



Pioneer Energy Services

## Dual Compensated Porosity Log

API No. 15-051-26393-00-00

Company **American Warrior, Inc.**  
 Well **Nicholson #1-16**  
 Field **District 57 North**  
 County **Ellis** State **Kansas**

Location **2106' FSL & 1512' FWL**

Sec: **16** Twp: **12S** Rge: **20W**

Other Services  
DIL/MEL

Permanent Datum **Ground Level** Elevation **2239**  
 Log Measured From **Kelly Bushing** 8 Ft. Above Perm. Datum  
 Drilling Measured From **Kelly Bushing**

K.B. 2247  
 D.F. G.L. 2239

Date **9/30/2012**

Run Number **One**

Type Log **CNL / CDL**

Depth Driller **4000**

Depth Logger **4002**

Bottom Logged Interval **3981**

Top Logged Interval **3200**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **4000**

Density **9.0**

Level **Full**

Max. Rec. Temp. F **118**

Operating Rig Time **4 Hours**

Equipment -- Location **91 Hays**

Recorded By **D. Schmidt**

Witnessed By **Jason Alm**

Borehole Record		Casing Record				
Run No	Bit From	To	Size	Wgt. 23#	From	To
One	12.25	00	8.625	23#	00	223
Two	7.875	223				

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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.

