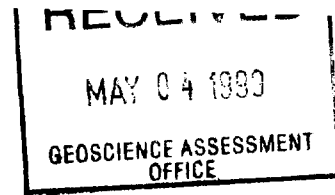




42A15SW2008 2.19476 McCART

010



Ontario Prospector's Assistance Program  
OP 98 - 346  
OP 98 - 347

**GEOPHYSICAL REPORT (Assessment)**

**Ground HLEM and Ground Magnetometer Surveys  
Mining Claims P 1203216, P1200098, P 1200099, P  
1200100, P 1200101, P 1217457, P 1217458, P 1217459**

Property LD 23  
Township of McCart  
District of Cochrane  
Porcupine Mining Division

**2 . 1 9 4 7 6**

Sue Gamble  
Dave Gamble  
70 First Street  
Kirkland Lake, Ontario  
P2N 1N3

December 11, 1998



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### MAPS

- FIGURE 1 - LOCATION MAP 1: 100 000**  
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**FIGURE 3 - AEM/ AMAG MAP 1 inch – ½ mile**  
**FIGURE 4 - COMPILATION MAP MAG AND HLEM RESULTS**  
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**FIGURE MAG 1 - MAG SURVEY, Total Field, 1: 5000, in back pocket**

## **INTRODUCTION:**

During September and October, 1998, an exploration program consisting of line cutting, horizontal loop EM, and Mag surveys were carried out over the expanded LD 23 property in McCart Township. The purpose of the geophysical surveys was to locate airborne geophysical targets on the ground and to develop new geophysical targets for potential drill testing. This report contains the results of the HLEM and Mag surveys carried out over the LD 23 property. Several moderate strength anomalous HLEM conductors were recovered in the survey.

## **PROPERTY OWNERSHIP:**

The mining claims P 1203216, and P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459 which make up the expanded LD 23 property, are jointly held by Sue Gamble (50%) and Dave Gamble (50%) of 70 First Street, Kirkland Lake, Ontario. P2N 1N3, see Location Map, Figure 1.

## **PROPERTY LOCATION:**

Property Name: LD 23, NTS Map Sheet 42A N/E

Porcupine Mining Division

McCart Township Claim Map Sheet G-3541, 8 claims contiguous, 40 units.

Claim Numbers: P 1203216 (8 units); P 1200098 (4 units); P 1200099 (4units); P 1200100 (4 units); P 1200101 (4 units); P 1217457 (6 units); P 1217458 (6 units); P 1217459 (4 units), see Claim Map, Figure 2.

S1/2 of Lots 4 and 5, Con IV

S1/2 of Lot 6, Con IV

S 1/2 of Lot 7, Con IV

E1/2 of S ½ of Lot 8, Con IV

N 1/2 of Lot 4, Con III,

N1/2 of Lot 5, Con III,

S ½ of Lot 5, Con III,

N ½ of Lot 6, Con III,

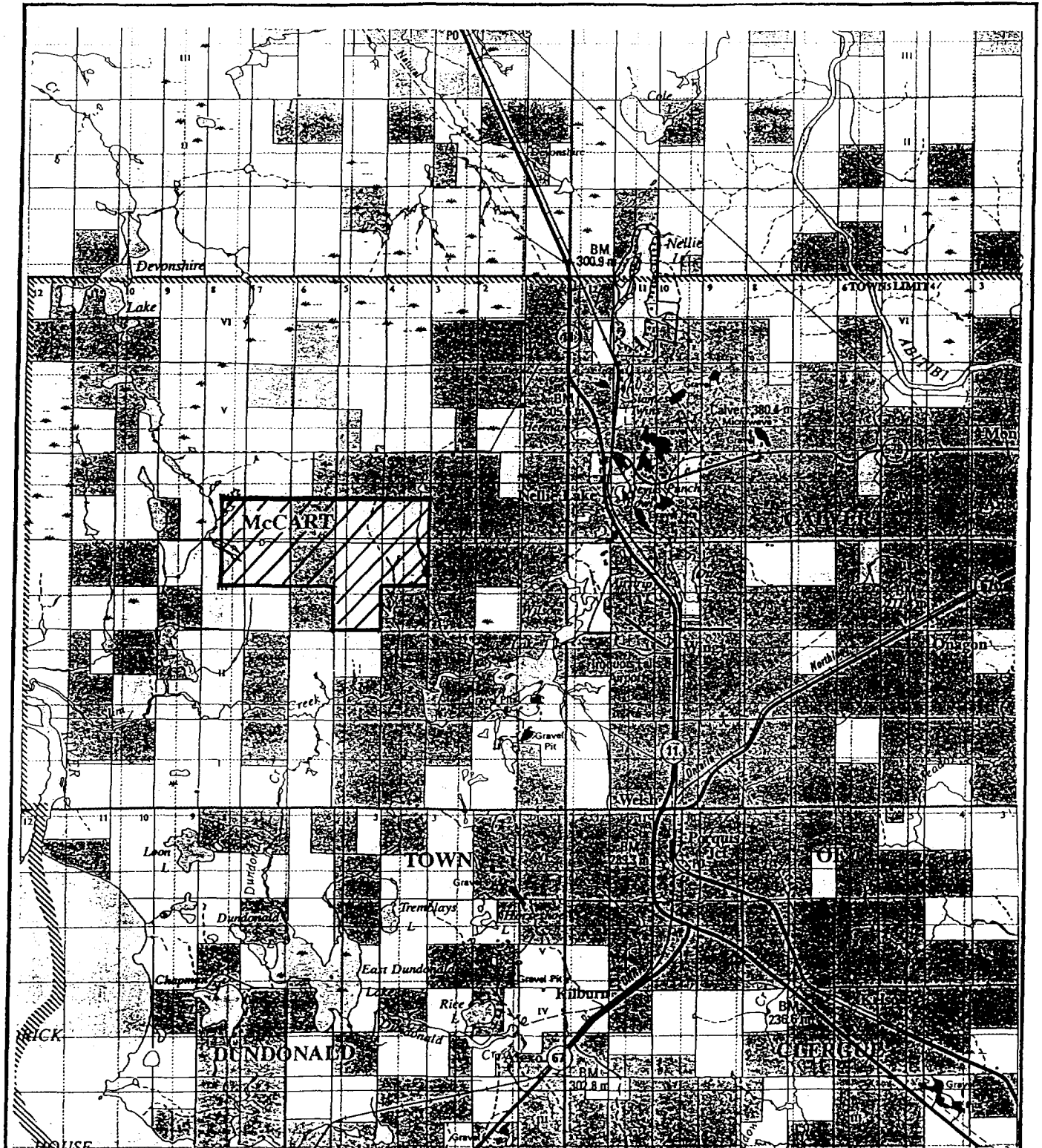
N1/2 of Lot 7, Con III,

E1/2 of N1/2 of Lot 8, Con III,

Latitude and Longitude: (northeast corner of property) UTM Coordinates:

511 500 m E

5 400 800 m N



DAVE GAMBLE

**LOCATION MAP**  
**Property LD 23**  
**McCart Township**

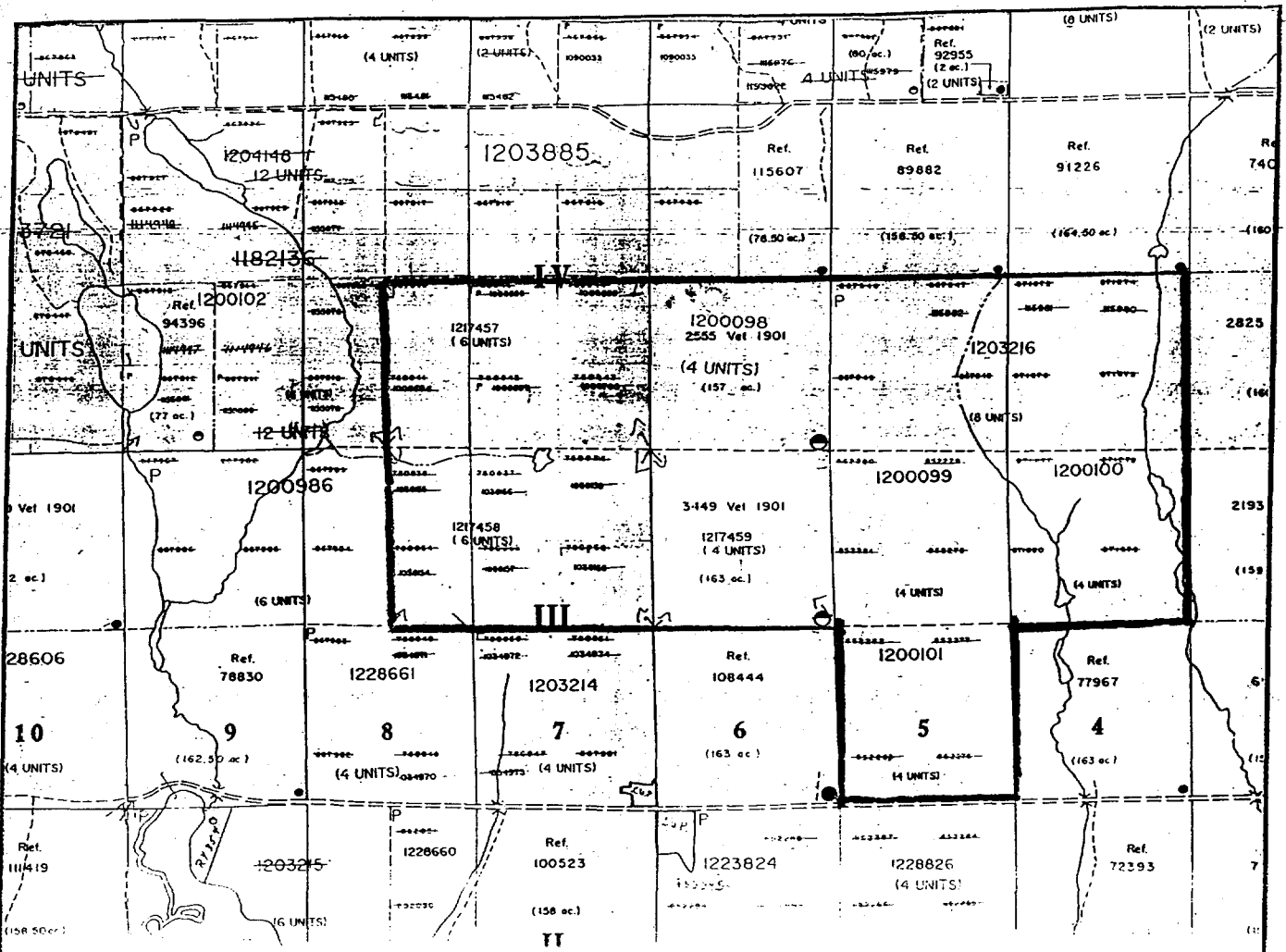
Date **Dec. 4 1998**

N.T.S. 42A/NE

Scale **1:100 000**

Drawn/Reference

**Fig. 1**



MAY 8/1998 JG

TOWNSHIP  
**Mc CART**

**ISSUED**  
APR 26 1998

M.N.R. ADMINISTRATIVE DISTRICT  
**COCHRANE**  
MINING DIVISION  
PORCUPINE  
LAND TITLES / REGISTRY DIVISION  
**COCHRANE**



Ministry of Natural Resources  
Ontario  
Ministry of Northern Development and Mines

Date JULY 1998

6-3541

**Claim Location Map**  
**LD 23**

Date	Dec. 4 1998	N.T.S.	42A
Scale	1" = 1/2 mile	Drawn/Reference	Fig. 2

**ACCESS:**

The LD 23 claim group is located approximately 48 kms northeast of downtown Timmins, Ontario in McCart Township, and approximately 12 kms east of the Town of Iroquois Falls, Ontario. Take Hwy. 11 towards Cochrane from where Hwy. 101 meets Hwy. 11 east of Timmins. Proceed along Hwy. 11 into Calvert Township past the Iroquois Falls airport for approximately 2.4 kms to where a concession road leads westerly. This road is opposite Hwy. 578 leading east into Iroquois Falls. This concession road extends into McCart Township between Cons IV and V. Proceed along this concession road for approximately 5.2 kms to where a 400 m bush trail leads south to the property.

The south boundary of the property is also accessible via the Wilson Lake Con II – Con III road that leads westerly from Hwy 11 some 2.6 kms south of the north entrance to Iroquois Falls and immediately north of the Iroquois Falls airport. Proceed along the Wilson Lake road for 7 kms to the south limits of the property along the concession road. An all terrain vehicle trail leads north from the concession road near the Lot 5/6 boundary and cuts through the central and western parts of the property.

**GEOLOGY:**

The regional geological setting of the LD 23 property is within the Western portion of the Archean Abitibi Greenstone Belt. A major calc-alkaline belt of felsic volcanics lying to the north of the Porcupine-Destor fault are known as the Kidd-Munro and Duff-Coulson-Rand rhyolite assemblages. These felsic volcanic assemblages have been complexly folded into regional syn and anticlinal structures. In addition several regional north-northwest trending faults transect the area. Mineralization within or proximal to the Kidd Creek rhyolite assemblage, and along regional north - northwest trending fault structures, is well known at the Kidd Creek Mine some 22 miles to the west. Flanking these felsic assemblages to the north and south are mafic and ultramafic rocks. Sediments are also found to the south. Deep overburden has presented a challenge to exploration in the region as a whole.

O.G.S. maps 2484 and 2205 are the best available compilations of regional geology.

Bedrock exposures in the immediate area of the property are unknown. Overburden cover appears to be substantial. Geological interpretation relies on drill hole and geophysical information. Based on only sparse knowledge the property is likely to be underlain by mafic and/or felsic volcanics, and/or sediments.

A one hole drill program was carried out by the current property holders in late 1996, which shed light on the geology. The hole was collared in very altered ankeritic rock originally described as rhyolite in the 1996 report, because of its colour, hardness, and texture. Upon conducting whole rock analysis and using staining techniques it was found that the original rock was low in silica, and probably a mafic rock which showed extreme ankeritic alteration and buff tan bleaching. The conductor was found to be a graphitic rich intercalated sedimentary horizon in and along a major graphitic fault structure.

### **TARGETS FOR EXPLORATION:**

The commodities and type of deposits sought on the LD 23 property are volcanogenic polymetallic massive sulphides ( Cu-Zn-Au-Ag ), and structurally related gold mineralization.

The lack of bedrock exposure due to the heavy overburden in this entire belt, has provided the potential for deposit hideability. It therefore requires the use of deep penetrating geophysical techniques to help make deposit discoveries.

