



Pulsed Neutron
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC		Well Federal RU 323-17		Field Rulison		County Garfield		State Colorado							
Location:		API # : 05-045-23737		Other Services											
SEC 17 TWP 7S RGE 93W		Ground Level		Elevation		8365.6'									
Log Measured From		Kelly Bushing		24 FT											
Drilling Measured From		Kelly Bushing													
Date		11-APR-2018													
Run Number		One													
Depth Driller		10403 FT													
Depth Logger		10325 FT													
Bottom Logged Interval		10323 FT													
Top Log Interval		6235 FT													
Open Hole Size		8.750"													
Type Fluid		Water													
Density / Viscosity		8.34 lb/gal													
Max. Recorded Temp.		---													
Estimated Cement Top		---													
Time Well Ready		ROA													
Time Logger on Bottom		23:15													
Equipment Number		HD-0359													
Location		Grand Junction, CO													
Recorded By		Z. Fisher													
Witnessed By		D. Welsh													
Borehole Record		Bit		From		To		Size		Weight		From		To	
Casing Record		Size (in)		Wgt (lbs/ft)		Grade		Top		Bottom					
Surface Casing		9 5/8		32.3		H-40		Surface		1107 FT					
Intermediate #1		4 1/2		11.6		P-110		Surface		10363 FT					
Intermediate #2															
Inner															

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

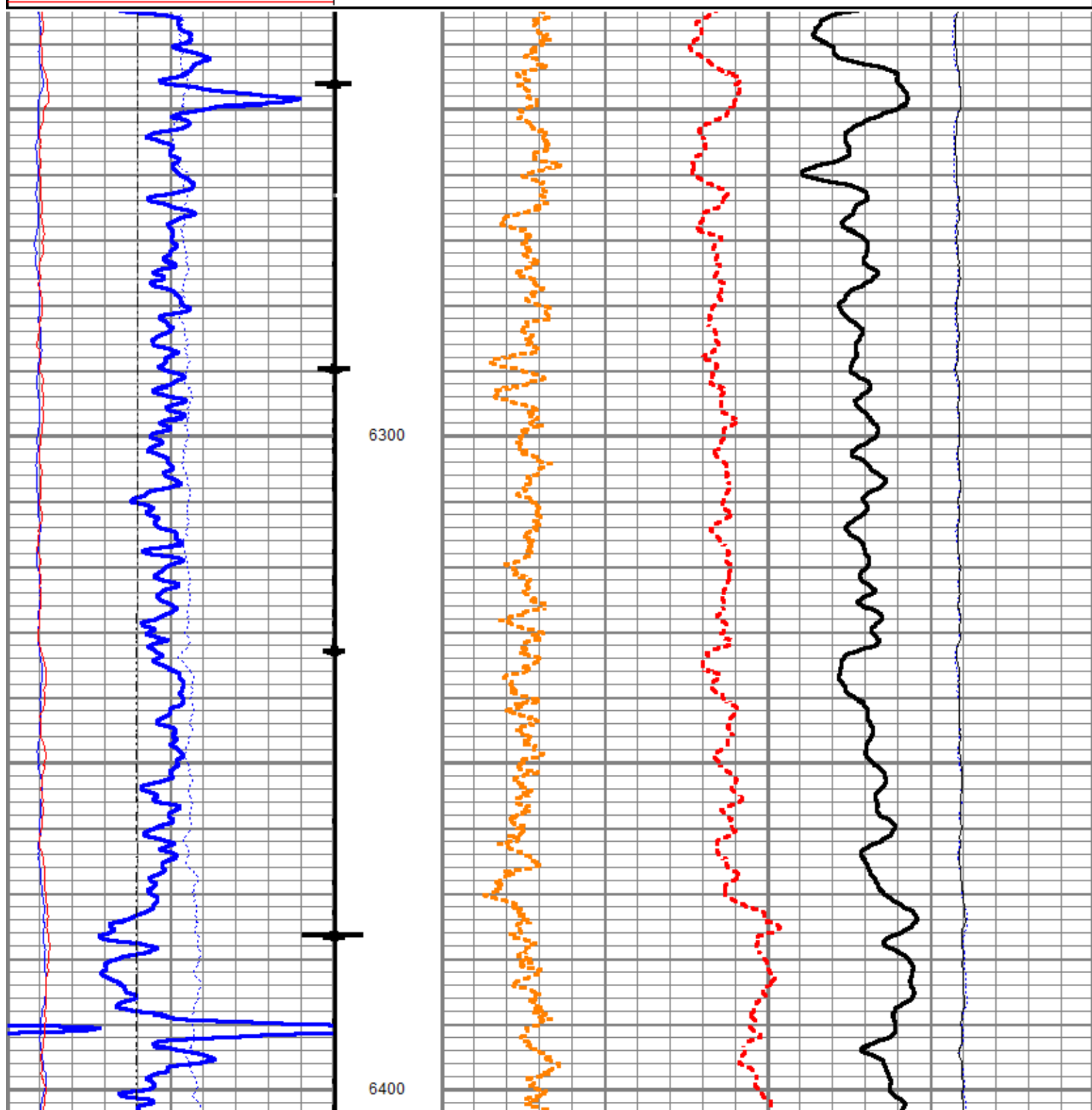
Log ran as per customer request
Depth referenced to Reliance Bond Log dated 11-APR-2018
Log ran from 10325 FT to 6235 FT
Pulsed Neutron Data logged with the Hunter RAS Tool
Thank you for choosing Reliance Oilfield Services, LLC!

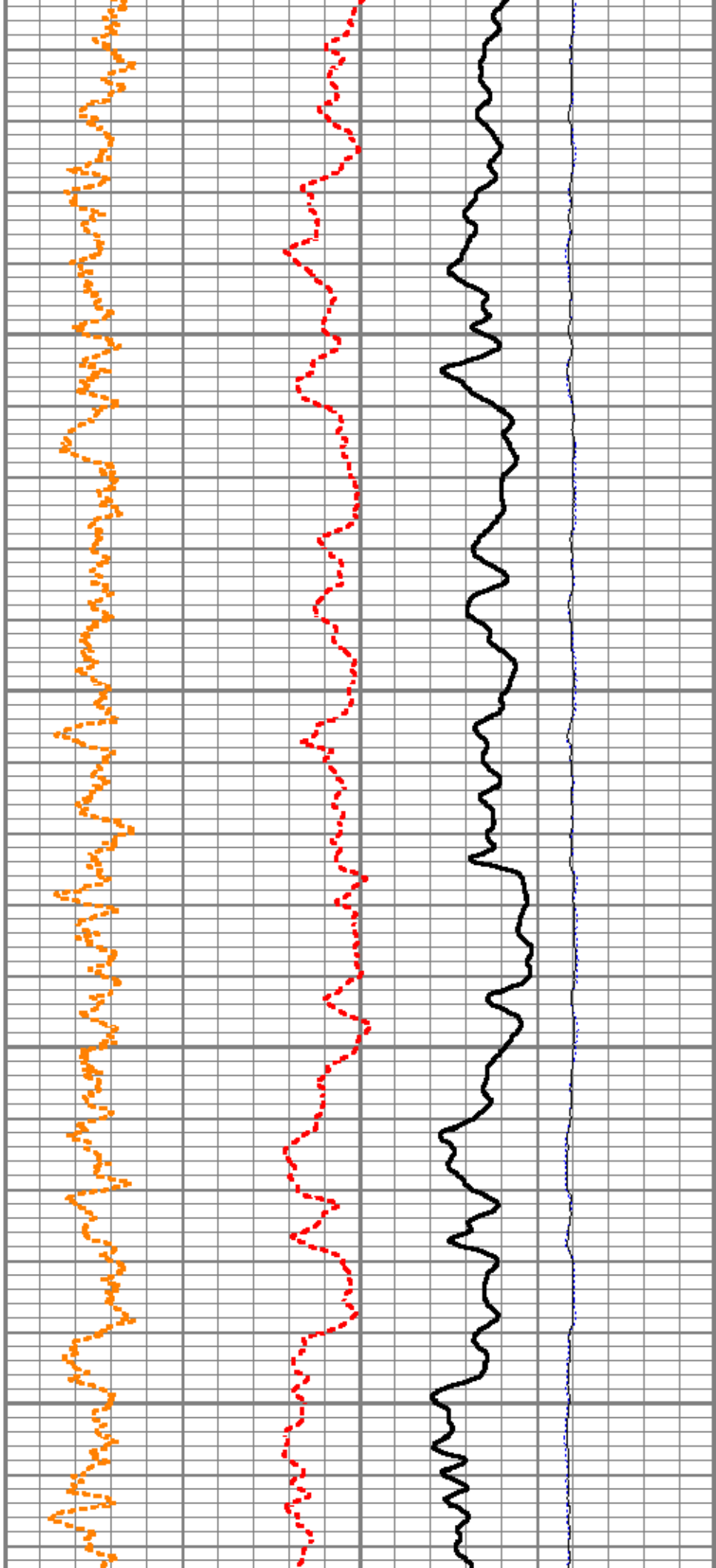
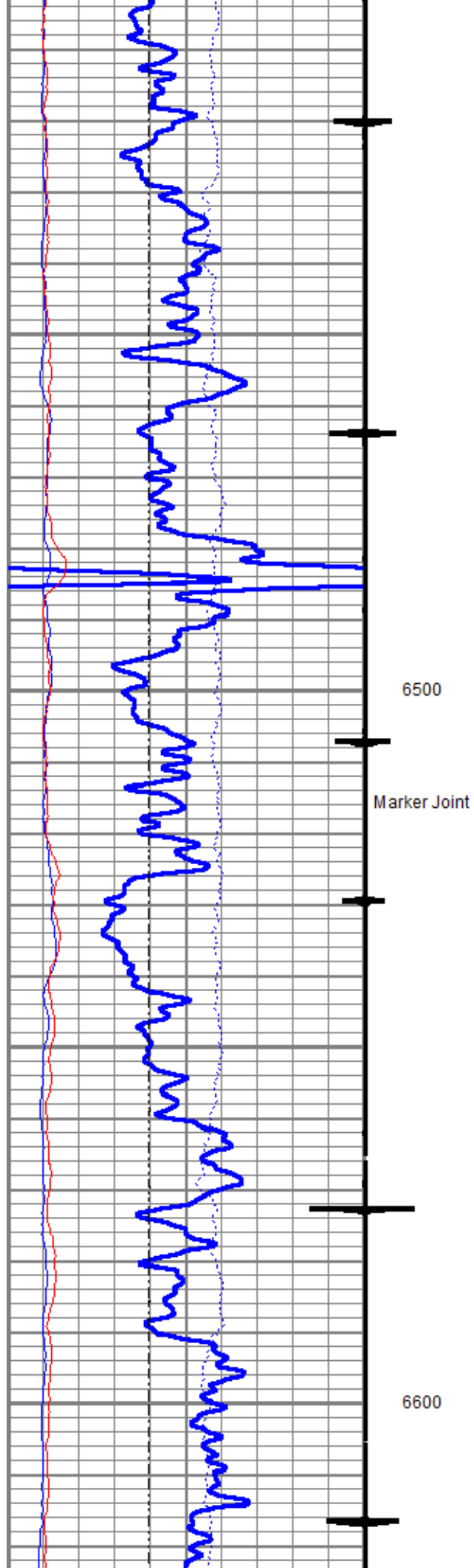


