

Company: Great Western Operating Company LLC

Well: Schneider HD 11-219HNX

Field: Wattenberg

County: Weld

State: Colorado

Country: United States of America

Latitude: 40° 19' 27.786" N APIN: 05-123-46412

Longitude: 104° 49' 34.536" W Rig Name: Precision Drilling 466

Rig Type: Land Rig - Top Drive

FL: NAD83 Colorado State Plane, Northern Zone, US Feet

FL1: Northing 1361727.939 ftUS

FL2: Easting 3187851.051 ftUS

Log Measured From: - Drill Floor: 4755.00 ft

Ground Level: 4735.00 ft

Permanent Datum: - Mean Sea Level

Acquisition Dates: 01-Oct-2019 -- 04-Oct-2019

Log Interval: 1568 ft MD to 17405 ft MD

Index Types: Measured Depth Directional Drilling

Index Scales: 1:240 5" / 100' Direction and Inclination (Surveys)

Depth Source: Driller's Depth Continuous D&I

Depth Sensor: 3rd Party Depth Rotary Steerable System

Print Type: Final

Spud Date: 09-Sep-2019

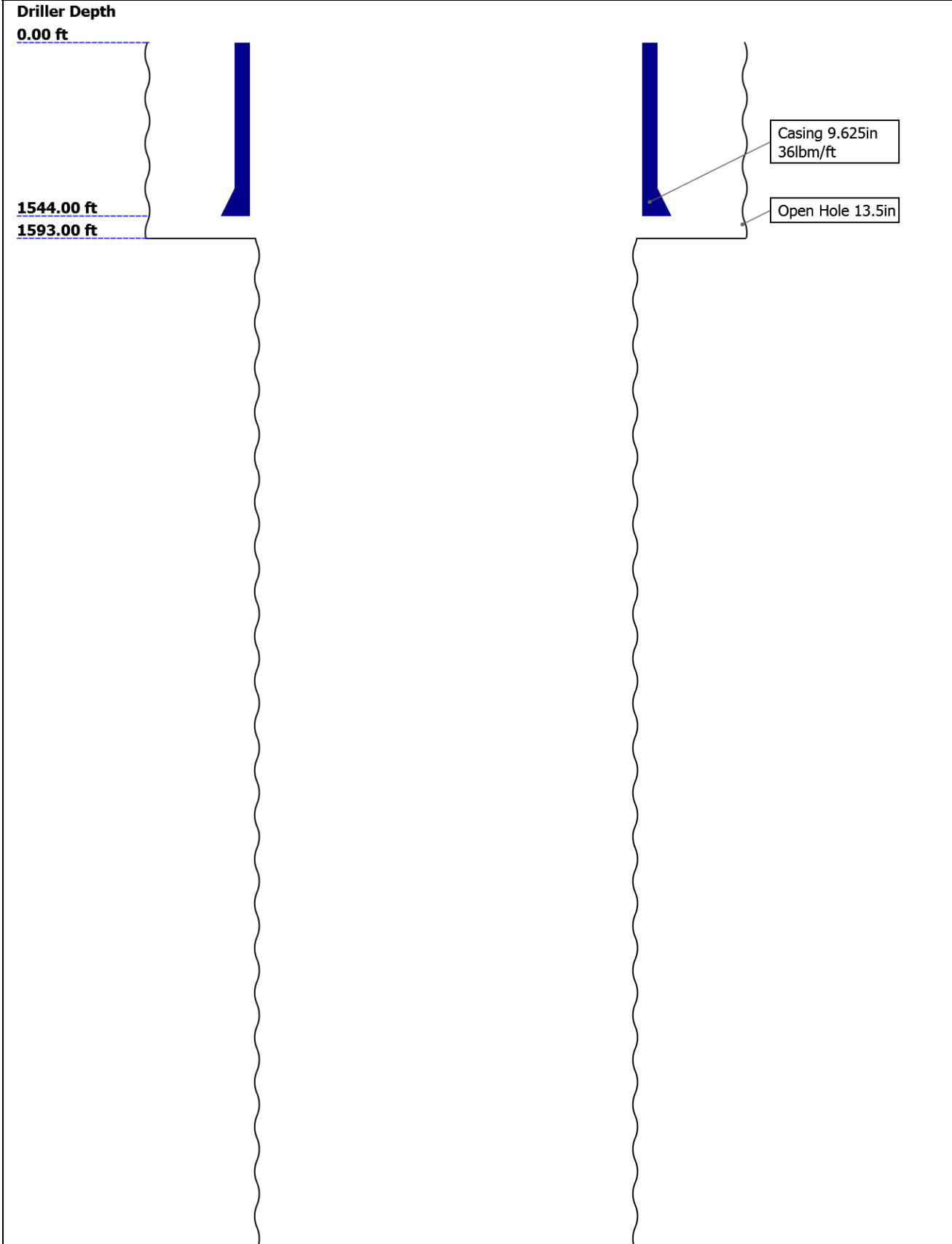
Disclaimer

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 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.

Contents

- Header
- Disclaimer
- Contents
- Well Sketch
- Borehole Size/Casing/Tubing Record
- Operational Run Summary
- Borehole Fluids
- Remarks and Equipment Summary
- Composite1
 - Integration Summary
 - Software Version
 - Composite Summary
 - Log (Extreme Gamma Ray 1 RT_6)
 - Parameter Listing
- Tail

Well Sketch



Parameter(unit)	Run001	Run002				
Fluid Type	Oil	Oil				
Fluid Name	Diesel	Diesel				
Max Recorded Temperatures (degF)	180	272.12				
Source of Sample	Active Tank	Active Tank				
Salinity (ppm)	161773	152549				
Density (lbm/gal)	10.5	10.5				
Funnel Viscosity (s)	54	60				
Fluid Loss (cm3)	11.3	10				
PH	0	0				
Source RMF	Pressed	Pressed				
RMC	Pressed	Pressed				
RM @ Meas Temp (ohm.m@degF)	N/A	N/A				
RMF @ Meas Temp (ohm.m@degF)	N/A	N/A				
RMC @ Meas Temp (ohm.m@degF)	N/A	N/A				
RM @ BHT (ohm.m@degF)	N/A	N/A				
RMF @ BHT (ohm.m@degF)	N/A	N/A				
RMC @ BHT (ohm.m@degF)	N/A	N/A				
Electricity Stability (V)	527	517				
Oil/Water	99/1 (76.00)	99/1 (76.00)				
Total Solid (%)	16.3	16.5				
High Gravity Solids (%)	6.3	6.5				

Remarks and Equipment Summary

All Data Presented is from tool memory and accquired while drilling.	
Depth is referenced to Driller's Depth.	
Barite was present in the mud.	
Run001: Remarks	Run002: Remarks
Run Objective: Drill curve and lateral to Well TD	Run Objective: Drill curve and lateral to Well TD
Reason to POOH: Power Drive CoPiBana Failure.	Reason to POOH: Well TD.
Drill Interval: 1593 ft MD to 7155 ft MD.	Drill Interval: 7155 ft MD to 17405 ft MD.
Logged Interval: 1568 ft MD to 7130 ft MD.	Logged Interval: 7130 ft MD to 17380 ft MD.
MWD Personnel: A. Le T. Sorrells	MWD Personnel: A. Le T. Sorrells

Run001: Toolstring				Run002: Toolstring			
Equip name	Length	MP name	Offset	Equip name	Length	MP name	Offset
Filtr Sub: 6 3/4":SD 118247	122.05	Filter Sub		Filtr Sub: 6 3/4":SD 118247	121.97	Filter Sub	
Motor: 6 3/4":7090	116.58	Hunting		Motor: 6 3/4":7090	116.5	Hunting	

Flex DC: 6 3/4":SD 77.65
56495H

Archer Filter

XEM650
GAP650:GSBR0867
XEM650DC
DPG:DDRP034
XHOP:XHOP1037
XTX:HVTX0237
DYN
BAT:DOBA2188
XGM:XGM0744
DNI:SOCD1224

40.94

INT PRES
ANN PRES
TEMP

38.63
38.48
38.48

GR

24.65

Flex DC: 6 3/4":SD 77.57
56495H

Archer Filter

XEM650
GAP650:GSBR0867
XEM650DC
DPG:DDRP034
XHOP:XHOP1037
XTX:HVTX0237
DYN
BAT:DOBA2188
XGM:XGM0744
DNI:SOCD1224

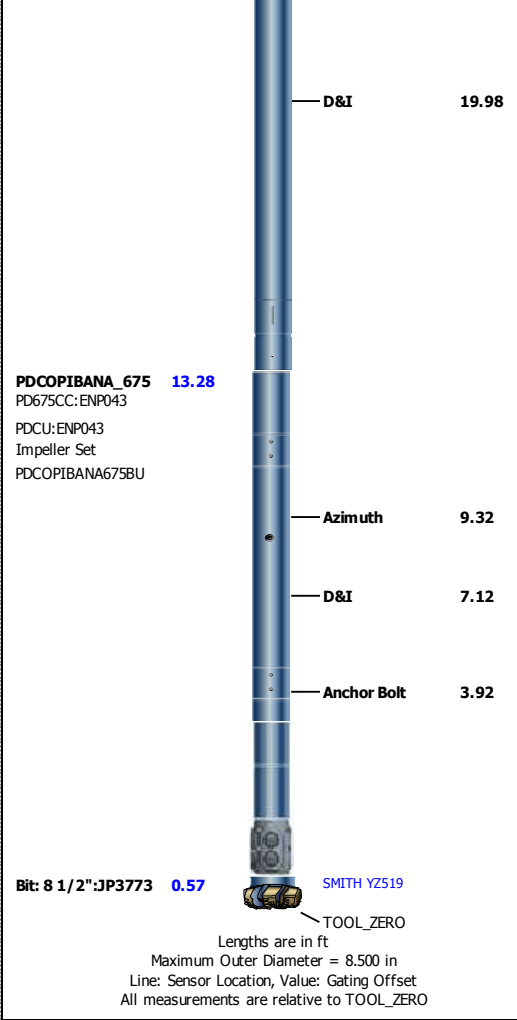
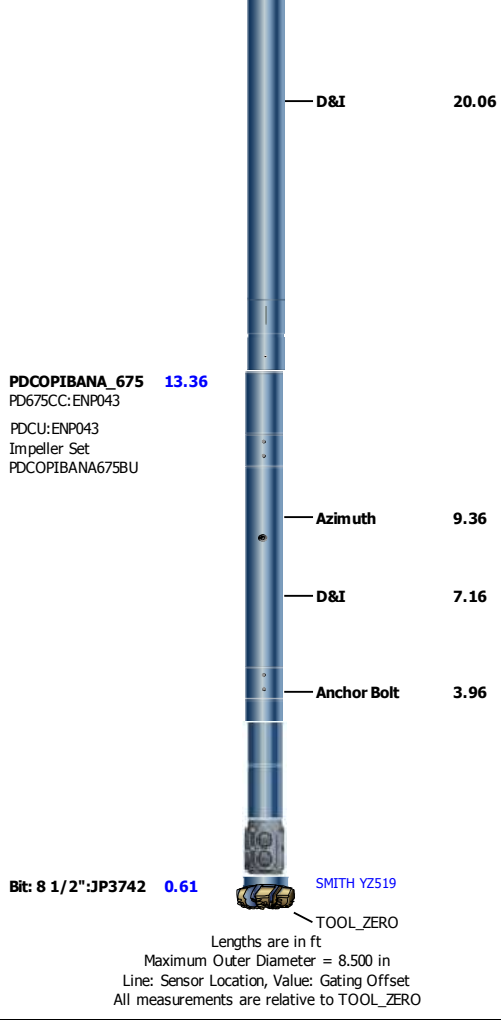
40.86

INT PRES
ANN PRES
TEMP

38.55
38.4
38.4

GR

24.57



Composite 1

Software Version

Acquisition System

Maxwell 2018 SP2

Version

8.2.104493.3100

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run001	Drilling	Down	1592.00 ft	7161.58 ft	01-Oct-2019 12:43:36 AM	02-Oct-2019 6:27:16 AM	No
Run002	Drilling	Down	7153.83 ft	17404.92 ft	02-Oct-2019 8:35:33 AM	04-Oct-2019 8:32:08 PM	No

All depths are referenced to toolstring zero

Log

Company:Great Western Operating Company LLC

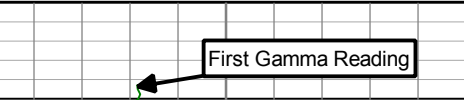
Well:Schneider HD 11-219HNX

Composite 1:S184

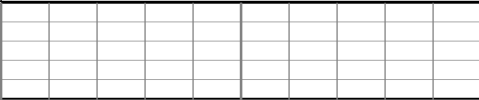
Description: Extreme Gamma Ray 1 RT Format: Log (Extreme Gamma Ray 1 RT_6) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured
Depth Creation Date: 05-Oct-2019 17:02:40

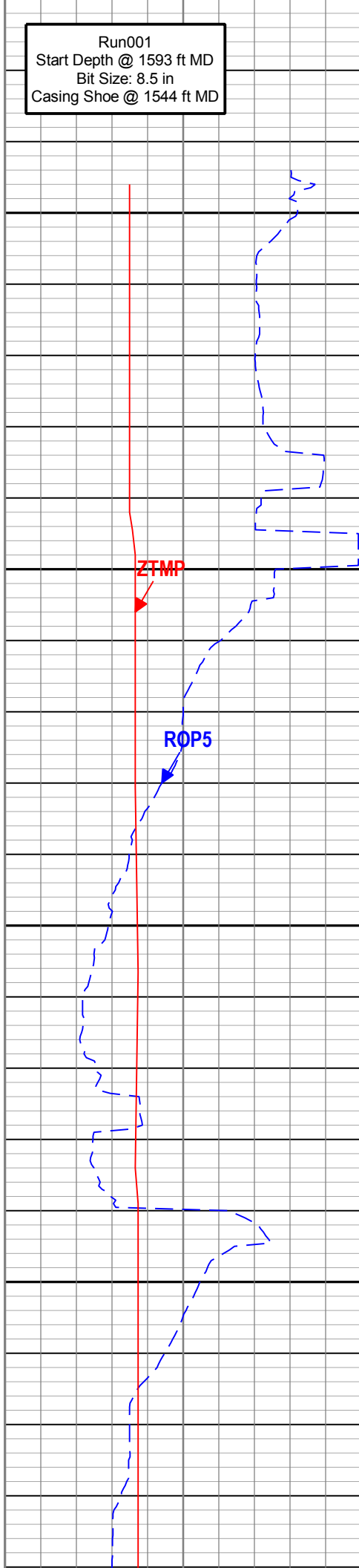
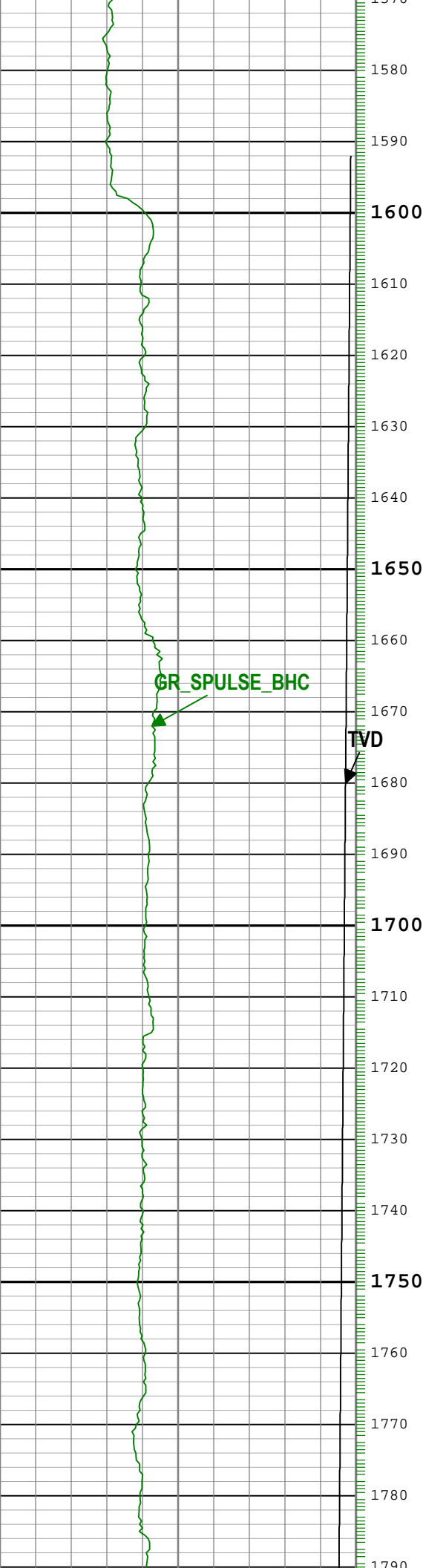
GR_SPULSE_BHC - Gamma Ray Extreme[1] RM

True Vertical Depth (TVD) RT		
7500	ft	1500
Gamma Ray (GR_SPULSE_BHC) Extreme[1] RM		
0	gAPI	300

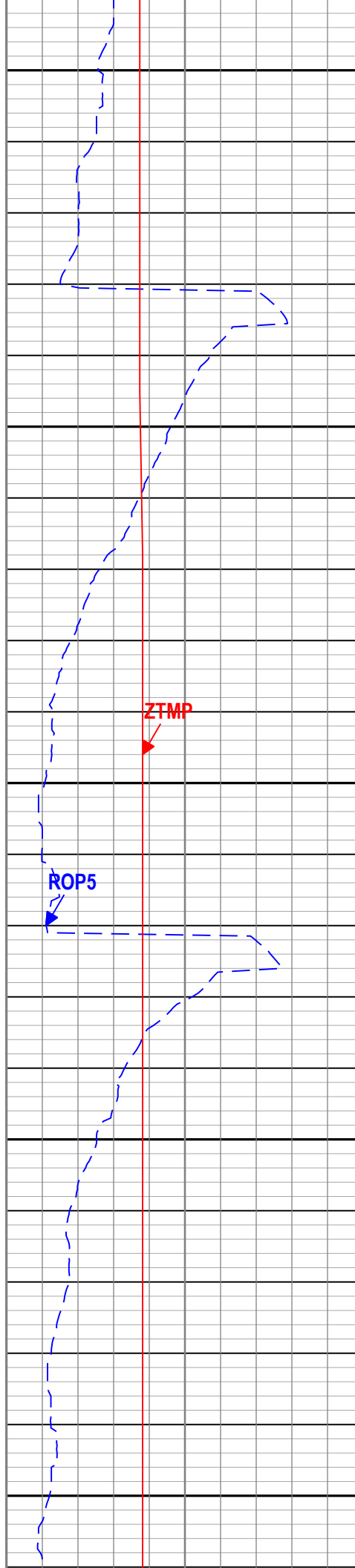
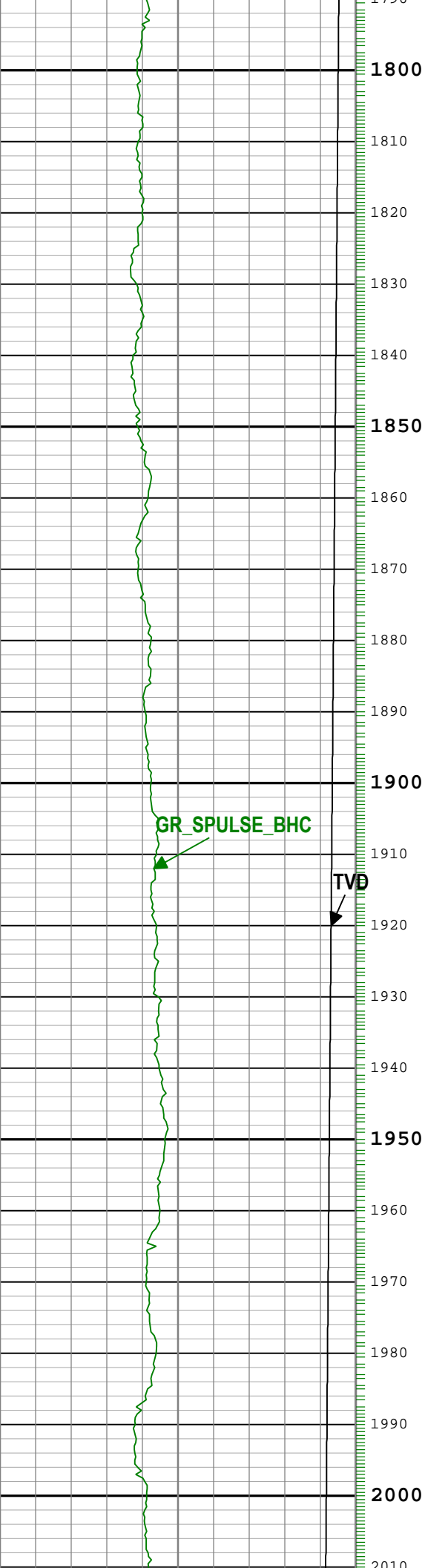


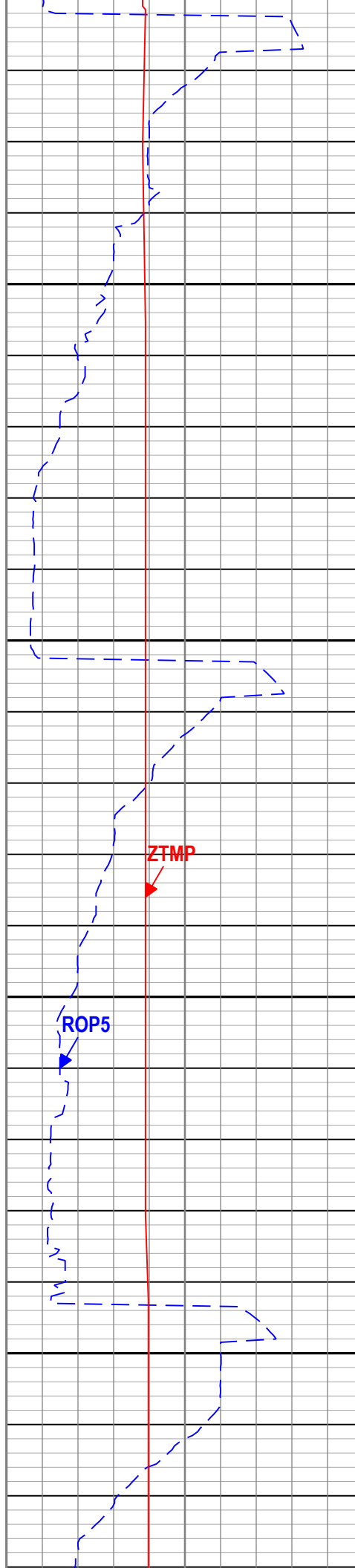
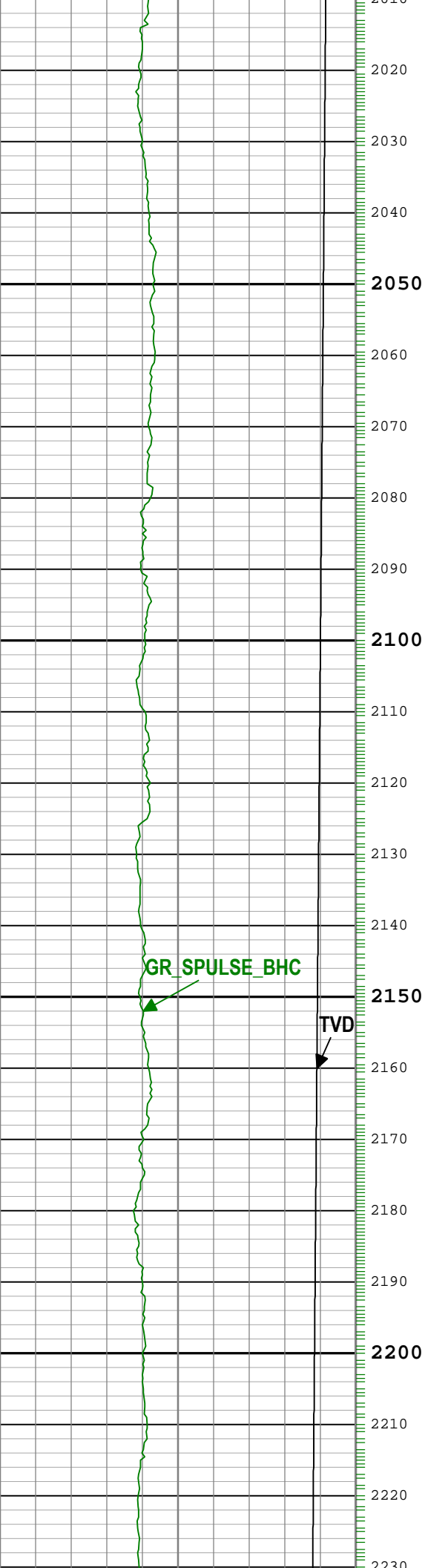
Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT		
1000	ft/h	0
Cartridge Temperature (ZTMP) Extreme[1] RT		
0	degF	300

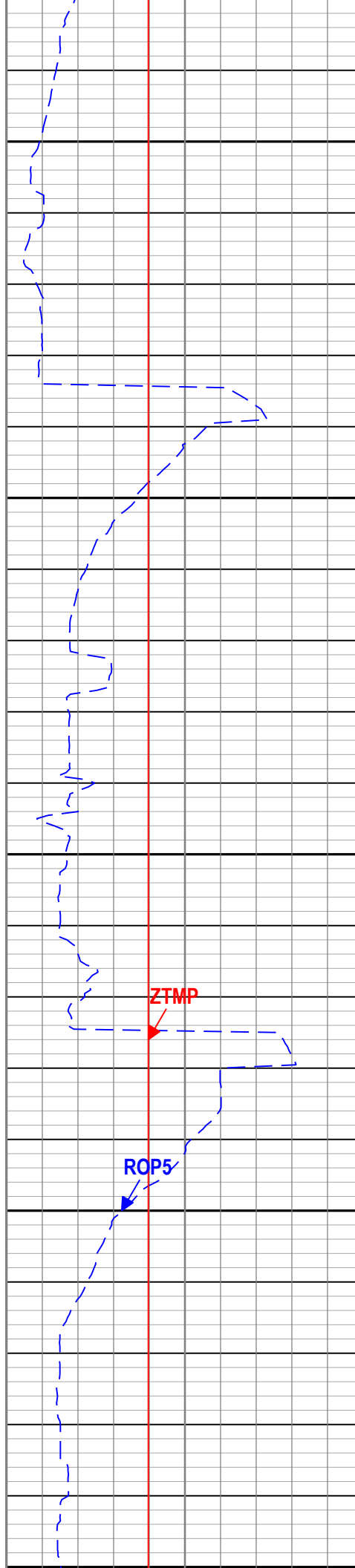
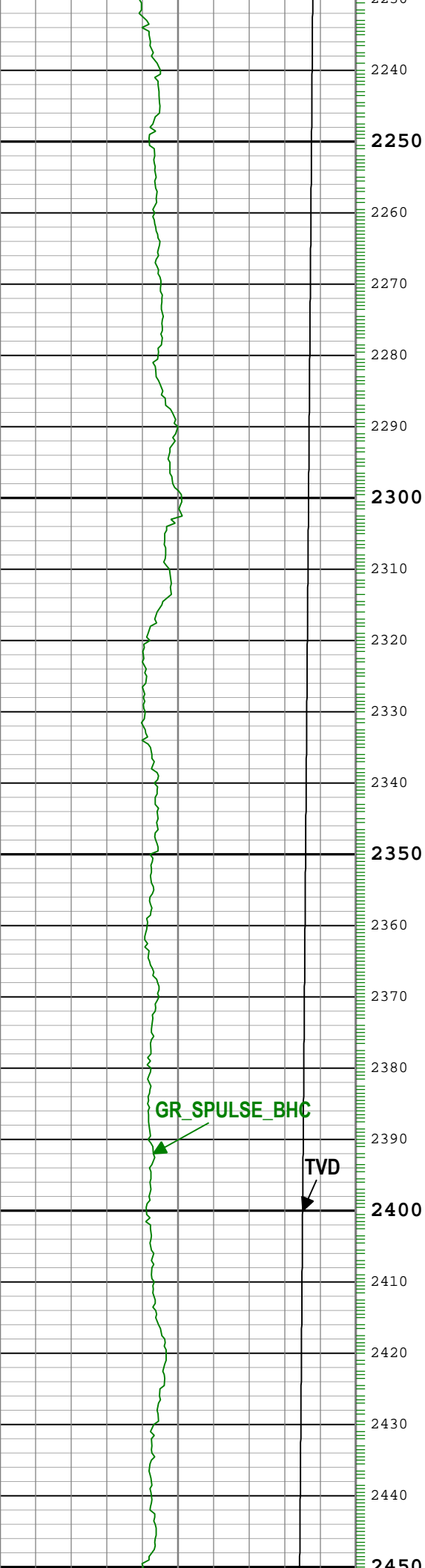


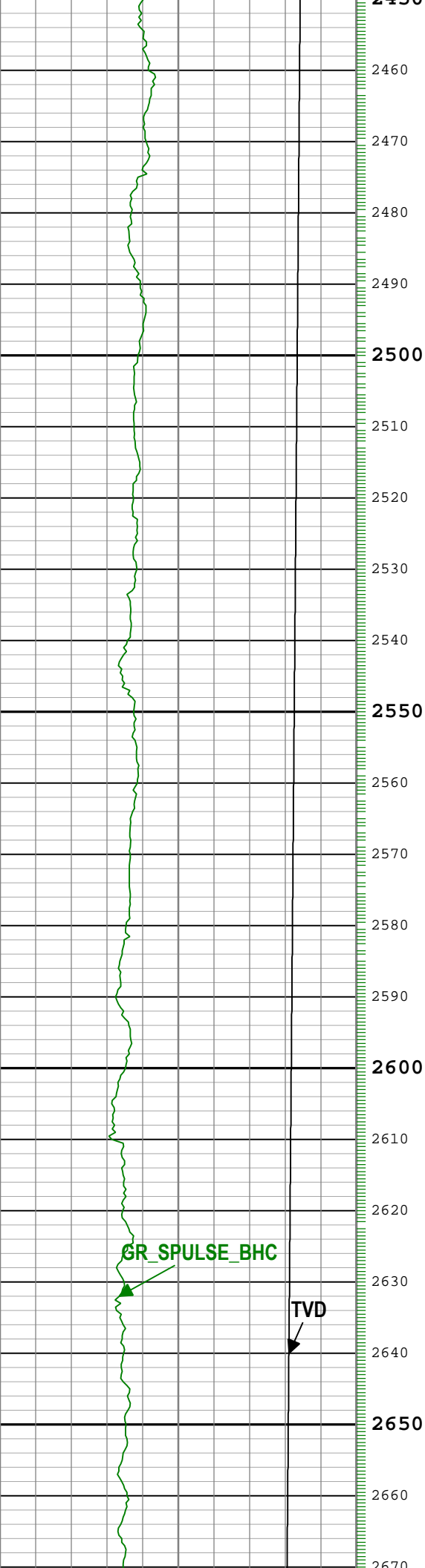


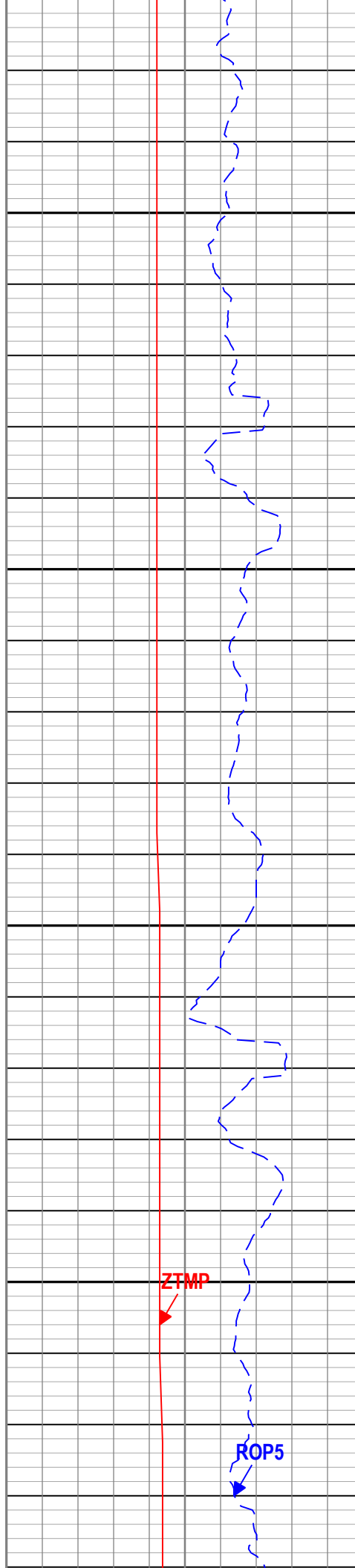
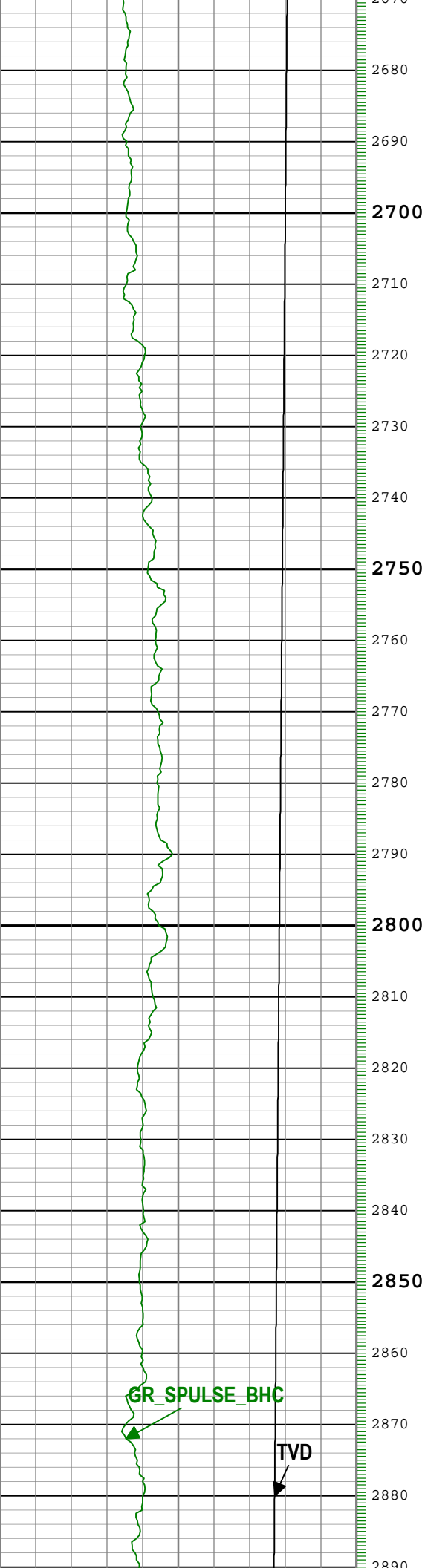
Run001
Start Depth @ 1593 ft MD
Bit Size: 8.5 in
Casing Shoe @ 1544 ft MD

