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42A10NE0046 2.9792 WALKER

010

GEOPHYSICAL SURVEYS

COSBY CLAIM GROUP

WALKER TWP. ONTARIO

August 1985

I - INTRODUCTION: Within the framework of a comprehensive exploration program, a magnetometer survey and a V.L.F electromagnetic survey were carried out, during the month of June, 1985, on the "COSBY" claims located in Walker Twp., Ontario.

II - PROPERTY: The property consists of ten (10) contiguous 16 hectares claims numbered as follows:

800964, 800965, 800966, 800967, 800995, 800996,  
821286, 821287, 821289 and 821291.

III - LOCATION & ACCESSIBILITY:

The claim group is located in the northern part of Walker Twp., Ontario, i.e. on parts of lots 5 and 6, concession V, Larder Lake Mining Division.

The property lies at an approximate distance of 9 kilometers southeast of the town of Iroquois Falls, 5 kilometers east of highway 577 and 8 kilometers northeast of trans-Canada highway 11.

A range road (V-VI) leads eastward from the town of Iroquois Falls to the shores of the Black River. The claim group may be reached by following, by boat,

the river in a southeasterly direction for an approximate distance of one half mile.

#### IV - GEOPHYSICAL SURVEYS;

The surveys were carried out on a previously cut grid whose base line trends north-south for the western part of the grid and east-west for the eastern section. A total of 9 line miles were cut and surveyed.

##### Electromagnetic Survey:

A Geonics' E.M.-16 electromagnetic unit was used for the survey; readings were taken at every 100' intervals, facing south and tuned to the NAA Cutler Maine station emitting at 24.0 KHz.

Three parallel conductors have been outlined in the western part of the grid (east-west cross lines) trending in a southeasterly direction. These are labeled conductors "A", "B" and "C". Conductor "C" appears to be the strongest and the most pervasive. According to the magnetic patterns, the conductors trend in a direction parallel to the local stratigraphy.

Three parallel conductors have also been outlined in the eastern part of the grid (north-south cross

lines) trending in an east, southeast direction.

Conductor "D" located in the northeast quadrant of the grid area is relatively strong, however it is also coincident with a local stream, i.e. it is an expression of a topographical feature.

Conductor "E-1" outlined on cross lines 8W and 4W in the vicinity of 4S appears to have been tested by drilling: the collar of a D.D.H. has been observed immediately east of cross line 8W.

Conductor "F" has been outlined in the southeastern part of the grid; it is relatively weak.

Magnetometer Survey:

The survey was carried out using an Exploranium G-816 proton magnetometer which has a sensitivity reading of 1 gamma. The readings were taken at every 100' intervals. The usual diurnal and datum corrections were made.

Southwesterly trending magnetic features were outlined in the western part of the grid. They probably infer the presence of mafic flows

V - CONCLUSIONS & RECOMMENDATIONS:

All of the available geoscientific data should be studied before considering any of the E.M.-16 conductors as drill targets. In addition, induced polarisation surveys should be carried out to verify the nature of the E.M.-16 conductors.

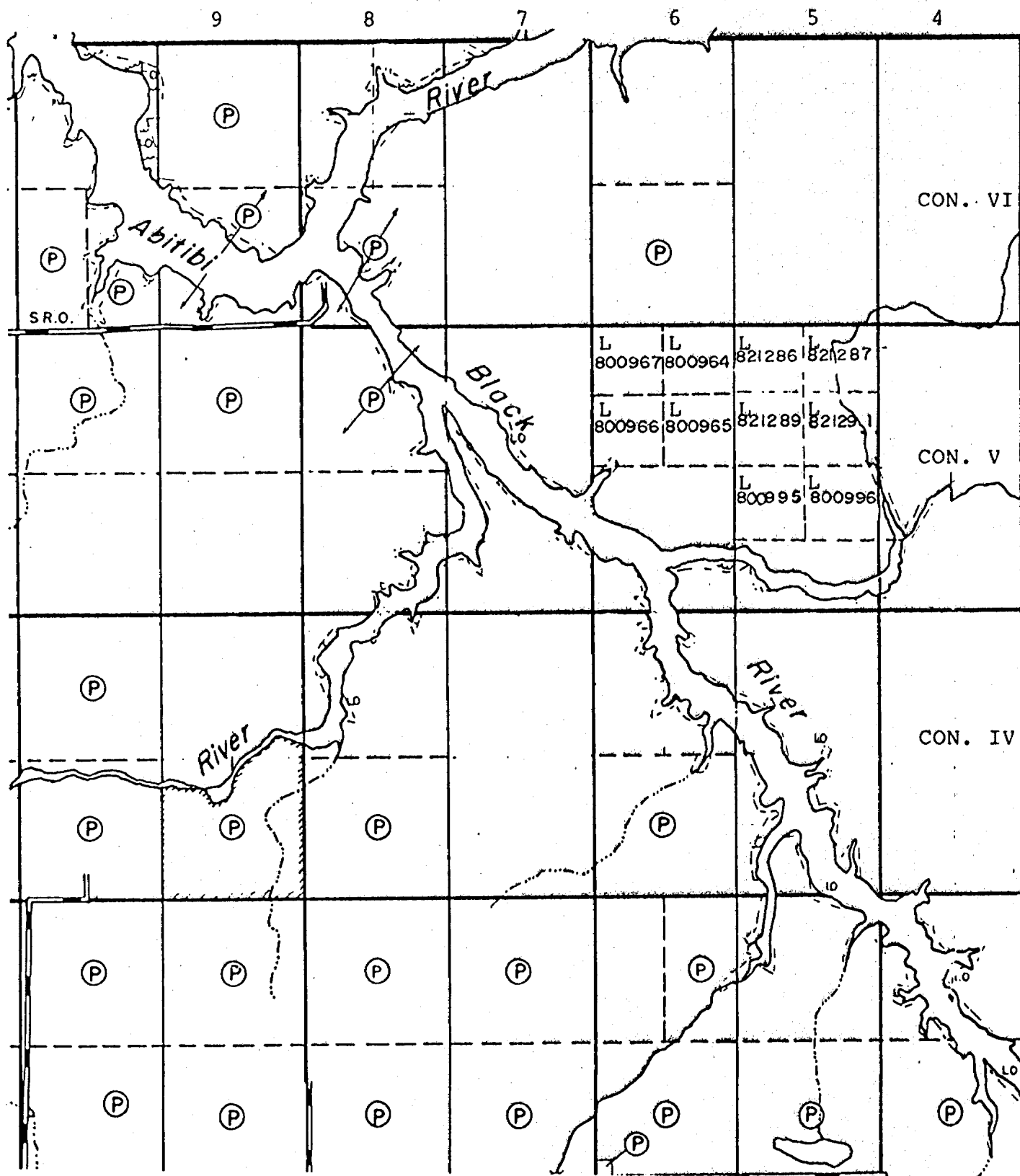
Respectfully submitted:

E. Chartré: *E. Chartré* August 15, 1985.

*Qual.  
2.1415*

COSBY CLAIMS

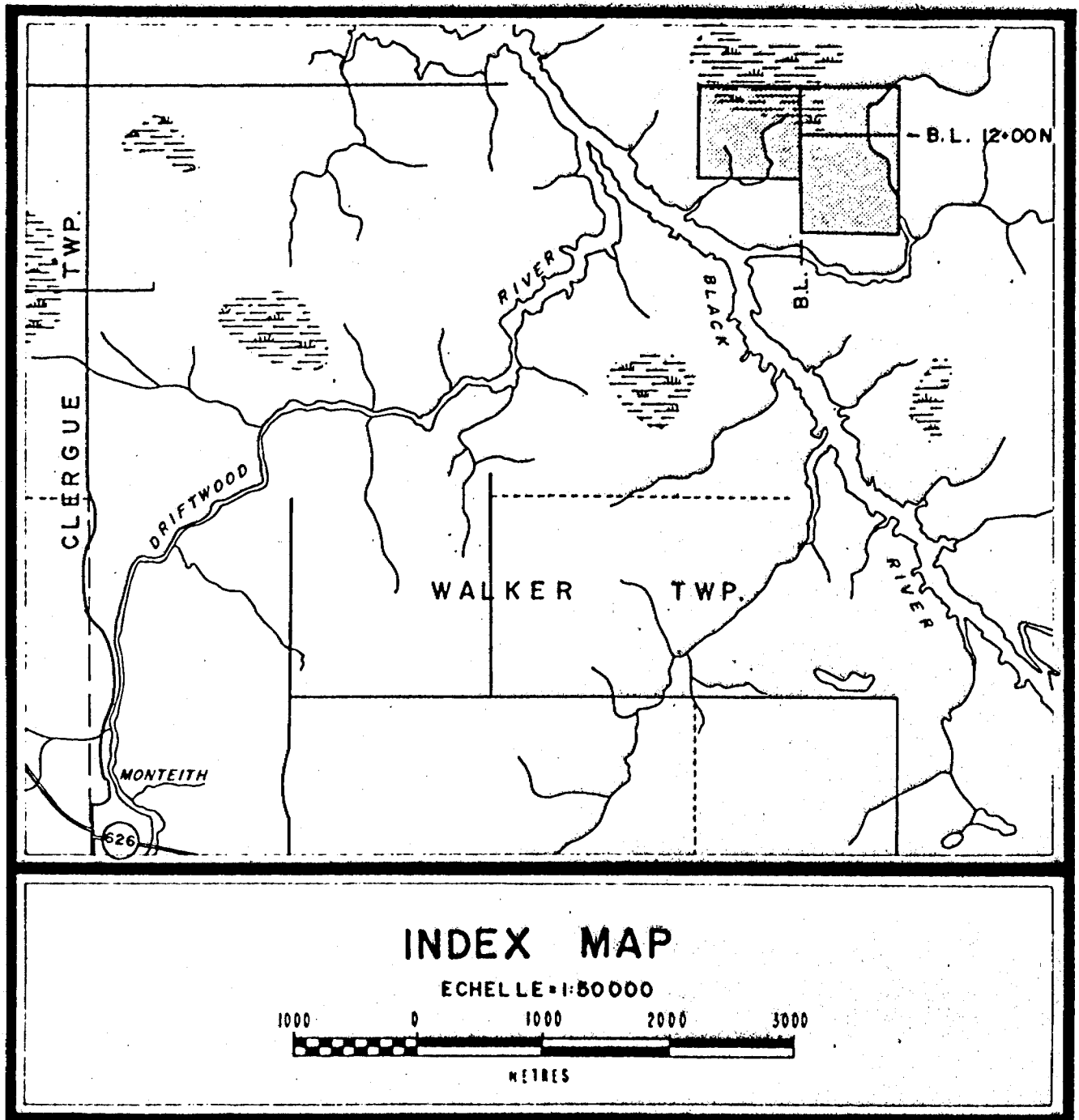
WALKER TWP.



Scale: 1" = 2640'

COSBY CLAIMS

WALKER TWP.





42A10NE0046 2.9792 WALKER

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GEOCHEMICAL SURVEY ASS.

INTRODUCTION

I Merle S. Cosby reside at 13 Windermere Road, St. Catharines, Ont. L2T 3W1.

I supervised as well as performed the Survey work relative to my claims and am the writer of this Assessment Work Report.

QUALIFICATIONS BACKGROUND

I have been a prospector for over 25 years. My prospector's license number is K 15600.

My knowledge of the Mining Explorations field was acquired by performing various aspects of exploration functions including Drilling Programs through employment with the following two Mining Companies over a period of approximately 11 years;

Selco Explorations Company Ltd.  
Toronto, Ont.

