David A. Barker

CONSULTING GEOLOGIST

Geologist's Report
Drilling Time and Sample Log

OPERATOR Chieftan Oil Company, INC.

LEASE Blevins "A" WELL NO. 1

FIELD Mayberry API No. 15-007-23804

LOCATION 2300' FSL & 450' FWL SE NW NW SW

SEC. 25 TWP. 34S RGE. 11W

COUNTY Barber STATE Ks

CONTRACTOR Fossil Rig #2

COMM. 11/09/2011 COMP. 11/22/2011

RTD 5390' LOG TD 5388'

SAMPLES SAVED FROM 3400' TO TD

DRILLING TIME KEPT FROM 3000' TO TD

SAMPLES EXAMINED FROM 3400' TO TD

GEOLOGICAL SUPERVISION FROM 3400' TO TD

MUD UP 3259' TYPE MUD Chemical

ELEVATION

KB 1370

DF

GL 1362

Measuremnts Are All From KB

CASING RECORD

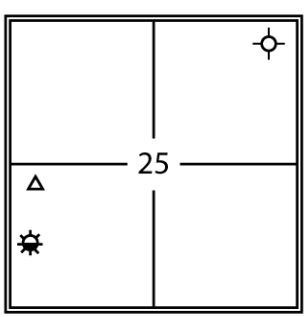
SURFACE

PRODUCTION 5 1/2" Casing to 5370' 128 JTS new 15.5 lbs/foot

ELECTRICAL SURVEYS

CDL/CNL; DIL

FORMATION	LOG TOP	LOG DATUM	SAMPLE TOP	SAMPLE DATUM	STRUCT. COMP.
Heebner Sh	3660	-2290	3663	-2293	-2
Haskell Lm	3916	-2546	3917	-2547	DNP
Stalnaker Sd	3970	-2600	3968	-2598	-2
Kansas City	4230	-2860	4225	-2855	-2
Stark Sh	4377	-3007	4378	-3008	-1
Cherokee Sh	4609	-3239	4608	-3238	+5
Mississippian	4689	-3319	4708	-3338	+5
Kinderhook	5018	-3648	5020	-3650	DNP
Viola	5074	-3704	5081	-3711	DNP
Simpson	5158	-3788	5162	-3792	DNP
Simpson Sd	5172	-3802	5170	-3800	DNP
Arbuckle	5354	-3984	5354	-3984	DNP
TD	5388	-4018	5390	-4020	



REFERENCE WELL FOR STRUCTURAL POSITION Rathgerber No. 1-25; 25-34S-11W; 330' FWL & 1320' FSL; W/2 W/2 SW;

GEOLOGIST

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Company:
Address: 212 N. Market, Suite# 320
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OPERATOR

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

Daily Status

11/9/2011 Spud
11/10/2011 312 WOC, SET
11/11/2011 1537'
11/12/2011 2440'
11/13/2011 3195'
11/14/2011 3830'
11/15/2011 3985' DST #1 @3919-3985
11/16/2011 4460'
11/17/2011 4656'

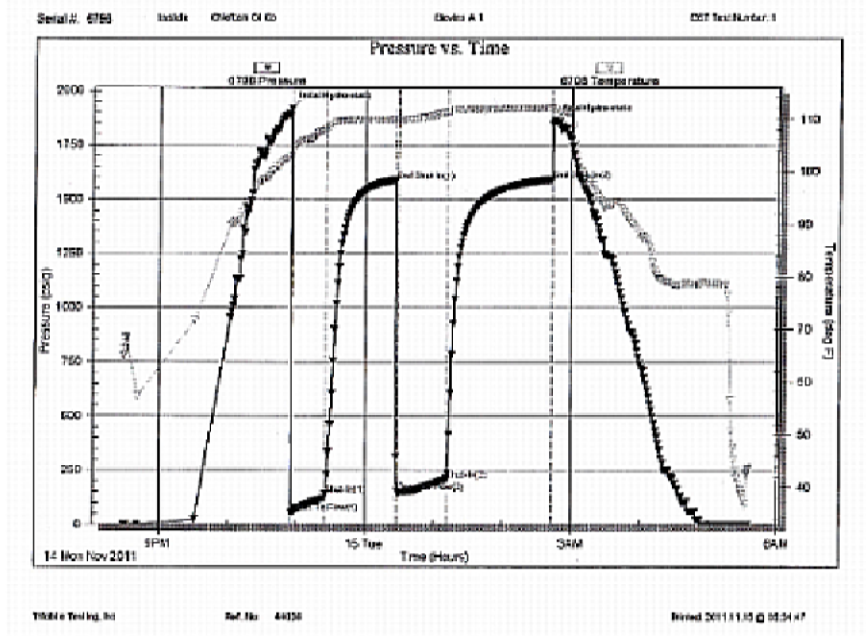
11/18/2011 4980'
11/19/2011 5089' DST #2 @5018-5089
11/20/2011 5328'
11/21/2011 5390'--T.D. Log well
11/22/2011 Lost CR @10:15, Ran 128 JTS of 15.5# Casing CMT 223 SX Set @5370 plug down at 5:15 A.M.

Remarks

Set 5 1/2" casing to 5370' to further test the Mississippian formation through pipe.

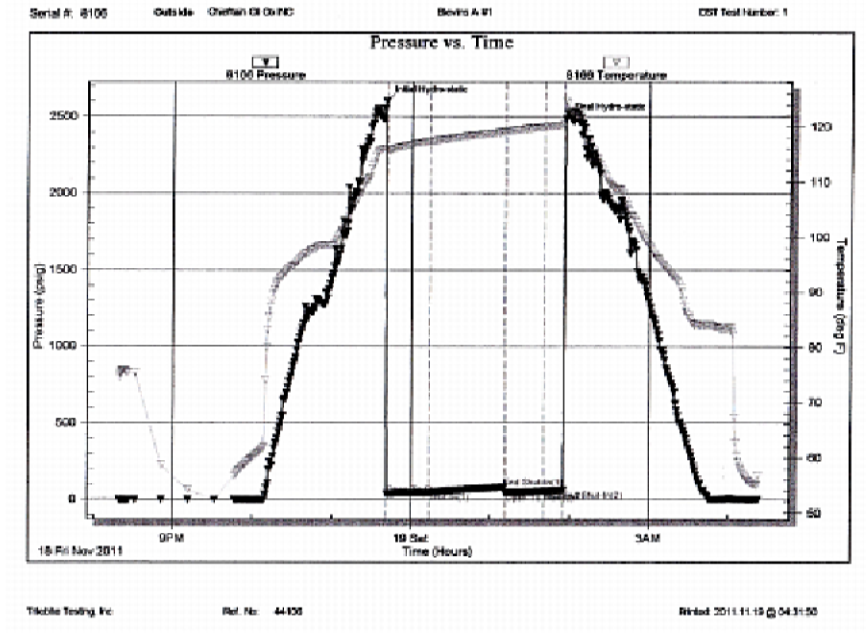
DST #1

3919'-3985' 30-60-45-90 IF: Strong Blow BOB in 45 Sec, ISI: 1" Blowback, FF: Strong Blow, BOB immediately, GTS in 4 min, FSI: 1" Blowback, REC: 3657' GIP, 248' GWCM, 186' GMCW, HP 1919#-1863#, IFP 59#-142#, FFP 154#-210#, SIP 1588#-1591#, BHT 112 deg F, Chlorides 11,500 ppm



