



Pioneer Energy Services

Dual Compensated Porosity Log

15-147-20,703-00-00

Company Bach Oil Production
Well Tharman Unit No. 1
Field Starvation Creek
County Phillips
State Kansas

Location NE NW NW NE
 280' FNL & 400' FWL
Sec: 9 **Twp:** 2 S **Rge:** 19 W

Permanent Datum Ground Level Elevation 2258
Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
 DIL/MEI
Elevation
 K.B. 2263
 D.F. 2258
 G.L. 2258

Date	2/26/2013	
Run Number	One	
Type Log	CNL / CDL	
Depth Driller	3725	
Depth Logger	3728	
Bottom Logged Interval	3707	
Top Logged Interval	3100	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	500	
Density	9.0	
Level	Full	
Max. Rec. Temp. F	113	
Operating Rig Time	3 1/2 Hours	
Equipment -- Location	15 Hays	
Recorded By	D. Martin	
Witnessed By	Bob Petersen	

Borehole Record		Casing Record				
Run No.	Bit From	To	Size	Wgt.	From	To
One	12.25	00	248	8.625	23#	00
Two	7.875	248	TD			248

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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

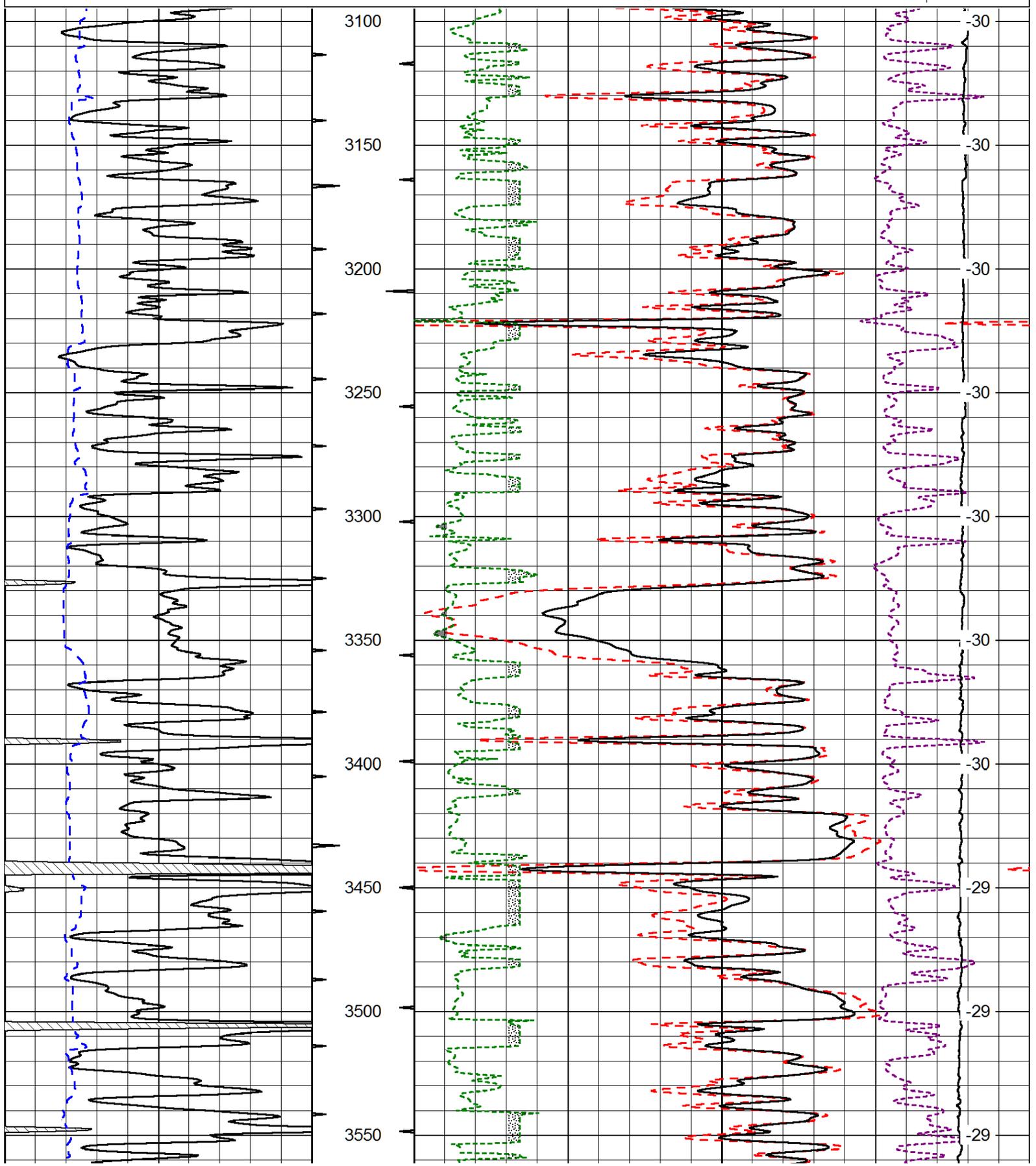
 Phillipsburg, KS
 8 N to Hunter Rd., 7 W, S Into

