

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](mailto: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) (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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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1615  
8:00 AM *Tim New*

Date <b>11-3-19</b>	Sec. <b>35</b>	Twp. <b>10s</b>	Range <b>21w</b>	County <b>GRAHAM</b>	State <b>KANSAS</b>	On Location <b>OLD TIME</b>	Finish <b>9:00 AM</b>
Location <b>Ellis S. to Co. Line 5w 1/2 N</b>							

Lease <b>Zeigler</b>	Well No. <b>1-35</b>	Owner
Contractor <b>W-W DRUG, Rig #8 (108)</b>		To Quality Oilwell Cementing, Inc.
Type Job <b>PRODUCTION STRING (D-V 2 Stage)</b>		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 <b>7 7/8</b>	T.D. <b>3750'</b>	Charge To <b>PATTERSON ENERGY LLC.</b>
Csg. <b>5 1/2 17# CSG</b>	Depth <b>3747'</b>	Street
Tbg. Size <b>8 5/8 surface</b>	Depth <b>235'</b>	City
Tool <b>LATCH DN. Plug Ass'y</b>	Depth <b>3704'</b>	State
Cement Left in Csg. <b>43'</b>	Shoe Joint <b>43'</b>	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line	Displace <b>86 1/4 / BBL</b>	Cement Amount Ordered <b>150 sx 10% salt 5% gilsonite</b>

**EQUIPMENT**

Pumptrk # <b>7</b>	No.	Cementor	<b>Glenn G</b>	Common <b>150</b>
		Helper	<b>David L.</b>	Poz. Mix
Bulktrk # <b>3</b>	No.	Driver	<b>Lance</b>	Gel.
		Driver		Calcium
Bulktrk	No.	Driver		
		Driver		

**JOB SERVICES & REMARKS**

Remarks: <b>ROTATING HEAD</b>	Hulls
Rat Hole	Salt <b>13</b>
Mouse Hole	Flowseal
Centralizers <b>#1, #3, #5, #7, #9, #11</b>	Kol-Seal <b>750 #</b>
Baskets <b>TURE OF #52 #13 (1570)</b>	Mud CLR 48 <b>500 GAL</b>
DN or Port Collar <b>DV TOOL ON #52 ST.</b>	CFL-117 or CD110 CAF 38 <b>20 BBL KCL</b>
<b>Ran 5 1/2 CSG. + SET @ 37</b>	Sand
<b>Received Circ. - Drop AFU Ball</b>	Handling <b>100 170</b>
<b>CIRCULATE FOR 3/4 HR. &amp; Rotate</b>	Mileage
<b>Pump 500 GAL MUD CLR - 10 BBL / KCL</b>	
<b>Cement w/ 150 sx 10% &amp; 5%</b>	
<b>Clear-Line - Release Slime Plug</b>	
<b>Displaced H<sub>2</sub>O - mud - H<sub>2</sub>O Total 86 1/4 BBL</b>	
<b>HAD 800# lift Pressure.</b>	
<b>LAND Bottom Aug @ 1500 #</b>	
<b>Released pressure &amp; DRIED-UP.</b>	
<b>Drop opening DART w/ P-TRUCK</b>	
<b>@ 800 #. Hook-up to</b>	
<b>MOD Hog &amp; CIRCULATE APPROX.</b>	
<b>60 minutes.</b>	

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer <b>6</b>	
Baskets <b>2</b>	
AFU Inserts	
Float Shoe <b>1</b>	
Latch Down <b>1</b>	
D-V Tool <b>1</b>	
Limit Clamp <b>1</b>	
Pumptrk Charge <b>prod string</b>	<b>Bottom Stage</b>
Mileage <b>37</b>	

**THANKS!**

X Signature *Ann Weir*

Tax  
Discount  
Total Charge

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Phone 785-483-1071  
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Home Office P.O. Box 32 Russell, KS 67665

No. 1616

9:45 New  
Finish Time

Date	11-3-19	Sec.	35	Twp.	10s	Range	21w	County	GRAHAM	State	KANSAS	On Location	old time	10:45 AM
Lease								Location		ELLIS S. TO Co. Line SW 1/2 N				

Lease	ZEIGLER		Well No.	1-35		Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.				
Contractor	W-W DRIG		Rig#	(100)		Charge To	PATTERSON ENERGY LLC				
Type Job	PRODUCTION STRING (2-Stage DV)					Street					
Hole Size	7 7/8		T.D.	3750		City	State				
Csg.	5 1/2 17#		Depth	3747		The above was done to satisfaction and supervision of owner agent or contractor.					
Tbg. Size			Depth			Cement Amount Ordered	350 SX 8 9/20 QMDC 1/4 # FO-SEL				
Tool	DV-Tool @		Depth	1570'		Common	350 8 9/20 QMDC				
Cement Left in Csg.			Shoe Joint			Poz. Mix					
Meas Liné			Displace	36 1/2 / BBL		Gel.					

