

A REPORT ON THE GEOCHEMICAL PROSPECTING  
OF THE GARNETT GROUP.

SITUATED:

4 miles west of Endako;  $54^{\circ}$   $125^{\circ}$  S.E.

AUTHOR: IAN.F.MORTON.

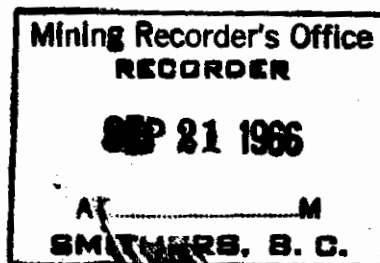
XXX

HOLDER OF CLAIMS

93 K/3E

UNITED BUFFADISON MINES, LTD.

Work done from 5/7/66 to 23/7/66.



# 867

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typewriter Copy *JM*

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## A REPORT ON THE GEOCHEMICAL PROSPECTING OF THE GARNETT GROUP

### Introduction

Since geochemical prospecting has ~~h~~ shown some success seemingly in outlining the Endako orebody, the following geochemical prospecting was performed at the request of United Buffadison Mines, Ltd in order to determine whether any anomalous conditions--such as those at Endako--existed within their Garnett Group of claims at Endako.

### Location and Access

The property of 16 claims crosses the Northern Trans Provincial Highway # 16 due south of Savory Lake-- a point due west of the village of Endako.

### Climate

The region gets about 19" of rain, and from 3' to 4' of snow. The temperature ranges from ~~xxx~~ maximum of 100°F to a minimum of 60°F. A short summer--from April to September--is the usual, and this may not be devoid of summer frosts.

### Topography

The area is hilly with elevations varying from 2300' to 2800'.

### Vegetation

The typical trees of the Cariboo Parklands Biotic Zone, consequently, are found: white and black spruce, lodgepole ~~pine~~ pine, englemann spruce, alpine fir, northern black cottonwood, and some aspen and dwarf juniper. A profusion of herbaceous plants is also quite evident.

### Soil

The soil in most parts of the property is quite thin and-- in the Northern portion of the property-- should be regarded as a transported soil formed from the breakdown of underlying glacial deposits of fair depth; in the Southern portion of the property, the soil appears to be more intrinsically related to the breakdown of the underlying bedrock. Throughout the property, there is a surface A1 layer of undecayed organic material forming a "Mor" type soil with an underlying A2 layer forming a podsollic horizon; sometimes black bog soils are present--instead of the Mor-- which would fall into the Kubiena Classification for Soils as an Anmoor.

### History of the Area

The orebody at the mine at Endako--which is only 3 miles ~~xx~~ to the Southeast--was seemingly outlined by geochemical prospecting. Other properties in the area have been prospected in this manner, but seemingly with a marked lack of success.

In reference to the sampling procedure for the geochemical prospecting of the Garnett Group, the general procedure is described in page 2 of the report; the grid was scraped down to the B<sub>h</sub> soil horizon with a bulldozer, because this horizon appeared to give the most reliable results. The individual samples were taken as follows:

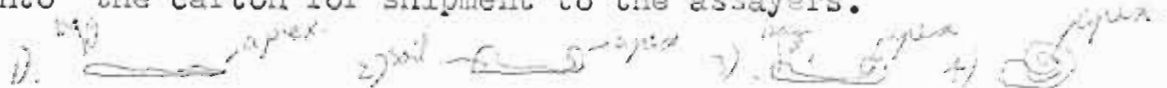
- 1) Sampling was performed by means of a table spoon.
- 2) About 1" of soil was removed from the previously bulldozed gridline to avoid the chance of recent contamination (and in order to assist in avoiding contamination, this excavation was made near the edge of the gridline.)
- 3) Two level spoonfuls were removed from the excavation - and fragments over approximately 1/8" were removed from the sample, while still on the spoon, by means of the fingers.
- 4) The two spoonfuls were placed in a stiff brown paper sampling bag, supplied by the assayer.
- 5) The open end of the bag was folded from one corner so that the crease formed the diagonal of a square; and then the other corner was folded so as to bisect the remaining corner of the square. A pointed shape is now seen to close the end of the bag.  
N.B. Diagram as follows.



- 6) The bags were threaded onto a string which passed through their apices, and hung in a heated plywood cabin for 5 days.



- 7) The bags were then, after drying, taken off the string, their apices rolled up tightly like a carpet, and packed tightly into the carton for shipment to the assayers.



I trust that this will complete the details required concerning this property, for the time being.

Wishing you a happy and prosperous New Year.

  
Ian F. Morton.