DST #2

5018'-5089' 30-60-15-30 IF: Weak Blow 1" ISI: No Blowback, FF: Weak Surface Blow, FSI: No Blowback, REC: 70' M, HP 2596#-2483#, IFP 36#-44#, FFP 42#-53#, SIP 80#-59#, Chlorides 5,100 ppm



ACCESSORIES

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Pisolite
- Plant
- Strom
- Fuss
- Oomold
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Sand
- Slty
- Lms
- Sandylms
- Sh
- Sltstn

STRINGER
- Anhy

Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram
Fossil
Gastro
Oolite
Ostra
Pelec
Pellet

MINERAL

Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Kaol
Marl
Minxl
Nodule
Phos
Pyr
Salt
Sandy
Silt
Sil
Sulphur
Tuff
Chlorite
Dol
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh
Clystn
Dol
Grysh
Gryslt

TEXTURE

Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

INTERVALS

Core
Dst
Dst

EVENTS

Rft
Sidewall
Cfs
Conn

POROSITY TYPE

Earthy
Fenest

Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

LITHOLOGY

Anhy
Cht
Congl
Shale
Shgy
Ss

Carb shale
Gray shale
Sandy lmst
Shale
Slt stn
Shaly slst
Slty shale
Blank
Gray lmst
Cream lmst
Red shale
Blue-green siltstn
D. green shale
Green shale

Brown lmst
Brown shale
Brown dol
Brown cream
D. green lmst
Light cream lmst
Gray cream lmst
Green dol
Gray dol

SORTING

Well
Moderate
Poor

ROUNDING

Rounded
Subrnd
Subang
Angular

OIL SHOWS

Even
Spotted
Ques
Dead
Gas show

ROCK TYPES

Anhy
Cht
Congl
Shale
Shgy
Ss

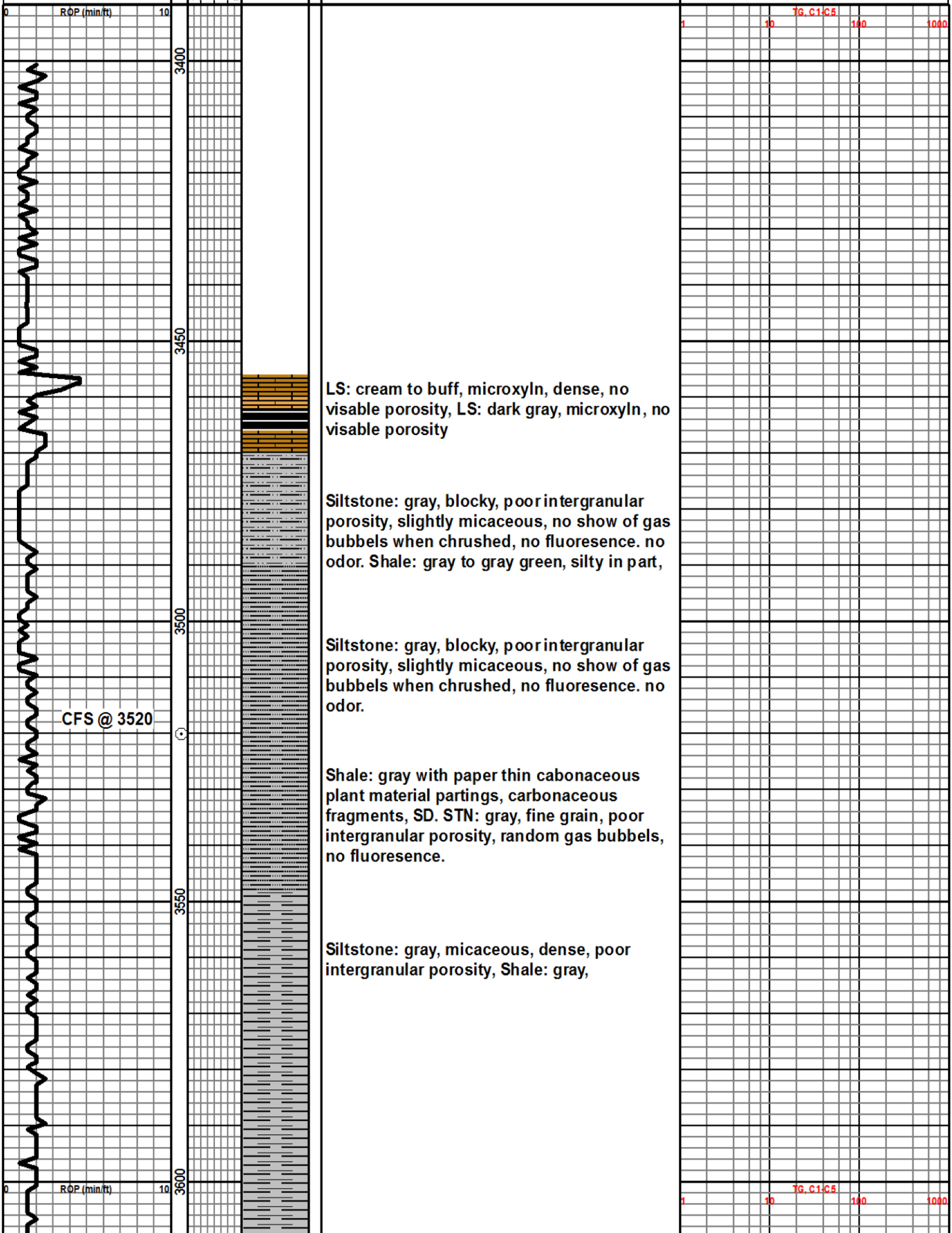
Carb shale
Gray shale
Sandy lmst
Shale
Slt stn
Shaly slst

