1998 OPAP FINAL SUBMISSION

FOR THE

COCHENOUR CREEK COPPER PROJECT

MELBA TOWNSHIP

LARDER LAKE MINING DIVISION

NTS 32 A/8

November 12, 1998

Todd Keast

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INTRODUCTION

Between July and November of 1998, an integrated exploration program was completed on Mr. Darrin Porritt's OPAP Cochenour Creek Copper Project. The exploration program included linecutting, mapping, prospecting, horizontal loop electromagnetic survey (HLEM), magnetometer surveys, and self–potential surveys. The exploration program was focussed on evaluating several copper showings. The project was very successful, a large area of felsic volcanic rocks (150m by 75m) hosting disseminated chalcopyrite, returned highly anomalous copper values as high **1.73% Cu**. A 200 metre long magnetic high anomaly is roughly coincident with the area of anomalous copper mineralization. A number of HLEM anomalies were identified, however they were interpreted as overburden responses. The self-potential survey over the copper showing identified a weak anomaly. Based upon the large area of chalcopyrite mineralization, the presence of felsic volcanic rocks with possible hydrothermal alteration, and previous intersections in diamond drilling, further work is recommended for the Cochenour Creek Copper Project.

PROJECT LOCATION

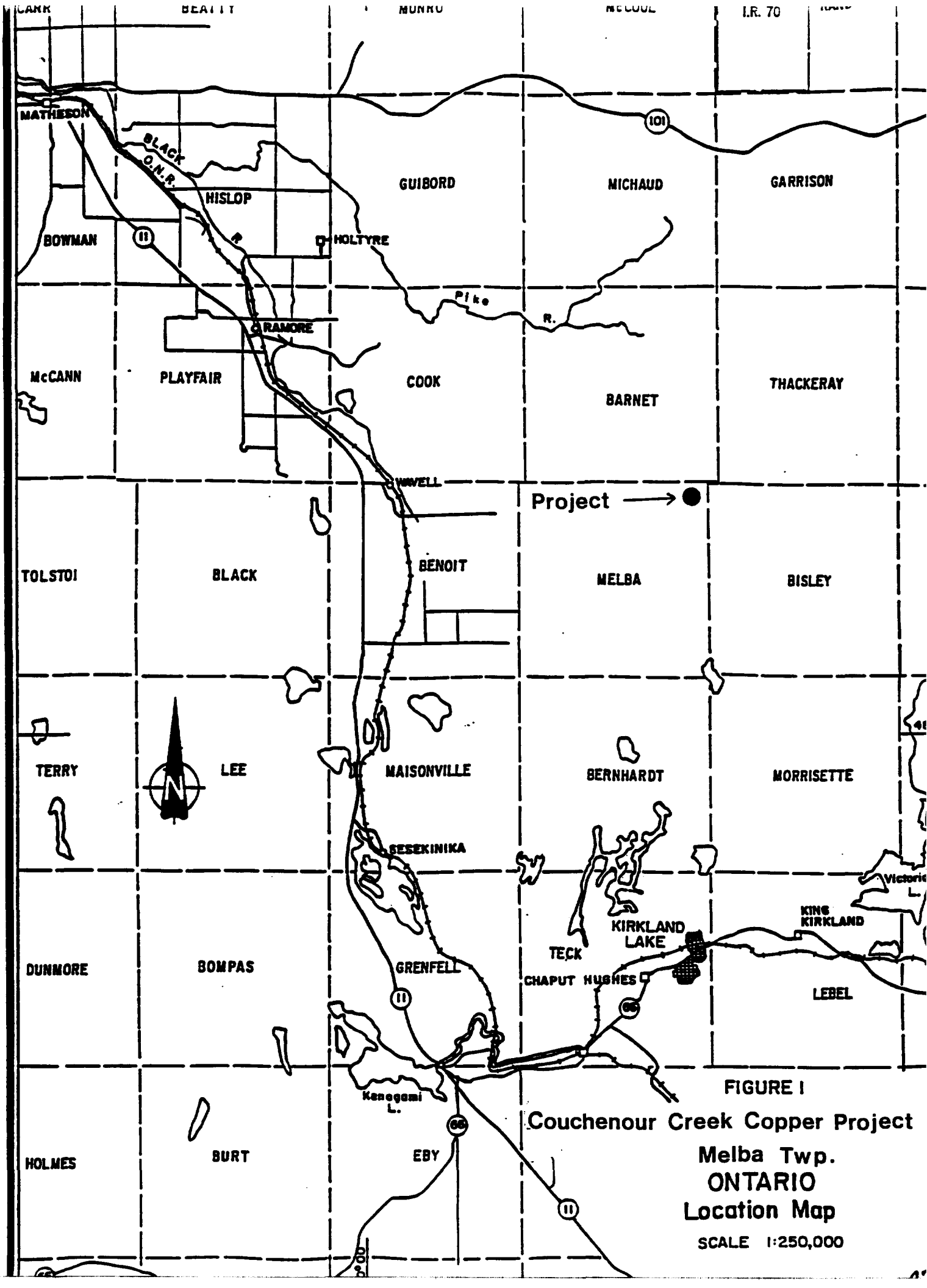
The Cochenour Creek Copper Project is located 21 km north of Kirkland Lake Ontario, in Melba Township, of the Larder Lake Mining Division (**Figure 1**). The specific project location is enclosed on the following **Table 1**.

Table 1 Project Location

Area:	Kirkland Lake Area
Township:	Melba
Mining Division:	Larder Lake
Claim Map:	G-3216
NTS:	32 A/8
Latitude:	48° 20 ' 45"
Longitude:	80° 02' 00''

ACCESS

The Cochenour Creek Copper Project is located 21 km north of Kirkland Lake, Ontario (**Figure 2**). Access to the property is via Hwy 66 for approximately 13 km east of Kirkland Lake until you reach the Esker Lake Hwy 672. Travel north along the Esker


MATHESON
BLACK
O.N.R.
HISLOP
GUIBORD
MICHAUD
GARRISON
BOWMAN
HOLTYRE
Pike
R.
RAMORE
McCANN
PLAYFAIR
COOK
BARNET
THACKERAY
WAVELL
Project
TOLSTOI
BLACK
BENOIT
MELBA
BISLEY
TERRY
LEE
MAISONVILLE
BERNHARDT
MORRISETTE
SESEKINIKA
KIRKLAND LAKE
KING KIRKLAND
TECK
CHAPUT HUGHES
DUNMORE
BOMPAS
GRENFELL
LEBEL
Kenogami L.
HOLMES
BURT
EBY
FIGURE I
Couchenour Creek Copper Project
Melba Twp.
ONTARIO
Location Map
SCALE 1:250,000

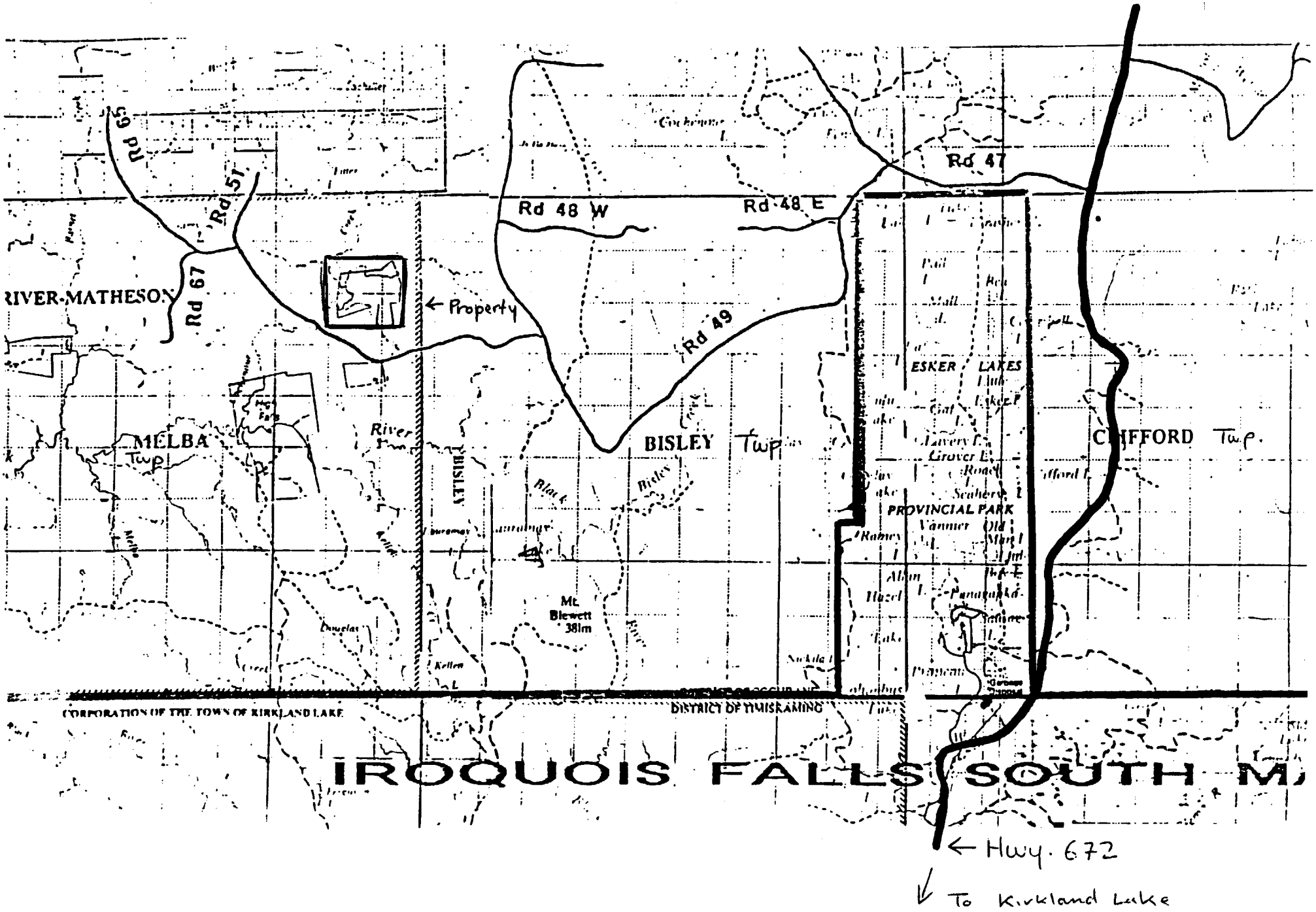

Rd 65
Rd 57
Rd 67
Rd 48 W
Rd 48 E
Rd 47
Rd 49
RIVER-MATHESON
← Property
MELBA Twp
BISLEY Twp
CLIFFORD Twp.
ESKER LAKES
PROVINCIAL PARK
Mt Blewett 381m
CORPORATION OF THE TOWN OF KIRKLAND LAKE
DISTRICT OF TIMISKAMING
IROQUOIS FALLS SOUTH
← Hwy. 672
↓ To Kirkland Lake

Figure 2

Lake Hwy 672 for 29 km until you arrive at logging road R-47. Travel west for 5 km along R-47 until you come to logging road R-49. Travel for 10.5 km along R-49 until you reach logging road R-51. Travel along R-51 for approximately 4.5 km until you arrive at the #3 post of the property.

LAND TENURE AND OWNERSHIP

The Cochenour Creek Copper Project consists of one claim L 1223709 (9 units) covering 144 hectares. The claim is registered in the names of Darrin D. Porritt (33.30% ownership), Todd M. Keast (33.30 % ownership) and David R. Healey (33.40 % ownership).

PROSPECTING TARGET

The prospecting target sought for is volcanogenic massive sulphide (VMS) hosted Cu, Zn, and Au mineralization. The exploration model for the project is that of VMS deposits of the Abitibi greenstone belt (Kidd Creek, Noranda camp). VMS deposits are large accumulations of sulphide minerals including pyrite, chalcopyrite, sphalerite, and galena. The sulphide lenses are located within felsic volcanic rocks and/or along felsic/mafic volcanic contacts. The deposits are thought to develop during a hiatus in volcanism. Alteration zones in the footwall of the deposits includes strong black chlorite alteration and sericite alteration. The alteration indicates the presence of an active hydrothermal system needed to form a massive sulphide deposit.

REGIONAL GEOLOGY

The Cochenour Creek Copper Project is hosted within the Archean aged Blake River assemblage of the Abitibi subprovince. Geological mapping by L. Jensen in 1972 (Map 2253 Melba and Bisley Townships), indicates the area is underlain by a mafic to felsic volcanic sequence. It is significant that the Blake River assemblage is host to the numerous VMS deposits of the prolific Noranda Camp.

Volcanic rocks of the area are classified chemically as tholeititic and calc-alkaline. They include a wide spectrum of rock types ranging from basalts to rhyolites. Intrusive rocks

include gabbros, diorites and feldspar porphyries with scattered rare diabase dykes. Mapping has identified a number of north to northeast trending faults.

