

Rig: **Century 11** State: **Victoria**

Rig: Century 11 Field: Exploration (Otway Basin) Location: Otway Basin Well: Seamer-1 Company: SANTOS Ltd	<div>Schlumberger</div> <div>SlimPulse* GR</div> <div>Measured Depth 1:200 scale</div> <div>Recorded Mode Memory</div>							
	Location	Total depth:		1360.0 m		Elevation	K.B.	64.01 m
		Spud date:		18-Dec-02			G.L.	58.51 m
		Runs:		1 To 2			D.F.	63.71 m
		Permanent datum:		AHD		Elev.: 58.51 m		
		Log measured from:		Rotary Table		63.71 m above Perm. datum		
	Depth reference:		Driller's Pipe Tally					
	API serial no.		X = 676099.13 m Y = 5730473.86 m		Longitude		Latitude	
					E143°1'15.70		S38°33'24.28	
	Depth logged:		426.58 m To 1344.70 m		Mag decl:		10.95	
Date logged:		23-Dec-02To 25-Dec-02		Mag dip:		-69.75		
				Other services:		Directional Drilling		
Bore hole record				Casing record				
Hole size		from to		Size		Density		
26 in		0.0 m 16.0 m		20 in		106.2 lb/ft		
9 7/8 in		16.0 m 432.0 m		7 5/8 in		26.4 lb/ft		
6 3/4 in		442.0 m 1360.0 m						
Mud record				Borehole deviation record				
Type		from to		Min		Max		
KCl/PHPA/Polymer		442.0 m 884.0 m		0.2 deg		4.5 deg		
KCl/Polymer		884.0 m 1360.0 m		4.4 deg		20.2 deg		
				20.1 deg		20.2 deg		
				18.0 deg		20.7 deg		
Surface equipment		Software record				IDEAL services from Anadrill		
Unit	SANTOS Unit	IDEAL Wis	6.1c10r					
Depth system	PDA-BB-028730	SPM	6.1c10r					
		LWD						
		MWD	6.0b55					

Bit Run Summary

<p style="text-align: center;">DISCLAIMER</p> <p>THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.</p>		
<p>OTHER SERVICES FOR RUN1</p> <p>Directional Drilling Directional Surveys Gamma Ray</p>	<p>OTHER SERVICES FOR RUN2</p> <p>Directional Drilling Directional Surveys Gamma Ray</p>	<p>OTHER SERVICES FOR RUN</p>
<p>REMARKS: RUN NUMBER 1</p> <p>Depth Offsets: Bit to D&I: 14.50 m Bit to GR: 15.42 m</p> <p>SlimPulse* seated in a 4 3/4" SlimPulse* Rigid Mount Collar.</p> <p>All data are presented from memory.</p> <p>SlimPulse* Gamma Ray is corrected for mud weight and bit size.</p> <p>There was KCl present in the mud system.</p> <p>Gamma Ray logged in 7 5/8" casing to 434 m resulting in attenuation.</p> <p>At 788.46 m, the Kelly Length was changed from 13.3 m to 12.0 m, resulting in a Pipe Tally correction</p> <p>POOH at 1169 m due for a Bit trip.</p>	<p>REMARKS: RUN NUMBER 2</p> <p>Depth Offsets: Bit to D&I: 14.38 m Bit to GR: 15.30 m</p> <p>SlimPulse* seated in a 4 3/4" SlimPulse* Rigid Mount Collar.</p> <p>All data are presented from memory.</p> <p>SlimPulse* Gamma Ray is corrected for mud weight and bit size.</p> <p>There was KCl present in the mud system.</p> <p>POOH at 1360 m due to TD of Seamer-1.</p>	<p>REMARKS: RUN NUMBER</p>

POOH at 1169 m due for a Bit trip.

EQUIPMENT DESCRIPTION

RUN1

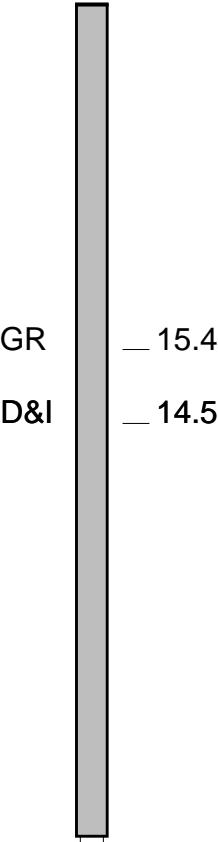
RUN2

RUN

DOWNHOLE EQ

DOWNHOLE E

SlimPul
SPMA #
SPEC #
SPBA #4
DH Software:



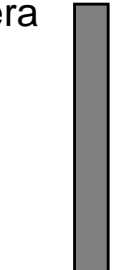
Float S
S/N: CMP



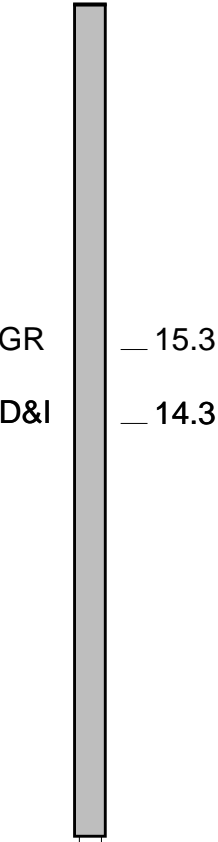
6 5/8" IB St
4 3/4" S/N: DO



A475XP Steera
4 3/4" S/N
7:8 Lob



SlimPul
SPMA #
SPEC #
SPBA #2
DH Software:



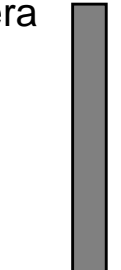
Float S
S/N: CMP

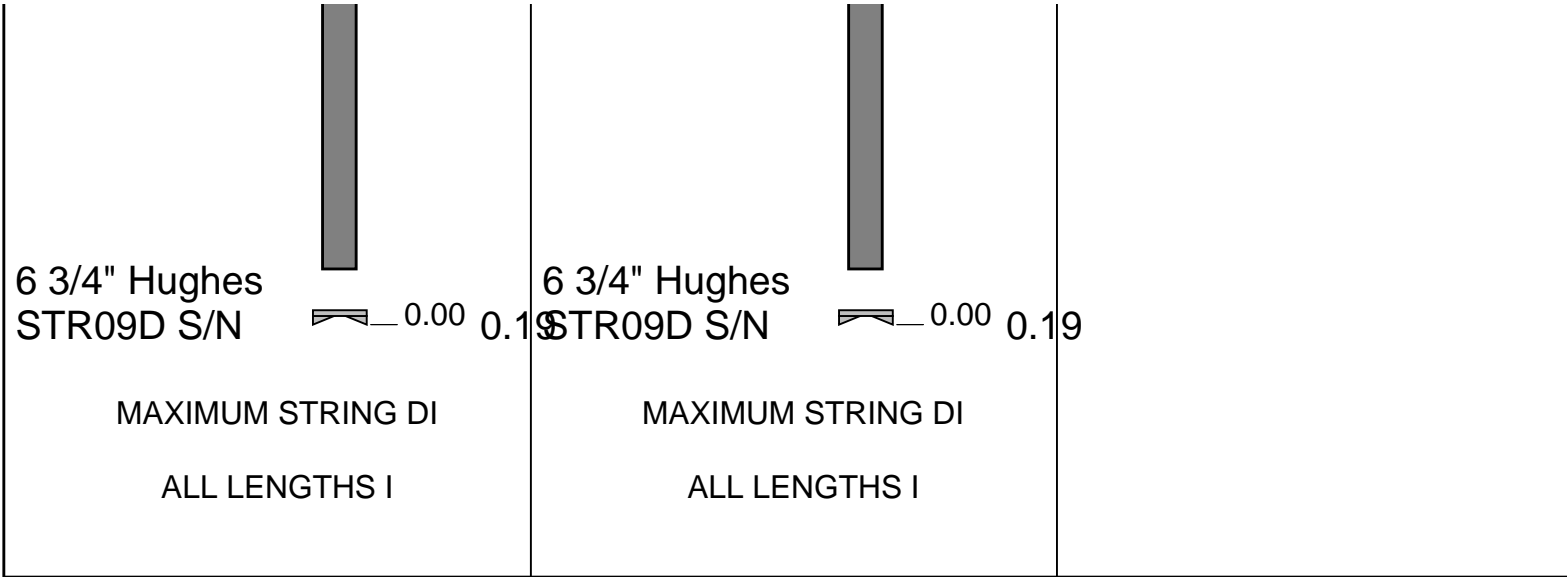


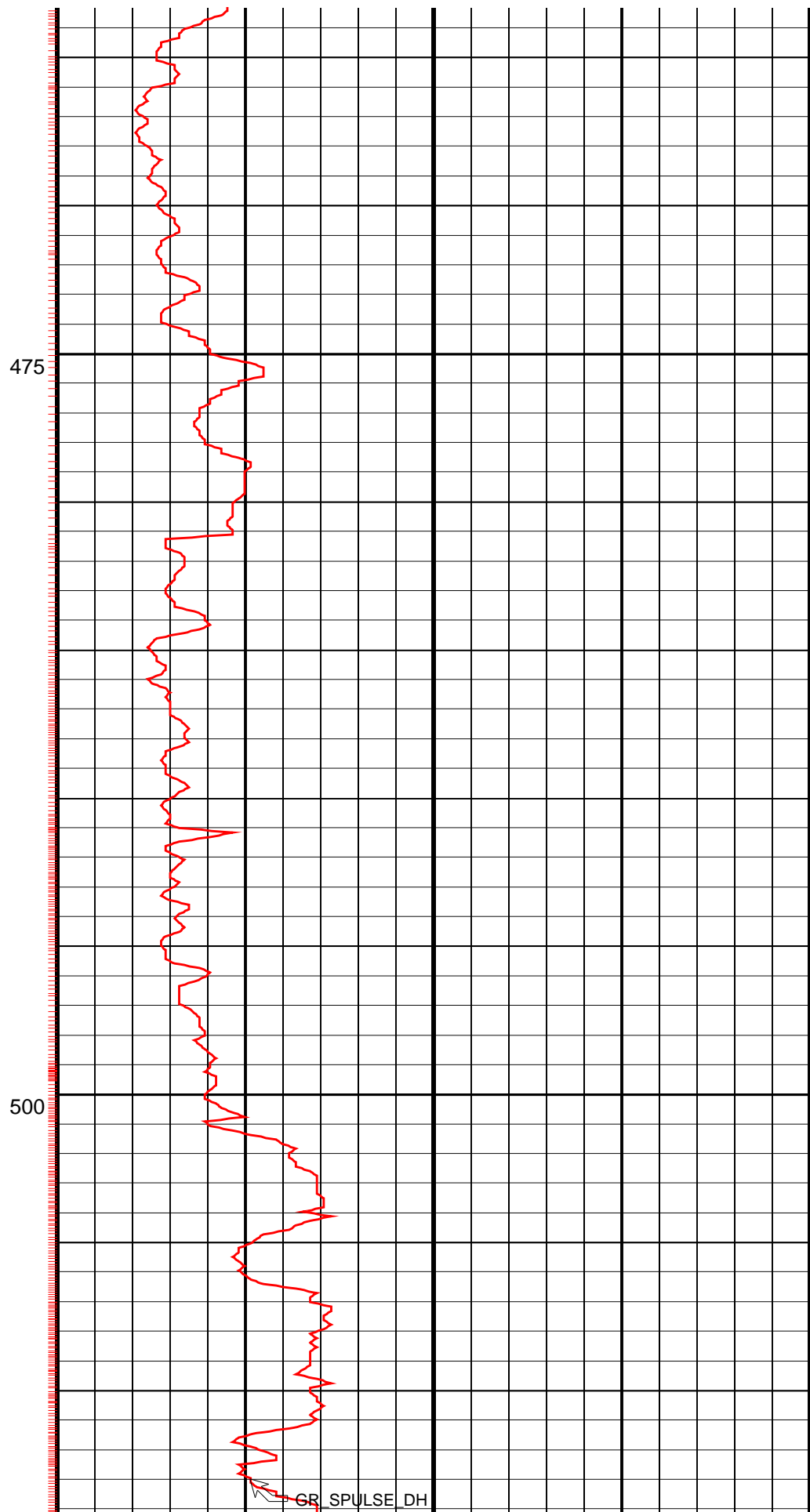
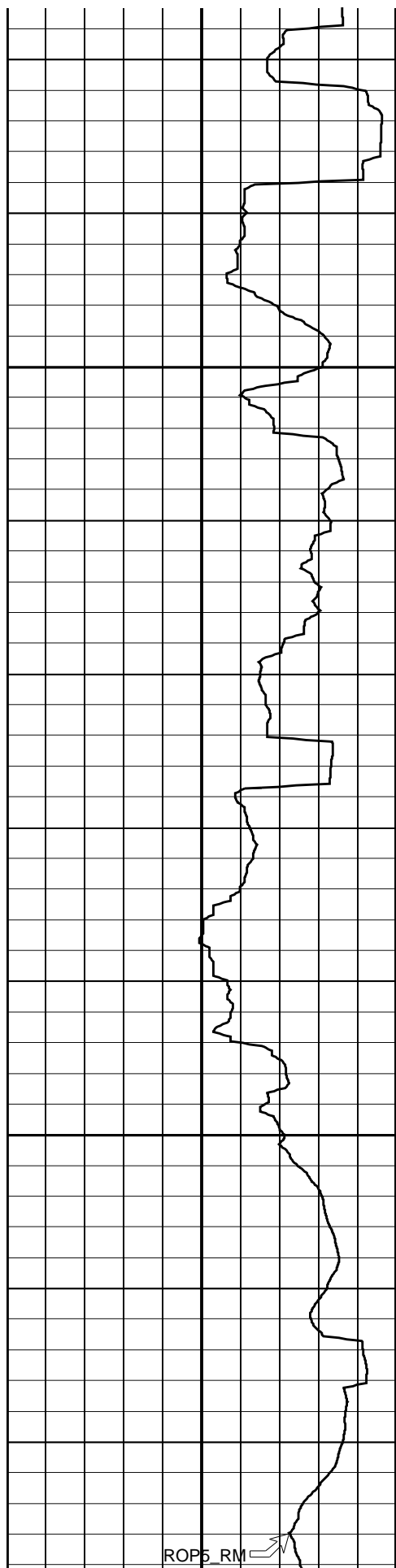
6 5/8" IB St
4 3/4" S/N: DO



