

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) (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	Linn Operating, Inc.
Well Name	SUDAN INTERIOR MISSION 5-17
Doc ID	1347077

All Electric Logs Run

Annular Hole Volume
Array Compensated True Resistivity Log
Microlog
Dual Spaced Neutron Spectral Density
Repeat Section
Borehole Comp Sonic Array Log

Form	ACO1 - Well Completion
Operator	Linn Operating, Inc.
Well Name	SUDAN INTERIOR MISSION 5-17
Doc ID	1347077

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	4753-4756- St. Genevieve	Frac w/30,000# 20/40 Sand & 576,448 mcf Nitrogen	4753-4756
4	4465-4468- Cherokee	Frac w/10,000# 20/40 Sand & 365,457 mcf Nitrogen	4465-4468
4	4300-4305- Marmaton A	Frac w/7,000# 20/40 Sand & 300,000 mcf Nitrogen	4300-4305
4	4272-4275- Upper Marmaton	Frac w/5,000# Sand & 308,000 mcf Nitrogen	4272-4275





## Cement Job Summary

Job Number: <b>LiB1611171121</b>		Job Purpose: <b>01 Surface</b>	
Customer: <b>Linn Energy</b>	Date: <b>11/17/2016</b>		
Well Name: <b>Sudan Interior</b>	Number: <b>5-17</b>	API/UWI:	
County: <b>Finney</b>	City:	State: <b>Kansas</b>	
Cust. Rep:	Phone:	Rig Phone:	
Legal Desc:	Rig Name: <b>Quest Drilling#211</b>		
Distance: <b>50 miles (one way)</b>	Supervisor <b>James Peppin</b>		

Employees:	Emp. ID:	Employees:	Emp. ID:
James Peppin		Cristian Camacho	
Victor Corona		Jose Calderon	

Equipment:	
501/903-4	774-4/1066-5
870-4/744-5	

Well Information						
Open Hole Section						
Description:	Size (in):	Excess	Top MD (ft)	Btm MD (ft)		
OPEN HOLE	12 1/4	100%	1540	1,840	TAIL CEMENT	
OPEN HOLE	12 1/4	100%	0	1,540	LEAD CEMENT	
OPEN HOLE	12 1/4			0		
OPEN HOLE	12 1/4					
Tubulars						
Description:	Size (in):	Wgt. (lb/ft)	ID (in)	Grade:	Top MD (ft)	Btm MD (ft)
TOTAL CASING	8 5/8	24	8.097	J-55	0	1,840
SHOE	8 5/8	24	8.097	J-55	1,775	1,817

Materials - Pumping Schedule						
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Spacer 1	FRESH WATER	10	8.30	n/a	n/a	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Lead 1	ALLIED MULTI-DENSITY CEMENT - CLASS A	460	11.81	2.77	16.50	
Addl. Additive	Description	Conc. (lb/sk)	Determined by	Load Volume	UOM	
CA-100	CALCIUM CHLORIDE, PELLETS OR FLAKE	2.82	% BWOC	1297.2	lbm	
CLC-CPF	CELLOPHANE FLAKES	0.5	lb/sk	230.0	lbm	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Tail 1	CLASS A COMMON	200	15.62	1.19	5.20	
Addl. Additive	Description	Conc. (lb/sk)	Determined by	Load Volume	UOM	
CA-100	CALCIUM CHLORIDE, PELLETS OR FLAKE	1.88	% BWOC	376.0	lbm	
CLC-CPF	CELLOPHANE FLAKES	0.25	lb/sk	50.0	lbm	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Disp. 1	0	113	8.33	n/a	n/a	

Job Number: <b>LiB1611171121</b>		Job Purpose: <b>01 Surface</b>		
Customer: <b>Linn Energy</b>	Date: <b>11/17/2016</b>			
Well Name: <b>Sudan Interior</b>	Number: <b>5-17</b>	API/UWI:		
County: <b>Finney</b>	City:	State: <b>Kansas</b>		
Cust. Rep: <b>Weldon Higgins</b>	Phone:	Rig Phone: <b>0</b>		
Distance: <b>50 miles (one way)</b>	Supervisor <b>James Peppin</b>		<b>0</b>	
TIME	PRESSURE - (PSI)		FLUID PUMPED DATA	COMMENTS
AM/PM	CASING	ANNULUS	VOLUME RATE (BPM)	
4:00 AM				

