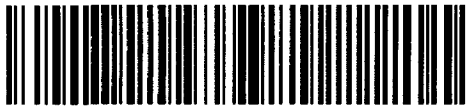
Assessment Work Copy



010

GOLDMAC EXPLORATIONS INC.
GEOLOGICAL AND GEOCHEMICAL SURVEYS
HODGETTS TOWNSHIP COPPER PROSPECT
LARDER LAKE MINING DIVISION
ONTARIO

Toronto, Ontario.
November 1, 1984.

ULLA M. KNOWLES
Consulting Geologist

INDEX

LIST OF FIGURES

1. INTRODUCTION

On behalf of Goldmac Explorations Inc., geological mapping and soil geochemical surveys were conducted on their Hodgetts Township property, Larder Lake Mining Division, Ontario. The surveys were performed by Ulla M. Knowles, B.Sc., #2206, 201 Sherbourne Street, Toronto, Ontario and J. Lilian Mengozzi, 20 Riverview Ave., Woodbridge, Ontario, between August 17 and November 1, 1984. The following report comprises the observations and results of these surveys.

Location and access to the property and history of exploration and development of the area are reported elsewhere (Goldmac Explorations Inc., OGS Assessment Report, 1983) and need not be repeated here.

2. GEOLOGY OF THE HODGETTS TOWNSHIP PROPERTY

2a. Grid Geology

Outcrop exposure over the grid area for the most part is rather sparse. All the formations encountered on the Hodgetts Township property grid are Middle Precambrian in age and comprise:

Nipissing Diabase

Gowganda Formation

The older of the two formations, the Gowganda, forms part of the Huronian Supergroup. Four rock types including conglomerate (or tillite), greywacke, arkose and argillite comprise the Gowganda Formation. Contacts between the units are gradational

and the formation appears to be cyclical. Local disconformities occur within the formation at the base of some of the conglomerate beds.

Conglomerate or Tillite

The conglomerate or tillite member is polymictic, containing pebble to boulder-sized, sub-rounded to sub-angular fragments of predominantly pink granite. Minor quartz, jasper, greywacke, arkose, argillite and mafic fragments were also observed. The matrix is a medium to coarse grained greywacke, generally dark grey-green in colour. Locally, where feldspar content of the matrix increases, the colour is a dark pink-brown and the matrix composition approaches arkose.

Greywacke and Arkose

The conglomerate grades into a fine to medium grained, brown-red, to dark grey-green greywacke. Rare, well rounded pebbles of granite occur locally. The greywacke grades into a medium to dark pink, fine to medium grained arkose. The arkose and greywacke also occur as lenses and thin interbeds within the conglomerate unit.

Argillite

The arkose is locally interbedded with the overlying argillite. The argillite is a fine grained, dark green to dark grey rock weathering to a light green-grey colour. It is massive to finely laminated and flat lying to gently south sloping. Chloritic alteration is pervasive throughout the argillite. Traces of pyrite and iron-staining are present rarely within the argillite.

Diabase

Cross-cutting the Gowganda Formation are the Nipissing diabase dykes. One major dyke trending northeasterly, cuts across the grid area. It attains a maximum thickness of 80 to 100 feet. Two narrower dykes paralleling the major diabase dyke are indicated by isolated outcrops and corresponding magnetic highs. The diabase is medium to coarse grained and is dark green-grey in colour. Quartz veining and brecciation of the host rock are common along the contacts of the intrusion. Magnetite is present within the dykes as is evidenced by compass wandering in the vicinity of the diabase.

2b. Structural Geology

The structural interpretation of the Hodgetts Township property grid is restricted due to the lack of geological information. This also inhibits deciphering the rather complex series of conductors located by the 1983 VLF survey.

Two major fault directions are defined in the grid area: the older trends northwesterly and the younger, northeasterly.

A third possible fault direction (trending east-west) indicated in the 1983 VLF survey, appears to reflect a disconformity between the argillite and conglomerate within the Gowganda Formation. Weaker, less distinct conductors sub-paralleling this disconformity may represent local disconformities elsewhere within the formation. The cyclical nature of the formation tends to support this interpretation.

The flat-lying nature of the Gowganda Formation and the

Sparse outcroppings hinder the determination of the attitude of the faults or displacement along them.

