



# Geologic Report

Drilling Time and Sample Log

|  |                 |                     |   |
|--|-----------------|---------------------|---|
| Operator <b>American Warrior, Inc.</b>   |                 |                     | Elevation<br>KB 2215'   |
| Lease <b>MMH</b>   | No. <b>2-25</b> |                     | DF<br>GL 2207'  |
| API # <b>15-135-25837-0000</b>   |                 |                     | Casing Record<br>Surface<br>8 5/8" @ 220'<br>Production<br>5 1/2" @ 4367' |
| Field <b>Steffen Northwest</b>   |                 |                     |   |
| Location <b>485' FNL &amp; 725' FEL</b>  |                 |                     | Electrical Surveys<br>None  |
| Sec. <b>25</b>   | Twp. <b>20s</b> | Rge. <b>21w</b>     |   |
| County <b>Ness</b>   |                 | State <b>Kansas</b> |   |
| <b>Formation</b>   | <b>Log Tops</b> | <b>Sample Tops</b>  | <b>Struct Comp</b>  |
| <b>Anhydrite</b>   |                 | <b>1395' +818</b>   |   |
| <b>Base</b>  |                 | <b>1425' +788</b>   |   |
| <b>Heebner</b>   |                 | <b>3721' -1508</b>  | <b>+2</b>   |
| <b>Lansing</b>   |                 | <b>3770' -1557</b>  | <b>+5</b>   |
| <b>BKc</b>   |                 | <b>4118' -1905</b>  |   |
| <b>Pawnee</b>  |                 | <b>4252' -2039</b>  |   |
| <b>Fort Scott</b>  |                 | <b>4275' -2063</b>  | <b>+7</b>   |
| <b>Cherokee</b>  |                 | <b>4295' -2083</b>  | <b>+6</b>   |
| <b>Mississippian</b>   |                 | <b>4358' -2145</b>  | <b>-4</b>   |
| <b>Total Depth</b>   |                 | <b>4367' -2154</b>  |   |
| Reference Well For Structural Comparison <b>Lauck D R Oil Co. Martin #1</b><br>C NE NE Sec. 25 T20s R21w Ness Co. Kansas |                 |                     |   |

|                             |   |           |             |
|-----------------------------|---|-----------|-------------|
| Drilling Contractor         | <b>Discovery Drilling Co. Inc. Rig #3</b> |           |             |
| Commenced                   | <b>12-15-2014</b>                         | Completed | <b>1-11</b> |
| Samples Saved From          | <b>4000'</b>                              | To        | <b>RTD</b>  |
| Drilling Time Kept From     | <b>3700'</b>                              | To        | <b>RTD</b>  |
| Samples Examined From       | <b>4000'</b>                              | To        | <b>RTD</b>  |
| Geological Supervision From | <b>4000'</b>                              | To        | <b>RTD</b>  |

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

## Summary and Recommendations

The location for the MMH #2-25 was found via 3-D seismic. A new well ran structurally as expected via the survey. One Dr 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 MMH #2-25 well.