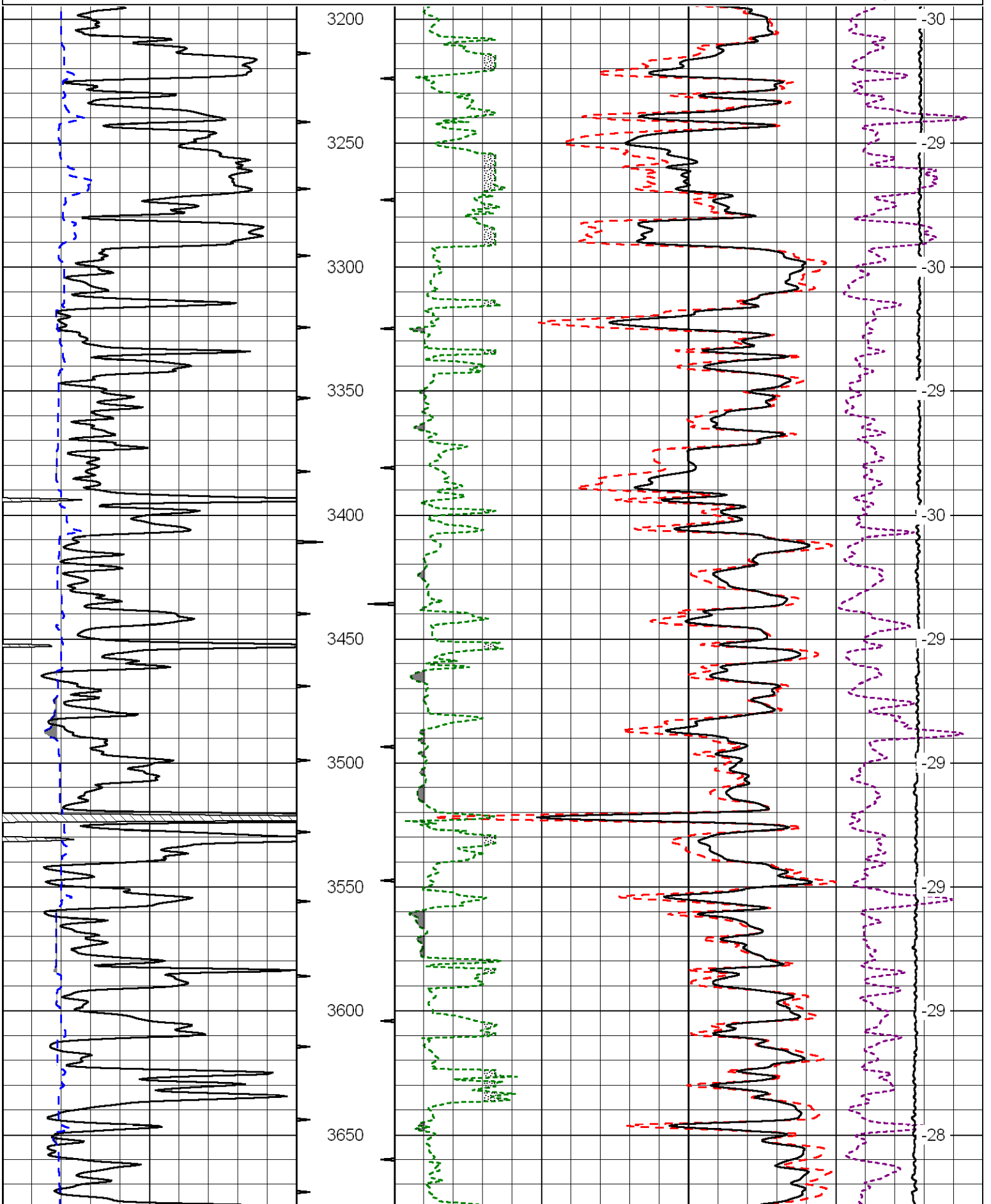
Comments

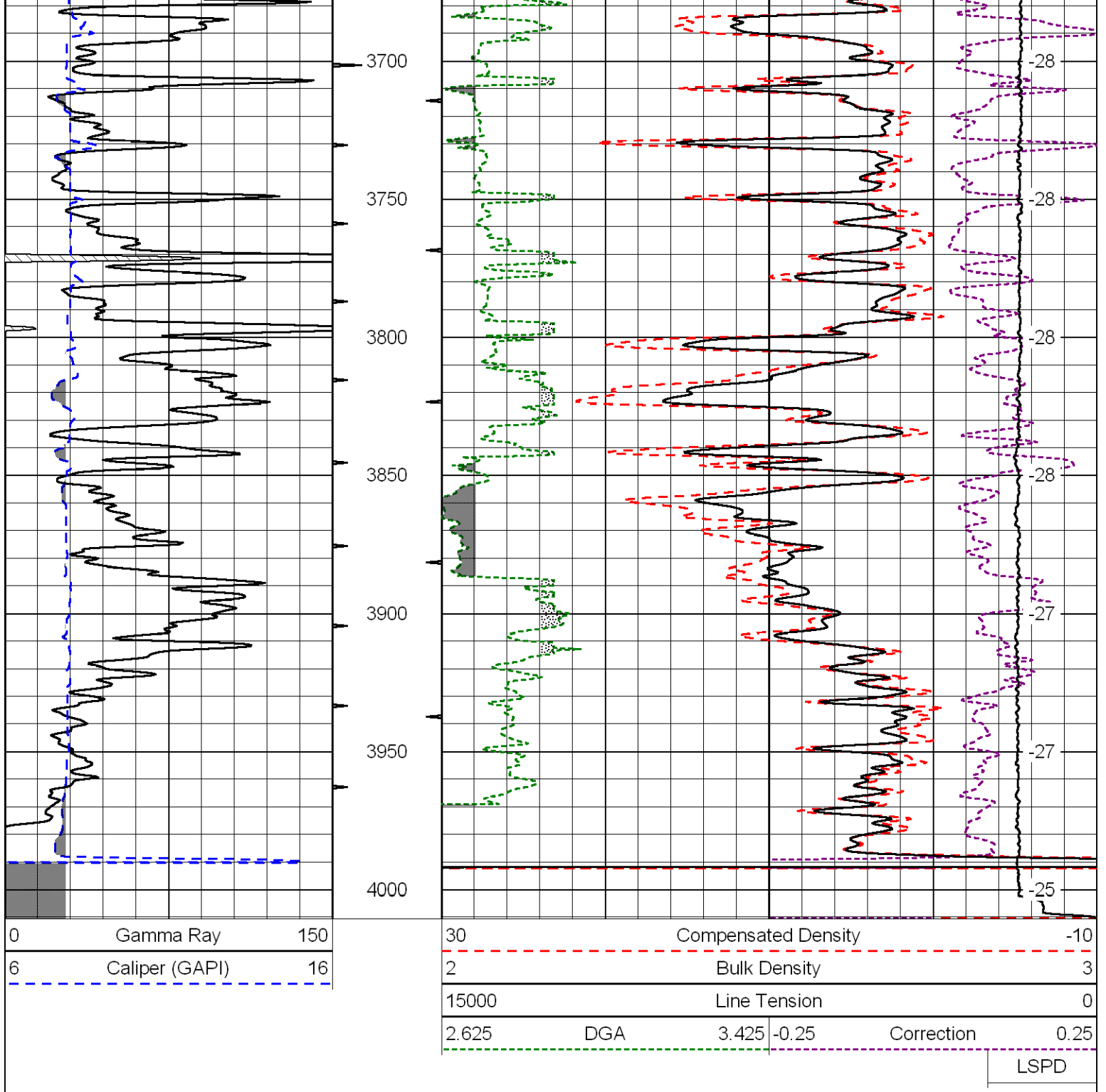
Thank you for using Log-Tech, Inc.  
 (785) 625-3858  
  
 Ellis,  
 2 1/2 North to curve, continue 1 1/4 North,  
 East into thru gate

Database File: aw\_092912hd.db  
 Dataset Pathname: dil/awstack  
 Presentation Format: cdl  
 Dataset Creation: Sun Sep 30 05:51:04 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: aw\_092912hd.db  
 Dataset Pathname: dil/awstack  
 Presentation Format: cndlspec  
 Dataset Creation: Sun Sep 30 05:51:04 2012  
 Charted by: Depth in Feet scaled 1:240

