



Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr BV 3361	Intern Journal nr	Internt arkiv nr Boks nr 19	Rapport lokalisering Nordland	Gradering
Kommer fra ..arkiv	Ekstern rapport nr BNN	Oversendt fra	Fortrolig pga	Fortrolig fra dato:
Tittel Diamantborhull				
Forfatter		Dato 19	Bedrift Bergverkselskapet Nord-Norge A/S	
Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Fagområde	Dokument type	Forekomster		
Råstofftype	Emneord			
Sammendrag				

Diamantborhull ved Fageråsen

Stasjon	Azimuth	Δx	Δy	X	Y	Höyde	I
Sement silo	184,206			925. 307,760	41. 118,220	+57,80	
TP	240,250						1,48
1	224,456	-33,162	-13,405	274,598	104,815	+67,268	
TP 1	224,456 249,035						
2	273,491	-8,948	-20,232	265,650 274,598	084,583	+65,741	
1	273,491						
2	224,728						
7802	298,219	-0,861	-30,765	925. <u>264,789</u>	41. <u>053,818</u>	<u>+62,57</u>	
1	273,491						
2	273,491 223,890						
7803	297,381	-1,267	-30,788	925. <u>264,383</u>	41. <u>053,795</u>	<u>+62,63</u>	
1	273,491						
2	33,982						
3	107,473	-4,801	+40,708	260,849	125,291	+72,662	
2	107,473						
3	181,922						
4	89,395	+6,923	+41,172	267,772	166,463	+79,463	
3	89,395						
4	214,000						
5	103,395	-2,429	+46,441	265,293	212,904	+86,974	
4	103,395						
5	211,452						
6	114,847	-8,319	+35,023	256,974	247,927	+91,720	

Anmerkninger

Utgangspunkt
triangelpunkt ved
Campingplassen.
Retningsvinkel er
beregnet

$$\begin{array}{r} \underline{Tp-1 = 36.65 \cdot 86.013} \\ + 7.988 \end{array} = 35.769$$

$$\begin{array}{r} \underline{1-2 = 22.175 \cdot 104.388} \\ - 1.527 \end{array} = 22.122$$

$$\begin{array}{r} \underline{2-Hull nr 7802 = 30.94 \cdot 106.529} \\ - 3.168 \end{array} = 30.777$$

$$\begin{array}{r} \underline{2-Hull nr 7803 = 30.97 \cdot 106.400} \\ - 3.108 \end{array} = 30.814$$

$$\begin{array}{r} \underline{2-3 = 41.57 \cdot 89.351} \\ + 6.921 \end{array} = 40.990$$

$$\begin{array}{r} \underline{3-4 = 42.30 \cdot 89.720} \\ + 6.801 \end{array} = 41.750$$

$$\begin{array}{r} \underline{4-5 = 47.11 \cdot 89.807} \\ + 7.511 \end{array} = 46.507$$

$$\begin{array}{r} \underline{5-6 = 36.31 \cdot 99.655} \\ + 4.746 \end{array} = 35.998$$

For hull nr 7802-7803
er høyder og koordin.
innmålt til toppen
av rør.

Station	Azimuth	Δx	Δy	x	y	Höyde
5	114.847			256.974	247.927	91.72
6	290.965					
105	205.812	-3.624	-0.332	925. 253.350	41. 247.595	90.462
5	114.847					
6	291.850					
106	206.697	-4.138	-0.437	925. 252.836	41. 247.490	90.719
5	114.847					
6	58.800					
7710	373.647	+14.326	-6.294	925. 271.300	41. 241.633	84.227
5	114.847					
6	278.410					
7	193.257	-30.014	+3.191	226.960	251.118	103.022
6	193.257					
7	164.840					
107	158.097	-2.526	+1.953	925. 224.434	41. 253.071	+102.188
5	114.847					
6	290.965					
6	76.712					
8	391.559					
8	167.677	+38.379	-5.119	218.595 295.353	242.808	+78.984
6	391.559					
8	46.800					
108	238.359					
6	391.559					
8	353.200					
108	344.759	+1.779	-2.099	925. 220.374 292.132	41. 240.709	77.976
6	391.559					
8	203.608					
9	395.167	+22.547	-1.715	925. 241.742 317.900	41. 241.093	+69.220