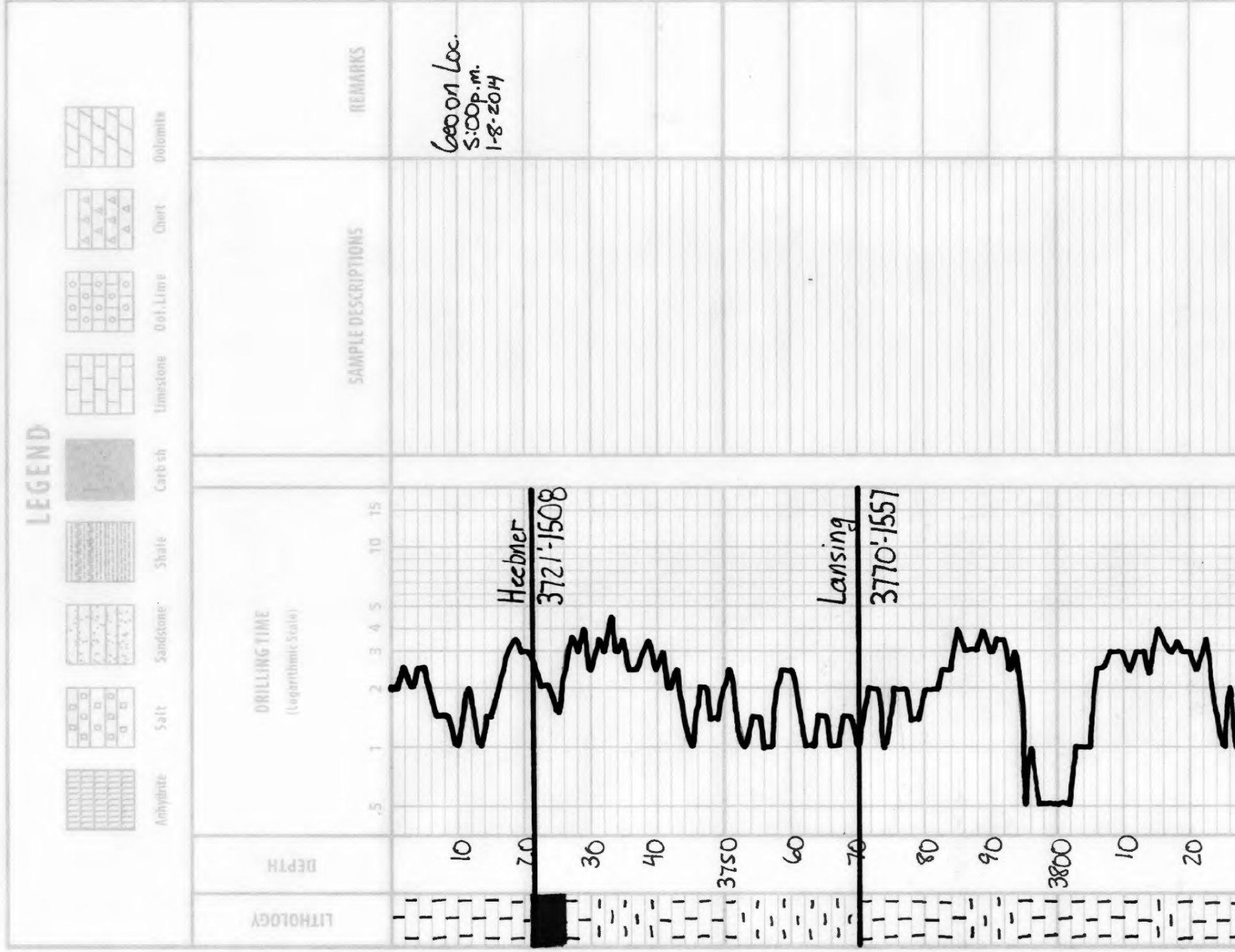
Respectfully Submitted,

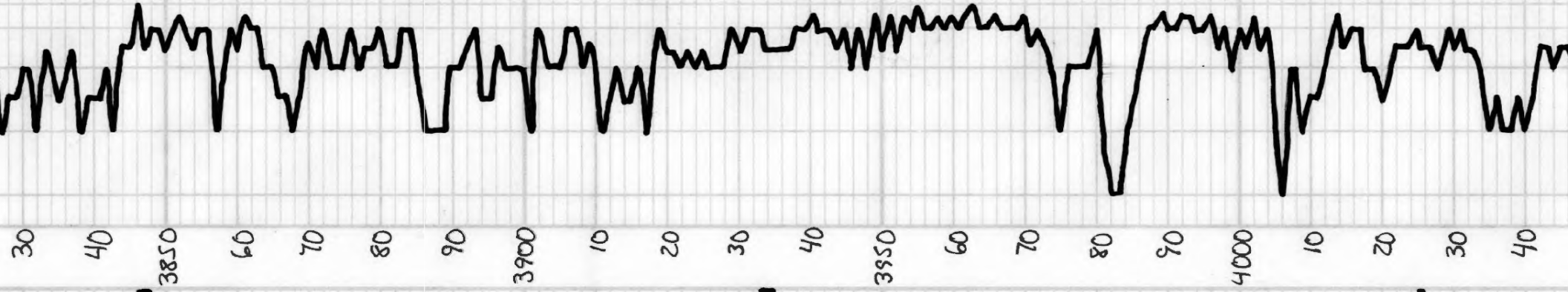
Jason T Alm  
Hard Rock Consulting, Inc.

ic survey. The  
ill Stem Test  
from the  
been  
casing to

submitted,

consulting, Inc.





