GEOSEARCH CONS



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Magnetic & VLF Electromagnetic surveys for

> MONO GOLD MINES INC. on the Bannockburn Property Madoc Township, Ontario

(To Accompany Maps 84-60,61,62)

April 3, 1984

INTRODUCTION

A magnetic survey and an electromagnetic VLF survey were carried out on the Bannockburn property for Mono Gold Mines Inc. in February and March, 1984.

The property is located in Madoc Township, within the town of Bannockburn, Ontario. The grid covers claims #E0572483, E0572484, E0572485, E0652301, E0652302 and a patented claim covering Lot 28, Concession V. The south-east corner of the grid was not surveyed as landowners removed the pickets. Access was made via Highway 62 which crosses the property.

The purpose of the surveys was to locate possible extensions of known sulphide mineralization. The work performed is an extension of a previous survey done on a portion of the property.* Numerous anomalies were located. The accompanying maps show the area surveyed and the results obtained.

A technical data sheet is appended to this report.

*Geophysical Report on the Bannockburn Property Sept., 1981

- 1 -

RESULTS

The magnetics indicate a general north-south trend which correlates well with the VLF trends. The observed magnetic relief is in excess of 13,000 gammas, with the greatest relief being in the south-west corner of the grid. The syenite/metasediment rock contact has been correlated with the edge of this magnetically high area. It is difficult to follow the magnetic contours to the north due to the lack of readings on Line 21N, however it is suggested this contact may trend northward through the north-west corner of the grid.

The VLF profiled readings on Map 84-61 show a number of anomalies. In an attempt to overcome the large geological noise component of the readings, the in-phase readings have been 'Fraser Filtered'*. These readings are plotted on Map 84-62. The negative values have been contoured, the highest amplitudes indicating the highest conductivity.

List of Conductors

(1) Line 12N, 2+50E to Line ON, 3+50E

This linear feature is the anomaly 'A' of the previous work. It trends roughly north-south extending approximately 300 feet south of Line ON. This conductor trends to the north-west on Line 16N at the baseline. Although data is missing on Line 21N,

*The first reading is added to the second reading, the sum is subtracted from the sum of the third and fourth readings. it would appear this zone continues to trend to the northwest (Line 24N, 8+50W to Line 36N, 9+50W). This trend coincides well with the symmetry metasediment contact suggested by the magnetics.

(2) Line 4S, 6+50E to Line 4N, 9+50E

This linear feature is anomaly 'B' of the previous work. This conductive zone was poorly outlined in this survey as the lines did not extend eastwardly beyond the creek.

(3) Line ON, 1+00E to Line 4S, 2+00E

This feature is anomaly 'C' of the previous work.

(4) <u>Line ON, 5+50W</u>

This is a discrete conductor with a short strike length. It is anomaly 'D₁' of the previous work.

(5) Line 4S, 8+50W to Line 12S, 8+50W

This feature is anomaly 'D2' of the previous work.

(6) Line 8S at 28+00W to Line 12N at 26+00W

This north-south trending anomaly shows a very strong conductivity growing less conductive to the south. This conductor lies within a magnetically low area with respect to the surrounding high magnetics.

(7) Line ON, 20+50W to Line 12S, 20+00W

A moderate conductor trending north-south, showing less conductivity to the south. This feature also lies in a magnetically low area with respect to the local environment.

(8) Line 8S, 17+50W to Line 4N, 12+50W

This conductor trends roughly north-south, trending slightly to the NE/SW. This is a strong conductor, lying in a localized magnetic low area.

(9) <u>Line 21N at 4+50E</u>

A very strong conductor with a short strike length. This conductor appears to extend to the north. However, data is lacking due to the proximity to the highway. There is no magnetic correlation.

(10) Line 36N, 11+50E to Line 32N, 11+50E

A moderate conductor trending in a north-south direction, with magnetic correlation.

(11) <u>Line 24N at 36+00E to Line 39E at 36+00E</u>, and <u>Line 21N at 30+50E to Line 28N at 30+50E</u>

This is a roughly north-south trending moderately conductive zone. It is fairly broad in extent with the areas of highest conductivity corresponding to areas of relatively higher magnetics.

(12) Line 32N, 21+50E to Line 21N, 22+50E

This is another wide conductive zone trending roughly northsouth in direction. It is a poorer conductor with the areas of highest conductivity corresponding to areas of relatively low magnetics.

- 4 -

RECOMMENDATIONS

Numerous anomalous zones were outlined by the survey. These should be used in conjunction with detailed geological mapping to plan further exploration.

