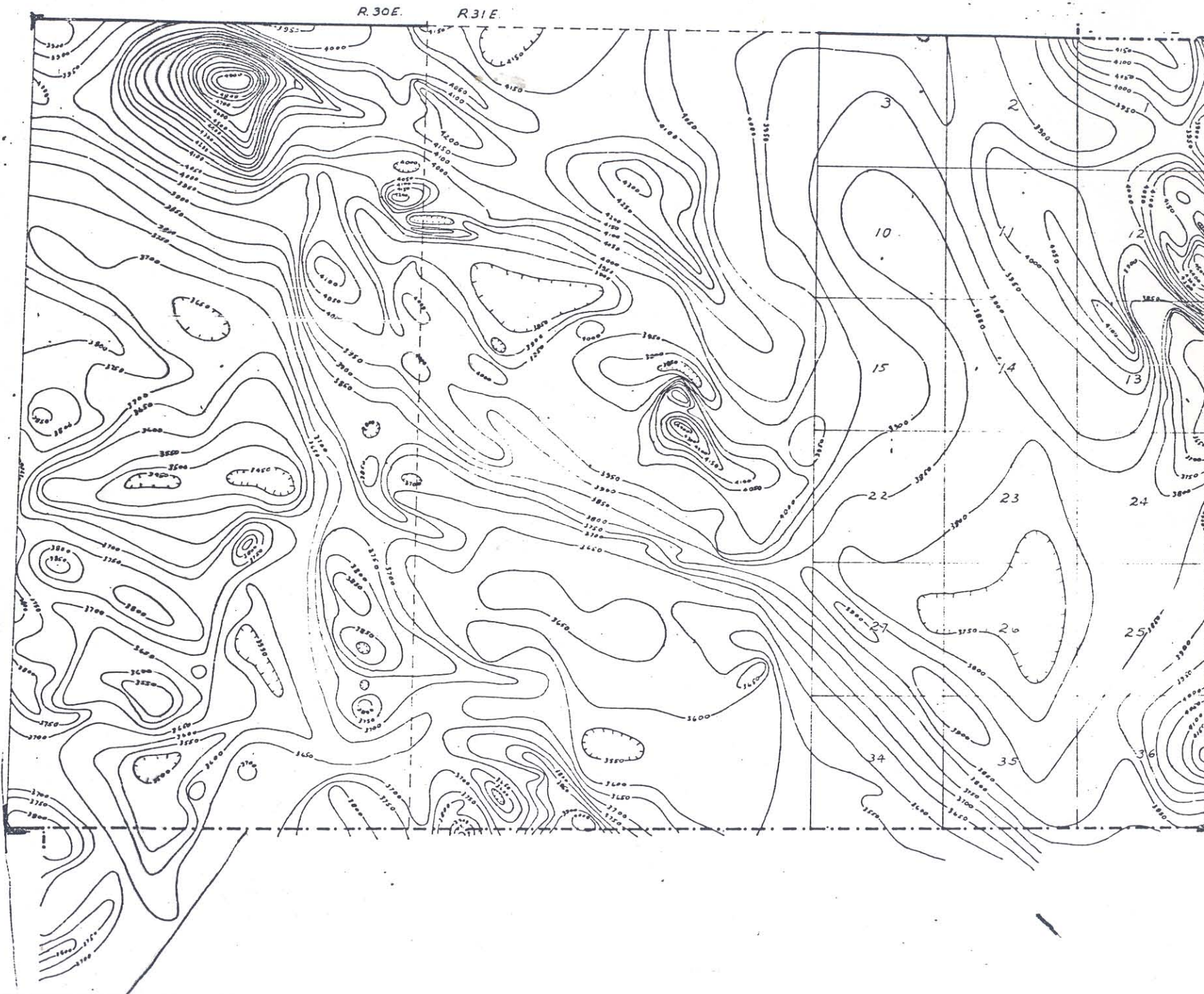


Reservation Aeromog
Grid Surveys

1963



TOTAL INTENSITY
AERIAL MAGNETIC SURVEY
OF
WALKER RIVER RESERVATION

FLIGHT LINE INTERVAL: $\frac{1}{2}$ MILE
FLIGHT ALTITUDE: 500' ABOVE AVE. TERRAIN

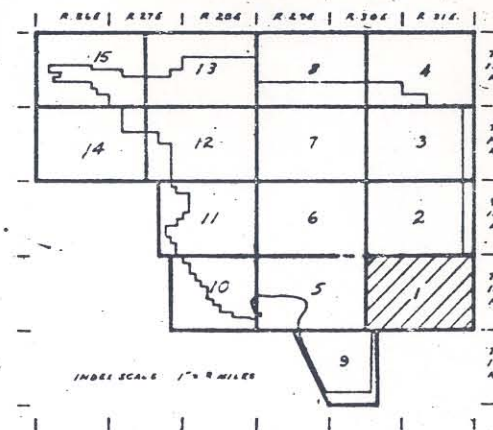
SCALE: 2" = 1 MILE (APPROXIMATE)
FLOWN: MAY, 1963

CONTROL FROM:
AERO SERVICE CORP. PHOTO MOSAIC

WALKER-MARTEL MINING CO.

