



Realtime Log

Natural Formation Evaluation
Gamma Ray

Scale:

Company: Anadarko

1:240

Well: Sekich State 39N-17HZ

MEASURED DEPTH

Field: Weld County (Kerr McGee)

County: Weld State: Colorado

Status:

Final Print

Surface Location:

Latitude: 40° 13' 28.420" N

Longitude: 104° 56' 25.400" W

Other Services:

API Number:

051 23390470000

Section: 18 TOWN: 3S Range: 67W

Directional
VSS

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

Elevation: 4880.00 ft.

Elevations:

Log Measured From:

Rig Floor

4880.00 ft.

Above P.D.

KB:

DF:

N/A

Depth Reference:

Driller's Depth

GL:

4854.00 ft.

Interval Logged

Dates

Magnetic Field Reference

Top: 6000.0 ft. Date From: 03/Apr/14 Date To: 08/May/2014

Dip Angle: 66.87°

Azi Reference North: True

Bottom: 16745.0 ft. Spud Date: 02/Apr/14 Field Strength: 52595.0 nT North Correction: 8.64°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
13.500 in.	Surface	1238.0 ft.	9.625 in.	36.00 lb/ft	Surface	1226.0 ft.
8.750 in.	1238.0 ft.	7428.0 ft.	7.000 in.	26.00 lb/ft	Surface	7408.0 ft.
6.125 in.	7428.0 ft.	16745.0 ft.				

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based	Surface	7428.0 ft.	13.500 in.	Vertical	0.0° / 0.0°	0.0° / 217.4°
Oil Based	7428.0 ft.	16745.0 ft.	8.750 in.	Vertical/Curve	0.6° / 315.7°	85.3° / 89.0°
			6.125 in.	Lateral	85.9° / 89.7°	91.6° / 90.5°
					/	/
					/	/
					/	/

Acquisition System Software Version

Other

Advantage	2.20U4	Rig / Contractor:	H&P 307	/ Helmerich & Payne Drilling Co
PATS	6.4.1.34	Job No:	6247830	/ D & E
		District / Unit:	RMD	

INTEQ does not guarantee the accuracy or correctness of interpretations provided in or from this log. Since all interpretations are opinions based on measurements, INTEQ shall under no circumstances be responsible for consequential damages or any other loss, costs, damages or expenses incurred or sustained in connection with the use of any such interpretations. INTEQ disclaims all expressed and implied warranties related to this service. INTEQ's liabilities and obligations shall be governed by INTEQ's Standard Terms and Conditions.

Log Run Summary

LWD	BHA	Bit	Bit	Bit	Bit	Assembly	Logged Interval		Bit Depth Interval		Date / Time				Circ.
Run	Run	Run	Size	Type	Gauge	Type	Top	Bottom	From	To	Start		End		Time
No.	No.	No.	(in.)		(in.)		(ft.)	(ft.)	(ft.)	(ft.)					(hrs.)
1	1	1	8.750	PDC		Mud Motor	6000.0	7367.0	1185.0	7428.0	03/Apr/2014	19:07	04/Apr/2014	12:04	32.4
2	2	2	6.125	PDC		Mud Motor	7367.0	13763.0	7427.0	13830.0	04/May/2014	16:31	06/May/2014	21:27	50.2
3	3	3	6.125	PDC		Mud Motor	13762.0	16676.0	13831.0	16745.0	07/May/2014	13:33	09/May/2014	00:03	30.1

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Andy King	01/Apr/14	10/May/14	John Nguyen	01/Apr/14	05/Apr/14	Nick Roosen	11/Apr/14	10/May/14
Hans Cary	01/Apr/14	10/May/14	Bill Herbers	01/Apr/14	10/May/14	Scott Sanford	01/Apr/14	30/Apr/14

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft Avg.	API
GRTX	Gamma Ray Time Since Drilled	Min.
GRIX	Gamma Ray Density, Points	unitless
GRSI	Gamma Ray Slide Indicator	unitless
ROPA	Rate of Penetration, 3.0 Avg.	Ft./Hr.
TCDX	Downhole Temperature	Deg. F.
TVD	True Vertical Depth	Ft.
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	K. lbs

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	13051163	Directional	63.75	6.750	3.250
1	SRIG	12622668	Gamma	60.38	6.750	3.250
2	DIR	12592567	Directional	68.96	4.750	2.750
2	SRIG	10595775	Gamma	65.58	4.750	2.750
3	DIR	12592567	Directional	68.96	4.750	2.750
3	SRIG	10595775	Gamma	65.58	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

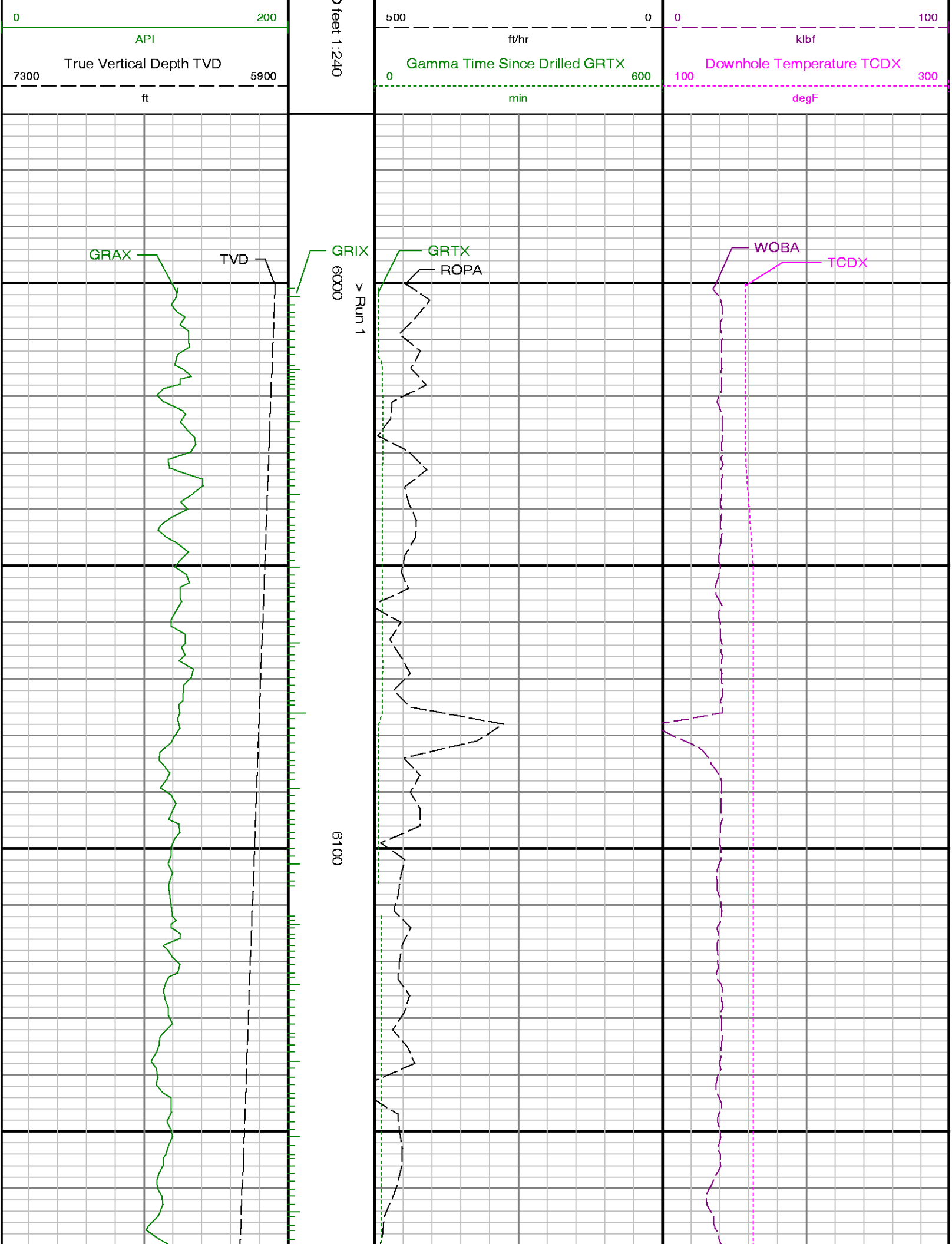
Comments

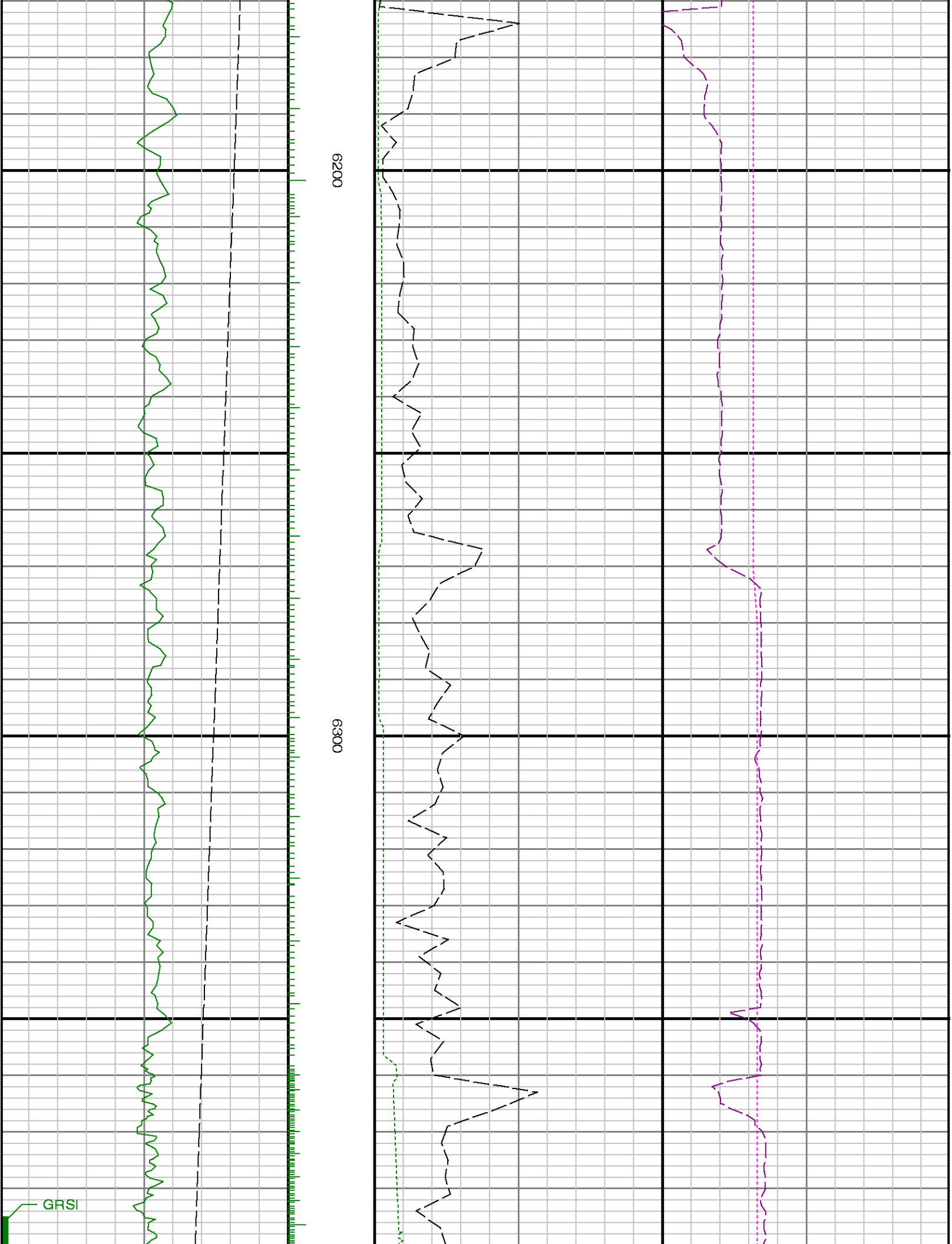
(1) Baker Hughes INTEQ run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 1238 to 7428 feet MD (1238 to 6998 feet TVD).
(2) Baker Hughes INTEQ runs 2 and 3 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 6 1/8 bit and steerable assembly from 7428 to 16745 feet MD (6999 to 6988 feet TVD)
(3) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to the of control by Baker Hughes logging engineers, depth calibrations, and measurements could not be independently verified.
(4) A sliding indicator is shown to the right edge of track 1 as a heavy line.

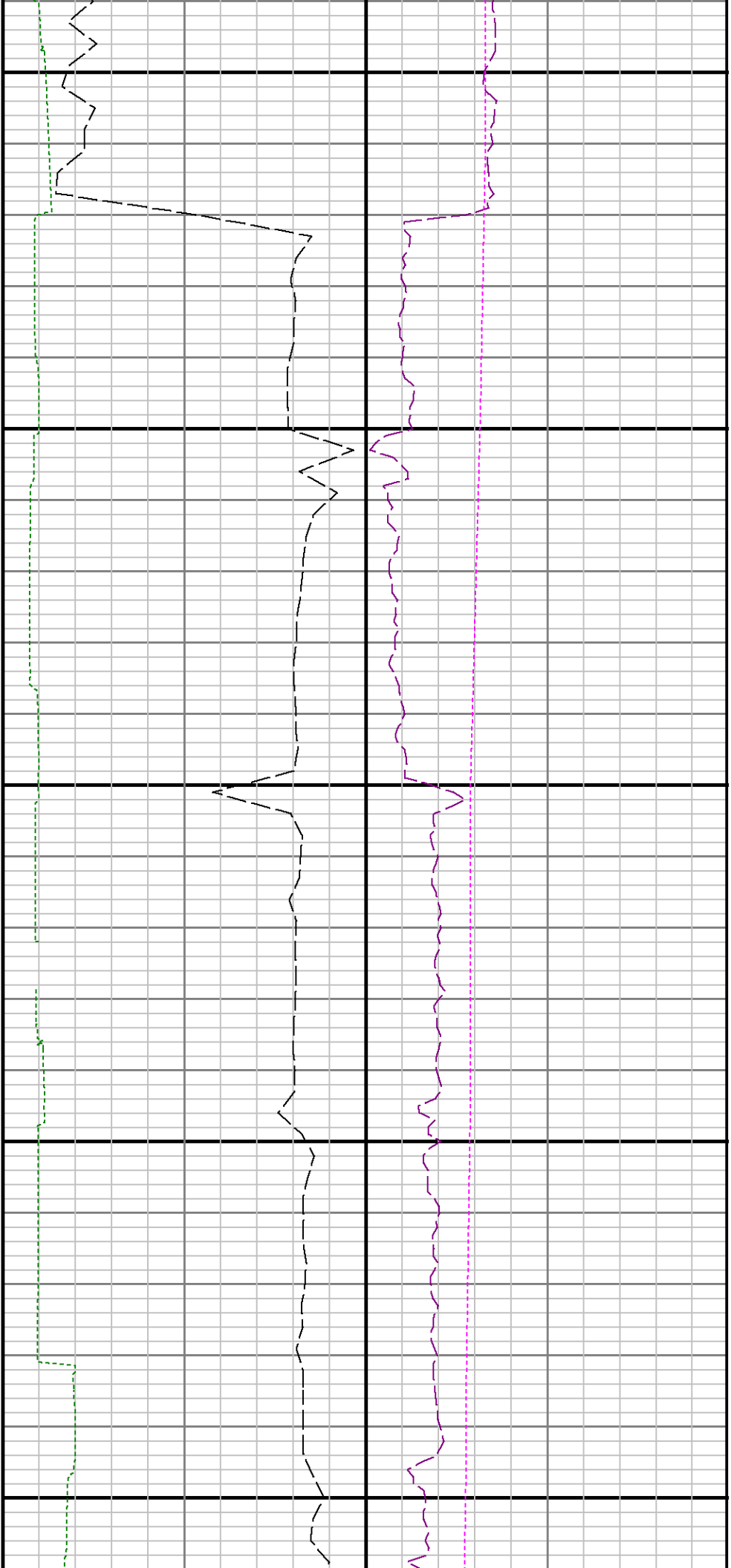


Company : Anadarko
Well : Sekich State 39N-17HZ
Interval : 5970.00 - 16770.00 feet
Created : 09/May/2014 12:41:29 AM

Gamma Ray Apparent 0.5 ft Avg GRAX	MD	Rate of Penetration 3.0 ft Avg ROPA	Surface Weight On Bit 1.0 ft Avg WOBA
------------------------------------	----	-------------------------------------	---------------------------------------



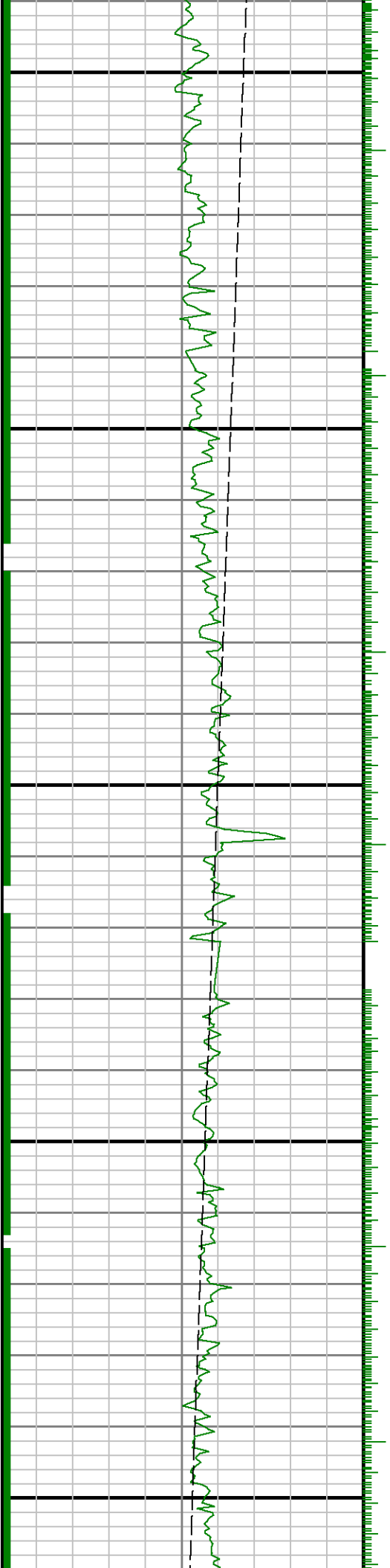


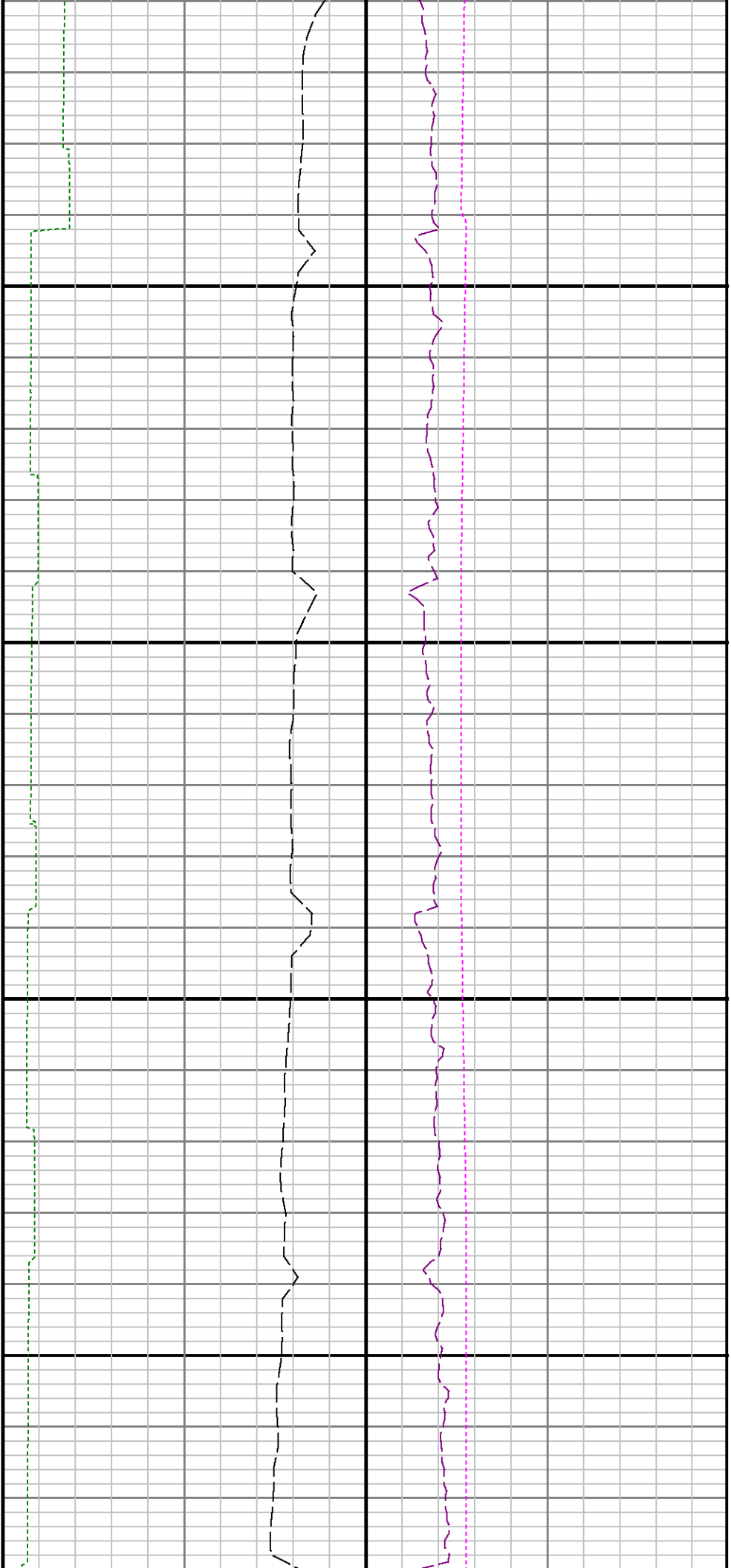


6400

6500

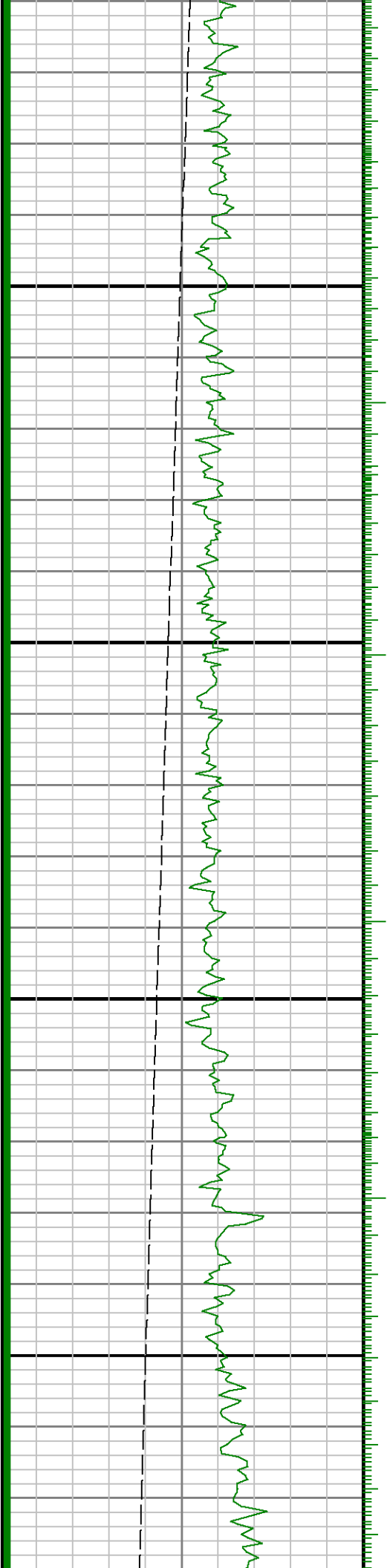
6600

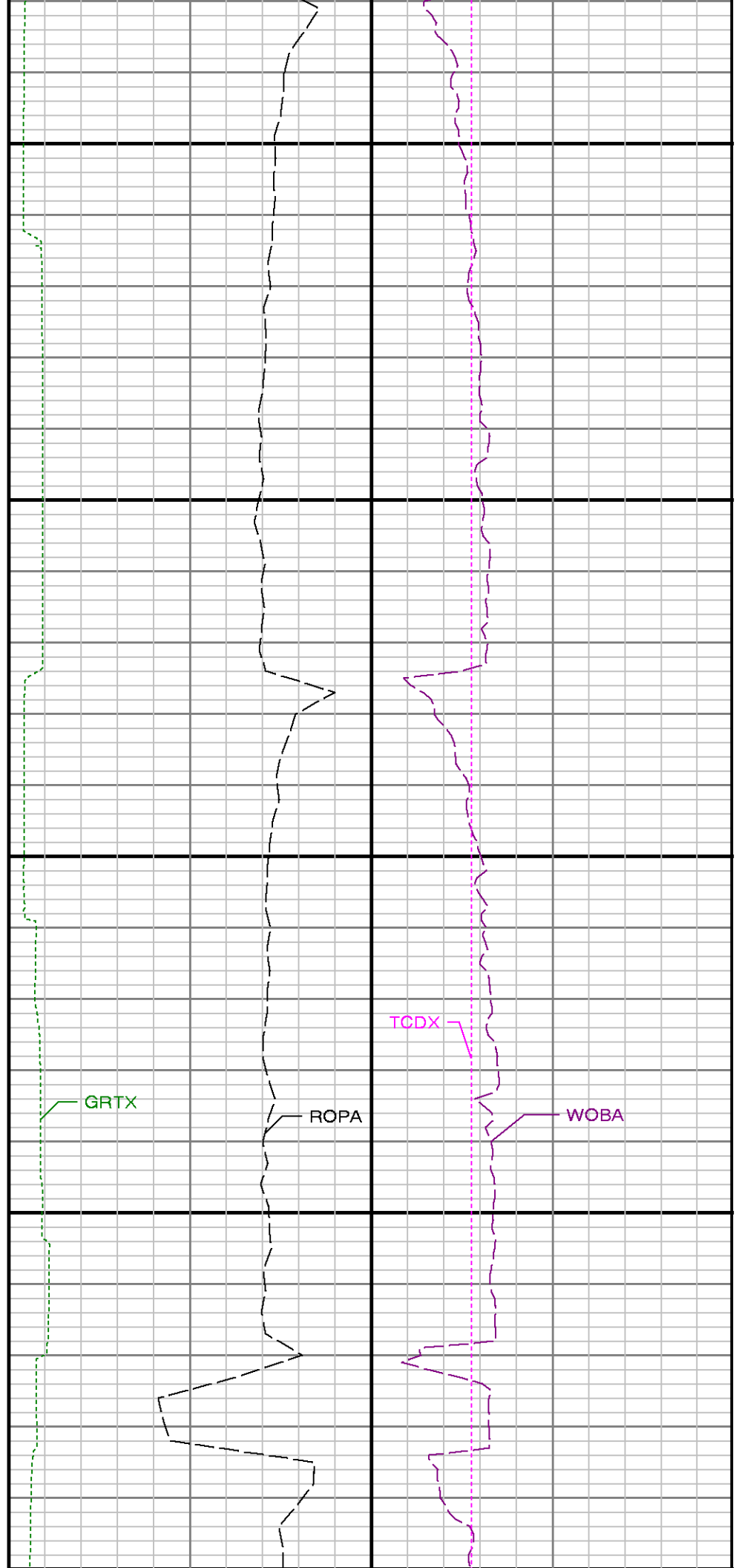
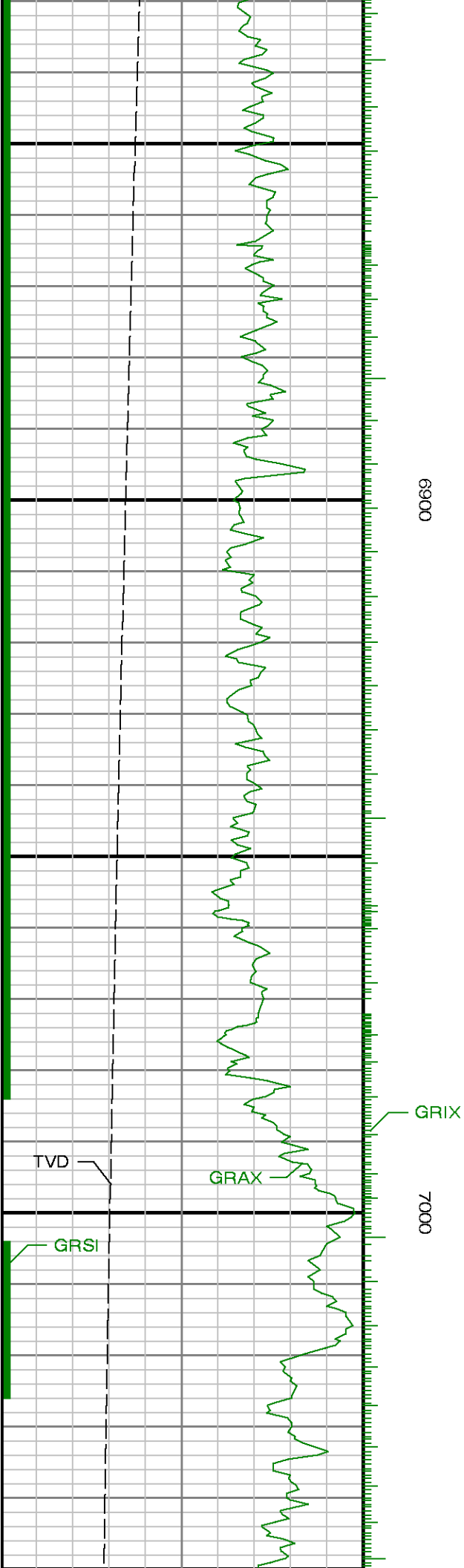


