



REPORT ON WORK CARRIED OUT ON EXPLORATION PERMITS

SVENNINGDAL 1 - 3

(GRANE MUNICIPALITY)

EXPIRATION 2020

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Erris Resources

Authored by: E. Blackwell P.Geo and A. Lavelle P.Geo, EurGeol

ERRIS
RESOURCES

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1 INTRODUCTION

This report summarises the work conducted over a period of one year by Erris Resources (“Erris” or “the Company”) on the exploration permits Svenningdal 1, Svenningdal 2 and Svenningdal 3 in the Grane municipality. The aim was to assess the ground for precious and base metal mineralisation in metasediments around the historic Svenningdal underground mine. The Svenningdal mine lies within the exploration permit Svenningdal 1. The description of the Svenningdal occurrence in the ore database is as follows:

“The Svenningdal deposit was mined for silver in the period 1877-1899, and c. 16 500 kg Ag and 37 kg Au was produced. The deposit consists of a number of E-W striking quartz veins with locally some barite and calcite. The veins, which are mainly only 0.1-0.25 m wide (max. 1 m), crosscut a sequence of metasediments (including calcareous mica schist and marble) and granite (the Reinsfjell granite which intrude the metasediments). Sulphide minerals occur unevenly distributed in the veins. The most common ore minerals are pyrite, arsenopyrite, sphalerite, galena, chalcopyrite, fahlore and the sulphosalt meneghinite. In-situ ore contains 7-15 % Pb, 10-15 % Zn and 0.5 % Ag. The largest concentrations of ore was found where veins crossed each other and where the veins intersected marble layers. The richest mineralization was found near the surface, and wedged out downwards until a depth of 100 m where it disappeared.

After consideration of the reported grades, along with nearby prospects, Erris felt the area warranted permitting. Erris Resources was granted the exploration permits on the 29th of April 2019; however, the Company has decided not to maintain the exploration permits, and instead surrender them.

Work completed during 2019 consisted of a desk review of reports available online.

