



Dual Compensated Porosity Log

Pioneer Energy Services

API No.

15-101-22432-00-00

Company **Larson Engineering, Inc.**
Well **Harper-James #1-22**
Field **Wildcat**
County **Lane** State **Kansas**

Location **224' FNL & 1916' FWL**

Other Services
DIL
MEL

Permanent Datum **Ground Level** Elevation **2796**
Log Measured From **Kelly Bushing** 7 Ft. Above Perm. Datum
Drilling Measured From **Kelly Bushing**

Elevation
K.B. 2803
D.F.
G.L. 2796

Date **4/15/2013**

Run Number **One**

Type Log **CNL / CDL**

Depth Driller **4630**

Depth Logger **4632**

Bottom Logged Interval **4611**

Top Logged Interval **3600**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **2400**

Density **9.6**

Level **Full**

Max. Rec. Temp. F **124**

Operating Rig Time **4 Hours**

Equipment -- Location **91 Hays**

Recorded By **Y. Ruiz**

Witnessed By **Vern Schrag**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	283	8.625	24#	00	283
2	7.8758	283	4630				

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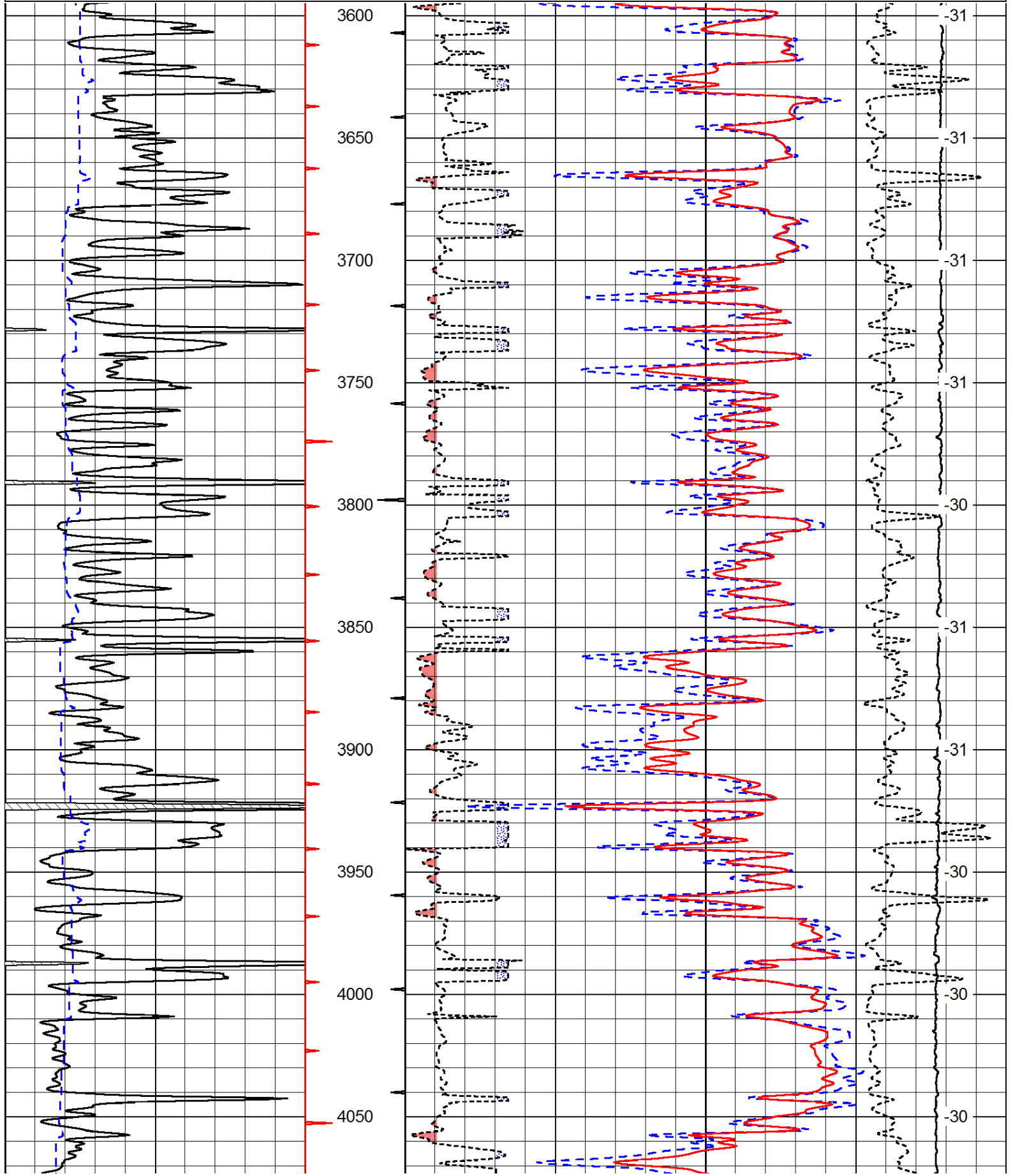
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

