



Realtime Log

Natural Formation Evaluation
Gamma Ray

Scale:	Company: Anadarko
1:240	Well: Spurling 14N-34HZ
Measured Depth	Field: Weld County (Kerr McGee)
	County: Weld State: Colorado

Status: Final Print	Surface Location: Latitude: 40° 6' 3.593" N Longitude: 104° 52' 56.338" W	Other Services: Directional VSS
API Number: 05-123-39127-00	SEC: 34 TWP: 2N RNG: 67W	
Permanent Datum (P.D.):	Ground Level	Elevation: 5013.00 ft.
Log Measured From:	Rotary Table	5029.00 ft. Above P.D.
Depth Reference:	Driller's Depth	KB: N/A DF: 5029.00 ft. GL: 5013.00 ft.

Interval Logged			Dates			Magnetic Field Reference		
Top:	6900.0 ft.	Date From:	29/Apr/14	Dip Angle:	66.68 °	Azi Reference North:		True
Bottom:	12023.0 ft.	Date To:	06/May/14	Total		Mag to Reference		
		Spud Date:	29/Apr/14	Field Strength:	52850.0 nT	North Correction:		8.60 °

Borehole Record				Casing Record			
Hole Size	From	To	Size	Weight	From	To	
13.500 in.	Surface	1095.0 ft.	9.625 in.	36.00 lb/ft	Surface	1084.0 ft.	
8.750 in.	1084.0 ft.	7878.0 ft.	7.000 in.	26.00 lb/ft	Surface	7860.0 ft.	
6.125 in.	7860.0 ft.	12023.0 ft.					

Mud Record				Deviation Record			
Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)	
Fresh Water	Surface	4980.0 ft.	13.500 in.	1095.0 ft.	0.0 ° / 0.0 °	0.6 ° / 292.7 °	
Water Based	4980.0 ft.	12023.0 ft.	8.750 in.	6794.0 ft.	0.7 ° / 293.7 °	87.5 ° / 176.5 °	
			6.125 in.	4163.7 ft.	86.3 ° / 176.4 °	89.2 ° / 179.7 °	
					/	/	
					/	/	
					/	/	

Acquisition System		Software Version		Other	
Advantage	2.20U4	Rig:	Xtreme 6	/ Xtreme Coil Drilling Corp	
PAIS	6.4.1.34	Job No:	6326423	/ D&E	
		District / Unit:	RMD		

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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. Time (hrs.)
							Top (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start	End		
1	1	2	8.750	PDC	6.000	Steerable	6900.0	7878.0	1095.0	7878.0	28/Apr/2014 23:00	01/May/2014 9:45		37.4
2	2	3	6.125	PDC	4.800	Steerable	7828.0	11609.0	7878.0	11609.0	02/May/2014 9:00	04/May/2014 19:00		40.1
3	3	4	6.125	PDC	4.800	Steerable	11545.0	12023.0	11609.0	12023.0	04/May/2014 20:00	06/May/2014 01:00		9.5

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Matthew Delmore	27/Apr/2014	06/May/2014	Stephen Gray	27/Apr/2014	01/May/2014	York Lewis	01/May/2014	05/May/2014
Jake Miller	03/May/2014	05/May/2014						

Witness

Name	LWD Run Number
Pat Cane	1, 2, 3
Derrick Perry	1, 2, 3
Joe Wallum	1
David Cornett	1

Mud Properties Record


Date / Time	LWD Run No.	Measured Depth (ft.)	Mud Type	Density (ppg)	Viscosity (cp)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
29/Apr/2014 10:00	1	1790.0	Fresh Water	8.5	28	9.2	N/A	0 / 99	Active Pits	1800	N/A
29/Apr/2014 22:00	1	4300.0	Fresh Water	8.5	28	9.2	N/A	0 / 99	Active Pits	2000	N/A
30/Apr/2014 10:00	1	6591.0	Water Based	10.2	41	9.7	4.5	0 / 91	Active Pits	2800	N/A
30/Apr/2014 22:00	1	7763.0	Water Based	10.2	42	9.3	4.6	1 / 90	Active Pits	2900	N/A
01/May/2014 14:00	1	7877.0	Water Based	10.3	45	9.4	4.7	1 / 90	Active Pits	2800	N/A
02/May/2014 10:00	2	7844.0	Water Based	9.4	45	9.9	4.7	0 / 94	Active Pits	2600	N/A
02/May/2014 22:00	2	8325.0	Water Based	9.4	40	9.6	4.8	0 / 94	Active Pits	2600	N/A
03/May/2014 10:00	2	9488.0	Water Based	9.4	40	9.4	4.9	1 / 93	Active Pits	2600	N/A
03/May/2014 22:00	2	10867.0	Water Based	9.4	42	9.3	4.6	1 / 94	Active Pits	2700	N/A
04/May/2014 18:00	2	11609.0	Water Based	9.5	44	9.3	4.6	1 / 93	Active Pits	2700	N/A
05/May/2014 12:00	3	12023.0	Water Based	9.5	44	9.3	4.8	1 / 93	Active Pits	2700	N/A

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRIX	Gamma Ray Data Density	points
GRSI	Gamma Ray Sliding Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	min
ROPA	Rate of Penetration, 3.0 ft. Avg.	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth	ft.
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	klbs

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	11685175	Directional	45.39	6.750	3.250
1	SRIG	12283328	Gamma	42.02	6.750	3.250
2	DIR	12373454	Directional	50.24	4.750	2.750
2	SRIG	11892056	Gamma	46.96	4.750	2.750
3	DIR	12373454	Directional	49.69	4.750	2.750



