

REPORT ON A GEOCHEMICAL SURVEY ON THE  
MIOCENE PROPERTY OF GRANDEUR MINES LTD. (NPL)

Wiggins Creek 1-18; Lucky Dawn 1-4; Sandra 1-3;  
Nancy 1-2; Mabel 1; Hearts Content 1-2.

Situated immediately north of Miocene, B.C.

121°43'W; 52°17'N  
52° 121° 5' W 93A05E

Submitted by: R.H.D. Philp, P.Eng.

Owner: Grandeur Mines Ltd. (NPL).

Work conducted by Grandeur Mines Ltd. (NPL)  
during June - July, 1969.



2014

REPORT ON

A GEOCHEMICAL SURVEY

ON THE MIOCENE PROPERTY

OF

GRANDEUR MINES LTD. (NPL).

September 16, 1969

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Maps	Scale
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Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. **2014** MAP

REPORT ON A GEOCHEMICAL SURVEY  
ON THE MIOCENE PROPERTY  
of  
GRANDEUR MINES LTD. (NPL).

INTRODUCTION:

The Miocene Property of Grandeur Mines Ltd. (NPL) consists of 30 recorded mineral claims situated 20 miles northeast of Williams Lake, British Columbia.

Staked to cover known occurrences of copper mineralization, the claims were initially explored by prospecting and bulldozer trenching. More recently a geochemical soil sampling survey has been completed over the group. This survey was conducted by personnel of Grandeur Mines under the direction of the writer.

LOCATION AND ACCESS:

The property lies approximately 20 miles northeast of Williams Lake in central British Columbia. Coordinates are 121°43' west longitude, 52°17' north latitude.

Access to the property is by gravel roads from 150 Mile House. Rough dirt roads traverse a portion of the claims.

PHYSIOGRAPHY:

Relief throughout the area is low with elevations averaging approximately 3500 feet above sea-level. The region is lightly treed although underbrush is generally absent.

PROPERTY:

The property consists of the following 30 contiguous mineral claims.

<u>Claim</u>	<u>Record Number</u>
Wiggins Creek 1-9	36646 - 36654
10-11	36869 - 36870
12-16	36721 - 36725
17-18	37285 - 37286
Lucky Dawn 1-2	37126 - 37127
3-4	37360 - 37361
Sandra 1-3	36871 - 36873
Nancy 1-2	37221 - 37222
Mabel 1	37125
Hearts Content 1-2	36719 - 36720

GEOLOGY:

Overburden cover is extensive throughout the claims area with outcrop confined to a few small scattered areas.

Government mapping at a scale of 1 inch = 4 miles indicates trachyte porphyry, either volcanic or intrusive in origin, occurs within the claims area. This is by far the most abundant rock type found on the property during the geochemical survey. Minor conglomerate was noted in the eastern portion; altered diorite and at one point limestone, were noted in the north.

Copper mineralization is exposed in outcrop and trenches near the boundary between Wiggins Creek numbers 2 and 5. Here, chalcopyrite and malachite occur with quartz and calcite along several shears and fractures, varying up to one foot wide, within the trachyte porphyry, most commonly along zones trending N65°-80°W.

Similar mineralization also occurs in trachyte porphyry approximately 1 and 1½ claim lengths south-south-east of the above.

In a lower trench, east of the main copper exposures, granodiorite porphyry has been exposed, possibly occurring as a S30°W trending dike. A rusty-brown, carbonate-rich rock to the immediate south appears to be a similar, but strongly altered, intrusive.

#### GEOCHEMICAL SURVEY:

##### Field Procedures:

A north south base-line was established through the center of the claim group and east-west cross-lines run at 400 foot intervals. All lines were established by chain and compass and marked with coloured flagging. A total of 1.38 miles of base-line and 21.0 miles of cross-lines were established in this manner.

Soil samples were taken at 200 foot intervals on all cross-lines. Samples were collected by means of a pick or auger and taken, wherever possible, from the soil horizon immediately underlying the surface humous layer. Notes were taken at each sample location regarding topography, soil type, vegetation, etc., to be used later in interpreting the results.

