



Bergvesenet

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Rapportarkivet

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Tittel Report on geological mapping in the Skjerstad area.				
Forfatter BADKAR R.		Dato 1972	Bedrift Sulitjelma Gruber A/S	
Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Fagområde	Dokument type	Forekomster		
Råstofftype	Emneord			
Sammendrag Geologisk kartlegging nord for Klekovfjellet i Skjerstad - til dels på grunnlag av geokjemiske anomalier av Zn, Pb, Cu og Ni. Berggrunnen består av migmatittisk til inhomogen gneis, marmor, skarn med magnetittband, og gabbro. En del geokjemiske anomalier skyldes skarn-mineraliseringer, en del kan ikke forklares. Nikkel.				

REPORT ON GEOLOGICAL MAPPING
IN THE SKJERSTAD AREA

Ramesh Badkar 1972

Contents

1. Introduction
2. Geology and Petrography
3. Structure
4. Note on Geochemical Anomalies
5. Concluding Remarks
6. List of Samples

Enclosures

Geological map (1:15 000)
Profile along A - B

052.019

1. Introduction

Geological mapping was undertaken in an area north of Kletkovfjell in the Skjerstad region during the period 4 - 28 Juli 1972.

The aim of the work was:

I) To continue the geological investigation carried out in the south and east of the area (Kollung 1971 etc.); Cole & Langley (1969), and

II) to account for certain geochemical anomalies of Zn, Pb, Cu and Ni found in the stream sediments of the area.

Mapping was done on aerial photographs on a scale of approx 1:15 000. The bearings are on a compass divided into 360°.

2. Geology and Petrography

2.1 Migmatite/Composite gneiss: In most part of the area is exposed a migmatitic rock composed of pelitic material (biotite-muscovite-garnet) intermixed with granitic components producing a composite gneiss.

It has gradational contacts with the granite, granite with gneiss bands, and many of the smaller intrusives-found throughout the area - of granite, pegmatite and aplite, while towards east it grades into a biotite-muscovite-garnet schist.

2.2 Granite with gneiss band: Outcrops predominantly towards west and south and is in contact with migmatite. Consists of much granitic material with xenoliths and lenses of magmatized schist, quartzite and rarely marble with small lenses of amphibolite (1 x 2 m).

2.3 Granite: Many granitic bodies of varying sizes - few cm in migmatitic veins to outcrops of 100 - 200 m, are found in the area with variations to pegmatitic or aplitic types in bodies of 1 - 2 m x 2 size. It appears that the granite becomes the dominant rock type in the south and southwest of the region.

The granite is whitegrey, coarse grained, crudely foliated, with biotite and muscovite.

- 2.4 Marble: Several outcrops of calcite-marble are found in the area, usually 0,5 - 5 m thick, but a marble underlying a granite sill, in the west is at least 25 m thick.

Outcrops found along the Misvær fjord are banded with quartzite (3 - 5 cm), and generally show much migmatization producing a hornblendegneiss, while the pure types occur as broken blocks veined with granitic material.

- 2.5 Skarn: In association with marble and in contact with granitic bodies are found several lenses of skarn, roughly 1 m x 3 m size. The largest one was 3,5 m x 10 m. They usually consist of dark-green amphibole and other calc-silicate-minerals along with magnetite bands in some outcrops.

- 2.6 Gabbro: Scattered outcrops of a dark coarse grained gabbro are found overlying a granitic sill in the NW of the area. It is badly exposed except it's SE contact with the granite.

3. Structure

The foliation strikes roughly N-S in the north while towards SV it swings round upto 80° . The rocks show a consistent westerly dip varying between 22° - 45° .

4. Note on Geochemical Anomalies

While the anomalies found are not high, they do appear to be higher than the "normal" background values. On the otherhand, however, it is difficult to establish a direct relationship between the exposed rocks and the observed anomaly pattern, except that the high values appear to be near marble/skarn exposures. In fact one of the largest-Zn value was observed where the stream bed is of marble (along the western branch of the stream coming down to Eirviken, east of Skjerstad).

Some of the quartz veins exposed along the Skjerstad - Breivik area contain 1 - 2% pyrite, while a small skjerp of quartz-arsenopyrite rock is found west of the lake (172). The size of the skjerp is roughly 1 x 2 m. It is difficult to say whether they have any influence on the geochemical anomalies.

5. Concluding Remarks

In areas of much migmatisation it is usually difficult to observe a constant mineralised zone. However - apart from the mineralised quartz-veins, whose distribution can be erratic - the marbles seem to localise the skarn bodies. At least two of the skarn bodies along EW outcrop of a large marble exposure in the SE of the area contain pure magnetite bands (~ 30 %), although the exposed quantities are of little economic significance. It should be of some interest however, to examine any geophysical maps available for the area in conjunction with the distribution of marbles.


