GEOLOGIC REPORT

DAVID J. GOLDAK

WICHITA, KANSAS

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

Well Name:	**Mastre Trust #1-11**		
Location:	**Section 11 - T19S - R2W**		
License Number:	**API: 15-113-21346**	**Region:**	**McPherson Co., KS**
Spud Date:	**05 / 09 / 2011**	**Drilling Completed:**	**05 / 15 / 2011**
Surface Coordinates:	**1980' FSL and 1815' FEL** **W/2 - E/2 - NW - SE**		
Bottom Hole Coordinates:			
Ground Elevation (ft):	**1559'**	**K.B. Elevation (ft):**	**1568'**
Logged Interval (ft):	**1900'** **To: 3500'**	**Total Depth (ft):**	**3500'**
Formation:	**Arbuckle**		
Type of Drilling Fluid:	**Chemical - Mud Co**		

OPERATOR

Company: **American Energies Corporation**
Address: **155 N. Market, Suite 710**
Wichita, Kansas 67202

GEOLOGIST

Name: **David J. Goldak** **and** **David Barker**
Company: **D. J. GOLDAK, INC.**
Address: **155 N. Market, Suite 710** **212 N. Market, Suite 320**
Wichita, Kansas 67202 **Wichita, Kansas 67202**

General Info

CONTRACTOR: C&G Drilling, Rig #2

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	Geo D-GR535	6-16s	212	212	?
2	7-7/8	HTC-TN1653	6-14s	2432	2220	25.00
3	7-7/8	HTC-HX518	20-24-28	2803	371	23.25
4	7-7/8	HTC-GX23	24-24-28	3500	697	?

SURVEYS: 212'-0.25, 1062'-0.25, 1529'-0.5, 2432'-0.75

GENERAL DRILLING & PUMP INFORMATION:
Pumping 56 S/M, 8.26 B/M, with 600 psi at the Standpipe.
Drilling w/PDC: 12,000-15,000 lbs on bit, at 150 RPM.
Drilling w/Conv: 20,000-25,000 lbs on bit at 80 RPM

DSTs

None

Daily Status

05/09/11 - MIRT and Drill Rathole & Mousehole
05/10/11 - Spud at 7:00 AM; Set 8-5/8" Csg at 203'
05/11/11 - 800' Drilling
05/12/11 - 2,432' Bit Trip
05/13/11 - 2,775' Drilling; Bit trip @ 2,803'
05/14/11 - 3,110' Drilling
05/15/11 - 3,500' Prep to log

ROCK TYPES

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Carb sh
- Dol
- Dtd
- Gry sh
- Sandylms
- Shale
- Sltstn
- Shlyslts
- Sltysh
- Lms
- cream dolomite
- lgt gray dolomite
- brown dolomite

