KOLAR Document ID: 1563812

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 #	API No.:
Name:	Spot Description:
Address 1:	SecTwpS. R East _ West
Address 2:	Feet from North / South Line of Section
City:	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	Datum: NAD27 NAD83 WGS84
Wellsite Geologist:	County:
Purchaser:	Lease Name: Well #:
Designate Type of Completion:	Field Name:
☐ New Well ☐ Re-Entry ☐ Workover	Producing Formation:
Oil SWD	Elevation: Ground: Kelly Bushing:
☐ Gas ☐ DH ☐ EOR	Total Vertical Depth: Plug Back Total Depth:
☐ OG ☐ GSW	
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
□ Deepening       □ Re-perf.       □ Conv. to EOR       □ Conv. to SWD         □ Plug Back       □ Liner       □ Conv. to GSW       □ Conv. to Producer	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #:	Dewatering method used:
	Logation of fluid disposal if bouled offsite:
EOR Permit #:	Location of fluid disposal if hauled offsite:
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R East West
Recompletion Date Recompletion Date	Countv: 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 III Approved by: Date:					

KOLAR Document ID: 1563812

#### Page Two

Operator Name: _				Lease Name:			Well #:		
Sec Twp.	S. R.	E	ast West	County:					
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,	
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log	
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample	
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum	
Cores Taken Electric Log Run Geologist Report / List All E. Logs Ru	_		Yes No Yes No Yes No						
		B	CASING eport all strings set-c		New Used	ion, etc.			
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives	
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD				
Purpose:		epth T Bottom	ype of Cement	# Sacks Used		Type and F	Percent Additives		
Perforate Protect Casi Plug Back T									
Plug Off Zor									
Did you perform a     Does the volume     Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,	
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)			
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity	
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom	
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT	
,	,			B.11 B1					
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record	
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:					
TODING RECORD:	. 3126.		n.	i donei Al.					

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	KEYSTONE 7-4
Doc ID	1563812

## Tops

Name	Тор	Datum
Heebner	4406	-1772
Toronto	4432	-1798
Lansing	4554	-1920
Marmaton	5177	-1543
Cherokee	5354	-2720
Atoka	5606	-2972
Morrow	5670	-3036
Mississippi Chester	5779	-3145
Ste. Genevieve	6002	-3368
St. Louis	6094	-3460

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	KEYSTONE 7-4
Doc ID	1563812

## Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.25	8.625	24	1573	Class A	3%CaCl, 1/4# floseal
Production	7.875	4.5	11	6228	Class H	2%CaCl, 1/4# floseal



## QUASAR ENERGY SERVICES, INC.

3288 FM 51

Gainesville, Texas 76240

Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com

### **FRACTURING**

ACID

CEMENT

**CUSTOMER SIGNATURE & DATE** 

20

**AFE#/PO#:** 0 BID #: 3155 TYPE / PURPOSE OF JOB Cement-Surface SERVICE POINT Liberal, KS CUSTOMER **OBRIEN ENERGY RESOURCES CORP WELL NAME KEYSTONE 7-4 ADDRESS** LOCATION MEADE, KS STATE ZIP TYPE AND PURPOSE OF JOB Cement-Surface COUNTY MEADE STATE KS DATE OF SALE 11/19/2020 CODE UNIT PUMPING AND EQUIPMENT USED **UNIT PRICE** AMOUNT QTY. YD Mile Mileage - Pickup - Per Mile \$3.15 78.75 25 1000 L 75 1010 Mile Mileage - Equipment Mileage - Per Mile \$6.00 450 00 L 1,575.00 1 5440 L Per Well Pumping Charge 0'-3500' \$1,575.00 2,103.75 Subtotal for Pumping & Equipment Charges CODE UNIT **UNIT PRICE AMOUNT** QTY. YD **MATERIALS** 8,505.00 540 5630 L Per Sack Cement - Class A \$15.75 \$491.40 491.40 4780 L Each Guide Shoe 8 5/8" \$100.80 100.80 1 4850 L Each Auto Fill Tube 8 5/8" \$378.00 378.00 1 4880 L Each Insert Float 8 5/8" 4900 L Each Top Rubber Plug 8 5/8" \$87.50 87.50 \$88.20 264.60 3 4920 L Each Centralizers 8 5/8" 4940 L Each Cement Basket 8 5/8" \$453.60 453.60 \$1.26 1,278.90 1.015 5770 L Per Lb. Calcium Chloride Cello Flakes-Poly Flake 1/8" cut \$2.52 252.00 100 5800 L Per Lb. \$0.32 112.00 350 5840 Per Lb. Gel (Bentinite) 700 5850 L Per Lb. Gypsum \$0.95 665.00 Per Lb. Sodium Metasilicate (SMS) C-45 \$2.21 1,547.00 700 5900 Per Lb. C-51 FWCA \$10.71 728.28 68 5950 6158 Box Thread Lock \$36.75 36.75 1 L 14,900.83 **Subtotal for Material Charges WORKERS** TOTAL \$ 17,004.58 5 101.37 CHAD HINZ JESSE PAXTON **DISCOUNT:** 30% DISCOUNT \$ DISCOUNTED TOTAL \$ 11,903.21 DANIEL BECK OSCAR CHAVEZ As of 9/22/15 any invoice with a discount must paid within 60 days of STAMPS & NOTES: the invoice date. After 60 days the discount will be removed and the invoice will reflect full price.