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

6. List of Samples

- RB 572/1 Granite near gabbro contact.
- 2 Fine-grained granite near the skjerp.
- 3 Biotite-gneiss from SW of the area.
- 4 Finegrained migmatitic rock from the east of the area (near schist contact).
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- 7 Banded marble/quartzite near Støvset on the fjord.
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- 11 Quartz-pyrite rock from the Skjerstad - Breivik road.
- 12 Typical gabbro of the area.

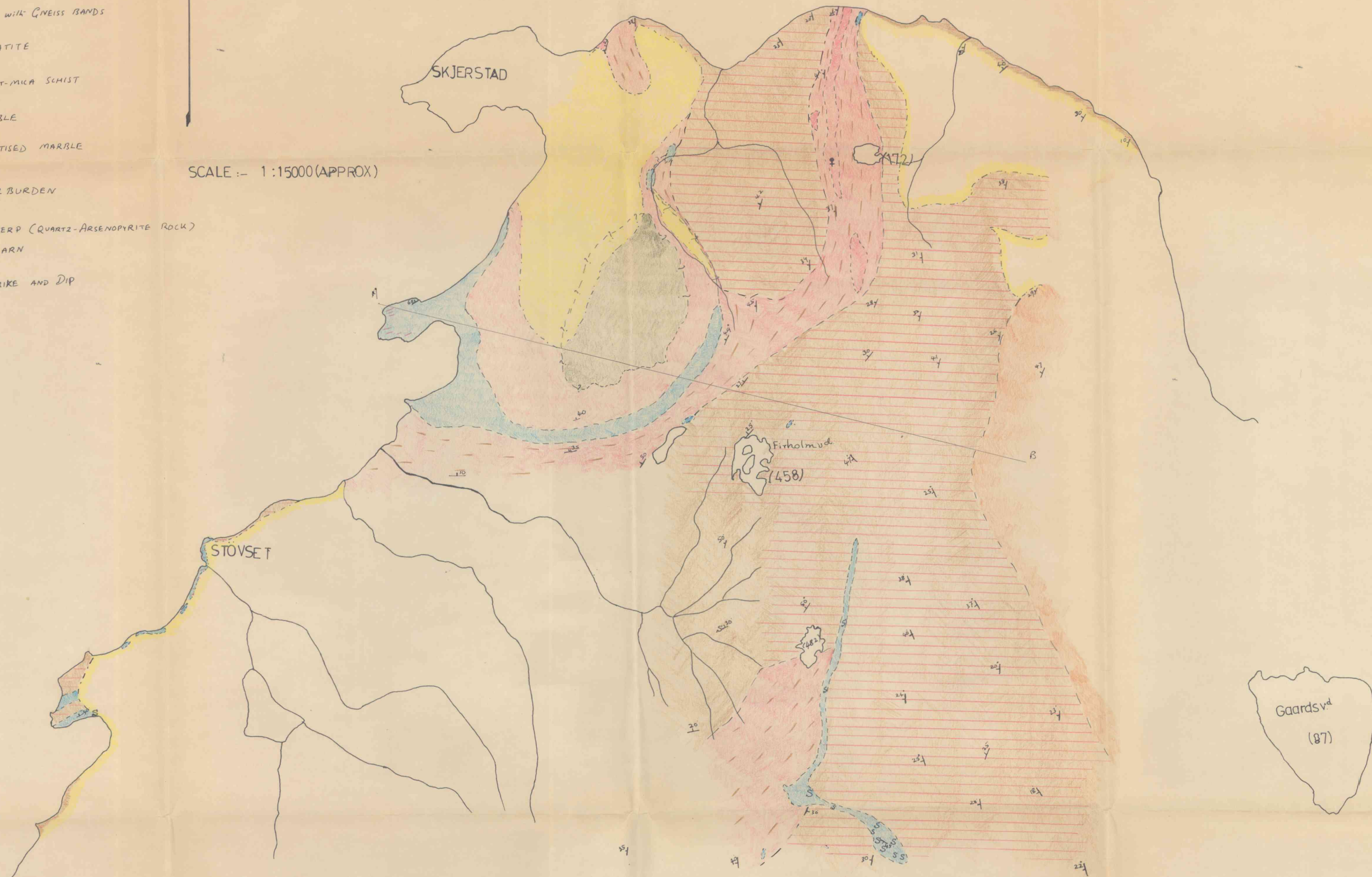
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GEOLOGICAL MAP OF THE SKJERSTAD AREA

