



**MIDWEST SURVEYS**  
 LOGGING - PERFORATING - CONSULTING SERVICES  
 P.O. Box 68, Osawatomie, KS 66064  
 913 / 755 - 2128

**GAMMA RAY / NEUTRON / CCL**

File No. Company A&L Energy Operations, LLC  
 Well Thoren No.- 116  
 Field Little Wakarusa

County Douglas State Kansas

Location 695' FNL & 1355' FEL  
 NE-SE-NW/NE

Other Services Perforate

Sec. 6 Typ. 14S Rge. 22e  
 Permanent Datum GL Elevation NA  
 Log Measured From GL  
 Drilling Measured From GL

Date 08-29-2013  
 Run Number One  
 Depth Driller 752.0  
 Depth Logger 735.5  
 Bottom Logged Interval 734.5  
 Top Log Interval 20.0  
 Fluid Level Full

Type Fluid Water  
 Density / viscosity NA  
 Salinity - PPM Cl NA  
 Max Recorded Temp NA  
 Estimated Cement Top 0.0

Equipment No. 107 Location Osawatomie  
 Recorded By Steve Mindisch  
 Witnessed By Jerald Heekin

BORE-HOLE RECORD				CASING RECORD			
RUN	BIT	FROM	TO	SIZE	WGT.	FROM	TO
No.	9.875"	0.0	43.4	7.00"	17.0#	0.0	43.40
Two	6.125"	43.4	752.0	2.875"	6.5#	0.0	741.40

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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  
  
 Drilling Contractor :  
 McGown Drilling, Inc  
 Rig - 2

Database File: thoren116.db  
 Dataset Pathname: pass1  
 Presentation Format: gr-n-ccl  
 Dataset Creation: Sat Jun 29 09:53:33 2013 by Log SCH 111116  
 Charted by: Depth in Feet scaled 1:240

