



42A03NE0027 2.13381 BARTLETT

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**ASSESSMENT REPORT**

**GEOLOGICAL AND GEOPHYSICAL SURVEYS**

**NORWIN PROJECT, ONTARIO**

**McARTHUR AND BARTLETT TWPS.**

**NTS 42A3**

**RECEIVED**

**JUN 19 1990**

**MINING LANDS SECTION**

**R. Clark  
Inco Gold Management Inc.  
Copper Cliff, Ontario  
February, 1989**

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SUMMARY

During the summer of 1988, Inco Gold Management Inc. entered into an option agreement with Norwin Resources Ltd. covering a block of 35 mining claims located in McArthur and Bartlett Townships, Porcupine District, NTS 42-A-3. The Norwin Property covers a portion of the contact between the Deloro and Tisdale Groups and hosts 6 known gold showings. A program consisting of geological mapping, prospecting and geophysical surveys was carried out during the summer of 1988. All of the known gold occurrences were located and sampled.

## 1.0 INTRODUCTION

### 1.1 Property

The Norwin property consists of thirty-five contiguous mining claims located in Bartlett & McArthur Twps., Porcupine Mining Division, NTS: 42-A-3 as listed below (Figures 1 and 2):

P - 968398 - 968416

P - 943709 - 943712

P - 969603 - 969614

In February of 1988, Inco Gold entered into an option agreement with Norwin Resources Ltd. Under the agreement, Inco Gold can acquire a 100% interest in the property by making annual payments over a five year period, and by incurring exploration expenditures in the first year. Norwin Resources Ltd. retains a Net Profits Royalty interest.

### 1.2 Location and Access

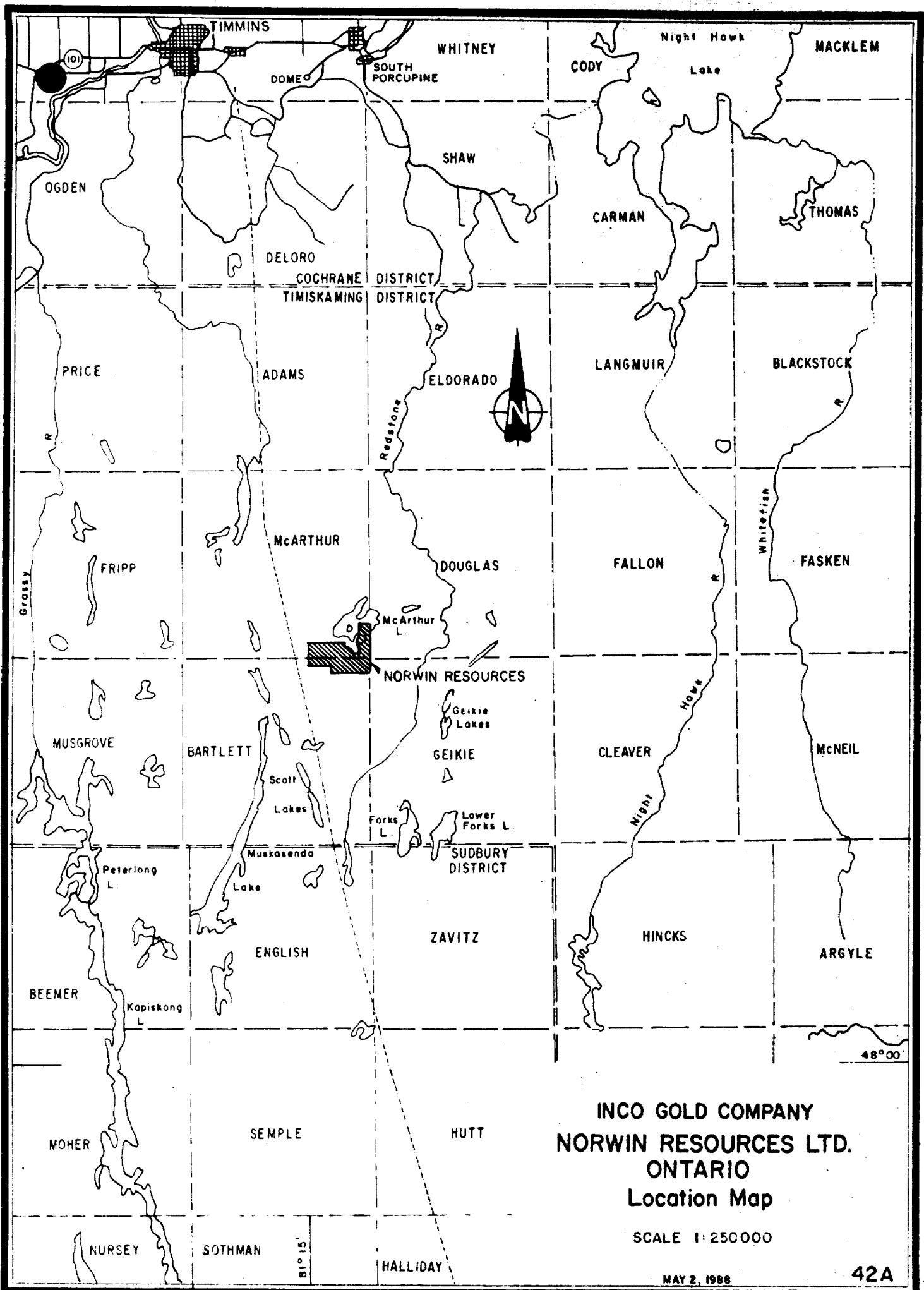
The Norwin property is located roughly thirty-two kilometers south of the city of Timmins, Ontario (Figure No. 2). The property covers the southeastern portion of McArthur Township, and the northeastern portion of Bartlett Township. Access to the block is gained via Pine Street south from the city of Timmins to the border of Bartlett and McArthur Townships. At this point an old lumber road runs east to the central portion of the property. This road is suitable only for ATV's during the summer months. Alternatively, a lumber road in good repair, terminates 0.5 km west of McArthur Lake. At this point the claim block is accessible either by boat, or via a network of ATV trails that lead south to the property.

### 1.3 History

With the discovery of gold in the Porcupine area during 1909, prospectors gradually worked their way south into this area. Numerous gold showings were discovered in and surrounding Bartlett and McArthur Townships.

The only past producing mine in the immediate area is the Texmont nickel mine, discovered by Dominion Gulf in 1951. The mine site is located along the border of Bartlett and Geikie Townships, approximately 5 km south of the Norwin property.

Within the borders of the Norwin property, several exploration programs have been undertaken since the early 1900's. Numerous pits, trenches and small shafts are located throughout the property. A total of six gold occurrences are known to lie within the project area. These are the Steele and Chouinard veins, the Hewitt Shaft, the Westport Porcupine Occurrences No. 1 and No. 2, and the Andover Porphyry Showing (Figure No. 3).



**INCO GOLD COMPANY  
 NORWIN RESOURCES LTD.  
 ONTARIO  
 Location Map**

SCALE 1:250000

MAY 2, 1988

42A

FIGURE 1

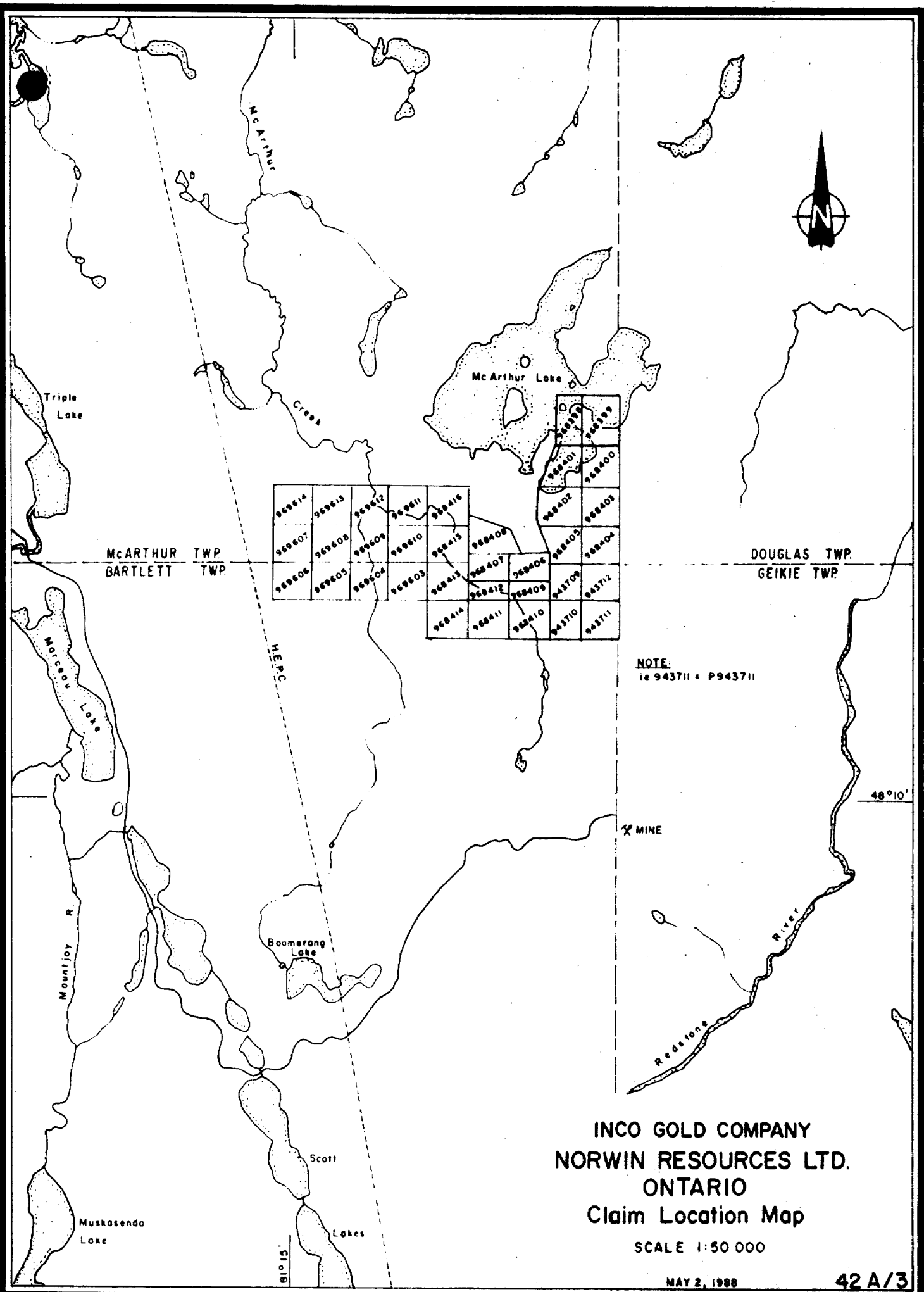


FIGURE 2

- 1911 - J. Chouinard staked a total of six claims on the south shore of McArthur Lake to protect gold showings associated with quartz veins and quartz feldspar porphyry dykes. Four veins, known as the Steele, Portage, Chouinard and Olgilvie, were outlined over the next few years by pitting and trenching. The Steele, Portage and Olgilvie veins are intermittent, lenticular quartz veins associated with quartz feldspar porphyry dykes that are likely apophyses from one of the two trondhjemite stocks in the area. The Chouinard vein is hosted by a trondhjemite stock and is not associated with any quartz feldspar porphyry. The Olgilvie Vein has historically produced the most consistently interesting gold values. Channel samples from the vein have returned gold values of up to 12 g/t over one metre.
- 1938 - Westport Porcupine Gold Mines Limited located three gold occurrences within the borders of the Norwin property area.
- The No. 1 occurrence consists of two trenches testing quartz veinlets cutting a felsic to intermediate breccia. Gold was reported to occur in pannings from the trenches and six diamond drill holes undercut the pits at various azimuths. Assay results from diamond drilling returned only trace gold values.
- The No. 2 occurrence consists of several trenches and two shallow shafts put down to test mineralized iron formation associated with narrow feldspar porphyry dikes. Samples from the trenches and shafts have yielded values up to 10.0 g/t over narrow widths. Six diamond drill holes were put down under the northernmost shaft. The assay results were discouraging but the holes were poorly spotted and the sampling was incomplete.
- The Andover Porphyry showing was discovered during the same period and was reported to consist of visible gold in narrow quartz stringers hosted by a feldspar porphyry dyke. One small pit was dug on the showing, but no assays were reported.
- 1938 - The Hewitt Shaft area was explored in 1938 by Erie Canadian Mines Ltd. Visible gold was reported in narrow quartz stringers occupying cross fractures in iron formation and a 37 metre shaft was sunk.
- 1965 - Marceau Lake Exploration Ltd. drilled one hole on the present Norwin Resources block approximately in the area of 1800S, 1000W (reference to present Norwin grid). The hole was drilled to the west and encountered iron formation, intermediate to felsic tuff, and breccias. Only five samples were collected from the hole, all of which returned values of trace gold and silver. Mineralization noted in the log consisted of up to



25% massive pyrite and pyrrhotite, and trace chalcopyrite, associated with the iron formation.

1982 - Noranda optioned the northeastern part of the property covering the Westport Porcupine No. 2 occurrence and carried out a program of magnetometer and VLF surveys which led to the drilling of four holes for a total of 100 metres. Two of the four holes were drilled under the occurrence and intersected weakly mineralized feldspar porphyry and thinly laminated oxide facies iron formation and intercalated cherty sediments. Assay results were discouraging but sampling of the core was incomplete. The best result from this drilling was 0.34 g/t Au over 0.55 metres.

#### 1.4 Summary of Inco Gold Exploration

During the summer of 1988, a 54.77 kilometre grid with lines turned every 100 metres was established on the property. From August 5, 1988 to September 18, 1988, the grid was geologically mapped and prospected in conjunction with a geophysical program consisting of a total field magnetic survey and horizontal loop electromagnetic survey.

#### 2.0 REGIONAL GEOLOGY

Early Precambrian (Archean) metavolcanics comprise the oldest rock types in the area. Pyke (1978, p 3.) recognizes two volcanic cycles known as the lower Deloro Group and the overlying Tisdale Group. The older Deloro Group is largely a calc alkaline sequence comprised of basal andesite and basalt flows capped by dacite and rhyolitic flows and pyroclastics. The younger Tisdale group consists of basal ultramafic flows and basaltic komatiites overlain by tholeiitic basalts and capped by calc-alkaline dacitic pyroclastics. Intercalated iron formations and cherty sediments are common in the middle to uppermost portions of the Deloro Group. The contact area of the two volcanic cycles is locally intruded by epizonal trondhjemitic stocks. Diabase dikes of Early, Middle and Late Precambrian age intrude all of the above mentioned lithologies. Units in the area are for the most part steeply dipping and northeast facing, forming the southern limb of a regional scale syncline. Regional metamorphism is of greenschist facies.

#### 3.0 PROPERTY GEOLOGY

The contact between the Deloro and Tisdale Groups trends to the northwest through the centre of the property. Layered metavolcanics and sediments in the southwestern portion of the claim block consist of intermediate to felsic tuffs and lapilli tuffs with minor mafic flows and local iron formations and cherts.

The northeastern portion of the block is composed of variably spinifexed and polysutured to massive ultramafic metavolcanics. Intruding roughly along the contact of the two cycles are two epizonal trondhjemitic

quartz-feldspar porphyry stocks. These stocks tend to be elongate parallel to the strike of the host metavolcanics. Late Precambrian diabase dykes intrude all of the above mentioned lithologies.

### 3.1 Intermediate to Felsic Volcanics

Felsic volcanics on the property consist almost entirely of pyroclastics. The units are comprised of tuffs to lapilli tuffs with local volcanic breccia. Outcrops weather light gray to white and layering is not apparent. The fragment population of the lapilli tuffs generally consists of 1 to 3 cm, angular to subrounded, quartz feldspar porphyry which commonly constitutes 10 to 25% of the unit volume.

An excellent exposure of intermediate to felsic breccia is located at 1700S, 1200W. Fragments are commonly angular and consist of tuff to lapilli tuff, quartz feldspar porphyry, vein quartz and iron formation. Fragment size varies from 3 cm to 1.0 m and the matrix is very fine grained and chloritic.

### 3.2 Metasediments

Two distinct units of intercalated, oxide facies iron formation and cherty sediments strike northwest through the property. Relative abundance of iron formation versus cherty sediments varies greatly along strike which accounts for the variable magnetic signatures of the bands. Weakly developed graded bedding was observed indicating that the stratigraphy youngs to the northeast. Both bands of iron formation contain from trace to 20% euhedral to streaky pyrite.

Both the Hewitt Shaft area and the Westport Porcupine Occurrence No. 2 are spatially associated with these metasediments. Exposure of the southern iron formation, which is the host to the Hewitt Shaft, is restricted to several outcrops located in the area of 1600S, 1300W. The southeasterly strike extension of the band appears warped about the contact of the trondhjemite. This deformation corresponds to the location of the of the Hewitt Shaft. Mineralization in the shaft is reported to consist of narrow quartz veins cross-cutting the iron formation and is likely a function of brittle deformation and quartz infilling related to the intrusion.

