

MAGNETOMETER AND GEOLOGICAL SURVEY REPORT ON THE
VW AND AX CLAIMS, HIGHLAND VALLEY REGION, B.C.

VW 1-20 ; AX 1-18 ; Late 1-2

Situated north of the Highland Valley.

50°35' north latitude ; 121°03' west longitude.

SUBMITTED BY: R.H.D. Philp, P. Eng.

OWNERS: K. Ross
M. Kangro
J. McFee

Work conducted by Agilis Exploration Services Ltd.
during August and September, 1969.

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REPORT ON

MAGNETOMETER AND GEOLOGICAL SURVEYS

ON THE VW AND AX CLAIMS,

HIGHLAND VALLEY REGION, BRITISH COLUMBIA.

NOVEMBER 4, 1969.

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

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Maps

AX Group:

- #1 Surface Plan and Geology
- #2 Magnetometer Survey -
Contour Map
- #3 Magnetometer Survey

Scale

1 inch = 400 feet
1 inch = 400 feet
1 inch = 400 feet

VW & AX Groups:

- #4 Surface Plan and Geology
- #5 Magnetometer Survey -
Contour Map
- #6 Magnetometer Survey

1 inch = 400 feet
1 inch = 400 feet
1 inch = 400 feet

REPORT ON
MAGNETOMETER AND GEOLOGICAL SURVEYS
ON THE VW AND AX CLAIMS,
HIGHLAND VALLEY REGION, BRITISH COLUMBIA.

INTRODUCTION:

The VW and AX claims comprise a total of 40 contiguous claims located 14 miles southeast of Ashcroft, British Columbia.

Staked in late 1968 to cover favourable aero-magnetic indications, the claims are underlain mainly, if not entirely, by Kamloops Group volcanic rocks which in this area cap intrusive rocks of the Guichon Batholith.

Topographic relief is moderate throughout most of the claims area. Access is provided by secondary roads which pass near the southeast corner of the group and connect with the main Highland Valley road.

During August and September, 1969 magnetometer and geological surveys were conducted over the claims by personnel of Agilis Exploration Services Ltd. under the direction of the writer. Emphasis was placed on the magnetometer survey as very little outcrop occurs, limiting the available geological information.

CLAIMS:

The property consists of the following 40 contiguous mineral claims.

VW 1-20
AX 1-18
Late 1-2

Record No's. : 70740-70759
" " 71948-71065
" " 73933-73934

... 2

GEOLOGY:

Regional mapping by the Geological Survey of Canada at a scale of 1 inch = 4 miles (Map 1010A) and by K. E. Northcote at a scale of 1 inch = 1 mile indicates the area of the VW and AX claims is underlain by Tertiary volcanic rocks of the Kamloops Group. These volcanics, which overlie intrusive rocks of the Guichon Batholith in this region, occupy extensive areas to the north, and have been mapped as being comprised of basalts, andesite, rhyolite, tuffs and breccia.

During the recent survey mapping was conducted along grid lines and random traverses between the lines.

Overburden cover is extensive, with outcrop confined mainly to the eastern edge of the AX claims, the northern most AX claims and to the VW #5 mineral claim.

The volcanics consist of grey, brown and reddish flow rocks, the most common type being a dense or vesicular basalt, occasionally amygdaloidal. A grey, siliceous, thin banded rhyolite is less common.

In places the flows are strongly foliated, a northwest trend being common on the VW claims, with variable, although commonly steep dips. The trend is more irregular on the AX claims, varying from northwest to northeast. Tight folding has been noted in rhyolitic volcanics near the southwest corner of the Late claims where the flows are mostly either flat lying or exhibit very gentle dips.

Coarse-grained, hornblende-rich granitic boulders were noted on AX #7 but are believed to be of glacial origin. No intrusive rocks were noted outcropping within the claims area.

MAGNETOMETER SURVEY:

Equipment Used:

The magnetometer survey was conducted using a Sharpe Model MF1 Fluxgate Magnetometer with readings taken at 200 foot intervals on all cross-lines, and 400 foot intervals on base-lines. This instrument is self-orienting and requires only coarse levelling. In addition, temperature compensations have been built into the instrument. The magnetometer can be read to five gammas on the lowest scale range and scale ranges vary from a maximum of plus or minus 1000 gammas on this scale to a maximum of plus or minus 100,000 gammas on the highest scale. A high latitude adjustment permits zeroing of the magnetometer at any location.

