KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1058756

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 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 PATTIOSSON
Phone: (316) 267-4379
CONTRACTOR: License # 33793
Name: H2 Drilling LLC
Wellsite Geologist: SCOTT ALBERG
Purchaser: ATLAS / PLAINS MARKETING

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [ ] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

03/07/2011	03/16/2011	04/26/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-23655-00-00
Spot Description:
E2 - NW - NW - NW Sec. 10 Twp. 35 S. R. 12 [ ] East [x] West
330 Feet from [x] North / [ ] South Line of Section
595 Feet from [ ] East / [x] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [x] NW [ ] SE [ ] SW
County: Barber
Lease Name: MILLER C Well #: 2
Field Name: HARDTNER
Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1417 Kelly Bushing: 1426
Total Depth: 5480 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 214 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 41000 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: SWARTZ License #: 33168
Quarter NE Sec. 1 Twp. 34 S. R. 11 [ ] East [x] West
County: BARBER Permit #: D30567

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

- [x] Letter of Confidentiality Received
  Date: 07/01/2011
- [x] Confidential Release Date: 06/30/2013
- [x] Wireline Log Received
- [x] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: NAOMI JAMES Date: 07/06/2011

Side Two

1058756

Operator Name: Woolsey Operating Company, LLC Lease Name: MILLER C Well #: 2

Sec. 10 Twp. 35 S. R. 12 ☐ East ☑ West County: Barber

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Compensated Density/Comp Neutron PE
Dual Induction

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

Name	Top	Datum
CHASE	1955	-529
DOUGLAS	3901	-2475
MISSISSIPPIAN	4826	-3400
VIOLA	5237	-3811

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	14.75	10.75	28	214	CLASS A	240	2% gel, 3% cc
PRODUCTION	7.875	5.5	15.5	5338	60/40 POZ	50	% gel, 1/4# Celoflake
PRODUCTION	7.875	5.5	15.5	5338	CLASS H	175	10% salt, 10% Gypseal, 6# Kolseal, 1/4#

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	4802-4812, 4826-4858, 4864-4874	3400 gal of 10% MIRA	4802-4900 OA
2	4888-4900	459,350 gal treated 2% KCl wtr, 136,900# 30/70 sd, 60,800# 16/30 sd & 17,500# 16/30 resin coated sd	4802-4900 OA

TUBING RECORD: Size: 2/875 Set At: 4687 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 05/02/2011

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	22	155	100	7045	

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:
4802-4900 OA

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

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

June 30, 2011

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

Re: ACO1
API 15-007-23655-00-00
MILLER C 2
NW/4 Sec.10-35S-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 PATTIOSSON

ALLIED CEMENTING CO., LLC. 040044

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Medicine Lodge ks

DATE 3-7-2014	SEC. 10	TWP 35S	RANGE 12W	CALLED OUT 6:00 pm	ON LOCATION 8:00 pm	JOB START 9:30pm	JOB FINISH 10:00pm
LEASE Miller C	WELL # 2		LOCATION Hardtner Kr 1 east 3/4 north elmore			COUNTY Barber	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR H2 #3
TYPE OF JOB Surface
HOLE SIZE 14 3/4 T.D. 218'
CASING SIZE 10 3/4 DEPTH 202'
TUBING SIZE 8 5/8 LJ DEPTH 12'
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 20'
PERFS.
DISPLACEMENT 19 bbls fresh water

OWNER Woolsey Operating

CEMENT

AMOUNT ORDERED 240 sx Class A + 3% cc + 2% gel

COMMON	A 240 sx	@ 15.45	3708.00
POZMIX		@	
GEL	5 sx	@ 20.80	104.00
CHLORIDE	8 sx	@ 58.20	465.60
ASC		@	
HANDLING	253	@ 2.40	607.20
MILEAGE	253/.10/15		379.50
		TOTAL	5264.30

EQUIPMENT

PUMP TRUCK # 414-302 CEMENTER Dsrin F
HELPER Ron C
BULK TRUCK # 364 DRIVER Carl B.
BULK TRUCK # DRIVER

REMARKS:

Pipe on bottom & break circulation pump 3 bbls water ahead, mix 240sx of cement, displace 19 bbls fresh water shut in, cement did circulate

SERVICE

DEPTH OF JOB 214'
PUMP TRUCK CHARGE 1018.00
EXTRA FOOTAGE @
MILEAGE 30 @ 7.00 210.00
MANIFOLD @
Swedge & Valve @
@
TOTAL 1228.00

CHARGE TO: Woolsey Operating
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

none

TOTAL

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

To Allied Cementing Co., 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

Thank you!!!

ALLIED CEMENTING CO., LLC. 040048

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Medicine Lodge KS

				3-16	3-17	3-17	3-17
DATE 3-17-2014	SEC. 10	TWP. 35S	RANGE 12W	CALLED OUT 10:00 pm	ON LOCATION 12:30 Am	JOB START 5:30 Am	JOB FINISH 6:30 Am
LEASE Miller C	WELL # 2	LOCATION Hardtner, KS 1 east 3/4 north, 1 east				COUNTY Barber	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR H2 #3
TYPE OF JOB Production
HOLE SIZE 7 7/8 T.D. 5480'
CASING SIZE 5 1/2 DEPTH 5335'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 39'
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 128 bbls of 2% KCL water

OWNER Woolsey Operating

EQUIPMENT

PUMP TRUCK CEMENTER Orin F.
#360-265 HELPER Jason T.
BULK TRUCK
#421-252 DRIVER Raymond R.
BULK TRUCK
DRIVER

CEMENT

AMOUNT ORDERED 75sx 60:40:4% Gel
175sx Class H + 10% Gyp + 10% Salt
6# Kolseal + .8% FL160 + 1/4# Flosel
135gls Clapro

COMMON	45 sx	@ 15.45	695.25
POZMIX	30 sx	@ 8.00	240.00
GEL	3 sx	@ 20.80	62.40
CHLORIDE		@	
ASC		@	
H	175 sx	@ 16.75	2931.25
Gypseal	17 sx	@ 29.20	496.40
Salt	19 sx	@ 12.00	228.00
Kolseal	1050 #	@ .89	934.50
FL-160	131.6 #	@ 13.30	1750.28
Floseal	43.75	@ 2.50	109.37
Clapro	13 Gals	@ 31.25	406.25
		@	
HANDLING	315	@ 2.40	756.00
MILEAGE	315/20/.10		630.00
		TOTAL	9,239.68

REMARKS:

Pipe on bottom & break Circulation mix 25sx for Rat hole, mix 50sx Scavenger Cement, mix 175sx H Cement, Shut down Wash pump & lines, Release plug, Start displacement, Lift pressure @ 85 bbls, slow rate to 3 bpm @ 120 bbls, Bump plug @ 128 bbls 1,000-1200 psi, float did hold

SERVICE

DEPTH OF JOB 5335'
PUMP TRUCK CHARGE 2185.00
EXTRA FOOTAGE @
MILEAGE 20 @ 7.00 140.00
MANIFOLD @
Head rental @ 100.00
@
TOTAL 2425.00

CHARGE TO: Woolsey Operating
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

5 1/2

1-AFU Float Shoe	@	214.20
1-Latch Down plug	@	163.80
12-Turbolizers	@ 40.60	487.20
24-Scratchers	@ 23.94	574.56
	@	
TOTAL		1439.76

To Allied Cementing Co., 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
DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME X MIKE THARP

SIGNATURE X

Thank you!!!