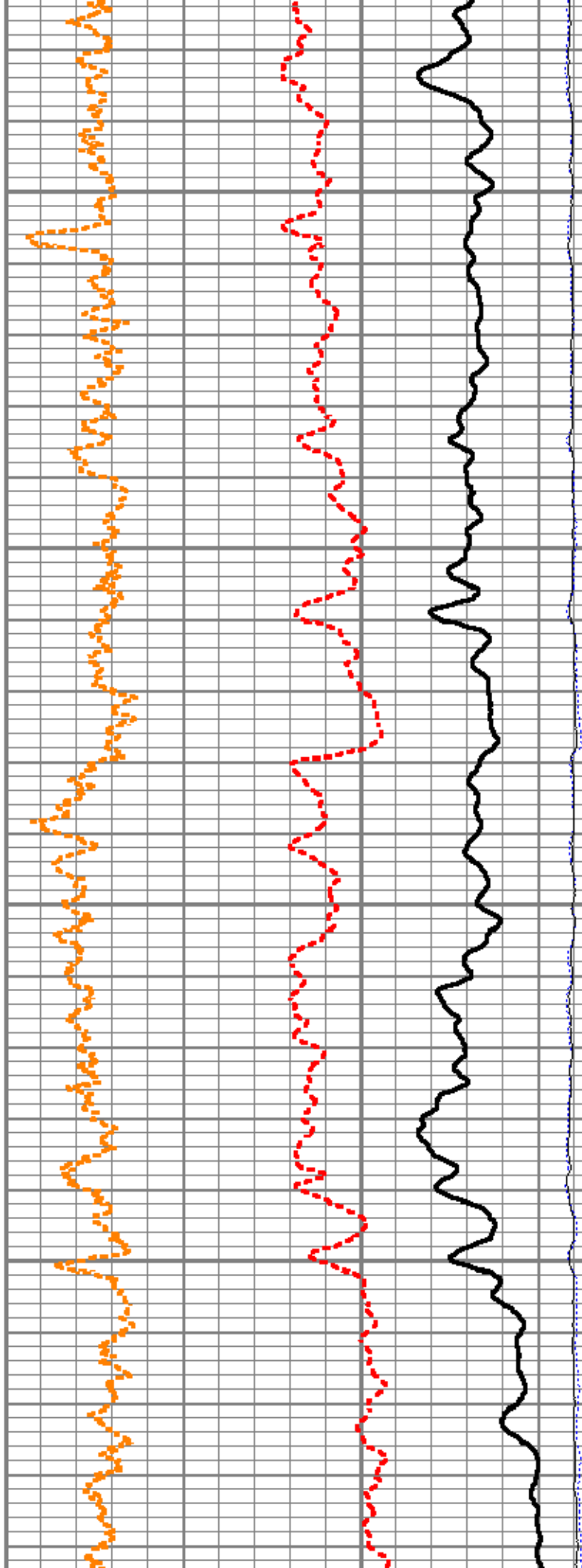
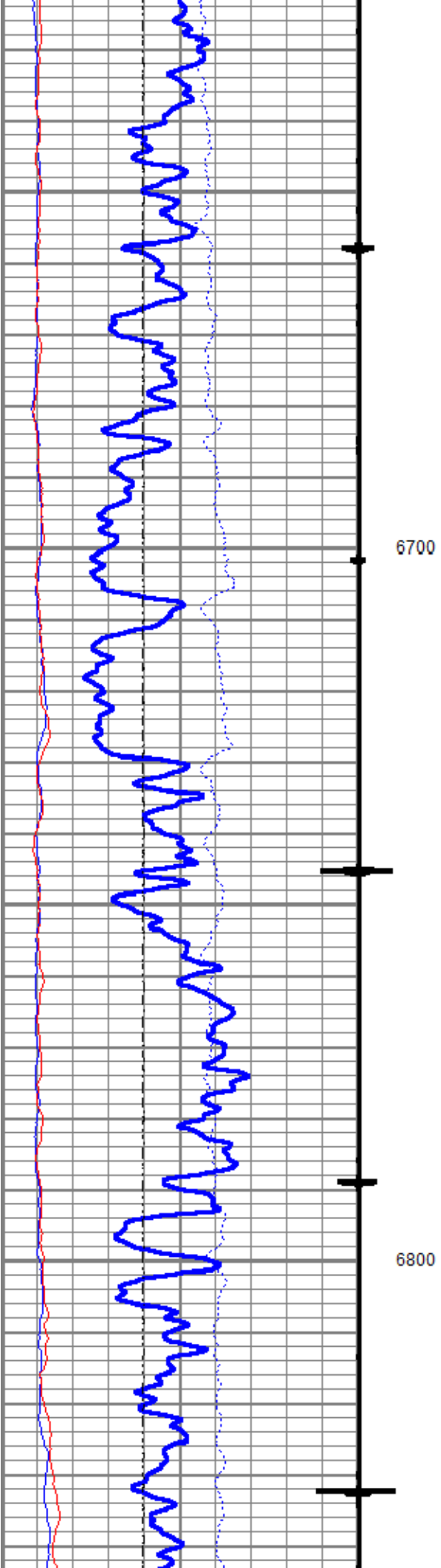
Main Pass

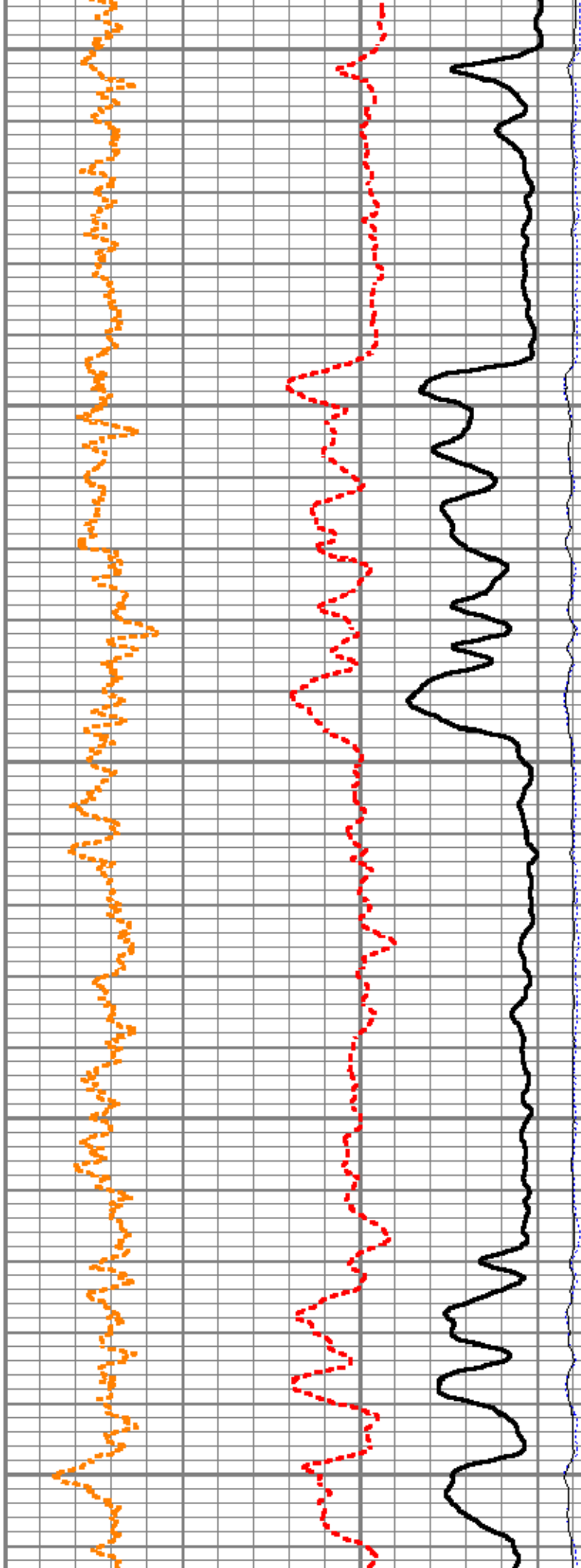
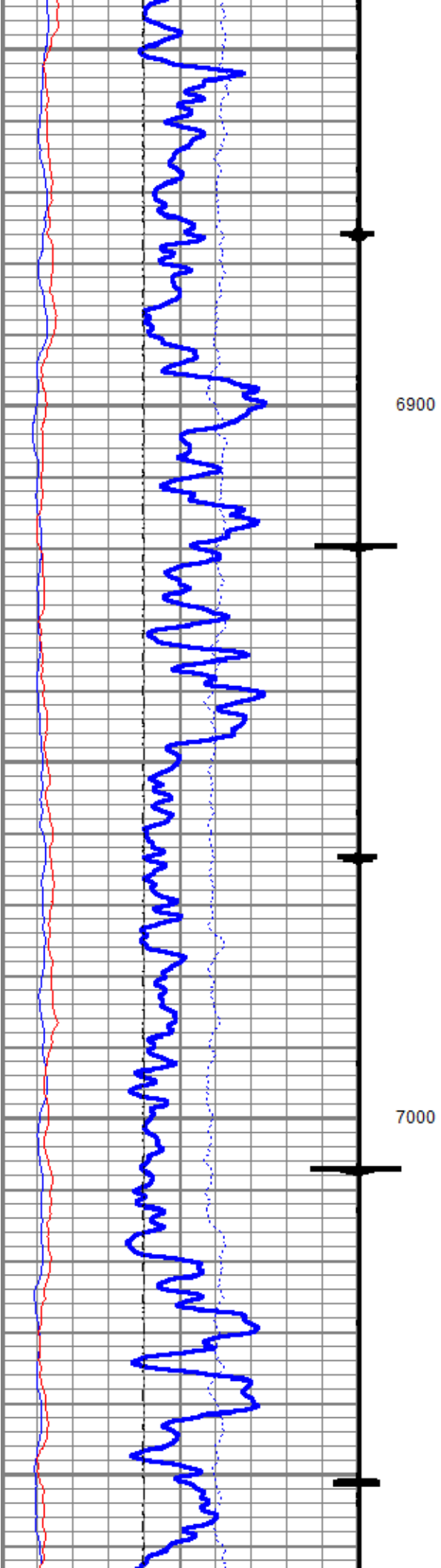
Database File	tep_federal ru 323-17\tep_federal ru 323-17_pn_04-11-2018.db
Dataset Pathname	main.2
Presentation Format	ros_pdn_hunter
Dataset Creation	Thu Apr 12 03:05:45 2018
Charted by	Depth in Feet scaled 1:240

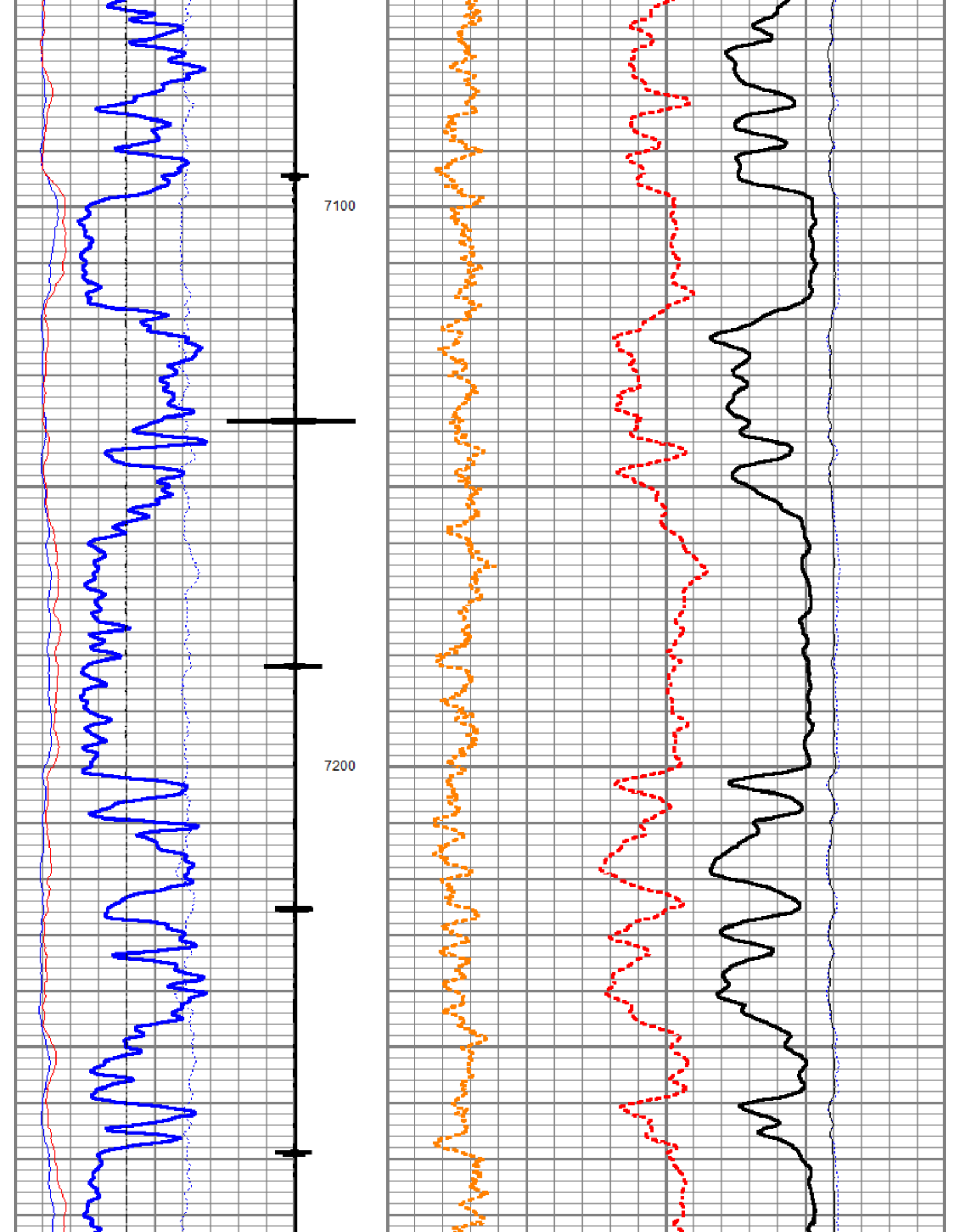
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	Casing Collar Locator		60	SIGMA (cu)	0
-100	Line Speed (ft/min)	100	4.5	RNFI	0
0	NIRS (cps)	400000			0 FIS2 (cps) 5000
0	BKGN (cps)	4000			0 NIS2 (cps) 10000
0	BKGF (cps)	2000			

