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## GEOCHEMICAL REPORT

WAR EAGLE, SANTA MARIA, DUCHESS, AND MOOSESKIN JOHNNY GROUPS

HOWSON CREEK, TELKWA RANGE, B. C.

W. D. Tompson

January 9, 1967

# TABLE OF CONTENTS

|                         | Page No. |
|-------------------------|----------|
| GENERAL STATEMENT       | 1.       |
| PROPERTY                | 2.       |
| TOPOGRAPHY              | 3.       |
| SURVEY CONTROL          | 3.       |
| GEOCHEMICAL PROSPECTING | 4 5.     |
| Sampling                |          |
| Analysis                |          |
| Results                 |          |
| STATEMENT OF EXPENSE    | б.       |
|                         |          |
|                         |          |

PLATE 1 - Map showing copper in soil #/ Santa Maria Zone

PLATE 11 - Map showing copper in soil  $\# \mathcal{L}$ War Eagle Zone

#### STATEMENT OF QUALIFICATIONS

This report pertains to field work conducted in the Howson Creek area, Telkwa Range, B. C. Field work was under the direction of W. D. Tompson. Analyses were made by X-Ray Assay Laboratories Ltd., 45 Lesmill Road, Don Mills, Ontario.

Mr. Tompson holds a Master of Science degree from Montana State University, from which he graduated in 1959. Between June and October 1959 he conducted geochemical exploration for the Northern Pacific Railway. From December 1959 to May 1962 he was employed by East Pacific Company, Helena, Montana where he was Mine Geologist. From May 1962 to June 1966 he was employed by Canex Aerial Exploration Ltd. for whom he conducted numerous geochemical surveys.

With Mr. Tompson's background of technical training and field experience, I believe the work which was done under his direction is of a standard acceptable for the purpose of recording as assessment work.

A.J. Stunto

S. J. Hunter, P. Eng.

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#### GENERAL STATEMENT

The mineral claim groups, War Eagle, Santa Maria, Duchess and Mooseskin Johnny lie in the Howson Creek drainage, Telkwa Range, B. C. The area is underlain by andesite tuff and rhyolite tuff of the Hazelton Series. These rocks are intruded by medium grained granodiorite dikes, fine grained red granite dikes, white granite dikes and quartz rhyolite porphyry dikes. A large pluton (stock) lies two miles north of the sample area.

The area was heavily glaciated during Pleistocene time and a mantle of dense red clay overlies bedrock throughout part of the area. Other areas have a thin mantle of till.

Heavy forest covers the slopes below 4200 feet elevation and dwindles to sparse scrub spruce up to 5200 feet. No trees occur above that elevation. About half of the geochemical survey was done in an area which lies above 5200 feet elevation.

1.

#### PROPERTY

The mineral claims which are the subject of this report lie approximately  $l_2^1$  miles west of Mooseskin Johnny Lake, Telkwa Range, B. C.

The claims records are as follows:

**Record Numbers** 

#### Duchess Group

| PR | 41, PR | 39, | PR  | 7 <b>F</b> r. | 34319, | 34317, | 44963, | 42972, |
|----|--------|-----|-----|---------------|--------|--------|--------|--------|
| PR | 76 Fr. | PR  | 76, | Pr 74         | 45005, | 45003, | 45001  | ·      |

#### Santa Maria Group

| PR | 75, | PR   | 73, | <b>P</b> R 71   |     | 45004, | 45002, | 45000 |
|----|-----|------|-----|-----------------|-----|--------|--------|-------|
| PR | 71  | Fr., | PR  | 108, <b>P</b> R | 106 | 42971, | 34386, | 34384 |

#### Mooseskin Johnny Group

| PR 109, PR 107, PR 105     | 34387, 34385, 34383, |
|----------------------------|----------------------|
| Cary 14, SQ 9Fr., Cary 13, | 43151, 43149, 43150, |
| Cary 6, Cary 4             | 42956, 42954         |

#### War Eagle Group

PR 111, SQ 18, SQ 17,34389, 37503, 37502,SQ 19, SQ 20, PR 113,37504, 37505, 34391,PR 115 Fr., PR115, SQ 22,44975, 34393, 37507,SQ 21, SQ 24.37506, 45021

#### TOPOGRAPHY

Relief is moderate to steep. Howson Creek, which flows northeastward in a glaciated valley, rises at 5350 feet elevation. It joins the un-named creek flowing northerly from Mooseskin Johnny Lake  $6\frac{1}{4}$  miles downstream at an elevation of 3100 feet. Thus in  $6\frac{1}{4}$  miles it drops 2250 feet in elevation, or about 360 feet per mile. Streams flowing northward and southward into Howson Creek from steep slopes and cirques have gradients up to 1000 feet per mile.

