

# **Geological Report**

**Weber #2-7**  
1425' FNL & 335' FWL  
Sec. 7 T13s R19w  
Ellis County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Weber #2-7  
1425' FNL & 335' FWL  
Sec. 7 T13s R19w  
Ellis County, Kansas  
API # 15-051-26855-0000

Drilling Contractor: Discovery Drilling Co. Inc. Rig #2

Geologist: Jason T Alm, Casey Kraus

Spud Date: December 12, 2016

Completion Date: December 18, 2016

Elevation: 2144' Ground Level  
2152' Kelly Bushing

Directions: Yocemento KS, West on Old Hwy 40 to 160 Rd.  
North approx. 2 ½ mi. East into location just north  
of I-70 bridge.

Casing: 230' 8 5/8" surface casing  
3909' 5 1/2" production casing

Samples: 10' wet and dry, 3200' to RTD

Drilling Time: 3100' to RTD

Electric Logs: Pioneer Energy Services "Jerrod Long"  
CNL/CDL, DIL, MEL

Drillstem Tests: One, Trilobite Testing, Inc. "Ray Schwager"

Problems: None

Remarks: None

## Formation Tops

| <b>Formation</b> | <b>American Warrior, Inc.<br/>Weber #2-7<br/>Sec. 7 T13s R19w<br/>1425' FNL &amp; 335' FWL</b> |
|------------------|--|
| Anhydrite        | <b>1477' +675</b>  |
| Base             | <b>1523' +629</b>  |
|                  |  |
| Topeka           | <b>3189' -1037</b>   |
| Heebner          | <b>3425' -1273</b>   |
| Toronto          | <b>3446' -1294</b>   |
| Lansing          | <b>3466' -1314</b>   |
| BKC              | <b>3708' -1556</b>   |
| Marmaton         | <b>3760' -1608</b>   |
| Conglomerate     | <b>3787' -1635</b>   |
| Arbuckle         | <b>3824' -1672</b>   |
| LTD              | <b>3910' -1758</b>   |
| RTD              | <b>3910' -1758</b>   |

## Sample Zone Descriptions

- LKC “C” zone (3496’ -1344): Covered in DST #1**  
 Ls – Fine crystalline, oolitic with poor to fair oolitic porosity, light to fair oil stain with light spotted saturation, fair show of free oil, light odor, dull yellow spotted fluorescents.
- LKC “E” zone (3540’ -1388): Not Tested**  
 Ls – Fine to sub-crystalline with scattered pinpoint inter-crystalline porosity, light brown spotted oil stain, slight show of free oil on cup, slight odor.
- LKC “F” zone (3532’, -1392): Not Tested**  
 Ls – Fine to sub-crystalline, oolitic with fair oomoldic porosity, light to dark brown oil stain, no show of free oil, very slight odor.
- LKC “K” zone (3648’ -1496): Not Tested**  
 Ls – Fine crystalline, oolitic packstone with poor to fair oolitic porosity, light spotted oil stain in porosity, no show of free oil, very light odor.

- LKC “L” zone (3648’ -1496): Not Tested**  
 Ls – Fine crystalline, oolitic with poor to scattered good oolitic porosity, light to heavy oil stain with scattered good saturation, slight show of free oil when broken, light odor.
- Marmaton (3760’ -1608): Not Tested**  
 Ls – Fine to sub-crystalline, oolitic with scattered fair oolitic and oomoldic porosity, light spotted to good oil stain with scattered heavy saturation, fair to good show of free oil, light to fair odor, very heavy orange chert, mostly fresh, few weathered pieces.
- Conglomerate (3787’ -1635): Not Tested**  
 Chert – Multicolored, weathered in part, mostly fresh, with poor to fair scattered vuggy porosity, light to very heavy oil stain with scattered heavy oil saturation, good show of free oil, fair odor, few random quartz grains.
- Arbuckle (3824’ -1672): Not Tested**  
 Dolo – Fine to sub-crystalline with scattered poor to fair vuggy porosity, tarry oil stain and saturation, no show of free oil, no odor.