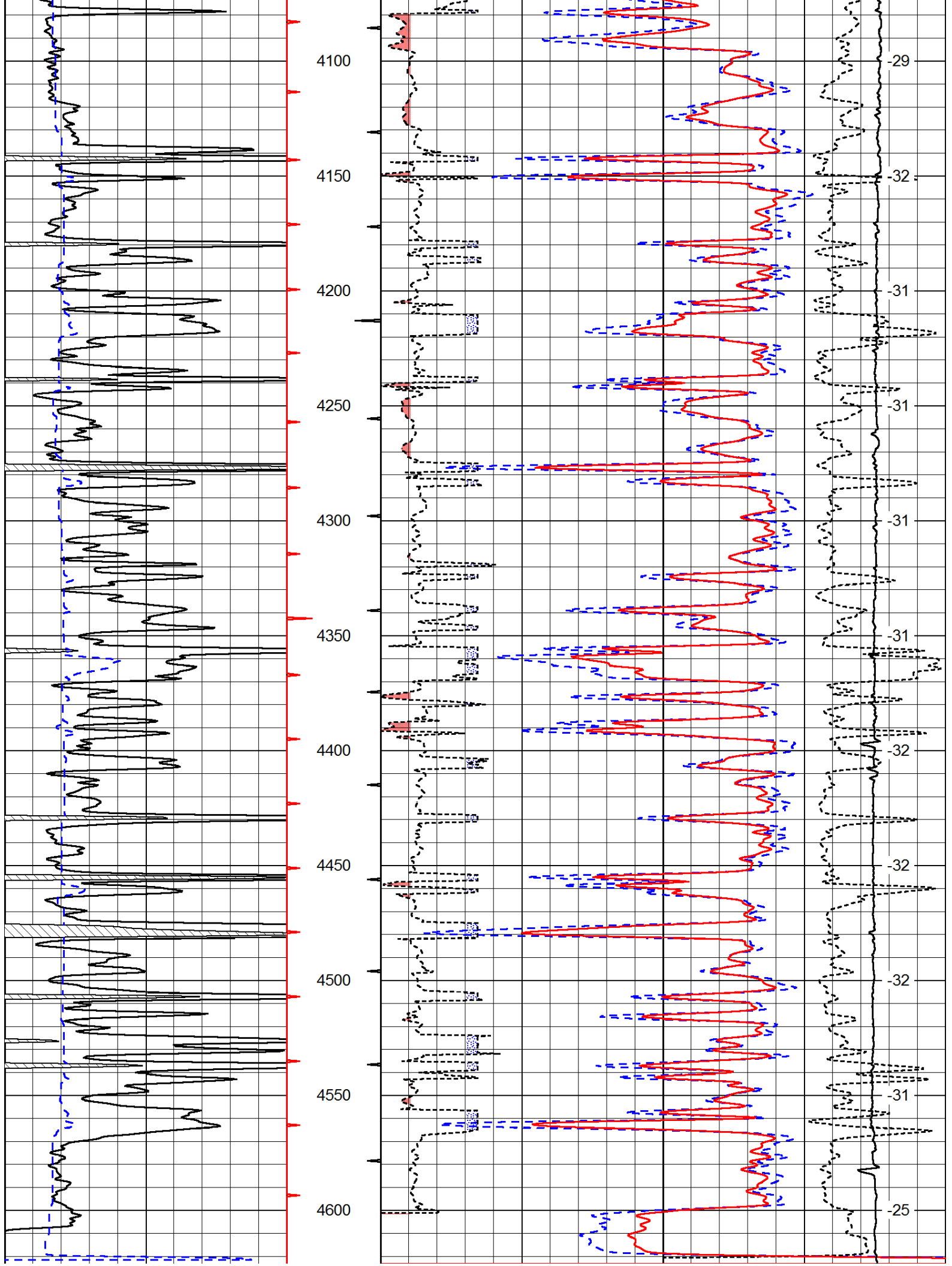
Comments

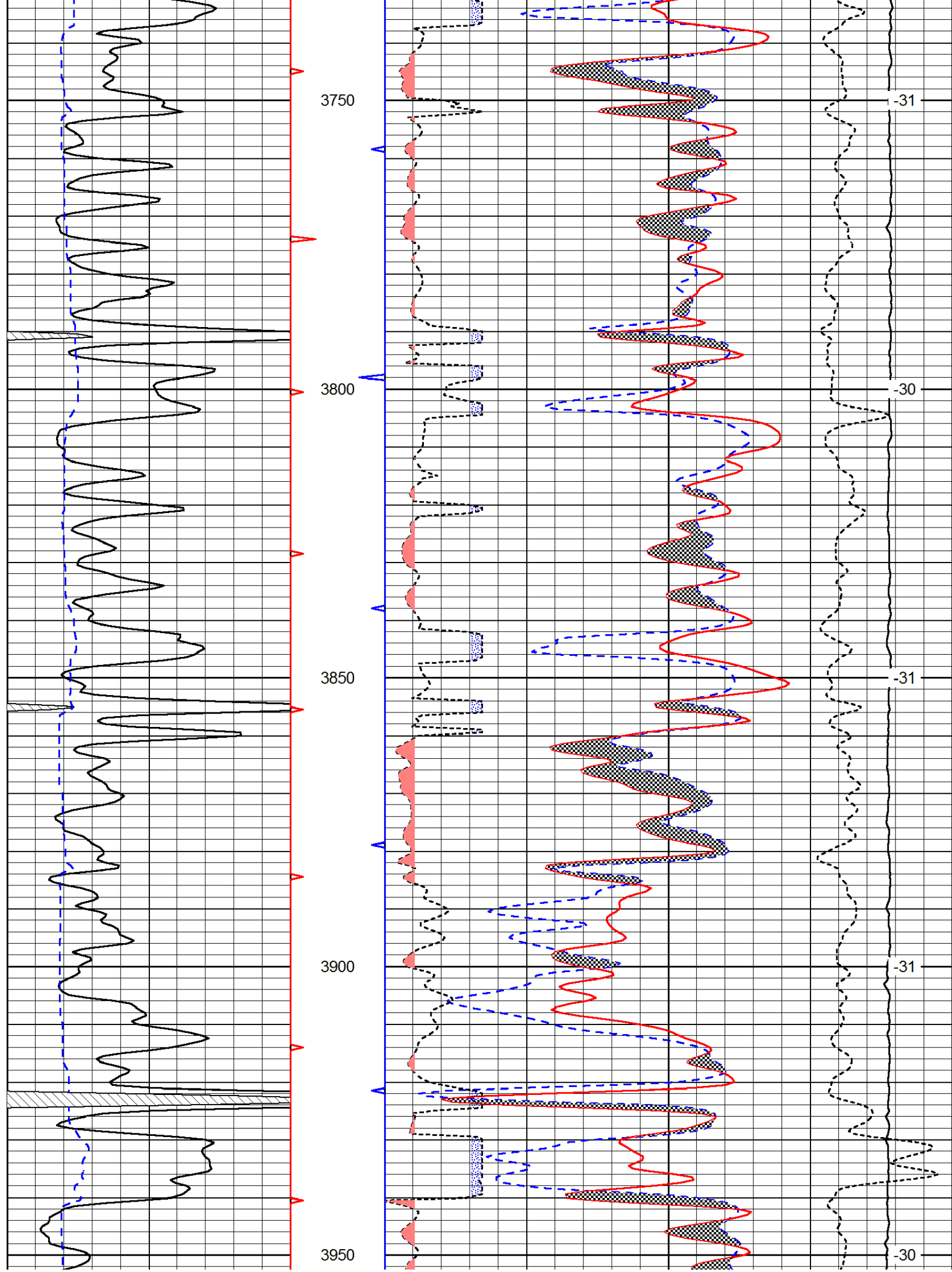
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Dighton,
2 1/2 West,
South into

