

This report has been examined by
the Geological Institute of Canada
Approved as to technical worth by:

D. C. Findlay
Geological Institute of Canada

Approved as to cost in the amount
of \$ 14,448.70

for A. G. Neilson
Geological Institute of Canada

**GEOPHYSICAL REPORT
ON A GROUP OF CLAIMS
FOR**

KAMLOOPS COPPER CONSOLIDATED LIMITED

[Signature]
Chief of YBCO
Administrative

Claims Surveyed:

94095

94096

94528 - 94549 inclusive

which are located some 30 miles north of the hamlet
of Ross River, Yukon Territory, 132°45'W, 62°-15'N.

The survey was conducted during the period January 24
to April 19, 1966.

The report is written by W. P. McGill, M.A., P.Eng.

SULMAC EXPLORATION SERVICES LIMITED

MAY 4, 1966.

**GEOPHYSICAL REPORT
ON THE PROPERTY OF
KAMLOOPS COPPER CONSOLIDATED LIMITED**

**ROSS RIVER - PELLY RIVER AREA
YUKON TERRITORY**

SULMAC EXPLORATION SERVICES LIMITED

MAY 4, 1966

INDEX

	<u>Page</u>
General	1
Method of Survey	2
Discussion of Results	3
Conclusions	4

In Pocket:

Map of Electromagnetic and Magnetometer Survey

at scale 1" = 400'

The property consists of 24 contiguous mining claims numbered as follows:

94095

94096

94528 - 94549 inclusive

The property is located some 30 miles north of the hamlet of Ross River, Yukon Territory. Ross River is, in turn, located some 180 miles northeast of Whitehorse. Radio communications exist at Ross River to Whitehorse and communication to the claim group can be maintained by Klondike Helicopters who are based at Ross River, and by fixed wing aircraft from Ross River to Whitehorse.

General

This general area of exploration became prominent during mid summer to September of 1965 with the announcement by Dynasty Explorations Limited of major tonnages of lead, zinc, copper material, following previous announcements of a sizeable tonnage which had been proven by Kerr Addison. The general mineralized belt has now been named the Vangorda area, following along Vangorda Creek.

Following the announcement last year, a great deal of staking and prospecting activities resulted, and the entire area now is being actively worked by many companies. The claims held by Kamloops Copper Consolidated Limited were staked by that company on geological information existing at the time, and although no surface exposures had been examined, they were considered to be well located within the general region of activity.

Method of Survey

The entire claim group was covered by a 400 foot interval grid system with a baseline being cut in an approximate east-west direction and picket lines in a north-south direction. A magnetic survey was first carried out over these picket lines employing a Sharpe Fluxgate magnetometer, following which a reconnaissance electromagnetic survey was completed employing the vertical loop electromagnetic system. Detailed electromagnetic surveying was then completed where any indication of conductors was apparent.

Discussion of Results

The magnetics indicate very minor relief throughout the property, with the exception of a major anomalous feature in the area of lines 4W to 20W, and 16N, where anomalous conditions of some 500 gammas above background were indicated. An additional small magnetic anomalous zone on line 12E with an intensity of some 300 gammas above background was encountered. However, none of these magnetic anomalous areas have associated electromagnetic conductors and are not, as a consequence, considered too significant.

The reconnaissance electromagnetic survey indicated several minor, and one major, electromagnetic conductive zone. The detailed electromagnetic work eliminated all conductors from being of significance, except the one major conductor. This conductor, located on the northeast portion of the property on claims 94535, 94533, and 94531, has a lineal extent of some 4,000 feet and would appear to extend into the adjacent property to the west. This conductor would appear to be broken into three segments which could be caused by faulting on lines 52W and 28W. The displacement, however, is minor and does not exceed more than 400 feet. It can be considered as a single conductor. The

curves, as shown on the accompanying map, are sharp and have reasonably high angles showing the presence of very definite conductive material.

The conductor is located in an area of little magnetic relief which would indicate that little to no magnetite or pyrrhotite was present. Mineral such as lead or zinc shows minor conductivity, but if intermixed with chalcopyrite or pyrite could have good conductivity. As a consequence, the lack of a combined magnetic anomaly in the present geological environment could be of no importance should sulphides be its cause.

Further, however, the conductor could be located along a shear zone and graphite, if present, could give rise to a similar anomalous effect.

Conclusions

A conductor of some 4,000 feet in length of good intensity has been located on the property. No magnetic anomaly is associated with this conductor. The conductor could be caused by non-magnetic sulphide minerals or by graphite in a shear. It is recommended that the area of the

conductor be thoroughly prospected and if sufficient surface evidence cannot be determined as to the cause of the conductor, then a minimum of three boreholes be drilled to determine the cause.

