## Sheridan Geophysics Limited



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#### PROPERTY

The assessment work herein filed covers 4 claims located in Kidd Township in the Porcupine Mining Division of Ontario.

The 4 claims, totalling approximately 160 acres,

are numbered:

P.57681

P.57682

P.57683

P 57684

and cover the N  $\frac{1}{2}$  of Lot 7, Concession 6.

#### LOCATION AND ACCESS

The property is located approximately one mile west of the Texas Gulph Sulphur discovery. It can be reached by tractor from the Texas Gulph access road.

#### GEOLOGY

No outcrops are known to occur on this property. It is assumed that the property is underlain by Precambrian lavas and sediments which have been intruded by basic plugs and dykes.

#### GEOPHYSICAL SURVEY

The property was surveyed in June, 1964 using magnetic and electromagnetic field techniques along a picket line grid consisting of a north-south base line with 14 east-west cross lines spaced at 200 foot intervals.

A gravity survey followed in February, 1965 using again the same picket line grid, but readings taken along every second east-west cross line only.

To complement the geophysical picture, a second electromagnetic survey was carried out in April, 1965 taking readings along cross lines cut in a north-south direction, again spaced at 200 foot intervals.

#### Electromagnetic Survey

The electromagnetic survey employed the Sheridan-Kelk Dual Frequency Magniphase Electromagnetic Instrument (Instrument No. 18) operated in the horizontal coil configuration with a transmitter-receiver separation of 300 feet. The instrument which has an output of 1.5 watts may be operated at either 800 or 2,400 cycles per second. In general, readings of the amplitude and phase of the resultant field at the high frequency (2,400 c.p.s.) were recorded at station intervals of 100 feet. In anomalous areas the station interval was reduced to 50 feet and readings at both the high and low frequencies (800 c.p.s.) were recorded.

Plotted on the maps at the scale of 1" = 200 feet are the high frequency phase profiles. The scale of the phase profiles equals 50 units to the inch. A total of 850 amplitude-phase measurements were recorded along the east-west

and north-south picket lines.

#### Conductivity Determination

The ratio "r" refers to the ratio of the low frequency phase response to the high frequency phase response. In general, the ratio increases as the conductivity of the detected conductor increases. A ratio of 0.8 to 1.0 is considered to represent an excellent conductor, a ratio of 0.5 to 0.8 a moderate conductor, and a ratio less than 0.5 a poor conductor.

#### Magnetometer Survey

The magnetometer survey employed an Askania

Torsion Balance Magnetometer with a scale constant of 2.36

gammas per scale division and a sensitivity of 2.3 gammas.

The magnetic responses as plotted on the accompanying map,

are corrected for diurnal variations and instrument drift

and are contoured at a 100 gamma interval.

Readings were taken generally at 100 foot intervals with 25 or 50 foot stations in anomalous areas. A total of 605 readings were recorded.

#### Gravity Survey

For this survey, a Worden Gravity Meter (Instrument No. 689) with a scale constant of 0.09770 milligals per scale division, was used. All readings were corrected for

## Sheridan Geophysics Limited

- 4 -

diurnal, drift, elevation and latitude and the results shown in milligals on the map were contoured at 0.25 milligals.

DISCUSSION OF RESULTS

The east-west electromagnetic survey indicated two parallel anomalies trending in a north-south direction over a distance of approximately 800 feet. The calculated conductivity "r" for the two anomalies varies between 0.53 and 1.00, and the conductor may therefore be classified as moderate to good.

The electromagnetic survey along the north-south lines indicates a poor to moderate conductor (r = 0.36 - 0.75) in the south-east corner of the property.