The state of the s

\*\*All accounts are past due net 30 days following the date of invoice. A finance charge of 1 1/2% per month or 18% annual percentage rate will be charged on all past due accounts.

## QUASAR ENERGY SERVICES, INC.

QUASAR BNERGY SERVICES, N.C.

**CEMENTING JOB LOG** 

3288 FM 51

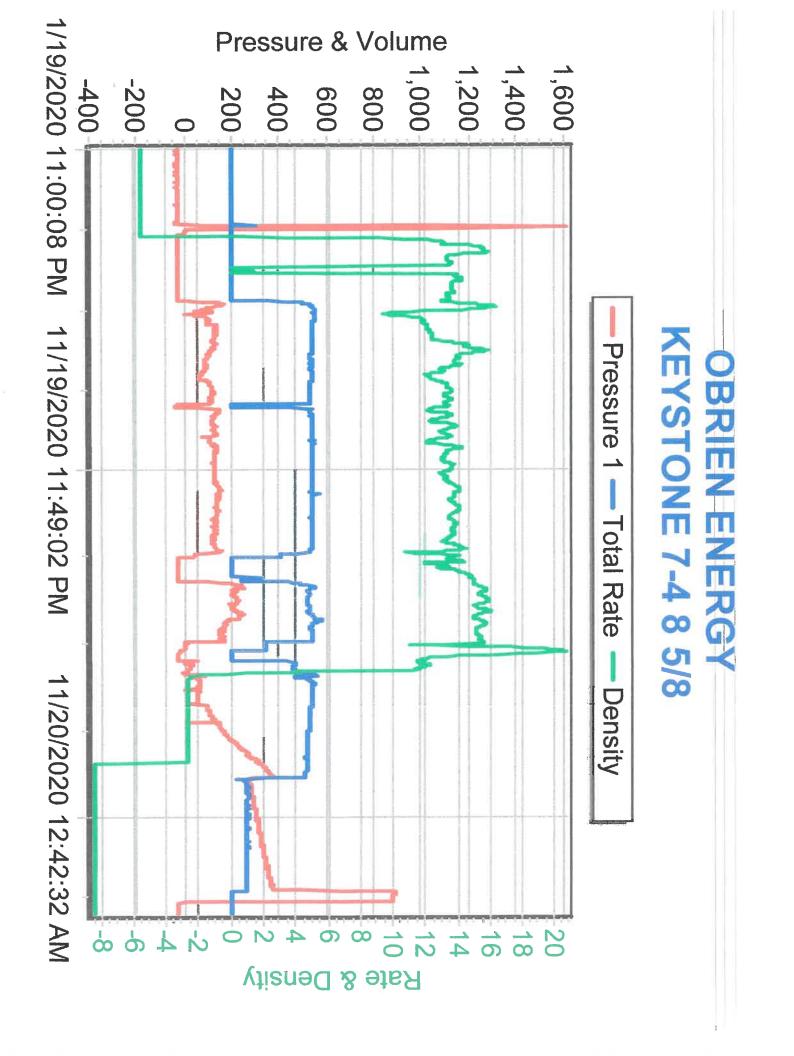
Gainesville, Texas 76240 Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2c

