



Natural Formation Evaluation
Gamma Ray

Realtime Log

Scale:

1:240
Measure Depth

Company: Bonanza Creek Oil Company

Well: State Antelope K-O-30HNB

Field: Weld County

Region: Continental US Country: United States

Status: Field Print

Surface Location:

Latitude: 40° 22' 33.672" N

Longitude: 104° 22' 13.080" W

Other Services:

Wellbore Survey
VSS

API Number: 05-123-37291-0

Section: 30

TWN: 5N

Range: 62W

Elevations:

KB: N/A
DF: 4642.00 ft.
GL: 4625.00 ft.

Permanent Datum (P.D.): Mean Sea Level

Elevation: 4625.00 ft.

Rotary Table

Above P.D.

Log Measured From:

Driller's Depth

KB: N/A
DF: 4642.00 ft.
GL: 4625.00 ft.

Depth Reference:

Interval Logged

Dates

Magnetic Field Reference

Top: 5959.0 ft. Date From: 01/Jul/13 Date To: 09/Jul/13 Dip Angle: 67.02° Azi Reference North: True

Bottom: 10980.0 ft. Date To: 09/Jul/13 Total Mag to Reference

Spud Date: 01/Jul/13 Field Strength: 52879.5 nT North Correction: 8.40°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
13,500 in.	0.0 ft.	475.0 ft.	9.625 in.	36.00 lb/ft	0.0 ft.	458.0 ft.
8,750 in.	475.0 ft.	6865.0 ft.	7.000 in.	26.00 lb/ft	0.0 ft.	6860.0 ft.
6,125 in.	6865.0 ft.	10980.0 ft.				

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based	0.0 ft.		13,500 in.	475.0 ft.	0.0° / 0.0°	0.9° / 58.5°
			8,750 in.	6390.0 ft.	0.9° / 58.5°	86.4° / 179.0°
			6,125 in.	4115.0 ft.	86.4° / 179.0°	88.0° / 180.2°
					/	/
					/	/
					/	/
					/	/

Acquisition System

Software Version

Other

Advantage	2,20U4	Rig: / Contractor:	Cade 22	/ Cade Drilling
PAIS	6,4,1,34	Job No:	5608912	/ 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	1	13.500	PDC		Steerable	NA	NA	0.0	475.0	01/Jul/2013 18:20	01/Jul/2013 22:30	6.4		
2	2	2	8.750	PDC	3.000	Steerable	NA	NA	475.0	5996.0	02/Jul/2013 18:22	03/Jul/2013 22:27	27.4		
3	3	3	8.750	PDC	3.000	Steerable	5959.0	6189.0	5996.0	6232.0	04/Jul/2013 08:00	04/Jul/2013 15:38	9.7		
4	4	3	8.750	PDC	3.000	Steerable	6189.0	6227.0	6232.0	6270.0	05/Jul/2013 03:21	05/Jul/2013 12:00	6.8		
5	5	4	8.750	Tricone	0.500	Steerable	6227.0	6822.0	6270.0	6865.0	06/Jul/2013 03:11	06/Jul/2013 15:44	16.2		
6	6	5	6.125	PDC	6.500	Steerable	6810.0	10929.0	6865.0	10980.0	07/Jul/2013 23:55	09/Jul/2013 08:26	35		

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
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	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Nathan Leopold	30/June/2013	05/July/2013	Edward Aviles	01/July/2013	10/July/2013	Gregory Wheeler Jr.	05/July/2013	10/July/2013

Mnemonics		
Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5ft Avg.	cps
GRIX	Gamma Ray Data Point Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	s
ROP_AVG	Rate of Penetration, 3.0ft Avg.	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth	ft
WOB_AVG	Weight on bit, 3.0ft Avg.	klbf

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	55.22	6.750	3.250	
1	SRIG	12041110	Gamma	51.84	6.750	3.250	
2	DIR	11685175	Directional	49.17	6.750	3.250	
2	SRIG	12041110	Gamma	45.79	6.750	3.250	
3	DIR	11685175	Directional	44.17	6.750	3.250	
3	SRIG	12041110	Gamma	40.80	6.750	3.250	
4	DIR	12235770	Directional	43.72	6.750	3.250	
4	SRIG	12622678	Gamma	40.34	6.750	3.250	
5	DIR	12323378	Directional	42.93	6.750	3.250	
5	SRIG	zsgm-5324	Gamma	39.56	6.750	3.250	
6	DIR	12373461	Directional	52.70	4.750	2.750	
6	SRIG	11932890	Gamma	49.32	4.750	2.750	

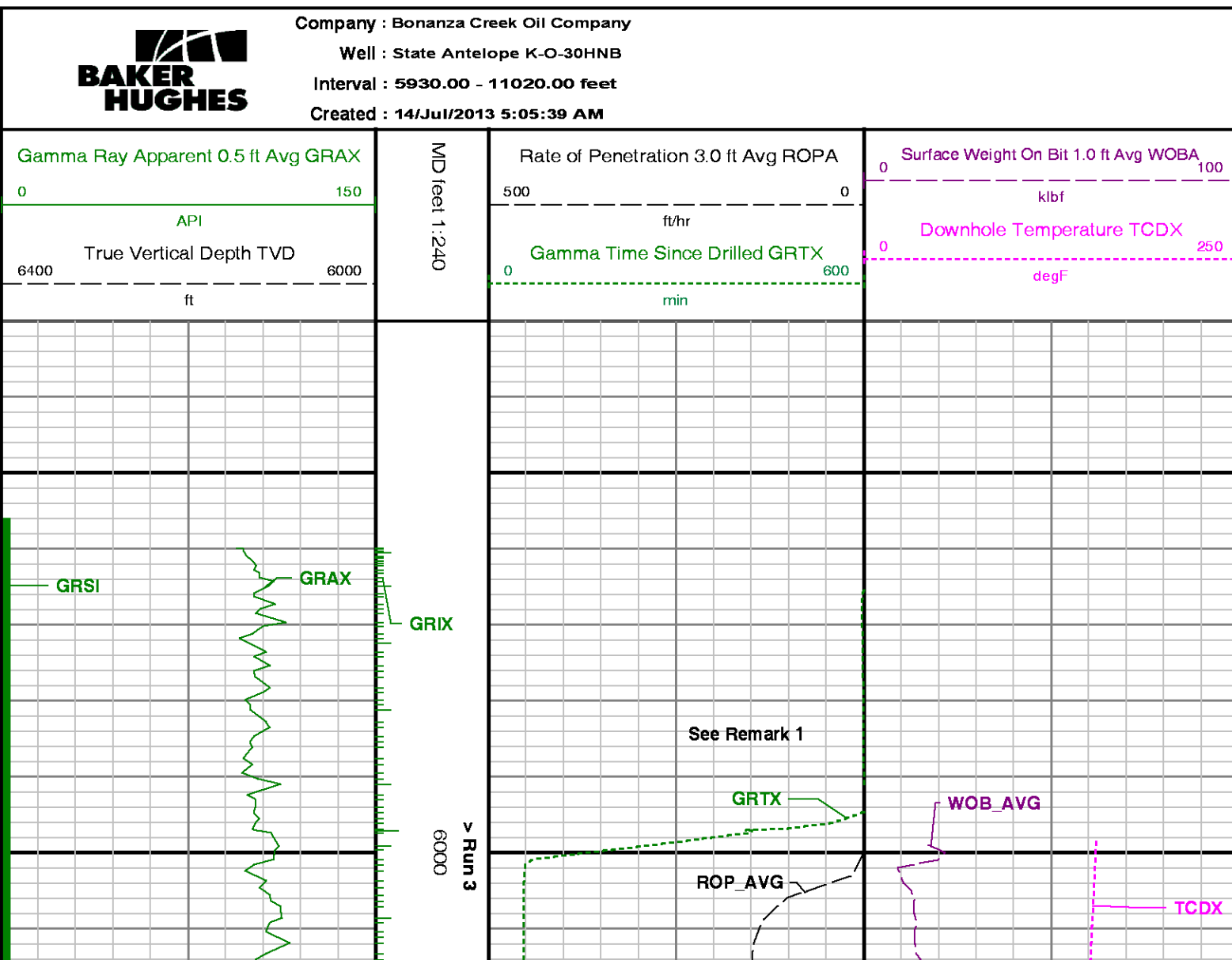
Service and Tool Mnemonics		
Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

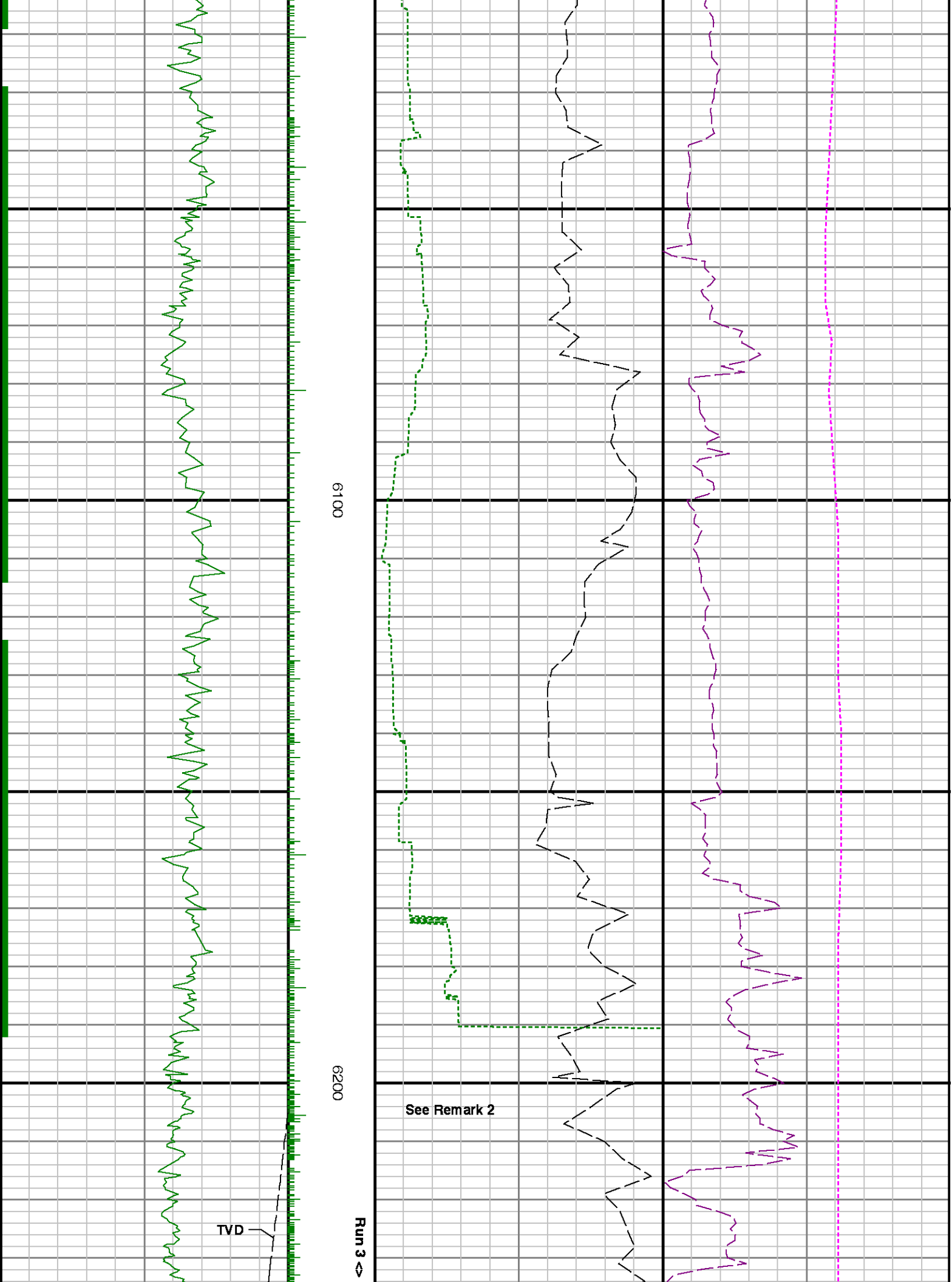
Comments
<p>1) Baker Hughes run 1 utilized 6 3/4" NaviTrak (Directional) services behind a 13 1/2" bit and steerable motor to drill from 0 to 475 ft. MD (0 to 475 ft. TVD).</p> <p>2) Baker Hughes run 2 utilized 6 3/4" NaviTrak (Directional) services behind an 8 3/4" bit and steerable motor to drill from 475 to 5996 ft. MD (475 to 5796 ft. TVD).</p> <p>3) Baker Hughes runs 3, 4 and 5 utilized 6 3/4" NaviGamma (Directional and Gamma Ray) services behind an 8 3/4" bit and steerable motor to drill the curve section from 5996 to 6865 ft. MD (5796 to 6350.46 ft. TVD).</p> <p>4) Baker Hughes runs 6 utilized 4 3/4" NaviGamma (Directional and Gamma Ray) services behind an 6 1/8" bit and steerable motor to drill the lateral section from 6865 to 10980 ft. MD (6350.46 to 6357.58 ft. TVD).</p>

