



PIONEER

Pioneer Energy Services

Dual Compensated Porosity Log

API No.

15-147-20,743-00-00

Company **Bach Oil Production**

Well **Crystal #1**

Field **Wildcat**

County **Phillips**

State **Kansas**

Location

**NE NW NE NW
150' FNL & 1870' FWL**

Other Services
DIL

Sec: **35**

Twp: **1S**

Rge: **19W**

Elevation

Permanent Datum **Ground Level** Elevation **2165**
Log Measured From **Kelly Bushing** 5 Ft. Above Perm. Datum
Drilling Measured From **Kelly Bushing**

K.B. **2170**
D.F. **2165**
G.L. **2165**

Date **9/26/2014**

Run Number **One**

Type Log **CNL / CDL**

Depth Driller **3550**

Depth Logger **3543**

Bottom Logged Interval **3541**

Top Logged Interval **3000**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **200**

Density **9.1**

Level **Full**

Max. Rec. Temp. F **112**

Operating Rig Time **4 1/2 Hours**

Equipment -- Location **15 Hays**

Recorded By **D.Kerr**

Witnessed By **Bob Peterson**

Borehole Record

Casing Record

Run No **Bit** **From** **To** **Size** **Wgt.** **From** **To**

One **12.25** **00** **220** **8.625** **23#** **00** **220**

Two **7.875** **220** **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

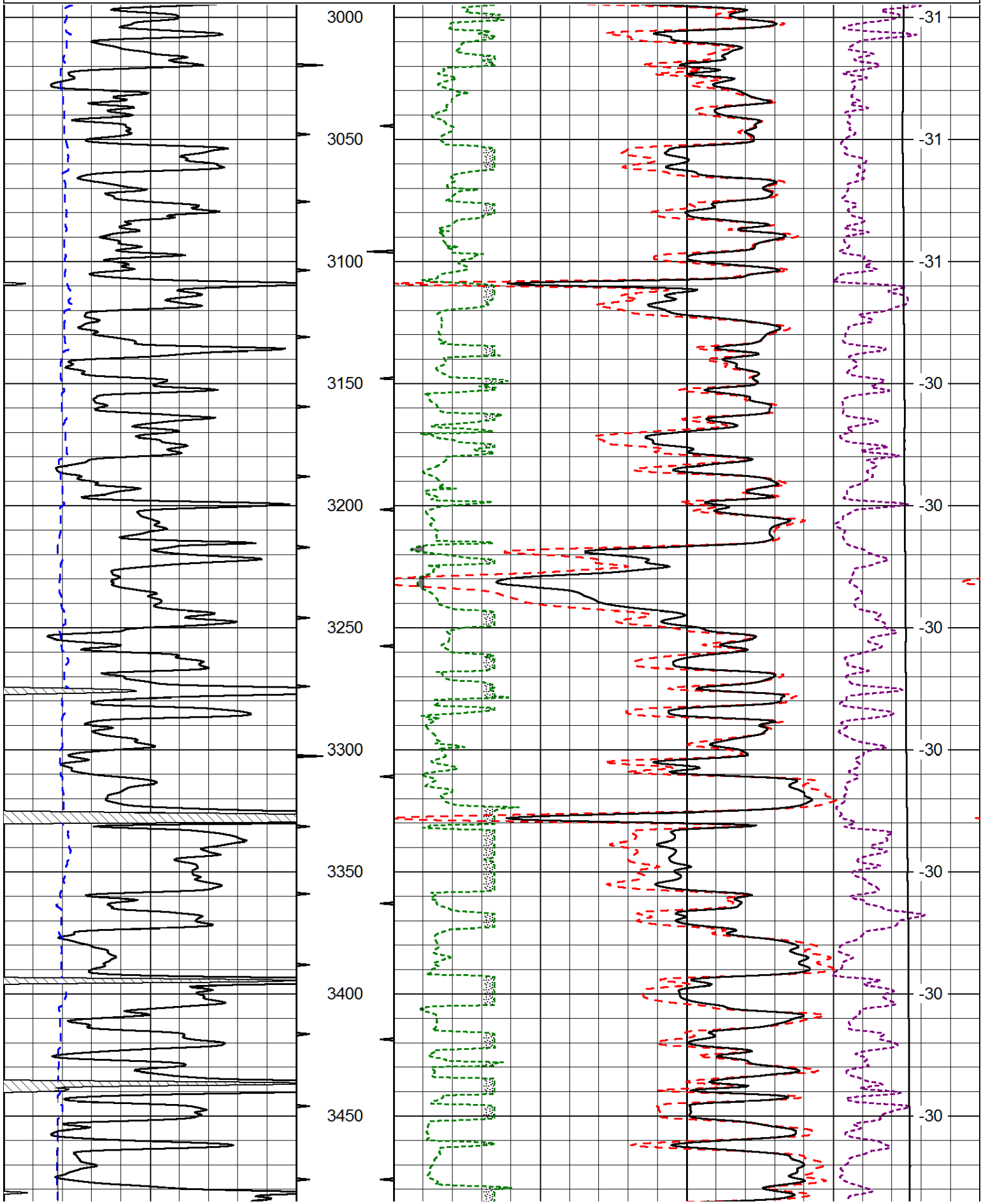
Thank you for using Log-Tech, Inc.
(785) 625-3858

