



Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: BARTHLOW GU #2
Location: APPROX NW SW NE
License Number: API: 15-007-24004-00-00
Spud Date: April 1, 2013
Surface Coordinates: Section 33-T32S-R12W, 1650' FNL, 2210' FEL
Medicine Lodge-Boggs
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1607 K.B. Elevation (ft): 1619
Logged Interval (ft): 3000 To: RTD Total Depth (ft): 4900
Formation: Simpson
Type of Drilling Fluid: Chemical Mud, Displace at 3410'.
Region: Barber County, Kansas
Drilling Completed: April 10, 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
KANWAKA	3519(-1900)	3519(-1900)
HEEBNER	3701(-2082)	3701(-2082)
SYNDERVILLE	3717(-2098)	3718(-2099)
BROWN LIME	3890(-2271)	3890(-2271)
LANSING	3896(-2277)	3896(-2277)
STARK SHALE	4277(-2658)	4277(-2658)
HUSHPUCKNEY SHALE	4310(-2691)	4310(-2691)
B/KC	4368(-2749)	4366(-2747)
MISSISSIPPIAN	4450(-2831)	4450(-2831)
KINDERHOOK SHALE	4614(-2995)	4614(-2995)
WOODFORD SHALE	4679(-3060)	4681(-3062)
VIOLA	4714(-3095)	4715(-3096)
SIMPSON SHALE	4819(-3200)	4821(-3202)
SIMPSON SAND	4834(-3215)	4834(-3215)
RTD	4900(-3281)	
LTD		4901(-3281)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 217' with 240 sxs Class A, 2% gel, 3% cc, plug down at 9:00 pm on April 1, 2013. Cement did Circulate.

Production Casing: Ran 4 1/2" Casing

Deviation Surveys: 1 - 218', 3/4 - 1127', 3/4 - 1634', 3/4 - 2140', Missrun at 2679', 3/4 - 2679', 1/4 - 3329', 3/4 - 3736', 1 3/4 - 4233', 1 1/4 - 4297', 1/4 - 4500', 1-4900'.

Contractor Bit Record:

1- 14 3/4" out at 218'.

2- 7 7/8" out at 4500'.

3- 7 7/8" out at 4742'.

4 -7 7/8" out at 4900'.

Pipe Strap at 3736'

Board 3759.65'

Strap 3760.23'

Strap Short .58'

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: Trilobite Testing, Gary Pevoteaux

Logged by Nabors Completion and Production Services

LTD - 4901'.

DSTs

DST #1 Synderville, Times 30-60-60-90

1st Opening - Tool Slid 13', Strong Blow, BOB 30 Seconds, GTS 14 Minutes, No Blow Back

2nd Opening - Strong Blow, BOB immediately, No Blow Back

Recovery: 50' GCM(4% G, 96%M), 61' GOCWM(22%G, 6% O, 14% W, 58% M), 122' GOCMW(22% G, 13% O, 36% W, 29% M)

GTS 14 Min 1st opening 20 min 71 MCFPD

30 min 89 MCFPD

2nd Opening 10 min 115 MCFPD

20 min 137 MCFPD

30 min 152 MCFPD

40 min 163 MCFPD

50 min 166 MCFPD

60 min 170 MCFPD

IFP 230-78# - Plugging FFP 54-110#

ISIP 1329# FSIP 1324#

IHP 1765# FHP 1731#

Temp 10, Chlorides 87,000 ppm

DST #2 4442 to 4500' Mississippi Times 30-60-60-120

1st Opening, Strong Blow BOB 1 Minute, GTS 30 Minutes, no blow back

2nd Opening, Strong Blow GTS, See Gauge, 1/2" - 2" blow back

Recovery: Gas Gauge - 2nd opening: 10 minutes 26 MCFPD

20 minutes 24.4 MCFPD

30 minutes 24.4 MCFPD

40 minutes 24.4 MCFPD

50 minutes 24.4 MCFPD

60 minutes 23.6 MCFPD

415' Total Fluid

105' GOCM (18% Gas, 17% Oil, 65%Mud)

188' GM&WCO (56% Gas, 24% Oil, 14% Water, 6% Mud)

122' GM&WCO (24% Gas, 48% Oil, 22% Water, 6% Mud)

IHP 2161# FHP 2124#

IFP 65-105# FFP 113-149#

ISIP 1439# FSIP 1371# (Both Still Building)

