



41P15NE8331 2.5704 CAIRO

010

COMSTATE RESOURCES LTD.

Geological Report
Cairo Township Property
Matachewan, Ontario
District of Timiskaming

RECEIVED

JUL 25 1983

MINING LANDS SECTION

July 1983
Timmins, Ontario

R. Bald, M.Sc.

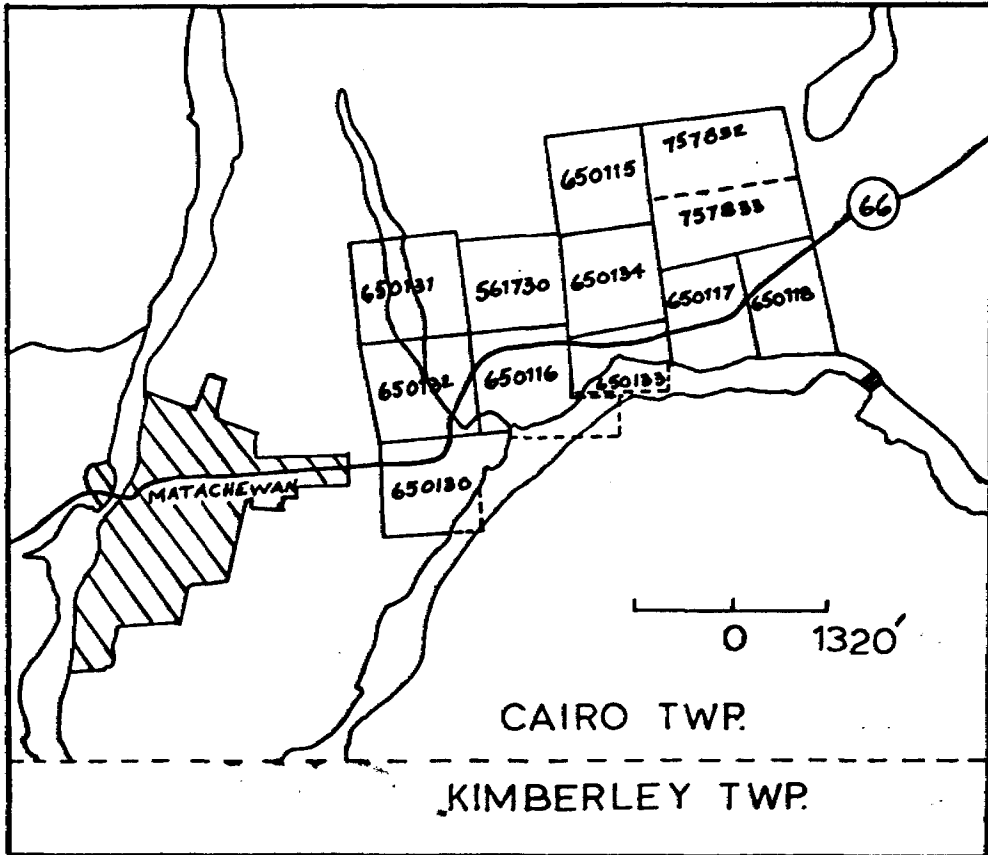
Roberta Bald

SUMMARY

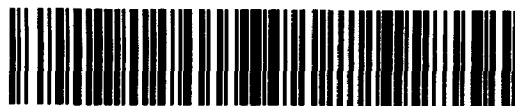
The Cairo Township property is underlain by a northeasterly - trending sequence of Archean metavolcanic rocks. A northwest - facing top from pillow shapes is indicated just east of the property on the O. G. S. map of the Matachewan area (Lovell, 1967). This suggests that the rhyolitic unit on the property is overlain to the northwest by locally variolitic, pillowed and massive mafic flows containing interflow iron formation. A small body or dike of quartz-feldspar porphyry intrudes the mafic metavolcanic rocks in the southeast part of the grid. Both the porphyry and metavolcanic rocks are intruded by ultramafic to mafic, possibly sill-like bodies. Matachewan diabase dikes cut all the previously mentioned rock types in a general northwesterly direction and may locally occupy faults. About half the claims are covered by relatively steeply dipping Cobalt sediments. They are the youngest rocks on the property and overlie the western and northern portions.

CONCLUSIONS AND RECOMMENDATIONS

1. The mineral potential of Archean metavolcanic rocks in the western and northern parts of the property cannot be fully determined by geological mapping since they are covered by Cobalt sediments. Geophysical and geochemical surveys may help outline possible drill targets.
2. Although assay and humus results are not available at the time of writing, further investigation of any anomalous gold value is warranted. The following methods are suggested to further test any anomalies obtained: detailed sampling; cleaning and sampling of old trenches; and removal of overburden by backhoe where possible.



CAIRO TOWNSHIP PROPERTY



41P15NE8331 2.5704 CAIRO

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Introduction

Twelve unsurveyed, contiguous claims owned by Comstate Resources Ltd., Suite 901, 1015 - 4th St. S.W., Calgary, Alta. were mapped from June 3rd to June 21st, 1983. The claims are numbered L561730, L650115 to L650118 inclusive, L 650130 to L650134 inclusive, L757832 and L757833.

