



Bergvesenet

Postboks 3021, N-7441 Trondheim

Rapportarkivet

Bergvesenet rapport nr 6997	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
Kommer fra arkiv Grong Gruber AS	Ekstern rapport nr SINTEF STF36 F86004	Oversendt fra Grong Gruber a.s.	Fortrolig pga	Fortrolig fra dato
Tittel Avviksmåling av borhull på Jomafjell				
Forfatter Ludvigsen, Erik Tokle, Viktor		Dato År 09.01 1986	Bedrift (Oppdragsgiver og/eller oppdragstaker) Norsulfid Grong Gruber AS	
Kommune Røyrvik	Fylke Nord-Trøndelag	Bergdistrikt	1: 50 000 kartblad 19241	1: 250 000 kartblad Grong
Fagområde Boring	Dokument type	Forekomster (forekomst, gruvefelt, undersøkelsesfelt) Jomaforekomsten		
Råstoffgruppe Malm/metall	Råstofftype Cu,Zn,			
Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse Avviksmåling utført i 10 borhull , D57 - 61, D63 - 64 og D69 - 71, med Eastman Multiple Shot Survey Instrument type DT Avviket var for delta X= 18 til 74 meter . Avvikene nå også illustrert samlet.				

STF36 F86004

Avviksmåling i borehull

GRONG GRUBER A/S

1986-01-09

Avdeling for bergteknikk

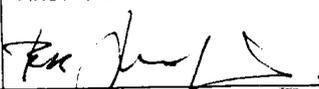
SINTEF



RAPPORT
RAPPORT
RAPPORT

N - 7034 TRONDHEIM - NTH

TELEFON: (07) 59 30 00
TELEX: 55 620 SINTEF N
TELEFAX: (07) 59 24 80

RAPPORTENS TITTEL AVVIKSMÅLING AV BORHULL PÅ JOMAFJELL	DATO 1986-01-09
	ANTALL SIDER OG BILAG 34 s
SAKSBEARBEIDER/ FORF. Erik Ludvigsen/Viktor Tokle	ANSV. SIGN. 
AVDELING Avd. for bergteknikk	PROSJEKTNUMMER 36602.03

OPPDRAAGSGIVER Grong Gruber A/S	OPDR. GIVERS REF. Lars Boye Løvaas
------------------------------------	---------------------------------------

EKSTRAKT Avviksmåling av diamantborhull på Jomafjell

3 STKKORD PÅ NORSK

KEYWORDS IN ENGLISH

Avviksmåling	Deviation measurement
Borhullsavvik	Drillhole deviation
Diamantboring	Diamond drilling

AVVIKSMÅLING FOR GRONG GRUBER A/S

Avviksmåling av borhull på Jomafjell

Avviksmålingen er utført med Eastman Multiple Shot Survey instrument type DT. Med dette instrumentet bestemmes hullets retning i hvert målepunkt ved hjelp av et kompass og fallet ved hjelp av et klinometer.

Det er i gjennomsnitt målt for hver 9m langs hullet.

Avviket i bunnen av hullet er:

	Hullnr.	Dyp	DX	DY	DZ	Totalavvik
	D57	345	-47.6	33.4	6.2	58.5
WL	D58	198	-38.4	8.8	5.8	39.9
	D59	270	-33.7	14.5	3.2	36.9
	D60	320	-57.2	15.1	6.6	59.5
	D61	295	-64.6	40.3	11.6	77.1
WL	D63	160	-17.8	13.5	1.8	22.4
WL	D64	380	-74.4	70.4	16.8	103.8
	D69	300	-41.3	38.2	7.0	56.7
	D70	295	-42.9	15.8	4.4	45.9
	D71	340	-62.9	37.7	9.5	74.0

Det er utført korreksjoner pga. magnetiske forstyrrelser. Dette er vist i retningsplott. Hvert målepunkt merket * er korrigert.

På grunnlag av en referanseretning, er de målte retningene overført til det aktuelle koordinatsystem. For å komme over i dette systemet er det innført en addisjonskonstant. (-.600 grad).

For hvert hull er det i tabeller oppført:

Tabell 1:

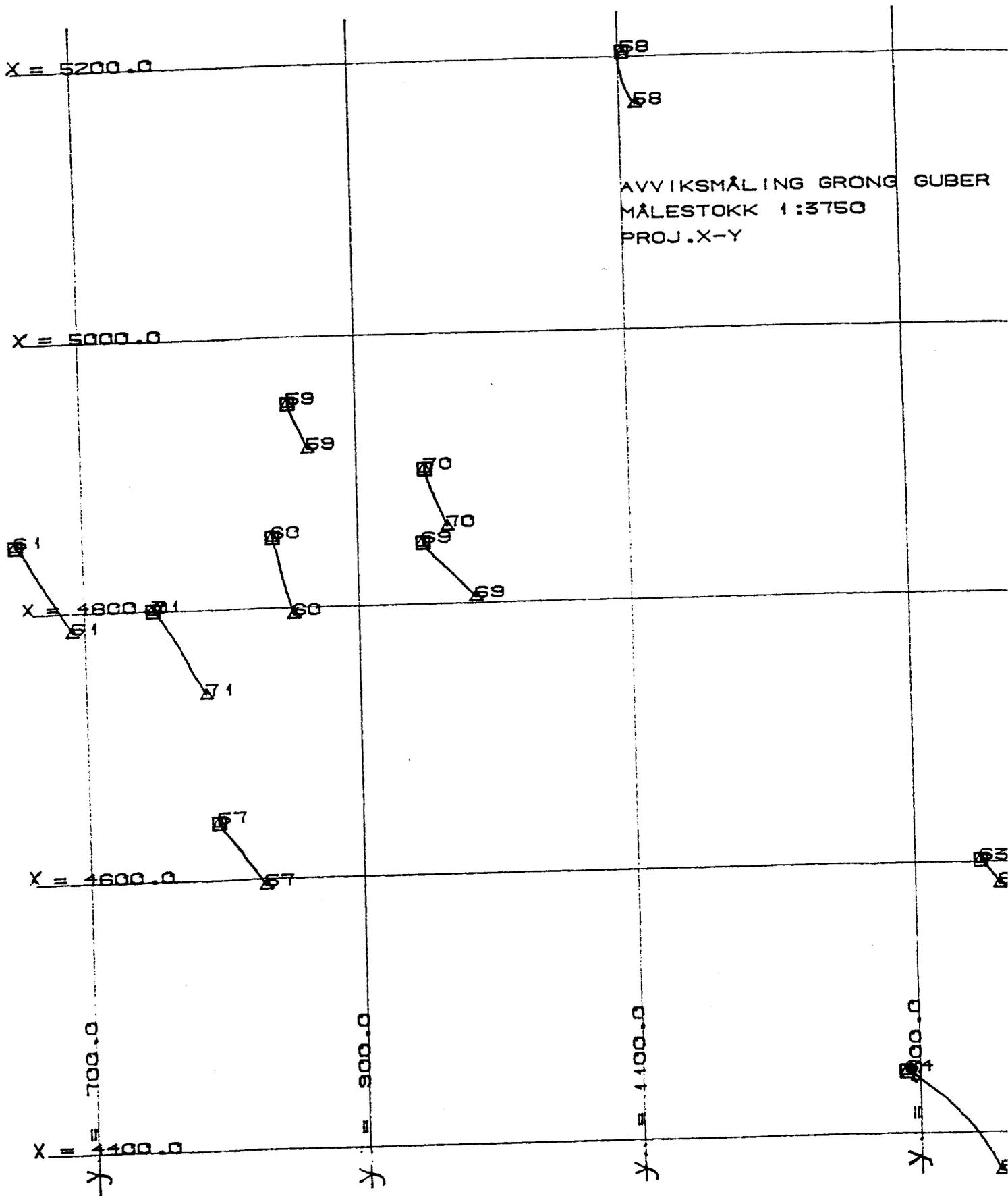
- Avviksvinkelen i hvert målepunkt
- Forskjellen mellom avviksvinkelen i to etterfølgende målepunkter
- Tallverdien av avviket i akseretningene og totalavviket

Totalavviket er definert som lengden av vektoren fra hullbunnen slik det er bestemt ved avviksmålingene, til bunnen av hullet om det ikke hadde vært avvik.

Tabell 2:

- Måleverdiene i hvert målepunkt
- Beregnete koordinater i hvert målepunkt

Hullbanene er opptegnet i projeksjonene (x-y)(x-z) og (y-z). De heltrukne linjene er hullbanen ifølge avviksmålingen mens de stiplede linjene er er hullbanen slik den ville ha vært om det ikke hadde vært avvik.

