



Pioneer Energy Services

## Dual Compensated Porosity Log

15-167-24,007-00-00

API No.

**Company** H&D Exploration, LLC  
**Well** Michaelis #1  
**Field** Roosevelt  
**County** Russell  
**State** Kansas

**Location**  
 1793' FNL & 2310' FWL  
 Sec: 25 Twp: 15S Rge: 15W

Other Services  
 DIL  
 MEL/BHCS

**Permanent Datum** Ground Level Elevation 1903  
**Log Measured From** Kelly Bushing 9 Ft. Above Perm. Datum  
**Drilling Measured From** Kelly Bushing

**Elevation**  
 K.B. 1912  
 D.F. G.I.L. 1903

**Date** 12/11/2014

<b>Run Number</b>	One
<b>Type Log</b>	CNL / CDL
<b>Depth Driller</b>	3480
<b>Depth Logger</b>	3479
<b>Bottom Logged Interval</b>	3458
<b>Top Logged Interval</b>	2400
<b>Type Fluid In Hole</b>	Chemical
<b>Salinity, PPM CL</b>	10,000
<b>Density</b>	9.3
<b>Level</b>	Full
<b>Max. Rec. Temp. F</b>	111
<b>Operating Rig Time</b>	4 Hours
<b>Equipment -- Location</b>	51 Hays
<b>Recorded By</b>	C. Desaire
<b>Witnessed By</b>	Clint Musgrove

**Borehole Record**

Run No	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	390	8.625	24#	00	390
2	7.875	390	3480				

**Casing Record**

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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.pioneeres.com  
 785 625 3858

Russell KS, W on I-70 to Balta Rd,  
 9 1/2 S, 1/2 W, S Into

Database File: c:\warrior\data\h&d\_michaelis #1\hdhd.db  
 Dataset Pathname: dil/hdstk  
 Presentation Format: cdl  
 Dataset Creation: Thu Dec 11 22:24:07 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















