


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

Rig: Century 11 Field: Exploration (Otway Basin) Location: Otway Basin Well: Seamer-1 Company: SANTOS Ltd			SlimPulse* GR						
			True Vertical Depth 1:200 scale						
	Recorded Mode Memory								
	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		Longitude		Latitude		
		Y = 5730473.86 m		E143°1'15.70		S38°33'24.28			
Depth logged:		426.58 m To 1344.70 m		Mag decl: 10.95		Other services:			
Date logged:		23-Dec-02To 25-Dec-02		Mag dip: -69.75		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		from to			
KCl/PHPA/Polymer		442.0 m 884.0 m		0.2 deg 4.5 deg		452.3 m 606.2 m			
KCl/Polymer		884.0 m 1360.0 m		4.4 deg 20.2 deg		635.8 m 810.7 m			
				20.1 deg 20.2 deg		810.7 m 927.7 m			
				18.0 deg 20.7 deg		927.7 m 1360.0 m			
Surface equipment		Software record				<div>IDEAL services from Anadrill</div>			
Unit		SANTOS Unit		IDEAL Wis				6.1c10r	
Depth system		PDA-BB028730		SPM				6.1c10r	
				LWD					
				MWD				6.0b55	

# Bit Run Summary

Type		KCl/Polymer	KCl/Polymer							
Mud weight	ppg	9.1	9.15							
Solids	%	3.9	4.1							
Chlorides	mg/L	29500	31500							
Rm	ohm-m	N/A	N/A							
Rmf	ohm-m	N/A	N/A							
Rmc	ohm-m	N/A	N/A							
Potassium	mg/L									
<b>Environmental data</b>										
<b>GR</b>										
Mud weight	ppg	9.1	9.15							
Bit size	in	6.75	6.75							
<b>Resistivity</b>										
<b>Neutron porosity</b>										
Hole Size		N/A	N/A							
Mud weight		N/A	N/A							
Temperature		N/A	N/A							
Mud salinity		N/A	N/A							
Formation salinity		N/A	N/A							
Recording rate 1	SEC	10	10							
Recording rate 2	SEC	N/A	N/A							
Filtering GR		3pt	3pt							
Filtering density		N/A	N/A							
Filtering Neutron		N/A	N/A							
Company representative		S. Porter								
Anadrill personnel		J. Dolan	K. Handley	D. Borges	T. Harvey	G. Watkins				

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OTHER SERVICES FOR RUN1 Directional Drilling Directional Surveys Gamma Ray	OTHER SERVICES FOR RUN2 Directional Drilling Directional Surveys Gamma Ray	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 Depth Offsets: Bit to D&I: 14.50 m Bit to GR: 15.42 m  SlimPulse* seated in a 4 3/4" SlimPulse* Rigid Mount Collar.  All data are presented from memory.  SlimPulse* Gamma Ray is corrected for mud weight and bit size.  There was KCl present in the mud system.  Gamma Ray logged in 7 5/8" casing to 434 m resulting in attenuation.  At 788.46 m, the Kelly Length was changed from 13.3 m to 12.0 m, resulting in a Pipe Tally correction  POOH at 1169 m due for a Bit trip.	REMARKS: RUN NUMBER 2 Depth Offsets: Bit to D&I: 14.38 m Bit to GR: 15.30 m  SlimPulse* seated in a 4 3/4" SlimPulse* Rigid Mount Collar.  All data are presented from memory.  SlimPulse* Gamma Ray is corrected for mud weight and bit size.  There was KCl present in the mud system.  POOH at 1360 m due to TD of Seamer-1.	REMARKS: RUN NUMBER

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:

GR — 15.4  
D&I — 14.5

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:

GR — 15.3  
D&I — 14.3

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

19.7

9.38

8.70

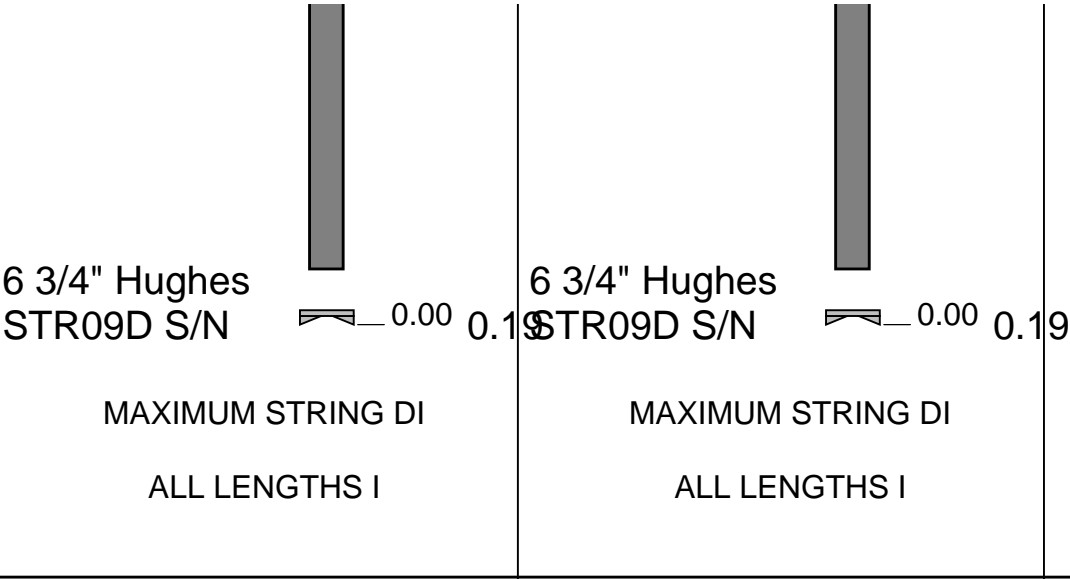
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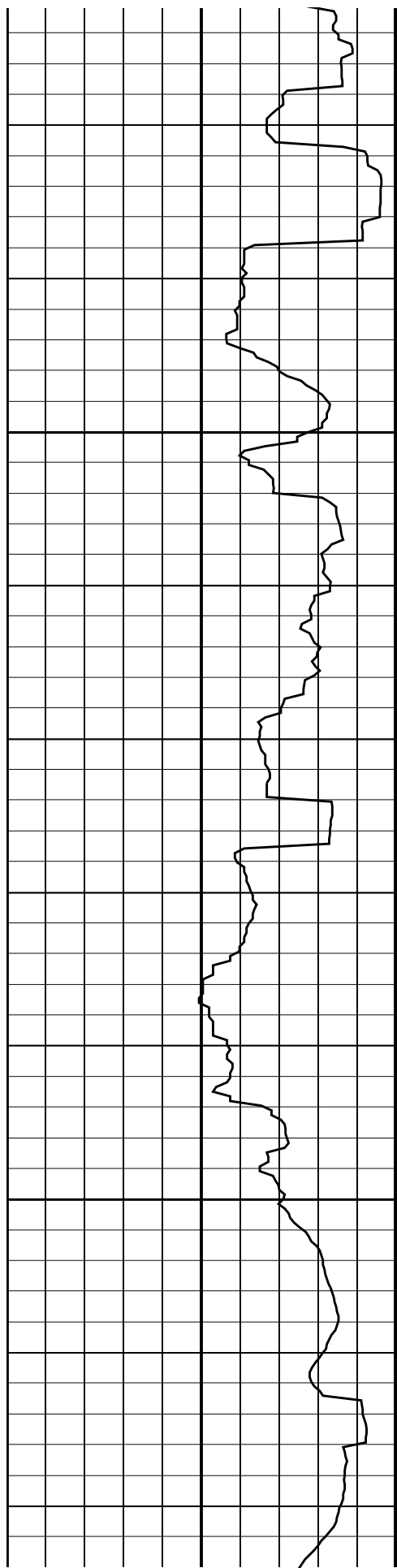
19.5

9.38

8.70

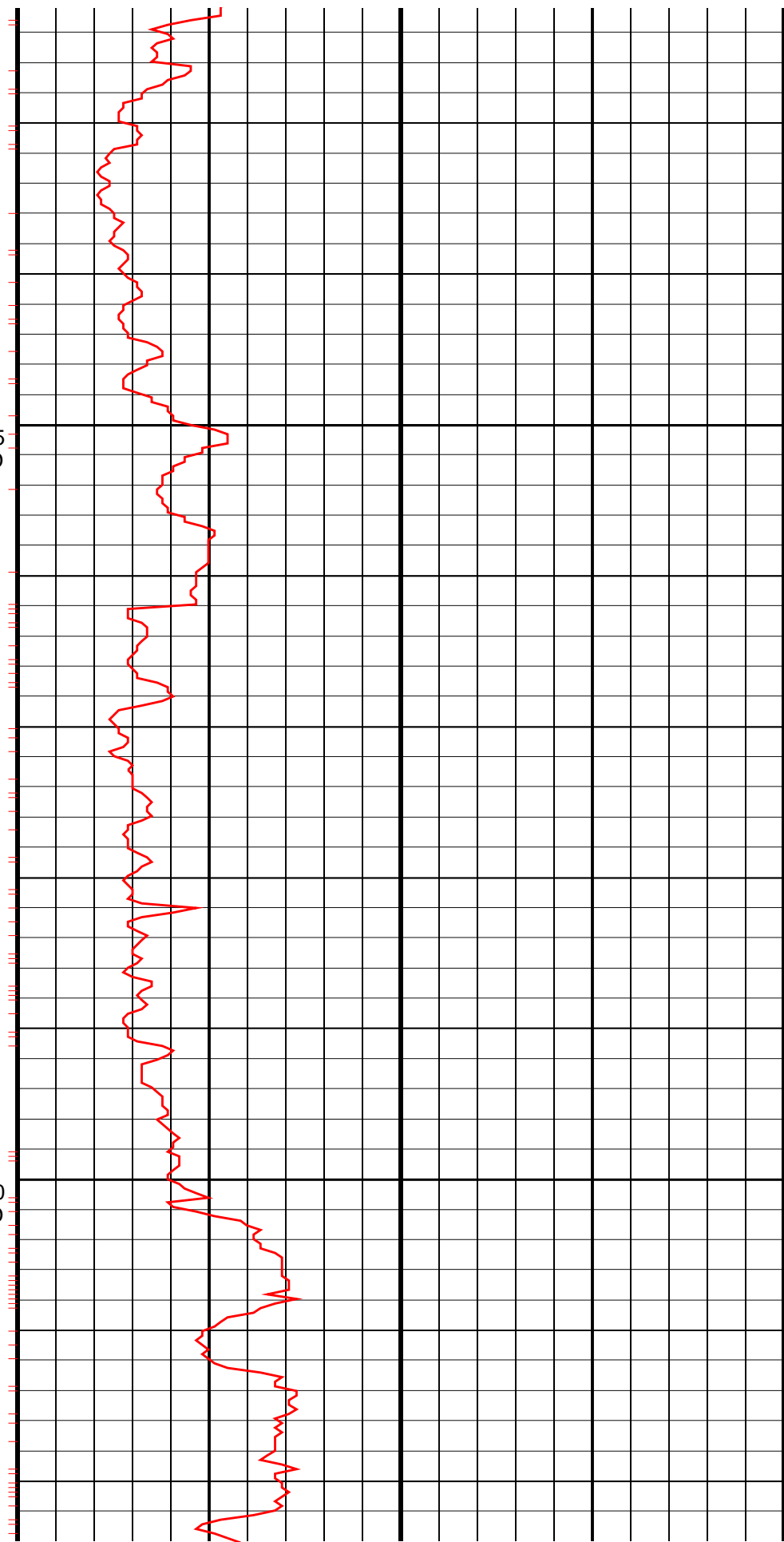
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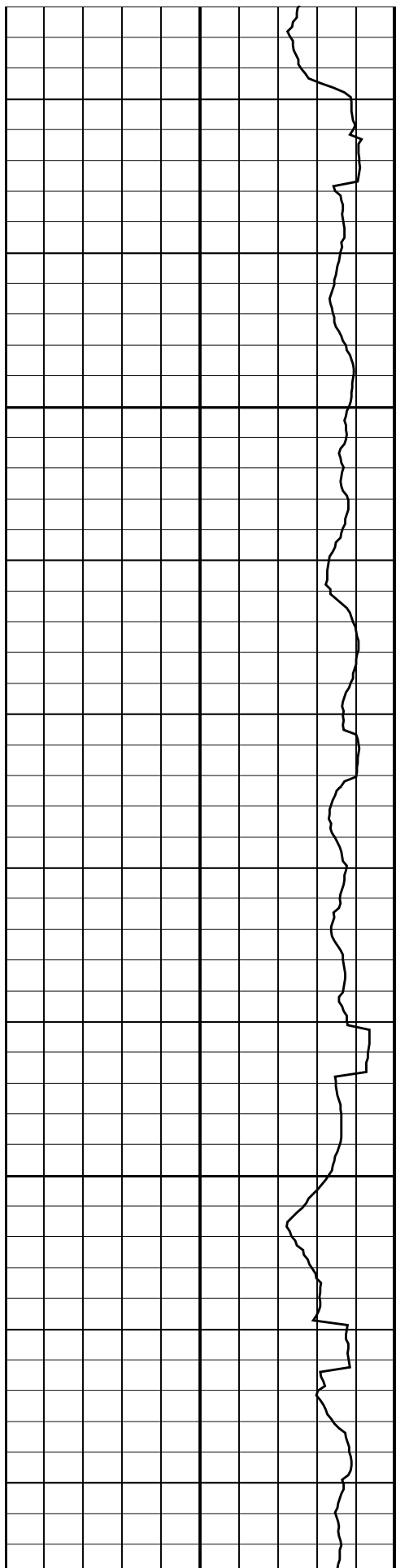




