

GENERAL REP No 15

437001

McPhar R.E.M. Equipment  
FIELD TESTS

58-201

**GEOPHYSICS**

McPhar R.E.M. Equipment  
- Field Tests

A.E.G. 18/12/58

437

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# LYELL - E.Z. - EXPLORATIONS

GENERAL

437002

18th February, 1958.

To: Mr. G.F. Hudspeth.

McPhar R.E.M. Equipment - Field Tests

Attached is the summary of the recent field tests on this equipment.

Operating personnel were:

P. MacPaul.

R. Both.

C. Dalgarno.

D. Sawoff.

K. Warne.

*B. Scott*

Geologist-in-Charge.

**MICROFILMED**

McPhar R.E.M. Equipment - Field Tests

1. Corridor Area - Mt. Lyell Mining & Railway Co. Ltd.

A. Type of Ore Zone

Low Grade (1% Cu.) chalcopyrite and pyrite, lenticular ore body, occupying the plane of schistosity in quartz-sericite schist. The schistosity strikes NW-SE and dips steeply SW, paralleling the North Lyell fault. The ore zone is very fractured and sericitised.

B. Type of Survey

In-line and broadside

C. Results

On each traverse the given line indicates the extent of a "Turam" anomaly located by the Bureau of Mineral Resources in the summer of 1955.

(a) Traverse A (In-line) P35.

At 45° to the sulphide zone, as defined by the "Turam" anomaly.

The instrument gives a defined high at the position of the "Turam" high, but with a low sensitivity.

(b) Traverse B (Broadside) P35.

At 90° to the sulphide zone, as defined by the "Turam" anomaly.

The instrument gives a defined low at the position of the "Turam" high.

(c) Traverse C (Broadside) P35.

No comment.

(d) Traverses F & G (In-line) P37.

At 45° to the sulphide-zone, at 90° to Traverse A, both

along the same line. In Traverse F the transmitter was leading, in Traverse G the receiver. The footages given on both sections correspond.

(e) Traverses H & I (In-line) P38

These two traverses were along the 2100' and 2150' contour lines, which intersect the strike of the sulphide-zone at approximately  $45^{\circ}$ .

(f) Traverses W & X. P43

Traverse W corresponds to Traverse A, transmitter leading.

Traverse X corresponds to Traverse W, receiver leading.

These two traverses were the last two run in these field tests, with a different amplifier, oscillator, batteries and lead from receiver to amplifier than in all previous tests.

2. Rosebery Mine - Electrolytic Zinc Co. of A'asia Ltd.

A. 20 North Rise

a. Type of Ore Rise

Pyrite low grade ore, average 7' width, dipping  $65^{\circ}$  east.

70' of backs beneath outcrops (measured vertically).

Host rock - sheared tuffaceous shale.

b. Type of Survey

In-line and broadside, in-line actually through a cut in the ore zone (i.e. ore on three sides of the instrument).

c. Results (P39)

The results are given on P39.

With the exception of Traverse J, the instrument has given no indication of the ore-zone.

B. 2/D21Na. Type of Ore Zone

High grade ore, average 5' width. 120' of backs beneath outcrop (measured vertically).

Host rock - sheared tuffaceous shale.

b. Type of Survey

In-line and broadside.

c. Results (P40)

The results are given on P40.

Traverses N & O give readings with an overhead power line on.

Traverses P & Q with the power line off; traverses N, O, P and Q are all along the same traverse line, heading south-westerly.

Traverse R is with power line on, heading north-westerly.

3. Pinnacles MineA. Type of Ore Zone

In central costean, 22' of sulphide averaging 3.7% lead, 8.0% zinc and 0.68% copper;

130' (measured vertically) below this costean the ore zone averages 24' of <0.1% lead, 3.6% zinc and 0.1% copper.

Host rock - massive pyroclastic series of Rosebery.

B. Type of Survey

Broadside; there was a complete absence of metal pipes, rails etc. in the survey area.

C. Results (P44, P41 and P42)

The position of the four broadside traverses are as marked on P44.

Traverses S & T demonstrate that the apparatus is functioning correctly, but with a low sensitivity.

