



# Bergvesenet

Postboks 3021, N-7441 Trondheim

## Rapportarkivet

|                                       |                                           |                                          |                                       |                                             |
|---------------------------------------|-------------------------------------------|------------------------------------------|---------------------------------------|---------------------------------------------|
| Bergvesenet rapport nr<br><b>5379</b> | Intern Journal nr<br><input type="text"/> | Internt arkiv nr<br><input type="text"/> | Rapport lokalisering                  | Gradering                                   |
| Kommer fra ..arkiv<br>Sulfidmalm      | Ekstern rapport nr<br>Sul 905-15          | Oversendt fra<br>Sulfidmalm a.s.         | Fortrolig pga<br><input type="text"/> | Fortrolig fra dato:<br><input type="text"/> |

Tittel  
**GROUND GEOPHYSICAL SURVEYS OVER THE ANDREASBERG AND MEGRUND AREAS**

|                          |                          |                                                                              |
|--------------------------|--------------------------|------------------------------------------------------------------------------|
| Forfatter<br>S.E. Sapper | Dato    År<br>20.08 1973 | Bedrift (oppdragsgiver og/eller oppdragstaker)<br>Falconbridge Nikkelverk AS |
|--------------------------|--------------------------|------------------------------------------------------------------------------|

|                                |                  |                            |                                   |                                    |
|--------------------------------|------------------|----------------------------|-----------------------------------|------------------------------------|
| Kommune<br>Sør-Fron<br>Gausdal | Fylke<br>Oppland | Bergdistrikt<br>Østlandske | 1: 50 000 kartblad<br>17174,17171 | 1: 250 000 kartblad<br>Lillehammer |
|--------------------------------|------------------|----------------------------|-----------------------------------|------------------------------------|

|                              |                   |                                                                                 |
|------------------------------|-------------------|---------------------------------------------------------------------------------|
| Fagområde<br>Geofysikk       | Dokument type     | Forekomster (forekomst, gruvefelt, undersøkelsesfelt)<br>Andreasberg<br>Megrund |
| Råstoffgruppe<br>Malm/metall | Råstofftype<br>Ni |                                                                                 |

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse

Til rapporten som bare består av geofysiske kart er det med et oversendelsesbrev med vurderinger og forslag til videre undersøkelser

**FALCONBRIDGE NICKEL MINES LIMITED**

INTER-OFFICE MEMORANDUM

DATE: August 20th, 1973

TO: J. B. Gammon

COPIES TO: A. M. Clarke, L. C. Kilburn

FROM: S. E. Sapper

SUBJECT: GROUND GEOPHYSICAL SURVEYS OVER THE  
ANDREASBERG AND MEGRUND AREAS, ESPEDALEN, NORWAY

The H.E.M. and Magnetic results from two areas, Andreasberg and Megrund, in the Espedalen Nickel Area, in Oppland, Norway, was studied and interpreted. The H.E.M. anomalies appear to be caused by small sized sulphide bodies. The recognition and interpretation of anomalies associated with such bodies are difficult unless two or more frequencies or coil separations are used in the field. However, the area is considered interesting. Eight zones are regarded as our main points of interest at present, eight profiles are selected to represent these anomalous zones (see attached Figures 1 through 8), and consequently eight drill targets are recommended. The selection and rating of the targets are based on H.E.M. and Magnetic results only. Direct correlation of magnetic and electromagnetic anomalies indicate the presence of magnetic sulphide such as pyrrhotite, and makes the best targets. Other poor conductive zones have been outlined in these surveys but are considered of minor importance at present. Drilling of the recommended zones may up-grade the importance of these zones and subsequent drilling may, therefore, be warranted.

