



Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: BENEFIEL #3
Location: APPROX SW NE NE SW
License Number: API: 15-007-24021-00-00
Spud Date: May 7, 2013
Surface Coordinates: Section 35-T31S-R12W, 2035' FSL, 2090' FWL
Pike South
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1619 K.B. Elevation (ft): 1631
Logged Interval (ft): 3000 To: RTD Total Depth (ft): 4875
Formation: Simpson
Type of Drilling Fluid: Chemical Mud, Displace at 3382'.
Region: Barber County, Kansas
Drilling Completed: May 14, 2013
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

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

GEOLOGIST

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

FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
LECOMPTON	3470(-1839)	3469(-1838)
KANWAKA	3501(-1870)	3499(-1868)
HEEBNER	3628(-1997)	3627(-1996)
M. DOUGLAS SAND	3758(-2127)	3756(-2125)
BROWN LIME	3806(-2175)	3805(-2174)
LANSING	3813(-2182)	3811(-2180)
STARK SHALE	4190(-2559)	4188(-2557)
HUSHPUCKNEY SHALE	4229(-2598)	4227(-2596)
B/KC	4290(-2659)	4290(-2659)
PAWNEE	4354(-2723)	4352(-2721)
MISSISSIPPIAN	4375(-2744)	4274(-2743)
KINDERHOOK SHALE	4575(-2944)	4573(-2742)
WOODFORD SHALE	4663(-3032)	4660(-3029)
VIOLA	4699(-3068)	4697(-3066)
SIMPSON SHALE	4799(-3168)	4797(-3166)
SIMPSON SAND	4831(-3200)	4822(-3191)
RTD	4875(-3244)	
LTD		4874(-3243)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 204' with 200 sxs Class A, 2% gel, 3% cc, plug down at 9:30 pm on May 7, 2013. Cement did Circulate.

Production Casing: Ran 4 1/2" Casing.

Deviation Surveys: 1/2 - 217', 1 - 814', 3/4 1384'. 3/4 1767', 1 - 2275', 1/2 - 2811', 1 - 3446', 1/2 - 3951', 3/4 - 4405', 3/4 - 4875'.

Contractor Bit Record:

1- 14 3/4" out at 217'.

2- 7 7/8" out at 4405'.

3- 7 7/8" out at 4875'.

Pipe Strap at 4405'

Board 4426.64'

Strap 4424.01'

Short 2.63'

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: Trilobite Testing, Leal Cason

Logged by Nabors Completion and Production Services

LTD - 4874'.

DSTs

DST #1 4377 to 4405 Mississippi

Times 30-60-60-120

1st Opening - Strong Blow BOB in 45 Seconds - no blow back

2nd Opening - Strong Blow - GTS 4 minutes - no blow back

Recovery: Gas Gauge

10 min 34 MCFPD 40 min 35 MCFPD

20 min 29 MCFPD 50 min 35 MCFPD

30 min 35 MCFPD 60 min 35 MCFPD

4158' GIP

140' GWOCM (30% G, 30% O, 15% W, 25% M)

63' GWOCM (18% G, 30% O, 20% W, 32% M)

Chlorides 110,000, Temp 122

IFP 45-57# FFP 37-68#

ISIP 1383# FSIP 1344#

IHP 2189# FHP 2081#

CREWS

Fossil Drilling, Inc Rig #3

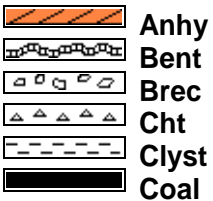
Tool Pusher - Craig Eubank- Jim Wenrich

Drillers - Days - Daniel Orranta

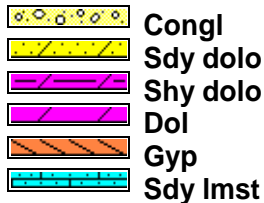
Evening - Jim Wenrich - Allen Collins

Morning - Andres Maestas

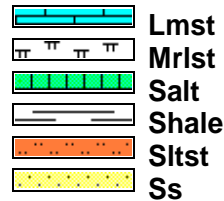
ROCK TYPES



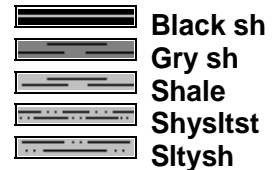
Anhy
Bent
Brec
Cht
Chtst
Cyst
Coal



Congl
Sdy dolo
Shy dolo
Dol
Gyp
Sdy lmst



Lmst
Mrlst
Salt
Shale
Slstst
Ss



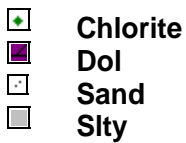
Black sh
Gry sh
Shale
Shyslstst
Sltysh

ACCESSORIES

MINERAL

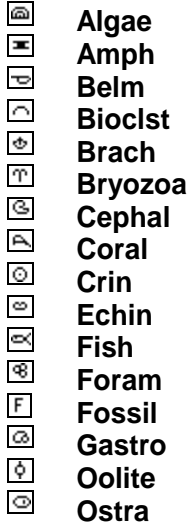


Anhy
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Ferrpel
Ferr
Glau
Gyp
Marl
Nodule
Phos
Pyr
Salt
Sandy
Silt

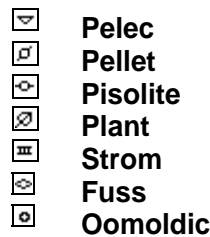


Chlorite
Dol
Sand
Slty

FOSSIL

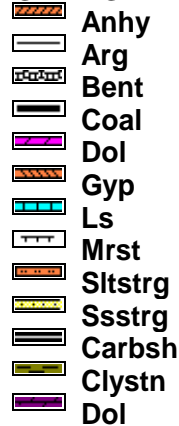


Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram
Fossil
Gastro
Oolite
Ostra



Pelec
Pellet
Pisolite
Plant
Strom
Fuss
Oomoldic

STRINGER

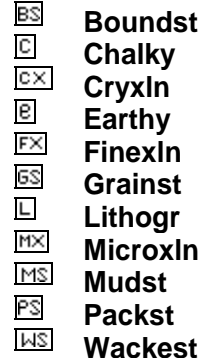


Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Slststrg
Ssstrg
Carbsh
Clystn
Dol

