

IVOR MINERAL CLAIM GROUP

Mayo Mining District

Yukon Territory

Report on Geological and Geochemical
Work done during 1968 Field Season

Longitude . 131^o 00' West

Latitude : 62^o 41' North

N.T.S. 105-J-15

By:

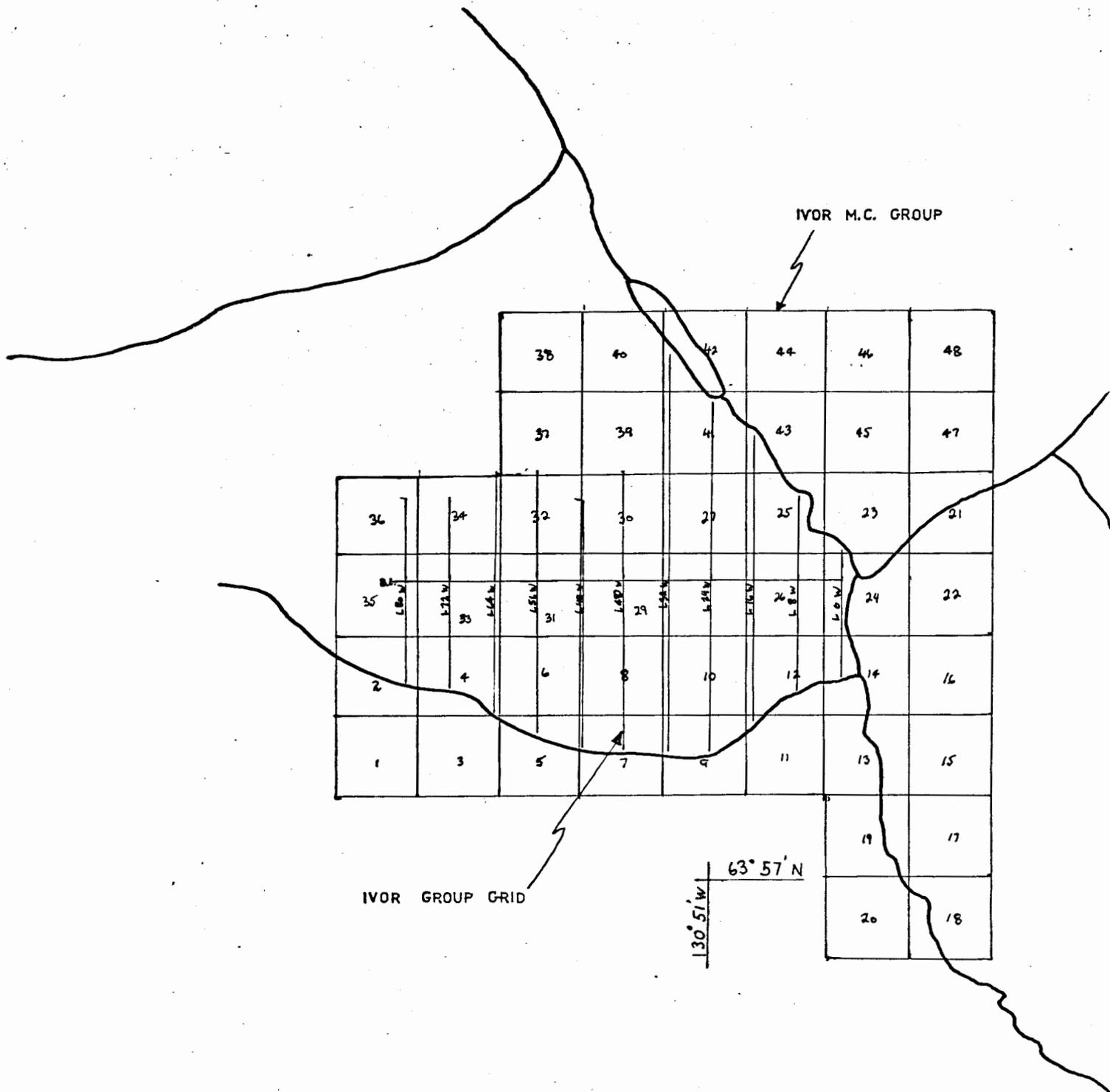
T. J. Adamson

ATLAS EXPLORATIONS LIMITED

October 31, 1968

LIST OF CLAIMS

<u>Claim Number</u>	<u>Grant Numbers</u>
IVOR 1-8	Y14172 - Y14179
IVOR 9-16	Y14180 - Y14187
IVOR 17-24	Y14188 - Y14195
IVOR 25-32	Y14222 - Y14229
IVOR 33-40	Y14230 - Y14237
IVOR 41-48	Y14196 - Y14203



IVOR GROUP KEY MAP CLAIMS & GRID

Scale : 1" = 1/2 Mile
 Claim Sheet 105-J-15

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LIST OF CLAIMS

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ATLAS EXPLORATIONS LIMITED

(N. P. L.)

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

IVOR MINERAL CLAIM GROUP REPORT ON GEOLOGICAL, AND GEOCHEMICAL WORK DONE DURING 1968 FIELD SEASON

INTRODUCTION

The Hess Properties crew spent from June 10th to June 20th, 1968 evaluating the Ivor Group. The crew consisted of a geologist, two soil samplers, two linecutters and a cook. The purpose was to investigate an area of high zinc values obtained from reconnaissance soil and gossan sampling.