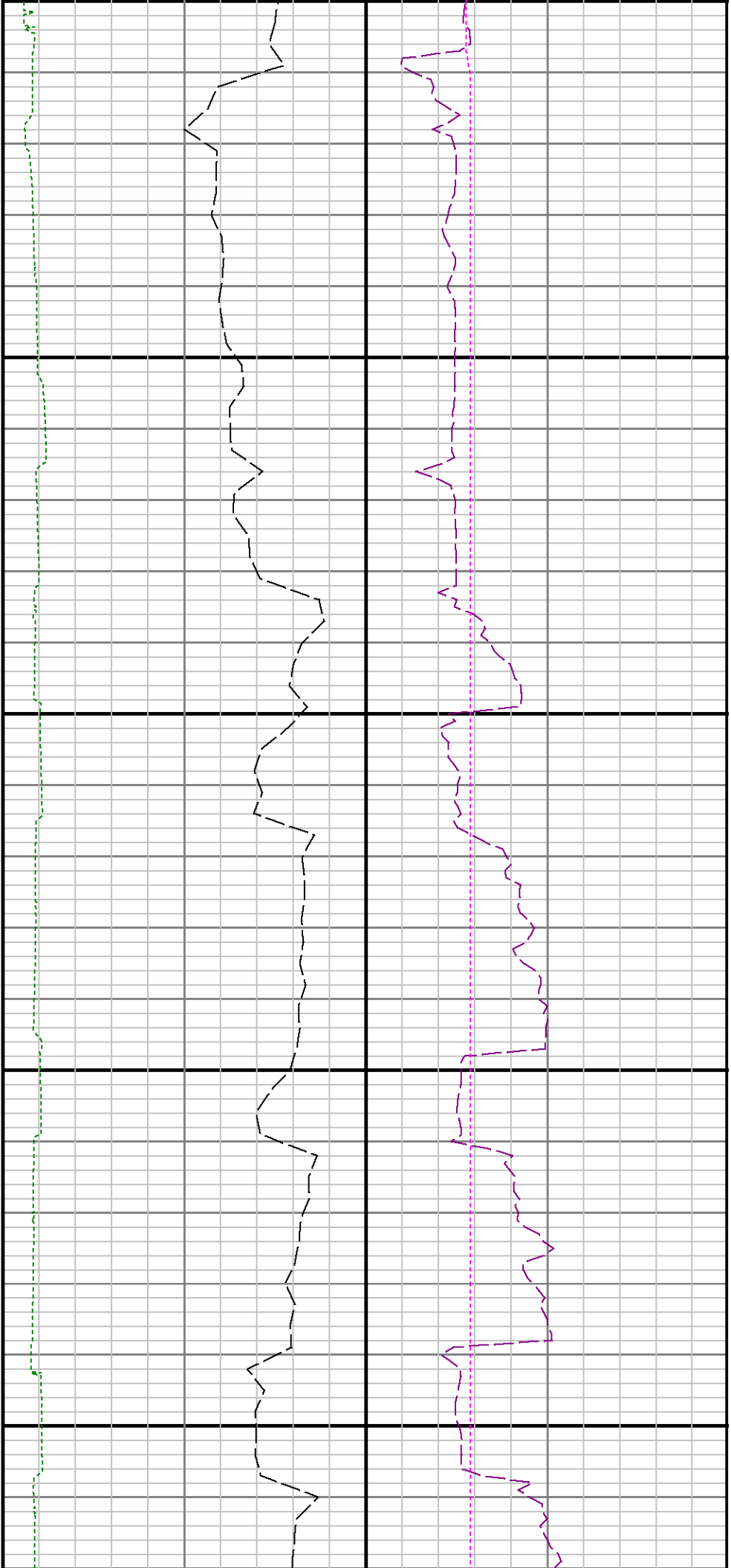


6700

6800

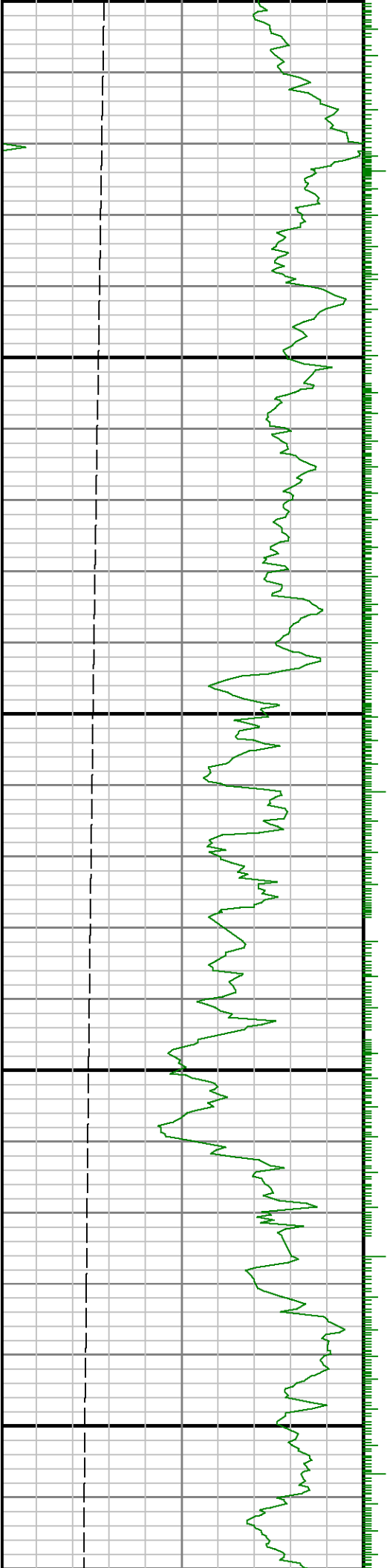


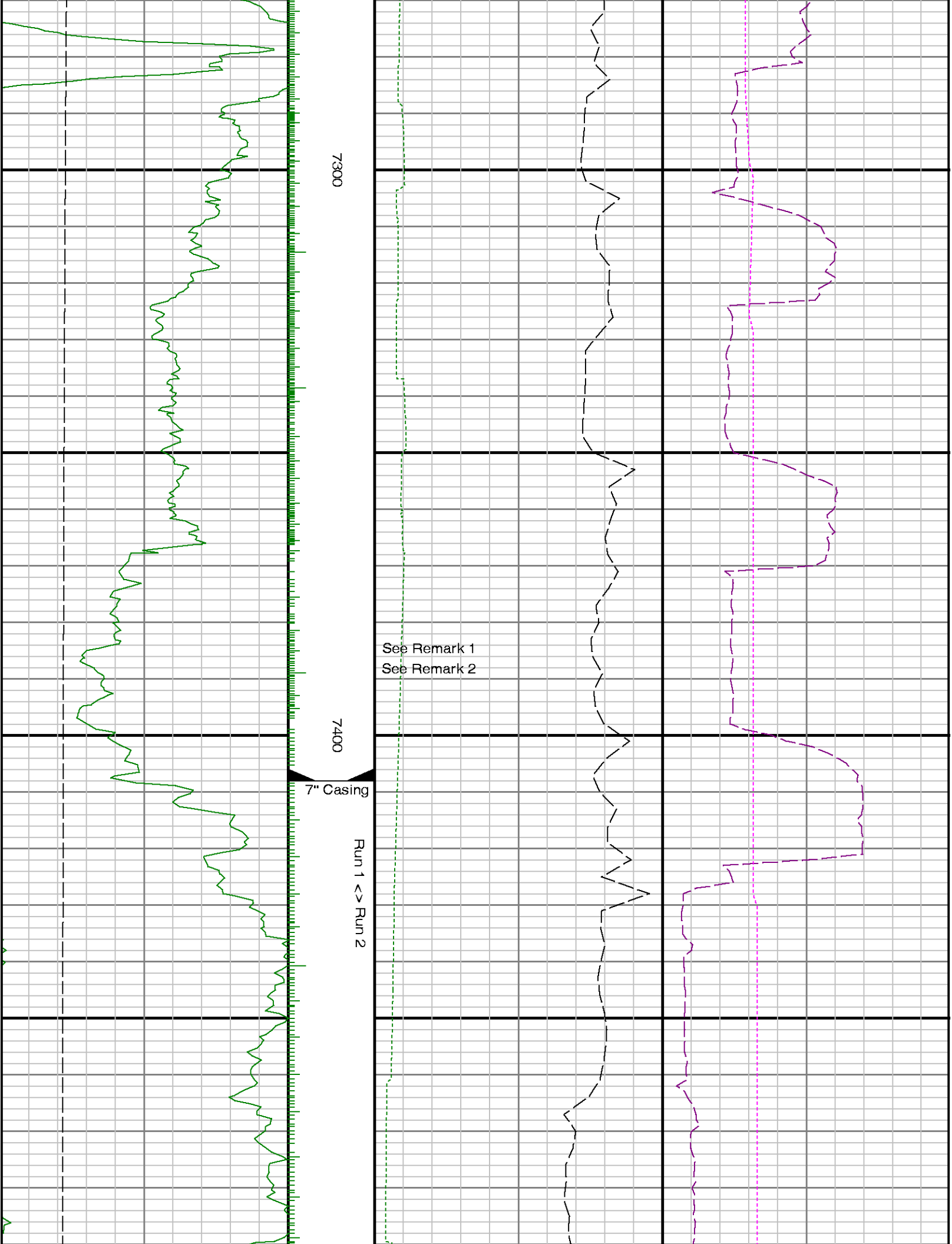


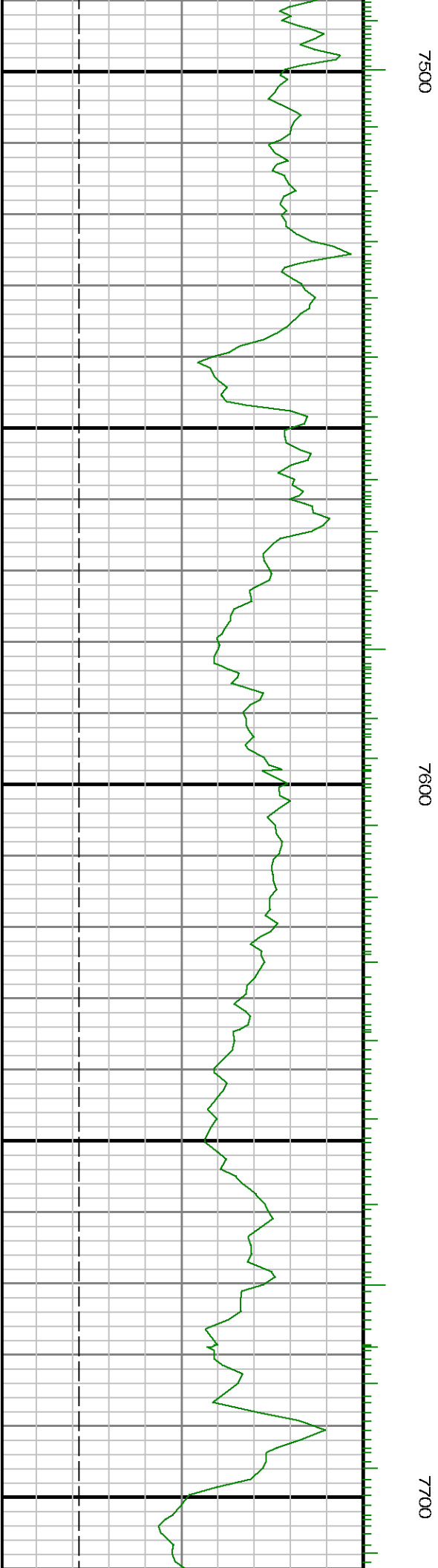
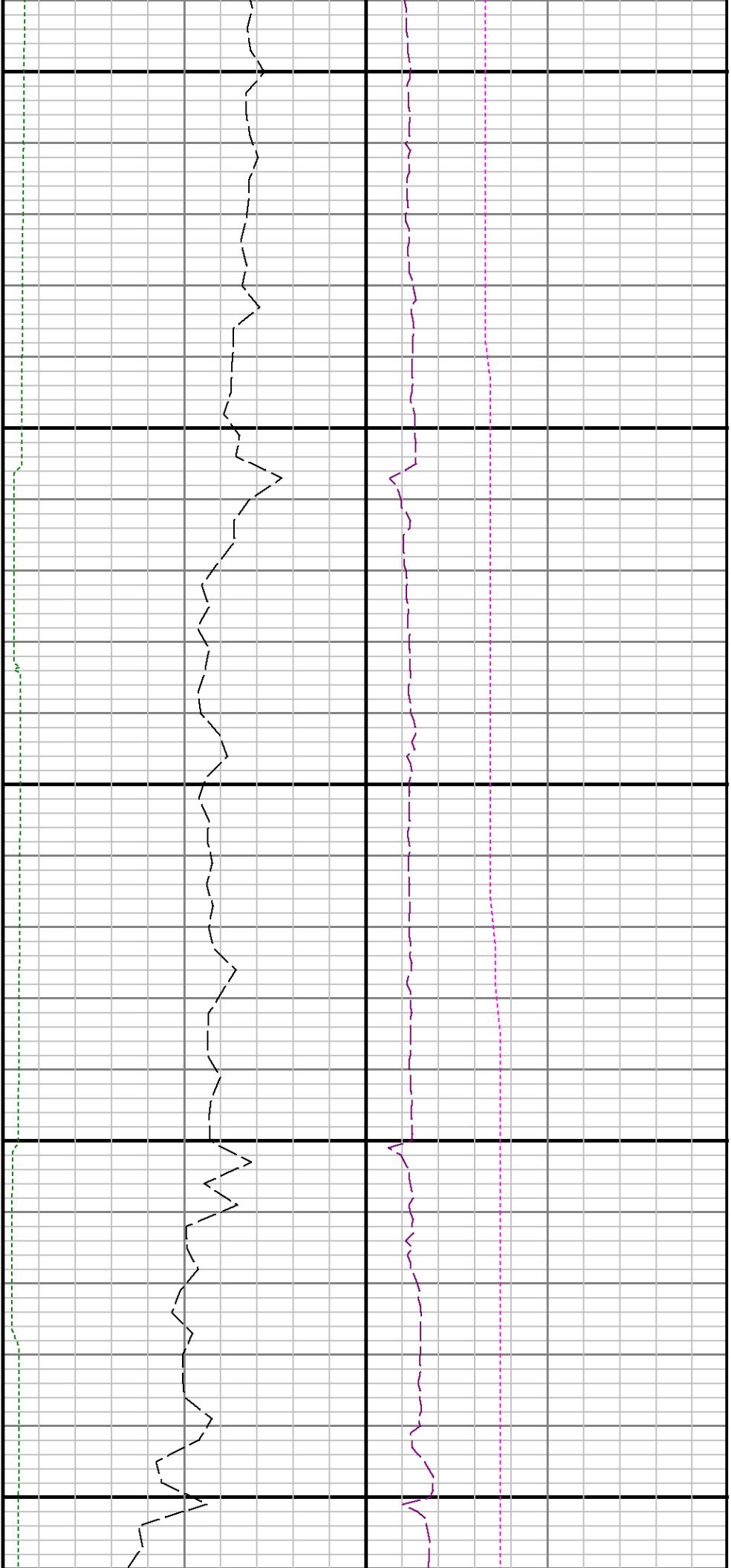