**BAKER
HUGHES**

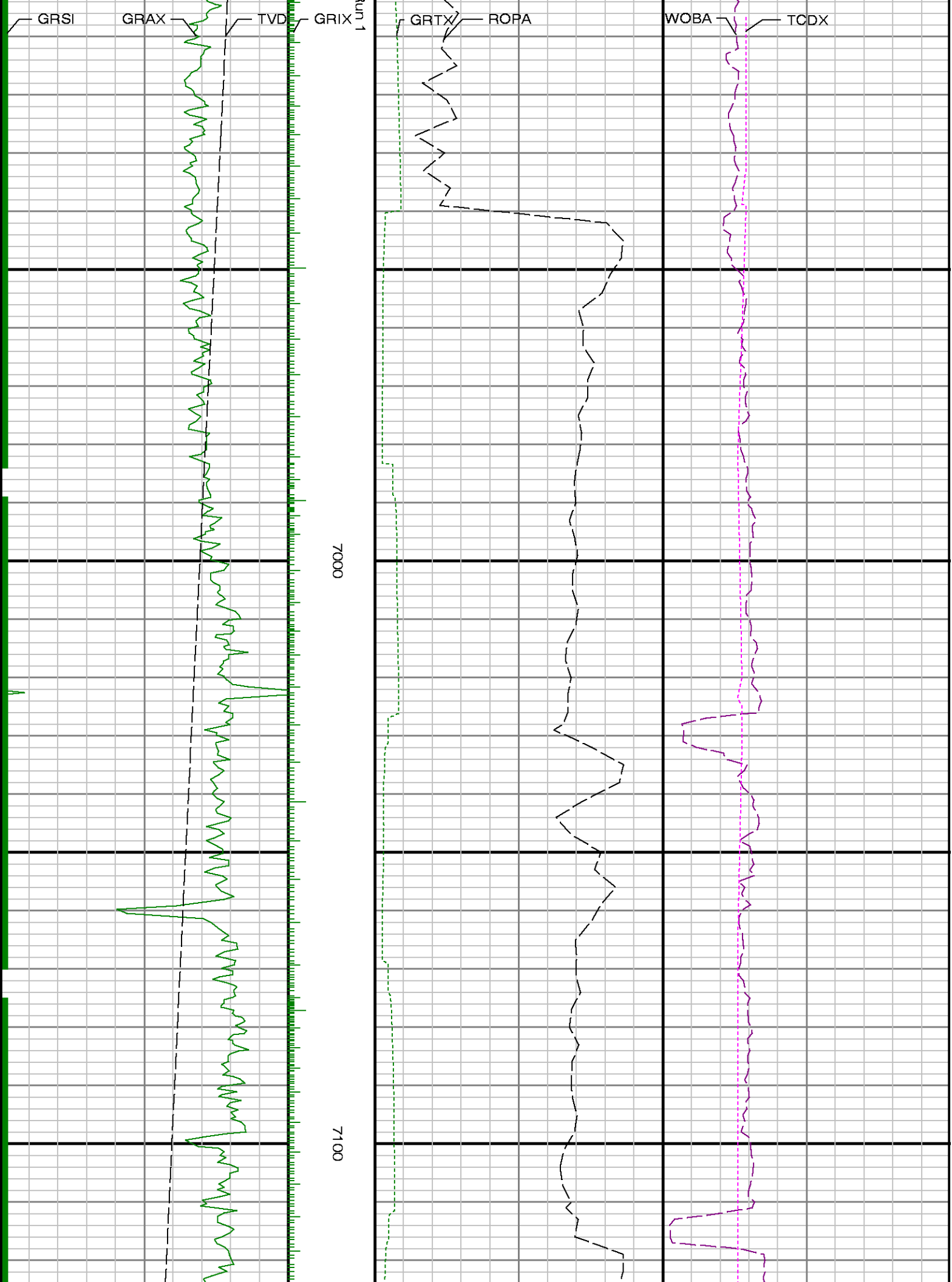
Company : Anadarko

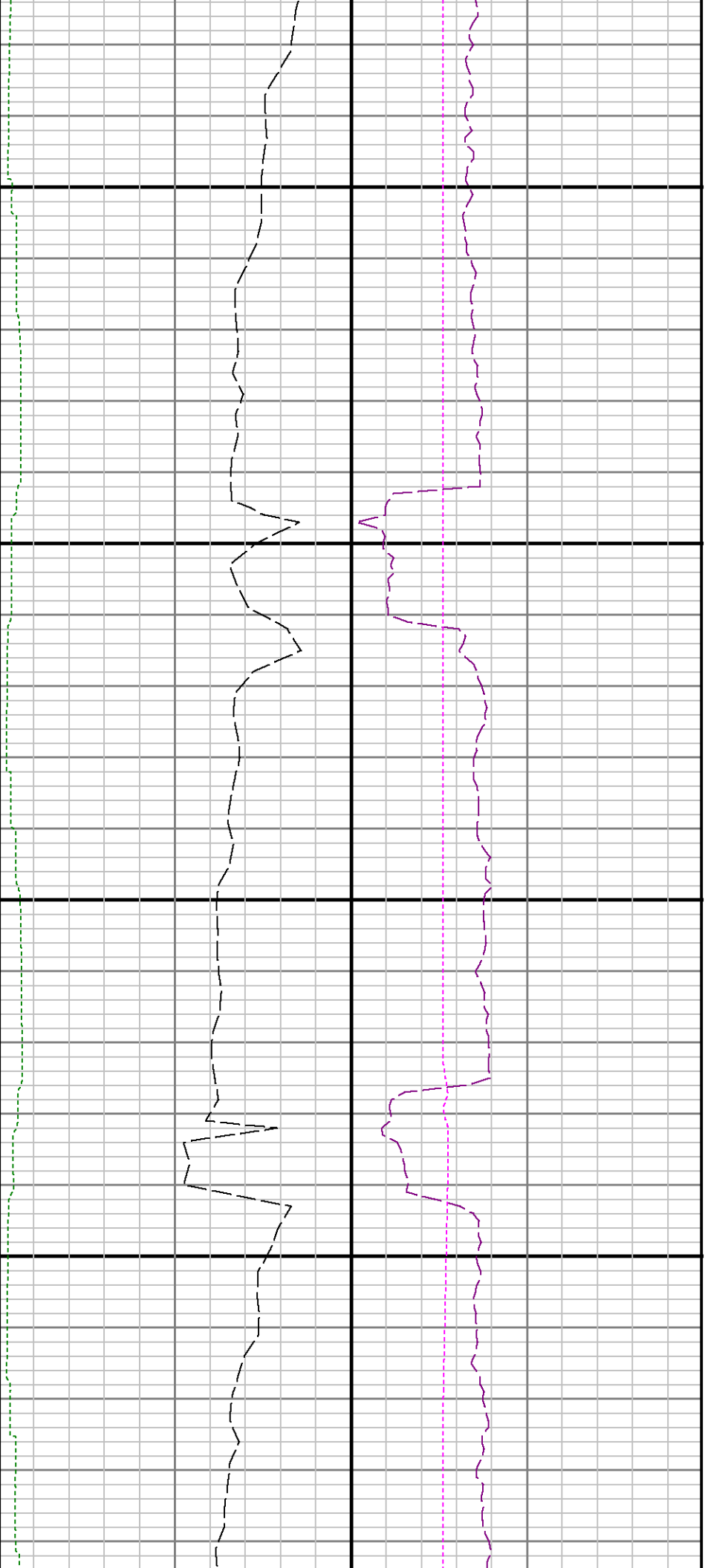
Well : Spurling 14N-34HZ

Interval : 6885.00 - 12045.00 feet

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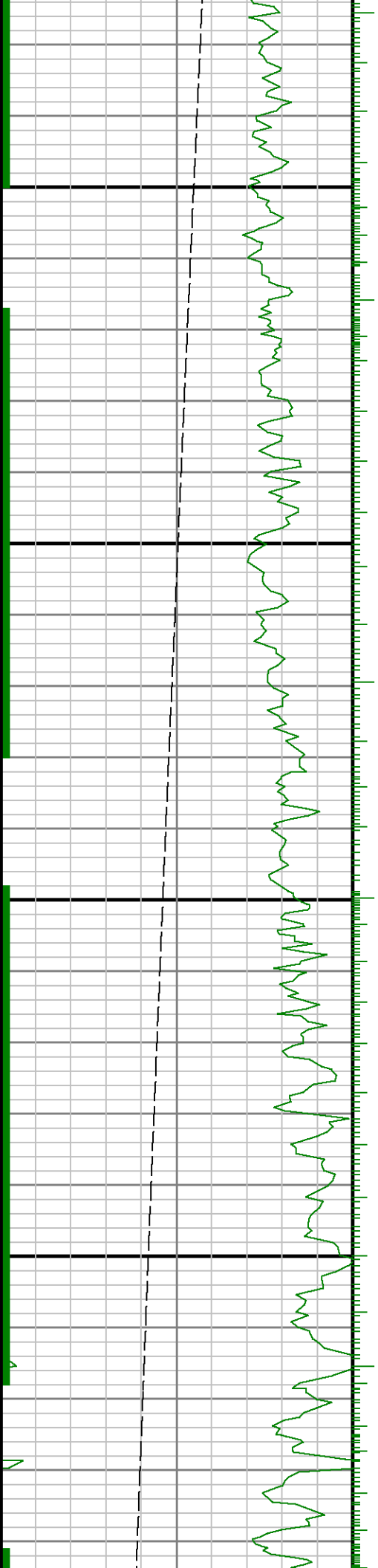
Gamma Ray Apparent 0.5 ft Avg GRAX	MD feet 1:240	Rate of Penetration 3.0 ft Avg ROPA	Surface Weight On Bit 1.0 ft Avg WOB
0 150		500 0	0 100
API		ft/hr	klbf
True Vertical Depth TVD		Gamma Time Since Drilled GRTX	Downhole Temperature TCDX
7600 6600		0 600	100 300
ft		min	degF
	6900		

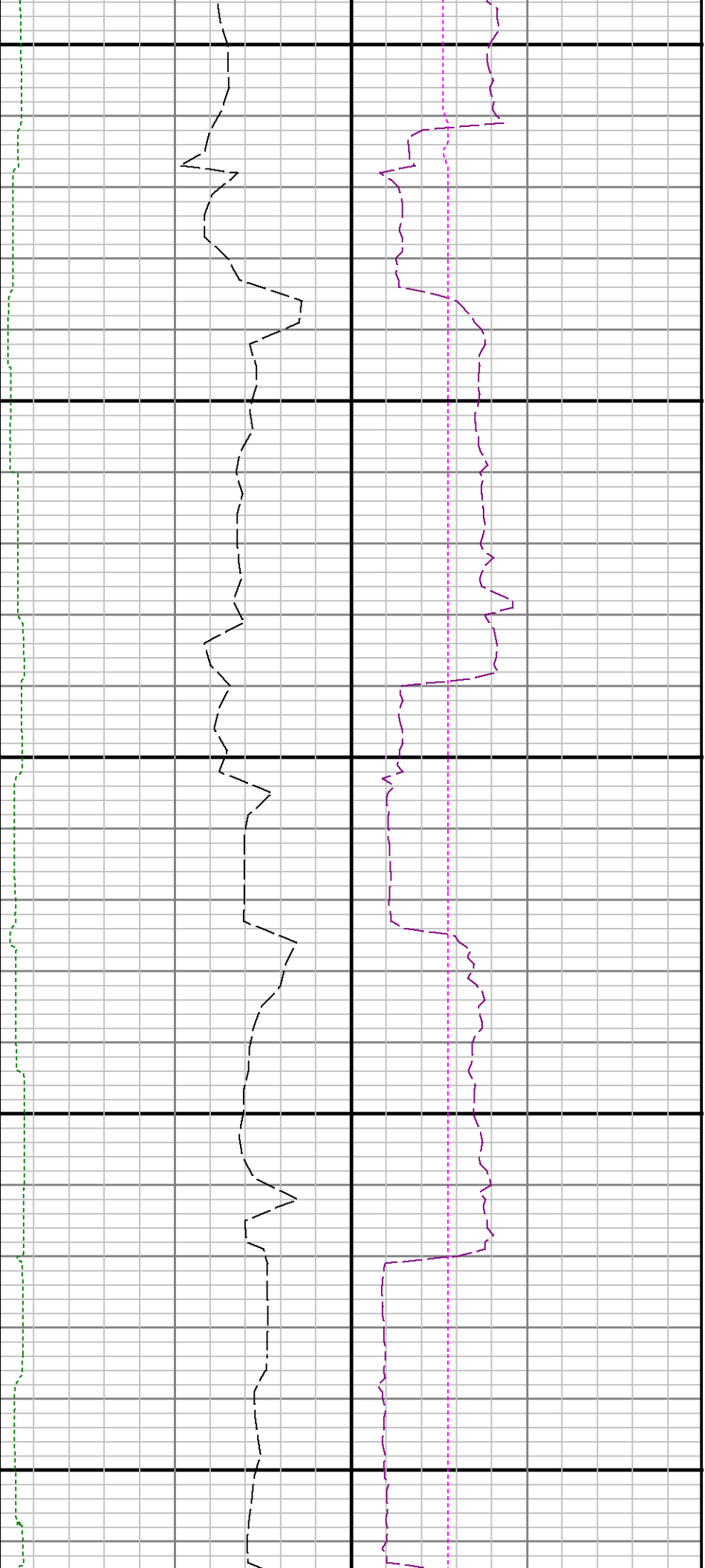




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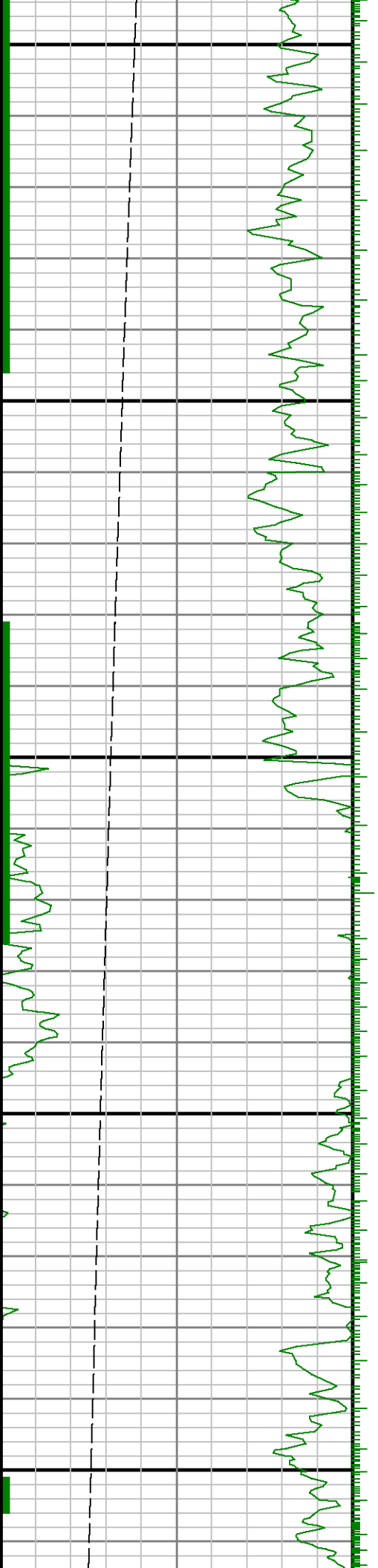
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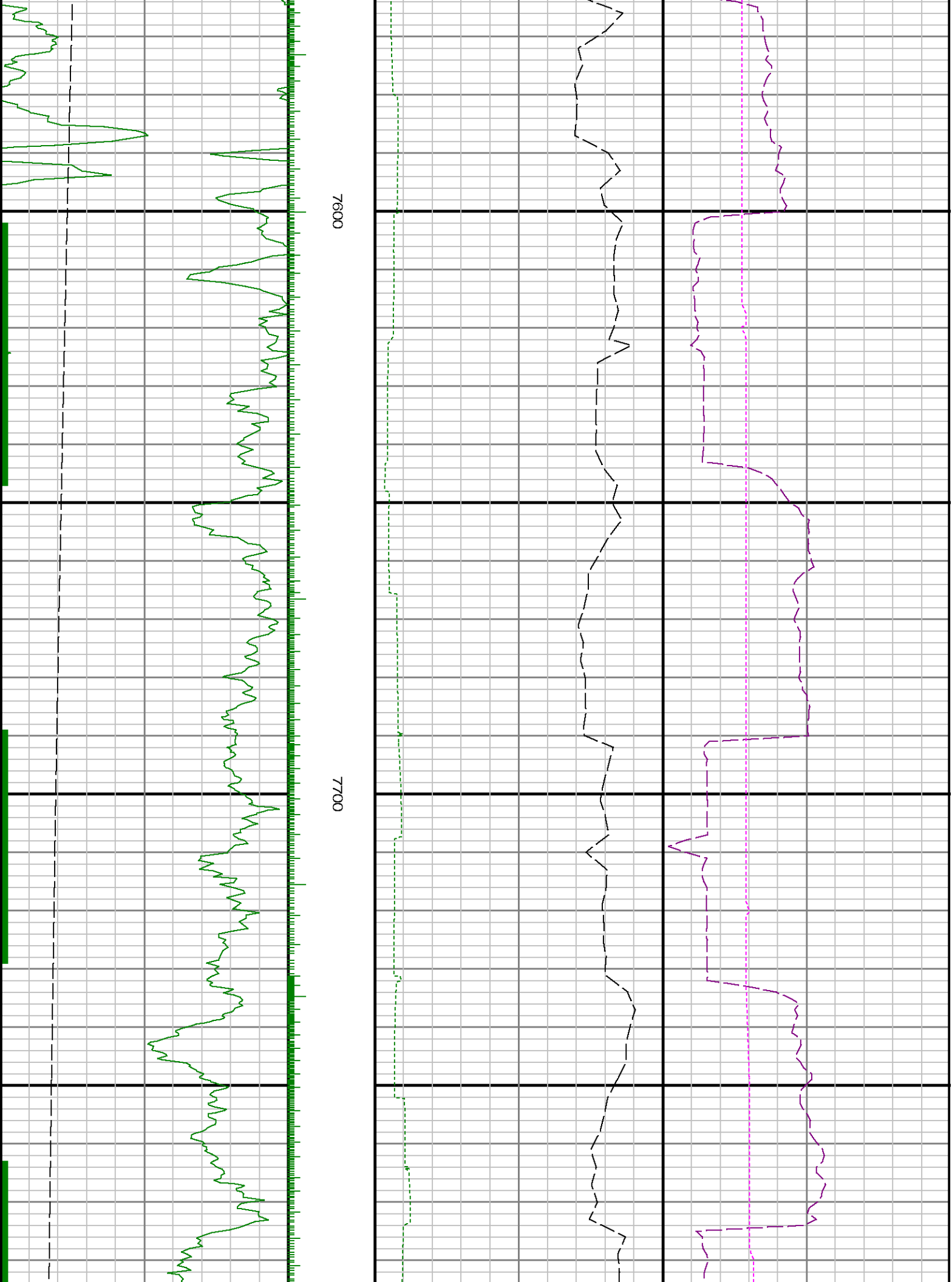