.....  
S. E. Sapper

SES:ols

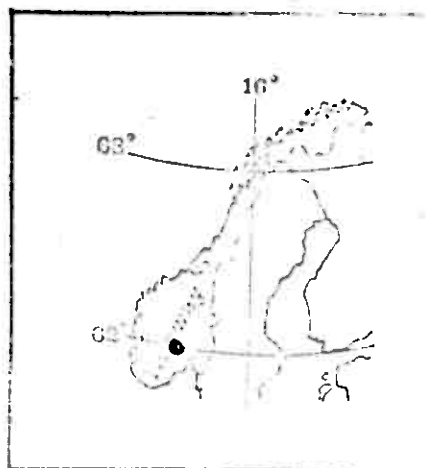
FOR FALCONBRIDGE NIKKELVERK A/S

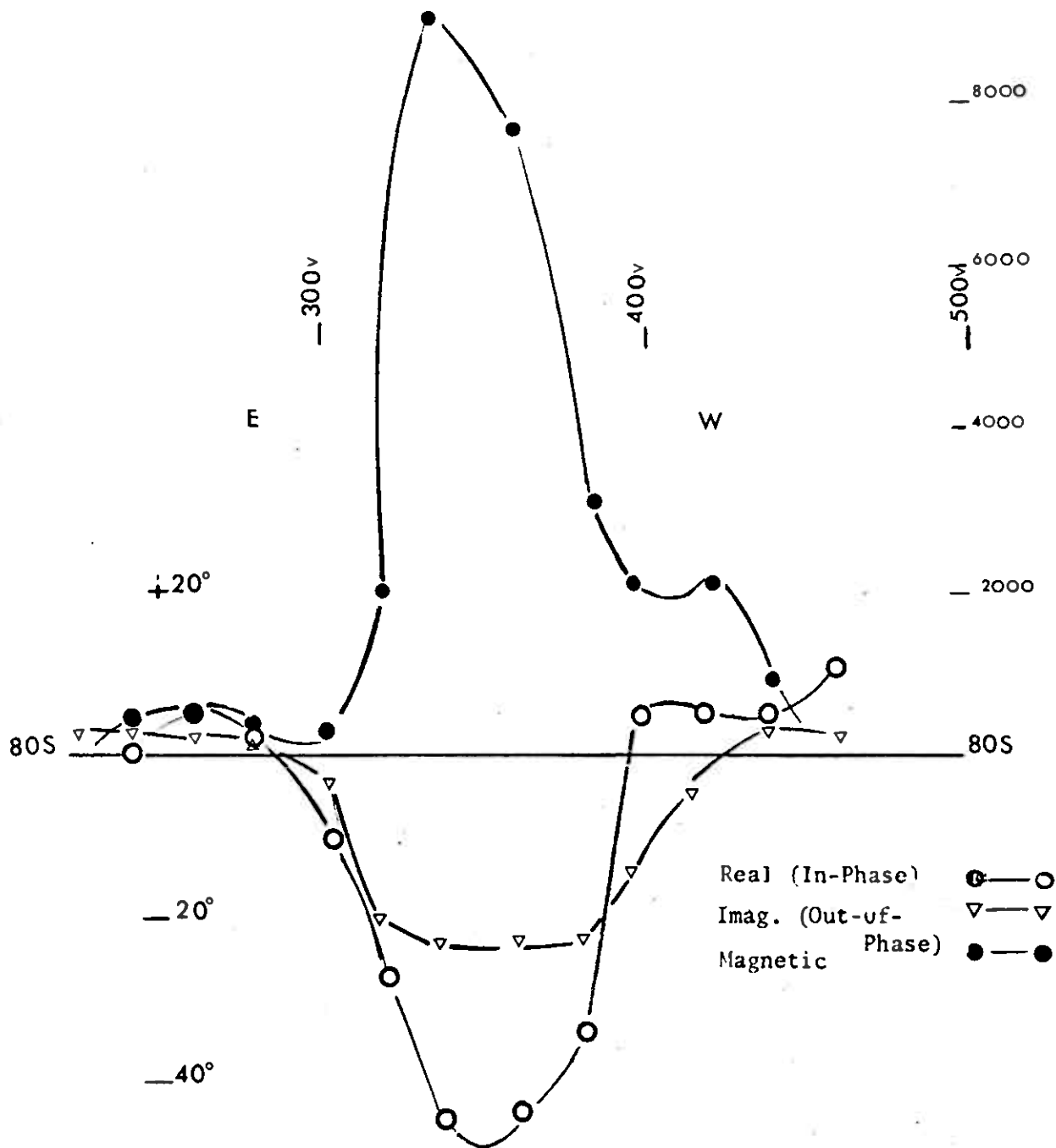
A/S SULFIDMALM

PROJECT 905-15

"GROUND GEOPHYSICAL SURVEYS OVER  
THE ANDREASBERG AND MEGRUND AREAS,  
ESPEDALEN".

