



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1146084  
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: \_\_\_\_\_



1146084

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

June 07, 2013

Scott Hampel  
McCoy Petroleum Corporation  
8080 E CENTRAL STE 300  
WICHITA, KS 67206-2366

Re: ACO1  
API 15-077-21913-00-00  
RITTER 'E' #2-11  
NW/4 Sec.11-34S-08W  
Harper County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Scott Hampel

## ACO-1 Supplemental Information

### SAMPLE TOPS

McCoy Petroleum Corporation  
Ritter 'E' #2-11  
660'FNL & 1980'FWL  
Sec 11-34s-8w  
Harper County, KS  
KB: 1393'

Heebner	3469	-2076
Stalnaker Sd	3796	-2403
Kansas City	4068	-2675
Stark	4220	-2827
BKC	4310	-2917
Ft Scott	4482	-3089
Cherokee	4403	-3100
Miss. Conglom.	4436	-3243
Spergen	4658	-3265
Warsaw	4671	-3278
RTD	4770	-3377

### LOG TOPS

McCoy Petroleum Corporation  
Ritter 'E' #2-11  
660'FNL & 1980'FWL  
Sec 11-34s-8w  
Harper County, KS  
KB: 1393'

Heebner	3468	-2975
Stalnaker Sand	3803	-2410
Kansas City	4066	-2673
Stark Shale	4218	-2825
BKC	4306	-2913
Fort Scott	4481	-3088
Cherokee	4491	-3098
Miss. Spergen	4654	-2361
Spergen "B"	4672	-3279
Warsaw	4697	-3304
LTD	4768	-3375



## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E. Central Ste. 300  
Wichita, KS 67206-2366

ATTN: Dave Williams

**Ritter E #2-11**

**11-34s-8w Harper,KS**

Start Date: 2013.03.20 @ 00:24:07

End Date: 2013.03.20 @ 09:46:22

Job Ticket #: 50866                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.22 @ 09:41:12



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corp.  
8080 E. Central Ste. 300  
Wichita, KS 67206-2366  
ATTN: Dave Williams

**11-34s-8w Harper,KS**

**Ritter E #2-11**

Job Ticket: 50866

**DST#: 1**

Test Start: 2013.03.20 @ 00:24:07

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:54:07

Time Test Ended: 09:46:22

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Reynolds

Unit No: 48

**Interval: 4476.00 ft (KB) To 4495.00 ft (KB) (TVD)**

Reference Elevations: 1393.00 ft (KB)

Total Depth: 4495.00 ft (KB) (TVD)

1384.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8790**

**Inside**

Press @ Run Depth: 178.94 psig @ 4477.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.20

End Date: 2013.03.20

Last Calib.: 2013.03.20

Start Time: 00:24:12

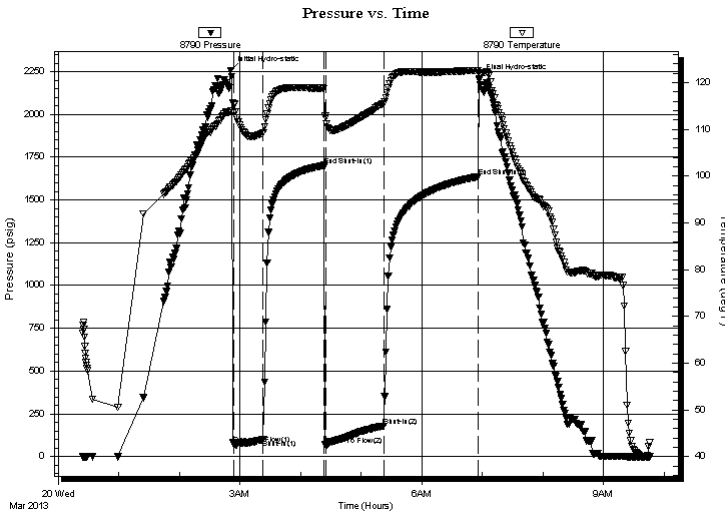
End Time: 09:46:22

Time On Btm: 2013.03.20 @ 02:50:37

Time Off Btm: 2013.03.20 @ 06:56:37

**TEST COMMENT:** IF: Strong blow . BOB @ 30sec. GTS @ 15min. Gauged gas  
IS: Weak blow . surf. - 1"  
FF: Strong blow . BOB immed. Gauged gas  
FS: Fair blow . 1/4" - 5"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2257.23	113.95	Initial Hydro-static
4	69.65	115.53	Open To Flow (1)
33	99.46	109.25	Shut-In(1)
93	1701.92	118.77	End Shut-In(1)
94	68.90	112.42	Open To Flow (2)
152	178.94	115.54	Shut-In(2)
245	1636.37	122.60	End Shut-In(2)
246	2211.00	122.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
200.00	GOCM 15%gas, 20%oil, 65%mud	0.98
65.00	GMCO 10%gas, 15%mud, 75%oil	0.84
135.00	Clean oil 100%oil	1.89

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	16.00	48.23
Last Gas Rate	0.25	46.00	95.82
Max. Gas Rate	0.25	46.00	95.82





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corp.

**11-34s-8w Harper,KS**

8080 E. Central Ste. 300  
Wichita, KS 67206-2366

**Ritter E #2-11**

Job Ticket: 50866

**DST#: 1**

ATTN: Dave Williams

Test Start: 2013.03.20 @ 00:24:07

### Tool Information

Drill Pipe:	Length: 4270.00 ft	Diameter: 3.80 inches	Volume: 59.90 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 208.00 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 97000.00 lb
			<u>Total Volume: 60.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 82500.00 lb
Depth to Top Packer:	4476.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4454.00	
Hydraulic tool	5.00			4459.00	
Jars	5.00			4464.00	
Safety Joint	3.00			4467.00	
Packer	5.00			4472.00	27.00 Bottom Of Top Packer
Packer	4.00			4476.00	
Stubb	1.00			4477.00	
Recorder	0.00	8790	Inside	4477.00	
Recorder	0.00	8792	Outside	4477.00	
Perforations	15.00			4492.00	
Bullnose	3.00			4495.00	19.00 Bottom Packers & Anchor

**Total Tool Length: 46.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corp.

**11-34s-8w Harper,KS**

8080 E. Central Ste. 300  
Wichita, KS 67206-2366

**Ritter E #2-11**

Job Ticket: 50866

**DST#: 1**

ATTN: Dave Williams

Test Start: 2013.03.20 @ 00:24:07

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

48 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

4500 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	GOCM 15%gas, 20%oil, 65%mud	0.984
65.00	GMCO 10%gas, 15%mud, 75%oil	0.839
135.00	Clean oil 100%oil	1.894

Total Length: 400.00 ft

Total Volume: 3.717 bbl

Num Fluid Samples: 2

Num Gas Bombs: 1

Serial #: RR-1 / RR-2

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

McCoy Petroleum Corp.

