

Timothy G. Pierce

Petroleum Geologist

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY N-10 Exploration, LLC

LEASE Medicine River Ranch 'D' #2

FIELD Landis

LOCATION 2340' FSL & 1650' FWL

SEC 10 TWSP 34S RGE 11W

COUNTY Barber STATE Kansas

CONTRACTOR Hardt Drilling Rig #1

SPUD 6-22-2011 COMP 6-28-2011

RTD 5022 LTD 5019

MUD UP 3333 TYPE MUD Chemical

SAMPLES SAVED FROM 4000 TO RTD

DRILLING TIME KEPT FROM 4000 TO RTD

SAMPLES EXAMINED FROM 4000 TO RTD

GEOLOGICAL SUPERVISION FROM 4150 to RTD

GEOLOGIST ON WELL Tim Pierce

ELEVATIONS

KB 1350'

DF _____

GL 1340'

Measurements Are All
From Kelly Bushing

CASING

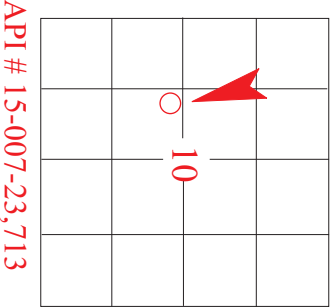
CONDUCTOR _____

SURFACE 8-5/8" at 278'

PRODUCTION 5-1/2" at 5018'

**ELECTRICAL
SURVEYS**
DIL / CN-CD
Log-Tech

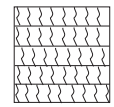
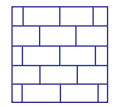
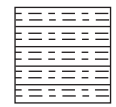

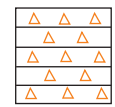
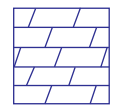
FORMATION TOPS	ELECTRIC LOG	SAMPLE
Heebner Sh.	3592 (-2242)	NA
Stark Sh.	4277 (-2927)	4281 (-2931)
Cherokee Sh.	4495 (-3145)	4499 (-3149)
Mississippi	4540 (-3190)	4538 (-3188)
Kinderhook Sh.	4737 (-3387)	4740 (-3390)
Chattanooga Sh.	4822 (-3472)	4825 (-3475)
Viola	4866 (-3516)	4884 (-3534)
Simpson Sh.	4960 (-3610)	4963 (-3613)



