



Dual Compensated Porosity Log

Pioneer Energy Services

API No.

15-109-21,351-00-00

Company Cobalt Energy, LLC

Well Boyd 'A' #1-16

Field Wildcat

County Logan

State Kansas

Location

406' FSL & 1669' FEL

Other Services
DIL
MEL

Sec: 16

Twp: 11S

Rge: 34W

Elevation

Permanent Datum Ground Level Elevation 3189

Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

K.B. 3200
D.F.
G.L. 3189

Date 10/19/2014

Run Number One

Type Log CNL / CDL

Depth Driller 4817

Depth Logger 4817

Bottom Logged Interval 4796

Top Logged Interval 3800

Type Fluid In Hole Chemical

Salinity, PPM CL 3,500

Density 9.5

Level Full

Max. Rec. Temp. F 124

Operating Rig Time 4 Hours

Equipment -- Location 108 Hays

Recorded By J. Henrickson

Witnessed By Paul Gunzelman

Borehole Record

Casing Record

Run No

Bit

From

To

Size

Wgt.

From

To

1

12.25

00

224

8.625

24#

00

224

<<< Fold Here >>>

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.

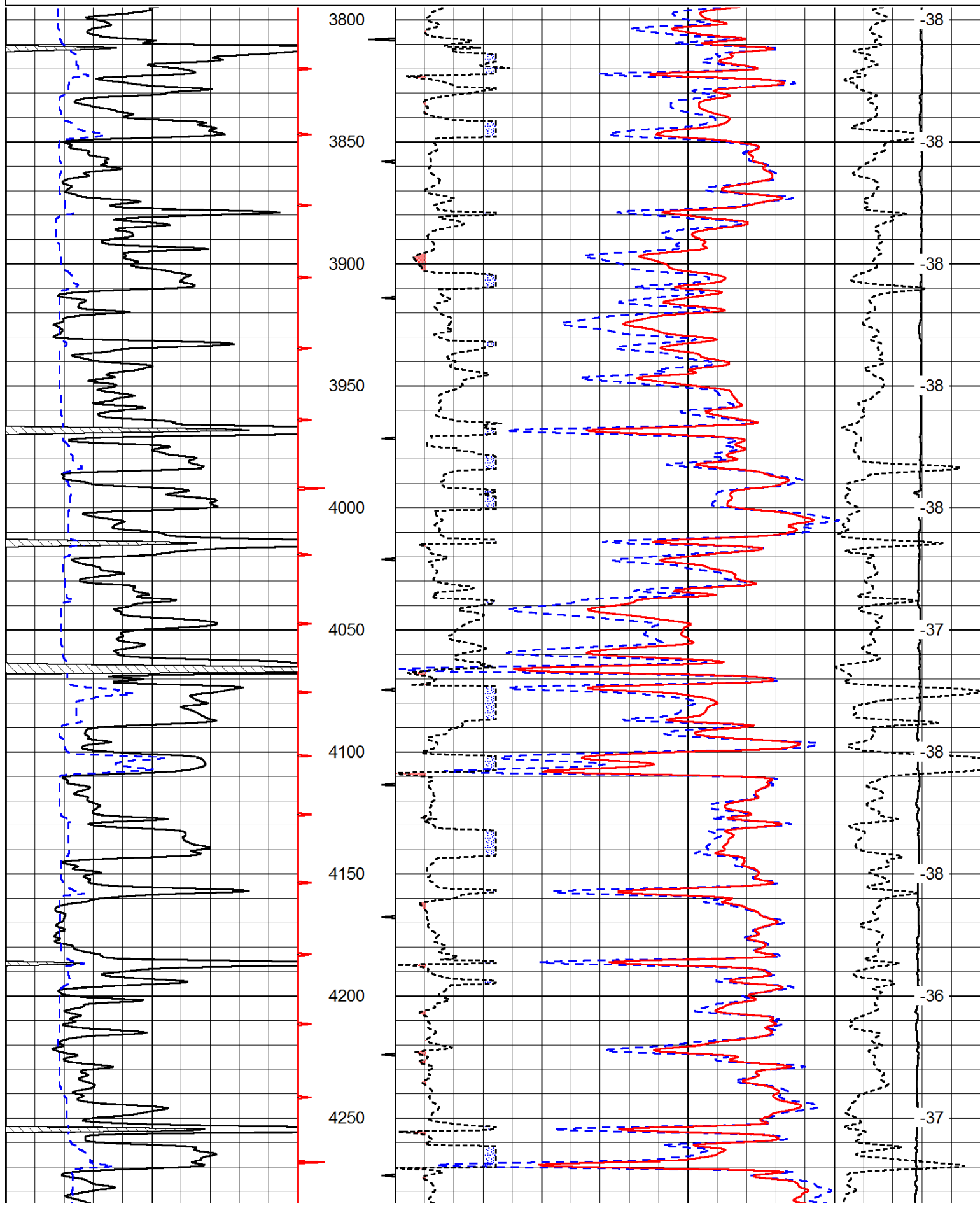
Comments

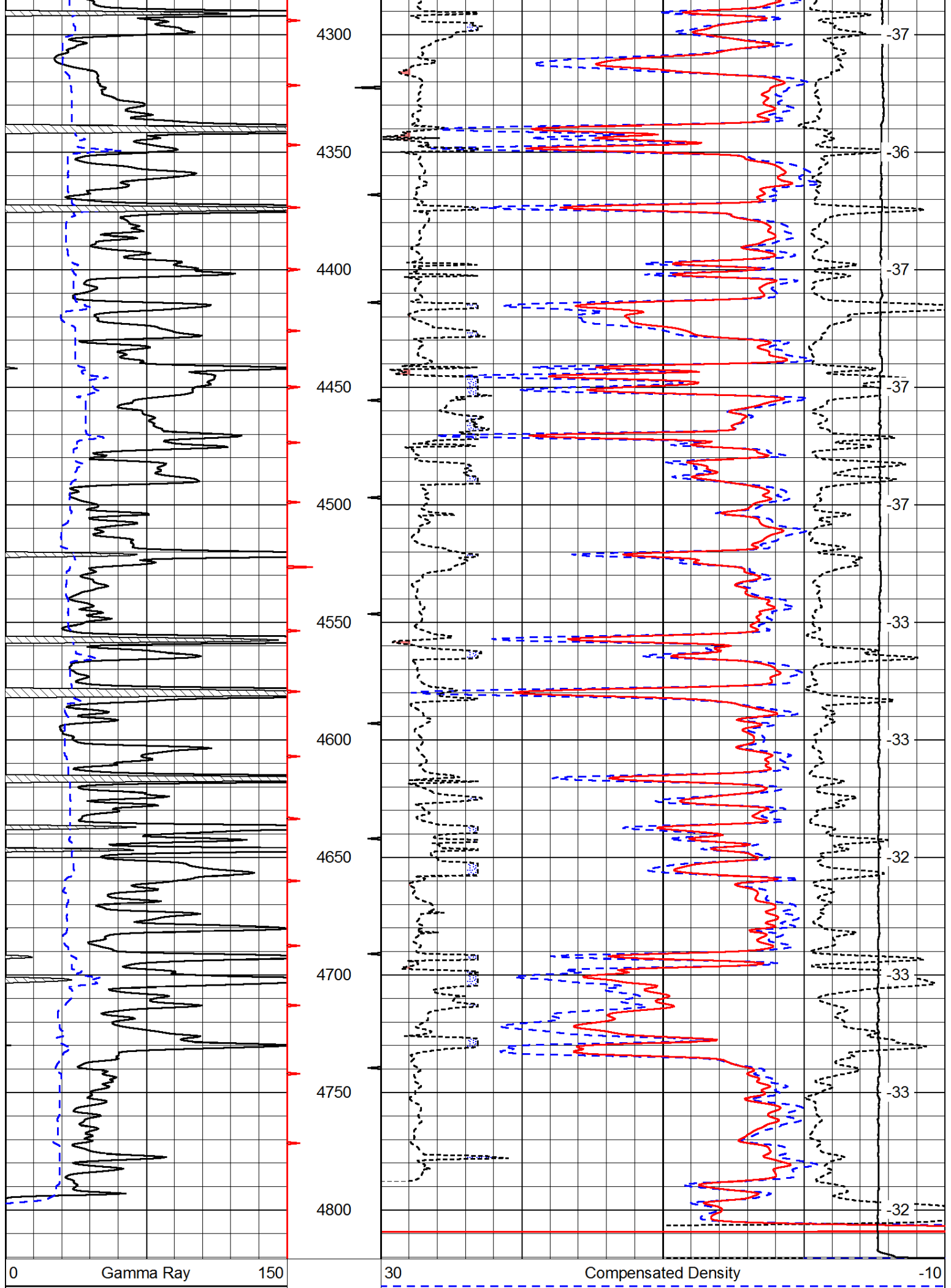
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

