

David A. Barker



CONSULTING GEOLOGIST

Geologist's Report
Drilling Time and Sample Log

OPERATOR Chieftain Oil Company, Inc
LEASE Jake **WELL NO.** 2
FIELD Traffas **API No.** 15-007-23718
LOCATION 2260' FNL & 850' FWL NW SE SW NW
SEC. 18 **TWP.** 33S **RGE.** 10W
COUNTY Barber **STATE** Kansas

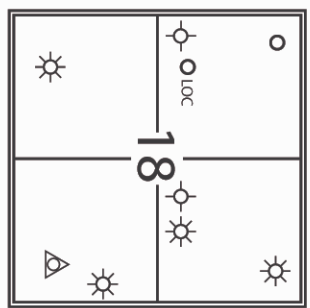
CONTRACTOR Fosile #2
COMM. 9/20/2011 **COMP.** 9/30/2011
RTD 5235 **LOG TD** 5228
SAMPLES SAVED FROM 3500 **TO** T.D.
DRILLING TIME KEPT FROM 3200 **TO** T.D.
SAMPLES EXAMINED FROM 3500 **TO** T.D.
GEOLOGICAL SUPERVISION FROM 3700 **TO** T.D.
MUD UP 3200 **TYPE MUD** Chemical

FORMATION	TOP	LOG DATUM	TOP	SAMPLE DATUM	STRUCT. COMP.
Heebner	3752	-2123	3762	-2133	+6
Lansing	3951	-2322	3961	-2332	+11
Stark Sh	4418	-2789	4428	-2799	+7
Hushpuckney Sh	4445	-2816	4456	-2827	+7
Base K.C.	4478	-2849	4488	-2857	+8
Altamont	4515	-2886	4524	-2895	+9
Pawnee	4588	-2959	4598	-2969	+10
Cherokee	4635	-3006	4646	-3017	+8
Mississippian	4660	-3031	4664	-3035	+4
Kinderhook	4880	-3251	4894	-3265	DNP
Viola	4992	-3363	5002	-3373	DNP
Simpson	5082	-3453	5094	-3465	DNP
Simpson Sd.	5098	-3469	5110	-3481	DNP
Arbuckle		DNP		DNP	DNP

ELEVATION
KB 1629
DF 1627
GL 1621
Measurements Are All From KB

CASING RECORD
SURFACE 8 5/8" @ 328
300 SX
PRODUCTION 5 1/2" @
5235 229 SX

ELECTRICAL SURVEYS
Superior - Gamma Ray,
Dual Induction,
Compensated Neutron &
Density, S.P. & Caliper



REFERENCE WELL FOR STRUCTURAL POSITION 18 - T33S - R10W, Circle #1,
2310' FNL & 455' FWL, SW SW NW

GEOLOGIST

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OPERATOR

Company: Chieftain Oil Co., Inc.
Address: 605 S. 6th, P.O. Box 124
Kiowa, Kansas 67070

Daily Status

- 9-20-2011: set 8 5/8 casing to 328' with 300 SX cement, plug down at 2:30 a.m.
- 9-21-2011: Morning depth: 1730'
- 9-22-2011: Morning depth: 2616'
- 9-23-2011: Morning depth: 3325'
- 9-24-2011: Morning depth: 3895'
- 9-25-2011: Morning depth: 4398'
- 9-26-2011: Morning depth: 4485', DST #1, 4456' to 4482'
- 9-27-2011: Morning depth: 5010', DST #2 4896' to 5010'
- 9-28-2011: Morning depth: 5010', DST #2 4896' to 5010'

9-29-2011: Morning depth: 5034'

9-30-2011: Morning depth: 5235' frun E-log, ran 124 Jts of 5 1/2" casing with 229 SX of cement.

Remarks

Recommended perforation intervals are: 4660-4664 & 4679-4685. Once these zones are exhausted and before abandonment, two zones should be further evaluated through perforation and acidation: the Pawnee from 4589-4592, and the Hertha from 4454-4460.

DST # 1

"Hertha" 4456' to 4482', 30-60-45- 60, IF period: strong blow, B.O.B. in 4 minutes, FF period: strong blow, B.O.B. in 2 seconds, REC: 2040' gas in pipe, and 20' of drilling mud, IHP 2187#, IFP# 15-18#, FFP 11 to 16#, BHP 987 to 1065#.

