RSGM R. Somerville Geological & Mining Engineering Ltd.
Ste. 103 - 255 West 1st Street • North Vancouver, B.C., Canada V7M 3G8 • Telephone (604) 986-5766

A REPORT

on

THREE GEOPHYSICAL SURVEYS

(Magnetic Total Field, Magnetic Gradient,

and an HEM Survey)

on

THE SOUTHEAST GRID

on

THE SHAW #1 PROPERTY

SHAW TOWNSHIP

ONTARIO

by

R. Somerville, B.Sc.(hon), P. Eng.

dated October 1, 1989.

TABLE (

POCKETS

9 Maps in total

Map A,	Sheet 1	Magnetic Profiles and Post Map
	Sheet 2	Magnetic Profiles and Post Map
Map B,	Sheet 1	Magnetic Contour Map
	Sheet 2	Magnetic Contour Map
Map C	Sheet 1	Magnetic Gradient Profiles and Post Map
	Sheet 2	Magnetic Gradient Profiles and Post Map
Map D	Sheet 1	Magnetic Gradient Contour Map
	Sheet 2	Magnetic Gradient Contour Map
Map E		Horizontal Loop Survey

APPENDIX I

Report of Work

APPENDIX II

Certificate

doc/shsegeop

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INTRODUCTION

This is a report on the results of three geophysical surveys conducted over 18 claims. The surveys were conducted by personnel from Timmins Geophysics Ltd., P.O. Box 1783, 111 Bruce Avenue, South Porcupine, Ontario, P0N 1H0 for a subsidiary company of Total Energold Corporation (AJM Metals Ltd.) who at the time of the survey were the registered holders of the claims. Their address is 1500 - 700 West Pender Street, Vancouver, British Columbia, V6C 1G8. The current registered holders of the claims are R.D. Somerville, 1052 Esquimalt Avenue, West Vancouver, B.C. and D.E. Somerville, R.R. 3, Site 1, Comp. 19, North Bay, Ontario, P1B 8G4.

The three surveys were a Magnetic Total Field survey, a Magnetic Gradient survey, and a Horizontal Loop Electromagnetic survey. The work was supervised by personnel from R. Somerville Geological and Mining Engineering Ltd., whose address is 103 - 255 West 1st Street, North Vancouver, B.C., V7M 3G8.

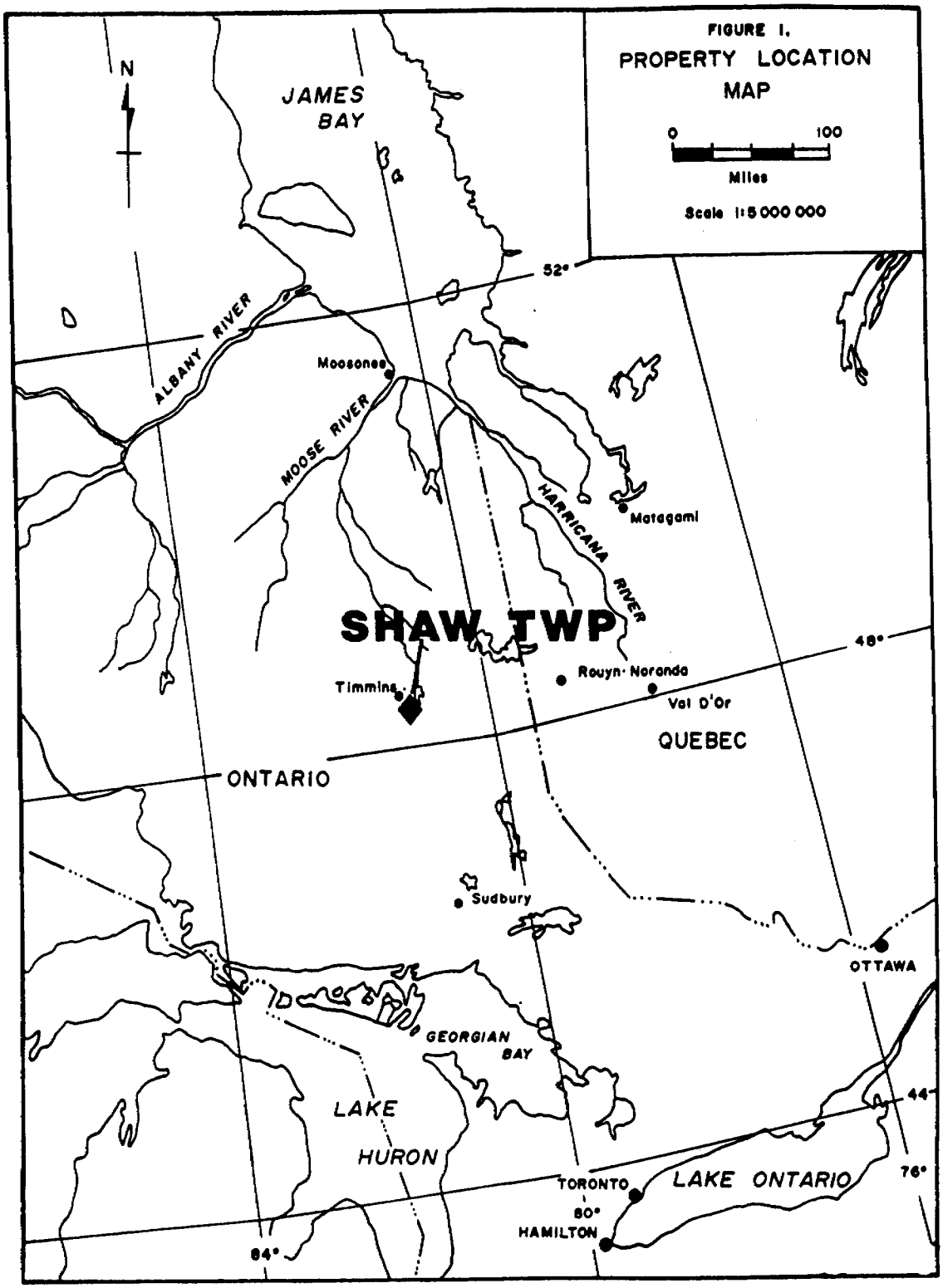
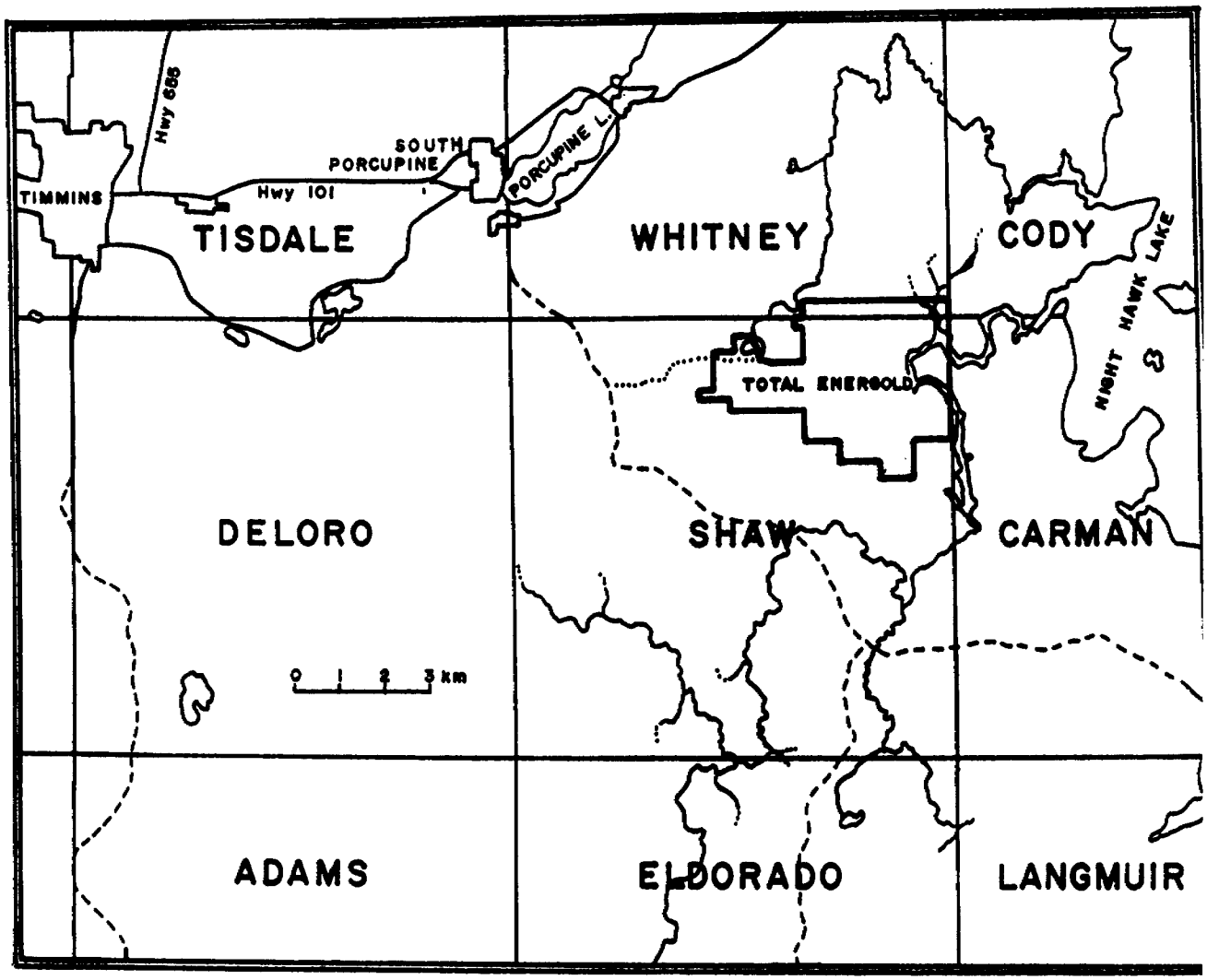
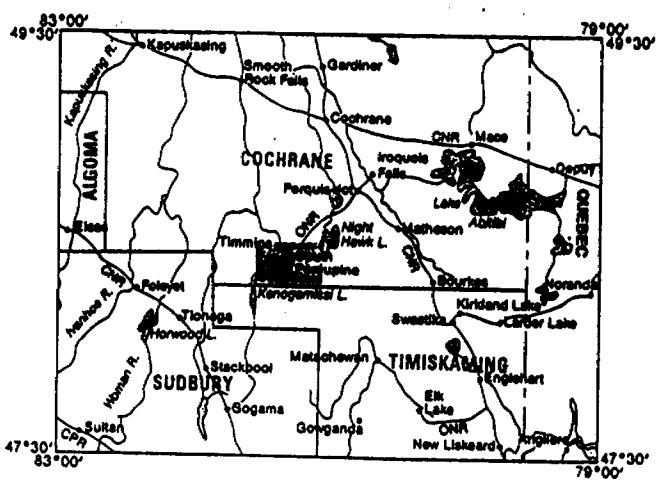