Monument Kansas
4 West, 1 South, 1/2 West, North Into

Database File: c:\warrior\data\cobalt_boyd 'a' #1-16\cobalt_boyd_a_1_16hd.db
Dataset Pathname: DIL/cobstk
Presentation Format: cdl
Dataset Creation: Sun Oct 19 16:35:31 2014
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150	30	Compensated Density		-10
6	Caliper (GAPI)	16	2	Bulk Density		3
			15000	Line Tension		0
2.625	DGA	3.425	-0.25	Correction	0.25	
						LSPD





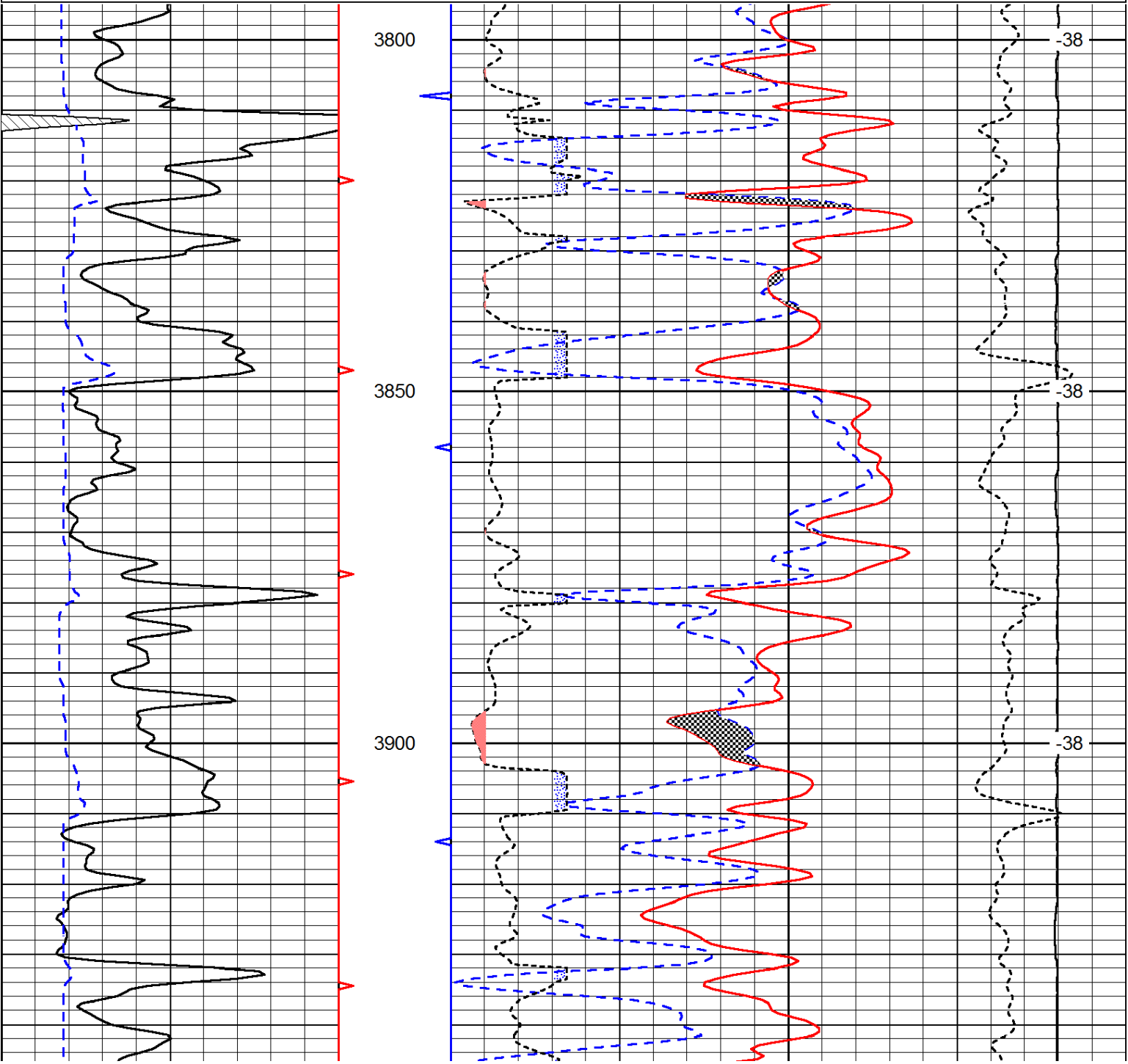
6	Caliper (GAPI)	16
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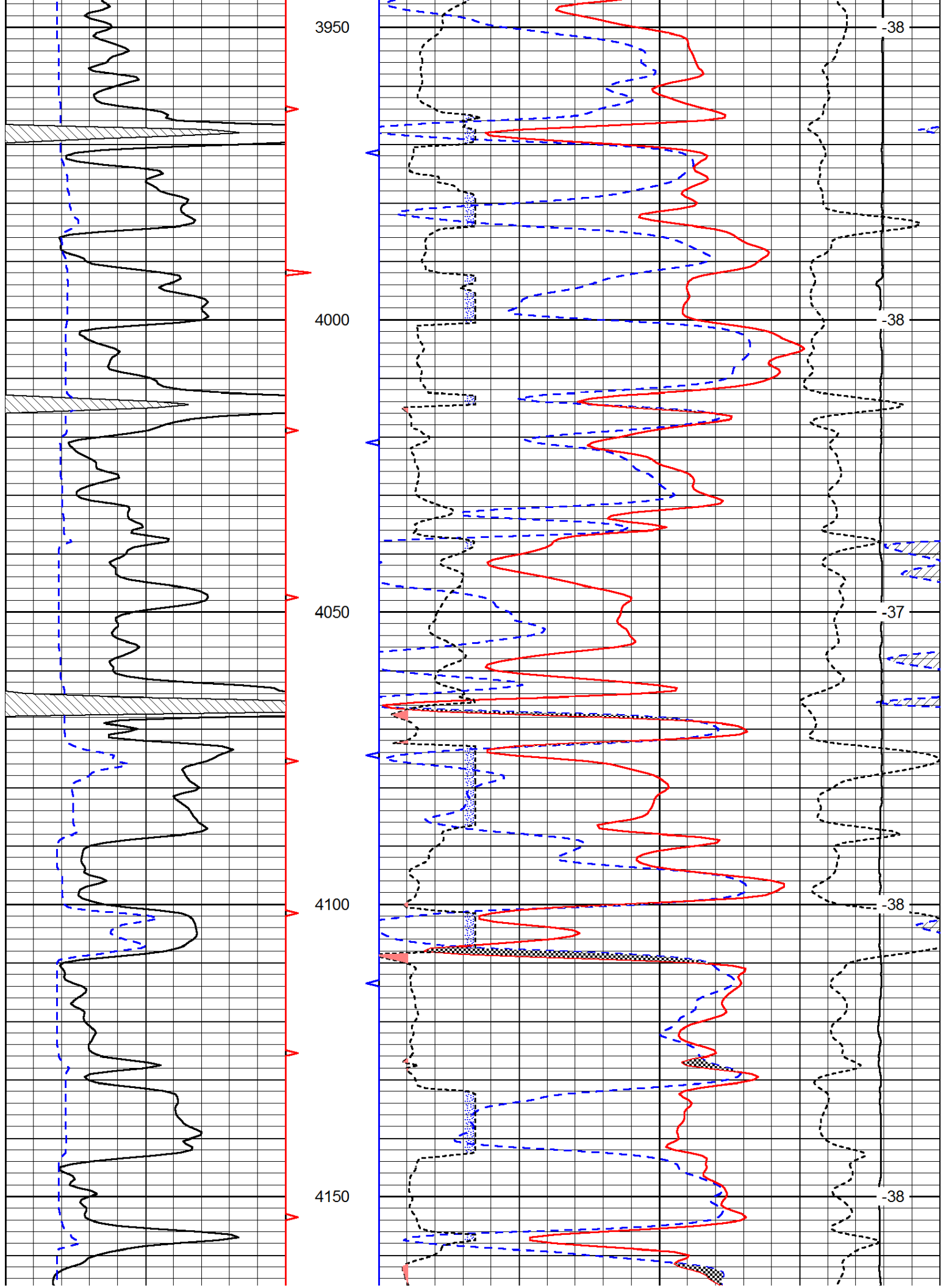
2	Bulk Density				3
15000	Line Tension				0
2.625	DGA	3.425	-0.25	Correction	0.25
					LSPD