SHEET NO. 1

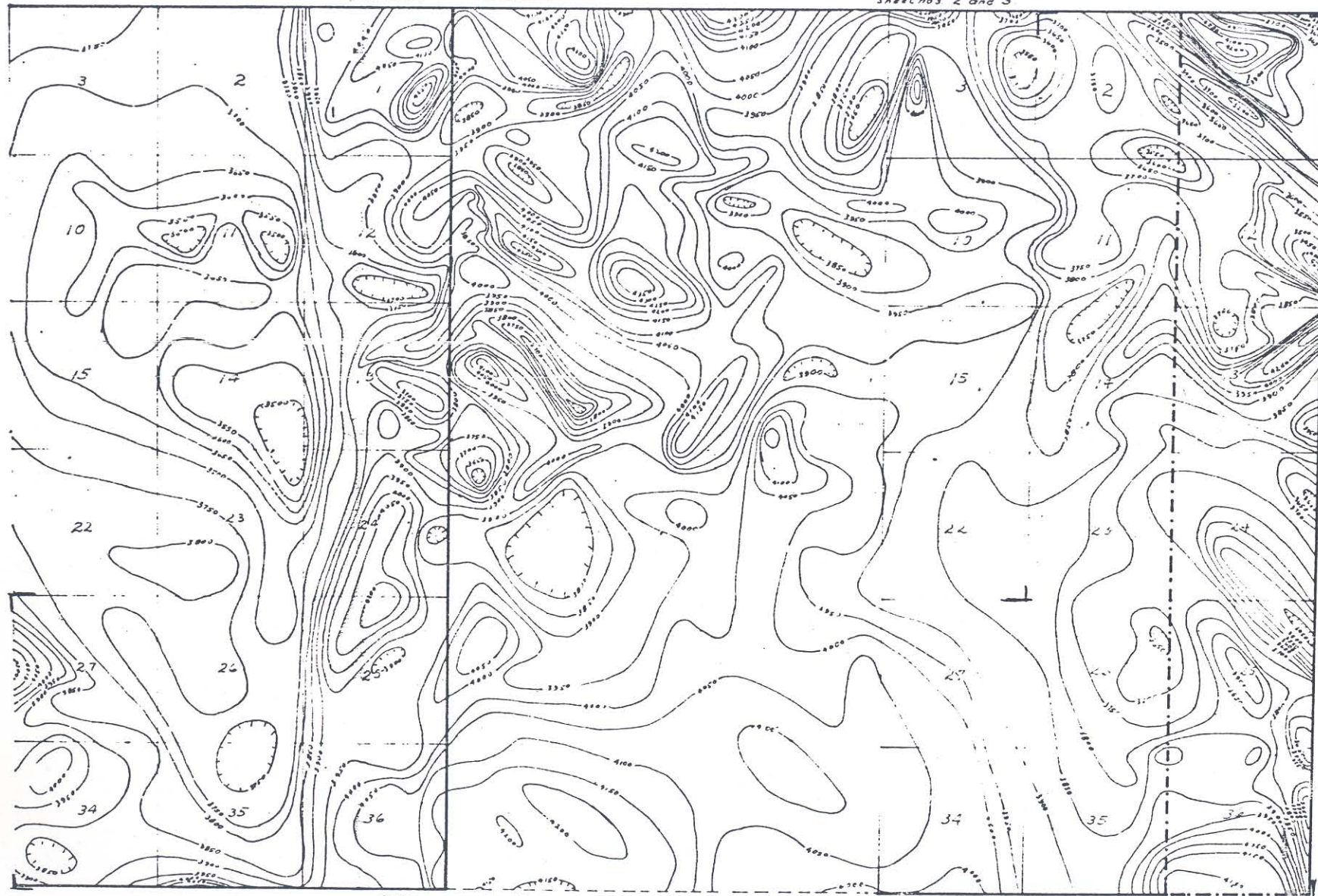
INDEX



R 30 E.

R 31 E.

Scale inconsistencies and distortion in photo
mosaics preclude positive joining of
sheet nos 2 and 3



R 30 E.

R 31 E.

TOTAL INTENSITY
AERIAL MAGNETIC SURVEY
OF
WALKER RIVER RESERVATION

FLIGHT LINE INTERVAL: $\frac{1}{2}$ MILE
FLIGHT ALTITUDE: 500' ABOVE A.E. TERRAIN

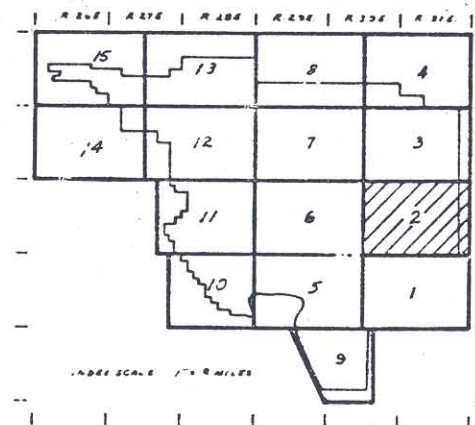
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FLOWN: MAY, 1963

CONTROL FROM
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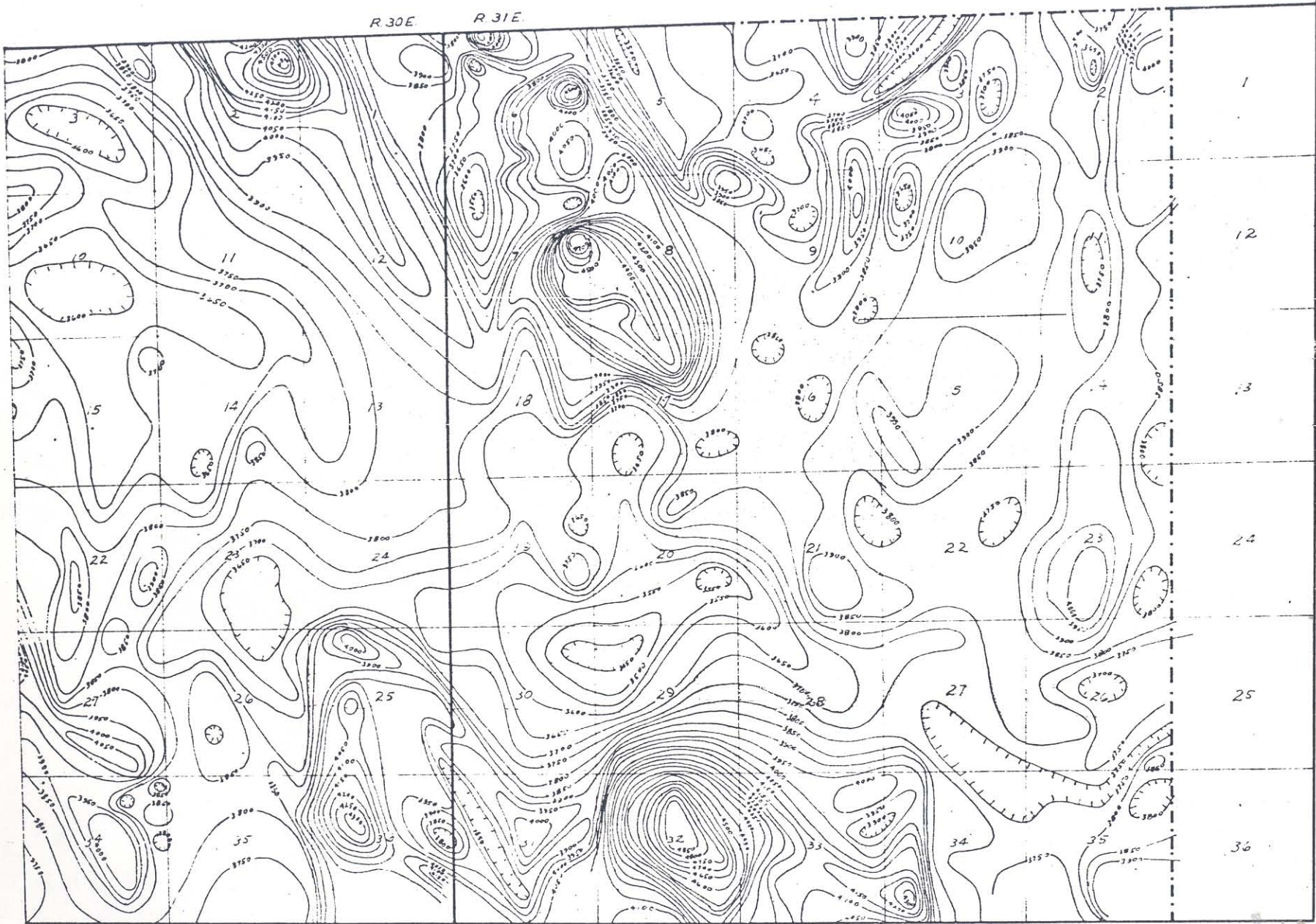
WALKER-MARTEL MINING CO.

SHEET NO. 2

INDEX



R 30 E R 31 E



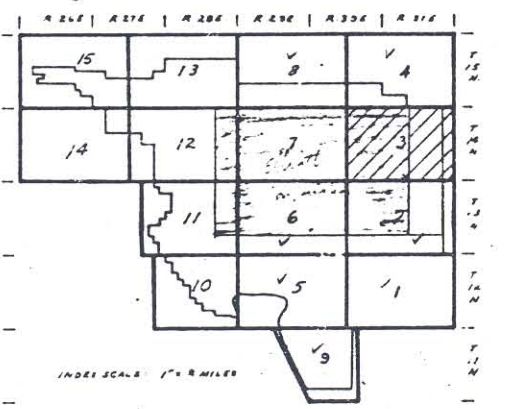
TOTAL INTENSITY
AERIAL MAGNETIC SURVEY
 OF
WALKER RIVER RESERVATION
 FLIGHT LINE INTERVAL: $\frac{1}{2}$ MILE
 FLIGHT ALTITUDE: 500' ABOVE A.E. TERRAIN
 SCALE 2" = 1 MILE (APPROXIMATE)
 FLOWN: MAY, 1943
 CONTROL FROM:
 AERO SERVICE CORR. PHOTO MOSAIC

WALKER-MARTEL MINING CO.

SHEET NO. 3

T.
14
N.

INDEX



INDEX SCALE: 1" = 1 MILE

Scale inconsistencies and distortion in photo
 mosaic preclude positive joining of
 sheet nos. 2 and 3.