$$\underline{6 - \text{Hull } 105 = 3.85 \cdot 121,186}$$

$$- 1,258$$

$$3,639$$

$$\underline{6 - \text{Hull } 106 = 4.28 \cdot 115,028}$$

$$- 1,001$$

$$4,161$$

$$\underline{6 - \text{Hull } 7710 = 17.35 \cdot 128,430}$$

$$- 7,493$$

$$15,648$$

$$\underline{6 - 7 = 32.23 \cdot 77,191}$$

$$+ 11,302$$

$$30,183$$

$$\underline{7 - \text{Hull } 107 = 3.30 \cdot 116.26}$$

$$- 0,834$$

$$3,193$$

$$\underline{6 - 8 = 40.76 \cdot 120,230}$$

$$- 12,736$$

$$38,719$$

$$\underline{8 - 108 = 2.93 \cdot 122,360}$$

$$- 1,008$$

$$2,751$$

$$\underline{8 - 9 = 24.63 \cdot 125,950}$$

$$- 9,764$$

$$22,612$$

Station	Azimuth	Δx	Δy	x	y	Höhe
8	395,167					
9	11,030					
109	206,197	-1,710	-0,167	925. 239,432 316,19	41. 240,926	68,013
8	395,167					
9	187,717					
10	382,884	+9,669	-2,664	250,811 327,569	238,429	+64,486
9	382,884					
10	198,400					
110	381,284	+10,464	-3,168	925. 261,275 338,033	41. 235,261	+56,033
9	382,884					
10	198,650					
111	381,534	+10,847	-3,238	925. 261,658 338,416	41. 235,191	+55,979
Sement silo	184,206			925. 307,760	41. 118,220	
TP	348,501			+13,557		
11	332,707	+13,557	-24,024	321,317	094,196	+45,041
TP	332,707					
11	152,614					
12	285,321	-6,705	-28,564	314,612	065,632	+47,525
11	285,321					
12	176,097					
13	261,418	-2,130	-30,488	293,482	035,144	+50,931
12	261,418					
13	141,745					
114	203,163	-5,321	-0,265	925. 288,161	41. 034,879	+50,793

$$\underline{9 - \text{Hull } 109 = 2.10 \cdot 138.98}$$

$$- 1.207$$

$$1.718$$

$$\underline{9 - 10 = 11.09 \cdot 128.076}$$

$$- 4.734$$

$$10.029$$

$$\underline{10 - 110 = 13.82 \cdot 141.90}$$

$$- 8.453$$

$$10.933$$

$$\underline{10 - 111 = 14.16 \cdot 141.03}$$

$$- \del{8.507} - 8.507$$

$$11.320$$

$$\underline{\text{Tp} - 11 = 31.08 \cdot 130.482}$$

$$- 14.319$$

$$27.585$$

$$\text{Instr. höjden } 1.56$$

$$\underline{11 - 12 = 29.535 \cdot 94.640}$$

$$+ 2.484$$

$$29.340$$

$$\underline{12 - 13 = 37.25 \cdot 94.170}$$

$$+ 3.406$$

$$37.094$$

$$\underline{13 - \text{Hull } 114 = 5.33 \cdot 101.65}$$

$$- 0.138$$

$$5.328$$

Station	Azimuth	Δx	Δy	X	Y	Höhe
11	285,321			925. 314,612	41. 065,632	+47,525
12	263,257					
14	348,578	+17,672	-18,480	332,284	047,152	+39,927
12	348,578					
14	233,600					
7801	382,178	+8,712	-2,505	925. 340,996	41. 044,647	+37,23 +37,76
12	348,578					
14	107,440					
113	256,018	-17,723	-21,436	925. 314,561	41. 025,716	+40,114
12	85,321					+45,041
11	177,105					
15	62,426	+6,395	+9,547	327,712	103,743	
11	62,426					
15	164,587					
16	27,013	+14,128	+6,383	341,840	110,126	+43,395
15	27,013					
16	269,963					
17	96,976	+2,110	+44,379	343,950	154,505	+44,365
16	96,976					
17	191,154					
18	88,130	+7,692	+40,775	351,642	195,280	+43,636
17	88,130					
18	186,228					
19	74,358	+15,791	+37,060	367,433	232,340	+42,928
18	74,358					
19	190,248					
20	64,606	+23,956	+38,556	391,389	270,896	+40,639