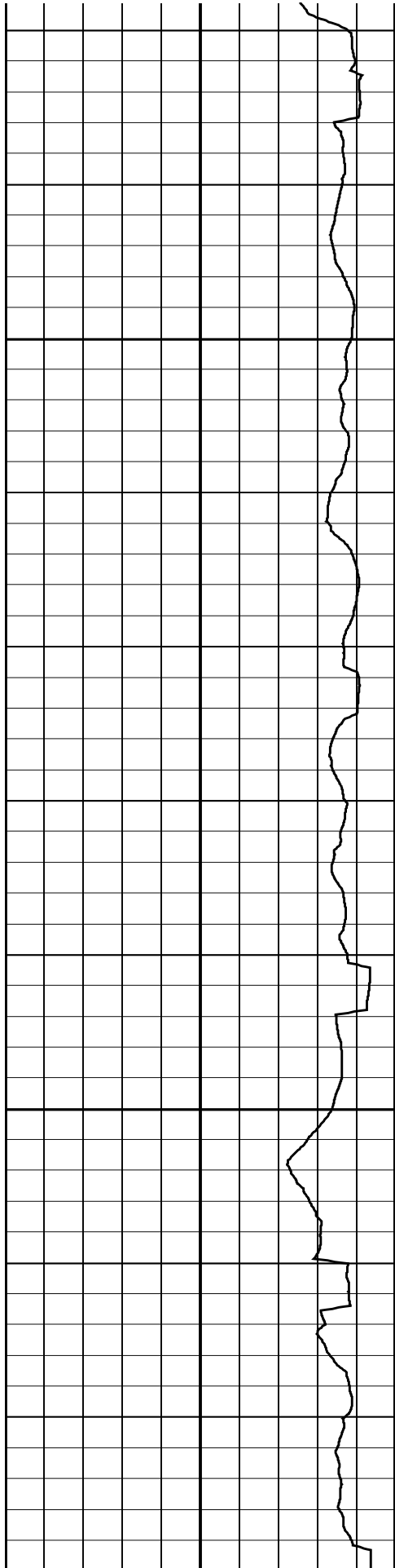
A475XP Steera
4 3/4" S/N
7:8 Lob







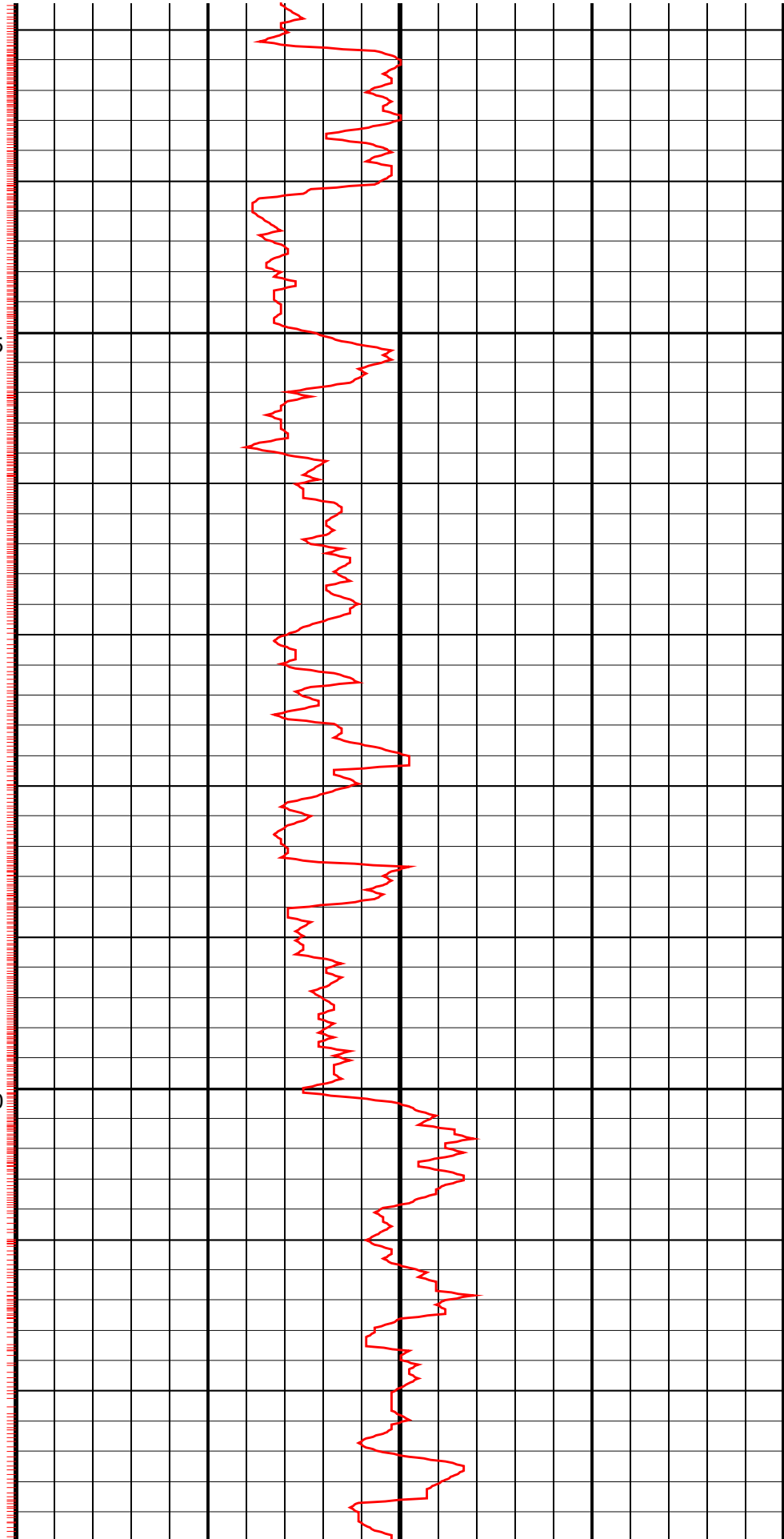
ROP5_RM

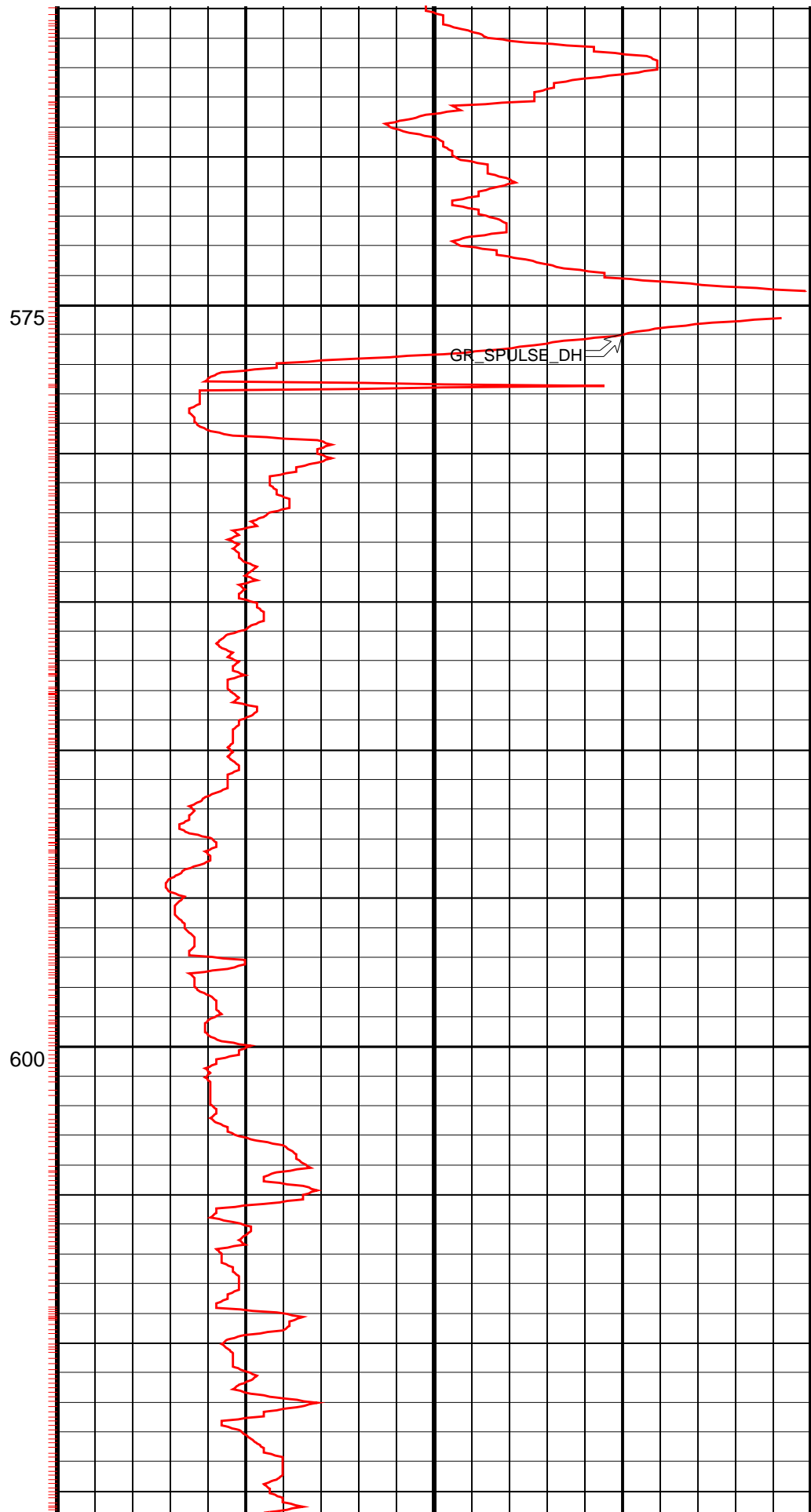
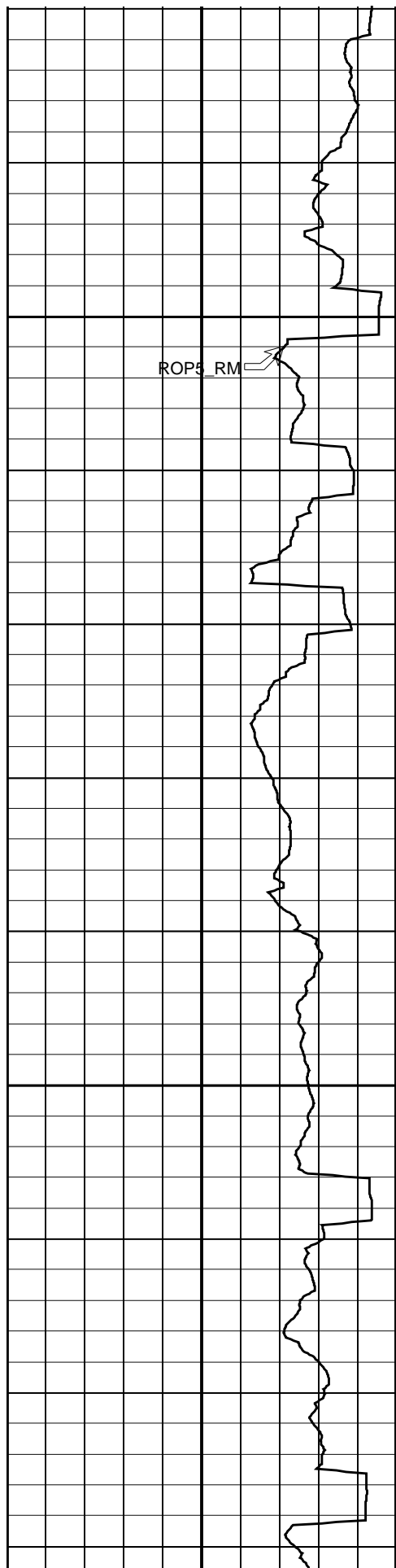