475  
TVD

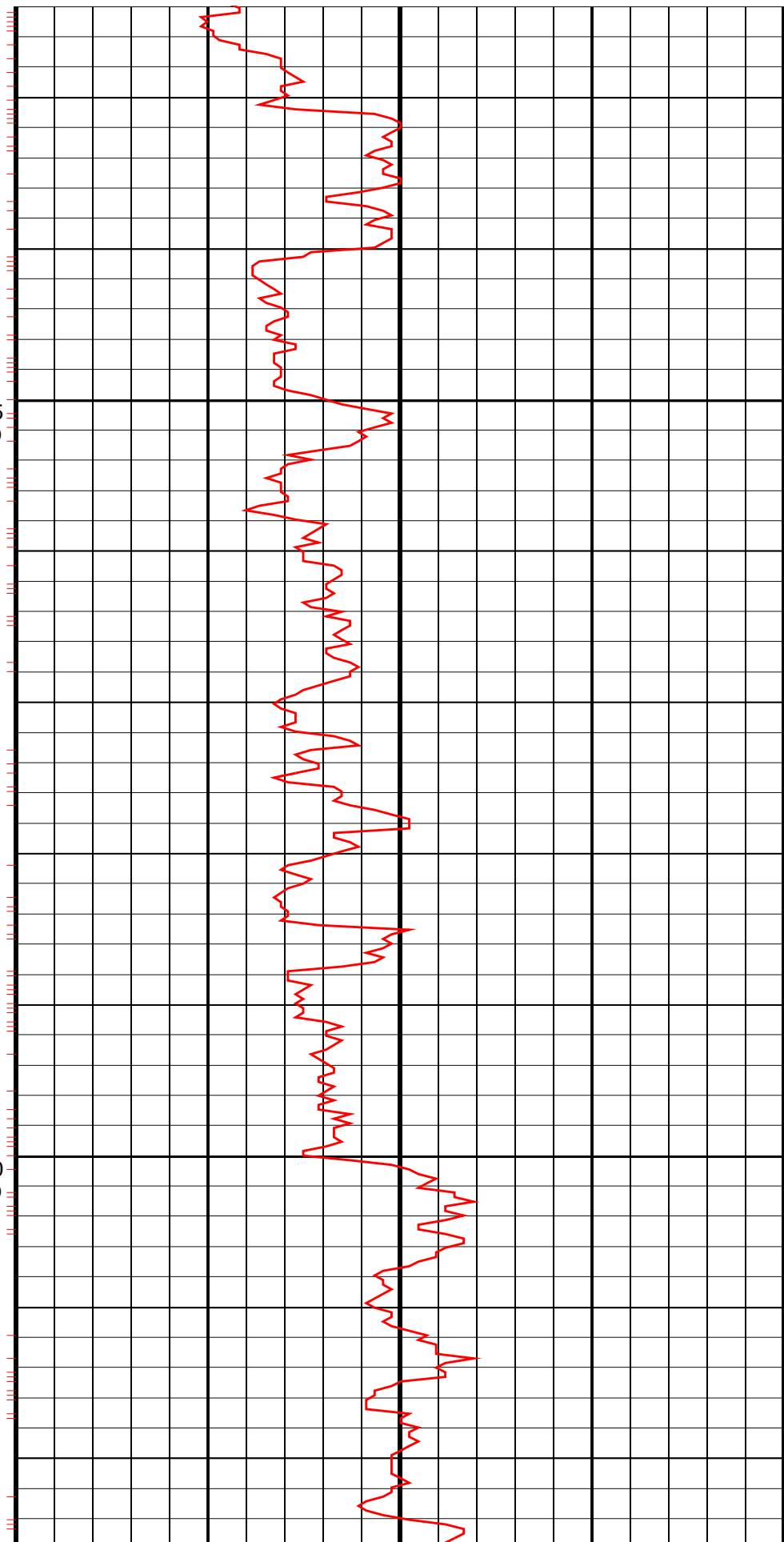
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TVD



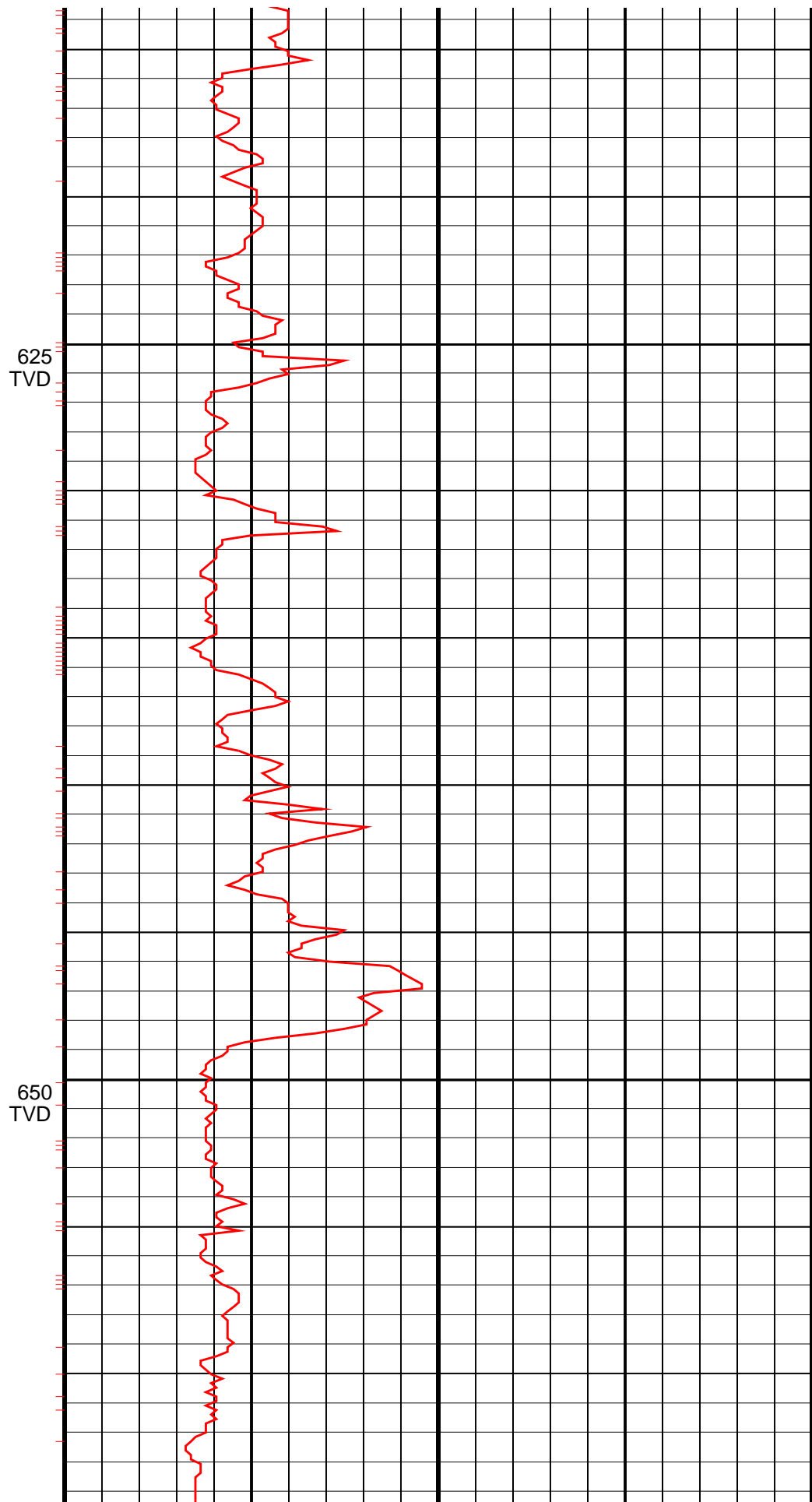
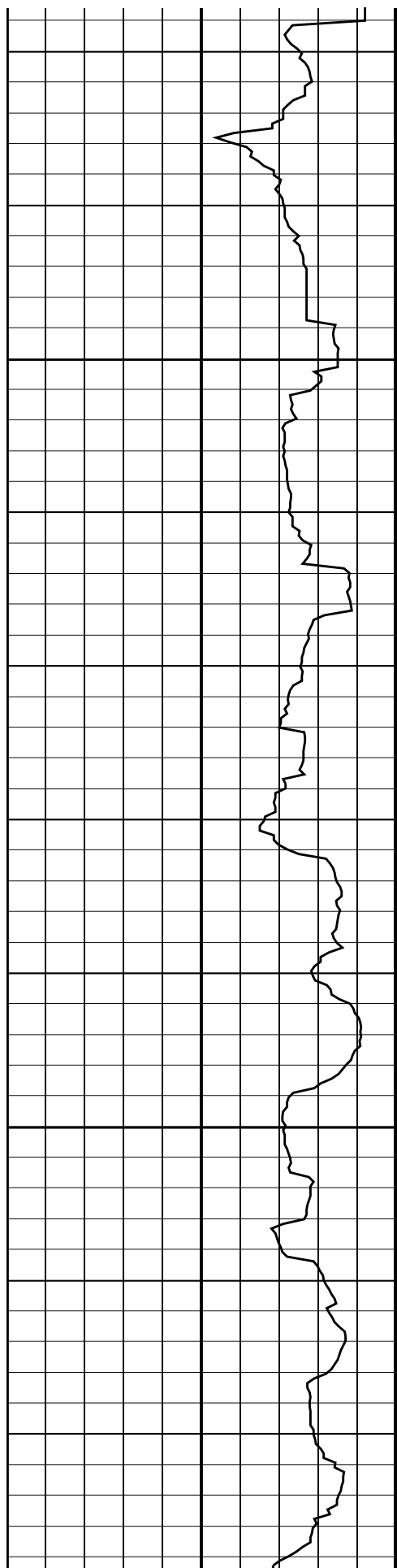