LOCAL GEOLOGY

The property geology is based upon work by government agencies, and work in the area by previous operators. Mapping by Jensen (O.D.M., GR 103, 1972) has indicated that the north half of the property is predominantly underlain by mafic volcanic rocks, and the south half of the property is predominantly underlain by felsic-intermediate volcanic rocks. A shear zone is located in the central portion of the property, and strikes N75°W and dips 45° S. Quartz carbonate veining with copper mineralization has been reported. Based upon previous work the central to southeast portion of the property hosts encouraging copper mineralization. Mineralization occurs as qtz-carb veins, disseminated Cu, and Cu fracture filling. The mineralization is hosted within dacites, rhyolites, and schistose volcanic rocks. Alteration noted in drilling south of the project area includes chlorite, sericite, and silicification, similar to the alteration observed in the Noranda VMS deposits.

SUMMARY OF PREVIOUS EXPLORATION

Exploration work on the Cochenour Creek Copper Project dates back to 1962, when C. Boland and D. Bell staked the claims and opened a number of trenches and pits on copper mineralization. In 1965 the property was optioned to Midrim Mining Company Limited. Midrim completed seven diamond drill holes (893 m). Copper mineralization was intersected in all but one hole. The widest intersection included **0.31% Cu over 6.85 metres**. A summary of significant drill intersections is included in **Table 2**. Other significant features of the drill program were rhyolite-dacite breccias, strong chlorite alteration, and silicification. In 1965 Midrim had the property surveyed by an airborne mag and EM survey. Significant EM anomalies were not identified in the area of mineralization.

Table 2 Significant Copper Intersections

Drill Hole #	Width (metres)	Copper %	Alteration
DDH #1	2.74m	0.57% Cu	Silicification
DDH #2	0.75 m	0.02% Cu	Chlorite
DDH #3	3.96 m	0.14% Cu	Silicified, chlorite
DDH #4	0.97 m	0.79% Cu	Silicified, chlorite
DDH #5	0.45 m	0.13% Cu	Silicified, chlor, carb
DDH #7	0.45 m	1.44% Cu	Silicified
DDH #7	2.34 m	0.13% Cu	Silicified, carb

In 1981 Falconbridge completed linecutting, mapping, and rock lithogeochem surveys on a property immediately south of the Cochenour Creek Copper Project. Although the work did not extend onto the Cochenour Creek Copper Project, Falconbridge did identify significant geology and alteration trending onto the project area. A narrow (150m wide) rhyolite-dacite horizon was identified trending Az 285° onto what is now the Cochenour Creek Copper Project. Anomalous Zn mineralization (up to 314 ppm Zn) was identified in this horizon. A contoured map of Na_2O depletion indicates several areas within the rhyolite-dacite unit with low (<1% Na_2O). This alteration is typical of footwall alteration zones observed in VMS deposits of the Noranda camp, and is highly significant in that the alteration zones are larger than the VMS deposits. The Na_2O alteration may indicate a deep-seated VMS deposit that does not outcrop on surface.

1998 OPAP EXPLORATION PROGRAM

The proposed exploration program was intended to utilize cost effective, proven field exploration techniques, geared towards identifying new exploration targets. Linecutting, geological mapping, prospecting, HLEM surveys, magnetometer surveys and self-potential surveys were completed on the project.

Linecutting

A total of 7.50 kilometres of linecutting was completed at 100 metre and 50 metre spaced lines with picket stations established every 25 metres. The linecutting was completed by L. Blackburn of Kirkland Lake Ontario. The purpose of the linecutting was to provide a reference system for the prospecting, geophysics and geological programs.

Geological Mapping

A total of 3 mandays of mapping was completed on the project. The mapping program utilized the grid lines for control. The purpose of the mapping program was to identify the main lithological units, and identify areas of alteration. The mapping was completed by Dave Healey of Kirkland Lake.

Prospecting

A total of 7 mandays of prospecting was completed on the project. The purpose of the prospecting was to identify significant mineralization and to collect a suite of samples of the major rock units for alteration studies. A total of 49 rock samples were taken from various locations on the property. The prospecting was completed by Darrin Porritt of Kirkland Lake.

Geophysical Surveys

A total of 6.772km of magnetometer surveys were completed on the project. The survey was completed over the grid, with readings taken every 6.125 metres. A total of 4.90 km of HLEM surveys were completed over the grid, with readings taken every 25 metres. The coil separation was 100metres. The magnetometer survey was completed by Meegwich Consultants Inc., and the HLEM survey was completed by D. Healey. The survey maps were plotted by Meegwich Consultants Inc. of Temagami, Ontario.

RESULTS OF 1998 EXPLORATION PROGRAM

The results of the exploration program indicate encouraging VMS potential for the Cochenour Creek Copper Project. Mapping and prospecting (**Map 1**) has identified a large area (150m by 75m) within a felsic volcanic horizon with highly anomalous copper values (**Table 3**). Copper values range between **1095 PPM Cu** and **1.73% Cu**. A number of samples analyzed for major element contents returned low CaO values (<1% CaO) (**Table 3**), which may indicate the presence of hydrothermal alteration. The magnetometer survey identified a magnetic high roughly coincident with the area of anomalous copper (Enclosed Report). The self-potential survey was completed over the

Table 3. XRF, ICP, and Alteration Indices

SAMPLE #	Rock Type	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	Zr	Y	Cu	Zn	Indices	Zr/Y	Hashl.	Chlorite	Sericite	Spitz
7301	Bas	54.24	0.98	16.59	7.86	0.13	4.72	6.90	4.41	0.27	0.16	3.52	90	20	55	95		4.5	30.6	35.7	5.8	3.8
7302	Bas	50.60	0.95	16.21	10.59	0.16	6.41	6.43	2.10	0.36	0.15	5.51	90	15	65	135		6.0	44.2	49.9	14.6	7.7
7303	Bas	53.52	0.97	16.14	8.47	0.13	5.39	8.15	2.05	0.15	0.15	4.72	90	15	65	110		6.0	35.2	40.5	6.8	7.9
7305	Bas	55.67	1.25	14.60	10.22	0.18	4.30	5.70	3.91	0.04	0.13	3.59	60	15	55	95		4.0	31.1	43.0	1.0	3.7
7307	Bas	57.19	0.79	15.38	6.91	0.11	4.71	7.16	3.30	0.18	0.14	4.02	100	15	100	70		6.7	31.9	35.7	5.2	4.7
7308	Bas	56.38	1.36	13.55	10.62	0.14	3.43	4.10	4.14	0.05	0.17	5.84	70	20	15	125		3.5	29.7	46.0	1.2	3.3
7309	Bas	55.28	1.50	13.88	11.45	0.13	4.47	3.40	3.23	0.12	0.18	6.04	70	20	40	140		3.5	40.9	54.6	3.6	4.3
7310	Bas	52.90	0.94	11.99	8.34	0.15	3.68	6.94	2.60	0.91	0.10	10.98	70	25	105	65		2.8	32.5	38.6	25.9	4.6
7316	Bas	55.73	1.43	13.88	11.43	0.15	4.02	4.01	4.06	0.12	0.16	4.5	50	15	30	130		3.3	33.9	48.9	2.9	3.4
7317	Bas	54.01	1.37	16.07	11.36	0.18	4.58	3.77	4.87	0.10	0.13	3.05	80	20	70	215		4.0	35.1	48.0	2.0	3.3
7319	Bas	50.03	1.01	17.84	10.32	0.17	6.33	4.82	4.75	0.04	0.12	4.15	80	15	45	125		5.3	40.0	46.5	0.8	3.8
7321	Bas	55.30	1.34	15.61	11.10	0.21	3.91	3.39	5.18	0.05	0.19	3.39	100	25	80	130		4.0	31.6	46.7	1.0	3.0
7323	Bas	56.97	1.47	14.92	10.49	0.12	6.49	0.50	4.23	0.21	0.19	3.96	50	15	1095	95		3.3	58.6	64.2	4.7	3.5
7304	Rhy	71.40	0.37	12.95	5.77	0.06	0.87	0.57	6.04	0.08	0.09	1.24	180	40	tr	60		4.5	12.6	33.4	1.3	2.1
7306	Rhy	72.79	0.46	12.37	5.12	0.09	0.84	1.18	4.64	0.62	0.10	1.59	180	35	25	70		5.1	20.1	33.9	11.8	2.7
7311	Rhy	71.25	0.47	12.59	6.01	0.08	0.98	1.19	3.57	1.15	0.10	2.46	180	40	10	90		4.5	30.9	42.3	24.4	3.5
7312	Rhy	74.29	0.31	12.40	3.84	0.05	0.35	0.60	5.83	0.46	0.05	1.27	220	35	20	65		6.3	11.2	24.6	7.3	2.1
7313	Rhy	77.30	0.31	10.43	4.62	0.06	0.42	0.71	2.97	1.00	0.07	1.81	150	45	tr	55		3.3	27.8	40.6	25.2	3.5
7314	Rhy	71.64	0.46	12.46	5.73	0.06	0.81	1.27	2.67	1.55	0.11	2.67	180	40	70	110		4.5	37.5	45.4	36.7	4.7
7315	Rhy	74.18	0.36	11.94	4.60	0.03	0.84	0.60	5.25	0.19	0.07	1.52	170	40	tr	35		4.3	15.0	31.7	3.5	2.3
7318	Rhy	73.20	0.44	13.02	3.85	0.06	0.84	0.78	6.46	0.12	0.09	0.96	140	25	35	25		5.6	11.7	24.5	1.8	2.0
7320	Rhy	70.64	0.50	13.49	5.49	0.06	0.92	1.34	1.79	2.51	0.11	3	190	40	35	70		4.8	52.3	50.6	58.4	7.5
7322	Rhy	69.69	0.50	13.24	6.21	0.11	1.06	1.70	4.61	0.69	0.12	1.47	190	40	5	90		4.8	21.7	36.6	13.0	2.9
7001															tr							
7002															tr							
7003															14	63						
7004															tr							
7005															tr							
7006															tr							
7007															tr							
7008															1751	33						
7009															4305	36						
7010															tr							
7011															25	149						
7012															tr							
7013															1.04%	67						
7014															1.73%	57						
7015															8233	70						
7016															1838	9						
7017															tr							
7018															1926	40						
7019															72	102						
7020															121	87						
7021															63	41						
7022															84	67						
7023															45	37						
7024															7417	10						
7025																						

area of copper mineralization. A weak anomaly was identified over a portion of the area (**Map 2**).

RECOMMENDATIONS

Further work is recommended for the Cochenour Creek Copper Project. Diamond drilling in conjunction with down-hole EM surveys should be utilized to evaluate the VMS potential of the showing. Drilling should be targeted between the 250m to 500 metre levels. The estimated cost of the proposed program is $25,000.

Appendix I

Assay Results

Established 1928

Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Assay Certificate

8W-2238-RA1

Company: **T.OBRADOVICH**
Project: Darrin Porritt/OPAP
Attn: T.Obradovich

Date: AUG-20-98

We hereby certify the following Assay of 25 Rock samples submitted AUG-04-98 by .

Sample Number	Au g/tonne	Au Check g/tonne	Cu %	Multi-Element
7001	Nil	-	-	Results
7002	Nil	-	-	to
7003	0.01	0.01	-	follow
7004	0.01	-	-	
7005	0.01	-	-	
7006	0.01	-	-	
7007	0.01	-	-	
7008	Nil	-	-	
7009	Nil	-	-	
7010	Nil	-	-	
7011	0.02	-	-	
7012	Nil	Nil	-	
7013	0.02	-	1.04	
7014	0.01	-	1.73	
7015	0.01	-	-	
7016	0.02	-	-	
7017	0.02	-	-	
7018	0.01	-	-	
7019	Nil	-	-	
7020	0.01	-	-	
7021	Nil	-	-	
7022	Nil	-	-	
7023	Nil	-	-	
7024	0.11	0.15	0.74	
7025	0.01	-	-	

One assay ton portion used.

Certified by G. Leboy

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705)642-3244 Fax (705)642-3300

Swastika Laboratories

A Division of TSL/Assayers Inc.

Established 1928

Assaying - Consulting - Representation

Assay Certificate

8W-2238-RA1

Company: **T.OBRADOVICH**
Project: Darrin Porritt/OPAP
Attn: T.Obradovich

Date: AUG-10-98

We hereby certify the following Assay of 25 Rock samples submitted AUG-04-98 by .

Sample Number	Au g/tonne	Au Check g/tonne	Multi-Element
7001	Nil	-	Results
7002	Nil	-	to
7003	0.01	0.01	follow
7004	0.01	-	
7005	0.01	-	
7006	0.01	-	
7007	0.01	-	
7008	Nil	-	
7009	Nil	-	
7010	Nil	-	
7011	0.02	-	
7012	Nil	Nil	
7013	0.02	-	
7014	0.01	-	
7015	0.01	-	
7016	0.02	-	
7017	0.02	-	
7018	0.01	-	
7019	Nil	-	
7020	0.01	-	
7021	Nil	-	
7022	Nil	-	
7023	Nil	-	
7024	0.11	0.15	
7025	0.01	-	

One assay ton portion used.