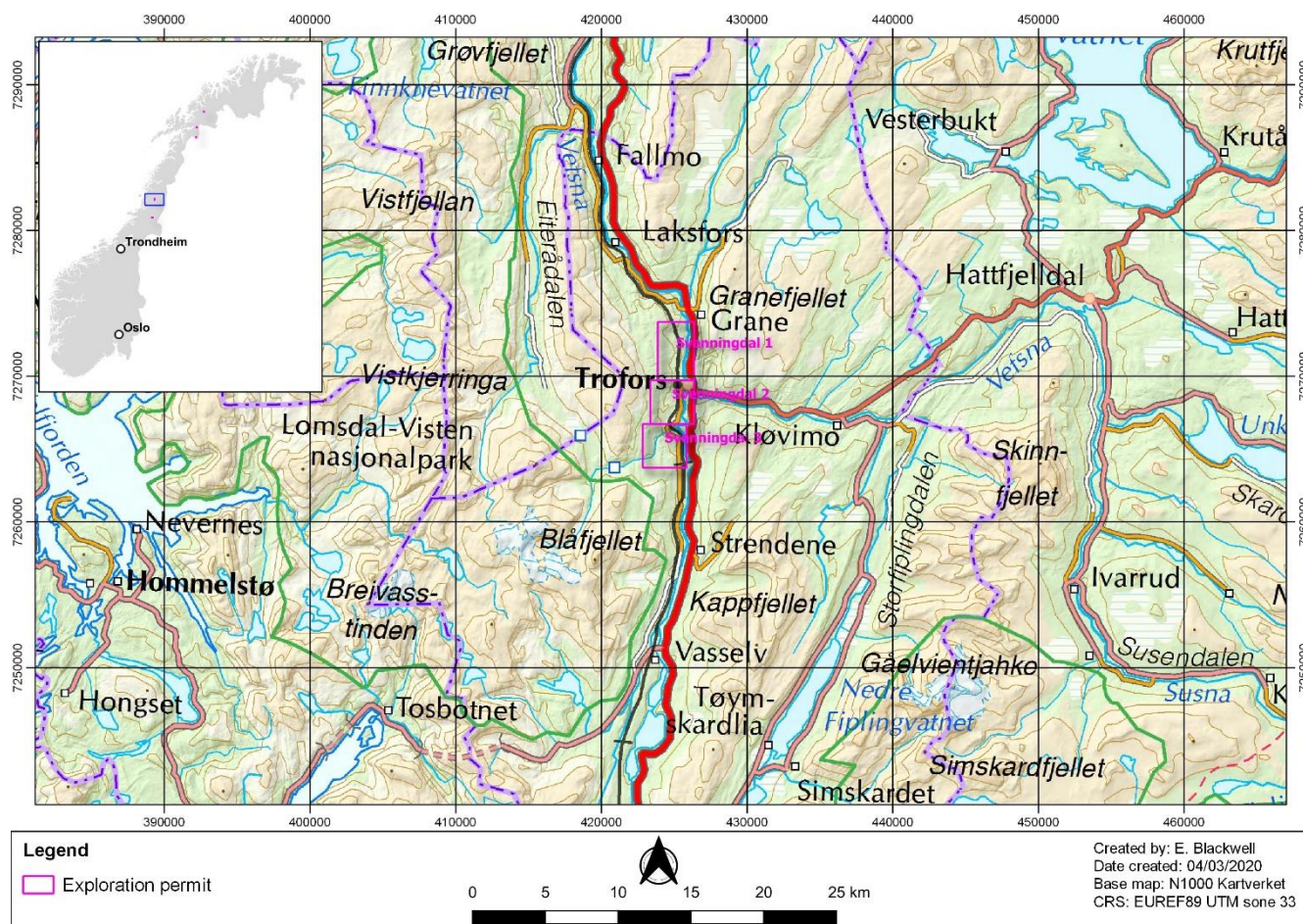


Figure 1 Location of the Svenningdal exploration permits.

2 LOCATION AND GENERAL INFORMATION

Svenningdal is located in central Norway, in the Grane municipality within the Nordland county. The exploration permits cover part of the village of Trofors. It has a population of 835 (2018). The European route E6 runs through Trofors. There is nearby road access to the Svenningdal mine area on the opposite side of the Vefsna river to the E6. The Trondheim international airport is located approximately 318 km to the south of the exploration permits.

The exploration permits primarily cover forest, marsh and some exposed rocky plateau. There are also some agricultural fields along the river. There are a number of houses covered by the exploration permits, the majority of which are in the permit Svenningdal 2.

The climate is subarctic with cold winters and mild summers. Temperatures are moderated throughout the year by the Norwegian Current, and extension of the North Atlantic Current. The annual mean temperature is $\sim 5^{\circ}\text{C}$ and there is snowfall generally between November and March. Annual precipitation is $\sim 840\text{mm}$. Fieldwork is typically confined to the summer months due to snow cover and seasonal variations in daylight.

3 GEOLOGICAL SETTING

3.1 REGIONAL GEOLOGY

The Scandinavian Caledonides are characterised by a series of westward-dipping thrust sheets and nappe complexes. The Helgeland Nappe complex contains the deposits which are of interest and it underwent poly-phase tectono-metamorphism including isoclinal folding, imbrication, and juxtaposition with nappe units of the older gneiss complex prior to being cut with late Ordovician to Early Silurian plutons of the Bindal batholith (Birkeland *et al.*, 1993). The Bindal batholith comprises a wide range of intrusive rocks ranging from gabbro to leucogranites including granites, granodiorites and tonalites with I-type affiliation (Birkeland *et al.*, 1993).

The Helgeland Nappe Complex contains a large number of small ore deposits, including Svenningdal.