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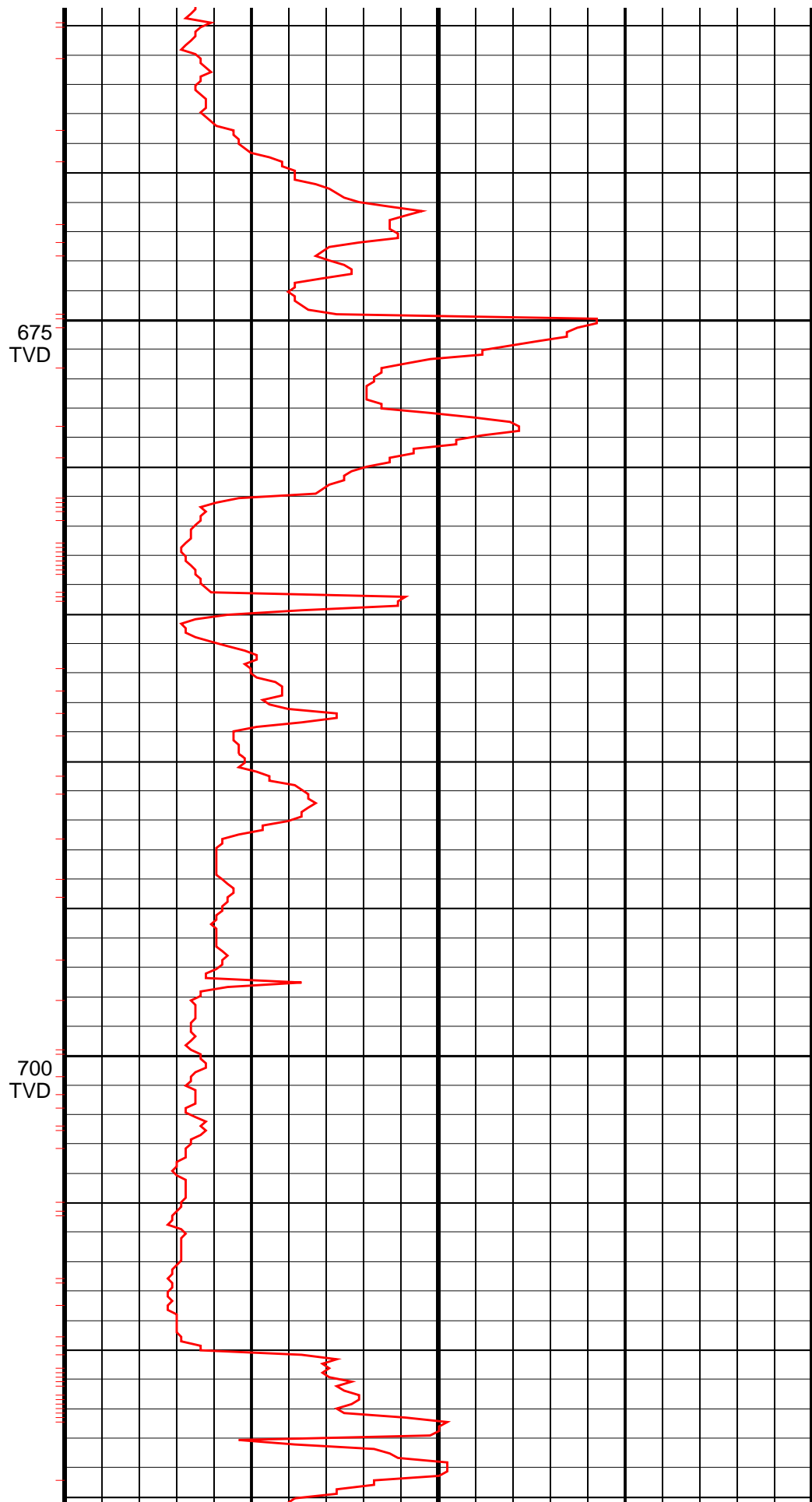
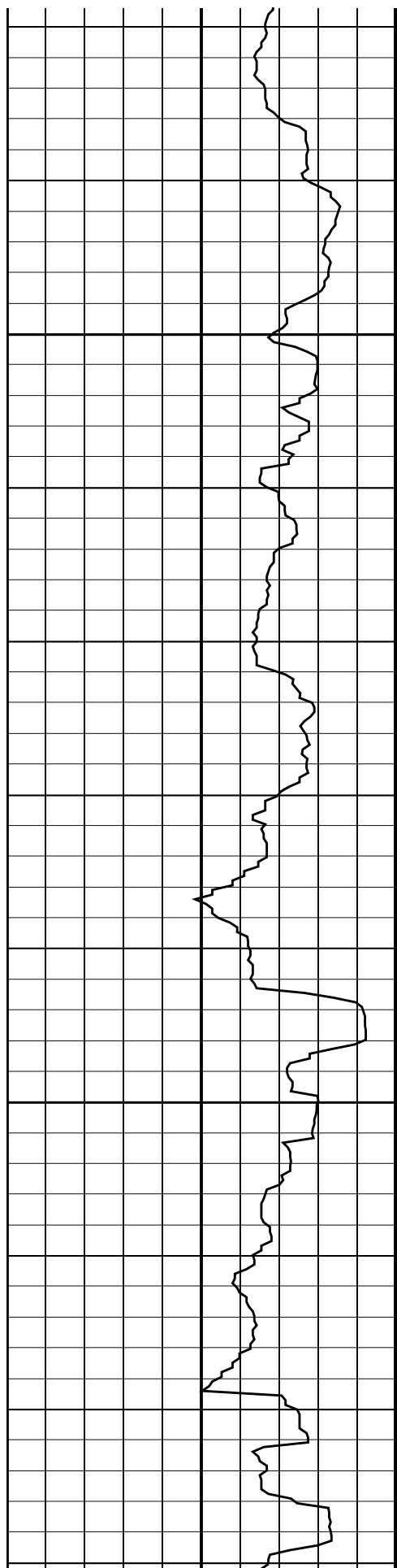
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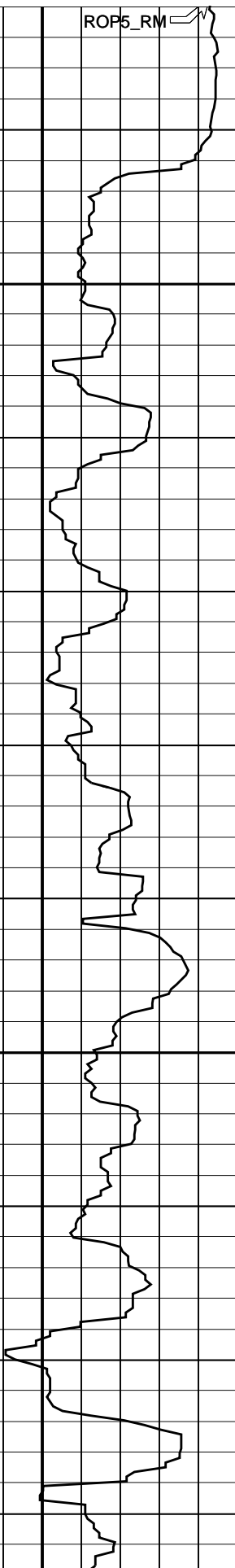
ROP5\_RM