### **PROPERTY HISTORY AND CURRENT EXPLORATION ACTIVITY:**

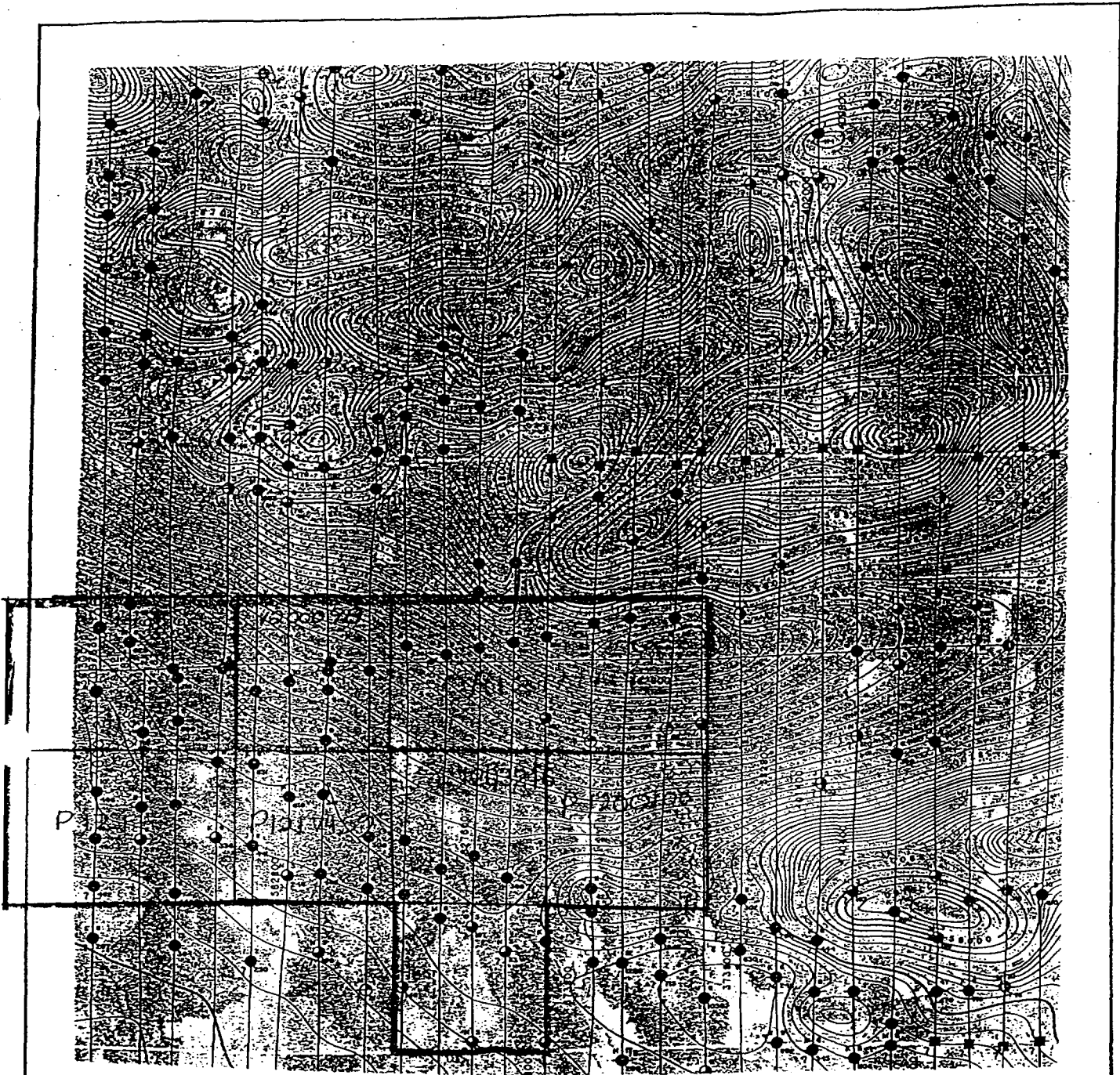
A search of the Porcupine Mining Division assessment files shows work on the LD 23 property has been nil. The location of LD 23 with old patented land adjacent to the east north, and west has probably proved a hindrance to exploration in the past. In 1966 INCO held a large tract of land in McCart Township which may have included the LD 23 property.


Work has been carried out near the property by the following:  
INCO File T- 1324 (1966) ddh, D. R. Pyke File T- 3383 (1993) geology,  
B. Raine T- 3375 (1991) AEM, Placer Dome T - 3252 (1989) ddh.

Reference to the only known compilation of data in McCart was done by J. Satterly in 1953 for the Ontario Department of Mines and the Porcupine Mining Division assessment files can be made for greater detail on the above.

The current property holders acquired the LD 23 ground in November 1993, and June, 1995. The property hosts several AEM targets, which are the current targets of exploration by the property holders, see AEM Map, Figure 3.

In October – December, 1996 a one hole drill program was conducted on the LD 23 property ( See filed assessment report on the drill hole and results by the current property holders). The property was expanded in 1997 as a result of the 1996 drill hole.



 Ministry of  
 Northern Development  
 and Mines  
 Sean Conway Minister of Mines  
 ONTARIO GEOLOGICAL SURVEY  
 GEOPHYSICAL/GEOCHEMICAL SERIES  
 MAP #115F

**TIMMINS AREA**  
**McCART TOWNSHIP**

Airborne Electromagnetic Survey  
 Total Intensity Magnetic Survey

DISTRICTS OF COCHRANE AND TIMISKAMING

DAVE GAMBLE

LD 23

AEM/AMAG MAP

Date	July, 1994	N.T.S.	42A
Scale	1" = 1/2 mi	Drawn/Reference	Figure 3



## **1998 EXPLORATION PROGRAM**

### **LINECUTTING:**

Linecutting on the LD 23 property consisted of expanding the 1995 grid to cover the newly acquired claim units. On the new grid 1.2 km of new baseline, 3.46 km of new tie lines were cut on an azimuth of 090 deg., and 25.785 km of new grid lines on an azimuth of 000 – 180 degrees were established. A total of 30.445 km of linecutting was carried out. The lines were cut, chained, and picketed with stations established every 25 meters. Spacing and orientation of the grid lines were determined to fit the interpreted geological/ geophysical setting and to remain consistent with the grid established in 1995. All base and tie lines were established east-west and grid lines north-south. The work was carried out from September 16th to September 25, 1998 out under contract to Native Exploration Services of Ouje Bougoumou, P. Q.

See the plans accompanying this report in back pocket for grid layout.

### **HLEM GEOPHYSICAL SURVEY:**

An Apex Max-Min II electromagnetic horizontal loop unit, with a coil separation of 200 meters was used to survey the new grid. Upon completion of the survey using the 200 m cable coil spacing it was decided to survey and verify certain line sections over the anomalous responses using a 250 m cable coil spacing. (See appendix for instrument specifications.) Survey data was recorded as the in-phase and out-of-phase (quadrature) percentage of primary field and plotted as profiles at a scale of 1 cm = 50%. The HLEM readings were taken at 25 meter station intervals on the grid lines for both the 200 meter and 250 meter coil separation surveys. A total of 848 stations were utilized in the 200 m coil separation HLEM survey, and 300 stations utilized in the 250 metre coil separation HLEM survey. The three frequencies, 888 Hz, 1777 Hz, and 3555 Hz were read for both the 200 meter and the 250 meter coil separation surveys. Separate plans are produced for each frequency using both the 200 meter and 250 meter coil separation at a scale of 1: 5000. A total of 24.3 km of HLEM surveying was completed using the 200 m coil spacing, and a total of 9.3 km of HLEM surveying was completed using the 250 m coil spacing.

The field surveys were carried out from September 23 to October 5, 1998, and from October 22 to October 27, 1998 under contract to Native Exploration Services. The receiver operator was Mr. Robbie McCormick of 503 First Street, Chibougamau, P. Q. G8P 1K8, and the transmitter operator was Mr. Claude Grenier of 346, 2nd Street, Chibougamau, P. Q. G8P 1M3.

The results of linecutting and HLEM geophysical surveys are plotted on the accompanying 6 plans, numbered Figures HLEM 1 - 6 at a scale of 1:5000, see back pocket.

#### **DISCUSSION OF HLEM SURVEY RESULTS:**

The HLEM survey of the property resulted in the recovery of a strong anomalous HLEM conductive response flanked to the south by a parallel weak HLEM conductive response.

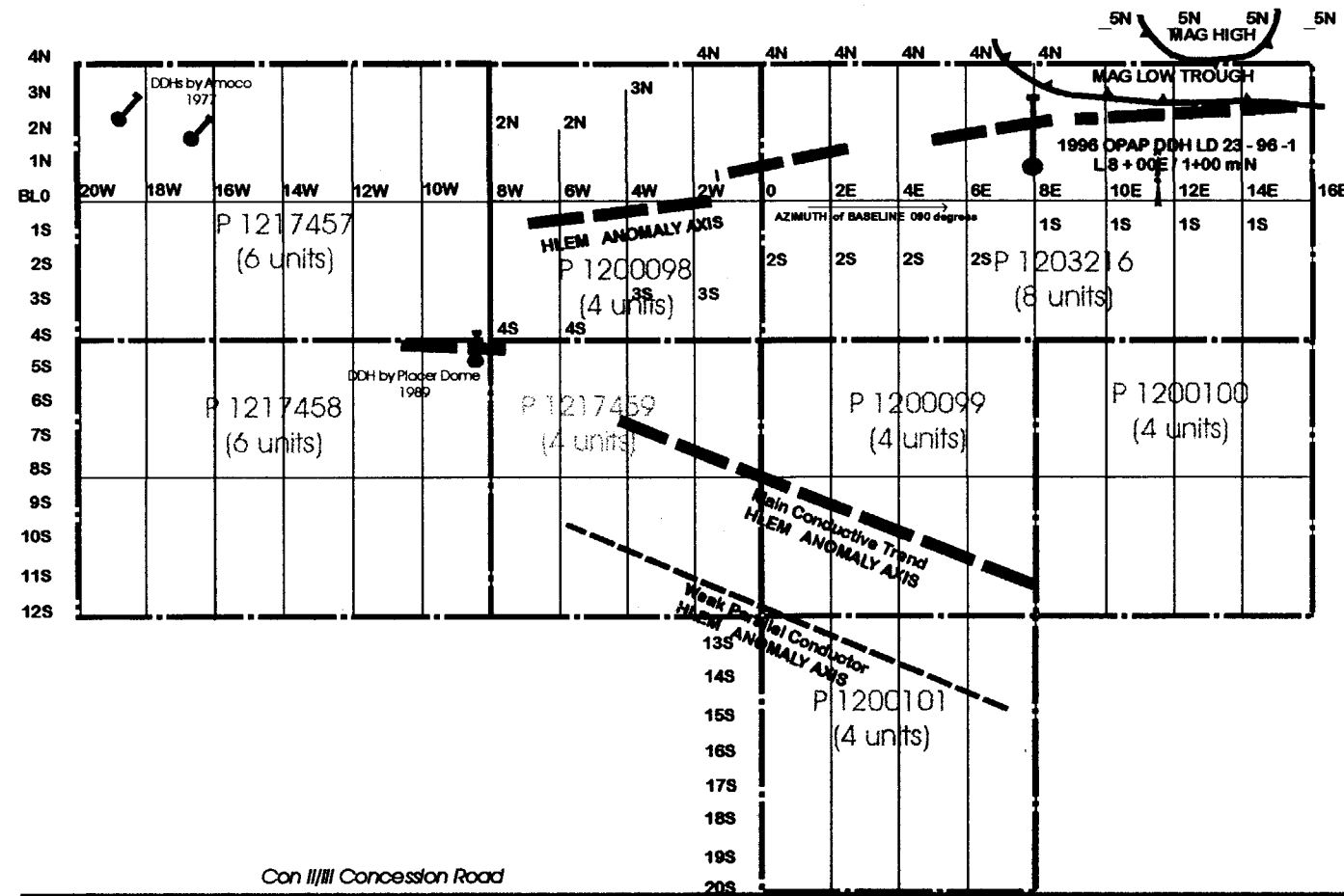
On the claim group, a well defined, strong 1.8 km conductor axis is located from grid west to grid east starting approximately from L 10 + 00 m W / 4 + 00 m S and extending to L 8 + 00 m E / 11 + 25 m S. A weaker flanking conductor immediately south of the strong conductor extends from L 8 + 00 m W / 8 + 50 m S to L 6 + 00 m E / 14 + 25 m S. The strong conductor is well defined on all three frequencies, on 888 Hz, on 1777 Hz, and on 3555 Hz and on both the 200 m coil separation and 250 m coil separation surveys, see Figures HLEM 1 – 6, in back.

The strong conductor axis trends on an azimuth of approximately 115 degrees and from the in-phase profiles apparently dips steeply south to near vertical. The conductor is characterized by moderate out-of phase readings on the 888 Hz , 1777 Hz, and 3555 Hz surveys, resulting in moderate to good in-phase to out of phase ratios, suggesting a bedrock conductive source with little conductive overburden influence. The 250 m coil separation surveys confirm the presence of the strong HLEM anomaly at a slightly deeper depth and also shows a strengthening in the response. The south flanking parallel conductor is weak and probably represents either a parallel structure or lithology to the stronger main HLEM conductive trend. This weaker HLEM trend is of secondary importance pending the results of future drill testing of the stronger main conductive target.

This HLEM conductor is located in an area of relatively flat magnetics on the west and central parts of the grid. On the east end of the grid the conductor axis flanks the south side of 200-300nT small magnetic high feature that may be open to the southeast.

#### **MAG SURVEY:**

A Geometrics G-816 total field proton precession magnetometer was used to survey each grid line. (See appendix for instrument specifications.) Check in base station were established on the grid and remained constant ( +/- 5 nT) throughout the survey. It was not necessary to correct the grid line data for diurnal variations. Magnetometer readings were taken at 12.5 meter station



**LEGEND**

- 1995 and 1998 Grid
- Claim Lines
- DDH



<b>SUE GAMBLE / DAVE GAMBLE</b>		
<b>PROPERTY LD 23</b>		
Compilation showing		
Mining Claims P 1203216, P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459		
Including 1998 Grid and 1995 Grid, Previous Drill Holes by Placer Dome, Amoco, and OPAP and HLEM Conductor Axes		
<b>McCART TOWNSHIP</b>		
Scale: Scale Bar	N.T.S. 42A/15	Reference <b>Fig. 4</b>
Date: November, 1998	Drawn By: Sue Gamble	ld23comp.cdr

intervals on the 200 meter spaced grid lines. A total of 1892 survey readings were recorded over 23.65 km of completed mag survey.