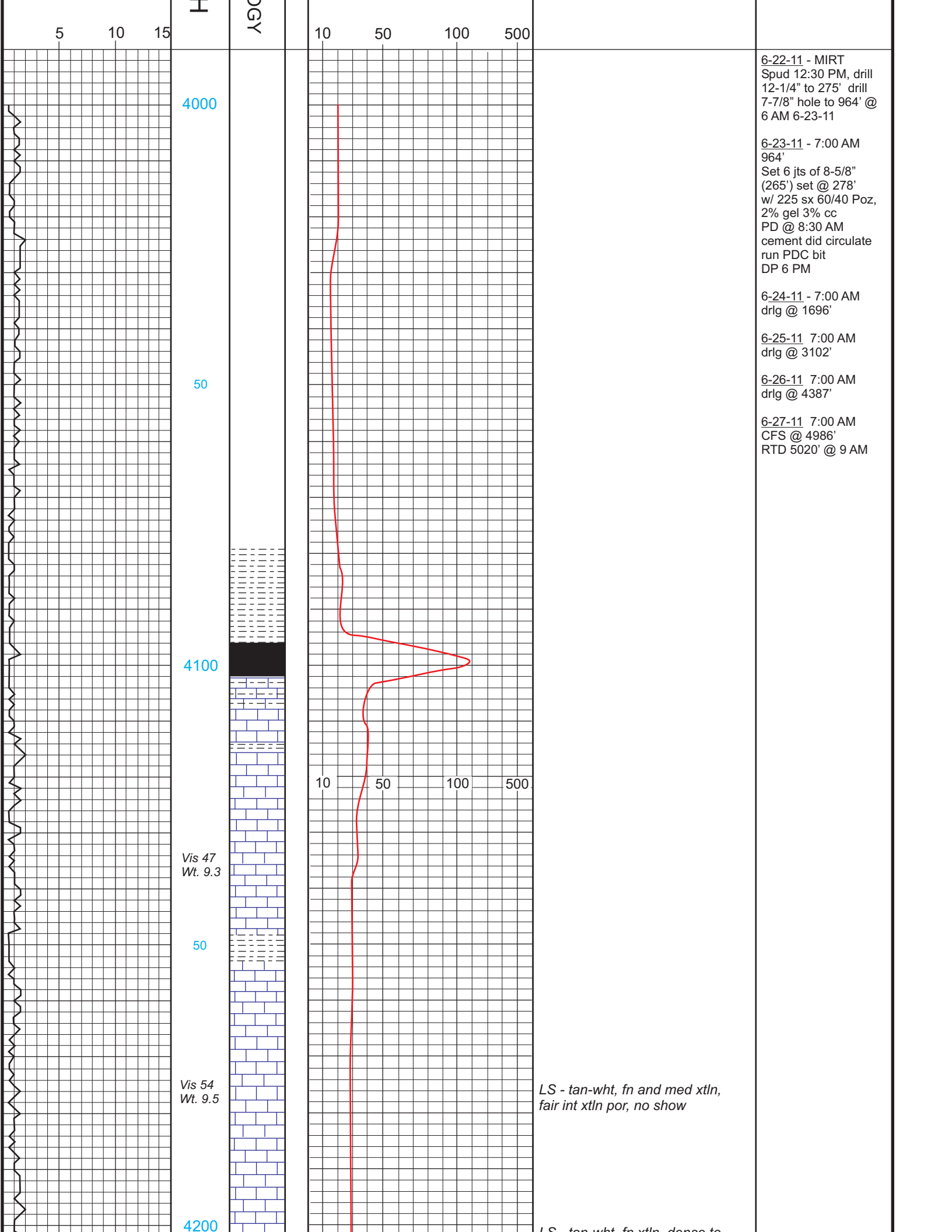
REMARKS Samples and electric logs indicate probable production from the Mississippi
Other possible productive zones include the Chattanooga shale from 4822-4850, the Cherokee sand from 4523-4529, and the
Pawnee LS from 4450-4454.
The gas detector showed slight increases through the Tarkio sand and Indian Cave sand sections, these zones should be
evaluated if more wells are drilled in this area.