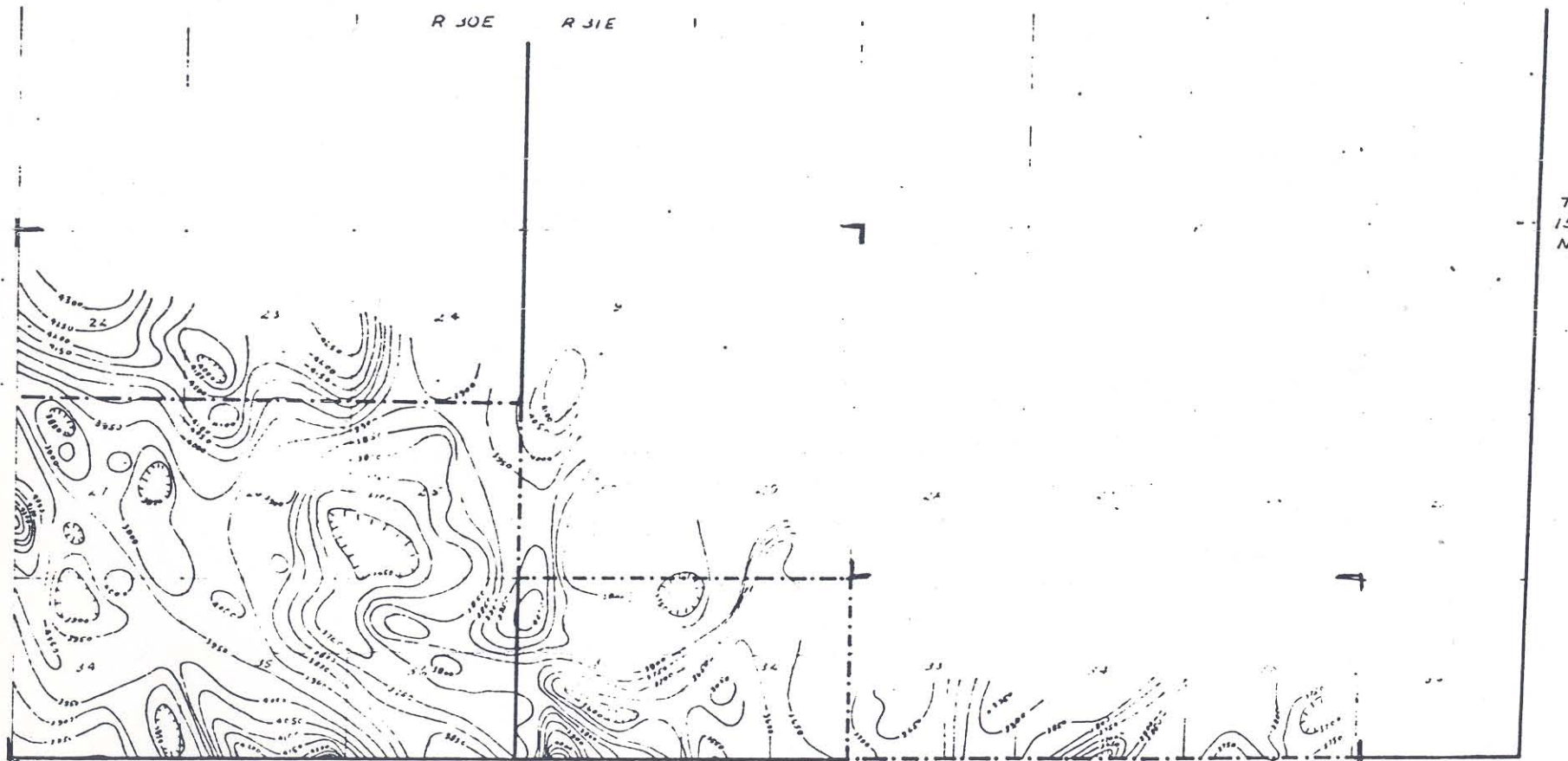
TOTAL INTENSITY
AERIAL MAGNETIC SURVEY
OF
WALKER RIVER RESERVATION

FLIGHT LINE INTERVAL: $\frac{1}{8}$ MILE
FLIGHT ALTITUDE 500' ABOVE A+T TERRAIN
SCALE 2" = 1 MILE (APPROXIMATE)
FLOWN: MAY, 1963

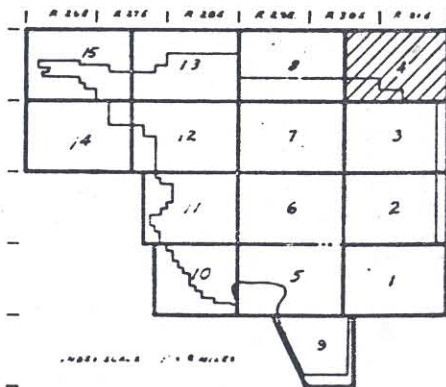
CONTROL FROM:
AERO SERVICE CORP. PHOTO MOSAIC

WALKER-MARTEL MINING CO.

