Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1231927

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 # 33168
Name: Woolsey Operating Company, LLC
Address 1: 125 N MARKET STE 1000
Address 2:
City: WICHITA State: KS Zip: 67202 + 1729
Contact Person: DEAN PATTISSON
Phone: (316) 267-4379
CONTRACTOR: License # 34484
Name: Fossil Drilling, Inc.
Wellsite Geologist: BILL KLAVER
Purchaser: PLAINS MARKETING / ATLAS PIPELINE

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 #:

07/28/2014	08/05/2014	09/09/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-24192-00-00
Spot Description:
SE - SE - NW - SW Sec. 19 Twp. 32 S. R. 12 ☐ East ☑ West
1380 Feet from ☐ North / ☑ South Line of Section
1000 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barber
Lease Name: WARREN FEE Well #: 13
Field Name: MEDICINE LODGE NORTH
Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1637 Kelly Bushing: 1649
Total Vertical Depth: 4910 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 235 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: 47000 ppm Fluid volume: 1800 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: WOOLSEY OPERATING COMPANY LLC
Lease Name: CLARKE 1 SWD License #: 33168
Quarter SW Sec. 8 Twp. 32 S. R. 12 ☐ East ☑ West
County: BARBER Permit #: D 28492

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: 11/20/2014
☑ **Confidential Release Date:** 11/21/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 11/25/2014

[redacted] 1231927

Operator Name: Woolsey Operating Company, LLC Lease Name: WARREN FEE Well #: 13

Sec. 19 Twp. 32 S. R. 12 ☐ East ☑ West County: Barber

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Compensated Density/Neutron
Dual Induction

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

Name	Top	Datum
CHASE	1964	-315
HEEBNER	3722	-2073
DOUGLAS	3761	-2112
SWOPE	4276	-2627
MISSISSIPPAIN	4431	-2782
SIMPSON	4818	-3169

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	17.5	13.375	48	235	CLASS A	300	
PRODUCTION	7.875	4.5	11.6	4756	60/40 POZ	50	
PRODUCTION	7.875	4.5	11.6	4756	CLASS H	100	SEE ATTACHED

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

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 *(Amount and Kind of Material Used)*	Depth
2	4434- 4460	3100 gallons 10% MIRA	4434-4488 OA
4	4460- 4488	262,000 gal slick wtr , 445,00 gal Progel	
		G200, 125,200# 30/50 mesh sd, 53,000# 16/30 mesh sd, 15,000# 16/30 mesh resin sd	4434-4488 OA

TUBING RECORD: Size: 2.375 Set At: 4558 Packer At:

Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 09/11/2014

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	18	80	75	4444	

DISPOSITION OF GAS:
☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
4434-4488 OA

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	WARREN FEE 13
Doc ID	1231927

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
SURFACE	17.5	13.375	48	235	CLASS A	300	
PRODUCTION	7.875	4.5	11.6	4756	60/40 POZ	50	
PRODUCTION	7.875	4.5	11.6	4756	CLASS H	100	SEE ATTACHED

ALLIED OIL & GAS SERVICES, LLC 063223

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Medicine Lodge KS

	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
DATE 7-28-14	19	32S	12W		8:00 PM	9:45 P	10:15P
LEASE Warren Fee	WELL # 13		LOCATION Gyp Hills Rd 5 to CR			COUNTY Barber	STATE Ks
OLD OR (NEW) (Circle one)			W into on L. Rd				

CONTRACTOR Fossil Drilling
TYPE OF JOB Surface
HOLE SIZE 17½ T.D. 235
CASING SIZE 13 3/8 48# DEPTH 235
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 20
CEMENT LEFT IN CSG. 20
PERFS.
DISPLACEMENT 33 bbl Fresh

OWNER Woolsey AUG 27 2014

EQUIPMENT

PUMP TRUCK CEMENTER Jake Heard
548/545 HELPER Justin Bower
BULK TRUCK
819/823 DRIVER Lucas Wisor
BULK TRUCK
DRIVER

REMARKS:

On Location Location Safety Meeting
Rig up Safety Meeting P. Test
Pump Spacer Mix t pump cmt
Displace Stop Shut in
Release pressure Cmt did circ

CHARGE TO: Woolsey
STREET
CITY STATE ZIP

CEMENT

AMOUNT ORDERED 300 Sx Class A+
3% CC + 2% Gel

COMMON	300 SX	@ 17.90	5370.00
POZMIX		@	
GEL	564#	@ .50	282.00
CHLORIDE	846#	@ 1.10	930.60
ASC		@	
HANDLING		@	
MILEAGE			

20% = 1316.52 TOTAL 6582.60

SERVICE

DEPTH OF JOB	235		
PUMP TRUCK CHARGE			1512.25
EXTRA FOOTAGE	L.U. 12	@ .440	52.80
MILEAGE	12	@ 7.70	92.40
MANIFOLD		@	
Handling	315	@ 2.48	781.20
Drayage	177.66	@ 2.75	488.56

20% = 585.44 TOTAL 2927.21

PLUG & FLOAT EQUIPMENT

TOTAL

SALES TAX (If Any)
TOTAL CHARGES 9509.81
DISCOUNT 7607.84 IF PAID IN 30 DAYS

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 MIKE TANNO

SIGNATURE Mike Tanno

ALLIED OIL & GAS SERVICES, LLC 063227

Federal Tax I.D. # 20-8651475

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

AUG 27 2014

SERVICE POINT: Medicine Lodge Ks

DATE 8-6-14	SEC. 19	TWP. 32	RANGE 12	CALLED OUT	ON LOCATION 12:00 Am	JOB START 4:35A	JOB FINISH 5:45A
LEASE Womon Fee	WELL # 13		LOCATION Gyp Hills Rd 4S to			COUNTY Barber	STATE Ks
OLD OR (NEW) (Circle one)			White Rock Lease Rd Follow				

CONTRACTOR Fossil
TYPE OF JOB Production
HOLE SIZE 7 7/8 T.D. 4910
CASING SIZE 4 1/2 11.6# DEPTH 4756
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 31.40'
CEMENT LEFT IN CSG. 31.40'
PERFS.
DISPLACEMENT 73.5 2% Kcl water

EQUIPMENT

PUMP TRUCK CEMENTER Jake Heard
#548/545 HELPER Justin Bower
BULK TRUCK
702/643 DRIVER Ken Jack · Yukon
BULK TRUCK
DRIVER

REMARKS:

On Location Safety Meeting
Spot in Rig up Run Casing
Pressure Test Pump Spacer
Mix + pump Rat + Mouse Holes
Mix + pump Scavenger + Tail Cmt
Wash pump + Lines Release Plug
Displace 90 bbl Slow Rate
Bump plug

CHARGE TO: Woolsey
STREET
CITY STATE ZIP

WELL FILE
Regulatory Correspondence
Drlg / Comp Workovers
Tests / Meters Operations

4 1/2

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 X MIKE THARP
SIGNATURE X Mike Tharp

OWNER Woolsey

CEMENT

AMOUNT ORDERED 90 sx 60:40:4% Gel
5# Class H 10% Gyp + 10% Salt + 6# Kolseal 7.8% FL-160 + 1/4# Flo-Seal

COMMON		@	
POZMIX		@	
GEL		@	
CHLORIDE		@	
ASC		@	
Class H	100 sx	@ 25.28	2528.00
Gyp	940#	@ .88	827.20
Salt	540 #	@ .68	367.26
Kolseal	6000#	@ .98	588.00
FL-160	75.2#	@ 18.90	1421.28
Allied 60:40:4	90 sx	@ 18.92	1702.80
Flo-seal	25#	@ 2.97	74.25
Chaser	8.5 Gal	@ 34.40	292.40
HANDLING		@	
MILEAGE			

20% = 1560.23 TOTAL 7801.13

SERVICE

DEPTH OF JOB 4756
PUMP TRUCK CHARGE 2765.25
EXTRA FOOTAGE 12 @ 4.40 52.80
MILEAGE 12 @ 7.70 92.40
MANIFOLD + Head @ 275.00
Handling 226.24 @ 2.48 561.08
Drayage 113.92 @ 2.75 318.78

20% = 813.16 TOTAL 4065.81

PLUG & FLOAT EQUIPMENT

1 LD Plug		@	655.00
1 AFU Float Shoe		@	425.00
15 Recip. Scratchers		@ 86.00	1290.00
9 Turbolizers		@ 90.00	810.00
		@	

TOTAL 3180.00

SALES TAX (If Any)
TOTAL CHARGES 15046.94
DISCOUNT (12673.55) IF PAID IN 30 DAYS

DRILL STEM TEST REPORT

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

19-32S-12W Barber

Warren Fee 13

Job Ticket: 51819 **DST#: 1**

Test Start: 2014.08.03 @ 07:57:05

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:11:20
Time Test Ended: 17:01:35

