Geological Report

DK Operating, Inc.
Whitley #1-13
1537' FSL & 2305' FEL
Sec. 13 T20s R23w
Ness County, Kansas

DK Operating, Inc.

General Data

Well Data:	DK Operating, Inc. Whitley #1-13 1537' FSL & 2305' FEL Sec. 13 T20s R23w Ness County, Kansas API # 15-135-25780-0000
Drilling Contractor:	Pickrell Drilling Rig #1
Geologist:	Jason T Alm
Spud Date:	June 10, 2014
Completion Date:	June 18, 2014
Elevation:	2202' Ground Level 2209' Kelly Bushing
Directions:	Bazine KS, South 6 mi. to 70 Rd. West 6 mi. to Y Rd. South 3 ½ mi. West into location.
Casing:	210' 8 5/8" surface casing 4309' 5 1/2" production casing
Samples:	10' wet and dry, 4000' to RTD
Drilling Time:	3500' to RTD
Electric Logs:	None
Drillstem Tests:	Two, Trilobite Testing, Inc. "Brett Dickinson"
Problems:	Cedar Hills flowed about 200 bbls of water while the rig was making a bit trip @ 3450'.
Remarks:	None

Formation Tops

Formation	DK Operating, Inc. Whitley #1-13 Sec. 13 T20s R23w 1537' FSL & 2305' FEL
Anhydrite	**1400', +809**
Base	**1434', +775**
Heebner	**3636', -1427**
Lansing	**3684', -1475**
BKc	**4011', -1802**
Pawnee	**4128', -1919**
Fort Scott	**4198', -1989**
Cherokee	**4223', -2014**
Mississippian	**4287', -2078**
Osage	**4297', -2088**
RTD	**4310', -2101**

Sample Zone Descriptions

Fort Scott **(4198', -1989): Covered in DST #1**
Ls – Fine crystalline with scattered poor inter-crystalline porosity, light to fair oil stain and saturation, slight show of free oil when broken, light odor, good yellow fluorescents.

Mississippian Osage **(4297', -2088): Covered in DST #2**
Δ – Dolo – Fine sucrosic crystalline with poor inter-crystalline porosity, very heavy chert, mostly fresh with scattered good vuggy porosity, light to fair oil stain in porosity, fair show of free oil, good odor, bright yellow fluorescents.

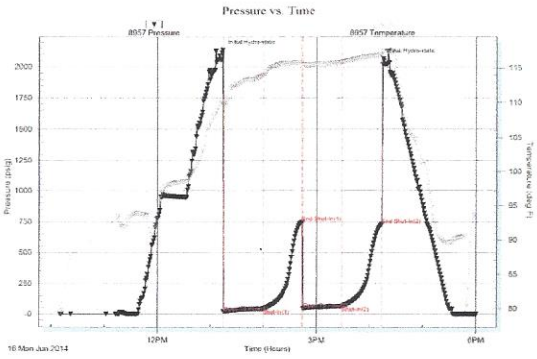
Drill Stem Tests

Trilobite Testing, Inc.
"Brett Dickinson"

DST #1 Fort Scott

Interval (4172' – 4230') Anchor Length 58'

IHP	– 2136 #	
IFP	– 45" – Built to 6 ½ in.	19-43 #
ISI	– 45" – Dead	751 #
FFP	– 45" – Built to 6 ½ in.	44-64 #
FSI	– 45" – Dead	732 #
FHP	– 2067 #	
BHT	– 117°F	

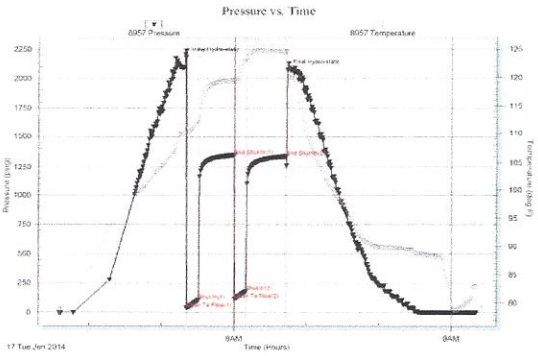


Recovery: 180' GIP
105' GVSOWCM 5% Oil, 10% Water

DST #2 Mississippian Osage

Interval (4300' – 4308') Anchor Length 8'

IHP	– 2181 #	
IFP	– 10" – B.O.B. 3 ½ min.	38-106 #
ISI	– 30" – Built to 2 ½ in.	1348 #
FFP	– 10" – B.O.B. 4 ½ min.	113-181 #
FSI	– 30" – Built to 2 in.	1339 #
FHP	– 2075 #	
BHT	– 124°F	



Recovery: 195' GIP
385' GCO
60' GVSOWCM 5% Oil, 25% Water

Structural Comparison

Formation	DK Operating, Inc. Whitley #1-13 Sec. 13 T20s R23w 1537' FSL & 2305' FEL	Mull Drilling Whitley #2 Sec. 13 T20s R23w C NW SE		Shell Oil Co. Maranville #1-13 Sec. 13 T20s R23w C NE SW	
Anhydrite	**1400', +809**	1406', +810	**(-1)**	1408', +803	**(+6)**
Base	**1434', +775**	1443', +773	**(+2)**	NA	**NA**
Heebner	**3636', -1427**	3646', -1430	**(+3)**	3644', -1433	**(+6)**
Lansing	**3684', -1475**	3690', -1474	**(-1)**	3693', -1482	**(+7)**
BKc	**4011', -1802**	NA	**NA**	NA	**NA**
Pawnee	**4128', -1919**	NA	**NA**	4140', -1929	**(+10)**
Fort Scott	**4198', -1989**	NA	**NA**	4210', -1999	**(+10)**
Cherokee	**4223', -2014**	NA	**NA**	NA	**NA**
Mississippian	**4287', -2078**	4294', -2078	**FL**	4302', -2091	**(+13)**
Osage	**4297', -2088**	4311', -2095	**(+7)**	4310', -2099	**(+11)**

Summary

The location for the Whitley #1-13 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. Two Drill Stem Tests were conducted one of 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 Whitley #1-13 well.

Recommended Perforations

Primary:

Mississippian Osage	**(4297' – 4307')**	**DST #2**

Before Abandonment:

Fort Scott	**(4215' – 4220')**	**DST #1**

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.