



# Bergvesenet

Postboks 3021, N-7441 Trondheim

## Rapportarkivet

Bergvesenet rapport nr <b>7340</b>	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra F.M. Vokes	Fortrolig pga	Fortrolig fra dato:

Tittel  
Gressli, Våraviken

Forfatter  
Berchermann, Gudrun

Dato    År

Bedrift (Oppdragsgiver og/eller oppdragstaker)

Kommune  
Tydal

Fylke  
Sør-Trøndelag

Bergdistrikt

1: 50 000 kartblad  
17213

1: 250 000 kartblad  
Trondheim

Fagområde  
Geologi

Dokument type

Forekomster (forekomst, gruvefelt, undersøkelsesfelt)

Gressli Grube  
Våraviken

Råstoffgruppe  
Malm/metall

Råstofftype  
Cu, Zn

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse

På engelsk. Er Summary fra en rapport som ikke kjennes.

Summeringen viser at Våraviken ligger i biotittgneis, mens Gressli ligger i basiske vulkanitter.

Variasjonen i malmtyper blir beskrevet.

Det blir pekt på at disse to forekomstene er spesielle i forhold til andre typiske norske sulfider og det antydes et større innslag av "continental margin crust".

## Gressli, Varaviken

## 1. SUMMARY

The report deals with the zinc-copper-mineralization at Gressli and the zinc-copper-lead-mineralization at Varaviken, South Trondelag, Norway.

The Varaviken sulfides lie in biotite-gneisses (probably metamorphosed pelites) with a gabbroic intrusive to the west. / bb  
In close vicinity to the north-west there occur heavily pyritized graphite-schists alternating with the biotite-gneisses.

The Gressli deposit occurs in basic volcanics (predominantly hornblendites) and intermediate pyroclastics of quartz-andesitic to rhyolitic composition.

The main ore types are of massive sulfidic character, the predominant types occurring at Gressli and Varaviken being pyrite ores. Pyrite occurs as porphyroblasts in a matrix ore comprising sphalerite, chalcopyrite, pyrrhotite and minor mounts of galena in the Varaviken deposit.

A second type at Varaviken is a pyrrhotite ore with pyrrhotite, sphalerite, chalcopyrite, galena, marcasite (supergene) and secondary pyrite. Close affinities exist between pyrite- (sphalerite)- galena and sphalerite-chalcopyrite.

Primary structures indicating the origin and deposition of the ore are obliterated by metamorphism. At least three tectonic events and two stages of metamorphism have affected the sulfide enrichment at Gressli and Varaviken.

The metamorphic grade ranges from the lower amphibolite facies in the east of the Tydal region, where calc-silicate gneisses occur, to the upper green-schist facies in the west.

Pseudo-breccias in the pyrrhotite ore show perfectly the strong milling (Durchbewegung) associated with shearing.

A relationship between the pyrrhotite- and pyrite ore have not been found and it is considered that both were present before the folding and metamorphism, although the pyrite content in the pyrrhotite ore is concluded to be partly secondary.

\* Peculiarities in composition compared with the typical Norwegian massive sulfides, with regard to textures and mineralogical composition as described in the report e.g. notably higher Zn, Pb, (As), are probably the result of a greater involvement of continental margin crust, possibly combined with relatively strong post-depositional metasomatism.

Gudrun Berthelsen

1984.

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