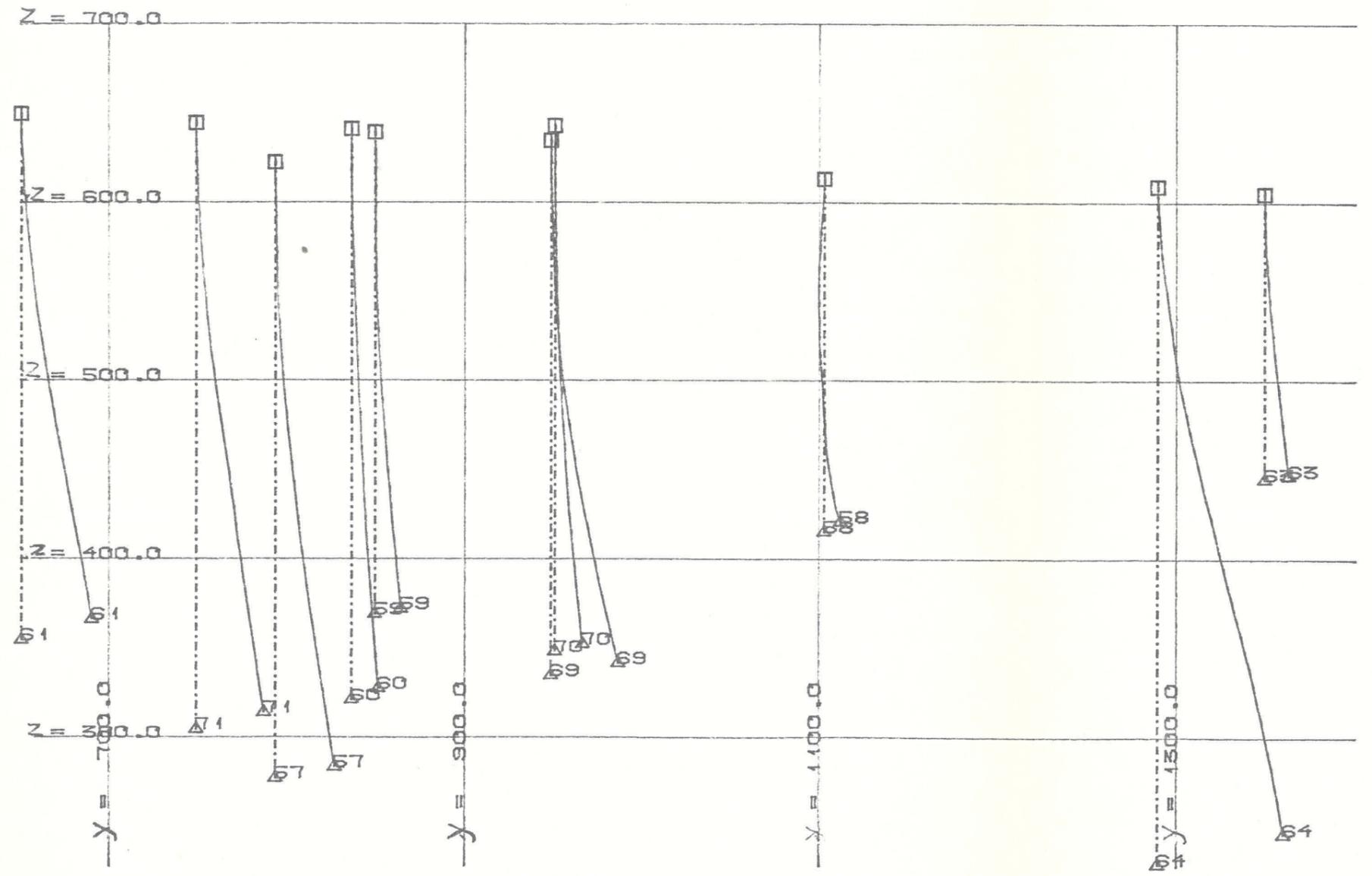


Horizontalsnitt

■ Topp hull

▼ Bunn

AVVIKSMÅLING GRONG GRUBER
 MÅLESTOKK 1:3000
 PROJ.Y-Z



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D57
 ---DATE.....: 16.10.85

---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

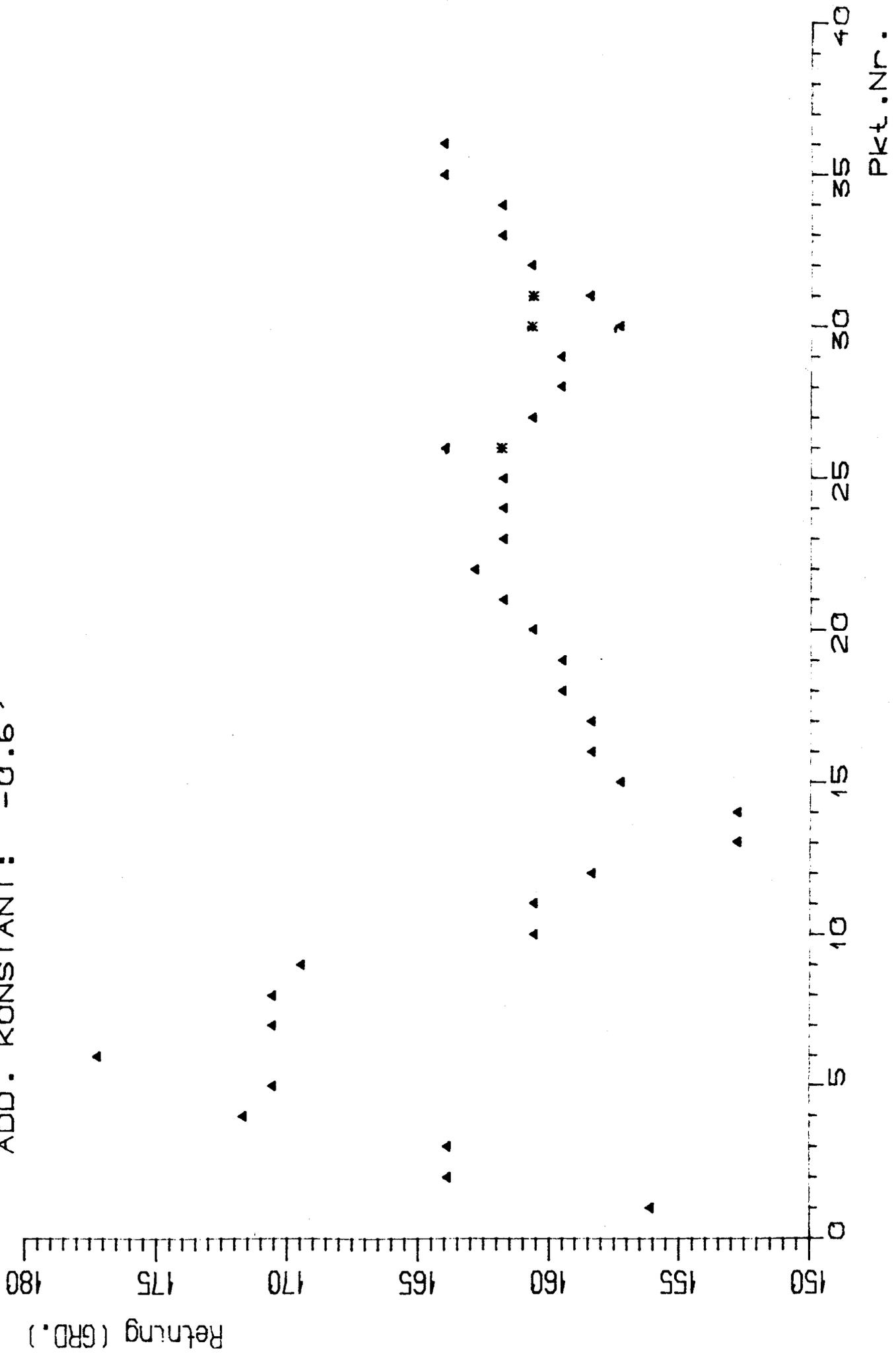
D57

MEASURED DATA			COMPUTED DATA			
MEASURED DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD	
(M)	360 DEG	400 GRD	(M)	(M)	(M)	

0.	1.0	156.07	4642.81	793.47	622.46	
10.	2.0	163.84	4642.60	793.62	612.46	
20.	2.3	163.84	4642.28	793.82	602.47	
30.	2.5	171.62	4641.91	794.02	592.48	
40.	3.0	170.51	4641.48	794.23	582.49	
50.	3.0	177.18	4641.00	794.44	572.50	
60.	4.5	170.51	4640.41	794.71	562.53	
70.	4.5	170.51	4639.71	795.06	552.56	
80.	5.0	169.40	4638.97	795.44	542.59	
90.	5.5	160.51	4638.19	795.92	532.63	
100.	6.0	160.51	4637.38	796.50	522.68	
110.	6.6	158.29	4636.50	797.15	512.74	
120.	7.1	152.73	4635.58	797.92	502.82	
130.	7.6	152.73	4634.64	798.79	492.90	
140.	8.1	157.18	4633.60	799.67	482.99	
150.	9.0	158.29	4632.43	800.59	473.10	
160.	10.0	158.29	4631.12	801.59	463.24	
170.	10.5	159.40	4629.70	802.67	453.40	
180.	11.0	159.40	4628.20	803.78	443.57	
190.	12.0	160.51	4626.59	804.95	433.78	
200.	11.5	161.62	4624.93	806.12	423.99	
210.	12.5	162.73	4623.20	807.28	414.20	
220.	13.5	161.62	4621.34	808.54	404.46	
230.	13.7	161.62	4619.40	809.87	394.74	
240.	14.0	161.62	4617.43	811.23	385.03	
250.	13.7	161.74	4615.46	812.59	375.32	
260.	14.0	160.51	4613.50	813.96	365.61	
270.	14.7	159.40	4611.49	815.42	355.93	
280.	15.1	159.40	4609.43	816.95	346.26	
290.	15.8	160.55	4607.27	818.51	336.62	
300.	15.8	160.50	4605.06	820.10	327.00	
310.	15.3	160.51	4602.87	821.66	317.37	A.65
320.	15.3	161.62	4600.71	823.17	307.72	A.63
330.	16.0	161.62	4598.49	824.70	298.09	
340.	15.0	163.84	4596.27	826.18	288.46	
345	15.1	163.84	4595.17	826.88	283.63	

UAVING SUNDEN 1973

BORHULL NR : D57
MÅLEDATO : 16.10.85
ADD. KONSTANT : -0.6'



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D58

---DATE.....: 18.10.85

DEVIATION ANGLE.(GRD) DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	
10.00	2.22	*	-.12	-.51	.01	.52	
20.00	.46	-1.76	-.30	-1.18	.04	1.22	
30.00	.56	.10	-.57	-1.83	.06	1.92	
40.00	2.47	1.91	-1.07	-2.49	.10	2.71	
50.00	3.80	1.33	-2.04	-3.02	.16	3.65	
60.00	2.98	-.82	-3.39	-3.24	.26	4.70	
70.00	3.15	.17	-5.08	-3.12	.40	5.97	
80.00	2.87	-.29	-7.19	-2.90	.63	7.78	
90.00	1.99	-.87	-9.63	-2.61	.94	10.02	10
100.00	1.04	-.95	-12.22	-2.16	1.29	12.48	11
110.00	.63	-.41	-14.88	-1.59	1.67	15.05	12
120.00	.10	-.53	-17.56	-.98	2.05	17.71	13
130.00	2.78	2.68	-20.05	-.42	2.38	20.19	14
140.00	.77	-2.01	-22.36	.13	2.67	22.52	15
150.00	1.34	.58	-24.67	.84	2.97	24.86	16
160.00	2.50	1.16	-27.07	1.80	3.31	27.33	17
170.00	4.58	2.08	-29.86	3.12	3.80	30.27	18
180.00	2.49	-2.09	-32.99	4.83	4.46	33.64	19
190.00	1.69	-.80	-36.14	6.84	5.18	37.14	20
198.00	5.00	3.30	-38.41	8.79	5.76	39.82	21

PLANNED INCLINATION = .00
 PLANNED AZIMUTH = .00

200	-39.12	8.74	5.80
210			
220	-45.02	12.45	7.04
235.10	-49.53	15.21	7.98
Mushin postula 235	-46.20	19.85	8.45

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 058
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S 058

MEASURED DATA				COMPUTED DATA		
MEASURED	I	I	I	I	I	I
DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD	
(M)	360 DEG	400 GRD	(M)	(M)	(M)	

0.	2.0	285.52	5203.75	1102.53	613.35	
10.	4.0	286.07	5203.63	1102.02	603.36	
20.	4.0	279.40	5203.45	1101.35	593.39	
30.	4.1	271.62	5203.18	1100.70	583.41	
40.	5.5	248.29	5202.68	1100.04	573.45	
50.	7.5	220.51	5201.71	1099.51	563.51	
60.	8.5	200.51	5200.36	1099.29	553.61	
70.	11.0	191.62	5198.67	1099.41	543.75	
80.	13.5	194.96	5196.56	1099.63	533.98	
90.	15.0	190.51	5194.12	1099.92	524.29	
100.	15.5	187.18	5191.53	1100.37	514.64	
110.	16.0	186.07	5188.87	1100.94	505.02	
120.	16.0	185.71	5186.19	1101.55	495.40	-90
130.	13.5	186.07	5183.70	1102.11	485.73	-92
140.	14.0	183.84	5181.39	1102.66	476.02	
150.	14.0	178.29	5179.08	1103.37	466.32	
160.	16.0	173.84	5176.68	1104.33	456.66	
170.	20.0	170.24	5173.89	1105.65	447.15	
180.	21.8	166.07	5170.76	1107.36	437.81	
190.	22.1	161.62	5167.61	1109.37	428.53	
198.	22.0	148.29	5165.34	1111.32	421.11	

