# **Geological Report**

American Warrior, Inc. O'Brate-Beach #1-22 975' FSL & 1801' FWL Sec 22, T25s, R31w Finney County, Kansas



American Warrior, Inc.

General Data				
Well Data:	American Warrior, Inc. O'Brate-Beach #1-22 975' FSL & 1801' FWL Sec. 22, T25s, R31w Finney County, Kansas API # 15-055-22433-00-00			
Drilling Contractor:	Duke Drilling Co. Rig #1			
Geologist:	Kevin Timson			
Spud Date:	August 31, 2016			
Completion Date:	September 9, 2016			
Elevation	2809' G.L. 2797' K.B.			
Directions:	From Pierceville, Go South on Main street 1.3 miles turn West into on lease road.			
Casing:	1700' 8 5/8'' #24 Surface Casing   5050' 5 ½'' #15.5 Production Casing			
Samples:	3850' to RTD 10' Wet & Dry			
Drilling Time:	3850' to RTD			
Electric Logs:	Pioneer Energy Services "D.Schmidt" Stack Micro			
Drillstem Tests:	Two "Brandon Turley" Trilobite Testing			
Problems:	None			

# **Formation Tops**

O'Brate-Beach #1-22

Sec. 22, T25s, R31w

975' FSL & 1801' FWL

Anhydrite	1827' +982
Heebner	3931' -1122
Lansing	3980' -1171
Stark	4354' -1545
Bkc	4476' -1667
Marmaton	4494' -1685
Pawnee	4572' -1763
Fort Scott	4598' -1789
Cherokee	4614' -1805
Morrow	4762' -1953
St. Gen	4770' -1961
RTD	5050' -2241
LTD	5052' -2243

### **Sample Description(s)**

**Marmaton A: (4494' -1685)** Ls/Dolo. Tan/gray. Fine to sub crystalline. Fair oolycastic porosity. Fair to good intercrystalline porosity. Fair to good stain. Fair saturation. Show of free oil when broken. Fair odor. Bright yellow full cut.

**Pawnee Limestone:** (4602' -1775) Ls. Off white/tan. Medium to sub crystalline. Fair Oomoldic porosity, fail oolycastic porosity. Poor stain. Poor saturation. Fair to good odor. No show of free oil. Fair to good bright yellow stream cut.

# **Drill Stem Tests**

DST #1	Marmaton AInterval (4460' - 4531') Anchor Length: 71'IHP - 2296#IFP - 30" -BOB in 28 minISI - 45" -No returnFFP - 45" -BOB in 12 minFSIP - 60" -No returnFHP -2225#BHT -119° FRecovery: 40' OCM461' GIP	21-25# 175# 25-32# 176#
DST #2	Pawnee   Interval (4570' - 4586') Anchor Length: 16'   IHP - 2383#   IFP -30" -BOB in 3 min   ISI -45" -WSB built to 1"   FFP -45" -BOB in 30 sec   FSIP -60" -BOB in 14 min   FHP -2368#   BHT -120°F   Recovery: 103' GO Gravity: 30   63' MCW 4126' GIP	18-36# 1247# 39-71# 1209#

### **Structural Comparison**

	American Warrior, Inc.		American Warrior, Inc.		American Warrior, Inc.
	O'Brate-Beach #1-22		O'Brate-Finney #3-15		O'Brate-Beach #1-27
	Sec 22, T25s, R31w		Sec 35, T32s, R31w		Sec 27, T25s, R31w
Formation	975' FSL & 1801' FWL		3300' FSL & 1980' FEL		751' FNL & 2296' FWL
Heebner	3931' -1122	-12	3911' -1110	+4	3953' -1126
Lansing	3980' -1171	-11	3961' -1160	+1	3999' -1172
Stark	4354' -1545	-16	4330' -1529	+3	4375' -1548
BKc	4476' -1667	-10	4458' -1657	+9	4503' -1676
Marmaton	4494' -1685	-4	4482' -1681	+14	4526' -1699
Pawnee	4572' -1763	-10	4554' -1753	+8	4602' -1775
Fort Scott	4598' -1789	-7	4583' -1782	+12	4628' -1801
Cherokee	4614' -1805	-9	4597' -1796	+10	4642' -1815
Morrow	4762' -1953	-12	4742' -1941	+6	4786' -1959
St. Genieve	4770' -1961	-2	4760' -1959	+16	4804' -1977

## **Summary**

The location for the O'Brate-Beach #1-27 well was found via 3-D seismic. The new well ran structurally as expected. One DST was conducted, which recovered commercial quantities of oil from the Pawnee Limestone Formation. After all the gathered data had been examined, the decision was made to run 5  $\frac{1}{2}$ " production casing to further evaluate the O'Brate-Beach #1-27 well.

#### **Perforations:**

Primary:	St. Louis	(4934'-4938')
	St. Louis	(4913'-4917')
Secondary:	Fort Scott	(4603'-4607')
	Pawnee	(4575'-4583')
	Marmaton	(4532'-4536')

Respectfully Submitted,

Kevin Timson American Warrior, Inc.