



42A14NE0051 63.814 REAUME

010

REPORT ON MAGNETOMETER SURVEY

CLAIMS

| | |
|-------|-------|
| 39473 | 39496 |
| 39474 | 39497 |
| 39475 | 39498 |
| 39476 | 39499 |
| 39478 | 39502 |
| 39479 | 39503 |
| 39480 | 39504 |
| 39481 | 39505 |
| 39482 | 39507 |
| 39483 | 39508 |
| 39488 | 39509 |
| 39489 | 39510 |
| 39492 | 39512 |
| 39495 | 39513 |
| | 39514 |
| | 39518 |

LOTS 8 to 10, Ranges V & VI

Reaume Township, District of Cochrane

March & April 1956

Acme Geophysics Exploration Limited,

Box 530

Kirkland Lake, Ontario.

Accessibility:

The claims can be reached by fair road west from Cochrane for approximately 8 miles thence south for approximately 13 miles, to an old camp which is about 3 miles north of the surveyed area. The last 3 miles was covered on foot.

MAGNETOMETER SURVEY:

Purpose:

The survey was undertaken to outline in as much detail as practical magnetic indications picked up by dip needle, and to locate if possible the areas more worthy of further exploration.

Details:

A Schmidt, vertical type temperature compensated Askaria magnetometer, Nr 234427, calibrated to the sensitivity of 30 gammas per scale division was used on the survey.

The Master Station was established on East Line 6 North approximately 300' N.W. of No. 3 Post of Claim 39477. The actual reading at this point was close to zero. By use of the latitude screw the instrument was set at zero to facilitate the survey. This adjustment is well within the limit of accuracy of the survey and in no way effects the relative anomalies. The plotted location of the Master Station is shown in the upper left hand corner of the anomaly plan.

Temporary control stations were established throughout the survey area and tied into the Master Station. These are designated by a small solid triangle on the plan. Most are located along the base line at traverse lines. Base station checks were made at two hour intervals and any apparent erratic readings were retaken.

The Baseline had previously been established along the E.W. Range Line between Ranges V & VI.

Observations were taken, for the most part, at 50' intervals on lines previously cut at right angles to the base line 300' apart. Where greater detail was required, lines were established 150' apart and observations made at 50' intervals.

Auxilliary magnets were used in taking readings where required. All readings have been corrected for variations, diurnal and latitude, and plotted as gammas on the accompanying plan drawn to a scale of 1" = 200'.

Readings have been contoured on the 200 scale plan at various intervals as indicated.

Geology:

The time of year the survey was conducted eliminated the possibility of observing outcrop geology. The area is nearly flat and was covered by four feet of snow. The surface contour would indicate that the area for the most part would be covered by overburden and outcroppings would be few.

Geophysical Interpretations and Results:

Survey results indicate a general east-west strike to the structure with the exception of a south-easterly to south strike of a 9000 anomaly zone starting on E.L 30 S and extending slightly south of east to E.L 51 S. where it strikes almost due south and extends off the survey area.

Within this 9000 anomaly zone are higher anomalies, up to 14000 gammas. The 9000 anomaly zone is interpreted as being a serpentine or ultra-basic dike containing zones of greater concentrations

of iron mineralization.

The north part of the survey area is relatively magnetically low. This lends to the interpretation that the results south of the zero anomaly line indicate an area of chiefly basic to ultra-basic rocks. North of the base line between E.L 21 N. and E.L 36 N. is an area of polarization with readings ranging from negative of 2747 gammas to positive of 12360 gammas on E.L 30 N. This condition of polarizations could represent concentrations of magnetic ore minerals or magnetic pyrrhotite. Concentrations of slightly magnetic chromite or nickeliferrous pyrrhotite have produced anomalous conditions on other surveys.

Survey results indicate a steep dip to the general structure and nothing positive dip wise to individual high anomaly areas. In some instances the individual high areas are indicated to dip steeply south and again in some instances, steeply north. Rock surface contour below overburden could give indications interpreted as dip.