The area was geologically mapped. A grid was cut over the most promising area on the basis of the reconnaissance soil geochem. Soil sampling and rock geochem sampling were carried out over this grid. Silt samples were taken from all drainages on and in the vicinity of the claim group.

LOCATION AND ACCESS

The Ivor Mineral Claim Group is located at about $62^{\circ} 41'$ North latitude and $131^{\circ} 00'$ West longitude. The group is in the northwest corner of claim sheet 105-J-15.

Access to the property is by fixed-wing aircraft to a lake 6 miles northwest of the group and thence by helicopter to the claim group area. The nearest settlement to the claim group is Ross River, located 88 miles to the southwest. The 1968 work on the Ivor Group was supplied from Ross River, and from an Atlas Explorations' base camp on Swan Lake, 70 miles to the northwest of the claim group.

GEOLOGY

All rock units (sedimentary) in the Ivor Group area are Ordovician-Devonian in age.

Unit 3a is the most abundant. It is composed mainly of black graphitic chert. This chert varies from massive to quite well bedded. In many locations the chert is quite fractured. Weathered surfaces vary from bluish-grey to rusty in colour. Another important component of unit 3a is finely bedded, very fissile, black graphitic shale and slate. Also found in 3a, but in only very minor quantities are grey to black argillite and rusty medium grained greywacke.

Unit 3d is found in the northeast and northwest of the claim group. This is a chert-black slate fragment conglomerate (grading into a breccia on the basis of angularity of fragments). It is generally a very tough, hard, compact rock, but in some locations, especially near the contact with 3a, it is quite porous, poorly cemented and rusty.

The only other sedimentary unit noted in the area was unit 3f which is a light to medium grey, well bedded chert.

The stratigraphic relationship between the above units is not known.

The rocks are all moderately to steeply dipping, and striking approximately northwest to the southeast of the group, and swinging over to about 100° in the claim group area.

No major fault or fold structures were noted.

A small granitic intrusive plug is located about 2 miles west of the claim group. This plug is surrounded by a narrow slightly rusty, hornfelsic halo.

No sulphide mineralization of any description was seen in the map area.

GEOCHEMISTRY

Soil samples were taken at 200 ft. intervals on the grid. Where possible, rock geochem samples were taken at the same locations. Because of a general lack of outcrop in the grid area, in many cases the rock samples are from rubble in the soil sample hole. However, every attempt was made to only collect rock samples that appeared to be very close to in situ.

A zinc geochemical anomaly in soils was outlined in the south-central part of the grid. This anomaly is about 3600 ft. long, varies from 400 - 1000 ft. wide, and has a peak value of 4600 ppm Zn. Two much smaller lower valued anomalous zones are located to the northeast of the major zone.

A narrow elongate copper anomaly is coincident with the large zinc anomaly along the upslope margin of the zinc anomaly. These coincident anomalies could possibly reflect a narrow underlying copper-zinc bearing, vein-type structure. However, the lack of any anomalous lead values in this area (with the possibility of good silver values associated with the lead) make this a zone of only very limited interest.

Anomalous copper values are also coincident with high zinc values in the small zones to the NE of the major zone.

A number of irregular, low magnitude lead anomalies in soils are found in the grid area. None of these are coincident with copper or zinc anomalies. All of the soil anomalies occur over graphitic material of unit 3a, and none could be explained by the presence of sulphide mineralization.

It was hoped to be able to relate the high zinc values in the soil to high background values in the graphitic material of unit 3a. However, it appears that there is no notable difference in zinc background between units 3a and 3f, and that the relatively uncarboniferous unit 3d has a higher Zn background.

Only one rock geochem sample could be obtained from the area of the main soil anomaly and this was on the extreme northern boundary of the anomaly. At this point, the soil values were (110, 450) and the rock, a graphitic black chert had values of (36,94), definitely not anomalous. This lack of correlation between zinc values in the rocks and soil is also seen in the small anomaly immediately northeast of the main anomaly. Zinc in the soil is up to 1620 ppm, while the rock value is only 64 ppm. The next small anomalous zone to the northeast is the only place where high values in the soil and rocks coincide (soil 70, 460; rock 1400, 1240). The rock was a rusty weathering black chert with a number of small quartz veinlets. No sulphide mineralization was seen.

Silt samples were taken from all drainages in the claim group vicinity. Erratic high zinc values were obtained from the entire area. However, some locations deserve special mention. Two small drainages off the southeast end of the main soil geochem anomaly gave high zinc values.

Silts from the headwaters of the creek west of the claim group gave very anomalous zinc results (peak 4500 ppm). Lead results from silts from this stream are also seen to increase in value in an upstream direction. No other work has yet been done in this area.

Silts surrounding the gossan 2½ miles south-southeast of camp also gave very high zinc values. Copper and lead results from this area gave only background values. This area has been prospected but there is little outcrop. Only units 3a and 3f were noted.

SUMMARY AND CONCLUSIONS

A number of anomalous zones of soil and silt geochemical values were outlined in the claim group area. These anomalies occur over the graphitic material of unit 3a.