Procedure:

- A.1. In order to determine the best ~~the~~ mode of sampling on this property, an initial reconnaissance was performed in which samples were taken at various points around the property of the following materials:
1. various soil horizons.
  2. specific parts of different plant species.
  3. stream sediments.
2. In the course of reconnaissance, the background values for soil were also determined.
3. It was found that the most reliable results were derived from the B soil horizon, and that the background value was, in the main, less than 0.5 ppm.

B. Since, the Southern portion of the property seemed likely -due to the shallow overburden- to bear the greater possibility of producing results which could be related to bedrock, a more intensive sampling procedure appeared necessary than in the North, where great depths of transported overburden seemed to exist; the northern portion, however, was sampled in order to check ~~general~~ general soil chemical ~~xx~~ trends, and their relationship-if any- to those in the southern portion of the property.

The north-south base line was emplaced by both line cutting and bulldozing; then every 400' in the Northern portion of the property an east-west grid line was cut; and in the Southern portion of the property, east-west grid lines were cut every 200' along the base line. Those lines cut by the bulldozer were scraped down to the Bh soil horizon to facilitate consistent soil sampling from that layer and the Bt horizon. Samples in the Northern portion were taken at 200' intervals, while those in the South were taken at 50' intervals.

Results

1. Attached hereto is a map showing the positions of soil samples in relationship to claim boundaries, and affixed to the front of this map is a contoured geochemical overlay--in order that trends may be seen more readily.
2. The material sampled was invariably the B soil horizon, except for the odd occasion when the ~~xxx~~ C soil horizon had to be sampled because of the thin soil.
3. The A0 to A2 soil horizons varied from a Mor overlying podsol to Anmoor overlying B soil horizon.
4. Little bedrock was unfortunately exposed, and it was only by trenching that anomalous conditions could be checked; no MoS<sub>2</sub> mineralization was ever located in the underlying bedrock,


~~even~~  
~~xxx~~ ~~xxx~~ ~~xxx~~  
~~xxx~~ ~~xxx~~ ~~xxx~~

even after the trenching had been performed so as to trace "float going down"; and  $\text{MoS}_2$  mineralization was found in some trenches located in regions of background anomaly of less than 0.5 parts per million (ppm).

5. In both the Northern section and the Southern of the property, the general background appeared to be less than 0.5 ppm, and in both sections the highest values were in the region of 9 ppm.
6. In the Northern section of the property, the anomalous conditions seem to be related to gravels-in which a gravel pit is present-bearing traces of  $\text{MoS}_2$ .
7. It will be noticed in the geochemical map that, although small tongues of fairly low values seem to indicate a downhill drift from south to north, the general trend of highly anomalous conditions in both the North and South sections of the property maintains an approximately South 80° East trend.

#### Conclusions

- 1) There is no relationship between the geochemical anomalies and bedrock in most portions of ~~the~~ this property.
- 2) The anomalies in the Southern section appear to be related to accumulations of transported mineral in swamps, while that in the Northern section appears to be related to transported mineral in gravel.
- 3) The high values are possibly due to accumulated transported mineral.
- 4) The mineralization found in the course of trenching does not show anomalous conditions due possibly to initial soil transport from the mineralized area, followed by deposition of transported materials in the area, and dispersal of ions by rapid run off from the soil and through the fissure systems of the area.
- 5) The general trend of South 80° East of the anomalous conditions in both the Northern and Southern sections of the property would appear to have some relationship to the flow of the glaciation, and these anomalies may be traced possibly for some distance to the West as part of a glacial drift.
- 6) The swamps in the South may be the results of glacial scouring to enable mineral to be concentrated there from transported materials, while those in the North are mineralized gravels which have been transported.
- 7) The geochemical prospecting does not appear to be very useful on this property because of the transported origin of the soil - however shallow the overburden - even though it may be useful in the surrounding areas.

  
 IAN. F. MORTON.  
 Geologist.

AFFIDAVIT OF COSTS.

I, here, declare:

Rental for transportation and its maintenance for -----to be \$1070.76  
men and equipment.

One man to flag and hold end of chain----- " " \$ 310  
(@ \$20./day for 18 days)

One man to take soil samples and hold other end of chain----- " " \$ 310  
(@\$20/day for 18 days)

649 soil sample assays----- " " \$964.88  
(@\$1.25/sample+20¢/sample for preparation+air express bill)

Geologist(~~for~~ 16 days)----- " " \$466.  
(This man has been supervising the property prior to the  
geochemical, and has organized operations there whether  
they be bulldozing or geochemical work)

Total-----\$3121.64

*Ian F. Morton*

Ian.F.Morton.  
Geologist.