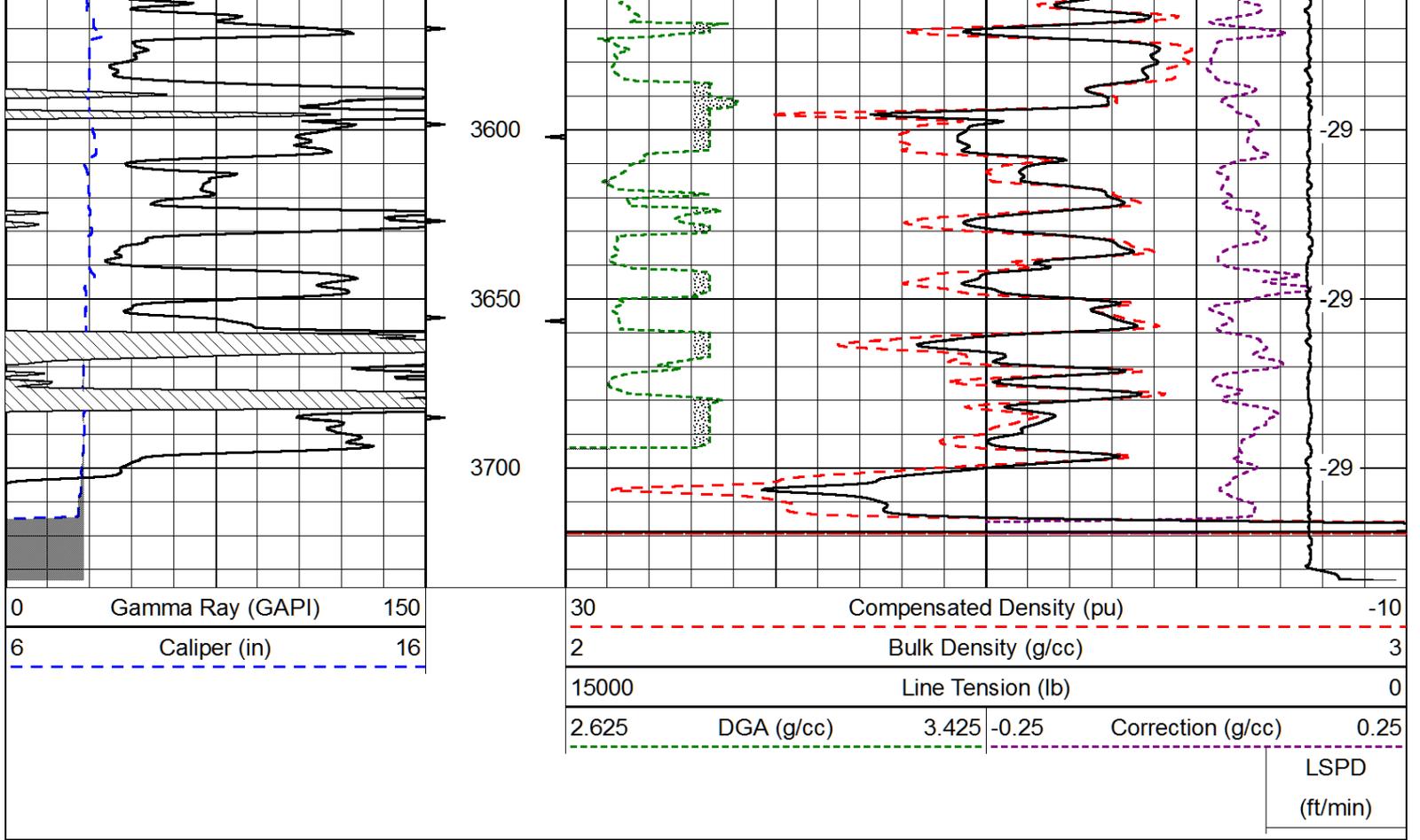
Database File: bachd.db
 Dataset Pathname: DIL/bachstk2
 Presentation Format: cdl
 Dataset Creation: Tue Feb 26 09:09:22 2013
 Charted by: Depth in Feet scaled 1:600

