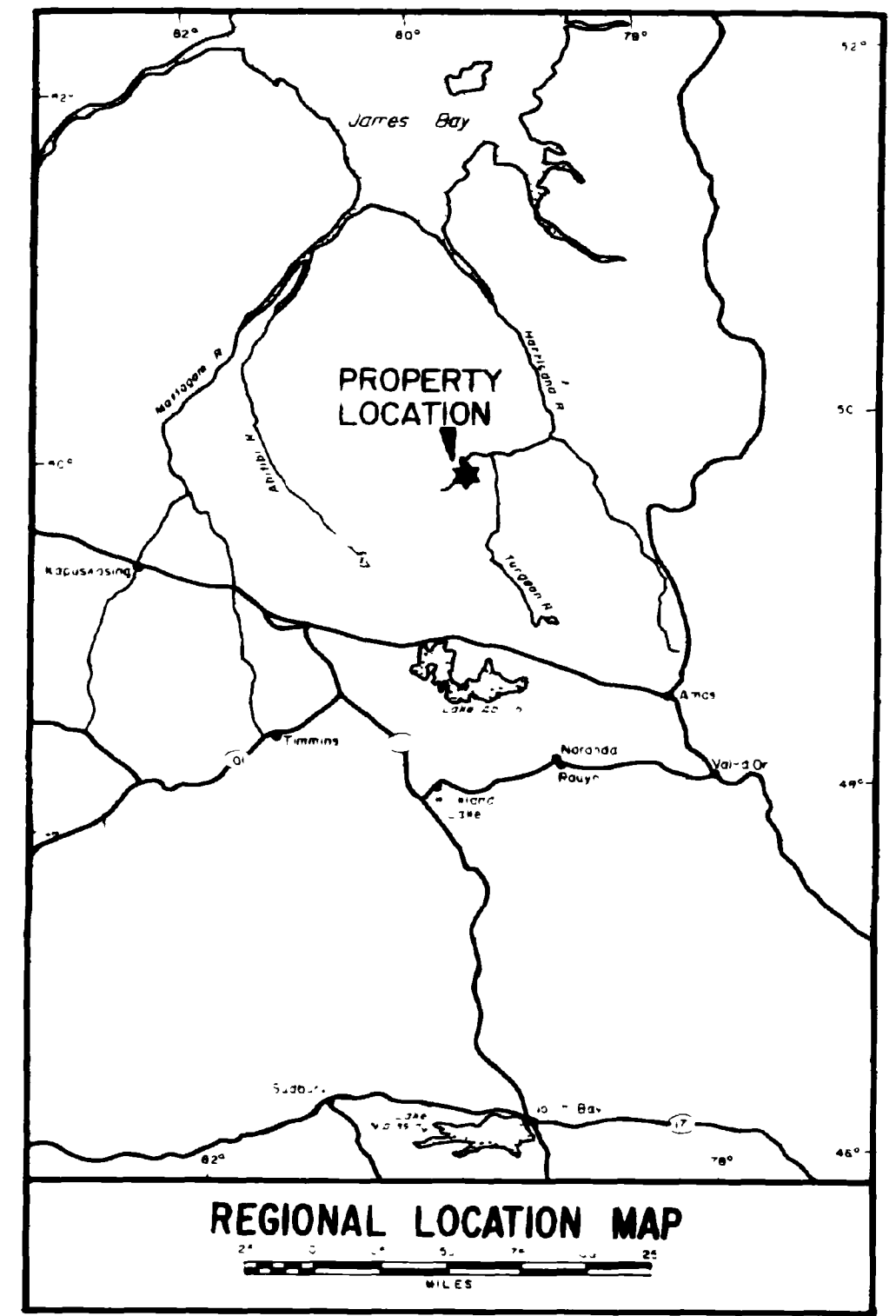
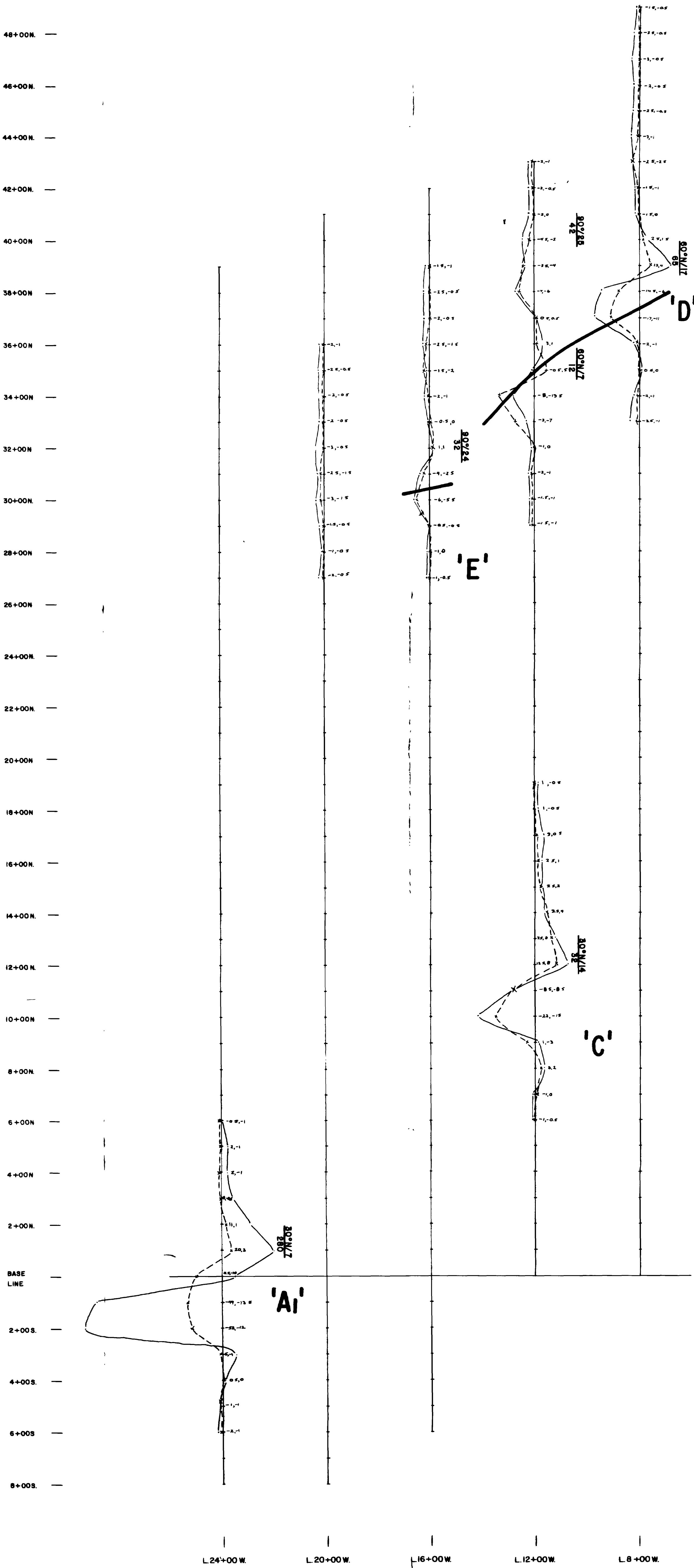
**AUDAX GAS AND OIL LTD.**