725  
TVD

750  
TVD

GR\_SPULSE\_DH

ROP5\_RM

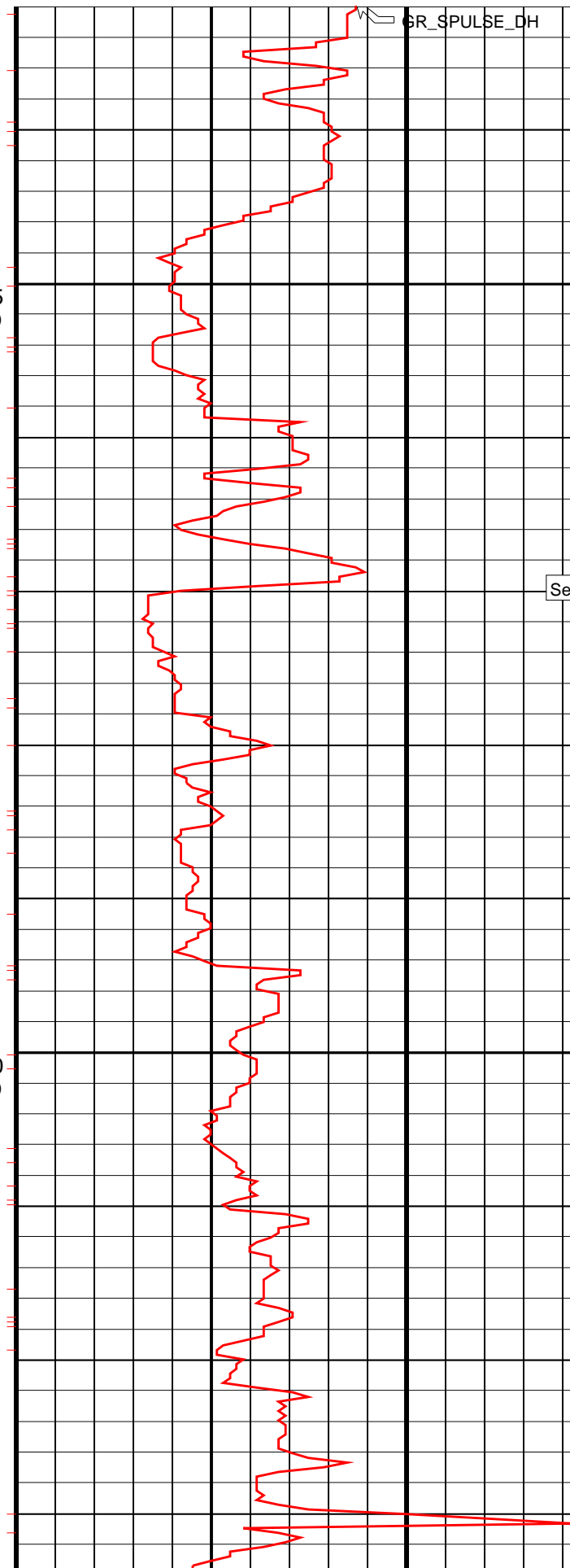


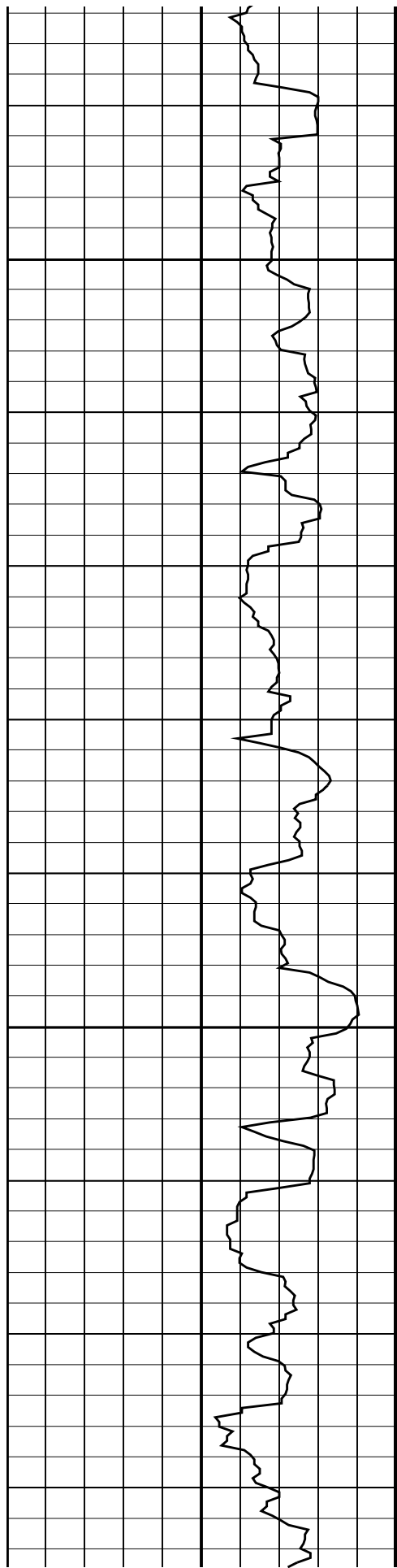
GR\_SPULSE\_DH

775  
TVD

800  
TVD

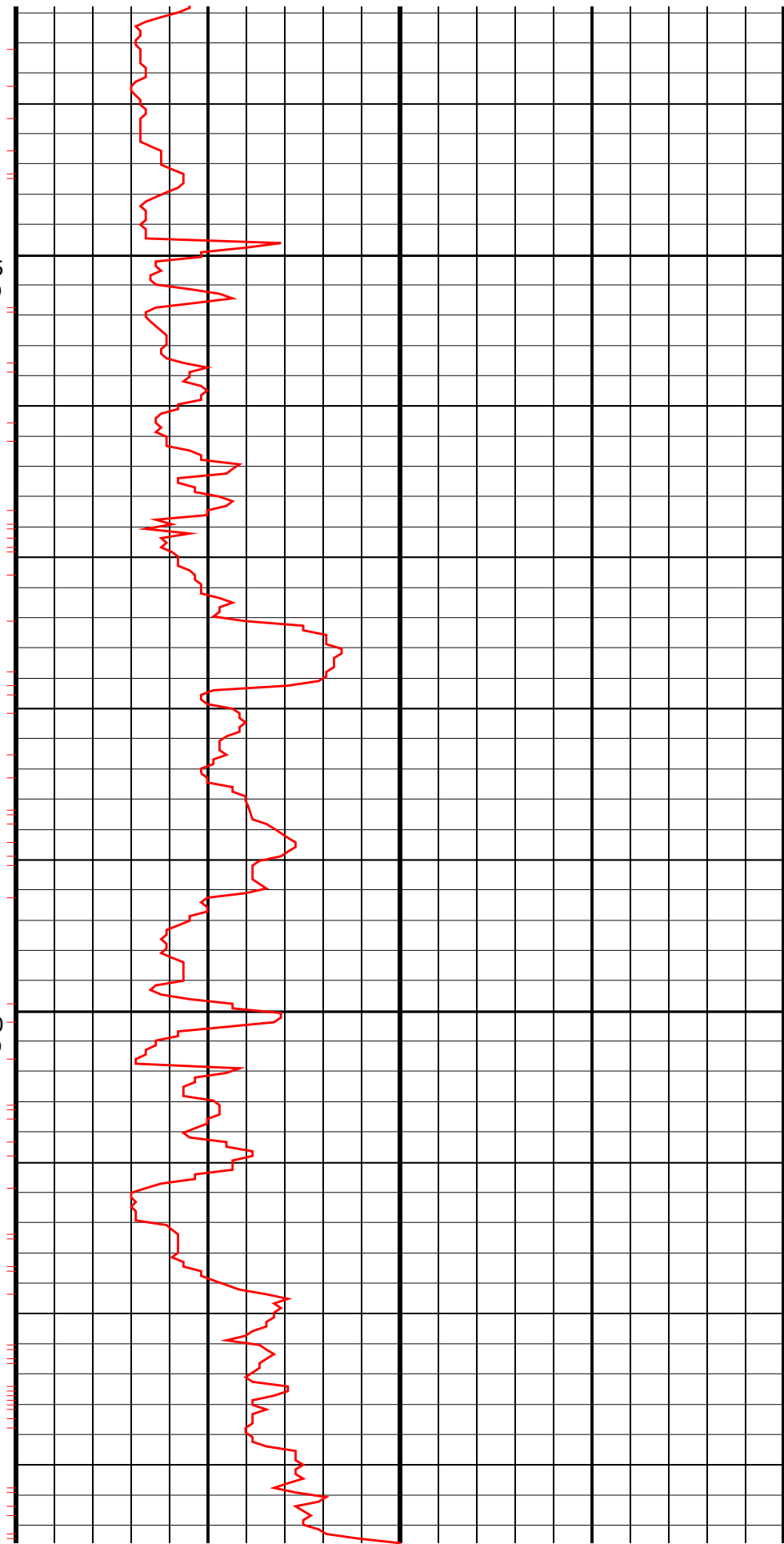
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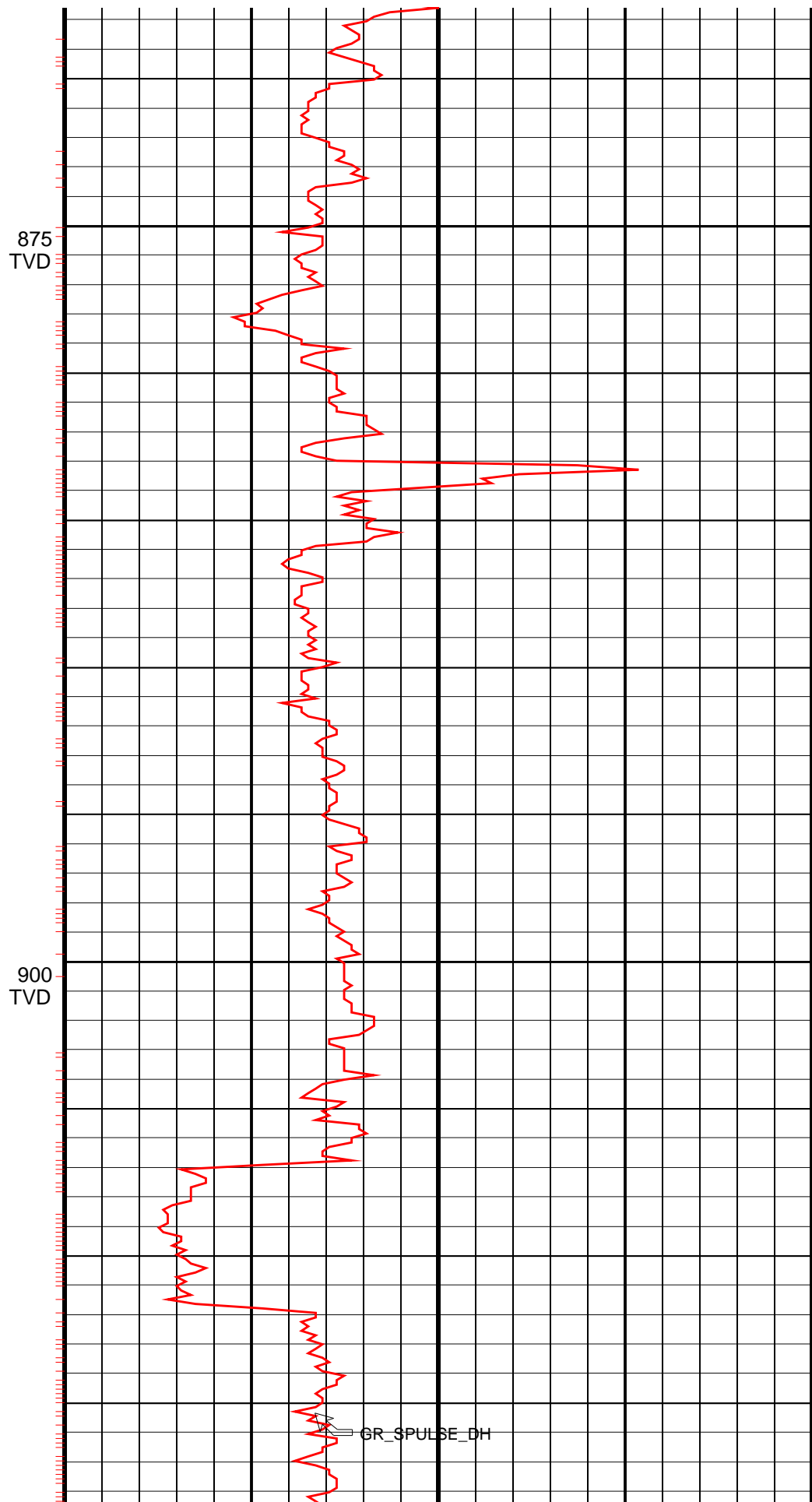
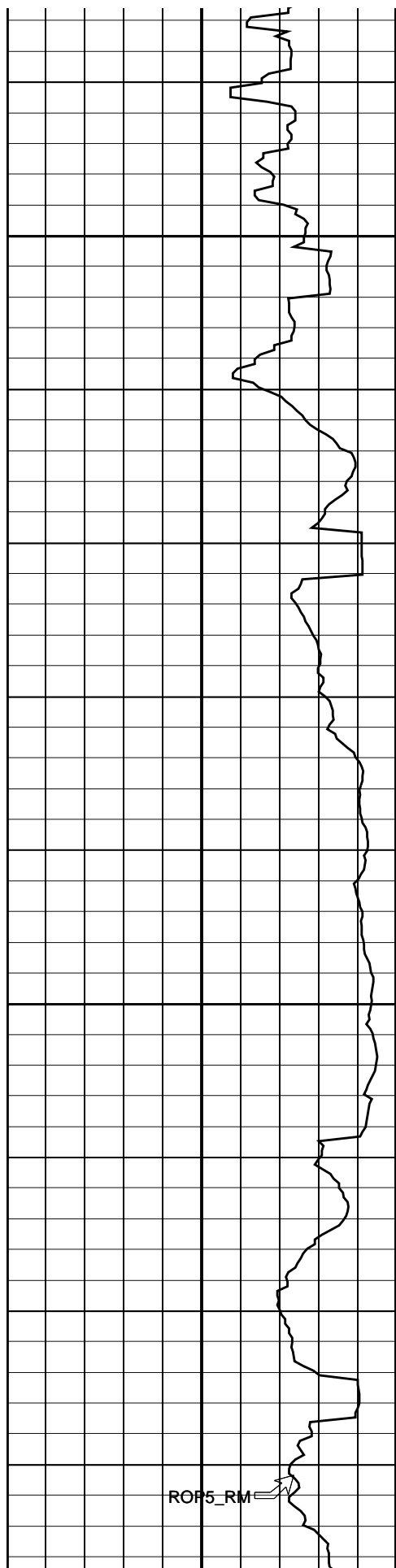