SHEET NO. 4

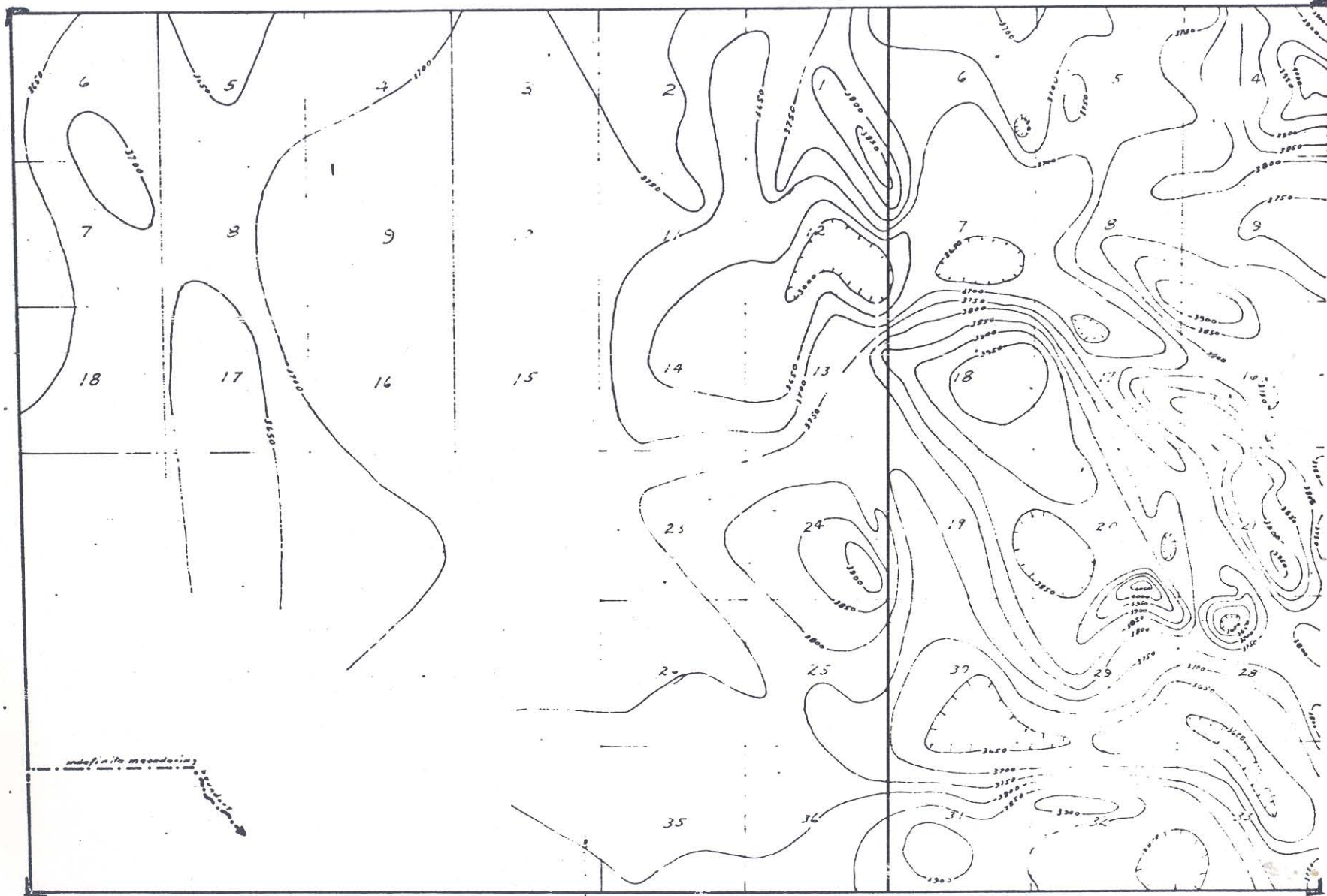


INDEX



R 29 E

R. 30 E



TOTAL INTENSITY
AERIAL MAGNETIC SURVEY
OF
WALKER RIVER RESERVATION

FLIGHT LINE INTERVAL: 1/2 MILE
FLIGHT ALTITUDE: 500' ABOVE A.E. TERRAIN

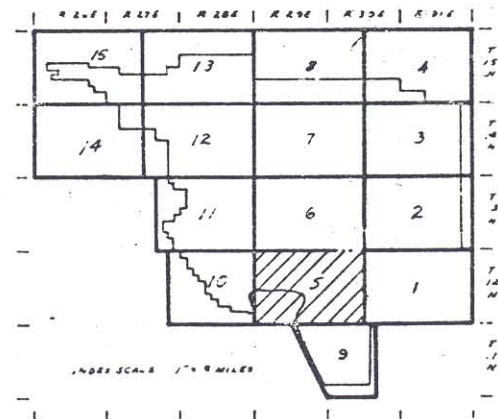
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FLOWN: MAY, 1963

CONTROL FROM
AERJ SERVICE CORP. PHOTO MOSAIC

WALKER-MARTEL MINING CO.

SHEET NO. 5

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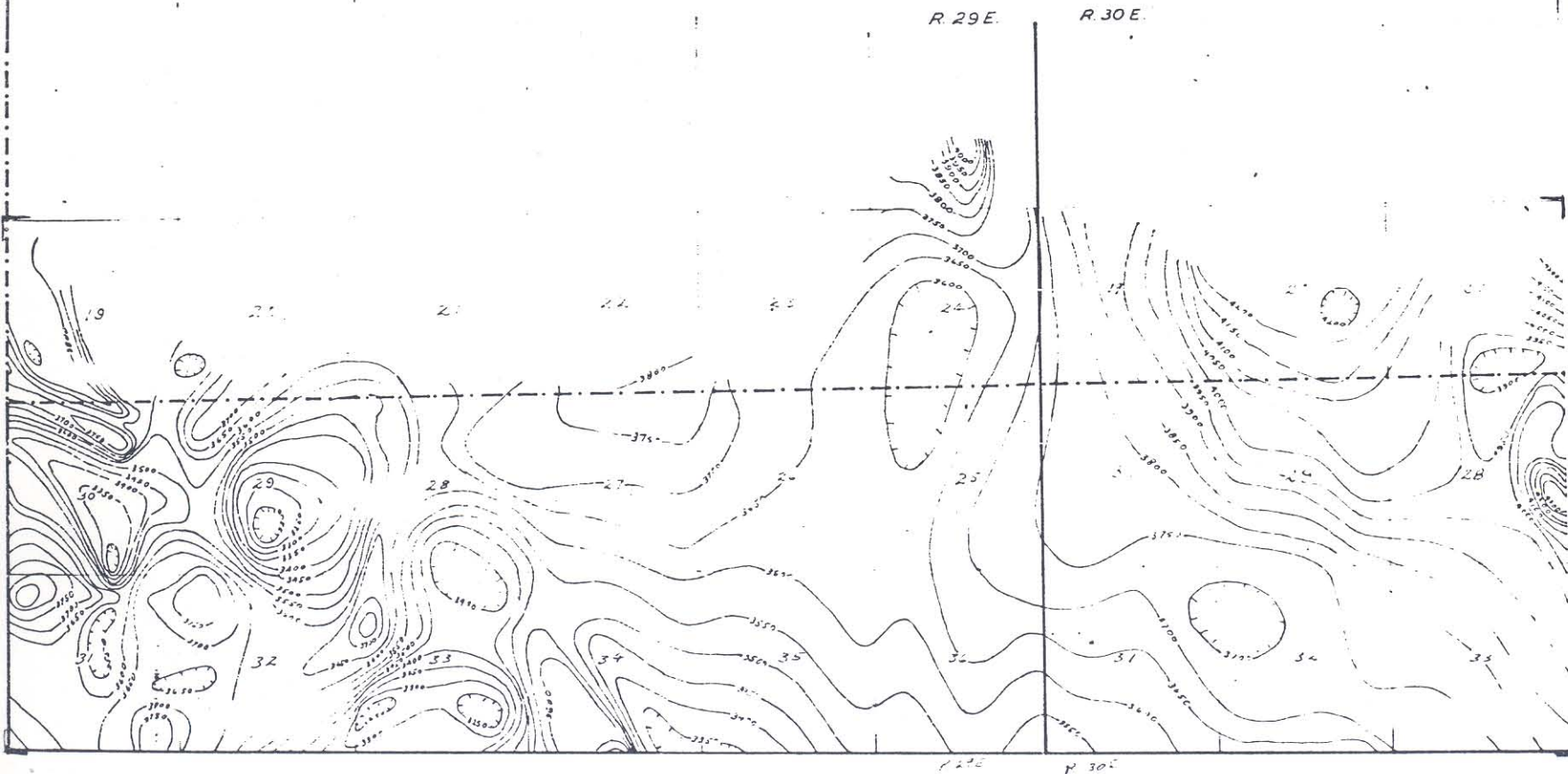
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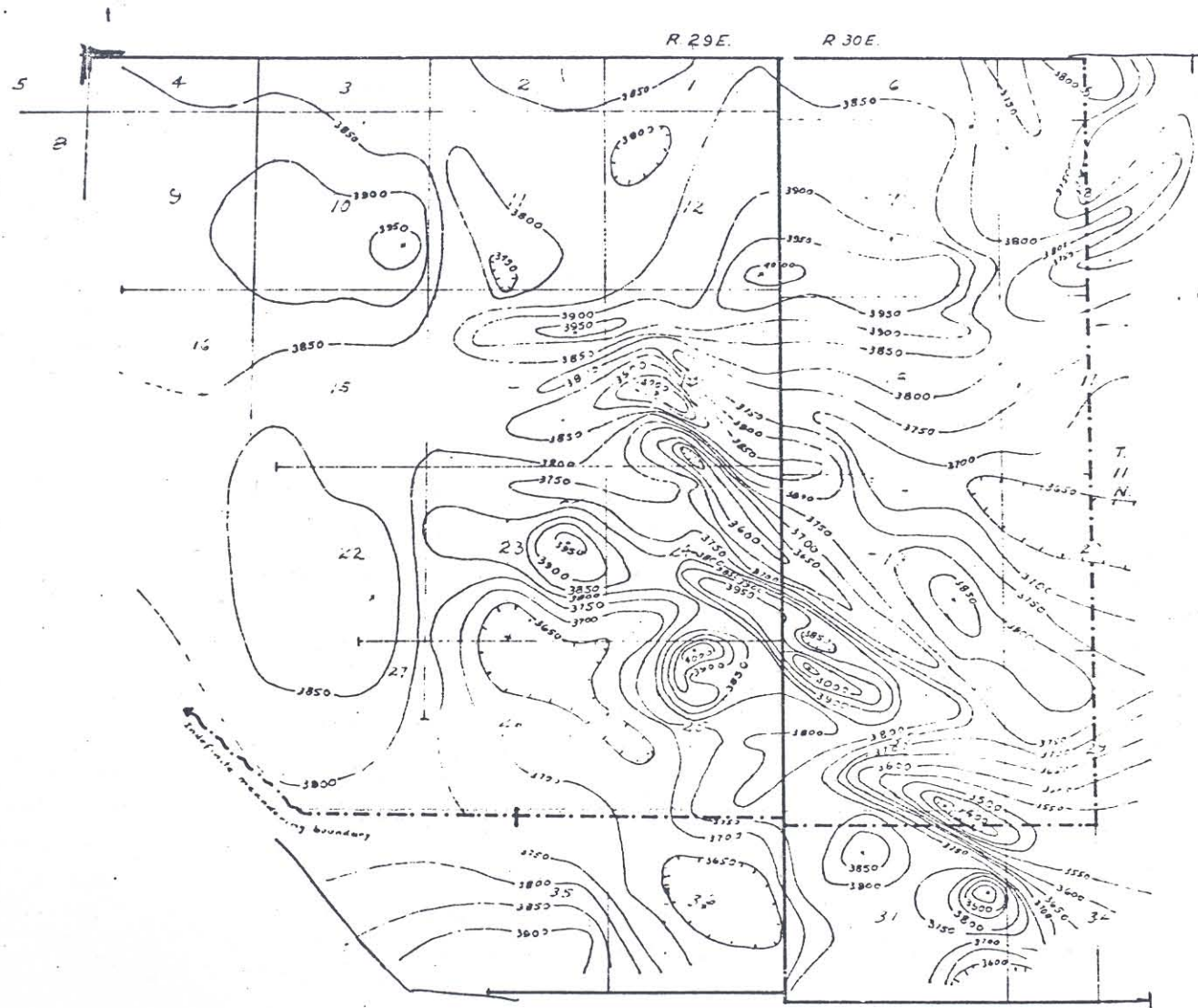
SHEET NO. 8