LS - Off wh. Lt. Gry; Fx slr; Del.  
w/ Fair - Good boom &; Barren

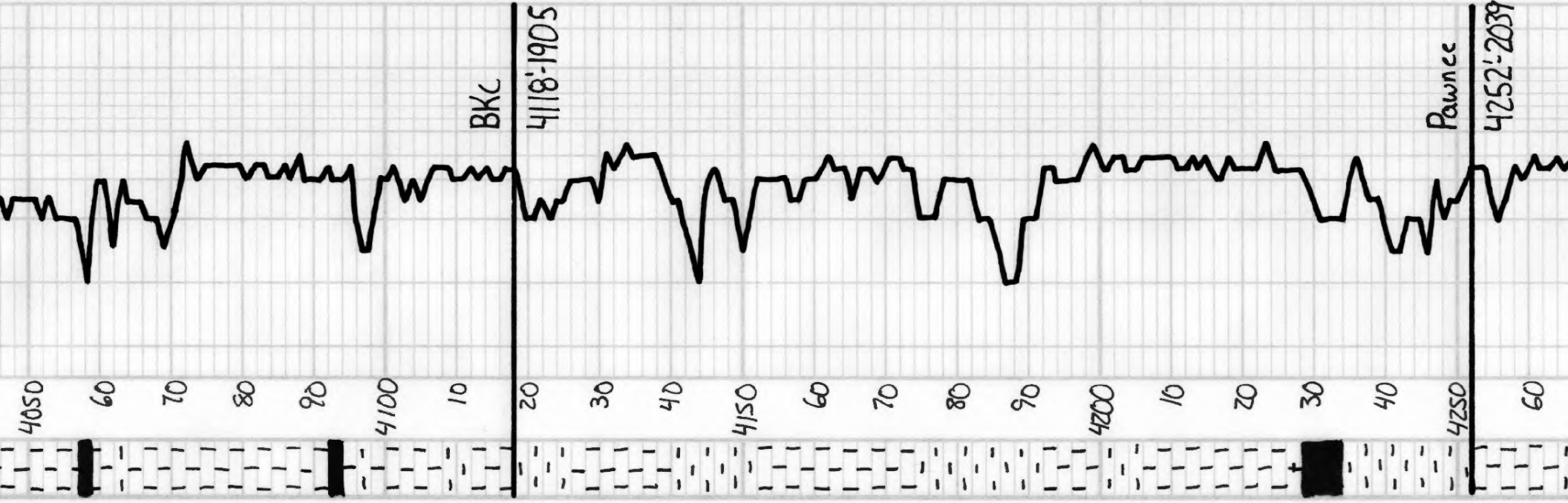
LS - ala. Mostly DNS

LS - Top: Off wh; Fx slr; Del.  
w/ Fair - Good boom &; Barren

LS - ala w/ Poor boom; few w/c  
Barren

Sh - Dkt Gry - Gry

LS - Top: Lt. Gry; Fx - Sub; Del.  
w/ Poor - Fair boom &; Barren



LS - Tan-Lt. Gry, Subxln, Sl. Dol.

