



Pioneer Energy Services

Dual Compensated Porosity Log

API No. 15-163-24,141-00-00
Company The Bill Bowman Oil Company
Well Hrabe 'A' No. 5
Field Westhusin
County Rooks
State Kansas
Location 4134' FSL & 2172' FEL
Other Services DILMEL
Sec: 1 **Twp:** 9S **Rge:** 17W
Elevation 1944
Log Measured From Kelly Bushing **5 Ft. Above Perm. Datum**
Drilling Measured From Kelly Bushing
Elevation K.B. 1949
D.F. 1944
G.L. 1944

Date	10/12/13
Run Number	One
Type Log	CNL / CDL
Depth Driller	3478
Depth Logger	3480
Bottom Logged Interval	3459
Top Logged Interval	2800
Type Fluid In Hole	Chemical
Salinity, PPM CL	3,000
Density	9.1
Level	Full
Max. Rec. Temp. F	111
Operating Rig Time	3 1/2 Hours
Equipment -- Location	108 Hays
Recorded By	J. Henrickson
Witnessed By	Ed Glassman

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	222	8.625	23#	00	222
Two	7.875	222	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

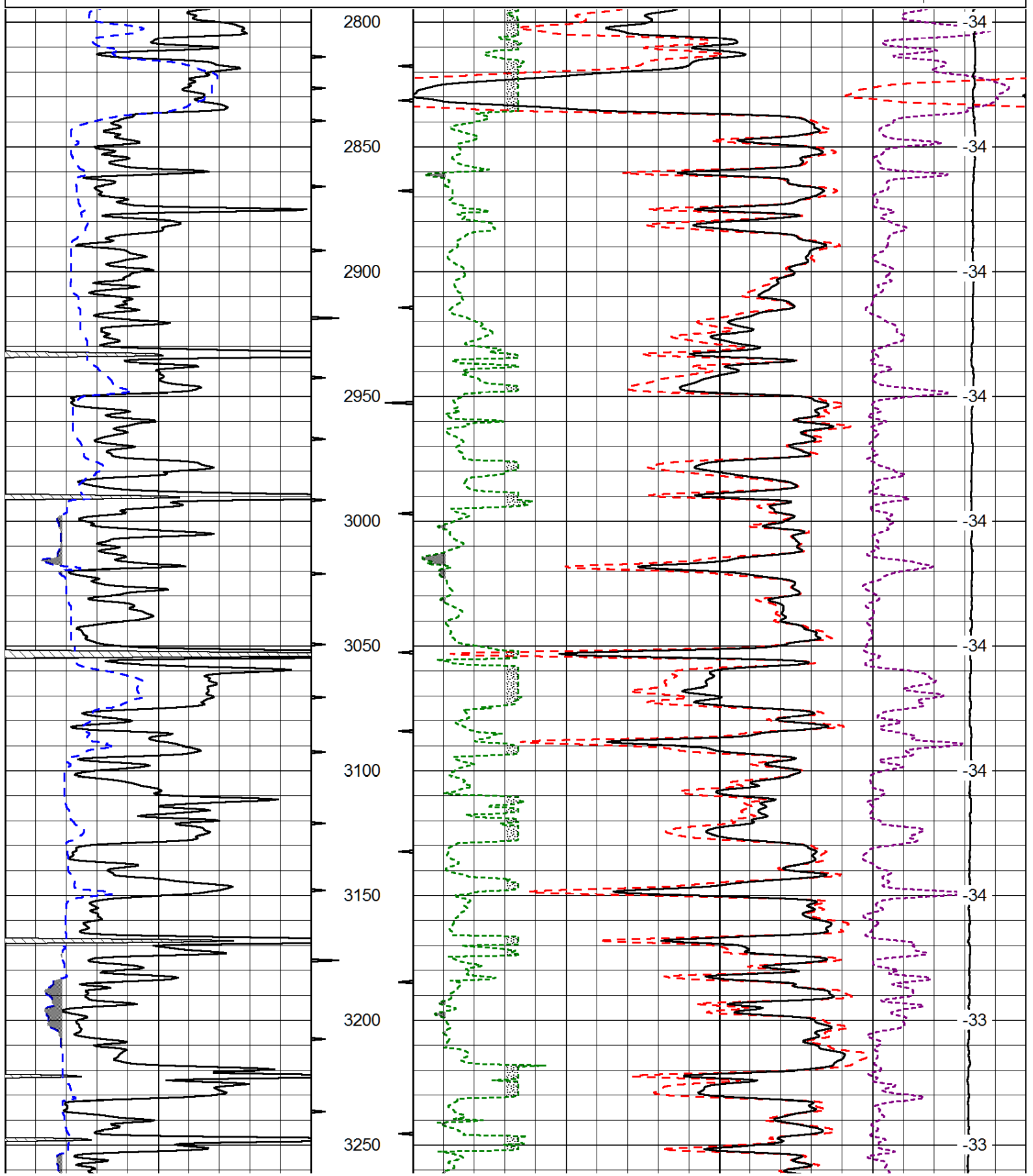
Thank you for using Log-Tech, Inc.
 (785) 625-3858