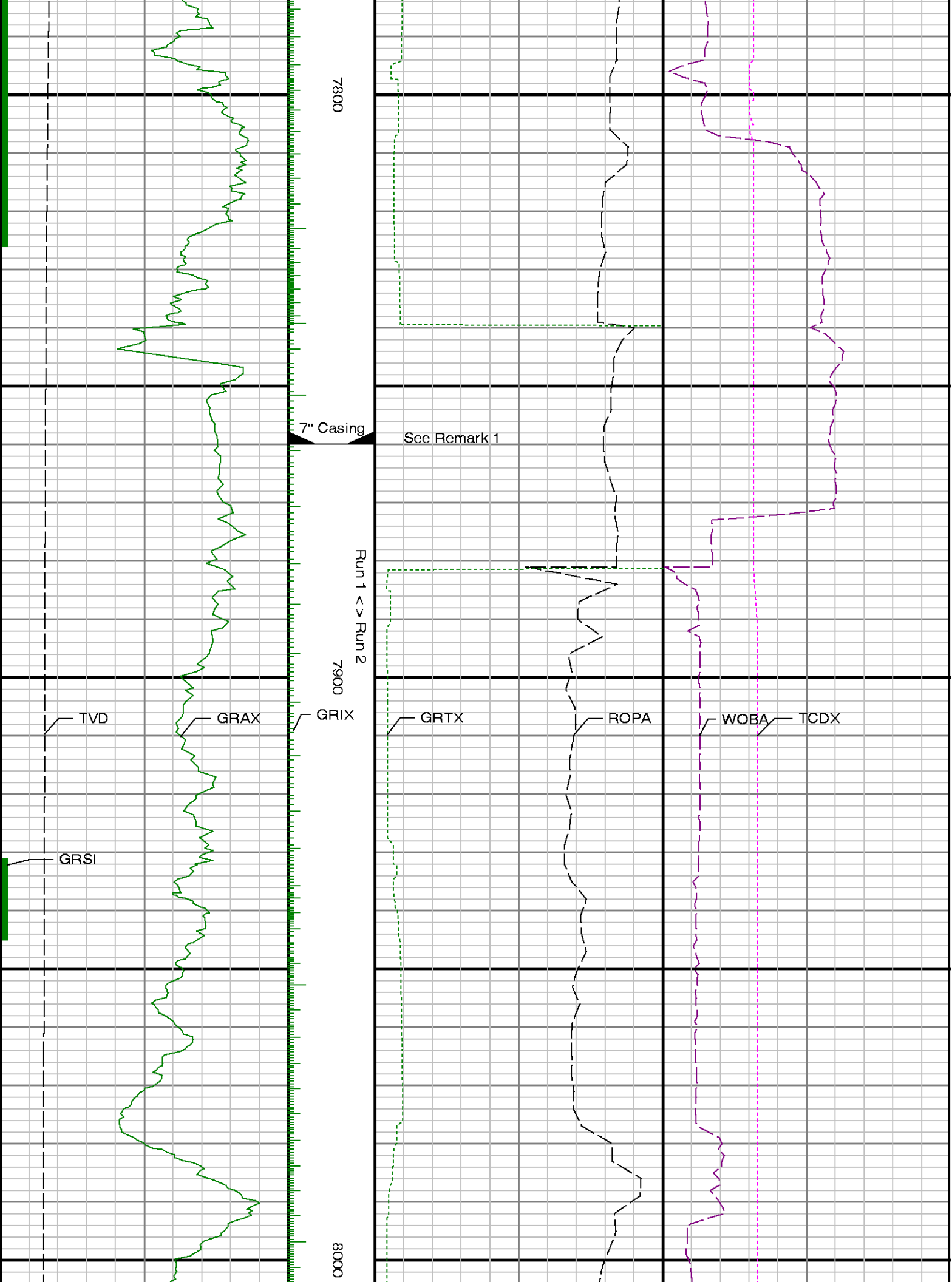


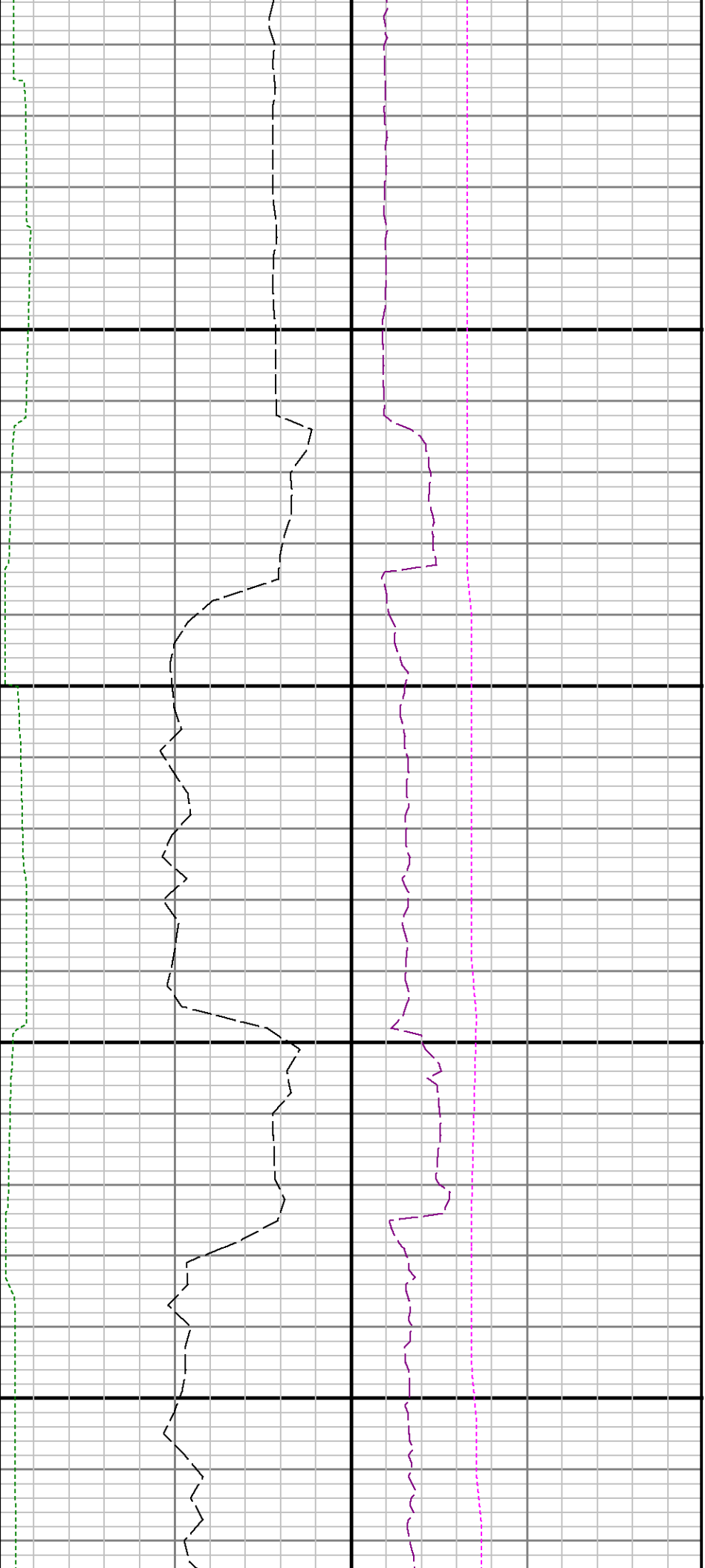
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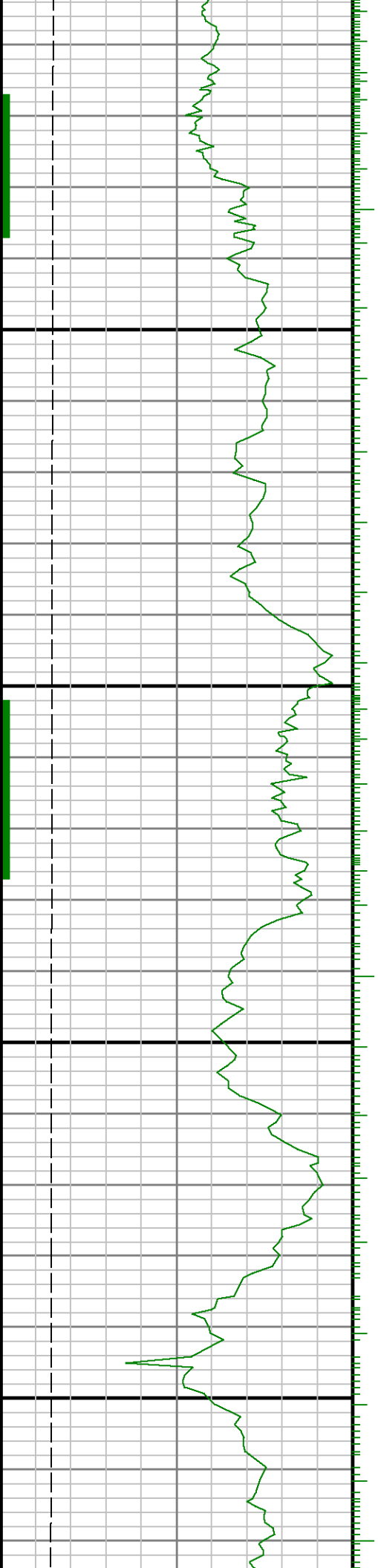


