



PIONEER

Pioneer Energy Services

Dual Compensated Porosity Log

API No.

15-113-21,371-00-00

Company Torchlight Energy Operating, LLC

Well Hudson #9-1T

Field Lindsborg

County McPherson

State Kansas

Location 660' FNL & 1654' FWL

Other Services
DIL/MEL

Sec: 9

Twp: 17S

Rge: 3W

Elevation

Permanent Datum Ground Level Elevation 1332

Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum

K.B. 1342
D.F.
G.L. 1332

Date 7/16/2014

Run Number One

Type Log CNL / CDL

Depth Driller 3520

Depth Logger 3515

Bottom Logged Interval 3494

Top Logged Interval 2800

Type Fluid In Hole Chemical

Salinity, PPM CL 2600

Density 8.7

Level Full

Max. Rec. Temp. F 111

Operating Rig Time 4 Hours

Equipment -- Location 15 Days

Recorded By D.Kerr

Witnessed By John Worley

Borehole Record

Casing Record

Run No	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	519	8.625	23#	00	519
Two	7.875	519	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

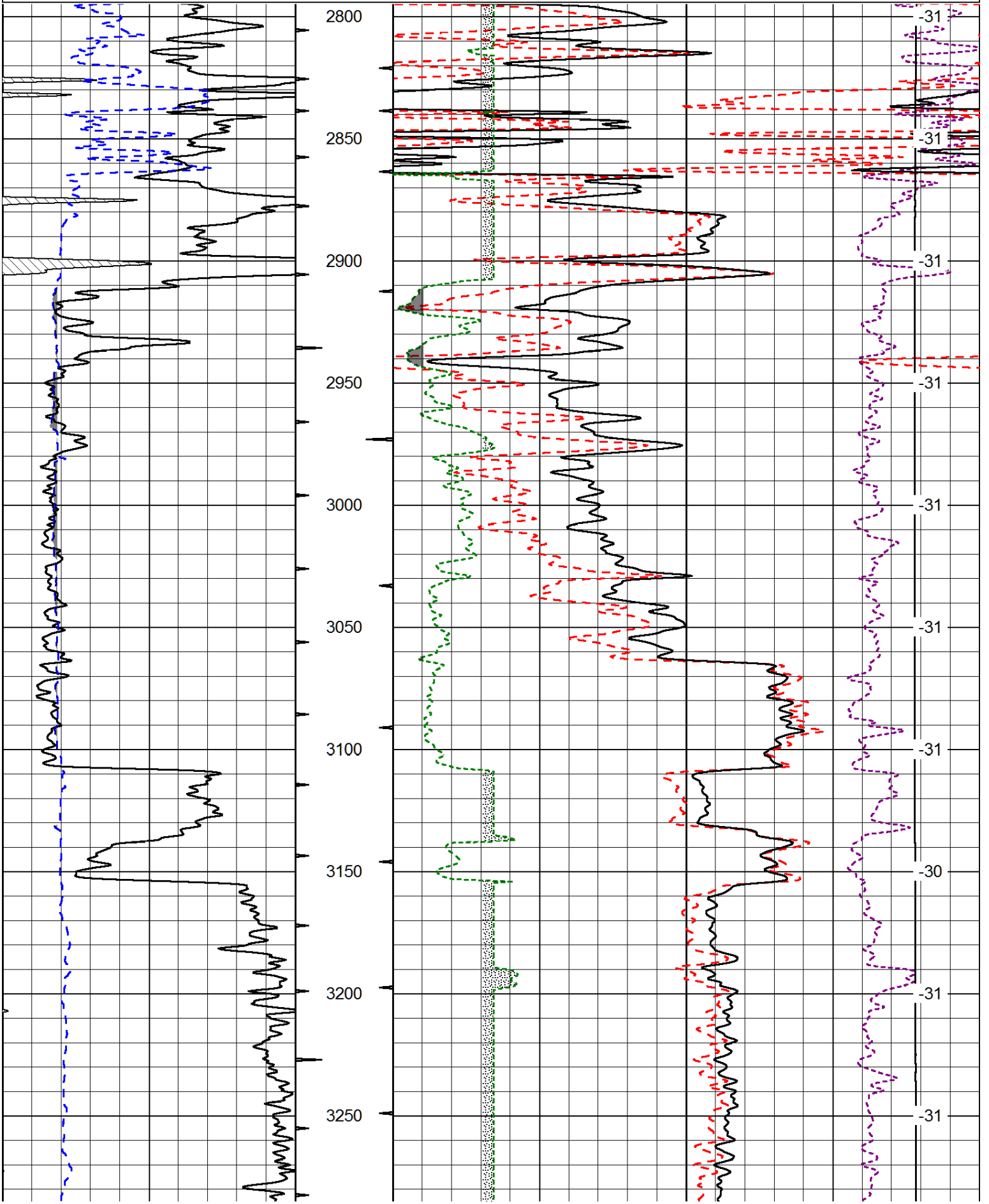
Thank you for using Log-Tech, Inc.
(785) 625-3858