DRILL STEM TEST REPORT

w oolsey Operating Company

125 North Market Suite 1000
Wichita, Kansas 67202-1729

ATTN: Scott Alberg

Miller c # 2

10-35s-12w Barber

Job Ticket: 15776 **DST#: 1**

Test Start: 2011.03.14 @ 09:45:00

GENERAL INFORMATION:

Formation: **Cherokee-Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:00:00
Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Gene Budig
Unit No: 3335-

Interval: 4742.00 ft (KB) To 4880.00 ft (KB) (TVD)
Total Depth: 4880.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

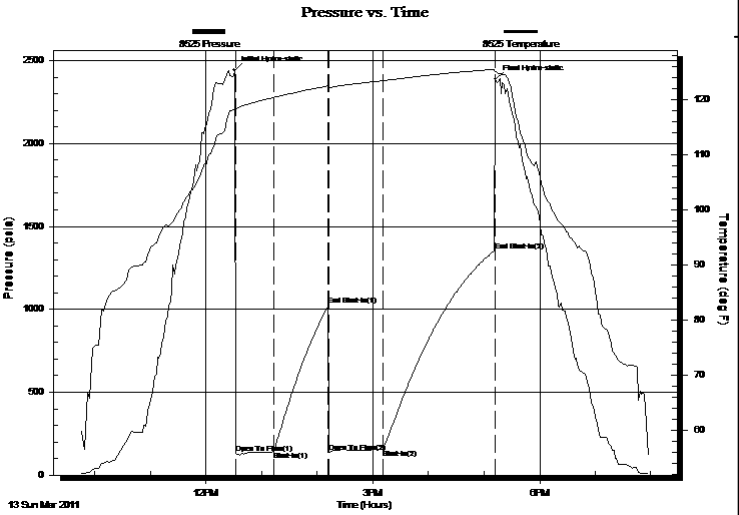
Reference Elevations: 1426.00 ft (KB)
1417.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8525 **Inside**

Press@RunDepth: 1353.57 psia @ 4875.92 ft (KB)
Start Date: 2011.03.13 End Date: 2011.03.13
Start Time: 09:45:00 End Time: 19:58:30

Capacity: 5000.00 psia
Last Calib.: 2011.03.14
Time On Btm: 2011.03.13 @ 12:31:00
Time Off Btm: 2011.03.13 @ 17:12:30

TEST COMMENT: 1st Opening 30 Minutes Fair blow built to the bottom of a 5 gallon bucket in 21 minutes
1st Shut-In 60 Minutes-w eak blow back
2nd Opening 60 Minutes-Good blow built to the bottom of a 5 gallon bucket in 1 minute and decreased
2nd Shut-In 120 Minutes- Weak blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2442.64	118.34	Initial Hydro-static
1	130.28	118.03	Open To Flow (1)
43	141.20	120.42	Shut-In(1)
102	1025.04	122.51	End Shut-In(1)
102	135.47	122.19	Open To Flow (2)
161	153.70	123.48	Shut-In(2)
281	1353.57	125.52	End Shut-In(2)
282	2388.21	125.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	Gas to surface 55 minutes on 2nd flow	0.00
125.00	Drilling Mud	0.61
0.00	There w as a show of oil betw een the	0.00
0.00	Shut-In and Hydrolic tools	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

w oolsey Operating Company

125 North Market Suite 1000
Wichita, Kansas 67202-1729

ATTN: Scott Alberg

Miller c # 2

10-35s-12w Barber

Job Ticket: 15776 **DST#: 1**

Test Start: 2011.03.14 @ 09:45:00

Tool Information

Drill Pipe:	Length:	4375.00 ft	Diameter:	3.80	inches	Volume:	61.37	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	286.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	358.00 ft	Diameter:	2.25	inches	Volume:	1.76	bbl	
						Total Volume:	63.13	bbl	

Drill Pipe Above KB:	20.00 ft
Depth to Top Packer:	4742.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	137.92 ft
Tool Length:	166.92 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		85000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	70000.00 lb
	Final	72000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4714.00		
Shut-In Tool	5.00			4719.00		
Hydroic Tool	5.00			4724.00		
Jars	6.00			4730.00		
Safety Joint	2.00			4732.00		
Packer	5.00			4737.00	29.00	Bottom Of Top Packer
Packer	5.00			4742.00		
Perforations	10.00			4752.00		
Change Over Sub	0.75			4752.75		
Drill Pipe	94.42			4847.17		
Change Over Sub	0.75			4847.92		
Perforations	27.00			4874.92		
Recorder	1.00	8525	Inside	4875.92		
Recorder	1.00	95712	Outside	4876.92		
Bullnose	3.00			4879.92	137.92	Bottom Packers & Anchor
Total Tool Length:	**166.92**					

DRILL STEM TEST REPORT

FLUID SUMMARY

w oolsey Operating Company

125 North Market Suite 1000
Wichita, Kansas 67202-1729

ATTN: Scott Alberg

Miller c # 2

10-35s-12w Barber

Job Ticket: 15776 **DST#: 1**

Test Start: 2011.03.14 @ 09:45:00

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:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.00 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	3500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