11/19/20 CEMENTING JOB LOG

#### Well Name: KEYSTONE 7-4 **OBRIEN ENERGY RESOURCES CORP** Company: AFE #: Cement-Surface Type Job: **CASING DATA** 24 85/8 J-55 Weight: Grade: Size: Bottom: **Casing Depths** Top: Drill Pipe: Size: Weight: Grade: TD (ft): Weight: Tubing: Size: Open Hole: Size: 12 1/4 T.D. (ft): Packer Depth(ft): From (ft): To: Perforations **CEMENT DATA** Spacer Type: ft $^3/_{sk}$ Density (PPG) Sks Yield Amt. CLASS A 2%GYP, 2%SMS, .2%WCA-1, 3%CaCl, 1/4#POLY FLAKE **Excess** LEAD: ft 3/sk Density (PPG) 11.4 360 Sks Yield 2.93 Amt. CLASS A 2%GEL, 2%CaCl, 1/4#POLY FLAKE **Excess** TAIL: $ft^3/_{sk}$ 14.8 Density (PPG) 180 Sks Yield 1.37 Amt. WATER: 184 Lead: 155 Tail: 6.5 gals/sk: 28 Total (bbls): 18 gals/sk: 210-DP11 Pump Trucks Used: 228 660-23, 227 660-25 **Bulk Equipment:** 8.3 Weight (PPG): 97.6 Disp. Fluid Type: **FRESH** Amt. (Bbls.) Weight (PPG): Mud Type: **CEMENTER: CHAD HINZ** DANA GREATHOUSE **COMPANY REPRESENTATIVE: FLUID PUMPED DATA** TIME **PRESSURES PSI** REMARKS **ANNULUS** TOTAL RATE AM/PM Casing Tubing 2200 ON LOC, SAFTEY MTG, R.U. **TEST LINES** 2320 1500 2325 130 5 START LEAD @11.4# 5 ON TAIL @ 14.8# 188 007 140 017 44 SHUT DOWN, DROP PLUG 4 START DISPLACEMENT 018 100 5 CIRC CEMENT TO SURFACE 276 35 028 1 77 037 276 **SLOW RATE** 97.5 055 380-880 PLUG DOWN **RELEASE PSI, FLOAT HELD** 058 JOB COMPLETE THANK YOU FOR YOUR BUSINESS!!!





## QUASAR ENERGY SERVICES, INC.

3288 FM 51

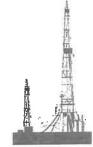
Gainesville, Texas 76240 Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com