Field Method

The claims were covered by a grid with 200 foot lines cut perpendicular to a baseline striking 085° AZ. Outcrops were outlined by pace and compass method. Tree types, glacial and cultural features were noted. A total of 46 rock samples were collected and assayed for gold and arsenic. A total of 343 humus samples were taken over the portions of the grid believed to be underlain by Archean metavolcanic rocks. Neither the assay nor the humus results are available at the time of writing.

Location, Access and Topography

The western edge of the claim group is situated about $\frac{1}{4}$ mile northeast of the Town of Matachewan, Ontario. It is in Cairo Township, Larder Lake Mining Division, District of Timiskaming. Matachewan is about 35 miles southwest of Kirkland Lake, via Highway 66, which transects the property. The northeastern portion of the property is accessible by the Garbage Disposal Road and the northwestern portion is accessible by a trail to Knott Lake. The southern border

of the claim group is the Montreal River, thus easily accessible by boat. The Matachewan transformer station is just outside the western margin of the claim group. Large areas of outcrop occur south of Highway 66 and in the north-western and northeastern corners of the property whereas the rest of the grid is covered by glacial deposits including eskers and glaciofluvial material.

Acknowledgements

The capable assistance of J. Bald during the mapping of this property is gratefully acknowledged.

Previous Work

Following the discovery of gold in 1916, the Matachewan area was mapped by Burrows (1918, 1920), Cooke (1919) and subsequently by Dyer (1935) and Lovell (1967). Although two diamond drill holes and several trenches were located in the field, there are no current assessment records available concerning the nature or extent of any exploration work undertaken on the Comstate property. Lovell (1967) indicates that the property was formerly held by the Matachewan Hub Pioneer Syndicate, who reportedly excavated a trench 110 feet long near the south central boundary of the claim group. The trench traversed a volcanic-dabase dike contact bearing pyrite and minor magnetite contained within a quartz - carbonate matrix.

The property, consisting of ten previously patented mining claims, came open for staking in June, 1981. Two other claims were subsequently added to the northeast corner.

Regional Geology

The Matachewan area borders the northwest margin of the Round Lake Batholith, and is on the south limb of a major synclinerium, the axis of which trends westerly, approximately 7 miles north of the area (Pyke et al, 1973). A large pluton of syenite, the Cairo stock, underlies the northeast portion of Cairo Township. Volcanic rocks of komatiitic, tholeiitic and calc-alkaline affinities trend westward across Cairo and Powell Townships, but have not as yet been mapped in sufficient detail to be accurately delineated. Intercalated with the volcanic rocks are thick sequences of sedimentary rocks. It is the contact zones of the more southerly sedimentary sequence with the underlying volcanics, in association with syenitic intrusions, which has formed the focal point for the known gold mines in the area.

The north - trending Matachewan diabase dike swarm intrudes the Archean rocks and has been dated at 2485 m.y. (Fahrig and Wanless, 1963).

Flat lying to steeply dipping Proterozoic sediments of the Cobalt Group unconformably overlie the Archean rocks.

A number of major faults traverse the Matachewan area, notably the Larder Lake Fault zone and the Montreal River Fault.

