4423

REPORT OF THE

ELECTROMAGNETIC SURVEY ON THE

WALT AND BUL CLAIMS

OSOYOOS MINING DISTRICT, B.C.

82 E /4E

for Walt, Bul

MULTIPLE MINING LTD.
Box 220.
Red Deer, Alberta

by

John O. Rud M.Sc.
February 25, 1973

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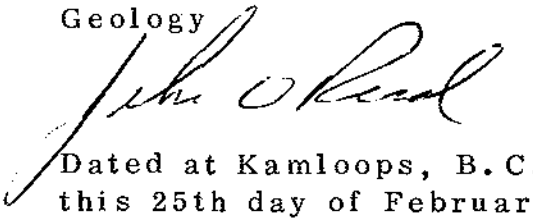
MAPS

#1 Data - Vertical Component
#2 Data - Filtered (Fraser Method)

I hereby declare that the following expenses occurred during the Electromagnetic Survey on the Walt and Bul Mineral Claims.

2 men @ $50.00 per day for 7 days	$700.00
Mileage-785 miles @25¢ per mile	$179.25
Meals and Lodging	$268.80
Misc. Expenses (Ribbon-Reproductions, etc.)	$141.50
Geologist-$100.00 per day for 9 days	$900.00
Scopas SE-80 Receiver Rental	$175.00
TOTAL EXPENSES	$2364.55

John O. Rud M.Sc.
Geology



Dated at Kamloops, B.C.
this 25th day of February, 1973

WALT AND BUL MINERAL CLAIMS

Osoyoos Mining District, B.C.

INTRODUCTION

A VLF-Electromagnetic survey was carried out during September, 1972 at the request of Multiple Mining Development Ltd. on the Bul and Walt Mineral Claims.

The Walt and Bul Mineral Claims are located 6 miles west of Osoyoos, B.C. Access is provided by logging and ranch roads in fair condition passable to two wheel drive vehicles. These claims are within an area of moderate topographic relief with elevations ranging between 900 and 4500 feet.

This survey was carried out on the Walt 11-14, 31, 32, and Bul 7-17, 19-24 Mineral Claims. Two grids were established, one running east-west consisting of ten lines, 4000 feet long. The second grid was created perpendicular to the prominent fault seperating the two dominant rock types within the claim block. The total survey length was about 15.1 line miles.

GENERAL GEOLOGY

The regional geology has been described by H.S. Bostock, 1930 and H.W. Little, 1959. A brief description of the general geology is as follows.

The Bul and Walt Mineral Claims are underlain by greenstones and argillites of the Kobau Group. Carboniferous in age. This group has been intruded by the Nelson Batholith. These intrusives are exposed to the east and west of the greenstones. The composition of the intrusives range from a quartz diorite to syenite. Copper mineralization was noted in both the greenstones and the quartz diorite exposed within the claim group.

ELECTROMAGNETIC SURVEY

The purpose of this ground survey was to delineate areas of maximum conductivitys which would later be correlated with geologic data and investigated by percussion drilling.

The operation and theory of the electromagnetic method is described in literature. A brief outline of the method will be discussed here.

The VLF-EM method employs as a source the field of VLF transmitters in the 15-25 kHz band. The electromagnetic waves generated by these transmitters propagate through the sub-surface and are subject to local distortion by conductivity contrasts in this medium. These distortions indicate variations in geo-electrical structure which may be related to many factors, one of which is the presence of an electrical conductor either in or above ground. The presence of this conductor creates local secondary fields which give rise to a vertical component and changes in amplitude, direction and possible phase of the field also occur. Measurements of these changes may permitt locating the conductor and perhaps determine some of its characteristics.

The electromagnetic field generated by the United States Navy Station at Jim Creek, Washington was used for this VLF-EM survey. Both vertical component and dip angles were measured.

To put the dip angle measurements in contourable form the data was processed according to the Fraser Method, (1959).

The Fraser Method consists of a second derivative analysis to transform zero-crossings into peaks and creates a low pass filter to reduce noise. Only the positive values were contoured since the negative values indicate flanks and not cross-overs of the original data. The contour interval is 20 degrees.

