



Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: Jahay #4
Location: E/2 W/2 SW NW
License Number: API: 15-007-23686-00-00
Spud Date: May 4, 2011
Surface Coordinates: 1980' FNL, 620' FWL Section 31-Twp 33 South - Rge 10 West
Kochia Pool
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1454 K.B. Elevation (ft): 1463
Logged Interval (ft): 4000 To: 5130 Total Depth (ft): 5130
Formation: McLish Shale
Type of Drilling Fluid: Chemical Mud, Displace at 3400'
Region: Barber County, Kansas
Drilling Completed: May 12, 2011
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
HUSHPUCKNEY SHALE	4368(-2905)	4368(-2905)
B/KC	4424(-2961)	4424(-2961)
PAWNEE	4519(-3056)	4515(-3052)
CHEROKEE GROUP	4562(-3099)	4563(-3100)
MISSISSIPPIAN	4586(-3123)	4586(-3123)
KINDERHOOK SHALE	4810(-3347)	4812(-3349)
WOODFORD SHALE	4886(-3423)	4890(-3427)
VIOLA	4734(-3471)	4931(-3468)
SIMPSON GROUP	5020(-3557)	5021(-3558)
SIMPSON SAND	5040(-3577)	5042(-3579)
MCLISH SHALE	5088(-3625)	5085(-3622)
RTD	5130(-3667)	
LTD		5131(-3668)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 214' with 240 sxs Class A, 2% gel, 3% cc, plug down at 5:15 am on May 5, 2011. Cement did Circulate.

Production Casing: .

Deviation Surveys: 1 1/4- 220', 3/4-1208', 1/4-1718', 1/2-2226', 1 1/2-2734, 1 1/4-3211', 1-3909', 1 1/4-4002, 4097-3/4, 4668'-1, 1/2-5130.

Contractor Bit Record:

1- 14 3/4" out at 220'.

2- 7 7/8" out at 5130'

Gas Detector: Woolsey Operating Company, Trailer #2

Mud System: Mud Co, Aarron Rush, Brad Bortz, Engineers

DSTs: none

Logged by Superior Well Services.

LTD - 5131'