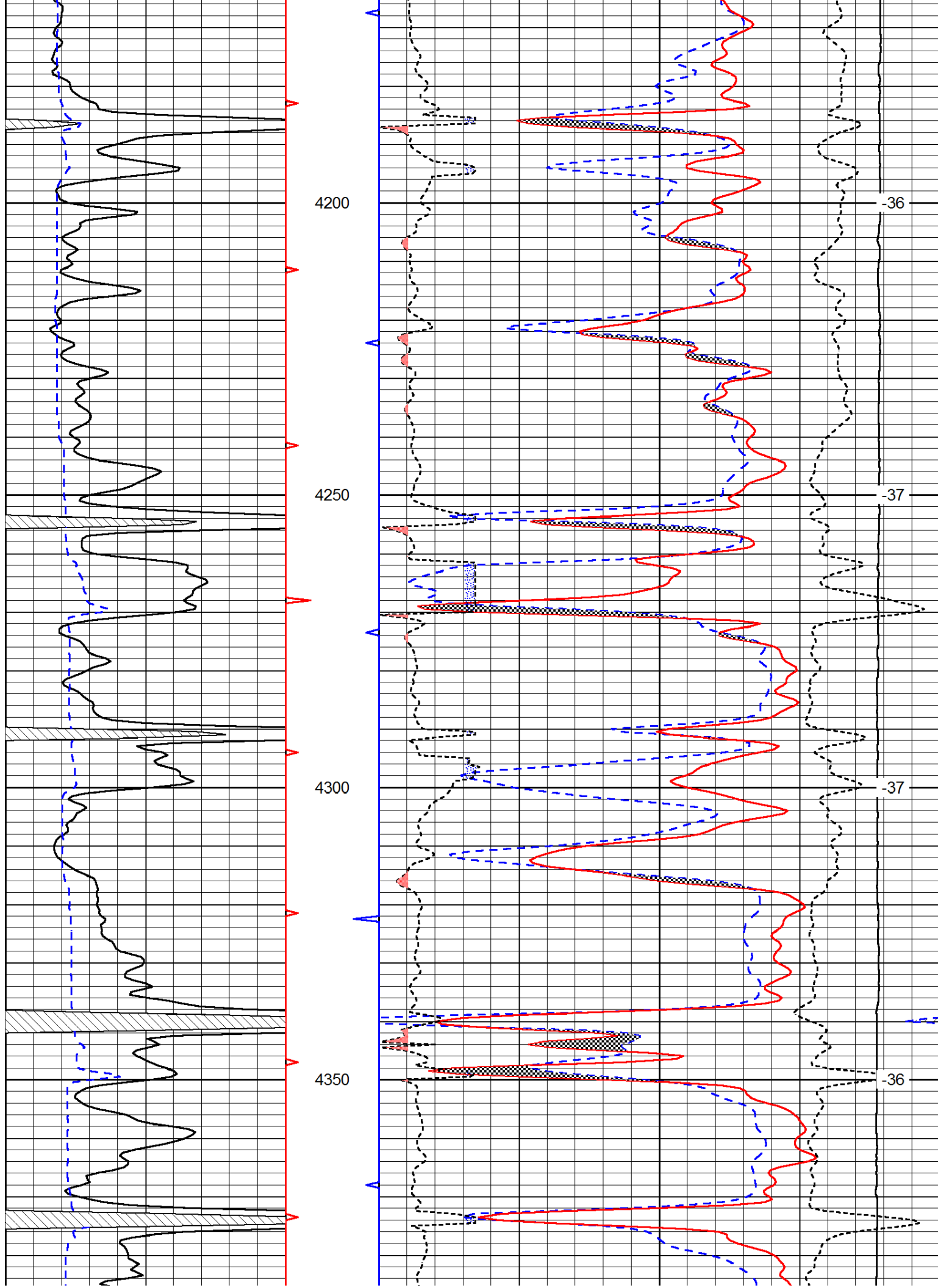
Database File:		c:\warrior\data\cobalt_boyd 'a' #1-16\cobalt_boyd_a_1_16hd.db			
Dataset Pathname:		DIL/cobstk			
Presentation Format:		cndlspec			
Dataset Creation:		Sun Oct 19 16:35:31 2014			
Charted by:		Depth in Feet scaled 1:240			