**FRACTURING** 

ACID

CEMENT



ID #:	3164			<b>AFE#/PO#:</b> 0								
YPE / PUR	POSE OF JO	В	Cem	ent- Production		SERVICE	POINT	Liberal, KS				
USTOMER			OBR	IEN ENERGY		WELL NA	ME	KEYSTONE 7-4				
		_										
DDRESS	RESS 18 CONGRESS ST STE 207 LOCATION MI						MEADE, KS					
CITY				STATE	ZIP	TYPE ANI	D PURPOSE (	OF JOB		Cement- Pro	oduction	1
DATE C	F SALE	11/26/	2020			COUNTY	MEA	\DE	STAT	TE KS		
				PUMPING AND EQU	HOMENT HEE	ח			HINIT	PRICE	AM	OUNT
QTY.	1000	YD	UNIT Mile	Mileage - Pickup - P		.0			OIL	\$3.15	\$	78.75
25		L	Mile	Mileage - Equipment		Mile				\$6.00	\$	300.00
50 1	1010 5500	L	Per Well	Pumping Charge 600		IVIIIO			\$2	123.10		2,123.10
	<del>                                     </del>	-										
QTY.	CODE	YD	Equipment UNIT	MATERIALS					UNIT	PRICE \$15.75		OUNT
<b>QTY.</b> 50	<b>CODE</b> 5660	YD L	UNIT Per Sack	MATERIALS Cement - Lite - A					UNIT		AM \$	OUNT 787.5
<b>QTY.</b> 50 200	5660 5671	YD L L	UNIT Per Sack Per Sack	MATERIALS Cement - Lite - A Cement - Lite - H	4 1/2"					\$15.75	AM \$	787.5 3,780.0 378.0
<b>QTY.</b> 50 200	5660 5671 4040	YD L L L	UNIT Per Sack Per Sack Each	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue						\$15.75 \$18.90	<b>AM</b> \$	OUNT 787.5 3,780.0 378.0 693.0
QTY. 50 200 1	5660 5671 4040 4100	YD L L L	UNIT Per Sack Per Sack Each Each	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue Latch Down Plug & I						\$15.75 \$18.90 \$378.00	**************************************	787.5 3,780.0 378.0 693.0 730.8
QTY. 50 200 1 1 10	5660 5671 4040 4100 4190	YD L L L L	UNIT Per Sack Per Sack Each Each Each	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"	Baffle 4 1/2"					\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20	\$ \$ \$ \$	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20
QTY. 50 200 1 1 1 10	5660 5671 4040 4100 4190 4200	YD L L L L	UNIT Per Sack Per Sack Each Each Each	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4	Baffle 4 1/2"					\$15.75 \$18.90 \$378.00 \$693.00 \$73.08	**************************************	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20
QTY. 50 200 1 1 1 10 1	5660 5671 4040 4100 4190 4200	YD L L L L L	UNIT Per Sack Per Sack Each Each Each Each	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla	Baffle 4 1/2" 1/2" mp) 4 1/2"					\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76	**************************************	787.50 3,780.00 378.00 693.00 730.80 277.20 44.10
QTY. 50 200 1 1 1 10 1 1,100	5660 5671 4040 4100 4190 4200 4220 2482	YD L L L L L L L L L	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla KCL - Granular / Por	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	OUNT 787.56 3,780.00 378.00 693.00 730.86 277.20 44.10 836.00 1,006.7
QTY. 50 200 1 1 1 10 1 1,100	5660 5671 4040 4100 4190 4200 4220 2482 5710	YD L L L L L	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb. Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20 44.10 836.00 1,006.74
QTY. 50 200 1 1 1 10 1 1,100 94 2	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751	YD	UNIT Per Sack Per Sack Each Each Each Each Per Lb. Per Gal.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95	**************************************	OUNT 787.56 3,780.00 378.00 693.00 730.86 277.26 44.10 836.00 1,006.76 88.22
QTY. 50 200 1 1 1 10 1 1,100 94 2 1,880	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850	YD	Per Sack Per Sack Each Each Each Each Each Per Lb. Per Gal. Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78	**************************************	OUNT 787.56 3,780.00 378.00 693.00 730.86 277.20 44.10 836.00 1,006.70 88.22 1,786.00 780.00
QTY. 50 200 1 1 1 10 1 1,100 94 2 1,880 1,000	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860	YD	UNIT Per Sack Per Sack Each Each Each Each Per Lb. Per Gal.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig  Gypsum	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00	**************************************	OUNT 787.56 3,780.00 378.00 693.00 730.86 277.20 44.10 836.00 1,006.70 88.22 1,786.00 780.00 1,300.00
QTY. 50 200 1 1 10 1,100 94 2 1,880 1,000 50	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860 5861	YD  L  L  L  L  L  L  L  L  L  L  L  L  L	Per Sack Per Sack Each Each Each Each Each Per Lb.	MATERIALS Cement - Lite - A Cement - Lite - H Auto Fill Shoe (Blue Latch Down Plug & I Turbolizers 4 1/2" Cement Basket 4 Lock Ring (Limit Cla KCL - Granular / Por C-15 Low Temp-Nor C-41L Defoamer Lig Gypsum Kol-Seal Felt	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00 \$1.26	**************************************	OUNT 787.56 3,780.00 378.00 693.00 730.86 277.20 44.10 836.00 1,006.7 88.22 1,786.00 780.00 1,300.00
QTY. 50 200 1 1 1 10 1 1,100 94 2 1,880 1,000	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860	YD	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb. Per Lb. Per Lb. Per Lb. Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig  Gypsum  Kol-Seal	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00	**************************************	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20 44.10 836.00 1,006.7 88.20 1,786.00 780.00 1,300.00
QTY. 50 200 1 1 10 1 1,100 94 2 1,880 1,000 50 420 1,150	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860 5861 5870 5890	YD  L  L  L  L  L  L  L  L  L  L  L  L  L	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig  Gypsum  Kol-Seal  Felt  Mud Flush	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss				\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00 \$1.26	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20 44.10 836.00 1,006.7 88.20 1,786.00 780.00 1,300.00 529.20 368.00
QTY. 50 200 1 1 10 1 1,100 94 2 1,880 1,000 50 420 1,150	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860 5861	YD  L  L  L  L  L  L  L  L  L  L  L  L  L	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig  Gypsum  Kol-Seal  Felt  Mud Flush	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu	uid Loss		TC		\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00 \$1.26 \$0.32	**************************************	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20 44.10 836.00 1,006.74 88.20 1,786.00 780.00 1,300.00 529.20 368.00
QTY. 50 200 1 1 1 10 1 1,100 94 2 1,880 1,000 50 420 1,150	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860 5861 5870 5890	YD  L  L  L  L  L  L  L  L  L  L  L  L  L	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig  Gypsum  Kol-Seal  Felt  Mud Flush	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Fluid		40%		DTAL	\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00 \$1.26 \$0.32	**************************************	OUNT 787.50 3,780.00 378.00 693.00 730.80 277.20 44.10 836.00 1,006.74 88.20 1,786.00 780.00 1,300.00 529.20 368.00
QTY. 50 200 1 1 1 10 1 1,100 94 2 1,880 1,000 50 420 1,150	CODE 5660 5671 4040 4100 4190 4200 4220 2482 5710 5751 5850 5860 5861 5870 5890	YD  L  L  L  L  L  L  L  L  L  L  L  L  L	UNIT Per Sack Per Sack Each Each Each Each Each Per Lb.	MATERIALS  Cement - Lite - A  Cement - Lite - H  Auto Fill Shoe (Blue  Latch Down Plug & I  Turbolizers 4 1/2"  Cement Basket 4  Lock Ring (Limit Cla  KCL - Granular / Por  C-15 Low Temp-Nor  C-41L Defoamer Lig  Gypsum  Kol-Seal  Felt  Mud Flush	Baffle 4 1/2" 1/2" mp) 4 1/2" wdered n Retarding Flu		40% DISC	TO DISCO	DTAL	\$15.75 \$18.90 \$378.00 \$693.00 \$73.08 \$277.20 \$44.10 \$0.76 \$10.71 \$44.10 \$0.95 \$0.78 \$26.00 \$1.26 \$0.32	**************************************	787.50 3,780.00 378.00 693.00 730.80 277.20 44.10 836.00 1,006.74 88.20 1,786.00 780.00