DSTs

No DST's Ran

CREWS

H2 Drilling Rig #3

Tool Pusher - Randy Smith

Drillers - Gary Axtell

Luis Marquez

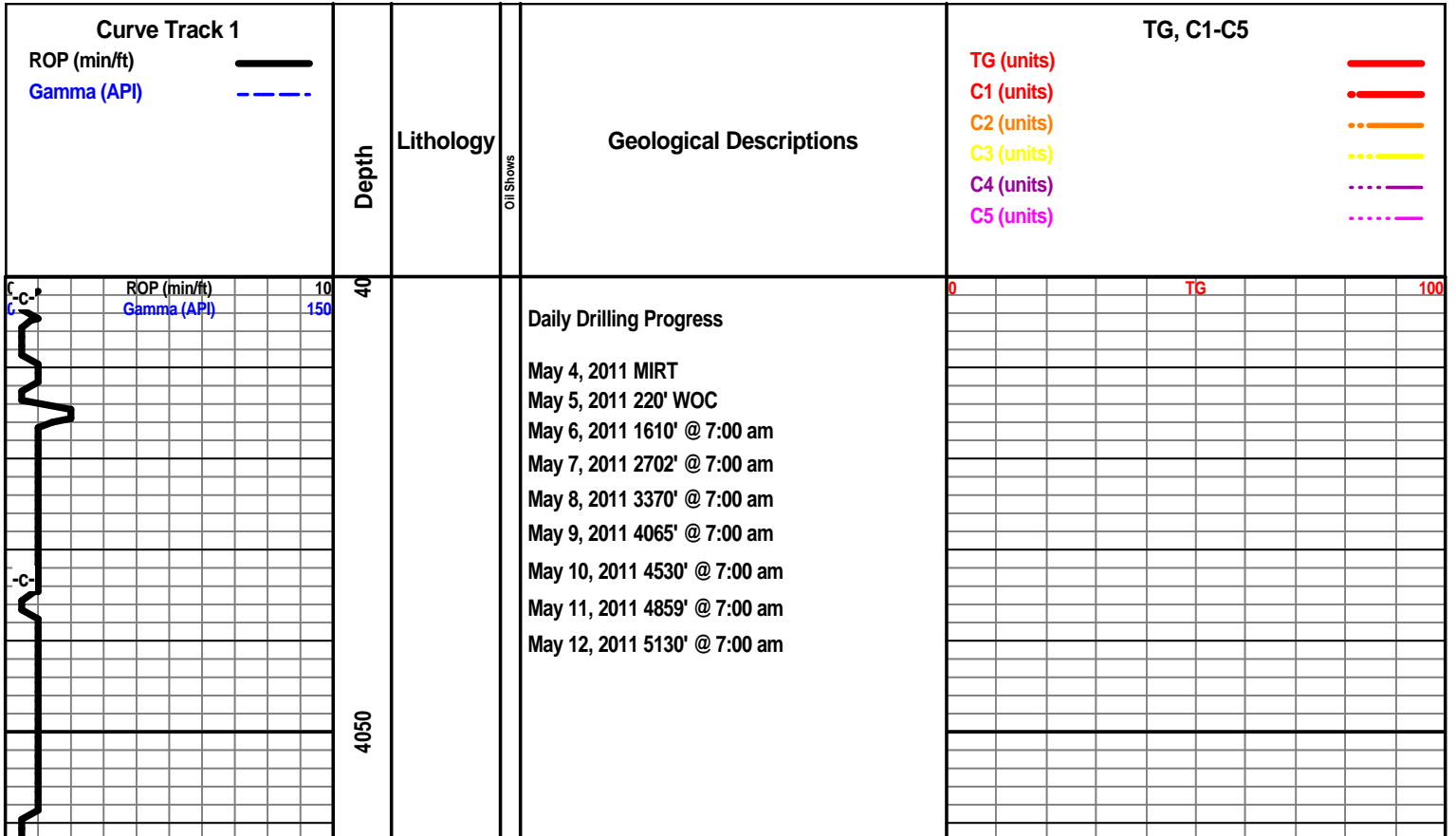
Cain Charles

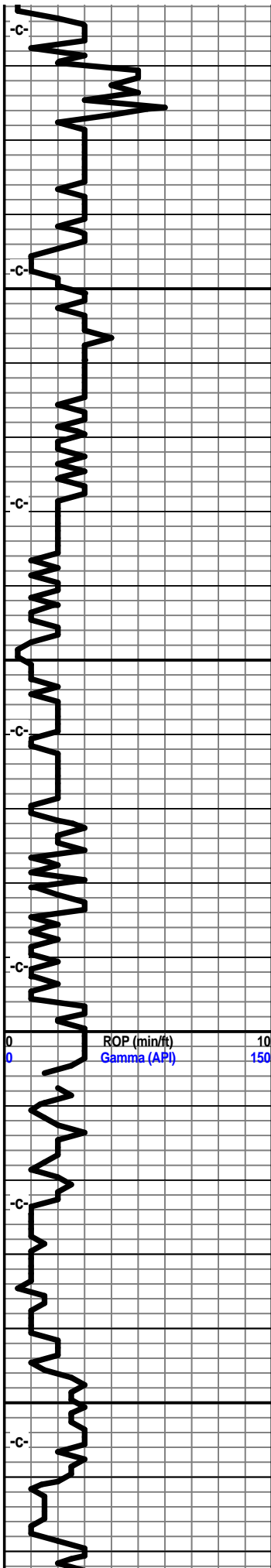
ROCK TYPES

	Anhy		Congl		Lmst		Black sh
	Bent		Sdy dolo		Mrlst		Gry sh
	Brec		Shy dolo		Salt		Shale
	Cht		Dol		Shale		Shyslts
	Clyst		Gyp		Sltst		Sltstsh
	Coal		Sdy lmst		Ss		

