# **Geological Report**

American Warrior, Inc.

O'Brate-Finney #1-5

742' FSL & 2310' FWL

Sec. 5, T23s, R32w

Finney County, Kansas



American Warrior, Inc.

### **General Data**

Well Data:	American Warrior, Inc. O'Brate-Finney #1-5 742' FSL & 2310' FWL Sec. 5, T23s, R32w Finney County, Kansas API # 15-055-22360-00-00			
Drilling Contractor:	Duke Drilling Co. Rig #10			
Geologist:	Kevin Timson			
Spud Date:	November 28, 2014			
Completion Date:	December 9, 2014			
Elevation	2849' G.L. 2860' K.B.			
Directions:	From Garden City, KS, go North on Hwy 83 5 miles to Six Mile Rd. Go East a half mile to Third St. Go North one mile and East into.			
Casing:	1725' 8 5/8" #24 Surface Casing			
	4984' 5 ½" #15.5 Production Casing			
Samples:	4200' to RTD 10' Wet & Dry			
Drilling Time:	3750' to RTD			
Electric Logs:	Pioneer Energy Services "D. Kerr" Full Sweep			
Drillstem Tests:	Three-Trilobite Testing "Mike Roberts"			
Problems:	Possible problems with test tool on shut-in pressures.			

## **Formation Tops**

O'Brate-Finney #1-5 Sec. 5, T23s, R32w 742' FSL & 2310' FWL

Anhydrite	1881' +979
Base	1980' +880
Heebner	3829' -969
Lansing	3877' -1017
Stark	4212' -1352
Bkc	4350' -1490
Marmaton	4375' -1515
Pawnee	4449' -1589
Fort Scott	4472' -1612
Cherokee	4491' -1631
Morrow	4658' -1798
Miss	4677' -1817
RTD	5000' -2140
LTD	4999' -2139

### **Sample Zone Descriptions**

#### Pawnee (4449', -1589): Covered in DST #2

Ls. Tan. Sub to medium crystalline. Fair oomoldic and oolycastic porosity. Fair to good stain. Fair to good saturation. Show of free oil when broken. Good odor. 75 Unit hotwire.

#### St. Louis (4677', -1817): Covered in DST #3

Ls. Tan. Sub crystalline. Fair to good oomoldic and oolycastic porosity. Good stain and good saturation in porosity. Show of free oil when broken. Fair odor. 100 Unit kick.

#### **Drill Stem Tests**

Trilobite Testing "Mike Roberts"

#### DST #1 Marmaton

Interval (4390' - 4442') Anchor Length 52'

IHP -2203 #

IFP - 30" – WSB died in 2 min 33-34 #
ISI - 30" – No Return 472 #
FFP - 10" – No blow 35 #
FSIP - Pull Tool NA

FHP - 2199 #

BHT - Not recorded

Recovery: 2' Mud

#### DST #2 Pawnee to Cherokee

Interval (4432' - 4511') Anchor Length 79'

IHP - 2232 #

IFP -30" - BOB in 3 min 83-280 #
ISI -45" - No return 1179 #
FFP - 45" - BOB in 4 min 299-490 #
FSIP - 60" - No return 749 #
FHP - 2200#

FHP - 2200# BHT - 122° F

Recovery: 651' OCGM (20% Oil, 30% Gas)

186' GCOWM (10% Oil, 10% Gas, 30% Water) 186' OCGW (10% Oil, 30% Gas, 60% Water)

186' MCW

#### DST #3 St. Louis

Interval (4754' - 4776') Anchor Length 22'

IHP - 2406 #

IFP - 30" - BOB in 1 min 127-276#

ISI - 45" - BOB in 20 min 443 #

FFP - 45" - BOB in 2 min GTS 405-501 #

FSIP - 60" - BOB in 9 min 605 #

FHP - 2423 # BHT - 128° F

Recovery: 930' Oil Gravity: 31

930' MCO (90% Oil)

# **Structural Comparison**

Formation	American Warrior, Inc. O'Brate-Finney #1-5 Sec. 5, T23s, R32w 742' FSL & 2310' FWL		Norstar Petroleum Bergkamp #1-8 Sec. 8, T23s, R32w 660' FSL & 1980' FEL		Hawkins Oil A A Dewey #1 Sec 9, T23s, R32w SW SE SW
Heebner	3829' -969	-8	3817' -961	NA	NA
Lansing	3877' -1017	-8	3865' -1009	-8	3893' -1009
Stark	4212' -1352	-4	4204' -1348	NA	NA
BKC	4350' -1490	-5	4341' -1485	NA	NA
Marmaton	4375' -1515	-8	4363' -1507	-4	4395' -1511
Pawnee	4449' -1589	-4	4441' -1585	+1	4474' -1590
Fort Scott	4472' -1612	-3	4465' -1609	+1	4497' -1613
Cherokee	4491' -1631	-5	4482' -1626	NA	NA
Morrow	4658' -1798	+24	4678' -1822	-8	4674' -1790
St. Louis	4677' -1817	+12	4685' -1829	-21	4680' -1796

#### **Summary**

The location for the O'Brate-Finney #1-5 well was found via 3-D seismic survey. The new well ran structurally as expected. Three drill stem tests were conducted which recovered commercial quantities of oil from the Pawnee and St. Louis Limestone. After all the gathered data had been examined, the decision was made to run 5 ½" production casing to further evaluate the O'Brate-Finney #1-5 well.

#### **Perforations**

**Primary:** 

St. Louis (4780' – 4787') Not Tested

**Secondary:** 

St. Louis (4765' - 4671') DST #3

Pawnee (4451' - 4454') & (4456' - 4458') DST #2

**Before Abandonment** 

Fort Scott (4477' - 4483') DST #2

Respectfully Submitted,

**Kevin Timson** 

American Warrior, Inc.