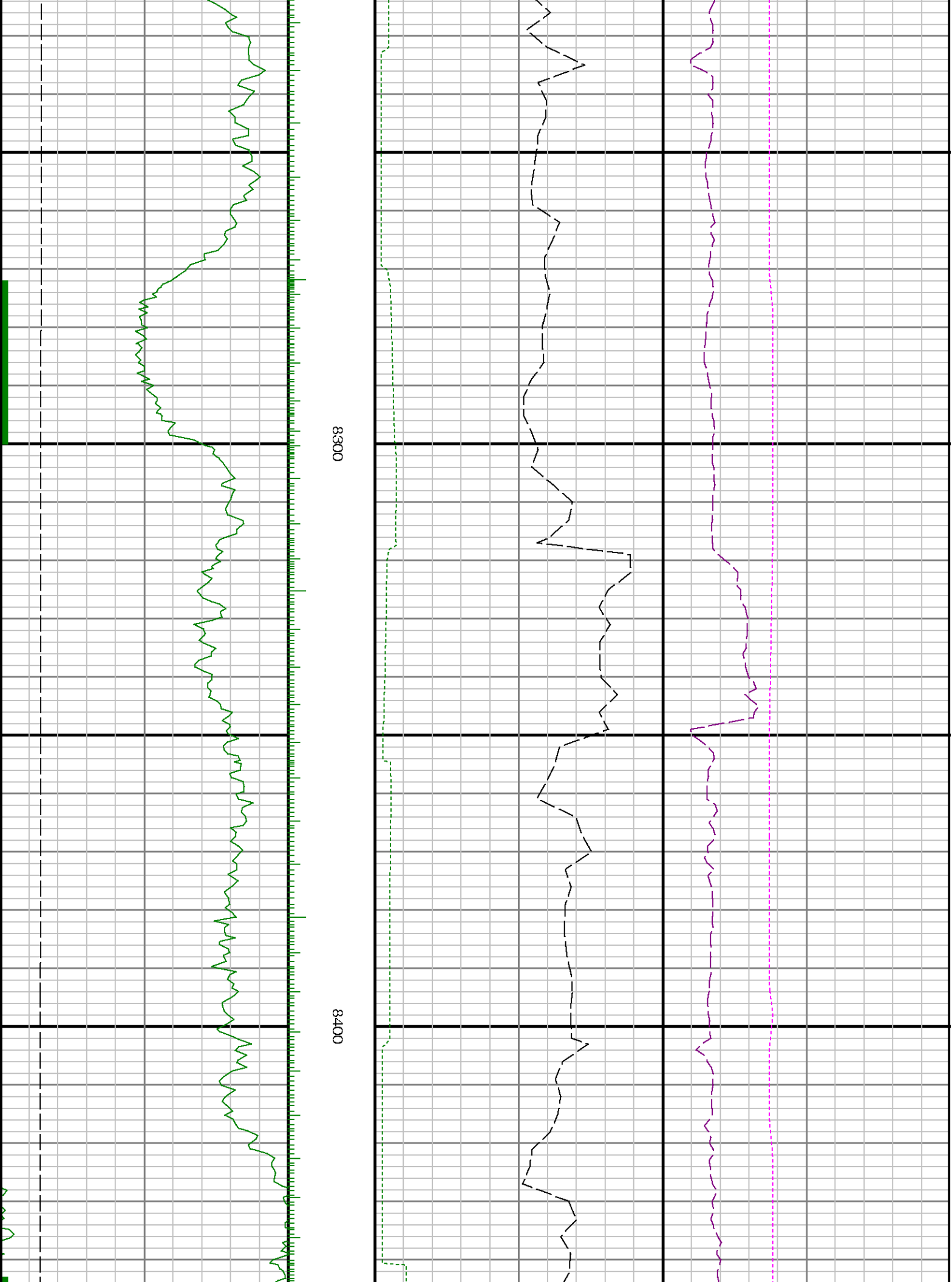


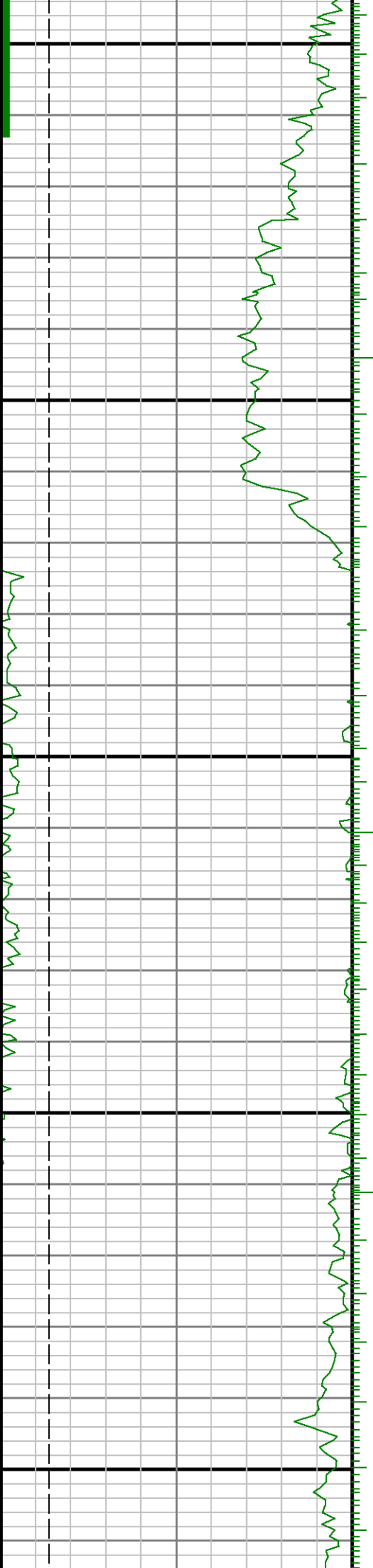


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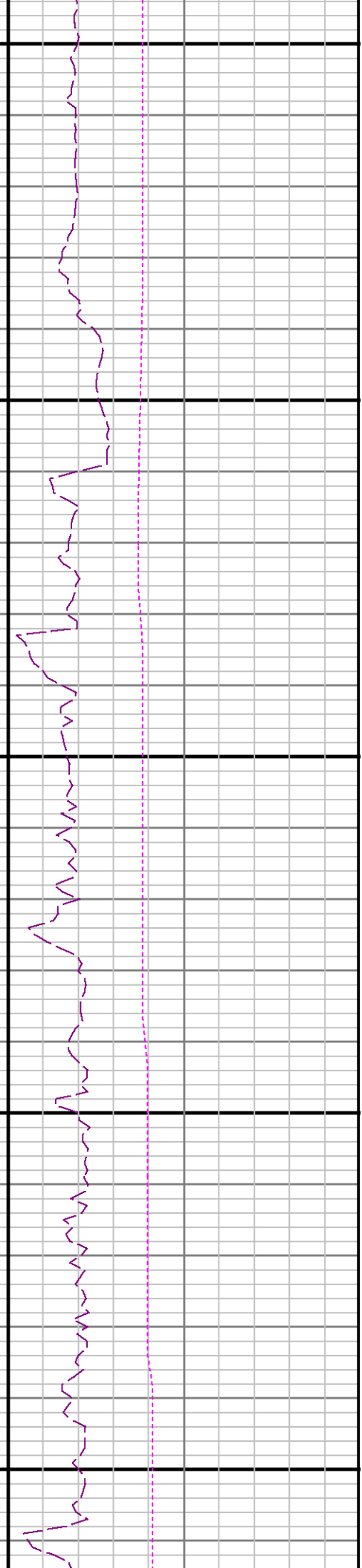


