

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

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 #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

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: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	ROBERTS UNIT FO 1-4
Doc ID	1455700

Tops

Name	Top	Datum
Heebner	4464	-1760
Toronto	4488	-1784
Lansing	4612	-1908
Marmaton	5238	-2534
Cherokee	5415	-2711
Atoka	5663	-2959
Morrow	5715	-3011
Mississippi Chester5818	5818	-3114
Basal Chester	6023	-3319
Ste. Genevieve	6055	-3351
St. Louis	6147	-3443



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

PRESSURE PUMPING Job Log


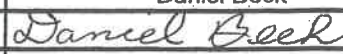
Customer:	Obrien Energy	Cement Pump No.:	38117, 19919 9Hrs.	Operator TRK No.:	98816
Address:	18 Congress St. Suite 207	Ticket #:	1718 17243 L	Bulk TRK No.:	14355, 37724 Jesse 33021, 14282 Oscar
City, State, Zip:	Portsmouth NH 03801	Job Type:	Z42 Cement Surface Casing		
Service District:	1718 - Liberal, Ks.	Well Type:	OIL		
Well Name and No.:	Roberts Unit FO 1-4	Well Location:	4,33,29	County:	Meade
				State:	Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
A-Con' Blend	375	3% Calcium Chloride, 1/4# Polyflake, .2%WCA1	14355, 37724 Jesse	Front	Back
Premium Plus Cement	150	2% Calcium Chloride, 1/4# Polyflake	33021, 14282 Oscar	Front	Back
				Front	Back

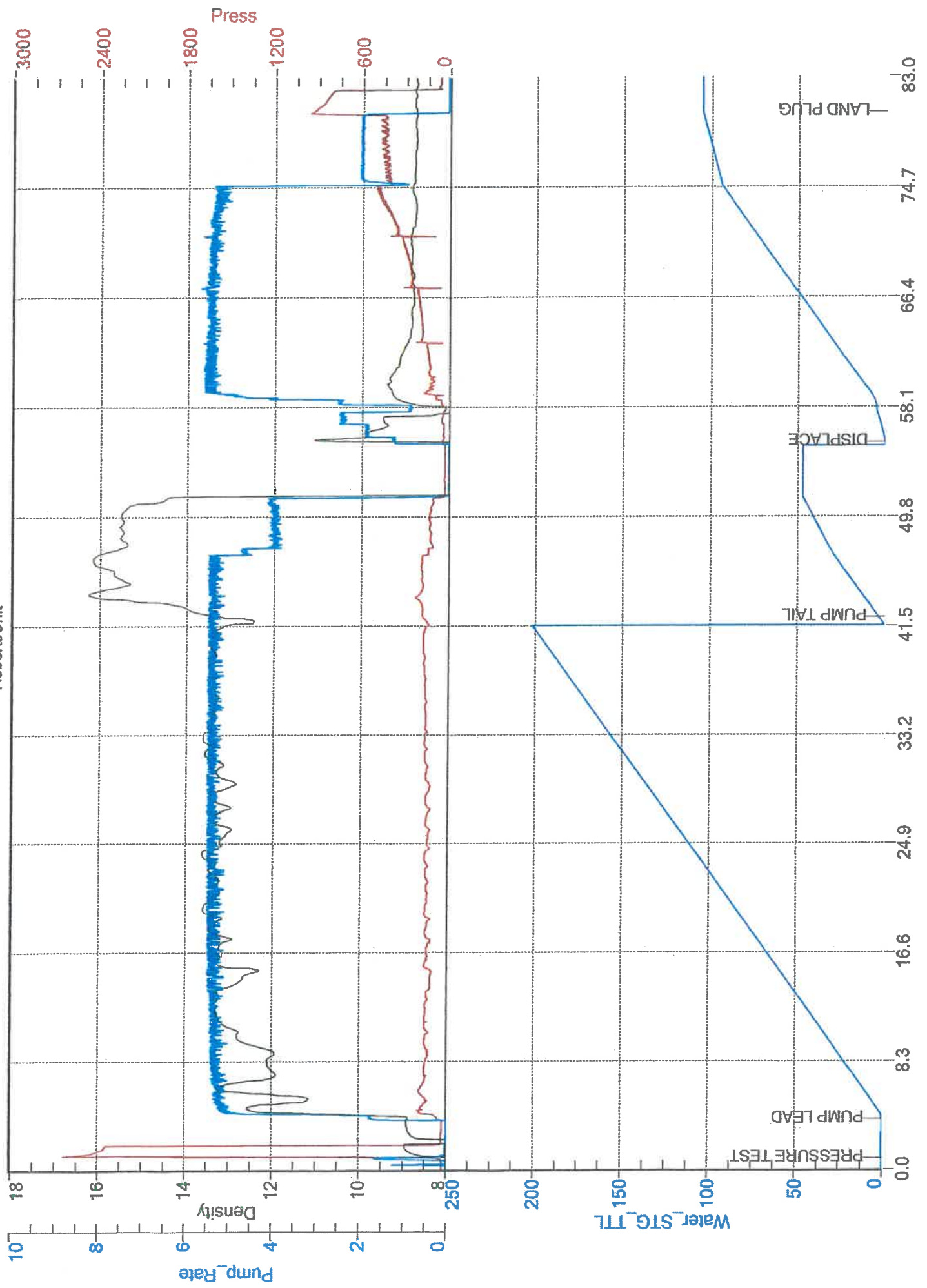
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Lead:	11.4	2.95	18	1106.25	TT Man Hours:	52
Tail:	14.8	1.34	6.33	201	# of Men on Job:	4

