

# **O'Brien Energy Resources, Inc.**

**Mohler No. 2-33**

**Section 33, T33S, R29W**

Meade County, Kansas

August, 2014

## **Well Summary**

The O'Brien Energy Resources, Mohler No. 2-33 was drilled to a total depth of 6370' in the St. Louis Formation with no problems. Formation tops ran 10' to 14' high relative to the Larrabee No. 1-4 from the Heebner to the Morrow. The Chester ran 4' high.

Several quality hydrocarbon shows were documented during the drilling of the test. The St. Louis(6262'-6270') consists of a Dolomite: Medium to dark mottled brown, moderately crystalline, sucrosic, brittle, clean, good intercrystalline porosity, excellent dark brown even matrix oil stain and traces of live oil, excellent streaming cut, speckled gold brown hydrocarbon fluorescence, with abundant Chert, excellent show. An 80 Unit gas increase was noted. This interval was drill stem tested(6228'-6278') and recovered 62' of oil and gas cut mud. A significant pressure drop was noted in the shut in periods(1480 psi – 1035 psi).

A very tight "Richers Ranch" Sandstone equivalent was noted from 5979' to 5984' and consists of a Sandstone in 4% of the samples: Dark mottled brown to black with oil stain and live oil, hard to slightly friable, fine lower well sorted subangular to subround grains, trace intergranular porosity, dull orange gold hydrocarbon fluorescence and excellent cut. A slight gas increase of 22 units was noted. Additional tight Limestone shows were noted in the Basal Chester(attached mudlog).

The Mohler No. 2-33 was plugged and abandoned 8/19/14.

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: Mohler No. 2-33, Mohler Field

API: 15-119-21370

Location: 660' FSL & 1430' FEL, Section 33, T33S, R29W, Meade County, Kansas – South of Meade.

Elevation: Ground Level 2540', Kelly Bushing 2553'

Contractor: Duke Drilling Rig No. 9, Type: Double jackknife, double stand, Toolpusher  
Emidgio Rojas, Drillers: Omar Garcia, Alejandro V., Fernando Jurado

Company Man: Roger Pearson – Liberal, Kansas

Spud Date: 8/11/14

Total Depth: 8/17/14, Driller 6370', Logger 6264', St. Louis Fm.

Casing Program: 39 joints of 8 5/8", J55, 24Lbs/ft, set at 1490'.

Mud Program: Mud Co./Service Mud Inc., Engineer Justin Whiting, mud up 4000'.

DST: Trilobite Testing engineer Cornelio Landa(Corn Dog), DST No. 1(6228'-6278'), St. Louis Fm.

Wellsite Consultant: Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake, CO 80515, 720/220-4860.

Samples: 30' to 4600', 20' to 5800', 10' to TD.

Electric Logs: Weatherford, engineer Ben Weldin, 1) Array Induction, 2) Neutron Density, 3) Microlog, 4) Sonic – Hi Res. repeat.

Status: Plugged and abandoned 8/19/14.

**WELL CHRONOLOGY**

<b>6 AM</b>	<b><u>DATE</u></b>	<b><u>DEPTH</u></b>	<b><u>FOOTAGE</u></b>	<b><u>RIG ACTIVITY</u></b>
	8/11	216'	216'	Move to and rig up rotary tools. Pump water and mix spud mud. Drill rat hole and mouse hole. Spud in 12 1/4" surface hole to 216'.
	8/12	1490'	1274'	Drill red beds. Clean pits. To 1490' and circulate. Drop survey( ) and trip out and run and cement 30 joints of new 8 5/8", 24 Lbs/ft set at 1483' with 100 sacks A Common(3%cc, 1/4 lb floeal) and 150 sacks Class C(2%cc, 1/4 lb floeal) – did circulate. Plug down 6:45 PM.
	8/13	2430'	940'	Wait on cement and nipple up BOP. Trip in and pressure test BOP to 300 PSI. Drill plug and cement and 7 7/8" to 1585' and trip for Bit No. 3. To 2430'. Survey(1 1/4 deg.).
	8/14	4640'	2210'	Survey(1 deg.) and drill and service rig.
	8/15	5650'	1010'	Survey(1 deg.). To 5028' and circulate and wiper trip 30 stands. Circulate for samples at 5250', 5268' and 5320'.
	8/16	6194'	544'	Circulate for samples at 5810' and 5850'. To 6194' and trip for Bit No. 4 – button bit. Clean suction and pits.
	8/17	6370'TD	176'	Bit trip and safety meeting. To 6370' TD(7:30 PM) and circulate and wiper trip 45 stands and circulate.
	8/18	TD		Circulate. Drop survey(1 1/4 deg.) and trip out for logs and run Elogs. Trip in.
	8/19			Trip in and trip out laying down. Plug and abandon well and rig down.

**BIT RECORD**

<b><u>NO.</u></b>	<b><u>MAKE</u></b>	<b><u>TYPE</u></b>	<b><u>SIZE</u></b>	<b><u>OUT</u></b>	<b><u>FOOTAGE</u></b>	<b><u>HOURS</u></b>	
1		V273	12 1/4"	1490'	1490'	13	
2		HA20-Q	7 7/8"	1585'	95'	1	
3		PLT516	7 7/8"	6194'	4609'	65 1/4	
4	RRNo. 2	HA20-Q	7 7/8"	6370'	424'	10 3/4	
						Total Rotating Hours:	90
						Average:	70.7 Ft/hr

**DEVIATION RECORD - degree**

1490' 1 ½, 2596' 1 ¼, 3732' 1, 4711' 1 ¼, 6194' 1 ¼, 6370' 1 ¼

**MUD PROPERTIES**

<u>DATE</u>	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	<u>LCM-LBS/BBL</u>
8/11	Make up water								
8/12	1237'	9.7	32	3	3	7.0	n/c	3.5K	3
8/14	3783'	9.15	50	16	17	10.5	13.2	9.7K	2
8/15	5028'	9.55	58	18	21	9.5	10.8	5.9K	2.5
8/16	6080'	9.1	52	17	17	9.5	9.2	2.6K	2
8/17	6305'	9.2	48	14	15	9.5	9.2	1.7K	5

**DRILL STEM DATA**

DST NO.1: (6228'-6278'), St. Louis, times 30-60-30-120

Type: Conventional Bottom Hole Test Times: 30-45-60-60

<u>PERIOD</u>	<u>TIME</u>	<u>PSI</u>
IH		3193
IF	30	27 - 37
ISI	60	1480
FF	30	40 - 51
FSI	120	1035
FH		3150

BHT 136 deg. F.

BLOWS: IF & FF: Built to 4". ISI: Weak blowback.

RECOVERY: 62' of oil and gas cut mud.

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

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Larrabee No. 1-4</u>	
			<u>DATUM</u>	<u>POSITION</u>
Surface Casing	1486'			
Heebner	4421'	-1868'	-1882'	+14'
Toronto	4446'	-1893'	-1908'	+15'
Lansing	4518'	-1965'	-2050'	+15'
Marmaton	5228'	-2675'	-2682'	+7'
Cherokee	5434'	-2881'	-2892'	+11'
Atoka	5628'	-3075'	-3085'	+10'
Morrow	5762'	-3209'	-3220'	+11'
Mississippi Chester	5841'	-3288'	-3292'	+4'
Ste. Genevieve	6166'	-3613'		
St. Louis	6262'	-3709'		
TD	6366'	-3813'		

\*O'Brien Energy, Larrabee No. 1-4, KB Elev. 2550'