



INTRODUCTION

The assessment work herein filed covers 23 claims in Jessop Township in the Porcupine Mining Division of Ontario.

The 23 claims, totalling 920 acres are numbered as follows:

P 82924 - P 82943 incl. = 20 claims
recorded on May 3, 1965.

P 92417 - P 92419 incl. = 3 claims
recorded on December 12, 1966.

The 23 claims cover lots 7 - 10 in Concession VI of Jessop Township as shown on the appended key map.

GEOLOGY

No outcrops are known to occur within the area covered by this claim group. Close to 100 feet of overburden was encountered in diamond drill holes. It may however be inferred (O.D.M. Map No. 2046 - 1964) that

the property is underlain by Precambrian rock types consisting mainly of Keewatin-type volcanics intruded by ultrabasic and acid rock types.

ELECTROMAGNETIC SURVEY

Line cutting was carried out in January 1966, covering the 20 claim group, the grid consisting of a E-W. base line and 32 N-S. crosslines spaced at 300 foot intervals.

The electromagnetic survey was carried out under the supervision of E. Bazinet, P.Eng. during the same time along these established picket lines.

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. In anomalous areas the high frequency amplitude is also plotted. The scale of the phase and amplitude profiles equal 50 units to the inch. A total of 1450 amplitude-phase measurements were recorded along the North-South picket lines.

CONDUCTIVITY DETERMINATIONS

The ratio "RH"(RX) refers to the ratio of the high frequency amplitude response to the high frequency phase response. When significant conductors are detected the ratio increases as the conductivity of the detected conductor increases and a ratio greater than 1.0 is considered to represent a good conductor, 0.6 to 1.0 a moderate conductor, and less than 0.6 a poor conductor.

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The area was surveyed using an Askania Torsion Balance Magnetometer with a scale constant of 2.36 gammas per scale division. The magnetic responses as plotted on the accompanying map, are corrected for diurnal variations and instrument drift.

Readings were taken generally at 100 foot intervals with 25 or 50 foot stations in anomalous areas. A total of 195 readings were recorded.

INTERPRETATION OF RESULTS

The survey located 2 parallel conductors striking NE-SW for a distance of approximately 2,000 feet. The conductivity of these 2 conductors is medium to high (RX .65 - 1.00).

The results of the magnetometer survey contoured at 200 gammas interval indicate that the conductors are associated with a magnetic intensity high in the order of approximately 500 gammas above background. In addition a magnetic intensity high in the order of 4,000 gammas above background was located on the 0 crossline.

Taking into consideration the results of the

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geophysical survey, it was decided to further investigate these 2 conductors by means of diamond drilling. A hole previously drilled on one of the conductors by Lake Expanse is believed to have overshot the target, particularly since the overburden is in the order of 90 feet.

DIAMOND DRILLING

The 2 holes drilled in March 1967 are as follows: (shown in red on the accompanying maps)

Hole No.1 on claim No. 82937 at 45° to a depth of 405 ft.

Hole No.2 on claim No. 92418 at 45° to a depth of 260 ft.

The core was logged by E.W. Bazinet, P.Eng. and detailed diamond drill records are appended.

Both conductors as well as the magnetic intensity high can now be explained by the presence of disseminated and massive sulphides (up to 50%) as well as graphite (mainly in hole No.1).


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Since no sulphides of economic value were encountered, the drilling was discontinued.

ALL OF WHICH IS RESPECTFULLY SUBMITTED,

April 20th, 1967.