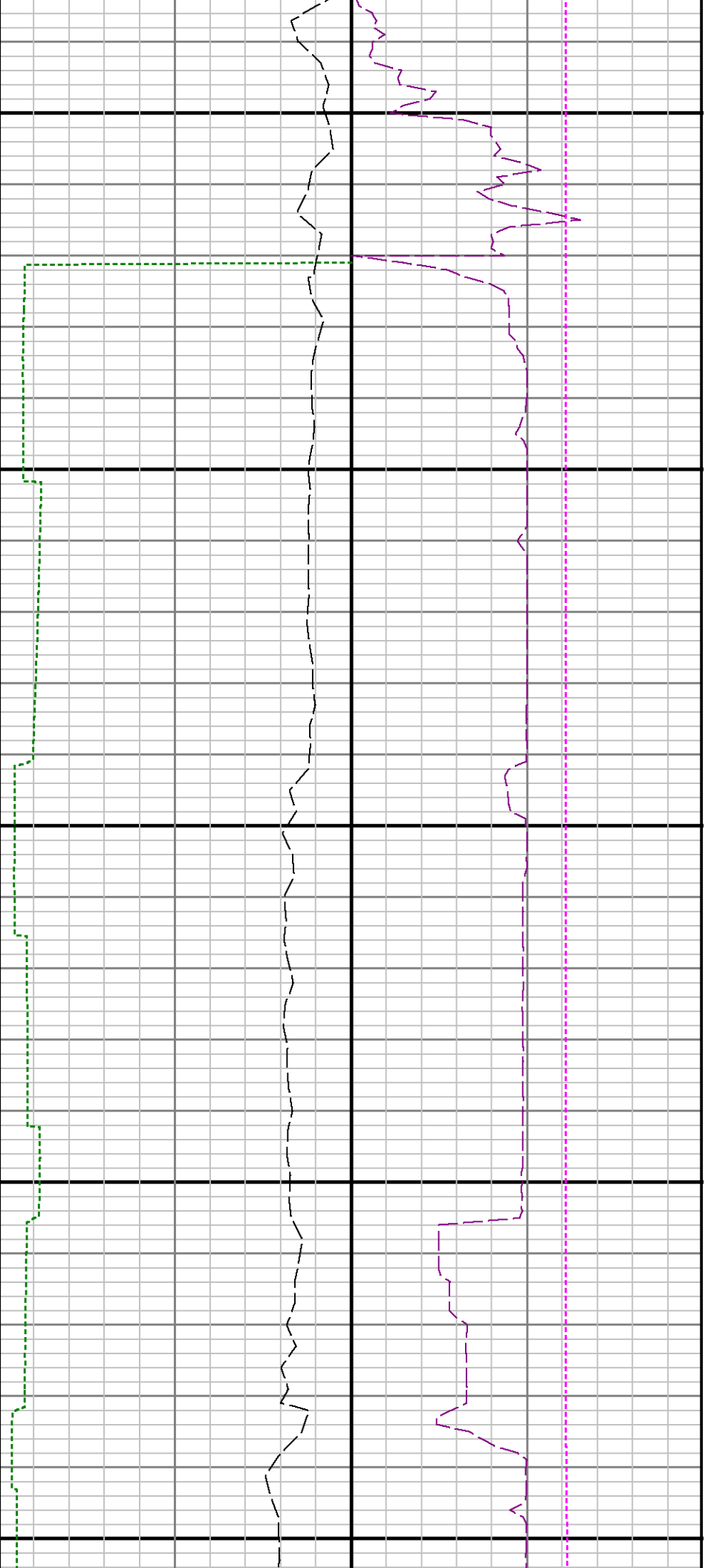
5) A sliding indicator is shown on the left edge of track 1 as a heavy green line. This indicator has been depth shifted to the Gamma Ray sensor offset to correspond with gamma ray data acquired while sliding.

6) Depth measurements were obtained from a depth tracking system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes LWD logging engineers, depth calibrations and measurements could not be independently verified and the unverified depths as supplied to Baker Hughes are being used to present logging data.

Remarks				
Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	5990	8.750	3	The interval from 5959 to 5996 ft MD (5759.72 to 5796.70 ft TVD) contains no logging data due to sensor to bit offset at the start of run 3.
2	6200	8.750	4	The interval from 6190 to 6270 ft MD (5985.77 to 6059.96 ft TVD) contains was logged up to 36 hours after being drilled due to TOOH to change out BHA.
3	6850	8.750	5-6	The interval from 6826 to 6865 ft MD (6349.37 to 6350.46 ft TVD) contains was logged up to 32 hours after being drilled due to casing operations.
4	10980	6.125	6	The interval from 10929 to 10980 ft MD (6352.38 to 6354.22 ft TVD) contains no logging data due to sensor to bit offset at the end of the run.

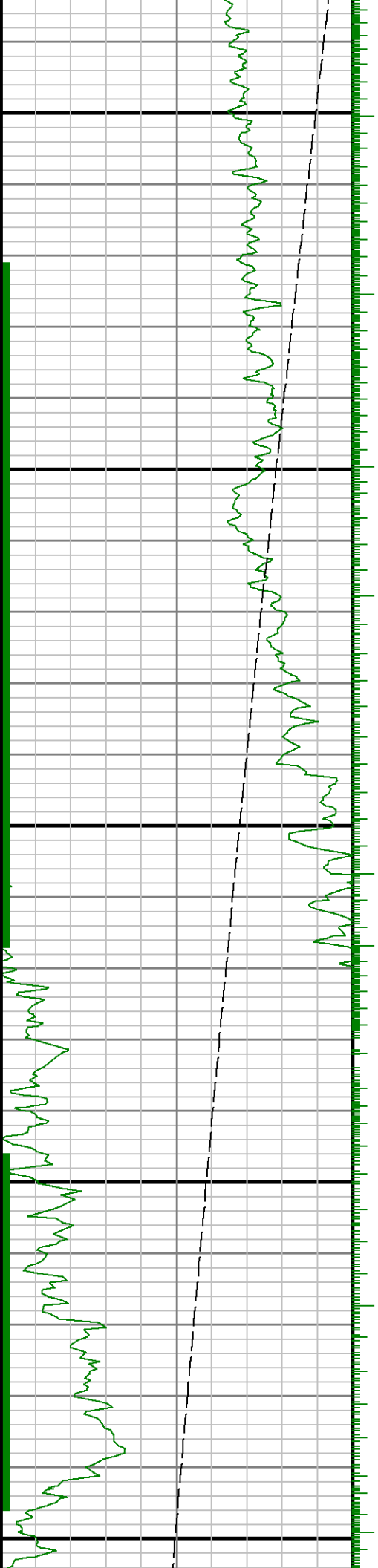


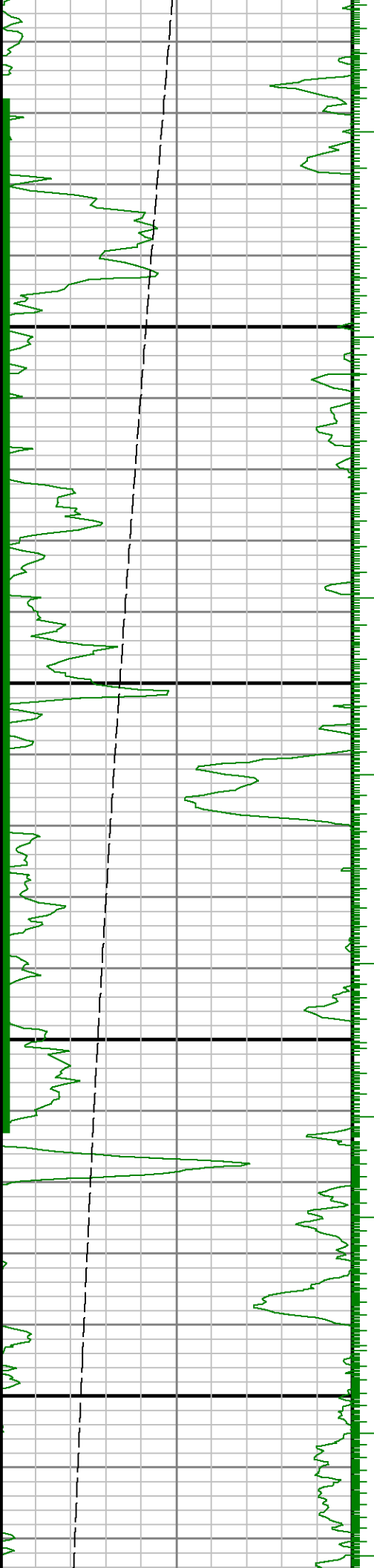




6300

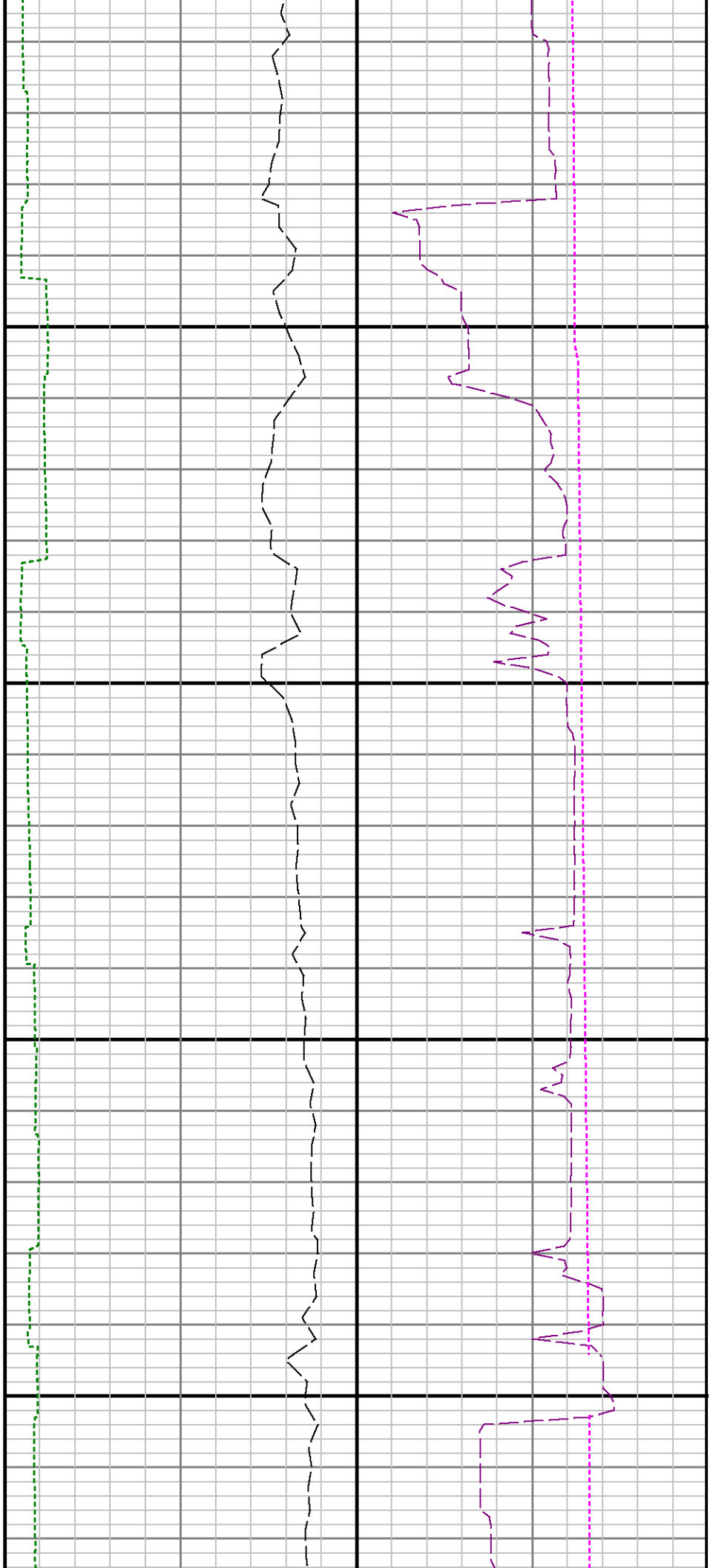
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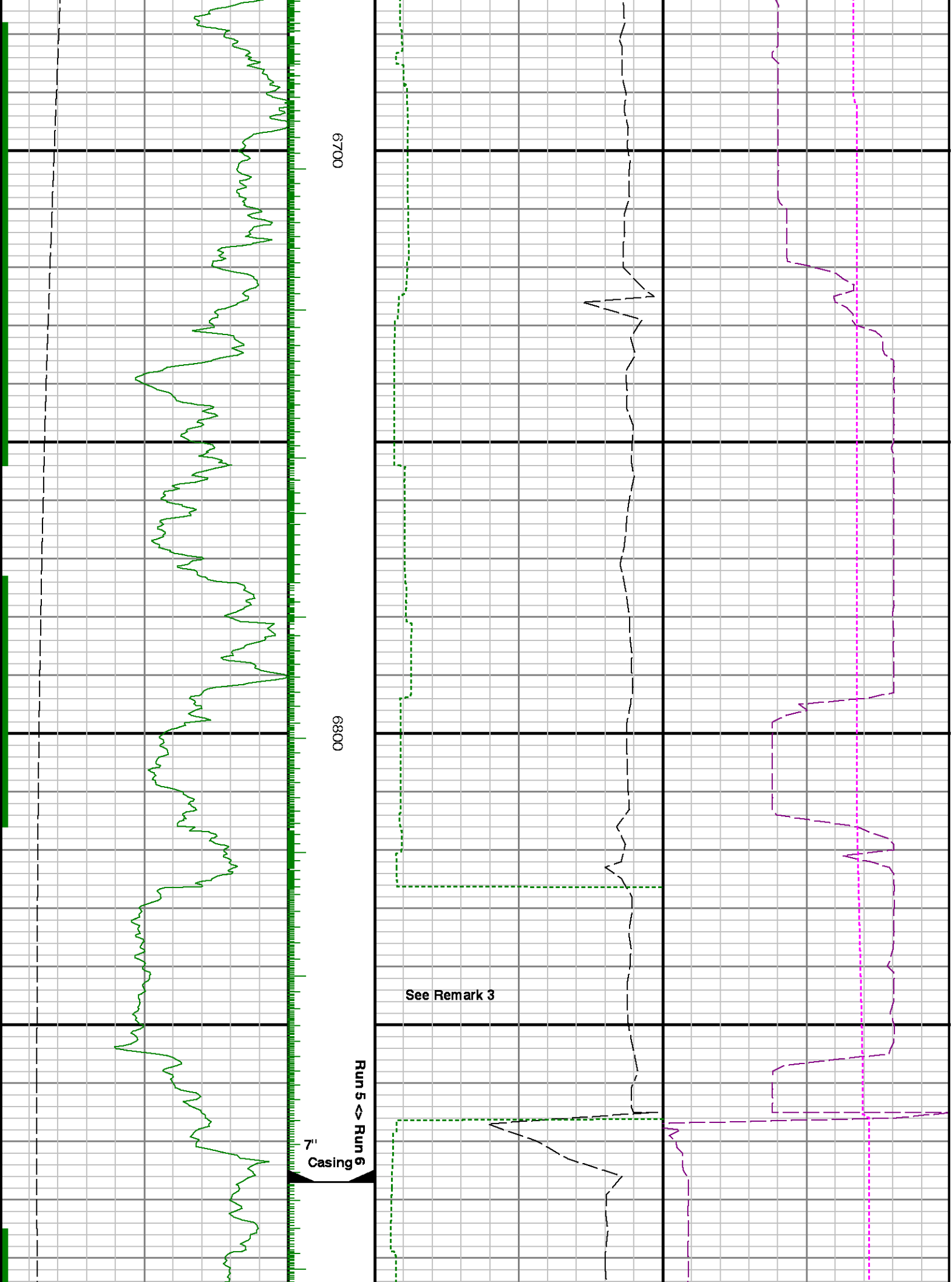




