


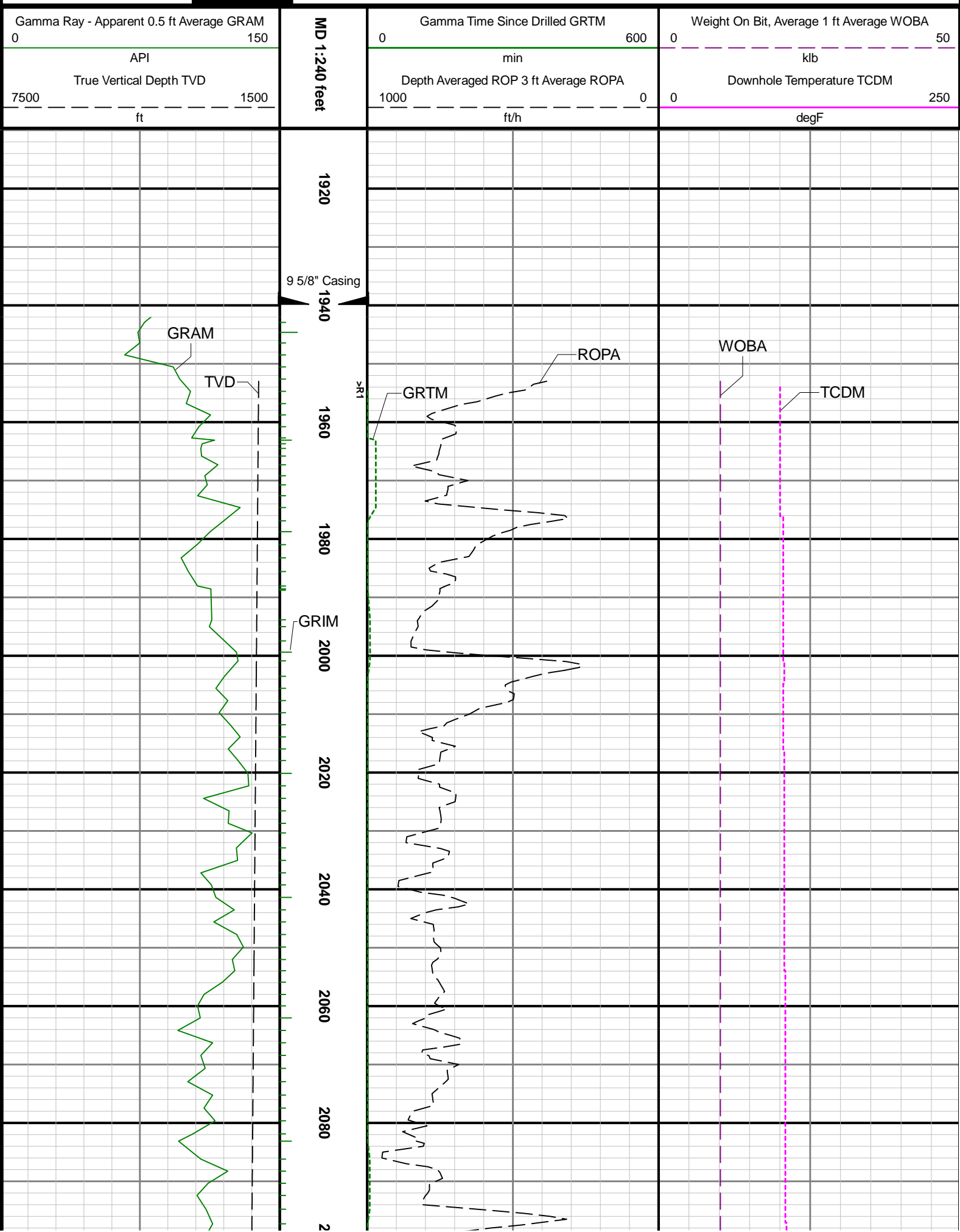
BAKER HUGHES				LWD MEMORY LOG - RUN 1							
Gamma Ray											
Scale:		Company: Noble Energy									
1:240 MD		Well: RILEY LD19-738									
Depth Reference:		Field: Weld County									
Driller's Depth		County: Weld County		State: United States							
Status: Final Print		Surface Location:		Other Services:							
API No: 0512343481		Latitude:		Drilling Dynamics							
Job ID: 8132077		Longitude:									
		UTM: N/A									
		SEC: 19		TWN: 9N		RGE: 58W					
Permanent Datum (P.D.): Mean Sea Level		Elevation: 0.00 ft		KB: N/A							
Log Measured From: Rig Floor		Above P.D. 4850.00 ft		D.F: 4850.00 ft							
				GL: 4820.00 ft							
Dates				Interval Logged				Magnetic Field Reference			
Date From: 2016-10-24		Top: (ft) 1942.00		Azi Reference North:		Grid		Dip Angle: (deg)		67.18	
Date To: 2016-10-25		Bottom: (ft) 10952.00		Total Magnetic Field Strength: (nT)						52636	
Spud Date: 2016-10-23				Mag to Reference North Correction: (deg)						6.64 E	
Borehole Record				Casing Record							
Hole Size (in)		From (ft)		To (ft)		Size (in)		Weight (lb/ft)		From (ft)	
8.500		1953.00		10950.00		9.625		36.00		30.00	