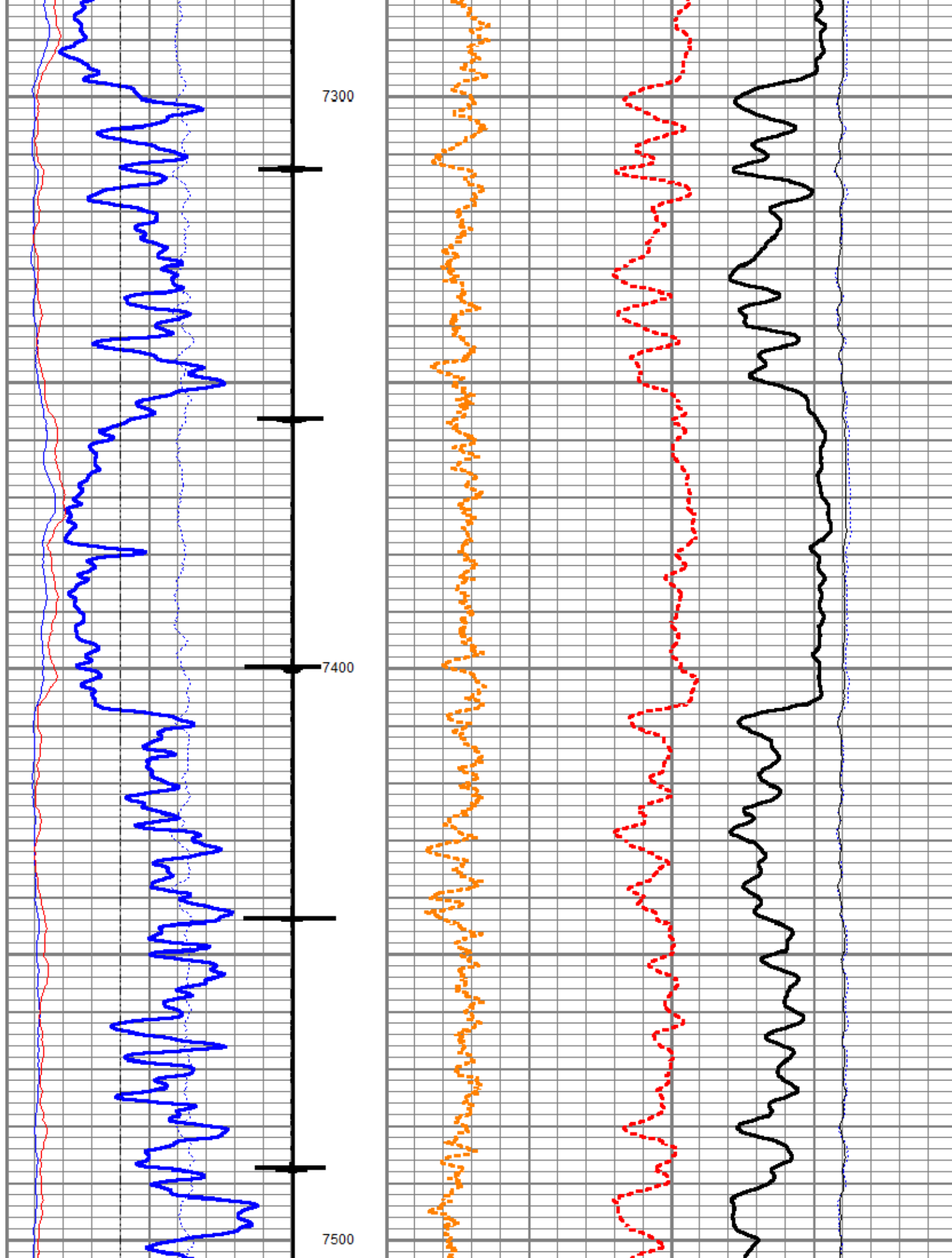


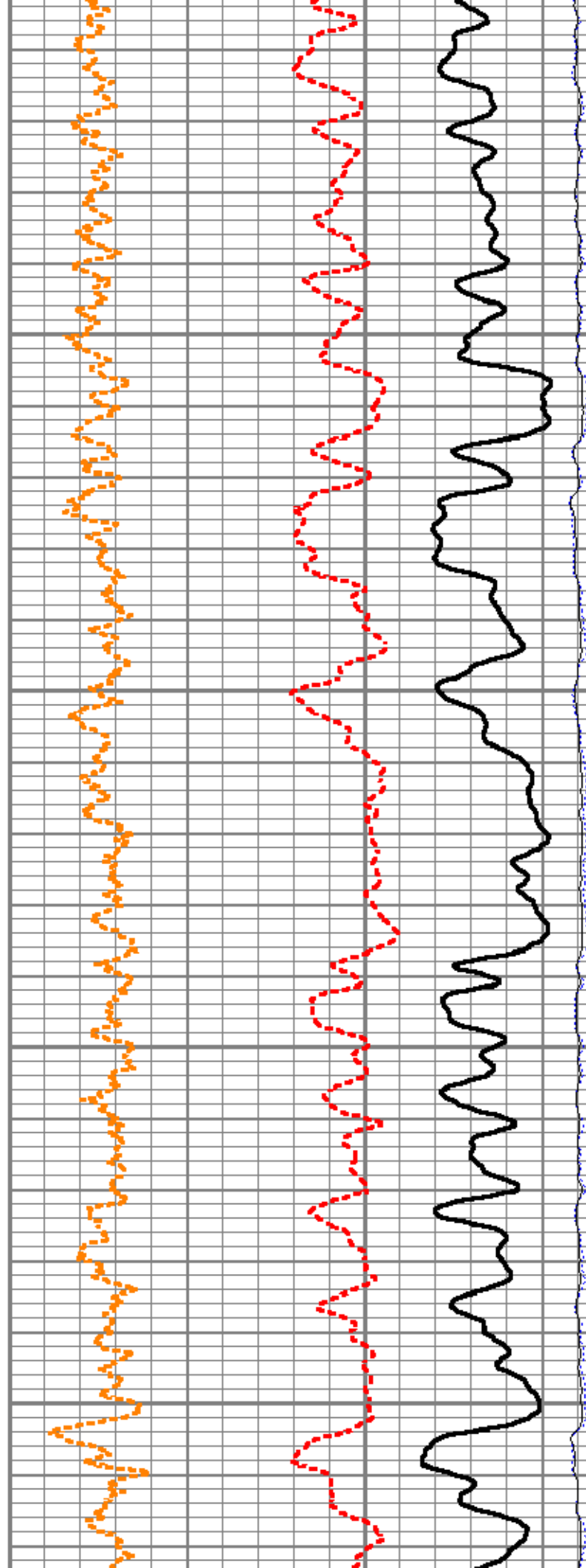
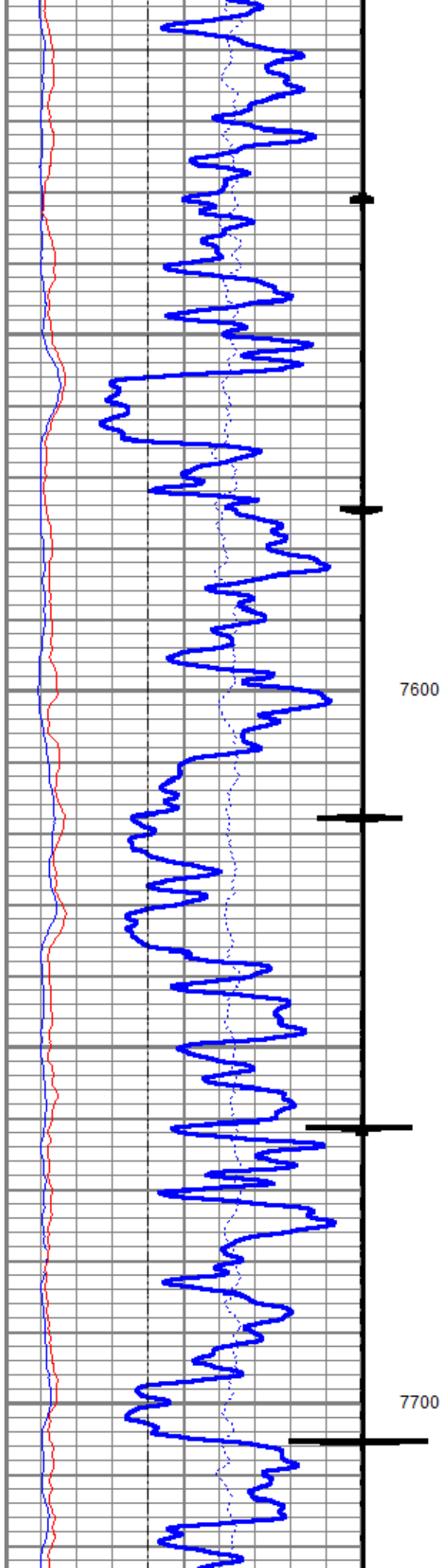


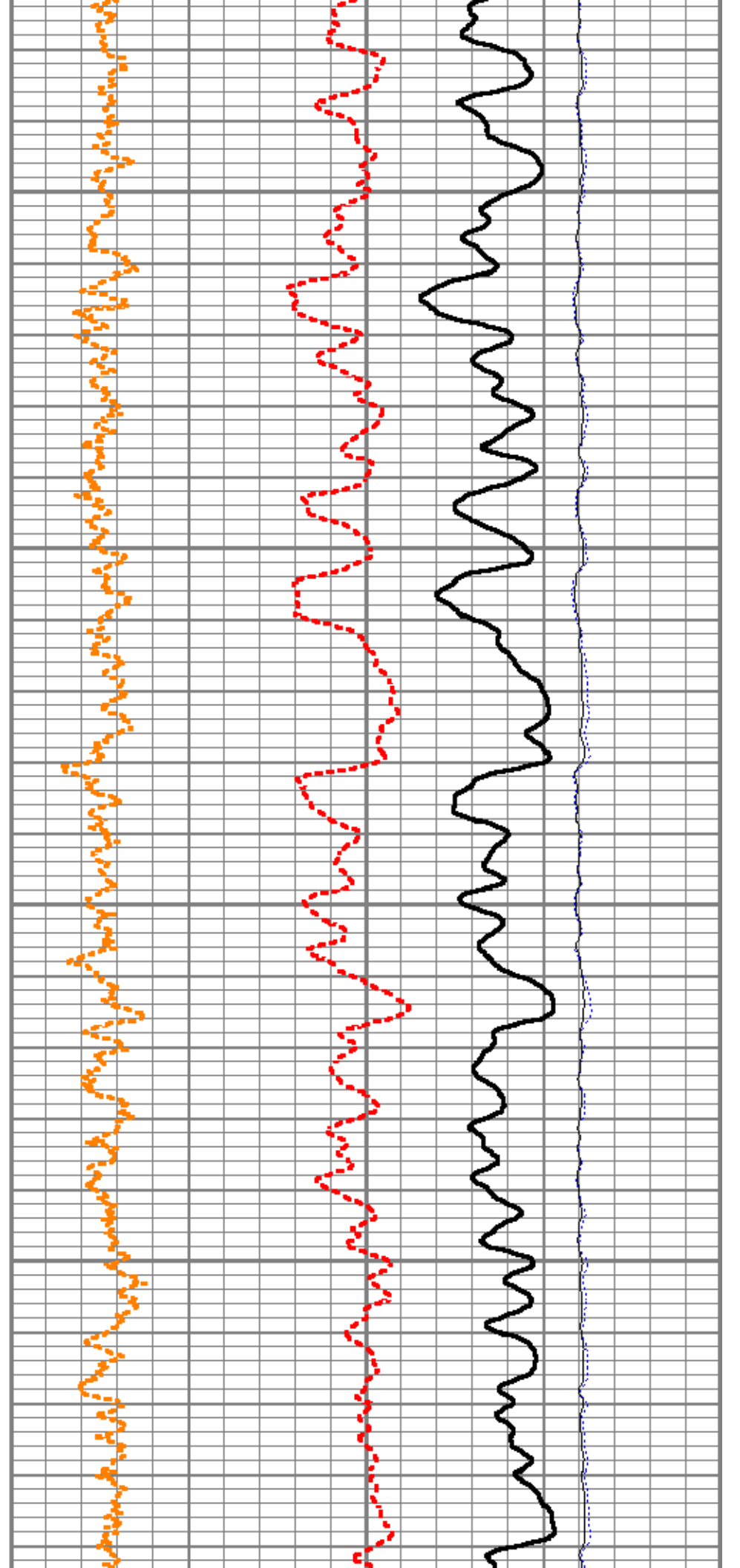
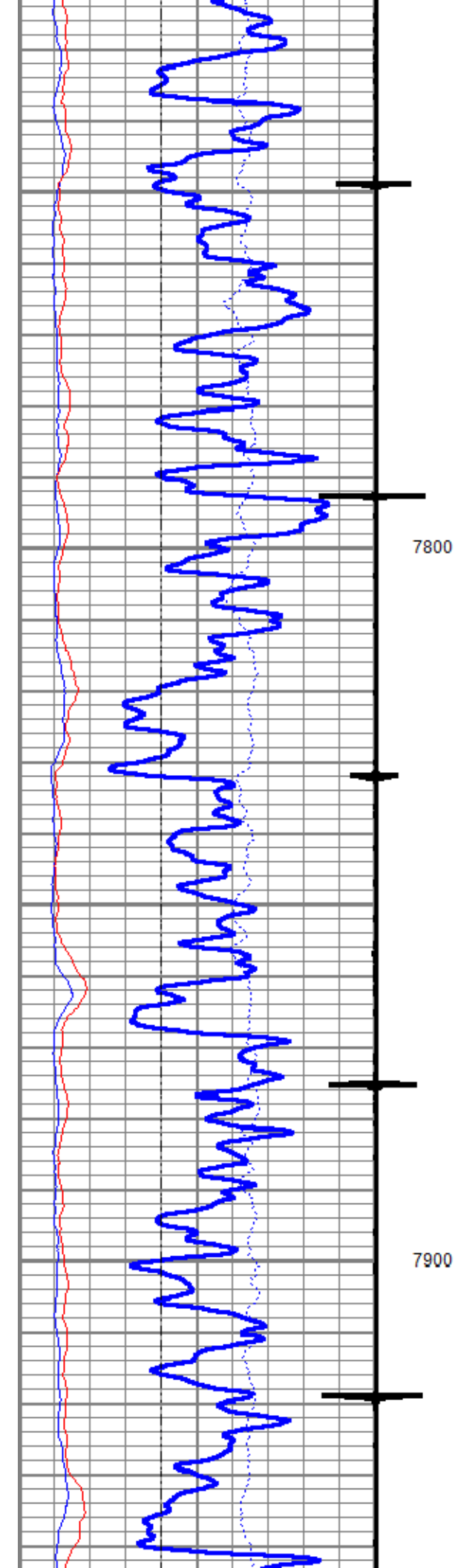