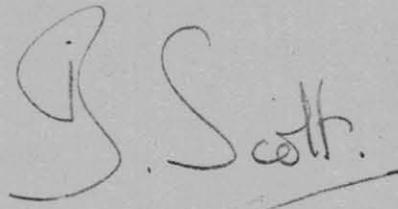
Traverse U gave no indication.

Traverse V gave no indication.

4. General Conclusions

Some of the field results are impossible to interpret, obviously due to the low sensitivity of the instrument. With readings a maximum of 5-6 degrees on the receiver, a small error in the horizontal level of the transmitter can completely nullify this response. Traverses over the Pinnacles Mine, and those at the Corridor, indicate that the instrument is working correctly, but with this low sensitivity of 5-6 degrees.

Additional information will have to be obtained from the manufacturers before the R.E.M. unit is given further trials.

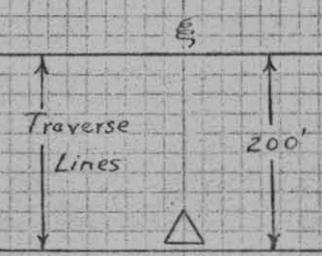
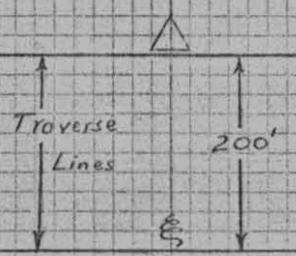
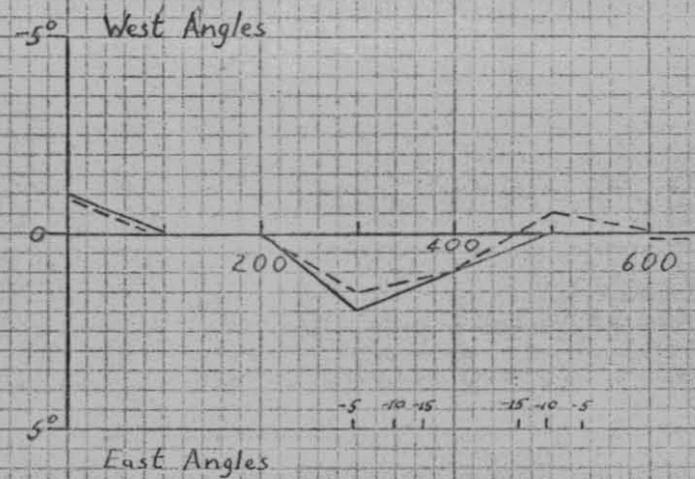
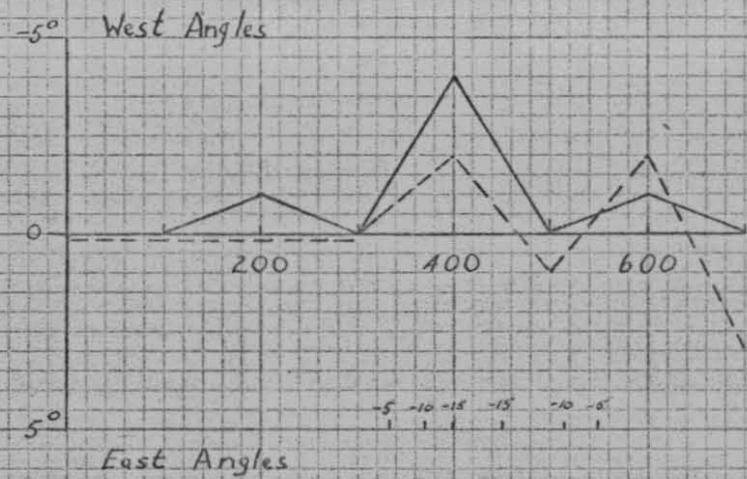
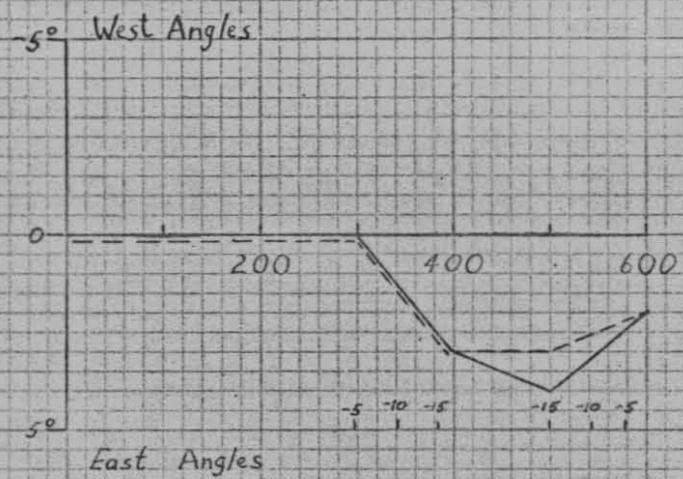


Geologist-in-Charge.

