Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1205970

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) 840-4208
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 #:

02/21/2014	02/23/2014	3/5/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-187-21259-00-00
Spot Description:
SW SW SW SW Sec. 2 Twp. 28 S. R. 39 ☐ East ☑ West
220 Feet from ☐ North / ☑ South Line of Section
210 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: COLLINGWOOD Well #: C-4 ATU-252
Field Name: Hugoton-Panoma
Producing Formation: Chase & Council Grove
Elevation: Ground: 3152 Kelly Bushing: 3159
Total Vertical Depth: 3118 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 770 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: 05/20/2014
☑ **Confidential Release Date:** 05/19/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 05/21/2014

[redacted] 1205970

Operator Name: Linn Operating, Inc. Lease Name: COLLINGWOOD Well #: C-4 ATU-252

Sec. 2 Twp. 28 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:

Pulse Neutron Decay Log
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	770	Premium Plus Class C	480	
PRODUCTION	7.875	5.50	15.50	3118	O-Tex LowDense	430	

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 - 2304 - 2518	Frac Chase & Council Grove w/N2 Foam	
		778,000 SCF & 300,346 lb 16/30	
2	Council Grove perfs - 2640 - 2790	brown sand	

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

Date of First, Resumed Production, SWD or ENHR. 04/10/2014

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		434			

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	COLLINGWOOD C-4 ATU-252
Doc ID	1205970

Tops

Name	Top	Datum
Krider	2322	KB
Windfield	2362	KB
Towanda	2423	KB
FT_Riley	2471	KB
Funston_LM	2590	KB
Crouse	2638	KB
Morrill	2738	KB
Grenola	2782	KB

Form	ACO1 - Well Completion
Operator	Linn Operating, Inc.
Well Name	COLLINGWOOD C-4 ATU-252
Doc ID	1205970

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	770	Premium Plus Class C	480	
PRODUCTION	7.875	5.50	15.50	3118	O-Tex LowDense	430	

JOB SUMMARY

COUNTY: Stanton	COMPANY: Linn Energy	PROJECT NUMBER: TN # 516	TICKET DATE: 2/21/2014
LEASE NAME: Collingwood	Well No.: C4 ATU 252	JOB TYPE: Surface	CUSTOMER REP: Orlando
			EMPLOYEE NAME: SEITH LEE

EMP NAME

SEITH LEE							
MARIO ABREGO							
ROBERT BUCKMAN							
MIGUEL MURGAEO							

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	2/21/14	02/21/14	02/21/14	02/21/14
Time	1200	1730	2125	2230

Tools and Accessories

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

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	24#	8 5/8"	J-55	0	770	2500
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	H20	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
02/21/14	6.0
Total	6.0

Operating Hours

Date	Hours
02/21/14	1.0
Total	1.0

Description of Job

Surface

Pressures

MAX 1000 AVG. 80

Average Rates in BPM

MAX 3 AVG 3

Cement Left in Pipe

Feet 43 Reason: Shoe Joint

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	480	Premium Plus Class C	2% Calcium Chloride; 0.25 lb/sk Celloflake;	6.34	1.32	14.8
2	0	0	Take Flat equip for next job (1, 5.5" G. S.; 1, 5.5" Float insert W/auto fill val	0	0	0
3						
4						

Summary

Preflush Type:

Breakdown MAXIMUM

Lost Returns-N 0

Actual TOC 0

Average Frac. Gradient

ISIP 5 Min. 10 Min 15 Min

Preflush:	BBl	10.00	Type: H20
Load & Bkdn:	Gal - BBl		Pad:Bbl -Gal
Excess /Return	BBl	46	Calc Disp Bbl 46
Calc TOC		0	Actual Disp 46.00
Treatment:	Gal - BBl		Disp Bbl 46.00
Cement Slurry	BBl	113.0	
Total Volume	BBl	169.00	

CUSTOMER REPRESENTATIVE SIGNATURE

Thank You For Using

O - TEX Pumping

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
TN # 519	2/23/2014

COUNTY	COMPANY	CUSTOMER REP
Stanton	Linn Energy	Orlando

LEASE NAME	Well No.	JOB TYPE	EMPLOYEE NAME
Collingwood	C 4 ATU 252	Production	Bryon Hackett

EMP NAME							
Bryon Hackett							
Steve Crocker							
Tony Lewis							
Danny Parker							

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	02/22/14	02/23/14	02/23/14	02/23/14
Time	1830	430	1038	1221

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	2	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	3119	2500
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	0	Density 0		Lb/Gal
Disp. Fluid	H20	Density 8.33		Lb/Gal
Spacer type	SodSilcH2(	BBL. 20		
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
02/23/14	8.0
Total	8.0

Operating Hours

Date	Hours
02/23/14	2.0
Total	2.0

Description of Job

Production

Cement to surface: 62 BBL or 155 sks

Top of Lead: 0'

Pressures

MAX 1160 AVG 250

Average Rates in BPM

MAX 3 AVG 3

Cement Left in Pipe

Feet 44 Reason Shoe Track

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	430	O-TEX Low Dense Cement	2% Gyp; 2% Calcium Chloride; 2% C-45; 0.4% C-15; 0.4% C-41P; 0.2% C-51; 0.25 lb/sk Celloflake;	13.29	2.25	11.5
2	0	0	10 gals Claymax	0	0	0
3			Take 8 5/8" Float Equipment. (T.P. Guide Shoe, Float insert with Auto fill,			
4						

Summary

Preflush _____ Type: _____
Breakdown _____ MAXIMUM _____
_____ Lost Returns-N 0
_____ Actual TOC _____
Average _____ Frac. Gradient _____
ISIP _____ 5 Min _____ 10 Min _____ 15 Min _____

Preflush:	BBl	20.00
Load & Bkdn:	Gal - BBl	
Excess /Return	BBl	62
Calc. TOC		0
Treatment:	Gal - BBl	
Cement Slurry:	BBl	172.0
Total Volume	BBl	265.00

Type: SodSilcH20
Pad:Bbl -Gal _____
Calc Disp Bbl _____
Actual Disp 73.00
Disp Bbl _____

CUSTOMER REPRESENTATIVE _____ SIGNATURE

Thank You For Using
O - TEX Pumping