



Pioneer Energy Services

Dual Compensated Porosity Log

API No.	15-145-21,697-00-00	
Company	H&D Exploration, LLC.	
Well	Roth A No. 1	
Field	Pawnee Rock	
County	Pawnee	
State	Kansas	
Location	SW/NW/NE SW 2297' FSL & 1434' FWL	
Sec: 35	Twp: 20 S	Rge: 16 W
Permanent Datum	Ground Level	Elevation 2003
Log Measured From	Kelly Bushing	7 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Other Services	DIL/MEL	
Elevation	K.B. 2010 D.F. G.L. 2003	

Date	11/8/2012	
Run Number	One	
Type Log	CNL / CDL	
Depth Driller	3840	
Depth Logger	3838	
Bottom Logged Interval	3817	
Top Logged Interval	3200	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	6600	
Density	9.5	
Level	Full	
Max. Rec. Temp. F	114	
Operating Rig Time	3 1/2 Hours	
Equipment -- Location	15 Hays	
Recorded By	D.Kerr	
Witnessed By	Kurt Talbot	

Borehole Record		Casing Record				
Run No	Bit From	To	Size	Wgt. 23#	From	To
One	12.25	00	995	8.625	00	995
Two	7.875	995		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

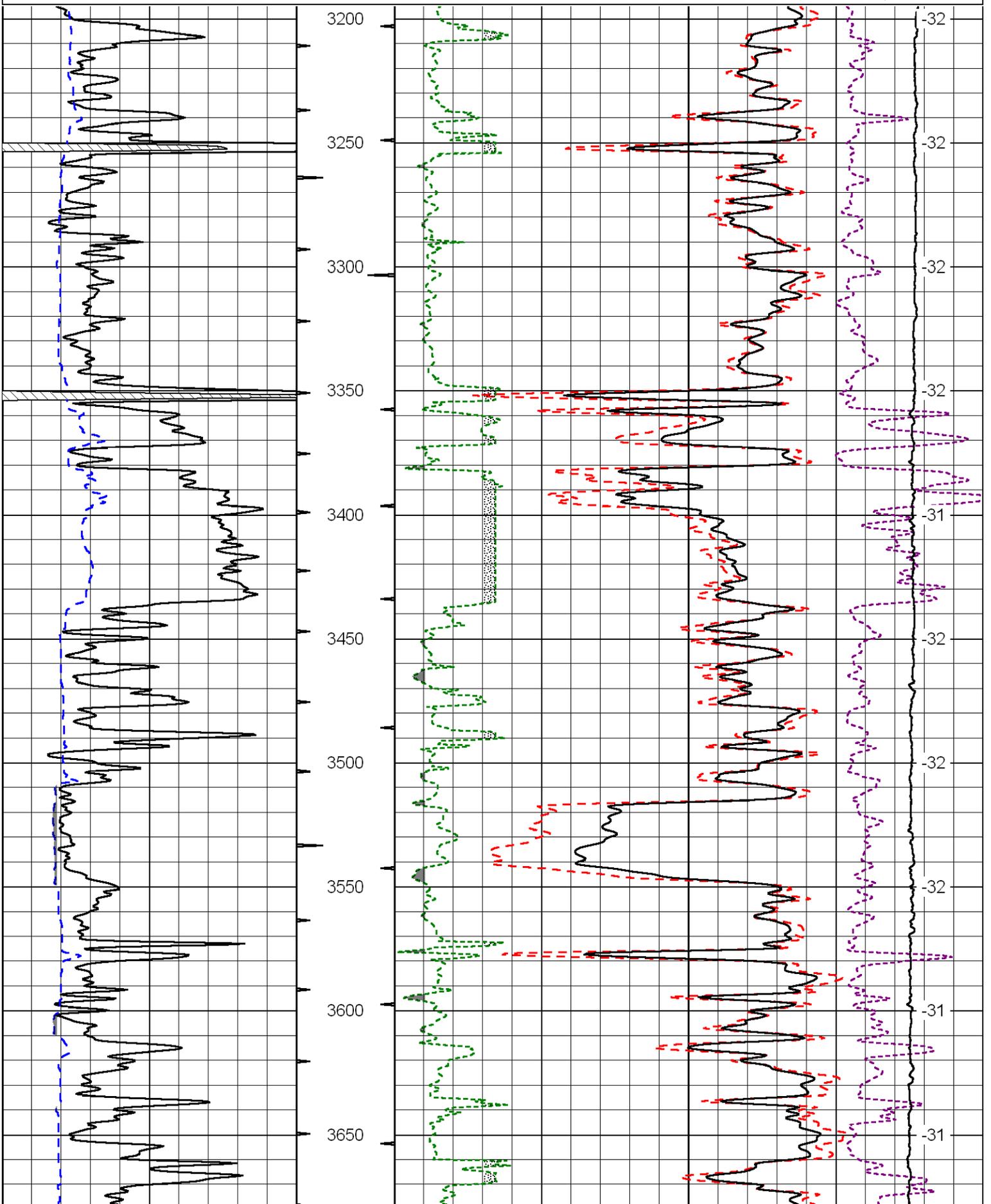
Thank you for using Log-Tech, Inc.
 (785) 625-3858