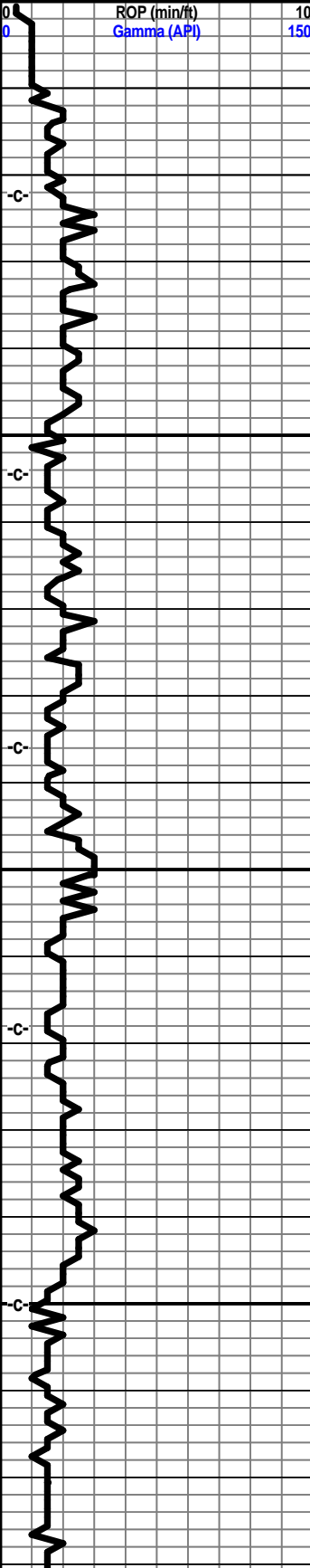
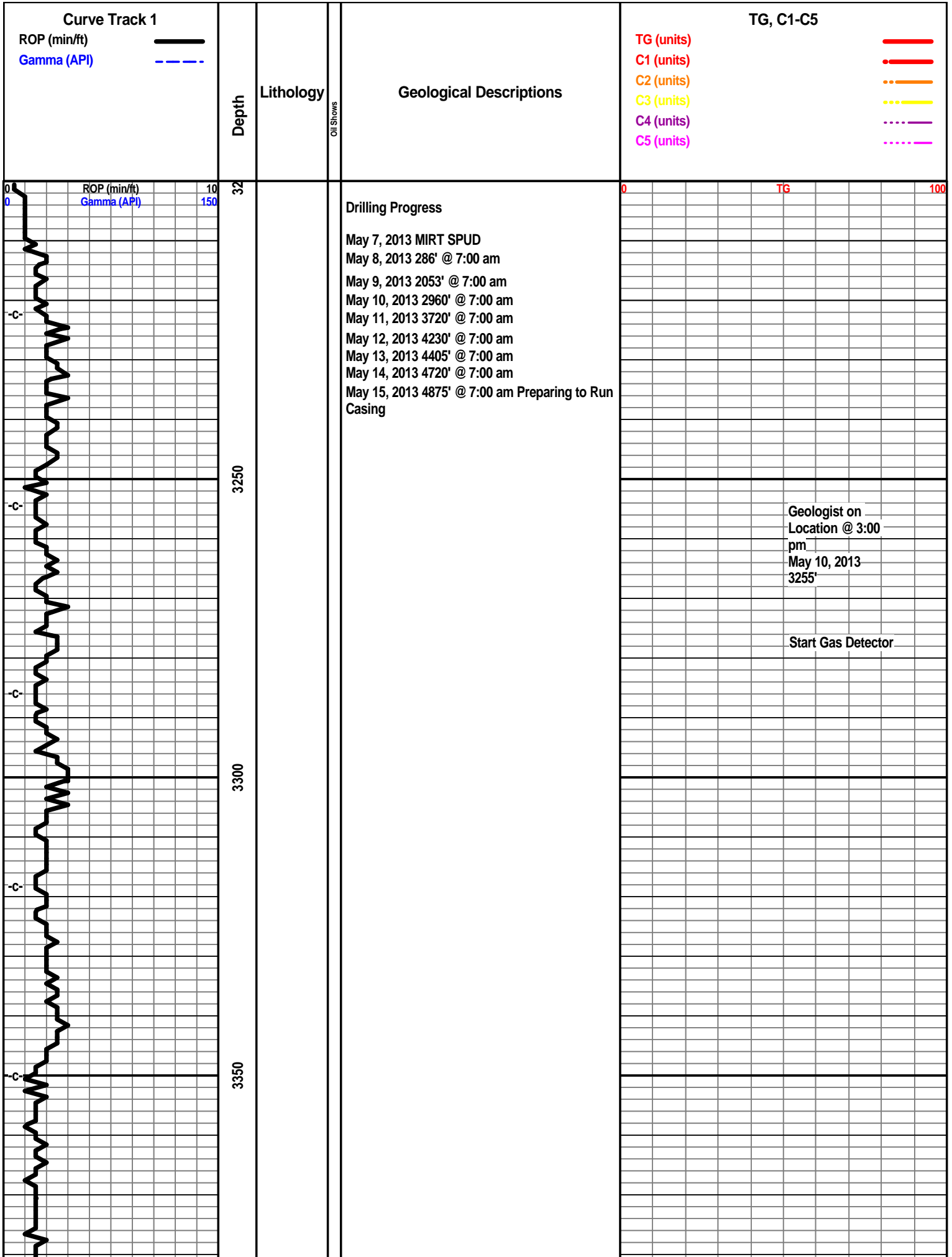