$$\underline{12-14 = 26,675 \cdot 118,387}$$

$$- 7,598$$

$$25,570$$

$$\underline{14 - \text{Hull } 7801 = 9,32 \cdot 114,94}$$

$$- 2,167$$

$$9,065$$

$$\underline{14 - \text{Hull } 113 = 27,82 \cdot 98,68}$$

$$+ 0,577$$

$$27,814$$

$$\underline{11-15 = 11,51 \cdot 103,637}$$

$$- 0,657$$

$$11,491$$

$$\underline{15-16 = 15,59 \cdot 106,734}$$

$$- 1,646$$

$$15,503$$

$$\underline{16-17 = 44,44 \cdot 98,610}$$

$$+ 0,970$$

$$44,429$$

$$\underline{17-18 = 41,50 \cdot 101,119}$$

$$- 0,729$$

$$41,494$$

$$\underline{18-19 = 40,29 \cdot 101,119}$$

$$- 0,708$$

$$40,284$$

$$\underline{19-20 = 45,45 \cdot 103,208}$$

$$- 2,289$$

$$45,392$$

Stasjon	Azimuth	Δx	Δy	x	y	Høyde
18	74.358					
19	334.580					
112	208.938	-12.652	-1.788	925.354.781 819.688	41. 230.552	+45.366
19	64.606					
20	223.930					
7706	88.536	+5.349	+29.385	925. 396.738	41. 300.281	+37.793
19	64.606					
20	225.000					
7707	89.606	+4.850	+29.444	396.239	41. 300.340	+37.842

$$\underline{19 - \text{Hull } 112 = 13.10 \cdot 85.85}$$

$$+ 2.888$$

$$12.778$$

$$\underline{20 - \text{Hull } 7706 = 29.95 \cdot 104.715}$$

$$- 2.216$$

$$29.868$$

$$\underline{20 - \text{Hull } 7707 = 29.92 \cdot 104.615}$$

$$- 2.167$$

$$29.841$$

Diamant boring gruva

st	Azimuth	Δx	Δy	x	y	H	I	S
20	35.788			397,585	084,087			
30	243,012			+ 5,53	+15,990		2,39	
Hp I	78,800	+5,53	+15,99	403,725	100,077	60,07		-
30	78,800			403,115	100,077			
Hp I	162,344			+ 14,590	+ 11,01			
Hp II	41,144	+5,53	+15,99					
		+14,59	+11,01	417,705	111,087	-57,84		
Hp I	41,144							
Hp II	280,510							
550	121,65	-2,27	+6,40	<u>415,44</u>	<u>117,49</u>	<u>-54,48</u>		
Hp I	41,144							
Hp II	224,56							
551	65,704	+2,87	+4,80	<u>420,58</u>	<u>115,89</u>	<u>-54,32</u>		
Hp I	41,144							
Hp II	259,95							
552	101,094	-0,08	+4,65	<u>417,63</u>	<u>115,74</u>	<u>-59,01</u>		
Hp I	41,144							
Hp II	237,80							
553	78,944	+1,59	+4,62	<u>419,30</u>	<u>115,71</u>	<u>-58,94</u>		
554				<u>420,50</u>	<u>115,70</u>	<u>-59,0</u>		
182	254,74							
172	152,84							
581	207,58	-8,90	-1,06	422,93	349,20	-65,11	3,54	
FM II	292,951			404,909	707,417			
FM VI	116,675							
557	209,626	-6,529	-0,995	398,38	42706,422	22,70		

$$\begin{array}{r} 30 - Hp I \quad 16.95 \cdot 96,103 \\ + 1.04 \end{array}$$

16,92

$$\begin{array}{r} Hp I - Hp II \quad 18.41 \cdot 92,272 \\ + 2.229 \end{array}$$