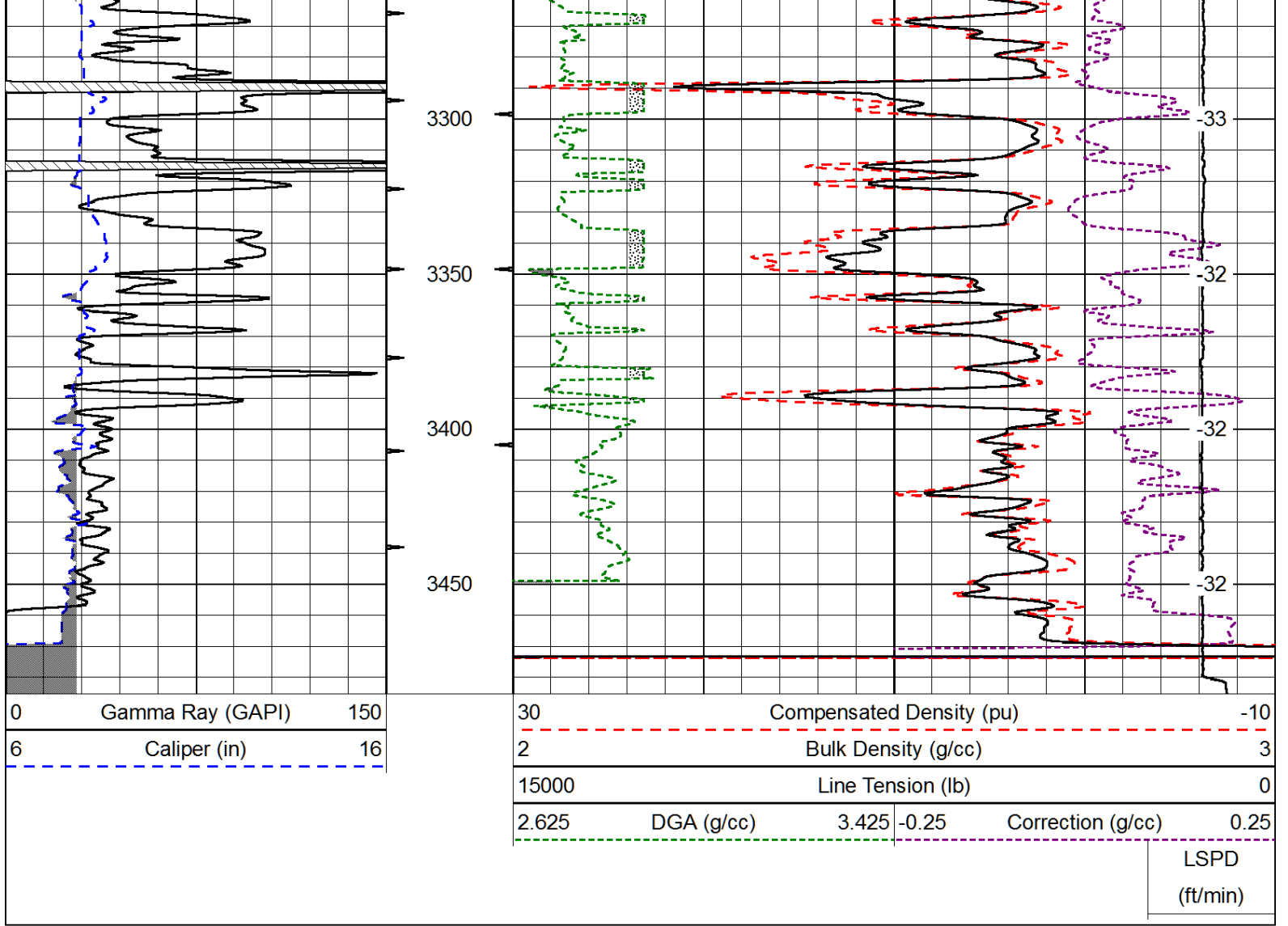
 Plainville Kansas
 North to S Rd, 7 1/2 East, South Into

