PIONEER

Pioneer Energy Services

Dual Compensated Porosity Log

API No.

15-015-24013-00-00

Company Range Oil Company, Inc.

Well Walters B #18

Field Degraff East

County Butler State Kansas

Location

1540' FNL & 1100' FEL

Sec: 16 Twp: 24S Rge: 5E

Other Services

DIL

Elevation

K.B. 1437

D.F.

G.L. 1427

Permanent Datum Ground Level Elevation 1427

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

Drilling Measured From Kelly Bushing

Date	3/10/2014		
Run Number	One		
Type Log	CNL / CDL		
Depth Driller	2594		
Depth Logger	2592		
Bottom Logged Interval	2571		
Top Logged Interval	1700		
Type Fluid In Hole	Chemical		
Salinity, PPM CL	1000		
Density	9.4		
Level	Full		
Max. Rec. Temp. F	104		
Operating Rig Time	3 Hours		
Equipment -- Location	91	Hays	
Recorded By	D. Schmidt		
Witnessed By	Ken Wallace		

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	232	8.625	23#	00	232
Two	7.875	232	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

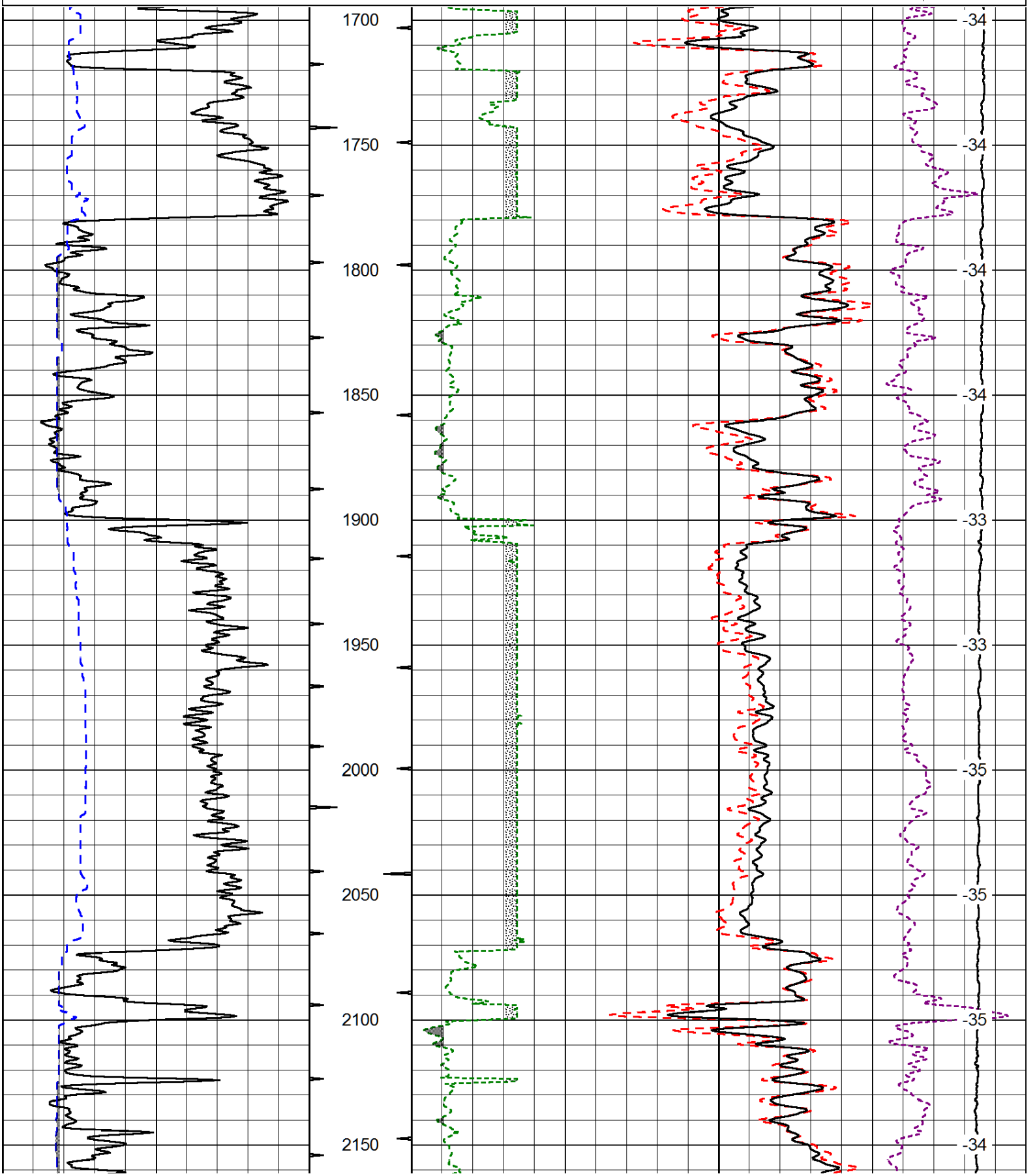
Thank you for using Log-Tech, Inc.
(785) 625-3858

