



# Geologic Report

Drilling Time and Sample Log

Operator **American Warrior, Inc.**

KB Elevation 2221'

Lease **T. Isern** No. **3-13**

DF GL 2215'

API # **15-135-25739-0000**

Casing Record Surface

Field **Bernice**

8 5/8" @ 222'

Location **335' FNL & 1670' FEL**

Production 5 1/2" @ 4384'

Sec. **13** Twp. **20s** Rge. **21w**

Electrical Surveys None

County **Ness** State **Kansas**

Formation **Log Tops Sample Tops Struct Comp**

Anhydrite Base 1418' +803 +1

Heebner 3740' -1519 +3

Lansing 3790' -1569 +3

BKc 4130' -1909

Pawnee 4261' -2040

Fort Scott 4284' -2063 +3

Cherokee 4302' -2081

Mississippian 4362' -2141 +10

Total Depth 4385' -2164

Reference Well For Structural Comparison American Warrior, Inc. T. Isern #1-13

450' FNL & 2210' FEL Sec. 13 T20s R21w Ness Co. Kansas

Drilling Contractor **Petromark Drilling, LLC. Rig #1**

Commenced **2-20-2014** Completed **2-28-2014**

Samples Saved From **4050'** To **RTD**

Drilling Time Kept From **3700'** To **RTD**

Samples Examined From **4050'** To **RTD**

Geological Supervision From **4050'** To **RTD**

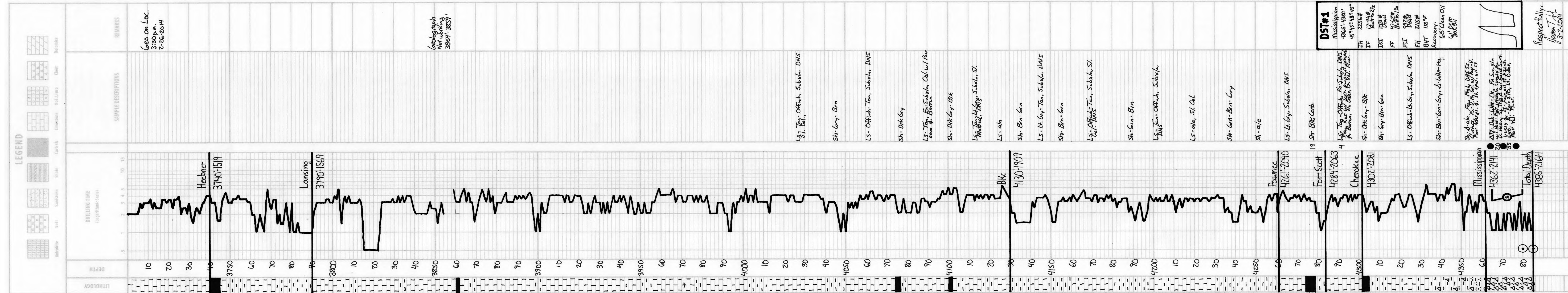
Displacement **3600'** Mud Type **Chemical**

### Summary and Recommendations

The location for the T. Isern #3-13 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. One Drill Stem Tests was conducted which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the T. Isern #3-13 well.

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.



**DST#1**  
Mississippian  
4362' - 4380'  
45' - 45' - 45' - 45'  
TH 2250#  
IF 17.4#  
ISL 1081#  
FF 18.6#  
FSI 592#  
FH 215#  
BHT 118°F  
Recovery: 65' Clean Oil 90' Oil

Respectfully,  
Jason T Alm  
3-2-2014