437007

# R.E.M. TRAVERSES — CORRIDOR ANOMALY

900

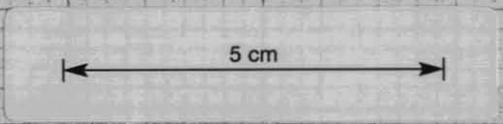


A

B

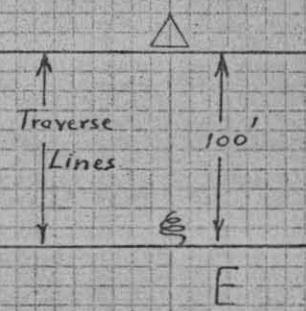
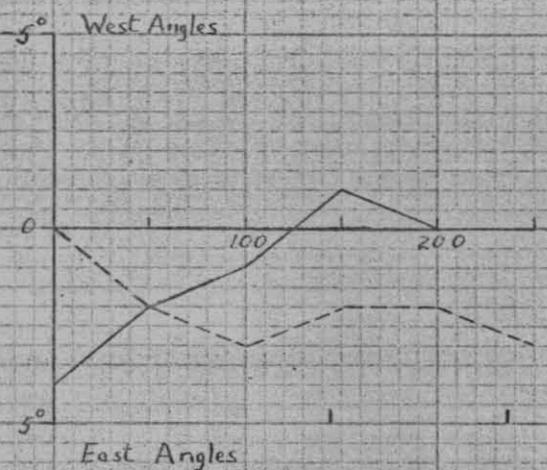
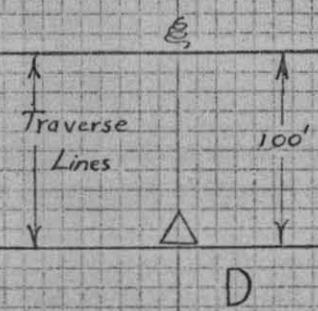
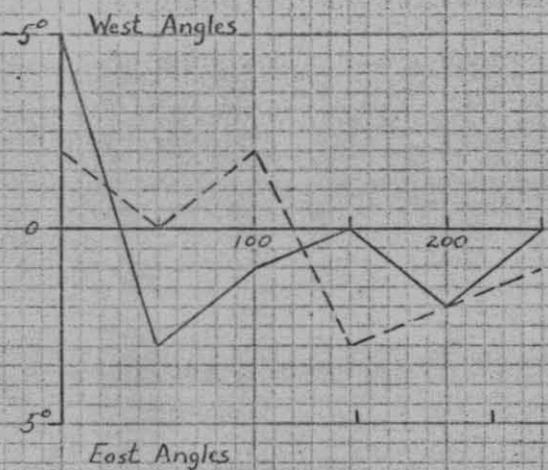
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- △ TRANSMITTER
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- 5,000 CPS