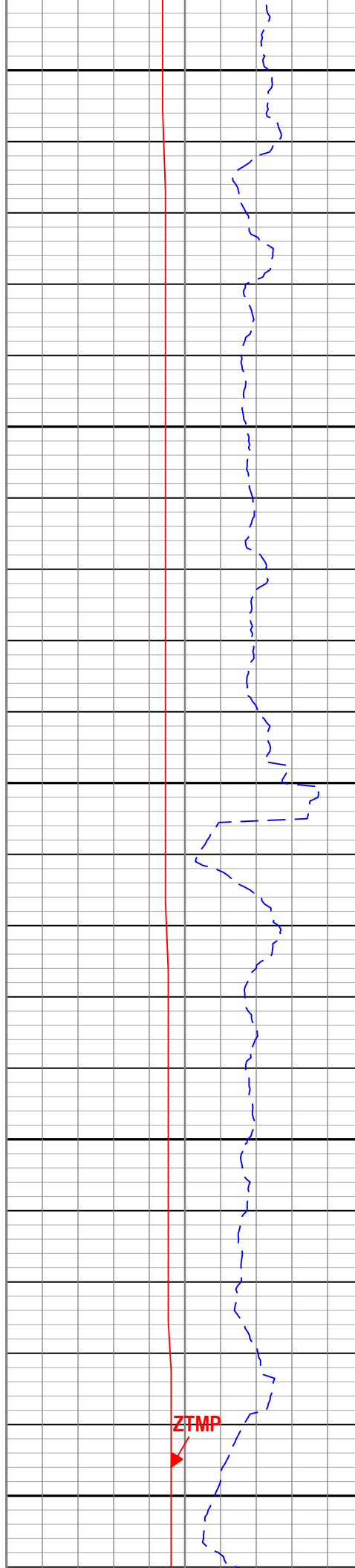
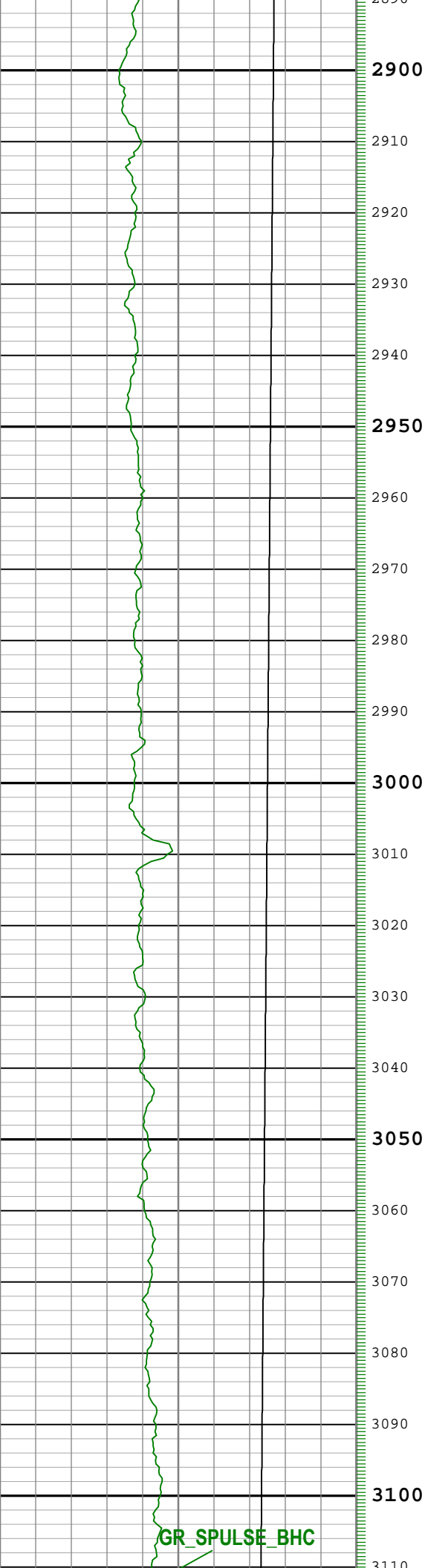


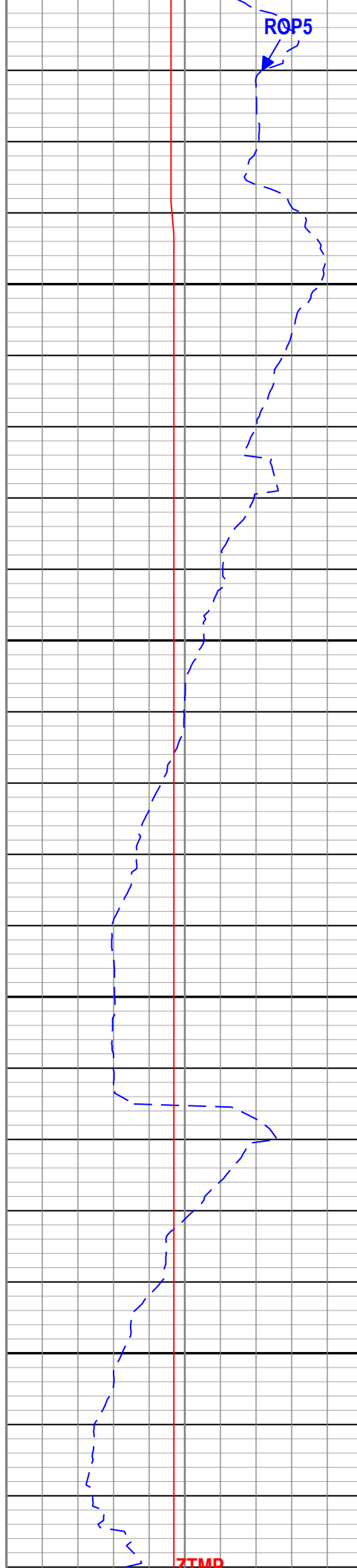
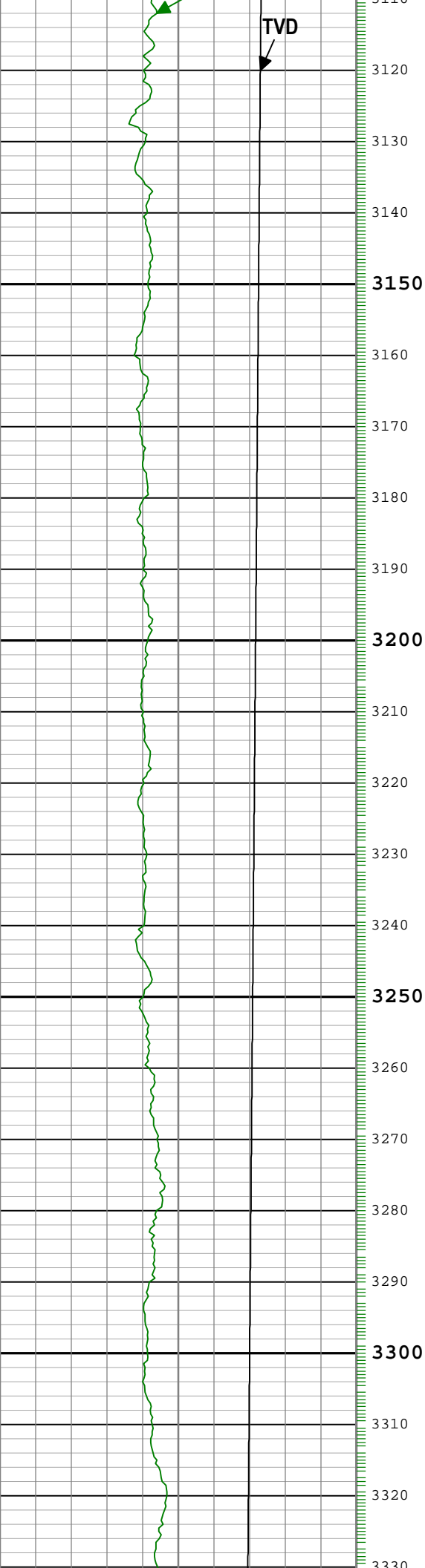


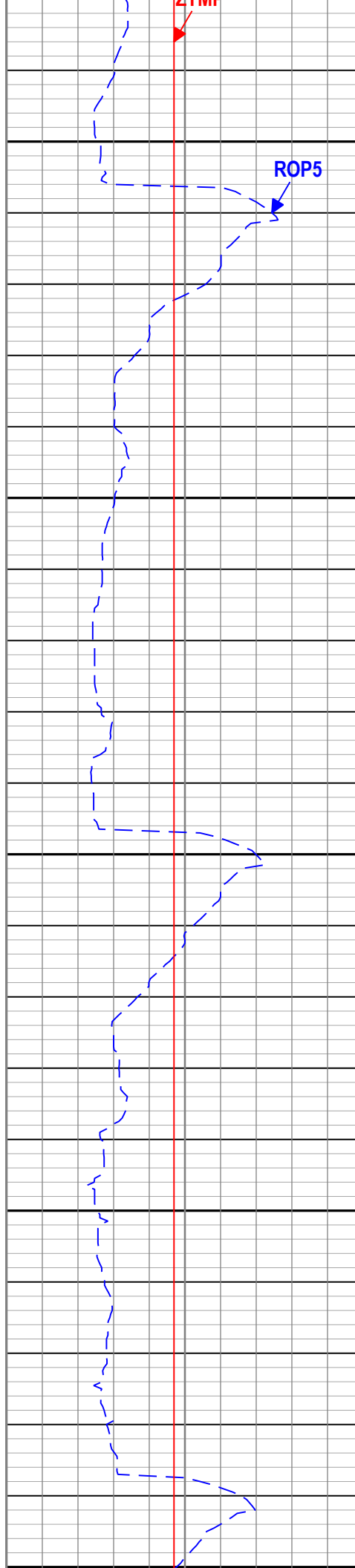
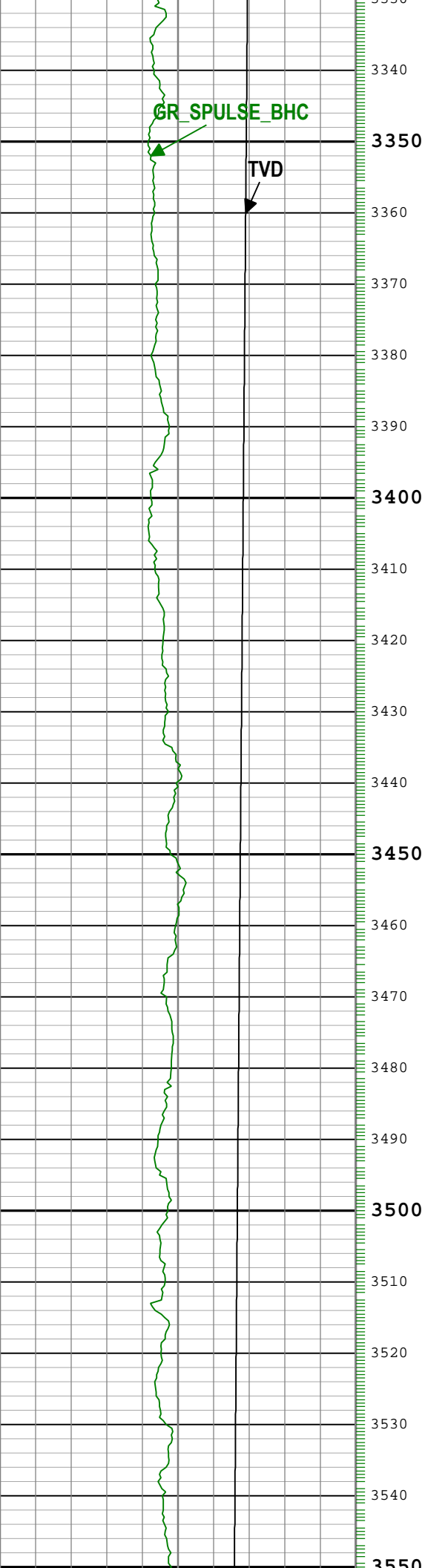


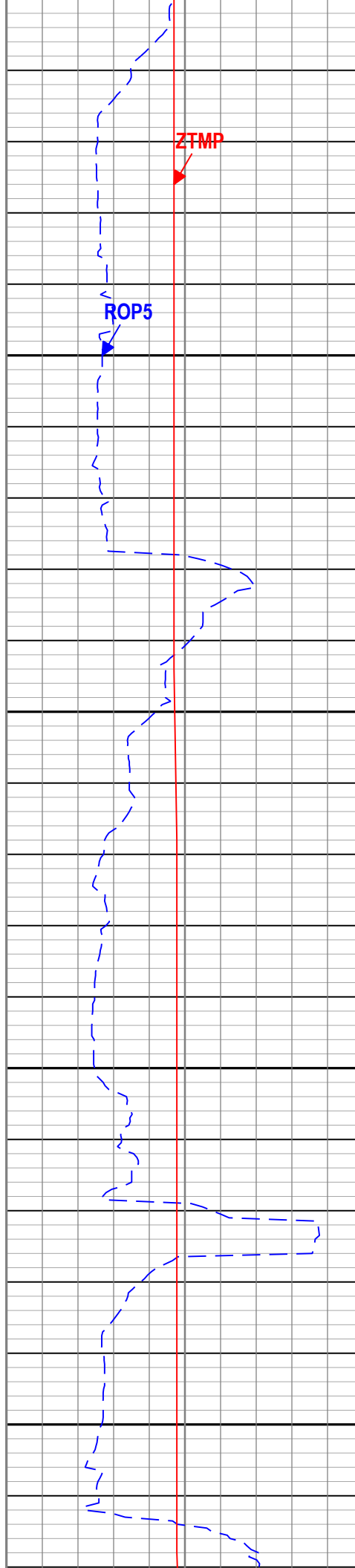
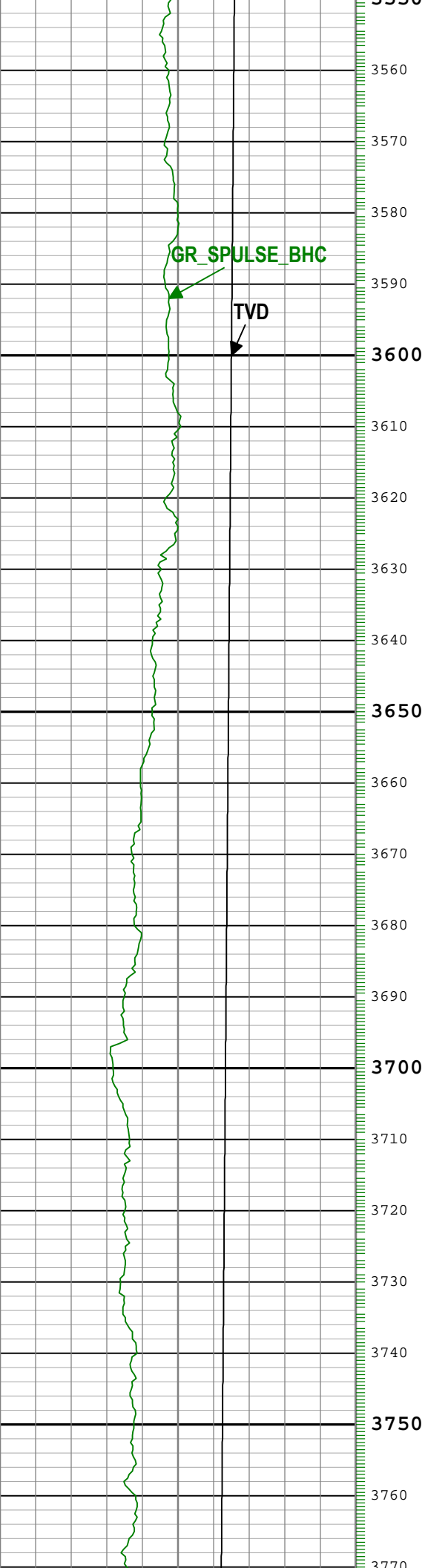


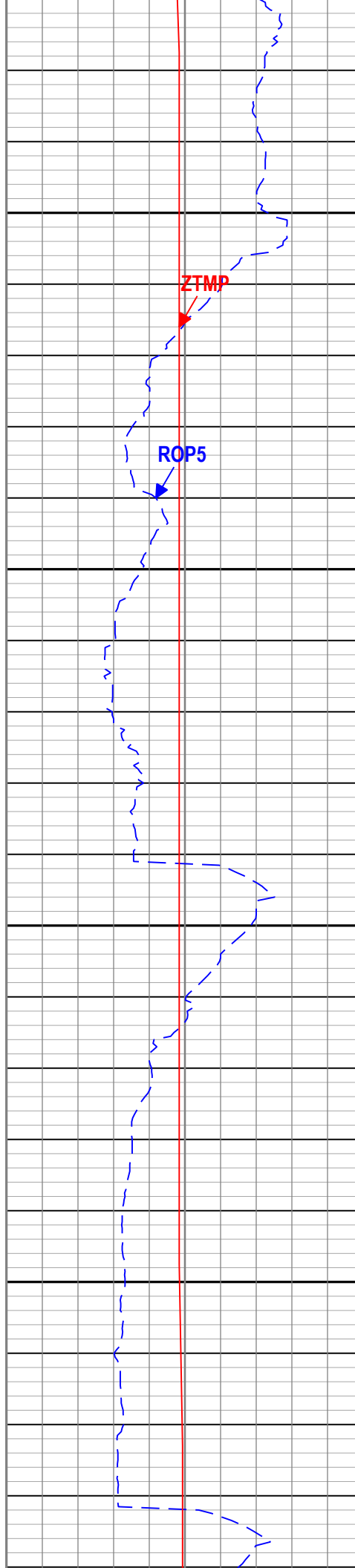
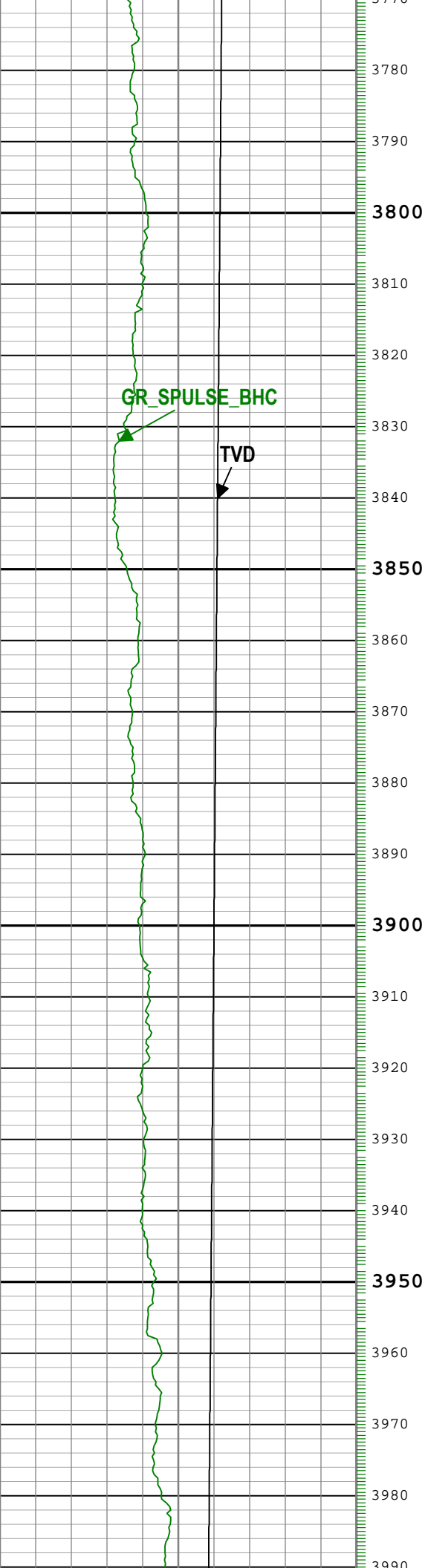


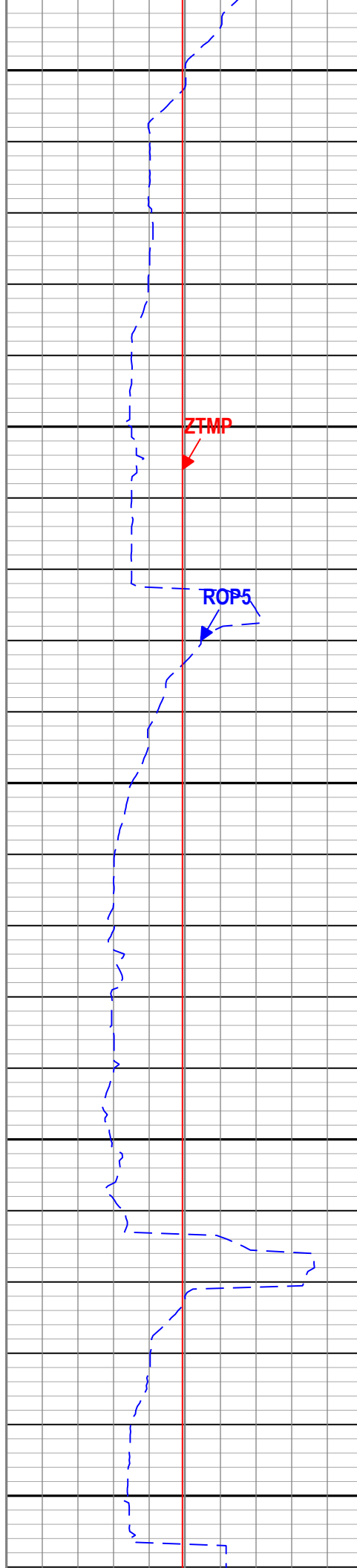
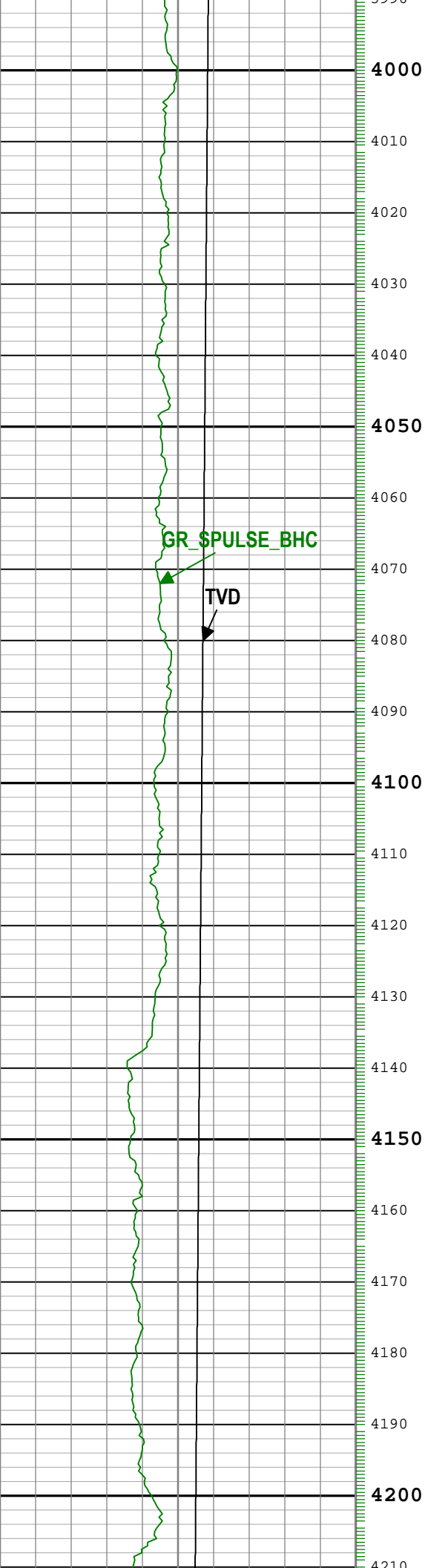


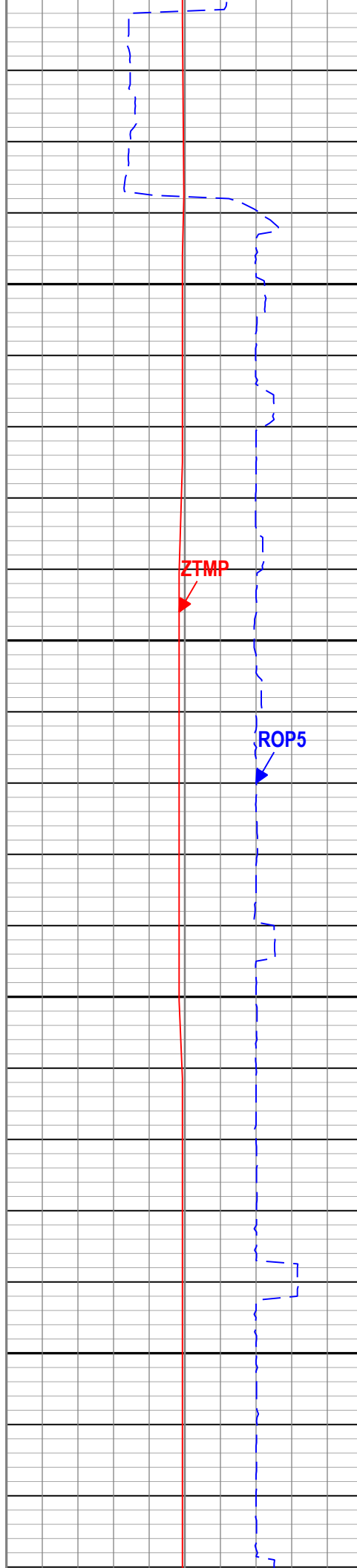
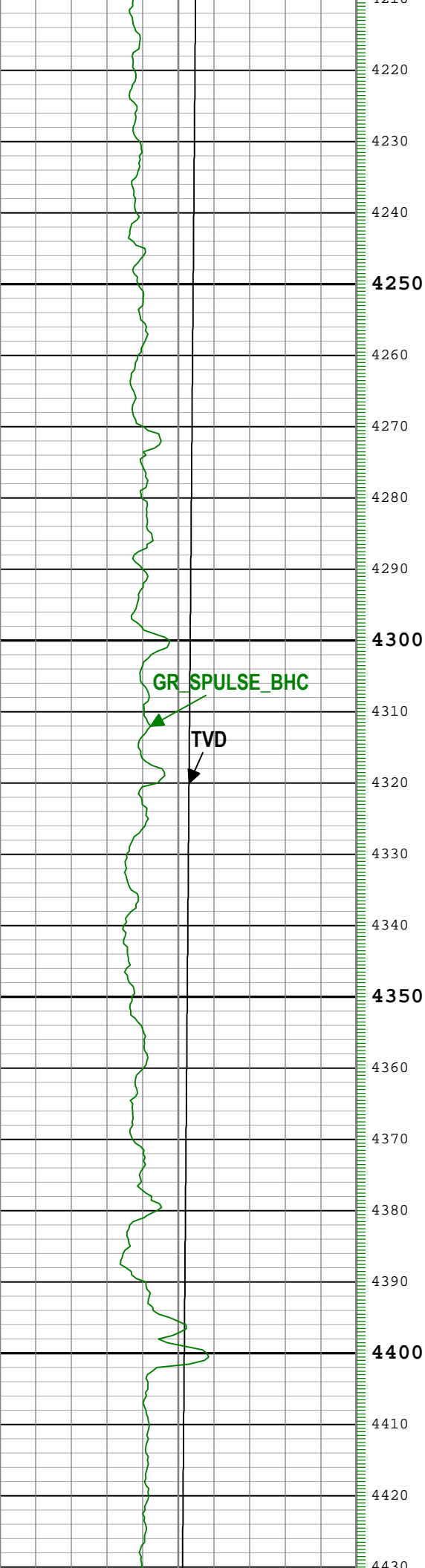


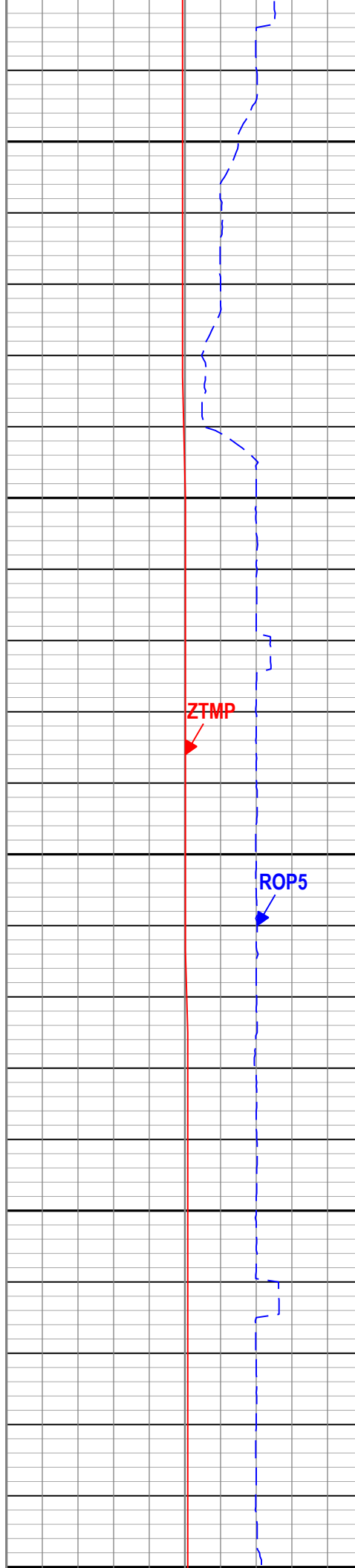
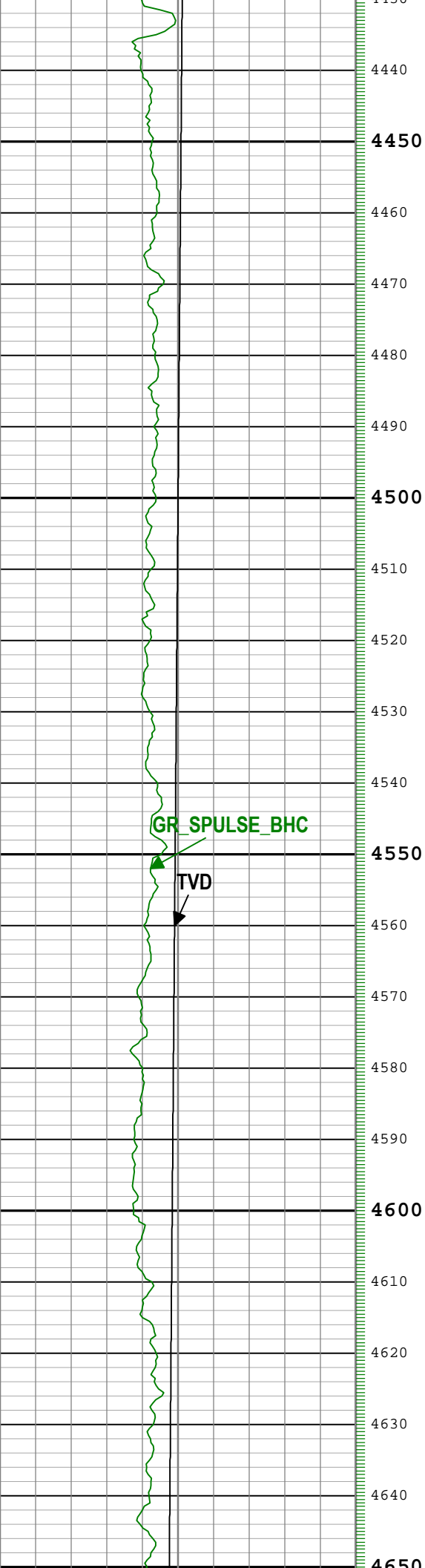


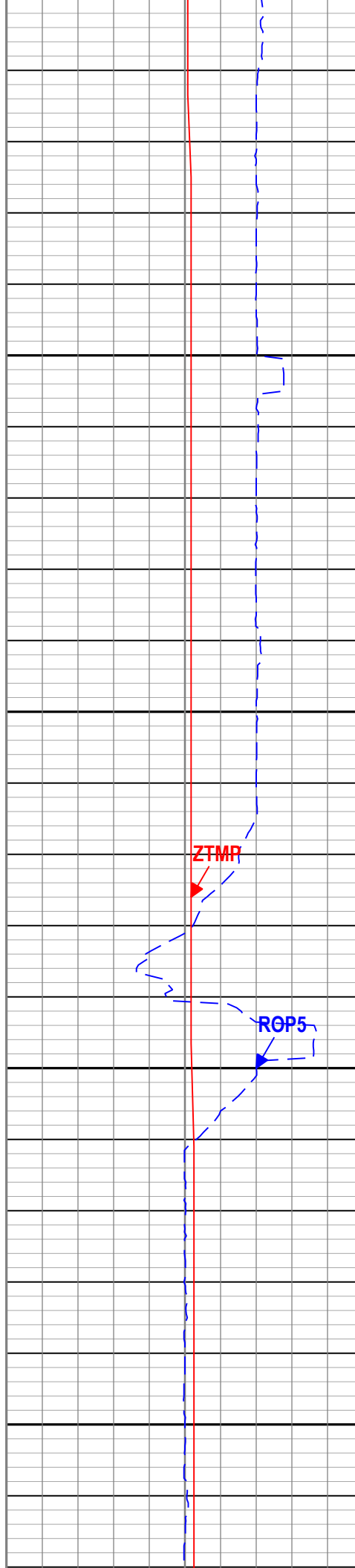
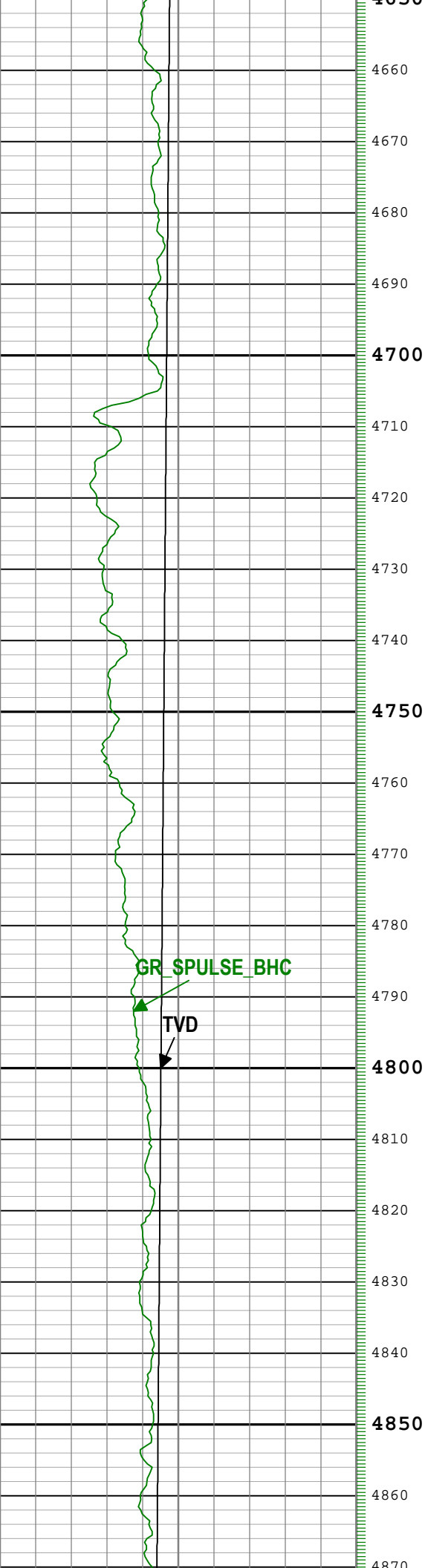


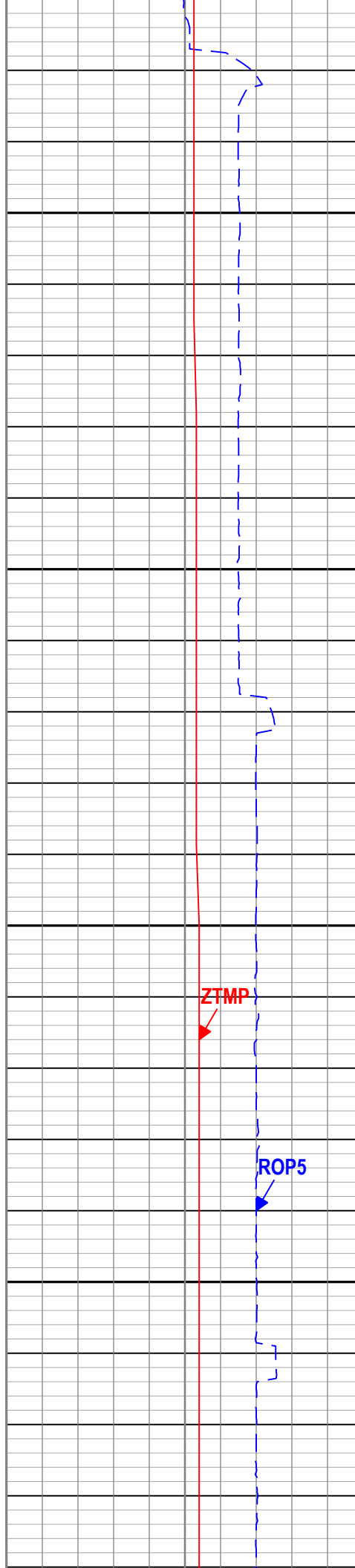
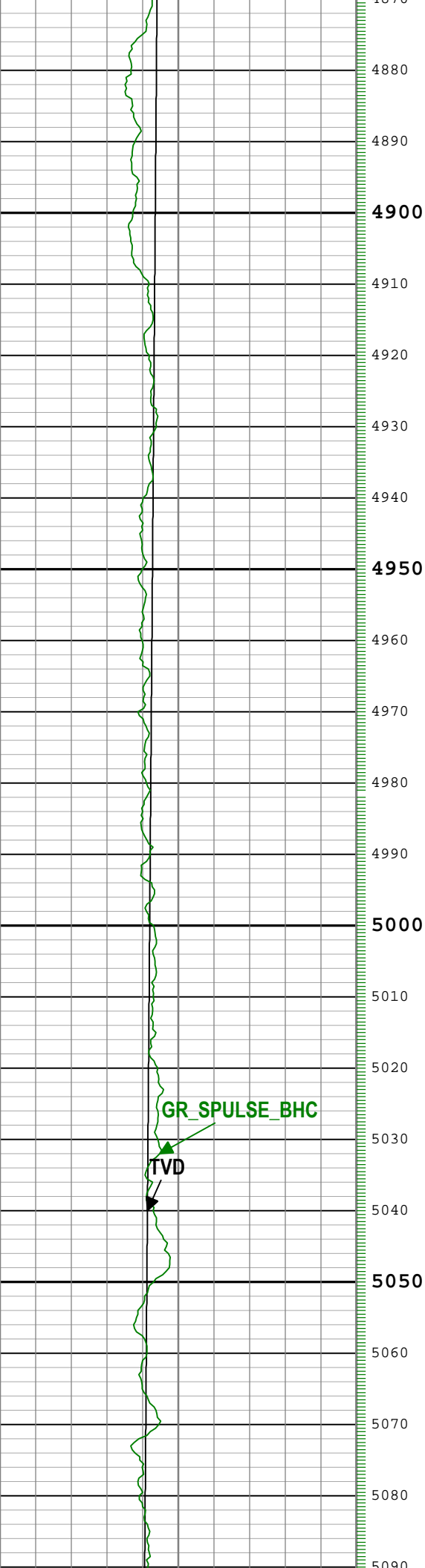