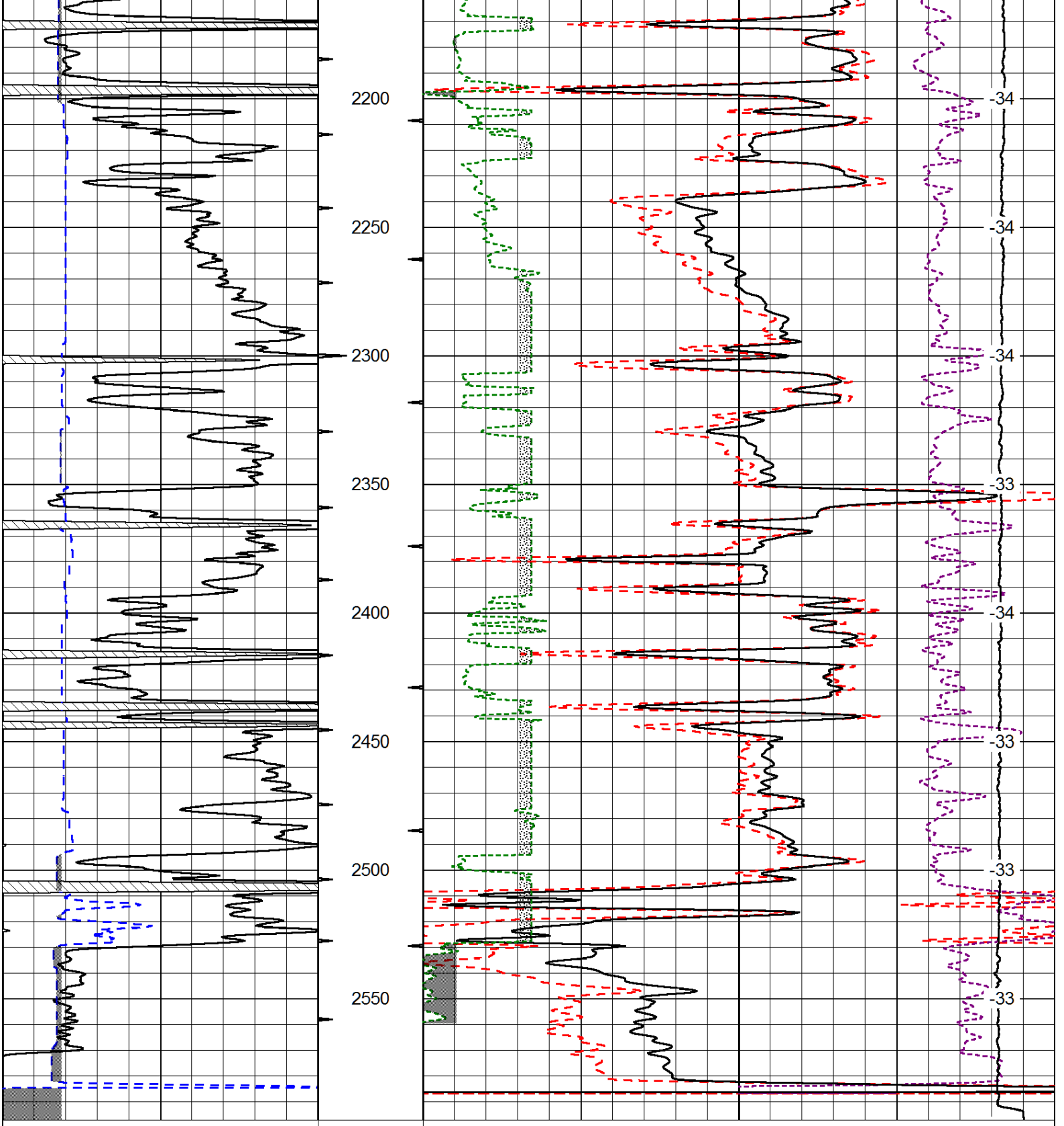
El Dorado,
North on Hwy 77 about 10 miles to Walters Pumpkin Patch,
200 yards North of Pumpkin Patch sign go west and south about 1 3/4 miles

