



Bergvesenet

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BV 2136

Rapportarkivet

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Tittel The Giken -west orebody - some geokjemical analyses from drillholes in this area.				
Forfatter COOK N.		Dato 1984	Bedrift Sulitjelma Gruber A/S	
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Sammendrag Trace and major element analyses from 5 drillholes (115A,D,E,F,H) with comments on the analytical results.				

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Tittel: THE GIVEN-WEST OREBODY -
SOME GEOCHEMICAL ANALYSES FROM
DRILLHOLES IN THIS AREA.

Fordeling
Sulitjelma:

Ngokoord:

X1: 1018300	Y1: -35200	Z:
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X2: 1019800	Y2: -34000
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Sulis koord:

X3: 500	Y3: -500	Z:
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X4: 2000	Y4: 500
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Resyme:

TRACE AND MAJOR ELEMENT
ANALYSES FROM 5 DRILLHOLES
(I, I5A, D, E, F, H) WITH COMMENTS
ON THE ANALYTICAL RESULTS.

Andre:

Kommentar:

The Giken West Orebody

The shape of the Giken West orebody can be seen from the Cu contour map. These contours can be broadly correlated with the general NW - SE axis of the main Giken II orebody. From the map, the orebody of Giken West appears large and having high grade. However, much of the orebody is thin. e.g. Drillhole 108i; 0.8m @ 8.94% Cu. There are also some drillholes having a great thickness but low grade. Some drillholes are both rich and thick, having a narrow band of extremely rich mineralization at the top of the zone (e.g. Drillhole 115A ; 0.45 m @ 15.66% Cu, whole zone: 7.4 m @ 1.35% Cu. In some drillholes, the highest Cu concentration is at the base of the zone (e.g. Mons Petter 40Q, suggesting local inversion of the ore zone. It is rather difficult to draw the contour maps because of this problem and it would be interesting to compare the map drawn for Cu% to that for ore zone thickness or for some "Cu% x thickness" function.

Trace element contents: Ag is often high, especially in the thin Cu rich parts. The average for the Giken West ore body is possibly a little higher than for Giken II. Some single samples exceed 50 ppm. Pb: Often much higher than in Giken II. Cd: Fairly high. Co: Rather lower than in Giken II. In some drillholes very much lower.

These variations could suggest a modified fluid being involved in the formation of the deposit. The ores do not appear very massive and possibly, some importance could be attached to the change in appearance of the ore from highly

pyritic massive ore (S over 35%) to banded Chalcopyrite-impregnation ore, down axis from Giken I, through Giken II, to Giken West. The Giken West ores are certainly lower in pyrite (and hence in Co) than in Giken II, whilst containing as much chalcopyrite, if not more.

There is a good possibility for rich ore to the north of hole MP 40Q, where grades, thicknesses and tonnages may be high. Other drillholes from the Mons Petter drilling programme might assist in revealing more of the shape of Giken West, to the north of the area covered already. Ore reserves in the Giken West deposit could be discovered to be in excess of one million tonnes of ore of a high grade (possibly exceeding 2% Cu.)

DRILLHOLE 115A

<u>SAMPLE NO.</u>	<u>LENGTH</u>		<u>ACTUAL LENGTH</u>
5421	92.05 - 92.54	(0.49m)	0.45m
5422	92.54 - 93.25	(0.71m)	0.61m
5423	93.25 - 93.74	(0.49m)	0.40m
5424	93.74 - 96.00	(2.26m)	1.73m
5425	96.00 - 98.00	(2.00m)	1.53m
5426	98.00 - 100.00	(2.00m)	1.53m
5427	100.00 - 101.50	(1.50m)	1.15m

	<u>CU%</u>	<u>ZN%</u>	<u>S%</u>	<u>AG(LAB)</u>	<u>AG</u>
5421	15.66	0.89	24.9	47	76
5422	0.03	0.02	1.0	2	1.4
5423	4.83	0.38	11.2	21	25.2
5424	0.02	0.02	1.2	2	1.2
5425	0.04	0.02	1.5	2	1.2
5426	0.13	0.09	2.2	3	1.2
5427	0.61	0.01	7.4	3	1.0
MEAN	1.35	0.11		6	7
MEAN (5421/2/3)	7.06	0.44		21	31
MEAN (5421/2/3/4/5)	2.43	0.16		8	10

- One zone very thick.
- 5422 is schist. - High Cu sample (5421) enclosed in hanging schist.
- Note discrepancy in Ag values for sample 5421. Result from Chemex (76 p.p.m.) very much higher than reported by the lab.