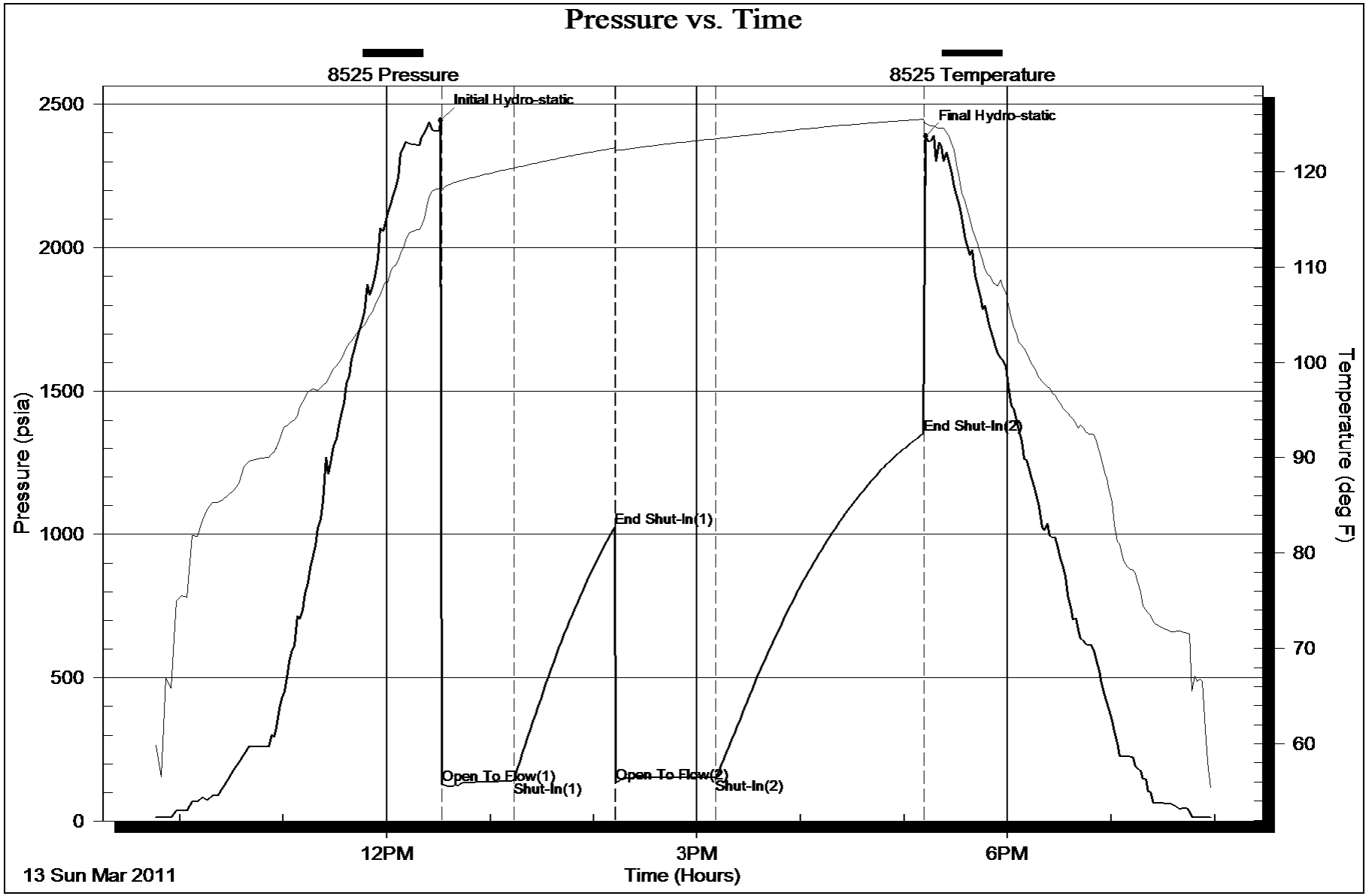
Recovery Table

Length ft	Description	Volume bbl
0.00	Gas to surface 55 minutes on 2nd flow	0.000
125.00	Drilling Mud	0.615
0.00	There w as a show of oil betw een the	0.000
0.00	Shut-In and Hydrolic tools	0.000

Total Length: 125.00 ft Total Volume: 0.615 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8525 **Inside** w oolsey Operating Company 10-35s-12w Barber DST Test Number: 1



Superior Testers Enterprises LLC Ref. No: 15776 Printed: 2011.03.14 @ 08:04:19

Woolsey Operating Company, LLC

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

Well Name:	Miller #C-2		
Location:	E/2 NW NW NW		
License Number:	API: 15-007-23655-00-00	**Region:**	Barber County, Kansas
Spud Date:	March 7, 2011	**Drilling Completed:**	March 16, 2011
Surface Coordinates:	330' FNL, 595' FWL Section 10-Twp 35 South - Rge 12 West Hartner Pool		
Bottom Hole Coordinates:	Vertical Hole		
Ground Elevation (ft):	1417	**K.B. Elevation (ft):**	1426
Logged Interval (ft):	4200 To: 5480	**Total Depth (ft):**	5480
Formation:	McLish Shale		
Type of Drilling Fluid:	Chemical Mud, Displace at 3350'.		

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
HUSHPUCKNEY SHALE	4588(-3162)	4586(-3160)
B/KC	4637(-3211)	4635(-3209)
PAWNEE	4733(-3307)	4732(-3306)
CHEROKEE GROUP	4780(-3354)	4778(-3352)
CHEROKEE SAND	4805(-3379)	4804(-3378)
MISSISSIPPIAN	4826(-3400)	4826(-3400)
KINDERHOOK SHALE	5105(-3679)	5106(-3680)
WOODFORD SHALE	5173(-3747)	5180(-3754)
MISNER SAND	5202(-3776)	5208(-3782)
VIOLA	5214(-3788)	5238(-2812)
SIMPSON GROUP	5352(-3926)	5354(-3928)
SIMPSON WILCOX	5365(-3939)	5368(-3942)
MCLISH SHALE	5446(-4020)	5442(-4016)
MCLISH SAND	NDE	NDE
RTD	5480(-4054)	
LTD		5482(-4056)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 214' with 240 sxs Class A, 2% gel, 3% cc, plug down at 10:15 pm on March 7, 2011. Cement did Circulate.
Production Casing: Ran 5 1/2" Casing.
Deviation Surveys: 218' 1/4, 1531' 1/4, 2073' 1/4, 2578 1/4, 3148' 1/4, 3752' 1/2, 3911' 1, 4102' 1/2, 4609' 1/2, 4880' 1, 5480' 1.
Contractor Bit Record: 1- 14 3/4" out at 218'.
2- 7 7/8" out at 4880'.
3 - 7 7/8" out at 5480'.

Gas Detector: Woolsey Operating Company, Trailer #2
Mud System: Mud Co, Brad Bortz, Engineer
DSTs: Superior Testing Company
Logged By Superior Well Services, Inc
LTD 5482'

DSTs

DST #1 4742 to 4880' Times 30-60-60-120
IF - Fair Blow BOB in 21 minutes, weak 1/4 to 1/2" blow back
FF- Good blow, BOB 1 minute, GTS in 55 minutes, TSTM, weak 1/4 to 1/2" blow back.

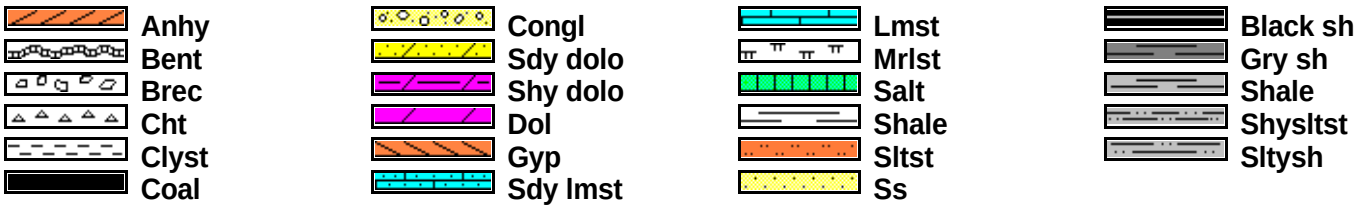
IHP 2442# FHP 2388#
IFP 130-141# FFP 135-153#
ISIP 1025# FSIP 1353#
(Both shut-in pressures still building)

Recovery 125' Drilling Mud
(Slight show of oil between the shut-in tool and hydrolic tool)