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74

Interval: 4434.00 ft (KB) To 4480.00 ft (KB) (TVD)
Total Depth: 4480.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

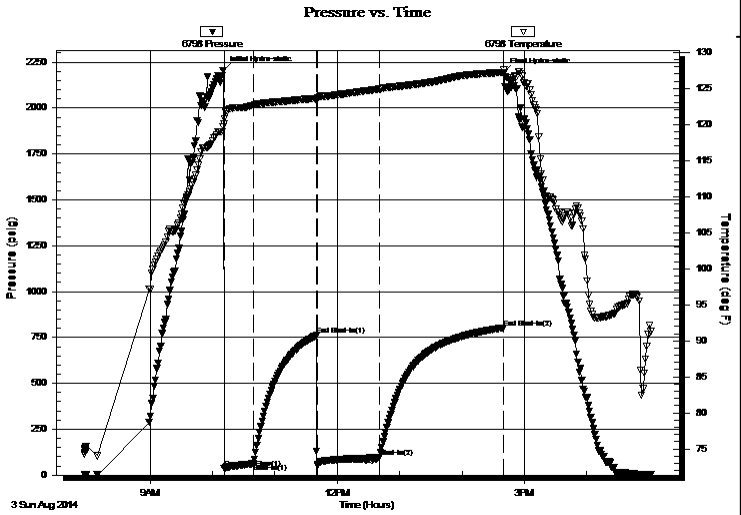
Reference Elevations: 1649.00 ft (KB)
1637.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 96.46 psig @ 4435.00 ft (KB)
Start Date: 2014.08.03 End Date: 2014.08.03
Start Time: 07:57:06 End Time: 17:01:35

Capacity: 8000.00 psig
Last Calib.: 2014.08.03
Time On Btm: 2014.08.03 @ 10:10:20
Time Off Btm: 2014.08.03 @ 14:40:20

TEST COMMENT: IF: Strong Blow , BOB in 1 minute
ISI: 1/2 inch Blow Back
FF: Strong Blow , BOB in 10 seconds
FSI: 1/2 inch Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2205.87	119.65	Initial Hydro-static
1	36.96	120.07	Open To Flow (1)
30	62.67	122.67	Shut-In(1)
90	760.90	123.62	End Shut-In(1)
91	53.82	123.52	Open To Flow (2)
150	96.46	124.87	Shut-In(2)
270	802.66	127.20	End Shut-In(2)
270	2191.14	127.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	504 GIP	0.00
180.00	GCM 5%G 95%M	0.89

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

19-32S-12W Barber

Warren Fee 13

Job Ticket: 51819 **DST#: 1**

Test Start: 2014.08.03 @ 07:57:05

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:	62.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6500.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	504 GIP	0.000
180.00	GCM 5%G 95%M	0.885

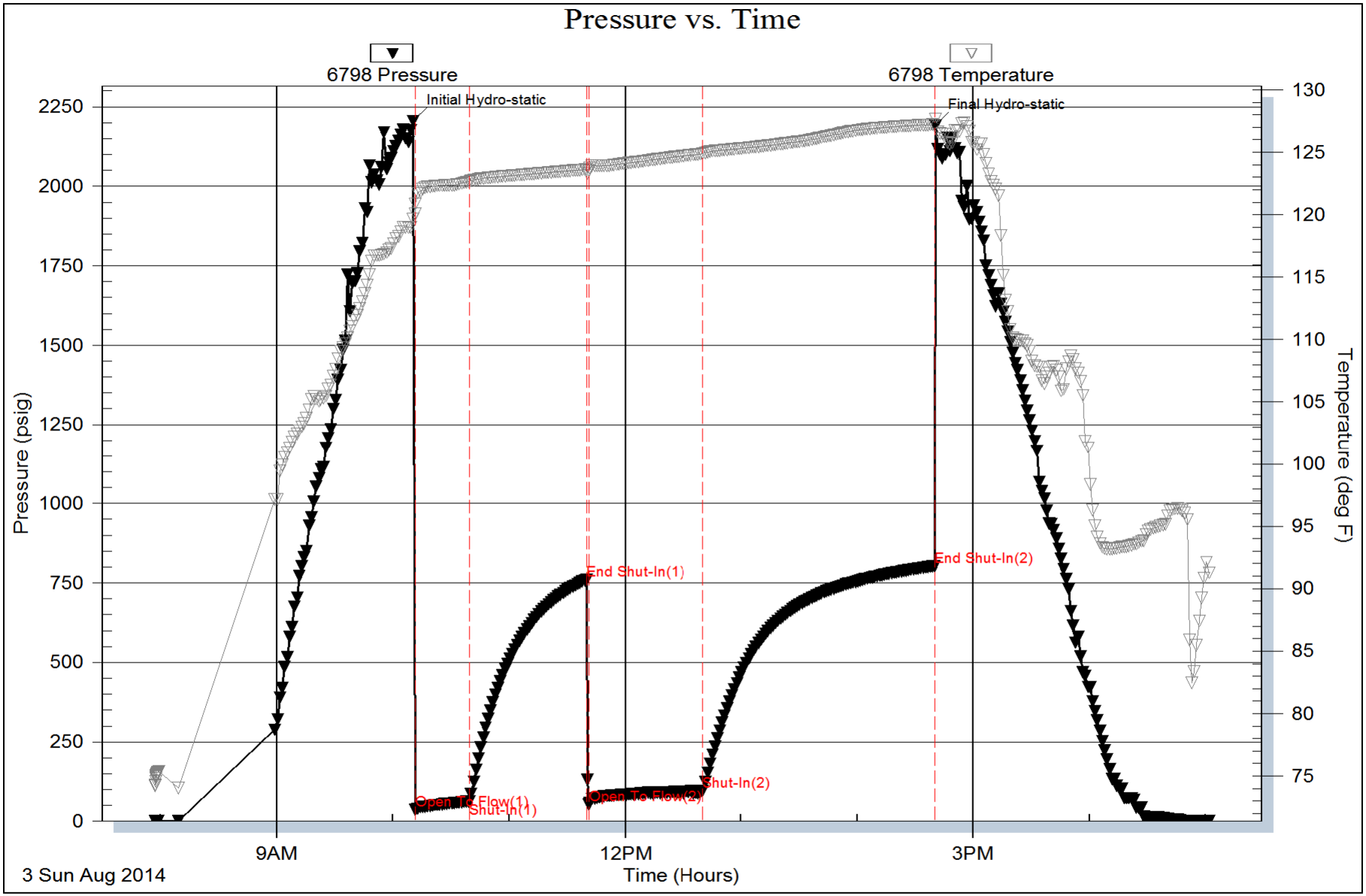
Total Length: 180.00 ft Total Volume: 0.885 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6798 **Inside** Woolsey Operating Co Warren Fee 13 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 51819 Printed: 2014.08.03 @ 23:15:39

Woolsey Operating Company, LLC

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

Well Name:	**WARREN FEE #13**		
Location:	**Section 19 - Township 32 South - Range 12 West**		
License Number:	**15-007-24192-0000**	**Region:**	**Barber County, Kansas**
Spud Date:	**July 28, 2014**	**Drilling Completed:**	**August 5, 2014**
Surface Coordinates:	**1380 FSL and 1000' FWL** **App. SE SE NW SW**		
Bottom Hole Coordinates:			
Ground Elevation (ft):	**1637'**	**K.B. Elevation (ft):**	**1649'**
Logged Interval (ft):	**3600' To: 4910'**	**Total Depth (ft):**	**4910'**
Formation:	**Lansing/Kansas City ----> Simpson Group**		
Type of Drilling Fluid:	**Chemical Mud, dispaced at 3419'**		

OPERATOR

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

GEOLOGIST

Name:	**Bill Klaver**
Company:	**Woolsey Operating Co. LLC**
Address:	**125 N. Market, Wichita Kansas, 67202**

COMMENTS

Surface Casing: Spud at 2:45 pm on July 28, 2014, Ran 5 joints of new 13 3/8" X 48#/ft casing to 235' KB (tally 220.7). Cemented with 235 sx Class A, 2% gel, 3% cc (by Allied). Plug down at 10:15 pm on July 28, 2014. Cement did circulate.
Production Casing: 4 1/2" X 10/5#/ft

Deviation Surveys: 1 at 235', 1/2 at 1012', 1 at 1518', 1/2 at 2027', 1/4 at 3038', 1 at 3514', 3/4 at 3992', 1 at 4480', 1/2 at 4910'
Pipe Strap @ 4480', Strap: 4498.02', Board: 4498.04'. Strap .02' short to the board, no corrections made to the board.
Fossil Drilling Rig #3 Bit Record:
10 17 1/2" Smith RR in a 0' out at 235', 4 hours.
2) 7 7/8" Varel HE-21 in at 235' out at 4480', 92 3/4 hours
3) 7 7/8" Varel HE-29 RR in at 4480' out at 4910', 29 3/4 hours

Gas Detector: Woolsey Operating Company, Gas Shack #2
Mud System: Mud-Co., Brad Bortz, Engineer
DSTs: Trilobite Testing, Leal Cason, Tester
E-logs: Nabors Completion and Production Services, Dual Induction Laterolog w/SP, CNL/FDC w/PE, Gamma Ray and Caliper. Ian Mabb, Engineer.