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0099





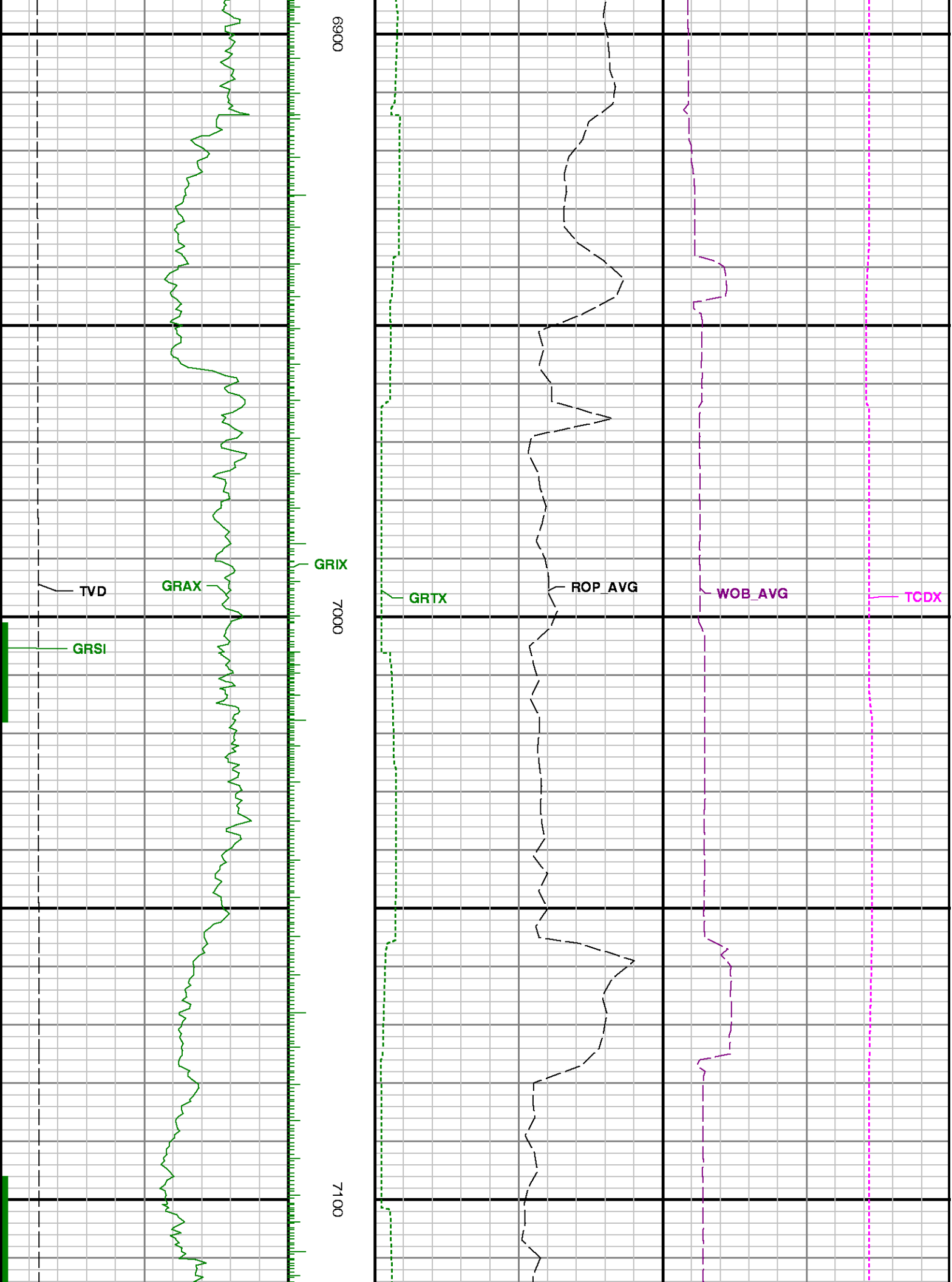
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6800