A horizontal loop survey would be recommended to further delineate the conductive zones to assist in the location of possible drill targets.

GEOSEARCH CONSULTANTS LIMITED

W. H. Thompson P. Eng.

W. H. Thompson

L. J. Racic

B. Sc.

GEOPHYSICAL TECHNICAL DATA

MAGNETIC SURVEY

Instrument: Scintrex MP-2 Proton Magnetometer Magnetic field measured: total Accuracy - scale constant: 1 gamma Diurnal correction method: Recording base station with readings taken at 30-second intervals Base station locations and value: Line 16N at 4W, 57,015 gammas Number of readings @ 100' stations: 1276 @ 50' stations: 1276 Total number of readings: 1620 Line spacing: 400' Contour interval: 500 gammas

VLF SURVEY

Instrument: Geonics EM-16
Frequency measured: 24.0 kHz
Station: Annapolis, Maryland, U.S.A.
Direction read: Northeast quadrant
Accuracy: + 1%
Line spacing: 400' Stations at: 100'
Profile scale: 1" to 20%
Fraser filter contour interval: 5%





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File No 2.6903

Mining Lands Section

Control Sheet



MINING LANDS COMMENTS:

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Signature of Assessor



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Technical Assessment Work Credits

	2.6903
Date	Mining Recorder's Report of
1984 10 16	Work No. 84-29

File

MONO GOLD	MINES INC		
Fownship or Area MADOC TOWN	ISHIP		
Type of survey and number Assessment days credit per c	of laim	Mining Claims Assessed	•
Geophysical			
Electromagnetic _	40 _{days}		
Magnetometer	20 days	E0 572483-84-85 652301-02	
Radiometric	days		
Induced polarization	days		
Other	days		
Section 77 (19) See "Mining Claims Ass	ested" column		
Geological	, days		
Geochemical	days		
Man days [Airborne		
Special provision [X]	Ground X		
Credits have been reduced be coverage of claims.	cause of partial		
Credits have been reduced becau to work dates and figures of appli	ise of corrections cant.		
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10 DAYS ELE 5 DAYS MAGN	CTROMAGNETIC ETOMETER		
E0 592199			
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not sufficiently sourced by the		technical data filed	

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1984 11 01

Your File: 84-29 Our File: 2.6903

Mining Recorder Whitney Block, Room 2548 99 Wellesley Street West Queen's Park Toronto, Ontario M7A 1W3

Dear Madam:

RE: Notice of Intent dated October 16, 1984 Geophysical (Electromagnetic, Magnetometer) Survey on Mining Claims EO 572483 et al in the Township of Madoc

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

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

Yours sincerely,

S.E. Yundt Director Land Management Branch

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

S. Hurst:mc

- cc: Mono Gold Mines Inc Suite 1103 475 Howe Street Vancouver, B.C. V6C 286
- cc: Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario
- cc: W.H. Thompson Suite 700 88 University Avenue Toronto, Ontario M5J 1T6
- cc: Mesident Geolgést Tweed, Ontario

Encl.



Ministry of Natural Resources

Oct 31/84

1984 10 16

Your File: 84-29 Our File: 2.6903

Mining Recorder Whitney Block, Room 2548 99 Wellesley Street West Queen's Park Toronto, Ontario M7A 1W3

Dear Madam:

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

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

Yours sincerely,

S.E. Jundt Director

Land Management Branch

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

J.S. Hurst:mc

Encls.

- cc: Mono Gold Mines Inc Suite 1103 475 Howe Street Vancouver, B.C. V6C 2B6
- cc: Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario

cc: W.H. Thompson Suite 700 88 University Avenue Toronto, Ontario M5J 1T6



Ministry of Natural Resources Notice of Intent for Technical Reports 1984 10 16 2.6903/84-29