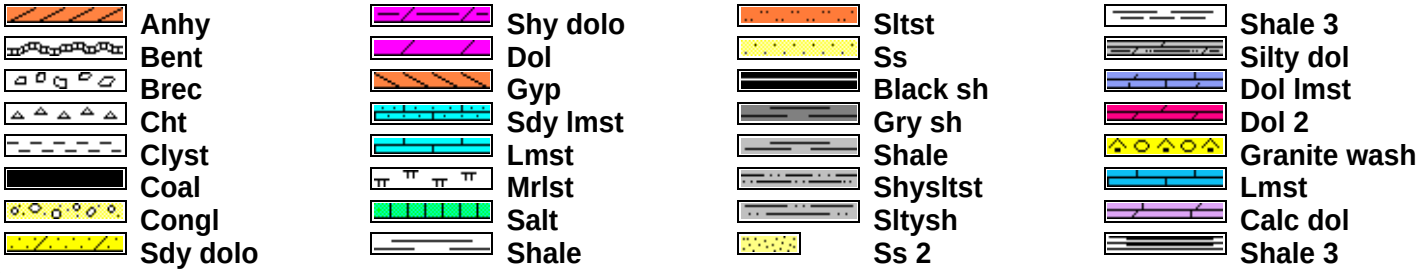
DSTs

DST #1 Mississippian, 4434'-4480', 30"-60"-60"-120", SB BOB in 1 minute. Rec: 504' GIP, 180' GCM (5%Gas, 95% Mud). IHP 2205, IFP 36-62, ISIP 760, FFP 53-96, FSIP 802, FHP 2191. BHT 129 degrees

CREWS

Jim (when at the rig) Wenrich, Toolpusher
Daniel Orrantea, Days
Ron Burns, Evening
Jimmie Holt, Morning
Chris Statts, Relief

ROCK TYPES



ACCESSORIES

FOSSIL

Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram
Fossil
Gastro
Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom
Fuss
Oomoldic

MINERAL

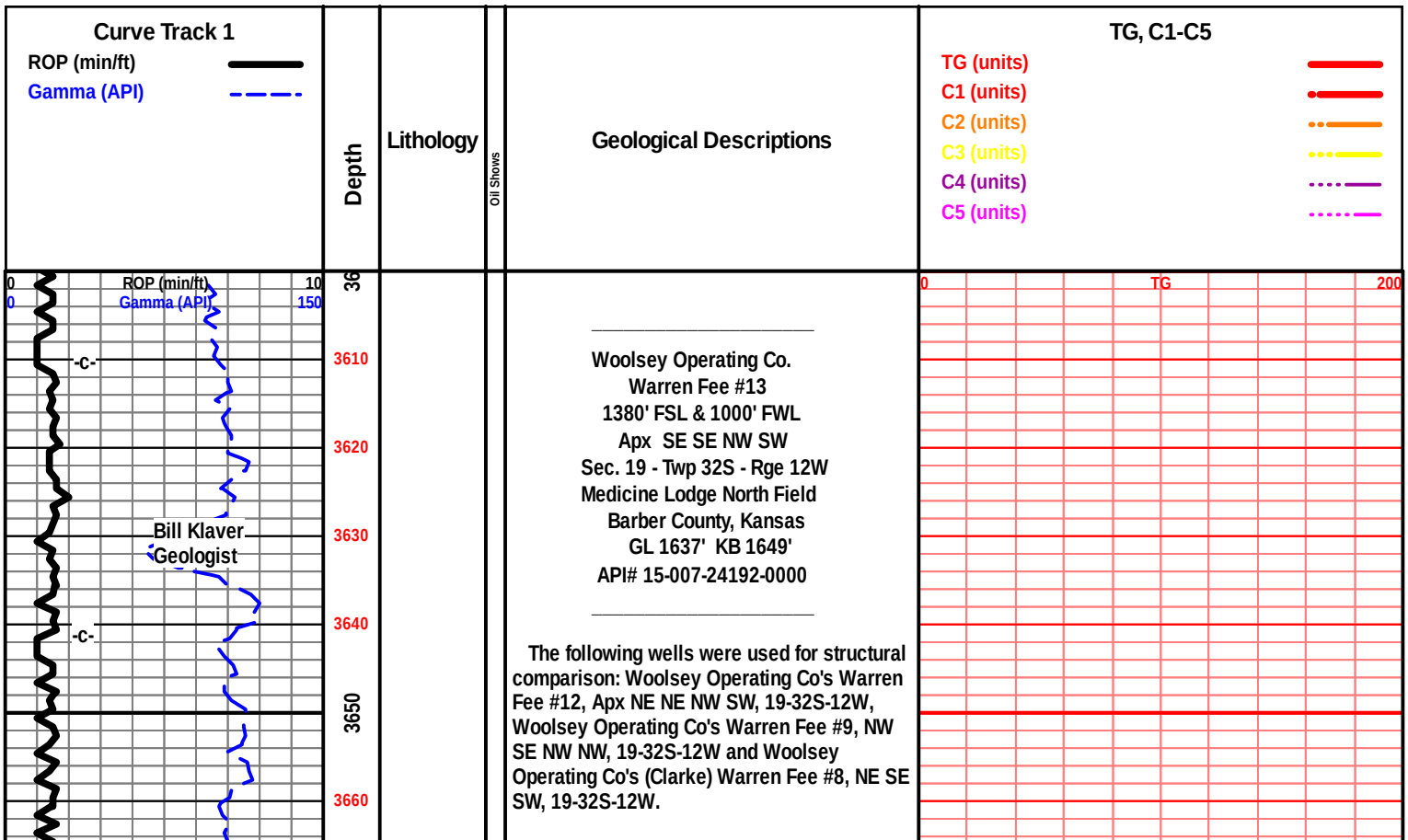
Anhy
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Ferrpel
Ferr
Glau
Gyp
Marl
Nodule
Phos
Pyr
Salt
Sandy
Silt
Chlorite
Dol
Sand
Slty

STRINGER

Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh
Clystn
Dol
Grysh
Gryslt
Lms
Sandylms
Sh
Sltstn

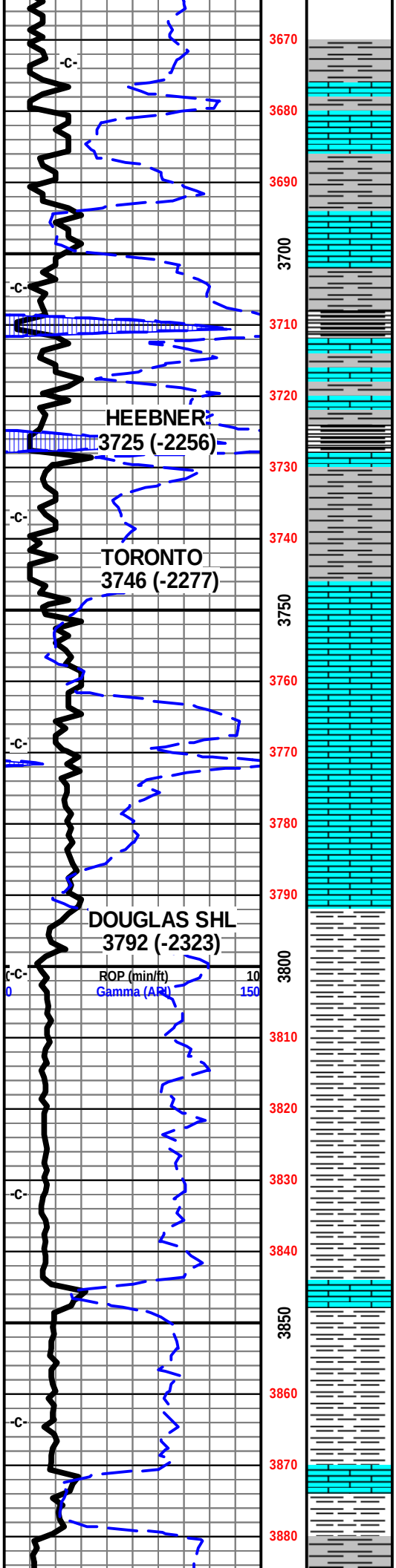
TEXTURE

BS Boundst
C Chalky
CX Cryxln
E Earthy
FX Finexln
GS Grainst
L Lithogr
MX Microxln
MS Mudst
PS Packst
WS Wackest



