



Bergvesenet

Postboks 3021, N-7441 Trondheim

Rapportarkivet

Bergvesenet rapport nr 7000	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
Kommer fra ..arkiv Bidjovagge gruber AS	Ekstern rapport nr	Oversendt fra Bidjovagge	Fortrolig pga	Fortrolig fra dato:

Tittel
Drillhole dip and direction measurements with Reflex Fotobor DDI, for Bidjovagge Gruber A/S, juni 1990

Forfatter Stien, Rune	Dato År 08.10 1990	Bedrift (Oppdragsgiver og/eller oppdragstaker) Bidjovagge Gruber A/S
--------------------------	--------------------------	---

Kommune Kautokeino	Fylke Finnmark	Bergdistrikt	1: 50 000 kartblad 18334	1: 250 000 kartblad Nordreisa
-----------------------	-------------------	--------------	-----------------------------	----------------------------------

Fagområde Boring	Dokument type	Forekomster (forekomst, gruvefelt, undersøkelsesfelt) Bidjovagge
Råstoffgruppe Malm/metall	Råstofftype Cu,Au	

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse

Avviksmåling utført i 13 hull.

Hullene er satt skrått og er fra 100 til 200 m lange, gir et avvik i X-retning på 1 - 4 meter.

BIDJOVAGGE GRUBER 4/5
1/4 MARCUS EKBERG
KAUTOKEINO

~~Sulitjelma,~~
BERGEN, 08.10.90

HEI, MARCUS!

MED REFERANSE TIL VÅRE BORTHULLSMÅLINGER I JUNI,
OG RAPPORT AV 13. JULI 1990, MÅ JEG DESSVERRE
OPPLYSSE AT DET HAR OPPSTÅTT FEIL VED DIGITALISERING
AV FOTOBOK-FILMENE.

DETTE BLE OPPDAGET FOR NOEN DAGER SIDEN UNDER
ET BOREPROSJEKT HER I BERGEN. DET VISTE SEG AT
DIGITALISERINGSBORDET GAV EN IKKE-SYSTEMATISK
FEIL I SKALA, EN SLAGS MÅLESTOKK-FORVRENING.

KORT FORTALT GIR DETTE EN FEIL VED SLUTTPUNKT
PÅ 150 M LANGT HULL I STØRRELSESORDEN 2-3 M.
DETTE ER SÅPASS MYE AT JEG VALGTE Å DIGITALISERE
ALLE FILMENE PÅ NYTT.

JEG BEKLAGER DETTE STERKT, SIDEN DET MÅ FØRE
TIL EKSTRA ARBEID FOR DERE. JEG RINGER DEG
I NESTE UKE.

VENNLIG HILSEN

Anne Stein

PROFIL
SM2

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
 CUSTOMER REFERENCE: Marcus Ekberg
 SURVEYOR: Rune Stien
 DATE: 07.10.90
 PLACE: Bidjovagge
 COUNTRY: Norge
 DRILL HOLE: S142B
 HOLE DIAMETER (MM): 46
 NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1422.03	806.66	-557.3	43.29	88.11

POSITION AT 120 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1420.51	900	-632.52	36.71	91.03

LOCAL COORDINATES AT 120 M

Y-LOC= 1.54 M TO THE RIGHT
 Z-LOC= 9.270001 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1422.03	806.66	-557.3	43.29	88.11
3	-1421.96	808.84	-559.36	43.19	88.11
6	-1421.89	811.02	-561.42	43.01	88.17
9	-1421.82	813.22	-563.46	42.89	88.12
12	-1421.75	815.41	-565.5	42.77	88.03
15	-1421.67	817.61	-567.54	42.66	87.99
* 15	10.96	-.01	.06		
18	-1421.59	819.82	-569.57	42.52	87.97
21	-1421.51	822.03	-571.6	42.33	87.93
24	-1421.43	824.24	-573.62	42.02	87.94
27	-1421.35	826.47	-575.63	41.77	87.96
30	-1421.28	828.71	-577.63	41.09	88.06
* 30	22.06	-.04	.34		
33	-1421.18	830.97	-579.6	40.17	87.67
36	-1421.1	833.26	-581.54	39.1	87.8
39	-1421.01	835.58	-583.43	38.35	87.75
42	-1420.93	837.93	-585.29	37.75	88.14
45	-1420.86	840.3	-587.13	37.58	88.28
* 45	33.66	-.08	1.38		
48	-1420.79	842.68	-588.96	37.48	88.41
51	-1420.73	845.06	-590.78	37.36	88.52
54	-1420.67	847.44	-592.6	37.28	88.59
57	-1420.62	849.83	-594.42	37.23	88.68
60	-1420.57	852.22	-596.24	37.24	88.77
* 60	45.58	.02	2.93		
63	-1420.52	854.61	-598.05	37.27	88.91
66	-1420.48	856.99	-599.87	37.3	89
69	-1420.44	859.38	-601.69	37.29	89.12
72	-1420.41	861.76	-603.51	37.26	89.19