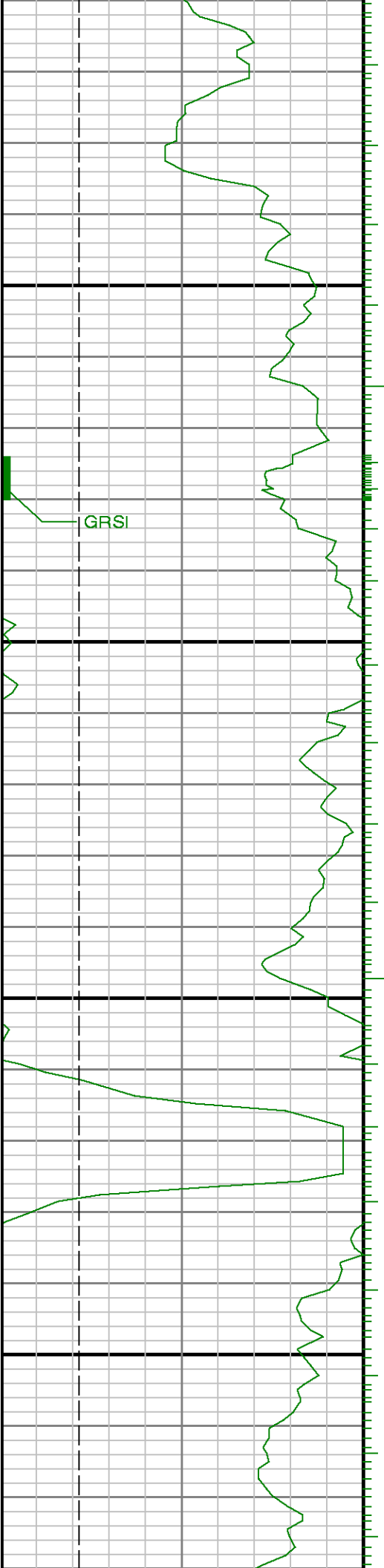
7100

7200





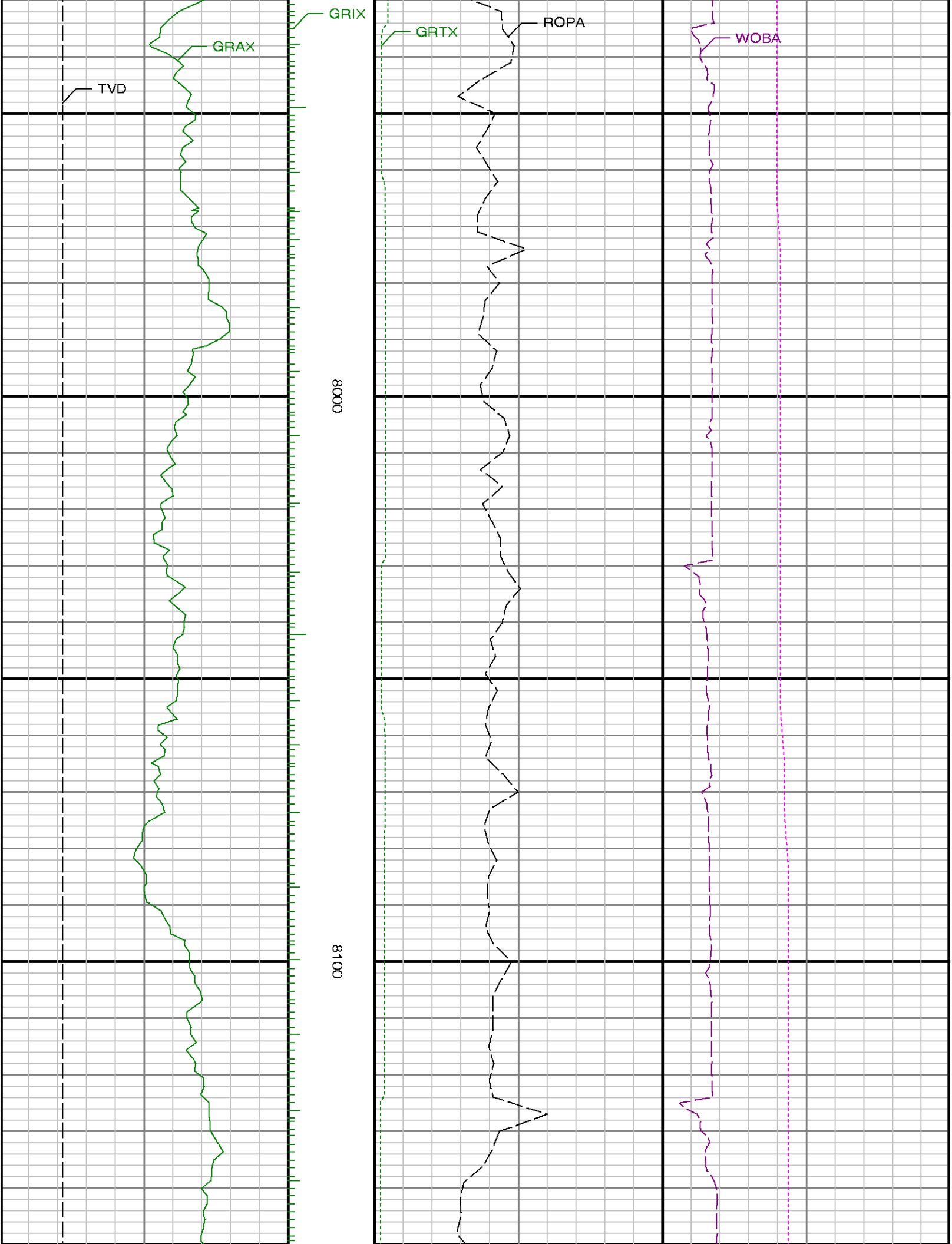




7800

7900

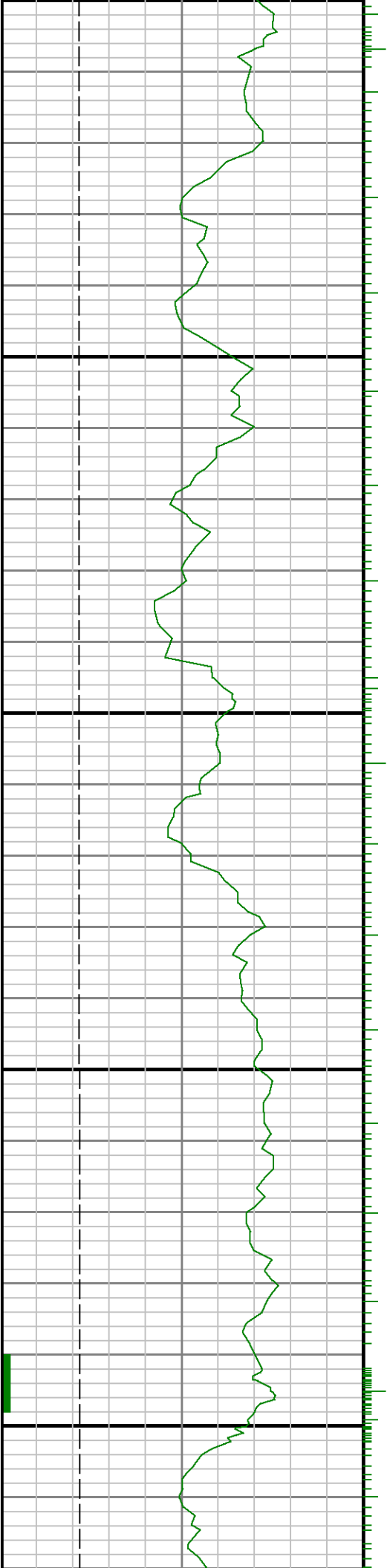


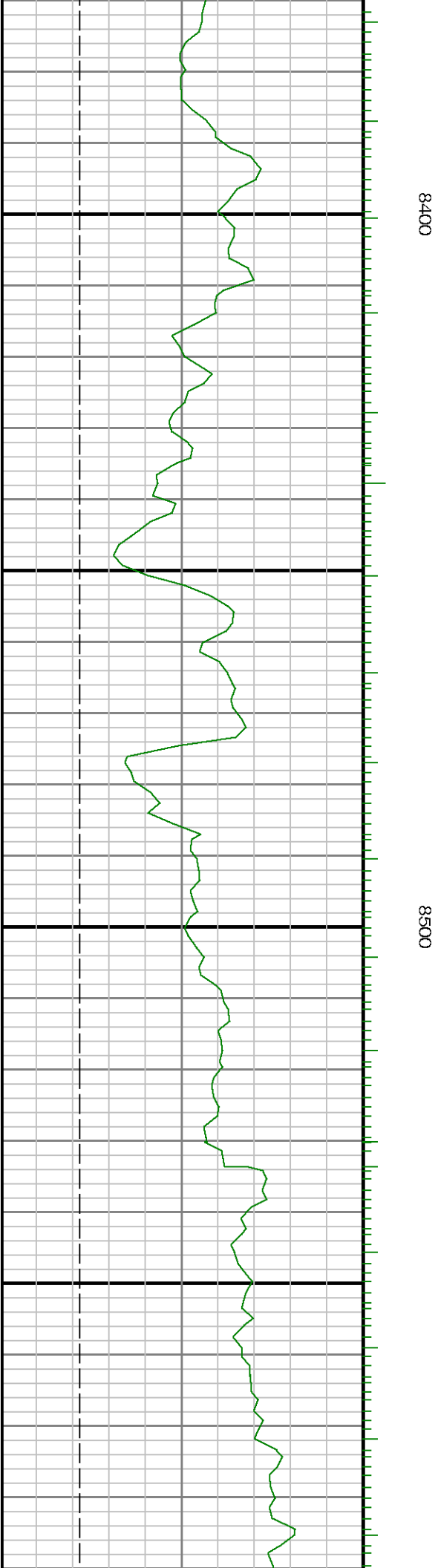


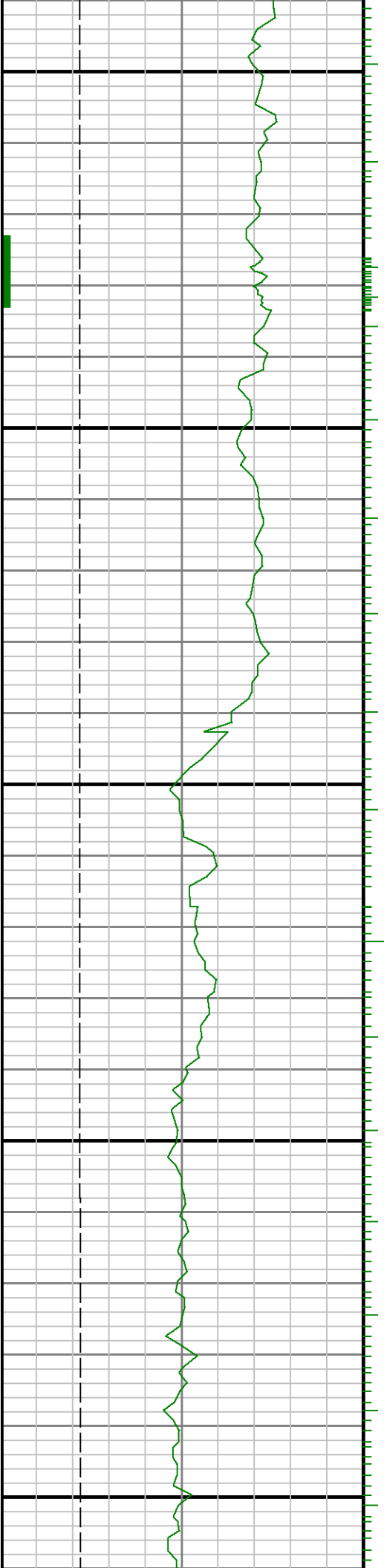


8200

8300



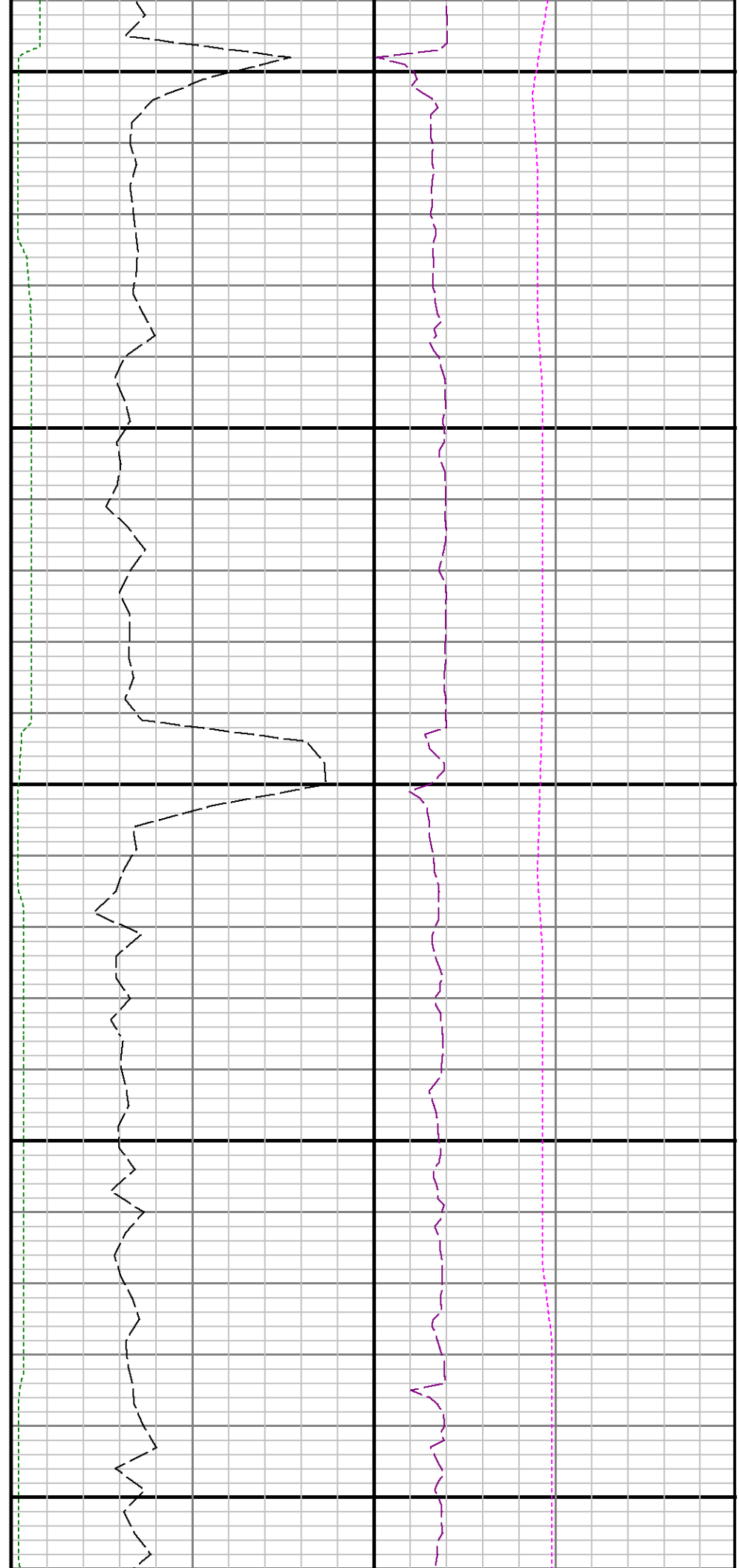


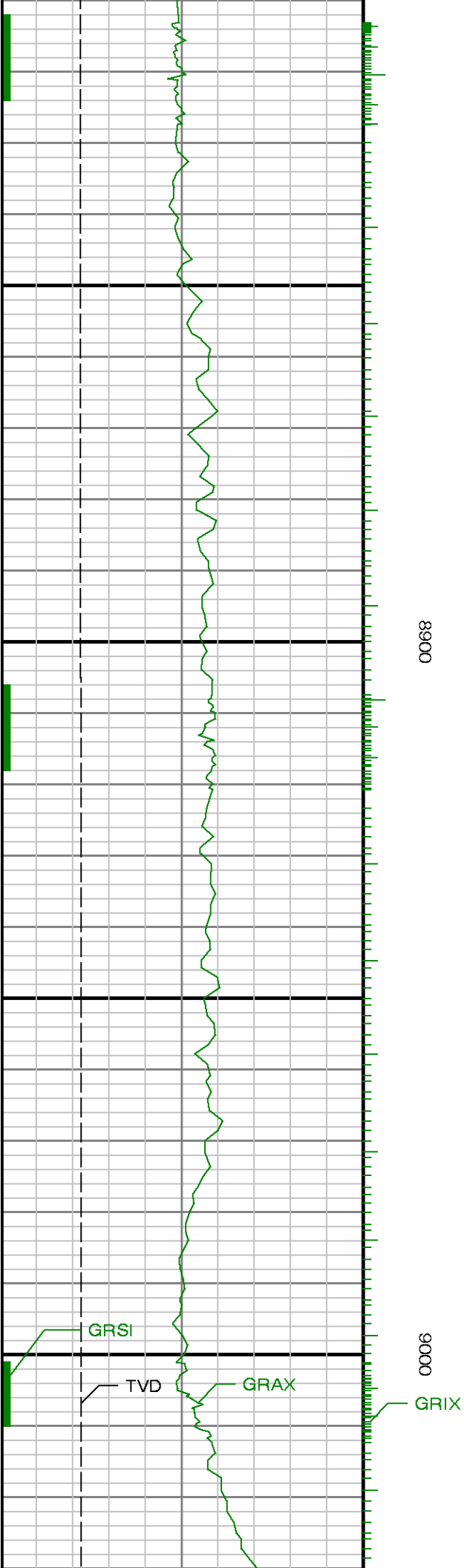


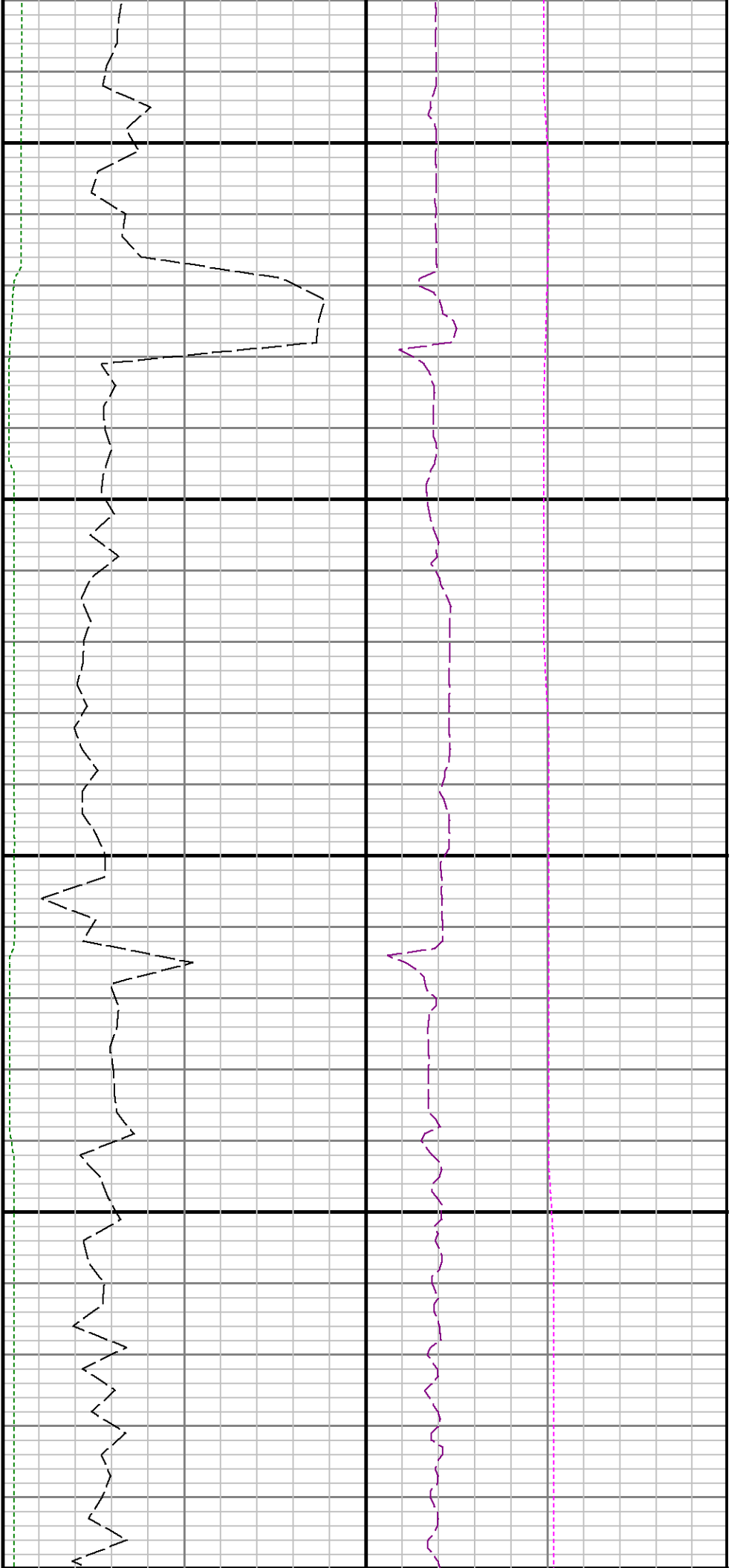
0098

8700

8800

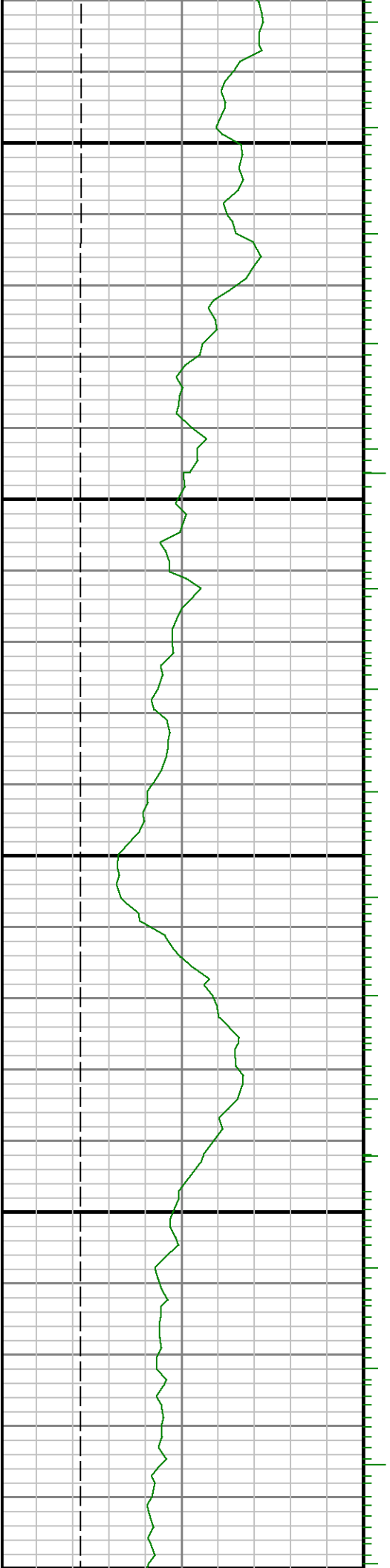






9100

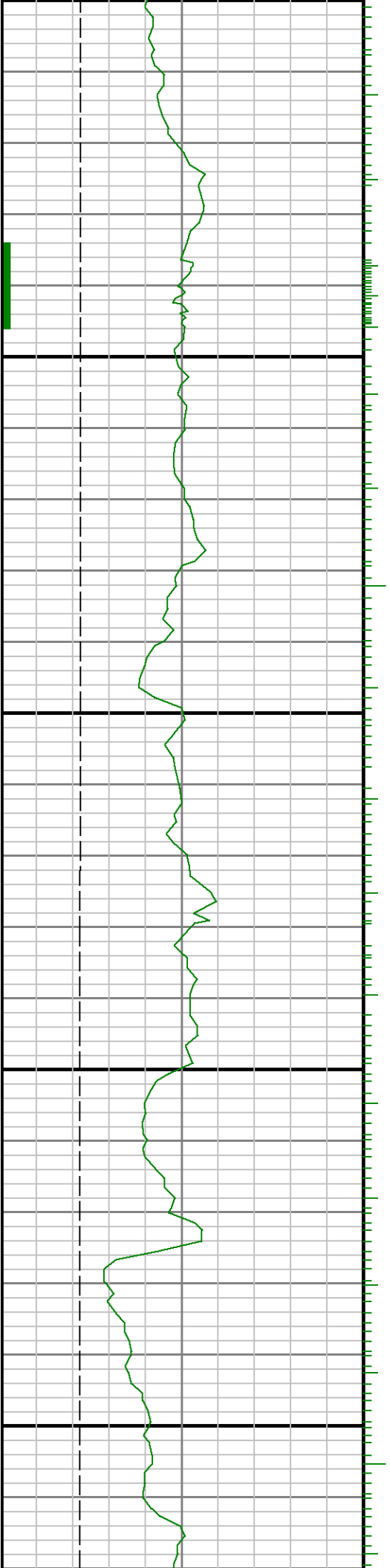
9200

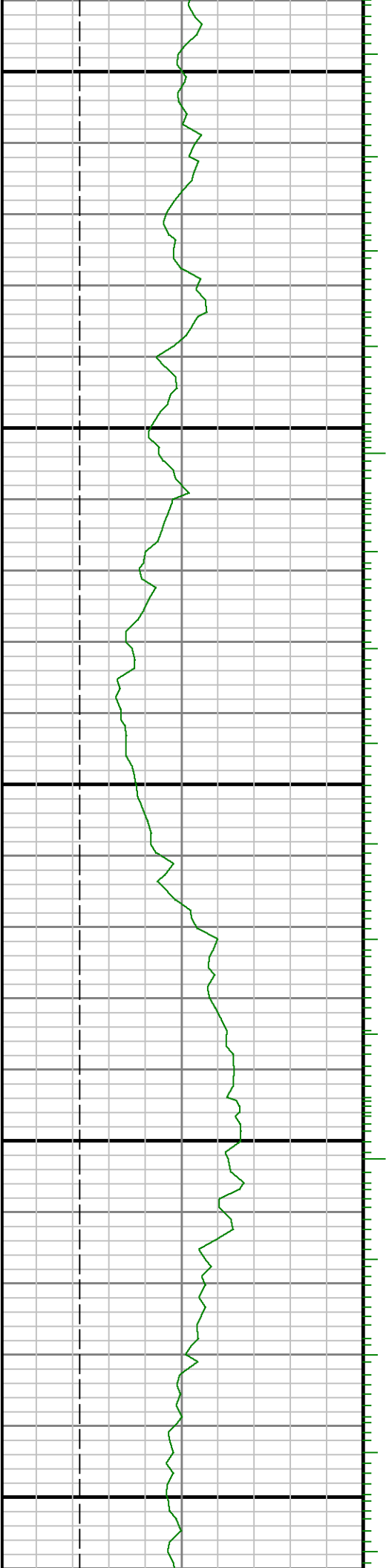




9300

9400

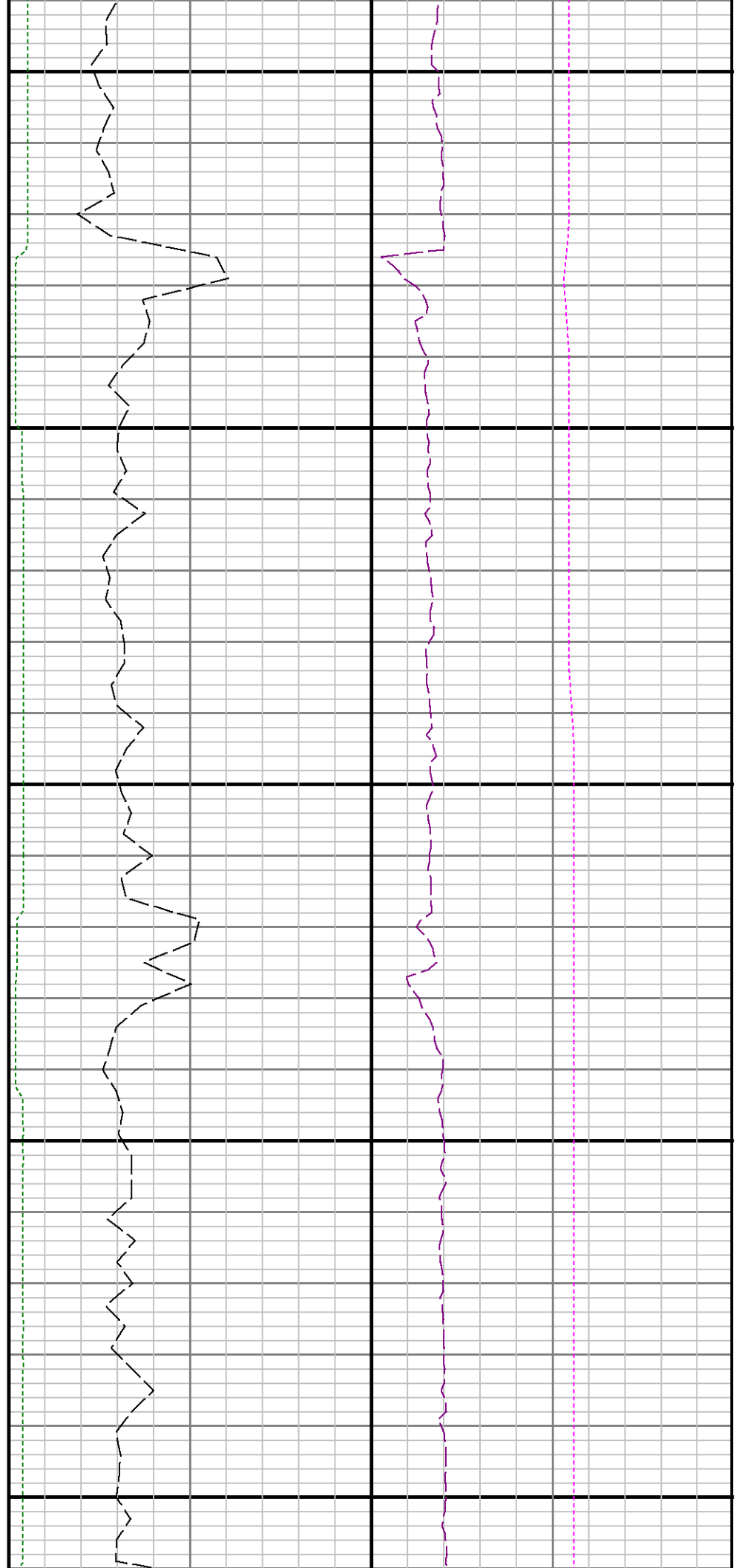


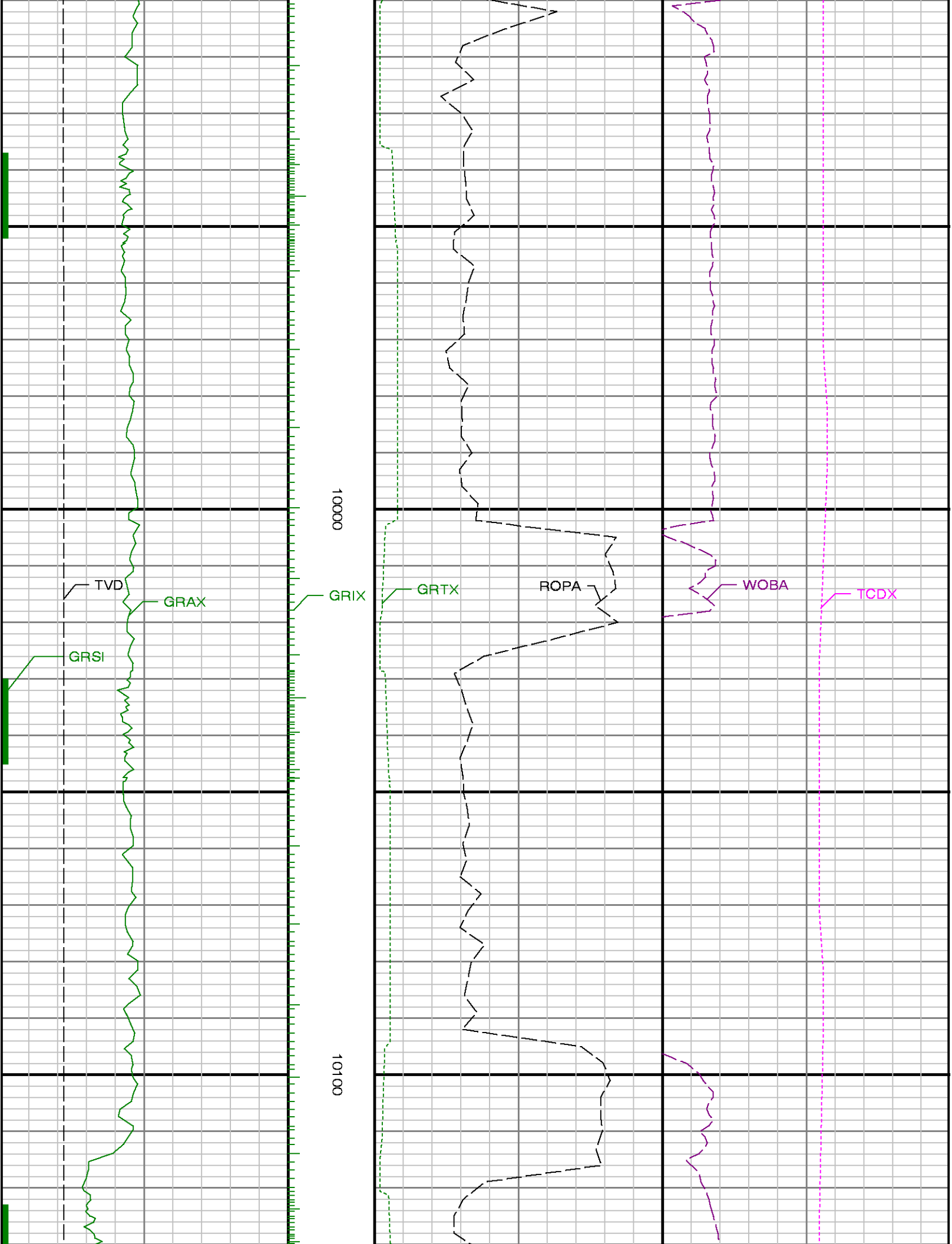


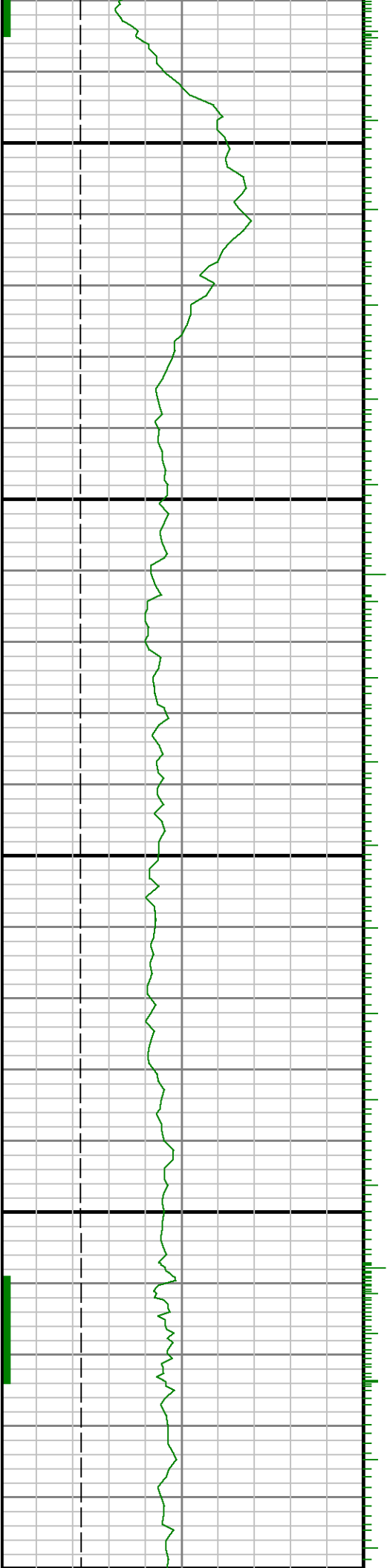
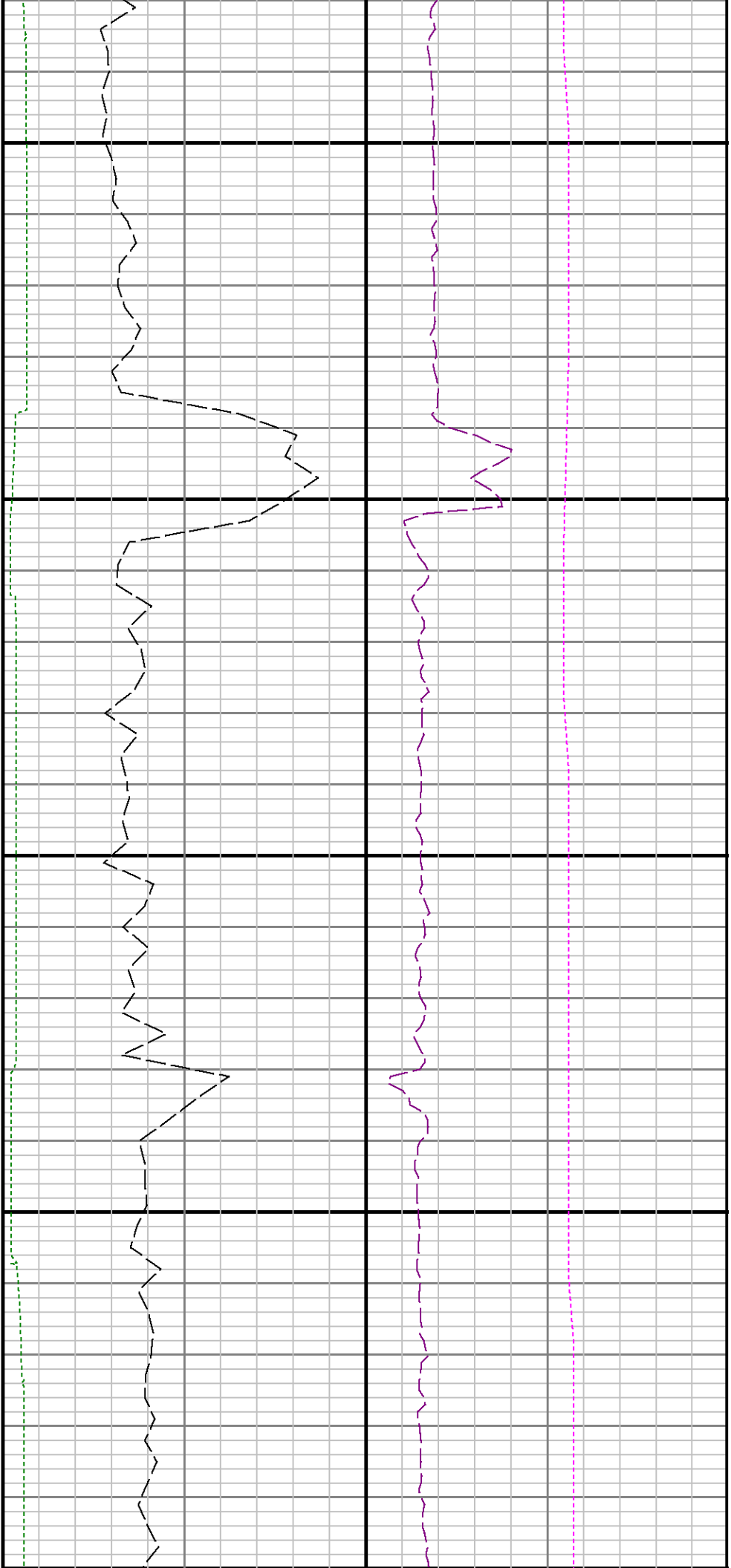
9900

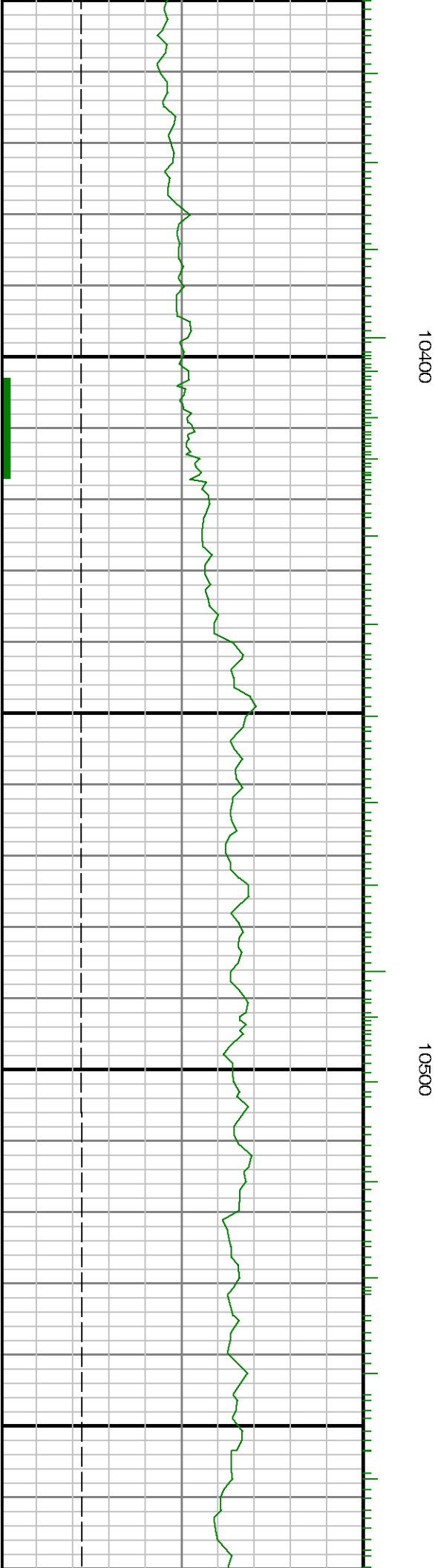
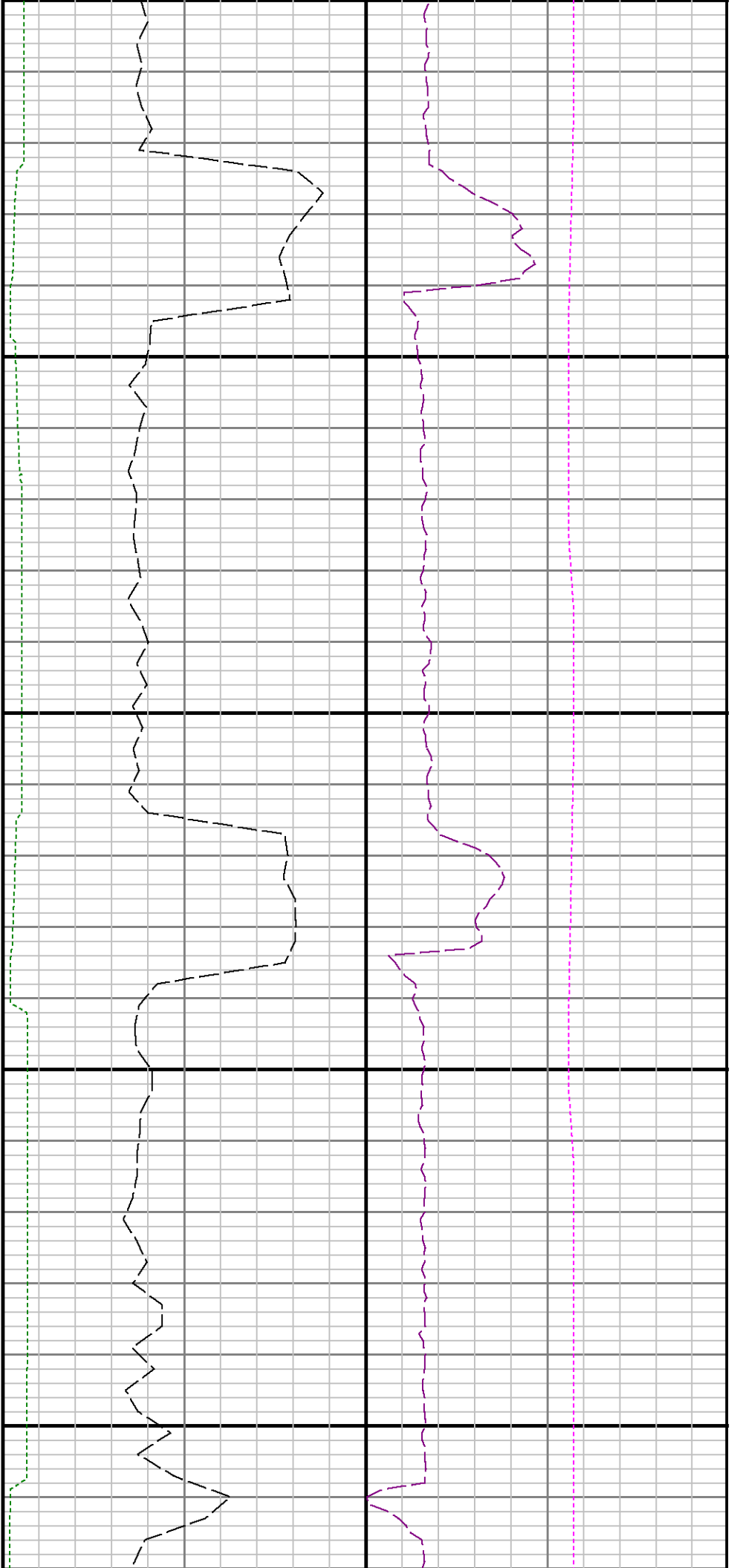
9800