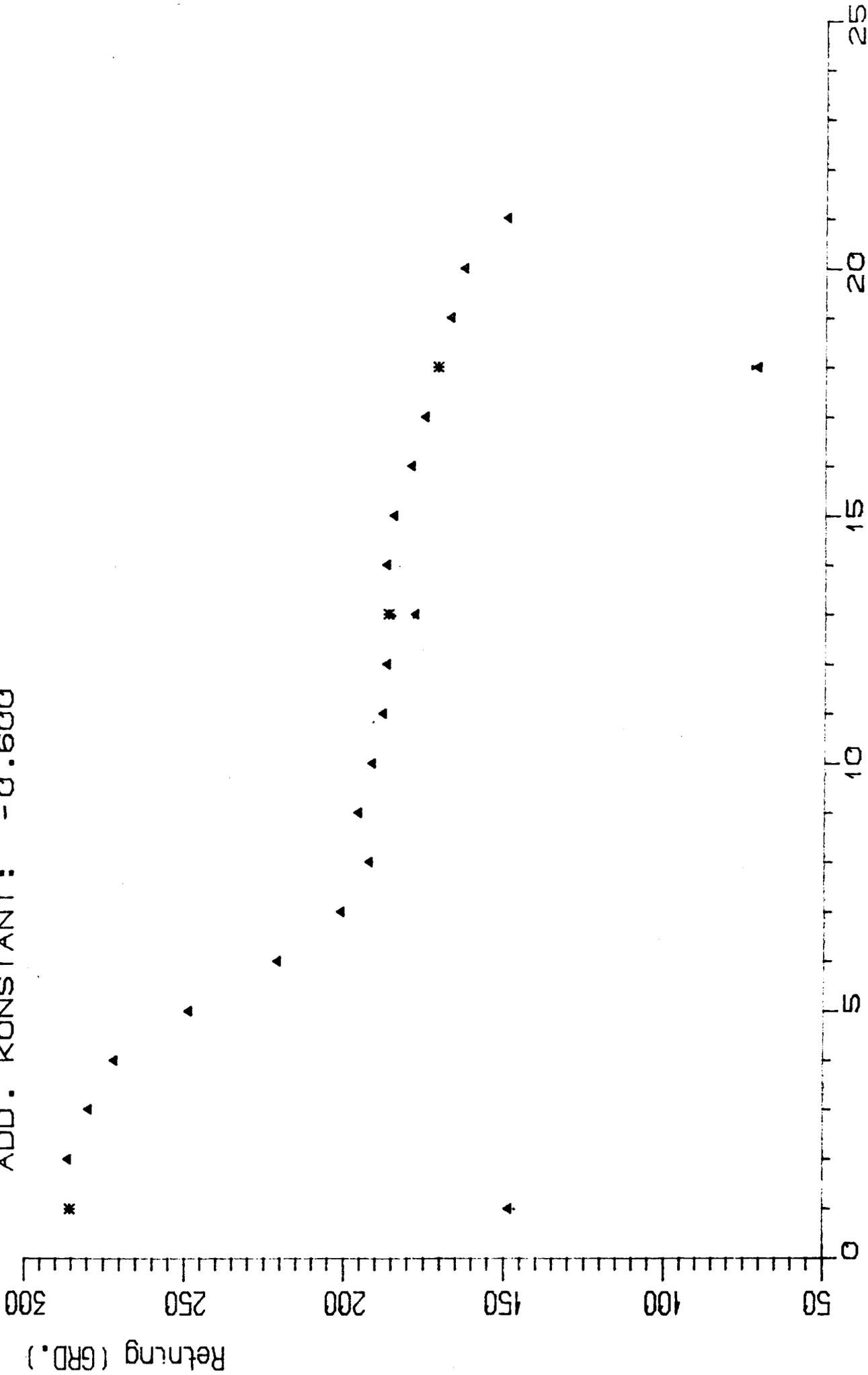
22815

5158,17

1117,25

386,23

BORHULL NR : D58
MÅLEDATO : 16.10.85
ADD. KONSTANT : -0.600



---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D59

---DATE.....: 16.10.85

DEVIATION ANGLE.(GRD) DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	1.11	*	-.07	.05	.00	.09	2
20.00	.41	-.71	-.23	.11	.00	.26	3
30.00	.60	.19	-.45	.13	.00	.47	4
40.00	.69	.04	-.75	.11	.01	.76	5
50.00	1.37	.69	-1.18	.12	.02	1.19	6
60.00	.90	-.47	-1.75	.23	.04	1.77	7
70.00	1.01	.11	-2.45	.43	.06	2.49	8
80.00	1.60	.58	-3.35	.66	.11	3.41	9
90.00	.06	-1.54	-4.36	.89	.16	4.46	10
100.00	.74	.68	-5.42	1.17	.22	5.55	11
110.00	1.38	.64	-6.56	1.58	.29	6.76	12
120.00	.29	-1.08	-7.76	2.10	.38	8.05	13
130.00	.58	.29	-8.98	2.67	.47	9.38	14
140.00	.44	-.13	-10.27	3.28	.57	10.80	15
150.00	.67	.22	-11.63	3.94	.69	12.30	16
160.00	.57	-.09	-13.08	4.58	.81	13.88	17
170.00	1.63	1.06	-14.63	5.29	.96	15.59	18
180.00	1.22	-.41	-16.34	6.15	1.15	17.50	19
190.00	.01	-1.21	-18.14	7.05	1.35	19.51	20
200.00	.81	.81	-20.00	7.91	1.56	21.56	21
210.00	.60	-.21	-21.93	8.78	1.79	23.69	22
220.00	.74	.14	-23.92	9.73	2.04	25.91	23
230.00	.34	-.41	-25.96	10.72	2.30	28.18	24
240.00	.22	-.11	-28.01	11.70	2.56	30.46	25
250.00	.74	.52	-29.98 ^{1.97}	12.69 ^{-0.99}	2.80 ^{-0.24}	32.67	26
260.00	.73	-.01	-31.88 ^{-1.90}	13.64 ^{0.05}	3.03 ^{-0.33}	34.80	27
270.00	.72	-.01	-33.70 ^{-1.82}	14.54 ^{0.90}	3.24 ^{-0.21}	36.85	28

PLANNED INCLINATION = .00
 PLANNED AZIMUTH = .00

280 30.0 15.44 2.97
 286.34 36.80 16.09 3.67

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 059
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

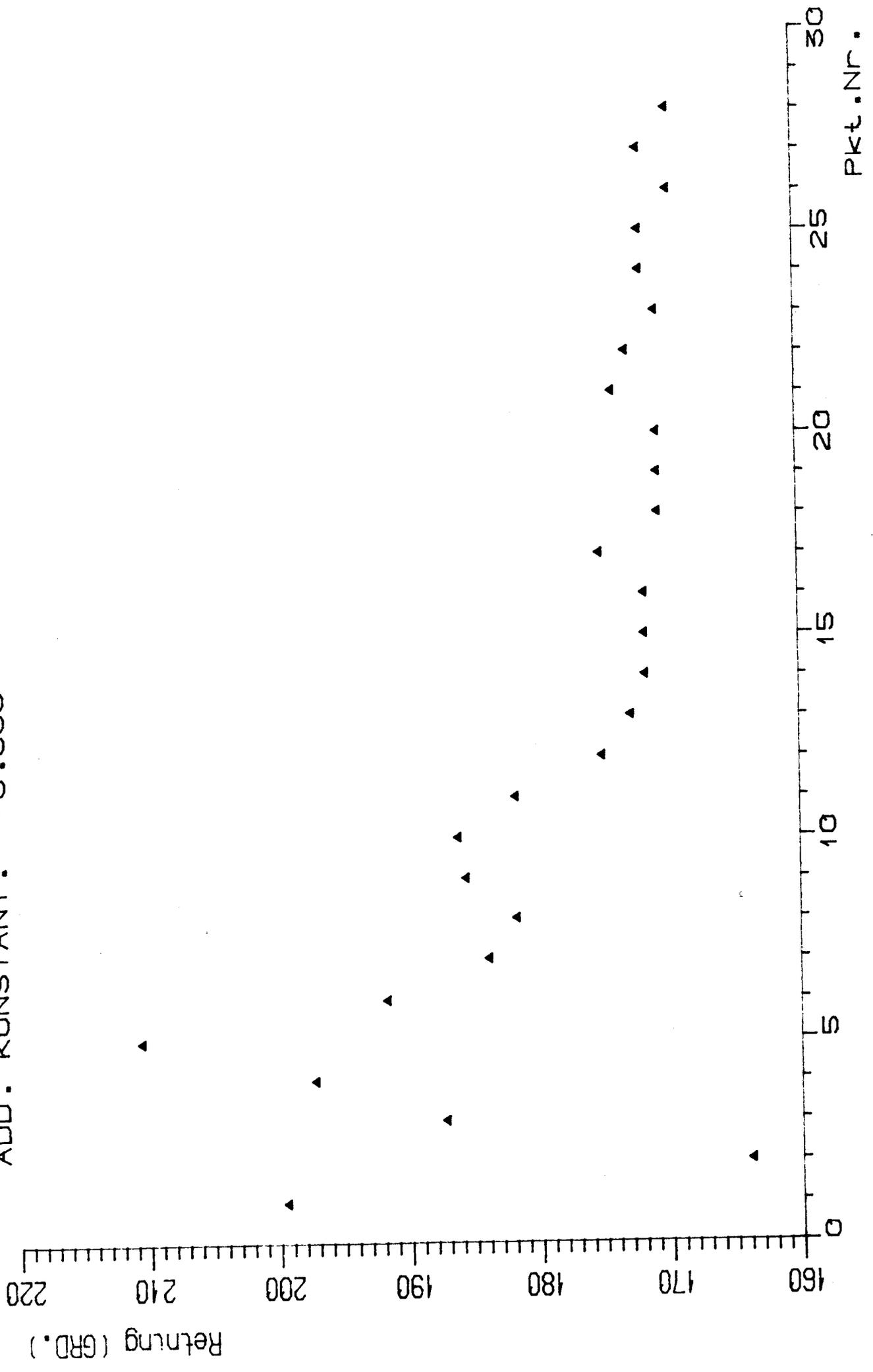
GRONG GRUBER A/S 059

I*****
 I MEASURED DATA I COMPUTED DATA
 I-----

I MEASURED I	I	I	I	I	I	I
I DEPTH I	I INCLINATION I	I AZIMUTH I	I X-KOORD	I Y-KOORD	I Z-KOORD	
I (M) I	I 360 DEG I	I 400 GRD I	I (M)	I (M)	I (M)	
0.	1.0	199.40	4950.72	849.48	639.02	
10.	1.0	163.84	4950.65	849.53	629.02	
20.	1.0	187.18	4950.49	849.59	619.02	
30.	1.5	197.18	4950.27	849.61	609.02	
40.	2.0	210.51	4949.97	849.59	599.03	
50.	3.0	191.62	4949.54	849.60	589.04	
60.	3.7	183.84	4948.97	849.71	579.06	
70.	4.6	181.62	4948.27	849.91	569.08	
80.	6.0	185.51	4947.37	850.14	559.13	
90.	6.0	186.07	4946.36	850.37	549.18	
100.	6.5	181.62	4945.30	850.65	539.24	
110.	7.5	174.96	4944.16	851.06	529.31	
120.	7.5	172.73	4942.96	851.58	519.40	
130.	8.0	171.62	4941.74	852.15	509.49	
140.	8.4	171.62	4940.45	852.76	499.59	
150.	9.0	171.62	4939.09	853.42	489.71	
160.	9.2	174.96	4937.64	854.06	479.83	
170.	10.5	170.51	4936.09	854.77	469.98	
180.	11.6	170.51	4934.38	855.63	460.17	
190.	11.6	170.51	4932.58	856.53	450.37	
200.	12.0	173.84	4930.72	857.39	440.58	
210.	12.5	172.73	4928.79	858.26	430.81	
220.	13.0	170.51	4926.80	859.21	421.06	
230.	13.2	171.62	4924.76	860.20	411.32	
240.	13.0	171.62	4922.71	861.18	401.58	
250.	12.5	169.40	4920.74	862.17	391.82	
260.	12.0	171.62	4918.84	863.12	382.05	
270.	11.5	169.40	4917.02	864.02	372.26	
		286.64	4913.92	865.97	356.20	

WINDING SYSTEM (100)

BORHULL NR : D59
MÅLEDATO : 16.10.85
ADD. KONSTANT: -0.600



---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D60
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D60