18.28

$$\begin{array}{r} Hp II - 550 = 7.60 \cdot 70,32 \\ + 3.42 \end{array}$$

6.79

$$\begin{array}{r} Hp II - 551 = 6.61 \cdot 64,20 \\ + 3.52 \end{array}$$

5.59

$$\begin{array}{r} Hp II - 552 = 4.80 \cdot 115,72 \\ - 1.17 \end{array}$$

4.65

$$\begin{array}{r} Hp II - 554 = 5.00 \cdot 114,14 \\ - 1.10 \end{array}$$

4.88

Prof. 44.120

$$\begin{array}{r} 17^{\circ} - 581 = 8.98 \cdot 104,30 \\ - 0.61 \end{array}$$

8.96

$$\begin{array}{r} FM II - 557 = 6.87 \cdot 112,78 \\ - 1.894 \end{array}$$

6.604

		Δx	Δy	x	y	
13y 14y	71,133 191,160					
Hp	62.29	+6.04	+8.98	407.26	445.89	52.25
14y Hp	62.29 108.80					
561	371.09	+3.83	-1.87	411.09	444.02	-53.1
26y 25y	293.04 154.25					
559	247.79	-3.78	-3.53	417.82	726.11	-49.07
26y 25y	293.04 151.15					
562	244.19	-4.54	-3.78	417.06	725.86	-49.10
26y 25y	293.04 159.30					
565	252.34	-3.76	-4.04	417.84	725.60	49.07
17y 16y	293.616 247.93					
Hp	341.55	+6.61	-8.65	416.83	478.14	
16y Hp	341.55 253.00					
563	394.55	+6.44	-0.55	423.27	477.59	
17y 16y	293.616 253.74					
566	347.36	+8.58	-9.32	418.80	477.47	50.98

$$\begin{array}{r} 144 - H_p = 10.92 \cdot 91.46 \\ + 1.46 \end{array}$$

10.82

$$\begin{array}{r} H_p - 561 = 4.34 \cdot 111.92 \\ - 0.81 \end{array}$$

4.26

$$\begin{array}{r} 254 - 559 = 5.50 \cdot 122.2 \\ - 1.88 \end{array}$$

5.17

$$\begin{array}{r} 254 - 562 = \cancel{5.83} \cdot 6.15 \cdot 117.9 \\ - 1.71 \end{array}$$

5.91

+ 0.2 m til 1.99

$$\begin{array}{r} 254 - 565 = 5.83 \cdot 120.85 \\ - 1.88 \end{array}$$

5.52

$$\begin{array}{r} 164 - H_p = 10.89 \cdot 98.97 \\ + 0.18 \end{array}$$

10.89

$$\begin{array}{r} H_p - 563 = 6.46 \cdot 100.000 \\ \hline \end{array}$$

6.46

$$\begin{array}{r} 164 - 566 = 12.71 \cdot 105.11 \\ - 1.02 \end{array}$$

12.67

		Δx	Δy	Δx^2	Δy^2	H	L	S
10 9	303.718 327.05			409.54	411.94			
569	30.77	+18.48	+9.70	428.02	421.64	-88.83	3.67	
9 10	103.718 174.060			407.62	444.78			
H _p	77.78	+6.49	+17.83	414.11	462.61	89.95	2.67	-
10 H _p	77.78 323.50							
572	201.28	-7.24	-0.15	406.87	462.60	91.92		0.44
204 194	294.655 375.17			421.34	570.05	41.33		
570	69.83	+5.16	+10.05	426.50	580.10	-45.18	2.91	
204 194	294.655 379.52							
571	74.18	+3.87	+9.00	425.21	579.05	45.35	2.91	
204 219	97.85 95.75			425.66	638.31	39.47		
574	393.60	+13.04	-1.32	438.70	636.99	-44.02	3.37	
573				411.9	462.60	-91.92		
10 H _p	74.82 128.00			412.19	455.75			
584	2.82	+16.31	+0.72	428.50	456.47	-88.05	2.89	
10 H _p	74.82 261.45							
585	136.27	-4.55	+7.11	407.64	462.86	87.72	2.89	
10 H _p	74.82 265.00							
586	139.82	-5.58	+7.73	406.61	463.48	91.09	2.89	