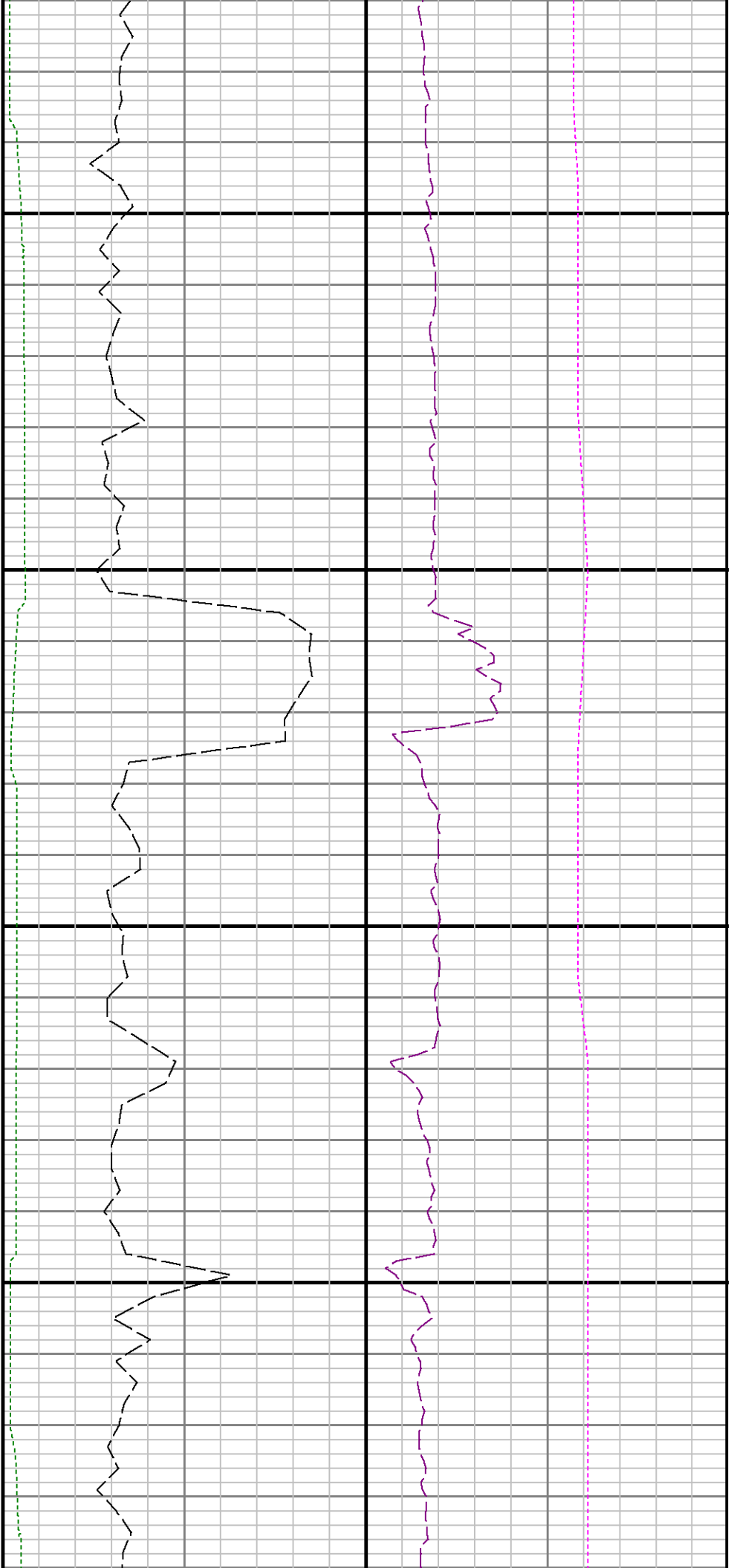
9700





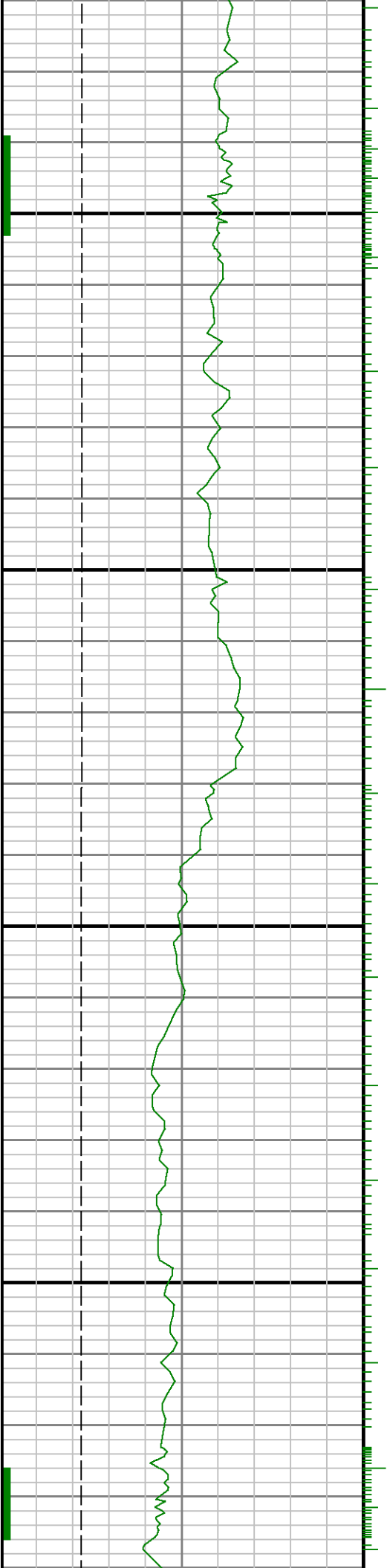


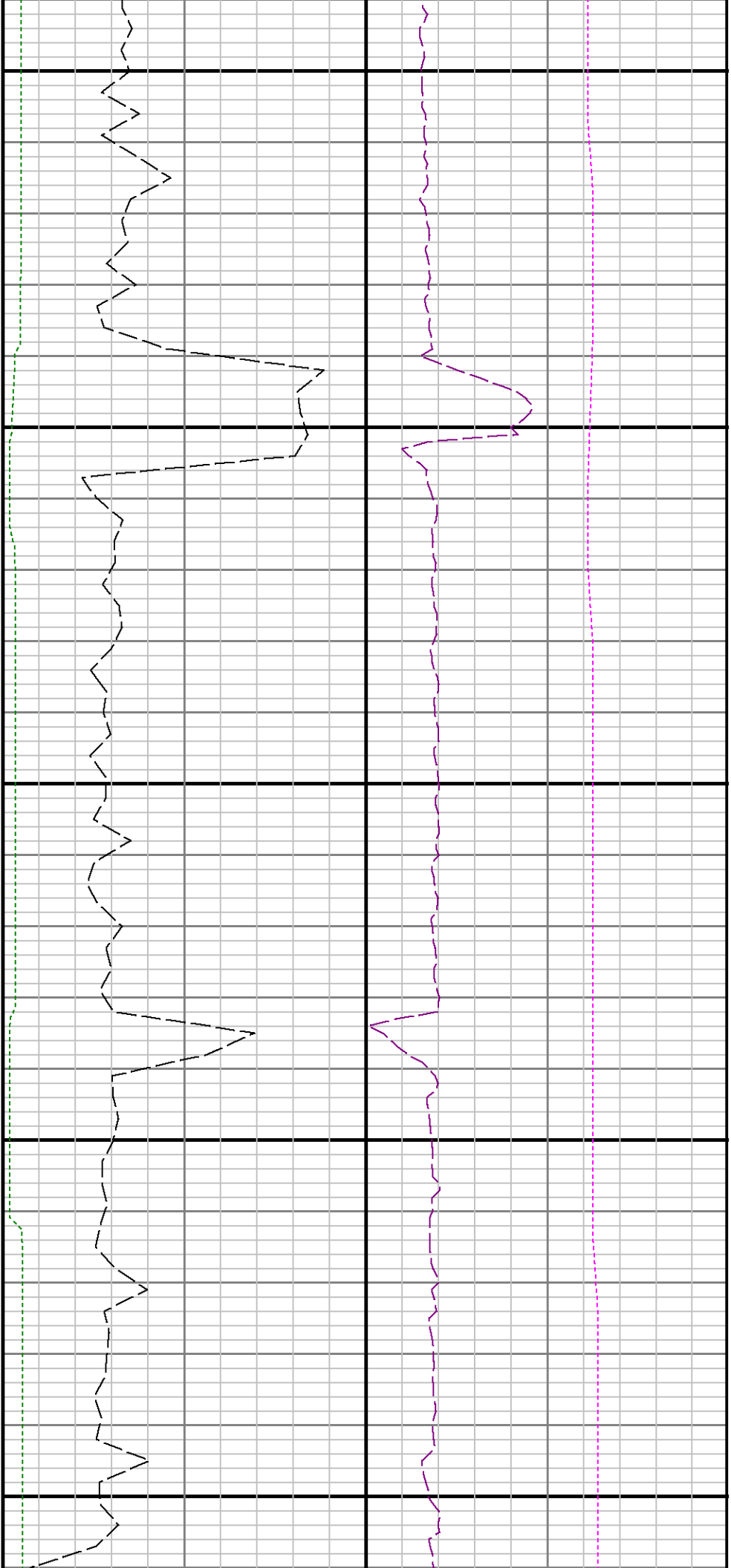




10600

10700

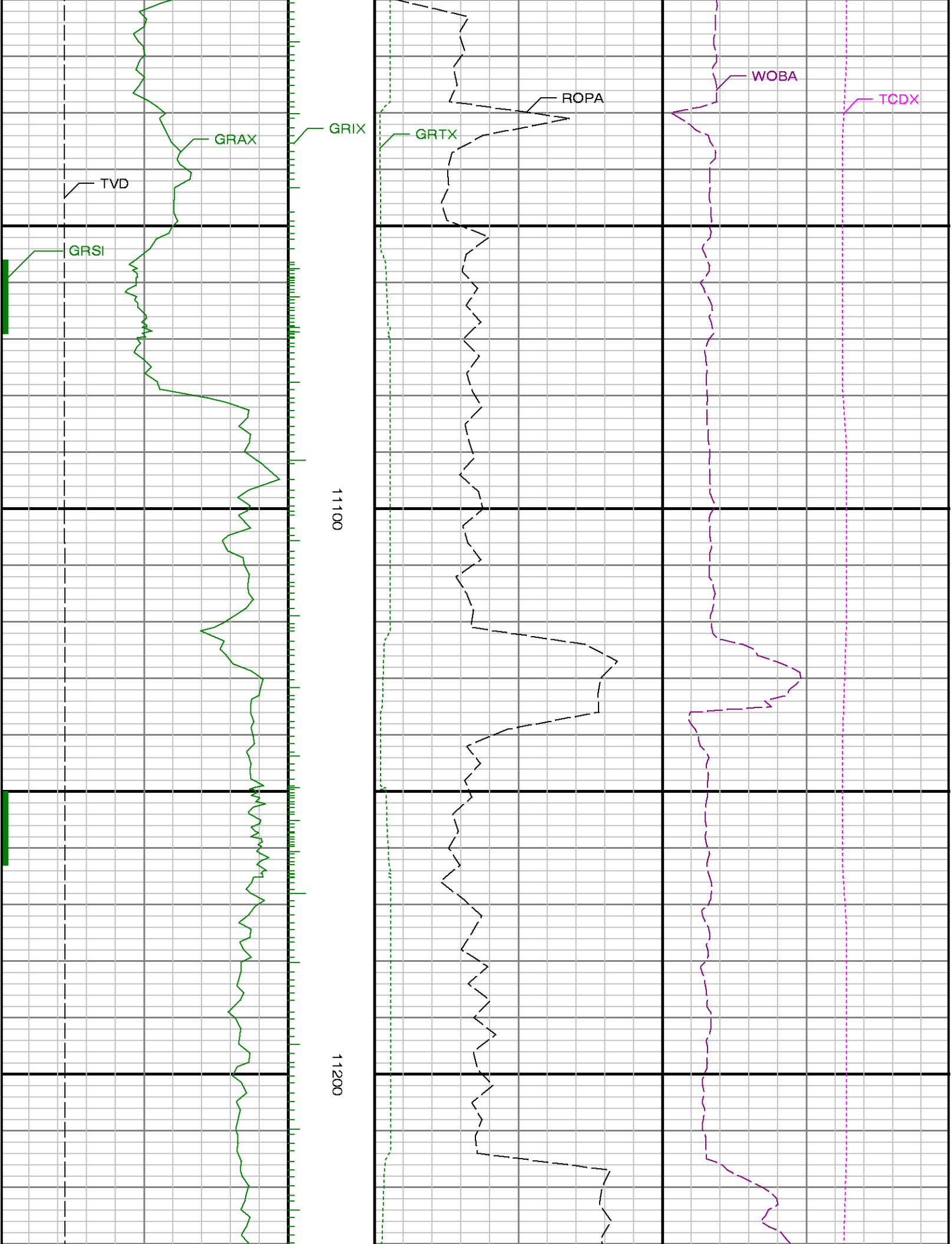


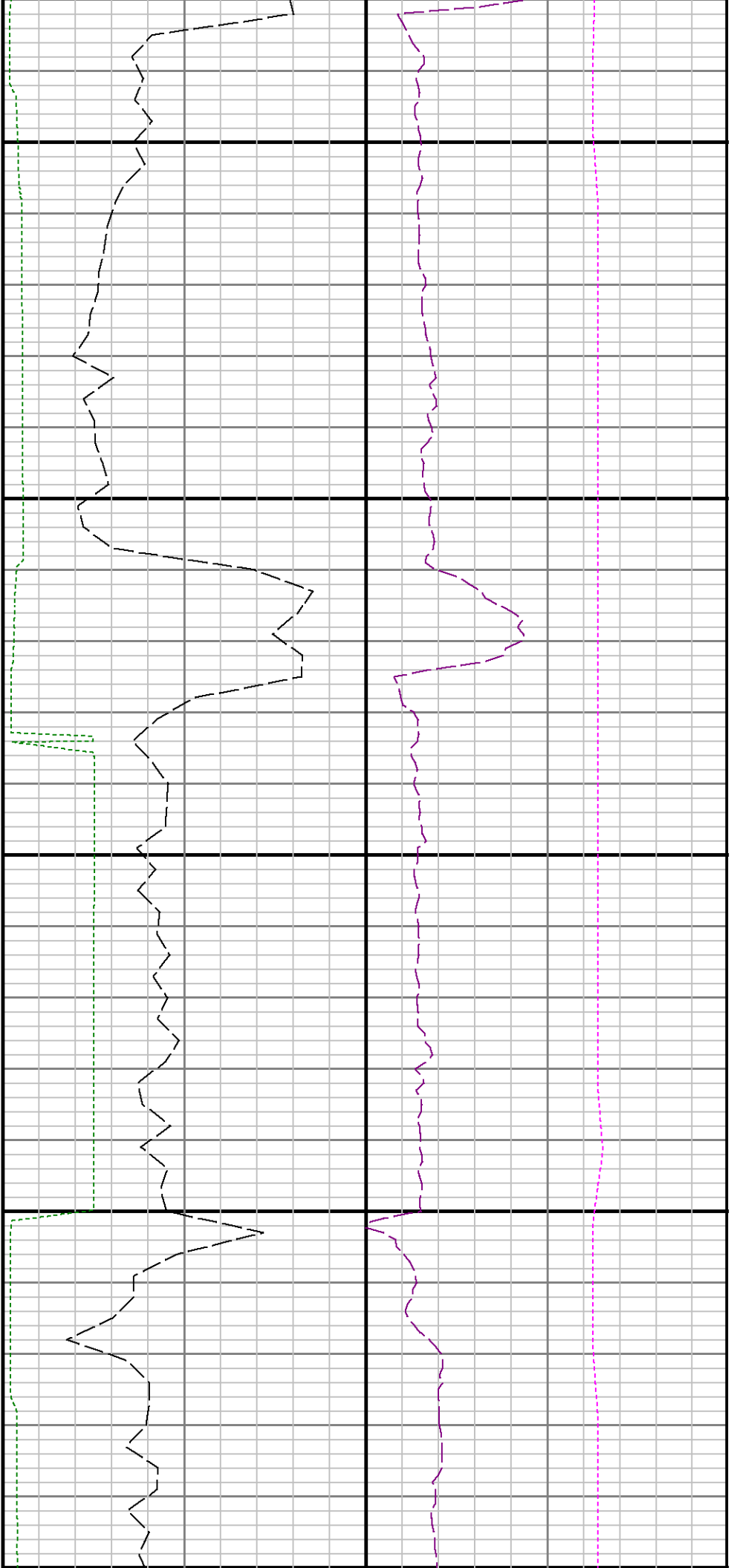


10800

10900

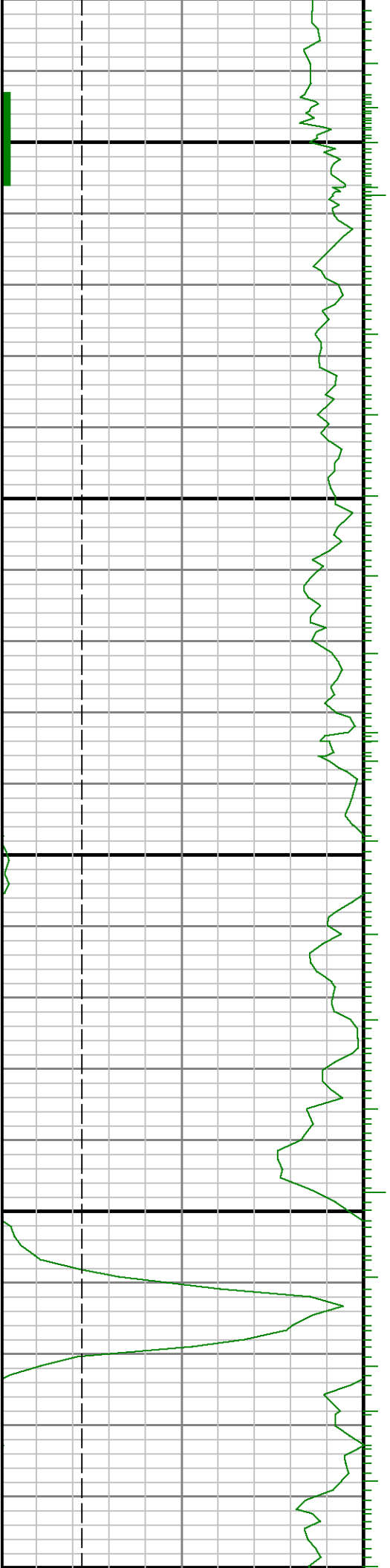
11000

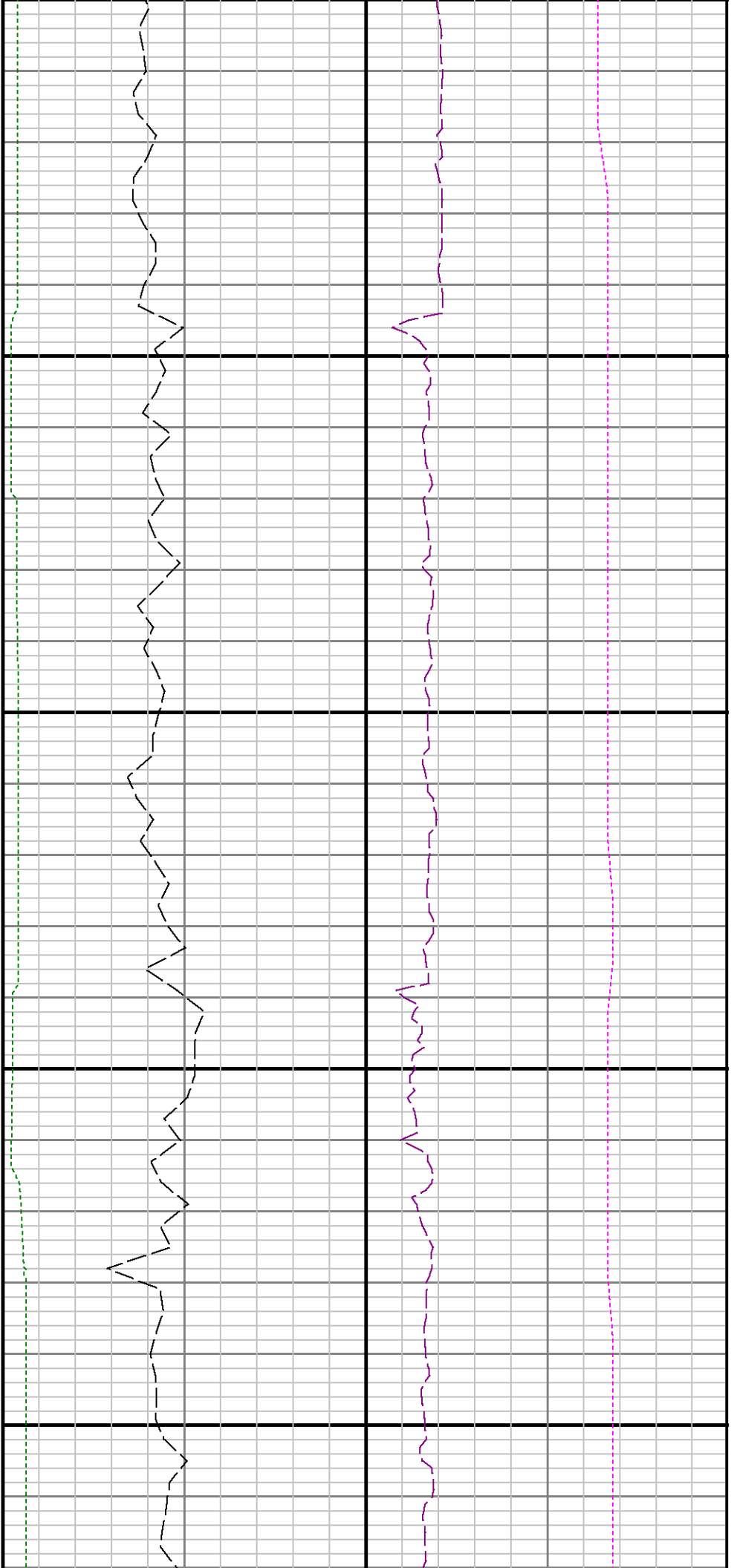




11300

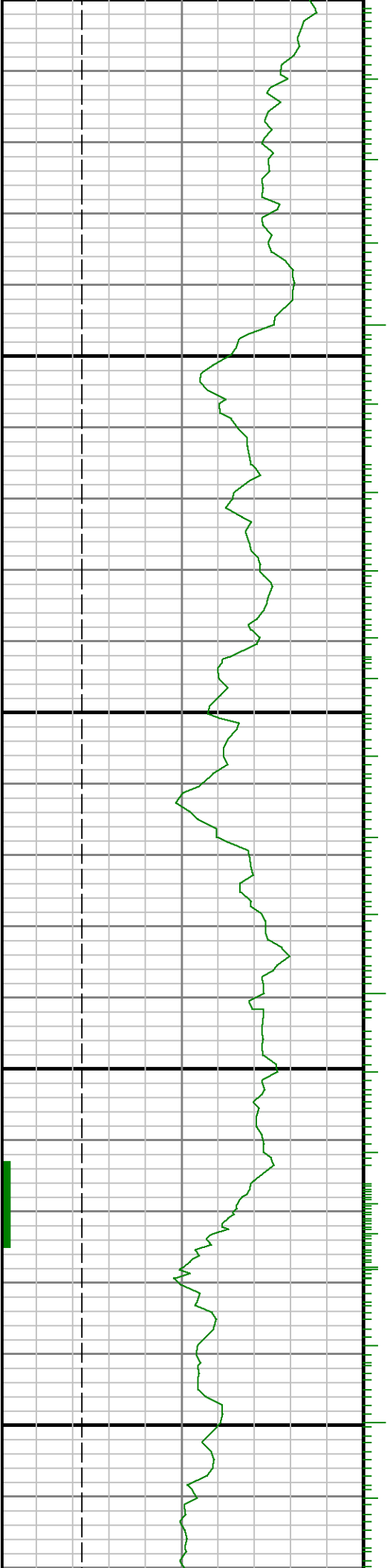
11400





11500

