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Tittel

The Skrattåsen zinc mine , results of prospecting 1994

Forfatter	Dato	Bedrift
Soyland, Johannes	1994	Falkhammar AS

Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
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Fagområde	Dokument type	Forekomster
Geologi		Skrattåsen

Råstofftype	Emneord
Malm/metall	Zn Au

Sammendrag

THE SKRATTASEN ZINC MINE
RESULTS OF PROSPECTING
1994

BY

DR. JOHANNES SOYLAND

FALKHAMMAR AS

THE SKRATTASEN ZINC MINE - RESULTS OF PROSPECTING 1994

INTRODUCTION

The prospecting program for the Skrattåsen Zinc Mine for 1994 was carried out by Falkhammar AS with assistance from JB MinQuest of Sweden and The Norwegian Geological Survey (NGU) and with a grant from the Department of Commerce for Nord-Trøndelag Fylke. The program was lead by Dr. Johannes Søyland, assisted by John Berge of JB MinQuest and by Tor Grenne of NGU.

The program had two primary goals:

1. To construct a geological model of the skrattåsen mine and surrounding area to be used for the planning of future prospecting, including anticipated diamond drilling for next year. Special emphasis was placed on an attempt to correlate geological maps and the results of earlier geochemical sampling and geophysical testing.

2. To test the gold content of the gangue and country rock surrounding the main deposit as well as at the surrounding prospects in the area.

The program was very successful. We found a very good correlation between the geological maps and the earlier geochemical and geophysical mapping. This gave us a definite indication of a deposit (or mineralized zone) that is about 2 km long (instead of the earlier indicated 150 m) and about 50 m wide (instead of only 0.5 m). We also found gold in the gangue and country rock (quarts-sericite schist) and at all of the prospects in the area.

The program resulted in a solid foundation for further prospecting.

HISTORICAL ASPECTS OF SKRATTÅSEN

The Skrattåsen Zinc Mine has been known for over 100 years. The deposit was first discovered in the early 1880's and the first development was started in 1886. In 1899 an inclined shaft was sunk and, between then and 1929, 5 sublevels and 4 minor stopes were developed. The mine never reached full production, although a few thousand tons of ore were shipped.

In 1973 Falconbridge (through the Norwegian company Sulfidmalm AS) leased the mineral rights to the deposit from the present owner Jarle Råen and did considerable diamond drilling before they abandoned the deposit as too small.

in 1979 AS Sydvaranger leased the mineral rights, did a little more drilling and conducted extensive geochemical sampling and geophysical mapping. They also abandoned the deposit as too small.

The presence of gold in the ore has been known from earlier times with an estimate of 2 grams per ton of compact ore. Despite this fact, the later exploration programs (1973 and 1979) made no attempt to evaluate the gold content, probably due to the low price for gold at that time.

The deposit seemed at that time to be a very high grade, but small, veined, copper-lead-zinc deposit. The known vein, at that time was about 50 meters long, 80 meters deep and the compact ore was only about 0.5 meters wide. The ore contained about 20% zinc, 12% lead and a few percent copper. The gangue showed a width of from 6 to 15 meters and was known to contain disseminated mineralization.

EARLIER GEOCHEMICAL AMD GEOPHYSICAL MAPPING

During the 70's considerable geochenical sampling and geophysical mapping was done. Mangetic, VLF, CP and SP testing was conducted. Geochemical assaying was done for copper, lead, zinc and mercury.

Through our studying of the results, we found a very strong correlation of the identified magnetic, VLF and geocheical anomalies. These gave a strong indication of the possible existance of two additonal parallel mineralized zones in the area just east of the mine. One of these anomalies was tested by diamond drilling in 1973 and the hole (DDH 1) showed clear indications of mineralization.

Maps showing the magnetic, geocheical and VLF anomalies are presented as Figures 2, 3 and 4 (revised fra Sydvaranger, 1980).