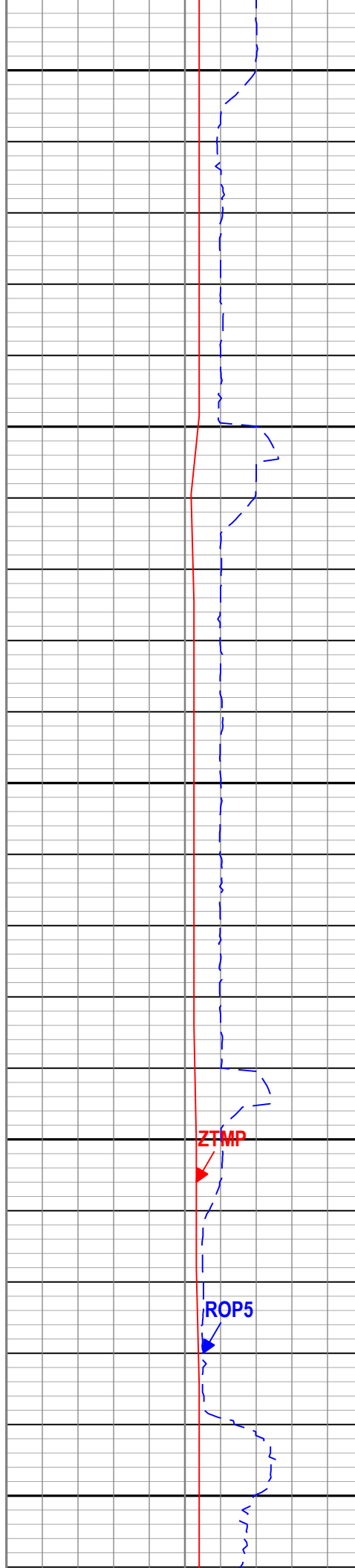
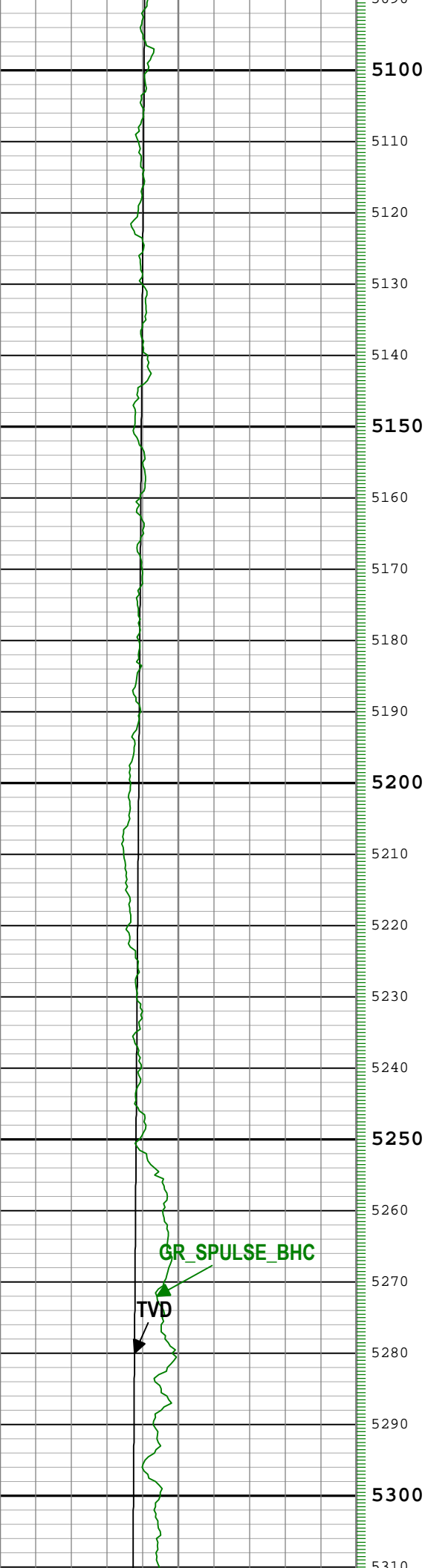


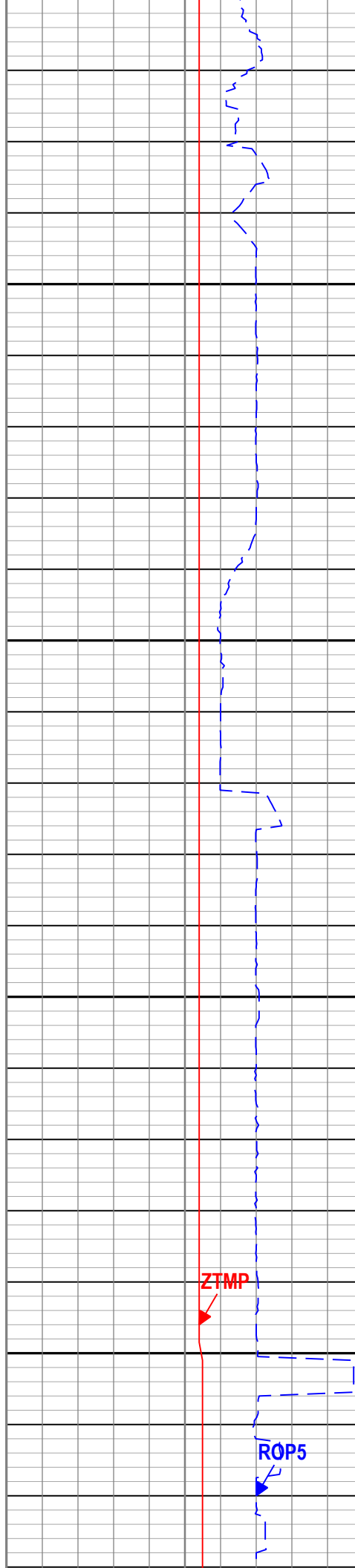
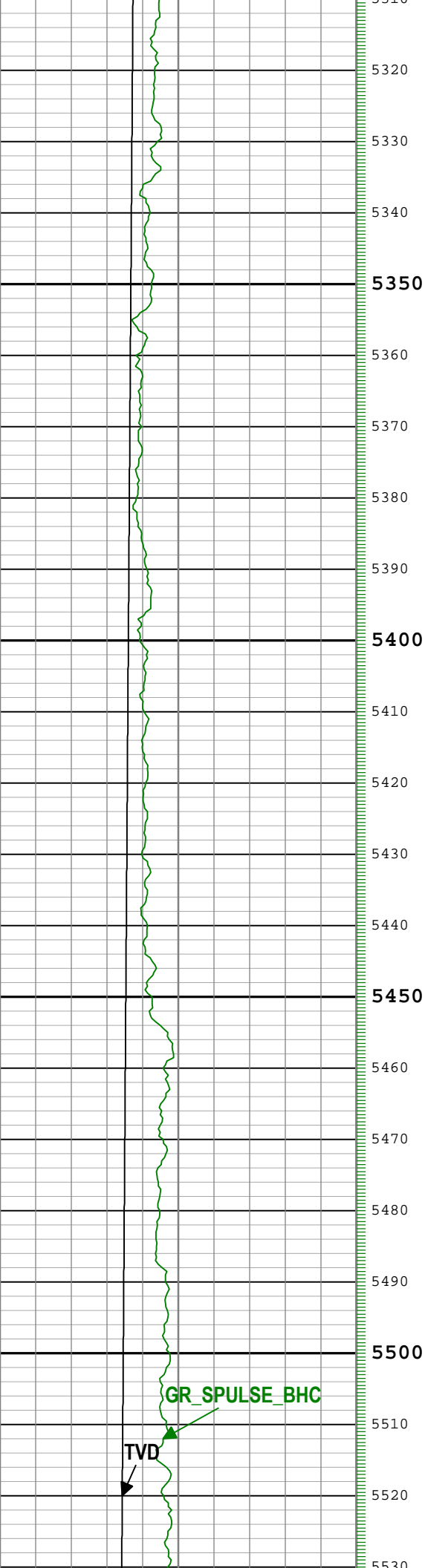


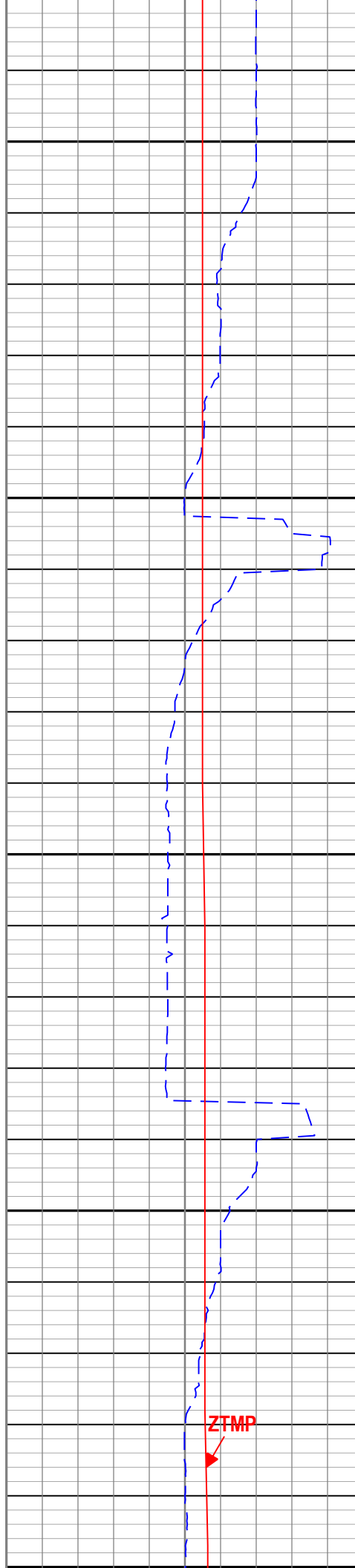
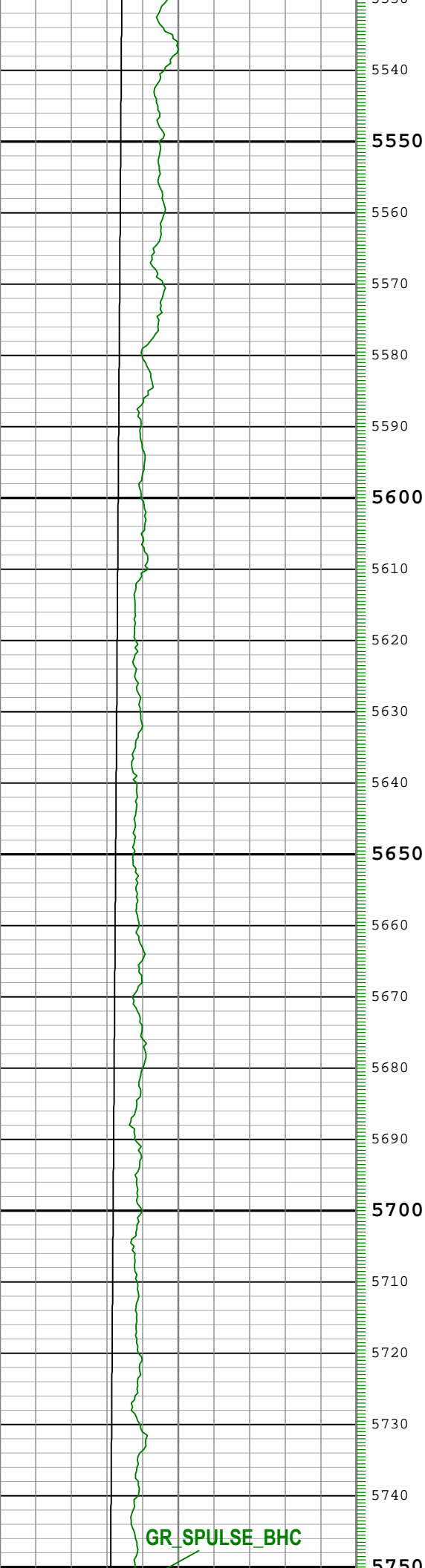


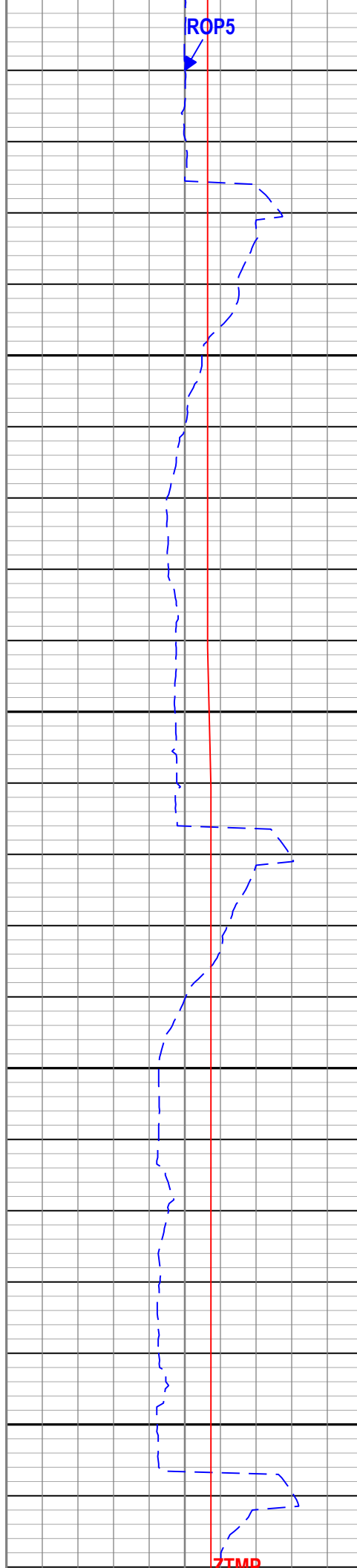
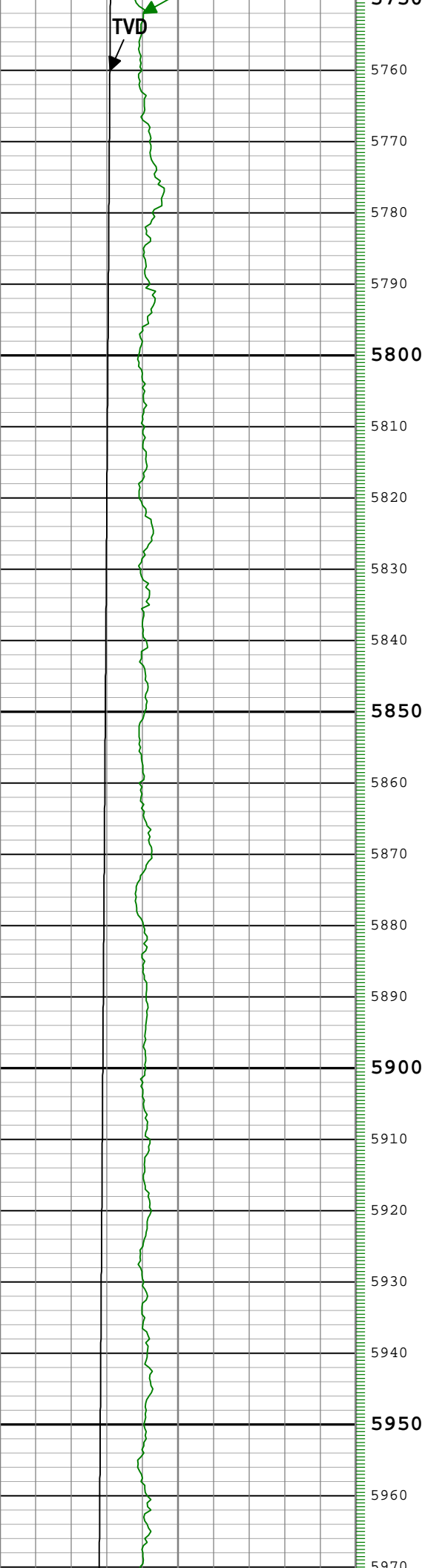


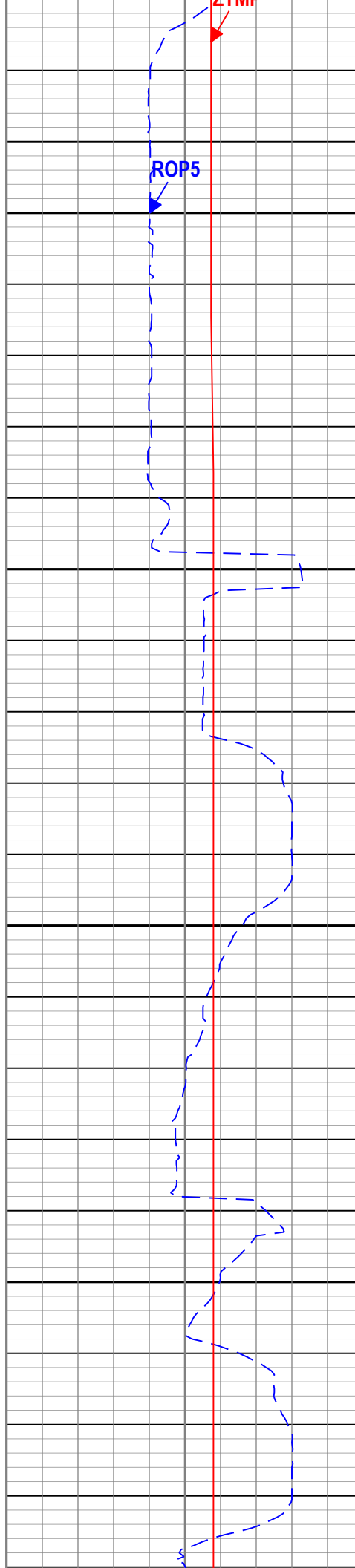
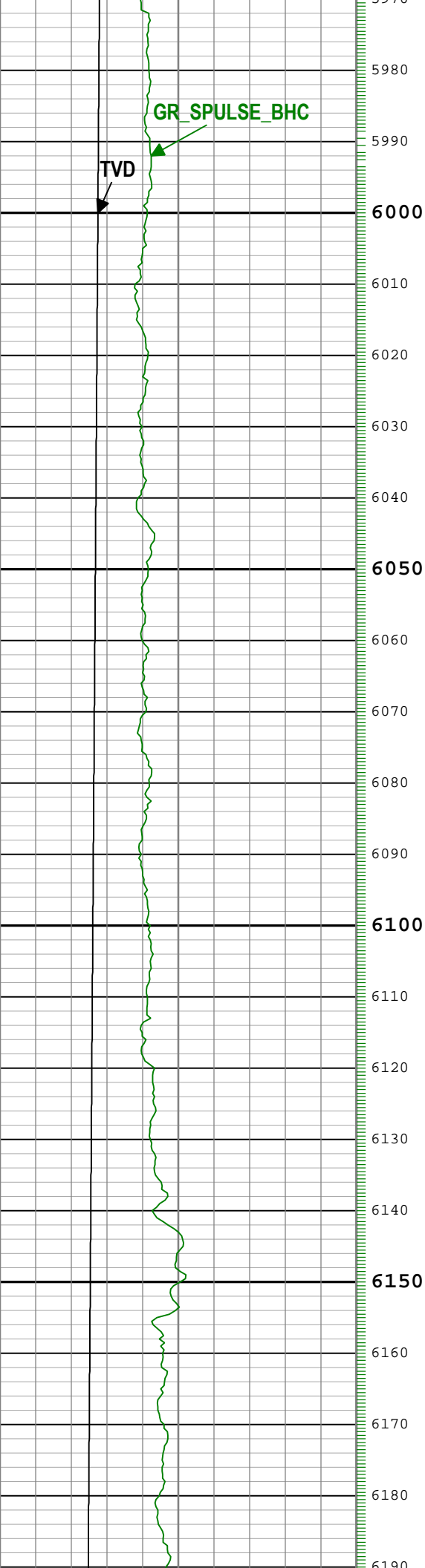


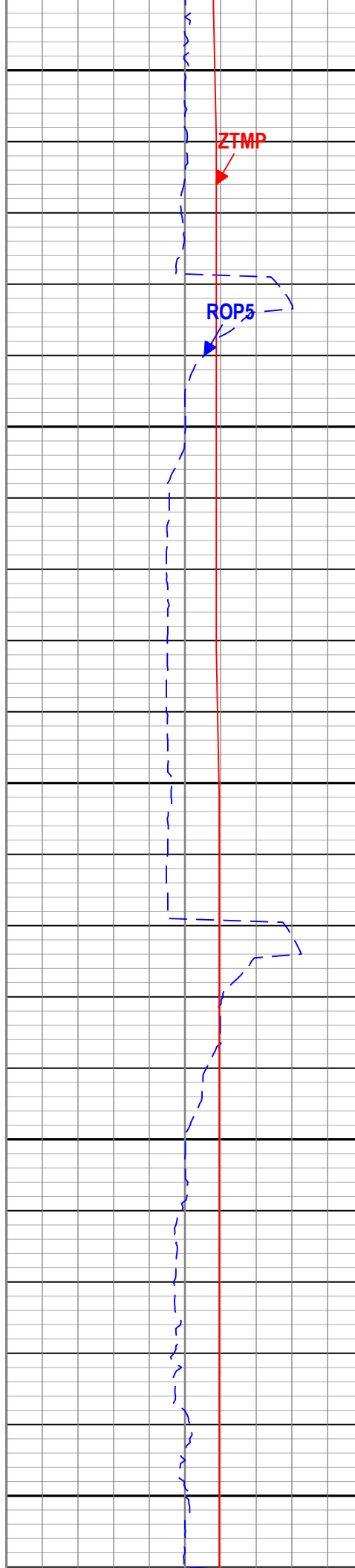
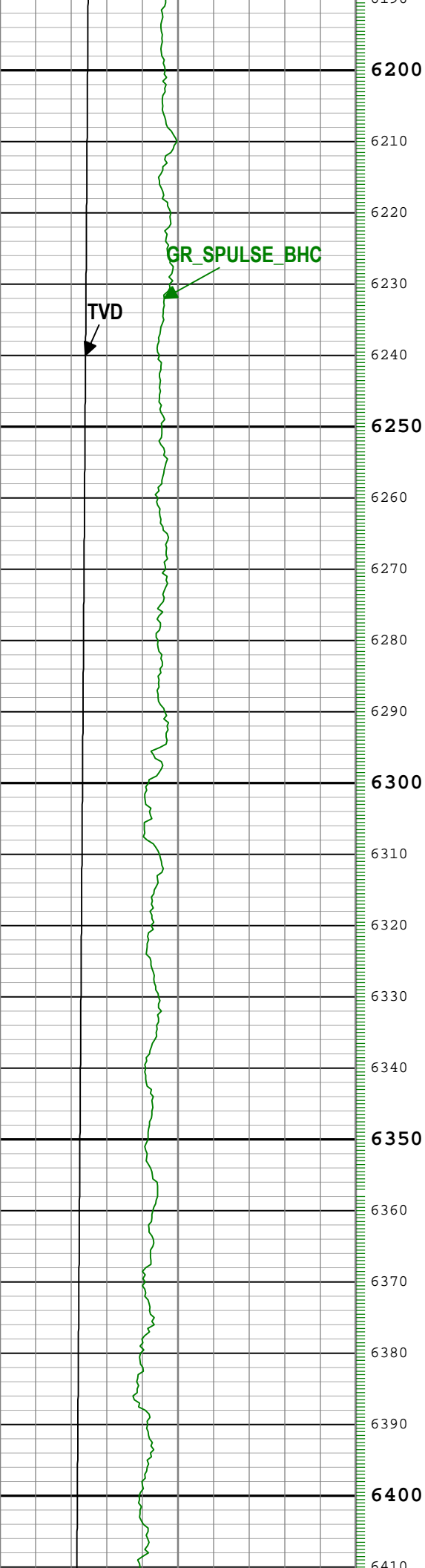


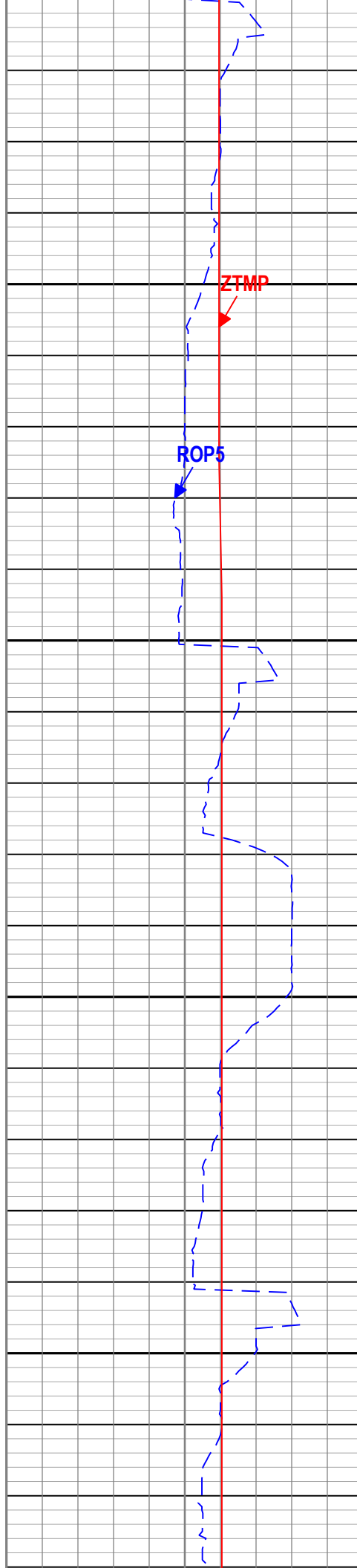
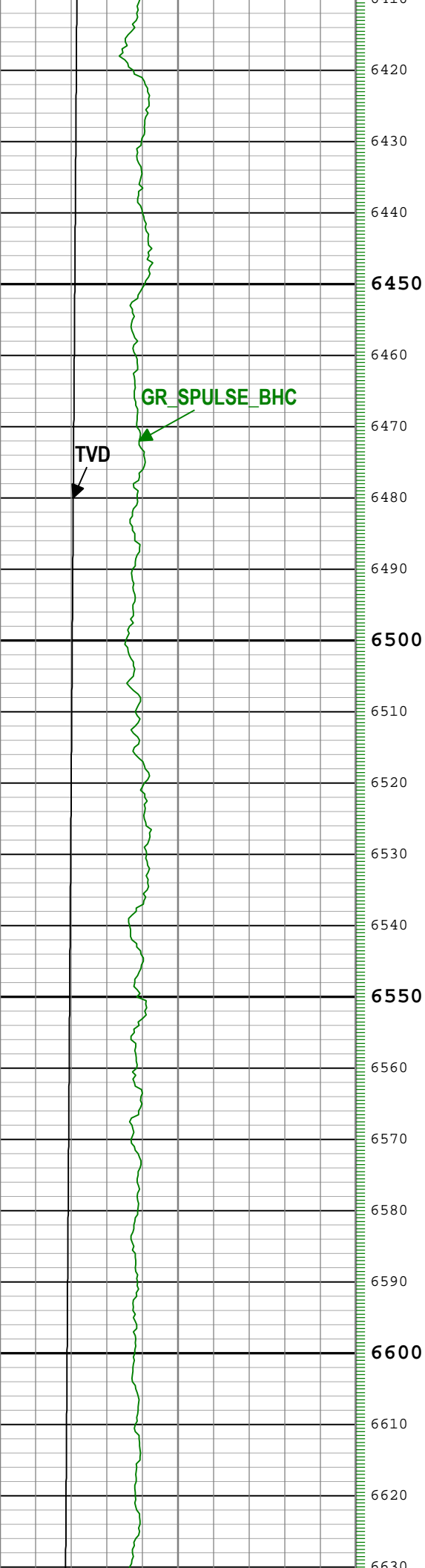


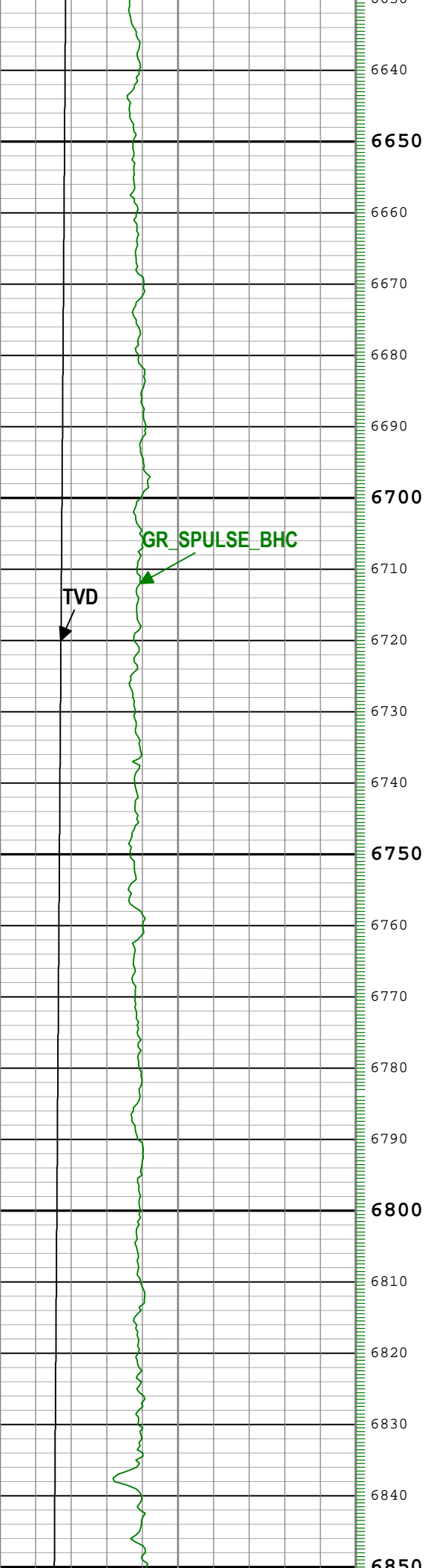


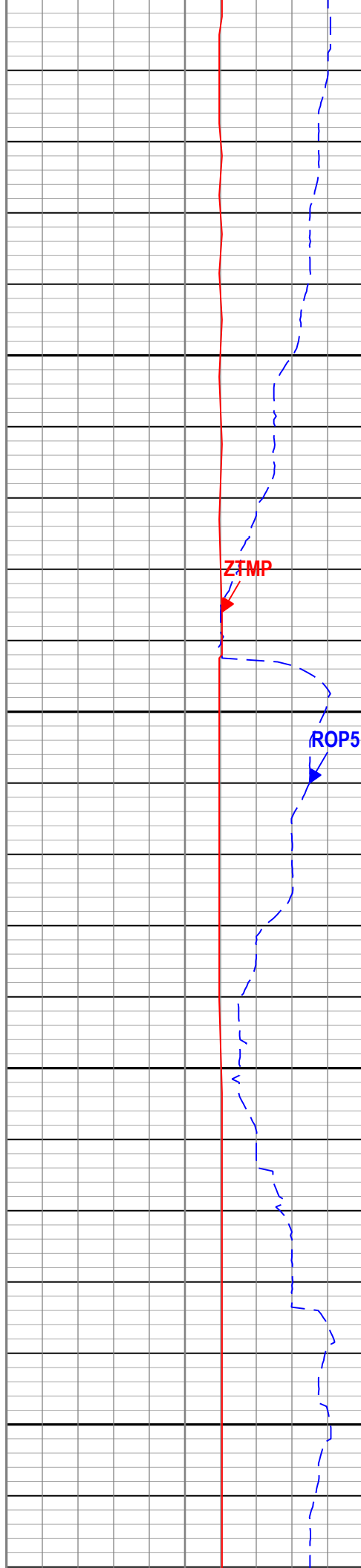
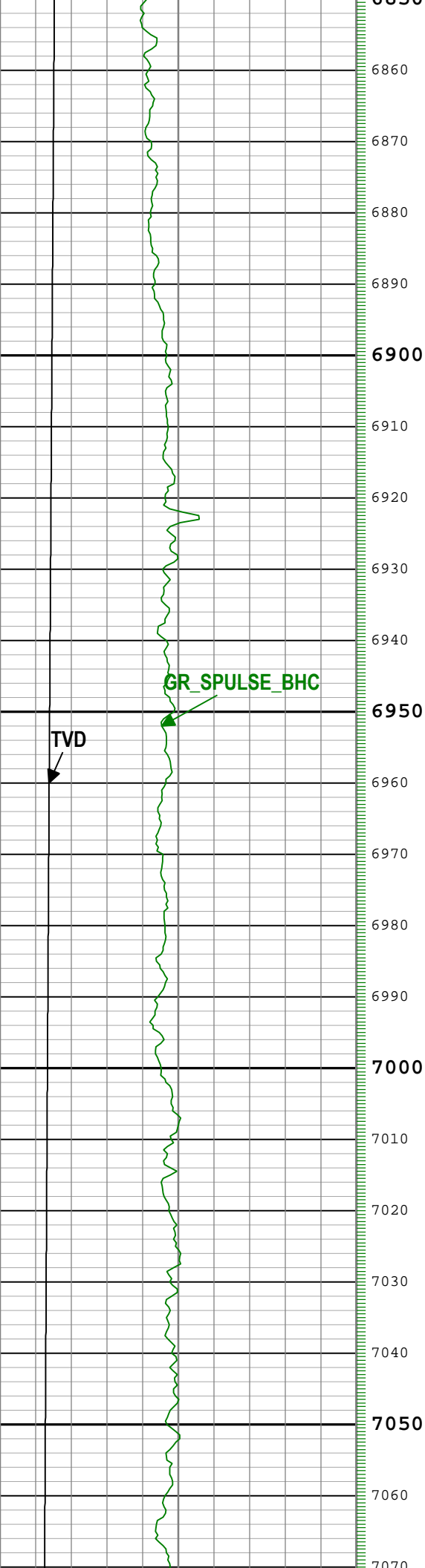


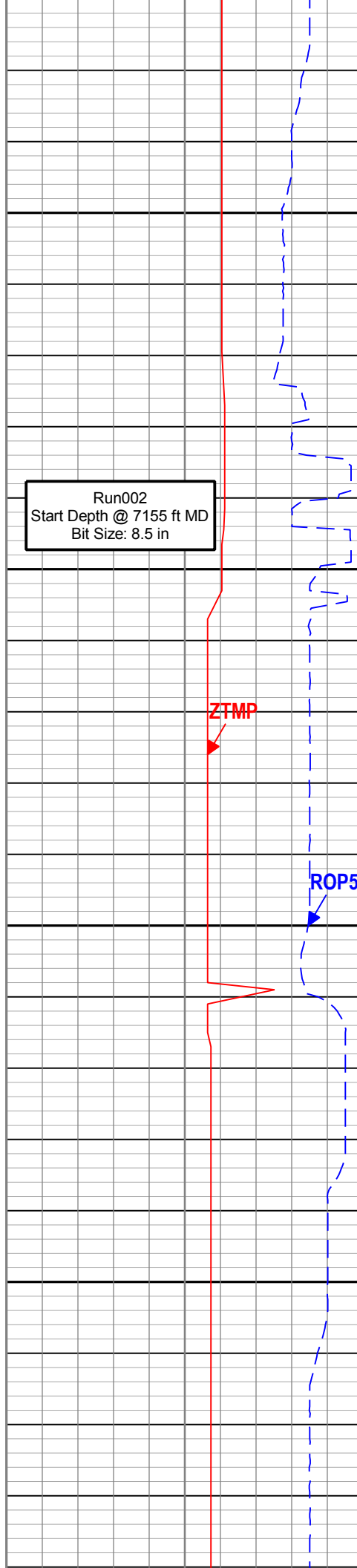
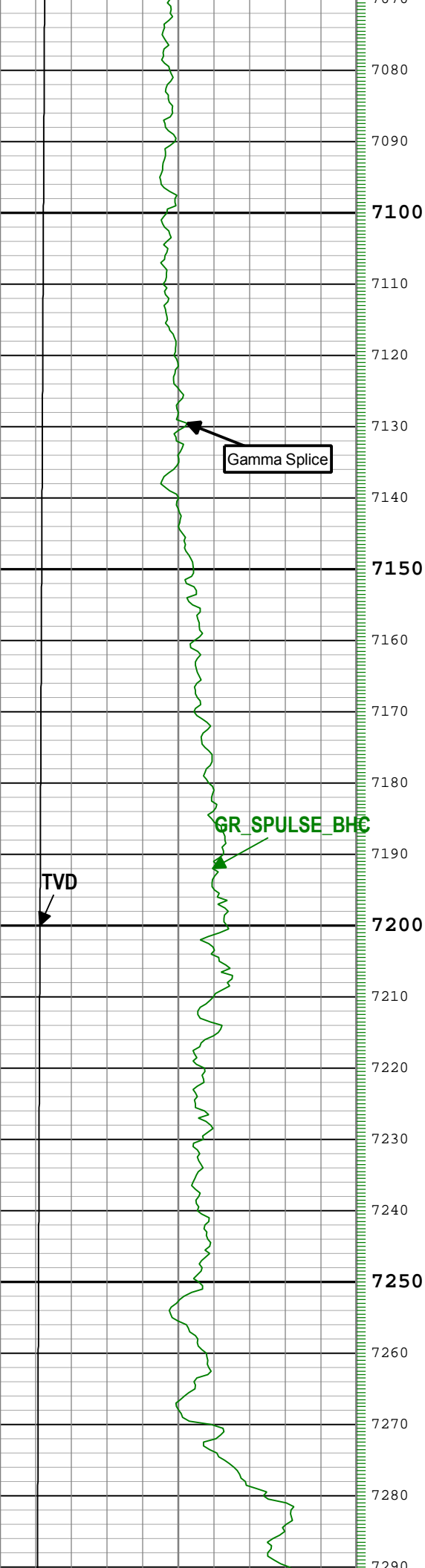


