

Timothy G. Pierce

Petroleum Geologist

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY R & B Oil and Gas, Inc.

LEASE Albright #3

FIELD Spivey-Grabs-Basil

LOCATION NW SW SE (990' FSL & 2310' FEL)

SEC 17 TWP 31S RGE 8W

COUNTY Harper STATE Kansas

CONTRACTOR Hardt Drilling

SPUD 6-14-2012 COMP 6-21-2012

RTD 4915 LTD 4916

MUD UP 2806 TYPE MUD Chemical

SAMPLES SAVED FROM 2900 TO RTD

DRILLING TIME KEPT FROM 2900 TO RTD

SAMPLES EXAMINED FROM 2900 TO RTD

GEOLOGICAL SUPERVISION FROM 2659 to RTD

GEOLOGIST ON WELL Tim Pierce

ELEVATIONS

KB 1620'

DF _____

GL 1610'

Measurements Are All
From Kelly Bushing

CASING

CONDUCTOR _____

SURFACE 8-5/8" at 255'

PRODUCTION 5-1/2" at 4910'

ELECTRICAL

SURVEYS

DIL / CN-CD

Log-Tech

FORMATION TOPS

ELECTRIC LOG

SAMPLE

Onaga Sh. 2362 (-742) N/A

Topoka 2965 (-1345) 2963 (-1343)

Heebner Sh. 3410 (-1790) 3406 (-1786)

Lansing 3632 (-2012) 3628 (-2008)

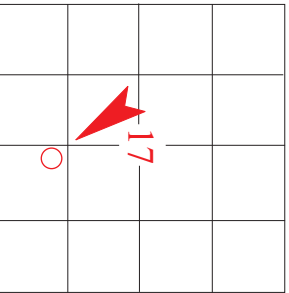
Stark Sh. 4063 (-2443) 4057 (-2437)

Cherokee Sh. 4302 (-2682) 4298 (-2678)

Mississippi 4390 (-2770) 4396 (-2776)

Viola 4740 (-3120) 4740 (-3120)

Simpson 4802 (-3182) 4798 (-3178)



API # 15-077-21,850

REMARKS Samples and electric logs indicate a probable commercial zone in the Mississippi, therefore 5-1/2" casing was run to further treat and test the well.

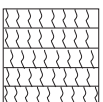
Slight sample shows were observed in the Chattanooga Sh. at 4706-4740, and in the KC 'A' zone from 3956-3958.

A gas kick was registered at approx. 2400' and electric logs indicate a possible zone at 2394-2400.

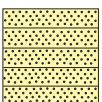
There were no other zones of interest indicated by samples or electric logs.

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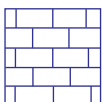
LEGEND