Run 5 <- Run 6

7" Casing

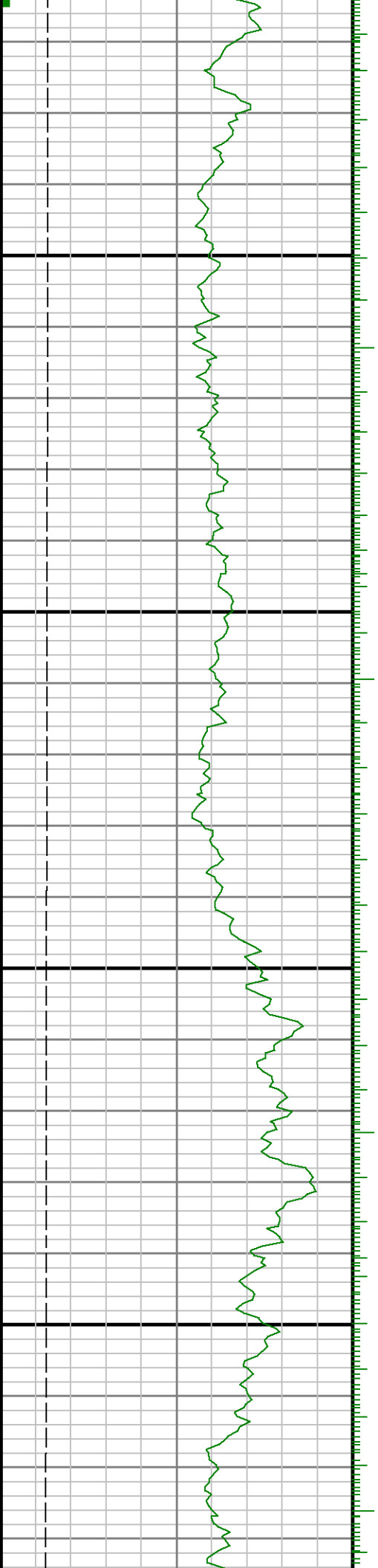
See Remark 3

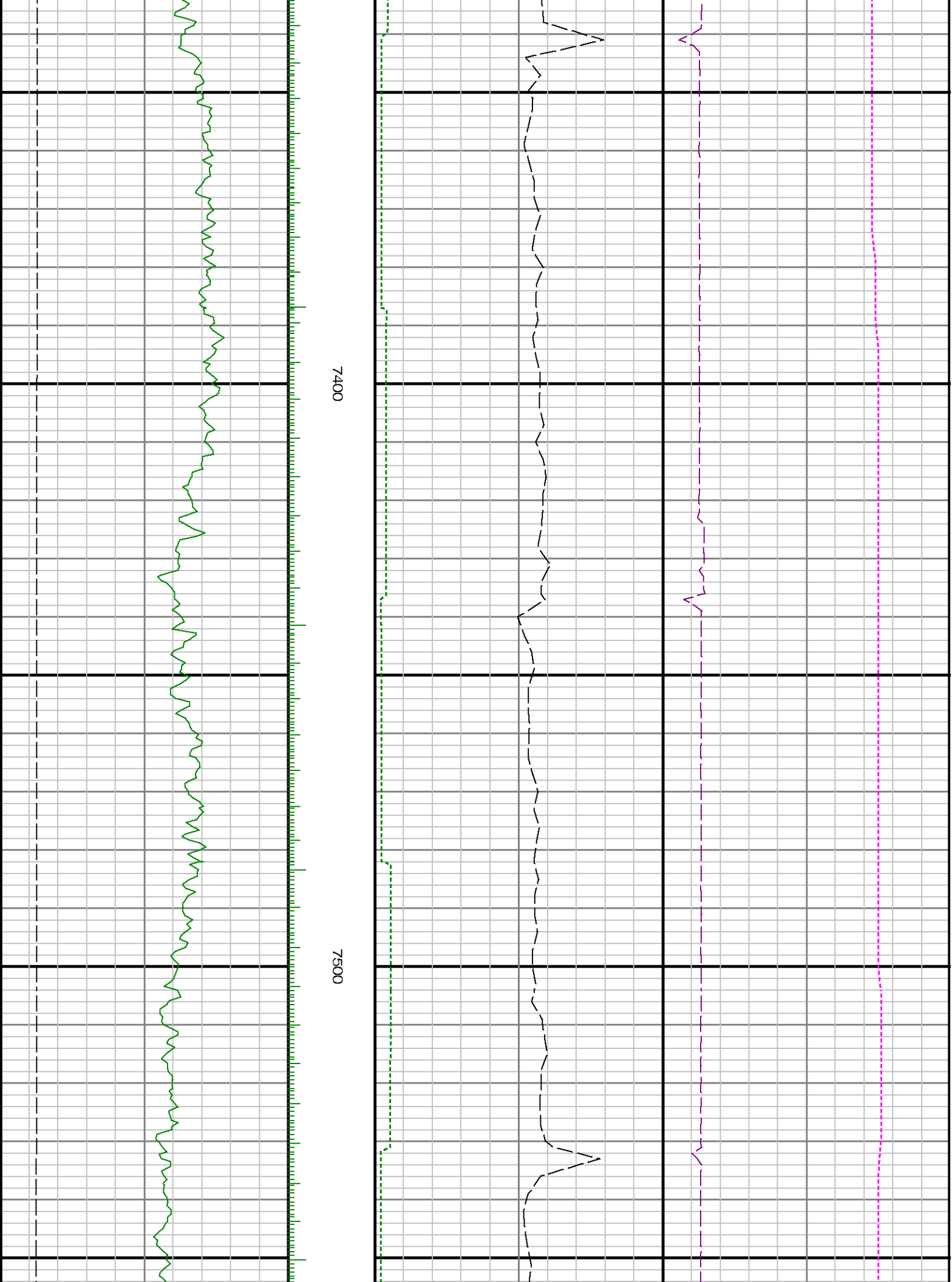


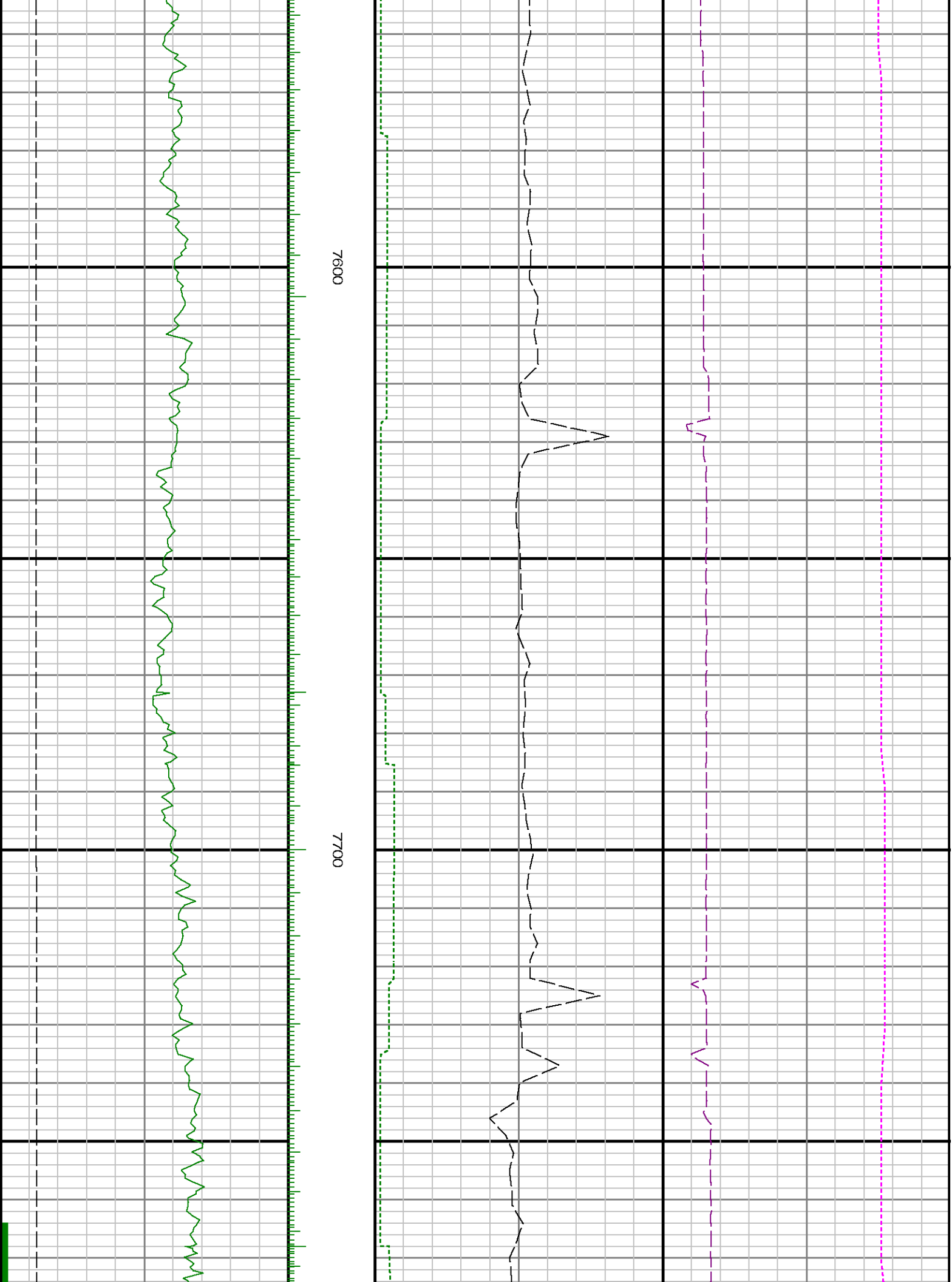


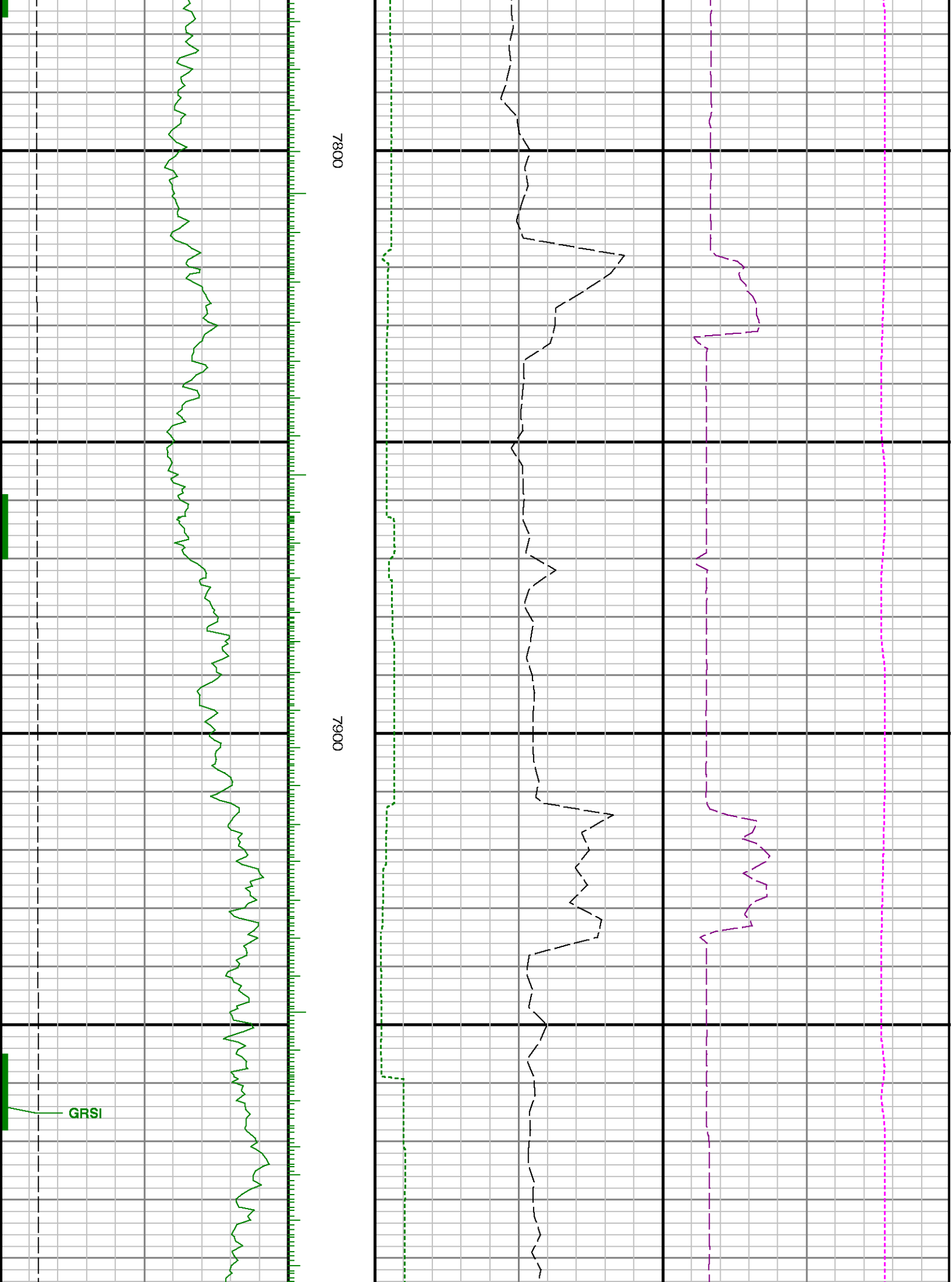
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7300





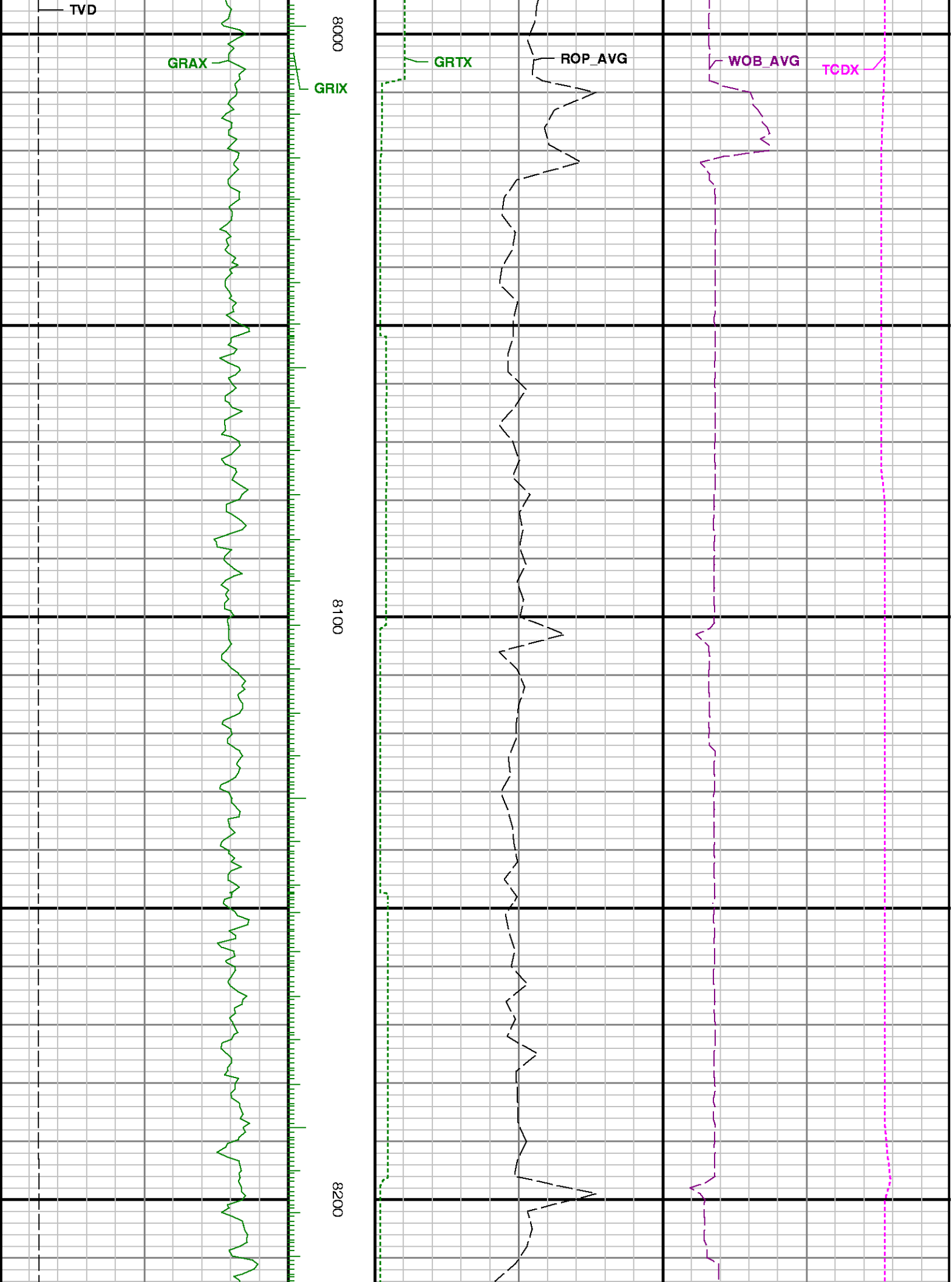


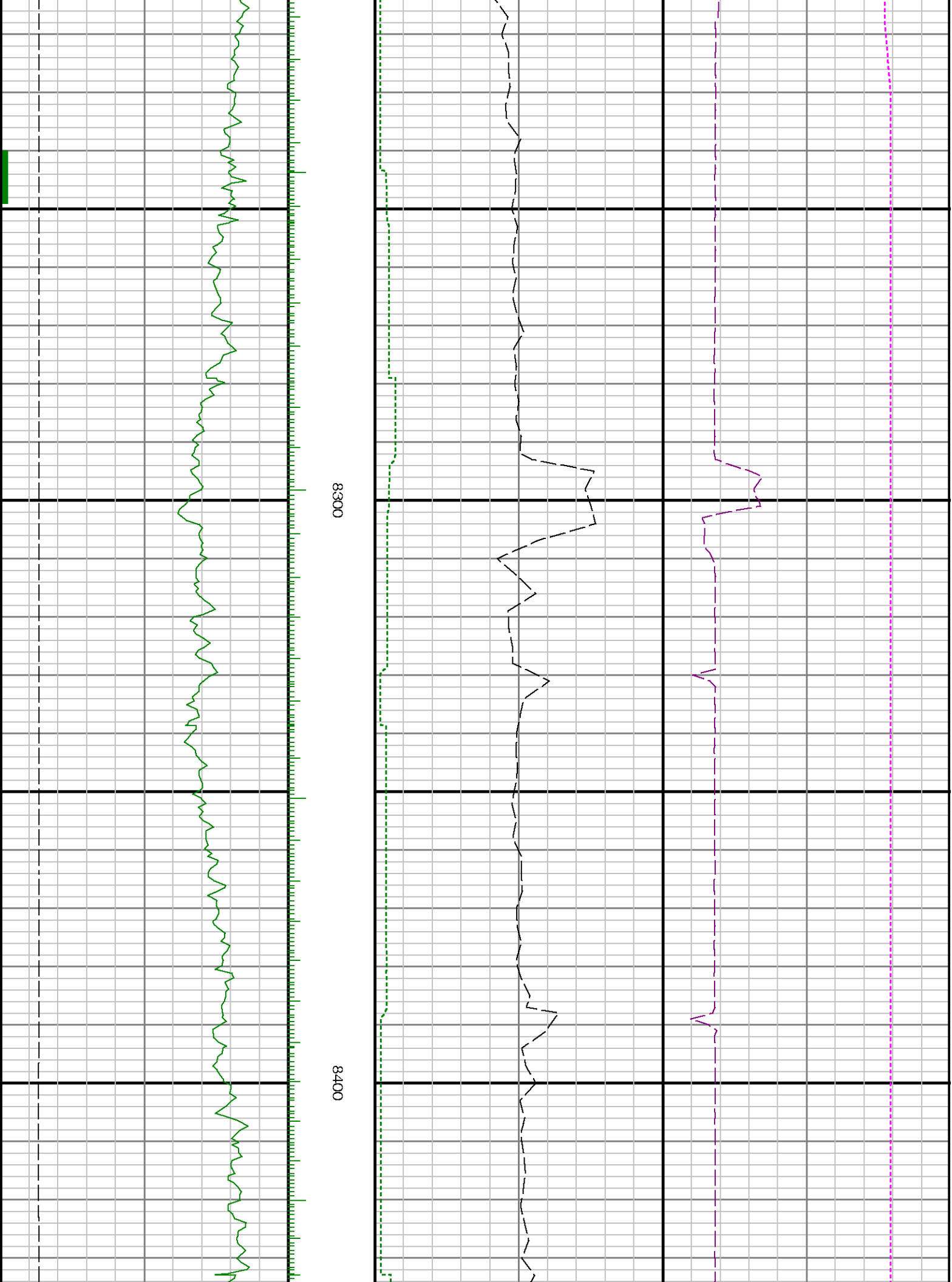


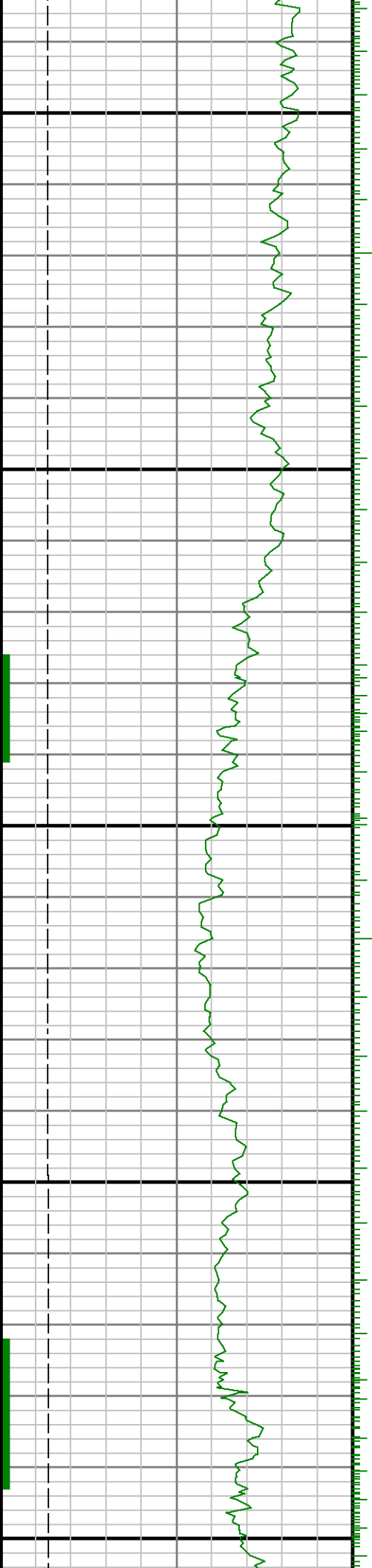
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GRSI