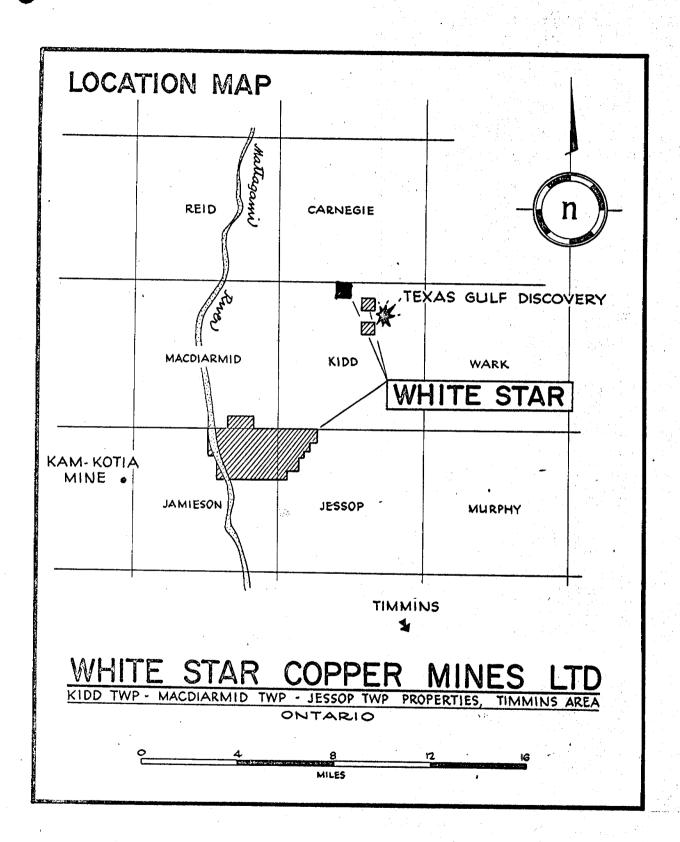
The magnetometer survey contoured at 100 gamma intervals, shows two anomalies in the north-west and the southeast corners of the property. Both have a magnetic intensity relief in the order of 500 gammas and taking into consideration the shape of these anomalies, they both may possibly represent a basic intrusive.

The gravity results contoured at 0.25 milligals show a gravity high in the north-west corner of the property (17.75 milligals). The general trend of the contour lines is north-west to south-east.

All of which is respectfully submitted.

G. Disler, P.Eng.

August 31, 1966.



16TH FLOOR KING ST. WEST, TORONTO

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Sheridan Geophysics Limited

March 29th, 1966.

# SUMMARY REPORT WHITE STAR COPPER MINES LIMITED KIDD TOWNSHIP - "C" GROUP

#### PROPERTY

The assessment work herein filed covers 4 claims located in Kidd Township in the Porcupine Mining Division of Ontario.

The 4 claims, totalling approximately 160 acres, are numbered:

P.57681 P.57682 P.57683

P. 57684

and cover the N 2 of Lot 7, Concession 6.

#### LOCATION AND ACCESS

The property is located approximately one mile west of the Texas Gulph Sulphur discovery. It can be reached by tractor from the Texas Gulph access road.

#### **GEOLOGY**

No outcrops are known to occur on this property. It is assumed that the property is underlain by Precambrian lavas and sediments which have been intruded by basic plugs and dykes.

#### GEOPHYSICAL SURVEYS

The property was surveyed in June, 1964 using magnetic and electromagnetic field techniques along a picket line grid

consisting of North/South base line with East/West cross lines spaced at 200 foot intervals. Readings are taken at 100 foot intervals with additional readings at 25 and 50 feet in areas with anomalous indications.

A gravity survey followed in February, 1965 using again the same picket line grid, but readings were taken along every second East/West cross line only.

To complement the geophysical picture, a second electromagnetic survey was carried out in April, 1965, again using the Sheridan-Kelk magniphase instrument, but taking readings along cross lines cut in a North/South direction.

George Disler, P. Eng.

63.1916 OFFICE OF MINING RECORDER PORCUPINE MINING DI 127 THIRD AVENUE TIMMINS, ONTARIO DEPARTMENT OF MINES April 13th, 1966 Mr. R. V. Scott, Director, Mining Lands Branch, Ontario Department of Mines, Parliament Buildings, Toronto 2, Ontario Dear Sir: Re: Mining Claims P-57681-84 An assessment work credit of 80 days, geophysical, was recorded on each of the above mining claims on March 30th. These claims are recorded in the name of J. P.

Sheridan, Suite 1606, 4 King Street West, Toronto 1, Ontario.

The reports and maps are being forwarded direct to the Department.

Yours very truly.

900

Mining Recorder.

CDE/jt



LOT POST CARNEGIE TWP. KIDD TWP. L8W L6W L4W L 2W L-0-W L 26+40 W L 22W L20W L I8W L 16 W L 14W L12W LIOW L 24W \_\_\_\_CREEK - GULLEY ROAD BASE LINE CREEK

### WHITE STAR COPPER MINES LTD

MAGNIPHASE SURVEY (300')

BY SHERIDAN GEOPHYSICS

GROUP "C" - N 1/2 LOT 7 - CONCESSION VI

KIDD TWP. - PORCUPINE MINING DIV. ONT.