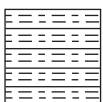
Anhydrite



Sandstone



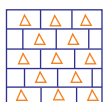
Limestone



Shale



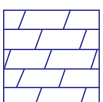
Carb Sh



Cherty LS



Chert



Dolomite

DEPT

LITHOLG

GAS SCALE

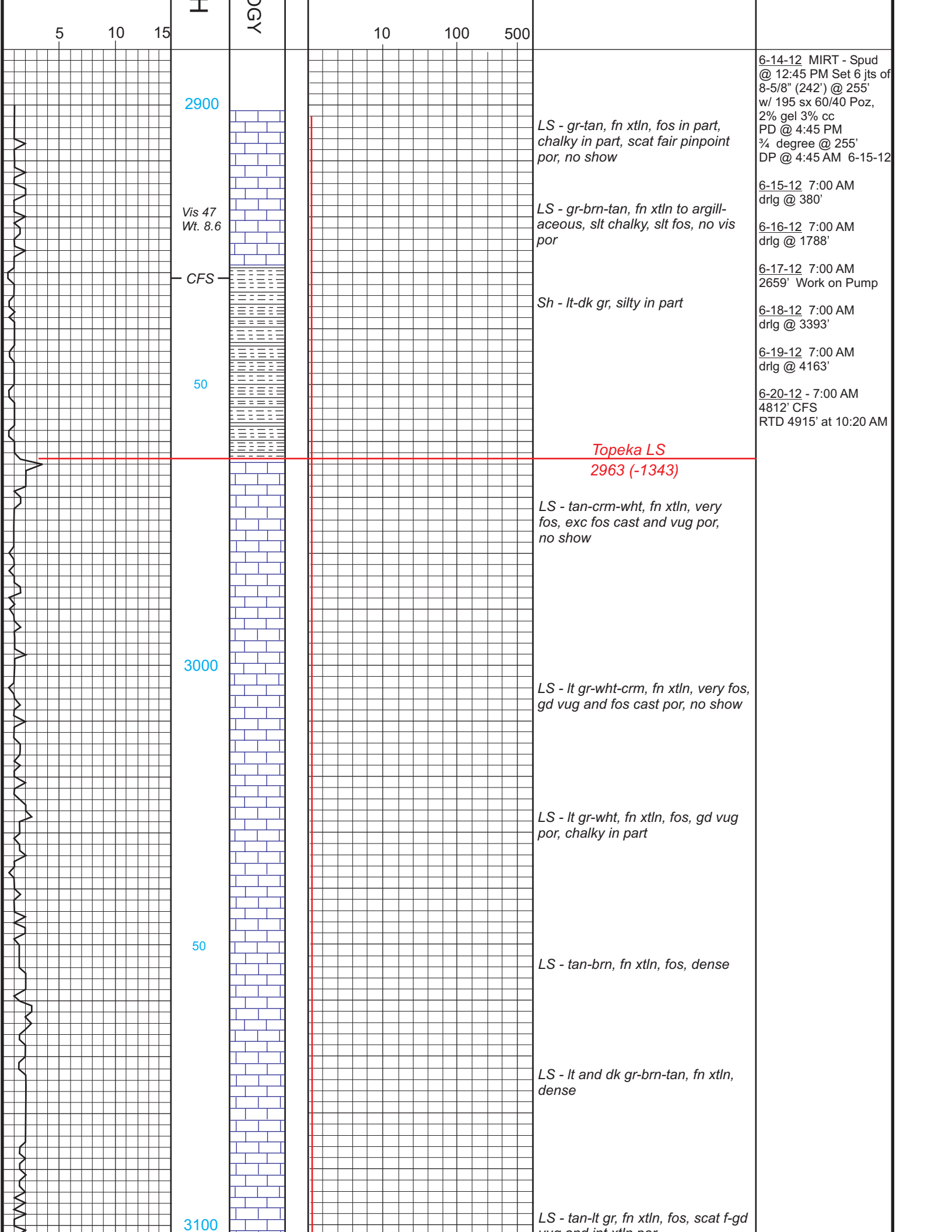
SAMPLE DESCRIPTION

REMARKS

DRILLING TIME IN
MINUTES PER FOOT

Rate of Penetration Decreases





5 10 15

H

LITHOLOGY

10 100 500

2900

Vis 47
Wt. 8.6

CFS

50

3000

50

3100

LS - gr-tan, fn xtl, fos in part, chalky in part, scat fair pinpoint por, no show

LS - gr-brn-tan, fn xtl to argillaceous, slt chalky, slt fos, no vis por