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

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

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

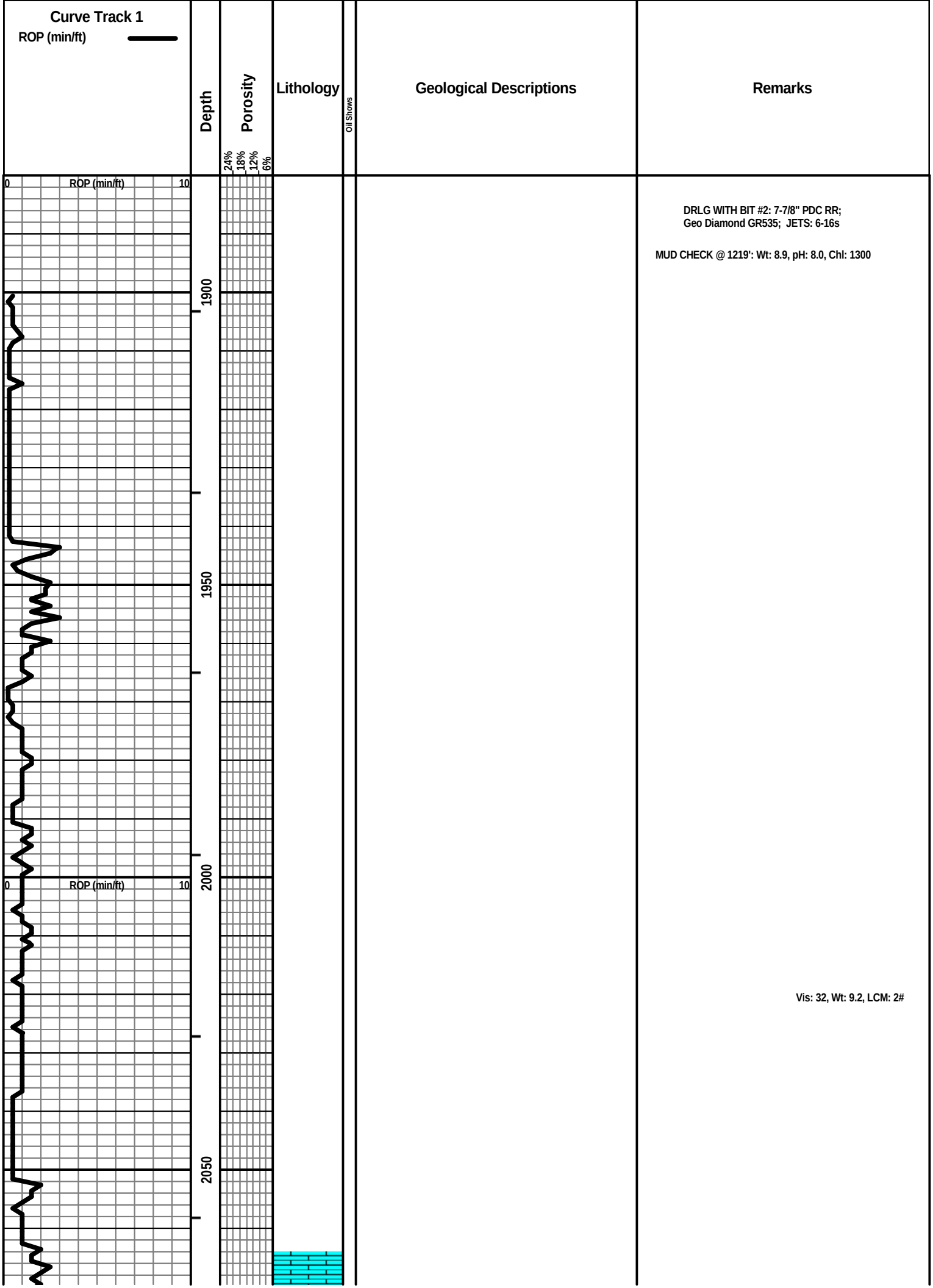
INTERVALS

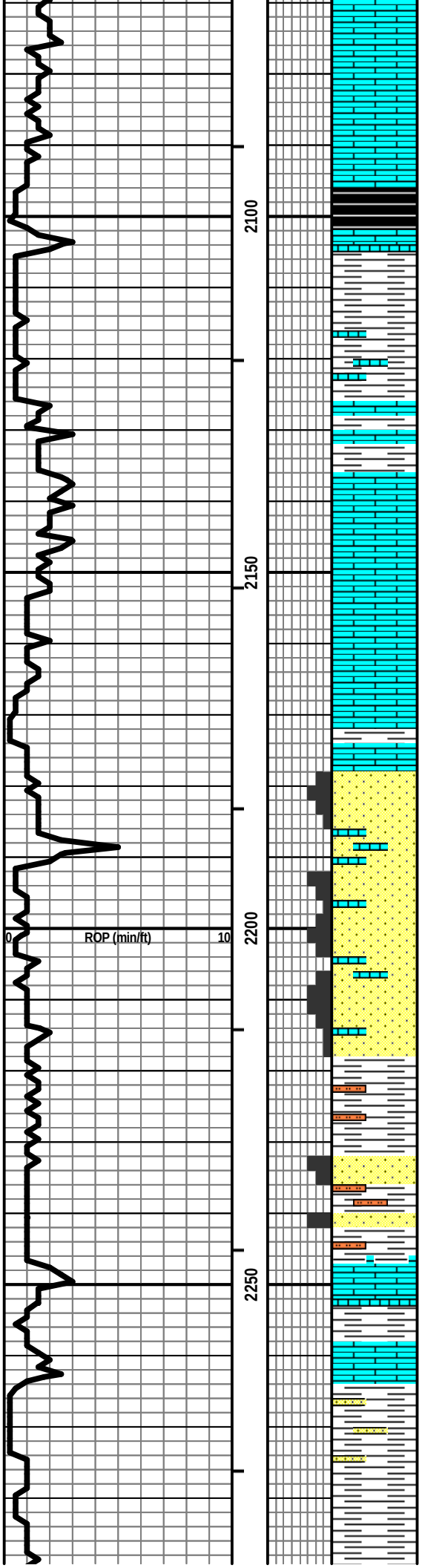
- Core
- Dst

- Dst

EVENTS

- Rft
- Sidewall
- Conn


Curve Track 1
ROP (min/ft)
Depth
Porosity
24%
18%
12%
6%
Lithology
Oil Shows
Geological Descriptions
Remarks
0
ROP (min/ft)
10
1900
1950
2000
2050
DRLG WITH BIT #2: 7-7/8" PDC RR;
Geo Diamond GR535; JETS: 6-16s
MUD CHECK @ 1219': Wt: 8.9, pH: 8.0, Chl: 1300
Vis: 32, Wt: 9.2, LCM: 2#



LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, TR FOSS, CHKY IN PT, PRED DNS, NS

BEGIN MUD-UP @ 2,090'

HEEBNER 2096 (-528)

SH - BLK, CARB W/ LS - TAN / BRN, VF / F XLN, SL FOSS, PRED DNS, NS W/ SH - GY / SCAT GRN

LS - TAN / BRN, MOT IN PT, F XLN, FOSS IN PT, SCAT ARGIL, PRED DNS, NS W/ SH - GY / GRN

Vis: 33, Wt: 9.0, LCM: 4#

LS - BRN / TAN, AS ABOVE, PRED DNS, NS

LS - AS ABOVE W/ SS - GY / SCAT CRM, MOT IN PT, VF / F QTZ GR, SA / R, PRED W SRTD, MIC, SL / V CALC CEM, LMY IN PT, PRED P / F INTGR POR, SCAT FRI + G POR, NS

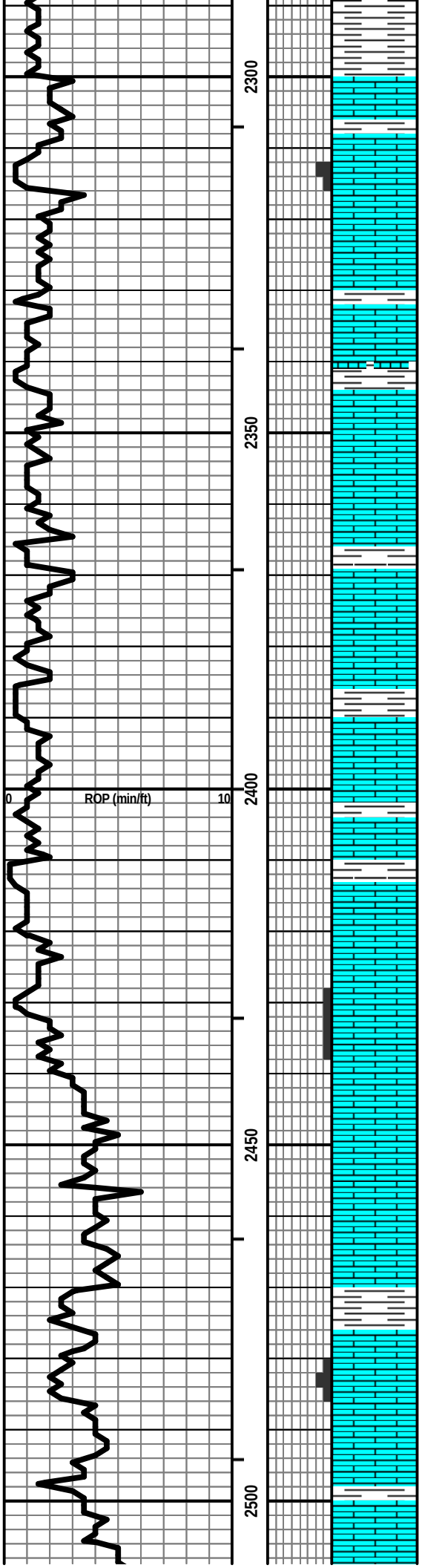
SS - AS ABOVE, SL / ABNT LS FRAG IN PT W/ SCAT LS - TAN / CRM, F XLN, AREN, SL FOSS, NS