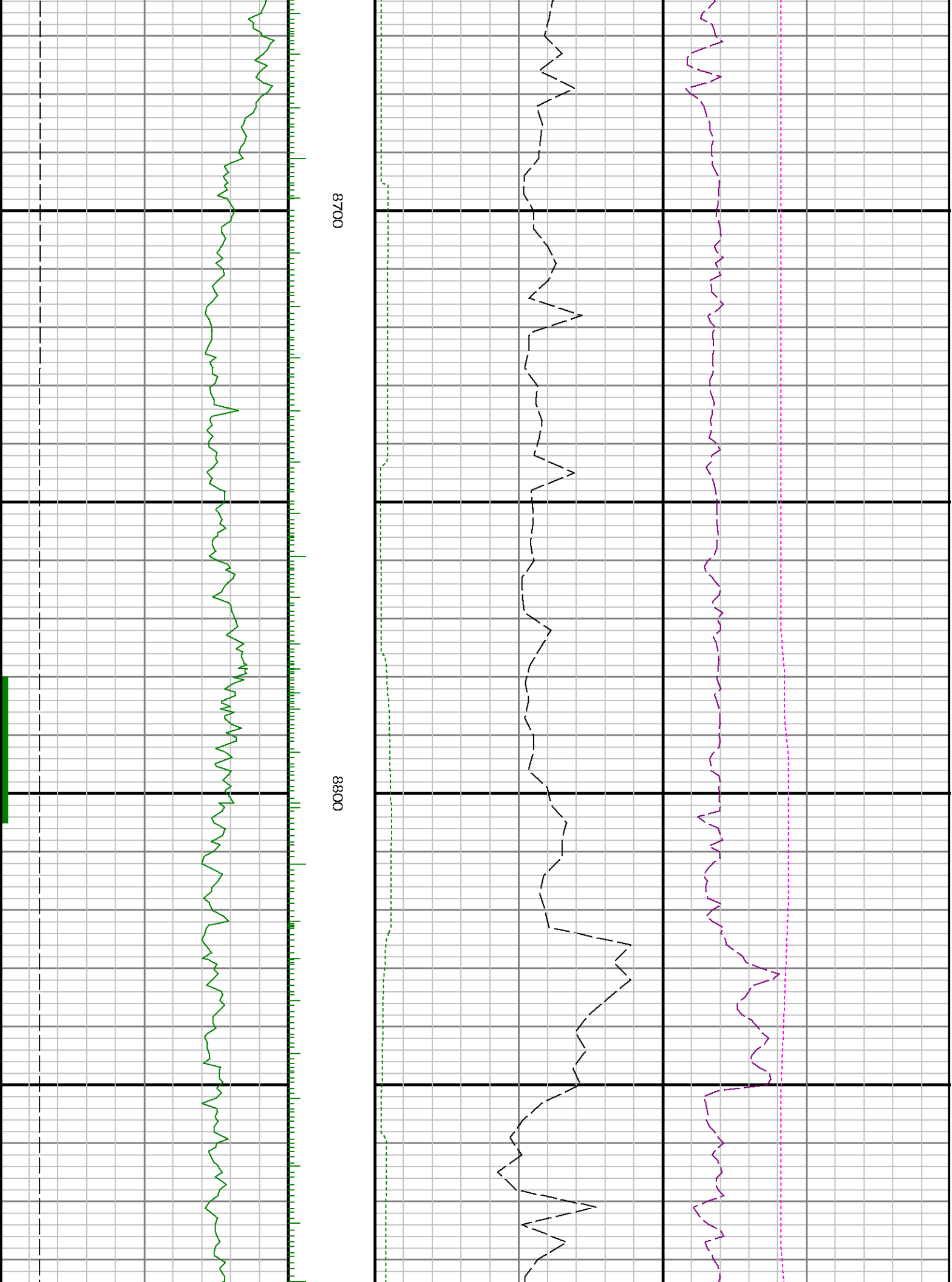


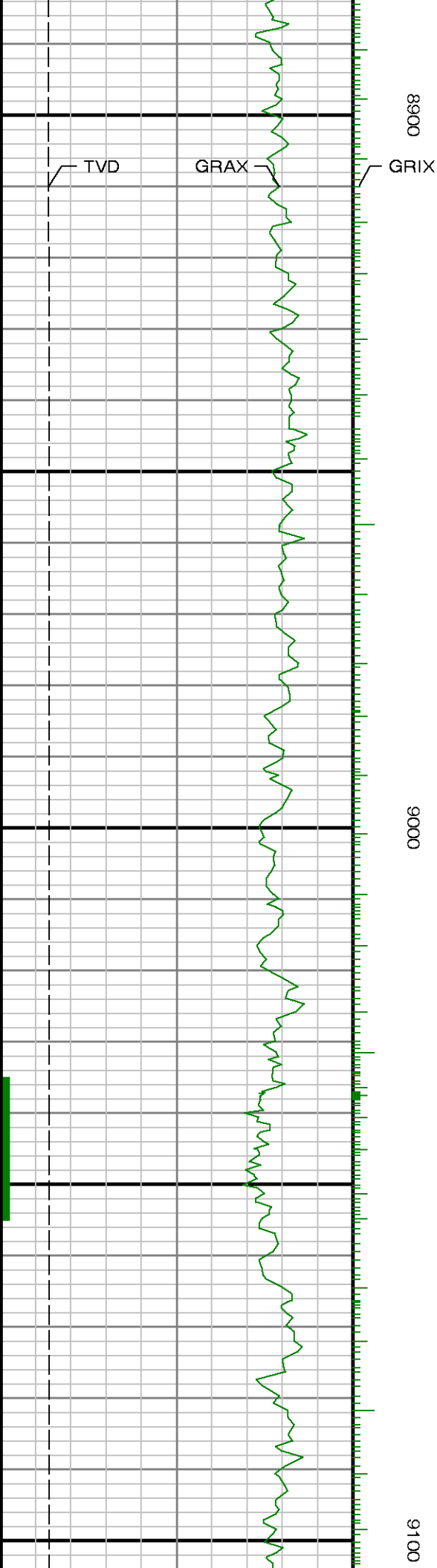


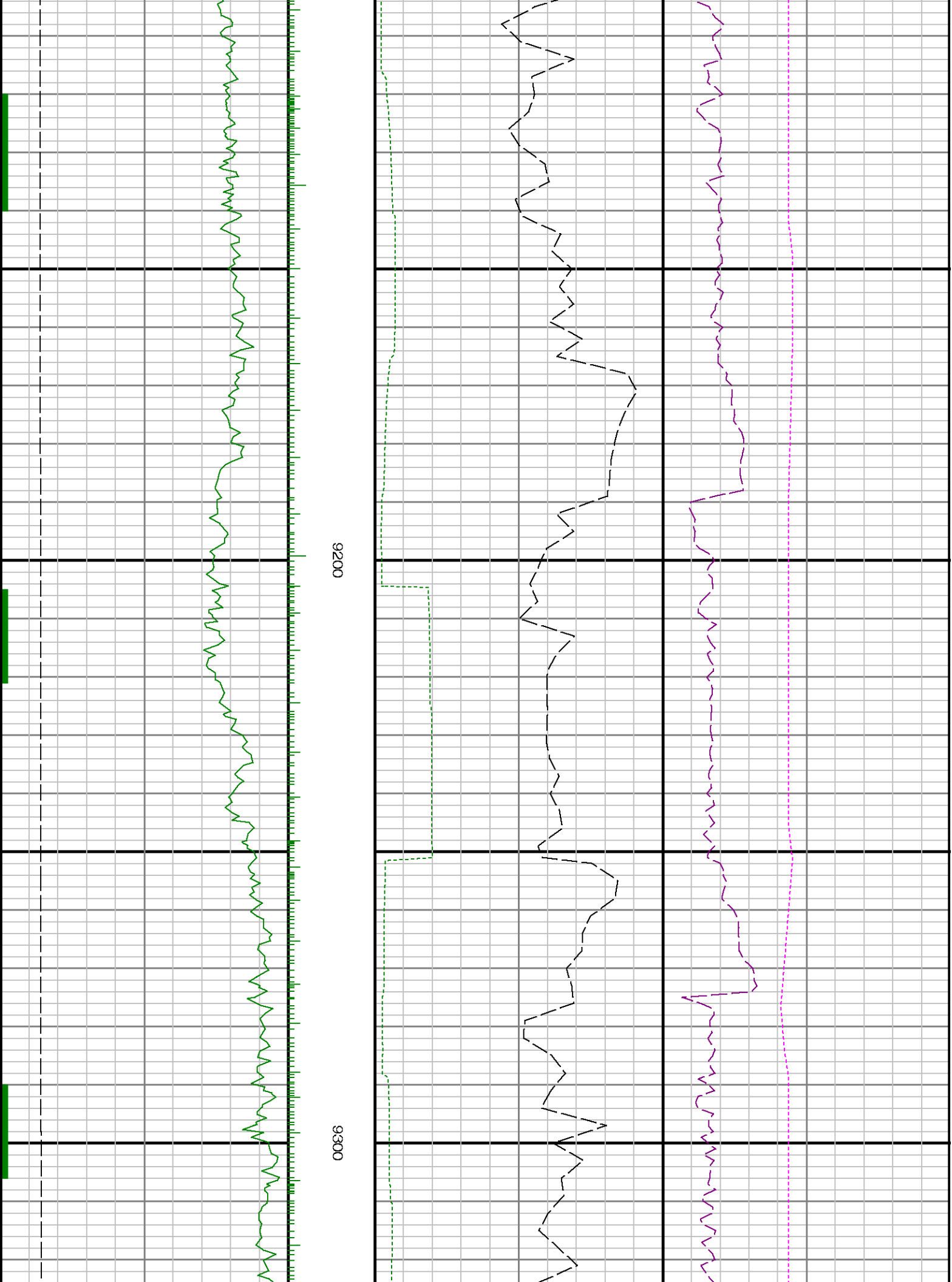
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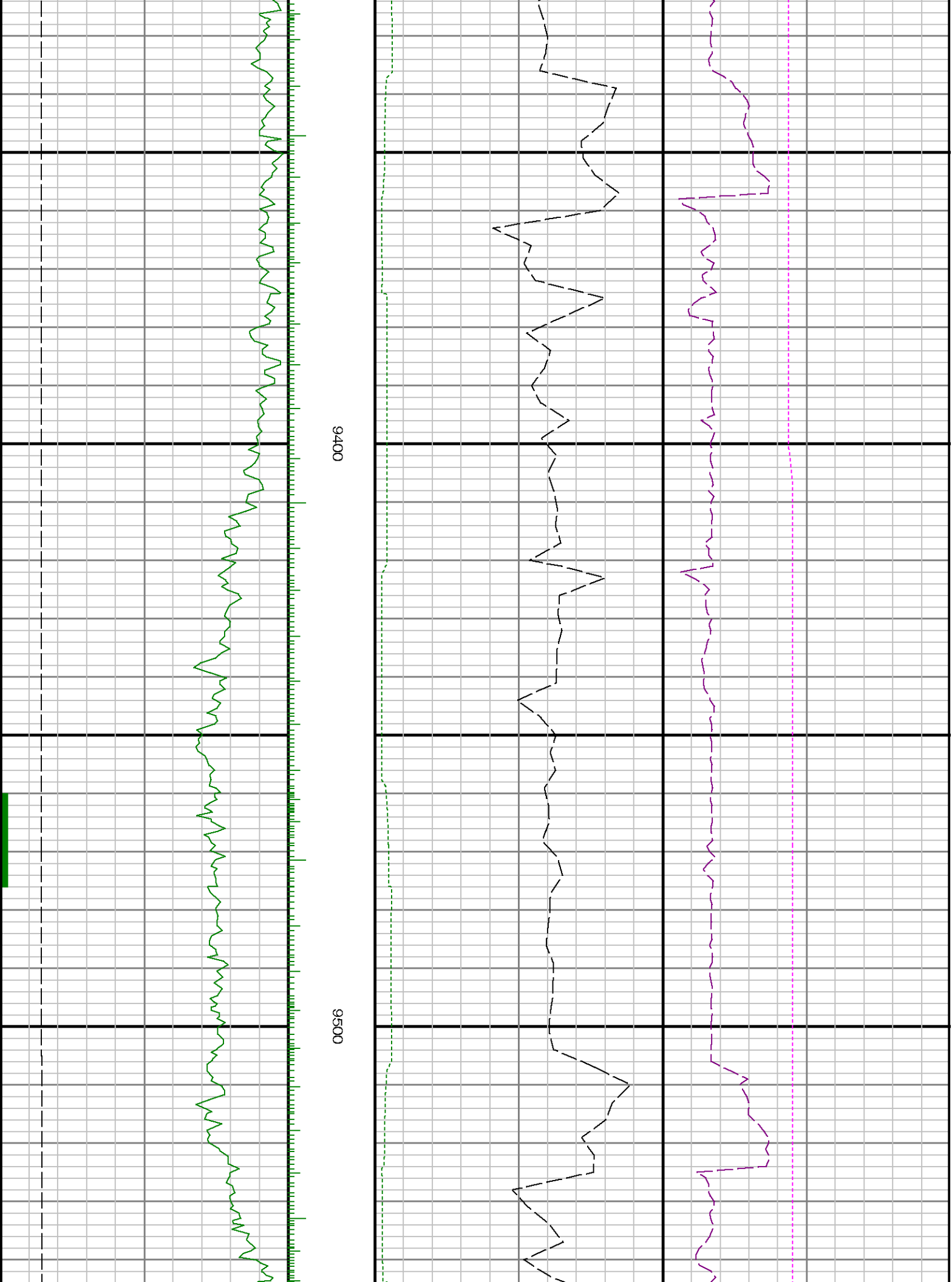
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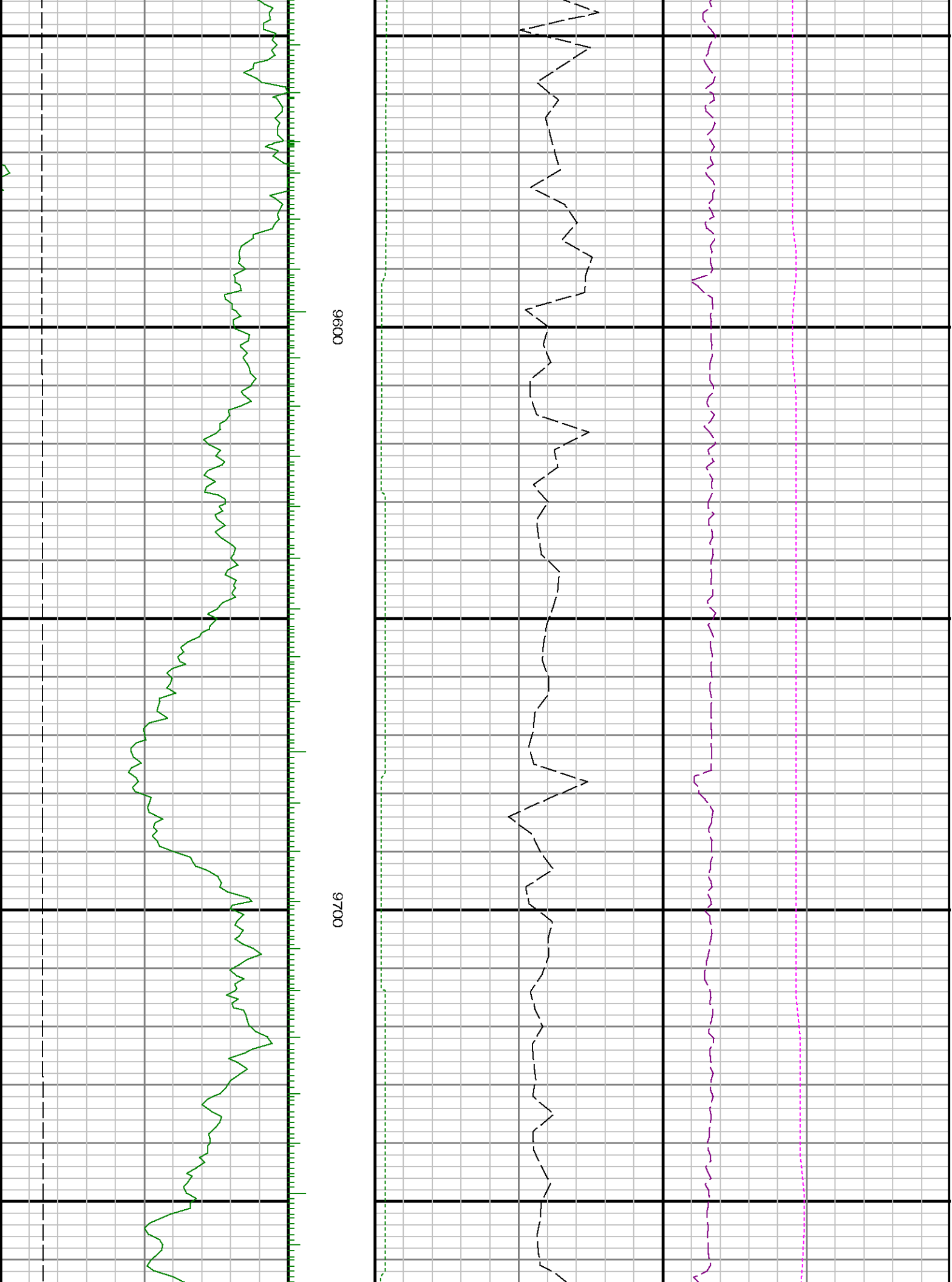