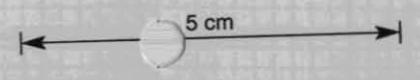


P 35

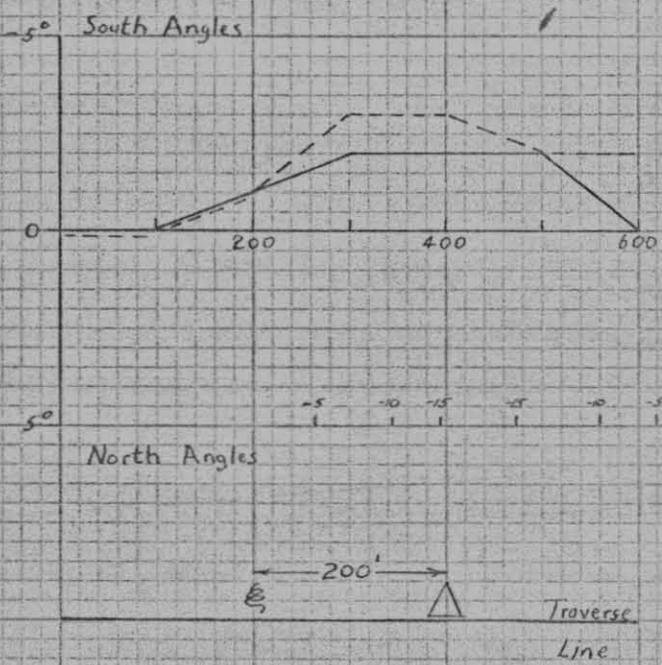
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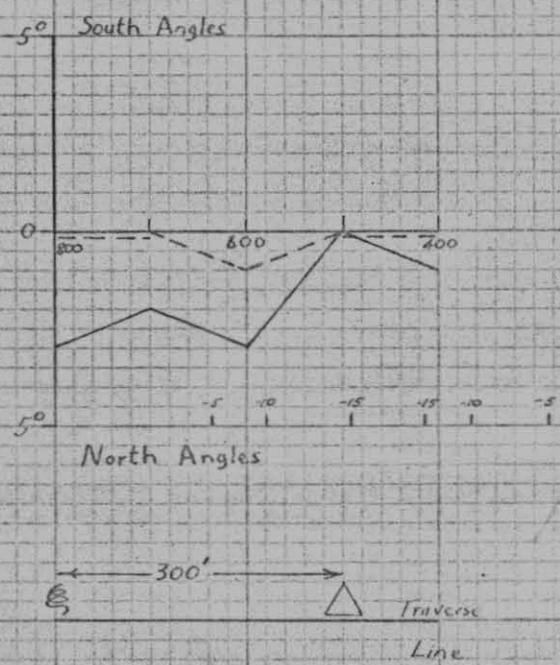
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R.E.M. TRAVERSES — CORRIDOR ANOMALY

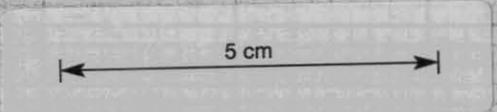


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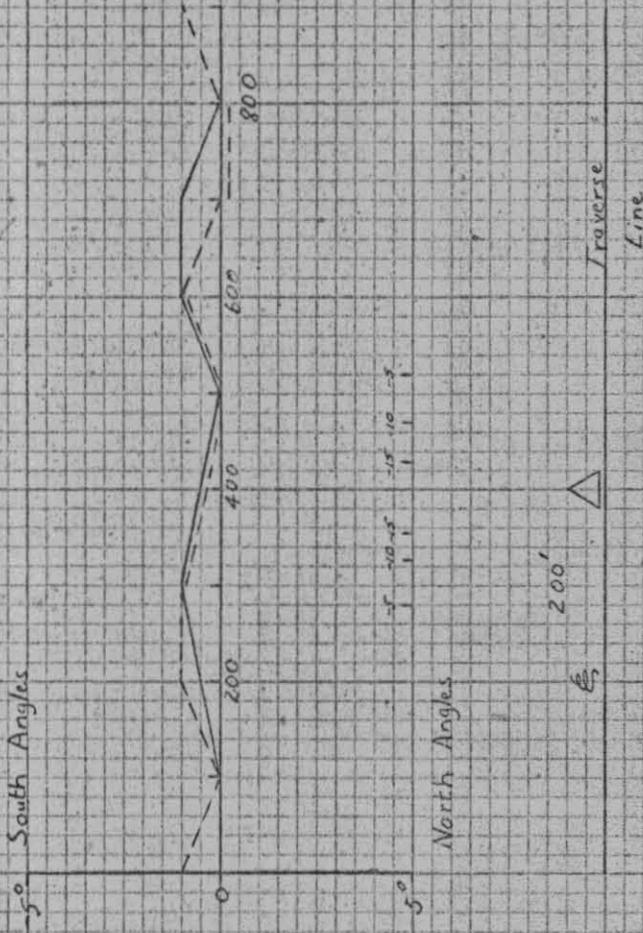