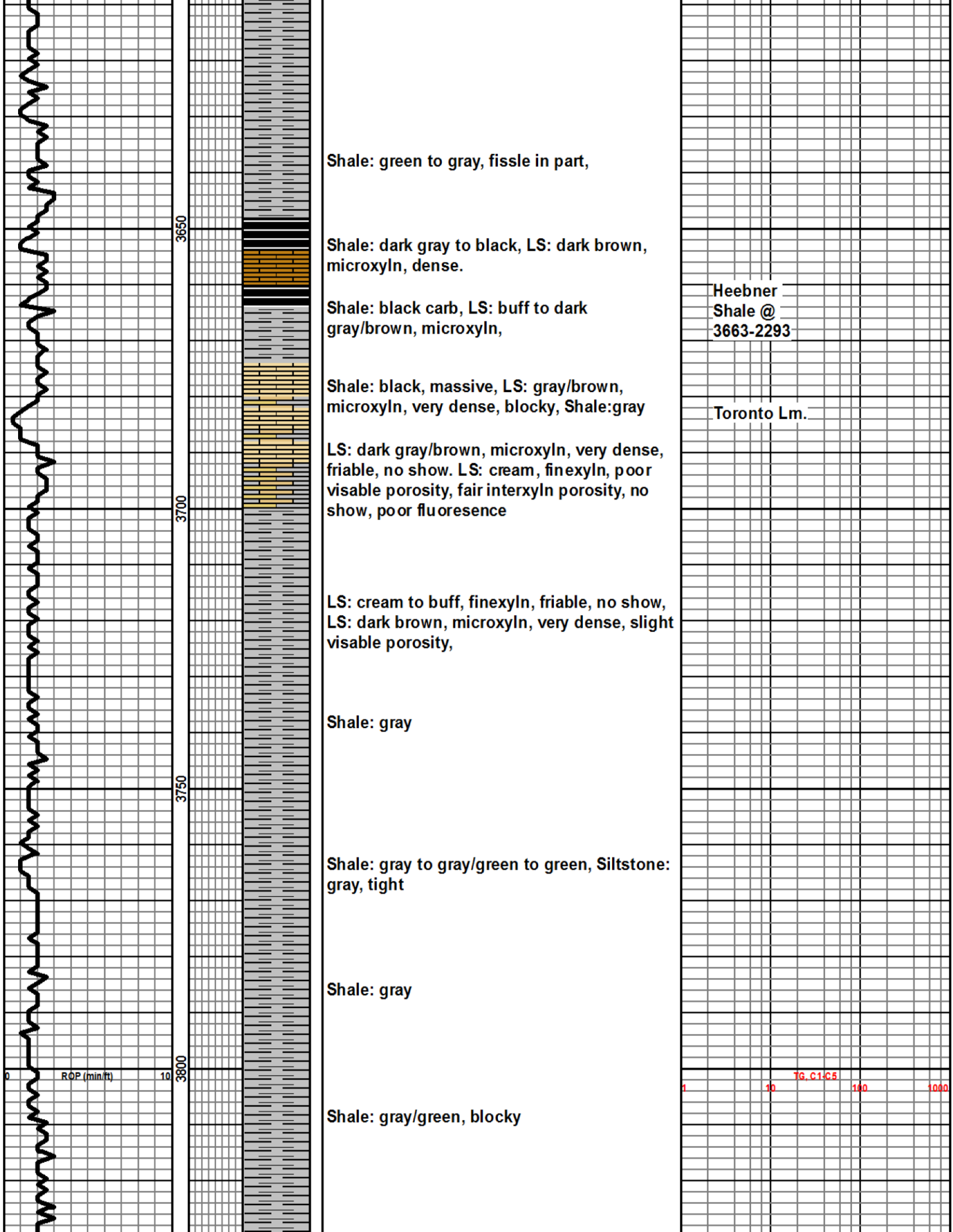
Slty shale
Blank
Gray lmst
Cream lmst
Red shale
Blue-green siltstn

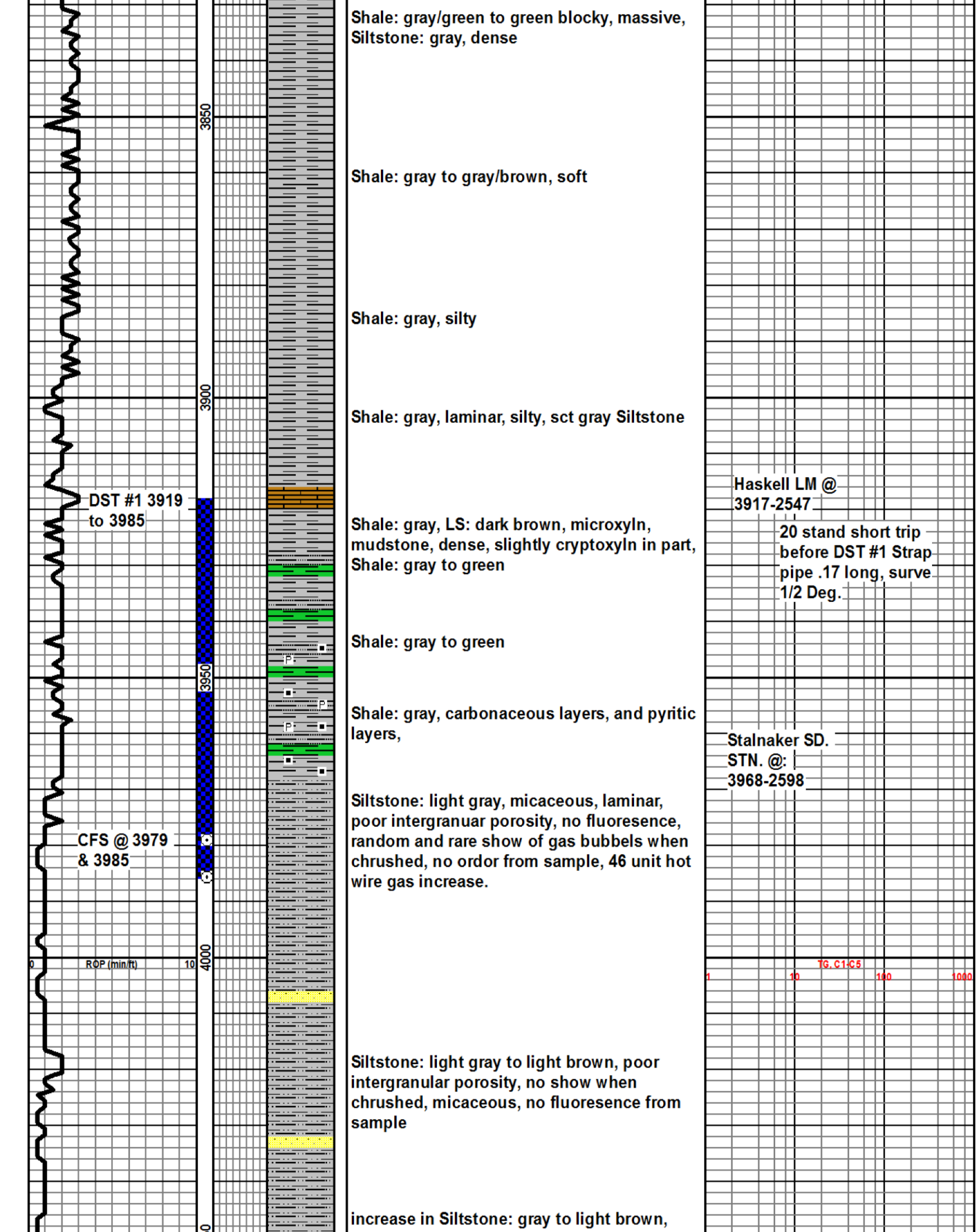
D. green shale
Green shale
Brown lmst
Brown shale
Brown dol
Brown cream

