



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1100704  
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: \_\_\_\_\_



1100704

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:  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

<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> _____ <i>(Submit ACO-4)</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

November 15, 2012

DEAN PATTISSON  
Woolsey Operating Company, LLC  
125 N MARKET STE 1000  
WICHITA, KS 67202-1729

Re: ACO1  
API 15-007-23916-00-00  
WARREN FEE 10  
SW/4 Sec.18-32S-12W  
Barber 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,  
DEAN PATTISSON

# ALLIED OIL & GAS SERVICES, LLC 053856

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Medicine Lodge, KS

Wagon Fee

DATE <u>07-18-12</u>	SEC. <u>18</u>	TWP. <u>32.5</u>	RANGE <u>12W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>7:30 PM</u>
LEASE <u>Wagon Fee</u>	WELL # <u>10</u>	LOCATION <u>us 160 &amp; Gyp. Hill Rd, 3 1/2 S,</u>			COUNTY <u>Barber</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)		<u>w. &amp; n/into</u>			<u>1.01</u>	<u>72E</u>	

CONTRACTOR Handt OWNER Woolsey

TYPE OF JOB Surface

HOLE SIZE 14 3/4 T.D. 216

CASING SIZE 10 3/4 DEPTH 201 + 15' 8 1/2

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX. 200 MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT N/A

CEMENT LEFT IN CSG. 20'

PERFS. \_\_\_\_\_

DISPLACEMENT 19 Bbls Fresh H<sub>2</sub>O

CEMENT AMOUNT ORDERED 240 sk class A + 3% cc + 2% gel

COMMON <u>Class A</u>	<u>240 sk @ 16.25</u>	<u>3900.00</u>
POZMIX	@	
GEL	<u>5 sk @ 21.25</u>	<u>106.25</u>
CHLORIDE	<u>9 sk @ 58.00</u>	<u>523.00</u>
ASC	@	

## WELL FILE

Regulatory Correspondence  
Drill / Comp Workovers  
Tests / Meters Operations

HANDLING <u>259.5 ft<sup>3</sup></u>	@ <u>2.10</u>	<u>544.95</u>
MILEAGE <u>11.84 tons .15</u>	@ <u>2.15</u>	<u>417.36</u>
		TOTAL <u>5492.35</u>

177.6

### EQUIPMENT

PUMP TRUCK CEMENTER D. Felio 1  
# 548-545 HELPER H. Piper 2

BULK TRUCK  
# 364 DRIVER J. Halcomb 3

BULK TRUCK  
# \_\_\_\_\_ DRIVER \_\_\_\_\_

### REMARKS:

See Job 109.

Shutin - Cement Dil

111X

### SERVICE

DEPTH OF JOB _____		
PUMP TRUCK CHARGE _____		<u>1125.00</u>
EXTRA FOOTAGE _____	@	
MILEAGE <u>15</u>	@ <u>7.00</u>	<u>105.00</u>
MANIFOLD <u>Light Vehicle</u>	@ <u>4.00</u>	<u>60.00</u>
	@	

TOTAL 1290.00

CHARGE TO: Woolsey Oper.

STREET \_\_\_\_\_

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

### PLUG & FLOAT EQUIPMENT

<u>NO NO</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.

PRINTED NAME Scott Adalberto

SIGNATURE Scott Adalberto

SALES TAX (If Any) <u>350.69</u>	TOTAL _____
TOTAL CHARGES <u>6782.36</u>	
DISCOUNT <u>1356.47</u>	IF PAID IN 30 DAYS
	<u>5425.89</u>

AUG 10 2012

# ALLIED OIL & GAS SERVICES, LLC 053983

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Medicine Lodge, KS  
7-31 7-31

DATE <u>7-30-2012</u>	SEC. <u>18</u>	TWP. <u>32S</u>	RANGE <u>12W</u>	CALLED OUT	ON LOCATION	JOB START <u>2:45pm</u>	JOB FINISH <u>3:30pm</u>
LEASE <u>Warren Fee</u>	WELL # <u>10</u>		LOCATION <u>160 &amp; Gyp Hill Rd, 3 1/2 S</u>		COUNTY <u>Barber</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>			W/into		1.02		

CONTRACTOR Hgrst #1 OWNER Woolsey Operating

TYPE OF JOB Production

HOLE SIZE 7 7/8 T.D. 4865'

CASING SIZE 5 1/2 DEPTH 4776

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT 44'

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT 115 1/2 bbls of Fresh water

CEMENT	AMOUNT ORDERED <u>75ss @ 60:40:40 Ber</u>	
	<u>100ss Class H + 10% Gyp + 10% Seal</u>	
	<u>6# Kolsesi + 8% FL160 + 4# Flosec</u>	
	<u>125ss Class H</u>	
COMMON	<u>Class H 150 ss @ 19.25</u>	<u>2887.50</u>
POZMIX	<u>305 ss @ 8.50</u>	<u>2550.00</u>
GEL	<u>35 ss @ 21.25</u>	<u>63.25</u>
CHLORIDE	@	
ASC	@	
Class H	<u>455 ss @ 16.25</u>	<u>731.25</u>
Gypses	<u>105 ss @ 34.20</u>	<u>342.00</u>
Sgt	<u>115 ss @ 23.95</u>	<u>263.45</u>
Kolsesi	<u>600 # @ 0.85</u>	<u>534.00</u>
FL160	<u>75 # @ 17.20</u>	<u>1290.00</u>
Flosec	<u>25 # @ 2.70</u>	<u>67.50</u>
Clpro	<u>128915 @ 31.25</u>	<u>375.00</u>
	@	
HANDLING	<u>264 @ 2.25</u>	<u>594.00</u>
MILEAGE	<u>2641.1110 @ 3.35</u>	<u>289.40</u>
	<u>123.57</u>	<u>TOTAL 7,693.85</u>

EQUIPMENT

PUMP TRUCK CEMENTER Derin F 1

# 360-265 HELPER Brett G. 2

BULK TRUCK

# 381 DRIVER Kean W. 3

BULK TRUCK

# DRIVER

REMARKS:

Pipe on bottom & brass circulation, mix 25ss for mouse hole, mix 50ss SC cleaner cement, mix 100ss of 49 cement shut down, wash pump & line, Release plug & set displacement, lift pressure & 80 bbls, slow rate to 3 hrs @ 100 bbls pump plug & 115 1/2 bbls 800-1500 psi float die hold

SERVICE

DEPTH OF JOB 4776'

PUMP TRUCK CHARGE 2405.00

EXTRA FOOTAGE @

MILEAGE 10 @ 70.00 700.00

MANIFOLD/Hessrendes @ 200.00

Light vehicle 10 @ 4.00 40.00

@

TOTAL 2715.00

CHARGE TO: Woolsey Operating

STREET

CITY STATE ZIP

**WELL FILE**

Regulatory Correspondence  
Drig Comp Workovers  
Tests / Meters Operations

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.

PLUG & FLOAT EQUIPMENT

3 1/2

1-DEU float shoe @ 349.00

1-latch down plug @ 272.00

9-Turbolizers @ 80.00 720.00

32-Scalers @ 76.00 2432.00

@

TOTAL 3778.00

PRINTED NAME x Donald Boyd

SIGNATURE x Donald Boyd

Thank you!!!

SALES TAX (If Any) -0-

TOTAL CHARGES \$14,186.85

DISCOUNT 20 2837.37 IF PAID IN 30 DAYS

Field Estimate

Net # 11,349.48

AUG 20 2012



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Woolsey Oper. Co. LLC.  
 125 N. Market Ste. 1000  
 Wichita, KS 67202-1729  
 ATTN: Scott Alberg

**18-32s-12w**  
**Warren Fee #10**  
 Job Ticket: 49528      **DST#: 1**  
 Test Start: 2012.07.27 @ 09:22:49

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 11:15:04  
 Time Test Ended: 18:04:19  
 Interval: **4362.00 ft (KB) To 4423.00 ft (KB) (TVD)**  
 Total Depth: 4423.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ryan Reynolds  
 Unit No: 63  
 Reference Elevations: 1625.00 ft (KB)  
 1615.00 ft (CF)  
 KB to GR/CF: 10.00 ft

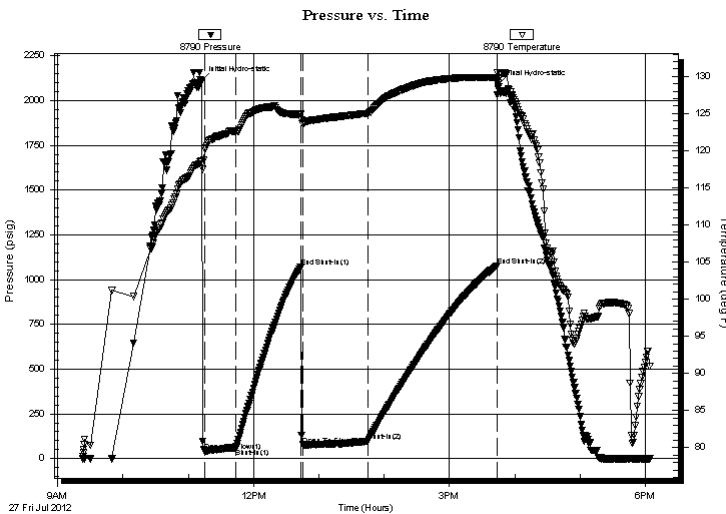
## Serial #: 8790

Inside

Press @ Run Depth: 96.19 psig @ 4366.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2012.07.27      End Date: 2012.07.27      Last Calib.: 2012.07.27  
 Start Time: 09:22:54      End Time: 18:04:19      Time On Btm: 2012.07.27 @ 11:12:19  
 Time Off Btm: 2012.07.27 @ 15:44:49