-30-

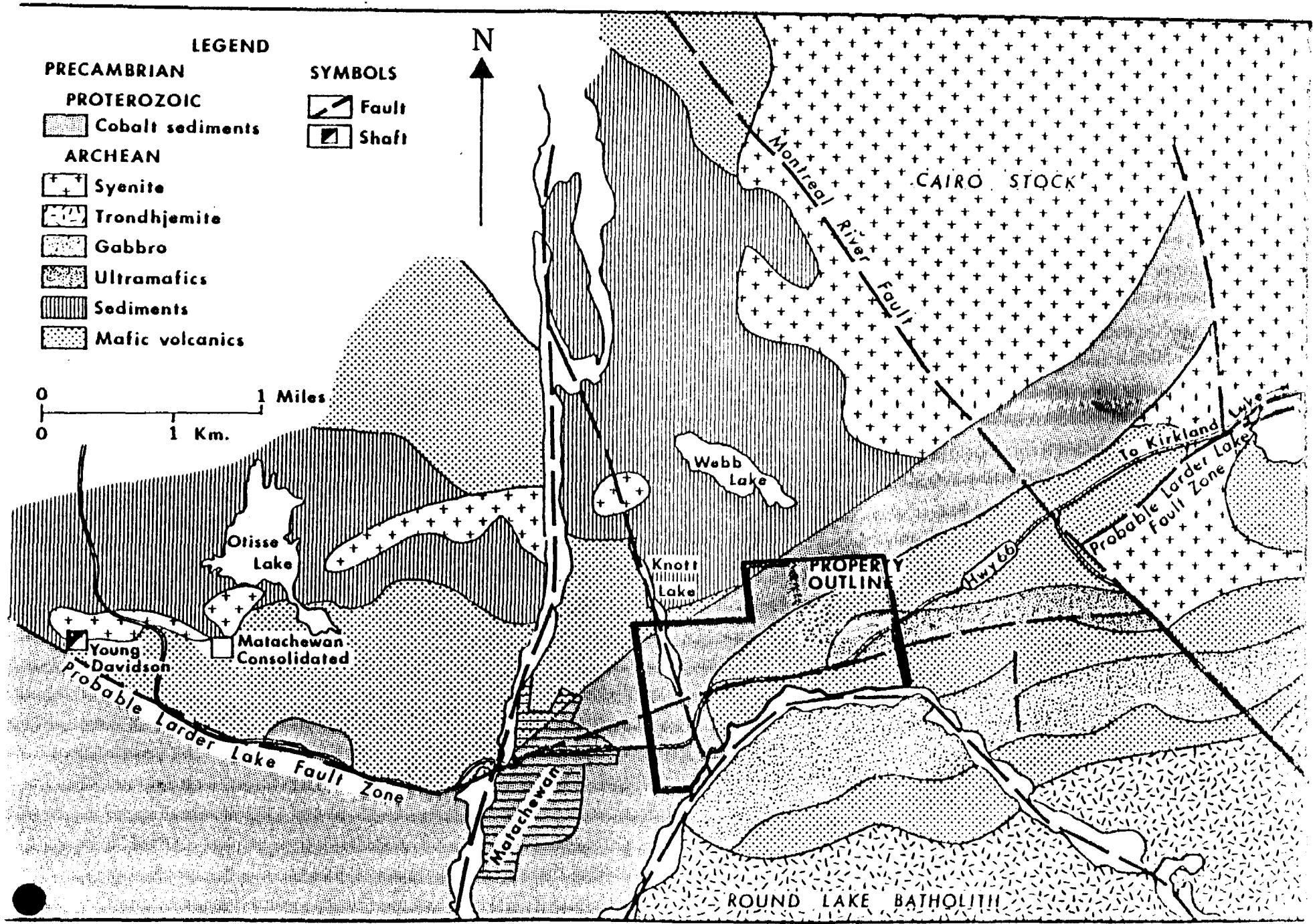


Figure 1: General geology in the vicinity of Matachewan. (Modified after Lovell, 1967).

The easterly - trending Larder Lake break is in proximity to numerous gold camps throughout its strike length; notably those of Kirkland Lake, Larder Lake, Noranda, Cadillac, Malartic and Val d'Or. The exact position of the fault through the Matachewan area is uncertain, but is believed to be as depicted on Figure 1. Furthermore, the Montreal River Fault, which traverses the Matachewan area, shows a spatial relationship to a number of mines or camps; for example Kidd Creek, Timmins, and Elk Lake. Numerous other northerly-trending faults are known in the Matachewan area, many of which are filled by diabase dikes.

Property Geology

The property is underlain by a northwesterly - trending, vertically dipping sequence of Archean metavolcanic rocks, including from oldest to youngest: calc-alkaline rhyolitic flows and agglomerate; variolitic, locally pillowed, tholeiitic basalt flows containing interflow cherty, locally graphitic iron formation; and massive to pillowed tholeiitic basalt flows. A small dike of quartz-feldspar porphyry intrudes the mafic metavolcanic rocks in the southeastern part of the property. A large ultramafic to mafic intrusion lies in the east-central portion of the grid and appears to consist of serpentinite on the outer margin of the intrusion with gabbro in the center. A small serpentinite body cuts the metavolcanic rocks in the west central portion, along the highway. Several Matachewan diabase dikes occur in the

outh-central and southeastern parts of the property, generally obscuring relationships between the other rock units. Steeply dipping Cobalt sediments in the western and northern portions of the grid consist of argillaceous and arkosic conglomerate, quartzite and argillite. The rock types are listed in chronological order in Table 1.

Table 1. TABLE OF FORMATIONS

CENOZOIC

Recent: Swamp and stream deposits

Pleistocene: sand, gravel, clay

Unconformity

PRECAMBRIAN

Huronian:

Cobalt Group (Gowganda Formation)

Argillaceous and arkosic quartzite, conglomerate, argillite

Unconformity

Archean:

Mafic Intrusive Rocks (Matachewan)

Diabase

Intrusive Contact

Ultramafic and Mafic Intrusive Rocks

Serpentinite, gabbro

Intrusive Contact

Volcanic Rocks (Keewatin)

Massive and pillowed basalt flow

Interflow cherty iron formation

Variolitic basalt flow, locally pillowed

Rhyolite flow, agglomerate

Rhyolite

The calc-alkaline rocks consist mainly of rhyolite flows which may in part be fine-grained fragmental rocks, with a small patch of rhyolite agglomerate on L2E at 9+00S. The rhyolite flows show pink to buff-white to brownish, hackly weathered surfaces and dark grey to greenish-grey to pink fresh surfaces. It is very hard with almost conchoidal fracture and locally shows randomly oriented foliation. The flows consist of up to 50% plagioclase and pink potassium feldspar laths up to 0.05 inches long and locally contains up to 5% equant to angular quartz crystals up to 0.10 inches in diameter in a siliceous, dark grey groundmass. The unit locally contains up to 10% randomly oriented, barren quartz pods and veins up to 1.5 inches wide, and up to 5% white to pinkish-tinged carbonate veins. The quartz is glassy to milky white. The rhyolite flows contain from <1% to 3% fine-grained pyrite as disseminated crystals or rarely along thread-like veinlets. The rhyolite agglomerate consists of white weathering, felsic, rounded to oblong clasts up to three inches long supported by a rhyolitic matrix.