G. Disler, P.Eng.

e85.M

1E220b TMB

W58M

TRIM LINE

W58a

1E220b TMB

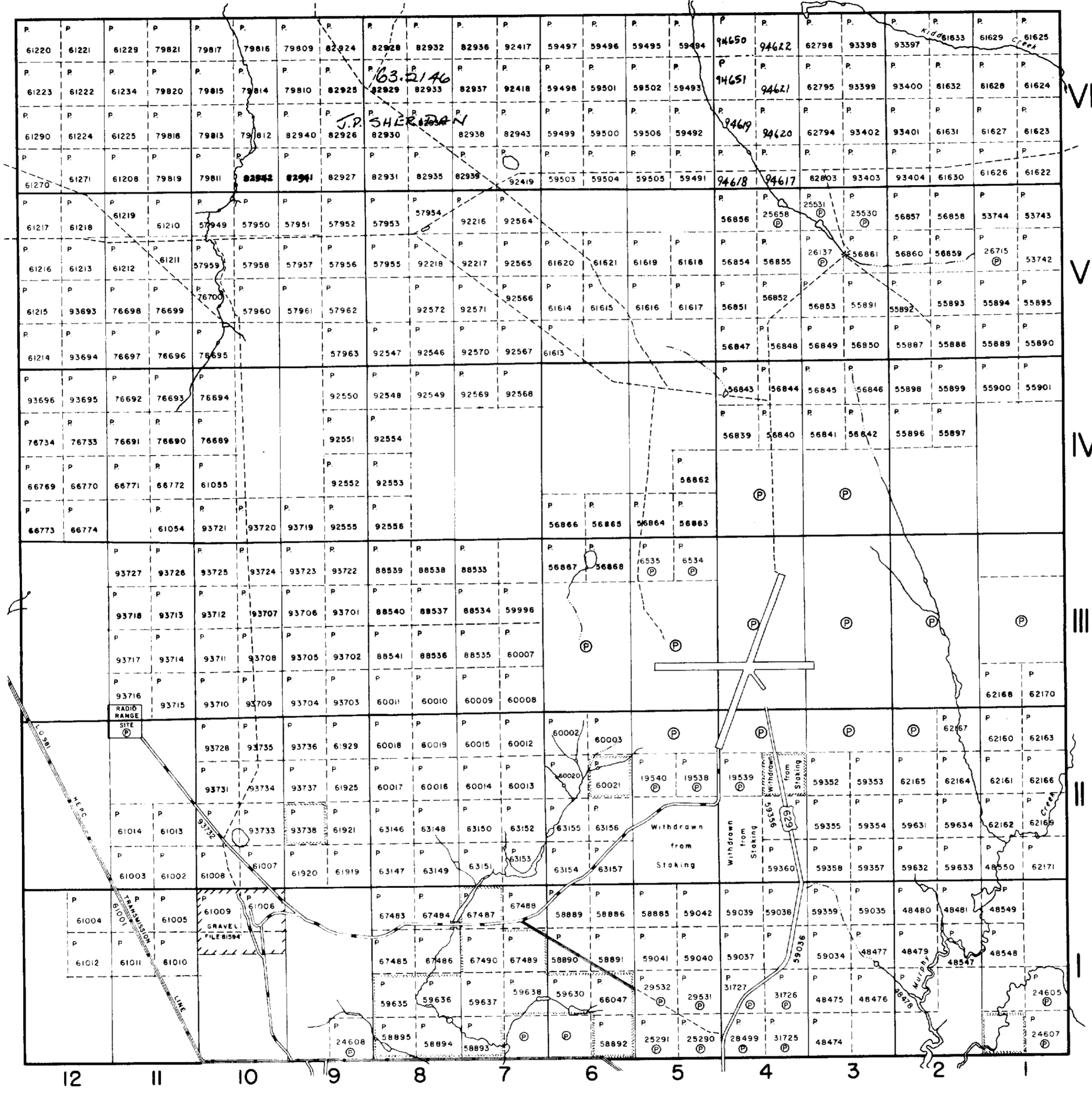
e85.M

Kidd Twp. - M.291

Jamieson Twp. - M.288

Murphy Twp. - M.303

Mountjoy Twp. - M.302



THE TOWNSHIP OF

JESSOP

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (C.S.)
- LEASES (L)
- LOCATED LAND (Loc.)
- LICENSE OF OCCUPATION (L.O.)
- MINING RIGHTS ONLY (M.R.O.)
- SURFACE RIGHTS ONLY (S.R.O.)
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED (C)

NOTES

- 400' surface rights reservation around all lakes and rivers.
- Surface rights only withdrawn from certain lands shown thus: -----
- No disposition of sand and gravel from May 8, 1964 until further notice.