Sh - lt-dk gr, silty in part

**Topeka LS
2963 (-1343)**

LS - tan-crm-wht, fn xtl, very fos, exc fos cast and vug por, no show

LS - lt gr-wht-crm, fn xtl, very fos, gd vug and fos cast por, no show

LS - lt gr-wht, fn xtl, fos, gd vug por, chalky in part

LS - tan-brn, fn xtl, fos, dense

LS - lt and dk gr-brn-tan, fn xtl, dense

LS - tan-lt gr, fn xtl, fos, scat f-gd vug and int xtl por

6-14-12 MIRT - Spud @ 12:45 PM Set 6 jts of 8-5/8" (242') @ 255' w/ 195 sx 60/40 Poz, 2% gel 3% cc PD @ 4:45 PM 3/4 degree @ 255' DP @ 4:45 AM 6-15-12

6-15-12 7:00 AM drlg @ 380'

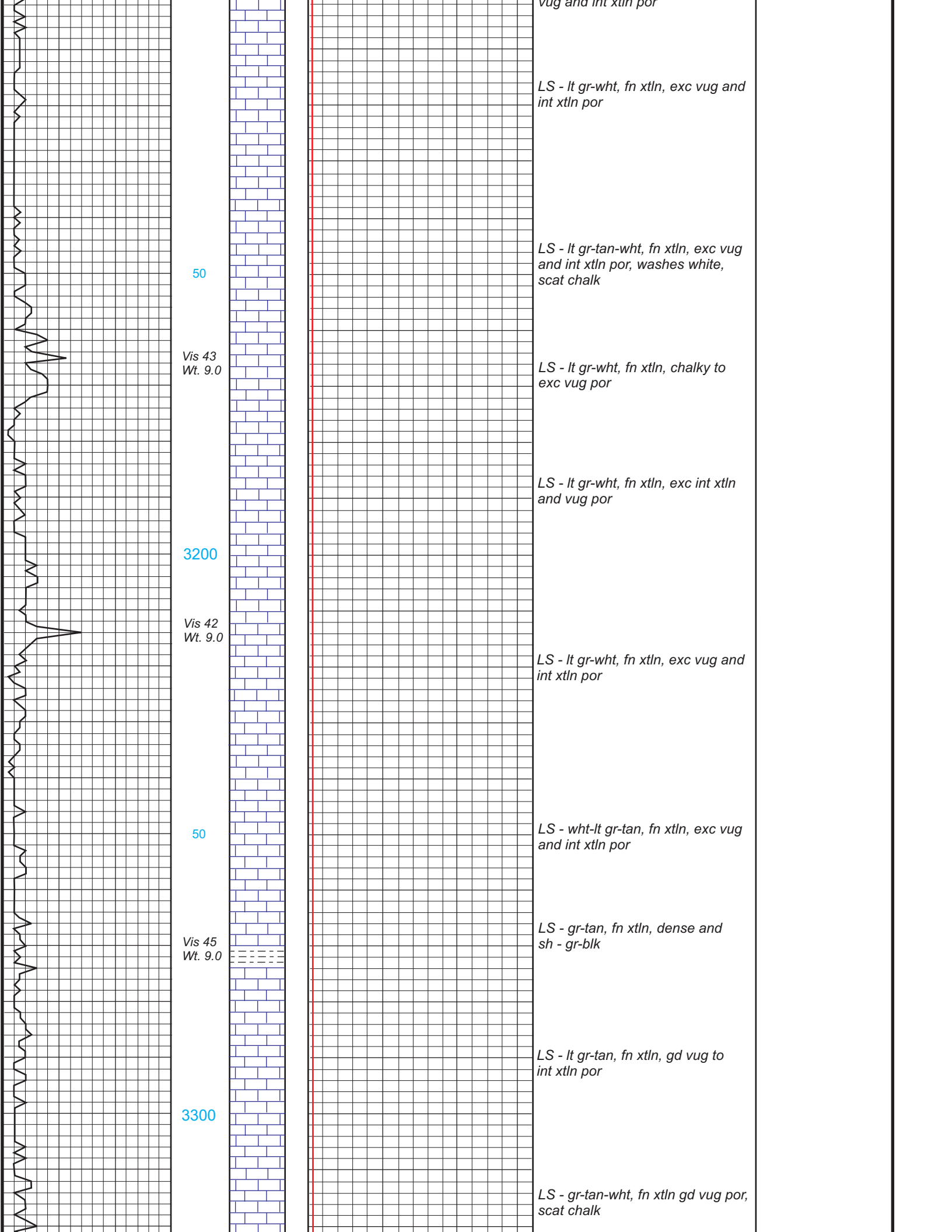
6-16-12 7:00 AM drlg @ 1788'