Certified by G. Leboe

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705)642-3244 Fax (705)642-3300

Swastika Laboratories
1 Cameron Ave., Swastika, Ontario
PHONE (705) 642-3244 FAX (705) 642-3300

T.OBRADOVICH

Attention: T.Obradovich

Project: Darrin Porritt/OPAP

Sample: Rock

Report No : 8W2238

Date : Aug-17-98

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

Sample Number	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Ti %	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
7003	<0.2	1.98	<5	20	<0.5	<5	1.14	<1	22	221	14	5.37	0.01	1.73	785	<2	0.07	9	1300	6	<5	6	<10	22	0.53	40	<10	10	63	28
7008	<0.2	1.54	<5	10	<0.5	<5	0.09	<1	12	235	1751	3.37	0.02	1.31	300	<2	0.06	23	440	6	5	6	<10	2	0.01	49	<10	3	33	7
7009	<0.2	1.57	<5	10	<0.5	<5	0.09	<1	14	187	4305	3.79	0.01	1.56	305	<2	0.06	25	560	6	<5	7	<10	2	0.02	115	<10	2	36	6
7011	<0.2	3.87	<5	100	<0.5	<5	0.41	<1	25	50	25	8.46	0.17	1.76	370	<2	0.05	9	1100	6	<5	10	<10	10	0.01	94	<10	2	149	9
7013	<0.2	2.67	<5	10	<0.5	<5	1.05	<1	22	110	>10000	6.11	0.02	2.20	895	<2	0.09	15	920	16	<5	13	<10	7	0.12	163	<10	4	67	9
7014	<0.2	2.49	<5	10	<0.5	<5	1.24	<1	20	65	>10000	6.26	0.01	2.02	925	<2	0.08	19	1180	26	<5	18	<10	5	0.01	147	<10	4	57	8
7015	<0.2	2.97	<5	10	<0.5	<5	0.37	<1	20	155	8233	6.82	0.01	2.03	235	<2	0.05	26	730	12	<5	11	<10	6	0.01	206	<10	2	70	7
7016	<0.2	0.52	<5	20	<0.5	<5	0.06	<1	10	469	1838	1.63	0.03	0.42	85	2	0.05	21	310	6	5	2	<10	1	<0.01	35	<10	1	9	5
7018	<0.2	2.02	<5	10	<0.5	<5	0.48	<1	17	130	1926	4.12	0.01	1.97	425	<2	0.11	21	580	6	<5	7	<10	3	0.02	125	<10	2	40	5
7019	<0.2	1.90	<5	30	<0.5	<5	0.51	<1	11	247	72	4.59	0.08	1.03	940	<2	0.09	12	420	2	5	5	<10	15	0.16	17	<10	9	102	14
7020	<0.2	3.11	<5	10	<0.5	<5	3.61	<1	22	55	121	6.35	0.01	2.10	1005	<2	0.09	11	430	6	<5	21	<10	30	0.04	296	<10	3	87	6
7021	<0.2	1.17	<5	40	<0.5	<5	0.22	<1	7	411	63	2.81	0.15	0.41	205	<2	0.09	13	360	2	5	2	<10	5	<0.01	13	<10	4	41	6
7022	<0.2	1.79	<5	40	<0.5	<5	1.70	<1	6	132	84	4.43	0.20	0.52	725	<2	0.05	5	410	2	<5	3	<10	18	0.01	9	<10	3	67	9
7023	<0.2	1.20	<5	10	<0.5	<5	0.09	<1	8	247	45	2.59	0.01	0.79	135	<2	0.11	20	400	2	<5	3	<10	3	<0.01	22	<10	3	37	6
7024	<0.2	0.45	<5	10	<0.5	<5	0.05	<1	11	540	7417	1.99	0.01	0.41	115	2	0.05	20	270	10	5	3	<10	2	0.01	32	<10	3	10	3

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D I.H20.

Signed: G. Leboff

Established 1928

Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Assay Certificate

8W-2239-RA1

Company: **T.OBRADOVICH**
Project: Darrin Porritt/OPAP
Attn: T.Obradovich

Date: AUG-10-98

We hereby certify the following Assay of 23 Rock samples submitted AUG-04-98 by .

Sample Number	Au g/tonne	Au Check g/tonne	WRA -
7301	-	-	Results
7302	0.01	-	to
7303	Nil	-	follow
7304	-	-	
7305	-	-	
7306	-	-	
7307	-	-	
7308	-	-	
7309	-	-	
7310	-	-	
311	-	-	
7312	-	-	
7313	-	-	
7314	-	-	
7315	-	-	
7316	-	-	
7317	-	-	
7318	-	-	
7319	-	-	
7320	0.01	Nil	
7321	-	-	
7322	Nil	-	
7323	-	-	

One assay ton portion used.

Certified by G. Thompson

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705)642-3244 Fax (705)642-3300

Swastika Laboratories
1 Cameron Ave., Swastika, Ontario
PHONE (705) 642-3244 FAX (705) 642-3300

T.OBRADOVICH
Attention: T.Obradovich
Project: Darrin Porritt/OPAP
Sample: Rock

Report No : 8W2239
Date : Aug-17-98

ICP Whole Rock Assay

Fusion Analysis

Sample Number	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	CaO %	MgO %	Na_2O %	TiO_2 %	K_2O %	MnO %	P_2O_5 %	LOI %	Ba ppm	Sr ppm	Zr ppm	Sc ppm	Y ppm	Be ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	V ppm	Zn ppm	Rb %	Nb ppm	Total %
7301	54.24	16.59	7.86	6.90	4.72	4.41	0.98	0.27	0.13	0.16	3.52	160	180	90	20	20	5	25	585	55	100	185	95	<0.01	10	99.95
7302	50.60	16.21	10.59	6.43	6.41	2.10	0.95	0.36	0.16	0.15	5.51	90	270	90	20	15	5	25	405	65	105	195	135	<0.01	10	99.62
7303	53.52	16.14	8.47	8.15	5.39	2.05	0.97	0.15	0.13	0.15	4.72	50	60	90	20	15	5	25	440	65	65	175	110	<0.01	10	99.96
7304	71.40	12.95	5.77	0.57	0.87	6.04	0.37	0.08	0.06	0.09	1.24	100	130	180	10	40	5	5	835	<5	15	30	60	<0.01	<10	99.58
7305	55.67	14.60	10.22	5.70	4.30	3.91	1.25	0.04	0.18	0.13	3.59	50	210	60	30	15	10	25	245	55	25	300	95	<0.01	10	99.71
7306	72.79	12.37	5.12	1.18	0.84	4.64	0.46	0.62	0.09	0.10	1.59	130	70	180	10	35	5	10	785	25	25	35	70	<0.01	10	99.95
7307	57.19	15.38	6.91	7.16	4.71	3.30	0.79	0.18	0.11	0.14	4.02	80	60	100	15	15	5	25	445	100	75	150	70	<0.01	10	100.00
7308	56.38	13.55	10.62	4.10	3.43	4.14	1.36	0.05	0.14	0.17	5.84	40	50	70	25	20	10	25	310	15	10	230	125	<0.01	10	99.88
7309	55.28	13.88	11.45	3.40	4.47	3.23	1.50	0.12	0.13	0.18	6.04	40	20	70	25	20	10	25	115	40	10	225	140	<0.01	10	99.74
7310	52.90	11.99	8.34	6.94	3.68	2.60	0.94	0.91	0.15	0.10	10.98	170	50	70	20	25	5	20	200	105	25	220	65	<0.01	10	99.62
7311	71.25	12.59	6.01	1.19	0.98	3.57	0.47	1.15	0.08	0.10	2.46	210	30	180	10	40	5	5	365	10	15	25	90	<0.01	<10	99.96
7312	74.29	12.40	3.84	0.60	0.35	5.83	0.31	0.46	0.05	0.05	1.27	90	10	220	10	35	<5	5	910	20	20	30	65	<0.01	10	99.59
7313	77.30	10.43	4.62	0.71	0.42	2.97	0.31	1.00	0.06	0.07	1.81	190	30	150	10	45	<5	5	700	<5	15	35	55	<0.01	<10	99.82
7314	71.64	12.46	5.73	1.27	0.81	2.67	0.46	1.55	0.06	0.11	2.67	300	30	180	10	40	5	10	620	70	20	30	110	<0.01	<10	99.57
7315	74.18	11.94	4.60	0.60	0.84	5.25	0.36	0.19	0.03	0.07	1.52	50	30	170	10	40	<5	10	555	<5	15	25	35	<0.01	<10	99.68
7316	55.73	13.88	11.43	4.01	4.02	4.06	1.43	0.12	0.15	0.16	4.50	50	50	50	25	15	10	20	160	30	10	280	130	<0.01	10	99.57
7317	54.01	16.07	11.36	3.77	4.58	4.87	1.37	0.10	0.18	0.13	3.05	140	210	80	30	20	10	25	165	70	5	335	215	<0.01	20	99.63
7318	73.20	13.02	3.85	0.78	0.84	6.46	0.44	0.12	0.06	0.09	0.96	60	40	140	10	25	5	10	1125	35	15	40	25	<0.01	<10	99.96
7319	50.03	17.84	10.32	4.82	6.33	4.75	1.01	0.04	0.17	0.12	4.15	60	220	80	25	15	5	30	265	45	40	225	125	<0.01	10	99.69
7320	70.64	13.49	5.49	1.34	0.92	1.79	0.50	2.51	0.06	0.11	3.00	310	20	190	10	40	5	5	310	35	<5	25	70	<0.01	<10	99.97
7321	55.30	15.61	11.10	3.39	3.91	5.18	1.34	0.05	0.21	0.19	3.39	80	110	100	25	25	10	25	135	80	<5	185	130	<0.01	10	99.76
7322	69.69	13.24	6.21	1.70	1.06	4.61	0.50	0.69	0.11	0.12	1.47	150	140	190	10	40	5	10	500	5	<5	30	90	<0.01	<10	99.52
7323	56.97	14.92	10.49	0.50	6.49	4.23	1.47	0.21	0.12	0.19	3.96	30	<10	50	30	15	10	30	70	1095	20	250	95	<0.01	10	99.73

Sample is fused with Lithium Metaborate or Sodium Peroxide and dissolved with either HNO3 or HCl respectively

Signed:

Appendix II

Self Potential Survey Parameters

PART I

SELF-POTENTIAL SURVEYING

A. THEORY

When the top of a sulphide deposit is in contact with solutions of different composition and different oxidation potential than the solutions at the bottom of the deposit, chemical reactions take place at the two ends. Electric currents flow through the sulphide body and return through the ground, setting up potential gradients, which may be detected by a voltage-measuring device connected across two electrodes on the surface of the ground.