TEST COMMENT: IF: Strong blow . BOB 2min. No GTS  
 IS: No blow  
 FF: Strong blow . BOB immed. GTS in 45min. 7.3mcf @ 60min.  
 FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.60	118.63	Initial Hydro-static
3	38.94	120.18	Open To Flow (1)
32	59.50	122.55	Shut-In(1)
92	1070.17	124.92	End Shut-In(1)
93	74.67	123.64	Open To Flow (2)
153	96.19	125.01	Shut-In(2)
272	1076.66	129.81	End Shut-In(2)
273	2090.24	128.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	OGCM 15%oil, 25%gas, 60%mud	0.54
100.00	SLI OGCM 3%oil, 15%gas, 82%mud	1.32

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	4.00	6.89
Last Gas Rate	0.13	5.00	7.26
Max. Gas Rate	0.13	5.00	7.26





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Woolsey Oper. Co. LLC.

**18-32s-12w**

125 N. Market Ste. 1000  
Wichita, KS 67202-1729

**Warren Fee #10**

Job Ticket: 49528

**DST#: 1**

ATTN: Scott Alberg

Test Start: 2012.07.27 @ 09:22:49

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

5000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
110.00	OGCM 15%oil, 25%gas, 60%mud	0.541
100.00	SLI OGCM 3%oil, 15%gas, 82%mud	1.321

Total Length: 210.00 ft

Total Volume: 1.862 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: RR-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Woolsey Oper. Co. LLC.

**18-32s-12w**

125 N. Market Ste. 1000  
Wichita, KS 67202-1729

**Warren Fee #10**

Job Ticket: 49528

**DST#: 1**

ATTN: Scott Alberg

Test Start: 2012.07.27 @ 09:22:49

### 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)
2	45	0.13	4.00	6.89
2	45	0.13	4.00	6.89
2	50	0.13	5.00	7.26

Serial #: 8790

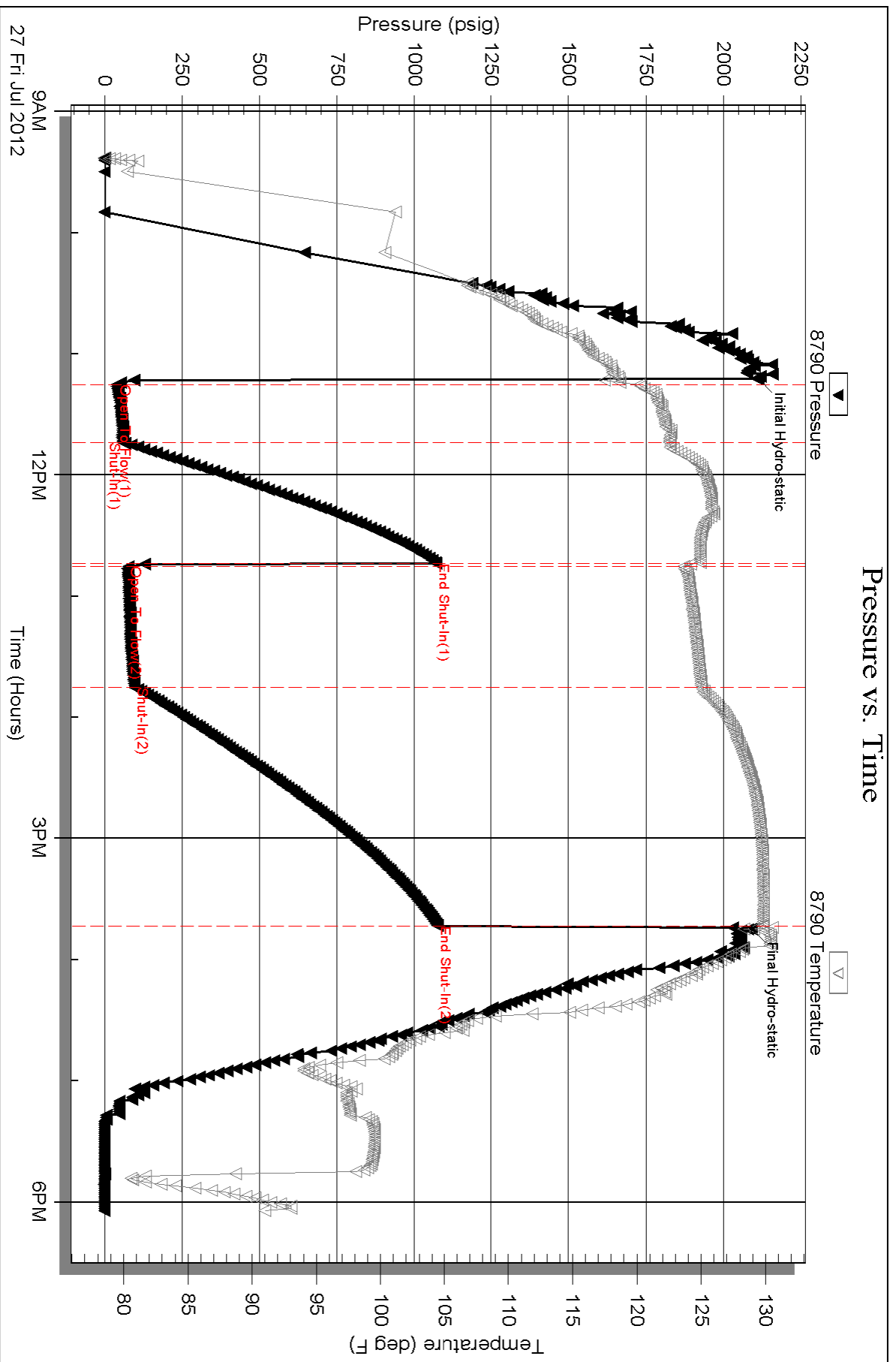
Inside

Woodsey Oper. Co. LLC.

Warren Fee #10

DST Test Number: 1

### Pressure vs. Time

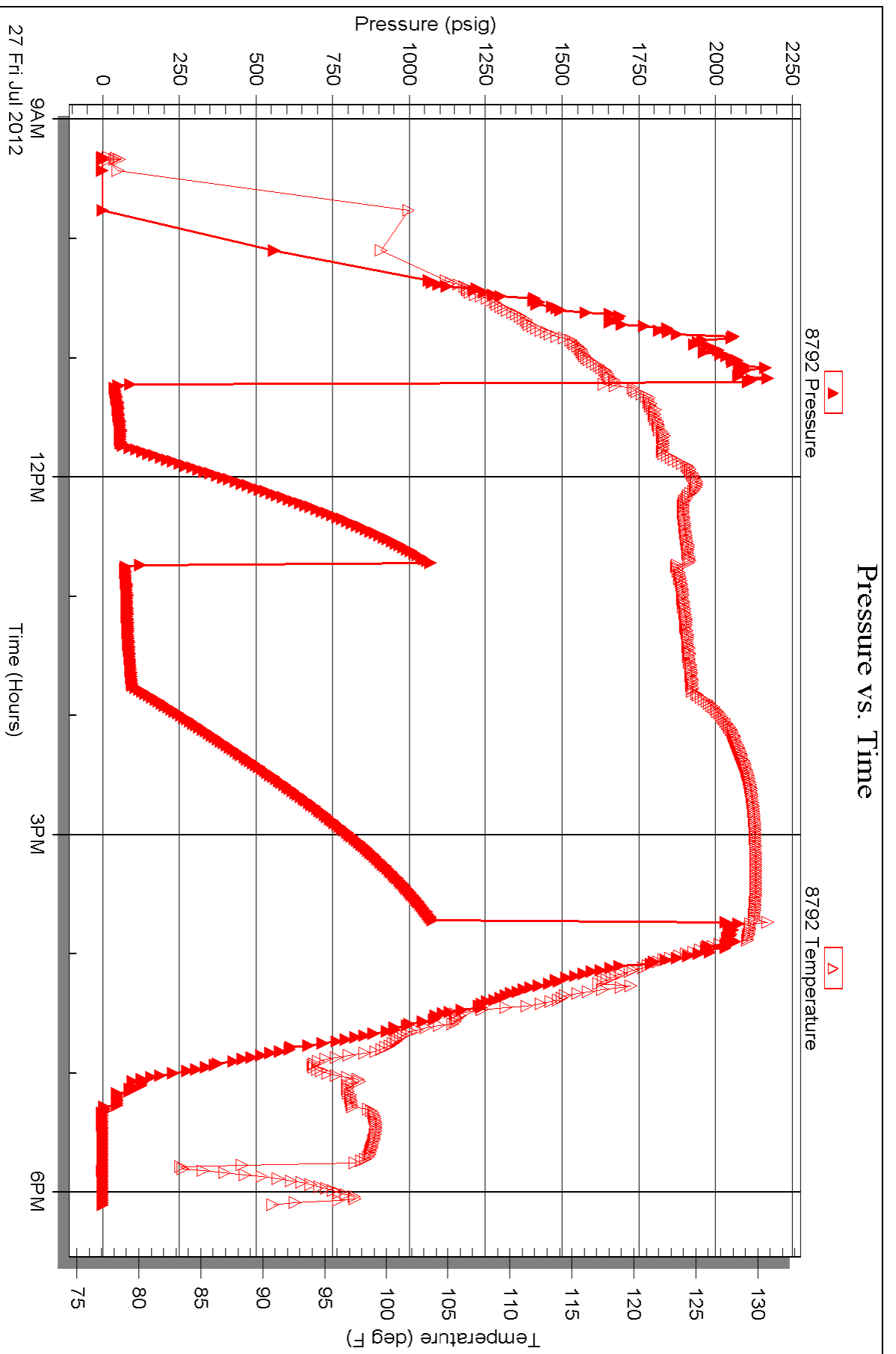


Serial #: 8792

Outside Woodsey Oper. Co. LLC.