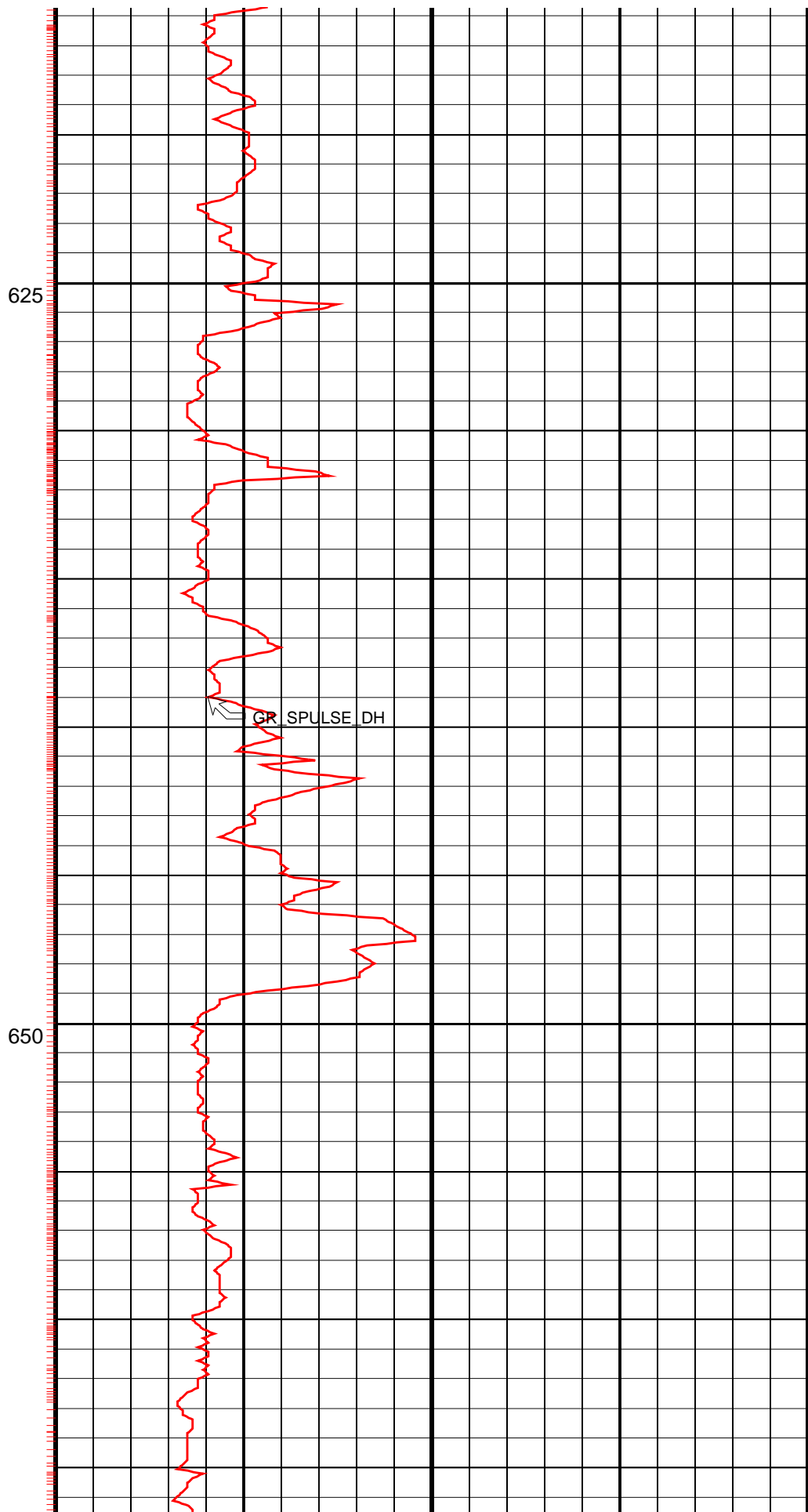
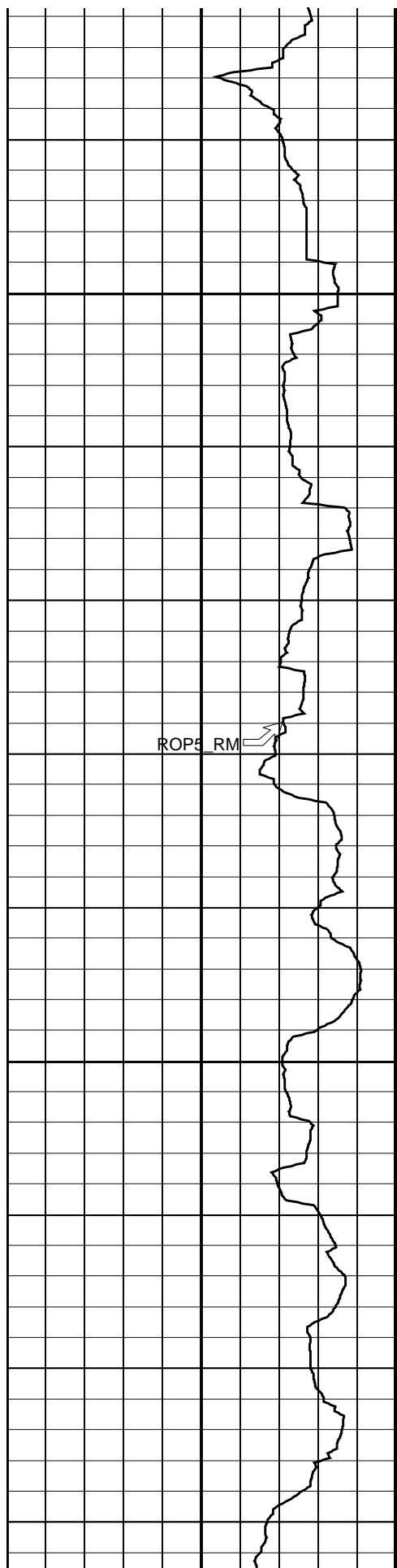
GR_SPULSE_DH

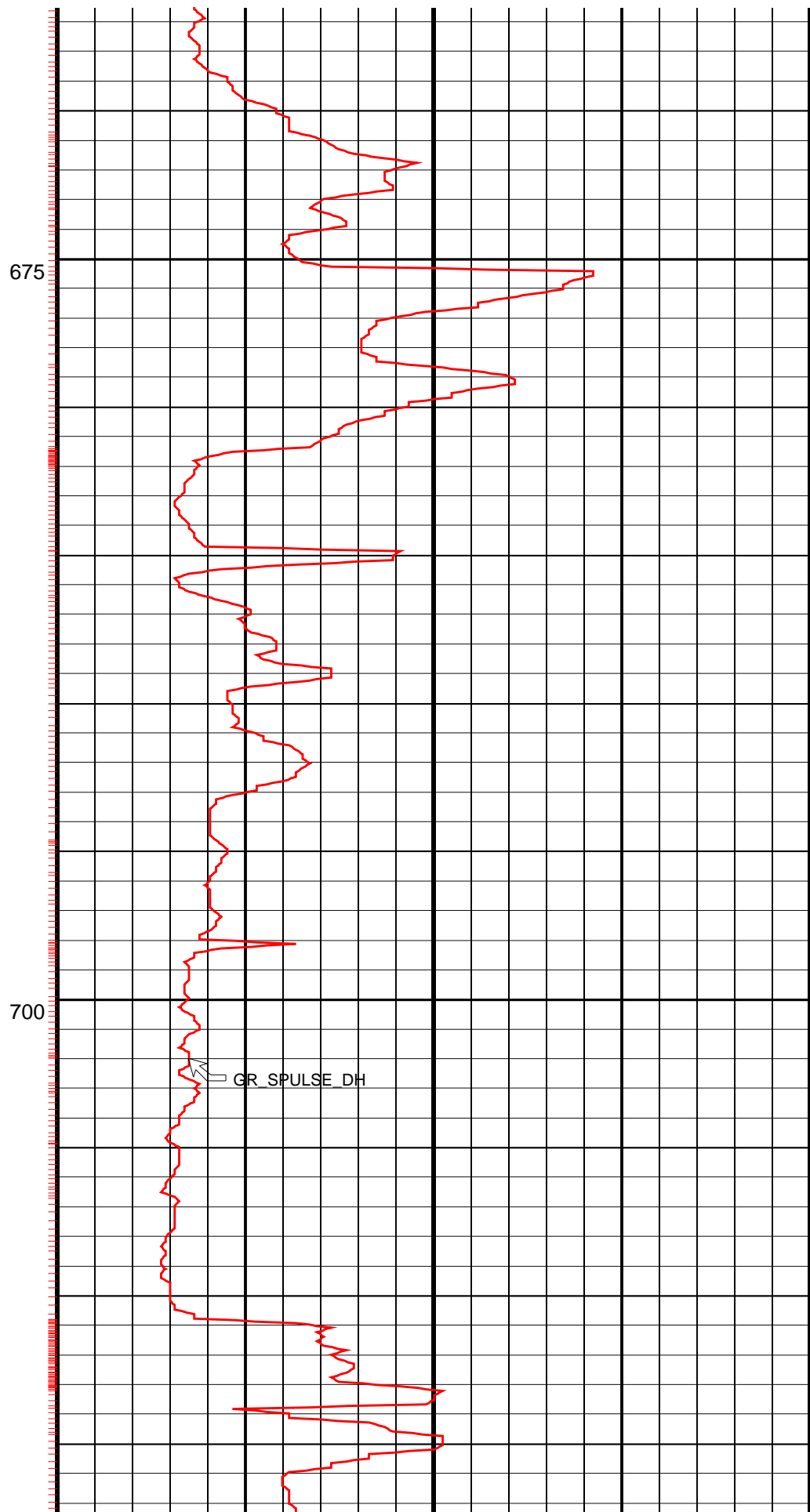
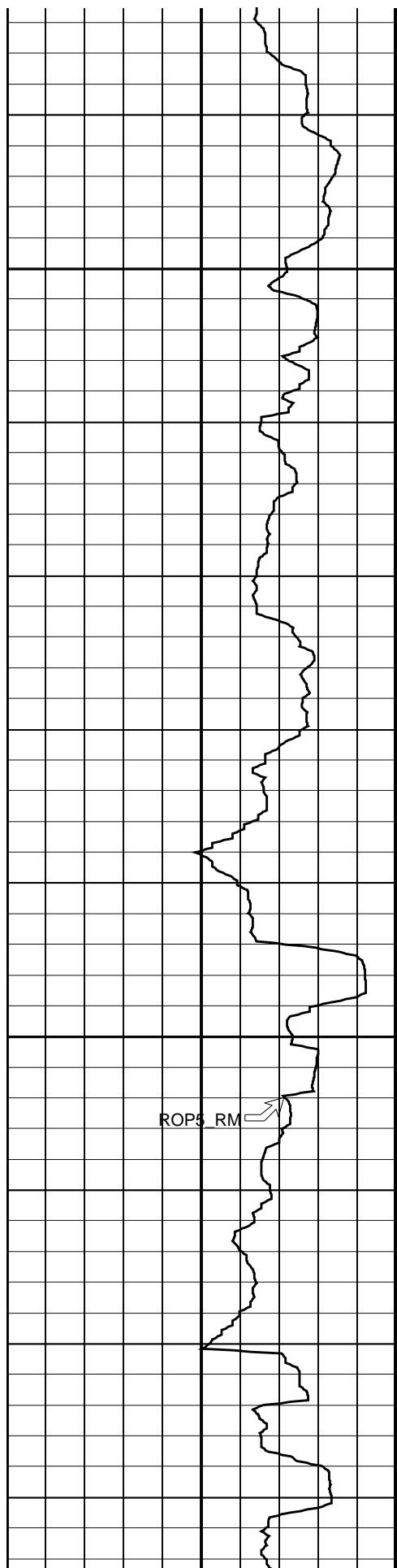
525