Respectfully submitted,

SULHAC EXPLORATION SERVICES LIMITED

W. P. McGILLI, M.A., P.Eng.

May 4, 1966

APPENDIX

List of Personnel Employed on Geophysical Survey, and

Dates:

L. Savard	Linecutter	January 24 to February 24, 1966.
C. Chevrleux	Linecutter	January 24 to February 24, 1966.
J. McNeil	Linecutter	January 24 to February 24, 1966.
— R. Arsenault	Geophysical Operator	March 11 to May 12, 1966.
E. Martin	Geophysical Asst.	March 21 to April 19, 1966.
G. Engberg	Geophysical Operator	March 21 to April 19, 1966.
J. Winton	Geophysical Asst.	March 21 to April 19, 1966.
D. Grant	Draftsman	April 7, 12, 13, 14 and May 2, 1966.
W. P. McGill	Consulting Engineer	May 3, 1966.
H. Mezzarobba	Typist	May 4, 1966.

STATEMENT OF COST

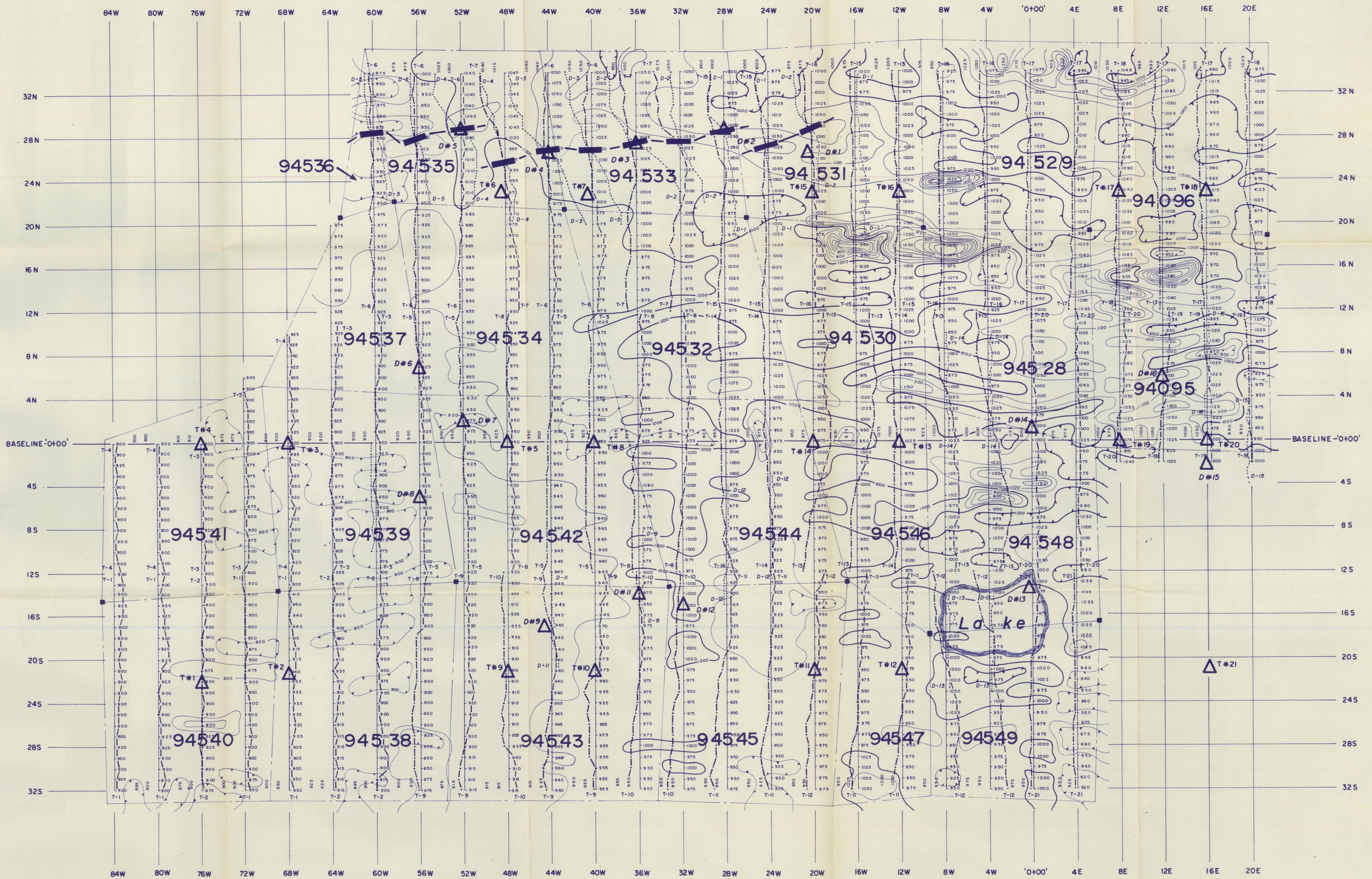
to Kamloops Copper Consolidated Limited

Re: Property in Ross River - Pelly River Area, Y.T.

