



## Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: WARREN FEE 10  
Location: NW SE SW SW  
License Number: API: 15-007-23916-00-00  
Spud Date: July 18, 2012  
Surface Coordinates: Section 18-T32S-R12W, 480' FSL, 785' FWL  
Medicine Lodge North Pool  
Bottom Hole Coordinates: Vertical Hole  
Ground Elevation (ft): 1615  
Logged Interval (ft): 3500 To: RTD  
Formation: McLish Shale  
Type of Drilling Fluid: Chemical Mud, Displace at 3259'.  
K.B. Elevation (ft): 1625  
Total Depth (ft): 4865  
Region: Barber County, Kansas  
Drilling Completed: July 30, 2012

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
LECOMPTON	3530(-1905)	3531(-1906)
KANWAKA	3560(-1935)	3562(-1937)
HEEBNER	3695(-2070)	3697(-2072)
TORONTO	3711(-2085)	3712(-2086)
BROWN LIME	3865(-2240)	3866(-2241)
LANSING	3874(-2249)	3875(-2250)
HUSHPUCKNEY SHALE	4266(-2641)	4266(-2641)
B/KC	4327(-2702)	4326(-2701)
MISSISSIPPIAN	4397(-2772)	4398(-2773)
KINDERHOOK SHALE	4591(-2966)	4589(-2964)
WOODFORD SHALE	4656(-3031)	4656(-3021)
VIOLA	4686(-3061)	4686(-3061)
SIMPSON GROUP	4778(-3153)	4775(-3150)
RTD	4865(-3240)	
LTD		4865(-3240)

## COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 216'(tallied 202') with 240 sxs Class A, 2% gel, 3% cc, plug down at 7:30 pm on July 18, 2012. Cement did Circulate.

Production Casing: 5 1/2" Casing Ran.

Deviation Surveys: 1 1/4 - 216', 1 - 1066', 1 - 1558', 1 - 2082, 3/4 2577', 1 - 3074', 1 - 3568', 2 - 4063', 3/4 - 4188', 2 - 4423', 1 3/4 - 4481', 1 1/4 - 4865'.

Contractor Bit Record:

1- 14 3/4" out at 216'.

2- 7 7/8" out at 4865'.

Pipe Strap at 4423'

Board 4435.41'

Strap 4438.69'

Strap long 3.28'.

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: Trilobite Testing

Logged by Superior Well Services.

LTD - 4865'.

## DSTs

### DST #1 4362 to 4423' Mississippi

Times 30-60-60-120

1st Opening - Strong Blow BOB in 2 minutes - no blow back

2nd opening - Strong Blow, GTS 45 minutes - no blow back.

IHP 2114# FHP 2090#

IFP 39-60# FFP 75-96#

ISIP 1070# FSIP 1076#

Recovery: 100' SGOCM (15% g, 3% O, 82% M)

110' GOCM ( 25% g, 15% O, 60% M)

Gas Gauge:

45 min 6.5 MCF

50 min 6.8 MCF

60 min 7.3 MCF

### DST #2 4424 to 4481' Mississippi

Times 30-60-60-120

1st Opening - Strong Blow BOB 30 Seconds, GTS 30 min - Weak 1/4" blow back

2nd Opening - Strong Blow BOB immediately, GTS immediately. Fair 4" blow back

IHP 2151# FHP 2137#

IFP 55-109# FFP 76-212#

ISIP 1342# FSIP 1313#

Recovery: 300' GO (20% G, 80% O), 60' MC&GCO (20% G, 65% O, 15%M), 30' MC&GCWO (20% G, 40% O, 25% W, 15% M)

Chlorides 95,000 ppm, 36 degree Gravity.

Gas Gauge

5 min 8.5 MCF    10 min 9.7 MCF

20 min 13.0 MCF    30 min 15.5 MCF

40 min 19.6 MCF    50 min 21.7 MCF

60 min 23.8 MCF

## CREWS

Hardt Drilling, Inc Rig #1


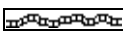
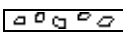

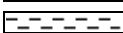

Tool Pusher - Scott Adelhardt







Drillers - Days - Steve Myers


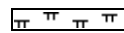
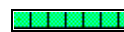