ACCESSORIES

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





4100

4150

4200

4250

May 9, 2011
4065' @ 7:00 am

Mud Co Mud
Check
4080 @ 7:50 am
May 9, 2011
Vis 48
Wt 9.1
pH 10.0
WL 12.8
Chl 6000 ppm
LCM 0

Survey 4097'
3/4 degree

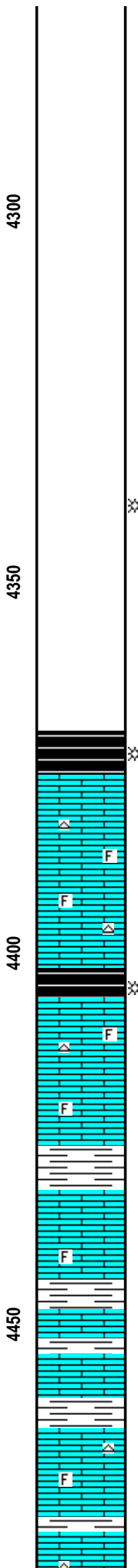
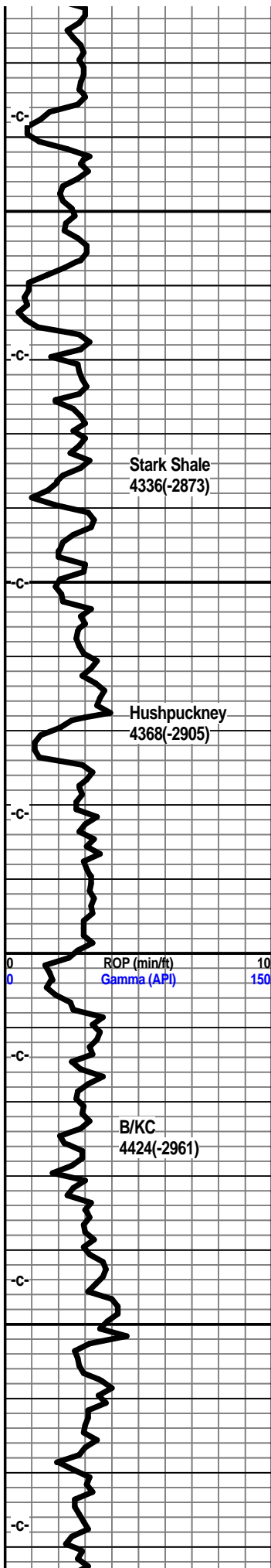
Change to #2
pump.

0 TG 100

Vis 50
Wt 9.2

Geologist on
Location @ 2:50
pm
4240'

Start Gas Detector



Shale, grey-black, carb.

Limestone, grey-white, tan, fxln, foss. in part, subchalky, traces of chert, no visible shows.

Limestone, grey-white, fxln, dense, slightly foss., subchalky.

Shale, grey-black, slightly carb.

Limestone, tan, grey-white, xln, subchalky, trace of foss.