The northern iron formation is well exposed through 200E to 1200E at approximately 400S. Numerous pits and trenches exist over this exposure, including the workings of the Westport Porcupine Occurrence No. 2 located at 550E, 450S. Geophysical data infers the strike extension of the iron formation, west of 200E, to the border of the property. Throughout the strike extent, the iron formation is paralleled by a moderately to weakly magnetic diabase dyke. An offset in the magnetic signature of the dyke and iron formation in the area of 450S, 800E suggests the presence of a north trending, right lateral fault with a strike displacement of approximately 100 metres. Numerous samples were collected from the exposed iron formation. Anomalous results were obtained only from the Westport Porcupine Occurrence No. 2 and the area immediately adjacent, which corresponds to the inferred offset. More work is required in this area to

determine if a relationship between the fault and anomalous mineralization exists.

### 3.3 Mafic Volcanics

A thin horizon of medium to fine grained, massive to weakly pillowed basaltic flows overlies the felsic volcanics and metasediments. Outcrops weather green to gray and pillow tops indicate that the flows young to the northeast.

### 3.4 Ultramafic Volcanics

The entire northeast portion of the claim block consists of variably massive to spinifexed and polysutured ultramafic flows. These flows mark the onset of the second regional cycle of volcanism. Outcrops weather dark green and are very soft. Ultramafics in contact with the northern trondhjemite stock are bleached buff to gray and intensely carbonatized. Identification of ultramafic flows in this area is based on observed remnant spinifex and polysutured textures.

### 3.5 Felsic Intrusives

Two massive to porphyritic, trondhjemitic stocks, intrude approximately along the contact between the two regional cycles of volcanism. The stocks tend to be elongated parallel to the strike of the host volcanics. Outcrops weather light gray to pink. The northern stock intrudes obliquely across the ultramafic, mafic contact and locally has an intense, light buff to brown, carbonate alteration halo. This stock is host to the Chouinard Vein which has been exposed over a minimum of 90 metres in strike length on the neighboring property. The Chouinard Vein varies from 0.5 to 1.5 meters in width and commonly carries trace to 2% fine grained disseminated dusty euhedral pyrite and traces of chalcopyrite. The vein has a 0.5 metres, light buff to brown, alteration halo within the felsic stock. The halo is mineralized with 2 to 5%, fine grained disseminated pyrite.

### 3.6 Structural Geology

The dominant structural elements on the property consist of two late, left lateral, brittle faults that strike approximately north-south across the property. Both faults correspond to linear topographic lows but no associated shearing was observed in outcrop. The faults offset the magnetic signatures of the late diabase dykes by approximately 100 metres.

Some minor deformation of the felsic pyroclastics and intercalated iron formation is inferred through geophysics along the southern contact of the southern trondhjemite stock, in the area of the Hewitt Shaft.

## 4.0 MINERALIZATION

All six of the known gold showings on or adjacent to the Norwin claim group were located, mapped and sampled. A total of 207 samples was

collected and submitted for analysis. Each showing is discussed separately below:

#### 4.1 Westport Porcupine Occurrence No. 2

The Westport Porcupine Occurrence No. 2 consists of several trenches and two shallow shafts located at 425S, 550E. The trenches and shafts were developed to test a horizon of cherty tuffs and intercalated iron formation. This tuff/iron formation horizon is exposed intermittently for over a kilometre in strike length, from 200E to 1200E. The magnetometer data indicates that the horizon continues west to the property border and beyond. The average orientation of the unit is 128 degrees with a fairly consistent vertical dip. The unit commonly contains 2 to 10% euhedral pyrite oriented parallel to bedding. One fault offset is inferred from geophysical data in the area of the showing. One small outcrop of feldspar porphyry was noted immediately west of the occurrence. The entire exposure of the iron formation has been trenched every 25 to 50 metres and was extensively sampled during the course of the 1988 exploration program. Only in the area of the Westport Porcupine Occurrence No. 2 were anomalous values encountered. A total of fourteen samples was collected from the showing.

#### 4.2 Chouinard Vein

The Chouinard vein outcrops immediately west of 075N, 700E, approximately 10 metres west of the property border. Two small trenches and a 5 metre adit cut the vein at the base of a 15 metre high trondhjemite ridge. The western claim border of the Norwin property runs along the base of this ridge. The vein itself consists of a 0.5 to 1.5 metre wide sugary, gray white, quartz vein hosted by porphyritic trondhjemite. The average orientation of the vein is 140 degrees, dipping approximately 50 degrees to the northeast. Mineralization within the vein consists of 3 to 10% dusty to euhedral pyrite. Both upper and lower contacts with the trondhjemite are marked by a 0.5 to 1 metre wide bleached buff to brown, weakly mineralized alteration halo. Locally within the alteration halo rare specks of apple green mica (fuschite) appear. The biotite content of the wallrock increases towards the vein contact (from 1% normally to 8% adjacent vein contact) suggesting some potassium enrichment associated with the vein. The trondhjemite contact is marked by the base of the ridge. The enclosing ultramafic volcanics have been eroded to produce a topographic low, characterized by a cedar swamp. Hence, the vein itself does not outcrop on the Norwin ground. Projecting along strike through the trondhjemite contact suggests that the vein crosses onto the Norwin property at 25N, 725E. A total of twelve samples was collected from the Chouinard vein consisting of both vein material and altered wallrock.

#### 4.3 Hewitt Shaft Area

The Hewitt Shaft is located at 1870S, 1025W. The shaft is collared on a 10 metre high ridge that drops off into an extensive cedar swamp to the northeast. The showing consists of three trenches, a three by three metre partially capped shaft and a 10 metre high muck pile. Except for the

trenches, no outcrop exists in the immediate vicinity. Outcrop in the trenches consists of intermediate tuff to intermediate lapilli tuff. None of the reported iron formation or quartz feldspar porphyry was noted in outcrop. The muck pile is composed of intermediate tuff and breccia with rare feldspar porphyry. Adjacent to the shaft opening, numerous pieces of mineralized vein material were noted. The vein material consists of gray white, sugary quartz with trace to 60% pyrite and pyrrhotite. The sulphides occur in streaks and bands up to 10 cm in width of massive, granular pyrite and pyrrhotite. A total of twenty-one samples was collected from the Hewitt Shaft area.

#### 4.4 Steele Vein

The Steele Vein is located on a peninsula extending into McArthur Lake. Two trenches that comprise the showing are located immediately north of post number 4, claim 968401. The Vein is actually a fine grained feldspar porphyry dike that cuts the host ultramafic metavolcanics. The core of the dike is cut with a sparse stockwork of narrow quartz stringers. No mineralization or alteration was noted within the quartz stringer stockwork or with the porphyry itself. Four grab samples were collected from the workings.

#### 4.5 Westport Porcupine Occurrence No. 1

The Westport Porcupine Occurrence No. 1 consists of two small pits located at 1725S, 1000W. These pits occur on the westerly extension of the ridge that hosts the Hewitt Shaft. The showing consists of rotten, friable hematitic quartz stringers hosted by intermediate lapilli tuff to breccia in contact with banded iron formation. An extensive limonite gossan zone is associated with the iron formation and this likely provided the incentive to pit the area. Trace amounts of pyrite were observed in the pits. A total of four samples was collected from this showing.

#### 4.6 Andover Porphyry

The Andover Porphyry showing is located at 400N, 900E. The showing consists of one shallow trench exposing a small stockwork of quartz stringers hosted by a bleached, silicified tuff. The tuff is in contact with a weakly magnetic gabbro dike that strikes to the northeast. Dominant vein orientations within the stockwork are 110 degrees, dipping 80 degrees to the south and 040 degrees, vertical. Both the quartz stockwork and host tuff contain traces of pyrite. A total of three samples was collected from this showing.

#### 5.0 GEOPHYSICAL SURVEYS

Norwin Resources contracted Terraquest Limited of Toronto, to fly an airborne geophysical survey on the property consisting of a magnetic and VLF survey. These surveys were filed for assessment in 1988. Inco Gold's ground geophysical surveys consisted of 49.3 line kilometers of total field magnetometer surveying and 39.3 line kilometers of horizontal loop electromagnetic (HLEM) surveying. A total of 3865 magnetic reading and

6416 electromagnetic readings were taken. The two surveys were conducted by Inco Gold Management Incorporated personnel during the 1988 summer field season.

### 5.1 Instrumentation

The magnetometers used were OMNI IV's manufactured by EDA Instruments Limited of Toronto. These are total field magnetometers which measure the magnetic field through the use of proton precessional effects caused by the interaction of a magnetic field with a spin-aligned, proton-rich fluid. An instrument accuracy, precision, and resolution of 0.1 nanoTesla (nT) may be obtained with these instruments under ideal conditions. Microprocessors built into these instruments allow for the collection of the data, along with the time and positions, in digital form suitable for transfer onto portable computers.

### 5.2 Electromagnetic Survey

Frequencies of 1777, and 3555 Hertz were used in the survey with a station interval of 25 metres and 100 metre coil separation. Where the slope was greater than 5% over a 25 metre distance, slope measurements were taken and the transmitter and receiver coils were tilted to maintain a coplanar relationship. A correction for the changes in coil separation caused by varying slopes is made with the portable computers.

Results of the HLEM survey are presented in stacked profile form on five plans at a scale of 1:2,500. Where located, conductors are shown on the plans and are classified in terms of strength and conductivity.

With the exception of the two isolated one line conductors, located on line 800W, the conductors are classified as very weak to weak conductors, commonly with poor conductivities. They either stem from overburden variations or from very low conductivity-thickness sources. The more conductive anomalies are found in ultramafic units or in iron formations and may be due to magnetite.

### 5.3 Magnetic Survey

All lines were read on 12.5 metre intervals. A base station magnetometer, similar to the field units and programmed to take timed readings, was used to measure and correct for the diurnal drift of the earth's magnetic field.

Results are presented on five computer generated and manually annotated contour plans at a scale of 1:2,500. Programs purchased from Geopak Systems of Toronto were used to numerically interpolate the readings into a regular grid and to calculate the 20 nT isomagnetic contours. Where the gradient is high, the contour lines are automatically suppressed by the program.

The magnetic data is useful as a mapping tool in areas of poor exposure. For example, a diabase dyke may be seen on the contour plans approximately

trending from line 1500W at 1550S to line 1300E at 900S. There is evidence that the dyke has been faulted in places (see area about line 400W, 1200S) as the magnetic signature is disrupted and offset in places.

Iron formations are recognized by their high total field values and may be located throughout the grid. For example, between 450S and 600S, very high magnetic values associated with iron formations may be seen.

Contacts between the trondhjemite stock (average total field values of about 58,000 nT) and the more mafic rocks (average total field values of about 58,300 nT and higher) are easily seen.

## 6.0 CONCLUSIONS

The results of the 1988 exploration program on the Norwin Resources indicate two areas of potential interest. These are the Chouinard Vein and the Westport Porcupine Occurrence No. 2.

The mineralization in and about the Chouinard vein might be traced by an Induced Polarization survey. Due to the lack of outcrop along the strike projection of the vein, this survey and follow up diamond drilling are the only viable prospecting techniques available to prove that the vein extends onto the Norwin property. Given the ductile nature of ultramafic volcanics it is questionable if the fracturing necessary for vein emplacement would extend any significant distance beyond the relatively brittle trondhjemite. Alternatively, the configuration of the trondhjemite contact is unknown and hence may dip to the east and onto the Norwin property. Sampling results from the 1988 program demonstrated the sporadic nature of the gold content within the vein.

The cherty tuff/iron formation unit which hosts the Westport Porcupine Occurrence No. 2 is well exposed over a kilometre in strike length. Sampling during the 1988 program indicated anomalous gold values only in the area of the showing, which corresponds to the intersection of a late brittle fault and at least one feldspar porphyry dyke. The reason for these elevated gold values in the area of the occurrence has not been adequately explained with the work done to date. Power stripping of the area is feasible as an old skidder trail runs from the showing to the main lumber road west of McArthur Lake. A suitably equipped backhoe can access the area.

## 7.0 BIBLIOGRAPHY

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Pike, D. R.

1978: Geology of the Redstone River Area, District of Timiskaming; Ontario Div. Mines, GR 161, 75 p. Accompanied by Maps 2363 and 2364, scale 1:31,680 or 1 inch to 1/2 mile.

Prior, G.

1987: Unpublished Report on the Geology and Gold Occurrences of the McArthur Lake Property, Porcupine Mining Division, Ontario; NTS 42-A-3, Inco Gold Management Inc. Files.



**Certificate of Qualifications**

I, Randy A. Clark, of RR # 1, Worthington, Ontario certify that:

1. I am a 1983 graduate of the Haileybury School of Mines with a diploma in Mining Engineering Technology.
2. I am a 1986 graduate of Laurentian University with an Honours Bachelor of Science degree in Geology.
3. I have practiced my profession in Ontario continuously since graduation from University.
4. I am currently employed by Inco Gold Management Inc.
5. I am the author of the attached report and that it is based on field work conducted under my supervision during 1988.

*Randy Clark*

*Qual 2,12885*

.....

TRAVERSE NUMBER \_\_\_\_\_

PROJECT Norwin Option - 1988

GEOLOGIS

N.T.S. \_\_\_\_\_

AREA \_\_\_\_\_

DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138101 ✓	Rck.		Grab		2525N 7190E	fine gr. dk. gray to gray. Np Diab. 2-3% fine gr. py. cl. 1-3mm crist. Qtz/tech. etc. - this is chilled margin of dyke
138102 ✓	"		"		1190N 8100E	dk. gray to black. spinifexed peridotite with 1-2% chl. py.
8103	"		"		1125S 8100E	light gray to gray - stgy fol. ppr. hornblende 1-to pyrite.
138104	"		"		2460S 8100E	dark gray - stgy fol. illymatic hosting white, sugary Qtz carb pool - 2-3% coarse chl. pyrite 2-3mm ptl to fol.
138105	"		"		3100S 8100E	fine grained massive mafic with to pyrite.
138106	"		Chip	0.5m	4100S 8100E	Interbedded chert and mafic with 50-75% quartz in beds ptl to bedding - track chip
138107	"		"	0.5m	4100S 8100E	as above

# INCO GOLD

TRAVERSE NUMBER \_\_\_\_\_

 PROJECT Norwin Option - 1988  
 AREA \_\_\_\_\_

N.T.S. \_\_\_\_\_

 GEOLOGI  
 DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
38108	Rock		Grab		16190S 4100E <del>16190S 2800E</del>	as 38106 & 107, grab sample from trench next pile
38109	"		chip	0.5m	16190S 1725E 12100W	Interbedded chert and Iron formation having qtz pods - very rust, friable 1-2% apite as very clots & wisps in qtz pod.
38110	"		"	0.5m	16190S 1725E 12100W	as above
38111	"		Grab		1725S 12100W	Iron formation adjacent quartzite to apite
38112	"		Grab		16190S 11190W	Let's - runs 1 to 15 cm rounded to very fine to coarse fragments, some chert IF, in VEG field iron matrix Tr. apite
38113	"		chip	2.5cm	21625S 13100W	Chip of chert matrix from latf - small shiny fresh (1cm x 5cm) - matrix contains Tr. to 1% sub apite
114	"			0.3m	16150S 14100W	Interbedded qtz & siliceous bands, red Iron formation - 2-4% flabby apite elongated parallel to fol.

# INCO GOLD

TRAVERSE NUMBER \_\_\_\_\_

 PROJECT Norwin Option - 1988

GEOLOGI

N.T.S. \_\_\_\_\_

AREA \_\_\_\_\_

DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
3815	Rck		chip	0.3m	16+50S 1490W	As Rx 13014
3816	"		Grab		13+75S 6190W	Rich red, massive, stony hematitic felsic volcanic - Alteration halo of diabase dyke - Trace Pyrite
3817	"		"		14+00S 7400W	As Above ~ 1% Pyrite
3818	Tals		"		17+10S 4190W	light gray to pink Rhyolite, slightly bleached with 1% diss euh pyrite
3819	Rck		Grab		17+25S 4180W	As Above - 1% pyrite
3820	Rck		Chip	LOM	17+80S 3180W	Quartz stockwork in light gray massive Rhyolite - Nil sulfide.
3821	"		Grab		18+65S 10+15W	Sugary white gtz vein grab with 10% to 15% massive pyritized bands & minor pyrite - hematite shaft dump.
3822	"		"		18+65S 10+15W	As Above

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	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
3823	Rck.		Grab		181655 10115W	As Rx 13821 & 122 - Hewitt Shaft Dump grab
3824	Rck		"		12440S 4100E	light pink, massive hornblende - sil sulphide.
3825	"		"		11+50S 8140W	Qtz vein grab from shaft dump. light gray, sugary, with 10 to 15% subhedral to anhedral pyrite
3826	"		"		11+50S 8140W	As Above
3827	"		"		11+50S 8140W	As Above
3828	Rck		Chip 0.5m.		11+50S 8140W	Chip across Qtz vein stockwork in shaft wall - 5-10% pyrite - chips have 3 to 5 cm brown low SF holes with 2-10% dusty pyrite
3829	Rck		Grab		10110S 5115W	Shaped Diabase - (chip) with coarse pyrite
3830	"		"		2+50S 5+15W	Mudstone to silt - very rusty - 6-2% diss pyrite

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
38131	Et.		Grab		6+10S 660W	Massive medium grained Nip Diab
38132	Talus		Grab		6+35S 900W	Quartz vein grab - blasted vein host by Nip Diab - Nil sulphide
38133	Et.		"		9+00W 6+25S	Massive medium grained Nip Diab - unfractured to about quartz vein and sulphide
38134	"		"		5+70S 3+00W	As Above - massive Nip Diab.
38135	"		chip		10+75S 10+00W	Massive mafic Ultramafic with rare white quartz stringer 2 mm in width - TR. Py.
38136	"	Heard Shall Trench	"		"	As Above
38137	"		"		"	As Above
38138	"		"		"	Light buff carbonized mafic 2% py.
38139	"		"		"	As Above - carbonized just to 1/2.