CREWS

H2 Drilling Rig #3
Tool Pusher - Randy Smith
Drillers - Gary Axtell
Cain Charles
Luis Marquez

ROCK TYPES



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

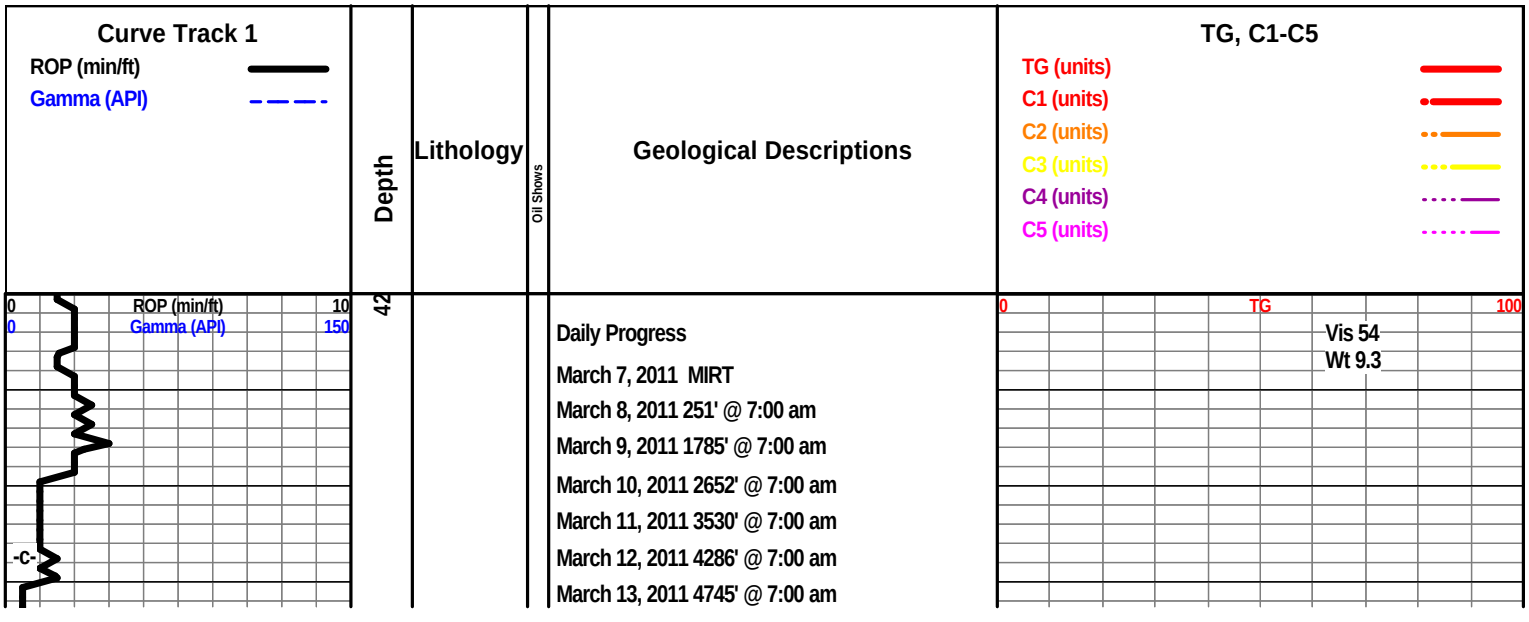
STRINGER

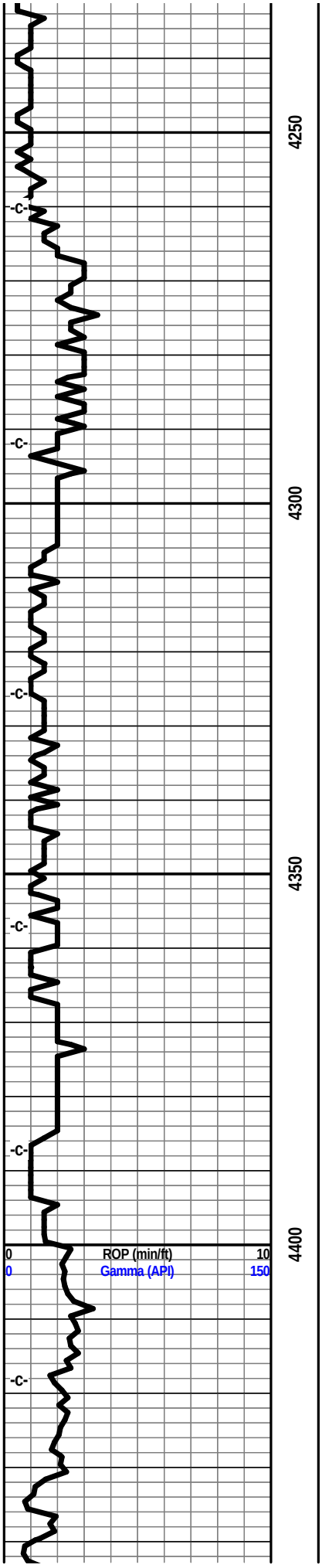
Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh
Clystn
Dol

Grysh
Gryslt
Lms
Sandylms
Sh
Sltstn

TEXTURE

Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest





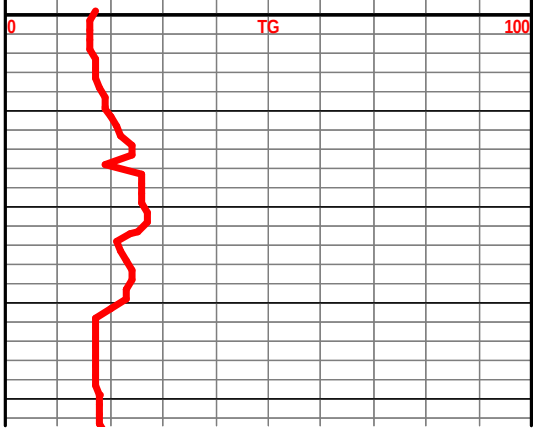
March 14, 2011 4980' @ 7:00 am
March 15, 2011 5185' @ 7:00 am
March 16, 2011 5480' @ 7:00 am