Chlorides 60,000 ppm, Temp 124 degrees

DST #3 4714 to 4742 Viola, Times 30-60-60-120

1st Opening, Strong Blow, BOB 2 1/2 min, no blow back

2nd Opening, Strong Blow, BOB 2-3 seconds, no blow back

Recovery: 1700' GIP, 40' GCM(12% G, 88% M) Trace Oil

IHP 2345# FHP 2320#

IFP 17-21# FFP 13-20#

ISIP 968# FSIP 1358# Both still building

Temp 124

CREWS

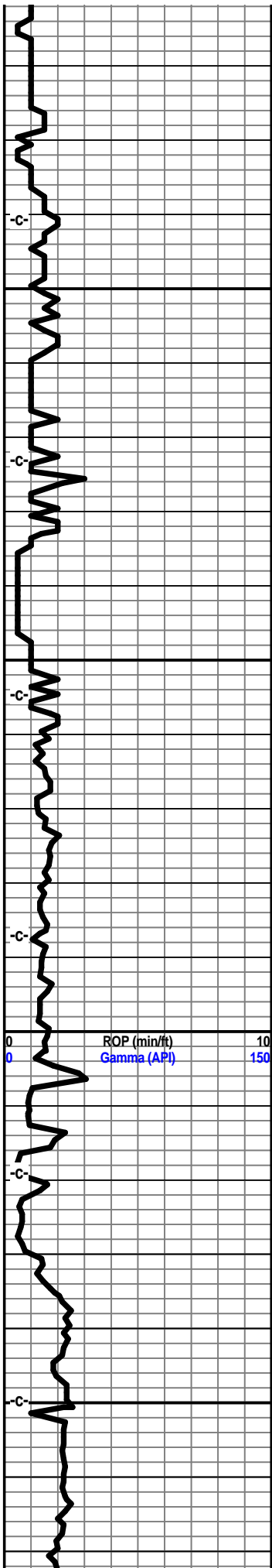
Fossil Drilling, Inc Rig #3

Tool Pusher - Craig Eubank

Drillers - Days - Daniel Orranta

Evening - Kerry Clark - Jim Wenrich

Morning - Andres Maestas

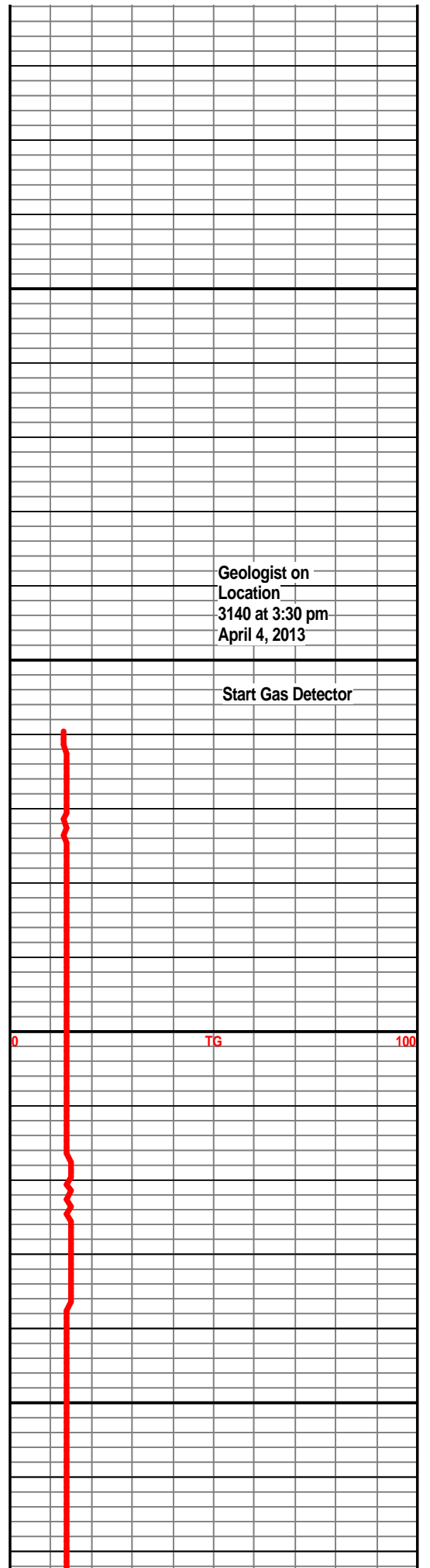


3100

3150

3200

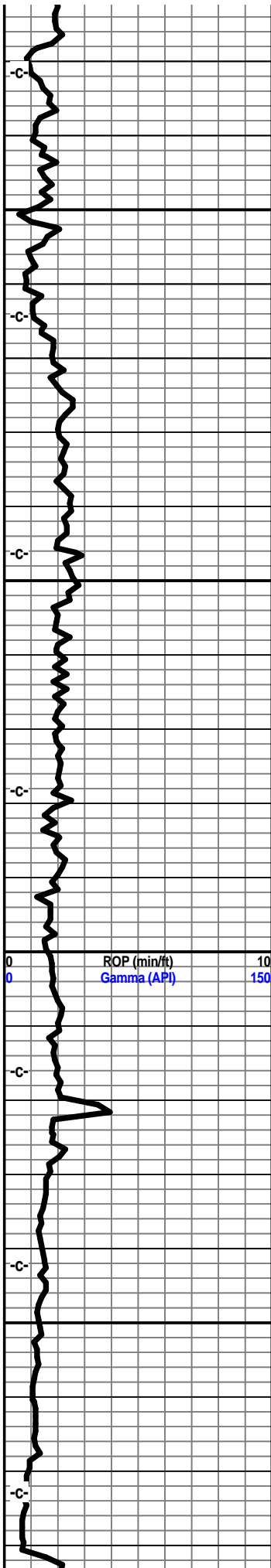
3250



0

TG

100

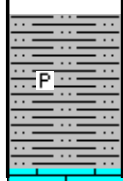


3300

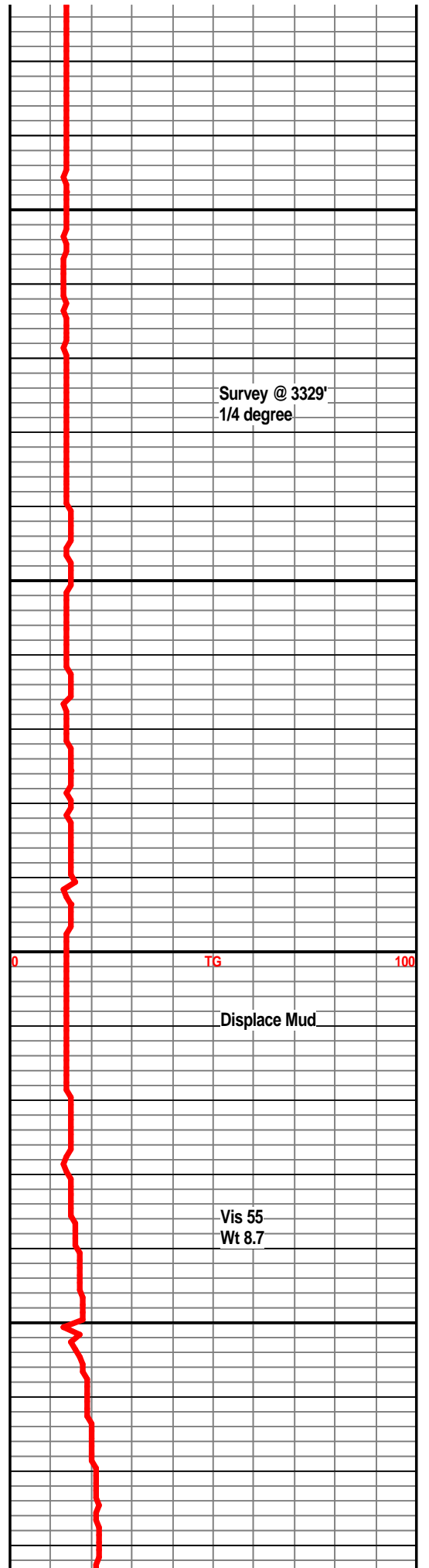
3350

3400

3450



Shale, dark grey, trace pyrite, silty.