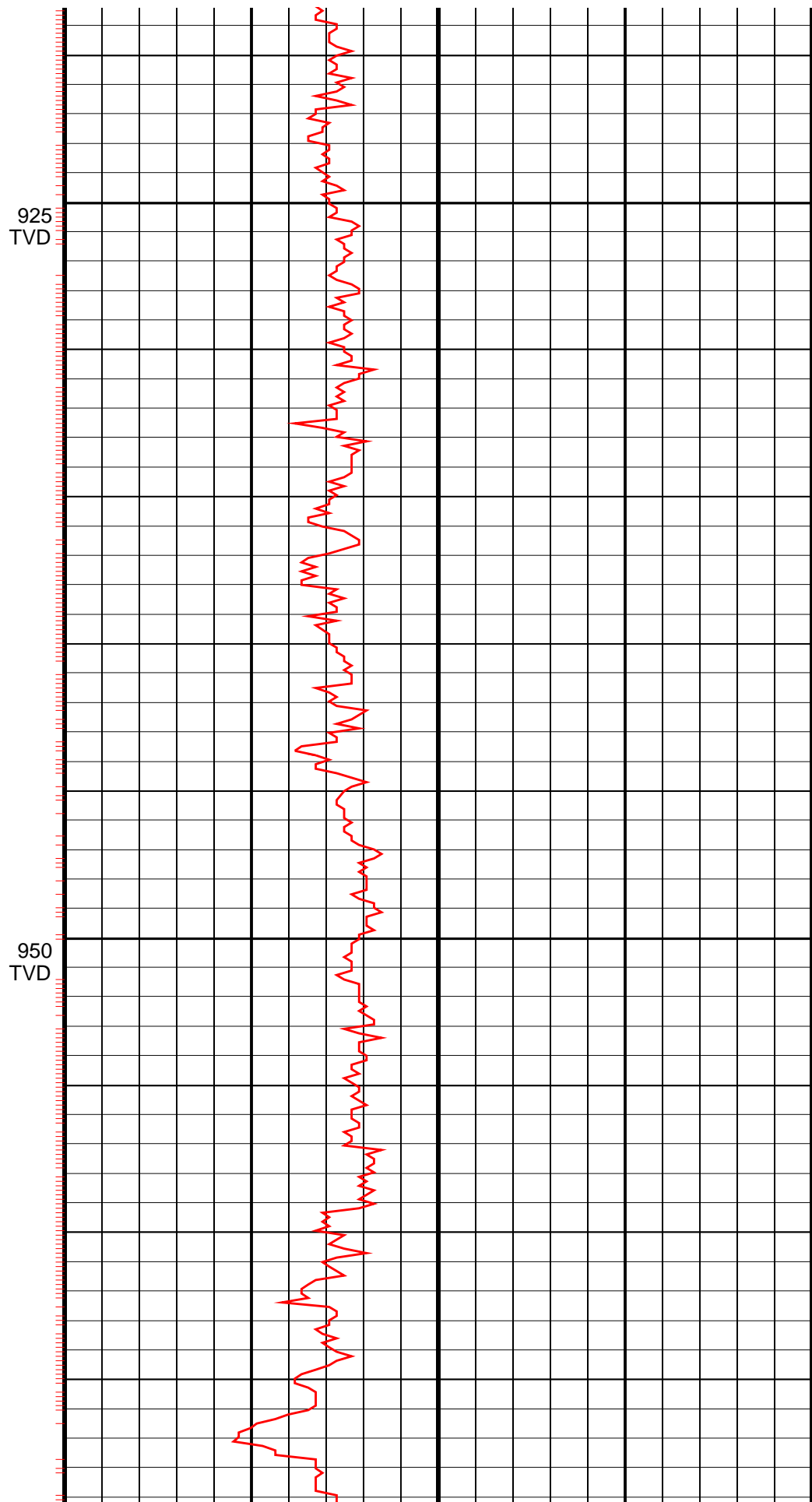
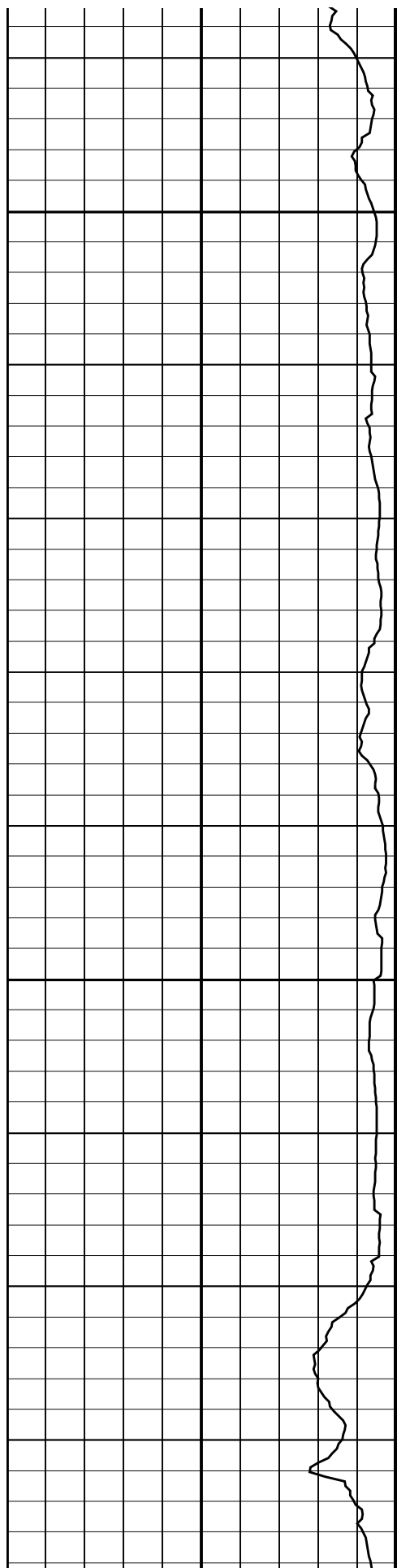