**11-34s-8w Harper,KS**

8080 E. Central Ste. 300  
Wichita, KS 67206-2366

**Ritter E #2-11**

Job Ticket: 50866

**DST#: 1**

ATTN: Dave Williams

Test Start: 2013.03.20 @ 00:24:07

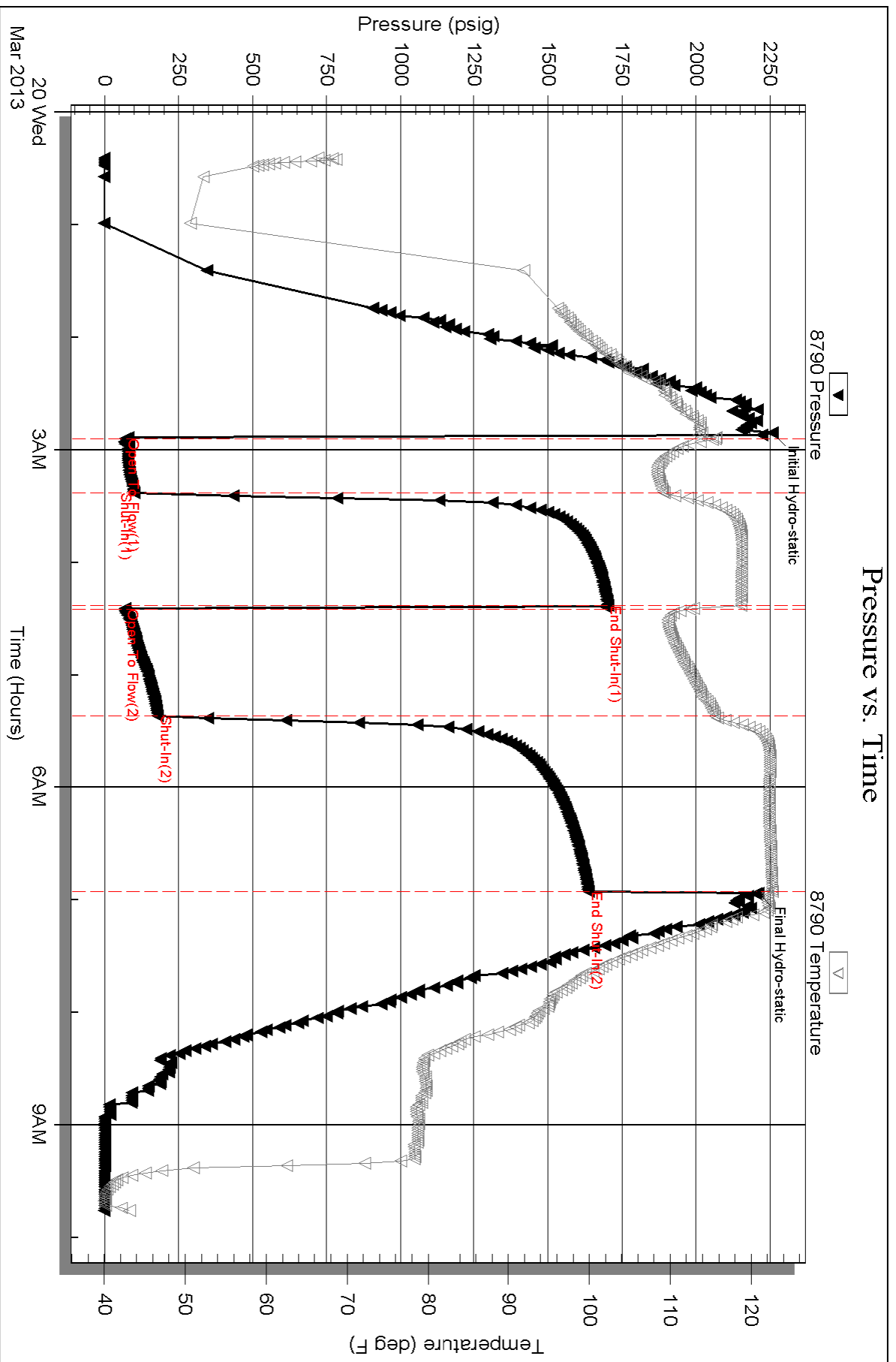
### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	15	0.25	16.00	48.23
1	20	0.25	19.00	52.99
1	30	0.25	25.00	62.50
2	10	0.25	17.00	49.81
2	20	0.25	25.00	62.50
2	30	0.25	32.00	73.61
2	40	0.25	38.00	83.13
2	50	0.25	43.00	91.06
2	60	0.25	46.00	95.82

# Pressure vs. Time

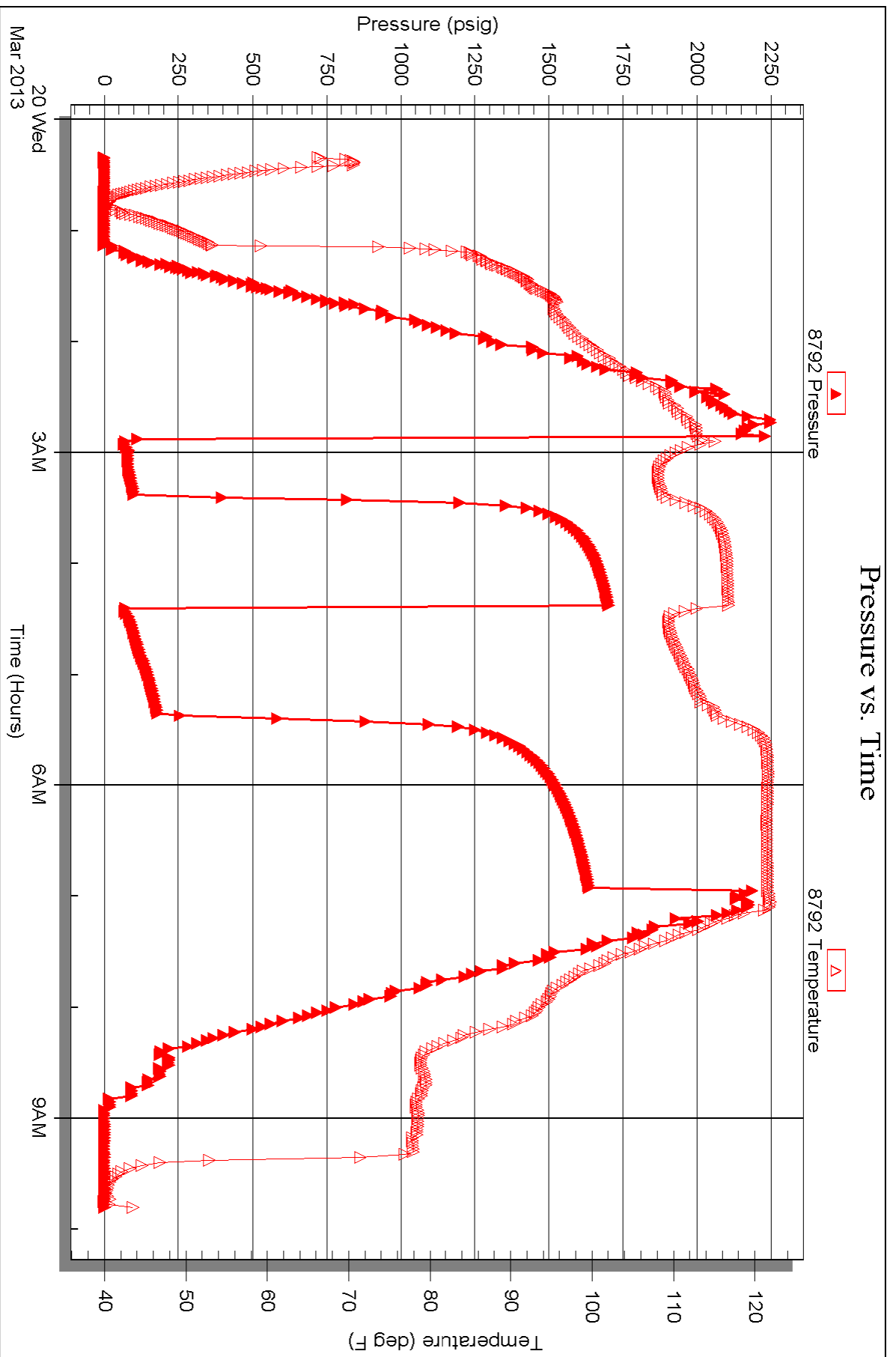


Serial #: 8792

Outside McCoy Petroleum Corp.

Ritter E#2-11

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 50866

4/10

Well Name & No. Ritter "E" 2-11 Test No. 1 Date 3-19-13  
 Company McCoy Petro. Corp. Elevation 1393 KB 1384 GL  
 Address 8080 E. Central Ste. 300 Wichita, KS 67206-2366  
 Co. Rep / Geo. Dave Williams Rig Sterling #4  
 Location: Sec. 11 Twp. 34s. Rge. 8w. Co. Harper State KS

Interval Tested 4476-4495 Zone Tested Ft. Scott  
 Anchor Length 19' Drill Pipe Run 4270 Mud Wt. 9.3  
 Top Packer Depth 4471 Drill Collars Run 208 Vis 46  
 Bottom Packer Depth 4476 Wt. Pipe Run 8 WL 9.2  
 Total Depth 4495 Chlorides 4500 ppm System LCM 2#

Blow Description IF: Strong blow. BoB 30sec. GTS @ 15min. Guaged gas  
ISI: Weak blow. surf. - 1"  
FF: Strong blow. BoB immed. Guaged gas  
FSI: Fair blow. 14" - 5"

Rec	Feet of	%gas	%oil	%water	%mud
<u>135</u>	<u>Clear oil (48 grav)</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>65</u>	<u>MC0</u>	<u>10</u>	<u>75</u>	<u>15</u>	<u>0</u>
<u>200</u>	<u>60CM</u>	<u>15</u>	<u>20</u>	<u>65</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 400 BHT 123 Gravity 48 API RW N/L @ N/C °F Chlorides 4500 ppm