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	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
38140	Rck	Hatch Shall Touch	Chip		18475S 10400W	As Above
38141			"		"	As Above
38142			"		"	As Above
38143			"		"	As Above
38144 ✓						18425N 6400E
38145					8700N 7410E	Massive Ultramafic Ultrabasic - very soft, moderately carbonatized - Tn. Py.
38146					5490S 8100E	2 to 3 meter wide Quartz vein - glassy white - flat lying vein - sil sulfide
38147					5490S 8100E	Light buff to brown wallrock of above vein - 1-2% VFG disseminated Pyrite.
38148					5425S 6785E	Massive mafic to intermediate with 1- 2% Pyrite parallel to folia.

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	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
38149	Talus		Grab		4475S 6195E	light gray QEP with 10-20% (3mm) feldspar phenocrysts in light gray matrix
38150	Rck		"		7400E 2425S	2-5% disseminated pyrite throughout 3 to 5% coarse euhedral pyrite in wthy, local Intermediate volc.
38151	"		"		7400E 2425S	As Above
38152	"		"		2490S 5110E	Intermediate lapilli Tuff - stry carb w area 1mm fresh Albs - mostly cleared Tr. Py - 2-5mm cubes
38153	"		"		3445S 5120E	VEG massive flow. Carb mas. in contact with narrow - 10cm felsic dykelets - Qtz stringers on dyke margins
38154	"		"		3445S 5120E	Massive pyrite on margin of Qtz stringer mentioned above - rather rusty sample - not fresh
38155	"		"		4440S 4490E	light buff brown carb tuff. sil sulphide
38156	"		"		5425S 6130E	Med grad light pink Feldspar Porphyry from shaft. Tr. Pyrite
38157	"		"		5425S 6130E	As Above



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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
3815B	Rock		Grab		S1455 6430E	As Above
59	"		"		S1455 6430E	As Above
20	Talus		"		10425S 8100E	light pink feldspar porphyry float with 2% py in sum 1 to 3mm blebs.
21	"		"		12425S 7400E	Quartz vein float with 1% V.G. diss. Pyrite throughout.
22					1140S 1470E	Med gr. por. trondhjemite
23					1475N 1475E	Spineliferous? s. try carbonatized - highly fractured UM. 1-2% coarse anh. py.
24					1485S 1480E	As Above
5					1475E 3025S	Mass. Med. V. with numerous 1-3mm Fech stringers - 2-3% py on stringer margins.

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	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
38166	Rk		Grab		3705 1490E	Possible Gabbro? or aluminous basalt - 2-3% blebby py. looks relatively fresh.
38167	"		"		5780S 1460E	lft-sty carb & cut with stockwork of Qtz carb stringers Blanchet buff brn. 6-8% dusty py. frag.
38168	"		"		5780S 1460E	As Above
38169	"		"		5780S 1460E	As Above
38170	"		chip	1.5m.	5780S 1460E	As Above.
38171	"		"	0.5m	80N 7100E	Channard Vein chips from Cut "R" - just vein material ~ 5% py
38172	"		"	0.5m	80N 7100E	As Above
38173	"		"	1.0m	80N 7100E	As Above

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138174	Rock		Grab		8+00N 11+50S	Qtz vein in fine to medium grained mafic to intermediate rock (2a?); ~ 1% py
138175	Rock		Grab	Shaft Samples from W.P. #2	"	Same as RX 138174
138176	Rock		Grab		"	Same as RX 138174; ~ 2% py
138177	Rock		Grab		"	Qtz in fine grained mafic; ~ 1% py
138178	Rock		Grab		"	Same as RX 138177
138179	Rock		Grab		"	Fine grained mafic; ~ 1% py
138180	Rock		Grab		"	Same as RX 138179; ~ 1% py
138181	Rock		Grab		"	Same as RX 138179; > 1% py
138182	Rock		Grab		"	Same as RX 138179
138183	Rock		Grab		"	Same as RX 138179
138184	Rock		Grab		"	Same as RX 138179
138185	Rock		Grab	"	Qtz vein in fine grained mafic; ~ 1% py	

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138186	Rock		Channel	1.1m	41255	Fine grained mafic tuff;
138187	Rock		Channel	0.5m	S+50E	moderately sheared; py ~ 1%
					"	Well sheared mafic tuff with
						py stringers (1-5mm) running
						parallel to foliation; well
138188	Rock		Channel	1.0m	"	carbonatized; crusty
						Same as RX 138186 with
138189	Rock		Channel	1.1m	"	a few py stringers & qtz
138190	Rock		Channel	0.8m	"	Same as RX 138186
						Fine grained mafic tuff; silicified;
						silicified stringers (3mm to 1cm)
						running parallel to foliation;
						~ 10% py
138191	Rock		Channel	0.2m	"	Same as RX 138186; ~ 5% py
138192	Rock		Channel	0.6m	"	Same as RX 138187 with
						fewer py stringers
138193	Rock		Channel	0.8m	"	Same as RX 138186.



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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138201	Rock outcrop		GRAB		710W, 144035	Fine to medium grained equigranular divine diabase; slightly magnetic; ± 1% sulfides
138202	Rock outcrop		GRAB		820W, 214545	Medium grain equigranular gabbro; ± 1% sulfides
138203	Rock outcrop		Grab		710W, 137705	Fine to medium grain divine diabase ± 1% sulfides
138204	Rock outcrop		Grab Grab		920W, 101545	Fine grained felsic tuff; foliated 090°; moderately reacts moderately with 10% HCl.
138205	Rock outcrop		Grab Grab		710W, 111905	Fine to medium grained equigranular Tromb;omite; ± 1% sulfides
138206	Rock outcrop		Grab		710W, 91455	Fine grain felsic (intermedial) tuff; reacts moderately with 10% HCl; foliated 090°
138207	Rock outcrop		Grab		710W, 91305	Fine grained felsic tuff; reacts slightly with 10% HCl; foliated present.







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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and / or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138215	Rock outcrop		Grab		4608E, 6035S	Fine grain carbonized mafic volcanic; ~1% sulfides; reacts slightly with 10% HCL.
138216	Rock outcrop		Grab		4608E, 5895S	Fine grain carbonized mafic volcanic; numerous carbonate inclusions present; duct and light banding present (124°) possible bedding planes (vertical) (0.05 to 1.00 mm); reacts moderately with 10% HCL.
138217	Rock outcrop		Grab		4608E, 4475S	Fine grain mafic volcanic; ~1% pyrite present; reacts briskly with 10% HCL.
138218	Rock outcrop		Grab		4608E, 4425S	Fine grain mafic volcanic; ~1% pyrite present; carbonate veins present; reacts briskly with 10% HCL.
138219	Rock outcrop		Grab		4400E, 2875S	Fine grain mafic volcanic; ~1% sulfide; reacts moderately with 10% HCL.



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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138222	Rock		Grab		13700E, 6125S	Fine grain siliceous tuff; crude biotite at 138°; < 1% sulfide; reacts strongly with 10% HCL.
138223	Rock		Grab		133185E, 8135S	Medium grain equigranular gabbro; biotite 127°; less than 1% sulfide. Gabbro intrude mafic volcanic at 176°; sharp contact.
138224	Rock		Grab		13050E, 8440S	Fine grain mafic volcanic close to contact with gabbro; < 1% sulfide; slightly magnetic.
138225	Rock		Grab		14100E, 6125S	Fine grain mafic to intermediate tuff. < 1% euhedral pyrite cubes present. Reacts strongly with 10% HCL.
138226	Rock		Grab		13125E, 7145S	Fine grain mafic volcanic; < 1% sulfide; reacts strongly with 10% HCL.
138227	Rock		Grab (rock pile)		13125E, 7145S	Quartz vein material from blasted muck pile; Rx 138226 is the host rock; < 1% sulfide.

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and / or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138228	Rock		Grab		6190E, 0190N	Sample taken from chert vein cut "A" lenticular Quartz vein material found on rock pile within cut. Clauses and disseminated pyrite found throughout vein. Vein orientation: N35W, 40° NE
138229	Rock		Grab		6190E, 0190N	Fine grain tremolite next to contact with quartz vein.
138230	Rock		Grab		6190E, 0190N	Quartz vein material next to contact with tremolite.
138231	Rock		Grab		6190E, 0190N	Weathered quartz rich tremolite from talus contact between vein and host tremolite; area near contact contains host rock rich tremolite.
138232	Rock		Grab		6190E, 0190N	Tremolite from upper quartz vein contact; abundant pyrite and host rock present.
138233	Rock		Grab		6190E, 0190N	Quartz vein material next to contact with Tremolite; $\approx$ 3/6

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	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138234	Rock		Grab		700E, 0765N	Quartz vein material taken from rock pile; cut piece in on the channel vein - location "B"; sugary textured quartz.
138235	Rock		Grab		700E, 0765N	Quartz vein material
138236	Rock		Grab		700E, 0765N	Trondhjemite host rock; fine grain; $\approx 1\%$ pyrite; abundant biotite.
138237	Rock		Grab		8 metres NE of #3 just 768402;	Medium grain gr. feldspar porphyry (trondhjemite); $2 \frac{1}{2}$ to 3% pyrite; reacts weakly with 10% HCl.
138238	Rock		Grab		No grid cut in this area at claim camp.	Medium grain gr. feldspar porphyry (trondhjemite); $2 \frac{1}{2}$ to 3% pyrite; reacts weakly with 10% HCl.
138239	Rock		Grab			Quartz vein material; $\approx 1\%$ pyrite.

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138246	Rock		Grab		1370E, 8155S	Quartz - feldspar gabbro; ~ 1% sulfide. Outcrop of felsic to intermediate gabbro; section of outcrop <del>was</del> brecciated with magnetic rich veinlets cutting the outcrop.
138247	Rock		Grab		1370E, 8155S	Fine grain magnetic rich gabbro; ~ 1% sulfide.
138248	Rock		Grab		1370E, 8155S	Medium grain olivine diabase.
138249	Rock		Grab		1370E, 8155S	Fine to medium grain intermediate volcanic; ~ 1% sulfide. Outcrop contains contact between foliated to lapilli tuff and massive volcanic.
<del>138250</del>	<del>Rock</del>		<del>Grab</del>			
138250	Rock		Grab		1370E, 8150S	Fine grain magnetic gabbro; ~ 1% sulfide.



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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138253	Rock		Grab		1143E, 1122S	Fine to medium grained fractured trachytic. Reacts strongly with 10% HCl.
138254	Rock		Grab		1140E, 2175S	Fine to medium grained trachytic; 1% pyrite.
138255	Rock		Grab		1140E, 3135S	Fine grain (ophitic) intensely carbonatized mafic tuff ???; ~ 2% subhedral pyrite.
138256	Rock		Grab		1240E, 1122S	Medium grain trachytic with quartz vein cutting sample; ~ 1% disseminated pyrite; reacts weakly with 15% HCl.
138257	Rock		Grab		1244E, 3135S	Fine grain mafic metavolcanic; 2 to 3% subhedral pyrite; reacts moderately with 10% HCl.
138258	Rock		Grab		1340E, 5100S	Fine grain intermediate tuff; ~ 5% pyrite.
138259	Rock		Grab		1340E, 5100S	Fine grain foliated intermediate tuff; 12% chlorite; ~ 4% sulfide.





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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and / or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
Rx138261	Rock		Grab		11720E, 4120S	Porphyritic mafic meta-volcanic; ± 2% anhedral pyrite cubes; immediate phenocryst (± 3mm) in a mafic groundmass of plagioclase quartziferous.
Rx138262	Rock		Grab (muck)		10796E, 4120S	Foliated mafic buff; ± 2% fine grain disseminated anhedral pyrite.
Rx138263	Rock		Grab (trench)		10795E, 4120S	Mafic (banded) lapilli buff; ± 3 to 4% pyrite; a (K) nature bands of mafic (± 5mm) and felsic (K-feldspar, quartz, calcic) material.
Rx138264	Rock		Grab (trench)		10795E, 4120S	From same trench as Rx138263, same lithology.
Rx138265	Rock		Grab (muck)		10725E, 4120S	Fine grain mafic meta-volcanic; 1 to 2% disseminated anhedral pyrite present; minor calcic

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138266	Rock		Grab (bench)		1071E, 4105S	bedded mafic lapilli tuff (same as Rx 138263 + 138264)
138267	Rock		Grab (bench)		1076E, 4110S	Feldspar and quartz rich sample taken from bench within zone to medium grain mafic tuff; 1 to 2% disseminated subhedral pyrite.
138268	Rock		Grab (bench)		1072E, 4105S	Tuffaceous lapilli tuff; coarse blastic present; 2% pyrite.
138269	Rock		Grab (bench)		1075E, 4105S	Mafic lapilli tuff with felsic bench + blocks; 2 to 3% sulfide.
138270	Rock		Grab (bench)		1075E, 4105S	Fine grain mafic volcanic; 3 to 4% disseminated pyrite.
138271	Rock		Grab (bench)		1076E, 4105S	Epithermal intermediate to acidic tuff; 2 to 3% pyrite.

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SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
138271	Rock		Grab (bench)		9102E, 4125S	Massive quartz + feldspar rich sample from mafic host; 2% sulfide, minor carbonate.
38272	Rock		Grab (bench)		877E, 4128S	Fine grain banded iron formation; noticeably magnetic.
38273	Rock		Grab (bench)		5850E, 4105S	Fine grain intermediate to mafic host; 5 to 6% pyrite.
38274	Rock		Grab (bench)		5850E, 4105S	Fine grain intermediate to mafic host; 5 to 6% pyrite.
38275	Rock		Grab (muck)		5140E, 4135S	Silicified mafic metachert; 3 to 4% pyrite.
38276	Rock		Grab (bench)			Mafic intermediate with quartz vein within sample; 14 to 54% pyrite.



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 PROJECT Norwin Option - 1988

GEOLOGIST \_\_\_\_\_

N.T.S. \_\_\_\_\_

AREA \_\_\_\_\_

DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
188198	Rock		Grab		3+BSN 9+ISE	Dark gray to black, stony mts. siltstone with 2 to 5% blebby pyrite - 20 to 30% magnetite.
199	"		"		3+BSN 19+ISE	As Above
200	"		Chip	0.3m	410N 9+SOE	Grts stockwork in silt Tuff - Tr. Pyrite - Tuff bleached buff brown.
183014	Talus		Grab		0+00 8+SOE	Trans. float - bleached buff brown with trace Py & Ca - looks blasted
302	Rock		"		0+00 8+SOE	As Above - Sample of outcrop near float.
303	"		"		5+7SS 9+OOE	White glassy, Bull quartz pool in it
304	Talus		"		4+5SS 9+OOE	Banded IF (float) to Pyrite
305	Rock		"		4+2SS 10+OOE	Silted matrix? - stony bleached buff brown with 3-5% Py
306	"		"		3+00S 10+OOE	As Above.

