



REALTIME LOG

Natural Formation Evaluation  
Gamma Ray

Scale: 1:240

Company: Anadarko Oil & Gas LP

Well: USA FED 29N-36HZ

Field: Weld County (Kerr McGee)

County: Weld County State: Colorado

Surface Location: Latitude: 40° 10' 36.296" N Longitude: 104° 43' 57.972" W

Section: 36 TWN: 3N Range: 66W

Permanent Datum (P.D.): Ground Level Elevation: 5024.00 ft.

Log Measured From: Kelly Bushing 17.00 ft. Above P.D.

Depth Reference: Driller's Depth

Other Services: ELEVATIONS: 17.00 ft. N/A

Directional VSS

Interval Logged

Dates

Magnetic Field Reference

Top: 6700.0 ft. Date From: 23/Sep/13 Date To: 29/Sep/13 Dip Angle: 66.96° Az Reference North: True

Bottom: 11789.0 ft. Spud Date: 22/Sep/13 Field Strength: 52713.0 nT North Correction: 8.58°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
13.500 in.	SURFACE	940.0 ft.	9.000 in.	36.00 lb/ft	Surface	898.0 ft.
8.500 in.	940.0 ft.	7775.0 ft.	7.000 in.	27.00 lb/ft	Surface	7765.0 ft.
6.125 in.	7775.0 ft.	11826.0 ft.				

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based Mud	940.0 ft.	11826.0 ft.	13.500 in.	Surface	0.0° / 0.0°	0.3° / 251.5°
			8.500 in.	Vertical/Curve	0.8° / 241.3°	85.6° / 1.7°
			6.125 in.	Lateral	85.6° / 1.7°	89.9° / 359.2°
					/	/
					/	/
					/	/
					/	/

Acquisition System

Software Version

Other

Advantage	2.20U4	Rig / Contractor:	Xtreme 8	/ Xtreme Coil Drilling
PATS	6.4.1.34	Job No:	5797242	
		District / Unit:	Rocky Mountain	/ D & E

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Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size  (in.)	Bit Type	Bit Gauge Length  (in.)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ.
							Top	Bottom	From	To	Start	End	Time  (hrs.)
							(ft.)	(ft.)	(ft.)	(ft.)			
2	2	2	8.500	PDC		Mud Motor	6692.9	7733.0	940.0	7775.0	23/Sep/2013 20:30	26/Sep/2013 18:05	49
3	3	3	6.125	PDC		Mud Motor	7733.0	11789.0	7775.0	11826.0	28/Sep/2013 01:44	29/Sep/2013 08:30	36

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Kevin Sheridan	18/Sep/2013	25/Sep/2013	Nick Roosen	25/Sep/2013	30/Sep/2013	Shirley Arimah	18/Sep/2013	30/Sep/2013

Mud Properties Record

Date / Time		LWD Run No.	Measured Depth (ft.)	Mud Type	Density (ppg)	Viscosity (s/qt)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
26/Sep/2013	19:03	2	7060.0	Water Based Mud	10.0	38	9.0	N/A	2 / 88	Flowline	1400	0.0
28/Sep/2013	19:00	3	10500.0	Water Based Mud	9.7	39	9.0	N/A	2/90	Flowline	1300	0.0

Mnemonics		
Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg	API
GRIX	Gamma Ray Density	points
TCDX	Downhole Temperature	degF
ROP_AVG	Rate of Penetration, 3.0 ft. Avg	ft/hr
WOB_AVG	Surface Weight on Bit, 1.0 ft. Avg	klbs
GRSI	Gamma Ray Sliding Indicator	unitless

Equipment and Service Data						
LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (m.)	Max O.D. (in.)	Min I.D. (in.)
2	DIR	11730418	Directional	45.20	6.750	0.000
2	SRIG	12554657	Gamma	41.82	6.750	0.000
3	DIR	12235767	Directional	57.41	6.750	0.000
3	SRIG	10392040	Gamma	54.66	6.750	1.750

Service and Tool Mnemonics		
Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments	
<p>(1) Baker Hughes INTEQ run 2 utilized 6 1/2 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 940 to 7775 feet MD (940 to 7298 feet TVD)</p> <p>(2) Baker Hughes INTEQ run 3 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 7775 to 11826 feet MD (7298 to 7305 feet TVD)</p> <p>(3) A sliding indicator is shown to the right edge of track 1 as a heavy line.</p>	

Remarks				
Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	7775	8.500	2	The interval from 7733 to 7775 feet MD (7297 to 7299 feet TVD) was logged up to 20 hours later due to trip out of hole to pick up 4 3/4 BHA for Lateral Run.
2	11826	6.125	3	The interval from 11789 to 11826 feet MD (7304 to 7305 feet TVD) was not logged due to sensor offset to bit at TD.