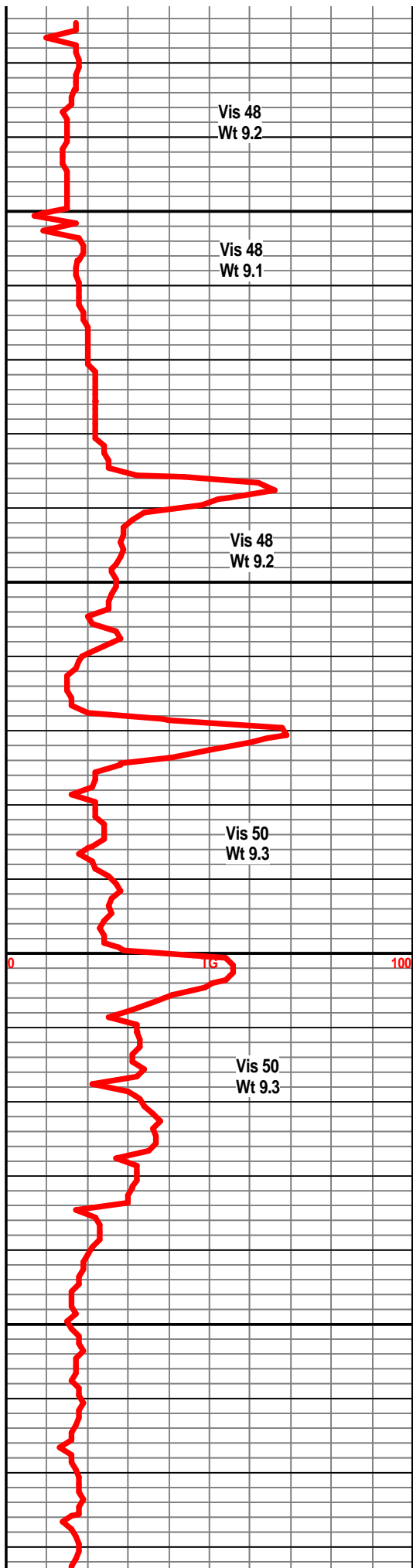
Shale, light grey, green

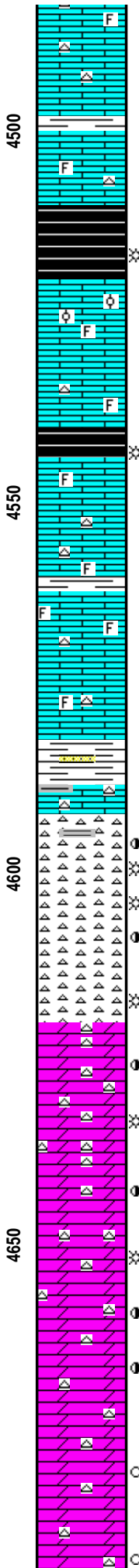
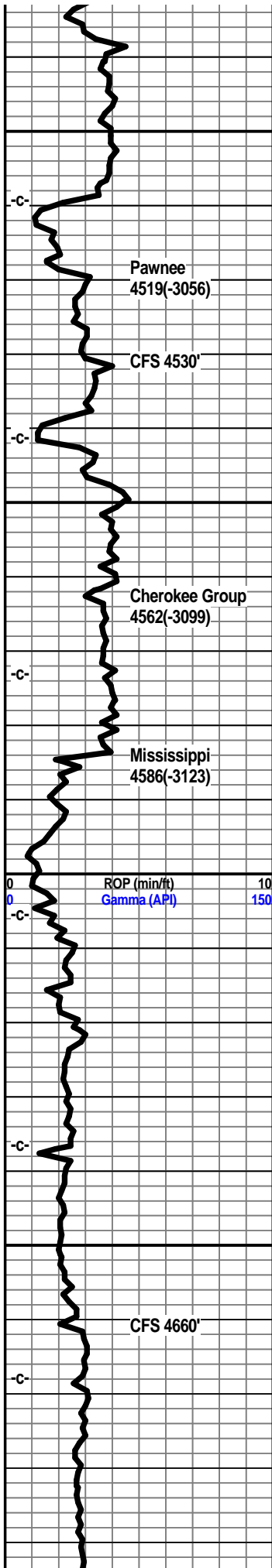
Limestone, light grey-green, xln, shaley in part

Limestone, grey-white, xln, shaley.

Shale, light grey.

Limestone, cream-white, xln, trace foss, subchalky in part, slightly shaley, trace chert.





Limestone, cream-white, tan, fxln, chalky slightly foss.

Shale, grey-green.

Limestone, cream, tan-white, xln, trace of tan cherts, chalky in part, some foss.

Shale, grey-black, carb.

Limestone, cream-white, xln, oolitic, some intercast porosity, trace of xln porosity, dull yellow fluor, subchalky in part, no visible shows, no odor.

Limestone, tan-white, xln, slightly foss, subchalky.

Shale, grey-black.

Limestone, tan-white, xln, partly dense, trace foss, chalky in part, tan chert.

Shale, light grey.