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

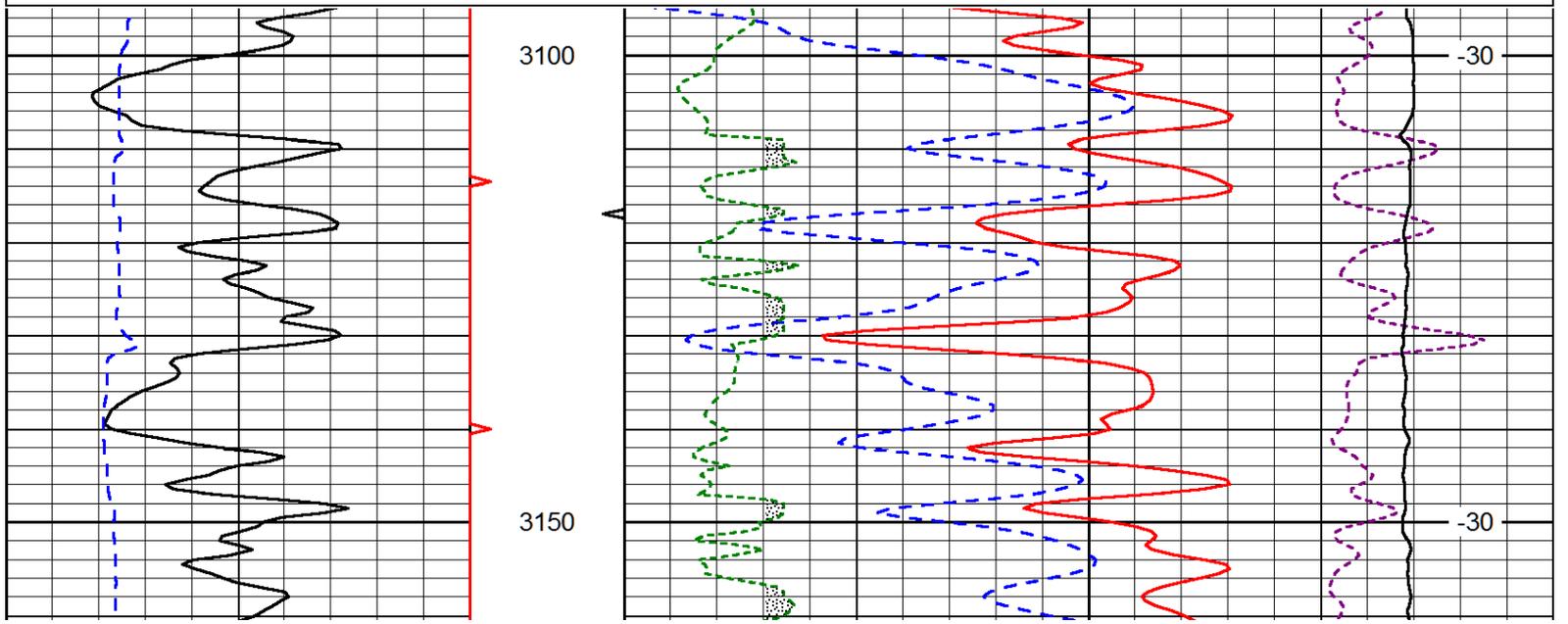
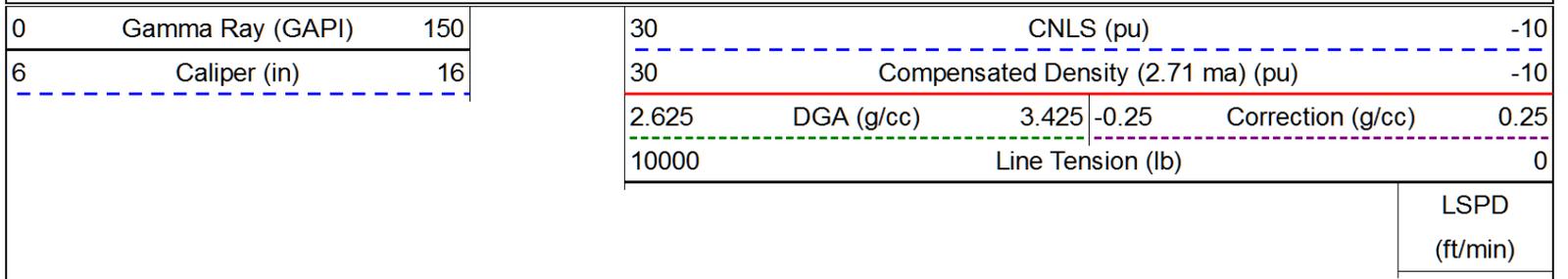
30	Compensated Density (pu)			-10	
2	Bulk Density (g/cc)			3	
15000	Line Tension (lb)			0	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25