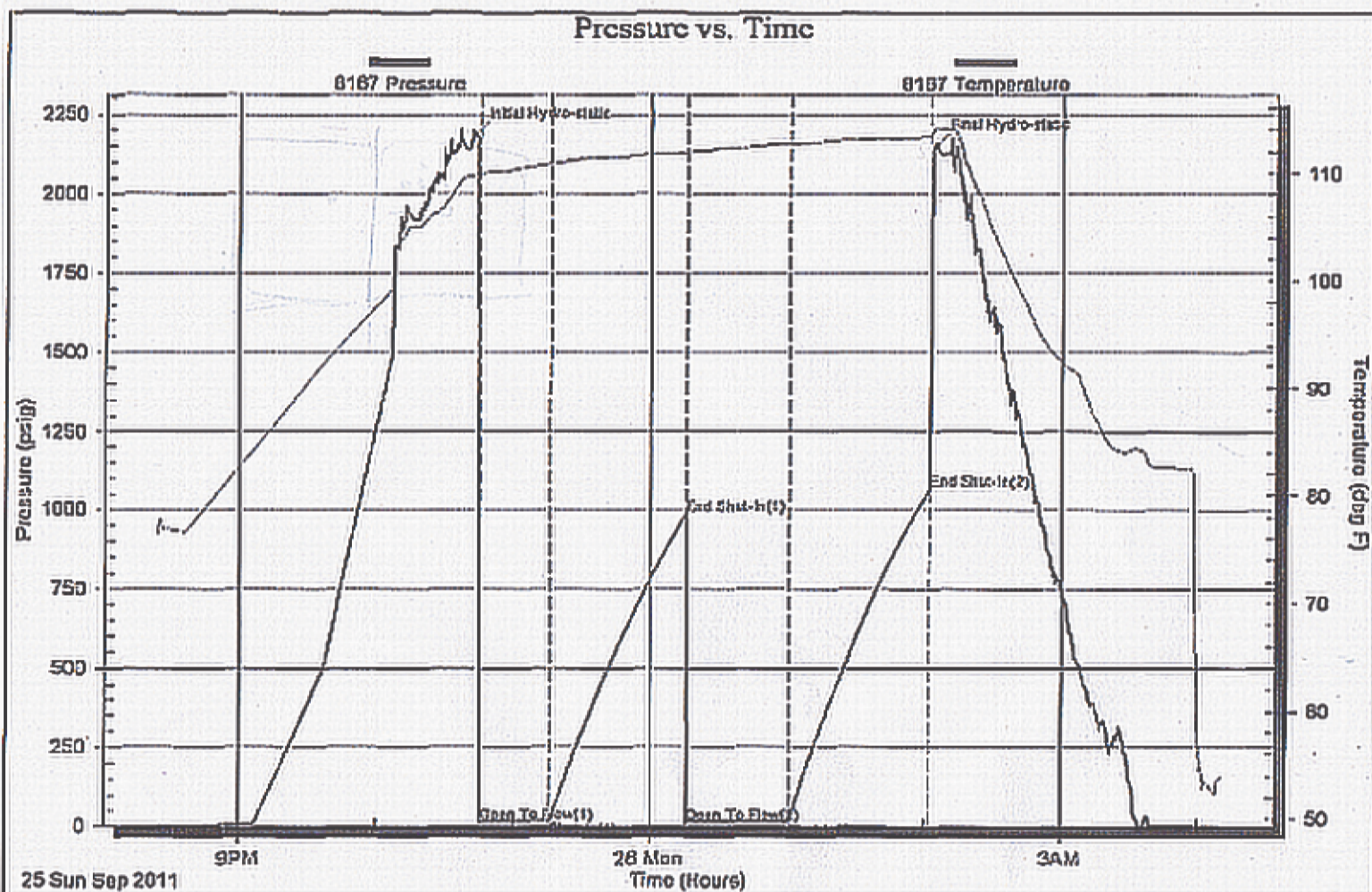
Serial #: B167

Inside

Chief/In Charge

18-334-10w Barber Ks

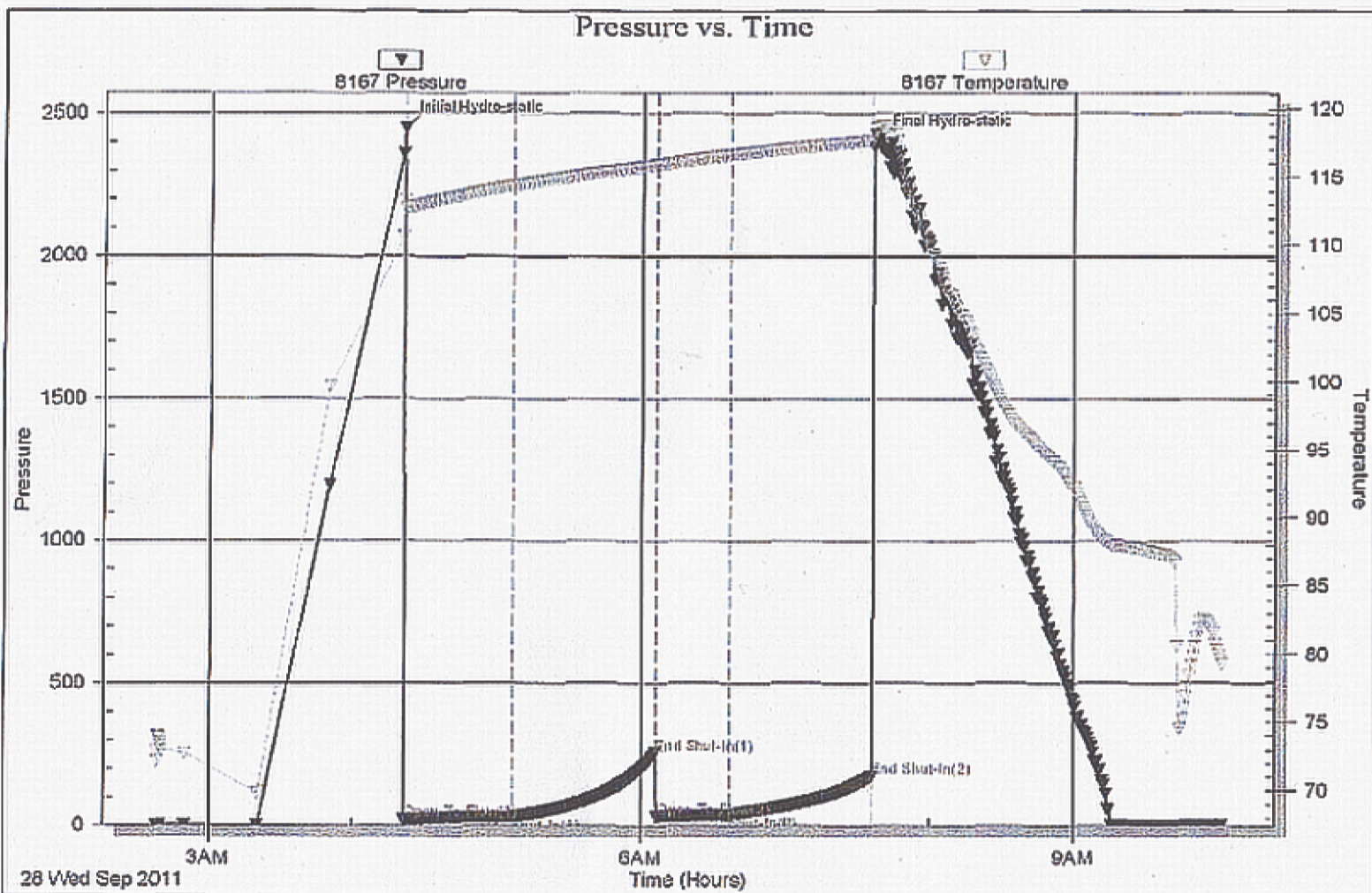
DST Test Number: 1



DST # 2

"Miesner Sand", 4896' to 5010', 45-60-30-60, IFP weak blow 1/2" to 1 1/2", FFP no blow,

Pressure vs. Time



FOSSIL

- [Symbol] Algae
- [Symbol] Amph
- [Symbol] Belm
- [Symbol] Bioclst
- [Symbol] Brach
- [Symbol] Bryozoa
- [Symbol] Cephal
- [Symbol] Coral
- [Symbol] Crin
- [Symbol] Echin
- [Symbol] Fish
- [Symbol] Foram
- [Symbol] Fossil
- [Symbol] Gastro
- [Symbol] Oolite
- [Symbol] Ostra
- [Symbol] Pelec
- [Symbol] Pellet



- [Symbol] Pisolite
- [Symbol] Plant
- [Symbol] Strom
- [Symbol] Fuss
- [Symbol] Oomold

MINERAL

- [Symbol] Anhy
- [Symbol] Arggrn
- [Symbol] Arg
- [Symbol] Bent
- [Symbol] Bit
- [Symbol] Brefracg
- [Symbol] Calc
- [Symbol] Carb
- [Symbol] Chtdk
- [Symbol] Chtlt
- [Symbol] Dol
- [Symbol] Feldspar

ACCESSORIES



- [Symbol] Ferrpel
- [Symbol] Ferr
- [Symbol] Glau
- [Symbol] Gyp
- [Symbol] Hvymin
- [Symbol] Kaol
- [Symbol] Marl
- [Symbol] Minxl
- [Symbol] Nodule
- [Symbol] Phos
- [Symbol] Pyr
- [Symbol] Salt
- [Symbol] Sandy
- [Symbol] Silt
- [Symbol] Sil
- [Symbol] Sulphur
- [Symbol] Tuff
- [Symbol] Chlorite
- [Symbol] Dol