**DETOUR LAKE PROJECT**  
**MAX MIN II PROFILES (1777 Hz)**  
**DETAIL LINES**

Project No. C-615	By: S. Bate
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No: 6	Date: October, 1983

**MPH Consulting Limited**





**LEGEND**

INSTRUMENT	Apex Parametric	Max	Min	II
FREQUENCY	444 Hz.			
CABLE LENGTH	200 Ft.			
	Profile Scale			
	Plotting Designation			
	Inphase Profile			
	Quadrature Profile			
	Dip (degrees) / Depth (metres)			
	Conductivity Thickness (mhos)			
	Anomaly Width			



26514

**AUDAX GAS AND OIL LTD.**

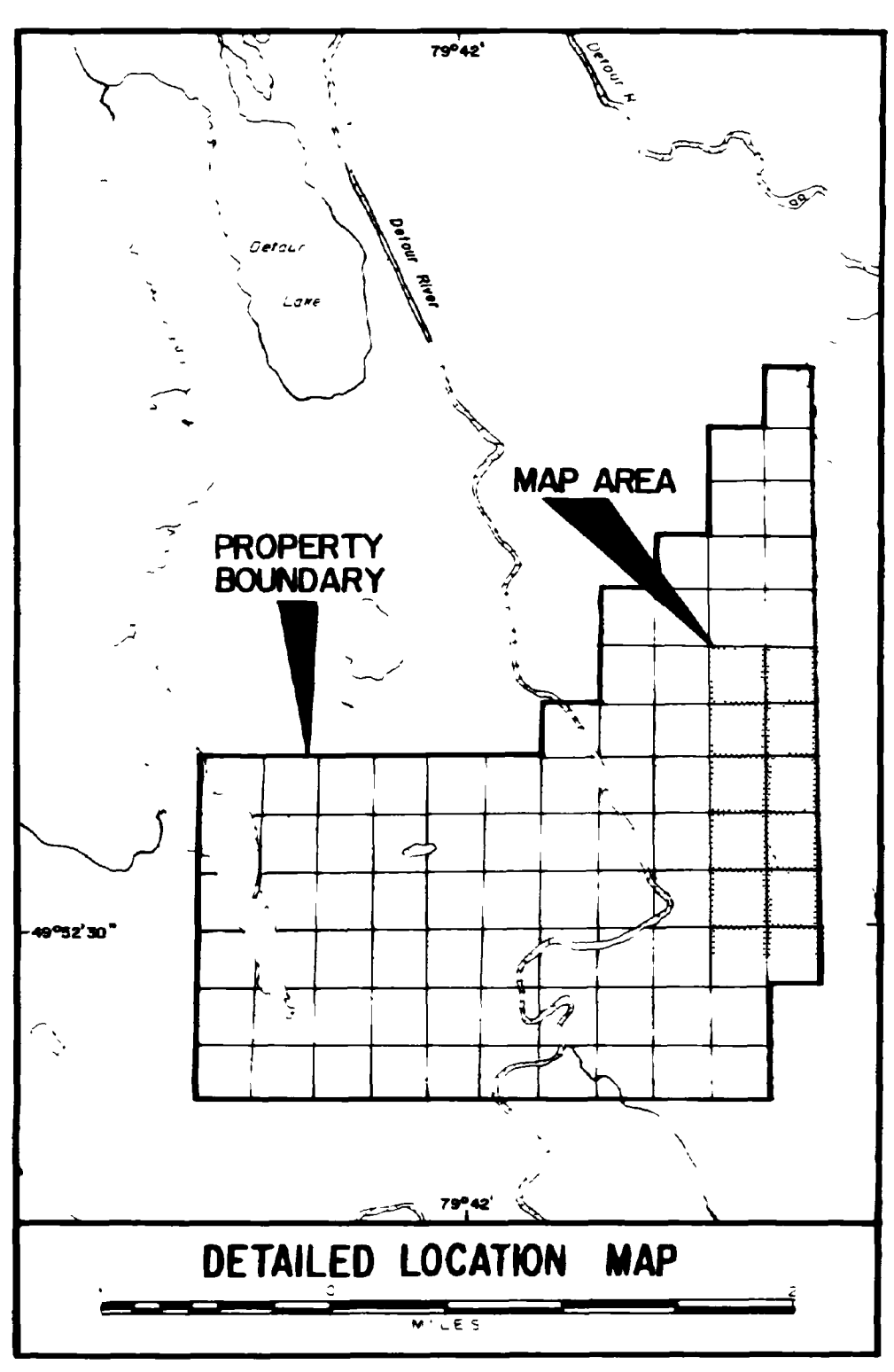
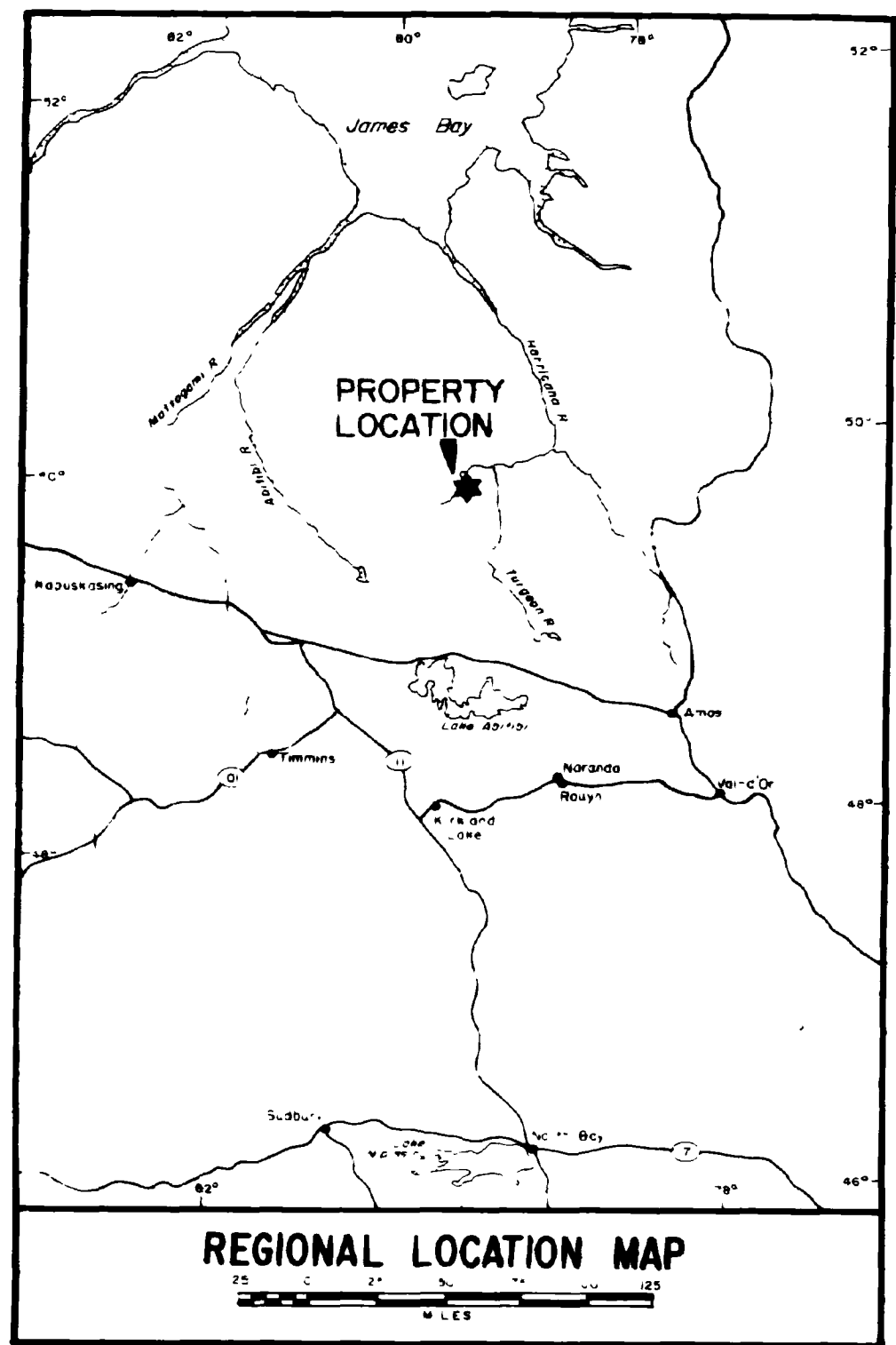
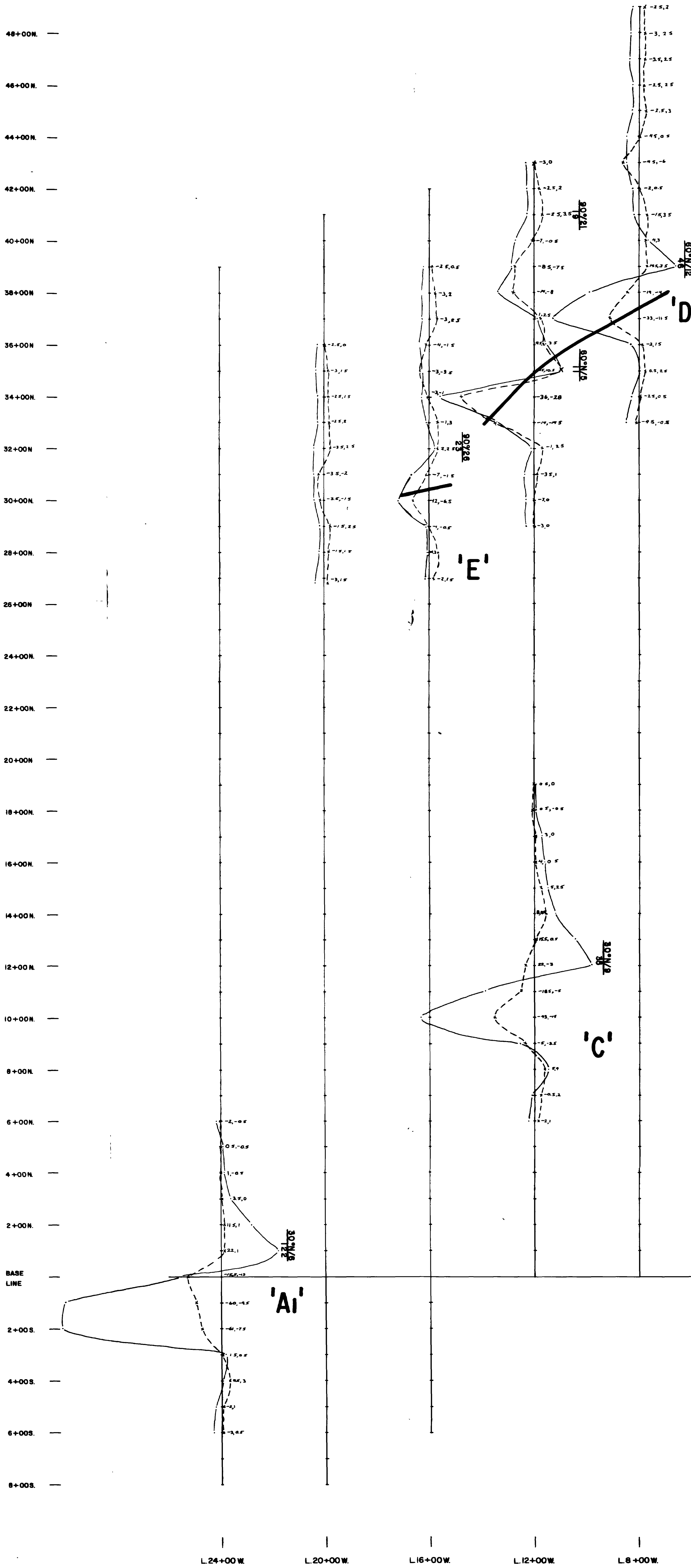
**DETOUR LAKE PROJECT  
MAX MIN II PROFILES (444Hz)  
DETAIL LINES**