STAMPS & NOTES:

As of 9/22/15 any invoice with a discount must paid within 60 days of the invoice date. After 60 days the discount will be removed and the invoice will reflect full price.

**CUSTOMER SIGNATURE & DATE** 

\*\*All accounts are past due net 30 days following the date of invoice. A finance charge of 1 1/2% per month or 18% annual percentage rate will be charged on all past due accounts.





3288 FM 51

Gainesville, Texas 76240 Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2c

11/26/20 CEMENTING JOB LOG

#### **CEMENTING JOB LOG** Well Name: KEYSTONE 7-4 **OBRIEN ENERGY** Company: AFE #: Cement-Production Type Job: **CASING DATA** 11.6 Weight: Grade: J-55 4 1/2 Size: Bottom: **Casing Depths** Top: Weight: Drill Pipe: Size: TD (ft): 6250 Grade: Weight: Size: Tubing: Size: 77/8 T.D. (ft): 6250 Open Hole: Packer Depth(ft): To: From (ft): Perforations **CEMENT DATA** MUD FLUSH **Spacer Type:** ft 3/sk Density (PPG) 8.3 Amt. 420 GAL Sks Yield **Excess** LEAD: $ft^3/_{sk}$ Density (PPG) Sks Yield Amt. CLASS H 10%GYP, 10%SALT, 5#KOL SEAL, .6%C-15 **Excess** TAIL: Density (PPG) 14.8 ft 3/sk 1.55 200 Sks Yield Amt. WATER: 33 gals/sk: 33 Total (bbls): 6.9 Tail: gals/sk: Lead: 210-DP11 Pump Trucks Used: 227 660-24 **Bulk Equipment:** 8.6 Weight (PPG): KCL 3% Amt. (Bbls.) Disp. Fluid Type: Weight (PPG): Mud Type: **CEMENTER: CHAD HINZ** DANA GREATHOUSE COMPANY REPRESENTATIVE: **FLUID PUMPED DATA PRESSURES PSI** TIME **REMARKS** RATE AM/PM Tubing **ANNULUS** TOTAL Casing ON LOC, SAFTEY MTG R.U. 0600 **TEST LINES** 0937 3200 5.3 PUMP MUD FLUSH 0937 440 **H2O SPACER** 5.3 10 0940 440 PLUG RAT AND MOUSE 0944 START MIXING @ 14.8 7 1005 590 SHUT DOWN, DROP PLUG, WASHUP 55.2 1015 START DISPLACEMENT 7.3 1020 260 86 2 **SLOW RATE** 1033 480 PLUG DOWN 96 1038 700-1260 RELEASE PSI, FLOATS HELD 1040 JOB COMPLETE THANK YOU FOR YOUR BUSINESS!!!