FIGURE 1.
PROPERTY LOCATION MAP
0
100
Miles
Scale 1:5 000 000
N
JAMES BAY
52°
ALBANY RIVER
Moosonee
MOOSE RIVER
HARRICANA RIVER
Matagami
SHAW TWP
Timmins
Rouyn-Noranda
Val D'Or
48°
QUEBEC
ONTARIO
Sudbury
OTTAWA
GEORGIAN BAY
LAKE HURON
44°
TORONTO
LAKE ONTARIO
76°
80°
HAMILTON
84°





Aeromagnetic reference 293G
N.T.S. reference 42A/6

LOCATION MAP

SHAW #1 Group

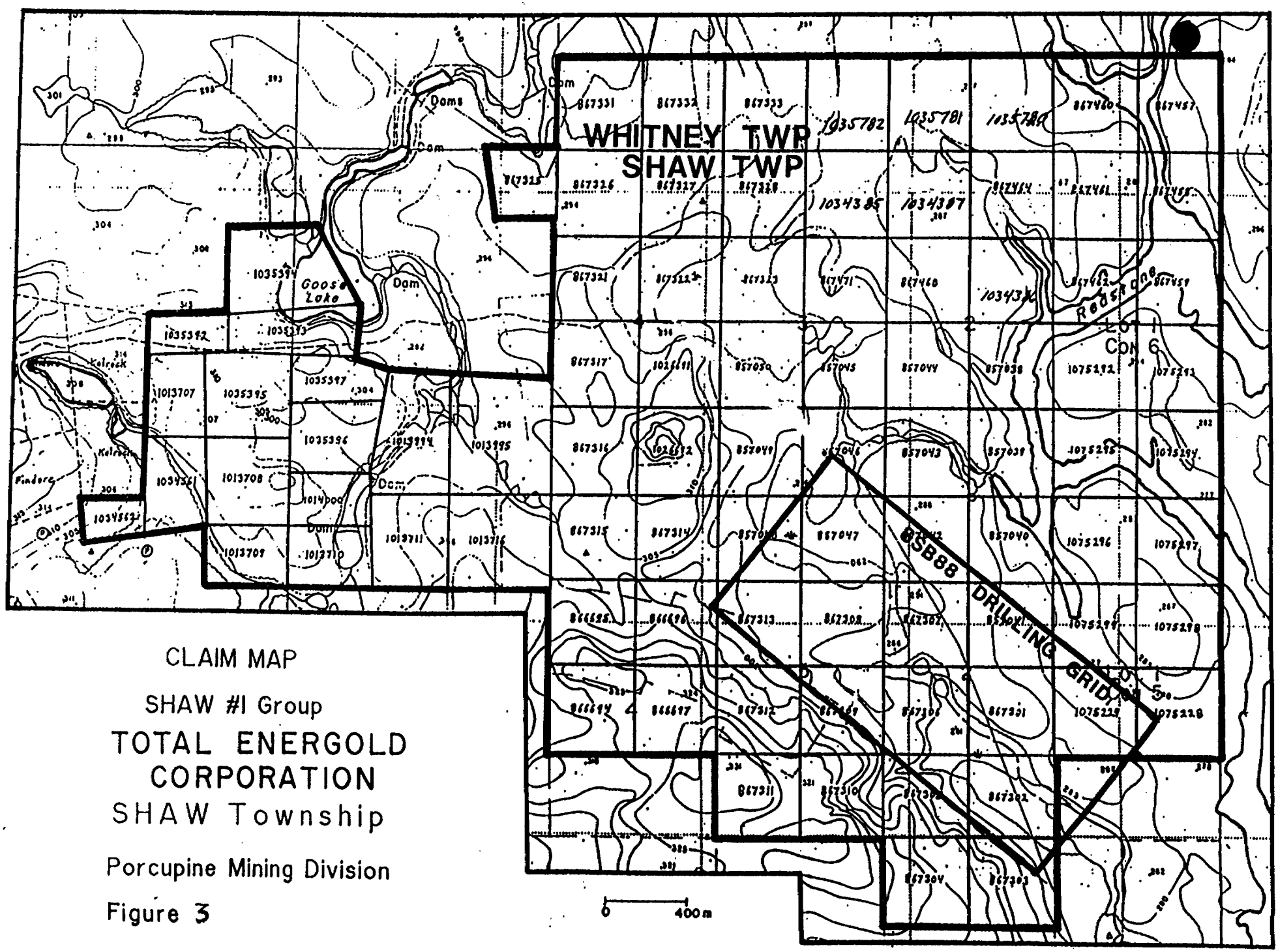
TOTAL ENERGOLD CORPORATION

SHAW Township

Porcupine Mining Division

Ontario

Figure 2



CLAIM MAP

SHAW #I Group

TOTAL ENERGOLD CORPORATION

SHAW Township

Porcupine Mining Division

Figure 3

PROPERTY, LOCATION AND ACCESS

Total Energold Corporation's Shaw #1 group consists of 88 contiguous unpatented mining claims. The property is located in Shaw Township some 5 km south of South Porcupine. These are recorded in the Porcupine Mining Division in the name of AJM Metals Ltd. The geophysical survey actually covers the following 18 claims:

The claims are numbered:

P-857041 and P-857042

P-857046 to P-857049

P-867301 and P867302

P-867305 to P867309

P-867313 to P867315

P-1026692

P-1075229

They form a block covering portions of Lots 2 to 5, Concessions 5 and 6, Shaw Township. All these claims are in a contiguous block as can be seen on Figure 3.

Access to the property is by two rough roads, one heading east from the Langmuir Mine Road, 5km southeast of South Porcupine, and the other heading north from the same road 11 km southeast of South Porcupine. See Figures 1 and 2.

PHYSIOGRAPHY

The Shaw property is generally flat with a total relief of less than 50 metres. A high area of outcrop in the centre of the property, called Mt. Logano (elevation 325 metres), forms an east-west divide. From here the land gently slopes to the east, reaching an elevation of 281 metres at the Redstone River, and northwest to Goose Lake at an elevation of 290 metres. Drainage is into Goose Lake and the Redstone River.

Vegetation on the property consists of 75 percent forest cover, mainly spruce and poplar with some pine, birch, and fir. Of this 15 percent has been clear cut. The remaining 25 percent is covered by bog, alder swamp, and grass.

Approximately 10 percent of the Shaw #1 property is outcrop, nearly all of it in the western third. Overburden is thickest in the east, reaching a depth of 109 metres.

PREVIOUS WORK

Previous work done on the property is summarized below:

1910 - A.G. Burrows studied and mapped the Porcupine Gold Camp, including Shaw Township.

1915 - A.G. Burrows 3rd ed. of this report, including Shaw Township, map 24d.

1924 - A.G. Burrows 4th ed. of his report, including detailed field studies of Whitney Township and the north half of Shaw Township, map 33a.

1938 - M.E. Hurst mapped Shaw and Whitney Townships (1935-1937) and published a geological map (Map 47a)

Erie Canadian also known as Ester Porcupine Gold Mines Ltd., mapped one claim.

1945 - Blackhawk Porcupine Mines Limited drilled two diamond drill holes totalling 1,047' on claim #857040 near the Redstone River.

- Conwest Exploration Company Limited drilled three near the Whitney - Shaw township line between 1945 and 1946.

- Ella Jay Prospecting Syndicate drilled a 873' hole near the Whitney Shaw Township line on claim #867458. This company was later known as Lloyd Gold Mines Ltd.

1946 - Kensull Gold Mines Limited conducted a ground magnetometer survey over 3 claims.

- Belcher drilled two diamond drill holes totalling 1,207' on claim #867305 in Whitney Township.

1947 - Amshaw Porcupine Mines Limited held 3 claims within the Shaw #1 group and between 1962 and 1963 conducted a ground magnetometer survey on the claims.

1966 - Richards drilled 2 diamond drillholes totalling 1,107' on claim #867305.

1967 - H.D. Carlson mapped and produced an open file report (5012) based on field work done in Shaw Township (1964 to 1965)

1969 - Dillon investigated the area from 1961 to 1969. In 1969 they drilled 9 diamond-drill holes, one on claim #1013994 and 8 on claim #1013716, for a total of 1,434'.

1971 - Hollinger Mines Limited explored 20 claims in the area by ground magnetometer.

- Economic Mineral Investigations Limited carried out a geological survey of 5 claims and an electromagnetic survey on one of these.

1974 - Pac Exploration mapped the geology and conducted a ground magnetometer survey over 16 claims, and resistivity and induced polarity surveys over 2 of these.

1980 - Hollinger-Argus Mines Limited explored 16 claims by means of ground magnetometer and VLF.

- Rosario Resources Ltd. conducted geological, ground magnetometer, and electromagnetic surveys on 30 claims. They also drilled a 598' diamond-drill hole on claim #1013995 to investigate a carbonate alteration zone.

1987 - Chevron investigated the area in 1986 and 1987. A ground electromagnetic survey was carried out on 13 claims, overburden sampling on 10 claims, and trenching on claims #867315 and #866696.

For more detail see Appendix A, Table 1.

1988 - Total Energold Corporation filed a report on the geology of a portion of the claim block and a geochemical report on a two claim portion of the property.

GENERAL GEOLOGY

The description of the geology is partially excerpted from a report on the property by R. Mielke dated December 31, 1988. The Timmins district is underlain by volcanic, sedimentary, and intrusive rocks of the Abitibi greenstone belt. For a summary of the geology of the Abitibi greenstone belt, the reader is referred to Goodwin and Ridler (1970, 1977), Pyke (1980), and Jensen and Langford (1983).

The geology and stratigraphy of the Timmins district (Figure 3), has been recently described by Pyke (1982), and the following description is taken largely from his work.

Stratigraphy

Pyke divided the Archean volcanic and sedimentary rocks of the district into three groups, the Deloro, Tisdale, and Porcupine Groups. The volcanic rocks are divided into the Deloro and Tisdale Groups, and the sedimentary rocks are assigned to the Porcupine Group (Figure 4).

The two volcanic groups are cut by a major east-west fault, the Destor-Porcupine fault. South of this fault, the rocks of the Deloro Group (the older group) occupy the Shaw Dome, and north of the fault rocks of the Tisdale Group form a series of

anticlines and synclines trending northeast-southwest and northwest-southeast. Major blocks of the Tisdale Group reappear south of the Destor-Porcupine fault around the flanks of the Shaw Dome, apparently unconformably overlying the older Deloro Group.

The sedimentary rocks of the Porcupine Group occur in close proximity to the Destor-Porcupine fault and within folded sequences in the northwest part of the district. According to Pyke, these sedimentary rocks are time equivalent with the upper volcanic rocks of the Deloro Group and the entire sequence of the Tisdale Group.