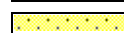
Evening - Jody Divine






Morning - Billy Maas

## ROCK TYPES

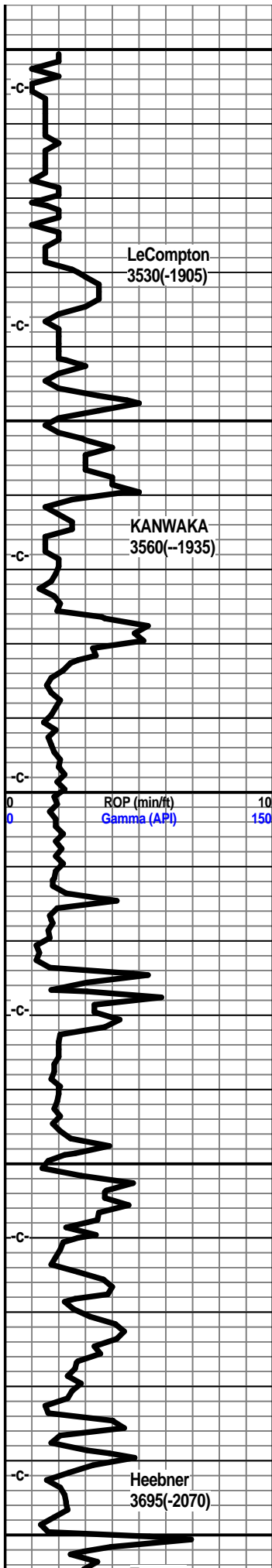
	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal

	Congl
	Sdy dolo
	Shy dolo
	Dol
	Gyp
	Sdy lmst

	Lmst
	Mrlst
	Salt
	Shale
	Sltst
	Ss

	Black sh
	Gry sh
	Shale
	Shyslst
	Sltsh





3500

3550

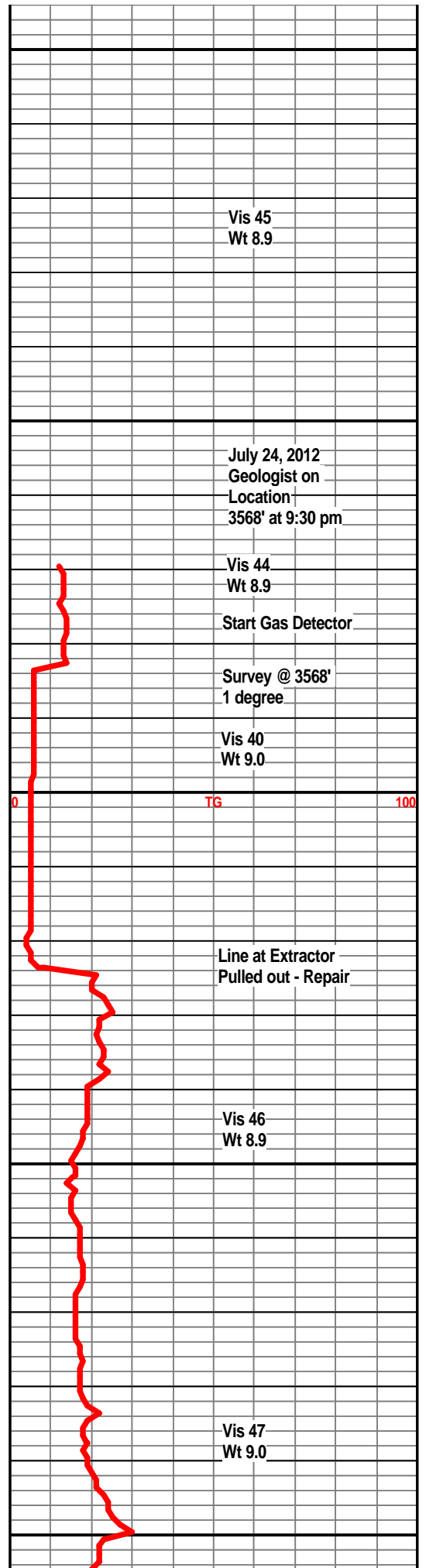
3600

3650

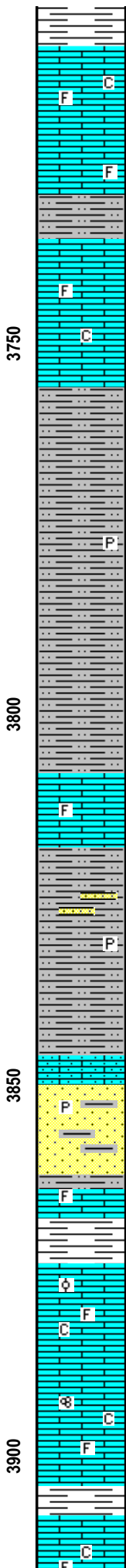
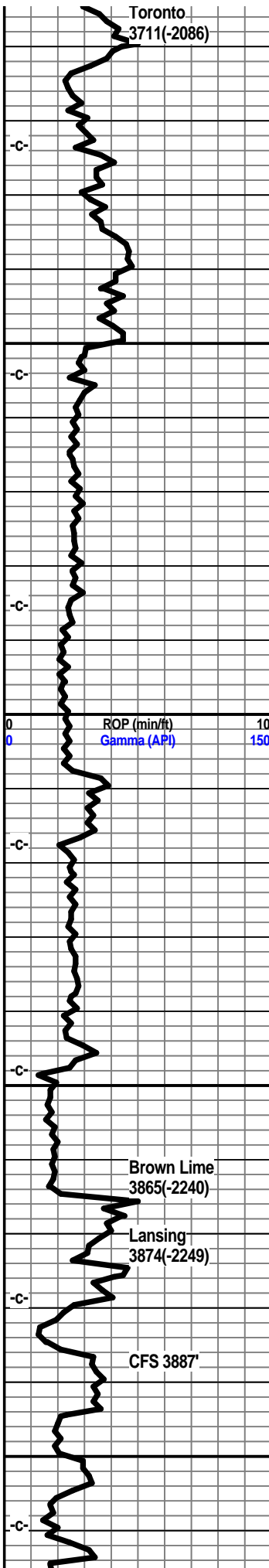
3700



Shale, black, grey, carb.  
Limestone, grey-white, xln, dense.