Field Procedures:

The magnetometer survey was conducted initially over the VW claims and later over the AX Group. Readings from the latter survey were adjusted to those of the first.

In conducting the survey a base-line was established in a 210° direction, approximately following the direction in which the claims are staked. Cross-lines were run at 400 foot intervals, with all lines established by chain and compass and marked with coloured flagging. Stations were marked at 200 foot intervals on all cross-lines for future reference. Adjacent cross-lines in a survey loop were tied together at their outer extremities. A total of 15,600 feet of base-lines and 214,400 feet of cross-lines were surveyed in the two groups.

Base stations, which were established at 400 foot intervals along the base-line, were taken as the average of two readings at each station.

Following this, magnetometer readings were taken at 200 foot intervals on all cross-lines with each traverse starting and ending at an established base station.

Elapsed time on these traverses seldom exceeded one hour.

Tolerable diurnal variation for any traverse was one gamma per minute elapsed, and actual variation was generally considerably less.

Corrections:

Compensations built into the instrument eliminate any need for temperature corrections being applied to the field readings.

Diurnal corrections have been applied to all readings between the initial and final base station of each traverse. This variation is assumed to be linear and the correction for any one reading in a traverse is the diurnal variation multiplied by the ratio : time elapsed when reading taken, divided by total time elapsed in the loop.

Interpretation:

Maps have been prepared at a scale of 1 inch = 400 feet and magnetic values contoured at 250 gamma intervals.

VW Group:

Values for the survey range between a low of -1580 and a high of +7865 gammas. In general a north-northeast trend is indicated by the magnetic contours, possibly indicative of the trend of the flows but due in part to the line spacing. The main feature noted by the survey is a broad area of low magnetic susceptibility extending in a north-south direction from VW #19 and #20 to VW #1. This area of lows ranges in width between about 1000 and 2000 feet, becoming less distinct at the southern end.

Several factors could be attributed to this zone of low magnetic susceptibility - variation in thickness of volcanic capping, change in rock type, or a possible fault structure. Due to the strongly linear nature of the zone it is felt the latter is the most probable cause.

AX Group:

Magnetic values on this group range between -1880 and +4315 gammas. A similar overall north-northeast trend is indicated to that existing on the VW Group. The magnetic low to the north appears to trend off the northeast corner of this group.

A southeast trending low occurs along lines 8 + 00S and 12 + 00S in the northwest corner of the group.

A considerably flatter magnetic relief exists in the central and south-central portion of the group. This may be due to a thinning of the volcanics or a possible absence of them in part, as this low relief is more typical of the underlying intrusives.

CONCLUSIONS AND RECOMMENDATIONS:

Geological mapping indicates the VW and AX claims are underlain by generally flat lying volcanic flows. However, large areas are overburden covered and the possibility exists for windows occurring in the volcanics through which the intrusives could be exposed.

A north-south zone of low magnetic susceptibility extends through the VW Group and may be indicative of a major fault zone.

Low magnetic relief throughout the central and south-central portions of the AX Group may be due to thinning

or absence of the volcanic capping.

The above features could best be investigated by induced polarization surveys followed, where warranted, by drilling.

Respectfully Submitted,



R.H.D. Philp, P. Eng.