Grysh
Gryslt
Lms
Sandylms
Sh
Slststn

TEXTURE



Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackst



Oil Shows

-c-

-c-

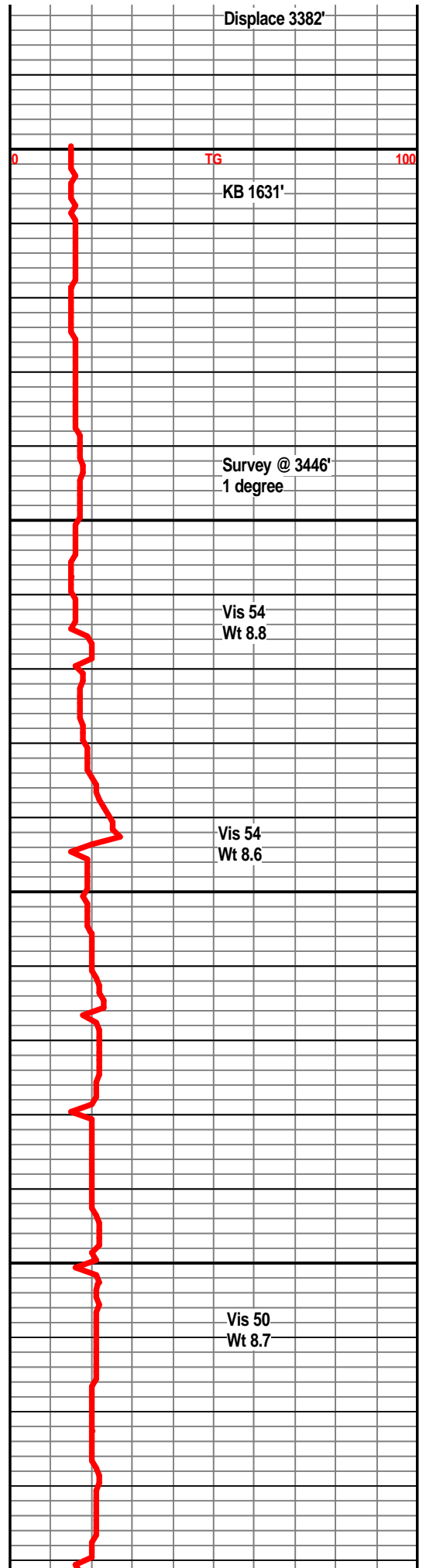
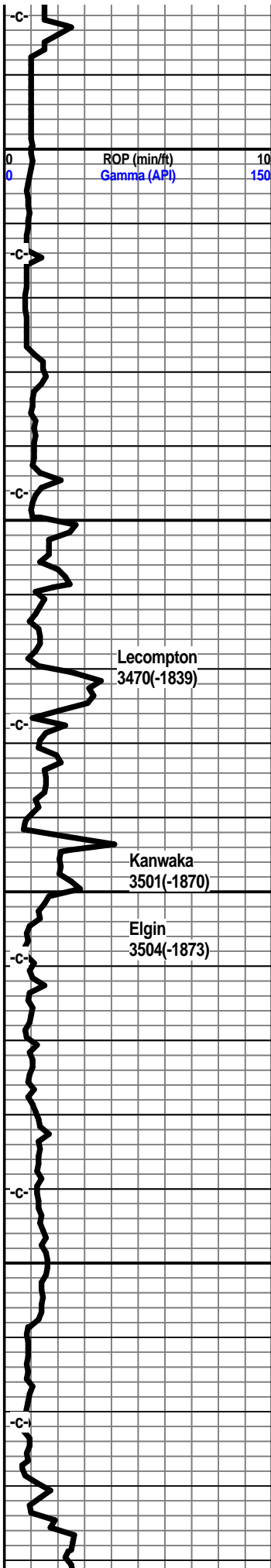
-c-

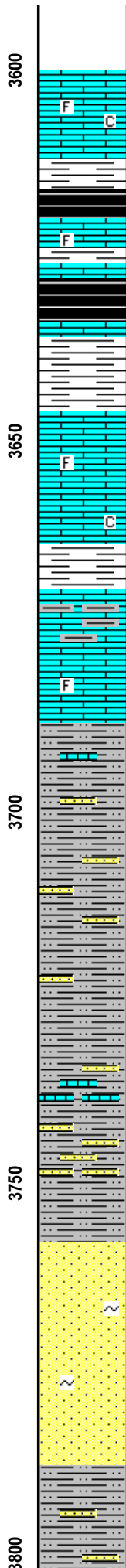
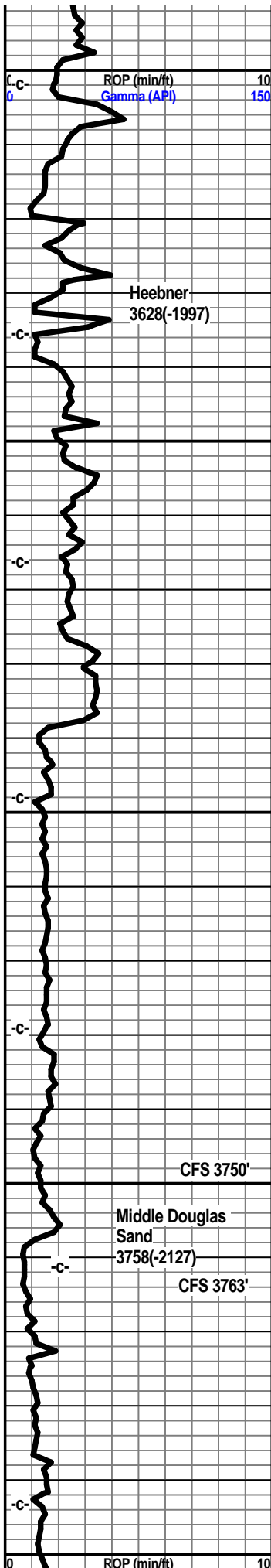
-c-

-c-

Geologist on Location @ 3:00 pm
May 10, 2013
3255'

Start Gas Detector





Limestone, cream-tan, xln, dense in part, trace fossils, subchalky, abundant silty sand clusters from above.

Shale, grey, dark grey, trace gas bubbles.

Limestone, cream, tan, finely crystalline, dense, trace fossils.

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

Limestone, cream, tan-white, finely crystalline, dense in part, subchalky, trace pin point porosity, trace fossils, no visible shows.

Limestone, tan, tan-brown, crystalline, trace of fossils, shaley in part, no visible shows.

Shale light grey, very silty to sandy, few scattered sand stringers, no visible shows, no kick.