100



Shale, grey.

Limestone, cream, buff, white, xln, partly dense, foss., chalky in part, no vis shows, no odor.

Limestone, cream, buff-white, xln, partly dense, trace xln porosity, fossils, no vis shows, no odor.

Shale, grey, silty.

Limestone, tan, tan-brown, xln, dense, foss.

Limestone, tan, tan-brown, mxln, dense, foss., slightly chalky.

Shale, light grey, silty to sandy, soft.

Shale, light grey, silty, mica, trace pyrite.

Shale, light grey, silty to slightly sandy.

Shale, light grey, silty, soft, some ls frags.

Limestone, tan, grey-brown, xln, dense, fossils, slightly sandy.

Shale, light grey, very silty to sandy, some sst stringers, well cemented, traces of pyrite, ls frags.

Shale, light grey, silty a/a.

Limestone, tan, brown, xln, dense, sandy,

Sandstone, light grey, grey, silty to limey, well cemented, sa, some pyrite inclusions, poor porosity, no visible shows, no odor, no kick.

Limestone, brown, tan dense, mxln, foss.

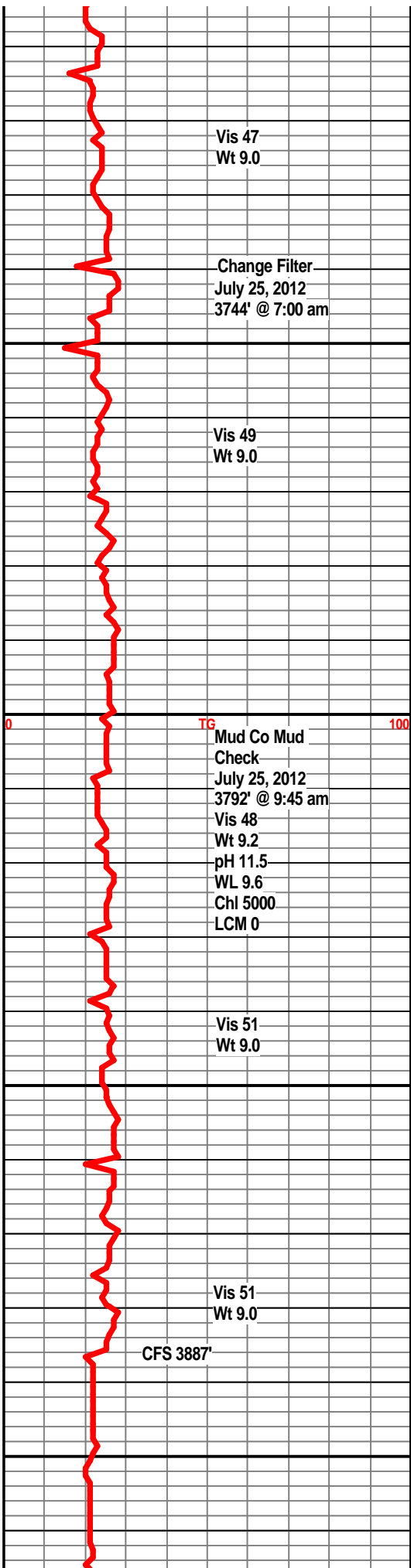
Shale, grey.

Limestone, cream, buff, xln, slightly foss., traces of xln porosity, trace oolites, chalky in part, no visible shows, no odor, no kick.

Limestone, buff, cream, xln, slightly dense in part, traces of xln porosity, some foss frags, foss porosity, chalky in part.

Shale, grey.

Limestone, buff, tan-white, xln, xln porosity, trace foss porosity, chalky, no visible shows



trace loss porosity, chalky, no visible shows.

Shale, grey.

Limestone, cream, tan, xln, partly dense, chalky, traces of foss, some xln porosity, no vis shows.

Shale, grey.

Limestone, tan, buff, xln, dense in part, xln porosity, some foss porosity, subchalky.

Limestone, tan, buff, foss porosity, xln porosity, subchalky, no vis shows.

Limestone, tan, xln, dense, abundant grey shales, trace chert.

Limestone, tan, cream, buff, xln, dense, some foss, xln porosity, abundant grey shales.

Limestone, grey-white, buff, xln, partly dense, scattered xln and foss porosity, subchalky, abundant grey shales, no visible shows.

Limestone, grey-white, buff, xln, partly dense, grey shales.

Limestone, cream, tan, xln, dense, subchalky, traces of xln porosity, foss in part.