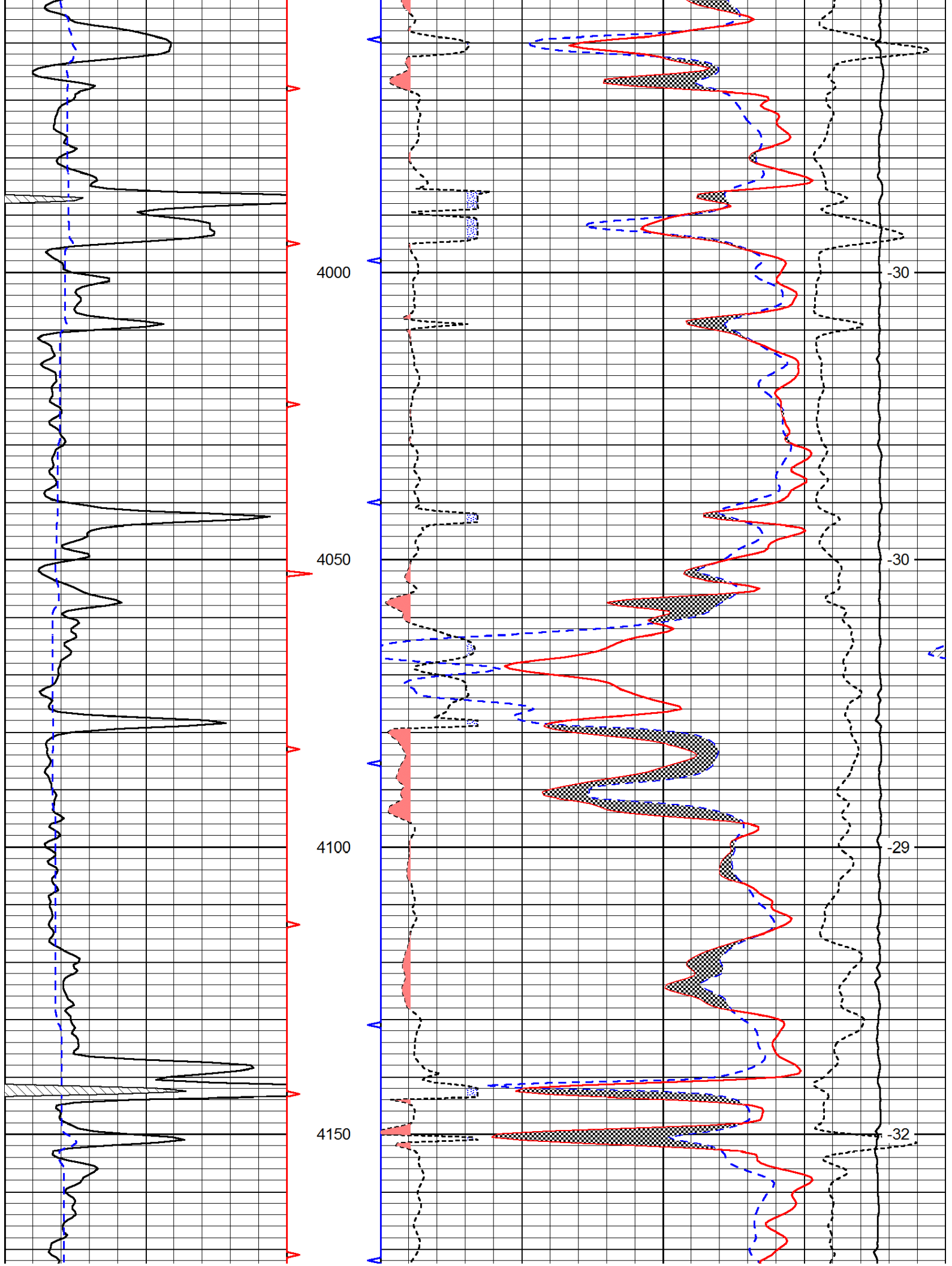
Database File: c:\warrior\data\larson_harper-james #1-22\larson_041513hd.db
Dataset Pathname: dil\larstk
Presentation Format: cdl
Dataset Creation: Mon Apr 15 22:54:16 2013
Charted by: Depth in Feet scaled 1:600