A 5x5 grid with numbers 1-15 and one shaded cell. The grid is as follows:

| | | | | |
|----|----|---|---|--|
| 15 | 13 | 8 | 4 | |
| 14 | 12 | 7 | 3 | |
| | 11 | 6 | 2 | |
| | 10 | 5 | 1 | |
| | | 9 | | |

The cell containing the number 8 is shaded with diagonal lines.





TOTAL INTENSITY
AERIAL MAGNETIC SURVEY
OF
WALKER RIVER RESERVATION

FLIGHT LINE INTERVAL 1/2 MILE
FLIGHT ALTITUDE 500' ABOVE A.E. TERRAIN

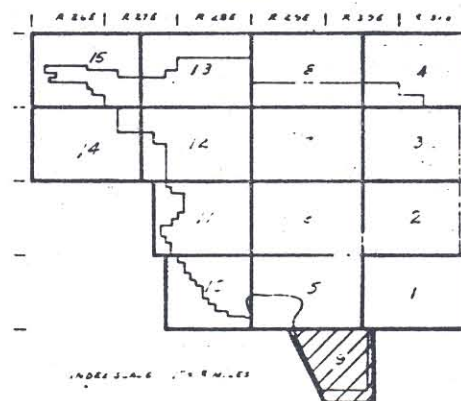
SCALE 2" = 1 MILE APPROXIMATE;
FLYING MAY, 1963

CONTROL FROM
AERO SERVICE CORP. PHOTO MC-41C

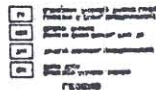
WALKER-MARTEL MINING CO.

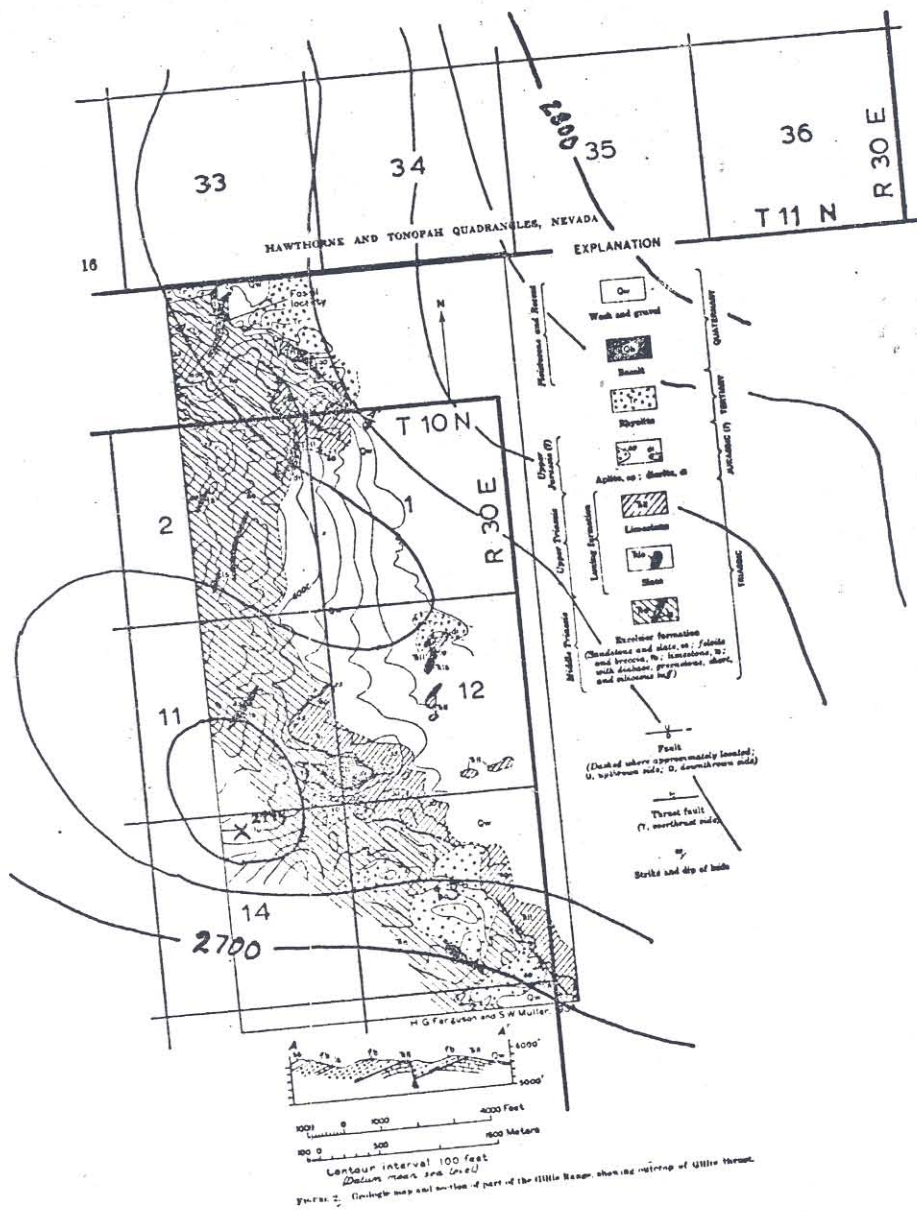
SHEET NO. 9

INDEX



Backwards!





original

POSSIBLE MINERALIZED AREAS AS
INDICATED BY AERIAL MAGNETICS

Walker-Martel Mining Company

By Bob Redmond

WALKER RIVER INDIAN RESERVATION

Northern Wassuk Range

T12-13N, R27-28E, Mineral County, Nevada.

"POSSIBLE MINERALIZED AREAS AS INDICATED BY AERIAL MAGNETICS."

With our recent success in localizing a large area of mineralization on the Calico Project, using aerial and ground magnetics, other localities with possibly similar environments become of major interest for exploration targets.