##### Geochemical Testing:

Samples were packaged in Kraft envelopes and sent to Chemex Labs Ltd. of North Vancouver for testing, where they were first dried in an electric oven at 150°F then screened to -80 mesh. Following this, they were digested by a perchloric-nitric acid mixture, then analyzed by the atomic absorption method. All samples were tested for total copper content with values reported in parts per million (ppm).

##### Results of Survey:

Background values vary up to 30 ppm, with a mixture of background and possibly anomalous values between 30 and 65 ppm and anomalous values above this.

... 4



A very extensive anomalous zone occurs in the central portion of the property, extending for 4600 feet in a north-south direction between lines 4 + 00S and 40 + 00N. Width varies from a maximum of 1800 feet to 200 feet, narrowing towards the north. Maximum value of 1960 ppm copper occurs at the main copper showing. The anomalous zone also encompasses the other two mineralized zones referred to earlier.

Several other smaller copper anomalies were outlined, mainly in the western portion of the grid. These extend across 2 to 3 lines with the largest, centered at 16 + 00N, 12 + 00W, measuring 1300 by 500 feet and having a peak value of 225 ppm copper. Outcrop has been noted within this anomalous area.

Considerable outcrop also occurs in the vicinity of an anomaly near the western end of lines 4 + 00S and 8 + 00S.

The largest anomaly in the eastern portion of the grid occurs on lines 0 + 00 to 8 + 00S at approximately 12 + 00W. No outcrop has been noted in the vicinity of this anomaly which has a peak value of 323 ppm copper.

#### CONCLUSIONS AND RECOMMENDATIONS:

The geochemical survey has outlined one very large anomaly and several of secondary interest, all warranting additional investigation.

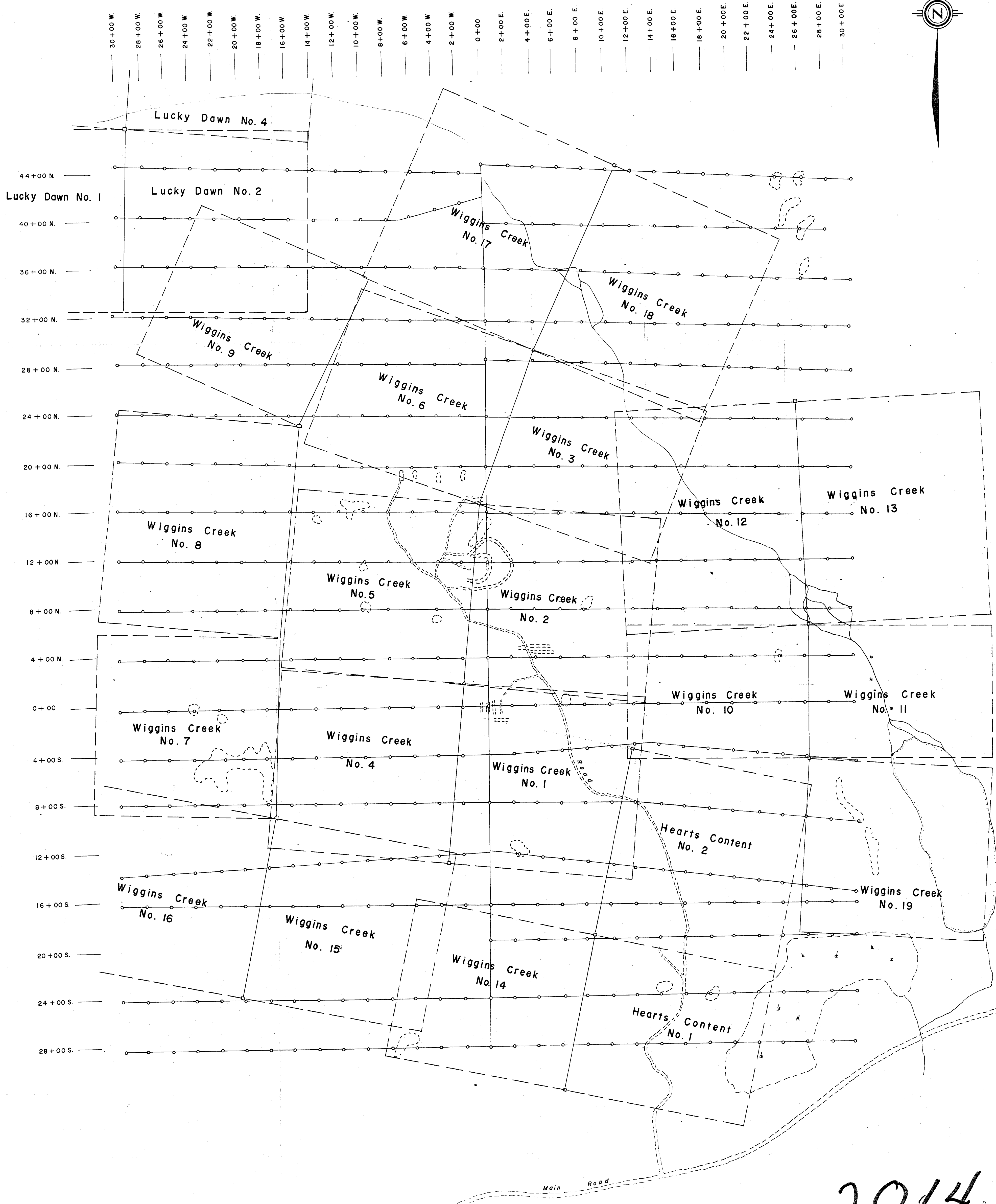
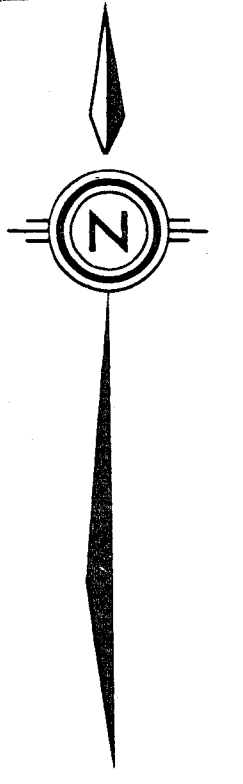
Copper mineralization has been noted within portions of the principal anomaly but that exposed would not account for the total anomalous area.

