



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1107000  
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: \_\_\_\_\_



1107000

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	TUCKER GU A 4
Doc ID	1107000

Tops

Name	Top	Datum
CHASE	1769	-325
ONAGA	2583	-1139
ELGIN SD	3469	-2024
DOUGLAS	3613	-2169
SWOPE LS	4290	-2846
MISSISSIPPIAN	4542	-3098
VIOLA	4885	-3441
SIMPSON	4970	-3526

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

January 07, 2013

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

Re: ACO1  
API 15-007-23941-00-00  
TUCKER GU A 4  
SW/4 Sec.28-33S-10W  
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 PATTTISSON

# ALLIED OIL & GAS SERVICES, LLC 053910

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Medicine Lodge KS

DATE <u>09/10/12</u>	SEC <u>28</u>	TWP. <u>33s</u>	RANGE <u>10w</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Tucker G4</u>	WELL # <u>4</u>	LOCATION <u>Sharon KS, South to Keechie</u>		COUNTY <u>Barber</u>	STATE <u>KS</u>		
OLD OR <u>NEW</u> (Circle one)		RD on <u>Tricity Blk</u> , 1 West, 1/2 North, E. 1st			<u>1.01</u>	<i>JK</i>	

CONTRACTOR Herd OWNER Woolsey

TYPE OF JOB Surface

HOLE SIZE <u>14 3/4</u>	T.D. <u>202 2/5</u>	CEMENT AMOUNT ORDERED <u>240 sx</u>	<u>Class A +3% cc + 2% Gel</u>
CASING SIZE <u>8 5/8</u>	DEPTH <u>202</u>		
TUBING SIZE <u>7</u>	DEPTH		
DRILL PIPE <u>7</u>	DEPTH		
TOOL	DEPTH		

PRES. MAX <u>200</u>	MINIMUM	COMMON "A" <u>240 SX</u>	@ <u>17.90</u>	<u>4296.00</u>
MEAS. LINE	SHOE JOINT	POZMIX	@	
CEMENT LEFT IN CSG. <u>18</u>		GEL <u>5 SX</u>	@ <u>23.40</u>	<u>117.00</u>
PERFS.		CHLORIDE <u>9 SX</u>	@ <u>64.00</u>	<u>576.00</u>
DISPLACEMENT <u>19 1/2 H<sub>2</sub>O Bbls fresh</u>		ASC	@	

EQUIPMENT

PUMP TRUCK # <u>308/265</u>	CEMENTER <u>Saon Thinsal</u>		
BULK TRUCK # <u>256/290</u>	HELPER <u>Ron Bully</u>		
BULK TRUCK # <u>256/290</u>	DRIVER <u>Jake</u>		
BULK TRUCK # <u>256/290</u>	DRIVER		

REMARKS: Did cure cement

WELL FILE

Regulatory Correspondence  
Drill / Comp Workovers  
Tests / Meters Operations

DEPTH OF JOB	<u>202'</u>
PUMP TRUCK CHARGE	<u>1512.25</u>
EXTRA FOOTAGE	@
MILEAGE	<u>10 @ 7.70 = 77.00</u>
MANIFOLD	@
LV	<u>10 @ 4.40 = 44.00</u>

CHARGE TO: Woolsey

STREET \_\_\_\_\_

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

TOTAL \$1633.25

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 Donald Boyd

SIGNATURE Donald Boyd

PLUG & FLOAT EQUIPMENT

SALES TAX (If Any)	<u>10</u>
TOTAL CHARGES	<u>\$7573.75</u>
DISCOUNT <u>25% / \$1893.44</u>	IF PAID IN 30 DAYS
<u>Net \$5680.31</u>	

OCT - 5 2012

10 3/4  
32.75 #/ft  
10.1.12

# ALLIED OIL & GAS SERVICES, LLC 053916

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Medicine Lodge KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
09/19/12	22	33S	10W				1200 daylight
LEASE <u>Ticker</u>	WELL# <u>4</u>	LOCATION <u>Sharon KS, South on Trinity</u>			COUNTY <u>Barber</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)		Blk tp to Kachia Rd, West 1/2 North, East/Intal					

CONTRACTOR Hardt #1 OWNER Woolsey  
 TYPE OF JOB Production  
 HOLE SIZE 7 7/8 T.D. 5052  
 CASING SIZE 5 1/2 DEPTH 4967  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX 1500 MINIMUM  
 MEAS. LINE SHOE JOINT 44  
 CEMENT LEFT IN CSG. 44  
 PERFS.  
 DISPLACEMENT 117 BBHW / 2% KCL H<sub>2</sub>O

CEMENT		AMOUNT ORDERED	
100% Class H + 10% Gypseal + 10% salt + 6# Kalscal + .8% FL-160 + Flaseal			
COMMON	"A"	45.8x @	17.90 805.50
POZMIX		30.8x @	9.35 280.50
GEL		3.8x @	23.40 70.20
CHLORIDE		@	
ASC		@	
Class H		100.8x @	21.20 2120.00
Gypseal		10.8x @	31.60 316.00
Salt		6.8x @	26.35 158.10
Kalscal		1.00# @	.98 588.00
FL-160		75# @	18.90 1417.50
Flaseal		25# @	2.97 14.85
HANDLING		215.03x @	2.48 533.27
MILEAGE		9.14 x 10 x 2.10	237.64
		91.40	TOTAL <u>9140.91</u>