Warren Fee #10

DST Test Number: 1





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Woolsey Oper. Co. LLC.  
 125 N. Market Ste. 1000  
 Wichita, KS 67202-1729  
 ATTN: Scott Alberg

**18-32s-12w**  
**Warren Fee #10**  
 Job Ticket: 49529 **DST#: 2**  
 Test Start: 2012.07.28 @ 02:13:21

## GENERAL INFORMATION:

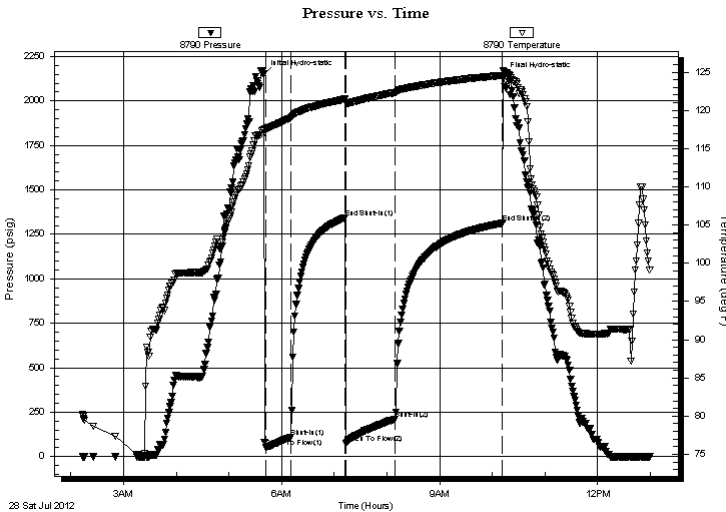
Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:41:36  
 Time Test Ended: 12:59:36  
 Interval: **4424.00 ft (KB) To 4481.00 ft (KB) (TVD)**  
 Total Depth: 4481.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ryan Reynolds  
 Unit No: 63  
 Reference Elevations: 1625.00 ft (KB)  
 1615.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 8790

Press @ Run Depth: 211.50 psig @ ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.07.28 End Date: 2012.07.28 Last Calib.: 2012.07.28  
 Start Time: 02:13:26 End Time: 12:59:36 Time On Btm: 2012.07.28 @ 05:39:21  
 Time Off Btm: 2012.07.28 @ 10:12:36

TEST COMMENT: IF: Very strong blow . BOB 10 sec. GTS in 30min.  
 IS: Weak 1/4" BB  
 FF: Strong blow . BOB 15sec. Gauged gas  
 FS: Fair 4" BB

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2150.92	117.40	Initial Hydro-static
3	54.54	117.57	Open To Flow (1)
32	108.98	119.04	Shut-In(1)
93	1341.50	121.44	End Shut-In(1)
94	76.14	120.98	Open To Flow (2)
150	211.50	122.31	Shut-In(2)
273	1313.48	124.56	End Shut-In(2)
274	2137.05	125.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	MCGCWO 15% mud, 20% gas, 25% water, 0.15 oil	
60.00	MCGCO 15% mud, 20% gas, 65% oil	0.30
300.00	Clean Gassy Oil 20% gas, 80% oil	3.94

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	10.00	9.13
Last Gas Rate	0.13	48.00	23.35
Max. Gas Rate	0.13	48.00	23.35





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Woolsey Oper. Co. LLC.

**18-32s-12w**

125 N. Market Ste. 1000  
Wichita, KS 67202-1729

**Warren Fee #10**

Job Ticket: 49529

**DST#: 2**

ATTN: Scott Alberg

Test Start: 2012.07.28 @ 02:13:21

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	MCGCWO 15%mud, 20%gas, 25%water, 4%	0.148
60.00	MCGCO 15%mud, 20%gas, 65%oil	0.295
300.00	Clean Gassy Oil 20%gas, 80%oil	3.944

Total Length: 390.00 ft

Total Volume: 4.387 bbl

Num Fluid Samples: 1

Num Gas Bombs: 2

Serial #: RR-2

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Woolsey Oper. Co. LLC.

