



Pioneer Energy Services

Dual Compensated Porosity Log

API No. 15-135-25,826-00-00

Company **American Warrior, Inc.**
 Well **Whipple E No. 1-9**
 Field **Charmin**
 County **Ness** State **Kansas**

Location **1018' FSL & 1899' FWL**

Sec: **8** Twp: **18s** Rge: **26w**

Other Services **DIL/MEL**

Permanent Datum **Ground Level** Elevation **2632**
 Log Measured From **Kelly Bushing** 11 Ft. Above Perm. Datum
 Drilling Measured From **Kelly Bushing**

K.B. 2643
 D.F. G.L. 2632

Date	11/21/2017	
Run Number	One	
Type Log	CNL / CDL	
Depth Driller	4760	
Depth Logger	4762	
Bottom Logged Interval	4741	
Top Logged Interval	3850	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	3400	
Density	9.3	
Level	Full	
Max. Rec. Temp. F	124	
Operating Rig Time	3.5 Hours	
Equipment -- Location	108 Hays	
Recorded By	D. Fischer	
Witnessed By	Luke Thompson	

Borehole Record		Casing Record					
Run No	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	230	8.625	23#	00	230
Two	7.875	230	TD				

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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

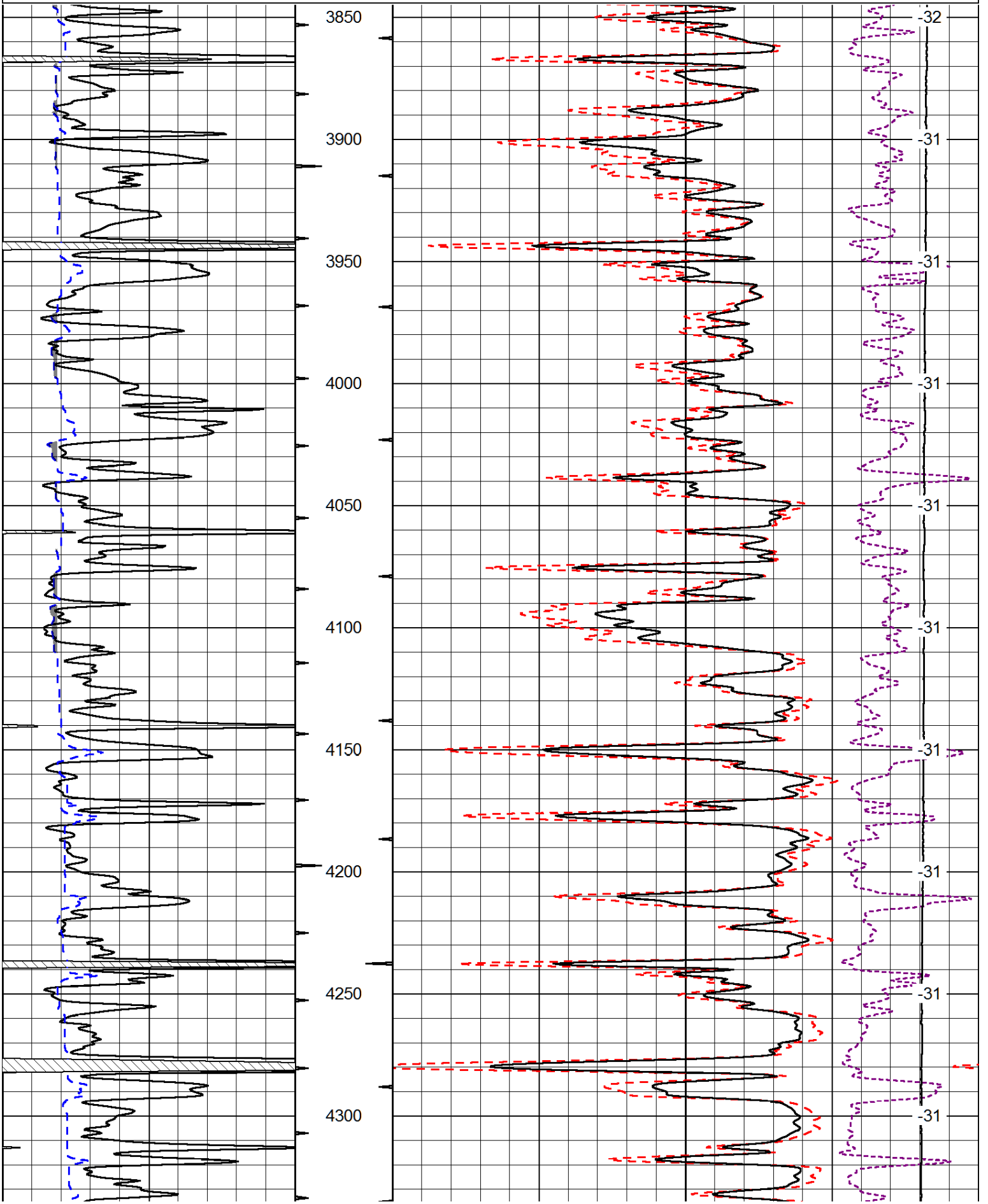
Thank you for using Log-Tech, Inc.
 (785) 625-3858