Project No: C-615	By: S. Bate
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No: 7	Date: October, 1983

**MPH Consulting Limited**

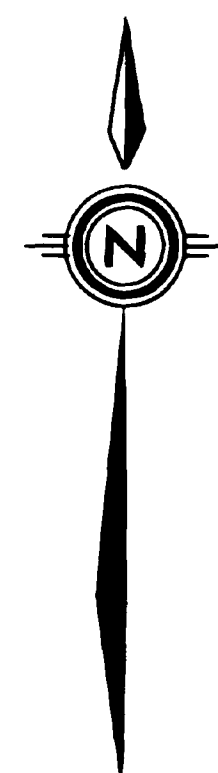






**LEGEND**

INSTRUMENT	Apex Parametrcs	Max	Min	II
FREQUENCY	1777Hz.			
CABLE LENGTH	200 Ft.			
	+10%			
	0			
	-10%			
	Profile Scale			
	Plotting Designation			
	Inphase Profile			
	Quadrature Profile			
	Dip(degrees)/Depth(metres)			
	Conductivity Thickness(Mhos)			
	Anomaly Width			



2654

**AUDAX GAS AND OIL LTD.**

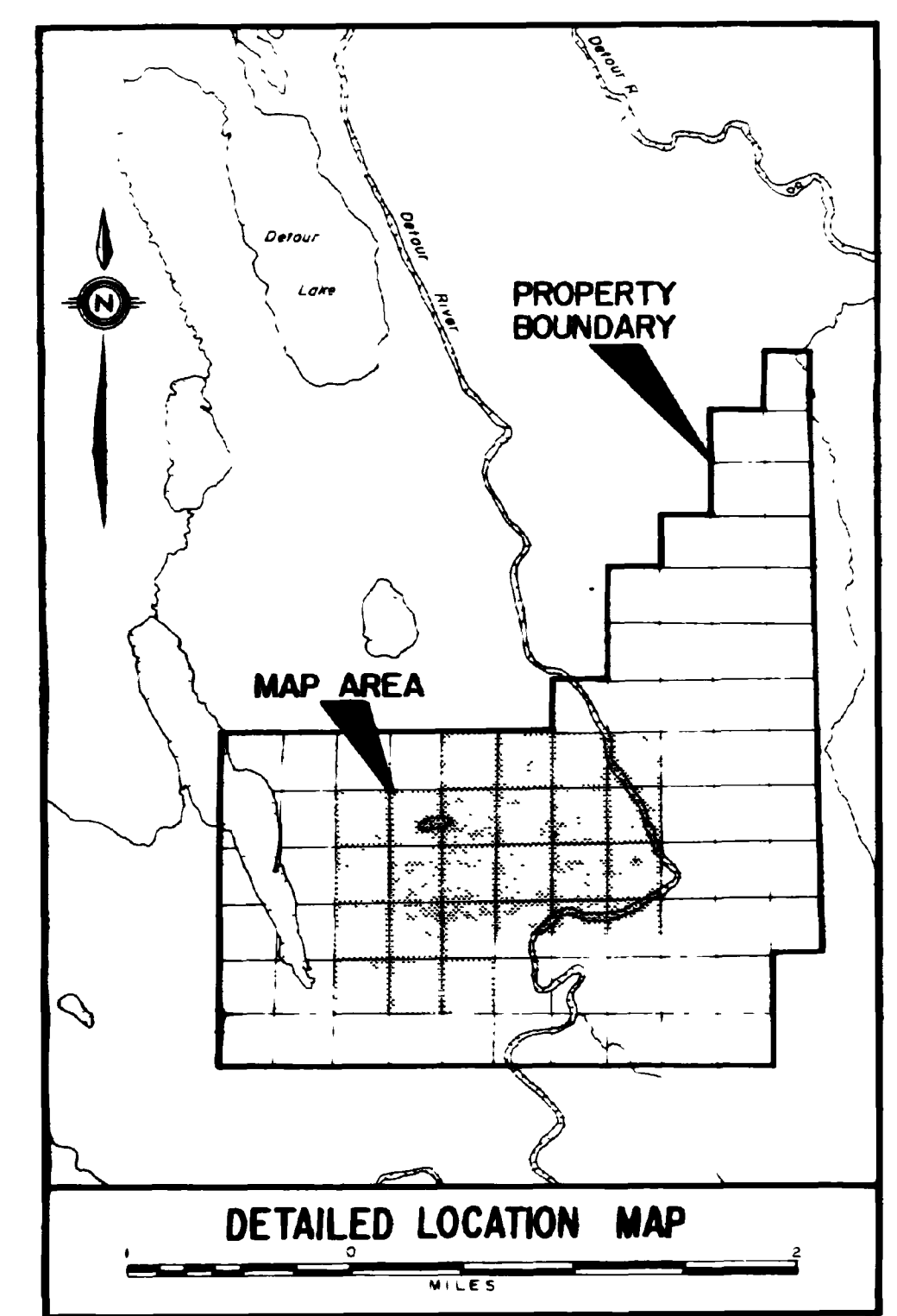
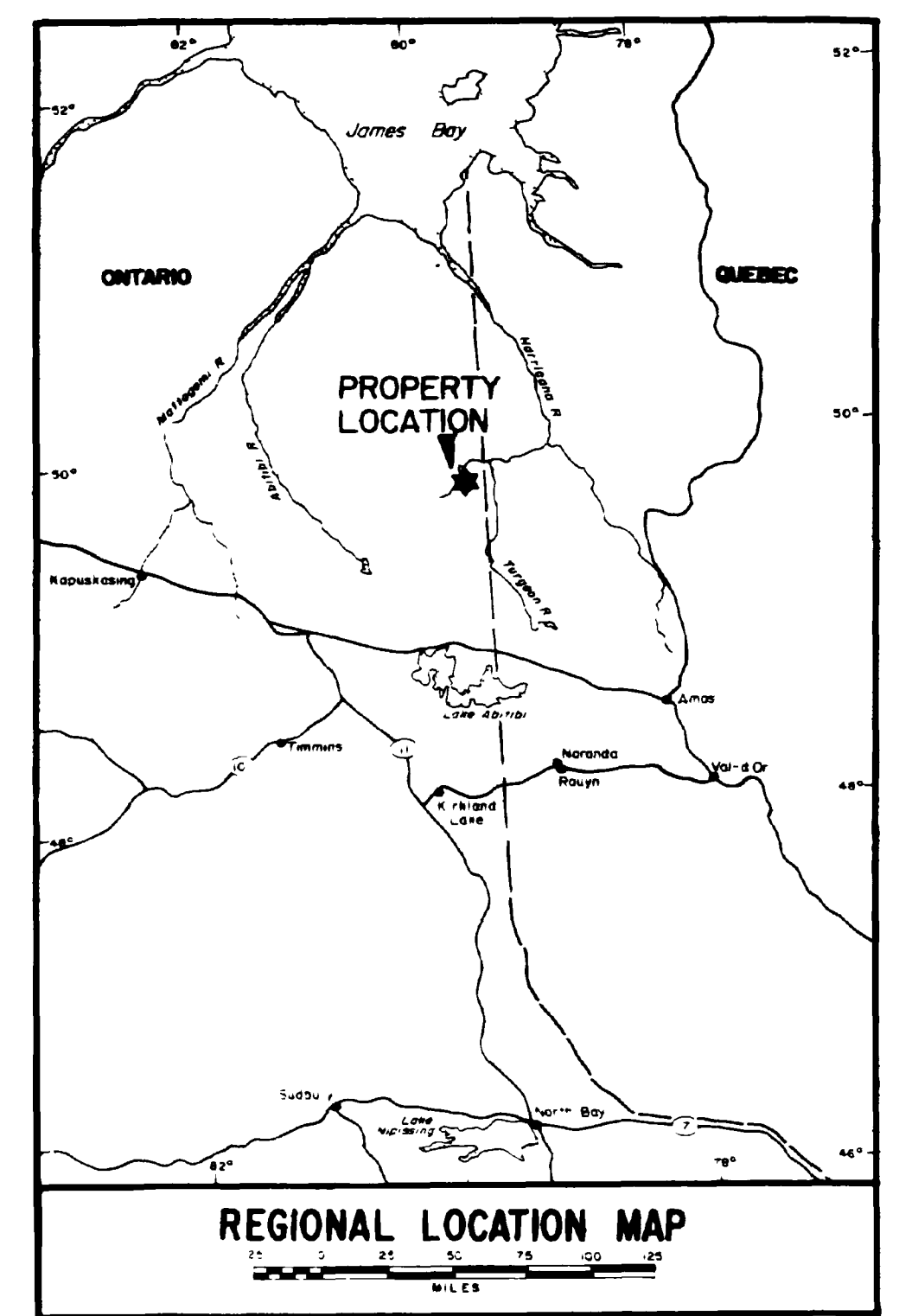
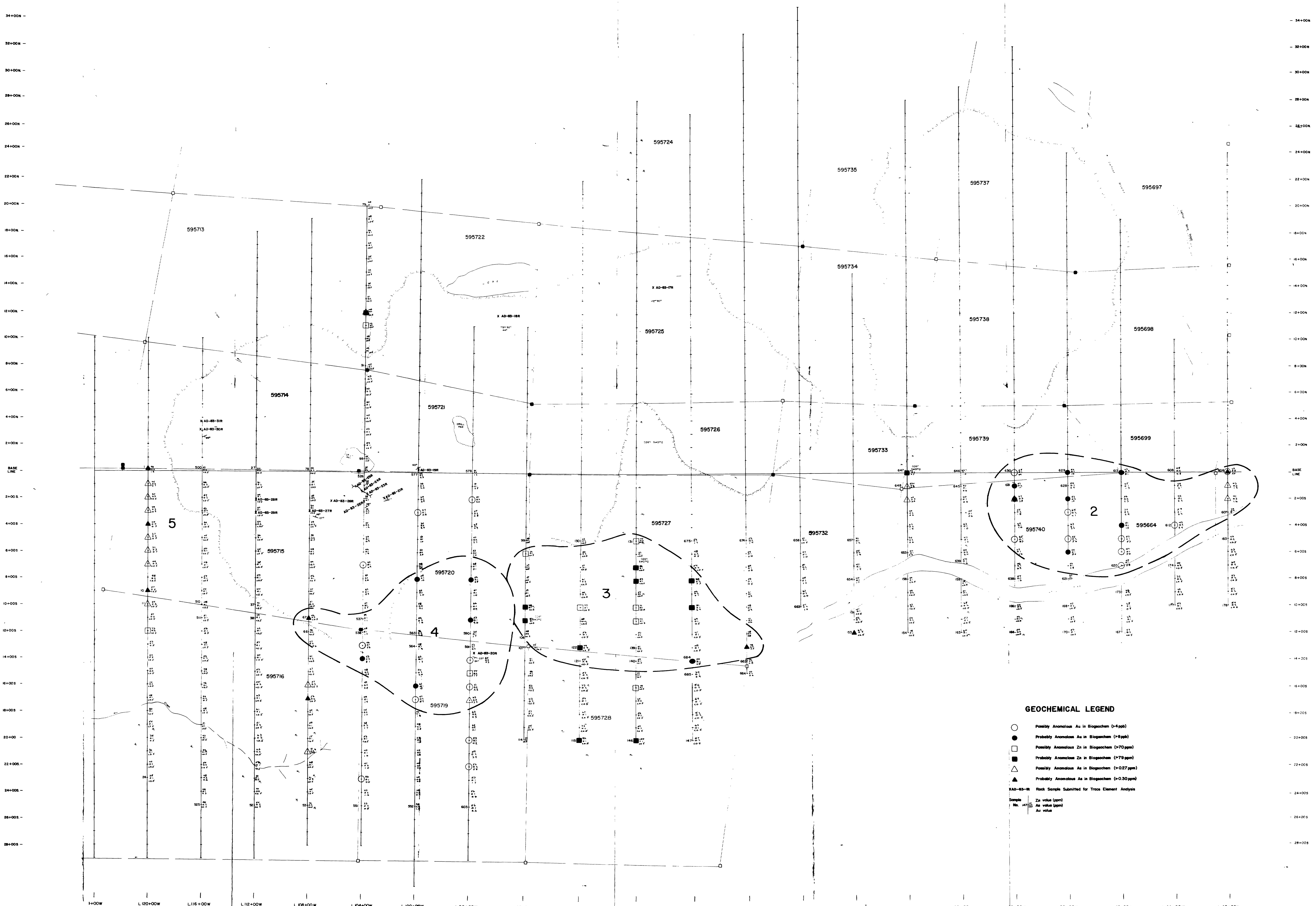
**DETOUR LAKE PROJECT**  
**MAX MIN II PROFILES (1777Hz)**  
**DETAIL LINES**