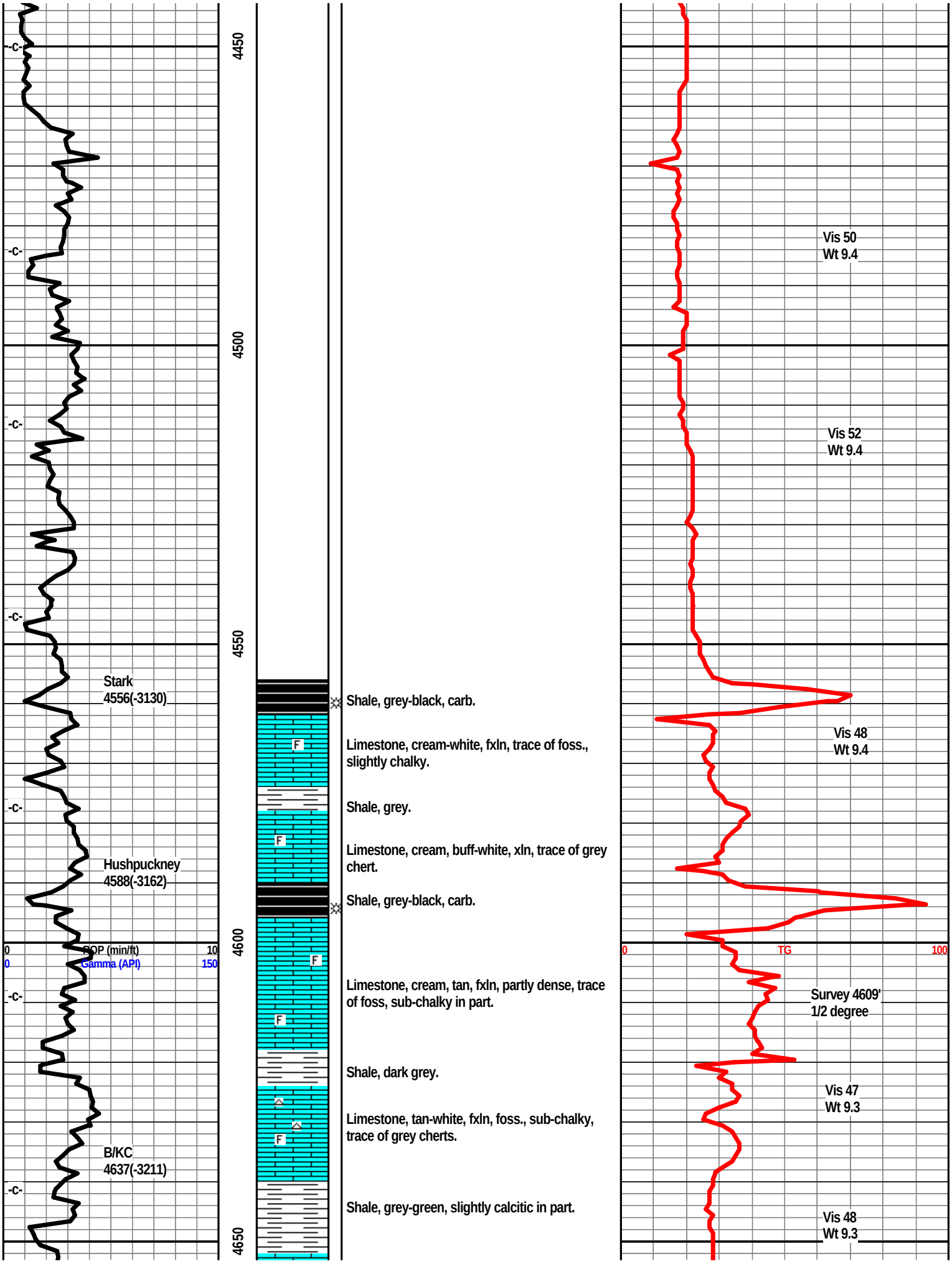
3-12-2011
4286' @ 7:00 am

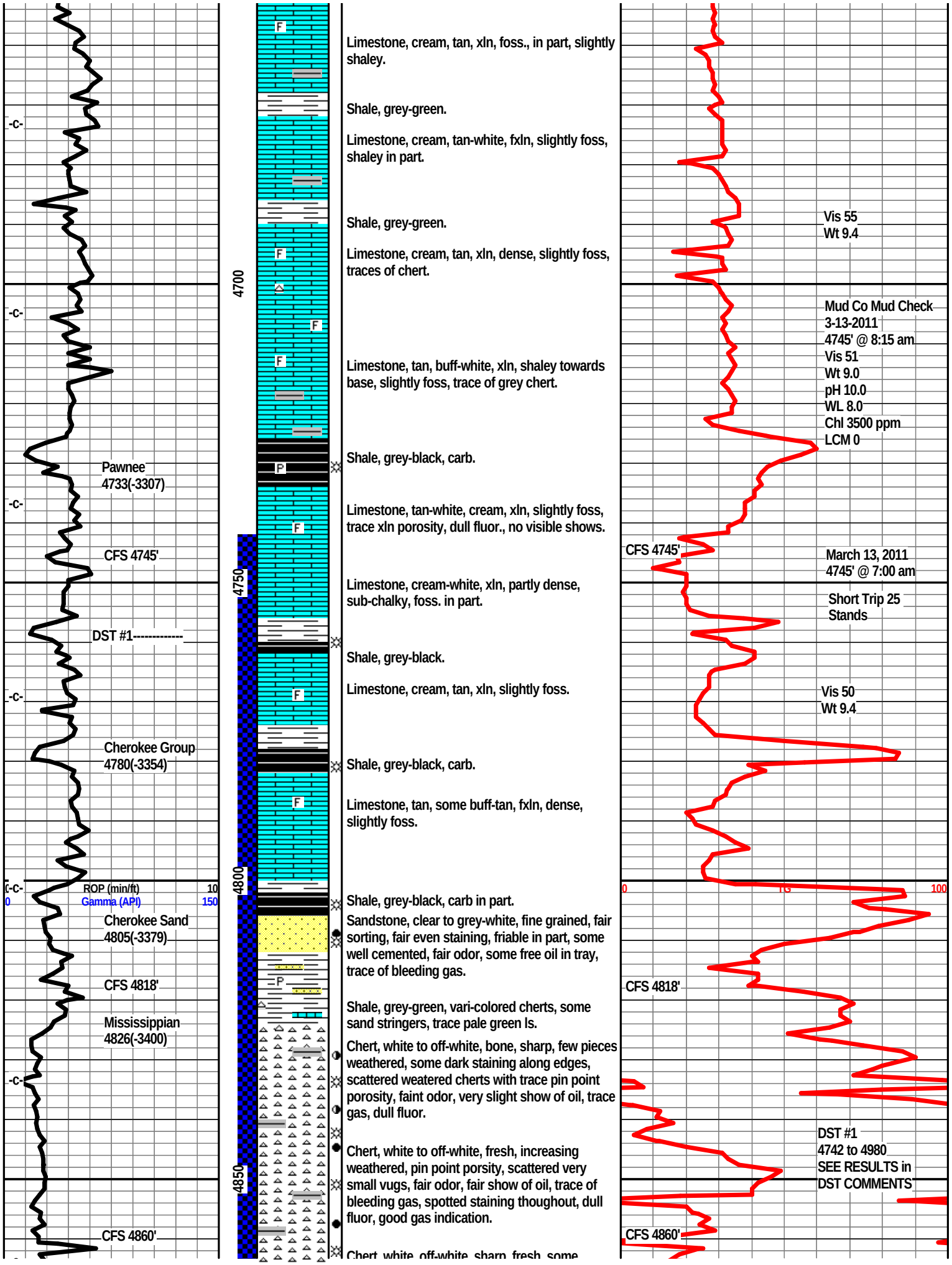
