

GEOCHEMICAL REPORT

SCOT MINERAL CLAIM GROUP

Mayo Mining District

Yukon Territory

Longitude : 131° 17' W.

Latitude : 63° 20' N.

N.T.S. 105-0-6

Work done in period June 21-
July 15, 1968

By:

THOMAS J. ADAMSON

ATLAS EXPLORATIONS LIMITED

October 7, 1968

This report has been examined by
the Geological Evaluation Unit.
Approved as to technical worth by:

D. J. Millar
RESIDENT GEOLOGIST

Approved as to cost in the amount
of: \$ 2956.00

R. S. Hadler
RESIDENT MINING ENGINEER

Accepted as representation work
under Section 53(4) Yukon Quartz
Mining Act.

Thomas J. Adamson
COMMISSIONER OF YUKON

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(N. P. L.)

330 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B.C.

GEOCHEMICAL REPORT SCOT MINERAL CLAIM GROUP

INTRODUCTION

In September, 1967, as a result of a reconnaissance soil sampling program, the Scot 1-24 mineral claims were staked. They covered an area of high zinc values in soils.

Follow-up work was done on the Scot Group during June and July, 1968. During this time, a grid was cut over the area of interest (total 67,200 ft.). Work done on this grid consisted of geologic mapping, geochemical soil sampling, and geophysical surveying. Silt sampling was done on all drainages in the claim area.

LOCATION AND ACCESS

The Scot 1-24 mineral claim group is located north of the Hess River, approximately three miles on bearing 030^o from the east end of Niddery Lake. The group is in the southwest portion of claim sheet 105-0-6. The property is about 100 air miles from the settlement of Ross River.

Access to the property can be made by float-equipped aircraft to "Jake Lake", 1½ miles northeast of the claim group. A trail is cut from this lake to the property.

The only suitable campsite at Jake Lake is on the northeast shore.

One helipad has been cut on the property.

GEOLOGY

The claim group is within a thick Ordovician-Devonian section composed mainly of black chert, black shales and slates, and minor limestone, quartzite and phyllite.

The sediments are quite uniformly steeply dipping, and strike in an easterly to southeasterly direction.

Over the grid area outcrop is very limited. All the units are thin and interbedded. Because of this, it is impossible to interpolate units or contacts outside of the immediate outcrop area.

Only one small sulfide showing has been found in the grid area. It consists of very minor tetrahedrite in a narrow quartz - calcite vein. The vein cuts black cherts, shales and limestone.

There is very little outcrop in the eastern grid area. Centred on the base line at 8+00 W. is an area of about 400 ft. by 500 ft. in which carbonate-rich ground waters have emerged to the surface, depositing a light porous chemical sediment of calcium carbonate (travertine). Much moss and other organic material in this area has been replaced by carbonate. Travertine float was found over a wide area on the eastern portion of the grid.

TOPOGRAPHY AND GROUND CONDITIONS

The Scot grid (base line E-W, cross lines N-S) straddles the valley of the creek that flows generally southwest from Jake Lake to the Hess River.

The west facing slope of the valley is quite even, almost completely overburden covered and of moderate slope. The

east-facing slope is much steeper, quite irregular, and has much more outcrop than the western slope.

A well defined simple soil profile is found over most of the area sampled. Soil sampling was hampered by frozen ground conditions on all but a small portion of the grid area.

Vegetation in the Scot Group area is generally quite thick, consisting of spruce, poplar, mountain alder and dwarf birch (buck brush)

GEOCHEMISTRY

Method of Analysis

All soil samples were analyzed at a complete testing laboratory at Ross River, Y.T.

Each sample was dried in its kraft bag container, then screened to -80 mesh, weighed out to 0.5 grams, and digested in hot aqua regia. Samples were then diluted, clarified for 20 hours, then tested for copper, lead and zinc content by atomic absorption spectrophotometer analysis. The "AA" unit used was a Perkin Elmer Model 303. The accuracy of the instrument ideally is 1% of the amount of metal present.

Silt samples were treated in much the same way, the only difference being that sample digestion was in hot hydrochloric acid rather than in hot aqua regia.