I, Ian F. Morton, declare:

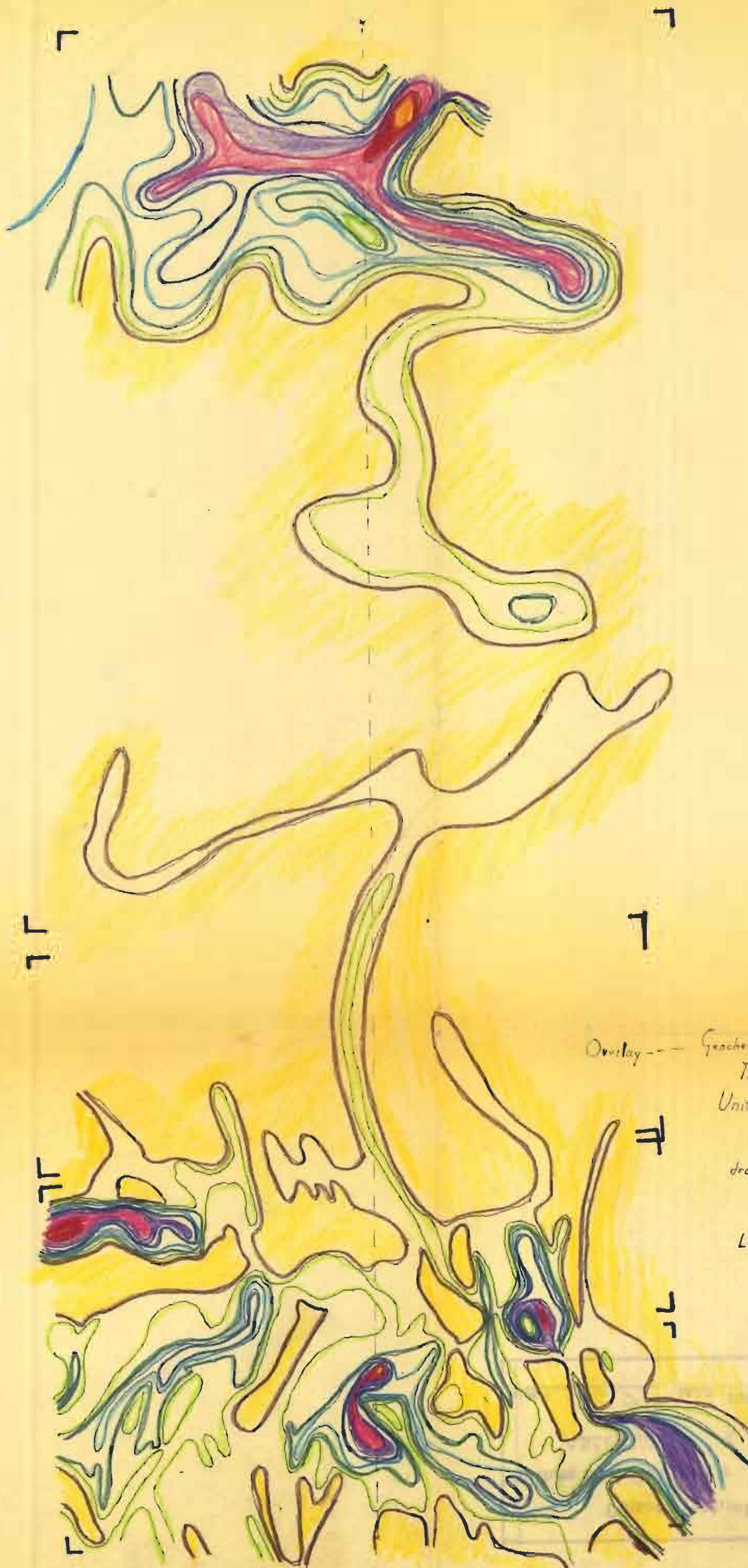
- 1) That I have no interest in the property, or shares of the company either directly or indirectly.
- 2) That this report is based upon my personal supervision of the geochemical prospecting.
- 3) I am not a registered Professional Engineer in any Province in Canada.
- 4) I am a student of the Institution of Mining and Metallurgy (London).
- 5) I am a graduate of the Camborne School of Mines in mining engineering; I am also a graduate of the University of British Columbia with a major in geological and biological sciences.



IAN. F. MORTON.  
Geologist.

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North Vancouver, B.C.





