



KANSAS CORPORATION COMMISSION 1073152  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34506  
Name: Empire Energy E&P, LLC  
Address 1: 17 ARENTZEN BLVD, STE 203  
Address 2: \_\_\_\_\_  
City: CHARLEROL State: PA Zip: 15022 + \_\_\_\_\_  
Contact Person: Rob Kramer  
Phone: ( 316 ) 313-4395  
CONTRACTOR: License # 34541  
Name: Ninnescah Drilling LLC  
Wellsite Geologist: Jim Musgrove  
Purchaser: Coffeyville Resources

Designate Type of Completion:  
 New Well     Re-Entry     Workover  
 Oil     WSW     SWD     SLOW  
 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  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_  
10/17/2011    10/21/2011    11/09/2011  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 15-185-23706-00-00  
Spot Description: \_\_\_\_\_  
NE NW NW SW Sec. 1 Twp. 22 S. R. 12  East  West  
2750 Feet from  North /  South Line of Section  
345 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Stafford  
Lease Name: HELMERS UNIT Well #: 3  
Field Name: \_\_\_\_\_  
Producing Formation: Arbuckle  
Elevation: Ground: 1816 Kelly Bushing: 1829  
Total Depth: 3670 Plug Back Total Depth: 3614  
Amount of Surface Pipe Set and Cemented at: 586 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**

Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Deanna Gantner Date: 02/01/2012



1073152

Operator Name: Empire Energy E&P, LLC Lease Name: HELMERS UNIT Well #: 3  
 Sec. 1 Twp. 22 S. R. 12  East  West County: Stafford

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: <b>Attached</b>	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Attached Top Attached Datum Attached
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CASING RECORD <input checked="" 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
Surface	12.25	8.625	23	586	common	300	3% CaCl, 3% gel, 1/4 #/sk flocc
Production	7.875	5.5	14	3662	AA-2	175	10% NaCl, 3% CFR, 25% defoamer, 8

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	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth
4	3600 - 3601	Shot 3 1/8" expendable gun, 4 spf	3600

TUBING RECORD: Size: <u>2.875</u> Set At: <u>3612</u> Packer At: <u> </u> Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR: <u>11/9/2011</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
Estimated Production Per 24 Hours	Oil Bbls. <u>88</u> Gas Mcf <u>0</u> Water Bbls. <u>0</u> Gas-Oil Ratio <u> </u> Gravity <u>42</u>

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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: <u>3600</u> <u>3601</u>
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Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	HELMERS UNIT 3
Doc ID	1073152

All Electric Logs Run

Compensated Density/Neutron PE
Compensated Density/Neutron PE (Sandstone Matrix)
Dual Induction
Micro
Sonic
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	HELMERS UNIT 3
Doc ID	1073152

Tops

Anhydrite	600	1229
Heebner	3078	-1249
Toronto	3095	-1266
Douglas	3109	-1280
Brown Lime	3204	-1375
Lansing	3230	-1401
Base Kansas City	3451	-1622
Viola	3481	-1652
Simpson Shale	3517	-1688
Arbuckle	3564	-1735
TD	3670	-1841

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

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

No. 5022

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-18-11				Stearns	Kansas		9:15 AM
Lease Helmer's Unit	Well No.	3		Location	K-19 9 Hwy 281 SE 1/4 Fint.		
Contractor	Minnesota			Owner			
Type Job	Surface			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.			
Hole Size	12 1/4		T.D.	591			
Csg.	8 3/4		Depth	584			
Tbg. Size			Depth	Street			
Tool			Depth	City		State	
Cement Left in Csg.	10-15		Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line			Displace	363 RA		Cement Amount Ordered 350 <del>into</del> Common	
<b>EQUIPMENT</b>				3 1/2 1/4 Flo Sand			
Pumptrk	5	No.	Cement Helper	Steve			
Bulktrk	10	No.	Driver	Gary			
Bulktrk		No.	Driver				
<b>JOB SERVICES &amp; REMARKS</b>				Common			
Remarks:				Calcium 13			
Rat Hole				Hulls			
Mouse Hole				Salt			
Centralizers				Flowseal 874			
Baskets				Kol-Seal			
D/V or Port Collar				Mud CLR 48			
				CFL-117 or CD110 CAF 38			
				Sand			
Cement did Circulate				Handling 370			
				Mileage			
				<b>FLOAT EQUIPMENT</b>			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Rubber Plug			
				Pumptrk Charge Surface			
				Mileage 23			
				Tax			
				Discount			
				Total Charge			
Signature				Richard B. Barry			