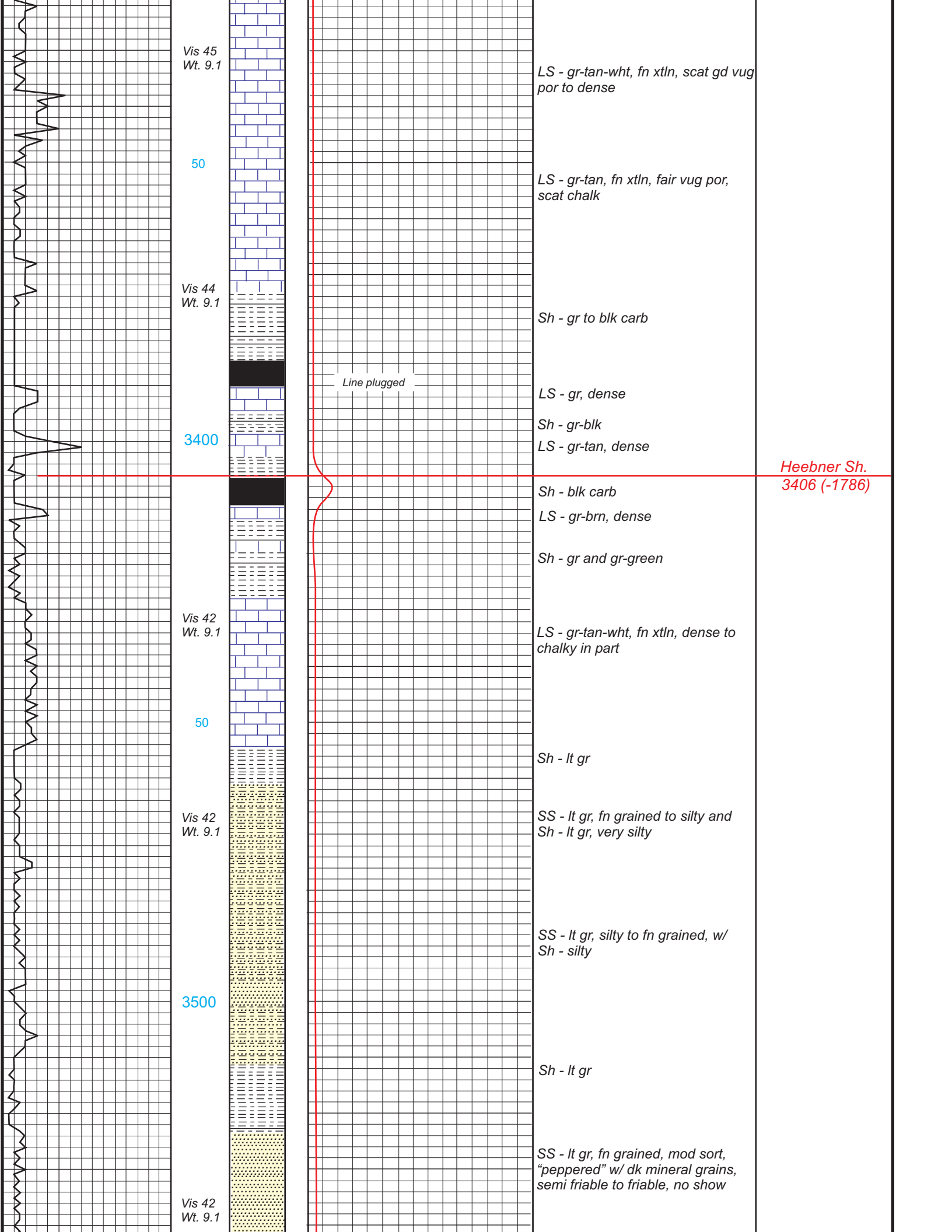
6-17-12 7:00 AM 2659' Work on Pump

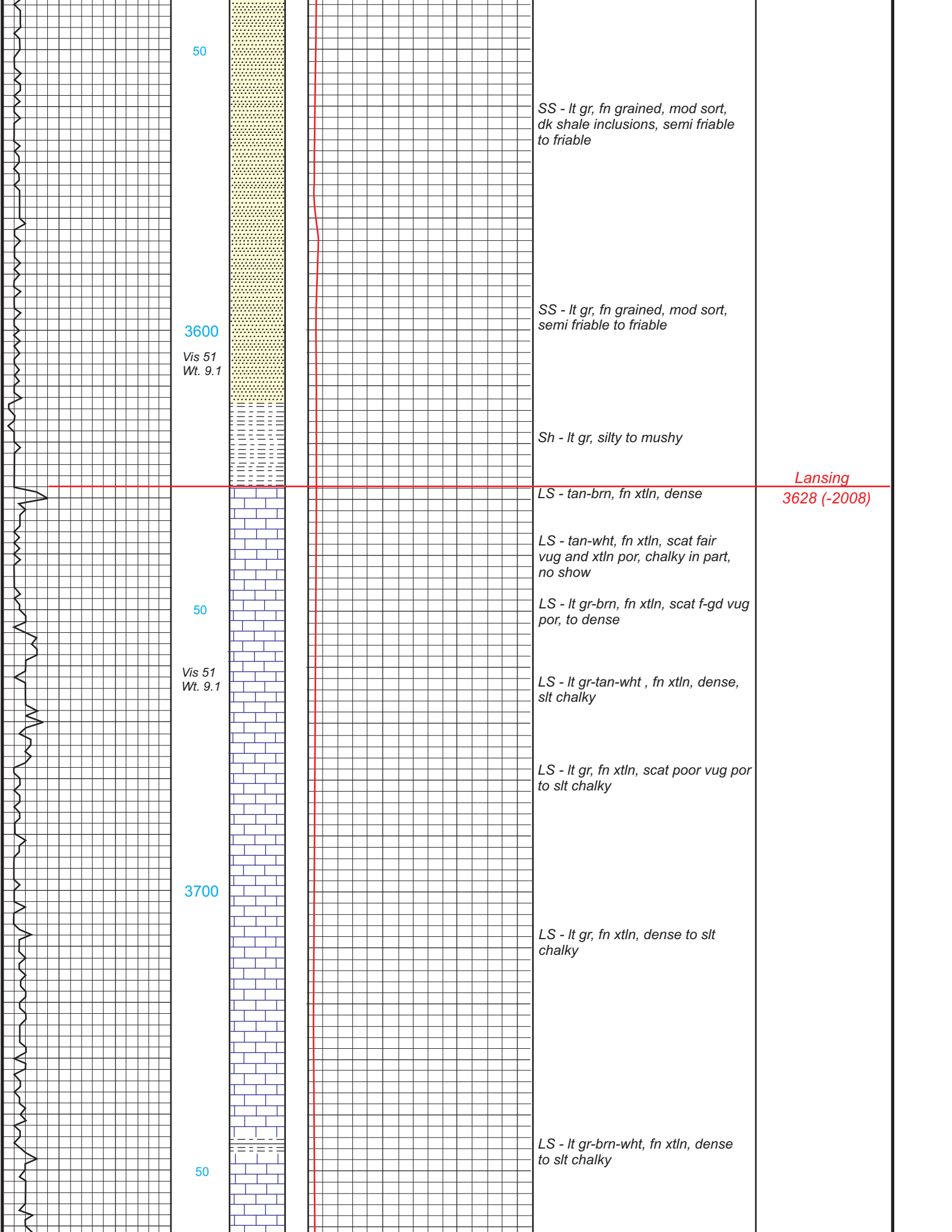
6-18-12 7:00 AM drlg @ 3393'

6-19-12 7:00 AM drlg @ 4163'

6-20-12 - 7:00 AM 4812' CFS RTD 4915' at 10:20 AM







50

SS - lt gr, fn grained, mod sort, dk shale inclusions, semi friable to friable

3600

Vis 51
Wt. 9.1

SS - lt gr, fn grained, mod sort, semi friable to friable