Future work in the form of detailed geological, geochemical and geophysical surveys, followed by trenching and/or drilling, should be undertaken to test the anomalous areas.

Respectfully Submitted,



R.H.D. Philp, P. Eng.



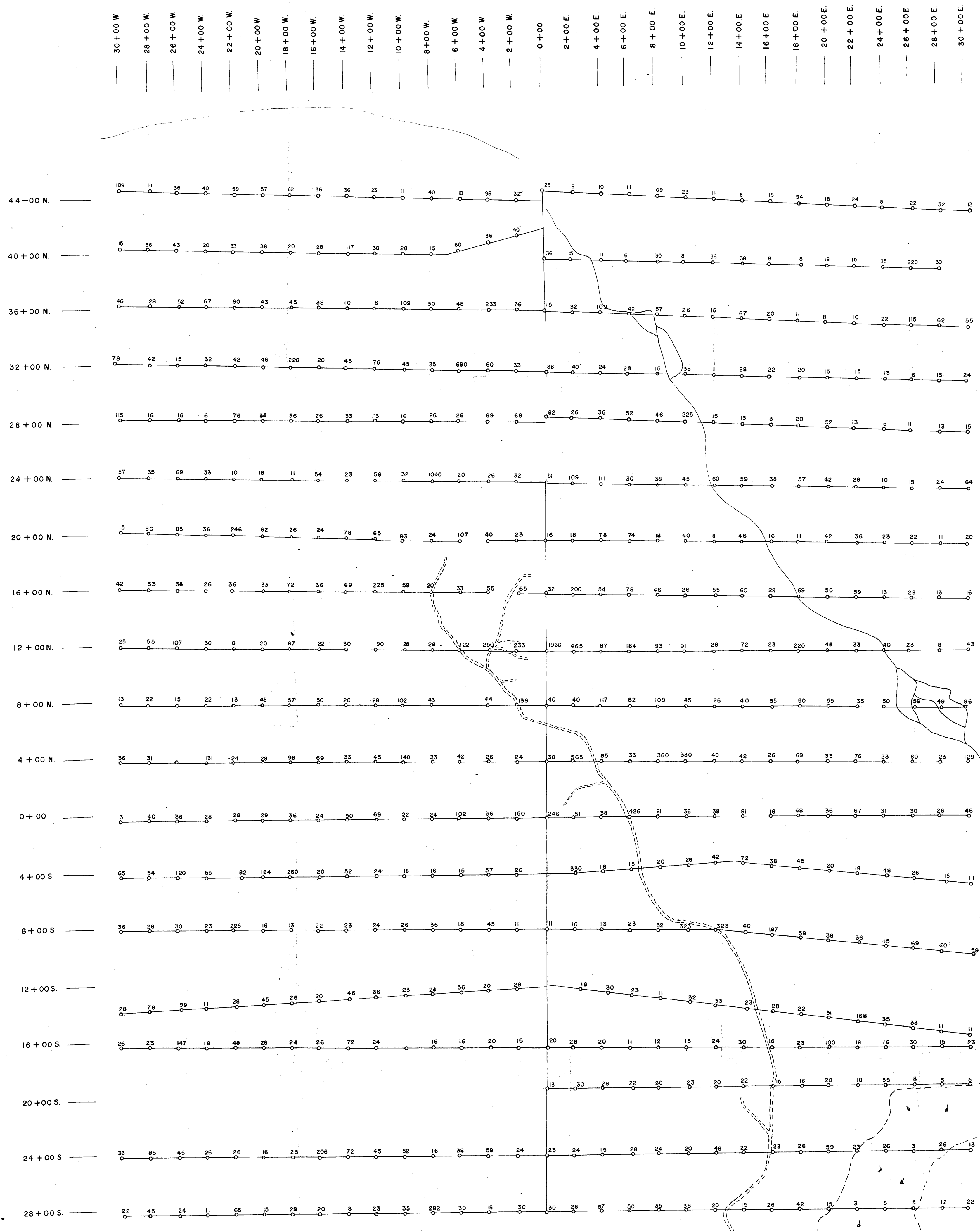
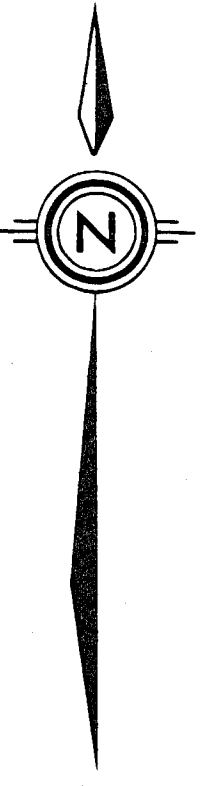
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**LEGEND**

- OUTCROP
- TRENCH

AGILIS EXPLORATION SERVICES LTD.	
GRANDEUR MINES LTD. MIOCENE PROPERTY	
<b>Surface Plan</b>	
DRAWN BY: L. M.	SCALE: 1" = 400'
CHECKED BY: R. P.	DATE: July, 1969



