



Pioneer Energy Services

Dual Compensated Porosity Log

15-051-26667-00-00

Company American Warrior, Inc.
Well Riedel C # 1-31
Field Irvin
County Ellis
State Kansas

Location 2170' FNL & 2304' FEL
Sec: 31 Twp: 13 S Rge: 19 W

Other Services
DIL
MEL

Permanent Datum Ground Level Elevation 2271
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation
K.B. 2279
D.F.
G.L. 2271

Date 2/17/2014

Run Number One

Type Log CNL / CDL

Depth Driller 3993

Depth Logger 3995

Bottom Logged Interval 3974

Top Logged Interval 3100

Type Fluid In Hole Chemical

Salinity, PPM CL 5000

Density 8.8

Level Full

Max. Rec. Temp. F 118

Operating Rig Time 4 Hours

Equipment -- Location 91 Hays

Recorded By Y. Ruiz

Witnessed By Jason Alm

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
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1	12.25	00	211	8.625	24#	00	211
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2	7.875	211	3993				
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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.

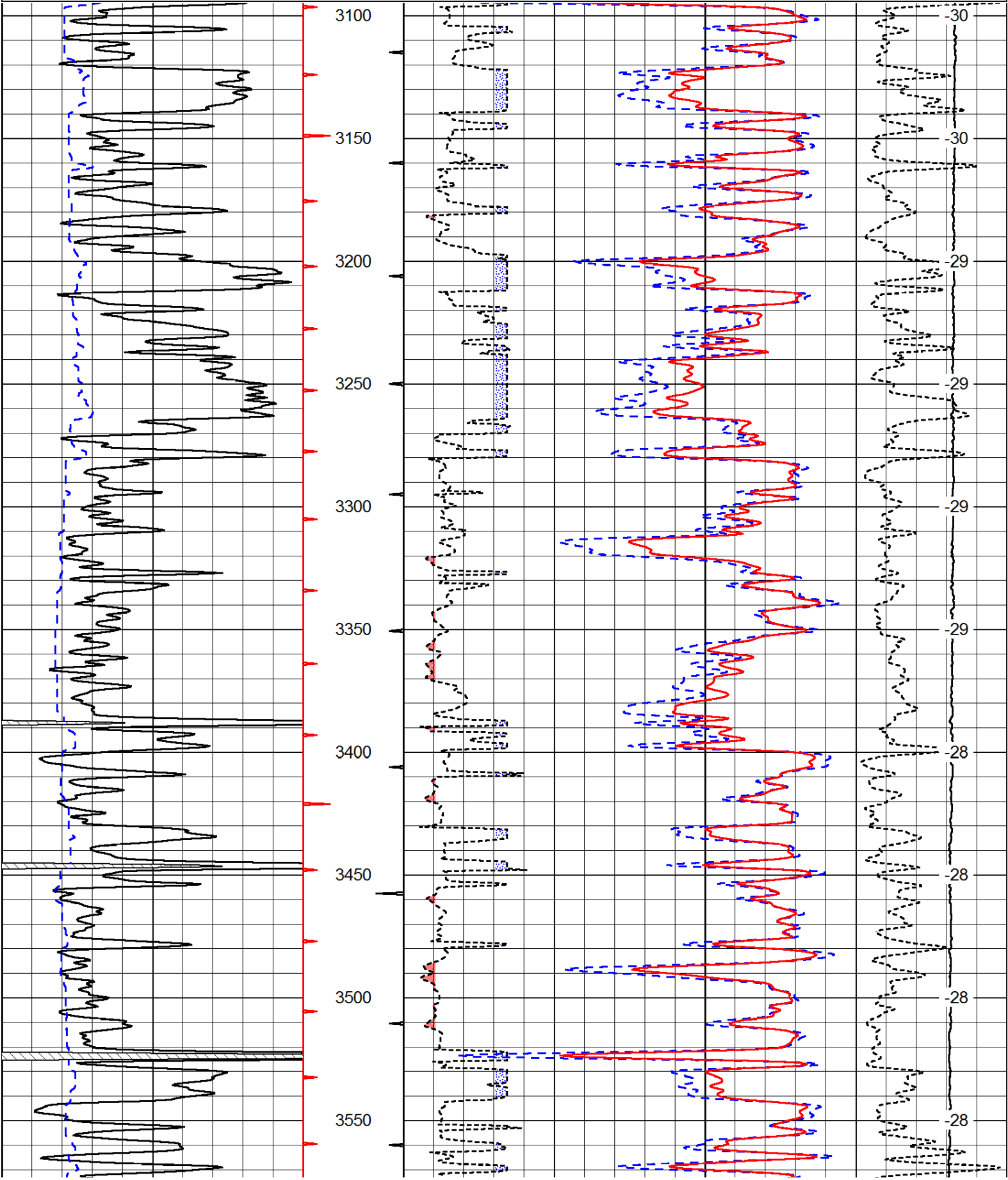
Comments

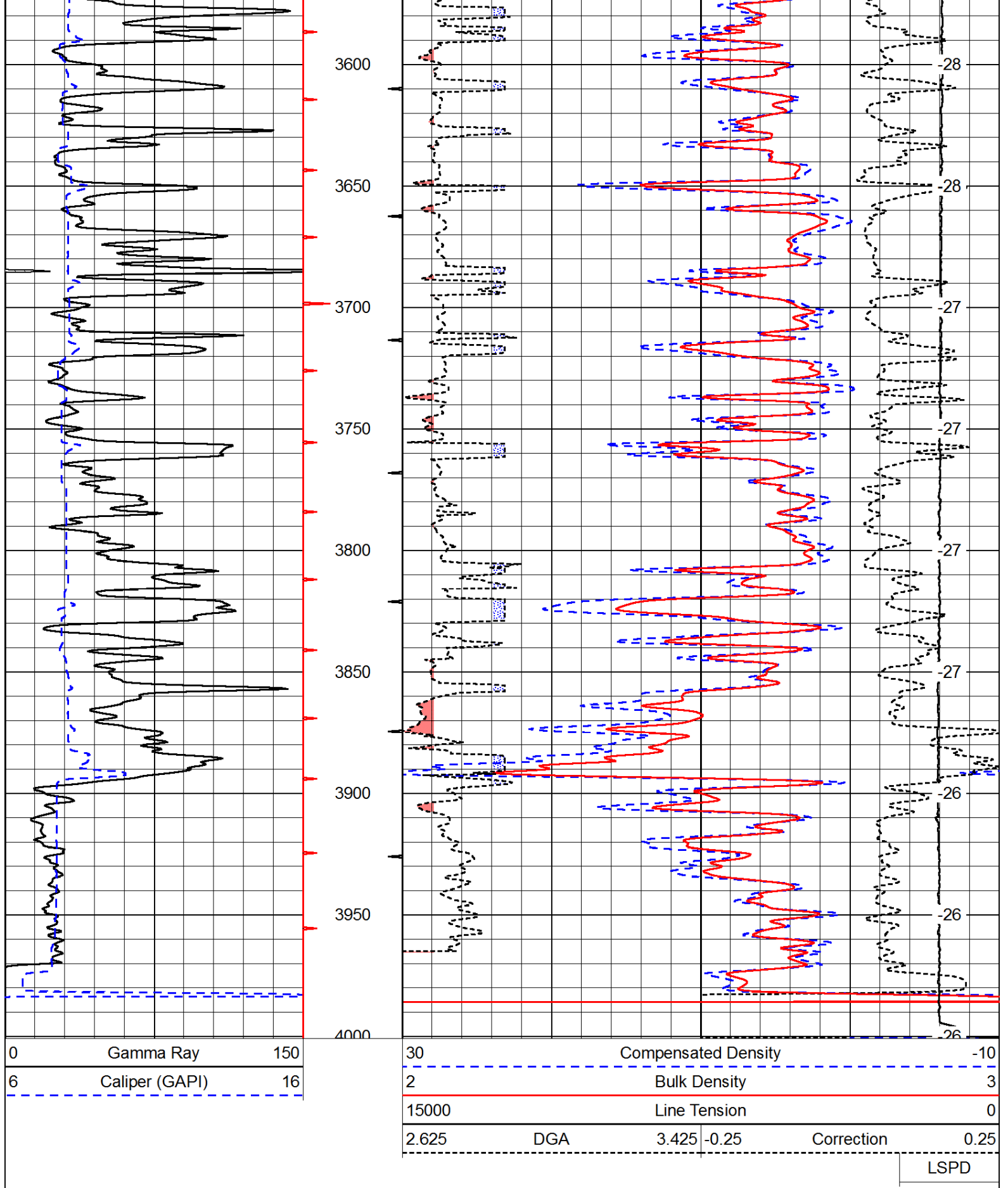
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Hays,
7 West on Golf Course, 1 North on 170th Rd, 1/2 West,
North to the Y, East and North,
West into

Database File: c:\warrior\data\amwar_riedel c # 1-31\american_warrior_021714hd.db
Dataset Pathname: DIL\awstk
Presentation Format: cdl
Dataset Creation: Mon Feb 17 23:11:28 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: c:\warrior\data\amwar_riedel c # 1-31\american_warrior_021714hd.db
 Dataset Pathname: DIL/awstk
 Presentation Format: cndlspec
 Dataset Creation: Mon Feb 17 23:11:28 2014
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Neutron (Limestone)				-10
30	Compensated Density (Limestone)				-10
2.625	DGA	3.425	-0.25	Correction	0.25
15000	Line Tension				0
					LSPD