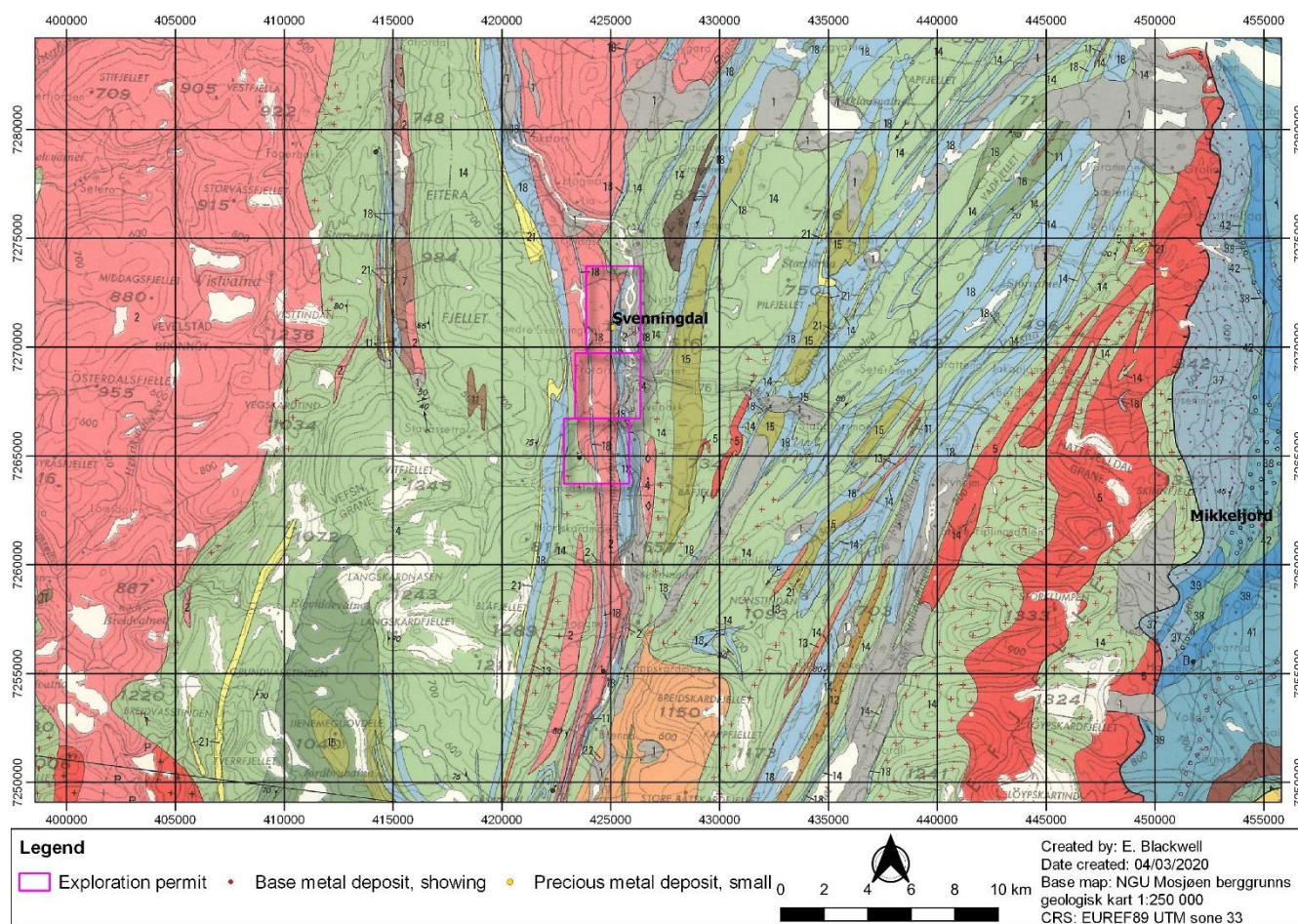


Figure 2 1:250k NGU bedrock geology mapping. The rock types corresponding to the numbers on the map can be found in Appendix 1.

3.2 LOCAL GEOLOGY & MINERALISATION

The following description is taken from Birkeland *et al.* (1993).

The Svenningdal deposit comprises of a system of quartz sulphide veins in metasedimentary rocks that form a complex along the eastern contact of the Rein fjell Massif. The veins transect a N-NW striking sequence of marbles, layered calc-silicate and biotite-hornblende gneisses, sulfidic biotite gneisses, and garnetiferous amphibolites, which contain sills and subconcordant dikes and bodies of granite, granite pegmatite, and metagabbro. The metasedimentary rocks are strongly deformed and occur as tight to isoclinal folds. The granitic rocks of the Rein fjell Massif consist of light grey gneissic granodiorites and granites that contain rafts and small inclusions of darker grey tonalites and metasedimentary rocks. As the eastern contact is approached, the intrusive rocks become progressively more foliated and muscovite starts to appear on the foliation planes.