Sh - lt gr, silty to mushy

Lansing
3628 (-2008)

LS - tan-brn, fn xtln, dense

LS - tan-wht, fn xtln, scat fair vug and xtln por, chalky in part, no show

50

LS - lt gr-brn, fn xtln, scat f-gd vug por, to dense

Vis 51
Wt. 9.1

LS - lt gr-tan-wht, fn xtln, dense, slt chalky

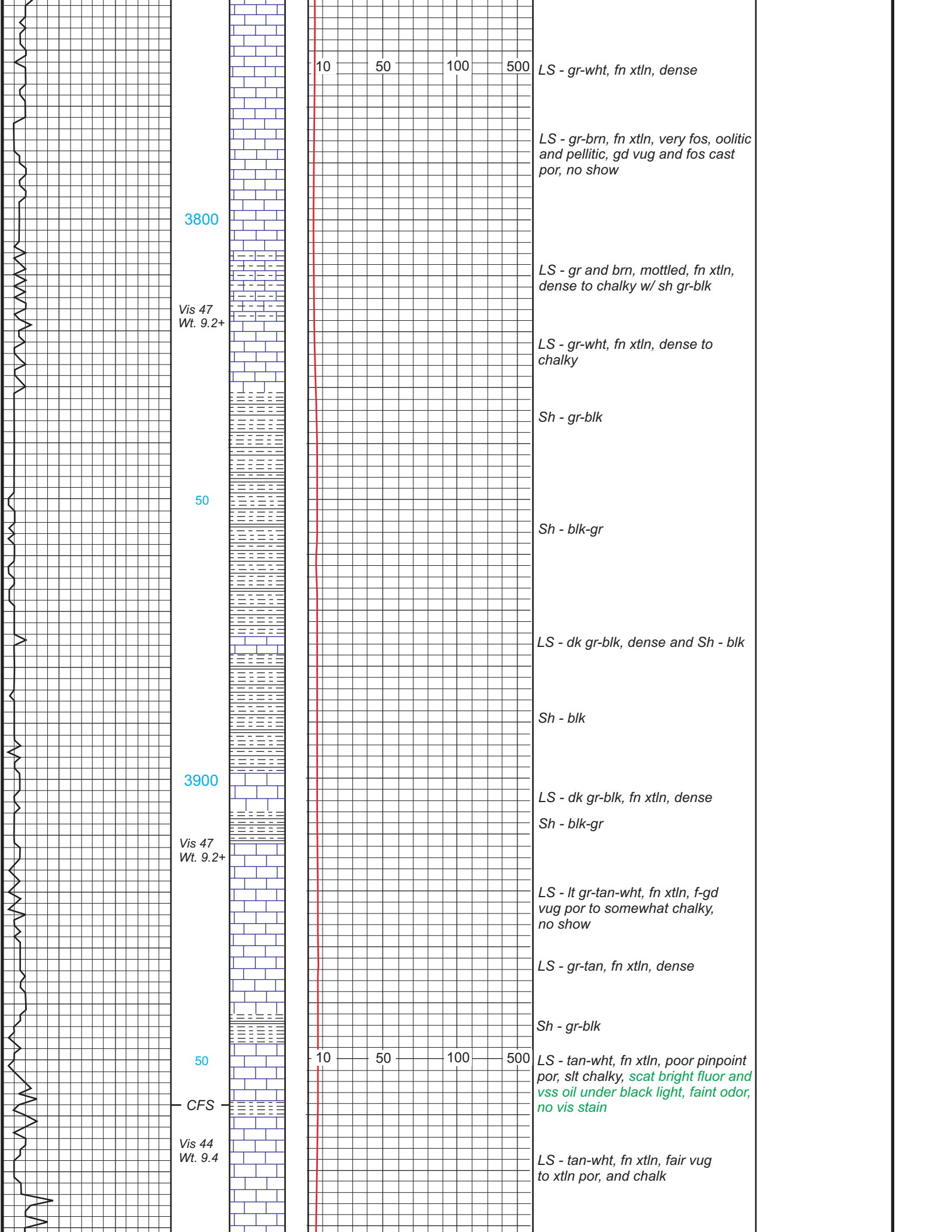
LS - lt gr, fn xtln, scat poor vug por to slt chalky