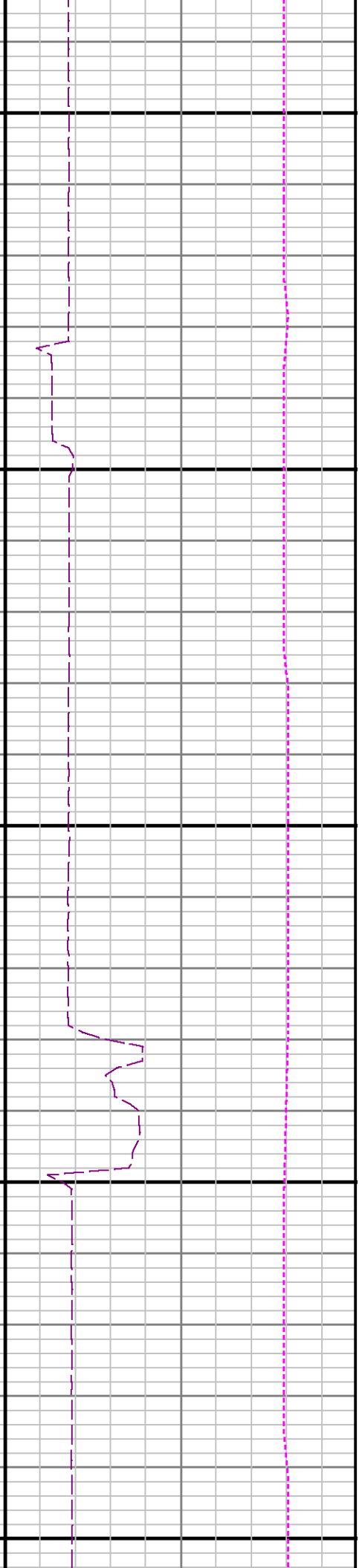
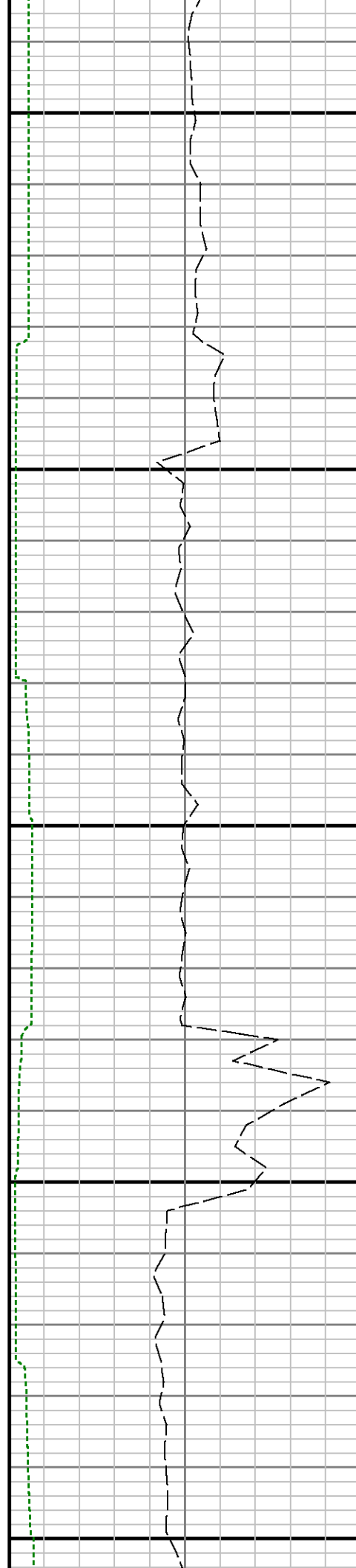