RECOMMENDATIONS

It is recommended that detailed geologic mapping of the northern portion of the claim block be completed prior to the percussion drilling program. A cursory examination of the geology during the geophysical survey revealed a wide variety of rock types in this area of the claim block. It is believed by the writer that the geologic information obtained by this mapping would contribute valuable data that would give maximum correlation to the selection of the drill sites for the percussion drilling program.

The electromagnetic contour maps, vertical component and Fraser filtered, shows a series of distinclty elongated conductors. The majority of these conductors trend northerly.

A number of these conductors may indicate fractures which could be channeling the induced currents. Alternatively, they may indicate locations of increased amounts of conductive material such as sulphides.

A secondary feature is also noted in a series of west-northwesterly conductive zones. It is believed that this trend is caused by the topographically expressed fault separating the intrusive rocks from the altered rocks of the Kobau Group.

Since this type of survey is very sensitive to variations in structure, electrical overburden-bedrock contrasts and geology it is recommended that the conductors be investigated by percussion drilling. Five locations have been tentatively selected on the data now available.

L6 15S
L18 26N
L24 22N
4N 22W
20N 21W

The two drill sites (L18-26N, L24-22N) within the intrusive material should relate interesting data as to whether the sulphides visible at the surface increases with depth or remains in the highly disseminated state as observed

in the rock that crops out on the surface. Drill site L6-15S is another promising site due to its location within the sulphide bearing greenstones of the Kobau Group.

CERTIFICATE

I, John O. Rud, of 6402 Furrer Rd., RR#2, Kamloops, B.C., do herby certify that:

(1) I am a graduate of the University of Oregon, (Master of Science) in Geology, 1971.

(2) I have practiced my profession with the University of Oregon as an instructor for Summer Field Camp (1970) and Lone Creek Mines Ltd. since 1971.

(3) Prior to attending the University I have worked underground as a miner.

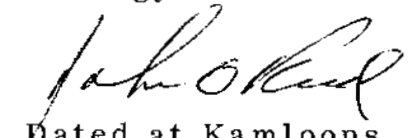
(4) I am a member of the Canadian Institue of Mining and Metallurgy.

(5) I have personally examined the property as described in this report.

(6) I have not nor do I expect to receive any interest either directly or indirectly in this property or any of its securities.

(7) I consent to the use of this report in, or in connection with a prospectus or a statement of material facts.

John O. Rud M.Sc.
Geology



Dated at Kamloops, B.C.
this 25th day of February, 1973

July 13, 1973

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4423 MAP

Mining Recorder
Penticton, B.C.

Dear Sir:

In reply to your inquiry dated May 25, 1973 the Vertical Component of a Scopas SE 80 VLF Receiver is simply the percentage of the normal horizontal field.

The horizontal field consists of electromagnetic waves generated by transmitters in the 15-25 kHz band. These waves remain perpendicular to the line connecting the transmitting station and the observation point except in the presence of a conductor which would create a local secondary field. The vertical component is read directly in percent of the normal horizontal field. If the field is undisturbed this amplitude will be nearly zero. Conductors are indicated by the presence of a vertical field usually of amplitude equal to at least 5% of the maximum horizontal field.

I hope the above information will be helpful in processing the E.M. report on the Bul and Walt Mineral Claims.

