# GEOPHYSICAL REPORT ON AERO GROUP

by J. M. Black, P.Eng.



# TABLE OF CONTENTS

Introduction Page 1

Magnetometer Survey and interpretation " 1

Employment " 2

Figure 1: Map of Aero Group showing isomagnetic

Figure 2: Detailed map of part of Aero Group

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 649 MAP

## AERO GROUP

### INTRODUCT ION

This group is two to three miles from Kains Lake and is reached by traversing southward from an access road that runs along the south shore of the lake.

The group overlaps onto some older claims (Wanokana) whose approximate location is indicated on Figure 1. None of the claims has been surveyed, therefore, all locations are approximate. Because of the overlap, this survey was generally restricted to the area southwest of the location line of the Aero claims.

The only outcrops seen are in the bed of Wanokana Creek,

Vertical intensity readings in hundreds of gammas, are shown on the accompanying figures. All are positive except within a very small area designated as low anomaly No. 5.

The instrument used was a Sharpe PMF-3, Series No. 40512. This instrument is read directly in gammas. Blazed lines were used as base lines. Traverses were made by pace and compass along  $\operatorname{an}_{\mathcal{A}}^{d}$  from these base lines.

#### GEOPHYSICS

The magnetics are complex. Eight areas with high readings and seven with low readings were located. These are numbered in the two figures.

Near the southern boundary of the group, are two strong anomalies and the area near these was mapped in greater detail (see Figure 2). High anomaly No. 6 has a high of 13,300 gammas and low anomaly No. 5 has lows of -19,800 gammas and -11,800 gammas. These low readings are east of magnetic north of the high, which probably indicates that

the lower pole of the causative bodies is east of the upper pole. These anomalies have steep gradients, which indicate that they are caused by a mass with relatively high magnetic intensity, close to the surface.

East of these high readings is an elongated anomaly, of which the western end is designated as high No. 7. It has two maxima of 9300 and 4600, respectively. These would appear to be caused by masses of moderate magnetic intensity, close to the surface or by masses of high magnetic intensity at moderate depth.

High anomalies Nos. 2, 3, 4 and 5 extend southwestward in rough alignment in the central part of the group. These anomalies have gentle gradients, which indicate that they are caused by masses of high magnetic intensity at considerable depth or by a formation with low magnetic intensity, close to the surface.

High anomalies Nos. 1 and 8 are isolated and presumably are caused by isolated masses.

The negative anomalies, except No. 5, do not appear to be caused by the lower pole of strongly magnetic masses. Probably they are underlain by formations of relatively low magnetic intensity.

EMPLOYMENT

One person was employed to direct the survey, carry it out and complete the office work and report. This work was done in eleven days on the following dates:

1964 - July 17, 22, 23. August 1 and 8.

1965 - January 11. July 2, 3, 4, 6 and 7.

The person employed, J. M. Black, P.Eng., did all the work because no competent geophysical operator can be obtained in the vicinity of Port Hardy.

J. M. Black, P.Eng.

Lely 19/65

77 4-5 30 X Fiq. 2. Scale 1": 50' 19 = spot reading in hundreds of gammas all readings positive EXCEPT [3] Anomaly 11) Blush

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 649 MAP Figure 1. Mugnetic map of Acro Group Scale 1"= 300' July 19, 1965 by IMBlack P. Eng. - 32 - gamma reading in hundreds Wanohana Isomagnetic lines (2) high anomaly 3 Low anomaly an claim posts Location Lina Acro 142 Other Claim & location hime of older claims