Limestone, cream-white, tan, xln, subchalky, traces of tan cherts, slightly foss. in part.

Shale, light grey, some brown sand inclusions.

Limestone, grey-white, xln, traces of trans.chert, no odor, no fluor.

Chert, off-white to white, tan, weathered, light brown scattered staining, some pin point porosity, trace of scattered small vugs, trace show of bleeding gas and light show of oil, fair odor, dull yellow fluor.

Chert, off-white, tan, some pale green, scattered light brown staining, pin point and traces of scattered small vugs, fair odor, slight show bleeding gas and some light oil, dull yellow fluor.

Dolo, grey-white, some tan, fxln, very cherty pp porosity, some small scattered vugs, light brown staining, show of gas & oil, fair odor.

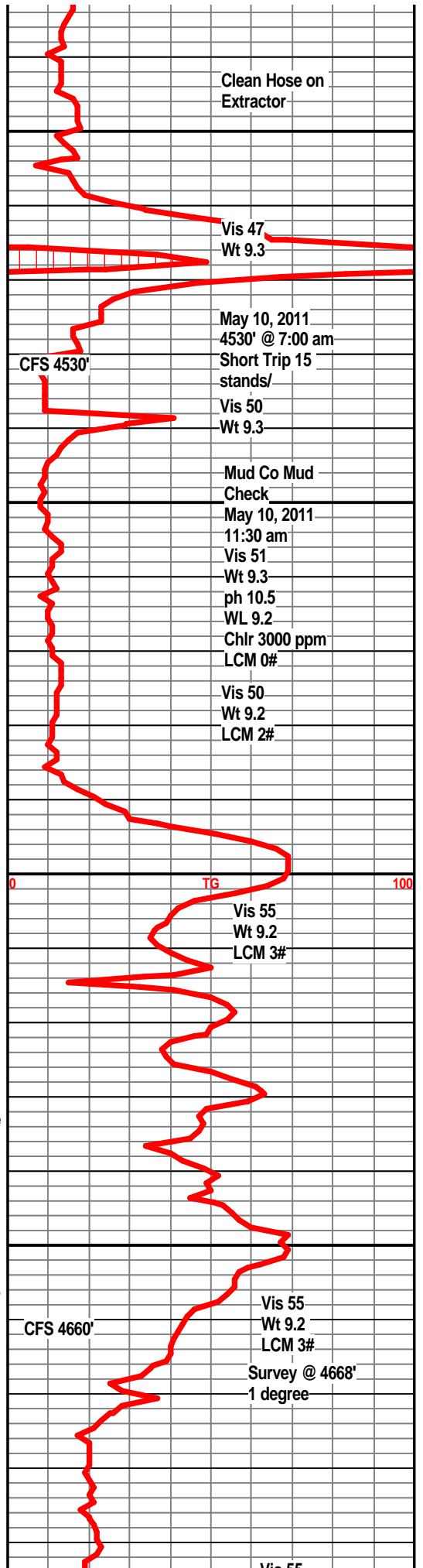
Dolo, tan-white, grey, cream, fxln, v fxln, very cherty, some sharp, weathered, pp porosity, scattered light show of gas & oil, light brown staining, fair odor.