NORSK HYDRO A/S

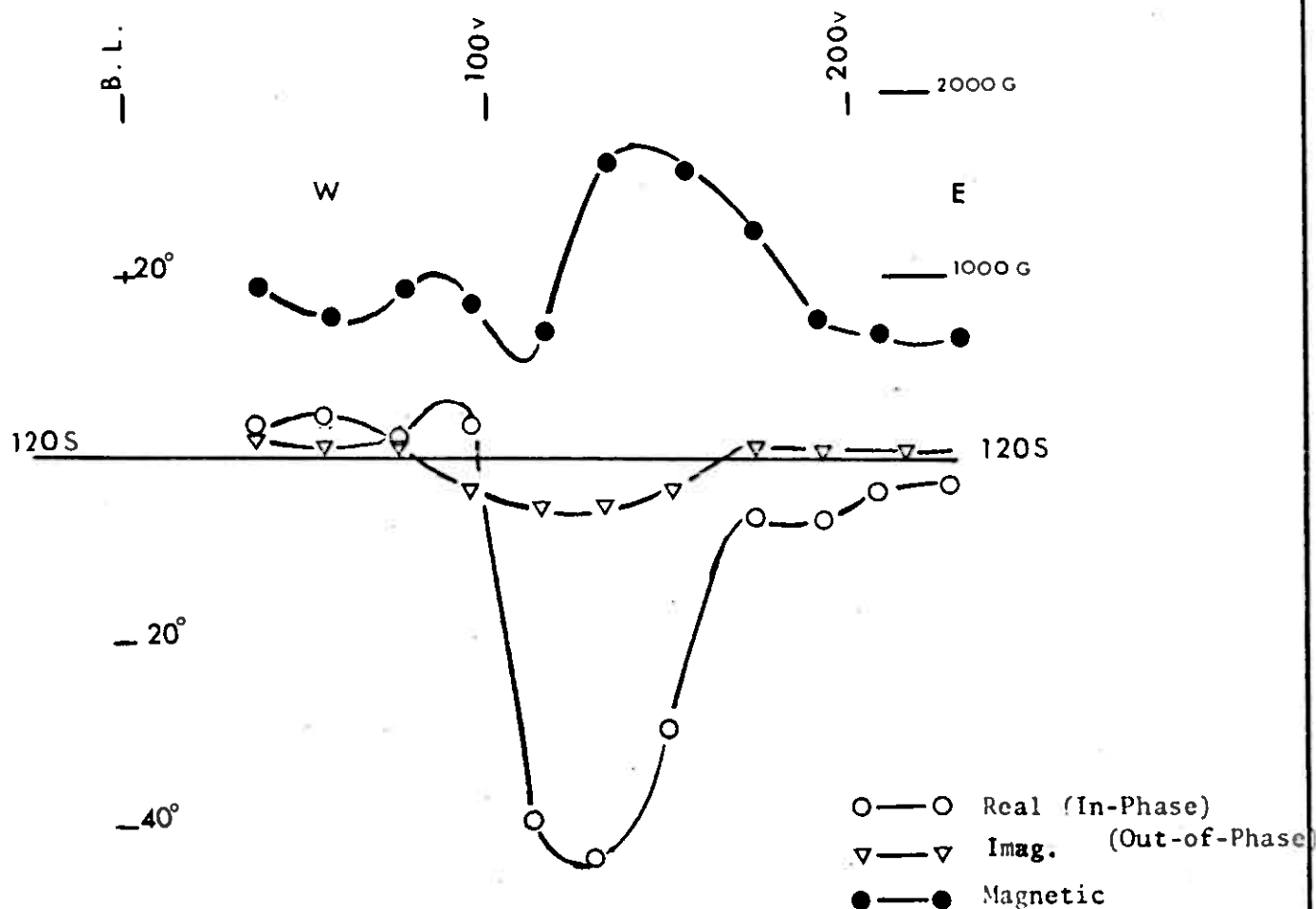




Dip -  $80^\circ \pm 5^\circ$  W  
 Depth - max. 14 metre or 40 ft.  
 Target - Sulphide-mineralization  
           mainly pyrrhotite  
 Rate - First priority  
 Remarks- Direct Magnetic Association  
           - first priority drill target  
 Frequency - 3520 cps.  
 Coil Spacing - 40 metres

Fig. 1

|                                                |                   |
|------------------------------------------------|-------------------|
| FALCONBRIDGE NICKEL MINES LTD.                 |                   |
| H.E.M. SURVEY<br>Megrund, Espedalen,<br>Norway |                   |
| SCALE 1" = 50 metres                           | DRAWN S.E. Sanner |
| DATE Aug. 17/73                                | DATA BY           |