**18-32s-12w**

125 N. Market Ste. 1000  
Wichita, KS 67202-1729

**Warren Fee #10**

Job Ticket: 49529

**DST#: 2**

ATTN: Scott Alberg

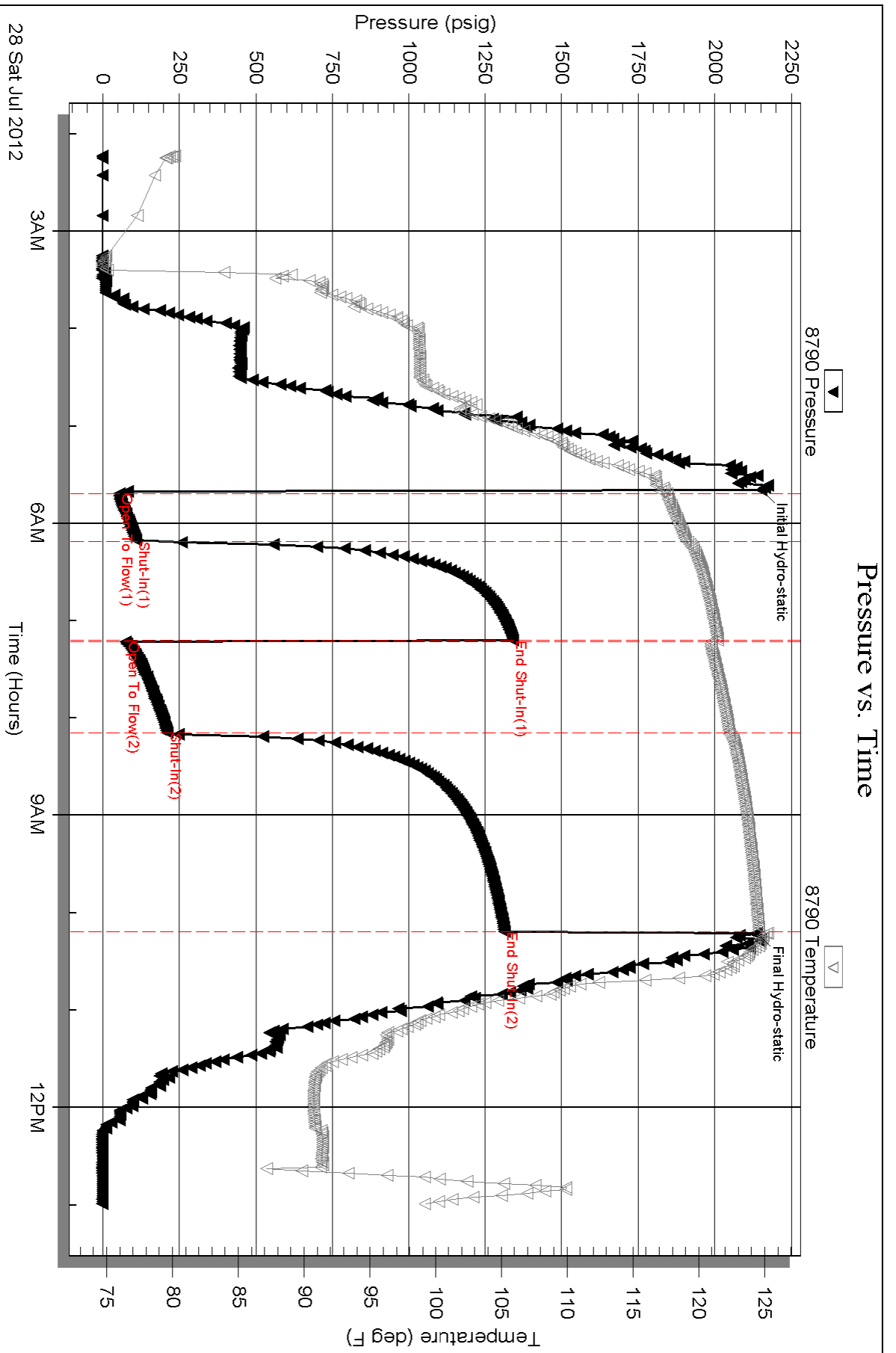
Test Start: 2012.07.28 @ 02:13:21

### Gas Rates Information

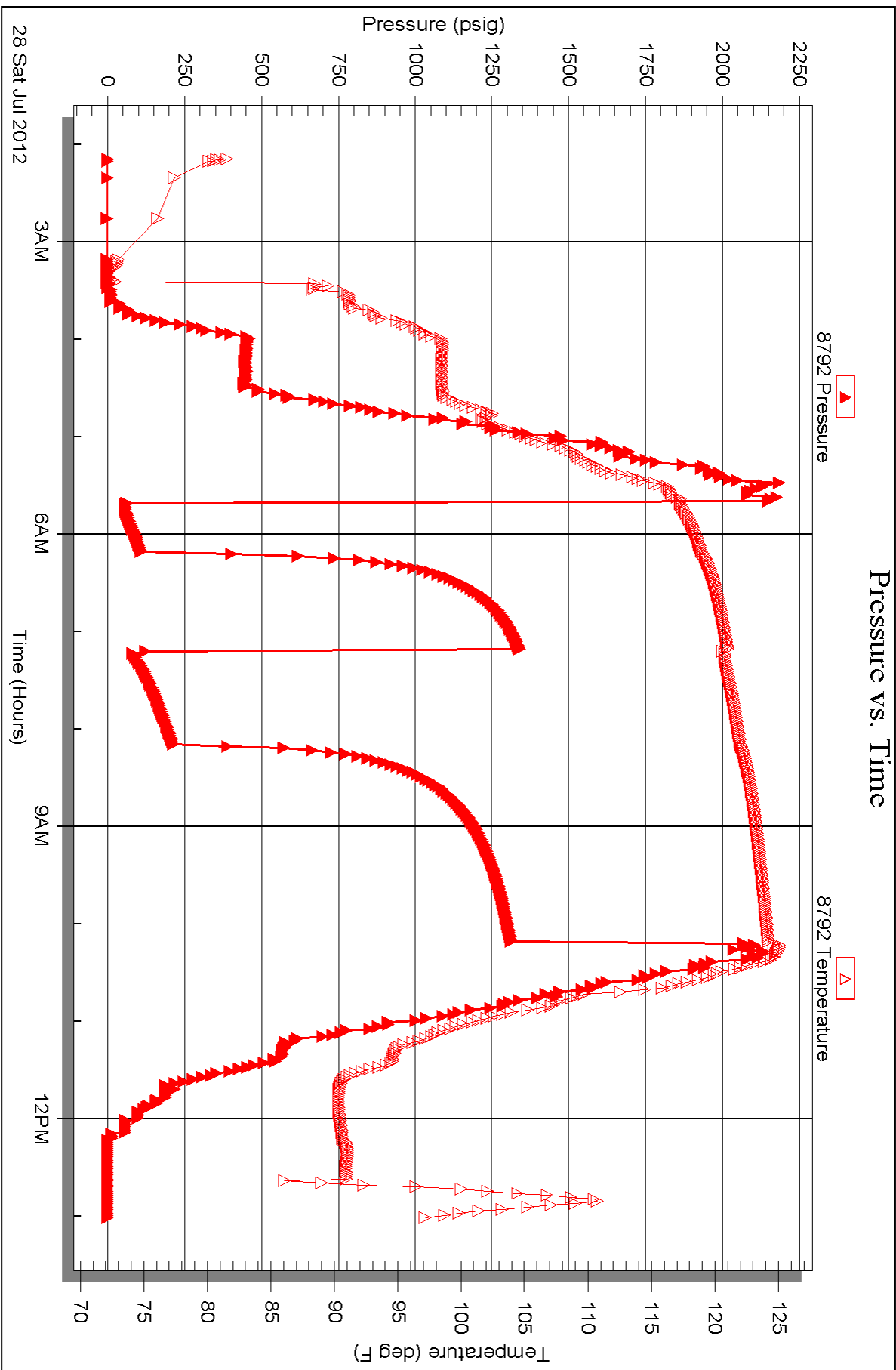
Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	5	0.13	10.00	9.13
2	5	0.13	10.00	9.13
2	10	0.13	13.50	10.44
2	20	0.13	23.00	14.00
2	30	0.13	30.00	16.62
2	40	0.13	42.00	21.11
2	50	0.13	48.00	23.35









**Woolsey Operating Company, LLC**

Scale 1:240 (5"=100') Imperial

Measured Depth Log

Well Name: WARREN FEE 10  
Location: NW SE SW SW  
License Number: API: 15-007-23916-00-00  
Spud Date: July 18, 2012  
Surface Coordinates: Section 18-T32S-R12W, 480' FSL, 785' FWL  
Medicine Lodge North Pool  
Bottom Hole Vertical Hole  
Coordinates:  
Ground Elevation (ft): 1615 K.B. Elevation (ft): 1625  
Logged Interval (ft): 3500 To: RTD Total Depth (ft): 4865  
Formation: McLish Shale  
Type of Drilling Fluid: Chemical Mud, Displace at 3259'.  
Region: Barber County, Kansas  
Drilling Completed: July 30, 2012

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: Woolsey Operating Company, LLC  
Address: 125 N. Market, Suite 1000  
Wichita, KS 67202

**GEOLOGIST**

Name: W. Scott Alberg  
Company: Alberg Petroleum, LLC  
Address: 609 Meadowlark Lane  
Pratt, Kansas 67124

## FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
LECOMPTON	3530(-1905)	3531(-1906)
KANWAKA	3560(-1935)	3562(-1937)
HEEBNER	3695(-2070)	3697(-2072)
TORONTO	3711(-2085)	3712(-2086)
BROWN LIME	3865(-2240)	3866(-2241)
LANSING	3874(-2249)	3875(-2250)
HUSHPUCKNEY SHALE	4266(-2641)	4266(-2641)
B/KC	4327(-2702)	4326(-2701)
MISSISSIPPIAN	4397(-2772)	4398(-2773)
KINDERHOOK SHALE	4591(-2966)	4589(-2964)
WOODFORD SHALE	4656(-3031)	4656(-3021)
VIOLA	4686(-3061)	4686(-3061)
SIMPSON GROUP	4778(-3153)	4775(-3150)
RTD	4865(-3240)	
LTD		4865(-3240)

## COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 216'(tallied 202') with 240 sxs Class A, 2% gel, 3% cc, plug down at 7:30 pm on July 18, 2012. Cement did Circulate.

Production Casing: 5 1/2" Casing Ran.

Deviation Surveys: 1 1/4 - 216', 1 - 1066', 1 - 1558', 1 - 2082, 3/4 2577', 1 - 3074', 1 - 3568', 2 - 4063', 3/4 - 4188', 2 - 4423', 1 3/4 - 4481', 1 1/4 - 4865'.

Contractor Bit Record:

1- 14 3/4" out at 216'.

2- 7 7/8" out at 4865'.

Pipe Strap at 4423'

Board 4435.41'

Strap 4438.69'

Strap long 3.28'.

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: Trilobite Testing

Logged by Superior Well Services.

LTD - 4865'.

## DSTs

### DST #1 4362 to 4423' Mississippi

Times 30-60-60-120

1st Opening - Strong Blow BOB in 2 minutes - no blow back

2nd opening - Strong Blow, GTS 45 minutes - no blow back.

IHP 2114# FHP 2090#

IFP 39-60# FFP 75-96#

ISIP 1070# FSIP 1076#

Recovery: 100' SGOCM (15% g, 3% O, 82% M)

110' GOCM ( 25% g, 15% O, 60% M)

Gas Gauge:

45 min 6.5 MCF

50 min 6.8 MCF

60 min 7.3 MCF

### DST #2 4424 to 4481' Mississippi

Times 30-60-60-120

1st Opening - Strong Blow BOB 30 Seconds, GTS 30 min - Weak 1/4" blow back

2nd Opening - Strong Blow BOB immediately, GTS immediately. Fair 4" blow back

IHP 2151# FHP 2137#

IFP 55-109# FFP 76-212#

ISIP 1342# FSIP 1313#

Recovery: 300' GO (20% G, 80% O), 60' MC&GCO (20% G, 65% O, 15%M), 30' MC&GCWO (20% G, 40% O, 25% W, 15% M)

Chlorides 95,000 ppm, 36 degree Gravity.