550







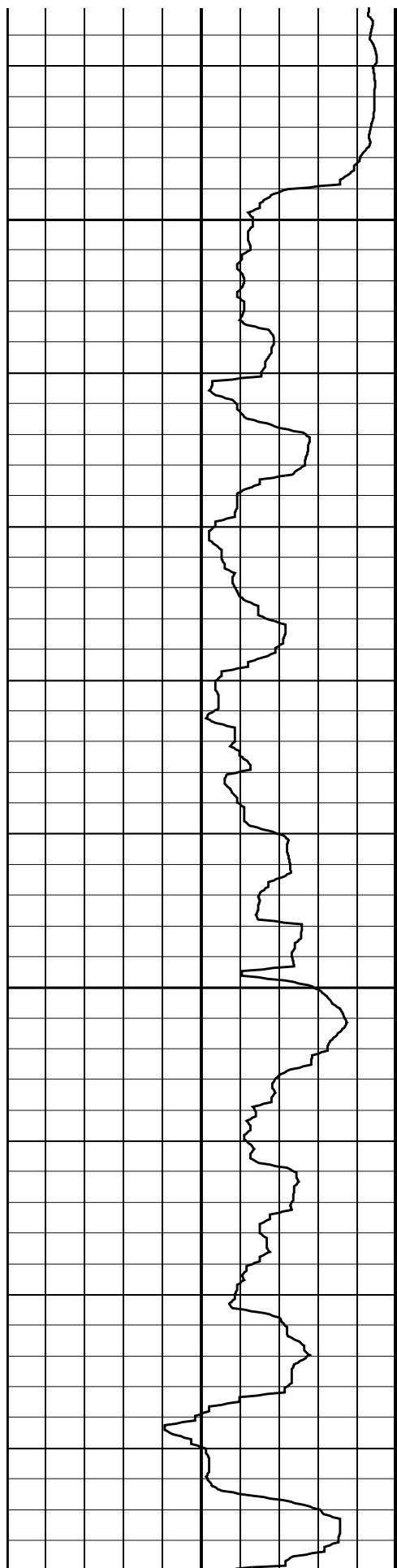


ROP5_RM

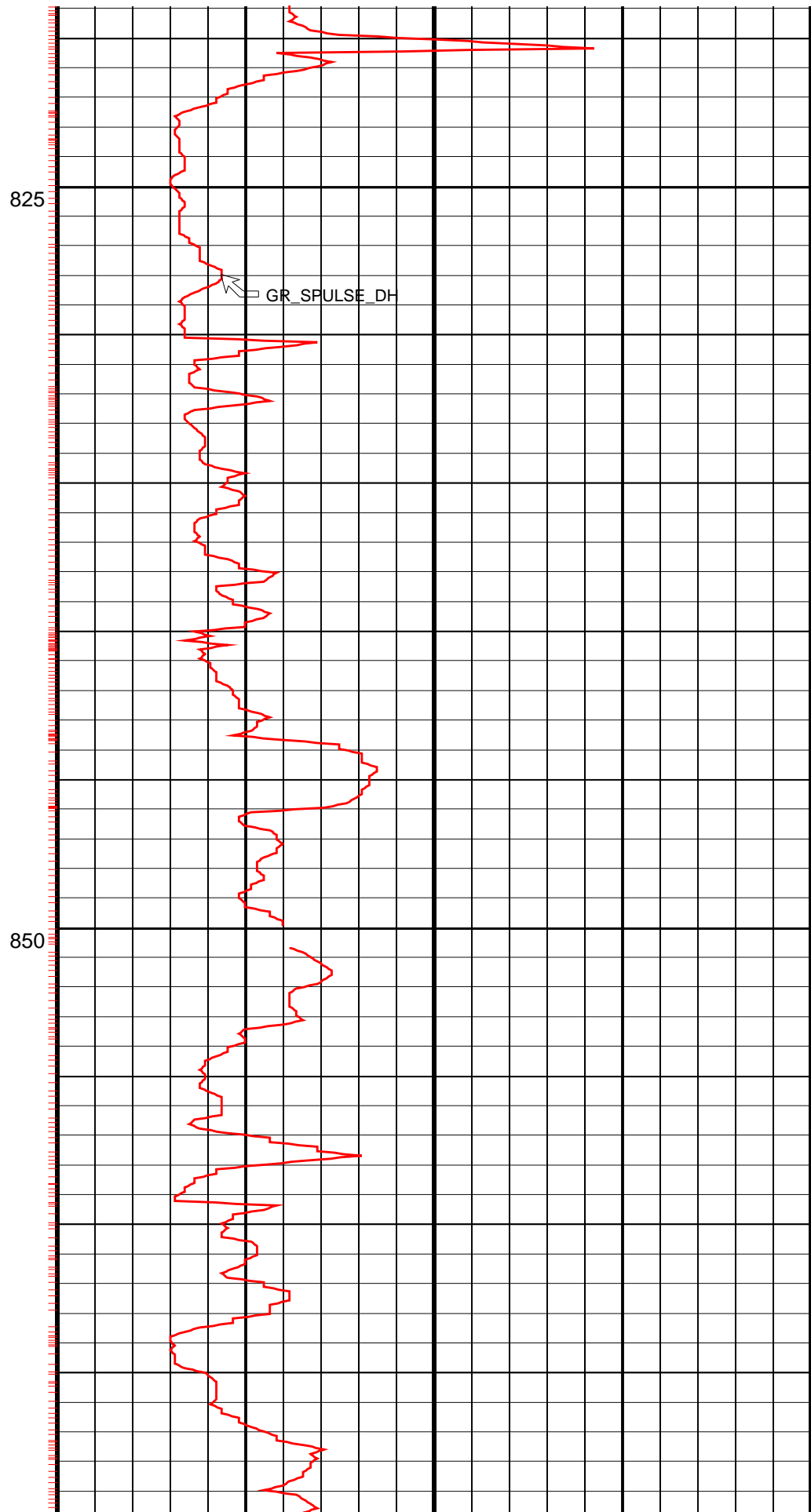
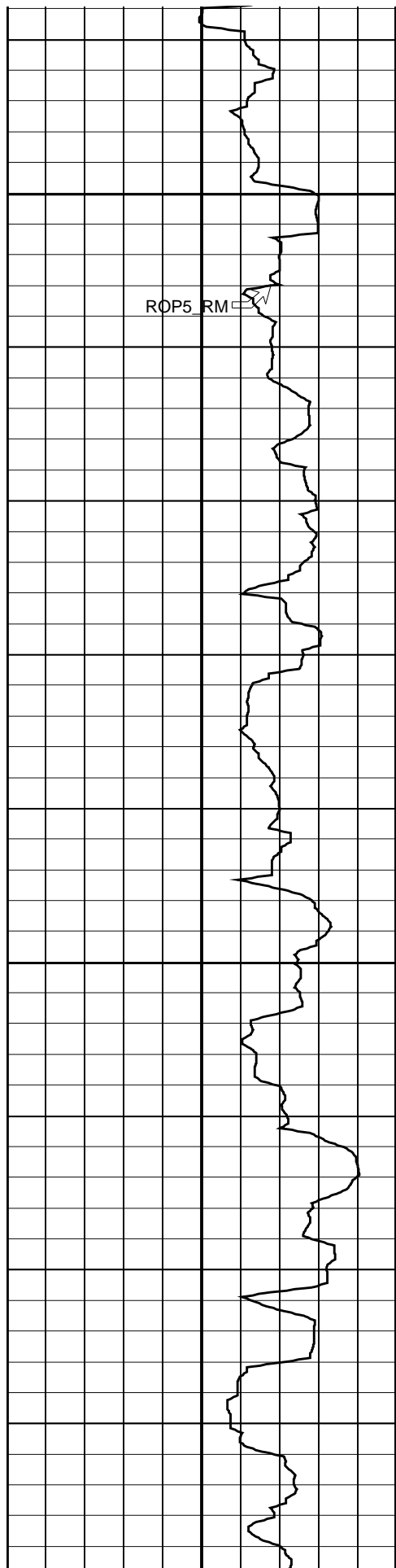
725

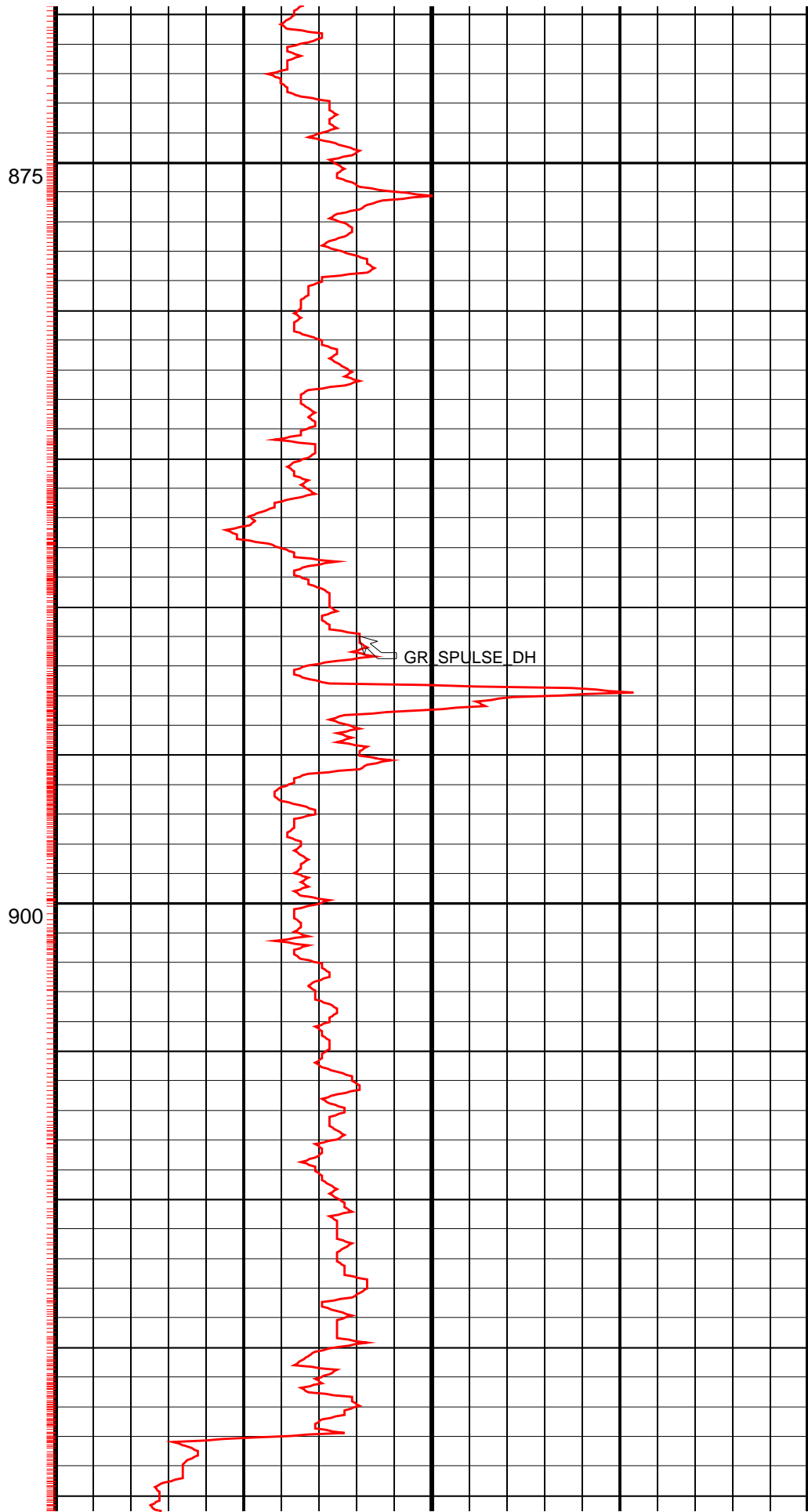
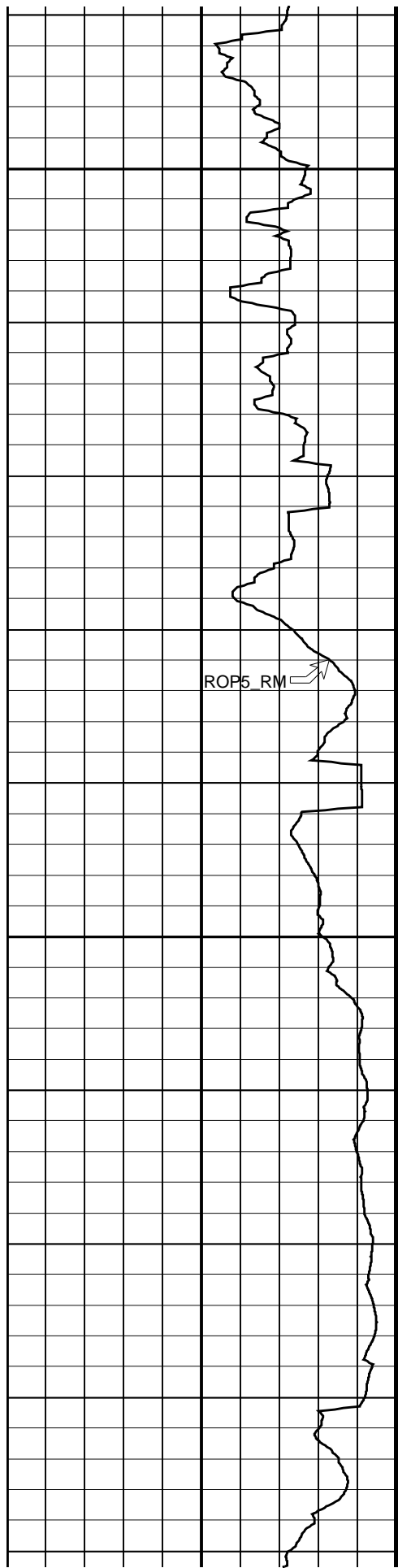
750

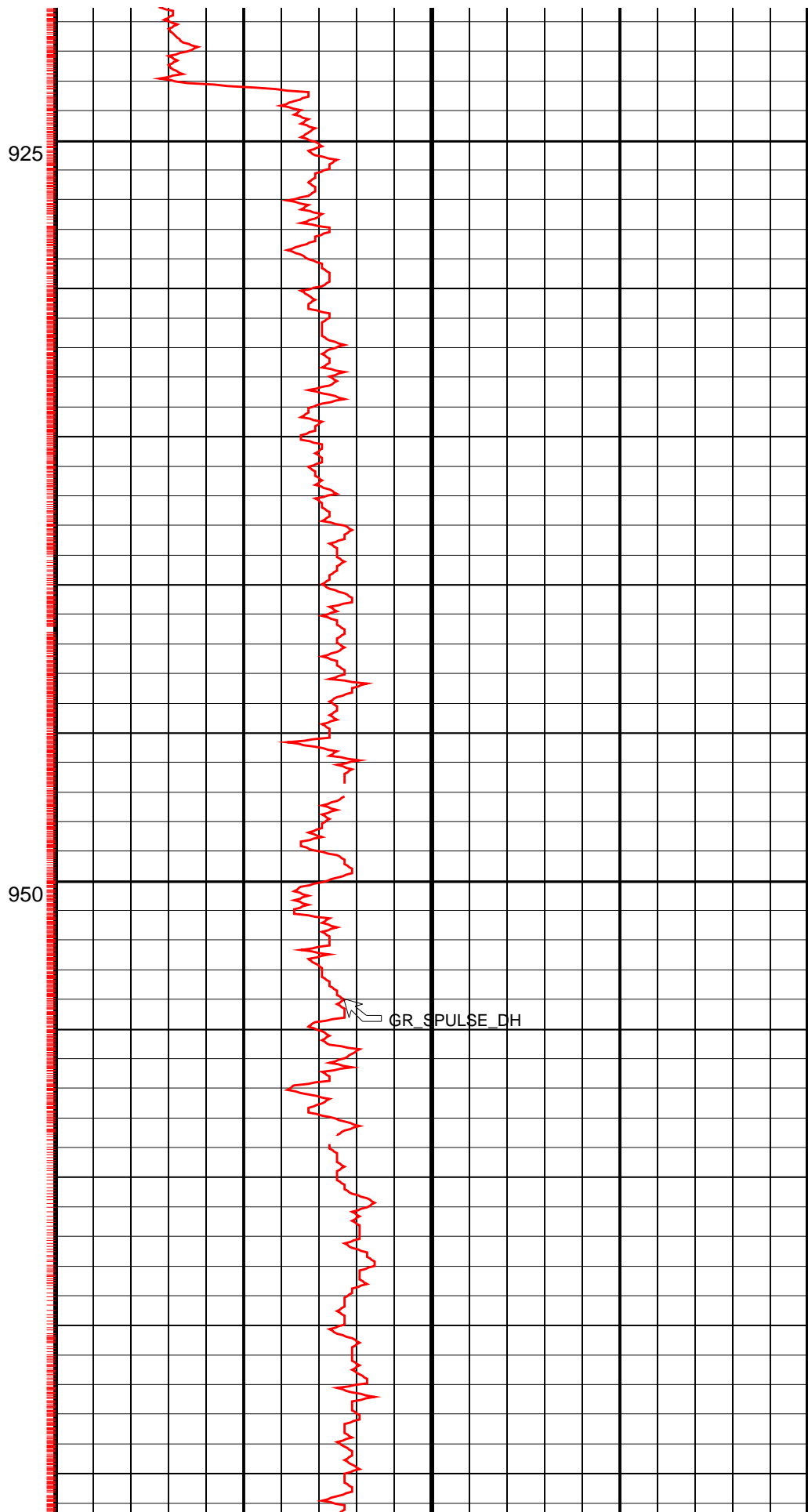
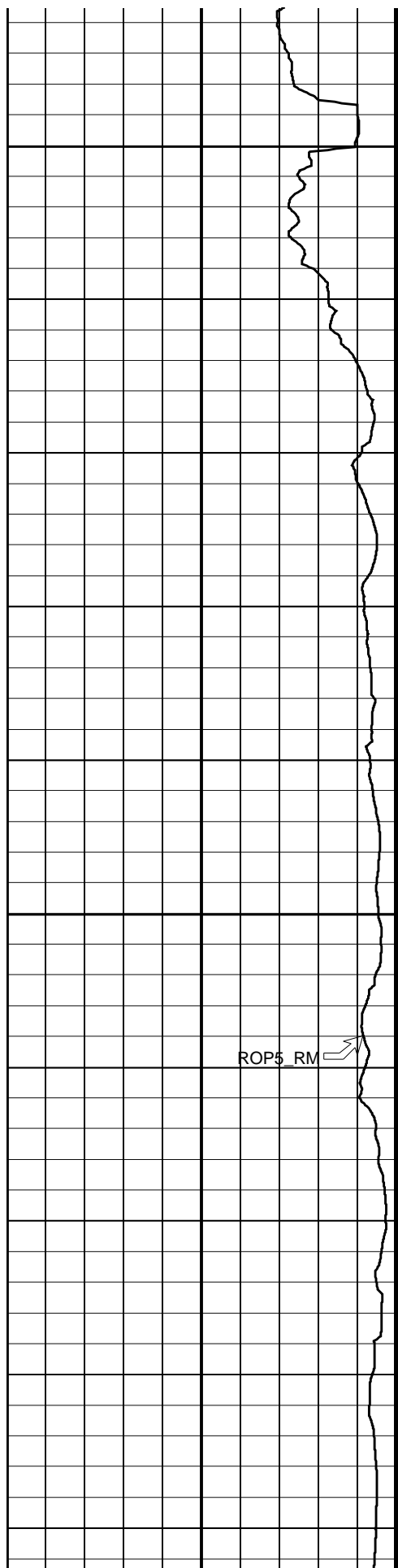
GR_SPULSE_DH