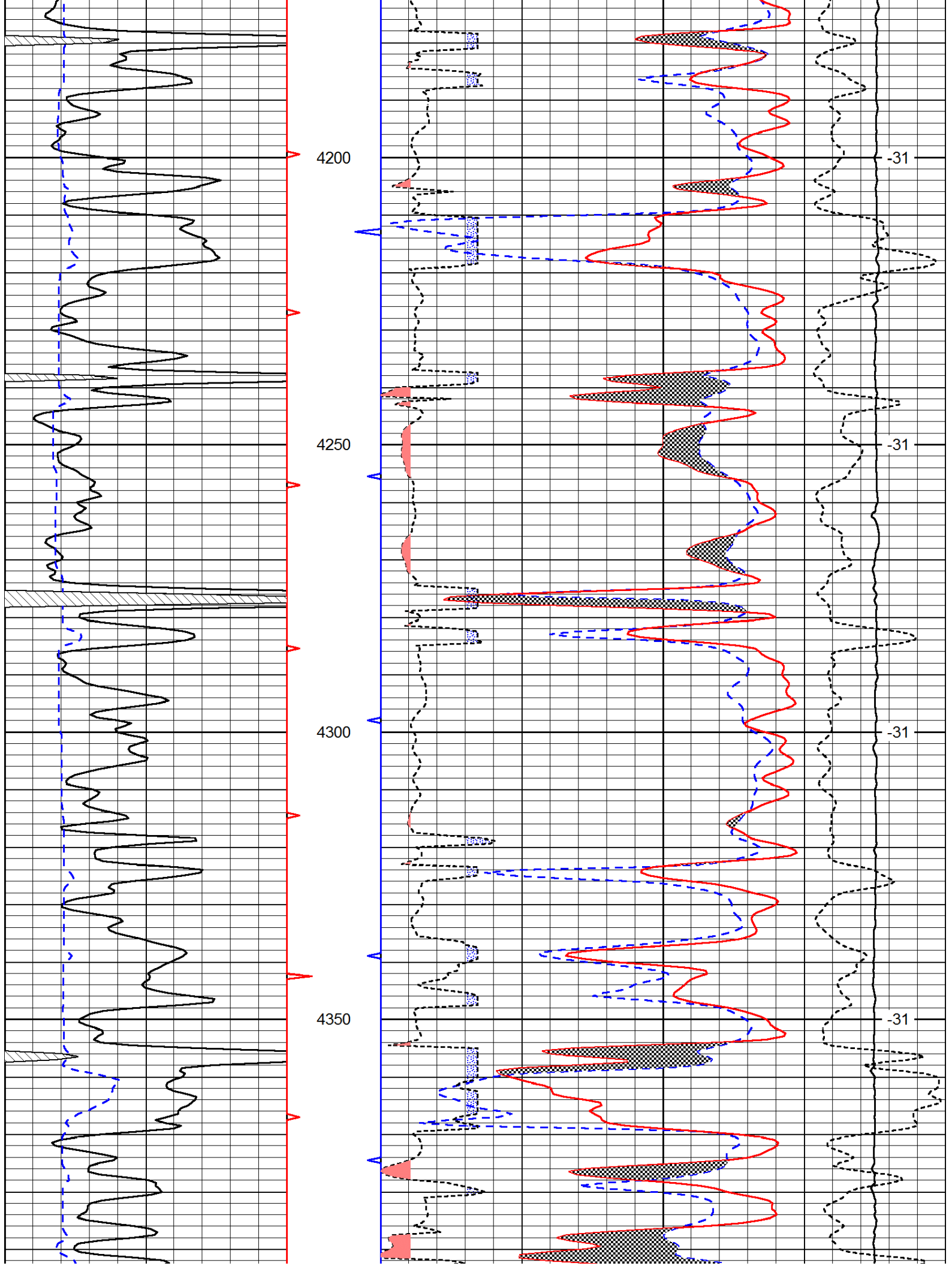
Charted by: Depth in Feet scaled 1:600		
0	Gamma Ray	150
6	Caliper (GAPI)	16
30	Compensated Density	
2	Bulk Density	
15000	Line Tension	
2.625	DGA	3.425
-0.25	Correction	0.25
		LSPD