(A) Initial Hydrostatic 2257  Test 1250 T-On Location 2130  
 (B) First Initial Flow 70  Jars 250 T-Started 0024  
 (C) First Final Flow 99  Safety Joint 75 T-Open 0254  
 (D) Initial Shut-In 1702  Circ Sub T-Pulled 0655  
 (E) Second Initial Flow 69  Hourly Standby 2 1/4 225 T-Out 0946  
 (F) Second Final Flow 179  Mileage 175 271.25  
 (G) Final Shut-In 1636  Sampler  
 (H) Final Hydrostatic 2211  Straddle

Initial Open 30  Shale Packer  
 Initial Shut-In 60  Shale Packer  
 Final Flow 60  Extra Packer  
 Final Shut-In 90  Extra Recorder  
 Day Standby  
 Accessibility  
 Sub Total 2071.25 Total 2071.25 MP/DST Disc't

Approved By Dave Williams Our Representative Ryan Reynolds  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# ALLIED OIL & GAS SERVICES, LLC 059754

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Medicine Lodge, KS  
3-13 3-13

DATE <u>3-12-2013</u>	SEC. <u>11</u>	TWP. <u>34S</u>	RANGE <u>8W</u>	CALLED OUT	ON LOCATION	JOB START <u>1:15pm</u>	JOB FINISH <u>1:45pm</u>
LEASE <u>Ritter E</u>	WELL # <u>2-11</u>	LOCATION <u>Anthony, KS, 6 West</u>			COUNTY <u>Harper</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>		<u>3 South, 1/2 W, Slinko</u>					

CONTRACTOR Steelins #4

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 280'

CASING SIZE 8 5/8 DEPTH 275'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20'

PERFS.

DISPLACEMENT 16 bbls of fresh water

OWNER McCoy Petroleum

CEMENT

AMOUNT ORDERED 1755 yds @ 140' 20¢  
301 @ 30¢ cc @ 1/4" # 105051

EQUIPMENT

PUMP TRUCK CEMENTER Darin F

# 558-555 HELPER Scott P.

BULK TRUCK

# 421-553 DRIVER Brehaen B.

BULK TRUCK

# DRIVER

COMMON <u>Class A</u>	<u>105</u>	@	<u>17.90</u>	<u>1879.50</u>
POZMIX	<u>70</u>	@	<u>9.35</u>	<u>654.50</u>
GEL	<u>3</u>	@	<u>23.40</u>	<u>70.20</u>
CHLORIDE	<u>6</u>	@	<u>64.00</u>	<u>384.00</u>
ASC		@		
<u>Flosecal</u>	<u>44<sup>sq</sup></u>	@	<u>2.97</u>	<u>118.80</u>
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>191.43</u>	@	<u>2.48</u>	<u>474.74</u>
MILEAGE	<u>7.92 / 25 / 2.60</u>			<u>55.01</u>
TOTAL				<u>4096.75</u>

REMARKS:

Cement did circulate

SERVICE

DEPTH OF JOB	<u>275'</u>			
PUMP TRUCK CHARGE	<u>1512.25</u>			
EXTRA FOOTAGE		@		
MILEAGE	<u>25</u>	@	<u>7.20</u>	<u>192.50</u>
MANIFOLD <u>Harper</u>		@		<u>N/C</u>
<u>10 25</u>		@	<u>4.40</u>	<u>110.00</u>
		@		

TOTAL 1814.75

CHARGE TO: McCoy Petroleum

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

8 5/8

<u>1-Wooden Plug</u>	@	<u>107.64</u>
	@	
	@	
	@	
	@	
TOTAL		<u>107.64</u>

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 6019.14

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

PRINTED NAME X Leany S. Salaga

SIGNATURE X Leany S. Salaga

Net: 3906.74

Thank you!!!

# ALLIED OIL & GAS SERVICES, LLC <sup>KK</sup> 052926

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Liberal Ks

DATE <u>3-23-13</u>	SEC. <u>11</u>	TWP. <u>34S</u>	RANGE <u>8W</u>	CALLED OUT	ON LOCATION	JOB START <u>9:00 AM</u>	JOB FINISH <u>5:00 AM</u>
LEASE <u>PITTER</u>	WELL #	LOCATION <u>Hwy</u>			COUNTY <u>Harper</u>	STATE <u>Ks</u>	
OLD OR (NEW) (Circle one)							

CONTRACTOR STERLING Drilling  
 TYPE OF JOB 5 1/2 L.S.W  
 HOLE SIZE 7 1/2 T.D. 4770  
 CASING SIZE 5 1/2 15.5 DEPTH 4771  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX 1500 MINIMUM 0  
 MEAS. LINE SHOE JOINT 43'  
 CEMENT LEFT IN CSG. #2 93  
 PERFS.  
 DISPLACEMENT 172.15 BBL  
 EQUIPMENT

OWNER SAME  
 CEMENT AMOUNT ORDERED 175 ASC 5# Kolseal  
3/4 FC-160, 5/8 Gas Block 1/4 DEFOAMER  
1/4 FLOSER; 50 SK 60/10 41 GAL  
 COMMON 30 A @ 17.90 537.00  
 POZMIX 20 @ 9.30 187.00  
 GEL 25K @ 7.30 416.00  
 CHLORIDE @  
 ASC 175 SK @ 20.90 3657.50  
CLA P20 12 gal @ 34.40 417.50  
 @  
FC-160 50# @ 18.90 945.00  
 @  
KOLSEAL 875 @ 1.98 857.50  
 @  
SUPER FLOSH 18 BBL @ 58.20 1056.00  
DEFOAMER 75 @ 9.80 748.00  
 HANDLING 230 @ 2.60 570.00  
 MILEAGE 220 @ 2.60 572.00  
 TOTAL 9087.60

PUMP TRUCK CEMENTER BUSTINIA Kelly  
 # HELPER A Espanosa  
 BULK TRUCK DRIVER B Boor  
 BULK TRUCK DRIVER

REMARKS:

Thank You!

SERVICE

DEPTH OF JOB  
 PUMP TRUCK CHARGE 4771' 2765.25  
 EXTRA FOOTAGE @  
 MILEAGE 25 mi @ 7.20 192.50  
 MANIFOLD HEAD @ 300.00  
CT UER mi 25 @ 4.40 110.00  
 @

TOTAL 3368.25

CHARGE TO: McCoy PA  
 STREET  
 CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

5/2 FLOAT Equip  
1- FLOAT Oskoy @ 408.33  
1- CATCH DOWN @ 324.00  
4- CEMENTALIZER @ 57.33 229.32  
1- BASKET @ 394.24  
1- @  
 TOTAL 1356.83

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)  
 TOTAL CHARGES 13817.88

PRINTED NAME  
 SIGNATURE Dave Allen

DISCOUNT 892.703 IF PAID IN 30 DAYS





**Scale 1:240 (5"=100') Imperial  
Measured Depth Log**

**Well Name:** RITTER "E" # 2-11  
**Location:** C - NE - NW  
**License Number:** A.P.I. #15-077-21,913-00-00  
**Spud Date:** 03/12/2013  
**Surface Coordinates:** SPOT: 660' FNL & 1980' FWL

**Region:** HARPER CO., KS.  
**Drilling Completed:**

**Bottom Hole  
Coordinates:**  
**Ground Elevation (ft):** 1384'      **K.B. Elevation (ft):** 1393'  
**Logged Interval (ft):** 275'      **To:** 4770'      **Total Depth (ft):** 4770'  
**Formation:** MISSISSIPPIAN "WARSAW"  
**Type of Drilling Fluid:** CHEMICAL/POLYMER/GEL

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

**OPERATOR**

**Company:** McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003  
**Address:** 8080 E. CENTRAL, STE. 300  
WICHITA, KANSAS 67206-2366

**GEOLOGIST**

**Name:** DAVID P. WILLIAMS, P.G.  
**Company:** DW ENERGY, LLC  
**Address:** 312 N. BROADVIEW STREET  
WICHITA, KANSAS 67208

**CASINGS & DEVIATION**

Spud at 5:45 PM on 03/12/13. Drilled 12-1/4" hole to 280'. Ran 6 joints of new 24# 8-5/8" surface casing, Tallied 264.56', set at 275.56' KB. Welded straps on bottom 3 joints. Cemented with 175 sks 60/40 POZ; 2% Gel; 3% CC; 1/4# CF. Plug down at 1:45 AM on 03/13/13. Cement did circulate. Allied Cementing ticket #59754.