3. ECONOMIC GEOLOGY

Copper mineralization examined by the writer is exposed in three areas over a strike length of approximately 2400 feet. They may be continuous and mineralization may extend beyond the known strike length. A description of the three areas follows.

Area #1

Four trenches trending northerly and one pit cut copper mineralization in the centre of the grid. They expose strongly brecciated argillite south of the major diabase dyke, containing large, white, glassy, bull quartz veins trending 232° to 276°. Chalcopyrite occurs in stringers within and cross-cutting the quartz veins. The bull quartz veins attain a maximum thickness of six feet; however, smaller, subsidiary quartz veins are also present. These host the bulk of the chalcopyrite. Two major jointing directions were observed: 288°/90° and 010°/72° SW.

Iron staining is pervasive throughout the trenches; however, only trace amounts of pyrite were observed.

Area #2

Two pits on either side of the major diabase dyke are located on a large outcrop between Lines 28+00E and 32+00E. The pits expose copper mineralization in both major and subsidiary quartz veins and brecciated conglomerate and argillite. Quartz veins attain a maximum width of four feet and trend 274°/90°, south

of the diabase dyke. The dyke itself is vertical to steeply south dipping. Chalcopyrite also occurs along fractures trending 084°/90° and 055°/90° north of the diabase dyke; however, the copper mineralization here is considerably less extensive than in the hanging wall. Iron-staining is pervasive throughout the pits.

Area #3

One trench located roughly 1000 feet southwest of Area #1, cuts brecciated, mineralized conglomerate. The trench lies immediately north of a magnetic high indicating a diabase dyke. Quartz veining up to 3 feet wide trends 330° and hosts the chalcopyrite. Iron-staining is present throughout the trench.

1. Field observations indicate that the copper mineralization is spatially related to the major northeast trending Nipissing diabase dyke. Chalcopyrite is pervasive throughout quartz-filled, brecciated argillite in the hanging wall. The footwall conglomerate and argillite host chalcopyrite as well; however, it is much less extensive than in the hanging wall.
2. No copper mineralization was found in either the diabase or in the Gowganda Formation; therefore, neither of these formations are the source of the copper.
3. A deep source is proposed for the copper mineralization. Intrusion of the diabase has brecciated the host rock argillites and conglomerates. Copper brought up from depth is deposited as chalcopyrite in the quartz-rich breccia zones. Very minor pyrite and hematite accompany the chalcopyrite. No galena or other sulfides were observed. Gold and silver values appear negligible.

Rare pyrite in trace amounts, occurs locally within the Gowganda Formation.

Magnetite occurs within the Nipissing diabase dykes; however, none was observed in the Gowganda Formation.

All observed mineralization of note in the grid area occurs near the diabase dyke.

4. GEOCHEMICAL SURVEY

4a. Introduction

Selective soil sampling was conducted over parts of the grid area in an attempt to extend the zone of known copper mineralization. A total of 35 B-horizon soil samples were taken over the magnetic trace of the major diabase dyke in areas of little or no outcrop. The -80 mesh fraction was analyzed for copper by X-Ray Assay Laboratories.

4b. Survey Results

The results of the soil geochemical survey were discouraging. Values ranged from 3.0 ppm to a maximum of 12.0 ppm copper. No anomalous values were encountered.

5. RECOMMENDATIONS AND CONCLUSIONS

1. The geological mapping and soil sampling surveys did not expand upon the extent of the copper mineralization. However, the writer recommends further work on the property to include deep overburden drilling and sampling in an effort to increase the strike length of the known copper mineralization and to help delineate possible future diamond drill targets.

2. The writer favours a pre-Huronian source for the copper mineralization. It is possible that the exposed mineralization merely represents "sniffs" of a potentially richer, deep-seated source, portions of which have been remobilized and upwardly re-deposited by the diabase intrusion. Nothing is known of the nature of the basement rocks underlying the grid. The nearest outcrop of basement rock in the area lies 3 miles to the northeast and is a porphyritic quartz monzonite, a not unfavourable rock for copper mineralization. Furthermore, if volcanic rocks were to underlie the grid area, they might provide a suitable host for copper mineralization. Diamond drilling will be required to test this interpretation.

