SUPPLEMENTARY REPORT No. 1

ON THE INDUCED POLARISATION

& RESISTIVITY SURVEY

IN THE GREAT LYELL AREA

QUEENSTOWN 1959 - 1960

23rd May 1960

23rd May x60

To: Mr. O.P. Hudspith

Supplementary Report No. 1 on the Induced Polarisation and Resistivity Survey in the Great Lyell Area, Queenstown, 1959-1960

Attached is a report from McPhar Geophysics describing the work completed for the Mt. Lyell Mining & Railway Co. Ltd. in the Great Lyell area. The report is self explanatory and is summarised in the last paragraph on page 2.

The work has located an interesting anomaly which appears to be associated with the known mineralisation of the Great Lyell shaft area. Two future courses are open: if further I.P. work is planned in this area, it is recommended that any exploratory work such as trenching be delayed until the anomaly is completely outlined, particularly its northern continuation. If no further geophysical work is to be carried out then the anomaly could be tested by a winze sunk near lines 22 and 24. From the geophysical results the anomaly is within 50 to 100 ft. of the surface, apparently at its shallowest depth on line 22.

Chief Geologist, L.E.E.

McPHAR GEOPHYSICS LIMITED

SUPPLEMENTARY REPORT NO. 1 ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY IN THE GREAT LYELL AREA, QUEENSTOWN, TASMANIA

FOR

MOUNT LYELL MINING COMPANY

1959 - 1960.

This supplementary report covers the induced polarization data measured during the 1959 - 60 field season in the Great Lyell Area and not described previously. The original report, "Report on the Induced Polarization and Resistivity Survey in 1959 - 60 at Moore's Valley and Queenstown for Lyell - E.Z. Explorations," discussed the general geology of the area.

In the previous work, a definite anomaly was located at the north end of Line 24. In this later data, Line 24 has been extended to complete the anomaly. The center of the large anomaly is between 5E and 6E. Since the anomaly appears to be shallow when 100' spreads were used, the line was resurveyed using 50' spreads.

When the shorter spreads were used, the maximum values were obtained for the third and fourth separation, indicating that the depth to the top is more than 50'. Since the apparent metal factors increase in magnitude for these short spreads, the width of the anomalous zone is apparently nearer to 50' in width.

In addition to extending the data on Line 24, measurements were made on the lines 200' on either side. On Line 26, the anomaly is not as definite as on Line 24; however, on Line 22 the magnitude of the apparent metal factor anomaly is larger than any previously measured. When Line 22 was surveyed using 50' spreads the anomaly became extremely large. Also, the source appears to be at less depth on this line.

The anomaly east of the baseline on the Great Lyell Property is quite definite. With the data available at this time, the anomalous zone is increasing in magnitude to the north. The largest effect in on Line 22. The zone extends on both sides of the Great Lyell shaft, and is probably the extension of the sulphide mineralization found in the shaft. The anomaly, particularly on Line 22, is large enough to suggest a large percentage of metallic mineralization. Since very little information is available concerning the mineralization encountered in the underground workings, it is recommended that this zone be tested by drilling.

McPhar Geophysics Limited

Philip G. Hallof,
Geophysicist.

Dated: April 20, 1960.