One small glacier lies at the head of Howson Creek Valley.

#### SURVEY CONTROL

Base lines were established by use of tripod mounted Brunton and chain. Horizontal distance was calculated from slope distance and vertical angle. Control of geochemical sampling lines was by compass and chain.

#### GEOCHEMICAL PROSPECTING

### Sampling

Geochemical lines were run on a west (or east) bearing on the Santa Maria Zone (Plate 1) and on a north (or south) bearing on the War Wagle Zone (Plate 11).

Lines were placed 200 feet apart; a sample interval of 100 feet was maintained.

Plates 1 and 11 present the results of soil sampling on the Santa Maria and War Eagle Zones.

Humus was removed from the sample site with the aid of a garden mattock. Three or four tablespoons of soil were collected from the top of the "B" soil horizon.

#### Analysis

Samples were screened to minus 8D mesh and were analyzed for copper by x-ray fluorescence.

4.

#### Santa Maria Zone

Two anomalous areas were shown to exist (Plate 1). The anomalies are sub-parallel and strike northerly. The main Santa Maria anomaly is about 1900 feet long and varies from 100 to 650 feet wide. Analyses range from 200 to 6000 parts per million copper.

The West Santa Maria anomaly is 2500 feet long and from 100 - 400 feet wide. Values range from 100 - 3500 parts per million copper.

#### War Eagle Zone

Several areas were discovered which contain anomalous copper concentrations in the soil (Plate 11). Values in these areas range from 200 to 1500 parts per million. Geochemical sampling was supervised by W. D. Tompson and was conducted by those shown below:

|     | Wages       | Jul  | y-August |
|-----|-------------|------|----------|
|     |             |      |          |
| G.  | Huck        | \$   | 427.50   |
| M.  | Pete        | 1,   | 555.00   |
| ₩.  | Tompson 111 |      | 525.00   |
| R.  | Finn        | 1,   | 000.00   |
| Al  | Crout       | 1,   | 102.50   |
| Suj | pervision   |      | 390.00   |
|     |             | \$5, | 000.00   |

| Charnell & assoc. 3,477.60  | \$ 8,477.60 |
|-----------------------------|-------------|
| Assays, X-Ray Assay Lab.    | 1,209.40    |
| Helicopter Service Property | 2,000.00    |
|                             | \$11,687.00 |