The sequence of metavolcanic rocks that constitute the Deloro and Tisdale Groups is subdivided into six formations. Formations I to III fall within the Deloro Group, and Formations IV to VI the Tisdale Group.

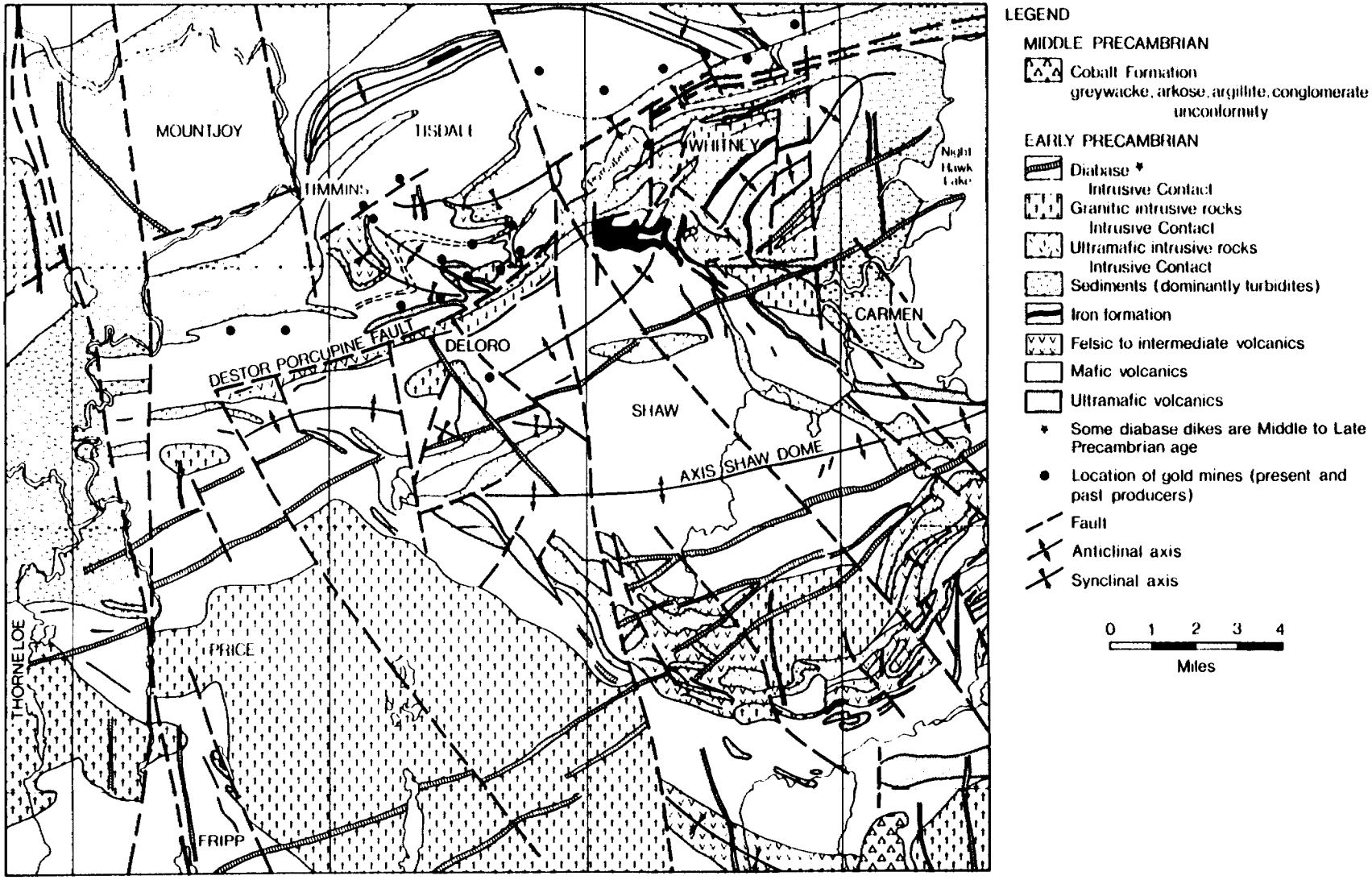


Figure 4 – Geology of the Timmins district (after Pyke 82)

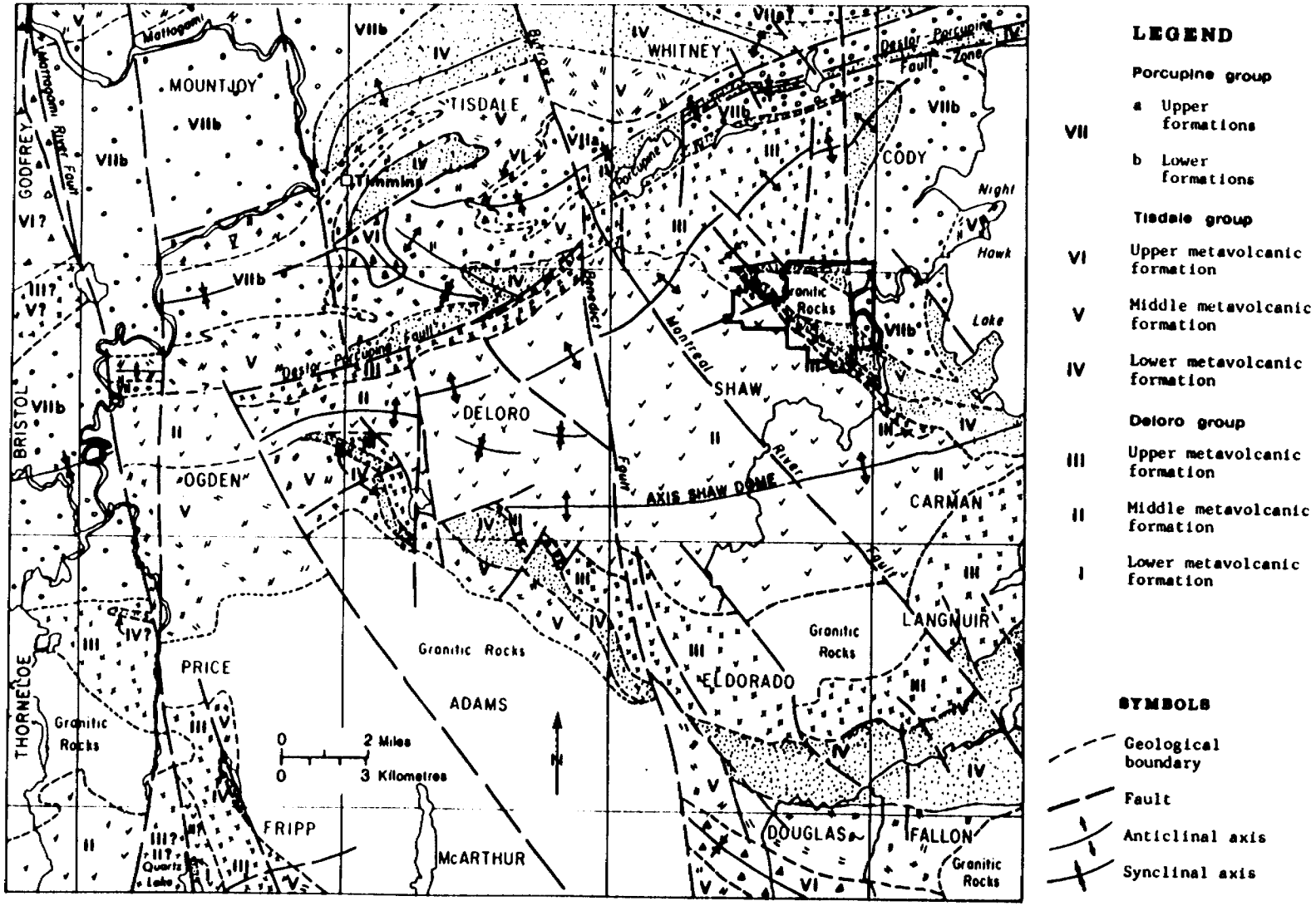


Figure 5 – Stratigraphic map of the Timmins district (after Pyke 82)

Intrusive Igneous Rocks

Large sill-like bodies of dunite and peridotite were emplaced into the upper formation of the Deloro Group in the vicinity of the Shaw Dome. Pyke (1982) suggests that these may have acted as feeders or reservoirs for the ultramafic rocks at the base of the Tisdale Group.

Numerous felsic stocks outcrop in the southern part of the district. These include a small felsic quartz porphyry stock which underlies much of Mt. Logano.

Many small quartz-feldspar porphyry intrusions of probable subvolcanic origin occur within the metavolcanic rocks of the Tisdale Township. Some of these intrusive bodies contain gold-bearing quartz veins.

The volcanic and sedimentary rocks of the area are traversed by a series of north and northeast-trending diabase dykes. At least three ages of diabase intrusive activity have been established (Pyke 1982).

North-trending dykes (approximately 2480 Ma) cut the granitic rocks associated with the Kenoran orogeny and are unconformably overlain by Proterozoic sedimentary rocks. North-northeast-trending diabase sills (2170 Ma), and east-northeast or northwest-trending diabase dykes (1230 Ma) intrude both the Archean and Proterozoic rocks.

Structural Geology

Two structural domains, separated by the Porcupine-Destor fault, are recognized in the district (Pyke 1982). The Shaw Dome, underlain by rocks of the Deloro Group, occurs to the south of the fault. North of the fault the rocks of the Tisdale Group have been folded into a sequence of anticlines and synclines. Basal rocks of the Tisdale Group are also found on the flank of the Shaw Dome south of the Porcupine-Destor fault.

The axis of the Shaw Dome trends east-west across the southern part of Shaw Township. The origin of this domal structure is probably the result of the diapiric effect of an underlying granitic body. Middleton (1976) inferred the existence of such a body from a negative bouguer anomaly coincident with the Dome.

Metamorphism

The Archean rocks of the Timmins district have been subjected to greenschist facies metamorphism. A strong mineral foliation, defined by the preferred orientation of sericite and chlorite, is locally developed throughout the area. For the most part however, original textures are preserved in sedimentary and volcanic rocks.

GEOLOGY OF THE PROPERTY

Summary

The Shaw #1 Property is situated between a northeast-trending anticlinal structure to the north, and an east-trending linear dome called the Shaw Dome to the south (Figure 4).

The Shaw Dome is underlain by mafic calc-alkalic volcanics of the Deloro Group, Formation II, and the northern anticline is predominantly iron formation bearing felsic calc-alkalic volcanics, Formation III (Pyke 1982). The upper part of the Shaw Dome volcanics also contain iron formations, some of which are exposed in the southern part of the property.

The central and eastern part of the 88 claim group is underlain by komatiitic and tholeiitic volcanic rocks of the Tisdale Group (Formation IV and V). These form a small southwest-plunging syncline which is intruded by quartz porphyry. This porphyry forms a large body in the centre of the property which is known as the Mt. Logano porphyry (Figure 6).

