

GEOLOGICAL & GEOCHEMICAL REPORT

ON THE MUD LAKE Cu PROSPECT

DEER CLAIMS

Located 3 1/2 miles east of Houston, B.C.  
Latitude 54°23' Longitude 126°36'

by A. GAMBARDILLA & J.F. ALLAN, P.ENG.(B.C.)

for AMAX EXPLORATION, INC.

Work carried out between June 5 - July 3, 1968

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GEOLOGICAL & GEOCHEMICAL REPORT  
ON THE  
MUD LAKE COPPER PROSPECT

Houston, B.C. Area  
Omineca Mining Division  
93 L 7

Vancouver Office  
August, 1968

A.C. Gambardella &  
J.F. Allan, P.Eng. (B.C.)

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## SUMMARY AND CONCLUSIONS

The Mud Lake Copper Prospect is 3 1/2 miles east of Houston, B.C. The property consists of 26 claims, the Deer Group, owned by E.H. Lund of Houston. A program of geochemical sampling and geological mapping was done on the property in the summer of 1968.

The claims are underlain by a series of fragmental, amygdaloidal and porphyritic andesites of the Hazelton Group. At one locality, the volcanics are intruded by a 10 foot wide aplite dyke. Copper mineralization with minor galena and sphalerite occurs in three separate areas over a distance of 2500 feet. Where present, the mineralization is local in extent and is associated with highly sheared and altered volcanic rocks. Alteration products include K-feldspar, quartz, carbonate and minor fluorite. Chalcopyrite, galena and sphalerite occur as fine disseminations and along fractures in areas of intense K-feldspathization. Visual estimates of grades range between the 0.2 and 0.5% cu and 0.2 to 0.5% Zn.

The geochemistry with the exception of areas near the known mineralization has failed to outline additional areas of copper mineralization.

## INTRODUCTION

### Location and Access

The Mud Lake property is located 3 1/2 miles east of Houston, B.C., at latitude 54°23' and longitude 126°36' and an elevation of 2600 feet. Access to the center of the claim group is by rough gravel road from Houston.

### Property

The Deer Group consists of 26 claims owned by E.H. Lund, who staked the claims in 1965.

### Previous Work

In 1963 Julian Mines staked the showing near Mud Lake and did a minor amount of trenching before abandoning the claims. E.H. Lund staked the property in 1965 and the next year optioned it to Canex. Very little work was done and the agreement terminated in the same year.

### Physiography and Vegetation

The Mud Lake property lies on a slight topographic high in the Bulkley Valley. Varying depths of glacial till characteristic of the valley floor cover bedrock. The depth of glacial till varies from nil to an estimated ten feet. Exposures are infrequent and are most commonly found along northeast trending ridges. The property has been logged on a selective basis but considerable stands of timber remain. Jackpine growths are found on well drained ridges and underbrush is in general very light. Growths of aspen are common.



**Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT**

NO. .1608 MAP 2

AMAX EXPLORATION INC.

MUD LAKE COPPER PROSPECT  
OMINECA MINING DIVISION - BRITISH COLUMBIA

**CLAIM MAP**

SCALE 1" = 1 MILE



To accompany report "Mud Lake Copper Prospect" by: A. Gambardella  
J. F. Allan.

Sept. 1968

93 L 7  
FIG. 2

### REGIONAL GEOLOGY

The Mud Lake property is located along a belt of small acid stocks which intrude Jurassic sedimentary and volcanic rocks of the Hazelton Group. The stocks range in composition from acid porphyry to diorite and are considered to be younger satellitic intrusives related to the Coast Range Batholithic complex. Copper and molybdenum mineralization are frequently associated with the acid porphyry stocks which are believed to range in age from Late Cretaceous to Tertiary.

Flat lying basic volcanic rocks of Tertiary age cover an extensive area to the east and south of the property.

### GEOLOGY OF THE DEER GROUP

The Mud Lake property is predominantly underlain by a steeply dipping sequence of volcanic rocks of the Hazelton Group. These are intruded at one location by a dyke of aplitic composition. Outcrop is generally poor and completely lacking in the western portion of the map area.

The volcanic rocks consist of porphyritic andesite, flow breccias and amygdaloidal andesites. The porphyritic andesite ranges in color from purple to medium grey. Small tabular phenocrysts of pink feldspar from 1 to 3 mm in length constitute 5 to 20 percent of the rock. This rock type underlies most of the southern portion of the claim group.