EQUIPMENT  
 PUMP TRUCK CEMENTER Jason Thimach 1  
 #548/545 HELPER Eddie Piper 2  
 BULK TRUCK  
 #356/290 DRIVER Troy Lenz 3  
 BULK TRUCK  
 # DRIVER

REMARKS:  
Flag Dial Hold

WELL FILE

Regulatory Correspondence  
 Drilg / Comp Workovers  
 Tests / Meters Operations

SERVICE	
DEPTH OF JOB	4967'
PUMP TRUCK CHARGE	2765.75
EXTRA FOOTAGE	@
MILEAGE	10 @ 7.70 77.00
MANIFOLD	@
LV	10 @ 4.40 44.00
TOTAL <u>\$2886.75</u>	

CHARGE TO: Woolsey  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT	
AFU Choc	1 @ 408.33
Latch down plug	1 @ 324.09
Tackalizers	5 @ 93.10 468.00
recip scratchers	20 @ 88.92 1778.40
TOTAL <u>\$2978.82</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 Donald Boyd  
 SIGNATURE Donald Boyd

SALES TAX (If Any) 647.42  
 TOTAL CHARGES \$12,521.53  
 DISCOUNT 280 2755.81 IF PAID IN 30 DAYS  
Net \$9,710.69

OCT 16 2012



**Woolsey Operating Company, LLC**

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

Measured Depth Log

Well Name: TUCKER GU A-4  
Location: S2 NW SW  
License Number: API: 15-007-23941-00-00  
Spud Date: September 10, 2012  
Surface Coordinates: Section 28-T33S-R10W, 1650'FSL, 660' FWL  
Spicer Pool  
Bottom Hole Vertical Hole  
Coordinates:  
Ground Elevation (ft): 1434  
Logged Interval (ft): 3900 To: 5052  
Formation: McLish Shale  
Type of Drilling Fluid: Chemical Mud, Displace at 3294'

Region: Barber County, Kansas

Drilling Completed: September 19, 2012

K.B. Elevation (ft): 1444

Total Depth (ft): 5052

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://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

HUSHPUCKNEY SHALE	4310(-2866)	4308(-2864)
B/KC	4364(-2920)	4365(-2921)
PAWNEE	4455(-3011)	4453(-3009)
CHEROKEE GROUP	4504(-3060)	4504(-3060)
MISSISSIPPIAN	4543(-3099)	4545(-3101)
KINDERHOOK SHALE	4772(-3328)	4759(-3325)
WOODFORD SHALE	4842(-3398)	4839(-3395)
VIOLA	4866(-3422)	4864(-3420)
SIMPSON GROUP	4972(-3528)	4970(-3526)
SIMPSON SAND	4990(-3546)	4987(-3543)
MCLISH SHALE	5047(-3603)	NDE
RTD	5052(-3608)	
LTD		5050(-3606)

## COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 215'(tallied 202') with 240 sxs Class A, 2% gel, 3% cc, plug down at 9:30 pm on September 10, 2012. Cement did Circulate.

Production Casing: 5 1/2" Ran

Deviation Surveys: 3/4 - 215', 3/4 - 570', 3/4-1000', 1 1/2 - 1497', 1 - 1897, 2 - 2425', 3 -2767', 1 - 3076', 1 - 3108', 1 1.4 - 3356', 2 1/2 - 3912, 3- 4284', 2 3/4 - 4347', 3/4 - 4752', 1 3/4 - 5052'.

Contractor Bit Record:

1- 14 3/4" out at 215'.

2- 7 7/8" (PDC) out at 4284'

3 - 7 7/8" out at 5052'.

Pipe Strap at 4284' 1.23 long to board.

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Terry Ison, Engineers

DSTs: None

Logged by Superior Well Services.

LTD - 5050'