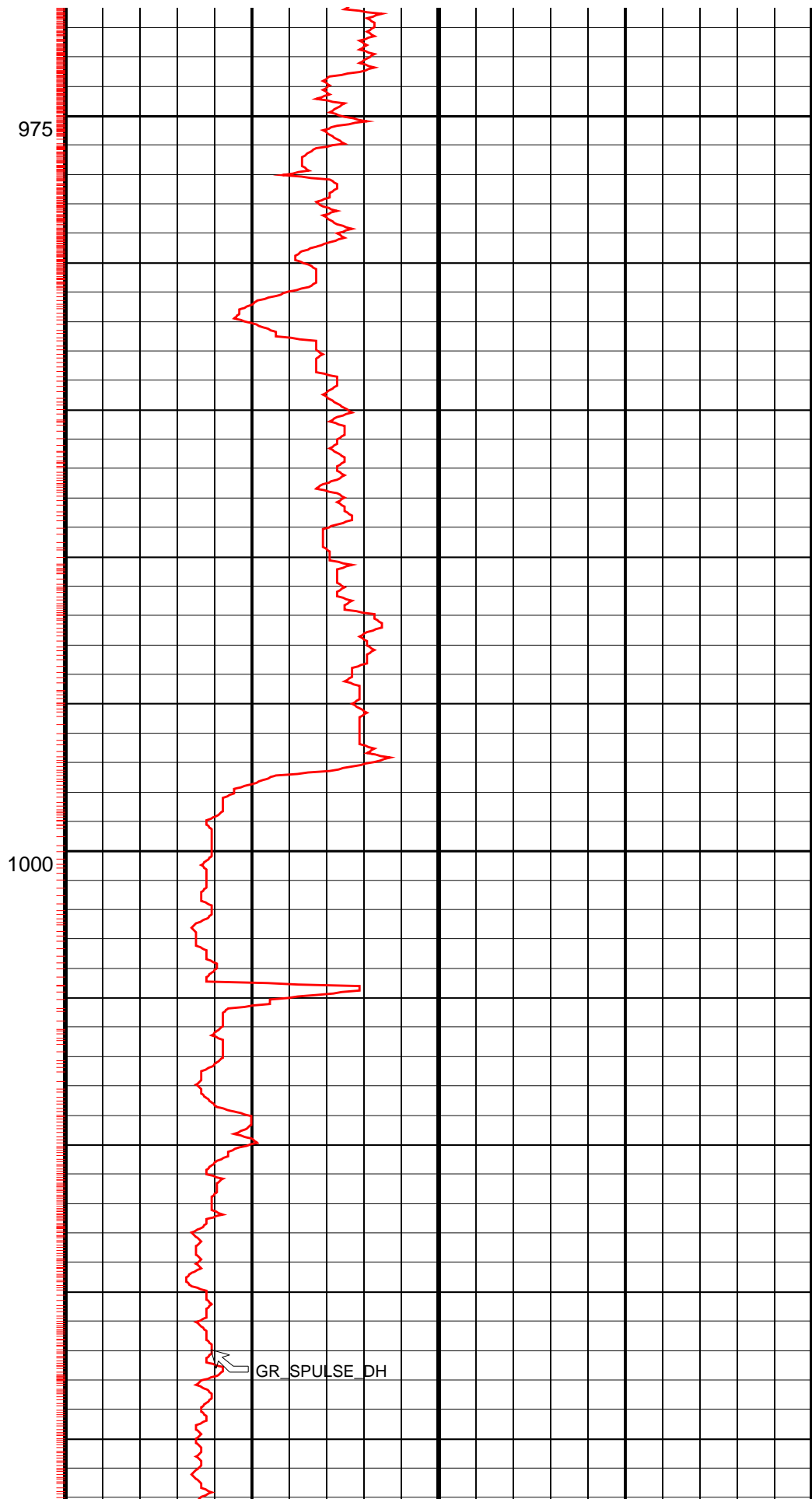
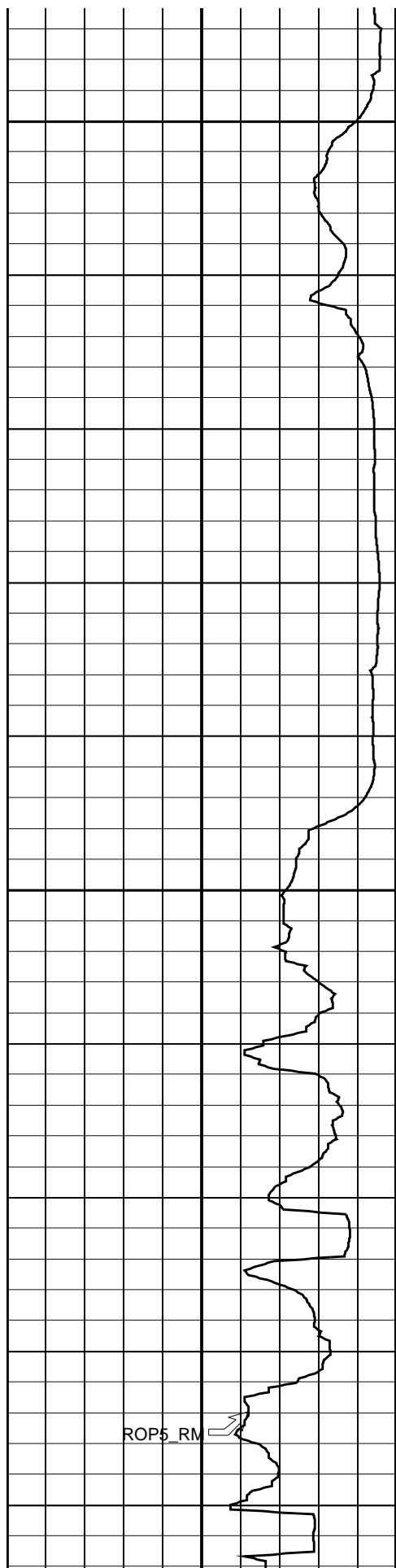


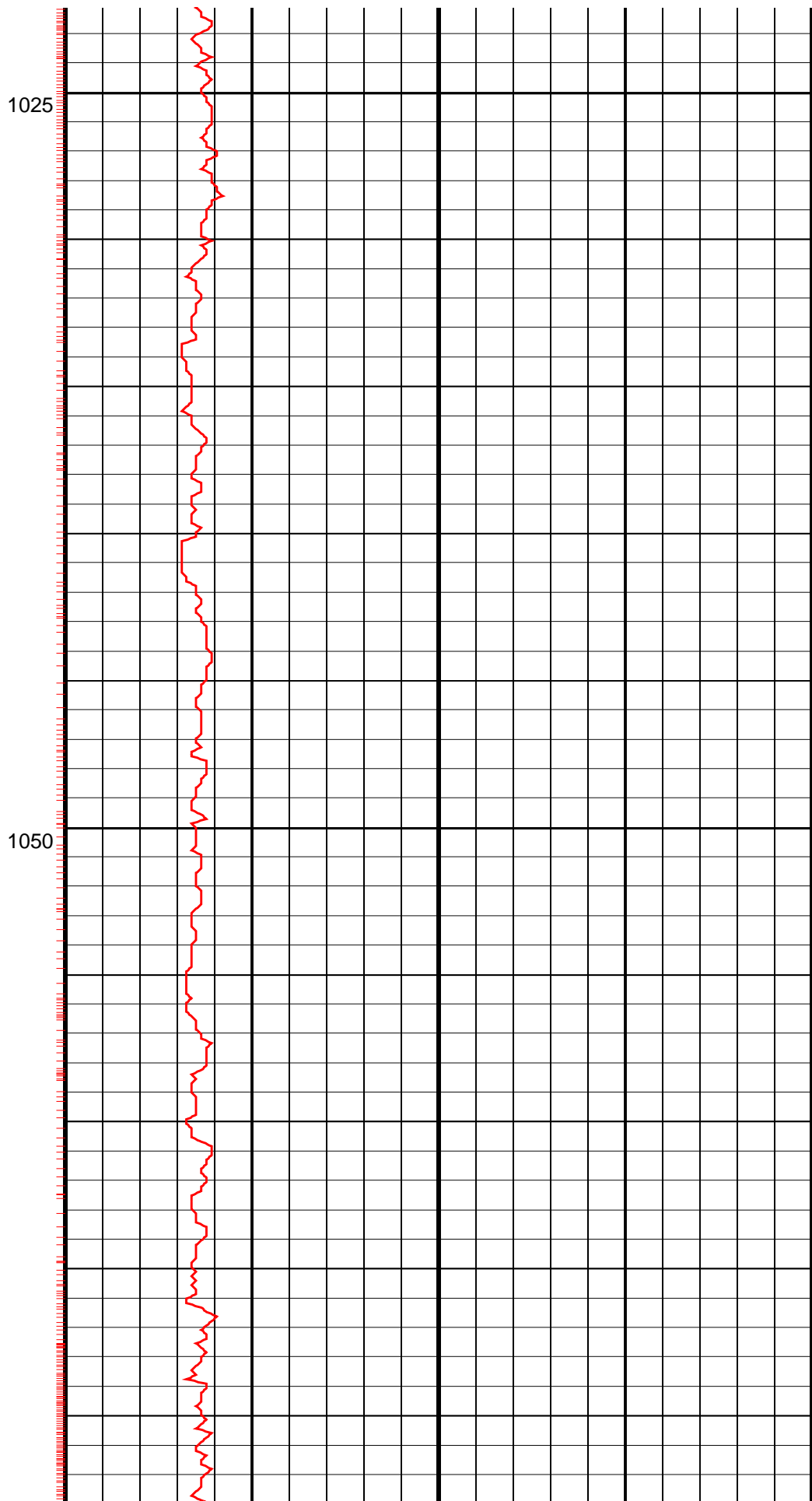
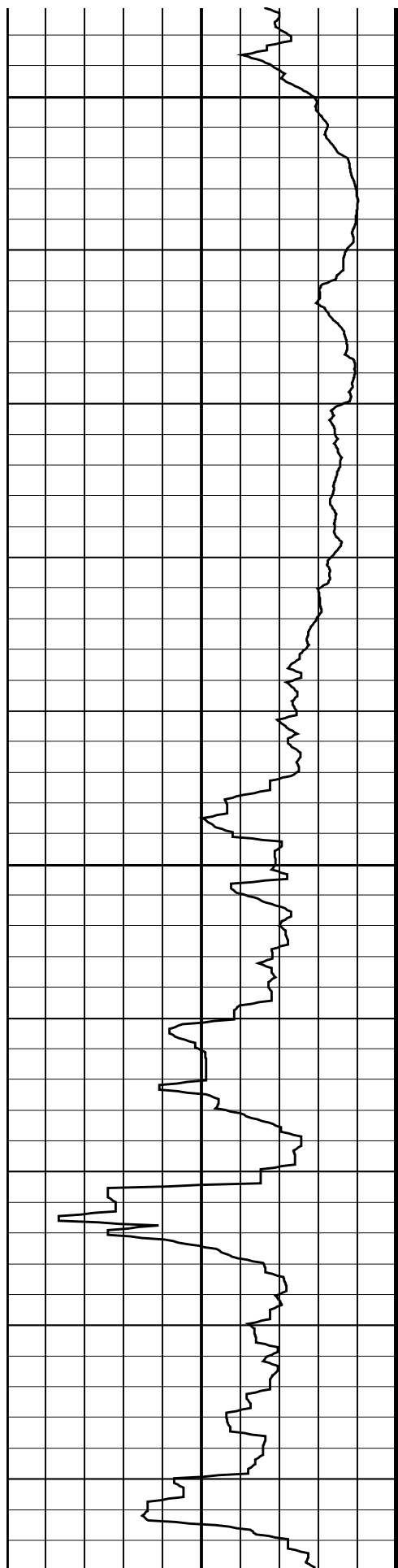
See Remarks

