O'Brien Energy Resources, Inc.
Preedy No. 5-9, Angell South Field
Section 9, T33S, R29W
Meade County, Kansas
June, 2019

Well Summary

The Preedy No. 5-9 was drilled to a total depth of 6235' in the St. Louis Formation. Problems occurred with lost circulation while drilling the surface hole. The logging tool got stuck at 6200' and necessitated fishing.

One of the closest offsets was the Keystone No. 3-4, approximately 1200' to the NW. Formation tops came in considerably lower relative to this offset. Formations from the Heebner to the Marmaton ran 22' to 27' low. The Cherokee, Atoka and Morrow came in 31' low, the primary objective St. Louis came in 30' low. Formation tops ran high relative to the Preedy No. 1-9 to the East. The Heebner came in 12' low, the Atoka and Morrow, 3' low. The Basal Chester, Ste. Genevieve and St. Louis came in 3', 5' and 17' high respectively.

The only hydrocarbon show documented during the drilling of this test occurred in the St. Louis(6110'-6118') and consists of a Dolomite: Dark mottled brown, medium to dark speckled brown, microcrystalline, microsucrosic to sucrosic in part, chalky in part, brittle to hard, clean, very siliceous in part, Chert nodules, v fossiliferous in part with good interparticle and moldic porosity, occasionally good intercrystalline porosity, dull speckled orange to occasional bright yellow hydrocarbon fluorescence(10% spl), excellent fast streaming cut, live oil and oil stain, slight oil odor. A 90 Unit mud gas increase was recorded on the hotwire.

4 ½" production casing was run on the Preedy No. 5-9 on 7/3/19 for St. Louis oil production.

Respectfully Submitted,

Peter Debenham

WELL DATA

Operator:	O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH Geologist: Paul Wiemann – Denver, CO
Prospect Geologist:	David Ward, Ed Schuett, Denver
Well:	Preedy No. 5-9, Angell South Field
API:	15-119-21427
Location:	363'FNL & 1478'FWL, Section 9, 33S, R29W, Meade Co. Kansas – Southeast of Plains.
Elevation:	Ground Level 2592', Kelly Bushing 2604'
Contractor:	Duke Drilling Rig No. 1, T.P. Mike Godfrey, Drillers Juan, Saul and Carlos
Company Man:	Dana Geathouse
Spud Date:	6/23/19, 4:45 am.
Total Depth:	6/29/19, 2 AM, Driller 6235', Logger 6242', St. Louis Formation
Casing Program:	39 joints of 8 5/8", J-55, 24Lbs/ft, set at 1569' with 375 sacks A-Con blend(3%cc & ¼ lb flake) tail with 150 sacks Pem Plus(2%cc, ¼ bl Poly Flake), cement did not circulate, services by Basic. 4 1/2" production casing set to TD.'
Mud Program:	Winter Mud, engineer Paul White, displaced 2589', Chemical gel/LCM.
Wellsite Consultant:	Peter Debenham, Call depth 4000', Box 350, Drake, CO 80515, 720/220-4860.
Mudlogging trailer:	MBC Logging, Meade.
Samples:	30' to 5600', 20' to TD.
Electric Logs:	Eli Logging, Hays, KS, Engineer Jeff Luebbers, 1) Dual Induction – logged while going in.
Status:	4 ½" production casing run to TD on 7/3/19.

WELL CHRONOLOGY

DATE	AM Report DEPTH	FOOTAGE	RIG ACTIVITY
6/23	244’	244’	Move to location and rig up. Move water, water pump down, and mix spud mud. Drill rathole and mousehole and spud in 12 ¼” surface hole. Heavy rain. To 244’.
6/24	1060’	816’	12 ¼” to 637’ and lost circulation at 606’. Trip out and fill hole from surface with 16 ppb/LCM mud. Pick up drill collars and ream to bottom and circulate every kelly down and lost circulation. Dry drill to 737’ and gain circulation. Control drill to 1060’ and lost circulation(280 bbls).
6/25	1580’	520’	To 1580’ with slow returns(app. 280 bbls) and circulate. Drop survey(1/2 deg.) and trip out. Run and cement 39 joints of 8 5/8”, 254 lbs/ft, J-55 STC set at 1569’ with 375 sacks A-Con Blend, tail 150 sacks Prem Plus(2% CC, ¼ lb PolyFlake) – did not circulate. Wait on cement 4 hours and run in with 1”, tagged cement at 100’ and pump 200 sacks Class C cement – did not circulate to surface. Wait on additional cement.
6/26	2715’	1135’	Tagged cement at 35’. Pump 125 sacks Class C through 1”. Wait on cement 2 hours. Drill plug and cement and nipple up and pressure test BOP. Drill to 2589’ and displace mud system. To 2715’.
6/27	4400’	1689’	Drilling ahead.
6/28	5915’	1515’	
6/29	6235’TD	320’	To 6235’TD and circulate. Wiper trip 27 stands and circulate. Trip out for logs and log bottom 35’, stuck logging tool at 6200’. Wait on orders and wait on fishermen.
6/30	TD		Wait on fishing company and trip in with side door overshot and work to fish. Top of tool at 6175’. Work on fish and trip out of hole, left caliper arm in the hole.
7/1	TD		Wait on fishing tools and trip in and ream bridges and circulate. Rig up logging tool with gamma ray and determine where caliper arm is(6188’). Trip in with bit and circulate and condition hole. Trip out and trip in with new overshot.