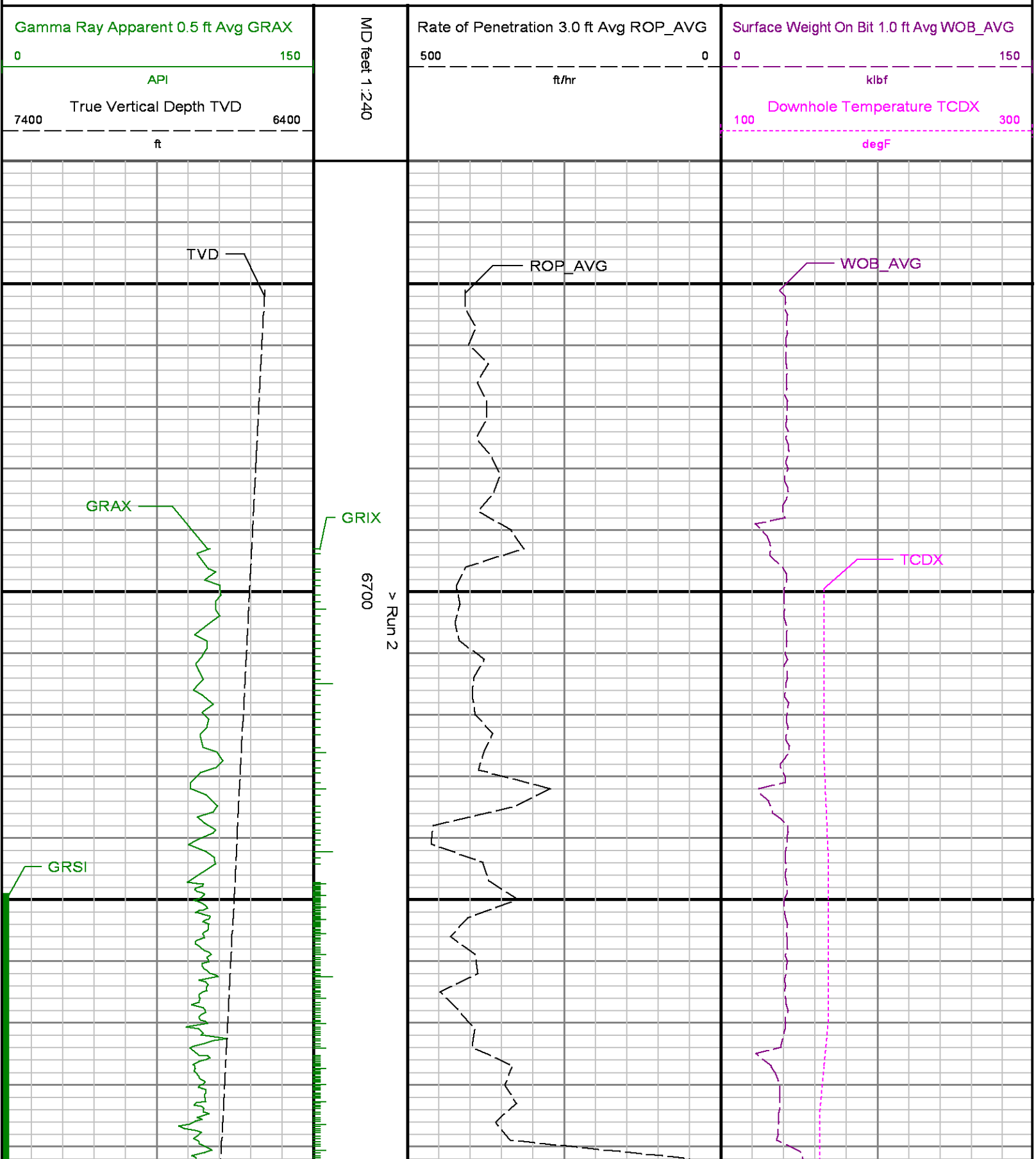


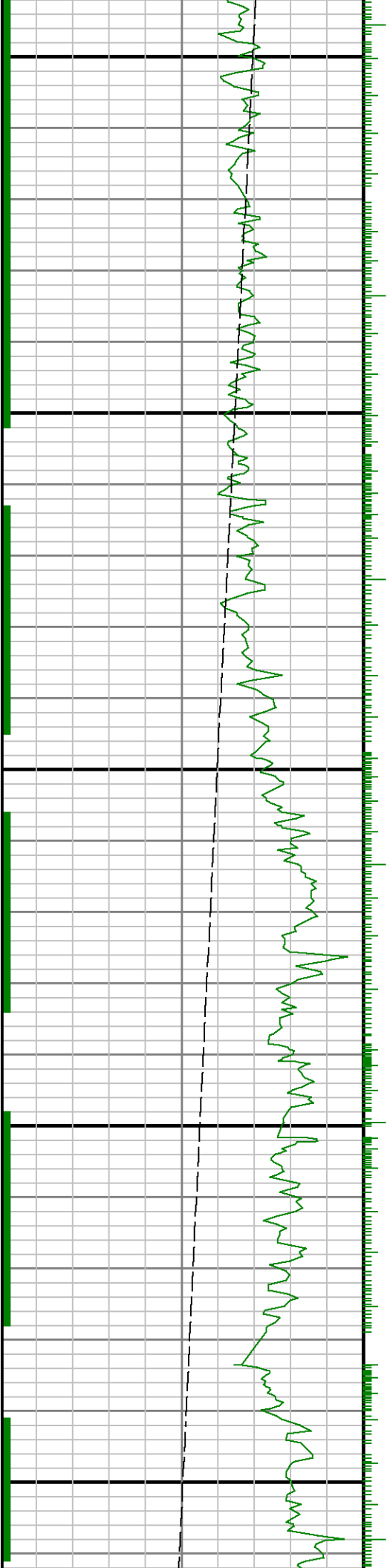
Company : Anadarko

Well : USA FED 29N-36HZ

Interval : 6630.00 - 11840.00 feet

Created : 29/Sep/2013 10:49:07 AM

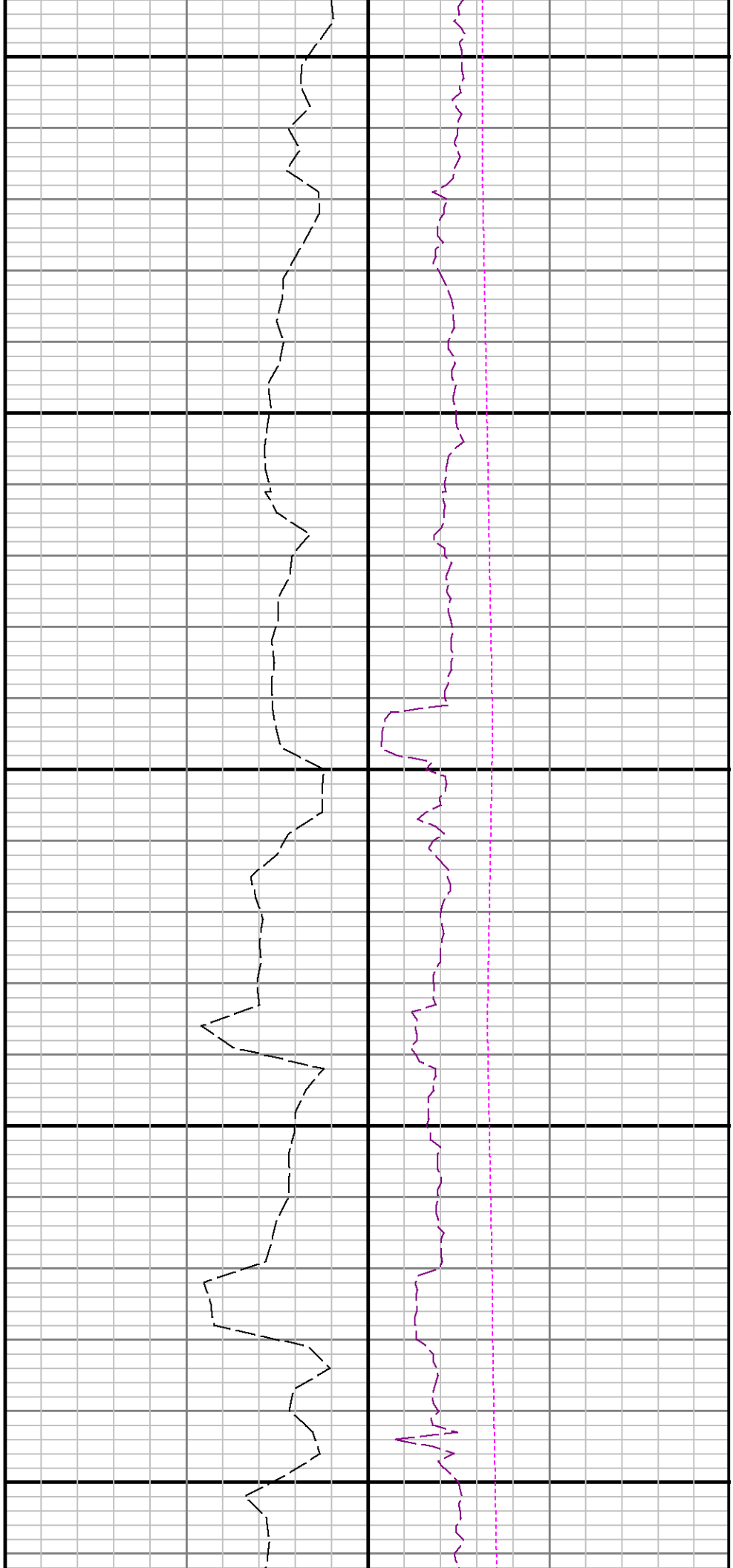


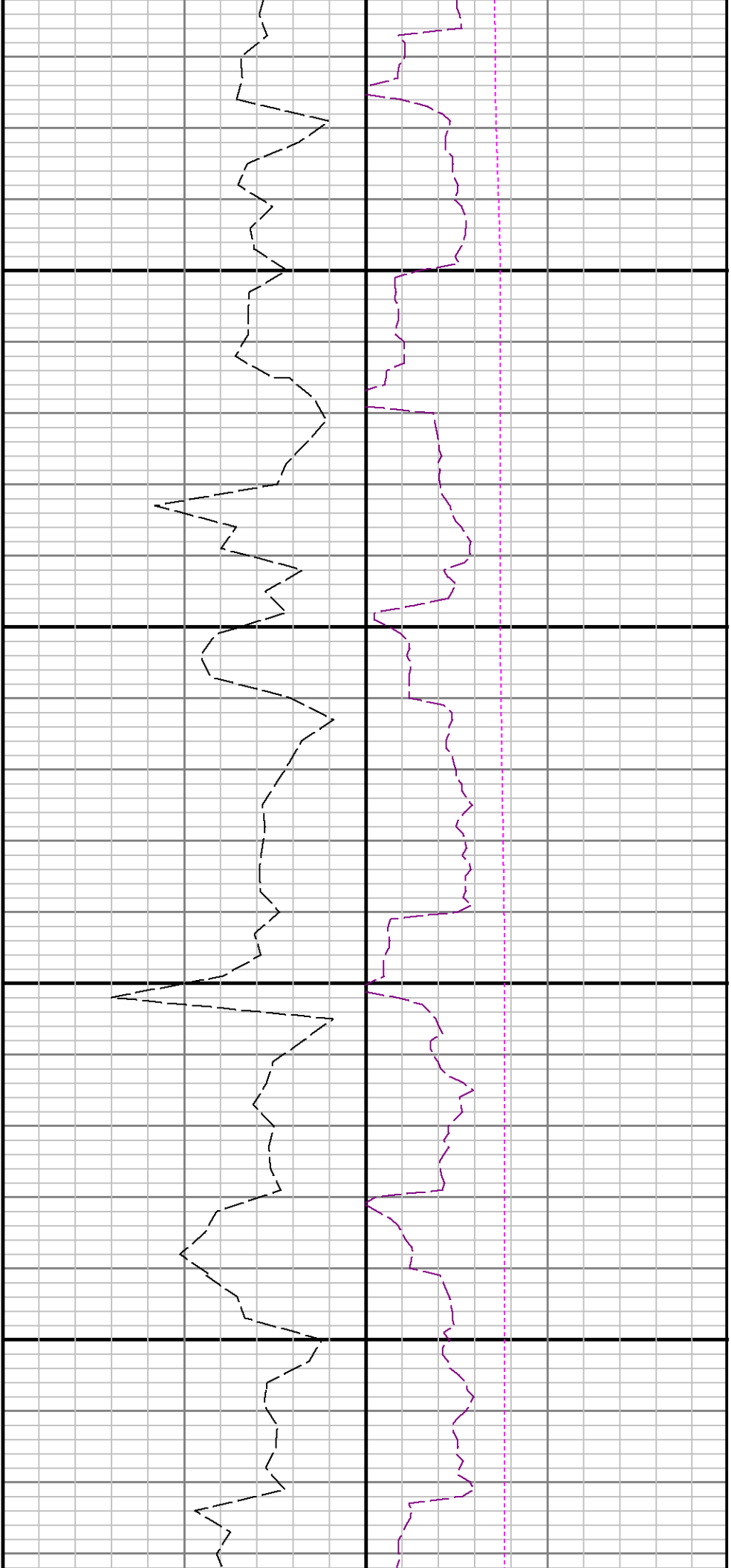


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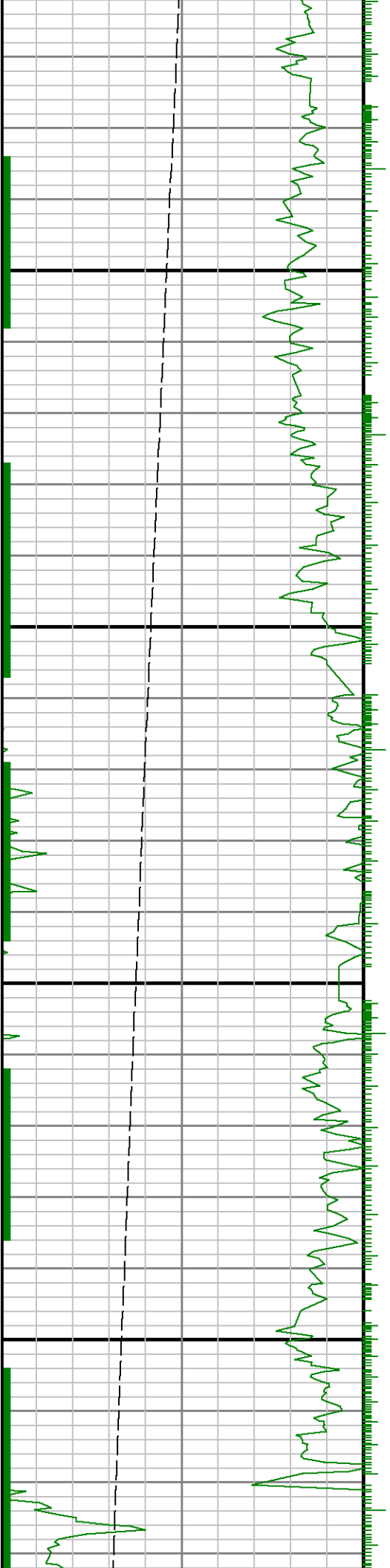
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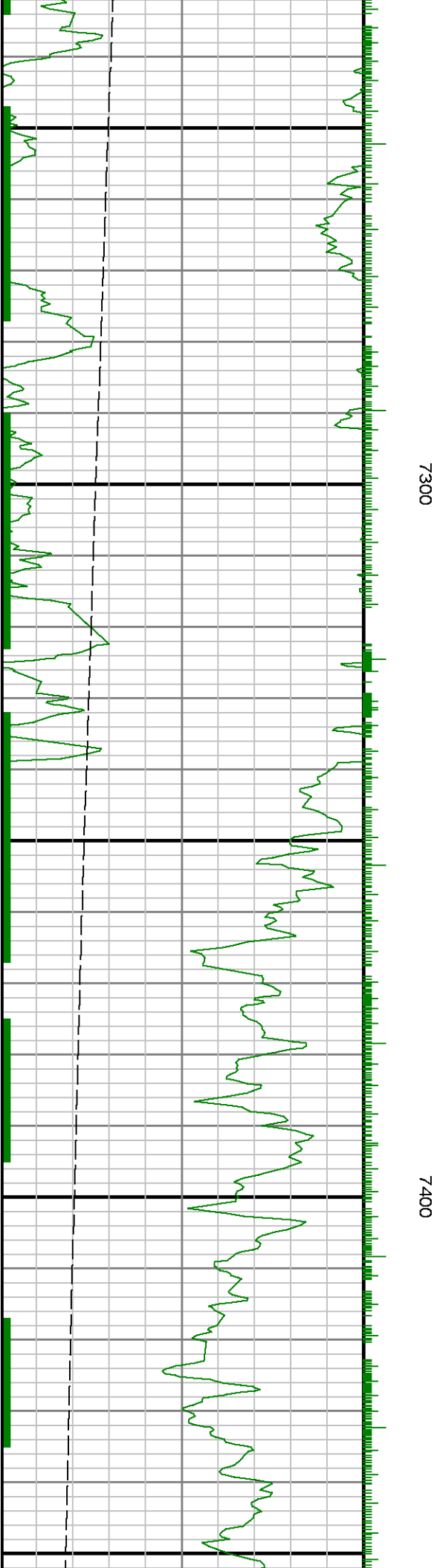
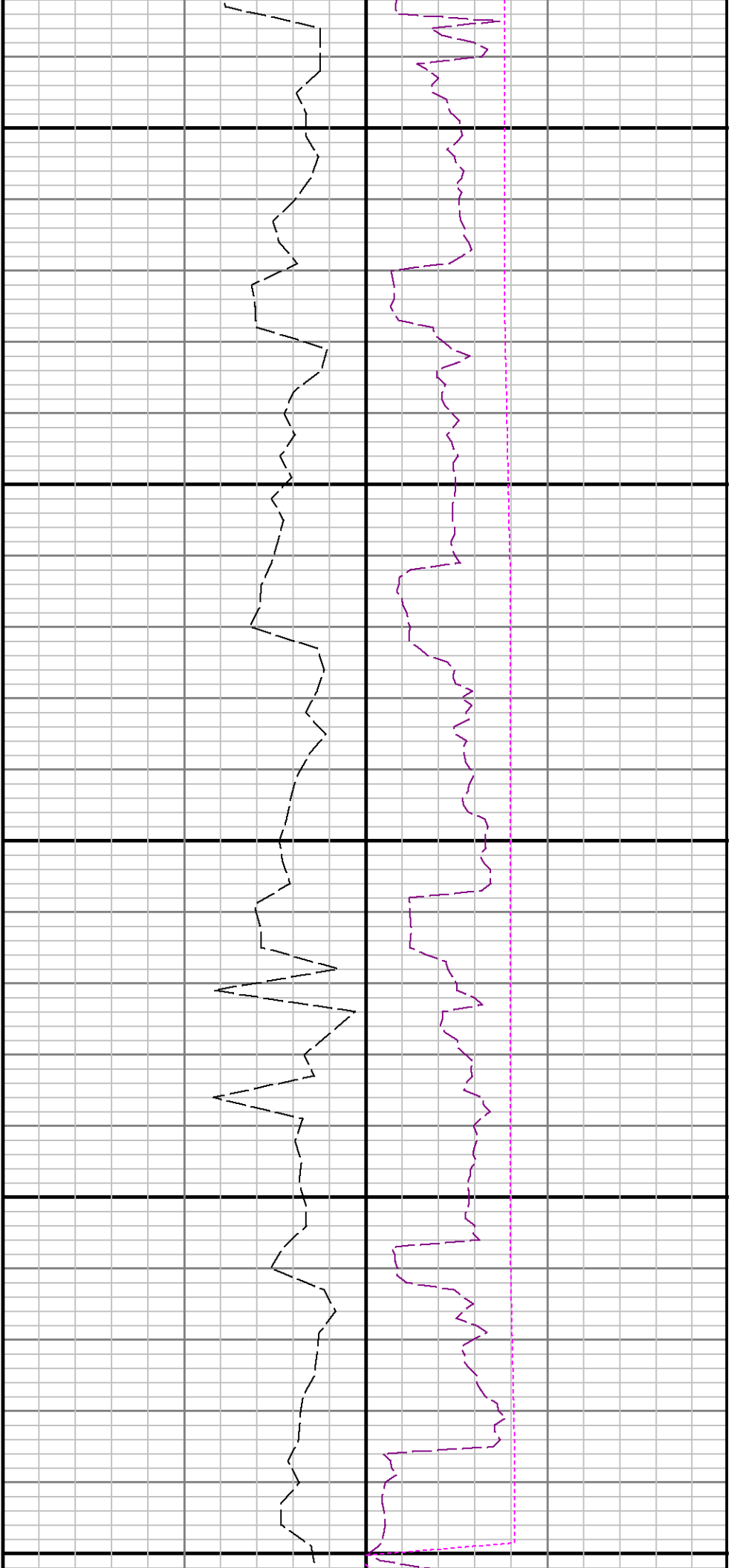


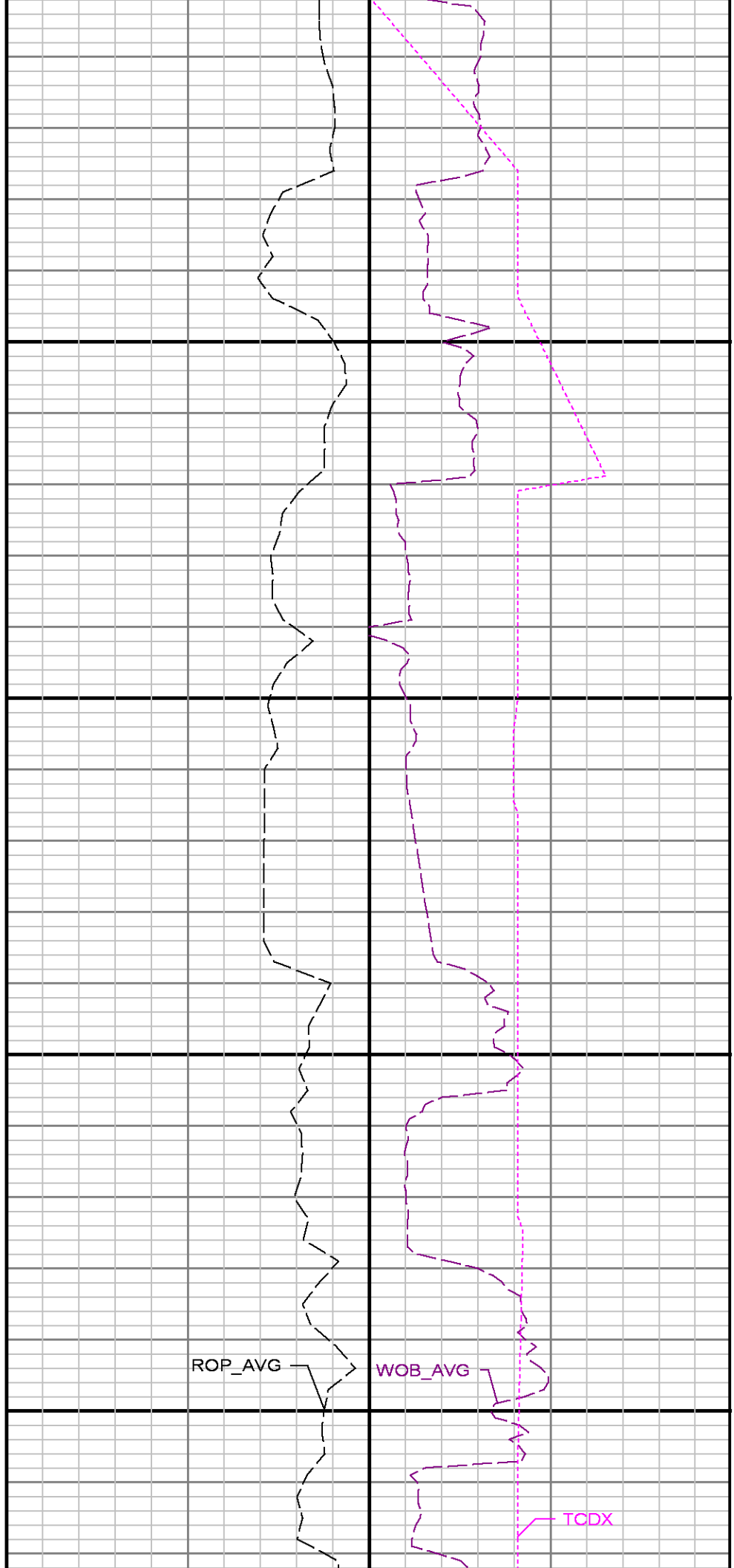
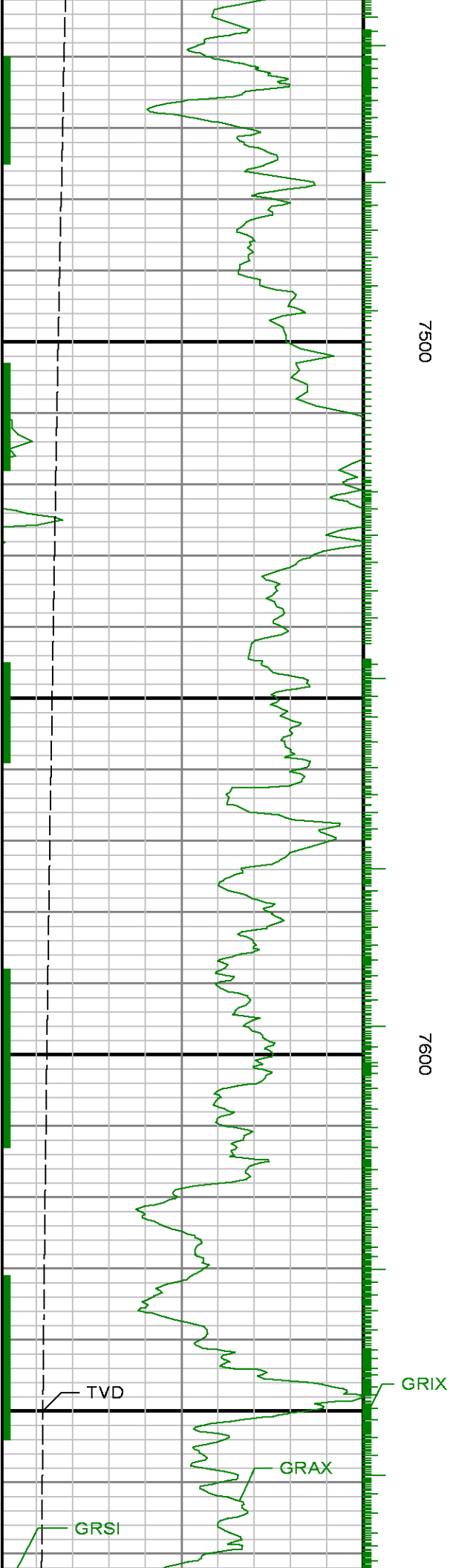