GEOLOGICAL MAPPING

As a very important part of the program, we did a very extensive examination of earlier geological mapping, including that done by Sturt, 1974; Leungh, 1980; and Tietzch-Tyler and others, 1977 (NGU Geological Map 1723-III, 1:50,000 surface geology map - Steinkjer); as well as an extensive examination of the area.

We found that the earlier mapping gave an accurate picture of the geology as we found it in the field and it gave a very clear explanation of the geochemical and geophysical anomalies that existed.

The geological map of the area is shown in Figure 1. (enlarged from the NGU map and placed on a 1:5000 economic map base.)

From the various maps, we see clear indication of the four diferent mineralized zones and that they are probably one and the same deposit that has been split up by faulting. This situation is shown on Figure 5 (Cross Section A-A`) and Figure 6 (Mineralized Zones). We see that the Marken prospect is centrally located in the primary zone (zone A). The Skrattåsen and Bjørnsås zones are interesting but of minor significance.

GOLD MINERALIZATION

As previously stated, the presence of gold in the compact ore has been known from the earliest workings; however, with the larger exploration programs of 1973 and 1979 no effort was made to evaluate the presence of gold. We knew from previous work that gold has been found in quartz-sericite other places in the world, and, when there was gold in the ore at Skrattåsen, we felt that it was quite probable that there might be gold in the quartz-sericite gangue and at the other prospects.

The results of our evaluation showed that there was in fact gold in the quartz-sericite, up to 1,8 gm per ton, and at all of the surrounding prospects. The results of our analysis is shown in Tables 1 and 2.

Studies done by Tor Grenne of NGU, which were concentrated on the compact ore, showed that the compact ore contained up to 18 gm per ton. Grenne's results are shown in Table 3.

PROPOSED EXPLORATION PROGRAM FOR 1995

Based on the results of this years exploration, we propose at least 4 diamond drill holes to test the larger zones, A and B, from easily accessible drilling sites either along the road to the mine or from the cultivated areas. The proposed holes and locations are presented on Figure 6. Details of total length and budget will be presented later.

TABLE 1 GOLD ANALYSIS 1994

SAMPLE NR.	LOCATION	ROCK TYPE	AU GM/TON
680	Hovland	Greenschist	-0.03
681	T-22	Sericite schist	0.15
682	Bjørnsås	Greenschist	0.10
683	Bjørnsås	Sericite schist	-0.03
684	Bjørnsås	Greenschist	0.12
685	Skrattås - storgruben	Quartz schist	0.26
686	Skrattås - storgruben	Sericite schist	0.09
687	Marken	Compact ore	0.09
1482	Skrattås - BH 11 155.7	Sericite schist	0.07
1483	Skrattås - BH 9 126.7	Greenschist	1.03
1484	Skrattås - BH 9 124.5	Greenschist	-0.03
1485	Skrattås - BH 9 116.5	Greenschist	-0.03
1486	Skrattås - BH 6 152.3	Greenschist	-0.03
1487	Skrattås - BH 6 156.6	Sericite schist	-0.03
1488	Skrattås - BH 6 159.5	Sericite schist	0.14
1489	Skrattås - fundgruven	Sericite schist	0,75
1490	Skrattås - fundgruven	Sericite schist	0.21
1491	Skrattås - fundgruven	Compact ore	4.11
1492	Skrattås	Sericite schist	1.80
1493	Skrattås	Red sericite	0.05
1494	Skrattås - storgruben	Fylite schist	-0.03
1495	Skrattås - storgruben	Fylite schist	-0.03
1496	Skrattås - storgruben	Sericite schist	0.15
1497	400 m east of mine	Fylite schist	-0.03
1498	1100 m east of mine	Fylite schist	-0.03
1499	Marken	Sericite schist	1.51
1500	Marken	Sericite schist	0.14
1875	Skrattås - BH 4 94.7	Greenschist	-0.03
1876	Skrattås - BH 4 103.3	Greenschist	-0.03
1877	Skrattås - BH 4 107.5	Greenschist	-0.03
1878	Skrattås - BH 4 114.3	Compact ore	0.55
1879	Skrattås - BH 4 105.5	Greenschist	-0.03
1880	Skrattås - BH 4 155.0	Greenschist	-0.03