In the central part of the claim group, the porphyritic andesite grades into a series of purple and grey amygdaloidal and fragmental volcanic rocks of andesitic to dacitic composition. These underlie the northern half of the property. The amygdaloidal type is fine grained and contains sparse amygdules of quartz and carbonate. The flow breccias consist of volcanic



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 1608 MAP 1



CANADA  
 DEPARTMENT OF  
 MINES AND TECHNICAL SURVEYS  
 SURVEY AND MAPPING BRANCH

**BRITISH COLUMBIA**

SCALE 1:2,000,000  
 1 inch equals approximately 32 miles

POPULATED PLACES

|              |                    |                   |                 |                |             |
|--------------|--------------------|-------------------|-----------------|----------------|-------------|
| Over 100,000 | 100,000 to 250,000 | 25,000 to 100,000 | 5,000 to 25,000 | 1,000 to 5,000 | Under 1,000 |
|--------------|--------------------|-------------------|-----------------|----------------|-------------|

London Conformal Conic Projection with Standard Parallels at 49°N and 55°N  
 Reproduced from the 1:2,000,000 Map of Canada by the  
 Survey and Mapping Branch, Ottawa, 1962

LOCATION MAP



fragments (less than 1/2" in size) of variable composition in a fine grained purple to dark grey matrix.

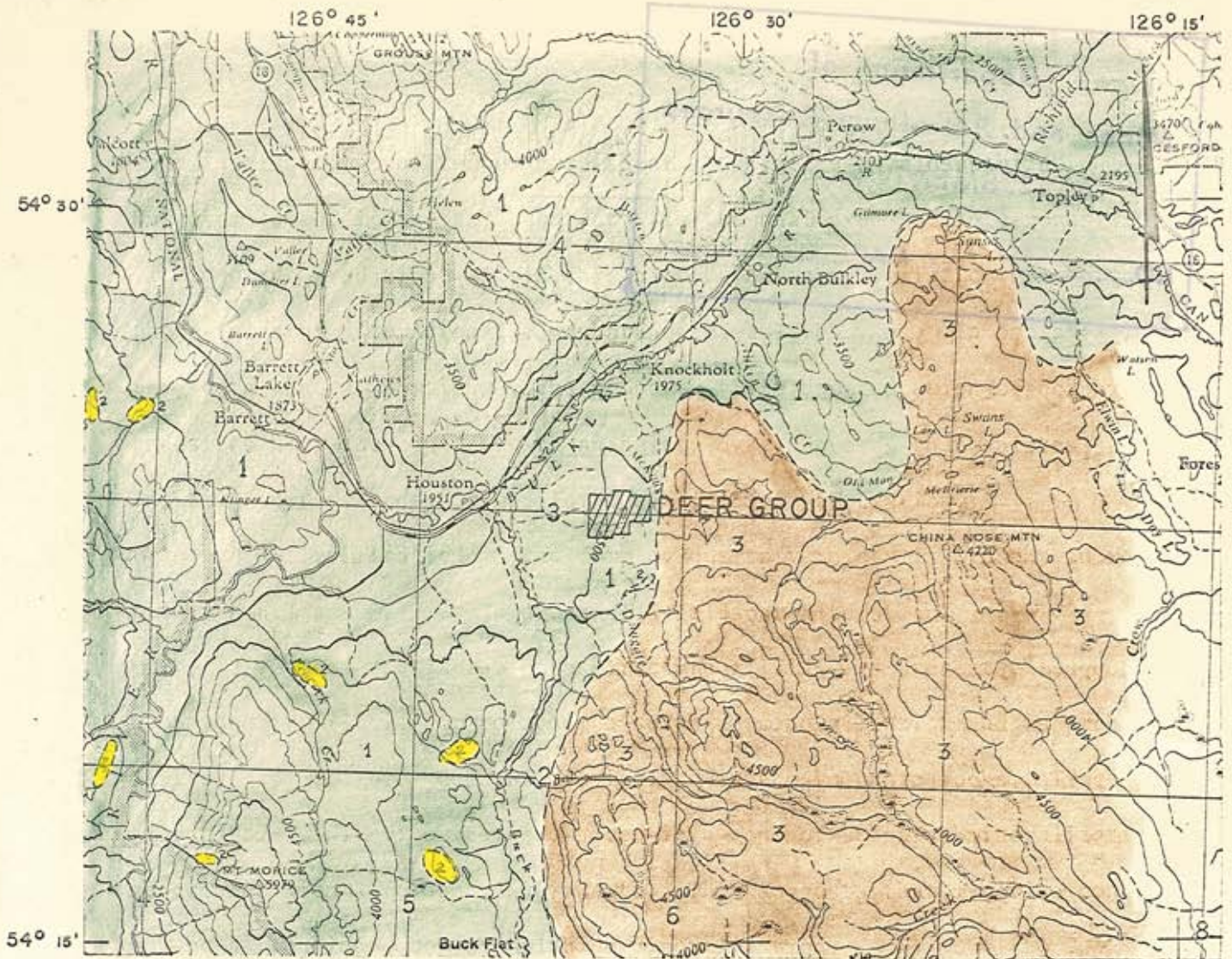
A dyke of aplite, ten feet wide, was mapped in the central part of the property. The rock is pink, fine grained and exhibits gradational contacts with the intruded porphyritic andesite. The latter is silicified and K-feldspathized for a distance of 20 feet from the intrusive contact.