SS - GY, AS ABOVE W/ SH - GY / GRN

SH - GY / SCAT GRN, SLTY IN PT W/ SCAT SS - AS ABOVE

LS - CRM / TAN / BRN, MOT IN PT, VF / F XLN, FOSS, PRED DNS, NS W/ SH - GY / GRN, SLTY IN PT, FOSS IN PT

SH - LT / MED / DK GY, SLTY IN PT W/ TR SS - AS ABOVE, NS



Vis: 36, Wt: 9.2, LCM: 3#

LS - CRM / TAN, VF / F XLN, OOL + FOSS IN PT, PRED DNS, NS W/ SH - AS ABOVE

LANSING 2300 (-732)

LS - CRM / LT GY / WHT, VF / F XLN, OOL, SCAT P OOM POR, SCAT CHKY, PRED DNS, NS

LS - CRM / TAN / SCAT GY, VF / F XLN, FOSS IN PT, SCAT CHKY, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, FOSS, SCAT OOL, CHKY IN PT, PRED DNS, NS

NO SAMPLES - DID NOT CFS PRIOR TO TRIP

BIT TRIP @ 2,432'

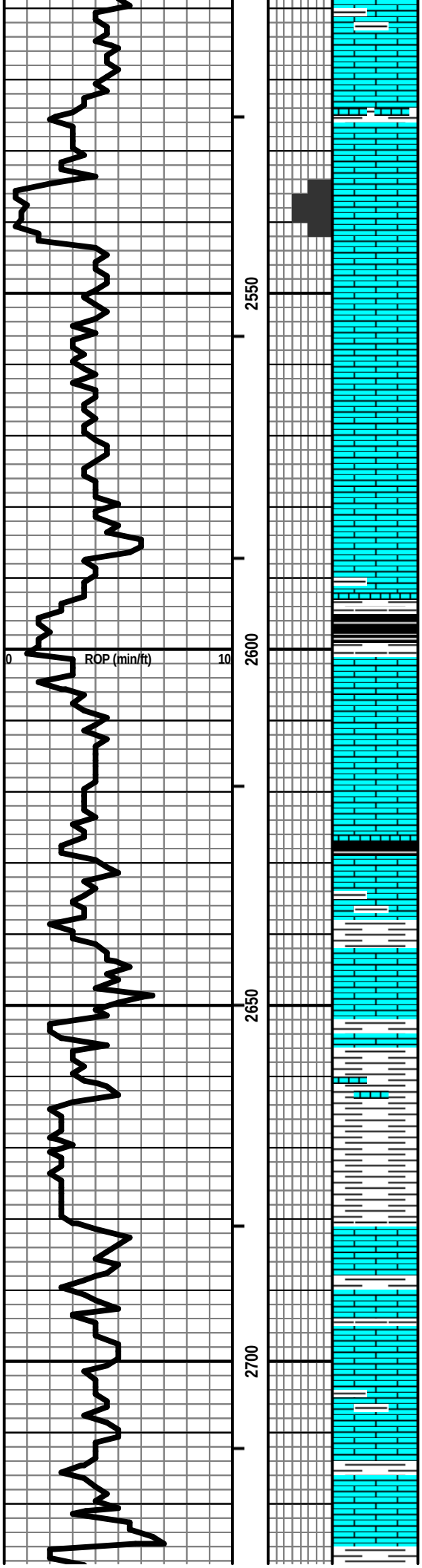
LS - CRM / GY, F XLN, TR FOSS, SCAT P INTXLN POR, PRED DNS, NS

DRLG WITH BIT #3: 7-7/8" CONV RR; HTC HX518; JETS: 20-24-28