75	-1420.38	864.15	-605.32	37.24	89.35
* 75	57.52	.23	4.5		
78	-1420.36	866.54	-607.14	37.23	89.48
81	-1420.34	868.93	-608.95	37.23	89.54
84	-1420.33	871.32	-610.77	37.22	89.63
87	-1420.31	873.71	-612.58	37.2	89.68
90	-1420.3	876.1	-614.4	37.24	89.72
* 90	69.45	.54	6.08		
93	-1420.3	878.48	-616.21	37.3	89.85
96	-1420.3	880.87	-618.03	37.34	90.03
99	-1420.31	883.25	-619.85	37.31	90.16
102	-1420.32	885.64	-621.67	37.23	90.37
105	-1420.34	888.03	-623.49	37.18	90.53
* 105	81.38	.97	7.65		
108	-1420.37	890.42	-625.3	37.13	90.6
111	-1420.4	892.81	-627.11	37.05	90.68
120	-1420.51	900	-632.52	36.71	91.03
* 120	93.34	1.54	9.270001		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 07.10.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S142C
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1421.92	806.52	-557.3	53.29	90.43

POSITION AT 177 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1426.25	918.09	-694.58	49.98	93.9

LOCAL COORDINATES AT 177 M

Y-LOC= 3.48 M TO THE RIGHT
Z-LOC= 7.44 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1421.92	806.52	-557.3	53.29	90.43
3	-1421.94	808.31	-559.71	53.19	90.51
6	-1421.95	810.11	-562.11	53.08	90.56
9	-1421.97	811.91	-564.51	52.92	90.49
12	-1421.99	813.72	-566.9	52.8	90.37
15	-1422	815.53	-569.29	52.73	90.36
* 15	9.01	0	.06		
18	-1422.01	817.35	-571.68	52.67	90.35
21	-1422.02	819.16	-574.07	52.65	90.27
24	-1422.03	820.98	-576.45	52.62	90.21
27	-1422.04	822.81	-578.84	52.58	90.1
30	-1422.04	824.63	-581.22	52.46	89.98
* 30	18.11	-.02	.23		
33	-1422.04	826.46	-583.6	52.27	90.04
36	-1422.04	828.29	-585.97	51.92	90.12
39	-1422.05	830.14	-588.33	51.76	90.21
42	-1422.05	832	-590.69	51.52	90.5
45	-1422.07	833.86	-593.04	51.33	90.93
* 45	27.34	-.07	.57		
48	-1422.1	835.74	-595.38	51.07	91.23
51	-1422.14	837.62	-597.71	50.89	91.44
54	-1422.19	839.51	-600.04	50.75	91.57
57	-1422.24	841.41	-602.37	50.7	91.64
60	-1422.3	843.31	-604.69	50.69	91.83
* 60	36.79	.09	1.18		
63	-1422.36	845.21	-607.01	50.6	92
66	-1422.42	847.11	-609.33	50.58	92.08
69	-1422.49	849.02	-611.64	50.54	92.17
72	-1422.56	850.92	-613.96	50.45	92.5

75	-1422.65	852.83	-616.27	50.4	92.63
* 75	46.31	.37	1.89		
78	-1422.74	854.74	-618.59	50.37	92.64
81	-1422.82	856.65	-620.9	50.3	92.66
84	-1422.91	858.57	-623.21	50.3	92.63
87	-1423	860.48	-625.51	50.27	92.69
90	-1423.09	862.39	-627.82	50.27	92.69
* 90	55.88	.74	2.66		
93	-1423.18	864.31	-630.13	50.29	92.64
96	-1423.27	866.22	-632.44	50.34	92.66
99	-1423.36	868.14	-634.75	50.34	92.66
102	-1423.45	870.05	-637.06	50.29	92.78
105	-1423.54	871.96	-639.36	50.27	92.9
* 105	65.45	1.12	3.44		
108	-1423.64	873.88	-641.67	50.22	93.07
111	-1423.74	875.79	-643.98	50.18	93.12
114	-1423.85	877.71	-646.28	50.12	93.12
117	-1423.95	879.63	-648.58	50.12	93.19
120	-1424.06	881.55	-650.89	50.18	93.23
* 120	75.05	1.57	4.24		
123	-1424.17	883.47	-653.19	50.16	93.27
126	-1424.28	885.39	-655.49	50.12	93.42
129	-1424.39	887.31	-657.8	50.13	93.55
132	-1424.51	889.23	-660.1	50.15	93.52
135	-1424.63	891.15	-662.4	50.14	93.45
* 135	84.65	2.06	5.06		
138	-1424.74	893.07	-664.7	50.12	93.29
141	-1424.86	894.99	-667.01	50.12	93.29
144	-1424.97	896.91	-669.31	50.1	93.29
147	-1425.08	898.83	-671.61	50.05	93.25
150	-1425.19	900.75	-673.91	49.99	93.21
* 150	94.25	2.55	5.88		
153	-1425.29	902.68	-676.21	50	93.25

156	-1425.4	904.6	-678.51	49.98	93.28
159	-1425.51	906.53	-680.81	49.98	93.36
162	-1425.63	906.45	-683.1	49.89	93.54
165	-1425.75	910.38	-685.4	49.91	93.64
* 165	103.89	3.04	6.74		
168	-1425.87	912.31	-687.69	49.92	93.69
177	-1426.25	918.09	-694.58	49.98	93.9
* 177	111.8	3.48	7.44		

PROFIL
S/44

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 17.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S144F
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

Y (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1440.01	805.88	554.7	44.5	87.68

POSITION AT 150 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1438.01	915.4	452.24	42.5	89.94