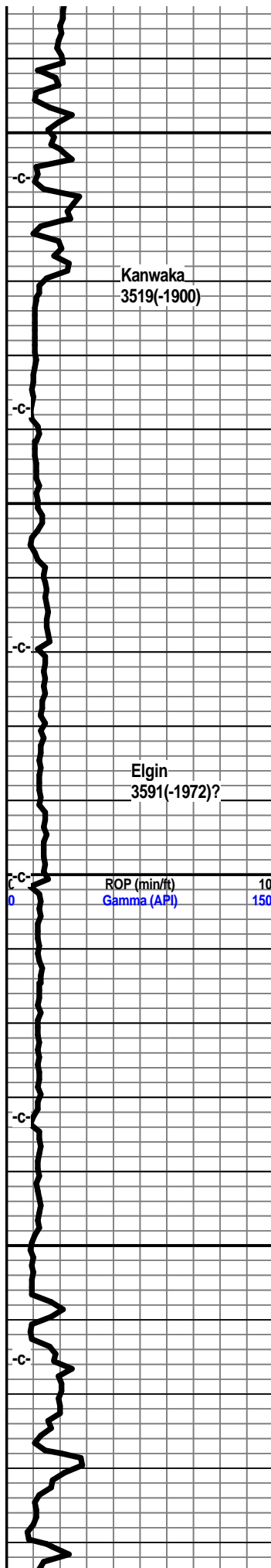
Survey @ 3329'
1/4 degree

TG

100

Displace Mud

Vis 55
Wt 8.7



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

Shale, lt grey, silty.

Limestone, buff-white, fine crystalline, dense.

Shale, grey-black.

Limestone, tan, buff-white, crystalline, trace fossils, some grey ls pieces.

Shale, grey, light grey, silty to sandy, trace pyrite.

Shale, lt grey to grey, silty to slightly sandy.

Shale, lt grey, silty, sandy in part.

Shale, grey lt grey, silty to sandy, few silty sand clusters, no vis shows, no fluor, no kick

Shale, silty, very sandy, few sandstone clusters, very fine grained, fair cementing, no visible shows, no kick.

Shale, lt grey, silty to sandy. few ls frags, sand clusters.

Shale, lt grey, silty to sandy, some ls frags.

Shale, lt grey, grey, silty.

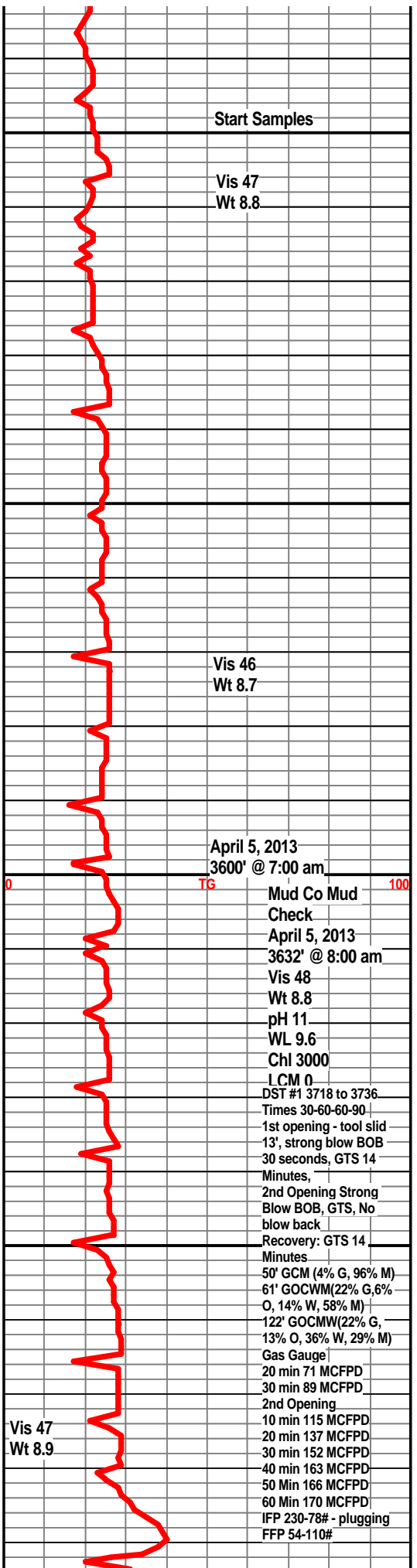
Limestone, tan, buff, finely crystalline, dense, trace fossils.

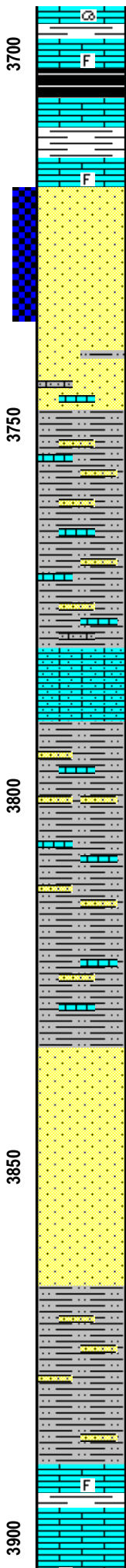
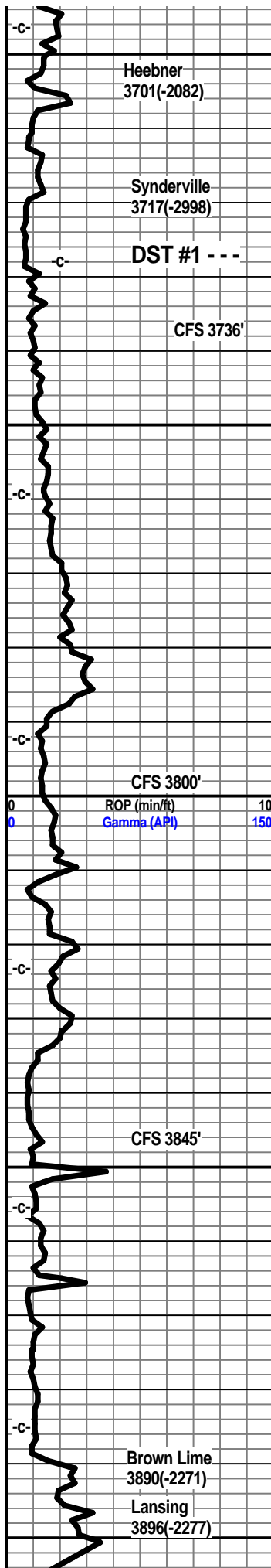
Limestone, tan, brown-grey, crystalline, fossiliferous in part, dense.