Project No: C-615	By: S. Bate
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No: 8	Date: October, 1983

**MPH** MPH Consulting Limited





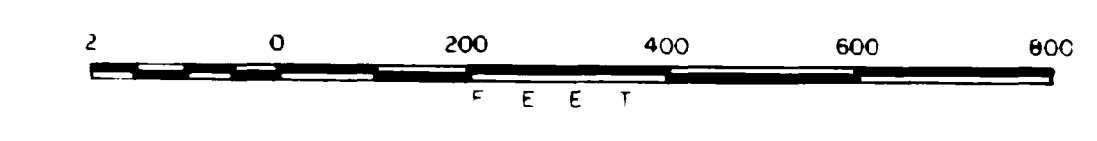
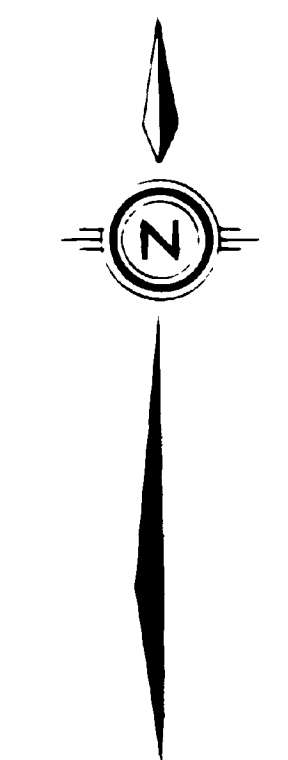


**TOPOGRAPHICAL LEGEND**

- Road
- Claim post, located
- Claim post, assumed
- - - Claim line
- Hill
- Swamp
- Creek showing flow
- River
- Lake
- Drill site
- Strike and dip

**GEOCHEMICAL LEGEND**

- Possibly Anomalous Au in Biogeochem (>4ppb)
  - Probably Anomalous Au in Biogeochem (>8ppb)
  - Possibly Anomalous Zn in Biogeochem (>70ppm)
  - ▣ Probably Anomalous Zn in Biogeochem (>79ppm)
  - △ Possibly Anomalous As in Biogeochem (>0.27ppm)
  - ▲ Probably Anomalous As in Biogeochem (>0.30ppm)
  - XAD-83-R Rock Sample Submitted for Trace Element Analysis
- | Sample No. | Zn value (ppm) | As value (ppm) | Au value |
|------------|----------------|----------------|----------|
| 447        | 52             | 0.27           | 4.0      |
| 448        | 52             | 0.27           | 4.0      |



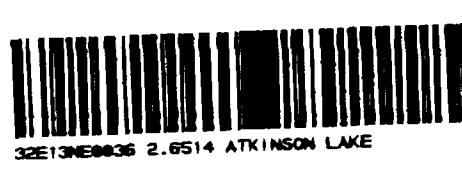
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**AUDAX GAS AND OIL LTD.**