Mining Corporation Ltd.  
Toronto, Ont.

PROPERTY DATA

The property consists of (ten) contiguous 16 hectare claims numbered as follows;

800964 800965 800966 800967 800995 800996 821286 821287  
821289 and 821291.

Location and Accessibility

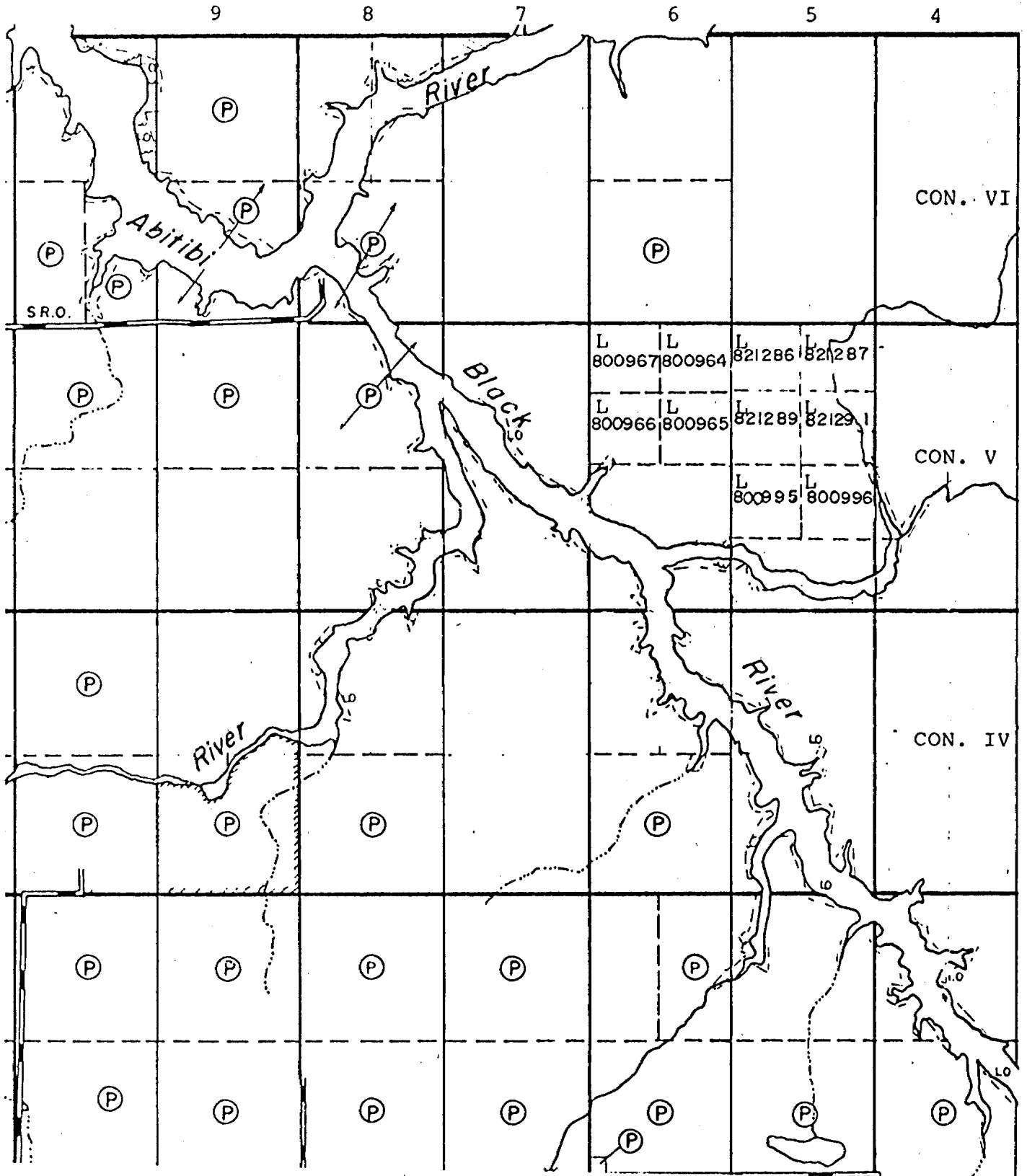
The claims group is located in the northern part of Walker Township, Ontario. i.e. on part of lots 5 and 6 Concession V, Larder Lake Mining Division.

The property lies at an approximate distance of 9 kilometers south east of the town of Iroquois Falls, 5 kilometers east of highway 577 and 8 kilometers northeast of trans-Canada highway 11. Map enclosed. Scale 1" equals 2640 '



COSBY CLAIMS

WALKER TWP.



Scale: 1" = 2640'

A range road ( V-V1 ) leads eastward from the town of Iroquois Falls to the shores of the Black River. The claim group may be reached by following, by boat, the river in a southeasterly direction for an approximate distance of one half mile. Index Map enclosed.

CLAIMS SURVEYS

Within the framework of a comprehensive exploration program, a magnetometer survey and a V.L.F. electromagnetic survey were carried out during the month of June 1985 on the "Cosby" claims located in Walker Township, Ont.

GEOCHEMICAL SURVEY

In June and September 1986 an geochemical survey was carried out on the Cosby claims group by Merle S. Cosby. The Cosby claims group were re-chained. Stations were set up at 300' intervals. Samples were taken with an  $\frac{1}{2}$ " stainless steel auger, 3' long. The samples consist of an ounce or 30 gram sample from the B. Zone clay material across the 10 claims group.

GEOLOGY - TIMMINS-KIRKLAND LAKE Series Map 2205

Intermediate and Mafic Metavolcanic 1 C Mafic and pyroclastic rocks.