Database File: range_031014hd.db
Dataset Pathname: dil/ranstck
Presentation Format: cdl
Dataset Creation: Mon Mar 10 15:05:02 2014
Charted by: Depth in Feet scaled 1:600

Charted by: Depth in Feet scaled 1:500

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



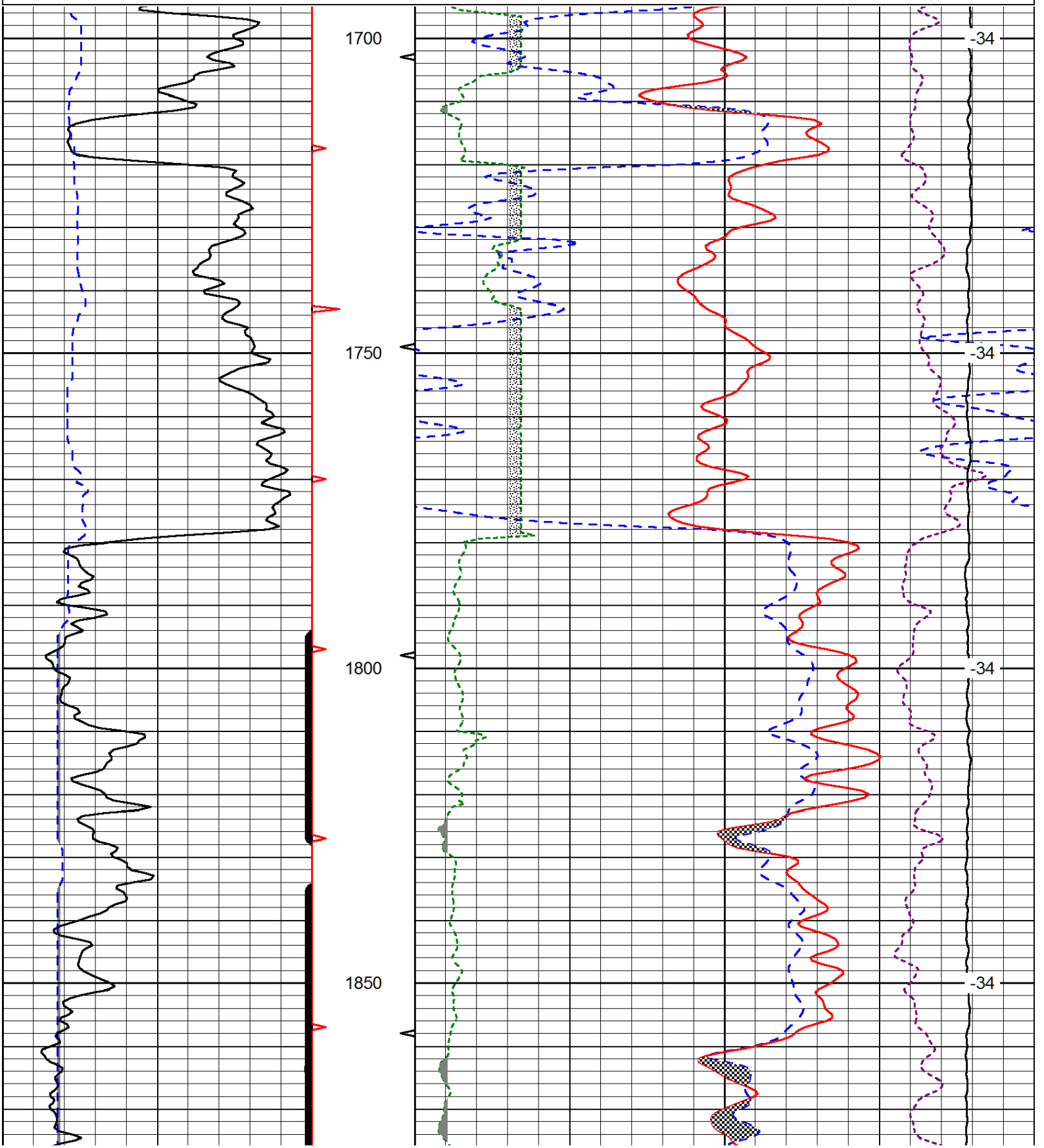


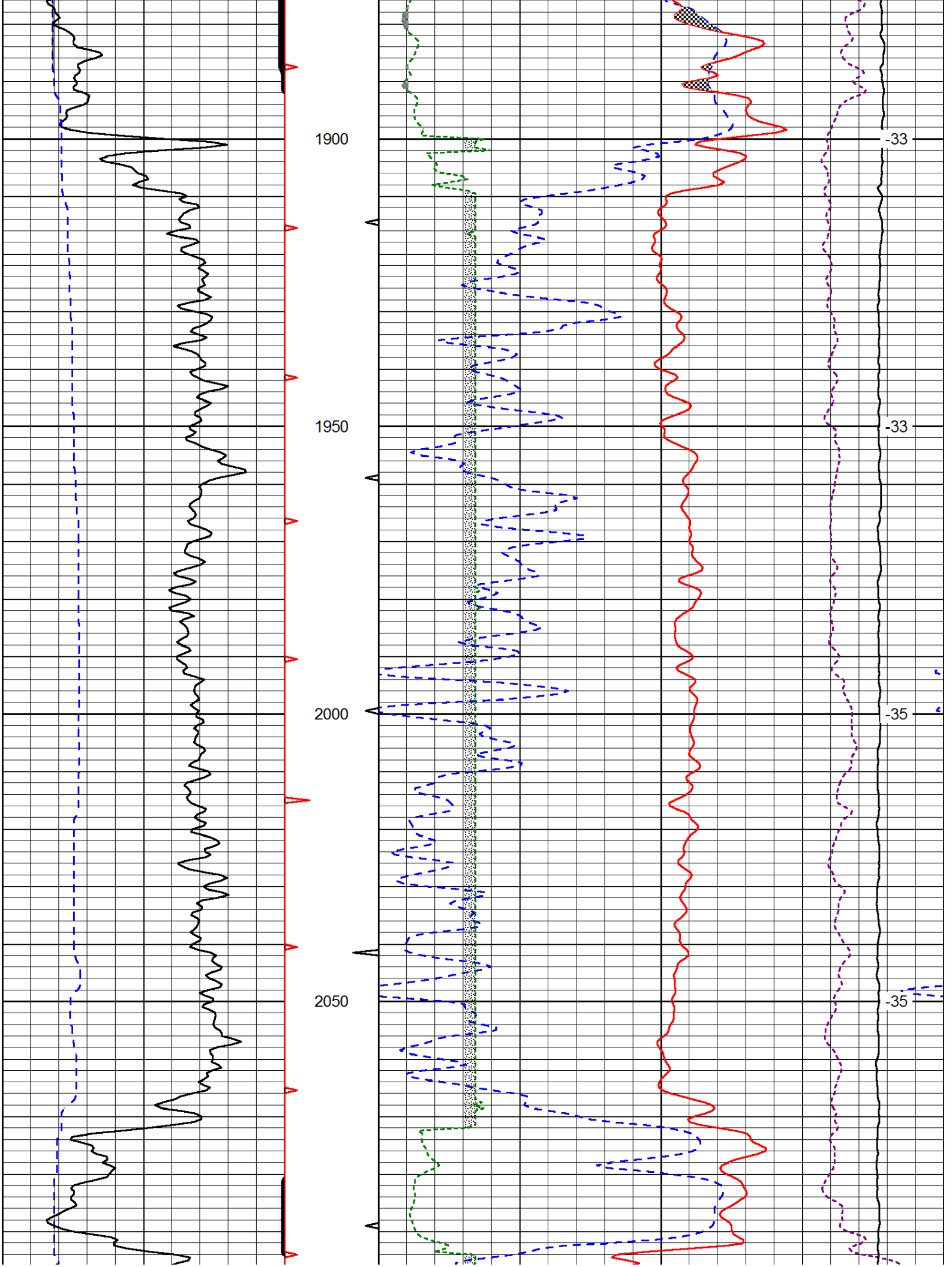
Database File: range_031014hd.db
Dataset Pathname: dil/ranstck
Presentation Format: cndlspec