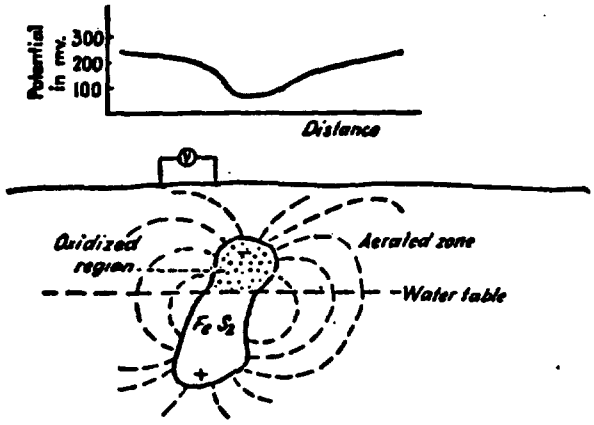
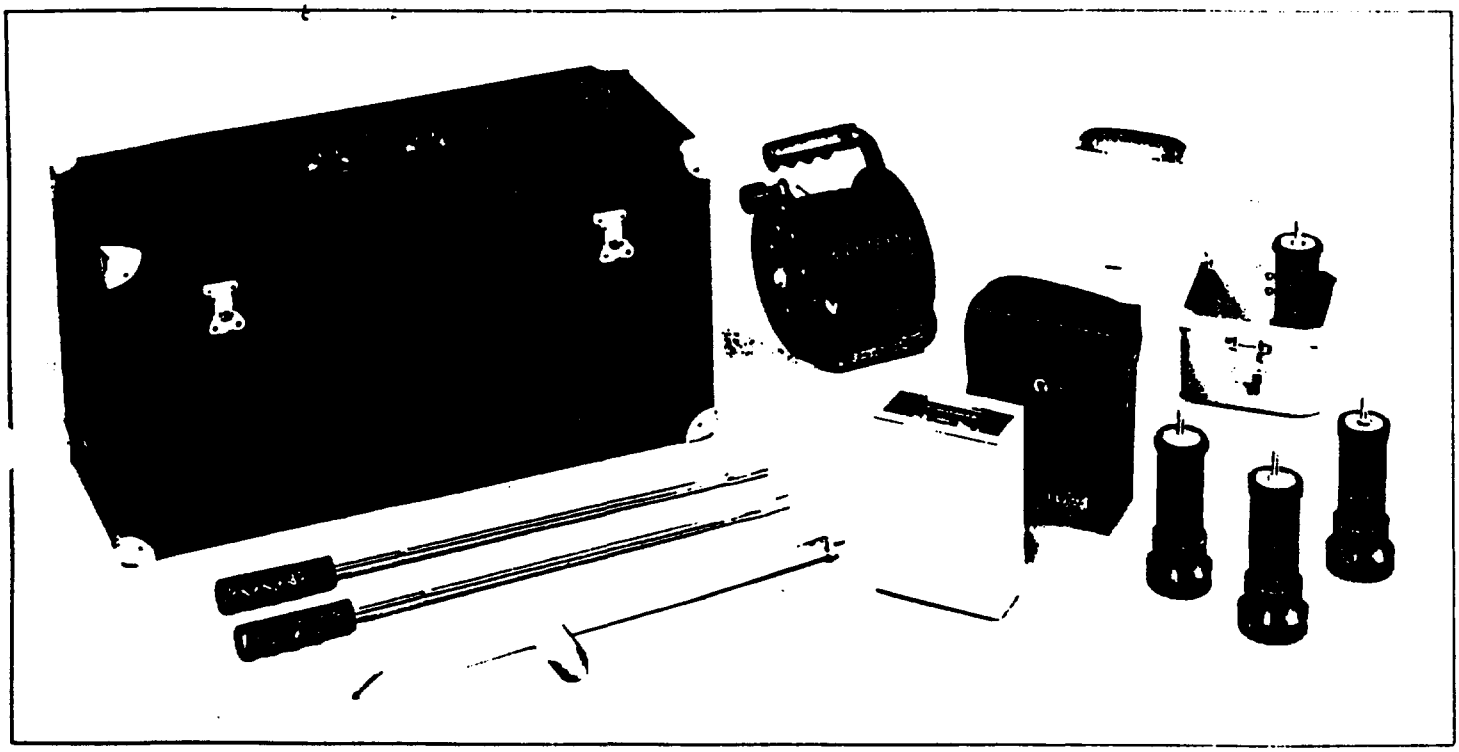


Fig. 17-1. Natural potential profile over sulfide body oxidized at top.

Since oxidation takes place above the water table near the top of the sulphide body, it acts as a potential low. Self-potential prospecting is thus directed toward finding localized areas of low potential. The most direct way of accomplishing this objective, is to measure the potential of all the stations on the grid with reference to a single "base" station. The potentia measurements can then be plotted on a plan map and contoured.

SP-2 Self-Potential Measurement System

Fast reconnaisance system for mineral exploration using self-potential measurements



Self-Potential Method

Electrochemical reactions in buried metal sulphide deposits give rise to spontaneous currents in the ground. The presence of these currents can be readily detected.

Prospecting, based on the self-potential method, consists of measuring the D.C. potential between a pair of electrodes placed in the ground. Electrode separations are normally 30 meters or less. The electrodes are moved progressively along a line or across a zone of interest. The self-potential measured between the electrodes can range from a few millivolts to over one volt.

Data from a completed line can be plotted as a line profile which would show a voltage peak over the mineralized zone and gradually decreasing voltages on either side of the zone. A peak of two or three hundred millivolts would be considered a good S.P. anomaly. Data from many lines can also be presented as a map of equipotential contours.

Measurement System

There are several important considerations in the construction of a self-potential system. The console or D.C. voltmeter should have an input impedance of about a hundred megohms so as not to draw any current from the ground. A low input impedance would effectively load the ground impedance and reduce the self-potential between electrodes. Secondly, the polarity between electrodes will depend on which electrode is the far or near electrode and from what direction the mineralized zone is approached. The measuring device therefore should clearly display voltage polarity which can then be related to electrode orientation.

The electrodes employed for the measurement must be of special construction. If a pair of metal stakes were driven into the ground, the contact potential due to electrochemical action between the ground and the stake could exceed the voltage being measured. A porous pot assembly is the common electrode used for S.P. It consists of a pot with a porous membrane at the bottom Prior to a survey, the pot is filled with a copper sulphate solution. A copper rod extends from the lid of the pot into the solution. When the porous pot is placed in position the solution slowly leaks out into the ground establishing a non polarizing contact between the ground and the copper rod.

System Components

The SP-2 system consists of the following:

- Digital D.C. Voltmeter and carrying case.
- Porous Pot Assembly with 4 porous pots ready for use, 2 extension handles, 1 leakproof container, ½ kg. of copper sulphate crystals.
- Winder reel and unipod with 300 meters of tough, copper-weld, nylon covered wire.
- A reinforced transit case for the complete system.

SP-2 Self-Potential Measurement System

Technical Specifications

S.P. Voltmeter:	Input Impedance:	100 megohms
	Voltage Range:	± 1 mv. to ± 10 volts
	Resolution:	1 mv. over complete range
	Display:	4 digits LCD plus polarity
	Readout:	4 digits for self potential 3 digits for battery test
	Battery:	one 9 volt alkaline, operating life 3 months
	Dimensions:	22 x 15 x 8 cm.
	Weight:	1 kg
Speedwinder and Wire:	Winder mounts on unipod for easy reeling. Supplied with 300 meters of high strength low friction insulated copper wire. Weight: 4.5 kg.	
Porous Pot Assembly:	4 porous pots housed in leakproof fibreglass container. Two extension handles with thumb screw wire connectors. ½ kg of copper sulphate crystals Weight: 2.3 kg.	
Transit Case:	64 x 33 x 26 cm. reinforced case houses total system for transport. Weight: 7.5 kg.	
Total shipping weight:	18 kg.	

McPHAR
The Discovery Company

McPHAR GEOPHYSICS
55 Tempo Ave., Willowdale (Toronto)
Ontario, Canada M2H 2R9
Telephone (416) 497-1700
Telex 065-25305, Cable-McPhar

Contact our head office for the agent in your area.

Printed in Canada

NTS 42 A/8

Darrin Porritt OP98-108
Cochenour Creek Copper Project
Larder Lake Mining Division
July 1998
Melba Township

Magnetometer and Horizontal Loop Survey Reports.

Meegwich Consultants Inc. P.O. Box 482, Temagami, Ontario P0H 2H0 Tel. (705) 569-2904 Fax. (705) 569-2817

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1.0 INTRODUCTION:

From **July 1 to 31, 1998**, a program of linecutting and geophysical surveying was carried out on the Cochenour Creek Copper Project in Melba Twp. The claims are held by Darrin Porritt 33.30%, Todd Keast 33.30% and David Healey 33.40%. The magnetometer survey was executed by David Laronde while the HLEM survey and linecutting was done by Darrin Porritt and David Healey of 21 Goodfish Road P.O. Box 1146 Kirkland Lake, Ontario P2N 3M7. The report was done by David Laronde of Meegwich Consultants Inc., P.O. Box 482, Temagami, Ontario POH 2HO.

Linecutting: A total of 6.772 km of linecutting was done. 5.972 km of cross-lines were cut from a 0.80 km baseline running at an azimuth of 090 degrees. The entire grid was surveyed with magnetics and Horizontal Loop electromagnetics (HLEM).

2.0 PROPERTY:

The 144 hectare (9 units) property consists of one mining claim situated in the extreme northeast corner of Melba Tp. in the Larder Lake Mining Division. The claim number is 1223709.

The land on the property has been clear cut on the eastern half. The western half is covered by black spruce and other low lying vegetation. For the most part the topography is gently rolling terrain. Water for drilling is abundant in the creeks.

3.0 LOCATION AND ACCESS:

The Cochenour Creek Project is located 21 km north of Kirkland Lake, Ontario. (Figure 2). The property can be accessed by 2 wheel drive vehicle from a series of good quality gravel roads that head west for 20 km. from the Esker Lake Hwy 672.

Latitude: 48-20-45 Longitude: 80-02-00

NTS: 42 A/8 Claim Map: G-3216

4.0 MAGNETOMETER SURVEY:

A total of 6.772 km was surveyed (1100 readings) at 6.125 meter stations on lines spaced at 100 meters.

4.1 Instrumentation: A Gem Systems GSM-19 magnetometer Serial no. 58479 was used for the survey. These units have an accuracy of +/- 1/100th of a gamma. A Scintrex EDA Omni IV base station was set up on the property and used to monitor and correct for the diurnal variation during the course of the survey.

4.2 Survey Results: The results are presented in contour format on plans at 1:2500 scale.

For the most part the magnetometer survey revealed a 225 gamma range of values from 57525 to 57750.
Most notable features observed include a low extending from 1400 E to the eastern limits of the grid just north of the baseline. Immediately south is a group of highs from L 1600 to 1800 E. Another low cuts the grid in a north-south direction from the north end of L1600 E to the south end of L 1800 E.

Isolated highs occur in the four quadrants of the grid. The high in the southwestern quadrant is circular in shape similar in shape to a kimberlite response however lacking the intensity. The high in the southeastern quadrant appears to be the heel part of a large "boot shaped" airborne response 1.5 km in length. It may be noteworthy to mention the grid area is 2.0 km to the south of a extensive airborne magnetic high that straddles the north boundary of Melba Tp.

5.0 HLEM Survey:

A total of 4.90 km of Horizontal Loop EM was done (196) readings for each of the three frequencies) at 25 meter stations on lines spaced at 100 meters apart. The coil spacing was 100 meters.
Special attention was given to achieve **constant coil separation.** At each station the rear operator would pull the cable tight to a 100 meter mark on the cable.

5.1 Instrumentation: An Apex Maxmin II unit (ser. no.) was used for the horizontal loop EM survey. Three frequencies were read, 444, 1777 and

3555 Hz, measuring the in-phase and quadrature components of the secondary field to an accuracy of +/-0.5%.

5.2 Survey Results: The results of the survey are presented in profile form on plans at 1:2500 scale. Conductor axis are indicated on the plans.

The HLEM survey picked up a series of 8 conductors that are for the most part weak responses that are high channel out-of-phase anomalies only and show up marginally on the in-phase of 1777 and 3555 Hz and not at all on the 444 Hz channel. These responses appear to have shallow conductive overburden sources.

6.0 CONCLUSIONS AND RECOMMENDATIONS:

The magnetometer survey may have outlined faulting and/or shearing in two directions. In addition, the contact between the mafic and felsic volcanic units appears to be delineated to a certain extent similar to the geologic map in GR 103 (L.S. Jensen).

The HLEM anomalies encountered do not appear to be genuine metallic source conductors rather shallow conductive overburden sources. From the HLEM survey it is concluded that there are no massive sulphide condcutors within 50 meters of surface. This does not rule out massive sulphides below the 50 meter level.

Further work:

A deep penetrating IP survey is recommended as follow-up work since this method is best for detecting disseminated sulphides which could be an indicator for more massive mineralization in a VMS setting. Disseminated mineralization in feldspar porphyry was intersected at the 200 foot level (60 meters) in past drilling (p.19 GR 103).

The mineral potential remains high on this property given the geologic setting and known mineralization.

References

1972 L.S. Jensen — The Geology of Melba and Bisley Twps. Ontario Dept. of Mines

1979 MNDM — Airborne Magnetometer Survey - Kirkland Lake Map P.2251

CERTIFICATE OF AUTHOR

I, David Laronde of the town of Temagami, Ontario hereby certify:

1. That I am a geology technologist and have been engaged in mineral exploration for the past 18 years.

2. That I am a graduate of Cambrian College in Sudbury with a diploma in Geology Engineering Technology 1979.

3. That my knowledge of the property described herein was acquired by field work and documentation.

Dated at Temagami this 3rd day of August 1998.