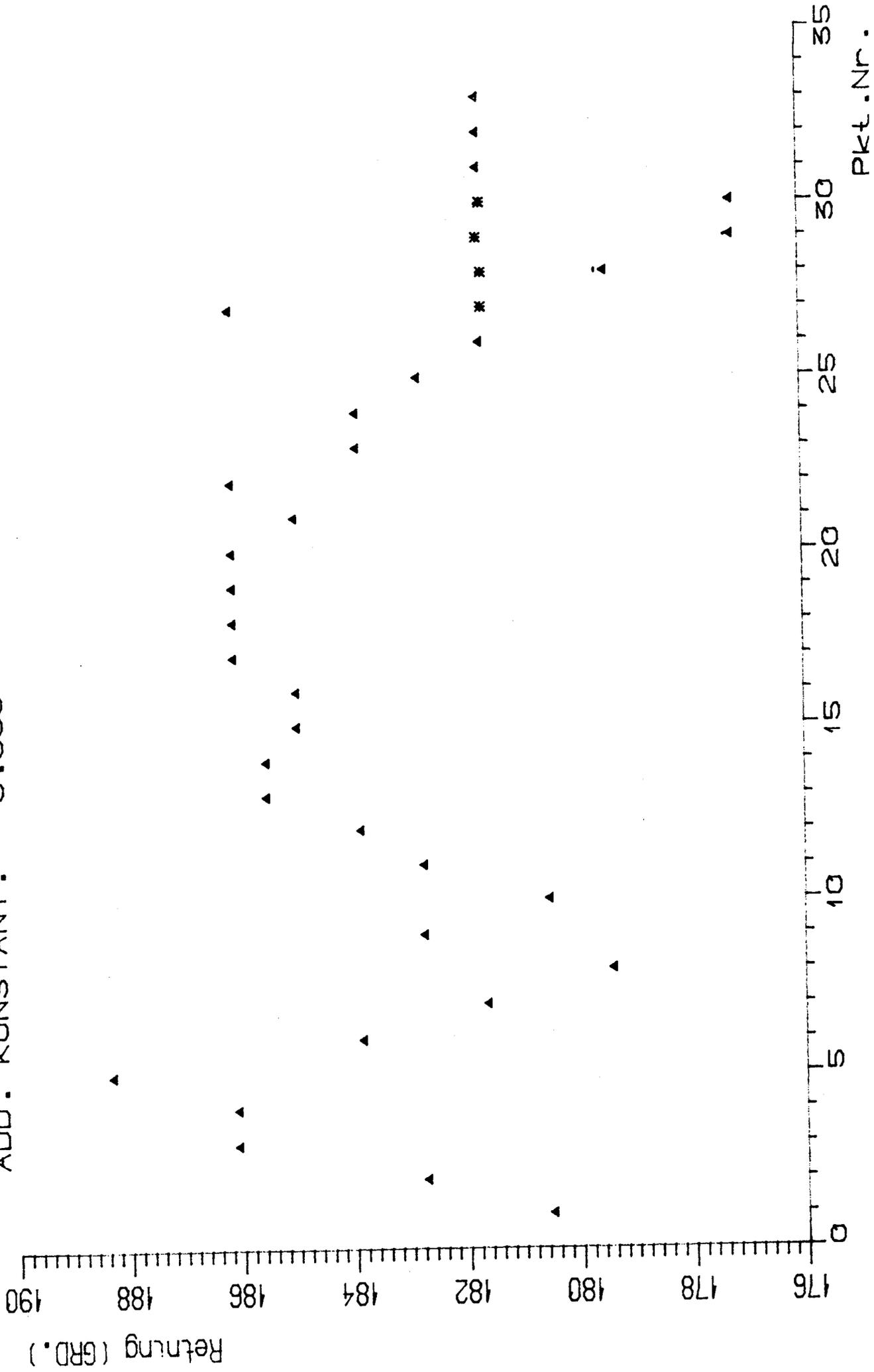
I ***** MEASURED DATA I				I ***** COMPUTED DATA I		
I MEASURED I	I INCLINATION I	I AZIMUTH I	I X-KOORD I	I Y-KOORD I	I Z-KOORD I	
I DEPTH I	I 360 DEG I	I 400 GRD I	I (M) I	I (M) I	I (M) I	
I (M) I	I I	I I	I I	I I	I I	
0.	.5	180.51	4851.94	836.13	641.00	
10.	1.5	182.73	4851.77	836.18	631.00	
20.	2.5	186.07	4851.43	836.26	621.01	
30.	3.5	186.07	4850.92	836.37	611.02	
40.	4.2	188.29	4850.26	836.51	601.04	
50.	5.1	183.84	4849.47	836.69	591.08	
60.	5.8	181.62	4848.56	836.94	581.12	
70.	6.1	179.40	4847.57	837.25	571.18	
80.	6.5	182.73	4846.52	837.57	561.24	
90.	7.0	180.51	4845.40	837.91	551.31	
100.	8.0	182.73	4844.14	838.28	541.39	
110.	8.5	183.84	4842.76	838.65	531.50	
120.	9.3	185.51	4841.26	839.02	521.62	
130.	11.3	185.51	4839.51	839.42	511.78	
140.	12.7	184.96	4837.49	839.90	502.00	
150.	13.2	184.96	4835.31	840.43	492.25	
160.	13.0	186.07	4833.10	840.94	482.51	
170.	13.0	186.07	4830.91	841.43	472.77	
180.	13.0	186.07	4828.71	841.91	463.02	
190.	13.2	186.07	4826.50	842.41	453.28	
200.	13.5	184.96	4824.25	842.93	443.55	
210.	13.2	186.07	4822.00	843.45	433.82	
220.	13.6	183.84	4819.75	843.99	424.10	
230.	13.8	183.84	4817.46	844.59	414.38	
240.	14.1	182.73	4815.13	845.21	404.68	
250.	14.5	181.62	4812.76	845.90	394.99	
260.	15.0	181.59	4810.32	846.62	385.32	
270.	16.0	181.58	4807.75	847.38	375.68	
280.	16.3	181.66	4805.09	848.18	366.07	
290.	16.0	181.59	4802.42	848.97	356.47	
300.	15.5	181.62	4799.82	849.74	346.84	
310.	15.2	181.62	4797.28	850.49	337.20	
320.	15.0	181.62	4794.78	851.24	327.55	

GRONG GRUBEK A/S

BORHULL NR : D60

MÅLEDATO : 16.10.85

ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S

---HOLE NO.....: 061

---DATE.....: 16.10.85

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	1.33	*	-.16	.19	.00	.24	2
20.00	2.22	.89	-.49	.59	.02	.77	3
30.00	.27	-1.95	-.95	1.14	.04	1.48	4
40.00	2.19	1.92	-1.59	1.77	.08	2.38	5
50.00	2.18	-.01	-2.52	2.56	.16	3.60	6
60.00	1.16	-1.02	-3.69	3.46	.27	5.07	7
70.00	2.27	1.11	-5.11	4.46	.42	6.80	8
80.00	.95	-1.32	-6.77	5.55	.62	8.77	9
90.00	1.95	1.00	-8.63	6.69	.86	10.96	10
100.00	.78	-1.17	-10.69	7.91	1.15	13.35	11
110.00	2.62	1.84	-13.00	9.21	1.51	16.00	12
120.00	.32	-2.31	-15.48	10.59	1.92	18.85	13
130.00	.84	.53	-18.02	11.99	2.35	21.77	14
140.00	.95	.11	-20.66	13.46	2.82	24.82	15
150.00	.34	-.61	-23.33	15.01	3.31	27.94	16
160.00	1.11	.77	-26.07	16.62	3.83	31.15	17
170.00	.72	-.39	-28.84	18.32	4.37	34.45	18
180.00	.56	-.17	-31.62	20.10	4.93	37.79	19
190.00	.03	-.53	-34.43	21.90	5.50	41.17	20
200.00	.33	.30	-37.27	23.71	6.09	44.58	21
210.00	.38	.04	-40.14	25.50	6.68	48.02	22
220.00	.50	.12	-42.99	27.29	7.26	51.43	23
230.00	.33	-.17	-45.82	29.09	7.84	54.84	24
240.00	.29	-.04	-48.68	30.94	8.44	58.30	25
250.00	1.09	.80	-51.56	32.72	9.03	61.73	26
260.00	.50	-.59	-54.44	34.45	9.61	65.14	27
270.00	.00	-.50	-57.32	36.22	10.20	68.57	28
280.00	1.17	1.17	-60.23	37.91	10.78	71.98	29
295.00	.01	-1.16	-64.63	40.30	11.64	77.05	30

295, 57

PLANED INCLINATION = .00
 PLANED AZIMUTH = .00

MEASUREMENT CALCULATION

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D61
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D61

I*****

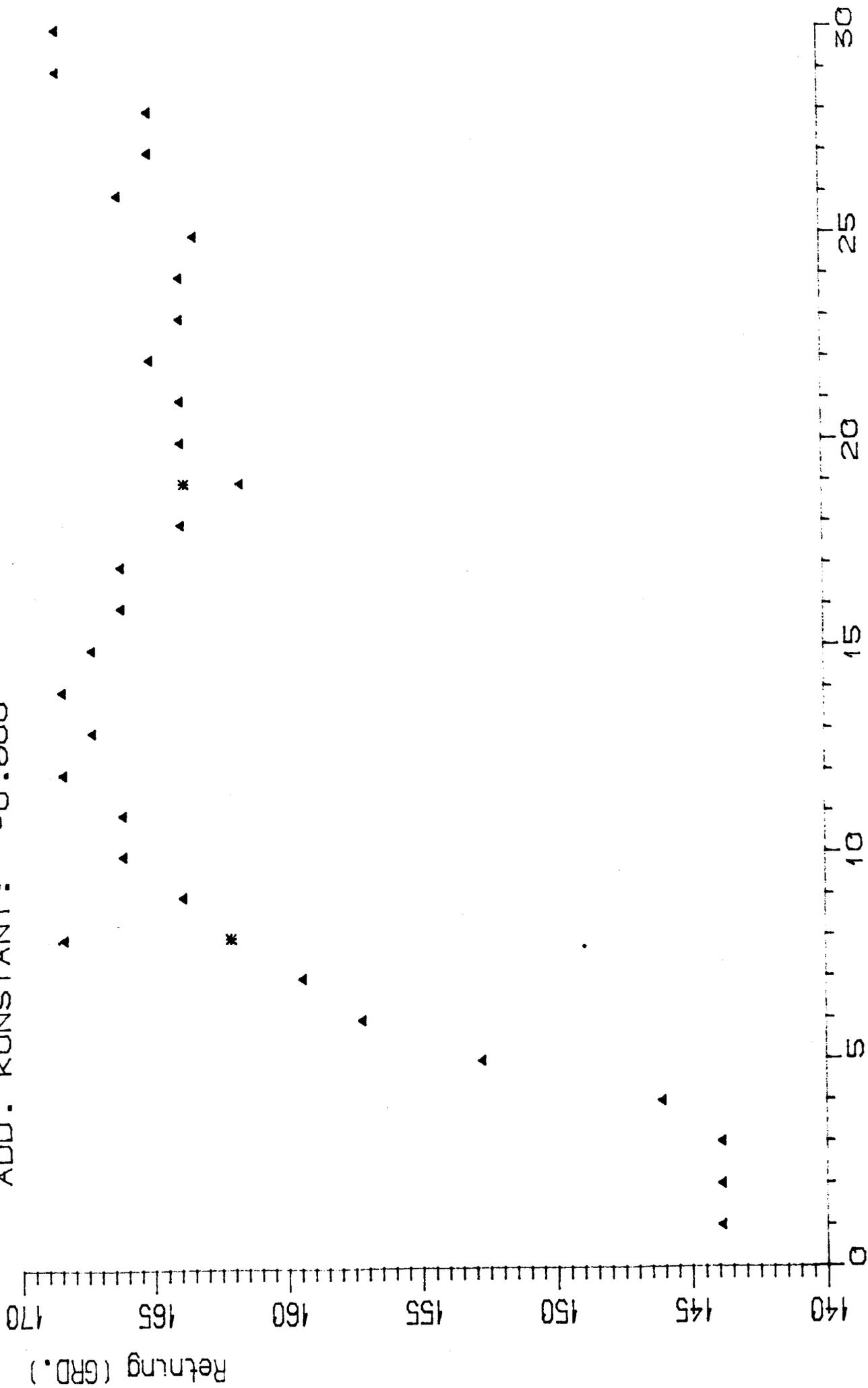
MEASURED DATA				COMPUTED DATA		
MEASURED DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD	
(M)	360 DEG	400 GRD	(M)	(M)	(M)	
0.	.8	143.84	4850.39	650.08	649.68	
10.	2.0	143.84	4850.23	650.27	639.68	
20.	4.0	143.84	4849.90	650.67	629.70	
30.	4.2	146.07	4849.44	651.22	619.72	
40.	6.1	152.73	4848.80	651.85	609.76	
50.	8.0	157.18	4847.87	652.64	599.84	
60.	9.0	159.40	4846.70	653.54	589.95	
70.	11.0	162.12	4845.28	654.54	580.10	
80.	11.8	163.84	4843.62	655.63	570.30	
90.	13.5	166.07	4841.76	656.77	560.54	
100.	14.2	166.07	4839.70	657.99	550.83	
110.	16.5	168.29	4837.39	659.29	541.19	
120.	16.5	167.18	4834.91	660.67	531.60	
130.	17.2	168.29	4832.37	662.07	522.03	
140.	18.0	167.18	4829.73	663.54	512.50	
150.	18.0	166.07	4827.06	665.09	502.99	
160.	19.0	166.07	4824.32	666.70	493.51	
170.	19.0	163.84	4821.55	668.40	484.05	
180.	19.5	163.76	4818.77	670.18	474.61	
190.	19.5	163.84	4815.96	671.98	465.18	
200.	19.8	163.84	4813.12	673.79	455.77	
210.	19.8	164.96	4810.25	675.58	446.36	
220.	19.5	163.84	4807.40	677.37	436.94	
230.	19.8	163.84	4804.57	679.17	427.52	
240.	20.0	163.29	4801.71	681.02	418.12	
250.	19.5	166.07	4798.83	682.80	408.71	
260.	19.8	164.96	4795.95	684.53	399.29	
270.	19.8	164.96	4793.07	686.30	389.88	
280.	19.5	168.29	4790.16	687.99	380.46	
295.	19.5	168.29	4785.76	690.38	366.32	