Gas Gauge

5 min 8.5 MCF    10 min 9.7 MCF

20 min 13.0 MCF    30 min 15.5 MCF

40 min 19.6 MCF    50 min 21.7 MCF

60 min 23.8 MCF

## CREWS

Hardt Drilling, Inc Rig #1


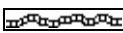
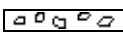

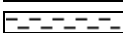

Tool Pusher - Scott Adelhardt







Drillers - Days - Steve Myers


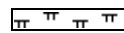
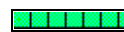


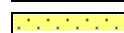
Evening - Jody Divine






Morning - Billy Maas

## ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal

	Congl
	Sdy dolo
	Shy dolo
	Dol
	Gyp
	Sdy lmst

	Lmst
	Mrlst
	Salt
	Shale
	Sltst
	Ss

	Black sh
	Gry sh
	Shale
	Shyslst
	Sltsh

## ACCESSORIES

### MINERAL

- Anhy
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Ferrpel
- Ferr
- Glau
- Gyp
- Marl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt

- Chlorite
- Dol
- Sand
- Slty

### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra

- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomoldic

### STRINGER

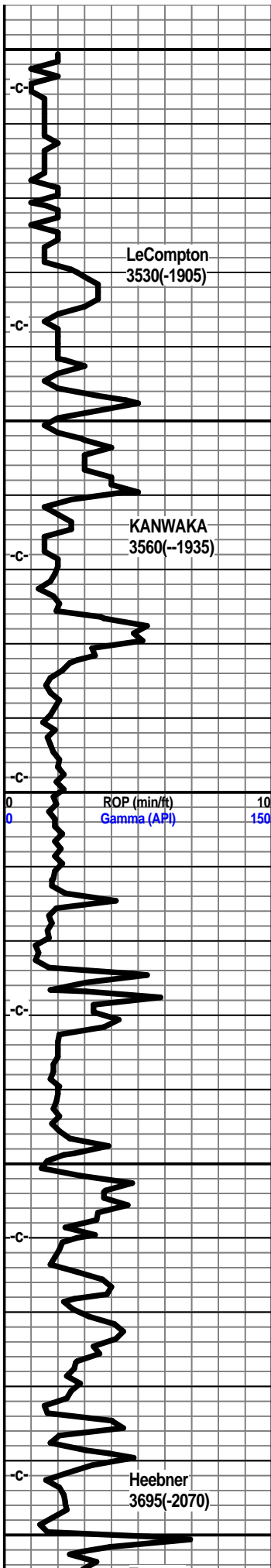
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Slststrg
- Ssstrg
- Carbsh
- Clystn
- Dol

- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Slststn

### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

Curve Track 1		Depth	Lithology	Geological Descriptions	TG, C1-C5				
ROP (min/ft)	Gamma (API)				TG (units)	C1 (units)	C2 (units)	C3 (units)	C4 (units)
0	0	34		Drilling Progress	0	TG			100
				July 18, 2012 MIRT					
				July 19, 2012 350' @ 7:00 am					
				July 20, 2012 972' @ 7:00 am					
				July 21, 2012 1663' @ 7:00 am					
				July 22, 2012 2237' @ 7:00 am					
				July 23, 2012 2770' @ 7:00 am					
				July 24, 2012 3283' @ 7:00 am					
				July 25, 2012 3744' @ 7:00 am					
				July 26, 2012 4157' @ 7:00 am					
				July 27, 2012 4423' @ 7:00 am					
				July 28, 2012 4481' @ 7:00 am					
				July 29, 2012 4645' @ 7:00 am					
				July 30, 2012 4865' @ 7:00 am					
		3450							



3500

3550

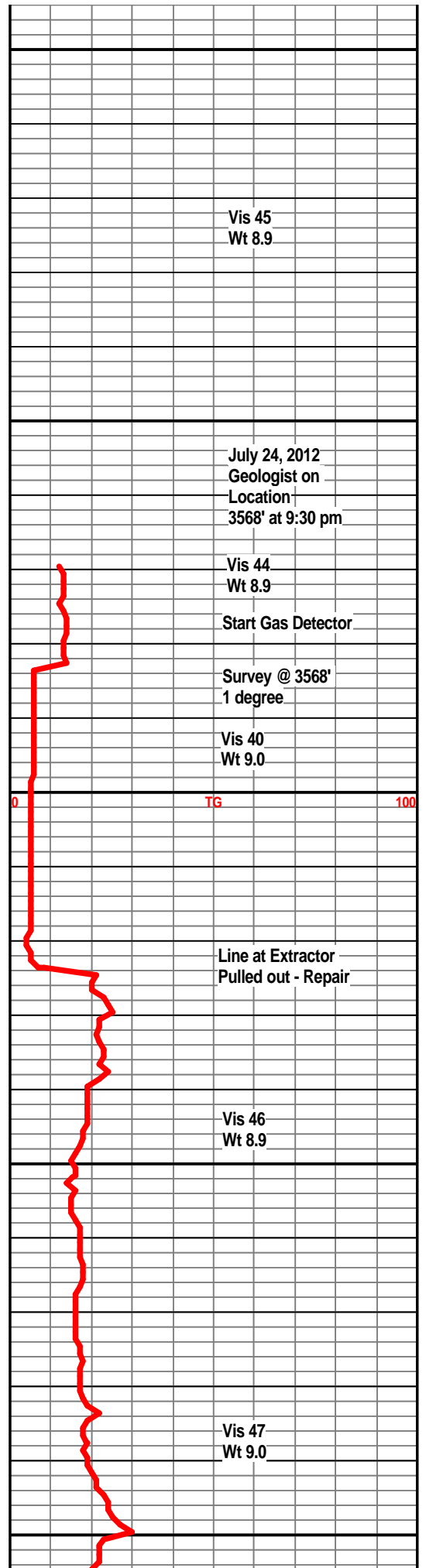
3600

3650

3700



Shale, black, grey, carb.  
Limestone, grey-white, xln, dense.



Vis 45  
Wt 8.9

July 24, 2012  
Geologist on  
Location  
3568' at 9:30 pm

Vis 44  
Wt 8.9

Start Gas Detector

Survey @ 3568'  
1 degree

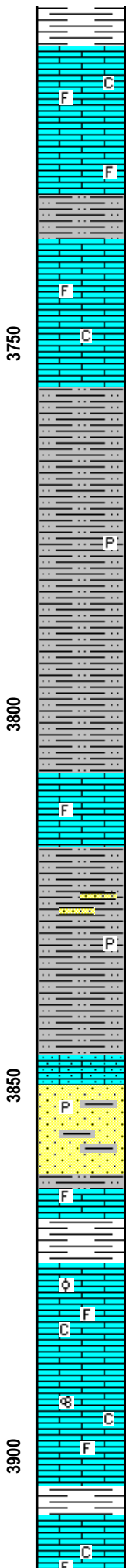
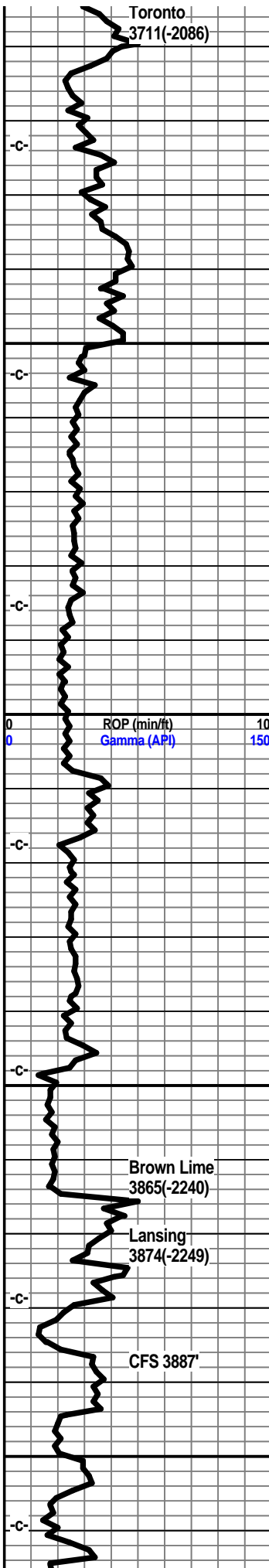
Vis 40  
Wt 9.0

TG

Line at Extractor  
Pulled out - Repair

Vis 46  
Wt 8.9

Vis 47  
Wt 9.0



Shale, grey.

Limestone, cream, buff, white, xln, partly dense, foss., chalky in part, no vis shows, no odor.

Limestone, cream, buff-white, xln, partly dense, trace xln porosity, fossils, no vis shows, no odor.

Shale, grey, silty.

Limestone, tan, tan-brown, xln, dense, foss.

Limestone, tan, tan-brown, mxln, dense, foss., slightly chalky.

Shale, light grey, silty to sandy, soft.

Shale, light grey, silty, mica, trace pyrite.

Shale, light grey, silty to slightly sandy.

Shale, light grey, silty, soft, some ls frags.

Limestone, tan, grey-brown, xln, dense, fossils, slightly sandy.

Shale, light grey, very silty to sandy, some sst stringers, well cemented, traces of pyrite, ls frags.

Shale, light grey, silty a/a.

Limestone, tan, brown, xln, dense, sandy,

Sandstone, light grey, grey, silty to limey, well cemented, sa, some pyrite inclusions, poor porosity, no visible shows, no odor, no kick.

Limestone, brown, tan dense, mxln, foss.