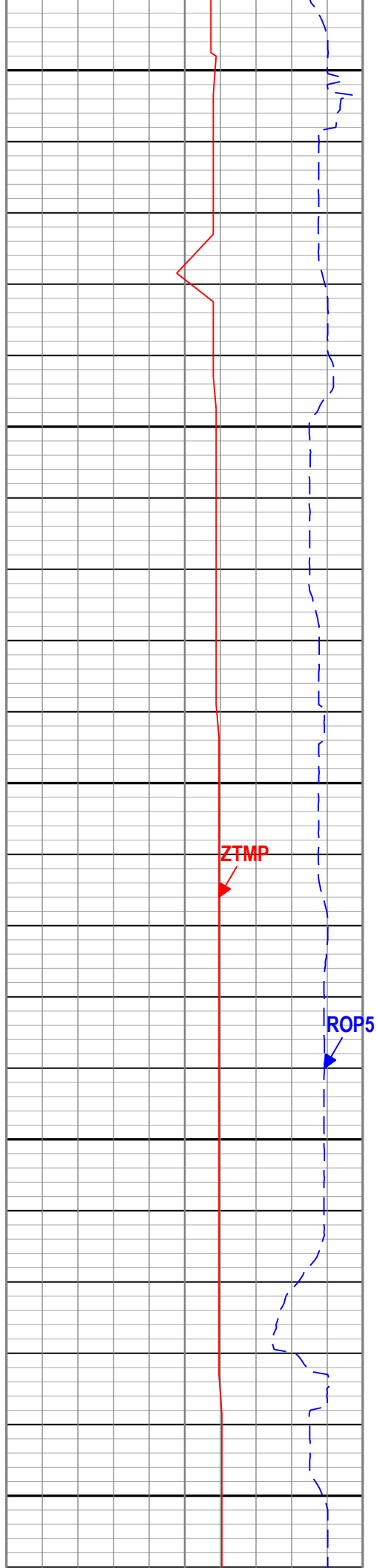
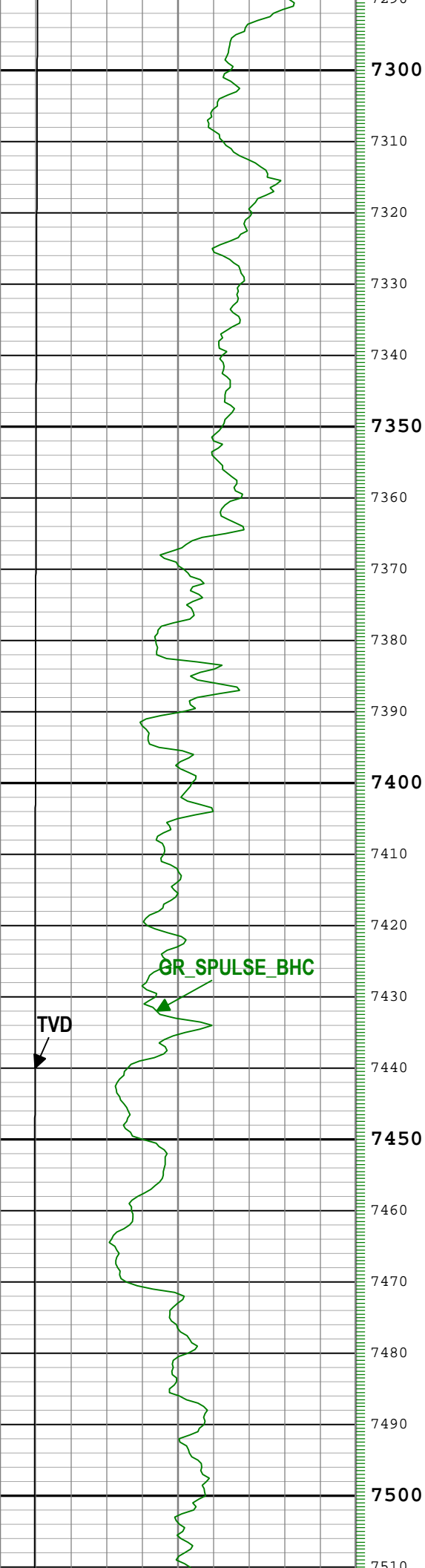


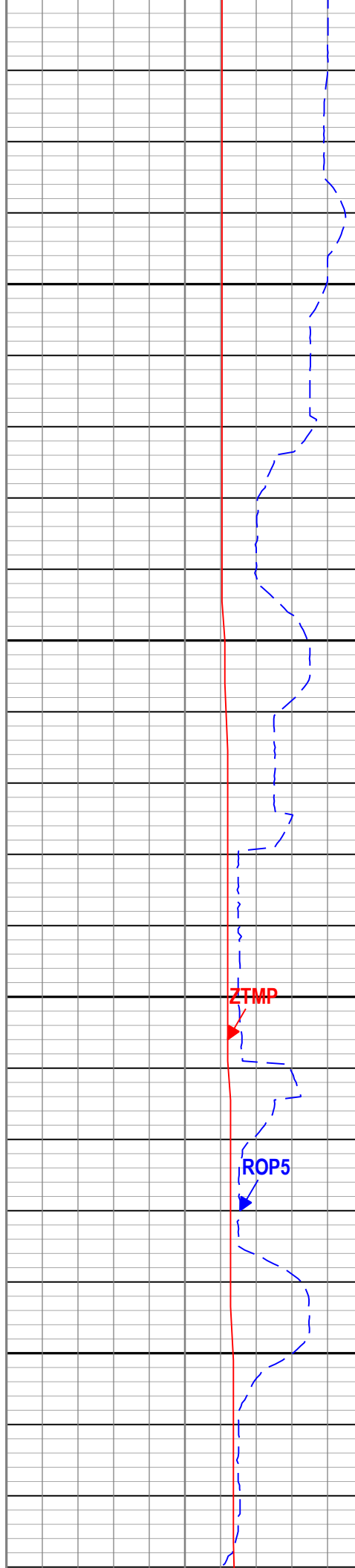
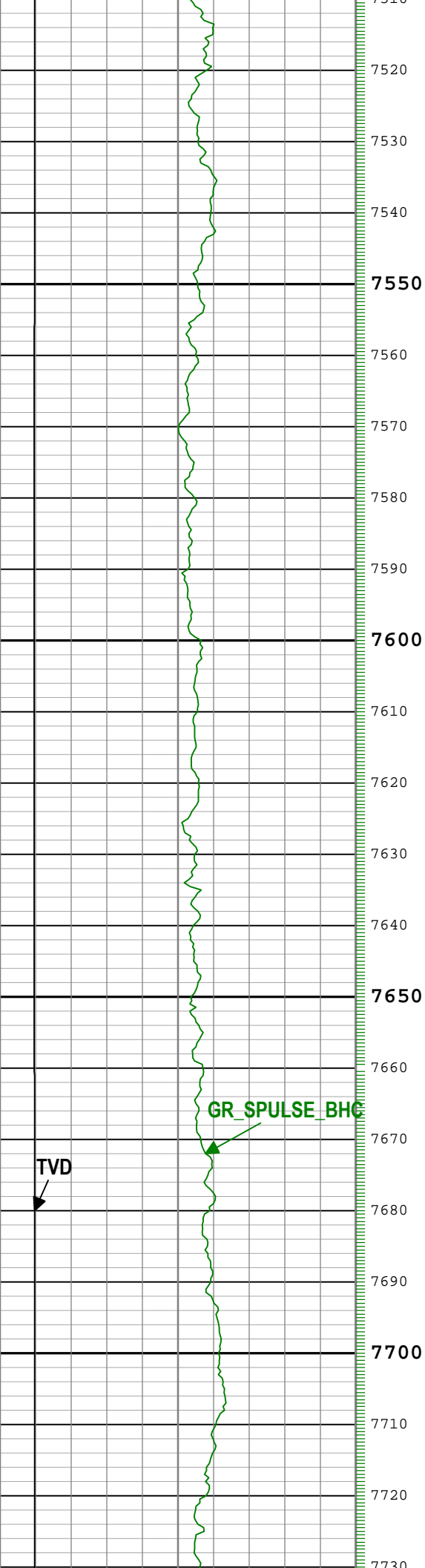


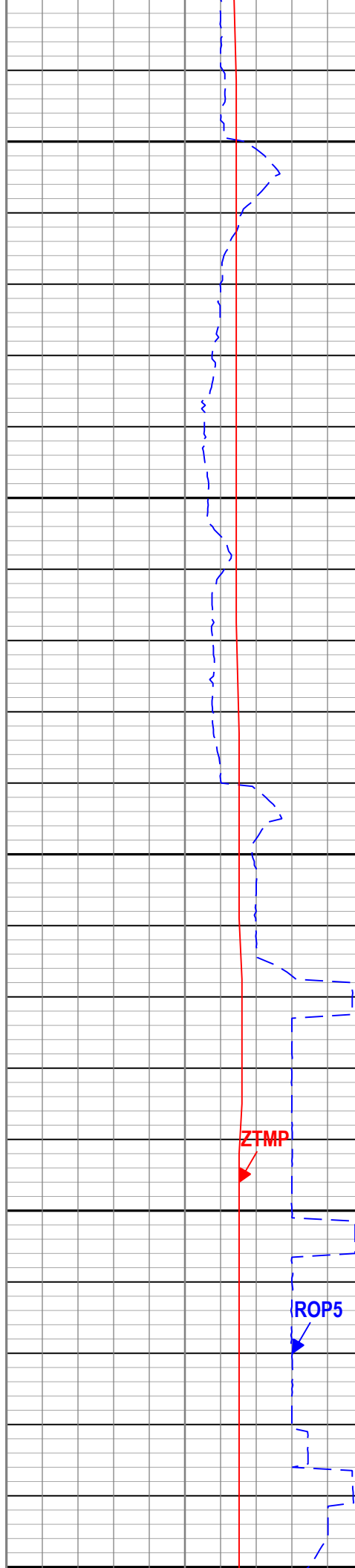
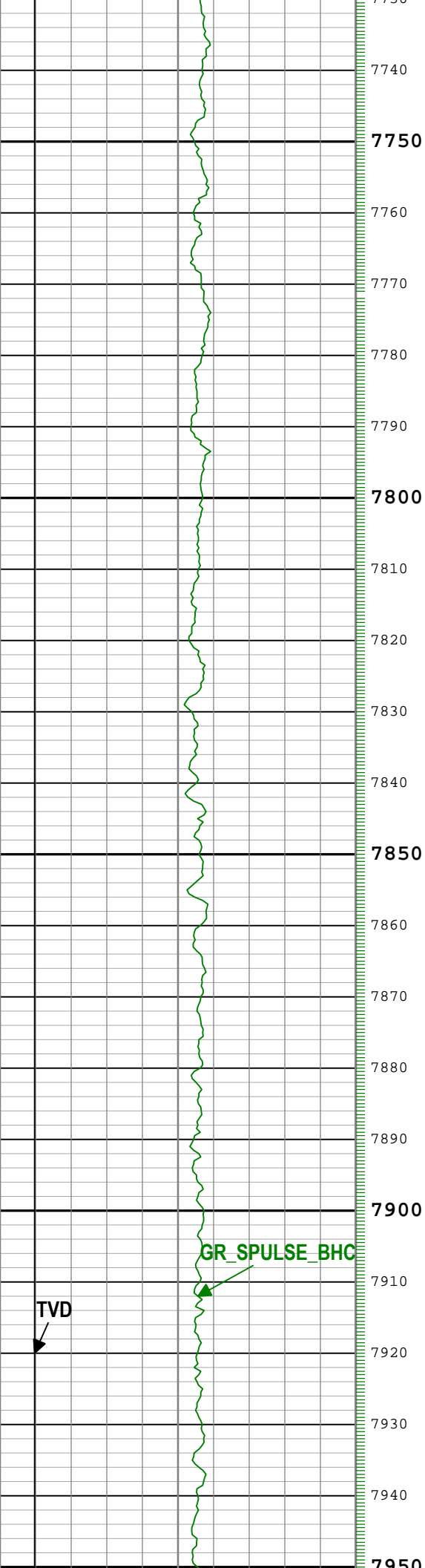


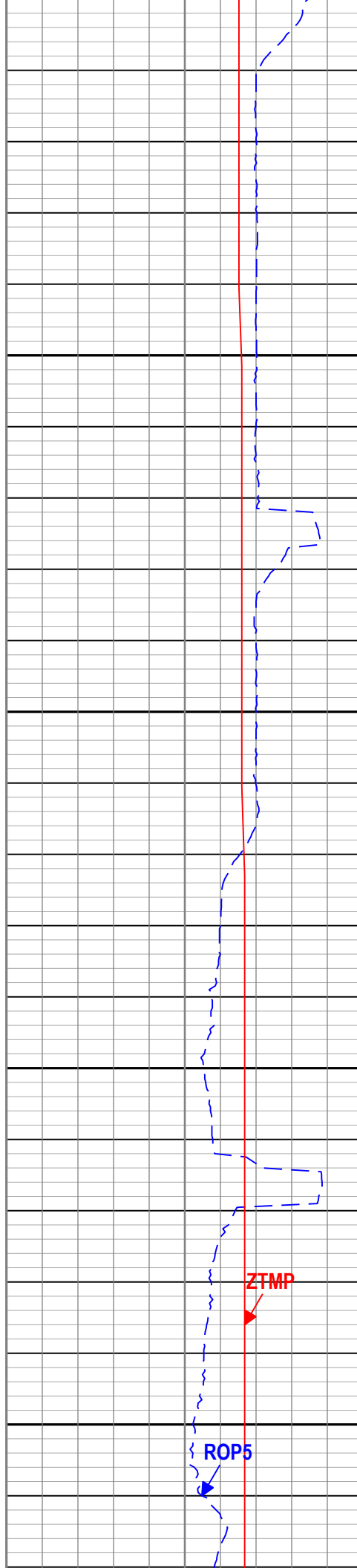
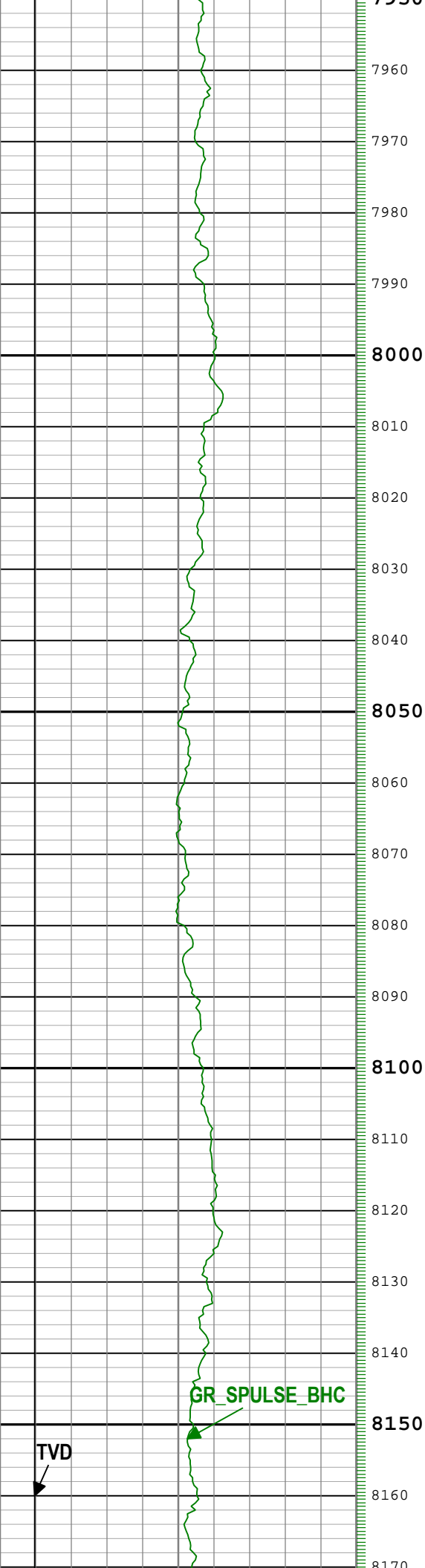


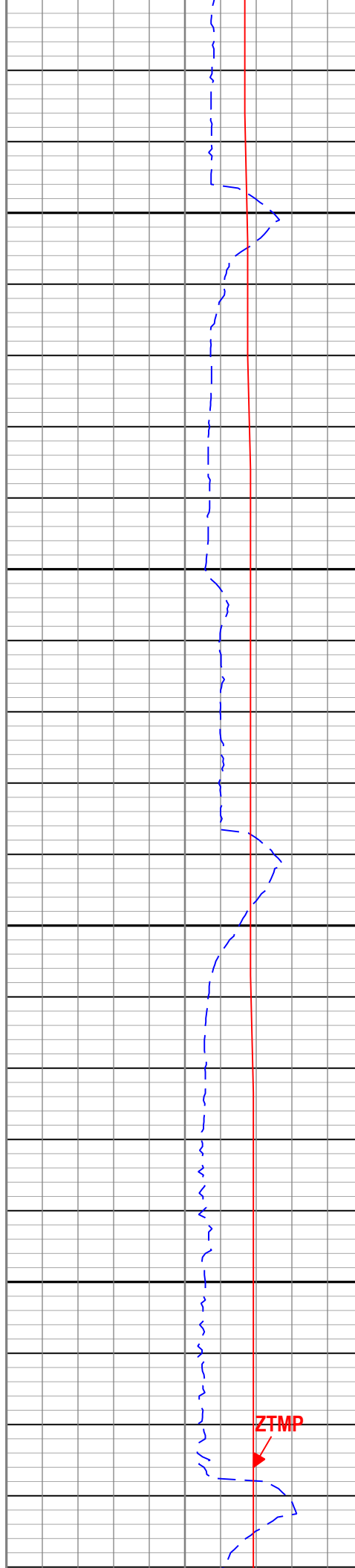
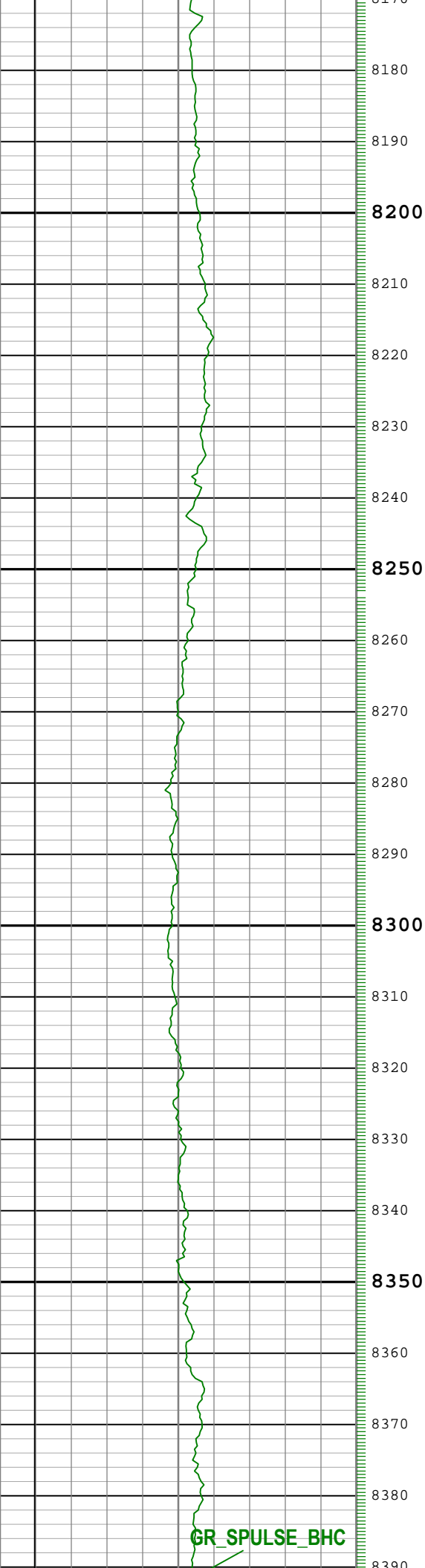


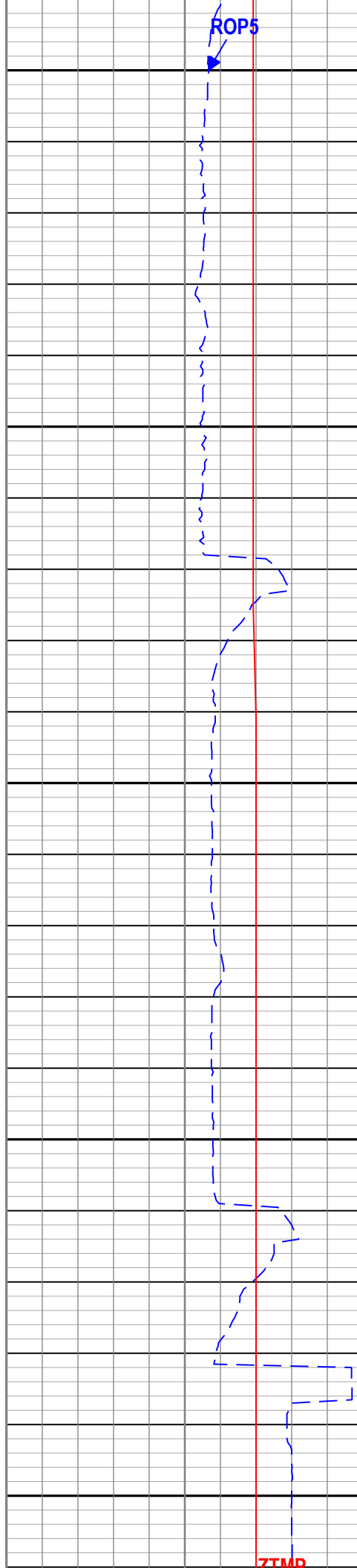
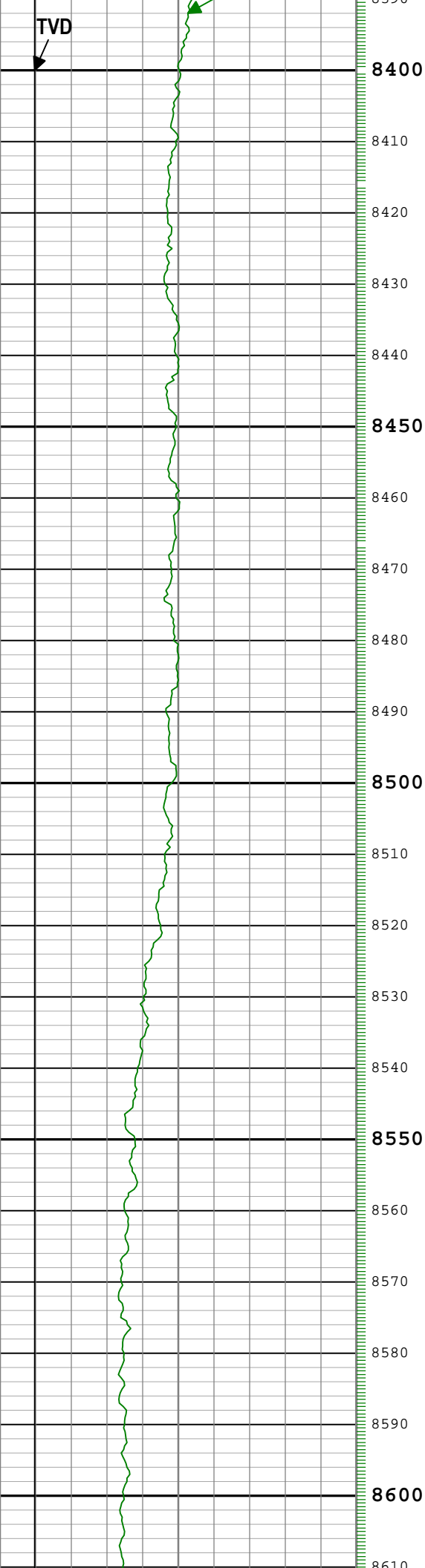


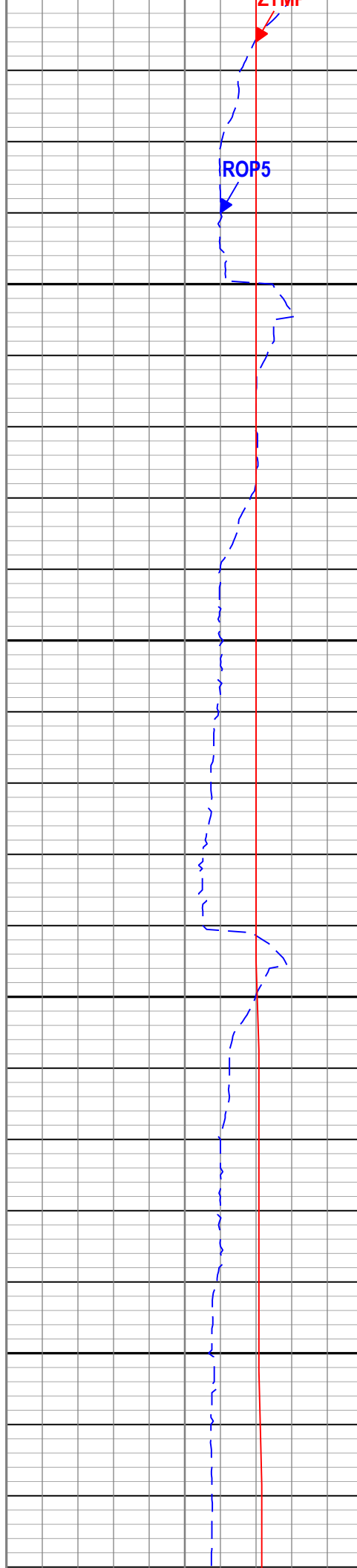
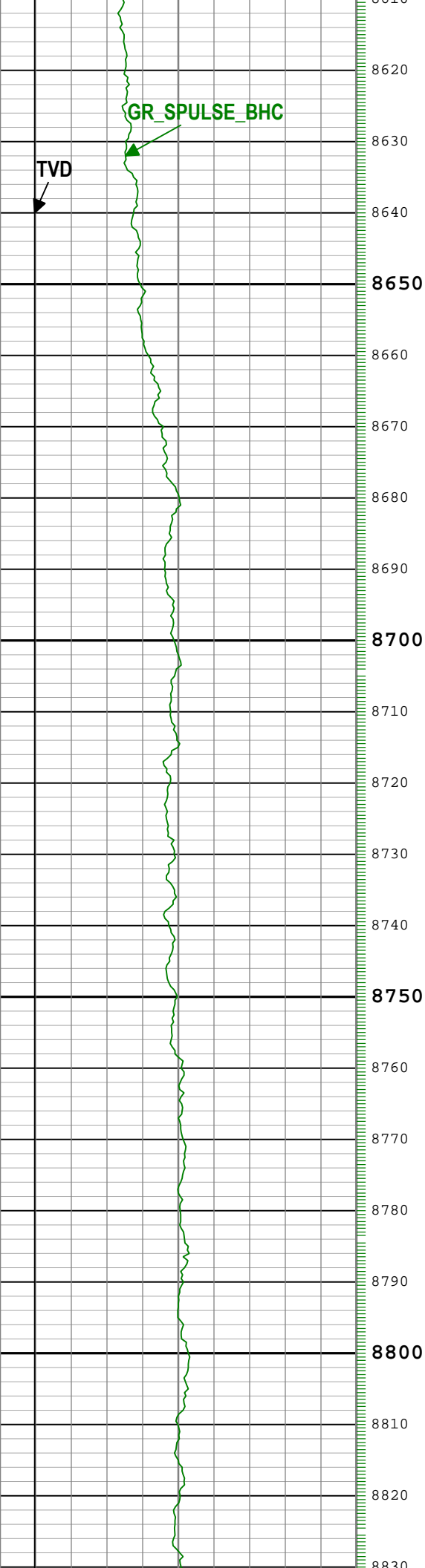


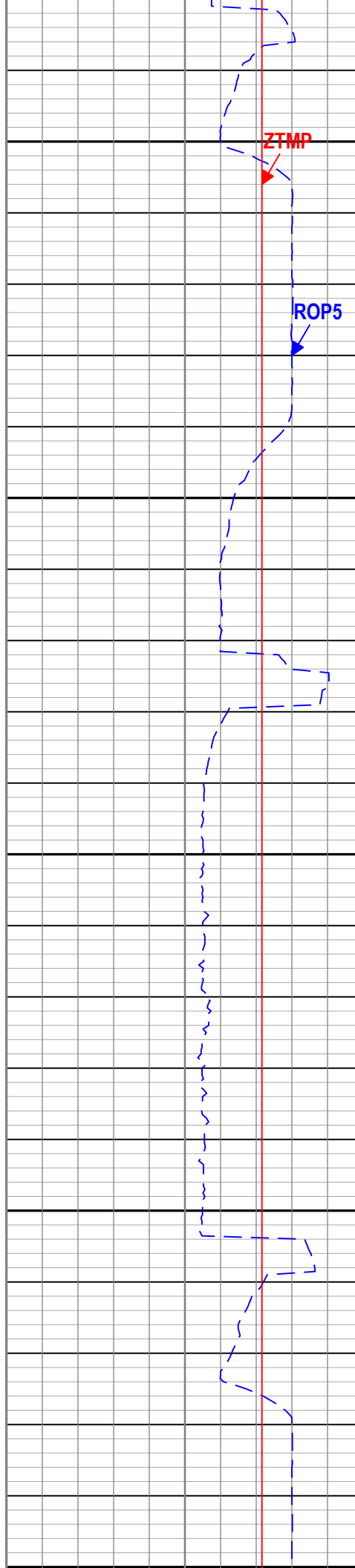
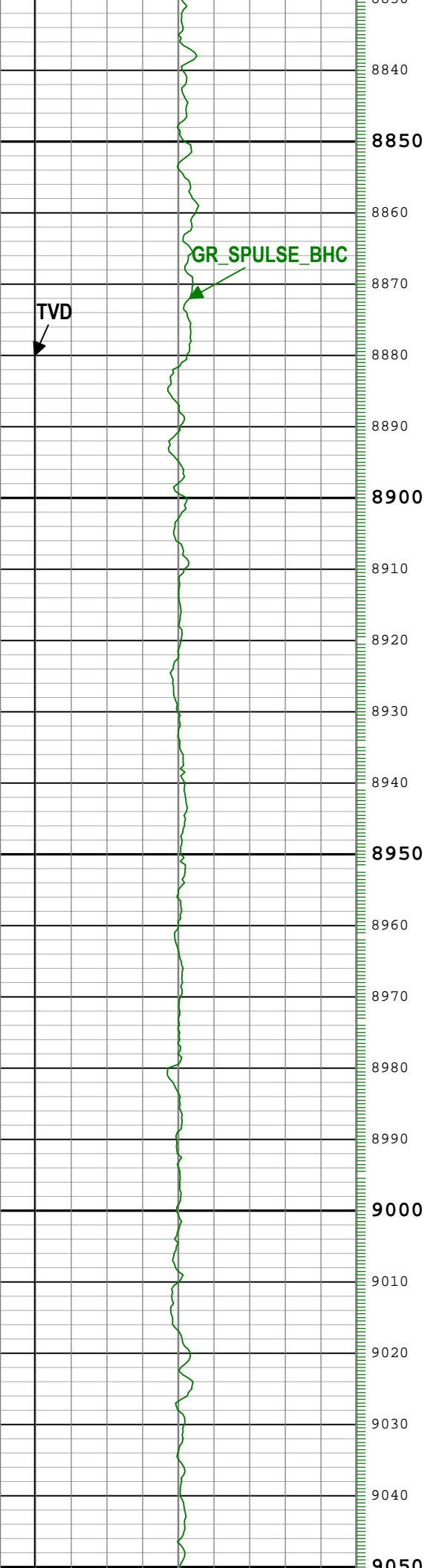


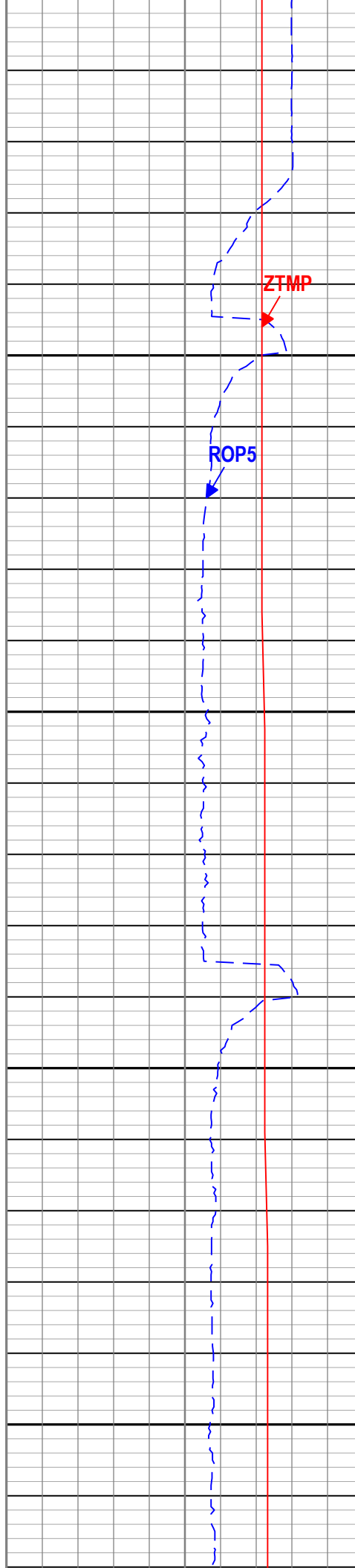
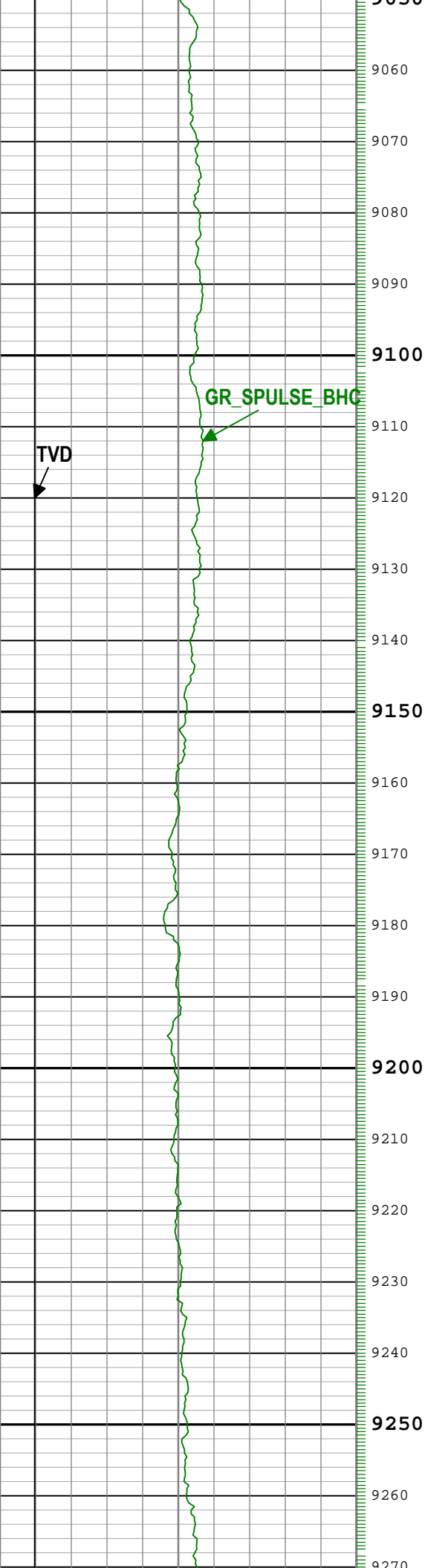