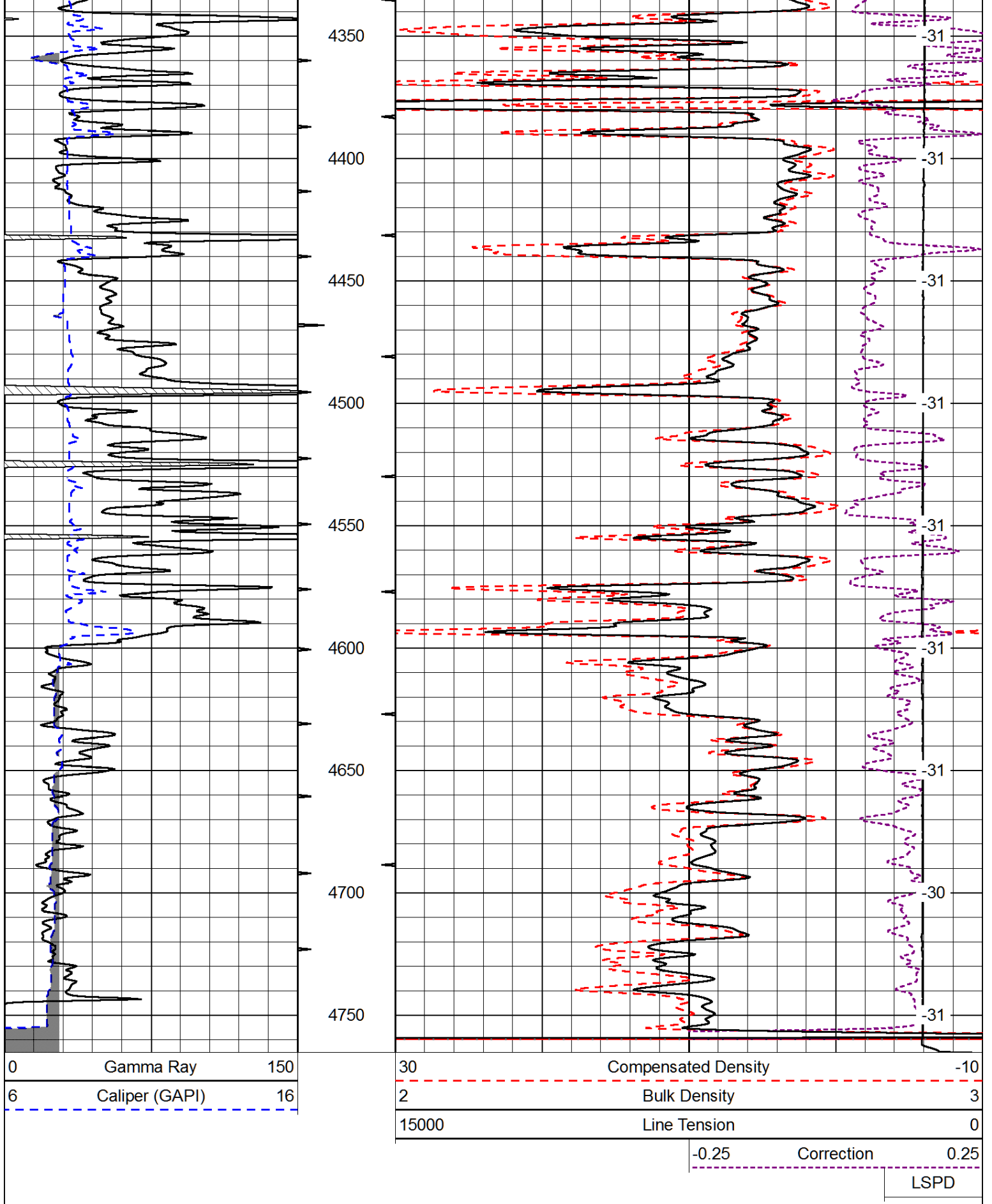
Beeler Ks., 3/4 West, 3 1/4 North, West Into