#### STRUCTURE

Because of the paucity of outcrop and lack of structural elements in most exposures, a structural interpretation of volcanic rocks was not possible. Attitudes of banding and lamination, where present, vary from N85E to eastwest with dips varying from 65S to 65N. Two main fracture and joint directions have been noted: N10W/vertical and N20E/vertical. Fracturing is locally intense and is the locus for K-feldspathization and sulphide mineralization. Although no major shear zones have been mapped in the area, the shape and elongation of Mud Lake suggests that the Lake lies at the intersection of two fault zones. This elongation, which changes from northeast to northwest, coincides with the predominant attitude of joints and fractures.

#### ALTERATION

K-feldspathization, silicification, and carbonate alteration were noted in the map area. K-feldspathization is locally extremely intense and is closely associated with sulphide mineralization. This alteration type changes the appearance of the volcanic rocks to pink, aphanitic, well defined zones in which the original structure is largely obliterated. Where amygdaloidal volcanic rocks are affected, occasional quartz filled amygdules can still be recognized. The K-feldspathization is structurally controlled having been noted only in areas of intense fracturing, which probably repre-



TERTIARY

3 *Volcanic rocks.*

UPPER CRETACEOUS OR LATER

2 *Acid porphyry, granite, granodiorite, quartz diorite, diorite.*

JURASSIC

1 *HAZELTON GROUP - Volcanic and sedimentary rocks.*

AMAX EXPLORATION INC.

MUD LAKE COPPER PROSPECT  
OMINECA MINING DIVISION - BRITISH COLUMBIA

REGIONAL GEOLOGY

SCALE 1:250,000

*J.F. Allan*

sent intersections of two or more shear zones. The K-feldspathization, wherever noted, is in sharp contact with the unaltered volcanic rocks with little or no gradation. It is this particular characteristic which gives the K-feldspar alteration the appearance of aplite dykes. In one area in the south central portion of the property, K-feldspathization of porphyritic andesites near the contact with an aplite dyke suggests that aplites, at least in part are responsible for the K-feldspar alteration.

Silicification in the form of quartz veinlets is present in relatively small amounts within areas of K-feldspar alteration.

Carbonate alteration as fracture fillings is present throughout the property. It is not related to sulphide mineralization and is probably derived from the breakdown of plagioclase in the volcanic rocks. Trace amounts of purple fluorite were noted in a zone of sulphide mineralization associated with K-feldspar and quartz. This suggests that fluorine content may be a good indicator of sulphide mineralization.

MINERALIZATION

Chalcopyrite, galena, sphalerite and pyrite are the sulphide minerals found in the property. Chalcopyrite occurs as fine grained disseminations and along fractures in areas of intense K-feldspar alteration. It also occurs in minor amounts along narrow widely spaced quartz veins. Outside of areas of K-feldspathization the chalcopyrite content is nil. Visual estimates of grade in three pits within the claim group range from 0.2 to 0.5% copper.

Galena and sphalerite in variable amounts are associated with the chalcopyrite. They occur as coatings along fractures and in narrow quartz carbonate veins.

Minor amounts of disseminated pyrite are found in association with all other sulphides in the property and in a few scattered outcrops.

Malachite and azurite are found as alteration products of chalcopyrite in all mineralized zones.

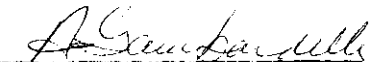



GEOCHEMISTRY

A total of 40~~2~~ soil samples were collected over the property. The sampling was done along claim location lines and compass and tape lines spaced at approximately 800 feet. The sample interval was 100 feet. The samples were analyzed for copper and molybdenum at the AMAX Laboratory in North Burnaby. Determination of pH was done on every third sample. The analytical methods and the laboratory procedures are outlined in detail in Appendix II.

Typically the soil profile in the area is poorly developed over glacial transported material. The average pH is 5.5, and in such an acid environment Cu could be leached out. The Cu content of the soils range from 5 to 120 ppm. A background 25 ppm Cu was obtained from a statistical study of the samples. The Mo content ranges from 0 to 2 ppm.

The geochemistry has failed to outline additional areas of copper mineralization. A slight increase in the copper content of soil was noted near areas of known copper mineralization. The results of the soil sampling program indicate that one or more of the following factors are in existence in the property. 1) copper mineralization is restricted to the already known zones, 2) leaching of copper from soil due to the low pH, 3) impervious layers in the glacial till do not allow upward migration of copper.

  
A. C. Gambardella

  
J. F. Allan, P. Eng. (B.C.)

August, 1968



APPENDIX I

ASSESSMENT DATA

Work done on the Deer Claims from June 5th to July 3rd, 1968.