LS - TAN / BRN, VF / F XLN, TR FOSS, PRED DNS, NS

LS - CRM / SCAT TAN, F XLN, FNLY OOL, FOSS IN PT, SCAT P INTXLN POR, SCAT CHKY, PRED DNS, NS

Vis: 34, Wt: 9.0, YP: 10, GelS: 1/2, pH: 9.0, WL: 10.2, Chl: 1000, LCM: 3.5#



LS - TAN / CRM / BRN, VF / F XLN, FOSS IN PT, SCAT OOL, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, F XLN, OOL, FOSS IN PT, F / G OOM + INTXLN POR, SCAT CHKY / DNS, NS

LS - TAN / CRM / SCAT BRN, VF / F XLN, SL FOSS, SCAT OOL, PRED DNS, NS

LS - TAN / CRM / BRN, MOT IN PT, VF / F XLN, SL FOSS, SCAT CHKY, PRED DNS, NS

LS - GY / CRM, F XLN, OOL, SCAT P OOM POR, SCAT VP / NO INTXLN POR, NS W/ LS - CRM / TAN, VF / F XLN, SUBCHKY IN PT, PRED DNS, NS

Vis: 34, Wt: 9.3, LCM: 2#

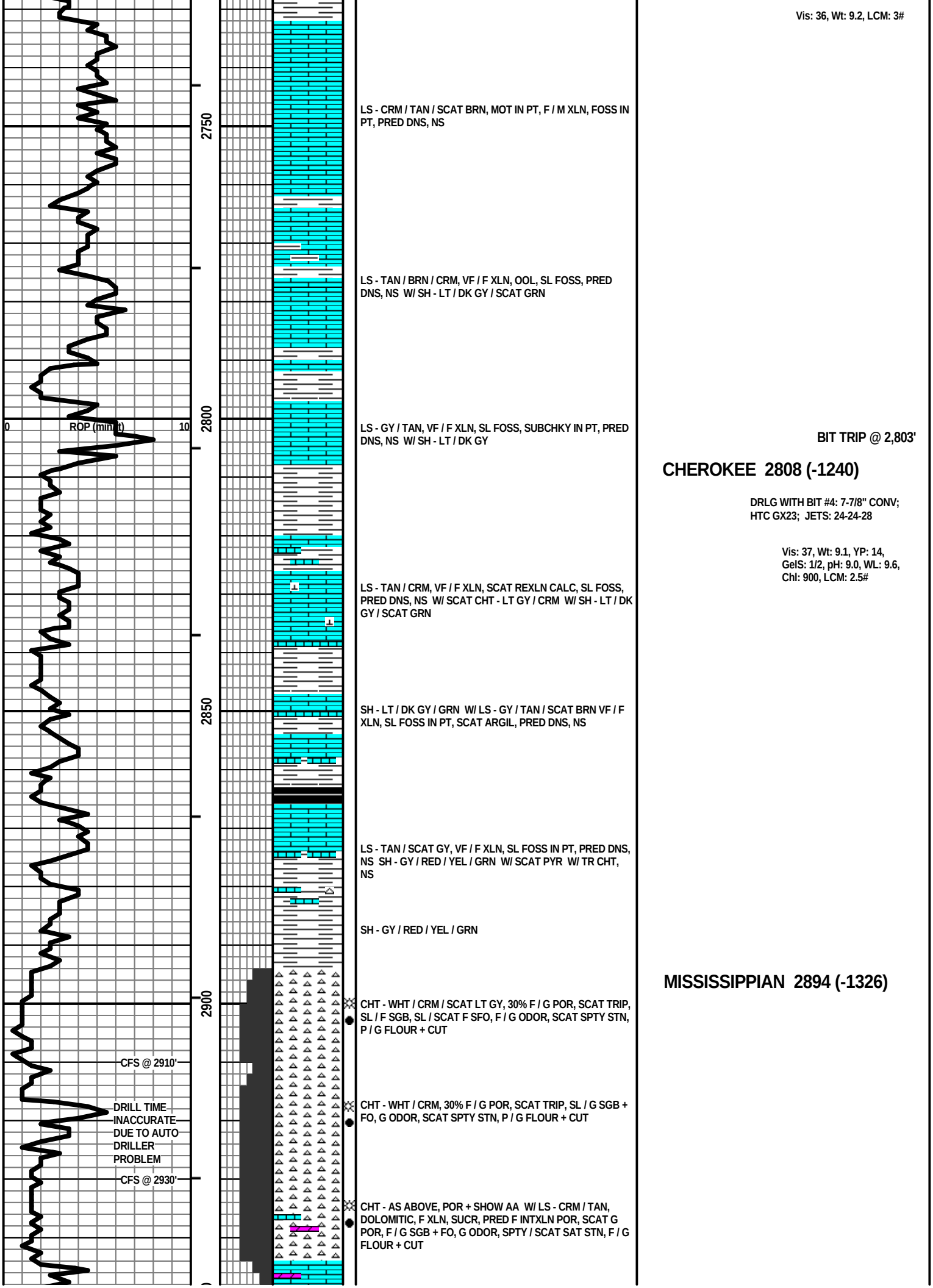
LS - TAN / CRM / BRN, VF / F XLN, SCAT FOSS + OOL, SCAT CHKY, PRED DNS, NS W/ SH - GY / SCAT GRN