Time (am/pm)	(BPM)	Volume (BBLs)	Pumps		Pressure(PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
23:00							ON LOCATION
23:15							SAFETY MEETING & WAIT
3:00 AM							RIG UP
4:27 AM							RIG TO CIRCULATE
5:35 AM							RIG TO PT
5:37							PRESSURE TEST TO 2600PSI
5:40	5.2	197.0 slurry				190	PUMP 375SX LEAD @ 11.4#
6:18 AM	5.4	35.7 slurry				150	PUMP 150SX TAIL @ 14.8#
6:27							SHUTDOWN / DROP PLUG
6:32	5.5	10				150	DISPLACE
	5.5	20				150	
	5.5	30				190	
	5.5	40				210	
	5.5	50				270	
	5.4	60				300	
	5.5	70				380	
	5.4	80				460	
6:51	5.3	86				500	SLOW RATE TO 2.0BPM @ 430PSI
	2	90				460	
6:57	2	96.3				480	LAND PLUG / PRESSURE UP TO 970PSI
7:00							RELEASE BACK --- FLOAT HELD
							JOB COMPLETE

Size Hole	12 1/4"	Depth			TYPE	Plug Container	
Size & Wt. Csg.	8 5/8' 24#	Depth	1554.88'	New / Used	Packer	Depth	
Landing Press.	313.9psi	Depth			Retainer	Depth	
Shoe Jt.	40.10'	Type			Perfs	CIBP	

Customer Signature:  Basic Representative: Daniel Beck
 Basic Signature:  Date of Service: 12/6/2018

O'Brien Energy
Roberts Unit





Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

PRESSURE PUMPING

Job Log

Customer:	Obrien Energy	Cement Pump No.:	38117, 19919 5Hrs.	Operator TRK No.:	96816
Address:	18 Congress St. Suite 207	Ticket #:	1718 17245 L	Bulk TRK No.:	30463, 37547 Oscar
City, State, Zip:	Portsmouth NH 03801	Job Type:	Z42 Cement Production Casing		
Service District:	1718 - Liberal, Ks.	Well Type:	OIL		
Well Name and No.:	Roberts Unit FO 1-4	Well Location:	4,33,29	County:	Meade
				State:	Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
60/40 Poz	50		30463, 37547 Oscar	Front	Back
AA2	180	5% W-60, 10% Salt, .6% C-17, 1/4# Defoamer, 5# Gilsomite	30463, 37547	Front	Back
				Front	Back