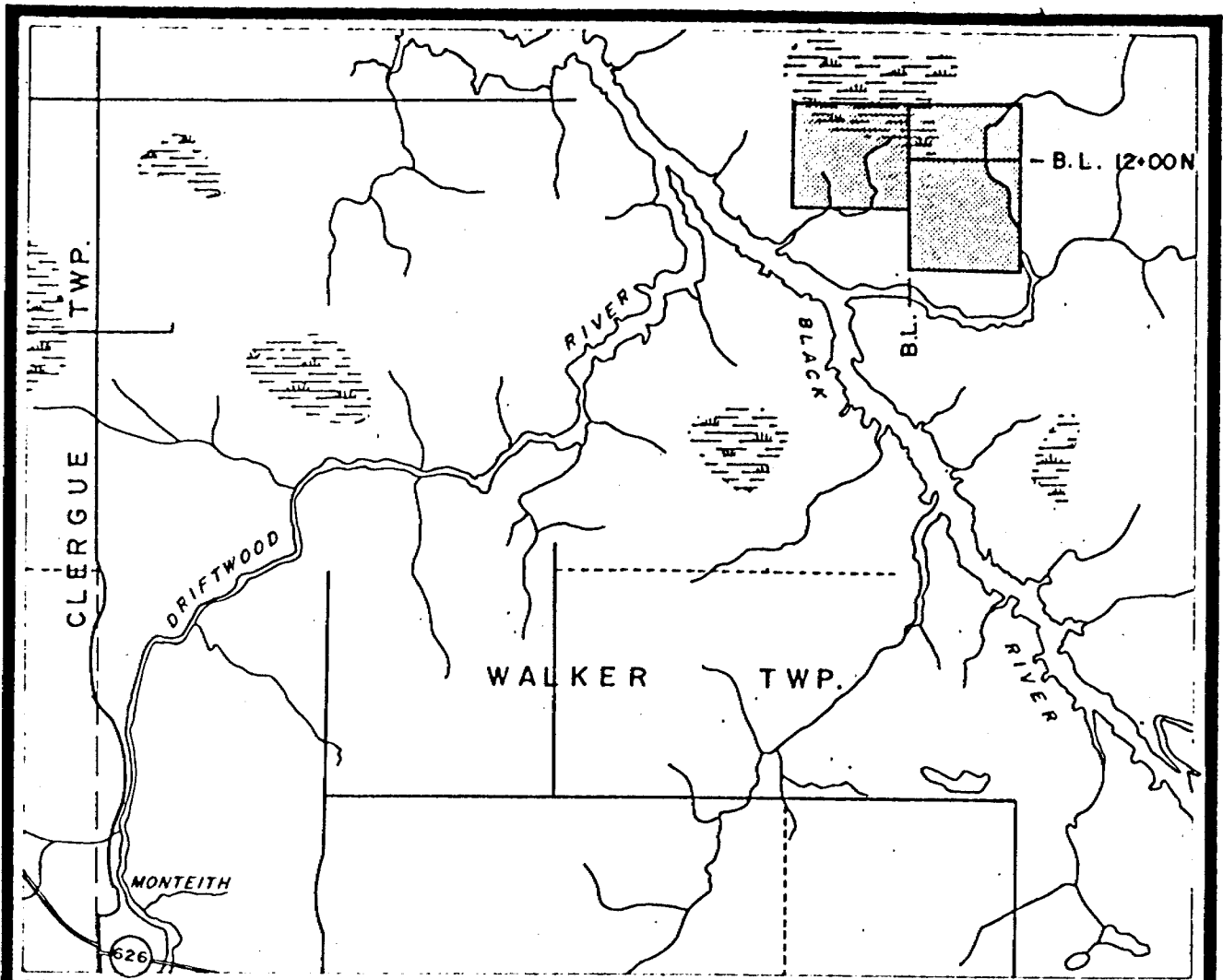
NOTES ON THE GEOLOGY OF WALKER TOWNSHIP - ONTARIO DEPARTMENT OF MINES  
PRELIMINARY GEOLOGICAL MAP NO. P. 103

Much of Walker township is covered by varved clay and silt of glacial lake origin. A few small bog deposits occur southwest of the Black River. Bog deposits are extensive in the northeastern part of the township. The topography is gently rolling except where large outcrop areas rise 30 to 70 feet above the overburden.

The outcropping Precambrian rocks consist largely of acid, intermediate, and basic lavas intruded by northerly trending diabase dikes generally considered to be of Matachewan age. The acid volcanic rocks are for

COSBY CLAIMS

WALKER TWP.



**INDEX MAP**

ECHELLE = 1:50000



NOTES ON THE GEOLOGY OF WALKER TOWNSHIP - ONTARIO DEPARTMENT OF MINES  
PRELIMINARY GEOLOGICAL MAP NO. P. 103 Cont'd.

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the most part agglomerates with oval to angular fragments up to  $1\frac{1}{2}$  feet in length. A small outcrop of spherulitic rhyolite was found in lot 3, Concession II. The intermediate lavas were named dacite, although no thin section examinations have been made. These rocks are hard, flinty grey in colour, and weather readily to a rust or cream colour. They commonly contain minor amounts of finely disseminated pyrite. They characteristically have poorly developed pillow structure, and commonly change along strike to pyroclastic rocks. The basic lavas are uniform or pillowed. One distinctive flow of pillowed basic lava, occurring in lots 10 and 12 in Concessions III and IV, is porphyritic within pillows. None of the pink to cream phenocrysts was seen to cross pillow margins.

A narrow sill of feldspar porphyry, perhaps a crystal tuff, was traced in lots 10 and 11, Concession II. A single small outcrop of quartz monzonite was found in Lot 7, Concession II.

Coarse-grained gabbro or diorite, believed to be intrusive into the lavas, was observed in Lot 12, Concession IV and in lots 9 and 10, Concession II.

Sedimentary rocks are reported to occur in Concession I south of the Pipestone fault. The fault is indicated by magnetic surveys outlining ultrabasic masses, and by drilling in areas short distances to the east and west of Walker township.