The anomalies expressed by the magnetic contours are dependent on the variable magnetic intensities and permeability of the underlying rocks and may represent conditions near or at unknown depths below surface. High magnetic anomalies normally indicate the presence of basic rocks like gabbro, serpentine or diabase which are relatively high in iron content. In special instances the anomalies may be due or partly due to concentrations of magnetic ore minerals.

On this particular survey which was carried out during the winter with four feet of snow covering an area where no detailed geological maps were available interpretation of the anomalies depends,

for the most part, on further geological information. The survey results do indicate the areas most favourable for diamond drilling exploration. Further interpretation of the survey results should be made in relation to drilling information, as it becomes available.

Conclusions:

The area between E.L 21 N. and E.L 36 N, approximately 1500' North of the base line, encompassing the five anomalies in excess of 9000 gammas and surrounded by the negative anomalies appears to be the most likely area for detailed investigation by diamond drilling. The indications in this area are anomalous to those surrounding concentrations of magnetic ore minerals. Survey results in this area would not indicate any large concentration of magnetic ore mineralization but the dissemination of weakly magnetic ore minerals such as chromite within the area could still make it of economic importance.

Results of further investigation of the above area would determine the importance of investigating the other anomaly areas along the strike.

The 9000 anomaly area at the base line and south of it with its anomalies up in the 14000 gamma range is an anomalous condition to what has been found in some of the serpentine-asbestos areas. The higher anomaly areas within the 9000 gamma contour should represent higher concentrations of iron minerals. The relatively common association of magnetite and asbestos is a possibility.

Recommendations:

- (1) Plot any surface geology known on geophysical contour plan, and check interpretations in light of this information.

- (2) Investigate by drilling, or surface work if possible, anomaly area 1500' north of the base line between E.L 21 N. and E.L 36 N.
 - (a) E.L 30 N. between the 10,092 and the 12360 readings would appear the most likely place for initial drilling investigation.
- (3) Investigate the high anomalies within the 9000 contour south of the base line particularly the 12000 gamma contour on E.L 51 S. and E.L 54 S.
- (4) Correlate drilling and magnetic results.

Respectfully submitted,

ACME GEOPHYSICS EXPLORATION LTD.



J.W. Baker
per J.W. Baker, P. Eng.,
Vice-President.

Maps accompanying Report

Geomagnetic Plan showing Readings and Contours
Scale 1 inch = 200 feet

Key Sketch Plan showing Location of Claims and Area surveyed
Scale 1 inch = 40 chains

Notes: Magnetometer Operator Hugh Gauthier, Larder Lake, Ontario.

Helper S. Morrissette, Larder Lake, Ontario.

Lines run 26.7 Miles
Observations 2310

Larder Lake Control Station value 4701 Gammas.



SUMMARY

Porcupine Mining Division.

Assessment work applied for by Upper Canada Mines Ltd. on (25) Claims numbered 39474-75-76-78-79-80-88-89-92-95-96-97-98-99: & 39502-03-04-05 39507-08-10-12-13-14-18.

| <u>Name</u> | <u>Address</u> | <u>Period worked</u> | <u>Type of work Performed</u> | <u>Man Days</u> |
|------------------|------------------|----------------------|-------------------------------|-----------------|
| H.J. Bowers. | Dobie, Ont. | 11 June -15 June/56 | Prospecting | 5 |
| W.J. Rhamey. | Dobie, Ont. | 9 Sept.-14 Sept. | Prospecting | 6 |
| J.S. White. | Towson, Mo. USA. | 9 June - 5 Sept. | Pros. & Mapping | 89 |
| D.W. Tully. | Dobie, Ont. | 9 June -14 Sept. | Supervision. | 14 |
| R.A. Wildermuth. | 66 Gov't Rd. W. | 5 Sept -14 Sept. | Pros. & Mapping | 10 |
| | Kirkland Lake. | 18 Dec. -31 Dec. | Draughting. | 10 |

| | | |
|--------------------------------------|-----------------------------------|--------------|
| | (1) Total Man-Days applied for -- | 134 |
| (2) Geophysical Survey | - Man-Days applied for -- | 880 |
| (3) Diamond Drilling. | - Total Footage Drilled. | <u>1,586</u> |
| Total Assessment Days applied for -- | | <u>2,600</u> |

GROUP 1.