Variolitic basalt

Variolitic, locally poorly pillowed, tholeiitic basalt flows are well exposed on the highway rock-cut. These rocks show a brownish buff to light grey to white, smooth, rounded weathering surface and a dark greenish-grey to black to light greenish-grey fresh surface. The varioles are white,

spherical to oblong, up to 0.3 inches in diameter and locally coalesce, especially in the center of pillows. The chloritic groundmass is variously foliated, with local serpentine slips, to massive, silicified and/or carbonatized. Locally, the groundmass contains soft, dark green to black, randomly oriented, acicular possible tremolite crystals up to 0.25 inches long. The unit contains up to 5% milky white to smokey-grey quartz veins up to one inch wide. From 1 to 2% pyrite occurs as disseminated cubes locally associated with quartz or carbonate veins.

Iron Formation

Three areas of cherty, locally graphitic iron formation may represent three different lensoid, interflow units or one fault-displaced unit. In one well exposed outcrop on L6W at 8+00S, the unit strikes approximately 025°AZ and dips vertically. The unit is very rusty and oxidized and consists of alternating layers, up to one inch wide, of pale to dark grey, sugary textured chert, magnetite - rich mafic material and locally, layers containing up to 20% pyrite. The pyrite occurs as fine to coarse-grained cubes, blebs and stringers. Graphitic beds were seen in one iron formation outcrop.

Massive to Pillowed Basalt Flows

In the extreme northwestern corner of the property, massive to pillowed tholeiitic basalt flows are exposed north of the Cobalt sediments. The massive flows are brownish-buff

On weathered surface and greenish grey on fresh. They are generally fine-grained, locally containing medium to coarse-grained, rounded, green amphibole or chlorite crystals giving a mottled appearance. Less than 1% pyrite occurs as disseminated fine-grained crystals and in carbonate veinlets. In an old pit, blast rock was found containing a quartz - carbonate vein up to three inches wide in foliated, green weathering, possibly slightly bleached mafic volcanic rock. These massive flows are overlain by fine-grained pillowed basalt with deformed and stretched pillows with rusty brown weathering selvages. Local mafic and felsic metamorphic layering occurs parallel to the roughly northeasterly - trending foliation. The flows are carbonatized and very earthy, soft and contain quartz veinlets and pods.

Quartz - Feldspar Porphyry

Two small outcrops of massive to slightly foliated quartz-feldspar porphyry occur close to L28E at 1+00S and 4+50S. This unit weathers pink to white to grey and has a pink to dark grey fresh surface. It consists of about 50% pink to white, locally zoned feldspar, as equant to lath-shaped crystals up to 0.25 inches long, and about 30% locally eye-shaped quartz phenocrysts up to 0.20 inches in diameter. The siliceous matrix is locally slightly carbonatized. A one foot wide, barren northerly-trending quartz vein has been previously trenched.

Ultramafic to Mafic Intrusive Rocks

Two outcrops of serpentinite occur on the property.

A small exposure on L11W at 8+00S on the highway, cuts the variolitic basalt and in turn is intruded by Matachewan diabase. The other outcrop, between L22E and L24E at 1+00N to 3+00N, appears to be the border phase of a large gabbro sill-like body in the southeastern part of the property.

The serpentinite is medium to coarse-grained, massive, with local asbestos-filled joints. It has a light grey to white to brownish green weathered surface and dark green-black to dark greenish grey fresh surface. It is rarely carbonatized along joints, and contains rare, barren quartz veins. The locally strongly magnetic serpentinite contains less than 1% disseminated pyrite.

The gabbro is fine to coarse-grained with grey to dark green to brown weathered surface and grey to green fresh surface. It has ophitic texture with plagioclase crystals between randomly oriented black to dark green amphibole laths up to 0.10 inches long. The unit is locally strongly magnetic and a 0.25 inch wide vein containing coarse-grained, silvery metallic magnetite was seen. The gabbro is massive to strongly foliated, and locally carbonatized with carbonate veinlets and pods. Quartz veins up to 3 inches wide occur parallel to the foliation and rarely, contain up to 2% medium to coarse-grained pyrite in wall-rock inclusions within the quartz.

Matachewan Diabase

Several diabase dikes from 2.5 inches to over 300 feet wide intrude all units on the property except the Cobalt sediments. The dikes have a smooth, rounded reddish-brown to medium grey weathered surface and a black to dark grey fresh surface. The medium to coarse-grained phases show well developed diabasic texture, whereas the margins of the dikes are chilled and are fine-grained to aphanitic. The dikes generally trend in a northwesterly direction but are irregular in detail and generally dip close to vertical. They are non-magnetic to strongly magnetic and contain up to 5% disseminated medium-grained pyrite cubes. They locally contain green epidote veins and narrow quartz veins.