Geological Mapping 1 1/2 square miles  
Geochemical Sampling 1 1/2 square miles  
Geochemical Analyses - 401 samples

PERSONNEL

J.M. McPhail - Junior Assistant - 3383 West 29th, Vancouver 8, B.C.

C.S. Birt - Junior Assistant - 3249 Quesnel Drive, Vancouver 8, B.C.

A. Gambardella - Geologist - 1600 Beach Avenue, L2104, Vancouver 5, B.C.

SALARIES

|                 |   |                |                       |      |        |
|-----------------|---|----------------|-----------------------|------|--------|
| J.M. McPhail    | - | June 5 - 6     |                       |      |        |
|                 |   | June 14-20     |                       |      |        |
|                 |   | June 23-July 3 | 20 days @ \$14.54/day | = \$ | 290.80 |
| C.S. Birt       | - | June 5 - 6     |                       |      |        |
|                 |   | June 14-20     |                       |      |        |
|                 |   | June 23-July 3 | 20 days @ \$15.40/day |      | 308.00 |
| A. Gambardella- |   | June 5         |                       |      |        |
|                 |   | June 14-19     |                       |      |        |
|                 |   | June 23-24     | 9 days @ \$42.50/day  |      | 382.50 |
|                 |   |                |                       |      | <hr/>  |
|                 |   |                |                       | \$   | 981.30 |

BOARD

49 man days @ \$5.00/day 245.00

GEOCHEMICAL SAMPLE ANALYSES

401 samples @ \$2.00/sample 802.00

PREPARATION OF REPORT

Typing and Drafting 45.00

TOTAL \$2073.30

To be applied for one year on the Deer 5-24 inclusive mineral claims.

BURNABY GEOCHEMICAL LABORATORY

SAMPLE HANDLING PROCEDURE

Vancouver Office

August 1967

I. Rokus

## STREAM SEDIMENTS AND SOILS

### Drying and Sieving

Sample boxes should be opened as soon as they arrive in the laboratory. If dryer is full, spread samples to air dry. As soon as possible, samples should be placed in dryer.

After drying, samples are to be sieved to minus 35 mesh. As much -35 material as possible is recovered from sample. Dump the -35 mesh material on a square of brown paper and mix by rolling several times. Place mixed -35 mesh material in a coin envelope and place envelope in original sample bag. Arrange samples in units of 40, if possible, and in numerical order.

## ROCK AND CORE SAMPLES

### General Handling

Rock or core samples need, usually, to be only air dried. If samples seem particularly wet they may be force dried by placing in numbered pans in the drying oven. No attempt is made to completely dry rock samples, that is, expel all the water from the pores of the rock. The samples are ready to crush when the outside surfaces are dry.

### Crushing and Pulverizing

Rock and core samples are to be processed in such a manner that a representative 1/2 gram sample can be obtained. The entire amount of each sample is to be passed through the jaw crusher. At jaw crusher size the smallest sample that can be split out is 5 pounds. If sample is five pounds or less in size, pass the entire sample through pulverizer with plates set to

produce material of a maximum 8 mesh size. If sample is larger than 5 pounds then pass sample through Jones splitter to produce a sample of approximately 5 pounds. Pass this sample through pulverizer to produce -8 mesh material as above.

When the approximate 5 pound split has been pulverized to -8 mesh, then sample can be split to smaller size for final pulverizing. Using the Jones splitter, split sample down until a portion weighing 100 - 200 grams is obtained. This portion is then passed through the pulverizer, with plates pulled up tight so that product will pass 100 mesh screen. Regular checks, by screening, should be made to be sure the pulverizer, with plates pulled up tight, is producing a product 95% of which will pass a 100 mesh screen. After pulverizing, the sample should be mixed by rolling on brown paper or rubberized cloth. Rejects should be saved according to instruction from sampler.

#### WEIGHING FOR COPPER AND MOLYBDENUM

Digestion tubes (100 x 16 mm) should be marked at 5 ml level. Using diamond pencil, mark each tube carefully at bottom of meniscus.

Samples for digestion and analysis should be handled in units of 40 where possible. Prepare a laboratory data sheet for each batch of 40 samples.

Weigh accurately on balance 1/2 gram sample and put in marked test tube.

DIGESTION AND DILUTION FOR COPPER AND MOLYBDENUM

To each of the samples prepared above add 1:1 HNO<sub>3</sub> to the 5 ml mark. Place samples in the digestion racks in order. Adjust heat so that samples are gently boiling. Digest for three hours at this gently boiling rate. Remove from digestion rack and bring volume back to 5 ml with demineralized water. Mix well and then centrifuge for 1 minute. Use clear upper layer for copper and molybdenum determination.