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|   | <u>August 22</u> 1966   |
| Norcan Mines Limited (N.P.L<br>c/o Peat Marwick Mitchell 8<br>900 West Hastings Street,<br>Vancouver 1, B.C.  | . Co.,  |
|   | ON SERVICES LIMITED   |
| TORONTO 1   | NO: 1985  |
| RE: I.P. SURVEY, SMITHERS AREA, B.C.  |   |
| I.P. crew & equipment @ \$7,500/26-day mo<br>August 1-14<br>Board costs   | nth for period<br>\$4,038.00<br>\$130.70  |
| Travelling & transportation   | 50.55   |
| Telephone & telegraph<br>Misc. supplies   | 24.35<br>67.33 272.93   |
| o toth  | \$4,310.93  |
| P.T   | . Loc   |
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| ological Surveys • Geophysical Surveys • Diamond Drilling • Property M<br><u>Norcan Mines Limited (N.P.I</u><br>Bull, Houser & Tupper,<br>14th Floor, <u>675 West Hastir</u>  | August 4 19 <sup>66</sup>   |
| ological Surveys • Geophysical Surveys • Diamond Drilling • Property M<br><u>Norcan Mines Limited (N.P.I</u><br>Bull, Houser & Tupper,<br>14th Floor, <u>675 West Hastin</u><br>Vancouver 2, B.C.<br>SULLMAC EXPLORATION<br>OUR NEW TORONTO ADDRESS<br>4th FLOOR • 145 YONGE ST.  | August 4 19 <sup>66</sup>   |
| Norcan Mines Limited (N.P.I<br>Bull, Houser & Tupper,<br>14th Floor, 675 West Hastin<br>Vancouver 2, B.C.<br>GUR NEW TORONTO ADDRESS  | Annagement • Airborne Geophysical and Mining Consulta<br>August 4 19 <sup>66</sup><br>(), CONTRACT NO: 9053<br>Ags Street,  |
| ological Surveys • Geophysical Surveys • Diamond Drilling • Property M<br><u>Norcan Mines Limited (N.P.I</u><br>Bull, Houser & Tupper,<br>14th Floor, <u>675 West Hastin</u><br>Vancouver 2, B.C.<br>SULLMAC EXPLORATION<br>OUR NEW TORONTO ADDRESS<br>4th FLOOR • 145 YONGE ST.  | Annagement • Airborne Geophysical and Mining Consulta<br><u>August 4</u> 19 <sup>66</sup><br>(a), CONTRACT NO: 9053<br>Angs Street,<br><b>ON SERVICES LIMITED</b>   |
| Norcan Mines Limited (N.P.I<br>Norcan Mines Limited (N.P.I<br>Bull, Houser & Tupper,<br>14th Floor, <u>675 West Hastin</u><br>Vancouver 2, B.C.<br>SULIMAC EXPLORATION<br>OUR KEW TORONTO ADDRESS<br>4th FLOOR.145 YONGE ST.<br>TORONTO 1<br><u>RE:</u> I.P. SURVEY, SMITHERS AREA, B.C.<br>I.P. crew & equipment 2 days standby in   | August 4 1966<br>August 4 1966<br>August 4 1966<br>August 4 1966<br>August 4 1966<br>August 4 1950<br>August 4 1950<br>August 4 1950<br>August 4 1950   |
| ological Surveys • Geophysical Surveys • Diamond Drilling • Property M <u>Norcan Mines Limited (N.P.1</u><br>Bull, Houser & Tupper,<br>14th Floor, <u>675 West Hastin</u><br>Vancouver 2, B.C. SULIMACE EXPLORATION<br>OUR NEW TORDNTO ADDRESS<br>4th FLOOR · 145 YONGE ST.<br>TORONTO 1 RE: I.P. SURVEY, SMITHERS AREA, B.C. I.P. crew & equipment 2 days standby in<br>as agreed @ \$150/day I.P. crew & equipment for period July 2            | Annagement • Airborne Geophysical and Mining Consulta<br><u>August 4</u> 19 66<br>(a), CONTRACT NO: 9053<br>Angs Street,<br><b>ON SERVICES LIMITED</b><br>NO: 1950  |
| Ological Surveys • Geophysical Surveys • Diamond Drilling • Property M <u>Norcan Mines Limited (N.P.1</u> Bull, Houser & Tupper,<br>14th Floor, <u>675 West Hastin</u><br>Vancouver 2, B.C. SULLMAC EXPLORATION UR NEW TORONTO ADDRESS 4th FLOOR-145 YONGE ST.<br>TORONTO 1 <u>RE: I.P. SURVEY, SMITHERS AREA, B.C.</u> I.P. crew & equipment 2 days standby in<br>as agreed @ \$150/day  | Annagement • Airborne Geophysical and Mining Consulta<br><u>August 4</u> 19 66<br>(a), CONTRACT NO: 9053<br>Angs Street,<br><b>ON SERVICES LIMITED</b><br>NO: 1950  |
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| 6  |  | <u>September 20</u> 1966 |
| A  | Norcan Mines Limited (N.P.L),<br>c/o Peat, Marwick, Mitchell & Co<br>900 West Hastings Street, | CONTRACT NO: 9053        |
|    | Vancouver 1, B.C.<br>SULMAC EXPLORATION<br>CCR NEW TORONTO ADDRESS<br>614-101 RICHMOND ST. W.  | SERVICES LIMITED         |
|    | TORONTO 1  | NO: 2043                 |

# RE: I.P. SURVEY, SMITHERS AREA, B.C.

Report and drafting, as agreed Board costs Travelling & transportation Telephone & telegraph Misc. supplies

105.35 34.48

\$600.00

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Geological Surveys 

Geophysical Surveys

Diamond Drilling

Property Management

Airborne Geophysical and Mining Consultants

SULMAC EXPLORATION SERVICES LIMITED

To

WAL/em Enclosures.

