

Geological Report

Mabel #1-19
2459' FNL & 1756' FEL
Sec. 19 T23s R23w
Hodgeman County, Kansas



American Warrior, Inc.

General Data

Well Data: American Warrior, Inc.
Mabel #1-19
2459' FNL & 1756' FEL
Sec. 19 T23s R23w
Hodgeman County, Kansas
API # 15-083-21927-0000

Drilling Contractor: Discovery Drilling Co. Inc. Rig #3

Geologist: Jason T Alm

Spud Date: August 12, 2016

Completion Date: August 20, 2016

Elevation: 2441' Ground Level
2449' Kelly Bushing

Directions: Jetmore KS, East 1 mile to SE 219 Rd. South 3 ½
miles, West into location.

Casing: 230' 8 5/8" surface casing
4869' 5 1/2" production casing

Samples: 10' wet and dry, 4300' to RTD

Drilling Time: 3850' to RTD

Electric Logs: Pioneer Energy Services "Tim Martin"
CNL/CDL, DIL, MEL, BHCS

Drillstem Tests: One, Trilobite Testing, Inc. "Ken Swinney"

Problems: None

Remarks: None

Formation Tops

Formation	American Warrior, Inc. Mabel #1-19 Sec. 19 T23s R23w 2459' FNL & 1756' FEL
Anhydrite	1624', +825
Base	1652', +797
Heebner	4024', -1575
Lansing	4079', -1630
BKC	4488', -2039
Marmaton	4500', -2051
Pawnee	4599', -2150
Fort Scott	4634', -2185
Cherokee	4662', -2213
Basil Cher Sand	4717', -2268
Mississippian	4787', -2338
LTD	4870', -2421
RTD	4870', -2421

Sample Zone Descriptions

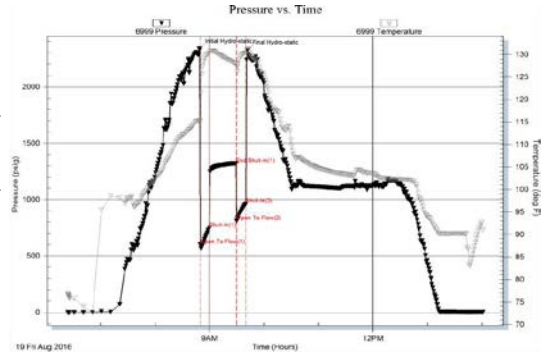
Basil Cher Sand (4717', -2268): **Covered in DST #1**
 Ss – Quartz, clear to slightly frosted, fine to coarse grained, poorly sorted, sub to well rounded, fair to poorly cemented with fair to scattered good inter-granular porosity, light spotted oil stain in cluster, slight show of free oil when broken, very light odor, dull to fair yellow fluorescents with very good yellow streaming cut, slightly glauconitic, few pieces of yellow nodular chert, slight imbedded green shales, many random coarse sand grains, 145 units hotwire.

Drill Stem Tests
Trilobite Testing, Inc.
"Ken Swinney"

DST #1 Basil Cherokee Sand

Interval (4662' – 4736') Anchor Length 74'

IHP – 2333 #
IFP – 10" – B.O.B. 55 sec. 599-748 #
ISI – 30" – B.O.B. 15 min. 1320 #
FFP – 10" – B.O.B. 55 sec. 809-963 #
FHP – 2321 #
BHT – 131°F



Recovery: 496' GIP
2294' MCGO 85% Oil
124' OCGM 10% Oil

Structural Comparison

	American Warrior, Inc. Mabel #1-19 Sec. 19 T23s R23w 2459' FNL & 1756' FEL	Rains & Williamson Bailey #1 Sec. 20 T23s R23w C NW NW		Berexco, LLC. Katheryn #1-29 Sec. 29 T23s R23w 2280' FSL & 1000' FWL	
Formation					
Anhydrite	1624', +825	1608', +821	(+4)	1575', +841	(-16)
Base	1652', +797	1630', +799	(-2)	1598', +818	(-21)
Heebner	4024', -1575	4011', -1582	(+7)	3664', -1548	(-27)
Lansing	4079', -1630	4070', -1641	(+11)	4021', -1605	(-25)
BKC	4488', -2039	4470', -2041	(+2)	4434', -2018	(-21)
Marmaton	4500', -2051	4495', -2066	(+15)	4451', -2035	(-16)
Pawnee	4599', -2150	4588', -2159	(+9)	4542', -2126	(-24)
Fort Scott	4634', -2185	4632', -2203	(+18)	4579', -2163	(-22)
Cherokee	4662', -2213	4657', -2228	(+15)	4604', -2188	(-25)
Basil Cher Sand	4717', -2268	Not Encountered	NE	4657', -2241	(-27)
Mississippian	4787', -2338	4744', -2315	(-23)	4745', -2329	(-9)

Summary

The location for the Mabel #1-19 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 Basil Cherokee Sand. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Mabel #1-19 well.

Recommended Perforations

Primary:

Basil Cherokee Sand	(4720' – 4724')	DST #1
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Before Abandonment:

Lower Basil Sand	(4737' – 4741')	Not Tested
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Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.