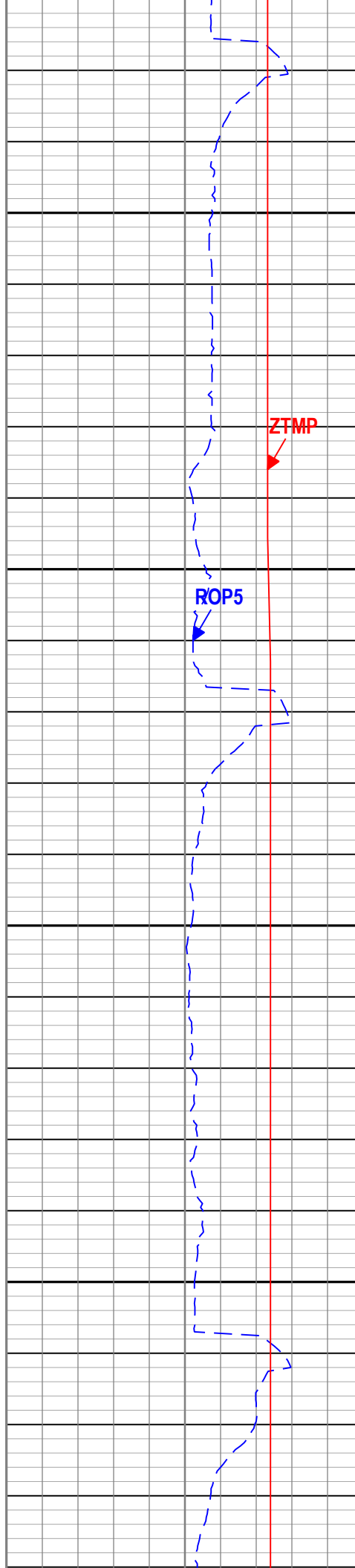
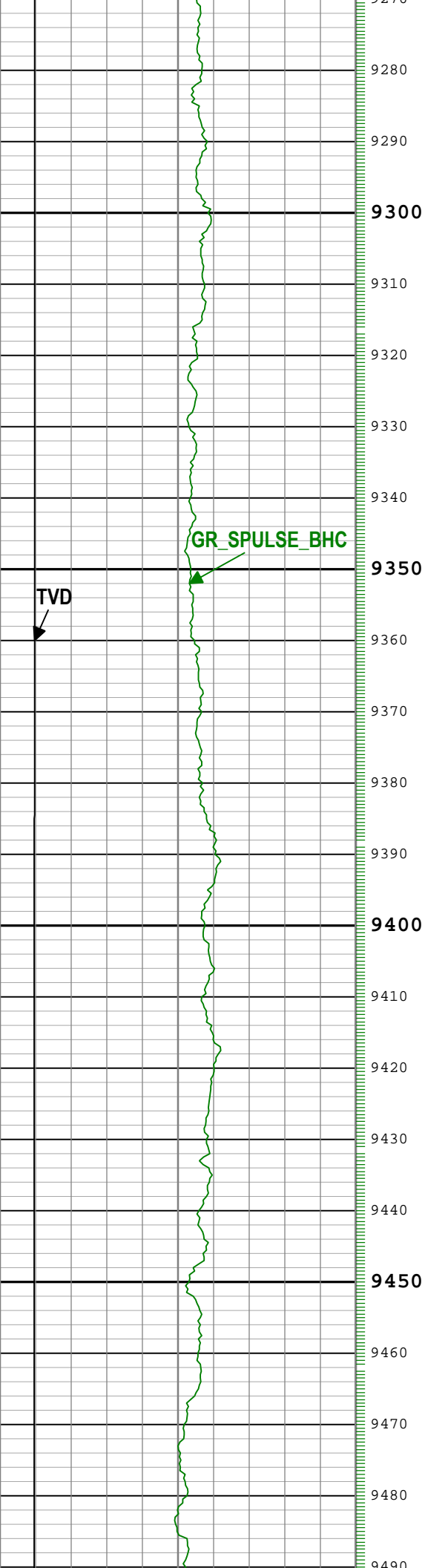


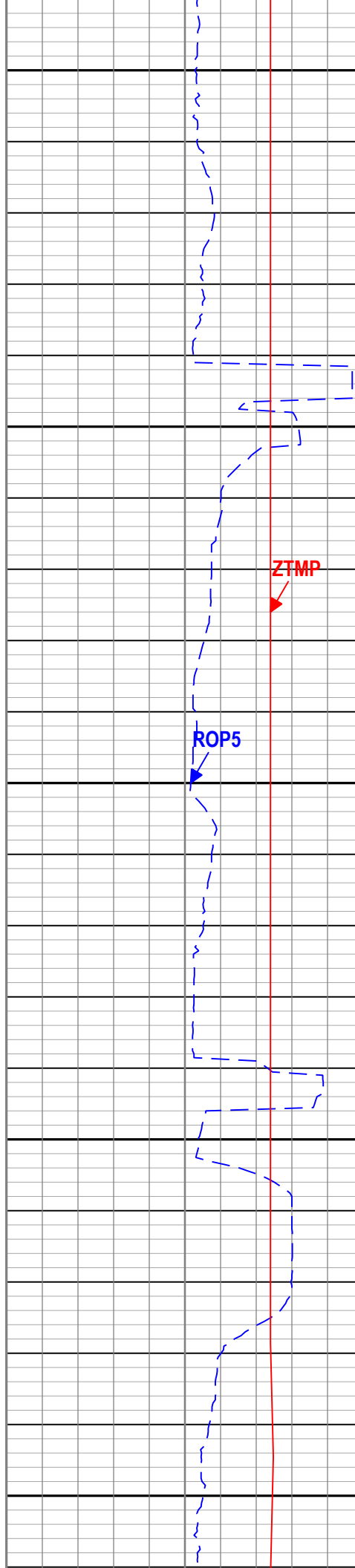
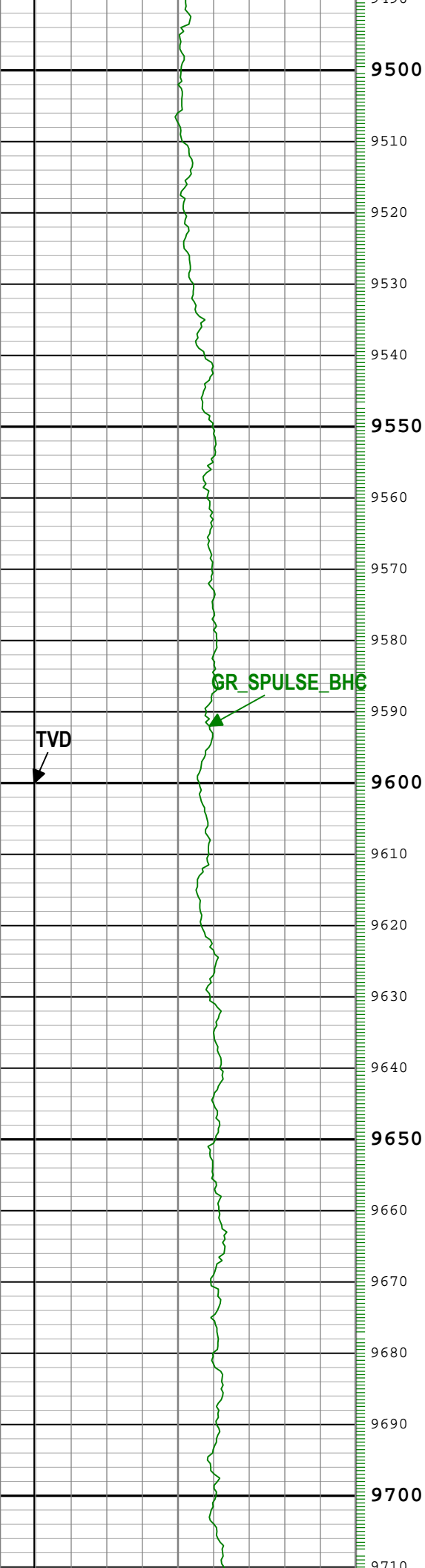


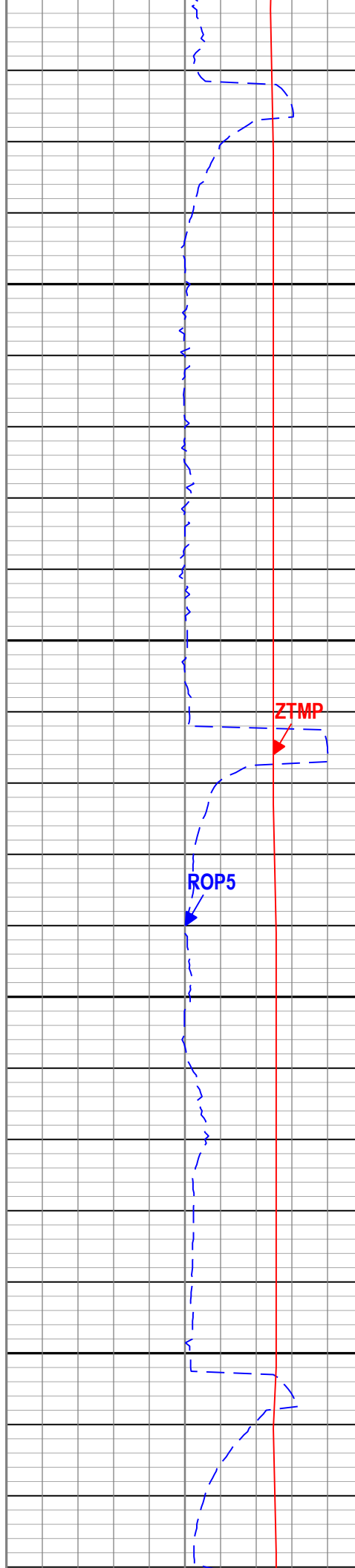
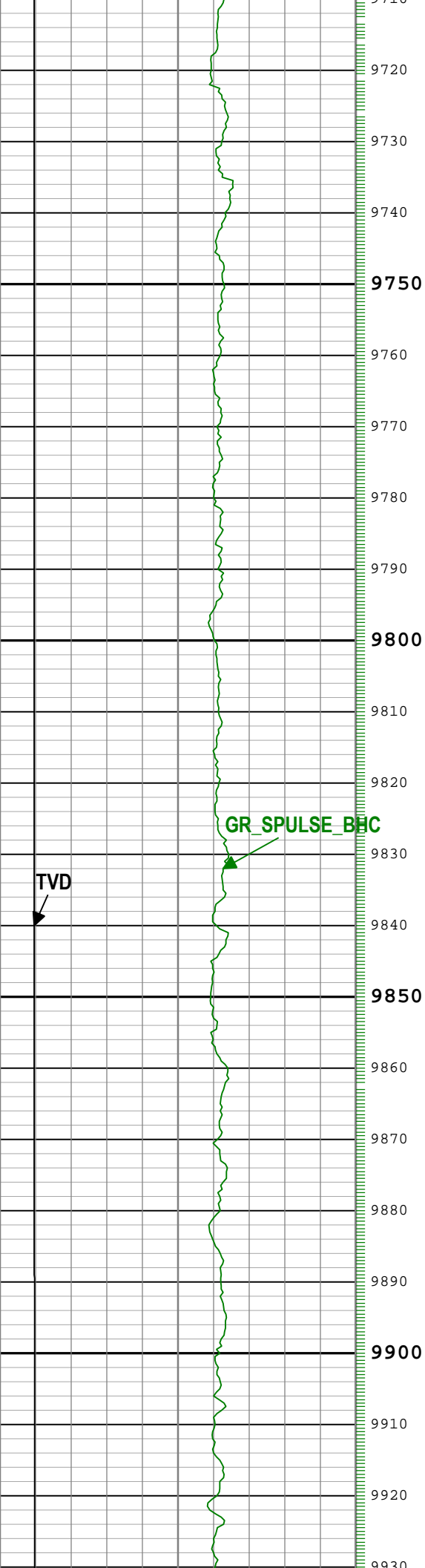


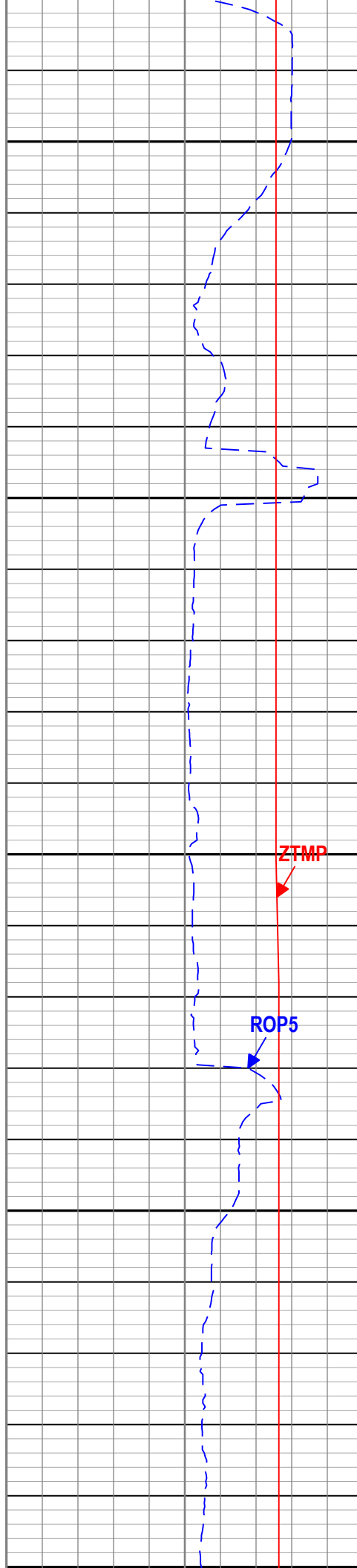
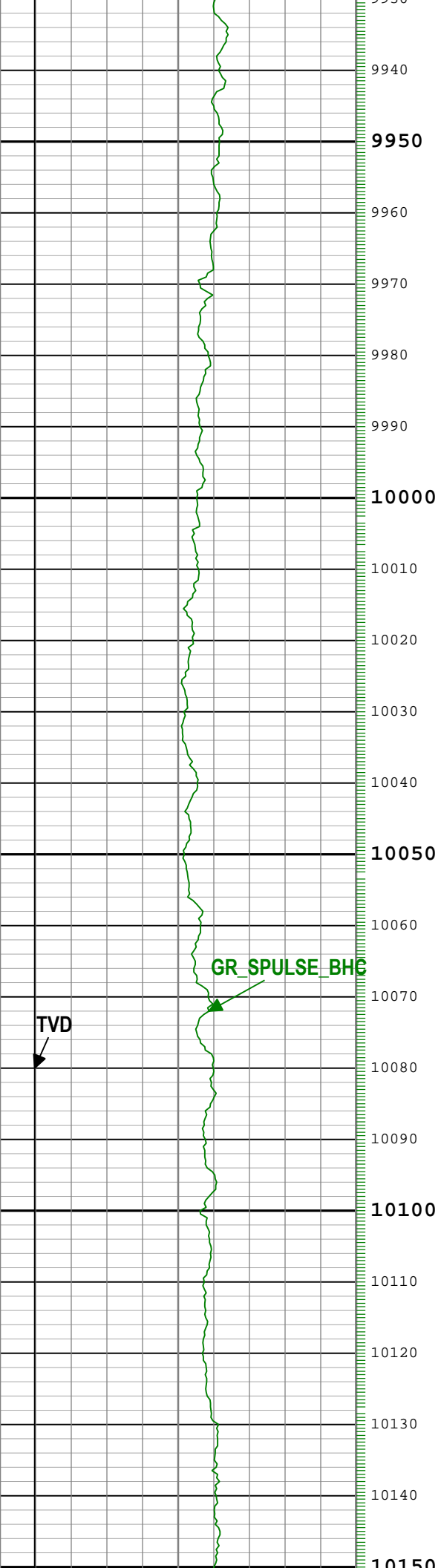


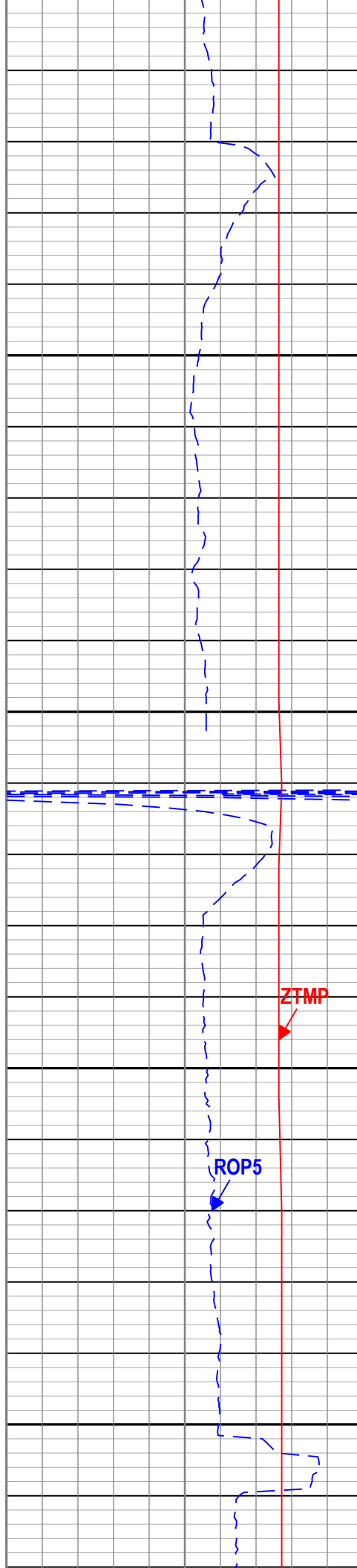
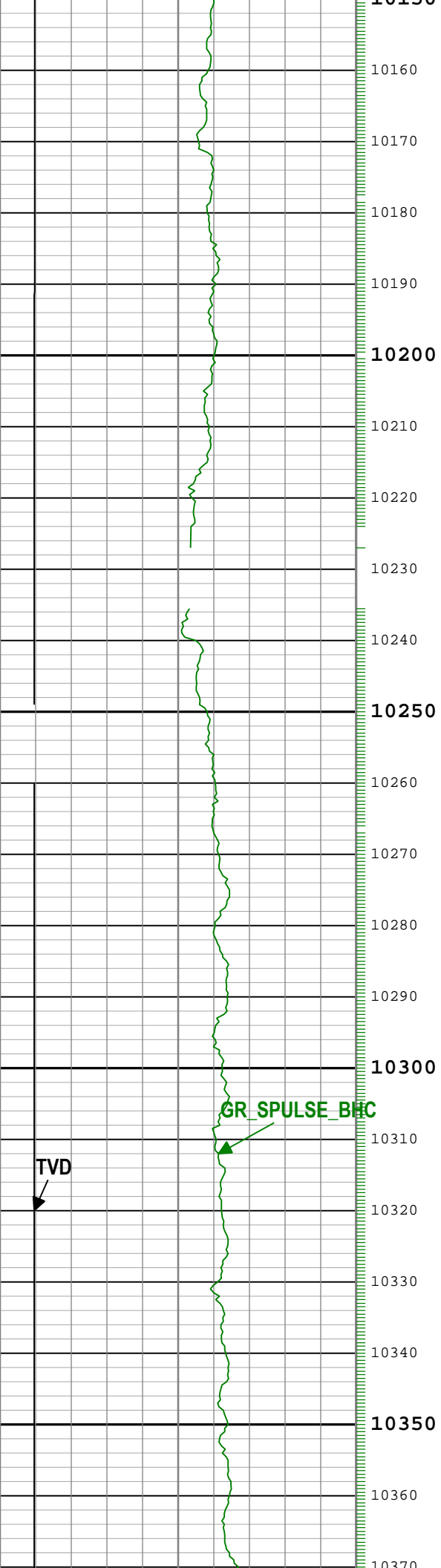


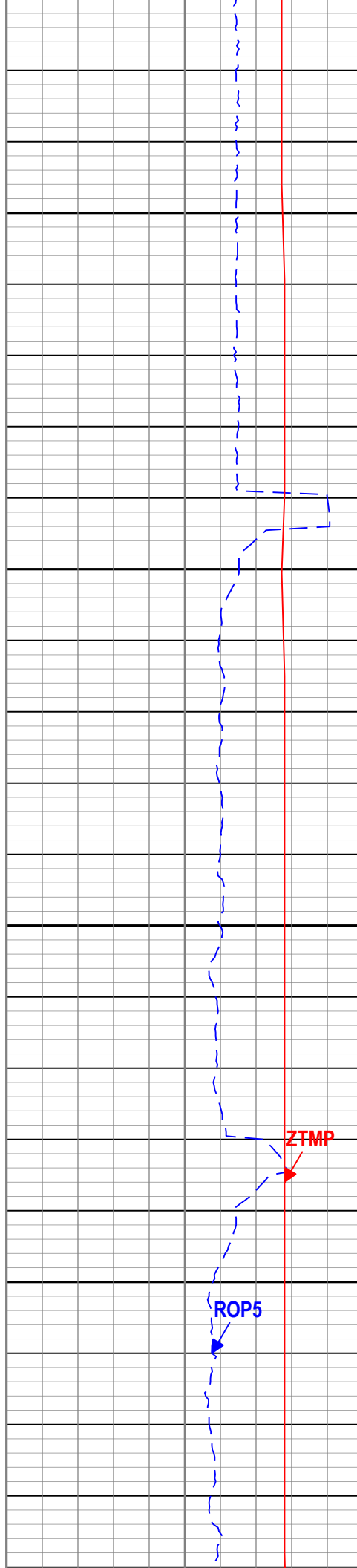
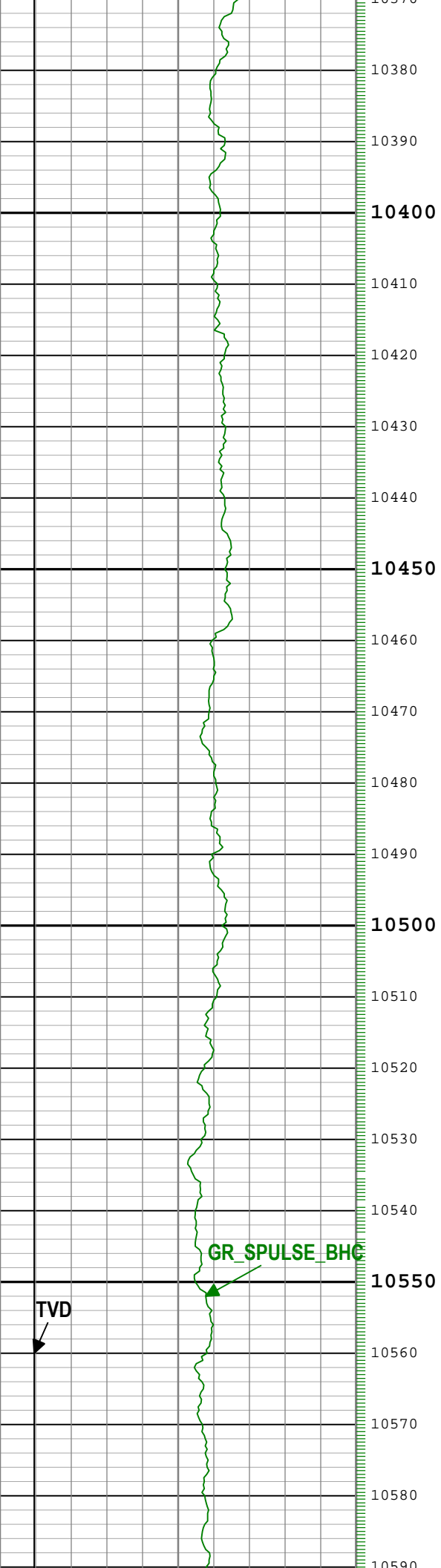


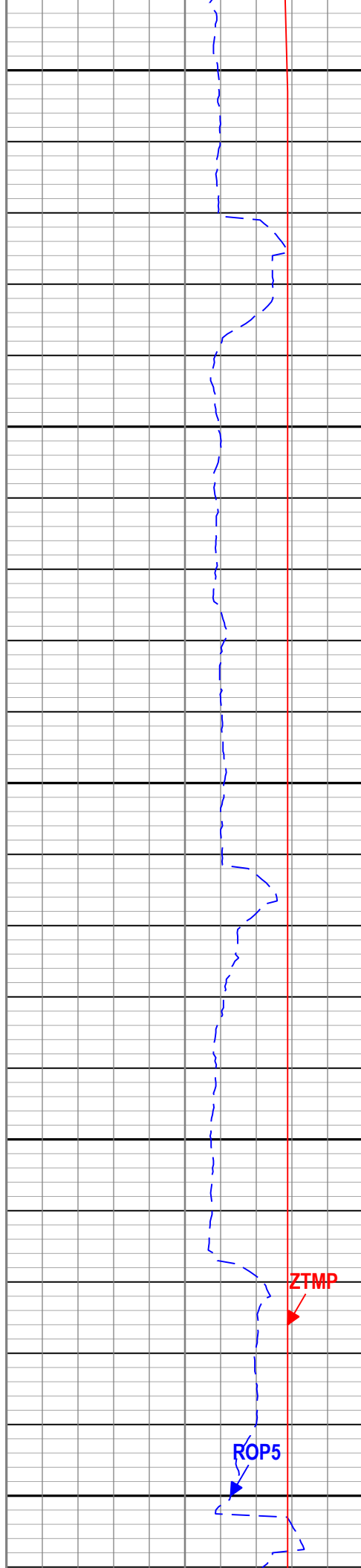
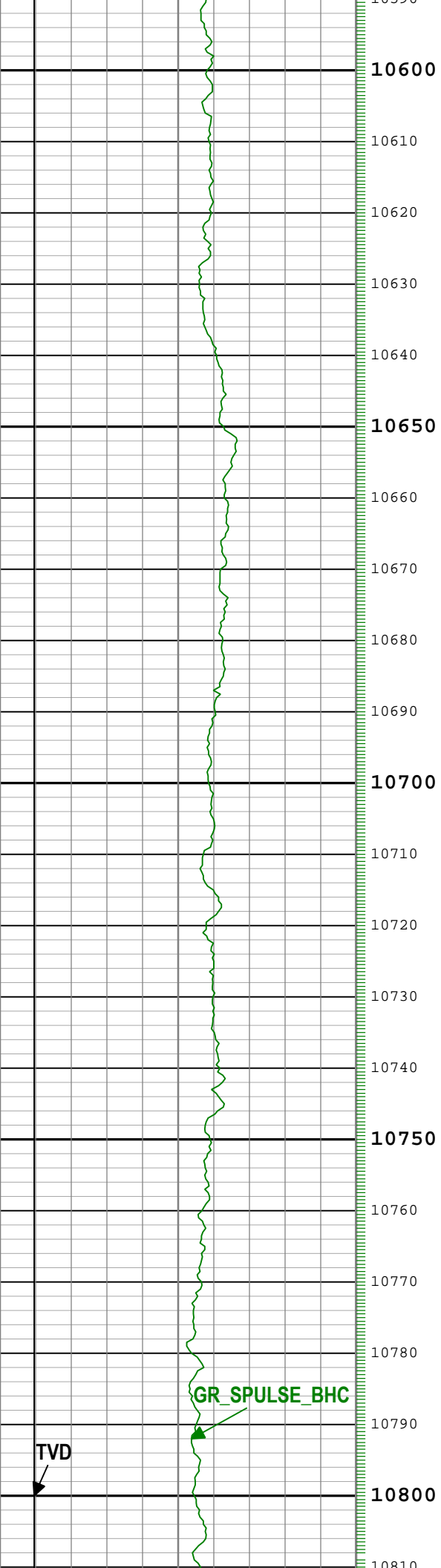


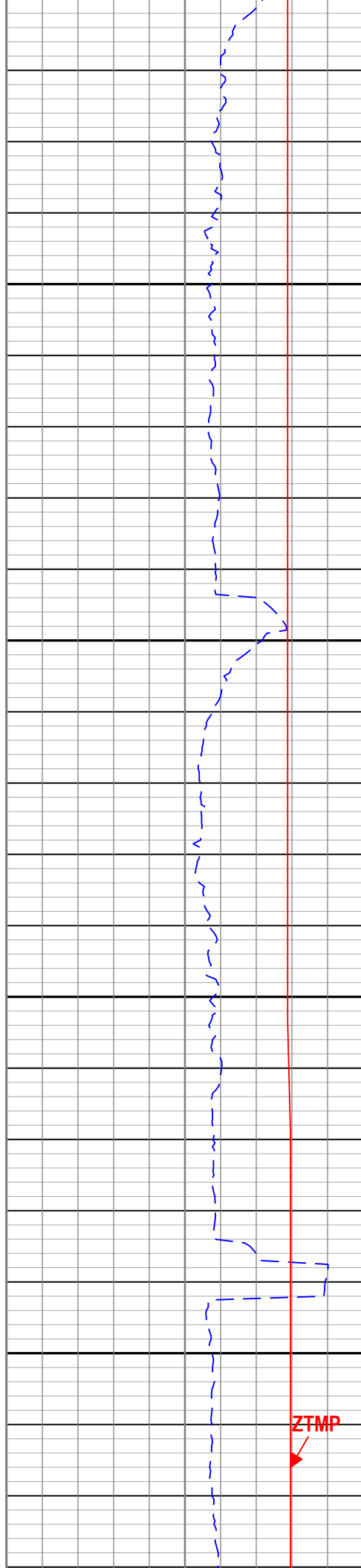
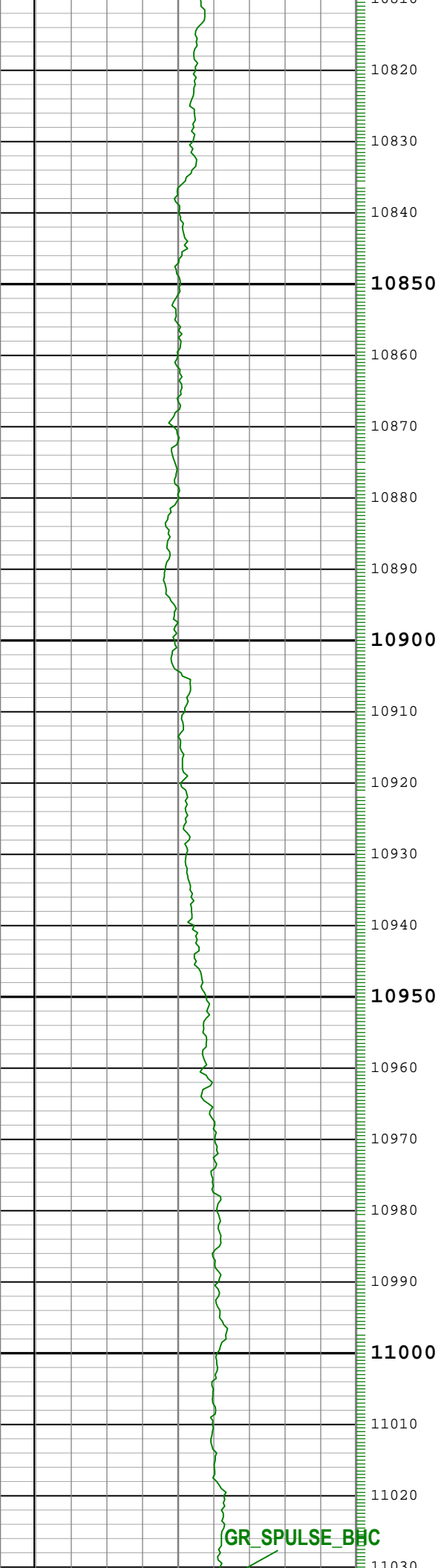


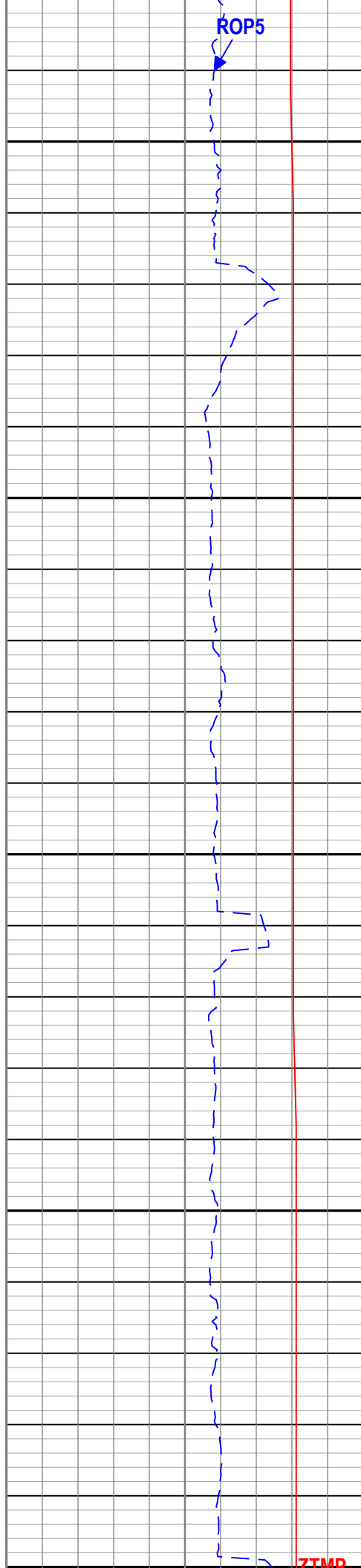
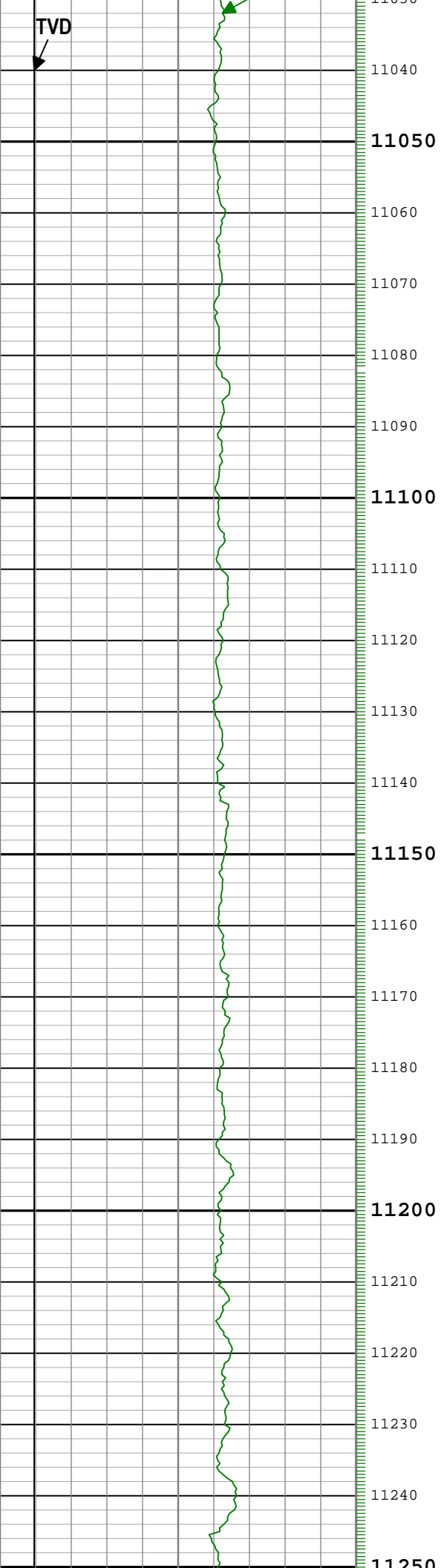