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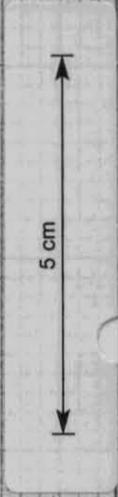
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- △ TRANSMITTER
- 1,000 CPS
- - - 5,000 CPS



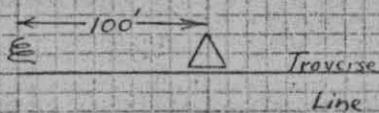
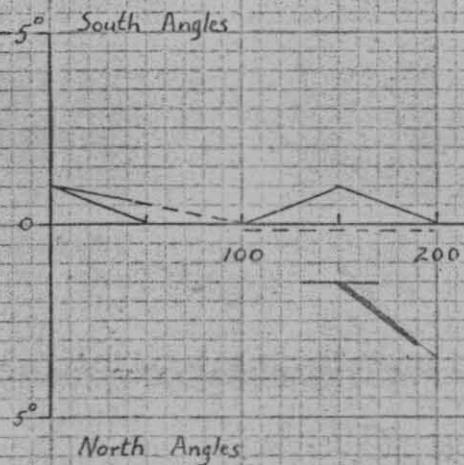
R.E.M. TRAVERSES — CORRIDOR ANOMALY



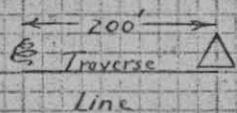
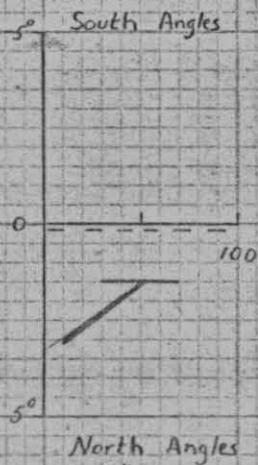
P. 38



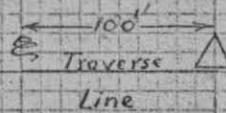
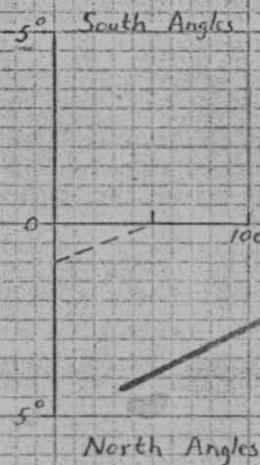
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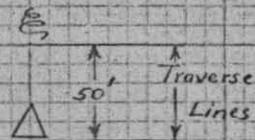
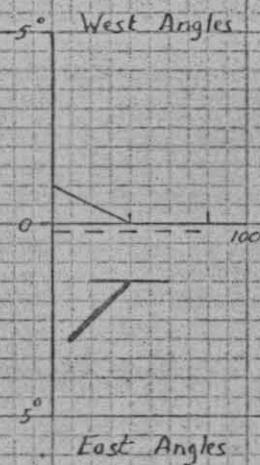
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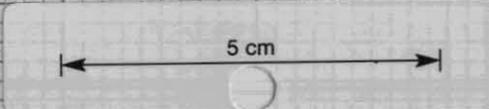