Vis 48
Wt 9.3

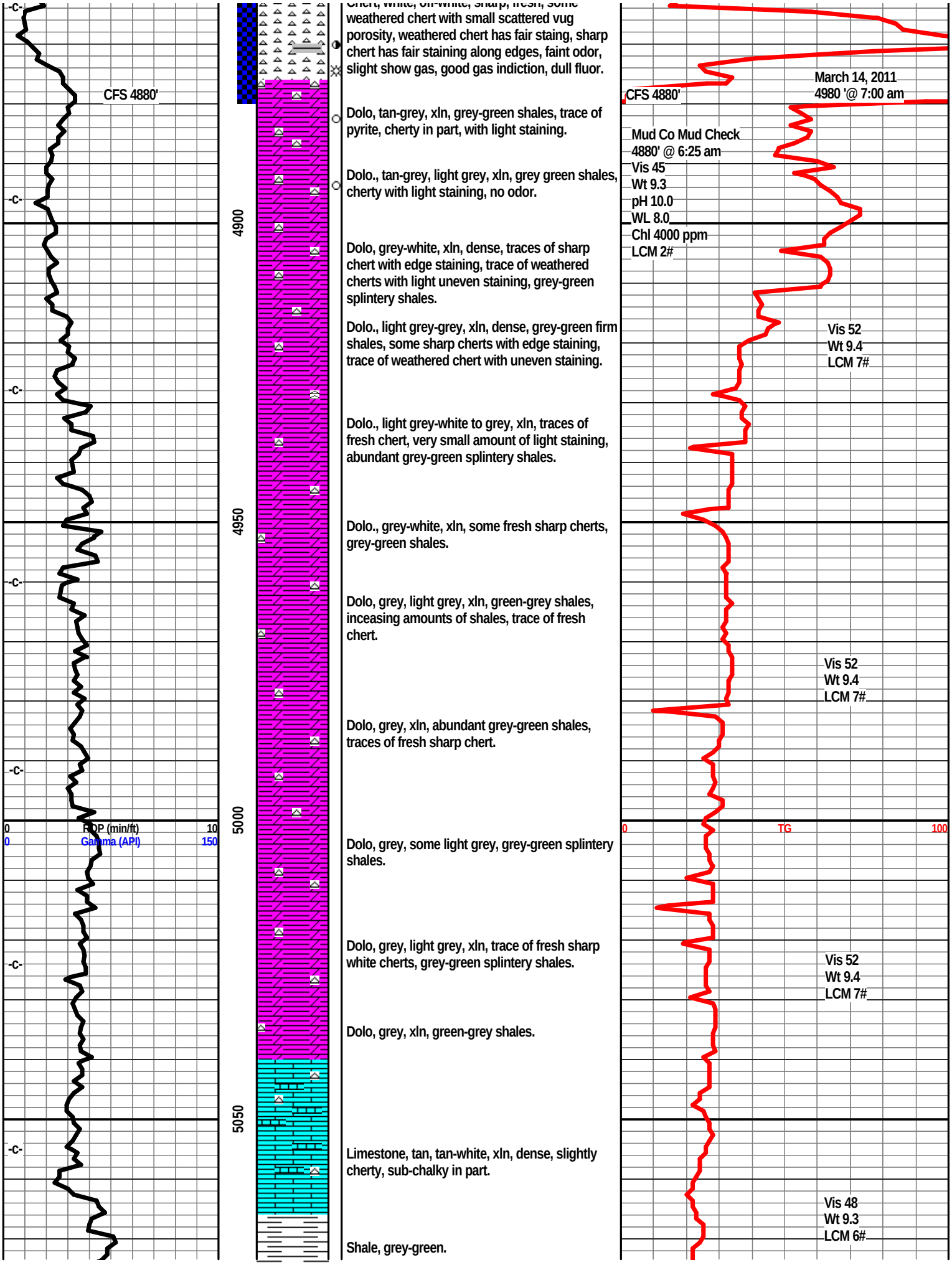
Geologist on
Location 4387'
10:15 am 3-12-2011

