007154

SWIM LAKES AREA

YUKON TERRITORY

GRAVITY INTERPRETATION

for

KERR-ADDISON MINES LTD.

by

Robert B. Galeski, P. Geoph.

September 1969

SWIM LAKES AREA

GRAVITY INTERPRETATION

Field work was completed in this area during the summer, 1969, by Overland Exploration Services Ltd, 840 stations having been surveyed and metered. Overland prepared elevation and Bouguer maps and profiles of the field data.

Inner circle terrain corrections were estimated in the field at each station. The writer computed a sampling of terrain corrections at the station locations along line 26W for an additional distance out to 588' from each station. These corrections did not significantly alter the characteristics of the residual anomaly that crosses this line.

Regionals were run on the profiles and tied at line intersections. Then residual values were extracted and plotted in profile form. After smoothing, the residuals were contoured. The residual map and the profiles (showing Bouguer values, regional lines, residuals and elevations) are included with this report. The interpretation that follows is based on the Bouguer map, residual map and the profiles.

ELEVATION MAP:

Elevations vary from a low of 2654' a.s.l. along Swim Creek at 15N on line 85W to a high of approximately 3300' a.s.l. at the south end of line 42 W.

Across Swim Creek valley the station at the north end of line 34W is over 3200' a.s.l. The valley sides are quite steep (up to 100' elevation difference in 200' horizontal). A small knob exists in the valley where lines 18W and 22W cross base line 2, and a westerly plunging ridge extends from this knob to line 34W. A sizable hill (elev. 3100+) exists in the southeast portion of the area.

BOUGUER MAP:

Bouguer values generally decrease from east to west, suggesting deep-seated rocks are denser in the eastern part of the area than in the western. In the western portion of the area Bouguer values tend to conform to elevation changes to some extent, indicating that bed rock density may be slightly higher here than the assumed 2.7 g/cc. In the lower elevations of Swim Creek a considerable thickness of overburden probably intensifies the effect. This is particularly notable around 25N on line 42W.

In the eastern portion of the area there is a tendency for Bouguer values to run slightly counter to elevation changes. The prominent hill in the southeast portion is gravitationally negative, suggesting it may be a pile of glacial debris. A low area around 35N on line 0 is positive.

A well-defined n gative area extends in a north-south direction along line 22W. The negative is accentuated where Swim Creek crosses the line and at

31N in locally low topography. It is modified between these two points by the presence of a residual anomaly and by a local topographic knob. This north-south trending negative may be related to the existence of faulting.

In drawing regionals, an attempt was made to remove topographical effects in the Bouguer values, along with the negative along line 26W and the gravitational "tilt" from east to west.

RESIDUAL MAP:

Method of extracting residual values was discussed in previous sections. In this section the resulting anomalies are described. They are indicated on the residual map by the letters A, B, C, D, E in order of importance.

A - 0.93 mgal amplitude
0.2+ mgal/100' maximum gradient; apex between 25N and 26N on line 26W; causative mass, if sulphides, at 260' depth.
lateral extent = 1500'(?) x 1000' (?)
approx. flat-lying.

B - 0.95 mgal amplitude
0.3 mgal/100' maximum gradient
apex at 35N on line 34W
causative mass, if sulphides, at 350'(?) depth.
shape - slab-like to pod-like with south dip.
A secondary causative mass is probably associated with the primary one, and the gravitational effect

is a combined one. Proximity to the edge of the survey makes regional control less certain than is the case with anomaly "A".

C - 0.7 mgal amplitude

0.17 mgal/100' maximum gradient

apex at 34N on line 2W

causative mass, if sulphides, at 235' depth, thickness 60'.

slab-like shape with modest south dip.

relatively low amplitude and mild gradients make this anomaly appear similar to others in the Yukon associated with overburden effects.

D - 0.32 mgal amplitude

0.15 mgal/100' maximum gradient.

apex between 8N and 9N on line 81W.

causative mass, if sulphides, at 230' depth.

anomaly incompletely defined, small in amplitude.

E - A small Bouguer positive at the north end of line 26W. Removed with the regional because of lack of control at the edge of the prospect.

RECOMMENDATIONS:

Drill the A and B anomalies at the apex points indicated in the descriptions of these anomalies. Rig should be capable of drilling to 500'.

OVERLAND
EXPLORATION SERVICES LTD.

1347 - 12th AVENUE S.W.
CALGARY 3, ALBERTA, CANADA

TELEPHONE
403 - 244-2191

GRAVITY
MAGNETICS
I.P. SURVEYS
RADIO ACTIVE SURVEYS
DRILLING
LINE CLEAN UP
LINE CUTTING
GEOLOGY

September 16th, 1969

RECEIVED
SEP 18 1969
KERR ADDISON MINES LTD.
Per.....

Mr. F. Chow
Kerr Addison Mines Limited
Suite 405
1112 - West Pender Street
VANCOUVER 1, B.C.