Woolsey Operating Co.
Warren Fee #13
1380' FSL & 1000' FWL
Apx SE SE NW SW
Sec. 19 - Twp 32S - Rge 12W
Medicine Lodge North Field
Barber County, Kansas
GL 1637' KB 1649'
API# 15-007-24192-0000

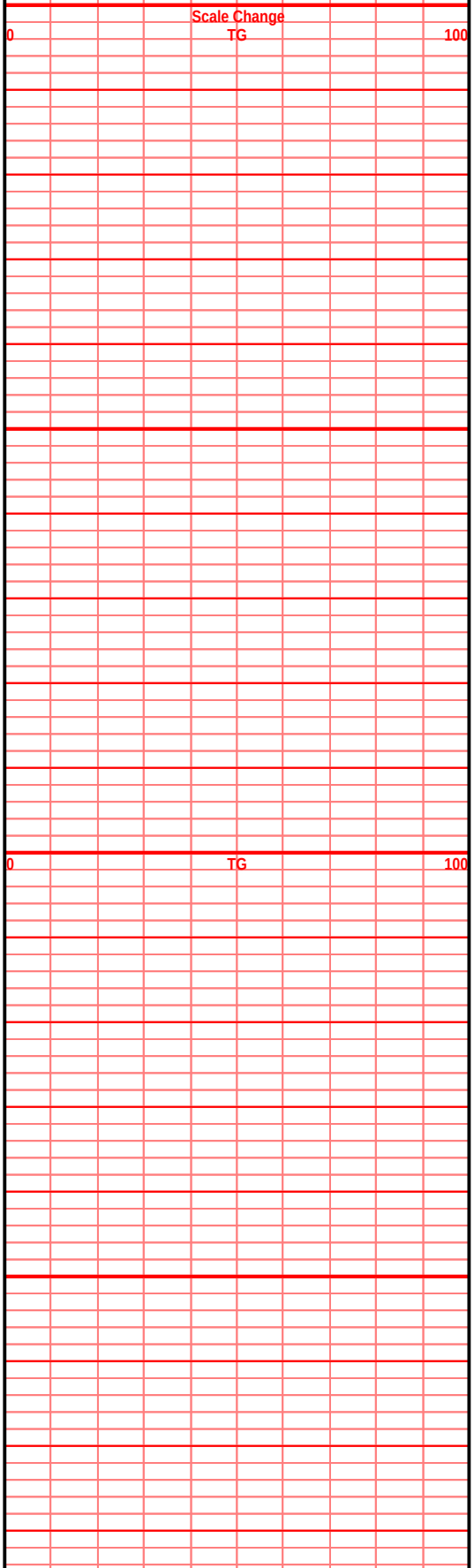
The following wells were used for structural comparison: Woolsey Operating Co's Warren Fee #12, Apx NE NE NW SW, 19-32S-12W, Woolsey Operating Co's Warren Fee #9, NW SE NW NW, 19-32S-12W and Woolsey Operating Co's (Clarke) Warren Fee #8, NE SE SW, 19-32S-12W.