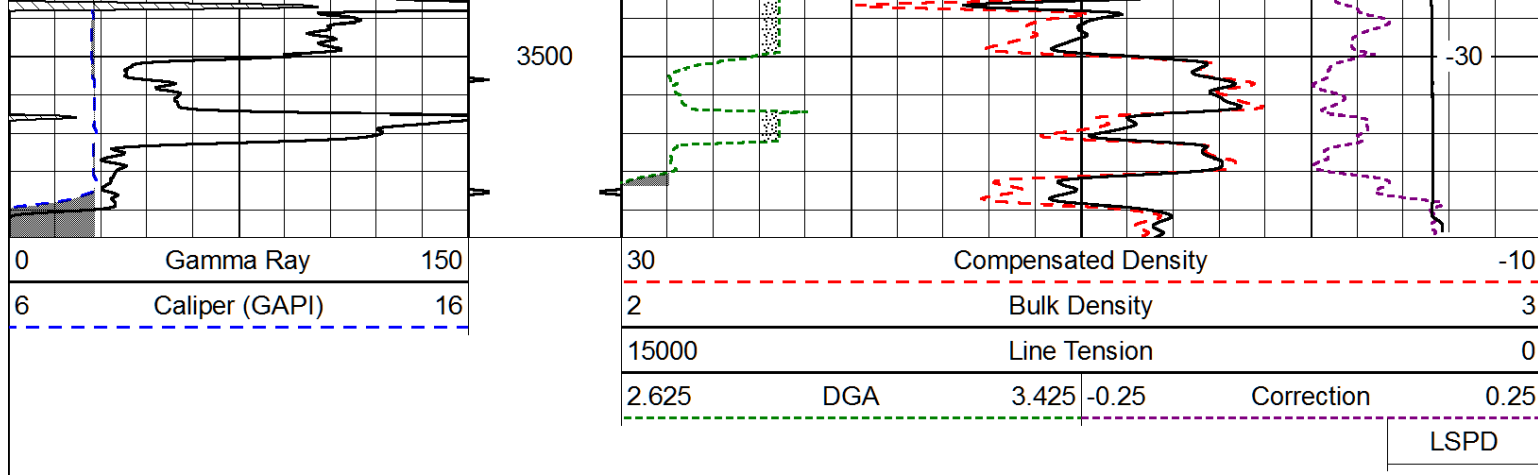
Phillilpsburg KS, 8 North to Hunter RD,
5 West to 500 RD, 2 1/4 North, West Into(1Mile)

Database File: bach_crystal_1hd.db
Dataset Pathname: DIL/bachstk
Presentation Format: cdl
Dataset Creation: Fri Sep 26 12:22:40 2014
Charted by: Depth in Feet scaled 1:600