Geochemical Results

Silt samples were taken from all drainages in the claim group area. A zone of very high zinc values (to 8000 ppm) was found on the slope east of the creek draining Jake Lake and in the eastern claim group area. A total of 49 silt samples were taken.

During the period June 21 to July 6, two to three geochemical samples spent 19 man days soil sampling on the Scot grid. The grid consists of an east-west 8,800 ft. long central base line, with cross lines, at a line spacing of 800 ft., varying from 4000 ft. to 6000 ft. long. Stations at 100 ft. intervals were marked on all lines. A total of 67,200 ft. of line was cut. A total of 526 soil samples were collected on the grid lines.

As a result of this survey, a strong, well defined zinc geochemical anomaly was outlined in the eastern grid area, on the slope east of the creek. A zone of about 1600 ft. by 2400 ft. has values of between 5000 ppm and 35,000 ppm zinc.

Three smaller anomalies are located to the north of the main anomaly.

Only a few scattered high copper and lead values are associated with the high zinc values.

There is no outcrop within the anomalous area. The nearest outcrops are black cherts and grey shales. The carbonate seepage area on the base line at 8+00 W is within the anomaly. Travertine float was found close to nearly all high zinc geochemical results. In a rock geochemical determination, the travertine ran 9000 ppm zinc.

CONCLUSIONS AND RECOMMENDATIONS

A large unexplained zinc geochemical anomaly was outlined by soil and silt sampling. Because of this anomaly and of the indicated presence of a host rock suitable for replacement (carbonate) coinciding with the soil anomaly, the following additional work is recommended:

- (1) Line cutting to reduce the line spacing to 400 ft. in the anomalous zone.


- (2) Soil sampling on the above lines.
- (3) Detailed search for outcrop in the anomalous area and the sinking of test pits on the geochemical 'highs'.
- (4) Small diameter core drilling contingent on the results of the above additional work.

Respectfully submitted,



T. J. Adamson,
Geologist

October 7, 1968



SUMMARY OF COSTS
GEOCHEMICAL SURVEY - SCOT MINERAL CLAIMS

| | | | | | |
|----|-----|---|---|--|------------|
| 1. | (a) | Footage sampled on grid | : | 67,200 ft. | |
| | (b) | Soil samples taken | : | 526 | |
| | (c) | Silt samples taken | : | 49 | |
| | (d) | Geochem samplers | : | T. Brock M. Simpson F. Charlie T. Charlie | |
| 2. | (a) | Wages: | | | |
| | | 1 man day @\$17.00 daily wage of T. Brock | | 17.00 | |
| | | 2 man days @\$18.00, daily wage of M. Simpson | | 36.00 | |
| | | 8 man days @\$20.00, daily wage of F. Charlie | | 160.00 | |
| | | 8 man days @\$20.00, daily wage of T. Charlie | | 160.00 | |
| | | 4 man days @\$20.00, daily wage of C. Marcoux(cook) | | <u>80.00</u> | \$ 453.00 |
| | (b) | Helicopter Support: | | | |
| | | 1.3 hrs. @\$127.00/hr. (including oil) | | 165.00 | |
| | | Aviation gasoline 17 gal/ hr. @\$2.00/gal. | | <u>44.00</u> | \$ 209.00 |
| | (c) | Fixed-Wing Support | | | \$ 120.00 |
| | (d) | Subsistence Cost | | | |
| | | 23 man days @\$8.00/man day | | | \$ 184.00 |
| | (e) | Analysis Cost | | | |
| | | 575 samples @\$2.50/sample processing cost | | | \$1,438.00 |
| | (f) | Supplies and Misc. Equipment | | | \$ 50.00 |
| | (g) | Travel from Vancouver (travel from Ross River included in Fixed-Wing Support) | | | |
| | | \$15.00/man x 2 men | | | \$ 30.00 |
| | (h) | Supervision Cost | | | |
| | | 23 man days @\$1.20/man day | | | \$ 28.00 |

(Cont'd.)

| | | | |
|---|-------------|----|--------------------------|
| (i) Interpretation & Report Presentation | | | |
| Drafting: 1 man day @\$19.00, daily wage of P. Vlasveld, draftsman | 19.00 | | |
| Interpreation & Report Writing: 1 man day @\$23.00, daily wage of T. Adamson, geologist | 23.00 | | |
| Subsistence: 2 man days @\$8.00/man day | 16.00 | | |
| Supervision: 2 man days @\$1.20/man day | <u>2.40</u> | \$ | 60.40 |
| (j) Overhead - 15% of total 15% of \$2,572.00 | | \$ | <u>386.00</u> |
| TOTAL COST OF SCOT GROUP GEOCHEMICAL SURVEY | | | <u><u>\$2,958.00</u></u> |

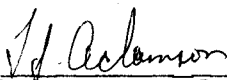
ATLAS EXPLORATIONS LIMITED

(N.P.L.)