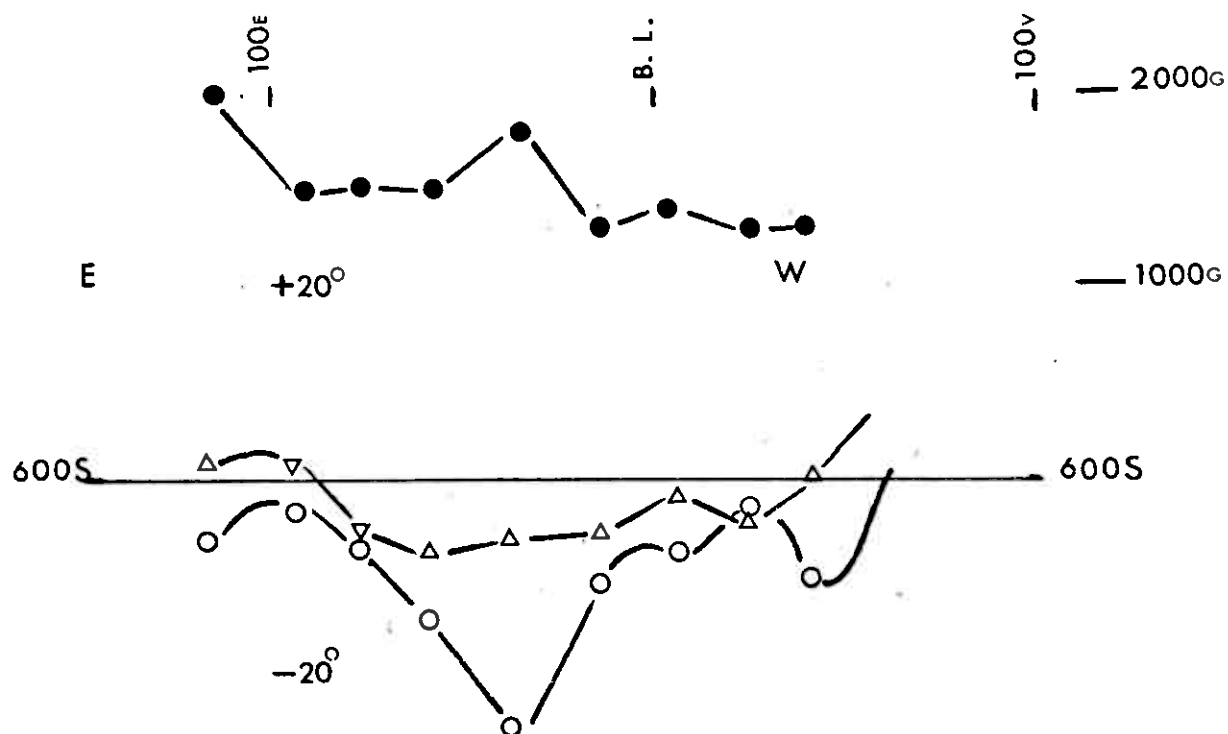
Dip -  $70^{\circ}W \pm 5\%$   
 Depth - max. 5 metres or 15 ft.  
 Target - Sulphide mineralization  
 Rate - First priority  
 Remarks - Direct Magnetic Association  
           - first priority drill target  
 Frequency - 3520 cps.  
 Coil Spacing - 40 metres.

Fig. 2.

FALCONBRIDGE NICKEL MINES LTD.

H.E.M. SURVEY  
 Megrund, Espedalen,  
 Norway

|       |                |         |              |
|-------|----------------|---------|--------------|
| SCALE | 1" = 50 metres | DRAWN   | S. E. Sapper |
| DATE  | Aug. 17/75     | DATA BY |              |



Dip - 80°E  $\pm$  5%

Depth - Max. 10 metres or 32 ft.

Target - Sulphide mineralization

Rate - Second Priority

Remarks - Little magnetic, - second priority drill target

Frequency - 3520 cps,

Coil Spacing - 40 metres

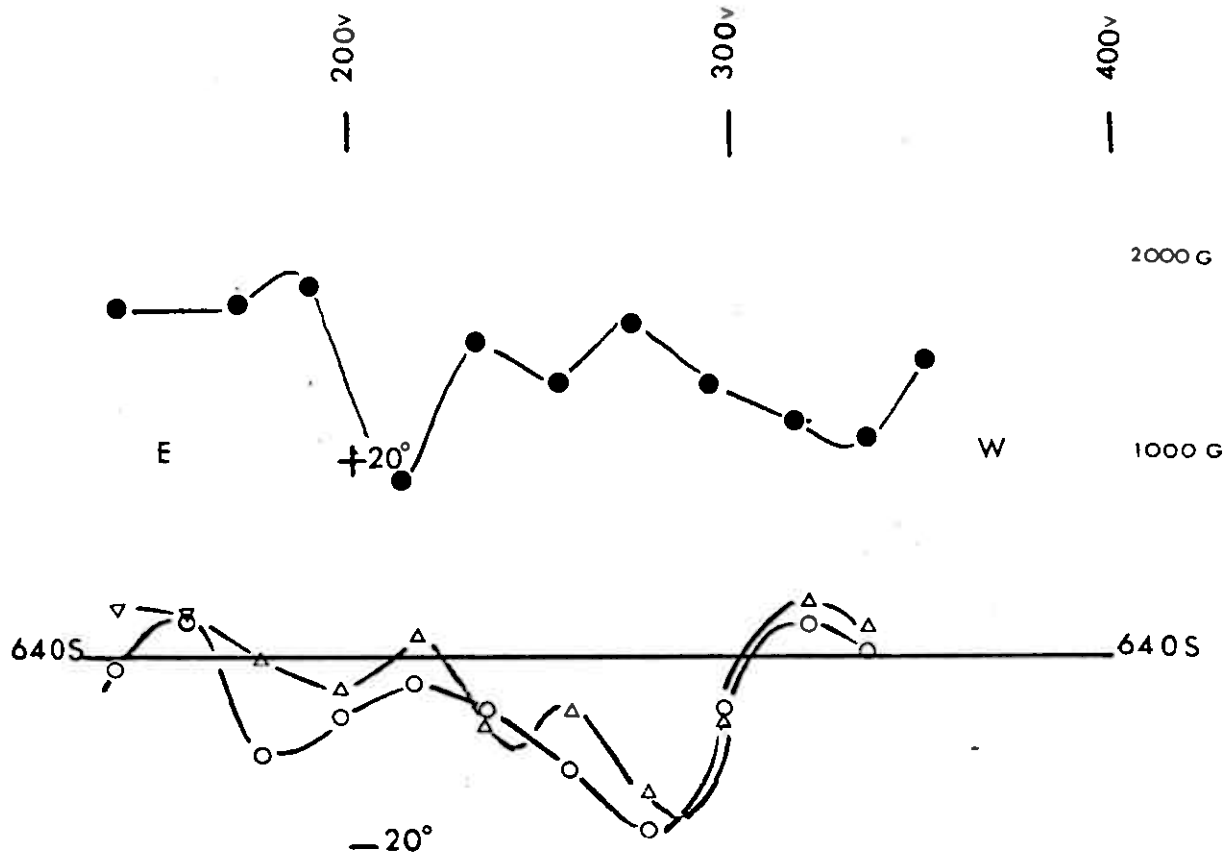
○—○ Real (In-Phase)