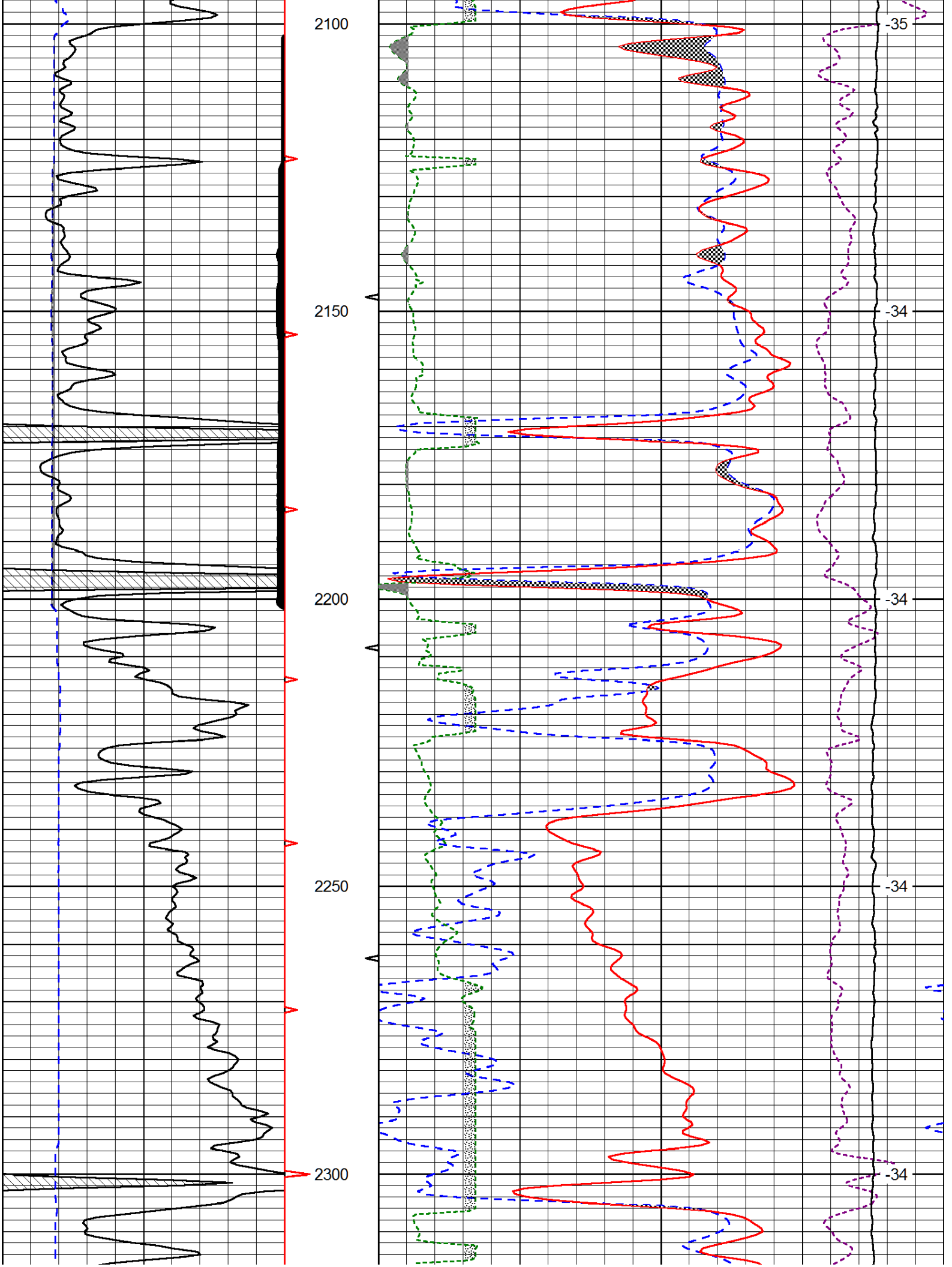
Dataset Creation: Mon Mar 10 15:05:02 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	CNPOR (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)