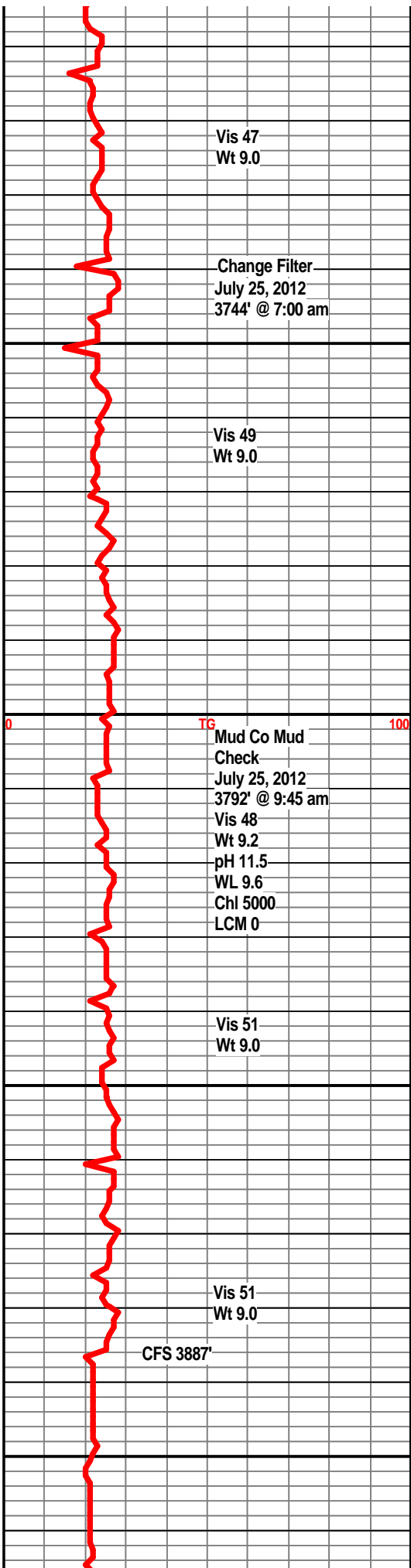
Shale, grey.

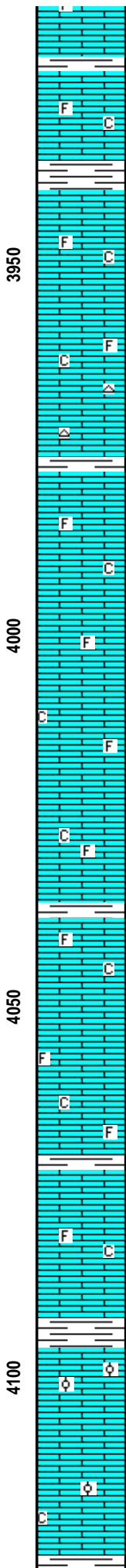
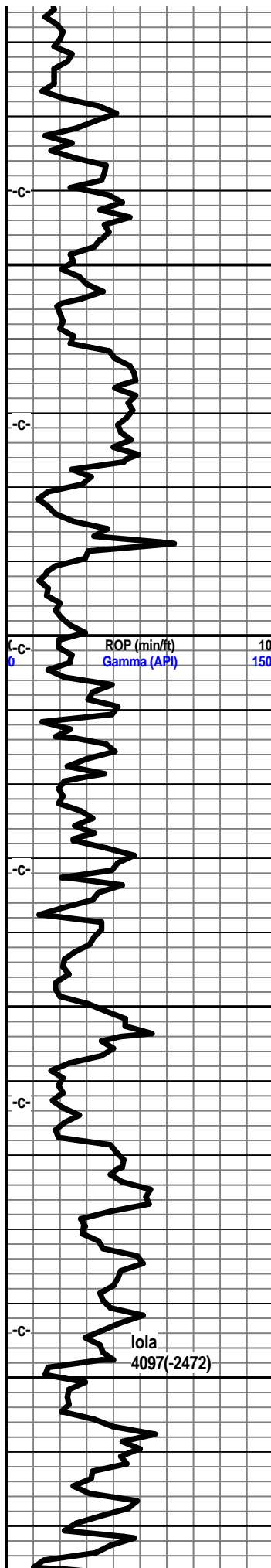
Limestone, cream, buff, xln, slightly foss., traces of xln porosity, trace oolites, chalky in part, no visible shows, no odor, no kick.

Limestone, buff, cream, xln, slightly dense in part, traces of xln porosity, some foss frags, foss porosity, chalky in part.

Shale, grey.

Limestone, buff, tan-white, xln, xln porosity, trace foss porosity, chalky, no visible shows





trace loss porosity, chalky, no visible shows.

Shale, grey.

Limestone, cream, tan, xln, partly dense, chalky, traces of foss, some xln porosity, no vis shows.

Shale, grey.

Limestone, tan, buff, xln, dense in part, xln porosity, some foss porosity, subchalky.

Limestone, tan, buff, foss porosity, xln porosity, subchalky, no vis shows.

Limestone, tan, xln, dense, abundant grey shales, trace chert.

Limestone, tan, cream, buff, xln, dense, some foss, xln porosity, abundant grey shales.

Limestone, grey-white, buff, xln, partly dense, scattered xln and foss porosity, subchalky, abundant grey shales, no visible shows.

Limestone, grey-white, buff, xln, partly dense, grey shales.

Limestone, cream, tan, xln, dense, subchalky, traces of xln porosity, foss in part.

Limestone, tan, buff-white, xln, partly dense, subchalky, foss, traces of xln porosity, no visible shows.

Limestone, tan, cream, buff, xln, foss in part, chalky, some grey shales, fossils, no visible shows, no odor.

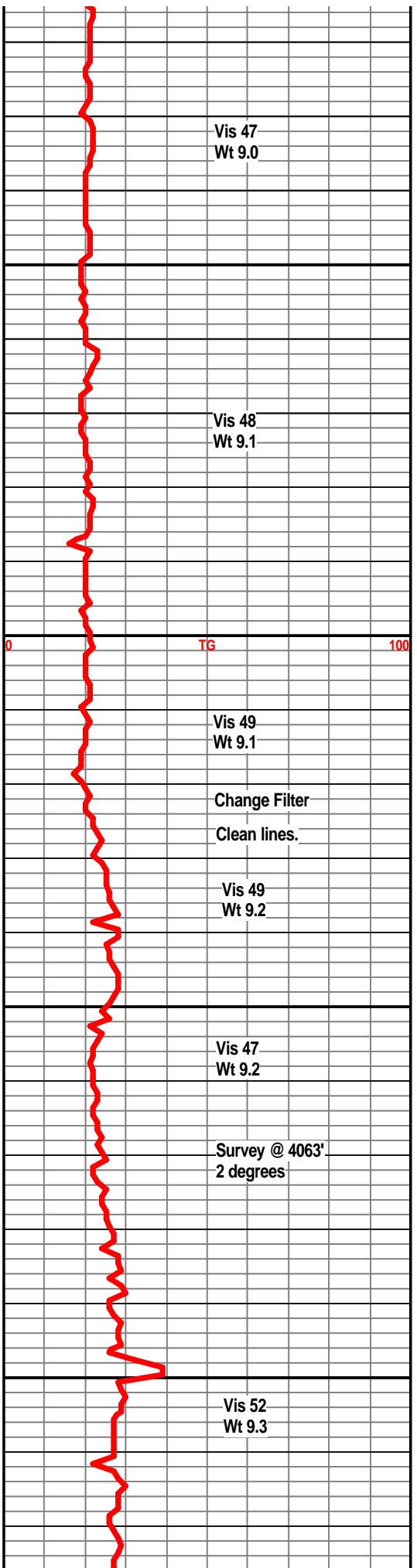
Limestone, cream, tan, grey-white, xln, dense in part, scattered xln porosity, traces of foss porosity, no visible shows, no odor, no visible shows.

Shale, grey-black

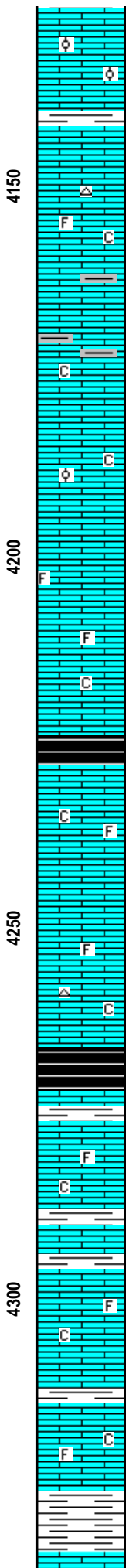
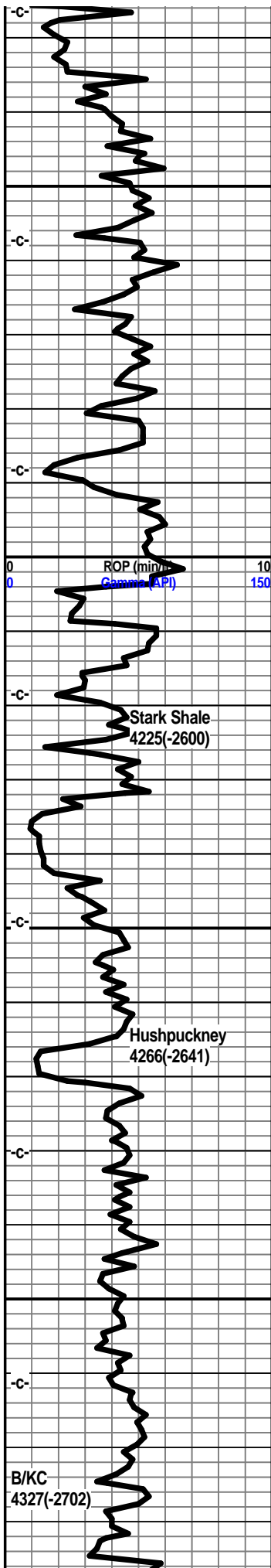
Limestone, tan, buff, xln, partly dense, oolitic, oolimidic porosity, no visible shows, no odor, no fluor.