- [Symbol] Sand
- [Symbol] Sily

STRINGER

- [Symbol] Anhy
- [Symbol] Arg
- [Symbol] Bent
- [Symbol] Coal
- [Symbol] Dol
- [Symbol] Gyp
- [Symbol] Ls
- [Symbol] Mrst
- [Symbol] Sltstrg
- [Symbol] Ssstrg
- [Symbol] Carbsh
- [Symbol] Clystn
- [Symbol] Dol
- [Symbol] Grysh
- [Symbol] Gryslt



- [Symbol] Lms
- [Symbol] Sandylms
- [Symbol] Sh
- [Symbol] Sltstn

TEXTURE

- [Symbol] Boundst
- [Symbol] Chalky
- [Symbol] Cryxln
- [Symbol] Earthy
- [Symbol] Finexln
- [Symbol] Grainst
- [Symbol] Lithogr
- [Symbol] Microxln
- [Symbol] Mudst
- [Symbol] Packst
- [Symbol] Wackest

OTHER SYMBOLS

INTERVALS



- [Symbol] Fracture



- [Symbol] Carb shale

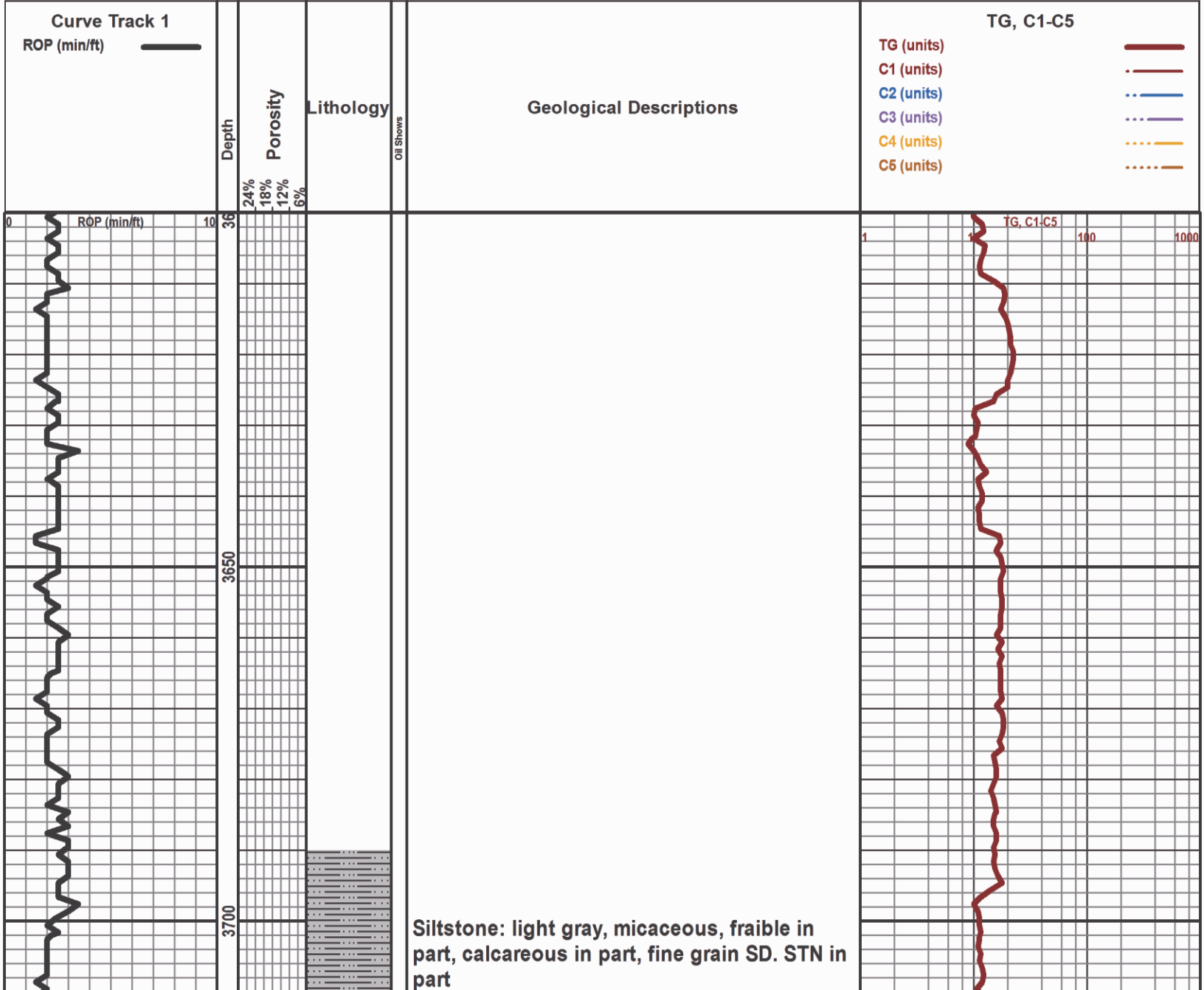


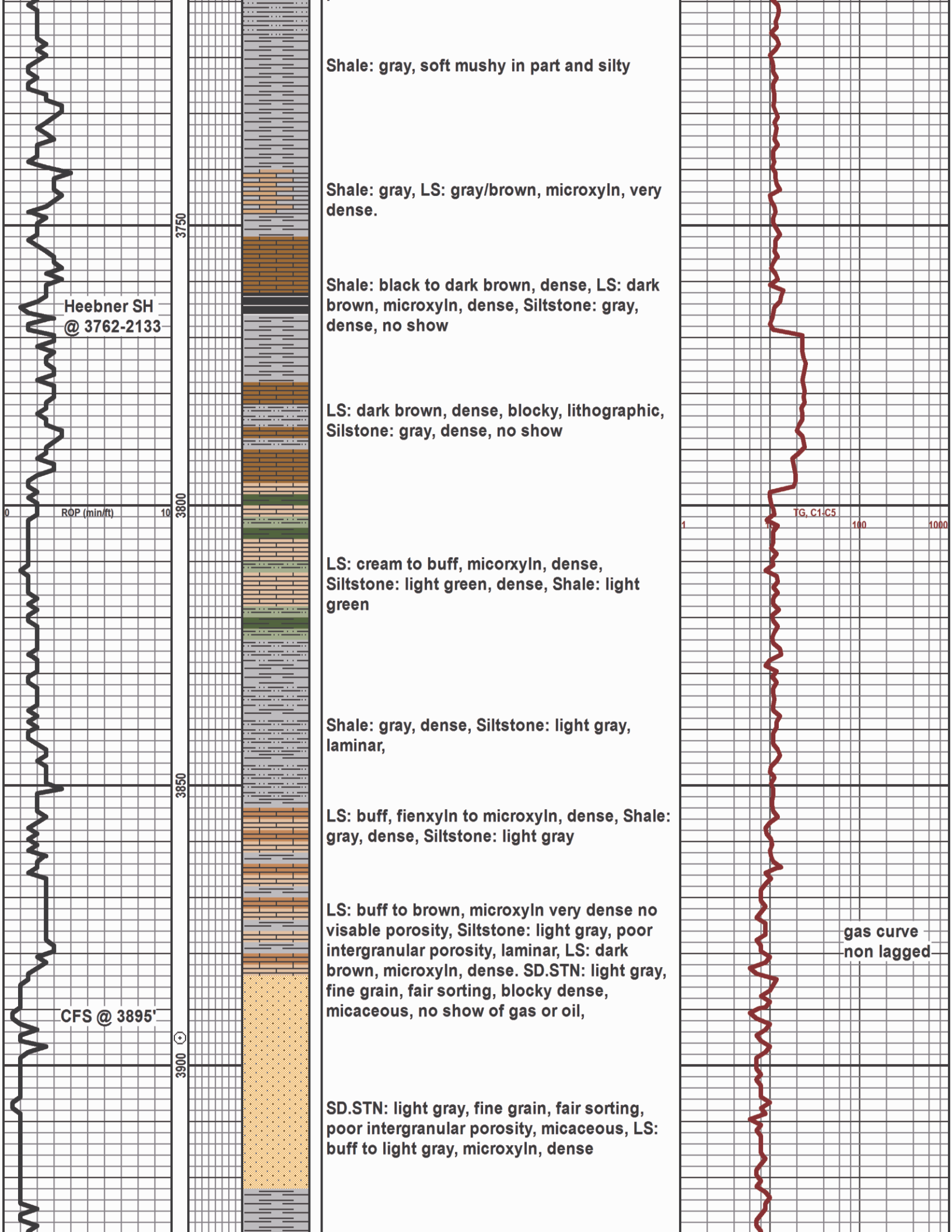
- [Symbol] Brown lmst

ROUNDING

Core	Inter	Gray shale	Brown shale	Rounded
Dst	Moldic	Sandy lmst	Brown dol	Subrnd
Dst	Organic	Shale	Brown cream	Subang
	Pinpoint	Slt stn	D. green lmst	Angular
	Vuggy	Shaly slst	Light cream lmst	
EVENTS		Sity shale	Gray cream lmst	OIL SHOWS
Rft	LITHOLOGY	Blank	Green dol	Even
Sidewall	Anhy	Gray lmst	Gray dol	Spotted
Cfs	Cht	Cream lmst		Ques
Conn	Congl	Red shale	SORTING	Dead
	Shale	Blue-green siltstn	W Well	Gas show
POROSITY TYPE	Shgy	D. green shale	M Moderate	
Earthy	Ss	Green shale	P Poor	
Fenest				

ROCK TYPES			
Anhy	Carb shale	Silty shale	D. green shale