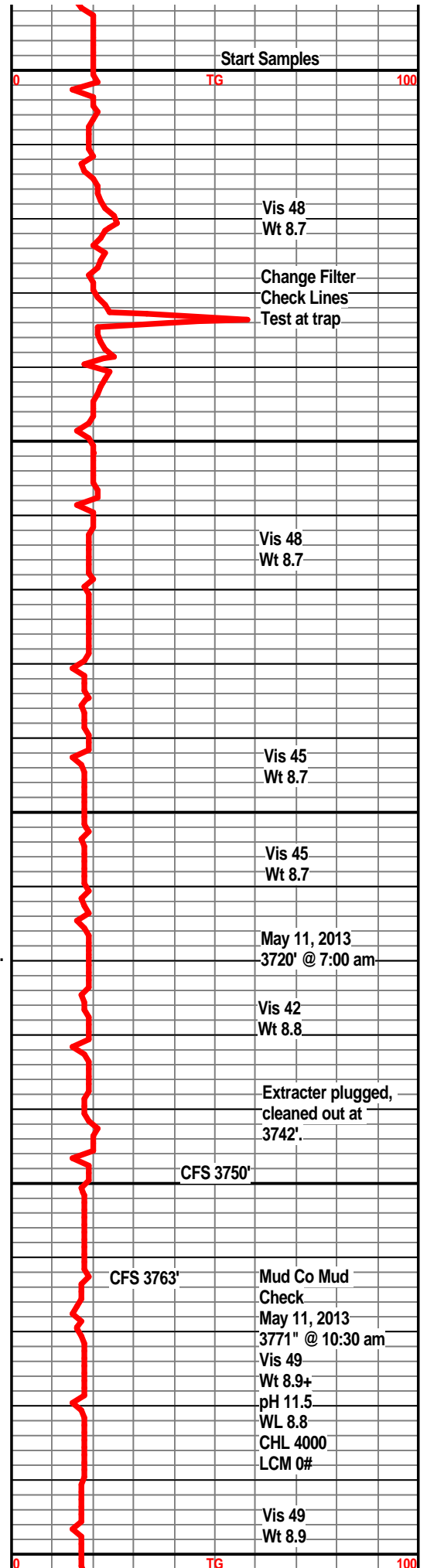
Shale, light grey, very silty to sandy, no shows.

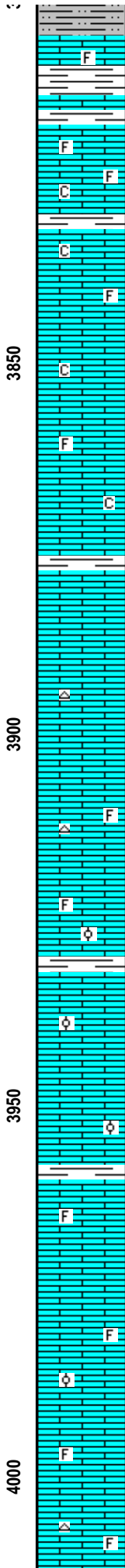
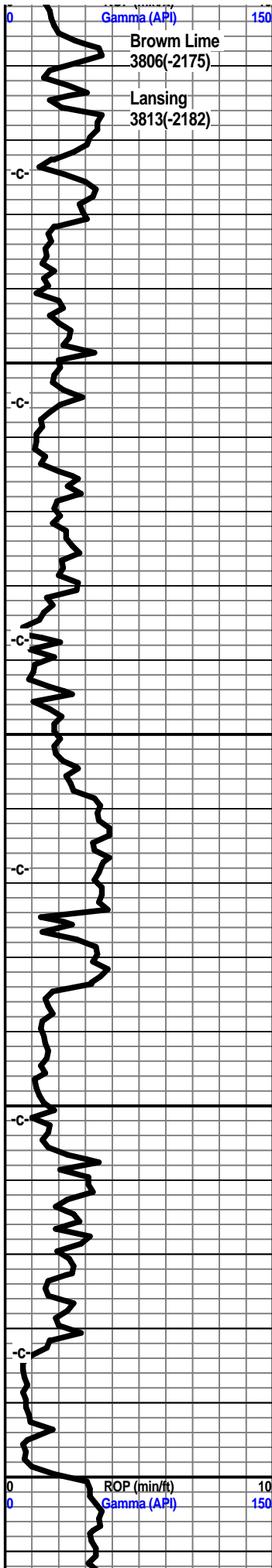
Shale, light grey, silty, some light grey to clear silty sand clusters, mica, friable in part, no visible shows.

Sandstone, clear to grey-white, fine grained, very silty in part, friable in part, mica, fair sorting, no visible shows, no odor, no kick.

Sandstone, clear to grey-white, silty in part, angular grained, fair sorted, mica, some well cemented, no visible show, no odor, no fluor.

Shale, light grey, silty to sandy.





Limestone, tan-brown, dense, slightly fossiliferous.
Shale, grey-green.

Limestone, cream, tan-white, finely crystalline, partly dense, traces of crystalline porosity, subchalky, dull scattered fluor., no odor, no show oil, no visible show gas, slight gas indication from detector.

Shale, grey-green.

Limestone, cream, buff-white, crystalline, fossiliferous in part, trace fossiliferous porosity, trace pin point porosity, chalky in part, scattered dull mineral fluor, no visible shows oil or gas.

Limestone, tan-white, buff, crystalline, subchalky, trace fossils.

Limestone, cream, buff-white, crystalline, fossils, trace fossiliferous porosity, pin point porosity, subchalky in part.

Shale, light grey.

Limestone, grey-white, crystalline, few scattered vugs, pin point porosity, trace grey chert, no visible shows, no odor.

Limestone, grey-white, buff, crystalline, dense in part, fossils, subchalky, trace grey chert.

Limestone, buff-tan, fossils, trace vugular porosity, some fossiliferous porosity, oolites, barron, no visible shows.