LOCAL COORDINATES AT 150 M

Y-LOC= 2.42 M TO THE RIGHT
Z-LOC= 3.67 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1440.01	805.88	554.7	44.5	87.68
3	-1439.93	808.01	552.59	44.37	87.82
6	-1439.85	810.16	550.49	44.26	87.98
12	-1439.7	814.45	546.31	44.05	88.05
18	-1439.55	818.77	542.14	43.89	88.25
24	-1439.42	823.09	537.98	43.83	88.29
* 24	17.22	.1	.15		
30	-1439.3	827.42	533.83	43.62	88.35
36	-1439.17	831.76	529.69	43.32	88.46
42	-1439.06	836.14	525.59	43.02	88.61
48	-1438.96	840.52	521.5	42.97	88.77
54	-1438.87	844.91	517.41	42.94	88.89
* 54	39.05	.43	.77		
60	-1438.78	849.31	513.32	42.96	88.8
66	-1438.69	853.69	509.23	42.97	88.93
72	-1438.61	858.08	505.14	42.9	89
78	-1438.54	862.48	501.06	42.86	89.07
84	-1438.47	866.88	496.98	42.78	89.13
84	61.01	.92	1.59		
90	-1438.4	871.28	492.9	42.73	89.24
96	-1438.34	875.69	488.83	42.68	89.28
102	-1438.28	880.1	484.76	42.72	89.16
108	-1438.22	884.51	480.69	42.71	89.22
114	-1438.16	888.91	476.62	42.73	89.28
* 114	83.04	1.51	2.52		
120	-1438.11	893.32	472.55	42.67	89.45
126	-1438.07	897.73	468.48	42.63	89.55
132	-1438.04	902.14	464.42	42.62	89.73
138	-1438.02	906.56	460.35	42.6	89.84

141	-1438.02	908.77	458.32	42.57	89.87
* 141	102.88	2.16	3.37		
150	-1438.01	915.4	452.24	42.5	89.94
● 150	109.51	2.42	3.67		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 16.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S144G
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

Y(M)	Y(M)	Z(M)	DIP (DEG.)	DIR. (DEG.)
1440.01	805.88	554.7	36.19	87.19

POSITION AT 153 M

X(M)	Y(M)	Z(M)	DIP (DEG.)	DIR. (DEG.)
-1436.23	931	466.75	34.67	89.44

LOCAL COORDINATES AT 153 M

Y-LOC= 2.33 M TO THE RIGHT
Z-LOC= 2.95 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1440.01	805.88	554.7	36.19	87.19
3	-1439.9	808.29	552.92	36.15	87.25
6	-1439.78	810.71	551.15	36.15	87.24
12	-1439.55	815.55	547.61	36.12	87.27
18	-1439.32	820.39	544.08	36.04	87.3
24	-1439.09	825.24	540.55	35.9	87.35
* 24	19.38	.02	.03		
30	-1438.87	830.1	537.03	35.91	87.44
36	-1438.66	834.95	533.51	35.74	87.66
42	-1438.46	839.83	530.02	35.37	87.87
48	-1438.28	844.71	526.55	35.36	87.85
54	-1438.1	849.6	523.07	35.29	87.96
* 54	43.77	.22	.33		
60	-1437.93	854.5	519.61	35.15	88.15
66	-1437.78	859.41	516.16	35.06	88.31
72	-1437.63	864.32	512.71	34.88	88.33
78	-1437.49	869.24	509.29	34.61	88.29
84	-1437.34	874.18	505.88	34.5	88.41
84	68.35	.66	.97		
90	-1437.21	879.12	502.49	34.41	88.61
96	-1437.1	884.07	499.1	34.41	88.76
102	-1436.99	889.02	495.7	34.46	88.75
108	-1436.88	893.97	492.31	34.44	88.76
114	-1436.77	898.91	488.91	34.48	88.75
* 114	93.08	1.3	1.89		
120	-1436.67	903.85	485.51	34.58	88.85
126	-1436.57	908.79	482.11	34.6	88.86
132	-1436.48	913.73	478.7	34.64	88.98
138	-1436.39	918.67	475.29	34.63	89.18

144	-1436.32	923.6	471.88	34.71	89.23
8-144	117.76	2.06	2.72		
153	-1436.23	931	466.75	34.67	89.44
153	125.15	2.33	2.95		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 15.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S144H
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1440.02	805.77	554.7	51.3	87.23

POSITION AT 186 M X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1437.72	928.41	414.96	46.67	89.76

LOCAL COORDINATES AT 186 M

Y-LOC= 3.62 M TO THE RIGHT
Z-LOC= 8.32 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1440.02	805.77	554.7	51.3	87.23
3	-1439.93	807.64	552.35	51.29	87.27
6	-1439.84	809.51	550.01	51.23	87.21
9	-1439.75	811.39	547.67	51.16	87.21
15	-1439.57	815.15	543	51	87.42
21	-1439.41	818.93	538.34	50.85	87.57
* 21	13.17	.01	.05		
27	-1439.25	822.71	533.69	50.76	87.65
33	-1439.1	826.51	529.05	50.61	87.82
39	-1438.95	830.31	524.41	50.38	88.09
45	-1438.84	834.15	519.8	49.89	88.53
51	-1438.74	838.02	515.21	49.57	88.63
* 51	32.27	.27	.5		
57	-1438.65	841.91	510.65	49.4	88.7
63	-1438.56	845.82	506.1	49.1	88.78
69	-1438.48	849.75	501.57	48.83	88.87
72	-1438.44	851.73	499.31	48.78	88.93
75	-1438.4	853.71	497.05	48.61	89.01
* 75	47.96	.69	1.39		
78	-1438.37	855.69	494.8	48.46	89.04
81	-1438.33	857.68	492.56	48.36	89.03
84	-1438.3	859.67	490.31	48.33	89.03
87	-1438.27	861.66	488.07	48.24	89
90	-1438.23	863.66	485.83	48.15	89.06
* 90	57.91	1	2.14		
93	-1438.2	865.66	483.6	48.06	89.15
99	-1438.15	869.68	479.14	47.93	89.4
105	-1438.1	873.7	474.69	47.88	89.23
111	-1438.05	877.72	470.23	47.97	89.07