This report is respectfully submitted.

Toronto, Ontario
November 1, 1984.

Ulla M. Knowles

Ulla M. Knowles, B.Sc.
Consulting Geologist

. SELECTED REFERENCES

1925 - G.S.C. Memoir 143, North Shore of Lake Huron, Ontario, W.H. Collins, 1925.

1956 - Geological Survey, Minada Explorations Ltd., Hodgetts Twp. Property, A.V.W. Dunford, 1956.

1969 - E.M. and Magnetometer Surveys, A.G.N. Syndicate, Hodgetts Twp., Sudbury Mining Area, 1969.

1974 - Report to the Pembroke Prospecting Syndicate, Dole-Levoy Property, Hodgetts Twp., J.C. Gill, 1974.

1975 - Map 2361 - Sudbury-Cobalt Sheet, Geological Compilation Series, Geology by K.D. Card and S.B. Lumbers, Ontario Geological Survey; Scale: 1 inch to 4 miles.

1977 - Diamond Drill Hole Data - Three Holes, Hodgetts Twp., Card Lake Copper Mines Ltd., 1977.

1978 - Card Lake Option: Geological and Geophysical Surveys, Rio Tinto Canadian Exploration Ltd., 1978.

1983 - Goldmac Explorations Inc., VLF, Mag., Rad. and Geol. Surveys, Hodgetts Township Copper Prospect, Ontario, H.G. Harper, Dec. 1983.

CERTIFICATE

I, ULLA MARIE KNOWLES, of Metropolitan Toronto, in the Province of Ontario, certify as follows with respect to my Report described below.

Goldmac Explorations Inc.
Hodgetts Township Copper Prospect
Larder Lake Mining Division

1. I am a geologist residing at #2206, 201 Sherbourne St., Toronto, Ontario.

2. I am a graduate of the University of Toronto with a B.Sc. in 1976.

3. I am a Fellow of the Geological Association of Canada.

4. I have been given an Option to purchase 5000 Common Shares of Goldmac Explorations Inc. at a price of -10¢- per share on or before August 9, 1985; however, at the present time, this Option has not been ratified by the Ontario Securities Commission.

5. The statements made in this report are based on a study of published geological literature and private reports as listed in the "Selected References" section of this report, and a personal examination of the property.

Toronto, Ontario.
November 1, 1984.

Ulla M. Knowles

Ulla M. Knowles, B.Sc.
Consulting Geologist

...ands Manager +

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geol... Geochemical and E...

41P06SE0622 2.7373 HODGETTS

900

#507 ... 8...

...r print.
...f mining claims traversed on this form, attach a list.
...credits calculated in the ...s" section may be entered ...end. Days Cr." columns. ...aded areas below.

Type of Survey(s): Geological and Geochemical	Township or Area: Hodgetts Twp.
Claim Holder(s): Goldmac Explorations Inc.,	Prospector's Licence No.: T930
Address: #806-88 University Ave., Toronto, Ontario	
Survey Company: Ulla M. Knowles, B.Sc., Cons. Geologist	Date of Survey (from & to): 17 08 84 (Day Mo. Yr.) – 01 11 84 (Day Mo. Yr.); Total Miles of line Cut: n/a
Name and Address of Author (of Geo-Technical report): #2206-201 Sherbourne St., Toronto, Ontario, M5A 3X2.	

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	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological max cr. allowed	~~20~~
	Geochemical	20
Man Days		**Days per Claim**
Complete reverse side and enter total(s) here	Geophysical	
	- 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.
L	651750	
	651751	
	651752	
	651753	
	721314	
	721315	
	721316	
	721317	

Total number of mining claims covered by this report of work: 8

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.

For Office Use Only		
Total Days Cr. Recorded: 160	Date Recorded: NOV - 9 1984	Mining Recorder
	Date Approved as Recorded: See Revised	Branch Director: Statement

Date	Recorded Holder or Agent (Signature)
Nov 1/84	Goldmac Explorations Inc. per Ulla M. Knowles

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:
Ulla M. Knowles, B.Sc., Consulting Geologist
#2206-201 Sherbourne St., Toronto, Ont.