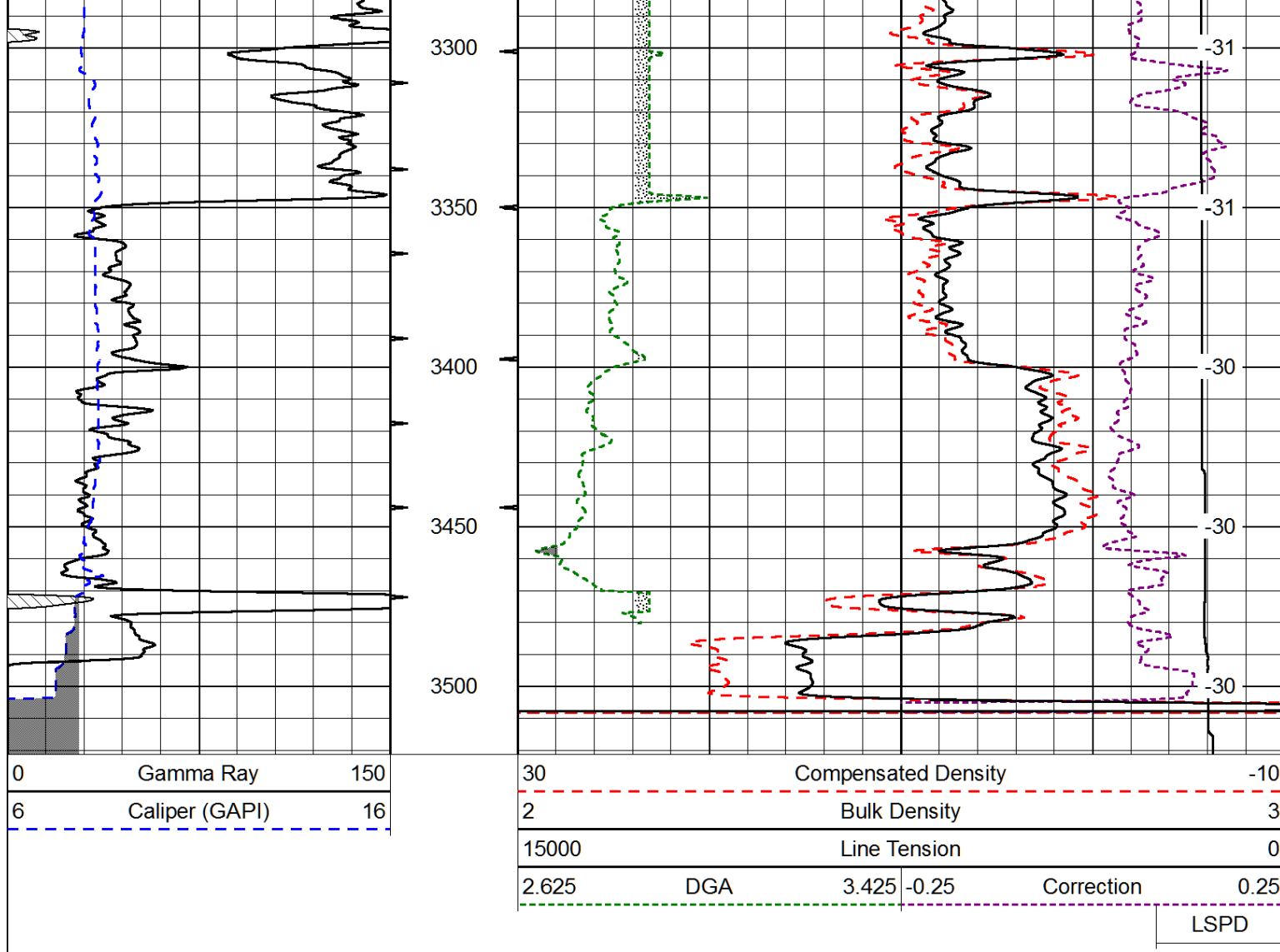
Lindsborg KS, East to Wheatridge RD,
3/4 West, South Into