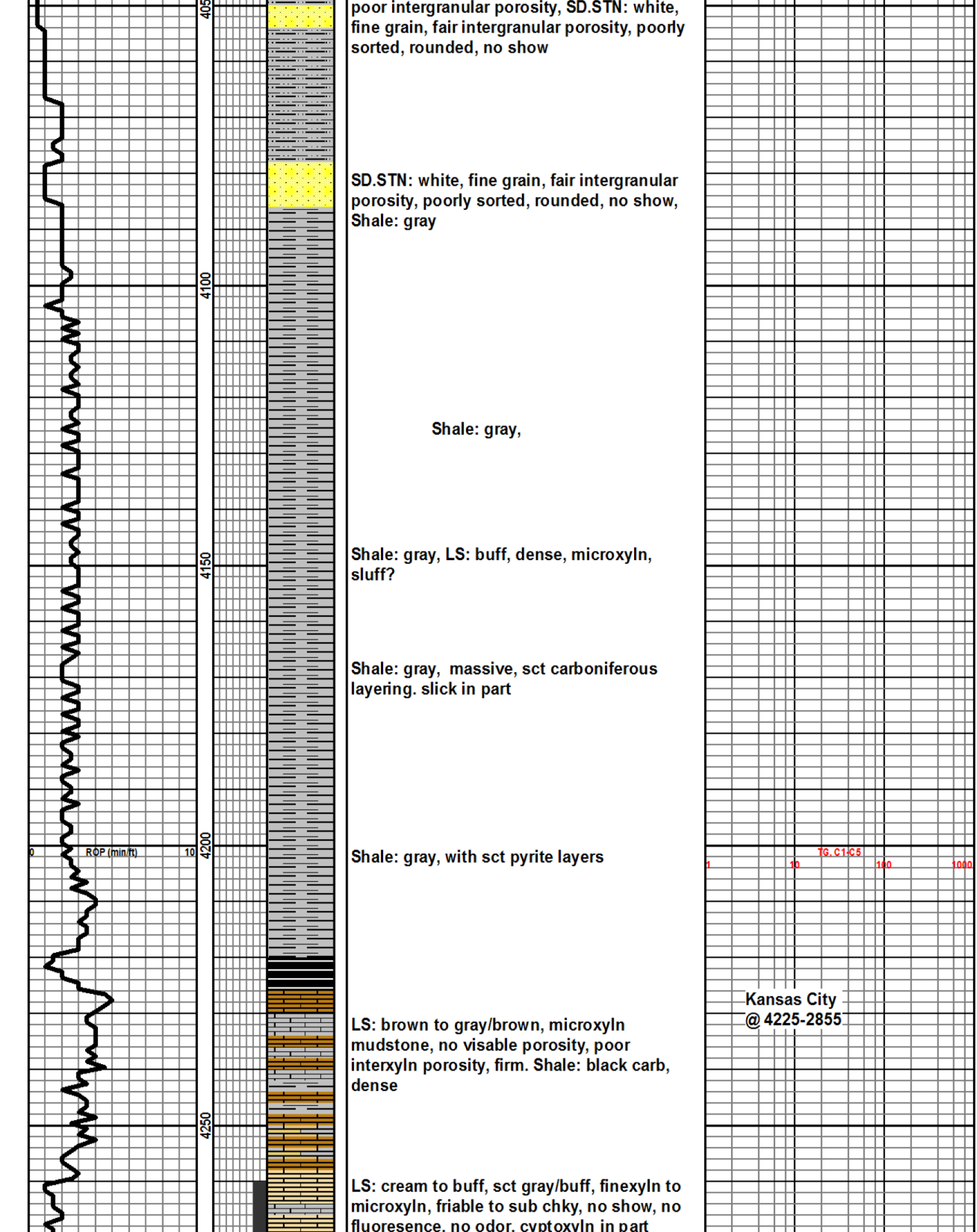
D. green lmst
Light cream lms
Gray cream lms
Green dol
Gray dol

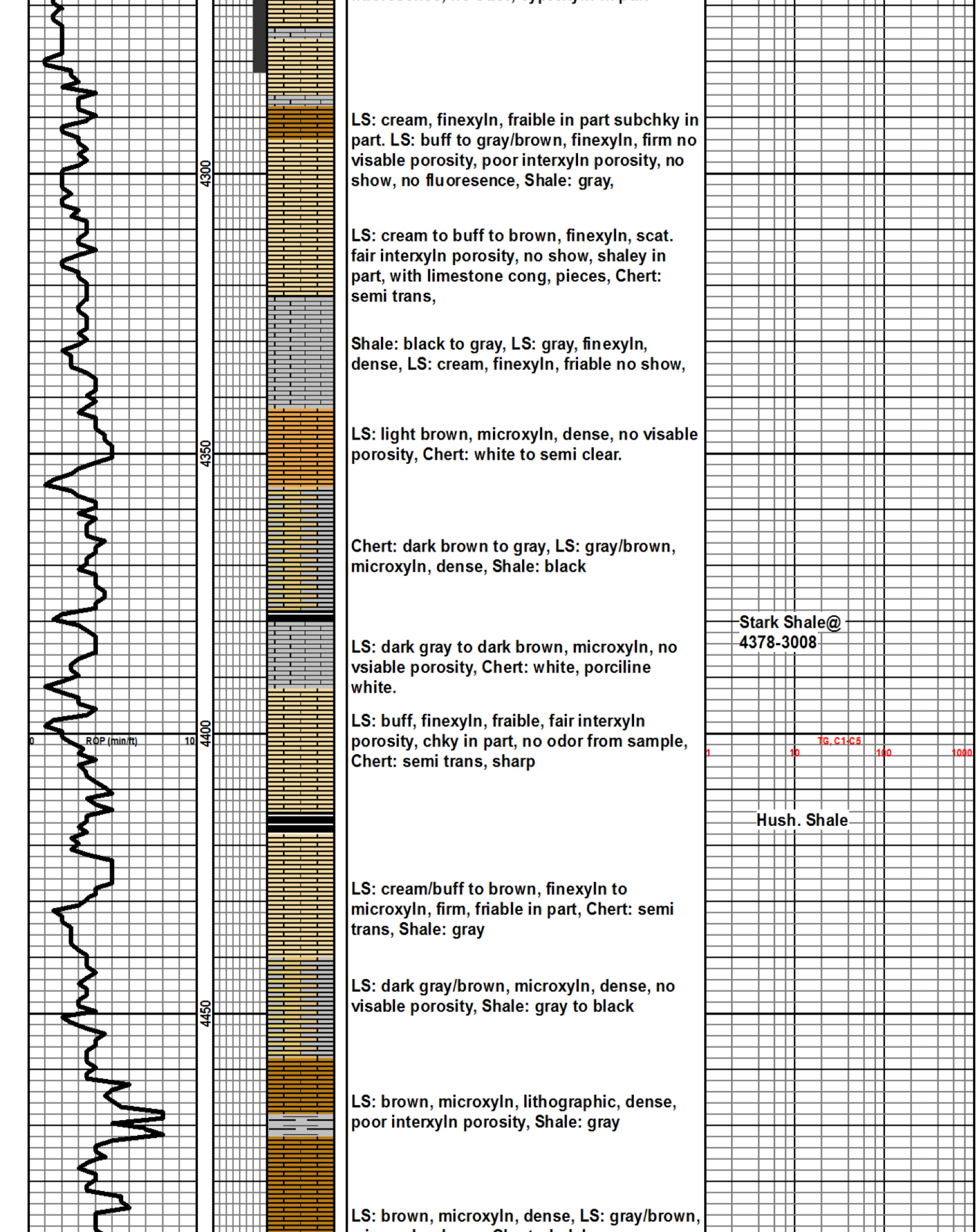
Curve Track 1 ROP (min/ft)	Depth	Porosity 24% 18% 12% 6%	Lithology	Oil Shows	Geological Descriptions	TG, C1-C5 TG (units) C1 (units) C2 (units) C3 (units) C4 (units) C5 (units)