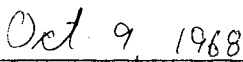
330 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B.C.

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

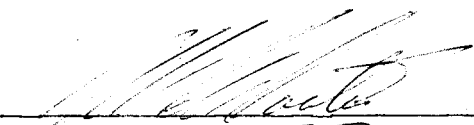
I, Thomas J. Adamson, Geologist, Atlas Explorations Limited, of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report "Geochemical Report - Scot Mineral Claim Group" Appendix I is both correct and true.



Thomas J. Adamson,



Date



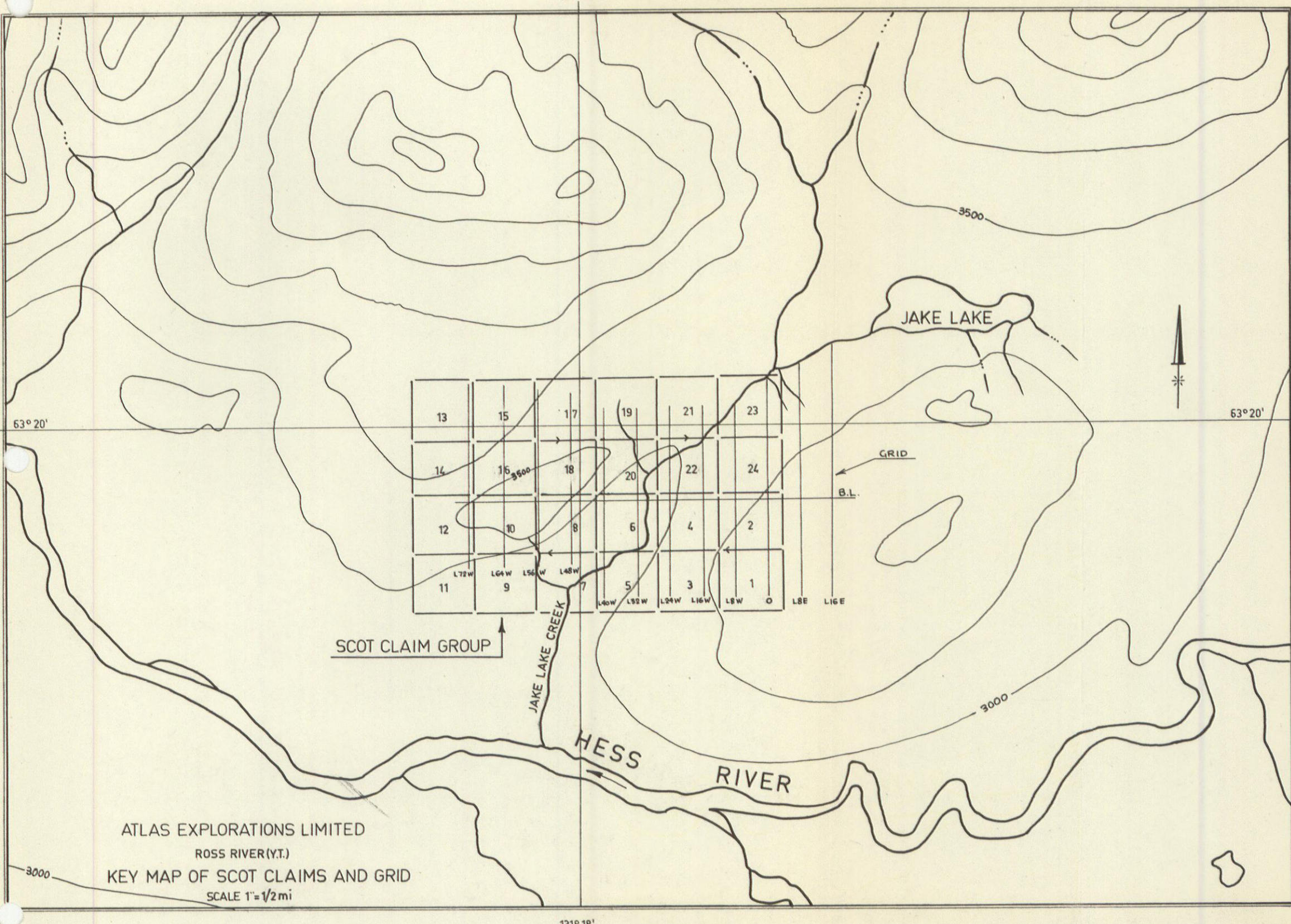
Commissioner of Oaths in and
for the Yukon Territory