Cobalt Sediments

The Gowganda Formation exposed on the property unconformably overlies the Archean rocks and consists of the following rock types: argillaceous and arkosic conglomerate, arkose, argillaceous quartzite, hematite-stained quartzite and argillite. Argillaceous conglomerate is the most common unit but it is generally interbedded with various other units. The Cobalt sediments strike from 166° AZ to 072° AZ and dip from 60° west to vertically on the property and show north facing tops in the northwestern portion of the property, from graded bedding.

The argillaceous conglomerate is a matrix-supported, polymictic conglomerate with rounded to oblong clasts in a fine to medium-grained, greenish argillaceous sandstone matrix.

The clasts include granite, syenite, mafic volcanic, argillite and white quartz vein. The largest clast found on the property was a two foot long granitic clast.

The arkosic conglomerate is similar to the argillaceous conglomerate except the matrix is medium to coarse-grained, pink to reddish arkose and in general contains a higher percentage of clasts.

The argillaceous quartzite is massive, shows buff-coloured weathering and contains a few pebbles, usually of granitic composition.

Pink hematite-stained quartzite is generally interbedded with argillaceous conglomerate and is locally lensoid. North-facing tops were obtained from graded bedding in this unit.

Argillite is a fine-grained, locally finely laminated, light buff to grey weathering unit that generally occurs interbedded with argillaceous conglomerate.

Structure

Folding or faulting in the metavolcanic rocks is obscured by the intrusion of the diabase dikes. However, the variolitic basalt flows on the highway near L11W at 7+50S appear to be sheared, altered and deformed and may be close to the Larder Lake Fault zone. The Cobalt sediments on this outcrop and southward to the river are also sheared, possibly indicating a northerly - trending cross fault which has been active since deposition of the Cobalt sediments. In the southeastern part of the property, two roughly parallel, northeasterly-trending shear zones occur in gabbro. These

shear zones may be related to the fault which follows the Montreal River, south of the claim group (Lovell, 1967).

References

Burrows, A.G.

1918: The Matachewan gold area; Ont. Bureau of Mines,
Vol. 27, pt. 1, pp 215 - 240

1920: Matachewan gold area; Ont. Dept. Mines, Vol 29,
pt. 3, pp 53 - 64

Cooke, H.C.

1919: Geology of the Matachewan district, Northern
Ontario; Geol. Survey of Canada, Mem. 115

Dyer, W.S.

1935: Geology and ore deposits of the Matachewan-
Kenogami area; Ont. Dept. Mines, Vol. 44, pt. 2,
pp 1 - 55 (Published 1936)

Fahrig, W.R. and Wanless, R.K.

1963: Age and significance of diabase dike swarms of
the Canadian Shield; Canadian Jour. of Earth
Sciences, Vol. 2, No. 4, pp 278 - 298

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Timiskaming; Ont. Dept. of Mines, G.R. 51,
61 p. Accompanied by Maps 2109, 2110, Scale 1 inch
to $\frac{1}{4}$ mile.

Pyke, D.R., Ayres, L.D. and INNES, D.G.

1973: Timmins-Kirkland Lake Sheet, Cochrane, Sudbury
and Timiskaming Districts; Ont. Div. of Mines,
Geological Compilation Series, Map 2205,
Scale 1 inch to 4 miles

Declaration

I, R. C. Bald, submit this document to certify that the following statements are, to the best of knowledge, true and correct:

1. That I have received the following university degrees:

Honours B.Sc. in Geology Laurentian University 1975

M.Sc. in Earth Science University of Manitoba 1981

2. That I am a member of the Geological Association of Canada.
3. That I have been working as a geologist for eight years.

Respectfully Submitted,

Roberta Bald

R. Bald

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JUL 25 1983

MINING LANDS SECTION



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) Geological
Township or Area Cairns Township
Claim Holder(s) D. R. PYKE

Survey Company _____
Author of Report Roberta C. Bald
Address of Author #304-25 Villa Rd, Toronto, Ont.
Covering Dates of Survey JUNE 1 - JULY 12
(linecutting to office)
Total Miles of Line Cut 21.7

| <u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u> | DAYS per claim |
|---|------------------------|
| ENTER 40 days (includes line cutting) for first survey. | Geophysical |
| | -Electromagnetic _____ |
| | -Magnetometer _____ |
| | -Radiometric _____ |
| ENTER 20 days for each additional survey using same grid. | -Other _____ |
| | Geological <u>40</u> |
| | Geochemical _____ |

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

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

DATE: July 12/83 SIGNATURE: Roberta Bald
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

| File No. | Type | Date | Claim Holder |
|----------|------|------|--------------|
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| MINING CLAIMS TRAVERSED | |
|--------------------------------|----------|
| List numerically | |
| L | 561730 |
| (prefix) | (number) |
| L | 650115 |
| L | 650116 |
| L | 650117 |
| L | 650118 |
| L | 650130 |
| L | 650131 |
| L | 650132 |
| L | 650133 |
| L | 650134 |
| L | 757832 |
| L | 757833 |
| TOTAL CLAIMS <u>12</u> | |

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

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

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

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

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

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



1. Type of Survey GEOLOGICAL
2. Township or Area CAIRO TOWNSHIP,
3. Numbers of Mining Claims Traversed by Survey L561730, L650115, L650116,
L650117, L650118, L650130, L650131, L650132,
L650133, L650134, L757832, L757833
4. Number of Miles of Line Cut 21.7 Flown _____
- *5. Number of Stations Established _____
- *6. Make and type of Instrument Used _____
- *7. Scale Constant or Sensitivity _____
- *8. Frequency Used and Power Output _____

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

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

Total 8 hour Line-Cutting Days _____

Calculation

$$\frac{\text{Technical}}{\text{Technical}} \times 7 = \frac{\text{Line-cutting}}{\text{Line-cutting}} = \frac{\text{Number of claims}}{\text{Number of claims}} = \frac{\text{Assessment credits per claim}}{\text{Assessment credits per claim}}$$

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: July 12/83

Signed: Roberta Bald

- 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.