David Laronde

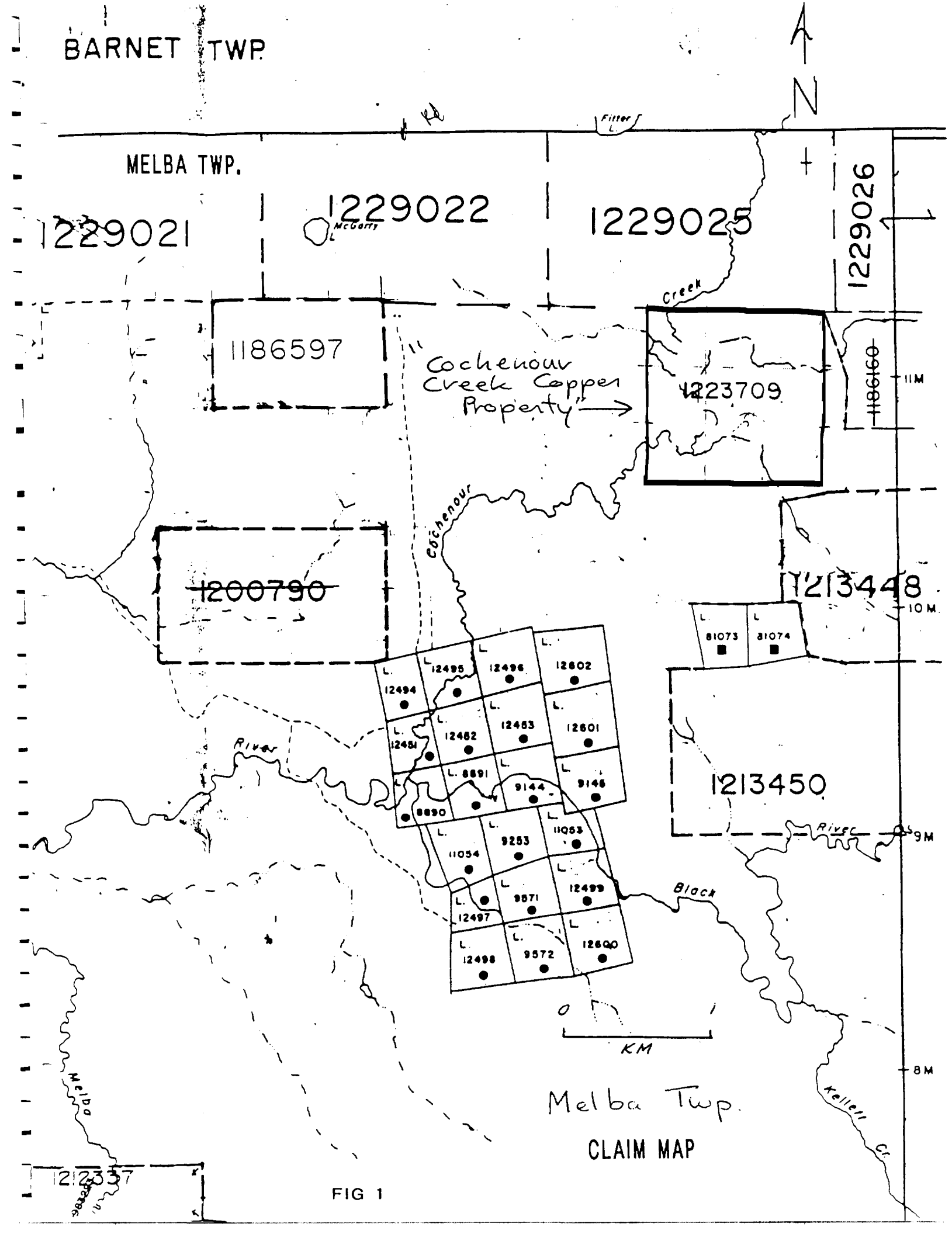

BARNET TWP.
N
MELBA TWP.
1229021
1229022
1229025
1229026
McGarry
Fitter
Creek
1186597
Cochenour
Creek Copper
Property
1223709
1186160
11M
Cochenour
1200790
1213448
10M
81073
81074
12494
12495
12496
12602
12491
12492
12493
12601
River
8891
8890
9144
9145
1213450
11053
11054
9253
9571
12499
12497
12498
9572
12500
Block
River
9M
KM
8M
Melba
Kellett
1212337
Melba Twp.
CLAIM MAP

FIG 1

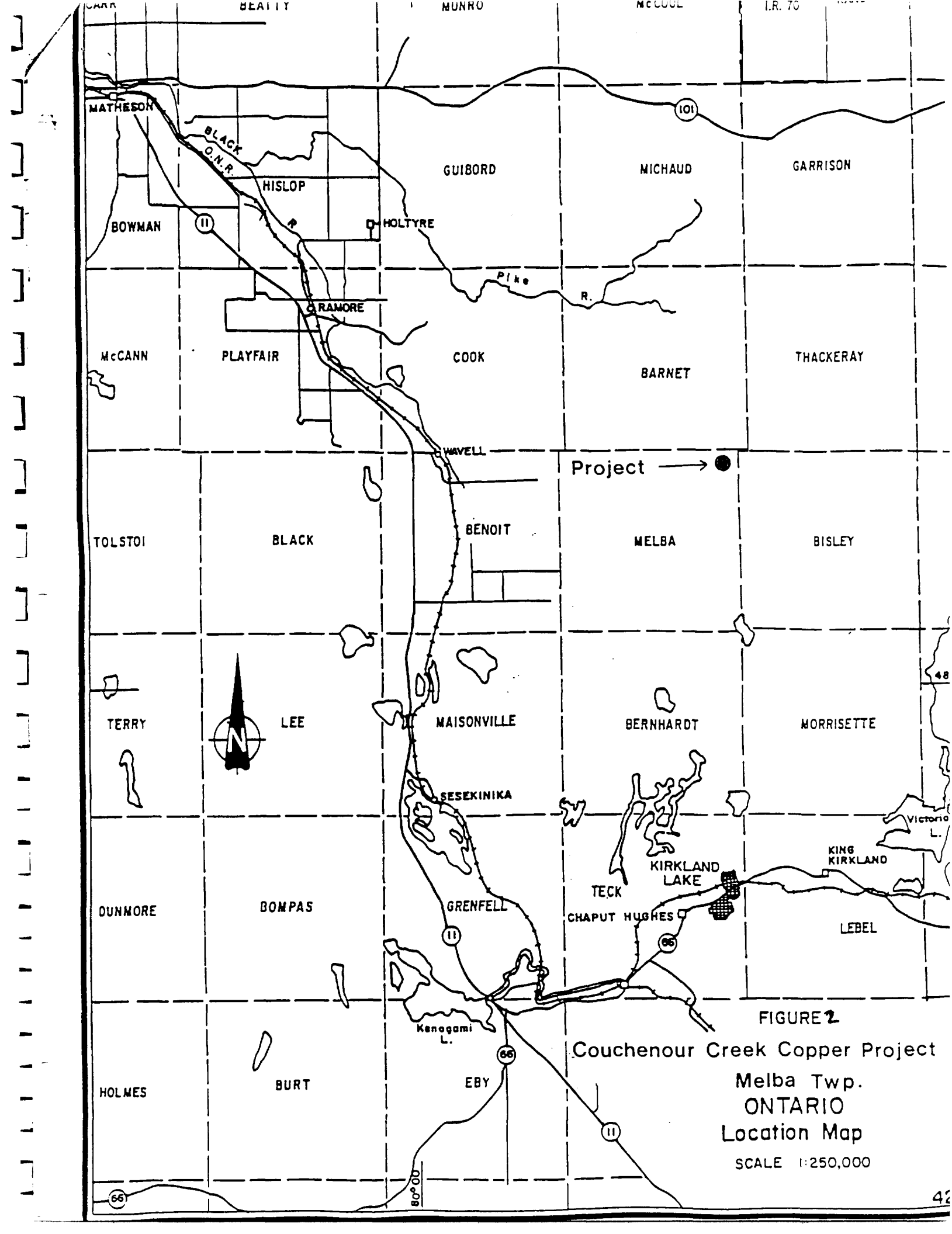


FIGURE 2

Couchenour Creek Copper Project

Melba Twp.

ONTARIO

Location Map

SCALE 1:250,000

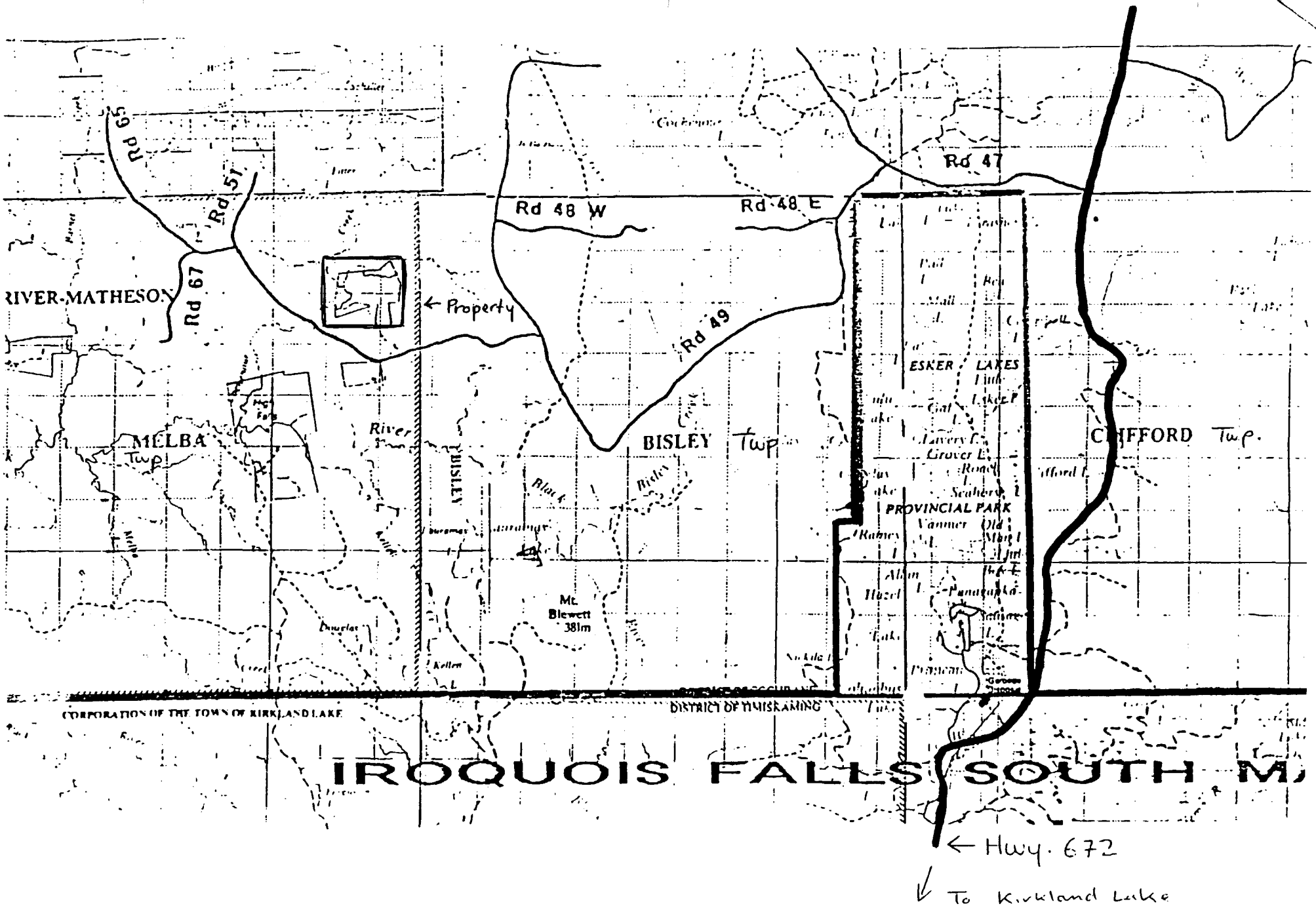

Rd 47
Rd 48 W
Rd 48 E
Rd 49
Rd 51
Rd 67
Property
RIVER-MATHESON
MELBA Twp
River
BISLEY Twp
CLIFFORD Twp.
ESKER LAKES
PROVINCIAL PARK
Mt Blewett 381m
CORPORATION OF THE TOWN OF KIRKLAND LAKE
DISTRICT OF TIMISKAMING
IROQUOIS FALLS SOUTH
← Hwy. 672
↙ To Kirkland Lake

Figure 2

GEM SYSTEM GSM-19 WALKING MAG

INSTRUMENT SPECIFICATIONS

MAGNETOMETER / GRADIOMETER

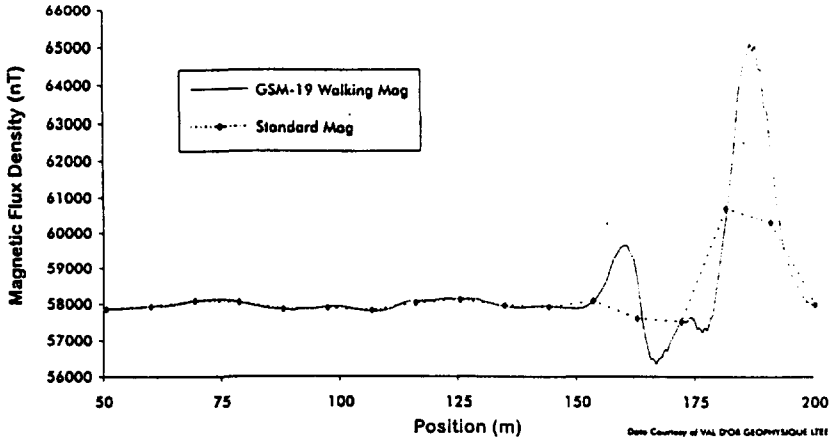
Resolution:	0.01 nT (gamma), magnetic field and gradient.
Accuracy:	0.2 nT over operating range.
Range:	20,000 to 120,000 nT.
Gradient Tolerance:	Over 10,000 nT/m
Operating interval:	3 seconds minimum, faster optional. Readings initiated from keyboard, external trigger, or carriage return via RS-232-C.
Input/Output:	6 pin weatherproof connector, RS-232C, and (optional) analog output.
Power Requirements:	12 V, 200 mA peak (during polarization), 30 mA standby. 300mA peak in gradiometer mode.
Power Source:	Internal 12 V, 2.6 Ah sealed lead-acid battery standard, others optional. An External 12V power source can also be used.
Battery Charger:	**Input:** 110 VAC, 60 Hz. Optional 110/220 VAC, 50/60 Hz. **Output:** dual level charging.
Operating Ranges:	Temperature: **-40 °C to +60 °C.** Battery Voltage: **10.0 V minimum to 15V maximum.** Humidity: **up to 90% relative, non condensing.**
Storage Temperature:	-50°C to +65°C
Display:	LCD: 240 x 64 pixels, or 8 x 30 characters. Built in heater for operation below -20°C
Dimensions:	**Console:** 223 x 69 x 240mm. **Sensor staff:** 4 x 450mm sections. **Sensor:** 170 x 71mm dia. **Weight:** Console 2.1kg, Staff 0.9kg, Sensors 1.1kg each.