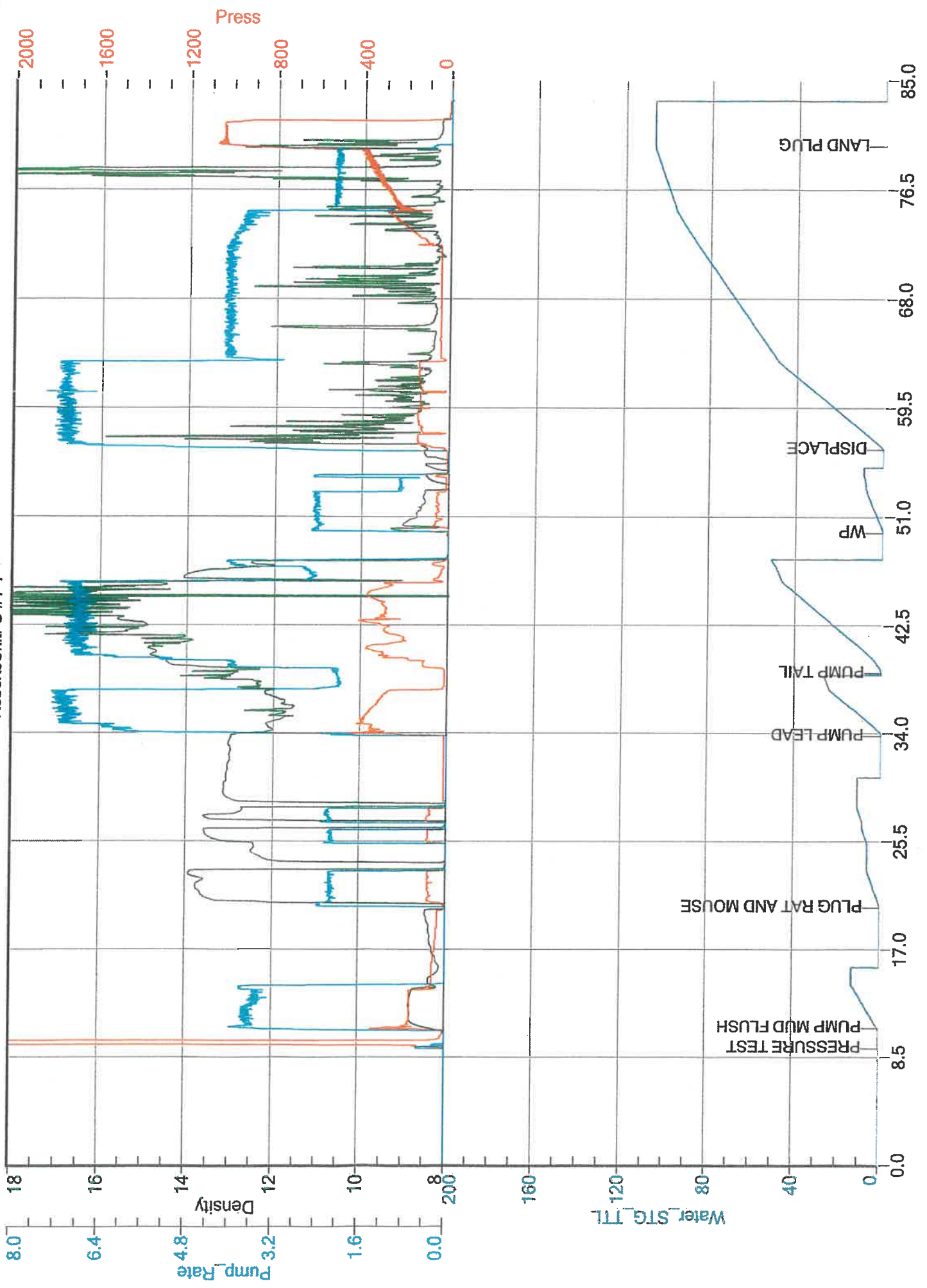
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Lead:	12	2.08	11.89	104	TT Man Hours:	28
Tail:	14.8	1.51	6.65	271.8	# of Men on Job:	3