Deviation Survey's Taken: @ 280' = 1/2 degree; @ 3945' = 1 1/4 degrees; @ 4495' = 1 1/2 degrees;

## DSTs

DST # 1: 4476'-4495'. Times: 30"-60"-60"-90" .

Blow: IF Strong BOB /0.30". GTS/15". FF = BOB/GTS (See Gauge Rept Below).

Recovery: 400' TF:(135' CO; 65' MCO (75% O & 10% G & 15% M); & 200" GCOM (15% G & 20% O & 65% M); No Wtr.

Pressures: IH =2257#; FH =2211#; IF =70-99#; FF =69-179#; ISIP =1702#; FSIP =1636#; Temp= 123 degrees F.; Oil Grv.= 48 degrees.


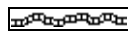
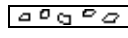


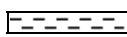









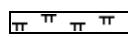

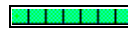
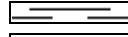

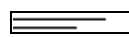



### Gas Gauge:

IF @ 15"= 45 Mcf; @ 20" = 49 Mcf; @ 30" =58.2 Mcf.







































































FF @ 10"= 46.5 Mcf;@ 20" = 58.2 Mcf; @ 30" = 68.5 Mcf; @ 40" =77.3 Mcf; @ 50" = 84.7 Mcf; @ 60" = 89.1 Mcf.

## Comments



























### ROCK TYPES

 Anhy  Bent  Brec  Carb sh  Cht	 Clyst  Coal  Congl  Dol  Grn sh	 Gry shale  Gyp  Igne  Lmst  Meta	 Mrlst  Red shale  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
---	---	--	---	---

### ACCESSORIES

<b>MINERAL</b>  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau  Gyp	 Hvymin  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff	 Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Fuss  Gastro  Oolite  Oomold  Ostra  Pelec	 Pellet  Pisolite  Plant  Strom	 Ssstrg
		<b>STRINGER</b>  Anhy  Arg  Bent  Coal  Dol  Grysit  Gyp  Ls  Mrst  Sltstn  Sltstrg	<b>TEXTURE</b>  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest	

### OTHER SYMBOLS

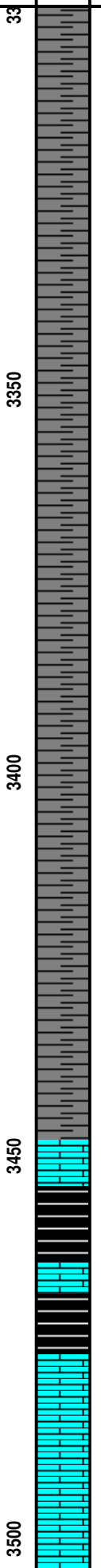
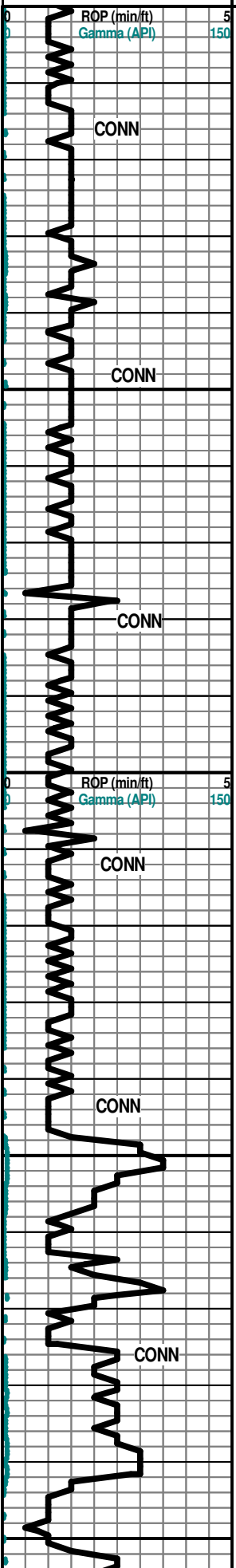
<b>POROSITY</b>  Earthy  Fenest  Fracture  Inter  Moldic  Organic  Pinpoint	 Vuggy	<b>ROUNDING</b>  Rounded  Subrnd  Subang  Angular	 Even  Spotted  Ques  Dead	 Dst_alt  Dst
		<b>SORTING</b>  Well  Moderate  Poor	<b>OIL SHOW</b>  Gas show	<b>EVENT</b>  Rft  Sidewall
		<b>INTERVAL</b>  Core  Straddle test tail pipe		

Curve Track 1  
 ROP (min/ft) ———  
 Gamma (API) - - - -

Depth  
 Lithology  
 Oil Shows

Geological Descriptions

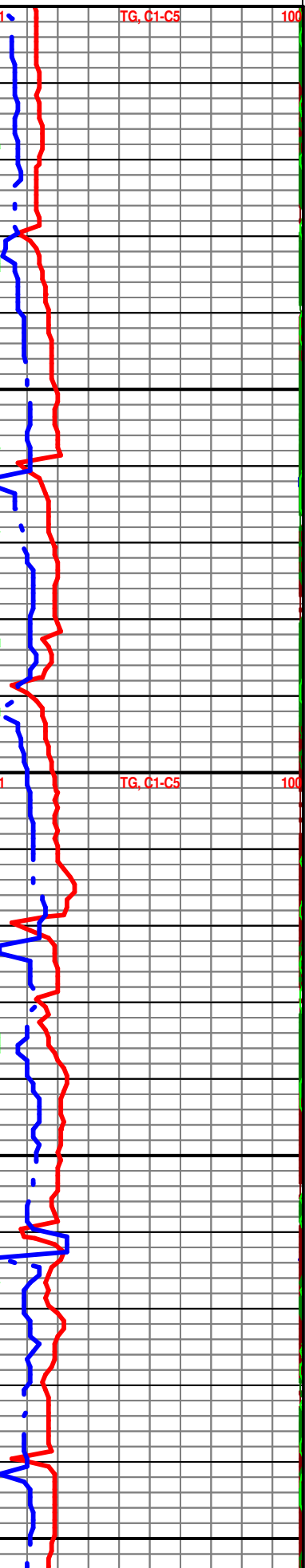
TG, C1-C5  
 TG (Units) ———  
 C1 (units) - - - -  
 C2 (units) - - - -  
 C3 (units) - - - -  
 C4 (units) - - - -

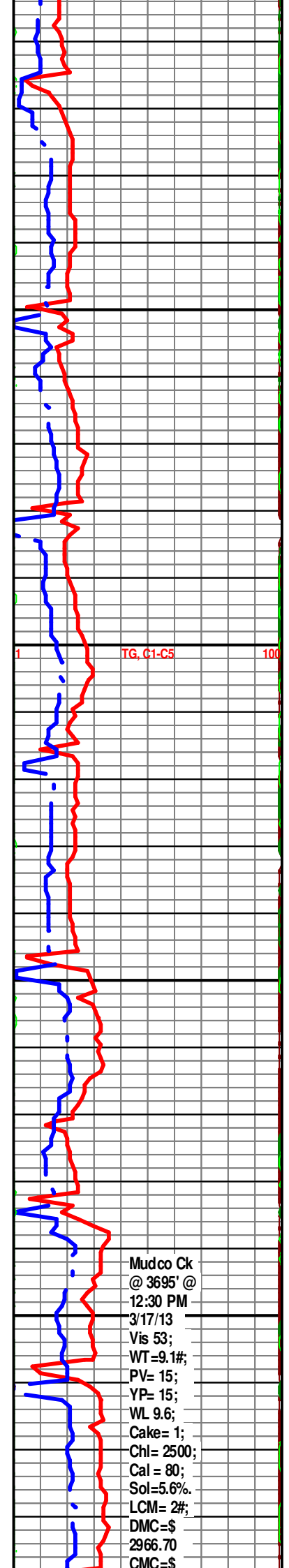
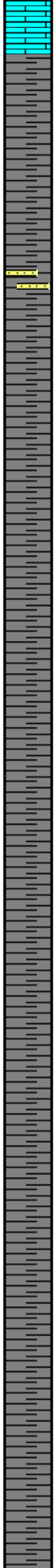
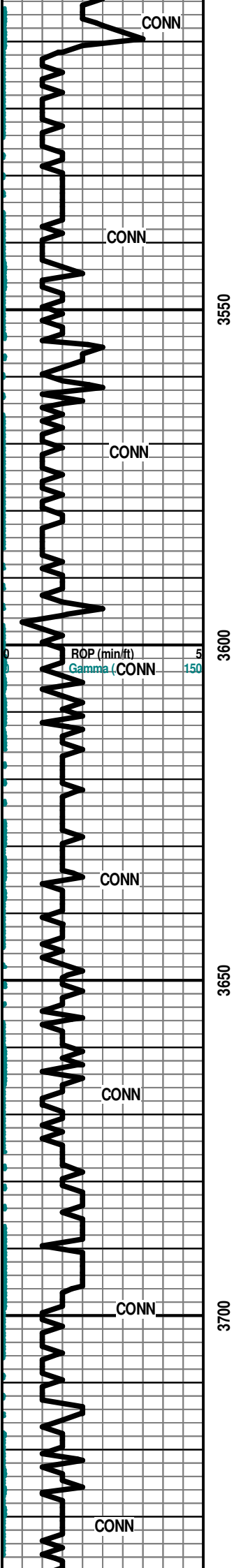