All of these rocks are cut by later intrusives. A large east-trending, differentiated, diabase dyke cuts across the centre of the property; and a large gabbro body exists in the extreme south. Several other smaller intrusives have also been noted. Among these are narrow north-trending diabase dykes, small gabbro plugs and dykes, and mafic intrusives.

Sedimentary rocks are thought to occur in the extreme eastern part of the 88 claim group (Pyke 1982, map 2455), but the extent of these is currently unknown.

Although the 18 claims covered by this report have not been mapped in detail, a general picture of the geology is known from compilation and wide-spaced traverses. This 18 claim group appears to be underlain in part by a stock of Mt. Logano quartz-feldspar porphyry (felsic intrusive) in the north, and by Cycle IV Tisdale ultramafics which lie south of the intrusive. The ultramafics overlie an iron formation/mafic volcanic complex which occupies the southernmost part of the grid. Diabase outcrops have also been observed on the property. An attempt was made to interpret the magnetic contour maps (Map B, Sheets 1 and 2) based on these sketchy observations.

LINECUTTING AND SURVEY METHODS

Linecutting

A cutline grid called the Southeast grid was established with 26 lines cut on an azimuth of 038° at 100 meter intervals. The lines were cut between a baseline 0 on the south to a 1000 meter north tieline. The baseline and tieline are at right angles to the cut lines and trend 128°. Line 0 (at 300N) is tied to the old main grid (500S tieline - 2900E).

This new grid has six lines cut to the northwest of line 0+00 (Lines 1+00W to 6+00W) and has nineteen lines cut to the southeast (lines 1+00E to 19+00E).

Magnetic Survey

During December 1988 and January 1989, the lines were cut and picketed. At this point Timmins Geophysics was contracted to complete the magnetic survey on this grid.

The readings were taken between January and March, 1989 at 25 meter intervals at all points except those few where flooded conditions upstream from beaver dams made it impossible.

The survey was run using two Scintrex IGS-21MP-4 magnetometers. One unit was used as a base station, and at the end of each day, the readings were automatically corrected for the diurnal effect by connecting the two instruments. The resultant corrected total field ground magnetic results were transferred from the instrument to a computer disk. The survey was conducted by Timmins Geophysics Ltd., P.O. Box 1783, South Porcupine, Ontario, and the work was directly supervised by D. Londry, B. Sc. (geophysicist).

The total field survey was conducted along the grid of cut lines from Line 600W to Line 1900E. The base station was located at L600W, 100N whose total field magnetic value was determined to be 58,235 gammas. In total, 1941 readings were taken on 996 stations.

The magnetic gradient for each station was determined by the comparison of a second reading taken with the sensor extended about 1.5 m above the first. This survey was conducted over the same stations as the magnetic survey and during the same time period.

The results of both the magnetic and magnetic gradient surveys were turned over to Sheldrake and Associates Ltd. of 1500 - 409 Granville St., Vancouver, B.C., V6C 1T2. The grid was digitized and the results were contoured and printed by a computer and an associated plotter and subsequently interpreted. The results are presented on Maps C (sheet 1 and 2) and D (sheet 1 and 2) in the pockets of this report.

Electromagnetic Survey

A Horizontal Loop electromagnetic survey was conducted along the same grid lines by means of a Model EM-17 electromagnetic receiver manufactured by Geonics Ltd. of Toronto, Canada. Measurements of the in-phase (dip) and quad-phase (quadrature) components of the secondary field were made as a percentage of the primary electromagnetic field. The readings were taken at 25 meter intervals at all points on the grid.

The survey was conducted during January and February 1989 by Timmins Geophysics. The results of the survey were plotted by hand and subsequently interpreted. The results are presented in Map E in a pocket of this report.

SURVEY RESULTS

The total field magnetic results are plotted on the 2 maps marked "A" and the results are contoured on the two "B" maps. Both are dominated by strong magnetic features which coincide with mapped outcrop areas of magnetite-rich iron formation striking approximately 140° . The boundary of the formation is interpreted and outlined on both maps.

Other features which are exposed in outcrop and interpretable in the contoured results are areas underlain by the Mt. Logano felsic intrusive meta-porphyry and the Cycle IV Tisdale volcanics ultramafic. Although outcrop is scarce in the map area,

sufficient is exposed to be able to give a broad outline to these rock types.

Between Line 600W and L00 the iron formation appears to split or fork, with the open part to the west. In this area and partly coincident with the (magnetic pattern) iron formation is a very strong HEM anomaly (Anomaly A). HEM Anomaly E appears to be a continuation of the same conductor on the northeast side of the (magnetic anomaly) iron formation in the altered Tisdale ultramafic. Anomaly D also appears to be contained by this rock type Anomalies B, C, and F all appear to be contained within the Mt. Logano porphyry.

The letter designation (from A to J) for the HEM anomalies also reflects their interpreted ratings, with Anomaly A having the strongest response (the best conductor). HEM anomalies A,B, E, and in part F are coincident with magnetic gradient anomalies. A and E again appear to represent the same structure. In the area of the four ponds (Claim P-867301) there is an elongate, strongly high magnetic anomaly. It has approximately a 4,000 gamma relief. This coincides with a weak magnetic gradient anomaly and a weak HEM anomaly (Anomaly G).

CONCLUSIONS

The magnetic survey has been extremely useful in mapping the geological stratigraphy on the property. Some fault/vein((?) structures may also be interpreted from this data.

The magnetic gradient survey appears to be indicating zones of "alteration" adjacent to interesting structural complications. It is possible that some of the magnetic gradient anomalies represent hydrothermal alteration.

Finally, the HEM survey has indicated 5 "very good" to "fair" conductors within and adjacent to the iron formation, a pair of "fair" conductors lie within the Tisdale Ultramafics, and four "weak" anomalies are underlain by the Mt. Logano porphyry.

One high magnetometer anomaly, apparently underlain by the felsic porphyry, may represent a small basic magnetite-rich plug.

APPENDIX I

REPORT OF WORK

Northern Development and Mines

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W8906.361

Mining Act

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

Type of Survey(s): Amended 82 (Sept.1/89) AND LINECUTTING — ELECTROMAGNETIC AND MAGNETIC

Township or Area: SHAW TOWNSHIP

Claim Holder(s): AJM METALS LTD.

Prospector's Licence No.: T4857

Address: SUITE 1500 – 700 West Pender St Vancouver B.C V6C1G8

Survey Company: R. Somerville Geological Engineering

Author of Geo-Technical report:

Date of Survey (from & to): Day 01 Mo. 01 Yr. 89 — Day 03 Mo. 03 Yr. 89

Total Miles of line Cut: 15

Credits Requested per Each Claim in Columns at right

Special Provisions

For first survey: Enter 40 days. (This includes line cutting)

For each additional survey: using the same grid: Enter 20 days (for each)

	Days per Claim
Geophysical	
· Electromagnetic	20
· Magnetometer	20
· Radiometric	
· Other LINECUTTING	
Geological	
Geochemical	

Man Days

Complete reverse side and enter total(s) here

	Days per Claim
Geophysical	
· Electromagnetic	
· Magnetometer	
· Radiometric	
· Other	
Geological	
Geochemical	

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.

	Days per Claim
Electromagnetic	
Magnetometer	
Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
P	1026692	
	~~857049~~	
	867314	
	867315	
	867301	
	867302	
	867306	
	867307	
	857048	
	857049	
	867313	
	857047	
	867308	
	867309	
	867305	
	857041	
	1075229	
	857046	
	857042	

Prefix	Number	Expend. Days Cr.

AMENDED AUG – 9 – 1989

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

RECEIVED AUG 9 1989

20 days Mag (Not Recorded)

Instructions

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

Number of mining claims traversed by this report of work: 18

Date: Aug 4/89

Recorded Holder or Agent (Signature)

For Office Use Only

Total Days Cr. Recorded: 1020 ~~1080~~

Date Recorded: AUG.9/89

Date Approved as Recorded:

Mining Recorder

Branch Director

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying

R. Somerville, M.Sc., F.G.A.

FROM: M.R. PORCUPINE MIN.DIV. TO: 988 7180

OCT 5, 1989 12:16PM P.02

Ontario Ministry of Northern Development and Mines

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

W 8900.573

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

Type of Survey(s): MAGNETIC GRADIENT

Township or Area: SHAW TOWNSHIP

Claim Holder(s): AJM Metals LTD / R. Somerville

Prospector's Licence No.: P4857 A50064

Address: 105-255 West 1st St North Vancouver B.C V7M3G8

Survey Company: RSGM & Timmins Geophysics

Date of Survey (from & to): 01 01 89 (Day | Mo. | Yr.) 07 04 89 (Day | Mo. | Yr.)

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): R. SOMERVILLE 103-255 West 1st St. N. Vancouver V7M3G8

Credits Requested per Each Claim in Columns at right

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

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

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

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits: Total Expenditures $ ____ + 15 = Total Days Credits ____

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

Date: Aug 23/89

Signature of Holder, Agent or Author

Certification Verifying Report of Work

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

V7M3G8

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	1026692	*
[redacted]		*
P	867311	*
P	867315	*
	867301	
	867302	
	867306	
	867307	
	857048	
	857049	
	867313	
	857047	
	867308	
	867309	
	867305	
	857041	
	1075229	
	857046	
	857042	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
AUG - 25 1989
10:45 BM

RECORDED
AUG 25 1989

Total number of mining claims covered by this report of work: 18

* MAX REACHED - NOT ALLOWED. 15

For Office Use Only

Total Days Cr. Recorded: 300

Date Recorded: AUG. 25/89

Date Approved as Recorded:

Mining Recorder

Branch Director

APPENDIX II

CERTIFICATE OF QUALIFICATIONS

CERTIFICATE

I, Richard D. Somerville, residing at 1052 Esquimalt Avenue, West Vancouver, British Columbia, V7T 1J8 certify that:

1. I am a practicing Consulting Geologist with offices at 103 - 255 W 1st Street, North Vancouver, B.C., V7M 3G8.

2. I am President of R. Somerville Geological and Mining Engineering Ltd.

3. I am a Registered Professional Engineer of the Province of Ontario and British Columbia.

4. I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining & Metallurgy.

5. I am a graduate of Queen's University at Kingston, Ontario, having received a B. Sc. (hon) degree majoring in Geology, and a B.A. degree majoring in Physics and Mathematics.

6. This survey was conducted under my direction. I have visited the property, and I am satisfied that the survey was conducted in a proper and professional manner.

West Vancouver, British Columbia
October 1, 1989

R. Somerville, P. Eng.

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

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

Tel: (416) 965-4888

Your File: W8906-393
Our File: 2.12805

April 12, 1990

Mining Recorder
Ministry of Northern Development & Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Re: Notices of Intent dated March 12, 1990 for a Magnetic Gradient Survey submitted on Mining Claims P 867301 et al in the Township of Shaw.