# INCO GOLD

TRAVERSE NUMBER \_\_\_\_\_

 PROJECT Normin Option - 1988

GEOLOGIST \_\_\_\_\_

N.T.S. \_\_\_\_\_

AREA \_\_\_\_\_

DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel			
38307	Rck		Grab		3400S. 10400E	As Above.
308	"		"		0120S 1710E	
309	"		"		5420S. 1715E	
310	"		chip	1.0m	4440S 3450E	cherty sulf horizon - 5-8% py with minor qtz carb veining
311	"		"	1.0m	4440S 3450E	As Above.
312	Talxs		"	?	4440S 3450E	As Above - from french dump ~ 15-20% py
313	Rck		"	1.0m	4460S 4440E	As Above 5% py

# INCO GOLD

TRAVERSE NUMBER \_\_\_\_\_

 PROJECT Norwin Option - 1988

GEOLOGIST \_\_\_\_\_

N.T.S. \_\_\_\_\_

AREA \_\_\_\_\_

DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and/or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.	F.
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel				
38314	Rck		chip	1.0m	4450S 4480E	As Above 5% py	1
315	"			1.0m	4435S 4480E	As Above 5% py	4
316	Talvs		chip	?	4435S 4480E	Quartz vein on dump of trench - 10% py on vein margin Couldn't find vein in trench	2
317	Rck		chip	40cm	4410S 5125E	Pull white quartz vein nil sulphide 130°/60°S	7
318	"		chip	1.0m	4410S 5150E	cherty pyritic tuff with 10% diss pyrite xclusively to euhl	11
319	"		chip	1.0m	4410S 5150E	as Above	1
320	"		Grab		4400S 5105E	as Above	



# INCO GOLD

TRAVERSE NUMBER \_\_\_\_\_

 PROJECT Norwin Option - 1988

GEOLOGIST(S) \_\_\_\_\_

N.T.S. \_\_\_\_\_

AREA \_\_\_\_\_

DATE \_\_\_\_\_

SAMPLE NUMBER	SAMPLE TYPE			SAMPLE LENGTH, WIDTH, AREA	LATITUDE, LONGITUDE and / or U.T.M.	SAMPLE DESCRIPTION Rock type, lithology, character of soil, stream silt, etc. Formation Mineralization, etc.	R pol A S 7 6 2 1 1
	RX Rock, Talus	SX Stream Silt, Soil	Grab, Chip, Channel				
321	Rck		grab		18605 1015 W	Howitt shaft quartz vein grab sample - sugary quartz with up to 40% py & tiny pyroche in v. fg bands	
322	"		"		"	As Above	
323	"		"		"	As Above	
324	"		"		"	Massive pyrochite band in Qva.	
325	"		"		"	Quartz vein sample as 321	
326	"		"		"	As Above	
327	"		"		"	As Above	





DOCUMENT No. **W 9006-60375**



42A03NE0027 2.13381 BARTLETT

**Mining Act** Report of Work (Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) <b>Geological</b>	Mining Division <b>Porcupine</b>	Township or Area <b>McArthur and Bartlett</b>
Recorded Holder(s) <b>Inco Limited Field Expl. Dept.</b>	<b>2.13381</b>	Prospector's Licence No. <b>A 19231</b>
Address <b>Hwy. 17 West, Copper Cliff, Ontario POM 1N0</b>		Telephone No. <b>(705) 682-8439</b>
Survey Company <b>Inco Exploration and Technical Services, Inc.</b>		
Name and Address of Author (of Geo-Technical Report) <b>R. Clark c/o Inco Expl. &amp; Tech. Services Inc., Copper Cliff, Ontario</b>		Date of Survey (from & to) <b>POM 1N0 05 08 88 18 09 88</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	
For each additional survey: using the same grid: Enter 20 days (for each)	- Magnetometer	
	- Other	
	Geological	<b>40</b>
	Geochemical	

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

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

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
P	943709	P	968411	P	969612
P	943710	P	968412	P	969613
P	943711	P	968413	P	969614
P	943712	P	968414		
P	968398	P	968415		
P	968399	P	968416		
P	968400	P	969603		
P	968401	P	969604		
P	968402	P	969605		
P	968403	P	969606		
P	968404	P	969607		
P	968405	P	969608		
P	968406	P	969609		
P	968407	P	969610		
P	968408	P	969611		
P	968409				
P	968410				

**RECORDED**  
**APR 19 1990**

Total miles flown over claim(s). \_\_\_\_\_

Date **Apr. 18, 1990** Recorded Holder or Agent (Signature) *[Signature]*

Total number of mining claims covered by this report of work. **35**

**RECEIVED**

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

Name and Address of Person Certifying  
**Ian McCaskill c/o Inco Exploration & Technical Services, Inc.**

Copper Cliff, Ontario POM 1N0 Telephone No (705) 682-8439 Date **JUN 29 1990** Certified by (Signature) *[Signature]*

**MINING LANDS SECTION**

**For Office Use Only**

Total Days Cr. Recorded <b>1400</b>	Date Recorded <b>April 19/90</b>	Mining Recorder <i>[Signature]</i>
	Date Approved as Recorded <b>See revised work statement</b>	Principal Inspector, Mining Lands <i>[Signature]</i>

Received Stamp

**RECEIVED**  
**APR 19 1990**



Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Mining Lands Section  
3rd Floor, 880 Bay Street  
TORONTO, Ontario  
M5S 1Z8

Telephone: (416) 965-4888

Your File: W9006.60375  
Our File : 2.13381

August 17, 1990

Mining Recorder  
Ministry of Northern Development and Mines  
60 Wilson Avenue  
TIMMINS, Ontario  
P4N 2S7

Dear Madam/Sir:

RE: Notice of Intent dated July 18, 1990 for Geological  
Survey submitted on Mining Claims P 943709 et al in  
McArthur and Bartlett Townships

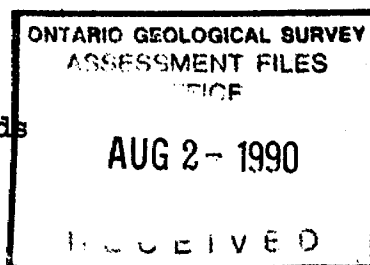
The assessment work credits, as listed with the above  
mentioned Notice of Intent have been approved as of the above  
date.

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

Yours sincerely

W. R. Cowan  
Provincial Manager, Mining Lands  
Mines and Minerals Division

LS/dvl  
Enclosure



cc: Mr. W. D. Tieman  
Mining and Lands Commissioner  
Toronto, Ontario

Resident Geologist  
Timmins, Ontario

Inco Limited Field Expl. Dept.  
Copper Cliff, Ontario



A M E N D E D

Recorded Holder **INCO LIMITED FIELD EXPL. DEPT.**

Township or Area **McARTHUR AND BARTLETT**

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b>	
Electromagnetic _____ days	P 943709 - 10
Magnetometer _____ days	943712
Radiometric _____ days	968400
Induced polarization _____ days	968403 to 968416 incl.
Other _____ days	969603 to 969613
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ 40 _____ 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.	

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE  
AUG 27 1990  
RECEIVED

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE  
AUG 27 1990  
RECEIVED

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

30 days geological - P 943711 , 968399, 968402

20 days geological - P 969614

10 days geological - P968398, 968401

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.

	Em	Mag.			
591286	1/4	1/4	619006	1/2	1/2
287	✓	✓	622562	0	0
288	✓	✓	622572	✓	✓
289	✓	✓	622574	✓	✓
290	✓	✓	575	✓	✓
291	✓	✓	576	✓	✓
292	0	3/4	577	1/2	1/2
293	0	0	578	1/4	1/4
294	✓	✓	579	✓	✓
295	✓	✓	580	1/4	1/4
296	✓	✓	581	1/4	1/4
297	✓	✓	25		
298	1/4	1/2			
299	✓	✓			
300	✓	✓			
301	✓	✓			

DISTRICT OF  
TIMMING

PERCUSSION  
DIVISION

SCALE: 1 INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	(C)
LEASED	(L)
LOCATED LAND	(O)
EVIDENCE OF OCCUPATION	(E)
MINING RIGHTS ONLY	(M)
SURFACE RIGHTS ONLY	(S)
ROADS	(R)
OVER FIELDS	(Ov)
RAILWAYS	(Rl)
POWER LINES	(Pl)
MATCH OF MUSKOGEE	(M)
...	...

NOTES

... SURFACE RIGHTS RESERVATION ...  
SHORE OF MUSKOGEE AND ...

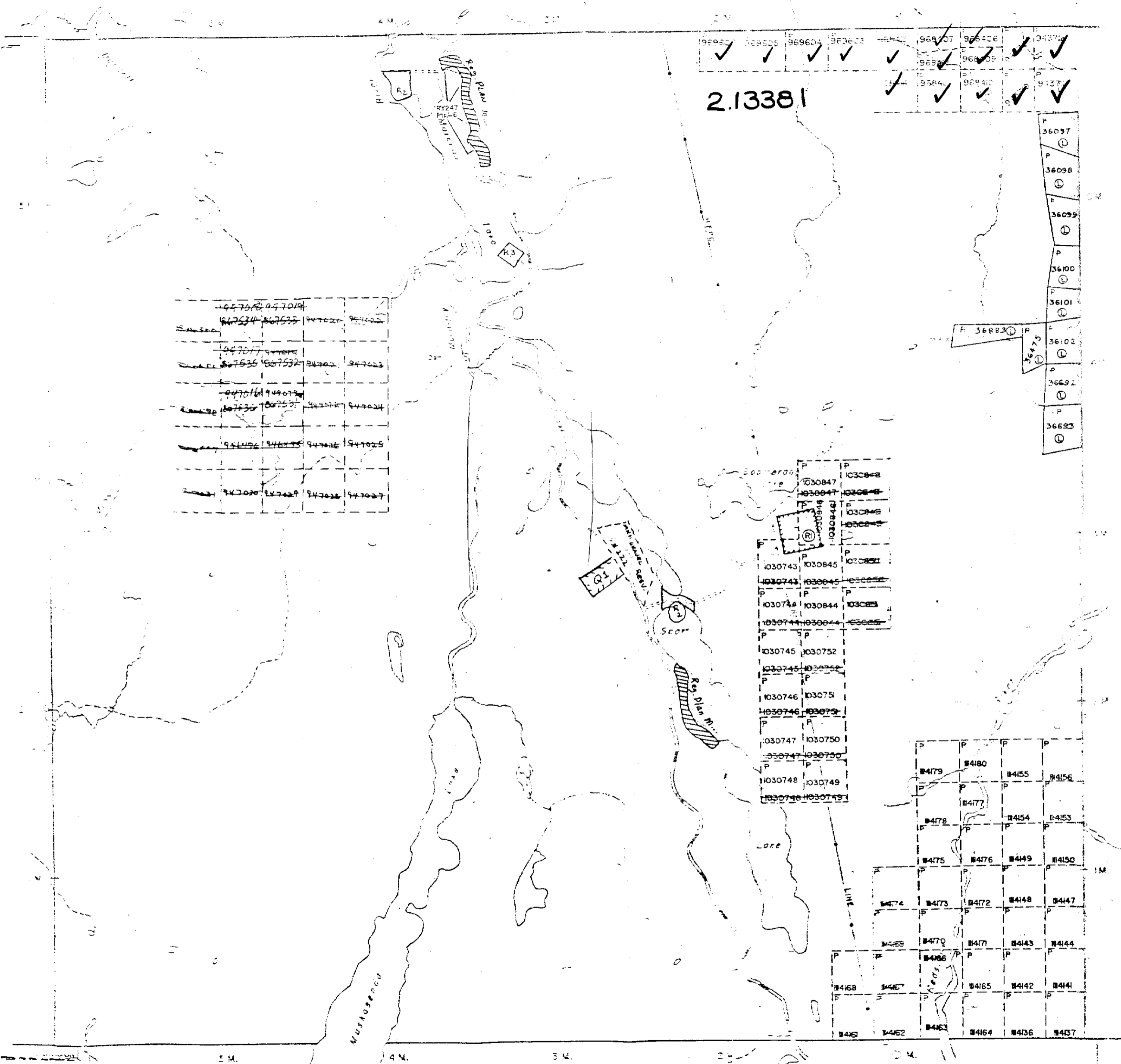
AREAS WITHDRAWN FROM DISPOSITION

DESCRIPTION	ORDER NO.	DATE	DISPOSITION	FILE
(R2)	* B177	04/78	S.R.O.	2854
(R3)	* B177	12/77	S.R.O.	7408
(R1)			GRAVEL RESERVE, MUEL	
(O)			PROPOSED GRAVEL PERMIT AREA JUNE 25/86	

Received July 2/86  
Checked G.W. 2/86 20 VE

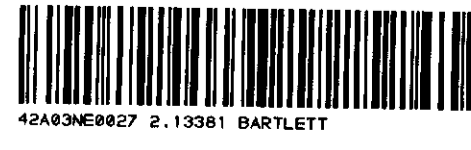
PLAN NO. - M-252

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH



Muskegon River

English Tp. - M. 787



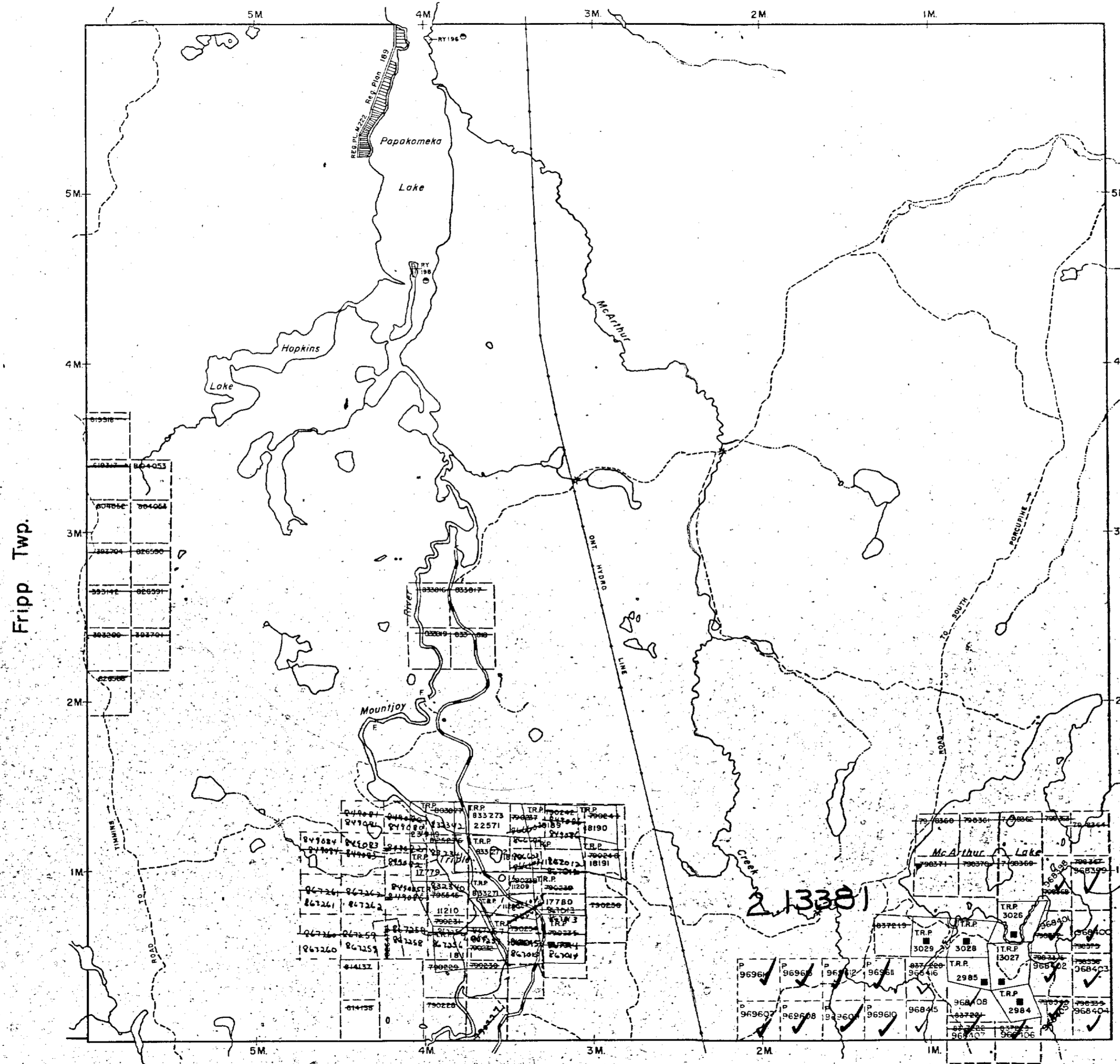
**REFERENCES**

**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

**Adams Twp.**



**LEGEND**

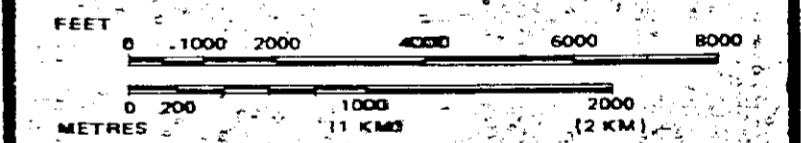
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING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

**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	■
" SURFACE RIGHTS ONLY	◼
" MINING RIGHTS ONLY	◻
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊘
SAND & GRAVEL	⊗

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 8, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS



McARTHUR TWP.

Fripp Twp.

Douglas Twp.