EQUIPMENT			JOB SERVICES & REMARKS		
Pumptrk	17	No.	Cementer Helper	GLEN DAVID L. MIKE P.	
Bulktrk	21	No.	Driver		
Bulktrk		No.	Driver		
Bulktrk		No.	Driver		
REMARKS:			Hulls		
Rat Hole 30 SX			Salt		
Mouse Hole			Flowseal 87#		
Centralizers			Kol-Seal		
Baskets			Mud CLR 48		
D/V or Port Collar @ 1570' (Circ 1 HR)			CFL-117 or CD110 CAF 38		
TOP STAGE			Sand		
Cement Rathole w/ 30 SX			Handling 350		
Mixed APPROX 325 SX cement (325)			Mileage		
d cement did circulate			FLOAT EQUIPMENT		
to surface, (weigh-back)			Guide Shoe		
Displaced 36 1/2 BBL H <sub>2</sub> O			Centralizer		
LAND Plug @ 1800ft to			Baskets		
close DV TOOL. (Held)			AFU Inserts		
			Float Shoe		
			Latch Down		

THANKS!

X Signature *Ann W. [unclear]*

Pumptrk Charge	prod string	Top Stage
Mileage	37	
Tax		
Discount		
Total Charge		

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Phone 785-483-1071  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1822

Date	11-6-19	Sec.	35	Twp.	10	Range	21	County	Graham	State	KS	On Location		Finish	10000
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Location *Palo 5 C/LINE SW 300W 1/20 E110*

Lease	<i>Zeigler</i>	Well No.	<i>2-35</i>	Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Contractor	<i>Ww 108</i>				Charge To	<i>Patterson Energy</i>
Type Job	<i>Surface</i>				Street	
Hole Size	<i>12 1/4</i>	T.D.	<i>240</i>	City		State
Csg.	<i>8 5/8</i>	Depth	<i>239</i>	The above was done to satisfaction and supervision of owner agent or contractor.		
Tbg. Size		Depth		Cement Amount Ordered <i>150 8/100 3/100 2/100</i>		
Tool		Depth		Meas Line Displace <i>14 1/2 BCL</i>		
Cement Left in Csg.	<i>10</i>	Shoe Joint		EQUIPMENT		

EQUIPMENT				Common	<i>120</i>
Pumptrk	<i>17</i>	No.	Cement Helper <i>maris</i>	Poz. Mix	<i>30</i>
Bulktrk		No.	Driver <i>TM</i>	Gel.	<i>3</i>
Bulktrk	<i>9</i>	No.	Driver <i>Tom L</i>	Calcium	<i>6</i>

JOB SERVICES & REMARKS				Hulls	
Remarks:				Salt	
Rat Hole				Flowseal	
Mouse Hole				Kol-Seal	
Centralizers				Mud CLR 48	
Baskets				CFL-117 or CD110 CAF 38	
D/V or Post Collar				Sand	
<i>8 5/8 on bottom Est. Circulation</i>				Handling	<i>159</i>
<i>Mix 150SK x Displace</i>				Mileage	

<i>Cement Circulated</i>				FLOAT EQUIPMENT	
				Guide Shoe	
				Centralizer	
				Baskets	
				AFU Inserts	
				Float Shoe	
				Latch Down	
				Pumptrk Charge	<i>Surface</i>
				Mileage	<i>37</i>

Signature <i>[Signature]</i>				Tax	
				Discount	
				Total Charge	

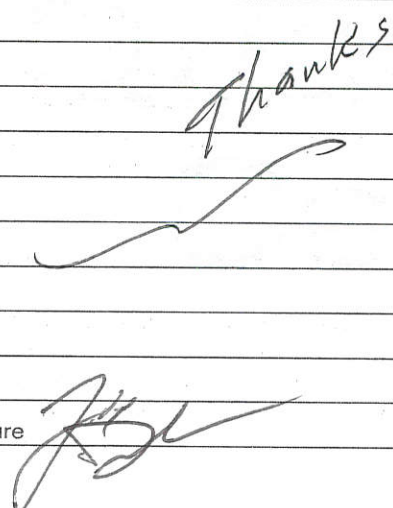
# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1829