Database File: bowman_hrabe_a_5hd.db
 Dataset Pathname: DIL/bowstk
 Presentation Format: cdl
 Dataset Creation: Sat Oct 12 23:19:54 2013
 Charted by: Depth in Feet scaled 1:600

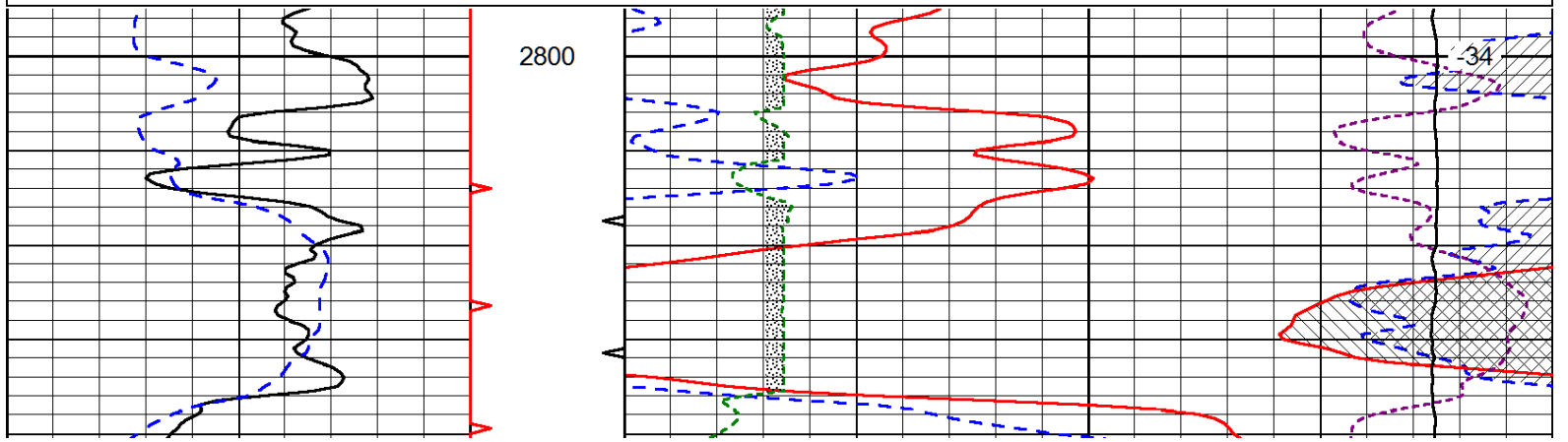
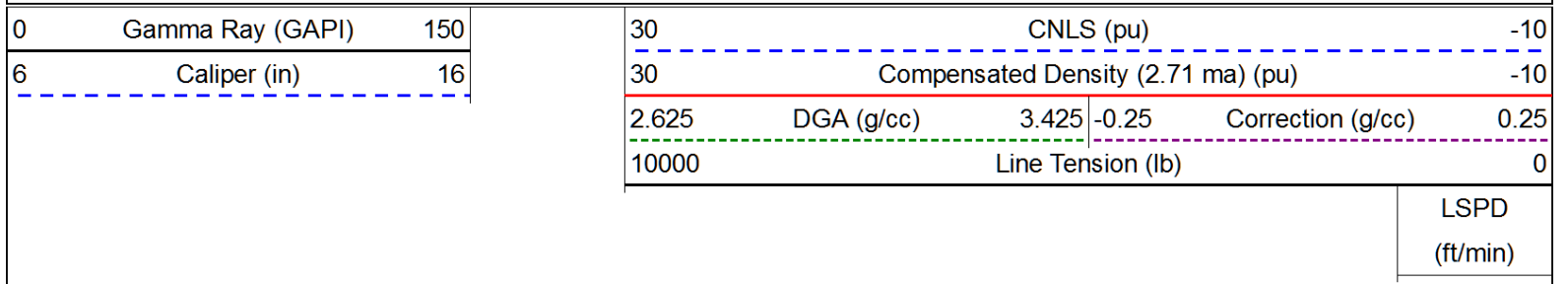
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