Limestone, tan, buff, cream-white, xln, foss in part, trace oolites, subchalky, no vis shows.

Shale, light grey.







Limestone, tan, buff, xln, foss, xln, traces of foss and xln porosity, trace oolimidic porosity, no visible shows, no odor.

Shale, grey.

Limestone, tan, buff-white, xln, dense, trace white-tan chert, some foss, slightly chalky, no visible shows.

Limestone, grey-white, xln, dense, light grey shales, some chalky ls., no visible shows.

Limestone, tan, buff, xln, oolitic, traces of oolimidic porosity, slightly chalky, no visible shows.

Limestone, cream, tan, buff, xln, partly dense, some xln porosity, foss in part, subchalky, no visible shows, no odor.

Shale, grey-black, carb in part.

Limestone, cream, tan, xln, oolitic in part, trace oolimidic porosity, traces of xln porosity, subchalky, no odor, no visible shows.

Limestone, tan, buff-white, xln, partly dense, foss in part, trace xln porosity, traces of tan-white chert, subchalky in part, no visible shows.

Shale, grey-black, carb.

Limestone, tan, grey-white, xln, dense, foss in part, slightly chalky, no visible shows, no odor, shaley in part.

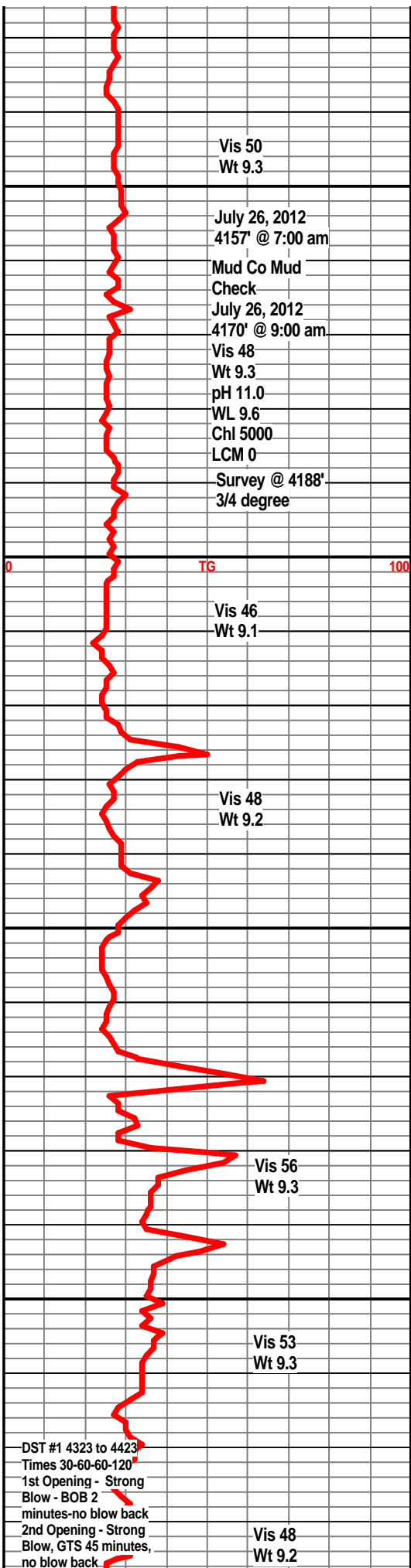
Shale, dark grey.

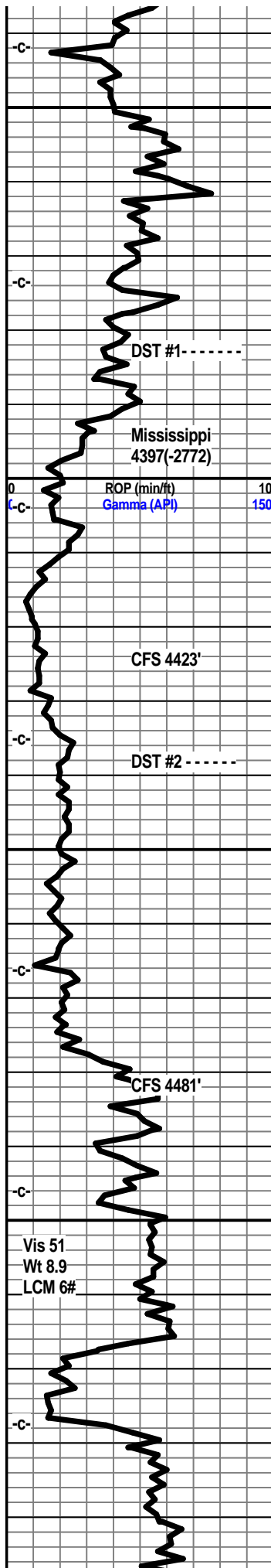
Limestone, tan, cream, xln, dense, foss, chalky, no odor, no shows.

Shale, grey-green.

Limestone, cream, buff, grey-white, xln, partly dense, chalky in part, foss., no visible shows.

Shale, grey, pale green.





Limestone, tan, buff, grey-white, fxln, dense, foss, no shows.

Shale, grey, dark grey, green.

Limestone, tan, buff-white, xln, dense, foss, traces of tan chert, slightly chalky, no visible shows, no odor.

Shale, grey-green.

Limestone, buff, tan, xln, scattered xln porosity, trace foss, very faint odor, slight show oil, some gas, dark asphaltic staining, slight gas indication, dull fluor.

Shale, grey, green.

Chert, white, bone-white, tan, sharp, weathered in part, trace pp porosity, light brown to dark brown-black staining, faint odor, slight show free oil, trace gas bubbles, dull fluor.

Chert, white, off-white,, bone-white, tan, sharp, some weathered, trace of scattered ppt porosity, scattered spotty light brown staining, faint odor, slight show free oil, trace gas bubbles, dull scattered fluor.

Chert, off-white, bone-white, tan, ppt porosity, few small scattered vugs, faint odor, slight show few oil, some even light brown staining on weathered pieces, mostly scattered edge staining, dull fluor, good gas indication.

Chert, bone-white, sharp slightly weathered, few ppt porosity, scattered light brown staining, faint odor, dull fluor, more of a limey texture.

Chert, tan, bone-white, sharp, fresh, slightly weathered scattered staining, faint odor, slight show oil & gas, dull fluor.

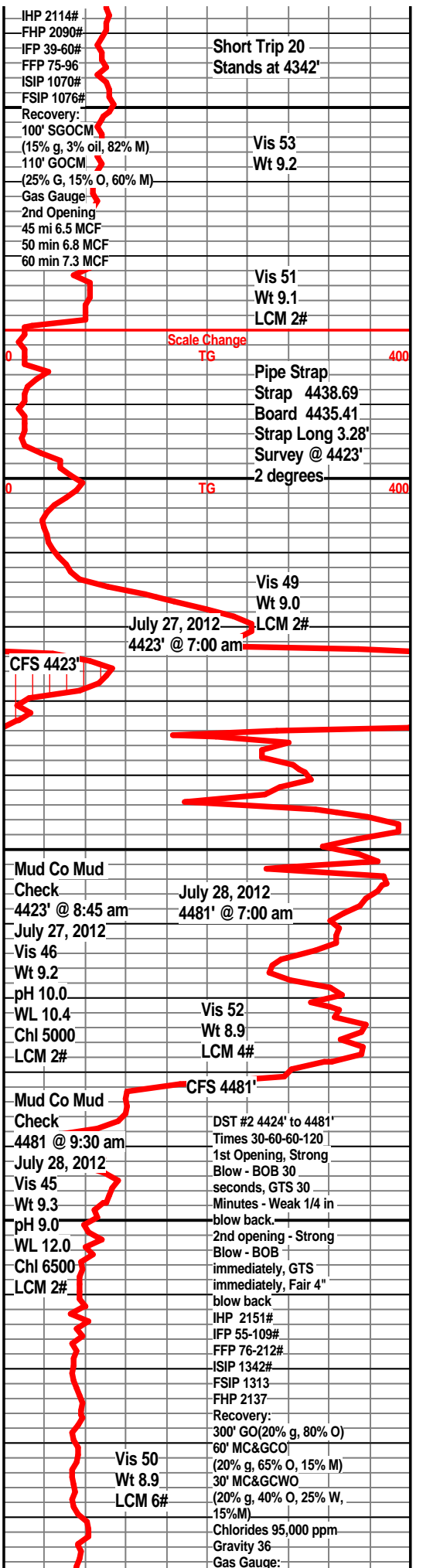
Limestone, tan, cream-white, buff, xln, dense, abundant cherts, some weathered with light staining, grey-green shales.