DATE OF ISSUE

AUG 2 1967

ONTARIO DEPT. OF MINES

ONT. DEPT. OF MINES MINING LANDS BR. THIS MAP FOR CHECKING PURPOSES ONLY - MUST NOT BE SOLD.

PLAN NO. M.289

DEPARTMENT OF MINES

— ONTARIO —

TRIM LINE



424115W9527 63.2146 JESSOP

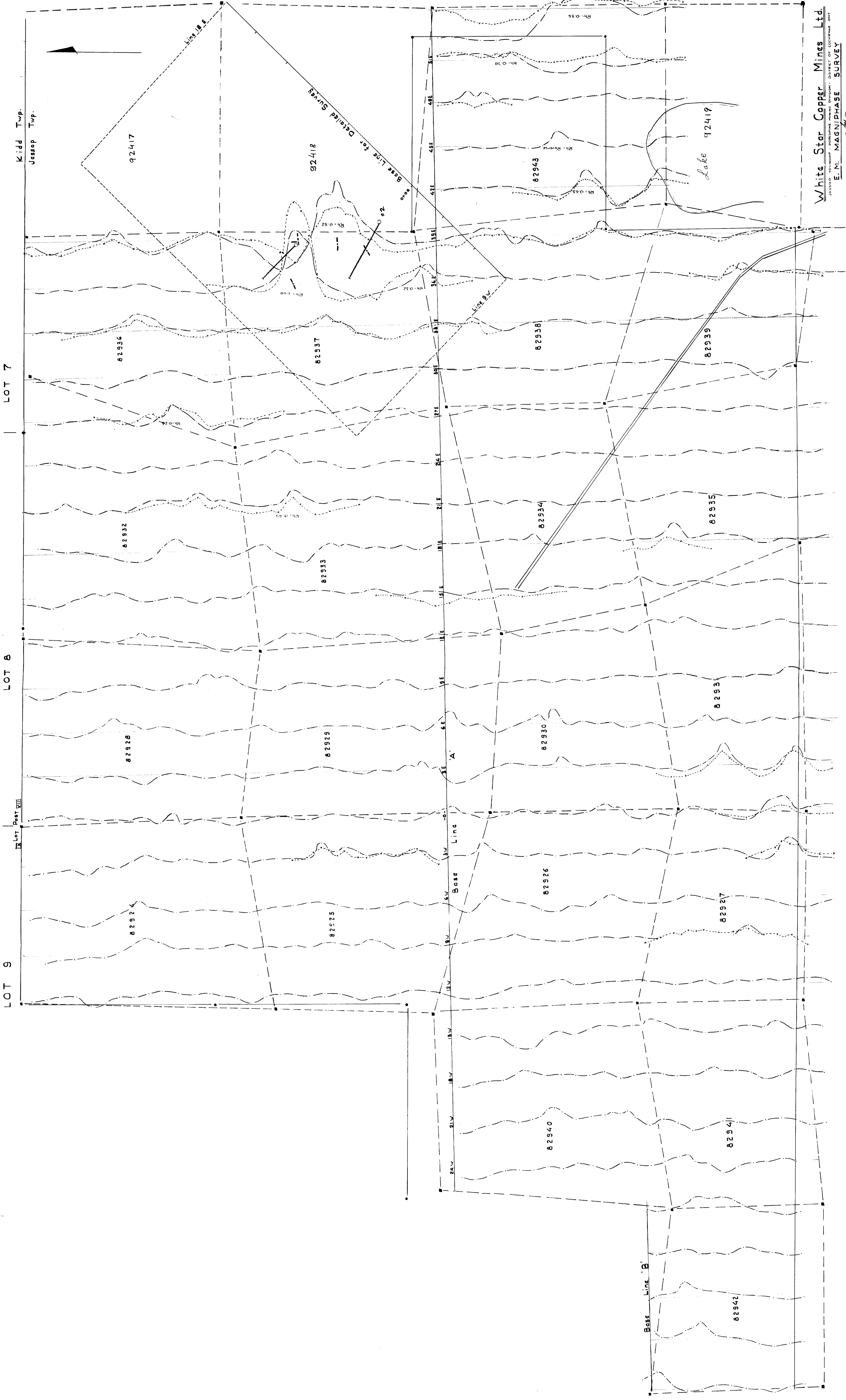
White Star Copper Mines Ltd.
SHERIDAN DISTRICT - MINING DIVISION - DISTRICT OF COCHRAN, ONT.