## DSTs

None Taken

## CREWS

Hardt Drilling, Inc Rig #1

Tool Pusher - Scott Adelhardt

Drillers - Days - Steve Myers

Evening - Jody Divine

Morning - Billy Maas

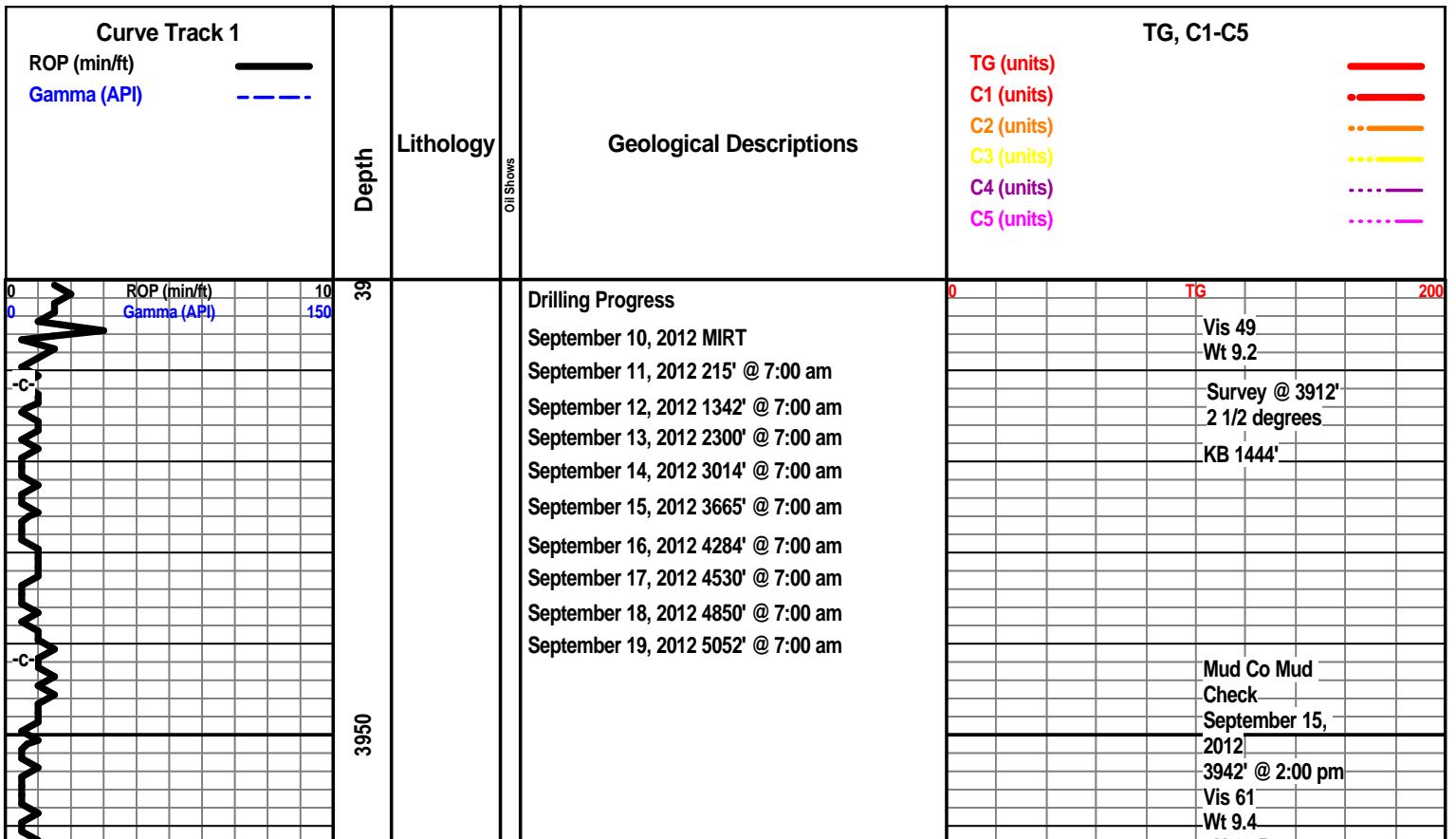


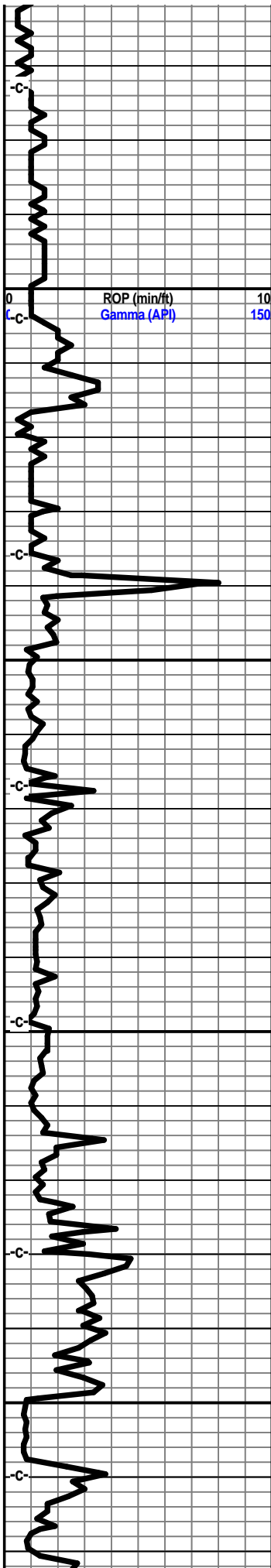
## ROCK TYPES

Anhy Bent Brec Cht Clyst Coal	Congl Sdy dolo Shy dolo Dol Gyp Sdy lmst	Lmst Mrlst Salt Shale Slstst Ss	Black sh Gry sh Shale Shsylvstst Sltysch
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## ACCESSORIES