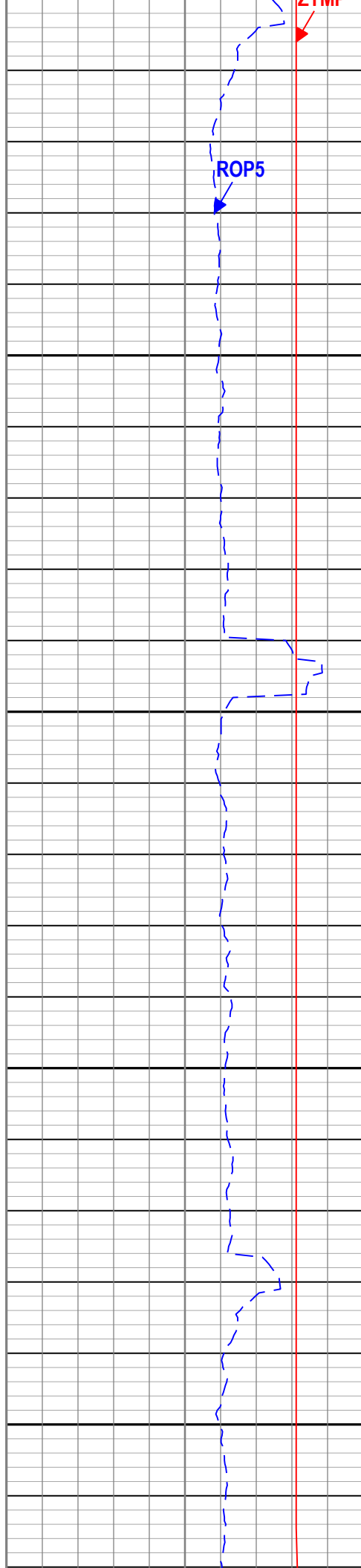
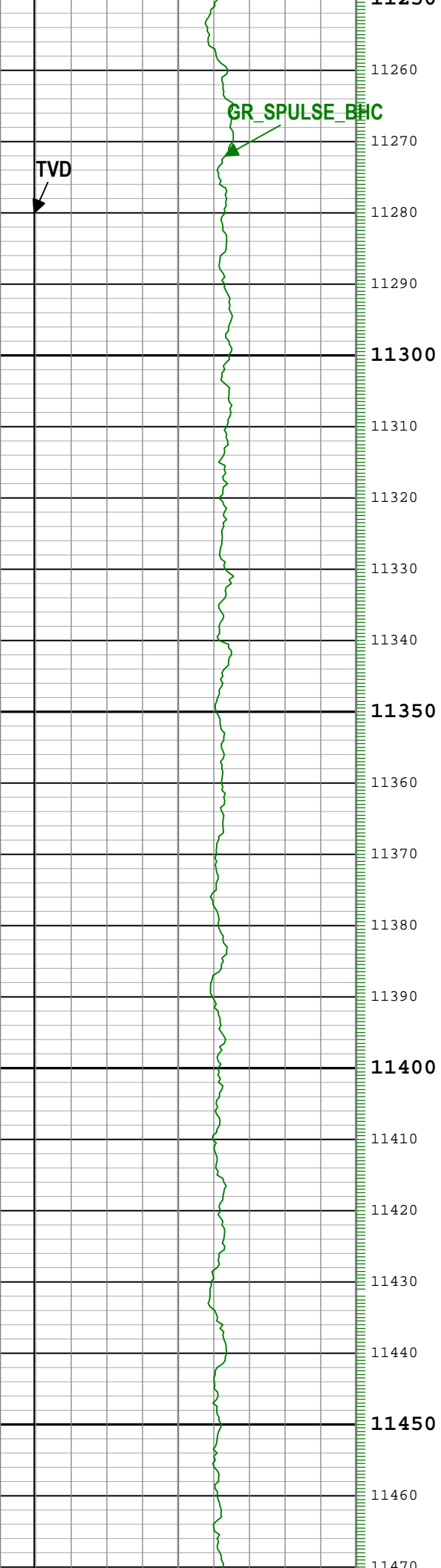


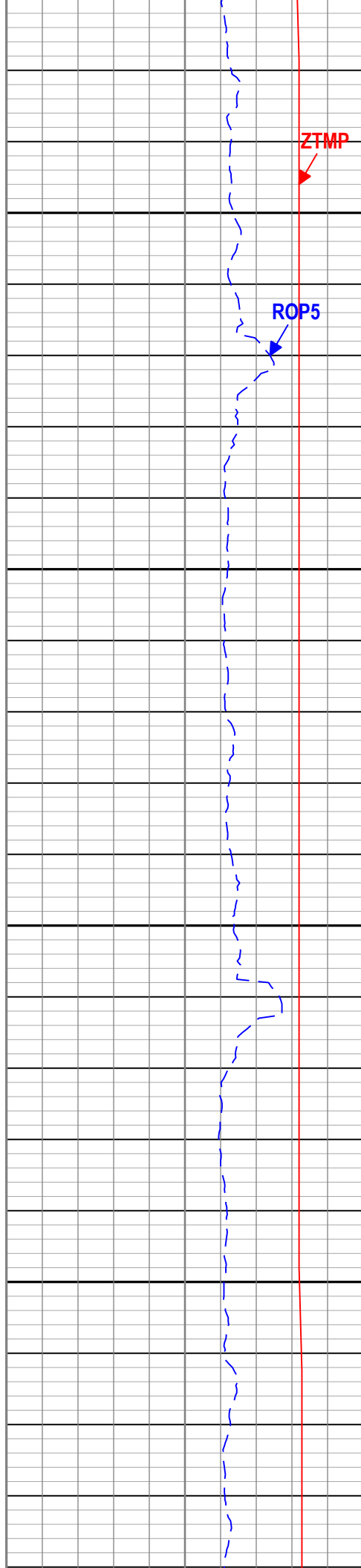
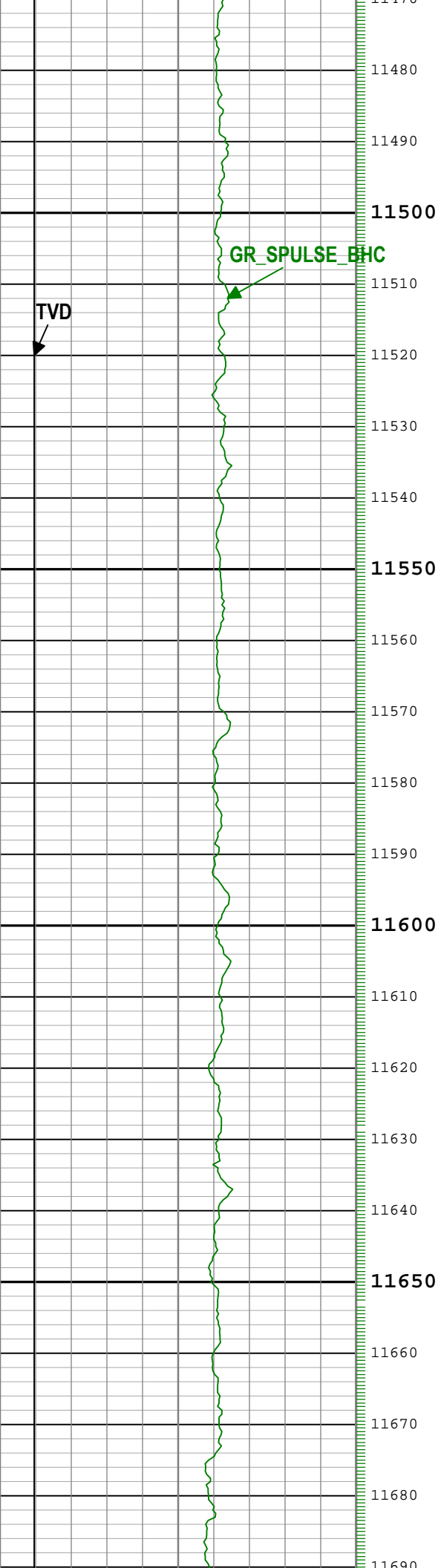


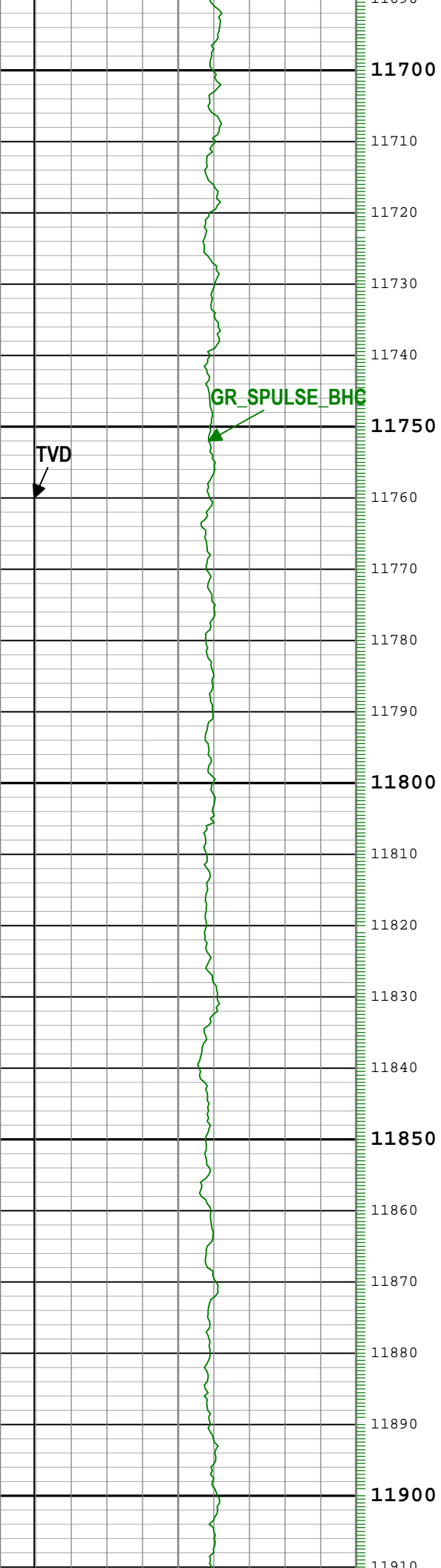


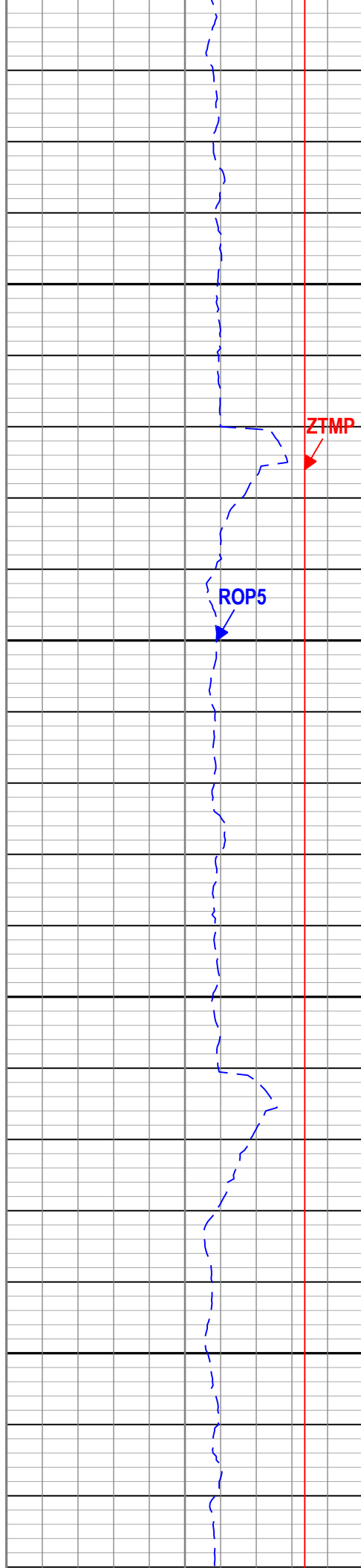
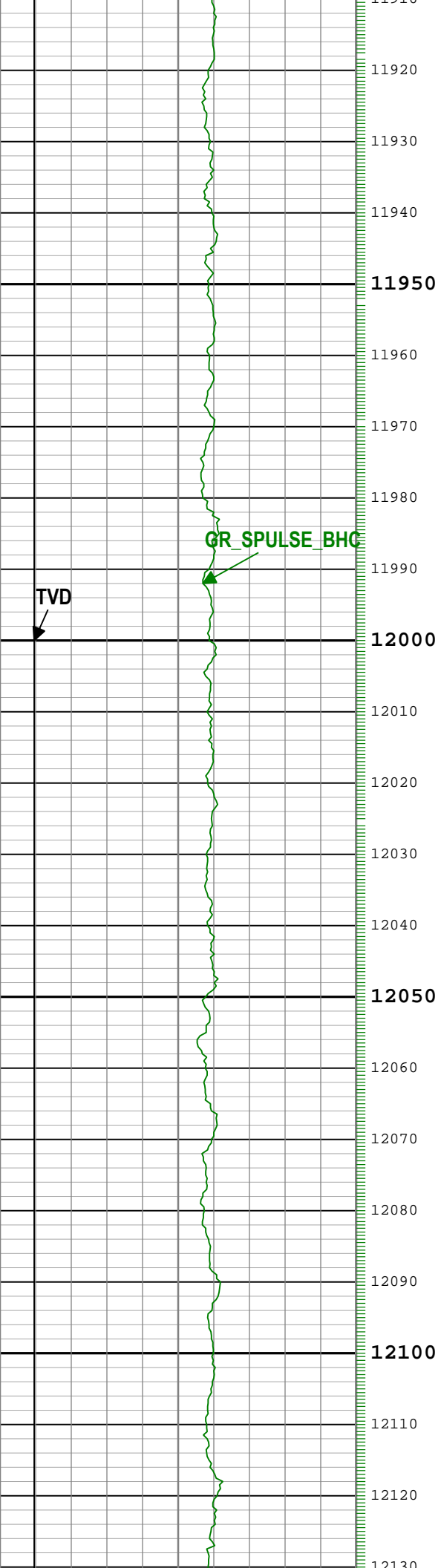


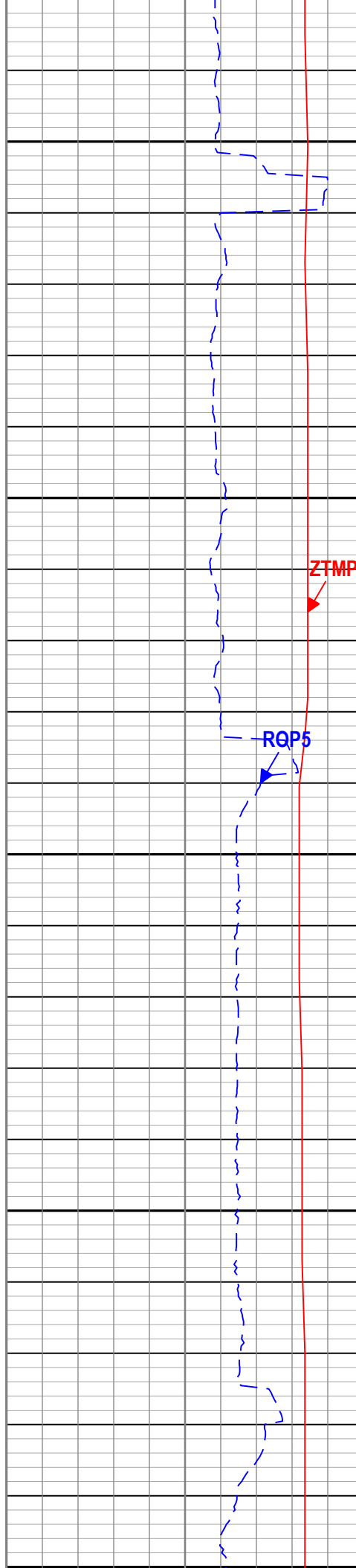
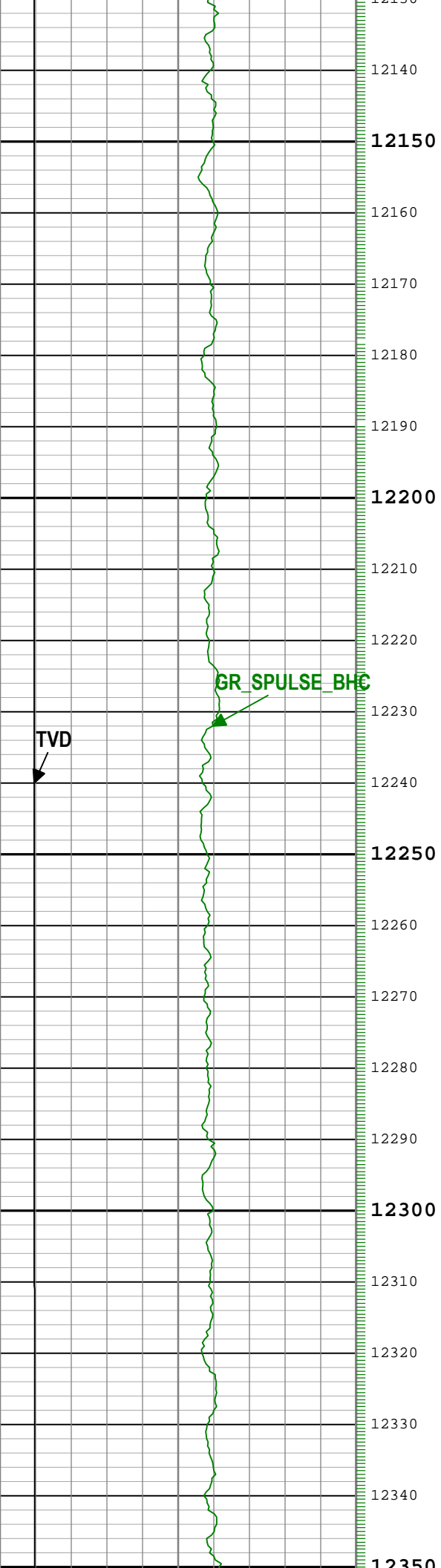


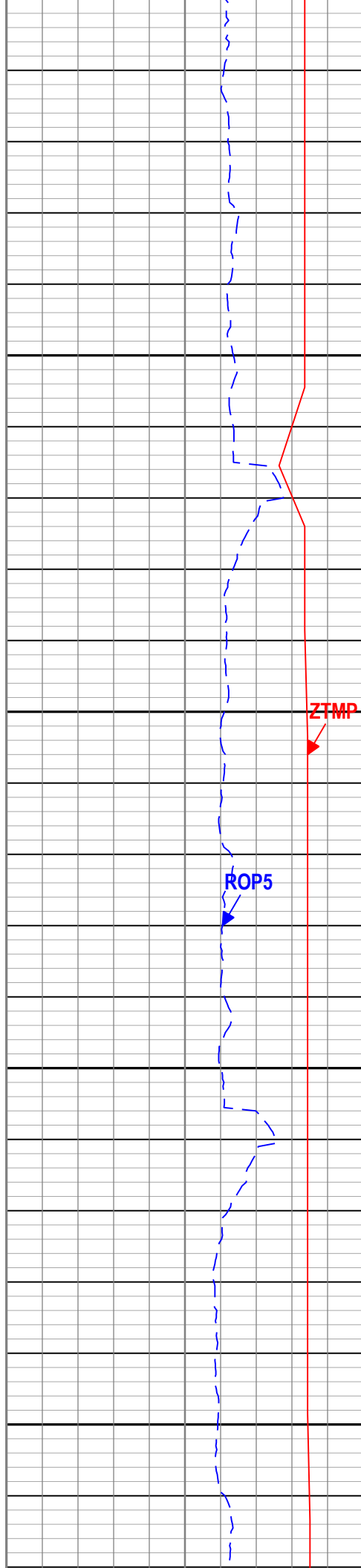
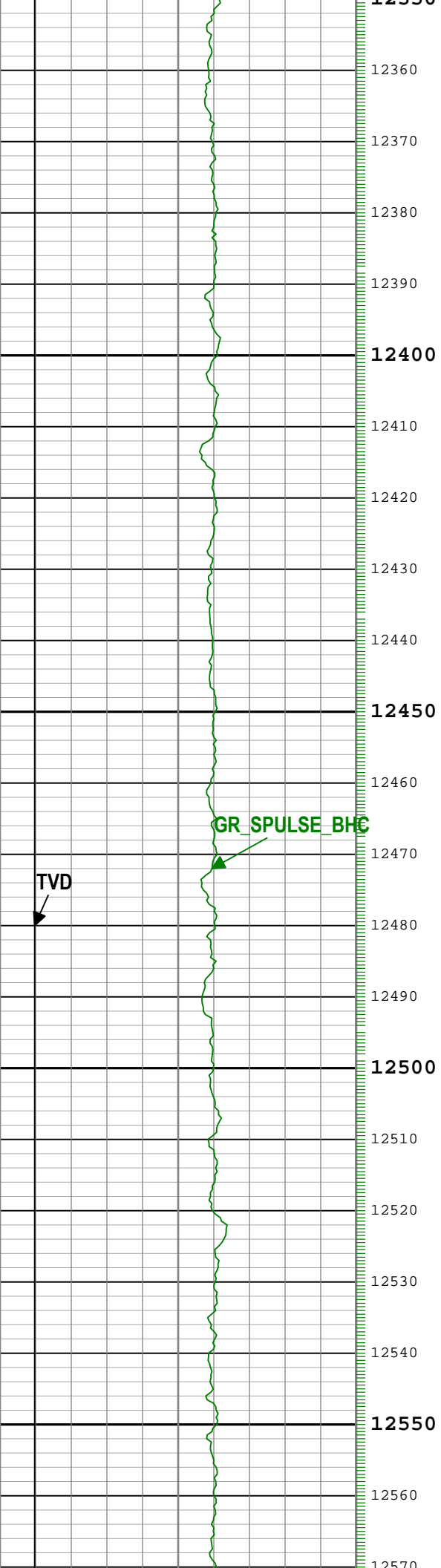


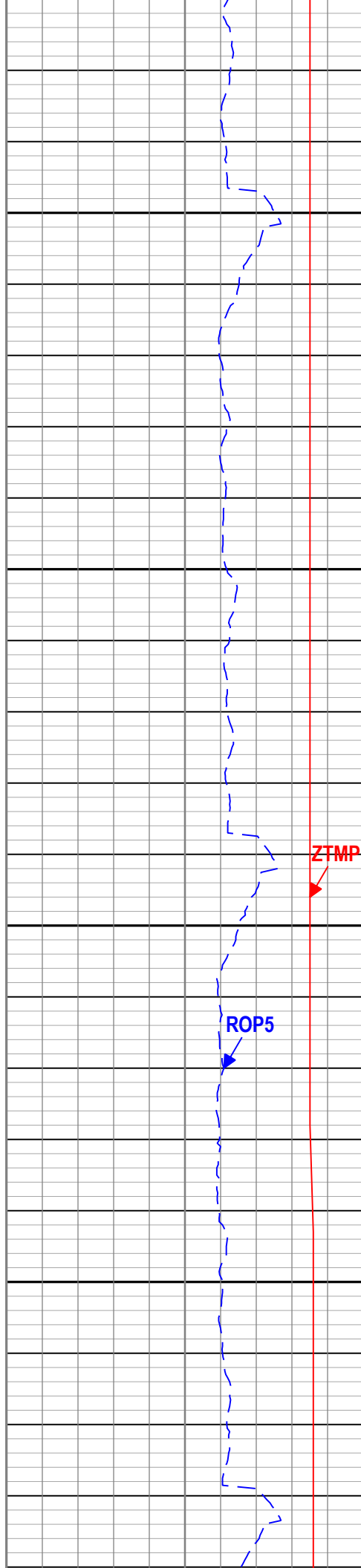
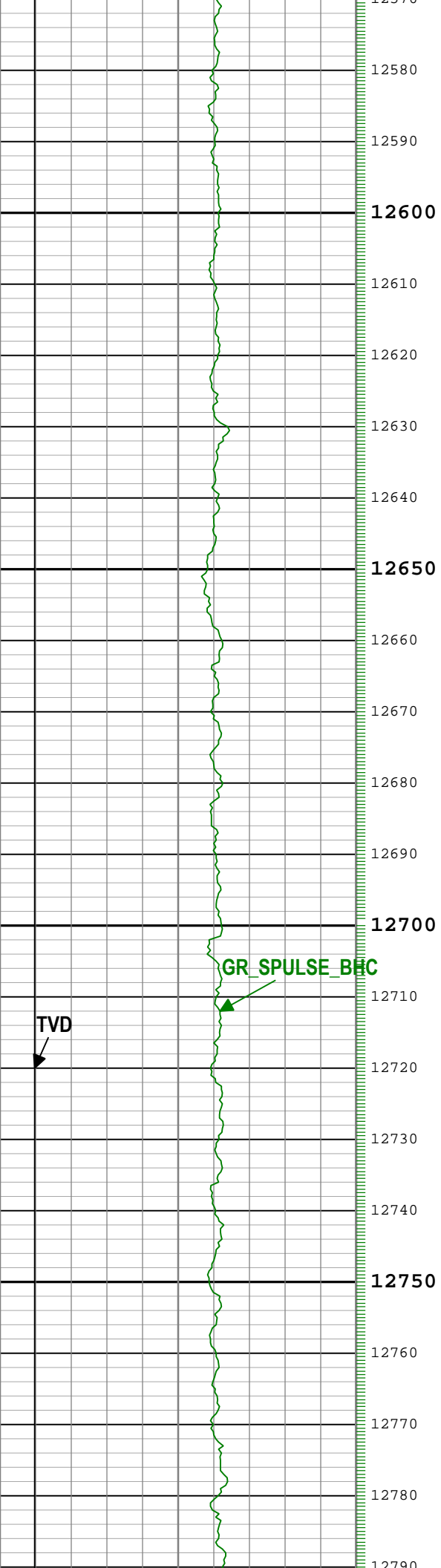


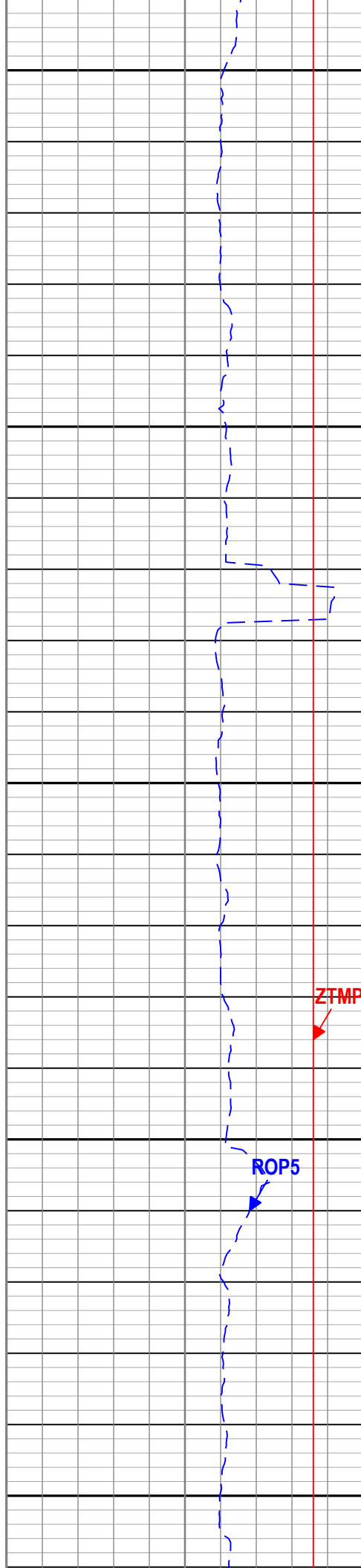
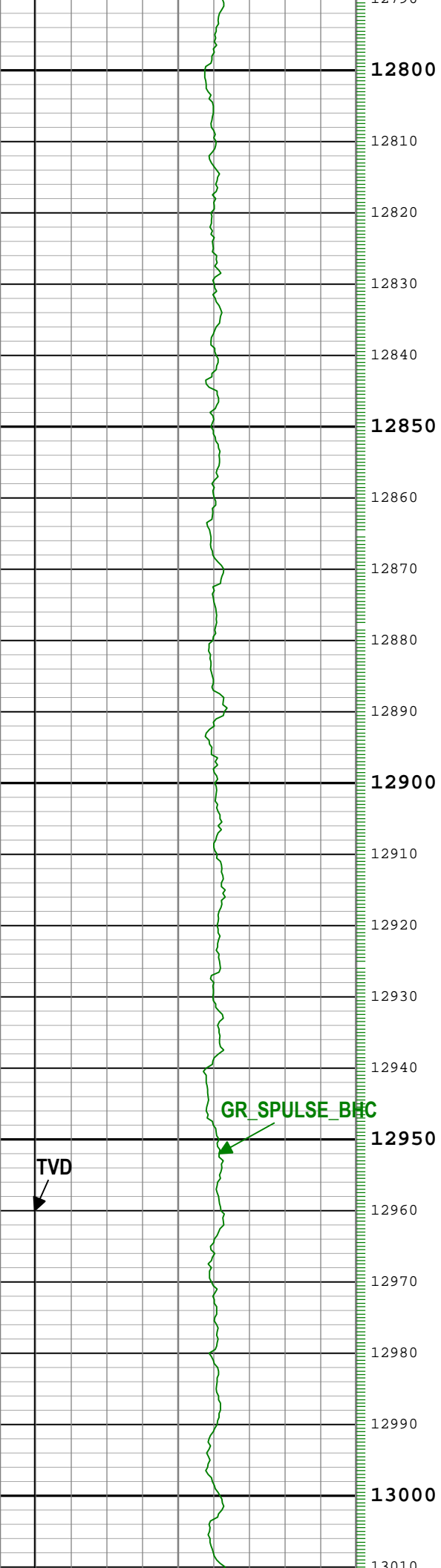


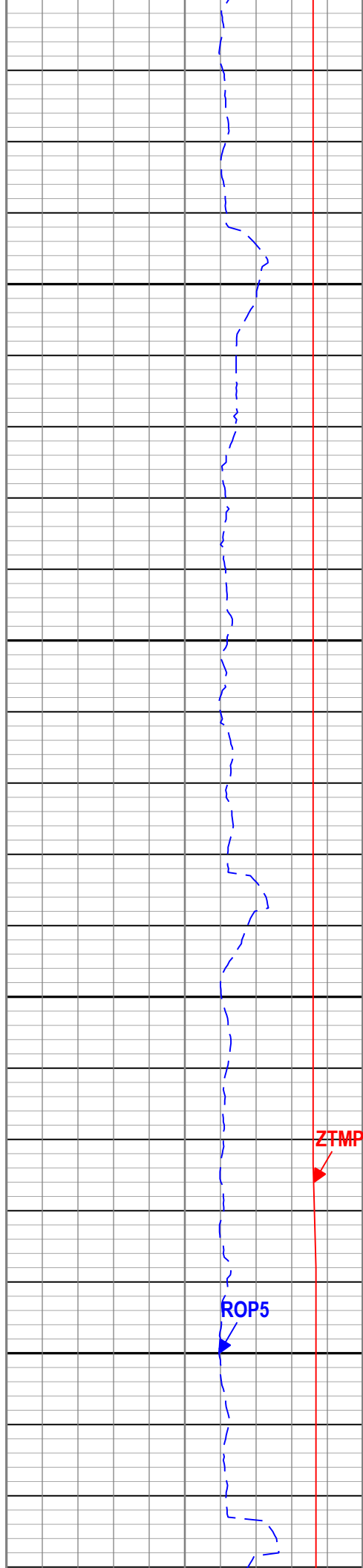
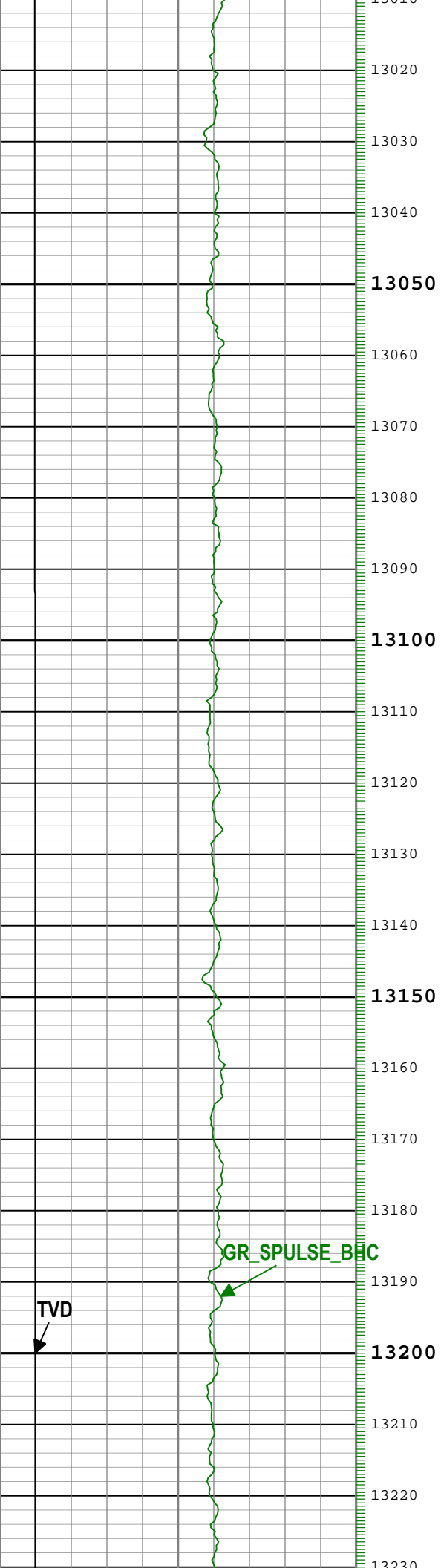


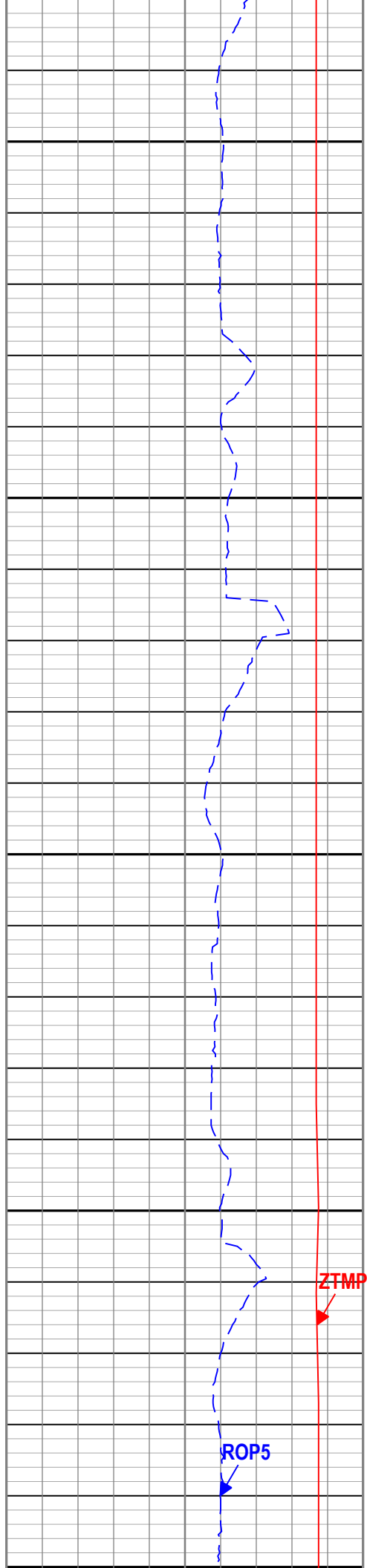
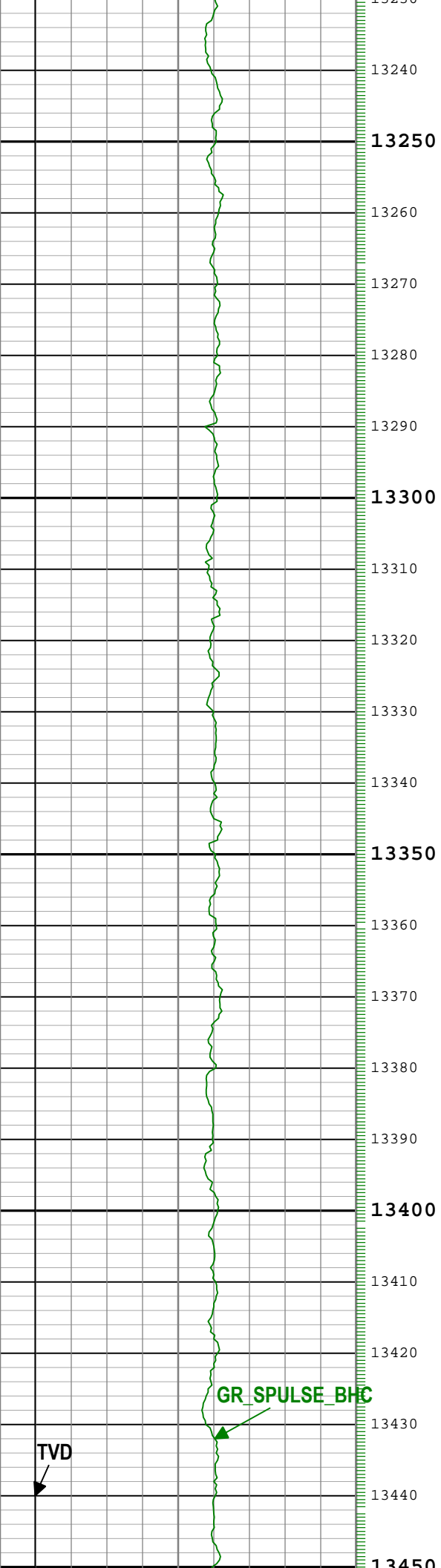