1900
1950
2000
2050
-33
-33
-35
-35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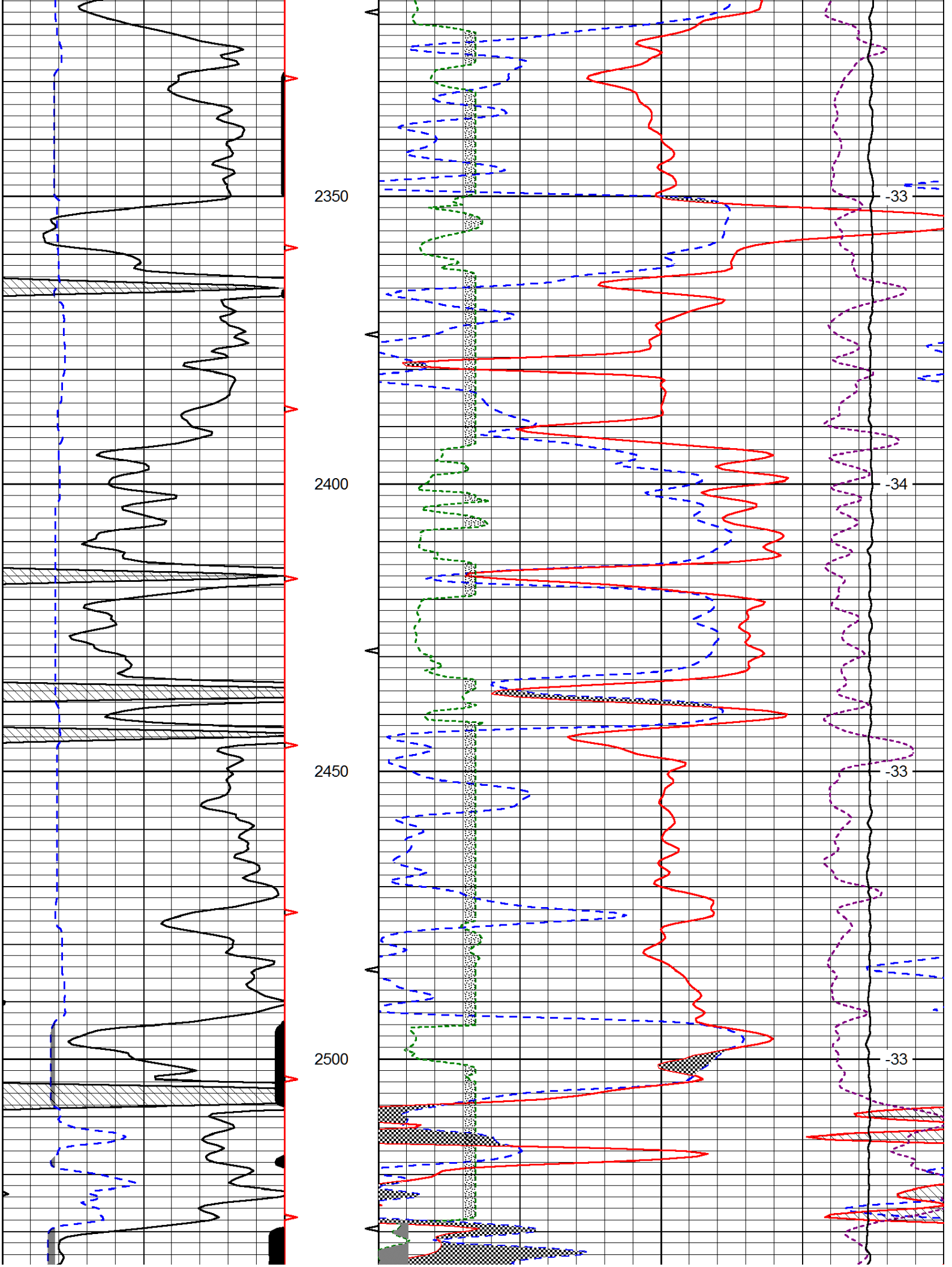
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2450
2500
