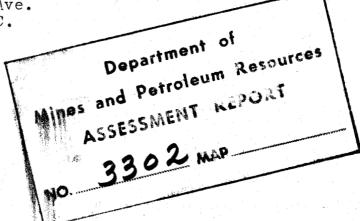
This is Geophysical Report No. EM-M-71-122
For Mr. C. A. Marshall
MOUNTAIN MEADOW Claims Group
Southeast of Arrow Head Lakes, Kaslo-Slocan Mining Division
50° N - 117°45' W. 82 K / 4W
July 29,1971 to August 25, 1971.

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ELC GEOPHYSICAL REPORT NO. EM-M-71-122 COVERING THE MOUNTAIN MEADOW CLAIMS GROUP, SOUTHEAST OF ARROW HEAD LAKES IN THE BURTON AREA, KASLO-SLOCAN MINING DIVISION FOR MR. C.A. MARSHALL. JULY 29, 1971 to AUGUST 25, 1971. (50°N - 117°45'W)

### Purpose:

The purpose of the survey was to obtain geophysical assessment by means of Em and Magnetometer instrumentation from any anomalous configuration that might be correlated with known geological information.

## Instrumentation:

The geophysical survey was conducted with a type EM 16 Ronka Instrument operating on 18.6 KHZ from the US Navy Station NPG in Arlington, Washington.

The survey was also conducted with a type 100M vertical field fluxgate magnetometer made by Sabre Electronics of Vancouver, all results are plotted on separate plans.

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# Geological Reference:

Report on the Mountain Meadow Group by G.C. Singhai, P. Eng. July 19, 1971.

#### Location:

The survey traverse was located in the northwestern section of the Mountain Meadow Claims Group located southeast of Upper Arrow Lakes on the headwaters of Mineral Creek, branch of Caribou Creek in Burton Area. Slocan-Kaslo mining division. The surveyed area is indicated on the location plan No. EM-M-71-122-L.

# Presentation;

The EM survey is shown on plan EM-71-122. The Magnetometer survey is shown on plan M-71-122.

Both surveys are shown with the results plotted in profile form and with the EM showing both the vertical and horizontal components. The interpretation of the EM results are based on change of amplitudes, polarity and phase relations of the two components.

The interpretation of the Magnetometer results are based on profile amplitude and configuration relative to adjoining lines to thereby form linear anomalies.

The central base line 0+00 extends north and south for 1700 feet, with the grid lines east and west at 100 foot spacing on the south half of the survey, and 200 foot spacing on the north half as indicated on the plans EM-71-122 and M-71-122. The north south base line terrain is relatively flat, as are the easterly grid lines, however the western edge of the survey traverse includes the western slope and a ravine near line 13.

## Results:

Referring to plan EM-71-122, the anomalous line C2 is derived from the normal or crossover point of the components, and follows closely to the strike east of the O base line. The more linear feature C1 to the west is the maximum point of the gradient of the two components, wherein the vertical component shows an increase and the horizontal a decrease.

Referring to the magnetometer traverse plan M-71-122, the most prominent feature is the linear anomaly L1 with the strongest readings striking to the north east. With the exception of line 3 N, this linear anomaly appears to cut through the entire survey. The linear anomaly L2 on the western side of the base line is not strong but is consistent as far as line 2 N. The linear anomaly L3 appears to parallel L1 and entersect L4 on the eastern side of the grid lines. The northern linear anomaly L5 appears to intersect L1, however there is insufficient control at this point to substantiate this interpretation. The linear anomaly L6 in the south east also parallels L1 and shows one outstanding reading on line 0+00.

## Summary:

The EM linear anomalous line Cl appears to follow very closely to the foot wall of a known quartz vein mineralized by galena, sphalertite, argentite, minor chalcopyrite, pyrite, pyrrhotite, and cadmium oxide. The vein had been traced for 700 feet between line 1+00 S and line 6+00 N. The gradient

showing maximum at the Cl line drops to zero on the C2 line, and therefore should be an indicator of the area influenced from the subsurface.

The magnetic linear anomaly L1 is significantly strong and should appear near the surface on line 13 E, but apparently has not been observed in the present geological investigations. The linear anomaly L2 follows closely to the hanging-wall side of the known quartz vein extending north and south. There is insufficient control north of line 7 N to determine precisely the location of L2 linear anomaly to line 11 N.

The significance of the linear anomalies L4, L5 and L6 must be determined by geological investigation.

#### Conclusions:

The EM linear feature Cl confirms the dip of the quartz vein to the east and the steeper gradient in the south would suggest a steeper angle of dip than in the area of lines 4 N and 5 N. The extension of Cl to the north and west would have to

be determined with more detail in the vicinity of lines 9, 11 and 13 North.

The maximum gradient occurred on line 2 S and it would therefore appear that an extension of the work in this direction is warranted.

#### Recommendations:

Expansion of the work on this property could be enhanced by extending the geophysical work in more detail to the north and west, also extend the grid lines to the southwest. In areas difficult to assess on the surface, some geochem sampling might prove beneficial in accordance to an engineer's recommendations.

D.L.Hings, P. Eng

LOCATION PLAN EM-M-71-122-L Scale 1"= 2 Miles Mines and Defroleum Resource Mountain Group