E. M. MAGNIPHASE SURVEY

Sheridan Geophysics

1" = 200'
1" = 50 Units
300 cable
■ claim post
● lot boundary
Date: Feb. 1967

[Handwritten signature]



WHITE STAR COPPER MINES LTD.

Jessop Twp.

Sheridan-Kelk Magniphase Survey

1 inch = 200 feet

--- Phase 1 inch = 50 units

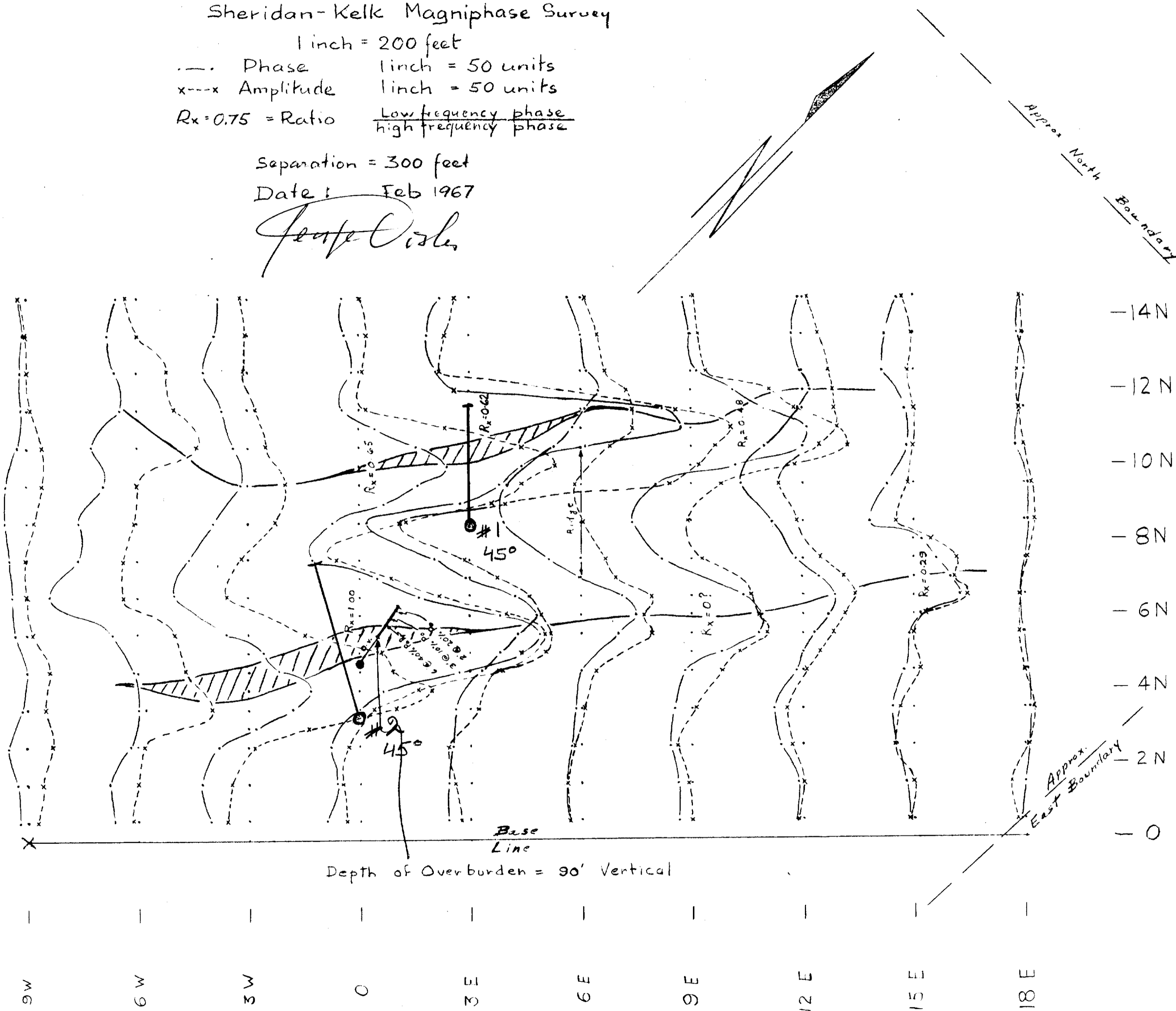
x---x Amplitude 1 inch = 50 units

$R_x = 0.75 = \text{Ratio} \frac{\text{Low frequency phase}}{\text{high frequency phase}}$

Separation = 300 feet

Date: Feb 1967

George Fisher



WHITE STAR COPPER MINES LTD.

Jessop Twp.