△—△ Imag. (Out-of-Phase)

●—● Magnetic

Fig. 3.

|                                |                    |
|--------------------------------|--------------------|
| FALCONBRIDGE NICKEL MINES LTD. |                    |
| H.E.M. SURVEY                  |                    |
| Megrund, Espedalen,<br>Norway  |                    |
| SCALE 1" = 50 metres           | DRAWN S. H. Sanner |
| DATE Aug. 17/73                | DATA BY            |



Dip -  $65^{\circ}\text{W} \pm 5\%$   
 Depth - Max. 8 metres or 26 ft.  
 Target - Sulphide mineralization,  
 little pyrrhottite and possibly  
 some graphite  
 Rate - Second priority  
 Remarks - Narrow parallel conductors,  
 little magnetic association,  
 - second priority drill target  
 Frequency - 3520 cps.  
 Coil Spacing - 40 metres

○—○ Real (In-Phase)  
 △—△ Imag. (Out-of-Phase)  
 ●—● Magnetic

Fig. 4.

FALCONBRIDGE NICKEL MINES LTD.

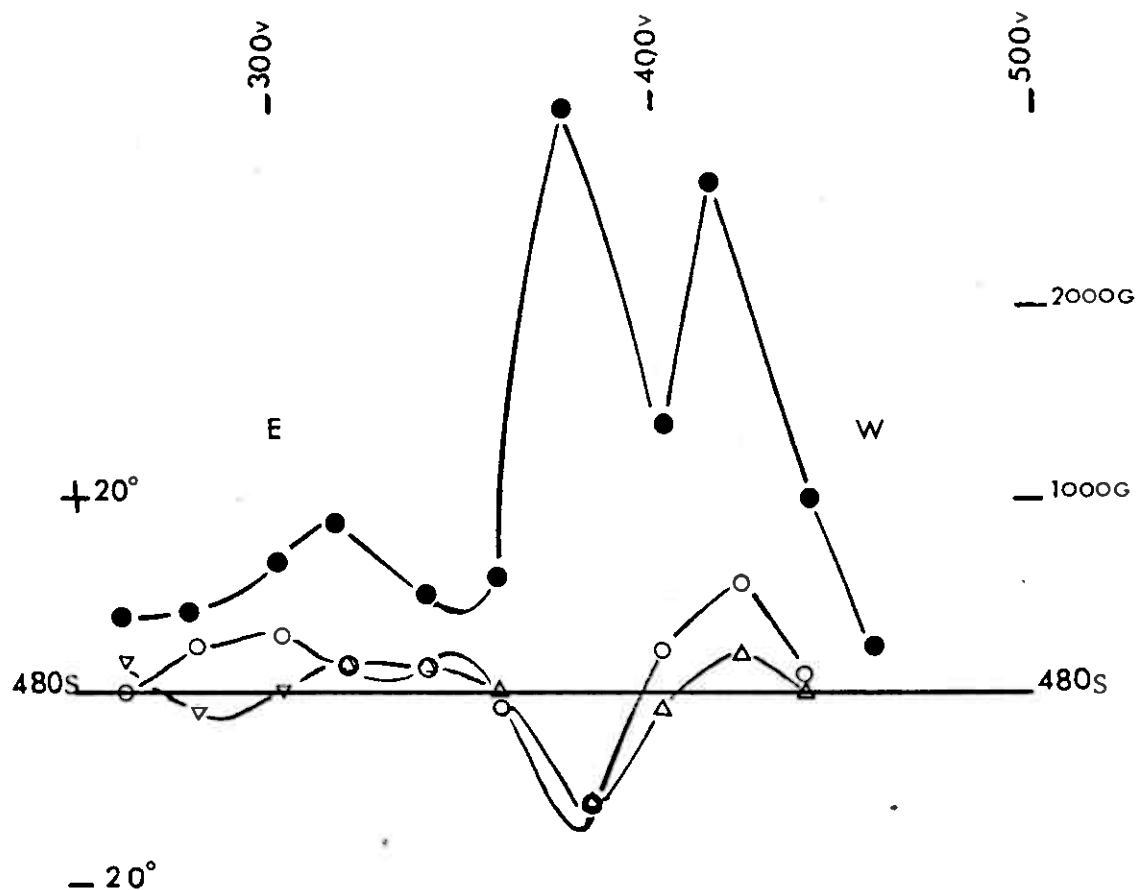
H.E.M. SURVEY  
 Megrund, Espedalen,  
 Norway