Cht	Gray shale	Blank	Green shale
Congl	Sandy lmst	Gray lmst	Brown lmst
Shale	Shale	Cream lmst	Brown shale
Shgy	Slt stn	Red shale	Brown dol
Ss	Shaly slst	Blue-green siltstn	Brown cream
			D. green lmst
			Light cream lmst
			Gray cream lmst
			Green dol
			Gray dol





Shale: gray, soft mushy in part and silty

Shale: gray, LS: gray/brown, microxyln, very dense.

Shale: black to dark brown, dense, LS: dark brown, microxyln, dense, Siltstone: gray, dense, no show

LS: dark brown, dense, blocky, lithographic, Siltstone: gray, dense, no show

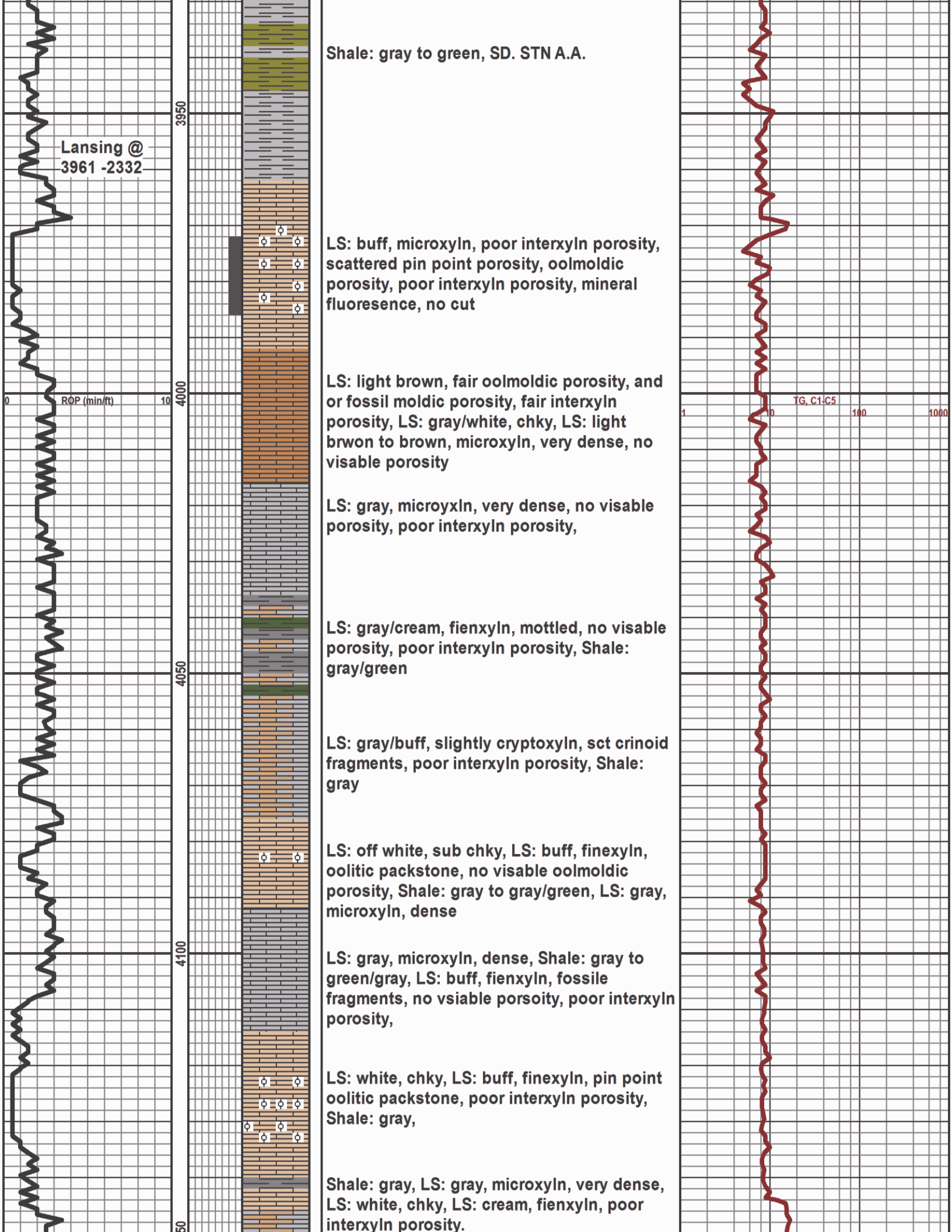
LS: cream to buff, micorxyln, dense, Siltstone: light green, dense, Shale: light green

Shale: gray, dense, Siltstone: light gray, laminar,

LS: buff, fiensexyn to microxyln, dense, Shale: gray, dense, Siltstone: light gray

LS: buff to brown, microxyln very dense no visable porosity, Siltstone: light gray, poor intergranular porosity, laminar, LS: dark brown, microxyln, dense. SD.STN: light gray, fine grain, fair sorting, blocky dense, micaceous, no show of gas or oil,

SD.STN: light gray, fine grain, fair sorting, poor intergranular porosity, micaceous, LS: buff to light gray, microxyln, dense



Lansing @
3961 -2332

ROP (min/ft)

3950

4000

4050

4100

4150

Shale: gray to green, SD. STN A.A.