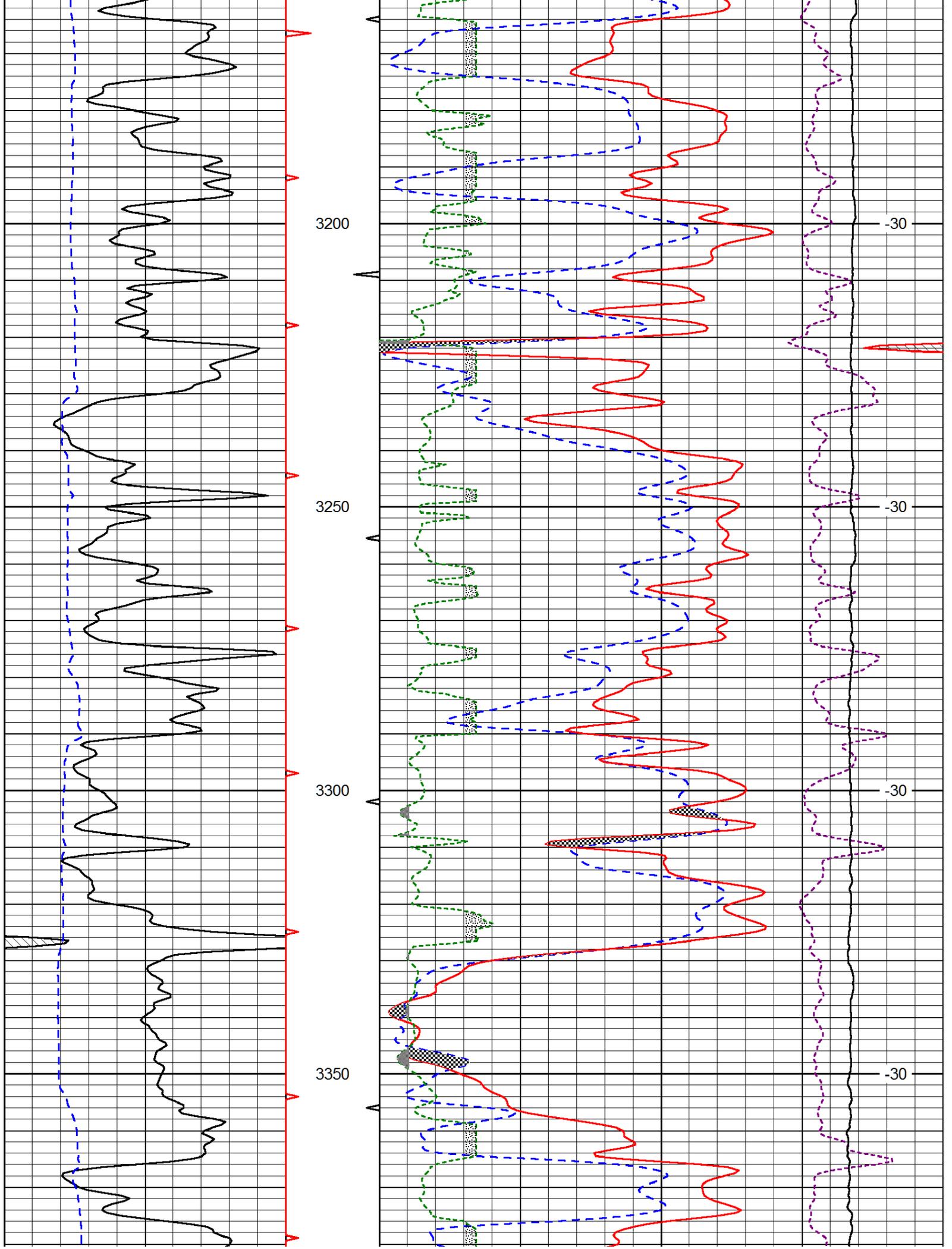
LSPD
(ft/min)