SCALE 1" = 50 metres

DRAWN S. E. Sapper

DATE Aug. 17/73

DATA BY



|              |   |                                                                                            |                          |
|--------------|---|--------------------------------------------------------------------------------------------|--------------------------|
| Dip          | - | 60° W $\pm$ 5%                                                                             | ○—○ Real (In-Phase)      |
| Depth        | - | Max. 9 metres or 30 feet                                                                   | ▽—▽ Imag. (Out-of-Phase) |
| Target       | - | Sulphide with pyrrhotite and possibly graphite                                             | ●—● Magnetic             |
| Rate         | - | Second priority target                                                                     |                          |
| Remarks      | - | Narrow zone, direct magnetic association, mainly pyrrhotite, second priority drill target. |                          |
| Frequency    | - | 3520 cps.                                                                                  |                          |
| Coil Spacing | - | 40 metres                                                                                  |                          |

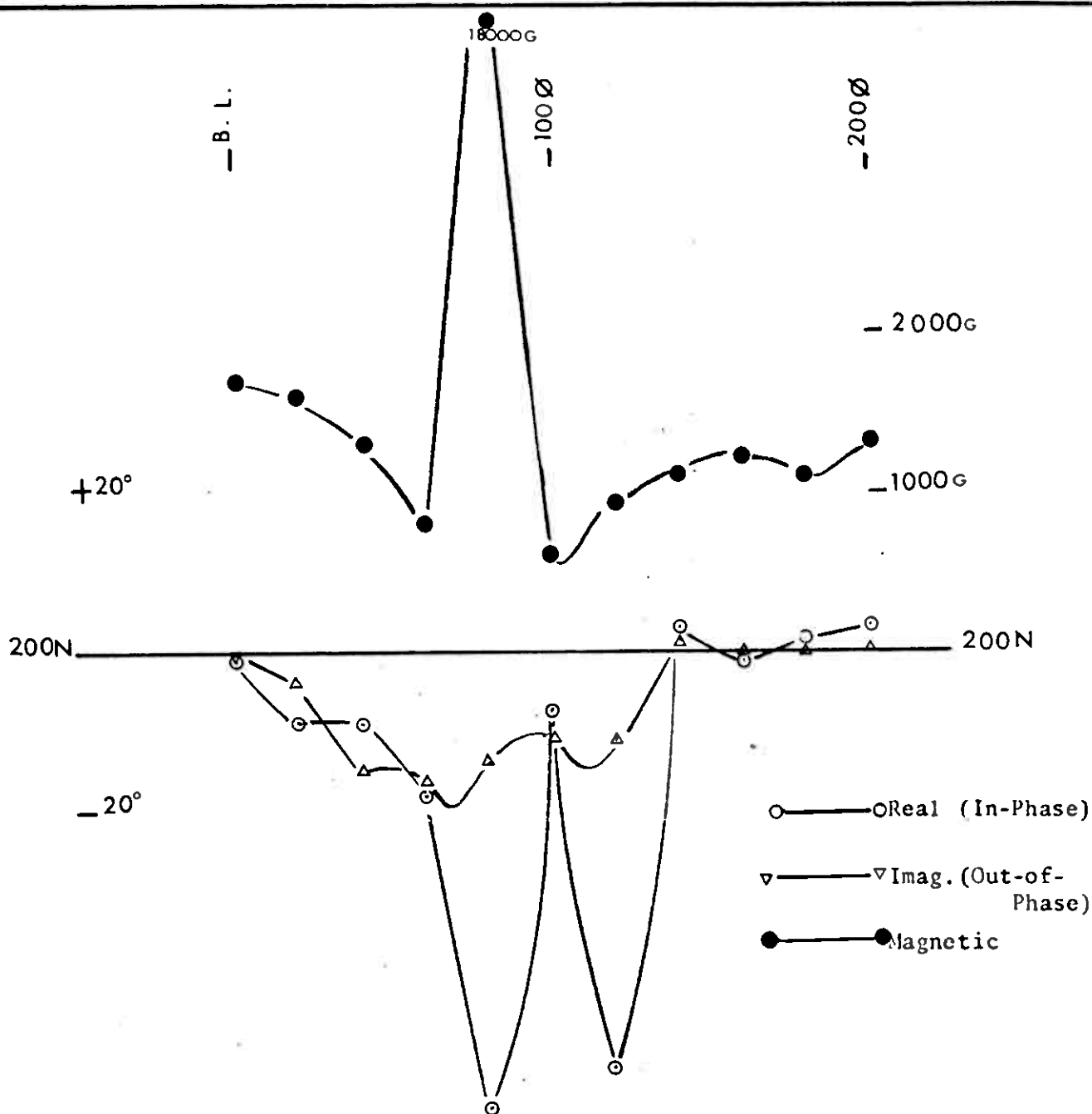
FIG. 5

FALCONBRIDGE NICKEL MINES LTD.