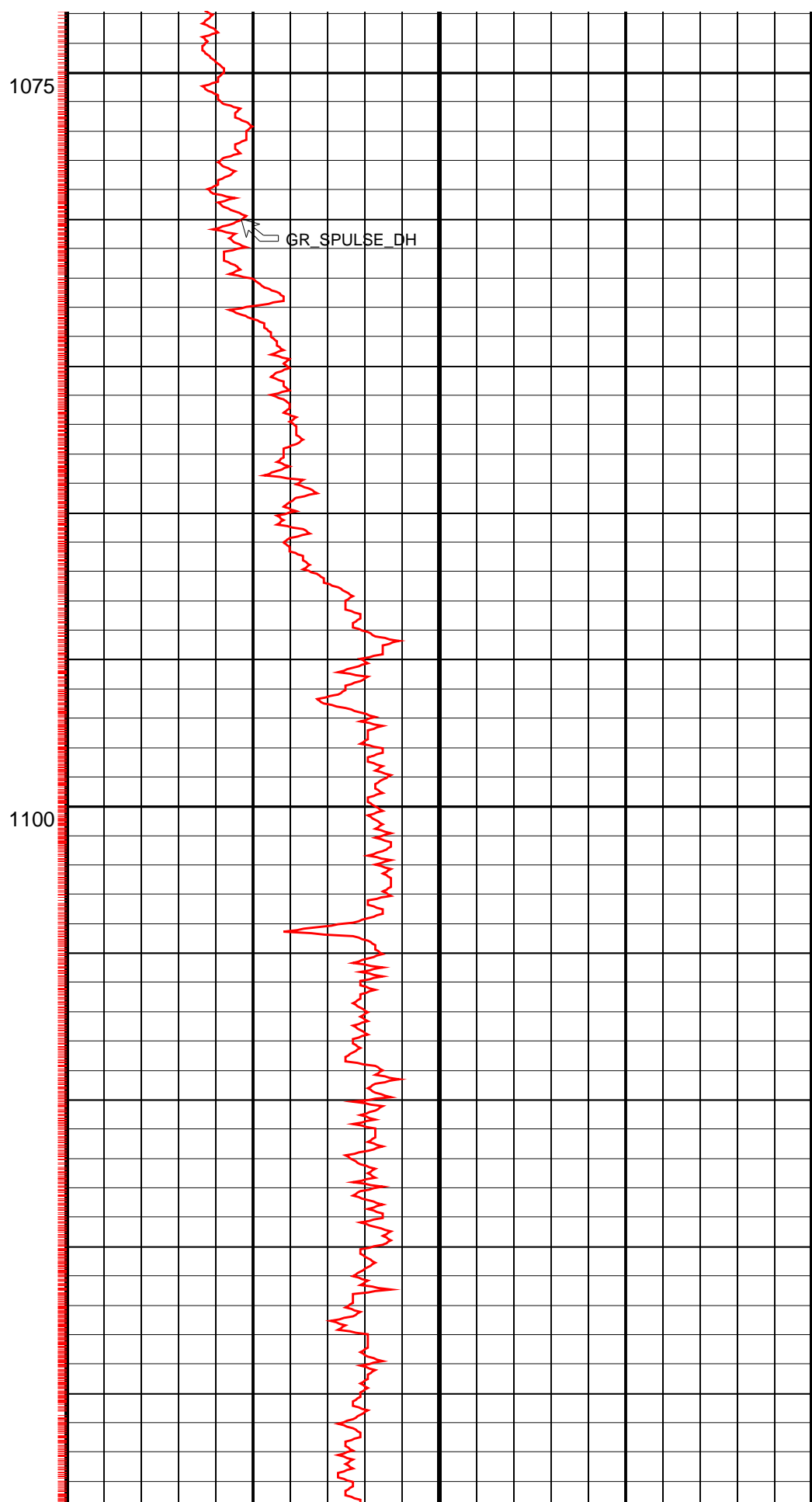
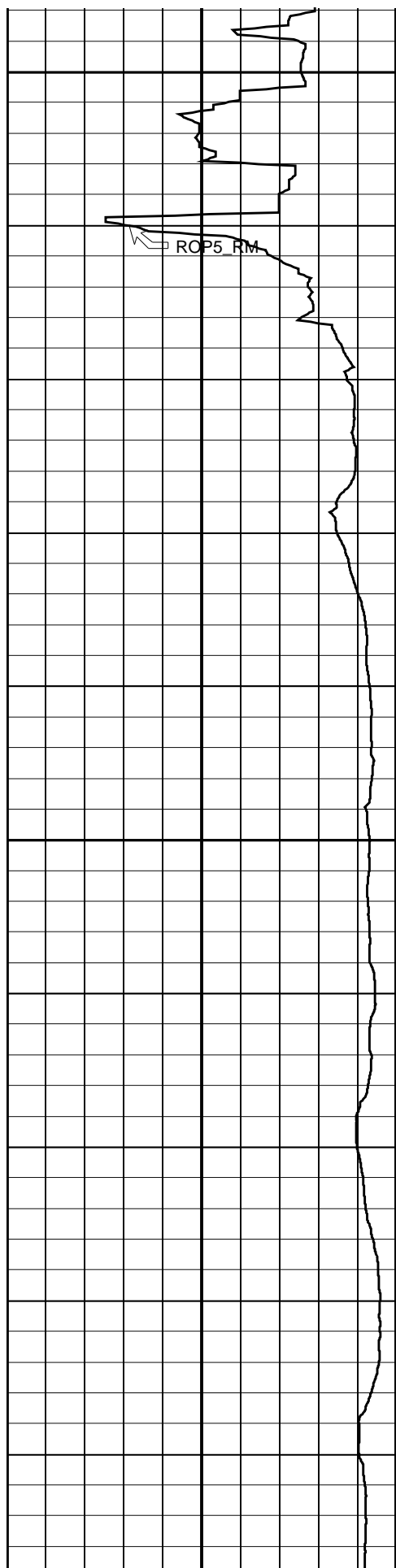


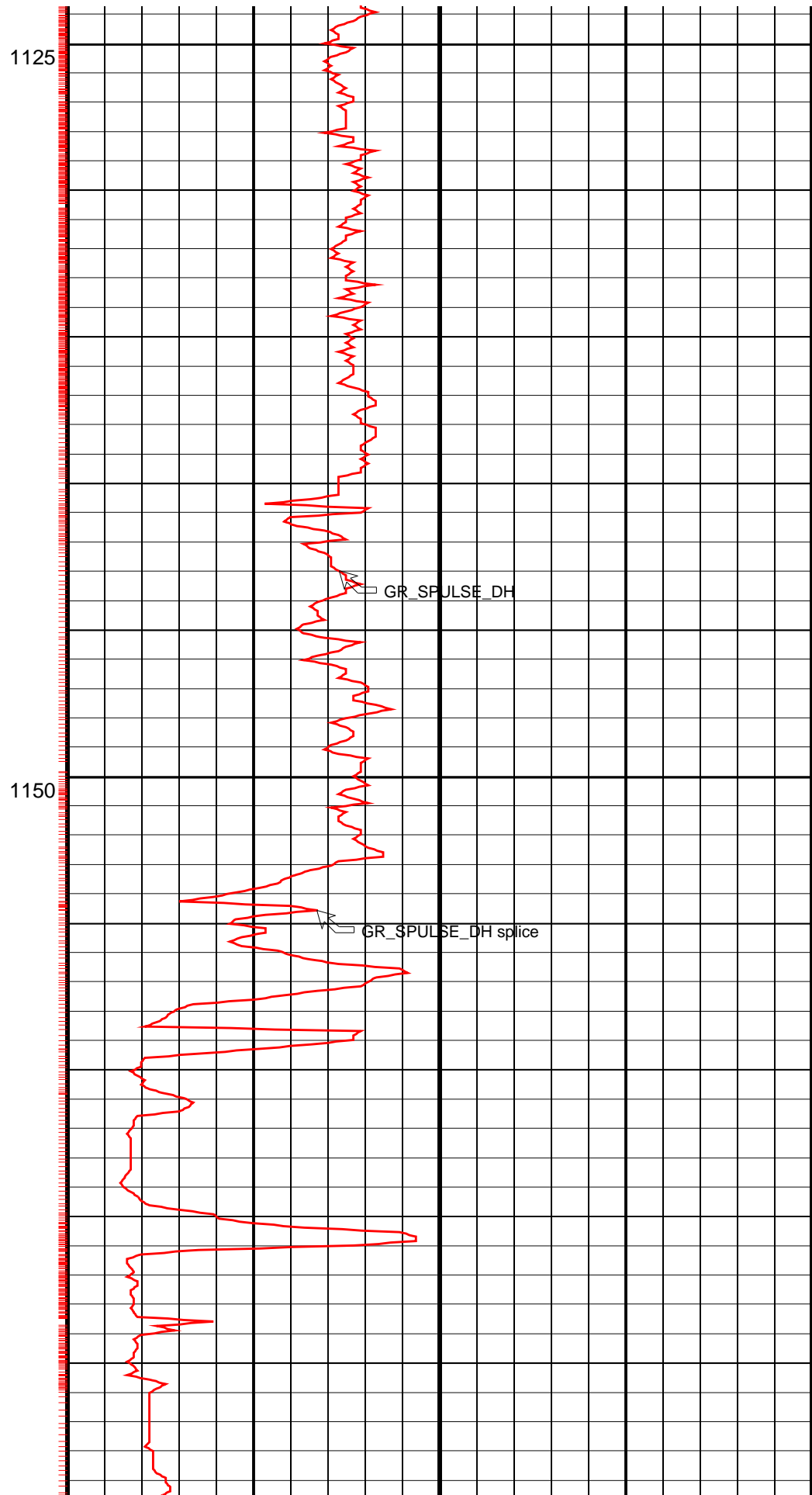
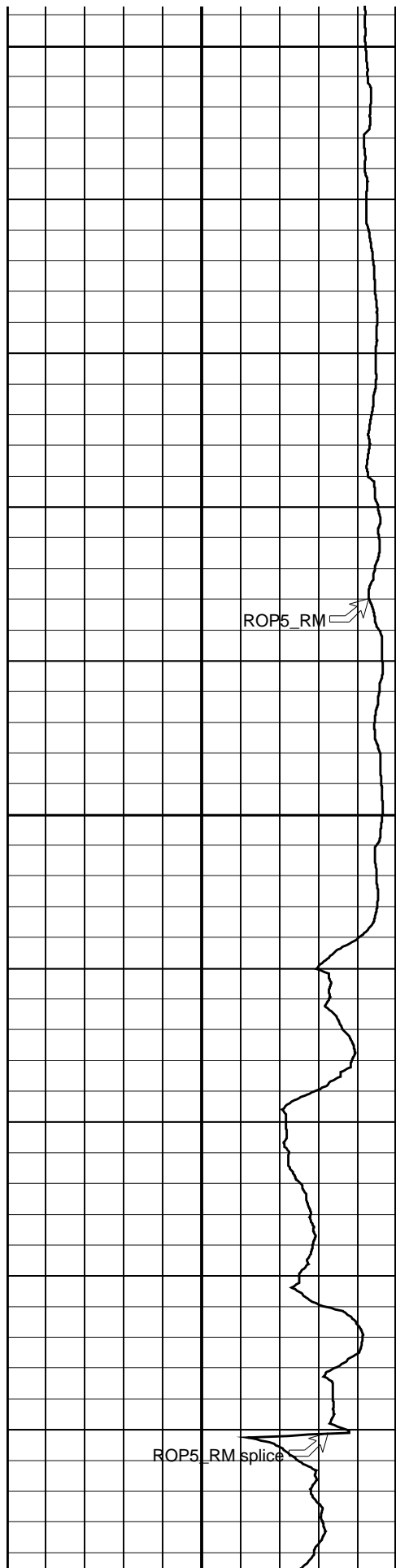