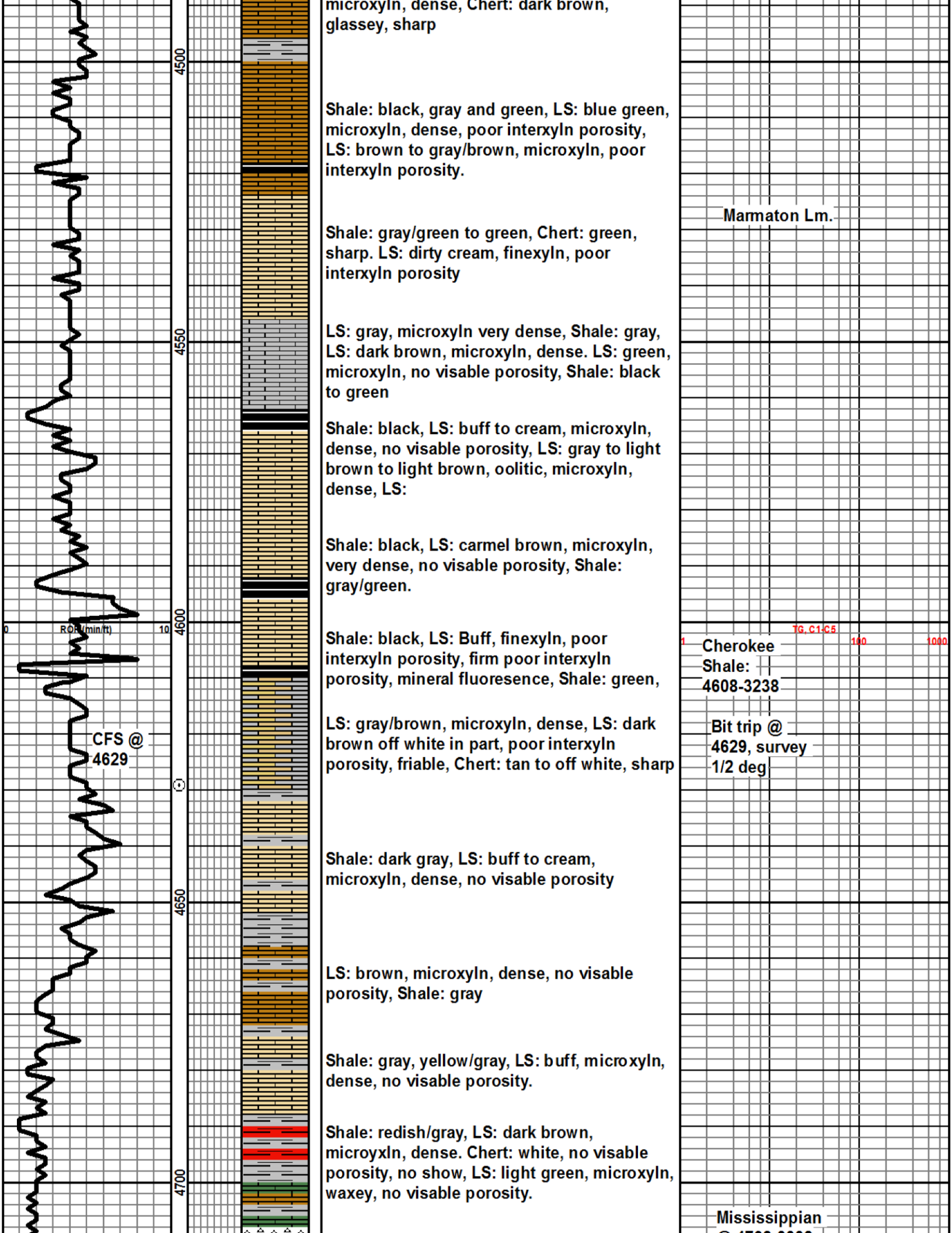

0
ROP (min/ft)
10
3400
3450
3500
3550
3600
TG, C1-C5
1
10
100
1000
LS: cream to buff, microxyln, dense, no visable porosity, LS: dark gray, microxyln, no visable porosity
Siltstone: gray, blocky, poor intergranular porosity, slightly micaceous, no show of gas bubbels when chrushed, no fluoresence. no odor. Shale: gray to gray green, silty in part,
Siltstone: gray, blocky, poor intergranular porosity, slightly micaceous, no show of gas bubbels when chrushed, no fluoresence. no odor.
CFS @ 3520
Shale: gray with paper thin cabonaceous plant material partings, carbonaceous fragments, SD. STN: gray, fine grain, poor intergranular porosity, random gas bubbels, no fluoresence.
Siltstone: gray, micaceous, dense, poor intergranular porosity, Shale: gray,