The sulphide mineralisation and associated quartz veins are controlled by a conjugate system of fractures. Minor vertical displacements of the wall rocks can be locally distinguished and are indicative of normal faulting. In some areas, the veins, which extend for short distances along fractures have developed parallel to the banding of the gneisses and along their contact with subconcordant granite dykes. Although some of the ore-bearing quartz veins penetrate apophyses of the main granite massif, the veins mapped on the surface in many cases terminate abruptly at the contact with the main granite. However, according to sections through the two largest mines (Svenningdalsgruben and Jakob Knudsen grube), vein mineralisation has been worked inside the main massif at depth where it extends up to 200 m into the granite.

Early deposition of pyrrhotite and minor associated chalcopyrite, pyrite, and sphalerite was followed by precipitation of pyrite, arsenopyrite, and minor lollingite, and these preceded the main sphalerite stage. The sphalerite-stage minerals include sphalerite, pyrite, and subordinate amounts of chalcopyrite, stannite, and pyrrhotite. Mineralisation terminated with the deposition of Ag-rich tetrahedrite, proustite, native gold, galena, chalcopyrite, jamesonite, boulangerite, and a number of other Sb-bearing minerals with unknown compositions.

Several indicators of repeated fault movements are evident along some veins which have suffered episodic fracturing and brittle shearing, probably during orogenic uplift. The periodic opening of the hydrothermal plumbing system has resulted in strongly telescoped mineral assemblages. The hydrothermal and tectonic activity seems to have died out after the deposition of vuggy calcite-chlorite veins.

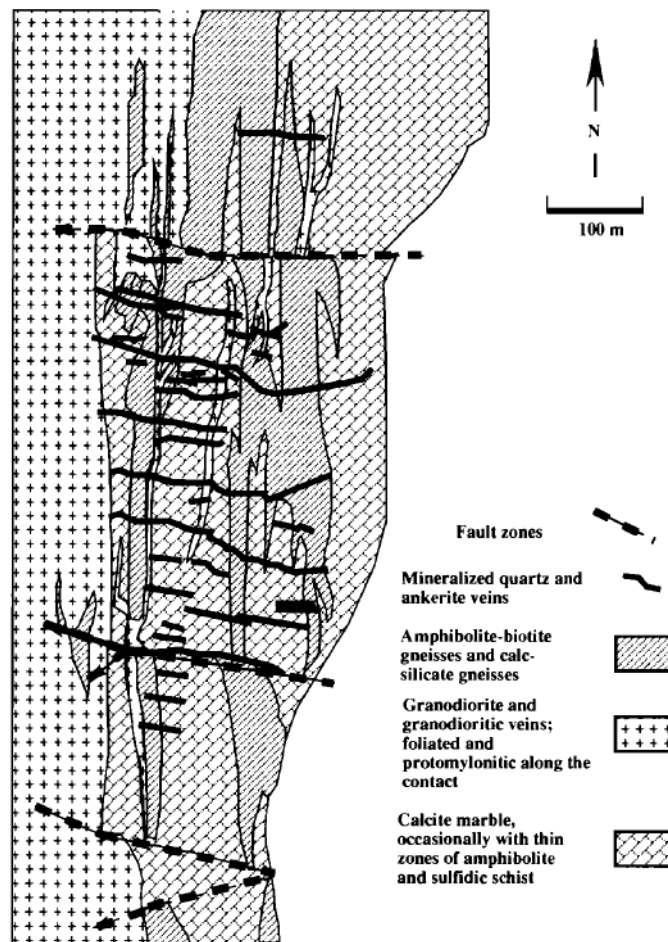


Figure 3 The main lithologic and tectonic features of the Svenningdalen base and precious metal deposit. Source (Birkeland et al., 1993)

4 SUMMARY OF WORK BY PREVIOUS OPERATORS

The Svenningdal deposit was mined for silver in the period 1877-1899. The NGU also conducted some work in the area at the precious metal prospects to the south of Svenningdal.