"Walking" Magnetometer / Gradiometer

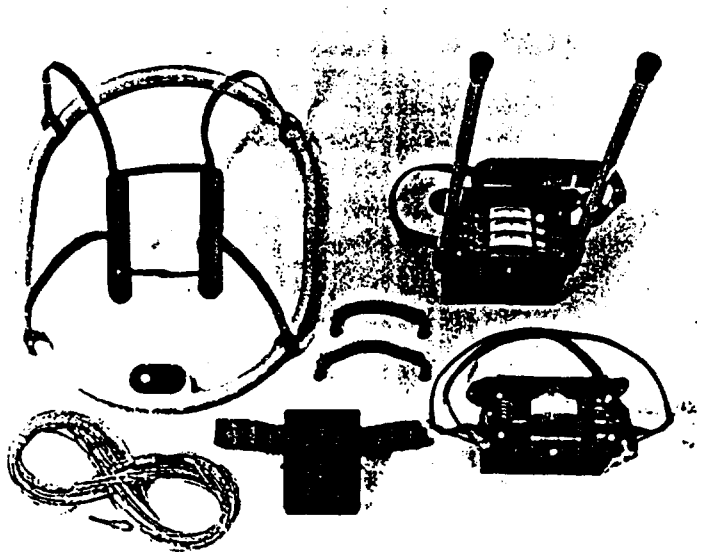
GEM Systems pioneered the GSM-19's innovative "Walking" option that enables acquisition of nearly continuous data on survey lines. Similar to an airborne survey in principle, data is recorded at discrete time intervals (up to 2 readings per second) as the instrument travels along the line. At each major survey picket (fiducial), the operator touches a designated key. The Walking Mag automatically assigns a linearly interpolated coordinate to all intervening readings.

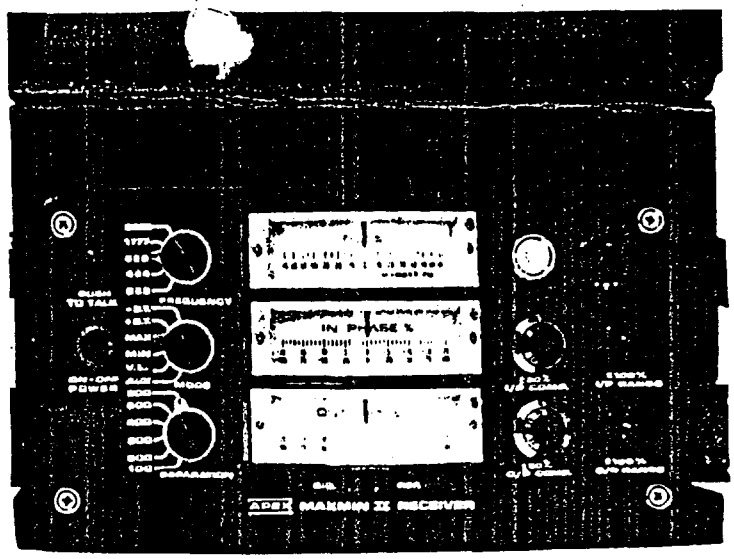
A main benefit of the Walking option is that the high sample density improves definition of geologic structures. And because the operator can record data on a near-continuous basis, the Walking Mag increases survey efficiency and minimizes field expenditures -- especially for highly detailed ground-based surveys.

Near-Continuous Surveys Improve Definition of Magnetic Anomalies



As shown above, near-continuous measurements increase definition. Results from a GSM-19 "Walking Mag" (273 readings over 150 m with 2 sec. cycle time) were compared with results from a standard magnetometer (13 readings over 150m).





SPECIFICATIONS

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

Modes of Operation:

MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. cable.

MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.

V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250 m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF).
Coil separations in V.L. mode not restricted to fixed values.

Paramaters Read:

- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:

- Automatic, direct readout on 90 mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90 mm edgewise meters in V.L. mode.

Scale Ranges:

In-Phase: ±20%, ±100% by push-button switch.
Quadrature: ±20%, ±100% by push-button switch.
Tilt: ±75% slope.
Null (V.L.): Sensitivity adjustable by separation switch.

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

±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

- 222 Hz : 220 Atm^2
- 444 Hz : 200 Atm^2
- 888 Hz : 120 Atm^2
- 1777 Hz : 60 Atm^2
- 3555 Hz : 30 Atm^2

9V trans. radio type batteries (4) Life: approx. 35 hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

12V 6 Ah Gel-type rechargeable battery. (Charger supplied)

Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify

Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Built-in signal and reference warning lights to indicate erroneous readings.

-40°C to +60°C (-40°F to +140°F)

6 kg (13 lbs.)

13 kg (29 lbs.)

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

Specifications subject to change without notification

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use)
W9980.00184
Assessment Files Research Imaging

42A08SE2004 2.19293 MELBA 900

bsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, esment work and correspond with the mining land holder. Questions about this hern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury,

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LANDER LAKE
MINING DIVISION
[redacted] 4/99 1:47p
MSE

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

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

Name (1)	David R. Healey (33.4%)	Client Number	143039
Address	103 Carter Ave	Telephone Number	1-705-567-9980
	Kirkland Lake, ONT., P2N 1Z6	Fax Number	1-705-567-6873
Name (2)	Darrin Porritt (33.3%)	Client Number	183639
Address		Telephone Number	1-705-567-1545
		Fax Number	1-705-567-6873

refer to attached page for 3rd recorded holder

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

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) | Physical: drilling stripping, trenching and associated assays | Rehabilitation

Work Type	- linecutting - magnetometer + Horizontal Loop (geophysical surveys) + self potential - mapping and prospecting.	Office Use	
		Commodity	
		Total $ Value of Work Claimed	10,846
Dates Work Performed	From 10 (Day) July (Month) 1998 (Year) To 04 (Day) Nov (Month) 1998 (Year)	NTS Reference	
Global Positioning System Data (if available)	Township/Area: Melba Twp	Mining Division	Larder Lake
	M or G-Plan Number: G-3216	Resident Geologist District	Kirkland Lake

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

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

Name	Todd Keast	Telephone Number	1-705-235-2540
Address	Box 147, South Porcupine, Ontario, P0N1H0	Fax Number	1-705-235-2991
Name	David R. Healey	Telephone Number	1-705-567-9980
Address	103 Carter Ave, Kirkland Lake, Ontario, P2N1Z6	Fax Number	1-705-567-6873
Name		Telephone Number	
Address		Fax Number	

RECEIVED 10:00 am
MAR - 5 1999
GEOSCIENCE ASSESSMENT OFFICE

4. Certification by Recorded Holder or Agent

I, David R. Healey (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: David R. Healey		Date: 04 March 1999
Agent's Address: 103 Carter Ave, Kirkland Lake, Ont., P2N 1Z6	Telephone Number: 1-705-567-9980	Fax Number: 1-705-567-6873

0241 (03/97)

Deemed June 3/99

2.19293

3rd Recorded Holder.

RECEIVED
LARDER LAKE
MINING DIVISION
[redacted]
4/9/99
1:47 pm
#40

Melba Twp

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use)
W9980.00184
Assessment Files Research Imaging

Personal information collected on this form is obtained under the authority of subsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assesment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

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

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

Name: Todd Keast (83.3%)	Client Number: 151113
(3) Address: Box 147, South Porcupine	Telephone Number: 1-705-235-2540
Ontario, P0N 1H0	Fax Number: 1-705-235-2991
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report [illegible]

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

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	**Number of Claim Units.** For other mining land, list hectares.	**Value of work performed** on this claim or other mining land.	**Value of work applied** to this claim.	**Value of work assigned** to other mining claims.	**Bank.** Value of wo to be distributed at a future date
eg	TB 7827	16 ha	$26,825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,892	$ 4,000	0	$4,892
1	1223409	9	10846	10846	0	0
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
	Column Totals	9	10846	10846	0	0

I, _____ , do hereby certify that the above work credits are eligible unde
(Print Full Name)

subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
David R. Hendry	04 March 1999

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

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

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

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

For Office Use Only

Received Stamp

RECEIVED
LARDER LAKE
MINING DIVISION
APR 4/99
1:41 PM
MAR

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W9980.00184

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

(Melba Twp)

Work Type	Units of work Depending on the type of work, list the number of hours/day worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
linecutting	7.5 km x	300 =	2250
Mag Survey	plus Max min data entry 6.772km Report writing, 5 reports and maps	x 85	1257.92
Horizontal Loop Survey	4.9 km x	185	906.50
Self Potential Survey	2 days X	500	1000.00
mapping	DRH 3 days x TK 2 days x	225 = 675 ÷ = 250 = 500	1275
prospecting	7 days x	175 =	1225
Report writing / draft.	3 days draft 3 days writing	x 175 = 525 x 250 = 750 ÷ =	1275
Associated Costs (e.g. supplies, mobilization and demobilization).			
	Assays	25 WR ÷ 24 ICP, Au	1146.57
Transportation Costs	1700 km	x 0.30 =	510
Food and Lodging Costs			
		Total Value of Assessment Work	10845.99

lculations of Filing Discounts:

Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

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

te:

Work older than 5 years is not eligible for credit.

A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for rification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all part of the assessment work submitted.

rtification verifying costs:

David R. Healey, do hereby certify, that the amounts shown are as accurate as may reasonably
(please print full name)
determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

eclaration of Work form as recorded holder I am authorized to make this certification.
(recorded holder, agent, or state company position with signing authority)

2 (03/97)

RECEIVED
LARDER LAKE
MINING DIVISION
MAR 4/99
1:47 PM
MH

Signature: David R. Healey

Date: 04 March 1999

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

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

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

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

April 16, 1999

DAVID RAYMOND HEALEY
607 UPPER SHERMAN AVENUE
HAMILTON, Ontario
L8V-3M3

Dear Sir or Madam:

Submission Number: 2.19293

Subject: Transaction Number(s):		**Status**
	W9980.00184	Deemed Approval

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

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

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

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

Yours sincerely,

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

Correspondence ID: 13637

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.19293

Date Correspondence Sent: April 16, 1999 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9980.00184	1223709	MELBA	Deemed Approval	April 01, 1999

Section:
14 Geophysical MAG
9 Prospecting PROSP
14 Geophysical EM
12 Geological GEOL
14 Geophysical SP

Correspondence to:
Resident Geologist
Kirkland Lake, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
DAVID RAYMOND HEALEY
HAMILTON, Ontario