An east-west synclinal axis passes through the town of Monteith. The north limb is overturned, dipping steeply north. A parallel anticlinal axis lies about one mile to the north.

WATER FLOW OF THE CLAIMS GROUP

The Creeks have been identified by Number on the Geochemical Map as well as the Claim numbers.

Claim # 821287 - All water flows south east to Creek # 3.

Claim # 821286 - All water flows from a small bog or swamp to Creek #2  
which flows in a south west direction into Creek # 1.

Claim # 821291 - All water flows south east to Creek # 3.

Claim # 821289 - All water flows into a valley to the south west.

Claim # 800996 - All water flows east and south into Creek # 3.

Claim # 800995 - All water flows south into Creek # 3.

Claim # 800964 - All water flows south west into Creek # 1.

Claim # 800965 - All water flows south into Creek # 1.

Claim # 800967 - All water flows south east into Creek # 1.

Claim # 800966 - All water flows south into Creek # 1.

CONCLUSIONS & RECOMMENDATIONS

Due to the low relief on the east and west sides of Base line 24 North, no concentration of heavy metals has been shown except on line 0 plus 00 claim # 800996 which shows low copper in P.P.M.

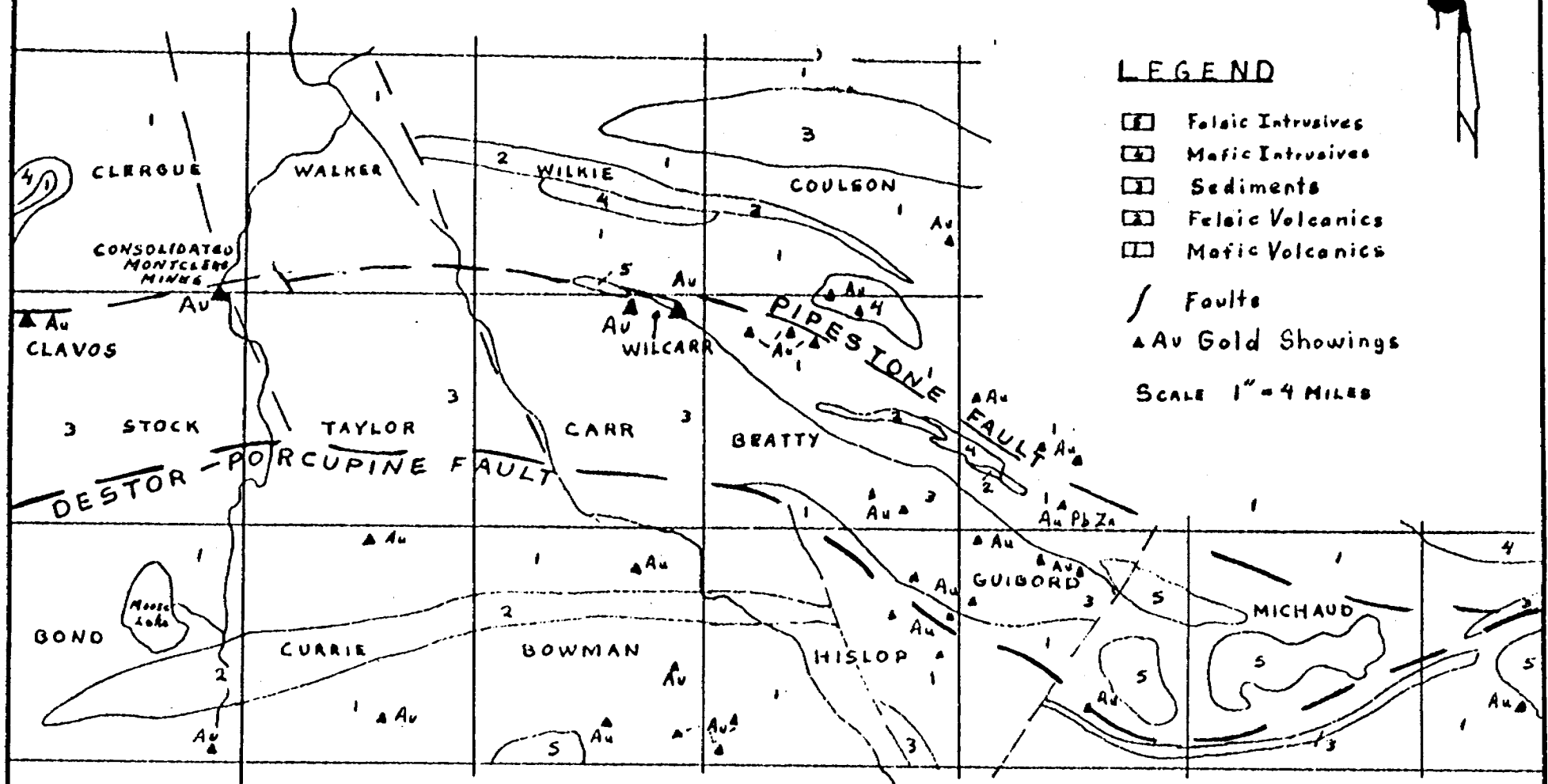
However, as a result of the Geochemical Survey a rust colour sediment was discovered in Creek # 2 which flows into the Black River. ( Ferric Hydroxide ) (FE2 O3). More detailed work will be required in the area. In addition, induced polarisation survey should be carried out to verify the nature of the E.M. 16 Conductor.