$$\underline{9 - 569 = 21.07 \cdot 108.69}$$

$$- 2.87$$

$$20.87$$

$$\underline{10 - 4/p = 18.99 \cdot 103.050}$$

$$- 0.91$$

$$= 18.97$$

$$\underline{4/p - 572 = 7.40 \cdot 113.24}$$

$$- 1.53$$

$$7.24$$

$$\underline{194 - 570 = 11.34 \cdot 105.29}$$

$$- 0.94$$

$$11.30$$

$$\underline{194 - 571 = 9.86 \cdot 107.17}$$

$$- 1.11$$

$$9.80$$

$$\underline{219 - 574 = 13.16 \cdot 105.74}$$

$$- 1.18$$

$$13.11$$

$$\underline{4/p - 584 = 16.44 \cdot 92.72}$$

$$+ 1.88$$

$$16.33$$

$$\underline{4/p - 585 = 8.72 \cdot 83.72}$$

$$+ 2.21$$

$$8.44$$

$$\underline{4/p - 586 = 9.60 \cdot 107.72}$$

$$- 1.16$$

$$9.53$$

SL.	Azimuth	Δx	Δy	x	y	H	I
29x 30x	83.167 34.44			388.57	869.59	-57.56	3.96
Hp	317.61	+2.95	-10.41	391.52	859.16	-61.54	
30x Hp	317.61 26.13						
590	143.74	-4.65	+5.67	<u>386.87</u>	^{43.} 864.83	-63.13	
30x Hp	317.61 388.66						
591	106.27	-0.73	+7.39	<u>390.79</u>	^{43.} 866.55	-63.71	
30x Hp	317.61 307.89						
587	25.50	+9.34	+3.95	<u>400.86</u>	⁴³ 863.11	-62.82	
30x Hp	317.61 301.56						
582	19.17	+13.33	+4.14	<u>404.85</u>	⁴³ 863.30	-62.60	
10 1N	15.82 220.96			403.66	055.44	-56.87	2.91
588	36.78	+5.82	+3.80	<u>409.48</u>	⁴⁴⁰ 59.24	-60.56	
72 62	297.992 277.32			374.13	58.68	65.00	3.00
592	375.31	+3.65	-1.49	<u>377.78</u>	⁴⁴⁰ 57.19	-69.48	
10 1N	15.82 218.66						2.97
	34.48	+6.67	+4.01	<u>410.33</u>	^{44.0} 59.41	-60.48	
10 1N	15.82 394.55						2.97
	210.37	-4.52	-0.74	<u>399.14</u>	^{44.0} 54.70	61.74	

$$\begin{array}{r} 30^* - H_p = 10.82 \cdot 100.11 \\ -0.02 \quad \quad \quad 10.82 \end{array}$$

$$\begin{array}{r} H_p - 590 = 7.50 \cdot 113.58 \\ -1.59 \quad \quad \quad 7.33 \end{array}$$

$$\begin{array}{r} H_p - 591 = 7.74 \cdot 118.09 \\ -2.17 \quad \quad \quad 7.43 \end{array}$$

$$\begin{array}{r} H_p - 587 = 10.22 \cdot 108.00 \\ -1.28 \quad \quad \quad 10.14 \end{array}$$

$$\begin{array}{r} H_p - 582 = 14.00 \cdot 104.82 \\ -1.06 \quad \quad \quad 13.96 \end{array}$$

$$\begin{array}{r} 1N - 588 = 6.99 \cdot 107.100 \\ -0.78 \end{array}$$

6.95 $\rightarrow$ ligger v. s.v.