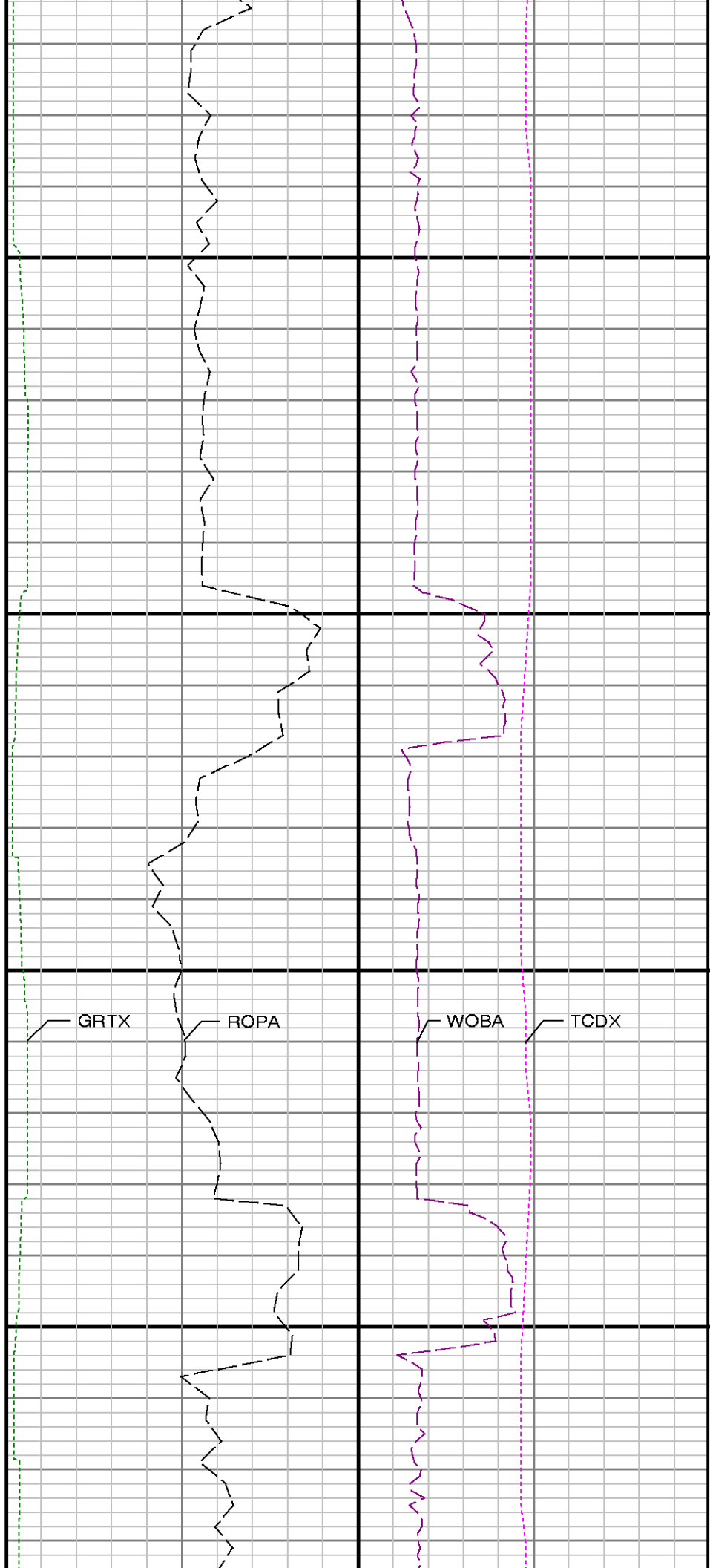
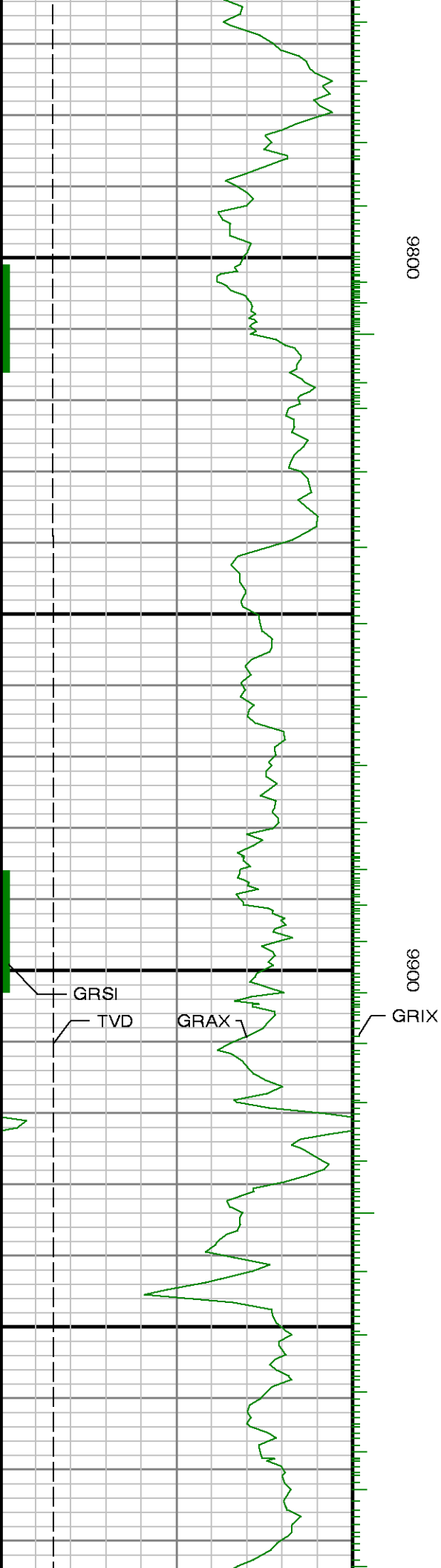


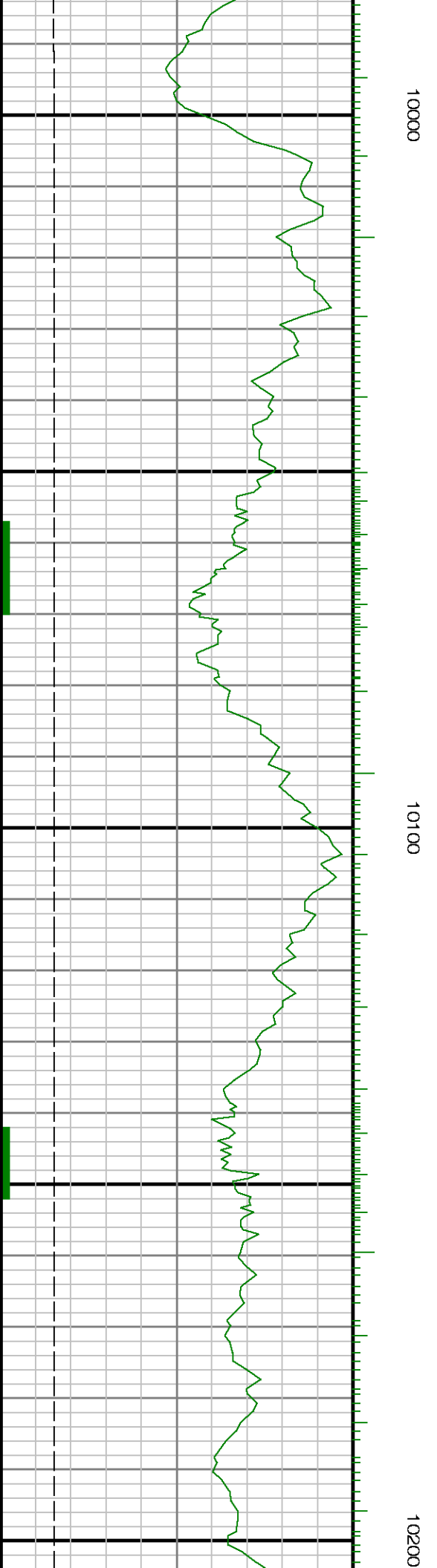


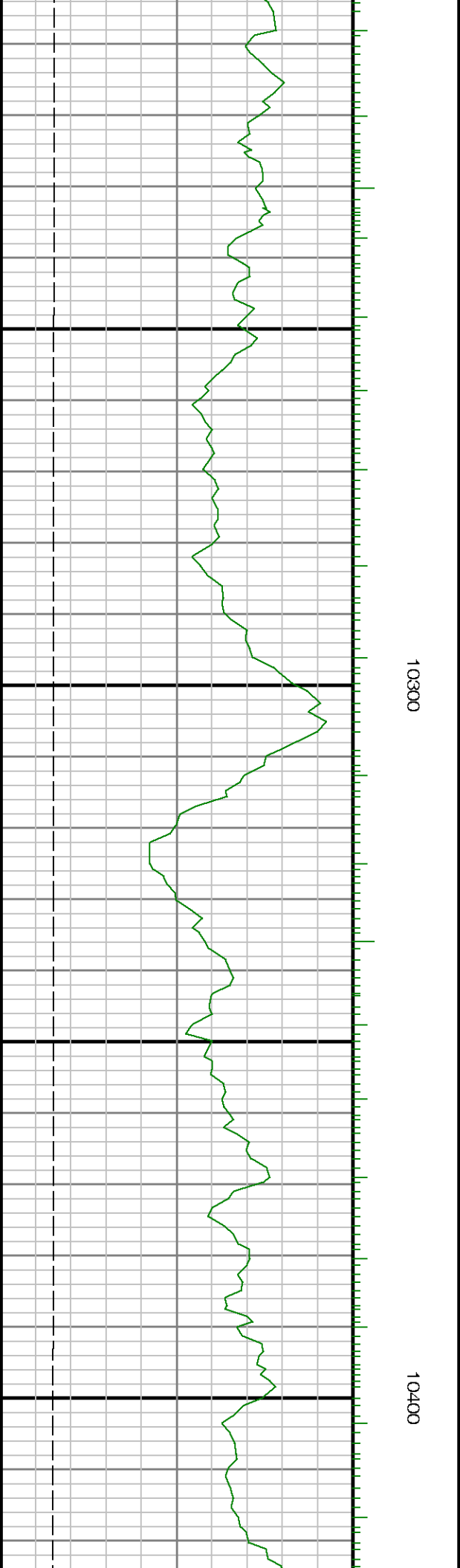
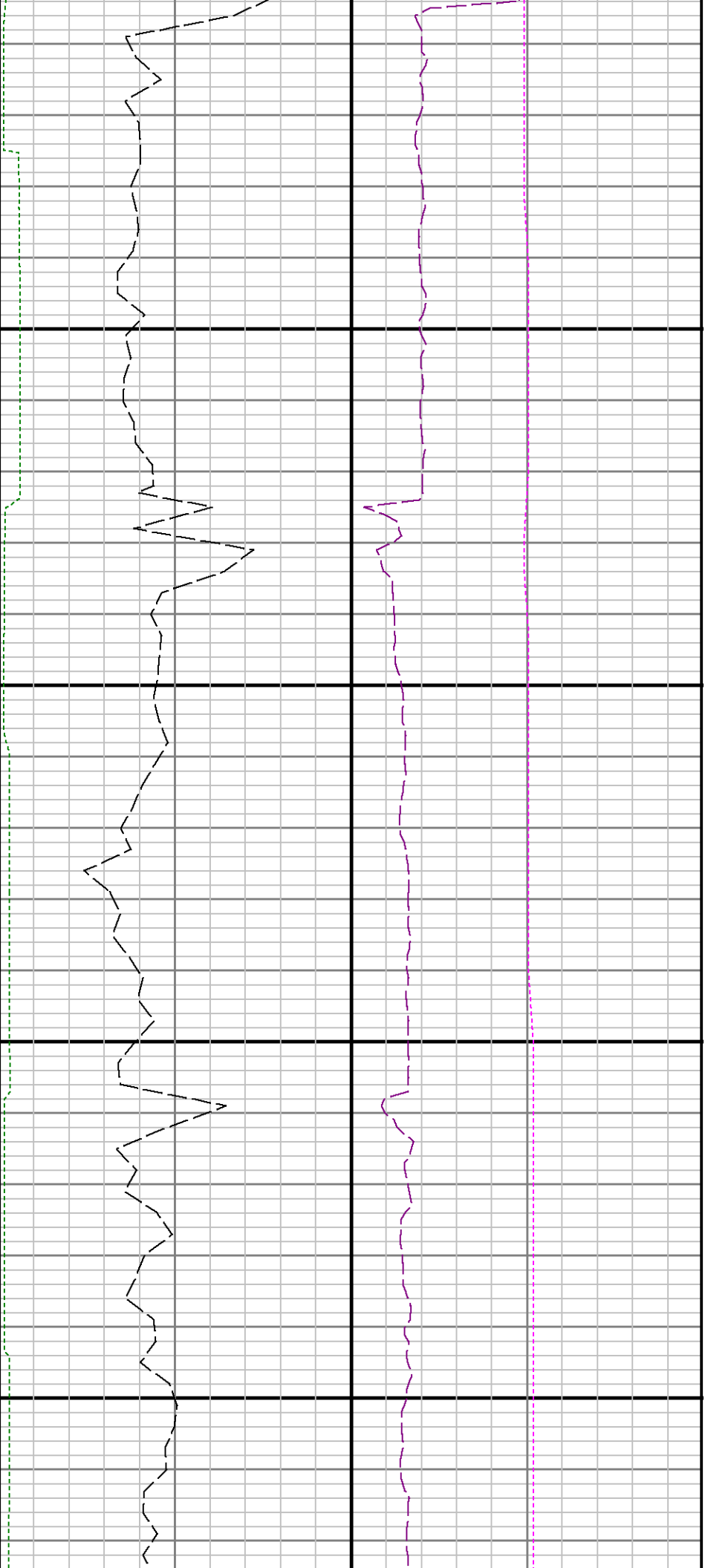