3700

LS - lt gr, fn xtln, dense to slt chalky

50

LS - lt gr-brn-wht, fn xtln, dense to slt chalky



10 50 100 500

LS - gr-wht, fn xtln, dense

LS - gr-brn, fn xtln, very fos, oolitic and pellitic, gd vug and fos cast por, no show

3800

LS - gr and brn, mottled, fn xtln, dense to chalky w/ sh gr-blk

Vis 47
Wt. 9.2+

LS - gr-wht, fn xtln, dense to chalky

Sh - gr-blk

50

Sh - blk-gr

LS - dk gr-blk, dense and Sh - blk

Sh - blk

3900

LS - dk gr-blk, fn xtln, dense

Vis 47
Wt. 9.2+

Sh - blk-gr

LS - lt gr-tan-wht, fn xtln, f-gd vug por to somewhat chalky, no show

LS - gr-tan, fn xtln, dense

Sh - gr-blk

50

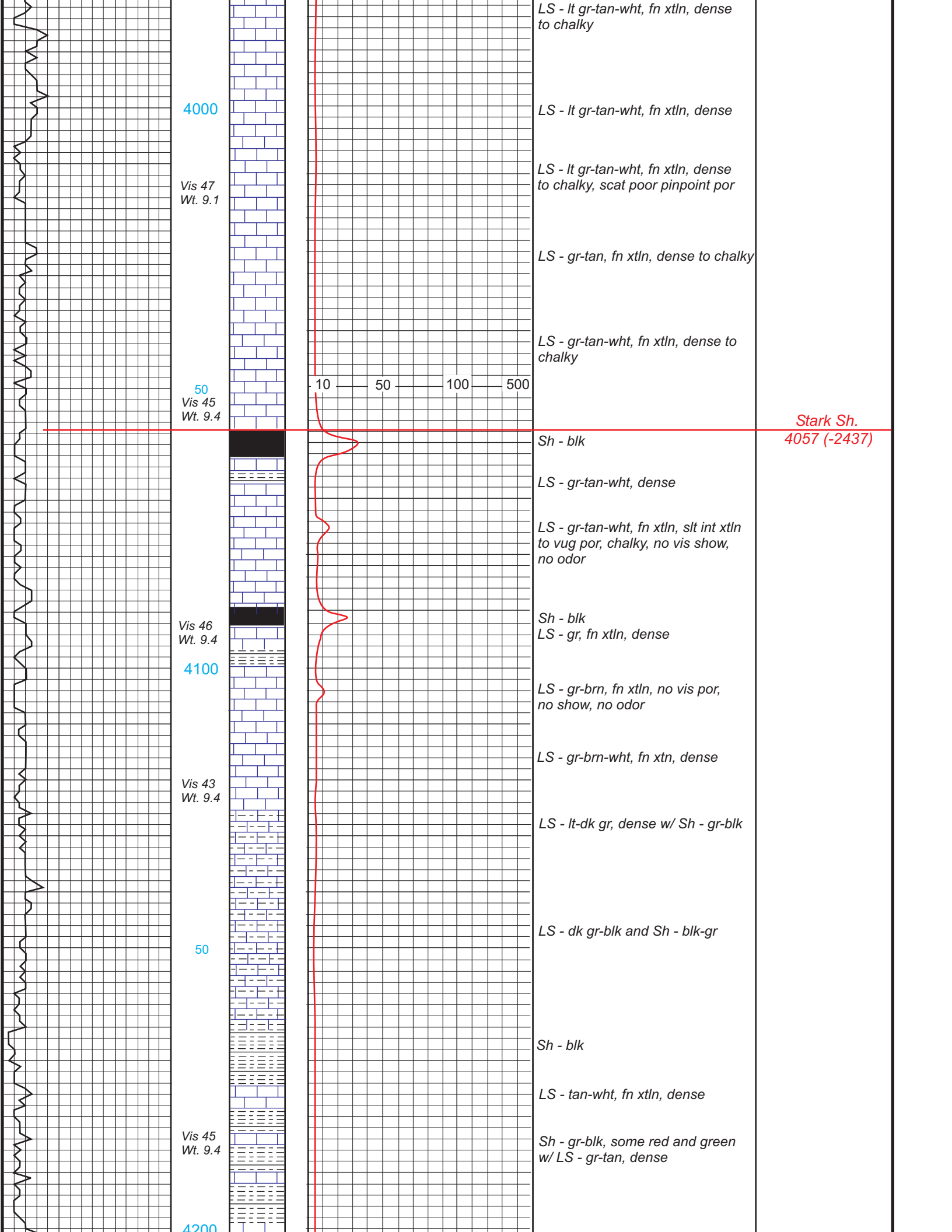
10 50 100 500

LS - tan-wht, fn xtln, poor pinpoint por, slt chalky, scat bright fluor and vss oil under black light, faint odor, no vis stain

CFS

Vis 44
Wt. 9.4

LS - tan-wht, fn xtln, fair vug to xtln por, and chalk



4000

Vis 47
Wt. 9.1

50
Vis 45
Wt. 9.4

Vis 46
Wt. 9.4

4100

Vis 43
Wt. 9.4

50

Vis 45
Wt. 9.4

4200

LS - lt gr-tan-wht, fn xtl, dense to chalky

LS - lt gr-tan-wht, fn xtl, dense

LS - lt gr-tan-wht, fn xtl, dense to chalky, scat poor pinpoint por

LS - gr-tan, fn xtl, dense to chalky

LS - gr-tan-wht, fn xtl, dense to chalky

10 50 100 500

Stark Sh.
4057 (-2437)