$$\begin{array}{r} 6 - 593 = 4.21 \cdot 122.93 \\ -1.48 \quad \quad \quad 3.94 \end{array}$$

589 mangler innmåling

$$\begin{array}{r} 1N - ? = 7.81 \cdot 105.20 \\ -0.64 \quad \quad \quad 7.78 \end{array}$$

lengst mot nord

$$\begin{array}{r} 1N - ? = 4.96 \cdot 124.98 \\ -1.90 \quad \quad \quad 4.58 \end{array}$$

ST	Azimuth	Δx	Δy	X	Y	H	I
//	283.820			407.62	444.78		
10	391.630						
Hpl	75.45	+5.54	+11.17	413.16	455.95	-87.05	
10	75.45						
Hpl	129.15						
Hp2	4.60	+26.97	+1.95	440.13	457.90	-90.51	
Hpl	4.60						
Hp2	213.61						
	18.21	+3.26	+0.96	443.39	458.86	-92.02	
Hpl	4.60						
Hp2	187.28						
	391.88	+3.10	-0.40	443.23	457.50	89.04	
Hpl	4.60						
Hp2	198.64						
	3.24	+27.06	+1.38	467.19	459.28	-91.54	
28 ^I	382.16						
28 ^{II}	382.16			405.68	825.90		2.26
28 ^{II}	233.76						
611	15.92	+5.56	+1.42	411.24	827.32	-56.99	
28 ^I	382.16			405.68	825.90		
28 ^{II}	233.54						2.26
612	15.70	+6.04	+1.52	411.72	827.42	57.47	
28 ^I	382.16			405.68	825.90		
28 ^{II}	232.37						2.26
613	14.53	+6.00	+1.39	411.68	827.29	61.17	

$$\underline{10 - Hp1 = 12.11 \cdot 106.03}$$

$$- 1.15$$

$$12.06$$

$$\underline{Hp1 - Hp2 = 27.05 \cdot 101.62}$$

$$- 0.69$$

$$27.04$$

$$\underline{3.72 \cdot 126.61}$$

$$- 1.51$$

$$3.40$$

$$\underline{3.46 \cdot 71.97}$$

$$+ 1.47$$

$$3.13$$

$$\underline{27.12 \cdot 102.42}$$

$$- 1.03$$

$$27.10$$

$$\underline{28^{\text{II}} - 611 = 6.30 \cdot 73.04}$$

$$+ 2.59$$

$$5.74$$

$$\underline{28^{\text{II}} - 612 = 6.58 \cdot 79.24}$$

$$+ 2.11$$

$$6.23$$

$$\underline{28^{\text{II}} - 613 = 6.36 \cdot 116.06}$$

$$- 1.59$$

$$6.16$$

Mo kirke $x = 926.300,88$ $y = 41.598,38$

Tp. Oskar $x = 925.327,45$ $y = 41.481,77$

δ Mo Kirke - Tp Oskar $207,5909$

Stasjon	Azimuth	Δx	Δy	x	y	H
Mo Kirke	207,590					+81,69
Tp. Oskar	304,247					
1	311,837	+4,123	-21,917	931,573	459,853	+82,131
Tp. Osk	311,837					
1	281,618					
2	393,455	+30,645	-3,162	362,218	456,691	59,937
1	393,455					
2	183,944					
3	377,399	+28,877	-10,705	391,095	445,986	46,081
2	377,399					
3	124,735					
4	302,134	+1,340	-39,951	392,227	406,035	44,608
2	377,399					
3	256,690					
8403						
8404	34,089	+15,29	+9,072	406,385	455,058	+40,53
8405						
2	377,399					
3	243,900					
8407		+15,492	+5,385	406,587	451,371	
Hull 48N	21,299	+15,378	-5,701		411,420	41,10
2	377,399					
3	244,920					
8406						
Hull 82N	22,319	+14,792	+5,409	405,885	451,39	41,30