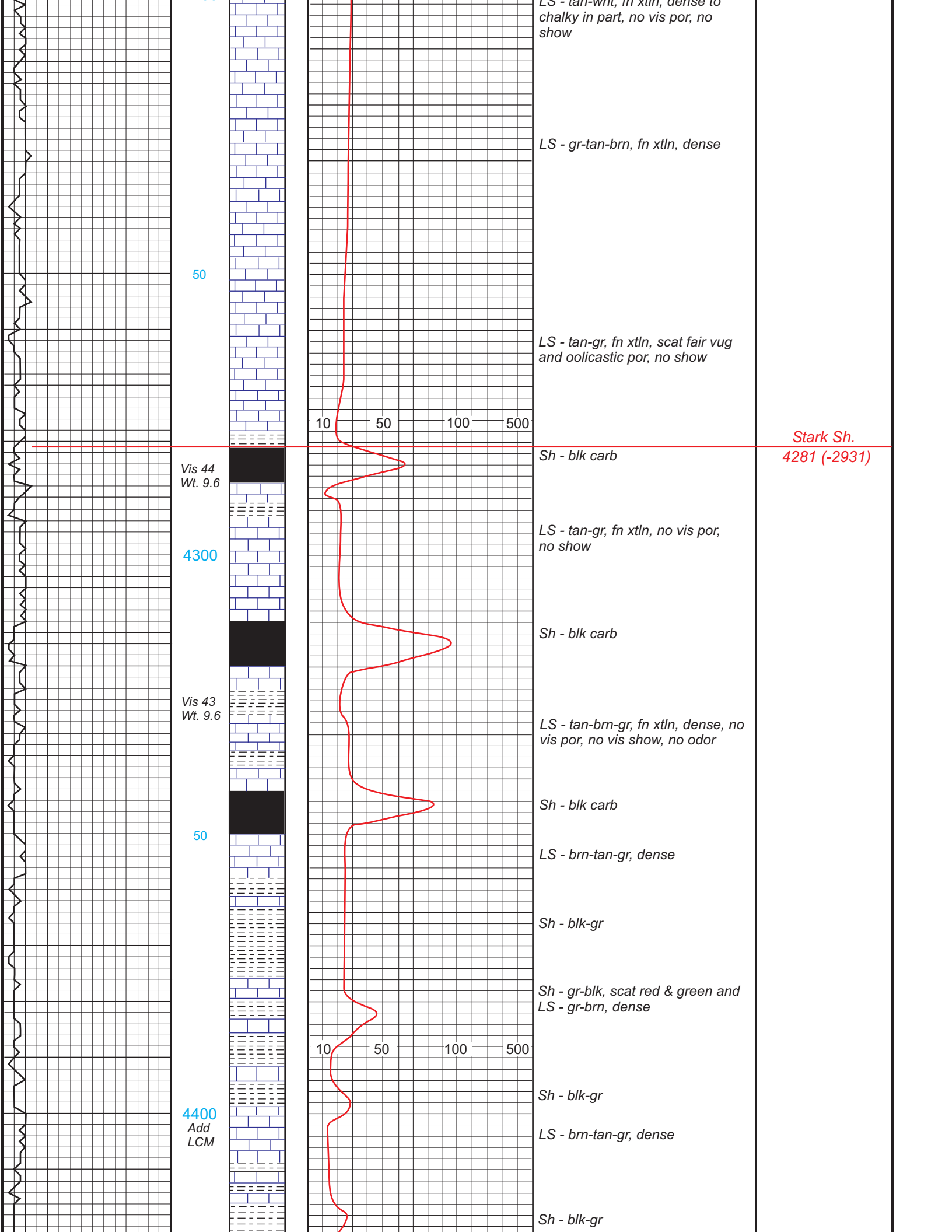
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LEGEND

							
Anhydrite	Sandstone	Limestone	Shale	Carb Sh	Cherty LS	Chert	Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases →	DEPTH	LITHOLOG	GAS SCALE	SAMPLE DESCRIPTION	REMARKS





LS - tan-wht, fn xtl, dense to chalky in part, no vis por, no show

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

50

LS - tan-gr, fn xtl, scat fair vug and oolitic por, no show

10 50 100 500

Stark Sh.
4281 (-2931)

