

GEOPHYSICAL REPORT

JIM CLAIMS

SHEET 105-D-10

D. Tenney

July 1971

This report has been examined by the
Geological Exploration Unit and is recom-
mended to the Commission to be consid-
ered as representing work in the amount of
\$1905.00

AB Craig

Mineral Mining Engineer

Considered of representative work under
Section 33 of the Yukon Quartz Mining Act.

[Signature]

Commissioner of Yukon Territory

1205

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ATTACHED MAPS

1. Claim Location Sketch
2. 1" = 200' Chargeability Contour Plan showing 200' and 400' Separation
3. 1" = 200' Chargeability and Resistivity Profiles

1. Introduction

Spartan Aero were commissioned to carry out an Induced Polarization along the contact of the Lewes River limestone with the Cretaceous Whitehorse Batholith about 1/2 mile south of the Cowley Park ore zone. The area is favourable for the formation of skarn type copper deposits, and could be delineated on the basis of geological mapping and magnetic survey carried out previously.

2. Access

Access is by the Alaska Highway and the bush road passing by the C.Y.O. camp. The Whitepass and Yukon Railway lies a short distance west of the area. The lines surveyed are part of the Cowley Park 68 Grid, which uses the Whitehorse Reference Traverse as a baseline.

3. Method

A three electrode array with two and four hundred foot electrode spacings was used on lines four hundred feet apart. The transmitter used was a modified Sharp MKV unit, with a "Newmont Type" receiver built by Data Control Systems. Results given by this time domain system are recorded in milliseconds. For each chargeability a corresponding resistivity is calculated.

4. Results

Two strong chargeability zones were outlined with values up to 56 milliseconds. The length and shape of both, however, suggests graphitic sediments. Since the Black Cub South orebody several miles to the west lies in these same sediments, the aforementioned anomalies warrant further consideration.

The high readings on line 116E at 38S are probably caused by a deep source lying on trend with the more northerly of the two previously mentioned zones. It is, however, 2,400 feet from equivalent readings (30 milliseconds) and the peak of 52 milliseconds was the highest recorded in the area for the 400' electrode spacing. The anomaly appears to be nearly vertical, and lying near a change

in resistivity thought to indicate the diorite/sediments contact.

5. Recommendations

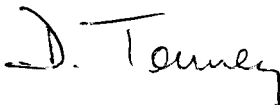
A drill hole to test the 52 millisecond chargeability high at 116E 38S should be drilled at minus 60 degrees north from 40S to a minimum depth of 300 feet.

6. Assessment Claimed

Length of line surveyed on claims Jim 17 - Jim 22 = 3.81 miles. This is claimed at \$500/line mile giving a total assessment value of \$1,905. All of these claims named above are owned by Whitehorse Copper Mines Ltd.

7. Field Crew

- K. Hendry - I.P. Operator c/o Spartan Aero, Ottawa
- A. Van Oeveren - Whitehorse
- A. Mitchell - Whitehorse
- A. Hureau - Whitehorse



D. Tenney
B. Sc., D.I.C., A.M.I.M.M.

DT/ja

Whitehorse Copper Mines Ltd.

P.O. Box 4280, Whitehorse, Yukon Territory, Canada
telephone (403) 668-2171 telex 049-8218

January 11th, 1972

THIS IS TO CERTIFY THAT

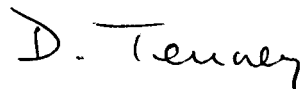
I, David Tenney, am resident at 8 McQuesten Road,
Whitehorse, Yukon Territory

I am an Associate Member of the Institute of Mining and
Metallurgy, London, England, and have been practicing as a mining
and exploration geologist for nine years.

My academic qualifications comprise the degree of B.Sc.
in geology from the University of Leicester, England, and a diploma
in mineral exploration (D.I.C. Min Ex.) from the Royal School of
Mines, London.