Date Certified: Nov 1/84 — Certified by (Signature): Ulla M. Knowles

1362 (81/9)

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

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." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geological and Geochemical	Hodgetts Twp.

Claim Holder(s)	Prospector's Licence No.
Goldmac Explorations Inc.,	T930

Address: #806-88 University Ave., Toronto, Ontario

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Ulla M. Knowles, B.Sc., Cons. Geologist	17 08 84 (Day Mo. Yr.) 01 11 84 (Day Mo. Yr.)	n/a

Name and Address of Author (of Geo-Technical report): #2206-201 Sherbourne St., Toronto, Ontario, M5A 3X2.

Credits Requested per Each Claim in Columns at right

		Days per Claim
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)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	Geochemical	20
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- 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)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	651750	
	651751	
	651752	
	651753	
	721314	
	721315	
	721316	
	721317	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

Total number of mining claims covered by this report of work: 8

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.

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Date	Recorded Holder or Agent (Signature)
Nov. 1/84	Goldmac Explorations Inc. per Ulla M. Knowles

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: Ulla M. Knowles, B.Sc., Consulting Geologist, #2206-201 Sherbourne St., Toronto, Ont.

Date Certified	Certified by (Signature)
Nov. 1, 1984	Ulla M. Knowles

1362 (81/9)

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		+		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		+		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		+		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		+		=	

Ontario Resources

Geochemical and Expenditures)

Mining Act 2.1313

"Expenditures" section may be entered in the "Expend. Days Cr." columns. – Do not use shaded areas below.

#21

Type of Survey(s): Geological

Township or Area: Hodgetts Twp.

Claim Holder: Goldmac Exploration Inc.

Prospector's Licence No.: T930

Address: Suite 201, 220 Bay ST Toronto (M5J 1P3) NEW ADDRESS

Survey Company: Ulle M. Knowles, B.Sc. Consult. Geo.

Date of Survey (from & to): 17 08 84 (Day Mo. Yr.) 01 11 84 (Day Mo. Yr.)

Total Miles of line Cut: n/a.

Name and Address of Author (of Geo-Technical report): 206 - 201 Sherbourne St., Toronto M5A 3X2

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	
	- Magnetometer	
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	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	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)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	651750	
	651751	
	651752	
	651753	
L	721314	
	721315	
	721316	
	721317	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
FEB 19 1985
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

mailed out.

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: 8

For Office Use Only

Total Days Cr. Recorded: 160

Date Recorded: JAN 17 1985

Date Approved as Recorded: 85.4.12

Mining Recorder:

Mining Commissioner:

Date: 22 Dec 84

Recorded Holder or Agent (Signature): Goldmac Expl. Ltd. per N. G. Harper Pres.

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: N. G. Harper.

314 Glendon Ave, Willowdale

Date Certified: Dec 22/84

Certified by (Signature): N. G. Harper.

1362 (81/9)

Ontario Geochemical and Expenditures)

Note: – Only days cred... "Expenditures" s... in the "Expend... – Do not use shaded ... entered columns.

Land (File L651750) Mining Act 2.1313 #22

Type of Survey(s): Geochemical

Township or Area: Hudgetts

Claim Ho[redacted] Goldmore Explorations Inc.

Prospector's Licence No.: T930

Address: 201 - 220 Bay ST. Toronto

Survey Company: U.M. Kwok Co. Geologist

Date of Survey (from & to): 17 Day | 08 Mo. | 84 Yr. | 01 Day | 11 Mo. | 84 Yr.

Total Miles of line Cut: N/A

Name and Address of Author (of Geo-Technical report): 206 - 401 Sherbourne ST. Tonto

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	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	721317	20			
L	651 751	20			

82-02-21 called M.R This is to be 20 days each claim geochem 2.