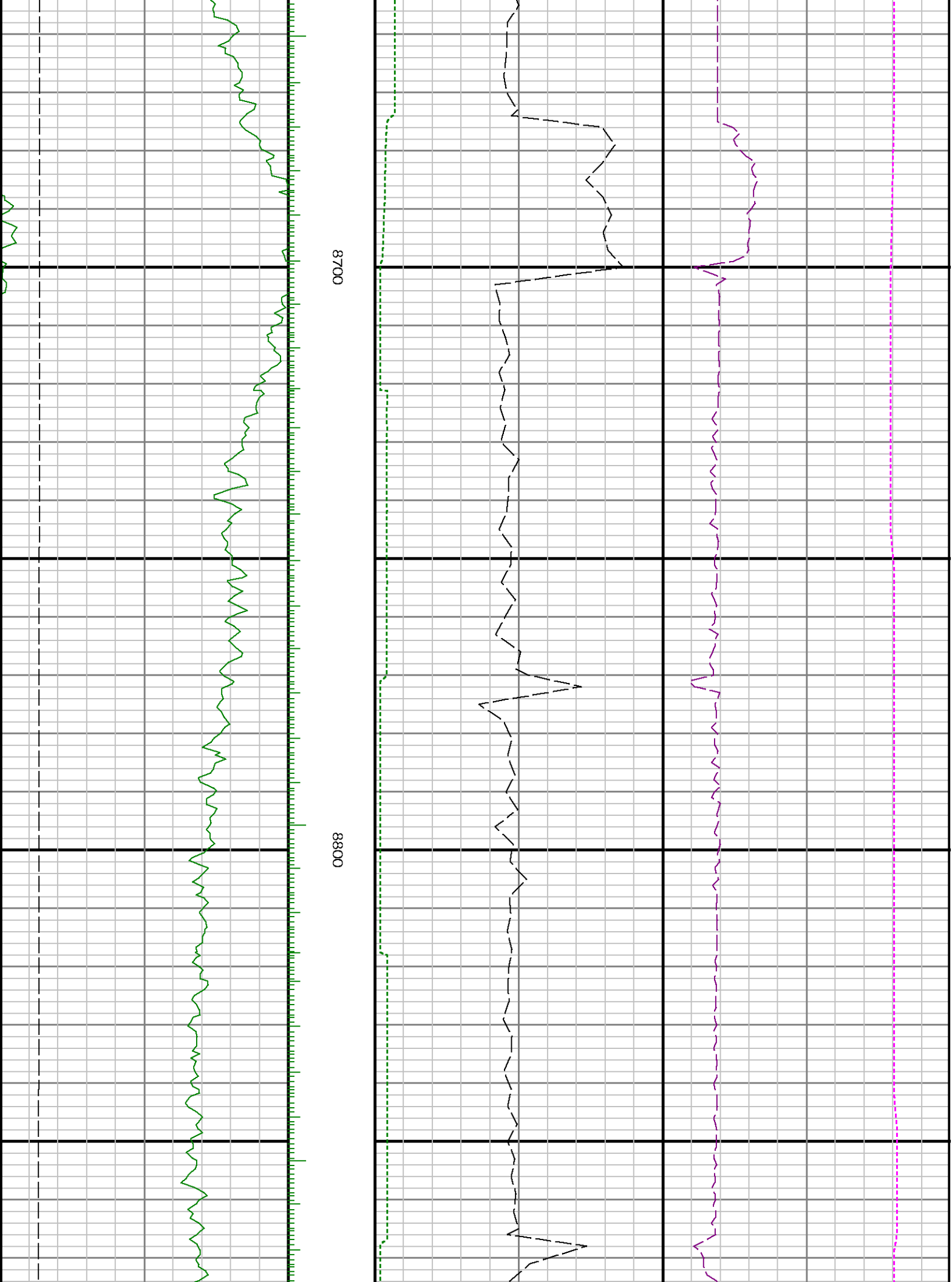


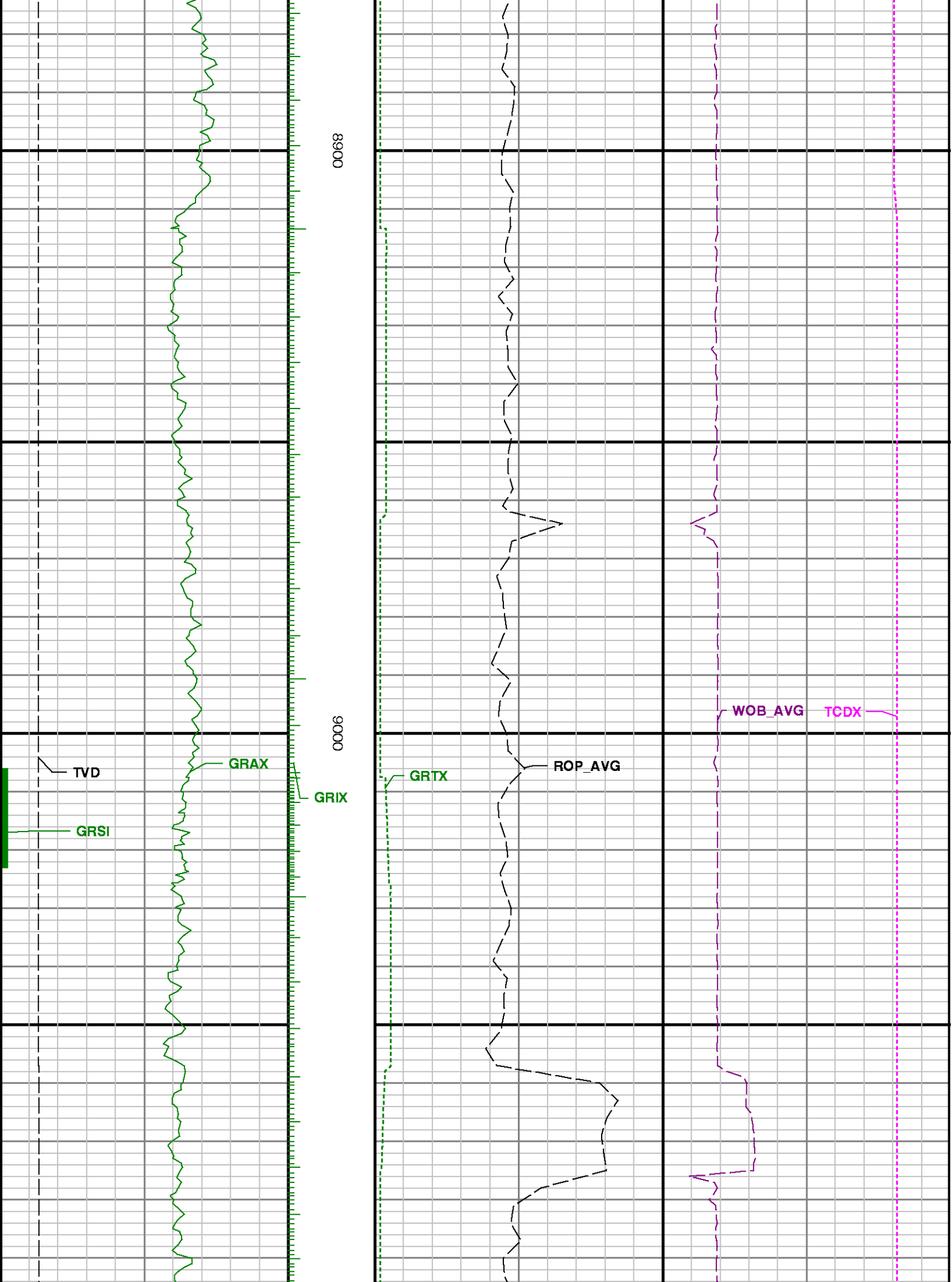


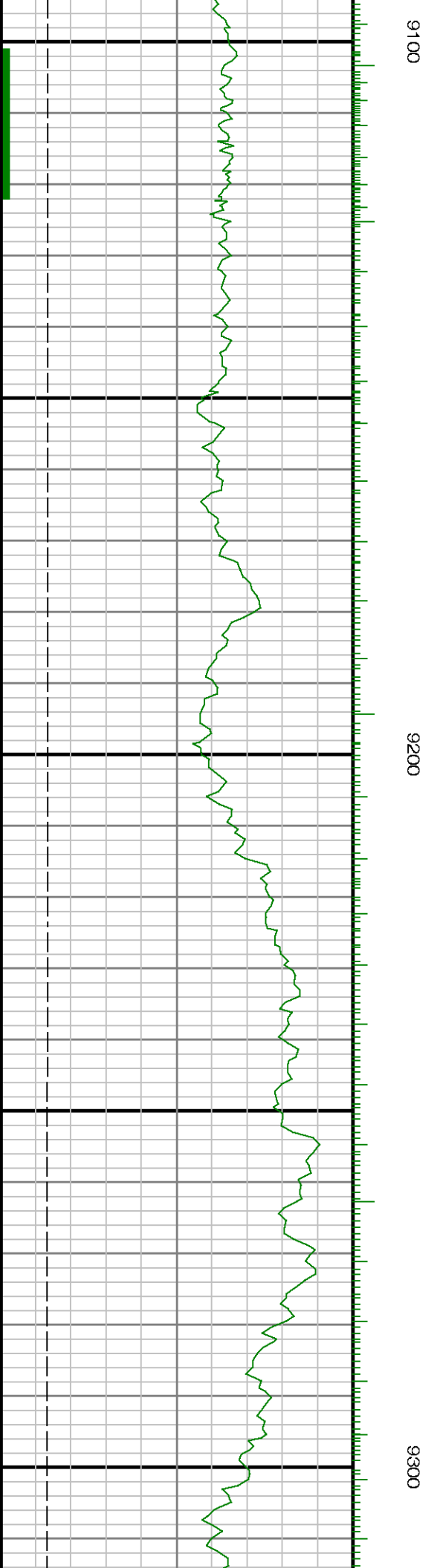
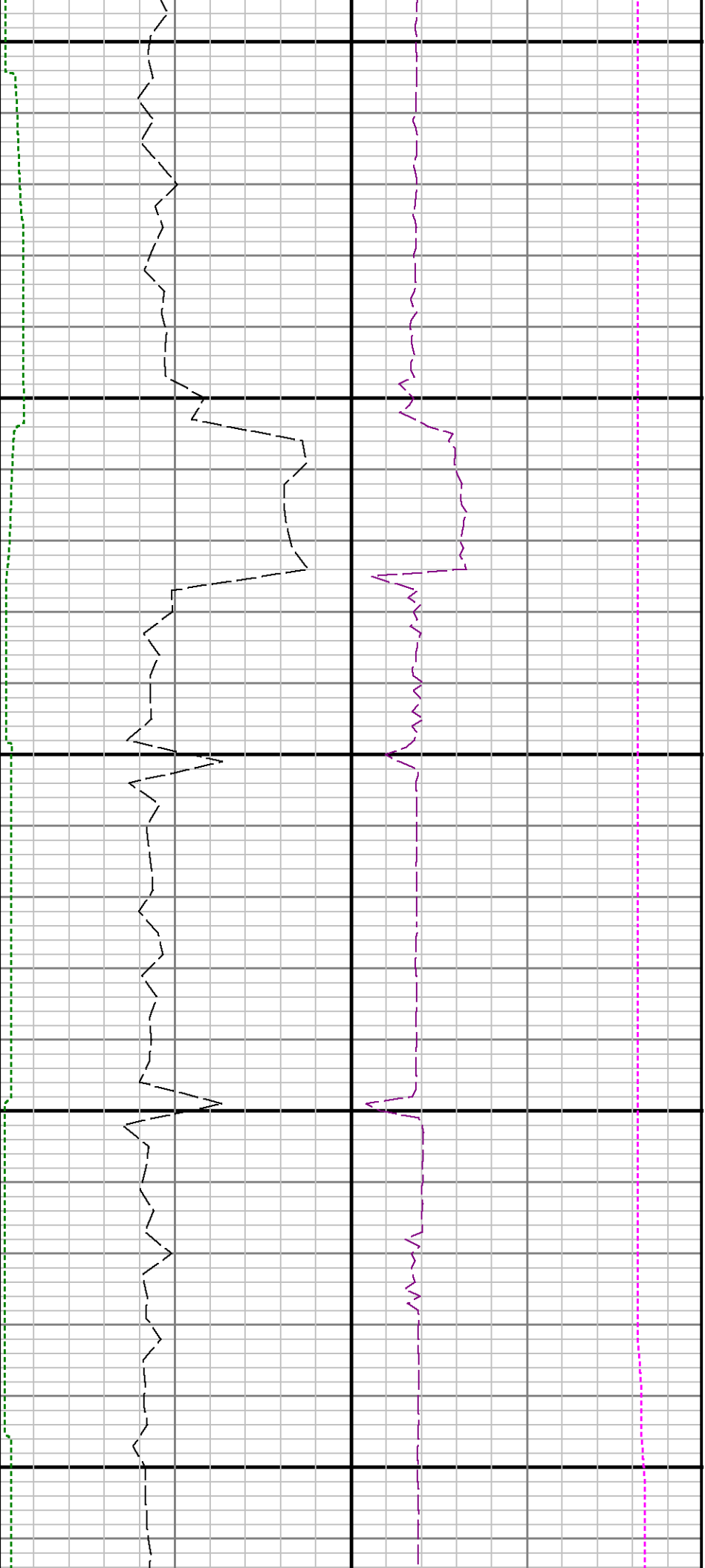
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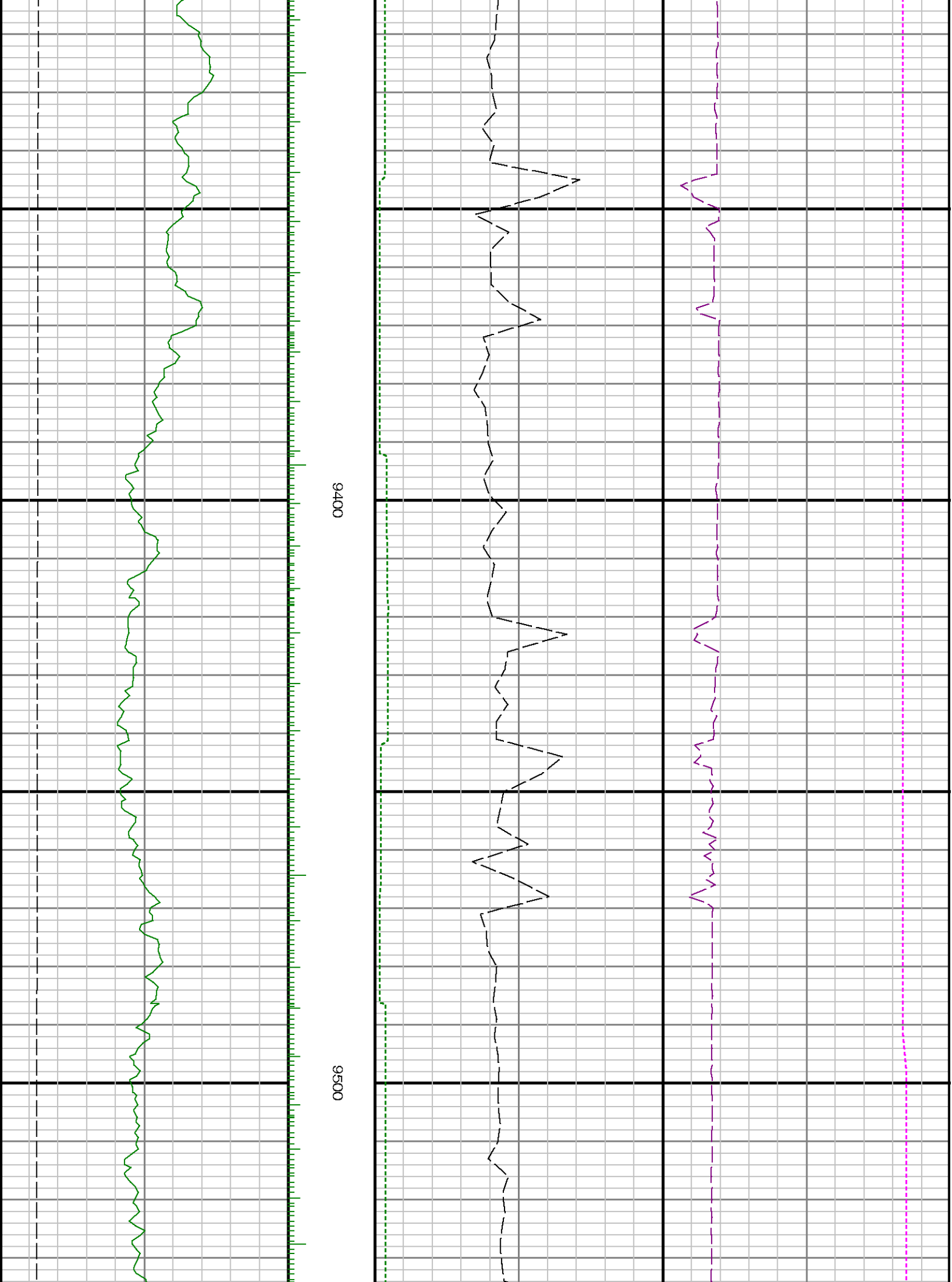
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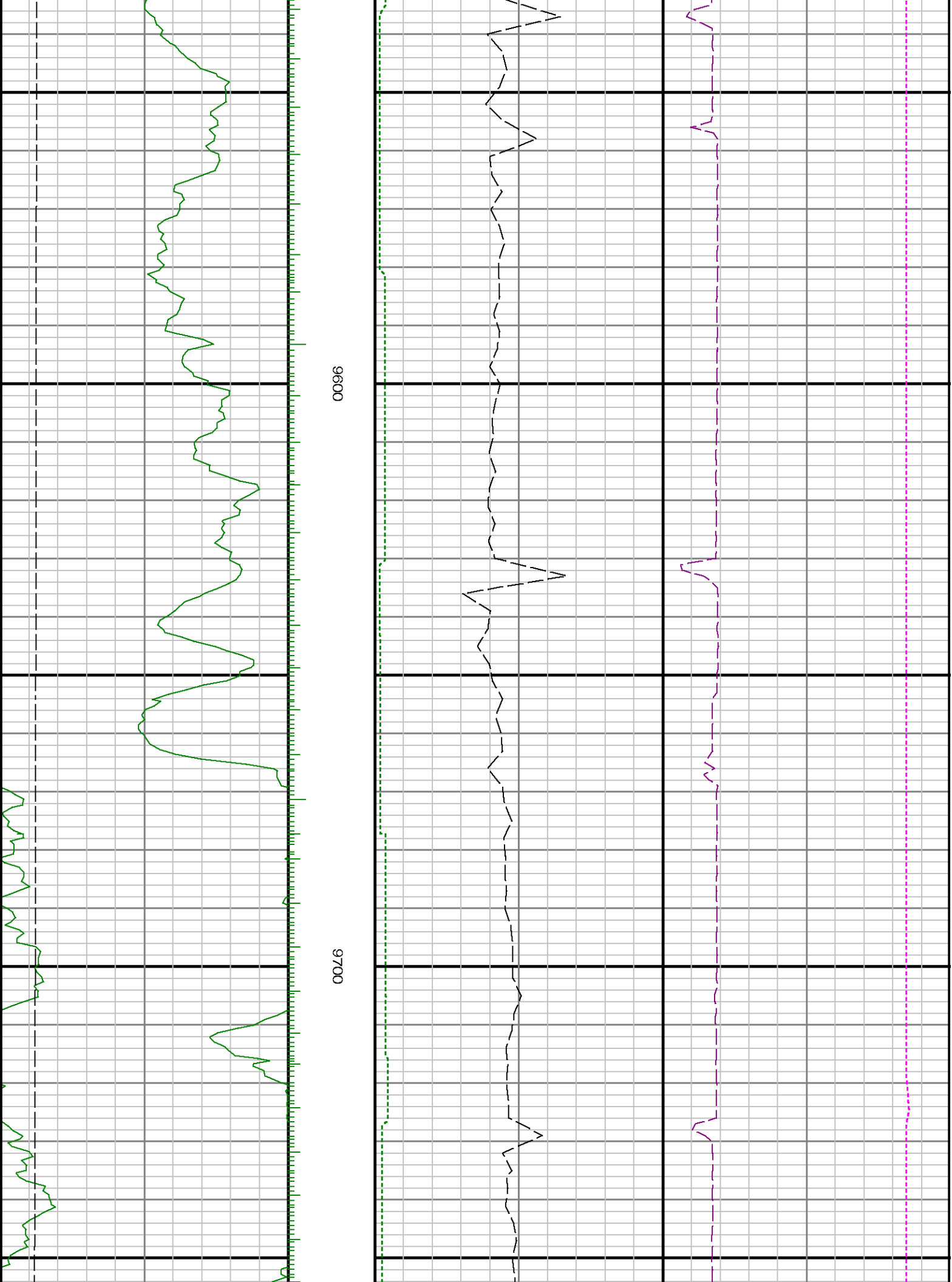








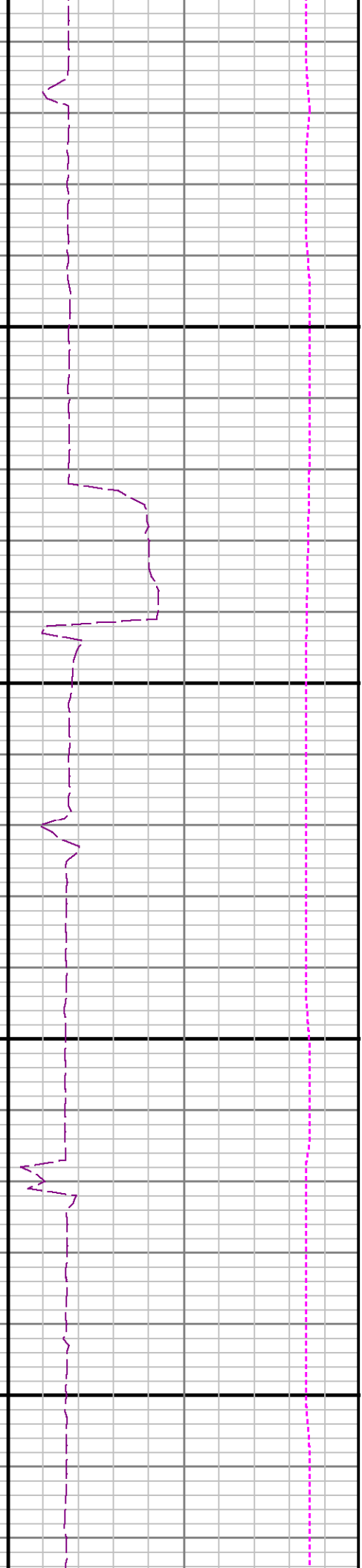
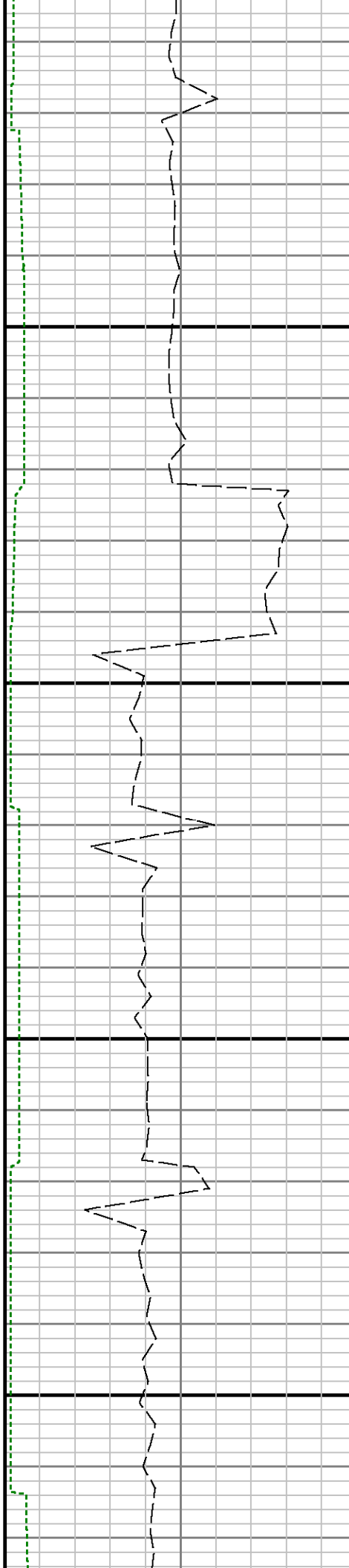