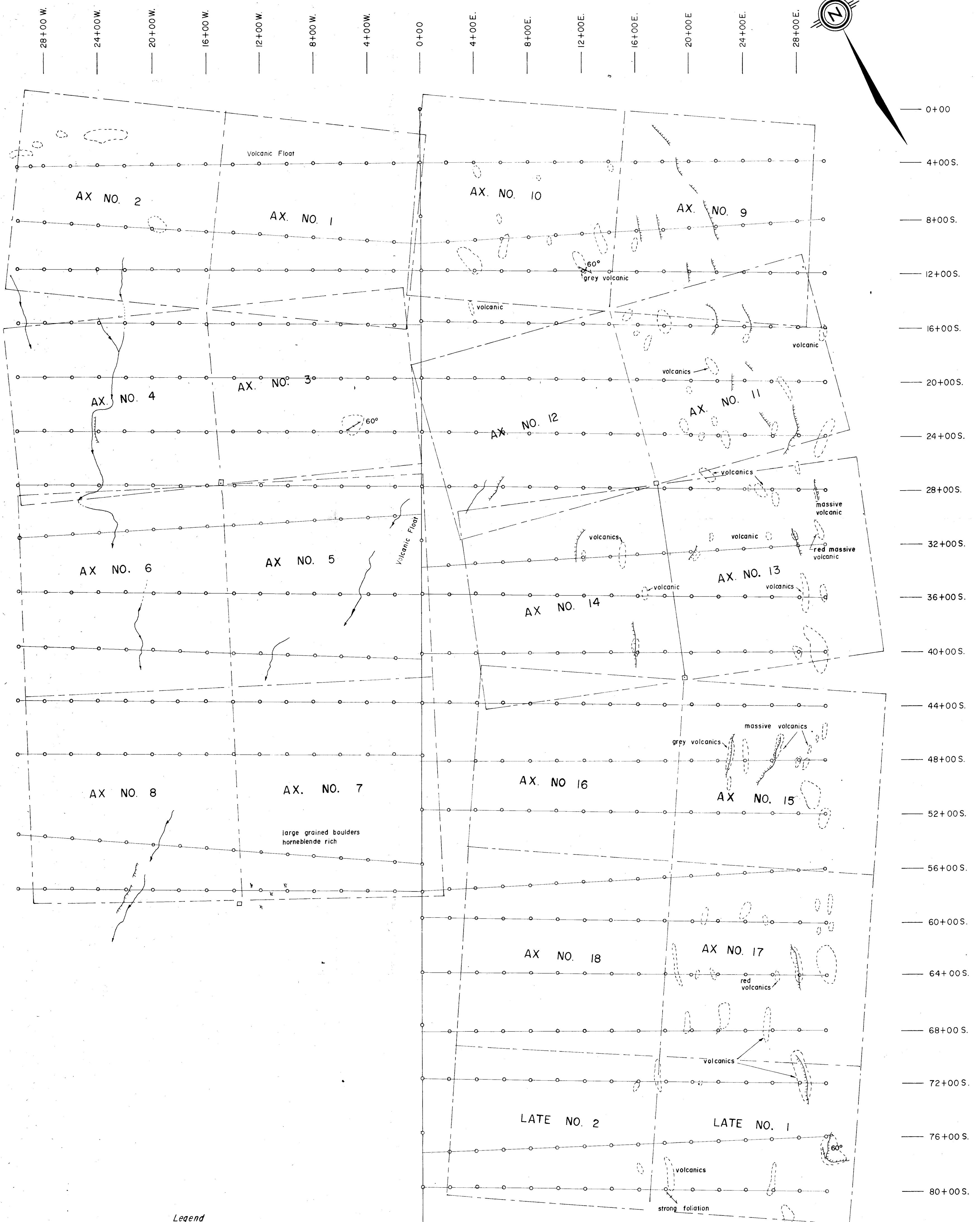
LIST OF PERSONNEL EMPLOYED

Employed between August 13 and September 26, 1969.

<u>PERSONNEL:</u>	<u>DAYS</u>
K. Hektor - magnetometer operator & supervision	10
J. Nelson - helper	2
A. Chupa - helper	2
D. Shuta - helper	9
G. Hawley - geologist	9
G. Hawley - magnetometer operator	8
D. Stuart - helper	12
R. Philp - report preparation	2
K. Kikagawa & L. Marsh - plotting, drafting : 60 hours.	

COSTS:

Surveys conducted at contract price of \$ 4,000.00

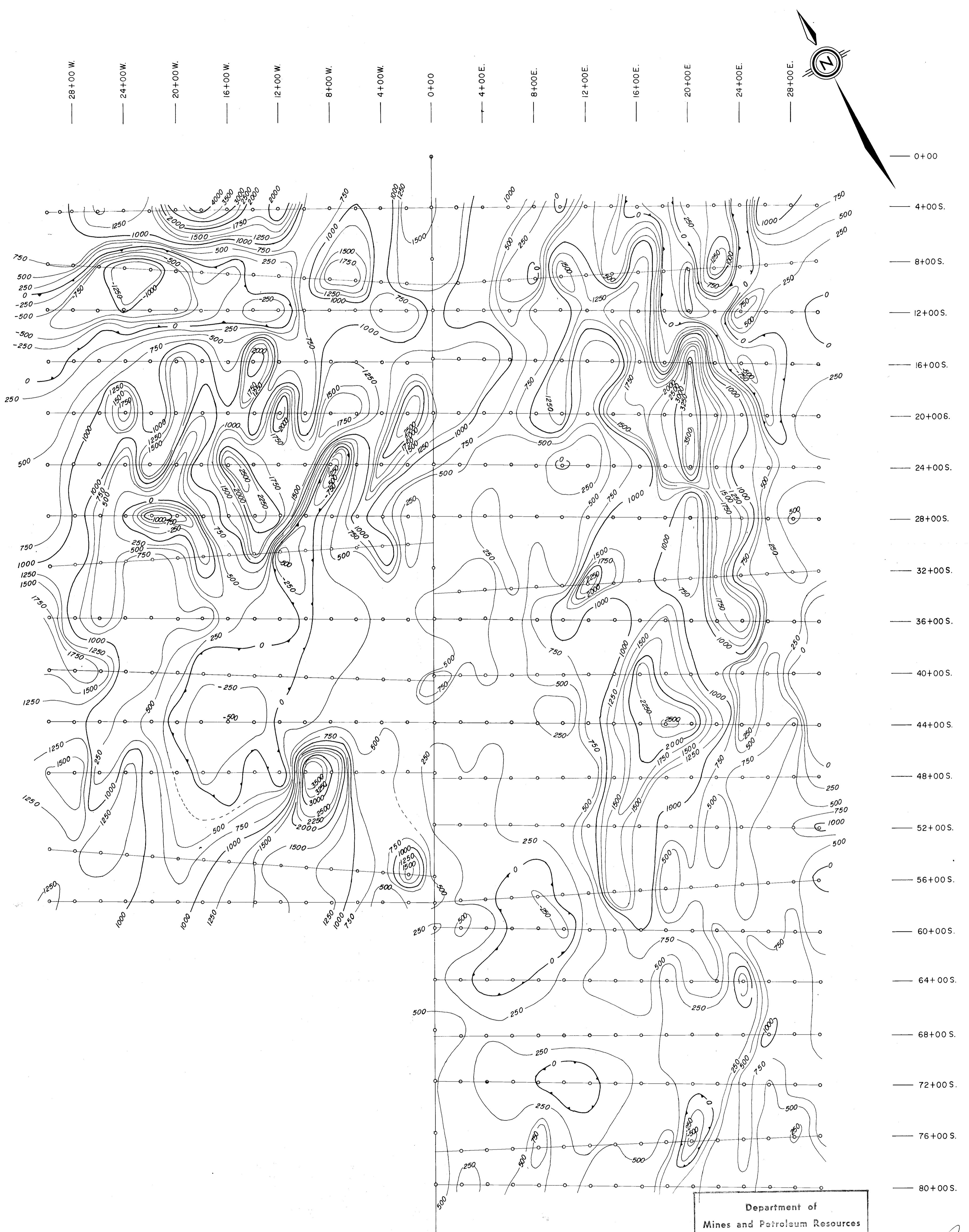


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AGILIS EXPLORATION SERVICES LTD.
AX GROUP
Surface Plan
and Geology