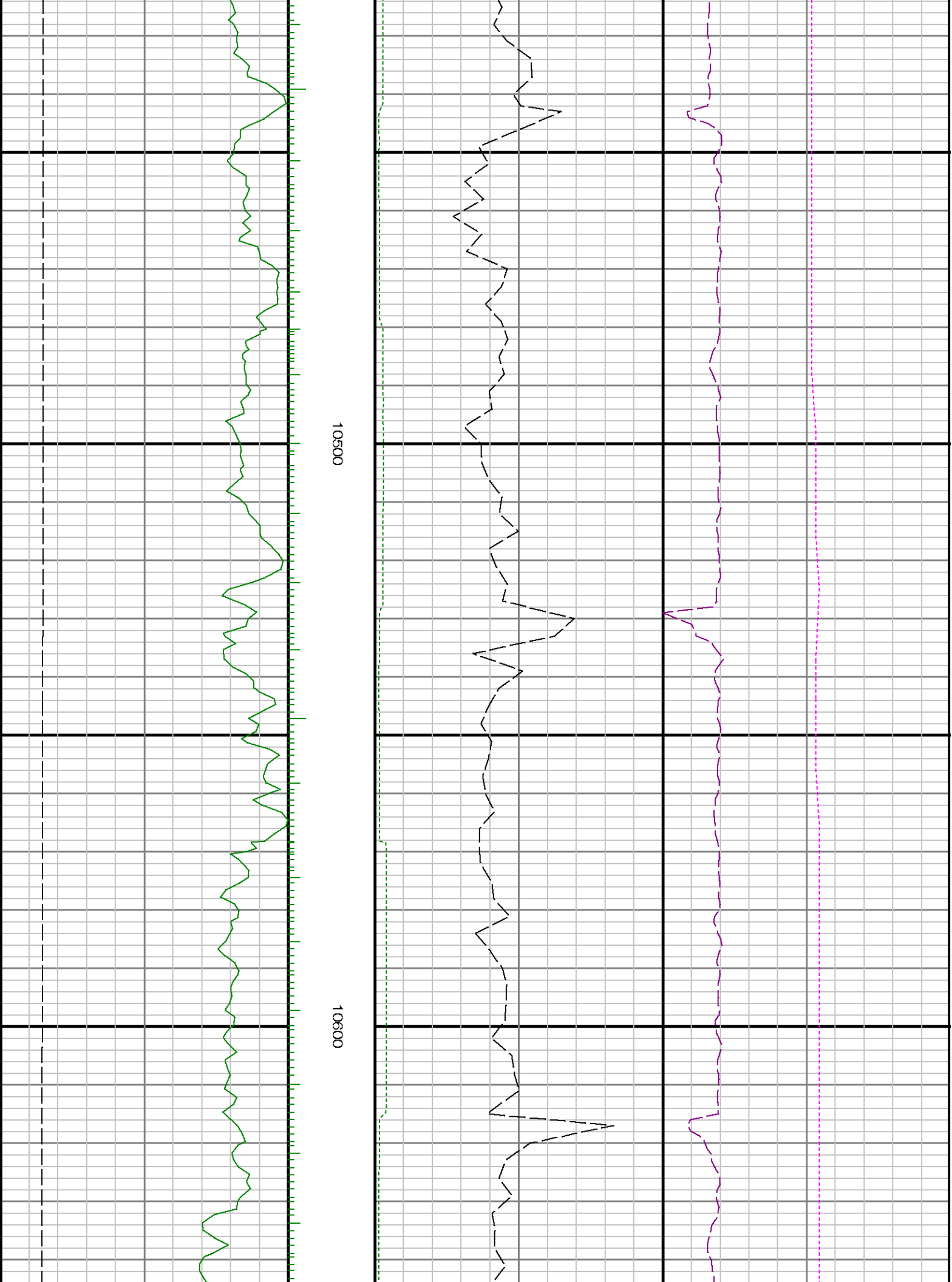


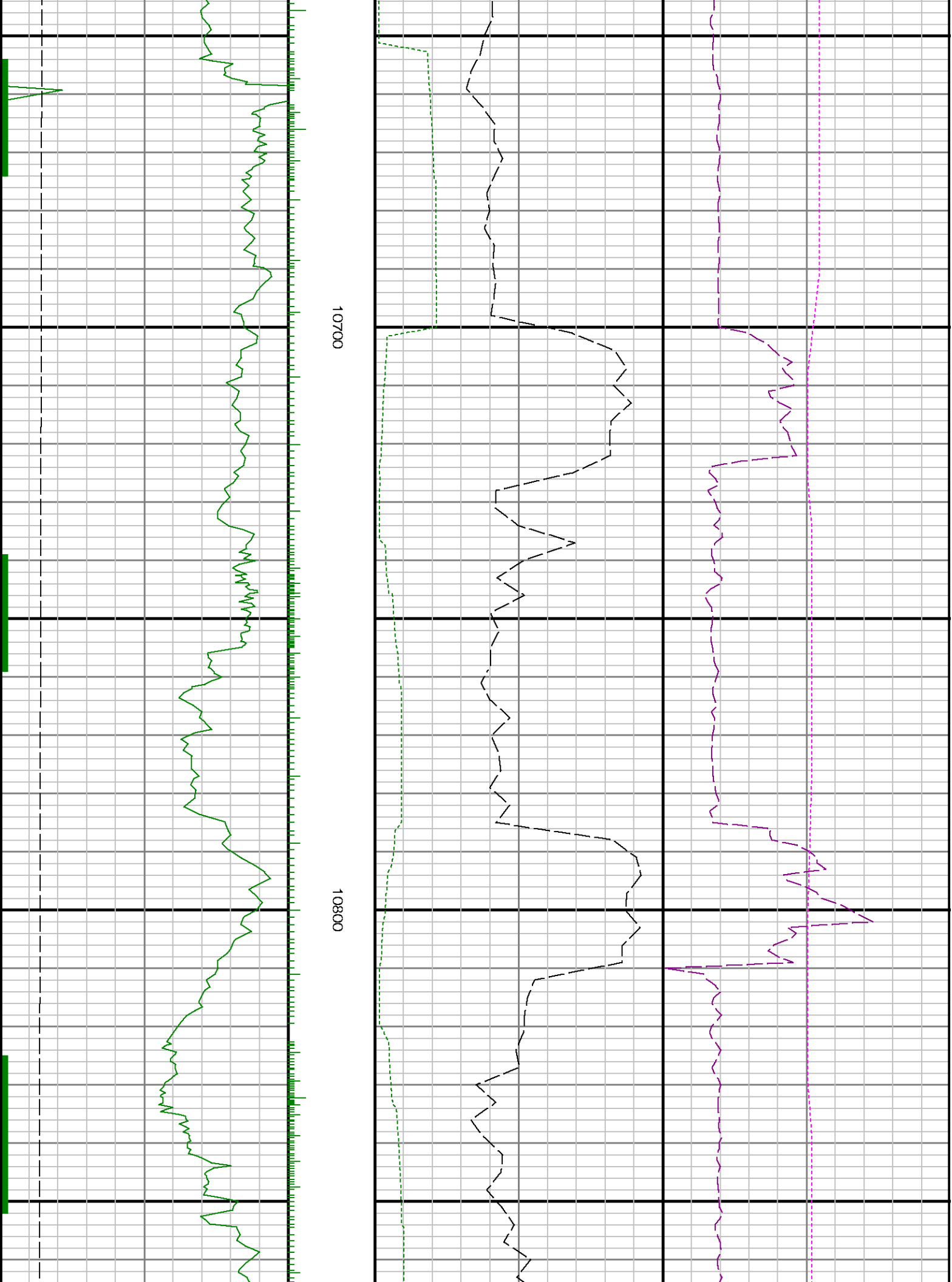


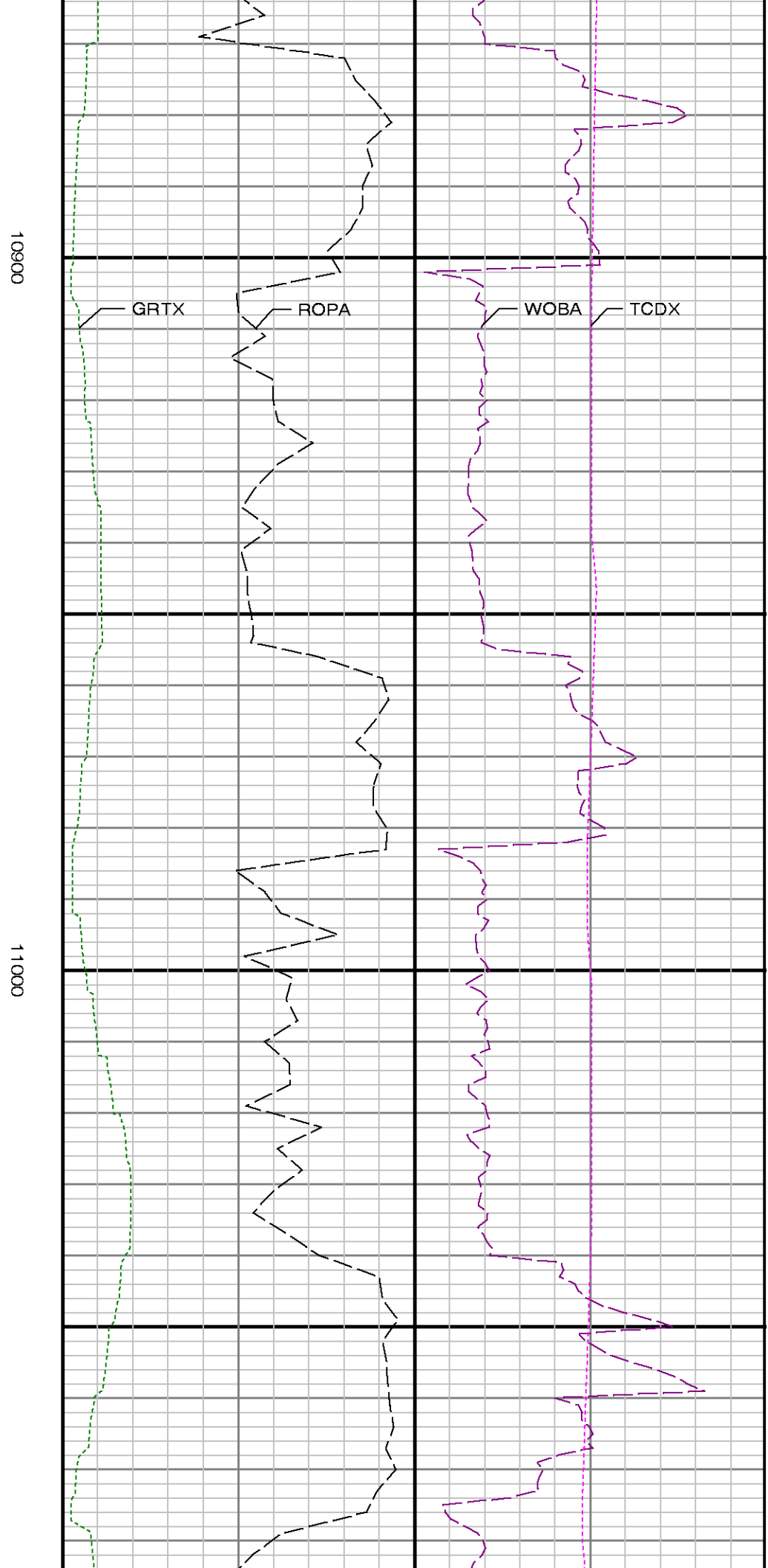
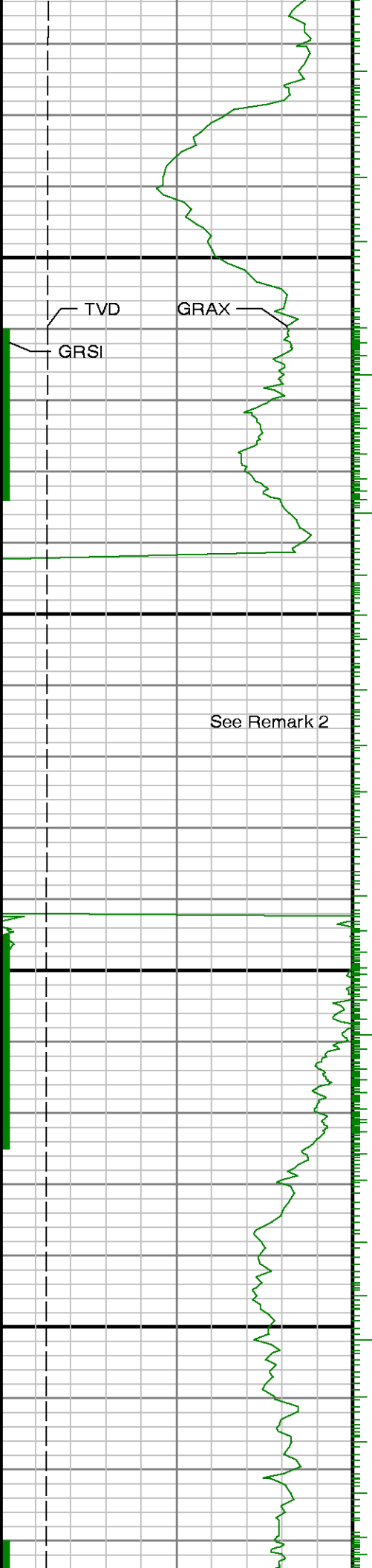