**McCOY PETROLEUM CORPORATION**  
**RITTER "E" # 2-11**  
 SPOT: 660' FNL & 1980' FWL  
 C - NE - NW  
 SEC. 11- 34 S. - 08 W.  
 HARPER COUNTY, KANSAS  
 A.P.I. # 15 - 077 - 21913 - 00 - 00  
 ELEVATION : 1393' K.B. ; 1384' G.L.  
**CONTRACTOR: STERLING DRILLING - RIG # 4**  
 Geologist: David P. Williams, P. G.

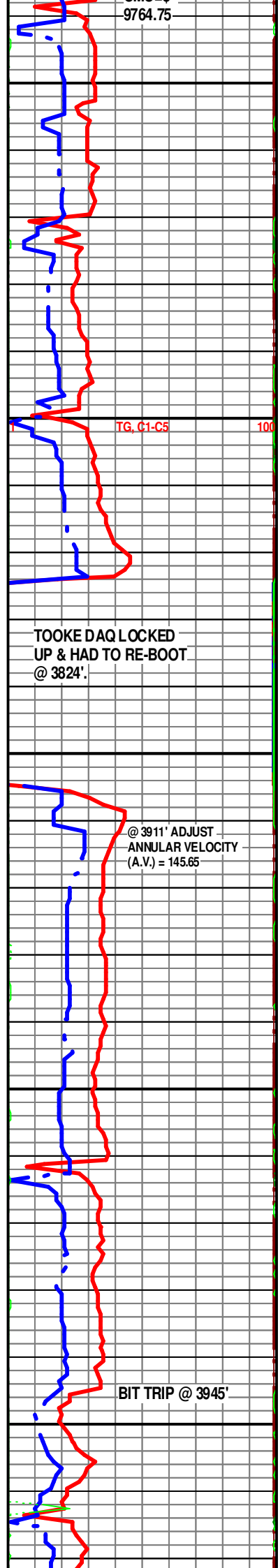
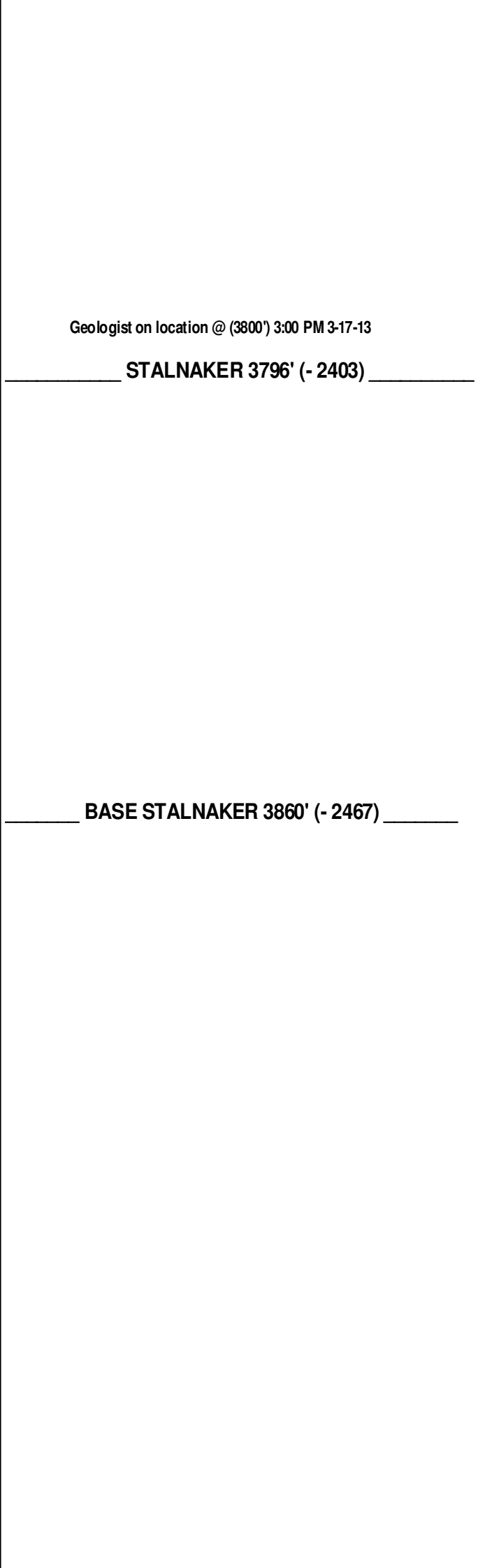
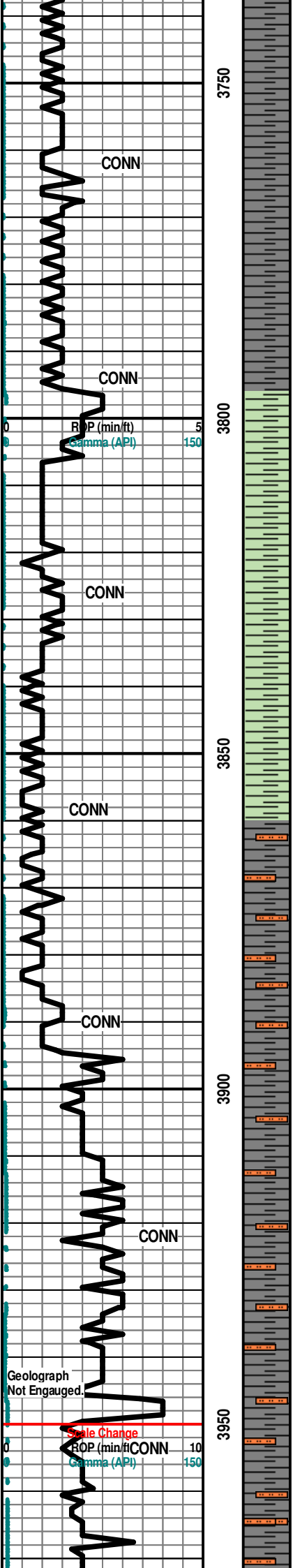
Deviation Survey's Taken: @ 280' = 1/2 degree; @ 3945' = 1 1/4 degrees; @ 4495' = 1 1/2 degrees; @ 4770' = degrees.