A summary of the main works conducted by previous permit holders is provided in the tables below.

Table 1 Timeline of activity on the Svenningdal mine. Source: NGU Ore Database.

From - To	Activity	Company/Institution
1877 - 1899	Regular production (mining)	

Table 2 Timeline of activity on the Stavassdalskroken precious metal prospect. Source: NGU Ore Database.

From - To	Activity	Company/Institution
1989	Sampling	NGU

Table 3 Timeline of activity on the Eiterholtene precious metal prospect. Source: NGU Ore Database.

From - To	Activity	Company/Institution
1948 – 1948	Sampling	Bjørkåsen Grube
1950	Pitting	Industridep.
1974	Sampling	NGU HISU
1989 - 1991	Sampling	NGU Orkla

5 WORK CARRIED OUT DURING THE REPORTING PHASE 2019 - 2020

Work conducting by Erris since the granting of exploration permits Svenningdal 1 to 3 comprises of a data review. Work reports relating to the exploration permits were downloaded from the DMF web viewer. These reports were reviewed, and any suitable maps were digitised.

Svenningdalen Mine was operated from 1878-1900 according to Vogt (1900). The total production of precious metals was 17,700 kg Ag and 37 kg Au. The major part of the ore production came from the Svenningdalen, Jakob Knudsen, and Victoria veins in the northern part of the mining field. The hand-cobbed ore contained about 400 g/t Ag, 5 g/t Au, 3% Zn, 1% Pb, and 0.3% Cu.

Mineralization in Svenningdal is found in E-W striking quartz veins which intersect the metasediments and granites at almost a right angle, with a fairly consistent northern dip of 60° (Cramer 1975). There are reported to be 20 different veins, most are short, but few are long and cut through the meta-sediment granite contact (Cramer 1975). The width of the veins is variable, they can be up to 1m wide but are usually between 0.1-0.25m wide. Sulphide mineralisation is unevenly distributed in the quartz veins (Vogt 1900). The extension of some of the veins is found on the east side of Vefsen River, nine with mineralization (Cramer 1975), these have never been mined.

In Svenningdal the richest ore is reported from surface and the ore decreases with depth until it ended at approximately 100m (Cramer 1975). However, there are no reported drill holes in the area to test the veins at depth below the mineralised horizons. The ore is found mainly where the veins crosscut slate/shale, and limestone, but mineralisation in the Northern 'Jakob Knudsen' vein penetrates through into the granite to approximately 200m (Cramer 1975).

Very little exploration work seems to have been carried out since the mine operated; the NGU mapped the area in 1975 and later conducted a ground geophysics survey in 1991.