TOWNSHIP

**McARTHUR**

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

TIMISKAMING

Ministry of Land Management  
 Natural Resources Branch  
 Ontario

Date FEBRUARY 1985

Number **G-3227**

RECEIVED  
 SEP 28 1987

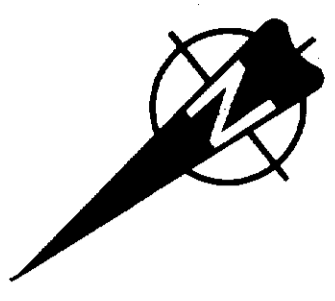


42A03NE0027 2.13381 BARTLETT

**Bartlett Twp.**





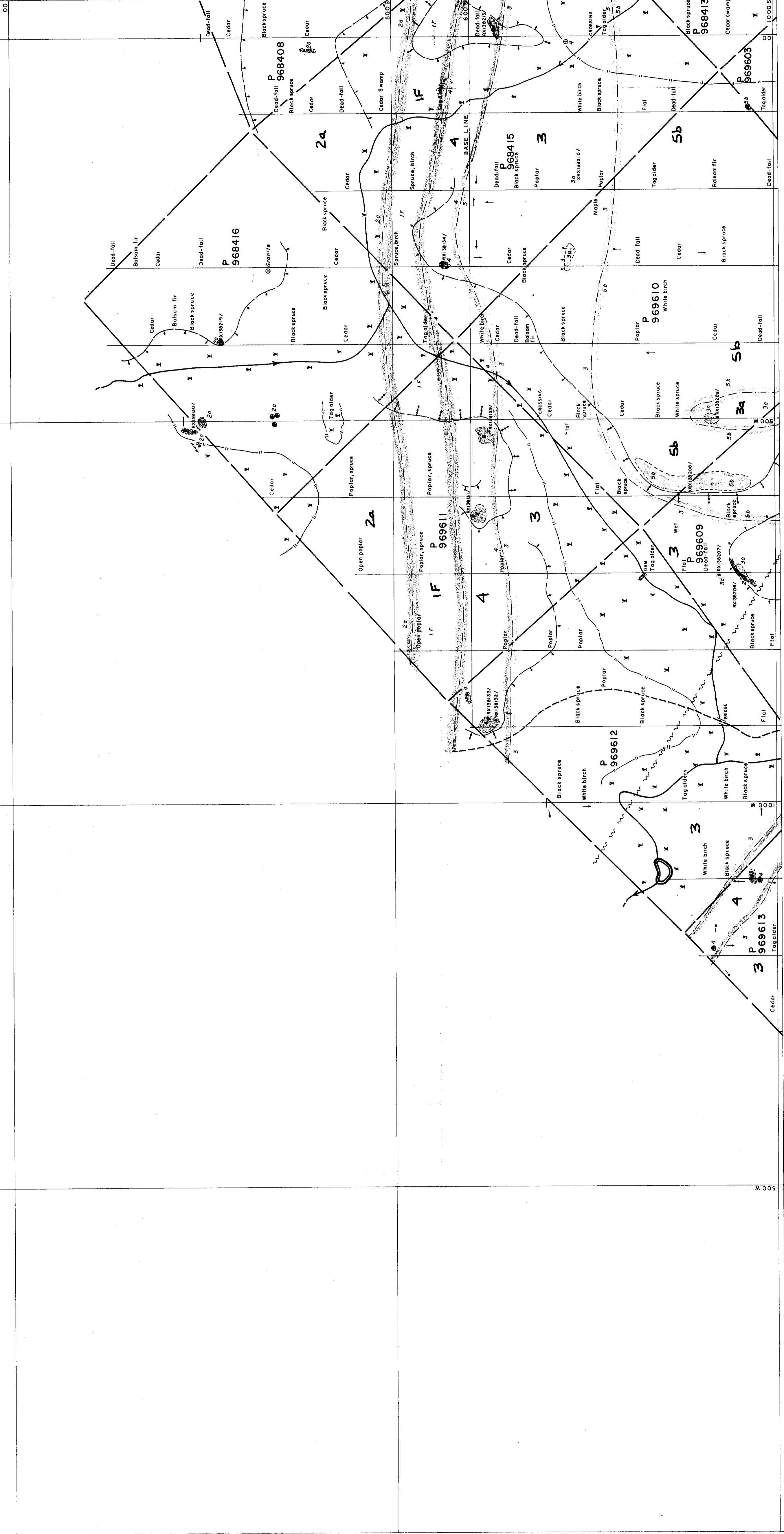


**LEGEND**

- 5** EPIZONAL INTRUSIVES - a. Trench-like, sparse, felsic, aphyric  
b. Fine to medium grained massive to porphyritic
- 4** MAFIC INTRUSIVES - Diabase
- 3** FELSIC TO INTERMEDIATE METAVOLCANICS - a. Tuft to lapilli tuff  
b. Volcanic breccia  
c. Massive flows
- 2** MAFIC METAVOLCANICS - a. Massive flows  
b. Pillowed flows  
c. Tuft
- 1** ULTRAMAFIC METAVOLCANICS - a. Massive flows  
b. Spillatoid flows
- IF** IRON FORMATION

**SYMBOLS**

- Outcrop area, single, small outcrop
- ⊙ Flat
- Geologic contacts (observed, inferred)
- Geologic boundaries (observed, inferred)
- Bedrock surface (observed, inferred)
- Fault (Inferred)
- Trench
- Stream
- Sample site
- Slope (gentle, moderate, steep)
- Creek showing flow direction
- Shoreline of lake or pond
- Trail
- Swamp (limit defined, undefined)



2.13381

C6
D5
E5
E6

**INCO GOLD** INCO GOLD COMPANY, A UNIT OF INCO LTD. Copper Cliff, Ontario

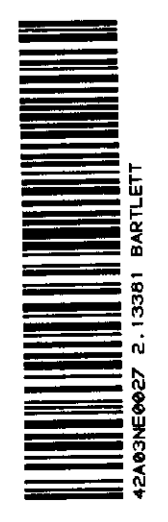
**GEOLOGY SURVEY** SHEET **D5** FIGURE **3**

Project: **NORWIN** Area: **MCARTHUR/BARTLETT TFS., ONT.**

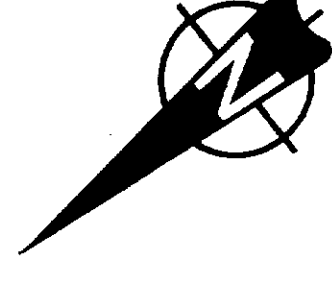
Supervisor: **J. PERRY** Instrument: **Survey done Aug. - Sept. 1988**

Compiled by: **H. Kelly/A. Birch** Date drawn: **Mar. 1989** Revised:

Scale: **1:2500** File: **MTS. 42 A/3**

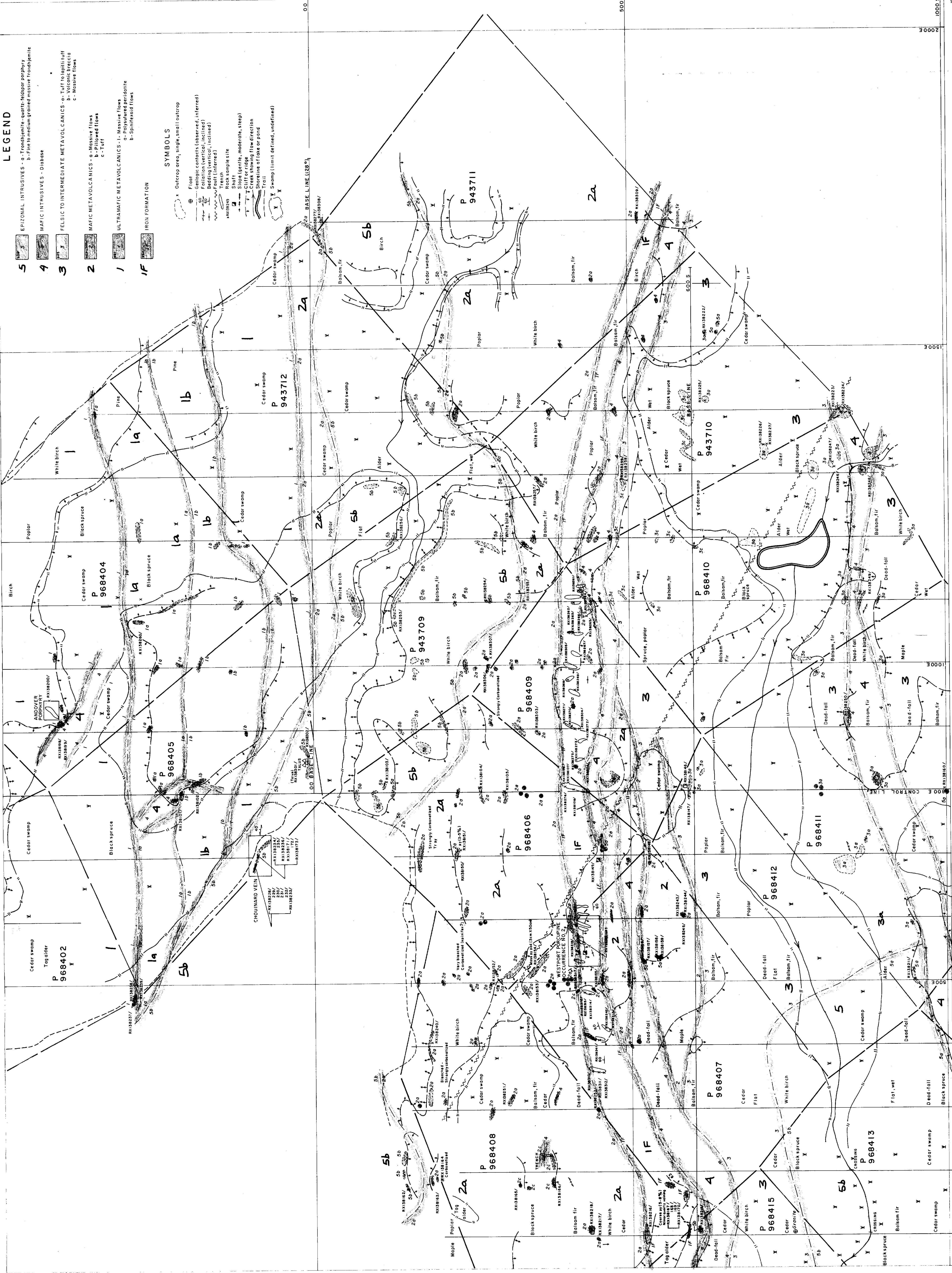






- LEGEND**
- 5 EPIZONAL INTRUSIVES - a-Trounchamite-quartz-feldspar porphyry  
b-Fine to medium grained massive trondhjemite
  - 4 MAFIC INTRUSIVES - Diabase
  - 3 FELSIC TO INTERMEDIATE METAVOLCANICS - a-Tuff to lapilli tuff  
b-Flow breccia  
c-Massive flows
  - 2 MAFIC METAVOLCANICS - a-Massive flows  
b-Pillowed flows  
c-Tuff
  - 1 ULTRAMAFIC METAVOLCANICS - a-Massive flows  
b-Polysaturated peridotite  
c-Spinifexoid flows
  - IF IRON FORMATION

- SYMBOLS**
- ⊕ Outcrop area, single, small outcrop
  - ⊙ Flat
  - ⊙ Slope (vertical, inclined)
  - ⊙ Foliation (vertical, inclined)
  - ⊙ Bedding (vertical, inclined)
  - ⊙ Fault (interred)
  - ⊙ Rock sample site
  - ⊙ Shaft
  - ⊙ Stream (shallow, moderate, steep)
  - ⊙ Cliff edge
  - ⊙ Creek showing flow direction
  - ⊙ Shoreline of lake or pond
  - ⊙ Swamp (limit defined, undefined)



2.13381

0 10 20 30 40 50 METRES

**INCO GOLD** 800 OLD COMPANY A UNIT OF INCO LTD. Copper Cliff, Ontario

**GEOLOGY SURVEY**

Project: NORWIN  
 Instrument: J. PERRY  
 Supervisor: R. CLOTT/M. BYRON  
 Compiled by: H. TUMASZAKI  
 Scale: 1:2500

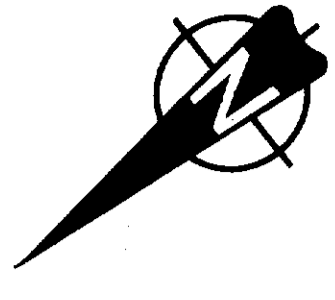
SHEET: D6  
 FIGURE: 3

Survey date: Aug - Sept, 1988  
 Date drawn: March, 1989  
 Revised: R.H.H.

N.T.S. 42A/3

C6	D5	E5
D6	D6	E6
E6	E6	E6

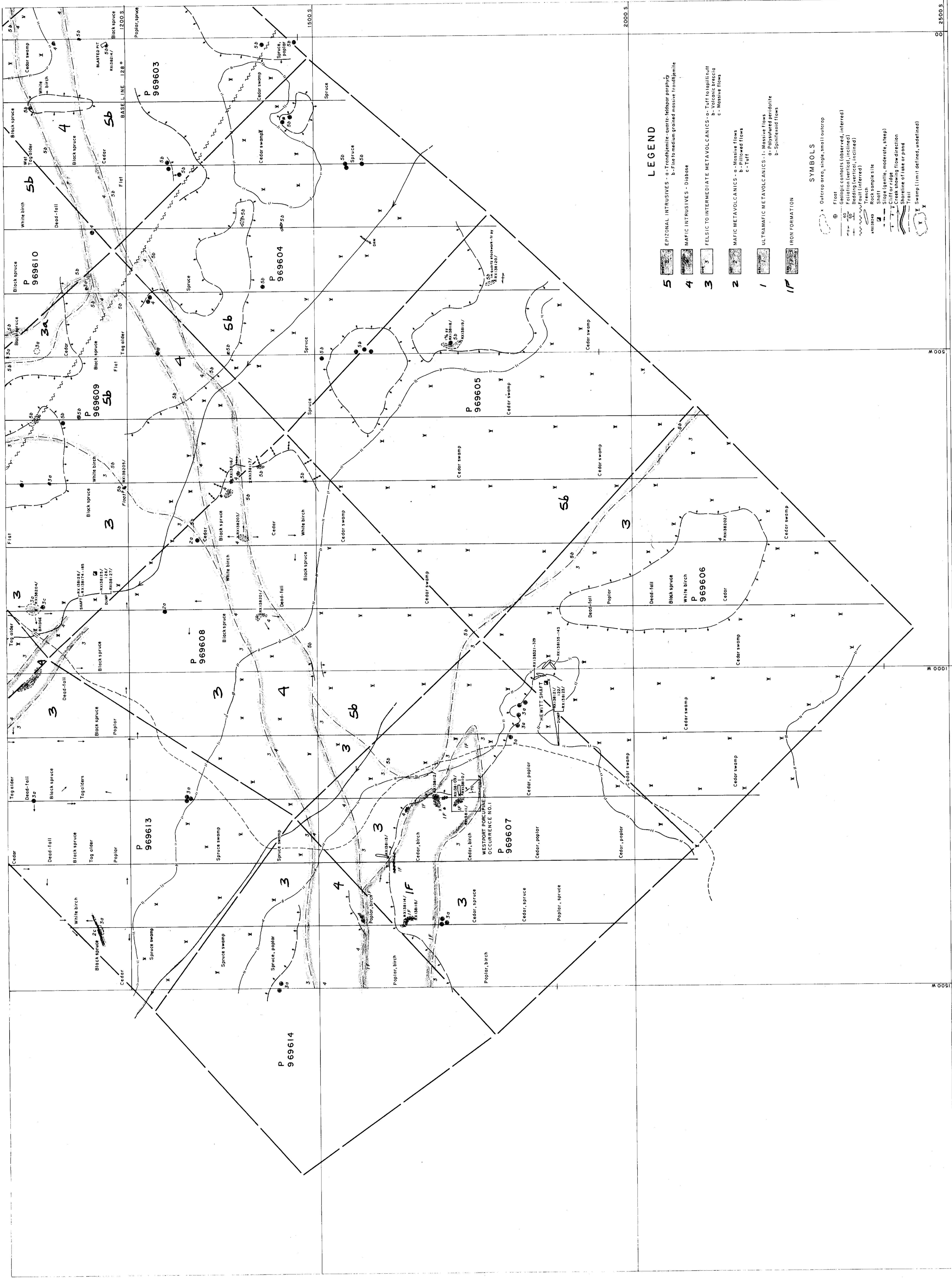




2. 13381

INCO GOLD  
 GEOLOGY SURVEY  
 SHEET E5 3  
 FIGURE 3

Project: NORWIN  
 Instrument: Area: McARTHUR/BARTLETT TPS, ONT.  
 Supervisor: J. PERRY  
 Date: Aug. Sept. 1988  
 Compiled by: M. C. Gray/Allyson  
 Date: Mar. 1989  
 Drawn by: W. E. Morshaw  
 Scale: 1:2500  
 File: NTS. 42A/3