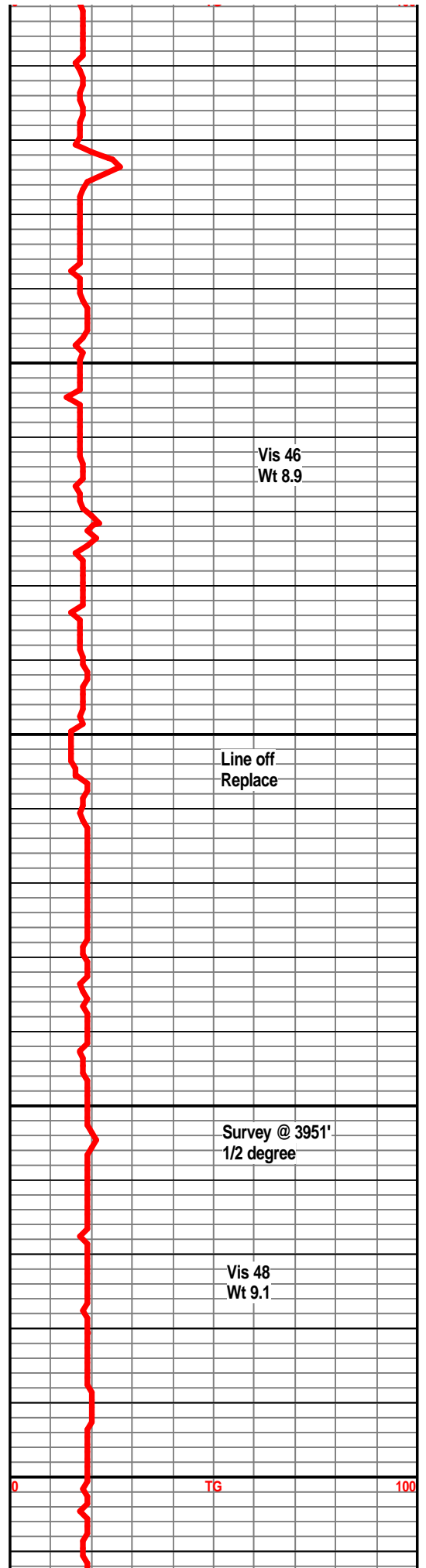
Limestone, tan, buff, crystalline, oolitic, traces of oolitic porosity, some vugs, no visible shows, no odor, no kick.

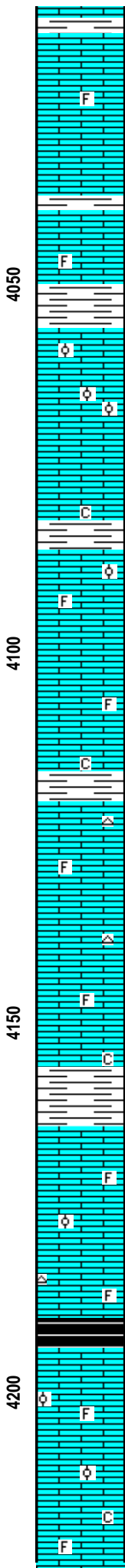
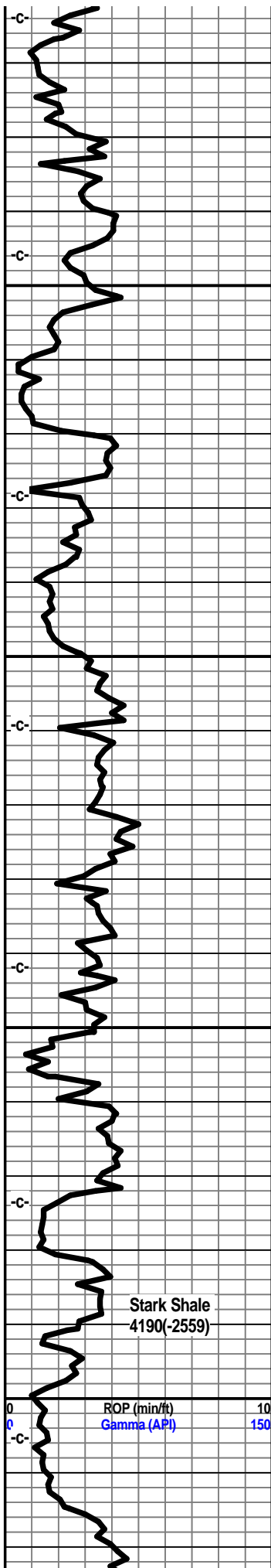
Shale, light grey.

Limestone, tan, buff, cream, crystalline, dense in part, some fossils, no vis shows.

Limestone, cream, buff, crystalline, vugs, crystalline porosity, barron, no visible shows.

Limestone, tan, buff, crystalline, dense, trace tan chert, no shows.





Shale, grey.

Limestone, tan, cream, crystalline, fossiliferous porosity, barron, no visible shows.

Shale, grey.

Limestone, tan, buff, cream, partly dense, fossils, oolites, oolimoldic porosity, barron, no visible shows, no odor, no kick,

Limestone, tan, buff-white, crystalline, fossils, sub chalky.

Limestone, cream, buff, tan, crystalline, vugular porosity, oolitic, oolimoldic porosity, barron, no visible shows, no odor.

Limestone, buff-white, crystalline, subchalky, partly dense, trace fossils.

Limestone, grey, tan, crystalline, dense, traces of chert, some fossils.

Limestone, light grey, tan, crystalline, fossils, traces of tan chert.

Limestone, tan, buff-tan, crystalline, trace fossils, subchalky, no shows.

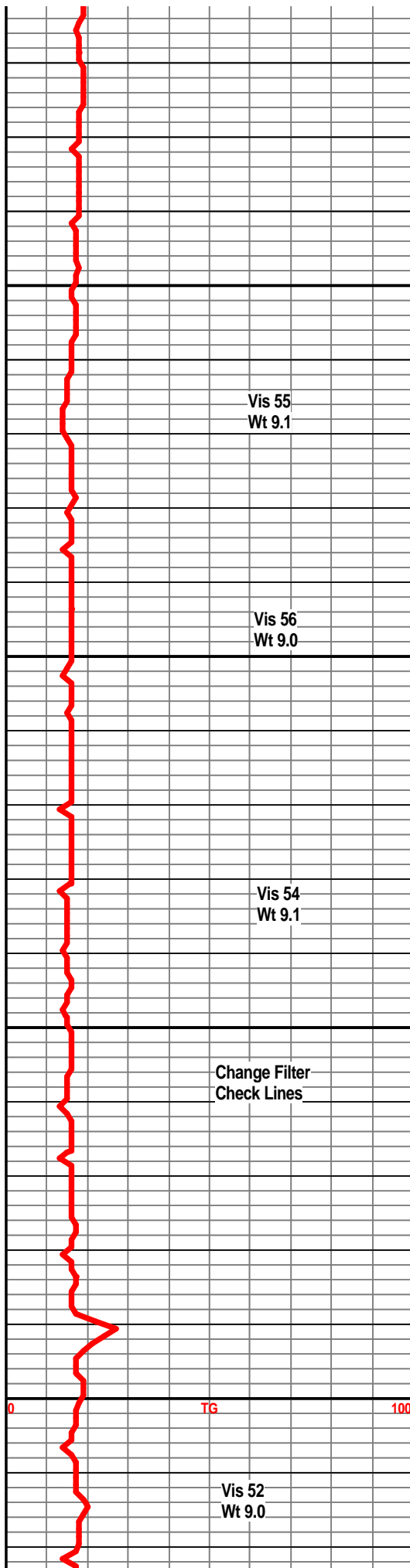
Shale, grey.