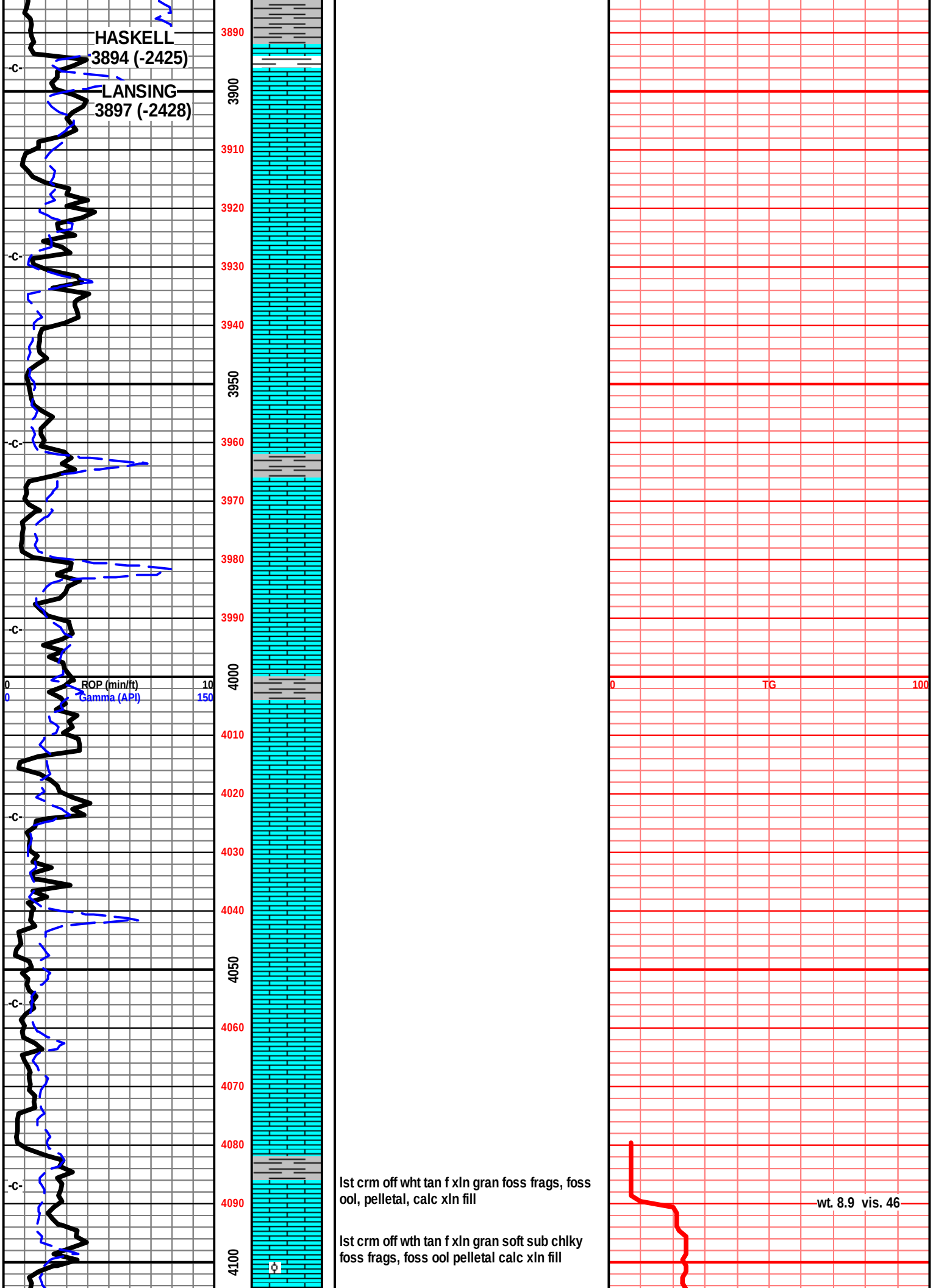


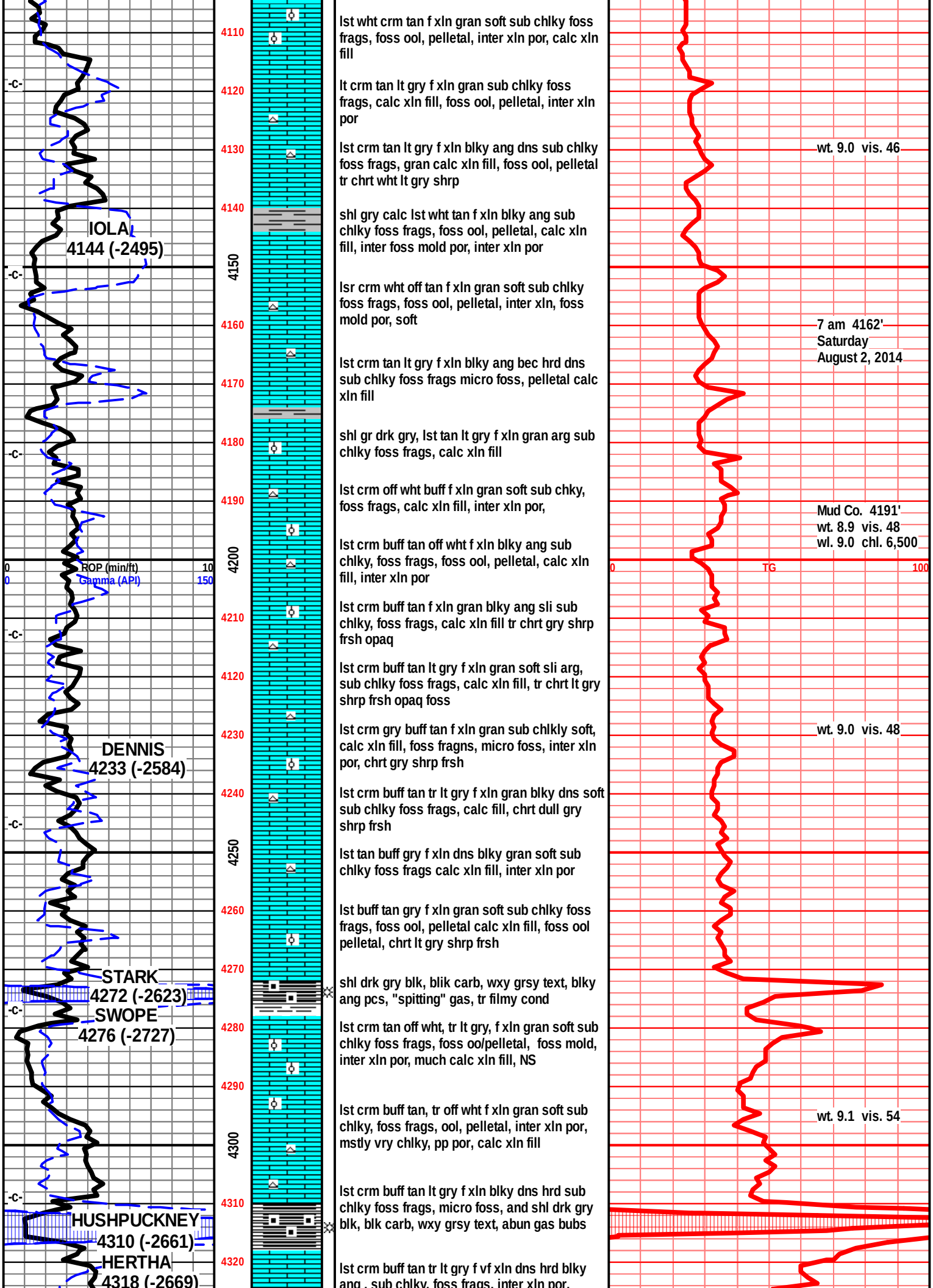
One minute drill time was recorded from 3600' to rotary total depth. Ten foot drilling and circulation samples were roughneck gathered from 4200' to rotary total depth. All samples were delivered to the Survey at the end of the test.

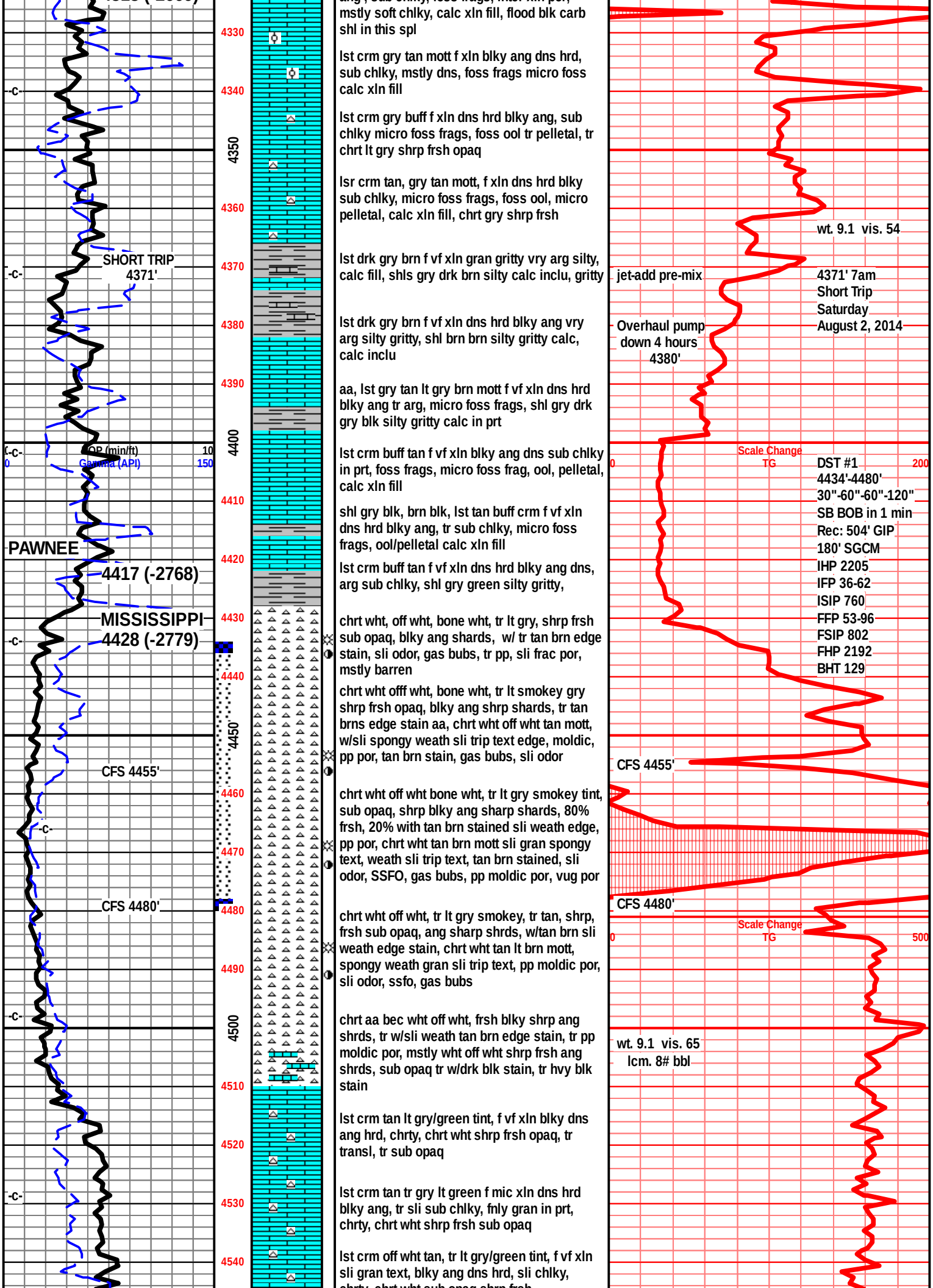
7 am Drilling Progress:
July 28, 2014 MIRT/SPUD
July 29, 2014 Drilling at 282'
July 30, 2014 Drilling at 1840'
July 31, 2014 Drilling at 2674'
August 1, 2014 Drilling at 3485'
August 2, 2014 Drilling at 4162'
August 3, 2014 DST #1 at 4880'
August 4, 2014 Drilling at 4625'
August 5, 2014 Drilling at 4890'
E-logs out 5 pm on August 5, 2014

