



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1239126
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1239126

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> 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 <i>(Amount and Kind of Material Used)</i>	Depth

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

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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

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 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 <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	M Apel 5-D
Doc ID	1239126

All Electric Logs Run

Compensated Neutron Pel Density Micro log
Borehole Volume Caliper Log
Composite Log
Phased Induction Shallow Focus SP Log

Form	ACO1 - Well Completion
Operator	Empire Energy E&P, LLC
Well Name	M Apel 5-D
Doc ID	1239126

Tops

Name	Top	Datum
Anhydrite	659	+1181
Base Anhydrite	677	+1163
Topeka	2651	-811
Heebner	2996	-1156
Toronto	3014	-1174
Douglas	3031	-1191
Douglas Sand	3044	-1204
Brown Lime	3113	-1273
Lansing	3128	-1288
Base Kansas City	3368	-1528
Conglomerate	3376	-1536
Arbuckle	3388	-1548
Rotary Total Depth	3532	-1692
Log Total Depth	3532	-1692

AFE # 93000105

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1007035	1718	11/14/2014
INVOICE NUMBER			
91650023			



Pratt (620) 672-1201
 B EMPIRE ENERGY E&P LLC
 I PO BOX 548
 L GREAT BEND
 L KS US 67530
 T
 O ATTN: KIM HOFFMAN

J LEASE NAME M Apel # 5-D
 O LOCATION
 B COUNTY Barton
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40787336	19905		Net - 30 days	12/14/2014

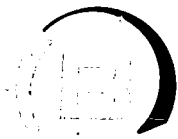
	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 11/13/2014 to 11/13/2014				
0040787336				
171811681A Cement-New Well Casing/Pi 11/13/2014				
Cement 5 1/2" Longstring				
AA2 Cement	175.00	EA		
60/40 POZ	50.00	EA		
Celloflake	44.00	EA		
C-41P	33.00	EA		
Salt	808.00	EA		
Cement Friction Reducer	50.00	EA		
FLA-322	83.00	EA		
Mud Flush	500.00	EA		
Gilsonite	875.00	EA		
"Latch Down Plug & Baffle, 5 1/2" (Blue)	1.00	EA		
"Auto Fill Float Shoe 5 1/2" (Blue)"	1.00	EA		
"Turbolizer, 5 1/2" (Blue)"	10.00	EA		
"5 1/2" Basket (Blue)"	1.00	EA		
"Unit Mileage Chg (PU, cars one way)"	60.00	MI		
Heavy Equipment Mileage	120.00	MI		
"Proppant & Bulk Del. Chgs., per ton mil	624.00	EA		
Depth Charge; 3001-4000'	1.00	EA		
Blending & Mixing Service Charge	225.00	BAG		
Plug Container Util. Chg.	1.00	EA		
"Service Supervisor, first 8 hrs on loc.	1.00	EA		

AFE # 01L38
 9308 9308
 11/17/14
 Richard W. Lacy

John Furtl
 11/20/14

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL
DALLAS, TX 75284-1903	FORT WORTH, TX 76102	

RECEIVED NOV 18 2014



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET
1718 A

DATE _____ TICKET NO. _____

DATE OF JOB // // DISTRICT		NEW WELL <input type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:								
CUSTOMER		LEASE		WELL NO.						
ADDRESS		COUNTY		STATE						
CITY		STATE		SERVICE CREW						
AUTHORIZED BY		JOB TYPE:								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
						ARRIVED AT JOB				
						START OPERATION				
						FINISH OPERATION				
						RELEASED				
						MILES FROM STATION TO WELL				

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
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					

CHEMICAL / ACID DATA:			

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

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

Customer Empire Energy E+P LLC		Lease No.		Date 11-13-14	
Lease M A 121		Well # 5-D			
Field Order # 11681	Station Pratt	Casing 5 1/2	Depth	County Barton	State KS
Type Job CAW long string			Formation	Legal Description 14-195-124	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2	Tubing Size	Shots/Ft		Acid 175 SWS	AA-2	RATE	PRESS	ISIP
Depth 3531.73	Depth	From	To	Pre Pad 40 SWS	Max	60/40	PO2	5 Min.
Volume 86.2	Volume	From	To	Pad	Mirr			10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg			15 Min.
Well Connection 12	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 3510.54	Packer Depth	From	To	Flush 85.6	Gas Volume			Total Load

Customer Representative Rick Papp	Station Manager Kevin Goinley	Treater Mike Matta
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Service Units	37586	77686	19905	19960	19860				
Driver Names	MATTIA	HANSON		GIBSON					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
3:35					ON location / Safety Meeting
8:15					Run 5 1/2 casing based on #12
					Centralizers on #1, 3, 5, 7, 9, 11, 12, 14, 16, 15
10:10					Casing on bottom
10:15					Hook to casing/Break circ w. Rig
11:35	200		5	5	PUMP 5 BBL WATER
11:37	200		12	5	PUMP 12 BBL AIR FLUSH
11:39	200		3	5	PUMP 3 BBL WATER
11:40	300		42	5.5	Max 175 SWS AA-2
11:51	-		4	3	WASH PUMP + LINE, release plug
11:53	150		-	5.5	START DISPLACEMENT
12:06	250		53	5	LIFT PRESSURE
12:09	600		75	3	slow rate, STOP RECIPROCATING
12:12	1500		85.6	-	Plug down, released + DID NOT HOLD
12:15	500		-	-	Pressure to 500 PSI, Shut in well
12:25	-		7.5	-	Plug rat + mouse holes
					CIRCULATION thru JOB
					JOB COMPLETE
					Thank You!
					MIKE MATTA
					JOSS + AARON