117	-1437.98	881.74	465.78	47.91	89.15
* 117	75.98	1.63	3.7		
123	-1437.93	885.76	461.33	47.9	89.39
129	-1437.89	889.78	456.87	47.81	89.55
135	-1437.86	893.81	452.43	47.73	89.73
141	-1437.84	897.85	447.99	47.61	89.8
147	-1437.83	901.9	443.56	47.53	89.84
* 147	96.12	2.45	5.53		
153	-1437.82	905.94	439.13	47.54	89.74
159	-1437.79	910	434.71	47.39	89.59
165	-1437.77	914.06	430.3	47.09	89.79
171	-1437.76	918.15	425.91	46.95	89.97
177	-1437.75	922.25	421.52	46.88	89.66
* 177	116.45	3.35	7.62		
186	-1437.72	928.41	414.96	46.67	89.76
* 186	122.61	3.62	8.32		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
 CUSTOMER REFERENCE: Marcus Ekberg
 SURVEYOR: Rune Stien
 DATE: 14.09.90
 PLACE: Bidjovagge
 COUNTRY: Norge
 DRILL HOLE: S144I
 HOLE DIAMETER (MM): 46
 NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1440.01	805.88	554.7	29.99	89.99

POSITION AT 51 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1440.47	850.3	529.66	28.56	91.85

LOCAL COORDINATES AT 51 M

Y-LOC= .46 M TO THE RIGHT
 Z-LOC= .52 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1440.01	805.88	554.7	29.99	89.99
3	-1440.01	808.47	553.2	29.93	90.09
6	-1440.02	811.07	551.7	29.95	90.13
9	-1440.02	813.67	550.2	29.91	90.13
15	-1440.04	818.87	547.21	29.87	90.16
21	-1440.05	824.09	544.25	29.48	90.24
* 21	18.21	.04	.06		
27	-1440.08	829.32	541.3	29.44	90.42
30	-1440.1	831.93	539.82	29.3	90.62
33	-1440.13	834.54	538.35	29.13	90.83
36	-1440.16	837.16	536.89	28.92	91.04
39	-1440.21	839.79	535.44	28.88	91.18
* 39	33.91	.19	.28		
42	-1440.27	842.41	533.99	28.91	91.33
51	-1440.47	850.3	529.66	28.56	91.85
* 51	44.42	.46	.52		

PROFIL
S 146

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 14.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S146A
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1460	802	540	44.6	89.99

POSITION AT 132 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1461.49	897.22	448.6	42.9	91.95

LOCAL COORDINATES AT 132 M

Y-LOC= 1.48 M TO THE RIGHT
Z-LOC= 1.78 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1460	802	540	44.6	89.99
3	-1460	804.13	537.89	44.62	90.02
6	-1460.01	806.27	535.78	44.63	90.06
9	-1460.01	808.4	533.67	44.66	90.12
12	-1460.01	810.53	531.56	44.62	90.17
15	-1460.02	812.67	529.46	44.55	90.29
* 15	10.67	.01	-.01		
18	-1460.03	814.81	527.35	44.51	90.33
21	-1460.04	816.95	525.25	44.43	90.35
24	-1460.06	819.09	523.15	44.34	90.45
27	-1460.07	821.23	521.05	44.24	90.54
30	-1460.09	823.38	518.96	44.16	90.59
* 30	21.38	.08	.03		
33	-1460.12	825.54	516.87	44.15	90.68
36	-1460.14	827.69	514.78	44.11	90.72
39	-1460.17	829.84	512.69	44.06	90.69
42	-1460.2	832	510.6	44.03	90.69
45	-1460.22	834.15	508.52	44.01	90.73
* 45	32.15	.21	.16		
48	-1460.25	836.31	506.43	44	90.8
51	-1460.28	838.47	504.35	43.97	90.85
54	-1460.31	840.63	502.27	43.95	90.9
57	-1460.35	842.79	500.18	43.94	90.91
60	-1460.38	844.95	498.1	43.88	90.92
* 60	42.95	.37	.32		
63	-1460.42	847.11	496.02	43.85	90.91
66	-1460.45	849.27	493.94	43.83	90.98
69	-1460.49	851.43	491.87	43.75	91.02
72	-1460.53	853.6	489.79	43.52	91.03