LS: buff, microxyln, poor interxyln porosity, scattered pin point porosity, oolmoldic porosity, poor interxyln porosity, mineral fluorecence, no cut

LS: light brown, fair oolmoldic porosity, and or fossil moldic porosity, fair interxyln porosity, LS: gray/white, chky, LS: light brwon to brown, microxyln, very dense, no visable porosity

LS: gray, microxyln, very dense, no visable porosity, poor interxyln porosity,

LS: gray/cream, fiexyln, mottled, no visable porosity, poor interxyln porosity, Shale: gray/green

LS: gray/buff, slightly cryptoxyln, sct crinoid fragments, poor interxyln porosity, Shale: gray

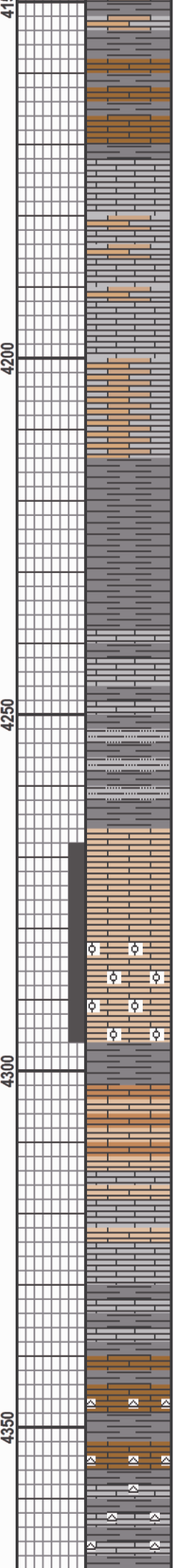
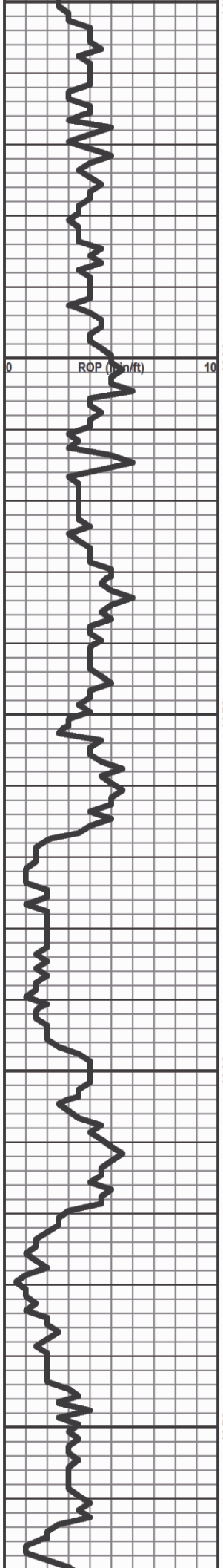
LS: off white, sub chky, LS: buff, finexyln, oolitic packstone, no visable oolmoldic porosity, Shale: gray to gray/green, LS: gray, microxyln, dense

LS: gray, microxyln, dense, Shale: gray to green/gray, LS: buff, fiexyln, fossile fragments, no vsiable porsoity, poor interxyln porosity,

LS: white, chky, LS: buff, finexyln, pin point oolitic packstone, poor interxyln porosity, Shale: gray,

Shale: gray, LS: gray, microxyln, very dense, LS: white, chky, LS: cream, fiexyln, poor interxyln porosity.

TG, C1-C5



LS: gray/brown, poor interxyln porosity, finexyln, poor interxyln porosity, mottled, Shale: gray

LS: gray to dark gray, dark gray/brown in part, microxyln, dense, Shale: gray, LS: brown, microxyln, dense

increase in dark gray shale, LS: dark gray, very dense, no visable porosity, LS: gray/brown to dark brown, microxyln, very dense.

Shale: dark gray, lmy, LS: dark gray, silty, poor interxyln porosity

LS: dark gray, microxyln, very dense, poor interxyln porosity, Shale: dark gray

Shale: dark gray, dense, silty

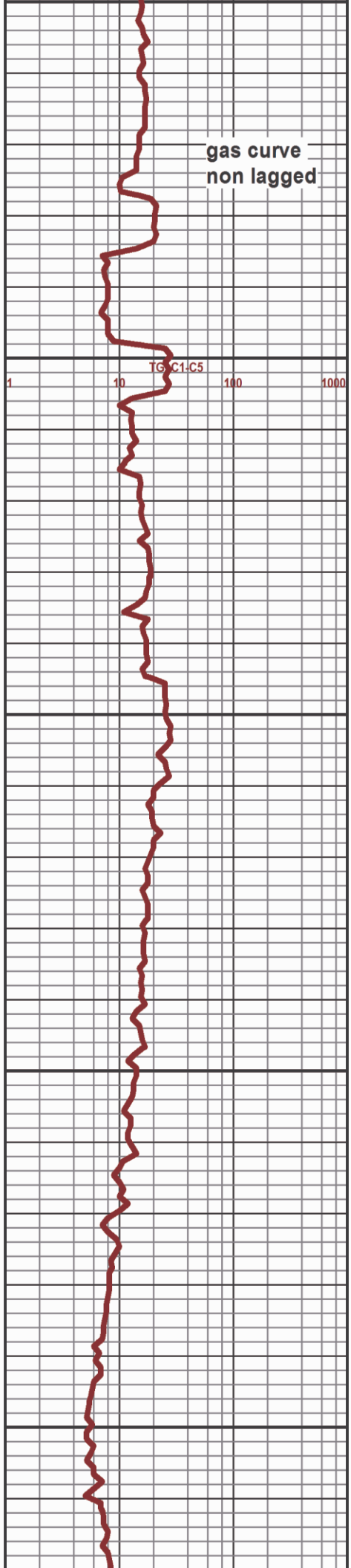
LS: cream to buff, finexyln, poor interxyln porosity, chky in part