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: 2

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
40	JAN 17 1985	
	Date Approved as Recorded	Branch Director
	See Revised statement	

Date: Dec 22/84

Recorded Holder or Agent (Signature): Goldmore Explorations Inc. per H.G. Hergt

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: H. G. Hergt. 314 Henderson Av. Thornhill

Date Certified: Dec 22/84

Certified by (Sig...): H.G. Hergt

1362 (81/9)

FIELD WORK

Type of Work	Name & Address	Dates Worked	Number of 8 hour days
Geochemical Sampling	Ville M. Knowles	21 - 23 Aug 184	3
" "	Lillian Mangozzi	"	3
	c/o Goldmac Expl^rs - 201-220 Bay St. Toronto		

CONSULTANTS

Name & Address	Dates Worked (specify in field or office)	Number of 8 hour days
Ville M. Knowles	Sept 3/84 Coffee	1

DRAUGHTSMAN, TYPING, OTHERS (specify)

Name & Address	Type of Work	Dates Worked	Number of 8 hour days
X-Ray Assoc. Labs	Assaying	Sept 6	1

TOTAL 8 HOUR TECHNICAL DAYS 8

LINE-CUTTING

Name	Address	Dates Worked	Number of 8 hour days

TOTAL 8 HOUR LINE-CUTTING DAYS _____

1. Type of Survey .... Geochemical ....

2. To[redacted]hip or Area .... Holdsworth Twp. ....

3. Numbers of Mining Claims Traversed by Survey .... parts of L721317

L651751

4. Number of Miles of Line Cut .... N/A .... Flown .... N/A ....

*5. Number of Stations Established .... 19 ....

*6. Make and type of Instrument Used .... N/A ....

*7. Scale Constant or Sensitivity .... N/A ....

*8. Frequency Used and Power Output .... N/A ....

9. Summary of Assessment Credits (details on reverse side)

Total 8 hour Technical Days (Include Consultants, Draughting etc.) .... 8 ....

Total 8 hour Line-Cutting Days ....

Calculation

Technical				Line-cutting				Number of claims		Assessment credits per claim
8	x 7 =	56	+		=	56	÷	~~2~~ 3	=	~~23~~ 19

The dates listed on this form represent working time spent entirely within the limits of the above listed claims ☒ Check

If otherwise, please explain ....

Dated: Dec 22 1984 .... Signed: [signature] ....

Report Submitted with Geological Survey to Toronto Office file 2-7373

Note: (A) * Complete only if applicable.
(B) Complete list of names, addresses and dates on reverse side.
(C) Submit separate breakdown for each type of survey.
(D) Submit in duplicate.

827 (81/3)

Ontario

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.

Type of Survey(s) Geochemical (Soil)

Township or Area Hodgetts Twp.

Claim Holder(s) Goldmac Explorations Inc.,
#806-88 University Ave., Toronto

Survey Company _____

Author of Report Ulla M. Knowles

Address of Author #2206-201 Sherbourne St., Toronto

Covering Dates of Survey Aug. 17 to Nov. 1, 1984.
(linecutting to office)

Total Miles of Line Cut n/a

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 _____
–Magnetometer _____
–Radiometric _____
–Other _____
Geological _____
Geochemical 20

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

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

DATE: Nov. 1/84 SIGNATURE: Ulla M. Knowles
Author of Report or Agent

Res. Geol. _____ Qualifications 2.7027

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

L 651750
651751
651752
651753
L 721314
721315
721316
721317

If space insufficient, attach list

TOTAL CLAIMS _____

OFFICE USE ONLY

837 (5/79)

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken L651753; L721317; L721751

Total Number of Samples 35

Type of Sample Soil
(Nature of Material)

Average Sample Weight 1 lb.

Method of Collection -holes were dug using a shovel

Soil Horizon Sampled B

Horizon Development -well developed

Sample Depth 0.5 to 1.5 feet

Terrain gently to moderately rolling

Drainage Development poor

Estimated Range of Overburden Thickness 1 foot to 50 feet

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

Mesh size of fraction used for analysis -80 mesh

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 (n/a tests)

Extraction Method n/a

Analytical Method n/a

Reagents Used n/a

Field Laboratory Analysis

No. (n/a tests)

Extraction Method n/a

Analytical Method n/a

Reagents Used n/a

Commercial Laboratory (tests)

Name of Laboratory X-Ray Assay Lab.

Extraction Method Mixed Acid Digestion

Analytical Method Direct Current Plasma Emission Spectrometry

Reagents Used Nitric + Chloric Acids

General

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File: 2.7373

Date: 1985 03 29

Mining Recorder's Report of Work No.: 22 & 50

Recorded Holder: GOLDMAC EXPLORATIONS INC

Township or Area: HODGETTS 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 19 days	L 651751-53 721317
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

L 651750-52
721314-15-16

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:

Mining Lands Section

File No 2.1373

Control Sheet

TYPE OF SURVEY

____ GEOPHYSICAL

__✓__ GEOLOGICAL

__✓__ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

lgd. I.D.