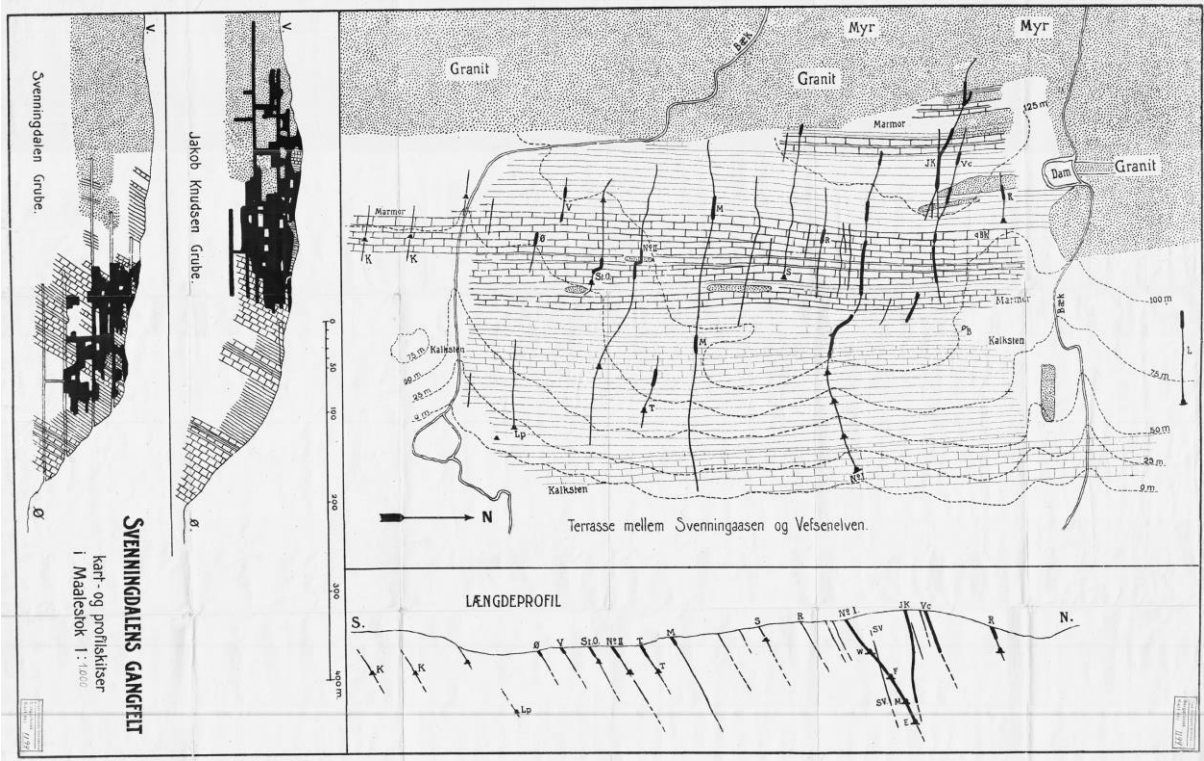


Figure 4 Historical map of the Svenningdal mine.

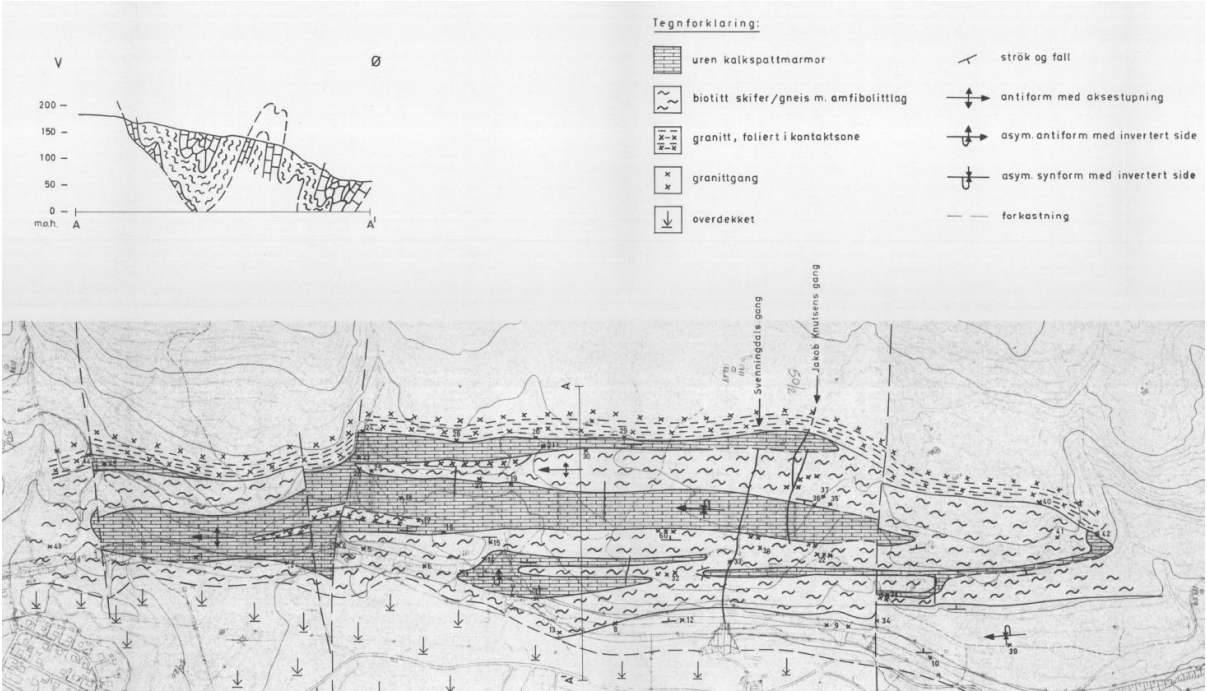


Figure 5 1976 geology map of the Svenningdal deposit area.