### *Cement Job Summary*

6:28					arrive on loc and spotted trucks
9:15					had a safety meeting with rig crew
9:30	2000				test lines
9:32	150		10	4	pump h2o ahead
9:33	220		227	5	pump lead cmt @11.8 wt
10:24	180		42	4.5	pump tail cmt @ 15.6 wt
10:40					shut down to drop plug
10:43	30		0	4	start disp plug with h2o
10:55	190		50	4	50 bbls of h2o gone on disp
11:17	510		103	3	slow rate down to bump plug
11:21	970				bump plug and check float and it held
					bleed back 1/2 bbl
					circ 33 bbl = 67 sks to the surface
					shut down and rig down
					the crew and I thank the customer
					for the job





## Cement Job Summary

Job Number: LIB1611230856		Job Purpose: 02 Production/Long String	
Customer: Linn Energy			Date: 11/23/2016
Well Name: Sudan Interior	Number: 5-17		API/UWI:
County: Finney	City:	State: Kansas	
Cust. Rep:	Phone:	Rig Phone:	
Legal Desc: SEC-17-22S-34W	Rig Name: Quest Drilling#211		
Distance: 50 miles (one way)	Supervisor: Aldo Espinosa		

Employees:	Emp. ID:	Employees:	Emp. ID:
ALDO ESPINOZA			
GERARDO BURCIAGA			
JOSE CALDERON			
Equipment:			
984-			
994-550			
870-744			

Well Information						
Open Hole Section						
Description:	Size (in):	Excess	Top MD (ft)	Btm MD (ft)		
OPEN HOLE	7 7/8	25%	3700	4,900	TAIL CEMENT	
OPEN HOLE	7 7/8	30%	1800	3,700	LEAD CEMENT	
OPEN HOLE	7 7/8			1,800		
OPEN HOLE	7 7/8					
Tubulars						
Description:	Size (in):	Wgt. (lb/ft)	ID (in)	Grade:	Top MD (ft)	Btm MD (ft)
PREVIOUS CASING	8 5/8	24	8.097	J-55	0	1,800
TOTAL CASING	5 1/2	17	4.892	J-55	0	4,913
SHOE	5 1/2	17	4.892	J-55	4,868	4,913

Materials - Pumping Schedule						
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Spacer 1	HIVIS SWEEP	12	8.40	n/a	n/a	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Lead 1	ALLIED MULTI-DENSITY CEMENT - CLASS A	230	11.77	2.75	16.50	
Addl. Additive	Description	Conc. (lb/sk)	Determined by	Load Volume	UOM	
CLC-CPF	CELLOPHANE FLAKES	0.5	lb/sk	115.0	lbm	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Tail 1	ALLIED SPECIAL BLEND CEMENT - CLASS A	150	13.60	1.92	9.56	
Addl. Additive	Description	Conc. (lb/sk)	Determined by	Load Volume	UOM	
CFL-210	FLUID LOSS ADDITIVE - LOW TEMP	0.47	% BWOC	70.5	lbm	
CLC-KOL	KOL-SEAL	5	lb/sk	750.0	lbm	
CLC-CPF	CELLOPHANE FLAKES	0.25	lb/sk	37.5	lbm	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Disp. 1	2% KCL Water	112.9300344	8.33	n/a	n/a	

Job Number: LIB1611230856		Job Purpose: 02 Production/Long String	
Customer: Linn Energy			Date: 11/23/2016
Well Name: Sudan Interior	Number: 5-17		API/UWI:
County: Finney	City:	State: Kansas	
Cust. Rep:	Phone:	Rig Phone: 0	





### Cement Job Summary

Distance		50 miles (one way)			Supervisor	Aldo Espinosa
TIME	PRESSURE - (PSI)		FLUID PUMPED DATA		COMMENTS	
AM/PM	CASING	ANNULUS	VOLUME	RATE (BPM)		
11/23/2016					DATE	
600am					on location	
630am					rig up	
650am					rig head	
700am					safety meeting	
718am	2000				pressure test lines	
720am	150		12	2	12 bbl havis sweep	
730am	100		113	4	230sk/113 bbl lead cement	
800am	90		51	4	150sk/51 bbl tail cement	
820am			10	3	wash pumping lines to pit	
826am				3	release plug, start displacing w/2% kcl	
832am	60		20	5	20 bbl gone	
835am	60		20	5	40 bbl gone	
839am	260		20	4	60 bbl catch cement	
845am	610		20	4	80 bbl gone	
850am	1040		20	4	100 bbl gone, slow down to 2.5 bpm	
856am	1200-1700		12	2.5	112 bbl bump plug	
900am	0				check floats	
930am					rig down	
945am					leave location	
					thanks	