Dear Mr. Chow:

Re: SWIM LAKES
Gravity Survey

Please be advised that we have sent under separate cover via air express, Air Canada, two copies of the "Gravity Survey Report" for the captioned area. Please note that the original copy of this report was delivered to Mr. Sirola (September 16th, 1969).

We have also included under separate cover, various other gravity data with respect to the captioned survey.

Thank you.

Yours very truly,

OVERLAND EXPLORATION
SERVICES LTD.

William G. Crook/jp.

William G. Crook

WGC/jp

Robert B. Galeski P.Geoph.

~~XSTE X 2XX 6XX X 6XX X Avenue S.W.~~ CALGARY, ALBERTA
320, 717-7th Ave. S. W.
TELEPHONE 264 - 6371 AREA CODE: 403

September 8, 1969.

RECEIVED
SEP 10 1969
KERR ADDISON MINES LTD.
Per.....

MR. W. SIROLA,
Kerr-Addison Mines Ltd.,
Ste 405, 1112 Pender Street,
VANCOUVER, B. C.

Dear Sir:

Enclosed are three copies of a report on the gravity interpretation of Swim Lakes claims.

Original maps will be sent under separate cover.

Yours very truly,

R. B. Galeski

R. B. Galeski, P. Geoph.

RBG:gp
Enc.

0 1N 10N 20N 30N 40N 45N

683.00

3100'

682.00

3000'

681.00

2900'

2800'

REG.

RES.

0

Line 69 W

LINE 26 W

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 10N 20N 30N 40N 45N

683.00

682.00

3200'

3100'

3000'

2900'

2800'

REG.

RES.

0

LINE 34 W

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 3N 10N 20N 30N 40N 45N

REG.

6830.00

6820.00

RES.

3100'

0

3000'

LINE 2 W

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

1+00N 10+00N 18+00N

682.00

REG.

681.00

RES.

3000'

2900'

2800'

2700'

LINE 76

1+00N 10+00N 18+00N

682.00

REG.

681.00

RES.

680.00

3000'

2900'

2800'

2700'

LINE 81

0

10N

20N

30N

40N

45N

683.00

682.00

681.00

3100'

3000'

2900'

2800'

REG.

RES.

0

LINE 42 W

K+E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 10N 20N 30N 40N 45N

6830.00

6820.00

3200'

3100'

3000'

2900'

2800'

REG.

RES.

LINE 38 W

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 10N 20N 30N 40N 45N

683.00

682.00

3100'

3000'

2900'

2800'

2700'

REG.

RES.

0

LINE 30 W

K+E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 5N 10N 20N 30N 45N

683.00

682.00

3100'

681.00

3000'

REG

RES

0

2900'

2800'

LINE 22 W

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

683.00

682.00

REG.

RES.

3000'

2900'

2800'

LINE 18 W

K+E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 10N 20N 30N 40N 45N

683.00

682.00

REG.

RES.

0

3200'

3100'

3000'

2900'

LINE 14 W

KE 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 10N 20N 30N 40N 45N

683.00

682.00

REG.

RES.

3200'

3100'

3000'

2900'

2800'

0

LINE 10 W

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 1N 10N 20N 30N 40N 45N

683.00

682.00

REG.

RES.

3200'

3100'

3000'

2900'

0

LINE 6 W

K+E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

0 3N 10N 15N 20N 25N 30N 40N 45N

REC.

6830.0

RES.

3100'

3000'

Red rock Surface ?

LINE 0

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

6N 10N 20N 25N 30N 40N 45N

684.00

683.00

3100'

REG.

3000'

RES.

0

LINE 4 E

K+E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

8N 10N 20N 30N 40N 45N

6840

6830

3100'

3000'

REG.

RES.

0

LINE 7 E

11N 20N 25N 35N 40N 46N

684.00

683.00

REG.

3100'

3000'

0

RES.

LINE 12 E

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

13N 20N 28N 37N 40N 45N

REG.

3100'

3000'

LINE 16 E

K+E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

85+00W 84+00W 82+00W 81+00N 80+00W 77+00W 76W 18+00N 1+00W 18+00W 18+00W 85+00W 80+00W 76+00W

682.00

681.00

REG.

REG.

RES.

2900'

2800'

2700'

2600'

3100'

3000'

2900'

KE 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

LINE 18 N

LINE 85

WEST PART OF BASE LINE 1

42+00W 38+00 34+00 30+00 26+00 22+00 18+00 14+00 10+00 6+00 2+00 0+00

3300'

3200'

3100'

BASE LINE 1

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

45+00W 40+00W 36+00W 32+00W 28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 1+00W 0 1+00E 4+00E 7+00E 10+00E 12+00E 16+00E

683.00

682.00

3000'

2900'

2800'

REG.

RES.

0 0

LINE 2

K&E 10 X 10 TO THE INCH 47 0703
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.