BASIC
ENERGY SERVICES

KSBADDD105

*COPY

PAGE 1 of 1	CUST NO 1007035	VAR# 1718	INVOICE DATE 11/10/2014
INVOICE NUMBER 91645384			

Pratt (620) 672-1201
 B EMPIRE ENERGY E&P LLC
 I PO BOX 548
 L GREAT BEND
 L KS US 67530
 T
 O ATTN: KIM HOFFMAN

J LEASE NAME M Apel 5-D
 O LOCATION
 B COUNTY Barton
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.		TERMS	DUE DATE
40785613	27463			Net - 30 days	12/10/2014
For Service Dates: 11/08/2014 to 11/08/2014		QTY	U of M	UNIT PRICE	INVOICE AMOUNT
0040785613					
171811783A Cement-New Well Casing/Pi 11/08/2014					
Cement 8 5/8 Surface					
A-Con Blend Common		150.00	EA		
Common Cement		150.00	EA		
Celloflake		75.00	EA		
Calcium Chloride		705.00	EA		
"Top Rubber Cmt Plug, 8 5/8""		1.00	EA		
"Baffle Plate Alum., 8 5/8"" (Blue)"		1.00	EA		
"Unit Mileage Chg (PU, cars one way)"		60.00	MI		
Heavy Equipment Mileage		120.00	MI		
"Proppant & Bulk Del. Chgs., per ton mil		846.00	EA		
Depth Charge; 501'-1000'		1.00	EA		
Blending & Mixing Service Charge		300.00	BAG		
Plug Container Util. Chg.		1.00	EA		
"Service Supervisor, first 8 hrs on loc.		1.00	EA		

AFE # 01L38
 9208
 11/12/14
 Robert M. Lucas
 AA Farthing
 11/20/14

PLEASE REMIT TO:

SEND OTHER CORRESPONDENCE TO:

BASIC ENERGY SERVICES, LP
 PO BOX 841903
 DALLAS, TX 75284-1903

BASIC ENERGY SERVICES, LP
 801 CHERRY ST, STE 2100
 FORT WORTH, TX 76102

SUB TOTAL

TAX

INVOICE TOTAL

RECEIVED NOV 17 2014

BASIC

energy services, L.P.

TREATMENT REPORT

Customer: <i>EMPIRE ENERGY L.P.</i>		Lease No.		Date	
Lease: <i>M. Adel</i>		Well #		<i>11-8-11</i>	
Field Order #	Station	Casing	Depth	County	State
<i>11783</i>	<i>PRATT KS</i>	<i>8 5/8</i>	<i>658'</i>	<i>BARTON</i>	<i>KS</i>
Type Job: <i>OWD 8 5/8 Surface</i>			Formation	Legal Description	
				<i>13-19-12</i>	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
<i>8 5/8</i>							
Depth	Depth	From	To	Pre Pad	Max		5 Min.
<i>662</i>							
Volume	Volume	From	To	Pad	Min		10 Min.
<i>19 1/2</i>							
Max Press	Max Press	From	To	Frac	Avg		15 Min.
<i>500</i>							
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
<i>MIC</i>							
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load
<i>820</i>							

Customer Representative				Station Manager		Treater	
				<i>DAVE SATT</i>		<i>Robert [unclear]</i>	
Service Units	<i>37900</i>	<i>27463</i>	<i>19903</i>	<i>20210</i>			
Driver Names	<i>Guller</i>	<i>Jordan</i>	<i>Beader</i>				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>5:15</i>					<i>on loc</i>
					<i>RWD 8 5/8 2-1/2" esp.</i>
<i>8:15</i>					<i>CASING and Bottom</i>
<i>8:25</i>					<i>Hook up circ esp.</i>
<i>8:35</i>			<i>3</i>		<i>at split</i>
			<i>66</i>	<i>1.5</i>	<i>init cont 150 slk A 100 @ 12" 3lcc 1/4" F</i>
			<i>37</i>		<i>mix 720 150 slk com @ 15" 3lcc 1/4" F</i>
					<i>cont in head</i>
					<i>Volume Plus</i>
				<i>4</i>	<i>at pump</i>
<i>9:15</i>			<i>37</i>	<i>2.5</i>	<i>at pump</i>
					<i>circled 150 slk com 15"</i>
					<i>300 complete</i>
					<i>Frank</i>

JAMES C. MUSGROVE
Petroleum Geologist, LLC
212 Main Street
P.O. Box 215
Clatfin, KS 67525