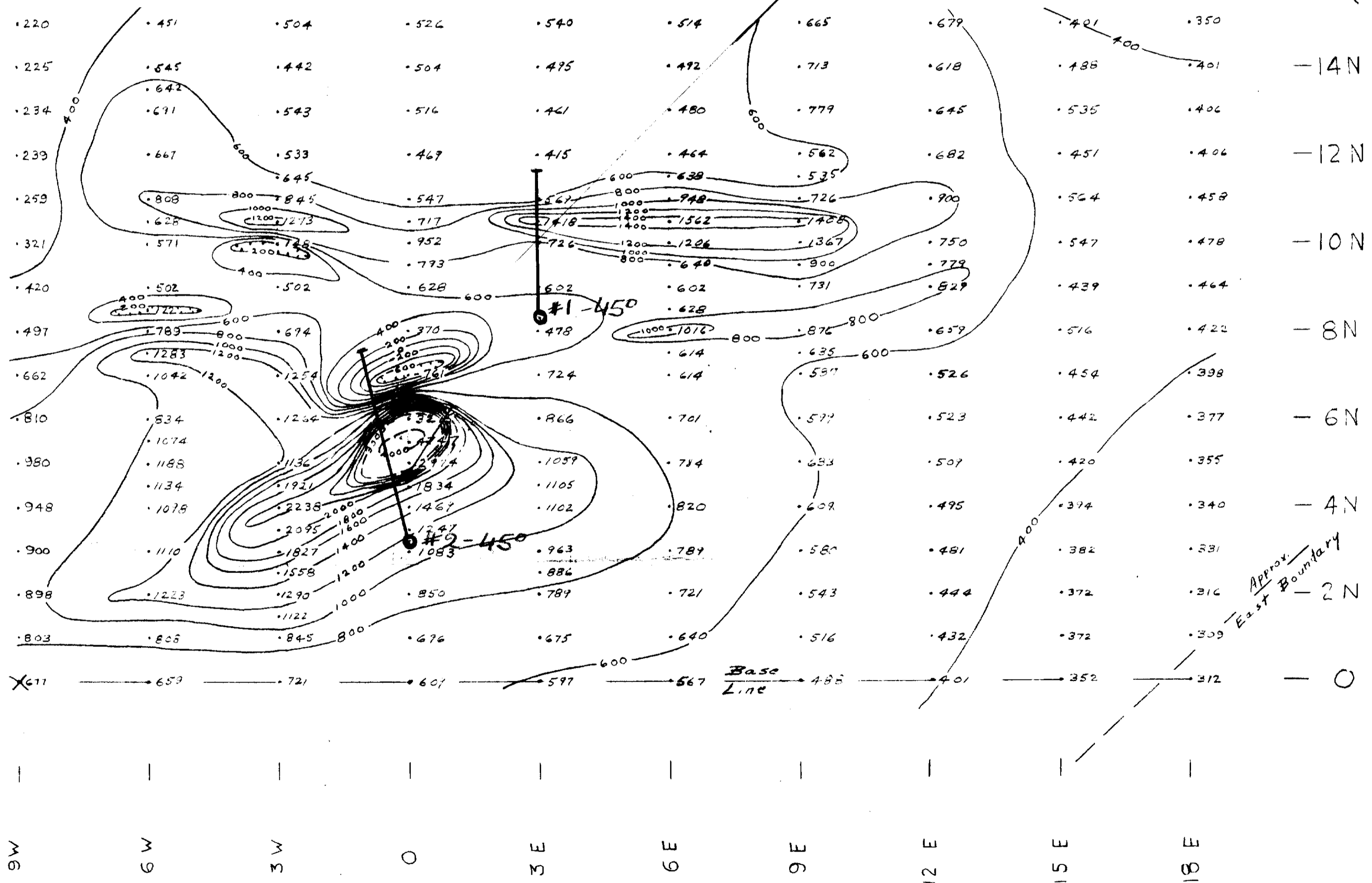
Askania Magnetometer Survey

1 inch = 200 feet

Contour Interval — 200 gammas
 - - - 1000 gammas

Date: Feb. 1967

John O'Neil



42A115W0527 63.2146 JESSOP



42A11SW0047 19 JESSOP

010

Diamond Drilling

Township of JESSOP

Report NO: 19

Work performed by: White Star Copper Mines

Claim NO	Hole NO	Footage	Date	Note
P 82937	1	405.0'	Mar/67	
P 92418	2	569.0'	Mar/67	

Notes:

Collar 520' South and 70' West
of Post #1, Claim 82937

DIAMOND DRILL RECORD

PROPERTY White Star Copper - Jessop Twp. (Former Murray Maher Claims) HOLE NO. 1

SHEET NUMBER _____ SECTION FROM _____ TO _____ STARTED March 10, 1967
 LATITUDE 840 N } Base Line Z DATUM _____ COMPLETED March 14, 1967
 DEPARTURE Line 34 } N 45° E BEARING Grid North or N45°W ULTIMATE DEPTH 405'
 ELEVATION _____ DIP Collar = 45°, 405' = 33° PROPOSED DEPTH 400'

DEPTH FEET	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 20'	Casing				
13 - 211.5	<u>Intermediate to Acid Volcanic:-</u> Light green colour, fine grained, locally brecciated, possible pillow structures with chlorite alteration around selvages. Possibly a chloritized rhyolite. Locally spherulites filled with chlorite and or pyrrhotite. Locally minor pyrite associated with carbonate filled fractures. Disseminated pyrrhotite in altered pillow selvages throughout and occasionally a spec of chalcopryite.				
	120 to 122: - up to 5% pyrite with minor chalcopryite disseminated in carbonate filled fractures.				