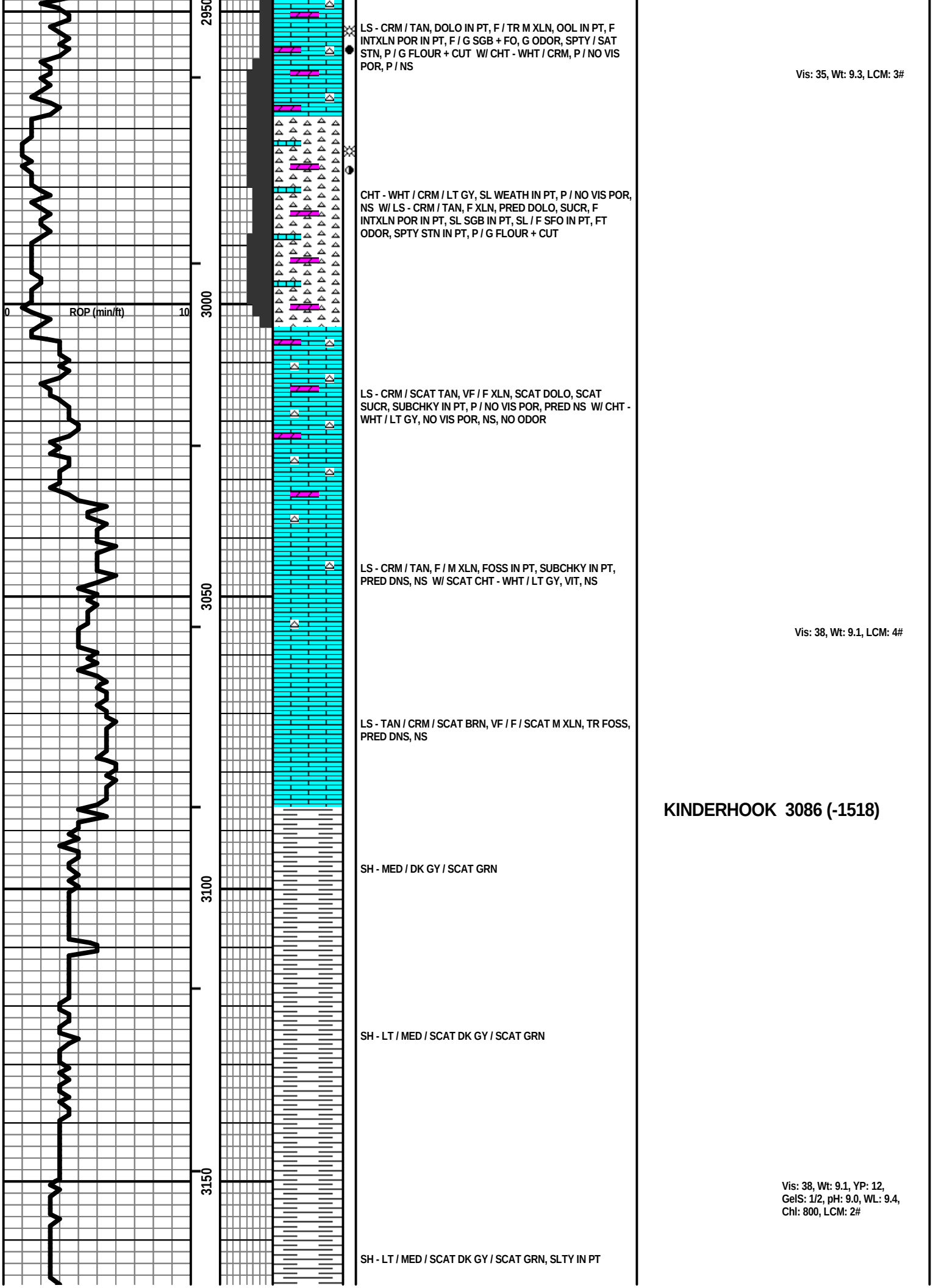
BASE OF KC 2656 (-1088)