This certificate is related to geophysical work carried out
from June 16th to July 23rd, 1971, on the property of New Imperial
Mines Ltd. (subsequently renamed Whitehorse Copper Mines Ltd.).

I personally directed the work described in this report,
and also wrote the report.



D. Tenney, B.Sc. D.I.C.
Chief Geologist
Whitehorse Copper Mines Ltd.

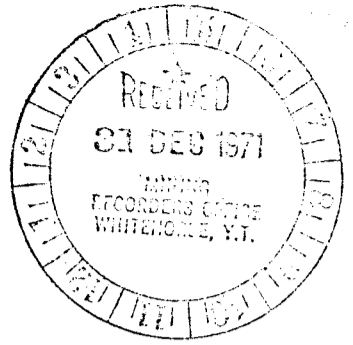
DT/ja



Department of Indian Affairs and Northern Development
YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



I (Name)	David Tonney	Occupation	Geologist
(Postal Address)	8 McQueston Rd., Whitehorse, Y. T.		

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT :-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

85345	Jim 17	85349	Jim 21
85346	Jim 18	85350	Jim 22
85347	Jim 19		
85348	Jim 20		

situated at Whitehorse, Y. T. Claim Sheet No. 105-D-10

in the Whitehorse, Y.T. Mining District, to the value of at least \$1,900.

dollars, since the First day of January 19 71.

to represent the following mineral claims under the authority of Grouping Certificate No. _____.

(Here list claims to be renewed in numerical order, by number and name, showing renewal period requested).

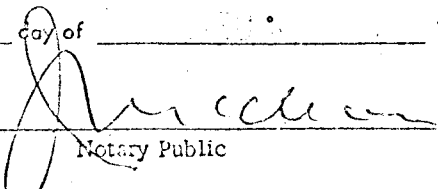
Y-58737	Rex 1 FR	1 Jan 77	Four years on all claims @ \$200/year - \$1,000.
Y-58738	Rex 2 FR		
Y-59386	Rex 3 FR		
Y-59387	Rex 4 FR		
Y-59388	Rex 5 FR		


3. The following is a detailed statement of such work: (Set out full particulars of the work done in the twelve months in which such work is required to be done, as shown by Section 53.)

Induced polarization 3.81 miles @ \$500/mile = \$1,905.