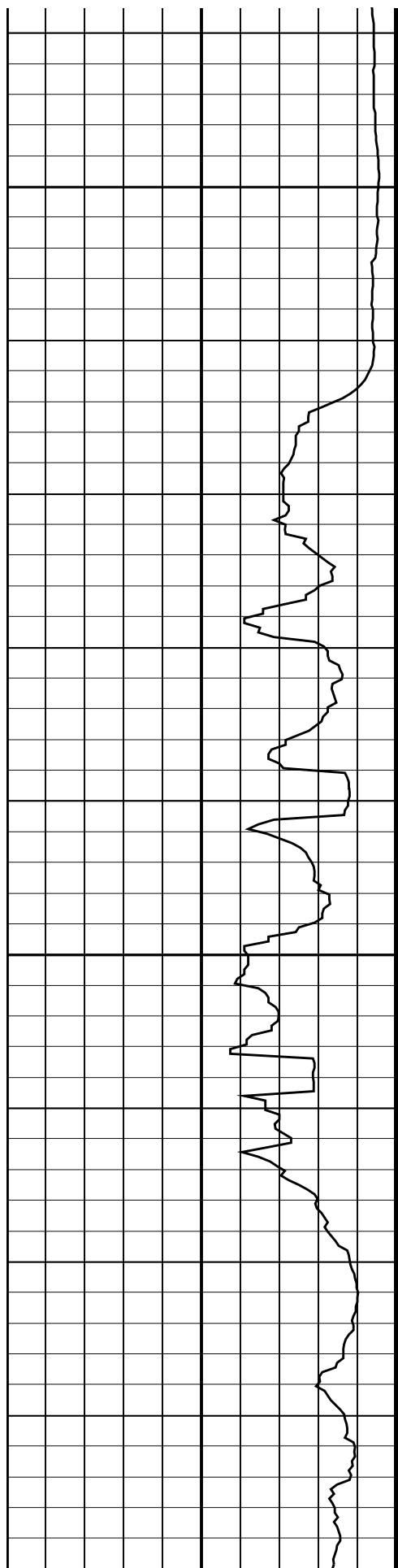
825  
TVD

850  
TVD



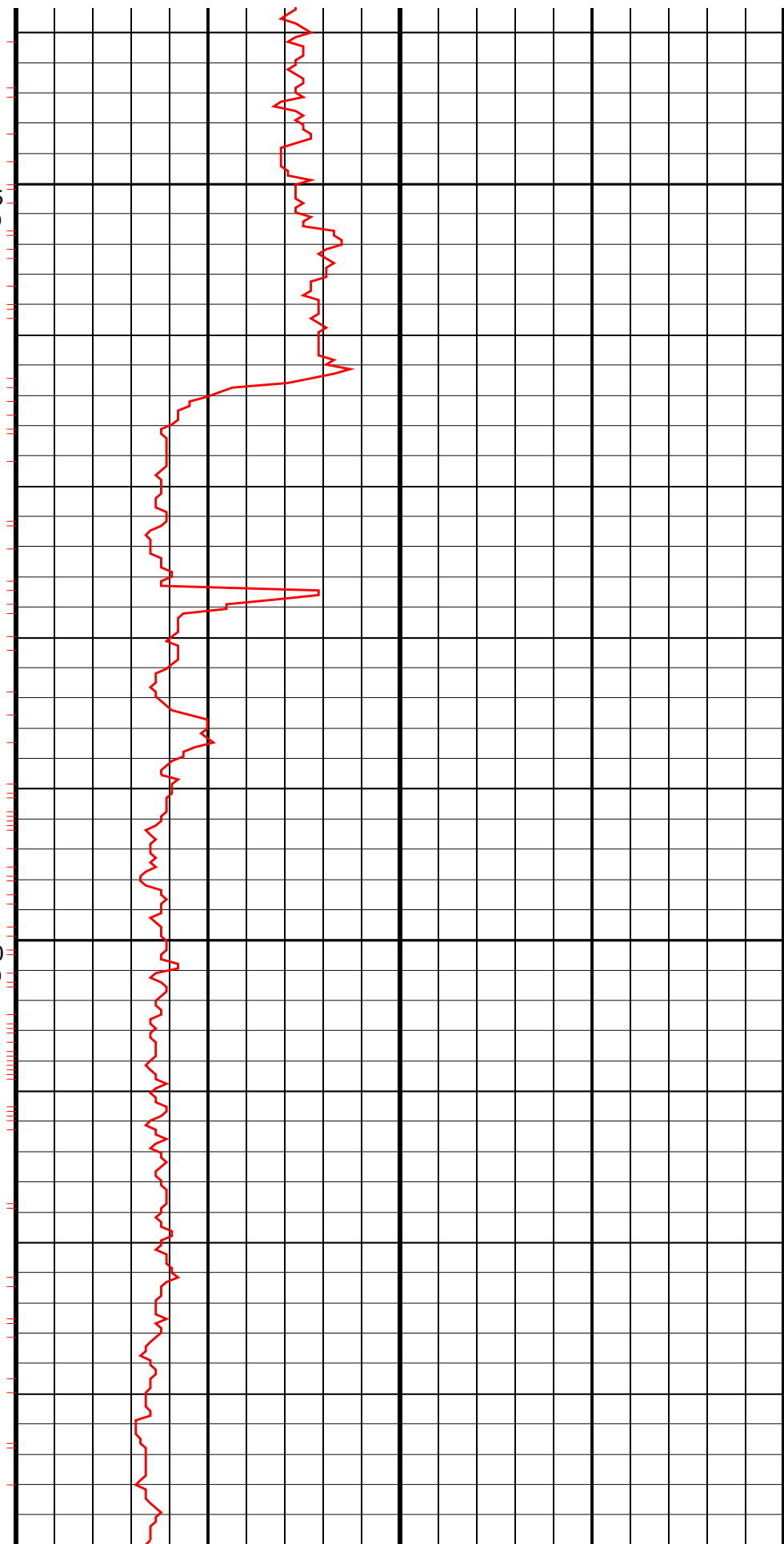


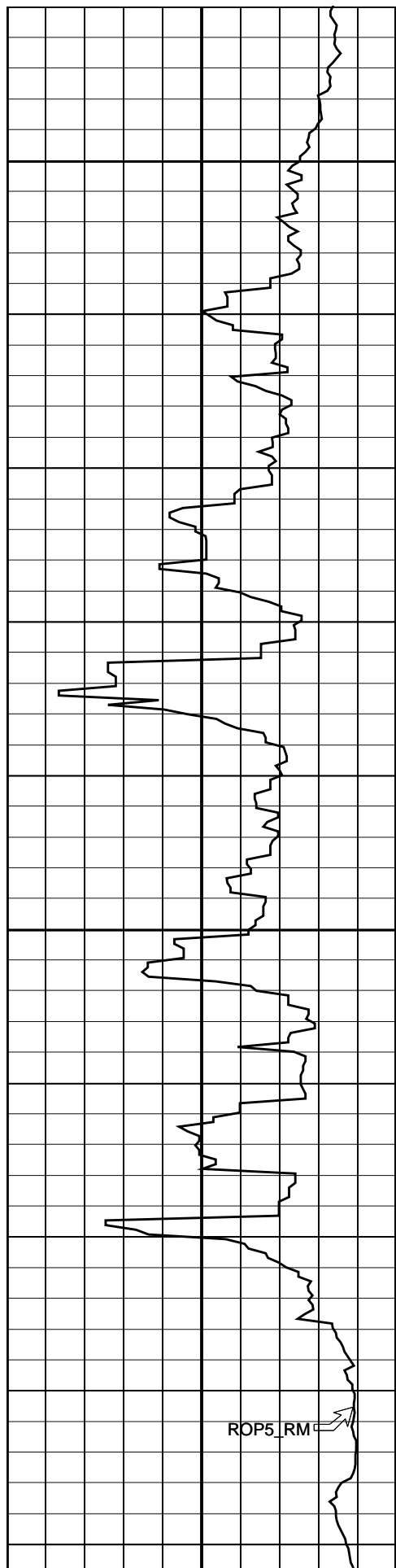




975  
TVD

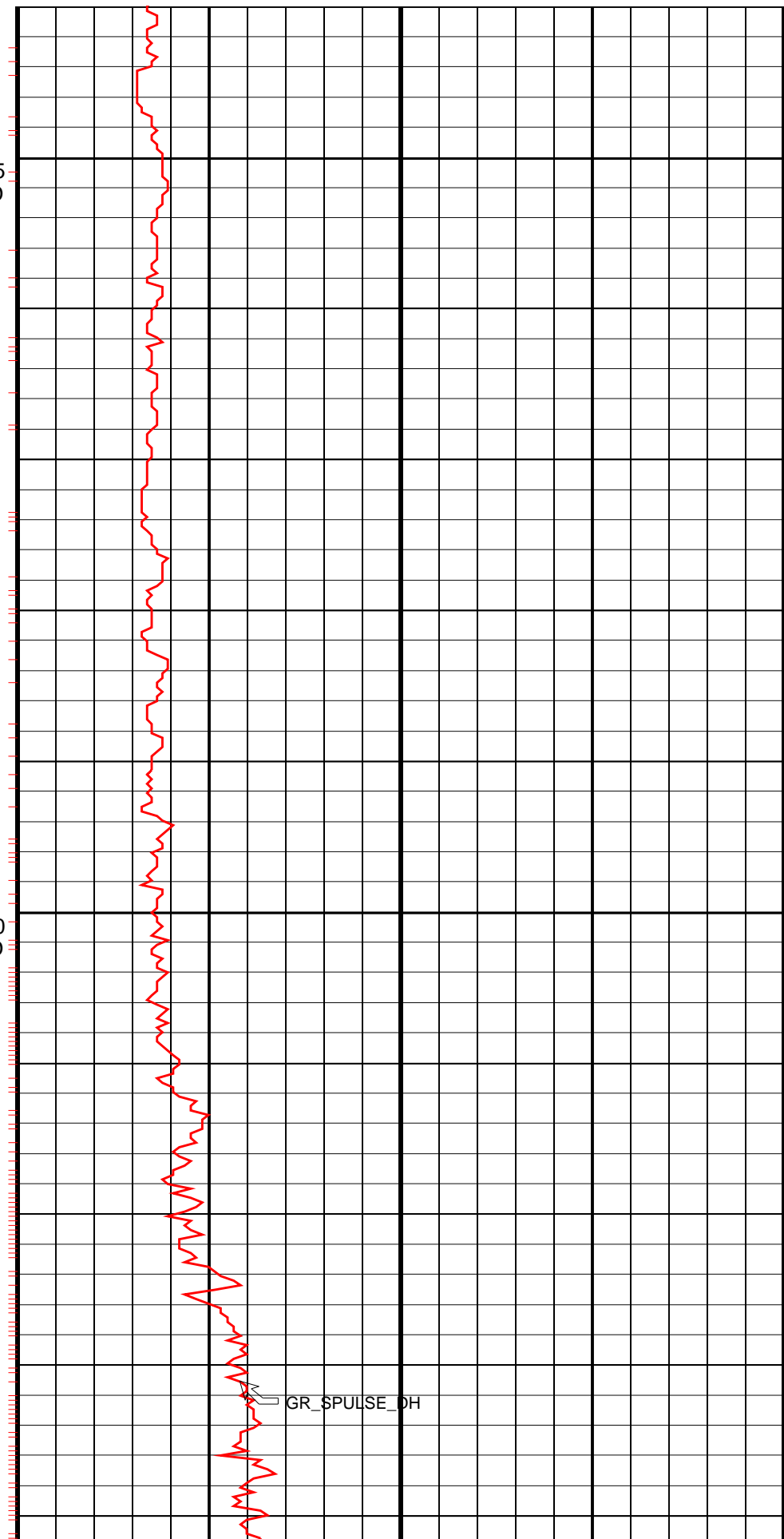
1000  
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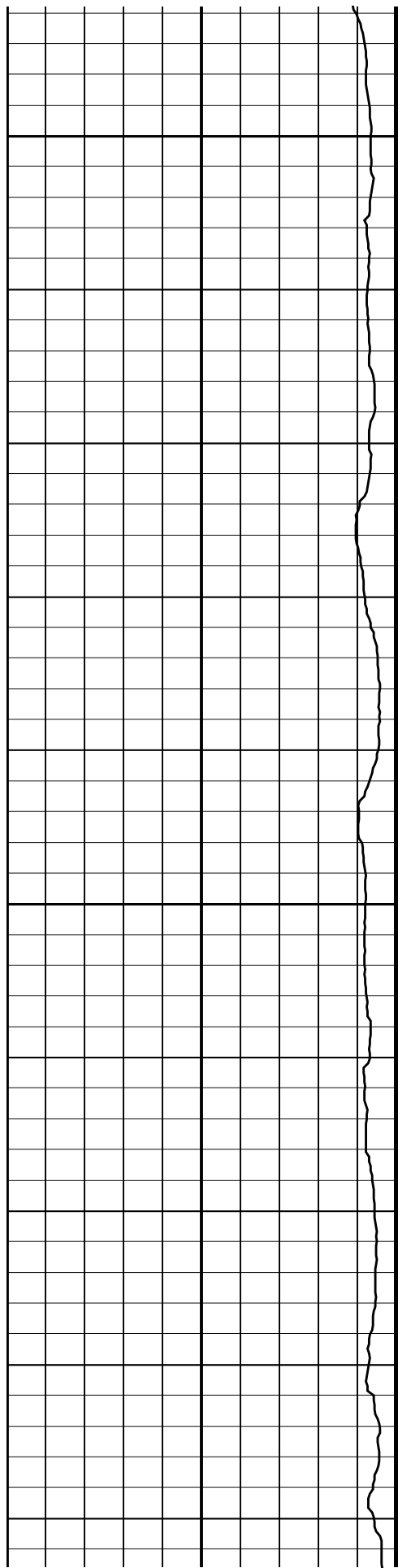