DRAWN BY: K. K. SCALE: 1" = 400 Feet
CHECKED BY: R. P. DATE: October, 1969



Department of

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ASSESSMENT RESULTS

Legend

1000 Magnetometer Contour in gammas.
Contour Interval 250 gammas

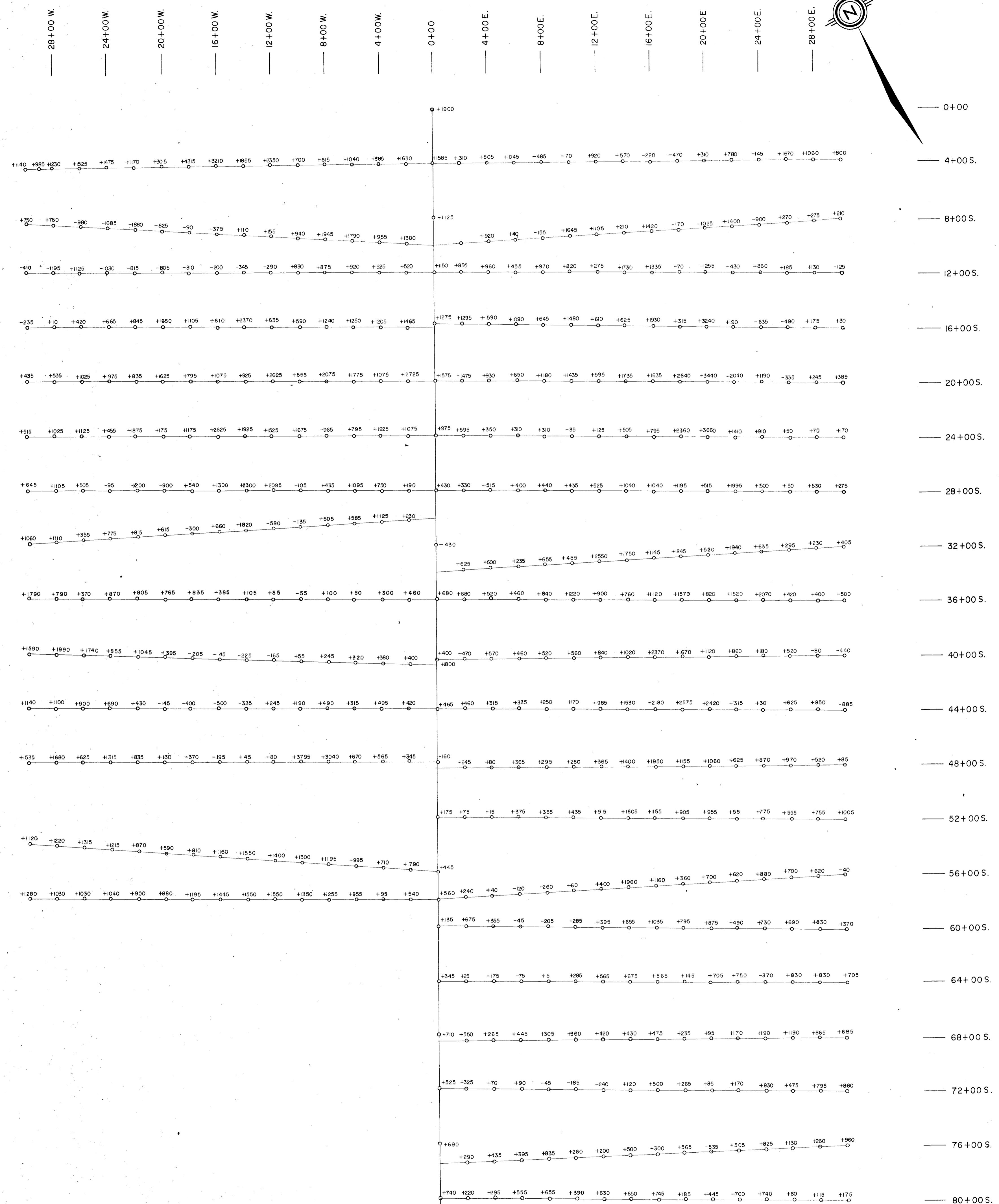
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AGILIS EXPLORATION SERVICES LTD.