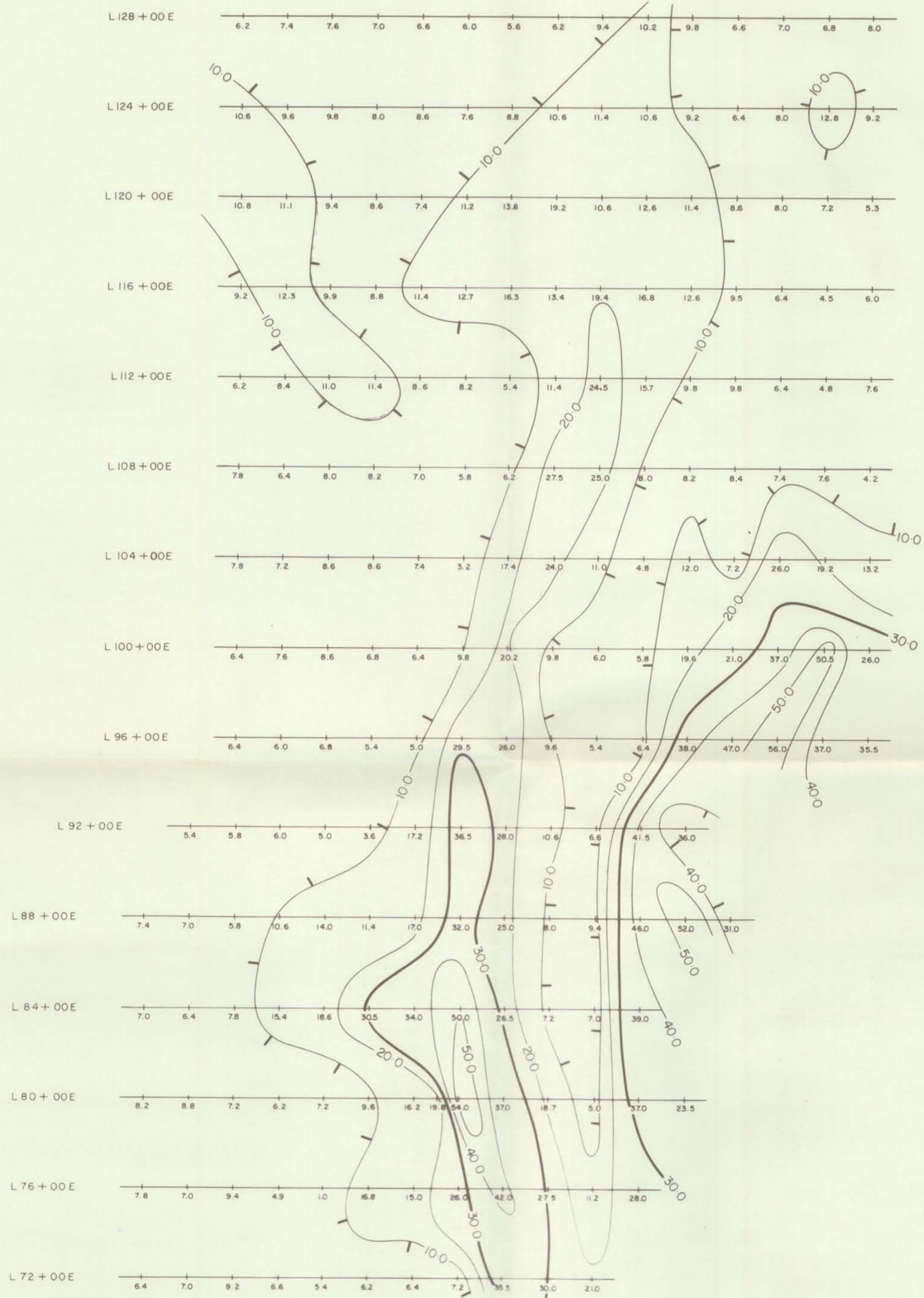
Sworn before me at Whitehorse, Y. T.

