KOLAR Document ID: 1527866

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
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: CHS

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover
☐ Oil ☐ WSW ☐ SWD
☐ Gas ☐ DH ☐ EOR
☑ OG ☐ GSW
☐ 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 EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

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

05/11/2020	05/18/2020	08/11/2020
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-119-21443-00-00
Spot Description:
W2 - E2 - E2 - SW Sec. 4 Twp. 33 S. R. 29 ☐ East ☑ West
1320 Feet from ☐ North / ☑ South Line of Section
2100 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: KEYSTONE Well #: 6-4
Field Name:
Producing Formation: St.Louis
Elevation: Ground: 2669 Kelly Bushing: 2681
Total Vertical Depth: 6298 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1573 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: 6300 ppm Fluid volume: 1200 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Max Papay LLC
Lease Name: Regier IE License #: 34021
Quarter NE Sec. 17 Twp. 33 S. R. 27 ☐ East ☑ West
County: Meade Permit #: D21232

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: 08/25/2020
☐ **Confidential Release Date:** 08/25/2022
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 08/25/2020

Operator Name: O'Brien Energy Resources Corp. Lease Name: KEYSTONE Well #: 6-4

Sec. 4 Twp. 33 S. R. 29 ☐ 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

Geologist Report / Mud Logs ☑ Yes ☐ No

List All E. Logs Run:

NEUTRON
MICRO
INDUCTION

☑ 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	1573	MDC Blend	525	3%CaCl, 1/4# floseal
Production	7.875	4.5	11	6298	Class H	155	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	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☑ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection: 08/11/2020

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)*

PRODUCTION INTERVAL:

Top	Bottom
6143	6148
6152	6156

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
6	6143	6148			Acidize w/ 2500 gal NEFE 20% HCl & 10% Acetic
6	6152	6156			Frac w/ 21,104# 30/50 sand, 229 bbls foamed wtr, 718,000 SCF N2

TUBING RECORD: Size: 2.375 Set At: 6180 Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	KEYSTONE 6-4
Doc ID	1527866

Tops

Name	Top	Datum
Heebner	4447	-1766
Toronto	4478	-1797
Lansing	4594	-1913
Marmaton	5228	-2547
Cherokee	5405	-2724
Atoka	5654	-2973
Morrow	5707	-3026
Mississippi Chester	5806	-3125
Ste. Genevieve	6050	-3369
St. Louis	6142	-3461

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	KEYSTONE 6-4
Doc ID	1527866

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	1573	MDC Blend	525	3%CaCl, 1/4# floseal
Production	7.875	4.5	11	6298	Class H	155	2%CaCl, 1/4# floseal

QUALITY WELL SERVICE, INC.

7406

Federal Tax I.D. # 481187368
Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-12-20	4	33S	29W	MEADE	KS		

Lease KEYSTONE | Well No. 6-4 | Location MEADE, KS S to MEADE Co lake Rd W

Contractor DUKE DRLG. RIG #1 | Owner W to Rd 9 1 N to U Rd 1E N Into

Type Job 8 5/8 Surface

To Quality Well Service, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4	T.D. 1584	Charge To O'BRIEN ENERGY	
Csg. 8 5/8 24#	Depth 1574		
Tbg. Size	Depth	Street	
Tool	Depth	City	State
Cement Left in Csg.	Shoe Joint 42.15	The above was done to satisfaction and supervision of owner agent or contractor.	
Meas Line	Displace 97.43	Cement Amount Ordered 375 sx MDC 3% CC 1/4# PF	

EQUIPMENT

Pumptrk 8	No.		
Bulktrk 7	No.		
Bulktrk 15	No.		
Pickup	No.		

150 sx Common 2% Gel 3% CC 1/4# PF

Common 150 sx	
~~Pozmix~~ MDC 375 sx	
Gel. 282#	
Calcium 1432#	
Hulls	
Salt	
Flowseal 262#	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling 543	
Mileage 50 / 26000	

JOB SERVICES & REMARKS

Rat Hole
Mouse Hole
Centralizers 1/4 wet 1st 6-35
Baskets 26
D/V or Port Collar

Ran 37 jts 8 5/8 24# CSG SET 1574'
REG G. SHOE & AFU INSERT 1 jt - 42.15
START CSG CSG ON Bottom
Hook up to CSG & circ w/RIG DROP Ball
CIRC 30 MIN
START Pumping 10 Bbls H2O
START Mix & Pump 375 sx MDC 12.5#/GAL
START Mix & Pump 150 sx Common 2% 3% 1/4 PF 14.8#/GAL
SHUT DOWN RELEASE 8 5/8 TR PLUG
START DISP
25 out CIRC CMT to PIT
PLUG DOWN
1000# RELEASE & HELD
Good circ thru job
CIRC CMT to PIT
THANK YOU PLEASE CALL AGAIN TJ JAKE
1000 MIKE