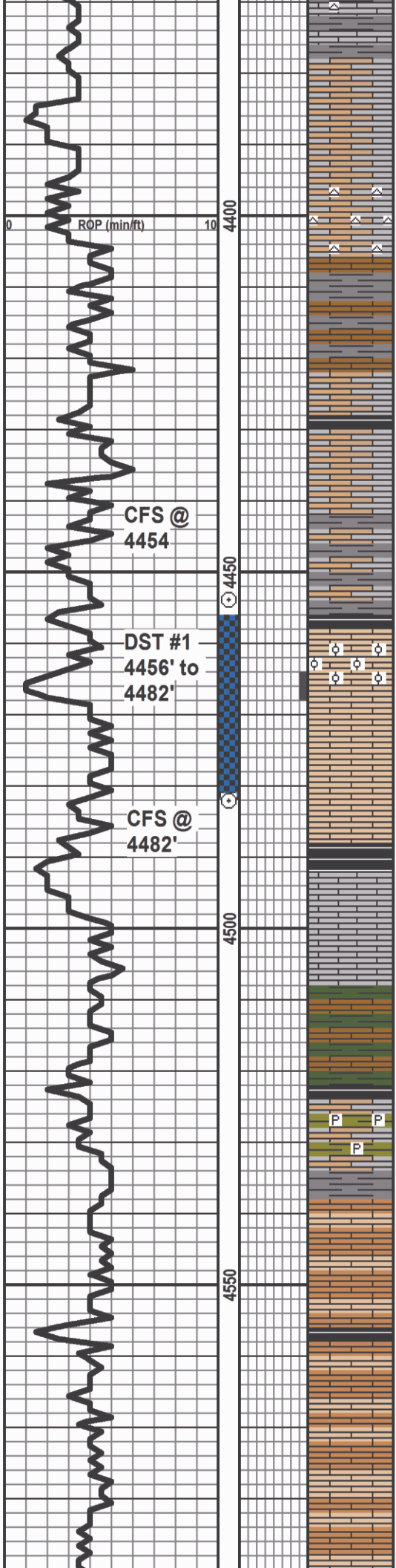
LS: cream to buff, finxyln to medium xyln sct fair oolmoldic porosity, no show, fair interxyln porosity, cryptoxyln in part no fluorensence,

LS: light gray to blond, microxyln mudstone, no visable porosity. LS: buff, slight visable oolmoldic porosity, fair to good interxyln porosity, no show, dull mineral fluorensence.

Shale: gray/black, fossiliferous, LS: dove gray, microxyln, poor interxyln porosity, sct slight visable porosity, poor interxyln porosity, LS: cream to buff, finexyln to microxyln, chky in part, Chert: translucent

LS: cream to buff to gray/buff, microxyln, chky, friable in part, Shale: dark gray, Chert: translucent.





LS: gray/buff, microxyn, very dense, LS: gray/brown, microxyn, very dense, lithographic

LS: buff to gray/brown, microxyn, very dense, Chert: dark gray, sharp.

LS: brown, microxyn very dense, no visible porosity, LS: brown/gray, microxyn, dense, Shale: dark gray

no odor no fluorescence, LS: gray/dark brown, lithographic, dense, Shale: black, LS: cream/gray in part

4454 30 min. cir. sample: no odor, LS: cream to cream/gray, microxyn, no visible porosity, poor interxyn porosity, no fluorescence, Shale: black to dark gray, Chert: procelain white, sharp

LS: cream, finexyn, friable, fair interxyn porosity, slight stain, bright fluorescence, slight show of free oil under black light, oolitic packstone, poor interxyn porosity, poor cut, visible pin point oolmoldic porosity, slight stain.

LS: dark gray, microxyn, very dense, no visible porosity, Shale: gray, to dark gray, friable

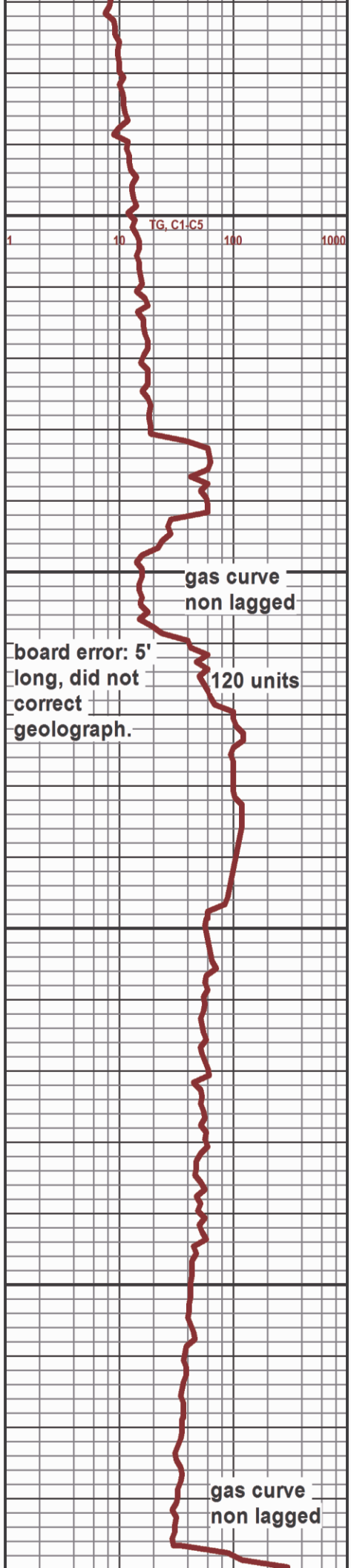
Shale: dark green and gray, LS: dark brown, microxyn, very dense, LS: cream, finexyn, poor interxyn porosity.

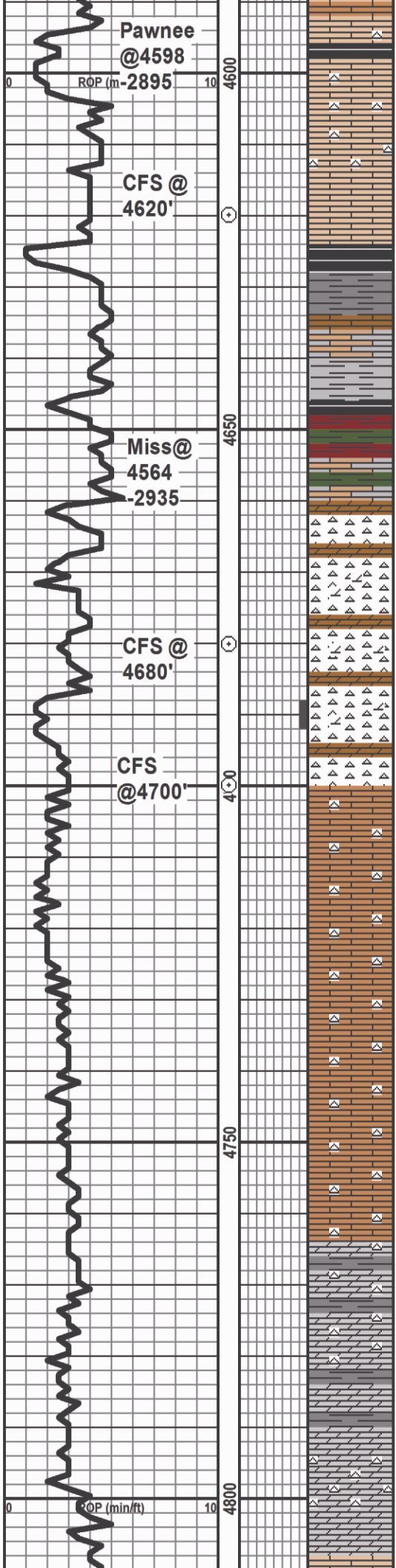
Shale: light green, pyritic, LS: brown/gray, microxyn mudstone, very dense, LS: buff, microxyn, very dense, Shale: dark gray,

LS: buff, microxyn, very dense, no visible porosity, Shale: gray, Shale: light gray/green with fossile fragments, LS: buff/brown, fossiliferous packstone in part microxyn, no visible porosity

LS: cream/buff, microxyn, very dense, no visible porosity, lithographic, LS: light tan, microxyn, very dense, oolitic packstone.