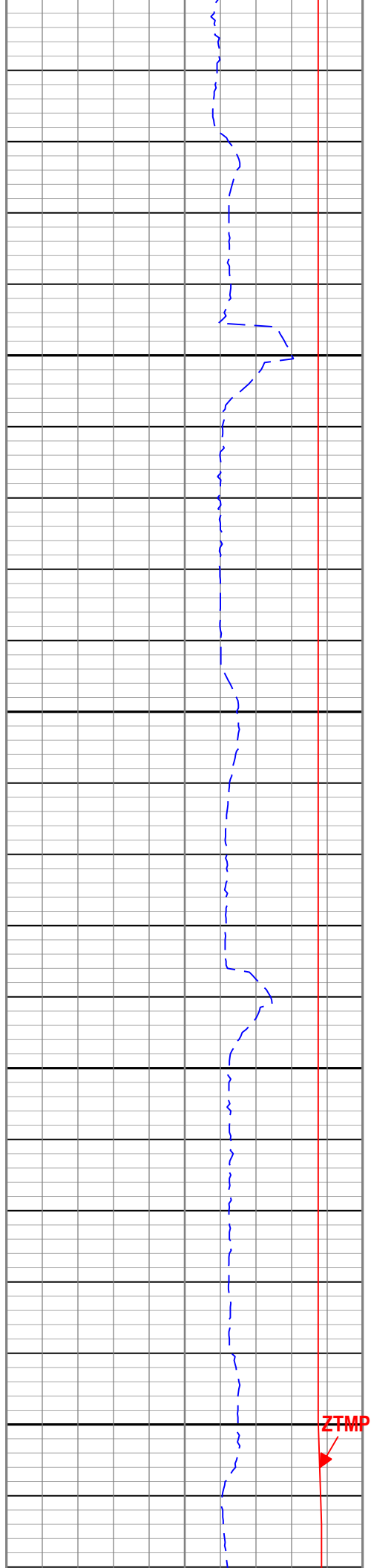
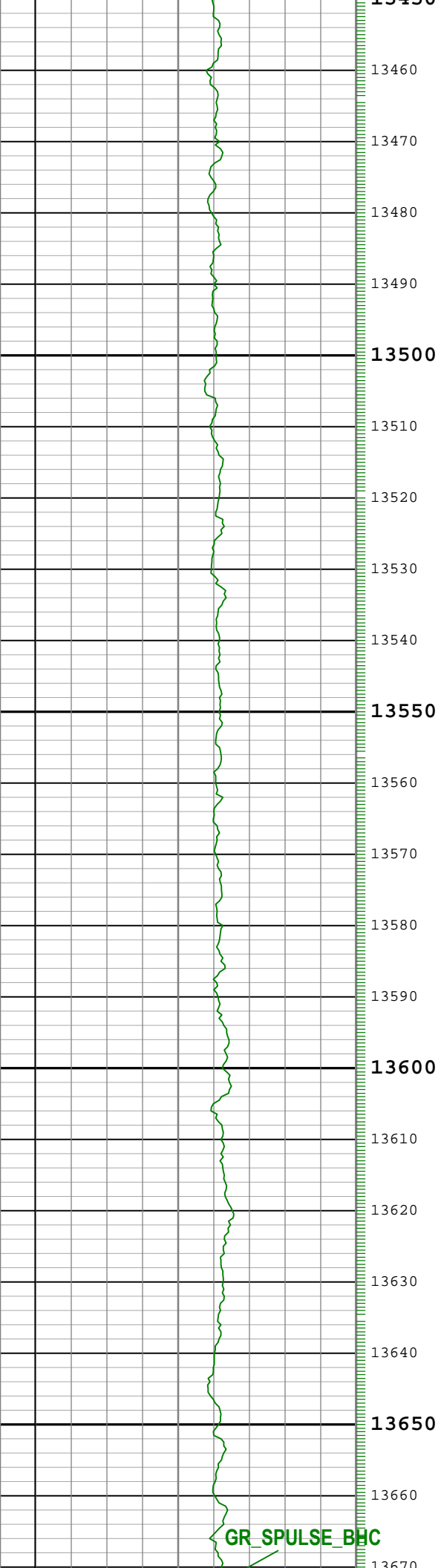


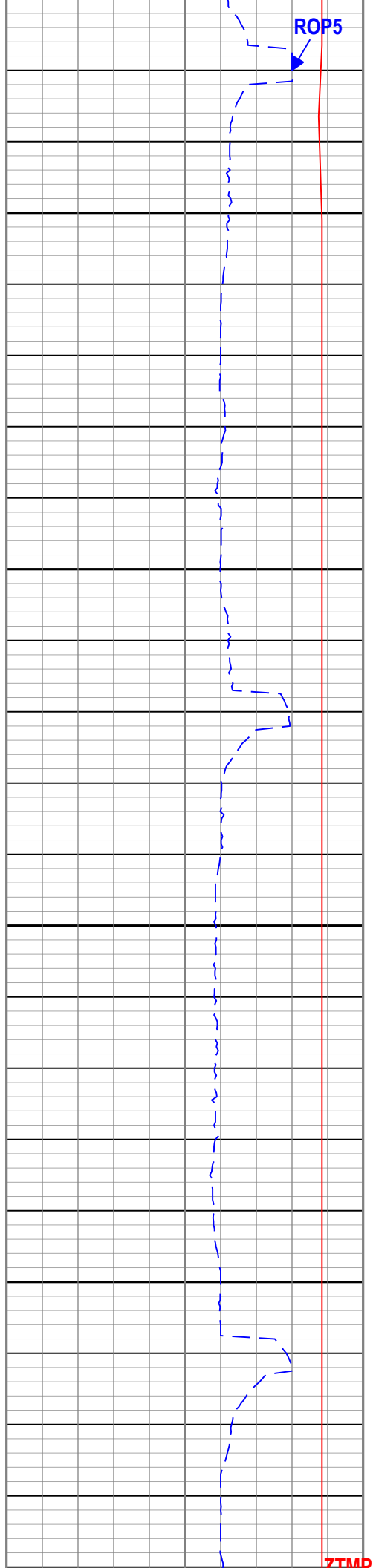
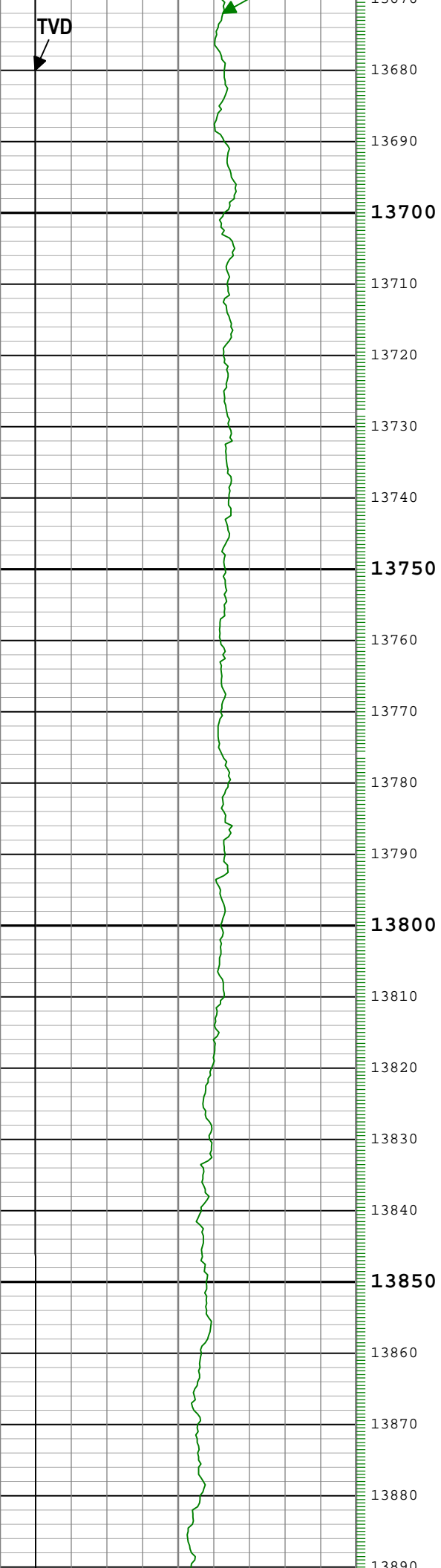


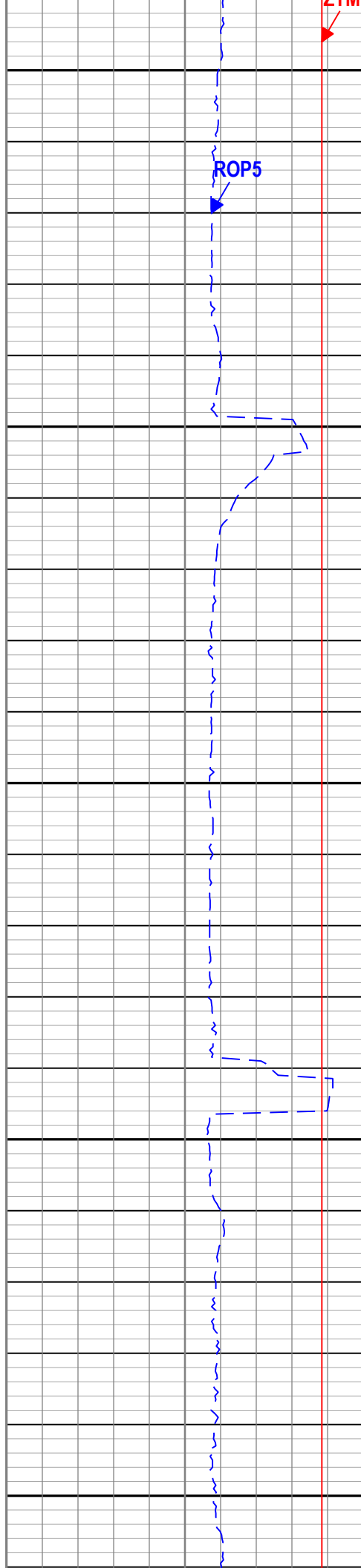
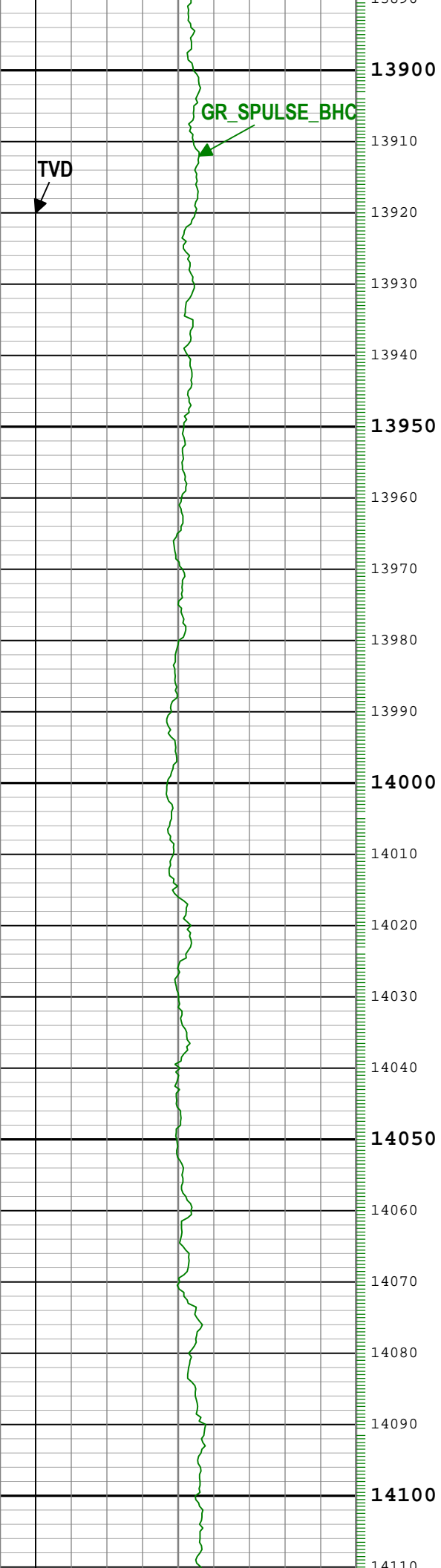


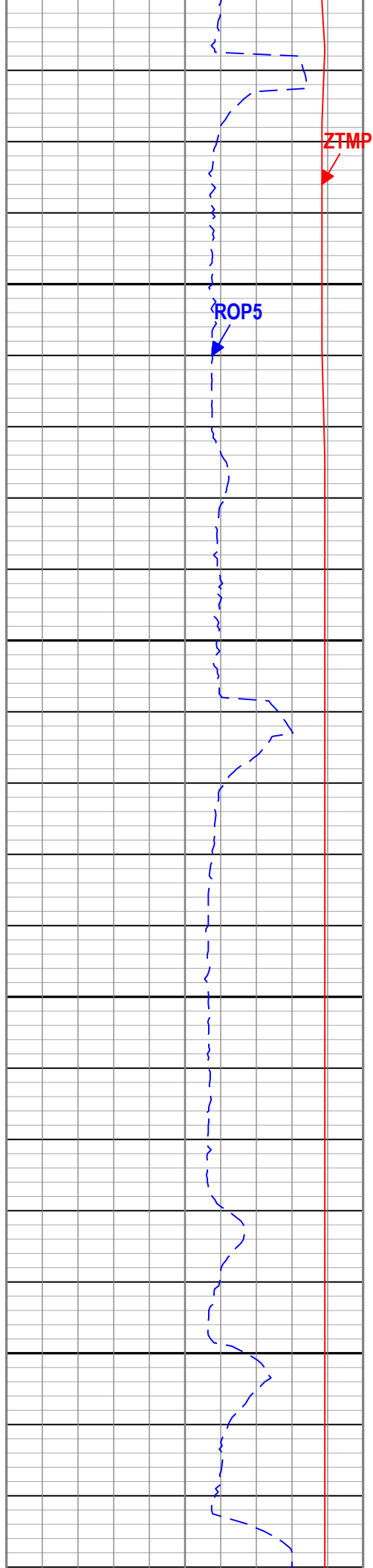
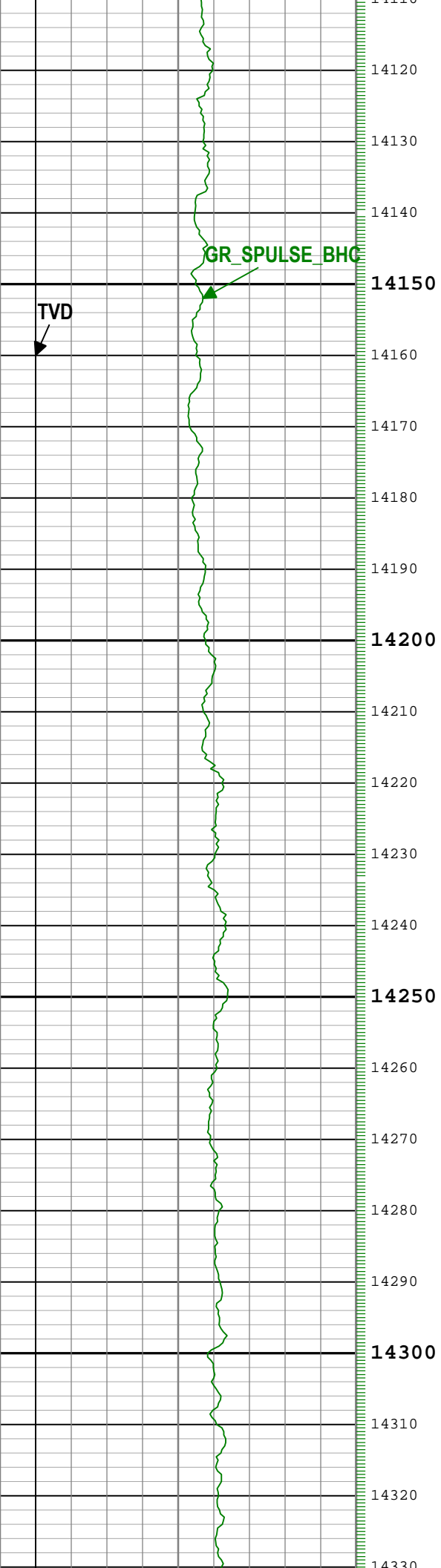


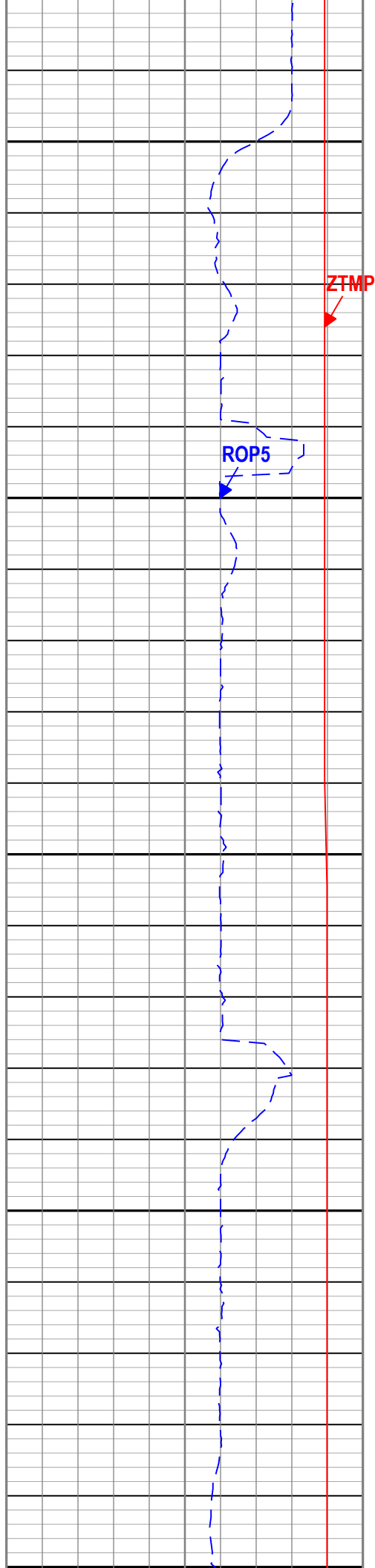
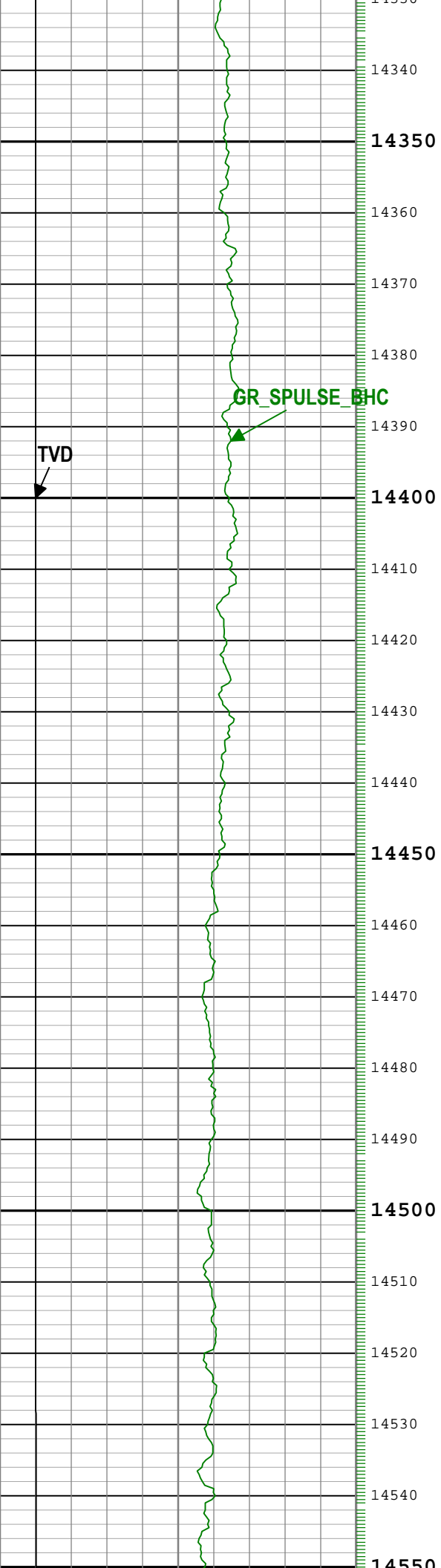


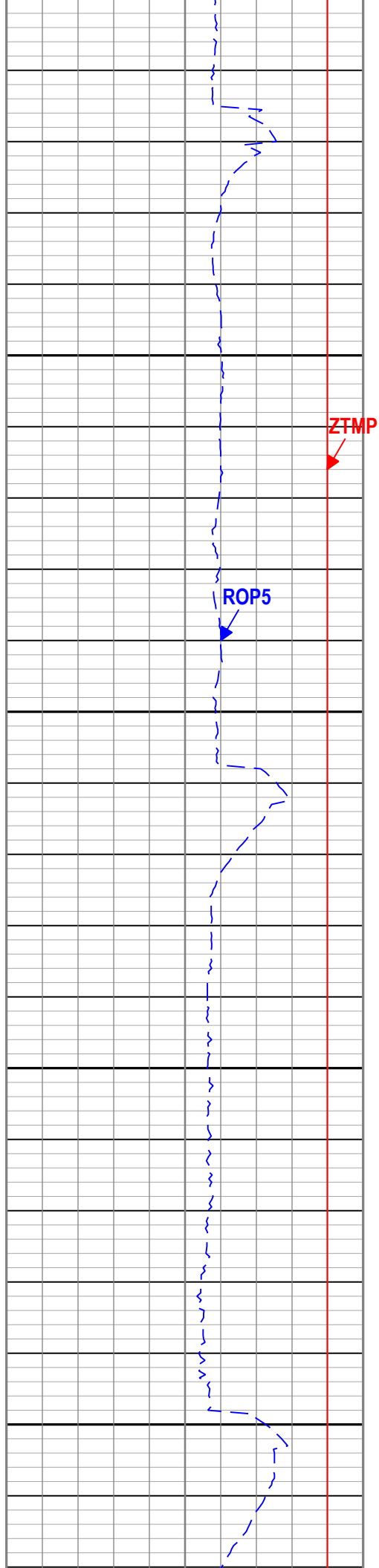
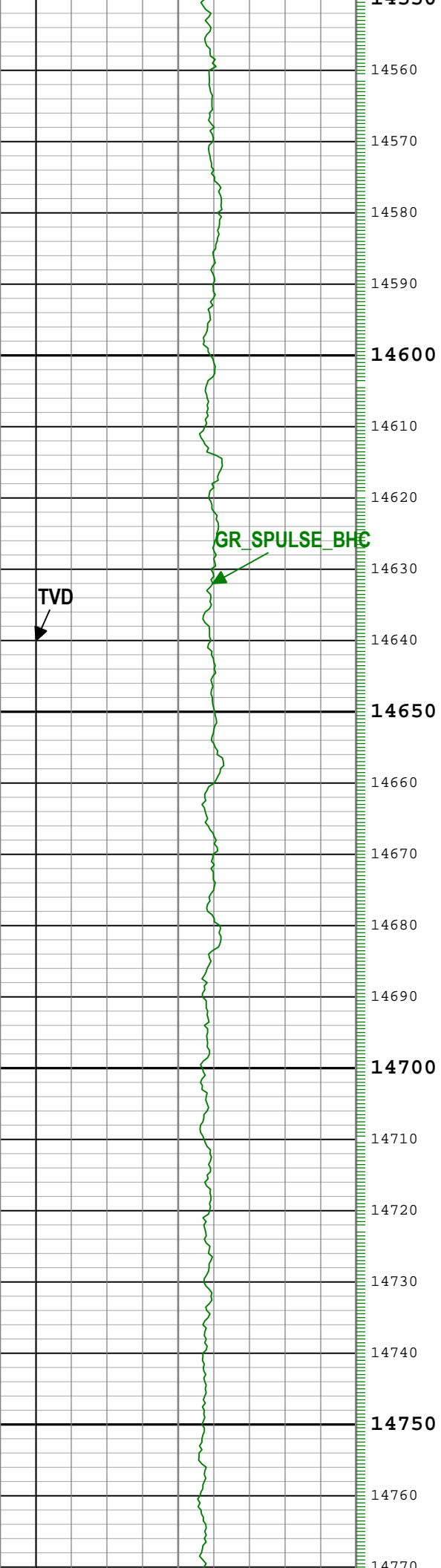


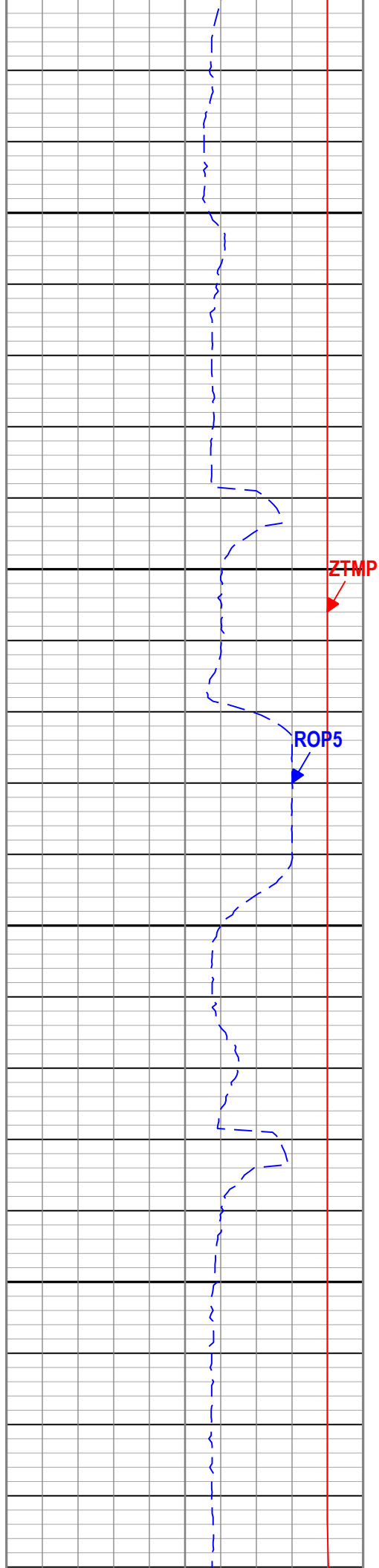
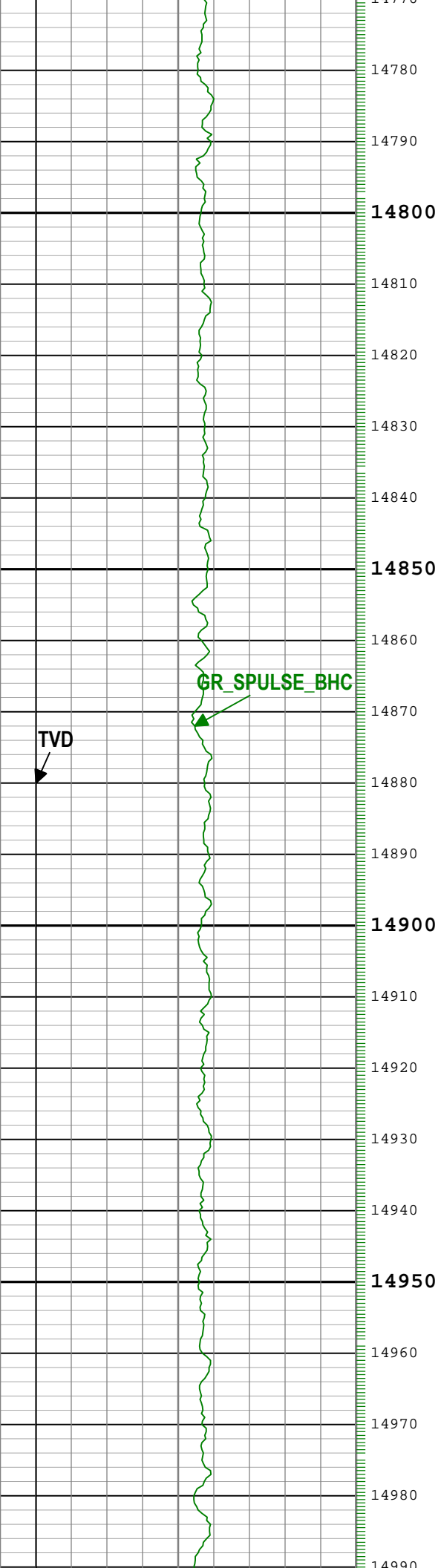


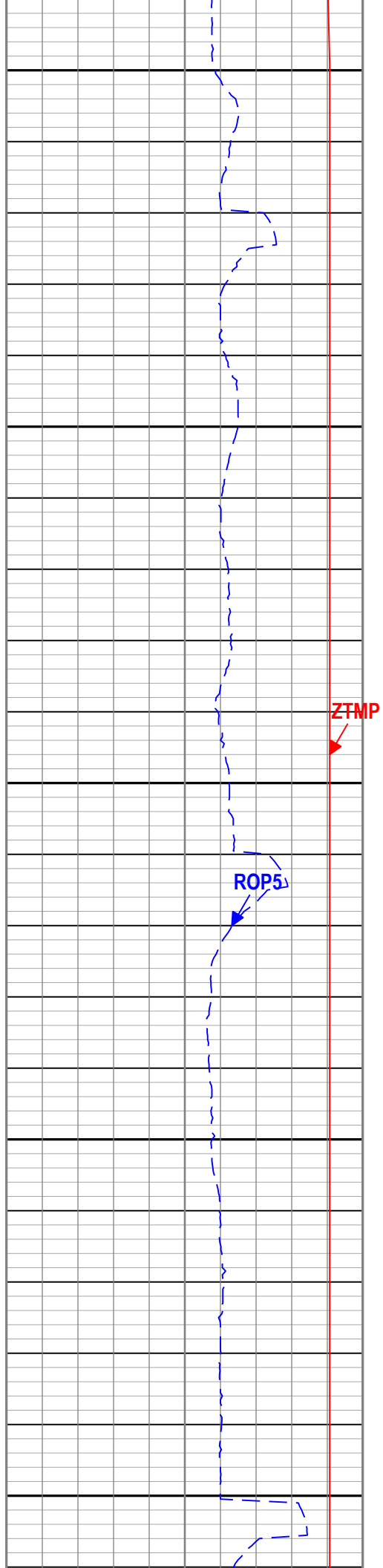
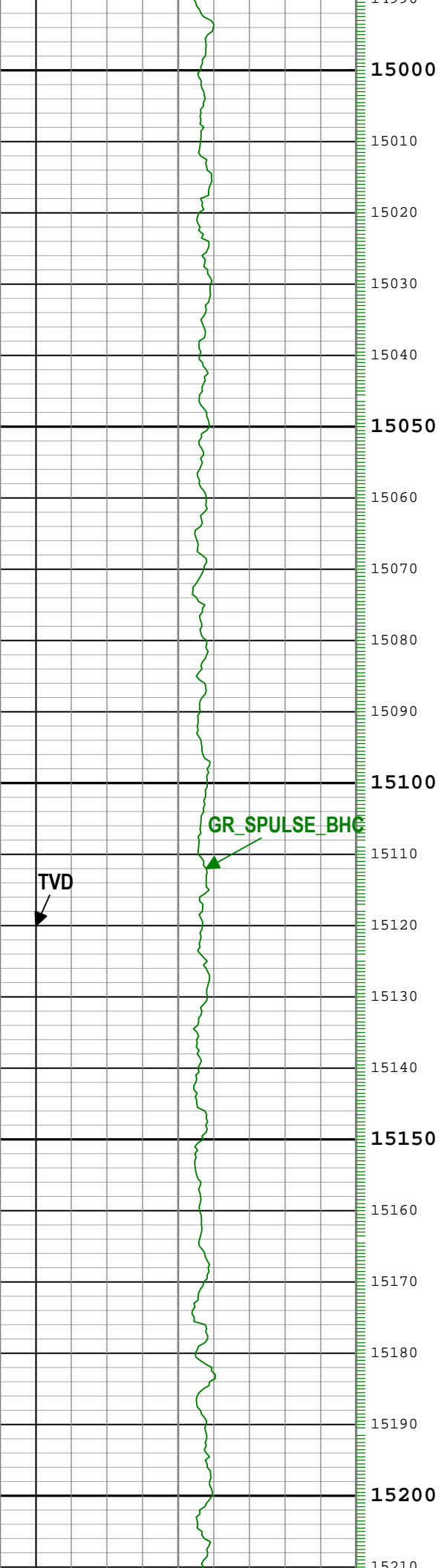


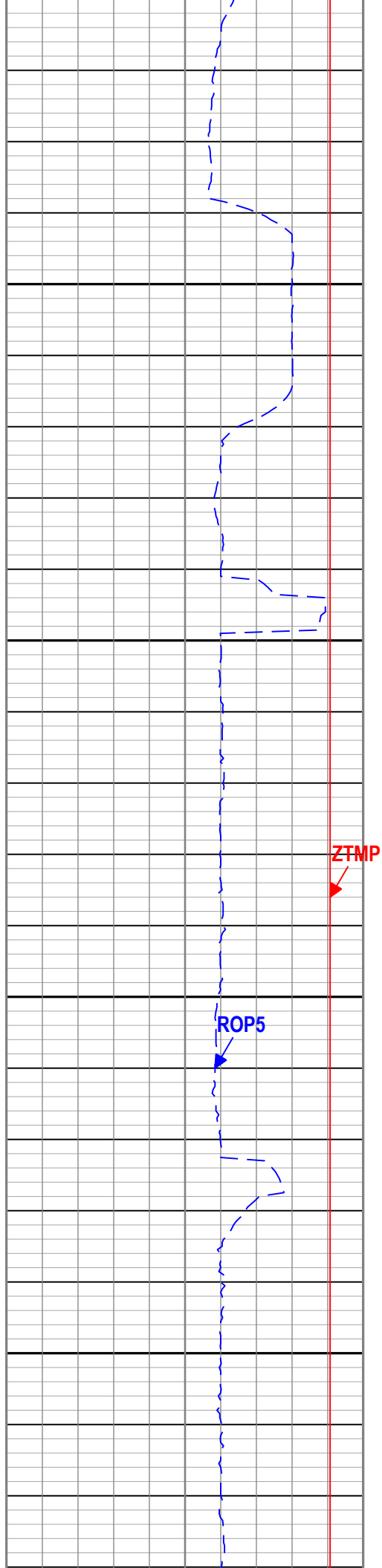
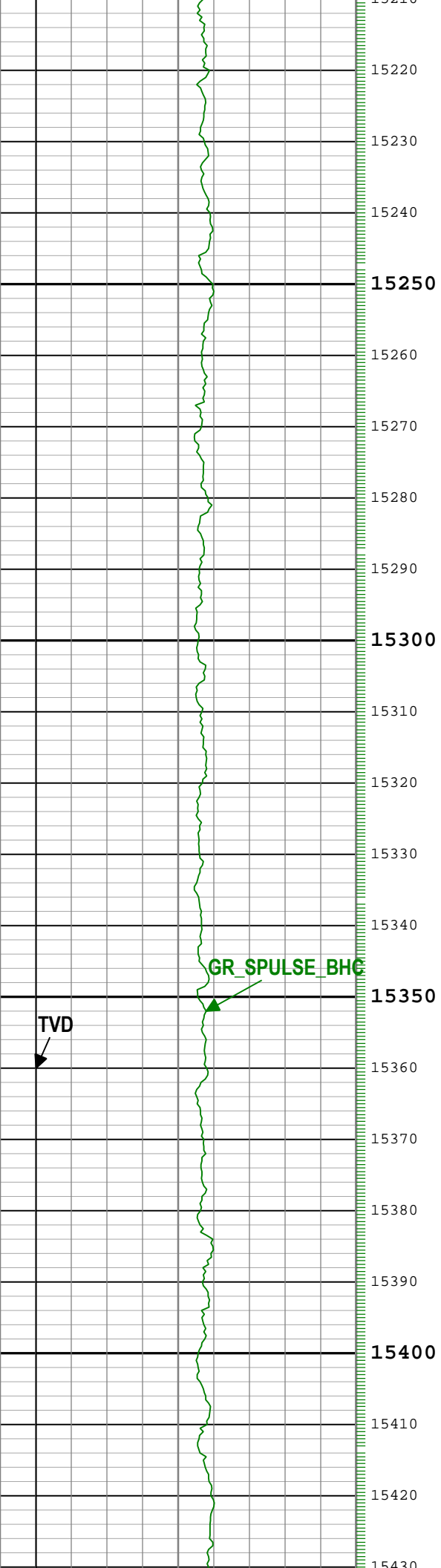