Merle S. Cosby

Merle S. Cosby  
13 Windermere Road,  
St. Catharines, Ont.  
L2T 3W1

TIMMINS - KIRKLAND LAKE AREA  
GENERAL GEOLOGY PLAN

80°00'  
48°45'



LEGEND

- 1 Felsic Intrusives
- 2 Mafic Intrusives
- 3 Sediments
- 4 Felsic Volcanics
- 5 Mafic Volcanics
- / Faults
- ▲ Au Gold Showings

SCALE 1" = 4 MILES

Geology Simplified From ODM Map 2205

**SALLY MOGENSEN  
GEOCHEMICAL  
LABORATORY**

Church Road RR 2 Havelock Ont. K0L 1Z0  
Telephone 705 778 3120

*Two copies*

Date *25/6* 1986

SURVEY.....CUSTOMER. *Jack Casby*.....LAB FILE # *25686*

Sample #	Description	<i>EDTA THM kit.</i>				
6057	✓	25				
6057	✓	10				
6053	✓	10				
6054	✓	10				
6055	✓	10				
6056	✓	10				
6057	✓	10				
6058	✓	10				
6059	✓	10				
6060	✓	10				
6061	✓	10				
6062	✓	10				
6063	✓	25				
6064	✓	10				
6065	✓	25				
6066	✓	25				
6067	✓	50				
6068	✓	25				
6069	✓	25				
6070	✓	25				
6071	✓	25				
6072	✓	25				
6073	✓	100				
6074	✓	10				
6075	✓	10				
6076	✓	10				
6077	✓	25				
6078	✓	25				
6079	✓	10				
6080	✓	10				
6081	✓	10				
6082	✓	10				
6083	✓	10				
6084	✓	10				
6085	✓	10				

LABORATORY: \_\_\_\_\_ TYPE OF TEST: *Cold THM*  
 DATE: *June 25/86* ANALYST: \_\_\_\_\_ Signature: \_\_\_\_\_

**SALLY MOGENSEN  
GEOCHEMICAL  
LABORATORY**

Church Road RR 2 Havelock Ont. K0L 1Z0  
Telephone 705 778 3120

Date 25/6 1986

SURVEY.....CUSTOMER Merle Cosby.....LAB FILE # June 25/

Sample #	Description	col. 75M test.				
6086	✓	10				
6087	✓	25				
6088	✓	50				
6089	✓	10				
6090	✓	10				
6091	✓	25				
6092	✓	10				
6093	✓	10				
6094	✓	10				
6095	✓	10				
6096	✓	10				
6097	✓	10				
6098	✓	10				
6099	✓	10				
6100	✓	10				
6101	✓	10				
6102	✓	10				
6103	✓	50				
6104	✓	10				
6105	✓	10				
6106	✓	10				
6107	✓	10				
6108	✓	25				
6109	✓	25				
6110	✓	50				
6111	✓	50				
6112	✓	25				
6113	✓	50				
6114	✓	50				
6115	✓	10				
6116	✓	25				
6117	✓	50				
6118	✓	10				
6119	✓	25				
6120	✓	25				

LABORATORY \_\_\_\_\_ TYPE OF TEST Col. T.H.M. test.  
 DATE June 25/86 ANALYST Sally Mogensen Signature



**SALLY MOGENSEN  
GEOCHEMICAL  
LABORATORY**

Church Road RR 2 Havelock Ont. K0L 1Z0  
Telephone 705 778 3120

Date 25/6 1986

SURVEY.....CUSTOMER Inverlochy.....LAB FILE # 25-6-86

Sample #	Description	CONCENTRATION				
6121	✓	25				
6122	✓	10				
6123	✓	75				
6124	✓	50				
6125	✓	100				
6126	✓	50				
6127	✓	75				
6128	✓	75				
6129	✓	75				
6130	✓	100				
6131	✓	50				
6132	✓	75				
6133	✓	100				
6134	✓	50				
6135	✓	50				
6136	✓	50				
6137	✓	25				
6138	✓	25				
6139	✓	50				
6157	✓	25				
6152	✓	25				
6153	✓	25				
6154	✓	25				
6155	✓	25				
6156	✓	50				
6157	✓	75				
6158	✓	50				
6159	✓	25				
6160	✓	25				
6161	✓	25				
6162	✓	25				
6163	✓	50				
6164	✓	25				
6165	✓	25				
6166	✓	50				

LABORATORY \_\_\_\_\_ TYPE OF TEST Cold TDM Lead  
 DATE June 25/86 ANALYST Sally Mogensen Signature

**SALLY MOGENSEN  
GEOCHEMICAL  
LABORATORY**

Church Road RR 2 Havelock Ont. K0L 1Z0  
Telephone 705 778 3120

Date 28/6 1986

SURVEY.....CUSTOMER Neule Carby.....LAB FILE # 25-6-86

Sample #	Description	col'd THM				
6167	✓	50				
6168	✓	50				
6169	✓	25				
6170	✓	50				
6171	✓	25				
6172	✓	50				
6173	✓	50				
6174	✓	50				
6175	✓	50				
6176	✓	50				
6177	✓	50				
6178	✓	50				
6179	✓	25				
6180	✓	50				
6181	✓	50				
6182	✓	50				
6183	✓	50				
6184	✓	25				
6185	✓	25				
6186	✓	50				
6187	✓	75				
6188	✓	75				
6189	✓	25				
6190	✓	25				
6191	✓	25				
6192	✓	25				
6193	✓	25				
6194	✓	25				
6195	✓	25				
6196	✓	25				
6197	✓	25				
6198	✓	50				
6199	✓	25				
6200	✓	25				

LABORATORY \_\_\_\_\_ TYPE OF TEST Cold THM  
 DATE June 25/86 ANALYST [Signature] Signature

SURVEY.....CUSTOMER.....LAB FILE #.....