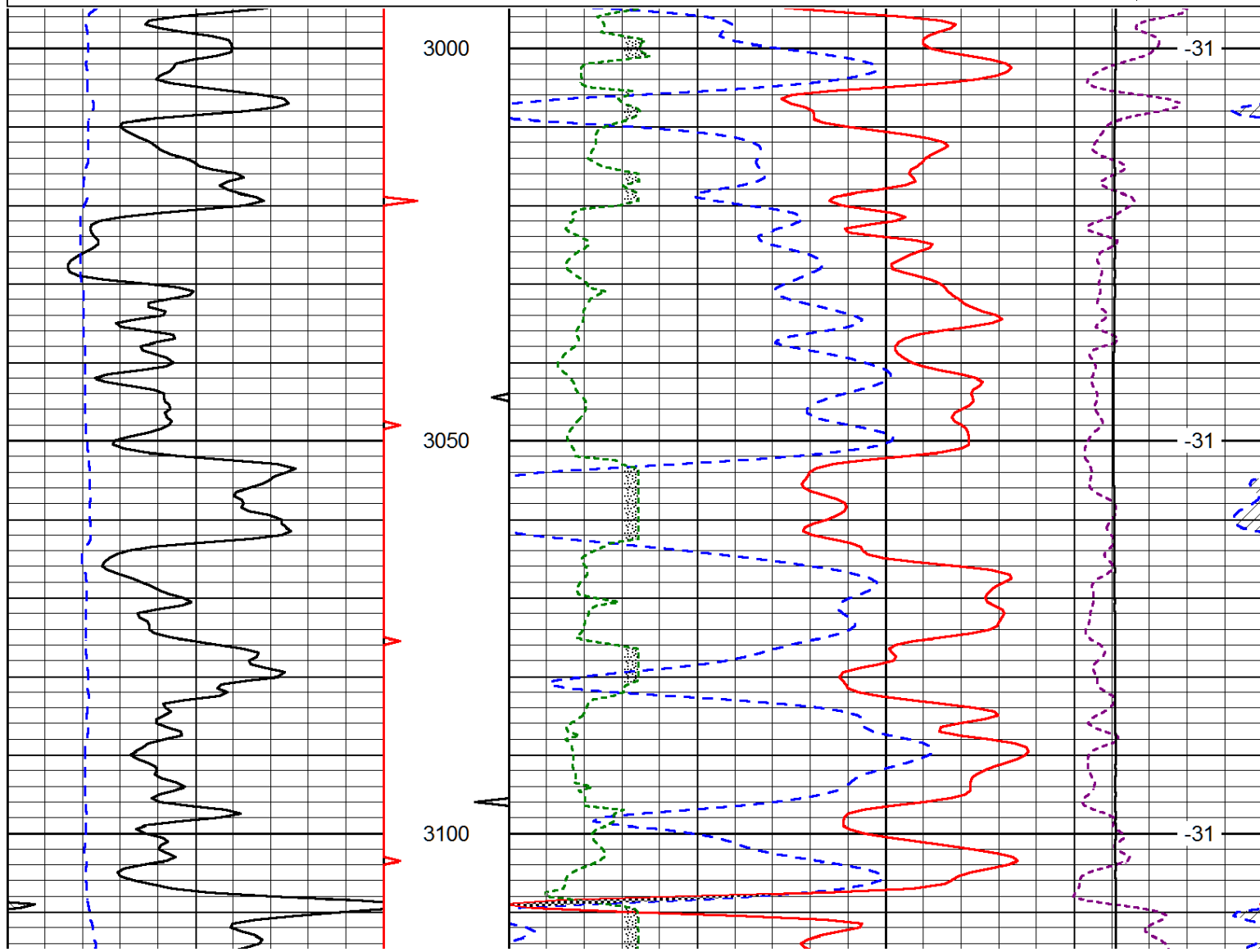
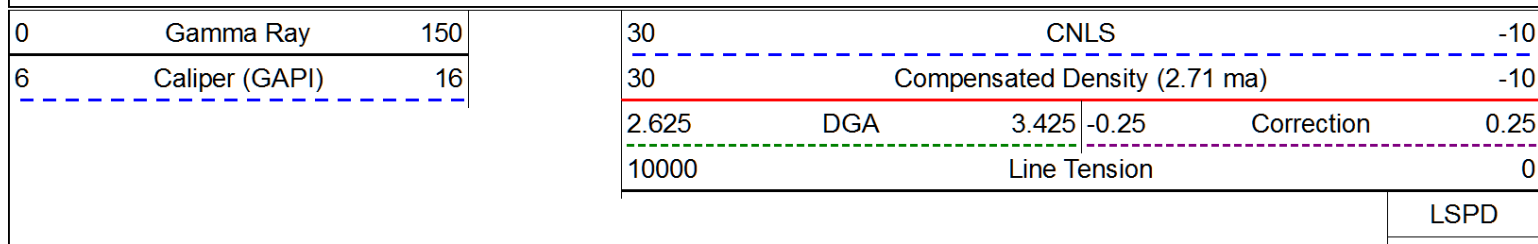
0	Gamma Ray	150
6	Caliper (GAPI)	16