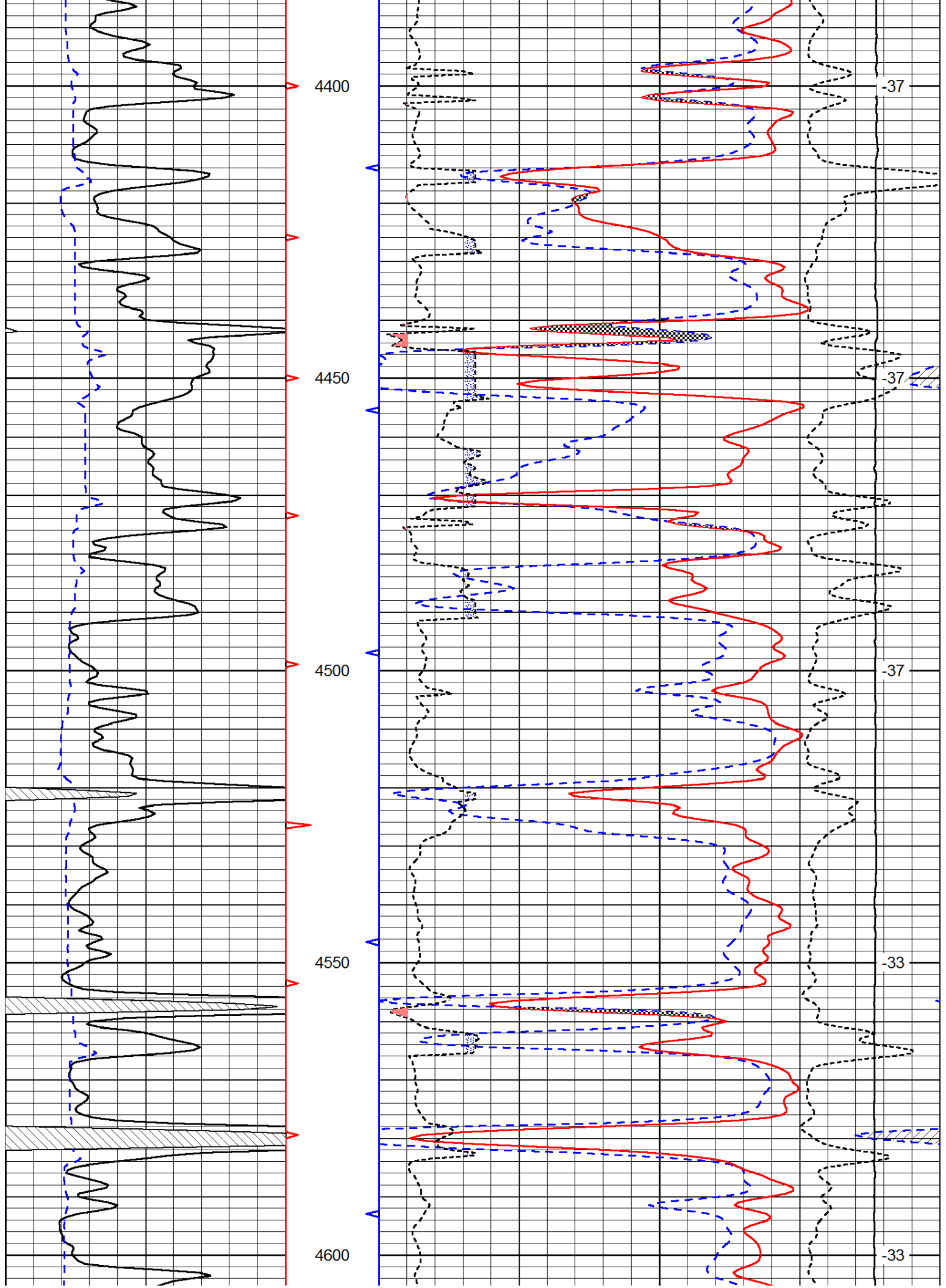
0	Gamma Ray	150
6	Caliper (GAPI)	16

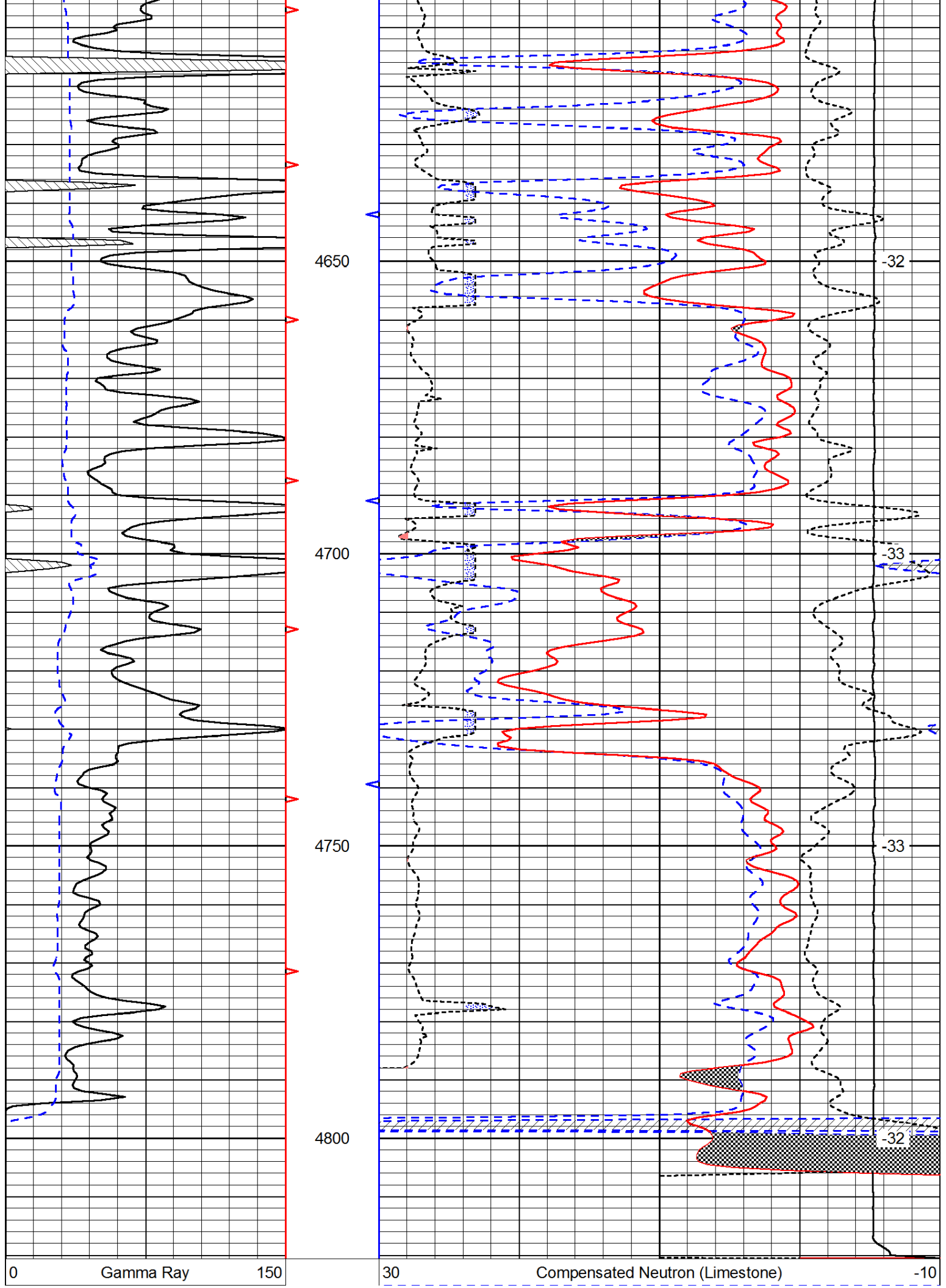
30	Compensated Neutron (Limestone)				-10
30	Compensated Density (Limestone)				-10
2.625	DGA	3.425	-0.25	Correction	0.25
15000	Line Tension				0
					LSPD











6		Caliper (GAPI)		16		30		Compensated Density (Limestone)		-10	
						2.625		DGA		3.425	
						-0.25		Correction		0.25	
						15000		Line Tension		0	
										LSPD	