Return to A.F.R.O.

J. Hurst

Signature of Assessor

85-03-12

Date

1985 04 17

Your File: 22 & 60
Our File: 2.7373

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Notice of Intent dated March 29, 1985
Geochemical Survey on Mining Claims
L 651750, et al, in Hodgetts 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,

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: Goldmac Explorations Inc
Suite 201
220 Bay Street
Toronto, Ontario
M5J 1P3
cc: Ulla M. Knowles
Suite 2206
201 Sherbourne Street
Toronto, Ontario
M5A 3X2
Encl.

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario
cc: Resident Geologist
Kirkland Lake, Ontario

Ministry of Natural Resources
Ontario

April 15/85

1985 03 29

Your Files: 22 & 50
Our File: 2.7373

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

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. Yundt
Director
Land Management Branch

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

S. Hurst:mc

Encls.

cc: Goldmac Explorations Inc
Suite 201
220 Bay Street
Toronto, Ontario
M5J 1P3

cc: Ulla M. Knowles
Suite 2206
201 Sherbourne Street
Toronto, Ontario
M5A 3X2

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

Ministry of Natural Resources

Ontario

Notice of Intent

for Technical Reports

1985 03 29

2.7373/22 & 50

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 Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

#2206-201 Sherbourne St.,
Toronto, Ontario,
March 8, 1985.

File: 2.7373

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

Dear Mr. Yundt,

Enclosed please find two corrected copies of the plan for the 'Geological and Geochemical Survey' submitted on Mining Claims L 651750, et al., in Hodgetts Township.

The man-days breakdown which has already been applied to Mining Claims L 721317 and L 651751 applies to the following Mining Claims as well: L 651750, L 651752, L 651753, L721314, L 721315 and L 721316.

I trust you will find all in order. I apologize for the omissions on the map and any delay I may have caused in processing these reports. Should there be any further questions, please do not hesitate to contact me.

Yours sincerely,

Ulla M. Knowles

Ulla M. Knowles, B.Sc.
Consulting Geologist.

#2206-201 Sherbourne St.,
Toronto, Ontario,
M5A 3X2.

Tel.: 416-862-8222.

March 6, 1985

File: 2.7373

Goldmac Explorations Inc
Suite 201
220 Bay Street
Toronto, Ontario
M5J 1P3

Dear Sirs:

RE: Geological & Geochemical Survey submitted on Mining Claims L 651750, et. al., in Hodgetts Township

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Returned herein is the plan (in duplicate) for the above-described survey. Please show the claim numbers on each.

The geochemical portion of the above-mentioned survey has been reviewed and does not qualify for assessment under the Special Provisions methods as there has not been a minimum of forty samples taken per claim. You have already provided a man-days breakdown for mining claims L 721317 & L 651751. If this breakdown also applies to mining claims L 651750, L 651752, L 651753, L 721314, L 721315 and L 721316, please advise this office. It it does not apply to these claims, please complete the enclosed form (in duplicate) and return all material to this office quoting file 2.7373.

For further information, please contact Susan Hurst 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

S. Hurst:mc
Encl.
cc: Mining Recorder
Kirkland Lake, Ontario

cc: Ulla M. Knowles, B.Sc.,
Consulting Geologist
Suite 2206
201 Sherbourne Street
Toronto, Ontario
M5A 3X2

Ontario

Action Memo

Time

Date 15

To RAY

From (Name) Grant Harper – TOR.

I.C.N. No.	Area Code	Telephone No.	Ext	Message Taken By
		363 – 7704		

☐ Phoned On Hold ☑ Please Call ☐ Returned Your Call ☐ Will Call Back ☐ Wishes Appointment ☐ Waiting in Person ☐ Was Here ☐ Will Return

☐ File ☐ Draft Reply For My Signature ☐ Provide More Details ☐ For Your Information

☐ Type Draft ☐ For Your Approval and Signature ☐ Keep Me Informed ☐ Per Discussion

☐ Type Final ☐ Circulate, Initial and Return ☐ Take Appropriate Action ☐ Per Your Request

☐ Make Copies —— ☐ Return With Comments ☐ Note and See Me ☐ Returned With Thanks

☐ Please Answer ☐ Investigate and Report ☐ Note and Return ☐

Comments

Call L. about new Report

File: 2. 7373:

New Reports to be added to amend one on this file.