LS: buff/cream, microxyn, very dense, mudstone, poor interxyn porosity, friable in part, dull mineral fluorescence, one piece





bright fluorescence

possible slight odor, LS: buff, micoryln, lightographic, slight visible porosity in part random one piece with a rainbow show, minor fluorescence, Chert: bright fluorescence, sharp, blocky, LS: gray/brown, micoryln, very dense, lithographic, no visible porosity.

flood of black shale, Chert: blocky, foss, edge stain, questionable stain no fluorescence, LS: light brown, microxyn, dense.

Shale: dark gray, LS: brown to gray/brown, microxyn, dense, Shale: dirty gray, crynoid fragments, no fluorescence, no odor. Shale: green to red, LS: brown, micoryln, dense, mostly shale,

no odor, Chert: white, good fluorescence, LS; waxey green, microxyn, very dense, Dolomite: light brown, fine grain, Shale: dark gray. Slight odor from sample, Chert: fresh, semi clear, opaque, light brown stain, fair cut, fair pin point fluorescence, slight visible porosity, slightly dolomitic

4680 30 min: slight odor, Chert: light green, cherty, fine granular, poor interxyn porosity, scattered dark stain, slightly dolomitic, slightly tripolitic, fair pinpoint fluorescence.

4700 30 min: slight odor, Chert: fresh, semi clear, fair brown stain, poor fluorescence, slight visible tripolitic porosity, one piece of excellent porosity with brown stain, fair show of free oil when chrused,

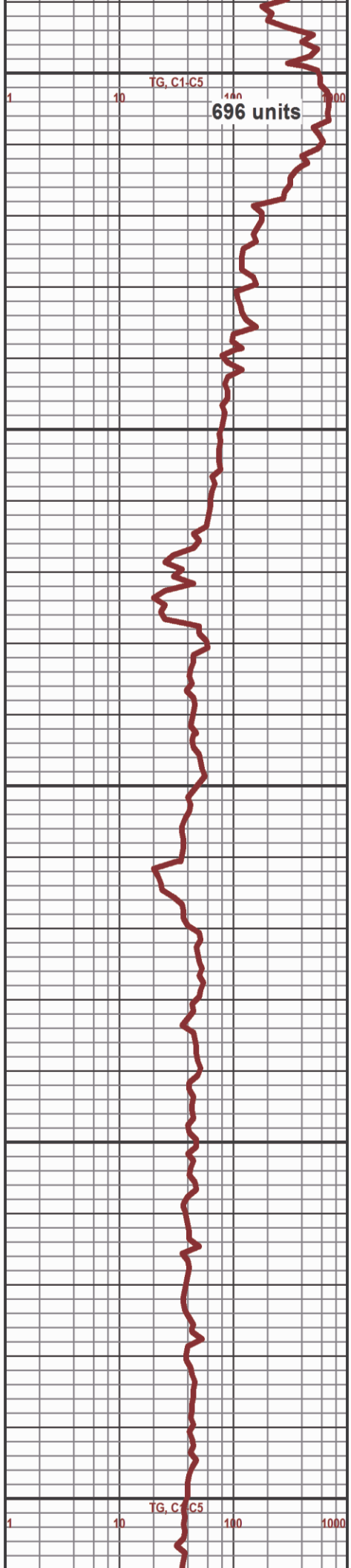
4700 60 min: Chert: fresh, white, light brown, dolomitic, tripolitic, slight stain, poor fluorescence, no cut, show of free oil with acid, scattered chert

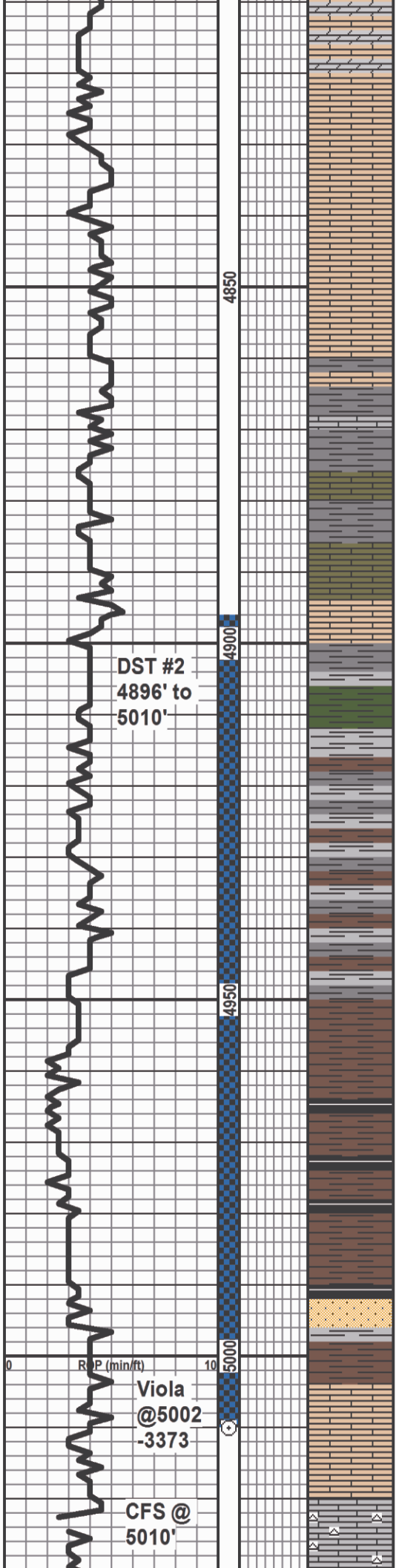
Dolomitic limestone: gray/brown, cherty, no fluorescence, dense, finexyn, poor interxyn porosity.

LS: dirty gray, dolomitic, finexyn, poor interxyn porosity, Shale: dark gray

Dolomite: dirty gray, silty, cherty, poor interxyn porosity, Shale: dark gray

Dolomite: dirty gray, gritty, poor interxyn porosity, dense, Cherty: dove gray, fossiliferous, sharp, semi trans, LS: buff, coarsexyn. poor interxyn porosity.





LS: cream, coarsexyln, fossiliferous, poor interxyln porosity, chky in part, no fluorescence. flood of white chky LS, Shale: light gray, calcareous

LS: cream, microxyln, dense, LS: light green, microxyln, waxey, poor interxyln porosity, LS: light brown, microxyln, very dense, no visable porosity.

LS: cream, microxyln, dense, chky in part, poor interxyln porosity, Shale: gray, LS: gray/brown, microxyln, dense.