LEGEND

- 5 ERIZONAL INTRUSIVES - a. Trondhjemite-quartz-feldspar anorthite  
 b. Fine to medium grained massive feldsparite
- 4 MAFIC INTRUSIVES - Diabase
- 3 FELSIC TO INTERMEDIATE METAVOLCANICS - a. Tuff to lapilli tuff  
 b. Volcanic breccia  
 c. Massive flows
- 2 MAFIC METAVOLCANICS - a. Massive flows  
 b. Pillowed flows  
 c. Tuff
- 1 ULTRAMAFIC METAVOLCANICS - 1. Massive flows  
 a. Olivine  
 b. Spineliferous flows
- 1F IRON FORMATION

SYMBOLS

- Outcrop area, single small outcrop
- ⊖ Front
- Geologic contacts (observed, inferred)
- Bedding (observed, inferred)
- Fault (inferred)
- Fault (observed)
- Ridge
- Slope (gentle, moderate, steep)
- Creek showing flow direction
- Shoreline of lake or pond
- Trail
- Swamp (limit defined, undefined)

C6	D5	E5
D6	E6	







**LEGEND**

**5** EPIZONAL INTRUSIVES - a - Trachyte, quartz, minor apophysis  
b - Franciscan or granodiorite (trondhjemite)

**4** MAFIC INTRUSIVES - Diabase

**3** FELSIC TO INTERMEDIATE METAVOLCANICS - a - Tuff to lapilli tuff  
b - Volcanic breccia  
c - Massive flows

**2** MAFIC METAVOLCANICS - a - Basaltic flows  
b - Pillow basalts  
c - Tuff

**1** ULTRAMAFIC METAVOLCANICS - I - Massive flows  
a - Polymorphous peridotite  
b - Spineliferous flows

**IF** IRON FORMATION

**SYMBOLS**

x Outcrop area, single, small outcrop  
@ Flat  
⊕ Geologic contacts (observed, inferred)  
- Faultion (vertical, inclined)  
- Faultion (vertical, inclined)  
- Faultion (inclined)  
- Faultion (inferred)  
Trench  
Rock sample site  
Cliff or ridge (flow direction)  
Shoreline of lake or pond  
Trail  
Swamp (limit defined, undefined)

C6	D6	E6
D5	E5	

2.13381

0 10 20 30 40 METRES

**INCO GOLD** INC. (OLD COMPANY), A UNIT OF INCO LTD. Copper, Cliff, Ontario

**GEOLOGY SURVEY**

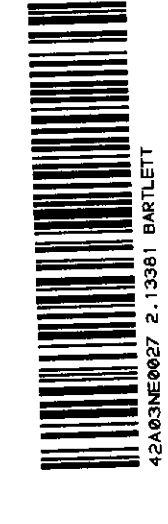
Project: **NORWIN** Area: **McARTHUR/BARTLETT TPS., ONT.**

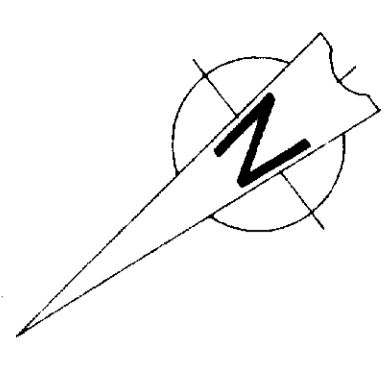
Supervisor: **J. PERRY** Instrument: Survey date: Aug - Sept, 1988

Compiled by: **R. CLOUTMAN Byron** Drawn by: **W. E. Morris** Date drawn: Mar., 1989

Scale: 1:25000 File: NTS. 42 A/3

SHEET **C6** FIGURE **3**





**LEGEND**

Magnetometer Readings in nanoTesla  
Filtered Contours  
Station Spacing : 12.5 m  
Contour Interval : 20 nT

- 20 nT contours
- 100 nT contours
- 500 nT contours
- 2500 nT contours

Relative Low  
Annotated Low  
HELM CONDUCTORS

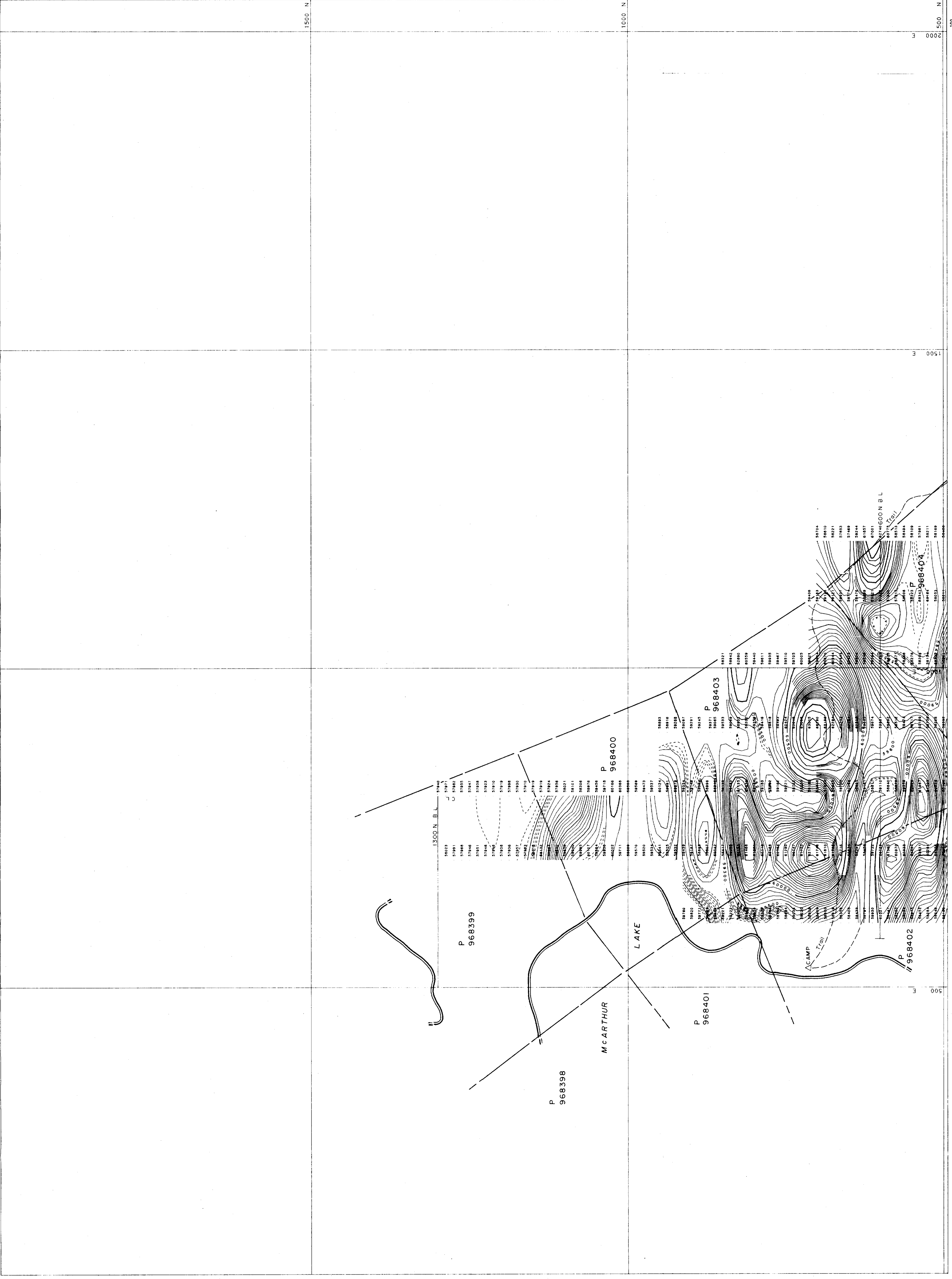
2.13381

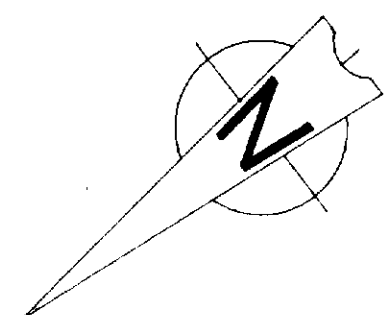


**INCO GOLD** 300 GOLD COMPANY, A UNIT OF INCO LTD. Copper Cliff, Ontario  
**MAGNETIC SURVEY** SHEET C6 FIGURE 4

Project: NORWEN  
 Location: McARTHUR/BARTLETT IMP., ONT.  
 Date of Survey: AUGUST 1988  
 Drawn by: EDA/DAVE L.V.  
 Checked by: J.P.  
 Date of Check: 17/1/88  
 Scale: 1 : 2500  
 File: NORWEN.XYZ  
 N.T.S. 42 A 3

C6	D6	E6
D5	E5	





**LEGEND**

Magnetometer Readings in nanoTesla  
Filtered Contours  
Station Spacing 12.5 m  
Contour Interval : 20 nT

- 20 nT contours
- 100 nT contours
- 500 nT contours
- 2500 nT contours

Relative Low  
Annotated Low

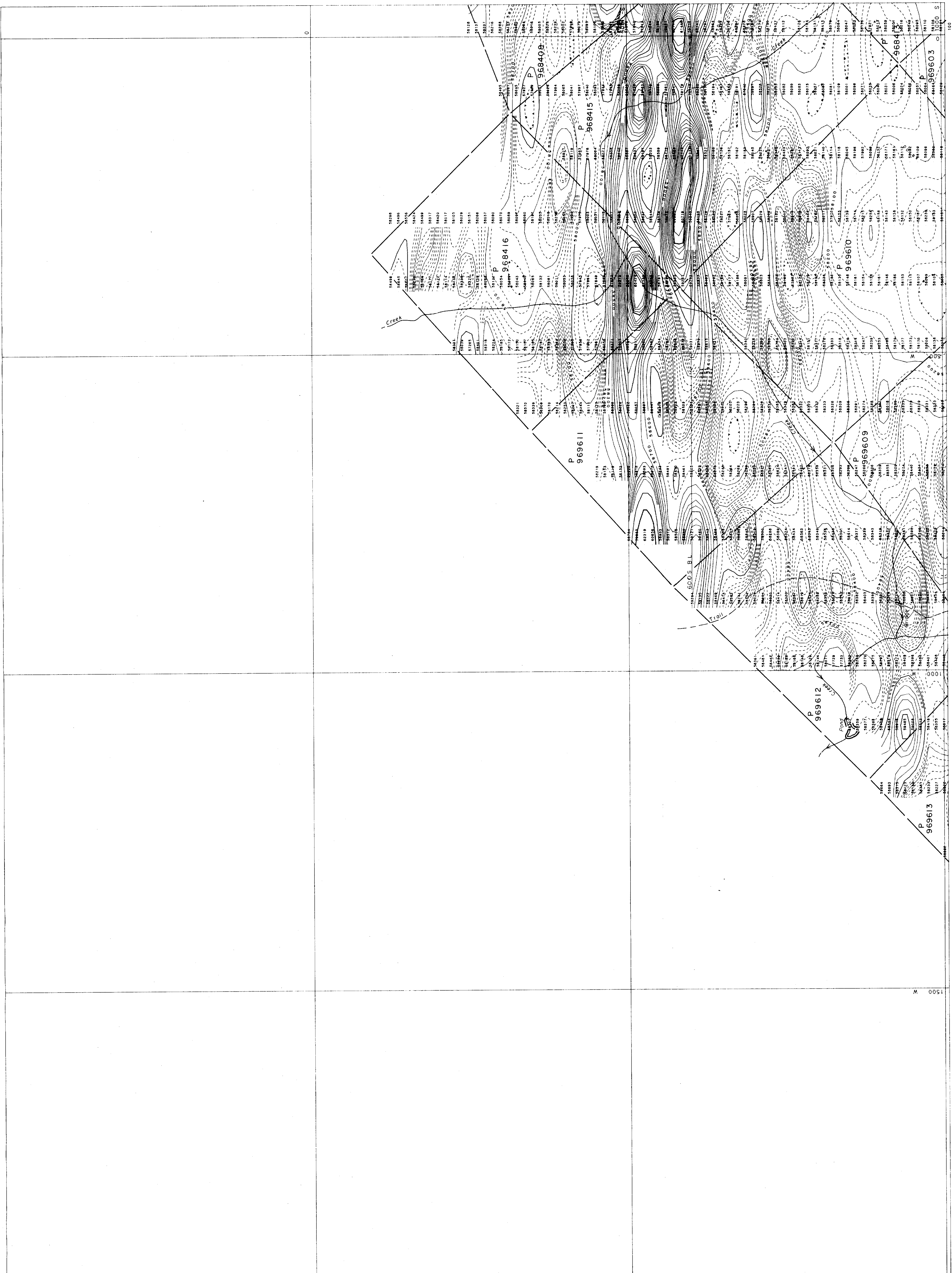
HLEM CONDUCTORS:

**2.13381**

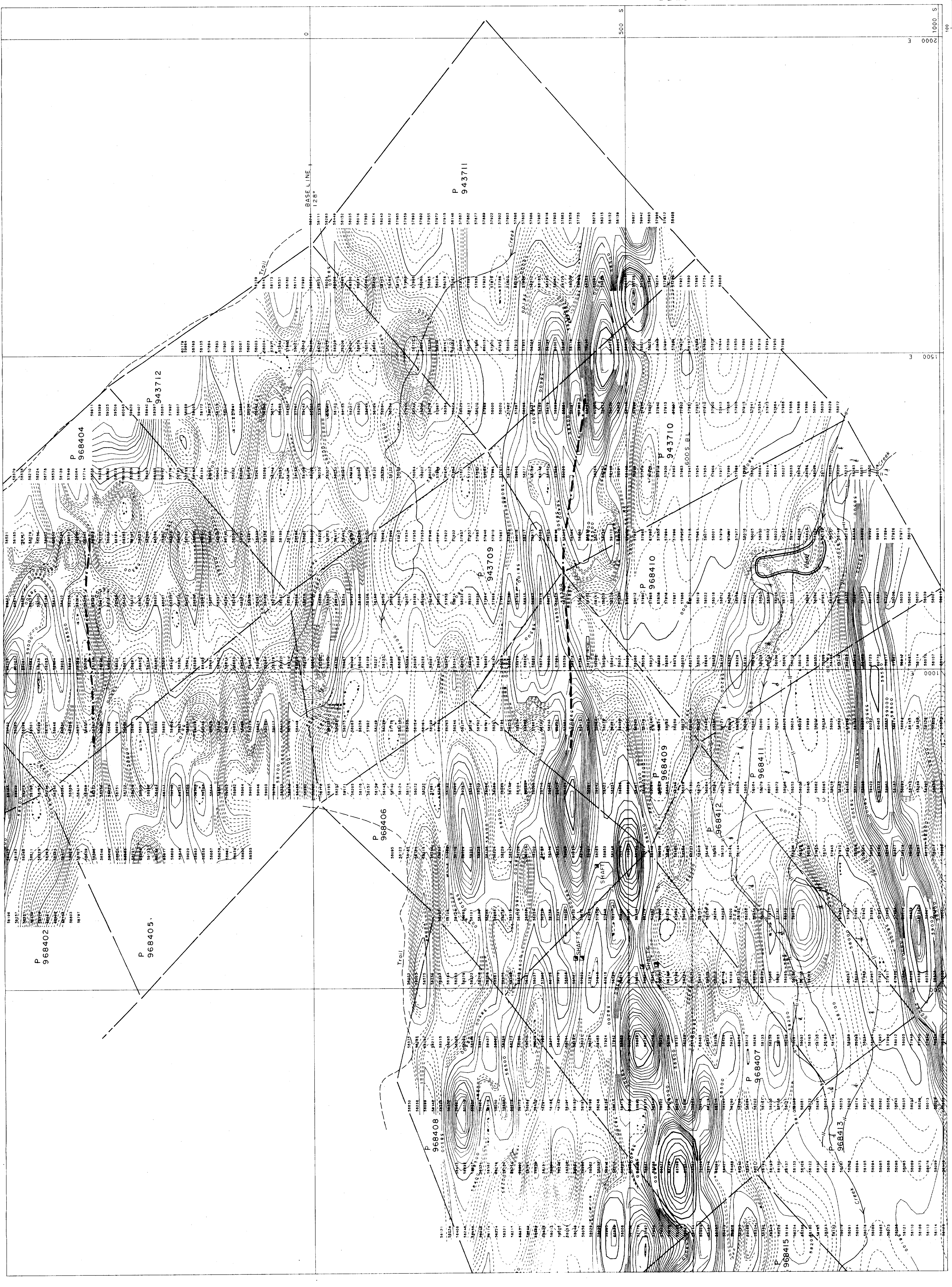
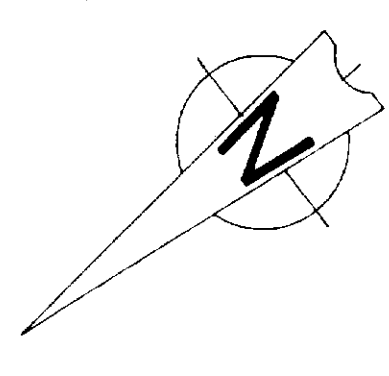
0 25 50 100  
METRES