Call Kirkland Lake to see the status of the Report

7540-1037 (Rev. 11/82)

☐ Over

REGISTERED

January 14, 1985 File: 2.7373

Goldmac Explorations Inc
Suite 806
88 University Avenue
Toronto, Ontario
M5J 1T6

Dear Sirs:

RE: Geochemical Survey submitted on
Mining Claims L 651750 et al in
the Township of Hodgetts

Enclosed is a copy of our letter dated December 14, 1984 requesting additional information for the above-mentioned survey.

Unless you can provide the required data by January 24, 1985 the file will be assessed as is and a statement of reduced assessment work credits issued.

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

S. Hurst:mc

cc: Ulla M. Knowles
Suite 2206
201 Sherbourne Street
Toronto, Ontario
M5A 3X2

cc: Mining Recorder
Kirkland Lake, Ontario

Encl.

waiting (2) amended reports of work.

Goldmac Explorations Inc
Suite 201
220 Bay St.
Toronto, Ont.
M5J 1P3

December 14, 1984 File: 2.7373

Goldmac Explorations Inc
Suite 806
88 University Avenue
Toronto, Ontario
M5J 1T6

Dear Sirs:

RE: Geochemical Survey submitted on Mining Claims L 651750 et al in the Township of Hodgetts

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This survey cannot be assessed for special provision credits as there are less than forty samples taken per claim.

Please provide a man-days breakdown listing the names and addresses of the employees and the dates that each man worked on the various phases of the Geochemical survey. The survey will then be assessed under the provisions of Section 77(12) of the Mining Act R.S.O. 1980.

For further information, please contact Dennis Kinvig at (416)965-4888.

Yours sincerely,

Mr. Harph 363-7704
called
- client ~~called~~
on 1984-12-20
- call M.R. to see
if geological credits
can be recorded.
(claim holder will
contact M.R. to
see if rearrangement
will be allowed)
- will be sending
mandays breakdown
shortly

S.E. Yundt
Director
Land Management Branch

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

D. Kinvig:mc

cc: Ulla M. Knowles
Suite 2206
201 Sherbourne Street
Toronto, Ontario
M5A 3X2

cc: Mining Recorder
Kirkland Lake, Ontario
File: 50

1984 11 08

Your File:
Our File: 2.7373

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We received reports and maps on November 2, 1984 for a Geological and Geochemical Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 651750 et al in the Township of Hodgetts