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

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

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

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

Ministryot H Natural Resources G	eport of Work	1-29 (Malado	lec H = 16 Minir	ю) 2 (9) 190	いたいで、 Instructions: - つう Note: -	 Please type or prin If number of min exceeds space on th Only days credits "Expenditures" sec in the "Expend. Do not use shaded a 	t. ing claims traverse is form, attach a list i calculated in th tion may be entere Days Cr." column: ireas below.
Type of Survey(s) Magne	tic & VLF Elec	ctroma	enetic		V Township M	adoc Twp.	· .
Claim Holder(s)			0		/	Prospector's Licenc	e No.
Address Mono	Gold Mines Ind	C •				1.1194	/
Suite	1103, 475 Hor	we Str	reet, V	ancouver,	B. C.	V6C 2B6	The of Los Out
Geosearch	Consultants L:	imited	1	20 82	84 03	04 84 12	•1
Name and Address of Autho	r (of Geo-Technical report)	Sui to	700 8	8 Universi	ity Avo	Toronto	M5.I 176
redits Requested per Eac	ch Claim in Columns at r	ight	Mining (Claims Traversed	List in num	nerical sequence)	
Special Provisions	Geophysical	Days per		Mining Claim	Expend.	Mining Cla	m Expend,
For first survey:	- Electromagnetic	40	EO	572483			nder Days Cr.
Enter 40 days. (This includes line cutting)	- Magnetometer			572484			
• • • • • • • •	- Badiometric	_20		572/185			
For each additional surve using the same grid:	y: Other			572405		· · · · · · · · · · · · · · · · · · ·	
Enter 20 days (for eac	h)			652301			
	Geological			652302			
	Geochemical			592199			
Man Days	Geophysical	Days per Claim					
Complete reverse side and enter total(s) here	- Electromagnetic						
	- Magnetometer						
	- Radiometric						
	- Other	· .					
	Geological				••		
	Constantint						
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nstructions Total Days Credits may b	e apportioned at the claim h	nolder's		Fee 0415 11	Orthe		L
choice. Enter number of (in columns at right.	days credits per claim select	ed	Total Da	ys Cr. Date Recorde	d	Mining Reporder	
			Hecorde	June 2	5 84	D. Lall	more)
Date 2nd June 1119	Recarded Holder or Agent (Signature) / 4	1360	Date Approve	ensed	Branch Dedetor Shakement	
Certification Verifying R	eport of Work		of the facto of	forth in the Bone-	t of Mark an-	exert hereto having no	rformed the work
or witnessed same during	and/or after its completion Person Certifying	and the an	nexed report	is true.			
W. H. Thompso	n, Suite 700,	88 Ur	niversi	ty Ave., 🤇	Foronto	, Ont. M5J	176
				Date Certified	18.1984	Certified by (Sigha	ture)

SAWYER CONSULTANTS INC.



September 11, 1984

Mr. S.E. Yundt Director Land Management Branch Mining Lands Section Whitney Block, Room 6643 Queens Park Toronto, Ontario M7A 1W3

Dear Mr. Yundt:

Re: Your File No. 2.6903 Geophysical (Electromagnetic, Magnetometer) Survey Submitted on Mining Claims E0572483 et al in the Township of Madoc

We enclose the plans, in duplicate, Maps 84-60 and 84-62, for the above mentioned surveys with the claim outlines and numbers plotted as requested in your letter of August 8, 1984.

We have forwarded the profile map, Map 84-61, to Geosearch Consultants Ltd. of Toronto in order that they may plot on the raw VLF data as was also requested in your letter of August 8, 1984. We have requested Geosearch Consultants Ltd. to forward copies of the completed Map 84-61 to you, quoting your file 2.6903.

Thank you for your consideration and assistance.

Yours truly,

SAWYER CONSULTANTS INC.

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Gordon D. House, M.S., F.G.A.C.

GDH/sdg cc: Mono Gold Mines Inc.

SAWYER CONSULTANTS INC.

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August 20, 1984

Mr. S.E. Yundt Director Land Management Branch Ministry of Natural Resources Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

Dear Mr. Yundt:

Re: Your File No. 2.6903 Geophysical (Electromagnetic, Magnetometer) Survey submitted on Mining Claims EO 572483 et al in the Township of Madoc

A copy of your letter (with enclosures) dated August 8, 1984 addressed to Mono Gold Mines Inc. has been received by us today.

Mr. Gordon D. House, who is handling this matter, is presently in the field on assignment and will be returning to Vancouver during the first week of September at which time it will receive his immediate attention.

Yours very truly,

SAWYER CONSULTANTS INC.

J. Fargucharson.

J. Farquharson for Gordon D. House, M.S., F.G.A.C.

:JF

cc: Mono Gold Mines Inc., Vancouver, B.C.

cc: W.H. Thompson, Toronto, Ontario

cc: Mining Recorder, Toronto, Ontario

August 8, 1984

Our File: 2.6903

Mono Gold Mines Inc Suite 1103 475 Howe Street Vancouver, B.C. V6C 2B6

Dear Sirs:

RE: Geophysical (Electromagnetic, Magnetometer) Survey submitted on Mining Claims EO 572483 et al in the Township of Madoc

Enclosed are the plans, in duplicate, for the above-mentioned surveys. Please have claim lines and numbers plotted on each map. Also, please haveetbb raw VLF readings plotted on the profile maps.

Please return the amended plans to this office, quoting file 2.6903.