No 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 & Minerals Division

JS:zm
Encl:

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

AJM Metals Ltd
Vancouver, B.C.

R. Sommerville
Vancouver, B. C.

Ontario

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

Tel: (416) 965-4888

April 16, 1990

Your File: W8906-361
Our File: 2.12805

Mining Recorder
Ministry of Northern Development & Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Re: Notice of Intent dated March 12, 1990 for Geophysical (Electromagnetic) Survey Submitted on Mining Claims P 1026692 et al in the Shaw Township.

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 & Minerals Division

JS:zm
Encl:

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

Resident Geologist
Timmins, Ontario

AJM Metals Limited
Vancouver, B.C.

R. Sommerville
Vancouver, B.C.

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.12805

Date: March 12/1990

Mining Recorder's Report of Work No.: W8906-361

Recorded Holder: AJM Metals Limited

Township or Area: Shaw Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	P 1026692
Electromagnetic 16.7 days	P 867301 - 02
Magnetometer ____ days	P 867305 to 309 incl.
Radiometric ____ days	P 867313 to 315 incl.
Induced polarization ____ days	P 857041 - 42
Other ____ days	P 857046 to 049 incl.
Section 77 (19) See "Mining Claims Assessed" column	P 1075229
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

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

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

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

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File 2.12805

Mining Recorder's Report of Work No. W8906-361

...ch.12/ 1990

Recorded Holder: AJM Metals Limited

Township or Area: Shaw Township

Type of survey and number of Assessment days credit per claim	...ining Claims Assessed
Geophysical	
Electromagnetic ____ days	P 1026692 ...ncl.
Magnetometer 35.6 days	P 867301-02
Radiometric ____ days	P 867305 to 30...
Induced polarization ____ days	P 867313-15
Other ____ days	P 857041-42 ...ncl.
Section 77 (19) See "Mining Claims Assessed" column	P 857046 to 04...
Geological ____ days	P 1075229
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

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

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data ...

...l assessment days recorded on each claim does not ...7(19) - 60.

The Mining Recorder may reduce the above credits if necessary in order that the total number ... exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 4...

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.12805

Date: March 12/1990

Mining Recorder's Report of Work No.: W8906-393

Recorded Holder: AJM Metals Ltd/ R. Somerville

Township or Area: Shaw Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☐ Ground ☐	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

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

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

P 867301 - 302
P 867305 to 309 incl.
P 857046 to 049 incl.
P 867313
P 857041 - 042
P 1075229

No credits given for Magnetic Gradient when combined with Magnetometer Survey

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.

828 (85/12)

Dept. 28

Geochemical and Expenditures **LW 8906-301**

Mining Act

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

Type of Survey(s): P. 198 LINE CUTTING ELECTROMAGNETIC AND MAGNETIC

Township or Area: SHAW TOWNSHIP

Claim Holder(s): AJM METALS LTD.

Prospector's Licence No.: T4857-

Address: SUITE 1500 – 700 West Pender St Vancouver B.C V6C1G8

Survey Company: R. Somerville Geological Engineering

Date of Survey (from & to): Day 01 Mo. 01 Yr. 89 – Day 03 Mo. 03 Yr. 89

Total Miles of line Cut: 15

Name and Address of Author (of Geo-Technical report)

Credits Requested per Each Claim in Columns at right

Special Provisions

For first survey: Enter 40 days. (This includes line cutting)

For each additional survey: using the same grid: Enter 20 days (for each)

	Days per Claim
Geophysical	
- Electromagnetic	20
- Magnetometer	20
- Radiometric	
- Other LINECUTTING	~~20~~
Geological	
Geochemical	

Man Days — Complete reverse side and enter total(s) here

	Days per Claim
Geophysical	
- Electromagnetic	
- Magnetometer	
- Radiometric	
- Other	
Geological	
Geochemical	

Airborne Credits — Note: Special provisions credits do not apply to Airborne Surveys.

	Days per Claim
Electromagnetic	
Magnetometer	
Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P	1026692	
	~~867313~~	
	867314	
	867315	
	867301	
	867302	
	867306	
	867307	
	867308	
	867309	
	867305	
	857041	
	1075229	
	857046	
	857042	

Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
AUG 11 1989
MINING LANDS SECTION

RECEIVED
AUG 9 1989

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

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

Total number of mining claims covered by this report of work: 18

For Office Use Only

Total Days Cr. Recorded: 1080

Date Recorded: AUG.9/89

Date Approved as Recorded:

Mining Recorder:

Date: Aug 4/89

Recorded Holder or Agent (Signature):

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: R. Somerville 1052 Esquimalt Ave. West Vancouver B.C. V7T1J8

Date Certified: Aug 4/89

Certified by (Signature):

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

DOCUMENT No W 8906.393

393

Oct 14/89

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

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

Type of Survey(s): MAGNETIC GRADIENT R. 12805

Township or Area: SHAW TOWNSHIP

Claim Holder(s): AJM Metals LTD / R. Somerville

Prospector's Licence No.: T4857 A50064

Address: 105-255 West 1st St North Vancouver B.C V7M3G8

Survey Company: RSGM & Timmins Geophysics

Date of Survey (from & to): 01 01 89 (Day | Mo. | Yr.) — 01 04 89 (Day | Mo. | Yr.)

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): R. SOMERVILLE 103-255 West 1st St. N. Vancouver V7M3G8

Credits Requested per Each Claim in Columns at right

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

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

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

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
~~R~~	~~1026692~~	*
	[redacted]	*
	~~867314~~	*
	~~867315~~	*
	867301	
	867302	
	867306	
	867307	
	857048	
	857049	
	867313	
	857047	
	867308	
	867309	
	867305	
	857041	
	1075229	
	857046	
	857042	

Prefix	Number	Expend. Days Cr.

RECORDED AUG 25 1989

RECEIVED AUG 25 1989 10:46 am

* MAX REACHED - NOT ALLOWED.

Total number of mining claims covered by this report of work: 18

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits:

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

Date: Aug 23/89

Recorded Holder, Agent (Signature): [signature]

For Office Use Only

Total Days Cr. Recorded: 300

Date Recorded: AUG. 25/89

Date Approved as Recorded:

Mining Recorder: [signature] 15

Date Approved: Director

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: R. Somerville 103-255 West 1st St. N. Vancouver B.C V7M3G8

Date Certified: Aug 23/89

Certified by (Signature): [signature]

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File 2.12805

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOPHYSICS

Township or Area Shaw Township

Claim Holder(s) AJM Metals / R & D Somerville

Survey Company Timmins Geophysics Ltd.

Author of Report R. Somerville

Address of Author 103-255 W. First St N. Vancouver BC V7M3G8

Covering Dates of Survey 01,01,89 to 01,04,89
(linecutting to office)

Total Miles of Line Cut 29.7 Km.

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

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

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

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

DATE: Oct 13/89 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 2.11829

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	[redacted]
P	✓ 857041
	✓ 857042
	✓ 857046
	✓ 857048
	✓ 857049
	[redacted]
	✓ 867301
	✓ 867302
	✓ 867305
	✓ 867306
	✓ 867307
	✓ 867308
	✓ 867309
	✓ 867313
	[redacted]
	✓ 1075229
	[redacted]
P	✓ 857047
P	✓ 867314
P	✓ 867315
P	✓ 1026692

TOTAL CLAIMS 18

If space insufficient, attach list

OFFICE USE ONLY

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 996 Number of Readings 1941

Station interval 25 m Line spacing 100 m

Profile scale

Contour interval

MAGNETIC

Instrument Scintrex IGS-2/MP-4

Accuracy – Scale constant ± .1 gammas

Diurnal correction method Scintrex MP-3 Base Station Magnetometer

Base Station check-in interval (hours) 10 seconds

Base Station location and value 600 W 100 N 58235 gammas.

ELECTROMAGNETIC

Instrument Geonics EM-17

Coil configuration Horizontal Loop

Coil separation

Accuracy ± 1%

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

Frequency 1600 Hz.
(specify V.L.F. station)

Parameters measured In-phase and Quadrature components of secondary field as percent of primary field.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION / RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

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

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

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

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

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

Geochemical and Expenditures W 8906.341 Mining Act

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

Type of Survey(s): TO 18 LINE CUTTING ELECTROMAGNETIC AND MAGNETIC

Township or Area: SHAW TOWNSHIP

Claim Holder(s): AJM METALS LTD.

Prospector's Licence No: T4857

Address: SUITE 1500 – 700 West Pender St Vancouver B.C V6C1G8

Survey Company: R. Somerville Geological Engineering

Date of Survey (from & to): 01 01 89 (Day Mo. Yr.) 03 03 89 (Day Mo. Yr.)

Total Miles of line Cut: 15

Name and Address of Author (of Geo-Technical report)

Credits Requested per Each Claim in Columns at right

Special Provisions
For first survey: Enter 40 days. (This includes line cutting)
For each additional survey: using the same grid: Enter 20 days (for each)

	Days per Claim
Geophysical	
· Electromagnetic	20
· Magnetometer	20
· Radiometric	
· Other LINECUTTING	
Geological	
Geochemical	

Man Days
Complete reverse side and enter total(s) here

	Days per Claim
Geophysical	
· Electromagnetic	
· Magnetometer	
· Radiometric	
· Other	
Geological	
Geochemical	

Airborne Credits
Note: Special provisions credits do not apply to Airborne Surveys.