One such area is that located in T12-13N., R27-28E., in the northern part of the Wassuk range, Mineral County, Nevada. The particular area of interest is indicated by the red pencil outline on illustrations 1, 2 & 3.

The aerial magnetic maps, illustrations 2 & 3, 1 inch equals 2 miles, suggest that this particular locality is almost identical to that found over the Lyon deposit, illustration #4, with the single exception that the magnetic features under discussion cover an area many times larger than the Lyon. Individual magnetic highs are from the same size to three times the areal extent of the Lyon deposit. The area under discussion covers approximately 44 square miles as compared to the 4 square miles which comprise the Lyon area.

Extensive drilling in the Lyon area indicates the presence of a well developed Skarn on the flanks of a granitic intrusive complex, which has been modified by low angle faulting. The mineralization consists of magnetite, pyrrhotite/pyrite, pyrite, pyrite/chalcopyrite, associated with abundant chloritization, silicification, and those mineral assemblages characteristic of skarn development in limestone and dolomite environments.

Examination of the aerial magnetics, illustration #5, indicate several interesting features:

1. There appears to be a relationship between the aerial magnetic pattern and the major fault pattern (major NW-SE, minor NE-SW). In general the magnetic highs and lows are elongated in the major structural direction NW-SE, with localized modification along the secondary pattern NE-SW. This suggests that the intrusive action, with subsequent skarn development (where the host is favorable for skarn development) has been confined to those areas tributary to structural planes of weakness.

2. From the Lyon deposit northeast, there is a re-occurring pattern of localized magnetic highs clustered around well defined magnetic lows. Drilling has proven that two of these magnetic highs, Calico and Lyon, are related to sources containing large volumes of magnetite, pyrrhotite and lesser amounts of pyrite and chalcopyrite.

3. Illustration #4 is the aerial magnetic pattern obtained at an average 500 foot elevation over the Lyon deposit. The pattern is explained by a magnetite rich skarn development in favorable host rock around the flanks of a intrusive, granitic complex.

4. Illustrations #2 & #3 show a similar pattern to that exhibited by the Lyon deposit but on a much larger scale. The suggestion here is again that the magnetic low represents an intrusive complex , surrounded by skarn development, represented by the three magnetic highs.

5. Preliminary geochemical work within the areas encompassed by the magnetic highs on the east flank of the Wassuk Range, shows above average amounts of copper and zinc present in the surface rocks. In one locale, disseminated galena was found in a limestone bed. More intensive geochemical study within this general area might well point up a zonal pattern around an intrusive center. Numerous dikes crosscut the sedimentary rocks in the area of the lead mineralization. Some appear to have carried sulphides which have been oxidized. The amount of low grade mineralization present, intrusive features such as dikes, sills and quartz veins, the general overall silicification, all suggest the nearness of a large intrusive mass of possible economic interest.

6. Drilling in both the Lyon and the Calico areas has shown that wide-spread alteration normally thought to occur with ore deposits is not found here. When extensive mineralization is nearby the only obvious favorability criteria is wide-spread silicification. The magnetic patterns offer considerable help in solving the problems of localization of this particular type mineralization.

7. Illustration #1 is the general geological map of this area. There does not seem to be any significant correlation between the rocks that outcrop

and the occurrence of the magnetic highs and lows. This suggests that the magnetic pattern is derived from subsurface conditions with minor modification from overlying surface rocks.

RECOMMENDATIONS

1. Aerial photo structural study.
2. Geochemical studies.
3. Completion of the 1/4 mile line spacing, 2000 foot elevation, total intensity, aerial magnetic survey.
4. Reconnaissance type I.P. survey across both magnetic lows and magnetic highs. i.e.; magnetic low directly to the northeast of the Calico project and the attendant magnetic high which lies east-northeast of that low.
5. Applied potential method in the Calico area. (Sargis Recommendation)
6. Dependent on study results, one or two drill hole tests for informational reasons.

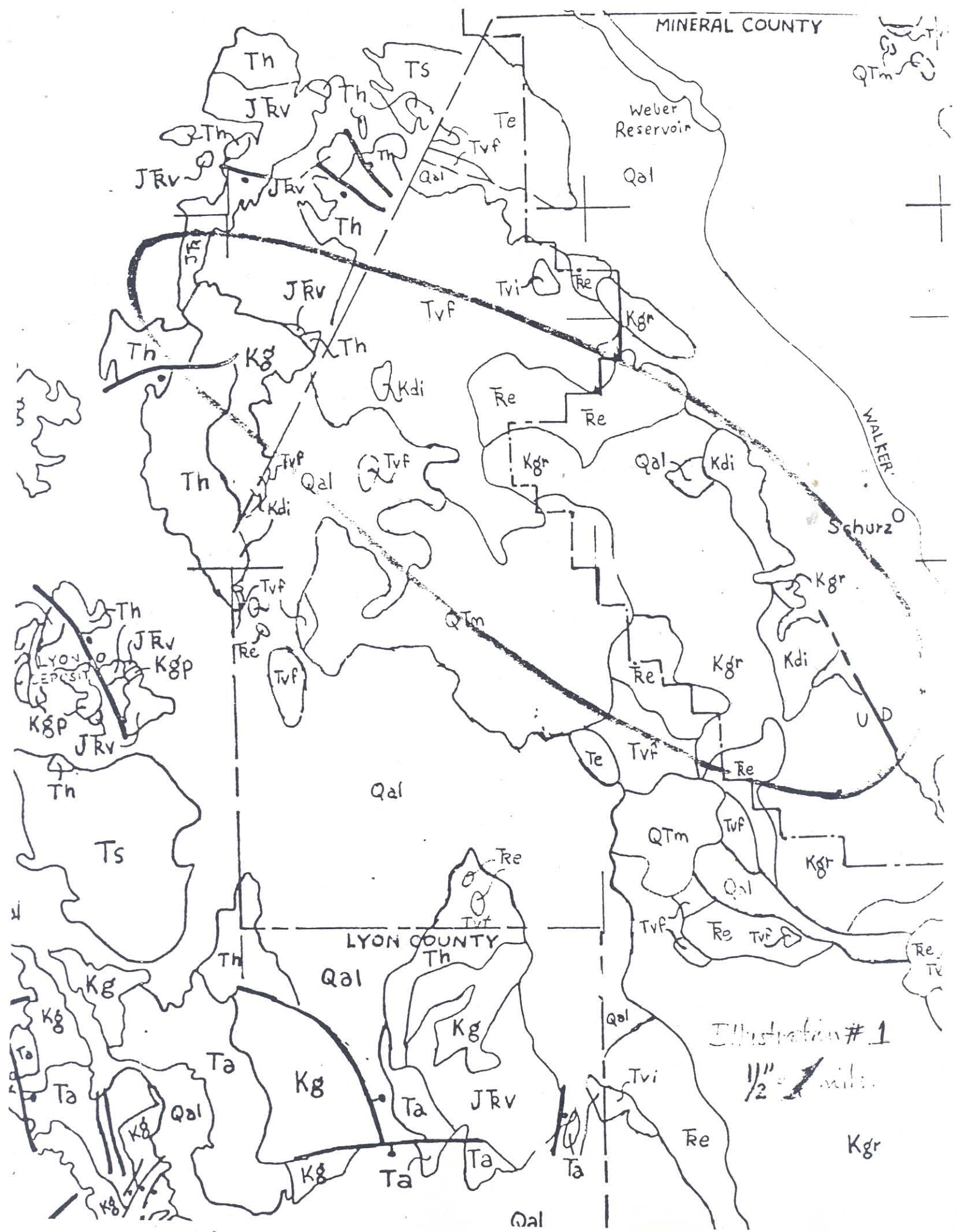
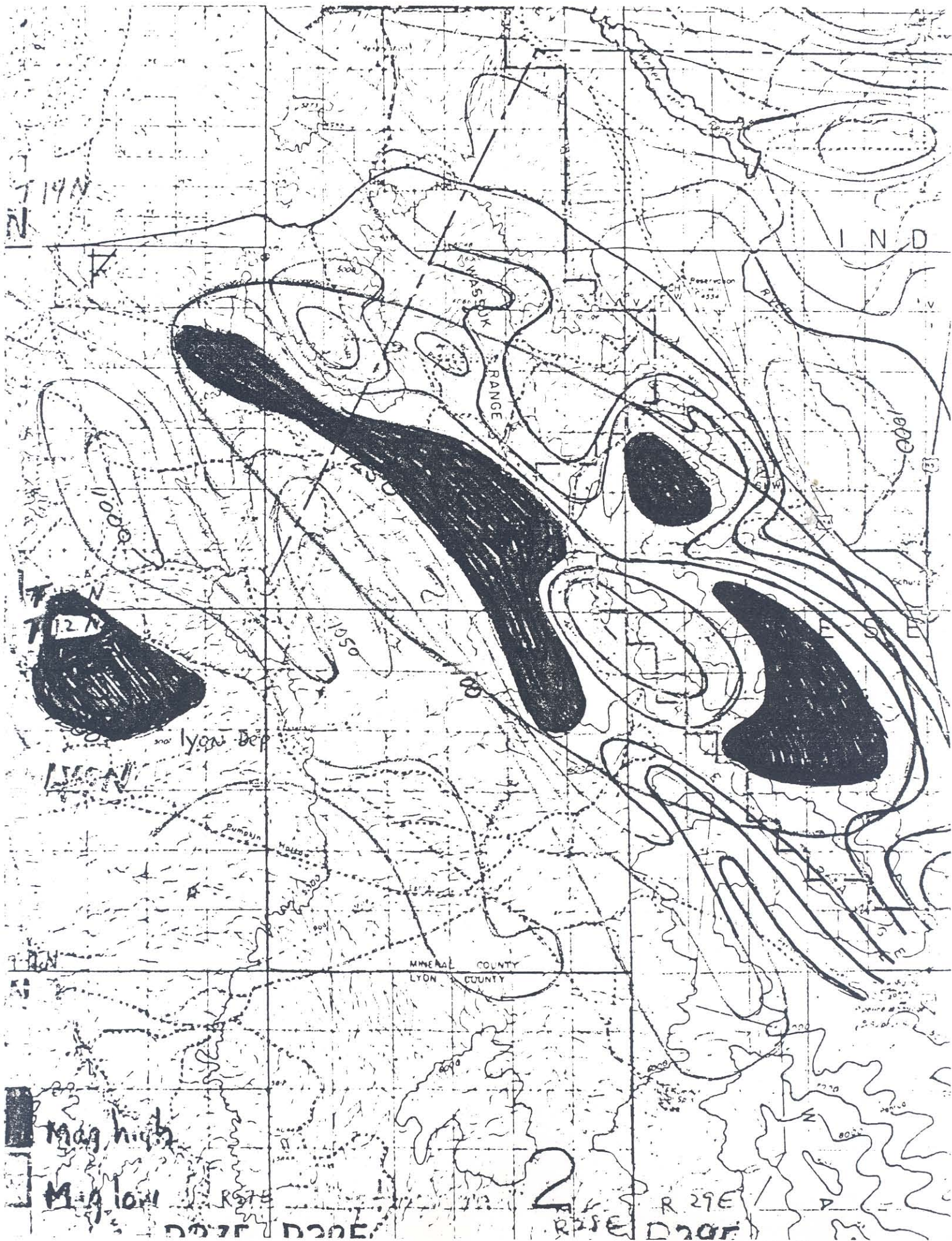