GRONG GRUBER A/S

BORHULL NR : D61

MÅLEDATO : 16.10.85

ADD. KONSTANT : -0.600



PKT.NR.

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D63
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D63

MEASURED DATA			COMPUTED DATA			
MEASURED DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD	
(M)	360 DEG	400 GRD	(M)	(M)	(M)	

0.	1.0	173.84	4601.54	1349.25	605.03	
10.	2.0	161.62	4601.32	1349.38	595.03	
20.	3.5	151.62	4600.95	1349.69	585.05	
30.	4.1	158.29	4600.45	1350.12	575.07	
40.	5.7	154.96	4599.79	1350.66	565.10	
50.	6.7	158.29	4598.95	1351.34	555.16	
60.	7.2	158.29	4597.99	1352.08	545.24	
70.	8.0	152.18	4596.98	1352.93	535.32	
80.	9.0	156.07	4595.87	1353.91	525.43	
90.	9.5	152.73	4594.66	1354.96	515.56	
100.	10.0	152.73	4593.41	1356.11	505.71	
110.	10.2	159.40	4592.06	1357.22	495.86	
120.	10.7	161.62	4590.58	1358.28	486.03	
130.	12.0	160.51	4588.97	1359.41	476.22	
140.	11.8	161.62	4587.28	1360.59	466.44	
150.	12.0	167.18	4585.54	1361.68	456.65	
160.	12.0	167.18	4583.73	1362.71	446.87	

300 (measured)

4551, 10

13 72, 39

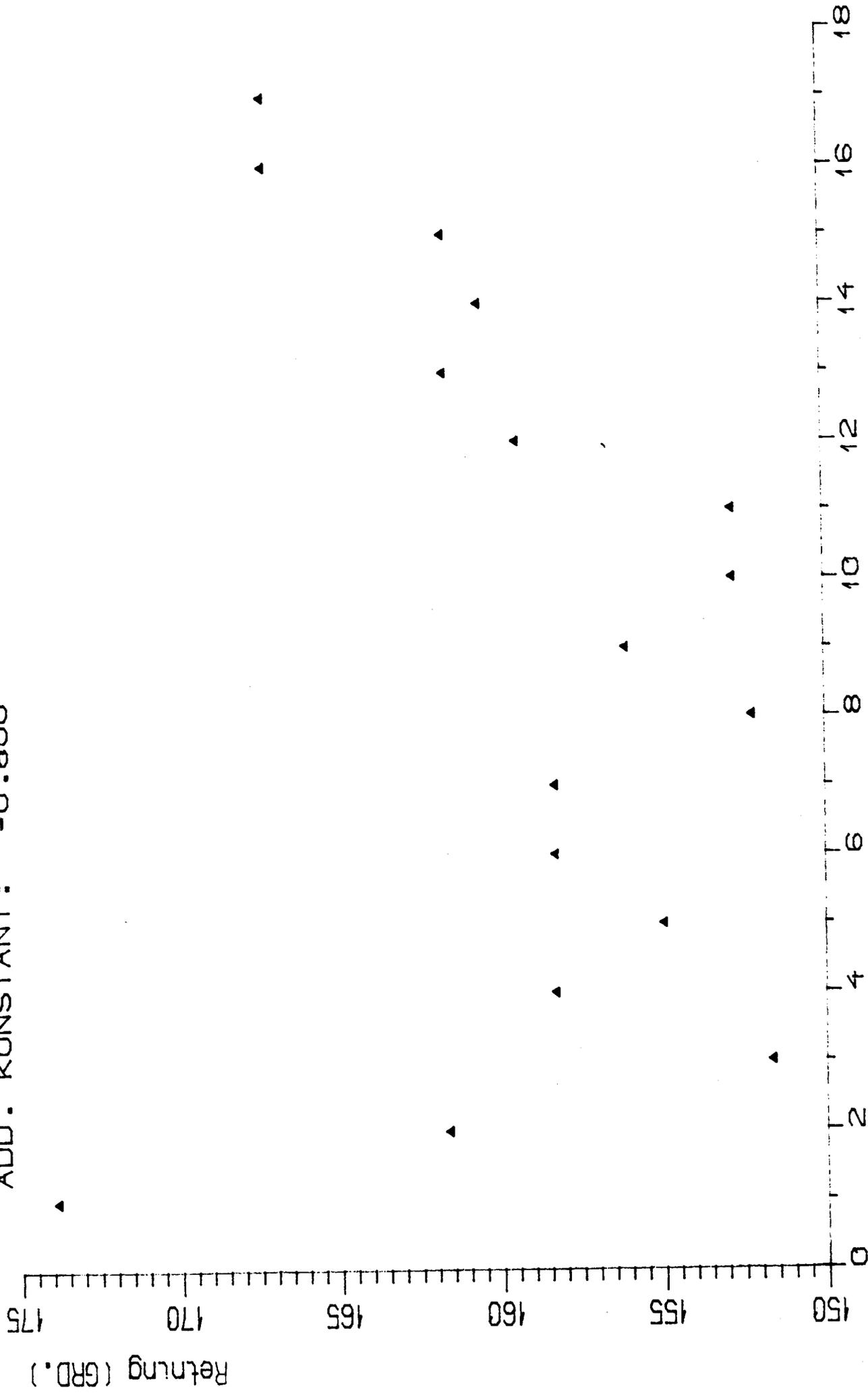
309.95

GRUNG GRUBER A/S

BORHULL NR : D63

MÅLEDATO : 16.10.85

ADD. KONSTANT: -0.600



D64

---DATE.....: 16.10.85

DEVIATION ANGLE.(GRD) DEVIATION.

DEPTH	DEV.ANGLE	DIF.	DX	DY	DZ	TOT.DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	.81	*	.04	.54	.01	.54	2
20.00	1.17	.36	-.06	1.15	.03	1.16	3
30.00	1.82	.65	-.31	1.94	.07	1.97	4
40.00	.85	-.97	-.71	2.88	.12	2.97	5
50.00	2.04	1.19	-1.26	3.99	.20	4.18	6
60.00	1.12	-.92	-1.95	5.29	.31	5.65	7
70.00	.42	-.71	-2.73	6.67	.43	7.22	8
80.00	1.24	.83	-3.62	7.99	.56	8.79	9
90.00	1.15	-.10	-4.68	9.29	.70	10.43	10
100.00	1.90	.76	-5.92	<u>10.73</u>	.89	12.28	11
110.00	1.35	-.55	-7.33	<u>12.35</u>	1.12	14.40	12
120.00	1.75	.39	-8.84	14.19	1.41	16.77	13
130.00	.83	-.92	-10.41	16.21	1.74	19.34	14
140.00	.56	-.27	-12.03	18.32	2.10	22.02	15
150.00	.56	.00	-13.70	20.50	2.49	24.79	16
160.00	.74	.18	-15.45	22.74	2.90	27.65	17
170.00	.65	-.08	-17.21	25.04	3.33	30.57	18
180.00	.65	.00	-18.98	27.34	3.76	33.49	19
190.00	1.37	.72	-20.86	29.67	4.21	36.51	20
200.00	.69	-.69	-22.86	<u>32.02</u>	4.70	39.62	21
210.00	1.11	.42	-24.96	<u>34.40</u>	5.22	42.82	22
220.00	1.57	.46	-27.24	36.84	5.79	46.18	23
230.00	.38	-1.19	-29.66	39.26	6.40	49.61	24
240.00	1.36	.98	-32.20	41.67	7.03	53.12	25
250.00	.52	-.83	-34.87	44.08	7.70	56.74	26
260.00	.01	-.51	-37.59	46.49	8.39	60.37	27
270.00	.78	.77	-40.35	48.94	9.09	64.08	28
280.00	.47	-.30	-43.19	51.41	9.83	67.86	29
290.00	2.54	2.06	-46.16	53.69	10.55	71.59	30
300.00	.89	-1.64	-49.27	<u>55.75</u>	11.28	75.26	31
310.00	.11	-.78	-52.44	57.77	12.01	78.94	32
320.00	.31	.19	-55.60	59.81	12.75	82.65	33
330.00	.67	.30	-58.78	61.82	13.48	86.36	34
340.00	1.11	.45	-61.90	63.74	14.18	89.98	35
350.00	1.19	.08	-65.01	65.53	14.84	93.49	36
360.00	.30	-.90	-68.15	67.22	15.50	96.97	37
370.00	.39	.09	-71.27	68.87	16.14	100.41	38
380.00	.68	.29	-74.35	70.44	16.76	103.78	39

PLANNED INCLINATION = .00
PLANNED AZIMUTH = .00

400

80.55

73.58

17.96

$\bar{x} = 3.14$ $\sigma = 1.69$
 $\bar{x} = 3.12$ $\sigma = 1.45$
 $\bar{x} = 3.08$ $\sigma = 1.57$
 $\bar{x} = 3.10$ $\sigma = 1.67$
 $\bar{x} = 0.6$

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D 64
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D 64

