BOYER AREA - ONTARIO
GEOPHYSICAL REPORT
K. Thorsen,

Cochenour, Ontario
December, 1977

## INTRODUCTION

During the summer of 1977 an exploration program including linecutting and electromagnetic and magnetic surveys was conducted over the following claims located in the areas of Tabor Lake, M2653 and Kawashegamuk, M2573 in the Kenora Mining Division:

| KRL $449815-449819$ | inclusive | KRL 449856 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| KRL $449822-449830$ | $"$ | KRL 448156-448158 inclusive |  |  |
| KRL | $449832-449837$ | $"$ | KRL 448161,448162 |  |
| KRL $449839-449843$ | $"$ | KRL 448164-448169 | " |  |
| KRL $449846-449850$ | $"$ |  |  |  |
| KRL $449852-449853$ | $"$ |  |  |  |

Access is via a road south from Borrups corners approximately 4 miles to the southern base line.

## GENERAL GEOLOGY

The claims are underlain by mafic, intermediate and felsic volcanics with some diorite intrusive.

## RESULTS

Twenty-nine conductive zones were noted during the course of the survey and are described as follows:

1) Line $28 \mathrm{E}-23 \mathrm{~N}$ to 25 N to Line $32 \mathrm{E}, 25 \mathrm{~N}$ to 26 N . This moderately good zone on line 28 E is within mafic volcanics with a relatively flat magnetic pattern. On line 32 E the response is primarily quadrature reflecting perhaps the low ground in the vicinity. One hole would be drilled on line 28 E .
2) Line 20 E 7 N to 8 N to Line $24 \mathrm{E}, 5 \mathrm{~N}$ to 6 N . This quadrature response is reflective of the overburden in the wet muskeg.
3) Line 20E 0 to $1 N$ to Line $24 \mathrm{E}, 2 \mathrm{~N}$. This quadrature response is like number 2 above and also reflecting of wet swamp conditions.
4) Line 20E $5+50 \mathrm{~S}$ to Line 32 E , 1 N . This extremely strong inphase zone, in conjunction with low magnetic relief is caused by a graphitic horizon. The conductor is within mafic volcanics and was probably drilled in 1974 (collar discovered). No further work is necessary.
5) Line 36 E 4+50N to Line $48 \mathrm{E}, 3+25 \mathrm{~N}$ to $4+25 \mathrm{~N}$. This strong conductive zone flanks a magnetic high to the north and appears to be associated with intermediate volcanics. One hole could be drilled to intersect this horizon.
6) Line 20E 10 S to Line $52 \mathrm{E}, 8 \mathrm{~S}$. This moderately strong conductor appears to follow a diorite contact on the eastern end and cuts across mafic volcanics to the west. It primarily follows a magnetic low and is probably a weak graphite zone.
7) Line 36E 11S to Line 48E, ll+50S. Again this is a moderately strong conductive zone within a magnetic low and in mafic volcanics. It probably reflects a graphitic horizon.
8) Line 36 E 22 S to Line 40E, 21S. Intermediate volcanics are the host for this strong conductor in a moderately low magnetic pattern.
9) Line $48 \mathrm{E} \quad 0+50$ to 1 N to Line $68 \mathrm{E}, 0$. This conductor is possibly two conductors. From Line 48E to Line 56E it has a very strong in-phase response and from 60 E to 68 E it is primarily a quadrature response. The western end also is coincident with a relatively high magnetic anomaly whereas the eastern end is in flat magnetic terrain. One hole could be drilled on line 56E.
10) Line 44 E (l+50N to Line $48 \mathrm{E}, 10+50$ to 11 N . This moderately good conductor flanks a small granodiorite plug to the south and is also within a flat magnetic pattern possibly reflecting a sheared contact zone. No further work is necessary.
11) Line 56E $0+50$ to 9 N to Line $64 \mathrm{E}, 8$ to $8+50 \mathrm{~N}$. This broad moderately weak conductor lies in a low magnetic field. It was probably previously drilled (collar found); hence no further work is necessary.
12) Line 60E 22 to $22+50 \mathrm{~N}$ to Line 72 E , 23 N . This moderately good conductive zone within a flat magnetic field lies within a diorite intruse and may be reflective of a shear zone. No further work is necessary.
13) Line 60 E 15N to Line $72 \mathrm{E}, 14+50 \mathrm{~N}$. This broad moderately weak zone lies within a weak magnetic zone in intermediate volcanics. One hole could be drilled to intersect the horizon.
14) Line 60E 4 N to Line $68 \mathrm{E}, 4 \mathrm{~N}$. This poor conductive zone in a flat magnetic pattern lies within felsic volcanics. Because of the geology, the zone should be drilled but only as a low priority target.
15) Line 64E $10+50 \mathrm{~S}$ to Line $92 \mathrm{E}, 12$ to 14 S . This moderate conductive zone lies within a flat magnetic zone in felsic volcanics. As some of the volcanics are coarse pyroclastics, this zone should be drilled. Line 80 E would appear to have the most promise.
16) Line 76 E to 7 S to Line $80 \mathrm{E}, 4+50$ to $5+25 \mathrm{~S}$. This strong conductive zone is coincident with a very high magnetic anomaly ( 7000 gammas on line 76 E ). It is probably reflective of iron formation but the existence of felsic rocks nearby gives the zone a drilling priority.
17) Line 76 E 3N to 5 N . This broad, moderately good conductor lies within a flat magnetic pattern in intermediate volcanics. No further work is necessary.
18) Line $88 \mathrm{E} 6+50 \mathrm{~S}$ to Line $100 \mathrm{E}, 7+00 \mathrm{~S}$. The western end of this conductor lies within the same magnetic high as zone 16 and the eastern end lies within a magnetic low. Felsic outcrops in the vicinity make this an interesting target that should be drilled if encouragement is received in the drilling of zone 16.