7/2 TD Work to tool and fish. Trip out with fish. Trip in with bit and circulate.

7/3 TD Trip out laying down and run and cement 4 ½" production casing to TD. Rig down. Rig released(4:30 PM).

7/4 Happy Birthday USA!

BIT RECORD

NO.	MAKE	TYPE	SIZE	OUT	FOOTAGE	HOURS
1	V516		12 ¼"	1580'	1580'	15 ¾
2	5195		7 7/8"	6235	4655'	65 ½
				Total Rotating Hours:		81 ¼
				Average:		76.7
				Ft/hr		

DEVIATION RECORD - degree

1580' ½, 2116' ¾, 2715' ¾, 4418' 1, 5112' 1, 6235' 1

MUD PROPERTIES

DATE	DEPTH	WT	VIS	PV	YP	pH	WL	CL	LCM-LBS/BBL
6/23	422'	9.6	40	9	12	8.5	nc	2K	12
6/24	725'	9.1	50	13	16	8.5	nc	1.5K	15
6/25	1580'	8.4	26	1	2	8.0	nc	1K	0
6/26	2957'	8.7	40	17	11	10.0	18	6K	4.5
6/27	4460'	8.75	49	18	12	9.5	12	6K	6
6/28	5489'	8.95	43	17	11	9	9	5K	5
6/29	6235'	9.1	53	17	14	9.5	8	3K	6
6/30	6235'	8.9	55	17	15	9.5	8	3K	6
7/1	6235'	8.95	45	14	12	10.0	8	2K	4

ELECTRIC LOG FORMATION TOPS- KB Elev. 2604’

			*Keystone No. 3-4	
FORMATION	**DEPTH**	**DATUM**	**DATUM**	**POSITION**
Casing	1569’			
Heebner	4397’	-1793’	-1769’	-24’
Toronto	4424’	-1820’	-1796’	-24’
Lansing	4545’	-1941’	-1914’	-27’
Marmaton	5176’	-2572’	-2550’	-22’
Cherokee	5355’	-2751’	-2720’	-31’
Atoka	5606’	-3002’	-2970’	-32’
Morrow	5664’	-3060’	-3029’	-31’
Mississippi Chester	5778’	-3174	-3150’	-24
Basal Chester	5974’	-3370’	-3337’	-33’
Ste. Genevieve	6014’	-3410’	-3368’	-42’
St. Louis	6102’	-3498’	-3468’	-30’
TD	6242’			

*O’Brien Energy Resources, Keystone No. 3-4, 380’ FSL & 729’ FWL, Section 4, 33 S, 29W – 1200’ to the NW., K.B. Elev. 2597’.

			*Preedy No. 1-9	
FORMATION	**DEPTH**	**DATUM**	**DATUM**	**POSITION**
Casing	1569’			
Heebner	4397’	-1793’	-1781’	-12’
Toronto	4424’	-1820’	-1807’	-13’
Lansing	4545’	-1941’	-1925’	-16’
Marmaton	5176’	-2572’	-2573’	+1’
Cherokee	5355’	-2751’	-2749’	-2’
Atoka	5606’	-3002’	-3000’	-2’
Morrow	5664’	-3060’	-3057’	-3’
Mississippi Chester	5778’	-3174	-3185’	+10’
Basal Chester	5974’	-3370’	-3373’	+3’
Ste. Genevieve	6014’	-3410’	-3415’	+5’
St. Louis	6102’	-3498’	-3515’	+17’
TD	6242’			

*O’Brien Energy Resources, Preedy No. 1-9, to the SW., K.B. Elev. 2645’.