X-----X PHASE I"= 50 UNITS HI. - 195 LOW - 185

----- AMPLITUDE I"= 50 UNITS HI.-145 LOW-160

SCALE : | " = 200'

200

ABLO M.

26 N 22 N 20N 14 N 12N 1 4CL. POSTS 8N 2N 45 D LOT CORNER 14E

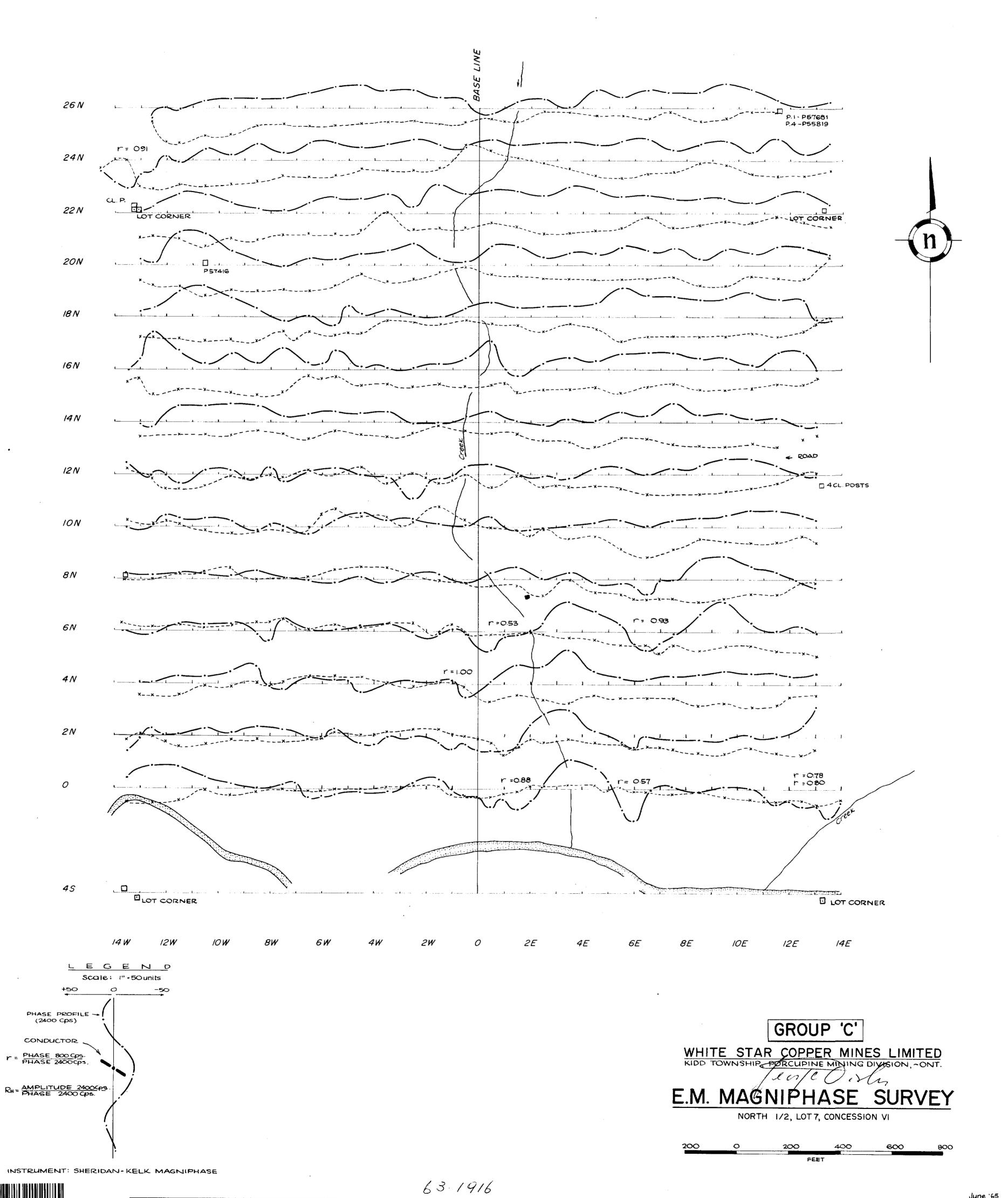
-302 RELATIVE VALUE OF MAGNETIC FIELD IN GAMMAS CONTOUR INTERVAL 100 GAMMAS

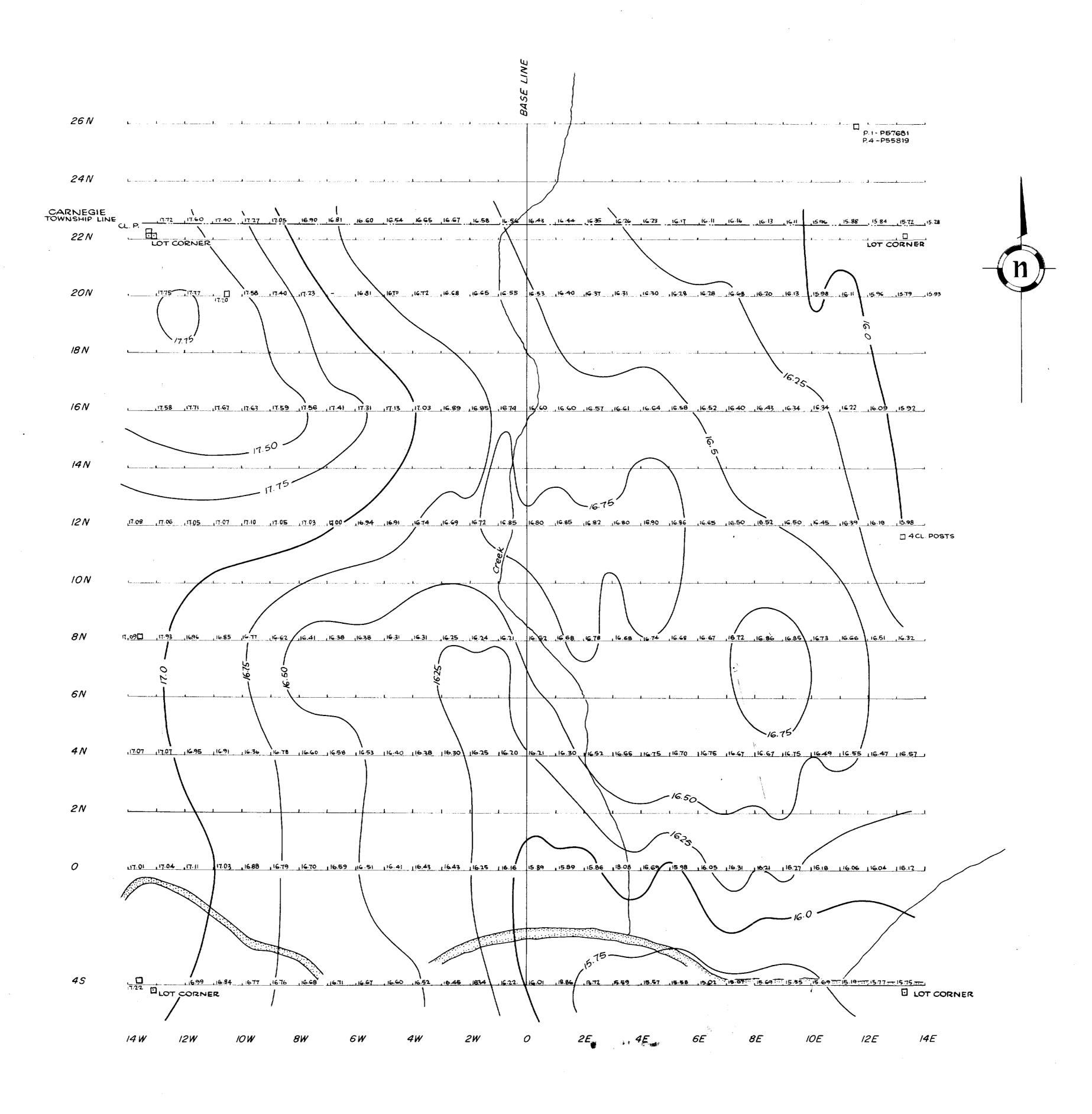
GROUP 'C' WHITE STAR COPPER MINES LIMITED KIDD TOWNSHIP, PORCUBINE MINING DIVISION, ~ONT. NORTH 1/2, LOT 7, CONCESSION VI 600 800



June 65

LEGEND





LEGEND

CONTOUR INTERVAL 0.25 MILLIGALS

INSTRUMENTS: TRANSIT NO.6278 (ZUIHO)

GRAVITY METER (WORDEN) NO.689

N.B. 10.00 MILLIGALS ADDED TO ALL READINGS.

WHITE STAR COPPER MINES LIMITED KIDD TOWNSHIP PORCUPINE MINING DIVISION, -ONT.

GRAVITY SURVEY

NORTH 1/2, LOT 7, CONCESSION VI

200 0 200 400 600 800 FEET



63.1916