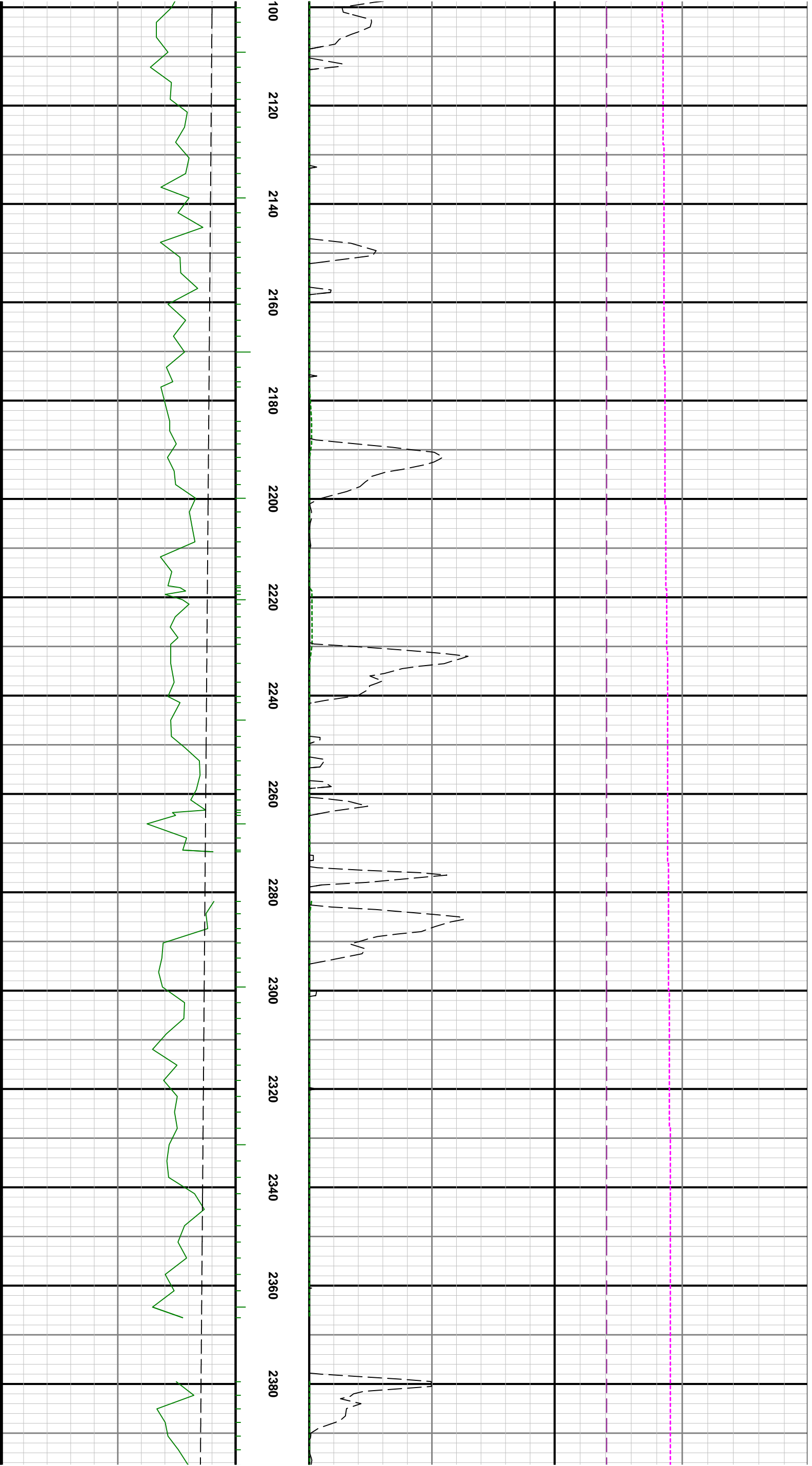
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