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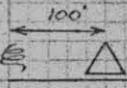
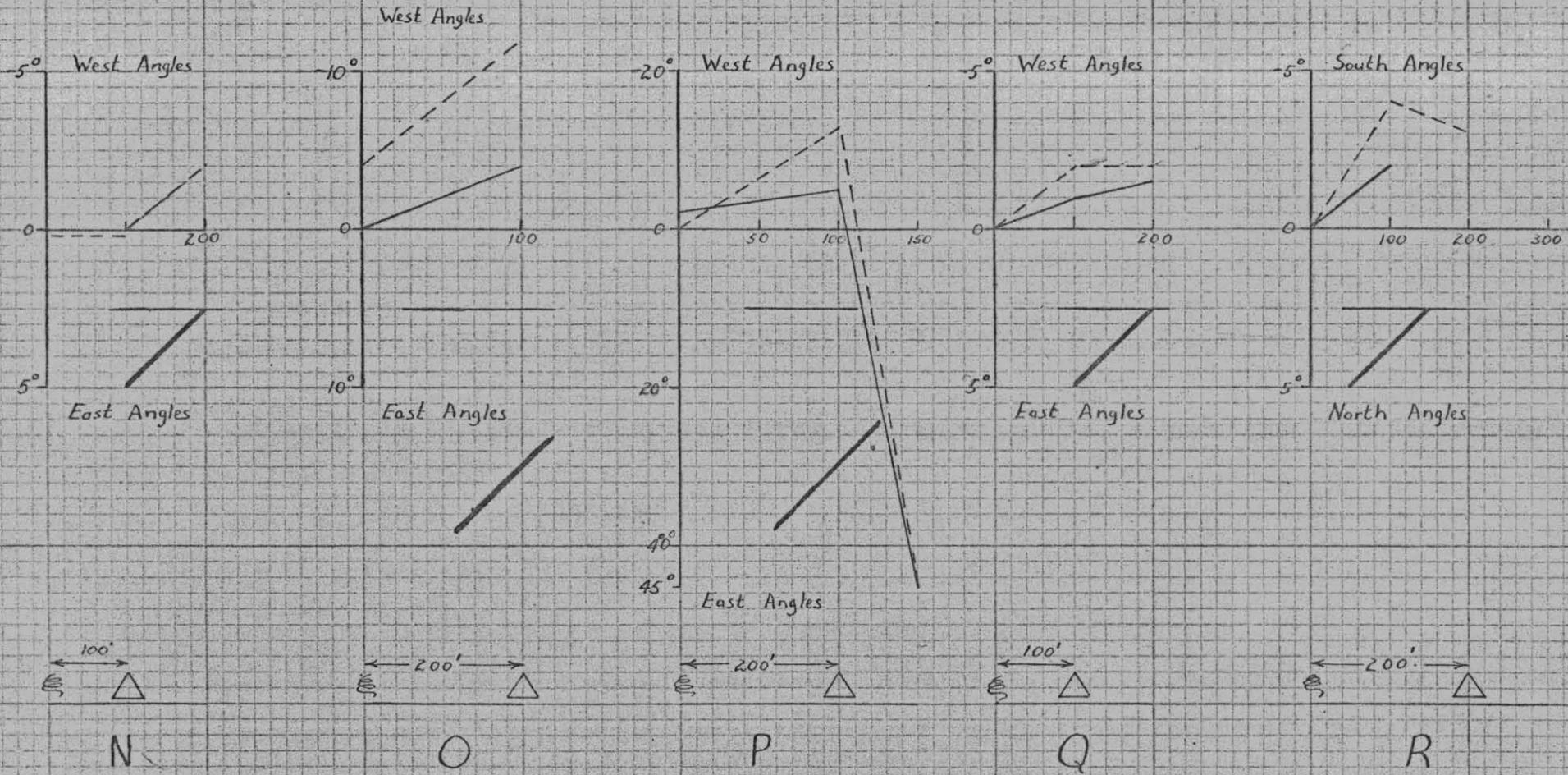
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- TRANSMITTER
- 1,000 CPS
- 5,000 CPS



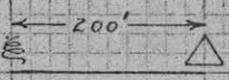
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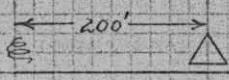
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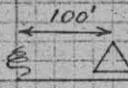
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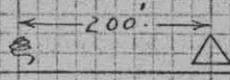
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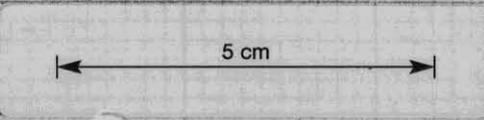