Sh - blk

LS - gr-tan-wht, dense

LS - gr-tan-wht, fn xtl, slt int xtl to vug por, chalky, no vis show, no odor

Sh - blk
LS - gr, fn xtl, dense

LS - gr-brn, fn xtl, no vis por, no show, no odor

LS - gr-brn-wht, fn xtl, dense

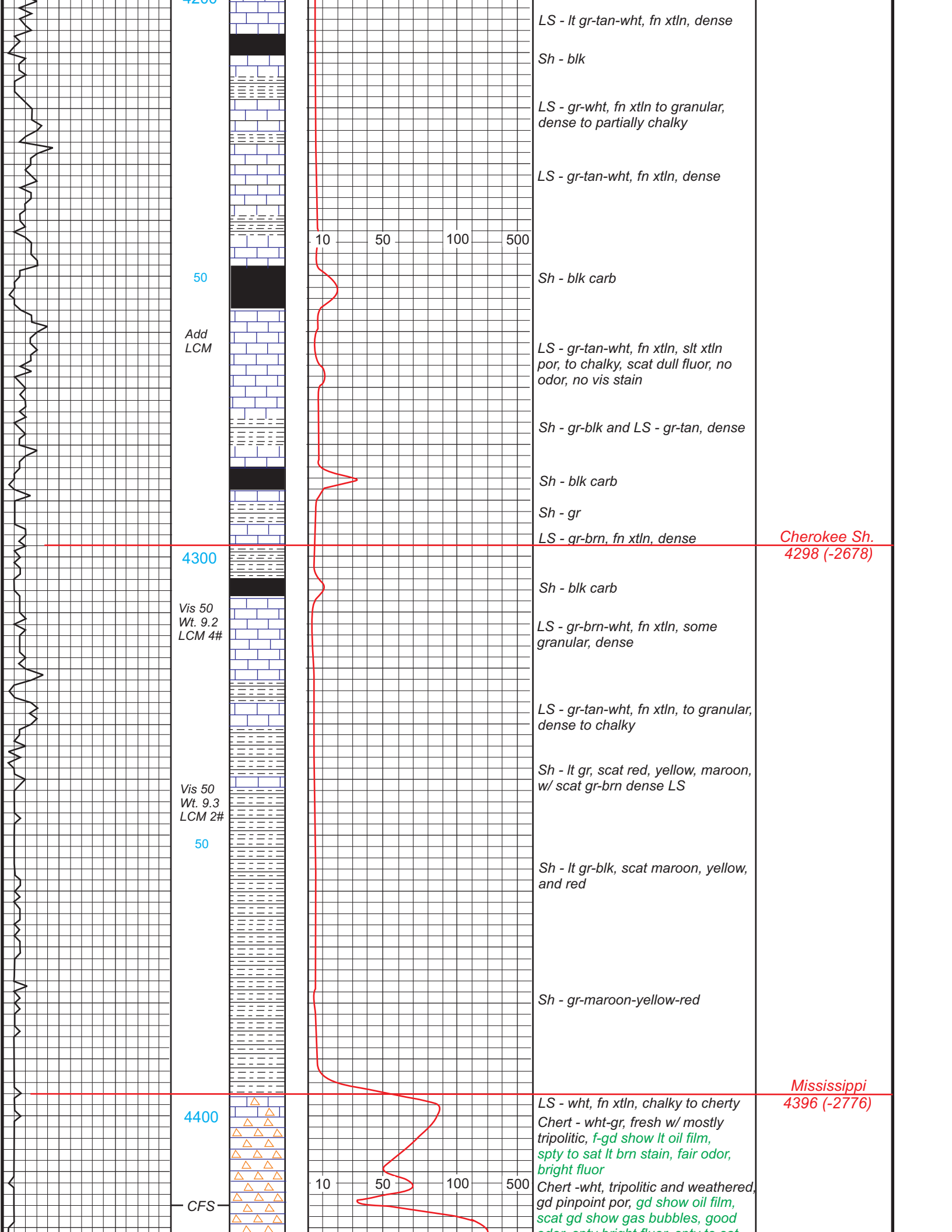
LS - lt-dk gr, dense w/ Sh - gr-blk

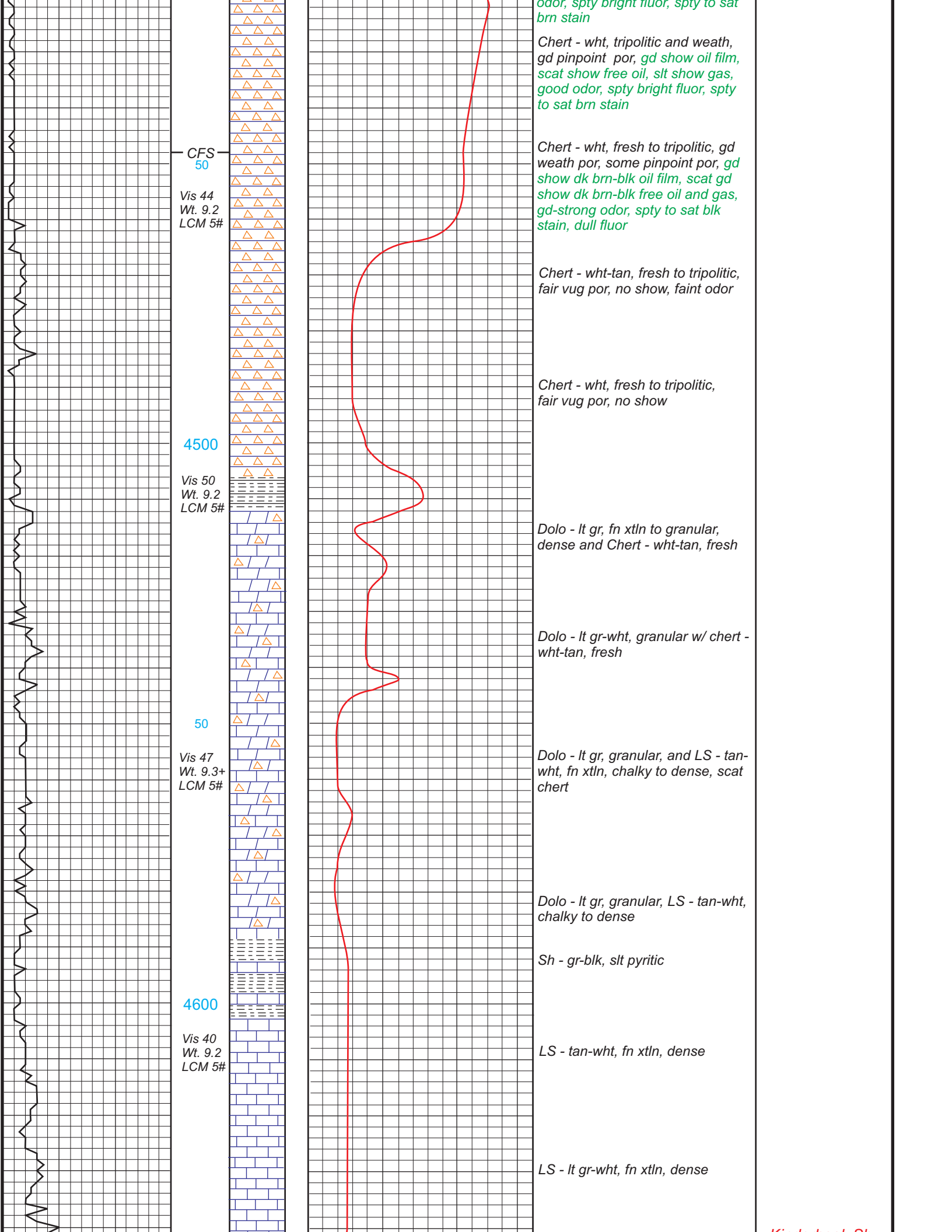
LS - dk gr-blk and Sh - blk-gr

Sh - blk

LS - tan-wht, fn xtl, dense

Sh - gr-blk, some red and green w/ LS - gr-tan, dense





odor, spty bright fluor, spty to sat brn stain

Chert - wht, tripolitic and weath, gd pinpoint por, gd show oil film, scat show free oil, slt show gas, good odor, spty bright fluor, spty to sat brn stain

CFS 50

Chert - wht, fresh to tripolitic, gd weath por, some pinpoint por, gd show dk brn-blk oil film, scat gd show dk brn-blk free oil and gas, gd-strong odor, spty to sat blk stain, dull fluor