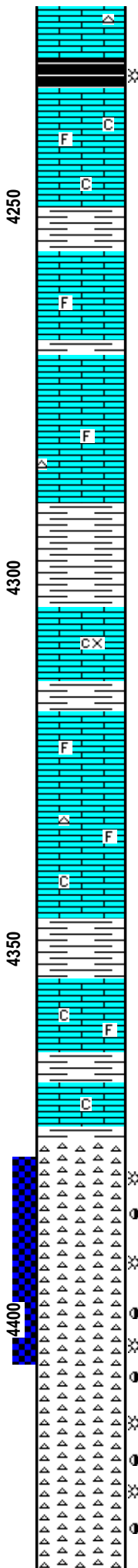
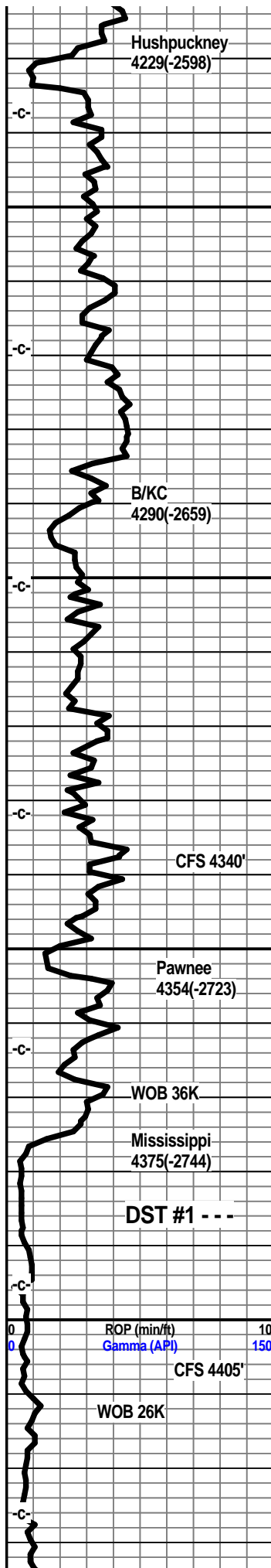
Limestone, cream, tan, buff, crystalline, dense in part, fossils, traces of vugular porosity, slightly oolitic, no visible shows.

Shale, grey-black, slightly carb.

Limestone, tan, buff, crystalline oolitic, fine oolimoldic porosity, barron, no visible shows.

Limestone, tan, buff, crystalline, dense, subchalky, trace fossils.





Shale, grey-black

Limestone, cream, tan, some light grey, crystalline, subchalky, fossils, mottled in part, no visible shows.

Shale, grey, dark grey.

Limestone, tan, brown, crystalline, dense, trace fossils.

Shale, grey.

Limestone, grey, tan, crystalline, dense, trace fossils, no visible shows.

Limestone, tan, crystalline, trace fossils, dense.

Shale, light grey, pale green, calcitic.

Limestone, tan, buff, light grey-green, crystalline, dense.

Shale, pale green, green.

Limestone, cream, tan, crystalline, trace fossils, no visible shows, no odor.

Limestone, cream, tan, dense, crystalline, trace fossils, subchalky in part.

Shale, dark grey

Limestone cream, tan, crystalline, trce fossils, trace dark asphaltic stain, no visible shows, no odor.

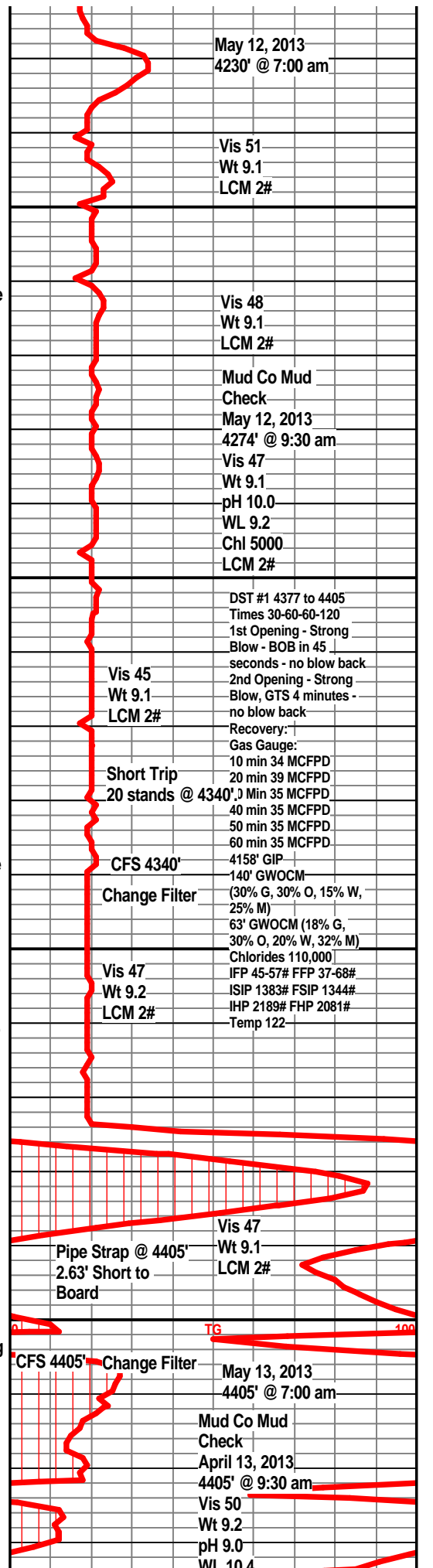
Shale, grey, dark grey.

