



KANSAS CORPORATION COMMISSION 1063160  
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) 3134395  
CONTRACTOR: License # 33493  
Name: American Eagle Drilling LLC  
Wellsite Geologist: Jim Musgrove  
Purchaser: Coffeyville Resources

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  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_

06/08/2011	06/14/2011	07/16/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-167-23675-00-00  
Spot Description: \_\_\_\_\_  
SW SE NW NE Sec. 10 Twp. 14 S. R. 14  East  West  
1008 Feet from  North /  South Line of Section  
1711 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Russell  
Lease Name: Newcomer C L Well #: 9  
Field Name: \_\_\_\_\_  
Producing Formation: Toronto, Lansing, Kansas City  
Elevation: Ground: 1832 Kelly Bushing: 1837  
Total Depth: 3340 Plug Back Total Depth: 3240  
Amount of Surface Pipe Set and Cemented at: 831 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

(Date must be collected from the Reserve Pit)

Chloride content: 16000 ppm Fluid volume: 220 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

- Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Deanna Gerrits Date: 09/13/2011



1063160

Operator Name: Empire Energy E&P, LLC Lease Name: Newcomer C L Well #: 9  
 Sec. 10 Twp. 14 S. R. 14  East  West County: Russell

**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 Wireline 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 type="checkbox"/> Yes <input checked="" 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 Top Datum Attached Attached Attached
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CASING RECORD <input type="checkbox"/> New <input checked="" 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	24	831	common	320	3% CaCl2
Production	7.875	5.5	14	3337	AA-2	200	10% NaCl, 3% CFR, 25% Debramer, f

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
Attached	Attached	Attached	Attached

TUBING RECORD: Size: 2.875 Set At: 3234 Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: 07/18/2011 Producing Method:  Flowing  Pumping  Gas Lift  Other (Explain) \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbts.	Gas Mcf	Water Bbts.	Gas-Oil Ratio	Gravity
	6	0	127	0	36

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)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>2948-3178</u>
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Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	Newcomer C L 9
Doc ID	1063160

All Electric Logs Run

micro
sonic
dual induction
compensated neutron/density PE
compensated neutron/density PE (sandstone matrix)
Cement Bond

Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	Newcomer C L 9
Doc ID	1063160

Tops

Anhydrite	827	1010
Tarkio Lime	2355	-518
1st Tarkio Sand	2365	-528
Dover	2382	-545
2nd Tarkio Sand	2391	-554
Tarkio Lime	2430	-593
Elmont	2491	-654
Scranton Shale	2578	-741
Howard	2633	-796
Severy Shale	2626	-839
Topeka	2695	-858
Heebner	2926	-1089
Toronto	2944	-1107
Lansing	2983	-1146
Base Kansas City	3189	-1352
Reagan Sand	3251	-1414
Granite Wash	3317	-1480

Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	Newcomer C L 9
Doc ID	1063160

Perforations

2	3252-3256		3252-3256
	CIBP		3240
3	2948-2950	2400 gals of 15% HCl and ball sealers	
3	3007-3011		
3	3026-3030		
3	3037.5-3038.5		
3	3116-3118		
3	3134-3136		
3	3151-3152		
3	3171-3172		
3	3176-3178		

# QUALITY OILWELL CEMENTING, INC.

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

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

No. 4661

Date	1-9-11	Sec.	Twp.	Range	County	State	On Location	Finish
Lease	Wagoner Q	Well No.	9	Location	Russell	15 1/2 E Side		9/25/11
Contractor	American Eagle Rig 3	Owner	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.					
Type Job	Surface	Hole Size	12 1/4	T.D.	834	Charge To	Empire Energy	
Csg.	8 3/8 2.34	Depth	831	Tbg. Size		Street		
Tool	Baffle Plate	Depth	788	Tool		City	State	
Cement Left in Csg.		Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line		Displace	50 Bl	Cement Amount Ordered	320 Common			

**EQUIPMENT**

Pumptrk	9	No.	Cement Helper	Steve
Bulktrk	7	No.	Driver	Paul
Bulktrk		No.	Driver	Dave