MOLYBDENUM TESTProcedure for Silt, Soil and Rock

1. Transfer a 1 ml aliquot of digested solution from above into clean test tube for determination.
2. Add 1.0 mls KSCN shaking gently - 5%
3. Add 1.0 mls SnCl<sub>2</sub> shaking gently - 15% in 2NHCl
4. Make up to 10 mls with water.
5. Add 1 ml isopropyl ether, add stopper and shake for 45 seconds.
6. Match colour of ether layer with standards against a white background and record ppm.

Standard Molybdenum Solutions

Stock Standard Solution (100  $\mu$ /ml) - Dissolve .015 gms of MoO<sub>3</sub> in 5 ml conc. NaOH and make up to 100 ml with demineralized H<sub>2</sub>O. This solution must be made up bi-monthly.

Working Standard Solution (10  $\mu$ /ml) - Pipette 10 ml of 100 gamma/ml stock solution in a 100 ml volumetric flask and make up to 100 ml with demineralized H<sub>2</sub>O.

Molybdenum Standards for Soil, Silt and Rock Chip - based on 1/2 gm sample aliquot.

1. Take 15 clean 100 x 16 test tubes which are calibrated to 5.0 ml mark by a diamond pencil.
2. Pipette the following aliquots;



|                     | <u>10 %/ml</u> | gammas | Factor Used | ppm |
|---------------------|----------------|--------|-------------|-----|
| a)                  | 0.2 ml         | 2 %    | } X 2       | 4   |
| b)                  | 0.4 ml         | 4 %    |             | 8   |
| c)                  | 0.6 ml         | 6 %    |             | 12  |
| d)                  | 0.8 ml         | 8 %    |             | 16  |
| e)                  | 1.0 ml         | 10 %   |             | 20  |
| <br><u>100 %/ml</u> |                |        |             |     |
| f)                  | 0.125 ml       | 12.5 % | } X 2       | 25  |
| g)                  | 0.150 ml       | 15 %   |             | 30  |
| h)                  | 0.20 ml        | 20 %   |             | 40  |
| i)                  | 0.30 ml        | 30 %   |             | 60  |
| j)                  | 0.40 ml        | 40 %   |             | 80  |
| k)                  | 0.50 ml        | 50 %   |             | 100 |
| l)                  | 0.75 ml        | 75 %   |             | 150 |
| m)                  | 1.00 ml        | 100 %  |             | 200 |
| n)                  | 1.50 ml        | 150 %  |             | 300 |
| o)                  | 2.00 ml        | 200 %  |             | 400 |

3. Make up to 5 ml mark with distilled water.
4. Now take 15 clean 150 x 16 test tubes calibrated to the 10 ml mark. With a pipette take 1 ml out of each of the previous test tubes and pipette them into the new set of test tubes.
5. (A) To the set of 16 x 150 mm test tubes then add the following:
  - a) 1 ml HCl 6N
  - b) 1 ml 1% FeCl<sub>3</sub> - add more if color development is poor
  - c) 1 ml 5% KSCN
  - d) 1 ml 15% SnCl<sub>2</sub>
  - e) Make up to 10 ml mark with demineralized water.
  - f) 1 ml iso-propyl ether.
  - g) Shake for 20 - 30 seconds.
  - h) Allow to settle and read.
 (B) Save the original 16 x 100 test tubes with the remaining solutions in them. Stopper them by corks on which the respective concentrations are marked in ppm. Use these in future preparations.

#### BIQUINOLINE COPPER TEST FOR SILT, SOIL AND ROCK CHIP

This test is selective for copper and is not subject to any metal interferences. Reference: U.S.G.S. Bulletin 1152.

Reagents

1. Buffer solution: dissolve 400 gms sodium acetate and 100 gms sodium tartrate and 20 gms of hydroxylamine hydrochloride in 1 litre of water. Adjust to pH 6.5.
2. Biquinoline solution: add .2 gms 2,2' biquinoline in 900 mls isoamyl alcohol. Heat on hot plate to dissolve. Cool and make to 1 litre with isoamyl alcohol.

Procedure

1. Take a 1 ml aliquot from digestion solution above and transfer to large test tube for determination.
2. Add 10 mls copper buffer.
3. Add 2 mls biquinoline-isoamyl alcohol solution.
4. Stopper tube and shake vigorously for 45 seconds.
5. Allow phases to separate, then compare colour to standards against a white background and record ppm.

Standards

Stock Standard Solution (100% /ml) - Dissolve .2 gms blue  $\text{CuSO}_4$  in 400 mls  $\text{H}_2\text{O}$ . Add 5 mls conc. HCl and  $\text{H}_2\text{O}$  to 500 mls.