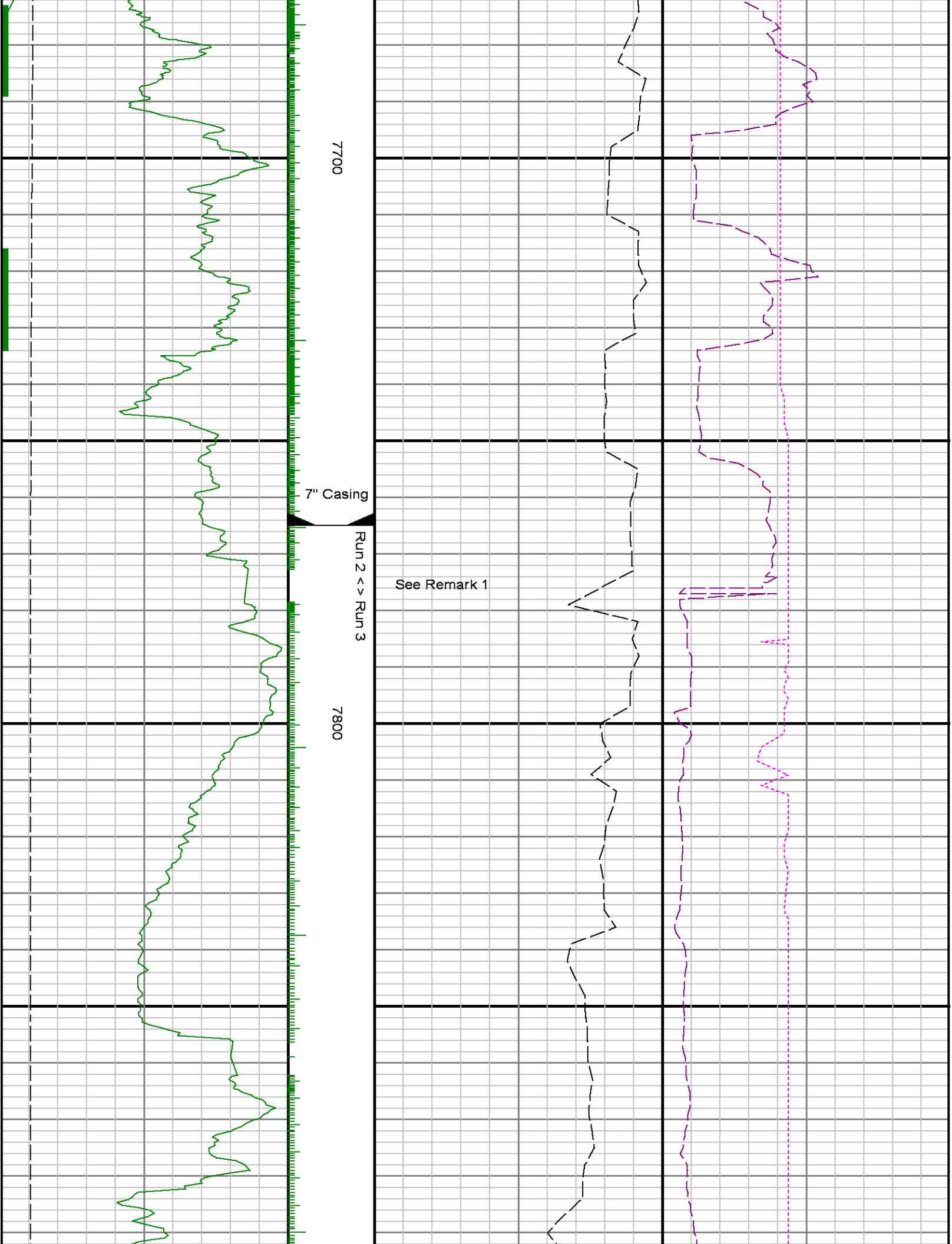
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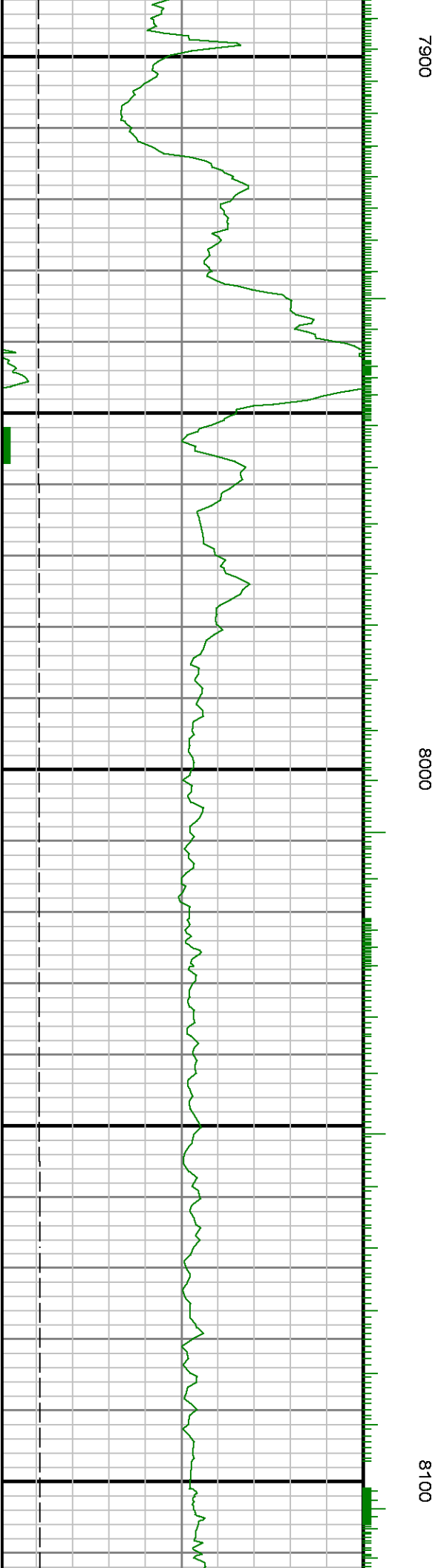
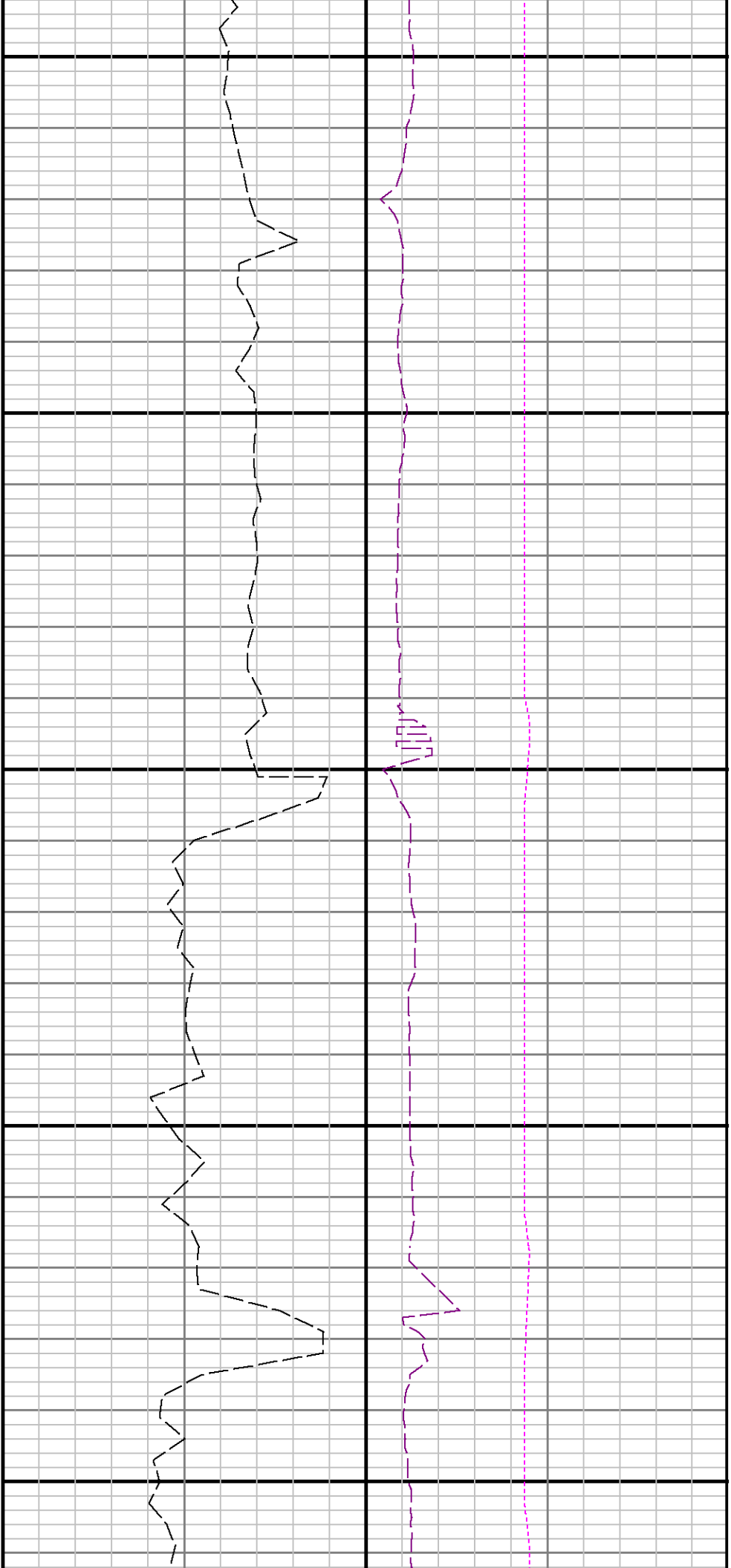