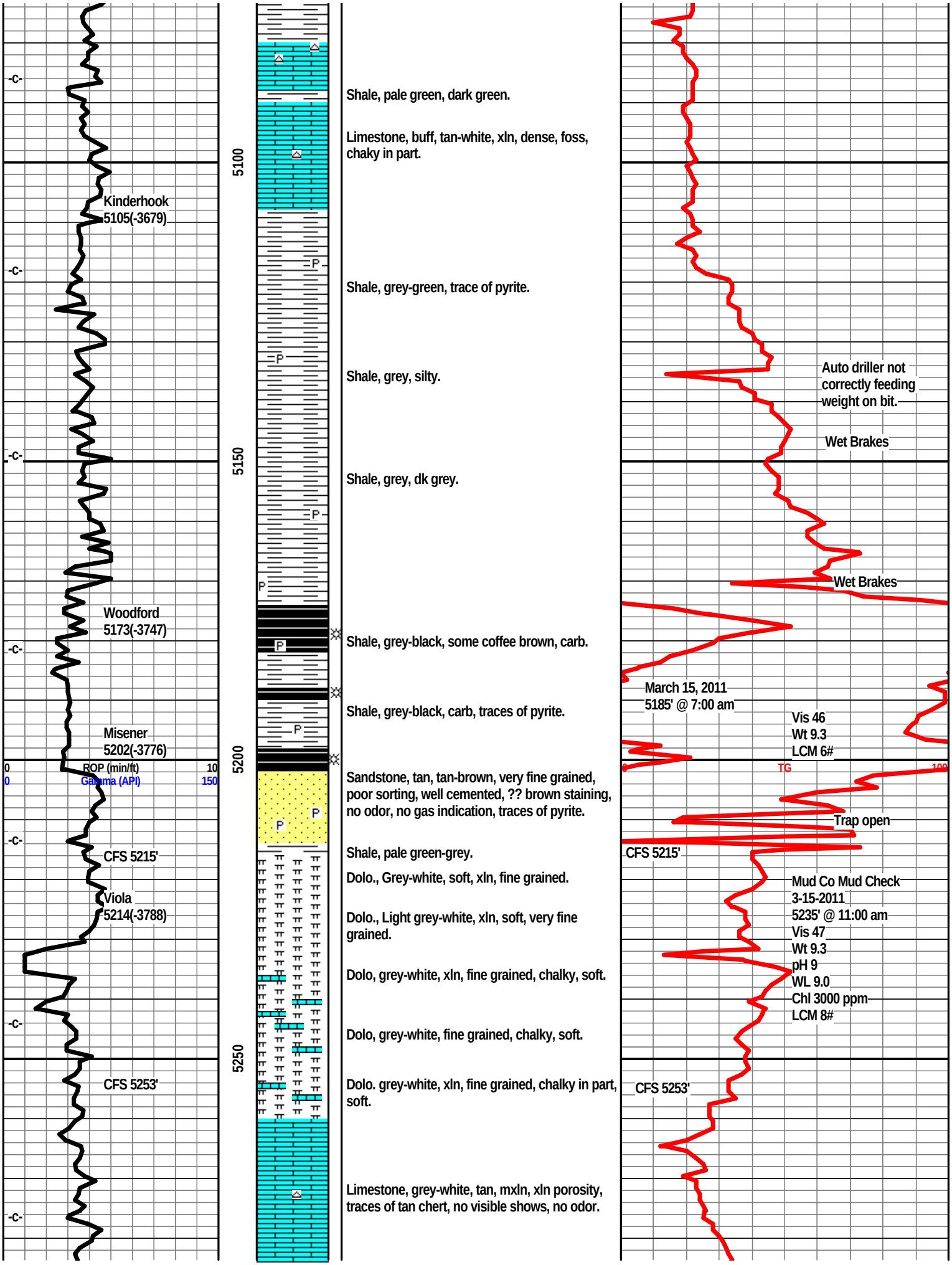
Start Gas Trailer

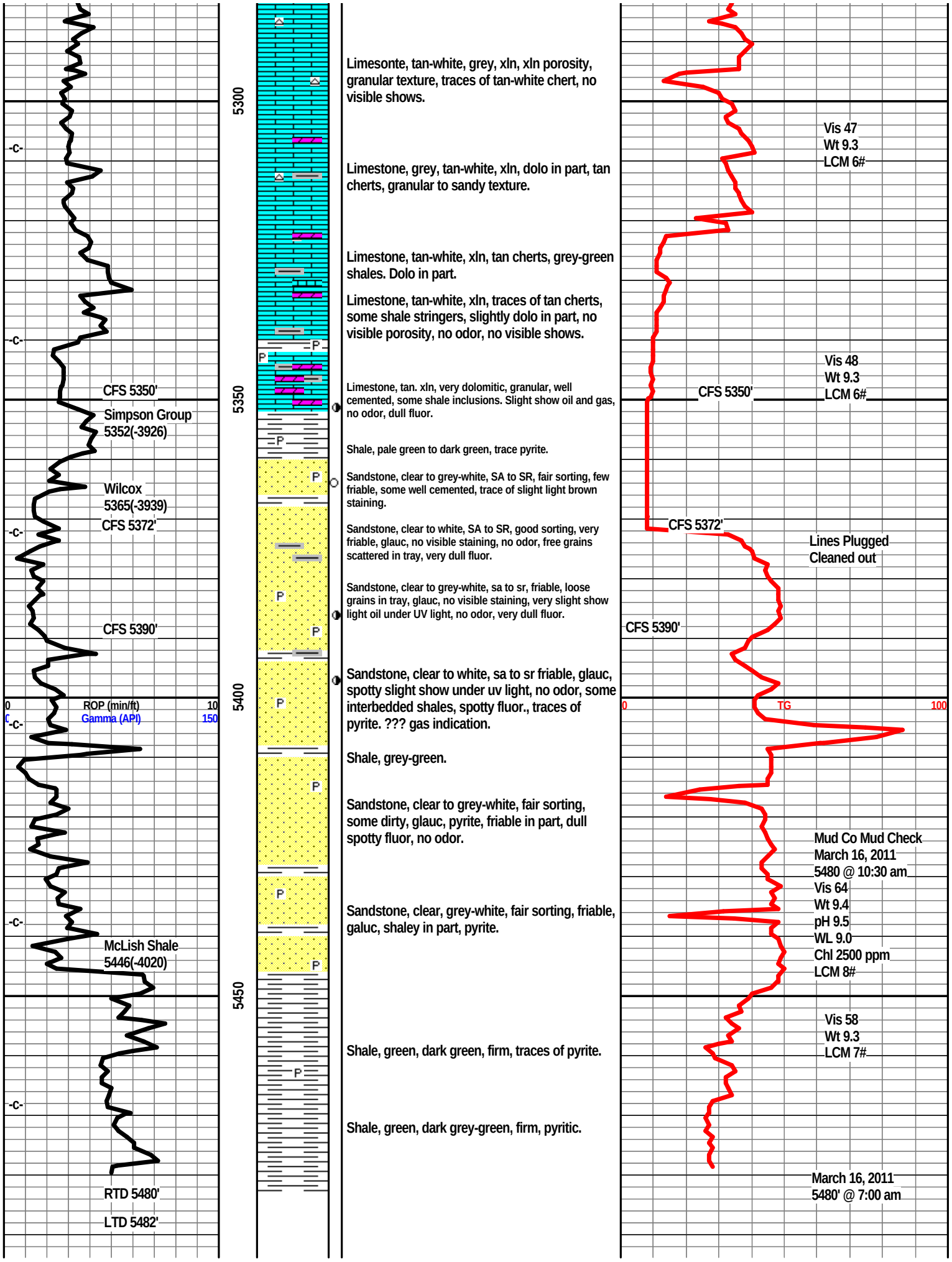



4450
4500
4550
4600
4650
Stark
4556(-3130)
Hushpuckney
4588(-3162)
B/KC
4637(-3211)
0
ROP (min/ft)
10
0
Gamma (API)
150
Shale, grey-black, carb.
Limestone, cream-white, fxln, trace of foss., slightly chalky.
Shale, grey.
Limestone, cream, buff-white, xln, trace of grey chert.
Shale, grey-black, carb.
Limestone, cream, tan, fxln, partly dense, trace of foss, sub-chalky in part.
Shale, dark grey.
Limestone, tan-white, fxln, foss., sub-chalky, trace of grey cherts.
Shale, grey-green, slightly calcitic in part.
Vis 50
Wt 9.4
Vis 52
Wt 9.4
Vis 48
Wt 9.4
0
TG
100
Survey 4609'
1/2 degree
Vis 47
Wt 9.3
Vis 48
Wt 9.3


-c-
-c-
-c-
Pawnee
4733(-3307)
CFS 4745'
DST #1----------
-c-
Cherokee Group
4780(-3354)
-c-
ROP (min/ft)
10
0
Gamma (API)
150
Cherokee Sand
4805(-3379)
CFS 4818'
Mississippian
4826(-3400)
-c-
CFS 4860'
4700
4750
4800
4850
F
P
Limestone, cream, tan, xln, foss., in part, slightly shaley.
Shale, grey-green.
Limestone, cream, tan-white, fxln, slightly foss, shaley in part.
Shale, grey-green.
Limestone, cream, tan, xln, dense, slightly foss, traces of chert.
Limestone, tan, buff-white, xln, shaley towards base, slightly foss, trace of grey chert.
Shale, grey-black, carb.
Limestone, tan-white, cream, xln, slightly foss, trace xln porosity, dull fluor., no visible shows.
Limestone, cream-white, xln, partly dense, sub-chalky, foss. in part.
Shale, grey-black.
Limestone, cream, tan, xln, slightly foss.
Shale, grey-black, carb.
Limestone, tan, some buff-tan, fxln, dense, slightly foss.
Shale, grey-black, carb in part.
Sandstone, clear to grey-white, fine grained, fair sorting, fair even staining, friable in part, some well cemented, fair odor, some free oil in tray, trace of bleeding gas.
Shale, grey-green, vari-colored cherts, some sand stringers, trace pale green ls.
Chert, white to off-white, bone, sharp, few pieces weathered, some dark staining along edges, scattered weatered cherts with trace pin point porosity, faint odor, very slight show of oil, trace gas, dull fluor.
Chert, white to off-white, fresh, increasing weathered, pin point porsity, scattered very small vugs, fair odor, fair show of oil, trace of bleeding gas, spotted staining thoughout, dull fluor, good gas indication.
Chert, white, off-white, sharp, fresh, some
Vis 55
Wt 9.4
Mud Co Mud Check
3-13-2011
4745' @ 8:15 am
Vis 51
Wt 9.0
pH 10.0
WL 8.0
Chl 3500 ppm
LCM 0
CFS 4745'
March 13, 2011
4745' @ 7:00 am
Short Trip 25 Stands
Vis 50
Wt 9.4
0
TG
100
CFS 4818'
DST #1
4742 to 4980
SEE RESULTS in DST COMMENTS
CFS 4860'