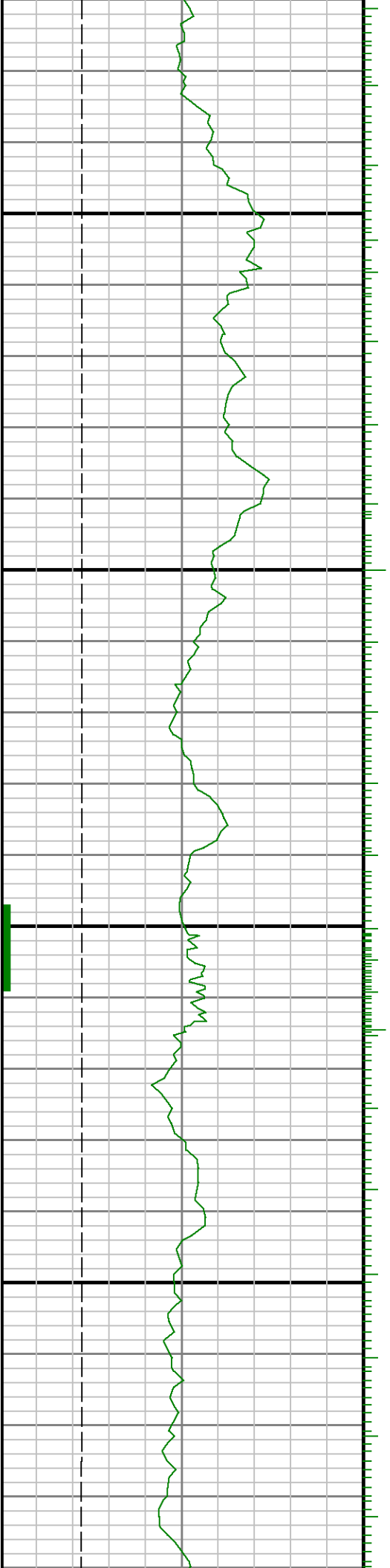
11600

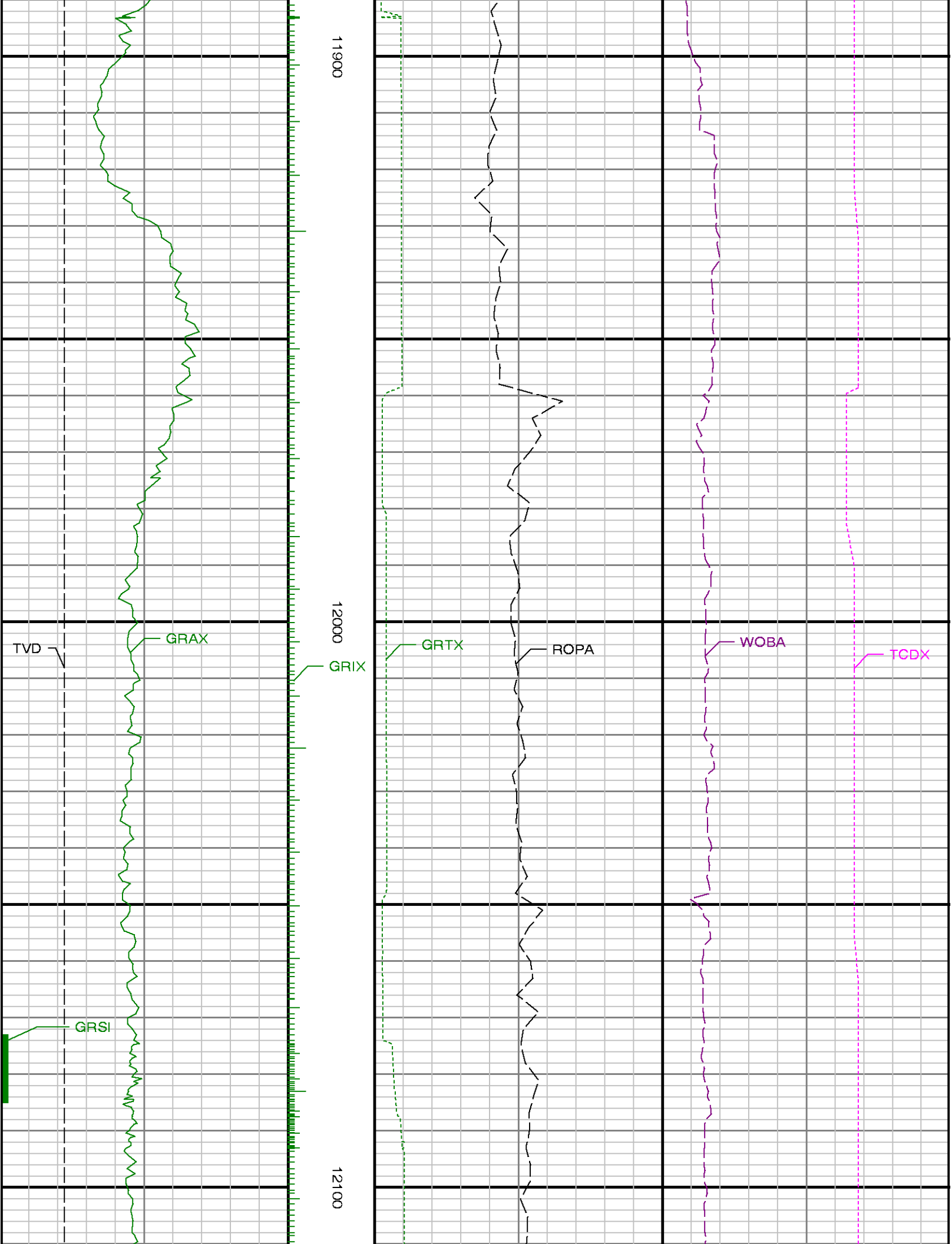




11700

11800

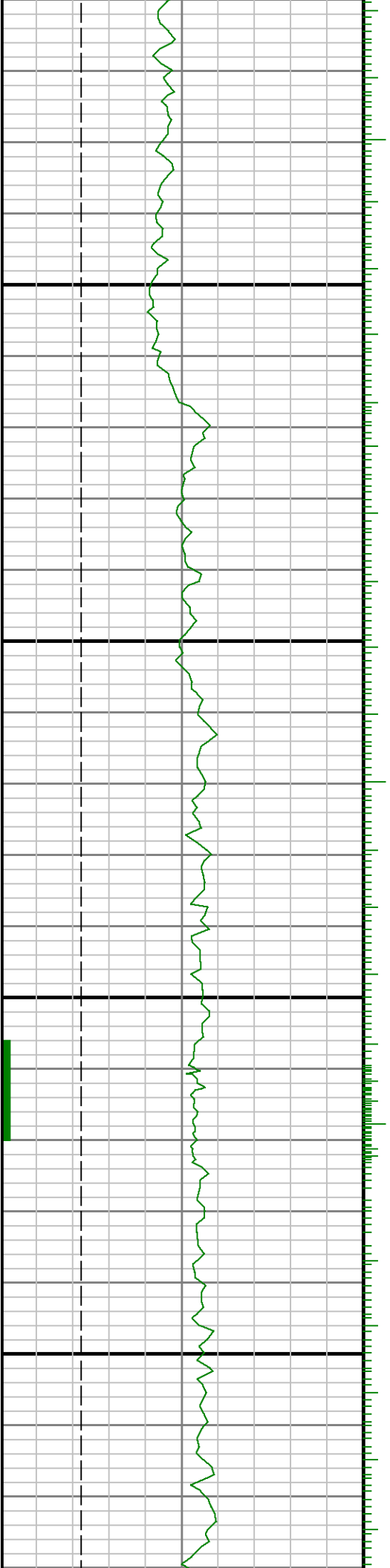






12200

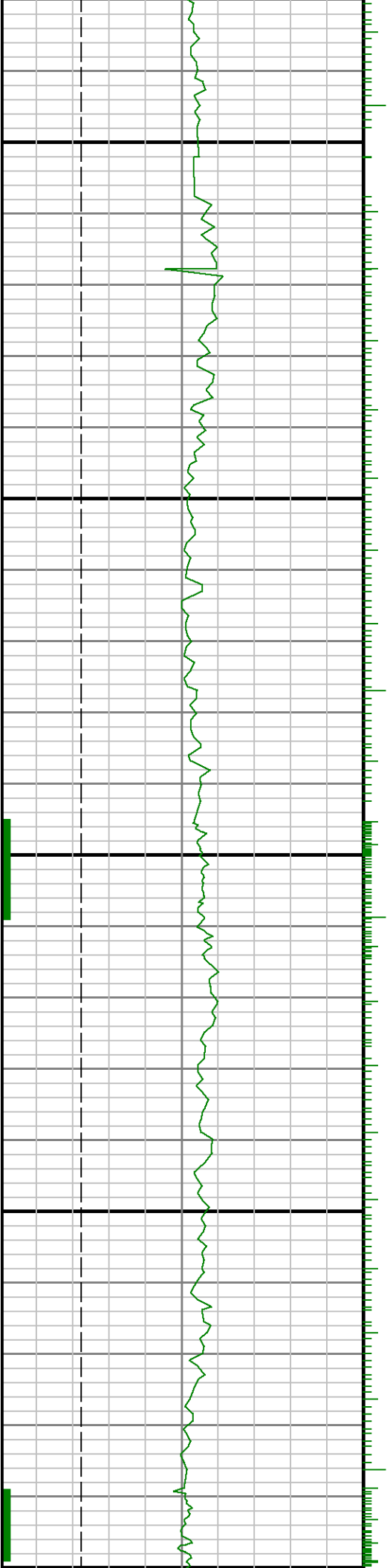
12300

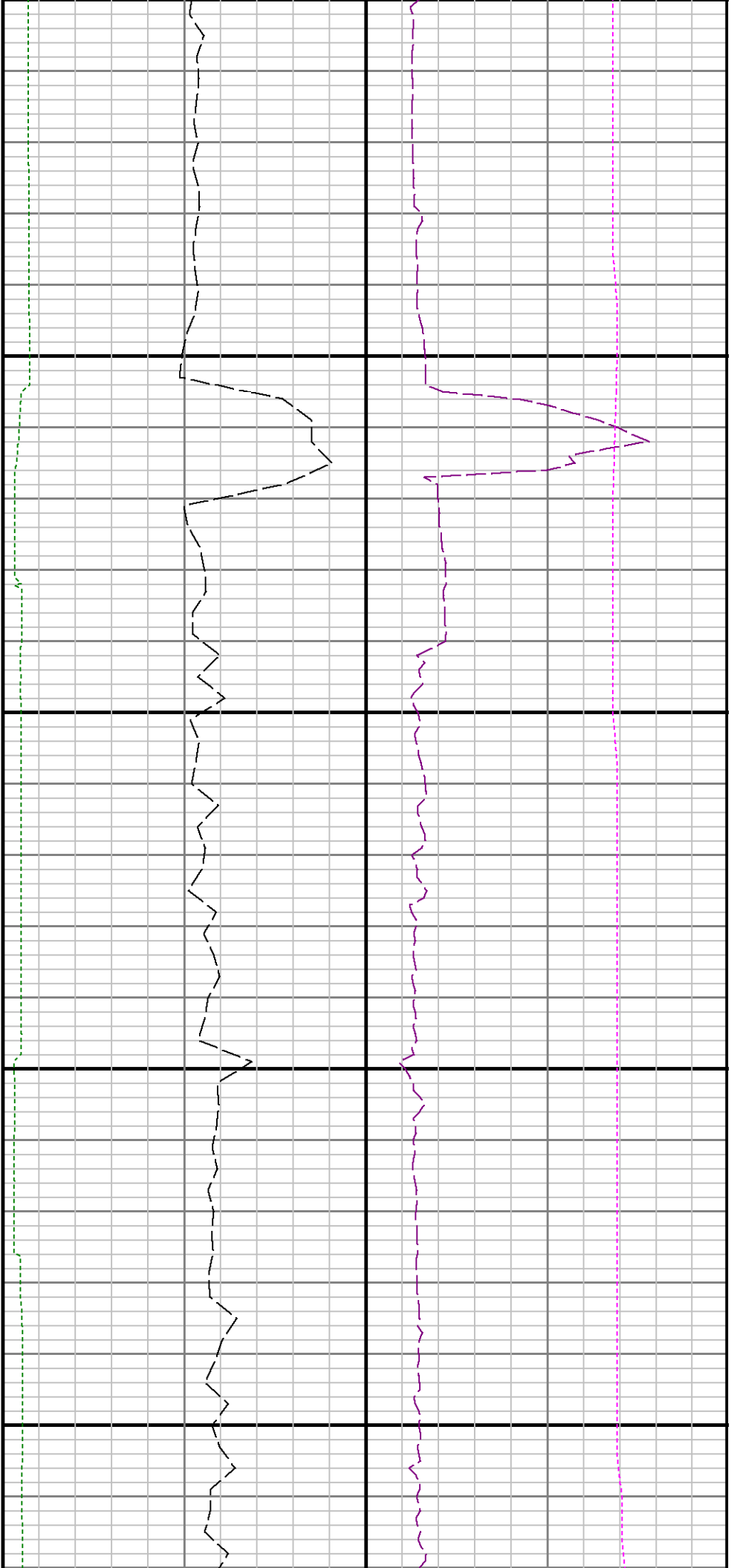




12400

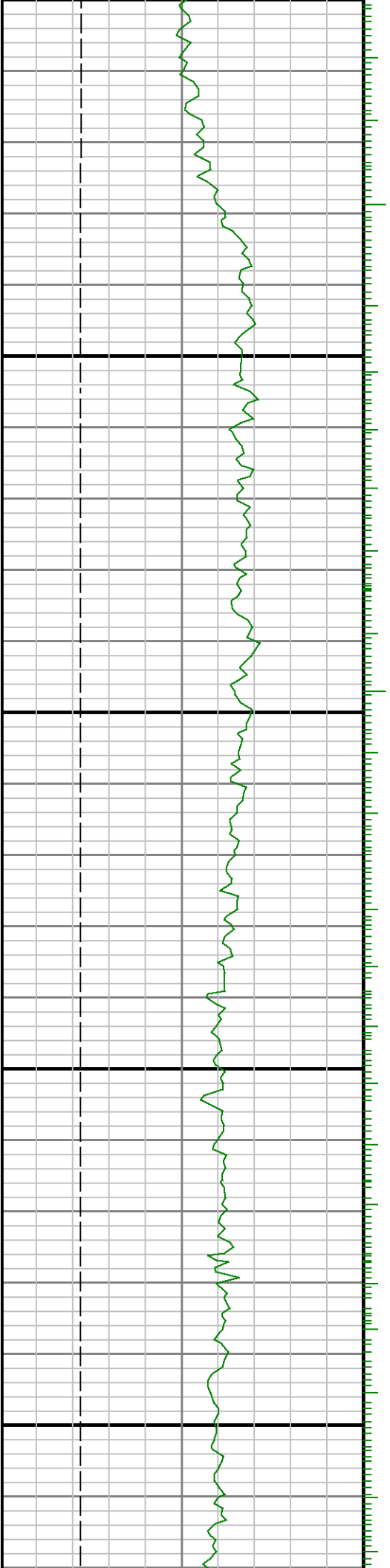
12500

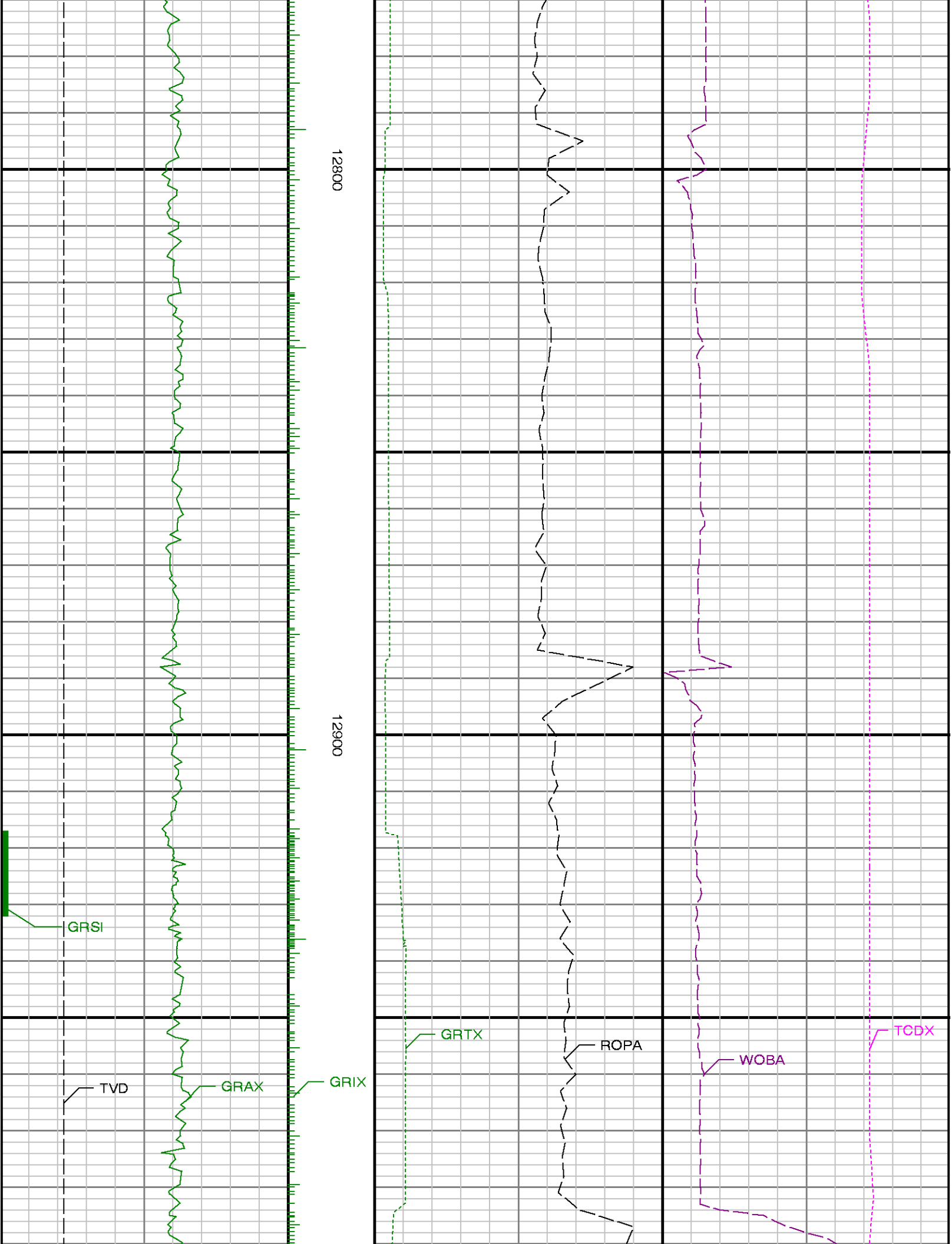


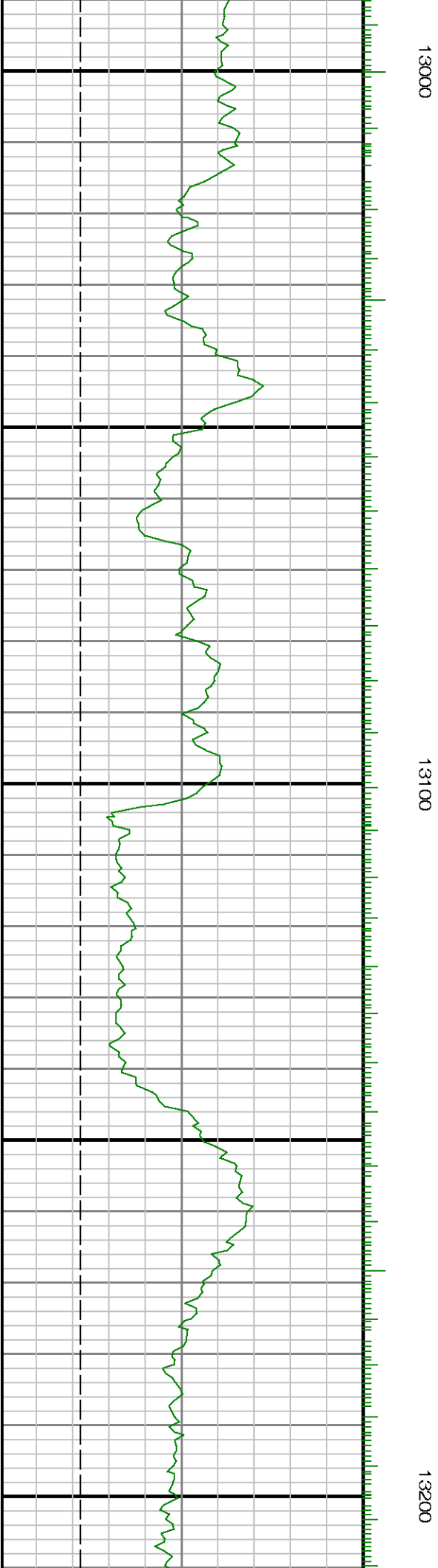
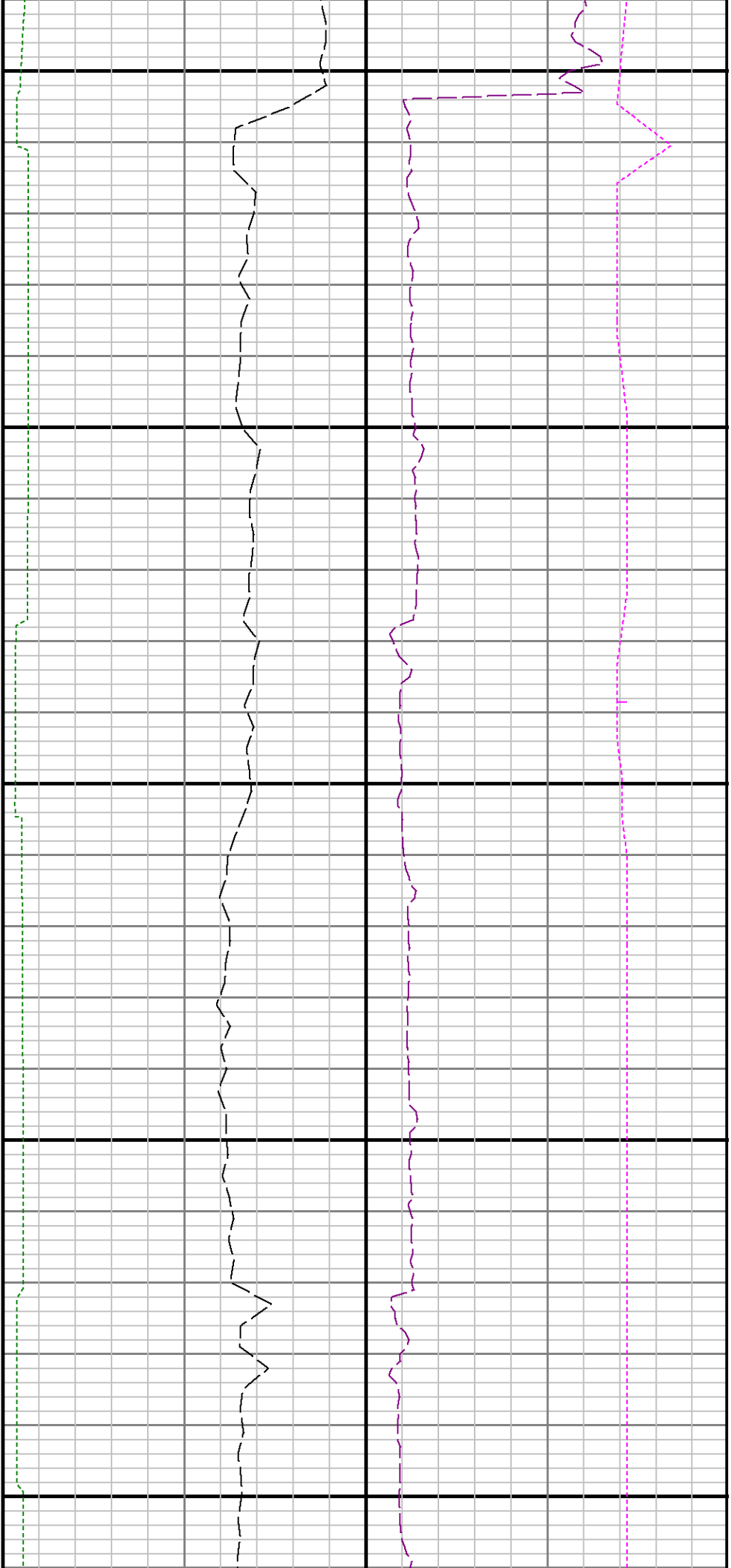