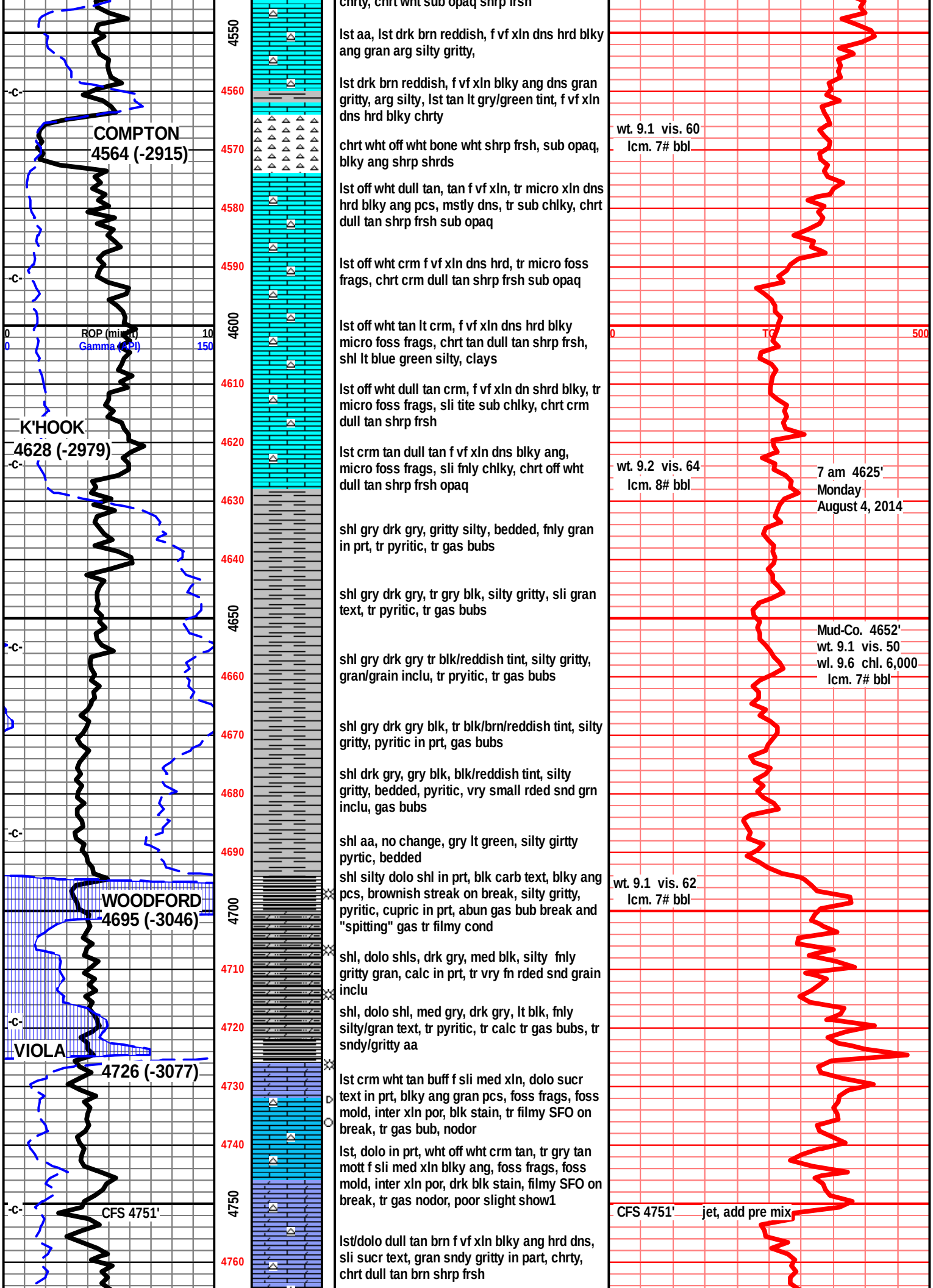
E-Log Tops:
Herington 1963 (-314)
Onaga 2778 (-1129)
Wabaunsee 2834 (-1185)
Stotler 2974 (-1325)
Topeka 3233 (-1584)
LeCompton 3500 (-1851)
Kanwaka 3538 (-1889)
Heebner 3722 (-2073)
Toronto 3754 (-2097)
Douglas Shl 3789 (-2140)
Haskell 3891 (-2242)
Lansing 3897 (-2248)
Iola 4152 (-2503)
Dennis 4241 (-2592)
Stark 4268 (-2619)
Swope 4275 (-2626)
Hushpuckney 4306 (-2657)
Hertha 4318 (-2669)
B/Kansas City 4363 (-2714)
Pawnee 4414 (-2765)
Mississippi 4430 (-2781)
Keokuk Porosiity 4461 (-2812)
Keokuk Porosity Base 4487 (-2838)
Compton 4561 (-2912)
Kinderhook 4626 (-2977)
Woodford 4691 (-3042)
Viola 4723 (-3074)
Simpson Group 4818 (-3169)
Simpson 'D' Sand 4837 (-3188)
Wilcox 4850 (-3201)
McLish 4864 (-3215)
LTD 4908 (-3259)