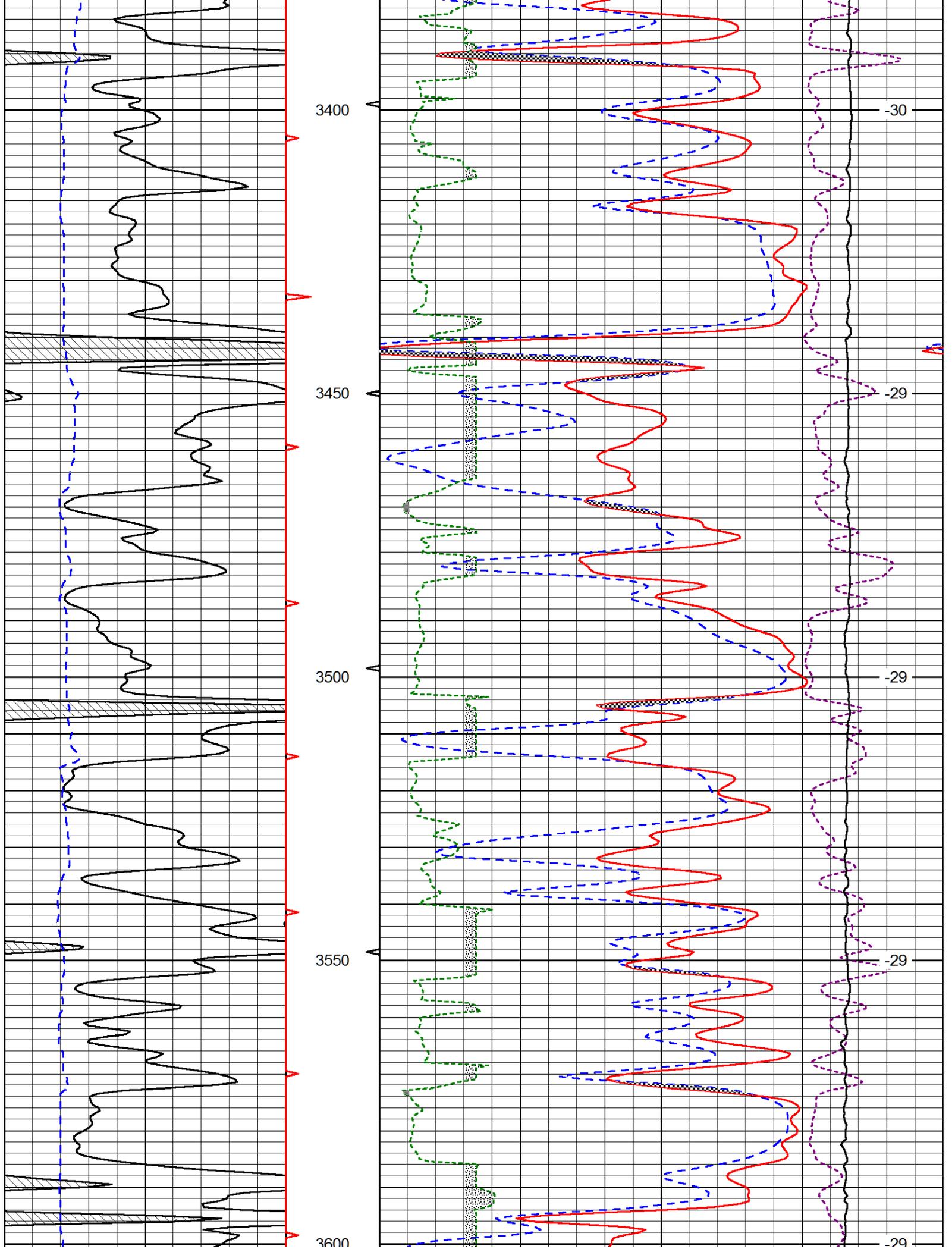


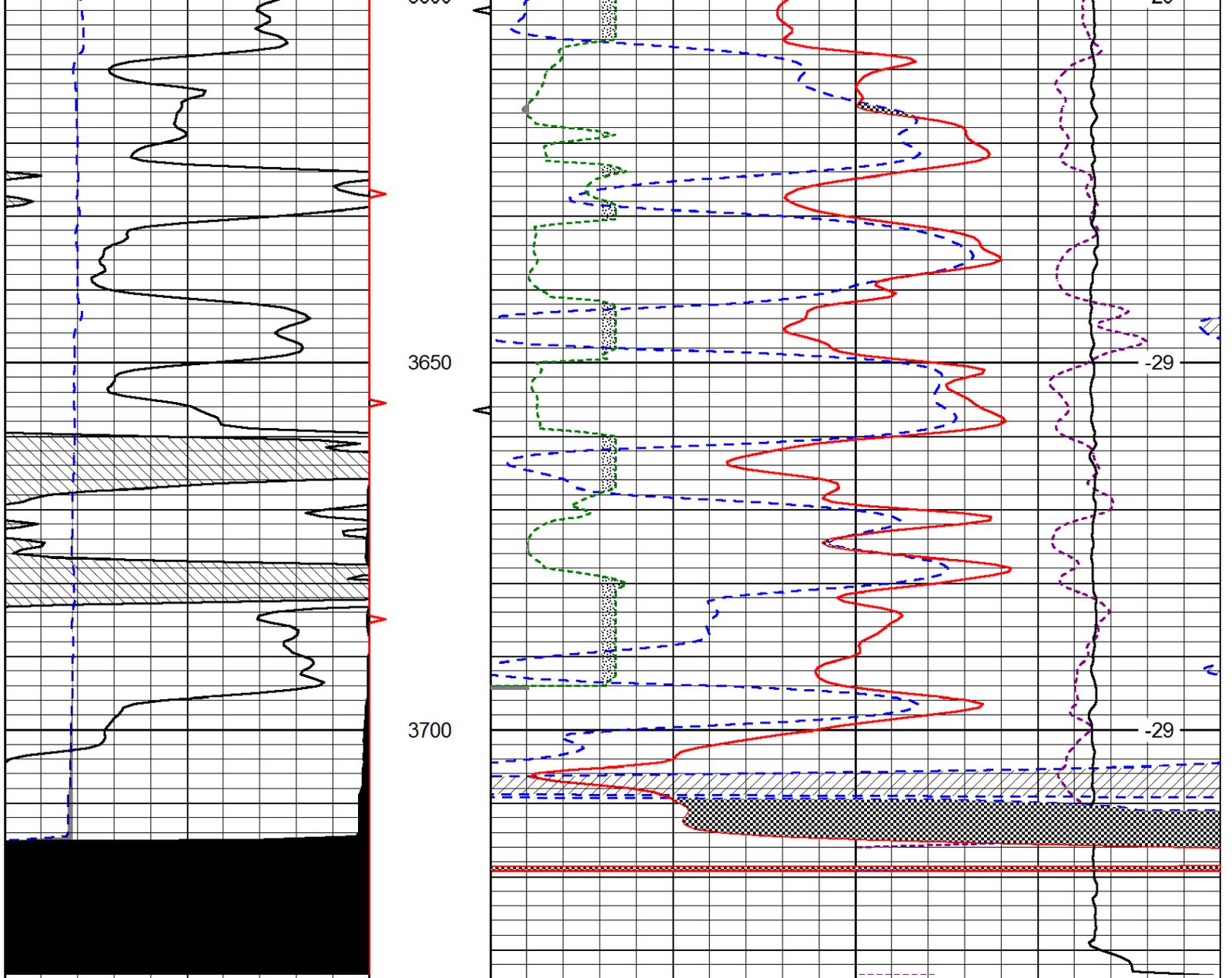


Database File: bachd.db
 Dataset Pathname: DIL/bachstk2
 Presentation Format: cndlspec
 Dataset Creation: Tue Feb 26 09:09:22 2013
 Charted by: Depth in Feet scaled 1:240









0	Gamma Ray (GAPI)	150	
6	Caliper (in)	16	
30	CNLS (pu)		-10
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)		