PERSONNELSCOT MINERAL CLAIMS - GEOCHEMICAL SURVEY

| | | |
|------------|------------------------------|----------------------|
| T. Adamson | Geologist-Party Chief | Vancouver, B.C. |
| M. Simpson | Student Assistant | Vancouver, B.C. |
| T. Brock | Student Assistant | West Vancouver, B.C. |
| C. Marcoux | Cook | Quebec, P.Q. |
| F. Charlie | Linecutter - Geochem sampler | Ross River, Y.T. |
| T. Charlie | Linecutter - Geochem sampler | Ross River, Y.T. |

LIST OF CLAIMS

| <u>CLAIM NUMBER</u> | <u>GRANT NUMBER</u> | <u>DATE RECORDED</u> |
|---------------------|---------------------|----------------------|
| Scot 1-8 | Y14044 - Y14051 | Oct. 11, 1967 |
| Scot 9-16 | Y14052 - Y14059 | Oct. 11, 1967 |
| Scot 17-24 | Y14060 - Y14067 | Oct. 11, 1967 |



SCOT CLAIM GROUP

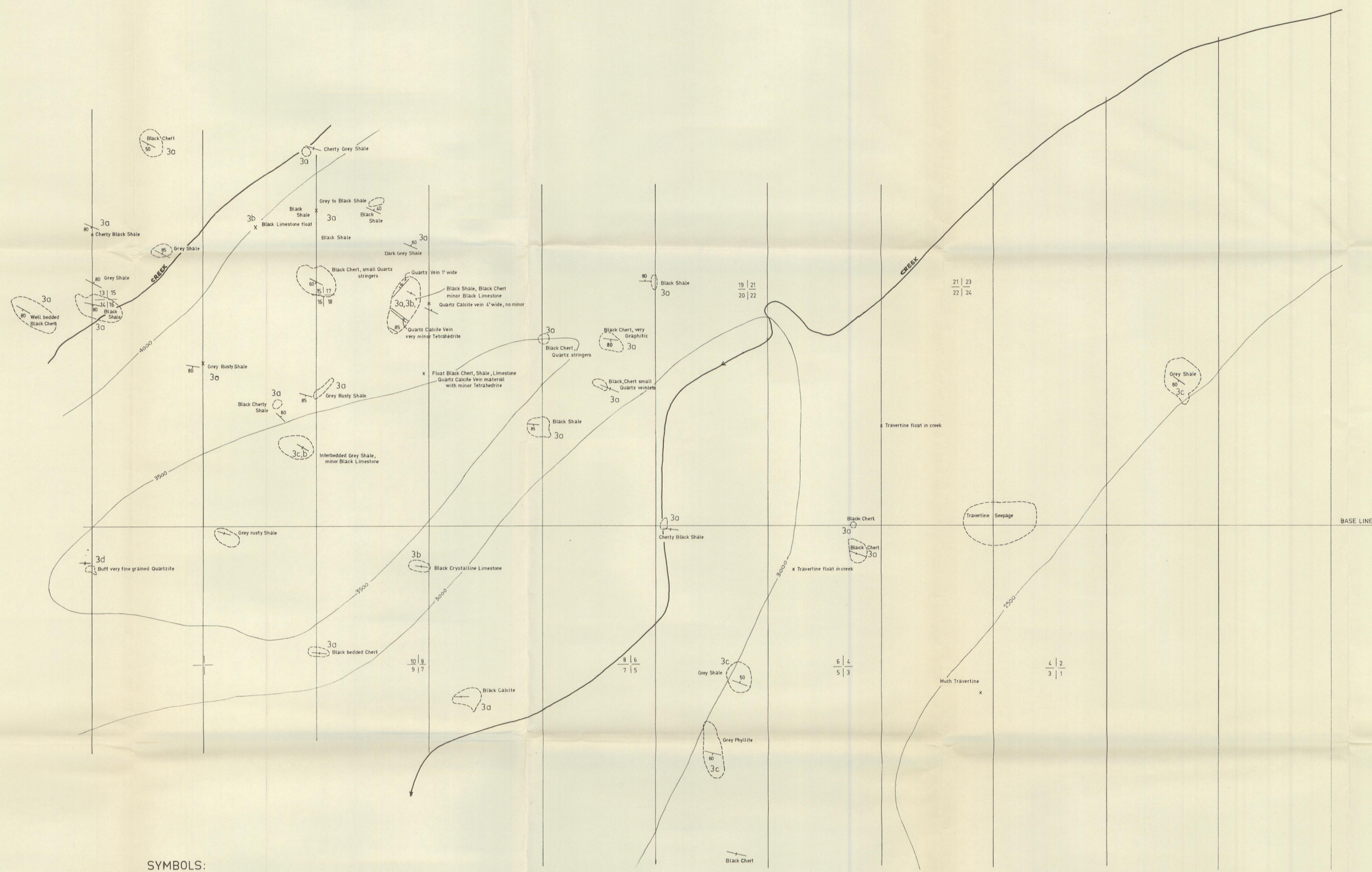
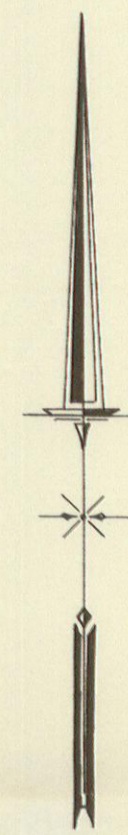
ATLAS EXPLORATIONS LIMITED
ROSS RIVER (Y.T.)