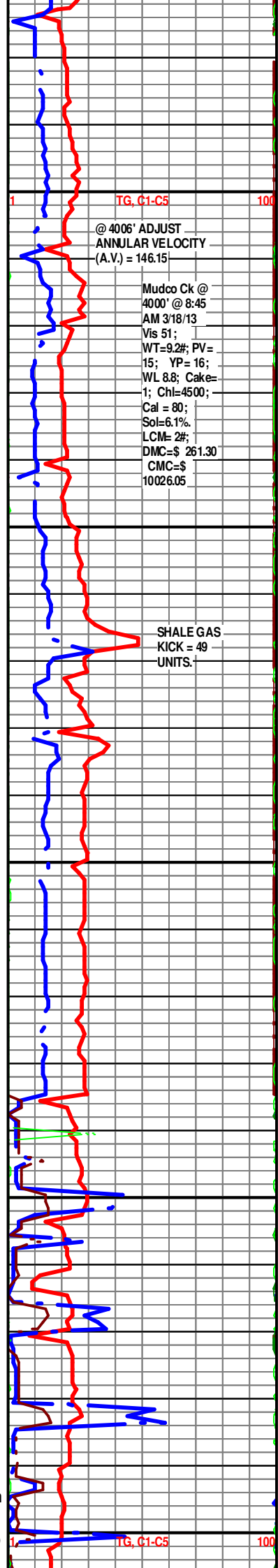
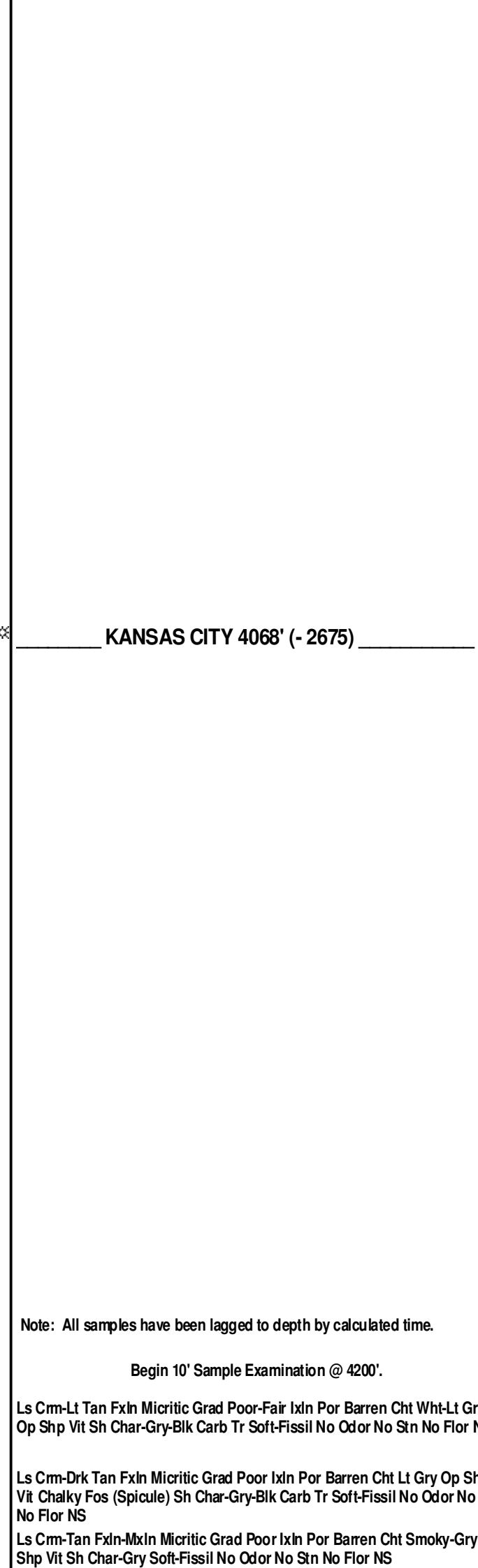
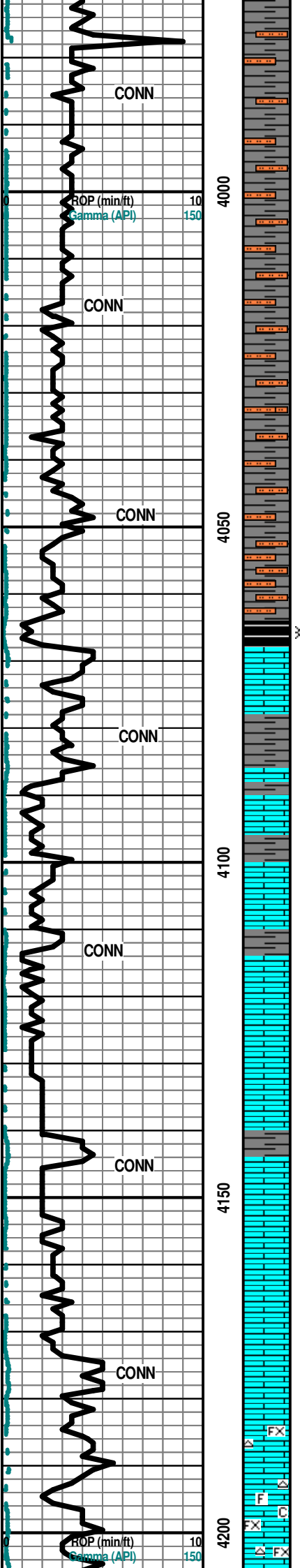
HEEBNER 3469' (- 2076)





**Mudco Ck**  
 @ 3695' @  
 12:30 PM  
 3/17/13  
 Vis 53;  
 WT=9.1#;  
 PV= 15;  
 YP= 15;  
 WL 9.6;  
 Cake= 1;  
 Chl= 2500;  
 Cal = 80;  
 Sol=5.6%.  
 LCM= 2#;  
 DMC=\$  
 2966.70  
 CMC=\$





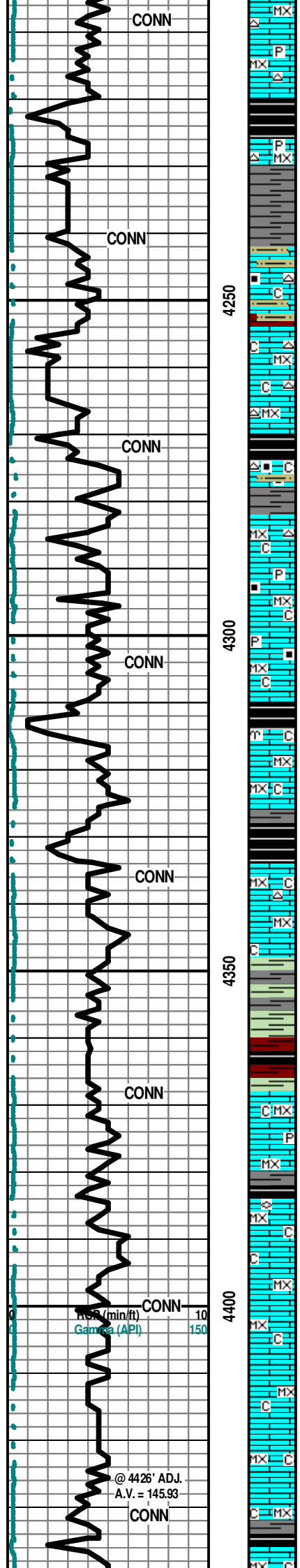
Note: All samples have been lagged to depth by calculated time.

Begin 10' Sample Examination @ 4200'.

Ls Crm-Lt Tan FxIn Micritic Grad Poor-Fair IxIn Por Barren Cht Wht-Lt Gry  
Op Shp Vit Sh Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Drk Tan FxIn Micritic Grad Poor IxIn Por Barren Cht Lt Gry Op Shp  
Vit Chalky Fos (Spicule) Sh Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn  
No Flor NS

Ls Crm-Tan FxIn-MxIn Micritic Grad Poor IxIn Por Barren Cht Smoky-Gry Op  
Shp Vit Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS



Ls Crm-Tan FxIn-MxIn Micritic Grad Poor IxIn Por Barren Cht Wht- Smoky Gry Op Shp Vit Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

**STARK SHALE 4220' (- 2827)**

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MxIn Micritic Barren Cht Wht- Smoky Gry Op Shp Vit Pyr Mass No Odor No Stn No Flor NS  
 Ls Crm-Tan-Lt Gry Micritic Barren Cht Wht- Smoky Gry Op Shp Vit Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS  
 Sh Blk Carb-Gry Fissil Ls Crm-Tan- FxIn-MxIn Micritic Barren No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MxIn Micritic Barren Cht Wht-Smoky Gry Op Shp Vit Chalky Sh Char-Gry Soft-Fissil SiltStn Gry (w/Carb Includ) No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Cht Wht-Smoky Gry Op Shp Vit Chalky Sh Char-Gry-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Cht Wht-Smoky Gry Op Shp Vit Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

**HUSHPUCKNEY SHALE 4270' (- 2877)**

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MxIn Micritic Barren Cht Wht- Smoky Gry Op Shp Vit Chalk SiltStn Gry (w/Carb Includ) No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Cht Wht-Smoky Gry Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Grn Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry-Drk Brn (w/Pyr Includ) MxIn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Grn Fissil SiltStn Gry (w/Carb Includ) No Odor No Stn No Flor NS