<b>MINERAL</b> Anhy Arg Bent Bit Brecfrag Calc Carb Chtdk Chtlt Dol Ferrpel Ferr Glau Gyp Marl Nodule Phos Pyr Salt Sandy Silt	Chlorite Dol Sand Silty  <b>FOSSIL</b> Algae Amph Belm Bioclst Brach Bryozoa Cephal Coral Crin Echin Fish Foram Fossil Gastro Oolite Ostra	Pelec Pellet Pisolite Plant Strom Fuss Oomoldic  <b>STRINGER</b> Anhy Arg Bent Coal Dol Gyp Ls Mrst Slststrg Ssstrg Carbsh Clystn Dol	Grysh Gryslt Lms Sandylms Sh Slststn  <b>TEXTURE</b> Boundst Chalky Cryxln Earthy Finexln Grainst Lithogr Microxln Mudst Packst Wackest
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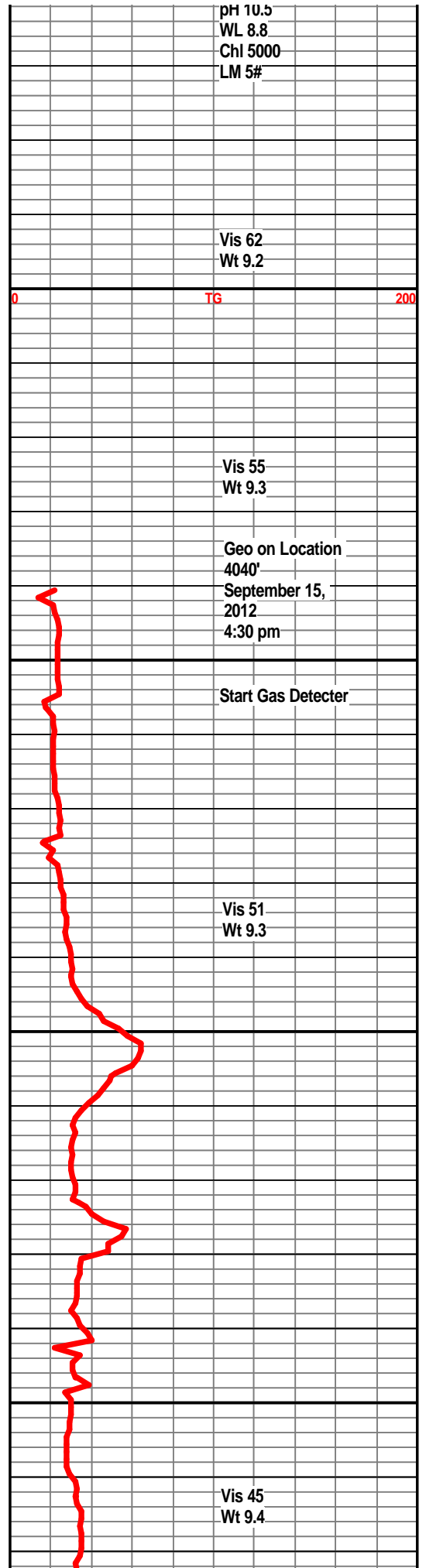


4000

4050

4100

4150



Vis 62  
Wt 9.2

TG

200

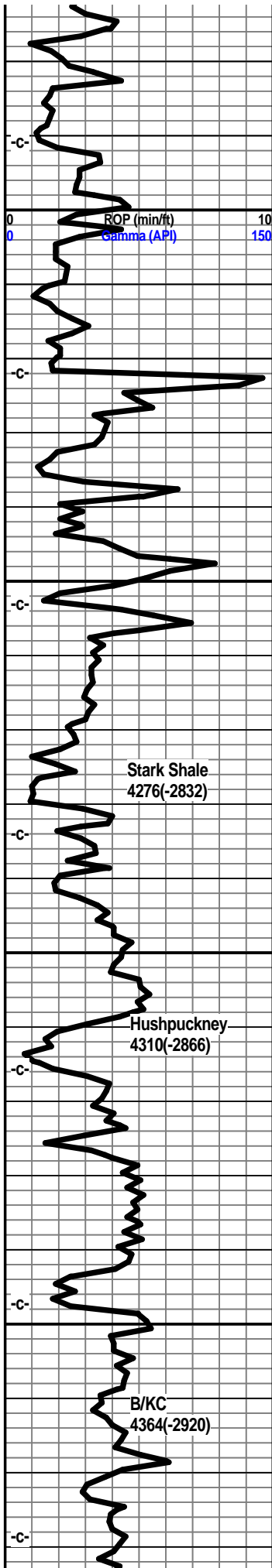
Vis 55  
Wt 9.3

Geo on Location  
4040'  
September 15,  
2012  
4:30 pm

Start Gas Detector

Vis 51  
Wt 9.3

Vis 45  
Wt 9.4



Stark Shale  
4276(-2832)

Hushpuckney  
4310(-2866)

B/KC  
4364(-2920)

4200

4250

4300

4350



Start Samples

Limestone, cream-white, offwhite, fxln, partly dense, slightly foss, chalky in part.

Shale, grey-black, fissile, slight show gas.

Limestone, tan, buff-white, xln, partly dense, trace fossils, trace subchalky.