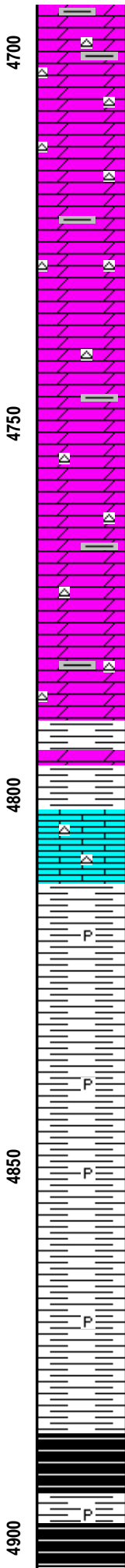
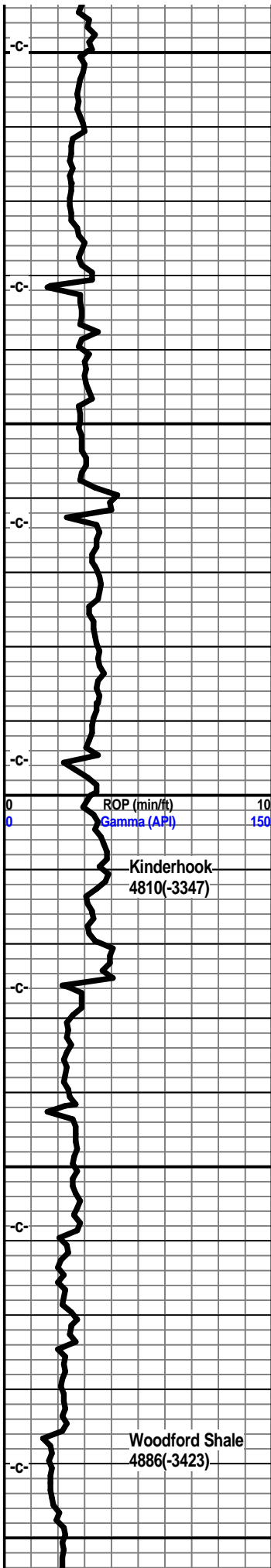
Dolo, tan-white, xln, very cherty, scattered staining, slight show oil & gas, fair odor, dull fluor.

Dolo, light grey, tan, xln, very cherty, pp porosity, scattered light brown staining fair odor, slight show gas & oil, dull fluor.

Dolo, grey-white, xln, very cherty, fresh to weathered w/ light scattered staining, faint odor, slight show of oil.

Dolo, grey white, xln, cherty, trans to weathered cherts, some light scattered staining, v. faint odor, dull fluor.





Dolo, grey-white, xln, cherts, weathered to fresh, trans, faint staining, increasing shales.

Dolo., Light grey-white, xln, weathered to fresh sharp cherts, some with light scattered stain, grey blkly shales.

Dolo., light grey, off-white, xln, fine grained, white to off-white weathered chert, grey splintery shales.

Dolo, light grey, fxl, cherty, some grey shales.

Dolo, grey-white, ffxln, traces of chert, fresh to sharp, weathered in part, grey shales.

Shale, dark grey-green, dolo.

Limestone, cream-white, fxl, subchalky, traces of fresh cherts.

Shale, dark grey, silty

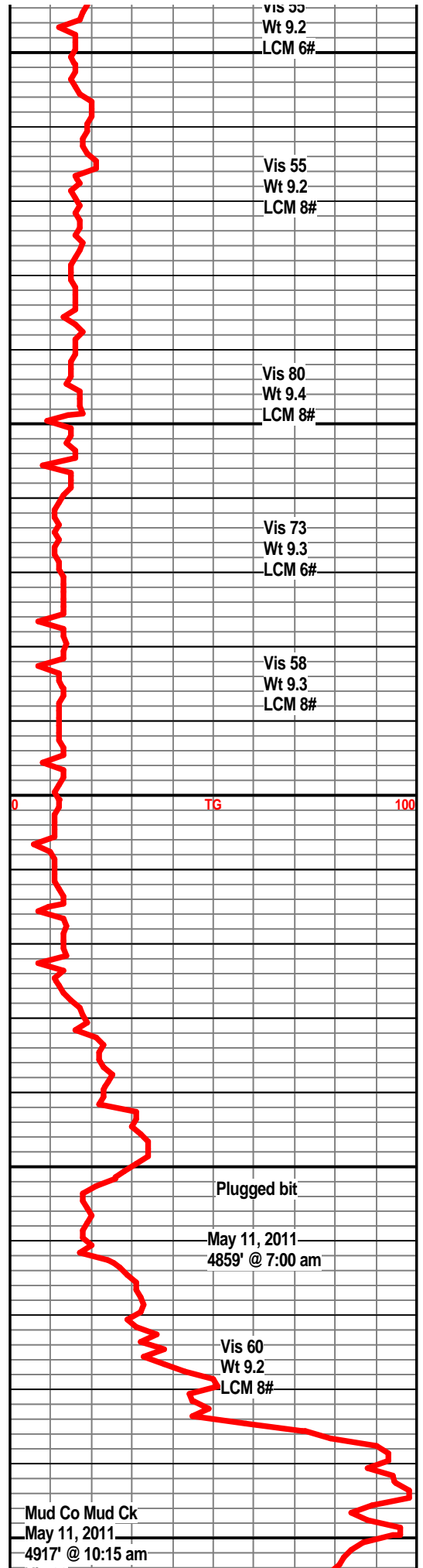
Shale, dark grey, traces of pyrite.