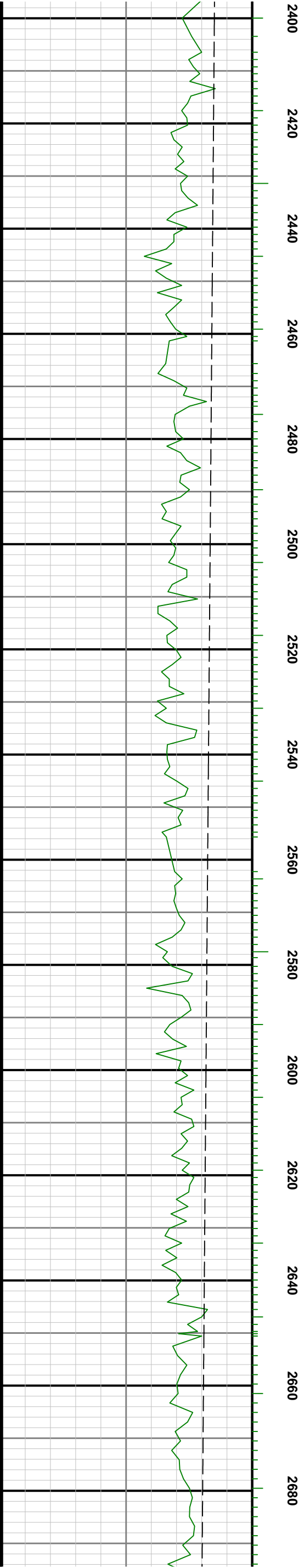
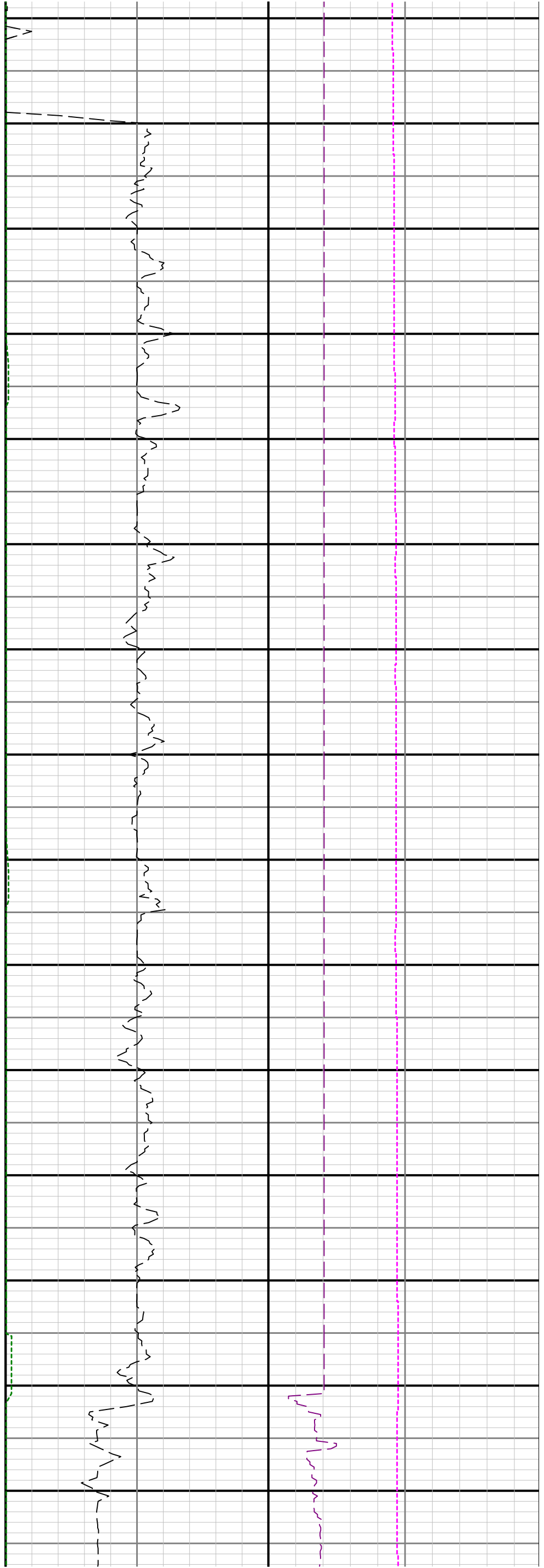
Comments
1 Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
2 Baker Hughes LWD Run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1953 to 10950 feet MD (1952 to 5891 feet TVD).