1025  
TVD

1050  
TVD

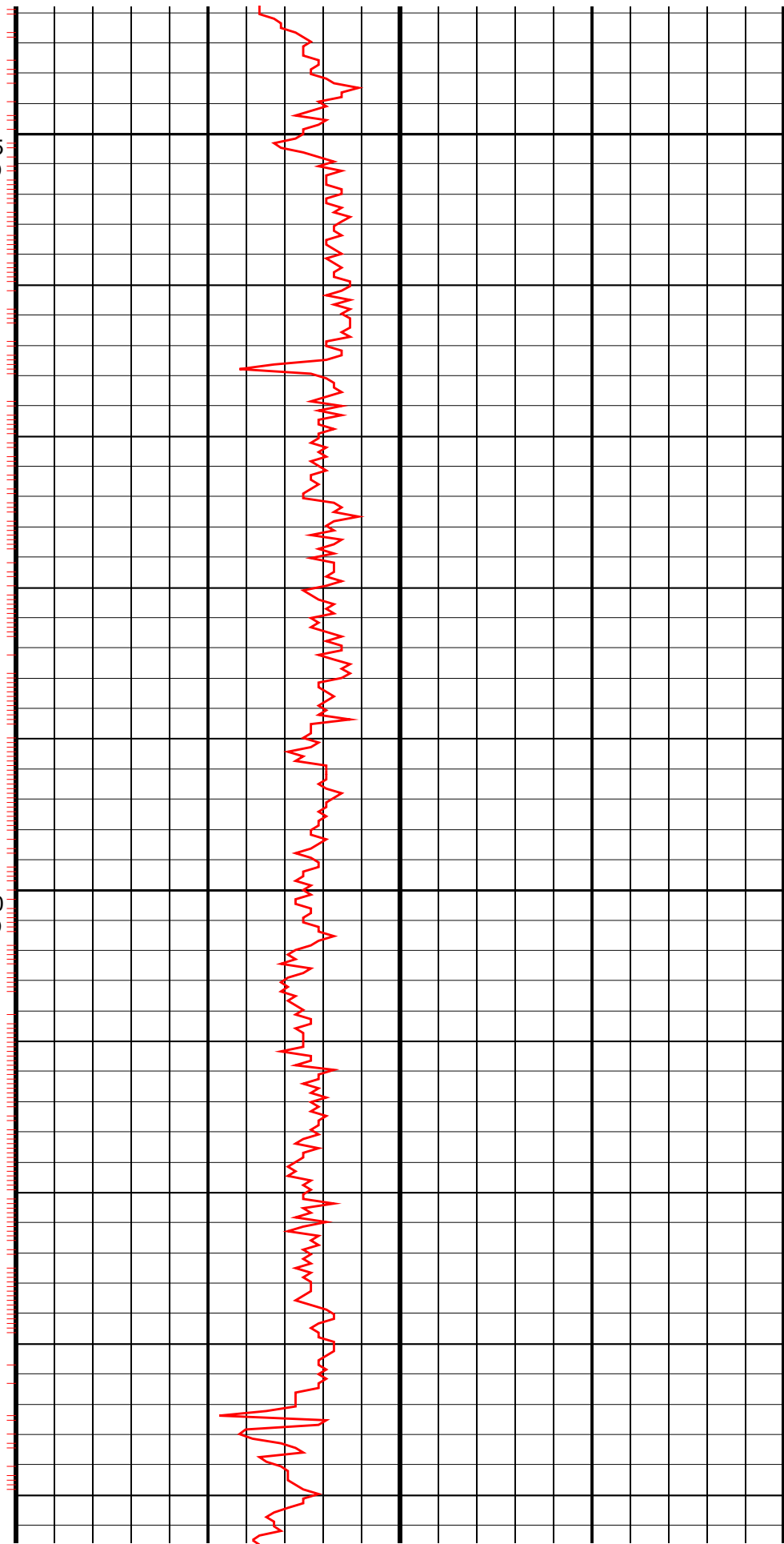


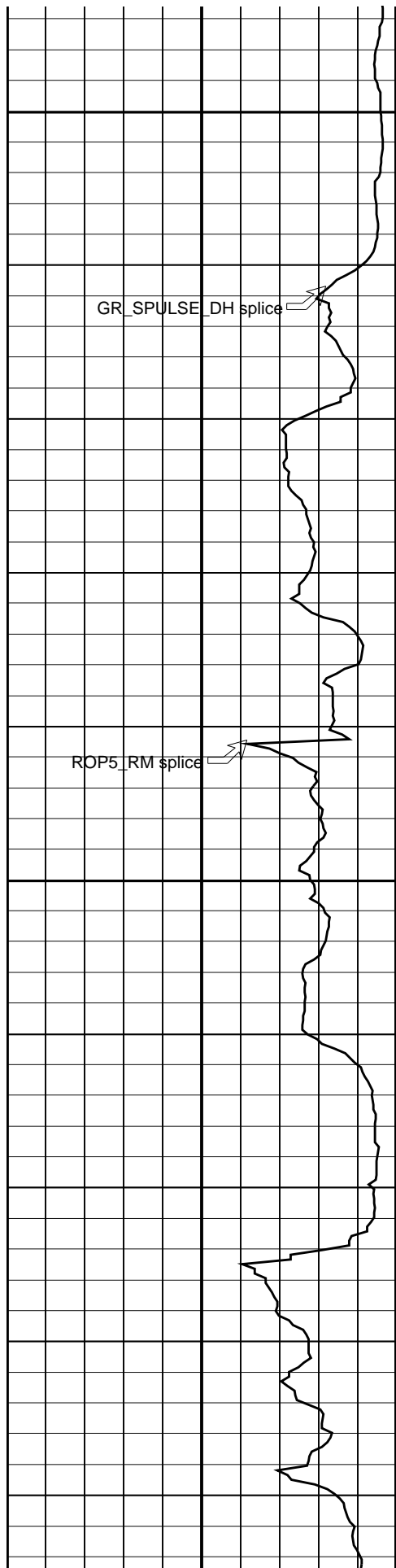




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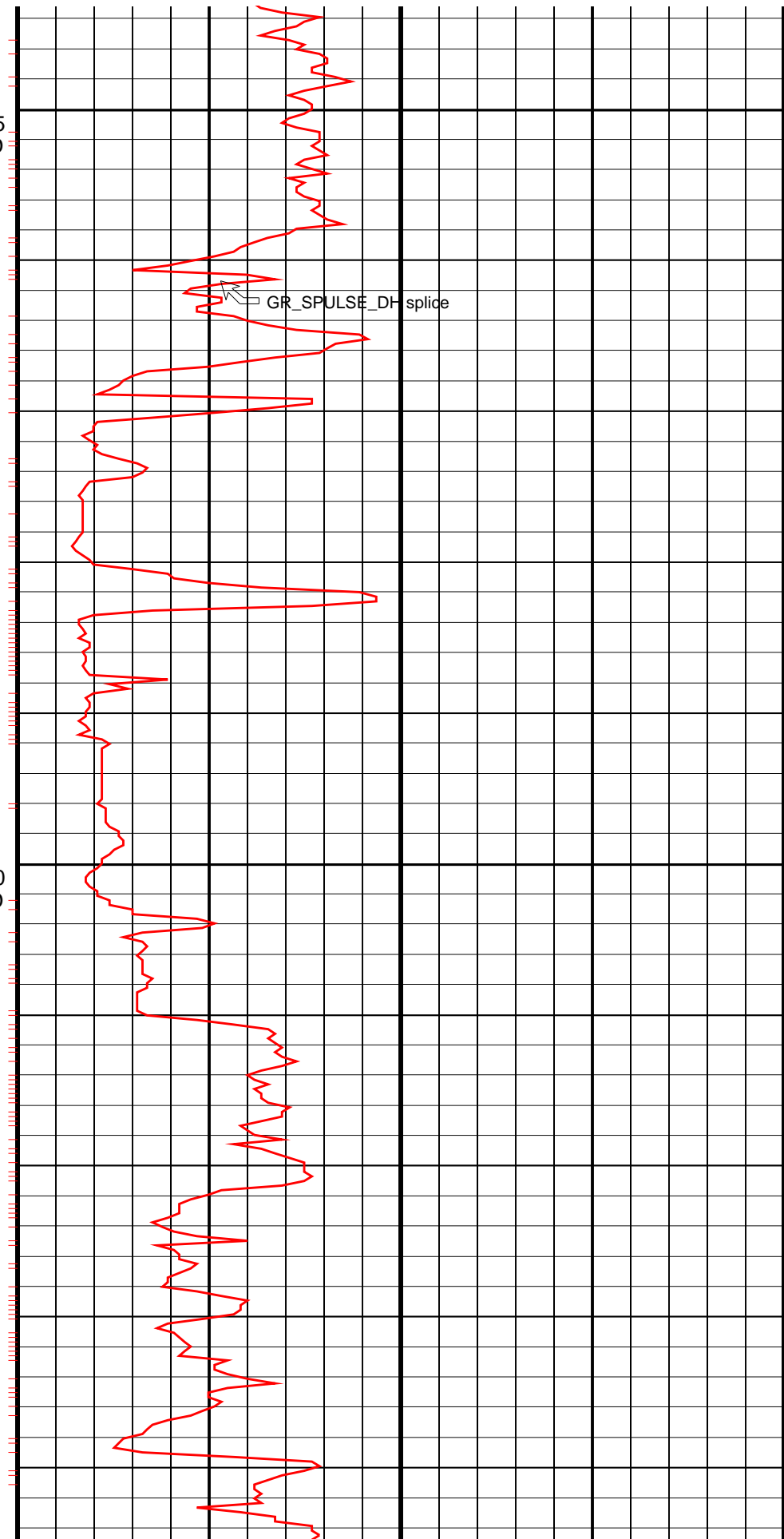
1100  
TVD

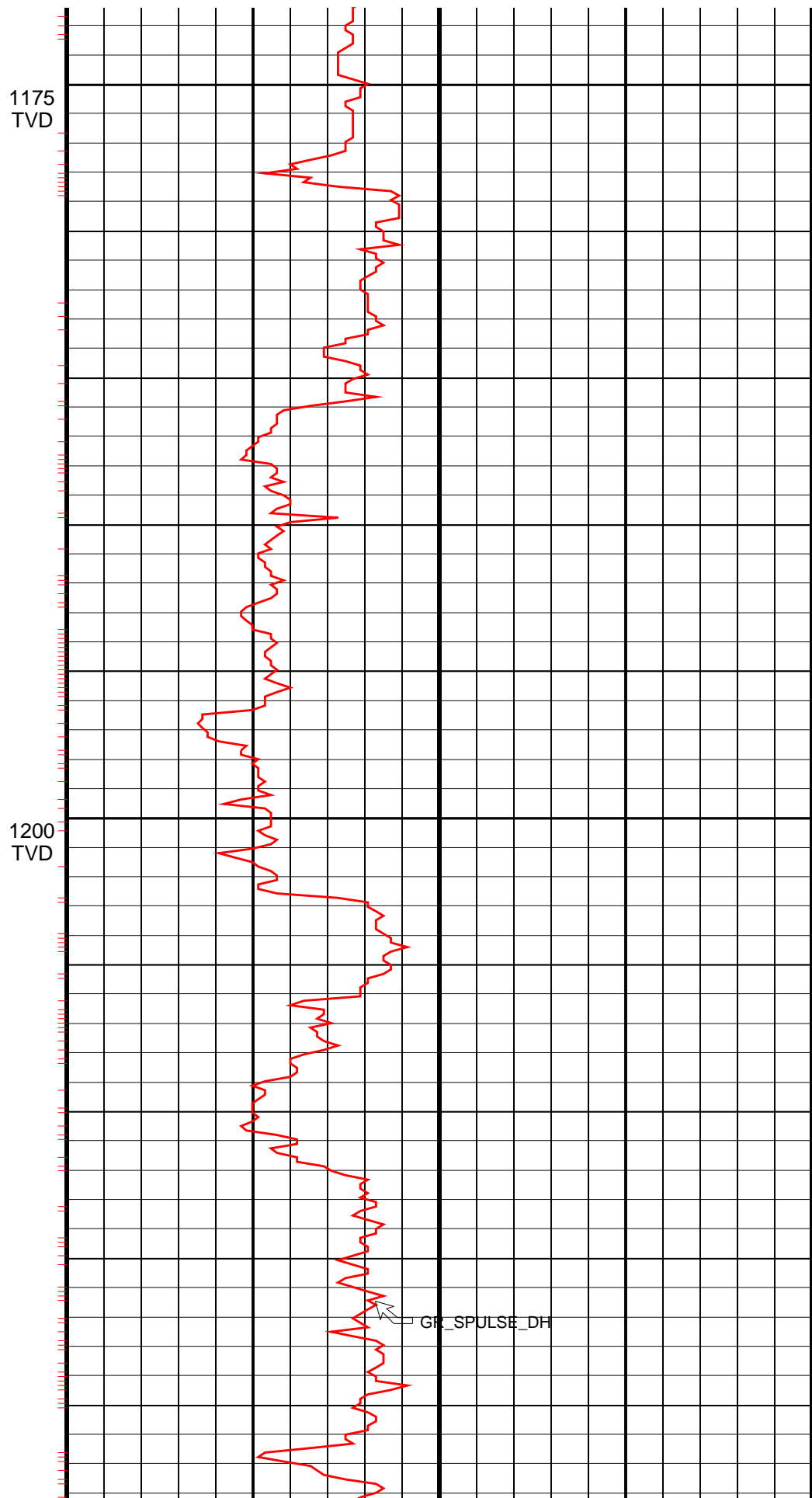
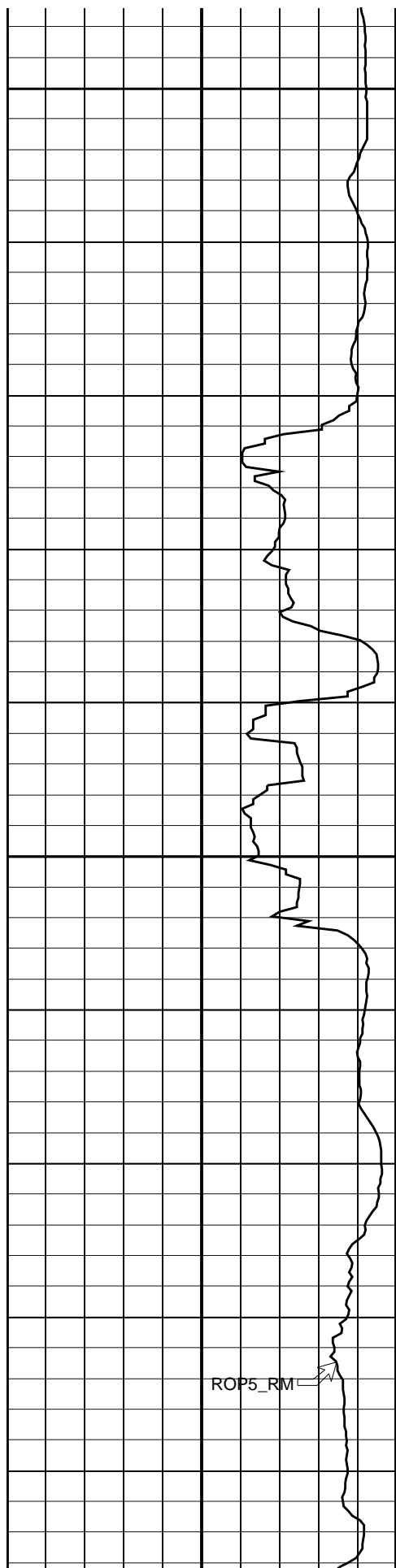