H.E.M. SURVEY  
Megrund, Espedalen,  
Norway

|       |                |         |              |
|-------|----------------|---------|--------------|
| SCALE | 1" = 50 metres | DRAWN   | S. H. Sanner |
| DATE  | Aug. 17/73     | DATA BY |              |





Dip ,                    = Near vertical, slightly to the west

Depth                   = Max. 4 metres or 12 feet

Target                   = Sulphide mineralization,  
                                 mainly pyrrhotite

Rate                     = First priority

Remarks               = Direct magnetic association,  
                                 first priority drill target

Frequency              = 3520 cps.

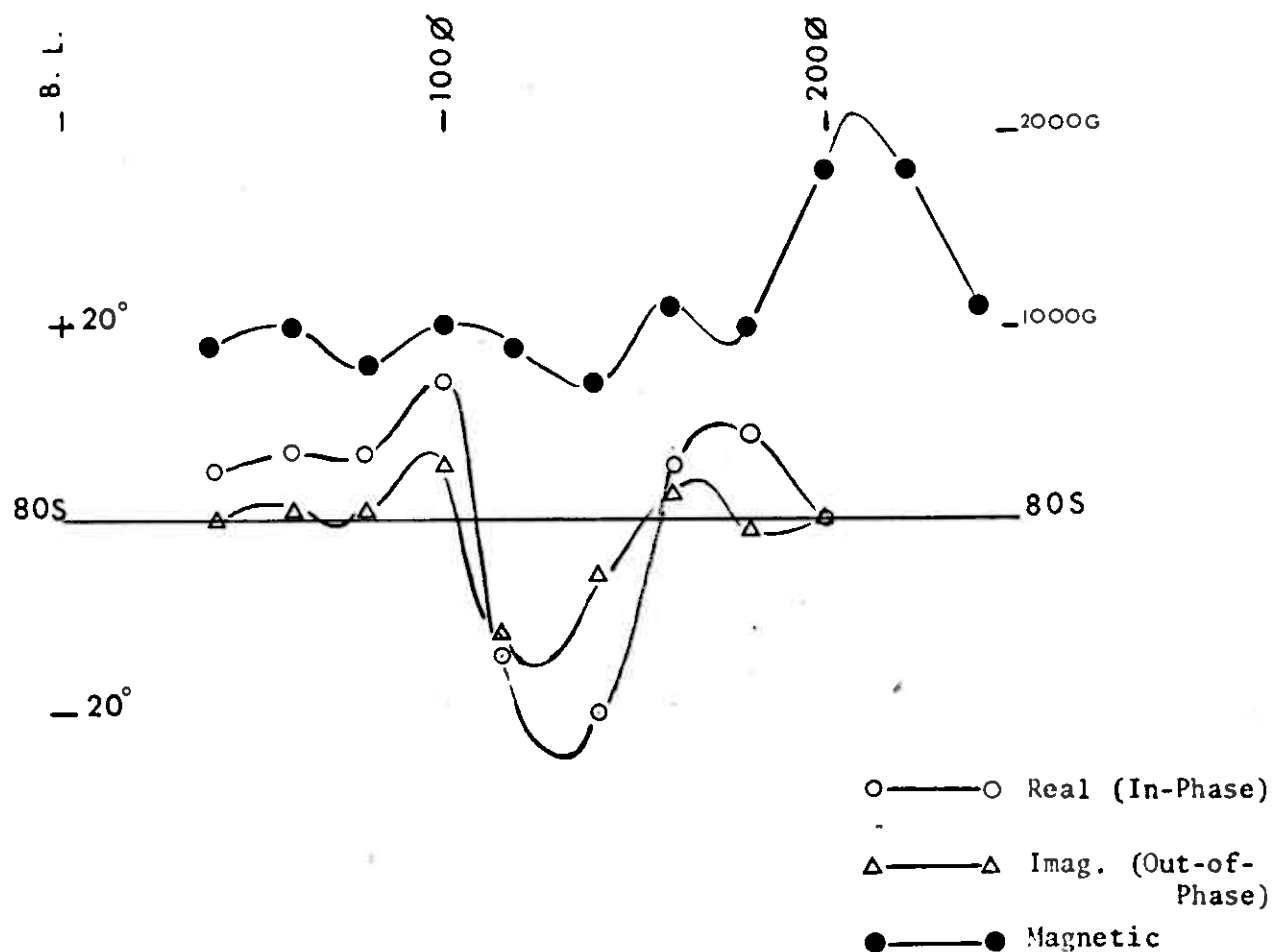
Coil spacing            = 40 metres

FIG. 6

FALCONBRIDGE NICKEL MINES LTD.

