# **Geological Report**

American Warrior, Inc.

SNS #4-7

2250' FNL & 1155' FWL

Sec. 7 T20s R20w

Pawnee County, Kansas



American Warrior, Inc.

# **General Data**

Well Data:	American Warrior, Inc. SNS #4-7 2250' FNL & 1155' FWL Sec. 7 T20s R20w Pawnee County, Kansas API # 15-145-21799-0000
Drilling Contractor:	Discovery Drilling Co. Inc. Rig #3
Geologist:	Jason T Alm, D.J. Rebel
Spud Date:	March 23, 2015
Completion Date:	March 30, 2015
Elevation:	2244' Ground Level 2252' Kelly Bushing
Directions:	Bazine KS, 4 mi East on Hwy 96 to the HH Rd. 8 mi. South to 50 Rd. East 2 mi. to County Line Rd 3/4 mi. South, East into location.
Casing:	223' 8 5/8" surface casing 4391' 5 1/2" production casing
Samples:	10' wet and dry, 4000' to RTD
Drilling Time:	3700' to RTD
Electric Logs:	None
Drillstem Tests:	One, Trilobite Testing, Inc. "Ray Schwager"
Problems:	None

None

Remarks:

## **Formation Tops**

	American Warrior, Inc.				
	SNS #4-7				
	Sec. 7 T20s R20w				
Formation	2250' FNL & 1155' FWL				
Anhydrite	1447', +805				
Base	1474', +778				
Heebner	3767', -1515				
Lansing	3814', -1562				
BKc	4147', -1895				
Pawnee	4277', -2025				
Fort Scott	4302', -2050				
Cherokee	4322', -2070				
Mississippian	4378', -2126				
RTD	4392', -2140				

### **Sample Zone Descriptions**

#### Mississippian Osage (4378', -2126): Covered in DST #1

 $\Delta$  – Dolo – Fine crystalline with pinpoint inter-crystalline porosity, very heavy weathered chert with fair to good vuggy porosity, fair to good oil stain and scattered saturation in porosity, fair show of free oil, good odor, good spotted yellow fluorescents.

### **Drill Stem Tests**

Trilobite Testing, Inc. "Ray Schwager"

#### **DST #1** Mississippian Osage

Interval (4379' – 4389') Anchor Length 10' -2110 #IHP

- 30" - B.O.B. 7 min. **IFP** 54-210# ISI -30" – Built to 1 in. 1295# **FFP** -30" - B.O.B. 7 min.

-30" – Built to  $\frac{3}{4}$  in. FSI

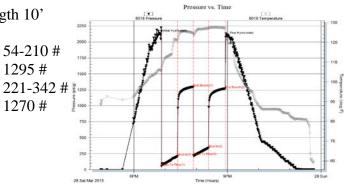
1270#

**FHP** -2077 #− 127°F BHT

250' GIP Recovery:

775' GCO

90' SMGO 79% Oil



# **Structural Comparison**

Formation	American Warrior, Inc. SNS #4-7 Sec. 7 T20s R20w 2250' FNL & 1155' FWL	American Warrior, Inc. SNS #1-7 Sec. 7 T20s R20w 2310' FNL & 1700' FEL		American Warrior, Inc. SNS #2-7 Sec. 7 T20s R20w 2260' FSL & 600' FWL	
Anhydrite	1447', +805	1437', +804	(+1)	1430', +808	(-3)
Base	1474', +778	1465', +776	(+2)	1461', +777	(+1)
Heebner	3767', -1515	3755', -1514	(-1)	3749', -1511	(-4)
Lansing	3814', -1562	3806', -1565	(+3)	3797', -1559	(-3)
BKc	4147', -1895	4138', -1897	(+2)	4132', -1894	<b>(-1)</b>
Pawnee	4277', -2025	4266', -2025	FL	4260', -2022	(-3)
Fort Scott	4302', -2050	4296', -2055	(+5)	4286', -2048	(-2)
Cherokee	4322', -2070	4311', -2070	FL	4304', -2066	(-4)
Mississippian	4378', -2126	4375', -2134	(+8)	4370', -2132	(+6)

## **Summary**

The location for the SNS #4-7 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. One Drill Stem Test 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 ½ inch production casing to further evaluate the well.

# **Recommended Perforations**

Mississippian Osage (4378' – 4388') DST #1

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.