Limestone, tan, buff-white, xln, partly dense, subchalky, foss, traces of xln porosity, no visible shows.

Limestone, tan, cream, buff, xln, foss in part, chalky, some grey shales, fossils, no visible shows, no odor.

Limestone, cream, tan, grey-white, xln, dense in part, scattered xln porosity, traces of foss porosity, no visible shows, no odor, no visible shows.

Shale, grey-black

Limestone, tan, buff, xln, partly dense, oolitic, oolimidic porosity, no visible shows, no odor, no fluor.

Limestone, tan, buff, cream-white, xln, foss in part, trace oolites, subchalky, no vis shows.

Shale, light grey.

Vis 47  
Wt 9.0

Vis 48  
Wt 9.1

TG 100

Vis 49  
Wt 9.1

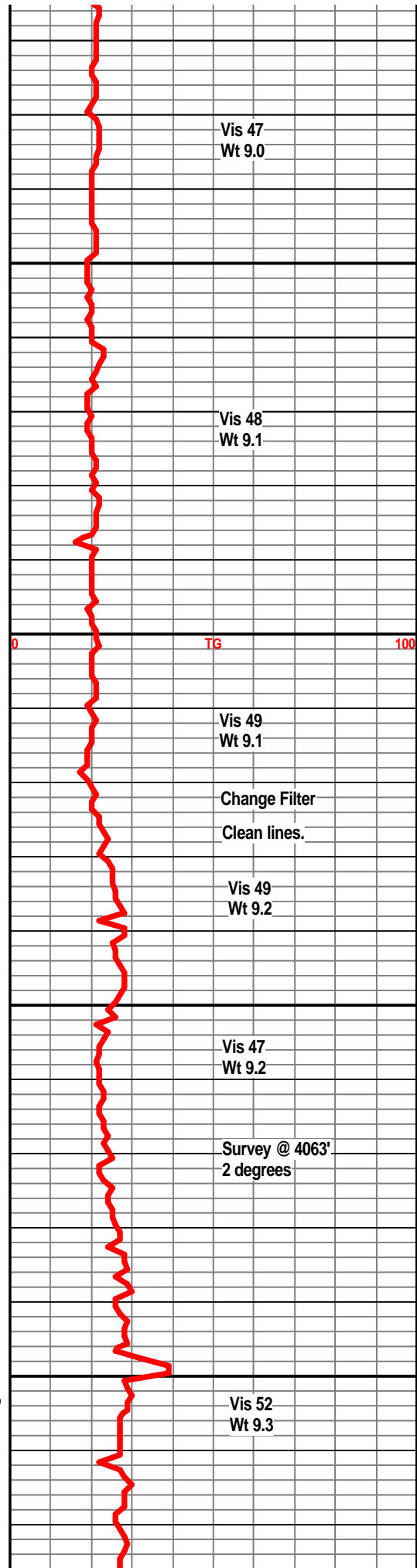
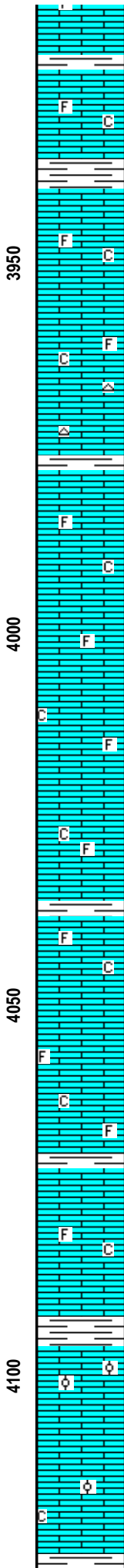
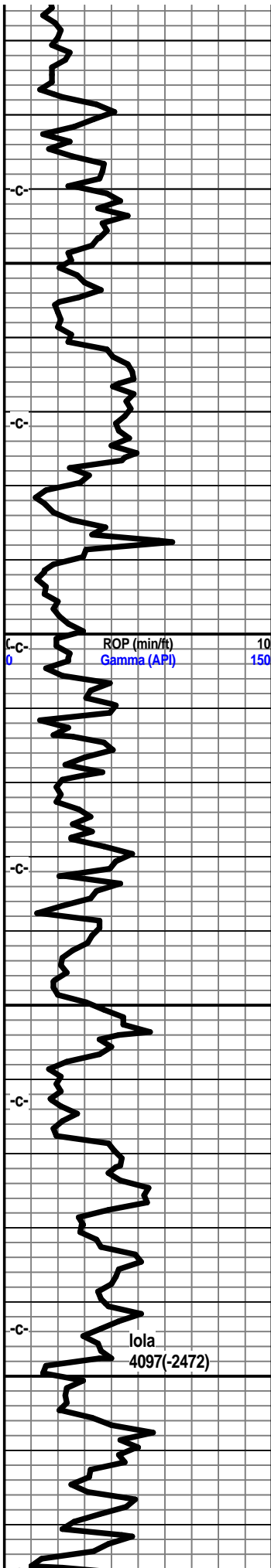
Change Filter  
Clean lines.