12600

12700



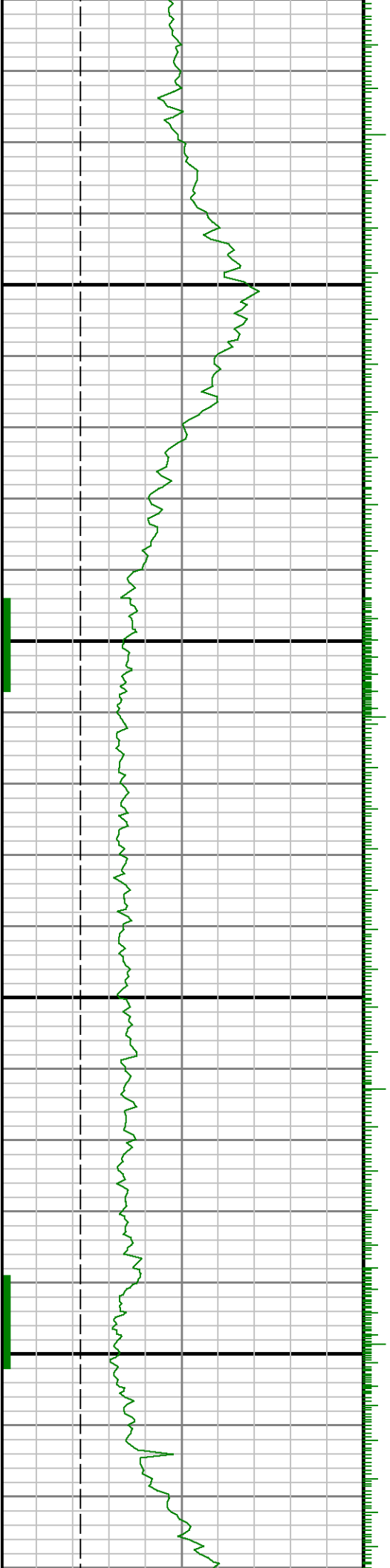


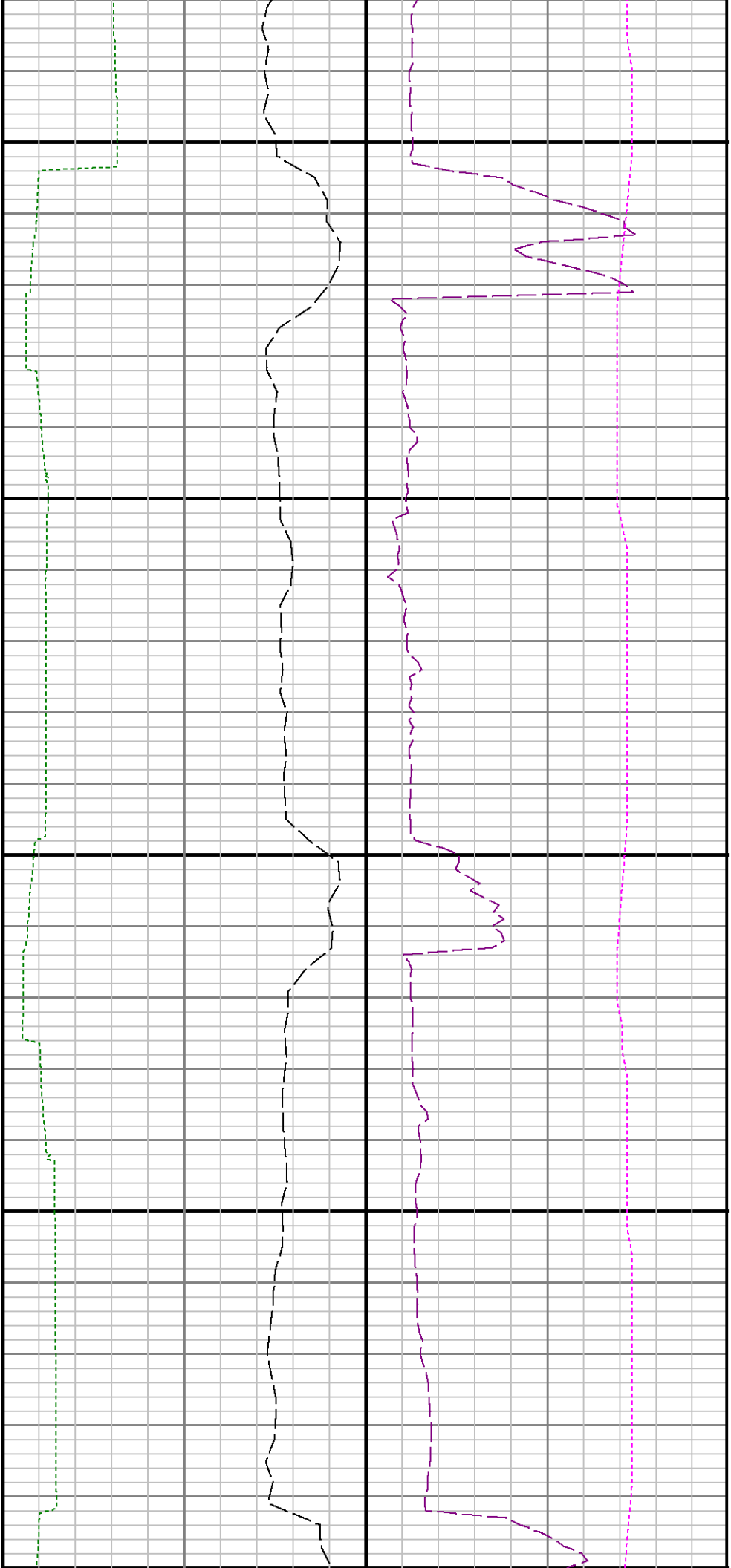




13300

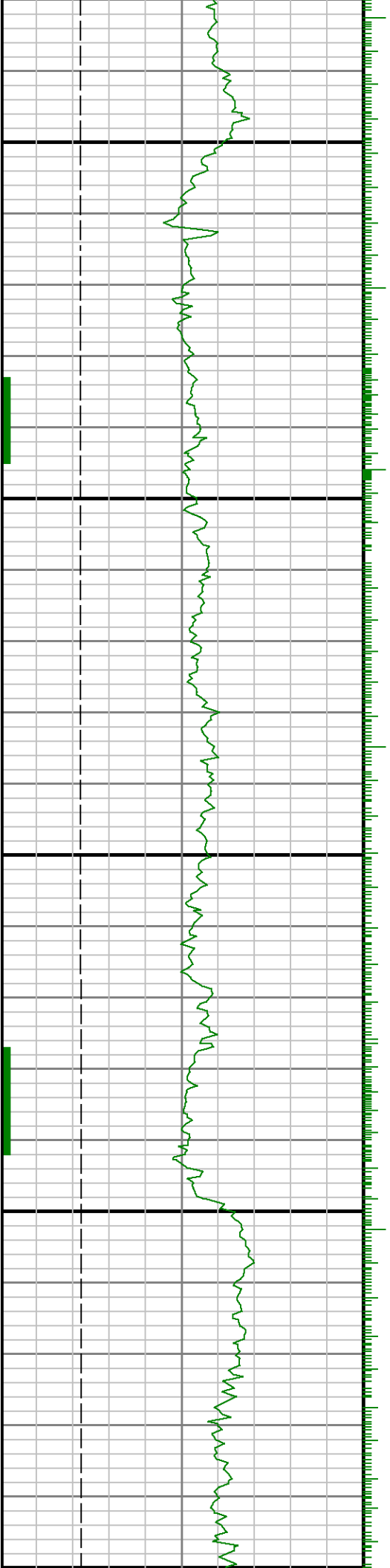
13400

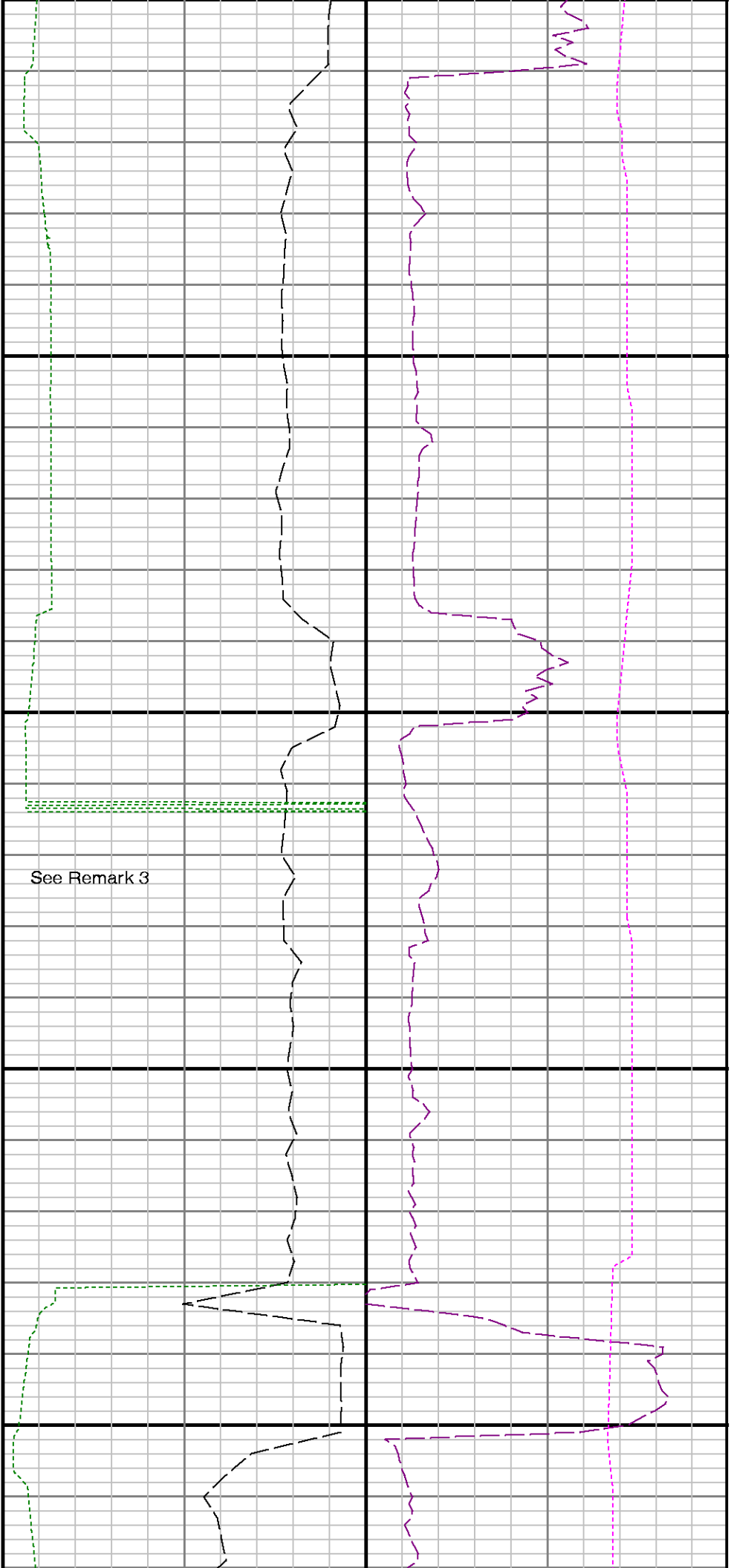




13500

13600



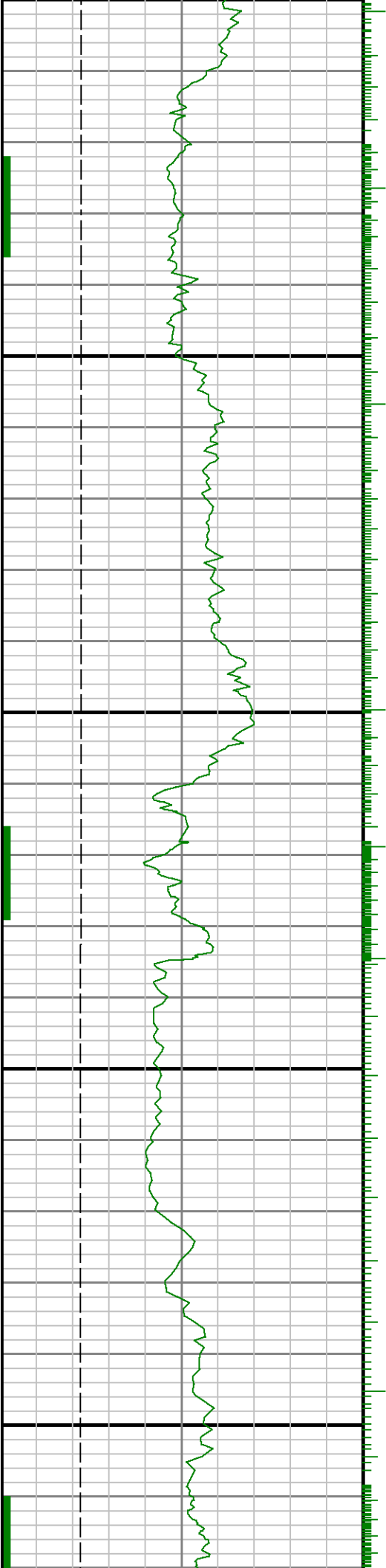


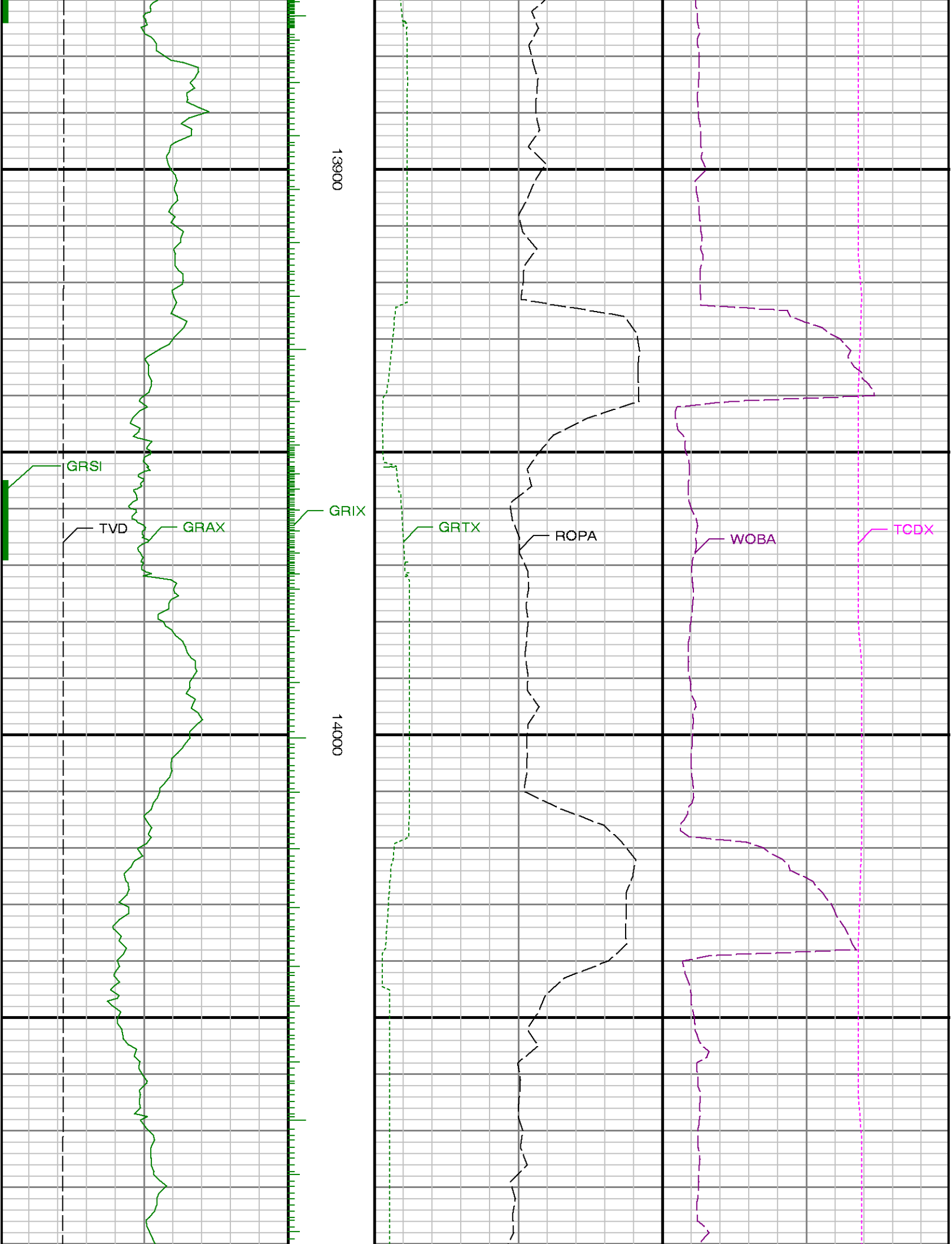
See Remark 3

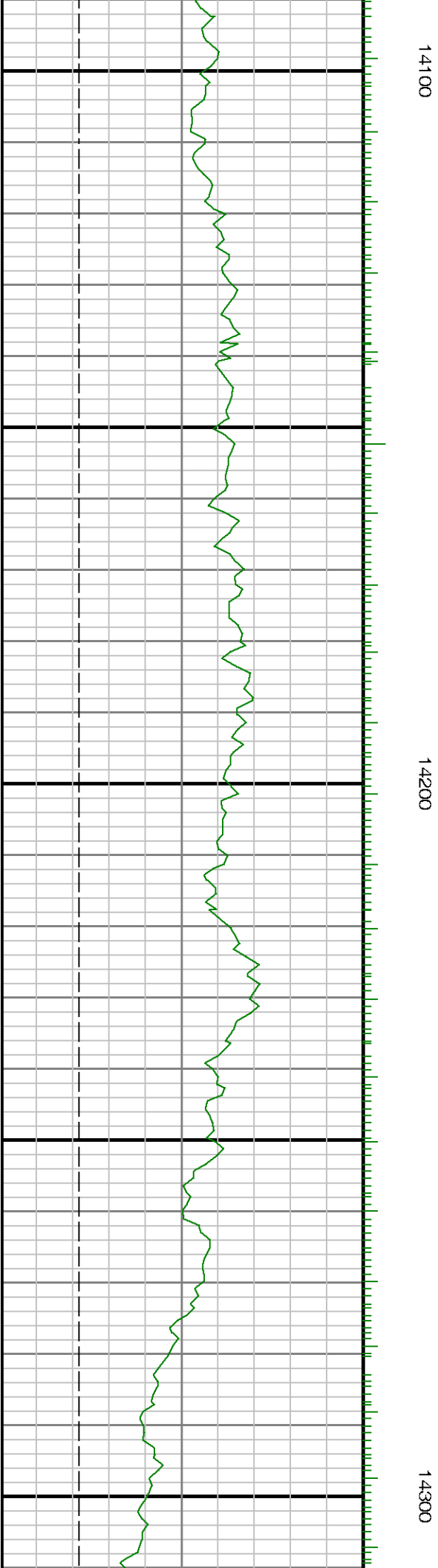
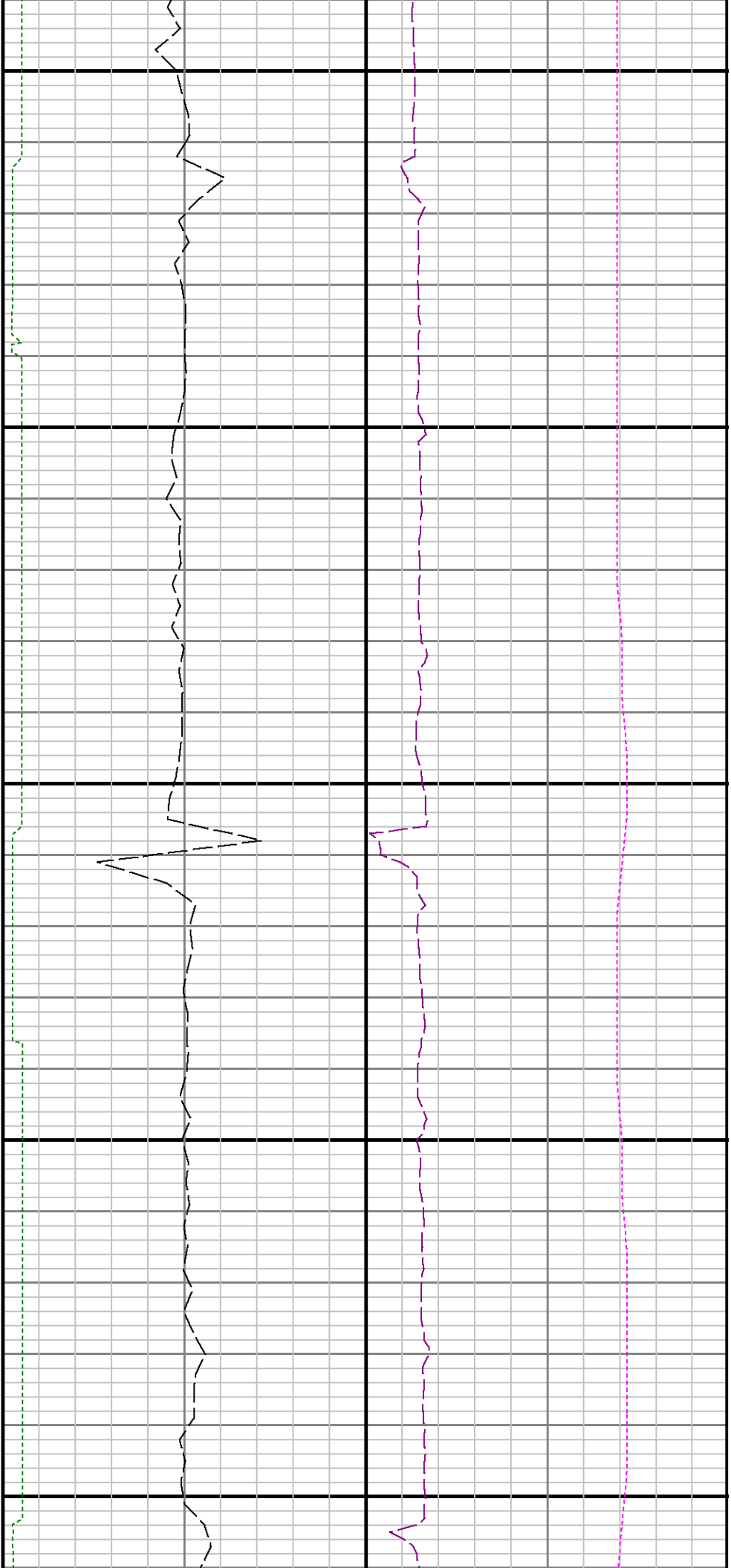
13700