Details of Assessment Work Breakdown

FIELD WORK

| <u>Type of Work</u> | <u>Name & Address</u> | <u>Dates Worked</u> | <u>Number of 8 hour days</u> |
|---------------------|--|---------------------|------------------------------|
| GEOLOGICAL MAPPING | R. Bald, #304-25 Vile Rd. TORONTO, ONT. | June 3 to June 21 | 19 |
| | | | |
| | | | |
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CONSULTANTS

| <u>Name & Address</u> | <u>Dates Worked (specify in field or office)</u> | <u>Number of 8 hour days</u> |
|---------------------------|--|------------------------------|
| | | |
| | | |
| | | |

DRAUGHTSMAN, TYPING, OTHERS (specify)

| <u>Name & Address</u> | <u>Type of Work</u> | <u>Dates Worked</u> | <u>Number of 8 hour days</u> |
|---|---------------------|---------------------|------------------------------|
| James Bald, 302 Errington St. Chelmsford, Ont. | Draughting | June 21 to June 24 | 3 |
| | | | |
| | | | |

TOTAL 8 HOUR TECHNICAL DAYS _____

LINE-CUTTING

| <u>Name</u> | <u>Address</u> | <u>Dates Worked</u> | <u>Number of 8 hour days</u> |
|-----------------------------|----------------|---------------------|------------------------------|
| RECEIVED | | | |
| JUL 25 1981 | | | |
| MINING LANDS SECTION | | | |
| | | | |

TOTAL 8 HOUR LINE-CUTTING DAYS _____



Ministry of
Natural
Resources

Geotechnical
Report
Approval

File
25704

Aug 10/83

Mining Lands Comments

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To: Geophysics

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| Comments |
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Approved

Wish to see again with corrections

Date

Signature

To: Geology - Expenditures *Mr. Kuska*

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| Comments |
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Approved

Wish to see again with corrections

Date

Aug 10/83

Signature

C Kuska

To: Geochemistry

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| Comments |
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Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)



Ontario

Ministry of
Natural
Resources

Technical Assessment Work Credits

File
2.5704

Date
1983 10 11

Mining Recorder's Report of
Work No. 190

| |
|---|
| Recorded Holder D.R. PYKE |
| Township or Area CAIRO TOWNSHIP |

| Type of survey and number of Assessment days credit per claim | Mining Claims Assessed |
|---|---|
| Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant. | L 561730 650115 to 18 inclusive 650130 to 32 inclusive 650134 757832-33 |

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

20 DAYS reduced because area of claim is half normal size

L 650133

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data filed

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

2.5704

#190

2.5704

1983 10 11

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Geological Survey on mining claims L 561730
et al in the Township of Cairo

The approval letter dated October 5, 1983 has been revised and is to be replaced by the attached approved Technical Assessment Work Credit Form.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
Phone: (416)965-1380

R. Pichette:mc

cc: Dr. D.R. Pyke
31 Delair Crescent
Thornhill, Ontario
L3T 2M3

cc: Roberta Bald
P.O. Box 1163
Timmins, Ontario
P4N 7H9

1983 00 05

2.5704

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Geological Survey on Mining Claims L 561730 et al
in the Township of Cairo

The Geological Survey assessment work credits as listed with my Notice of Intent dated September 6, 1983 have been approved as of the above date.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

S. Hurst:sc

cc: Dr. D.R. Pyke
Thornhill, Ontario
cc: Roberta Bald
Timmins, Ontario
cc: Resident Geologist
Kirkland Lake, Ontario



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1983 09 06

2.5704

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.



Ministry of
Natural
Resources

Ontario

Handwritten: No. 1
Sept 26 '83

Your file:

Our file: 2.5704

1983 09 06

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
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. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

Handwritten initials: S. Hurst:sc

Encls:

cc: Dr. D.R. Pyke
Thornhill, Ontario

cc: Roberta Bald
Timmins, Ontario

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

Recorded Holder **D.R. PYKE**
 Township or Area **CAIRO 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 | L 561730 650115-17-18 650131-32-34 757832-33 |
| Section 77 (19) See "Mining Claims Assessed" column | |
| Geological <u>40</u> days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> 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
 30 days
 L 650116
 650133

No credits have been allowed for the following mining claims
 not sufficiently covered by the survey Insufficient technical data filed

0190 650115

2.5704

1983 07 28

Mr. George J. Kolaszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 561730 et al in the Township of Cairo.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