SH - MED / DK GY W/ SCAT LS - AS ABOVE

LS - TAN / BRN, F XLN, SCAT M / C REXLN CALC, FOSS IN PT, PRED DNS, NS W/ LS - CRM / LT GY, VF / F XLN, TR FOSS, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, F XLN, SL FOSS, PRED DNS, NS W/ SH - LT / MED / DK GY, CALC IN PT


0
ROP (min/ft)
10
2750
2800
2850
2900
CFS @ 2910'
DRILL TIME INACCURATE DUE TO AUTO DRILLER PROBLEM
CFS @ 2930'
LS - CRM / TAN / SCAT BRN, MOT IN PT, F / M XLN, FOSS IN PT, PRED DNS, NS
LS - TAN / BRN / CRM, VF / F XLN, OOL, SL FOSS, PRED DNS, NS W/ SH - LT / DK GY / SCAT GRN
LS - GY / TAN, VF / F XLN, SL FOSS, SUBCHKY IN PT, PRED DNS, NS W/ SH - LT / DK GY
LS - TAN / CRM, VF / F XLN, SCAT REXLN CALC, SL FOSS, PRED DNS, NS W/ SCAT CHT - LT GY / CRM W/ SH - LT / DK GY / SCAT GRN
SH - LT / DK GY / GRN W/ LS - GY / TAN / SCAT BRN VF / F XLN, SL FOSS IN PT, SCAT ARGIL, PRED DNS, NS
LS - TAN / SCAT GY, VF / F XLN, SL FOSS IN PT, PRED DNS, NS SH - GY / RED / YEL / GRN W/ SCAT PYR W/ TR CHT, NS
SH - GY / RED / YEL / GRN
CHT - WHT / CRM / SCAT LT GY, 30% F / G POR, SCAT TRIP, SL / F SGB, SL / SCAT F SFO, F / G ODOR, SCAT SPTY STN, P / G FLOUR + CUT
CHT - WHT / CRM, 30% F / G POR, SCAT TRIP, SL / G SGB + FO, G ODOR, SCAT SPTY STN, P / G FLOUR + CUT
CHT - AS ABOVE, POR + SHOW AA W/ LS - CRM / TAN, DOLOMITIC, F XLN, SUCR, PRED F INTXLN POR, SCAT G POR, F / G SGB + FO, G ODOR, SPTY / SCAT SAT STN, F / G FLOUR + CUT
Vis: 36, Wt: 9.2, LCM: 3#
BIT TRIP @ 2,803'
CHEROKEE 2808 (-1240)
DRLG WITH BIT #4: 7-7/8" CONV; HTC GX23; JETS: 24-24-28
Vis: 37, Wt: 9.1, YP: 14, GelS: 1/2, pH: 9.0, WL: 9.6, Chl: 900, LCM: 2.5#
MISSISSIPPIAN 2894 (-1326)



LS - CRM / TAN, DOLO IN PT, F / TR M XLN, OOL IN PT, F INTXLN POR IN PT, F / G SGB + FO, G ODOR, SPTY / SAT STN, P / G FLOUR + CUT W/ CHT - WHT / CRM, P / NO VIS POR, P / NS

