Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1185812

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33999
Name: Linn Operating, Inc.
Address 1: 600 TRAVIS STE 5100
Address 2:
City: HOUSTON State: TX Zip: 77002 + 3018
Contact Person: Shawn Hildreth
Phone: (281) 840-4234
CONTRACTOR: License # 32721
Name: Eldredge Well Service LLC
Wellsite Geologist: Bill Coppedge
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD ☐ SIOW
☑ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ 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 ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

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

10/08/2013	10/10/2013	10/24/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-187-21246-00-00
Spot Description:
NE - NE - NE - NE Sec. 26 Twp. 30 S. R. 39 ☐ East ☑ West
185 Feet from ☑ North / ☐ South Line of Section
170 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: Stanton
Lease Name: CITIZENS STATE BANK Well #: 5 ATU-116
Field Name: HUGOTON-PANOMA
Producing Formation: CHASE
Elevation: Ground: 3166 Kelly Bushing: 3173
Total Vertical Depth: 3110 Plug Back Total Depth: 3063
Amount of Surface Pipe Set and Cemented at: 730 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: 0 ppm Fluid volume: 0 bbls
Dewatering method used: Evaporated

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: 01/30/2014
☑ **Confidential Release Date:** 01/30/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 02/03/2014

[redacted] 1185812

Operator Name: Linn Operating, Inc. Lease Name: CITIZENS STATE BANK Well #: 5 ATU-116

Sec. 26 Twp. 30 S. R. 39 ☐ East ☑ West County: Stanton

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

List All E. Logs Run:

PND-S Well Evaluation Log

☑ 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	730	Premium Class C	450	
PRODUCTION	7.875	5.50	15.50	3110	Premium Plus Class C	300	

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	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☑ No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	Chase Perfs- 2389-2394; 2410-2415; 2518-2528	Frac Chase & Council Grove w/N2 Foam 802,000 SCF	
	2560-2580; 2610-2615	& 300,048 lb 16/30 brown sand	
4	Council Grove Perfs- 2652-2657; 2770-2775; 2825-2835; 2880-2885		

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 10/28/2013

Producing Method: ☑ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		467			

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)* ☐ Other *(Specify)* _____

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Linn Operating, Inc.
Well Name	CITIZENS STATE BANK 5 ATU-116
Doc ID	1185812

Tops

Name	Top	Datum
Krider	2406	KB
Winfield	2443	KB
Towanda	2508	KB
Fort Riley	2557	KB
Funston	2693	KB
Middleborg	2764	KB
Cottonwood	2813	KB
Grenola	2864	KB

Form	ACO1 - Well Completion
Operator	Linn Operating, Inc.
Well Name	CITIZENS STATE BANK 5 ATU-116
Doc ID	1185812

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	730	Premium Class C	450	
PRODUCTION	7.875	5.50	15.50	3110	Premium Plus Class C	300	

JOB SUMMARY

COUNTY: Grant	COMPANY: Linn Energy	PROJECT NUMBER: TN # 285	TICKET DATE: 10/8/2013
LEASE NAME: Citizens State Bank	Well No.: 5 ATU 116	JOB TYPE: Surface	CUSTOMER REP: Weldon Higgins
			EMPLOYEE NAME: Jessie McClain

EMP NAME							
Jessie McClain							
Lamont Patterson							
Rory Morris							
Mario Abrego							

Form. Name: Chase-Council Grove Type:

Packer Type: Set At:

Bottom Hole Temp.: Pressure:

Retainer Depth: Total Depth:

	Called Out	On Location	Job Started	Job Completed
Date	10/8/13	10/08/13	10/08/13	10/08/13
Time	1300	1715	1945	2130

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	1	IR
Insert Float Valve	1	IR
Centralizers	5	IR
Top Plug	1	IR
HEAD	1	IR
Limit clamp	1	IR
Weld-A	2	IR
Texas Pattern Guide Shoe	1	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size Grade	From	To	Max. Allow
Casing	New	24	8.625 J-55	KB	730'	1500
Liner						
Liner						
Tubing						
Drill Pipe						
Open Hole						Shots/Ft.
Perforations						
Perforations						
Perforations						

Materials

Mud Type	WBM	Density	8.9	Lb/Gal	
Disp. Fluid	H20	Density	8.33	Lb/Gal	
Spacer type	H2O	BBL.	10		
Spacer type		BBL.			
Acid Type		Gal.		%	
Acid Type		Gal.		%	
Surfactant		Gal.		In	
NE Agent		Gal.		In	
Fluid Loss		Gal/Lb		In	
Gelling Agent		Gal/Lb		In	
Fric. Red.		Gal/Lb		In	
MISC.		Gal/Lb		In	

Perfpac Balls: Qty.