Remarks				
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	10900.16	8.500	1	The interval from 10937 to 10950 feet MD (5892 to 5891 feet TVD) has no gamma ray data due to sensor to bit offset.

	Company	Noble Energy			
	Well	RILEY LD19-738			
	Interval	Date From:	2016-10-24 00:31:59	Top:	1942.00
		Date To:	2016-10-25 12:19:18	Bottom:	10952.00
	Created	2016-10-25 18:40			

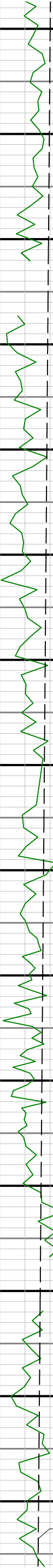
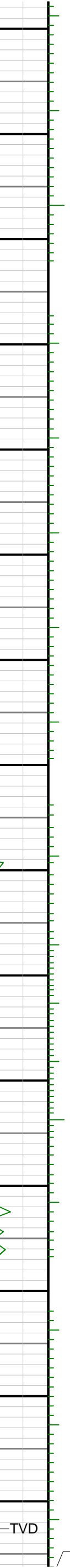






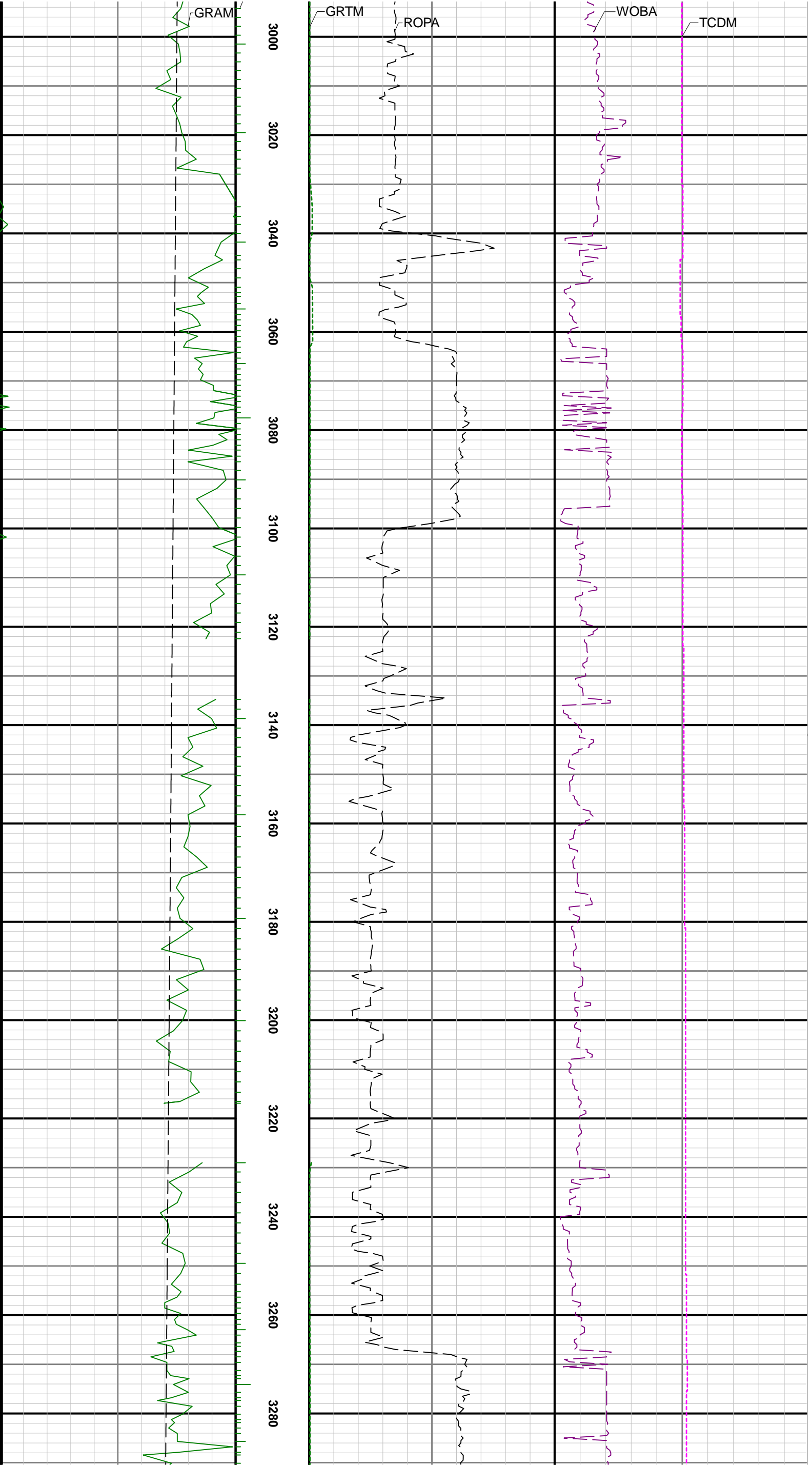


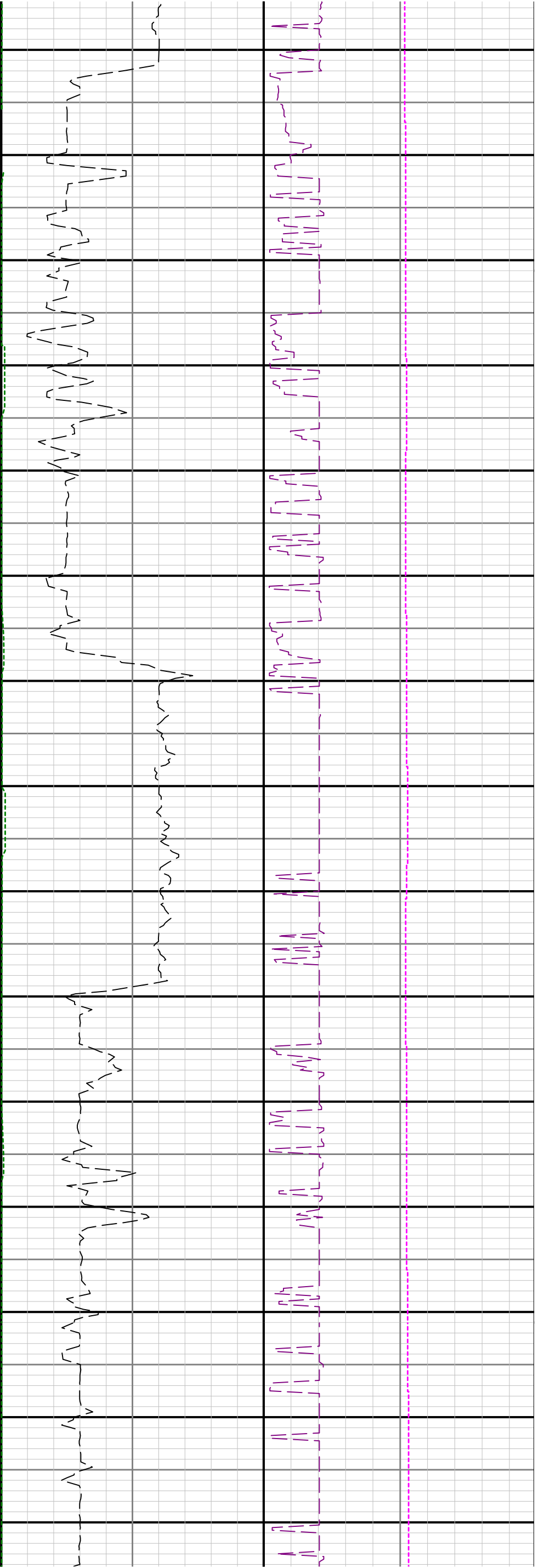
GRIM



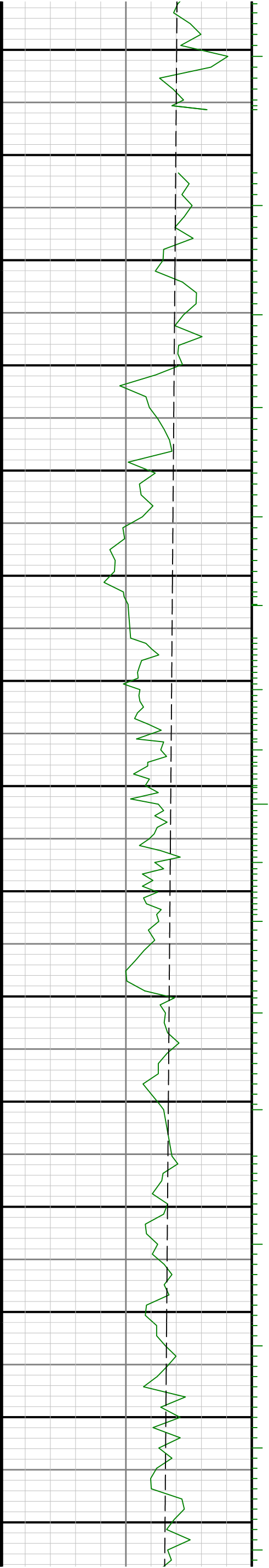