Sincerely,

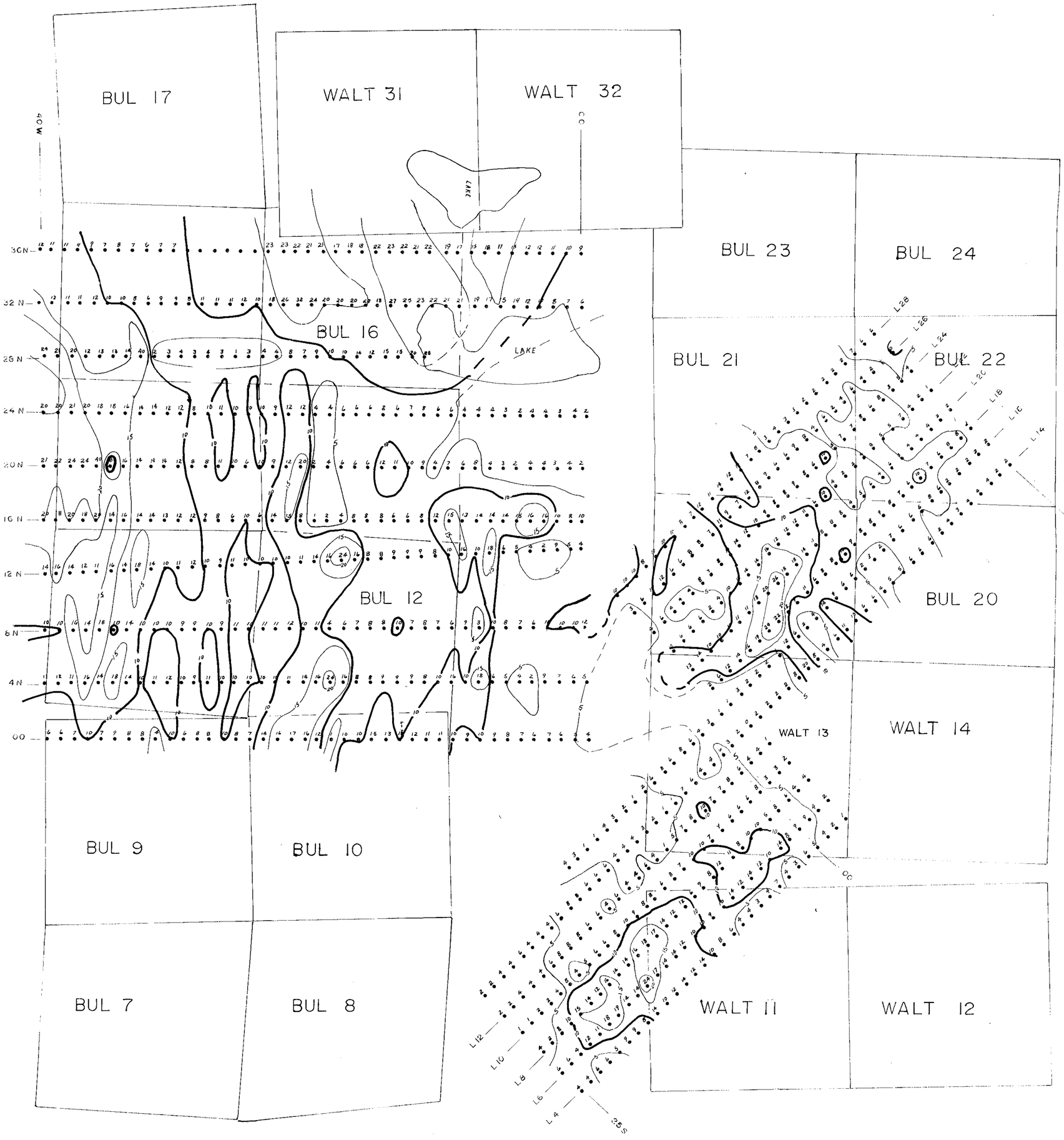
John O. Rud
6402 Furrer Rd.,
Kamloops, B.C.

MULTIPLE MINING LTD.

WALT AND BUL MINERAL CLAIMS

OSOYOOS MINING DISTRICT

OSOYOOS AREA, B.C.