*Cosby*

17102

Sample #	Description	THM.	Cu.			
6146	✓	150	50			<i>Two Copies</i>
6147	✓	100	60			
6148	✓	75	10			
6149	✓					
		5				
6007	✓	50				
6010	✓	50				
6143	✓	25				
6144	✓	50				
6001	✓	100	25			
6002	✓	75	10			
6003	✓	100	50			
6004	✓	75	50			
6005	✓	50	10			
6006	✓	75				
6008	✓	50				
6009	✓	75				
6145	✓	25				
6150	✓	50				
6140	✓	25				
6141	✓	50				
6142	✓	25				

LABORATORY *Lab. Department of Agriculture* TYPE OF TEST *Total Heavy Metals (7)*  
 DATE *Oct 17/56* ANALYST *J. J. [Signature]* Signature *J. J. [Signature]*  
*Copper - color extraction*

**SALLY MOGENSEN  
GEOCHEMICAL  
LABORATORY**

Church Road RR 2 Havelock Ont. K0L 1Z0  
Telephone 705 778 3120

*Three copies*

Date *18/7 1986*

SURVEY.....CUSTOMER *Frank Cosby*.....LAB FILE # *18786*

Sample #	Description	Con				
6136	<i>Hot acid Cu. ✓</i>	<i>5</i>				
6137		<i>10</i>				
6138		<i>5</i>				
6139		<i>20</i>				
6175		<i>20</i>				
6176	<i>✓</i>	<i>15</i>				
6177	<i>✓</i>	<i>25</i>				
6197	<i>✓</i>	<i>25</i>				
6198	<i>✓</i>	<i>20</i>				
6196	<i>✓</i>	<i>20</i>				
6199	<i>✓</i>	<i>20</i>				
6073	<i>✓</i>	<i>15</i>				
6127	<i>✓</i>	<i>20</i>				
6126	<i>✓</i>	<i>20</i>				
6125	<i>✓</i>	<i>25</i>				
6124	<i>✓</i>	<i>15</i>				
6123	<i>✓</i>	<i>10</i>				
6089	<i>✓</i>	<i>5</i>				
6088	<i>✓</i>	<i>10</i>				
6156	<i>✓</i>	<i>10</i>				
6157	<i>✓</i>	<i>15</i>				
6138	<i>✓</i>	<i>10</i>				
6159	<i>✓</i>	<i>5</i>				
6153	<i>✓</i>	<i>5</i>				
6152	<i>✓</i>	<i>5</i>				
6151	<i>✓</i>	<i>5</i>				
6051	<i>✓</i>	<i>5</i>				
6067	<i>✓</i>	<i>5</i>				
6068	<i>✓</i>	<i>5</i>				
6128	<i>✓</i>	<i>15</i>				
6129	<i>✓</i>	<i>10</i>				
6130		<i>20</i>				
6131	<i>✓</i>	<i>15</i>				
6110	<i>✓</i>	<i>10</i>				
6112	<i>✓</i>	<i>10</i>				

LABORATORY *Sally Mogensen* *Geochem* TYPE OF TEST *Hot Nitric Acid*  
 DATE *18/7-86* ANALYST *Sally Mogensen*  
 Signature *Sally Mogensen*

**SALLY MOGENSEN  
GEOCHEMICAL  
LABORATORY**

Church Road RR 2 Havelock Ont. K0L 1Z0  
Telephone 705 778 3120

Date 18/7 1986

SURVEY.....CUSTOMER.....*Macle Cosby*.....LAB FILE #.....*18786*

Sample #	Description					
6113	hot acid Cu ✓	5				
6114	✓	5				
6115	✓	5				
6135	✓	10				
6134	✓	10				
6133	✓	25				
6132	✓	20				
6165	✓	15				
6164	✓	10				
<del>6195</del>		10				
6166	✓	15				
6168		10				
6169	✓	10				
6170	✓	5				
6171	✓	10				
6172	✓	15				
6173	✓	10				
6174	✓	10				

I took an assortment of line samples from different points - and tested them for Copper using hot nitric acid digestion and Dithizone estimation.

The lines were chosen to go against the water flow or along side the water flow down through the middle of the property.

Small values were found - not necessarily coinciding with the THM results - but since this was done with hot nitric acid digestion some interference from organic particles (if present) could be expected.

We do not do Silver as we don't have Fineman facilities for concentrating the sample - nor do we have an A.A. set up. There is no indication in the Dithizone testing that silver is present.

LABORATORY *Sally Mogensen Geochem* TYPE OF TEST *Hot nitric Acid/Dithizone*  
 DATE *July 18/86* ANALYST *Sally Mogensen*  
 Signature



42A10NE0046 2.9792 WALKER

G E O L O G Y

030

In reference to Regional Geological Map (O.M.N.R. 2205), of the Timmins Kirkland Lake sheet, it indicated that Walker Township is believed to be underlain by Mafic flows, Pyroclastic rocks, Felsic Metavolcanics unsubdivided and Diabase dikes.

During survey of the property, no outcrop was seen but on the Black River Lot 6, Concession 5, there is an outcrop of Olivine Basalt of which I collected a sample.

Merle S. Cosby  
Merle S. Cosby





Recorded Holder  
MERLE S. COSBY

Township or Area  
WALKER

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<p><b>Geophysical</b></p> <p>Electromagnetic _____ days</p> <p>Magnetometer _____ days</p> <p>Radiometric _____ days</p> <p>Induced polarization _____ days</p> <p>Other _____ days</p> <p>Section 77 (19) See "Mining Claims Assessed" column</p> <p>Geological _____ days</p> <p>Geochemical <u>13</u> _____ days</p> <p>Man days <input type="checkbox"/> Airborne <input type="checkbox"/></p> <p>Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims.</p> <p><input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.</p>	<p>L 800964 to 67 inclusive 821286-87 821289 821291 800995-96</p>

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

[Empty box for special credits]

No credits have been allowed for the following mining claims

not sufficiently covered by the survey       insufficient technical data filed

[Empty box for no credits]

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.