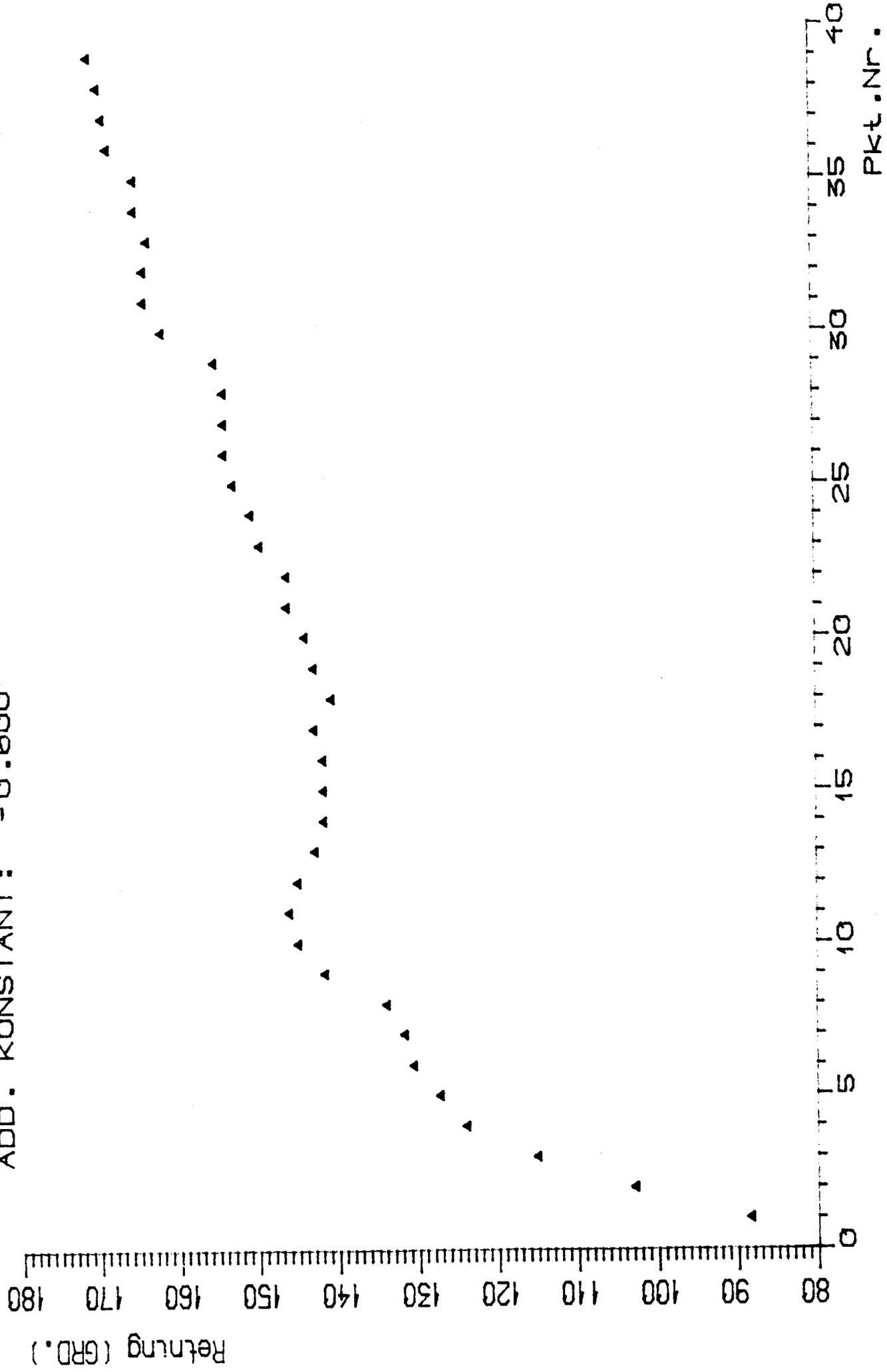
I*****						
I MEASURED DATA			I COMPUTED DATA			
I MEASURED I	I	I	I	I	I	I
I DEPTH	I INCLINATION	I AZIMUTH	I X-KOORD	I Y-KOORD	I Z-KOORD	
I (M)	I 360 DEG	I 400 GRD	I (M)	I (M)	I (M)	
I*****						
0.	3.0	88.29	4445.73	1289.39	609.32	
10.	3.2	102.73	4445.77	1289.93	599.33	
20.	4.0	114.96	4445.67	1290.54	589.35	
30.	5.5	123.84	4445.42	1291.33	579.39	
40.	6.2	127.18	4445.02	1292.27	569.44	
50.	8.0	130.51	4444.47	1293.38	559.52	
60.	9.0	131.62	4443.78	1294.68	549.63	
70.	9.2	133.84	4443.00	1296.06	539.75	
80.	9.2	141.62	4442.11	1297.38	529.88	
90.	10.1	144.96	4441.05	1298.68	520.02	
100.	11.8	146.07	4439.81	1300.12	510.21	
110.	13.0	144.96	4438.40	1301.74	500.44	
120.	14.5	142.73	4436.89	1303.58	490.73	
130.	15.2	141.62	4435.32	1305.60	481.06	
140.	15.7	141.62	4433.70	1307.71	471.42	
150.	16.2	141.62	4432.03	1309.89	461.81	
160.	16.8	142.73	4430.28	1312.13	452.22	
170.	16.9	140.51	4428.52	1314.43	442.65	
180.	16.8	142.73	4426.75	1316.73	433.08	
190.	18.0	143.84	4424.87	1319.06	423.53	
200.	18.0	146.07	4422.87	1321.41	414.02	
210.	19.0	146.07	4420.77	1323.79	404.54	
220.	20.0	149.40	4418.49	1326.23	395.11	
230.	20.0	150.51	4416.07	1328.65	385.72	
240.	21.0	152.73	4413.53	1331.06	376.35	
250.	21.3	153.84	4410.86	1333.47	367.02	
260.	21.3	153.84	4408.14	1335.88	357.71	
270.	22.0	153.84	4405.38	1338.33	348.41	
280.	22.2	154.96	4402.54	1340.80	339.15	
290.	21.8	161.62	4399.57	1343.08	329.87	
300.	22.1	163.84	4396.46	1345.14	320.60	
310.	22.0	163.84	4393.29	1347.16	311.33	
320.	22.2	163.29	4390.13	1349.20	302.07	
330.	22.0	164.96	4386.95	1351.21	292.80	
340.	21.0	164.96	4383.83	1353.13	283.50	
350.	21.0	168.29	4380.72	1354.92	274.16	
360.	20.8	168.84	4377.58	1356.61	264.82	
370.	20.5	169.40	4374.46	1358.26	255.46	
380.	20.0	170.51	4371.38	1359.83	246.08	
400.			4365.18	1362.97	227.28	

GRONG GRUBER A/S

BORHULL NR : D 64

MÅLEDATO : 16.10.85

ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D 69
 ---DATE.....: 16.10.85

GRUVE

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	1.11	*	-.06	.06	.00	.09	2
20.00	1.23	.12	-.23	.27	.00	.36	3
30.00	1.07	-.16	-.53	.60	.01	.80	4
40.00	1.19	.11	-.99	.96	.03	1.38	5
50.00	.27	-.92	-1.57	1.32	.06	2.05	6
60.00	.58	.31	-2.22	1.69	.08	2.79	7
70.00	.67	.04	-2.96	2.08	.12	3.62	8
80.00	.90	.22	-3.80	2.53	.16	4.57	9
90.00	.26	-.64	-4.70	3.04	.22	5.60	10
100.00	1.22	.96	-5.66	3.65	.28	6.74	11
110.00	1.33	.11	-6.69	4.44	.37	8.04	12
120.00	.56	-.77	-7.80	5.35	.47	9.47	13
130.00	1.70	1.15	-9.02	6.40	.60	11.08	14
140.00	1.16	-.55	-10.37	7.63	.77	12.89	15
150.00	.68	-.48	-11.77	8.98	.96	14.84	16
160.00	.57	-.11	-13.20	10.43	1.17	16.87	17
170.00	.92	.35	-14.69	11.98	1.40	19.01	18
180.00	.22	-.70	-16.23	13.60	1.66	21.24	19
190.00	1.14	.92	-17.85	15.28	1.93	23.57	20
200.00	1.11	-.03	-19.60	17.06	2.25	26.09	21
210.00	1.00	-.11	-21.47	18.96	2.61	28.76	22
220.00	1.00	.00	-23.44	20.97	3.02	31.60	23
230.00	.46	-.54	-25.47	23.00	3.44	34.49	24
240.00	.64	.18	-27.50	25.04	3.86	37.39	25
250.00	1.16	.52	-29.63	27.17	4.32	40.43	26
260.00	.66	-.50	-31.88	29.34	4.83	43.60	27
270.00	.56	-.10	-34.21	31.56	5.36	46.85	28
280.00	.36	-.19	-36.55	33.82	5.90	50.14	29
290.00	.72	.36	-38.91	36.06	6.45	53.44	30
300.00	.90	.18	-41.31	38.20	6.98	56.70	31

PLANNED INCLINATION = .00
 PLANNED AZIMUTH = .00

323.20

46.93 13.21 8.24

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 0 69
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S 0 69

