Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1237912

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 32211
Name: O'Brien Energy Resources Corp.
Address 1: 18 CONGRESS ST, STE 207
Address 2:
City: PORTSMOUTH State: NH Zip: 03801 + 4091
Contact Person: Joseph Forma
Phone: (603) 427-2099
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Peter Debenham
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☑ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

10/19/2014	10/25/2014	10/26/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-119-21376-00-00
Spot Description:
S2 - N2 - N2 - SE Sec. 13 Twp. 32 S. R. 30 ☐ East ☑ West
2305 Feet from ☐ North / ☑ South Line of Section
1320 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Meade
Lease Name: Angell Well #: 2-13
Field Name:
Producing Formation: Dryhole
Elevation: Ground: 2724 Kelly Bushing: 2735
Total Vertical Depth: 6405 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1493 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 10800 ppm Fluid volume: 900 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 01/07/2015
☑ **Confidential Release Date:** 01/06/2017
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 01/12/2015

[redacted] 1237912

Operator Name: O'Brien Energy Resources Corp. Lease Name: Angell Well #: 2-13

Sec. 13 Twp. 32 S. R. 30 ☐ East ☑ West County: Meade

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Neutron
Induction
Micro

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	12.25	8.625	24	1493	acon blend	475	2%CaCl & 1/4# floseal

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR.

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	Angell 2-13
Doc ID	1237912

Tops

Name	Top	Datum
Heebner	4426’	-1690’
Toronto	4452’	-1716’
Lansing	4554’	-1818’
Marmaton	5178’	-2442’
Cherokee	5342’	-2606’
Atoka	5620’	-2884’
Morrow	5682’	-2946’
Chester	5785’	-3049’
Ste. Gen.	6007’	-3271’
St. Louis	6132’	-3396’
Spergen	6283’	-3547’

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	Angell 2-13
Doc ID	1237912

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
SURFACE	12.25	8.625	24	1493	acon blend	475	2%CaCl & 1/4# floseal

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer O'Brien Energy	Lease No. Angell	Date 10-20-09	
Lease Angell	Well # 2-13	Service Receipt 1717-05202 A	
Casing 8 5/8"	Depth 1493'	County Meade	State KS
Job Type 8 5/8" Surface	Formation	Legal Description 13-32-30	

Pipe Data		Perforating Data		Cement Data
Casing size 8 5/8"	Tubing Size	Shots/Ft		Lead 325 sks 11.4 ppg 3% CaCl2 1/4# Polyflake .2% WCA-1
Depth 1493	Depth	From	To	
Volume 92.3 BBLs	Volume	From	To	
Max Press 1500 psi	Max Press	From	To	Tail in 150 sks 14.8 ppg Premium Plus Cement 2% CaCl2 1/4# Polyflake
Well Connection	Annulus Vol.	From	To	
Plug Depth 1451'	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
0800					Called Out
1400					On Location Safety Meeting
1420					Set PC
					Circ with Rig
1500					Swap over
1510					Test Line 1500 psi
1515	100		170	6	Mix & Pump Lead Cement
					11.4 ppg - 170 BBls slurry
					Mix & Pump Tail Cmt
1540	100		35.8	5	14.8 ppg 35.8 BBls slurry
1548					Finished mixing Cmt
					Drop Top Plug
			92.3	5	Displace 92.3 BBLs
					Last 20 BBLs slowdown to 2 BPM
					Last 10 BBLs slowdown to 1 BPM
1640	1200				Land Plug
					Released
					Float Held
					Job Completed
					Thanks

Service Units	21755	70897-19570	30464-35124	27608-19883		
Driver Names	Roger	Sam	Angel	Angel		

Roger Ransom Terry Bennett Roger Brown

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer O'Brien Energy	Lease No.	Date	10-27-14
Lease Angell	Well # 2-13	Service Receipt	06225
Casing	Depth	County Meade	State KS
Job Type 2.42 - 4" DPA	Formation	Legal Description	13-32-30

Pipe Data		Perforating Data		Cement Data
Casing size 4" D.P.	Tubing Size	Shots/Ft		Lead 160 sk 60/40 Poz
Depth	Depth	From	To	
Volume	Volume	From	To	
Max Press	Max Press	From	To	Tail in
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
7:00					on loc - site assesment
					spot trucks rig up
					fish w/ d.p.
					Safety meeting - JSA
					pressure test @ 2000#
					tire @ 1530'
7:30	100		13.4	4	mix & pump 80 sk 60/40 Poz @ 13.5 #-1.5 ft3/sk
	100		14	4	disp balanced plug fish to 810' - cmt
8:45					
	100		10.7	4	mix & pump 40 sk @ 13.5#
	100		3.25	4	disp balanced plug fish to 600' - cmt
9:30					
	100		3.25	4	mix & pump 20 sk @ 13.5#
					circ cmt to surface
11:00			13	3	plug rat & mouse holes w/ 30 sk
					job complete

Service Units	34726	37462	27808-19883			
Driver Names	A Rivera	E Meade	H Rutherford			

R Pearson
Customer Representative

J Bennett
Station Manager

A Rivera
Cementer

O'Brien Energy Resources, Inc.
Angell No. 2-13, Angell Field
Section 13, T32S, R30W

Meade County, Kansas
October, 2014

Well Summary

The O'Brien Energy Resources, Corporation, Angell No. 2-13 was drilled to a total depth of 6400' in the Mississippi. The closest offset was the Anadarko Petroleum Corp., Fox "G" No. 1-13, C-S/2-SW-SE, in Section 13, approximately 2000' to the South. The Angell No. 2-13 ran considerably low relative to this well. The Heebner and Marmaton came in 49' and 47' low. The Cherokee, Atoka and Morrow ran 55', 65' and 79' low respectively. The Chester, Ste. Genevieve and Morrow came in 78', 88' and 95' low.