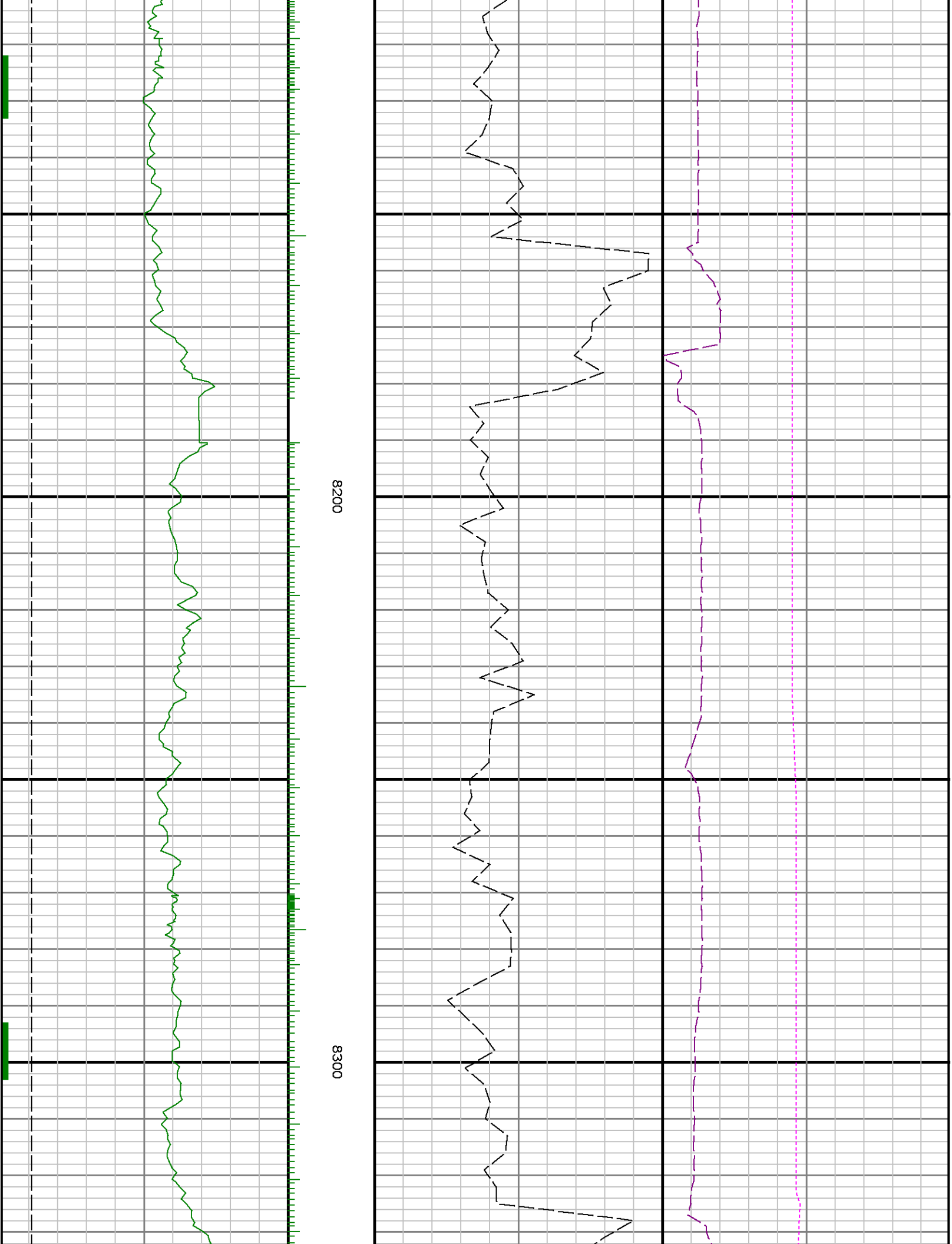


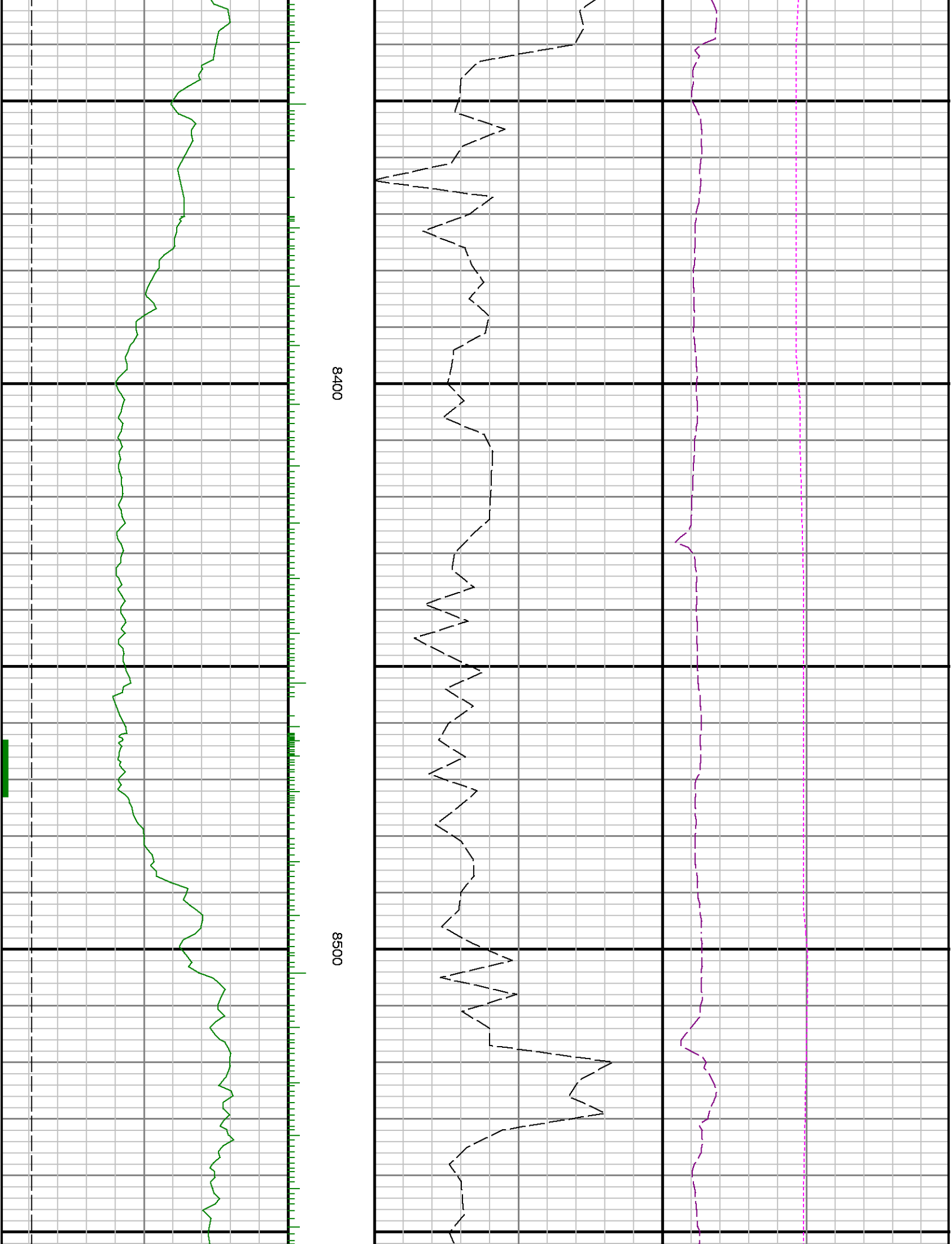


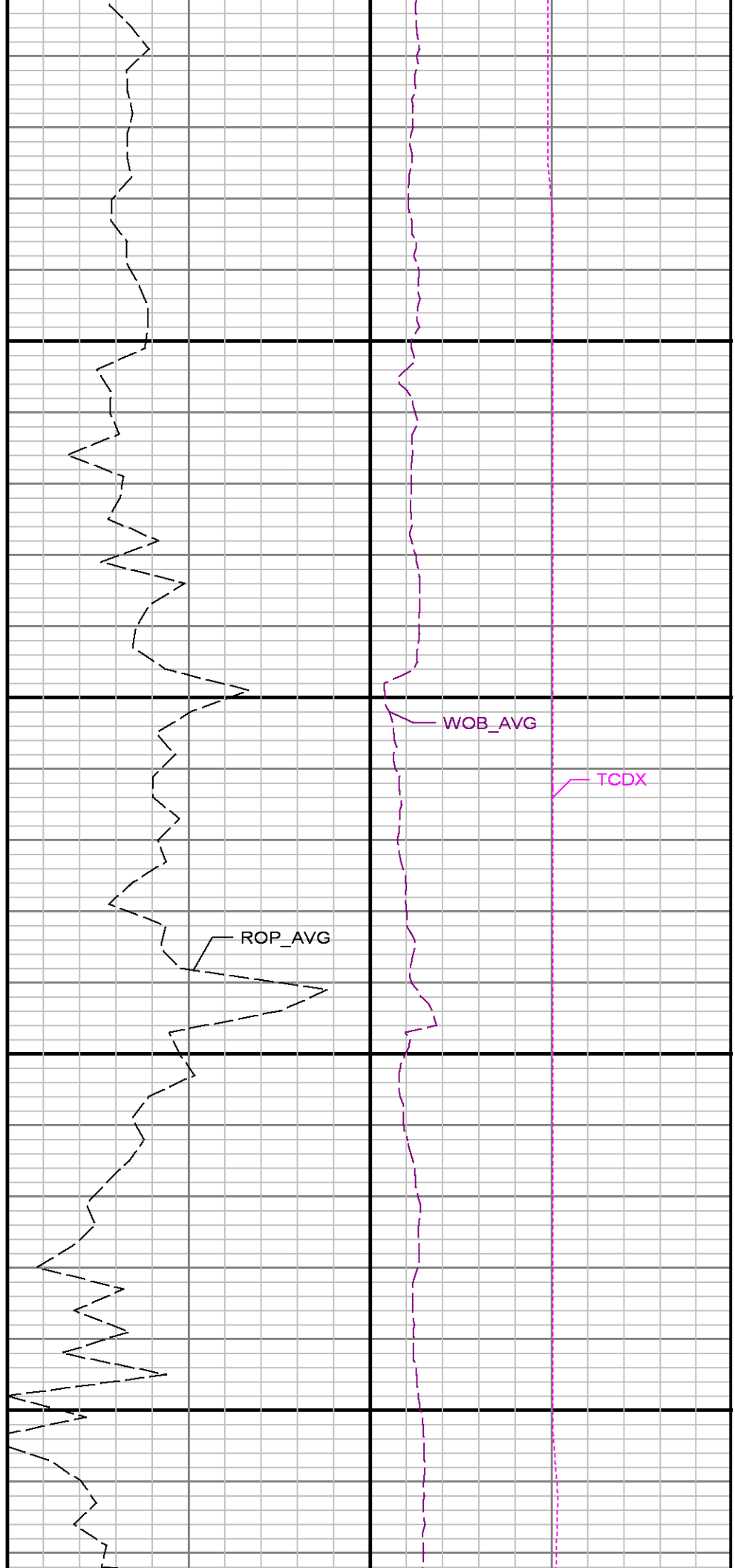
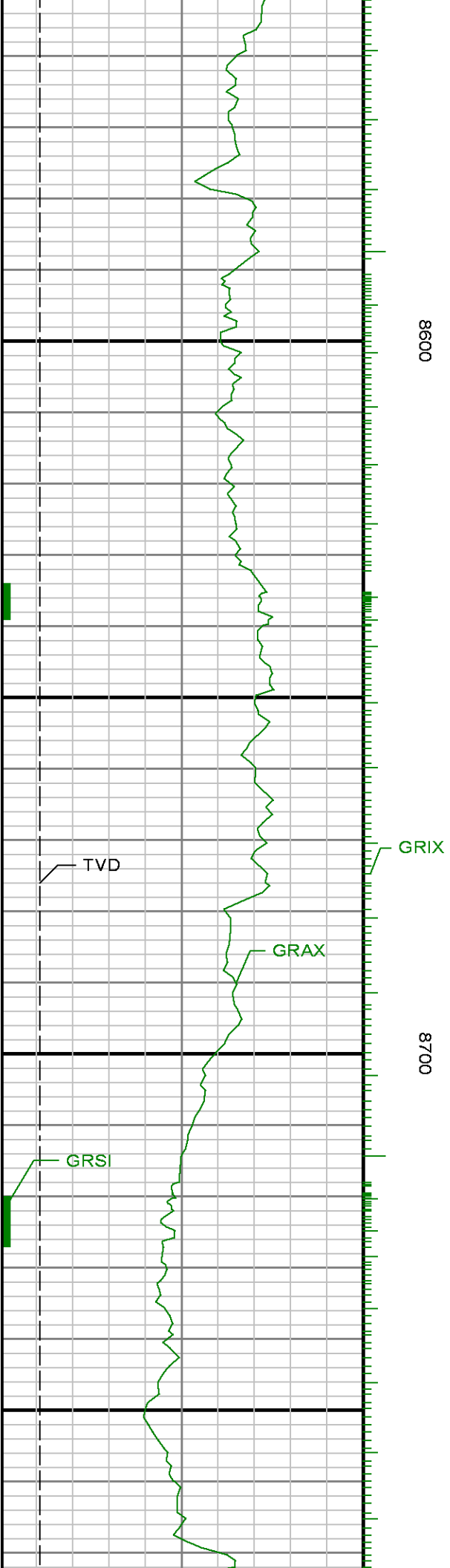