DRILLHOLE 115A

<u>SAMPLE NO.</u>	<u>PB</u>	<u>CO</u>	<u>CD</u>	<u>MO</u>	<u>NI</u>	<u>CR</u>	<u>SR</u>	<u>BI</u>
5421	260	14	52	50	35	95	34	47
5422	96	13	0.5	1	48	165	87	6
5423	82	15	16	41	35	165	42	27
5424	18	18	0.5	1	40	185	119	9
5425	24	25	6	2	27	160	74	5
5426	14	35	4	1	44	190	64	4
5427	1	101	0.5	5	28	220	43	2
MEAN	40	35	6.2	7	36	178	75	9
MEAN(5421/2/3)	59	19	8.4	9	36	164	86	12
MEAN(5421/2/3/4/5)	143	14	21.0	27	40	143	58	24

	<u>Na₂O%</u>	<u>K₂O%</u>
5421	8.79	2.21
5422	9.07	3.28
5423	7.62	3.15
5424	12.12	1.63
5425	11.16	0.69
5426	12.60	0.55
5427	10.07	0.61
MEAN	11.01	1.31
MEAN(5421/2/3)	10.72	1.72
MEAN(5421/2/3/4/5)	8.59	2.91

- High Na₂O values, need checking!
- High concentrations of Bi in some samples.
- Co especially low, except in 5427.

DRILLHOLE 115D

<u>SAMPLE NO.</u>	<u>LENGTH</u>	<u>ACTUAL LENGTH</u>
5410	131.60 - 132.00 (0.40m)	
5411	132.00 - 133.00 (1.00m)	
5412	133.00 - 133.85 (0.85m)	)(1.85m)
5413	133.85 - 135.40 (1.55m)	
5414	133.40 - 137.50 (2.10m)	)(4.20m)
5415	137.50 - 139.60 (2.10m)	
5416	139.60 - 142.85 (3.25m)	

	<u>CU%</u>	<u>ZN%</u>	<u>S%</u>	<u>AG(LAB)</u>	<u>AG</u>
5410	1.37	0.47	23.8	9	8
5411					10
5412	)1.52	1.02	27.0	10	2
5413	0.25	0.07	5.4	2	1.4
5414					0.8
5415	)0.11	0.03	2.4	1	1.2
5416	0.20	0.22	4.8	2	2.6
MEAN	0.43	0.27	8.3	3.2	2.6

	<u>PB</u>	<u>CO</u>	<u>CD</u>	<u>MO</u>	<u>NI</u>	<u>CR</u>	<u>SR</u>	<u>BI</u>
5410	345	95	12	77	20	150	50	< 2
5411	780	88	37	69	24	165	33	< 2
5412	66	43	2.5	5	36	165	73	< 2
5413	28	35	1	4	38	190	85	< 2
5414	18	29	0.5	1	42	170	72	< 2
5415	18	25	14	5	27	155	57	< 2
5416	26	28	6	6	21	125	48	< 2
MEAN	105	37	8	13	30	155	60	< 2

DRILLHOLE 115D

<u>SAMPLE NO.</u>	<u>Na₂O%</u>	<u>K₂O%</u>
5410	2.17	0.52
5411	1.31	1.24
5412	2.94	0.35
5413	3.18	0.31
5414	3.17	0.17
5415	2.95	0.29
5416	2.51	0.59
MEAN	2.72	0.45

→ Ore zone thick.