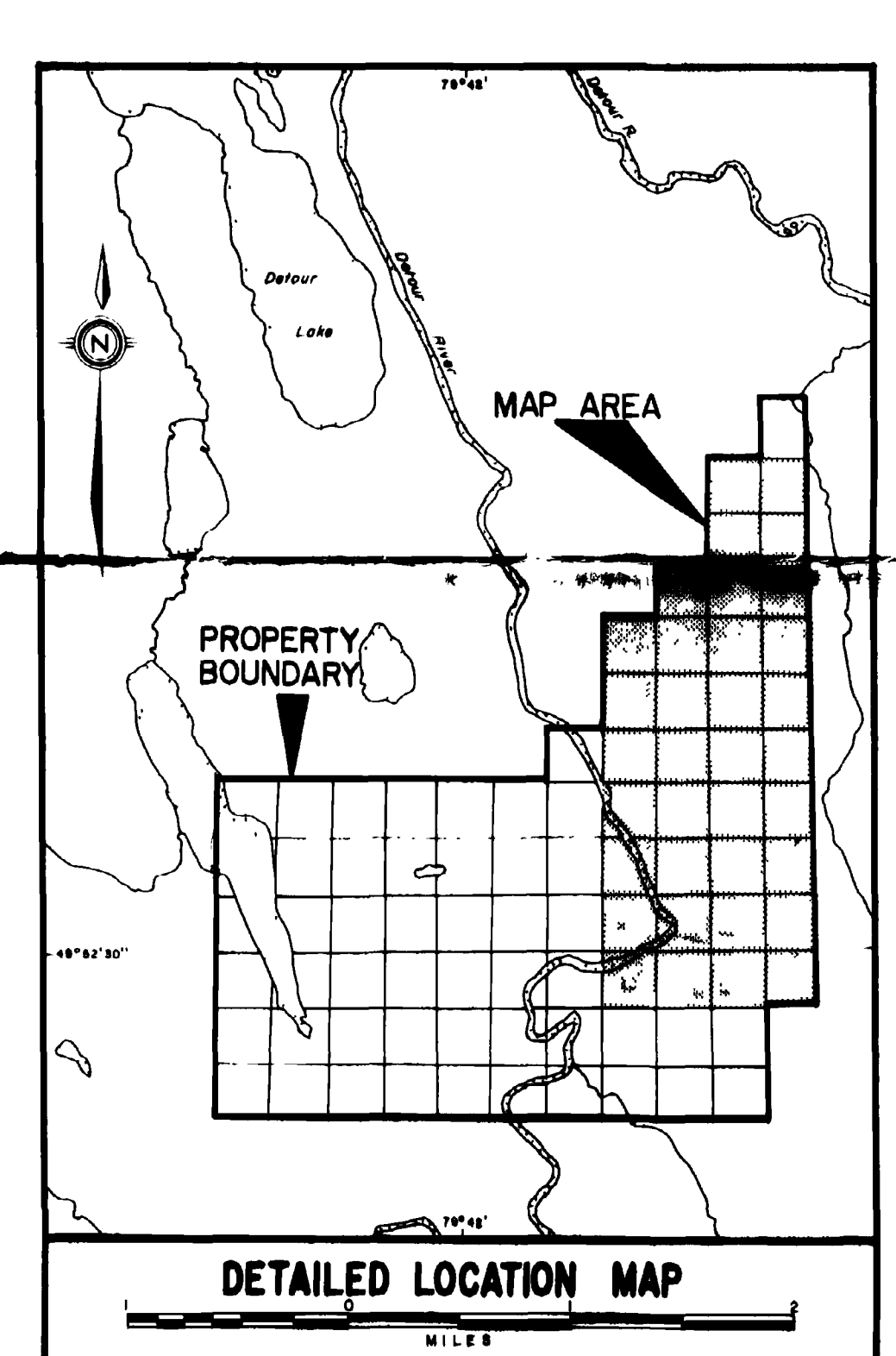
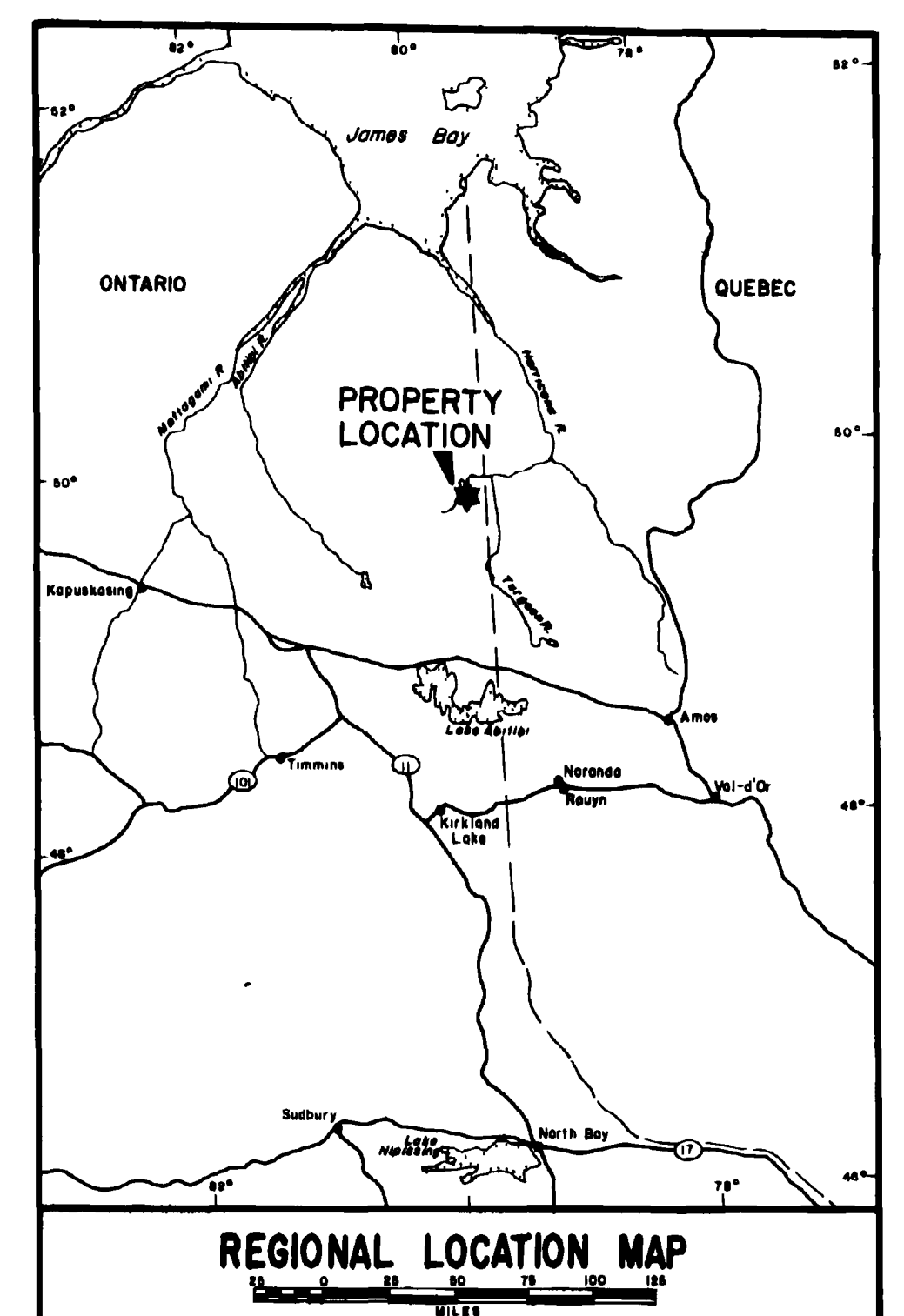
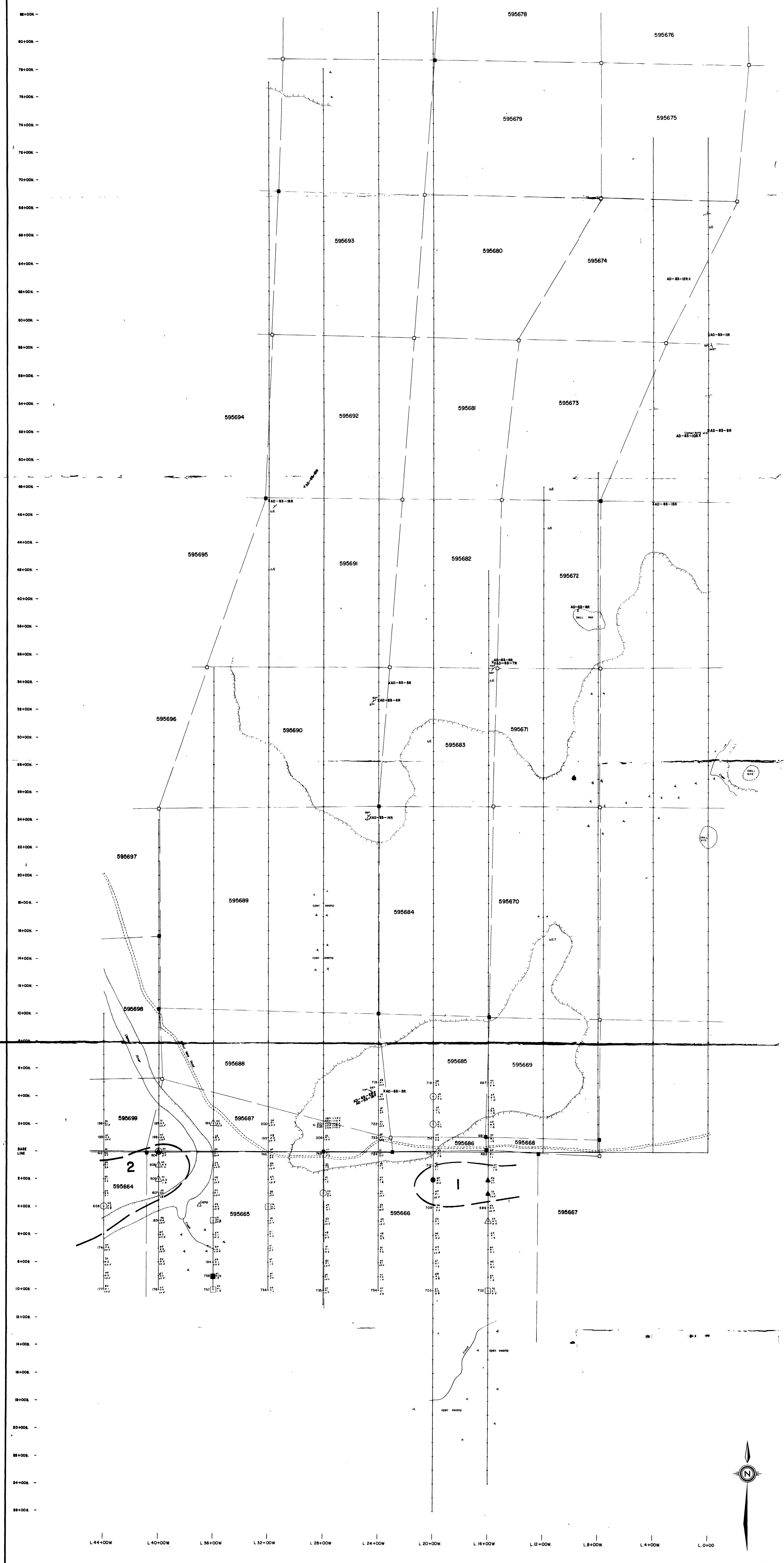
**DETOUR LAKE PROJECT  
BIOGEOCHEMICAL AND  
LITHOGEOCHEMICAL SURVEYS**