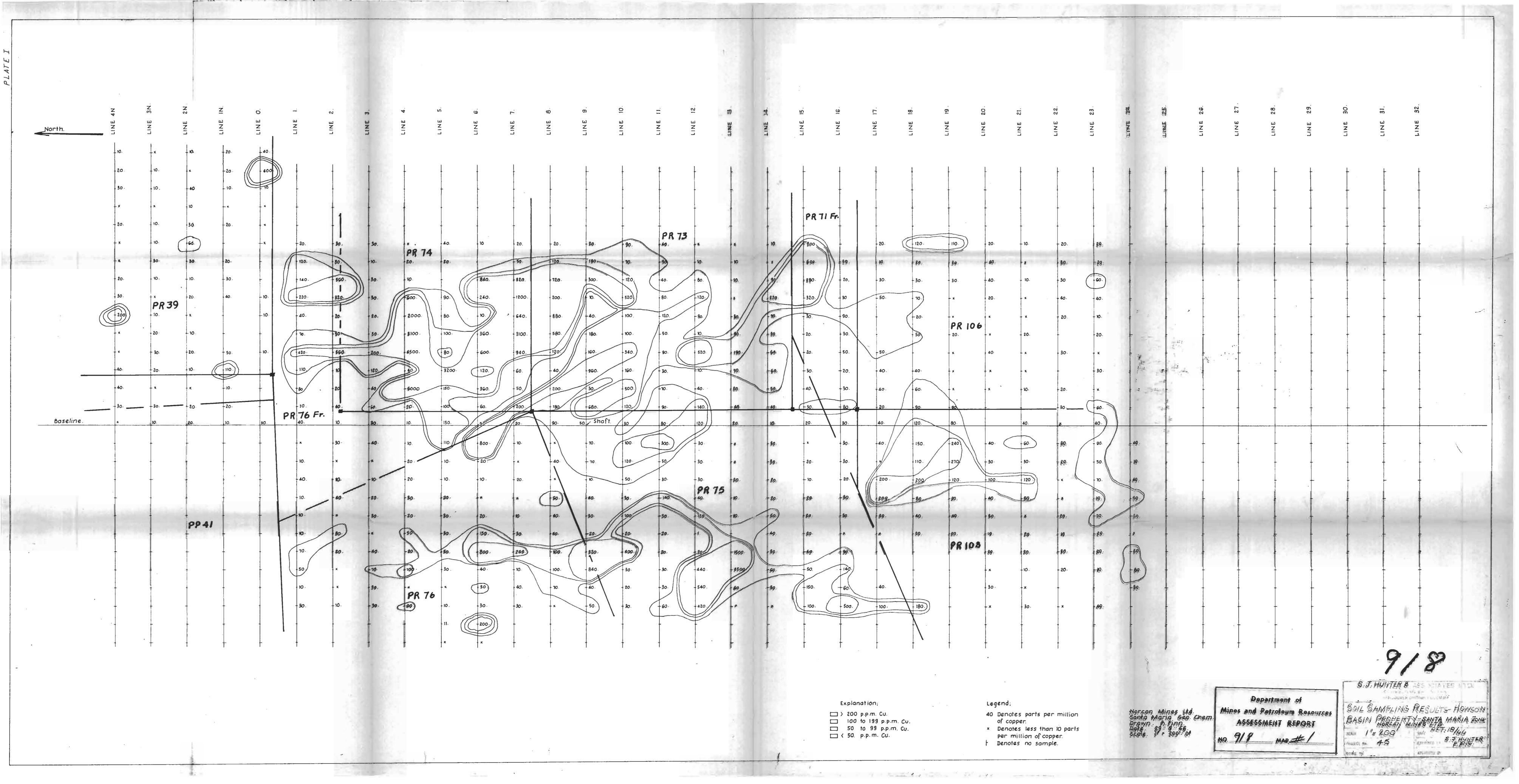
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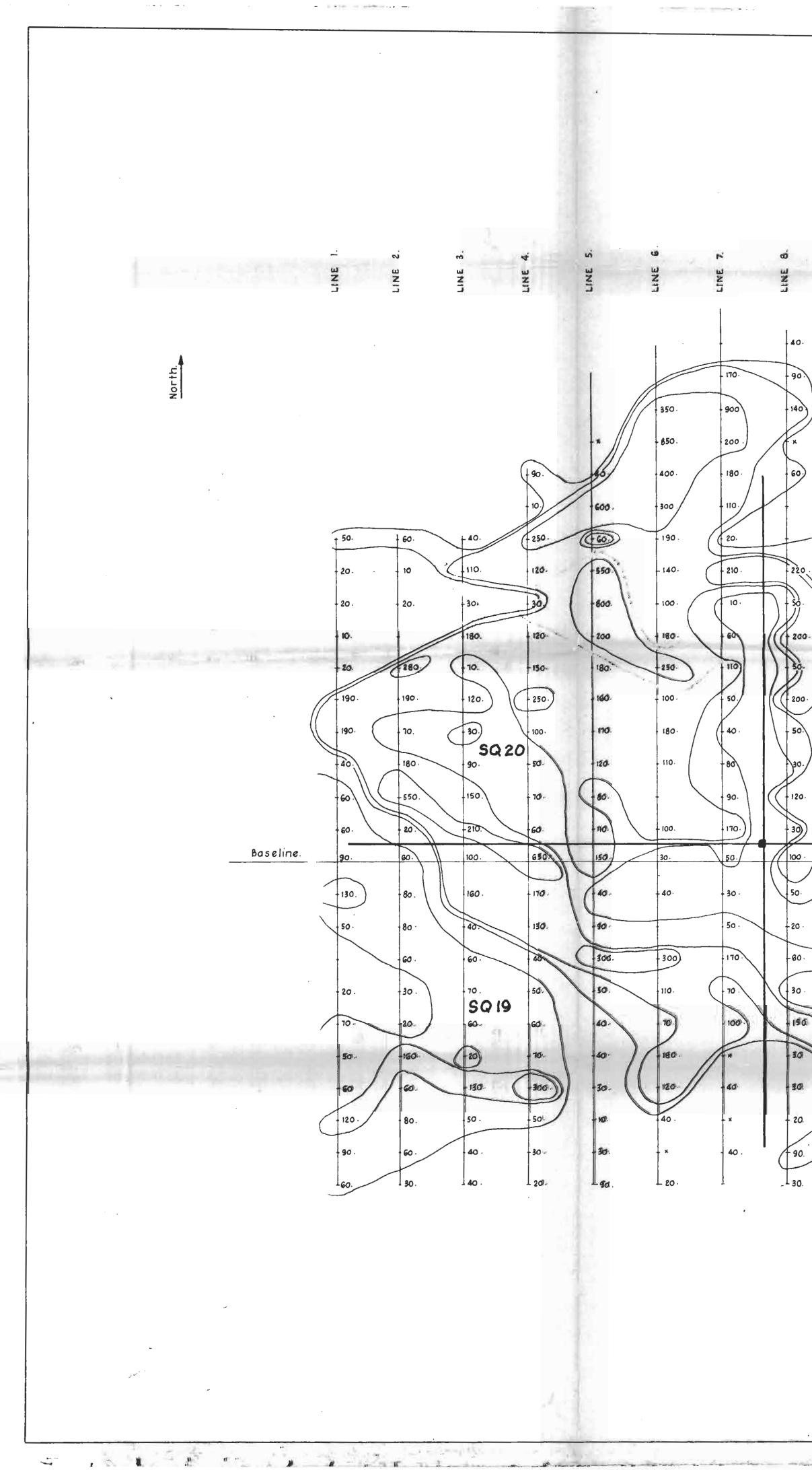
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Explanation. □ 100 to 199, p.p.m. Cu. □ 50 to 99, p.p.m. Cu. □ < 50. p.p.m. Cu.

- 20

Legend;

40 Denotes parts per million of copper.

Denotes less than 10 parts per million of copper.
 F Denotes no sample.