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

Yours sincerely,

S.E. Yundt Director Land Management Branch

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

D. Isherwood:mc

cc: W.H. Thompson Suite 700 88 University Avenue Toronto, Ontario M5J 1T6

cc: Mining Recorder Toronto, Ontario 1984 07 05

Your File: 29 Our File: 2.6903

Mrs. R.H. Charnesky Mining Recorder Ministry of Natural Resources Whitney Block, Rm 2548 99 Wellesley Street West Queen's Park Toronto, Ontario M7A 1W3

Dear Madam:

We nave received reports and maps for a Geophysical (Electromagnetic & Magnetometer) Survey submitted under Special Provisions (Tredit for Performance and Coverage) on Mining Claims EO 572483 et al in the Township of Madoc.

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

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Untario M7A 1W3 Phone: (416) 905-1380

A. Barr:sc

cc: Mono Gold Mines Inc Suitell03 475 Howe Street Vancouver, B.C. V6C 2B6

cc: W.H. Thompson Suite 700 88 University Ave Toronto, Ontario M5J 1T6



Ministry of Natural Resources

File_

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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.

مسلور والاستعلام مروحا

. . .

Type of Survey(s)Magne	etic & VLF Electromagnetic	
Township or Area Madoc	e Township	MINING CLAIMS TRAVERSED
Claim Holder(s) Mono	Gold Mines Inc.	List numerically
Survey Company Geose	arch Consultants Ltd.	EO <u>572483</u> (prefix) (number)
Author of Report		572484
Covering Dates of Survey Fel	0.20/84 - Apr. 3/84 Toronto	572485
Total Miles of Line Cut	(linecutting to office)	652301
AND TRANSPORTED	a - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	652302
SPECIAL PROVISIONS CREDITS REQUESTED	DAYS per claim	592199
ENTER 40 days (includes line cutting) for first survey. ENTER 20 days for each additional survey using same grid. <u>AIRBORNE CREDITS</u> (Special MagnetometerElectro (a DATE:June_18/84_SI	Geophysical From a few frow a few	
Res. Geol.	Qualifications	
Previous Surveys File No. Type Dat	e Claim Holder	
		TOTAL CLAIMS

If space insufficient, attach list

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GEOPHYSICAL TECHNICAL DATA

G	ROUND SURVEY	$S = 11 \mod 11$ as	rom survey, sj	ocity data for cac	h type of si	urvey MΔG.	VLE
N	umber of Stations	1276		Numb	per of Peadi	1620	1276
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	enteur interval						
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VLF	InstrumentG SEXIXXXXXXXXX _F COREEXIXXXXXXX D BERENSCHENDXXHDE FXENXNORXXXHDE	conics EM-1 requency me Station: irection re MANOCATION	6 asured: 2 NAA Annapo ad: North Accuracy: Profile S Fraser fi	24.0 kHz olis, Maryla neast quadra : <u>+</u> 1% Scale: 1" t ilter contou	nd, U.S. nt o 20/5 r inter	•A• val - 5%	
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	Electrode spacing						
	Type of electrode						

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Instrument		Range	
Survey Method			
Corrections made			
	•		

RADIOMERIC

Instrument		
Values measured		
Energy windows (levels)		
Height of instrument	Background Count	
Size of detector		
Overburden		

(type, depth - include outcrop map)

OTHERS (SUSSIC, DRIFT MELL TO-SURGED C).

Type of survey
Instrument
Accuracy
Parameters measured
Additional information (for understanding results)

ABBORSENE IVESS.

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_____

Type of Sample	
Average Sample Weight	
Method of Collection	
Soil Horizon Sampled	
Horizon Development	
Sample Depth	
Terrain	• • • • • • • • • • • • • • • • • • •
Drainage Development	
Estimated Range of Overburden Thickness_	

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	(Includes dryi	ng, screening	, crushing, as	hing)			
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A	nalyti	cal Me	thod	<u></u>		.,		
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no Gold Hines Inc.

Madoe Township, Ontario, Property

Geophysical Survey, February and March, 1984, field and office work time breakdown:

Line-cutting;

We did not keep track of hours. The lines were cut and chained during the period Feb. 20 - Feb. 29, 1984

Surveying;

Magnetometer; 3 days VLF: 2 days

Office; 15 days

GEOSEARCH CONSULTANTS LIMITED



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FIGURE 3

Drawn by J.S.

2.6903 m em 572483 \checkmark \checkmark 81/ \checkmark \checkmark 85 . ~ \checkmark 652301 302 1 592199 3/4.3/1 ٠

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