DRII HOLE 115E

<u>SAMPLE NO.</u>	<u>LENGTH</u>	<u>ACTUAL LENGTH</u>
5417	105.15 - 105.74 (0.59m)	0.38m
5418	105.74 - 106.30 (0.56m)	0.36m
5419	106.30 - 106.95 (0.65m)	0.42m
5420	106.95 - 108.45 (1.50m)	0.96m

	<u>CU%</u>	<u>ZN%</u>	<u>S%</u>	<u>AG(LAB)</u>	<u>AG</u>
5417	2.11	0.20	8.5	9	12.4
5418	4.98	0.77	27.5	21	24.4
5419	2.36	0.22	12.8	10	12.2
5420	0.18	0.03	5.1	1	1.6
MEAN	1.95	0.25	11.9		9.5

	<u>PB</u>	<u>CO</u>	<u>CD</u>	<u>MO</u>	<u>NI</u>	<u>CR</u>	<u>SR</u>	<u>BI</u>
5417	180	21	9	10	13	330	75	< 2
5418	710	57	25	68	20	180	16	< 2
5419	260	44	10	24	32	205	73	32
5420	28	30	1	4	35	205	76	< 2
MEAN	217	36	8	20	28	223	65	

	<u>FE%</u>	<u>FEO%</u>	<u>Na₂O%</u>	<u>K₂O%</u>
5417	11.00	14.15	11.80	3.84
5418	30.70	39.48	8.40	2.25
5419	14.40	18.52	10.91	2.46
5420	7.94	10.21	10.08	2.57
MEAN	13.63	17.53	10.27	2.72

→ Concentration of Bi in sample 5419, illustrates erratic occurrence of this element.

DRILLHOLE 115F

<u>SAMPLE NO.</u>	<u>LENGTH</u>	<u>ACTUAL LENGTH</u>
5405	172.53 - 173.67 (1.14m)	0.38m
5406	173.67 - 174.16 (0.49m)	0.15m

	<u>CU%</u>	<u>ZN%</u>	<u>S%</u>
5405	4.66	1.83	36.9
5406	0.88	0.42	3.8
MEAN	3.87	1.54	30.0

	<u>PB</u>	<u>CO</u>	<u>AG</u>	<u>CD</u>	<u>MO</u>	<u>NI</u>	<u>CR</u>	<u>SR</u>
5405	305	100	24.0	96	108	25	93	14
5406	600	46	6.4	7	28	32	140	19
MEAN	388	85	19.0	71	85	27	106	16

	<u>FE%</u>	<u>(FEO%)</u>	<u>Na₂O%</u>	<u>K₂O%</u>
5405	39.10	50.28	0.57	0.33
5406	16.00	20.58	1.27	0.25
MEAN	32.56	41.87	0.77	0.31

5405: As 170 p.p.m.
Hg 13 p.p.m.
Au 400 p.p.b.

→ High Hg - good correlation with high Zn & Cd as is expected.

→ One zone thin, but rich. Pb high.

DRILLHOLE 115H

<u>SAMPLE NO.</u>	<u>LENGTH</u>	<u>ACTUAL LENGTH</u>
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5407	244.85 - 246.85 (2.0m)	0.45m
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5408	246.85 - 250.00 (3.15m)	0.96m
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5409	250.00 - 252.30 (2.3m)	0.94m
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	<u>CU%</u>	<u>ZN%</u>	<u>S%</u>
5407	4.22	1.00	32.3
5408	0.10	0.16	3.8
5409	0.44	0.18	4.7
MEAN	1.26	0.38	11.31

	<u>PB</u>	<u>CO</u>	<u>AG</u>	<u>CD</u>	<u>MO</u>	<u>NI</u>	<u>CR</u>	<u>SR</u>	<u>BI</u>
5407	325	13	31.6	53	144	<1	130	<1	<2
5408	60	41	0.8	2	4	48	210	29	<2
5409	46	39	2.8	7	15	36	175	26	<2
MEAN	105	35	7.5	14	35	34	181	22	<2

	<u>FE%</u>	<u>(FeO%)</u>	<u>Na₂O%</u>	<u>K₂O%</u>
5407	3.25	4.18	0.19	0.37
5408	9.16	11.78	1.40	0.84
5409	8.87	11.41	1.73	0.24
MEAN	7.91	10.18	1.30	0.51

→ Thin zone & rich ore

→ Fe% data for 5407 needs checking.