4423 M1

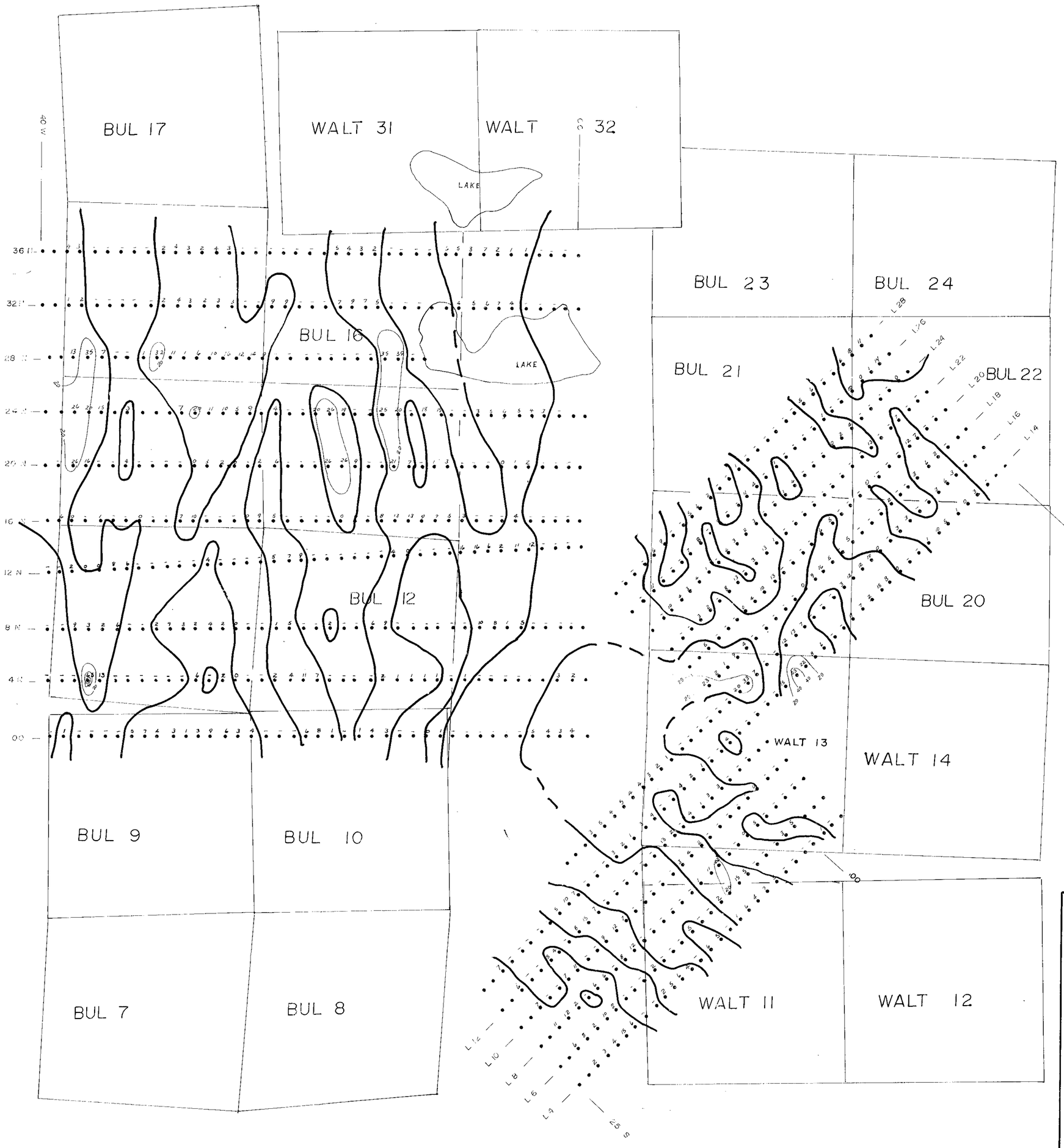
LONE CREEK MINES LTD.

DATA — VERTICAL COMPONENT
INSTRUMENT — SCOPAS SE-80
SCALE — 1" = 400'
DATE — OCTOBER, 1972
DRAWN BY — J.O. RUD

MULTIPLE MINING LTD.

WALT AND BUL MINERAL CLAIMS

OSOOYOS MINING DISTRICT
OSOYOOS AREA, B.C.



4423 M2

LONE CREEK MINES LTD.

DATA — FILTERED (Fraser Method)
INSTRUMENT — SCOPAS SE-80
SCALE — 1" = 400'
DATE — OCTOBER, 1972
DRAWN BY — J.O. RUD