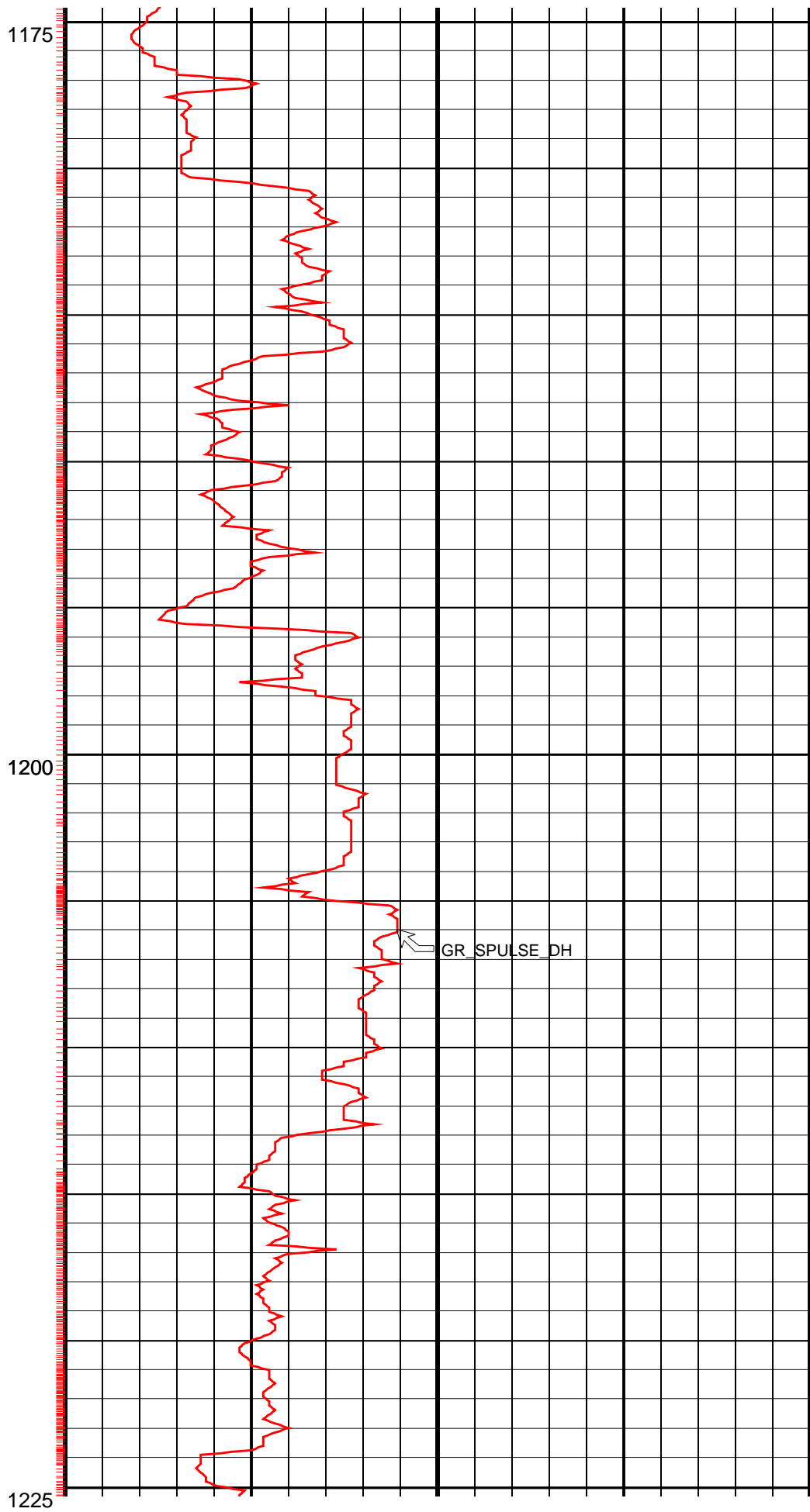
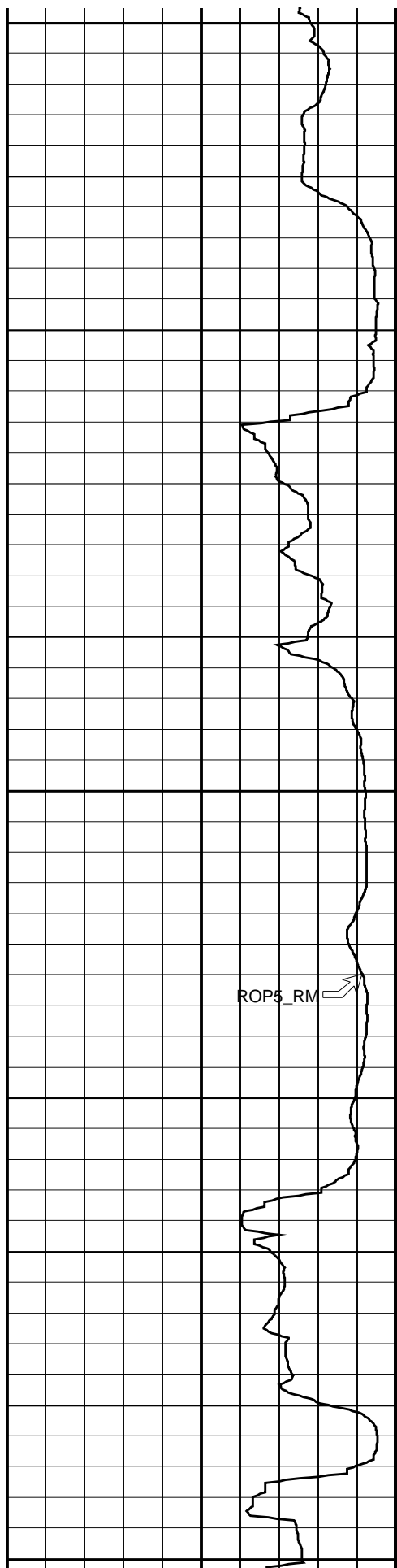


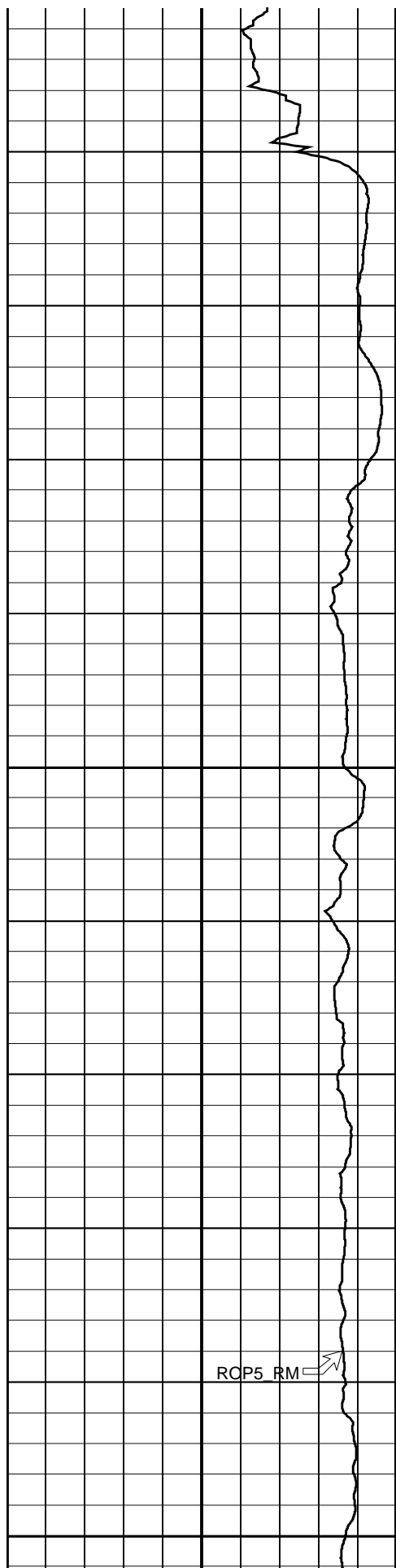








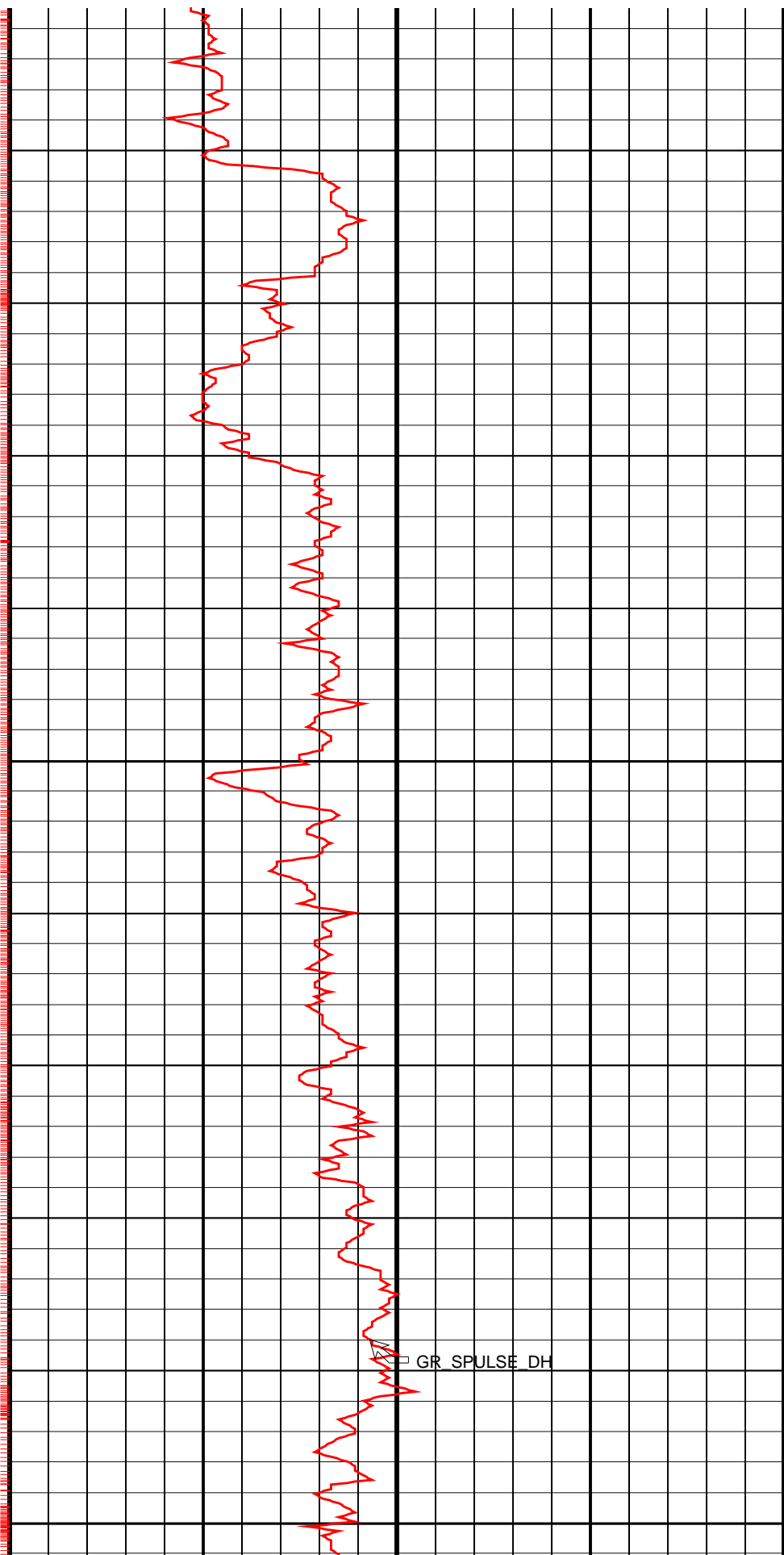


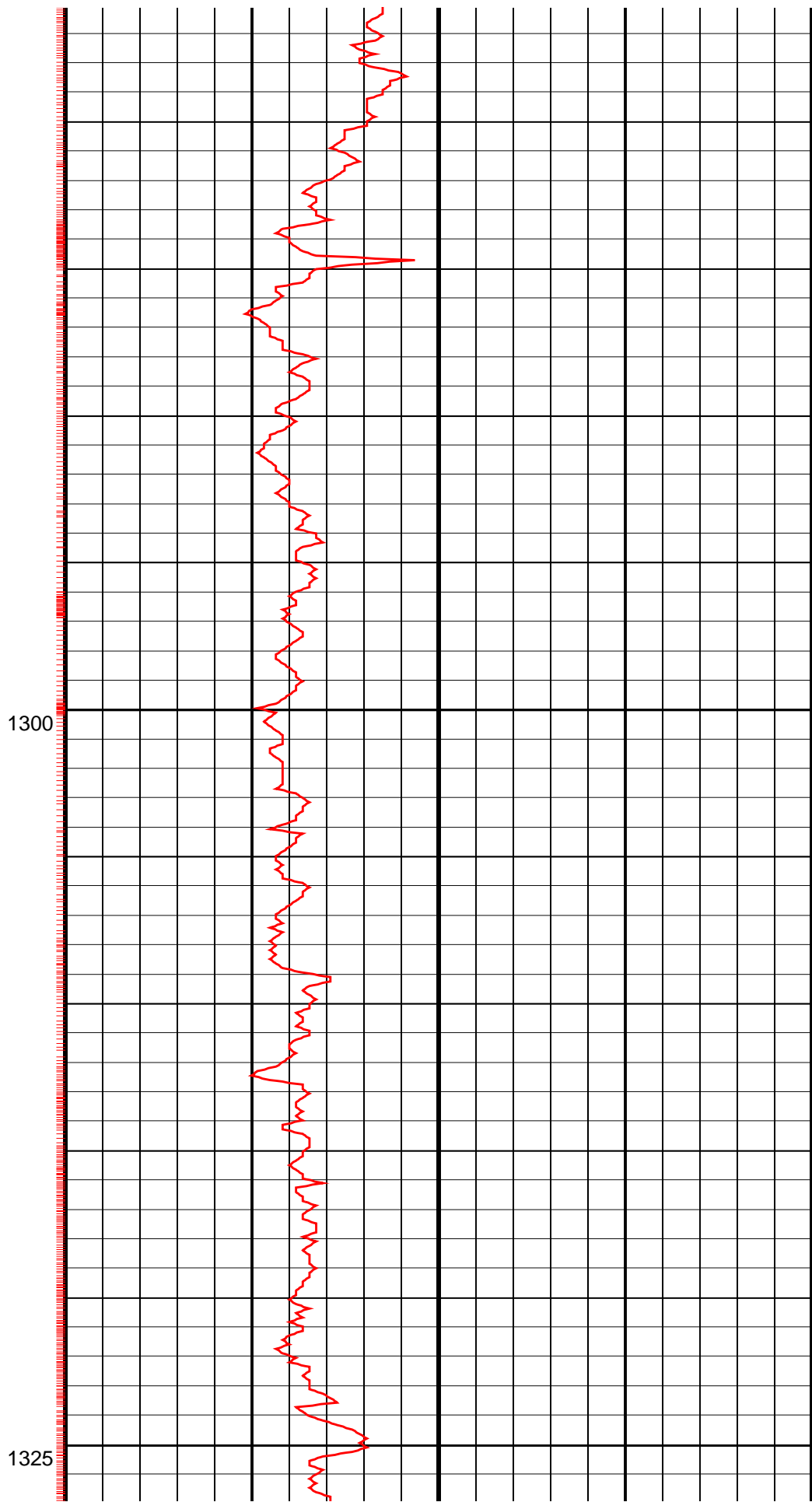
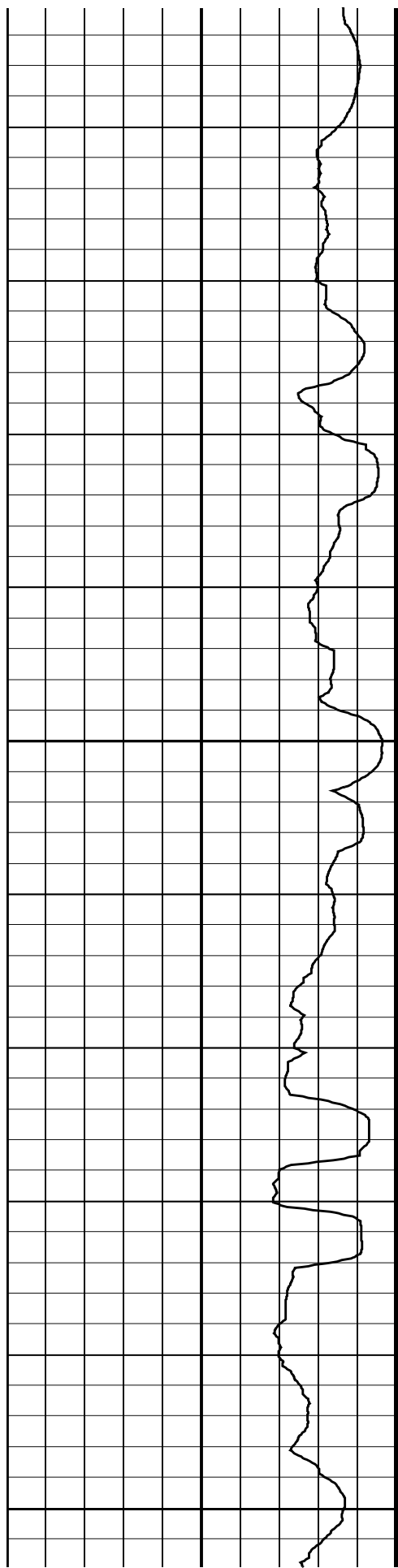