75	-1460.57	855.78	487.73	43.31	91.02
* 75	53.78	.56	.54		
78	-1460.61	857.96	485.67	43.31	91.12
81	-1460.65	860.14	483.61	43.37	91.22
84	-1460.69	862.32	481.55	43.39	91.25
87	-1460.74	864.5	479.49	43.46	91.22
90	-1460.79	866.68	477.42	43.43	91.21
* 90	64.68	.78	.86		
93	-1460.83	868.85	475.36	43.41	91.07
96	-1460.88	871.03	473.3	43.41	91.01
99	-1460.91	873.21	471.24	43.44	91
102	-1460.95	875.39	469.18	43.4	91.06
105	-1460.99	877.57	467.11	43.41	91.17
* 105	75.57	.98	1.17		
108	-1461.04	879.75	465.05	43.3	91.24
111	-1461.09	881.93	462.99	43.27	91.34
114	-1461.14	884.11	460.94	43.29	91.41
117	-1461.19	886.3	458.88	43.32	91.4
120	-1461.24	888.48	456.82	43.34	91.42
* 120	86.48	1.23	1.5		
123	-1461.3	890.66	454.76	43.32	91.49
132	-1461.49	897.22	448.6	42.9	91.95
132	95.22	1.48	1.78		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 16.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S146B
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

Y (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1460.04	801.97	553.4	35.39	88.69

POSITION AT 144 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1460.18	920.31	471.38	34.47	91.47

LOCAL COORDINATES AT 144 M

Y-LOC= 2.81 M TO THE RIGHT
Z-LOC= 1.68 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1460.04	801.97	553.4	35.39	88.69
3	-1459.99	804.41	551.66	35.43	88.7
6	-1459.93	806.85	549.92	35.44	88.63
9	-1459.88	809.3	548.18	35.45	88.64
12	-1459.82	811.74	546.44	35.43	88.67
15	-1459.76	814.18	544.7	35.38	88.69
* 15	12.22	-.01	-.01		
18	-1459.71	816.63	542.96	35.36	88.72
21	-1459.65	819.07	541.22	35.34	88.83
24	-1459.6	821.52	539.49	35.26	88.91
27	-1459.56	823.97	537.76	35.25	88.93
30	-1459.51	826.42	536.03	35.16	88.97
* 30	24.45	.01	.01		
33	-1459.47	828.87	534.3	35.1	89.03
36	-1459.42	831.33	532.57	35.04	89.1
39	-1459.39	833.78	530.85	34.93	89.12
42	-1459.35	836.24	529.13	34.74	89.15
45	-1459.31	838.7	527.42	34.69	89.22
* 45	36.74	.1	.11		
48	-1459.28	841.17	525.71	34.77	89.34
51	-1459.25	843.64	524	34.71	89.44
54	-1459.23	846.1	522.29	34.7	89.56
57	-1459.21	848.57	520.59	34.7	89.65
60	-1459.19	851.03	518.88	34.72	89.71
* 60	49.07	.26	.29		
63	-1459.18	853.5	517.17	34.69	89.79
66	-1459.17	855.97	515.46	34.63	89.89
69	-1459.17	858.43	513.76	34.59	90
72	-1459.17	860.9	512.05	34.49	90.11

75	-1459.17	863.38	510.35	34.4	90.27
* 75	61.41	.52	.49		
78	-1459.18	865.85	508.66	34.35	90.37
81	-1459.2	868.33	506.97	34.32	90.42
84	-1459.22	870.81	505.27	34.35	90.57
87	-1459.24	873.28	503.58	34.39	90.7
90	-1459.27	875.76	501.89	34.44	90.67
* 90	73.79	.9	.76		
93	-1459.3	878.23	500.19	34.45	90.62
96	-1459.33	880.7	498.49	34.49	90.74
99	-1459.36	883.18	496.79	34.47	90.82
102	-1459.4	885.65	495.1	34.44	90.84
105	-1459.43	888.12	493.4	34.48	90.96
* 105	86.15	1.34	1		
108	-1459.48	890.6	491.7	34.41	91.13
111	-1459.52	893.07	490.01	34.32	91.27
114	-1459.58	895.55	488.31	34.34	91.25
117	-1459.63	898.02	486.62	34.35	91.27
120	-1459.69	900.5	484.93	34.36	91.27
* 120	98.51	1.87	1.25		
123	-1459.74	902.98	483.23	34.31	91.31
126	-1459.8	905.45	481.54	34.34	91.36
129	-1459.86	907.93	479.85	34.35	91.36
132	-1459.92	910.41	478.16	34.32	91.47
135	-1459.98	912.88	476.47	34.32	91.51
* 135	110.88	2.45	1.52		
144	-1460.18	920.31	471.38	34.47	91.47
* 144	118.3	2.81	1.68		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 17.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S146C
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
1460.03	801.98	553.3	54.99	88.94

POSITION AT 165 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1460.42	902.47	422.49	50.66	91.08