INCO GOLD 100,000 COMPANY, A UNIT OF WOOD LTD.		SHEET		FIGURE	
MAGNETIC SURVEY		D5		4	
NORTH		McARTHUR/BARLETT TWP. ONT.		Survey Date:	
Surveyed by:		E.A. OMMEN, J.V.		AUGUST 1988	
Compiled by:		J.M. BLO		Date Drawn:	
Scale: 1 : 2500		File: NORWEN.XYZ		N.T.S.	
				42 A 3	

C6	D6	E6
D5	E5	







**LEGEND**

Magnetometer Readings in nanoTesla  
 Filtered Contours  
 Station Spacing : 12.5 m  
 Contour Interval : 20 nT

20 nT contours  
 100 nT contours  
 500 nT contours  
 2500 nT contours

Relative Low  
 Annotated Low

HELM CONDUCTORS

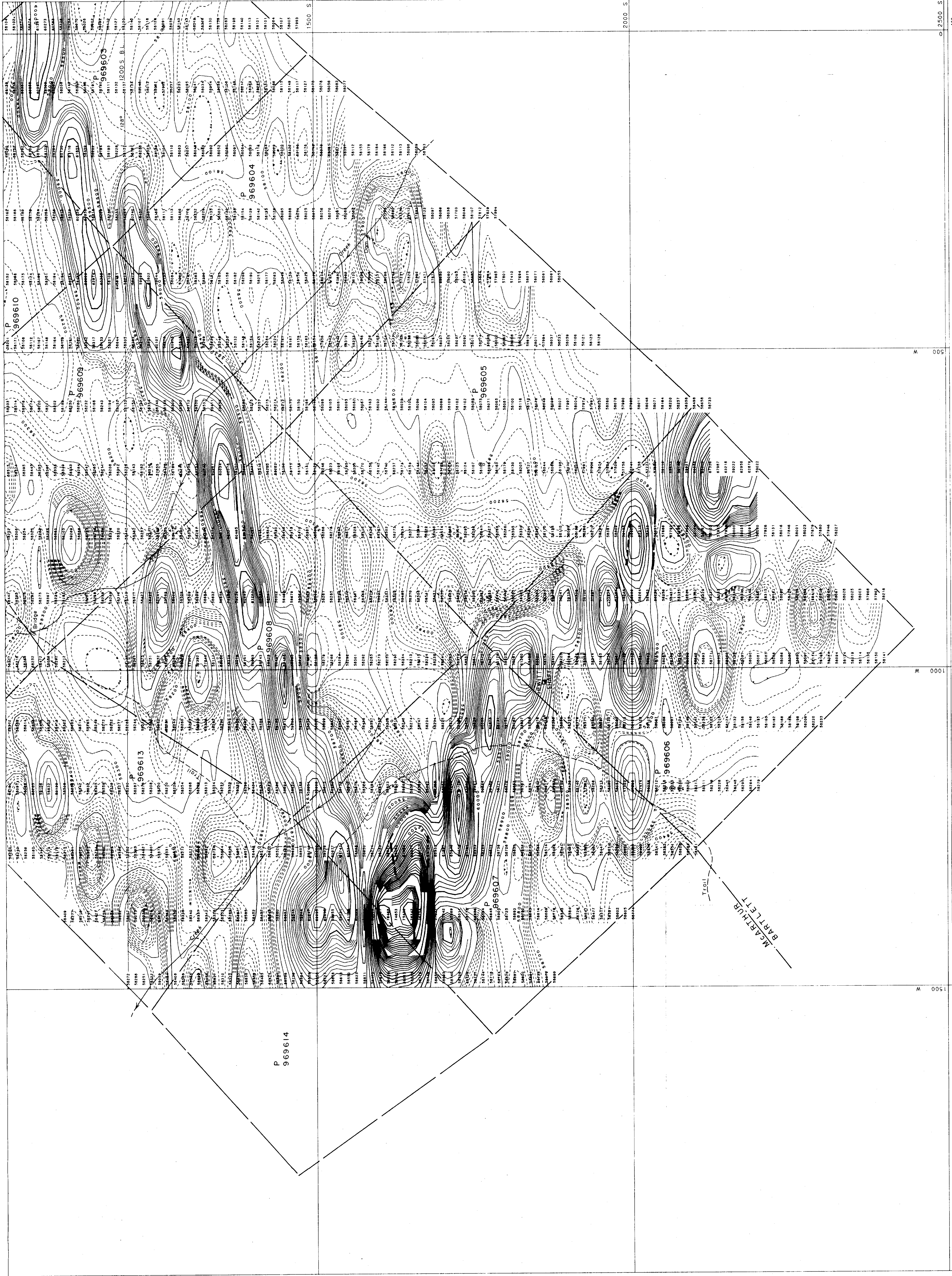
**2. 13381**

INCO GOLD		Copper Cliff - Ontario	
MAGNETIC SURVEY		FIGURE	
NORWICH		D6	
McARTHUR/BARTLETT TWP. ONT.		4	
Drawn by:	EVA DUMAS	Date Drawn:	AUGUST 1988
Checked by:	M.A.J.Z.	Date Checked:	17/1/1988
Scale:	1 : 2500	Sheet:	42 A 3

C6	D6	E6
D5	E5	







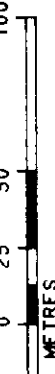
**LEGEND**

Magnetometer Readings in nanotesla  
 Filled Contours  
 Spacing: 12.5 m  
 Contour Interval: 20 nT

- 20 nT contours
- 100 nT contours
- 500 nT contours
- 2500 nT contours

Relative Low  
 Anomalous Low  
 HLEM CONDUCTORS:

2.13381



**INCO GOLD** INC. GOLD COMPANY, A UNIT OF INCO LTD. Geomatics, Ontario  
 2004 Map

**MAGNETIC SURVEY** SHEET **E5** FIGURE **4**

**NORTHEN** McARTHUR/BARTLETT TWP., ONT.

Surveyed by: EDA, OMNI-TV Survey Date: AUGUST 1988

Drawn by: JLT Scale: 1:2500

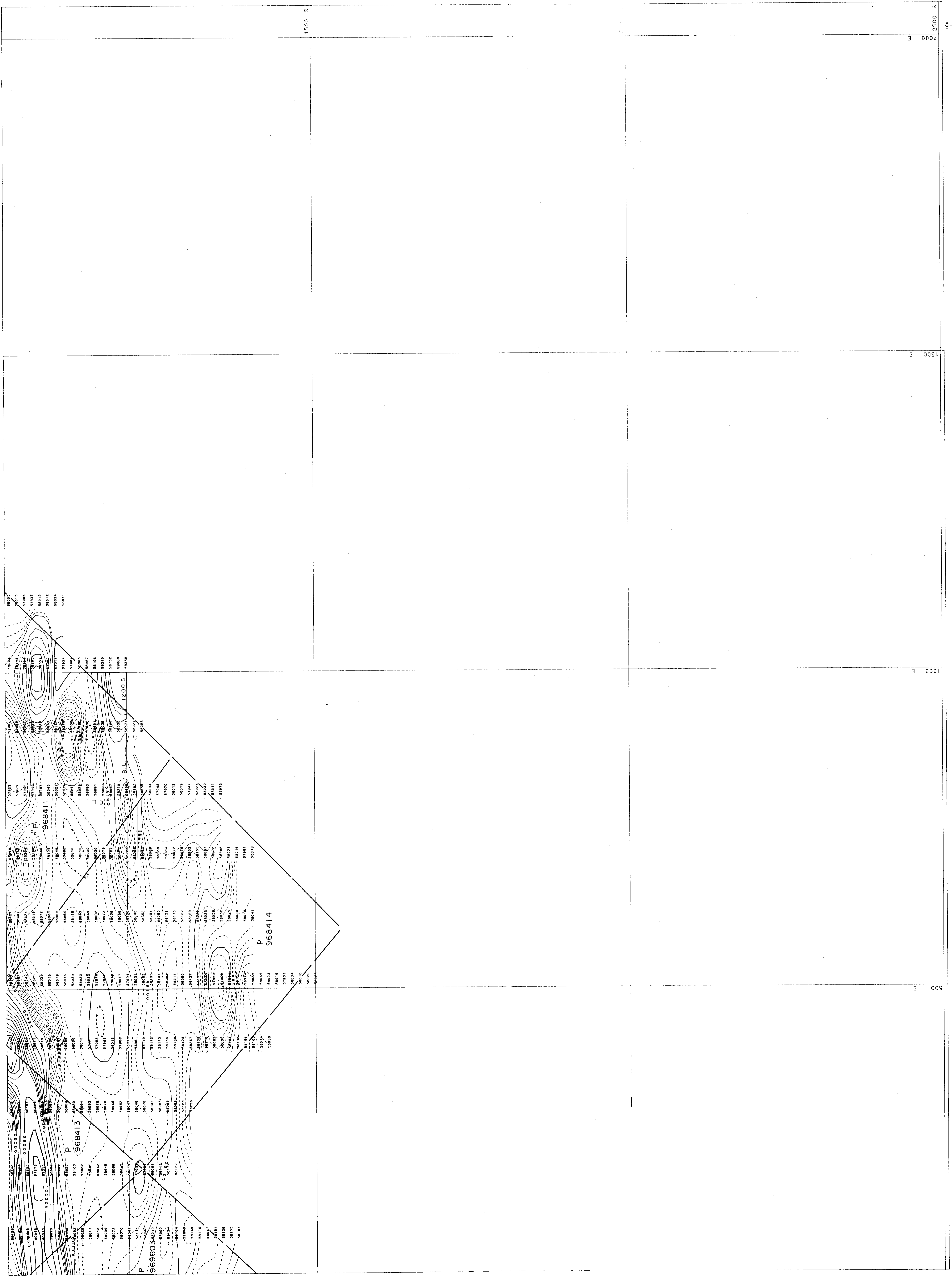
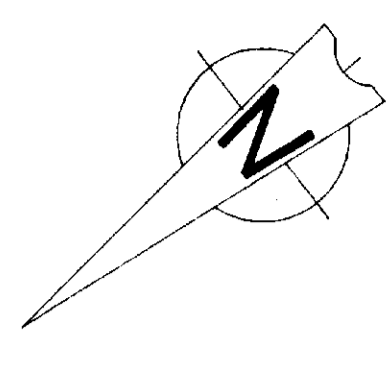
Checked by: JLT Date: 04/19/98

Scale: 1:2500 M.T.S. 42, A. 3

C6	D6	E6
D5	E5	







### LEGEND

Magnetometer Readings in nanoTesla  
 Filtered Contours  
 Station Spacing : 12.5 m  
 Contour Interval : 20 nT

20 nT contours  
 100 nT contours  
 500 nT contours  
 2500 nT contours

Relative Low  
 Annotated Low

HLEM CONDUCTORS

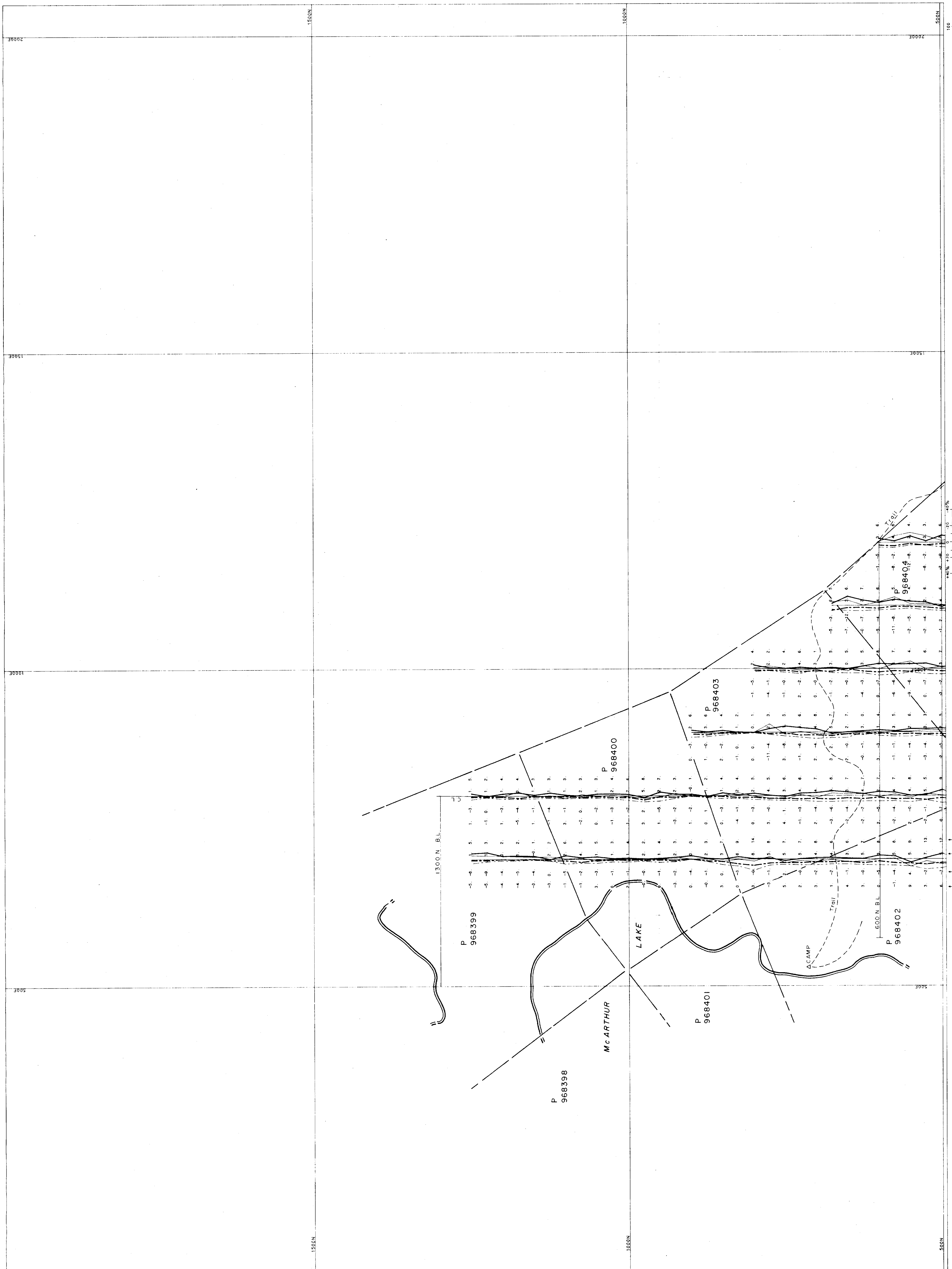
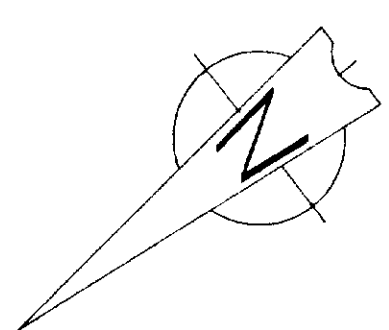
0 25 50 100  
 METRES

**2. 13381**

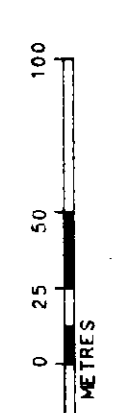
C6	D5	D6	F6
	E5		

<b>INCO GOLD</b>		Copper Cliff, Ontario	
MAGNETIC SURVEY		SHEET	FIGURE
		E6	4
Project:	McArthur/Bartlett Twp., Ont.	Scale:	N.T.S.
Client:	EDMONTON	Date:	AUGUST 1988
Surveyor:	EDMONTON	Drawn by:	ZETA
Compiled by:	M.A.J.K.	Reviewed:	
Date:	2800	File:	NORMAN.XYZ
			42 A 3