All mag data points are posted at each station and plotted at 1:5000, and as well the mag results are also contoured at a contour interval of 100nT to show any anomalous features, see Figure Mag 1, in back pocket.

The mag field surveys were carried out from September 23 to 28, 1998 under contract to Native Exploration Services. The mag operator was Mr. Robbie McCormick, 503 First Street, Chibougamau, P. Q. G8P 1K8, with assistant, Mr. Claude Grenier, 346 2nd Street, Chibougamau, P. Q. G8P 1M3.

#### **DISCUSSION OF MAG SURVEY RESULTS:**

The magnetometer survey of this property was carried out during September of 1998. The mag survey results show a magnetic signature variations ranging from a low of 57 496 nT to a high of 58 077 nT. The property shows relatively flat magnetic response in the west and central part of the grid. On the south east end of the grid a mag high feature 57 903 nT is centered on L 12 + 00 m E / 12 + 00 m S and trends to the west for 200 m and to the east off the grid area. Immediately adjacent to the south of the mag high feature on the grid is the start of a magnetic low 57 496 nT. The location of the HLEM conductor axis lies to the south of this small magnetic feature and shows no direct correlation.

#### **CONCLUSIONS AND RECOMMENDATIONS:**

A moderate to strong HLEM conductive trend was recovered on Property LD 23. The conductor axis trends on an azimuth of 115 degrees extending from L 10 + 00 m W / 4 + 00 m S to L 8 + 00 m E / 11 + 25 m S covering a strike length of 1.8 km., see Compilation Map Figure 4, and Figures HLEM 1 – 6 for Detail Survey Plans. A weak HLEM conductor flanks and parallels the main conductor to the south.

Further geophysical surveying on several grid lines over the conductor such as Pulse EM, or Time Domaine EM or I.P. may help to further define the limits of this HLEM bedrock source, but of course does not explain the source. At this time, it is recommended that a one hole diamond drill test of this HLEM conductor is warranted to determine the source of the conductivity. The drill testing the HLEM conductor axis centered on L 0 + 00 m E / 8 + 50 m S is recommended.

Dave Gamble  
Sue Gamble



December 11, 1998

**CERTIFICATE OF THE AUTHOR**

I, Dave Gamble, of 70 First Street, Kirkland Lake, Ontario, P2N 1N3, hereby certify that:

1. I am a geologist residing at the above address.
2. I am a graduate of the University of Ottawa with an Honours B.Sc. degree in geology (1973), and have completed two years graduate studies leading towards a M.Sc. degree (geology) at Laurentian University (1974-1976).
3. I have practiced my profession for more than 25 years.
4. I have, in conjunction with Sue Gamble, planned, and directed, the geophysical surveys represented in this report; and have, compiled and interpreted the results of this survey.
5. I hold a 50% interest in this property.

Respectfully submitted,



Dave Gamble, B. Sc. (Hon. Geol.)  
December 11, 1998

## CERTIFICATE OF THE AUTHOR

I, Sue Gamble, of 70 First Street, Kirkland Lake, Ontario, P2N 1N3, certify that:

1. I am a prospector residing at the above address and have held an Ontario Prospector's License since 1979.
2. I am a graduate of the University of Ottawa and Simon Fraser University, and have studied earth science for two years at the University of Ottawa, and for one year at Laurentian University.
3. I have more than 20 years relevant practical experience relating to prospecting and mineral exploration.
4. I have, in conjunction with Dave Gamble, planned, and directed the geophysical surveys represented in this report; and have compiled and interpreted the results of this survey.
5. I hold a 50% interest in this property.

Respectfully Submitted,



Sue Gamble, B. A., P.D.P.  
December 11, 1998

**APPENDIX A - Geometrics Portable Proton Magnetometer**

Operating Manual  
Model G-816  
Portable Proton Magnetometer

## 1.0 GENERAL INFORMATION

### 1.1 INTRODUCTION

The Model G-816 Portable Proton Magnetometer is a complete system designed for all man-carry field applications requiring simple operation and stable measurements of the total intensity of the earth's magnetic field. The G-816 is accurate and stable to within  $\pm 1$  gamma over a range from 20,000 to 90,000 gammas. Since the instrument measures total field intensity, the accuracy of each measurement is independent of sensor leveling. Furthermore, the measurement is based upon on atomic constant\* and is independent of temperature, humidity, and sensor orientation. The inherent simplicity of the G-816 proton magnetometer allows rapid, accurate measurements to be obtained from a rugged, compact field instrument. This is a precision instrument and reasonable attention must be given to handling, battery condition, and magnetic environment.

### 1.2 MAGNETIC ENVIRONMENT

It is important that the earth's magnetic field is not obscured by allowing unwanted magnetic objects to come close to the sensor. Such objects include rings, keys, watches, belt buckles, pocket knives, metal pencils, zippers, some hats, etc. When the sensor is used on the staff, 1 gamma surveys are easily performed provided the sensor is kept at a distance of 3 feet from the operator. When the sensor is used in the backpack, certain articles of clothing and some types of batteries within the console will cause a 5 to 10 gamma shift in readings. The G-816, however, still provides 1 gamma sensitivity and repeatability despite the presence of such a base line shift. The backpack feature is recommended for use in difficult terrain where "hands free" operation is required.

Prior to survey use, objects that are suspected to be magnetic may be checked in the following manner:

1. Attach sensor to staff and connect coiled signal cable to console. Sensor should not be moved or turned during the test, and the suspected article should be far away initially.

\* Proton Gyromagnetic Ratio:  $(2.67513 \pm 0.00002) \times 10^4$  Radians/Gauss second.



Operating Manual  
Model G-816  
Portable Proton Magnetometer

2. Cycle the magnetometer a few times by depressing the READ button--releasing--and waiting for a reading each cycle.
3. Observe measurement readings. Each reading should repeat to  $\pm 1$  gamma. (A slow shift may occur over several minutes due to a diurnal change in the earth's field.)
4. Place the suspected article at the distance from the sensor expected during actual survey operation.
5. Cycle magnetometer several times and note the readings.
6. Remove the article and repeat steps 2 and 3 to check for diurnal shifts in the earth's field. If a diurnal shift is present, repeat entire test.
7. If the readings obtained in step 5 differ by more than  $\pm 1$  gamma ( $\pm$ one count) from those obtained in steps 3 and 6. then the article is magnetic.

IF THE ARTICLE IS HIGHLY MAGNETIC, OR IF THE SENSOR IS INSIDE OR NEAR A BUILDING OR VEHICLE, THE PROTON PRE-CESSION SIGNAL WILL BE LOST, GIVING COMPLETELY ERRATIC READINGS AND LOSS OF  $\pm 1$  COUNT REPEATABILITY.

The magnetometer should not be operated in areas that are known sources of radio frequency energy, power line noise (transformers), in buildings or near highly magnetic objects. The sensor should always be placed on the staff above the ground, or in the "backpack". The sensor will NOT operate properly when placed directly on the ground.

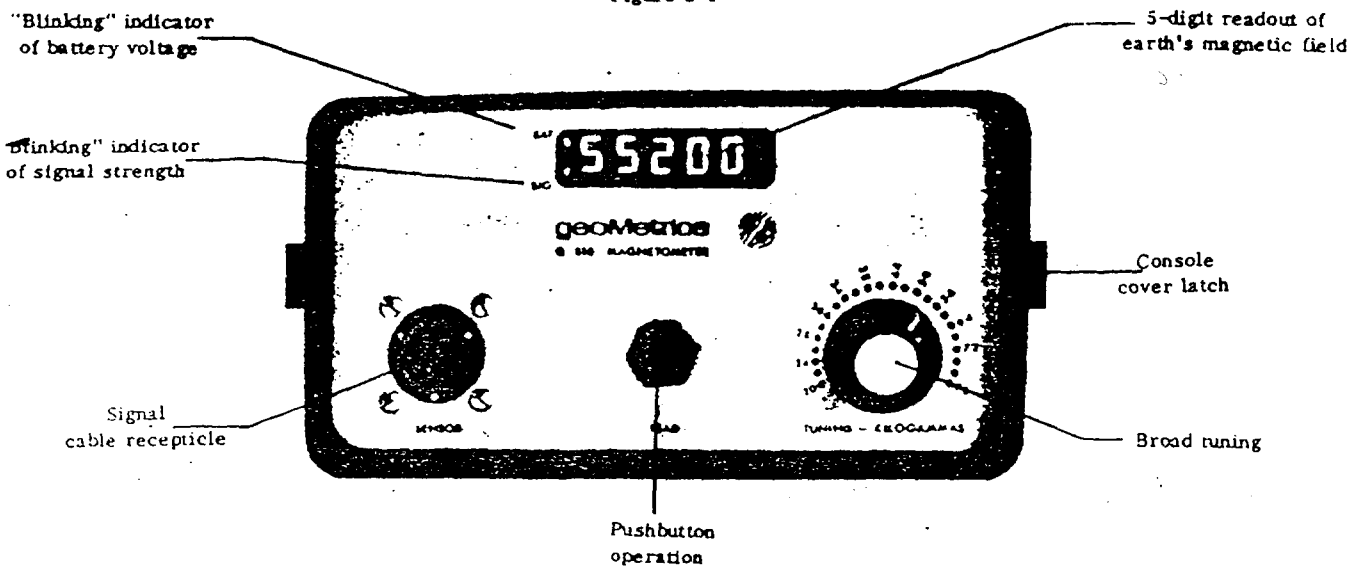
### 1.3 SPECIFICATIONS

Sensitivity:	$\pm 1$ gamma throughout range
Range:	20,000 to 90,000 gammas (worldwide)
Tuning:	Multi-position switch with signal amplitude indicator light on display
Gradient Tolerance:	Exceeds 800 gammas/ft
Sampling Rate:	Manual pushbutton, one reading each 6 seconds.

- Output: 5 digit numeric display with readout directly in gammas
- Power Requirements: Twelve self-contained 1.5 volt "D" cell universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.
- Temperature Range: Console and sensor:  $-40^{\circ}$  to  $+85^{\circ}$  C  
 Battery pack:  $0^{\circ}$  to  $+50^{\circ}$  C (limited use to  $-15^{\circ}$  C; lower temperature battery belt operation — optional)
- Accuracy (Total Field):  $\pm 1$  gamma through  $0^{\circ}$  to  $+50^{\circ}$  C temperature range
- Sensor: High signal, noise cancelling, interchangeably mounted on separate staff or attached to back pack
- Size: Console: 3.5 x 7 x 11 inches (9 x 18 x 28 cm)  
 Sensor: 3.5 x 5 inches (9 x 13 cm)  
 Staff: 1 inch diameter x 8 ft. length (3 cm x 2.5 m)
- Weight:
- |                          | Lbs.        | Kgs.       |
|--------------------------|-------------|------------|
| Console (w/batteries):   | 5.5         | 2.5        |
| Sensor and signal cable: | 4           | 1.8        |
| Aluminum staff:          | 2           | .9         |
|                          | <u>11.5</u> | <u>5.2</u> |

CONTROLS AND INDICATORS

Figure 2-1



**APPENDIX B. APEX - Max-Min II**

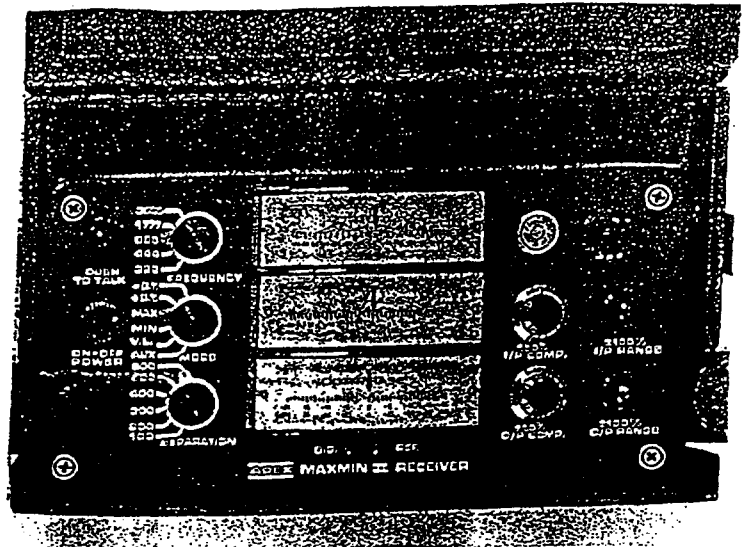
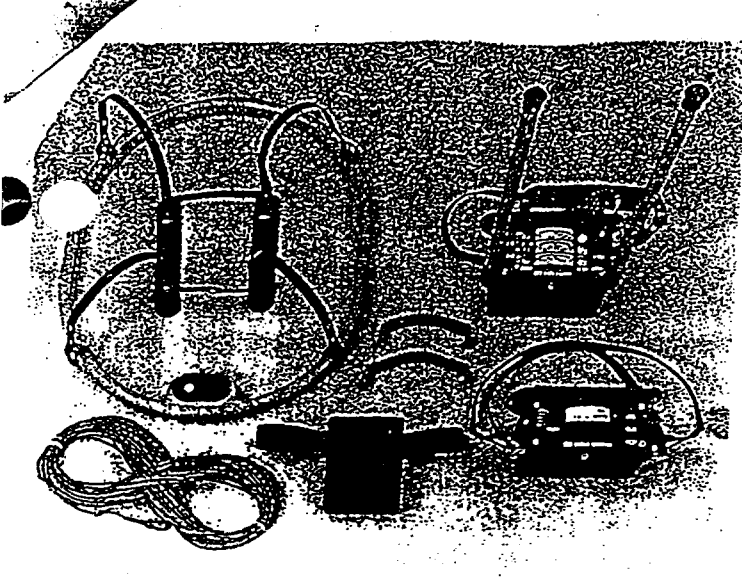
# APEX

# 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.

NOW ALSO 14%  
QUADRATURE  
FULL SCALE.





**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 reference 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 (MMIF) 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: ±20%, ±100% by push-button switch.  
Quadrature: ±20%, ±100% by push-button switch.  
Tilt: ±75% scale  
Null (VL): Sensitivity adjustable by separation switch.

**Repeatability:** ±0.25% to ±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>  
- 1777Hz : 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.