5/....
19) Line 44E 27 S to Line 56E, 29S. This moderately strong conductive zone is within a flat magnetic pattern in a diorite intrusive. It probably reflects a shear zone and hence is not a drill target.
20) Line 36E 37 S to Line 52E, 34S. This thin, moderately weak zone lies in a magnetic high to the west and a flat magnetic zone to the east. It appears to be within the diorite intrusive, hence no further work is necessary.
21) Line 68E $31+50$ to $32+50 \mathrm{~S}$ to Line 72 E , 32 S . This broad, moderately good conductor flanks a magnetic low and lies within the diorite intrusive. No further work is necessary.
22) Line 68E 39 to $40+50 \mathrm{~S}$ to Line $76 \mathrm{E}, 40$ to 41 S . This broad moderately weak zone lies within a magnetic low at the east end and a 3500 gamma magnetic high at the west end. It appears to be within the boundaries of the intrusive rock.
23) Line 76 E 35 S to Line 84 E , 37S. This thin moderately weak conductive zone lies within a magnetic low zone very close to the diorite contact. It is possibly reflective of a sheared contact zone.
24) Line 76 E 44 S to 46 S to Line $92 \mathrm{E}, 40$ to $41+50 \mathrm{~S}$. This broad, strong conductive zone flanks a magnetic high to the north except on Line 84 E where it is directly coincident with a 1500 gamma high. Except for the west end where it appears to lie in mafic volcanics, it seems to be underlain by diorite intrusive.
25) Line 96E $51+50$ to 53 S to Line 108 E , 49S. This moderately strong conductor is coincident with a 500 gamma magnetic high on line 104 E and with moderate lows on all other lines. It appears to lie within intermediate volcanics and has been drilled (collar found).
26) Line $36 \mathrm{E} 54+50$ to $55+50 \mathrm{~S}$ to Line $48 \mathrm{E}, 57$ to $57+50 \mathrm{~S}$. This moderately strong conductive zone is within a relatively flat magnetic zone close to a diorite, mafic volcanic contact. A hole could be drilled to intersect this zone.
27) Line 36 E 61+50 to 63 S . This moderately strong conductor is still open to the west. It lies within a flat magnetic field in mafic volcanics.
28) Line $44 \mathrm{E} \quad 67+50$ to 68 S . This zone is identical to zone 36 .
29) Line 36 E 79 to 80 S to Line $44 \mathrm{E}, 78 \mathrm{~S}$. This moderately good conductive zone flanks a magnetic high to the south and lies within mafic volcanics.

## RECOMMENDATIONS

Of the above zones, the following should be drilled if time and money permits: Zone $1,5,9,13,14,15,16,26$, 1 of $12,19,20,21,22$, 23 and $l$ of $26,27,28,20$. None of these should be drilled without further geological ground reconnaissance and some geophysical checks where the quadrature was not working.