AX GROUP

Magnetometer Survey

CONTOUR MAP



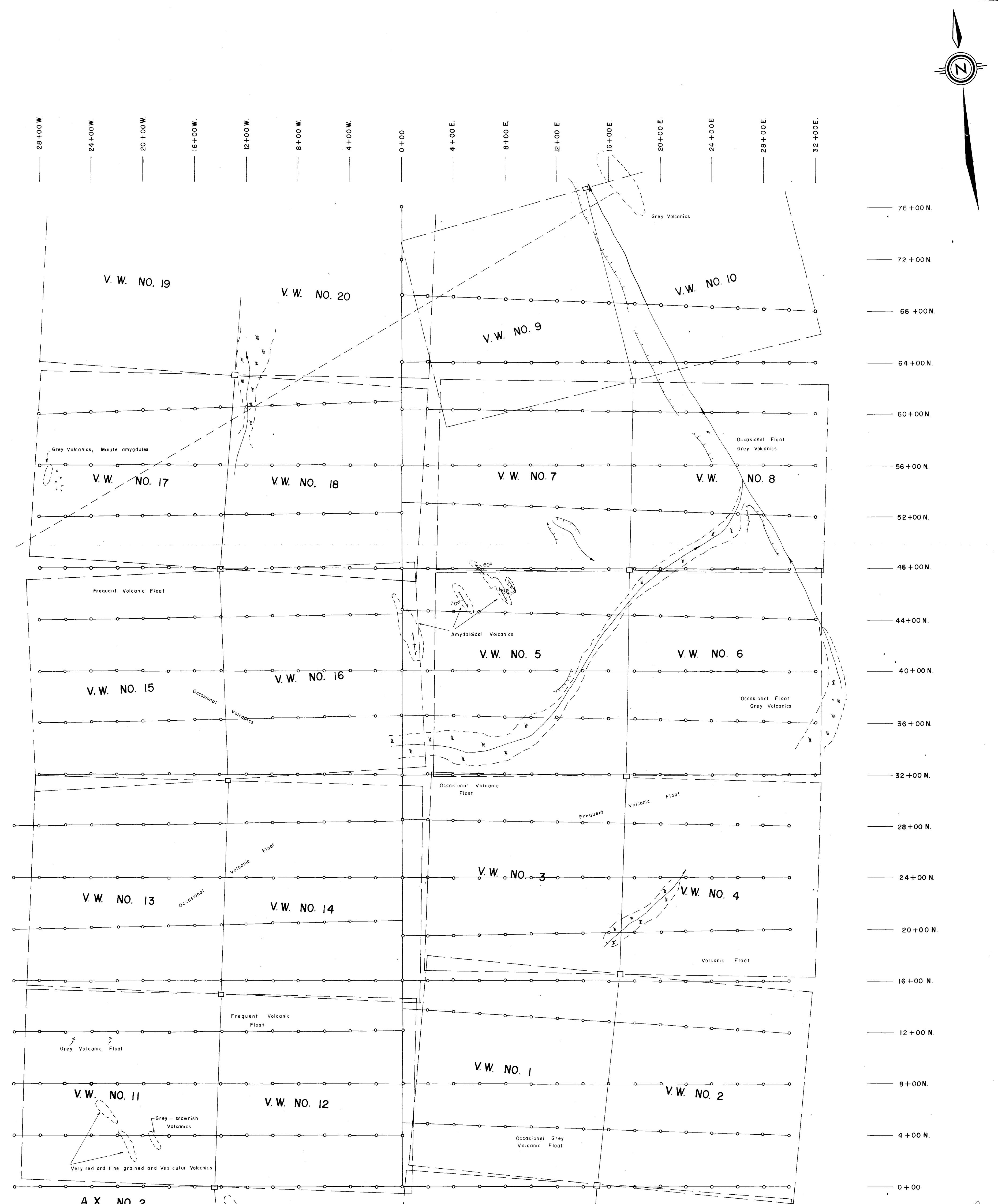
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Legend

+750 Magnetometer Reading (in gammas)

AGILIS EXPLORATION SERVICES LTD.	
AX GROUP	
Magnetometer Survey	
DRAWN BY: K. K.	SCALE: 1" = 400 Feet
CHECKED BY: R. P.	DATE: October, 1969

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2092 *Bill*

Legend

- Smith, Amygdolite

Legend:

 - — Claim post
 - $\angle 30^\circ$ — Bedding
 - (dashed circle) — Outcrop
 - (swamp icon) — Swamp

Sketch description: A dashed circle representing an outcrop. A line extends from the top left to the center of the circle. A diagonal line with a 30° angle is shown near the bottom right. The label "Less Foliated" is written next to the circle.