**APEX**

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



Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W9960.00225 Assessment Files Research Imaging



42A15SW2008 2.19476 McCART 900

subsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, assessment work and correspond with the mining land holder. Questions about this...

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Form with fields for Name, Address, Client Number, Telephone Number, Fax Number for A.P. DAVID GAMBLE and SUSAN ANNE GAMBLE.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Form with checkboxes for Geotechnical, Physical, and Rehabilitation work. Includes fields for Work Type (LINECUTTING, MAG SURVEY, HLEM SURVEYS), Dates Work Performed, Township/Area, and Mining Division.

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

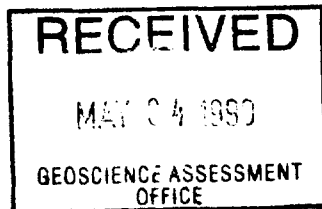
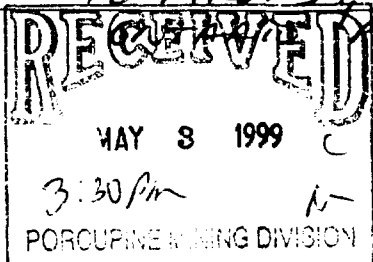
Form with fields for Name, Address, Telephone Number, Fax Number for SUE & DAVID GAMBLE and NATIVE EXPLORATION SERVICES.

4. Certification by Recorded Holder or Agent

I, A.P. DAVID GAMBLE, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Form with fields for Signature of Recorded Holder or Agent, Date (May 03, 1999), Agent's Address, Telephone Number, and Fax Number.

0241 (03/97)



2.19476

5. **Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9960.00225

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 P1217457	6	4081.32	2400. /	1567.48	113.84
2 P1217458	6	4081.32	2400. /	1327.82	353.5
3 P1217459	4	2720.88	1600. /	0	1120.88
4 P1200099	4	2720.88	1600. /	0	1120.88
5 P1200100	4	2720.88	1600.00 /	0	1120.88
6 P1200098	4	272.18	1600.00 /	0	0
7 P1203216	8	1632.52	3200.00 /	0	0
8 P1200101	4	2720.88	1600.00 /	0	1120.88
9					
10					
11					
12					
13					
14					
15					
Column Totals	40	20950.87	16000.00	2895.30	4950.86

I, A. P. DAVID GAMBLE, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing

Date

MAY 3, 1999.

6. **Instruction for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe): **BANK FIRST,**

**THEN FIRST** P 1217457,

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

Received Stamp

Deemed Approved Date

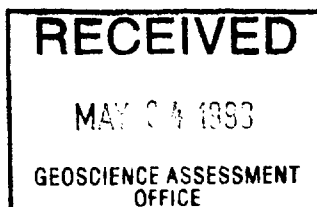
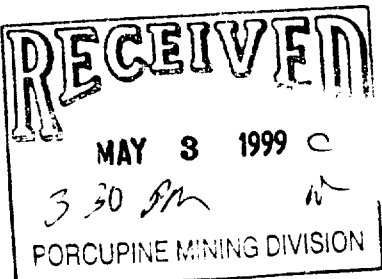
Date Notification Sent

Date Approved

Total Value of Credit Approved

Approved for Recording by Mining Recorder (Signature)

0241 (03/97)



2-19476



Statement of Costs for Assessment Credit

Transaction Number (office use) W9960.00225

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Table with 4 columns: Work Type, Units of work, Cost Per Unit of work, Total Cost. Rows include LINECUTTING, MAG SURVEY, HLEM SURVEYS, PROJECT MANAGEMENT, SUPERVISION, & REPORTS, OFFICE DRAFTING, WORD PROCESSING, COLLATING REPT., Associated Costs, Transportation Costs, Food and Lodging Costs, and Total Value of Assessment Work.

Calculations of Filing Discounts:

- 1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work.

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification.

Certification verifying costs:

I, A.P. David Gamble, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as A.P. David Gamble I am authorized to make this certification.

RECEIVED MAY 3 1999 3:30 PM PORCUPINE MINING DIVISION

Signature [Signature] Date May 3, 1999

RECEIVED MAY 4 1999 GEOSCIENCE ASSESSMENT OFFICE

9476



Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (888) 415-9846  
Fax: (877) 670-1555

June 1, 1999

A.P. DAVID GAMBLE  
70 First Street  
Kirkland Lake, Ontario  
P2N-1N3

Visit our website at:  
[www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm](http://www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm)

Dear Sir or Madam:

**Submission Number:** 2.19476

**Status**

**Subject: Transaction Number(s):** W9960.00225 Deemed Approval

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at [steve.beneteau@ndm.gov.on.ca](mailto:steve.beneteau@ndm.gov.on.ca) or by telephone at (705) 670-5855.

Yours sincerely,



ORIGINAL SIGNED BY  
Blair Kite  
Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

**Submission Number:** 2.19476

**Date Correspondence Sent:** June 01, 1999

**Assessor:** Steve Beneteau

**General Comment:**

---

<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9960.00225	1217457	MCCART	Deemed Approval	June 01, 1999

**Section:**

14 Geophysical MAG

**Correspondence to:**

Resident Geologist  
South Porcupine, ON

Assessment Files Library  
Sudbury, ON

**Recorded Holder(s) and/or Agent(s):**

A.P. DAVID GAMBLE  
Kirkland Lake, Ontario

SUSAN ANNE GAMBLE  
Kirkland Lake, Ontario

REFERENCES

NOTE

LOT AND CONCESSION LINES SHOWN HEREON ARE PROJECTED FROM THE BEST INFORMATION AVAILABLE, BUT THEIR TRUE POSITION IS NOT GUARANTEED.

FOR LEGAL AND SURVEY PURPOSES CONSULT THE ORIGINAL SURVEY PLANS AND FIELD NOTES OF RECORD IN THE DEPARTMENT OF LANDS AND FORESTS, TORONTO.

ACREAGES SHOWN IN RESPECT OF PATENTED LOTS ARE IN ACCORDANCE WITH AREA GRANTED.

AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No.	Date	Disposition	File
REOPENED	M.A.O. 71/84			3688

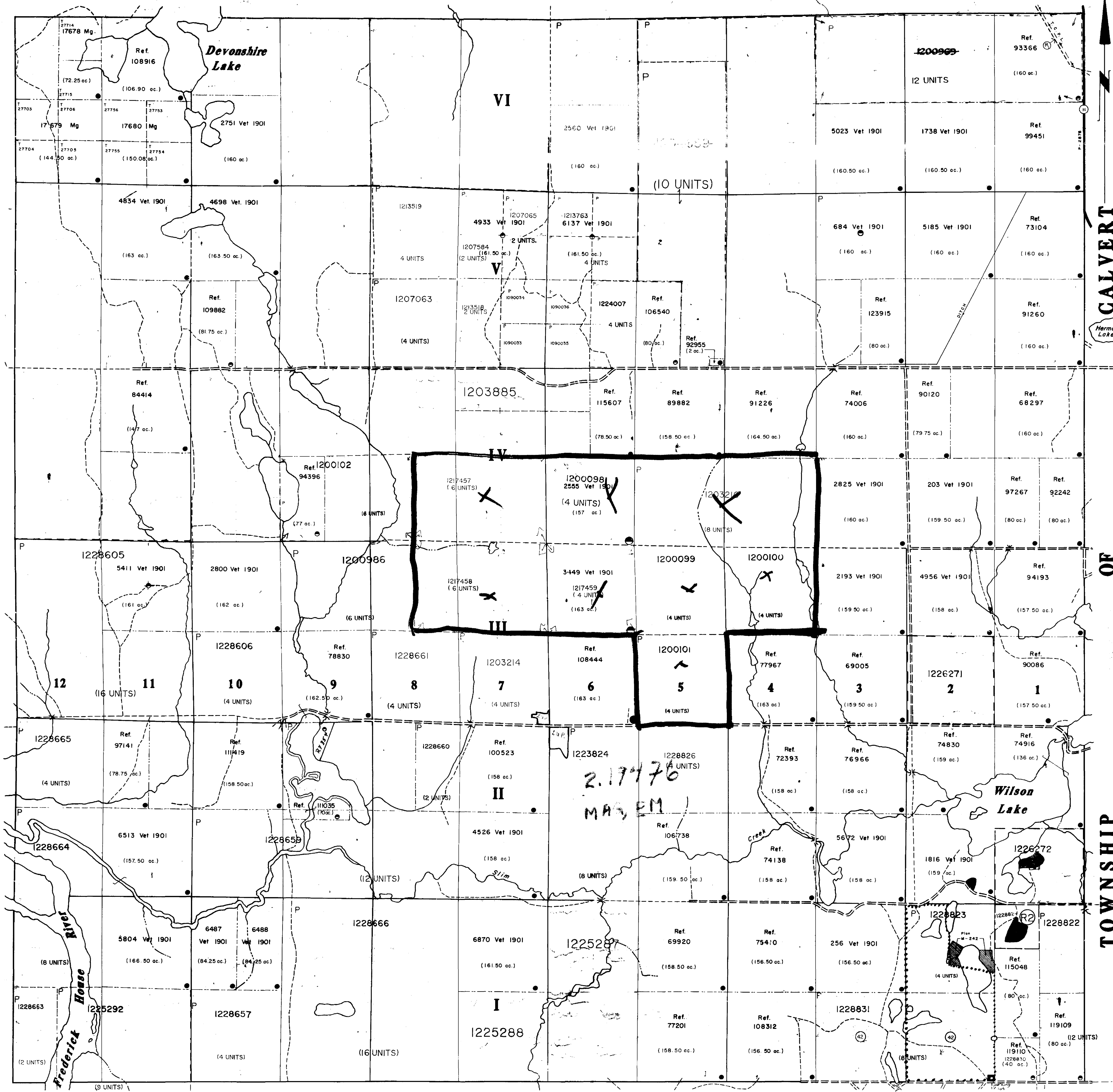
See fees Rights Withdrawn under Sec. 26, 27, Mining Act R.S.O. 1980, Chapter No. W-21/20/21 (The Canada Pipeline Right of Way and Buffer Zone Act, R.S.O. 1980, Chapter No. W-21/20/21, on either side of centre line of right of way)

AGGREGATE PERMIT

TOWNSHIP OF NEWMARKET

LITTLE OF TOWNSHIP

CALVERT OF TOWNSHIP



REFERENCES

TOPOGRAPHY

LAKES, RIVERS, ETC., FROM FOREST RESOURCES INVENTORY SHEETS NO 486804 AND 487804

SURVEYS

TOWNSHIP OF McCART SUBDIVIDED BY A.D. GRIFFIN, O.L.S., 1904. FIELD NOTE BOOK 1533. WEST LIMIT OF McCART TOWNSHIP (LITTLE TWP) SURVEY BY J.W. FITZGERALD, O.L.S., 1904. FIELD NOTE BOOK 1402.

EAST LIMIT OF McCART TOWNSHIP (SEE CALVERT TWP) SURVEY BY ALEXANDER BAIRD, O.L.S., 1904. FIELD NOTE BOOK 1009.

THIRD MERIDIAN (EAST LIMIT OF McCART TWP) BY WILLIAM GALBRAITH, O.L.S., 1904. FIELD NOTE BOOK 2363.

BASE LINE (SOUTH LIMIT OF McCART TWP.) BY T.J. PATTEN, O.L.S., 1903. FIELD NOTE BOOK 2460.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. MAY 83 888

LEGEND

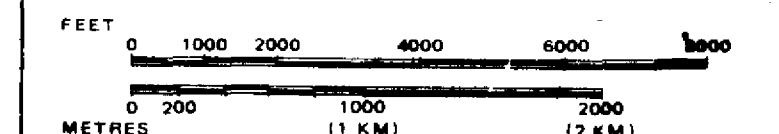
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION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

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	○
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	○
LEASE, SURFACE & MINING RIGHTS	○
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	○
LICENCE OF OCCUPATION	○
ORDER-IN-COUNCIL	OC
RESERVATION	○
CANCELLED	○
SAND & GRAVEL	○
L. U. P.	○

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 4, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 43, SUBSEC. 1