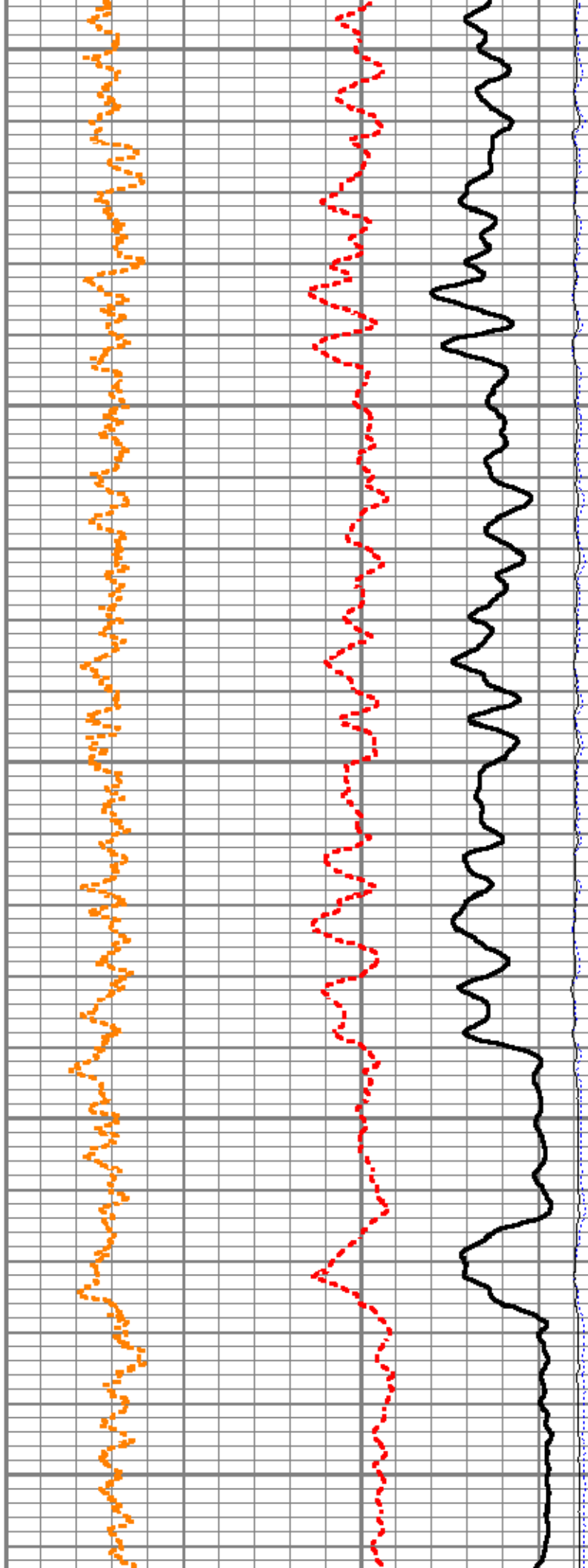
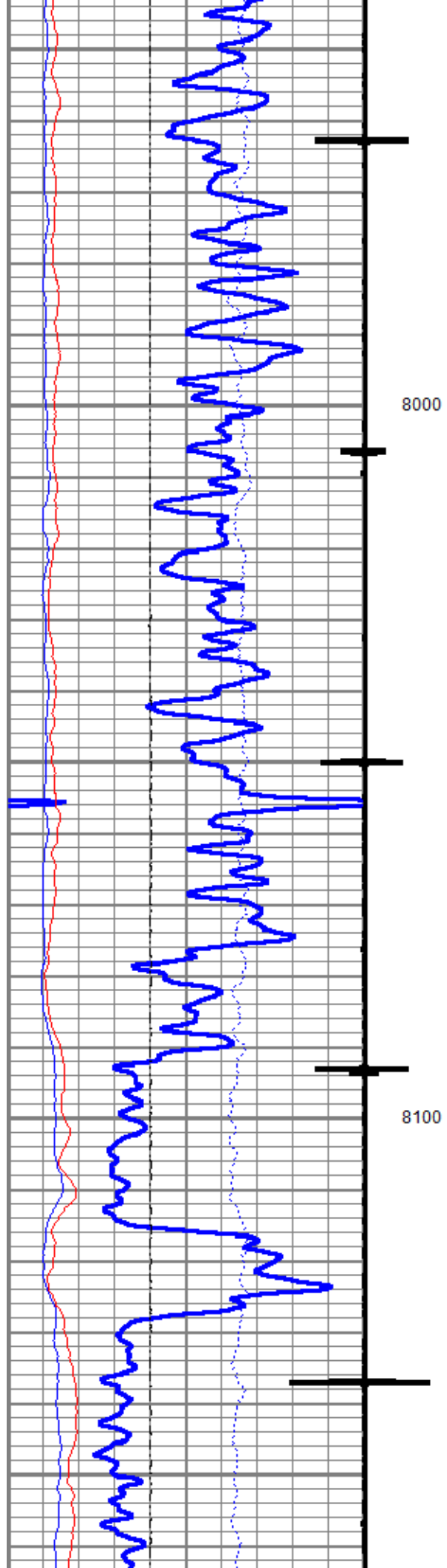


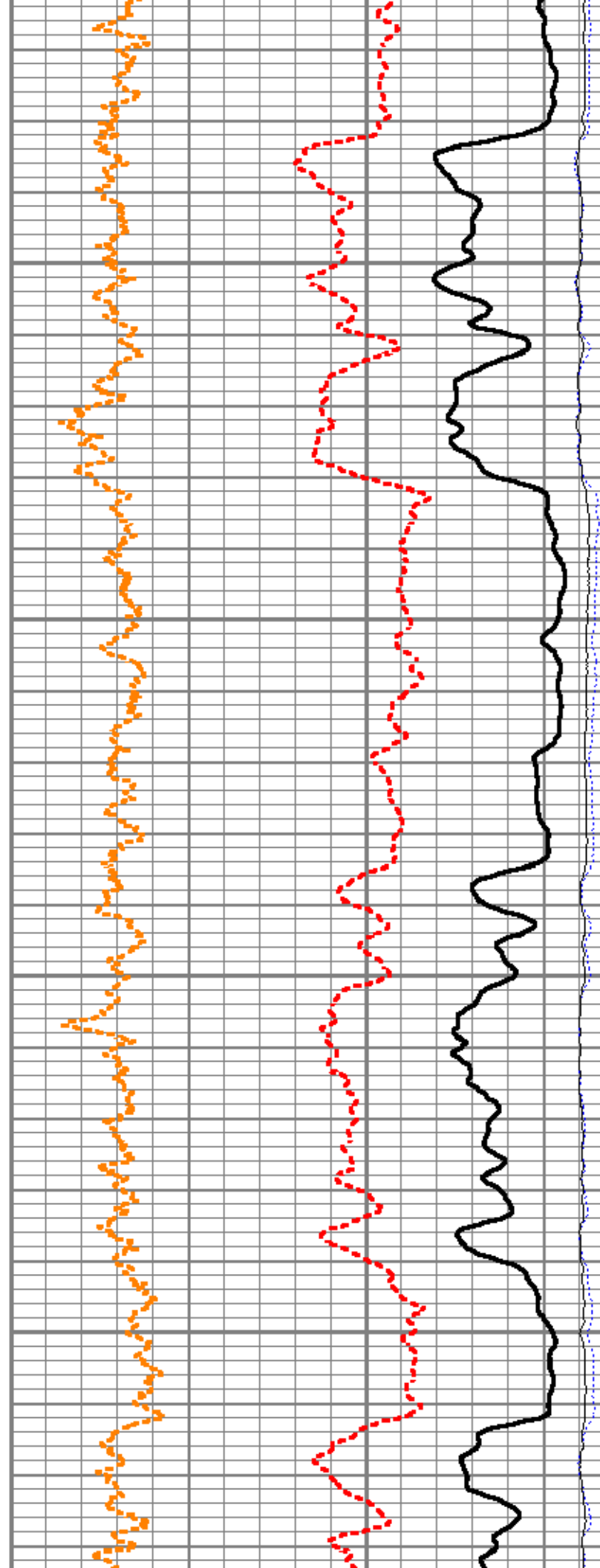
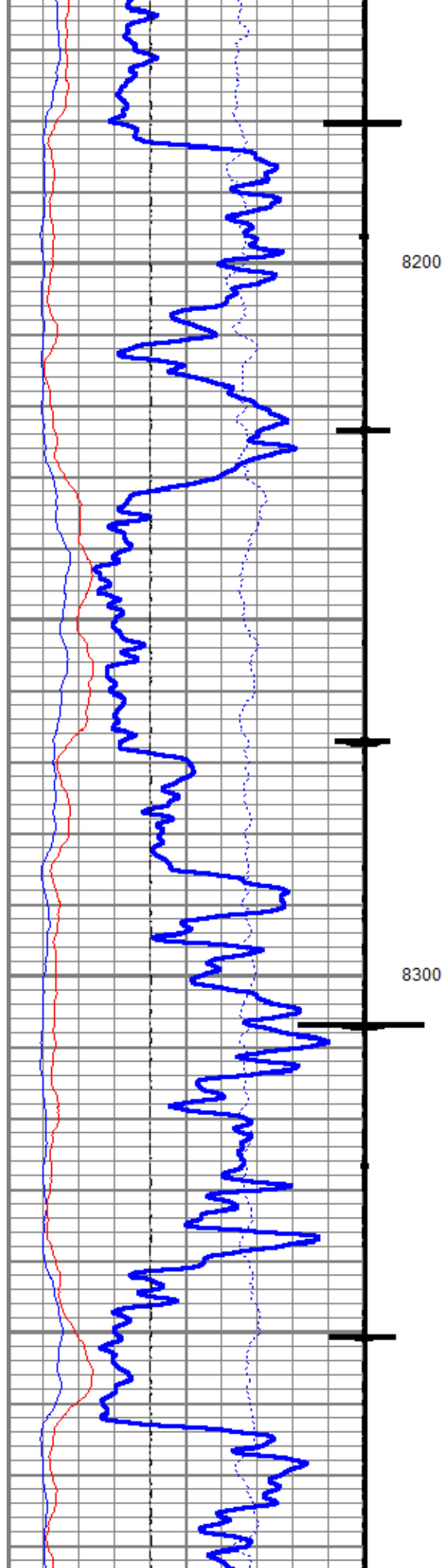