Database File: torchlight_hudson_9_1thd.db
Dataset Pathname: DIL/tlstk
Presentation Format: cdl
Dataset Creation: Thu Jul 17 01:13:29 2014
Charted by: Depth in Feet scaled 1:600

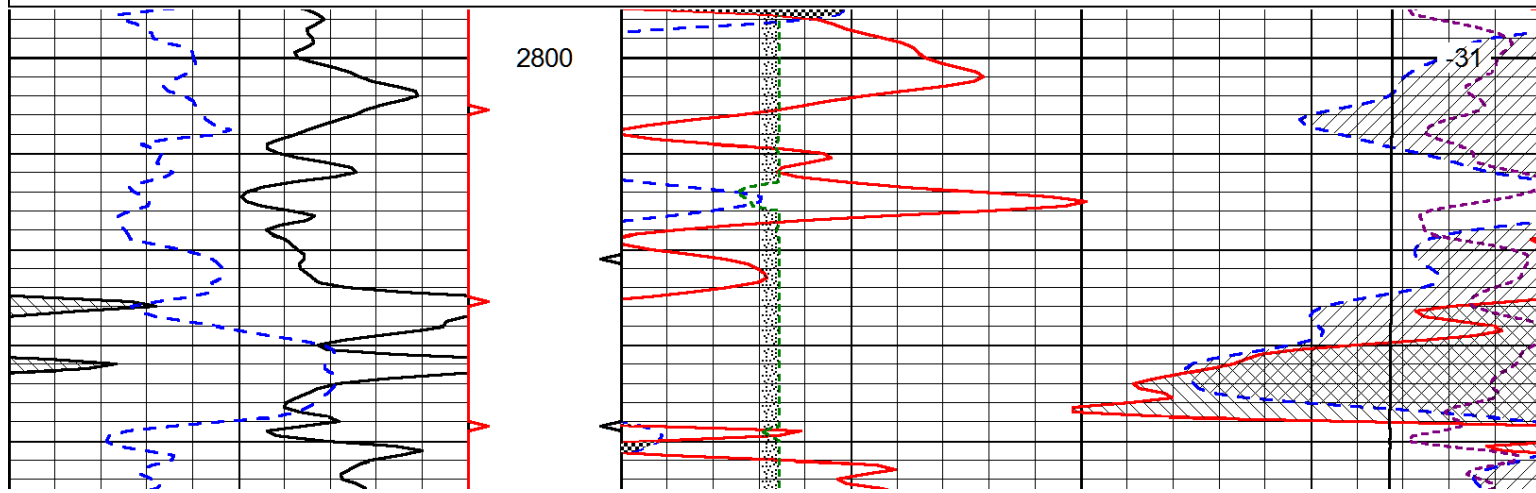
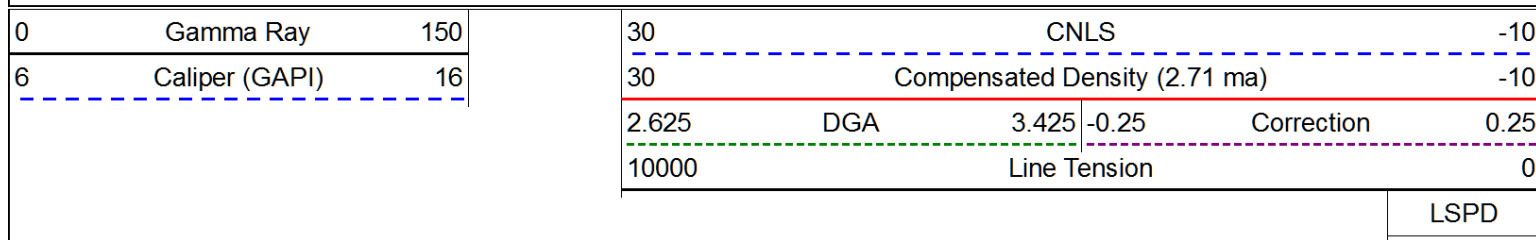
0	Gamma Ray	150
6	Caliper (GAPI)	16