SCALE: 1 INCH = 20 CHAINS



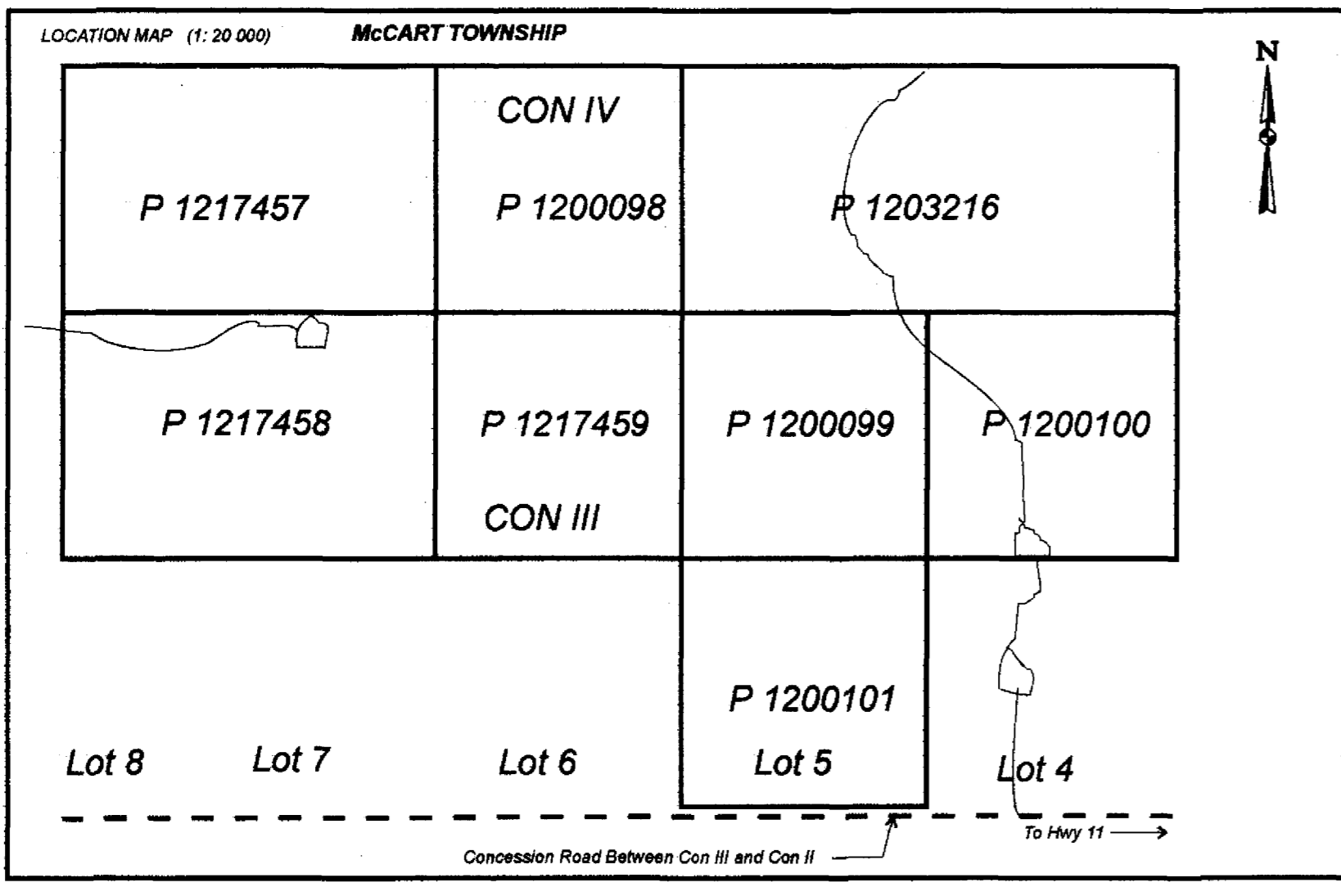
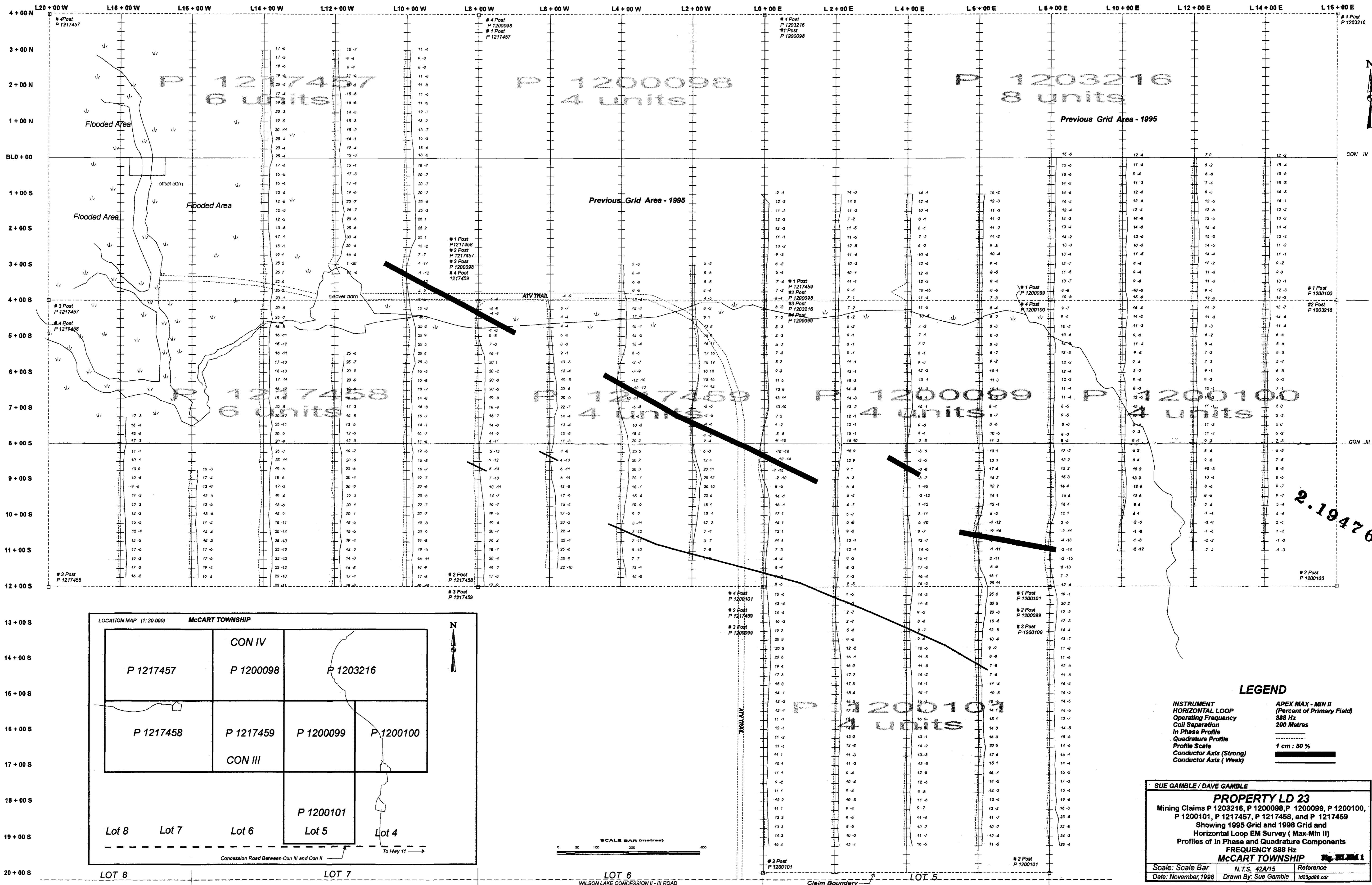
TOWNSHIP McCART

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

Ministry of Natural Resources and Mines Ontario

Date: JULY 1986 Number: G-3541

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS OR OLD CLAIMS SHOULD CONTACT THE MINING DIVISION FOR FURTHER INFORMATION.



**LEGEND**

- INSTRUMENT
- HORIZONTAL LOOP
- Operating Frequency
- Coil Separation
- In Phase Profile
- Quadrature Profile
- Profile Scale
- Conductor Axis (Strong)
- Conductor Axis (Weak)
- APEX MAX - MIN II  
(Percent of Primary Field)
- 888 Hz
- 200 Metres
- 1 cm : 50 %

SUE GAMBLE / DAVE GAMBLE

**PROPERTY LD 23**

Mining Claims P 1203216, P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459

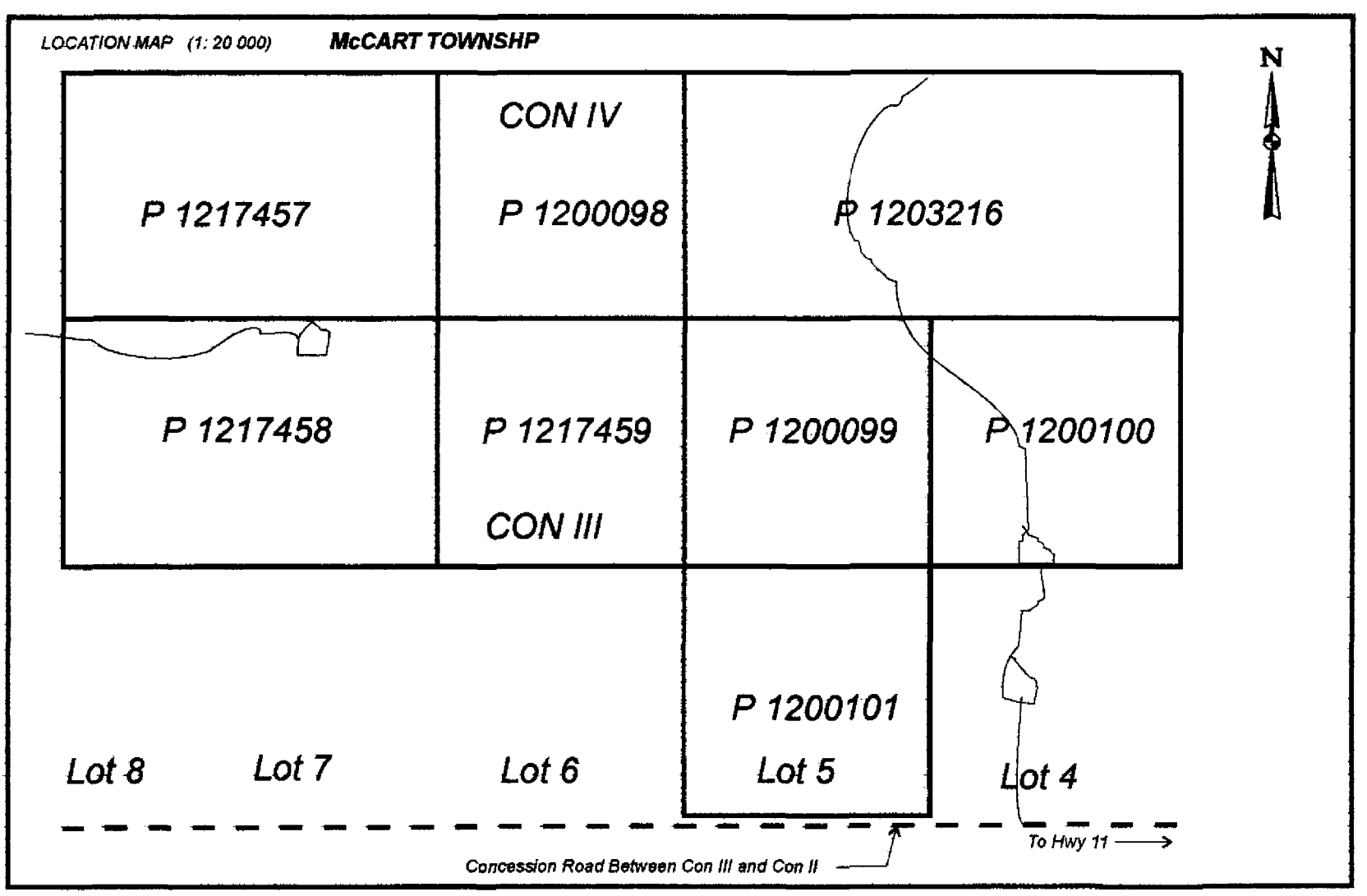
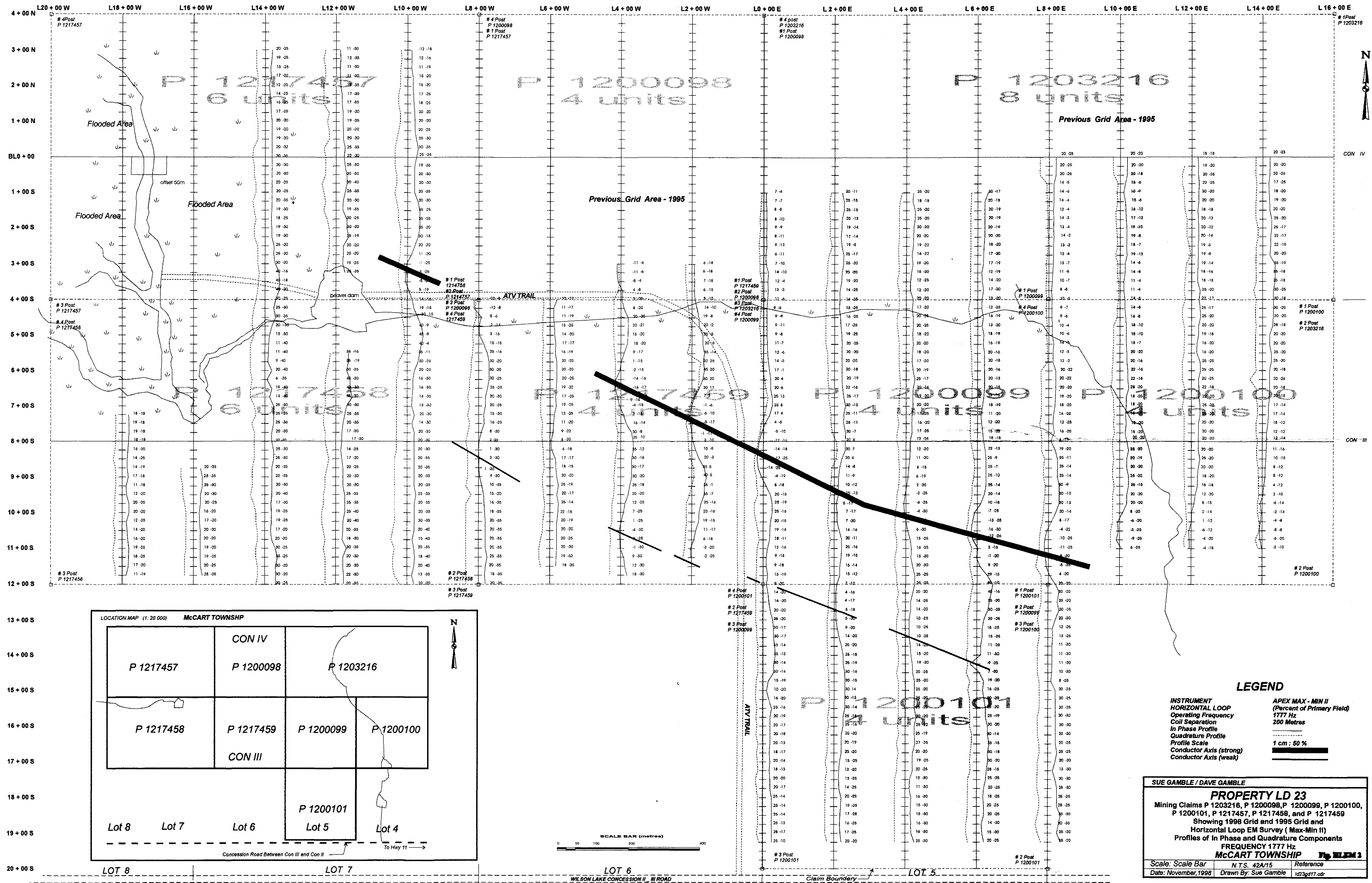
Showing 1995 Grid and 1998 Grid and Horizontal Loop EM Survey ( Max-Min II) Profiles of In Phase and Quadrature Components

FREQUENCY 888 Hz

**MCCART TOWNSHIP**

Scale: Scale Bar      N.T.S. 42A/15      Reference

Date: November, 1998      Drawn By: Sue Gamble      1d23gd98.cdr



**LEGEND**

INSTRUMENT  
HORIZONTAL LOOP  
Operating Frequency  
1777 Hz

Coil Separation  
In Phase Profile  
Quadrature Profile

Profile Scale  
Conductor Axis (strong)  
Conductor Axis (weak)