Co-authored by:
L.E. Reed, Toronto, Ontario December, 1977


GEOPHYSICAL REPORT
K. Thorsen, Cochenour, Ontario

December, 1977

## INTRODUCTION

During August and September, 1977 an exploration program including linecutting and electromagnetic and magnetic surveys was conducted over the following claims located in the area of Tabor Lake - M2653 in the Kenora Mining Division:

KRL 449787
KRL 449788
KRL 488152
KRL 488153

Access is via a bush road that turns south off Highway 17 at Borups corners.

GENERAL GEOLOGY
The grid is underlain primarily by mafic volcanics with minor intermediate volcanics.

## RESULTS

One good conductive zone runs from Line l6.00E, 1350 S to Line $2000 \mathrm{E}, 12$ 50S. There is a moderately weak magnetic correlation.

## RECOMMENDATIONS

The above conductor should be drilled.

Co-authored by:
L.E. Reed, Toronto, Ontario

December, 1977

K. Thorsen, Cochenour, Ontario

December, 1977

## INTRODUCTION

During the summer of 1977 an exploration program including linecutting and electromagnetic and magnetic surveys was conducted over the following claims located in the area of Melgond Township M2011 in the Kenora Mining Division:

KRL 449770
KRL 449772 to KRL 449778 inclusive KRL 449780, 449781 KRL 448148

Access is via a road south from Highway 17 at Borrups corners for approximately 3 miles. Thence the block is approximately 1 mile to the east.

GENERAL GEOLOGY
Rocks mainly consist of mafic volcanics with minor intermediate and felsic volcanics.

## RESULTS

Electromagnetic surveys discovered several conductive zones that are described as follows:
l) $12+00 \mathrm{E} ~ 4+00 \mathrm{~N}$ to $4+50 \mathrm{~N}$ to $16+00 \mathrm{E}, 4+50$ to $5+00 \mathrm{~N}$. This zone is a weak out-of-phase conductor with a low magnetic correlation. Topographically it is in a low wet spot - this may be the cause of the conductor.
2) $12+00 \mathrm{E}$ 3+00N to $16+00 \mathrm{E}, 3+50 \mathrm{~N}$. This very weak out-of-phase response parallels number 1 and is possibly caused by the swamp edge.
3) Line $12+00 \mathrm{E} 4+00 \mathrm{~S}$ to $36+00 \mathrm{E}, 4+50 \mathrm{~S}$. This conductor varies from one with a moderately strong, good ratio response to one with primarily quadrature response. It is within a flat magnetic pattern although flanked by a high magnetic trend to the south. A hole was drilled on Line $24+00$ and intersected intermediate volcanics with minor metasediments. One sedimentary band contained graphitic slips with minor disseminated pyrrhotite and pyrite.
4) Line $20+00 \mathrm{E} 0$ to $0+50 \mathrm{~S}$ to Line $40+00 \mathrm{E}, 0+50 \mathrm{~N}$. This poorly defined conductor sits within a flat magnetic pattern. Its characteristics indicate it has a similar source to \# 3.
5) Line $28+00 \mathrm{E} 16+50 \mathrm{~S}$ to Line $40+00 \mathrm{E}, 15+00 \mathrm{~S}$. This poorly defined, sinous conductive zone flanks the magnetic high on line $28+00 \mathrm{E}$ and deteriorates into the flatter magnetics to the east.
6) Several other one line conductors are present on the grid but are generally weak, non-magnetic responses. They indicate poor instrument alignment, probably due to rough terrain.

## RECOMMENDATIONS

One hole could be drilled on both zones 4 and 5 but these should remain low level priorities.

Co-authored by:
L.E. Reed, Toronto, Ontario December, 1977



AREA OF

## KAWASHEGAMUK LAKE

 2.2562 DISTRICT ${ }_{\text {KENORA }}$MININGNORAIVION

| LEGEND |  |
| :---: | :---: |
| patented land | (1) |
| crown lano sale | c. 8. |
| LEases | (1) |
| locate land | Loc. |
| LICENSE of occupatio | Lo. |
| MINNG RIGHTS OwLY | м.п. |
| SURFACE RIGHTS ONLY | 8.n.0. |
| Rodos |  |
| IMPRoved Roons | $\square$ |
| Ralumars |  |
| Power lines |  |
|  |  |
|  |  |

NOTES
400 ' surface rights reservation olong the
shores of oll likes ond rivert.





| DATE OF: ISSUEE |
| :---: |
| LAN - 6 I788 |
| SURVEYS AND MAPPING |



| National topographic senles 52 F8 |
| :--- |
| PLAN NO.- $M-2573$ |