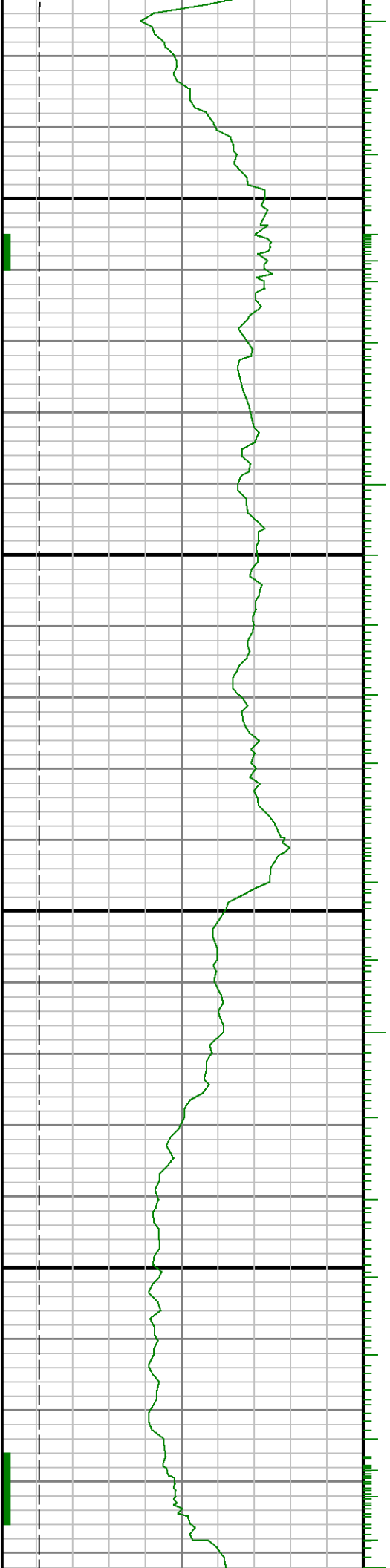






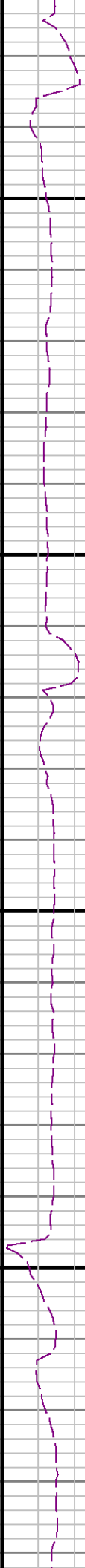


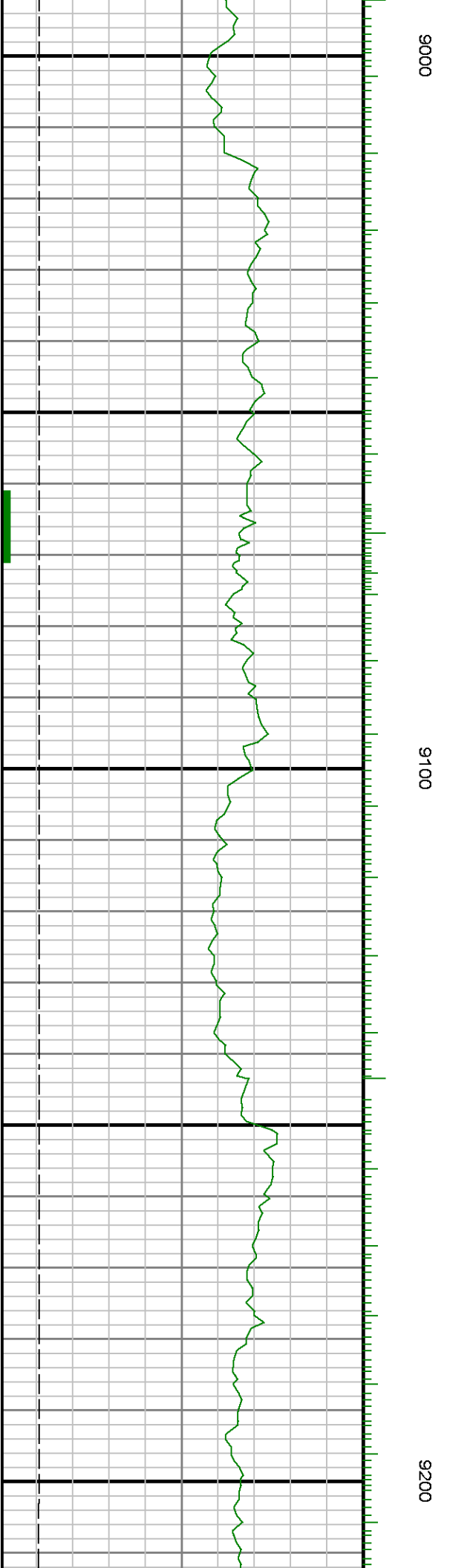
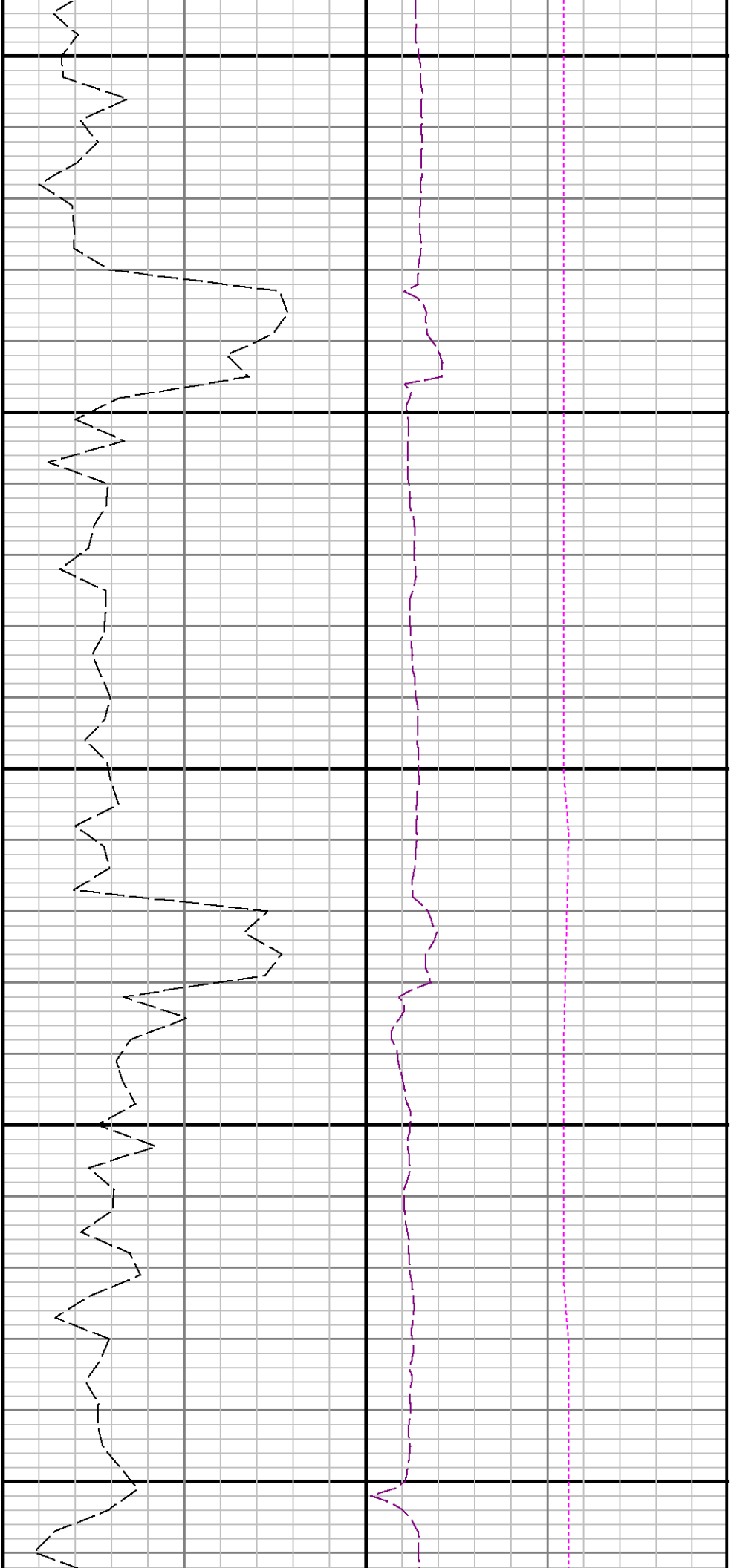


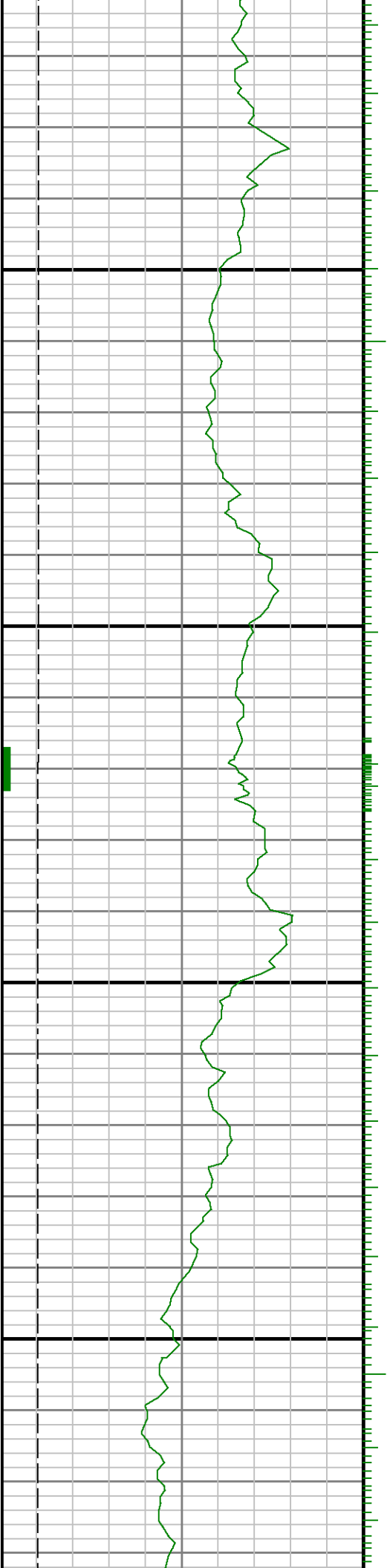


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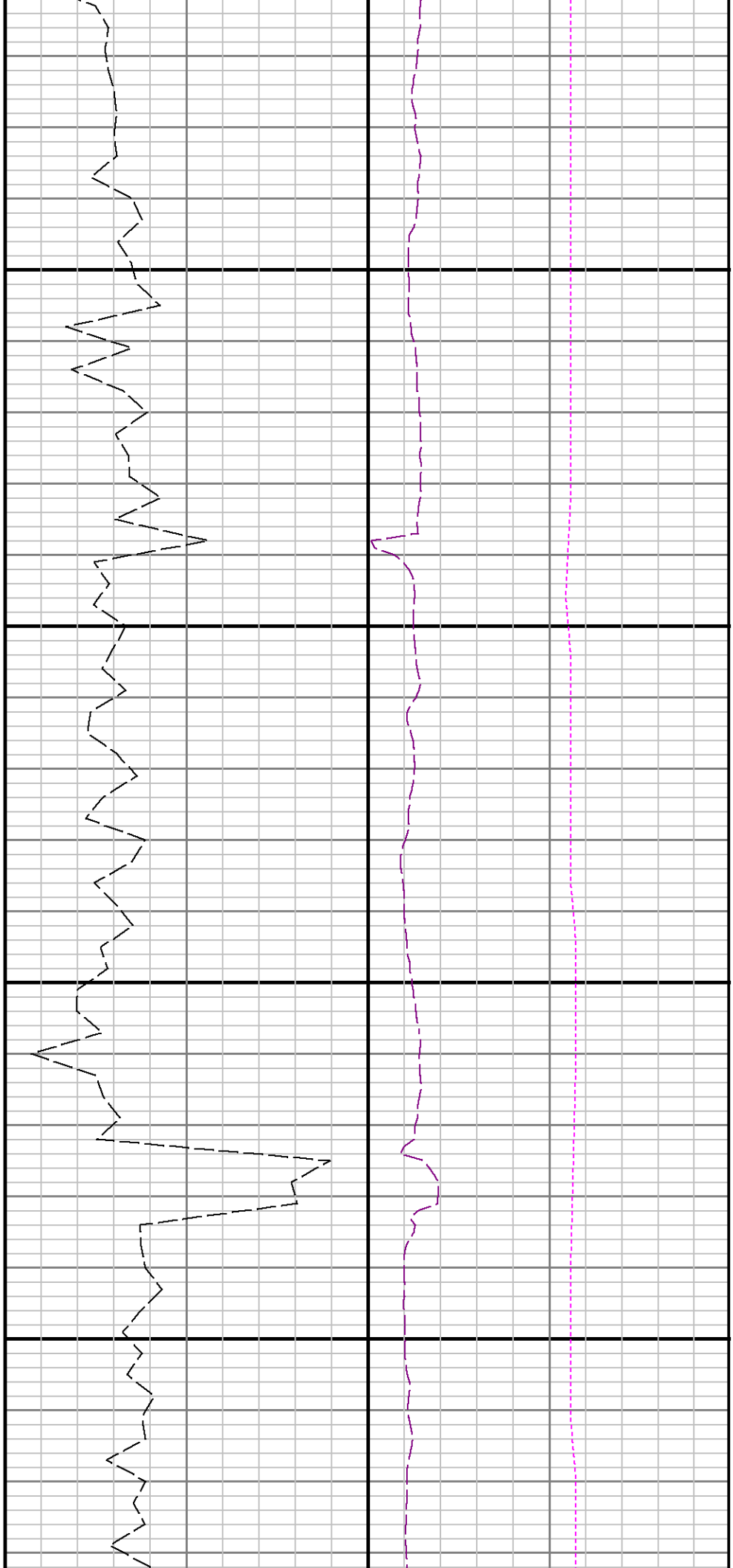


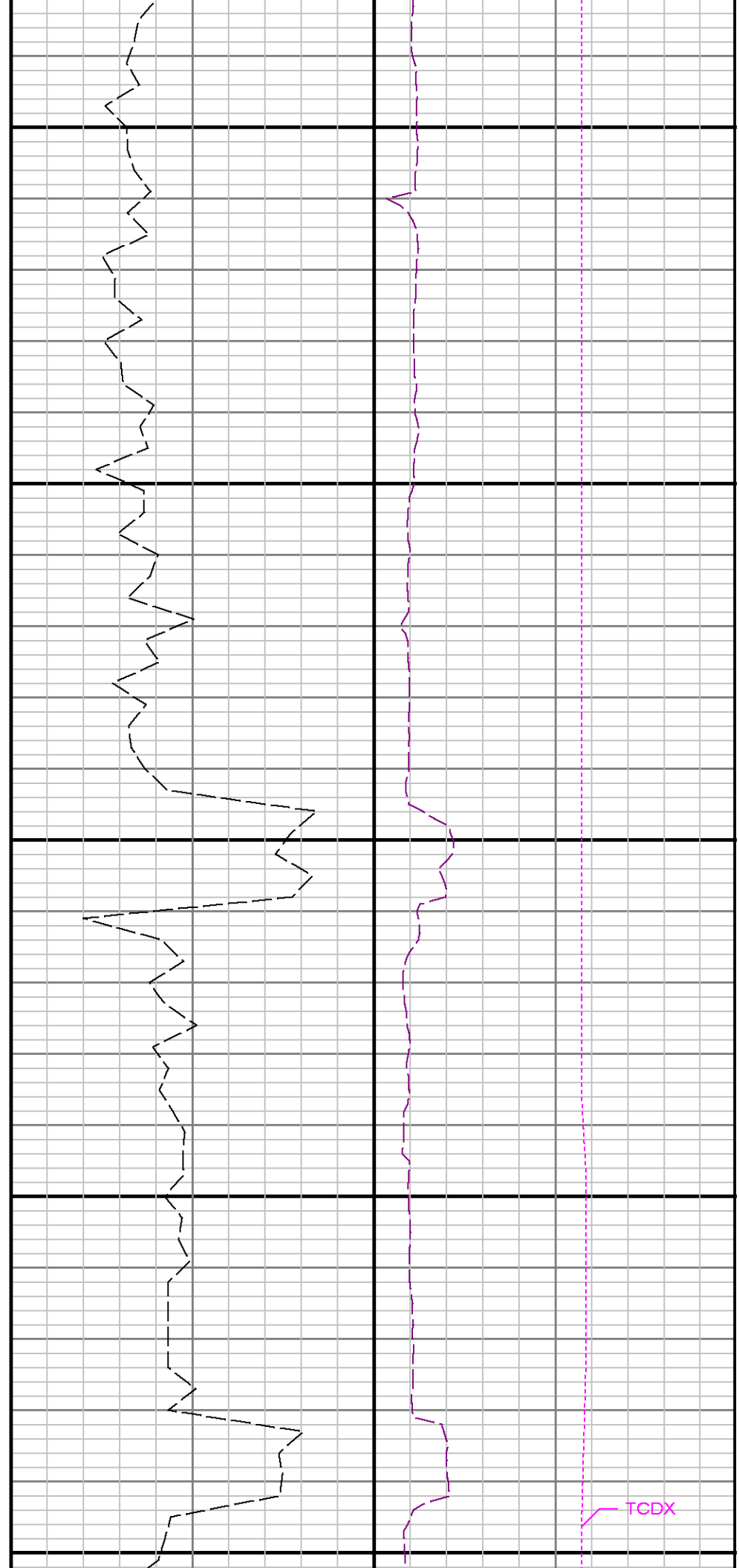
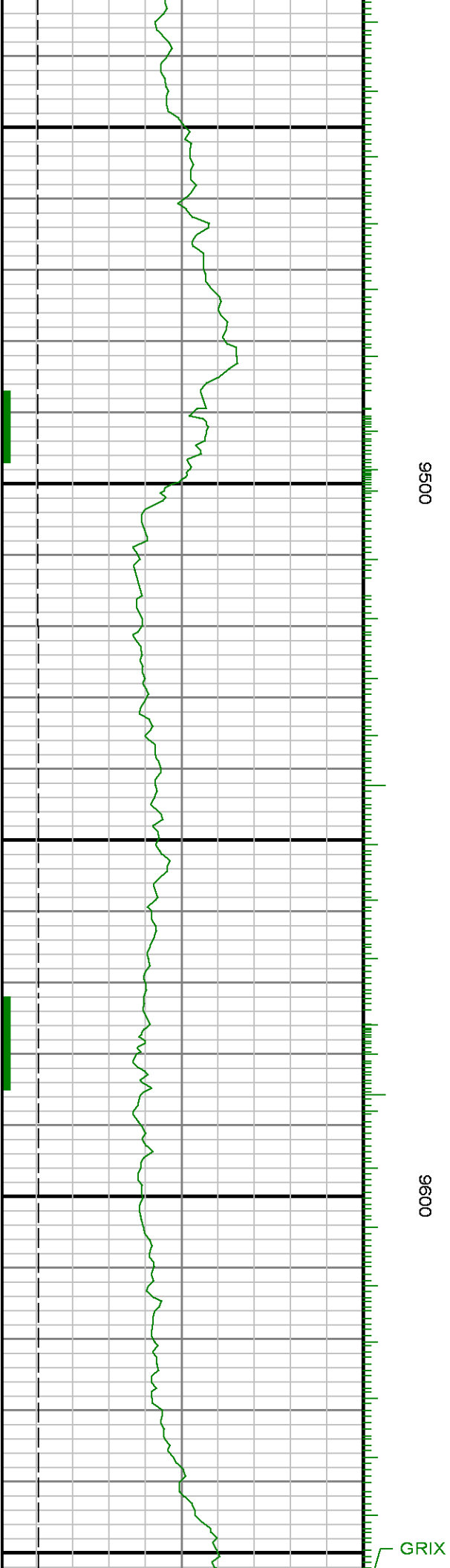