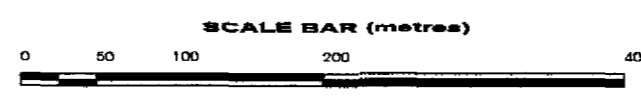
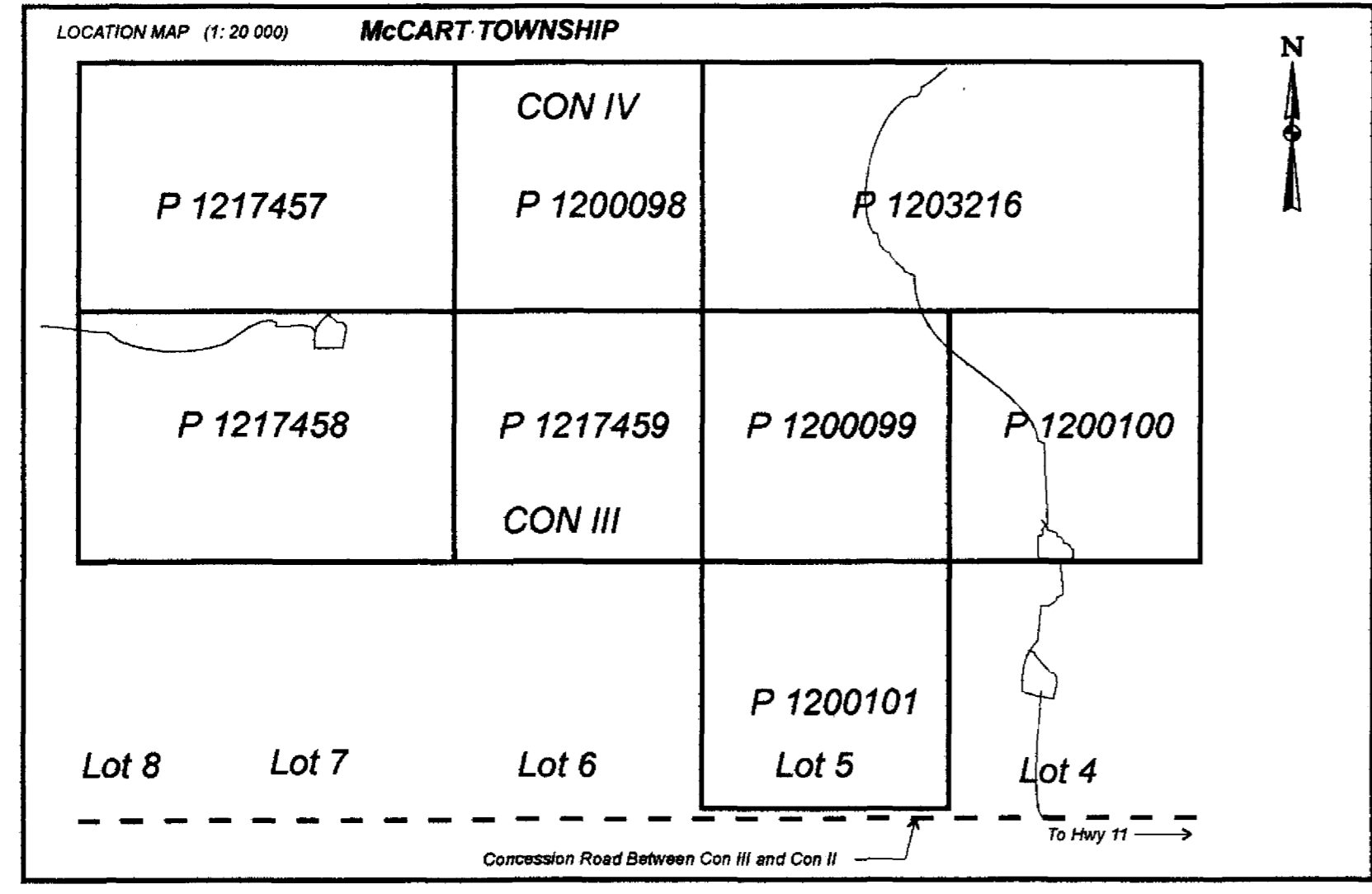
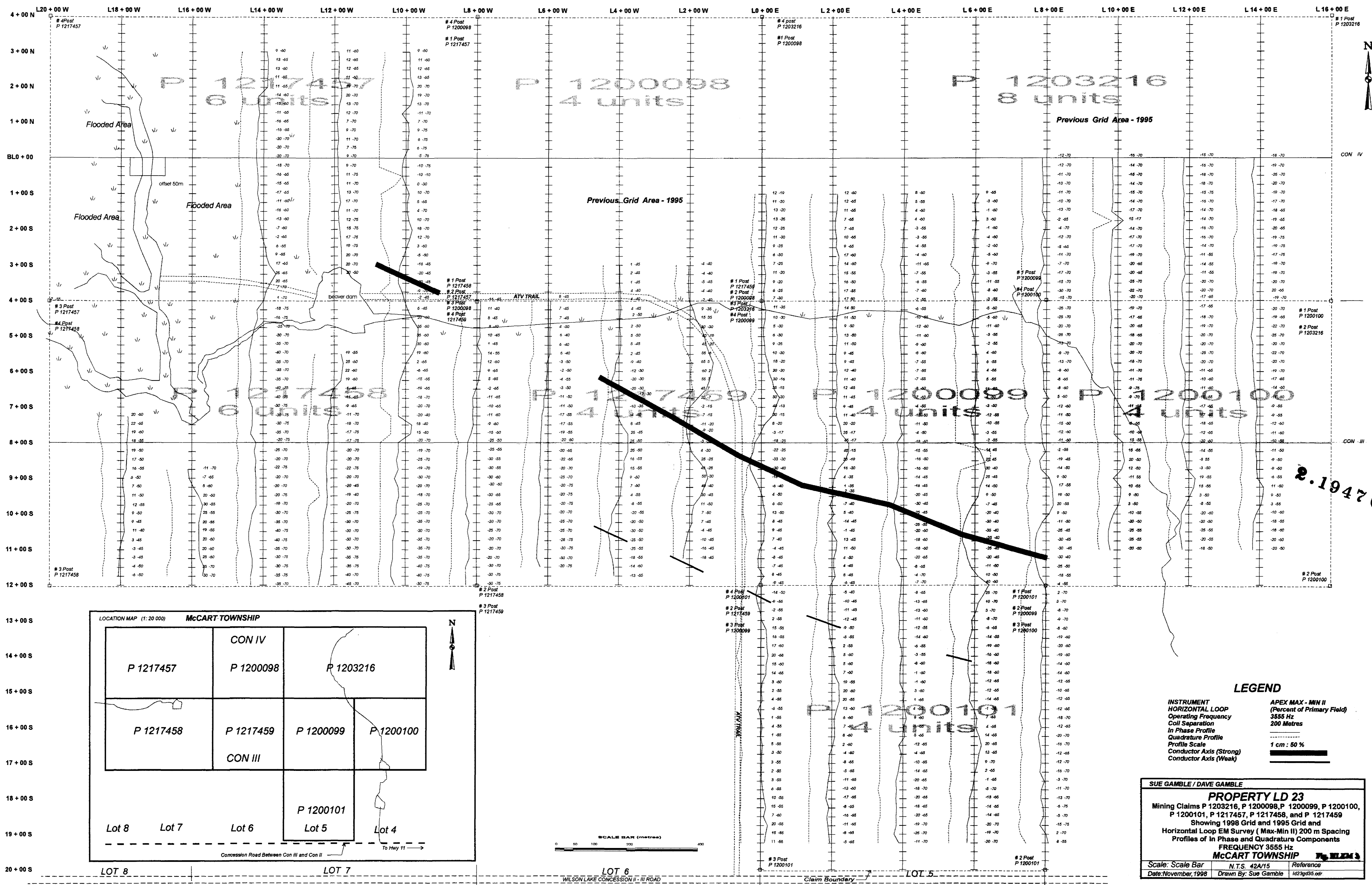
APEX MAX - MIN II  
(Percent of Primary Field)  
1777 Hz  
200 Metres

1 cm : 50 %

SUE GAMBLE / DAVE GAMBLE

**PROPERTY LD 23**  
Mining Claims P 1203216, P 1200098, P 1200099, P 1200100,  
P 1200101, P 1217457, P 1217458, and P 1217459  
Showing 1998 Grid and 1995 Grid and  
Horizontal Loop EM Survey (Max-Min II)  
Profiles of In Phase and Quadrature Components  
FREQUENCY 1777 Hz  
McCART TOWNSHIP

Scale: Scale Bar N.T.S. 42A/15 Reference  
Date: November, 1998 Drawn By: Sue Gamble lrd23gd17.cdr



**LEGEND**

- INSTRUMENT: HORIZONTAL LOOP
- Operating Frequency: 3555 Hz
- Coil Separation: 200 Metres
- In Phase Profile: Quadrature Profile
- Profile Scale: Conductor Axis (Strong)
- Conductor Axis (Weak)
- APEX MAX - MIN II (Percent of Primary Field)
- 3555 Hz
- 200 Metres
- 1 cm : 50 %

SUE GAMBLE / DAVE GAMBLE

**PROPERTY LD 23**

Mining Claims P 1203216, P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459

Showing 1998 Grid and 1995 Grid and Horizontal Loop EM Survey (Max-Min II) 200 m Spacing Profiles of In Phase and Quadrature Components

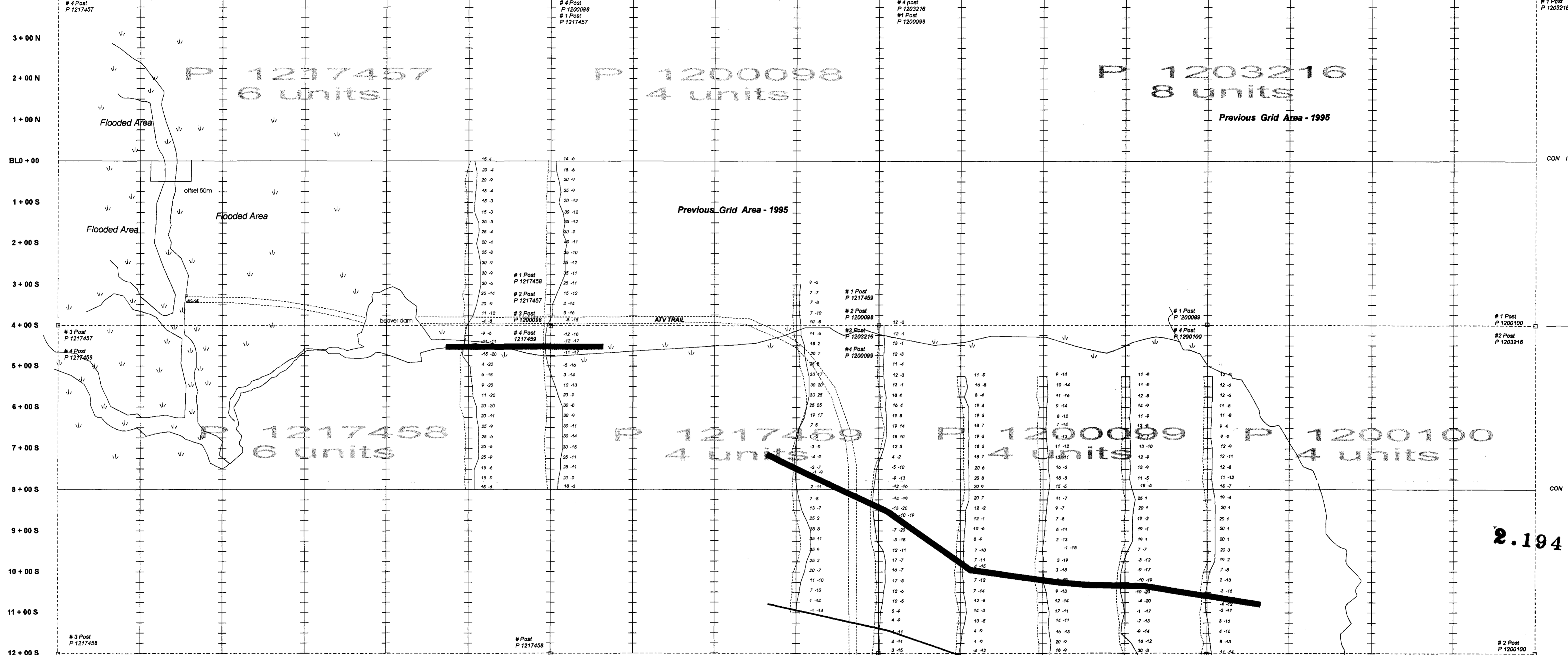
**FREQUENCY 3555 Hz**

**McCART TOWNSHIP**

Scale: Scale Bar N.T.S. 42A/15 Reference  
 Date: November, 1998 Drawn By: Sue Gamble 123gd95.cdr