Time (am/pm)	Volume (BBLs)	Pumps T C	Pressure (PSI)		Description of Operation and Materials
			Tubing	Casing	
12:15					ON LOCATION & SAFETY MEETING
12:30					RIG UP
1:15 PM					RIG TO CIRCULATE
2:31 PM					RIG TO PT
2:39 PM					PRESSURE TEST TO 4380PSI
14:40	3.5	11.9		180	PUMP 500GAL MUD FLUSH
14:50	2.4	12.0 slurry	20		PLUG RATE & MOUSE W/ 50SX 60/40POZ
3:02 PM	7	18.5 slurry		430	PUMP 50SX LEAD @ 12#
15:08	7	48.4 slurry		310	PUMP 180SX TAIL @ 14.8#
15:18					SHUTDOWN / DROP PLUG / WP
15:24	7	10		130	DISPLACE
	7	20		130	10BBL IN NO CIRCULATION
	7	30		130	
15:33	7	40		130	45BBLs IN SLOW RATE TO 4.0BPM @ 40PSI
	4	50		40	
	4	60		30	
	4	70		30	
	4	80		110	HOLE CIRCULATING
15:45	3.7	89		280	SLOW RATE TO 2.0BPM @ 220PSI
	2.1	90		250	
15:50	2.1	99.5		410	LAND PLUG / PRESSURE UP TO 1040PSI
15:52					RELEASE BACK — FLOAT HELD
					JOB COMPLETE

Size Hole	7 7/8"	Depth	6290'		TYPE	Plug Container	
Size & Wt. Csg.	4 1/2" 10.5#	Depth	6282.77'	New / Used	Packer	Depth	
Landing Press.	679.2psi	Depth			Retainer	Depth	
Shoe Jt.	21.85'	Type			Perfs	CIBP	

Customer Signature:	Basic Representative:	Daniel Beck
	Basic Signature:	
	Date of Service:	12/12/2018

O'Brien Energy
RobertsUnitFO #1-4



O'Brien Energy Resources, Inc.

Roberts Unit FO No. 1-4

Section 4, T33S, R29W

Meade County, Kansas

December 2018

Well Summary

The O'Brien Energy Resources, Roberts Unit FO No. 1-4 was drilled to a total depth of 6290' in the St. Louis without any problems. It offset the Preedy No. 3-4 by less than ¼ mile to the NW. Formation tops from the Cherokee to the Morrow ran 3' high relative to this offset. Tops through the Mississippi came in 5' to 6' high. The St. Louis came in 5' high. The St. Louis came in 9' high relative to the Keystone No. 4-4, approximately ¼ mile to the SW.

The St. Louis(6146'-6158') consists of a Dolomite: Medium to dark mottled brown, microcrystalline, microsugrosic to sugrosic in part, clean to argillaceous, brittle, occasional intercrystalline porosity with even brown matrix oil stain, fossiliferous with moldic porosity, dull speckled gold brown hydrocarbon fluorescence in 2% of the samples, excellent streaming cut, trace light live oil and light oil odor, interbedded with Shale and Limestone: Light milky gray, hard, dense, very siliceous and tight, fossiliferous with oil filled moldic porosity and excellent cut, abundant Chert. A 25 Unit gas increase was noted.

A thin Morrow Sandstone stringer(5762'-5766') was documented along with a slight 10 Unit gas increase and with no hydrocarbon show.

4 ½" production casing was run on the Roberts Unit FO No. 1-4 on 12/13/18.

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: Roberts Unit FO No. 1-4, Angell Field

API: 15-119-21429

Location: 2176' FNL & 1547' FWL, Section 4, T33S, R29W, Meade County, Kansas – Southeast of Plains.

Elevation: Ground Level 2691', Kelly Bushing 2704'

Contractor: Duke Drilling Rig No. 9, Type: Double jackknife, double stand, Toolpusher Emidgio Rojas & Victor Martinez, Drillers: Jose Cervantes, Alejandro V., Fernando Jurado

Company Man: Dana Greathouse

Spud Date: 12/15/18

Total Depth: 12/12/18, Driller 6290', Logger 6288', St. Louis Formation

Casing Program: 37 joints of 8 5/8", J-55 STC 24Lbs/ft, set at 1545' with 375 sacks A-Con(3% cc, 1/4 lb Floseal) and 150 sacks Premium Plus tail. Plug down 6:57 am 12/6/18. 4 1/2" production casing set to TD.

Mud Program: Service Mud, engineer Justin Whiting, displaced 2600'.

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. Sample cut sent to KGS sample log library.

Electric Logs: Weatherford, engineer Adam Sill, Array Induction, Compensated Neutron/Density, Microlog, Hi Res.