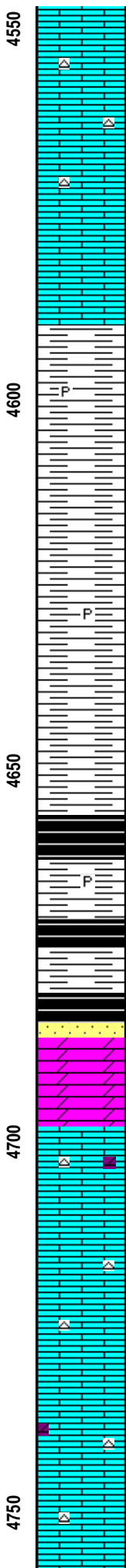
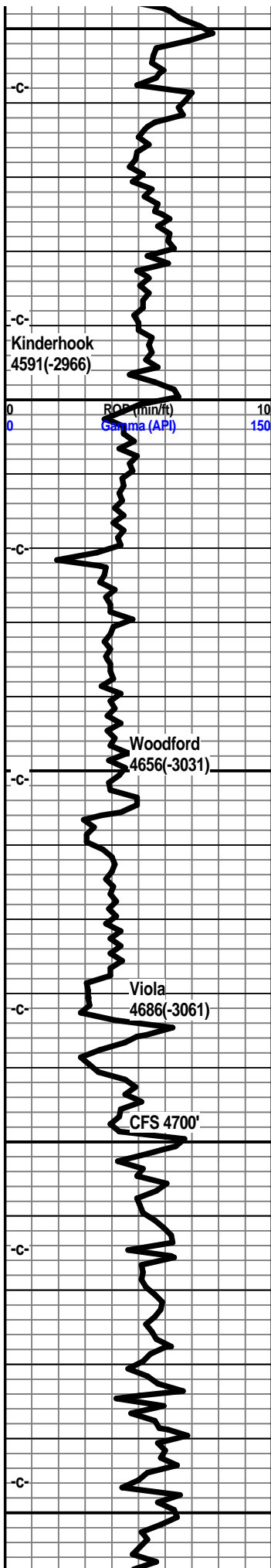
Limestone, tan, buff, xln, dense, slightly chalky, cherty, mostly fresh cherts.

Limestone, tan, reddish tan, xln, dense, traces of fresh cherts.

Chert, white, bone-white, sharp, fresh, no visible shows.

Limestone, tan, buff, ceam, xln, dense, fresh chert, slightly chalky. dull mineral fluor.





Limestone, tan, buff, xln, dense, slightly chalky, fresh cherts.

Limestone, buff, cream-white, xln, dense, scattered fresh cherts, no shows.

Limestone, buff-white, xln, dense, slightly chalky, fresh cherts, some grey-green shales.

Shale, dark green to a pale green, traces of pyrite, abundant ls frags.

Shale, light grey, grey, ls frags, trace pyrite.

Shale, Light grey, grey, silty, splintery.

Shale, light grey, grey.

Shale, grey, grey-black, carb, trace gas bubbles.

Shale, grey-black, brown-black, trace pyrite.

Shale, grey-black, brown-black, traces of gas bubbles, very few clusters of sand, dirty, well cemented, very slight show of light oil, no odor, very spotty floor.

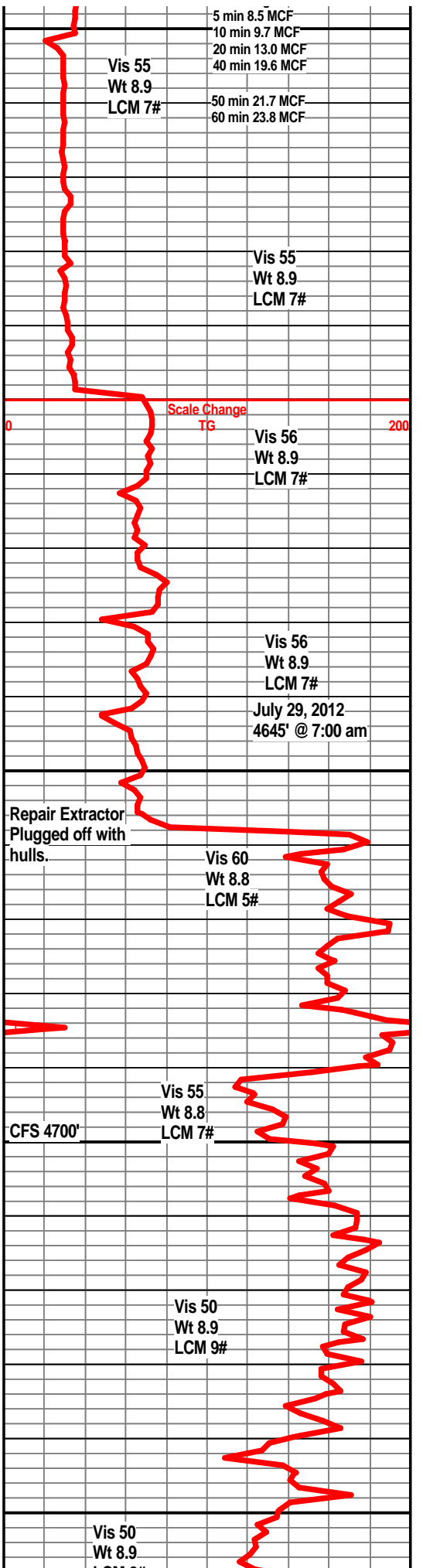
Dolomite, white, off-white, crystalline, traces of xln porosity, no vis shows, no odor.

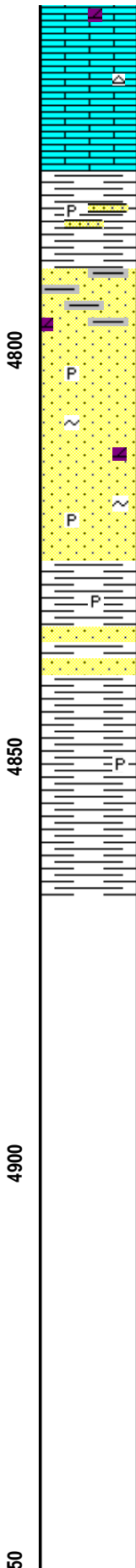
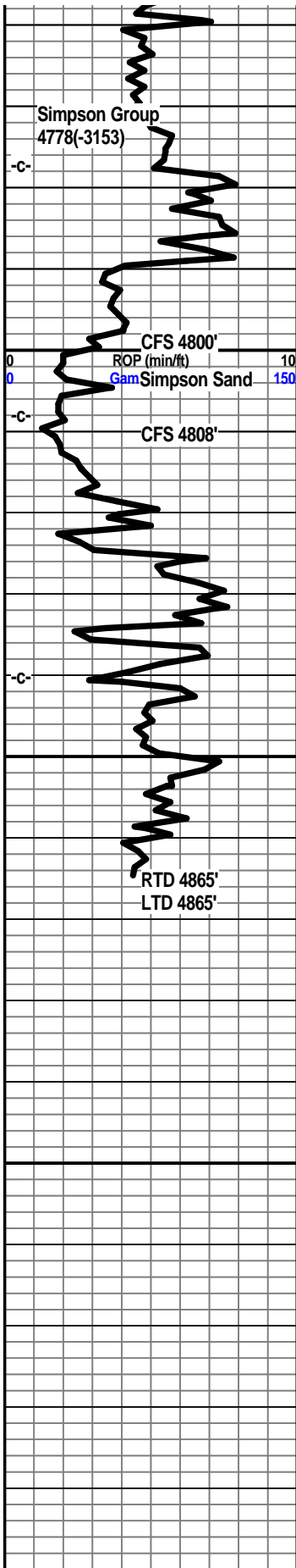
60- Dolomite, white, xln, xln porosity, very faint odor, very slight show in few rocks, mostly all barron, some dark asphaltic stain on a couple, spotty floor, some grey-white limestone towards base, chalky in part.

Limestone, grey-white, xln, partly dense, traces of xln porosity, tan white chert.

Limestone, buff, tan, xxln, partly dense, sharp tan chert.

Limestone, tan, buff, xln, granular texture, tan sharp cherts, slightly dolo





Limestone, tan, xln, dense, sharp tan chert, slightly dolo.

Shale, pale green, teal green, firm, trace pyrite, some sand clusters.

Sandstone, clear to frosted white, grey-white, SA to SR, friable in part, some dolo in part, trace glauc, trace faint show oil, no odor, no kick, dull fluor.

Sandstone a/a, cleaner sand, very faint show light oil, no odor, no fluor. most all clusters no show.

Sandstone, clear to white, fair sorting, SA to SR, friable in part, some well cemented, glauc, traces of pyrite, no odor, no visible shows, no fluor., few shale inclusions, slightly dolo in part.

Shale, teal green, pale green, few sand stringers.

Shale, teal green, firm, traces of pyrite.

Shale, teal green, pale green, traces of pyrite, firm.