TABLE 2

FAX. (602) 622-0813

PH. (602) 622-0813
(602) 622-3845

Jacobs Assay Office
Registered Assayers, Estab. 1880
1435 S. 10th Ave. Tucson, Az 85713

Falkhammar AS
Valhallv. 3
7700 Steinkjer, Norway

July 25, 1994

Attn: Dr. J. Soyland

CERTIFICATE OF ASSAY *

Sample ID	Au ppm	Ag ppm	Cu %	Pb %	Zn %	Sn %
#680	<0.03	---	0.03	0.07	0.61	---
#681	0.15	---	0.26	0.03	0.04	---
#682	0.10	---	0.004	0.010	0.010	---
#683	<0.03	---	0.19	0.010	0.81	---
#684	0.12	---	0.011	0.010	0.014	---
#685	0.26	---	5.98	2.07	6.03	---
#686	0.09	---	---	---	---	---
#687	0.09	<0.2	0.65	0.28	32.77	---
#1482	0.07	---	---	---	---	---
#1483	1.03	---	---	---	---	---
#1484	<0.03	---	---	---	---	---
#1485	<0.03	---	---	---	---	---
#1486	<0.03	---	---	---	---	---
#1487	<0.03	---	---	---	---	---
#1488	0.14	---	---	---	---	---
#1489	0.75	---	---	---	---	---
#1490	0.21	---	---	---	---	---
#1491	4.11	1778.00	0.81	11.23	---	---
#1492	1.80	---	---	---	---	---
#1493	0.05	---	---	---	---	---
#1494	0.03	---	---	---	---	---
#1495	<0.03	---	---	---	---	---
#1496	0.15	---	---	---	---	---
#1497	<0.03	---	---	---	---	---
#1498	<0.03	---	---	---	---	---

* Fire Assay-2 Assay Ton, where applicable-AA finish

REGISTERED ASSAYER CERTIFICATE NO 11850 MICHAEL Q. JACOBS Date Signed 8/1/94 Arizona U.S.A.

FAX. (602) 622-0813

PH. (602) 622-0813
(602) 622-3845

Jacobs Assay Office
Registered Assayers, Estab. 1880
1435 S. 10th Ave. Tucson, Az 85713

Falkhammer AS

July 25, 1994

CERTIFICATE OF ASSAY * - CONTINUED

Sample ID	Au ppm	Ag ppm	Cu %	Pb %	Zn %	Sn %
#1499	1.51	---	---	---	---	---
#1500	0.14	---	---	---	---	---
#1864	0.09	---	---	---	---	---
#1865	<0.03	---	---	---	---	---
#1866	<0.03	<0.2	---	0.011	---	---
	(+ Rare Earth & Pt Group pending)					
#1867	<0.03	---	---	---	---	pending
#1868	0.19	---	---	---	---	---
#1869	<0.03	---	---	---	---	---
#1870	<0.03	---	---	---	---	---
#1871	<0.03	---	---	---	---	pending
#1872	<0.03	---	---	---	---	pending
#1873	<0.03	---	---	---	---	pending
#1874	<0.03	---	---	---	---	---
#1875	<0.03	---	---	---	---	---
#1876	<0.03	---	---	---	---	---
#1877	<0.03	---	---	---	---	---
#1878	0.55	---	---	---	---	---
#1879	<0.03	---	---	---	---	---
#1880	<0.03	---	---	---	---	---

* Fire Assay-2 Assay Ton, where applicable-AA Finish

REGISTERED ASSAYER CERTIFICATE NO 11869 MICHAEL G. JACOBS Date Signed 8/4/94 Arizona U.S.A.

Charges $ _____