Database File: american_warrior_whipple_e_1-9hd.db
 Dataset Pathname: DIL/amstck
 Presentation Format: cdl
 Dataset Creation: Fri Nov 21 21:49:37 2014
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Density	-10	
2	Bulk Density	3	
15000	Line Tension	0	
	-0.25	Correction	0.25
			LSPD

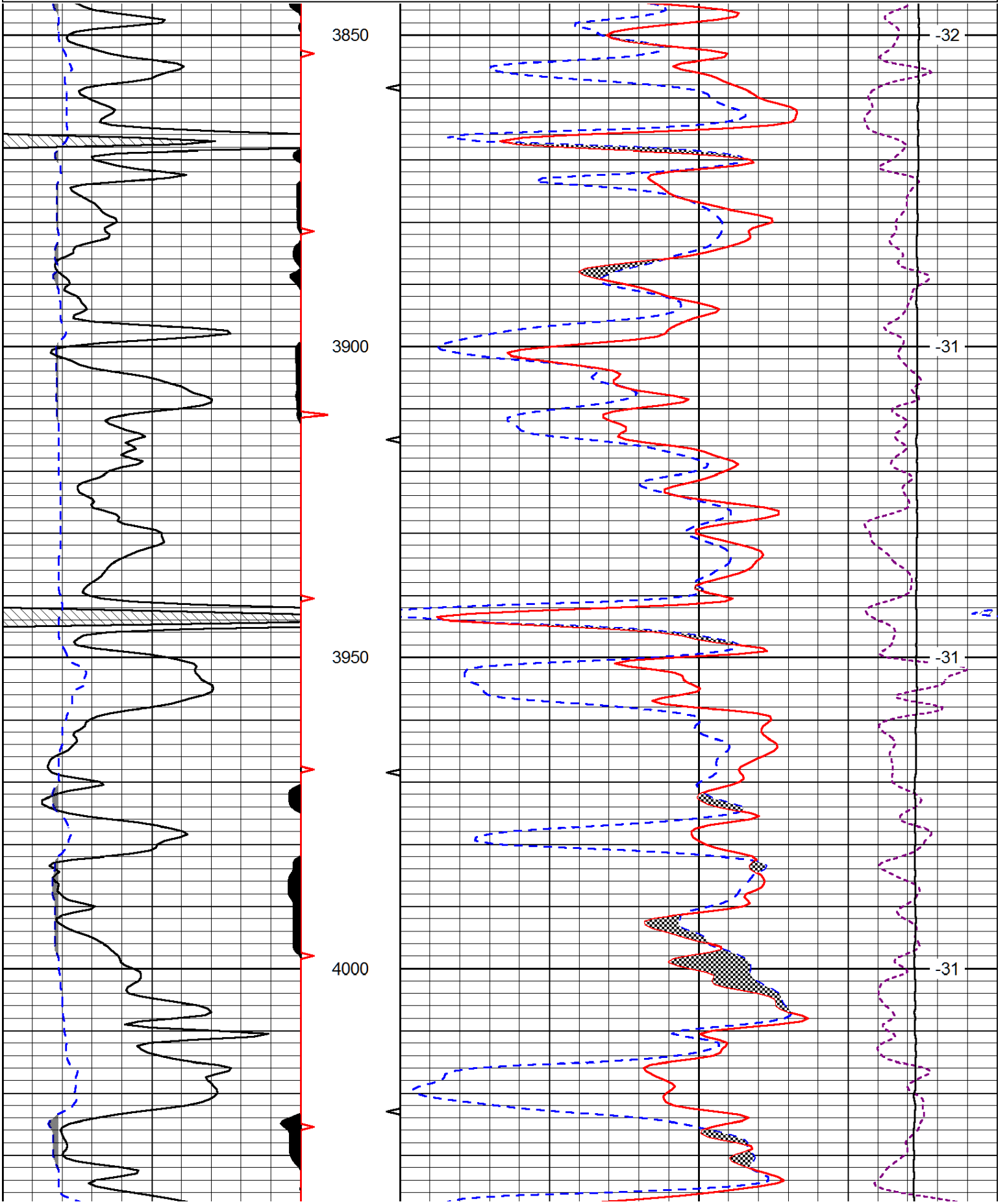


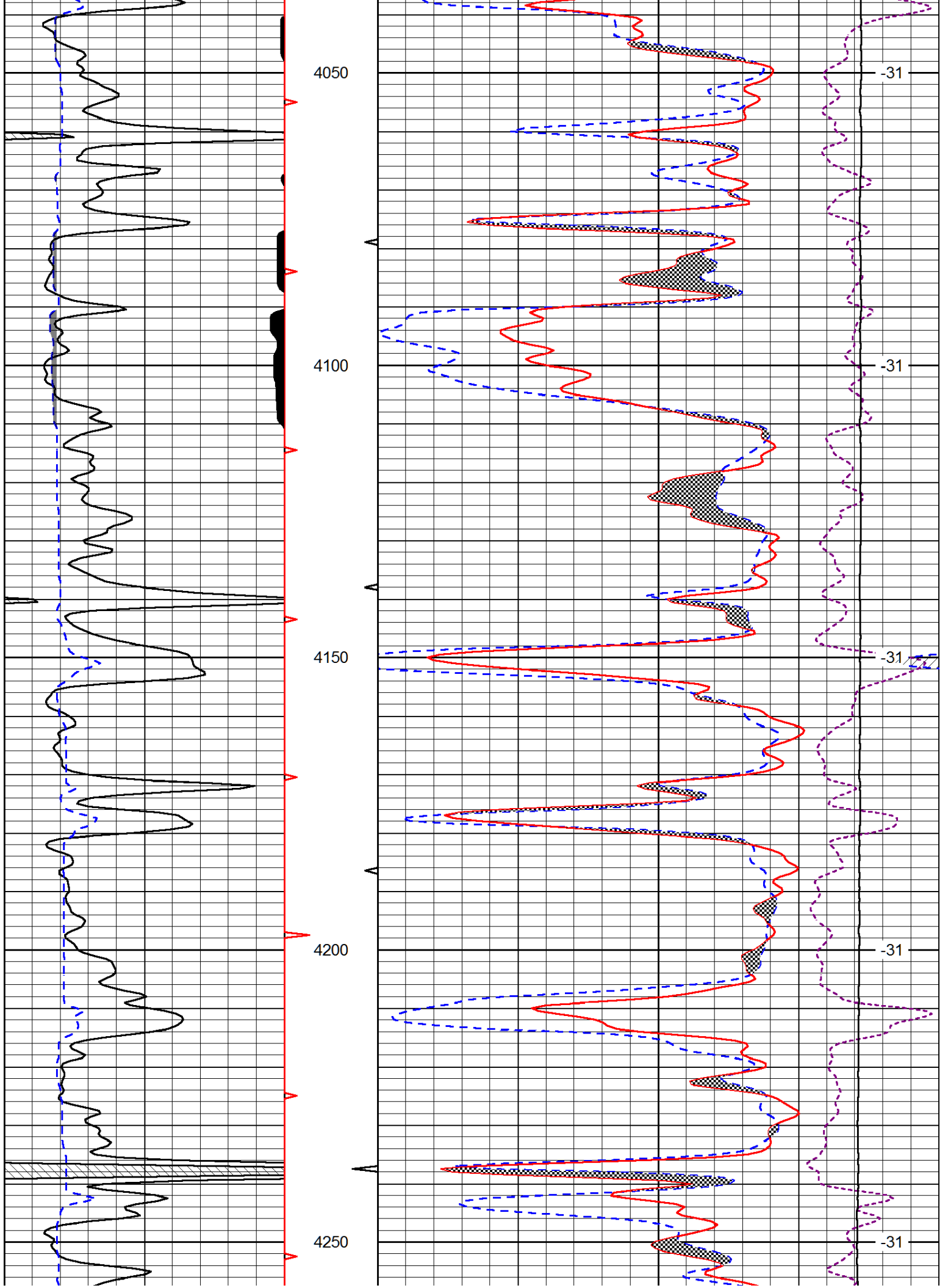


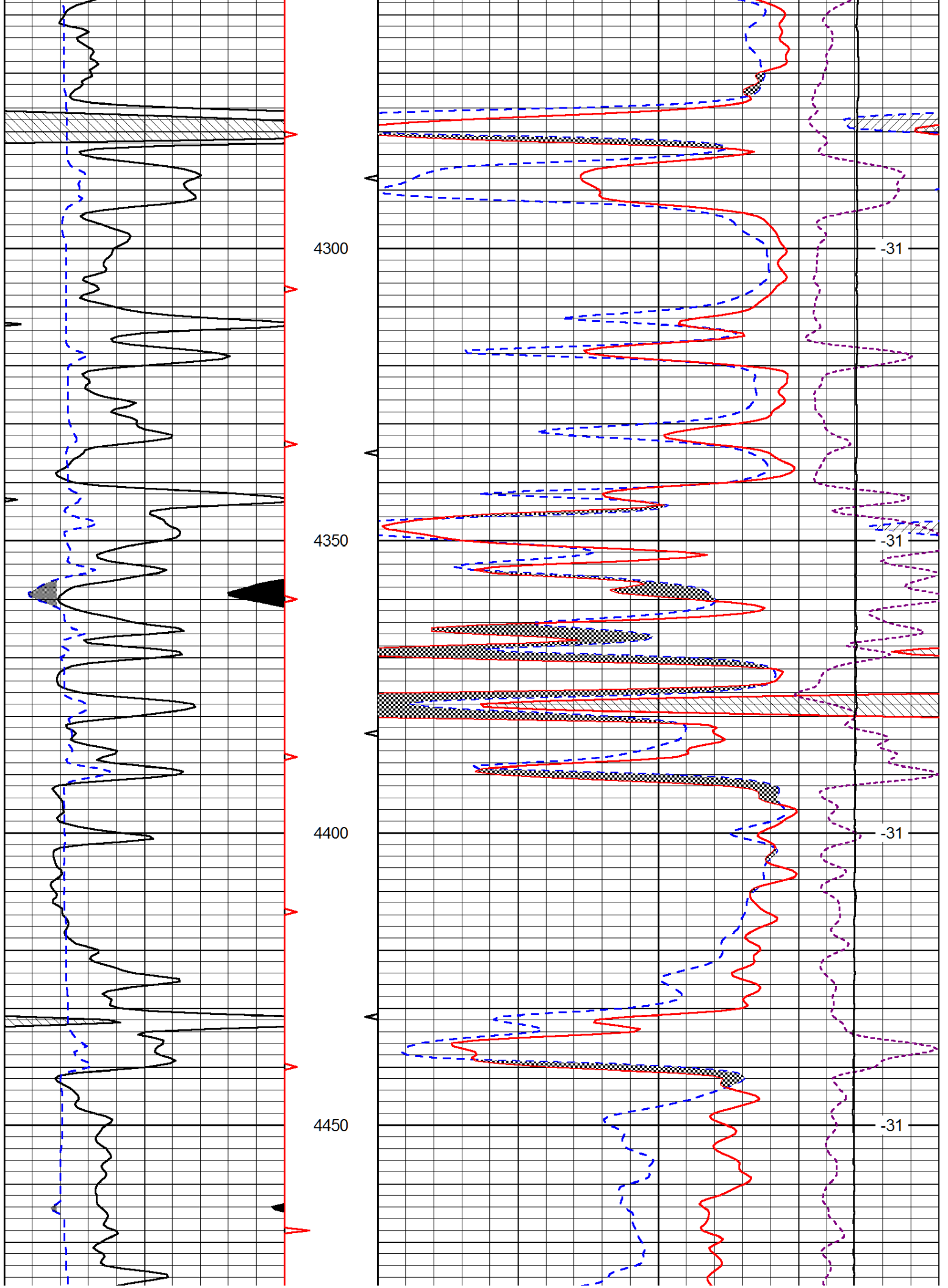
