KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1073152

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:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] 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
- [ ] 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 Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-185-23706-00-00
Spot Description:
NE - NW - NW - SW Sec. 1 Twp. 22 S. R. 12 [ ] East [x] West
2750 Feet from [x] North / [ ] South Line of Section
345 Feet from [ ] East / [x] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [x] 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 [x] 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:**
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] **I** [ ] **II** [ ] **III** **Approved by:** Deanna Garrisor **Date:** 02/01/2012

Side Two

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 ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No
Electric Log Run ☑ Yes ☐ No
Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	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	23	586	common	300	3% CaCl, 3% gel, 1/4 #/sk floce
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 *(Amount and Kind of Material Used)*	Depth
4	3600 - 3601	Shot 3 1/8" expendable gun, 4 spf	3600

TUBING RECORD: Size: 2.875 Set At: 3612 Packer At:

Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 11/9/2011

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	88	0	0		42

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:
3600
3601

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

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

Name	Top	Datum
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

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
Helmers Unit #3
NE-NW-NW-SW; Section 1-22s-12w
Stafford County, Kansas

5 ½" 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 ½" @ 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.

Formation	Log Depth	Sub-Sea Datum
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

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 5022

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 10-18-11				Stafford	Kansas		9:15am
Lease Holmes Unit	Well No. 3			Location K-19 & Hwy 281		SE ¼	Finish

Contractor Nimrod		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 12¼	T.D. 591		
Csg. 8⅝	Depth 584	Charge To Empire Energy	
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 3.6 bbl	Cement Amount Ordered 350 ~~Lite~~ Common	

EQUIPMENT				
Pumptrk 5	No.	Cementer	Steve	3 #2 ¼ lb Flo Seal
		Helper		Common
Bulktrk 10	No.	Driver	Craig	Poz. Mix
		Driver		Gel. 7
Bulktrk	No.	Driver		Calcium 13
		Driver		Hulls

JOB SERVICES & REMARKS	
Remarks:	Salt
Rat Hole	Flowseal 87#
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
	Handling 370
Cement did Circulate	Mileage
	FLOAT EQUIPMENT
	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Rubber Plug
	Pumptrk Charge Surface
	Mileage 23
	Tax
	Discount
X Signature Richard B. Lawyer	Total Charge

RECEIVED OCT 28 2011

BASIC energy services, L.P.

TREATMENT REPORT

Customer: Empire Energy E+P LLC	Lease No.	Date: 10-22-11	
Lease: Helmers	Well #: #3		
Field Order #: 04474A	Station: Pratt Ks	Casing: 5 1/2"	Depth: 3664
County: Stafford	State: Ks		
Type Job: 5 1/2" Long String new	Formation: TD 3620'	Legal Description: 1-22-12	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 5 1/2	Tubing Size:	Shots/Ft:	175 SKS AA2 cement	Acid	RATE	PRESS	ISIP
Depth: 3664	Depth:	From:	To: 30 SKS 60/40 Poz	Pre Pad:	Max: 2% jel	PTA R+H+MH	5 Min.
Volume: 28.3 BBL	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: 0 SP 2% KCL	Gas Volume:		Total Load

Customer Representative: Rick Popp — Station Manager: Scotty — Treater: Allen

Service Units	28442	27403	[redacted]	[redacted]							
Driver Names	Allen	Brad	JR	Hunter							

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
230					on Loc. Discuss Safety, Set up. Plan To
					Rig up to Run 5 1/2 Casing. 14 #
320					Start 5 1/2 casing. Shoe Jt 42.12
					cent-1-3-5-7-9-11-13-15-17-19
					Basket on Pin # 12 - Float Shoe + 2 Nsert
					on #1 - Shoe Jt.
					Tag Bottom @ 3620' Pickup To
530					3664' Hook up + C.I.R. + Rotate Pipe
630	300 #		20	5	Pump 20 BBL 2% KCL
			12	5	Pump 12 BBL MUD Flush
					Pump 3 BBL H2O spacer
				5	mix + Pump 175 sks AA2 @ 15.3 #
			42		Finish mix + wash out Pump + line
645				6 1/2	Drop Latch Down Plug - Start Disp.
				6	caught Lift PSI w/ 58 BBL out
700	1500 #		88 1/2	4	Plug down
	0 #				Release PSI To Trk OK
			7		Plug R.H. w/ 30 sks 60/40 Poz 2% gel
			5		Plug M.H. w/ 20 sks 60/40 Poz 2% Gel
					wash up Equip. + Rack up
					Job complete
					thanks Allen, Brad, Hunter

Taylor Printing, Inc. 620-672-3656