LOCAL COORDINATES AT 165 M

Y-LOC= 2.22 M TO THE RIGHT
Z-LOC= 7.27 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1460.03	801.98	553.3	54.99	88.94
3	-1460	803.7	550.84	54.95	88.9
6	-1459.97	805.42	548.38	54.9	88.93
9	-1459.94	807.14	545.93	54.85	88.97
12	-1459.91	808.87	543.47	54.78	88.91
15	-1459.87	810.6	541.02	54.63	89.08
* 15	8.62	-.01	.02		
18	-1459.85	812.33	538.58	54.47	89.21
21	-1459.82	814.08	536.13	54.32	89.34
24	-1459.8	815.83	533.7	54.16	89.54
27	-1459.79	817.58	531.27	54.1	89.61
30	-1459.78	819.34	528.84	54.02	89.65
* 30	17.36	.06	.19		
33	-1459.77	821.1	526.41	53.95	89.65
36	-1459.76	822.87	523.98	53.88	89.71
39	-1459.75	824.64	521.56	53.8	89.68
42	-1459.74	826.41	519.14	53.71	89.68
45	-1459.73	828.18	516.72	53.6	89.81
* 45	26.21	.17	.49		
48	-1459.72	829.96	514.3	53.59	89.83
51	-1459.72	831.74	511.89	53.56	89.86
54	-1459.71	833.53	509.48	53.39	90.03
57	-1459.71	835.32	507.07	53.2	90.24
60	-1459.72	837.11	504.67	52.92	90.27
* 60	35.13	.33	.88		
63	-1459.73	838.92	502.27	52.72	90.2
66	-1459.74	840.74	499.88	52.52	90.11
69	-1459.74	842.56	497.5	52.44	90.21
72	-1459.75	844.39	495.13	52.33	90.26

75	-1459.76	846.23	492.75	52.14	90.48
* 75	44.24	.53	1.51		
78	-1459.77	848.07	490.38	52.13	90.61
81	-1459.79	849.91	488.01	52.12	90.65
84	-1459.81	851.75	485.65	52.04	90.7
87	-1459.84	853.59	483.28	51.97	90.62
90	-1459.86	855.44	480.92	51.89	90.55
* 90	53.46	.8	2.27		
93	-1459.87	857.29	478.56	51.86	90.58
96	-1459.89	859.15	476.2	51.82	90.58
99	-1459.91	861	473.84	51.76	90.54
102	-1459.93	862.86	471.48	51.7	90.51
105	-1459.95	864.72	469.13	51.69	90.49
* 105	62.73	1.06	3.11		
108	-1459.96	866.58	466.77	51.62	90.48
111	-1459.98	868.44	464.42	51.48	90.51
114	-1459.99	870.31	462.07	51.47	90.61
117	-1460.01	872.17	459.73	51.34	90.57
120	-1460.03	874.05	457.38	51.26	90.59
* 120	72.06	1.31	4.01		
123	-1460.05	875.92	455.04	51.14	90.59
126	-1460.07	877.81	452.71	50.99	90.63
129	-1460.09	879.69	450.38	50.88	90.68
132	-1460.12	881.59	448.05	50.8	90.66
135	-1460.14	883.48	445.72	50.76	90.63
* 135	81.49	1.59	5.05		
138	-1460.16	885.38	443.4	50.76	90.63
141	-1460.18	887.28	441.08	50.77	90.63
144	-1460.2	889.17	438.75	50.75	90.69
147	-1460.22	891.07	436.43	50.76	90.86
150	-1460.25	892.97	434.1	50.73	90.93
150	90.97	1.88	6.15		
153	-1460.28	894.87	431.78	50.73	90.93

15a	-1460.31	896.77	-429.46	50.71	91
165	-1460.42	902.47	422.49	50.66	91.08
* 165	100.46	2.22	7.27		

PROFIL

S/18

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 16.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S148I
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X(M)	Y(M)	Z(M)	DIP (DEG.)	DIR. (DEG.)
-1480.78	801.84	550.4	43.99	89.09

POSITION AT 165 M

X(M)	Y(M)	Z(M)	DIP (DEG.)	DIR. (DEG.)
-1477.39	923.21	438.75	40.29	89.9

LOCAL COORDINATES AT 165 M

Y-LOC= -1.47 M TO THE LEFT
Z-LOC= 4.02 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1480.78	801.84	550.4	43.99	89.09
3	-1480.75	803.99	548.31	43.97	89.01
6	-1480.71	806.15	546.23	43.91	88.93
9	-1480.67	808.31	544.15	43.86	88.96
12	-1480.63	810.47	542.07	43.82	89
15	-1480.6	812.64	539.99	43.78	89.01
* 15	10.8	-.02	.02		
18	-1480.56	814.8	537.92	43.72	88.97
21	-1480.52	816.97	535.84	43.65	88.98
24	-1480.48	819.14	533.77	43.6	89.07
27	-1480.45	821.31	531.7	43.55	89.09
30	-1480.41	823.49	529.63	44.31	86.93
* 30	21.65	-.03	.1		
33	-1480.3	825.63	527.54	44.3	86.94
36	-1480.18	827.78	525.44	44.15	86.94
39	-1480.07	829.92	523.35	44.03	86.9
42	-1479.95	832.08	521.27	43.89	86.93
45	-1479.84	834.24	519.19	43.84	86.99
* 45	32.41	-.44	.06		
48	-1479.72	836.4	517.11	43.75	87.03
51	-1479.61	838.56	515.03	43.68	87.05
54	-1479.5	840.73	512.96	43.62	87.13
57	-1479.39	842.9	510.89	43.61	87.19
60	-1479.28	845.07	508.82	43.56	87.24
* 60	43.24	-.82	.13		
63	-1479.18	847.24	506.76	43.54	87.34
66	-1479.08	849.41	504.69	43.58	87.43
69	-1478.98	851.58	502.62	43.38	87.55
72	-1478.89	853.76	500.56	43.25	87.68