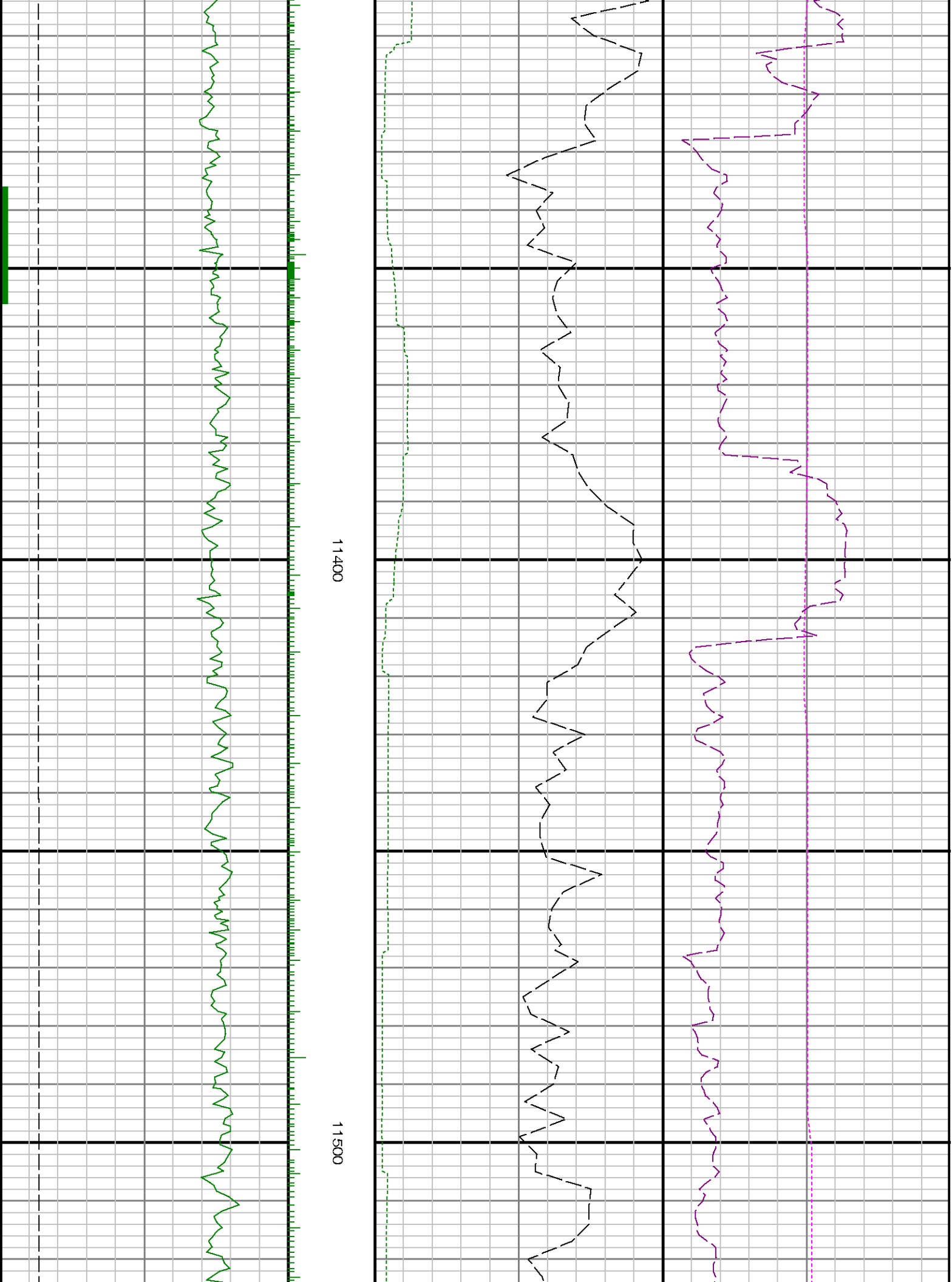


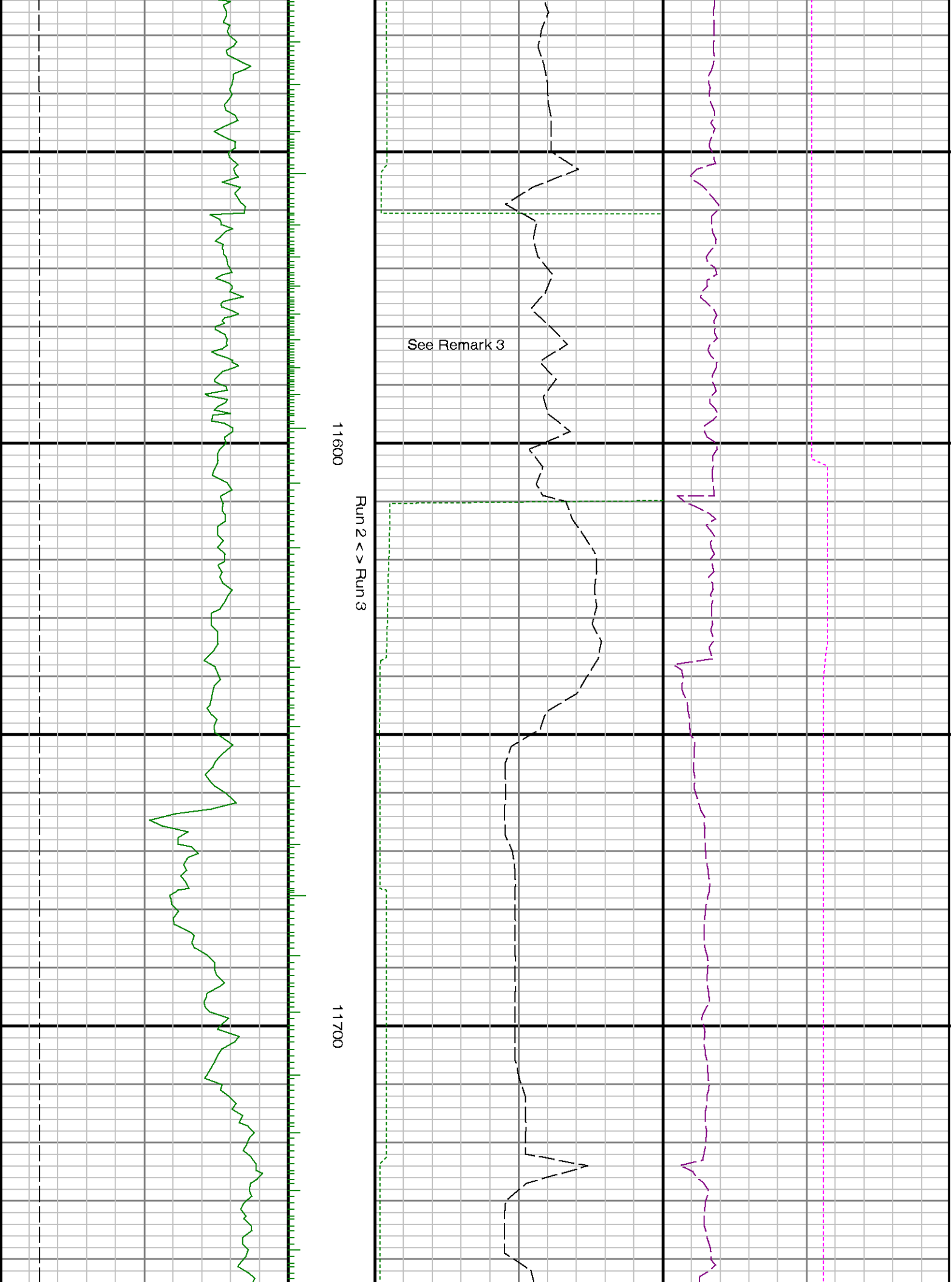


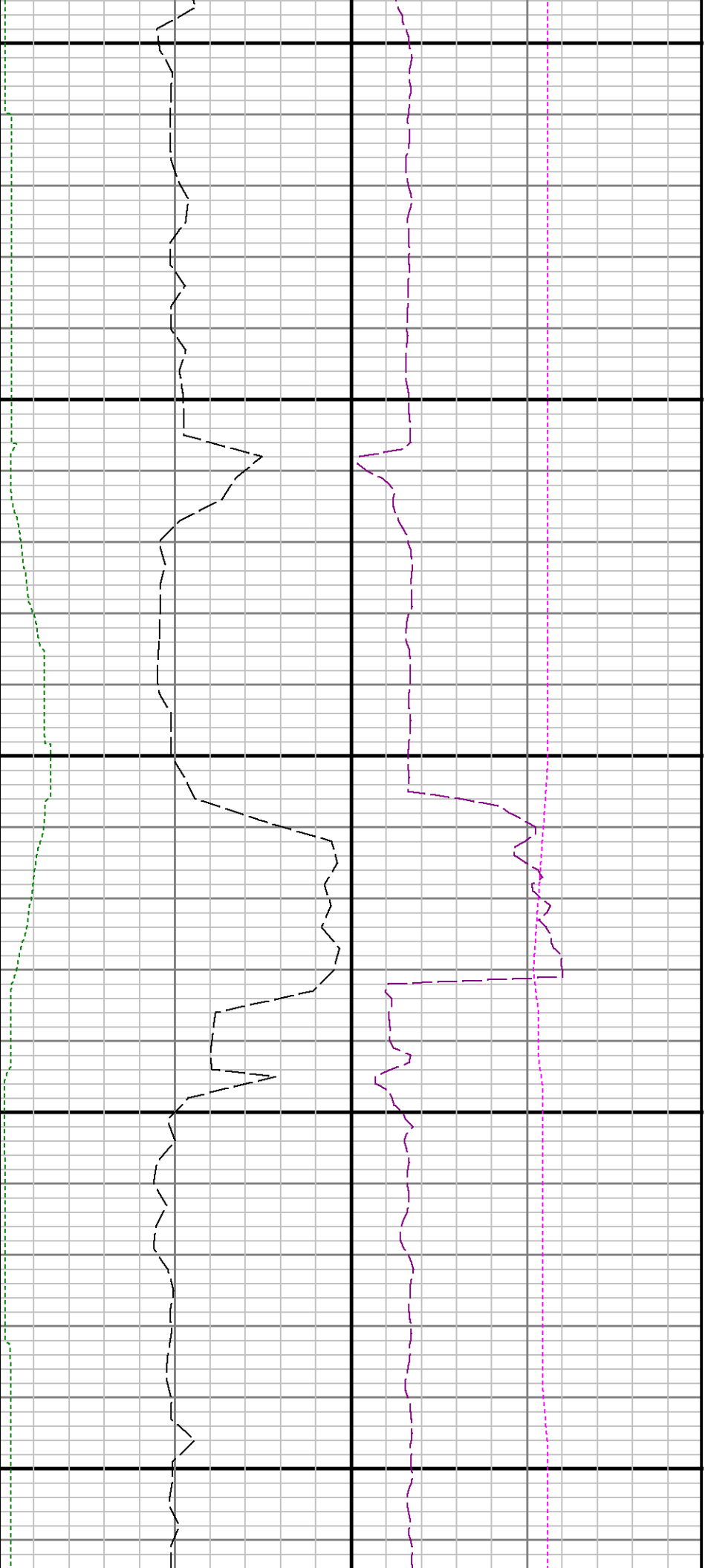
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