D.D. Hole R. 2 - 875' on Claim 39479
 Geophysical Survey 480
 Prospecting. 5

| | (2) Total 1,360 | | AppORTIONED as shown below. | |
|-----------|---------------------|---------------------------|-----------------------------|---------------|
| | <u>Geophysical.</u> | (3) <u>Dia. Drilling.</u> | <u>Prospecting(1)</u> | <u>Total.</u> |
| C1 39474 | 40 | 40 | | 80 |
| 75 | 40 | 80 | | 120 |
| 76 | 40 | 80 | | 120 |
| 78 | 40 | 80 | | 120 |
| 79 | 40 | 80 | | 120 |
| 80 | 40 | 40 | | 80 |
| 88 | 40 | 75 | 5 | 120 |
| 89 | 40 | 80 | | 120 |
| 92 | 40 | 80 | | 120 |
| 95 | 40 | 80 | | 120 |
| 96 | 40 | 80 | | 120 |
| 99 | <u>40</u> | <u>80</u> | | <u>120</u> |
| 12 Claims | 480 | 875 | 5 | 1360 |

GROUP 11.

D.D. Hole R. 1 - 711' on Claim 39514
Geophysical Survey 400
Prospecting 129

Total 1240 Apportioned as shown below

| | <u>Geophysical.</u> | <u>Dia Drilling</u> | <u>Prospecting</u> | <u>Total</u> |
|----------|---------------------|---------------------|--------------------|--------------|
| G1 39497 | 40 | 80 | | 120 |
| 98 | 40 | 40 | 40 | 120 |
| 39502 | 40 | 40 | | 80 |
| 03 | 40 | 40 | | 80 |
| 04 | 40 | | 40 | 80 |
| 05 | 40 | 40 | | 80 |
| 07 | 40 | 40 | | 80 |
| 08 | 40 | 40 | | 80 |
| 10 | 40 | 80 | | 120 |
| 12 | | 120 | | 120 |
| 13 | 40 | 120 | | 120 |
| 14 | 40 | 40 | 40 | 120 |
| 18 | | 31 | 9 | 40 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 400 | 771 | 129 | 1, 240 |