Although outcrop is relatively abundant in the area of interest, no sulphide mineralization that could explain the geochemical anomalies was found, either in place or as float.

It is recommended that no concrete plans for further work in this area be made until some research is undertaken to determine the significance and reliability of our geochemical methods and results in a highly graphitic geological environment such as the one that we are dealing with in this area.

Respectfully submitted,

T. J. Adamson

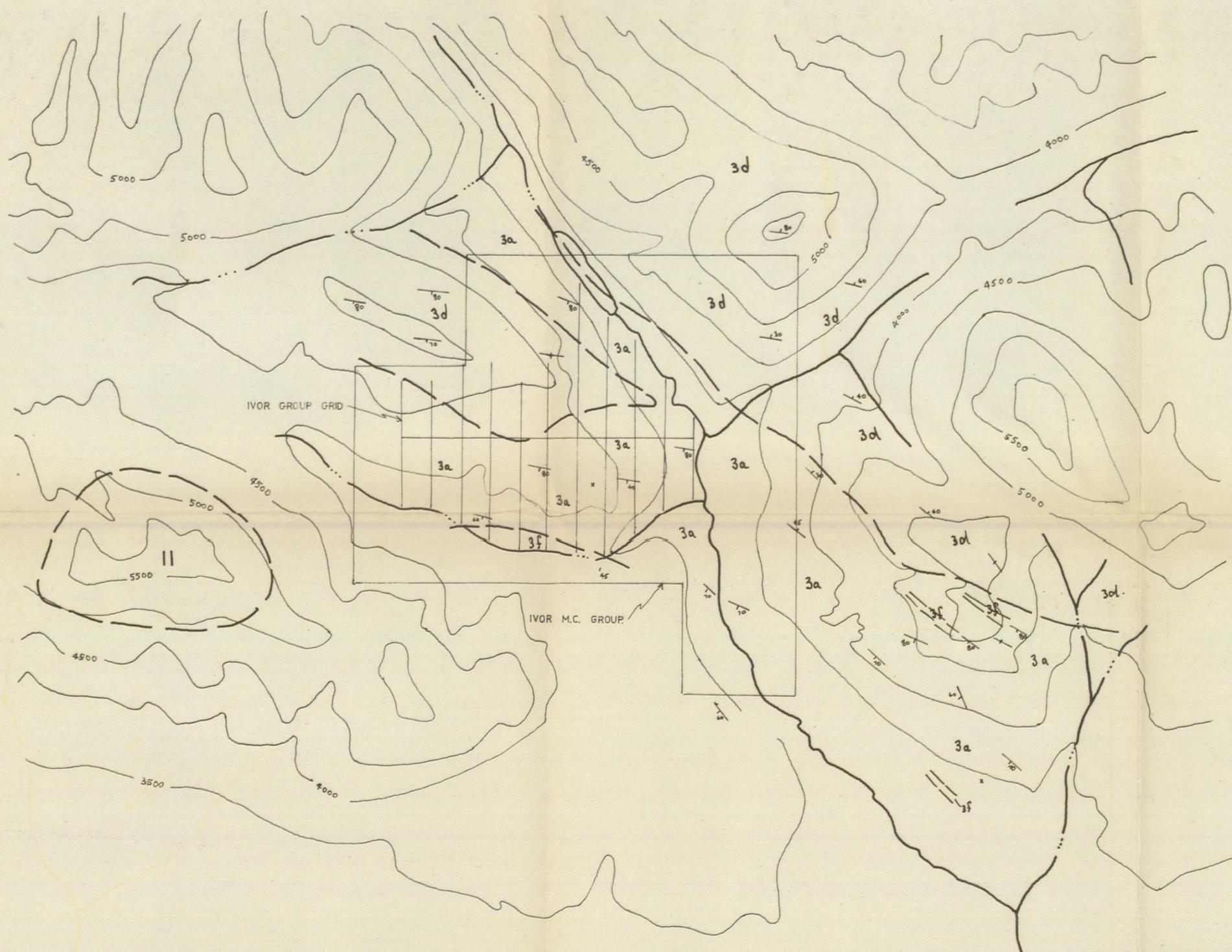
T. J. Adamson,
Geologist

October 31, 1968

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LIST OF PERSONNEL
IVOR MINERAL CLAIM GROUP
GEOLOGICAL AND GEOCHEMICAL SURVEYS

T. J. Adamson	Geologist-Party Chief	Vancouver, B.C.
M. Simpson	Student Assistant	Vancouver, B.C.
T. Brock	Student Assistant	Vancouver, B.C.
G. Galt	Cook	Vancouver, B.C.
F. Charlie	Linecutter-Geochem Sampler	Ross River, Y.T.
T. Charlie	Linecutter-Geochem Sampler	Ross River, Y.T.