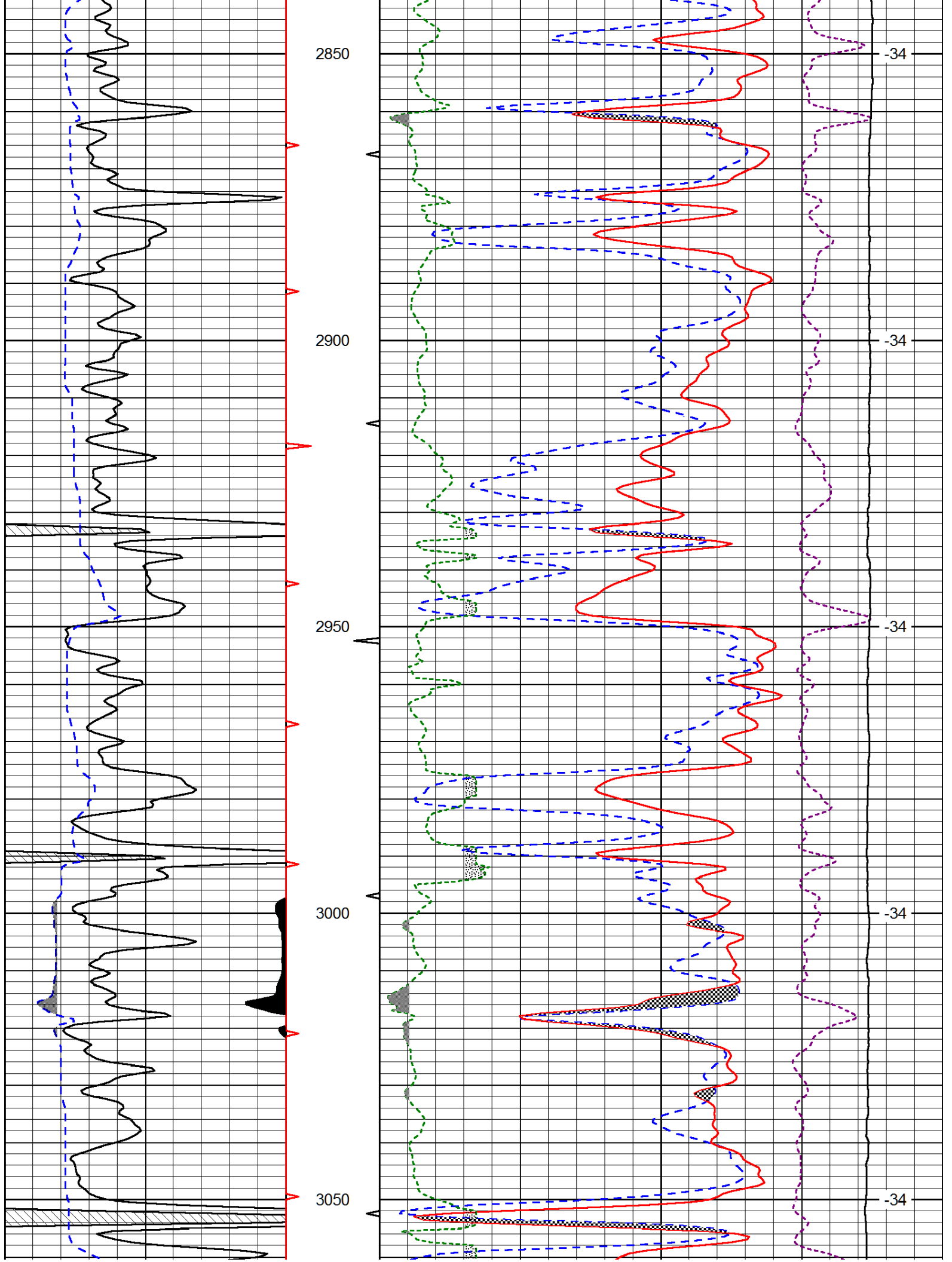
30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
2.625	DGA (g/cc)	3.425	-0.25
	Correction (g/cc)		0.25
	LSPD (ft/min)		