this 1st day of January 19 71


Notary Public


D. Tonney, Agent for Applicant,
Whitehorse Copper Mines Ltd.

12W 20W 40W 56W

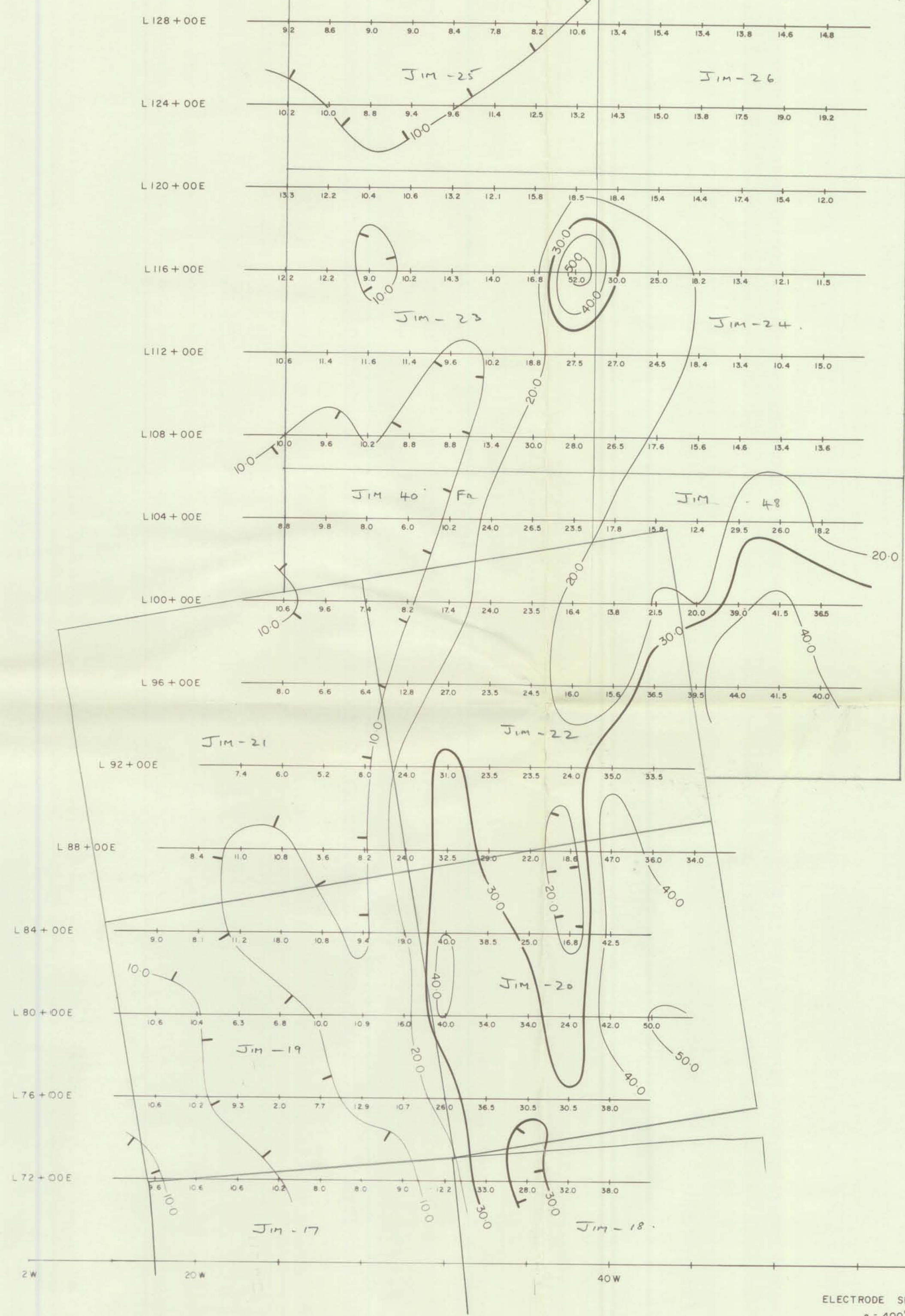


12W 20W 40W 56W

ELECTRODE SPACING
a = 200'

ELECTRODE CONFIGURATION
CONTOUR INTERVAL

12W 20W 40W 56W



12W 20W 40W 56W

ELECTRODE SPACING
a = 400'

NEW IMPERIAL MINES LTD.