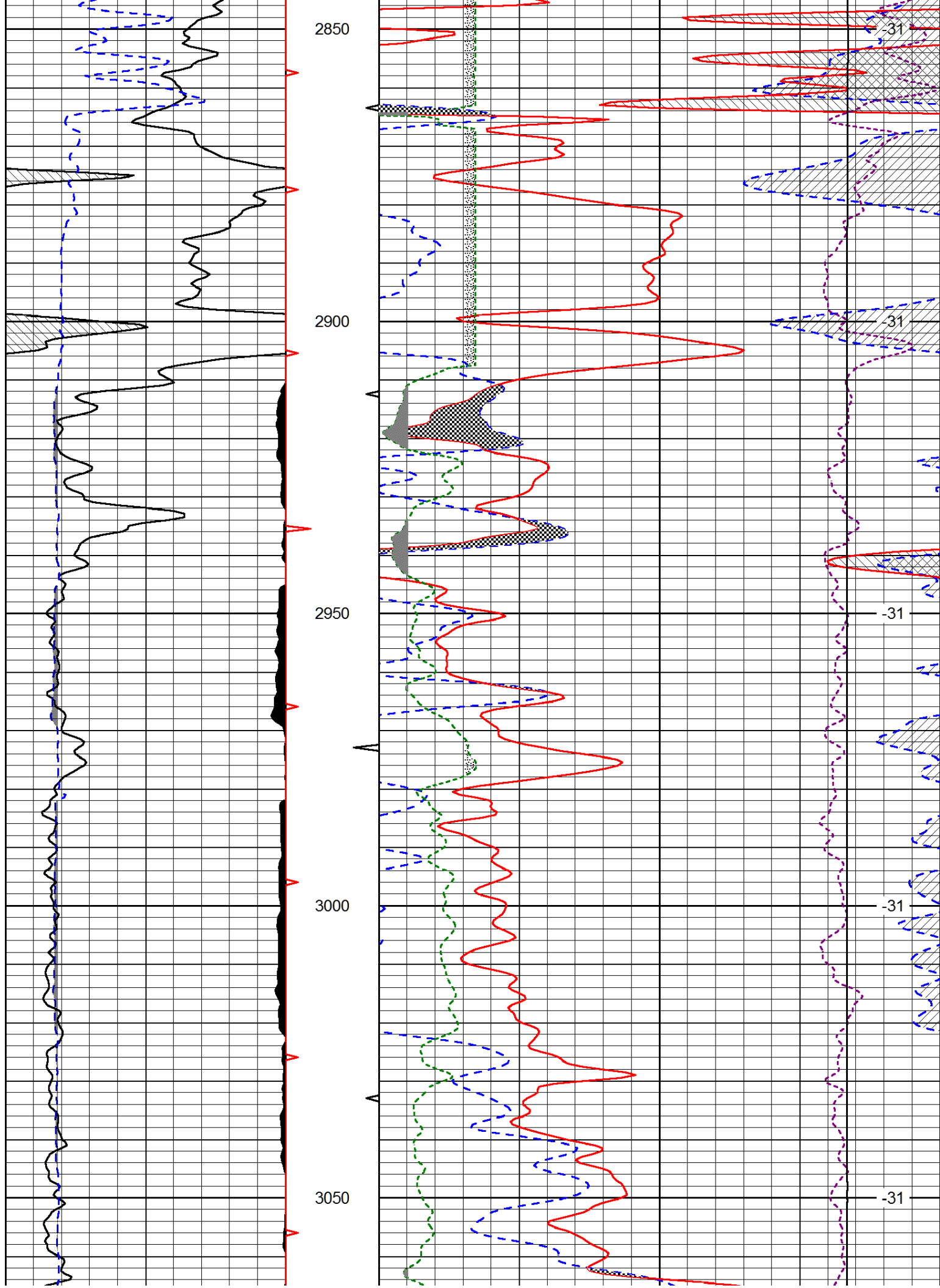
30	Compensated Density		-10
2	Bulk Density		3
15000	Line Tension		0
2.625	DGA	3.425	-0.25
Correction			0.25
LSPD			