[*****
 I MEASURED DATA I COMPUTED DATA
 I-----

GRUVE

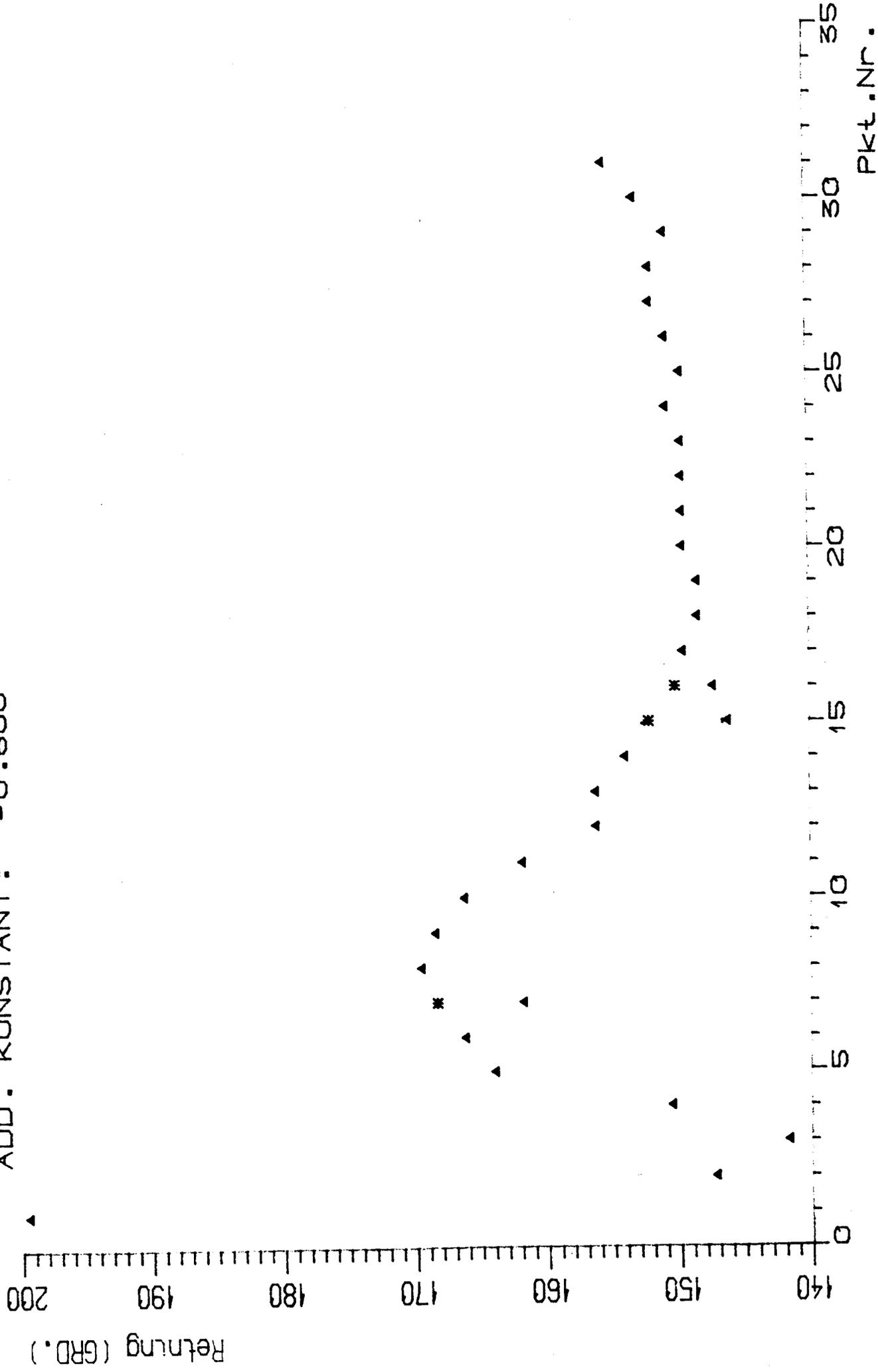
I	MEASURED I	I	I	I	I	I	I				
I	DEPTH	I	INCLINATION	I	AZIMUTH	I	X-KUORD	I	Y-KUORD	I	Z-KUORD
I	(M)	I	360 DEG	I	400 GRD	I	(M)	I	(M)	I	(M)
[*****											
	0.		0		199.40		4845.72		947.84		634.67
	10.		1.0		147.18		4845.66		947.90		624.67
	20.		2.1		141.62		4845.49		948.11		614.67
	30.		3.0		150.51		4845.19		948.44		604.68
	40.		3.8		163.84		4844.73		948.80		594.70
	50.		4.0		166.07		4844.15		949.16		584.73
	60.		4.5		168.29		4843.50		949.53		574.75
	70.		5.1		169.40		4842.76		949.92		564.79
	80.		5.9		168.29		4841.92		950.37		554.83
	90.		6.0		166.07		4841.02		950.88		544.89
	100.		7.0		161.62		4840.06		951.49		534.95
	110.		8.0		156.07		4839.03		952.28		525.04
	120.		8.5		156.07		4837.92		953.19		515.14
	130.		10.0		153.84		4836.70		954.24		505.27
	140.		11.0		152.10		4835.35		955.47		495.44
	150.		11.5		150.10		4833.95		956.82		485.63
	160.		12.0		149.40		4832.52		958.27		475.84
	170.		12.8		148.29		4831.03		959.82		466.07
	180.		13.0		148.29		4829.49		961.44		456.33
	190.		14.0		149.40		4827.87		963.12		446.60
	200.		15.0		149.40		4826.12		964.90		436.92
	210.		15.9		149.40		4824.25		966.80		427.28
	220.		16.8		149.40		4822.28		968.81		417.69
	230.		16.5		150.51		4820.25		970.84		408.11
	240.		17.0		149.40		4818.22		972.88		398.53
	250.		18.0		150.51		4816.09		975.01		388.94
	260.		18.5		151.62		4813.84		977.18		379.50
	270.		19.0		151.62		4811.51		979.40		370.03
	280.		19.0		150.51		4809.17		981.66		360.57
	290.		19.0		152.73		4806.81		983.90		351.12
	300.		18.5		154.96		4804.41		986.04		341.65

BRUNING GRUPPEN A/S

BORHULL NR : D 69

MÅLEDATO : 16.10.85

ADD. KONSTANT: -0.600



---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D 70
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: LORD ANGLE

GRONG GRUBER A/S D 70

I*****I
 I MEASURED DATA I COMPUTED DATA
 I-----I

GRUVE

I MEASURED I	I	I	I	I	I	I
I DEPTH	I INCLINATION	I AZIMUTH	I X-KOORD	I Y-KOORD	I Z-KOORD	I
I-----I	I-----I	I-----I	I-----I	I-----I	I-----I	I-----I
I (M)	I GRD DEG	I GRD	I (M)	I (M)	I (M)	I (M)
I*****I	I*****I	I*****I	I*****I	I*****I	I*****I	I*****I
0.	0	199.40	4899.89	950.04	643.00	
10.	1.0	184.96	4899.81	950.06	633.00	
20.	2.0	186.07	4899.55	950.12	623.00	
30.	3.0	186.07	4899.12	950.21	613.01	
40.	4.5	184.96	4898.49	950.36	603.04	
50.	4.7	182.73	4897.71	950.56	593.07	
60.	5.0	182.73	4896.90	950.79	583.10	
70.	5.1	185.51	4896.04	951.01	573.14	
80.	6.0	183.84	4895.11	951.24	563.19	
90.	6.2	186.07	4894.07	951.49	553.25	
100.	6.6	183.84	4892.99	951.75	543.31	
110.	7.1	179.40	4891.85	952.09	533.38	
120.	7.2	181.62	4890.66	952.46	523.46	
130.	8.1	178.29	4889.40	952.88	513.55	
140.	8.3	178.29	4888.05	953.36	503.65	
150.	9.1	178.29	4886.63	953.86	493.76	
160.	10.0	178.29	4885.06	954.42	483.90	
170.	10.0	177.18	4883.43	955.01	474.05	
180.	10.5	177.18	4881.76	955.64	464.21	
190.	11.0	177.18	4880.02	956.29	454.39	
200.	11.8	176.07	4878.17	957.00	444.59	
210.	12.5	177.18	4876.21	957.76	434.81	
220.	13.0	176.07	4874.15	958.55	425.06	
230.	13.8	173.84	4872.01	959.44	415.33	
240.	14.1	174.96	4869.79	960.38	405.62	
250.	14.2	174.96	4867.53	961.32	395.93	
260.	15.0	174.96	4865.21	962.28	386.25	
270.	15.0	173.84	4862.82	963.30	376.59	
280.	14.7	173.84	4860.47	964.32	366.93	
290.	14.5	174.96	4858.15	965.31	357.25	
295.	14.7	173.84	4856.99	965.80	352.41	

270

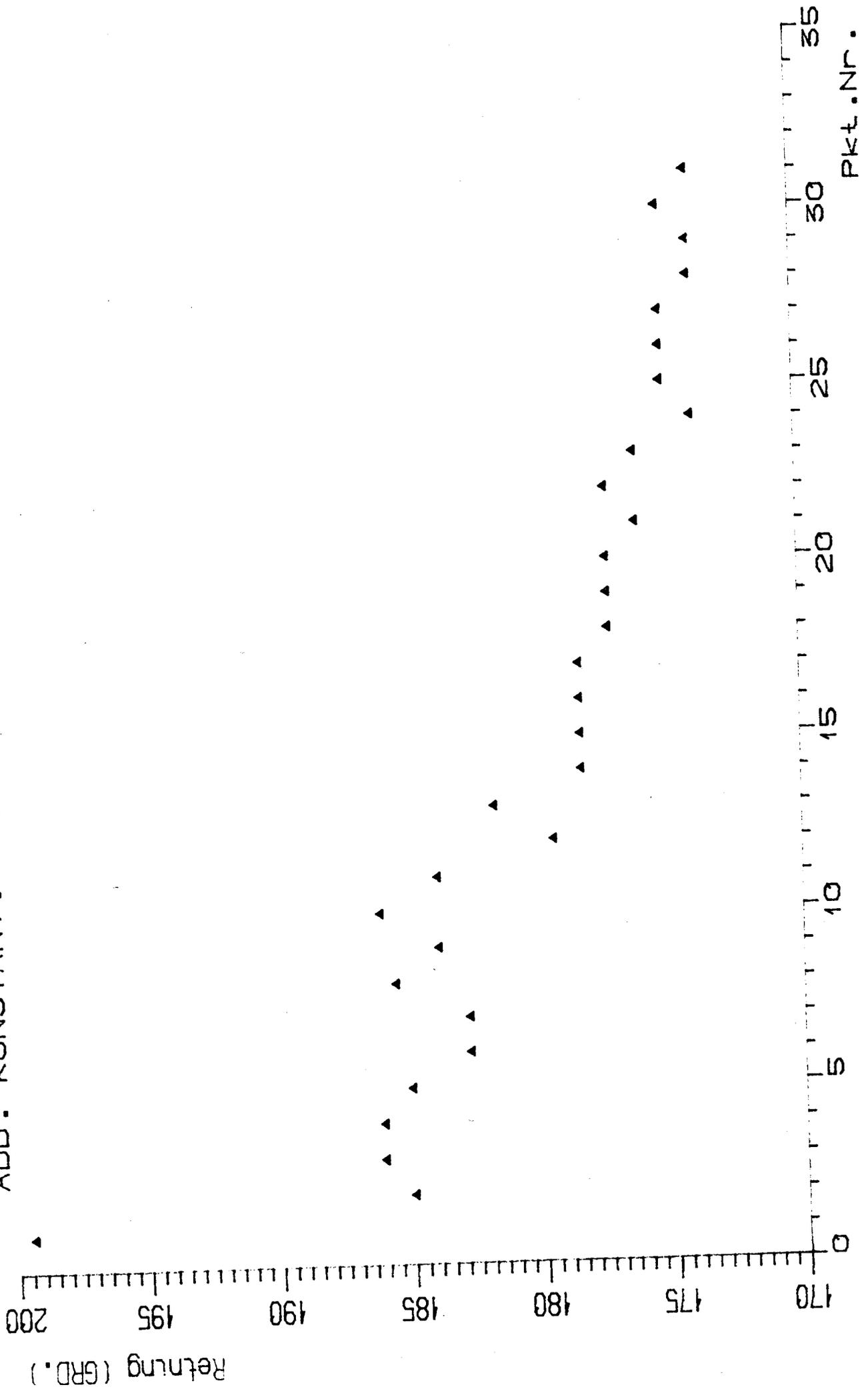
4852.95

967.53

340.34

GRUING GRUBER 1/1/77

BORHULL NR : D 70
MÅLEDATO : 16.10.85
ADD. KONSTANT: -0.600



---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 0 71
 ---DATE.....: 16.10.85
 ---CALCULATION METHOD: LORD ANGLF