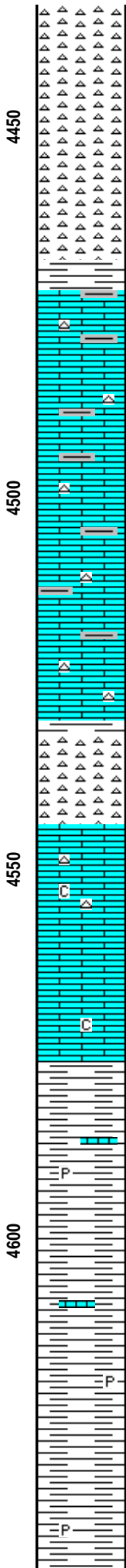
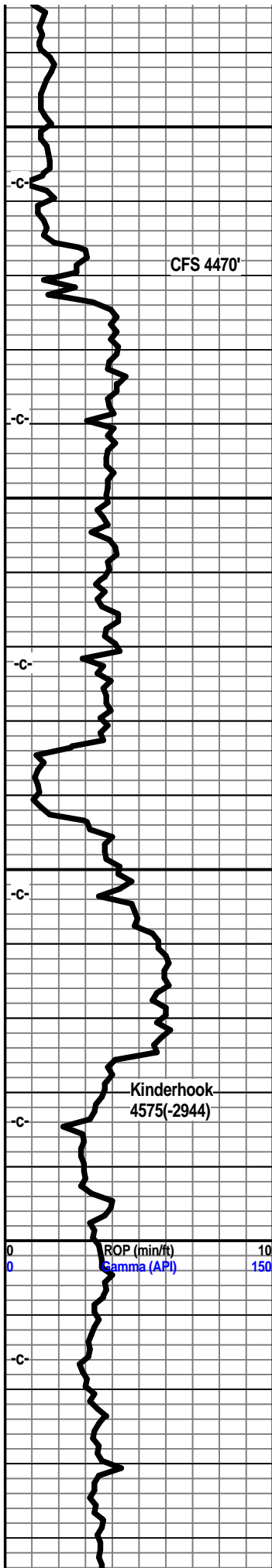
Limestone, tan, buff, crystalline, dense.

Chert, tan, off-white, sharp to weathered, pin point porsity, few small scattered vugs, fair golden stain, fair odor, fair show bleeding oil and gas, trace amounts free oil in tray. fair spotty fluor, good gas indication.

Chert, tan, off-white, bone-white, increase in fresh sharp chert, fair show oil, some edge staining, weathered has pin pont and small vug porosity, spotted staining, fair odor, good spotty fluor.

Chert, tan, off-white, bone white, sharp to weathered, pin point porosity, scattered small vugs, fair odor, scattered fluo, edge staining, spotty scattered stain, poor to fair show light oil, trace gas.





Chert, mostly bone white to off-white, some tan, 75% sharp, fresh, 25% weathered, pin point porosity, light odor, slight show oil, scattered spotty staining, scattered light fluor.

Chert, off-white, bone white, sharp, fresh, trace edge staining, trace asphaltic stain, very faint odor, no visible shows, oil, very poor to no fluor.

Chert, off-white, bone, white, sharp, fresh, asphaltic stain, very very faint odor, poor to no fluor, some slight scattered edge stain, no visible shows of free oil.

Limestone, grey, reddish tan, crystalline, shaley, some grey-green shales, cherty in part.

Limestone, reddish-brown, grey, cream, some varicolored shales, cherty in part.

Limestone, reddish-grey, tan buff, crystalline, cherty, varicolored shales.

Chert, bone-white, fresh, sharp.

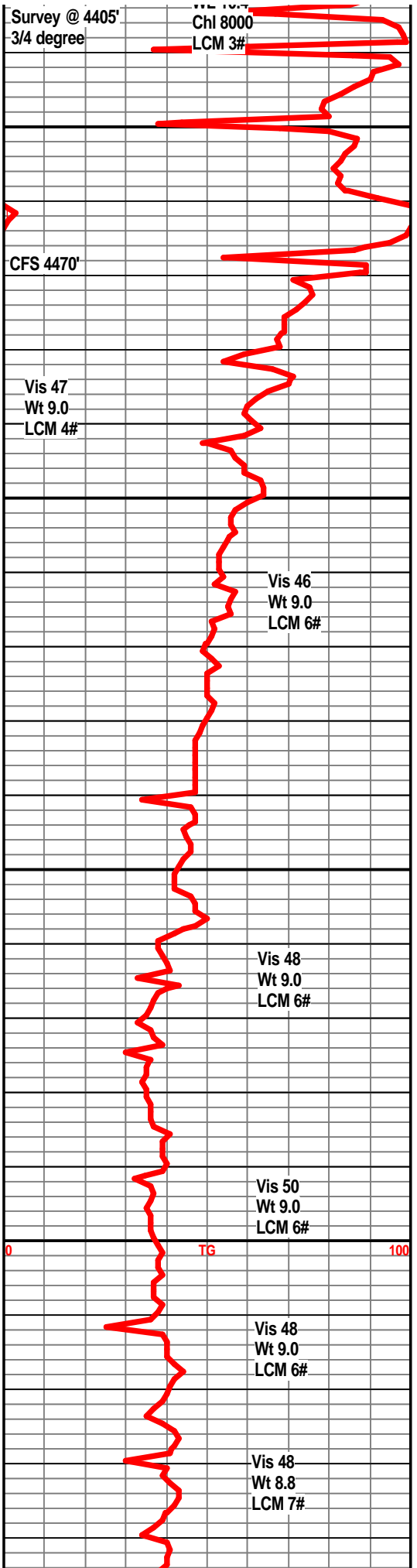
Limestone, tan, buff, crystalline, dense, trace fossils, sub chalky in part, tan chert.