-C-
CFS 4880'
-C-
-C-
-C-
-C-
0
ROP (min/ft)
10
0
Gamma (API)
150
-C-
4900
4950
5000
5050
weathered chert with small scattered vug porosity, weathered chert has fair staing, sharp chert has fair staining along edges, faint odor, slight show gas, good gas indiction, dull fluor.
Dolo, tan-grey, xln, grey-green shales, trace of pyrite, cherty in part, with light staining.
Dolo., tan-grey, light grey, xln, grey green shales, cherty with light staining, no odor.
Dolo, grey-white, xln, dense, traces of sharp chert with edge staining, trace of weathered cherts with light uneven staining, grey-green splintery shales.
Dolo., light grey-grey, xln, dense, grey-green firm shales, some sharp cherts with edge staining, trace of weathered chert with uneven staining.
Dolo., light grey-white to grey, xln, traces of fresh chert, very small amount of light staining, abundant grey-green splintery shales.
Dolo., grey-white, xln, some fresh sharp cherts, grey-green shales.
Dolo, grey, light grey, xln, green-grey shales, inceasing amounts of shales, trace of fresh chert.
Dolo, grey, xln, abundant grey-green shales, traces of fresh sharp chert.
Dolo, grey, some light grey, grey-green splintery shales.
Dolo, grey, light grey, xln, trace of fresh sharp white cherts, grey-green splintery shales.
Dolo, grey, xln, green-grey shales.
Limestone, tan, tan-white, xln, dense, slightly cherty, sub-chalky in part.
Shale, grey-green.
CFS 4880'
March 14, 2011
4980 '@ 7:00 am
Mud Co Mud Check
4880' @ 6:25 am
Vis 45
Wt 9.3
pH 10.0
WL 8.0
Chl 4000 ppm
LCM 2#
Vis 52
Wt 9.4
LCM 7#
Vis 52
Wt 9.4
LCM 7#
Vis 52
Wt 9.4
LCM 7#
Vis 48
Wt 9.3
LCM 6#
0
TG
100


-C-
Kinderhook
5105(-3679)
Woodford
5173(-3747)
Misener
5202(-3776)
0
ROP (min/ft)
10
0
Gamma (API)
150
CFS 5215'
Viola
5214(-3788)
CFS 5253'
5100
5150
5200
5250
P
Shale, pale green, dark green.
Limestone, buff, tan-white, xln, dense, foss, chaky in part.
Shale, grey-green, trace of pyrite.
Shale, grey, silty.
Shale, grey, dk grey.
Shale, grey-black, some coffee brown, carb.
Shale, grey-black, carb, traces of pyrite.
Sandstone, tan, tan-brown, very fine grained, poor sorting, well cemented, ?? brown staining, no odor, no gas indication, traces of pyrite.
Shale, pale green-grey.
Dolo., Grey-white, soft, xln, fine grained.
Dolo., Light grey-white, xln, soft, very fine grained.
Dolo, grey-white, xln, fine grained, chalky, soft.
Dolo, grey-white, fine grained, chalky, soft.
Dolo. grey-white, xln, fine grained, chalky in part, soft.
Limestone, grey-white, tan, mxln, xln porosity, traces of tan chert, no visible shows, no odor.
Auto driller not correctly feeding weight on bit.
Wet Brakes
Wet Brakes
March 15, 2011
5185' @ 7:00 am
Vis 46
Wt 9.3
LCM 6#
0
TG
100
Trap open
CFS 5215'
Mud Co Mud Check
3-15-2011
5235' @ 11:00 am
Vis 47
Wt 9.3
pH 9
WL 9.0
Chl 3000 ppm
LCM 8#
CFS 5253'


5300
5350
5400
5450
-C-
-C-
-C-
-C-
-C-
CFS 5350'
Simpson Group
5352(-3926)
Wilcox
5365(-3939)
CFS 5372'
CFS 5390'
McLish Shale
5446(-4020)
RTD 5480'
LTD 5482'
0
ROP (min/ft)
10
Gamma (API)
150
P
Limesonte, tan-white, grey, xln, xln porosity, granular texture, traces of tan-white chert, no visible shows.
Limestone, grey, tan-white, xln, dolo in part, tan cherts, granular to sandy texture.
Limestone, tan-white, xln, tan cherts, grey-green shales. Dolo in part.
Limestone, tan-white, xln, traces of tan cherts, some shale stringers, slightly dolo in part, no visible porosity, no odor, no visible shows.
Limestone, tan. xln, very dolomitic, granular, well cemented, some shale inclusions. Slight show oil and gas, no odor, dull fluor.
Shale, pale green to dark green, trace pyrite.
Sandstone, clear to grey-white, SA to SR, fair sorting, few friable, some well cemented, trace of slight light brown staining.
Sandstone, clear to white, SA to SR, good sorting, very friable, glauc, no visible staining, no odor, free grains scattered in tray, very dull fluor.
Sandstone, clear to grey-white, sa to sr, friable, loose grains in tray, glauc, no visible staining, very slight show light oil under UV light, no odor, very dull fluor.
Sandstone, clear to white, sa to sr friable, glauc, spotty slight show under uv light, no odor, some interbedded shales, spotty fluor., traces of pyrite. ??? gas indication.
Shale, grey-green.
Sandstone, clear to grey-white, fair sorting, some dirty, glauc, pyrite, friable in part, dull spotty fluor, no odor.
Sandstone, clear, grey-white, fair sorting, friable, galuc, shaley in part, pyrite.
Shale, green, dark green, firm, traces of pyrite.
Shale, green, dark grey-green, firm, pyritic.
Vis 47
Wt 9.3
LCM 6#
Vis 48
Wt 9.3
LCM 6#
CFS 5350'
CFS 5372'
Lines Plugged
Cleaned out
CFS 5390'
0
TG
100
Mud Co Mud Check
March 16, 2011
5480 @ 10:30 am
Vis 64
Wt 9.4
pH 9.5
WL 9.0
Chl 2500 ppm
LCM 8#
Vis 58
Wt 9.3
LCM 7#
March 16, 2011
5480' @ 7:00 am