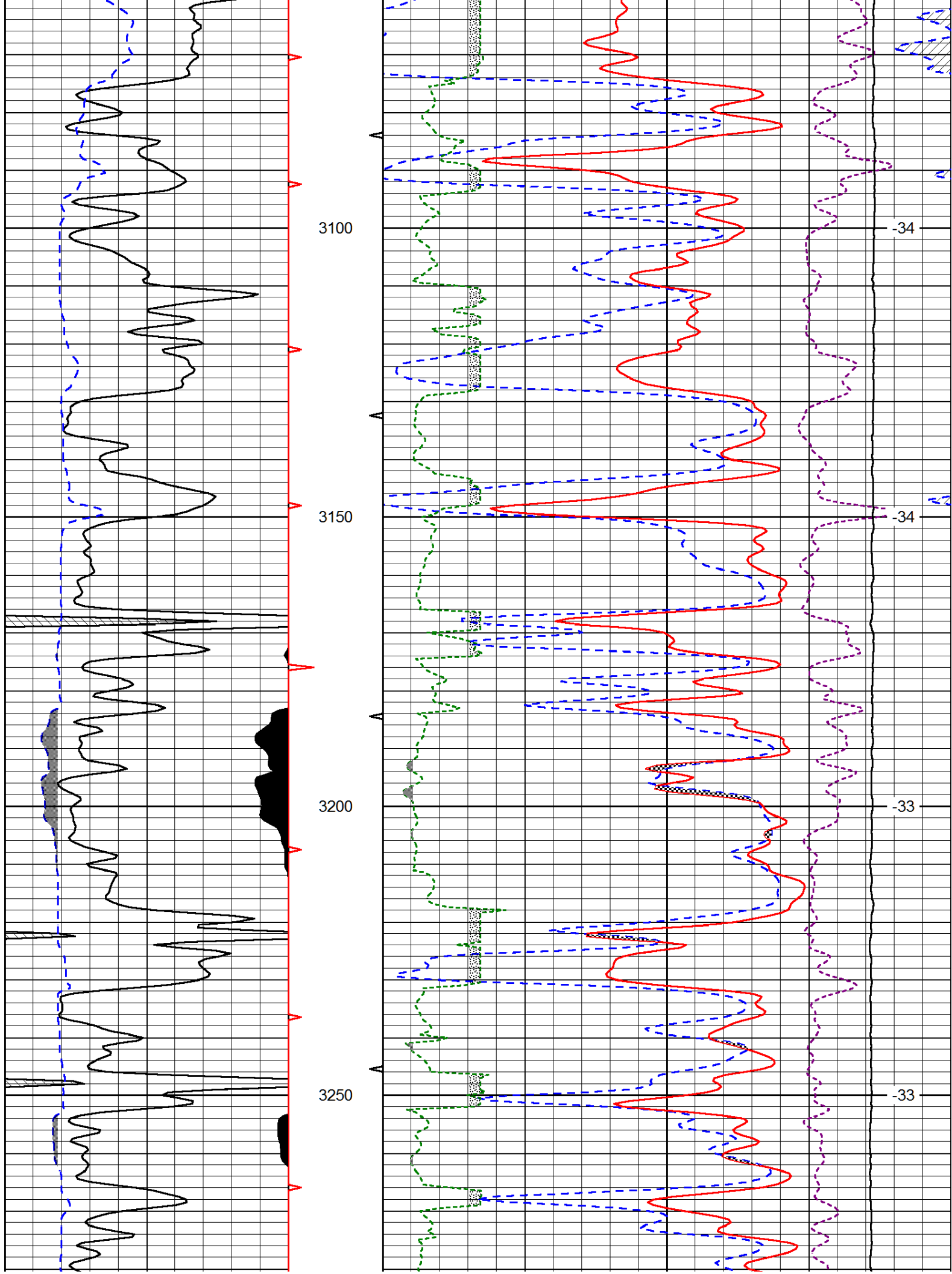


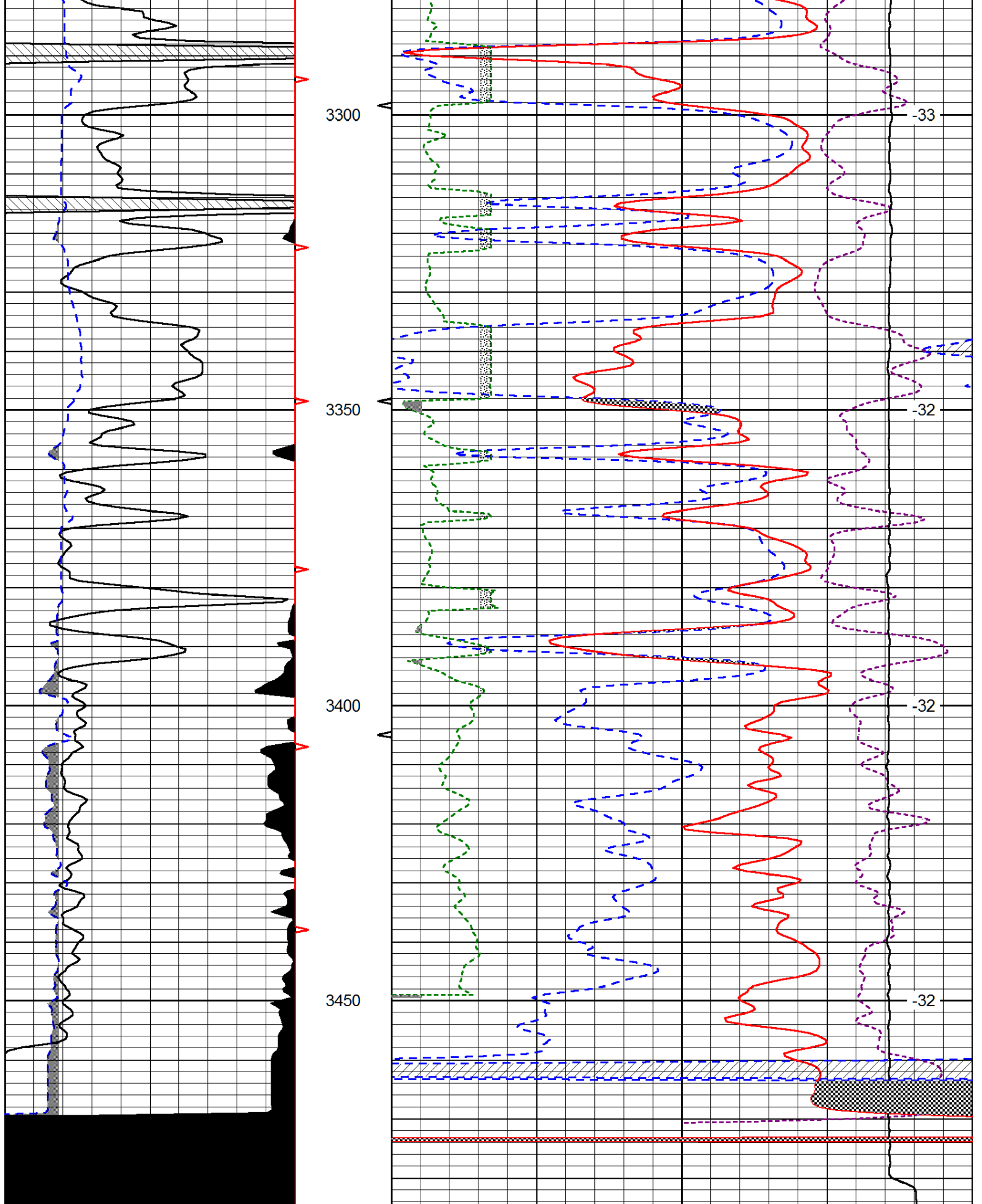


Database File: bowman_hrabe_a_5hd.db
 Dataset Pathname: DIL/bowstk
 Presentation Format: cndlspec
 Dataset Creation: Sat Oct 12 23:19:54 2013
 Charted by: Depth in Feet scaled 1:240









0	Gamma Ray (GAPI)	150	30	CNLS (pu)	-10
6	Caliper (in)	16	30	Compensated Density (2.71 ma) (pu)	-10
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25

10000

Line Tension (lb)

0

LSPD

(ft/min)