LEGEND

- | | | |
|------------|----|--|
| CRETACEOUS | 11 | GRANITIC INTRUSIVE |
| | 3f | GREY BEDDED CHERT |
| ORDOVICIAN | 3d | CHERT PEBBLE CONGLOMERATE |
| DEVONIAN | 3a | BLACK CHERT, BLACK SLATE
ARGILLITE, GREYWACHE |

SYMBOLS

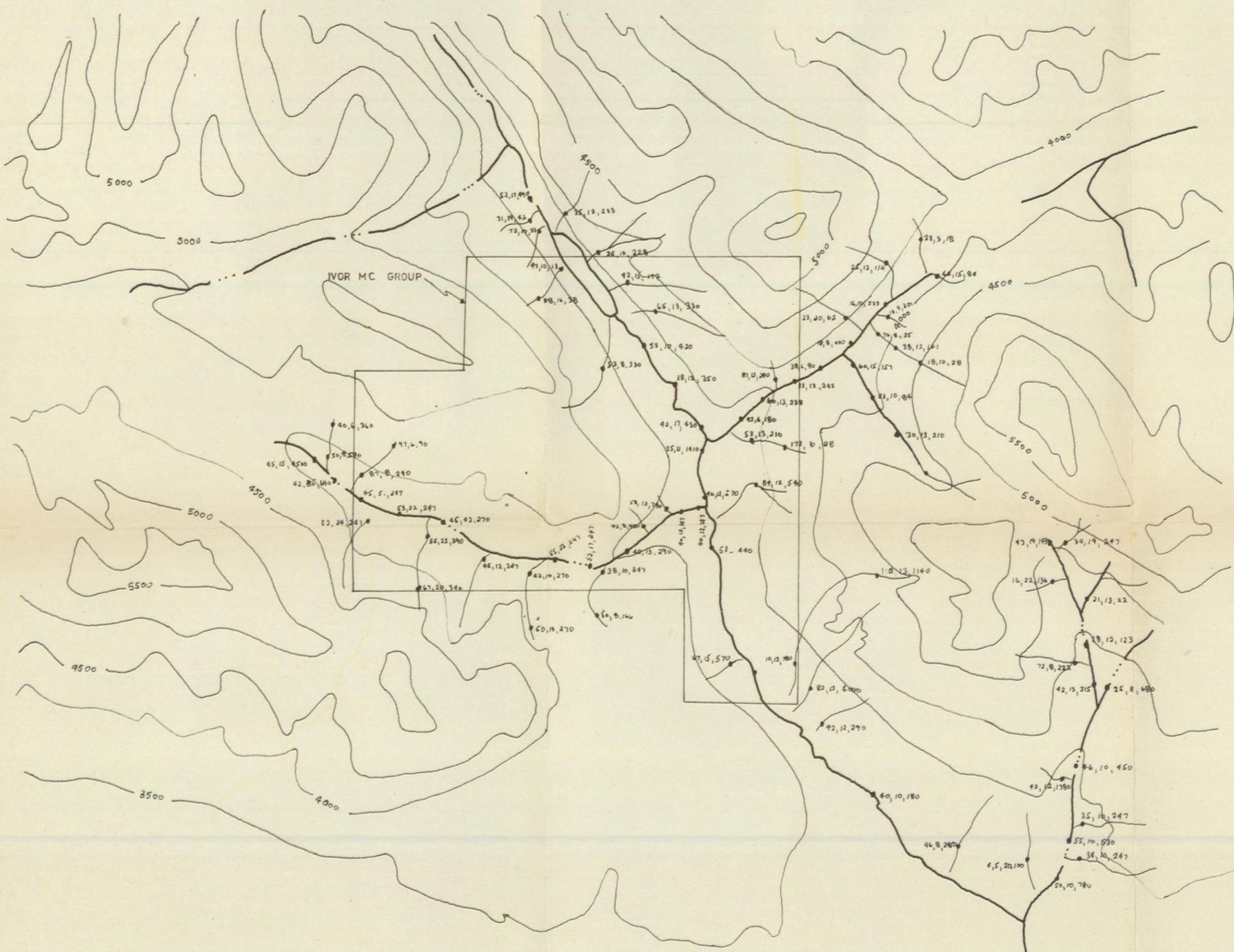
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|-----|------------------|
| --- | CONTACT |
| x | BEDDING ATTITUDE |