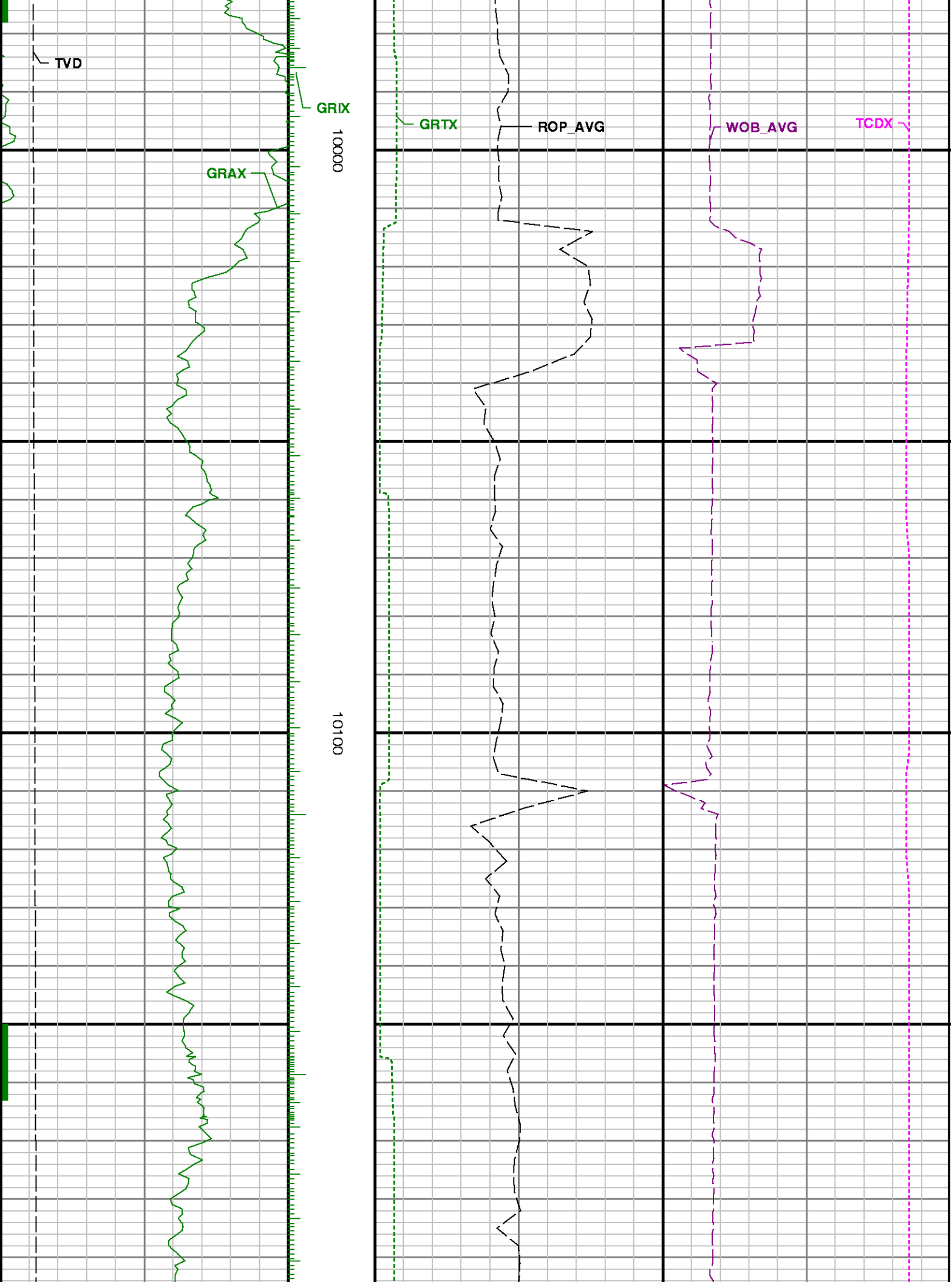


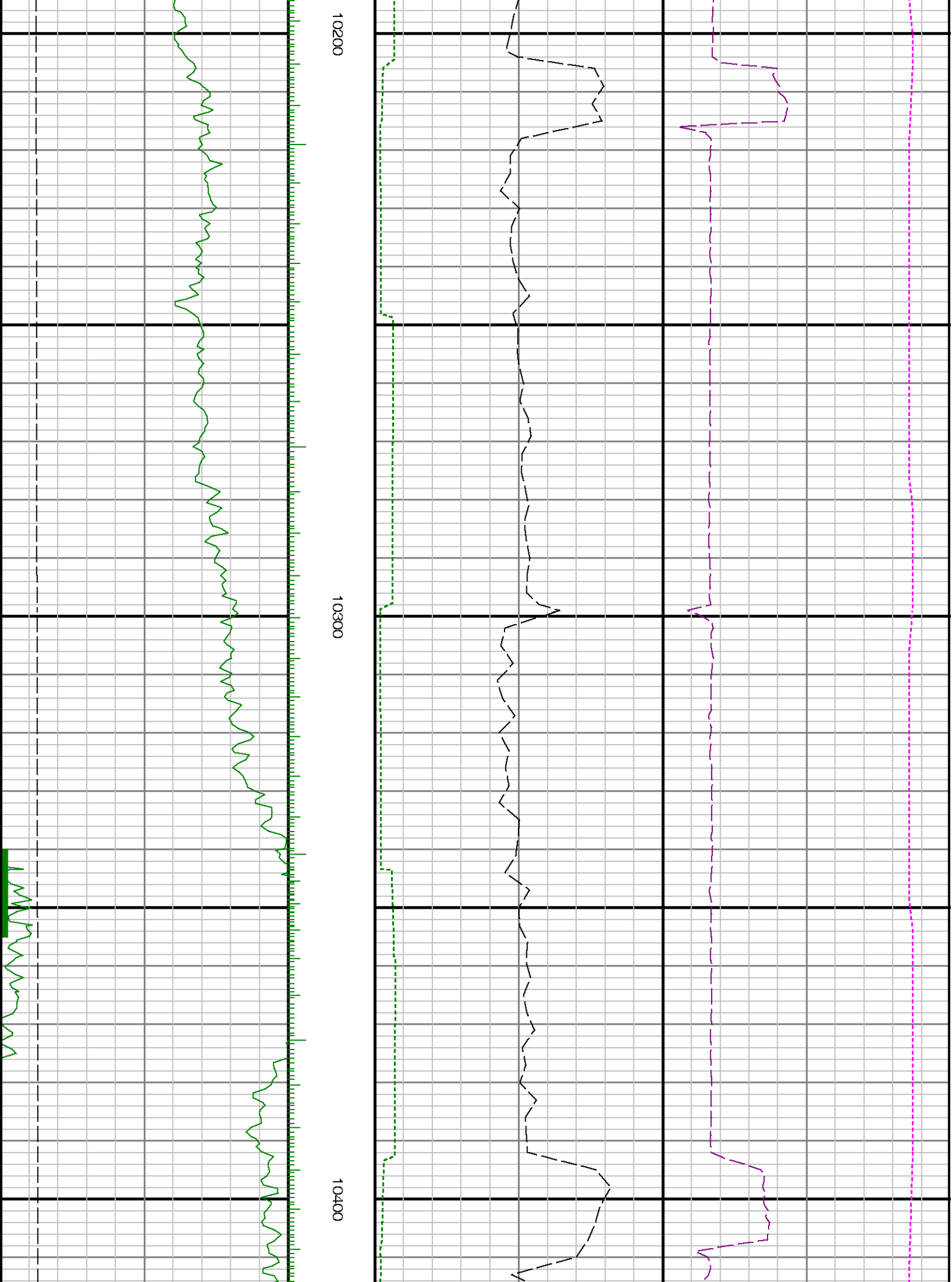


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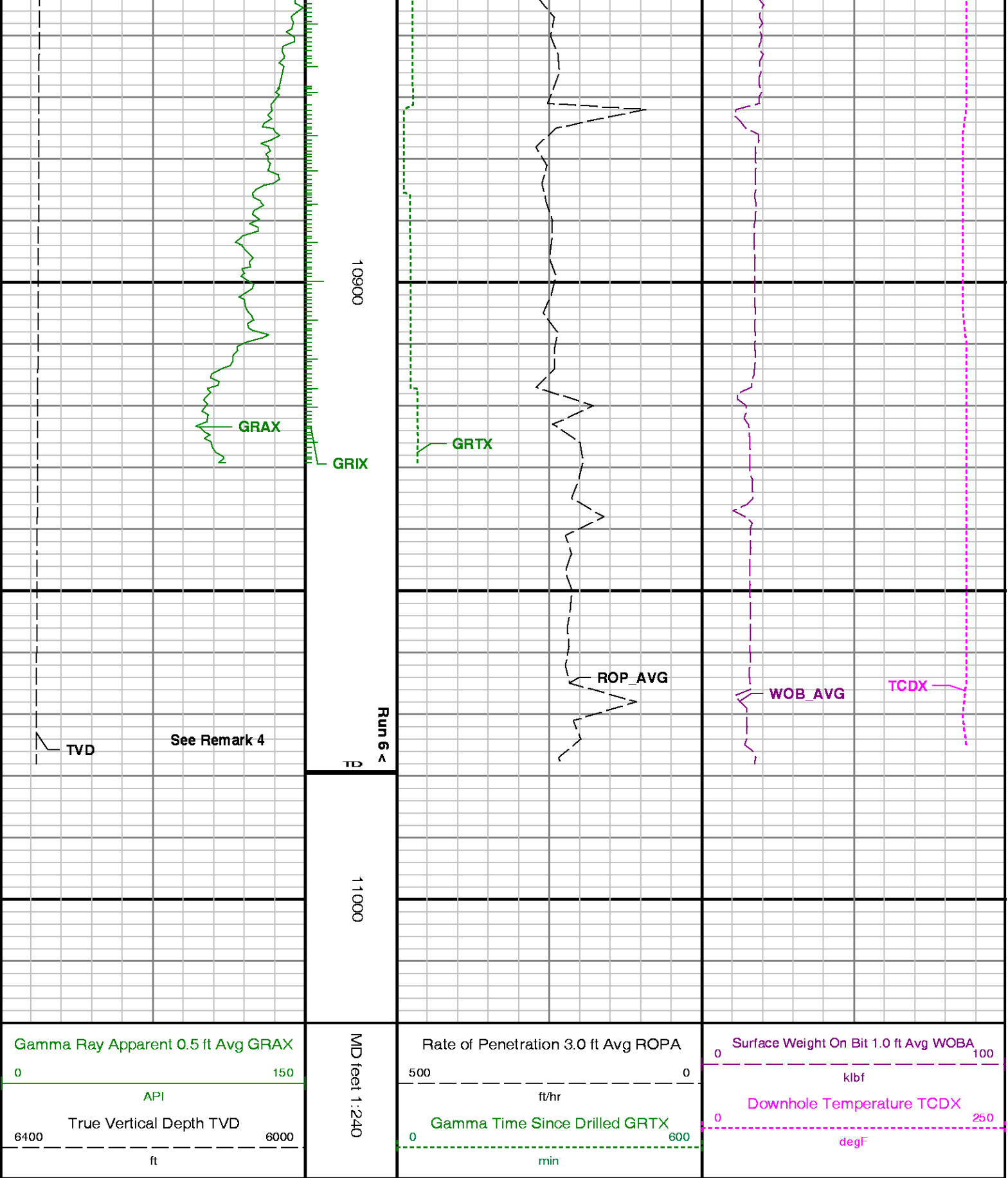












ADVANTAGE Final Survey Listing

Operator	: Bonanza Creek Oil Company	Field	: Weld County	API No	: 05-123-37291-0
Well	: State Antelope K-O-30HNB	Rig	: Cade 22	Job	: 5609912
Wellbore	: State Antelope K-O-30HNB Orig Hole				

Well Origin

Latitude	40.3760 deg	Longitude	-104.3703 deg
North Reference	True	Drill Depth Zero	NULL
Vertical Datum is	RKB	Vertical Datum to DDZ	0.00 ft
Vertical Section North	0.00 ft	Vertical Section East	0.00 ft
Vertical Section Azimuth	163.9500 deg	Vertical Section Depth	0.00ft
Grid Convergence	0.0000 deg	Magnetic Declination	8.3979 deg
Total Correction	8.3979 deg	TVD Calculation Method	Minimal Curvature
D-Row Calculation	Magcorr1	Local Magnetic Field	52880 nT
Local Magnetic Dip Angle	67.0149 deg	Local Gravity Field	9.799 m/s^2

Tie	MD ft	Incl deg	Azim deg	North ft	East ft	TVD ft	VS ft	Incr VS ft	Crs Len ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft
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U	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00				
	17.00	0.0000	0.0000	0.00	0.00	17.00	0.00	0.00	17.00	0.00	0.00	0.00
	145.00	0.4400	22.1700	0.46	0.19	145.00	-0.39	0.49	128.00	0.34	0.34	17.32
	241.00	0.6100	29.6300	1.24	0.58	240.99	-1.03	1.37	96.00	0.19	0.18	7.77
	336.00	0.9800	31.3500	2.37	1.25	335.99	-1.94	2.69	95.00	0.39	0.39	1.81
	417.00	0.8900	58.4800	3.29	2.15	416.97	-2.57	3.97	81.00	0.55	-0.11	33.49
	498.00	1.1400	54.3000	4.09	3.34	497.96	-3.01	5.41	81.00	0.32	0.31	-5.16
	525.00	1.4600	56.5200	4.44	3.84	524.96	-3.20	6.02	27.00	1.20	1.19	8.22
	619.00	2.9900	61.8300	6.26	7.00	618.88	-4.08	9.66	94.00	1.64	1.63	5.65
	715.00	5.0200	54.3200	9.89	12.62	714.64	-6.02	16.36	96.00	2.18	2.11	-7.82
	810.00	7.0800	61.4000	15.12	21.14	809.11	-8.68	26.35	95.00	2.30	2.17	7.45
	905.00	10.7900	56.4500	22.84	33.70	902.94	-12.63	41.09	95.00	3.98	3.91	-5.21
	1001.00	13.4800	55.7800	34.10	50.44	996.79	-18.82	61.27	96.00	2.81	2.80	-0.70
	1096.00	15.9800	53.2400	48.15	70.07	1088.66	-26.90	85.41	95.00	2.72	2.63	-2.67
	1189.00	19.1300	55.9800	64.35	92.97	1177.32	-36.13	113.45	93.00	3.50	3.39	2.95
	1279.00	20.6200	59.3700	80.67	118.83	1261.96	-44.67	144.04	90.00	2.09	1.66	3.77
	1370.00	20.4400	62.5600	96.16	146.72	1347.18	-51.85	175.94	91.00	1.25	-0.20	3.51
	1463.00	20.1000	67.8100	109.68	175.93	1434.43	-56.76	208.13	93.00	1.99	-0.37	5.65
	1556.00	19.8100	71.4800	120.72	205.67	1521.85	-59.15	239.85	93.00	1.38	-0.31	3.95
	1649.00	18.0500	70.4300	130.55	234.19	1609.82	-60.71	270.02	93.00	1.93	-1.89	-1.13
	1742.00	18.8200	68.5100	140.87	261.73	1698.04	-63.02	299.43	93.00	1.05	0.83	-2.06
	1834.00	20.1200	69.8000	151.77	290.39	1784.78	-65.57	330.09	92.00	1.49	1.41	1.40
	1926.00	18.3100	67.6800	162.73	318.61	1871.65	-68.30	360.36	92.00	2.11	-1.97	-2.30
	2019.00	19.3900	69.6400	173.65	346.60	1959.67	-71.03	390.40	93.00	1.35	1.16	2.11
	2110.00	21.1500	71.0200	184.24	376.29	2045.03	-73.03	421.93	91.00	2.00	1.93	1.52
	2202.00	19.1900	70.1100	194.79	406.20	2131.38	-74.89	453.65	92.00	2.16	-2.13	-0.99
	2295.00	19.0300	67.5700	205.77	434.59	2219.26	-77.60	484.09	93.00	0.91	-0.17	-2.73
	2387.00	20.0900	69.6500	216.99	463.27	2305.95	-80.43	514.88	92.00	1.38	1.15	2.26
	2483.00	18.1800	68.6900	228.17	492.68	2396.64	-83.06	546.35	96.00	2.02	-1.99	-1.00
	2579.00	18.9100	69.2100	239.13	521.18	2487.65	-85.72	576.88	96.00	0.78	0.76	0.54
	2673.00	19.1000	68.6300	250.14	549.74	2576.53	-88.40	607.49	94.00	0.29	0.20	-0.62
	2769.00	20.3900	71.8100	261.09	580.26	2666.89	-90.48	639.91	96.00	1.75	1.34	3.31
	2865.00	19.8300	70.2100	271.82	611.47	2757.03	-92.17	672.92	96.00	0.82	-0.58	-1.67
	2959.00	18.6200	70.2900	282.28	640.60	2845.79	-94.17	703.87	94.00	1.29	-1.29	0.09
	3054.00	17.1200	69.6600	292.26	667.99	2936.21	-96.18	733.02	95.00	1.59	-1.58	-0.66
	3149.00	17.2300	66.6900	302.68	694.02	3026.97	-99.00	761.06	95.00	0.93	0.12	-3.13
	3245.00	16.4000	69.8100	312.99	719.80	3118.87	-101.78	788.82	96.00	1.28	-0.86	3.25
	3339.00	16.0900	71.8700	321.62	744.63	3209.11	-103.21	815.11	94.00	0.70	-0.33	2.19
	3434.00	17.0100	72.7000	329.85	770.41	3300.18	-103.99	842.17	95.00	1.00	0.97	0.87
	3529.00	17.2600	69.4700	338.92	796.88	3390.96	-105.40	870.15	95.00	1.04	0.26	-3.40
	3625.00	17.9500	68.8900	349.25	824.02	3482.47	-107.81	899.19	96.00	0.74	0.72	-0.60
	3721.00	18.4200	68.3400	360.17	851.91	3573.67	-110.60	929.15	96.00	0.52	0.49	-0.57
	3816.00	19.1300	67.1200	371.77	880.20	3663.62	-113.92	959.72	95.00	0.85	0.75	-1.28
	3911.00	18.0000	66.3900	383.70	908.00	3753.67	-117.70	989.97	95.00	1.21	-1.19	-0.77
	4007.00	17.0600	66.6000	395.23	934.51	3845.21	-121.45	1018.88	96.00	0.98	-0.98	0.22
	4103.00	15.6900	65.6500	406.18	959.26	3937.32	-125.13	1045.95	96.00	1.45	-1.43	-0.99
	4197.00	15.4700	63.5000	417.01	982.06	4027.86	-129.24	1071.19	94.00	0.66	-0.23	-2.29
	4292.00	16.0100	63.4200	428.53	1005.12	4119.30	-133.93	1096.96	95.00	0.57	0.57	-0.08
	4388.00	15.0800	62.9200	440.13	1028.08	4211.79	-138.74	1122.69	96.00	0.98	-0.97	-0.52
	4482.00	15.9400	65.6600	451.02	1050.72	4302.37	-142.94	1147.81	94.00	1.20	0.91	2.91