Working Standard Solution (10% /ml) - Dilute 10 mls stock standard and 1 ml conc. HCl to exactly 100 mls with  $\text{H}_2\text{O}$

Preparation of Standards

This procedure is the same as the preparation for molybdenum standards except for 5 (A). The section 5 (A) which applies to the preparation for standards of copper is as follows:

- 5 (A) To a set of 16 x 150 mm test tubes then add 1 ml 1:1  $\text{HNO}_3$ , 10 ml copper buffer, 2 ml 2,2' - Biquinoline in isoamyl alcohol. Shake for 5 minutes vigorously. Allow to settle, then read.

THM (Total Heavy Metals) TEST

Test mainly sensitive to zinc, copper and lead (especially zinc). Reference: Bloom, H., Economic Geology, Volume 50-1955.

Reagents

1. Demineralized  $\text{H}_2\text{O}$

2. Dithizone (diphenylthiocarbazone) Reagent grade.
3. Dithizone/chloroform 0.1% solution, dissolve 0.147 gm dithizone in 100 mls chloroform. (Dithizone is more soluble in  $\text{CHCl}_3$  than in Benzene).
4. Dithizone stock solution .01% - Dilute 10 mls of 0.1% solution to 100 mls with Benzene.
5. Dithizone working solution .001%: dilute 10 ml of stock solution to 100 ml with benzene; should be made daily; yellow hue indicates breakdown of dithizone.
6. Buffer solution: take 50 gms of ammonium citrate and 8 gms hydroxylamine hydrochloride, making up to 1000 mls with water; adjust pH to 8.5 w/conc.  $\text{NH}_4\text{OH}$ ; purify w/dithizone solution if necessary.

### Procedure

1. Measure out with volumetric scoop .5 gm of sample into a test tube.
2. Add 5 mls buffer then 5 mls .001% dithizone solution.
3. Shake for 30 seconds.
4. Observe color against a white background and record ppm from standard chart.

### pH MEASUREMENTS

#### Soil and Silt Samples

The soil and silt samples should be dampened with demineralized water to a pasty consistency. Demineralized water should be used for this purpose because it is thought that water deprived from its ionic content has a low buffer capacity and thus will not influence the pH of the sample.

Experience has borne out the fact that 30 seconds time is sufficient for the meter to come to a reasonable stability. The meter needle will keep on drifting slowly but this will be much slower than at the beginning and therefore can be ignored.

Store electrodes in buffer overnight. When starting in the morning allow 15 minutes warm up for the instrument.

#### Water Samples

You may use either a sample aliquot from the bottle or simply measure pH right in the bottle by using a combination electrode. If the latter method is chosen, take care that samples have already been analyzed for Mo to avoid contaminations by the

electrode. Use 30 second intervals here as well as between each consecutive measurement.

#### MOLYBDENUM IN WATER

1. Transfer 50 mls. of sample into 125 ml separatory funnel.
2. Add 10 mls dilute (1:1) HCl
3. Add 1 ml 1% ferric ammonium sulphate or  $\text{FeCl}_3$
4. Add 3 ml 10% KSCN and shake.
5. Add 3 ml 15%  $\text{SnCl}_2$  in 2N HCl
6. Add 2 ml isopropyl ether, shake for 30 seconds and allow phases to settle.
7. Drain off water layer, retaining organic ether layer in funnel with a little of the aqueous layer remaining.
8. Drain small amount of water plus organic layer into 16 x 150 mm test tube. Compare with standards against white background.

Molybdenum Standards - label 12 clean test tubes 0, 2, 4, 10, 16, 20, 30, 40, 50, 60, 70 and 80 ppb. To the respective tubes pipette the following volumes of 1% /ml Mo work solution.

| <u>mls of 1% /ml Mo Solution</u> | <u>ppb</u> |
|----------------------------------|------------|
| .20                              | 4          |
| .50                              | 10         |
| .80                              | 16         |
| 1.00                             | 20         |
| 1.50                             | 30         |
| 2.00                             | 40         |
| 2.50                             | 50         |
| 3.00                             | 60         |
| 3.50                             | 70         |
| 4.00                             | 80         |

After the standard solutions have been added, make up to 50 ml mark with demineralized water then add the following:

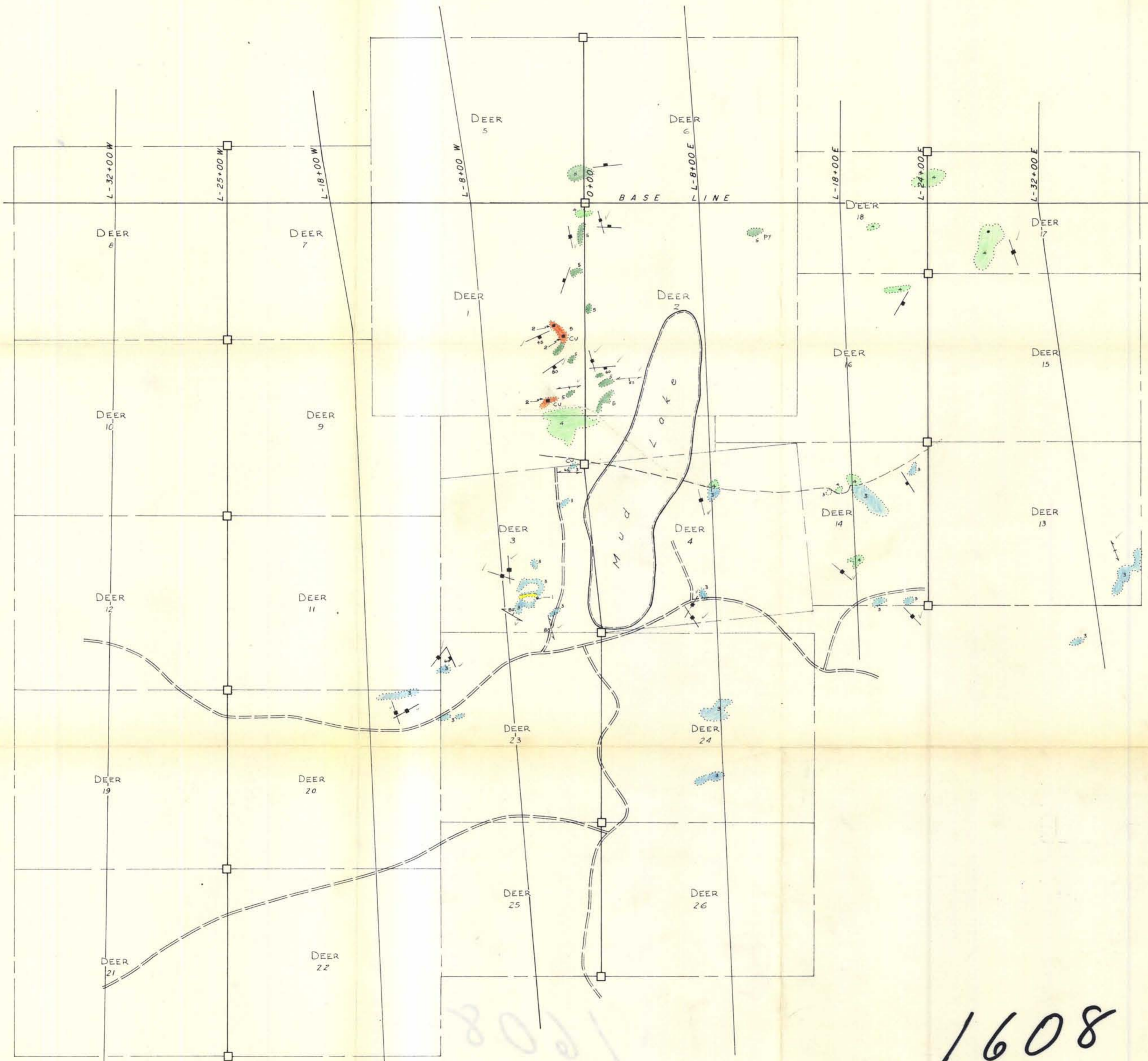
1. 10 ml 1:1 HCl solution.
2. 1 ml of 1%  $\text{FeCl}_3$
3. 1 ml of 10% KSCN solution.
4. 1 ml of 15%  $\text{SnCl}_2$  solution.
5. 2 ml of isopropyl ether.
6. Stopper and shake for 45 seconds.

Standards must be made up at least three times a week.

APPENDIX II

ANALYTICAL PROCEDURES & LABORATORY METHODS





L G E N D

- Aplite.
- Area of K-feldspathization and intense fracturing.
- Porphyritic andesite.
- Andesite flow breccia.
- Amygdaloidal andesite.

S Y M B O L S

- Limit of outcrop.
- Geological contact (defined, assumed).
- Foliation, banding (vertical, inclined).
- Joint, fracture (vertical, inclined).
- Pit.
- Cu Copper mineralization: chalcopyrite, malachite, azurite.
- Claim post, claim location line.
- Claim boundary line.
- Road.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 1608 MAP 4

AMAX EXPLORATION INC.

**MUD LAKE COPPER PROSPECT**  
OMINECA MINING DIVISION — BRITISH COLUMBIA

**GEOLOGICAL MAP**

SCALE 1" = 400'

|              |        |               |          |
|--------------|--------|---------------|----------|
| DATE PRINTED | 4/9/68 | DRAWN BY      | J. Allan |
| DATE REVISED |        | DATE          | 4/9/68   |
|              |        | N. T. S. FILE | 93 L 7   |