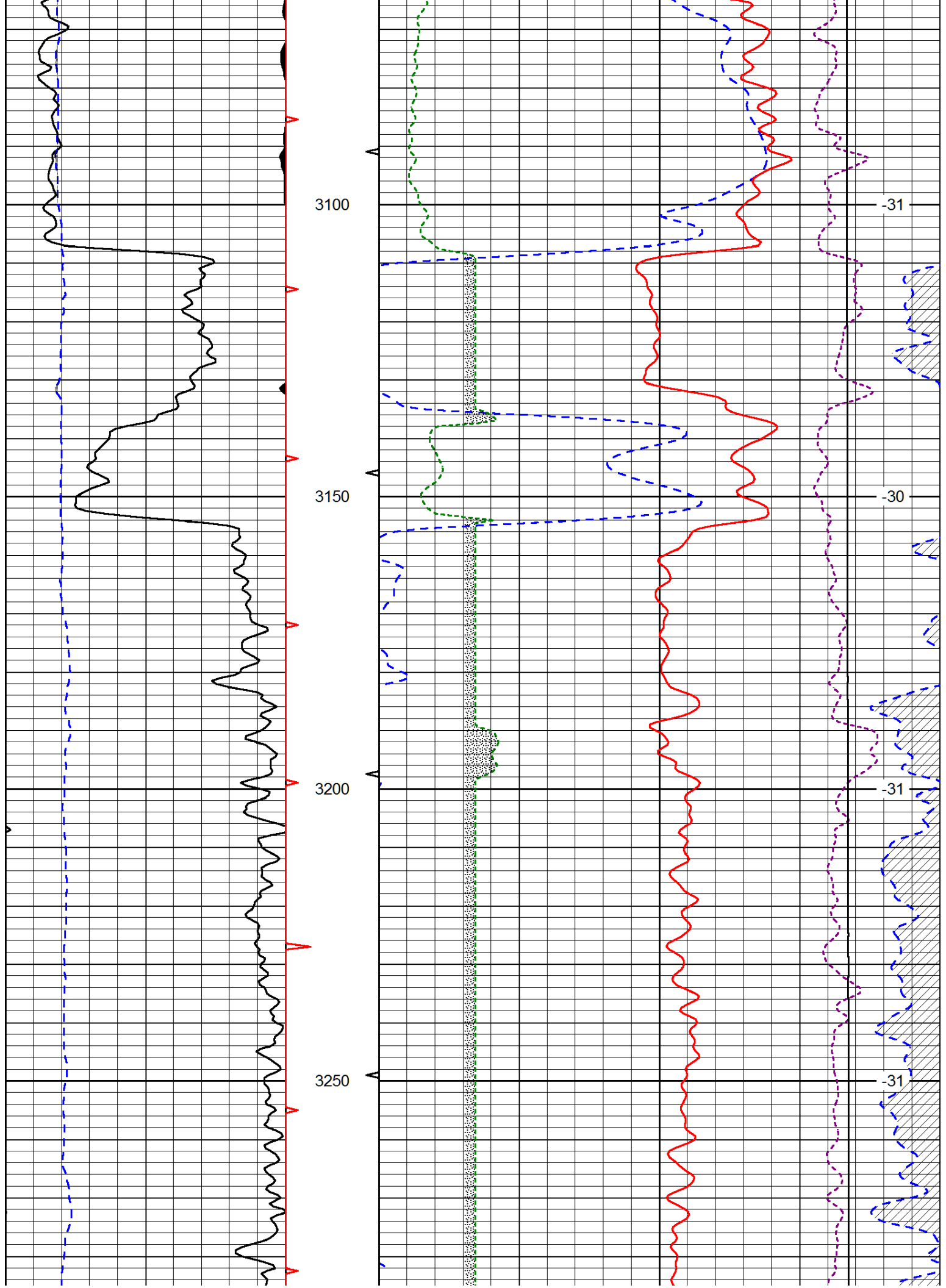


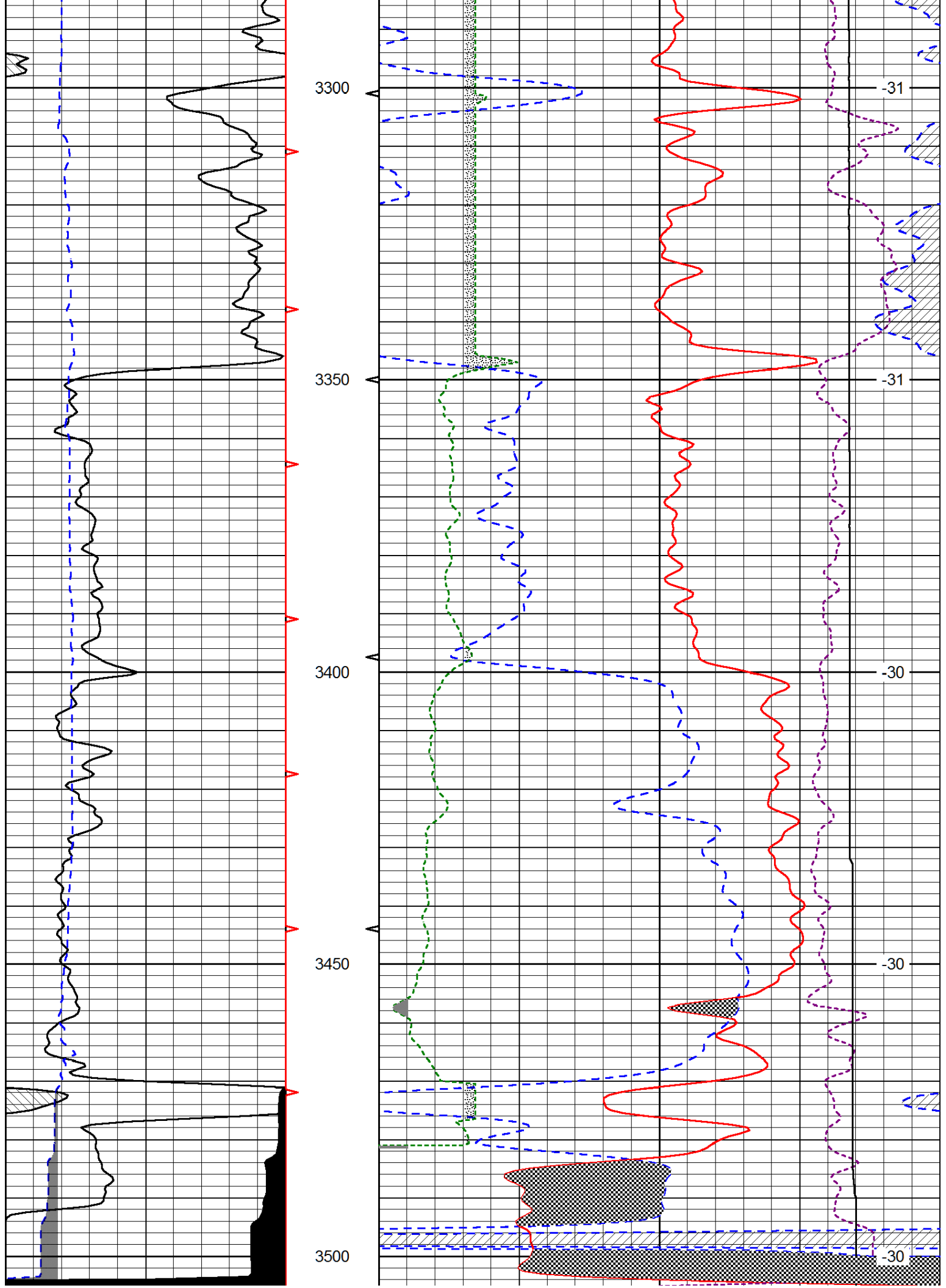


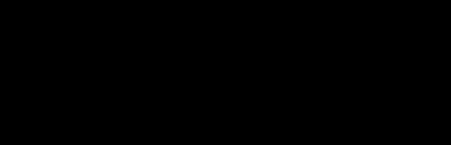
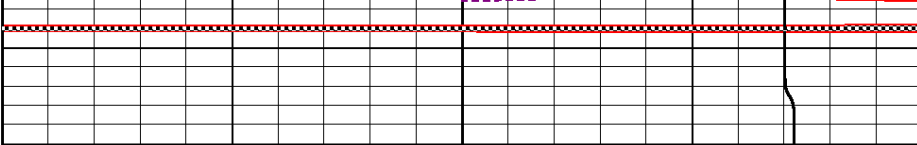
Database File: torchlight_hudson_9_1thd.db
 Dataset Pathname: DIL/tlstk
 Presentation Format: cndlspec
 Dataset Creation: Thu Jul 17 01:13:29 2014
 Charted by: Depth in Feet scaled 1:240









					
0	Gamma Ray	150	30	CNLS	-10
6	Caliper (GAPI)	16	30	Compensated Density (2.71 ma)	-10
			2.625	DGA	3.425
			-0.25	Correction	0.25
			10000	Line Tension	0
					LSPD