Shale, grey.

Limestone, grey-tan, crystalline, dense.

Shale, grey-black, carb.





Limestone, tan-white, crystalline, dense, trace fossils, trace oolimidic porosity.

Shale, grey-black, carb. in part.

Limestone, tan-white, crystalline, dense.

Shale, light grey.

Limestone, tan, brown, dense, slightly fossiliferous.

Sandstone, clear to white, SA to SR, very fine grained, some well cemented, most friable, light to fair odor, show of light brown oil, traces of free oil in tray, very dull fluor, trace gas bubbles, fair kick.

Sandstone, a/a, well cemented, decreasing shows, mostly white tite sands with feew ls fragments and lt grey shales.

Shale, lt grey, very silty to sandy, sand clusters, tite, ls fragments, no shows.

Limestone, tan, grey-white, cream, crystalline, fossils, sandy in part, trace chalky.

Shale, light grey, silty, abundant ls fragments, few sand clusters

Shale, lt grey, silty, some sandstone stringers, tan-brwn ls fragments.

Shale, light grey, silty, scattered ls stringers, feew sand clusters.

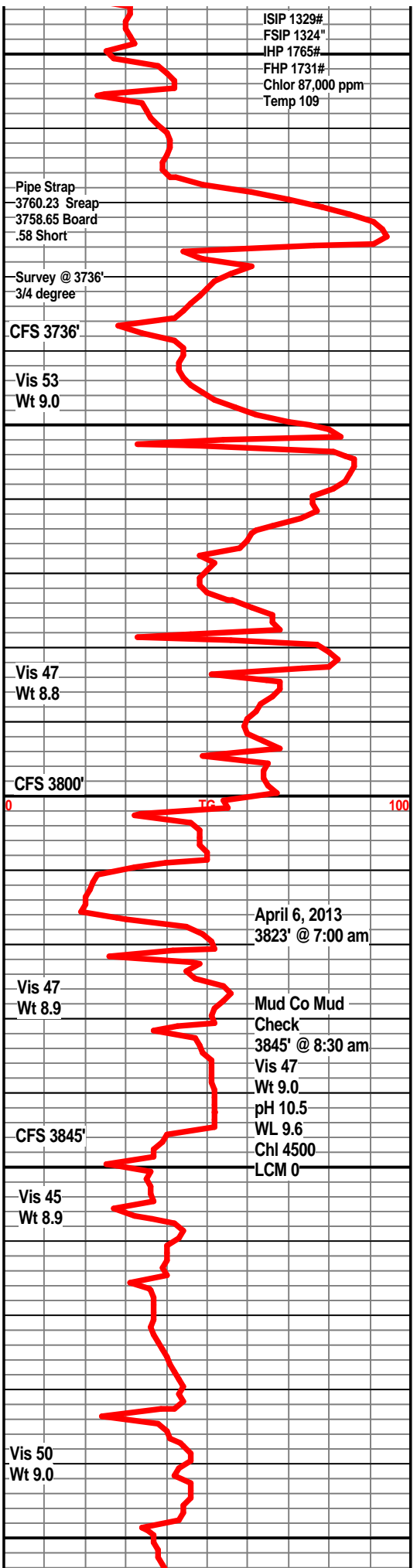
Sandstone, clear to grey, SA grains, friable in part, some well cemented, mica, some shales, no visible shows, no odor, no kick,

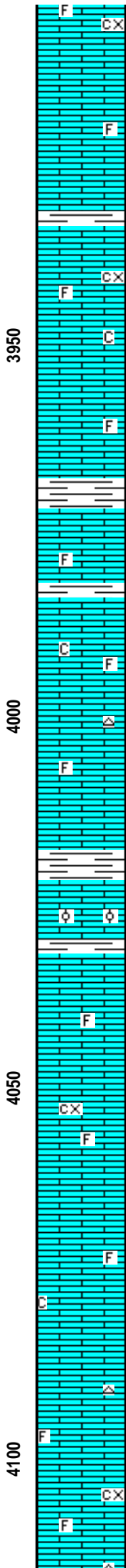
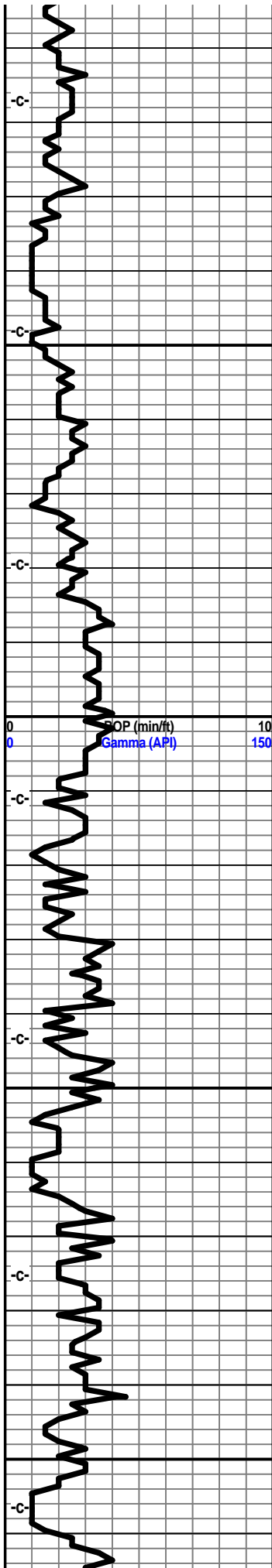
Sandstone, clear to grey white, SA, friable in part, mica, traces pyrite, no visible shows, no odor, no kick, no fluor.