A. Barr:mc

cc: Dr. D.R. Pyke
31 Delair Cres.
Thornhill, Ontario
L3T 2M3

cc: Roberta Bald
P.O. Box 1163
Timmins, Ontario
P4N 7H9

D.R. Pyke & Associates
P.O. Box 1163
Timmins, Ontario
P4N 7H9

July 21, 1983

Mr. F. Matthews,
Lands Management Branch,
Ministry of Natural Resources,
Room 6450,
Whitney Block, Queens Park,
Toronto, Ontario
M7A 1W3

Dear Mr. Matthews,

Enclosed please find two (2) copies of a geological report entitled "Comstate Resources Ltd., Geological Report, Cairo Township Property, Matachewan, Ontario, District of Timiskaming". A geological map accompanies each report.

This report is being submitted as assessment work under special provisions and covers the following mining claims in Cairo Township, Larder Lake Mining Division:

| | |
|----------|----------|
| L 561730 | L 650131 |
| L 650115 | L 650132 |
| L 650116 | L 650133 |
| L 650117 | L 650134 |
| L 650118 | L 757832 |
| L 650130 | L 757833 |

RECEIVED

JUL 23 1983

MINING LANDS SECTION

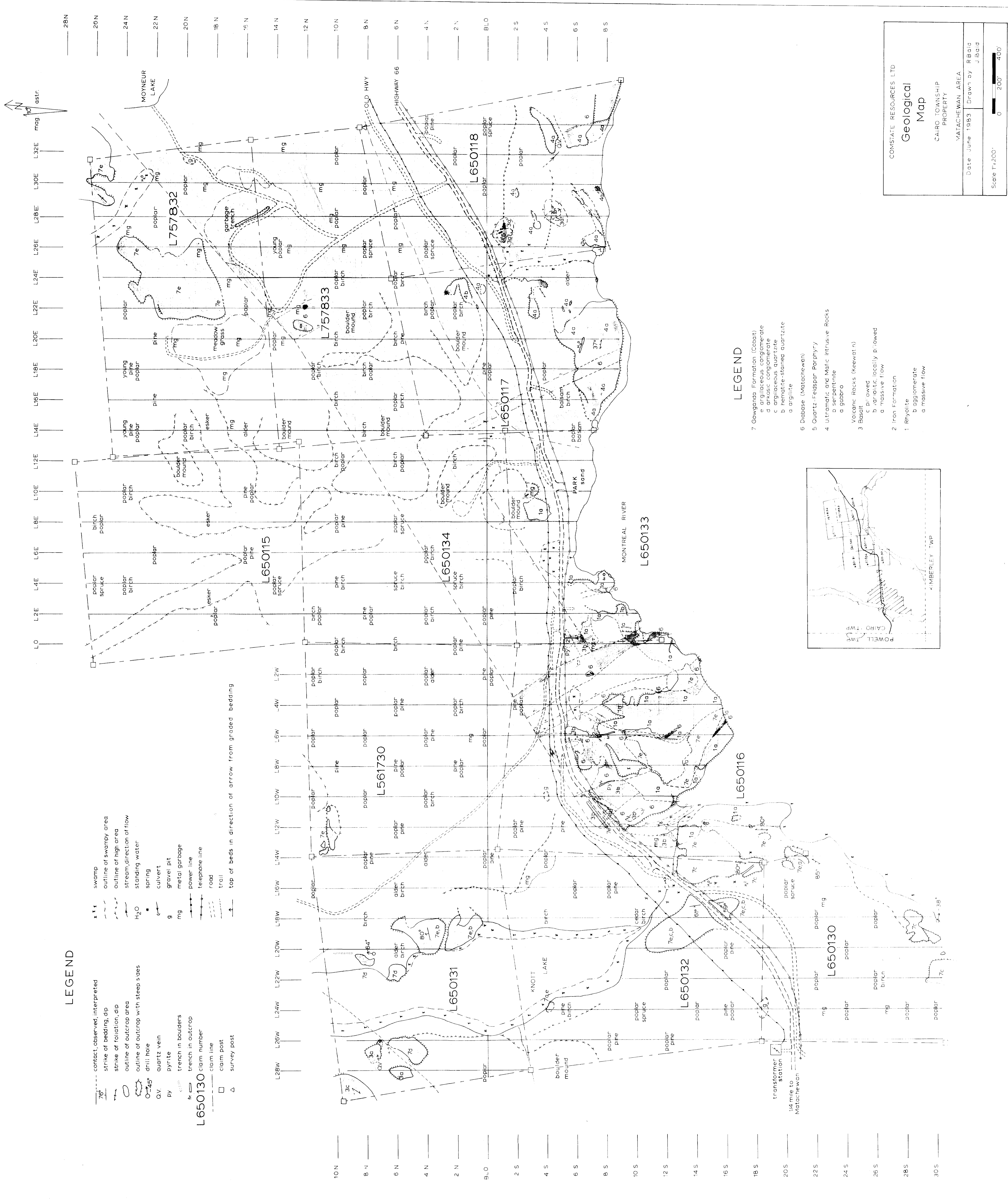
Sincerely,

Roberta Bald

D. R. Pyke

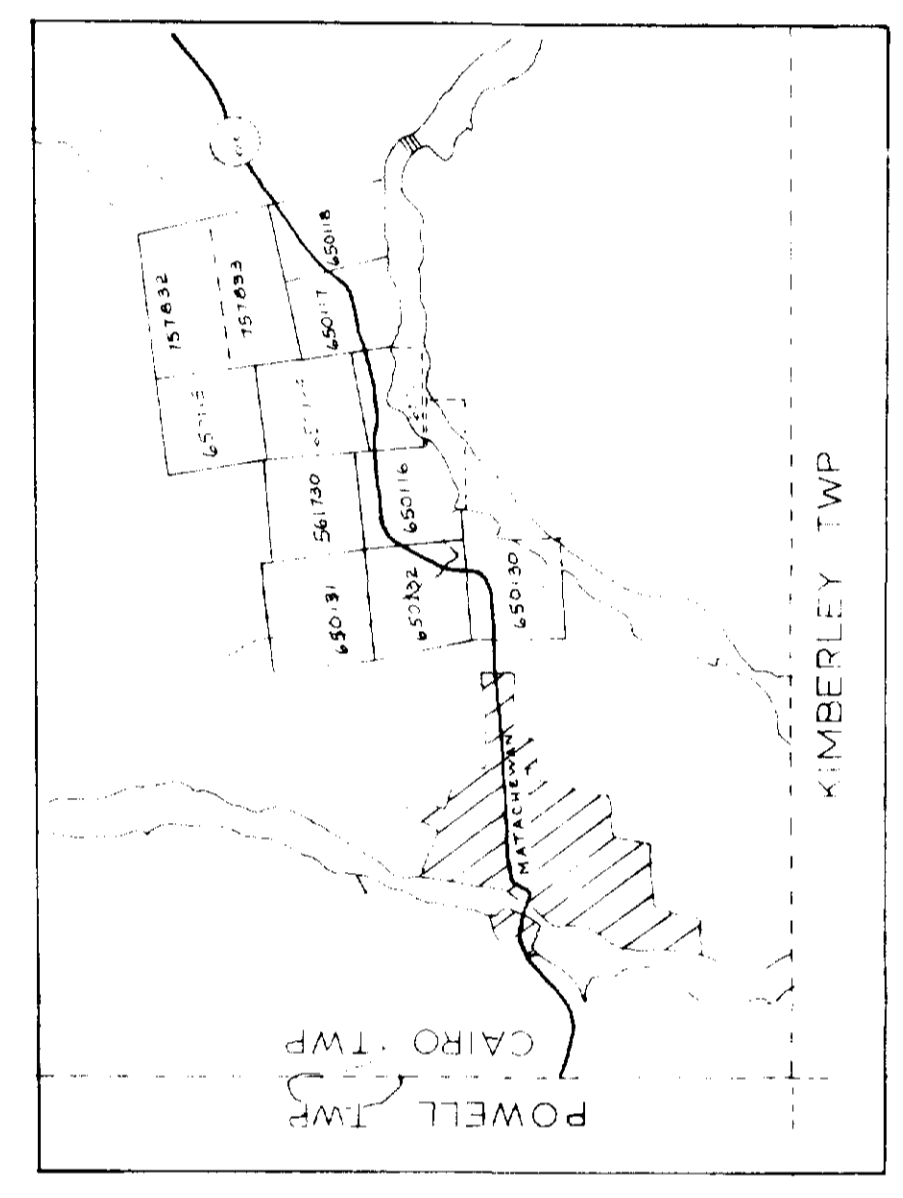
LEGEND

- 76° --- contact, observed, interpreted