TVD

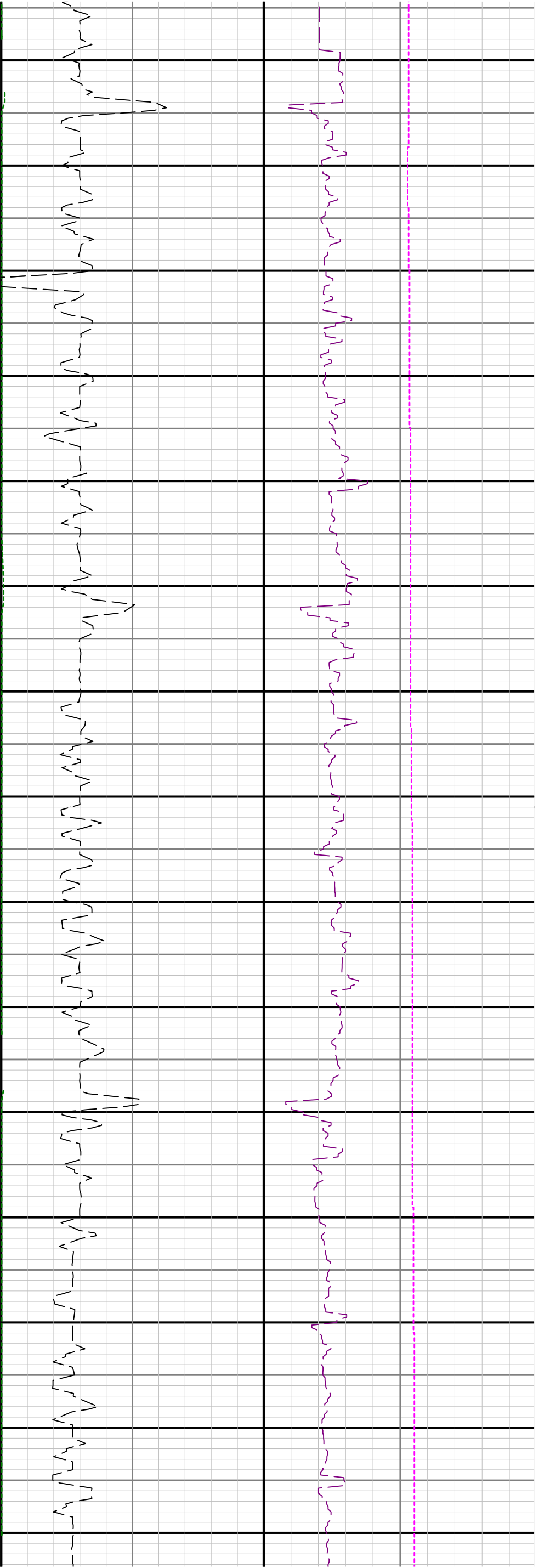
2700 2720 2740 2760 2780 2800 2820 2840 2860 2880 2900 2920 2940 2960 2980





3300 3320 3340 3360 3380 3400 3420 3440 3460 3480 3500 3520 3540 3560 3580





3600 3620 3640 3660 3680 3700 3720 3740 3760 3780 3800 3820 3840 3860 3880