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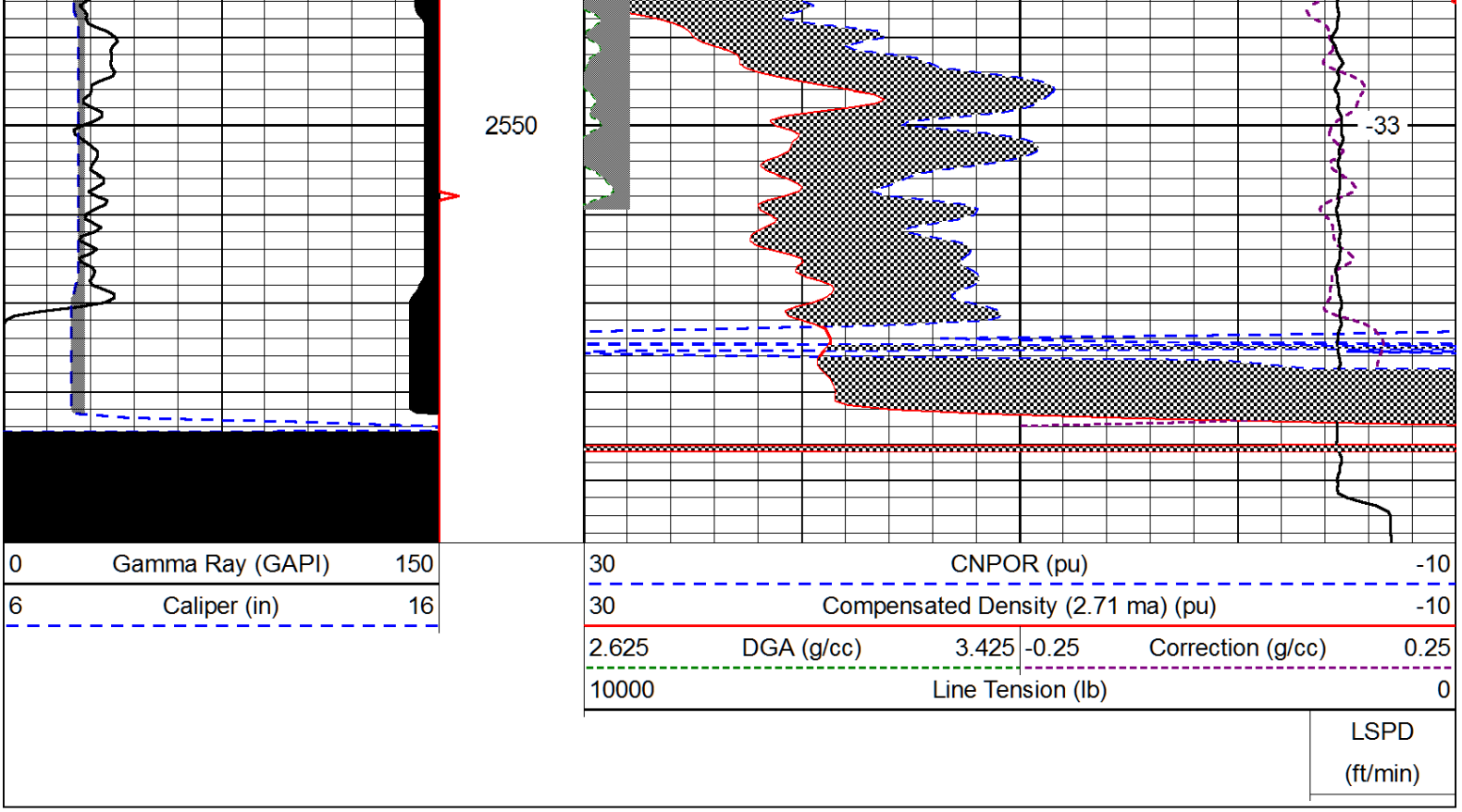
-34
-33
-33


2550
-33
0 Gamma Ray (GAPI) 150
6 Caliper (in) 16
30 CNPOR (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)