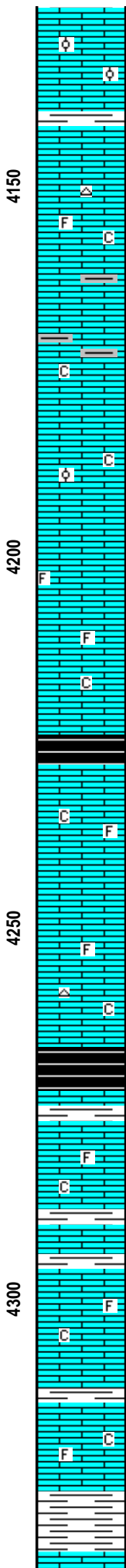
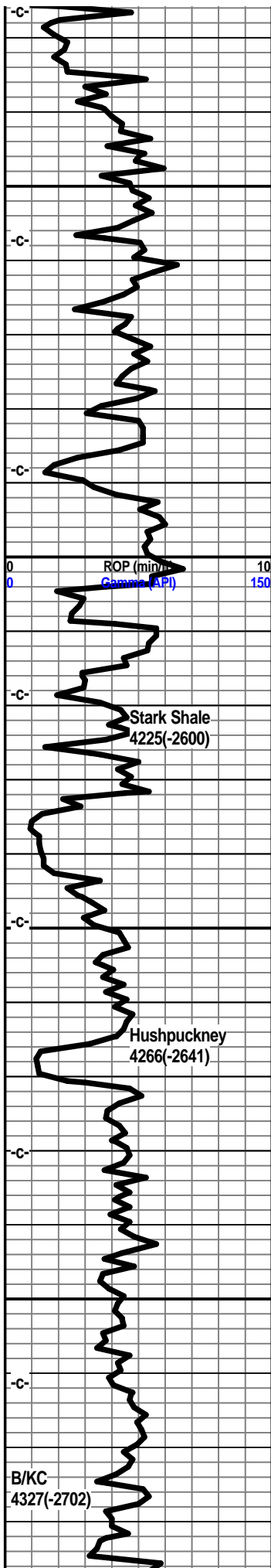
Vis 49  
Wt 9.2

Vis 47  
Wt 9.2

Survey @ 4063'  
2 degrees

Vis 52  
Wt 9.3





Limestone, tan, buff, xln, foss, xln, traces of foss and xln porosity, trace oolimidic porosity, no visible shows, no odor.

Shale, grey.

Limestone, tan, buff-white, xln, dense, trace white-tan chert, some foss, slightly chalky, no visible shows.

Limestone, grey-white, xln, dense, light grey shales, some chalky ls., no visible shows.

Limestone, tan, buff, xln, oolitic, traces of oolimidic porosity, slightly chalky, no visible shows.

Limestone, cream, tan, buff, xln, partly dense, some xln porosity, foss in part, subchalky, no visible shows, no odor.

Shale, grey-black, carb in part.

Limestone, cream, tan, xln, oolitic in part, trace oolimidic porosity, traces of xln porosity, subchalky, no odor, no visible shows.

Limestone, tan, buff-white, xln, partly dense, foss in part, trace xln porosity, traces of tan-white chert, subchalky in part, no visible shows.

Shale, grey-black, carb.

Limestone, tan, grey-white, xln, dense, foss in part, slightly chalky, no visible shows, no odor, shaley in part.

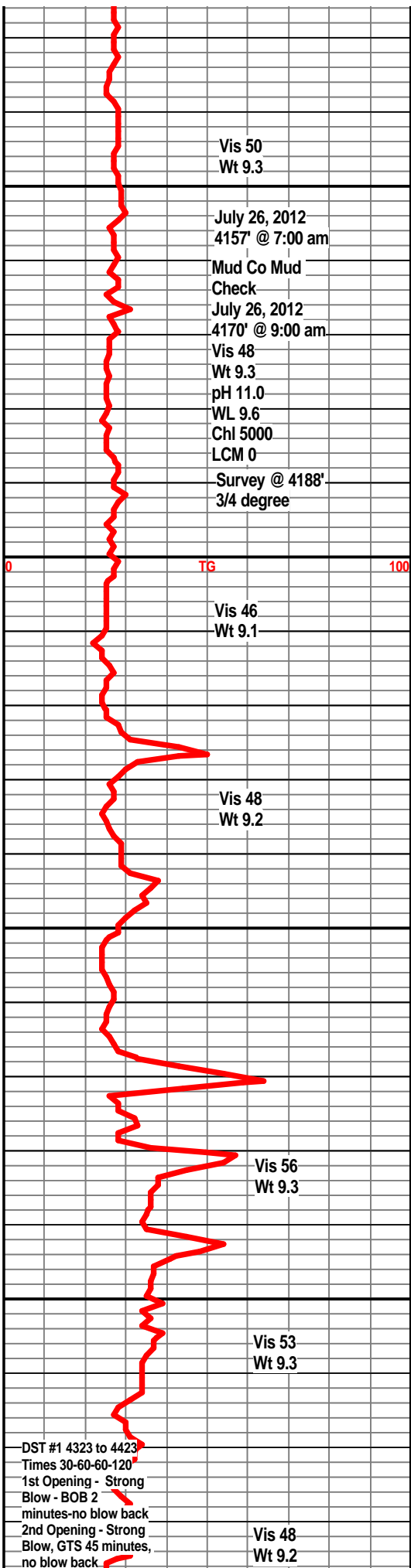
Shale, dark grey.