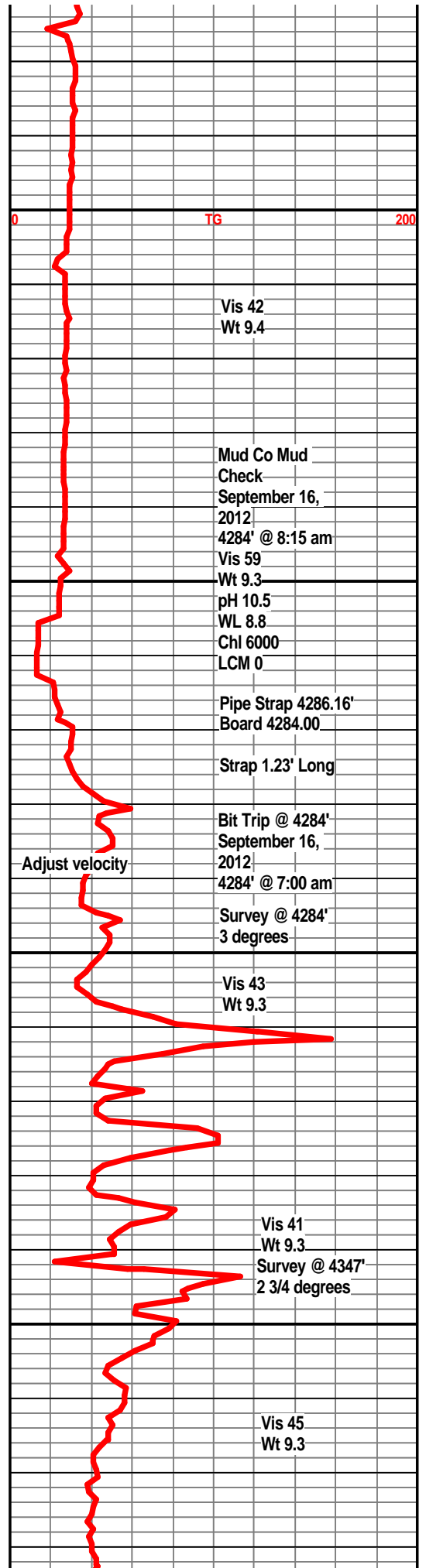
Limestone, ta, grey-white, xln, partly dense, slightly shaley in part.

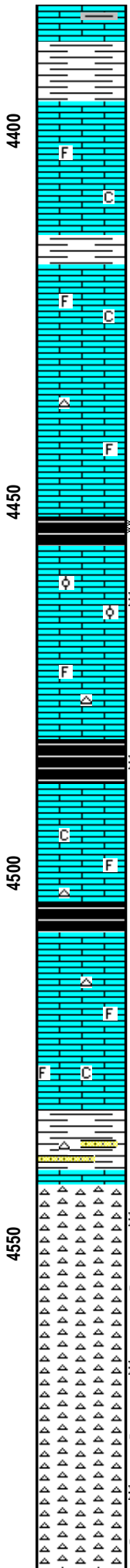
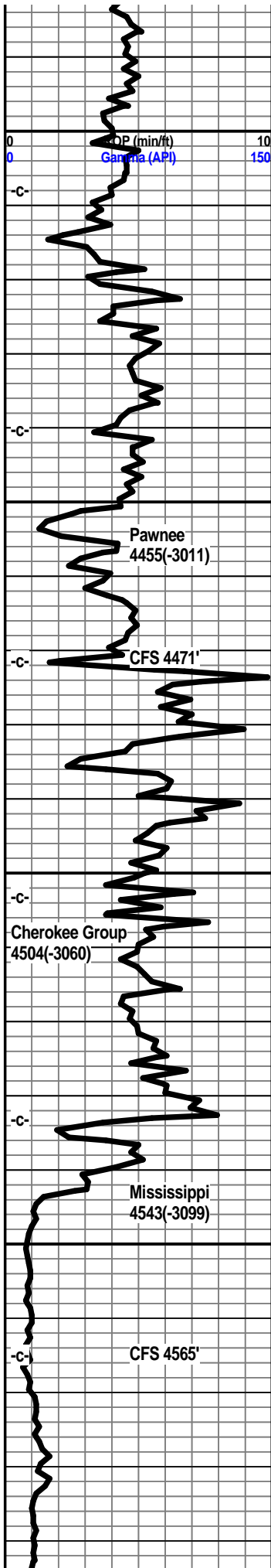
Shale, grey-black, fissile, trace gas.

Limestone, grey-white, tan, xln, partly dense, subchalky in part, trace fossils.

Shale, light grey-green, silty.

Limestone, grey-white, light pale green, xln,





shaley in part.

Shale, light green.

Limestone, buff, cream-white, xln, partly dense, trace fossils.

Shale, light green, light grey.

Limestone, buff, light tan, fxln, dense, trace fossils, slightly chalky in part.

Limestone, tan, buff-white, fxln, dense, trace fossils, trace tan chert.

Shale, grey-black, carb.

Limestone, tan, buff-white, fxln, oolitic, micro oolites, some inter oolitic porosity, traces of xln porosity, very slight show gas, faint gassy odor, dull spotty fluor.

Limestone, tan, buff, xln, dense, fossils, slightly chalky.

Shale, grey-black, slightly carb.

Limestone, tan, light grey, xln, dense, trace fossils, subchalky in part, trace tan chert.

Shale, grey, dark grey.

Limestone, tan, tan-white, xln, dense, trace tan chert.

Limestone, tan-white, xln, chalky, trace foss.