2.19476

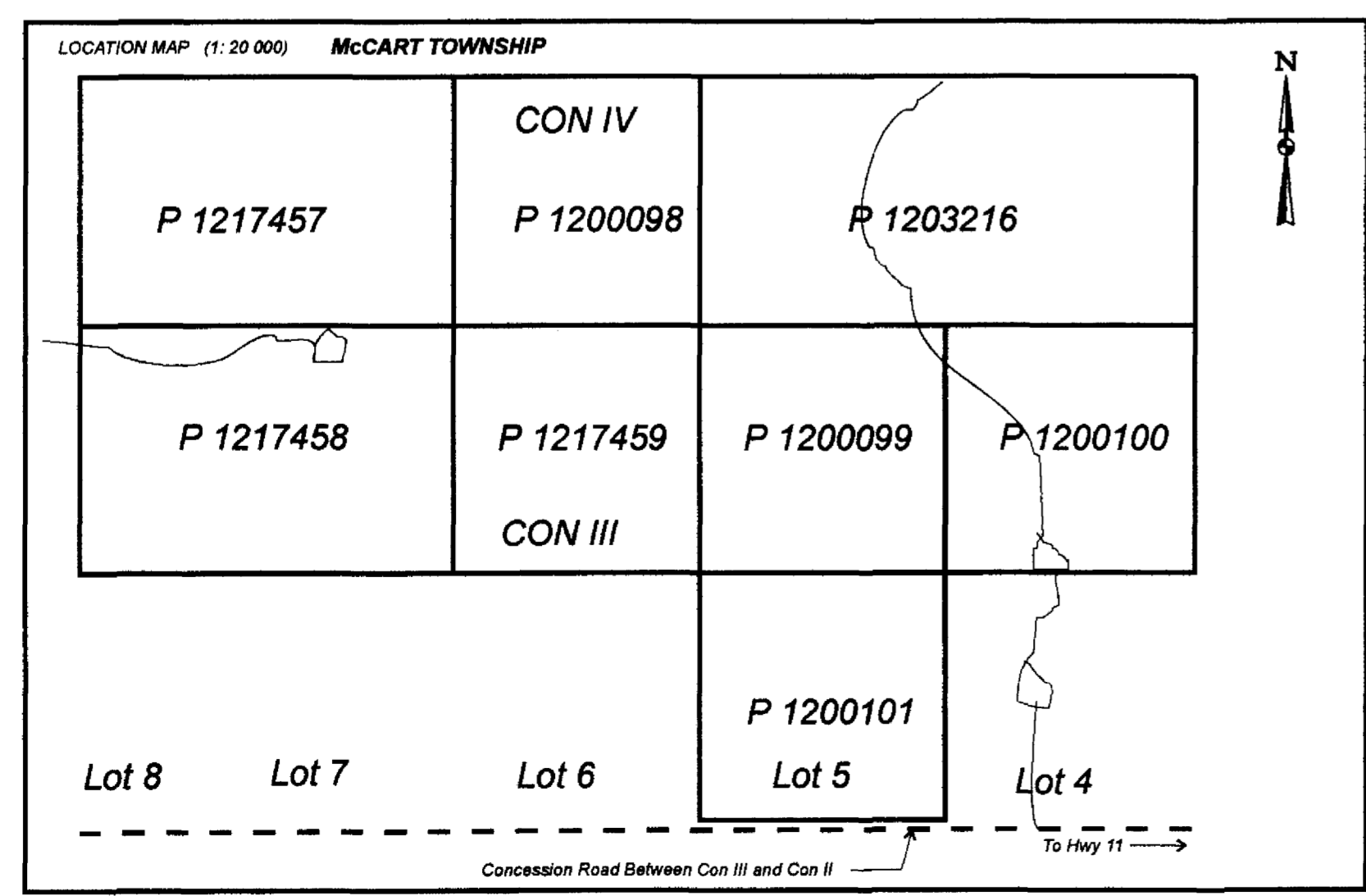
L20+00 W L18+00 W L16+00 W L14+00 W L12+00 W L10+00 W L8+00 W L6+00 W L4+00 W L2+00 W L0+00 E L2+00 E L4+00 E L6+00 E L8+00 E L10+00 E L12+00 E L14+00 E L16+00 E



CON IV

CON III

2.19476



**LEGEND**

- INSTRUMENT HORIZONTAL LOOP
- Operating Frequency 888 Hz
- Coil Separation In Phase Profile
- Quadrature Profile
- Profile Scale
- Conductor Axis (strong)
- Conductor Axis (weak)
- APEX MAX - MIN II (Percent of Primary Field)
- 1 cm : 50 %

SUE GAMBLE / DAVE GAMBLE

**PROPERTY LD 23**

Mining Claims P 1203216, P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459

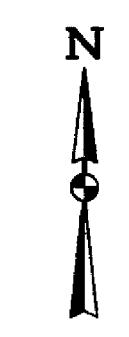
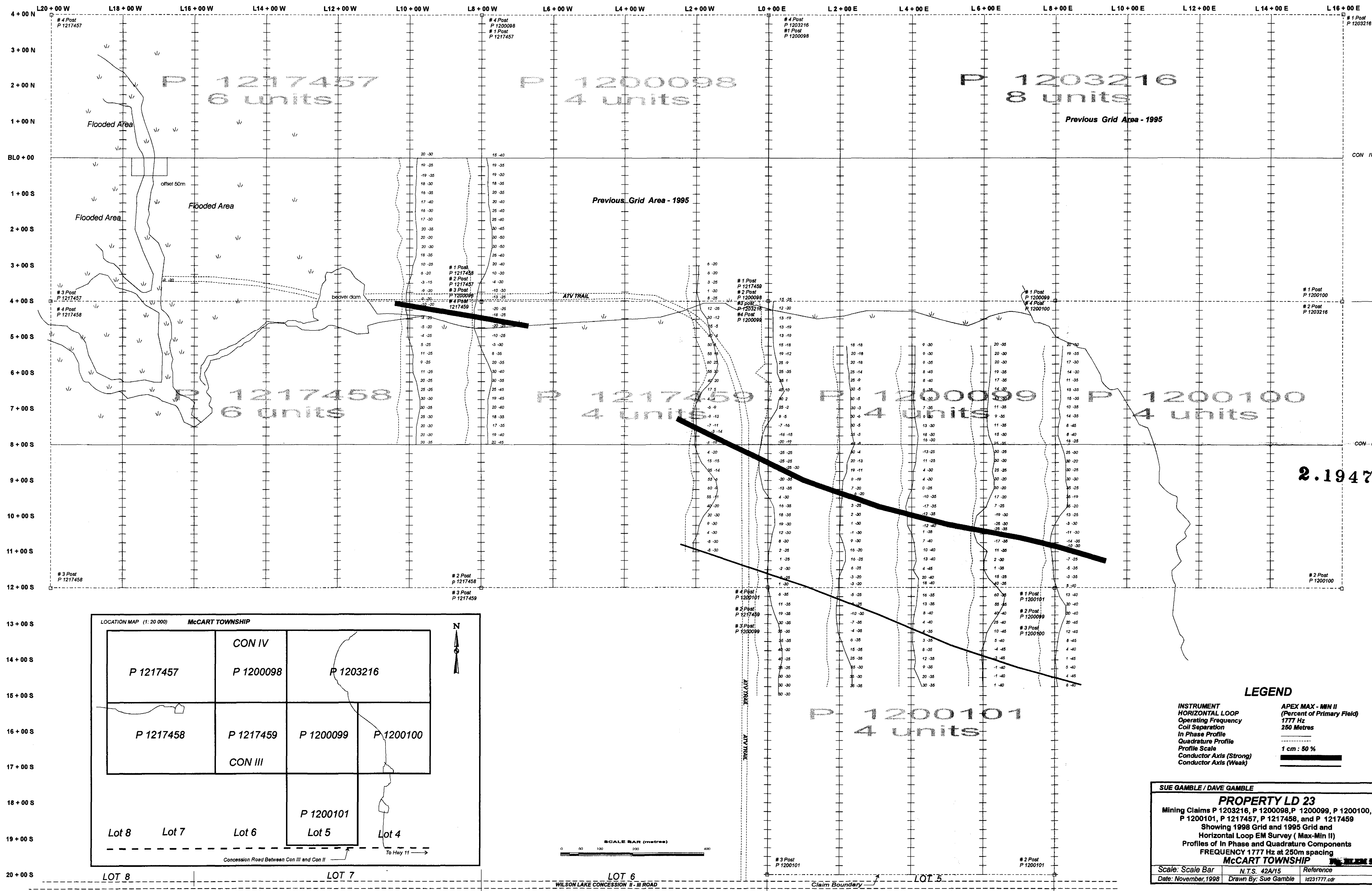
Showing 1998 Grid and 1995 Grid and Horizontal Loop EM Survey (Max-Min II)

Profiles of In Phase and Quadrature Components

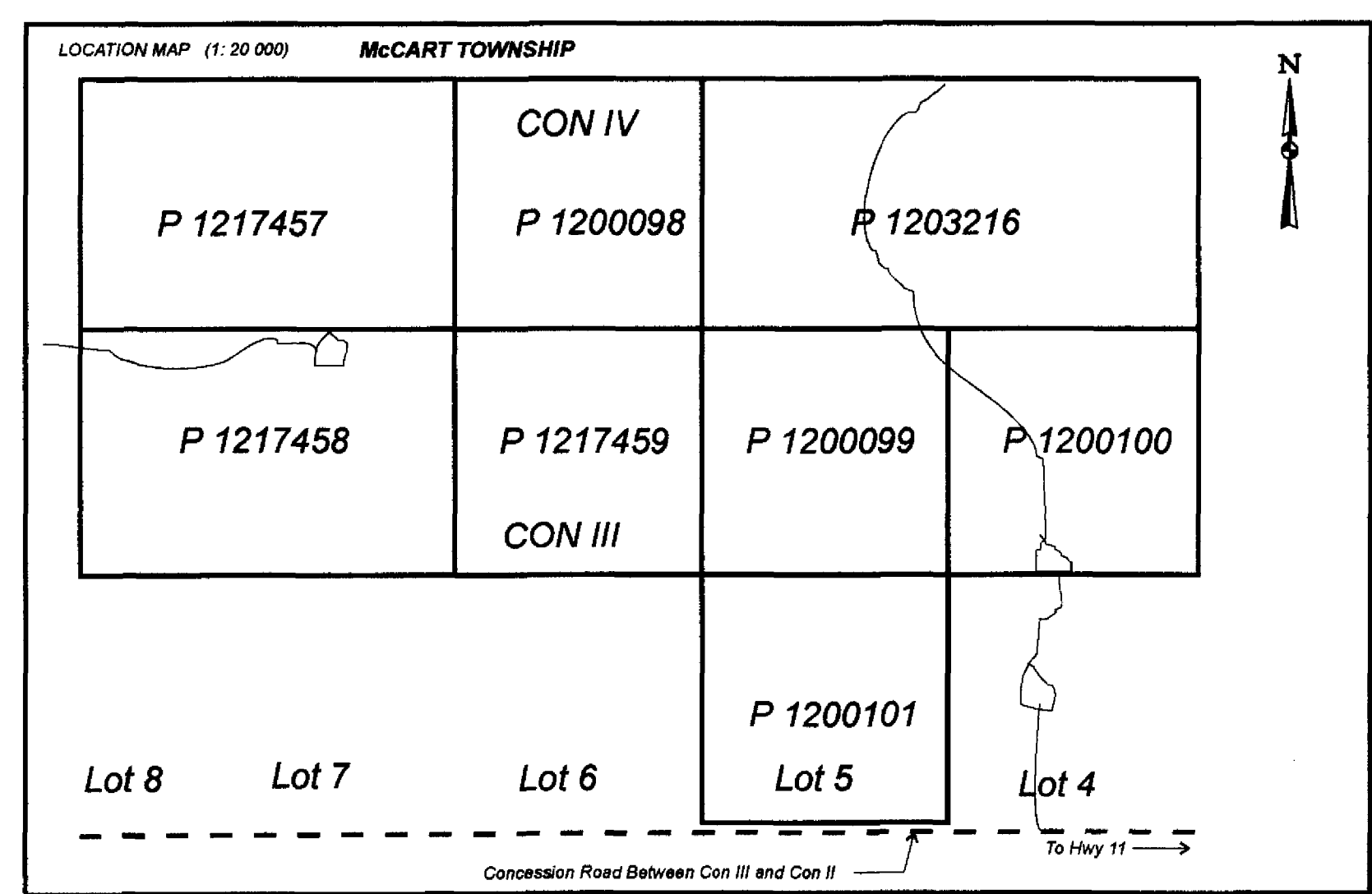
FREQUENCY 888 Hz at 250m Spacing

**McCART TOWNSHIP**

Scale: Scale Bar	N.T.S. 42A/15	Reference
Date: November, 1998	Drawn By: Sue Gamble	10238888.cdr



2.19476



**LEGEND**

- INSTRUMENT: HORIZONTAL LOOP
- Operating Frequency: 1777 Hz
- Coil Separation: 250 Metres
- In Phase Profile: (Symbol)
- Quadrature Profile: (Symbol)
- Profile Scale: 1 cm : 50 %
- Conductor Axis (Strong): (Symbol)
- Conductor Axis (Weak): (Symbol)
- APEX MAX - MIN II (Percent of Primary Field): (Symbol)

**SUE GAMBLE / DAVE GAMBLE**

**PROPERTY LD 23**

Mining Claims P 1203216, P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459

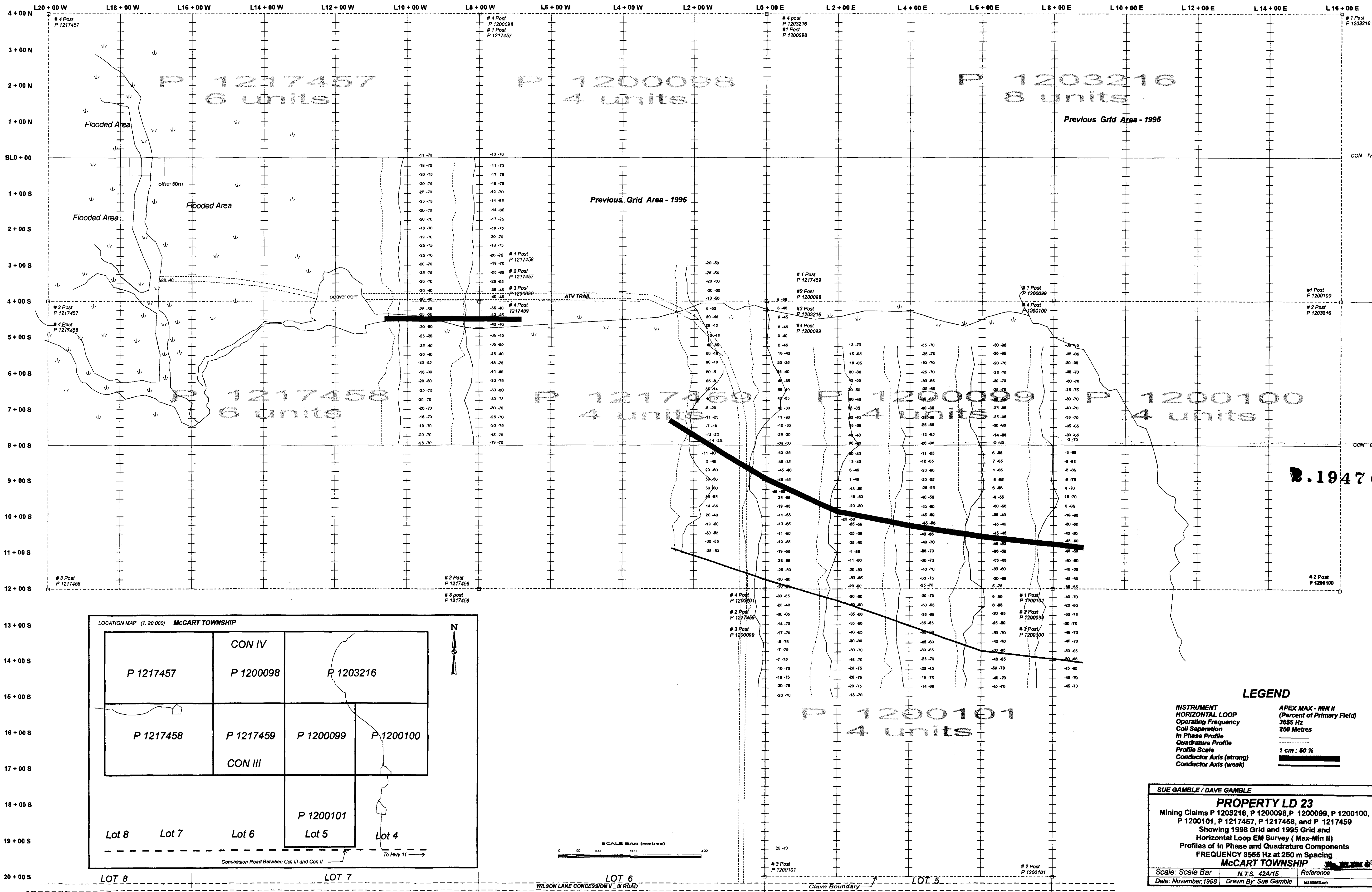
Showing 1998 Grid and 1995 Grid and Horizontal Loop EM Survey (Max-Min II) Profiles of In Phase and Quadrature Components