Limestone, tan, cream, xln, dense, foss, chalky, no odor, no shows.

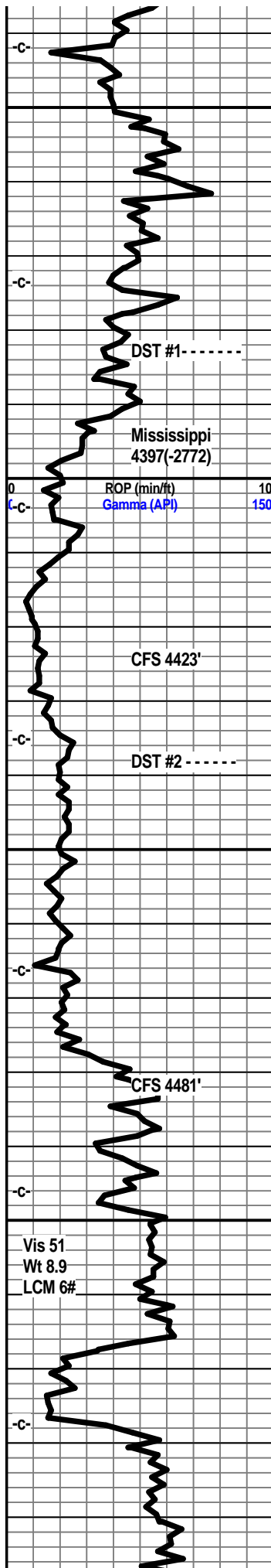
Shale, grey-green.

Limestone, cream, buff, grey-white, xln, partly dense, chalky in part, foss., no visible shows.

Shale, grey, pale green.







Limestone, tan, buff, grey-white, fxln, dense, foss, no shows.

Shale, grey, dark grey, green.

Limestone, tan, buff-white, xln, dense, foss, traces of tan chert, slightly chalky, no visible shows, no odor.

Shale, grey-green.

Limestone, buff, tan, xln, scattered xln porosity, trace foss, very faint odor, slight show oil, some gas, dark asphaltic staining, slight gas indication, dull fluor.

Shale, grey, green.

Chert, white, bone-white, tan, sharp, weathered in part, trace pp porosity, light brown to dark brown-black staining, faint odor, slight show free oil, trace gas bubbles, dull fluor.

Chert, white, off-white,, bone-white, tan, sharp, some weathered, trace of scattered ppt porosity, scattered spotty light brown staining, faint odor, slight show free oil, trace gas bubbles, dull scattered fluor.

Chert, off-white, bone-white, tan, ppt porosity, few small scattered vugs, faint odor, slight show few oil, some even light brown staining on weathered pieces, mostly scattered edge staining, dull fluor, good gas indication.

Chert, bone-white, sharp slightly weathered, few ppt porosity, scattered light brown staining, faint odor, dull fluor, more of a limey texture.

Chert, tan, bone-white, sharp, fresh, slightly weathered scattered staining, faint odor, slight show oil& gas, dull flor.

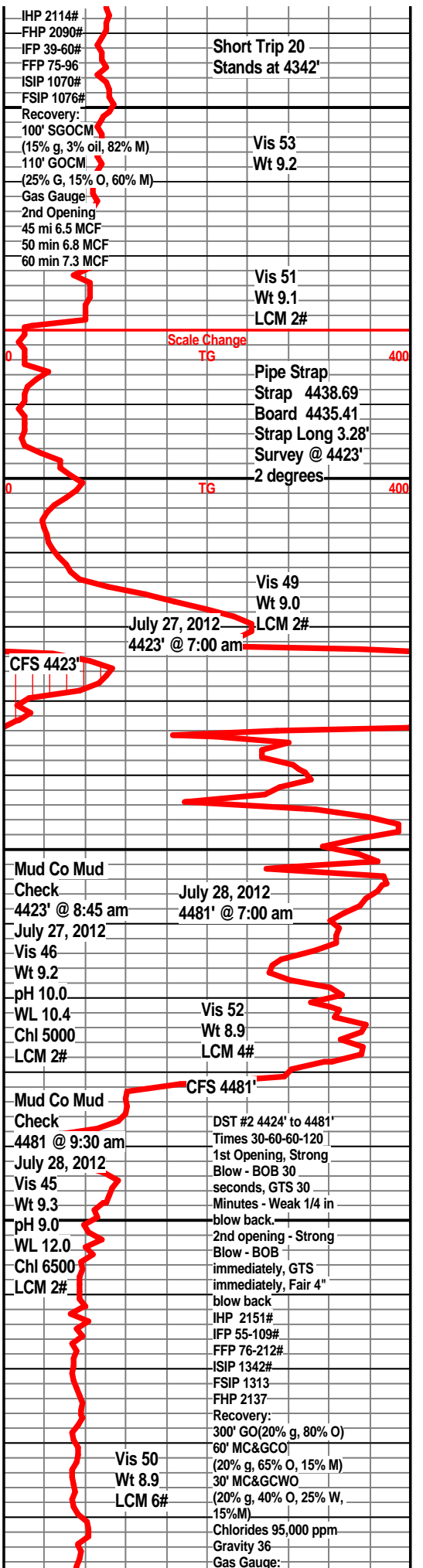
Limestone, tan, cream-white, buff, xln, dense, abundant cherts, some weathered with light staining, grey-green shales.