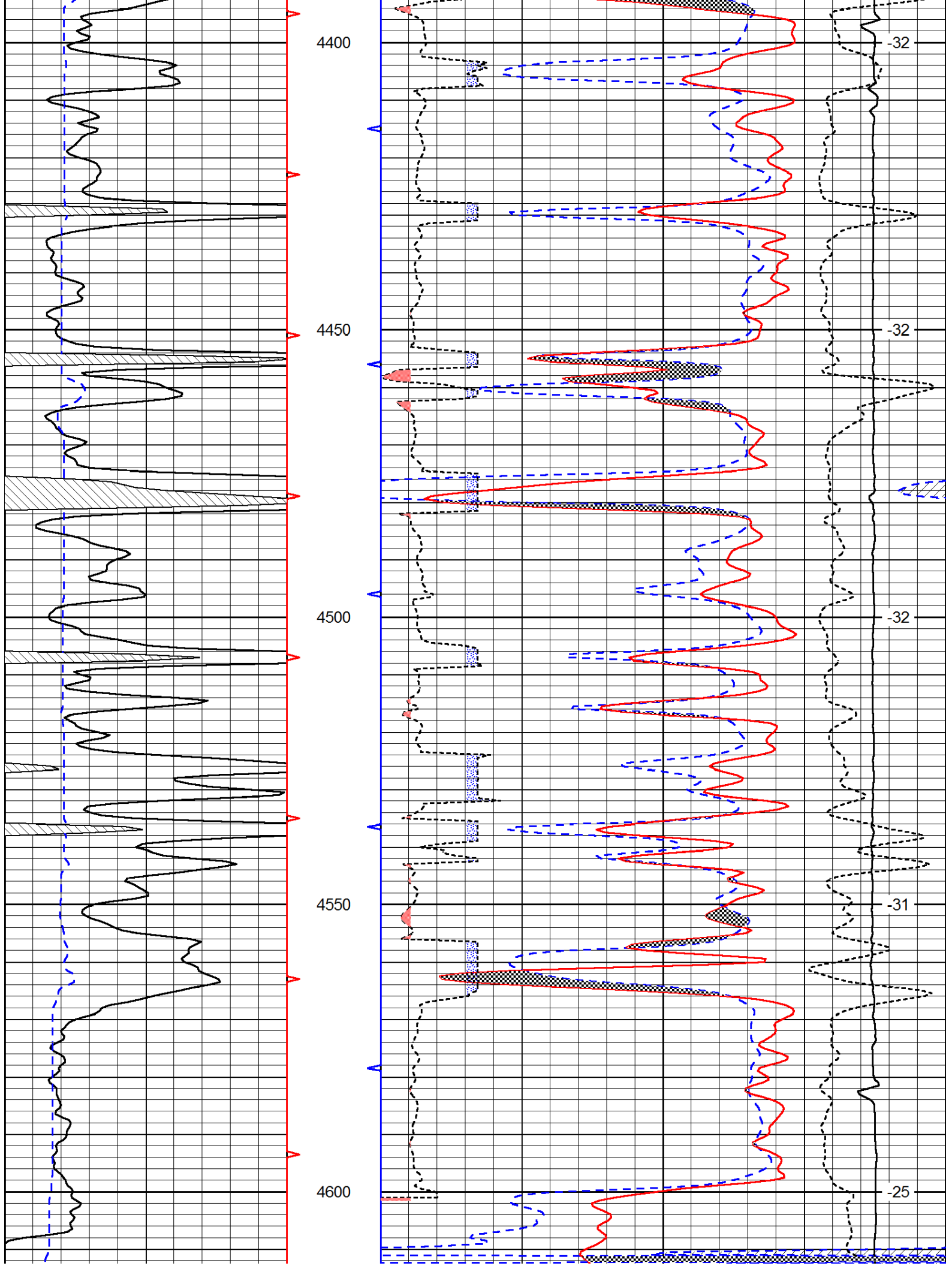


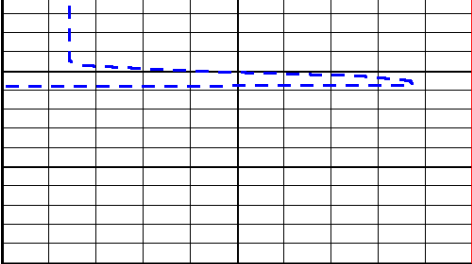




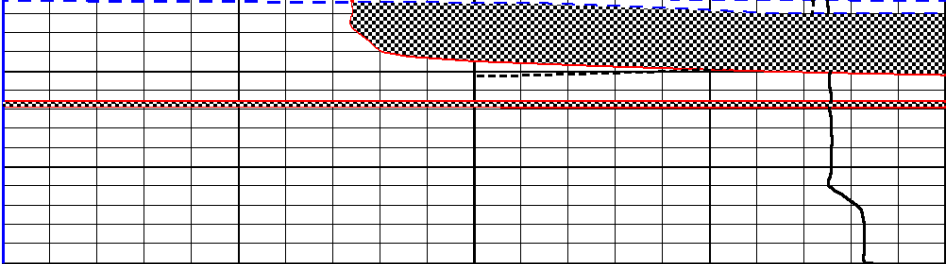








0	Gamma Ray	150
6	Caliper (GAPI)	16



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