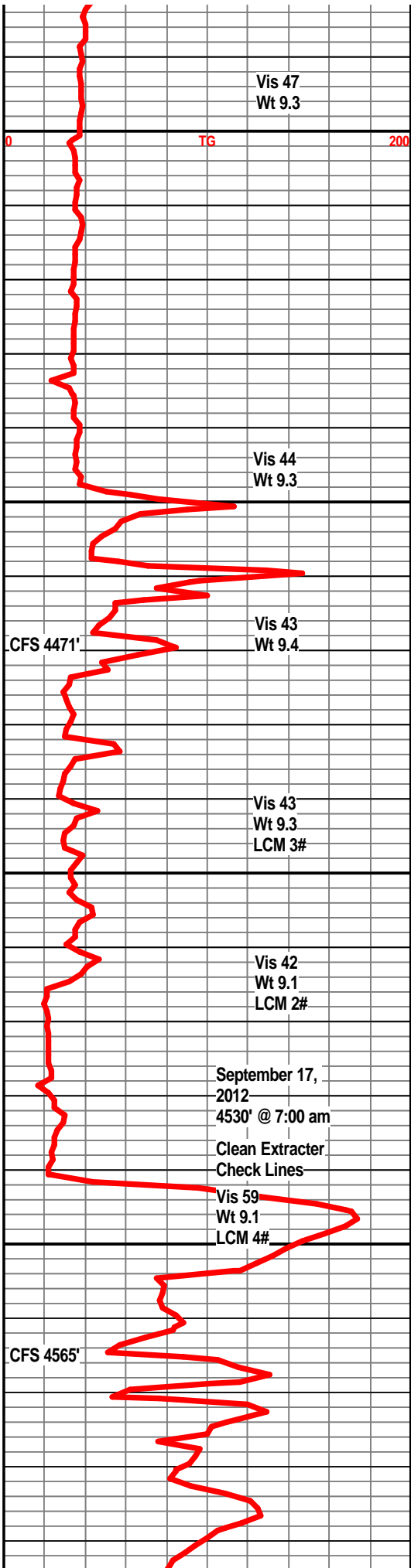
Shale, light grey-green, some imbedded sand clusters, lt grey-white, trace dark stain, no odor, no show free oil.

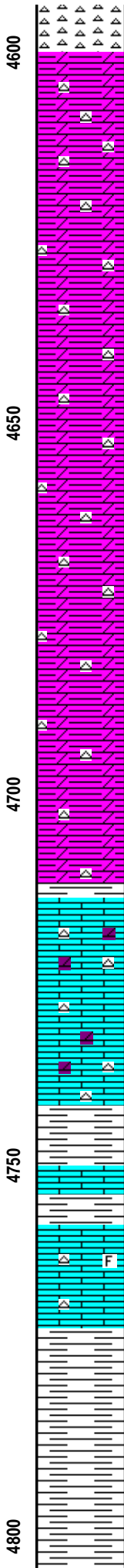
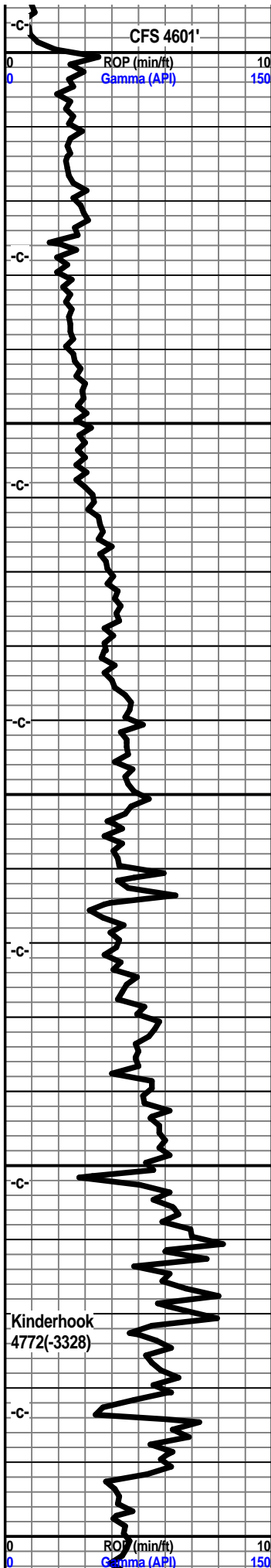
Chert, tan-white, buff-white, weathered, spongy texture, scattered ppt porosity, p-f odor, slight show light oil, trace free oil in tray, scattered light brown staining, dull spotty fluor.

Chert, tan-white to off-white, weathered, spongy, increase in fresh sharp chert, scattered light brown staining, free oil in tray, spotty dull fluor, fair gassy odor.

Chert, tan-white, off-white, weathered, some sharp, scattered ppt porosity, f gassy odor, spotty dull fluor, scattered staining.

Chert, tan, off-white, sharp to weathered, ppt porosity, few scattered small vugs, fair show oil, f gassy odor, spotty fluor.





Chert, off-white, mostly fresh, some weathered w/ ppt porosity, scattered light stain, trace light oil, poor odor, poor fluor.

Dolo, tan, buff-white, xln, dense, traces of weathered cherts, traces ppt porosity, light scattered staining, faint odor, some fresh cherts,

Dolo, light grey-white, tan, xln, dense, weathered cherts, fresh cherts, very slight shows, shows decreasing, spotty fluor.

Dolo, grey-white, xln, dense, some fresh cherts, green-grey splintery shales.

Dolo, grey-white, xln, dense, some fresh cherts, grey to light grey splintery shales.

Dolo, light grey to grey, xln, dense, tan to off-white cherts, some grey splintery shales.

Dolo, grey-white, xln, dense, tan, off-white sharp cherts.

Dolo, light grey to grey, xln, dense, tan-white cherts, some splintery shales.

Dolo, grey-white, xln, dense, tan cherts, some grey-green splintery shales.

Limestone, cream-white, tan, xln, partly dense, shaley in part, chalky, off-white cherts, slightly dolo in part.