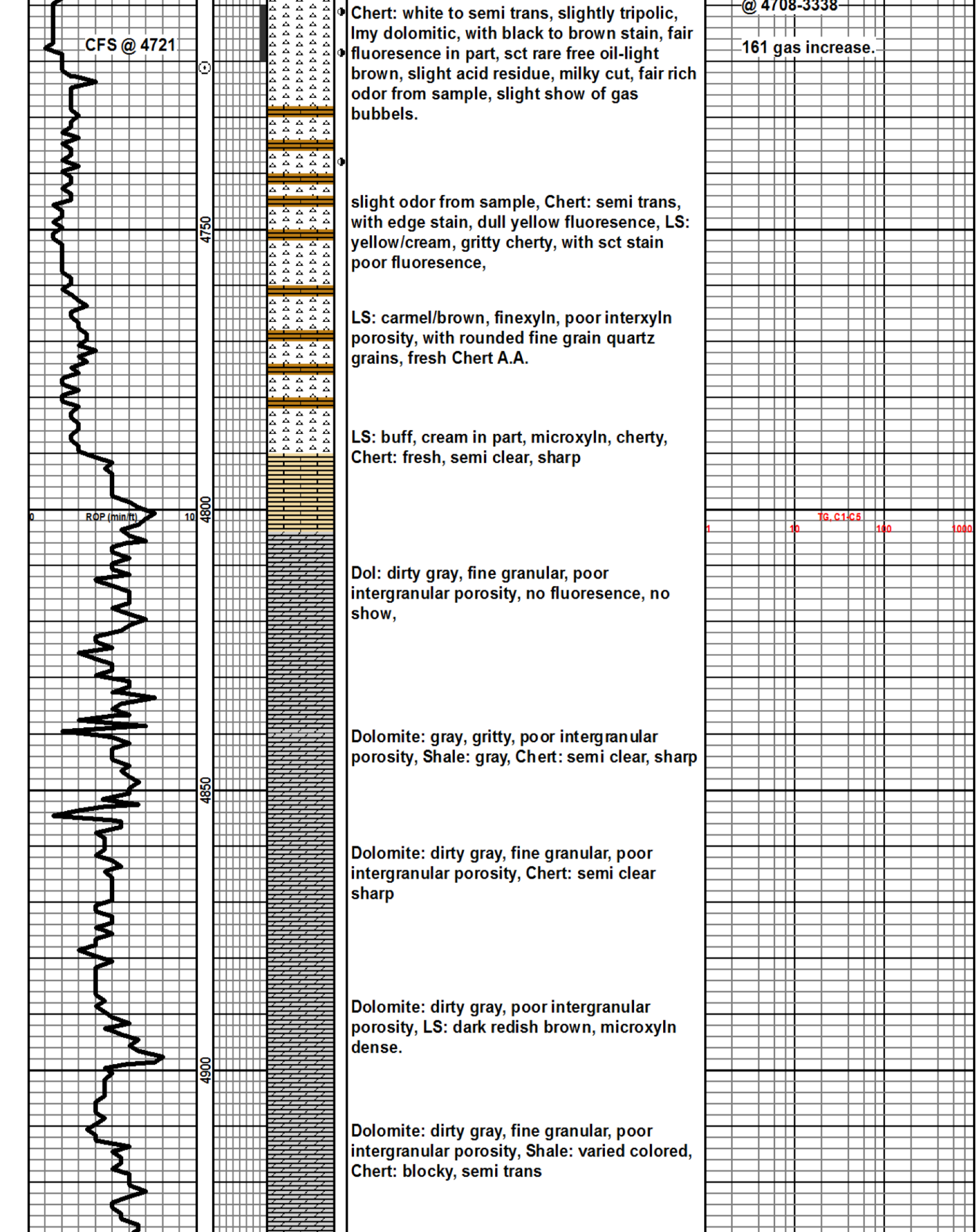

3650
3700
3750
3800
ROP (min/ft)
0
10
TG, C1-C5
1
10
100
1000
Shale: green to gray, fissle in part,
Shale: dark gray to black, LS: dark brown, microxyln, dense.
Shale: black carb, LS: buff to dark gray/brown, microxyln,
Heebner Shale @ 3663-2293
Shale: black, massive, LS: gray/brown, microxyln, very dense, blocky, Shale:gray
Toronto Lm.
LS: dark gray/brown, microxyln, very dense, friable, no show. LS: cream, finexyln, poor visable porosity, fair interxyln porosity, no show, poor fluoresence
LS: cream to buff, finexyln, friable, no show, LS: dark brown, microxyln, very dense, slight visable porosity,
Shale: gray
Shale: gray to gray/green to green, Siltstone: gray, tight
Shale: gray
Shale: gray/green, blocky

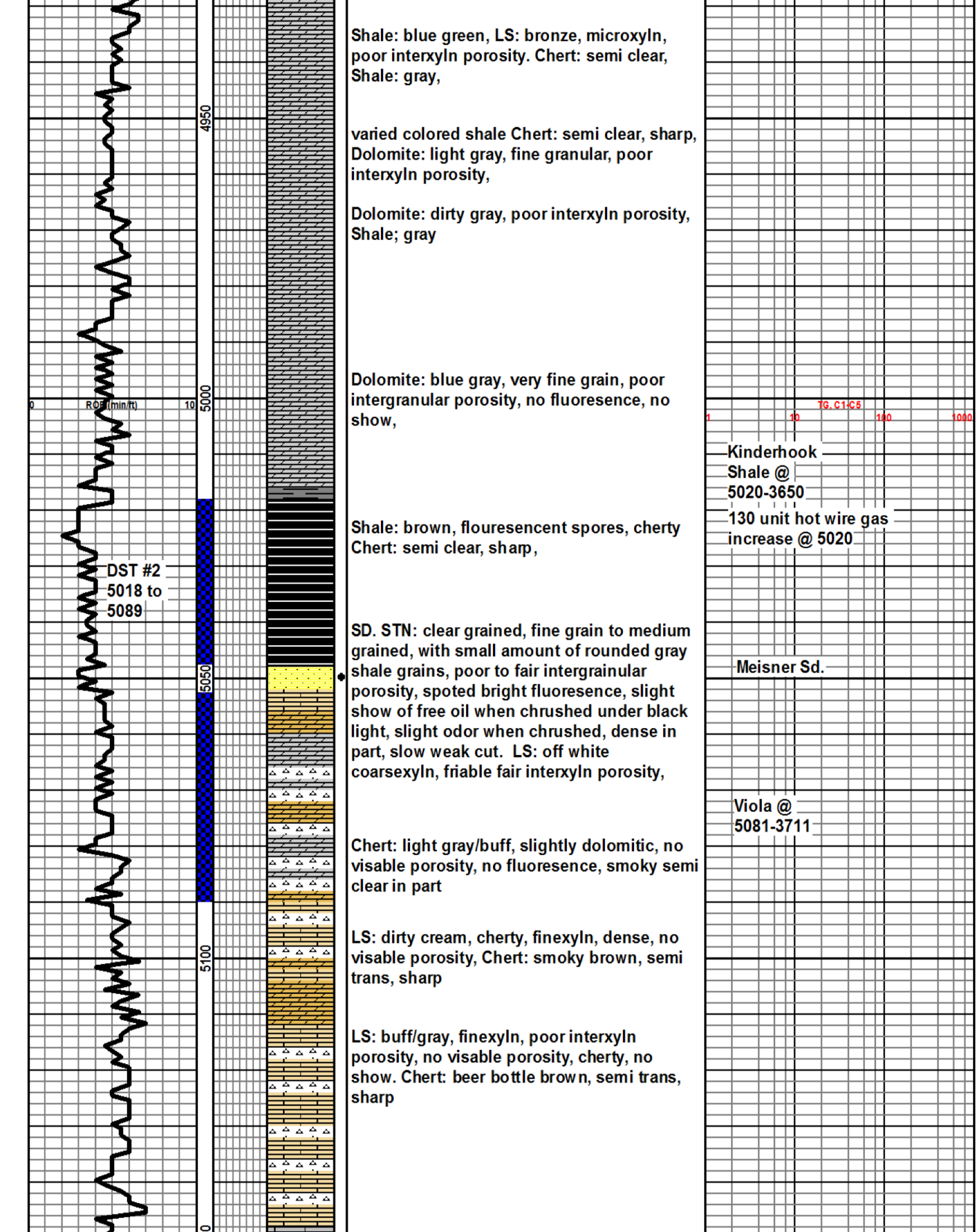

Shale: gray/green to green blocky, massive,
Siltstone: gray, dense
Shale: gray to gray/brown, soft
Shale: gray, silty
Shale: gray, laminar, silty, sct gray Siltstone
DST #1 3919
to 3985
Haskell LM @
3917-2547
20 stand short trip
before DST #1 Strap
pipe .17 long, surve
1/2 Deg.
Shale: gray, LS: dark brown, microxyln,
mudstone, dense, slightly cryptoxyln in part,
Shale: gray to green
Shale: gray to green
Shale: gray, carbonaceous layers, and pyritic
layers,
Stalnaker SD.
STN. @:
3968-2598
Siltstone: light gray, micaceous, laminar,
poor intergranuar porosity, no fluoresence,
random and rare show of gas bubbels when
chrushed, no ordor from sample, 46 unit hot
wire gas increase.
CFS @ 3979
& 3985
3850
3900
3950
4000
ROP (min/ft)
10
TG. C1-C5
1
10
100
1000
Siltstone: light gray to light brown, poor
intergranular porosity, no show when
chrushed, micaceous, no fluoresence from
sample
increase in Siltstone: gray to light brown,