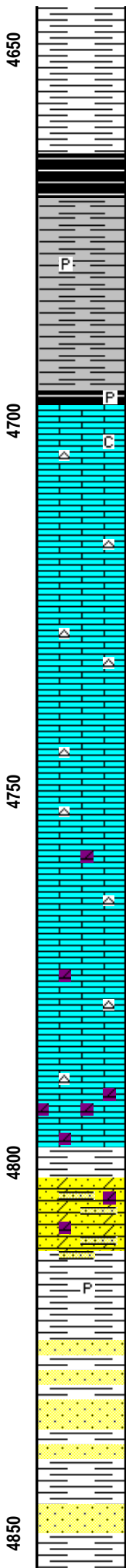
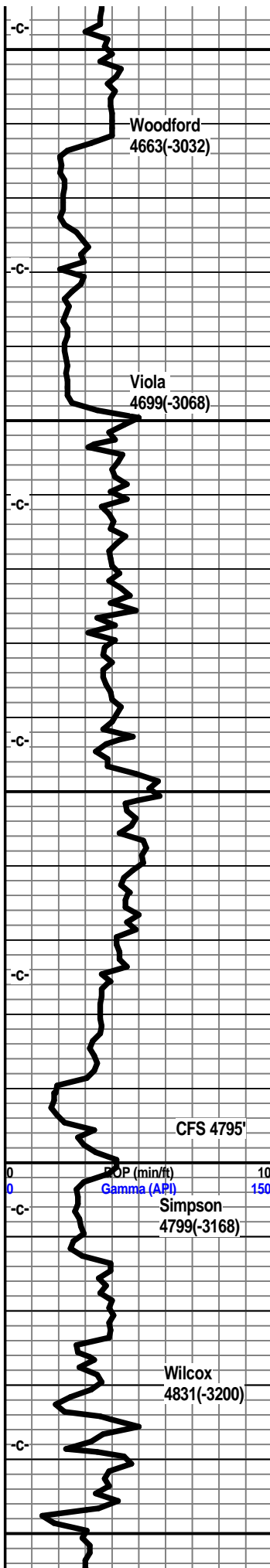
Limestone, cuff, tan, crystalline, trace chert, subchalky in part.

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

Shale, grey, dark grey, silty, traces pyrite.

Shale, grey, light grey, silty.





Shale, grey, light grey, silty, firm.

Shale, grey, dark grey-black.

Shale, dark grey.

Shale, dark grey-black. few sand clusters at base, pyritic.

Limestone, grey-white, tan, crystalline, coarse, chalky in part, trace tan chert, poor to no visible porosity.

Limestone, tan, buff, grey-white, coarse, crystalline, traces of sharp tan chert, chalky in part, no visible shows.

Limestone, tan, buff, crystalline, granular, tan sharp cherts, trace chalky, no visible shows.

Limestone, tan, ran-white, crystalline, granular, tan sharp cherts, trace green shales, slightly dolo in part.

Limestone, tan, crystalline, dense, slightly dolo, traces of tan sharp cherts.

Limestone, brown, tan, granular, crystalline, dolo in part, traces crystalline porosity, trace pin point porosity, no visible shows, no odor.

Shale, sandy dolo, dark green, aqua, firm, trace pyrite, few sand clusters, very dolomitic, tite, well cemented, no visible shows.

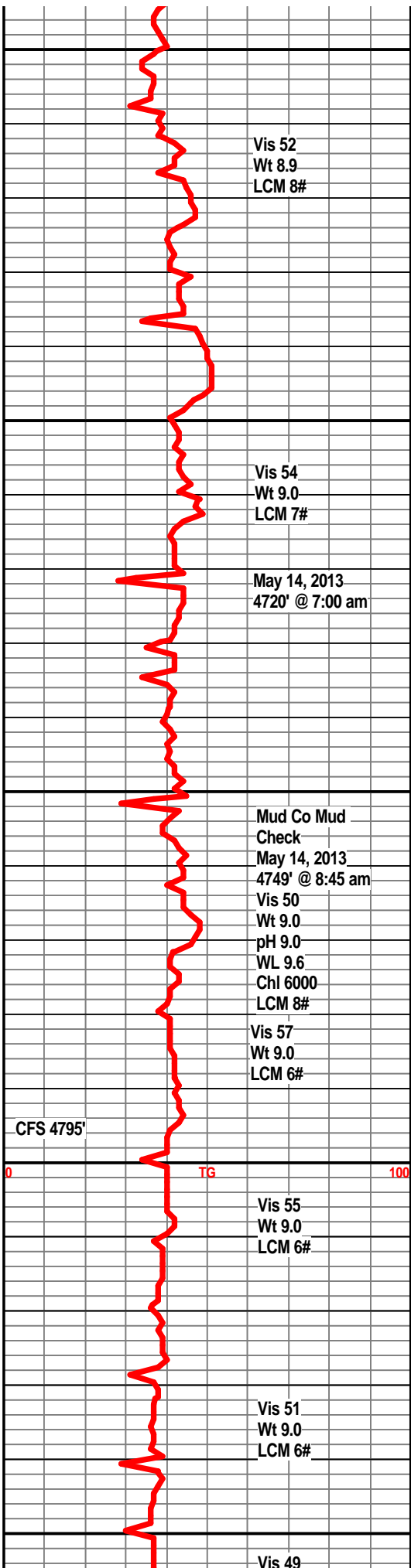
Shale, teal green, firm, few sand clusters, trace pyrite.

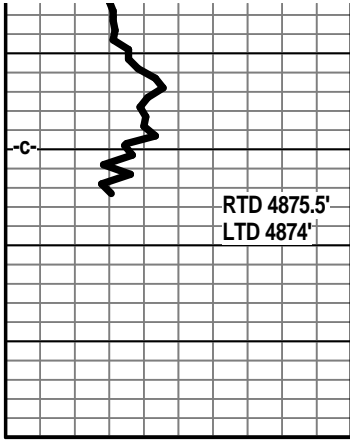
Sandstone, clear to grey-white, sa to sr, most well cemented, few friable, trace pyrite, no visible shows, no odor, no fluor.

Sandstone, clear to grey-white, well cemented, poorly sorted, sa to sr, trace friable, no visible shows, no odor, no fluor.

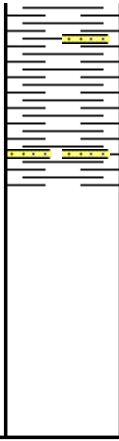
Shale, teal green, firm.

Sandstone, clear to grey-white, shaley, dolomitic, sa to sr, well cemented, no visible shows.



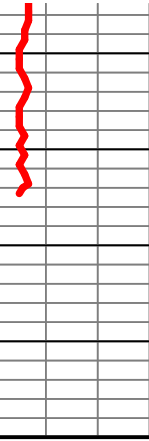
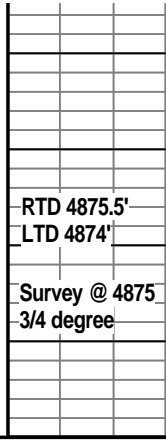


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shows.

Shale, teal green, firm, waxey, trace pyrite. few sand stringers.



Wt 9.0
LCM 6#

Short Trip 12
Stands @ 4875'

Vis 51
Wt 9.0
LCM 6#

May 15, 2013
2875' @ 7:00 am