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

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

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

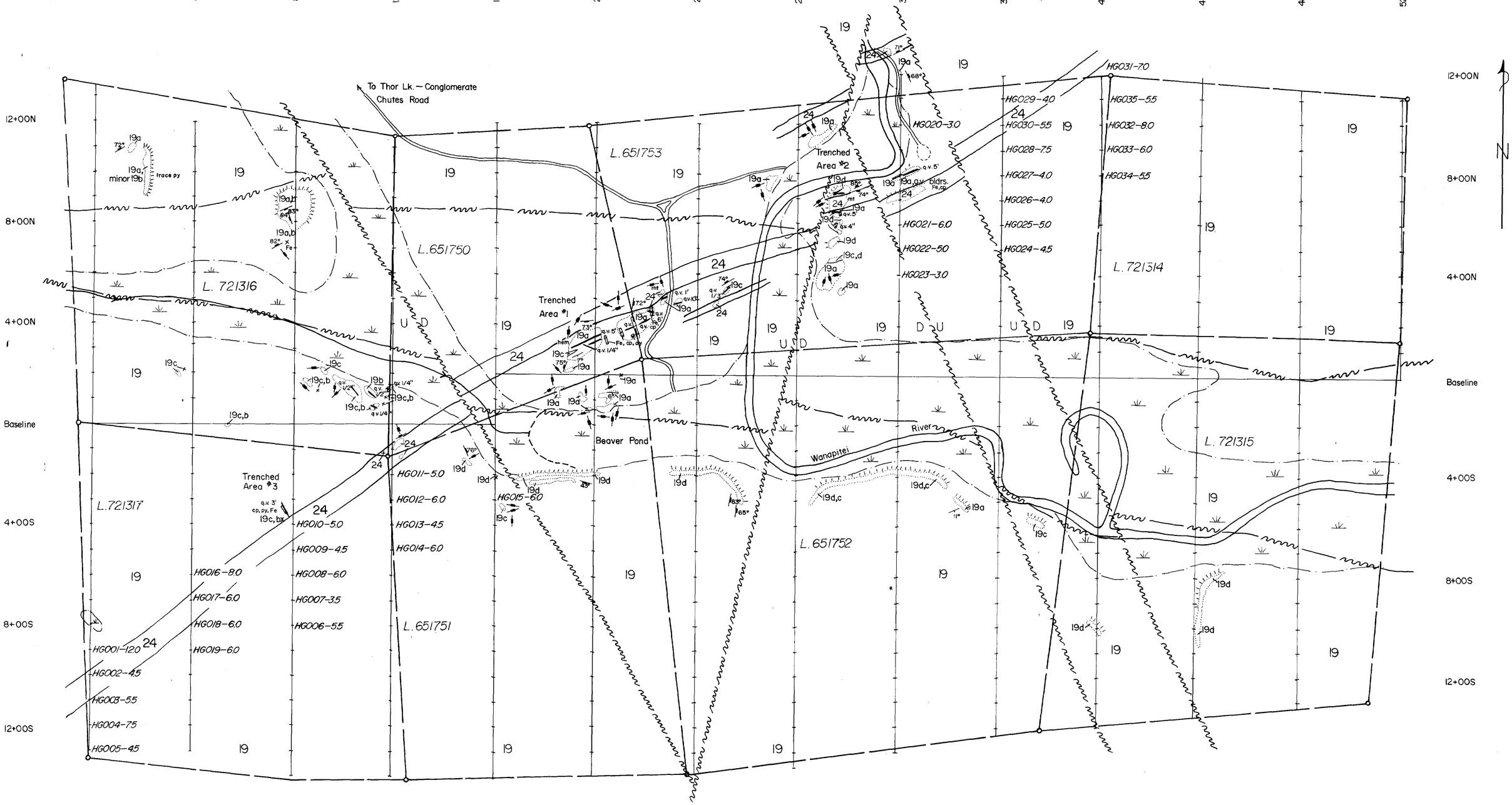
A. Barr:sc

cc: Goldmac Explorations Inc
806 - 88 University Ave
Toronto, Ontario
M5J 1T6

cc: Ulla M. Knowles
2206 - 201 Sherbourne St
Toronto, Ontario
M5A 3X2

		Geochem						2.7373		
L-651750										
51										
52										
651753										
721314										
15										
16										
721317										

	GL	GC		GC		2-7373
651750	✓	X	721317	✓		
~~01~~	✓		651751	✓		
02	✓	X				
03	✓	✓				
721314	✓					
15	✓					
16	✓	X				
17	✓					



LEGEND

24	24	Nipissing Diabase
		Gowganda Formation
	19a	Argillite
19	19b	Siltstone; arkose
	19c	Greywacke
	19d	Conglomerate

HG012-8.5 Soil sample number and copper value (in ppm)

SYMBOLS

- Outcrop boundary; small outcrop
- Geological boundary
- Fault; direction of movement along fault (U/D)
- Disconformity
- Bedding; inclined, vertical, horizontal (12°)
- Jointing; inclined, vertical (74°)
- Trench, pit
- Quartz veining; strike and width (q.v. 2")
- Swamp
- Tractor road
- Cliff

cp	chalcopyrite
Fe	iron staining
hem	hematite
mt	magnetite
py,	pyrite
qv.	quartz veining

0 200 400 600 800 feet
SCALE

GOLDMAC EXPLORATIONS INC.

GEOLOGICAL AND GEOCHEMICAL SURVEYS

HODGETTS TOWNSHIP

FIGURE 1

2.7373

U.M. KNOWLES OCTOBER - 1984