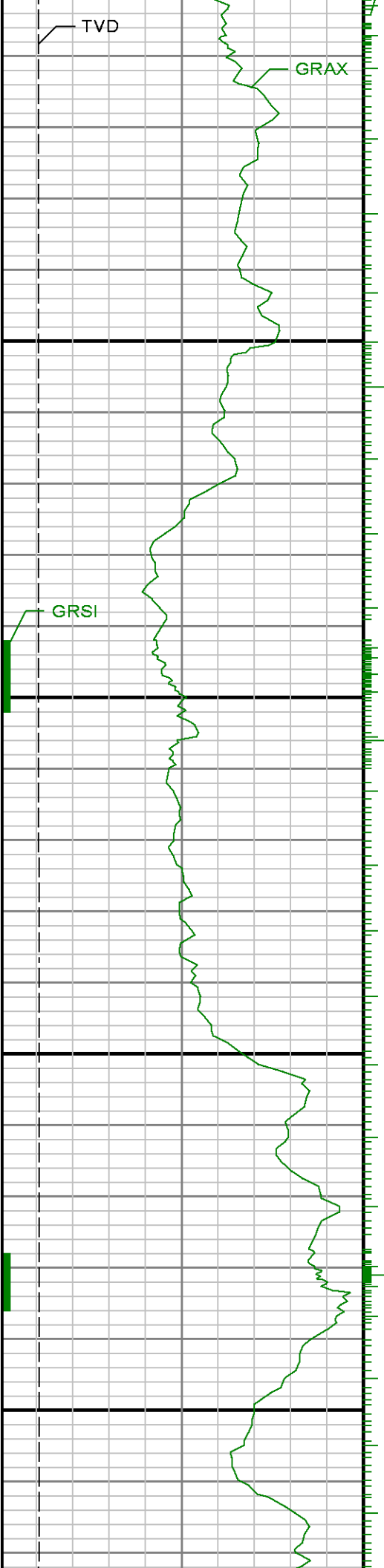
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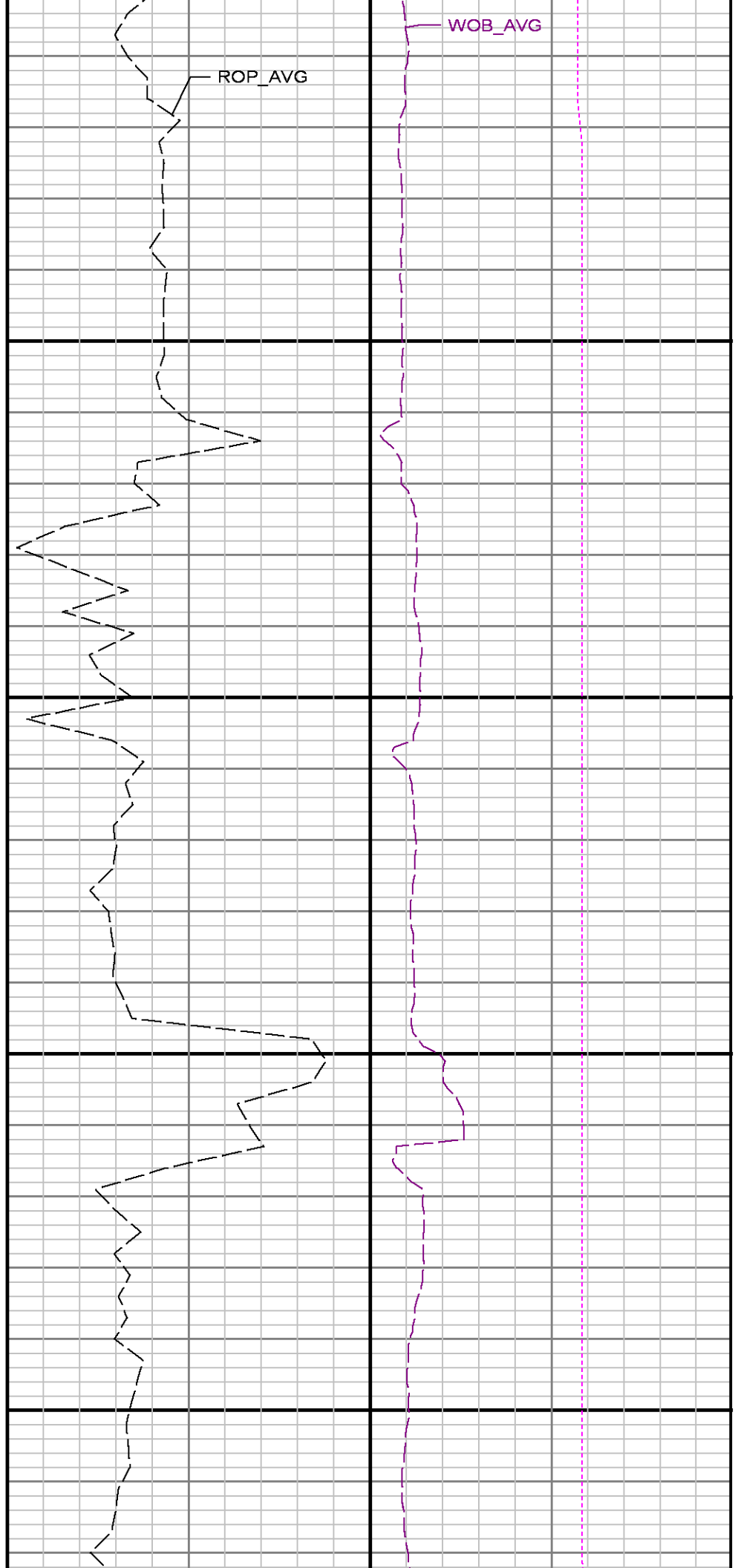


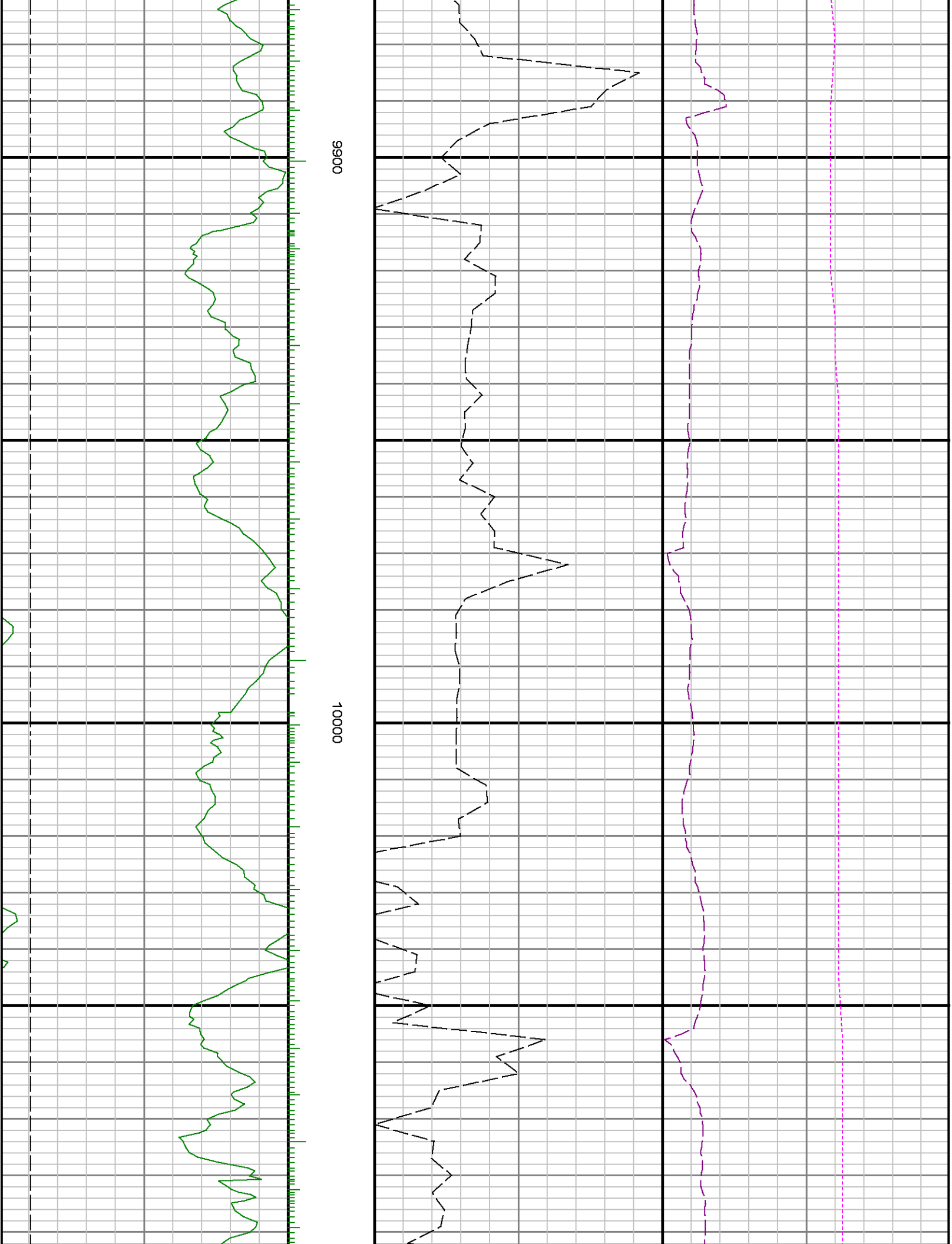


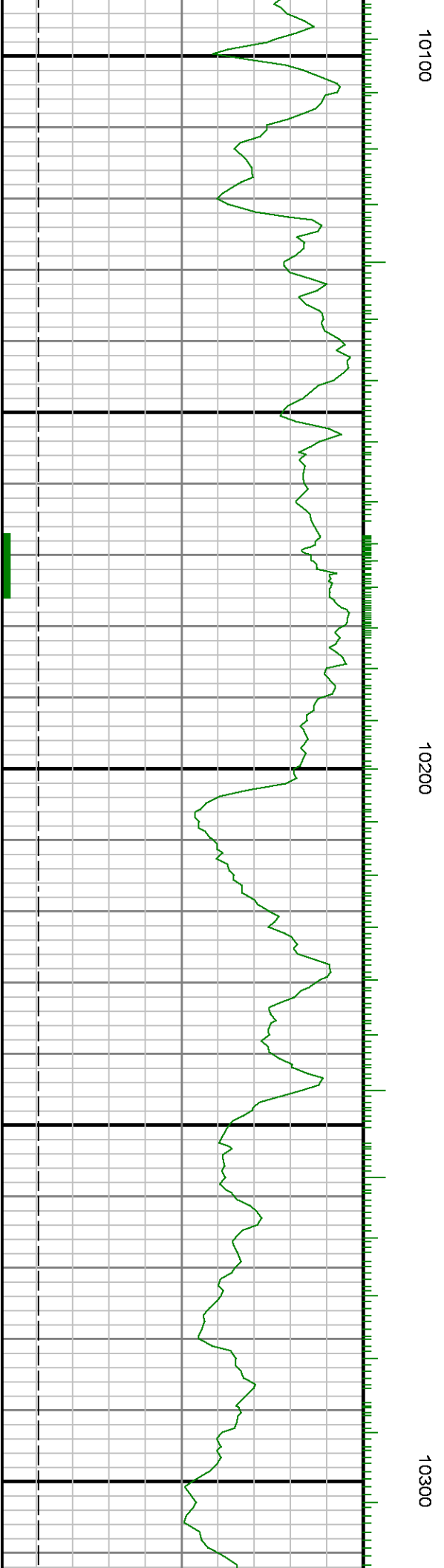
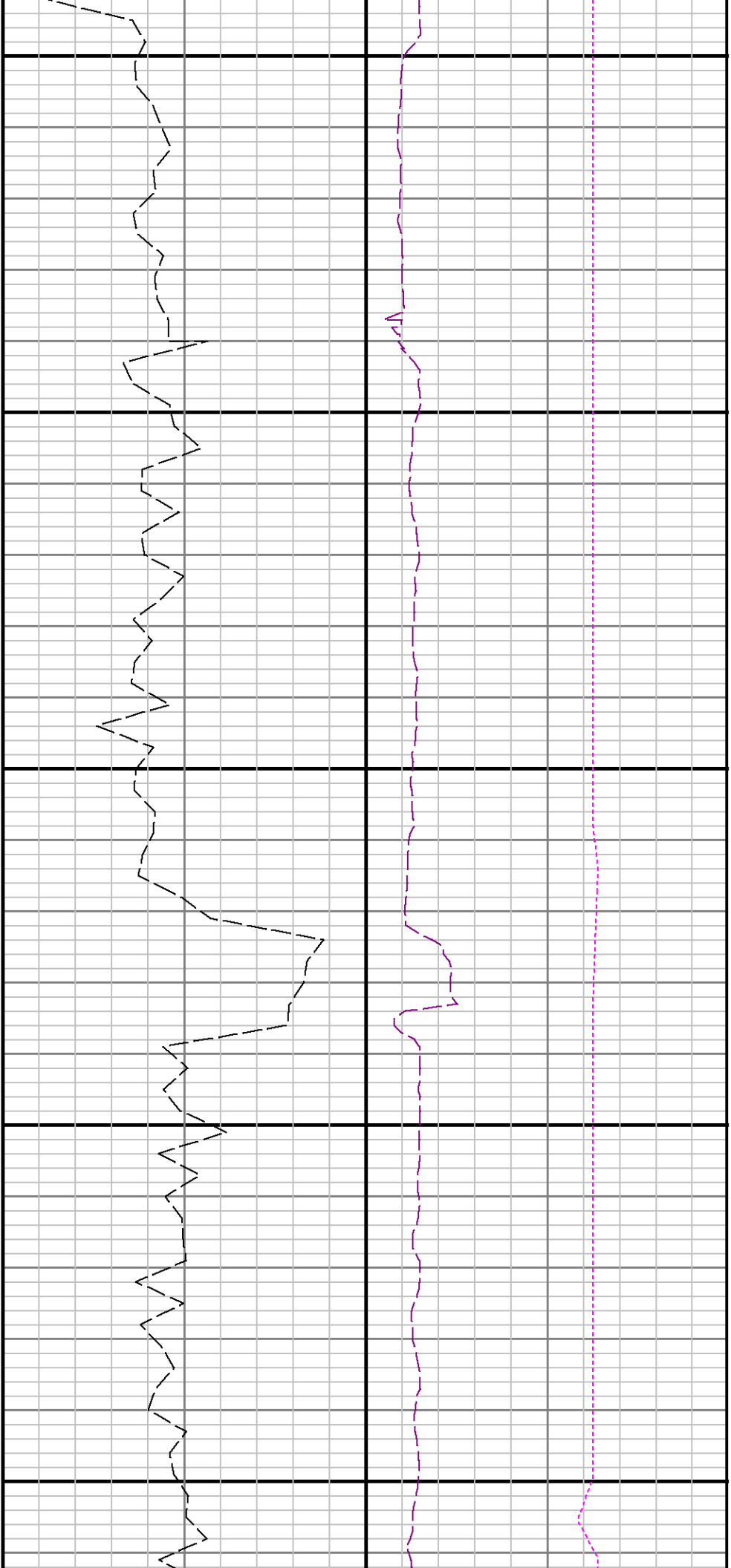