75	-1478.8	855.94	498.5	43.18	87.73
* 75	54.13	-1.13	.27		
78	-1478.71	858.13	496.45	43.02	87.86
81	-1478.63	860.32	494.41	42.85	88
84	-1478.56	862.52	492.36	42.76	88.12
87	-1478.48	864.72	490.33	42.7	88.27
90	-1478.42	866.92	488.29	42.64	88.36
* 90	65.11	-1.34	.56		
93	-1478.35	869.13	486.26	42.57	88.41
96	-1478.29	871.34	484.23	42.5	88.39
99	-1478.23	873.55	482.2	42.32	88.38
102	-1478.17	875.76	480.18	42.16	88.4
105	-1478.11	877.99	478.17	42.03	88.52
105	76.18	-1.47	.96		
108	-1478.05	880.21	476.16	41.93	88.62
111	-1478	882.45	474.16	41.77	88.64
114	-1477.94	884.68	472.16	41.63	88.7
117	-1477.89	886.92	470.16	41.55	88.74
120	-1477.84	889.17	468.17	41.45	88.84
* 120	87.36	-1.56	1.54		
123	-1477.8	891.42	466.19	41.29	88.84
126	-1477.75	893.67	464.21	41.19	88.77
129	-1477.7	895.93	462.23	41.11	88.86
132	-1477.66	898.19	460.26	41.04	88.95
135	-1477.62	900.45	458.29	41.02	89
* 135	98.65	-1.6	2.27		
138	-1477.58	902.71	456.32	40.97	89.09
141	-1477.54	904.98	454.35	40.88	89.19
144	-1477.51	907.24	452.39	40.76	89.28
147	-1477.48	909.52	450.43	40.66	89.36
150	-1477.46	911.79	448.48	40.54	89.5
* 150	109.99	-1.58	3.09		
153	-1477.44	914.07	446.53	40.43	89.6

150	-1477.42	710.00	444.00	10.40	87.00
165	-1477.39	923.21	438.75	40.29	89.9
* 165	121.41	-1.47	4.02		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 140990
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S148J
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1480.04	801.91	550.4	37	88.32

POSITION AT 165 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1480.04	935.52	453.63	35.03	91.86

LOCAL COORDINATES AT 165 M

Y-LOC= 3.88 M TO THE RIGHT
Z-LOC= 3.1 M UPWARDS

RESULTS

STATION (M)	X(M)	Y(M)	Z(M)	DIP (DEG.)	DIR. (DEG.)
0	-1480.04	801.91	550.4	37	88.32
3	-1479.97	804.3	548.59	36.95	88.42
6	-1479.91	806.7	546.79	36.91	88.51
9	-1479.85	809.09	544.98	36.92	88.52
12	-1479.79	811.49	543.18	36.88	88.45
15	-1479.72	813.89	541.38	36.82	88.39
* 15	11.98	.02	.01		
18	-1479.65	816.29	539.58	36.79	88.46
21	-1479.59	818.69	537.79	36.75	88.43
24	-1479.52	821.09	535.99	36.7	88.48
27	-1479.46	823.5	534.2	36.6	88.59
30	-1479.4	825.91	532.41	36.47	88.68
* 30	24.01	.05	.08		
33	-1479.34	828.32	530.63	36.39	88.73
36	-1479.29	830.73	528.85	36.44	88.79
39	-1479.24	833.15	527.06	36.47	88.88
42	-1479.19	835.56	525.28	36.37	89.03
45	-1479.15	837.97	523.5	36.33	89.1
* 45	36.07	.16	.23		
48	-1479.12	840.39	521.72	36.32	89.09
51	-1479.08	842.81	519.95	36.27	89.07
54	-1479.04	845.22	518.17	36.25	89.11
57	-1479	847.64	516.4	36.2	89.31
60	-1478.97	850.06	514.63	36.2	89.51
* 60	48.16	.33	.42		
63	-1478.95	852.48	512.85	36.16	89.63
66	-1478.94	854.91	511.08	36.1	89.76
69	-1478.93	857.33	509.32	36.06	89.9
72	-1478.92	859.75	507.55	36.01	90.08

* 75	60.28	.63	.65		
78	-1478.93	864.61	504.02	35.91	90.26
81	-1478.94	867.04	502.26	35.85	90.31
84	-1478.96	869.47	500.51	35.76	90.36
87	-1478.97	871.9	498.75	35.67	90.46
90	-1478.99	874.34	497	35.65	90.54
* 90	72.43	1.06	.95		
93	-1479.02	876.78	495.25	35.7	90.54
96	-1479.04	879.22	493.5	35.67	90.5
99	-1479.06	881.65	491.75	35.68	90.55
102	-1479.08	884.09	490	35.57	90.58
105	-1479.11	886.53	488.26	35.46	90.62
105	84.61	1.53	1.29		
108	-1479.14	888.97	486.52	35.45	90.66
111	-1479.16	891.42	484.78	35.41	90.73
114	-1479.2	893.86	483.04	35.39	90.75
117	-1479.23	896.31	481.3	35.37	90.81
120	-1479.26	898.75	479.56	35.35	90.9
* 120	96.82	2.04	1.7		
123	-1479.3	901.2	477.83	35.33	90.96
126	-1479.34	903.64	476.09	35.33	91.03
129	-1479.39	906.09	474.36	35.28	91.08
132	-1479.43	908.54	472.63	35.25	91.12
135	-1479.48	910.99	470.89	35.26	91.14
* 135	109.05	2.61	2.13		
138	-1479.53	913.44	469.16	35.2	91.13
141	-1479.58	915.89	467.43	35.2	91.12
144	-1479.63	918.34	465.7	35.14	91.14
147	-1479.68	920.79	463.98	35.08	91.2
150	-1479.73	923.25	462.25	35.08	91.23
* 150	121.29	3.22	2.6		
153	-1479.78	925.7	460.53	35.1	91.27