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 ROSS RIVER (Y.T.)
 HESS REGION
 IVOR MINERAL CLAIM GROUP
GEOLOGY

GEOLOGY BY: T. ADAMSON

DRAWN BY: T. ADAMSON
 DATE: JUNE 1968

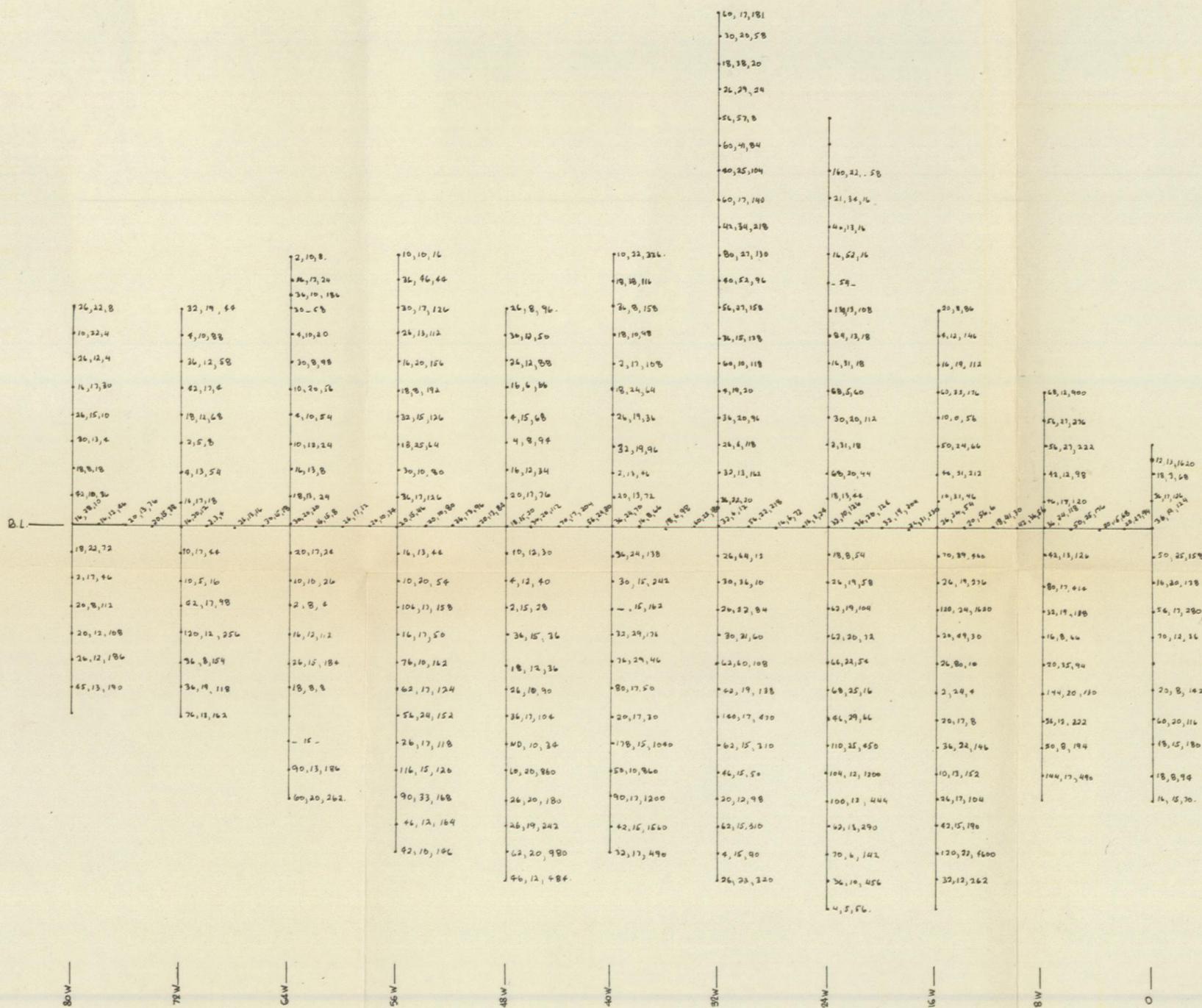


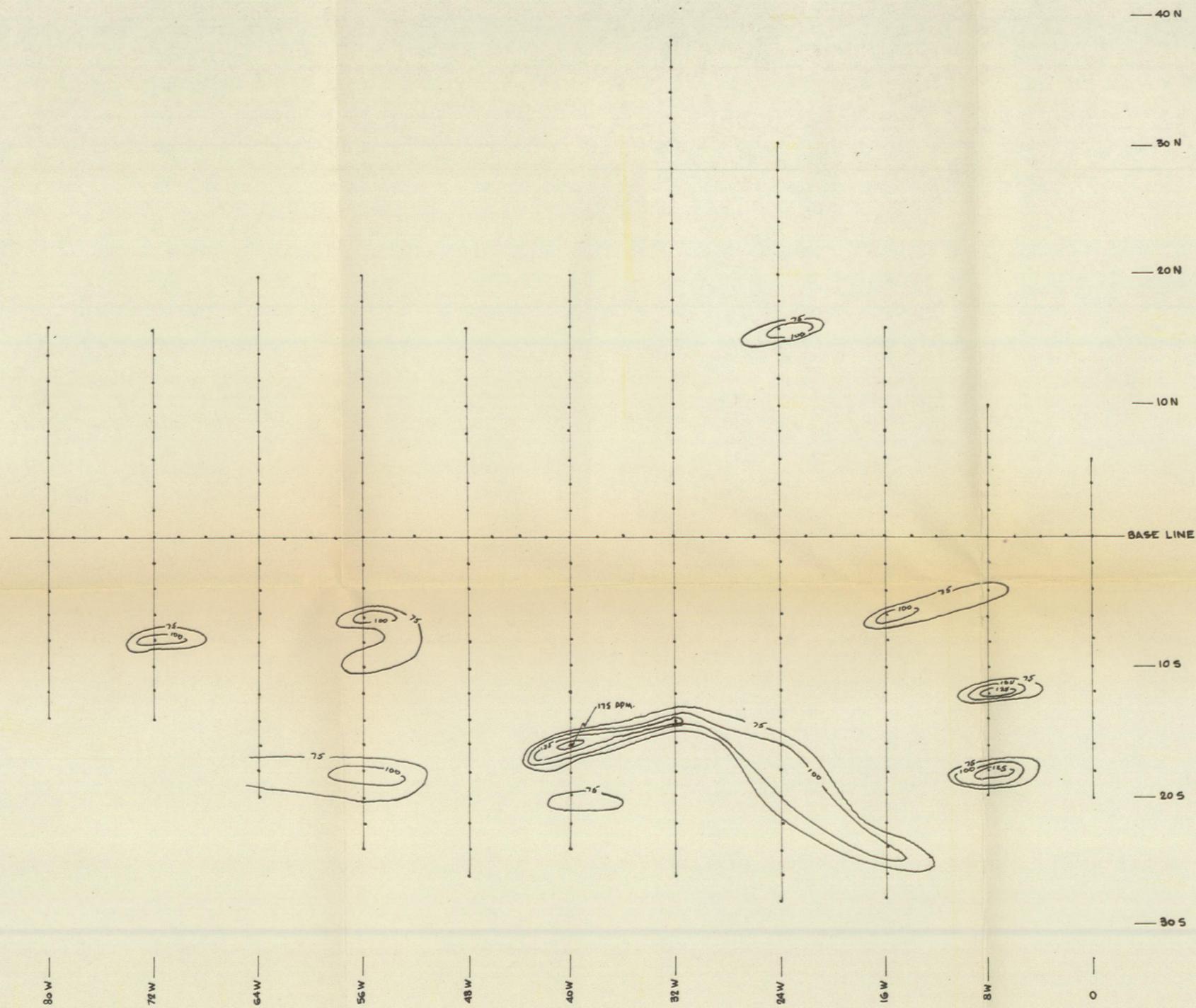


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IVOR MINERAL CLAIM GROUP
 GEOCHEMICAL RESULTS BY ATOMIC ABSORPTION COPPER, LEAD,