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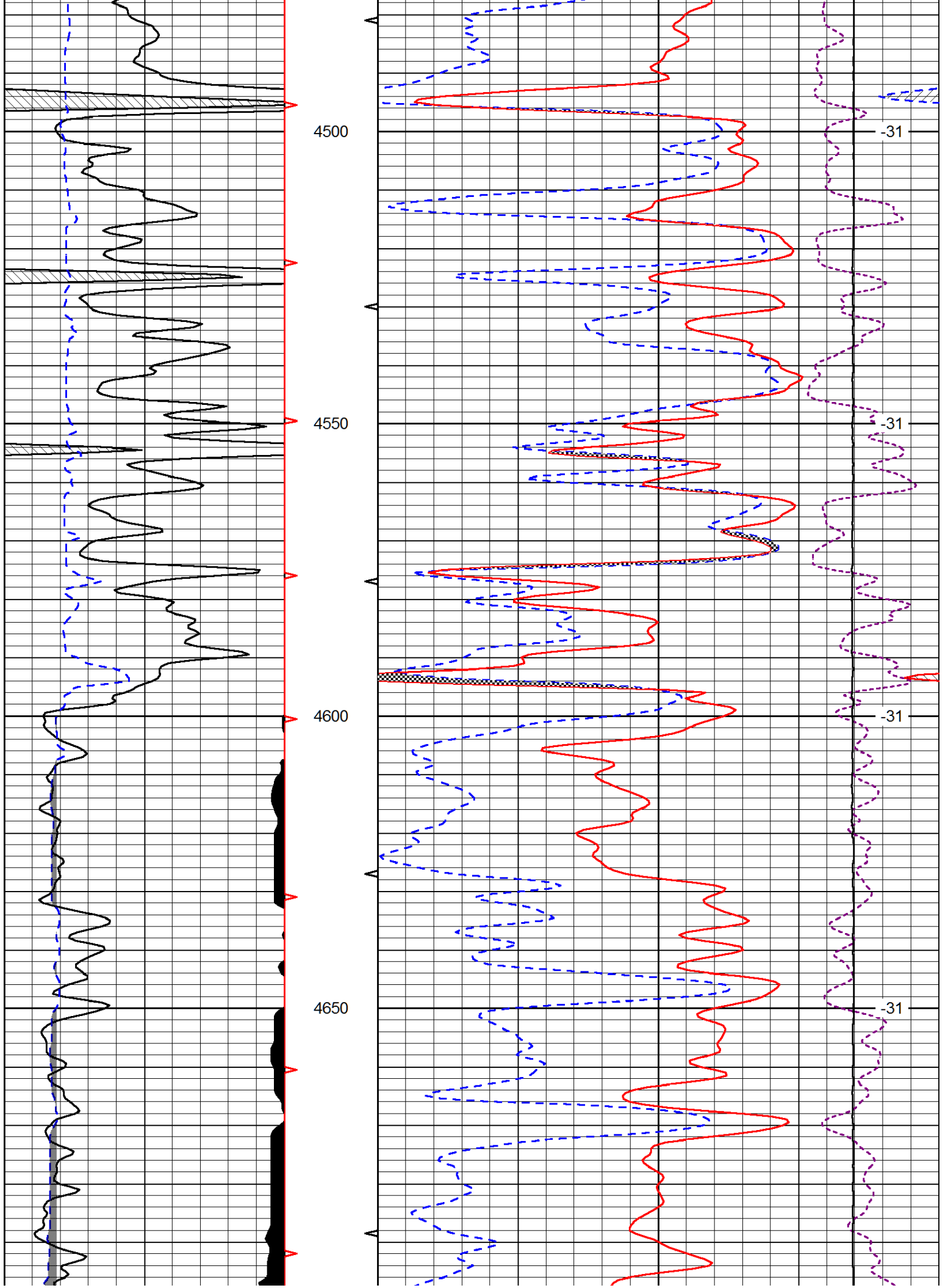
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6	Caliper (GAPI)	16