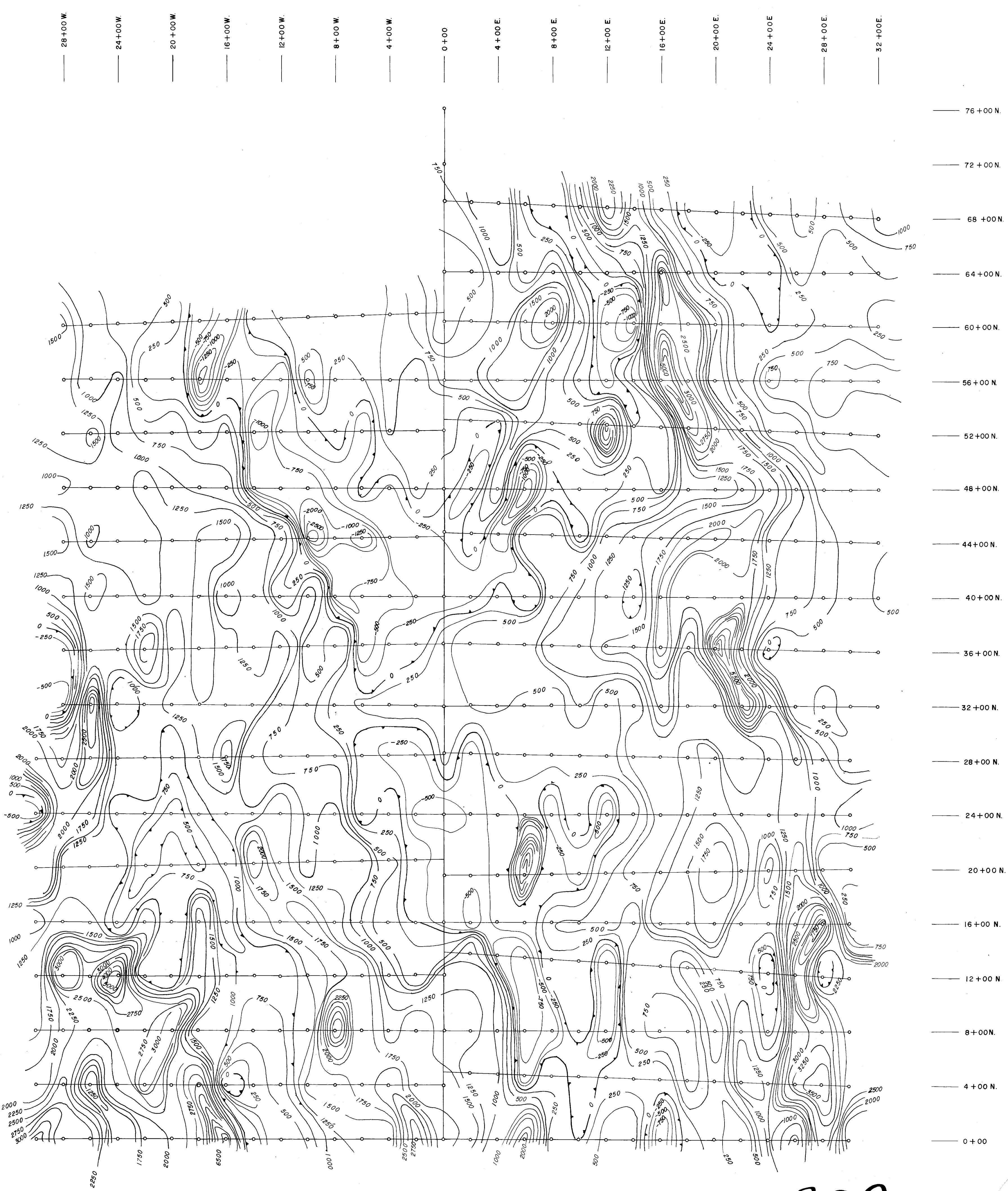
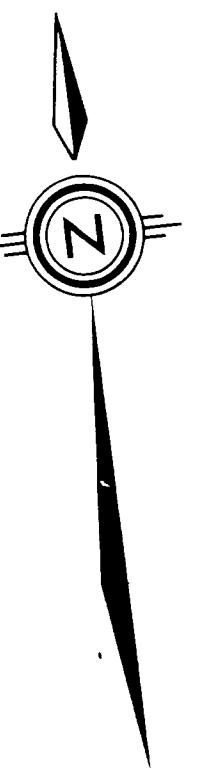
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AGILIS EXPLORATION SERVICES LTD.