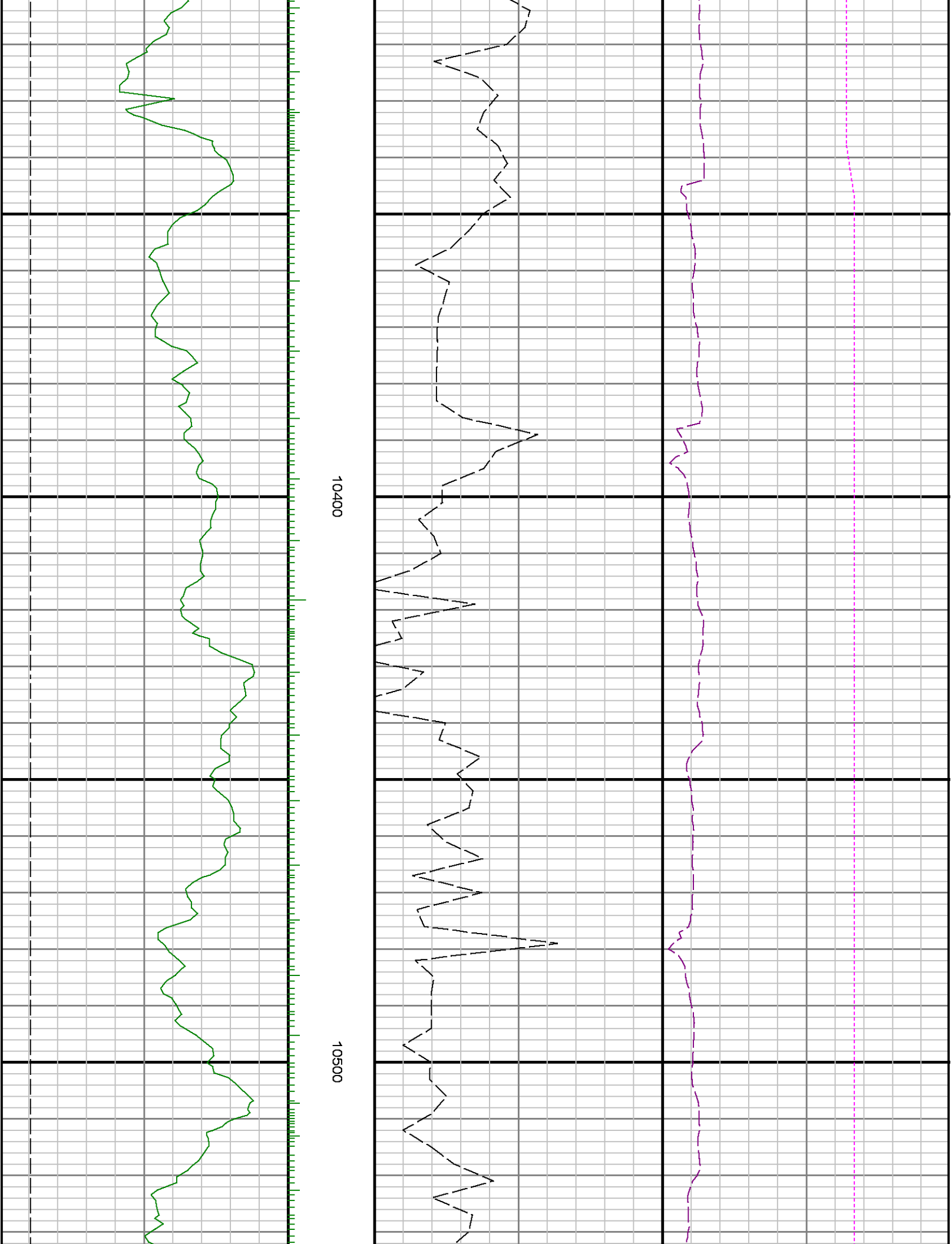
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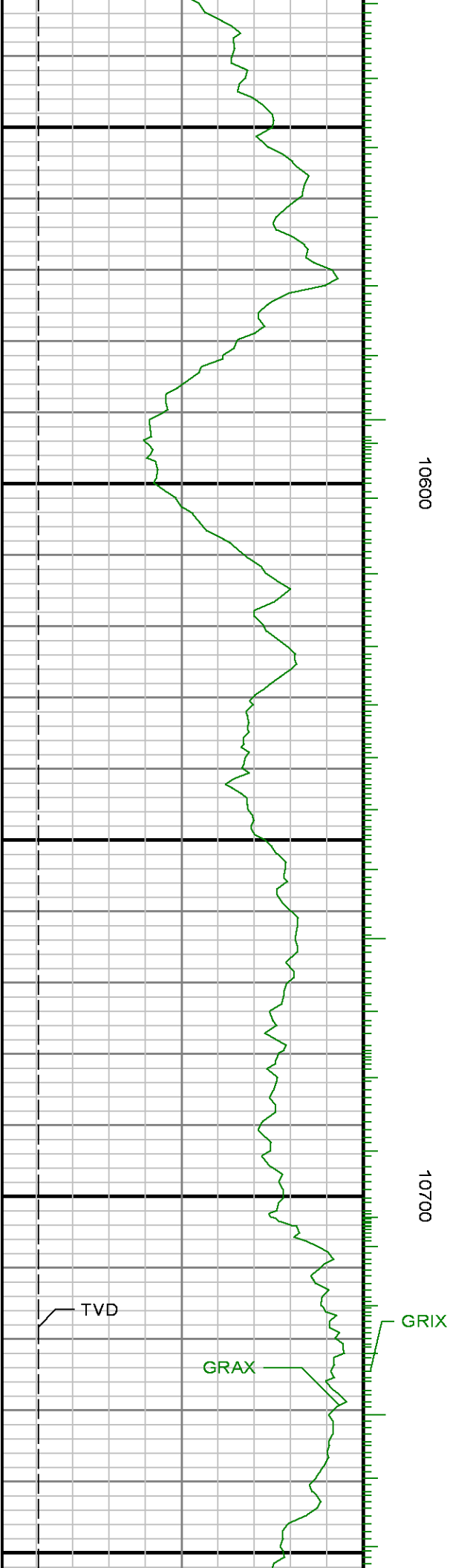
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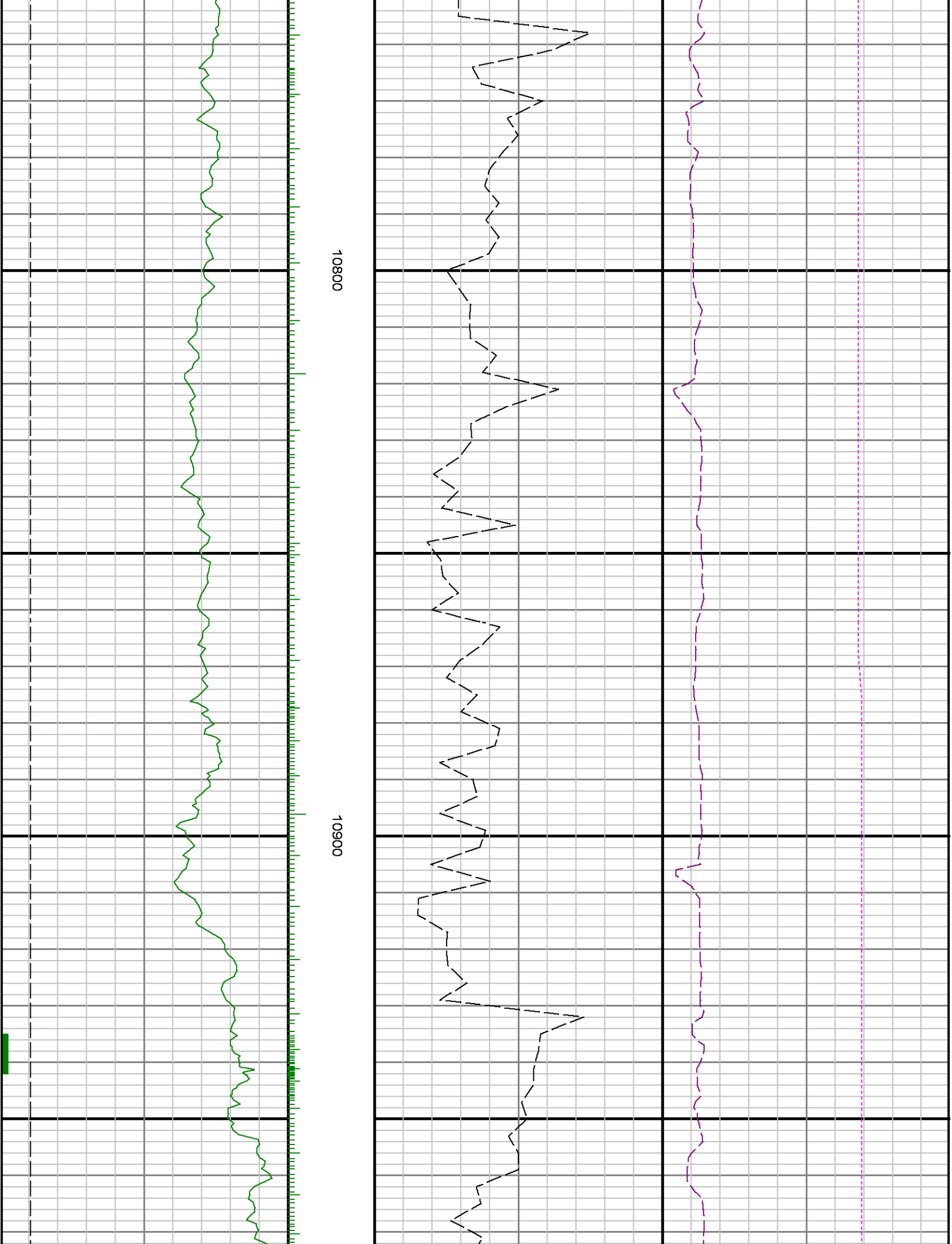