 AND ZINC. SPECTROPHOTOMETER ANALYSIS.
 - SILT SAMPLE VALUES -

PARTY CHIEF: T. ADAMSON SAMPLERS: M. SIMPSON T. BROCK	DRAWN BY: T. ADAMSON DATE: JUNE 1968
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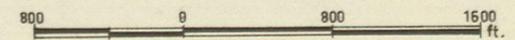


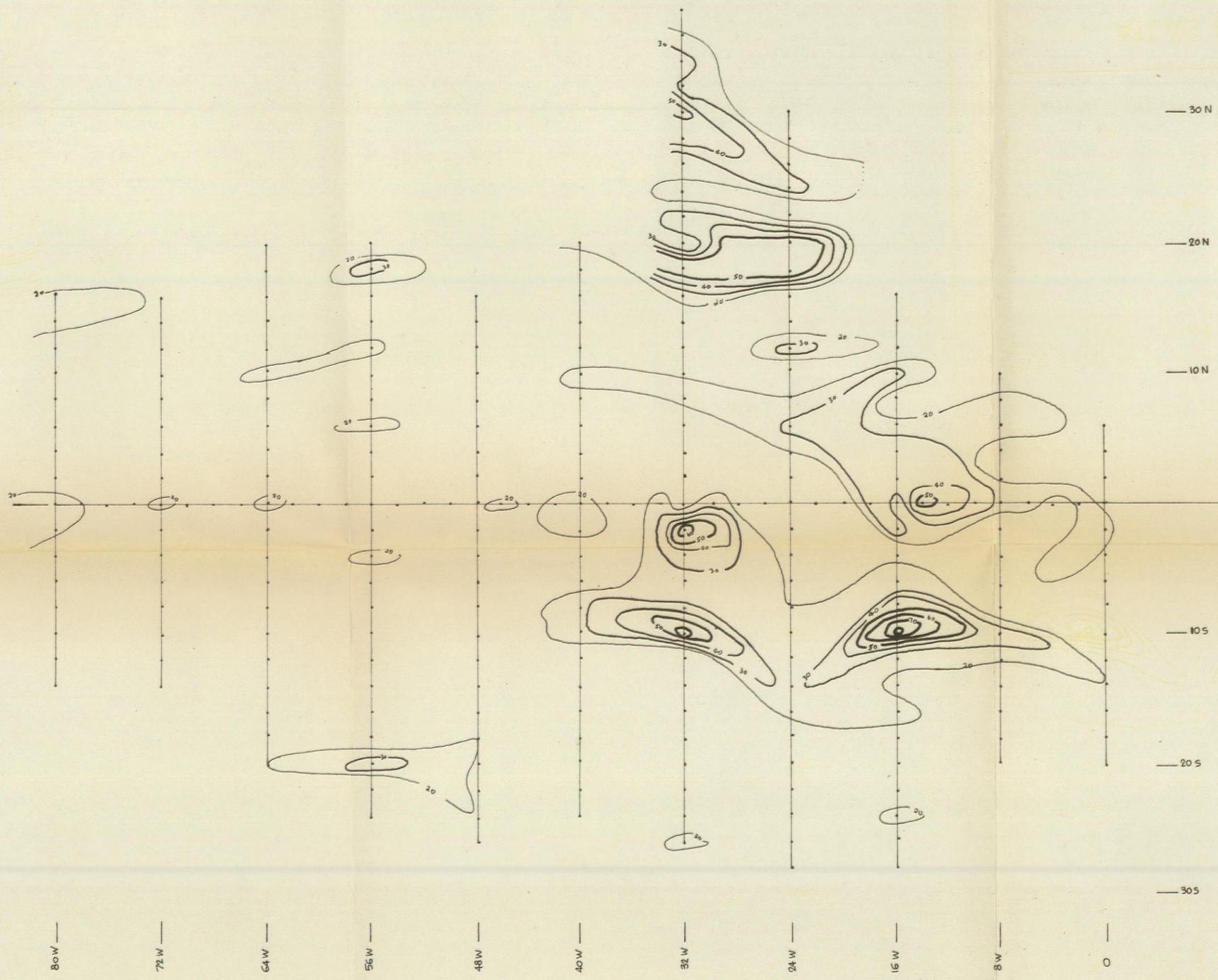


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 IVOR MINERAL CLAIM GROUP
 Cu CONTOUR MAP