Two prospects, Eiterholtene and Stavassdalskroken, lie approximately 5 km to the south of Svenningdal, in the permit Svenningdal 3. Stavassdalskroken is a small pit with sulphide bearing quartz veins. The nearby Eiterholtene is also a small pit sulphides and quartz veins.

6 SUMMARY AND CONCLUSION

Following a review of all the known data relating to exploration in the exploration permits, no priority targets were identified for further work. A summary map can be seen in Appendix 2.

While the historic grades are interesting, the lack of recent exploration showing significant gold grades and particularly lack of drilling intersections, combined with the proximity of the historic workings to the town of Trofors, reduces the prospectivity of the area. The mineralised footprint does not support the potential for the prospect to have >0.5M oz Au at >5g/t as required for underground mining.

The Company is focussing its exploration efforts on the Rombak Tectonic Window, in the north of the country, on its Gautelis and Varden projects, where gold and base metal mineralisation has been confirmed in drill holes.

Erris Resources hereby surrenders the exploration permits Svenningdal 1 to 3.



Aiden Lavelle P.Ge

Chief Operating Officer



Emer Blackwell P.Ge

Geologist

7 REFERENCES

Birkeland, A., Ihlen, P., Bjorlykke, A., (1993), The Sources of Metals in Sulfide Deposits in the Helgeland Complex, North-Central Norway: Pb Isotope Evidence, 10.1.1.829.7859

Cramer, J., (1975), RÅSTOFFUNDERSØKELSER I NORD-NORGE, 1339_2

Vogt, J. H. L., 1900, Søndre Helgeland: Norges Geologiske Undersøkelse, no. 29, 178 p.

APPENDIX 1

Lithologies shown in Figure 2.

LØMASSER	
1	Morene, grus, sand, leir, etc.
SKJØVNE BERGARTER, DEFORMERT OG OMDANNET I KALEDONSK TID (BERGARTER AV ANTATT PREKAMBRISK, EOKAMBRISK OG KAMBROSILURISK ALDER)	
HELGELANDS DEKKEKOMPLEKS (TROLIG BÅDE PREKAMBRISKE OG KAMBROSILURISKE BERGARTER)	
Størkningsbergarter (tildels omdannet)	
DYPBERGARTER	
2	Granitt og granodioritt (flere typer)
4	Øyegranitt og øyegneis
5	Kvartsdioritt og trondhemitt
7	Dioritt, dels med overgang til monzodioritt
8	Gabbro og metagabbro
Omdannede Dagbergarter (Lokalt Også Mulige Dypbergarter)	
11	Amfibolitt, hornblendeskifer og hornblendegneis; grønnstein (Skålvær)
12	Amfibolitt og lyse gneiser i veksling
13	Finkornig lys gneis
Omdannede sedimentære bergarter	
14	Glimmergneiser og glimmerskifre
15	Glimmerskifer og granatglimmerskifer
16	Kalksilikatgneiser og -skifre
18	Marmor, vesentlig kalkspatmarmor
21	Kvartsitt og kvartsskifer
Bergarter av usiker opprinnelse	
22	Kvarts-feltspatrike, uensartede gneiser
SEVE-KØLI DEKKEKOMPLEKSET (I KARTOMRÅDET VESENTLIG LAVMETAMORFE BERGARTER AV KAMBROSILURISK ALDER)	
Sedimentære bergarter (lav omdanningsgrad)	
37	Mørk, ofte finbåndet kalkstein
38	Dolomittkonglomerat
39	Dolomitt- og kalkspatmarmor, ofte hvit, finkornig
41	Kalkfyllitt og kalkglimmerskifer
42	Kvartsfyllitter og grafittførende fyllitter og skifre