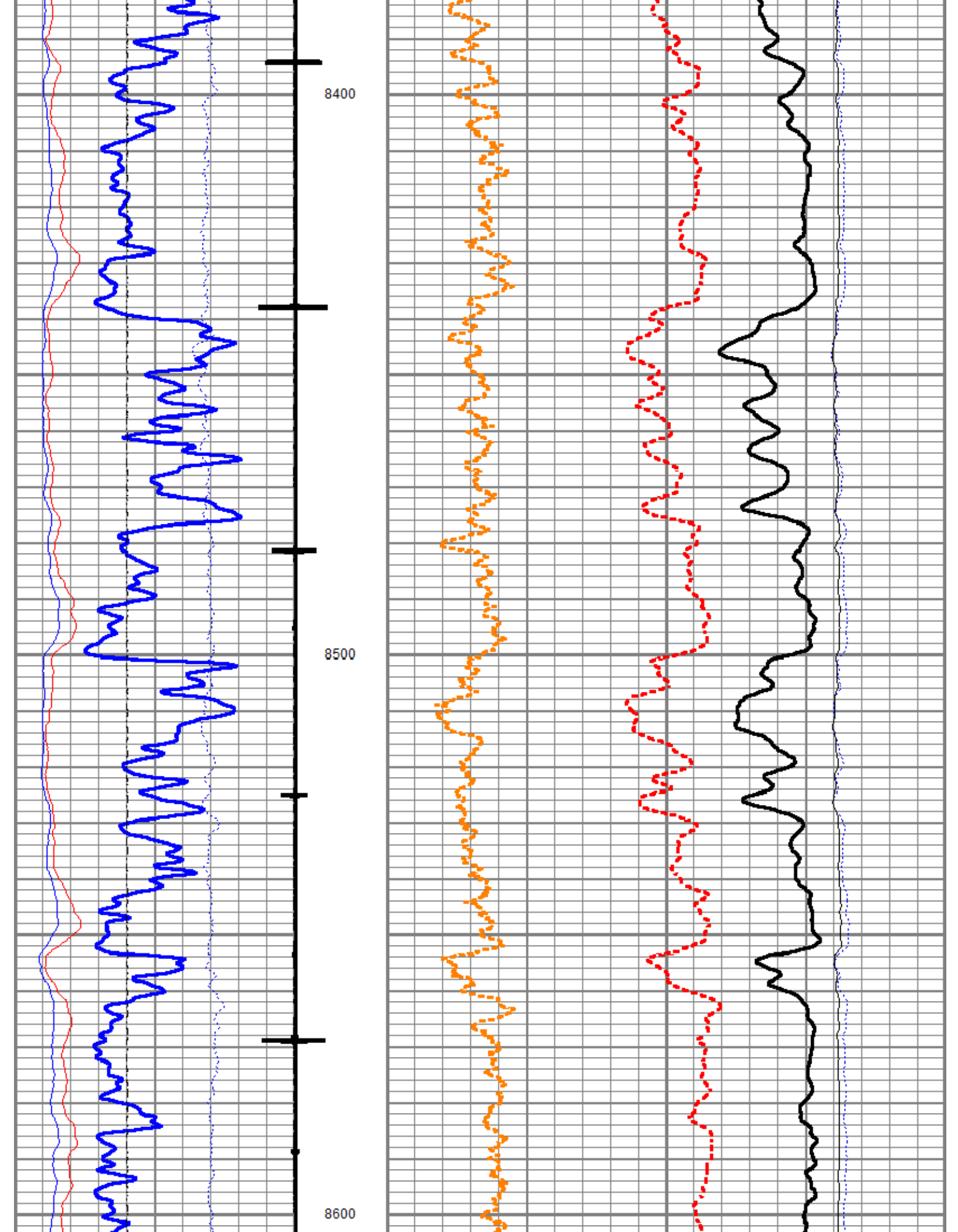


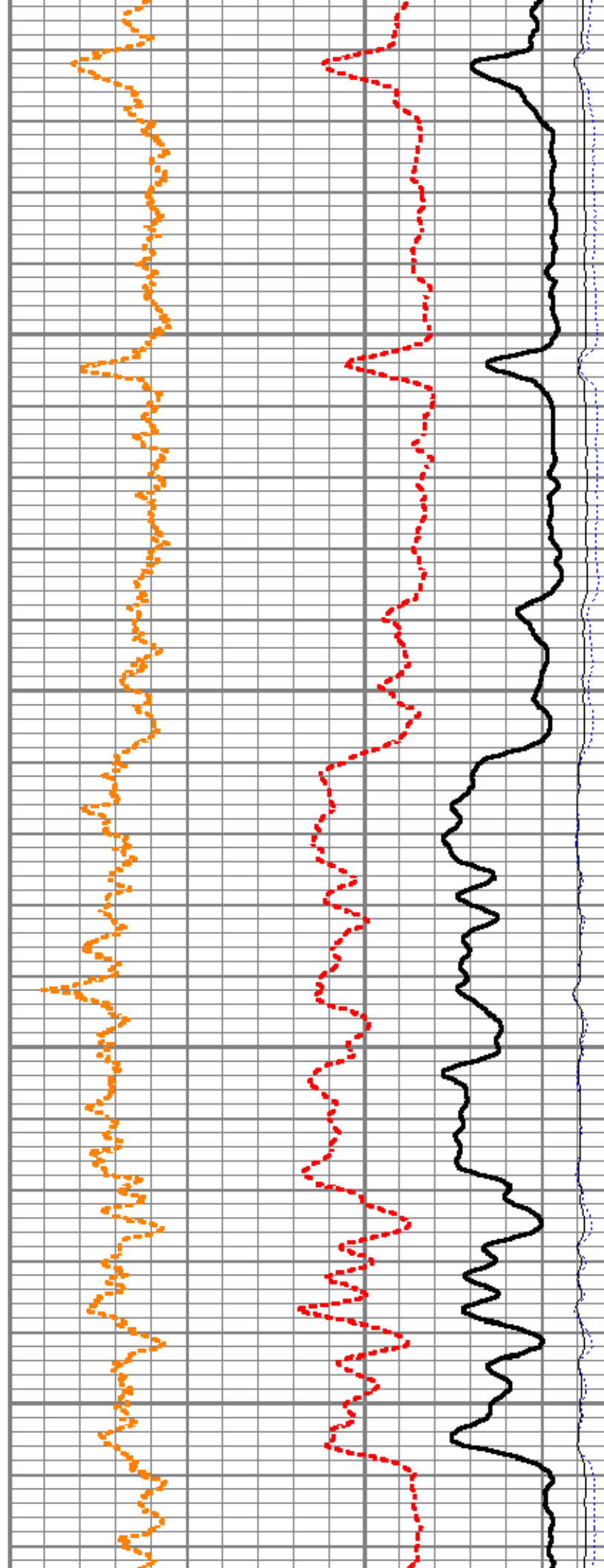
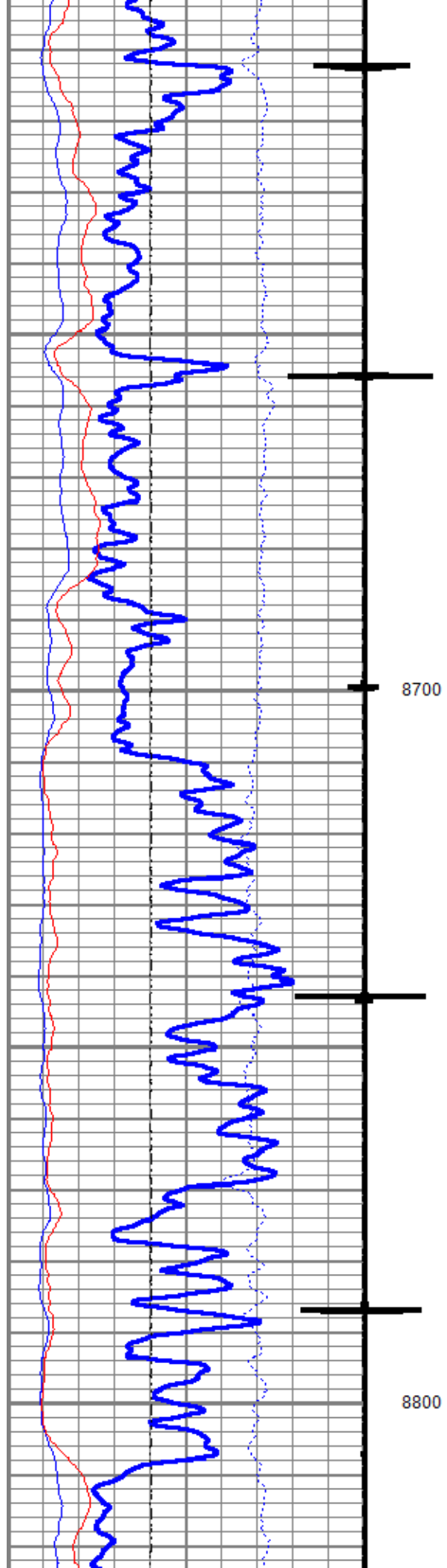


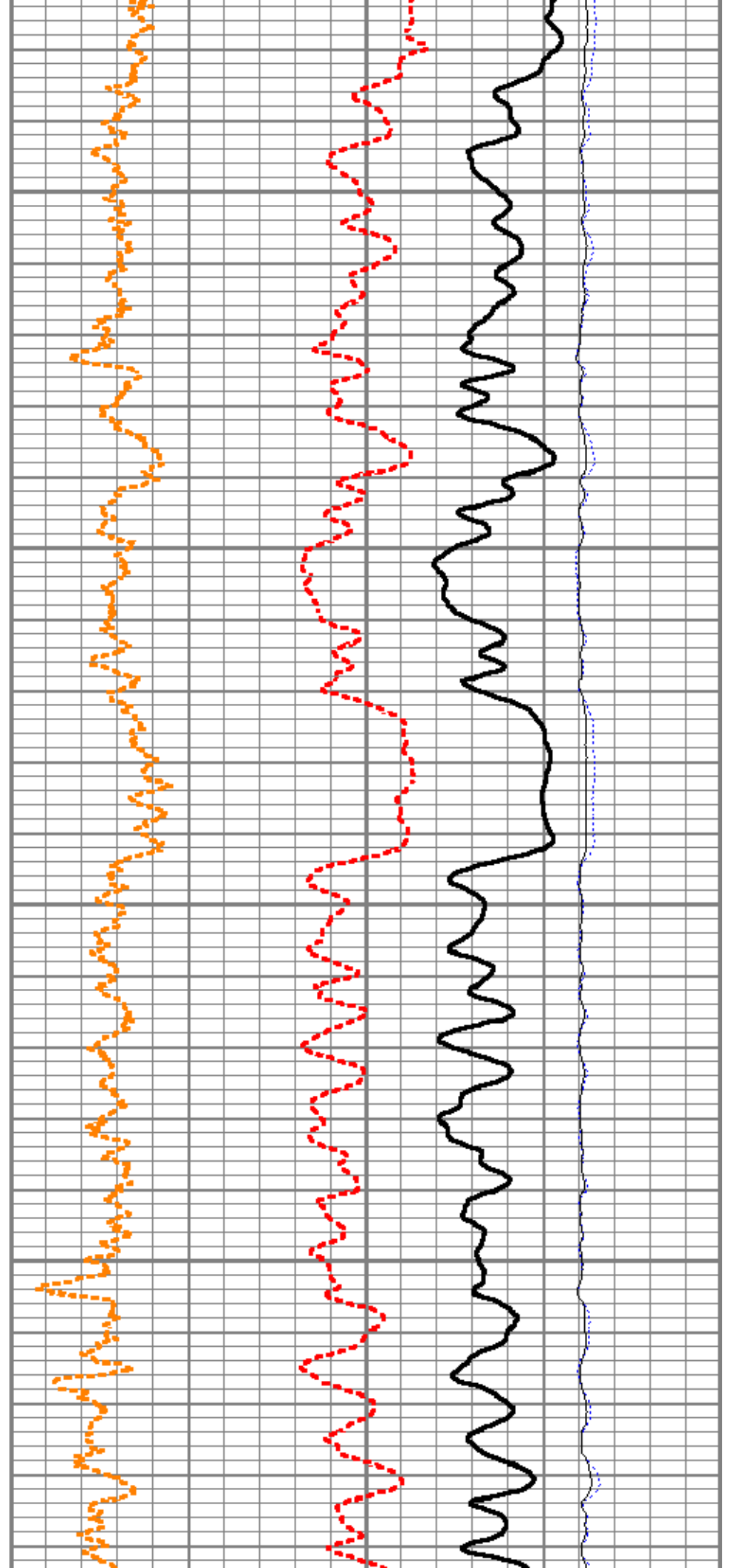
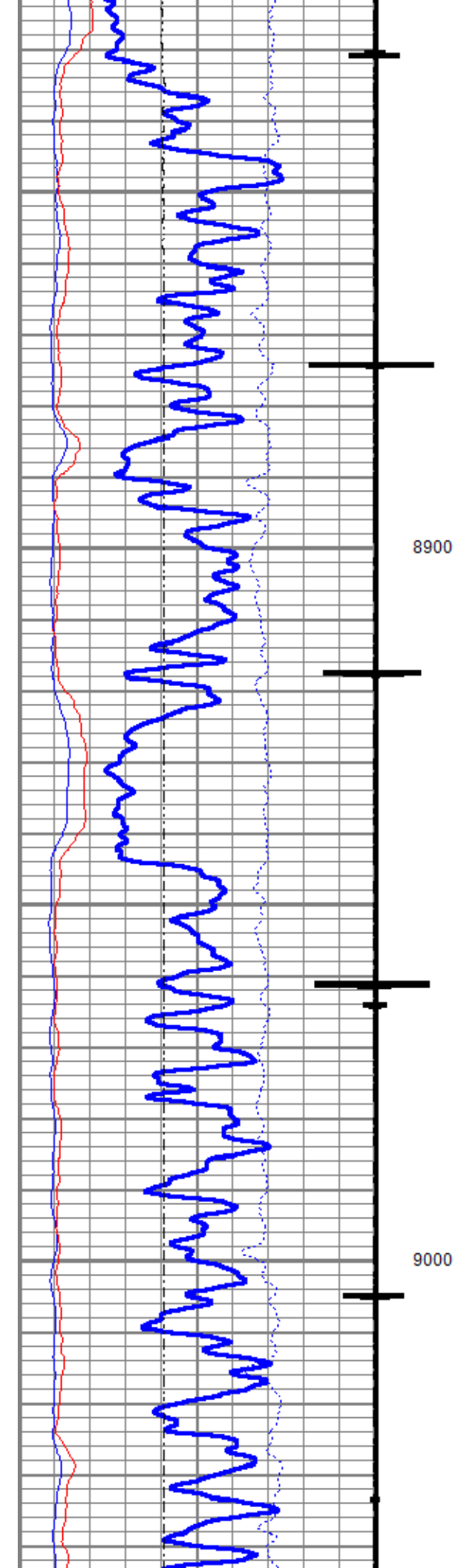