Shale, lt grey, very silty to very sandy, sand clusters, some scattered ls fragments, no visible shows.

Limestone, tan-brown, fine to mediam crystalline, fossils in part, dense.

Limestone, cream-white, finely crystalline, slightly chalky, scattered fossils, trace





crystalline porosity, no visible shows.

Limestone, tan, buff-white, crystalline, traces of crystalline porosity, no visible shows, no odor, no kick.

Shale, light grey.

Limestone, cream, buff-white, crystalline, fossiliferous, foss porosity, some crystalline porosity, subchalky in part, no visible shows, no odor.

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

Shale, grey, light grey.

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

Shale, grey.

Limestone, tan, buff, crystalline, slightly subchalky, traces of tan-brown chert, trace fossils.

Limestone, tan, crystalline, fossils, trace of tan chert.

Shale, light grey.

Limestone, buff, cream, crystalline, trace crystalline porosity, trace oolites, no shows, no odor.

Shale, light grey.

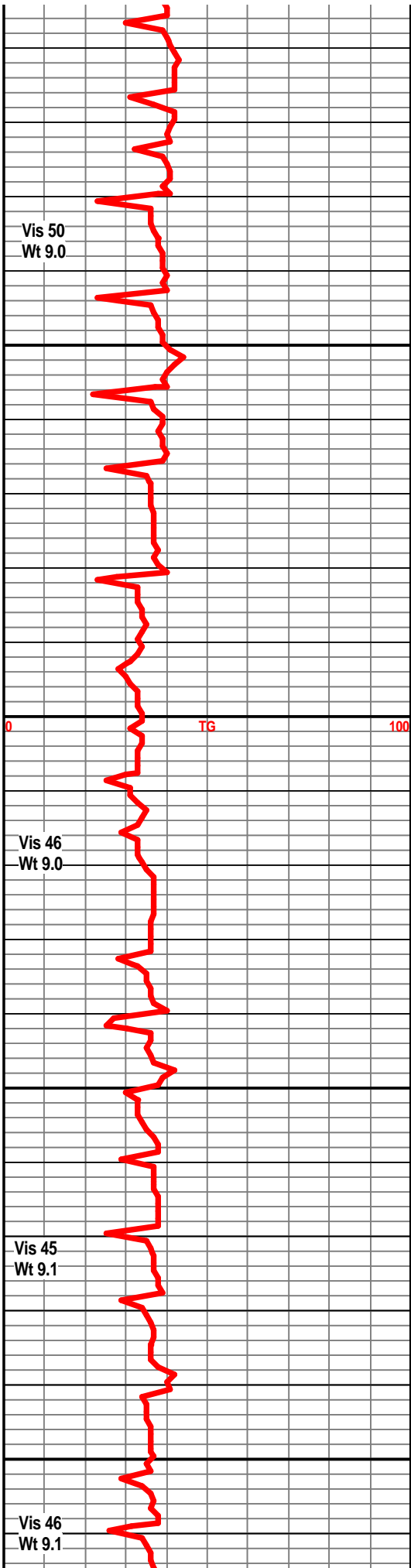
Limestone, cream, buff, crystalline, dense in part, trace foss porosity, no visible shows, no odor.

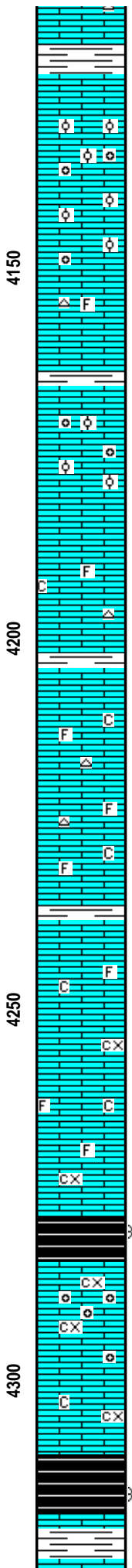
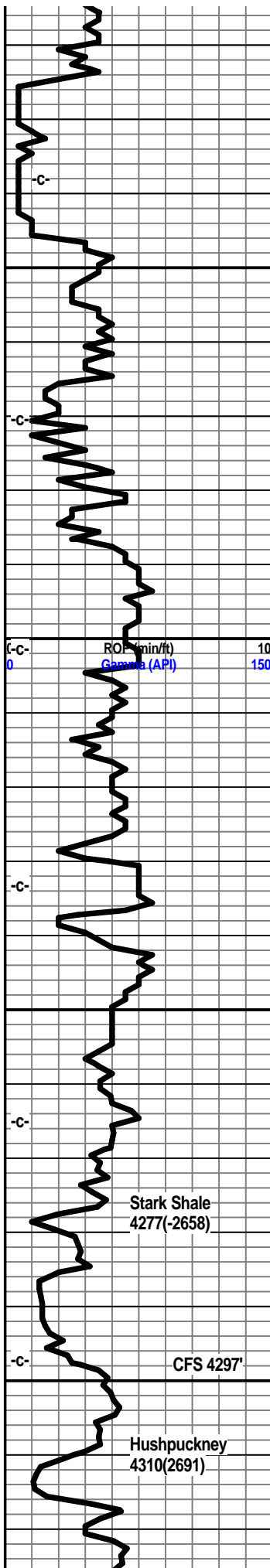
Limestone, tan-white, buff, crystalline, trace crystalline porosity, slightly fossiliferous, no visible shows, no odor.