Ls Crm-Tan-Gry-Drk Brn (w/Pyr Includ) MxIn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Grn Fissil SiltStn Gry (w/Carb Includ) No Odor No Stn No Flor NS

**BASE KANSAS CITY 4310' (- 2917)**

Sh Blk Carb-Gry Fissil Ls Crm-Tan MxIn Micritic Barren Chalk Fos (Bry) No Odor No Stn No Flor NS

Sh Blk Carb-Gry Fissil Ls Crm-Tan MxIn Micritic Barren Chalk No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Cht Wht Op Shp Vit Chalky Sh Blk Carb-Char - Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Blk Carb-Char - Gry-Grn Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Blk Carb-Char - Gry-Grn (w/Pyr Includ) Soft- Fissil No Odor No Stn No Flor NS

Sh Maroon-Gry-Grn-Aqua Soft-Fissil (Wash Red) Ls Wht-Crm-Tan MxIn Micritic Barren Chalky No Odor No Stn No Flor NS

Ls Wht-Crm-Tan MxIn Micritic Barren Chalky Sh Gry- Grn- Aqua- Maroon (w/Pyr Includ) Soft- Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan MxIn Micritic Barren (w/Fos (Fuss) Includ) Chalky Sh Gry-Grn- Aqua-Maroon Soft- Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan MxIn Micritic Barren Chalky Sh Blk Carb-Char- Gry- Grn- Aqua- Maroon Soft- Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Char-Gry- Grn- Aqua- Maroon Soft- Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Char-Gry- Grn- Aqua- Maroon Soft- Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Char-Gry- Grn- Aqua- Maroon Soft- Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Char-Gry-Blk Carb Tr Fissil No Odor No Stn No Flor NS

SHALE GAS KICK= 28 UNITS.

SHALE GAS KICK= 46 UNITS.

SHALE GAS KICK= 36 UNITS.

Mudco Ck @  
 4430' @ 11:30 AM 3/19/13  
 Vis 45;  
 WT=9.3#; PV= 14; YP= 15;  
 WL 9.2; Cake= 1; Chl=4500;  
 Cal = 80;  
 Sol=6.8%.  
 LCM= 2#;  
 DMC=\$ 1591.90  
 CMC=\$ 11617.95

Scale Change  
 TG, C1-C5 200

BKGD DST # 1: 4476'-4495'.  
 GAS = 22 Times: 30"-60"-60"-90"  
 UNITS. Blow: IF Strong BOB/  
 0.30". GTS/15". FF =  
 BOB/GTS/0"; (See Gauge  
 Rept.). Recovery: 400'  
 TF:  
 (135' CO; 65' MCO (75%  
 O & 10% G & 15% M); &  
 200' GCOM (15% G &  
 20% O & 65% M); No Wtr.  
 Pressures:  
 IH = 2257#;  
 FH = 2211#;  
 IF = 70-99#;

@ 4426' ADJ.  
 A.V. = 145.93

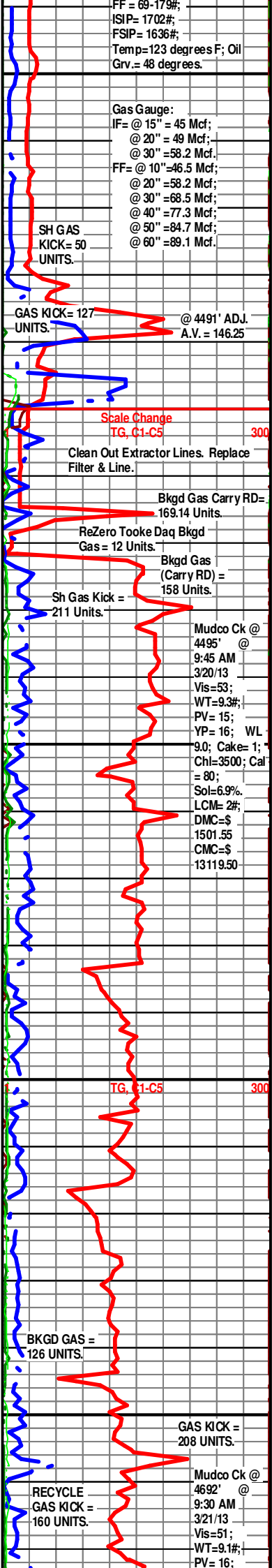




4450  
4500  
4550  
4600  
4650



Ls Wht-Crm-Tan-Gry MxIn Micritic Barren Chalky Sh Char-Gry-Blk Carb Tr Fissil No Odor No Stn No Flor NS  
 Ls Wht-Crm-Tan-Gry Tr MxIn-FxIn Micritic Barren Chalky Sh Char- Gry- Blk Carb Tr Fissil No Odor No Stn No Flor NS  
 Ls Wht-Crm-Tan MxIn-FxIn Micritic Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS  
 Ls Wht-Crm-Tan MxIn-FxIn Micritic Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS  
**FORT SCOTT 4482' (- 3089)**  
 30" CFS @ 4495' Ls Wht FxIn Micrite Grad Fair OOL Por (w/Sm OOids in pl) Fair Leaching Fair Develop Grad Poor-Fair IxIn Por (w/Tr Pyr Inclus) Fair-Med SG (in Wtr Under Heat) Sh Blk Carb Fissil Fair-Good Odor Tr Flor (Gas Does Not Flor/SSO Tr Does Flor) No Stn F-M SG Tr SO  
**CHEROKEE SHALE 4492' (- 3099)**  
 60" CFS @ 4495' Ls Wht FxIn Micrite Grad Fair OOL Por (w/Sm OOids in pl) Fair Leaching Fair Develop Grad Poor-Fair IxIn Por (w/Tr Pyr Inclus) Fair-Med SG (in Wtr Under Heat) Sh Blk Carb Fissil Fair-Good Odor Tr Flor (Gas Does Not Flor/SSO Tr Does Flor) No Stn F-M SG Tr SO  
 Ls Crm-Gry MxIn Micrite Dns Barren Cht Wht Op Shp Vit (? Sluff) Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS  
 Ls Wht-Crm-Gry MxIn Micrite Dns Barren Grad FxIn Granular w/Poor IxIn Gran Por Chalky Sh Char-Gry-Blk Carb-Brn (w/Pyr Inclus) Fissil No Odor No Stn No Flor NS  
 Ls Wht-Crm-Gry MxIn Micrite Dns Barren Grad FxIn Granular w/Poor IxIn Gran Por (1 Pc) Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua (w/Carb Includ) Fissil Ls Wht-Crm MxIn-FxIn (w/Pyr Includ) Micrite Dns Barren Chalk Abd No Odor No Stn No Flor NS  
 Ls Crm-Tan-Gry MxIn Micrite Dns Barren Qtz Silltstn Wht-Aqua Poor Por Well Sort Well Rd Friable P Igran Por Barren (1 Pc) Pyr Mass Chalky Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS  
 Ls Crm-Tan-Gry MxIn Micrite Dns Barren Qtz Silltstn Wht-Aqua Inc Poor Well Sort Well Rd Friable P-F Igran Por Barren (3 Pcs) Pyr Mass Chalky Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Fos (Brach) Chalk No Odor No Stn No Flor NS  
 Ls Crm-Tan MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Chalk Sh Char-Gry-Blk Carb-Aqua Fissil No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS  
 Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MxIn Micrite Qtz Silltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS  
 Sh Varicolored Char-Gry-Blk Carb-Aqua-Maroon-Red Fissil Ls AA Silltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS  
**MISSISSIPPIAN 4636' (- 3243)**  
 Cht Wht-Yell Trip (Tr) Op Shp Vit Ls Crm-Tan MxIn Micrite (w/Pyr inculs) Grad FxIn Poor Pin-Pt IxIn Por Barren Chalk Sh Varicolored AA Aqua Inc No Odor No Stn No Flor NS  
 30" CFS @ 4665' Cht Wht-Yell Trip (Tr) Op Shp Vit Ls Crm-Tan MxIn Micrite (w/Pyr Includ) Grad FxIn Poor Pin-Pt IxIn Por Barren Chalk Sh Varicolored AA Abd No Odor No Stn No Flor NS  
**MISS. SALEM (SPERGEN) 4657' (-3264)**  
 60" CFS @ 4665' Cht Wht-Crm Trip (Inc) Op Shp Vit w/ Fair SG in Poor-Fair Pin-Pt IxIn Por Fos (Spicule) Ls Crm-Tan MxIn Micrite Barren Chalk Sh Varicolored AA Dec No Odor Trip (Few Pcs Drk Brn Stn) Sli Flor (Lt Grn) SG  
**MISSISSIPPIAN WARSAW 4672' (- 3279)**