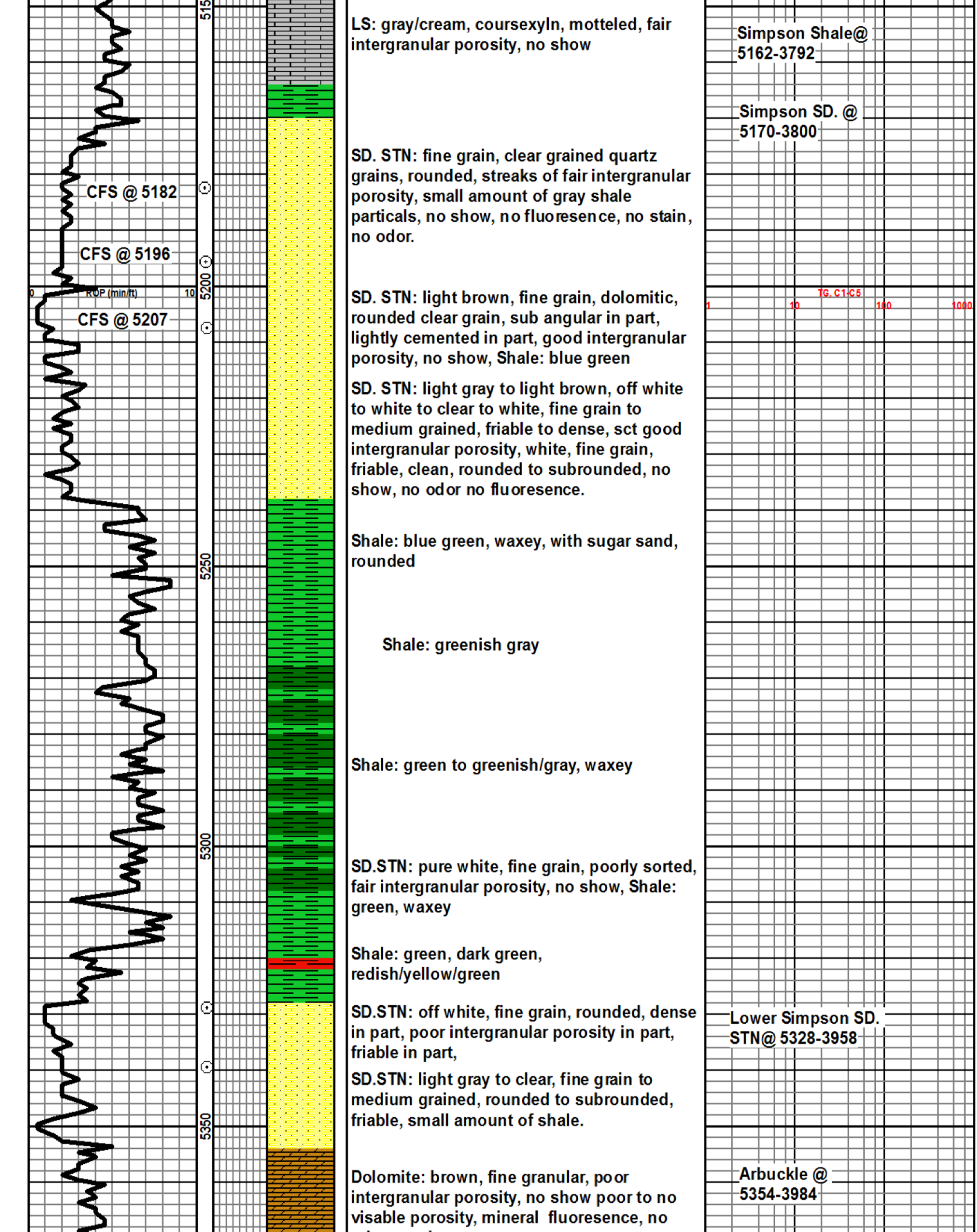

poor intergranular porosity, SD.STN: white, fine grain, fair intergranular porosity, poorly sorted, rounded, no show
SD.STN: white, fine grain, fair intergranular porosity, poorly sorted, rounded, no show, Shale: gray
Shale: gray,
Shale: gray, LS: buff, dense, microxyln, sluff?
Shale: gray, massive, sct carboniferous layering. slick in part
Shale: gray, with sct pyrite layers
LS: brown to gray/brown, microxyln mudstone, no visable porosity, poor interxyln porosity, firm. Shale: black carb, dense
LS: cream to buff, sct gray/buff, finexyln to microxyln, friable to sub chky, no show, no fluoresence, no odor, cyptoxyln in part
Kansas City
@ 4225-2855
ROP (min/ft)
0
10
TG, C1-C5
1
10
100
1000
4050
4100
4150
4200
4250

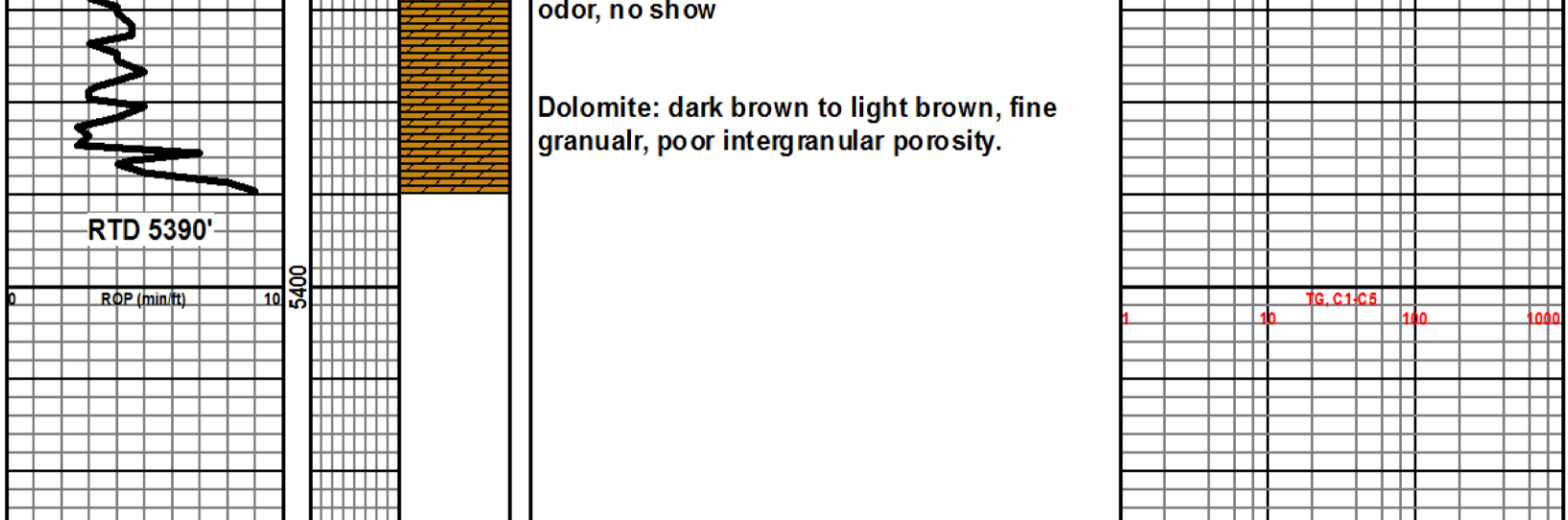

4300
4350
4400
4450
0
ROP (min/ft)
10
LS: cream, finexyln, fraible in part subchky in part. LS: buff to gray/brown, finexyln, firm no visable porosity, poor interxyln porosity, no show, no fluoresence, Shale: gray,
LS: cream to buff to brown, finexyln, scat. fair interxyln porosity, no show, shaley in part, with limestone cong, pieces, Chert: semi trans,
Shale: black to gray, LS: gray, finexyln, dense, LS: cream, finexyln, friable no show,
LS: light brown, microxyln, dense, no visable porosity, Chert: white to semi clear.
Chert: dark brown to gray, LS: gray/brown, microxyln, dense, Shale: black
Stark Shale@ 4378-3008
LS: dark gray to dark brown, microxyln, no vsiable porosity, Chert: white, porciline white.
LS: buff, finexyln, fraible, fair interxyln porosity, chky in part, no odor from sample, Chert: semi trans, sharp
TG, C1-C5
1
10
100
1000
Hush. Shale
LS: cream/buff to brown, finexyln to microxyln, firm, friable in part, Chert: semi trans, Shale: gray
LS: dark gray/brown, microxyln, dense, no visable porosity, Shale: gray to black
LS: brown, microxyln, lithographic, dense, poor interxyln porosity, Shale: gray
LS: brown, microxyln, dense, LS: gray/brown,