Office (620) 588-4250

Res. Clatfin (620) 587-3444

Empire Energy E&P LLC
Apel #14-5D
SE-SW-SE (330' FSL & 1650' FEL)
Section 14-19s-12w
Barton County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Ninescch Drilling Co. (rig #101)
Commenced: November 6, 2014
Completed: November 12, 2014
Elevation: 1840' K.B., 1838' D.F., 1827' G.L.
Casing program: Surface, 8 5/8" @ 659'
Production, 5 1/2" @ 3531'
Sample: Samples saved and examined 2800' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2800 ft. to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were one (1) Drill Stem Tests ran by Diamond Testing Co.
Electric Log: By Tucker Energy Services; Phased Induction Shallow Focus SP Log; Compensated Neutron PEL Density Micro Log; Borehole Volume Caliper Log and Composite Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	659	+1181
Base Anhydrite	677	+1163
Topeka	2651	-811
Heebner	2996	-1156
Toronto	3014	-1174
Douglas	3031	-1191
Douglas Sand	3044	-1204
Brown Lime	3113	-1273
Lansing	3128	-1288
Base Kansas City	3368	-1528
Conglomerate	3376	-1536
Arbuckle	3388	-1548
Rotary Total Depth	3532	-1692
Log Total Depth	3532	-1692

(All tops and zones corrected to Electric Log Measurement)

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

TOPEKA SECTION

2937-2960' Limestone, cream, gray, sub-oomoldic, chalky, trace brown stain, no free oil and no odor.

TORONTO SECTION

3014-3031' Limestone, white, gray, finely crystalline, chalky, poorly developed porosity, gray and black stain and saturation, no free oil and no odor.

DOUGLAS SECTION

Sand; white, light gray, very fine grained, sub-rounded friable; micaceous in part; fair inter-granular porosity, trace light brown stain, trace of free oil and questionable odor in fresh samples.

LANSING SECTION

3128-3138' Limestone, white, gray, cream, finely crystalline, chalky, few fossiliferous, poor visible porosity, trace light brown stain, no free oil and faint odor in fresh samples.

3153-3164' Limestone, gray, white, oolitic, sub-oomoldic, trace light brown and golden brown stain, weak show of free oil and faint odor in fresh samples.

3172-3180' Limestone, gray, oolitic, chalky; plus gray and white chert.

3195-3202' Limestone, gray, white, oolitic, chalky in part, brown stain, trace of free oil and questionable odor in fresh samples.

3215-3230' Limestone, tan, gray, oomoldic, fair to good oomoldic porosity, chalky, no shows.

3230-3250' Limestone, as above.

3270-3280' Limestone, tan, gray, yellow, fossiliferous, oolitic, chalky, no shows.

3282-3291' Limestone, gray, white, sub-oomoldic, chalky, trace light brown stain, weak show of free oil and faint odor in fresh samples.

3298-3310' Limestone, white, sub-oomoldic, chalky, poor light brown and golden brown stain, trace of free oil and faint odor in fresh samples.

3327-3350' Limestone, gray, white, yellow, fossiliferous, chalky increasingly cherty, (dense).

ARBUCKLE SECTION

3388-3400' Dolomite, tan, gray, sucrosic, fair to good pinpoint to finely vuggy porosity, fair brown stain and saturation, show of free oil and fair odor in fresh samples.

3404-3416' Dolomite, tan, white, sucrosic, fair pinpoint porosity, golden brown stain and saturation, show of free oil and fair to good odor in fresh samples.

3420-3432' Dolomite, white, cream, medium crystalline, fair inter-crystalline porosity, brown stain, show of free oil, fair odor in fresh samples.

Drill Stem Test #1 **3361-3432**

Times: 45-30-60-60

Blow: Fair

Recovery: 20' gas in pipe
170' muddy gassy oil
(15% gas; 40 mud)

Pressures:	ISIP	851	psi
	FSIP	844	psi
	IFP	18-53	psi
	FFP	58-85	psi
	HSH	1700-1650	psi

3332-3350' Dolomite, as above, poorly developed porosity, trace gray and black stain, no show of free oil and questionable odor in fresh sample.

3450-3460' Dolomite, tan, gray, finely crystalline, few medium crystalline, poor visible porosity, plus white and gray chert.

3460-3480' Dolomite, as above, trace iron pyrite and white chalk.

3480-3500' Dolomite, gray, and white, cream, finely crystalline, slightly cherty, few sandy, no shows.

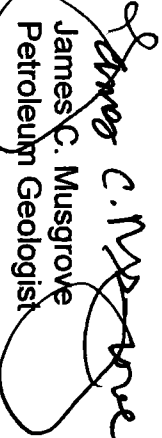
3500-3520' Dolomite, as above.

3520-3532' Dolomite, gray, white, finely crystalline, sandy, poor porosity, no shows.

Rotary Total Depth: 3532
Log Total Depth: 3532

Recommendations:
5 ½ production casing was set and cemented on the Empire Energy E&P LLC, Apel #14-5D.

Respectfully Submitted,


James C. Musgrove
Petroleum Geologist