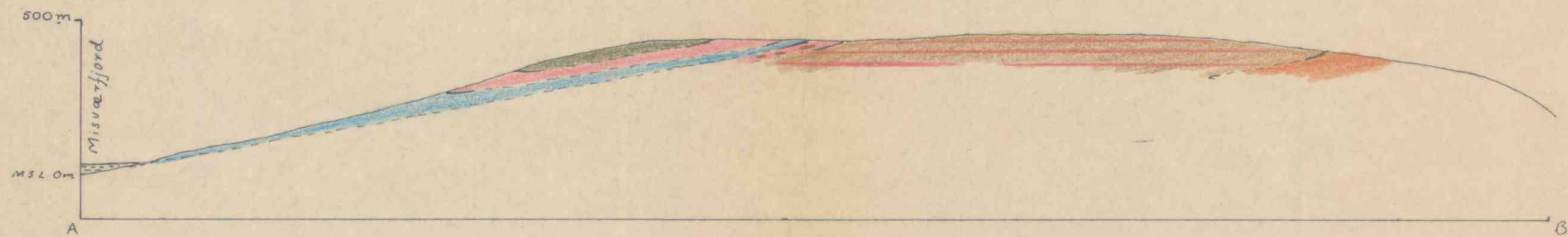
-  GABBRO
-  GRANITE
-  GRANITE WITH GNEISS BANDS
-  MIGMATITE
-  GARNET-MICA SCHIST
-  MARBLE
-  MIGMATISED MARBLE
-  OVER BURDEN

-  SKJERP (QUARTZ-ARSENOPYRITE ROCK)
-  SKARN
-  STRIKE AND DIP

SCALE :- 1:15000 (APPROX)



Malestokk	Tegn.	
	Trac.	
Erstattet av:	Kfr.	



Natural Scale (1:215000)

Profile along A-B on the Geological map of Skjerstad Area (R. Badkar 1972)

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

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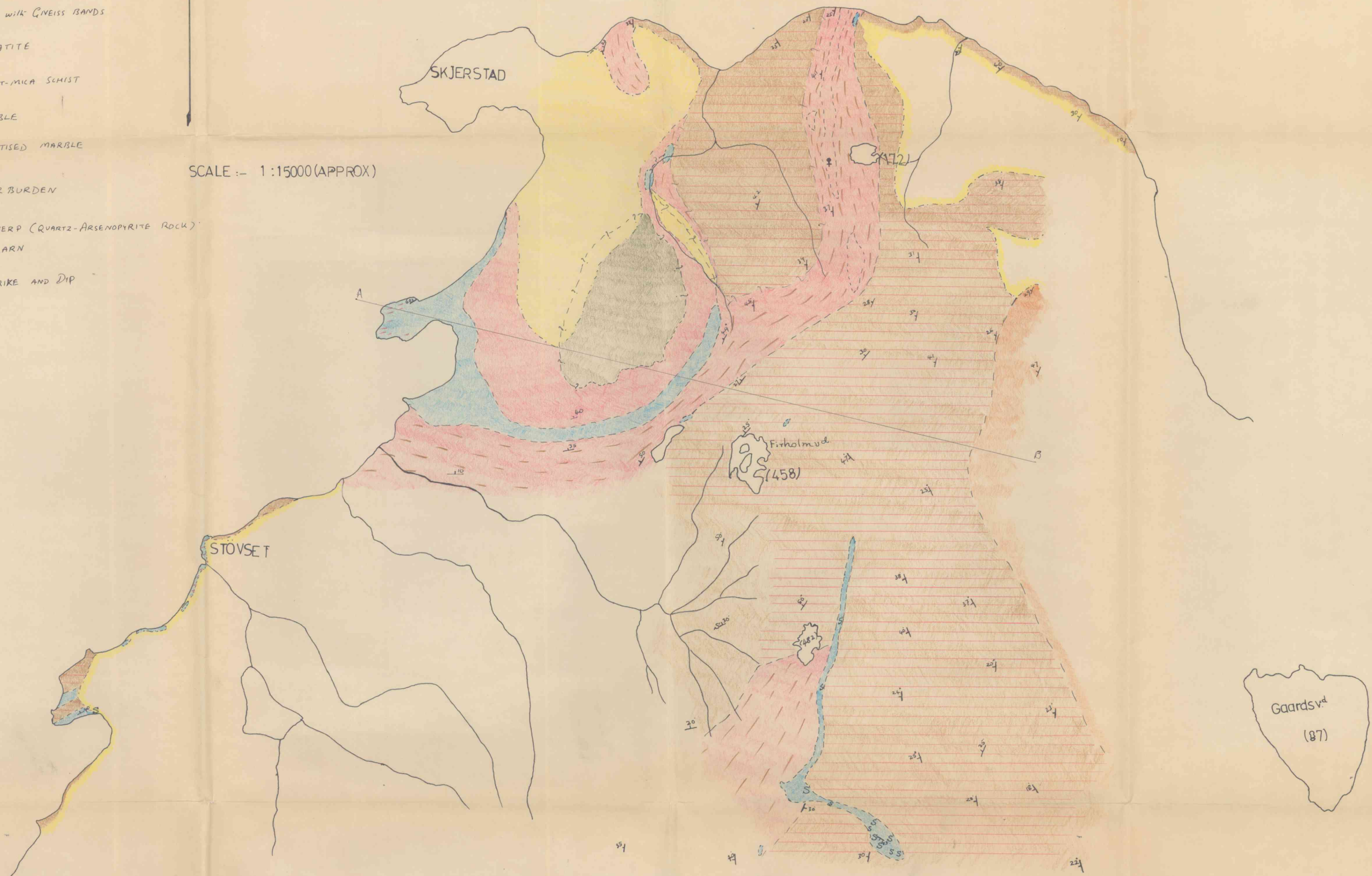
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GEOLOGICAL MAP OF THE SKJERSTAD AREA