Illustration #1
1/2" = 1 mile

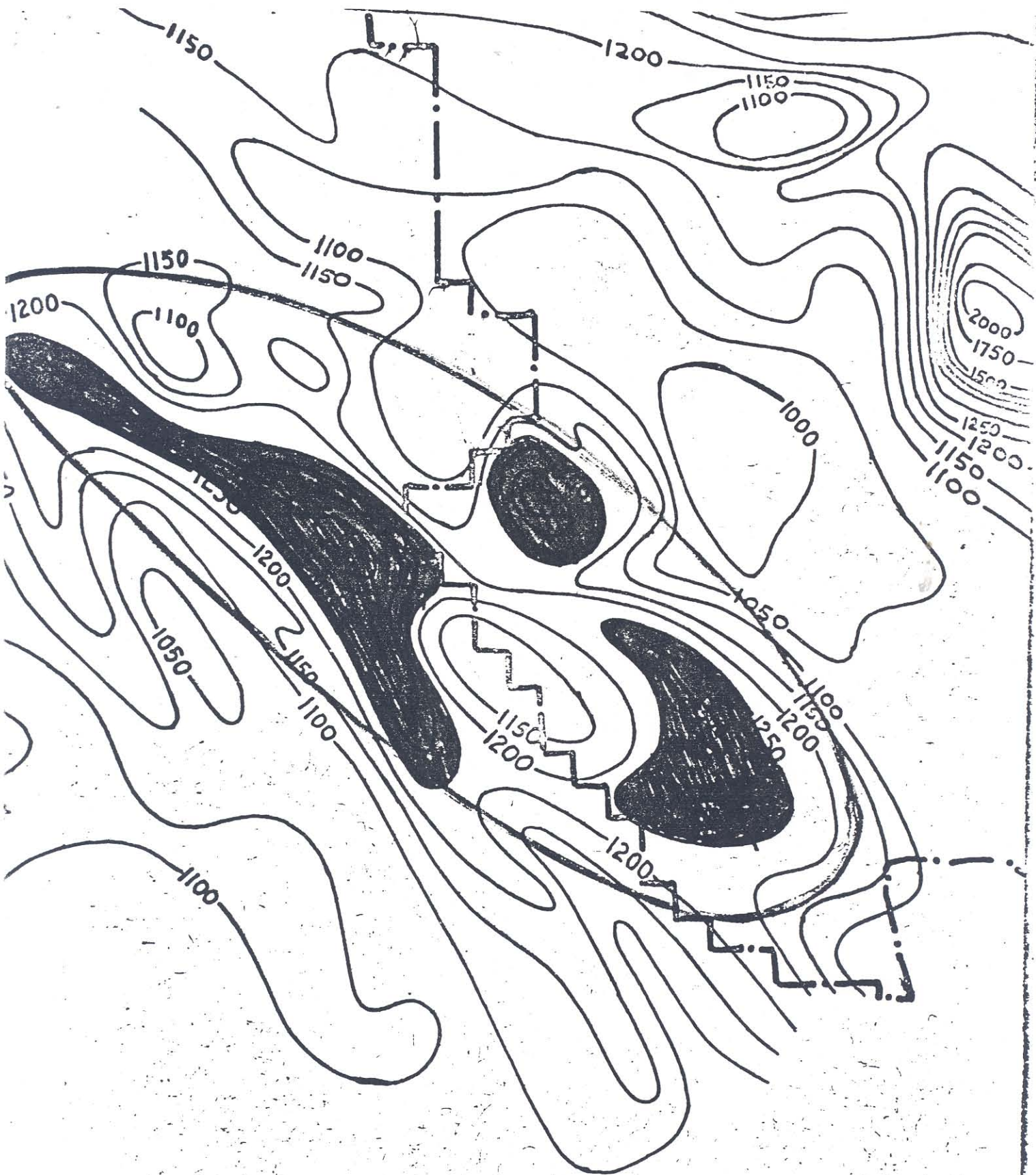


Mag high

Mag low

2

#2



WALKER RESERVATION AREA
High Elevation Magnetics
 $\frac{1}{2}'' = 1 \text{ mile}$
Contour Interval 50 gammas