$$\underline{Tp\ Oskar - 1 = 102,621 \cdot 22,32}$$

$$- 0,919$$

$$22,301$$

$$I = 1,36$$

$$\underline{1-2 = 139,744 \cdot 37,97}$$

$$- 22,194$$

$$30,808$$

$$\underline{2-3 \quad 126,915 \cdot 33,77}$$

$$- 13,856$$

$$30,797$$

$$\underline{3-4 \quad 102,345 \cdot 40,00}$$

$$- 1,473$$

$$39,973$$

$$\underline{3-8403-4-5 = 114,94 \cdot 18,28}$$

$$- 4,251$$

$$17,797 - 17,779$$

→ Höyden ned til fast fjell

$$\underline{3-88^{\circ}N = 118,76 \cdot 17,14}$$

$$- 4,978$$

$$16,401$$

→ Topp ror

$$\underline{3-82^{\circ}N = 118,76 \cdot 16,46}$$

$$15,75$$

$$- 4,781$$

Topp ror

y

$$\begin{array}{r} 302,134 \\ 191,930 \\ \hline \end{array}$$

x

294,064

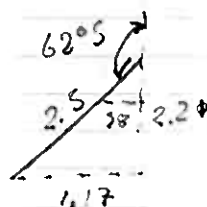
-2,514 - 26,882

389,715

379,153

H = +44.332

S



Hull 2407 x 388,5 y 379,15 H = 42,13 (Fast Field)

~~8408~~

8408 - 90°

8409 - 76° S

8410 - 62° S

8411 - 65° N

Diamantboring fra Jernvektstunnel

St.	Azimuth	Δx	Δy	X	Y	H	I
22	110,454			^{925.} 466,39	^{41.} 455,15	+23,29	1.565
21	215,183						
1	125,637	-15,712	+36,885	450,678	492,035	+25,649	
21	125,637						
1	208,209						
2	133,846	-19,411	+33,004	431,267	525,039	+26,552	
1	133,846						
2	213,175						
3	147,021	-23,593	+25,911	407,674	550,950	+27,247	
2	147,021						
3	203,879						
4	150,900	-25,866	+25,145	381,808	576,095	+27,880	
3	150,900						
4	204,125						
5	155,025	-25,113	+21,432	356,695	597,527	+28,473	
4	155,025						
5	199,560						
6	154,585	-26,514	+22,946	330,181	620,491	+29,135	
5	154,585						
6	196,885						
7	151,470	-24,218	+23,124	305,963	643,615	+29,739	
6	151,470						
7	192,972						
8	144,442	-23,130	+27,567	282,833	671,182	+30,342	