320 CC 25 ft  
Common 320  
Poz. Mix  
Gel. 12  
Calcium 11

**JOB SERVICES & REMARKS**

Remarks:  
Rat Hole  
Mouse Hole  
Centralizers  
Baskets  
D/V or Port Collar

Hulls  
Salt  
Flowseal  
Kol-Seal  
Mud CLR 48  
CFL-117 or CD110 CAF 38

*Cement did Circulate*

Sand  
Handling 3.31  
Mileage

**FLOAT EQUIPMENT**

Guide Shoe  
Centralizer  
Baskets  
AFU Inserts  
Float Shoe  
Latch Down

Baffle Plate  
8 3/8 Rubber Plug  
Pumptrk Charge Long Surface  
Mileage 2

x Signature: *Brachford Parker*

Tax  
Discount  
Total Charge



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 06024 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <u>6-14-11</u>		DISTRICT <u>Kansas</u>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/>		PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/>		CUSTOMER ORDER NO.:		
CUSTOMER <u>Empire Energy S+P LLC</u>				LEASE <u>Newcomber CL</u>				WELL NO. <u>9</u>		
ADDRESS				COUNTY <u>Russell 10-17-4</u> STATE <u>Kansas</u>						
CITY				STATE		SERVICE CREW <u>Allen</u>				
AUTHORIZED BY				JOB TYPE: <u>5 1/2" Low String</u> <u>CNW</u>						
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED <u>6-13-11</u> DATE <u>6-13-11</u> AM <u>030</u> TIME				
<u>27442 PU</u>	<u>2</u>					ARRIVED AT JOB <u>6-14-11</u> AM <u>1000</u>				
<u>27463 PF</u>	<u>2</u>					START OPERATION <u>6-14-11</u> AM <u>330</u>				
<u>194611 19518</u>	<u>2</u>					FINISH OPERATION <u>6-14-11</u> AM <u>530</u>				
						RELEASED <u>6-14-11</u> AM <u>630</u>				
						MILES FROM STATION TO WELL <u>75-m. 105</u>				

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP-25	AA2 cement	SK	200		\$ 3400 00
CP-23	60/110 P-2	SK	50		\$ 600 00
CC105	DeGruyter Pumper	lb	38		\$ 162 00
CC111	Salt K-100	lb	916		\$ 458 00
CC113	G-3 Blok	lb	141		\$ 726 15
CC129	FLA-322	lb	94		\$ 705 00
CC301	G-L-300	lb	1000		\$ 670 00
CF607	Latch down Plug + Baffle 5 1/2 Blue	EA	EA-1		\$ 450 00
CF1251	Auto Fill Float + Plug 5 1/2 Blue	EA	EA-1		\$ 360 00
CF1651	Turbidator 5 1/2 Blue	EA	10		\$ 1100 00
CF1951	Basket 5 1/2	EA	2		\$ 580 00
CF704	6-11 KCL Sub.	gal	5		\$ 175 00

SUB TOTAL

165

SERVICE & EQUIPMENT %TAX ON \$

MATERIALS %TAX ON \$

TOTAL

CHEMICAL / ACID DATA:			

SERVICE REPRESENTATIVE <u>[Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u>
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)	

FIELD SERVICE ORDER NO.



**BASIC**  
ENERGY SERVICES

PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET

1718-6-14-11 A

DATE TICKET NO. 039744

DATE OF JOB 6-14-11 DISTRICT KANSAS		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER Empire Energy FTP LLC		LEASE No. 2006066666 WELL NO. 9							
ADDRESS		COUNTY Russell 10-14-14 STATE KANSAS							
CITY STATE		SERVICE CREW Allan							
AUTHORIZED BY		JOB TYPE: 5 1/2 1 in. 3 1/2 in. (new)							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM PM	TIME
28443 PU	2					1030	6-14-11		1030
27463 P+	2					ARRIVED AT JOB	6-14-11	AM PM	1200
19960 19918	2					START OPERATION	6-14-11	AM PM	330
						FINISH OPERATION	6-14-11	AM PM	530
						RELEASED	6-14-11	AM PM	630
						MILES FROM STATION TO WELL	7.5 mi. / hr		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: [Signature]  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT	
F102	1 hr + mileage pickup	hr	75		\$ 318.75	
F107	Hourly Fuel Mileage	hr	150		\$ 125.00	
F113	Bulk Oil Charge	FM	868		\$ 868.00	
CF204	Depth Charge 3000-4000	hr	1		\$ 2100.00	
CF200	Blending + mixing Service chg	SK	250		\$ 250.00	
CF501	casing Service chg	SA	1		\$ 200.00	
CL204	Pl. cost + var util. materials	Job	1		\$ 250.00	
GA03	Service Supervisor field 8 hrs on loc	SA	1		\$ 125.00	
					SUB TOTAL	11,411.75
					SERVICE & EQUIPMENT	%TAX ON \$
					MATERIALS	%TAX ON \$
					TOTAL	\$ 11,411.75