LS: dark jade, finexyln, dense, no visible porosity,

LS: light buff, microxyln very dense, no visible porosity, poor interxyln porosity, Shale: gray,

Shale: dark green, blocky, dense

flood of dense, gray/brown, laminar Shale

Shale: gray/earthy brown,

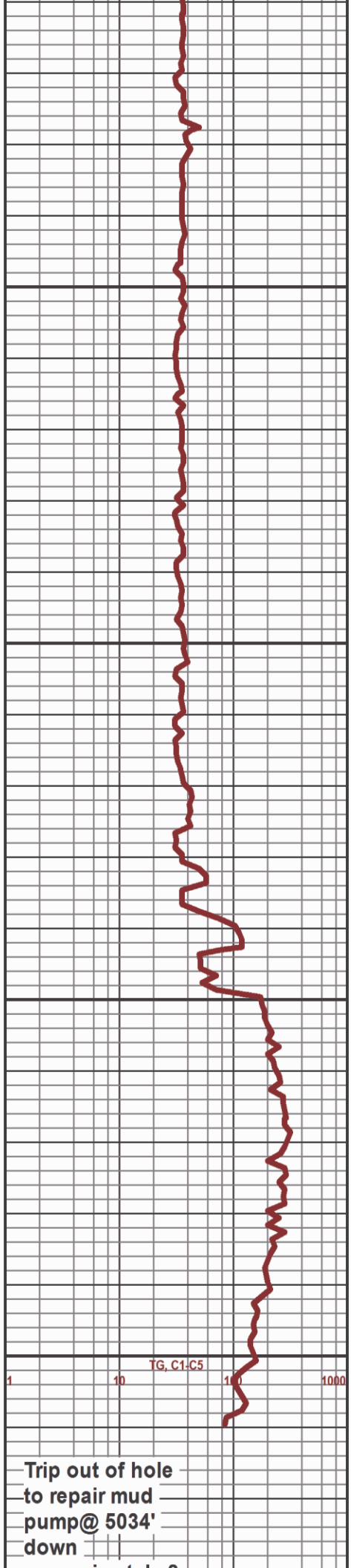
Shale: dark gray to brown, dolomitic

Shale: chocolate brown, dense

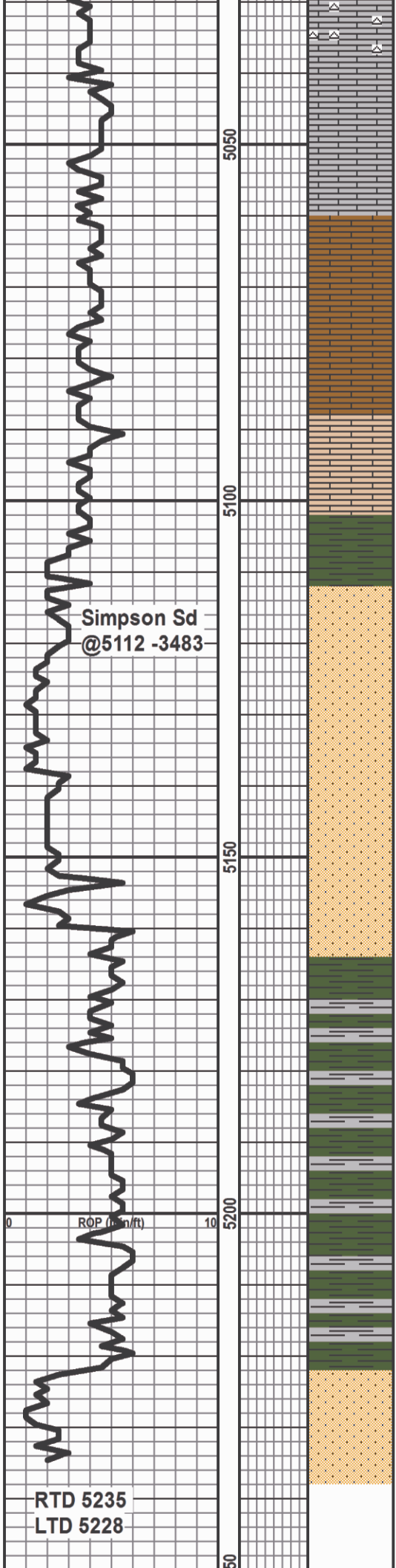
Shale: brown/black, very dense with fluoresence spores

SD.STN: fine grain, fair sorting, poor intergranular porosity, bright pin point fluoresence, slight stain, slight odor when chrushed, poor cut, small amount of shale in sand cluster, sct heavy brown stain.,

LS: cream, coarsexyln, poor interxyln porosity, no show, sample mostly shale, no show.



Trip out of hole to repair mud pump @ 5034' down



LS: gray/brown, microxyln, cherty, no visible porosity, poor interxyln porosity, scattered slight fluorescence in chert.

LS: brown, microxyln, cherty, finexyln, poor interxyln porosity, Chert: brown, sharp, vitreous, sct semi trans in part.

LS: off white, coarsexyln, friable, no show, mottled in part, no show,

5114 30 min: SD.STN: clear grained, fine grain, poorly sorted, poor intergranular porosity, no show. Shale: green waxey

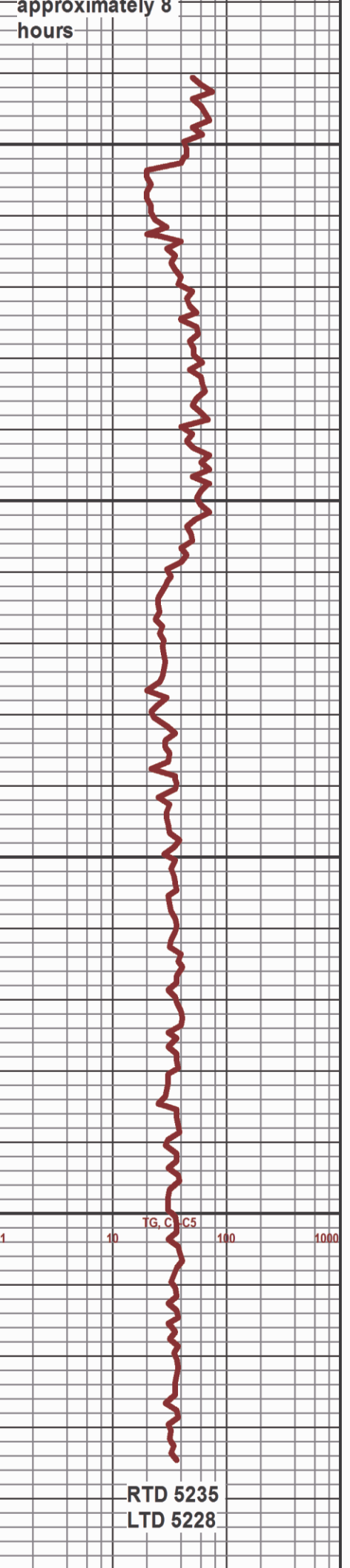
5114 60min: SD.STN. fine grain, poorly sorted, sub rounded, friable, no show, shly in part,

SD.Stn.: brown to white, , fine grain, poorly sorted, sct over growths, small amount of gray shale, no show, no odor, Shale: green, waxey,

Shale: green, waxey, gray/green in part

Shale: green to gray/green

SD.STN.: fine to medium grained, clear grained, poor intergranular porosity, no show no odor.



RTD 5235
LTD 5228

RTD 5235
LTD 5228