Sh - Dk Gry

LS - Offwh-Lt. Gry, Fx xln, Dol.  
 PKSW Fair-Whm? Sec. acc. p.  
 Berrien

LS - ala

Sh - Dk Gry - Blk

Sh - Gry

LS - Tan-Lt. Gry, Subxln, DNS

LS - ala

Sh - Brn - Gry

LS - Tan-Lt. Gry, Subxln, DNS

Sh - Brn - Gry

LS - Tan-Lt. Gry, Subxln, DNS

LS - ala, Sl. A - Orange-Whit

Sh - Dk Gry

Sh - Gry - Brn

LS - Offwh-Lt. Gry - Sl. M. Head  
 Subxln, DNS

LS - Lt. Gry, Subxln, DNS,  
 Blocky

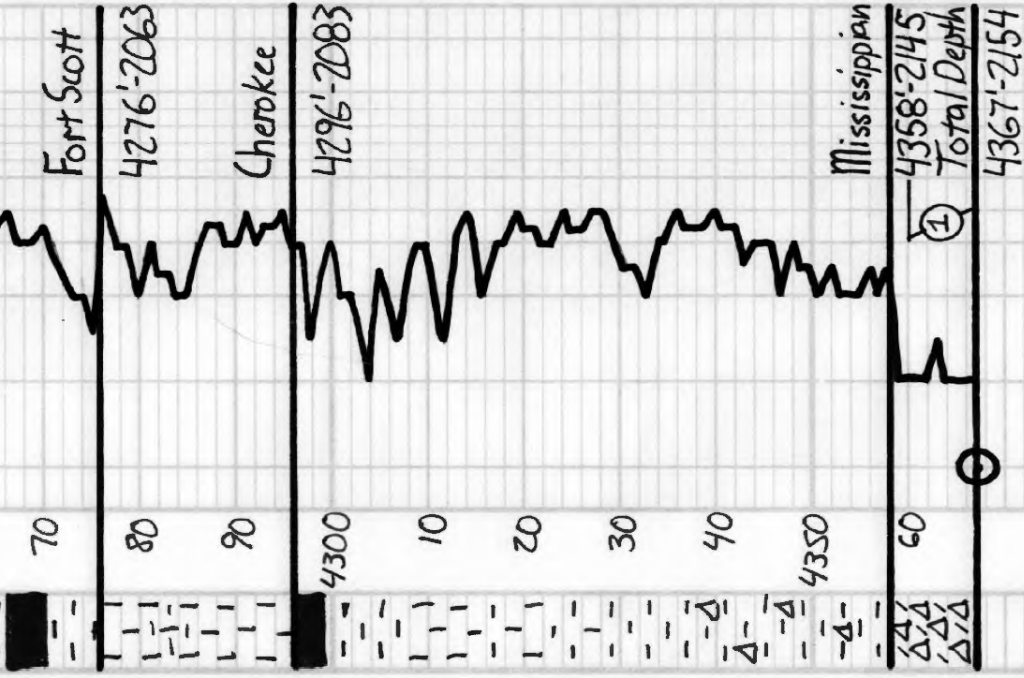
LS - ala

Sh - Dk Gry - Blk

Sh - Gry - Grn - Brn

Sh - Lt. Gry - Grn

LS - Gry, Subxln, DNS



14 Sh - Blk - Dk Gr. Carb.

Sh - Gray - Brn

Ls - Tan - Off wh. Subsl. DNS.  
Fossil, Bl. Spot. Yel. Floor.  
Bernon, DNS

Sh - Dk Gr - Blk

Sh - Brn - Grn - Gray

Ls - Lt. Gr - Tan. Subsl. DNS

Ls - a/a

Sh - Gray - Dk Gr - Brn

Sh - Brn - Grn, Sl. A - Whit. Sl. Yel

Sh - Brn - Red, A - Yel - Whit

Δ - Dol - Whit - Off wh, Fa Suc.  
Xln w/ Pbb. Fairly interstr.  
by Hwy St. Trip 2. Interstr.  
by Fair - Good w/ by Lt. Fair sil.  
Set. SFO Ggd. Color Fair.  
Good Yel. Spot. Floor.

### DST#1

Mississippian  
4360'-4367'  
45"-4s" 45" 4s"

IH 2217#  
IF 44-138#  
BOB 1/2 min.  
ISI 1243#  
Bu. H to 2 1/2  
FF 140-225#  
BOB 32 min  
FSI 1206#  
Bu. H to 1 3/4  
FH 2128#  
BHT 125°F

Recovery:

201' GTP  
98' CO  
263' MOCW  
10% O, 86% W  
124' MOCW/sh