KEY MAP OF SCOT CLAIMS AND GRID
SCALE 1" = 1/2 mi

131° 18'

72W 64W 56W 48W 40W 32W 24W 16W 8W 0 8E 16E

40N
30N
20N
10N
BASE LINE
10S
20S



SYMBOLS:

- BEDDING ATTITUDE
- OUTCROP LIMITS

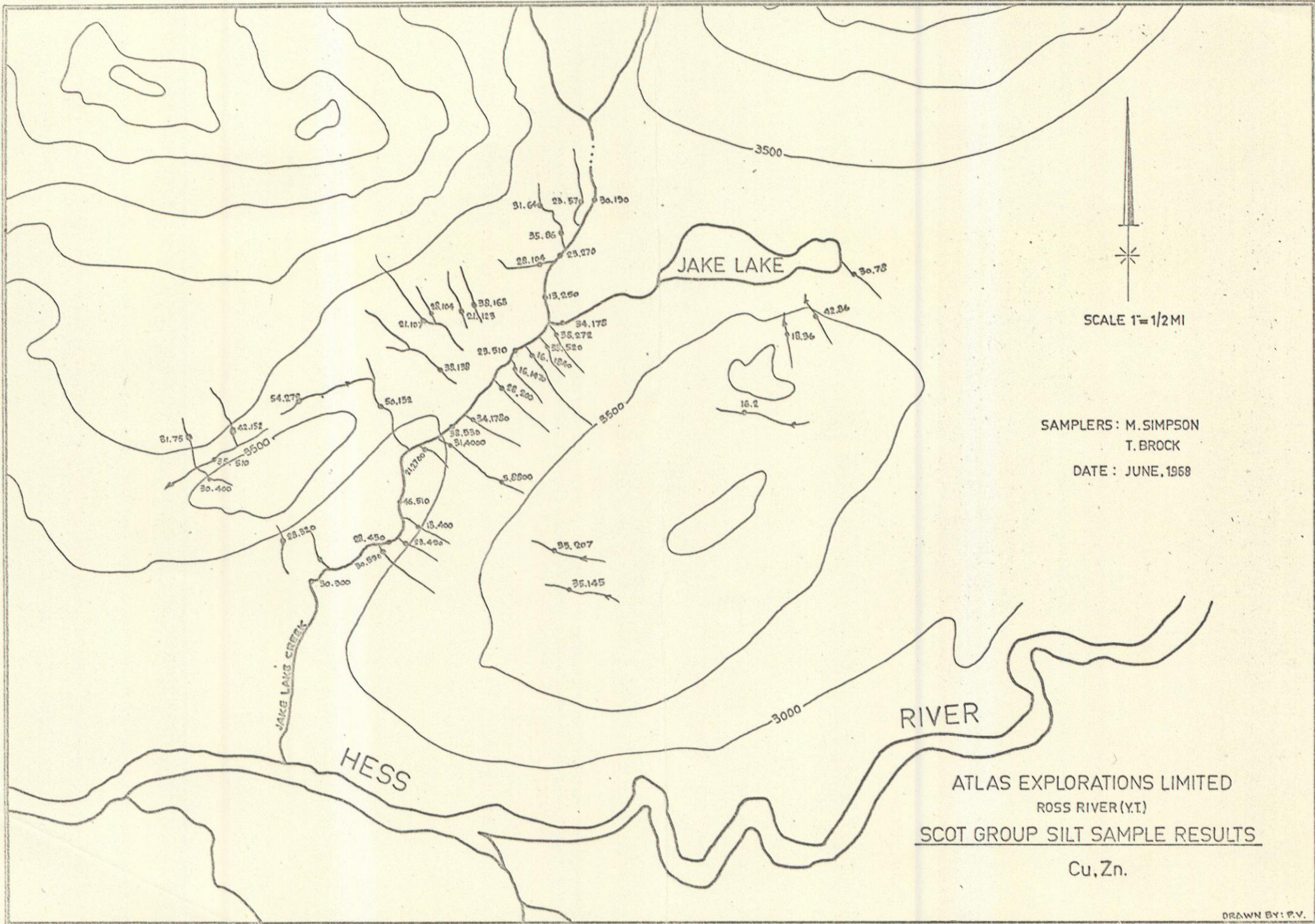
LEGEND:

- 3d CHERT PEBBLE CONGLOMERATE / MINOR QUARTZITE.
- 3c GREY PHYLLITE, GREY SHALE.
- 3b CALCAREOUS PHYLLITE, MINOR LIMESTONE.
- 3a BLACK CHERT, BLACK SLATE + SHALE, ARGILLITE, GREYWACHE

ORDOVICIAN DEVONIAN

ATLAS EXPLORATIONS LIMITED
 ROSS RIVER (Y.T.)
 HESS REGION
 SCOT MINERAL CLAIM GROUP
GRID GEOLOGY
 (OUTCROP MAP)

GEOLOGY BY: T. ADAMSON (JULY 1968) DRAWN BY: P.J.F. VLASVELD (DATE: SEPTEMBER 18/68)