RECEIVED OCT 28 2011

# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer Empire Energy F+P LLC	Lease No.	Date 10-22-11
Lease HELMERS	Well # E-3	
Field Order # 04474A	Station Pratt KS	County Stafford
Type Job 5/2" Logging String	Formation TD 3670'	Legal Description 1-22-12

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size 5/2"	Tubing Size	Shots/Ft	175 SKS	Acid AA2 cement	RATE 15.3	PRESS	ISIP
Depth 3664	Depth	From	To 20 SKS	Pre Pad 60/40 Poz	Max 2 1/2 gal	PTA	5 MID R+H + MH
Volume 28.3601	Volume	From	To	Pad	Min		10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg		15 Min.
Well Connection PC	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 3622	Packer Depth	From	To	Flush D.SP 2% KCL	Gas Volume		Total Load

Customer Representative Rick Popp	Station Manager 1996-1998 Scotty	Treater Allen
Service Units 2848 27963		
Driver Names Allen Brad JR Hunter		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
230					on Loc. Discuss Safety, setup Plans To Rig up to Run 5/2 casing. 14"
320					Start 5/2 casing. Shoe JT 42 1/2 cent-1-3-5-7-9-11-13-15-17-19 Basket on Pin # 12-Float Shoe + 3 near on #1- Shoe JT.
530					Tag Bottom @ 3670' Pickup To 3664' Hook up + cir. + Rotate Pipe
630	300 <sup>+</sup>		20	5	Pump 20 BBL 2% KCL
			12	5	Pump 12 BBL MUD Flush
					Pump 3 BBL H <sub>2</sub> O spacer
			42	5	mix + Pump 175 SKS AA2 @ 15.3 <sup>+</sup> Finish mix wash out Pump + Line
645				6 1/2	Drop Latch Down Plug. Start Disp
				6	caught Lift PST w/ 58 BBL out
700	1500 <sup>+</sup>		88 1/2	4	Plug down
	OH				Release PST To TORQ OK
			7		Plug R.H. w/ 30 SKS 60/40 Poz 2% gel
					Aug MH w/ 20 SKS 60/40 Poz 2% gel
					wash up Equip. + Rack up
					Job complete
					thanks Allen, Brad, Hunter

**JAMES C. MUSGROVE**

Petroleum Geologist  
212 Main Street  
P.O. Box 215  
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Empire Energy E&P LLC  
Helmrs Unit #3  
NE-NW-NW-SW; Section 1-22s-12w  
Stafford County, Kansas  
Page 1

**5 1/2" Production Casing Set**

**Contractor:** Ninnescah Drilling Company (Rig #10)  
**Commenced:** October 15, 2011  
**Completed:** October 22, 2011  
**Elevation:** 1829' K.B; 1827 D.F; 1816' G.L.  
**Casing program:** Surface; 8 5/8" @ 586'  
Production; 5 1/2" @ 3669'  
**Sample:** Samples saved and examined 2700' to the Rotary Total Depth.  
**Drilling time:** One (1) foot drilling time recorded and kept 2700 ft to the Rotary Total Depth.  
**Measurements:** All depths measured from the Kelly Bushing.  
**Drill Stem Tests:** None.  
**Electric Log:** By Superior Well Services; Dual Induction, Compensated Density/Neutron Porosity Log, Micro Log and Sonic Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	600	+1229
Base Anhydrite	606	+1223
Heebner	3078	-1249
Toronto	3095	-1266
Douglas	3109	-1280
Brown Lime	3204	-1375
Lansing	3230	-1401
Base Kansas City	3451	-1622
Viola	3481	-1652
Simpson Shale	3517	-1688
Arbuckle	3564	-1735
Rotary Total Depth	3670	-1841
Log Total Depth	3670	-1841

(All tops and zones corrected to Electric Log measurements).

**SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.**

**TORONTO SECTION**

3095-3109' Limestone; tan, cream, finely crystalline, chalky, fair porosity, trace brown stain, no show of free oil and no odor in fresh samples.

**LANSING SECTION**

- 3230-3246' Limestone; cream, gray, finely crystalline, trace vuggy type porosity, brown spotty stain, trace of free oil and very faint odor in fresh samples.
- 3250-3260' Limestone; light gray, finely crystalline, cherty, poor porosity, no shows.
- 3271-3280' Limestone; cream, tan, fossiliferous, granular, fair porosity, no shows.
- 3290-3294' Limestone; gray, tan, granular, fossiliferous, trace brown stain, no show of free oil and no odor in fresh samples.
- 3302-3312' Limestone; tan, cream, fine and medium crystalline, slightly oolitic, fair porosity, trace brown stain, trace of free oil and faint odor in fresh samples.
- 3314-3340' Limestone; tan, cream, finely crystalline, chalky, plus gray boney chert.
- 3360-3366' Limestone; cream, oolitic, oomoldic, fair oomoldic porosity, no shows.
- 3375-3384' Limestone; cream, oolitic, fair oomoldic porosity, no shows.
- 3394-3404' Limestone; cream, light gray, finely crystalline, slightly oolitic, fair visible porosity, slightly cherty.
- 3420-3430' Limestone; cream, tan, finely crystalline, cherty, poor porosity.
- 3440-3446' Limestone; cream, medium crystalline, fair intercrystalline porosity, brown stain, show of free oil and no odor in fresh samples.

**VIOLA SECTION**

- 3481-3516' Chert; white, gray, boney opaque weathered in part, trace black and brown stain, trace free oil and faint odor in fresh samples.

**SIMPSON SECTION**

- 3547-3590' Sand; tan, medium grained, sub angular, fair intergranular porosity, brown and black stain, show of free oil and faint to fair odor in fresh samples.

**ARBUCKLE SECTION**

- 3564-3570' Dolomite; tan, finely crystalline, fair intercrystalline porosity, brown and golden brown stain, show of free oil and fair odor in fresh samples.
- 3570-3590' Dolomite; cream, tan, fine and medium crystalline, sucrosic in part, few scattered intercrystalline and vuggy type porosity, brown stain, show of free oil and fair odor in fresh samples.
- 3590-3610' Dolomite; tan, medium crystalline, good intercrystalline porosity, brown stain, show o free oil and good odor in fresh samples.




- 3610-3630' Dolomite; tan, cream, medium crystalline, good intercrystalline and vuggy type porosity, brown stain, show of free oil and fair odor in fresh samples.
- 3630-3650' Dolomite; cream, tan, fine and medium crystalline, few granular, poor visible porosity, brown and black stain, trace of free oil and faint odor.
- 3650-3660' Dolomite; cream, fine and medium crystalline, good intercrystalline porosity, black stain, no show of free oil and faint odor in fresh samples.
- 3660-3670' Dolomite; cream, fine and medium crystalline, slightly sucrosic, trace black stain, trace of white chert.

**Rotary Total Depth**        **3670**  
**Log Total Depth**         **3670**

**Recommendations:**  
5 ½" production casing was set and cemented.

Respectfully submitted;

  
Joshua R. Austin,  
Petroleum Geologist