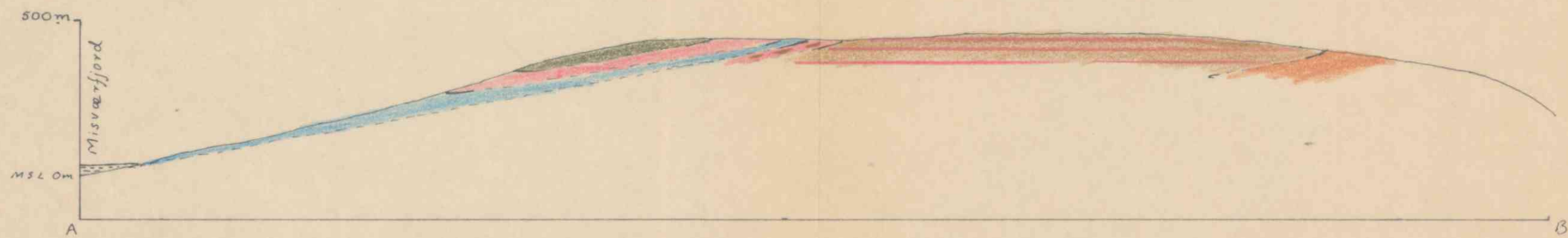
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-  SKARN
-  STRIKE AND DIP

SCALE :- 1:15000 (APPROX)



	Malestokk	Tegn.	
	Trac.		
	Kfr.		
Erstatning for:			
Erstattet av:			



Natural Scale (1:~15000)

Profile along A-B on the Geological map of Skjerstad Area (R. Badkar 1972)