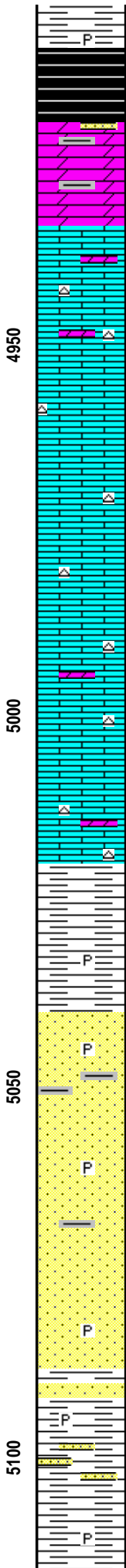
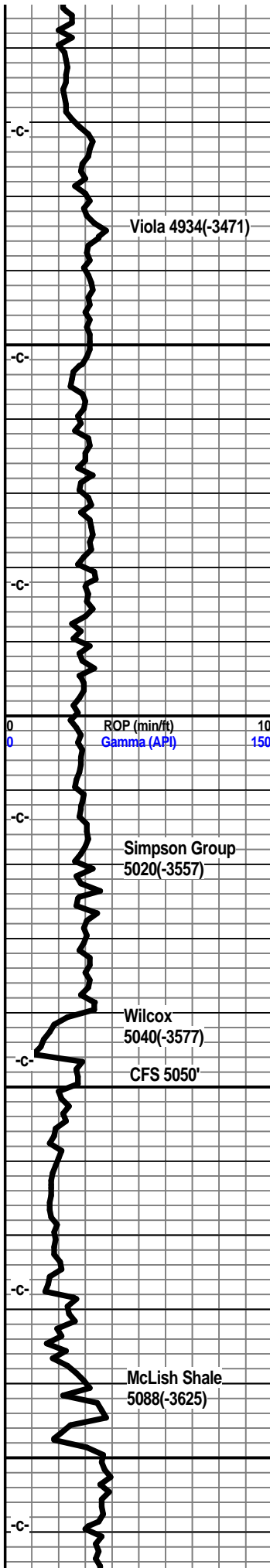
Shale, dark grey, pyritic in part.

Shale, dark grey, silty in part, traces of pyrite.

Shale, grey-black, carb.

Shale, grey, grey-black, carb.





Shale, grey-black, carb, some coffe brown silty shale.

Dolo, grey-white, reddish-brown, fnxln, v fn grained, soft, few traces of sand grains on top, no visible shows, no odor, some pyritic shales.

Limestone, tan, off-white, fxln, sl. dolo., fn grained, traces of chert, chalky in part.

Limestone, tan-white, xln, slightly dolo, xln porosity, no visible shows, traces of tan-white chert, chalky.

Limestone, tan-white, fxln, granular texture, traces of tan cherts.

Limestone, tan, xln, grainy, tan cherts, some chalky ls.

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

Limestone, tan, tan-white, xln, tan cherts, some scattered dull fluor., no visible shows, no odor.