Date	11-14-19	Sec.		Twsp.		Range		County	Graham	State	KS	On Location		Finish	12:30p	
								Location	Ellis V Co. Line SW 380 1/20 Ento							
Lease	Zeigler			Well No.	1.35			Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Contractor	Western Well							Charge To	Patterson Energy							
Type Job	Squeeze							Street								
Hole Size	5 7/8			T.D.				City	State							
Csg.	5/2			Depth				The above was done to satisfaction and supervision of owner agent or contractor.								
Tbg. Size	7 7/8			Depth				Cement Amount Ordered	100 com							
Tool	Tool Tech			Shoe Joint												
Cement Left in Csg.																
Meas Line				Displace												
<b>EQUIPMENT</b>																
Pumptrk	17	No.	Cement Helper	Lance			Common	50								
Bulktrk		No.	Driver	T.M.			Poz. Mix									
Bulktrk	14	No.	Driver	Lance			Gel.									
<b>JOB SERVICES &amp; REMARKS</b>																
Remarks:								Hulls								
Rat Hole								Salt								
Mouse Hole								Flowseal								
Centralizers								Kol-Seal								
Baskets								Mud CLR 48								
D/V or Port Collar								CFL-117 or CD110 CAF 38	7#							
	P.B. 3654-624 3670-73							Sand								
	Packer to Squeeze 3550							Handling	100							
	Rate 4B @ 900#							Mileage								
	Mixed 25 SK SICK 25 com.							<b>FLOAT EQUIPMENT</b>								
	Squeezed to 1800#							Guide Shoe								
								Centralizer								
								Baskets								
								AFU Inserts								
								Float Shoe								
								Latch Down								
								Pumptrk Charge	Squeeze							
								Mileage	37							
								Tax								
								Discount								
								Total Charge								
X Signature																



**Marc A. Downing**  
**Geologic Report**  
**Consulting Petroleum Geologist**  
**Drilling Time and Sample Log**

Operator <b>Patterson Energy LLC</b>		Elevation		
Lease <b>Zeigler</b> No. <b>1-35</b>		KB	2095	
API # <b>15-065-24175-0000</b>		DF	2093	
Field <b>Trico</b>		GL	2090	
Location <b>1630' FSL &amp; 2970' FEL</b>		Casing Record		
Sec. <b>35</b> Twp. <b>10s</b> Rgc. <b>21w</b>		Surface		
County <b>Graham</b> State <b>Kansas</b>		Production		
Formation		Electrical Surveys		
Sample tops	Log Tops	CNDL, DIL		
Datum	Struct Comp	MEL		
Top Anhydrite	1546	1542	+553	+6
Base Anhydrite	1588	1585	+510	NA
Topeka	3116	3112	-1017	+3
Heebner	3322	3318	-1223	+9
Toronto	3342	3338	-1243	+8
LKC	3358	3354	-1259	+9
BKC	3594	3590	-1495	NA
Arbuckle	3658	3654	-1559	+11
Total Depth	3750	3748	-1653	

Drilling Contractor **WW Drilling, Rig #108**  
 Commenced **10-28-19** Completed **11-2-19**  
 Samples Saved From **3100** To **RTD**  
 Drilling Time Kept From **3000** To **RTD**  
 Samples Examined From **3100** To **RTD**  
 Geological Supervision From **3100** To **RTD**

**Summary and Recommendations**  
 Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.  
 Recommended Perforations:  
 Arbuckle: 3670-73 (First, squeeze if wet)  
 3658-62  
 LKC C: 3396-3400 (Before Abandonment)

Respectfully Submitted,  
 Marc A. Downing

Reference Well For Structural Comparison **Theodore Gore - Zeigler 'B' #1**  
 SE SE SW, Sec. 35-10s-21w

**ROCK TYPES**  
 shale, red  
 shale, gry  
 Carbon Sh  
 Dolomir  
 Lms1 fw7>

**ACCESSORIES**  
 Stringer  
 Limestone

**MINERAL**  
 Chert White

**OTHER SYMBOLS**  
 DST  
 DST Int  
 DST alt  
 Core  
 Tail pipe

**MISC**  
 Daily Report  
 Digital Photo  
 Document  
 Folder  
 Link  
 Vertical Log File  
 Horizontal Log File  
 Core Log File  
 Drill Cuttings Rpt

**OIL SHOWS**  
 Even Stn  
 Spotted Stn 50 - 75 %  
 Spotted Stn 25 - 50 %  
 Spotted Stn 1 - 25 %  
 Questionable Stn  
 Dead Oil Stn  
 Fluorescence

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