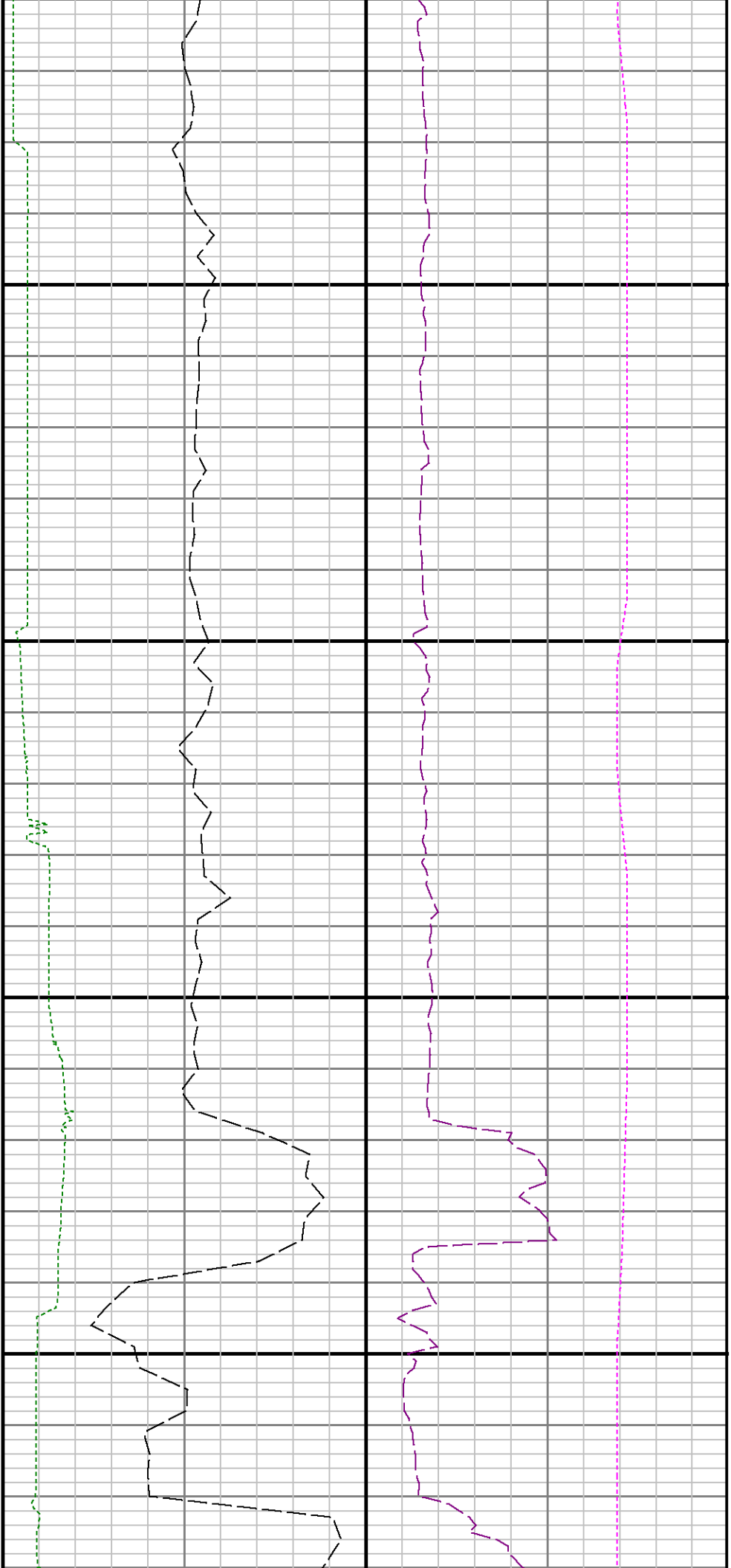
13800

Run 2 <> Run 3



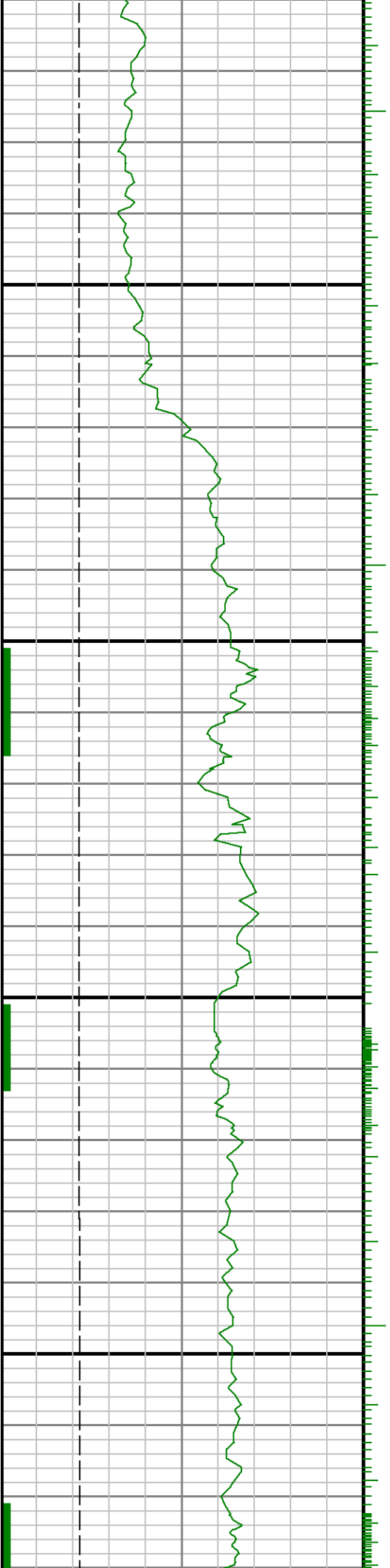






14400

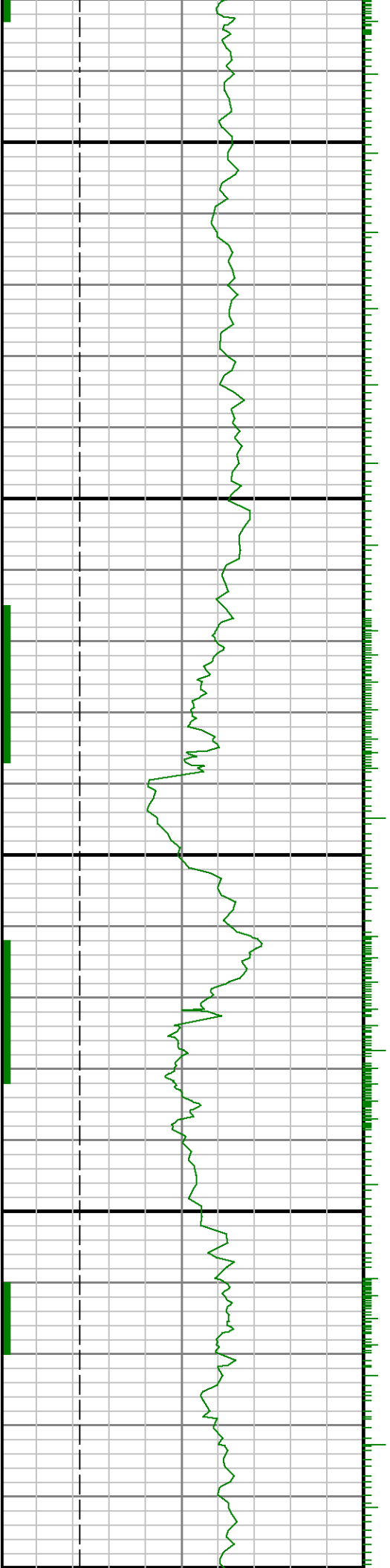
14500

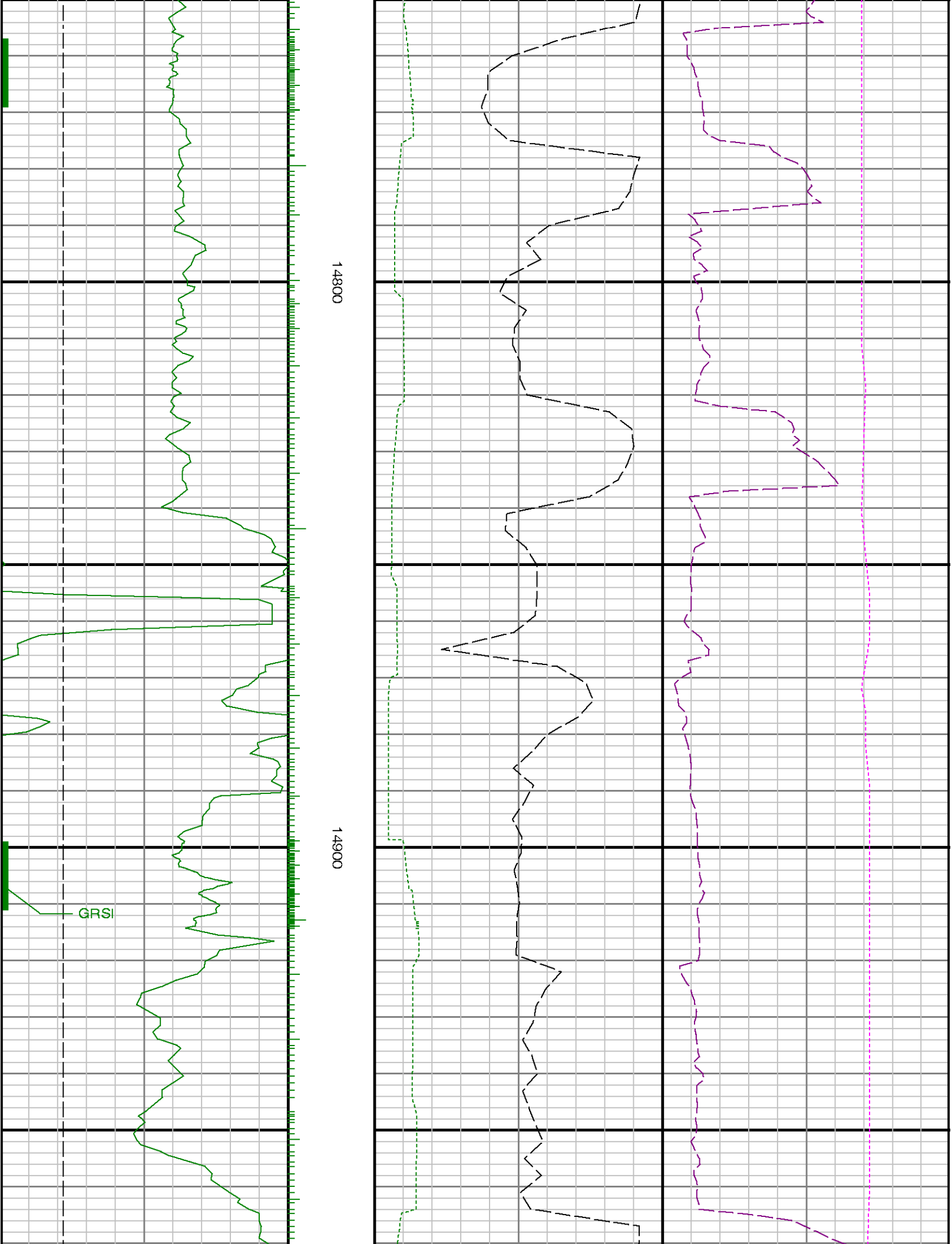


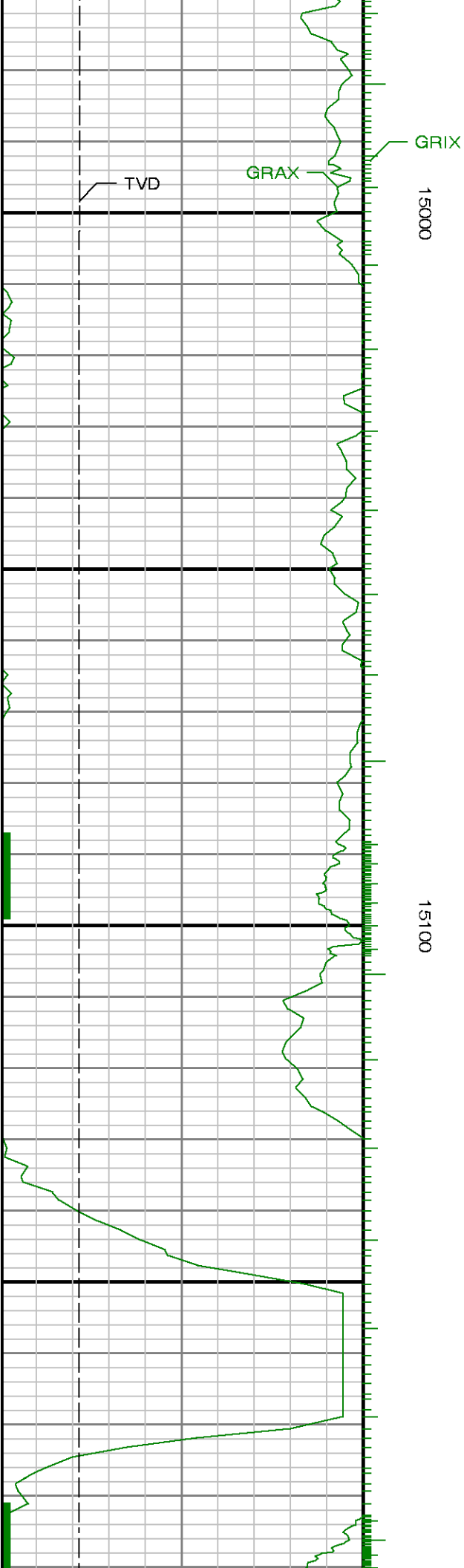


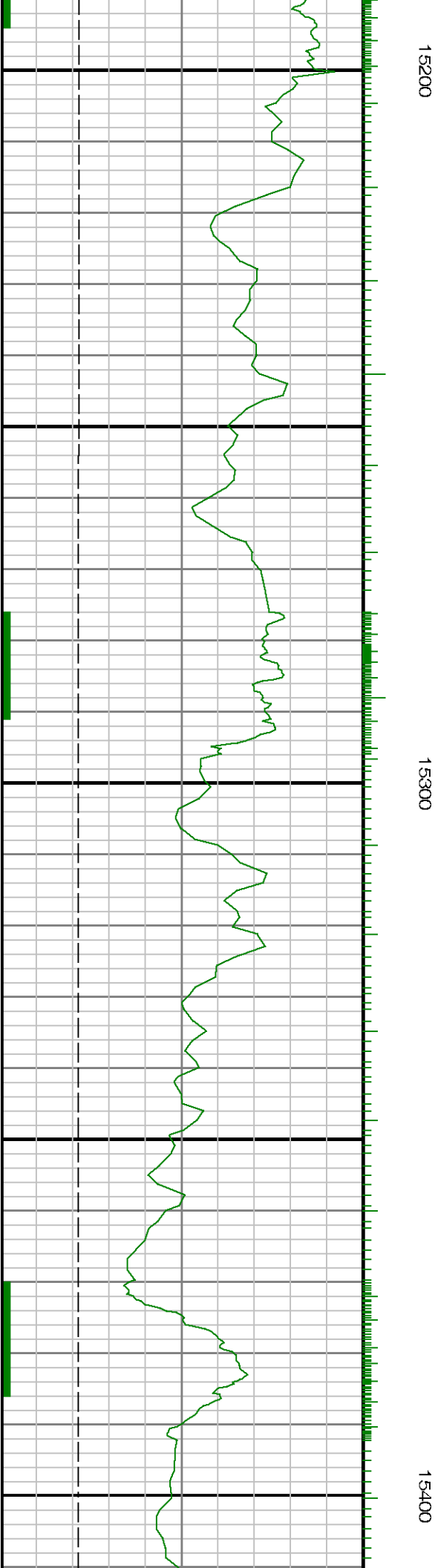
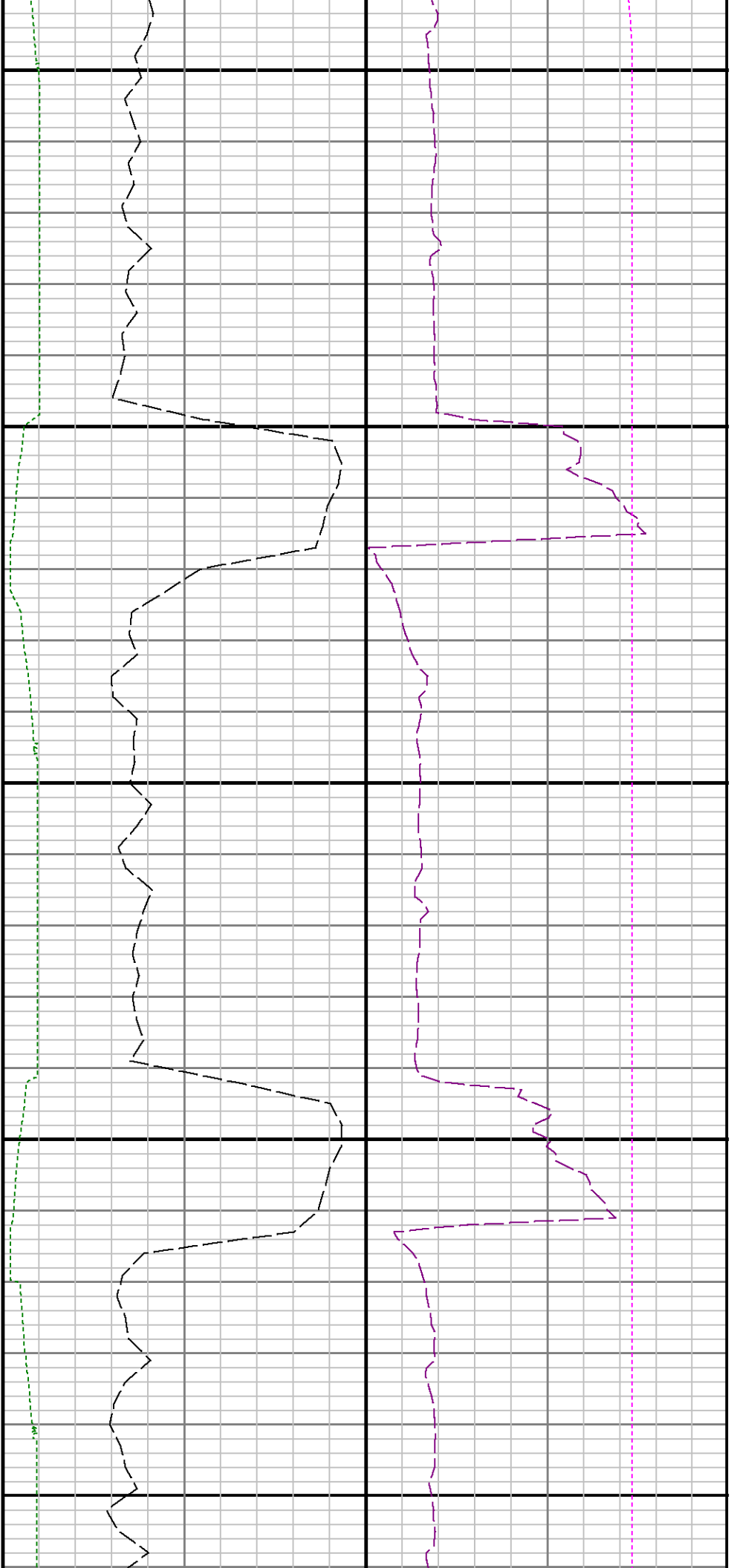
14600

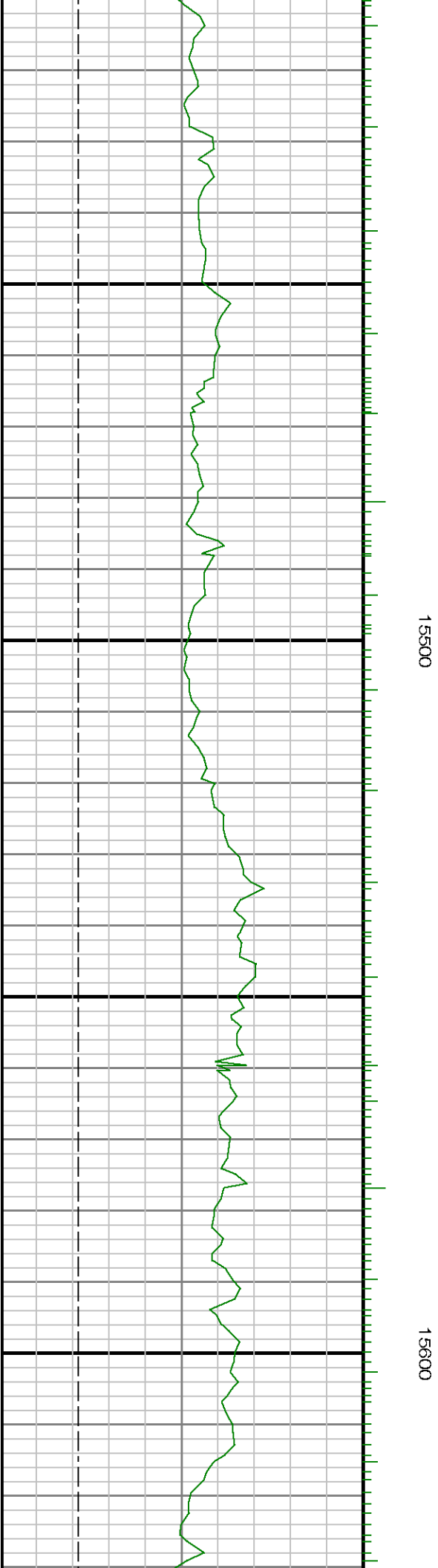
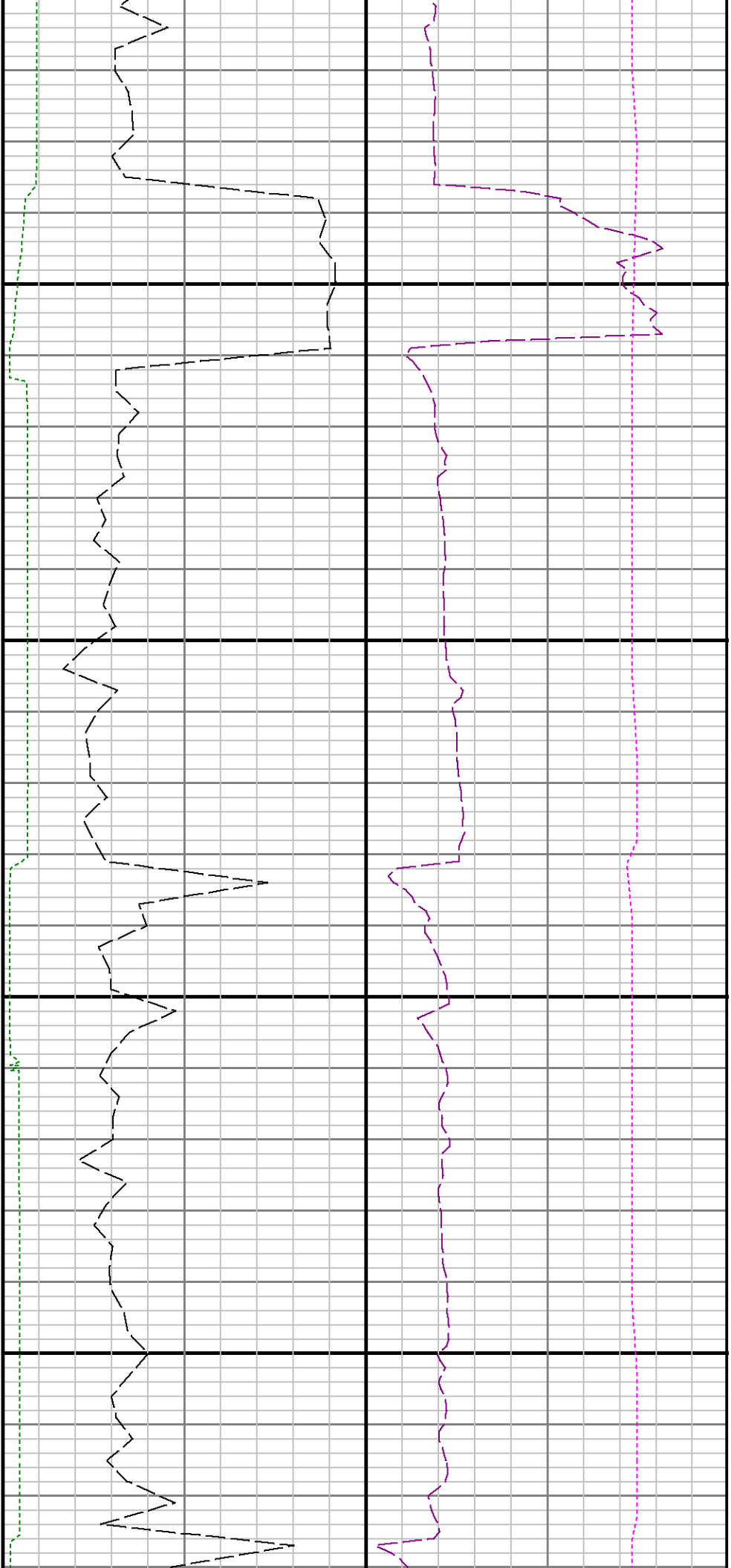
14700







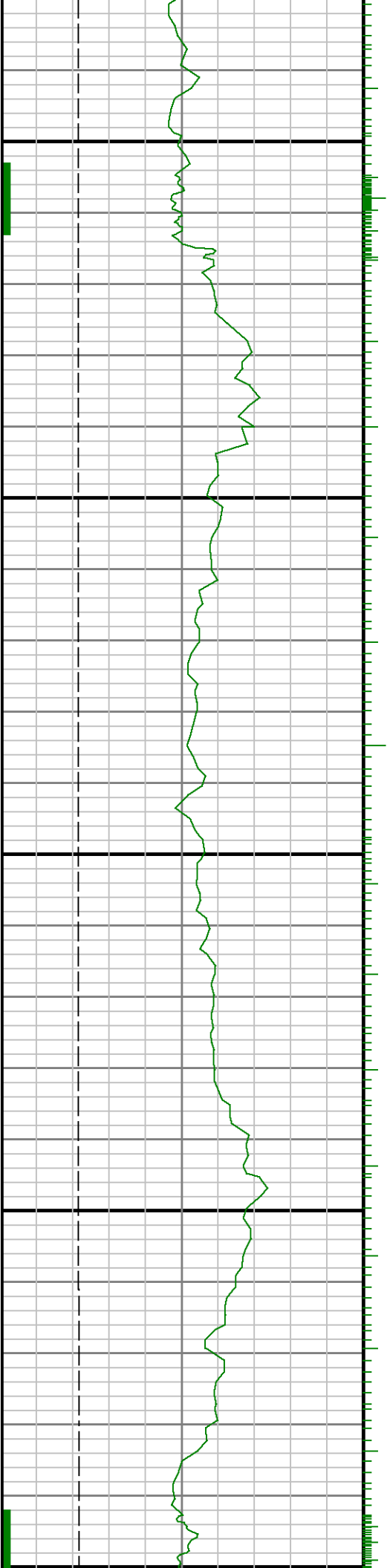


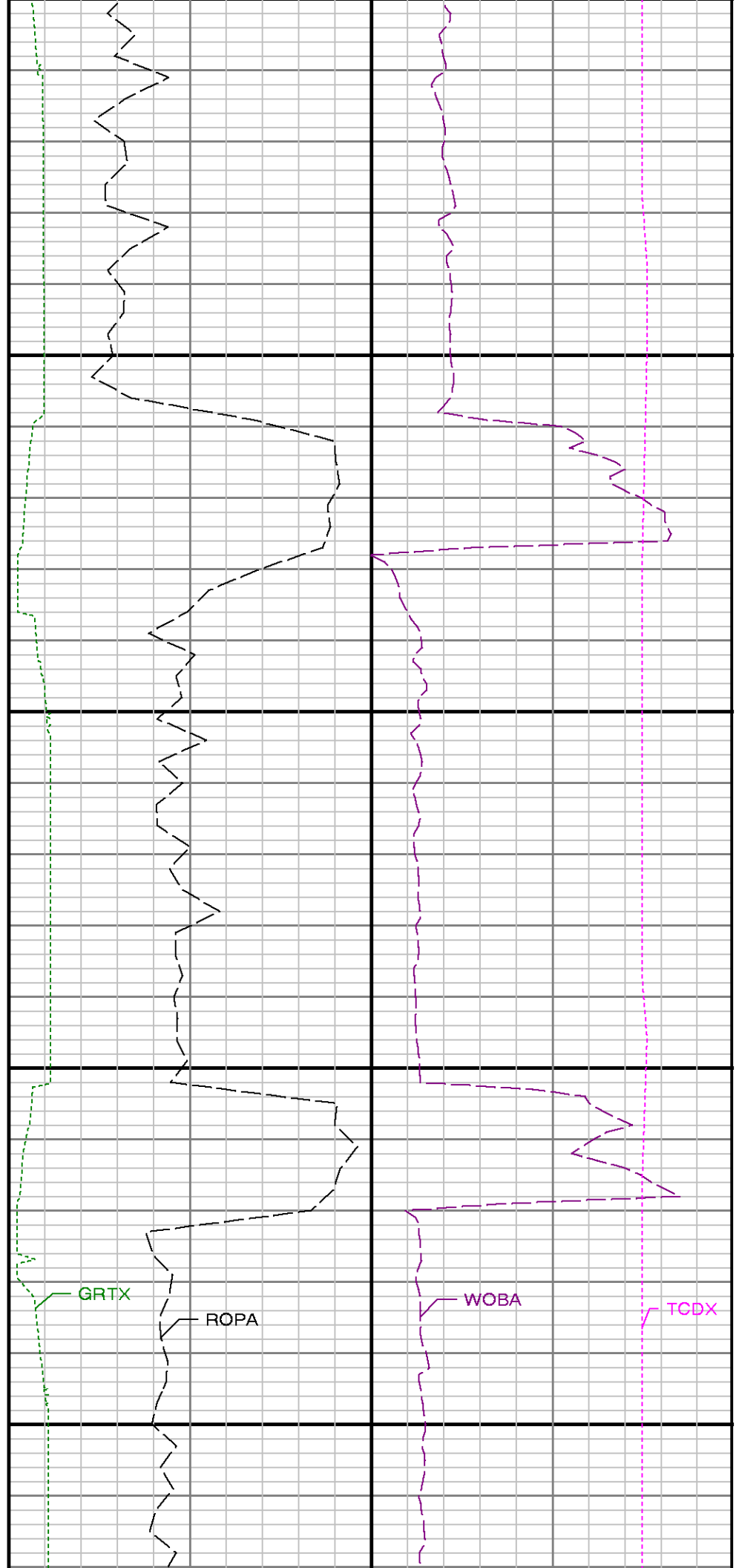
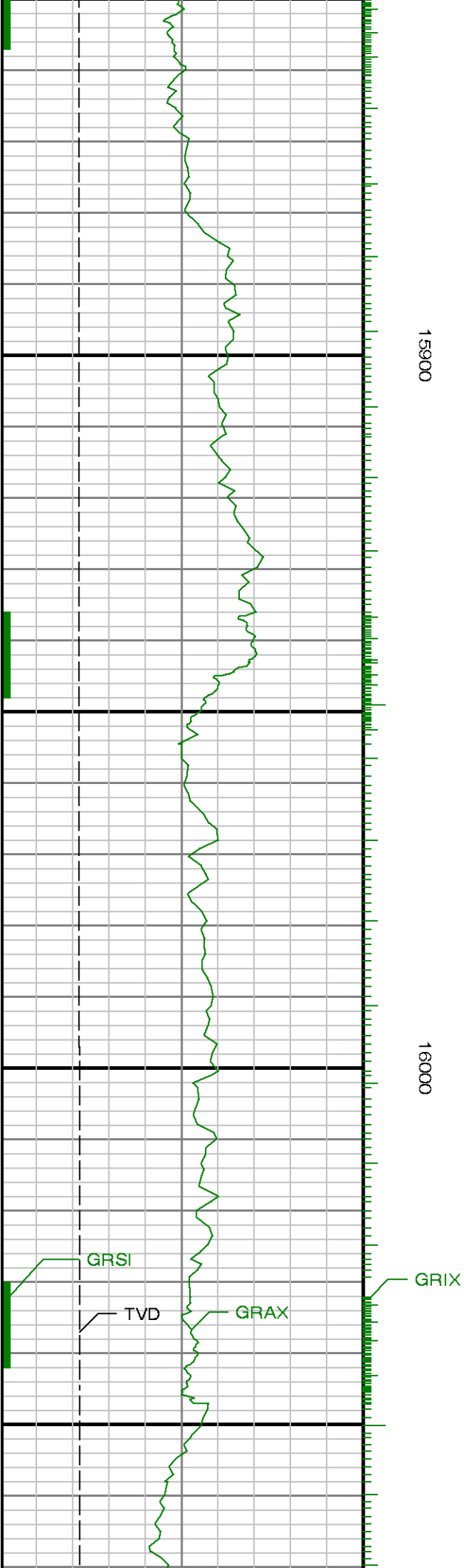


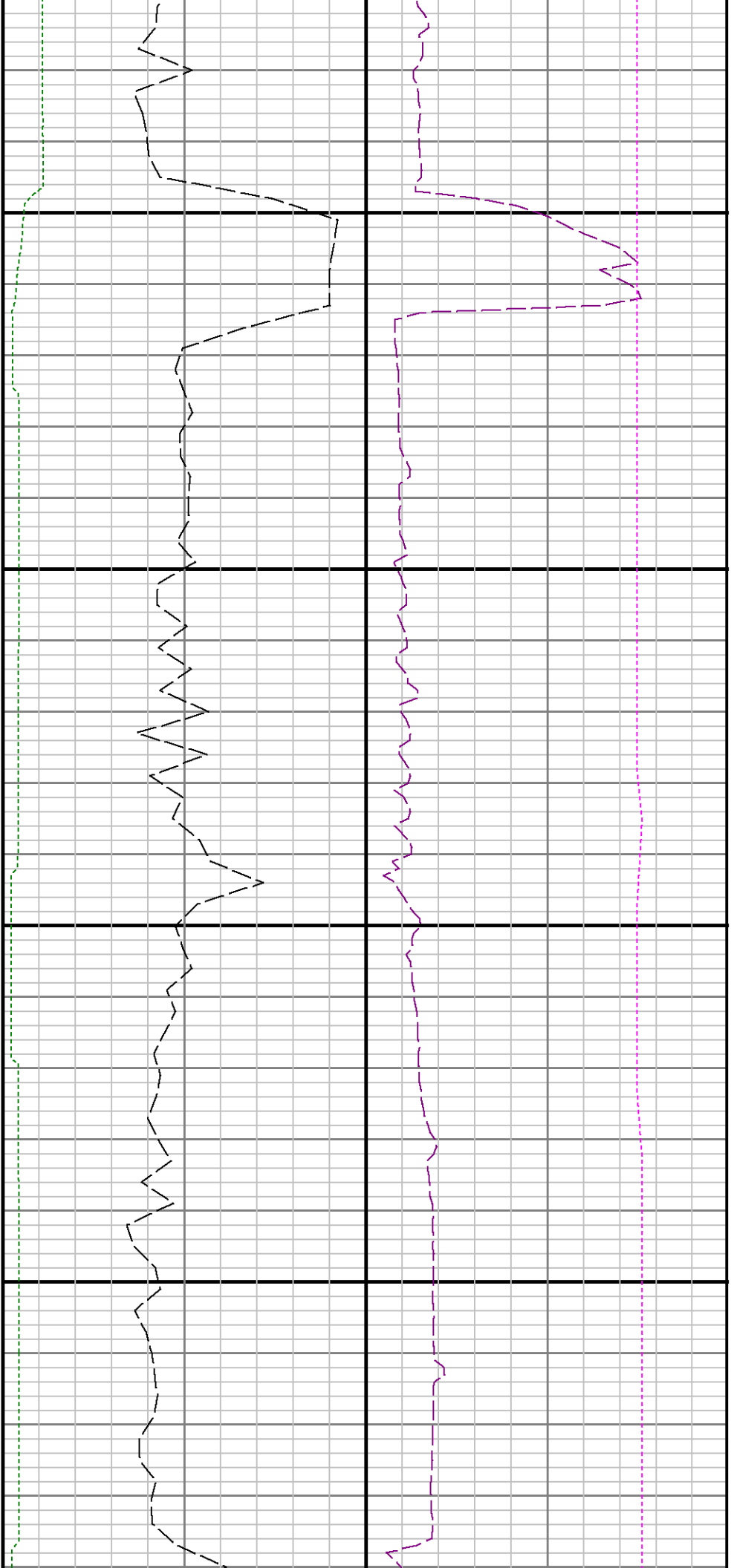


15700

15800

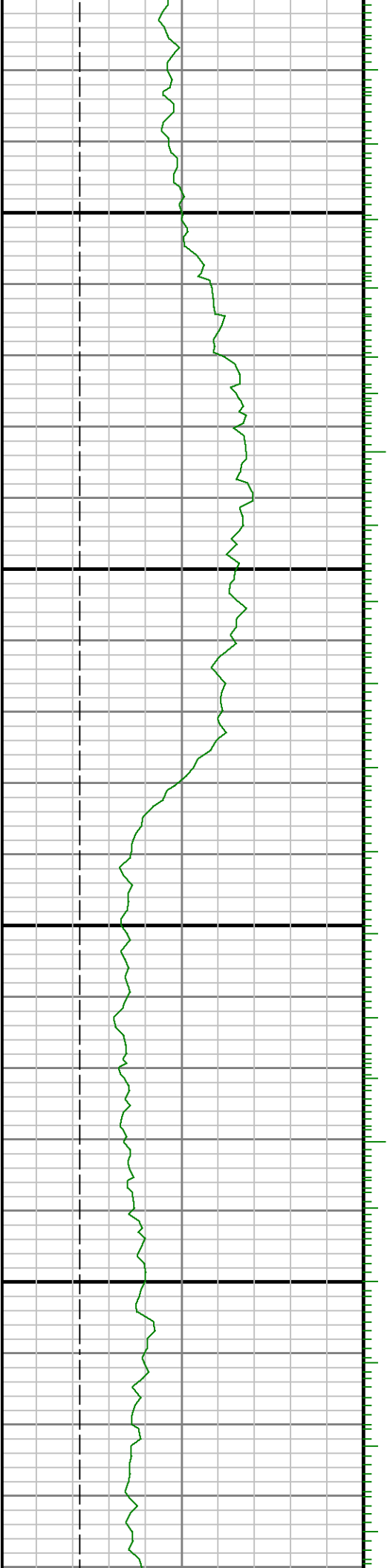


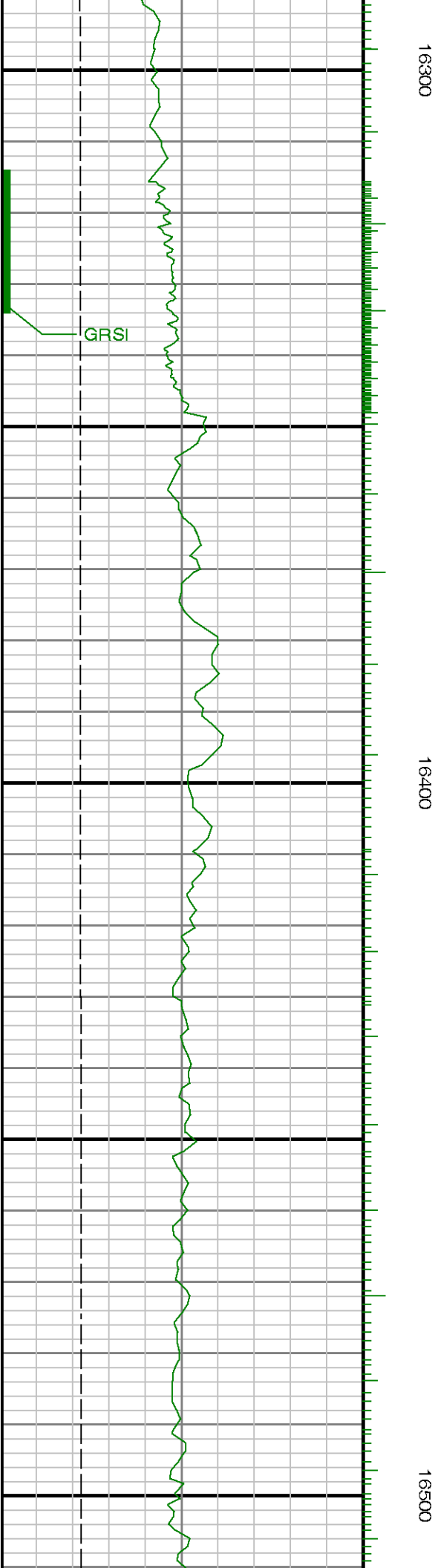
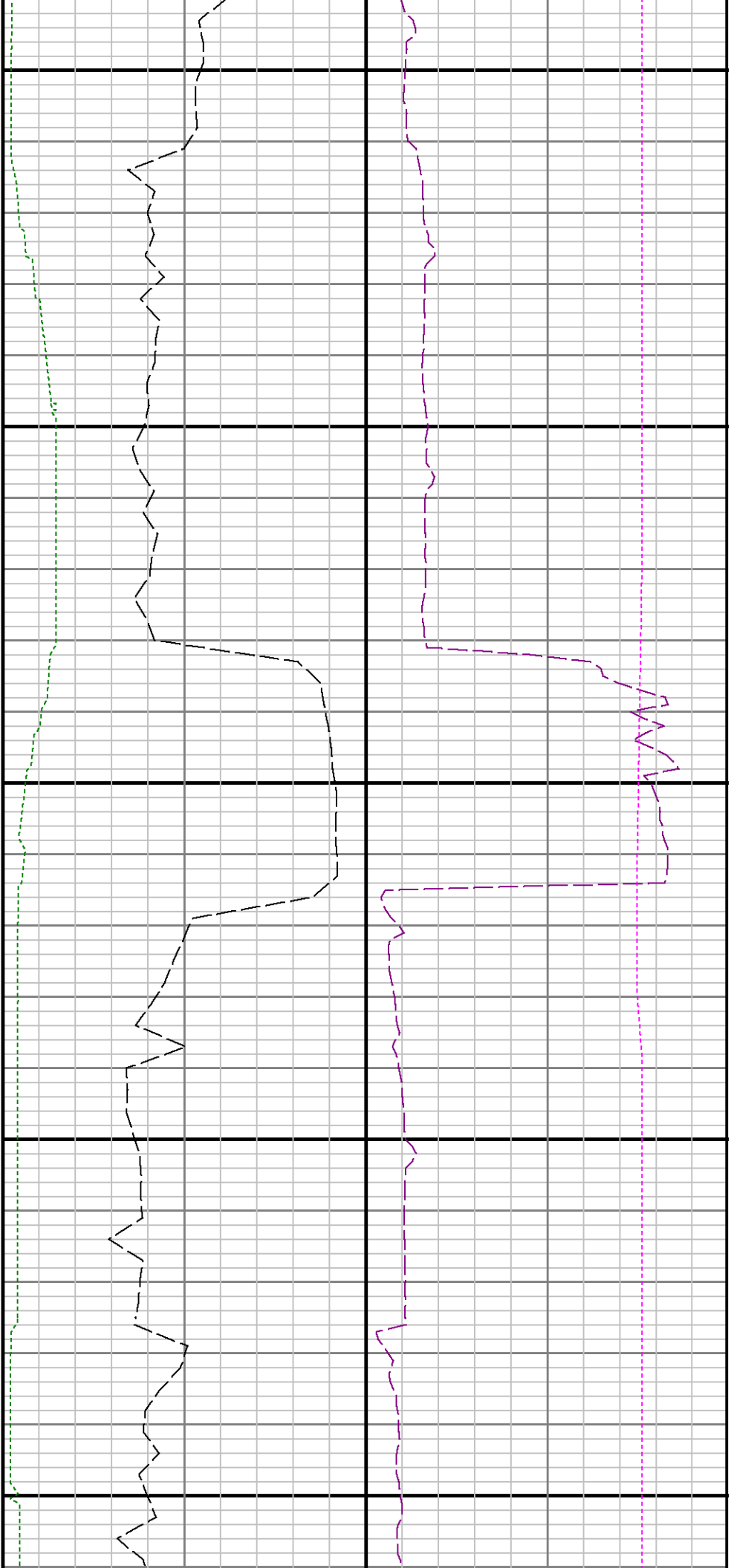