DARRIN DAVID PORRITT
KIRKLAND LAKE, ONTARIO

TODD MICHAEL KEAST
PORCUPINE, Ontario

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

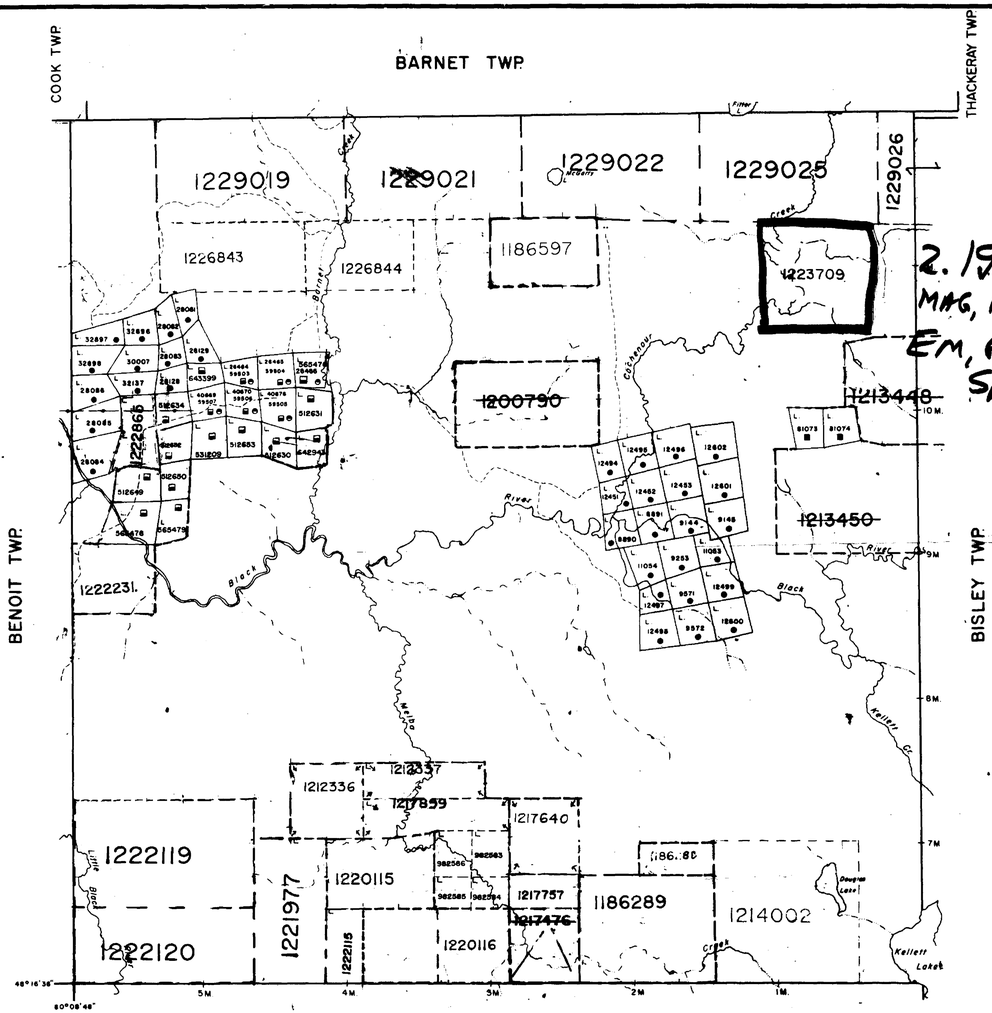
M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP/AREA FALLS WITHIN THE ABITIBI MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE M.N.R. UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129, SWASTIKA, ONT. P0K 1T0, 705-642-3222



COPY OF THIS MYLAR ARCHIVED APR.09/92
ARCHIVED MAY 02, 1994
ARCHIVED JULY 19, 1996
ARCHIVED JULY 7/97

2.19293 MAG, RESP. EM, GEOL SP.

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
- BENCH MARK OR 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	C
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

SCALE: 1 INCH = 40 CHAINS

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

DATE OF ISSUE
APR 21 1999
PROVINCIAL RECORDING OFFICE - SUDBURY

TOWNSHIP
MELBA

M.N.R. ADMINISTRATIVE DISTRICT
KIRKLAND LAKE
MINING DIVISION
LARDER LAKE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ontario Ministry of Natural Resources — Land Management Branch

Date JANUARY, 1985
Number G-3216
CIRCULATED FEB. 26, 1990

42A08SE2004 2.19293 MELBA 200

Melba Township
Claim 1223709
9 Units

N

L 12+00E
L 13+00E
L 14+00E
L 15+00E
L 16+00E
L 17+00E
L 18+00E
L 19+00E
L 20+00E

13+00N
12+00N
11+00N
10+00N
9+00N
8+00N
7+00N
6+00N

Legend

2	Rhyolite
1	Basalt

Pillows
Outcrop
Foliation
Sample location
Chalcopyrite mineralization
Trench
River
Positive Topographic Feature
Contact (inferred)

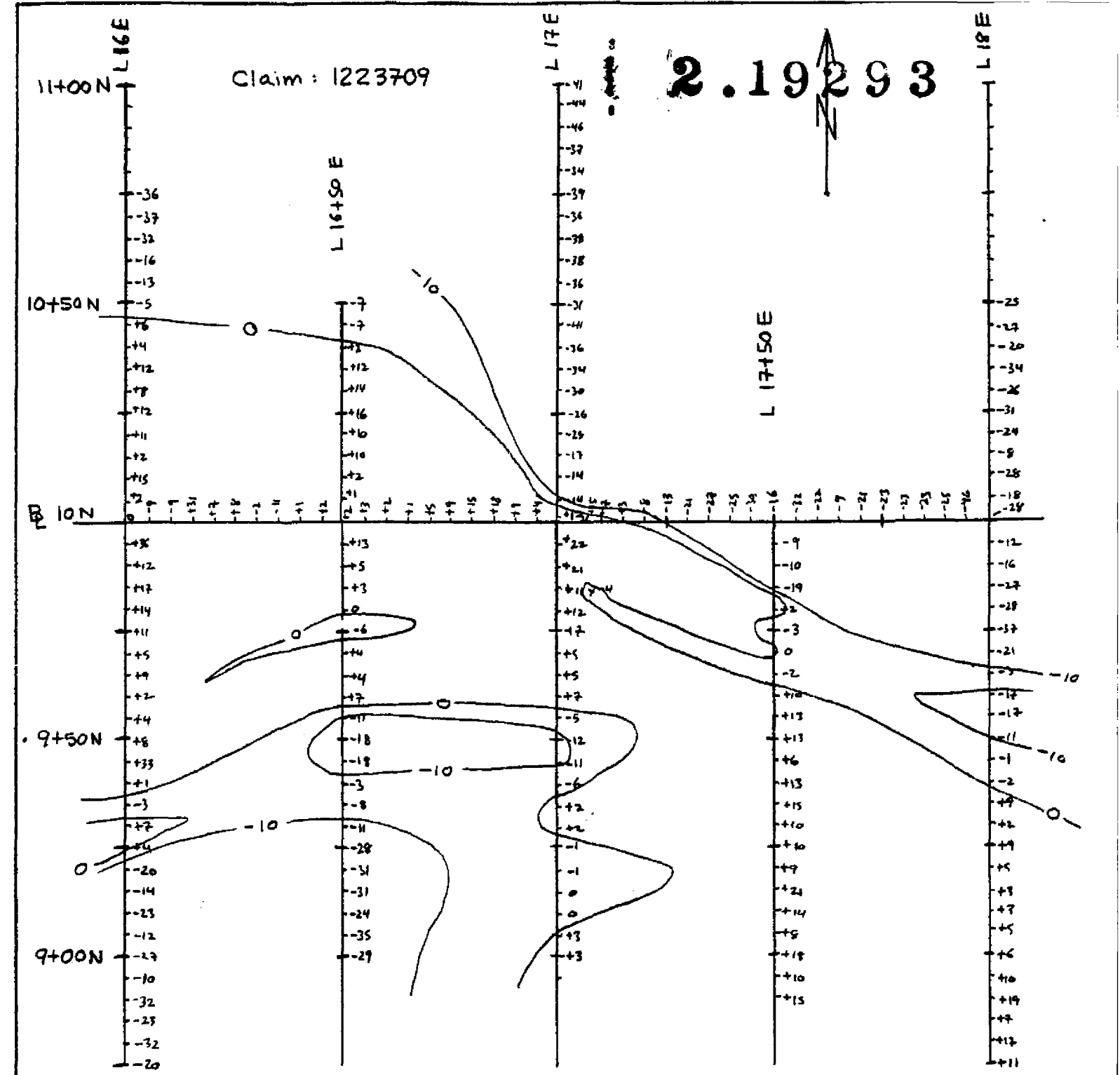
0 50 100 metres

Cochenour Creek Copper Project

Darrin Porcelli OPAP 98-108
Geological Mapping
Scale 1:2,500
D.H., T.K

Map 1

MapI



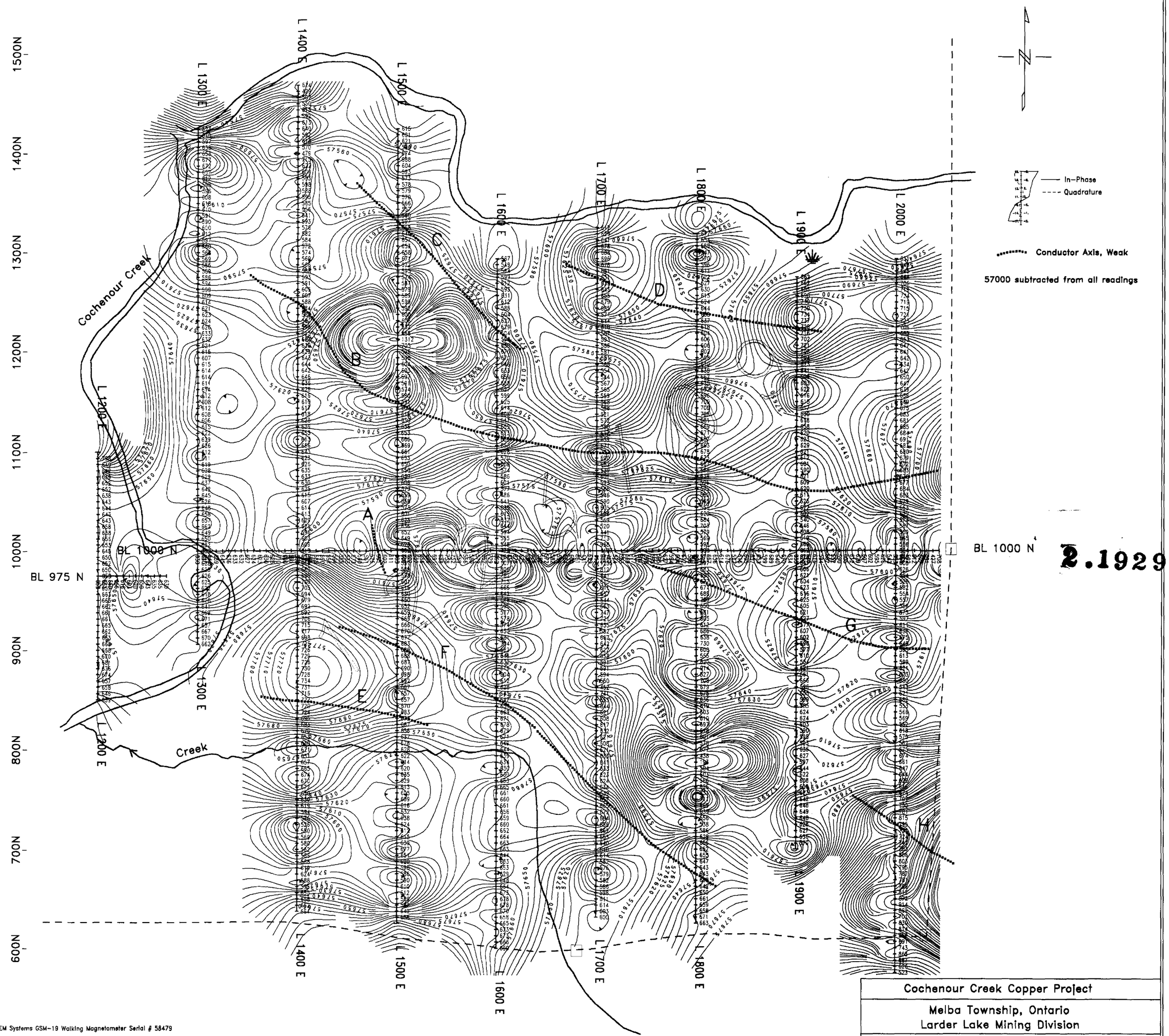
Scale 1:1250 or 1cm = 12.5m

Instrument : McPhar SP-2

Reading in millivolts.