- strike of bedding, dip
- strike of foliation, dip
- outline of outcrop area
- outline of outcrop with steep sides
- 745° drill hole
- QV quartz vein
- py pyrite
- tr trench in boulders
- tr trench in outcrop
- L650130 claim number
- claim line
- claim post
- △ survey post
- swamp
- outline of swampy area
- outline of high area
- stream, direction of flow
- H₂O standing water
- spring
- culvert
- g gravel pit
- mg metal garbage
- power line
- telephone line
- road
- trail
- top of beds in direction of arrow from graded bedding



LEGEND

- 7 Gowganda Formation (Cobalt)
 - e argillaceous conglomerate
 - d arkosic conglomerate
 - c argillaceous quartzite
 - b hematite-stained quartzite
 - a argillite
- 6 Diabase (Matachewan)
- 5 Quartz-Feldspar Porphyry
- 4 Ultramafic and Mafic Intrusive Rocks
 - a serpentinite
 - a gabbro
- Volcanic Rocks (Keewatin)
 - 3 Basalt
 - c pillowed
 - b rhyolite locally pillowed
 - a massive flow
- 2 Iron Formation
 - 1 Rhyolite
 - b agglomerate
 - a massive flow



COMSTATE RESOURCES LTD
Geological Map
 CAIRO TOWNSHIP PROPERTY
 YATACHEWAN AREA
 Date June 1993 Drawn by RBald J.Bald
 Scale 1:200' 0 200' 400'

L. J. J. J.

