

Geological Report

Longhorn Crude, LLC.
Querbach #1-3
1380' FSL & 1730' FWL
Sec. 3 T23s R22w
Hodgeman County, Kansas



Longhorn Crude, LLC.

General Data

Well Data:	Longhorn Crude, LLC. Querbach #1-3 1380' FSL & 1730' FWL Sec. 3 T23s R22w Hodgeman County, Kansas API # 15-083-21892-0000
Drilling Contractor:	Pickrell Drilling Co. Rig #1
Geologist:	Jason T Alm
Spud Date:	June 21, 2013
Completion Date:	June 29, 2013
Elevation:	2176' Ground Level 2186' Kelly Bushing
Directions:	Hanston KS, South 4mi. to L Rd. West 1/2 mi. North into location.
Casing:	1326' 8 5/8" surface casing 4413' 5 1/2" production casing
Samples:	10' wet and dry, 4050' to RTD
Drilling Time:	3650' to RTD
Electric Logs:	None
Drillstem Tests:	None
Problems:	The top joint of surface pipe parted.
Remarks:	Due to surface pipe issues we were not able to run any drill stem tests or electric logs.

Formation Tops

Formation

Anhydrite
Base
Heebner
Lansing
BKc
Pawnee
Fort Scott
Cherokee
Mississippian
RTD

Longhorn Crude, LLC.

Querbach #1-3

Sec. 3 T23s R22w

1380' FSL & 1730' FWL

1297', +889

1334', +852

3737', -1551

3803', -1617

4170', -1984

4242', -2056

4329', -2143

4353', -2167

4406', -2220

4414', -2228

Sample Zone Descriptions

Altamont

(4196', -2010): Not Tested

Ls – Fine to sub-crystalline with poor scattered vuggy porosity, light to fair spotted oil stain in porosity, no show of free oil, no odor, fair spotted yellow fluorescents.

Fort Scott

(4329', -2143): Not Tested

Ls – Fine crystalline with poor to fair inter-crystalline and slight vuggy porosity, no show of free oil, very light odor, dull yellow fluorescents

Miss Osage

(4406', -2220): Not Tested

Δ – Triptolic in part, weathered with scattered good vuggy porosity, light spotted oil stain in porosity, light odor, dull scattered fluorescents.

Structural Comparison

	Longhorn Crude, LLC. Querbach #1-3 Sec. 3 T23s R22w 1380' FSL & 1730' FWL	Palomino Petroleum Querbach #1 Sec. 3 T23s R22w 1320' FSL & 2310' FWL		Beardmore Oil, Inc. Baldrey #2 Sec. 3 T23s R22w NE SW	
Formation					
Anhydrite	1297', +889	1295', +889	FL	1290', +892	(-3)
Base	1334', +852	1332', +852	FL	1330', +852	FL
Heebner	3737', -1551	3731', -1548	(-3)	3731', -1549	(-2)
Lansing	3803', -1617	3795', -1611	(-6)	3795', -1613	(-4)
BKc	4170', -1984	4178', -1984	FL	NA	NA
Pawnee	4242', -2056	4242', -2058	(+2)	NA	NA
Fort Scott	4329', -2143	4324', -2140	(-3)	4326', -2144	(+1)
Cherokee	4353', -2167	4348', -2164	(-3)	4350', -2168	(+1)
Mississippian	4406', -2220	4402', -2218	(-2)	4403', -2221	(+1)

Summary

The location for the Querbach #1-3 well was found via 3-D seismic survey. The new well ran structurally as expected via the survey. No drill stem tests or electric logs were run due to surface pipe issues. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Querbach #1-3 well.

Recommended Perforations

Primary		
Mississippian Osage	(4406' – 4410')	Not Tested
Secondary		
Altamont	(4196' – 4204')	Not Tested
Before Abandonment		
Fort Scott	(4345' – 4351')	Not Tested

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.