8 5/8 **FLOAT EQUIPMENT**

Guide Shoe 1 EA	
Centralizer 3 EA	
Baskets 1 EA	
AFU Inserts 1 EA	
~~Float Shoe~~ TOP RUBBER PLUG 1 EA	
~~Latch Down~~ H.M 1 EA	
SERVICE SUPV 1 EA	
LMV 50	
Pumptrk Charge Surface "3	
Mileage 150	
Tax	
Discount	
Total Charge	

X
Signature

QUASAR ENERGY SERVICES, INC.
3288 FM 51
Gainesville, Texas 76240
Office: 940-612-3336
Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2c
5/18/20
CEMENTING JOB LOG

CEMENTING JOB LOG

Company:	OBRIEN ENERGY RESOURCES CORP			**Well Name:**	KEYSTONE 6-4		
Type Job:	Cement- Production			**AFE #:**	0		
CASING DATA							
Size:	4 1/2	Grade:	0	Weight:	0		
Casing Depths	Top: 0	Bottom:	0				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	0
Open Hole:	Size: 7 7/8	T.D. (ft):	0				
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		
CEMENT DATA							
Spacer Type:	MUD FLUSH						
Amt.	12 BBL	Sks Yield		$ft^3/_{sk}$		Density (PPG)	
LEAD:	CLASS H -- 10% GYP, 10% SALT, .6% C-15, 5# KOLSEAL, 1/3# FELT					Excess	
Amt.	155	Sks Yield	1.55	$ft^3/_{sk}$		Density (PPG)	14.8
TAIL:	60/40-2					Excess	
Amt.	50	Sks Yield	13.5	$ft^3/_{sk}$		Density (PPG)	13.5
WATER:							
Lead:	25.3	gals/sk:	6.93	Tail:	9	gals/sk:	7.5	Total (bbls):	147.8
Pump Trucks Used:	110 - DP7						
Bulk Equipment:							
Disp. Fluid Type:	2% KCL	Amt. (Bbls.)	99.5	Weight (PPG):	8.33		
Mud Type:				Weight (PPG):			

COMPANY REPRESENTATIVE: DANA **CEMENTER:** KIRBY HARPER

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
2300						ON LOCATION -- SPOT AND RIG UP
0240						CASING ON BOTTOM -- BREAK CIRC
						SAFETY MEETING
0309						PRESSURE TEST
0310		250		12	3	PUMP MUD FLUSH
0314				10	2	PLUG RAT AND MOUSE HOLES
0336		300.		43	5	START MIXING 155 SK CLASS H @ 14.8 PPG
0348						SHUT DOWN - CLEAN LINES - DROP PLUG
0353		50		0	5	START DISPLACING WITH 2% KCL
0412		300			4	DISPLACMENT REACHES CEMENT
0418		400		89.5	2	SLOW RATE
0423		600-1000		99.5		BUMP PLUG
0425		1000-0				RELEASE PRESSURE -- FLOAT HELD

O'Brien Energy Resources, Inc.
Keystone No. 6-4
Section 4, T33S, R29W
Meade County, Kansas
May, 2020

Well Summary

The Keystone No. 6-4 was drilled to a total depth of 6298' in the St. Louis Formation without any problems. It offset the Keystone No. 5-4 by 780' to the east. The Heebner, Toronto and Lansing came in 2' and 5' high relative to this offset. The Cherokee, Atoka and Morrow ran 8' low and the Chester, 11' low. The Basal Chester and Ste. Genevieve came in 1' high and the primary objective St. Louis, 4' low.

The Saint Louis(6143'-6148') consists of a Dolomite: Dark to medium mottled brown, microcrystalline, microsucrosic, brittle to hard, clean to argillaceous in part, chert nodules, sandy, oolitic and fossiliferous with moldic porosity, intercrystalline and vuggy porosity, dark brown matrix oil stain and live oil, dull goldbrown hydrocarbon fluorescence, excellent streaming cut, slight oil odor, good show. A 110 Unit gas kick was noted. This show is fairly similar to the productive oil show documented in the Keystone No. 5-4

4 ½" production casing was run on the Keystone No. 6-4 for St. Louis oil production.