Several minor hydrocarbon shows and minor gas increases were documented (mudlog). The most noteworthy occurred in the Atoka from a one foot interval and resulting 100 Unit gas kick. It proves tight on logs.

The Angell No. 2-13 was plugged and abandoned 10/26/14.

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:	Angell No. 2-13, Angell Field
Location:	2305' FSL & 1320' FEL, Section 13, T32S, R30W, Meade County, Kansas – 3 miles east of Plains.
Elevation:	Ground Level 2724', Kelly Bushing 2736'
Contractor:	Duke Drilling Rig No. 6, Type: Double jacknife, triple stand, Toolpusher Alan Cain, Drillers: Jack Cargle, Saul Garcia, Paul Burns
Company Man:	Roger Pearson – Liberal, Kansas
Spud Date:	10/19/14
Total Depth:	10/25/14, Driller 5600', Logger 6405', Mississippian St. Louis/Spergen.
Casing Program:	37 joints of 8 5/8", J55, 24Lbs/ft, set at 1493'. 4 ½" production casing to TD.
Mud Program:	Mud-Co/Service Mud. Inc. engineer Justin Whiting, displaced 2600' with Chemical Gel/LCM.
Wellsite Consultant:	Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake, CO 80515, 720/220-4860.
Samples:	30' to 5700', 20' to TD. One set dry cut sent to KGS Sample Log Library.
Electric Logs:	Weatherford, engineer Adam Sill, 1)Dual Induction 2) Compensated Neutron Litho Density 3) Microlog 4) High Res.
Status:	Plugged and abandoned 10/27/14.

WELL CHRONOLOGY

DATE	10PM DEPTH	FOOTAGE	RIG ACTIVITY
10/17			Move to and rig up rotary tools.
10/18			Rig up and weld on rig.
10/19	897’	897’	Mix spud mud and blow down mouse hole and rat hole. Spud in 12 ¼” surface hole(10AM) and drill to 497’ and circulate and trip out for plugged bit. Survey(.1 deg.). Unplug bit and trip in and drill to 897’. Change out tong dies.
10/20	1493’	596’	To 1100’ and circulate and trip out. Trip in and drill to 1493’ and circulate and trip out and run 37 joints of 8 5/8” surface casing set at 1493’ with 325 sacks A Con(3%cc & ¼#CelloFlake) and 150 sacks Class C(2%cc & ¼#cf). Cement did circulate. Plug down 4:45pm. Wait on cement. Back off and nipple up BOP. Clean cellar and wait on cement.
10/21	2291’	798’	Trip in and pressure test BOP. To 1855’ and trip for Bit No. 3. To 2291’. Survey(.2 deg.). Rechain BOP and service rig.
10/22	3655’	1364’	Displace mud and 2600’ and clean suction and service. Survey(.5 deg.). To 3655’.
10/23	4743’	1088’	Survey(.5 deg.) Clean suction.
10/24	5610’	861’	Survey(0.2 deg.). To 5022’ and wiper trip 42 stands and circulate.
10/25	6400’TD	790’	Circulate for samples. Survey(.2 deg.). To 6400’TD and circulate and condition mud. Short trip 42 stands and circulate.
10/26	TD		Drop survey(0.2 deg.) and trip out for logs. Run Elogs and rig down. Trip in and trip out laying down. Plug and abandon well. Rig down.

BIT RECORD

NO.	MAKE	TYPE	SIZE	OUT	FOOTAGE	HOURS
1	HTC	D605F	12 ¼’	1493’	1493’	14 ¼
2	But. Bit	HA2516	7 7/8”	1855’	362’	3
3	PDC	DP506	7 7/8”	5610’	3755’	71 ¼
4	HC	DP506	7 7/8”	6400’	790’	30 3/4
				Total Rotating Hours:		119 1/4
				Average:		53.7 Ft/hr

DEVIATION RECORD - degree

497’ .1, 1493’ .4, 2011’ .2, 3033’ .5, 4029’ .5, 5022’ .6, 6400’ .2

MUD PROPERTIES

DATE	DEPTH	WT	VIS	PV	YP	pH	WL	CL	LCM-LBS/BBL
10/17	0’	Make up water							
10/19	45’	Water							
10/20	1265’	10.2	38	14	20	7.0	n/c	800	14
10/21	1701’	8.8	27	1	2	7.0	n/c	45K	0
10/22	2922’	8.8	36	4	7	8.0	n/c	7.4K	2
10/23	4094’	9.05	38	13	14	9.0	14.0	6.8K	2
10/24	5181’	9.25	46	13	14	9.2	9.2	4.6K	3
10/25	5706’	9.3	52	16	17	9.5	9.2	4.2K	4

ELECTRIC LOG FORMATION TOPS- KB Elev. 2736’’

			*Fox “G” No. 1-13	
FORMATION	DEPTH	DATUM	DATUM	POSITION
Heebner	4426’	-1690’	-1641’	-49’
Toronto	4452’	-1716’	-1669’	-47’
Lansing	4554’	-1818’	-1780’	-38’
Marmaton	5178’	-2442’	-2395’	-47’
Cherokee	5342’	-2606’	-2551’	-55’
Atoka	5620’	-2884’	-2819’	-65’
Morrow	5682’	-2946’	-2867’	-79’
Chester	5785’	-3049’	-2971’	-78’
Ste. Gen.	6007’	-3271’	-3183’	-88’
St. Louis	6132’	-3396’	-3301’	-95’
Spergen	6283’	-3547’		
TD	6400’			

*Anadarko Petroleum Corp., Fox “G” No. 1-13, C-S/2-SW-SE Section 13 – 2000’ to the South, K.B. Elevation 2733’.