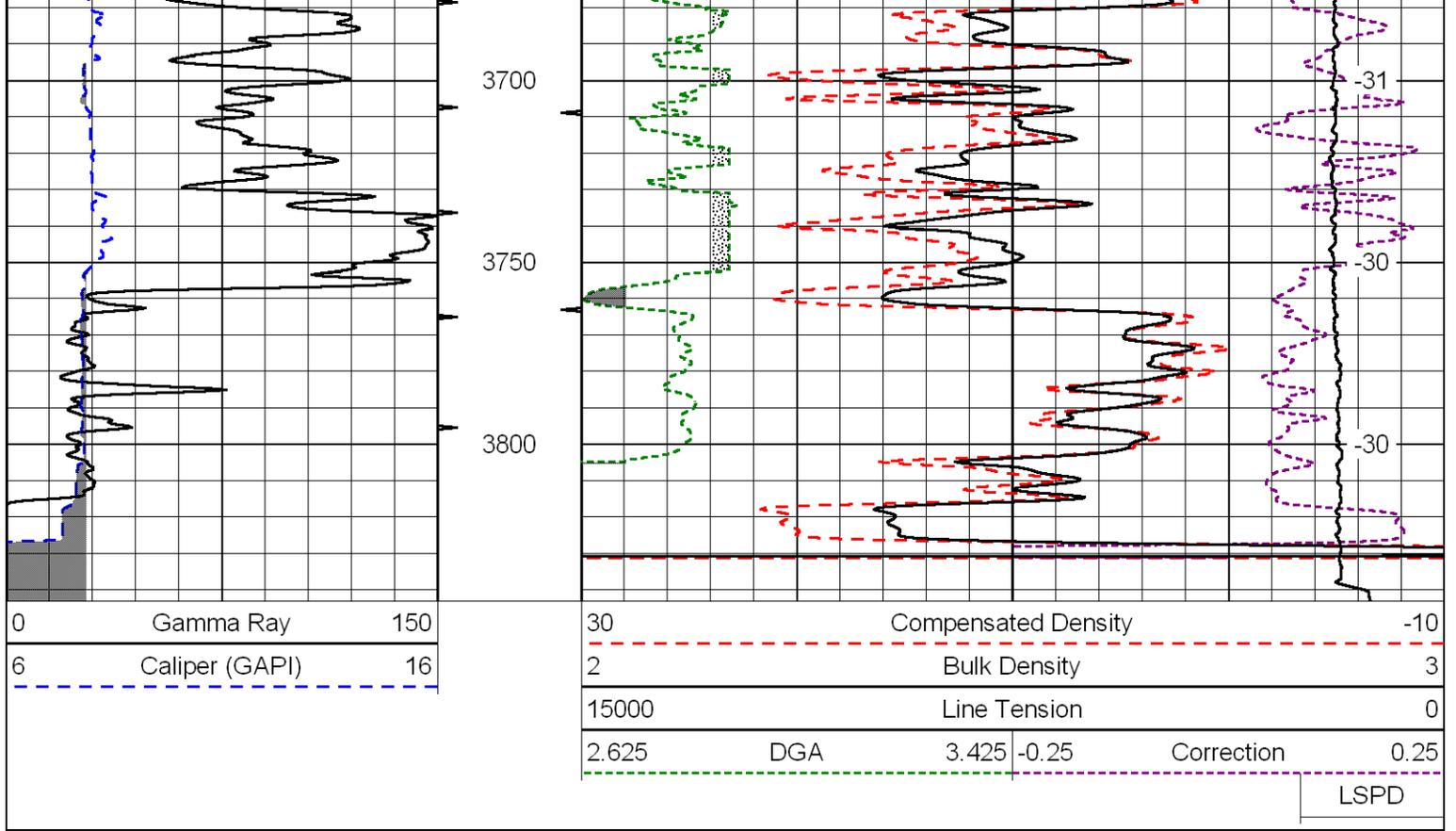
 Pawnee Rock, KS, 5 1/2 West On T RD,
 North Into

Database File: h&d_roth_a_1hd.db
 Dataset Pathname: DIL/h&dstk
 Presentation Format: cdl
 Dataset Creation: Thu Nov 08 09:16:36 2012
 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: h&d_roth_a_1hd.db
 Dataset Pathname: DIL/h&dstk
 Presentation Format: cndlspec
 Dataset Creation: Thu Nov 08 09:16:36 2012
 Charted by: Depth in Feet scaled 1:240