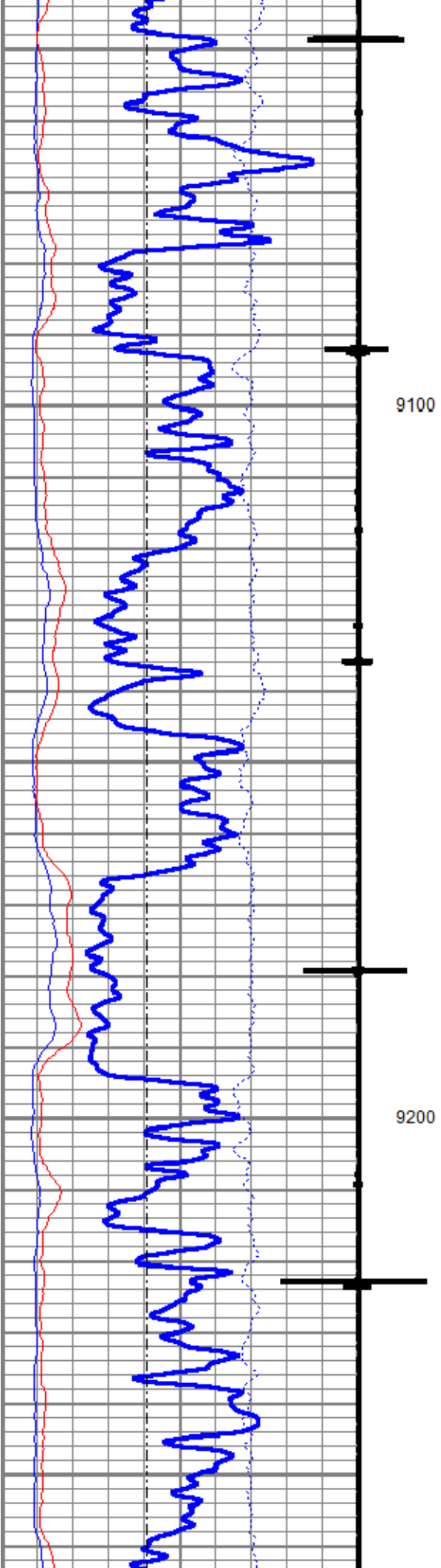


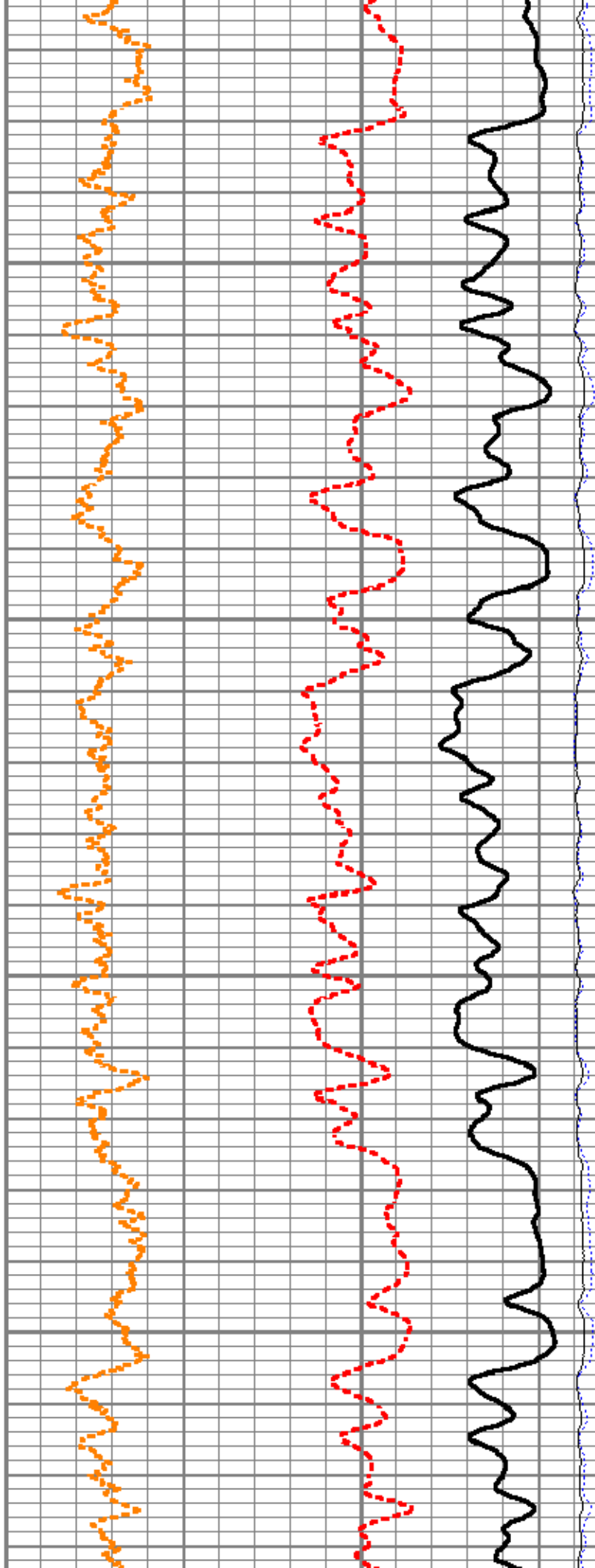
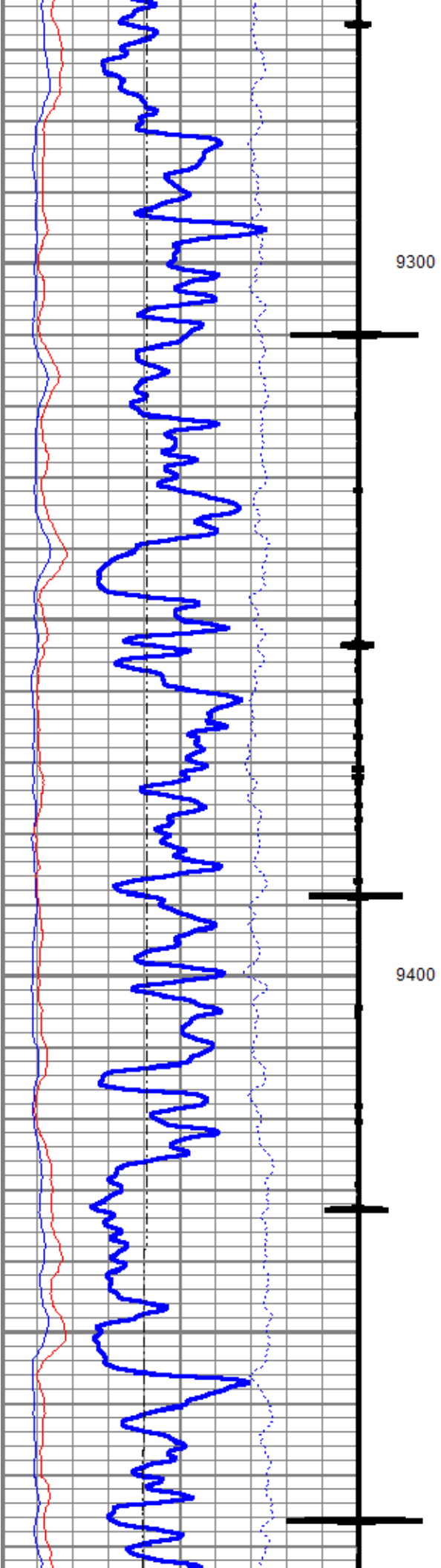


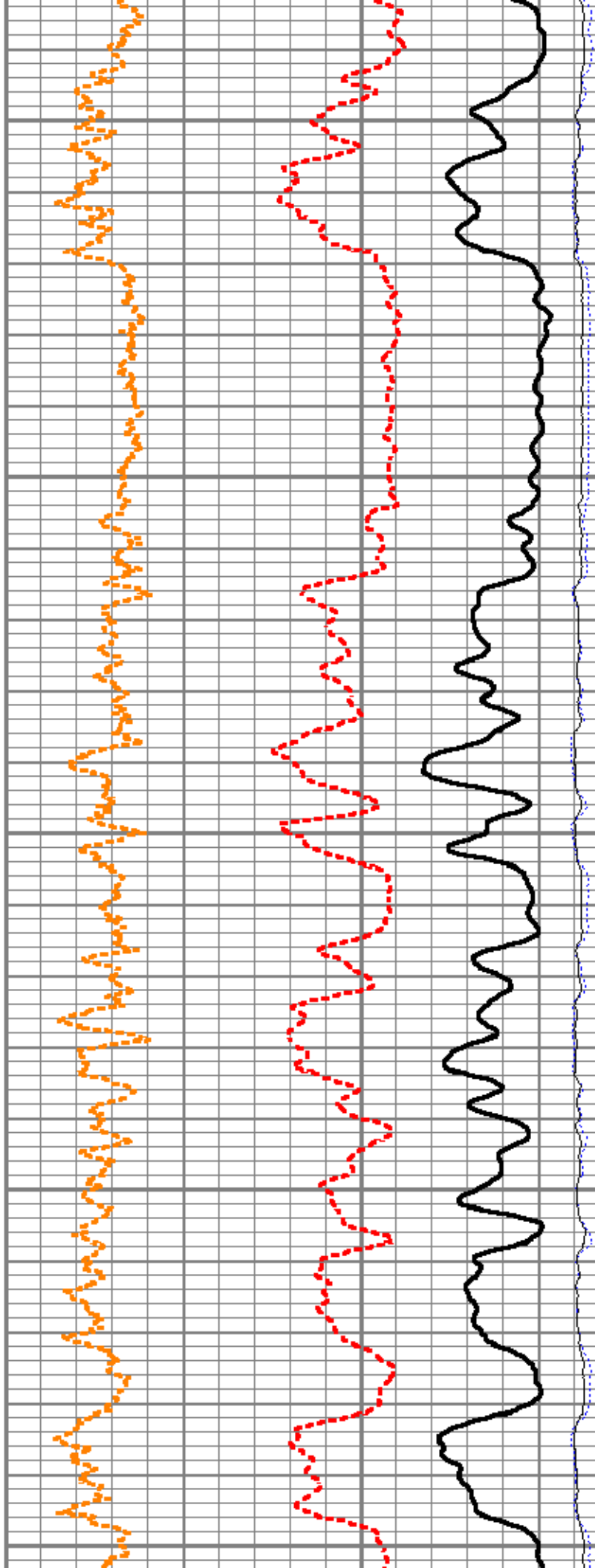
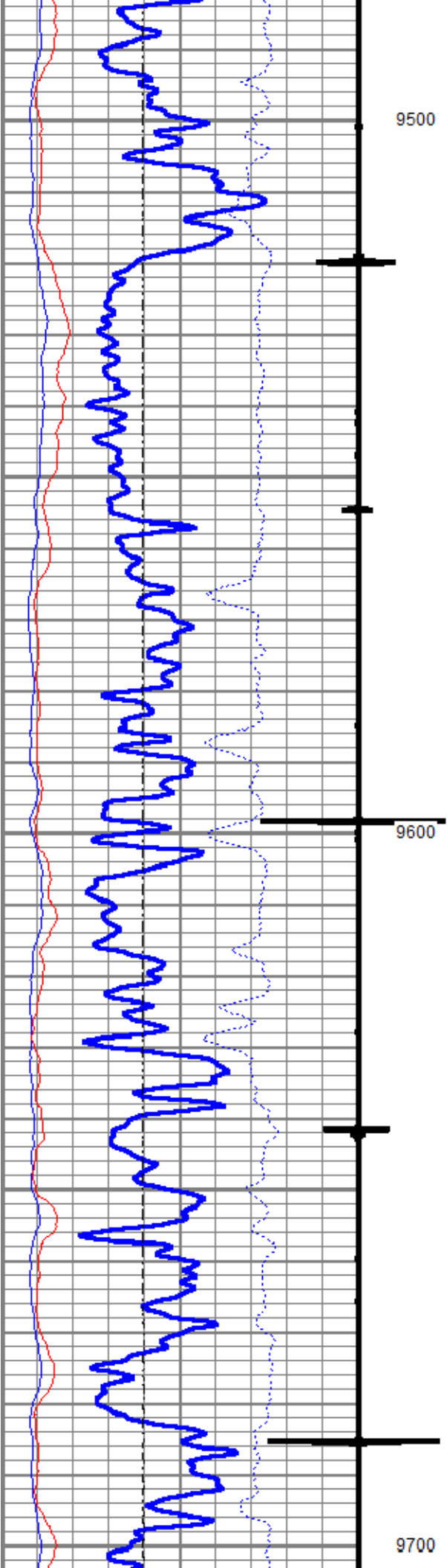