V. W. and AX Groups

Surface Plan and Geology

DRAWN BY: L. M.	SCALE: 1" = 400 Feet
CHECKED BY: R. P.	DATE: August, 1969



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Legend

1500 — Magnetometer Reading Contour
(Contour interval = 250 gammas)

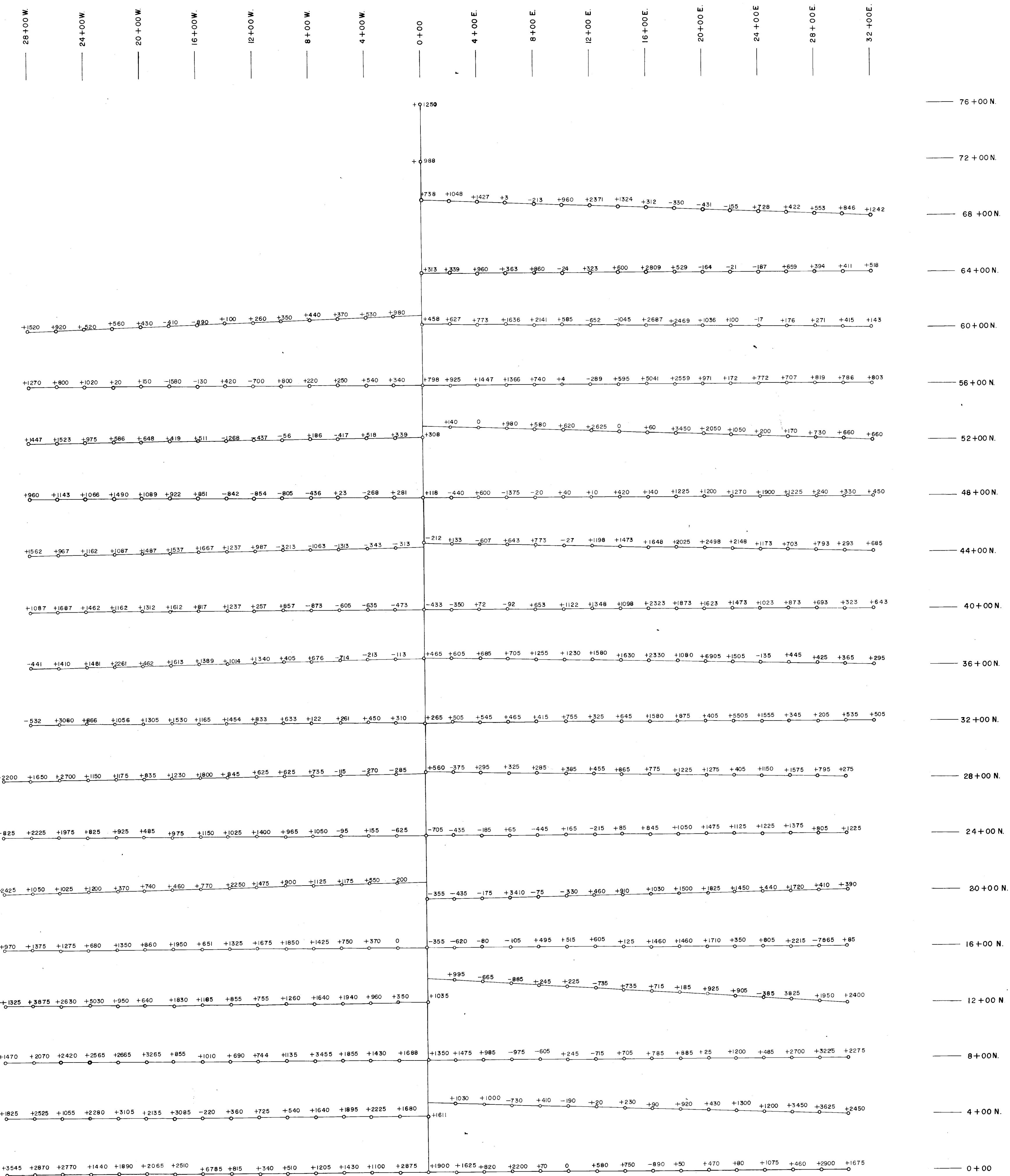
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AGILIS EXPLORATION SERVICES LTD

V. W. and AX
Groups

Magnetometer Survey
CONTOUR MAP

DRAWN BY: L. M. SCALE: 1" = 400 Feet
CHECKED BY: R. P. DATE: August, 1969



Legend

+250 Magnetometer Readings in gammas

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AGILIS EXPLORATION SERVICES LTD

V.W. and AX
Groups

Magnetometer Survey

DRAWN BY: L. M.	SCALE: 1" = 400 Feet
CHECKED BY: R. P.	DATE: August, 1969