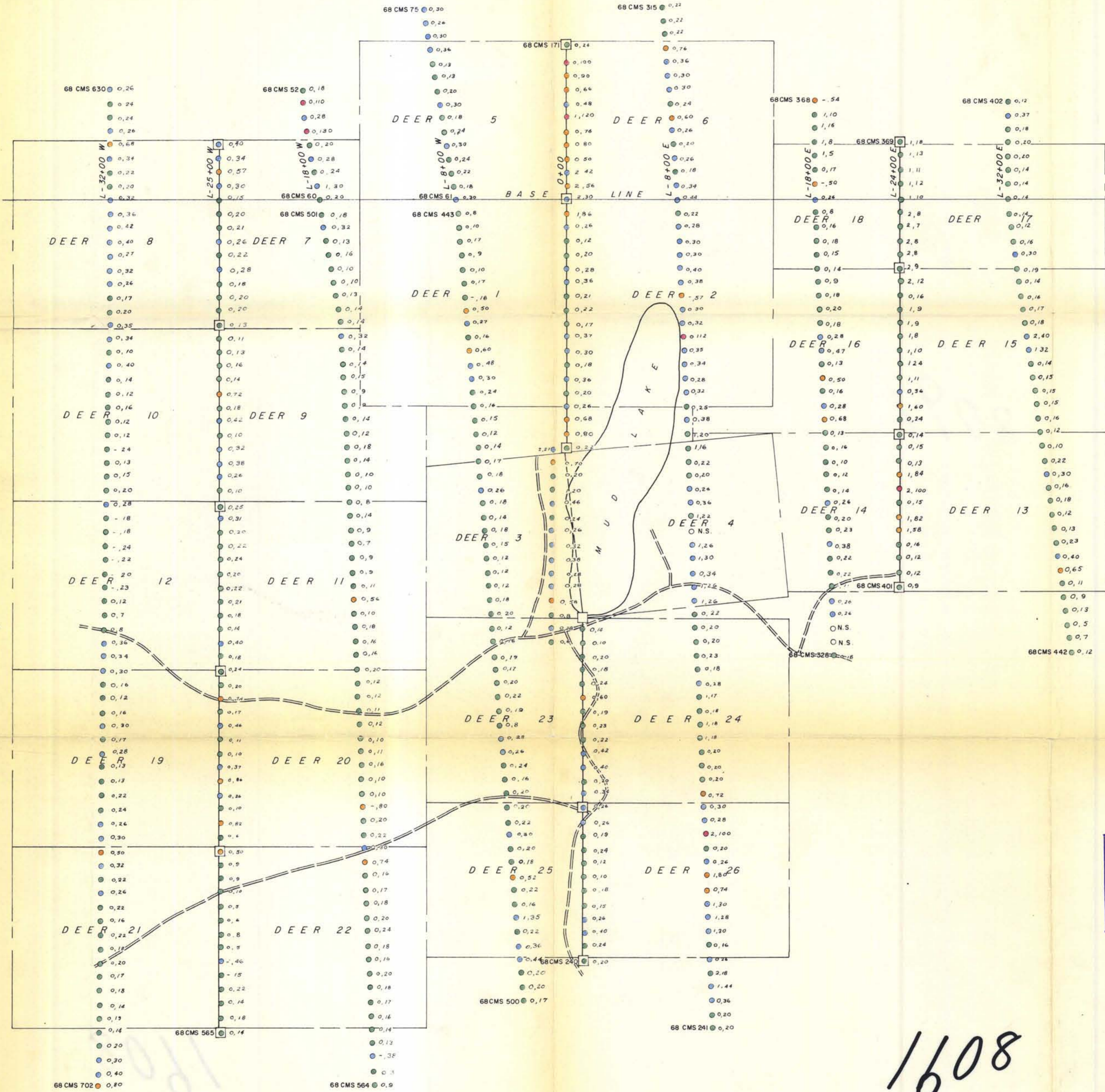
FIG. 4

To accompany report "MUD LAKE COPPER PROSPECT" by:  
A. Gambardella and J. F. Allan. Sept. 1968

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8061





L E G E N D

SOIL SAMPLES p.p.m. Cu

- 0 - 25 Background.
- 26 - 49 Threshold.
- 50 - 99 Weakly Anomalous.
- > 99 Anomalous.

S Y M B O L S

- Claim post, claim location line.
- - - Claim boundary line.
- == Road.
- 2-40 Soil sample, p.p.m. Mo, Cu.

Key to sample numbers:  
Each sample number is preceded by prefix 68-CMS  
Sample numbers are shown only at the beginning and end of each line.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 1608 MAP 5

AMAX EXPLORATION INC.  
MUD LAKE COPPER PROSPECT  
OMINECA MINING DIVISION - BRITISH COLUMBIA  
**GEOCHEMICAL MAP**  
SCALE 1" = 400'  
DATE 4/9/68 Drawn by: J.F. Allan  
PRINTED Date 4/9/68  
N.T.S. File 93 L 7  
To accompany report "MUD LAKE COPPER PROSPECT" by:  
A Gambardella and J. F. Allan. Sept. 1968

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*J. F. Allan*