



**MIDWEST SURVEYS**  
LOGGING - PERFORATING - CONSULTING SERVICES  
P.O. Box 68, Osawatomie, KS 66064  
913.755 - 2128

**GAMMA RAY / NEUTRON / CCL**

File No.

Company **Birk Petroleum**  
Well **Sutherland No.- 39**  
Field **Crandall North**  
County **Coffey** State **Kansas**

Location **1155 FSL & 3795 FEL**  
**NW/NE-SE-SW**  
Sec. 31 Twp. 22S Rge. 10E  
Permanent Datum **GL** Elevation **1034'**  
Log Measured From **GL** K/B NA  
Drilling Measured From **GL** D/F NA  
GL 1034'

Date **10-28-2014**  
Run Number **One**  
Depth Differ **1135.0**  
Bottom Logger **1135.0**  
Bottom Logged Interval **1124.0**  
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. **107** Location **Osawatomie**  
Recorded By **Steve Winkelsch**

Witnessed By **Ed Birk**

| BOREHOLE RECORD |        |      |        | CASINGS RECORD |      |      |        |
|-----------------|--------|------|--------|----------------|------|------|--------|
| No.             | BIT    | FROM | TO     | SIZE           | WGT. | FROM | TO     |
| One             | 9.875" | 0.0  | 400    | 7.00"          | 0.0  | 400  | 400    |
| Two             | 5.875" | 400  | 1135.0 | 2.875"         | 6.5# | 0.0  | 1127.0 |

<<< Fold Here >>>

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 :  
WoCo Drilling, LLC

Database File: sutherland 39.db  
Dataset Pathname: pass1  
Presentation Format: gr-n-ccl  
Dataset Creation: Tue Oct 28 14:37:10 2014 by Log SCH 111116  
Charted by: Depth in Feet scaled 1:240