PARTY CHIEF: T. ADAMSON
 SAMPLERS: M. SIMPSON

DRAWN BY: T. ADAMSON
 DATE: JUNE 1968

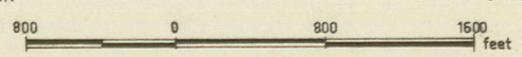


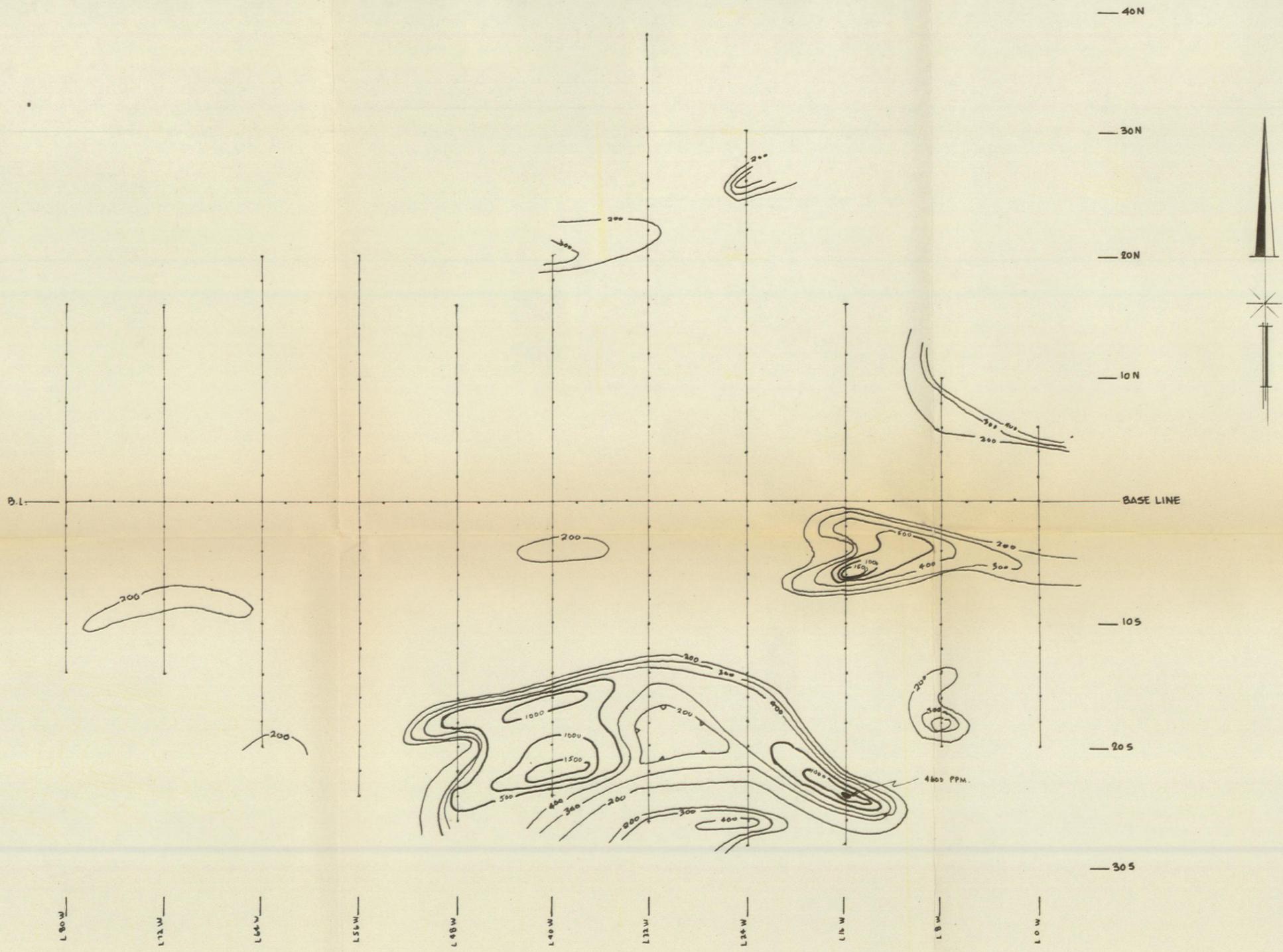


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 IVOR MINERAL CLAIM GROUP
Pb CONTOUR MAP

