# O'Brien Energy Resources, Corp. Cimarron No. 1-34, Mohler Field Section 34, T33S, R29W Meade County, Kansas

July, 2017

# Well Summary

The O'Brien Energy Resources, Cimarron No. 1-34 was drilled to a total depth of 6450' in the St. Louis Formation. It was drilled ½ mile North of the Mohler No. 1-34 and due West of the Getty Oil, Mohler No. 4. Formation tops ran high to both of these offsets. The Heebner and Marmaton came in 15' high relative to the Mohler No. 1-34. The Morrow ran 12' high. Structure was gained as the Chester and Ste. Genevieve came in 25' high and the St. Louis, 20' high. The porosity show interval in the St. Louis (6290'-6300') ran 31' high. This interval consists of a Limestone: Mottled brown to buff, biomicrite, brittle, clean, very fossiliferous with interparticle porosity, trace intercrystalline porosity, bright light yellow to orange hydrocarbon fluorescence, excellent streaming cut, light brown oil stain and live oil when crushed, slight oil odor. A 160 Unit gas increase was documented.

An excellent live oil show was documented from a two foot Morrow "B" Sandstone interval (5743'-5745') along with a 180 Unit gas kick: Sandstone (6% sample): Light brown, clear, occasionally speckled green with glauconite, clean, good visible intergranular porosity, light brown oil stain and trace live oil and gas bubbles when crushed, bright light yellow hydrocarbon fluorescence and excellent streaming cut.

Additional minor shows occurred in the Chester and Marmaton.

4 <sup>1</sup>/<sub>2</sub>" production casing was run to further evaluate the above mentioned shows.

Respectfully Submitted,

Peter Debenham

# WELL DATA

Operator:	O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH Geologist: Paul Wiemann – Denver, CO
Prospect Geologist:	Ed Schuett, David Ward
Well:	Cimarron No. 1-34, Mohler Field
API:	15-119-21409
Location:	NE SW SE NE, 2292' FNL & 750' FEL, Section 34, T33S, R29W, Meade County, Kansas – South of Meade.
Elevation:	Ground Level 2490', Kelly Bushing 2503'
Contractor:	Duke Drilling Rig No. 9, Type: Double jacknife, double stand, Toolpusher Emidgio Rojas, Drillers: Emigidio Rojos, Alejandro V., Fernando Jurado
Company Man:	Dana Greathouse
Spud Date:	7/24/17, 7:45 pm.
Total Depth:	7/30/17, Driller 6450', Logger 6443', St. Louis Fm.
Casing Program:	35 joints of new 8 5/8", J55 STC, 24Lbs/ft, set at 1487', 153 joints of 4 1/2" production casing set to TD.
Mud Program:	Winter Mud, engineer Drew Smith, Theran Hegwood, mud up 2600'.
Wellsite Consultant:	Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake, CO 80515, 720/220-4860.
Samples:	30' to 4600', 20' to TD. Dry cut sent to KGS sample log library.
Electric Logs:	Weatherford, engineer Justin Hicks, 1) Array Induction, 2) Neutron Density, 3) Microlog, 4) Sonic – Hi Res. repeat.
Status:	4 $\frac{1}{2}$ " production casing set to TD on 7/31/17.

#### WELL CHRONOLOGY

### DATE DEPTHFOOTAGERIG ACTIVITY

6 AM

7/24 370' 370' Load out rig and work on draw works. Spud in  $12 \frac{1}{4}$ " surface hole(7:45 pm) and drill to 370'.

7/25 1495' 1125' Surveys(1 -  $1\frac{1}{4}$  deg.). To 1495' and circulate. Trip out and run and cement 35 joints of 8 5/8" set 1487', cement did circulate, services by Basic. Plug down 3:30 pm. Nipple up and pressure test BOP.

7/26 2680' 1185' Pressure test BOP to 1500 PSI/15 minutes. Drill plug and cement and 7 7/8" hole to 1720' and trip for Bit No. 3. Clean pits and survey(3/4 deg.). Service rig and displace mud system at 2600'.

7/27	4190'	1510'	Survey(1 deg.).
	5013' 7 stands and cire	825' culate.	Surveys(1 $\frac{1}{4}$ - $\frac{3}{4}$ deg.). To 5013' and circulate and wiper
7/29	5958'	945'	Survey(3/4 deg.). Clean suction pit and service rig.

7/30 6450'TD 492' To TD and circulate and short trip 27 stands and circulate. Trip out and run ELogs. Trip in and circulate. Unload and strap casing.

7/31 TD Drop survey(1 deg.) and trip out laying down and run and cement  $4 \frac{1}{2}$ " production casing to TD. Rig down.

#### **BIT RECORD**

<u>NO.</u>	<u>MAKE</u> HOURS	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	<b>FOOTAGE</b>	
1		PL 616	12 ¼"	1487'	1487'	10 1/2
2		QX 28	7 7/8"	1720'	233'	1/1/2
3		VLT 616	7 7/8"	6450'	4730'	84 1/2
		Tota	l Rotating Ho	96 1/2		

Average:

### **MUD PROPERTIES**

<u>DATE</u> LBS/BBL	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>рН</u>	<u>WL</u>	<u>CL</u>	<u>LCM-</u>
7/19 7/24		8.3 8.3	make	up wate	er				
7/25	1412'	9.4	33	5	10	8.5	n/c	66K	8
7/26	1923'	9.2	28	1	2	9.0	n/c	58.5K	
7/27	3476'	9.0	45	11	18	8.5	18.0	6.7K	6
7/28	4752'	9.0	40	12	5	10.5	12.0	4.5K	4
7/29	5462'	8.9	55	16	9	7.6	10.5	3.6	8
7/30	6350'	9.0	55	18	9	7.6	10.0	3.8	8

#### **DEVIATION RECORD - degree**

763' 1, 1495' 1 <sup>1</sup>/<sub>4</sub>, 3559' 1, 4537' 1 <sup>1</sup>/<sub>4</sub>, 5519' 1, TD 1

### ELECTRIC LOG FORMATION TOPS- KB Elev. 2553'

			<u>*Mohler No. 1-34</u>	
<b>FORMATION</b>	<b>DEPTH</b>	DATUM	DATUM	<b>POSITION</b>
Surface Casing	1485'			
Heebner	4364'	-1861'	-1875'	+12'
Toronto	4394'	-1891'	-1906'	+15'
Lansing	4463'	-1960'	-1976'	+16'
Marmaton	5172'	-2669'	-2684'	+15'
Marmaton "C"	5230'	-2727'	-2748'	+21'
Cherokee	5348'	-2845'	-2880'	+35'
Atoka	5566'	-3063'	-3078'	+15'
Morrow	5698'	-3195'	-3207'	+12'
Morrow "B" SS	5743'	-3240'	-3246'	+6'
Mississippi Chester	5786'	-3283'	-3309'	+26'
Ste. Genevieve	6120'	-3617'	-3642'	+25'
St. Louis	6228'	-3725'	-3745'	+20'
St. Louis show	6290'	-3787'	-3818'	+31'
TD	6450'	-3940'		

\*O'Brien Energy, Mohler No. 1-34, 660' FSL & 900' FEL, Sec.  $34 - approximately \frac{1}{2}$  mile to the South, K.B. Elev. 2506'.