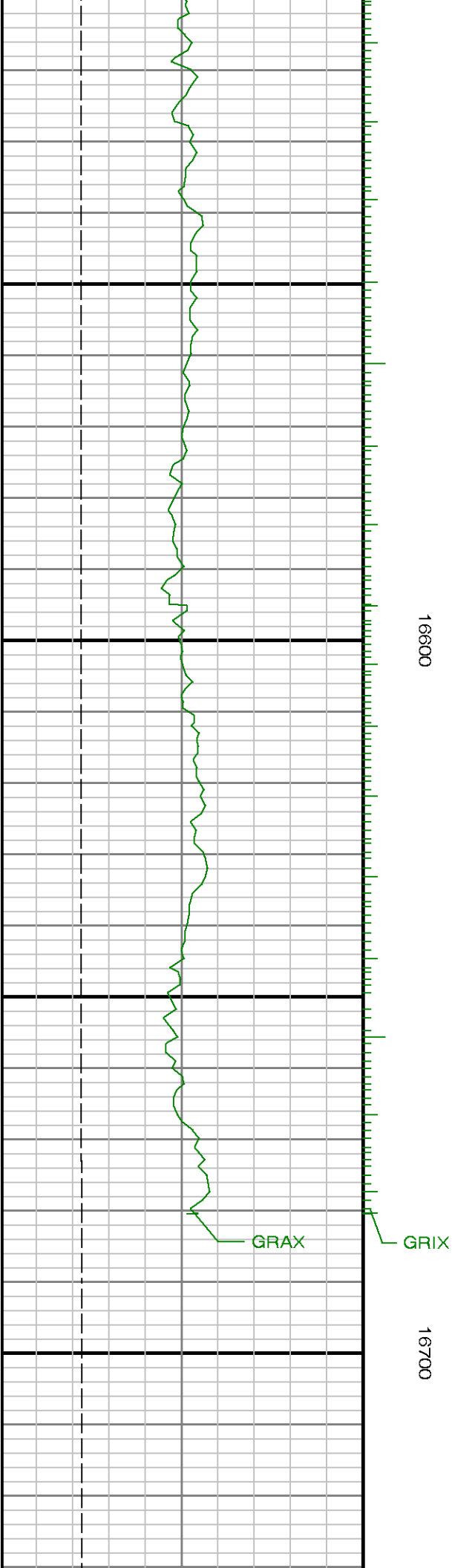




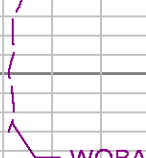
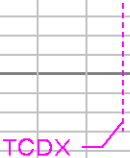
16100

16200







 TVD	 ROP	 WOB	 TCDX
Gamma Ray Apparent 0.5 ft Avg GRAX	Rate of Penetration 3.0 ft Avg ROPA	Surface Weight On Bit 1.0 ft Avg WOB	
0 200	500 0	0 100	
API	ft/hr	klbf	
True Vertical Depth TVD	Gamma Time Since Drilled GRTX	Downhole Temperature TCDX	
7300 5900	0 600	100 300	
ft	min	degF	

ADVANTAGE Final Survey Listing												
Operator : Anadarko				Field : Weld County (Kerr McGee)				API No : 05123390470000				
Well : Sekich State 39N-17HZ				Rig : H&P 307				Job : 6247830				
Wellbore : Sekich State 39N-17HZ Orig Hole												
Well Origin												
Latitude		40.2246 deg			Longitude		-104.9404 deg					
North Reference		True			Drill Depth Zero		Rig Floor					
Vertical Datum is		Mean Sea Level			Vertical Datum to DDZ		4880.00 ft					
Vertical Section North		0.00 ft			Vertical Section East		0.00 ft					
Vertical Section Azimuth		89.9900 deg			Vertical Section Depth		0.00ft					
Grid Convergence		0.0000 deg			Magnetic Declination		8.5700 deg					
Total Correction		8.5700 deg			TVD Calculation Method		Minimal Curvature					
D-Row Calculation		None			Local Magnetic Field		52595 nT					
Local Magnetic Dip Angle		66.8900 deg			Local Gravity Field		9.798 m/s^2					
Tie	MD	Incl	Azim	North	East	TVD	VS	Incr VS	Crs Len	DLS	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft
	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00				
	25.00	0.0000	156.1000	0.00	0.00	25.00	0.00	0.00	25.00	0.00	0.00	624.40
	125.00	0.1700	156.1000	-0.14	0.06	125.00	0.06	0.15	100.00	0.17	0.17	0.00
	225.00	0.5700	336.6500	0.19	-0.08	225.00	-0.08	0.50	100.00	0.74	0.40	-179.45
	325.00	0.4900	91.2900	0.63	0.15	325.00	0.15	1.00	100.00	0.89	-0.08	114.64
	425.00	0.3700	288.3300	0.72	0.27	425.00	0.27	1.15	100.00	0.85	-0.12	-162.96
	525.00	0.4300	45.6200	1.09	0.24	524.99	0.24	1.52	100.00	0.68	0.06	117.29
	625.00	0.2400	242.3200	1.25	0.32	624.99	0.32	1.70	100.00	0.66	-0.19	-163.30
	725.00	0.5700	38.1300	1.55	0.44	724.99	0.44	2.02	100.00	0.80	0.33	155.81
	825.00	0.5400	307.0500	2.22	0.37	824.99	0.37	2.70	100.00	0.79	-0.03	-91.08
	925.00	0.3600	37.0600	2.76	0.18	924.99	0.19	3.27	100.00	0.65	-0.18	90.01
	1025.00	0.7700	285.2400	3.18	-0.27	1024.98	-0.27	3.89	100.00	0.96	0.41	-111.82
	1125.00	0.3000	209.8900	3.13	-1.05	1124.98	-1.05	4.67	100.00	0.75	-0.47	-75.35
U	1139.00	0.3600	217.3800	3.07	-1.10	1138.98	-1.10	-1.10	14.00	0.53	0.43	53.50
	1312.00	0.6200	315.7000	3.31	-2.08	1311.98	-2.08	-0.09	173.00	0.44	0.15	56.83
	1406.00	1.6600	198.0400	2.37	-2.86	1405.96	-2.86	1.12	94.00	2.15	1.11	-125.17
	1501.00	3.2100	187.3600	-1.57	-3.63	1500.87	-3.63	5.14	95.00	1.69	1.63	-11.24
	1596.00	4.6200	192.1100	-7.95	-4.77	1595.65	-4.77	11.62	95.00	1.52	1.48	5.00
	1688.00	6.2500	189.3200	-16.52	-6.36	1687.23	-6.36	20.34	92.00	1.79	1.77	-3.03
	1782.00	7.9300	180.9600	-28.05	-7.29	1780.51	-7.30	31.91	94.00	2.09	1.79	-8.89
	1875.00	9.1700	177.1900	-41.87	-7.04	1872.48	-7.05	45.73	93.00	1.46	1.33	-4.05

	1968.00	10.5000	175.4800	-57.72	-6.01	1964.11	-6.02	61.61	93.00	1.46	1.43	-1.84
	2060.00	10.8000	177.1700	-74.68	-4.92	2054.53	-4.93	78.61	92.00	0.47	0.33	1.84
	2154.00	11.6700	178.5200	-92.98	-4.24	2146.72	-4.26	96.92	94.00	0.97	0.93	1.44
	2247.00	10.1200	176.9300	-110.54	-3.56	2238.05	-3.58	114.50	93.00	1.70	-1.67	-1.71
	2340.00	10.7100	178.4400	-127.34	-2.89	2329.51	-2.91	131.31	93.00	0.70	0.63	1.62
	2433.00	11.1400	182.3100	-144.96	-3.01	2420.83	-3.04	148.93	93.00	0.91	0.46	4.16
	2527.00	10.6800	180.2200	-162.74	-3.41	2513.13	-3.44	166.71	94.00	0.65	-0.49	-2.22
	2620.00	11.5500	182.1100	-180.66	-3.79	2604.38	-3.82	184.64	93.00	1.01	0.94	2.03
	2713.00	10.1300	183.8600	-198.13	-4.68	2695.72	-4.72	202.13	93.00	1.57	-1.53	1.88
	2807.00	10.2500	180.5900	-214.74	-5.33	2788.24	-5.36	218.75	94.00	0.63	0.13	-3.48
	2900.00	10.7000	179.4000	-231.65	-5.32	2879.69	-5.36	235.66	93.00	0.54	0.48	-1.28
	2994.00	8.9900	180.4400	-247.72	-5.29	2972.30	-5.33	251.73	94.00	1.83	-1.82	1.11
	3087.00	9.4800	176.8300	-262.63	-4.92	3064.10	-4.96	266.65	93.00	0.82	0.53	-3.88
	3180.00	9.6100	181.4000	-278.04	-4.68	3155.81	-4.73	282.06	93.00	0.83	0.14	4.91
	3274.00	9.8100	177.6300	-293.88	-4.54	3248.47	-4.60	297.90	94.00	0.71	0.21	-4.01
	3367.00	9.9000	173.9600	-309.75	-3.38	3340.10	-3.43	313.81	93.00	0.68	0.10	-3.95
	3462.00	9.4900	179.0300	-325.70	-2.38	3433.74	-2.44	329.79	95.00	1.00	-0.43	5.34
	3556.00	9.6200	182.2100	-341.30	-2.56	3526.44	-2.62	345.39	94.00	0.58	0.14	3.38
	3650.00	9.9000	187.8100	-357.15	-3.96	3619.08	-4.02	361.31	94.00	1.05	0.30	5.96
	3745.00	9.7200	187.4200	-373.20	-6.10	3712.69	-6.17	377.49	95.00	0.20	-0.19	-0.41
	3839.00	9.4100	188.6900	-388.66	-8.29	3805.38	-8.36	393.11	94.00	0.40	-0.33	1.35
	3934.00	8.0100	190.8900	-402.84	-10.71	3899.28	-10.78	407.50	95.00	1.51	-1.47	2.32
	4028.00	5.4500	183.4800	-413.73	-12.22	3992.63	-12.29	418.49	94.00	2.87	-2.72	-7.88
	4122.00	4.2700	177.5400	-421.68	-12.34	4086.29	-12.41	426.44	94.00	1.36	-1.26	-6.32
	4216.00	4.0000	179.3100	-428.45	-12.15	4180.05	-12.23	433.22	94.00	0.32	-0.29	1.88
	4310.00	3.1300	180.7400	-434.30	-12.15	4273.86	-12.22	439.06	94.00	0.93	-0.93	1.52
	4405.00	1.7700	188.0600	-438.34	-12.38	4368.78	-12.46	443.12	95.00	1.47	-1.43	7.71
	4499.00	0.9900	212.9700	-440.46	-13.03	4462.75	-13.11	445.33	94.00	1.03	-0.83	26.50
	4688.00	1.0600	232.1100	-442.91	-15.30	4651.72	-15.38	448.67	189.00	0.18	0.04	10.13
Tie	MD	Incl	Azim	North	East	TVD	VS	Incr VS	Crs Len	DLS	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft
	4782.00	0.3400	275.8600	-443.41	-16.26	4745.71	-16.34	449.75	94.00	0.90	-0.77	46.54
	5160.00	0.3700	287.6100	-442.93	-18.54	5123.70	-18.62	452.08	378.00	0.02	0.01	3.11
	5537.00	1.1000	210.9500	-445.66	-21.56	5500.68	-21.64	456.16	377.00	0.29	0.19	-20.33
	5632.00	0.3000	192.6500	-446.69	-22.09	5595.67	-22.16	457.31	95.00	0.86	-0.84	-19.26
	5821.00	0.7200	291.2900	-446.74	-23.30	5784.66	-23.38	458.53	189.00	0.43	0.22	52.19
	6009.00	1.0400	271.3900	-446.27	-26.11	5972.64	-26.18	461.37	188.00	0.23	0.17	-10.59
	6293.00	0.6100	287.3700	-445.76	-30.13	6256.61	-30.20	465.42	284.00	0.17	-0.15	5.63
	6387.00	0.4700	259.0900	-445.68	-30.98	6350.61	-31.06	466.28	94.00	0.32	-0.15	-30.09
	6434.00	1.7500	81.9900	-445.62	-30.46	6397.60	-30.54	466.81	47.00	4.72	2.72	-376.81
	6482.00	5.5700	86.4400	-445.37	-27.41	6445.49	-27.49	469.87	48.00	7.97	7.96	9.27
	6529.00	9.9100	92.1000	-445.38	-21.09	6492.06	-21.17	476.19	47.00	9.36	9.23	12.04
	6576.00	13.7300	92.2500	-445.74	-11.47	6538.05	-11.55	485.82	47.00	8.13	8.13	0.32
	6623.00	17.8400	92.2400	-446.24	1.30	6583.27	1.23	498.60	47.00	8.74	8.74	-0.02
	6670.00	21.8400	91.9200	-446.82	17.24	6627.47	17.16	514.55	47.00	8.51	8.51	-0.68
	6717.00	26.3100	90.7100	-447.24	36.40	6670.37	36.33	533.71	47.00	9.57	9.51	-2.57
	6764.00	30.1500	89.8700	-447.34	58.63	6711.77	58.55	555.94	47.00	8.21	8.17	-1.79
	6811.00	34.5000	88.9200	-447.07	83.75	6751.48	83.68	581.07	47.00	9.32	9.26	-2.02
	6859.00	39.4800	90.2800	-446.88	112.62	6789.81	112.55	609.94	48.00	10.51	10.38	2.83
	6953.00	52.6100	89.9700	-447.01	180.14	6854.91	180.07	677.46	94.00	13.97	13.97	-0.33
	7000.00	59.9000	89.6400	-446.87	219.20	6881.00	219.12	716.51	47.00	15.52	15.51	-0.70
	7048.00	63.9900	89.7800	-446.66	261.55	6903.57	261.47	758.86	48.00	8.52	8.52	0.29
	7095.00	64.4100	89.8000	-446.50	303.86	6924.03	303.79	801.18	47.00	0.89	0.89	0.04
	7142.00	66.2300	88.8100	-445.98	346.57	6943.65	346.49	843.88	47.00	4.32	3.87	-2.11
	7189.00	70.6900	87.8800	-444.72	390.25	6960.90	390.18	887.59	47.00	9.67	9.49	-1.98
	7236.00	75.5700	87.4300	-442.87	435.18	6974.54	435.10	932.55	47.00	10.42	10.38	-0.96
	7283.00	79.8000	87.4600	-440.83	481.04	6984.56	480.96	978.46	47.00	9.00	9.00	0.06
	7331.00	82.8700	88.0100	-438.95	528.45	6991.79	528.37	1025.91	48.00	6.50	6.40	1.15
	7362.00	85.0300	88.9500	-438.14	559.26	6995.06	559.19	1056.73	31.00	7.59	6.97	3.03
	7484.00	89.9300	89.6700	-436.67	681.10	7000.42	681.02	1178.58	122.00	4.06	4.02	0.59
	7578.00	89.8400	89.0300	-435.60	775.09	7000.61	775.02	1272.58	94.00	0.69	-0.10	-0.68
	7673.00	89.9000	88.7500	-433.76	870.07	7000.83	870.00	1367.57	95.00	0.30	0.06	-0.29
	7767.00	89.5600	88.8800	-431.82	964.05	7001.27	963.98	1461.57	94.00	0.39	-0.36	0.14

	7861.00	90.0300	88.9500	-430.04	1058.04	7001.61	1057.96	1555.57	94.00	0.51	0.50	0.07
	7956.00	89.8700	88.8900	-428.25	1153.02	7001.69	1152.94	1650.57	95.00	0.18	-0.17	-0.06
	8050.00	90.1200	88.9200	-426.45	1247.00	7001.70	1246.93	1744.57	94.00	0.27	0.27	0.03
	8144.00	90.6400	88.9700	-424.72	1340.98	7001.07	1340.91	1838.57	94.00	0.56	0.55	0.05
	8239.00	90.5200	88.8700	-422.93	1435.96	7000.11	1435.89	1933.57	95.00	0.16	-0.13	-0.11
	8333.00	90.7700	88.9300	-421.13	1529.94	6999.05	1529.86	2027.56	94.00	0.27	0.27	0.06
	8427.00	89.9000	88.4700	-418.99	1623.91	6998.50	1623.84	2121.56	94.00	1.05	-0.93	-0.49
	8522.00	90.2700	88.5600	-416.53	1718.88	6998.36	1718.81	2216.56	95.00	0.40	0.39	0.09
	8616.00	90.6400	88.5100	-414.13	1812.85	6997.62	1812.77	2310.55	94.00	0.40	0.39	-0.05
	8710.00	90.0900	88.4700	-411.65	1906.81	6997.02	1906.74	2404.55	94.00	0.59	-0.59	-0.04
	8805.00	91.4100	88.5300	-409.17	2001.77	6995.77	2001.70	2499.54	95.00	1.39	1.39	0.06
	8899.00	90.8300	89.0300	-407.16	2095.73	6993.94	2095.66	2593.52	94.00	0.81	-0.62	0.53
	8994.00	89.8700	88.7400	-405.32	2190.71	6993.36	2190.64	2688.52	95.00	1.06	-1.01	-0.31
	9088.00	89.1300	89.1900	-403.62	2284.69	6994.18	2284.62	2782.51	94.00	0.92	-0.79	0.48
	9183.00	89.5300	89.2200	-402.30	2379.67	6995.29	2379.60	2877.51	95.00	0.42	0.42	0.03
	9277.00	89.9300	89.1600	-400.97	2473.66	6995.73	2473.59	2971.51	94.00	0.43	0.43	-0.06
	9372.00	88.9500	88.9300	-399.39	2568.64	6996.66	2568.57	3066.50	95.00	1.06	-1.03	-0.24
	9466.00	89.9000	89.0500	-397.73	2662.62	6997.60	2662.55	3160.50	94.00	1.02	1.01	0.13
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
	9558.00	90.7300	88.9800	-396.15	2754.61	6997.10	2754.54	3252.49	92.00	0.91	0.90	-0.08
	9651.00	89.3800	89.3500	-394.79	2847.59	6997.01	2847.52	3345.49	93.00	1.51	-1.45	0.40
	9744.00	89.7800	89.3900	-393.77	2940.58	6997.69	2940.52	3438.49	93.00	0.43	0.43	0.04
	9838.00	90.0900	89.3500	-392.74	3034.58	6997.80	3034.51	3532.49	94.00	0.33	0.33	-0.04
	9930.00	90.8600	89.2700	-391.63	3126.57	6997.03	3126.50	3624.48	92.00	0.84	0.84	-0.09
	10023.00	90.4300	89.9700	-391.01	3219.56	6995.99	3219.49	3717.48	93.00	0.88	-0.46	0.75
	10116.00	90.1500	91.9300	-392.56	3312.54	6995.52	3312.47	3810.47	93.00	2.13	-0.30	2.11
	10209.00	90.2100	93.2200	-396.73	3405.44	6995.22	3405.38	3903.47	93.00	1.39	0.06	1.39
	10302.00	91.4700	93.1800	-401.92	3498.29	6993.86	3498.22	3996.46	93.00	1.36	1.35	-0.04
	10396.00	90.8000	93.4000	-407.32	3592.11	6992.00	3592.04	4090.44	94.00	0.75	-0.71	0.23
	10489.00	90.2700	93.3000	-412.75	3684.95	6991.13	3684.88	4183.43	93.00	0.58	-0.57	-0.11
	10582.00	90.5800	94.3200	-418.93	3777.74	6990.44	3777.67	4276.43	93.00	1.15	0.33	1.10
	10676.00	88.7900	93.5100	-425.35	3871.52	6990.96	3871.44	4370.42	94.00	2.09	-1.90	-0.86
	10769.00	89.6600	93.6400	-431.15	3964.33	6992.21	3964.25	4463.41	93.00	0.95	0.94	0.14
	10863.00	89.9000	92.9800	-436.58	4058.17	6992.58	4058.09	4557.41	94.00	0.75	0.26	-0.70
	10956.00	90.4900	93.1100	-441.52	4151.03	6992.26	4150.96	4650.41	93.00	0.65	0.63	0.14
	11049.00	90.4300	93.5700	-446.93	4243.87	6991.51	4243.80	4743.41	93.00	0.50	-0.06	0.49
	11143.00	90.5800	92.2400	-451.70	4337.75	6990.68	4337.67	4837.40	94.00	1.42	0.16	-1.41
	11236.00	90.2700	93.3700	-456.25	4430.63	6989.99	4430.55	4930.40	93.00	1.26	-0.33	1.22
	11329.00	89.6900	92.6300	-461.12	4523.50	6990.03	4523.42	5023.40	93.00	1.01	-0.62	-0.80
	11422.00	89.7200	92.6900	-465.43	4616.40	6990.51	4616.32	5116.40	93.00	0.07	0.03	0.06
	11514.00	90.0000	92.7500	-469.80	4708.30	6990.73	4708.22	5208.40	92.00	0.31	0.30	0.07
	11606.00	90.0300	93.0900	-474.48	4800.18	6990.71	4800.10	5300.40	92.00	0.37	0.03	0.37
	11698.00	89.8100	92.0700	-478.63	4892.08	6990.83	4892.00	5392.39	92.00	1.13	-0.24	-1.11
	11790.00	90.2700	92.2700	-482.11	4984.02	6990.77	4983.93	5484.39	92.00	0.55	0.50	0.22
	11882.00	89.2900	91.9900	-485.53	5075.95	6991.12	5075.87	5576.39	92.00	1.11	-1.07	-0.30
	11974.00	89.9000	92.4100	-489.06	5167.88	6991.77	5167.80	5668.39	92.00	0.81	0.66	0.46
	12066.00	90.5800	92.6500	-493.12	5259.79	6991.39	5259.70	5760.39	92.00	0.78	0.74	0.26
	12157.00	89.5900	92.6700	-497.34	5350.69	6991.25	5350.60	5851.39	91.00	1.09	-1.09	0.02
	12249.00	90.2400	92.9100	-501.82	5442.58	6991.39	5442.49	5943.39	92.00	0.75	0.71	0.26
	12344.00	89.2600	92.9100	-506.64	5537.46	6991.80	5537.37	6038.38	95.00	1.03	-1.03	0.00
	12438.00	90.0300	93.1500	-511.61	5631.32	6992.39	5631.23	6132.38	94.00	0.86	0.82	0.26
	12532.00	89.0100	93.1700	-516.79	5725.17	6993.17	5725.08	6226.38	94.00	1.09	-1.09	0.02
	12627.00	89.1600	92.6500	-521.62	5820.04	6994.69	5819.95	6321.36	95.00	0.57	0.16	-0.55
	12721.00	89.7500	92.6300	-525.95	5913.94	6995.59	5913.84	6415.36	94.00	0.63	0.63	-0.02
	12816.00	89.9300	92.3500	-530.07	6008.85	6995.85	6008.75	6510.36	95.00	0.35	0.19	-0.29
	12910.00	91.3500	93.2300	-534.65	6102.72	6994.80	6102.63	6604.35	94.00	1.78	1.51	0.94
	13004.00	89.2600	92.7300	-539.53	6196.59	6994.30	6196.50	6698.34	94.00	2.29	-2.22	-0.53
	13099.00	89.2200	92.9900	-544.27	6291.46	6995.56	6291.37	6793.33	95.00	0.28	-0.04	0.27
	13193.00	89.9300	93.1300	-549.29	6385.33	6996.26	6385.23	6887.33	94.00	0.77	0.76	0.15
	13287.00	90.5500	93.6900	-554.88	6479.16	6995.86	6479.06	6981.33	94.00	0.89	0.66	0.60
	13382.00	90.1800	93.0600	-560.48	6573.99	6995.26	6573.89	7076.33	95.00	0.77	-0.39	-0.66
	13476.00	90.3600	91.9600	-564.59	6667.90	6994.82	6667.80	7170.32	94.00	1.19	0.19	-1.17

13570.00	90.8600	90.6300	-566.72	6761.87	6993.81	6761.77	7264.32	94.00	1.51	0.53	-1.41	
13665.00	90.3300	89.8700	-567.13	6856.86	6992.83	6856.76	7359.31	95.00	0.98	-0.56	-0.80	
13759.00	88.9500	89.0500	-566.25	6950.85	6993.42	6950.75	7453.31	94.00	1.71	-1.47	-0.87	
13853.00	88.7900	88.0900	-563.90	7044.80	6995.27	7044.70	7547.29	94.00	1.04	-0.17	-1.02	
13948.00	88.9200	86.7400	-559.62	7139.68	6997.17	7139.59	7642.27	95.00	1.43	0.14	-1.42	
14042.00	88.9200	85.7400	-553.45	7233.46	6998.94	7233.37	7736.25	94.00	1.06	0.00	-1.06	
14137.00	89.1900	85.6900	-546.36	7328.19	7000.51	7328.09	7831.23	95.00	0.29	0.28	-0.05	
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
	14231.00	89.3500	84.9500	-538.69	7421.86	7001.71	7421.77	7925.23	94.00	0.81	0.17	-0.79
	14325.00	90.4000	86.0400	-531.30	7515.57	7001.91	7515.48	8019.22	94.00	1.61	1.12	1.16
	14420.00	91.2900	86.3800	-525.03	7610.35	7000.51	7610.26	8114.21	95.00	1.00	0.94	0.36
	14514.00	90.3300	86.2400	-518.98	7704.15	6999.18	7704.06	8208.20	94.00	1.03	-1.02	-0.15
	14608.00	90.0900	86.7000	-513.19	7797.97	6998.84	7797.88	8302.20	94.00	0.55	-0.26	0.49
	14703.00	90.5500	85.1900	-506.47	7892.72	6998.31	7892.64	8397.20	95.00	1.66	0.48	-1.59
	14797.00	89.4700	83.9400	-497.57	7986.30	6998.29	7986.21	8491.19	94.00	1.76	-1.15	-1.33
	14844.00	89.4400	83.4800	-492.42	8033.01	6998.74	8032.93	8538.19	47.00	0.98	-0.06	-0.98
	14892.00	90.1200	83.6100	-487.02	8080.71	6998.92	8080.62	8586.19	48.00	1.44	1.42	0.27
	14986.00	89.4100	82.8700	-475.96	8174.05	6999.31	8173.97	8680.19	94.00	1.09	-0.76	-0.79
	15080.00	89.5000	83.1400	-464.51	8267.35	7000.20	8267.27	8774.18	94.00	0.30	0.10	0.29
	15174.00	89.2600	84.6400	-454.51	8360.81	7001.22	8360.73	8868.18	94.00	1.62	-0.26	1.60
	15269.00	89.2200	86.1000	-446.84	8455.49	7002.48	8455.41	8963.16	95.00	1.54	-0.04	1.54
	15363.00	89.5300	87.3000	-441.43	8549.32	7003.50	8549.25	9057.16	94.00	1.32	0.33	1.28
	15457.00	89.6900	88.6800	-438.13	8643.26	7004.14	8643.18	9151.15	94.00	1.48	0.17	1.47
	15552.00	90.0600	89.0900	-436.28	8738.24	7004.35	8738.17	9246.15	95.00	0.58	0.39	0.43
	15646.00	90.1800	89.1300	-434.82	8832.23	7004.16	8832.15	9340.15	94.00	0.13	0.13	0.04
	15740.00	90.6700	90.4500	-434.48	8926.22	7003.46	8926.15	9434.15	94.00	1.50	0.52	1.40
	15835.00	91.4400	90.8600	-435.56	9021.20	7001.71	9021.12	9529.13	95.00	0.92	0.81	0.43
	15929.00	90.6100	90.9900	-437.08	9115.17	7000.03	9115.10	9623.11	94.00	0.89	-0.88	0.14
	16023.00	90.2100	91.1900	-438.87	9209.15	6999.35	9209.08	9717.11	94.00	0.48	-0.43	0.21
	16118.00	90.1800	90.8700	-440.58	9304.14	6999.03	9304.06	9812.11	95.00	0.34	-0.03	-0.34
	16212.00	90.7700	91.3800	-442.42	9398.12	6998.25	9398.04	9906.11	94.00	0.83	0.63	0.54
	16307.00	91.6300	91.8200	-445.07	9493.06	6996.26	9492.98	10001.08	95.00	1.02	0.91	0.46
	16401.00	90.8300	91.0700	-447.44	9587.00	6994.24	9586.93	10095.06	94.00	1.17	-0.85	-0.80
	16496.00	90.4900	90.4600	-448.71	9681.99	6993.15	9681.91	10190.05	95.00	0.74	-0.36	-0.64
	16590.00	90.3700	90.0500	-449.13	9775.98	6992.44	9775.91	10284.05	94.00	0.45	-0.13	-0.44
	16673.00	91.6000	90.4900	-449.52	9858.97	6991.02	9858.89	10367.04	83.00	1.57	1.48	0.53
Projection to TD:												
	16745.00	91.6000	90.4900	-450.14	9930.94	6989.01	9930.86	10439.01	72.00	0.00	0.00	0.00