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

SERVICE REPRESENTATIVE: [Signature]	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: [Signature]
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FIELD SERVICE ORDER NO. (WELL OWNER OPERATOR CONTRACTOR OR AGENT)





# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer Sundire Energy SLP LLC	Lease No.	Date 6-14-11
Lease Newcomb CL	Well # 2237	
Field Order # 23244	Station Pratt KS	Casing 5 1/2"
	Depth 3337	County Russell
Type Job 5 1/2" Loss string	Formation ID 3340	Legal Description 10-14-14

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2"	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
3337	Depth	From	To	200 SKS 60/40 Poz	0	SCAVENGER	10-14-14	5 Min.
80	Volume	From	To	Pre Pad AA2 @	Max	"		10 Min.
1500 #	Max Press	From	To	200 SKS 60/40 Poz	Min	15.3 #		15 Min.
PL	Well Connection	Annulus Vol.	From	To	Pad K2 1.2/40 Poz	Avg		HHP Used
3294	Plug Depth	Packer Depth	From	To	Frac 1			Annulus Pressure
					Flush 1.3% 2% KCL	Gas Volume		Total Load

Customer Representative: Rich Poop Station Manager: Scotty Treater: Allen

Service Units	24443	27463	19960	19918	1				
Driver Names	Allen	Lucas	Jarrod	Brungardt					

Time	Casing Pressure	Tubing Pressure	Bbbs. Pumped	Rate	Service Log
11:20 AM					Discuss Safety Set-up Plan
12:30 AM					Out of Hole w/ B:4
					Risup to Run 5 1/2 casing, 411.72 15-
					2877.01 14" pipe.
12:5 PM					Start casing shoe joint 47.07
					w/ float shoe - L.O. Baffle in
					collar cent. 1-3-5-7-9-11-13-15-17-19
					Baskets pin #3 - pin #10
3:30					Casing @ 3337 1600 Kup 4 cir
					+ Rotat. Pipe good cir.
4:30	200 #		5	5	Mix 200SKS 60/40 Poz. 2% gel
					scavenger @ 12.5" w/ chlorine
			48 1/2	5	Mix 200SKS AA2 @ 15.3 #
					Finish mixing cont. washout Pump Lin.
4:47				6 1/2	Drop Plug. L.O. Start Disp. Rotate
				6	Caught L.O. PST w/ 45 BBbs out
5:00	500 #		80	4 1/2	Plug down
	0 #				Release PST CM
					Plug RAT Hole w/ 30SKS 60/40.
					Washup Equip.
					Job complete
					Thanks Allen, Lucas, Jarrod.

**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  
C.L. Newcomer #9  
SW-SE-NW-NE (1008' FNL & 1711' FEL)  
Section 10-14s-14w  
Russell County, Kansas  
Page 1

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

**Contractor:** American Eagle Drilling Company (Rig #3)  
**Commenced:** June 8, 2011  
**Completed:** June 13, 2011  
**Elevation:** 1837' K.B; 1835 D.F; 1832' G.L.  
**Casing program:** Surface; 8 5/8" @ 831'  
Production; 5 1/2" @ 3339'  
**Sample:** Samples saved and examined 2300' to the Rotary Total Depth.  
**Drilling time:** One (1) foot drilling time recorded and kept 2300 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 Neutron/Density, Micro and Sonic Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	827	+1010
Tarkio Lime	2355	-518
1 <sup>st</sup> Tarkio Sand	2365	-528
Dover	2382	-545
2 <sup>nd</sup> Tarkio Sand	2391	-554
Tarkio Lime	2430	-593
Elmont	2491	-654
Scranton Shale	2578	-741
Howard	2633	-796
Severy Shale	2626	-839
Topeka	2695	-858
Heebner	2926	-1089
Toronto	2944	-1107
Lansing	2983	-1146
Base Kansas City	3189	-1352
Reagan Sand	3251	-1414
Granite Wash	3317	-1480
Rotary Total Depth	3340	-1503
Log Total Depth	3340	-1503

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

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

**1<sup>ST</sup> TARKIO SAND SECTION**

2365-2376' Sand; gray and grayish green, very fine grained, micaceous, sub rounded, friable, scattered porosity, trace brown stain, trace of free oil and no odor in fresh samples.