$$\underline{21-1 = 40.10 \cdot 98.739}$$

$$+ 0.794$$

$$40.092$$

$$\underline{1-2 = 38.30 \cdot 98.499}$$

$$+ 0.903$$

$$38.289$$

$$\underline{2-3 = 35.05 \cdot 98.738}$$

$$+ 0.695$$

$$35.043$$

$$\underline{3-4 = 36.08 \cdot 98.884}$$

$$+ 0.633$$

$$36.074$$

$$\underline{4-5 = 33.02 \cdot 98.867}$$

$$+ 0.593$$

$$33.015$$

$$\underline{5-6 = 35.07 \cdot 98.798}$$

$$+ 0.662$$

$$35.064$$

$$\underline{6-7 = 33.49 \cdot 98.852}$$

$$~~+ 0.64~~ + 0.604$$

$$33.485$$

$$\underline{7-8 = 35.99 \cdot 98.933}$$

$$+ 0.603$$

$$35.985$$

Forts

				x	y	H
2	147,021			407.674	550,950	+27,247
3	130,500					
1114	77,521	+1,434	+3,645	409,10	554,60	+25,90
2	147,021					
3	132,870					
1115	69,821	+1,746	+3,411	409,40	554,40	+26,00
2	147,021					
3	357,120					
1112+	304,141	+0,355	-5,452	408,02	545,50	+25,50
1113						
4	155,025			356,695	597,527	+28,473
5	12,42					
1110	367,445	+13,310	-7,469	370,00	590,058	+27,00
4	155,025					
5	12,56					
1109	367,585	+13,105	-7,316	369,80	590,20	+27,00
4	155,025					
5	13,06					
1108	368,085	+12,772	-6,999	369,50	590,50	+27,00
+1107						
7	144,442			282,833	671,182	+30,342
8	386,1			671		
1131	330,542	+7,054	-13,557	289,887	657,625	+28,90
7	144,442					
8	385,8					
1132	330,242	+6,942	-13,498	289,775	657,683	+29,10
7	144,442					
8	385,06					
1133	329,502	+6,680	-13,367	289,513	657,815	+29,0

$$\begin{array}{r}
 410 \cdot 120.7 \\
 \underline{3 - \text{Hull } 1114 = 402 \cdot 119.53} \\
 - 1.31
 \end{array}
 \quad 3.885$$

$$\begin{array}{r}
 3 - \text{Hull } 1115 = 402 \cdot 119.53 \\
 \underline{\hspace{1.5cm}} \\
 - 1.21
 \end{array}
 \quad 3.832$$

$$\begin{array}{r}
 \underline{3 - \text{Hull } 1112 + 1113 = 5.73 \cdot 119.46} \\
 - 1.72
 \end{array}
 \quad 5.464$$

$$\begin{array}{r}
 \underline{5 - \text{Hull } 1110 = 15.33 \cdot 106.020} \\
 - 1.447
 \end{array}
 \quad 15.262$$

$$\begin{array}{r}
 \underline{5 - \text{Hull } 1109 = 15.08 \cdot 106.200} \\
 - 1.466
 \end{array}
 \quad 15.009$$

$$\begin{array}{r}
 \underline{5 - \text{Hull } 1107 + 1108 = 14.63 \cdot 106.03} \\
 - 1.384
 \end{array}
 \quad 14.564$$

$$\begin{array}{r}
 \underline{8 - \text{Hull } 1131 = 15.35 \cdot 106.0} \\
 - 1.44
 \end{array}
 \quad 15.282$$

$$\begin{array}{r}
 \underline{8 - \text{Hull } 1132 = 15.23 \cdot 105.20} \\
 - 1.243
 \end{array}
 \quad 15.179$$

$$\begin{array}{r}
 \underline{8 - \text{Hull } 1133 = 15.0 \cdot 105.550} \\
 - 1.306
 \end{array}
 \quad 14.943$$

7	144.442			282.833	671.182	+30.342	I
8	197.860						
1145	142.302	-21.384	+27.300	261.449	698.482	+29.93	
7	144.442						
8	197.970						
1144	142.412	-21.319	+27.12	261.514	698.30	+29.81	
Stigort				925.	41.455,15	+23.29	
22	110.454			466.39			
21	214.068						
I	124.522	-13.043	+32.169	453.347	487.319	25.502	1.47
21	124.522						
I	207.713						
II	132.235	-17.125	+13.879	436.222	501.198	26.328	
			30		518.198		
I	132.235						
II	177.850						
III	110.085	-2.885	+18.056	433.337	519.254	30.48	
					536.254		
II	110.085						
III	174.770						
P	84.855	+3.214	+13.253	436.551	532.507	+28.68	1.50
					549.507		

$$\underline{8 - 1145 = 34.68 \cdot 100.750}$$

$$- 0.409$$

$$34.678$$

$$\underline{8 - 1144 = 34.80 \cdot 100.970}$$

$$- 0.526$$

$$34.496$$

$$\underline{21 - I = 34.72 \cdot 98.640}$$

$$+ 0.742$$

$$34.712$$

$$\underline{I - II = 35.32 \cdot 98.511}$$

$$+ 0.826$$

$$35.310$$

$$\underline{II - III = 18.75 \cdot 85.785}$$

$$+ 4.152$$

$$18.285$$

$$\underline{III - P = 13.64 \cdot 101.401}$$

$$- 0.300$$

$$13.637$$