	Days per Claim
Electromagnetic	
Magnetometer	
Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P	1026692	M E 1/2
	867314	X 1/2
	867315	1/2 1/2
	867301	X ✓
	867302	X 1/2
	867306	X ✓
	867307	X ✓
	857048	X ✓
	857049	X ✓
	867313	1/2 1/2
	857047	X ✓
	867308	X ✓
	867309	1/2 1/2
	867305	1/2 1/2
	857041	1/2 1/2
	1075229	1/2 1/2
	857046	1/2 1/2
	857042	1/2 1/2
		30 30

Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
AUG 9 1989
MINING LANDS SECTION

RECEIVED
AUG 11 1989
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

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

Total number of mining claims covered by this work: 18

Date: Aug 4/89

Recorded Holder or Agent (Signature)

For Office Use Only

Total Days Cr. Recorded: 1080

Date Recorded: AUG 9/89

Date Approved as Recorded:

Mining Recorder

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: R. Somerville 1052 Esquimalt Ave. West Vancouver B.C. V7T1J8

Date Certified: Aug 4/89

Certified by (Signature)

1362 (85/12)

MAP SYMBOLOGY

Aerial Cableway		Pipeline (above ground)	
Boundary		Railroad	
International		Single Track	
Interprovincial		Double Track	
District, Township, Indian Reserve		Abandoned	
Approximate		Turntable	
Lot, Concession		Road	
Approximate		Highway, County, Township	
Park Boundary		Access (road of doubtful maintenance or significant driveway)	
Bridge		Trail, Bush Road (portage alley)	
Road, Railroad		Rapids	
Building		Double line river with multiple rapids	
Chimney		Double line river with multiple rapids	
Cliff, Pit, Pile		Reservoir	
Contours	68	River, Stream, Canal	
Interpolated		Approximate	
Approximate		Seasonal	
Depression		Direction of flow	
Control Points		Rock	
Horizontal	Δ 0.77405	Significant	
Vertical	○ 300.02	Shoal	
Culvert		Spot Elevation (lour elevations)	300.0
Falls		Tower	
Double line river	Falls	Transmission Line	
Fence, Hedge, Wall		Poles	
Feature Outline (Construction features, etc.)		Pylons	
Flooded Land	Flooded or	Tunnel	
Lock		Utility Poles	
Marsh or Swamp		Wharf, Dock, Pier	
Mast		Wooded Area	
Mine Head Frame			
Outcrop			

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

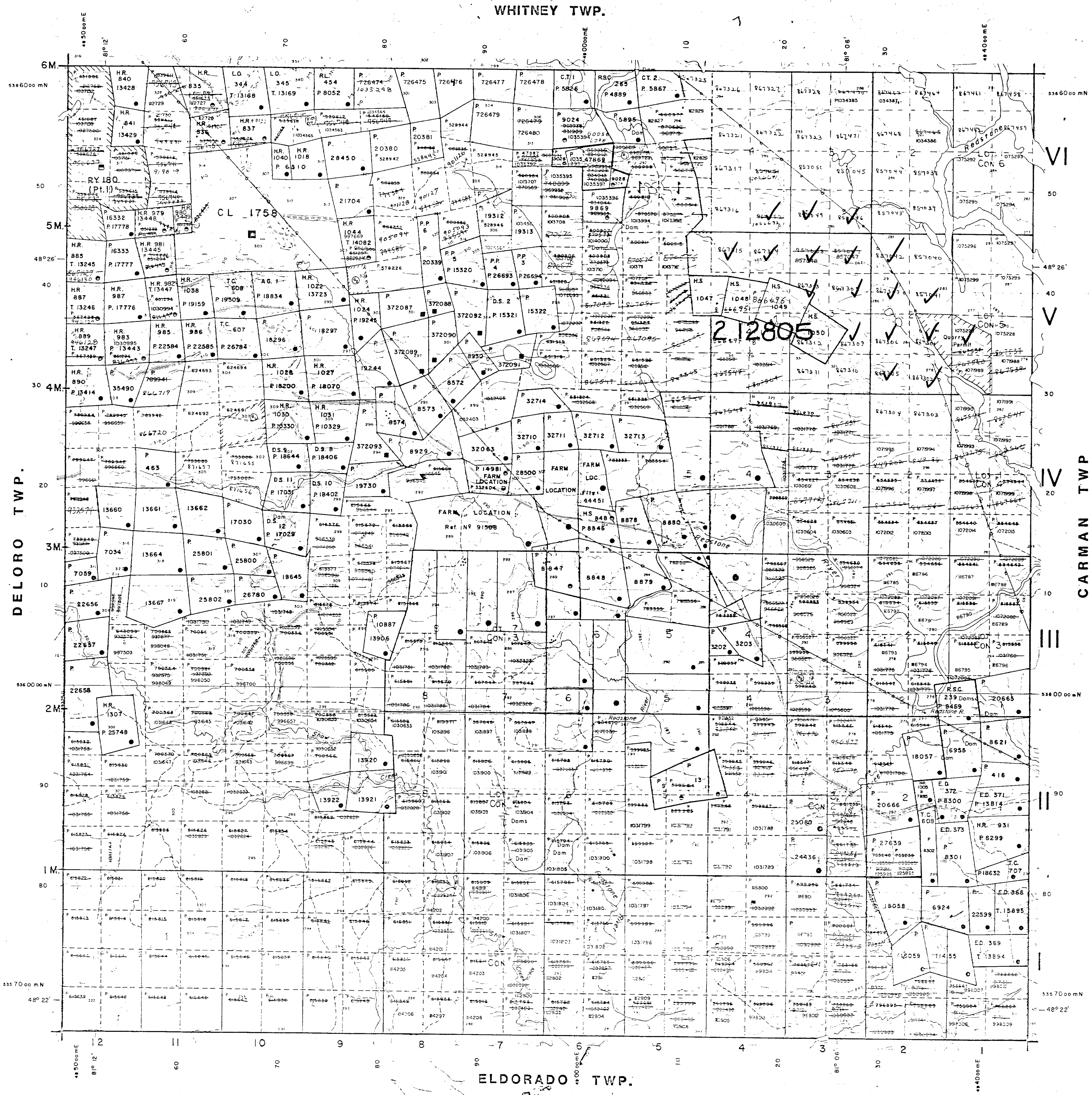
M.+ S. – MINING AND SURFACE RIGHTS

	Description	Order No.	Date	Disposition	File
R1	Rec. Purp.	Sec. 3 PLA			188543
R2		W. 97/77	15/12/77	SRO	86555
R3		~~NR/33/85~~	~~SEP 5/85~~	~~MRO~~	~~W-7/85-NR~~

Reopened NRO #40/85

SAND AND GRAVEL

S1	GRAVEL	53666
S2	GRAVEL	68760



42A06NE0359 2.12805 SHAW

200

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	R
CANCELLED	⊗
SAND & GRAVEL	S

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

Metres 500 0 1000 Metres

Chains 10 0 10 20 30 40 50 60 70 Chains

Feet 500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000

GRID ZONE: 17

TOWNSHIP

SHAW

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

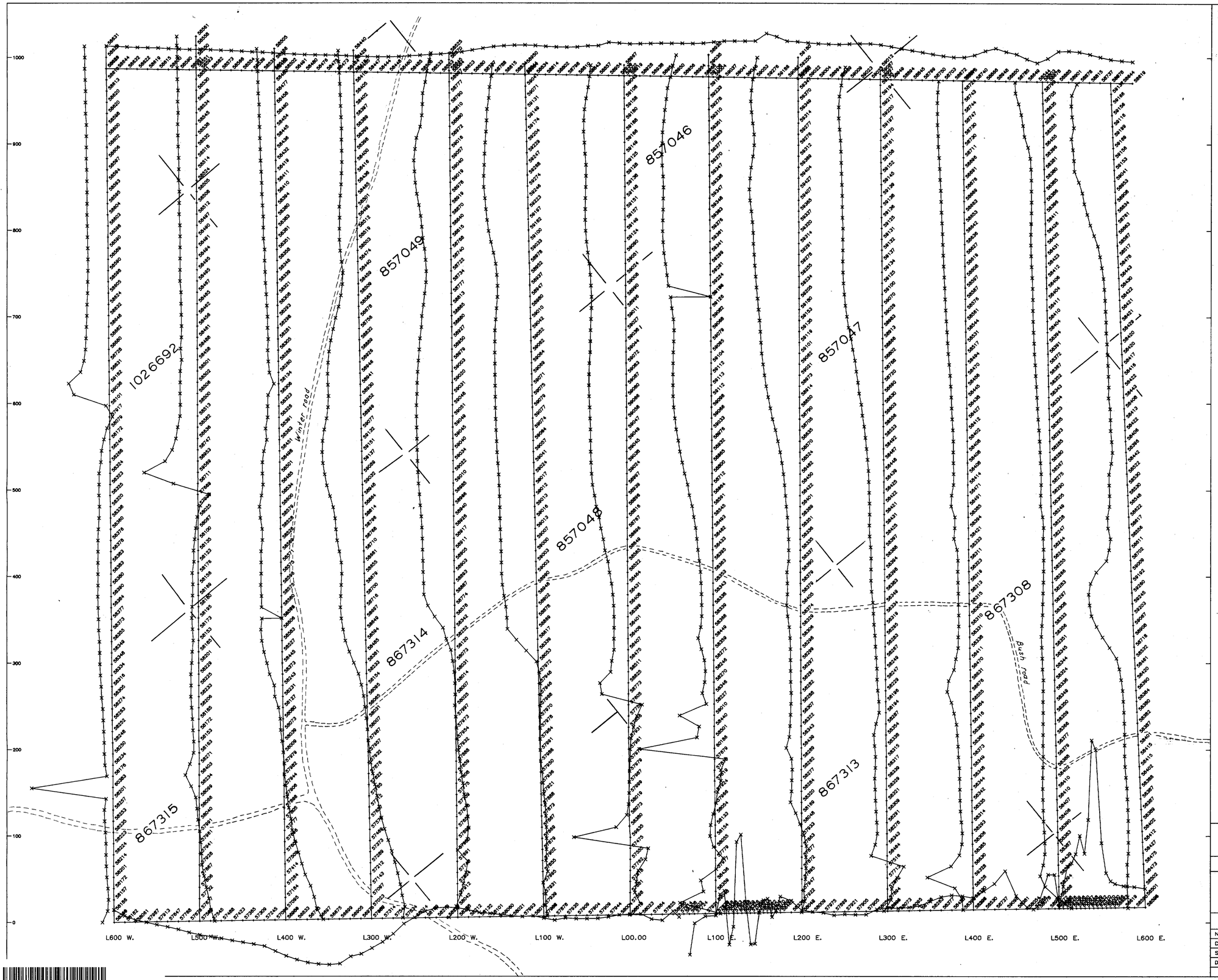
LAND TITLES / REGISTRY DIVISION

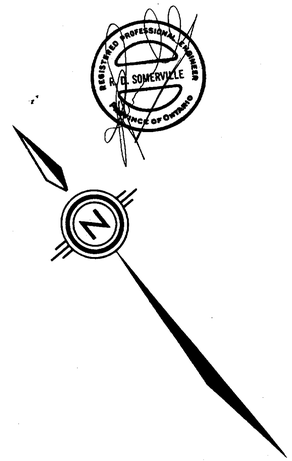
COCHRANE

Ministry of Natural Resources Land Management Branch Ontario

ORIGINAL COMPILATION JULY 1984 Number G-3999

REVISED





Sheet 1. | Sheet 2.