microxyln, dense, Chert: dark brown, glassey, sharp
4500
Shale: black, gray and green, LS: blue green, microxyln, dense, poor interxyln porosity, LS: brown to gray/brown, microxyln, poor interxyln porosity.
Marmaton Lm.
Shale: gray/green to green, Chert: green, sharp. LS: dirty cream, finexyln, poor interxyln porosity
4550
LS: gray, microxyln very dense, Shale: gray, LS: dark brown, microxyln, dense. LS: green, microxyln, no visable porosity, Shale: black to green
Shale: black, LS: buff to cream, microxyln, dense, no visable porosity, LS: gray to light brown to light brown, oolitic, microxyln, dense, LS:
Shale: black, LS: carmel brown, microxyln, very dense, no visable porosity, Shale: gray/green.
0
ROP (min/ft)
10
4600
TG, C1-C5
1
100
1000
Shale: black, LS: Buff, finexyln, poor interxyln porosity, firm poor interxyln porosity, mineral fluoresence, Shale: green,
Cherokee Shale: 4608-3238
CFS @ 4629
LS: gray/brown, microxyln, dense, LS: dark brown off white in part, poor interxyln porosity, friable, Chert: tan to off white, sharp
Bit trip @ 4629, survey 1/2 deg
Shale: dark gray, LS: buff to cream, microxyln, dense, no visable porosity
4650
LS: brown, microxyln, dense, no visable porosity, Shale: gray
Shale: gray, yellow/gray, LS: buff, microxyln, dense, no visable porosity.
Shale: redish/gray, LS: dark brown, microyxln, dense. Chert: white, no visable porosity, no show, LS: light green, microxyln, waxey, no visable porosity.
4700
Mississippian


CFS @ 4721
ROP (min/ft)
0
10
4750
4800
4850
4900
TG, C1-C5
1
10
100
1000
@ 4708-3338
161 gas increase.
Chert: white to semi trans, slightly tripolic, lmy dolomitic, with black to brown stain, fair fluoresence in part, sct rare free oil-light brown, slight acid residue, milky cut, fair rich odor from sample, slight show of gas bubbels.
slight odor from sample, Chert: semi trans, with edge stain, dull yellow fluoresence, LS: yellow/cream, gritty cherty, with sct stain poor fluoresence,
LS: carmel/brown, finexyln, poor interxyln porosity, with rounded fine grain quartz grains, fresh Chert A.A.
LS: buff, cream in part, microxyln, cherty, Chert: fresh, semi clear, sharp
Dol: dirty gray, fine granular, poor intergranular porosity, no fluoresence, no show,
Dolomite: gray, gritty, poor intergranular porosity, Shale: gray, Chert: semi clear, sharp
Dolomite: dirty gray, fine granular, poor intergranular porosity, Chert: semi clear sharp
Dolomite: dirty gray, poor intergranular porosity, LS: dark redish brown, microxyln dense.
Dolomite: dirty gray, fine granular, poor intergranular porosity, Shale: varied colored, Chert: blocky, semi trans


Shale: blue green, LS: bronze, microxyln, poor interxyln porosity. Chert: semi clear, Shale: gray,
varied colored shale Chert: semi clear, sharp, Dolomite: light gray, fine granular, poor interxyln porosity,
Dolomite: dirty gray, poor interxyln porosity, Shale; gray
Dolomite: blue gray, very fine grain, poor intergranular porosity, no fluoresence, no show,
ROP (min/ft)
0
10
4950
5000
5050
5100
TG, C1-C5
1
10
100
1000
Kinderhook Shale @ 5020-3650
130 unit hot wire gas increase @ 5020
Shale: brown, flouresencent spores, cherty Chert: semi clear, sharp,
DST #2 5018 to 5089
SD. STN: clear grained, fine grain to medium grained, with small amount of rounded gray shale grains, poor to fair intergrainular porosity, spoted bright fluoresence, slight show of free oil when chrushed under black light, slight odor when chrushed, dense in part, slow weak cut. LS: off white coarsexyln, friable fair interxyln porosity,
Meisner Sd.
Viola @ 5081-3711
Chert: light gray/buff, slightly dolomitic, no visable porosity, no fluoresence, smoky semi clear in part
LS: dirty cream, cherty, finexyln, dense, no visable porosity, Chert: smoky brown, semi trans, sharp
LS: buff/gray, finexyln, poor interxyln porosity, no visable porosity, cherty, no show. Chert: beer bottle brown, semi trans, sharp


CFS @ 5182
CFS @ 5196
ROP (min/ft)
0
10
CFS @ 5207
5150
5200
5250
5300
5350
LS: gray/cream, coursexyln, motteled, fair intergranular porosity, no show
SD. STN: fine grain, clear grained quartz grains, rounded, streaks of fair intergranular porosity, small amount of gray shale particals, no show, no fluoresence, no stain, no odor.
SD. STN: light brown, fine grain, dolomitic, rounded clear grain, sub angular in part, lightly cemented in part, good intergranular porosity, no show, Shale: blue green
SD. STN: light gray to light brown, off white to white to clear to white, fine grain to medium grained, friable to dense, sct good intergranular porosity, white, fine grain, friable, clean, rounded to subrounded, no show, no odor no fluoresence.
Shale: blue green, waxey, with sugar sand, rounded
Shale: greenish gray
Shale: green to greenish/gray, waxey
SD.STN: pure white, fine grain, poorly sorted, fair intergranular porosity, no show, Shale: green, waxey
Shale: green, dark green, redish/yellow/green
SD.STN: off white, fine grain, rounded, dense in part, poor intergranular porosity in part, friable in part,
SD.STN: light gray to clear, fine grain to medium grained, rounded to subrounded, friable, small amount of shale.
Dolomite: brown, fine granular, poor intergranular porosity, no show poor to no visable porosity, mineral fluoresence, no
Simpson Shale@ 5162-3792
Simpson SD. @ 5170-3800
TG, C1-C5
1
10
100
1000
Lower Simpson SD. STN@ 5328-3958
Arbuckle @ 5354-3984


odor, no show
Dolomite: dark brown to light brown, fine granualr, poor intergranular porosity.
RTD 5390'
0
ROP (min/ft)
10
5400
TG, C1-C5
1
10
100
1000