Cochenour Creek Copper Project		
Melba Township Ontario Larder Lake Mining Division		
Self - Potential Survey		
Scale 1:1250	NTS 42 A/8	NOV 1998

Map 2



2.19293

230 MELBA 42A08SE2004 2.19293

Instruments: GEM Systems GSM-19 Walking Magnetometer Serial # 58479

Scintrex EDA Omni IV Magnetometer Serial #228225

APEX Maxmin II – 100 meter coil spacing

Scale 1:2500

50 0 50 100 150

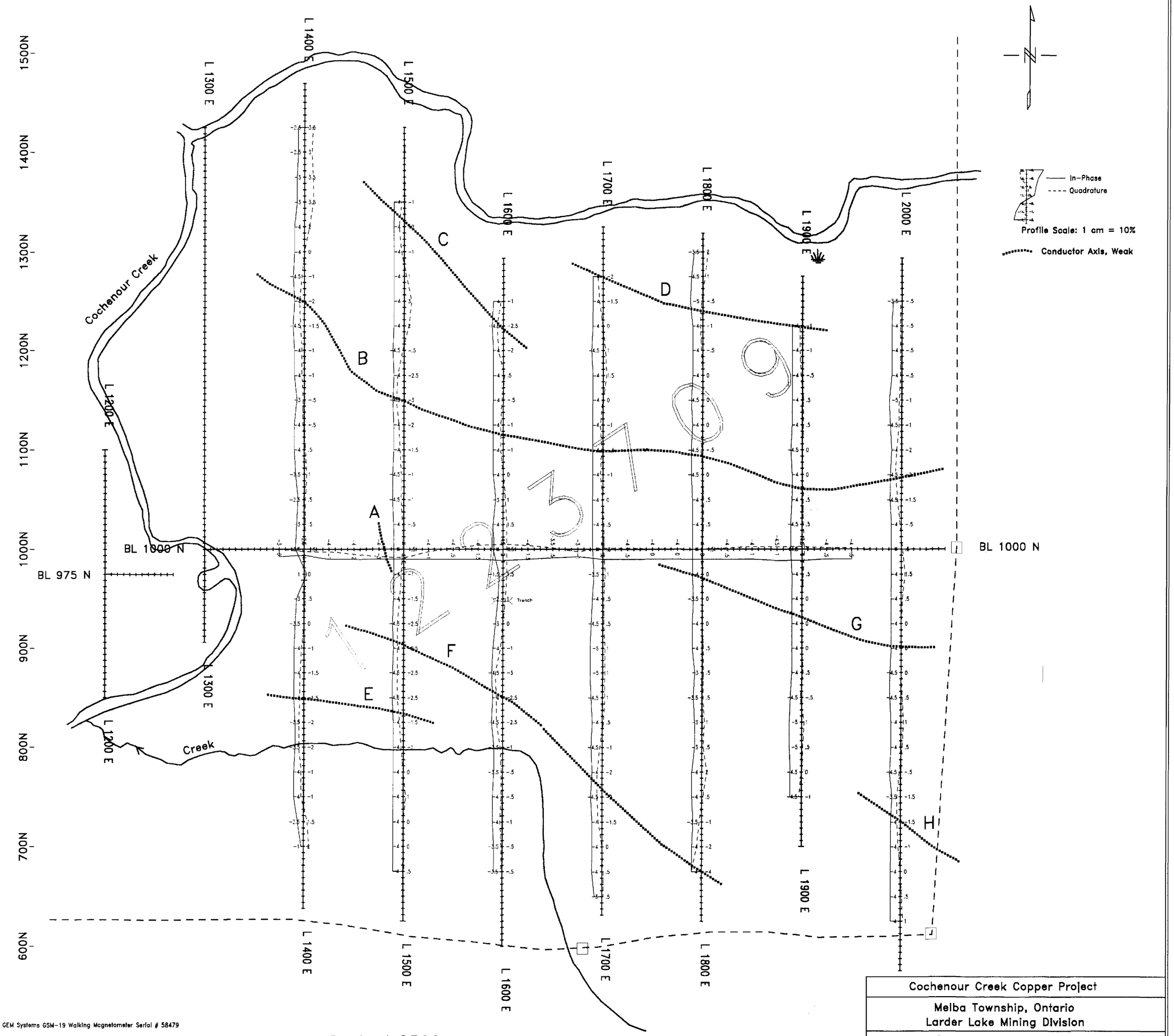
(metres)

Cochenour Creek Copper Project

Melba Township, Ontario
Larder Lake Mining Division

Ground Geophysical Surveys
Total Field Magnetics
Contours

Data processing and Interpretation by:	Scale 1:2500	NTS 42 A/8
Meegwich Consultants Inc.	July 1998	



Instruments: GEM Systems GSM-19 Walking Magnetometer Serial # 58479

Scintrex EDA Omni IV Magnetometer Serial #228225

APEX Maxmin II – 100 meter coil spacing

Scale 1:2500

50 0 50 100 150

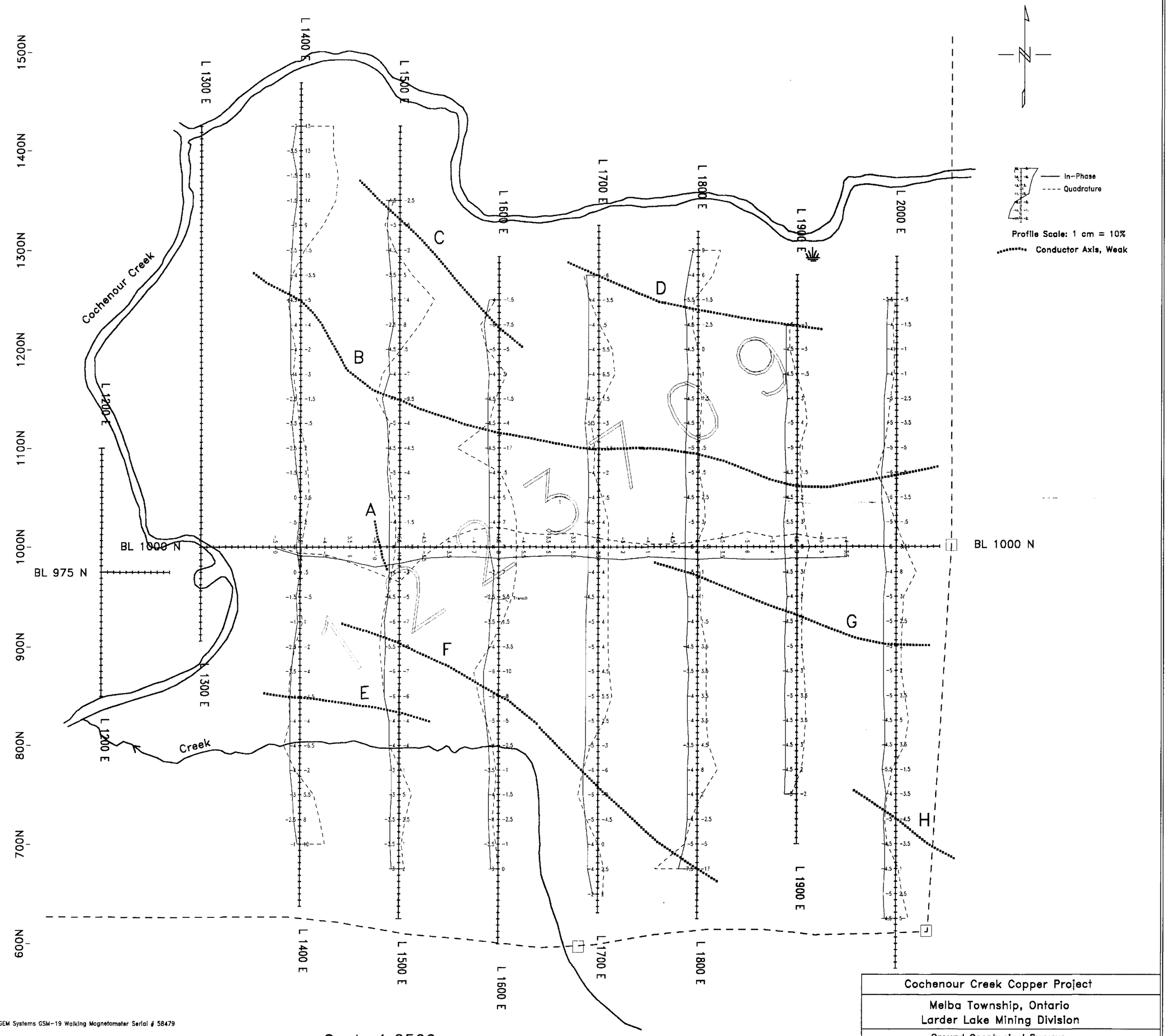
(metres)

Cochenour Creek Copper Project

Melba Township, Ontario
Larder Lake Mining Division

Ground Geophysical Surveys
HLEM Maxmin II Survey – 444 Hz.
Profiles of the In-Phase and Quadrature

Data processing and Interpretation by:	*Scale 1:2500*	*NTS 42 A/8*
Meegwich Consultants Inc.	*July 1998*	



Instruments: GEM Systems GSM-19 Walking Magnetometer Serial # 58479

Scintrex EDA Omni IV Magnetometer Serial #228225

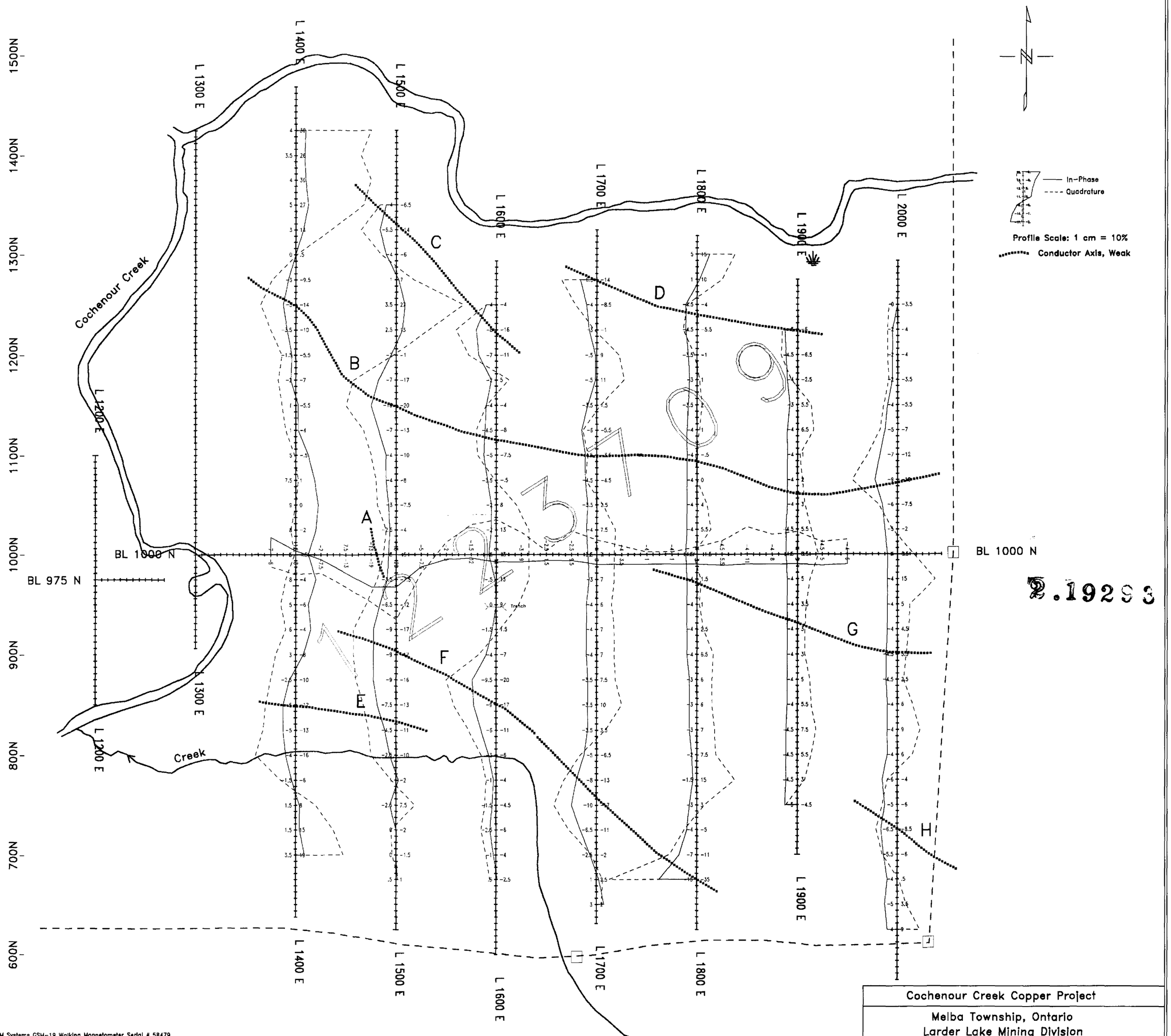
APEX Maxmin II - 100 meter coil spacing

Scale 1:2500

50 0 50 100 150

(metres)

Cochenour Creek Copper Project		
Melba Township, Ontario Larder Lake Mining Division		
Ground Geophysical Surveys HLEM Maxmin II Survey - 1777 Hz. Profiles of the In-Phase and Quadrature		
Data processing and Interpretation by: *Meegwich Consultants Inc.*	*Scale 1:2500* *July 1998*	*NTS 42 A/8*



Instruments: GEM Systems GSM-19 Walking Magnetometer Serial # 58479

Scintrex EDA Omni IV Magnetometer Serial #228225

APEX Maxmin II – 100 meter coil spacing

Scale 1:2500

50 0 50 100 150

(metres)

Cochenour Creek Copper Project		
Melba Township, Ontario Larder Lake Mining Division		
Ground Geophysical Surveys HLEM Maxmin II Survey – 3555 Hz. Profiles of the In-Phase and Quadrature		
Data processing and Interpretation by: *Meegwich Consultants Inc.*	*Scale 1:2500* *July 1998*	*NTS 42 A/8*