

Geological Report

American Warrior, Inc.

Ward #1-19

1976' FSL & 2517' FWL

Sec. 19, T13s, R35w

Logan County, Kansas



American Warrior, Inc.

General Data

Well Data: American Warrior, Inc.
Ward #1-19
1976' FSL & 2517' FWL
Sec. 19, T13s, R35w
Logan County, Kansas
API # 15-109-21417-00-00

Drilling Contractor: Discovery Drilling Rig #1

Geologist: Kevin Timson

Spud Date: July 22, 2015

Completion Date: July 30, 2015

Elevation 2924' G.L.
2935' K.B.

Directions: From Russell Springs, KS. Go SW on Hwy 25 5 miles to 220 Rd. Go North 1/4 mile on 220 Rd and East on lease road.

Casing: 211' 8 5/8" #23 Surface Casing
4602' 5 1/2" #15.5 Production Casing

Samples: 3600' to RTD 10' Wet & Dry

Drilling Time: 3600' to RTD

Electric Logs: Pioneer Energy Services "J. Henrickson"
Full Sweep

Drillstem Tests: Three-Trilobite Testing "Justin Harris"

Problems: None

Formation Tops

Ward #1-19

Sec. 19, T13s, R35w

1976' FSL & 2517' FWL

Anhydrite	2304' +631
Base	2324' +611
Heebner	3684' -749
Lansing	3728' -793
Stark	3981' -1046
BKc	4055' -1120
Marmaton	4101' -1166
Pawnee	4189' -1254
Fort Scott	4248' -1313
Cherokee	4278' -1343
Morrow	4399' -1464
RTD	4600' -1665
LTD	4603' -1668

Sample Zone Descriptions

Lansing C

Covered in DST #1

Ls. Off white. Sub crystalline. Fair to good vuggy porosity. Good Stain. Good Saturation. Fair show of free oil. Good show of free oil when broken. Good odor. 15 Unit kick.

Lansing E

Covered in DST #2

Ls. Off white. Sub crystalline. Fair vuggy porosity/ fair to good oomoldic porosity. Good stain. Fair saturation. Fair show of free oil when broken. Fair odor. 10 Unit kick.

Lansing K

Covered in DST #3

Ls. Tan. Sub crystalline. Good vuggy/ good oomoldic porosity. Fair to good stain. Good saturation. Good show of free oil when broken. Fair odor. No kick.

Drill Stem Tests
Trilobite Testing
"Justin Harris"

DST #1

Lansing 'C'

Interval (3750' - 3793') Anchor Length 43'

IHP -1783 #
IFP - 30" – BOB in 2 min 93-518 #
ISI - 45" – No Return 1180 #
FFP - 30" – BOB in 2 min 536-792 #
FSIP - 45" - No Return 1178 #
FHP - 1727 #
BHT - 120° F
Recovery: 630' OMCW (5% Oil)
2032' MCW

DST #2

Lansing 'E'

Interval (3803' - 3832') Anchor Length 29'

IHP -1830 #
IFP - 30" - WSB built to 2" 18-37#
ISI - 30" - No Return 1228 #
FFP - 30" - WSB built to 1" 39-53 #
FSIP - 30" - No Return 1202 #
FHP -1751 #
BHT - 114° F
Recovery: 75' Mud with oil spots

DST #3

Lansing 'K'

Interval (3978' - 4013') Anchor Length 35'

IHP -1969 #
IFP - 30" - BOB in 2 min 116-614 #
ISI - 45" - No Return 1293 #
FFP - 30" - BOB in 2 min 628-909 #
FSIP - 45" - No Return 1291 #
FHP - 1855 #
BHT - 124° F
Recovery: 315' MCW with oil spots
1669' MCW

Structural Comparison

	American Warrior, Inc. Ward #1-19 Sec. 19, T13s, R35w 1976' FSL & 2517' FWL		American Warrior, Inc. Sneed-Lamb #1-24 Sec. 24, T13s, R36w 878' FNL & 1235' FWL		Texaco Inc. Berry #1 Sec 21, T13s, R36w 1650' FSL & 330' FEL
Formation					
Heebner	3684' -749	+12	3715' -761	+8	3776' -757
Lansing	3728' -793	+15	3762' -808	+13	3825' -806
Stark	3981' -1046	+19	4019' -1065	+22	4087' -1068
BKC	4055' -1120	+18	4092' -1138	+15	4154' -1135
Marmaton	4101' -1166	+10	4130' -1176	+10	4195' -1176
Pawnee	4189' -1254	+12	4220' -1266	+17	4290' -1271
Fort Scott	4248' -1313	+9	4276' -1322	+15	4347' -1328
Cherokee	4278' -1343	+10	4307' -1353	+16	4378' -1359
Morrow	4399' -1464	+12	4478' -1476	+24	4507' -1488
Miss	4464' -1529	+14	4497' -1543	+74	4622' -1603

Summary

The location for the Ward #1-19 well was found via 3-D seismic survey. The new well ran structurally as expected. Three drill stem tests were conducted, none of which recovered commercial quantities of oil. After all the gathered data had been examined, the decision was made to run 5 1/2" production casing to further evaluate the well, or to convert to a SWD well.

Perforations

Primary: **Lansing 'C'** **(3767' - 3771')**

Secondary: **Atoka** **(4373' - 4377')**