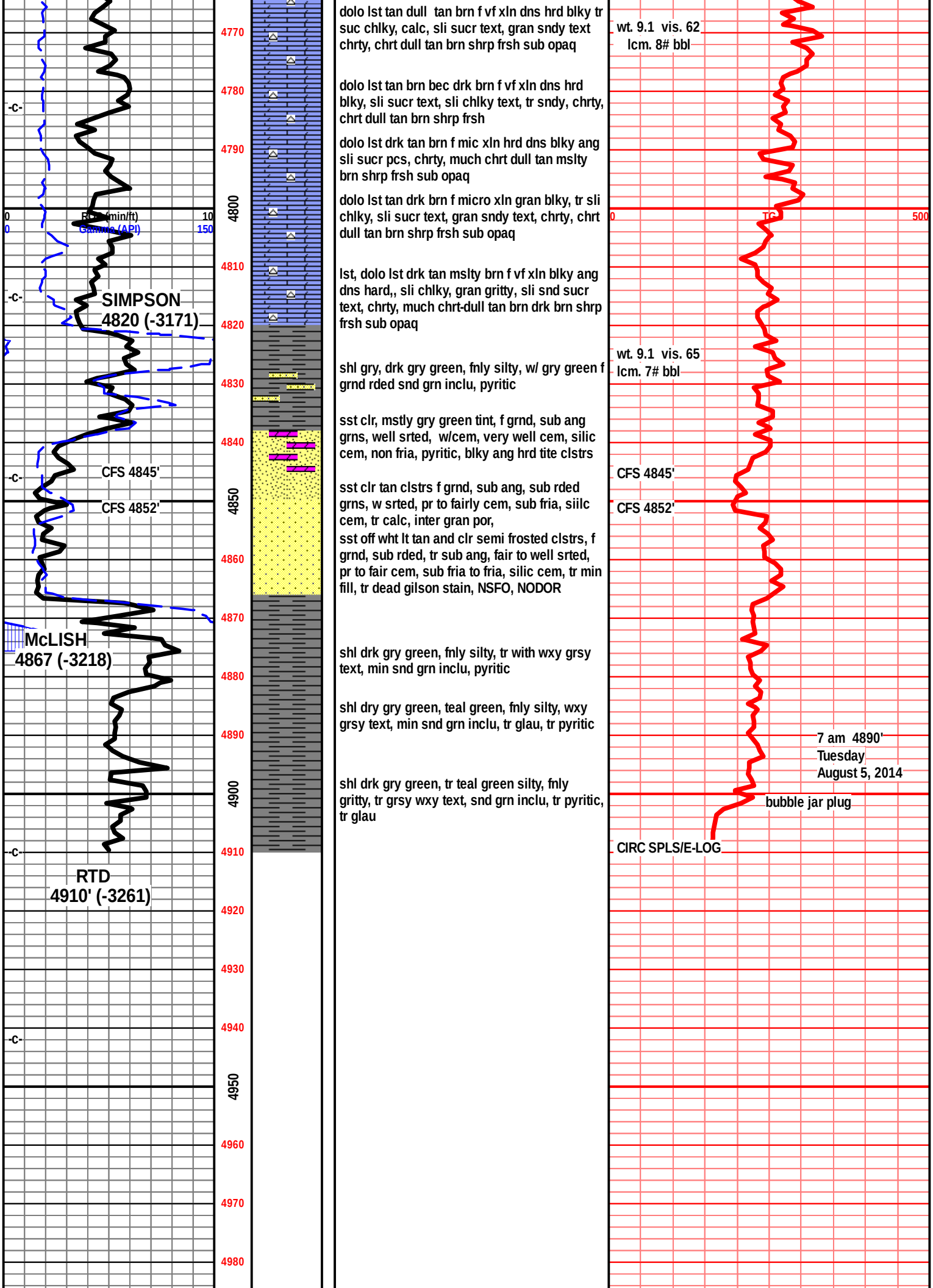


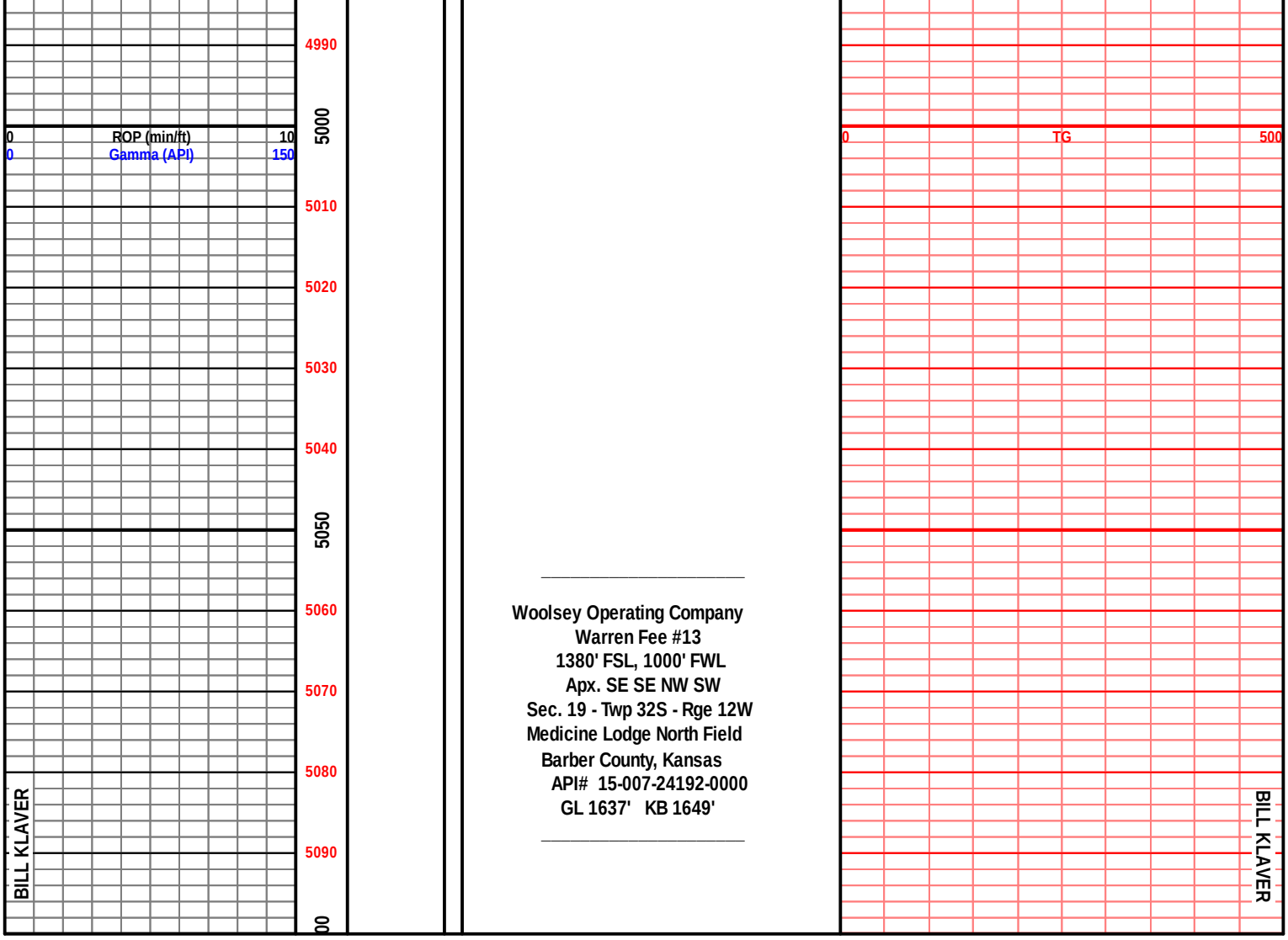

HASKELL
3894 (-2425)
LANSING
3897 (-2428)
3890
3900
3910
3920
3930
3940
3950
3960
3970
3980
3990
4000
4010
4020
4030
4040
4050
4060
4070
4080
4090
4100
0
ROP (min/ft)
10
0
Gamma (API)
150
0
TG
100
lst crm off wht tan f xln gran foss frags, foss ool, pelletal, calc xln fill
lst crm off wth tan f xln gran soft sub chlky foss frags, foss ool pelletal calc xln fill
wt. 8.9 vis. 46


IOLA
4144 (-2495)
DENNIS
4233 (-2584)
STARK
4272 (-2623)
SWOPE
4276 (-2727)
HUSHPUCKNEY
4310 (-2661)
HERTHA
4318 (-2669)
0
ROP (min/ft)
10
0
Gamma (API)
150
4110
4120
4130
4140
4150
4160
4170
4180
4190
4200
4210
4120
4230
4240
4250
4260
4270
4280
4290
4300
4310
4320
lst wht crm tan f xln gran soft sub chlky foss frags, foss ool, pelletal, inter xln por, calc xln fill
lt crm tan lt gry f xln gran sub chlky foss frags, calc xln fill, foss ool, pelletal, inter xln por
lst crm tan lt gry f xln blky ang dns sub chlky foss frags, gran calc xln fill, foss ool, pelletal tr chrt wht lt gry shrp
shl gry calc lst wht tan f xln blky ang sub chlky foss frags, foss ool, pelletal, calc xln fill, inter foss mold por, inter xln por
lsr crm wht off tan f xln gran soft sub chlky foss frags, foss ool, pelletal, inter xln, foss mold por, soft
lst crm tan lt gry f xln blky ang bec hrd dns sub chlky foss frags micro foss, pelletal calc xln fill
shl gr drk gry, lst tan lt gry f xln gran arg sub chlky foss frags, calc xln fill
lst crm off wht buff f xln gran soft sub chky, foss frags, calc xln fill, inter xln por,
lst crm buff tan off wht f xln blky ang sub chlky, foss frags, foss ool, pelletal, calc xln fill, inter xln por
lst crm buff tan f xln gran blky ang sli sub chlky, foss frags, calc xln fill tr chrt gry shrp frsh opaq
lst crm buff tan lt gry f xln gran soft sli arg, sub chlky foss frags, calc xln fill, tr chrt lt gry shrp frsh opaq foss
lst crm gry buff tan f xln gran sub chlkly soft, calc xln fill, foss fragns, micro foss, inter xln por, chrt gry shrp frsh
lst crm buff tan tr lt gry f xln gran blky dns soft sub chlky foss frags, calc fill, chrt dull gry shrp frsh
lst tan buff gry f xln dns blky gran soft sub chlky foss frags calc xln fill, inter xln por
lst buff tan gry f xln gran soft sub chlky foss frags, foss ool, pelletal calc xln fill, foss ool pelletal, chrt lt gry shrp frsh
shl drk gry blk, blik carb, wxy grsy text, blky ang pcs, "spitting" gas, tr filmy cond
lst crm tan off wht, tr lt gry, f xln gran soft sub chlky foss frags, foss oo/pelletal, foss mold, inter xln por, much calc xln fill, NS
lst crm buff tan, tr off wht f xln gran soft sub chlky, foss frags, ool, pelletal, inter xln por, mstly vry chlky, pp por, calc xln fill
lst crm buff tan lt gry f xln blky dns hrd sub chlky foss frags, micro foss, and shl drk gry blk, blk carb, wxy grsy text, abun gas bubs
lst crm buff tan tr lt gry f vf xln dns hrd blky ang , sub chlky, foss frags, inter xln por,
wt. 9.0 vis. 46
7 am 4162'
Saturday
August 2, 2014
Mud Co. 4191'
wt. 8.9 vis. 48
wl. 9.0 chl. 6,500
0
TG
100
wt. 9.0 vis. 48
wt. 9.1 vis. 54


mstly soft chlky, calc xln fill, flood blk carb shl in this spl
lst crm gry tan mott f xln blky ang dns hrd, sub chlky, mstly dns, foss frags micro foss calc xln fill
lst crm gry buff f xln dns hrd blky ang, sub chlky micro foss frags, foss ool tr pelletal, tr chrt lt gry shrp frsh opaq
lsr crm tan, gry tan mott, f xln dns hrd blky sub chlky, micro foss frags, foss ool, micro pelletal, calc xln fill, chrt gry shrp frsh
lst drk gry brn f vf xln gran gritty vry arg silty, calc fill, shls gry drk brn silty calc inclu, gritty
lst drk gry brn f vf xln dns hrd blky ang vry arg silty gritty, shl brn brn silty gritty calc, calc inclu
aa, lst gry tan lt gry brn mott f vf xln dns hrd blky ang tr arg, micro foss frags, shl gry drk gry blk silty gritty calc in prt
lst crm buff tan f vf xln blky ang dns sub chlky in prt, foss frags, micro foss frag, ool, pelletal, calc xln fill
shl gry blk, brn blk, lst tan buff crm f vf xln dns hrd blky ang, tr sub chlky, micro foss frags, ool/pelletal calc xln fill
lst crm buff tan f vf xln dns hrd blky ang dns, arg sub chlky, shl gry green silty gritty,
chrt wht, off wht, bone wht, tr lt gry, shrp frsh sub opaq, blky ang shards, w/ tr tan brn edge stain, sli odor, gas bubs, tr pp, sli frac por, mstly barren
chrt wht offf wht, bone wht, tr lt smokey gry shrp frsh opaq, blky ang shrp shards, tr tan brns edge stain aa, chrt wht off wht tan mott, w/sli spongy weath sli trip text edge, moldic, pp por, tan brn stain, gas bubs, sli odor
chrt wht off wht bone wht, tr lt gry smokey tint, sub opaq, shrp blky ang sharp shards, 80% frsh, 20% with tan brn stained sli weath edge, pp por, chrt wht tan brn mott sli gran spongy text, weath sli trip text, tan brn stained, sli odor, SSFO, gas bubs, pp moldic por, vug por
chrt wht off wht, tr lt gry smokey, tr tan, shrp, frsh sub opaq, ang sharp shrds, w/tan brn sli weath edge stain, chrt wht tan lt brn mott, spongy weath gran sli trip text, pp moldic por, sli odor, ssfo, gas bubs
chrt aa bec wht off wht, frsh blky shrp ang shrds, tr w/sli weath tan brn edge stain, tr pp moldic por, mstly wht off wht shrp frsh ang shrds, sub opaq tr w/drk blk stain, tr hvy blk stain
lst crm tan lt gry/green tint, f vf xln blky dns ang hrd, chrty, chrt wht shrp frsh opaq, tr transl, tr sub opaq
lst crm tan tr gry lt green f mic xln dns hrd blky ang, tr sli sub chlky, fnly gran in prt, chrty, chrt wht shrp frsh sub opaq
lst crm off wht tan, tr lt gry/green tint, f vf xln sli gran text, blky ang dns hrd, sli chlky,
4330
4340
4350
4360
4370
4380
4390
4400
4410
4420
4430
4440
4450
4460
4470
4480
4490
4500
4510
4520
4530
4540
SHORT TRIP
4371'
ROP (min/ft)
10
0
Gamma (API)
150
PAWNEE
4417 (-2768)
MISSISSIPPI
4428 (-2779)
CFS 4455'
CFS 4480'
wt. 9.1 vis. 54
jet-add pre-mix
4371' 7am
Short Trip
Saturday
August 2, 2014
Overhaul pump
down 4 hours
4380'
Scale Change
TG
0
200
DST #1
4434'-4480'
30"-60"-60"-120"
SB BOB in 1 min
Rec: 504' GIP
180' SGCM
IHP 2205
IFP 36-62
ISIP 760
FFP 53-96
FSIP 802
FHP 2192
BHT 129
CFS 4455'
CFS 4480'
Scale Change
TG
0
500
wt. 9.1 vis. 65
lcm. 8# bbl