DRILLED BY _____ SIGNED E. W. Payne

DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 1

SHEET NUMBER 2 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$		
	138 - 139:- 5% pyrrhotite with minor chalcopyrite and pyrite in chloritized pillow selvedge.						
	Core Angle at 31 feet = 35° at 55 feet = 35° (Poor)						
211.5-233.5	Graphitic Tuff: - Banded Narrow bands of graphite alternating with fine grained acid volcanic material. Fairly heavy sulphides locally in the graphite. Mainly pyrrhotite. Core Angle varies from 35° to 62° but is predominantly 50°. Fairly abundant quartz carbonate veining with occasional blib of chalcopyrite.	1418	215.5 219	Au Co	Ag.		
	215.5 to 219:- 70% graphite, 5% pyrrhotite minor pyrite, minor chalcopyrite.						

DRILLED BY _____

SIGNED E. W. Payne

DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 1

SHEET NUMBER 3 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
	230.5 to 234.5 - Heavy graphite with 10% pyrrhotite and occasional blibs of chalcopyrite.			Au	Ag.
	70% quartz carbonate veining at varied core angles C.A = 50° predominantly	1419	230.5 234.5		
234.5 to 405	Intermediate to Acid Volcanic:- as from 13 to 211.5:- Locally some banding at 45° C.A. @ 248:- 9 inches of 15% pyrrhotite in narrow massive veinlets. @ 251:- 9 inches of 15% pyrrhotite in chloritized section at 35° C.A. Some ½ inch massive sulphide veinlets.				