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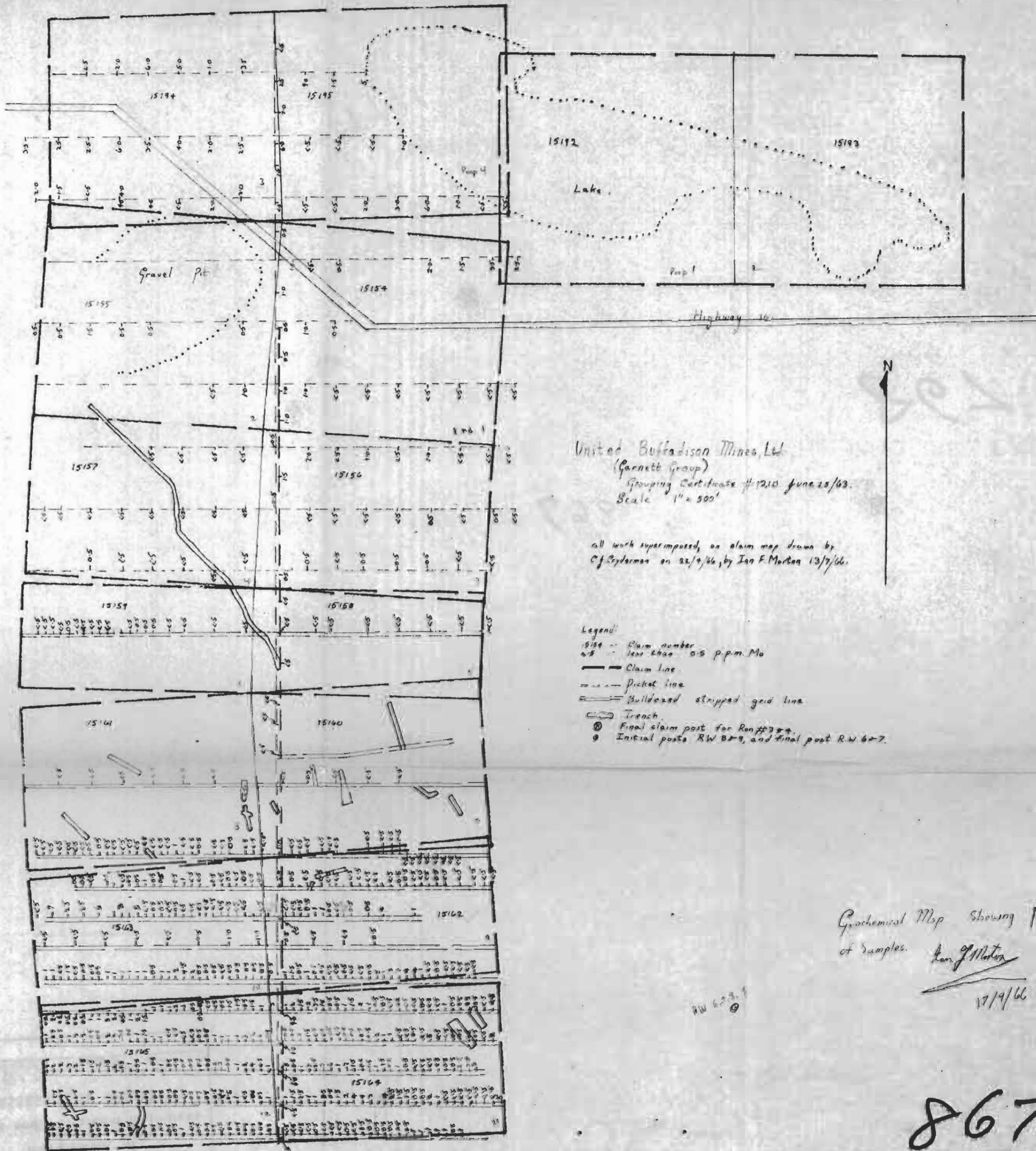
Overlay --- Geochemical Contour Map, Showing Trends on  
 The Garnett Group of  
 United Buffadison Mines, Ltd.  
 Scale 1" = 500'  
 drawn by: Ian F. Morton 13/7/66.

Legend:



Overlay to Geochemical  
 Map. Ian F. Morton  
 17. 19 1966

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United Buffadison Mines Ltd.  
 (Gannett Group)  
 Grouping Certificate #1210 June 25/63.  
 Scale 1" = 500'

all work superimposed on claim map drawn by  
 C. J. Sydeman on 22/9/66, by Ian F. Morton 13/7/66.

- Legend:
- 15194 - Claim number
  - 0.5 - less than 0.5 p.p.m. Mo
  - Claim line
  - - - Picket line
  - Bulldozed stripped grid line
  - Trench
  - ⊙ Final claim post for Ronff's etc.
  - ⊙ Initial posts RW 6+7, and final post RW 6+7.

Geochemical Map showing positions  
 of samples.  
 Ian F. Morton  
 17/9/66

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