Vis 44
Wt. 9.6

Sh - blk carb

4300

LS - tan-gr, fn xtl, no vis por, no show

Sh - blk carb

Vis 43
Wt. 9.6

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

50

Sh - blk carb

LS - brn-tan-gr, dense

Sh - blk-gr

Sh - gr-blk, scat red & green and LS - gr-brn, dense

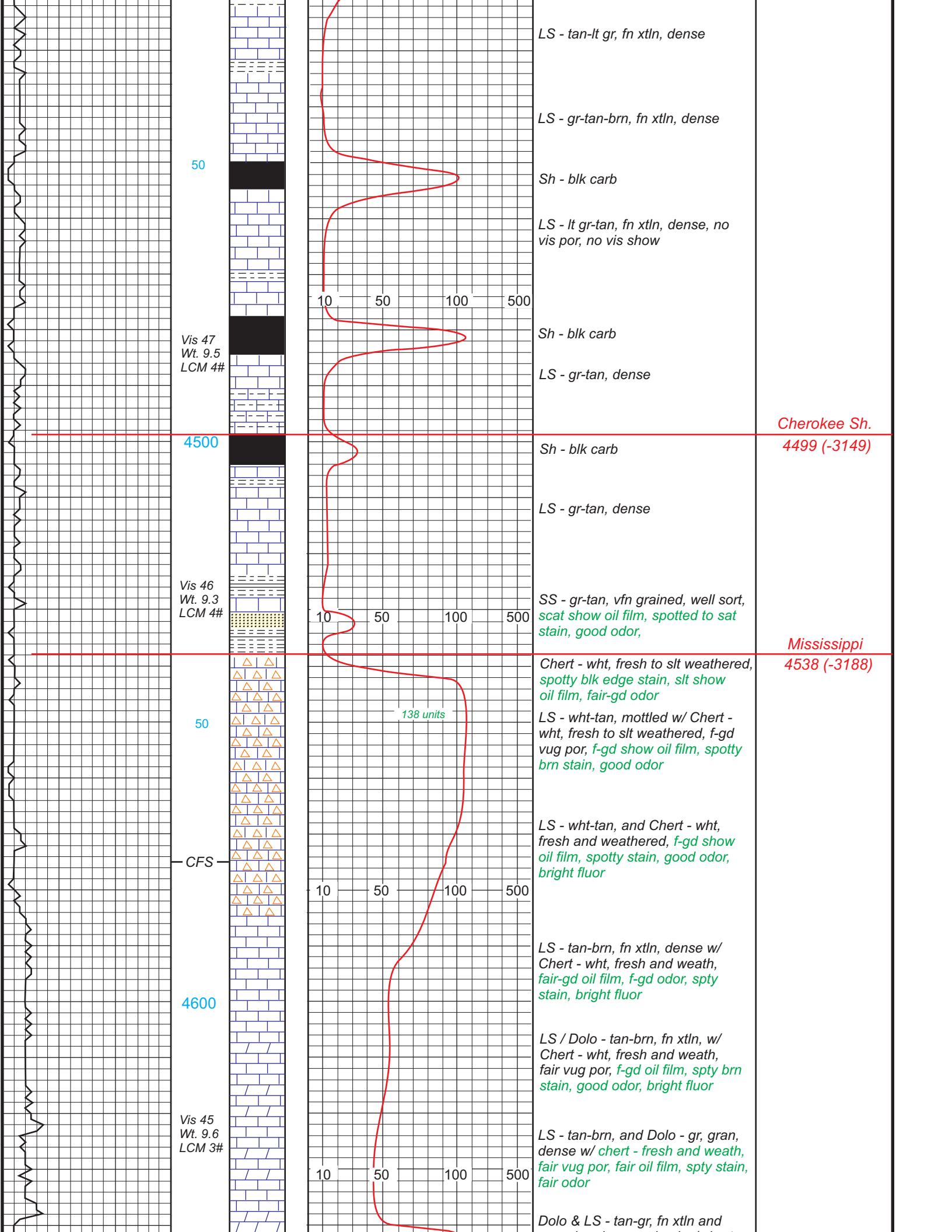
10 50 100 500

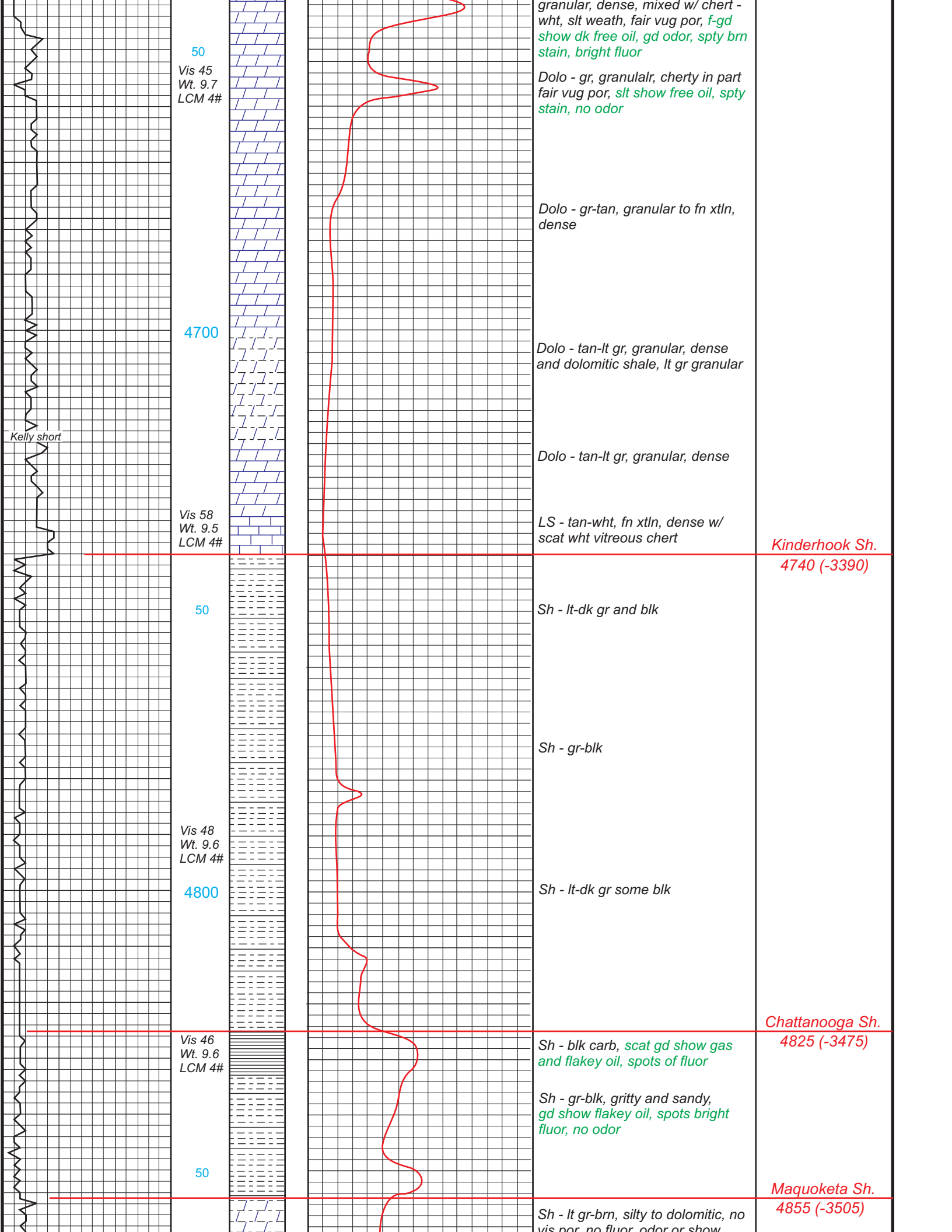
4400
Add
LCM

Sh - blk-gr

LS - brn-tan-gr, dense

Sh - blk-gr





50

Vis 45
Wt. 9.7
LCM 4#

granular, dense, mixed w/ chert - wht, slt weath, fair vug por, f-gd show dk free oil, gd odor, spty brn stain, bright fluor

Dolo - gr, granular, cherty in part fair vug por, slt show free oil, spty stain, no odor

Dolo - gr-tan, granular to fn xtl, dense

4700

Dolo - tan-lt gr, granular, dense and dolomitic shale, lt gr granular

Dolo - tan-lt gr, granular, dense

Vis 58
Wt. 9.5
LCM 4#

LS - tan-wht, fn xtl, dense w/ scat wht vitreous chert

Kinderhook Sh.
4740 (-3390)

50

Sh - lt-dk gr and blk

Sh - gr-blk

Vis 48
Wt. 9.6
LCM 4#

Sh - lt-dk gr some blk

4800

Chattanooga Sh.
4825 (-3475)

Vis 46
Wt. 9.6
LCM 4#

Sh - blk carb, scat gd show gas and flakey oil, spots of fluor

Sh - gr-blk, gritty and sandy, gd show flakey oil, spots bright fluor, no odor

50

Sh - lt gr-brn, silty to dolomitic, no vis por, no fluor, odor or show

Maquoketa Sh.
4855 (-3505)

Kelly short