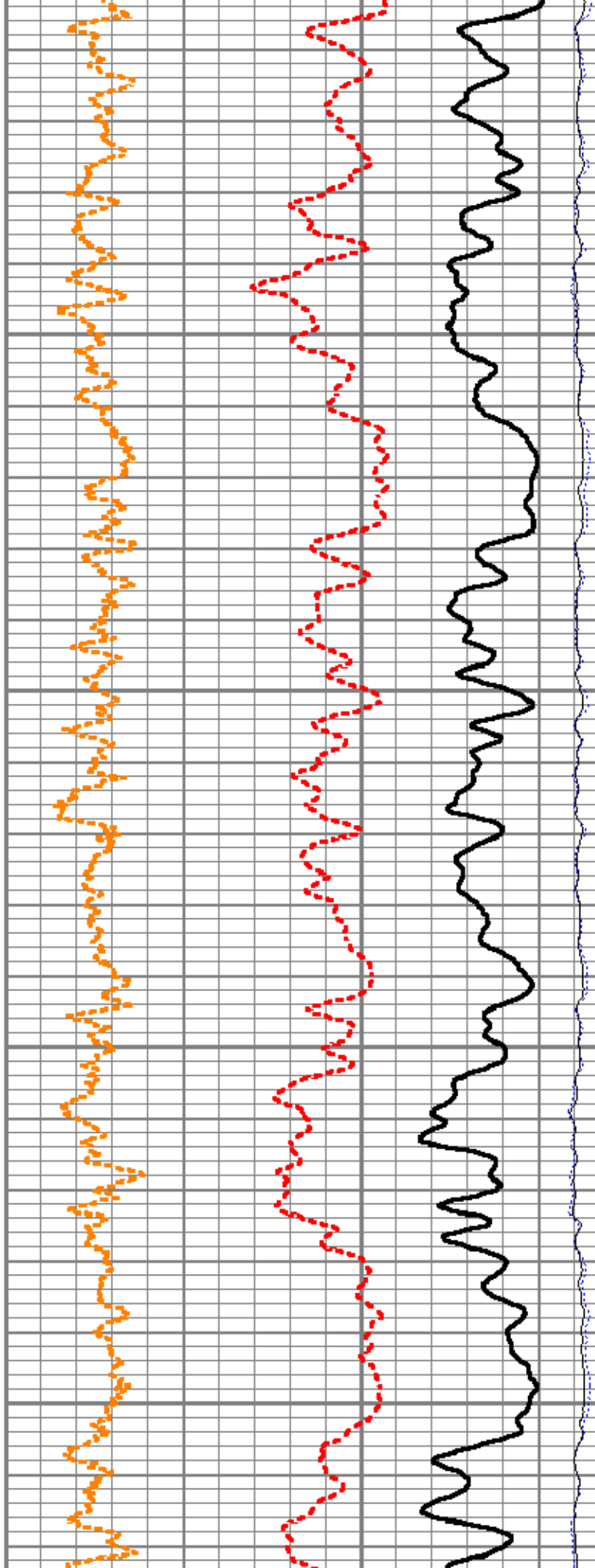
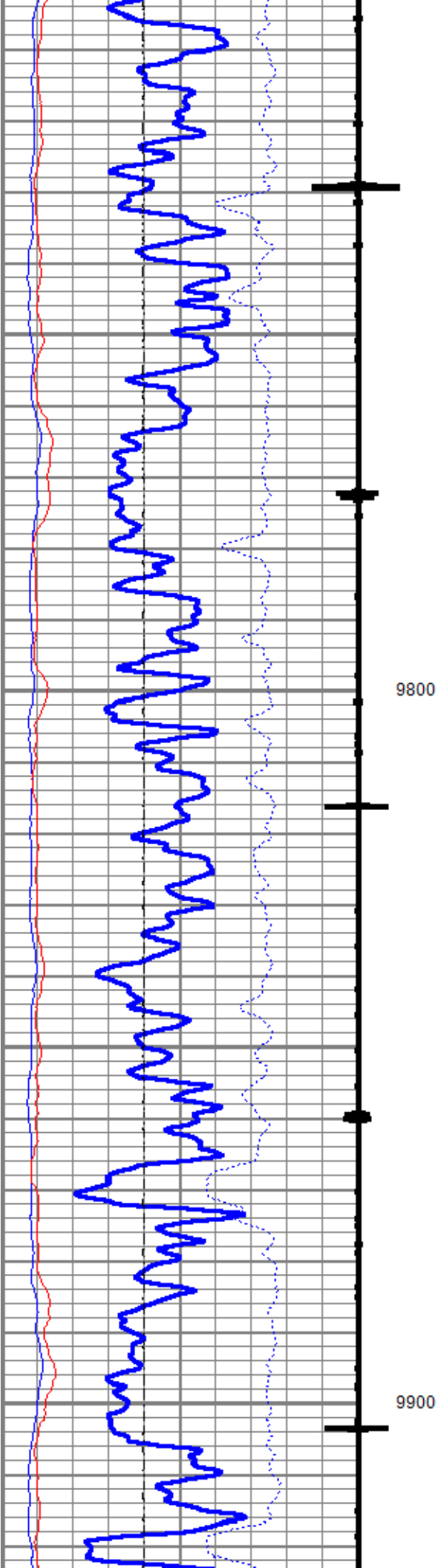


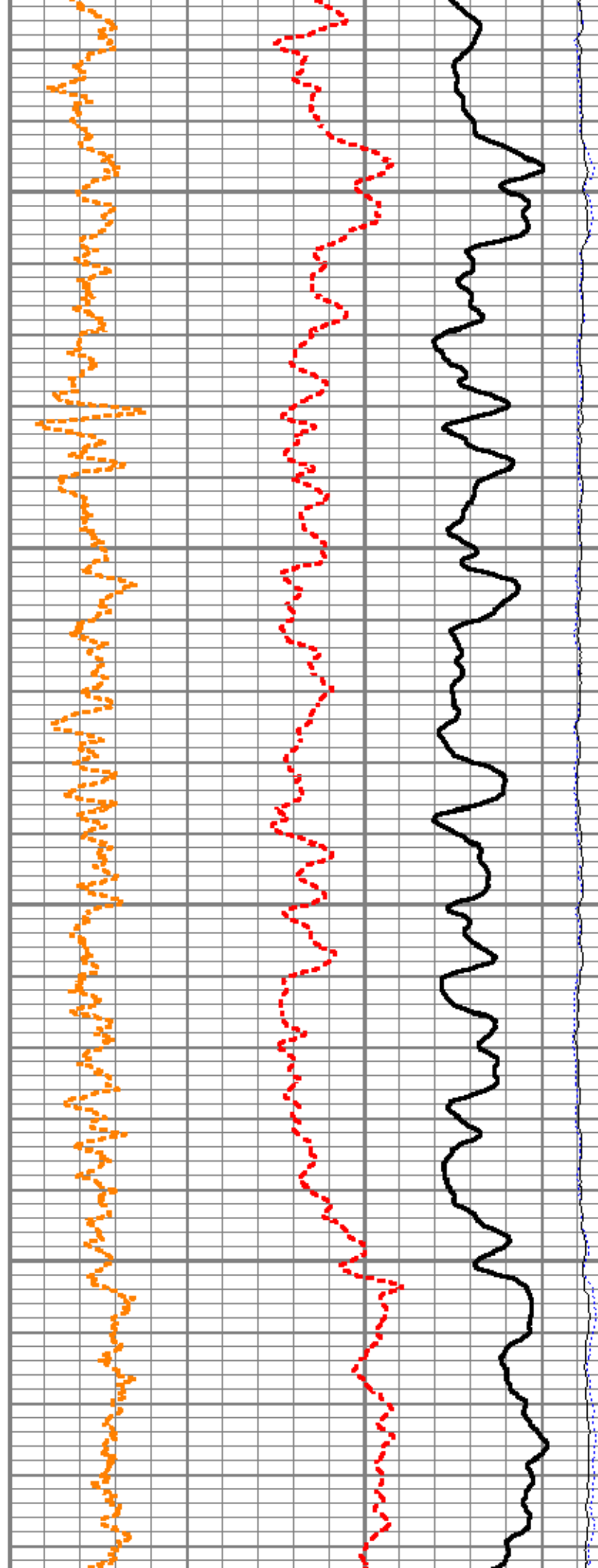
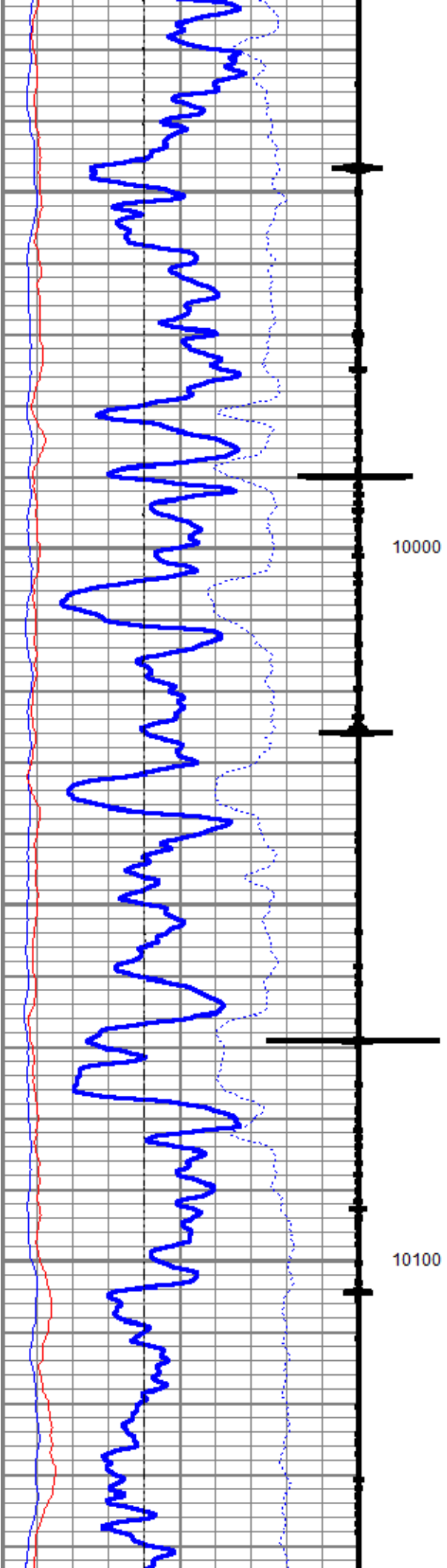