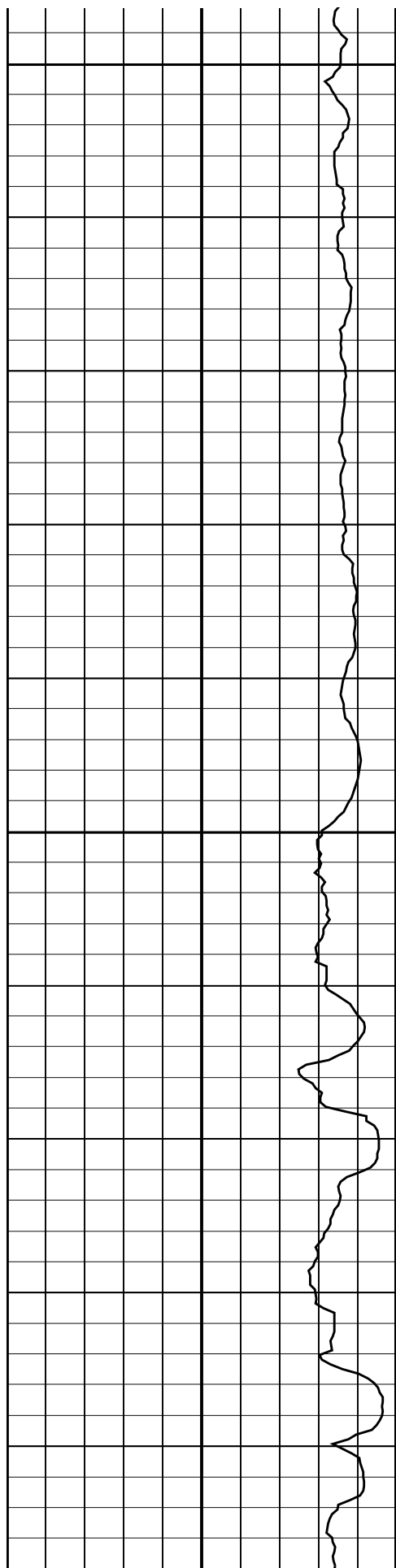


1125  
TVD

1150  
TVD

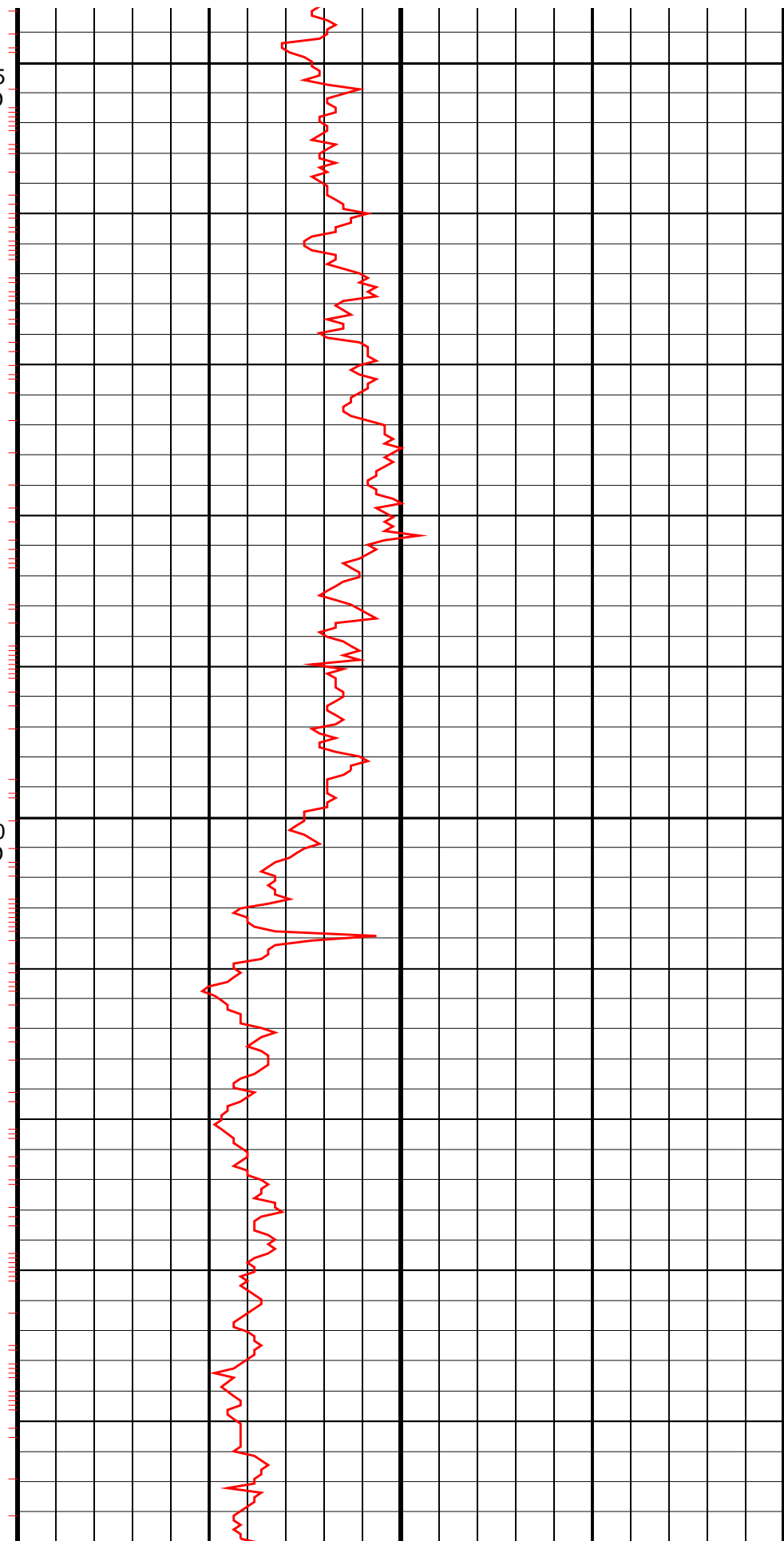


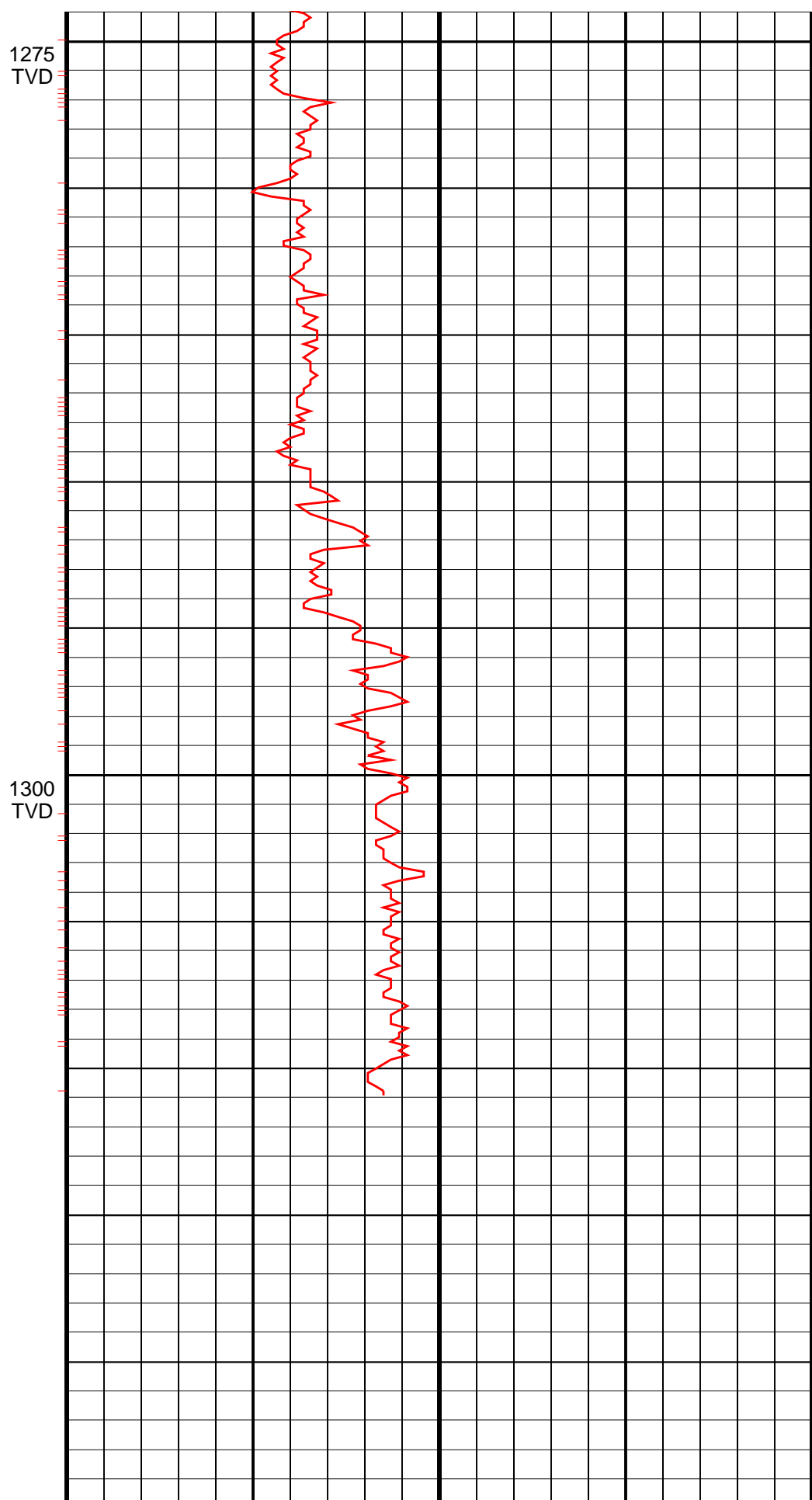
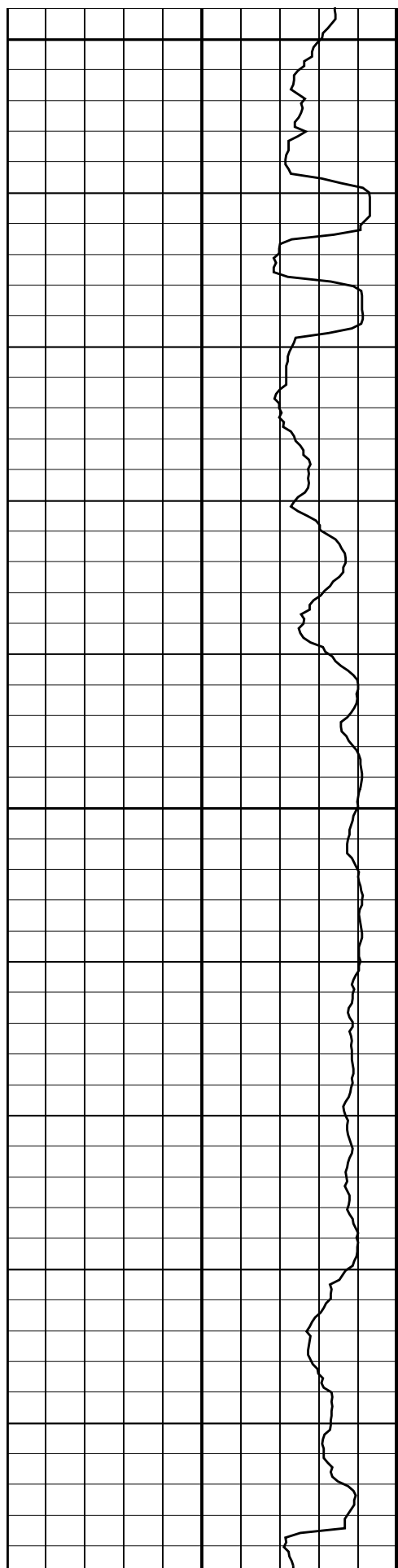




1225  
TVD

1250  
TVD





<b>Rate of Penetration, Averaged over Last 5ft (ROP5_RM)</b>		<b>SLIMPULSE BHC Gr (GR_SPULSE_DH)</b>
<b>200 (M/HR)</b>	<b>0</b>	<b>(GAPI)</b>
<b>PIP SUMMARY</b>		
<b>→ Gamma-Ray Samples</b>		
<b>IDEAL Version: ID6_1C_10</b>		
<b>IDF</b>		
<b>True Vertical Depth Log</b>		

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-----

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.....: BGGM 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

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ANADRILL SCHLUMBERGER Survey Report

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Seq	Measured	Incl	Azimuth	Course	TVD	Vertical	Displ	Displ	Total	At	DLS	Srvy	Tool
#	depth	angle	angle	length	depth	section	+N/S-	+E/W-	displ	Azim	(deg/	tool	qual
-	(m)	(deg)	(deg)	(m)	(m)	(m)	(m)	(m)	(m)	(deg)	10m)	type	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

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

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ANADRILL SCHLUMBERGER Survey Report

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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)

Rig:

Century 11

State:

Victoria

IDEAL services from Anadrill

SlimPulse\* GR  
True Vertical Depth 1:200 scale  
Recorded Mode Memory

Schlumberger