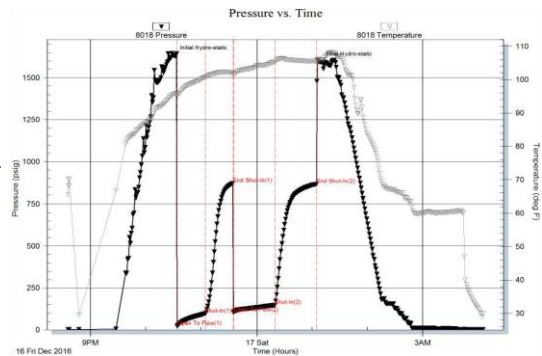
**Drill Stem Tests**  
 Trilobite Testing, Inc.  
 “Ray Schwager”

**DST #1 Toronto thru LKC “C”**

Interval (3424’ – 3515’) Anchor Length 91’

- |     |                        |           |
|-----|------------------------|-----------|
| IHP | – 1630 #               |           |
| IFP | – 30” – Built to ¾ in. | 22-97 #   |
| ISI | – 30” – Dead           | 872 #     |
| FFP | – 45” – B.O.B. 23 min. | 104-148 # |
| FSI | – 45” – Dead           | 866 #     |
| FHP | – 1593 #               |           |
| BHT | – 106°F                |           |

- Recovery: 405’ GIP  
 186’ MGO 65% Oil  
 154’ MGO 60% Oil



## Structural Comparison

|                  | American Warrior, Inc.<br>Weber #2-7<br>Sec. 7 T13s R19w<br>1425' FNL & 335' FWL | Graham Michaelis Corp<br>Wolf #5-7<br>Sec. 7 T13s R19w<br>NW NW SW |              | American Warrior, Inc.<br>Weber #1-7<br>Sec. 7 T13s R19w<br>993' FNL & 1845' FEL |              |
|------------------|--|--|--------------|--|--------------|
| <b>Formation</b> |  |  |              |  |              |
| Anhydrite        | <b>1477' +675</b>  | NA   | <b>NA</b>    | 1470' +662   | <b>(+13)</b> |
| Base             | <b>1523' +629</b>  | NA   | <b>NA</b>    | 1514' +618   | <b>(+11)</b> |
| Topeka           | <b>3189' -1037</b>   | 3158' -1037  | <b>FL</b>    | 3187' -1055  | <b>(+18)</b> |
| Heebner          | <b>3425' -1273</b>   | 3396' -1275  | <b>(+2)</b>  | 3422' -1290  | <b>(+17)</b> |
| Toronto          | <b>3446' -1294</b>   | 3418' -1297  | <b>(+3)</b>  | 3443' -1311  | <b>(+17)</b> |
| Lansing          | <b>3466' -1314</b>   | 3438' -1317  | <b>(+3)</b>  | 3463' -1331  | <b>(+17)</b> |
| BKC              | <b>3708' -1556</b>   | 3883' -1562  | <b>(+6)</b>  | 3712' -1580  | <b>(+24)</b> |
| Marmaton         | <b>3760' -1608</b>   | 3731' -1610  | <b>(+2)</b>  | 3756' -1624  | <b>(+16)</b> |
| Conglomerate     | <b>3787' -1635</b>   | 3764' -1643  | <b>(+8)</b>  | 3782' -1650  | <b>(+15)</b> |
| Arbuckle         | <b>3824' -1672</b>   | 3782' -1661  | <b>(-11)</b> | 3858' -1726  | <b>(+54)</b> |

## Summary

The location for the Weber # 2-7 was found via 3-D seismic survey. The new well ran structurally as expected on all datums except the Arbuckle Formation. One Drill Stem Test was conducted which recovered commercial amounts of oil from the Lansing-Kansas City "C" zone. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Weber #2-7 well.

## Recommended Perforations

**Primary:**

|                   |                      |                   |
|-------------------|----------------------|-------------------|
| <b>LKC K zone</b> | <b>3658' – 3666'</b> | <b>Not Tested</b> |
| <b>LKC C zone</b> | <b>3501' – 3505'</b> | <b>DST #1</b>     |

**Secondary:**

|                    |                      |                   |
|--------------------|----------------------|-------------------|
| <b>Cong. Chert</b> | <b>3786' – 3806'</b> | <b>Not Tested</b> |
| <b>LKC E zone</b>  | <b>3542' – 3548'</b> | <b>Not Tested</b> |

**Before Abandonment:**

|                   |                      |                   |
|-------------------|----------------------|-------------------|
| <b>Pleasanton</b> | <b>3719' – 3724'</b> | <b>Not Tested</b> |
| <b>LKC L zone</b> | <b>3696' – 3701'</b> | <b>Not Tested</b> |

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.