Status: 4 1/2" production casing run to TD on 12/13/2018.

WELL CHRONOLOGY

<u>DATE</u>	<u>DEPTH</u>	<u>FOOTAGE</u>	<u>RIG ACTIVITY</u>
12/5	0'	0'	Move to location and rig up. Mix spud mud and spud in 12 1/4" surface hole.
12/6	1555'	1555'	To 1555' and circulate. Run and cement 37 joints of 8 5/8" set at 1545' – did circulate. Wait on cement.
12/7	2140'	585'	Wait on cement and nipple up and pressure test BOP. Drill plug and cement and 7 7/8" hole to 2140'.
12/8	3345'	1205'	Displace mud.
12/9	4860'	1515'	
12/10	5601'	741'	To 5004' and circulate. Wiper trip 58 stands and circulate.
12/11	6230'	629'	
12/12	6290'TD	60'	To TD and circulate. Wiper trip and trip out for logs and run Elogs.
12/13	TD		Run and cement 4 1/2" production casing to TD. Rig down.

BIT RECORD

<u>NO.</u>	<u>MAKE HOURS</u>	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	<u>FOOTAGE</u>	
1	PLT 616		12 1/4"	1555'	1555'	11
2	PLT 616		7 7/8"	6290'	4735'	79 1/4
						Total Rotating Hours: 90 1/4
						Average: 69.69 Ft/hr

DEVIATION RECORD - degree

796' 1/2, 1555' 3/4, 2277' 3/4, 2717' 3/4, 3220' 1/2, 3718' 3/4, 4189' 1/2, 4691' 3/4, 5192' 3/4, 5569' 1, 6290' 1

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>
12/6	1555'	Water							
12/7	2273'	9.45	31	3	3	7.0	nc	66.4K	1
12/8	3494'	8.75	49	14	16	11.5	6.8	6.8K	3
12/9	5004'	9.25	50	16	17	10.5	7.6	2.2K	4
12/10	5665'	9.15	66	21	22	11.0	6.4	3.1K	4
12/11	6279'	9.05	54	17	21	11.0	6.4	2.7K	6

ELECTRIC LOG FORMATION TOPS- KB Elev. 2704'

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Preedy 3-4</u> <u>DATUM</u>	<u>POSITION</u>
Casing	1546'			
Heebner	4464'	-1760'	-1761'	+1'
Toronto	4488'	-1784'	-1773'	-11'
Lansing	4612'	-1908'	-1905'	-3'
Marmaton	5238'	-2534'	-2542'	+8'
Cherokee	5415'	-2711'	-2714'	+3'
Atoka	5663'	-2959'	-2962'	+3'
Morrow	5715'	-3011'	-3014'	+3'
Mississippi Chester	5818'	-3114'	-3119'	+5'
Basal Chester	6023'	-3319'	-3325'	+6'
Ste. Genevieve	6055'	-3351'	-3357'	+6'
St. Louis	6147'	-3443'	-3448'	+5'
TD	6290'			

*O'Brien Energy Resources, Preedy 3-4, 1980' FSL & 2305' FEL, Section 4, 33 S, 29W – < ¼ mile to the SE, K.B. Elev. 2681'.

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Keystone 4-4</u> <u>DATUM</u>	<u>POSITION</u>
Casing	1546'			
Heebner	4464'	-1760'	-1768'	+8'
Toronto	4488'	-1784'	-1796'	-12'
Lansing	4612'	-1908'	-1916'	+8'
Marmaton	5238'	-2534'	-2536'	+2'
Cherokee	5415'	-2711'	-2706'	-5'
Atoka	5663'	-2959'	-2958'	-1'
Morrow	5715'	-3011'	-3012'	+1'
Mississippi Chester	5818'	-3114'	-3124'	+10'
Basal Chester	6023'	-3319'	-3316'	-3'
Ste. Genevieve	6055'	-3351'	-3355'	+4'
St. Louis	6147'	-3443'	-3452'	+9'
TD	6290'			

*O'Brien Energy Resources, Keystone 4-4, 2305' FSL & 445' FWL, Section 4, 33 S, 29W – ¼ mile to the SW, K.B. Elev. 2656'.