Other

Other

Other

Other

Other

Hours On Location

Date	Hours
10/08/13	5.0
Total	5.0

Operating Hours

Date	Hours
10/08/13	1.3
Total	1.3

Description of Job

Surface

Final pump psi: 245 psi

50 bbls cmt to surface

281 ft3 / 202 sks

Pressures

MAX 800 AVG 100

Average Rates in BPM

MAX 4 AVG 3

Cement Left in Pipe

Feet 44 Reason Shoe Joint

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	450	Premium Class C	2% Calcium Chloride and .25 #/sk Celloflake	6.34	1.35	14.8
2						
3						
4						

Summary

Preflush		Type:		Preflush:	BBl	10.00	Type: H2O
Breakdown		MAXIMUM		Load & Bkdn:	Gal - BBl		Pad:Bbl -Gal
		Lost Returns-N	0	Excess /Return	BBl	50	Calc Disp Bbl 44
		Actual TOC	Surface	Calc. TOC:		Surface	Actual Disp. 43.60
Average		Frac. Gradient		Treatment:	Gal - BBl		Disp Bbl
ISIP	5 Min	10 Min	15 Min	Cement Slurry:	BBl	108.0	
				Total Volume	BBl	161.60	

CUSTOMER REPRESENTATIVE Weldon Higgins

SIGNATURE

Thank You For Using

O - TEX Pumping

JOB SUMMARY

PROJECT NUMBER: TN # 288	TICKET DATE: 10/10/2013		
COUNTY: Grant	COMPANY: Linn Energy	CUSTOMER REP: Orlando	
LEASE NAME: Citizens State Bank	Well No.: 5 ATU 116	JOB TYPE: Production	EMPLOYEE NAME: Jessie McClain

EMP NAME
Jessie McClain
Steve Crocker
Beau Clem

Form. Name: Chase-Council Grove Type:

Packer Type: Set At:

Bottom Hole Temp.: Pressure:

Retainer Depth: Total Depth:

	Called Out	On Location	Job Started	Job Completed
Date	10/09/13	10/10/13	10/10/13	10/10/13
Time	2130	230	900	1100

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	1	IR
Insert Float Valve	1	IR
Centralizers	26	IR
Top Plug	1	IR
HEAD	1	IR
Limit clamp	1	IR
Weld-A	0	IR
Guide shoe	1	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	15.5	5.5	J-55	KB	3110'	2500
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	WBM	Density	9.0	Lb/Gal
Disp. Fluid	H20	Density	8.33	Lb/Gal
Spacer type	sm silicate	BBL.	35	
Spacer type		BBL.		
Acid Type		Gal.	%	
Acid Type		Gal.	%	
Surfactant		Gal.	In	
NE Agent		Gal.	In	
Fluid Loss		Gal/Lb	In	
Gelling Agent		Gal/Lb	In	
Fric. Red.		Gal/Lb	In	
MISC.		Gal/Lb	In	

Perfpac Balls: Qty.:

Other:

Other:

Other:

Other:

Other:

Hours On Location

Date	Hours
10/10/13	9.5
Total	9.5

Operating Hours

Date	Hours
10/10/13	2.0
Total	2.0

Description of Job

Production

Final pump psi; 630 psi

53 bbls cmt to surface

298 ft3 / 82 sks

Pressures

MAX 1250 AVG 100

Average Rates in BPM

MAX 4 AVG 3

Cement Left in Pipe

Feet 44 Reason Shoe Joint

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	205	Premium Plus Class C	0.2% C-41P, 5% Gyp, 0.25#/sk Celloflake	23.49	3.65	10.8
2	95	Premium Plus Class C	2% Gel, 0.2% C-16A, 2% Calcium Chloride	10.4	1.90	13.0
3						
4						

Summary

Preflush		Type:		Preflush: BBl	35.00
Breakdown		MAXIMUM		Load & Bkdn: Gal - BBl	
		Lost Returns-N	0	Excess /Return BBl	53
		Actual TOC	Surface	Calc. TOC	Surface
Average		Frac. Gradient		Treatment: Gal - BBl	
ISIP	5 Min	10 Min	15 Min	Cement Slurry: BBl	165.0
				Total Volume BBl	272.90

Type: Sodium silicate/H2O

Pad:Bbl -Gal

Calc.Disp Bbl 73

Actual Disp Bbl 72.90

CUSTOMER REPRESENTATIVE Walden Hagan SIGNATURE

Thank You For Using

O - TEX Pumping