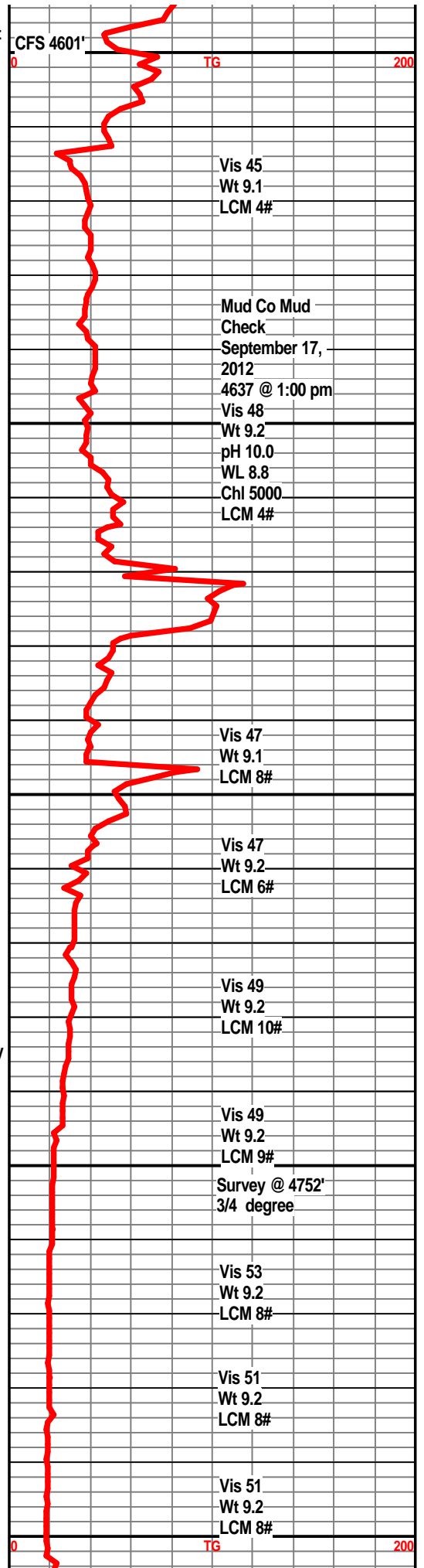
Limestone, cream, buff-white, xln, dense, dolo in part, white sharp cherts, grey-green splintery shales, slightly chalky in part.

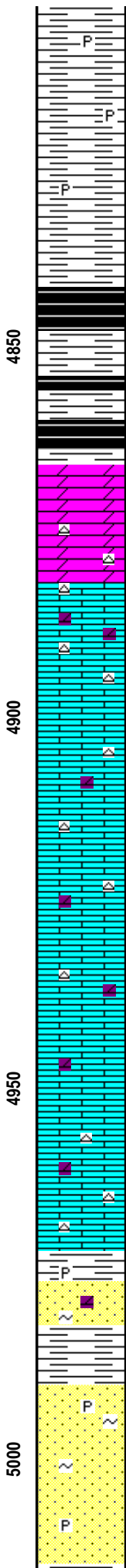
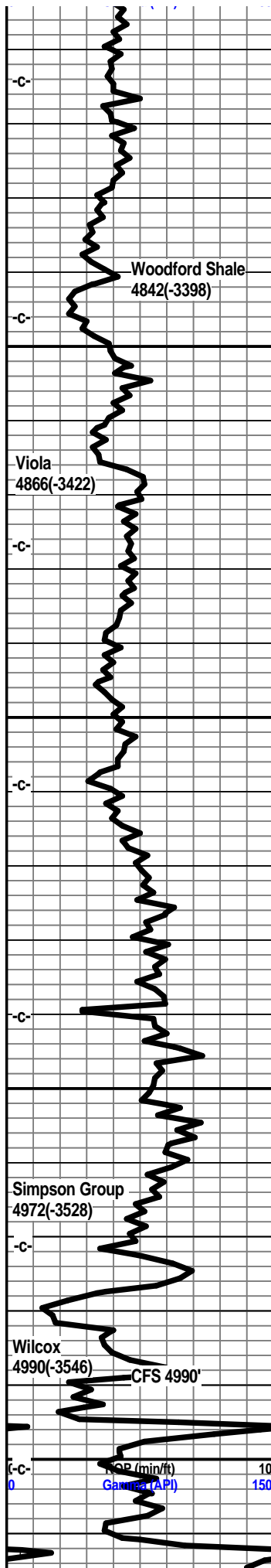
Shale, light green to light grey.

Limestone, buff-white, tan, xln, dense. fossil frags, white chert.

Shale, light grey to grey, some splintery, silty.

Shale, light grey to grey, silty.





Shale, light grey to grey, silty, traces of pyrite.

Shale, grey, silty, traces of pyrite.

Shale, grey, dark grey, traces of pyrite.

Shale, grey-black, carb, slight show gas bubbles, spores.

Shale, grey-black to coffe brown, slight show gas bubbles, spores.

Shale, grey, light grey, few clusters of pyritic sand at base, no visible shows.

Dolo, light grey, silty.

Dolo, buff-white, light grey, cream ls frags, traces of off-white cherts, no visible shows.

Limestone, cream, tan-white, xln, slightly dolo in part, tan-white cherts, one piece very slight fluor.

Limestone, tan-white, xln, dense, slightly dolo in appearance, tan sharp cherts.

Limestone, tan, buff-white, xln, dense, tan cherts, slightly dolo in part, traces of light green shales.