PARTY CHIEF : T. ADAMSON
 SAMPLERS : M. SIMPSON
 T. BROCK

DRAWN BY : T. ADAMSON
 DATE : JUNE 1968



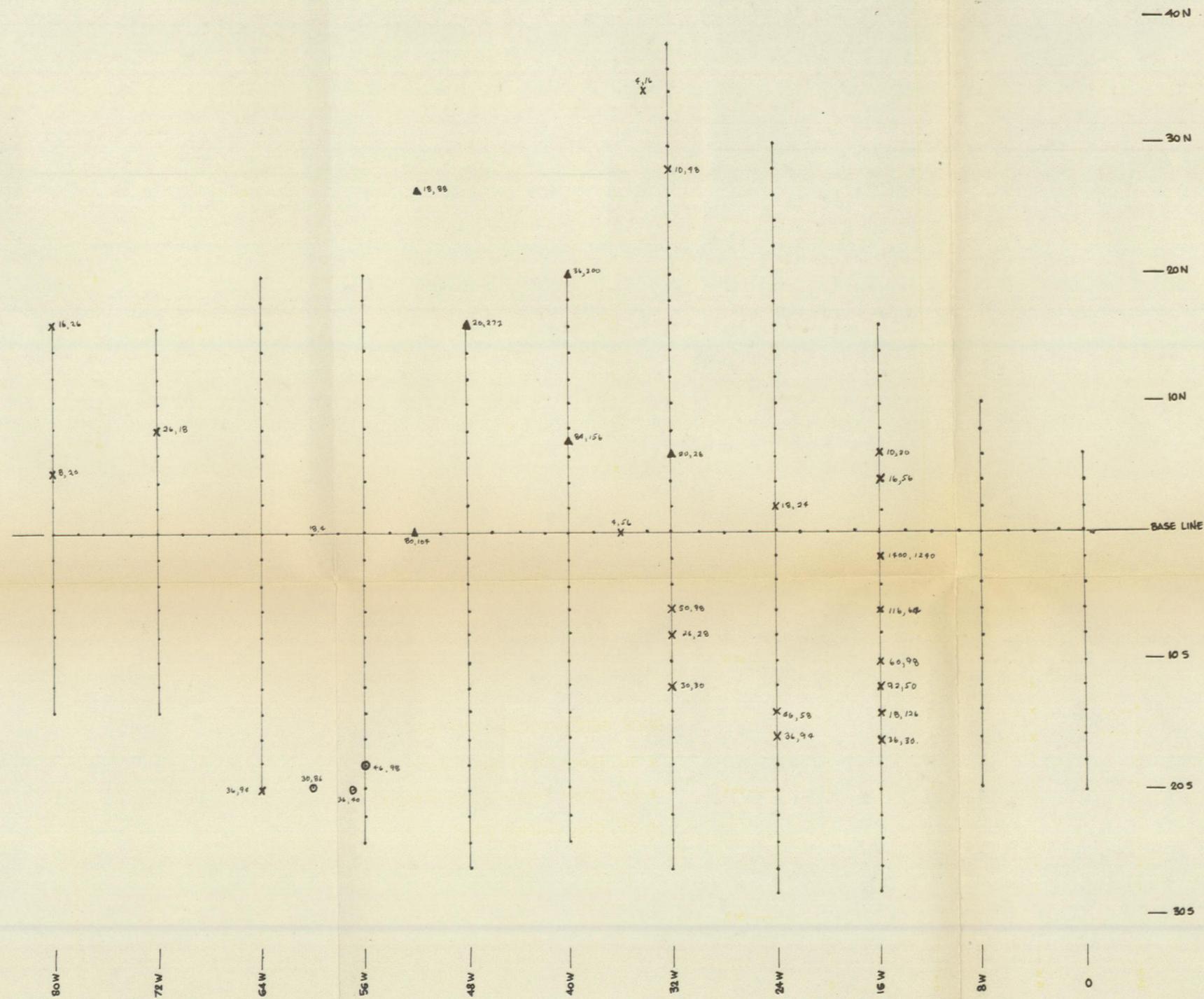


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 IVOR MINERAL CLAIM GROUP
 Zn CONTOUR MAP

PARTY CHIEF: T. ADAMSON
 SAMPLERS: M. SIMPSON
 T. BROCK

DRAWN BY: T. ADAMSON
 DATE: JUNE 1968





ROCK GEOCHEMICAL SAMPLES
 x 3a, Black Chert, Black Slate
 ▲ 3d, Chert Pebble Conglomerate
 ⊙ 3f, Grey Bedded Chert

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 IVOR MINERAL CLAIM GROUP
 GEOCHEMICAL RESULTS BY ATOMIC ABSORPTION COPPER AND
 ZINC, SPECTROPHOTOMETER ANALYSIS
 ROCK SAMPLE VALUES (ppm)

ATLAS EXPLORATIONS LIMITED
 ROSS RIVER (Y.T.)
 HESS REGION
 IVOR MINERAL CLAIM GROUP
 GEOCHEMICAL RESULTS BY ATOMIC ABSORPTION COPPER AND
 ZINC, SPECTROPHOTOMETER ANALYSIS
 ROCK SAMPLE VALUES (ppm)

PARTY CHIEF: T. ADAMSON
 SAMPLERS: M. SIMPSON
 T. BROCK

DRAWN BY: T. ADAMSON
 DATE: JUNE 1968

800 0 800 1600 feet

105-J-15