Respectfully Submitted,

Peter Debenham

WELL DATA

Operator:	O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH
Prospect Geologist:	David Ward, Ed Schuett
Well:	Keystone No. 6-4, Angell SE Field
API:	15-119-21443
Location:	1320'FSL & 2100'FWL, Section 4, 33S, R29W, Meade Co. Kansas – Southeast of Plains.
Elevation:	Ground Level 2669', Kelly Bushing 2681'
Contractor:	Duke Drilling Rig No. 1, T.P. Mike Godfrey, Drillers Saul and Carlos Garcia, Rosendo DeLacruz,
Company Man:	Dana Geathouse
Spud Date:	5/11/2020, 11 am
Total Depth:	5/17/20, Driller 6298', Logger 6298', St. Louis Formation
Casing Program:	37 joints of 8 5/8", J-55, 24Lbs/ft, set at 1570' with 385 sacks A-Con blend(3%cc & ¼ lb flake) tail with 150 sacks Pem Plus(2%cc, ¼ bl Poly Flake), cement did circulate. 4 1/2" production casing set to TD.'
Mud Program:	Winter Mud, engineer Theran Hegwood, displaced 2614', 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:	Wireland Logging Solutions engineer Brian Oetting, Array Induction, Compensated Neutron/Density, Microlog, Hi Res
Status:	4 ½" production casing run to TD on 5/18/20.

WELL CHRONOLOGY

AM Report DATE	DEPTH	FOOTAGE	RIG ACTIVITY
5/11			Move to and rig up rotary tools. Mix spud mud. Drill rathole and mouse hole. Spud in 12 ¼" surface hole(11 am).
5/12	1584'	1584'	1584' and wiper trip and circulate. Run 37 joints of 8 5/8".
5/13	2047'	463'	Wiper trip and pump sweep. Drop survey(1 deg.) and trip. Run and cement 37 joints of 8 5/8" surface casing to 1573'. Wait on cement. Nipple up and pressure test. Drill plug and cement and 7 7/8" hole to 2047'.
5/14	3160'	1113'	Surveys(1 deg.). Displace mud system at 2614'.
5/15	4260'	1100'	
5/16	5080'	820'	Circulate and wiper trip at 5000'.
5/17	6125'	1045'	
5/18	6298'	173'	To 6298'TD(12:15PM) and circulate. Wiper trip and circulate. Drop survey(1 deg.) and trip out for logs. Run ELogs.
4/19	TD		Run and cement 4 ½" production casing to TD. Rig down.

BIT RECORD

NO.	MAKE	TYPE	SIZE	OUT	FOOTAGE	HOURS
1	PL 516	12 ¼"	1584'	1584'	14 ¼	
2	TXT 516	12 ¼"	6298'	4714'	82 3/4	
				Total Rotating Hours:	97	
				Average:	64.92 ft/hrs	

DEVIATION RECORD - degree

759' ¾, 1293' ¾, 1584' 1, 2079' 1, 2551' ¾, 3056' 1, 3559' 1, 4061' 1, 4564' ¾, 5000' 1, TD 1

MUD PROPERTIES

DATE	DEPTH	WT	VIS	PV	YP	WL	pH	CL	LCM-LBS/BBL
5/12	1584’	9.3	34	8	18	100	8.5	2K	6
5/13	2090’	9	28	1	1	100	8.5	1.7K	0
5/14	3250’	9.1	40	14	16	26	10.5	13K	4
5/15	4396’	9.1	40	14	14	16	10.5	7.8K	4
5/16	5162’	9.2	50	16	15	7.6	10.5	7K	6
5/17	6190’	9.2	55	18	18	6.8	11.0	6.3K	6

ELECTRIC LOG FORMATION TOPS- KB Elev. 2681’

			*Keystone No. 5-4	
FORMATION	DEPTH	DATUM	DATUM	POSITION
Casing	1573’			
Heebner	4447’	-1766’	-1771’	+5’
Toronto	4478’	-1797’	-1799’	+5’
Lansing	4594’	-1913’	-1918’	+5’
Marmaton	5228’	-2547’		
Cherokee	5405’	-2724’	-2716’	-8’
Atoka	5654’	-2973’	-2964’	-9’
Morrow	5707’	-3026’	-3018’	-8’
“B”/”C”	NA			
Mississippi Chester	5806’	-3125’	-3121’	-11’
Basal Chester	6006’	-3325’	-3326’	-1’
Ste. Genevieve	6050’	-3369’	-3371’	+2’
St. Louis	6142’	-3461’	-3457’	-4’
TD	6298			

*O’Brien Energy Resources, Keystone No. 54, 1350’ FSL & 1320’ FWL, Section 4, 33 S, 29W – 780’ to the W., K.B. Elev. 2646’.