Project No. C-615	By S. Boffe
Scale 1:2500	Drawn G.C.S. Limited
Drawing No. 9	Date October, 1983

**MPH Consulting Limited**



L.44+00W L.40+00W L.36+00W L.32+00W L.28+00W L.24+00W L.20+00W L.16+00W L.12+00W L.8+00W L.4+00W L.0+00

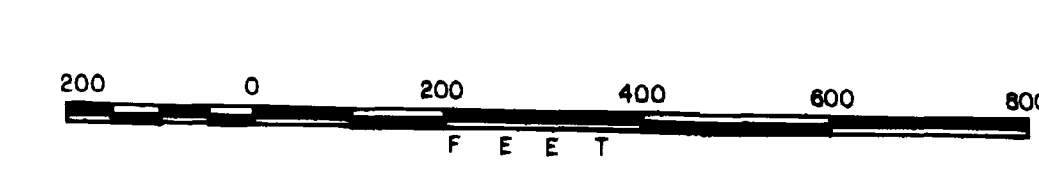
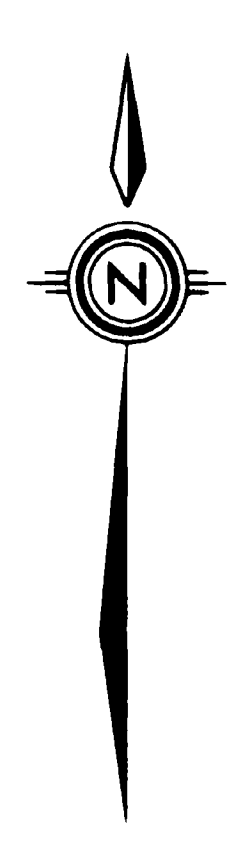


**GEOCHEMICAL LEGEND**

- Possibly Anomalous Au in Biogeochem (>4ppb)
  - Possibly Anomalous Au in Biogeochem (>8ppb)
  - ◐ Possibly Anomalous Zn in Biogeochem (>70ppm)
  - ◑ Possibly Anomalous Zn in Biogeochem (>79ppm)
  - ◒ Possibly Anomalous As in Biogeochem (>0.27ppm)
  - ◓ Possibly Anomalous As in Biogeochem (>0.30ppm)
  - ▲ Rock Sample Submitted for Trace Element Analysis
- Sample No. 14715 Zn value (ppm) Au value (ppb)

**TOPOGRAPHICAL LEGEND**

- Road
- Claim post, located
- Claim post, assumed
- - - Claim line
- o/c Outcrop
- ▲ Hill
- ▲ Swamp
- ~ Creek showing flow
- ~ River
- Lake
- Drill site
- Strike and dip



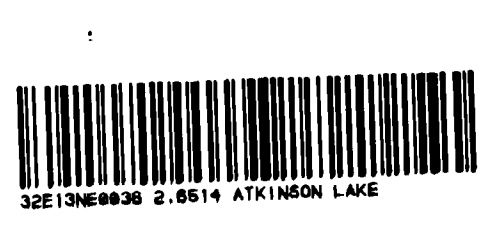
26514

**AUDAX GAS AND OIL LTD.**

**DETOUR LAKE PROJECT  
BIOGEOCHEMICAL AND  
LITHOGEOCHEMICAL SURVEYS**

Project No. C-615	By: S. Bata
Scale: 1:2400	Drawn: G.C.S. Limited
Drawing No. 10	Date: October, 1983

**MPH Consulting Limited**



SHEET INDEX