Limestone, buff, tan-brown, dense in part, crystalline, trace fossils, subchalky, no visible shows.

Limestone, buff, tan, grey-white, crystalline, dense, fossils, trace tan-grey cherts, no shows.

Limestone, buff, grey-white, crystalline, fossils, crystalline porosity, no visible shows, no odor.





Limestone, grey-white, crystalline, dense, traces grey-tan chert.
Shale, grey.

Limestone, cream, buff, tan, oolitic, oolimoldic porosity, barron, no visible shows, no odor, no kick, no fluor.

a/a

Limestone, tan, cream-white, finely crystalline, dense, trace off-white chert, slightly fossiliferous, no shows.

Shale, grey, light grey.

Limestone, tan, buff-white, crystalline, oolitic, scattered oolimoldoc porosity, no visible shows, no odor.

Limestone, tan, grey-white, crystalline, traces of light grey chert, some scattered fossils, subchalky in part, no vis shows.

Shale, grey, light grey.

Limestone, grey, tan, crystalline, mottled in part, subchalky, traces of grey cherts, no vis shows.

Limestone, tan, grey, crystalline, subchalky, dense in part, trace fossils, scattered chert, no shows.

Shale, grey.

Limestone, grey-white, crystalline, mottled, fossils, scattered foss porosity, subchalky, traces of grey-white chert, noo shows.

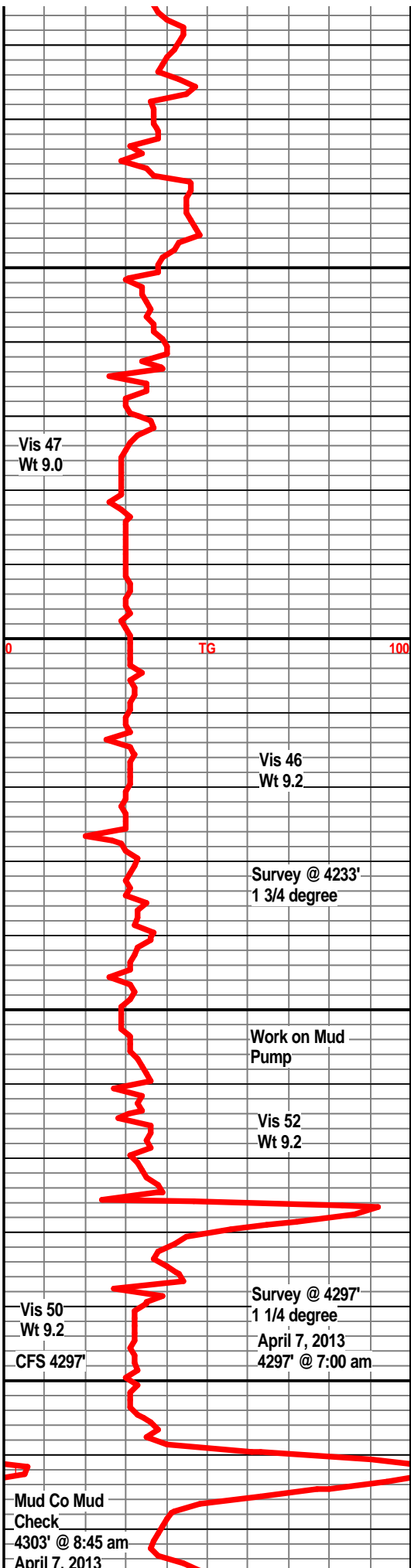
Limestone, grey-white, tan, crystalline, dense, fossils, poor porosity, no visible shows.

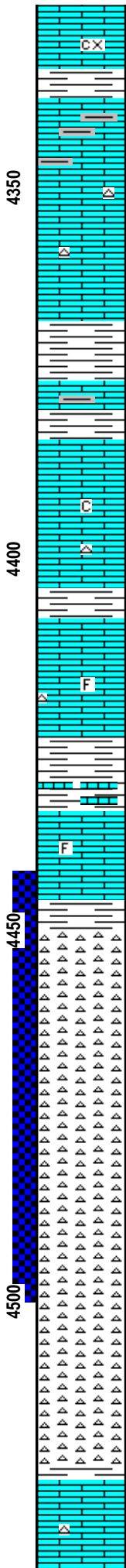
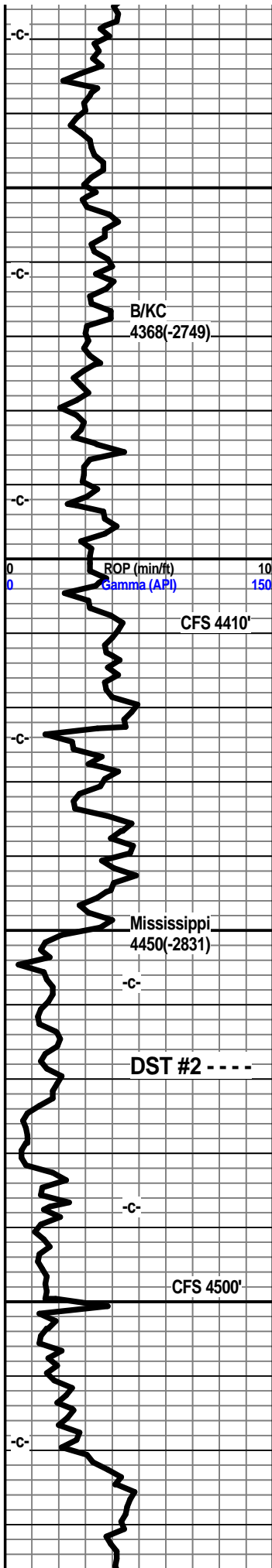
Shale, grey-black, slightly carb. trace gas bubbles.

Limestone, tan, buff, crystalline, traces of oolites, trace oolmoldic porosity, barron, traces of crystalline porosity, trace dark asphaltic stain, no fluor, no show of free oil.

Limestone, tan, grey-white, crystalline, subchalky, fossils, no shows.

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





Limestone, tan, buff, crystalline, dense, trace fossils, trace crystalline porosity, no shows.