× Magnetic Value

2.128085

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

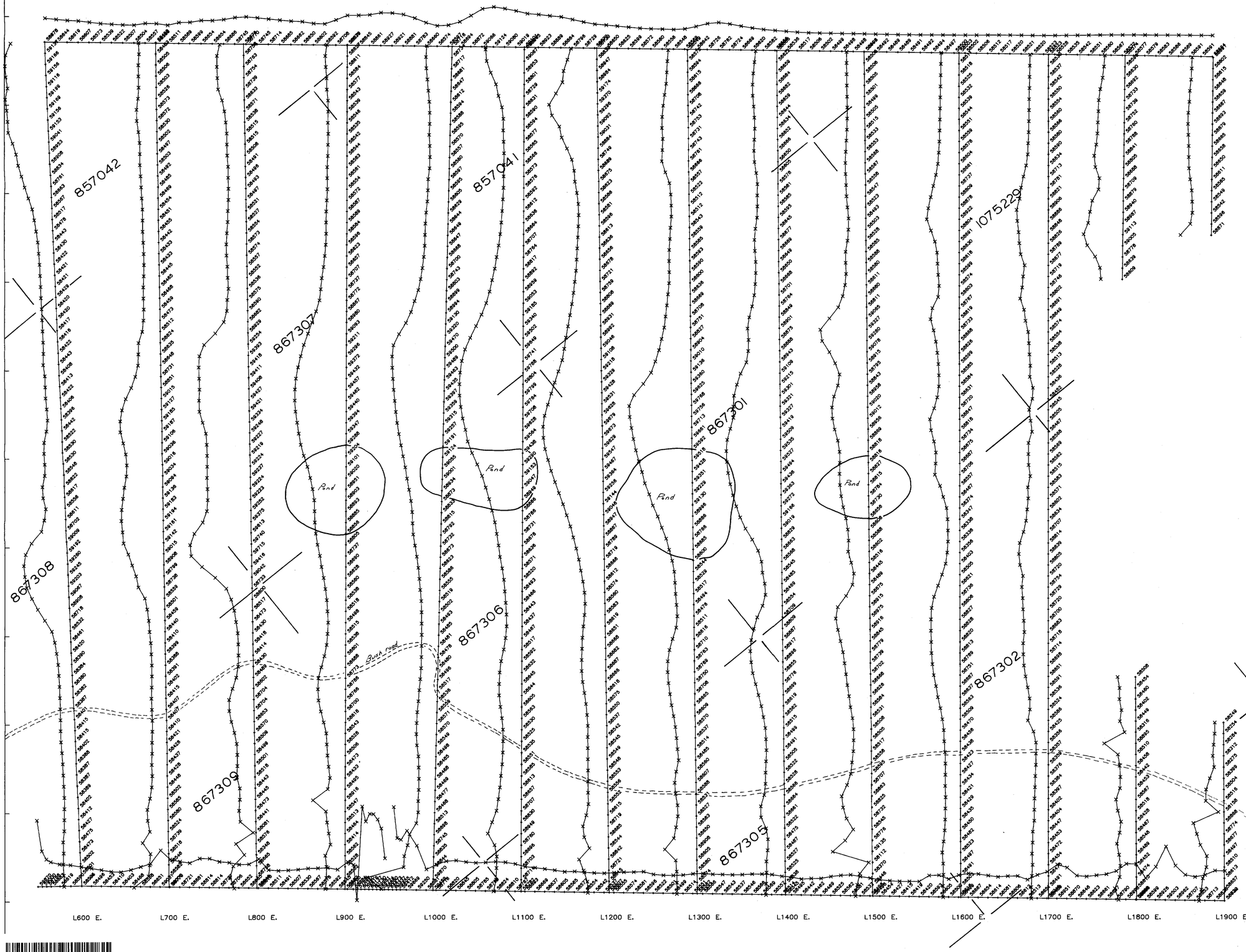
MAGNETIC PROFILES AND POST MAP

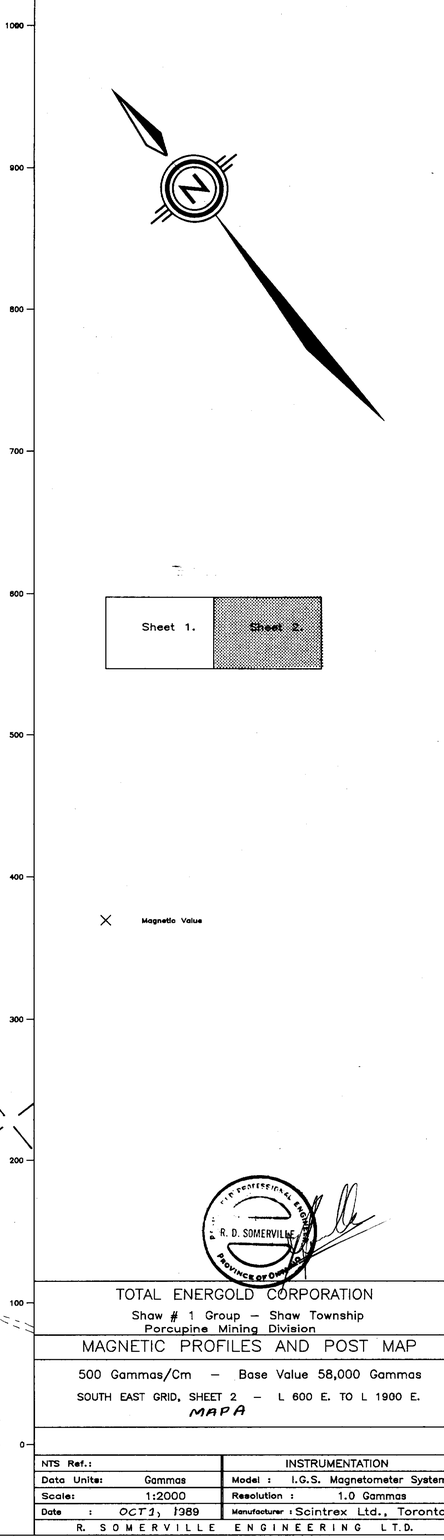
500 Gammas/Cm – Base Value 58,000 Gammas

SOUTH EAST GRID, SHEET 1 – L 600 W. TO L 600 E.
MAPA

NTS Ref.:	INSTRUMENTATION
Data Units: Gammas	Model : I.G.S. Magnetometer System
Scale: 1:2000	Resolution : 1.0 Gammas
Date : OCT2, 1989	Manufacturer : Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LTD.





R. D. SOMERVILLE
PROVINCE OF ONTARIO

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC PROFILES AND POST MAP

500 Gammas/Cm – Base Value 58,000 Gammas

SOUTH EAST GRID, SHEET 2 – L 600 E. TO L 1900 E.

MAPA

NTS Ref.:		INSTRUMENTATION	
Data Units:	Gammas	Model :	I.G.S. Magnetometer System
Scale:	1:2000	Resolution :	1.0 Gammas
Date :	OCT 1, 1989	Manufacturer :	Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LT.D.

OM 88-185 2.12805 (dup)

1000
900
800
700
600
500
400
300
200
100
0

L600 W. L500 W. L400 W. L300 W. L200 W. L100 W. L00.00 L100 E. L200 E. L300 E. L400 E. L500 E. L600 E.

857046
857049
857047
857048
867308
867314
867313
867315
102692

(MT. LOGAND Q.F. PORPHYRY)
MEDIA- FELSIC INTRUSIVE

IRON FORMATION
IRON FORMATION
IRON FORMATION

ULTRA MAFIC VOLCANICS

Sheet 1. Sheet 2.

2.12805

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC CONTOUR MAP

Contour Interval 50 Gammas

SOUTH EAST GRID, SHEET 1 – L 600 W. TO 600 E.

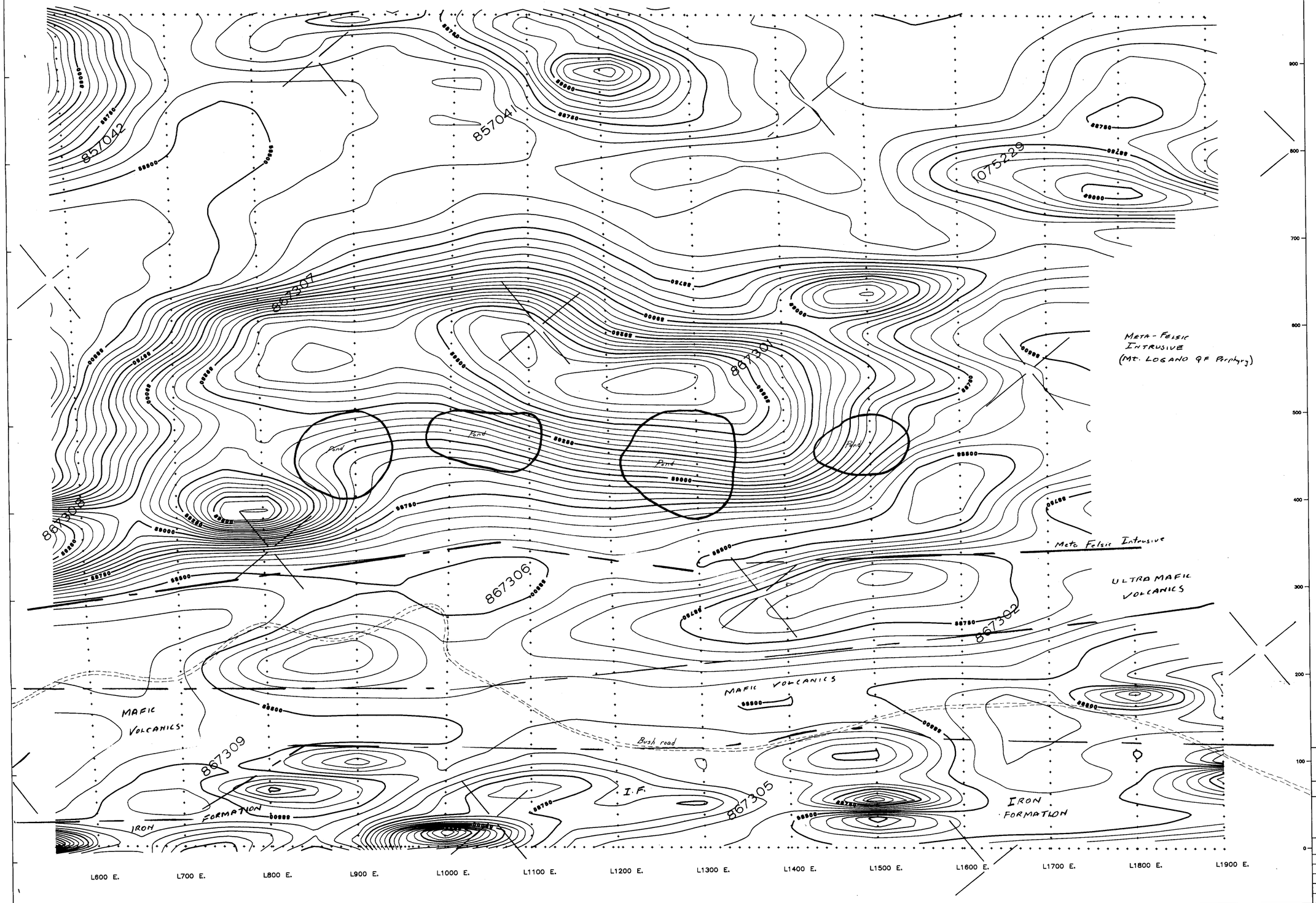
MAP B

NTS Ref.:		INSTRUMENTATION	
Data Units:	Gammas	Model :	I.G.S. Magnetometer System
Scale:	1:2000	Resolution :	1.0 Gamma
Date :	OCT 1, 1989	Manufacturer :	Scintrex Ltd., Toronto

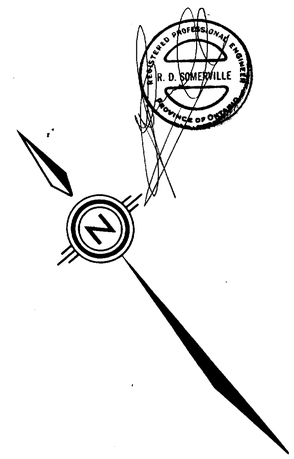
R. SOMERVILLE ENGINEERING LTD.