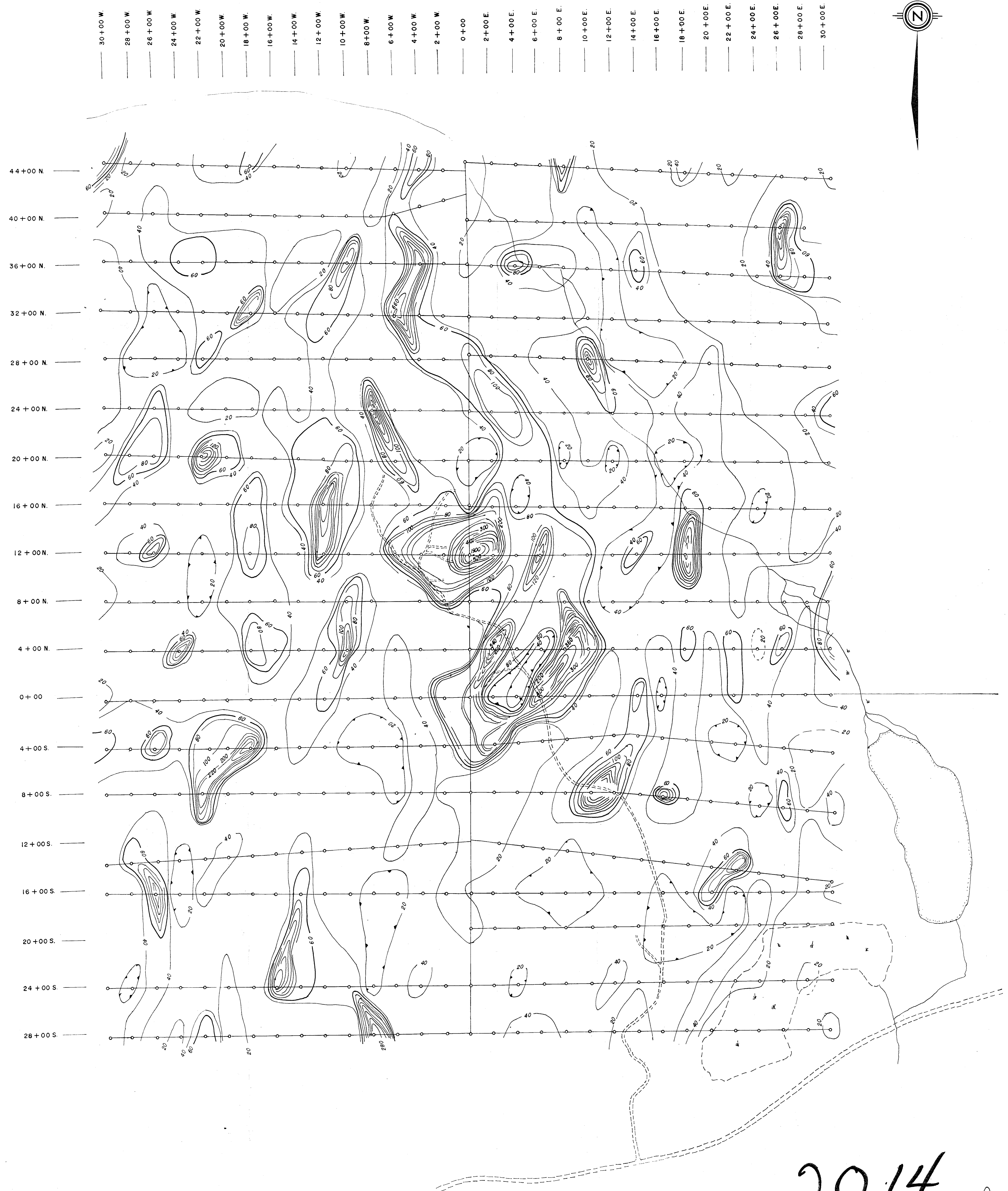
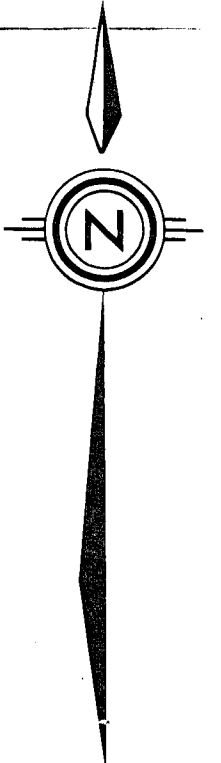


**Legend**

60 — Copper Value in ppm

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AGILIS EXPLORATION SERVICES LTD.	
GRANDEUR MINES LTD.	
MIOCENE PROPERTY	
Geochemical Survey	
DRAWN BY: L. M.	SCALE: 1" = 400'
CHECKED BY: R. P.	DATE: July, 1969



**2014**

**Legend**  
 COPPER CONTOUR in ppm  
 CONTOUR INTERVAL — 20 ppm

AGILIS EXPLORATION SERVICES LTD.	
GRANDEUR MINES LTD. MIOCENE PROPERTY	
Geochemical Survey CONTOUR MAP	
DRAWN BY: L. M.	SCALE: 1" = 400'
CHECKED BY: R. P.	DATE: July, 1969