



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

**GAMMA RAY / NEUTRON / CCL**

File No. \_\_\_\_\_

Company **DE & TZ, LLC.**

Well **Knabe Well No.-22**

Field **Longanecker Southeast**

County **Johnson** State **Kansas**

Location **3250' FSL & 1020' FEL**

Other Services **Perforate**

Sec. **31** Twp. **14S** Rge. **22E**

Perforant Datum **GL** Elevation **1047'**

Log Measured From **GL** D.F. **NA**

Drilling Measured From **GL** E.L. **1047'**

Date **04-03-2015**

Run Number **One**

Depth Driller **995.0**

Depth Logger **949.0**

Bottom Logged Interval **948.0**

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. **102** Location **Osawatomie**

Recorded By **Gary Mendisch**

Witnessed By **Doug Evans**

Recorded By \_\_\_\_\_

Recorded By \_\_\_\_\_

Recorded By \_\_\_\_\_

Recorded By \_\_\_\_\_

Recorded By \_\_\_\_\_

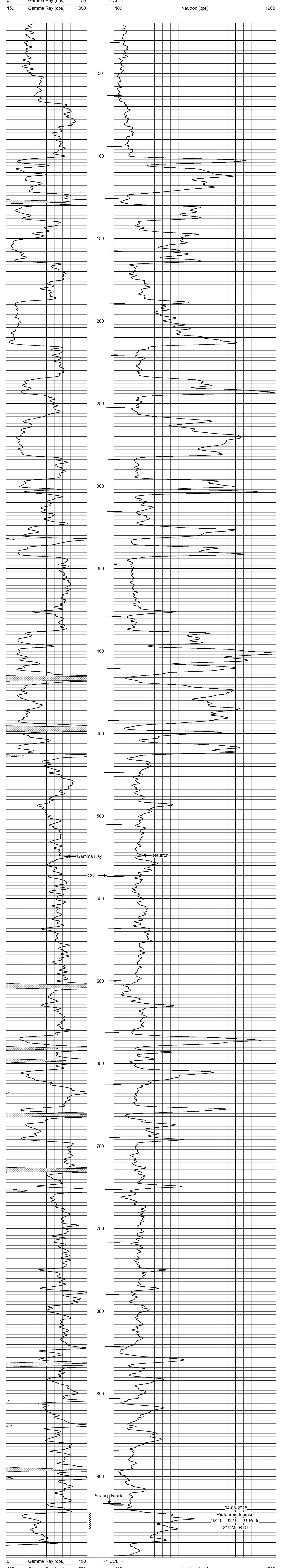
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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 :  
 HB Energy, LLC.

Database File: knabe 22w.db  
 Dataset Pathname: pass1  
 Presentation Format: gr-n-ccl  
 Dataset Creation: Fri Apr 03 12:16:38 2015 by Log SCH 111116  
 Charted by: Depth in Feet scaled 1:240



04-08-2015  
 Perforated Interval  
 922.0 - 932.0 31 Perfs  
 2" DML RTG