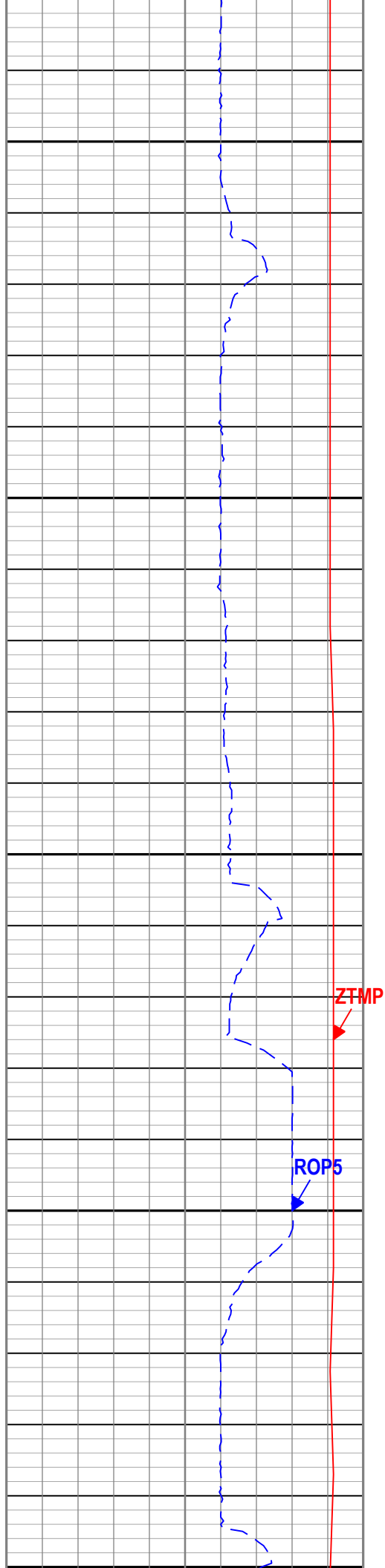
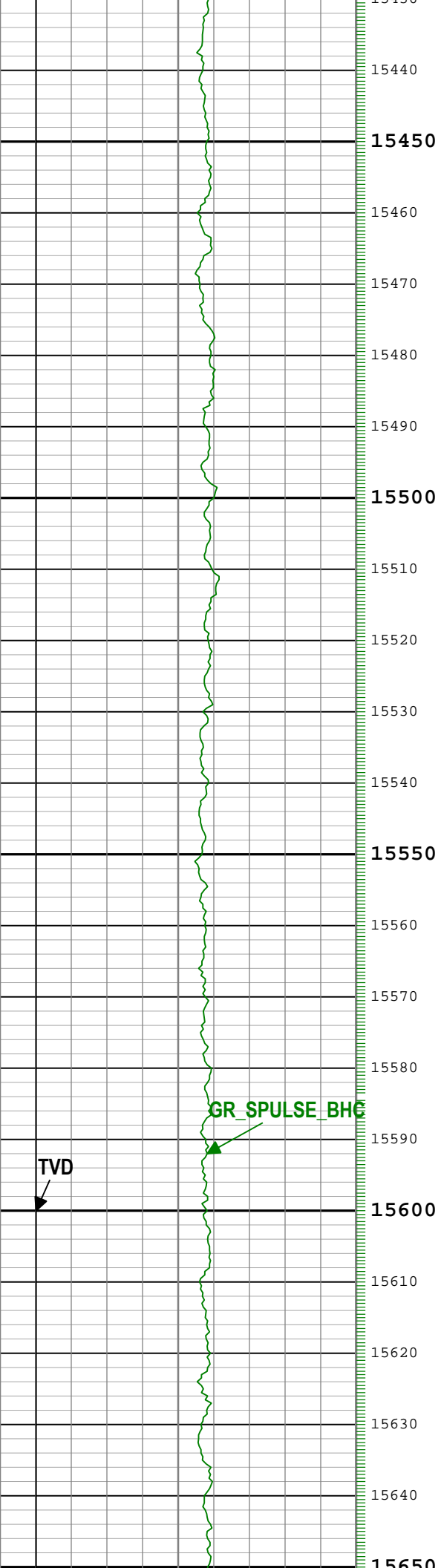


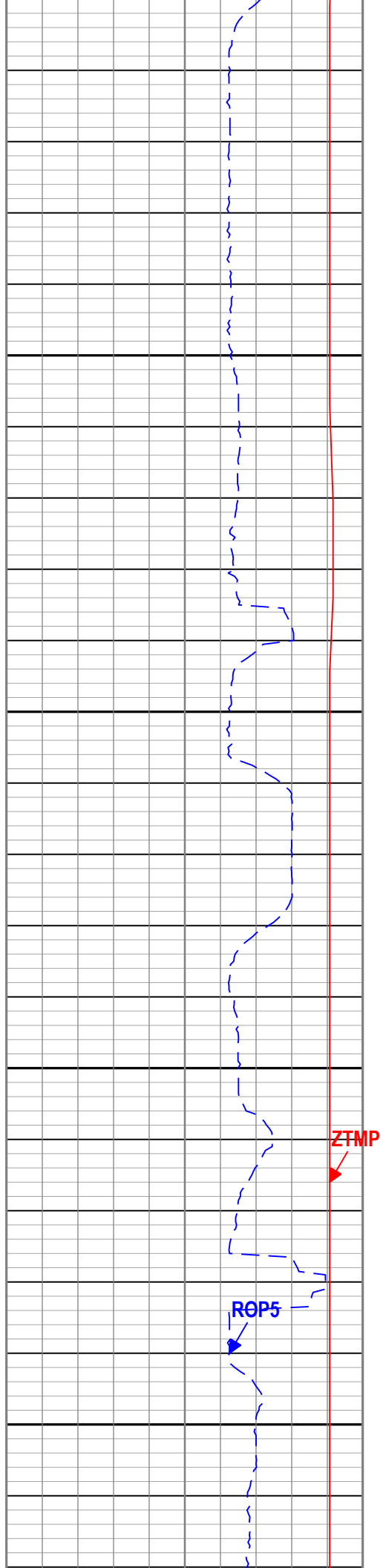
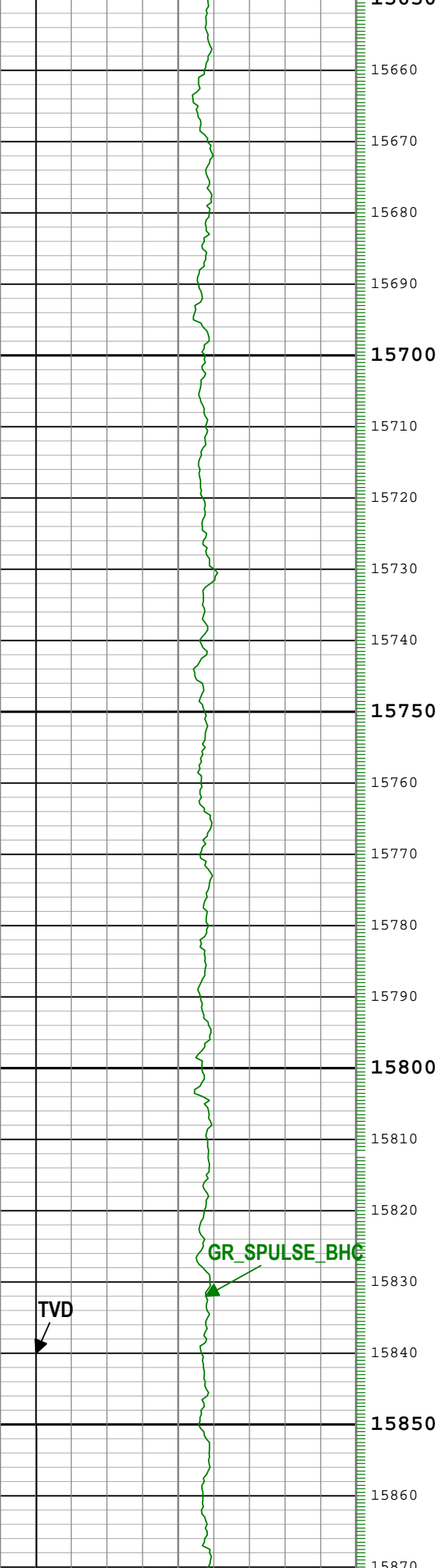


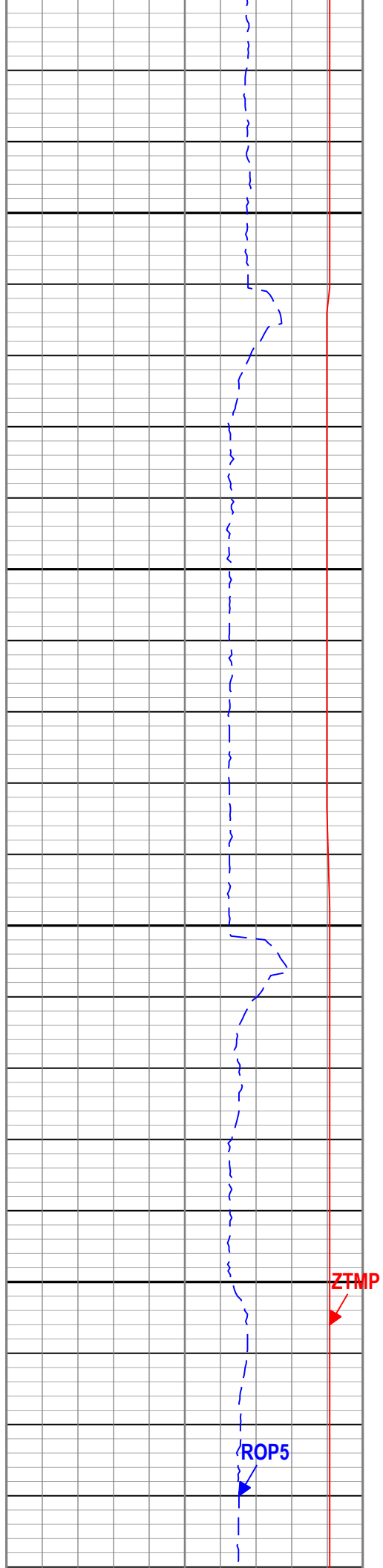
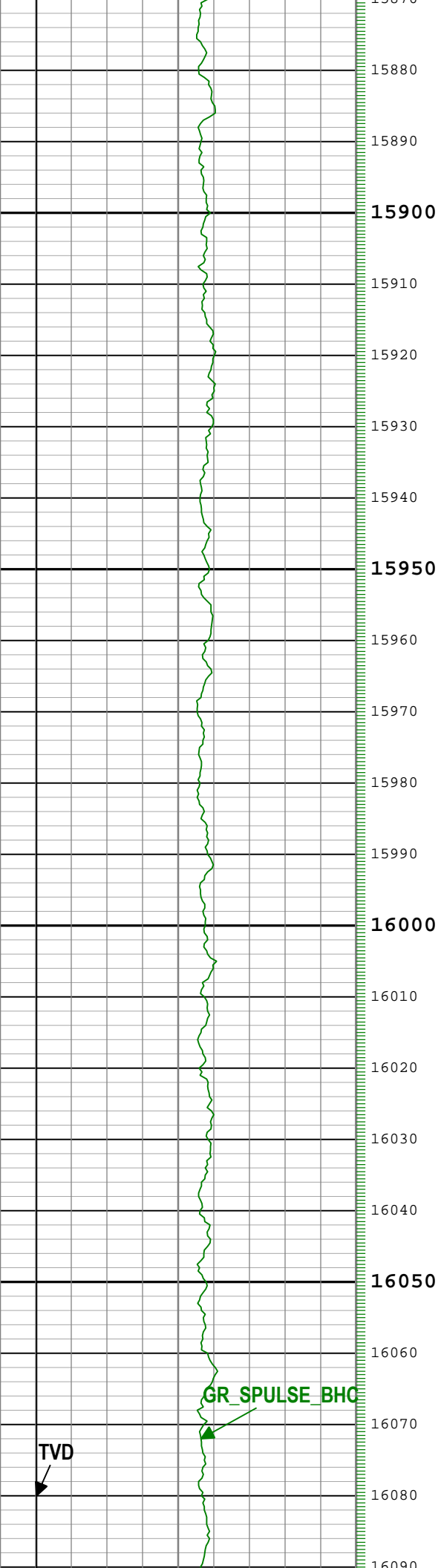


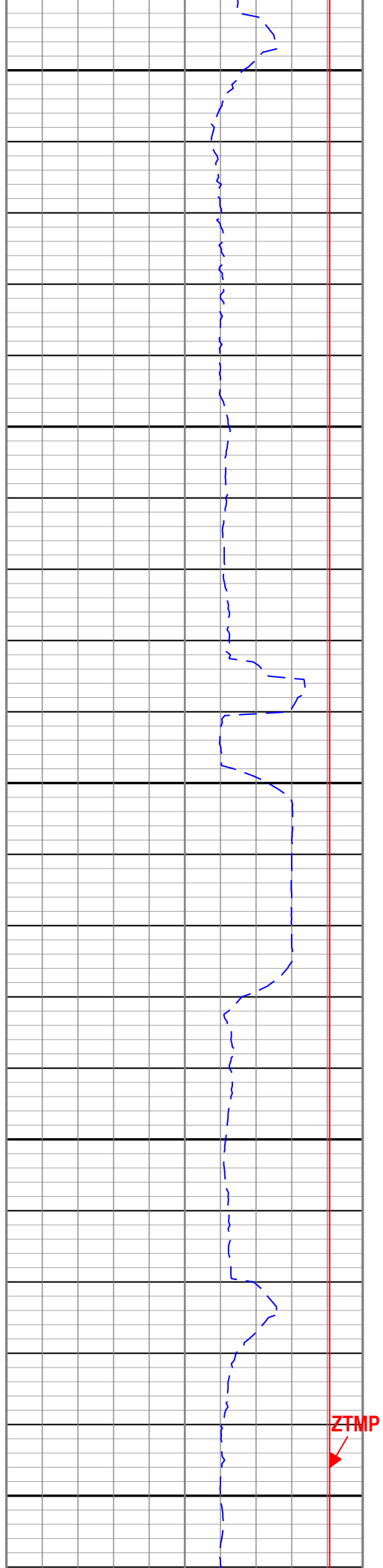
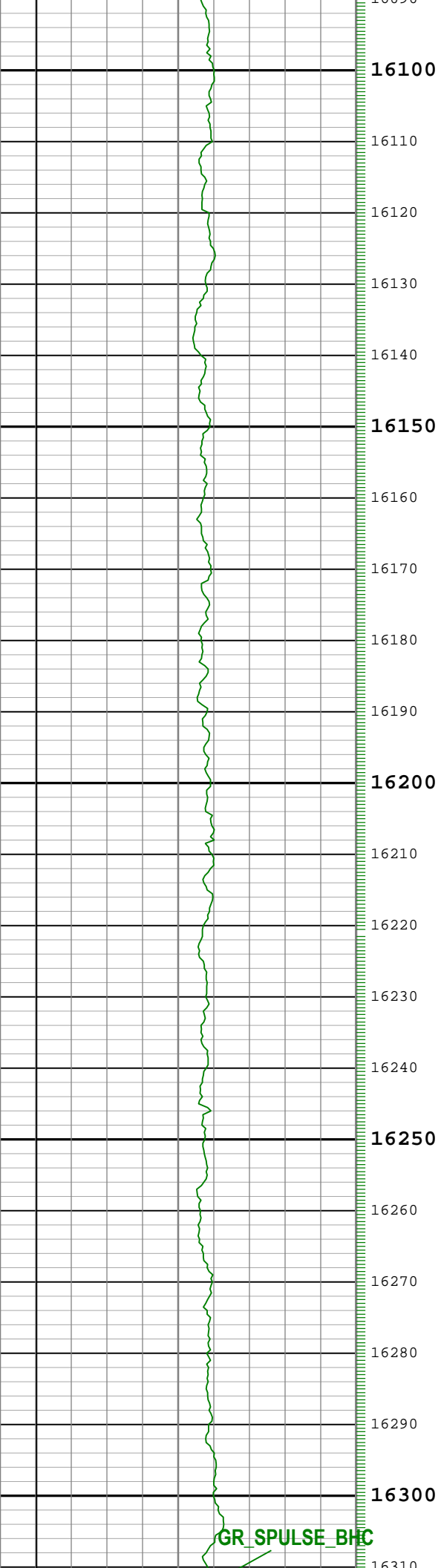


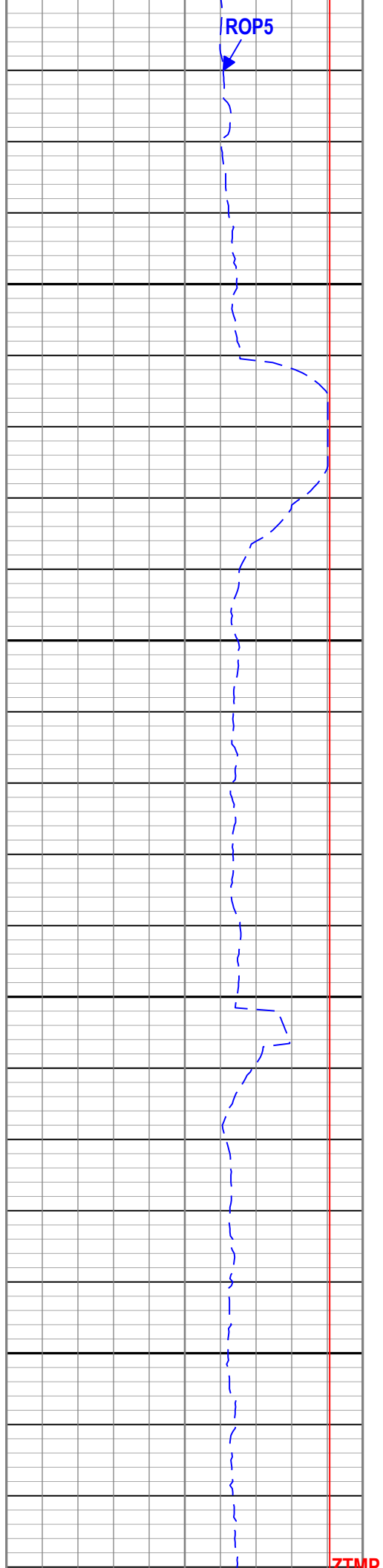
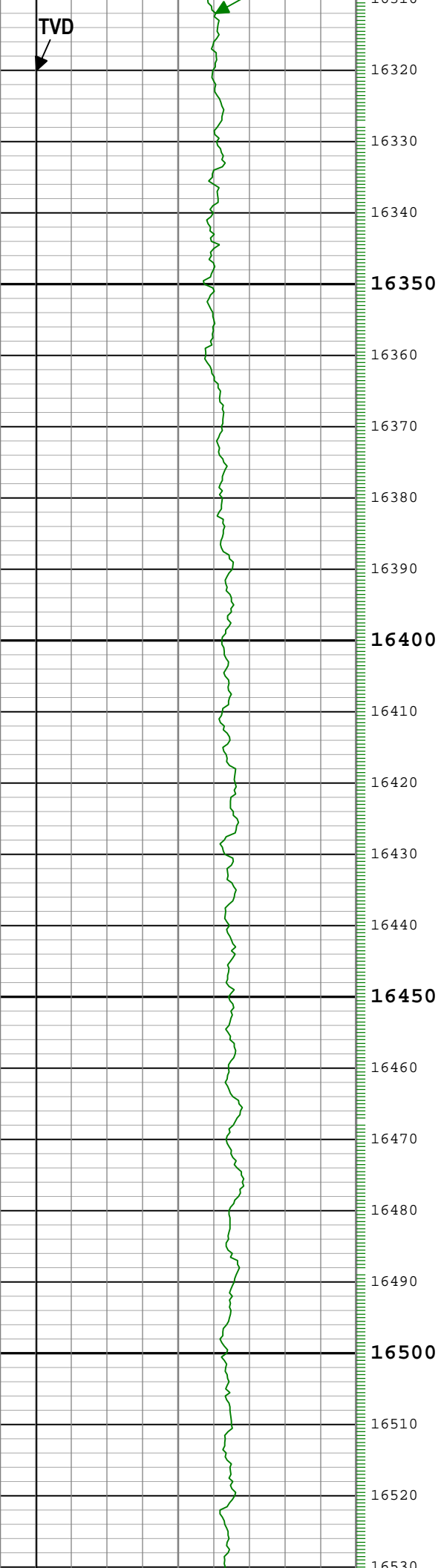


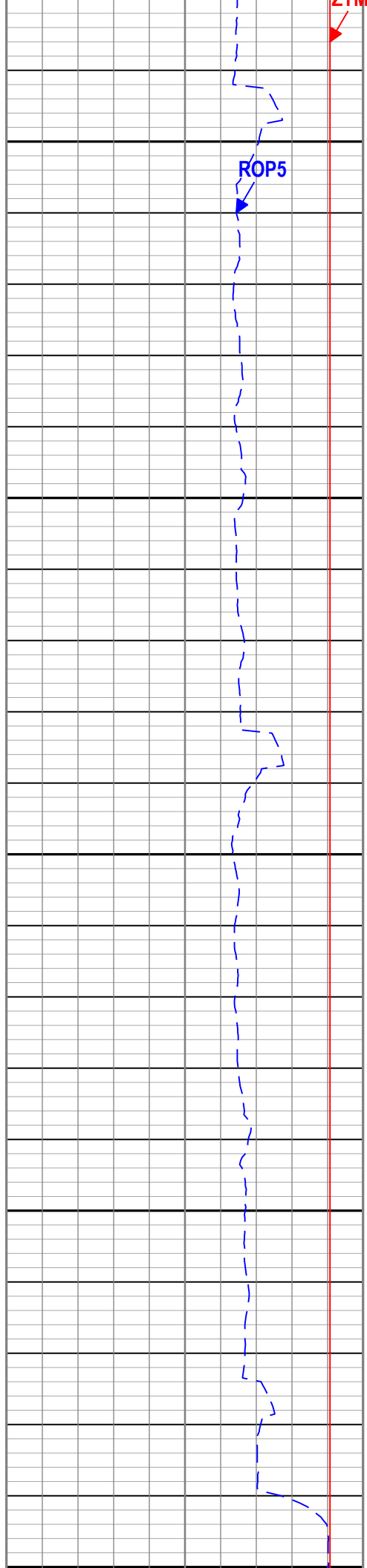
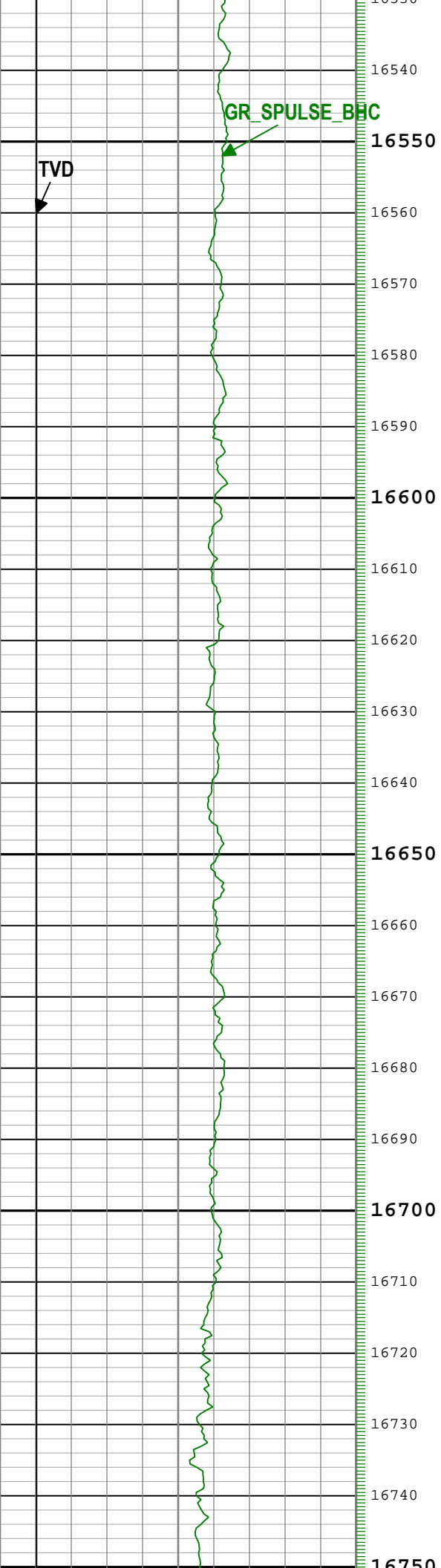


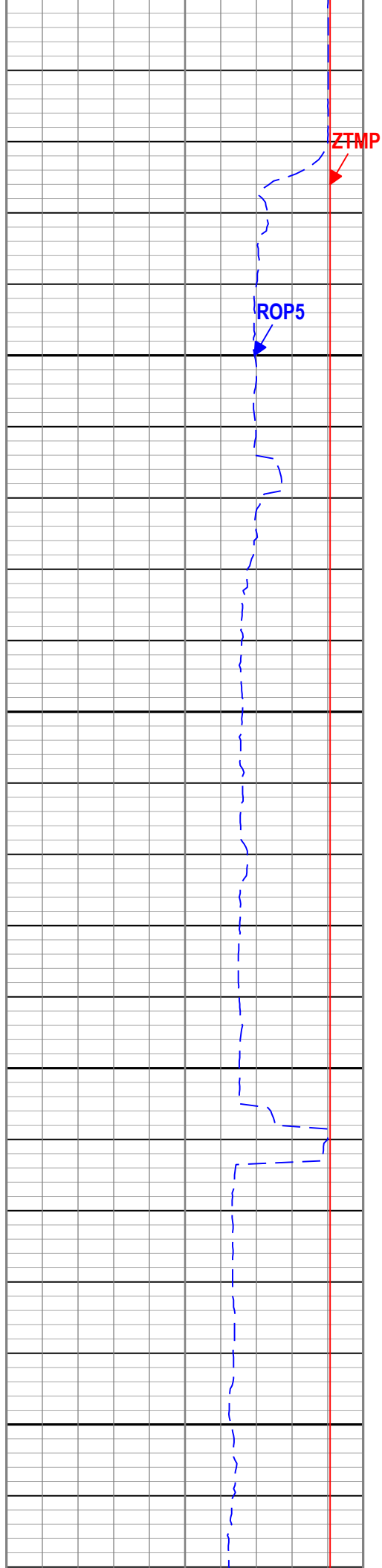
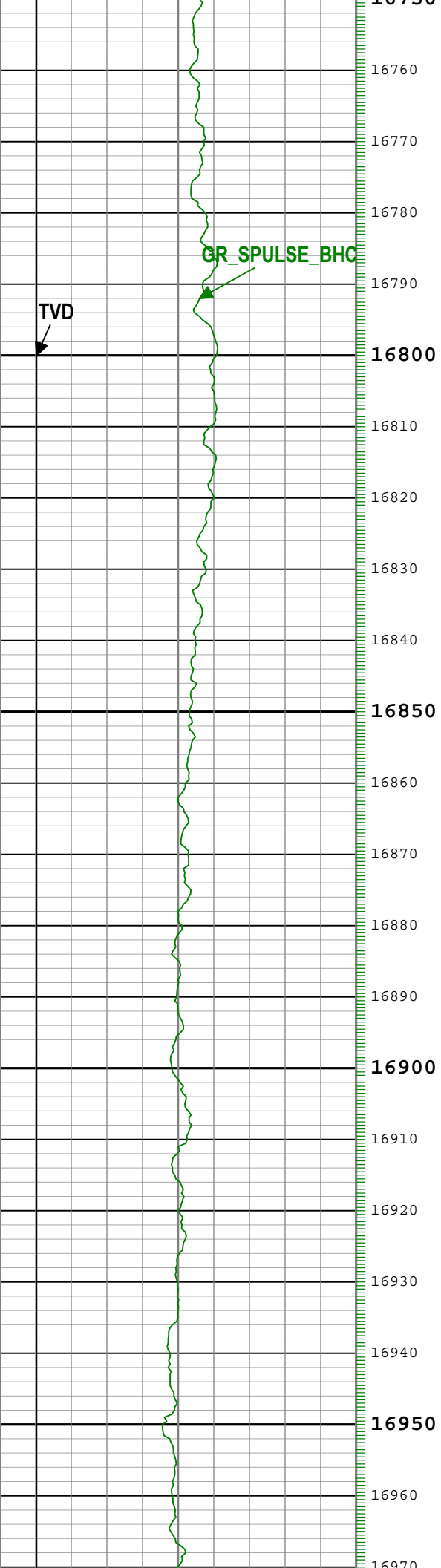


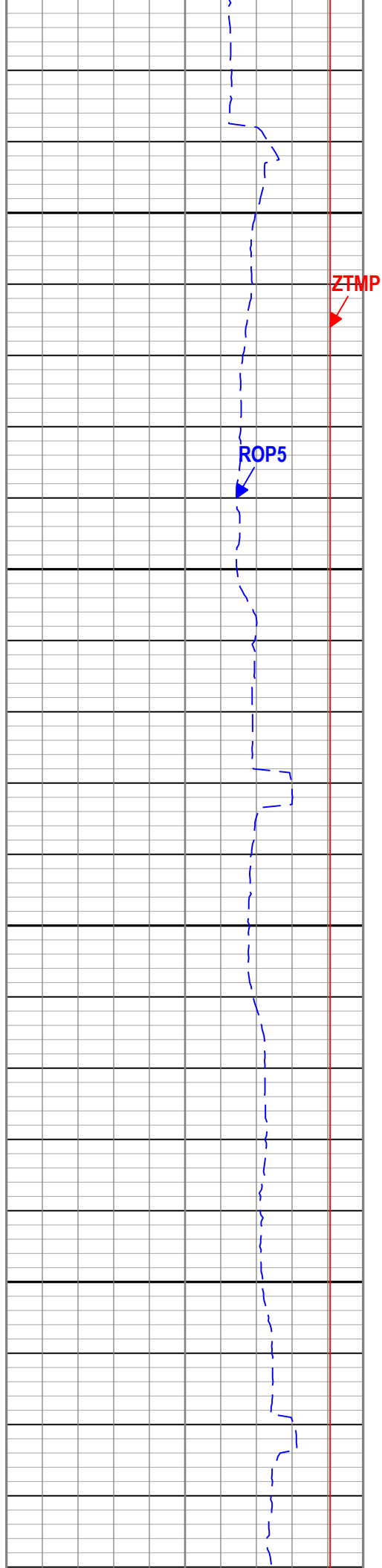
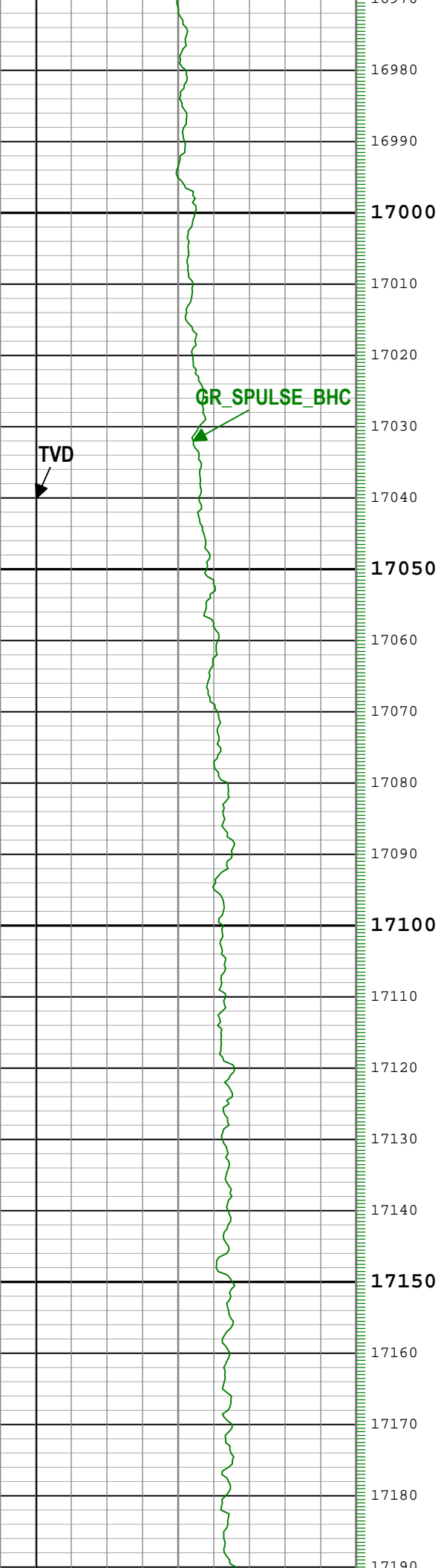


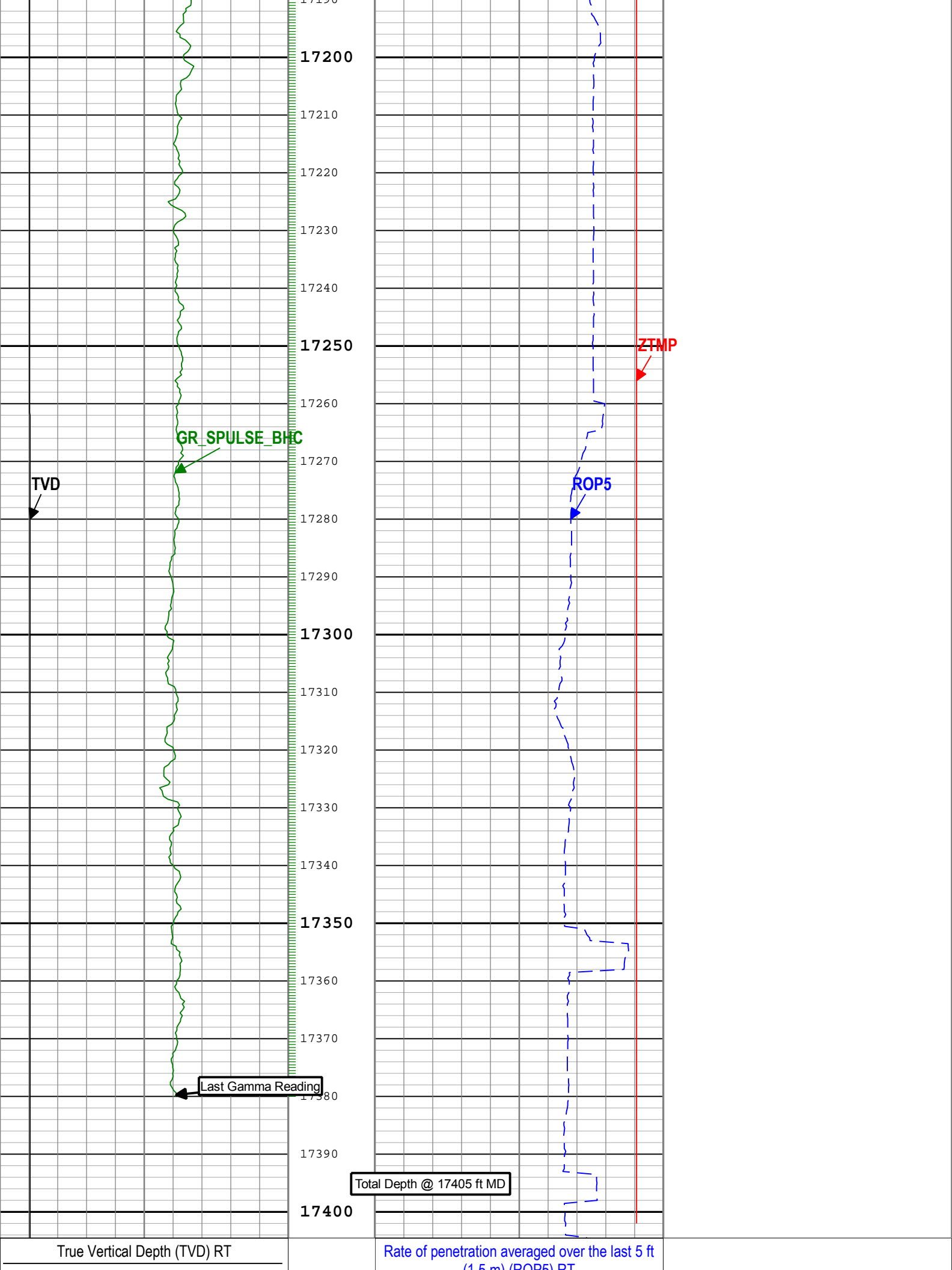












7500	ft	1500
Gamma Ray (GR_SPULSE_BHC) Extreme[1] RM		
0	gAPI	300

(1.5 in) (ROP3) RT		
1000	ft/h	0
Cartridge Temperature (ZTMP) Extreme[1] RT		
0	degF	300

GR_SPULSE_BHC - Gamma Ray Extreme[1] RM

Description: Extreme Gamma Ray 1 RT Format: Log (Extreme Gamma Ray 1 RT_6) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 05-Oct-2019 17:02:40

Channel Processing Parameters	
-------------------------------	--

Run001: Parameters

Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	Depth Zoned	in
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
DFD	Drilling Fluid Density	Borehole	10.5	lbm/gal

Run001Depth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	13.5	1560	1593
BS	8.5	1593	7161.58

All depth are actual.

Run002: Parameters

Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	8.5	in
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
DFD	Drilling Fluid Density	Borehole	10.5	lbm/gal

Tool Control Parameters	
-------------------------	--

Run001: Parameters

Parameter	Description	Tool	Value	Unit
-----------	-------------	------	-------	------

Run002: Parameters

Parameter	Description	Tool	Value	Unit
-----------	-------------	------	-------	------

Company: Great Western Operating Company LLC

Well: Schneider HD 11-219HNX

Field: Wattenberg

County: Weld

State: Colorado

Country: United States of America



Schlumberger XEM Gamma Ray
5in/100ft Measured Depth
Recorded Mode, Composite Log