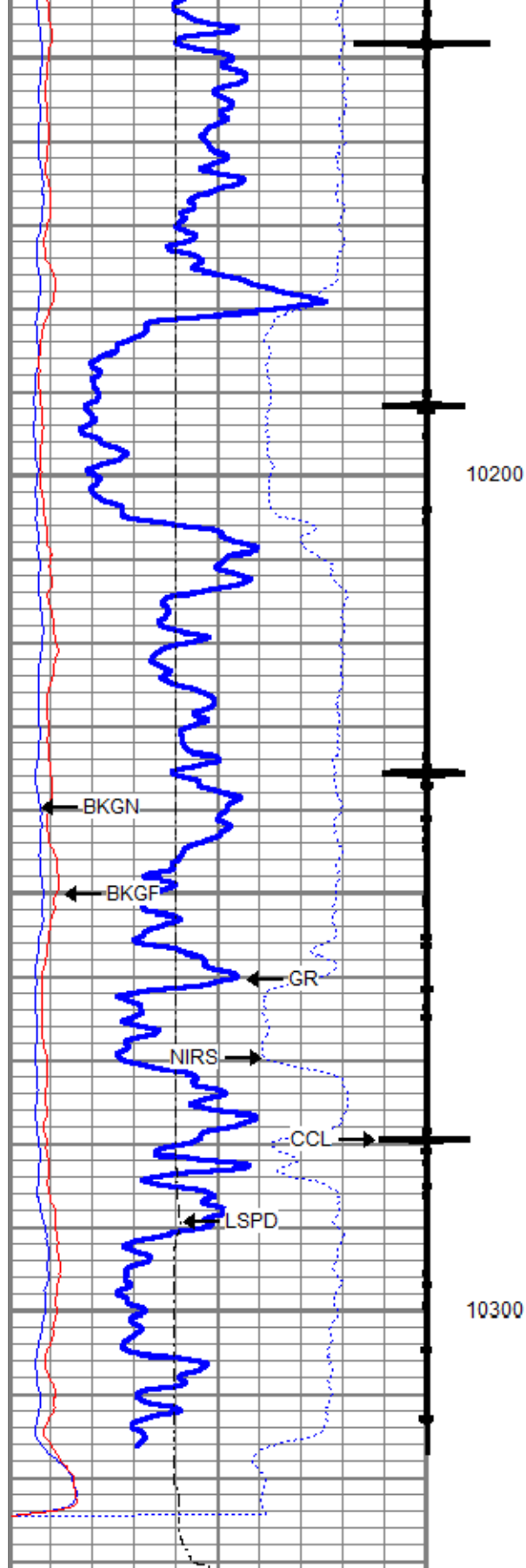




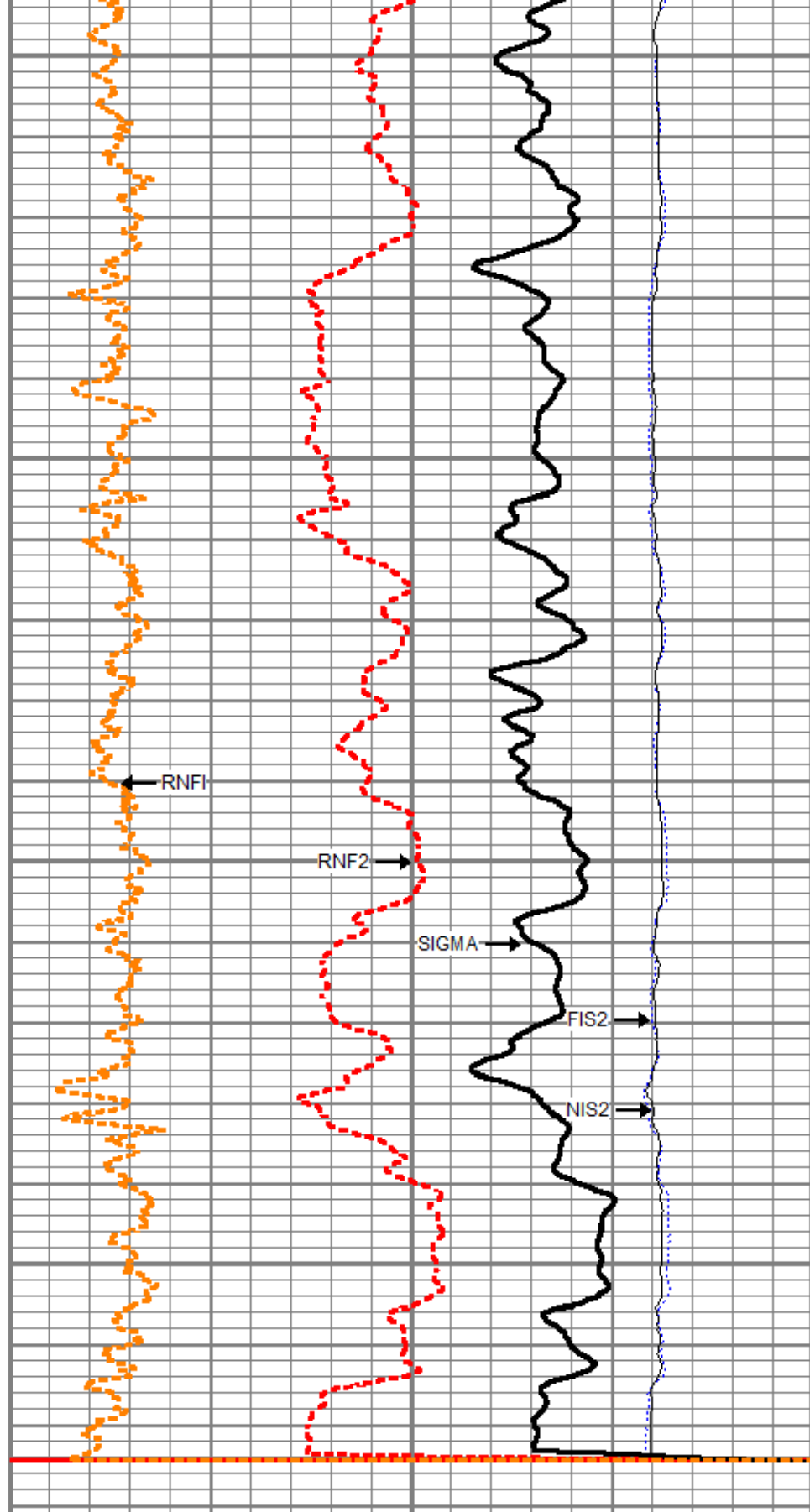








0	Gamma Ray (GAPI)	150
	Casing Collar Locator	
-100	Line Speed (ft/min)	100
0	NIRS (cps)	400000
0	BKGN (cps)	4000
0	BKGF (cps)	2000

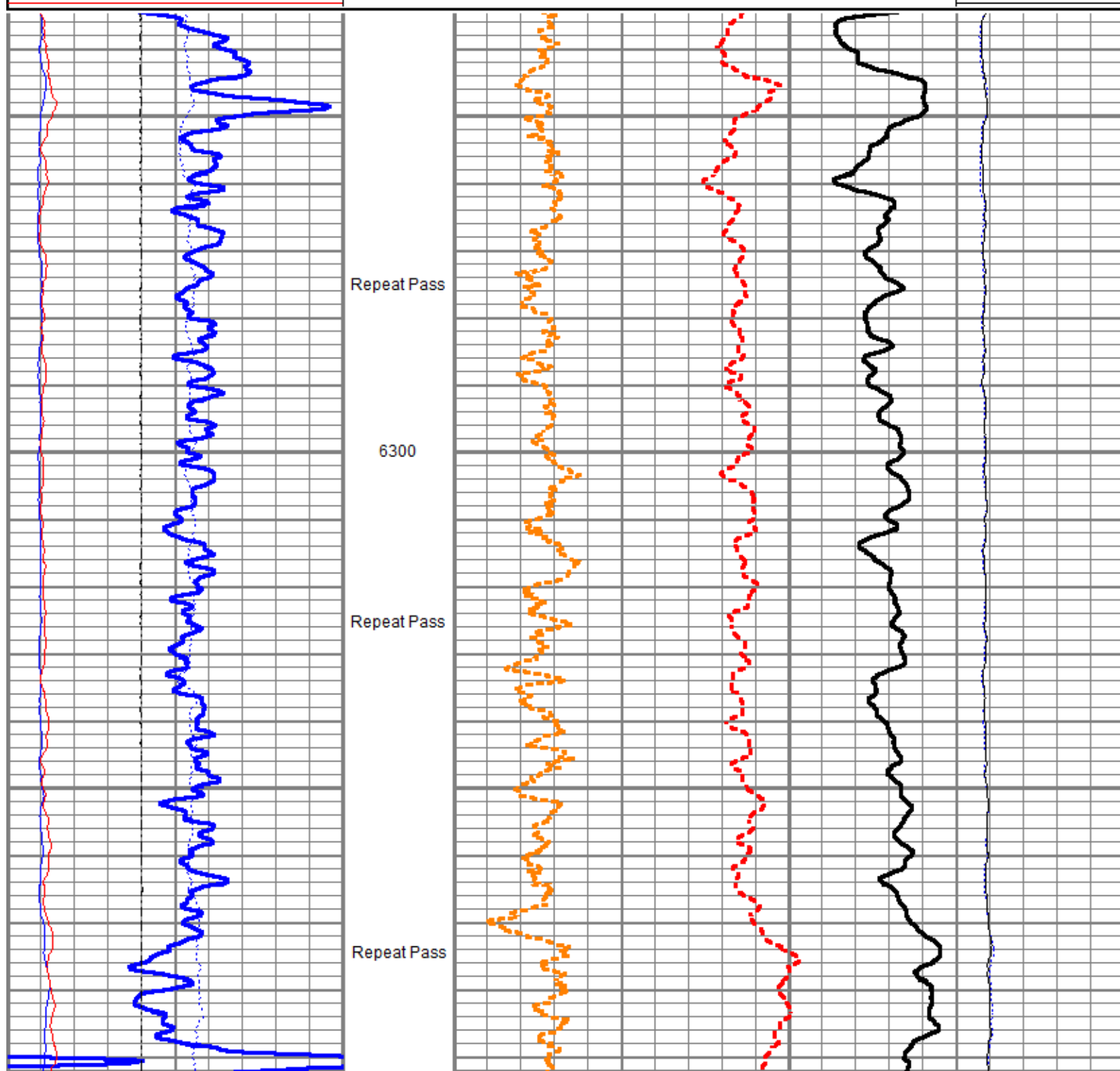


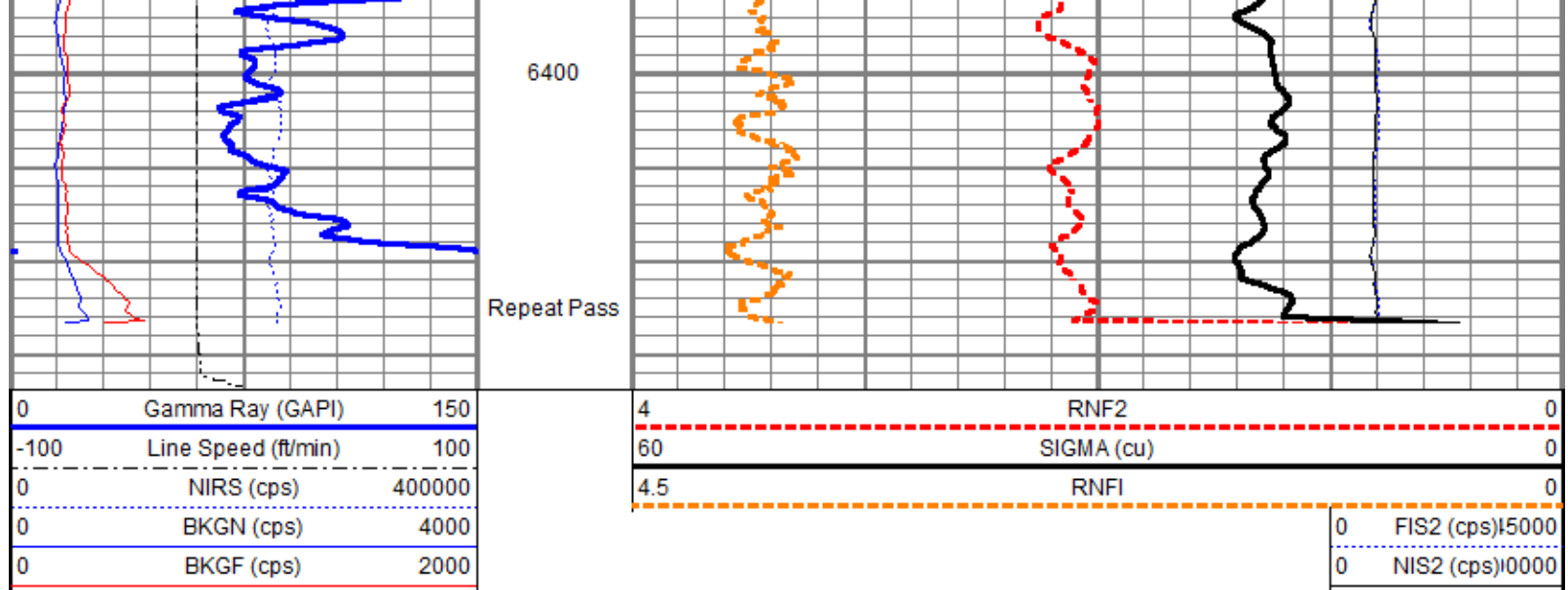
4	RNF2	0
60	SIGMA (cu)	0
4.5	RNF1	0
0	FIS2 (cps)	15000
0	NIS2 (cps)	10000

Repeat Pass

Database File tep_federal ru 323-17\tep_federal ru 323-17_pn_04-11-2018.db
 Dataset Pathname repeat.3
 Presentation Format ros_pdn_hunter
 Dataset Creation Thu Apr 12 03:06:48 2018
 Charted by Depth in Feet scaled 1:240

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-100	Line Speed (ft/min)	100	60	SIGMA (cu)	0
0	NIRS (cps)	400000	4.5	RNF1	0
0	BKGN (cps)	4000			0 FIS2 (cps) 15000
0	BKGF (cps)	2000			0 NIS2 (cps) 10000





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TCUTEMP TCUVOLT GCL_CCL GCL_GR GCL_GR	14.69 14.69 13.97 12.50 12.50		Titan CHD-16875 GO Titan 1-11/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.69	5.40
			HWS_TCU-002 (001704) HWS Telemetry Control Unit (TCU002)	2.30	1.69	10.87
			HWS_GCL-001 (001475) HWS Gamma Ray Collar Locator (1.6875")	2.69	1.69	13.40
Long Far Near Anci	6.25 6.25 6.25 6.25		HWS_RAS-RAS002 (003040) Hunter Well Science Pulsed Neutron Tool	11.75	1.69	55.82

				0.25	1.69	0.99
<p> Dataset: tep_federal ru 323-17_pn_04-11-2018.db: field/well/run1/main.2 Total length: 18.02 ft Total weight: 86.48 lb O.D.: 1.69 in </p>						