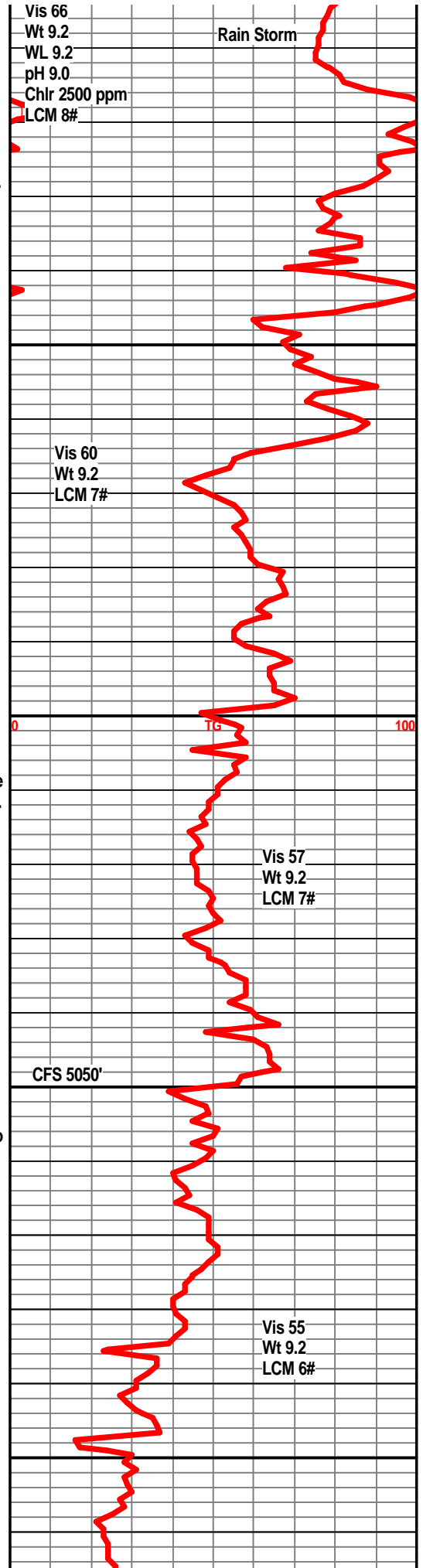
Shale, dark green, firm, waxey, trace of pyrite.

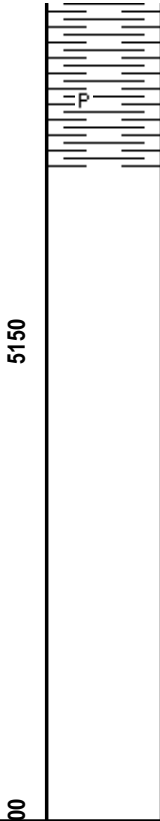
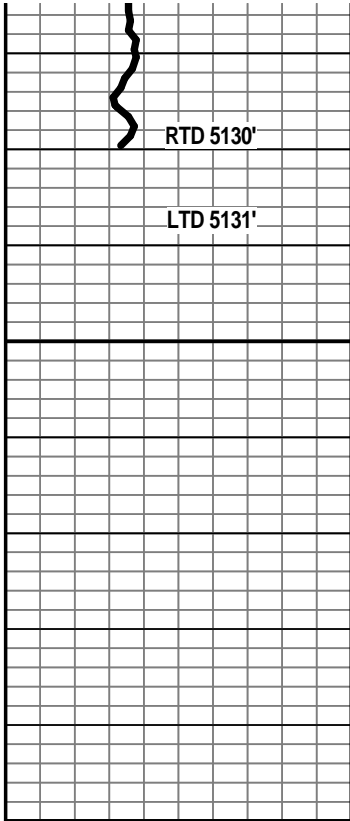
Sandstone, clear to white, SA to SR, well sorted, slightly dolo in part, friable in part, no visible shows, no odor. no fluor, possible 5 unit increase in background.

Sandstone, clear to white, SA to SR, medium to fine grained, friable, some shale inclusions, pyrite, no visible shows.

Sandsrone, mostly white, frosted, some clear qtz grains, friable, glauc, pyrite, fair sorting. no visible shows.

Shale, green, pale green, firm, trace of pyrite, some interbedded sst stringers.





Shale, green, waxey, firm

Shale, dark green to green, firm.