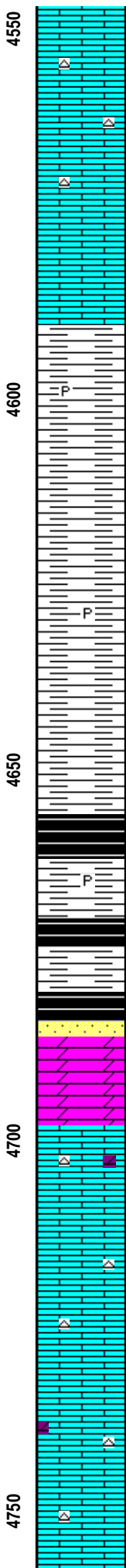
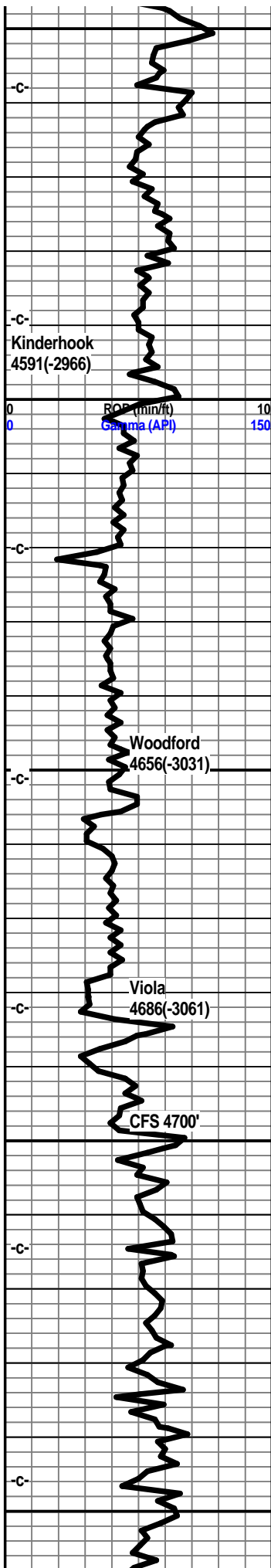
Limestone, tan, buff, xln, dense, slightly chalky, cherty, mostly fresh cherts.

Limestone, tan, reddish tan, xln, dense, traces of fresh cherts.

Chert, white, bone-white, sharp, fresh, no visible shows.

Limestone, tan, buff, ceam, xln, dense, fresh chert, slightly chalky. dull mineral fluor.





Limestone, tan, buff, xln, dense, slightly chalky, fresh cherts.

Limestone, buff, cream-white, xln, dense, scattered fresh cherts, no shows.

Limestone, buff-white, xln, dense, slightly chalky, fresh cherts, some grey-green shales.

Shale, dark green to a pale green, traces of pyrite, abundant ls frags.

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

Shale, Light grey, grey, silty, splintery.

Shale, light grey, grey.

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

Shale, grey-black, brown-black, trace pyrite.

Shale, grey-black, brown-black, traces of gas bubbles. very few clusters of sand, dirty, well cemented, very slight show of light oil, no odor, very spotty floor.