DRILLED BY _____

SIGNED E. W. Payne

DIAMOND DRILL RECORD

PROPERTY _____

HOLE NO. 1

SHEET NUMBER 4

SECTION FROM _____ TO _____

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH _____

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$		
	@ 256:- 8 inches of 15% pyrrhotite						
	@ 279:- 1 inch of 80% pyrrhotite at 45°						
	@ 280:- 80% pyrrhotite at 45° C.A.						
	@ 294:- two ½ inch veinlets of 80% pyrrhotite at 45° C.A.						
	@ 297:- 1 inch of 30% pyrrhotite at 45° C.A.						
	@ 306:- 6 inches of 10% pyrrhotite						
	@ 308.5:- 1 inch of 10% pyrrhotite						
	@ 314:- ½ inch of 50% pyrrhotite						
	@ 324:- 1½ inches of 10% pyrrhotite at 45° C.A.						
	@ 329:- ½" of 10% pyrrhotite at 45° C.A.						
	@ 344.5:- ½" of 60% pyrrhotite						
	@ 345.5:- 1" of 10% pyrrhotite at 45°						
	@ 354:- 1" of 10% pyrrhotite at 45° C.A.						

DRILLED BY _____

SIGNED _____

E. W. Burnett

82924
N

82937

92418

Rh = 1.00

Rh = 0.52

Rh = 0.32

#2

Base Line for D

30E

33E

36E

39E

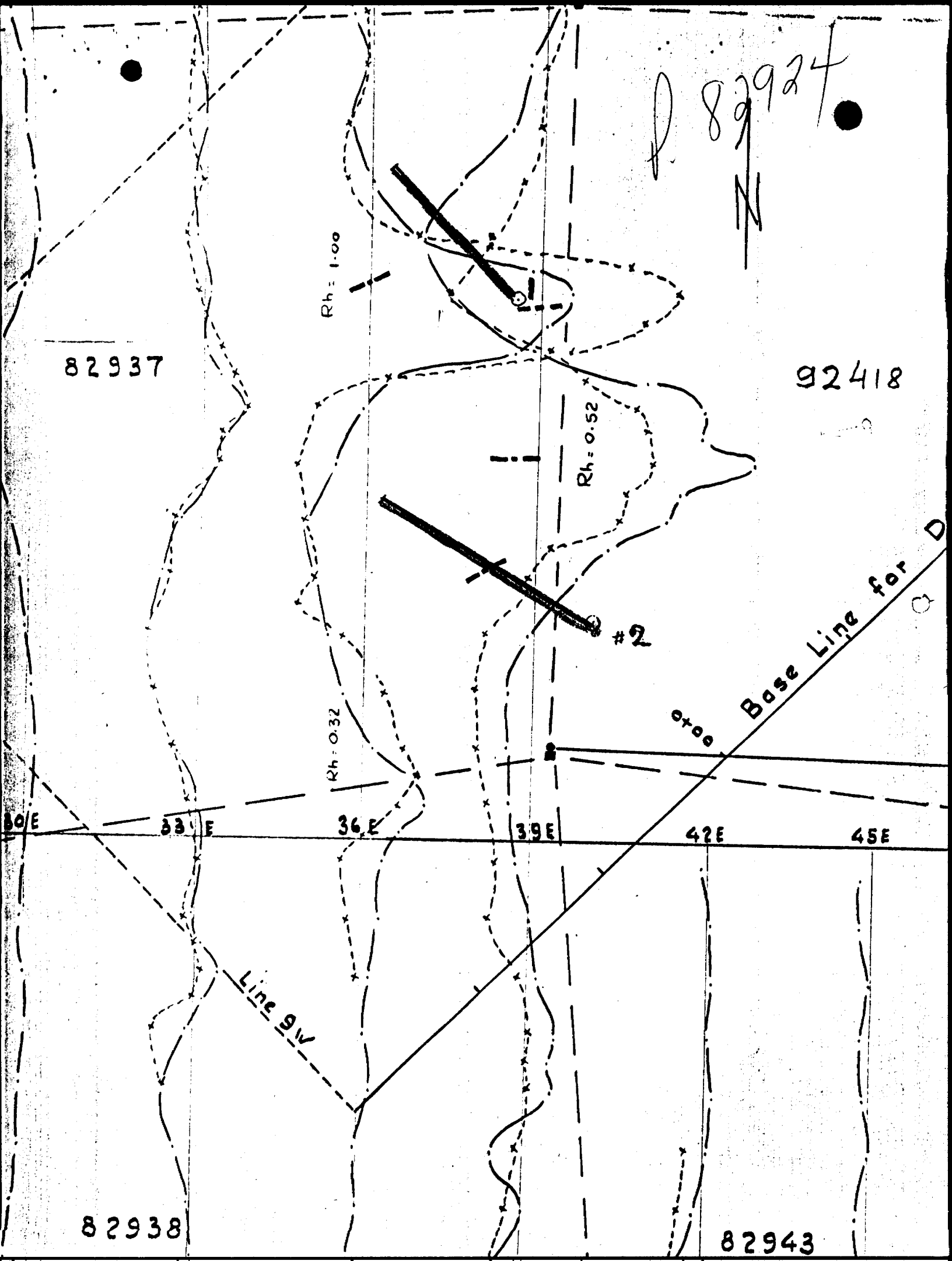
42E

45E

Line 9W

82938

82943



DIAMOND DRILL RECORD**PROPERTY** White Star Copper - Jessop Twp. (Former Murray Maher Claims)**HOLE NO.** 2SHEET NUMBER 1

SECTION FROM _____ TO _____

STARTED March 14, 1967LATITUDE 330 North) Baseline Z

DATUM _____

COMPLETED March 17, 1967DEPARTURE Line 2 } N 45° EBEARING N 60°W Astronomic or N15°WULTIMATE DEPTH 569 ft.

ELEVATION _____

DIP Collar = 45°, 500' = 29½°
(Grid North)PROPOSED DEPTH 500 ft.

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$		
0-142	Casing						
142 - 189	Banded Rhyolite Tuff:- C.A. from 40° to 50° but predominantly 45°. Light grey to cream coloured hard, silicified with abundant quartz veinlets. Fair pyrite throughout as massive bands and disseminations, minor pyrrhotite mainly as blibs and occasional bands. Sections of up to 1 foot with 60% sulphides, mainly pyrite, minor pyrrhotite.						