3

LYON AREA MAGNETICS

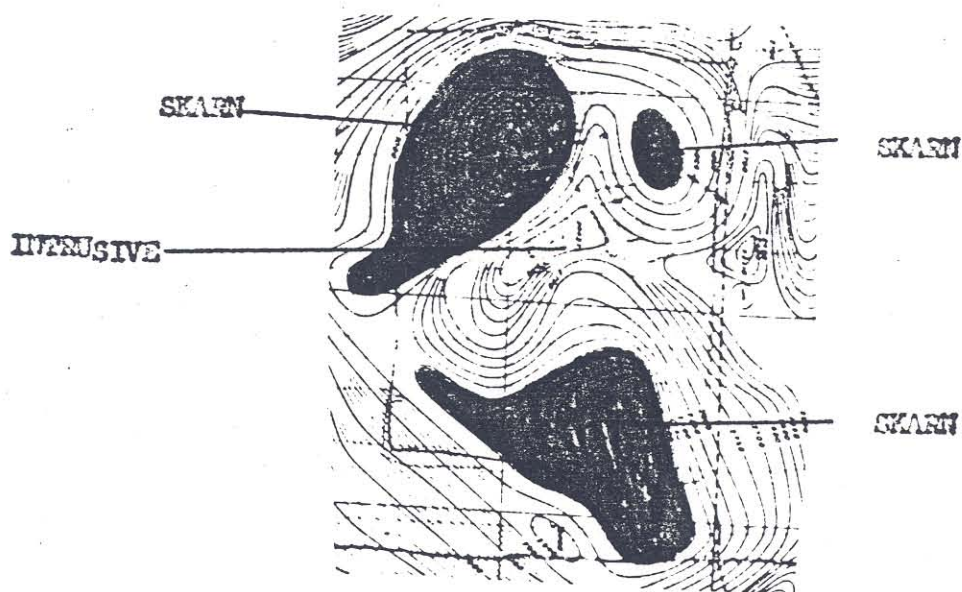


ILLUSTRATION # 4

1 inch equals 1 mile.

#5



x 1172

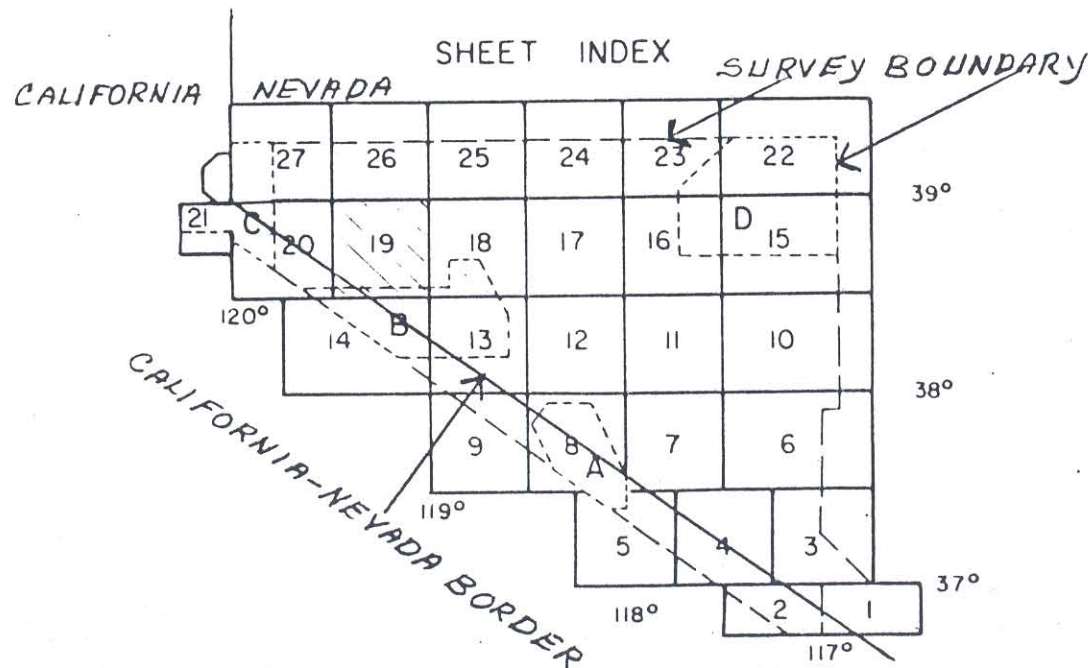
6000 0170 (XXXXXXX)

(0120)

x 1198

38°30'
119°30'

WEST NEVADA-EAST CALIFORNIA



SHEETS 1-21 NOW ON OPEN FILE
AREAS A-D SURVEYED AT HIGHER
THAN 9000 FEET ASL

HORIZONTAL SCALE.....1 62500

CONTOUR INTERVAL.....20 GAMMA

100 GAMMA CONTOUR.....

20 GAMMA CONTOUR.....

MAGNETIC LOW.....

MAGNETIC MAXIMUM/MINIMUM.....x1527

SURVEY ALTITUDE.....9000 FEET ASL
11,000 FEET ASL

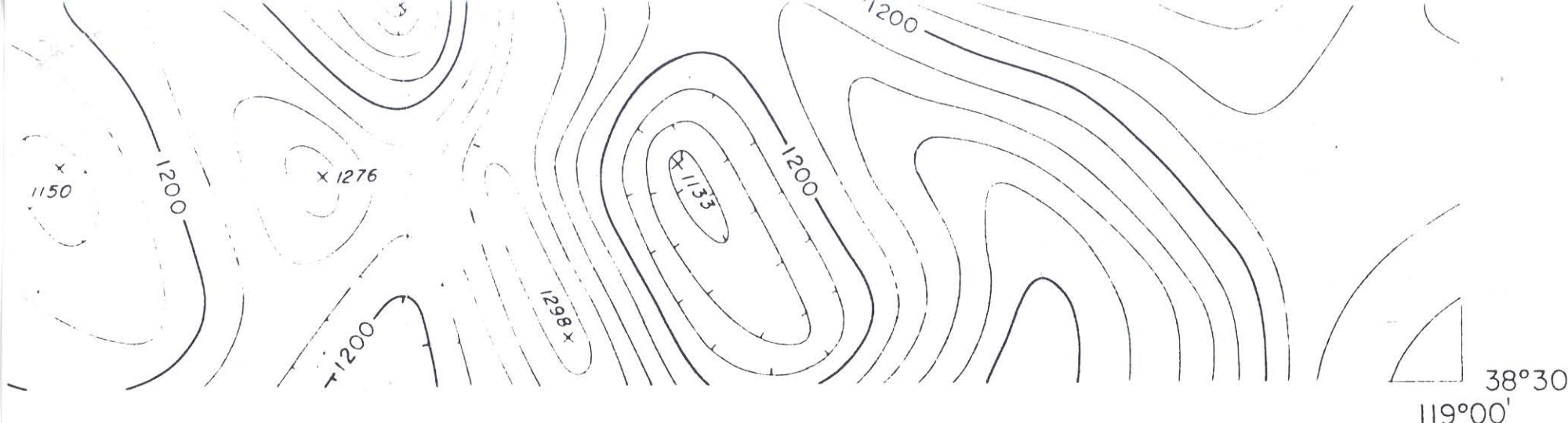
FLIGHT LINE.....

REGIONAL MAGNETIC GRADIENT NOT REMOVED

TOTAL INTENSITY RELATIVE TO ARBITRARY DATUM

AEROMAG

A



FLOWN AND COMPILED BY LOCKWOOD,
KESSLER, AND BARTLETT, INC., 1967

PEAK
A

WESTERN NEVADA

SHEET NUMBER 19

LKB 1967

This map is preliminary
and has not been edited
or reviewed for conformity
to Geological Survey
standards.

U. S. GEOLOGICAL SURVEY

Released to open files

Nov. 13, 1967