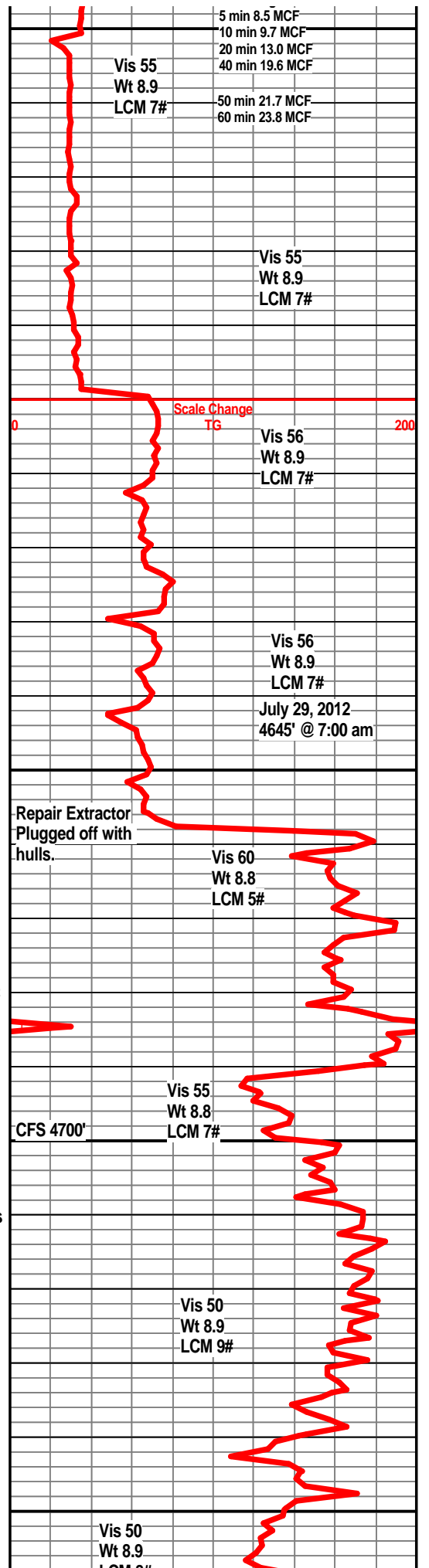
Dolomite, white, off-white, crystalline, traces of xln porosity, no vis shows, no odor.

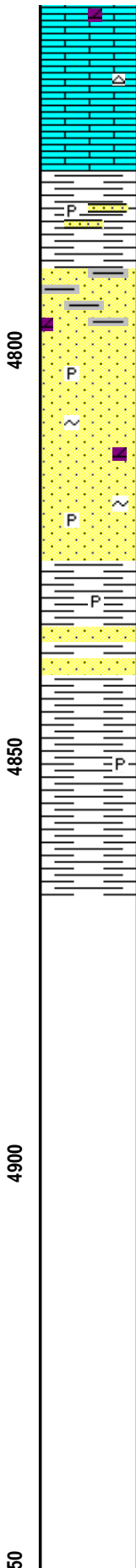
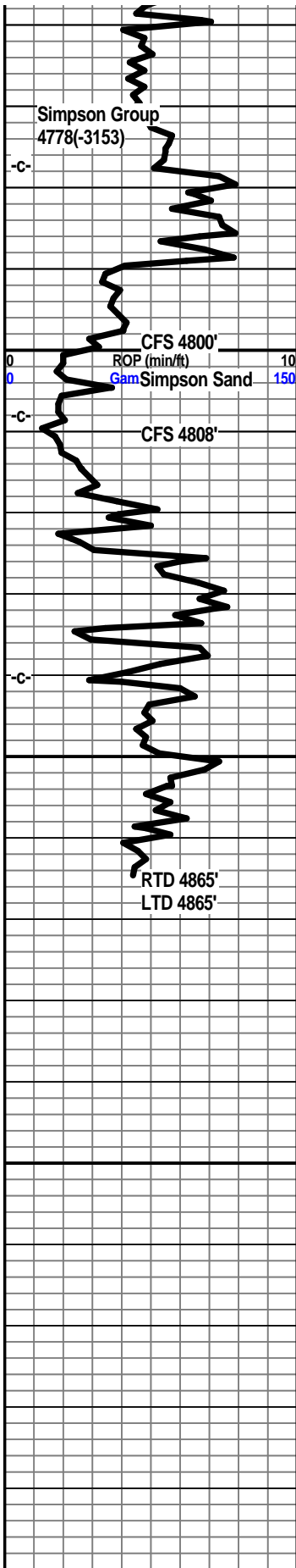
60- Dolomite, white, xln, xln porosity, very faint odor, very slight show in few rocks, mostly all barron, some dark asphaltic stain on a couple, spotty floor, some grey-white limestone towards base., chalky in part.

Limestone, grey-white, xln, partly dense, traces of xln porosity, tan white chert.

Limestone, buff, tan, xxln, partly dense, sharp tan chert.

Limestone, tan, buff, xln, granular texture, tan sharp cherts, slightly dolo





Limestone, tan, xln, dense, sharp tan chert, slightly dolo.

Shale, pale green, teal green, firm, trace pyrite, some sand clusters.

Sandstone, clear to frosted white, grey-white, SA to SR, friable in part, some dolo in part, trace glauc, trace faint show oil, no odor, no kick, dull fluor.

Sandstone a/a, cleaner sand, very faint show light oil, no odor, no fluor. most all clusters no show.

Sandstone, clear to white, fair sorting, SA to SR, friable in part, some well cemented, glauc, traces of pyrite, no odor, no visible shows, no fluor., few shale inclusions, slightly dolo in part.

Shale, teal green, pale green, few sand stringers.

Shale, teal green, firm, traces of pyrite.

Shale, teal green, pale green, traces of pyrite, firm.