**2<sup>ND</sup> TARKIO SAND SECTION**

2391-2405' Sand; gray, very fine grained, sub rounded, friable, fair to good intergranular porosity, fair stain and saturation, show of free oil and odor in fresh samples.

**3<sup>RD</sup> TARKIO SAND SECTION**

2452-2580' Sand; gray, very fine grained, micaceous, shaley, poor visible porosity, trace stain, trace of free oil and no odor in fresh samples (poor developments).

**SCRANTON SECTION**

2602-2607' Sand; gray and dark gray, very fine grained, micaceous, poor visible porosity, questionable stain, no show of free oil and no odor in fresh samples (poorly developed).

**TOPEKA SECTION**

2695-2705' Limestone; tan, chalky, scattered pinpoint porosity, fair stain and saturation, show of free oil and faint odor in fresh samples.

2717-2723' Limestone; as above, slightly dolomitic, fair stain and saturation, trace of free oil and faint odor in fresh samples.

2735-2741' Limestone; tan, gray, fossiliferous/oolitic, fair to good porosity, good stain and saturation, show of free oil and questionable odor in fresh samples.

2875-2786' Limestone; tan, finely oolitic, fair porosity, good stain and saturation, good show of free oil and fair odor in fresh samples.

2891-2910' Limestone; as above, finely oolitic, fine vuggy to oomoldic type porosity, good stain and saturation, show of free oil and fair odor in fresh samples.

**TORONTO SECTION**

2944-2950' Limestone; tan, cream, oomoldic, fair oomoldic porosity, good stain and saturation, fair show of free oil and faint odor in fresh samples.

**LANSING SECTION**

2984-2990' Limestone; white, tan, fine and medium crystalline, chalky, trace brown stain, trace of free oil and no odor in fresh samples.

- 3007-3012' Limestone; gray, oolitic, fossiliferous, scattered porosity, dark brown stain and saturation, show of free oil and odor in fresh samples
- 3025-3032' Limestone; tan, fossiliferous, oomoldic, fair to good vuggy type porosity, golden brown stain, show of free oil and questionable odor.
- 3061-3064' Limestone; tan and gray, fossiliferous/oomoldic, fair porosity, trace free oil and faint odor.
- 3084-3089' Limestone; gray, oolitic, poor to fair porosity, brown stain, trace of free oil and faint odor.
- 3084-3100' Limestone; tan, oomoldic, good oomoldic porosity, poor edge staining, no show of free and odor in fresh samples.
- 3131-3136' Limestone; tan, fossiliferous/oomoldic, fair oomoldic porosity, dark brown to brown stain, show of free oil and odor in fresh samples.
- 3149-3159' Limestone; gray, finely oolitic, fossiliferous, fair pinpoint porosity, and fossil cast porosity, brown and light brown stain, show of free oil and faint odor in fresh samples.
- 3166-3170' Limestone; as above, few medium crystalline, chalky, trace stain, show of free oil and faint odor in fresh samples.

**MARMATON SECTION**

- 3205-3220' Limestone; white and gray, fossiliferous, chalky, poor visible porosity, poor stain, trace of free oil and questionable odor in fresh samples.

**REAGAN SECTION**

- 3251-3260' Sand; white, clear, quartzitic, sub rounded, medium grained, friable, fair intergranular porosity, trace stain, show of free oil and odor fresh samples.
- 3260-3280' Sand; clear, white, fine and medium grained, sub rounded, sub angular, friable, fair sorting, fair to good intergranular porosity, good stain and saturation, show of free oil and strong odor in fresh samples.
- 3280-3290' Sand; as above, and loose angular quartz grains.
- 3290-3317' Sand; pink and white, clear, very fine and medium grained, sub rounded, friable, decreasing stain and show, and good odor in fresh samples, plus white chalk and tan chert.

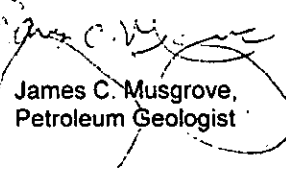
**GRANITE WASH SECTION**

- 3317-3340' Abundant loose rounded quartz grains, and clear angular quartz and mica.

**Rotary Total Depth      3340**  
**Log Total Depth        3340**

Empire Energy E & P, LLC  
C.L. Newcomer #9  
SW-SE-NW-NE (1008' FNL & 1711' FEL)  
Section 10-14s-14w  
Russell County, Kansas  
Page 4

**Recommendations:**  
5 1/2" production casing was set and cemented.  
Respectfully submitted;

  
James C. Musgrove,  
Petroleum Geologist