	142 to 146: - 4% banded and diss. pyrite.						
	Best Sections as follows:-			Au.	Ag.		
	146 to 155: - 40% pyrite as massive bands, minor fracturing silicified.	1421	146 to 155				
	155 to 161: - 50% quartz veining, 5% pyrite and pyrrhotite disseminated.						

DIAMOND DRILL RECORD

PROPERTY _____

HOLE NO. 2

SHEET NUMBER 4

SECTION FROM _____ TO _____

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH _____

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$		
	242 to 264: - 60% quartz calcite veining with up to 2% disseminated pyrrhotite and pyrite. C.A. = 25° predom.	1420	242 - to 252	Au.	Ag.		
	@ 302:- ½" massive pyrrhotite at 40°						
	@ 335.5:- 5" of 25% pyrrhotite as massive bands at 35° C.A.						
	@ 365.5:- .4" of 60% pyrrhotite as massive bands up to 1" at 45° C.A.						
	@ 368:- 3" of 75% pyrrhotite as massive bands up to ½ inches						
	@ 386:- 1" of 25% pyrrhotite as massive bands to ½" C.A. = 45°						
	@ 389:- 1" of 25% pyrrhotite as massive bands to ½" C.A. = 45°						

DRILLED BY _____

SIGNED E. W. Payne

DIAMOND DRILL RECORD

PROPERTY _____

HOLE NO. 2

SHEET NUMBER 5

SECTION FROM _____ TO _____

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH _____

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$		
389 - 450:-	Fair number of short cherty tuff bands. Becoming more acid approaching appearance of acid volcanics in hole number 1. Occasional 1/4 inch band of massive pyrrhotite. Some silicification from 445 to 450. Core Angle = 50°						
450 to 569	<u>Intermediate to acid Volcanic: Flow Top Breccia?</u> 450 - 470: - Fractures becoming graphitic.						
	470 - 569: - Several bands of fairly massive graphite up to 1 inch wide.						
	End at 569						

DRILLED BY _____

SIGNED _____

[Handwritten Signature]