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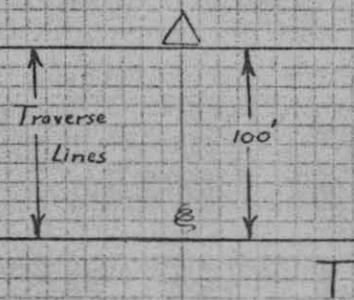
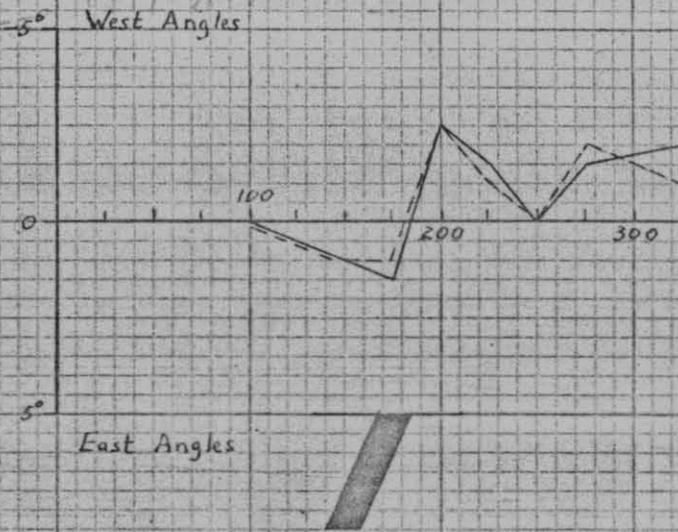
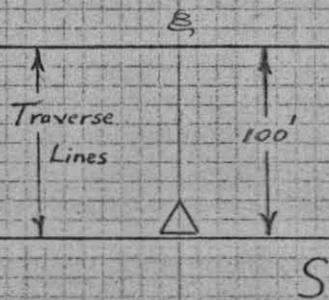
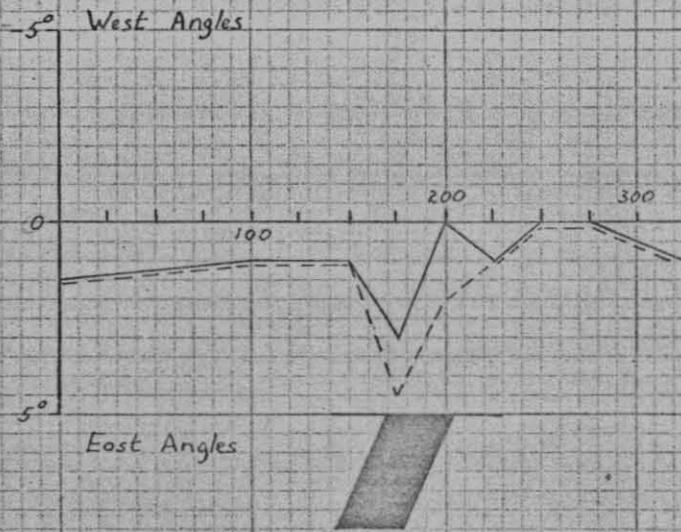
R

- RECEIVER
- TRANSMITTER
- 1,000 CPS
- 5,000 CPS



P. 40

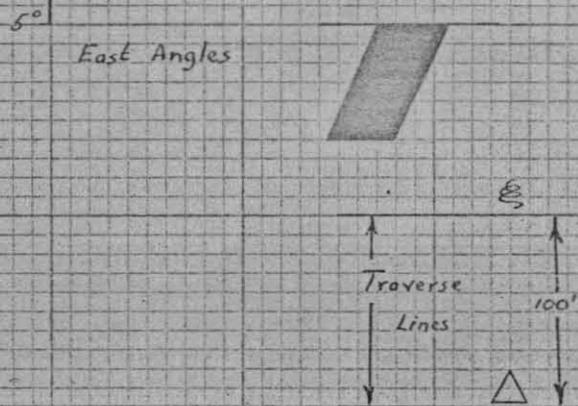
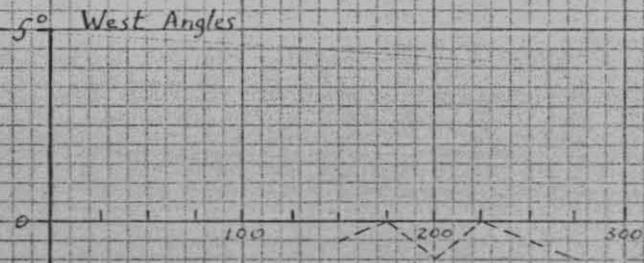
# R.E.M. TRAVERSES — PINNACLES