SCALE 1"=1/2 MI

SAMPLERS: M. SIMPSON
T. BROCK
DATE: JUNE, 1958

RIVER

HESS

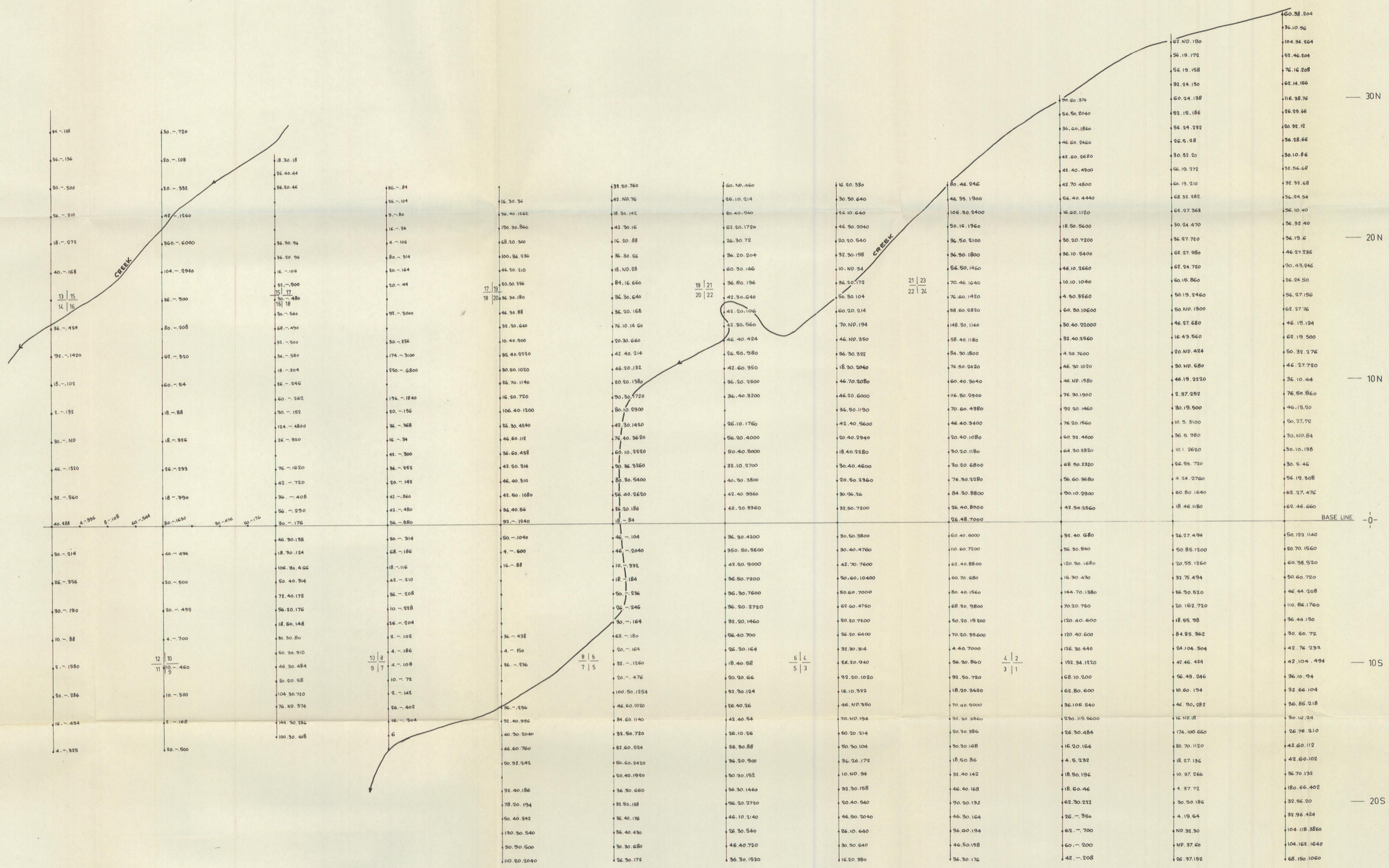
JAKE LAKE

ATLAS EXPLORATIONS LIMITED
ROSS RIVER (Y.T.)
SCOT GROUP SILT SAMPLE RESULTS

Cu, Zn.

DRAWN BY: P.V.

72 W 64 W 56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E — 40 N



— 40 N
— 30 N
— 20 N
— 10 N
— 0
— 10 S
— 20 S
— 30 S

ATLAS EXPLORATIONS LIMITED
 ROSS RIVER (Y.T.)
HESS REGION
SCOT MINERAL CLAIM GROUP
 GEOCHEMICAL RESULTS BY ATOMIC ABSORPTION COPPER, LEAD,
 AND ZINC, SPECTROPHOTOMETER ANALYSIS.