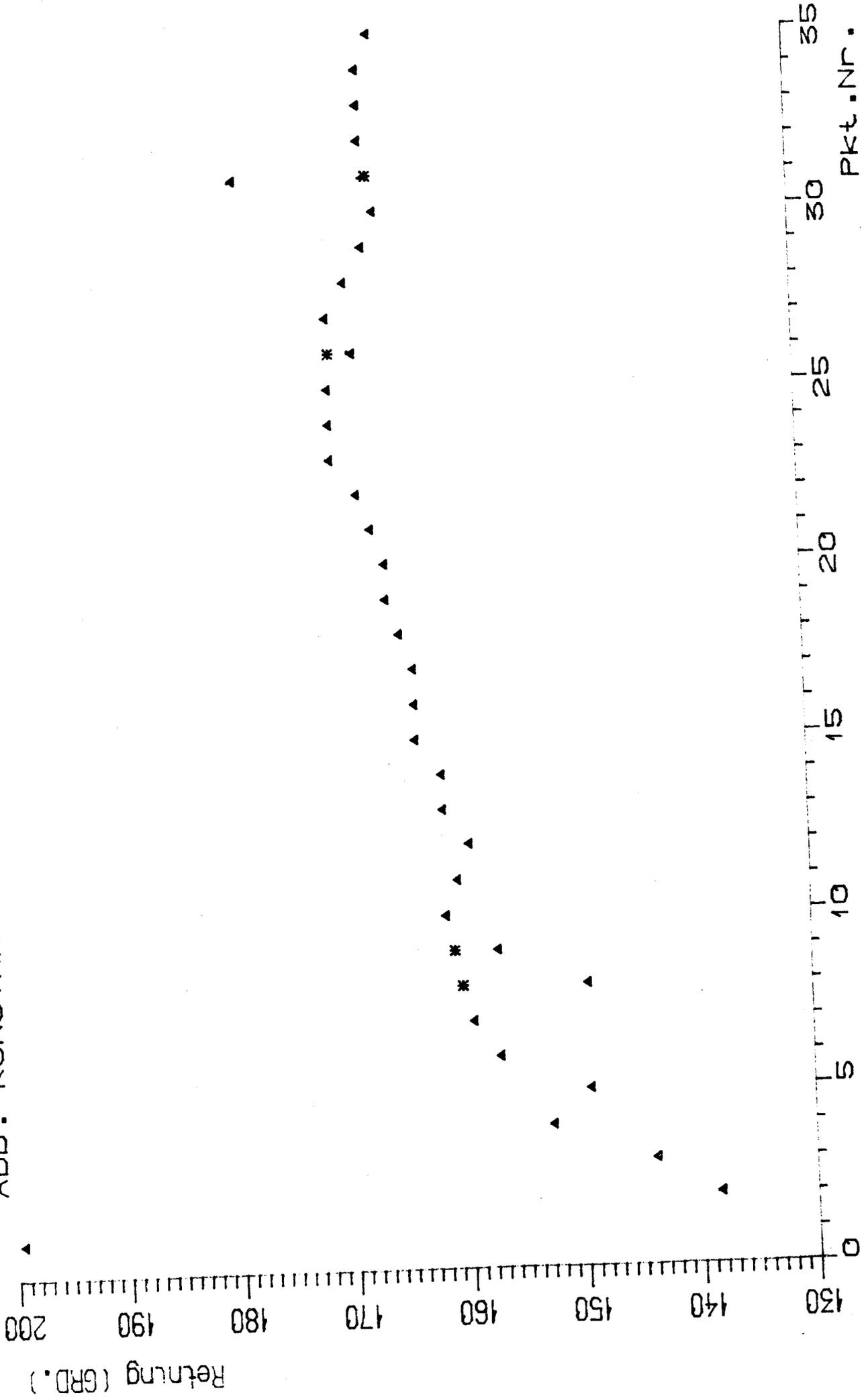
GRONG GRUBER A/S 0 71

GRUVE

MEASURED DATA				COMPUTED DATA		
MEASURED	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD	
(M)	360 DEG	400 GRD	(M)	(M)	(M)	
0.	0	199.40	4800.63	749.24	644.62	
10.	1.5	138.29	4800.56	749.35	634.62	
20.	2.8	143.84	4800.33	749.64	624.63	
30.	3.5	152.73	4799.95	750.04	614.64	
40.	4.0	149.40	4799.48	750.49	604.66	
50.	5.1	157.18	4798.89	751.02	594.70	
60.	6.1	159.40	4798.11	751.61	584.74	
70.	7.0	160.39	4797.19	752.29	574.81	
80.	8.0	161.00	4796.12	753.04	564.90	
90.	7.8	161.62	4795.00	753.83	554.99	
100.	8.8	160.51	4793.81	754.65	545.10	
110.	10.0	159.40	4792.49	755.62	535.23	
120.	11.2	161.62	4791.00	756.68	525.40	
130.	13.0	161.62	4789.27	757.87	515.62	
140.	14.0	163.84	4787.32	759.16	505.90	
150.	16.0	163.84	4785.14	760.55	496.24	
160.	16.2	163.84	4782.80	762.04	486.63	
170.	16.5	164.96	4780.42	763.54	477.04	
180.	16.1	166.07	4778.01	764.99	467.44	
190.	16.2	166.07	4775.62	766.40	457.83	
200.	16.5	167.18	4773.18	767.81	448.24	
210.	16.2	168.29	4770.72	769.17	438.64	
220.	16.0	170.51	4768.26	770.46	429.03	
230.	16.5	170.51	4765.76	771.71	419.43	
240.	17.0	170.51	4763.18	772.99	409.86	
250.	17.2	170.44	4760.55	774.31	400.30	
260.	17.0	170.51	4757.92	775.62	390.74	
270.	17.0	168.84	4755.32	776.97	381.18	
280.	17.0	167.18	4752.76	778.37	371.62	
290.	17.1	166.07	4750.22	779.84	362.06	
300.	17.0	166.67	4747.69	781.32	352.50	
310.	17.0	167.18	4745.15	782.77	342.93	
320.	17.0	167.18	4742.61	784.21	333.37	
330.	16.0	167.18	4740.14	785.61	323.78	
340.	15.8	166.07	4737.77	786.98	314.16	

GRONG GRUBER A/S

BORHULL NR : D 71
MÅLEDATO : 16.10.85
ADD. KONSTANT : - 0.600



3h, D63

---NAME.....: GRONG GRUBE' A/S
 ---HOLE NO.....: D63

---DATE.....: 16.10.85

DEVIATION ANGLE. (GRD) ***** DEVIATION. *****

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT NO.
.00	*	*	.00	.00	.00	.00	1
10.00	1.15	*	-.22	.13	.00	.26	2
20.00	1.73	.58	-.59	.44	.02	.74	3
30.00	.80	-.93	-1.09	.87	.04	1.40	4
40.00	1.80	1.00	-1.75	1.41	.07	2.25	5
50.00	1.17	-.63	-2.59	2.09	.13	3.33	6
60.00	.56	-.61	-3.55	2.83	.21	4.55	7
70.00	1.20	.64	-4.56	3.68	.29	5.87	8
80.00	1.25	.05	-5.67	4.66	.40	7.35	9
90.00	.77	-.48	-6.88	5.71	.53	8.96	10
100.00	.56	-.22	-8.13	6.86	.68	10.66	11
110.00	1.19	.63	-9.48	7.97	.83	12.42	12
120.00	.69	-.50	-10.96	9.03	1.00	14.23	13
130.00	1.46	.77	-12.57	10.16	1.19	16.20	14
140.00	.32	-1.14	-14.26	11.34	1.41	18.27	15
150.00	1.17	.85	-16.00	12.43	1.62	20.33	16
160.00	.00	-1.17	-17.81	13.46	1.84	22.40	17
170.00	.56	.56	-19.66	14.50	2.07	24.52	18
200.00	.58	.03	-25.44	17.73	2.81	31.13	19
230.00	.60	.02	-31.49	20.99	3.61	38.02	20
260.00	.92	.32	-37.89	24.31	4.49	45.24	21
280.00	.92	.00	-42.43	26.58	5.14	50.33	22
300.00	.78	-.15	-47.21	28.93	5.87	55.68	23

PLANNED INCLINATION = .00
 PLANNED AZIMUTH = .00

8h D58

---DATE.....: 16.10.85

DEVIATION ANGLE.(GRD) DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT NO.
.00	*	*	.00	.00	.00	.00	1
10.00	2.22	*	-.11	-.51	.01	.52	2
20.00	.46	-1.76	-.29	-1.18	.04	1.22	3
30.00	.56	.10	-.55	-1.84	.06	1.92	4
40.00	2.47	1.91	-1.05	-2.50	.10	2.71	5
50.00	3.80	1.33	-2.01	-3.04	.16	3.65	6
60.00	2.98	-.82	-3.36	-3.27	.26	4.70	7
70.00	3.15	.17	-5.05	-3.16	.40	5.97	8
80.00	2.87	-.29	-7.16	-2.97	.63	7.78	9
90.00	1.99	-.87	-9.61	-2.71	.94	10.02	10
100.00	1.04	-.95	-12.20	-2.27	1.29	12.48	11
110.00	.63	-.41	-14.86	-1.73	1.67	15.05	12
120.00	.10	-.53	-17.55	-1.15	2.05	17.71	13
130.00	2.78	2.68	-20.04	-.61	2.38	20.19	14
140.00	.77	-2.01	-22.10	.00	2.67	22.52	15
150.00	1.34	.58	-24.68	.61	2.97	24.86	16
160.00	2.50	1.16	-27.00	1.54	3.31	27.30	17
170.00	4.58	2.08	-29.89	2.84	3.80	30.27	18
180.00	2.49	-2.09	-33.03	4.52	4.46	33.64	19
190.00	1.69	-.80	-36.20	6.50	5.18	37.14	20
198.00	5.00	3.30	-38.49	8.42	5.76	39.82	21
210.00	2.58	-2.42	-41.43	11.82	6.63	43.59	22
220.00	2.62	.04	-43.56	14.89	7.36	46.62	23
230.00	1.87	-.75	-45.39	18.16	8.09	49.55	24
235.00	1.12	-.75	-46.20	19.85	8.45	50.99	25

PLANNED INCLINATION = .00
PLANNED AZIMUTH = .00

DEVIATION CALCULATION

60.
61.
62.
63.
64.
65.
66.
67.
68.
69.
70.
71.
72.
73.
74.
75.
76.
77.
78.
79.
80.
81.
82.
83.
84.
85.
86.
87.
88.
89.
90.
91.
92.
93.
94.
95.
96.
97.
98.
99.
100.
101.
102.
103.
104.
105.
106.
107.

67. 038

	I	(M)	I	360 DEG	400 GRD	I	(M)	I	(M)	I	(M)	I
122.	I	*****	I	*****	*****	I	*****	I	*****	I	*****	I
123.	I	*****	I	*****	*****	I	*****	I	*****	I	*****	I
124.		0.		2.0	286.12		5203.75		1102.53		613.35	
125.		10.		4.0	286.67		5203.64		1102.02		603.36	
126.		20.		4.0	280.00		5203.46		1101.35		593.39	
127.		30.		4.1	272.22		5203.20		1100.69		583.41	
128.		40.		5.5	248.89		5202.70		1100.03		573.45	
129.		50.		7.5	221.11		5201.74		1099.49		563.51	
130.		60.		8.5	201.11		5200.39		1099.26		553.61	
131.		70.		11.0	192.22		5198.70		1099.37		543.75	
132.		80.		13.5	195.56		5196.59		1099.56		533.98	
133.		90.		15.0	191.11		5194.14		1099.82		524.29	
134.		100.		15.5	187.78		5191.55		1100.26		514.64	
135.		110.		16.0	186.67		5188.89		1100.80		505.02	
136.		120.		16.0	186.31		5186.20		1101.38		495.40	
137.		130.		13.5	186.67		5183.71		1101.92		485.73	
138.		140.		14.0	184.44		5181.39		1102.45		476.02	
139.		150.		14.0	178.89		5179.07		1103.14		466.32	
140.		160.		16.0	174.44		5176.66		1104.07		456.66	
141.		170.		20.0	170.84		5173.86		1105.37		447.15	
142.		180.		21.8	166.67		5170.72		1107.05		437.81	
143.		190.		22.1	162.22		5167.55		1109.03		428.53	
144.		198.		22.0	148.89		5165.26		1110.95		421.11	
145.		210.		22.0	142.00		5162.32		1114.35		409.98	
146.		220.		22.0	135.00		5160.19		1117.42		400.71	
147.		230.		22.0	130.00		5158.36		1120.69		391.44	
148.		235.		22.0	127.00		5157.55		1122.38		386.80	
149.												
150.												
151.												
152.												

END DATA. ERRORS: NONE. TIME: 1.067 SEC. IMAGE COUNT: 152

@SYM PRINT\$,GRUVE
@FIN

RUNID: 12313 ACCT: BE2026F PROJECT: AVVIK

12313A FIN

TIME: TOTAL: 00:00:01.667 CBSUPS: 000135093
 CPU: 00:00:00.020 I/O: 00:00:01.142
 CC/EP: 00.00.00 505 UNIT: 00.00.00 000