Ontario

Ministry of  
Northern Development  
and Mines

August 5, 1987

Your File: 40/87  
Our File: 2.9792

Mining Recorder  
Ministry of Northern Development and Mines  
4 Government Road East  
Kirkland Lake, Ontario  
P2N 1A2

Dear Sir:

RE: Notice of Intent dated July 21, 1987  
Geochemical Survey on Mining Claims  
L 800964, et al, in Walker 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,

R.M. Charnesky (Mrs.)  
Acting Manager  
Mining Lands Section  
Mineral Development and Lands Branch  
Mines and Minerals Division

Whitney Block, Room 6610  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Telephone: (416) 965-4888

DK/mc

cc: Merle S. Cosby  
13 Windermere Road  
St. Catharines, Ontario  
L2T 3W1

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

Resident Geologist  
Kirkland Lake, Ontario

Encl.



Teefy Twp.

THE TOWNSHIP OF  
OF

**WALKER**

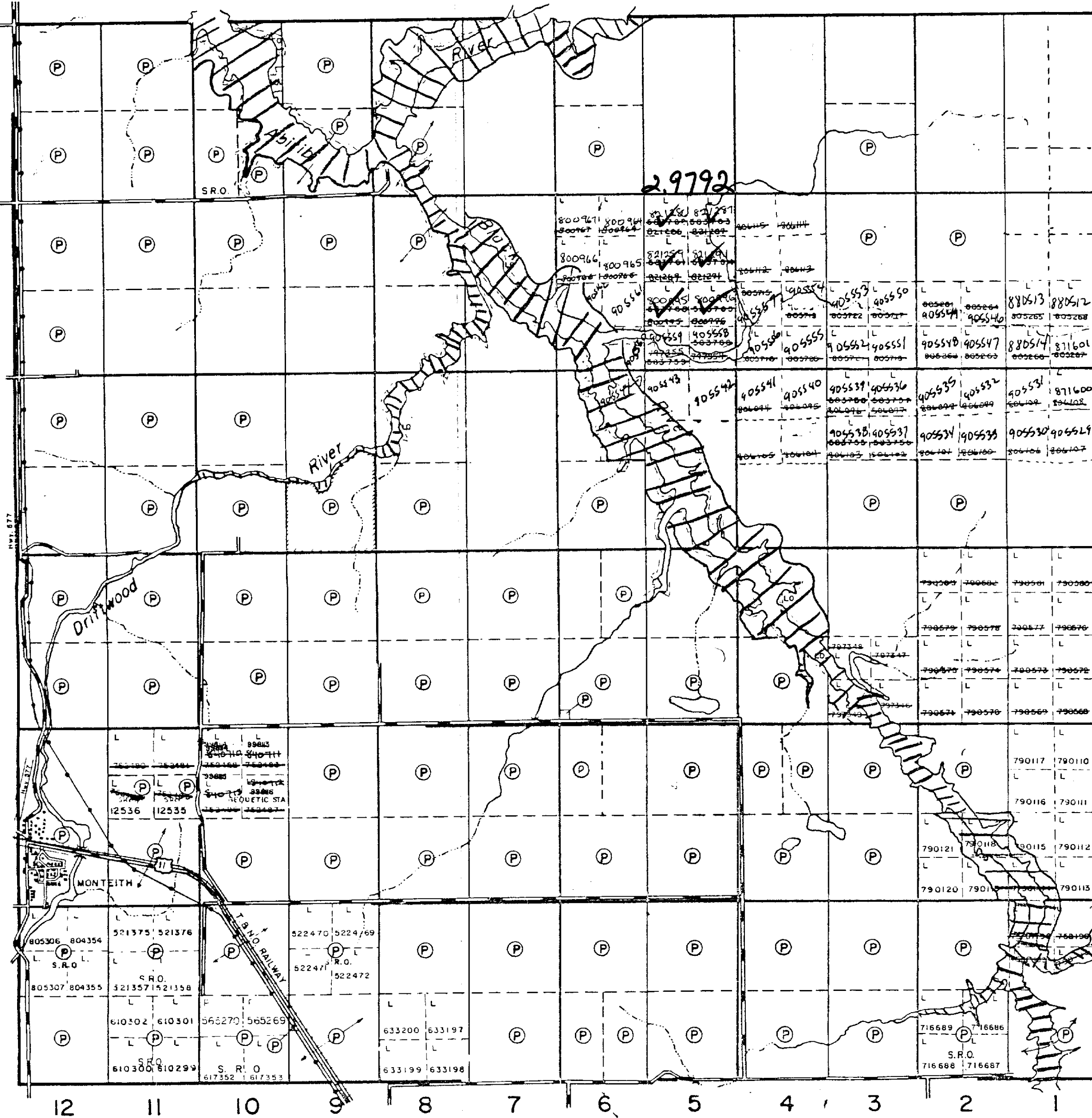
DISTRICT OF  
COCHRANE

LARDER LAKE  
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

Clergue Twp.

Wilkie Twp.



VI  
V  
IV  
III  
II  
I

LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (S or C.S.)
- LEASES (L)
- LOCATED LAND (Loc.)
- LICENSE OF OCCUPATION (L.O.)
- MINING RIGHTS ONLY (M.R.O.)
- SURFACE RIGHTS ONLY (S.R.O.)
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES (X)

NOTES

400' Surface rights reservation around all lakes and vers.

LO. 8672 issued for flooding rights along the shores of Abitibi, Black and Driftwood Rivers.

Abitibi Detroyes  
Provincial Park

DATE OF ISSUE  
AUG 13 1987  
LARDER LAKE  
MINING RECORDER'S OFFICE

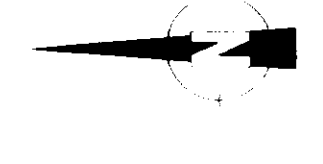
PLAN NO.- M-396

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH



or Twp.  
200

2.9792



Scale 1" = 2500'

GEOCHEMICAL SURVEY  
Cosby Claims

Walker TWP. Lots 5 & 6, Con. #5  
Samples taken - B Zone  
Surveyed By M. Cosby - Nov. 86  
THM# THM Cu Assay  
6001 100 Cu 25