## O'Brien Energy Resources, Inc. Keystone No. 7-4, Angell SE Field Section 4, T33S, R29W

Meade County, Kansas November 2020

## **Well Summary**

The O'Brien Energy Resources, Keystone No. 7-4 was drilled to a total depth of 6250' in the St. Louis without any problems. It offset the Keystone No. 2-4 by approximately 1000' to the North. The Heebner, Cherokee and Atoka came in 5' high relative to this offset. The Chester, Basal Chester and St. Louis came in 10', 13' and 15' high respectively. A Morrow "B" SS ran 2' high and the "C" SS, 13' high. The "B" SS came in 4' low relative to the Keystone 5-4, 660' to the East.

Excellent hydrocarbon shows occurred in Morrow "B" SS (5712'-5723') and consists of a Sandstone in 10% of the samples: White, very light brown, occasionally speckled green, friable, fine upper well sorted subround grains, calcareous cement, siliceous in part, clean, slightly glauconitic, excellent intergranular and occasional vuggy porosity, bright yellow to pale mottled blue hydrocarbon fluorescence, good streaming to bleeding cut, no visible stain or odor. A 325 Unit gas kick occurred on the hotwire.

The Lower Morrow "C" Sandstone (5731'-5738') consists of a similar looking sand as the "B" but with exceptionally bright light yellow hydrocarbon fluorescence throughout and with a good streaming cut. A very slight brown oil stain may exist along with excellent visible porosity. A 550 Unit gas increase was noted.

An excellent show occurred in the St. Louis (6097'-6117') along with a 675 Unit gas kick, Dolomite: Dark to medium mottled brown, sucrosic to granular, brittle, clean, sandy, Chert nodules, good intercrystalline and occasional excellent course vuggy porosity with dark brown free oil and matrix oil staining, very dark mottled goldbrown hydrocarbon fluorescence and excellent fast explosive cut, good oil odor and live free oil in mud system, excellent show.

4 1/2" production casing was run to TD on 11/27/2020.

Respectfully Submitted,

Peter Debenham

### **WELL DATA**

Operator: O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH

Prospect Geologist: David Ward, Ed Schuett, Denver

Well: Keystone No. 7-4, Angell SE Field

API: 15-119-21449

Location: 1485' FSL & 660' FWL, Section 4, T33S, R29W, Meade County, Kansas

Southeast of Plains.

Elevation: Ground Level 2622', Kelly Bushing 2634'

Contractor: Duke Drilling Rig No. 1, Type: Double jacknife, double stand, Toolpusher

Mike Godfrey, Drillers: Brothers Carlos and Saul Garcia and Henry Daiz

Company Man: Dana Greathouse

Spud Date: 11/18/20, 8PM

Total Depth: 11/25/20, Driller 6250', Logger 6251', St. Louis

Casing Program: 37 joints of 8 5/8", J-55, 24Lbs/ft, set at 1573' with lead 360 sacks Class

A and 180 sacks Class A tail, 148 joints 4 ½" production casing set to TD.

Mud Program: Service Mud/Mudco, engineer Justin Whiting, displaced 2590', Chem.

gel/LCM.

Wellsite Consultant: Peter Debenham, Call depth 3000', Box 350, Drake, CO 80515, 720/220-

4860.

Mudlogging Trailer: MBC Logging, Meade, KS, Austin Gardner

Samples: 30' to 5700', 20' to TD.

Electric Logs: Gemini Wireline, Hays, KS, engineer C. Patterson, Array Induction,

Compensated Neutron/Density, Microlog, Hi Res.

Status:  $4\frac{1}{2}$ " production casing run to TD on 11/27/20.

#### WELL CHRONOLOGY

11 PM		
DATE DEPTH	<b>FOOTAGE</b>	RIG ACTIVITY

11/18 Move to location and rig up. Mix spud mud. Drill rat hole and mouse hole and spud in 12 1/4: surface hole(8 pm) to 788'.

11/19 788' 788' Survey(1/2 deg.), 12 <sup>1</sup>/<sub>4</sub>" surface hole to 788'.