Limestone, tan, buff, xln, dense, sharp tan cherts, traces of shales.

Limestone, tan, buff-white, fxln, dense, tan sharp cherts, slightly dolo in part.

Limestone, tan, xln, dense, grainy texture, sharp tan cherts.

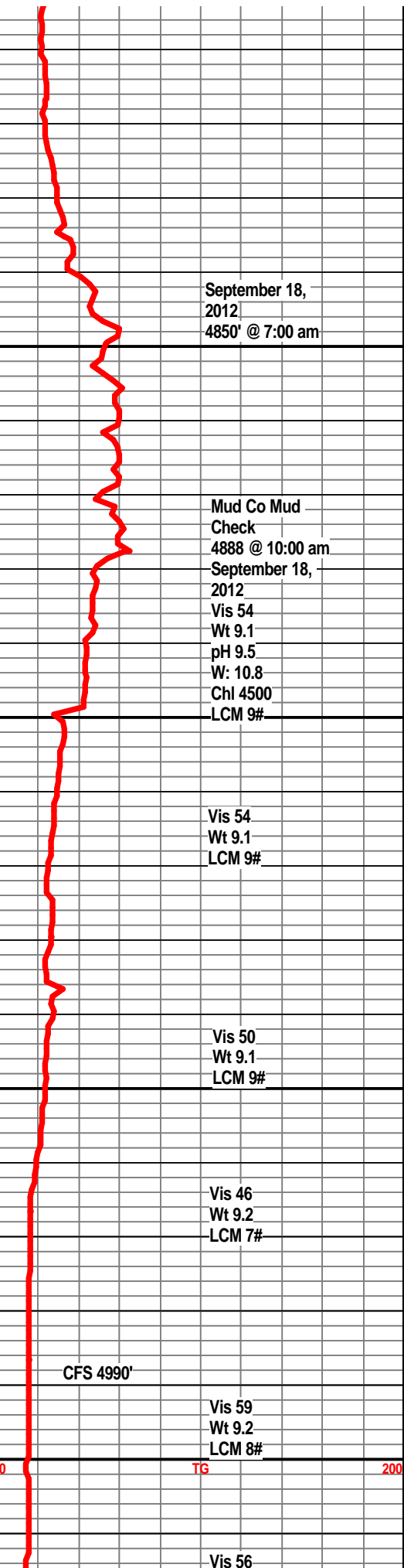
Shale, light green to pale green, trace pyrite.

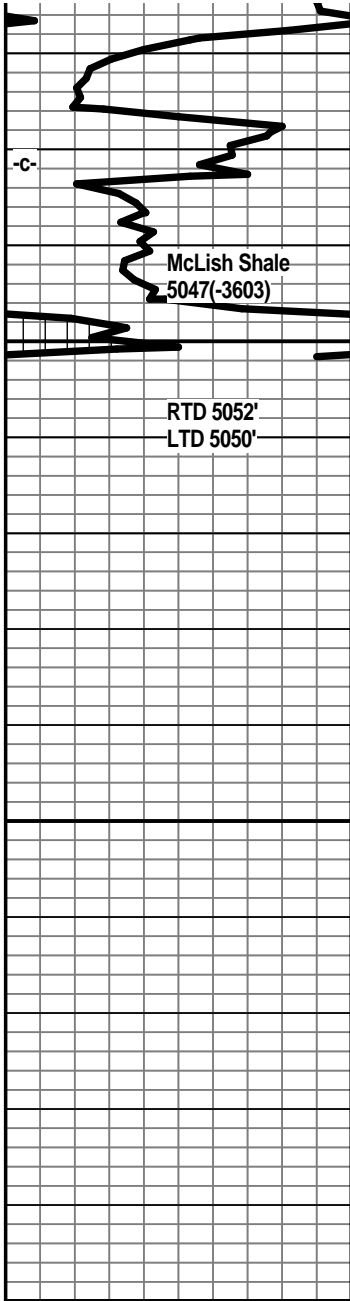
Sandstone, grey-white, SA, dolo in part, well cemented, some friable, no vis shows.

Shale, pale to teal green, few sand clusters.

Sandstone, clear to grey-white, some friable, some well cemented, sa to sr, glauc, trace pyrite, no visible shows, no odor, no fluor.

Sandstone, grey-white, white, well sorted, well cemented, sa to sr, dolo in part, shale stringers, glauc, gil, traces of pyrite, trace show oil, no odor, no kick, no fluor.

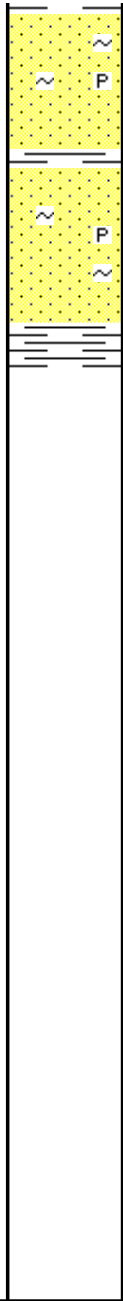




5050

5100

50



Sandstone, frosted white, fn grained, well sorted, well cemented, sa to sr, glauc, gil, pyritic, some shale stringers, no visible shows.

Sandstone, frosted white, fine grained, well sorted, pyritic, well cemented, glauc, shale stringers, no visible shows.