Shale, dark grey, slightly calcitic.

Limestone, grey-white, crystalline, shaley in part, traces of grey cherts, no shows, no odor.

Shale, grey, dark grey.

Limestone, grey-white, dense, shaley in part.

Shale, grey.

Limestone, cream, buff, crystalline, dense in part, subchalky, trace chert.

Shale, grey, light grey-green.

Limestone, tan, tan-white, crystalline, dense, trace fossils, trace tan-white chert, no vis shows, no odor.

Shale, grey, few ls stringers. Trace red-green shales.

Limestone, buff-tan, crystalline, dense, trace fossils, no visible shows.

Shale, grey, trace vari-colored.

Chert, off-white to tan, weathered in part, some sharp, scattered pin point porosity, trace few small vugs, light scattered staining, faint odor, traces of oil, few gas bubbles.

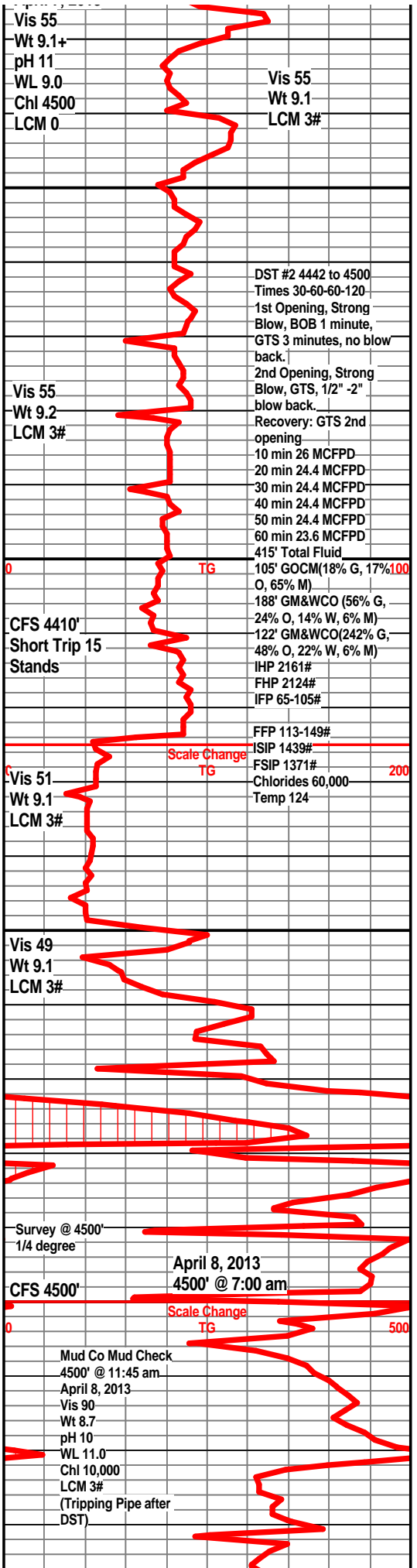
Chert, off-white, mostly fresh, sharp, few weathered, slight show oil, faint odor

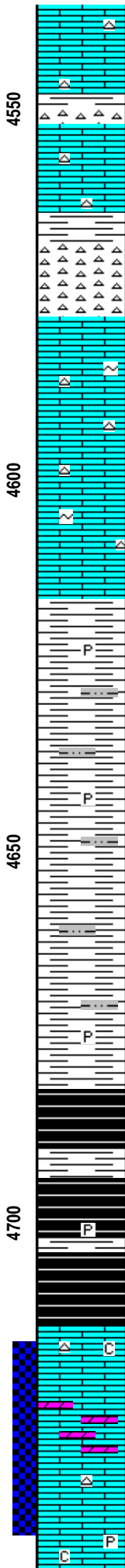
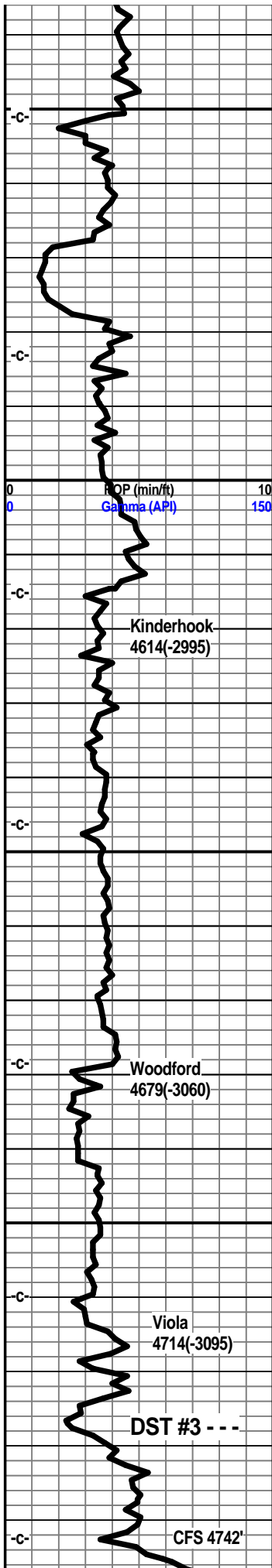
Chert, tan-white, weathered, some fresh, pin point porosity, scattered vugs, fair odor, trace free oil, dull fluor, fair brown staining, trace gas bubbles.

Chert a/a, 50% fresh, 50% weathered, shows of free oil, fair odor, ppt and vug porosity, scattered staining.

Chert, tan-white, weathered to fresh, still fair vugular and ppt porosity, dark asphaltic staining, light show of oil and gas, fair odor, dull fluor.

Limestone, tan, crystalline, traces of tan, off-white cherts, trace show stain on cherts, some reddish green shales.





Limestone, tan, reddish tan, crystalline, dense, chert in part, decreasing cherts with stain, most tan sharp chert, reddish-green shales.

Limestone, tan, reddish-tan, crystalline, some off-white sharp cherts, grey-red shales.

Shale, grey, reddish-brown.

Chert, off-white, bone-white, sharp, fresh, some translucent, no visible shows.