11/20 1585' 798' To 1585' and circulate and wiper trip to surface and circulate. Drop survey(1 deg.) and trip for casing and run and cement 37 joints of 8 5/8" surface casing set at 1573'. Cement did circulate. Wait on cement.

11/21 2630' 1045' Drill cement and plug and 7 7/8" hole to 2630'. Displace mud system at 2583'.

11/22 4001' 1371'

11/23 4977' 976' Wiper trip at 4977' and circulate. Survey(1 deg.).

11/24 5828' 851' Wiper trip to surface, pulled tight, and circulate.

11/25 6250'TD 422' TD and circulate. Wiper trip and circulate. Rig up loggers and attempt to log – hit bridge at 4816'. Work tool and pull same. Trip in and break out bridge and circulate. Trip out.

11/26 TD Run Elogs. Trip in and circulate. Trip out laying down and run and cement 4 ½" production casing to TD.

11/27 Cement production casing, good returns. Plug rathole and mousehole. Put cap on well and rig down. Rig released 10:45 am, 11/26.

## **BIT RECORD**

<u>NO.</u>	MAKE HOURS	<b>TYPE</b>	SIZE	<u>OUT</u>	<b>FOOTAGE</b>	
1 2	516 TXT 516		12 ¼" 7 7/8"	1585' 6250'	1585' 4665'	17 <sup>3</sup> / <sub>4</sub> 78 <sup>1</sup> / <sub>2</sub>
				Total Rotating Hours: Average:		96 1/4 64.9 Ft/hr

## **DEVIATION RECORD - degree**

599' 1/2, 1585' 3/4, 2014' 1, 3024' 1, 4001' 1, 4600' 1, 6250' 1

## **MUD PROPERTIES**

DATE LBS/BBL	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u><b>PV</b></u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	LCM-
11/18	90'	9.4	41	14	11	9.0	17.6	2.2K	12
11/18	733'	9. <del>4</del> 9.5	34	7	11	7.0		2.2K 1.5K	9
							nc		-
11/19	1355'	9.9	35	7	14	7.0	nc	4.5K	10
11/20	1585'	8.3	27	1	2	7.0	nc	125	0
11/20	2260'	9.2	28	1	2	7.5	nc	56.8K	tr
11/21	2617'	8.6	46	19	17	11.5	6	2.65K	1
11/21	3090'	8.9	47	15	15	10.5	9.6	4.2K	2
11/22	4108'	9.3	44	15	14	10.5	9.2	4.3K	2
11/22	4870'	9.2	54	17	16	11.0	8.4	3.3K	4
11/23	4979'	9.3	56	17	14	11.0	7.6	3.6K	4
11/23	5199'	9.2	52	18	16	11.0	7.6	2.9K	4
11/24	5916'	9.2	53	18	15	11.0	7.2	2.7K	5
11/24	6211'	9.3	55	19	16	11.0	6.4	1.8K	6
11/25	6250'	9.0	66	20	17	10.5	6.4	2.6K	6

## ELECTRIC LOG FORMATION TOPS- KB Elev. 2634'

			*Keystone N	<u>o. 2-4</u>
<b>FORMATION</b>	<b>DEPTH</b>	<b>DATUM</b>	<b>DATUM</b>	<b>POSITION</b>
Casing	1573'			
Heebner	4406'	-1772'	-1777'	+5'
Toronto	4432'	-1798'	-1801'	+3'
Lansing	4554'	-1920'	-1919'	-1'
Marmaton	5177'	-1543'	-1557'	+14'
Cherokee	5354'	-2720'	-2725'	+5'
Atoka	5606'	-2972'	-2977'	+5'
Morrow	5670'	-3036'	-3036'	0'
"A" SS	na		-3055'	
"B" SS	5712'	-3078'	-3080'	+2'
"C" SS	5731'	-3097'	-3110'	+13'
Mississippi Chester	5779'	-3145'	-3155'	+10'
Basal Chester	5964'	-3330'	-3343'	+13'
Ste. Genevieve	6002'	-3368'	-3374'	+6'
St. Louis	6094'	-3460'	-3475'	+15'
TD	6250'			

 $<sup>^*</sup>$ O'Brien Energy Resources, Keystone No. 2-4, 500' FSL & 716' FWL, Section 4, 33 S, 29W – app. 1000' to the South., K.B. Elev. 2597'.