H.E.M. SURVEY  
Andreasbert, Espedalen,  
Norway

|                      |                    |
|----------------------|--------------------|
| SCALE 1" = 50 metres | DRAWN S. E. Sanner |
| DATE Aug. 17/73      | DATA BY            |



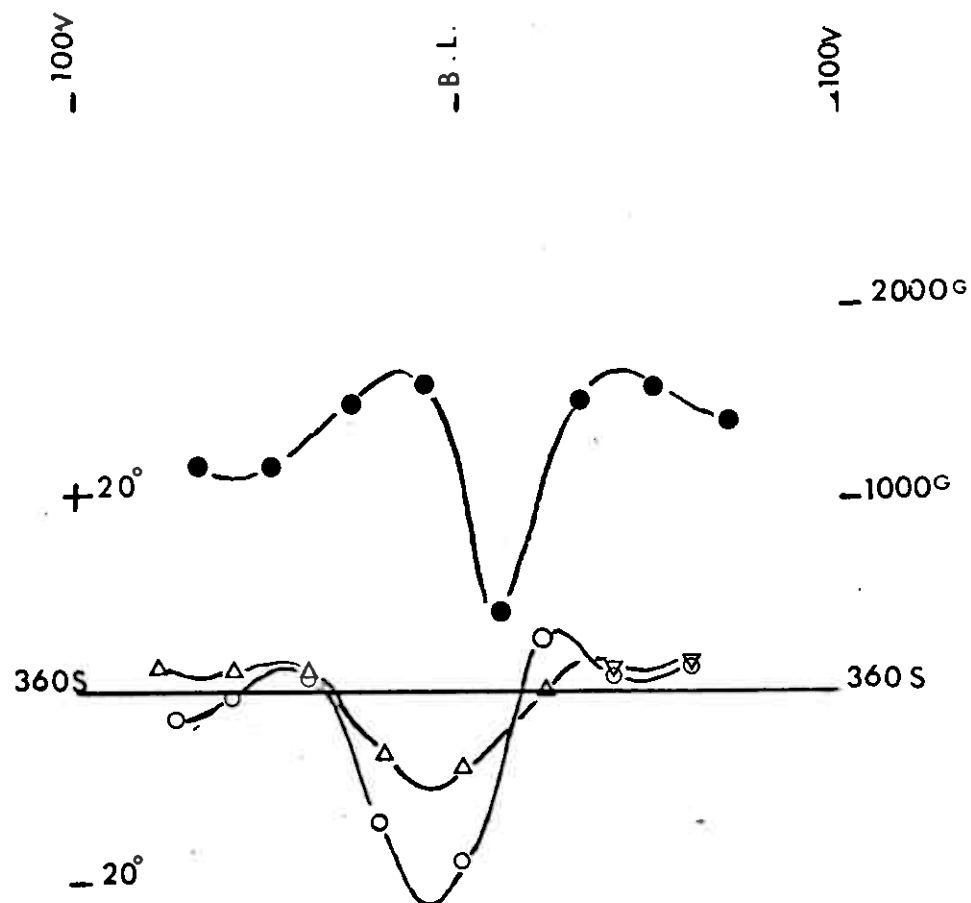
Dip - approx. 70°W (+ 5%)  
 Depth - max. 8 metres or 24 feet  
 Target - Possible graphite in a shear zone  
 Rate - Third priority  
 Remarks - Low mag., low priority drill target  
 Frequency - 3520 cps.  
 Coil Spacing - 40 metres

Fig. 7

FALCONBRIDGE NICKEL MINES LTD.

H.E.M. SURVEY  
 Andreasberg, Espedalen  
 Norway

|                      |                    |
|----------------------|--------------------|
| SCALE 1" = 50 metres | DRAWN S. E. Sanper |
| DATE Aug. 17/73      | DATA BY            |



○—○ Real (In-Phase)  
 △—△ Imag. (Out-of-Phase)  
 ●—● Magnetic

Dip - 800W  $\pm$  5%  
 Depth - Max. 12 metres or 36 feet  
 Target - Fault with little sulphides  
 Rate - Third priority  
 Remarks - Good conductivity, low magnetic association,  
 possible fault - third priority target  
 Frequency - 3520 cps.  
 Coil spacing - 40 metres

FIG. 8

| FALCONBRIDGE NICKEL MINES LTD. |                |                    |
|--------------------------------|----------------|--------------------|
| H.E.M. AND MAGNETIC SURVEYS    |                |                    |
| Megrund, Espedalen,<br>Norway  |                |                    |
| SCALE                          | 1" = 50 metres | DRAWN S. E. Sapper |
| DATE                           | Aug. 17/73     | DATA BY            |