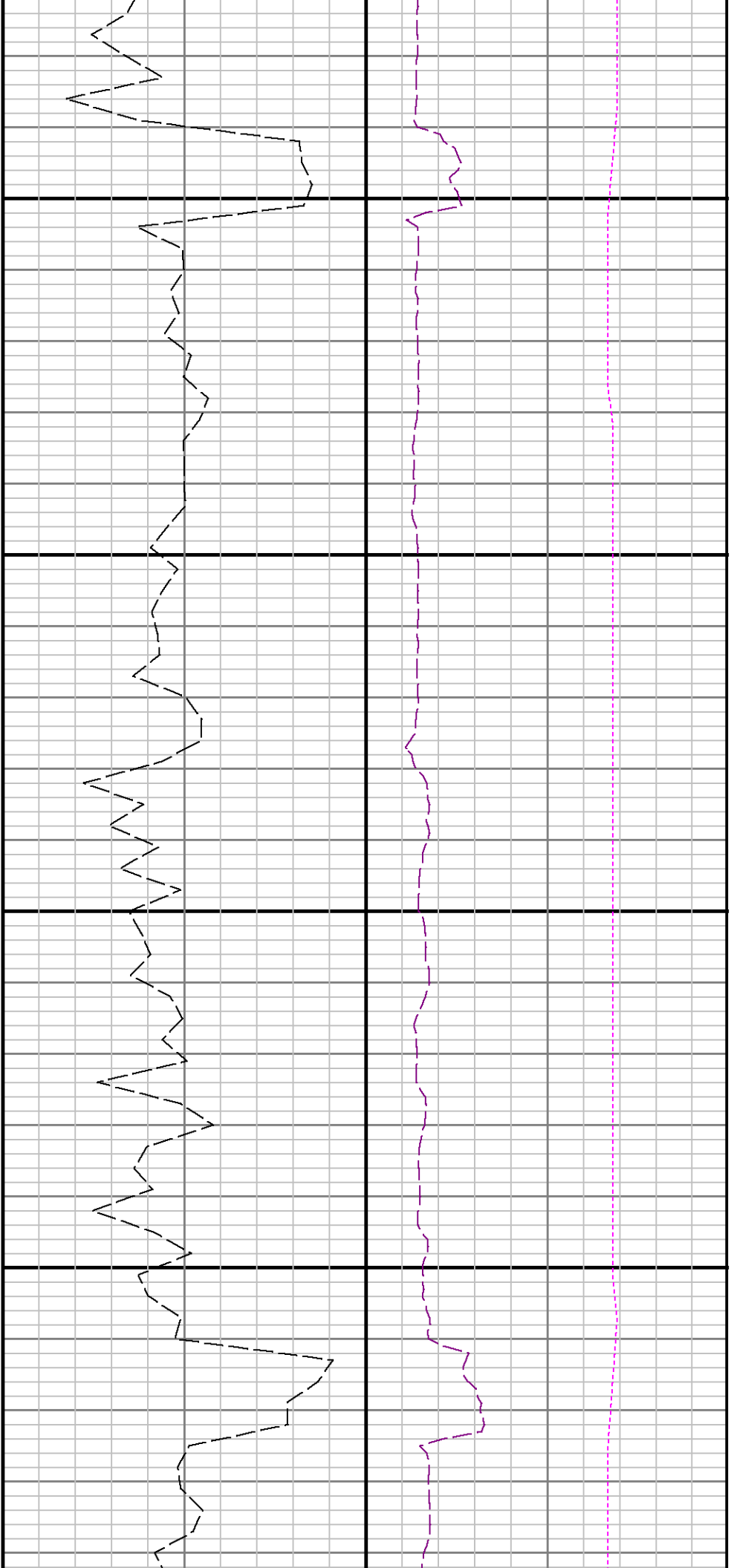






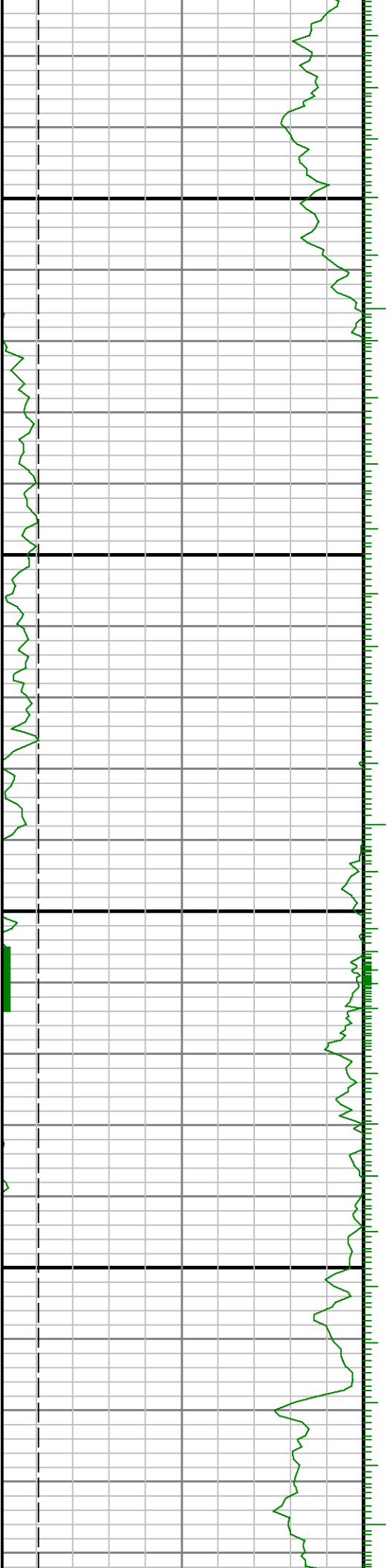


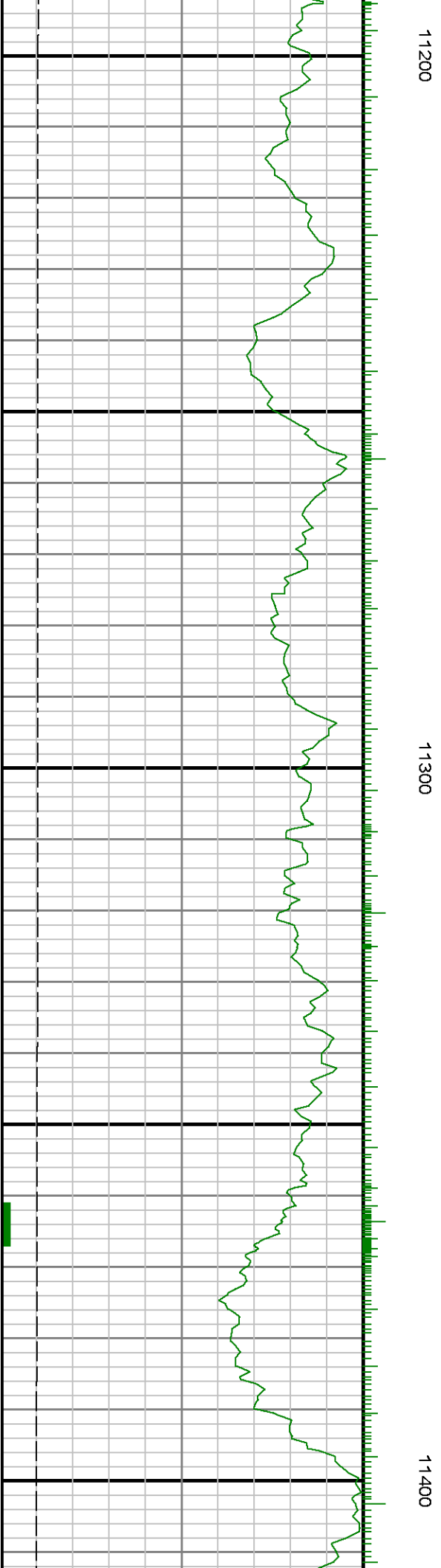
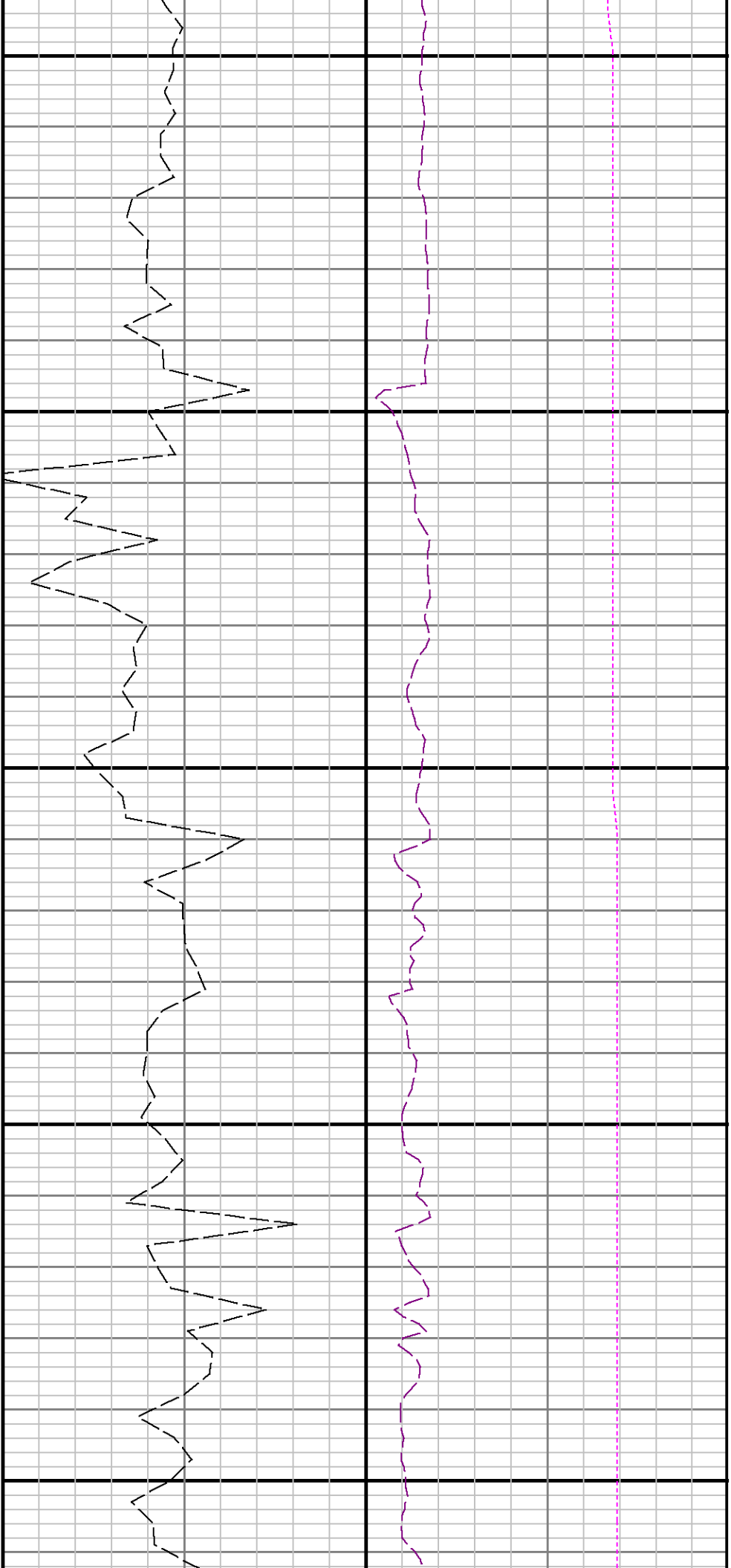




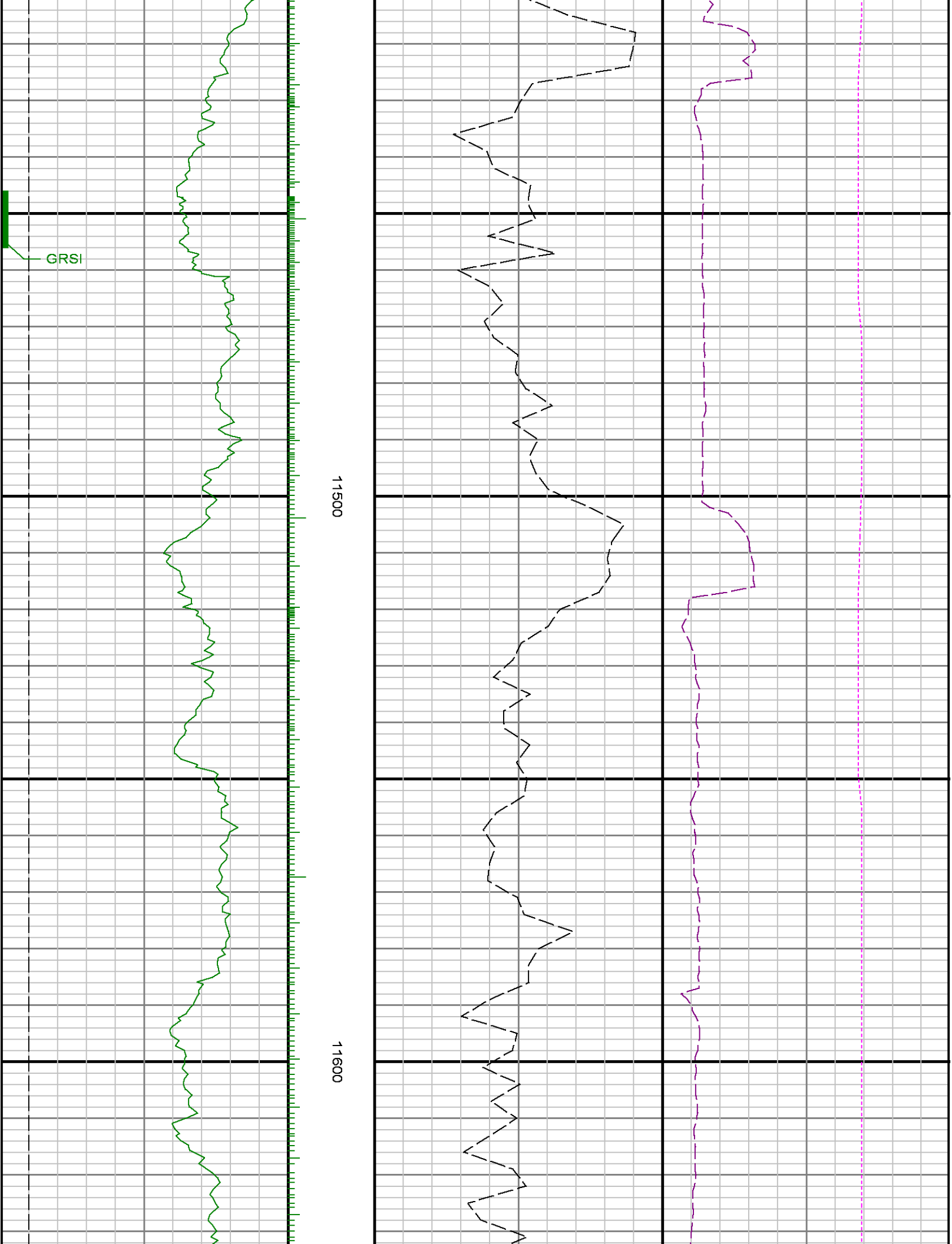
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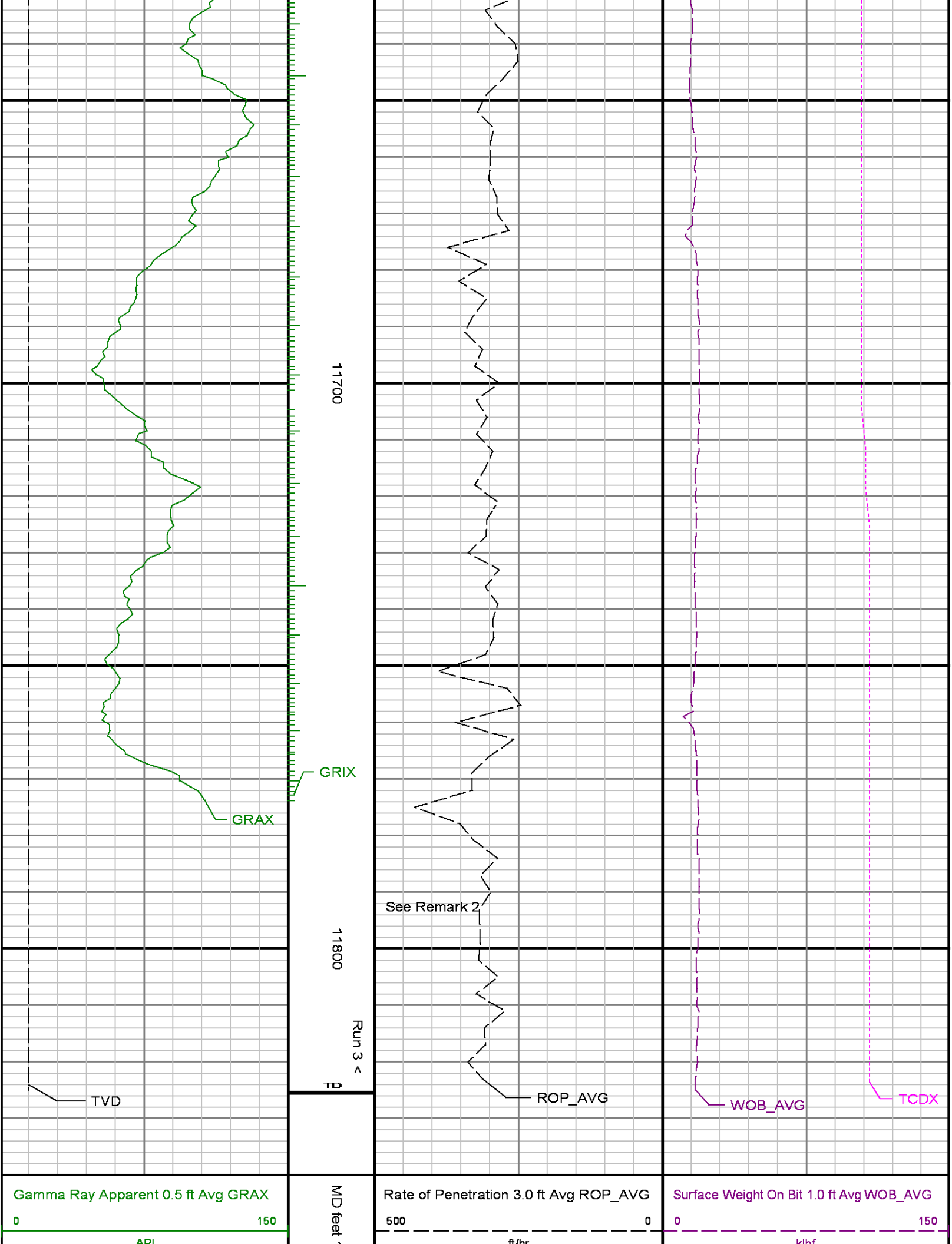
11100











<div>7400</div> <div>True Vertical Depth TVD</div> <div>6400</div> <div>ft</div>	<div>1:240</div>		<div>100</div> <div>Downhole Temperature TCDX</div> <div>300</div> <div>degF</div>
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