FREQUENCY 1777 Hz at 250m spacing

**McCART TOWNSHIP**

Scale: Scale Bar	N.T.S. 42A/15	Reference
Date: November, 1998	Drawn By: Sue Gamble	ld231777.cdr

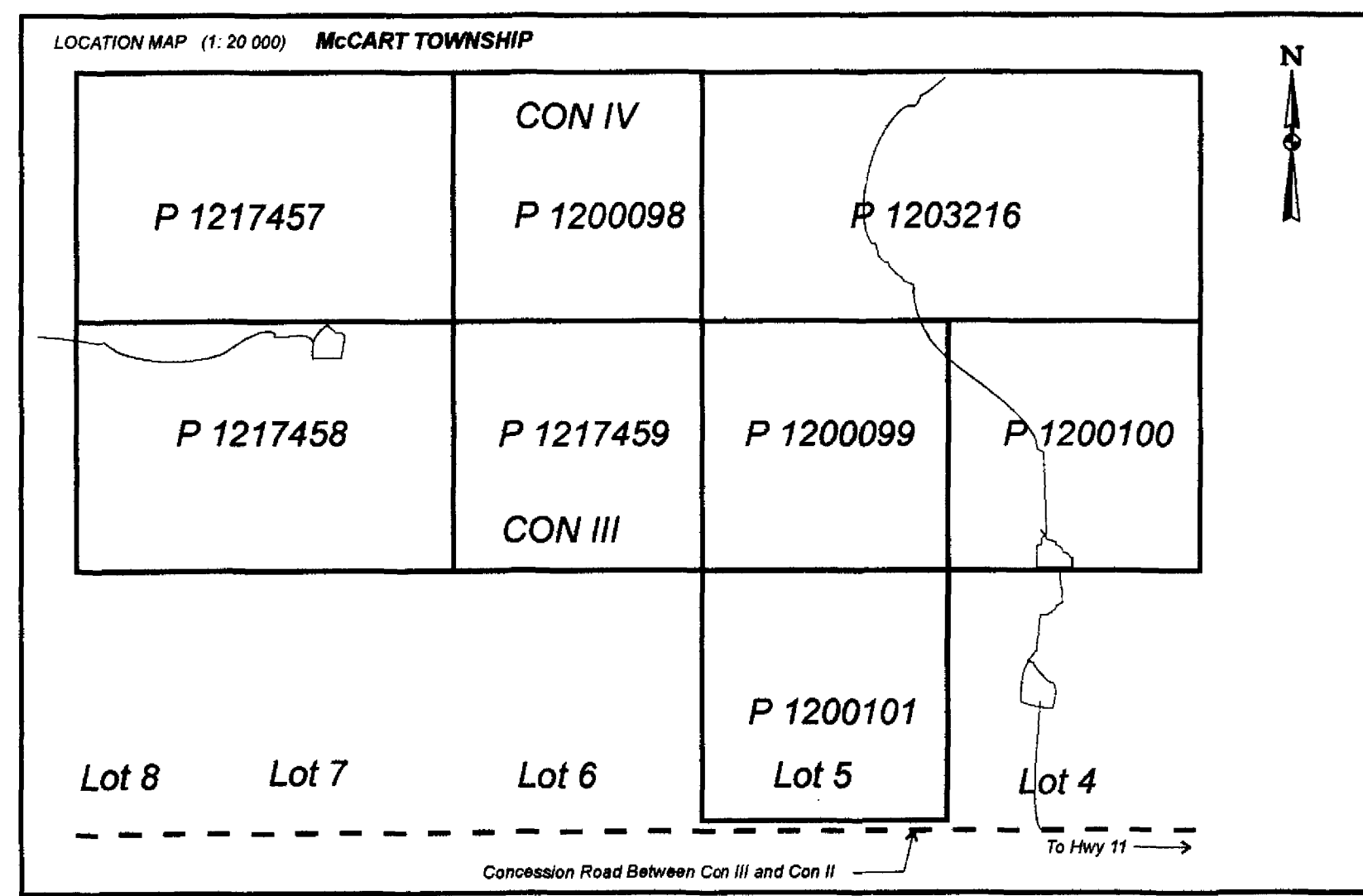




CON IV

CON III

2.19476



**LEGEND**

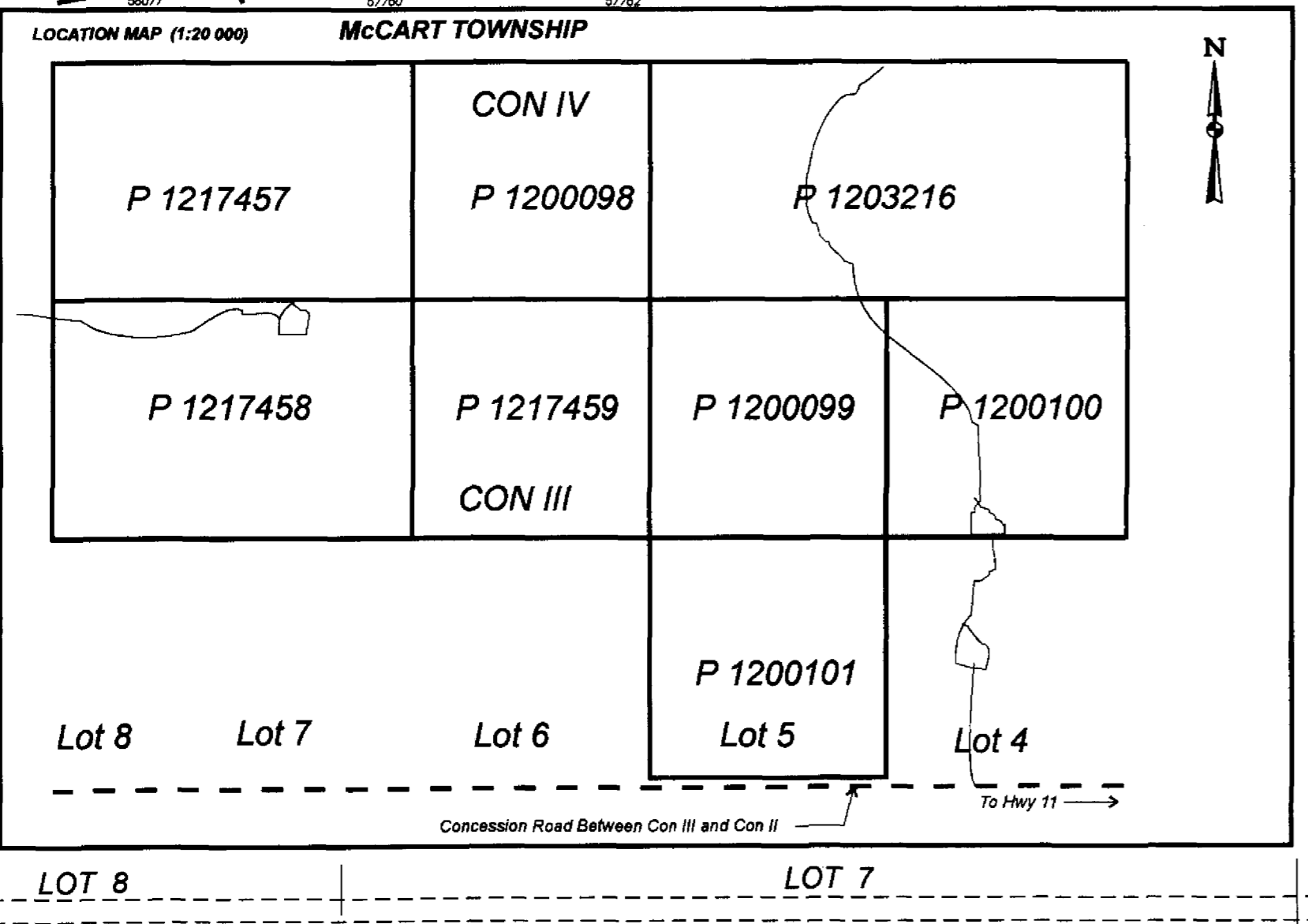
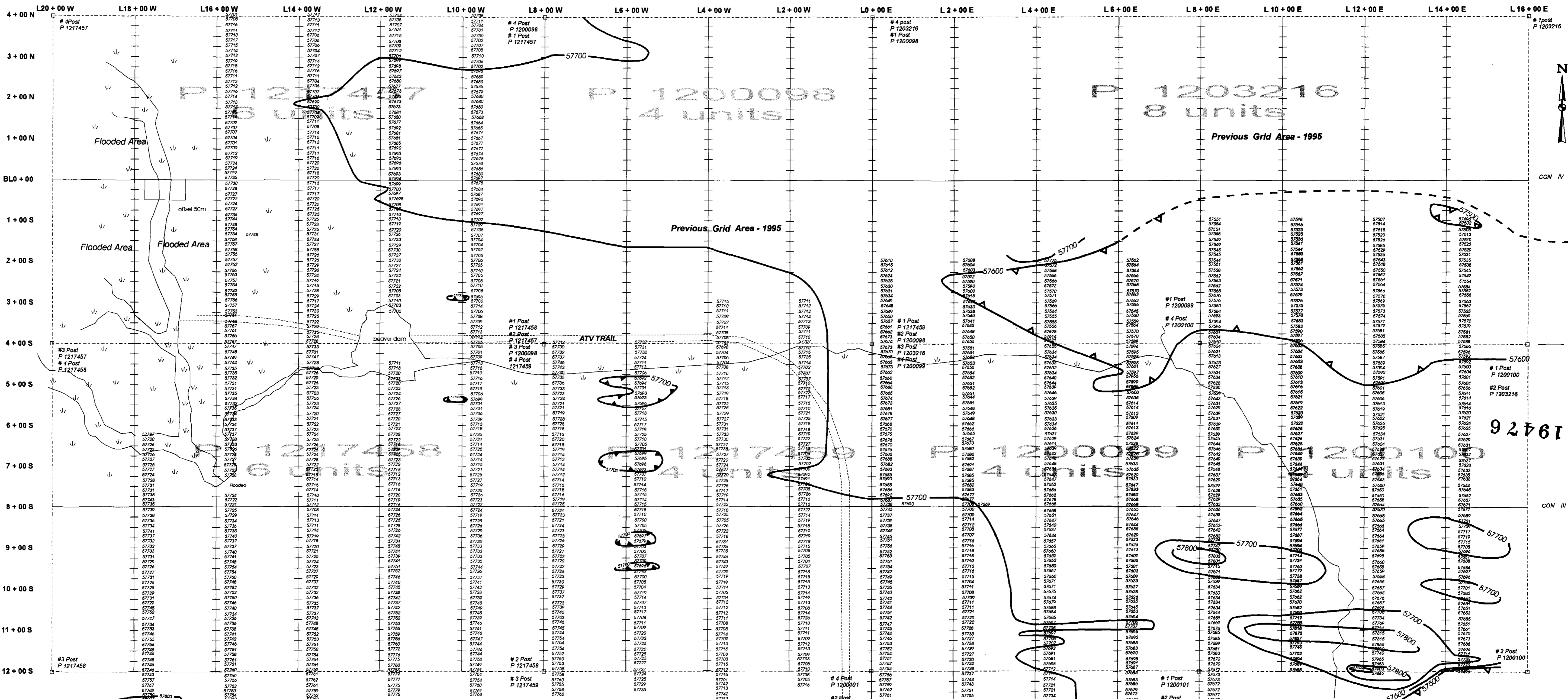
- INSTRUMENT: HORIZONTAL LOOP
  - Operating Frequency: 3555 Hz
  - Coil Separation: 250 Metres
  - In Phase Profile:
  - Quadrature Profile:
  - Profile Scale:
  - Conductor Axis (strong):
  - Conductor Axis (weak):
- APEX MAX - MIN II  
(Percent of Primary Field)  
3555 Hz  
250 Metres  
1 cm : 60 %

**SUE GAMBLE / DAVE GAMBLE**

**PROPERTY LD 23**  
Mining Claims P 1203216, P 1200098, P 1200099, P 1200100, P 1200101, P 1217457, P 1217458, and P 1217459  
Showing 1998 Grid and 1995 Grid and Horizontal Loop EM Survey (Max-Min II)  
Profiles of In Phase and Quadrature Components  
FREQUENCY 3555 Hz at 250 m Spacing  
**McCART TOWNSHIP**

Scale: Scale Bar	N.T.S. 42A/15	Reference
Date: November, 1998	Drawn By: Sue Gamble	MS2005E.cdr





**LEGEND**

INSTRUMENT  
 GEOMETRICS G816 PROTON  
 PRECISION MAGNETOMETER  
 Total Magnetic Field  
 Readings Posted at 12.5 metre  
 Station Intervals e.g. 57,700 nT  
 Contour Interval 100 nT

SUE GAMBLE / DAVE GAMBLE

**PROPERTY LD 23**

Mining Claims P 1203216, P 1200098, P 1200099, P 1200100,  
 P 1200101, P 1217457, P 1217458, and P 1217459  
 Showing 1998 Grid and 1995 Grid and  
 Ground Magnetometer Survey

McCART TOWNSHIP

Scale: Scale Bar      N.T.S. 42A/15      Reference Fig. Map 1  
 Date: November 1998      Drawn By: Sue Gamble      4233mag.00r