chrty, chrt wht sub opaq shrp frsh
lst aa, lst drk brn reddish, f vf xln dns hrd blky ang gran arg silty gritty,
lst drk brn reddish, f vf xln blky ang dns gran gritty, arg silty, lst tan lt gry/green tint, f vf xln dns hrd blky chrty
chrt wht off wht bone wht shrp frsh, sub opaq, blky ang shrp shrds
lst off wht dull tan, tan f vf xln, tr micro xln dns hrd blky ang pcs, mstly dns, tr sub chlky, chrt dull tan shrp frsh sub opaq
lst off wht crm f vf xln dns hrd, tr micro foss frags, chrt crm dull tan shrp frsh sub opaq
lst off wht tan lt crm, f vf xln dns hrd blky micro foss frags, chrt tan dull tan shrp frsh, shl lt blue green silty, clays
lst off wht dull tan crm, f vf xln dn shrd blky, tr micro foss frags, sli tite sub chlky, chrt crm dull tan shrp frsh
lst crm tan dull tan f vf xln dns blky ang, micro foss frags, sli fnly chlky, chrt off wht dull tan shrp frsh opaq
shl gry drk gry, gritty silty, bedded, fnly gran in prt, tr pyritic, tr gas bubs
shl gry drk gry, tr gry blk, silty gritty, sli gran text, tr pyritic, tr gas bubs
shl gry drk gry tr blk/reddish tint, silty gritty, gran/grain inclu, tr pryitic, tr gas bubs
shl gry drk gry blk, tr blk/brn/reddish tint, silty gritty, pyritic in prt, gas bubs
shl drk gry, gry blk, blk/reddish tint, silty gritty, bedded, pyritic, vry small rded snd grn inclu, gas bubs
shl aa, no change, gry lt green, silty girtty pyrtic, bedded
shl silty dolo shl in prt, blk carb text, blky ang pcs, brownish streak on break, silty gritty, pyritic, cupric in prt, abun gas bub break and "spitting" gas tr filmy cond
shl, dolo shls, drk gry, med blk, silty fnly gritty gran, calc in prt, tr vry fn rded snd grain inclu
shl, dolo shl, med gry, drk gry, lt blk, fnly silty/gran text, tr pyritic, tr calc tr gas bubs, tr sndy/gritty aa
lst crm wht tan buff f sli med xln, dolo sucr text in prt, blky ang gran pcs, foss frags, foss mold, inter xln por, blk stain, tr filmy SFO on break, tr gas bub, nodor
lst, dolo in prt, wht off wht crm tan, tr gry tan mott f sli med xln blky ang, foss frags, foss mold, inter xln por, drk blk stain, filmy SFO on break, tr gas nodor, poor slight show1
lst/dolo dull tan brn f vf xln blky ang hrd dns, sli sucr text, gran sndy gritty in part, chrty, chrt dull tan brn shrp frsh
COMPTON
4564 (-2915)
K'HOOK
4628 (-2979)
WOODFORD
4695 (-3046)
VIOLA
4726 (-3077)
CFS 4751'
ROP (min/ft)
Gamma (API)
4550
4560
4570
4580
4590
4600
4610
4620
4630
4640
4650
4660
4670
4680
4690
4700
4710
4720
4730
4740
4750
4760
wt. 9.1 vis. 60
lcm. 7# bbl
wt. 9.2 vis. 64
lcm. 8# bbl
7 am 4625'
Monday
August 4, 2014
Mud-Co. 4652'
wt. 9.1 vis. 50
wl. 9.6 chl. 6,000
lcm. 7# bbl
wt. 9.1 vis. 62
lcm. 7# bbl
CFS 4751'
jet, add pre mix
TG
500


0
ROP (min/ft)
10
0
Gamma (API)
150
-C-
SIMPSON
4820 (-3171)
CFS 4845'
CFS 4852'
McLISH
4867 (-3218)
RTD
4910' (-3261)
4770
4780
4790
4800
4810
4820
4830
4840
4850
4860
4870
4880
4890
4900
4910
4920
4930
4940
4950
4960
4970
4980
dolo lst tan dull tan brn f vf xln dns hrd blky tr suc chlky, calc, sli sucr text, gran sndy text chrty, chrt dull tan brn shrp frsh sub opaq
dolo lst tan brn bec drk brn f vf xln dns hrd blky, sli sucr text, sli chlky text, tr sndy, chrty, chrt dull tan brn shrp frsh
dolo lst drk tan brn f mic xln hrd dns blky ang sli sucr pcs, chrty, much chrt dull tan mslty brn shrp frsh sub opaq
dolo lst tan drk brn f micro xln gran blky, tr sli chlky, sli sucr text, gran sndy text, chrty, chrt dull tan brn shrp frsh sub opaq
lst, dolo lst drk tan mslty brn f vf xln blky ang dns hard,, sli chlky, gran gritty, sli snd sucr text, chrty, much chrt-dull tan brn drk brn shrp frsh sub opaq
shl gry, drk gry green, fnly silty, w/ gry green f grnd rded snd grn inclu, pyritic
sst clr, mstly gry green tint, f grnd, sub ang grns, well srted, w/cem, very well cem, silic cem, non fria, pyritic, blky ang hrd tite clstrs
sst clr tan clstrs f grnd, sub ang, sub rded grns, w srted, pr to fairly cem, sub fria, siilc cem, tr calc, inter gran por,
sst off wht lt tan and clr semi frosted clstrs, f grnd, sub rded, tr sub ang, fair to well srted, pr to fair cem, sub fria to fria, silic cem, tr min fill, tr dead gilson stain, NSFO, NODOR
shl drk gry green, fnly silty, tr with wxy grsy text, min snd grn inclu, pyritic
shl dry gry green, teal green, fnly silty, wxy grsy text, min snd grn inclu, tr glau, tr pyritic
shl drk gry green, tr teal green silty, fnly gritty, tr grsy wxy text, snd grn inclu, tr pyritic, tr glau
wt. 9.1 vis. 62
lcm. 8# bbl
0
TG
500
wt. 9.1 vis. 65
lcm. 7# bbl
CFS 4845'
CFS 4852'
7 am 4890'
Tuesday
August 5, 2014
bubble jar plug
CIRC SPLS/E-LOG


0
ROP (min/ft)
10
0
Gamma (API)
150
4990
5000
5010
5020
5030
5040
5050
5060
5070
5080
5090
00
BILL KLAVER
Woolsey Operating Company
Warren Fee #13
1380' FSL, 1000' FWL
Apx. SE SE NW SW
Sec. 19 - Twp 32S - Rge 12W
Medicine Lodge North Field
Barber County, Kansas
API# 15-007-24192-0000
GL 1637' KB 1649'
0
TG
500
BILL KLAVER