Tie	MD ft	Incl deg	Azim deg	North ft	East ft	TVD ft	VS ft	Incr VS ft	Crs Len ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft
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	4578.00	14.9100	69.3400	460.81	1074.29	4394.91	-145.83	1173.34	96.00	1.48	-1.07	3.83
	4672.00	13.2900	68.5800	469.03	1095.67	4486.07	-147.82	1196.23	94.00	1.73	-1.72	-0.81
	4768.00	12.1200	67.2700	476.95	1115.24	4579.72	-150.02	1217.35	96.00	1.26	-1.22	-1.36
	4863.00	12.0300	66.9500	484.68	1133.54	4672.62	-152.39	1237.22	95.00	0.12	-0.09	-0.34
	4958.00	12.3800	64.8100	492.89	1151.87	4765.47	-155.21	1257.30	95.00	0.60	0.37	-2.25
	5054.00	11.6300	63.9100	501.53	1169.87	4859.37	-158.53	1277.27	96.00	0.81	-0.78	-0.94
	5149.00	9.6900	63.3500	509.32	1185.62	4952.73	-161.68	1294.84	95.00	2.04	-2.04	-0.59
	5244.00	7.8900	59.7300	516.20	1198.40	5046.61	-164.75	1309.35	95.00	1.98	-1.89	-3.81
	5339.00	5.9200	56.1700	522.21	1208.10	5140.92	-167.85	1320.76	95.00	2.12	-2.07	-3.75
	5436.00	4.8200	46.4800	527.80	1215.21	5237.49	-171.25	1329.81	97.00	1.47	-1.13	-9.99
	5531.00	4.7400	55.8400	532.76	1221.35	5332.16	-174.31	1337.70	95.00	0.82	-0.08	9.85
	5625.00	3.6100	74.9900	535.70	1227.42	5425.92	-175.47	1344.45	94.00	1.89	-1.20	20.37
	5721.00	2.3600	97.0800	536.24	1232.31	5521.79	-174.64	1349.36	96.00	1.75	-1.30	23.01
	5817.00	1.1700	79.1300	536.18	1235.23	5617.74	-173.77	1352.29	96.00	1.35	-1.24	-18.70
	5912.00	0.7000	135.3500	535.95	1236.59	5712.73	-173.17	1353.66	95.00	1.02	-0.49	59.18
	5944.00	0.7500	157.1900	535.62	1236.81	5744.73	-172.80	1354.06	32.00	0.87	0.16	68.25
	6012.00	3.6500	180.9000	533.05	1236.95	5812.67	-170.28	1356.64	68.00	4.38	4.26	34.87
	6060.00	8.9400	184.4100	527.80	1236.64	5860.36	-165.32	1361.90	48.00	11.04	11.02	7.31
	6107.00	13.5000	183.0000	518.67	1236.07	5906.45	-156.71	1371.04	47.00	9.72	9.70	-3.00
	6154.00	18.0800	180.3900	505.89	1235.73	5951.67	-144.52	1383.83	47.00	9.86	9.74	-5.55

	6201.00	19.7000	173.5500	490.73	1236.57	5996.14	-129.72	1399.02	47.00	5.83	3.45	-14.55
	6248.00	23.0400	178.0600	473.66	1237.77	6039.91	-112.98	1416.13	47.00	7.92	7.11	9.60
	6295.00	28.3700	178.4300	453.29	1238.39	6082.24	-93.23	1436.51	47.00	11.35	11.34	0.79
	6344.00	36.6100	179.1800	427.00	1238.92	6123.54	-67.82	1462.80	49.00	16.84	16.82	1.53

	6389.00	42.4600	178.9800	398.37	1239.38	6158.23	-40.18	1491.44	45.00	13.00	13.00	-0.44
	6438.00	45.0000	178.7800	364.50	1240.05	6193.63	-7.45	1525.30	49.00	5.19	5.18	-0.41
	6485.00	49.5800	177.6700	330.00	1241.13	6225.50	26.01	1559.83	47.00	9.90	9.74	-2.36
	6532.00	53.8300	177.8000	293.15	1242.58	6254.62	61.82	1596.71	47.00	9.05	9.04	0.28
	6581.00	60.4200	177.9400	252.04	1244.11	6281.20	101.75	1637.84	49.00	13.45	13.45	0.29
	6630.00	68.7000	178.5100	207.86	1245.47	6302.24	144.59	1682.05	49.00	16.93	16.90	1.16
	6677.00	70.3900	178.1700	163.84	1246.75	6318.66	187.24	1726.08	47.00	3.66	3.60	-0.72
	6725.00	73.8500	177.7300	118.19	1248.38	6333.39	231.56	1771.76	48.00	7.26	7.21	-0.92
	6772.00	80.7300	177.5900	72.41	1250.26	6343.73	276.08	1817.58	47.00	14.64	14.64	-0.30
	6818.00	86.3600	179.0200	26.74	1251.60	6348.90	320.34	1863.27	46.00	12.62	12.24	3.11
	6880.00	90.9400	180.6500	-35.22	1251.78	6350.36	379.94	1925.23	62.00	7.84	7.39	2.63
	6903.00	91.0200	180.6800	-58.22	1251.52	6349.97	401.96	1948.23	23.00	0.37	0.35	0.13
	6999.00	90.8000	179.2000	-154.20	1251.62	6348.44	494.23	2044.21	96.00	1.56	-0.23	-1.54
	7094.00	90.2800	178.1000	-249.17	1253.85	6347.55	586.12	2139.21	95.00	1.28	-0.55	-1.16
	7189.00	89.1600	179.8300	-344.15	1255.57	6348.01	677.87	2234.20	95.00	2.17	-1.18	1.82
	7285.00	89.4700	180.3800	-440.14	1255.39	6349.16	770.07	2330.19	96.00	0.66	0.32	0.57
	7381.00	89.4100	179.8800	-536.13	1255.18	6350.10	862.26	2426.19	96.00	0.52	-0.06	-0.52
	7476.00	89.7200	180.1400	-631.13	1255.16	6350.82	953.55	2521.19	95.00	0.43	0.33	0.27
	7571.00	89.7500	179.7800	-726.13	1255.23	6351.26	1044.87	2616.19	95.00	0.38	0.03	-0.38
	7681.00	90.3100	179.7600	-836.13	1255.67	6351.20	1150.70	2726.18	110.00	0.51	0.51	-0.02
	7762.00	90.2500	179.3400	-917.13	1256.30	6350.80	1228.71	2807.18	81.00	0.52	-0.07	-0.52
	7857.00	90.9000	181.5600	-1012.11	1255.56	6349.85	1319.79	2902.17	95.00	2.43	0.68	2.34
	7953.00	90.6200	182.1200	-1108.05	1252.48	6348.58	1411.14	2998.16	96.00	0.65	-0.29	0.58
	8047.00	90.0300	181.6500	-1202.00	1249.38	6348.04	1500.57	3092.16	94.00	0.80	-0.63	-0.50
	8142.00	90.0600	182.2300	-1296.94	1246.17	6347.97	1590.93	3187.16	95.00	0.61	0.03	0.61
	8238.00	90.2500	182.6100	-1392.86	1242.11	6347.71	1681.98	3283.16	96.00	0.44	0.20	0.40
Tie	MD ft	Incl deg	Azim deg	North ft	East ft	TVD ft	VS ft	Incr VS ft	Crs Len ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft
	8333.00	89.7500	182.6300	-1487.76	1237.77	6347.71	1771.98	3378.16	95.00	0.53	-0.53	0.02
	8428.00	90.0600	182.8500	-1582.65	1233.23	6347.87	1861.92	3473.16	95.00	0.40	0.33	0.23
	8524.00	90.2200	182.9800	-1678.53	1228.35	6347.63	1952.71	3569.16	96.00	0.21	0.17	0.14
	8620.00	90.7700	182.4000	-1774.42	1223.84	6346.80	2043.61	3665.15	96.00	0.83	0.57	-0.60
	8715.00	89.3500	180.9500	-1869.37	1221.07	6346.70	2134.10	3760.15	95.00	2.14	-1.49	-1.53
	8812.00	89.5400	181.1600	-1966.35	1219.28	6347.64	2226.80	3857.15	97.00	0.29	0.20	0.22
	8908.32	89.5998	181.2389	-2062.65	1217.26	6348.37	2318.79	3953.46	96.32	0.10	0.06	0.08
	9003.00	90.4300	181.7700	-2157.29	1214.78	6348.34	2409.06	4048.14	94.68	1.04	0.88	0.56
	9099.00	90.7100	180.7000	-2253.26	1212.71	6347.39	2500.72	4144.13	96.00	1.15	0.29	-1.11
	9195.00	89.3500	179.4000	-2349.26	1212.63	6347.34	2592.95	4240.13	96.00	1.96	-1.42	-1.35
	9291.00	89.5100	179.3300	-2445.25	1213.69	6348.29	2685.49	4336.13	96.00	0.18	0.17	-0.07
	9387.00	89.3800	179.8100	-2541.24	1214.41	6349.22	2777.94	4432.12	96.00	0.52	-0.14	0.50
	9482.00	89.3800	179.9200	-2636.23	1214.63	6350.25	2869.29	4527.12	95.00	0.12	0.00	0.12
	9577.00	89.5400	179.9700	-2731.23	1214.72	6351.14	2960.61	4622.11	95.00	0.18	0.17	0.05
	9671.00	89.2000	179.9300	-2825.22	1214.81	6352.18	3050.96	4716.11	94.00	0.36	-0.36	-0.04
	9767.00	88.7700	180.1100	-2921.21	1214.77	6353.88	3143.20	4812.09	96.00	0.49	-0.45	0.19
	9863.00	89.9700	180.4300	-3017.20	1214.32	6354.93	3235.32	4908.08	96.00	1.29	1.25	0.33
	9959.00	89.7500	180.3600	-3113.20	1213.66	6355.17	3327.40	5004.08	96.00	0.24	-0.23	-0.07
	10054.00	91.2700	179.7900	-3208.19	1213.53	6354.32	3418.65	5099.08	95.00	1.71	1.60	-0.60
	10148.00	91.1800	179.9700	-3302.17	1213.73	6352.31	3509.02	5193.05	94.00	0.21	-0.10	0.19
	10244.00	90.5900	180.3400	-3398.16	1213.47	6350.83	3601.19	5289.04	96.00	0.73	-0.61	0.39
	10338.00	90.8400	180.5200	-3492.15	1212.77	6349.66	3691.33	5383.03	94.00	0.33	0.27	0.19
	10434.00	90.0900	181.4200	-3588.13	1211.14	6348.88	3783.12	5479.03	96.00	1.22	-0.78	0.94
	10529.00	90.1900	180.3500	-3683.11	1209.67	6348.65	3874.00	5574.03	95.00	1.13	0.11	-1.13
	10625.00	89.8800	179.8300	-3779.11	1209.52	6348.59	3966.21	5670.03	96.00	0.63	-0.32	-0.54
	10721.00	90.4900	180.4600	-3875.11	1209.28	6348.28	4058.40	5766.03	96.00	0.91	0.64	0.66
	10817.00	88.6000	180.3900	-3971.10	1208.57	6349.04	4150.45	5862.02	96.00	1.97	-1.97	-0.07
	10911.00	88.0800	179.9500	-4065.06	1208.29	6351.76	4240.67	5955.98	94.00	0.72	-0.55	-0.47
	10925.00	88.0300	180.1600	-4079.05	1208.28	6352.24	4254.11	5969.97	14.00	1.54	-0.36	1.50