FF = 69-179#;  
 ISIP = 1702#;  
 FSIP = 1636#;  
 Temp = 123 degrees F; Oil Grv = 48 degrees.  
 Gas Gauge:  
 IF = @ 15" = 45 Mcf;  
 @ 20" = 49 Mcf;  
 @ 30" = 53.2 Mcf;  
 FF = @ 10" = 46.5 Mcf;  
 @ 20" = 58.2 Mcf;  
 @ 30" = 68.5 Mcf;  
 @ 40" = 77.3 Mcf;  
 @ 50" = 84.7 Mcf;  
 @ 60" = 89.1 Mcf.  
 SH GAS KICK = 50 UNITS.  
 GAS KICK = 127 UNITS. @ 4491' ADJ. A.V. = 146.25  
 Scale Change TG, C1-C5 300  
 Clean Out Extractor Lines. Replace Filter & Line.  
 Bkgd Gas Carry RD = 169.14 Units.  
 ReZero Tooke Daq Bkgd Gas = 12 Units.  
 Bkgd Gas (Carry RD) = 158 Units.  
 Sh Gas Kick = 211 Units.  
 Mudco Ck @ 4495' @ 9:45 AM 3/20/13 Vis=53; WT=9.3#; PV= 15; YP= 16; WL 9.0; Cake= 1; Chl=3500; Cal = 80; Sol=6.9%; LCM= 2#; DMC=\$ 1501.55 CMC=\$ 13119.50  
 TG, C1-C5 300  
 BKGD GAS = 126 UNITS.  
 GAS KICK = 208 UNITS.  
 Mudco Ck @ 4692' @ 9:30 AM 3/21/13 Vis=51; WT=9.1#; PV= 16;

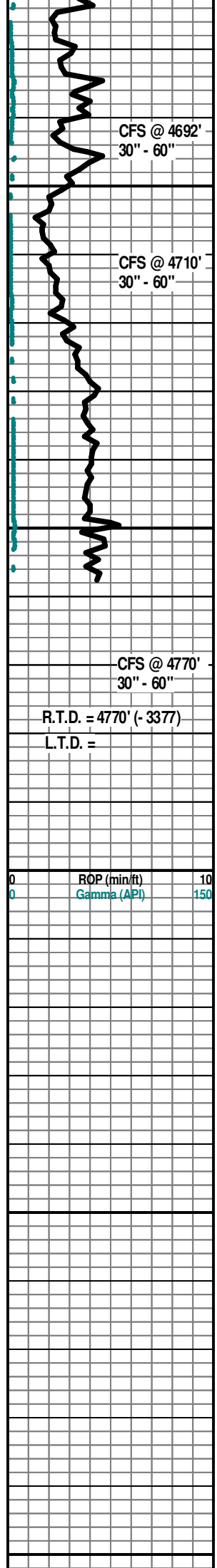
PIPE STRAP = 1.36'  
 SHORT TO BOARD.  
 NO COR. MADE.

CFS @ 4495' 30" - 60" CONN

CFS @ 4665' 30" - 60"

POR (minifit)  
 Gamma (API)





4700  
4750  
4800  
4850  
4900



30" CFS @ 4692' Dolo/Ls Crm-Tan Fxn Fair Inc Sucrosic Por (w/SSG & Tr Glacu Includ) Cht AA Trip (w/SSG & SSO) Chalky Pyr Mass Sh AA Fair Flor (Lt Grn) Fair Inc Stn (Lt Brn) Faint Odor

60" CFS @ 4692' Dolo/Ls Crm-Tan Fxn Fair Inc Sucrosic Pin-Pt Por (w/SSG) Cht AA Trip (w/SSG/SSO & Tr Glacu Includ) Chalky Pyr Mass Sh AA Fair Inc Flor (Lt Grn) Faint Inc Stn (Lt Brn) Faint Odor SSG & SSO

30" CFS @ 4710' Dolo Crm-Tan Fxn Fair Inc Sucrosic Pin-Pt IxIn Por (w/SSG/SSO w/Glacu Includ) Cht Wht (w/Fos (Spicule Includ)-Yell Tr Trip (w/GSG & GSFO) Pyr Mass Sh AA Fair Flor (Lt Grn & Both Gas & Oil Do Flor) Dolo & Cht Lt Brn Scat Stn Med-Good Odor GSG & GSFO

60" CFS @ 4710' Dolo Crm-Tan Fxn Fair-Med IxIn Sucrosic Pin-Pt IxIn Por (w/SG & SFO) Grad Tr Vug Leaching Por Cht Bone Wht Op Shp Vit Fos (Spicule Includ) GSG & GSFO Trip Good Leaching Por Sh AA Med-Good Flor (Lt Grn & Both Gas & Oil Do Flor) Good Lt Brn Stn Good Odor GSG & GSFO

Dolo Crm-Tan Fxn Fair-Med IxIn Sucrosic Por (w/SG & SFO) Cht Bone Wht (w/Fos (Spicule Includ) Translu-Op Shp Vit (w/GSG & GSFO) Trip Good Leaching Por (w/GSG & GSFO) Drk Blk Gillsionitic Stn Sh AA Fair-Good Flor (Lt Grn & Both Gas & Oil Do Flor) Good Lt Brn Stn Good Odor GSG & GSFO

Dolo Crm-Tan Fxn Fair-Med IxIn Sucrosic Por (w/SG & SFO) Cht Bone Wht (w/Fos (Spicule Includ) Translu-Op Shp Vit (w/GSG & GSFO) Trip Good Leaching Por (w/SG & SO) Drk Blk Gillsionitic Stn Sh AA Tr Flor (Lt Grn) Dec Scat Lt Brn Stn Tr Faint Dec Odor SSG & SSO Dec

Dolo Wht-Crm-Tan Fxn Fair IxIn Sucrosic Por (w/VSSG & VSSO AA) Cht Bone Wht (w/Fos (Spicule Includ)-Gry Op Shp Vit (w/VSSG & VSSO AA) Trip Poor-Fair Leaching Por (w/VSSG & VSSO) Drk Blk Gillsionitic Stn AA Sh AA Tr Flor (Lt Grn) Dec Scat Lt Brn Stn Tr ? Faint Dec Odor SSG & SSO Dec

30" CFS @ 4770'

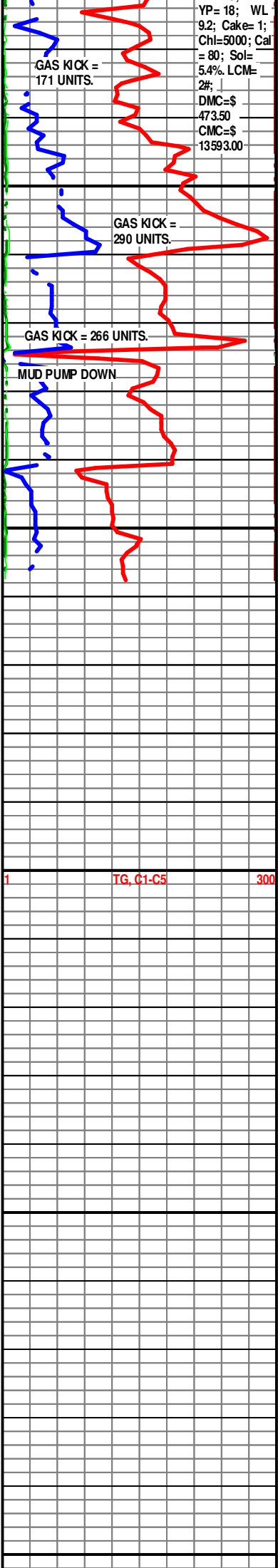
60" CFS @ 4770'

CFS @ 4770' 30" - 60"

R.T.D. = 4770' (-3377)  
L.T.D. =

Electric Logs Run: By Pioneer Logging:  
Dual Induction; Compensated Density-Neutron & Micro Logs  
Geologist Left Location at: : PM on 03/21/2013

ROP (min/ft)	10
Gamma (API)	150



YP= 18; WL 9.2; Cake= 1; Chl=5000; Cal= 80; Sol= 5.4%; LCM= 2#; DMC=\$ 473.50; CMC=\$ 13593.00

1 TG, C1-C5 300