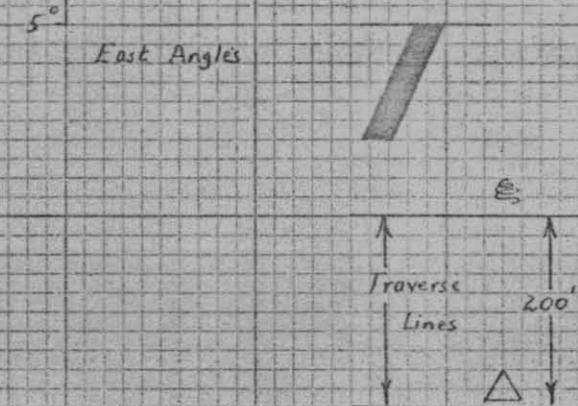
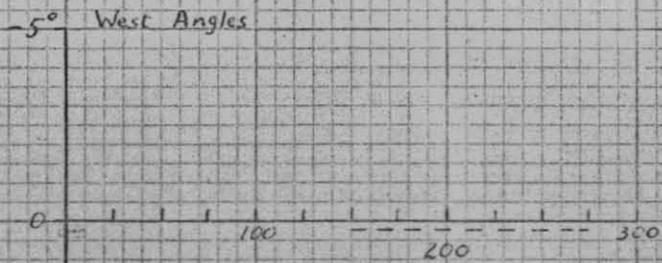
- $\text{E}$  RECEIVER
- $\triangle$  TRANSMITTER
- 1,000 cps
- - - 5,000 cps

5 cm

R.E.M. TRAVERSES — PINNACLES

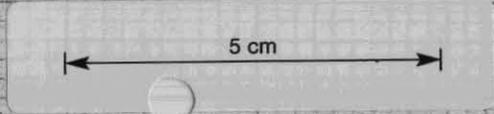


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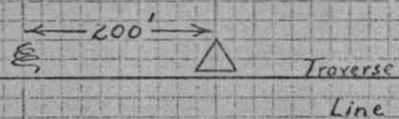
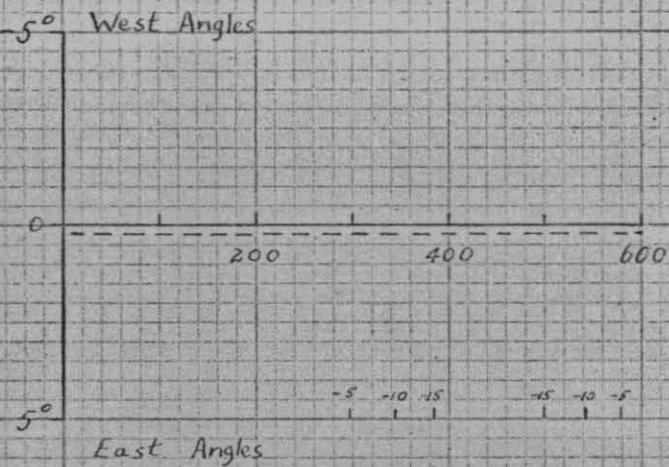
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- TRANSMITTER
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- - - 5,000 CPS

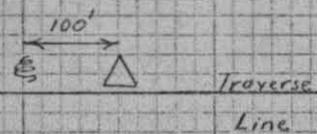
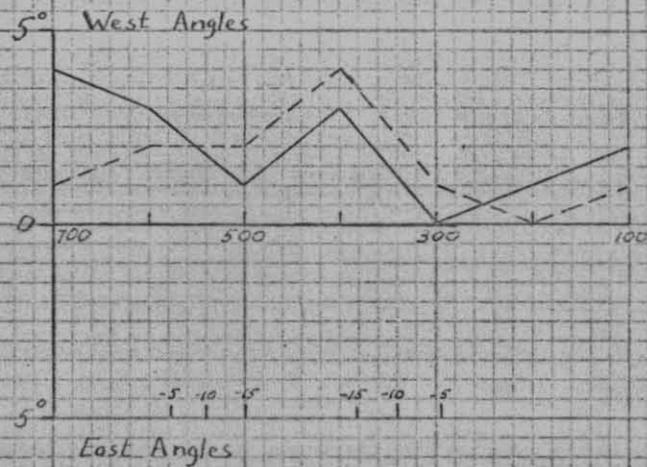


P. 42

# R.E.M. TRAVERSES - CORRIDOR ANOMALY



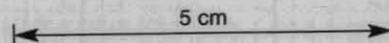
W



X

-  RECEIVER  
 TRANSMITTER  
 ——— 1,000 CPS  
 - - - 5,000 CPS

5 cm



PINNACLES Pb Zn PROSPECT

SCALE: 1" = 100'