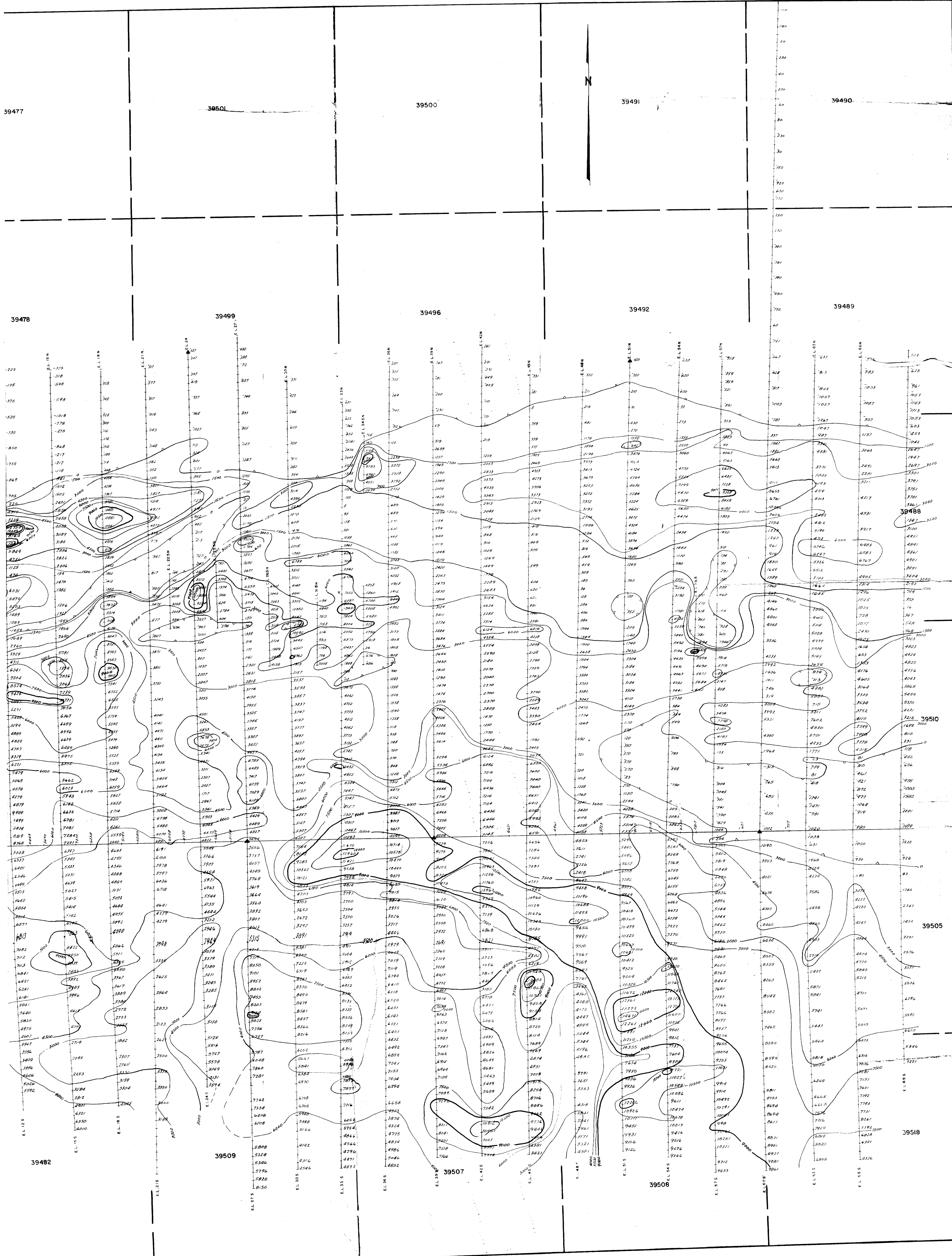
GEOMAGNETIC SURVEY PLAN COVERING CLAIMS:-
39473, 74, 75, 76, 78, 79, 80, 81, 82, 83, 88, 89, 92, 95, 96,
97, 98, 99, 39502, 03, 04, 05, 07, 08, 09, 10, 12, 13, 14, & 18.
Lots 8 to 10, Ranges 5 & 6, REAUME TOWNSHIP,
DISTRICT OF COCHRANE.

63.814

OUR

SCALE:- 1" = 200'
APRIL 1956.

ACME GEOPHYSICS EXPLORATION LIMITED.
KIRKLAND LAKE ONTARIO.



GEOMAGNETIC SURVEY PLAN COVERING CLAIMS:-
39473, 74, 75, 76, 78, 79, 80, 81, 82, 83, 88, 89, 92, 95, 96,
97, 98, 99, 39502, 03, 04, 05, 07, 08, 09, 10, 12, 13, 14, & 18.
Lots 8 to 10, Ranges 5 & 6, REAUME TOWNSHIP
DISTRICT OF COCHRANE.

ACME GEOPHYSICS EXPLORATION LIMITED.
KIRKLAND LAKE ONTARIO.

SCALE:- 1" = 200'
APRIL 1956.

LEGEND

○ NEGATIVE CONTOUR ○ 1000 △ MASTER STATION.
 □ 9000 ▲ TEMPORARY STATIONS.
 □ 10,500
 □ 12,000