Vis 44
Wt. 9.2
LCM 5#

Chert - wht-tan, fresh to tripolitic, fair vug por, no show, faint odor

Chert - wht, fresh to tripolitic, fair vug por, no show

4500

Dolo - lt gr, fn xtl to granular, dense and Chert - wht-tan, fresh

Vis 50
Wt. 9.2
LCM 5#

Dolo - lt gr-wht, granular w/ chert - wht-tan, fresh

50

Dolo - lt gr, granular, and LS - tan-wht, fn xtl, chalky to dense, scat chert

Vis 47
Wt. 9.3+
LCM 5#

Dolo - lt gr, granular, LS - tan-wht, chalky to dense

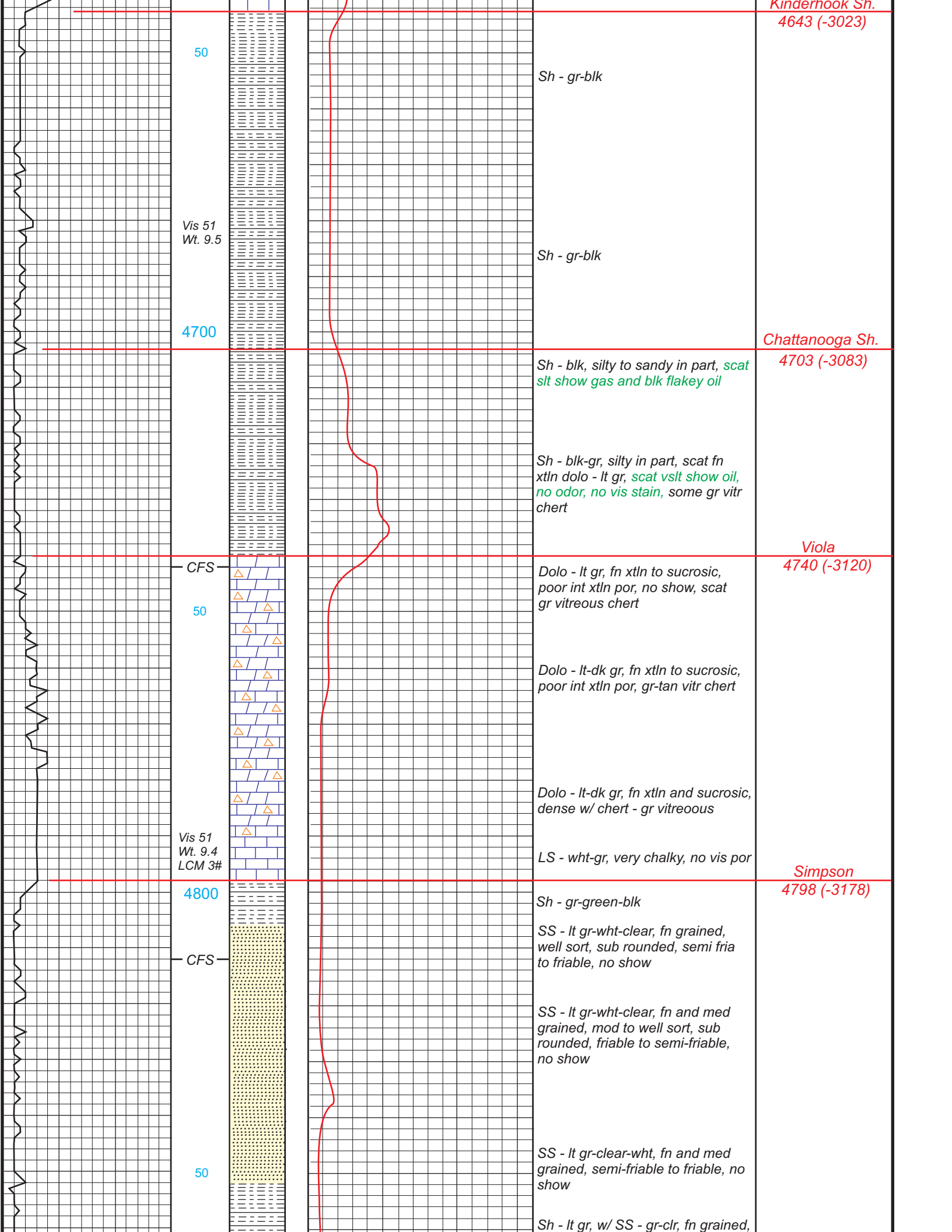
Sh - gr-blk, slt pyritic

4600

LS - tan-wht, fn xtl, dense

Vis 40
Wt. 9.2
LCM 5#

LS - lt gr-wht, fn xtl, dense



Kinderhook Sh.
4643 (-3023)

50
Vis 51
Wt. 9.5

Sh - gr-blk
Sh - gr-blk

4700

Chattanooga Sh.
4703 (-3083)

Sh - blk, silty to sandy in part, *scat slt show gas and blk flakey oil*
Sh - blk-gr, silty in part, *scat fn xtln dolo - lt gr, scat vslt show oil, no odor, no vis stain, some gr vitr chert*

CFS

Viola
4740 (-3120)

50
Vis 51
Wt. 9.4
LCM 3#

Dolo - lt gr, fn xtln to sucrosic, poor int xtln por, no show, scat gr vitreous chert
Dolo - lt-dk gr, fn xtln to sucrosic, poor int xtln por, gr-tan vitr chert
Dolo - lt-dk gr, fn xtln and sucrosic, dense w/ chert - gr vitreous
LS - wht-gr, very chalky, no vis por

4800

Simpson
4798 (-3178)

CFS

Sh - gr-green-blk
SS - lt gr-wht-clear, fn grained, well sort, sub rounded, semi fria to friable, no show
SS - lt gr-wht-clear, fn and med grained, mod to well sort, sub rounded, friable to semi-friable, no show
SS - lt gr-clear-wht, fn and med grained, semi-friable to friable, no show

50

Sh - lt gr, w/ SS - gr-clr, fn grained,

Vis 45
Wt. 9.4
LCM 2#

4900

RTD 4915'

mod sort, glauconitic, no show

SS - gr-clear, fn grained, mod
sort, semi-friable, glauconitic, no
show

Sh - lt gr, w/ scat SS - gr-clear,
semi-friable to friable, glauconitic

Sh - lt gr