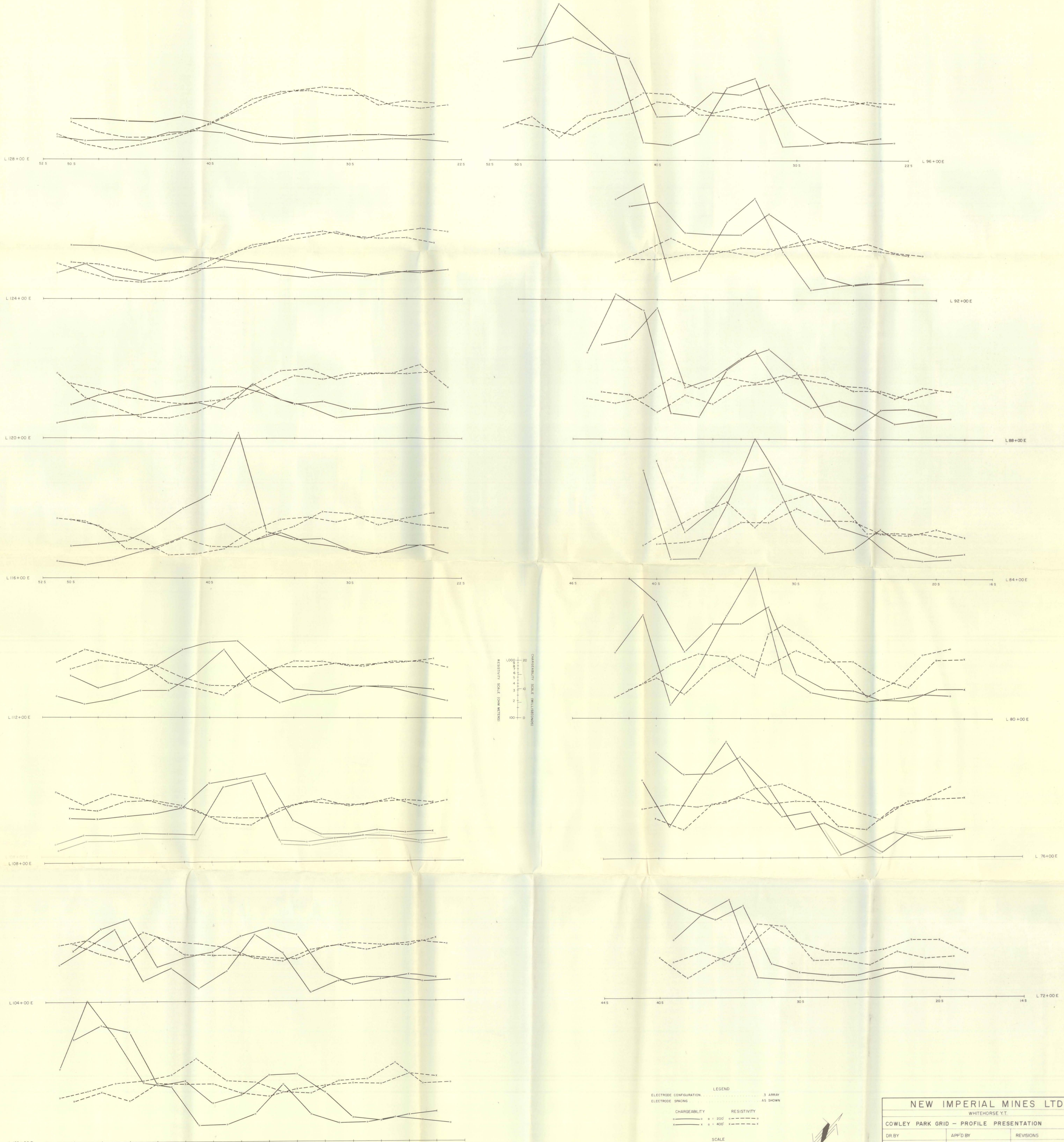
WHITEHORSE Y.T.

COWLEY PARK GRID - CONTOUR PLAN (CHARGEABILITY)

DR BY	APP'D BY	REVISIONS
DATE	SCALE 1" = 400'	
REF. No.	DWG. No.	

3 ARRAY
100 MILLI SECONDS





CHARGEABILITY SCALE (MILLISECONDS)
RESISTIVITY SCALE (OHM METERS)

LEGEND
ELECTRODE CONFIGURATION: 3 ARRAY
ELECTRODE SPACING: AS SHOWN
CHARGEABILITY: 0 = 200, 0 = 400
RESISTIVITY: 1/10 MILLISECONDS, 2/1 CYCLE (100-1000am)

SCALE
APPARENT CHARGEABILITY: 1/10 MILLISECONDS
APPARENT RESISTIVITY: 2/1 CYCLE (100-1000am)

NOTE: LINES NOT SPACED TO SCALE



NEW IMPERIAL MINES LTD.		
WHITEHORSE Y.T.		
COWLEY PARK GRID - PROFILE PRESENTATION		
DR BY	APP'D BY	REVISIONS
DATE	SCALE 1" = 200'	
REF No.	DWG. No.	