2.13381



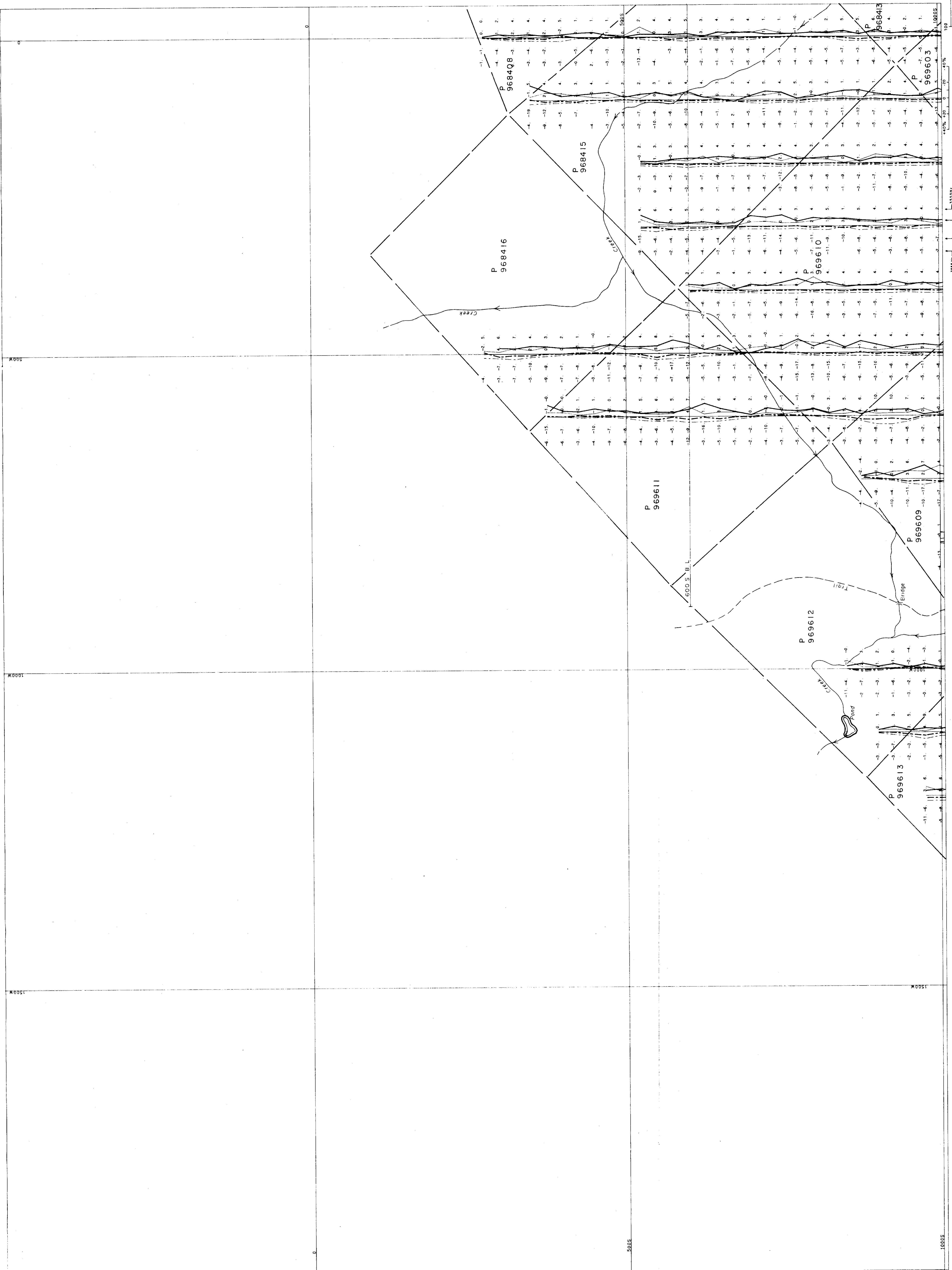
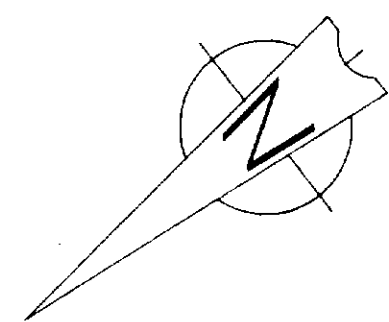
INCO GOLD A UNIT OF INCO LIMITED Copper, Clif., Ontario P.O. Box 170		SHEET C6	FIGURE 5
Project: HLEM SURVEY		Area: McARTHUR/BARTLETT TWP. ONT.	
Supervisor: B. LO	Instrument: MAX-MIN/KTP-84	Survey Date: AUGUST 1988	Drawn by: ZETA
Completed by:	Drawn by: ZETA	Scale: 1:2500	File: NORHP. ECG
Project: HLEM SURVEY		Scale: 1:2500	File: NORHP. ECG

C6	D5	D6	E5	E6
----	----	----	----	----

LEGEND

- PROFILES:
- IN PHASE 1777 Hz
  - OUT PHASE 1777 Hz
  - IN PHASE 3553 Hz
  - OUT PHASE 3553 Hz
  - COIL SEPARATION: 100M
  - CONDUCTOR PRIORITY: ③
- CONDUCTORS:
- 1 cm ±20.0 K
  - 1 cm ±50.0 K
  - 1 cm ±80.0 K
  - 1 cm ±100.0 K





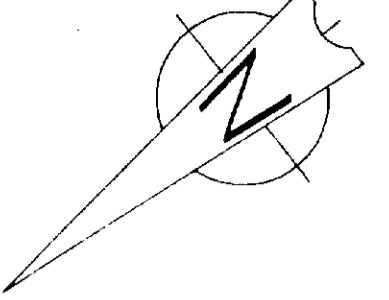
2. 13381

INCO GOLD A UNIT OF INCO LIMITED		COPPER CLIFF, Ontario	
HLEM SURVEY		SHEET	D5
Project: HLEM		FIGURE	5
Supervisor: B.L.O.	Estimate: MAX-MIN/NTF-84	Survey Date: AUGUST 1988	
Compiled by: ZETA	Drawn by: ZETA	By: ZETA	Reviewed:
Scale: 1:2500	File: HLEM.P.805	N.T.S. 42 A.3	

C6	D6
D5	E6
E5	

- LEGEND
- PROFILES:  
IN PHASE 1777 Hz  
OUT PHASE 1777 Hz  
IN PHASE 3555 Hz  
OUT PHASE 3555 Hz  
COIL SEPARATION 100M  
CONDUCTOR PRIORITY ⑤
- CONDUCTORS:  
100M  
50M  
25M  
10M
- SCALE:  
1 CM = 20.0 M  
1 CM = 30.0 M  
1 CM = 40.0 M

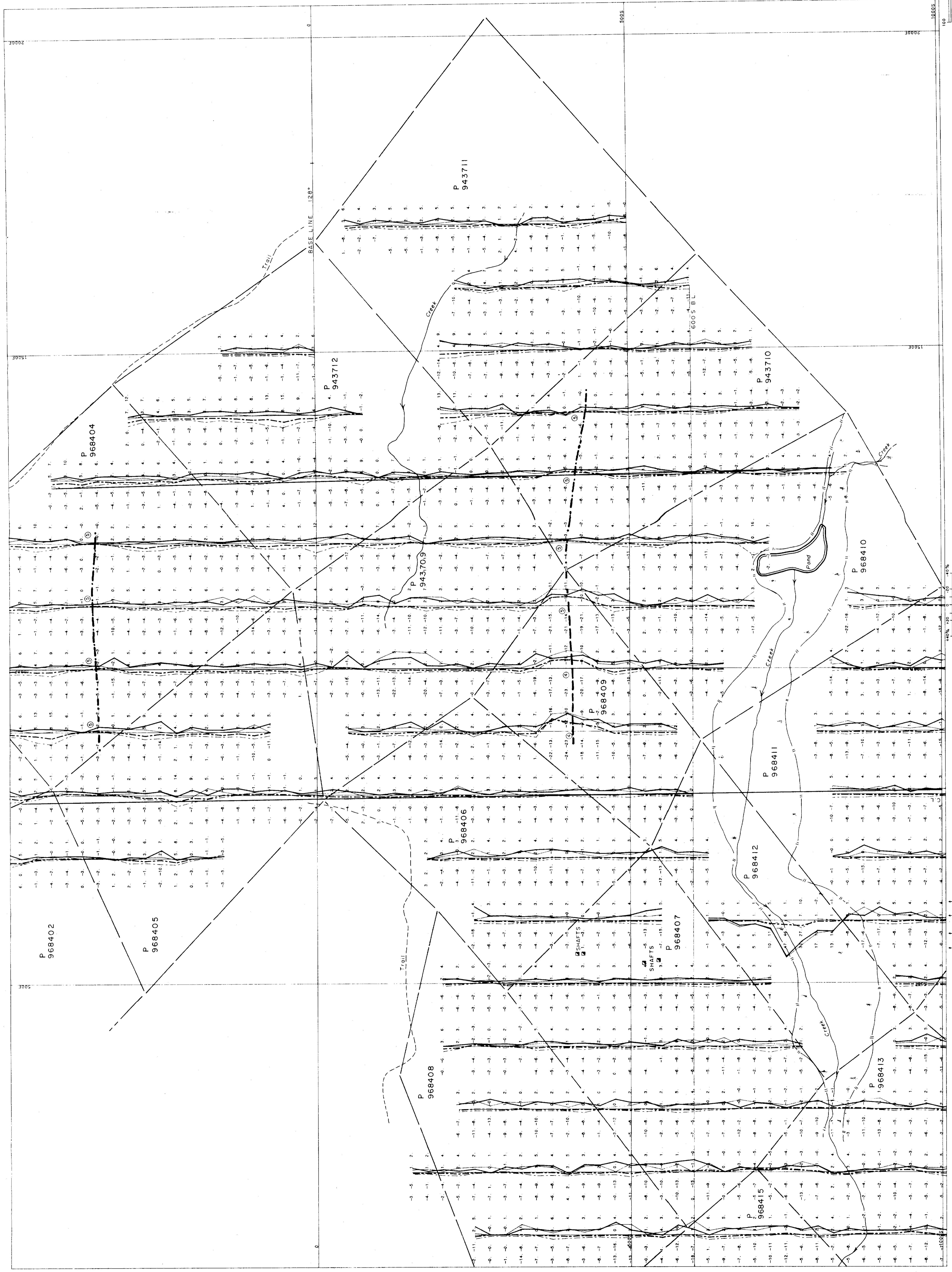




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0 25 50 100 METRES

INCO GOLD A UNIT OF INCO LIMITED Copper, Clif., Ontario POB 110		SHEET D6	FIGURE 5
HLEM SURVEY			
PROJECT NORWON	AREA MCARTHUR/BARTLETT TWP. ONT.	SURVEY DATE: AUGUST 1988	
SUPERVISOR B. LO	INSTRUMENT MAX-MIN/KTP-84	DATE DRAWN 17-OCT-88	
COMPILED BY ZETA	REVIEWED ZETA	SCALE 1:2500	
DRAWN BY FILIP NORRUP, SDE		N.T.S. 42 A 3	



C6	D6
D5	E6
E5	E6

LEGEND

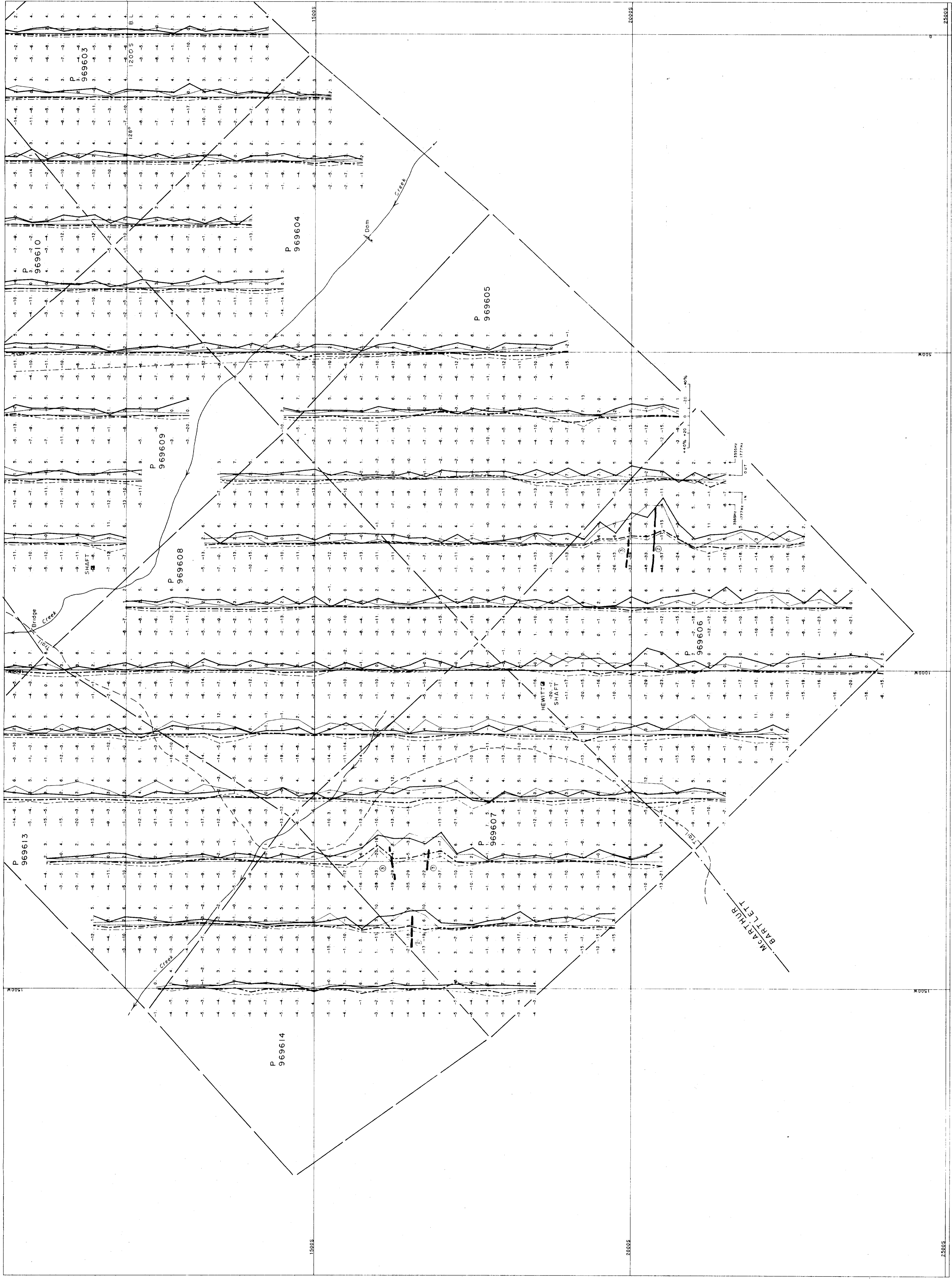
- PROFILES:
- IN PHASE 1777 Hz
  - IN PHASE 3355 Hz
  - OUT PHASE 3355 Hz
  - CONDUCTOR PRIORITY
- CONDUCTORS:
- THICK
  - MEDIUM
  - THIN
  - VERY THIN





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INCO GOLD A UNIT OF INCO LIMITED		Cassidy Cliff, Ontario	
HLEM SURVEY		SHEET	FIGURE
Project: NORMAN		Area: McARTHUR/BARTLETT TWP., ONT.	E5 5
Supervisor: B. LO	Environment: MAX-MIN/TIP-84	Survey Date: AUGUST 1988	
Compiled by: ZETA	Drawn by: ZETA	Checked by: ZETA	
Scale: 1:2500	File: NORMAN.P.SES	N.T.S. 42 A.3	



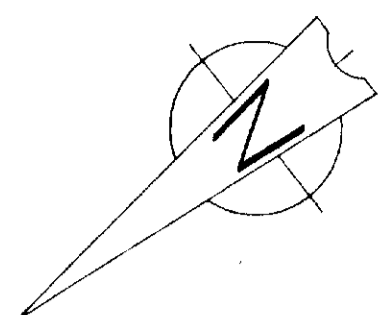
C6	D6	E6
D5	E5	

LEGEND

PROFILES:  
 IN PHASE 1777 Hz  
 OUT PHASE 1777 Hz  
 IN PHASE 5555 Hz  
 OUT PHASE 5555 Hz  
 COIL SEPARATION 100M  
 CONDUCTOR PRIORITY: (3)

CONDUCTORS:  
 --- POWER  
 --- GND  
 --- 100V WIRE





2.13381

0 25 50 100  
METRES

INCO GOLD		Copper Cliff - Ontario	
A UNIT OF INCO LIMITED		P.M. 100	
HLEM SURVEY		SHEET	FIGURE
		E6	5
Project:	NORMAN	Area:	McARTHUR/BARTLETT TWP. ONT.
Supervisor:	B. LO	Instrument:	MAX-MIN/ACP-84
Compiled by:	ZETA	Survey Date:	AUGUST 1988
Scale:	1 : 2500	Drawn by:	ZETA
		File:	NORMAN.E6
		Drawn:	17-05-88
		Revised:	
		Scale:	1 : 42 A 3

C6	D5	D6	E5	E6
----	----	----	----	----

LEGEND

PROFILES

- IN PHASE 1777 Hz
- OUT OF PHASE 1777 Hz
- IN PHASE 3555 Hz
- OUT OF PHASE 3555 Hz
- CONDUCTOR PRIORITY

CONDUCTORS:

- WIRE
- MINI
- MAX
- MTY MAX