GEOLOGICAL MAP OF THE SKJERSTAD AREA

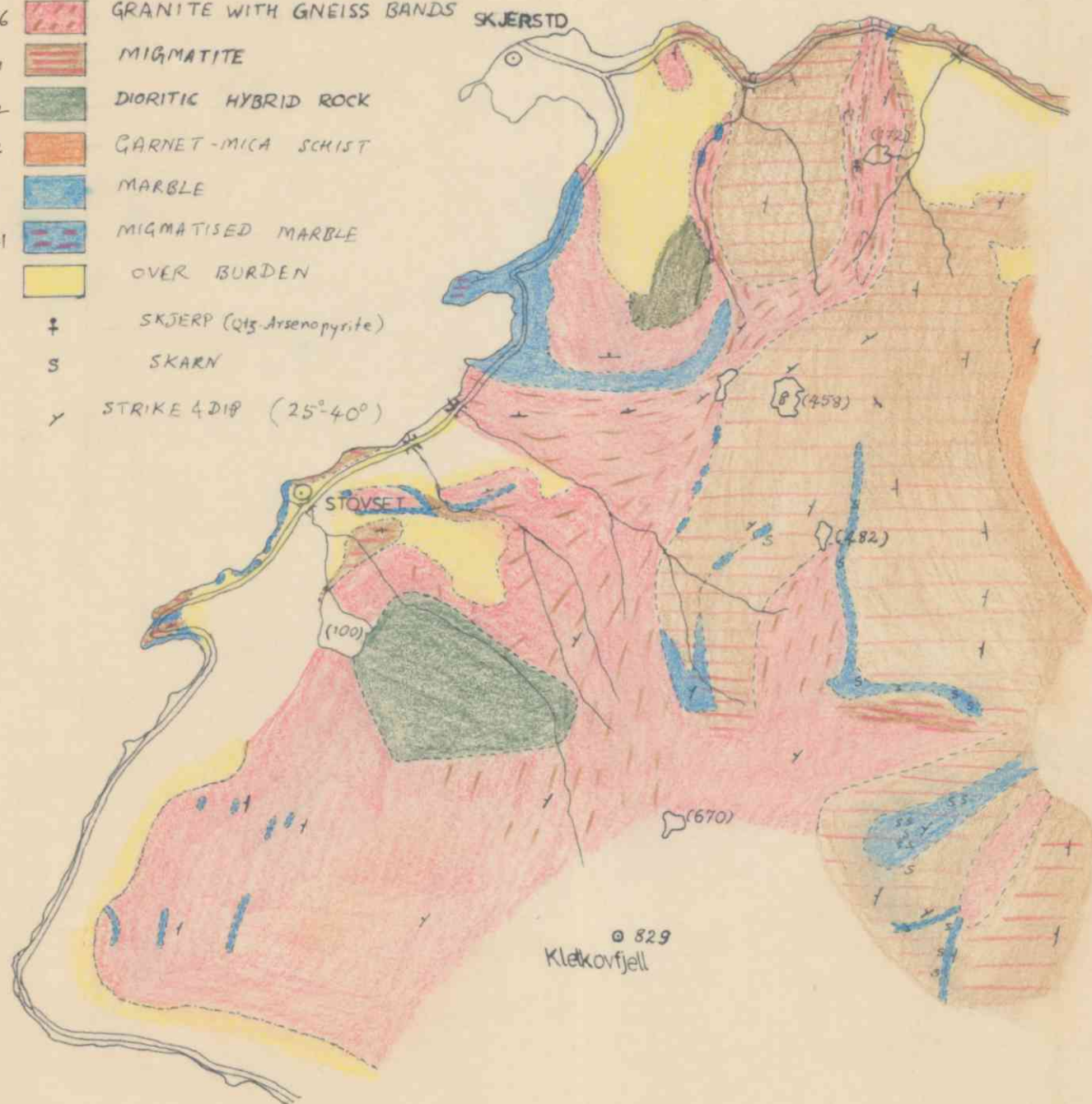
(R. N. BADKAR P. K. BRASTAD SUMMER 1972)

- 50 GABBRO
- 21 GRANITE
- 21/56 GRANITE WITH GNEISS BANDS
- 56/21 MIGMATITE
- 42 DIORITIC HYBRID ROCK
- 62 GARNET-MICA SCHIST
- 37 MARBLE
- 37/21 MIGMATISED MARBLE
- 1 OVER BURDEN

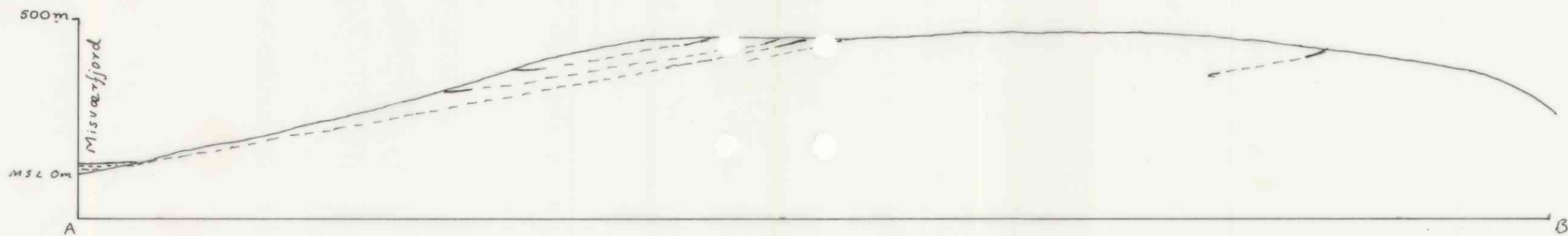
† SKJERP (Qtz-Arsenopyrite)

S SKARN

Y STRIKE 4 DIP (25°-40°)



SCALE 1:50,000



Natural Scale (1:~15000)

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(R. N. BADKAR P. K. BRASTAD SUMMER 1972)

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- ☒ SKJERP (Qtz-Arsenopyrite)
- ☒ SKARN
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