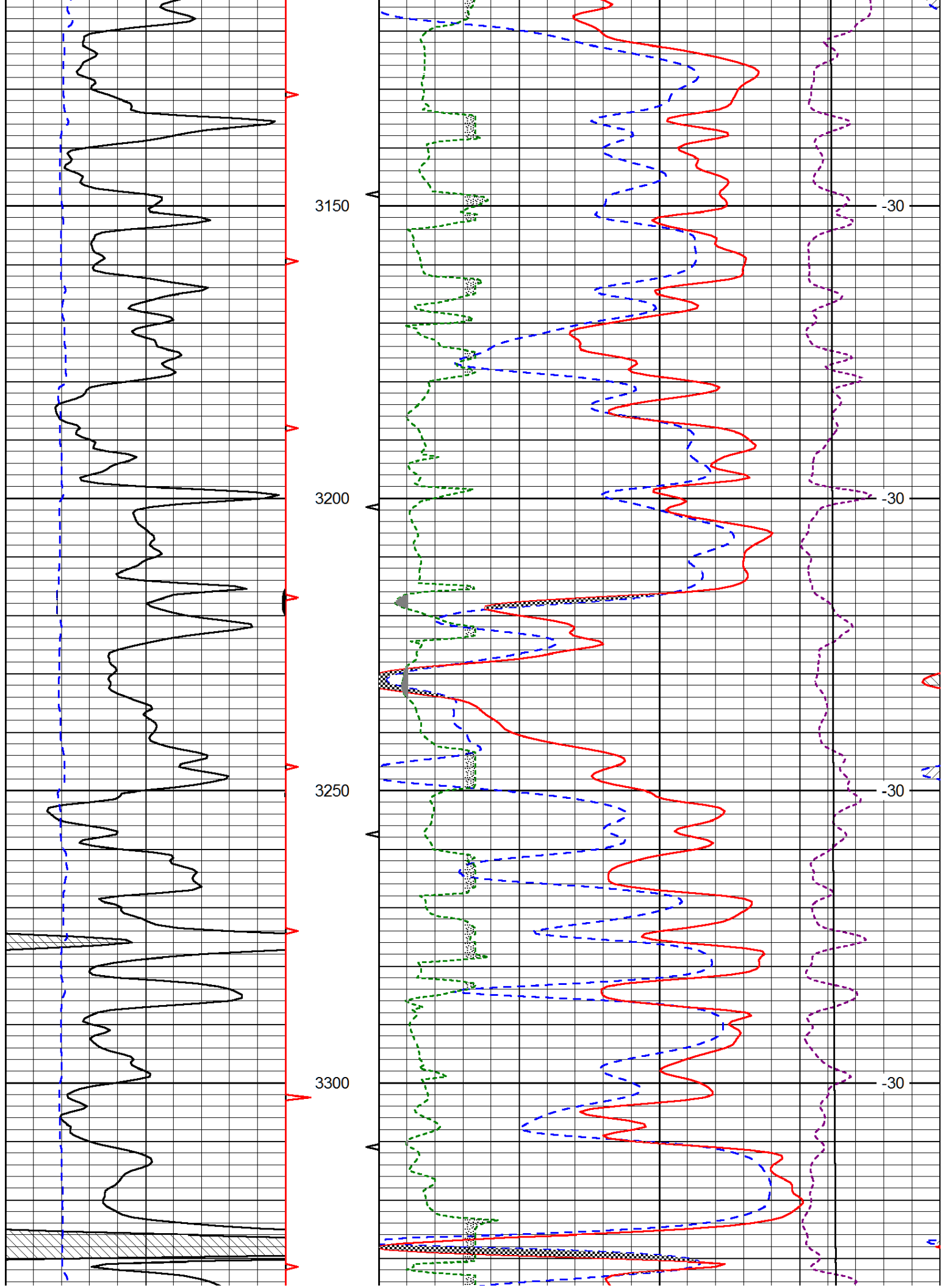
30	Compensated Density		-10
2	Bulk Density		3
15000	Line Tension		0
2.625	DGA	3.425	-0.25
Correction			0.25
LSPD			