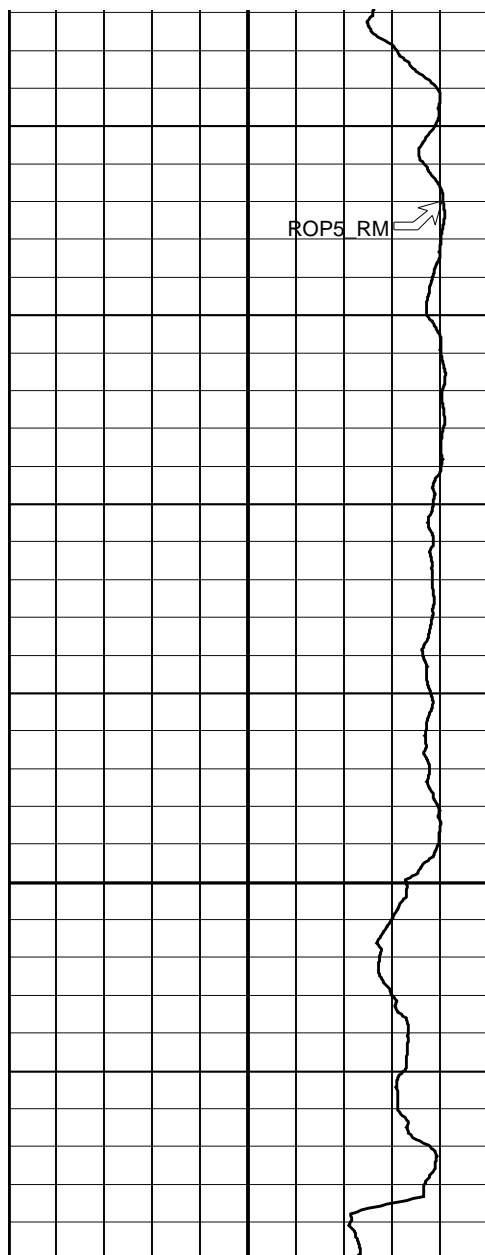
1225

1250

1275

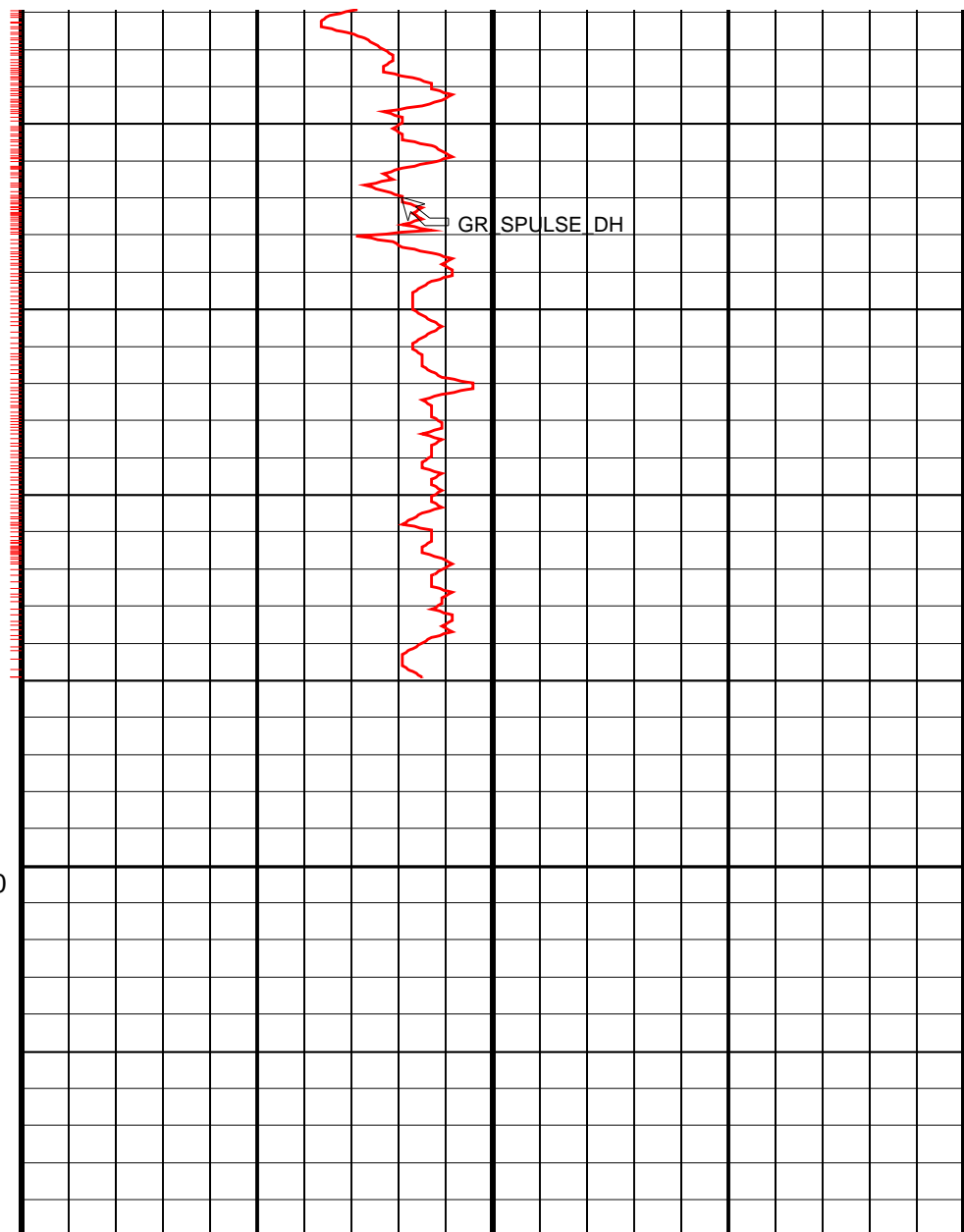






1350

Rate of Penetration, Averaged over Last
5ft (ROP5_RM)
200 (M/HR) 0



SLIMPULSE BHC Gr (GR_SPULSE_DH)
0 (GAPI) 200

PIP SUMMARY

+ Gamma-Ray Samples

IDEAL Version: ID6_1C_10
IDF

ANADRILL

SCHLUMBERGER

Survey report

26-Dec-2002 04:31:57

Page 1 of 3

Client.....: SANTOS Ltd.
Field.....: Otway Basin

Well.....: Seamer-1
API number.....:
Engineer.....: J.Dolan, K.Handley, D.Borges

COUNTY.....: Century 11
STATE.....: VICTORIA

Spud date.....: 18-Dec-02
Last survey date.....: 26-Dec-02
Total accepted surveys...: 33
MD of first survey.....: 431.00 m
MD of last survey.....: 1360.00 m

----- Survey calculation methods-----

----- Geomagnetic data -----

----- Survey calculation methods-----
Method for positions.....: Minimum curvature
Method for DLS.....: Mason & Taylor

----- Depth reference -----
Permanent datum.....: GROUND LEVEL
Depth reference.....:
GL above permanent.....: 58.51 m
KB above permanent.....: 64.01 m
DF above permanent.....: 63.71 m

----- Vertical section origin-----
Latitude (+N/S-).....: 0.00 m
Departure (+E/W-).....: 0.00 m

----- Platform reference point-----
Latitude (+N/S-).....: -304.57 m
Departure (+E/W-).....: -304.57 m

Azimuth from rotary table to target: 180.02 degrees

----- Geomagnetic data -----
Magnetic model.....: BGM version 2002
Magnetic date.....: 21-Dec-2002
Magnetic field strength..: 1216.99 HCNT
Magnetic dec (+E/W-).....: 10.95 degrees
Magnetic dip.....: -69.75 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.06 mGal
Reference H.....: 1216.99 HCNT
Reference Dip.....: -69.75 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 10.95 degrees
Grid convergence (+E/W-)..: -1.26 degrees
Total az corr (+E/W-)....: 12.21 degrees
(Total az corr = magnetic dec - grid conv)
Sag applied (Y/N).....: No degree: 0.00

[(c)2002 Anadrill IDEAL ID6_1C_10]
ANADRILL SCHLUMBERGER Survey Report

26-Dec-2002 04:31:57

Page 2 of 3

Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool qual type
1	431.00	0.50	167.00	0.00	430.99	1.41	-1.41	2.46	2.83	119.87	0.00	TIP	-
2	452.36	0.20	31.69	21.36	452.35	1.47	-1.47	2.50	2.90	120.48	0.92	SP	6-axis
3	481.66	0.14	39.77	29.30	481.65	1.40	-1.40	2.55	2.91	118.78	0.07	SP	6-axis
4	510.70	0.18	271.49	29.04	510.69	1.37	-1.37	2.53	2.87	118.50	0.30	SP	6-axis
5	528.02	0.14	236.07	17.32	528.01	1.38	-1.38	2.48	2.84	119.13	0.18	SP	6-axis
6	559.15	0.18	280.02	31.13	559.14	1.39	-1.39	2.40	2.78	120.16	0.12	SP	6-axis
7	606.26	4.50	178.12	47.11	606.20	3.23	-3.23	2.39	4.02	143.52	2.89	SP	6-axis
8	635.88	4.41	177.58	29.62	635.73	5.53	-5.53	2.47	6.06	155.89	0.10	SP	6-axis
9	665.22	6.06	179.96	29.34	664.94	8.20	-8.21	2.52	8.58	162.91	1.70	SP	6-axis
10	694.69	8.48	183.87	29.47	694.18	11.93	-11.93	2.38	12.16	168.73	2.51	SP	6-axis
11	723.61	11.02	187.79	28.92	722.68	16.80	-16.80	1.86	16.90	173.68	2.72	SP	6-axis
12	752.98	14.82	187.88	29.37	751.30	23.30	-23.30	0.96	23.32	177.63	3.88	SP	6-axis
13	782.44	17.23	187.39	29.46	779.61	31.36	-31.36	-0.11	31.36	180.21	2.46	SP	6-axis
14	810.75	20.27	188.27	28.31	806.41	40.37	-40.37	-1.36	40.40	181.93	3.24	SP	6-axis
15	839.97	20.70	180.97	29.22	833.79	50.55	-50.55	-2.18	50.59	182.46	2.66	SP	6-axis
16	869.13	20.56	181.56	29.16	861.08	60.82	-60.82	-2.40	60.87	182.26	0.26	SP	6-axis
17	898.76	20.19	181.06	29.63	888.86	71.13	-71.13	-2.64	71.18	182.12	0.41	SP	6-axis
18	927.77	20.17	181.17	29.01	916.09	81.14	-81.14	-2.83	81.19	182.00	0.01	SP	6-axis
19	956.71	19.30	177.87	28.94	943.33	90.91	-90.90	-2.76	90.95	181.74	1.47	SP	6-axis
20	983.47	19.14	176.82	26.76	968.60	99.71	-99.71	-2.35	99.73	181.35	0.43	SP	6-axis
21	1002.89	19.00	176.75	19.42	986.95	106.04	-106.04	-1.99	106.06	181.08	0.22	SP	6-axis
22	1033.63	19.44	176.51	30.74	1015.98	116.14	-116.14	-1.40	116.15	180.69	0.44	SP	6-axis
23	1062.66	18.67	175.18	29.03	1043.42	125.60	-125.60	-0.71	125.60	180.33	0.91	SP	6-axis
24	1091.58	18.19	175.22	28.92	1070.85	134.70	-134.70	0.05	134.71	179.98	0.50	SP	6-axis
25	1120.49	18.32	174.69	28.91	1098.31	143.73	-143.73	0.85	143.73	179.66	0.22	SP	6-axis
26	1149.65	18.05	174.71	29.16	1126.01	152.79	-152.79	1.69	152.80	179.37	0.28	SP	6-axis
27	1178.33	18.61	175.35	28.68	1153.24	161.77	-161.77	2.47	161.79	179.13	0.62	SP	6-axis
28	1207.32	18.25	175.48	28.99	1180.74	170.91	-170.91	3.20	170.94	178.93	0.37	SP	6-axis
29	1236.55	18.47	174.85	29.23	1208.48	180.08	-180.08	3.98	180.13	178.73	0.30	SP	6-axis
30	1265.29	18.99	175.78	28.74	1235.70	189.28	-189.28	4.73	189.34	178.57	0.63	SP	6-axis

[(c)2002 Anadrill IDEAL ID6_1C_10]
ANADRILL SCHLUMBERGER Survey Report

26-Dec-2002 04:31:57

Page 3 of 3

Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool qual type
31	1294.56	19.08	176.12	29.27	1263.37	198.80	-198.80	5.40	198.88	178.44	0.15	SP	6-axis
32	1323.38	19.56	175.58	28.82	1290.57	208.31	-208.31	6.10	208.40	178.32	0.53	SP	6-axis
33	1360.00	19.76	175.70	36.62	1325.05	220.60	-220.60	7.03	220.71	178.17	0.17	Projection to TD	

[(c)2002 Anadrill IDEAL ID6_1C_10]

Company:

SANTOS Ltd

Well:

Seamer-1

Field: Exploration (Otway Basin)

Field: Exploration (Otway Basin)
Rig: Century 11
State: Victoria

IDEAL services from **Anadrill**

SlimPulse* GR
Measured Depth 1:200 scale
Recorded Mode Memory

Schlumberger