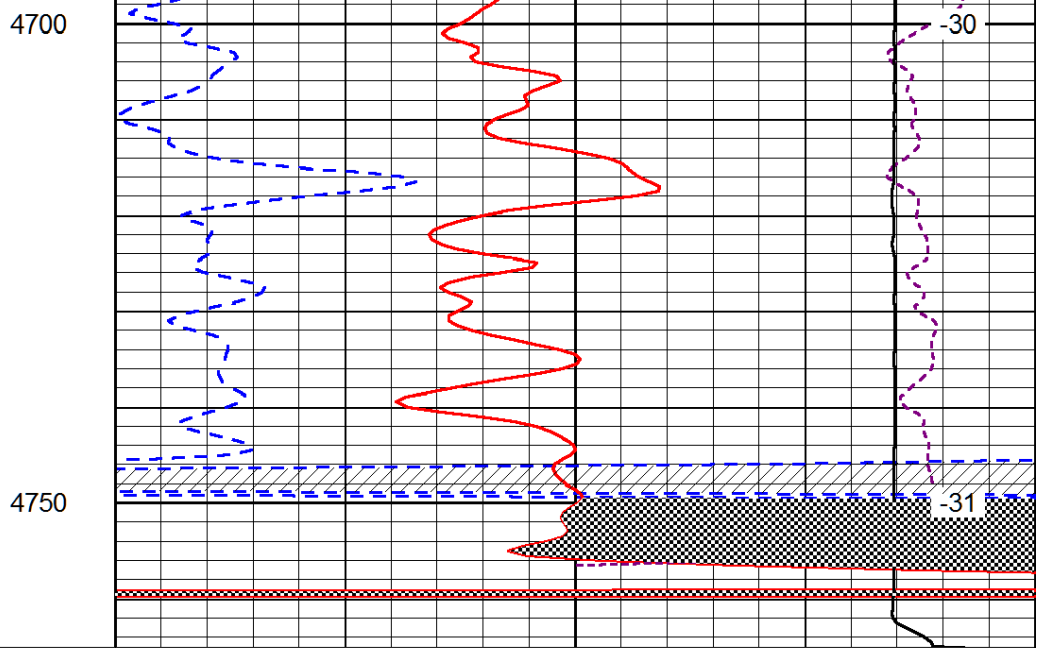
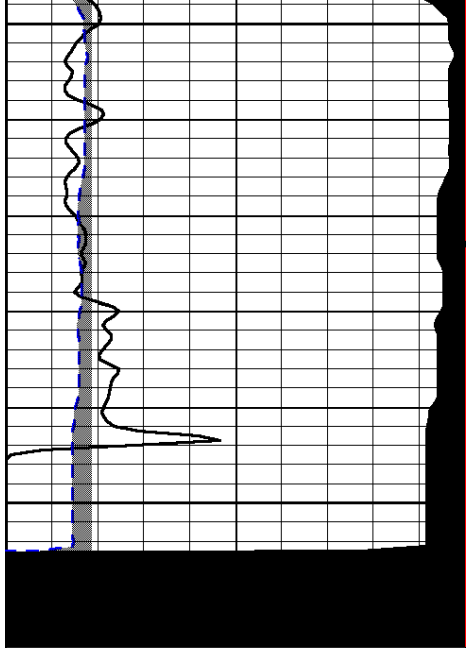
30	CNLS	-10	
30	Compensated Density (2.71 ma)	-10	
10000	Line Tension	0	
	-0.25	Correction	0.25
			LSPD











0	Gamma Ray	150
6	Caliper (GAPI)	16

30	CNLS	-10
30	Compensated Density (2.71 ma)	-10
10000	Line Tension	0
	-0.25 Correction	0.25
	LSPD	