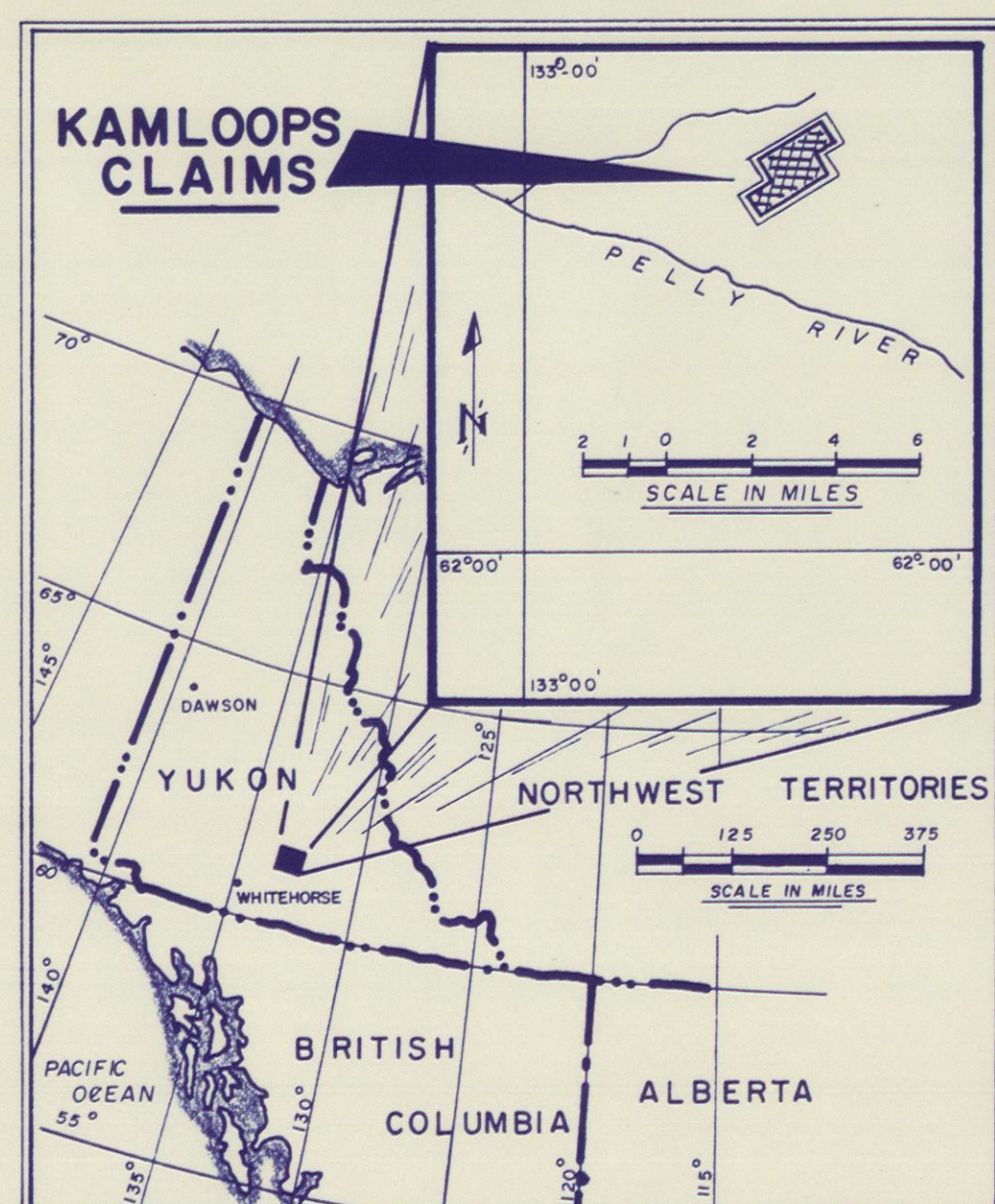
Linecutting:	35 miles @ \$100.00 per mile	\$ 3,500.00
Geophysical Surveys:	Magnetometer operator and instrument, 20 days @ \$1,200.00 per month	800.00
	Combined magnetic and electromagnetic crew and instruments, 40 days @ \$4,700.00 per month	6,266.66
	Board, housing, transportation, communication and miscellaneous supplies	<u>6,617.56</u>
	TOTAL	\$17,184.22

The above was invoiced to and paid by
Kamloops Copper Consolidated Limited.

June 16, 1966.



LOCATION MAP



L E G E N D

MAGNETOMETER SURVEY

Contour Interval 50 Gammas
 1000 Gamma Contour
 50, 100 Gamma Contour
 Magnetic Depression

MAP SYMBOLS

Claim Post and Claim Boundary (approx.)
 Lake Outline (approx.)

ELECTROMAGNETIC SURVEY

RECONNAISSANCE

Profile of Electromagnetic Readings (a)
 Dip Angle - $1 \pm 20^\circ$

DETAIL

Electromagnetic Transmitter Location
 Transmitter Location Reference
 Conductor Axis

KAMLOOPS COPPER CONSOLIDATED LIMITED

ROSS RIVER-PELLY RIVER AREA-YUKON

ELECTROMAGNETIC

MAGNETOMETER SURVEY



Scale 1:40,000
 One Inch = Four Hundred Feet

DRAWN BY D.A. GRANT