PARTY CHIEF: T. ADAMSON DRAWN BY: P.J.F. VLASVELD
 SAMPLERS: T. BROCK & DATE: SEPTEMBER 12/88
 M. SIMPSON

400 0 400 800
 feet

72W 64W 56W 48W 40W 32W 24W 16W 8W 0 8E 16E

40 N

30 N

20 N

10 N

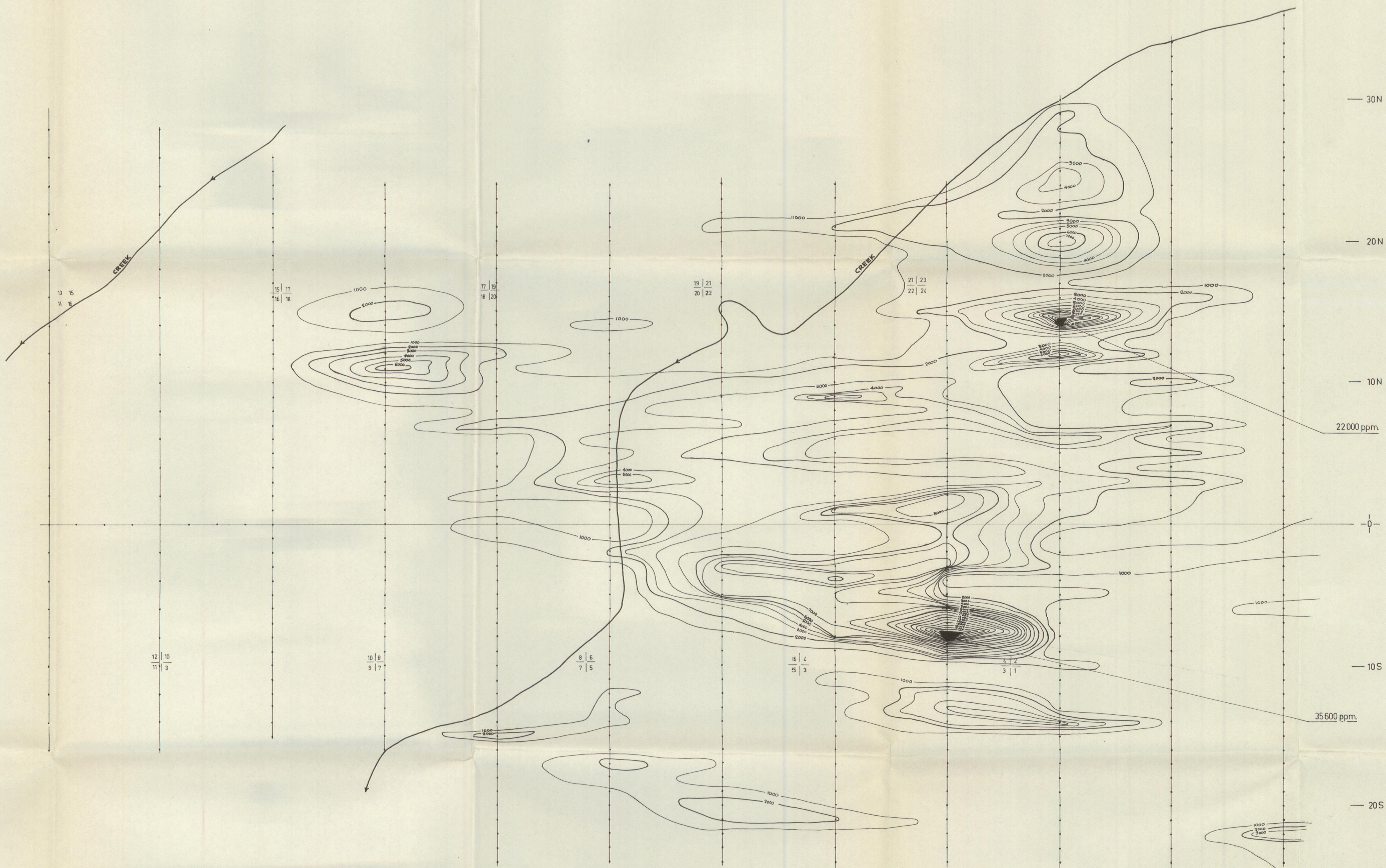
22000 ppm

0

10 S

35600 ppm

20 S



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ROSS RIVER (Y.T.)
HESS REGION
SCOT MINERAL CLAIM GROUP
GEOCHEMICAL RESULTS BY ATOMIC ABSORPTION COPPER, LEAD,
AND ZINC, SPECTROPHOTOMETER ANALYSIS
ZINC CONTOUR MAP

PARTY CHIEF: T. ADAMSON
DRAWN BY: P.J.F. VLASVELD
DATE: SEPTEMBER 17/68
M. SIMPSON