155	-1497.84	929.10	408.0	30.04	91.42
165	-1480.04	935.52	453.63	35.03	91.86
* 165	133.85	3.88	3.1		

DRILLHOLE DIP AND DIRECTION
MEASUREMENTS WITH
REFLEX FOTOBOR DDI

CUSTOMER: A/S Bidjovagge Gruber
CUSTOMER REFERENCE: Marcus Ekberg
SURVEYOR: Rune Stien
DATE: 14.09.90
PLACE: Bidjovagge
COUNTRY: Norge
DRILL HOLE: S148K
HOLE DIAMETER (MM): 46
NO CASING

COLLAR POSITION

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1480.04	801.89	550.3	53	88.69

POSITION AT 174 M

X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
-1480.03	909.98	413.97	50.62	91.33

LOCAL COORDINATES AT 174 M

Y-LOC= 2.46 M TO THE RIGHT

Z-LOC= 4.26 M UPWARDS

RESULTS

STATION (M)	X (M)	Y (M)	Z (M)	DIP (DEG.)	DIR. (DEG.)
0	-1480.04	801.89	550.3	53	88.69
3	-1480	803.69	547.9	52.93	88.88
6	-1479.97	805.5	545.51	52.83	88.96
9	-1479.94	807.31	543.11	52.82	89.07
12	-1479.91	809.12	540.72	52.8	89.21
15	-1479.88	810.94	538.33	52.75	89.26
* 15	9.05	.04	.03		
18	-1479.86	812.75	535.95	52.66	89.22
21	-1479.83	814.57	533.56	52.56	89.27
24	-1479.81	816.39	531.18	52.55	89.32
27	-1479.79	818.22	528.8	52.58	89.34
30	-1479.77	820.04	526.41	52.54	89.28
* 30	18.15	.13	.12		
33	-1479.74	821.86	524.03	52.5	89.28
36	-1479.72	823.69	521.65	52.45	89.27
39	-1479.7	825.52	519.27	52.33	89.2
42	-1479.67	827.35	516.9	52.1	89.13
45	-1479.65	829.19	514.53	51.91	89.14
* 45	27.31	.22	.28		
48	-1479.62	831.04	512.17	51.76	89.25
51	-1479.59	832.9	509.81	51.79	89.39
54	-1479.57	834.76	507.46	51.86	89.62
57	-1479.56	836.61	505.1	51.82	89.71
60	-1479.55	838.46	502.74	51.75	89.72
* 60	36.57	.34	.59		
63	-1479.54	840.32	500.38	51.73	89.76
66	-1479.54	842.18	498.03	51.72	89.75
69	-1479.53	844.04	495.67	51.73	89.75
72	-1479.52	845.89	493.32	51.69	89.73

75	-1479.51	847.75	470.98	51.58	89.87
* 75	45.86	.51	.92		
78	-1479.5	849.62	488.61	51.53	89.64
81	-1479.49	851.48	486.26	51.51	89.71
84	-1479.48	853.35	483.91	51.49	89.73
87	-1479.47	855.22	481.57	51.48	89.74
90	-1479.46	857.09	479.22	51.5	89.69
* 90	55.19	.68	1.3		
93	-1479.45	858.95	476.87	51.46	89.74
96	-1479.45	860.82	474.52	51.45	89.85
99	-1479.44	862.69	472.18	51.39	89.93
102	-1479.44	864.56	469.83	51.27	89.96
105	-1479.44	866.44	467.49	51.23	90.05
* 105	64.55	.86	1.72		
108	-1479.44	868.32	465.15	51.19	90.14
111	-1479.44	870.2	462.82	51.19	90.18
114	-1479.45	872.08	460.48	51.12	90.18
117	-1479.46	873.96	458.14	51.04	90.23
120	-1479.46	875.85	455.81	50.98	90.22
* 120	73.95	1.11	2.2		
123	-1479.47	877.74	453.48	50.91	90.33
126	-1479.48	879.63	451.15	50.89	90.46
129	-1479.5	881.52	448.82	50.87	90.56
132	-1479.52	883.41	446.49	50.86	90.71
135	-1479.54	885.31	444.17	50.82	90.86
* 135	83.41	1.4	2.74		
138	-1479.57	887.2	441.84	50.74	90.91
141	-1479.6	889.1	439.52	50.71	90.98
144	-1479.63	891	437.2	50.71	91.03
147	-1479.67	892.9	434.88	50.72	91.1
150	-1479.7	894.8	432.55	50.72	91.18
* 150	92.89	1.78	3.33		
* 153	-1479.74	896.7	430.23	50.74	91.23

158	-1477.75	976.97	427.71	50.77	91.22
159	-1479.82	900.49	425.58	50.78	91.22
162	-1479.86	902.39	423.26	50.75	91.24
165	-1479.91	904.28	420.94	50.72	91.26
* 165	102.37	2.2	3.9		
174	-1480.03	909.98	413.97	50.62	91.33
* 174	108.07	2.46	4.26		