Limestone, tan, buff, reddish-tan, crystalline, dense, traces of white to off-white sharp cherts, no visible shows, no odor.

Limestone, tan, buff, crystalline, traces of chert, glauconite, some pale green shale.

Shale, light grey, silty, some splintery.

Shale, grey, drak grey, splintery, silty, trace pyrite.

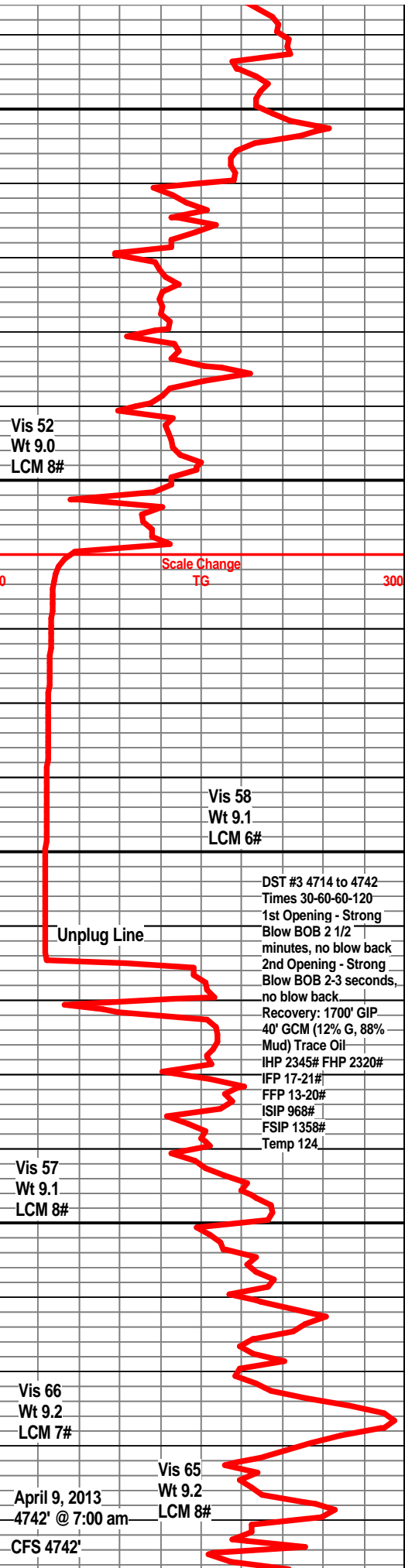
Shale, grey, lt grey, silty, traces of pyrite.

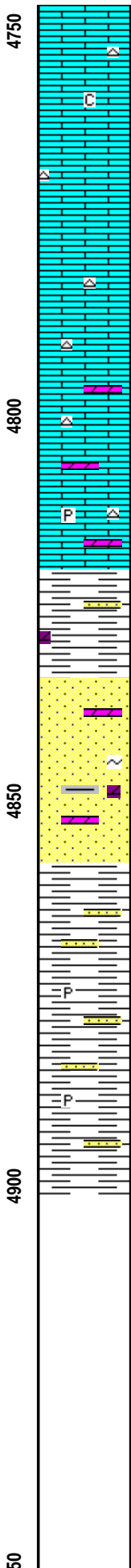
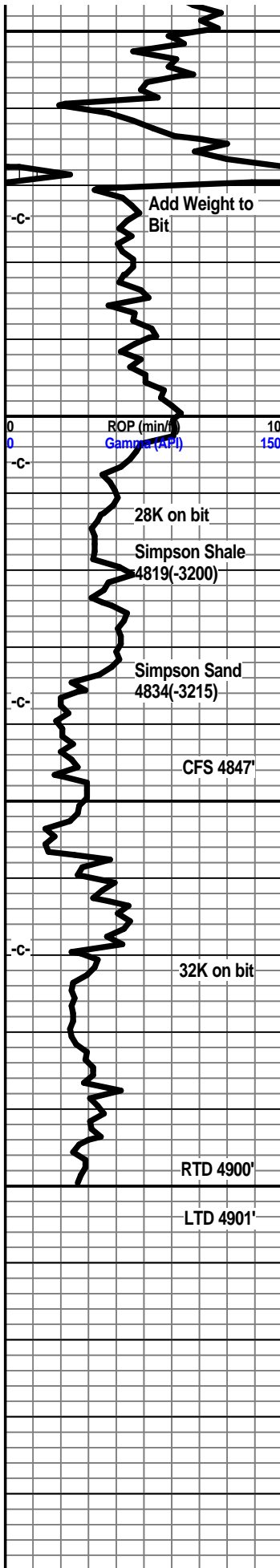
Shale, grey, dark grey, coffee brown, spores, traces of gas bubbles.

Shale, grey-black, grey, scattered spores, gas bubbles, traces of pyrite.

Limestone, tan-white, buff, crystalline, dense, trace chert, slightly chalky, trace dolomitic.

Limestone, clear to white, medium grained, crystalline porosity, trace few small scattered vugs, very dolomitic, fair odor, fair show light brown oil, light scattered staining, spotty fluor, slight show gas.





Limestone, tan, grey-white, crystalline, slightly chalky, tan sharp cherts.

Limestone, tan, grey-white, tan-brown, crystalline, poor porosity, tan to tan-grey sharp cherts, specked, no shows.

Limestone, tan, crystalline, granular, tan sharp chert.

Limestone, tan, crystalline, granular, tan sharp cherts, trace pale green shales, slightly dolomitic in part.

Limestone, tan, buff, crystalline, granular, tan sharp chert, trace pyrite, trace pale green shales, dolomitic in part.

Shale, dark green, apple green, traces of dolomitic sand.

Sandstone, clear to grey-white, fine to med grained SA to SR, moderate cementing, some friable, dolomitic in part, faint odor, light show of oil, trace scattered staining, odor when sample crushed, slight gas indication, spotty fluor.

Sandstone, a/a, one cluster bleeding oil and gas, faint odor.

Shale, dark green, abundant sand clusters, pyrite, up hole sluff.

Shale, dark green, pyritic, sand clusters, up hole material.