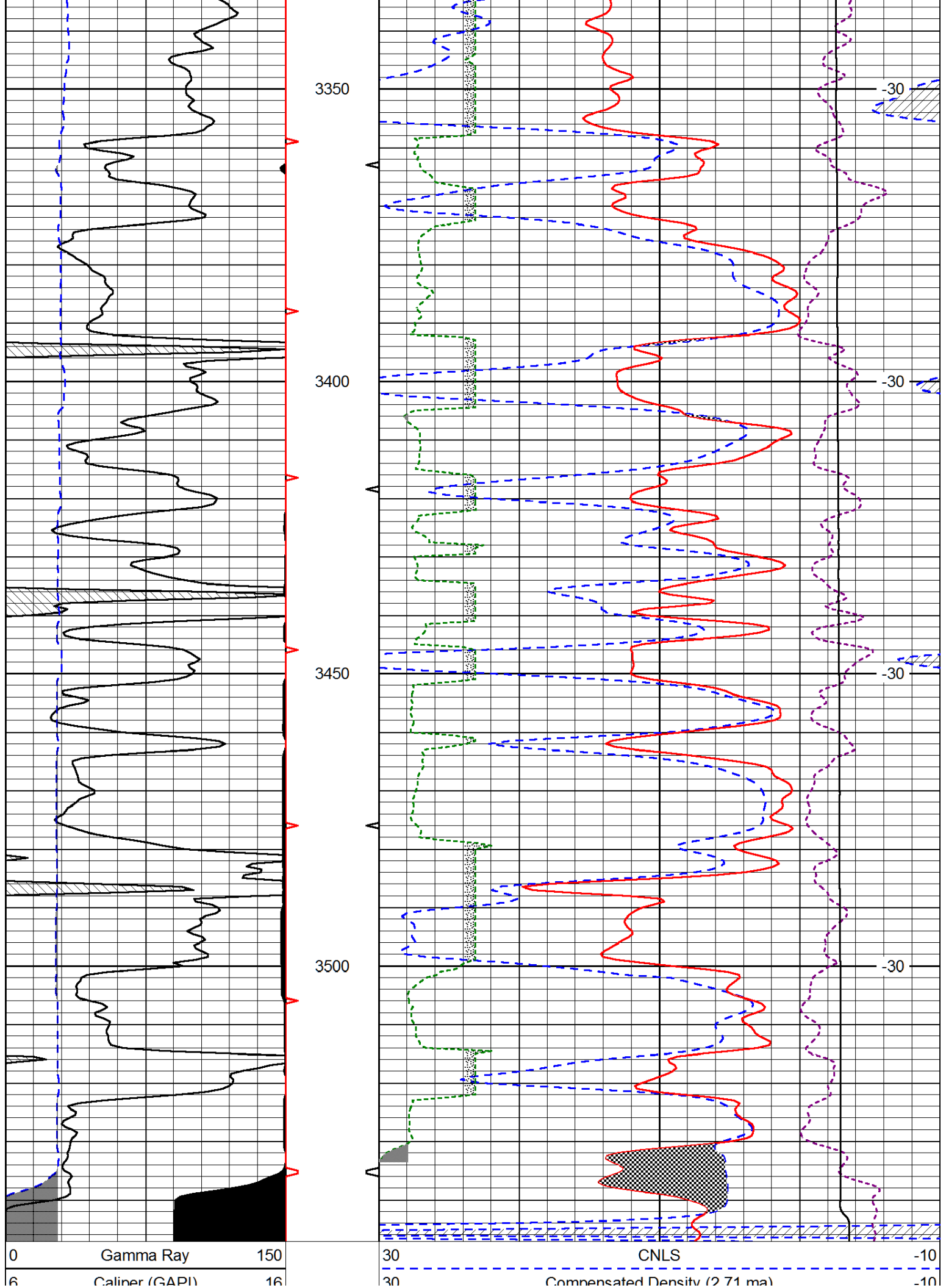




Database File: bach_crystal_1hd.db
 Dataset Pathname: DIL/bachstk
 Presentation Format: cndlspec
 Dataset Creation: Fri Sep 26 12:22:40 2014
 Charted by: Depth in Feet scaled 1:240







5	Salper (SALP)	10

Compensated Density (2.7 T/m ³)					10
2.625	DGA	3.425	-0.25	Correction	0.25
10000		Line Tension			0
					LSPD