R. D. SOMERVILLE
PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

42A06NE0359 2.12805 SHAW



META-FELSIC INTRUSIVE (MT. LOGAND OF Porphyry)



Sheet 1.	Sheet 2.

2.12805

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC CONTOUR MAP

Contour Interval 50 Gammas

SOUTH EAST GRID, SHEET 2 – 600 E. TO 1900 E.

MAP B

NTS Ref.:		INSTRUMENTATION	
Data Units:	Gammas	Model :	I.G.S. Magnetometer System
Scale:	1:2000	Resolution :	1.0 Gamma
Date :	OCT 1, 1989	Manufacturer :	Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LTD.

1000
900
800
700
600
500
400
300
200
100
0

857046
857049
1026692
857047
857048
867314
867308
867315
867313
Winter road
Bush road

L600 W. L500 W. L400 W. L300 W. L200 W. L100 W. L00.00 L100 E. L200 E. L300 E. L400 E. L500 E. L600 E.

REGISTERED PROFESSIONAL ENGINEER
R. D. SOMERVILLE
PROVINCE OF ONTARIO

N

Sheet 1 | Sheet 2.

× Magnetic Value

2.12805

TOTAL ENERGOLD CORPORATION
Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC GRADIENT PROFILES AND POST MAP

20 Gammas/Metre per Cm – Base Value 0.00 Gammas/Metre

SOUTH EAST GRID, SHEET 1 – L 600 W. TO L 600 E.

MAP C

NTS Ref.:	INSTRUMENTATION
Data Units: Gammas/Metre	Model : I.G.S. Magnetometer System
Scale: 1:2000	Resolution : 0.1 Gammas/Metre
Date : OCT. 1, 1989	Manufacturer : Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LTD.

42A06NE0359 2.12805 SHAW

250

857042

867307

857041

867301

1075229

867308

867306

867309

867305

867302

867303

Pond

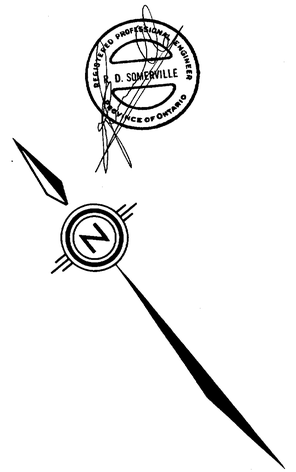
Pond

Pond

Pond

L800 E. L900 E. L1000 E. L1100 E. L1200 E. L1300 E. L1400 E. L1500 E. L1600 E. L1700 E. L1800 E. L1900 E.

1000 900 800 700 600 500 400 300 200 100 0



Sheet 1. | Sheet 2.

× Magnetic Value

2.128065

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC GRADIENT PROFILES MAP

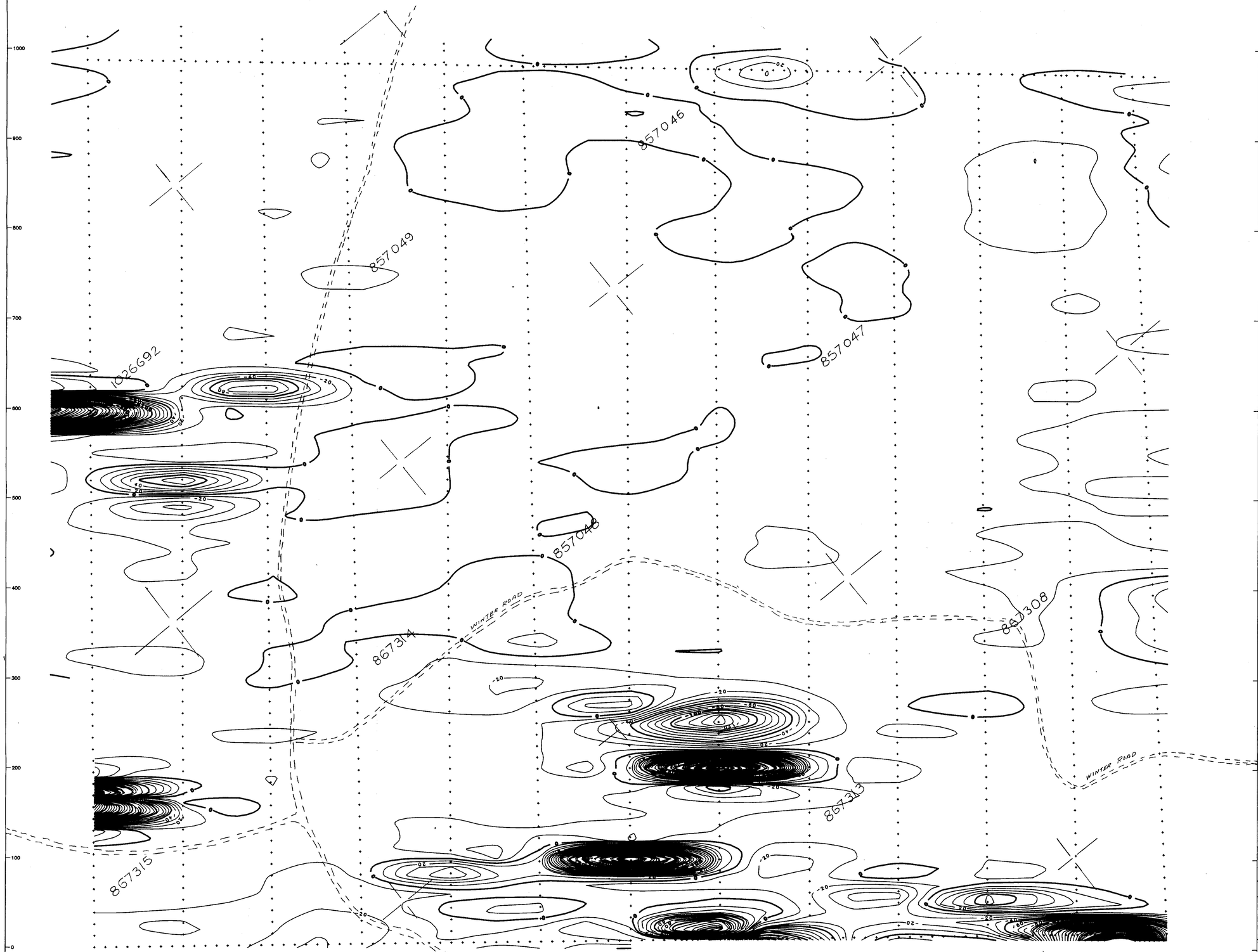
20 Gammas/Metre per Cm – Base Value 0.00 Gammas/Metre

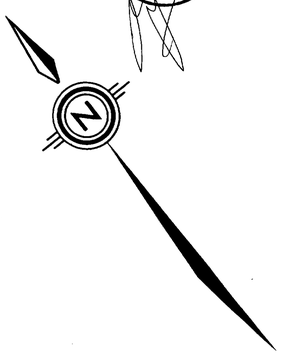
SOUTH EAST GRID, SHEET 2 – L 600 E. TO L 1900 E.

MAP C

NTS Ref.:	INSTRUMENTATION
Data Units: Gammas/Metre	Model : I.G.S. Magnetometer System
Scale: 1:2000	Resolution : 0.1 Gammas/Metre
Date : OCT. 1, 1989	Manufacturer : Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LTD.





Sheet 1. | Sheet 2.

2.12805

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC VERTICAL GRADIENT CONTOUR MAP

Contour Interval 10 Gammas/Metre

SOUTH EAST GRID, SHEET 1 – L 600 W. TO 600 E.

MAP D

NTS Ref.:		INSTRUMENTATION	
Data Units:	Gammas/Metre	Model :	I.G.S. Magnetometer System
Scale:	1:2000	Resolution :	0.1 Gammas/Metre
Date :	OCT. 1, 1989	Manufacturer :	Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LTD.

857042

857041

1075229

867307

867301

POND

POND

POND

POND

867308

867306

867302

WINTER ROAD

867309

WINTER ROAD

867305

L600 E. L700 E. L800 E. L900 E. L1000 E. L1100 E. L1200 E. L1300 E. L1400 E. L1500 E. L1600 E. L1700 E. L1800 E. L1900 E.

1000 900 800 700 600 500 400 300 200 100 0

N

Sheet 1. Sheet 2.

REGISTERED PROFESSIONAL ENGINEER R. D. SOMERVILLE PROVINCE OF ONTARIO

TOTAL ENERGOLD CORPORATION

Shaw # 1 Group – Shaw Township
Porcupine Mining Division

MAGNETIC VERTICAL GRADIENT CONTOUR MAP

Contour Interval 10 Gammas/Metre

SOUTH EAST GRID, SHEET 2 – 600 E. TO 1900 E.

MAP D

NTS Ref.:		INSTRUMENTATION	
Data Units:	Gammas/Metre	Model :	I.G.S. Magnetometer System
Scale:	1:2000	Resolution :	0.1 Gammas/Metre
Date :	OCT 1, 1989	Manufacturer :	Scintrex Ltd., Toronto

R. SOMERVILLE ENGINEERING LTD.

42A06NE0359 2.12805 SHAW

280

OM88-158

2.12805


KEY MAP
MURPHY
HOYLE
MATHESON
TISDALE
WHITNEY
CODY
DELORO
SHAW
CARMAN
ADAMS
ELDORADO
LANGMUIR
EXPLANATION
Anomaly designation and rating
Anomaly Rating
LEGEND
Reverse Circulation hole with number and overburden thickness.
-LEGEND-
-3.5 / 20.0
IP / QUAD
Scale, 1:2000
2.12805
R. SOMERVILLE ENGINEERING LTD.
Horizontal-loop Survey
TOTAL ENERGOLD CORPORATION
Shaw #1 Property
Shaw Township
Porcupine Mining Division
MAP No. E PLATE No.
To Accompany a report by R. Somerville P. ENG.
DATE: Oct 1, 1989
CONCESSION VI
CONCESSION V
CONCESSION IV
Lot 1
Lot 2
Lot 3
Lot 4
Gravel road
Winter road
Bush road
Abandoned power line
Creek
Pond
Main grid 00 Base line
CHEVRON L-2000E
00 BL
290