Vis: 35, Wt: 9.3, LCM: 3#

CHT - WHT / CRM / LT GY, SL WEATH IN PT, P / NO VIS POR, NS W/ LS - CRM / TAN, F XLN, PRED DOLO, SUCR, F INTXLN POR IN PT, SL SGB IN PT, SL / F SFO IN PT, FT ODOR, SPTY STN IN PT, P / G FLOUR + CUT

LS - CRM / SCAT TAN, VF / F XLN, SCAT DOLO, SCAT SUCR, SUBCHKY IN PT, P / NO VIS POR, PRED NS W/ CHT - WHT / LT GY, NO VIS POR, NS, NO ODOR

LS - CRM / TAN, F / M XLN, FOSS IN PT, SUBCHKY IN PT, PRED DNS, NS W/ SCAT CHT - WHT / LT GY, VIT, NS

Vis: 38, Wt: 9.1, LCM: 4#

LS - TAN / CRM / SCAT BRN, VF / F / SCAT M XLN, TR FOSS, PRED DNS, NS

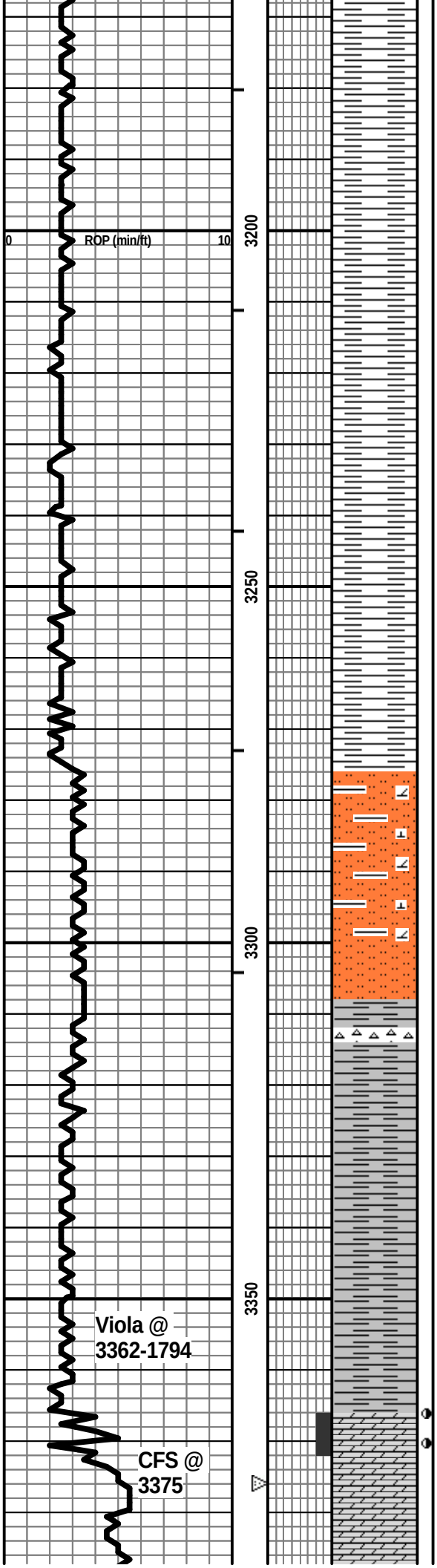
KINDERHOOK 3086 (-1518)

SH - MED / DK GY / SCAT GRN

SH - LT / MED / SCAT DK GY / SCAT GRN

Vis: 38, Wt: 9.1, YP: 12, GelS: 1/2, pH: 9.0, WL: 9.4, Chl: 800, LCM: 2#

SH - LT / MED / SCAT DK GY / SCAT GRN, SLTY IN PT



SH - LT / MED / SCAT DK GY / SCAT GRN, SLTY IN PT

SH - LT / MED / SCAT DK GY / SCAT GRN, SLTY IN PT

Vis: 36, Wt: 9.3, LCM: 2.5#

SLTST - GY / TAN, CALC / DOLO, ARGIL IN PT W/ SH - AS ABOVE

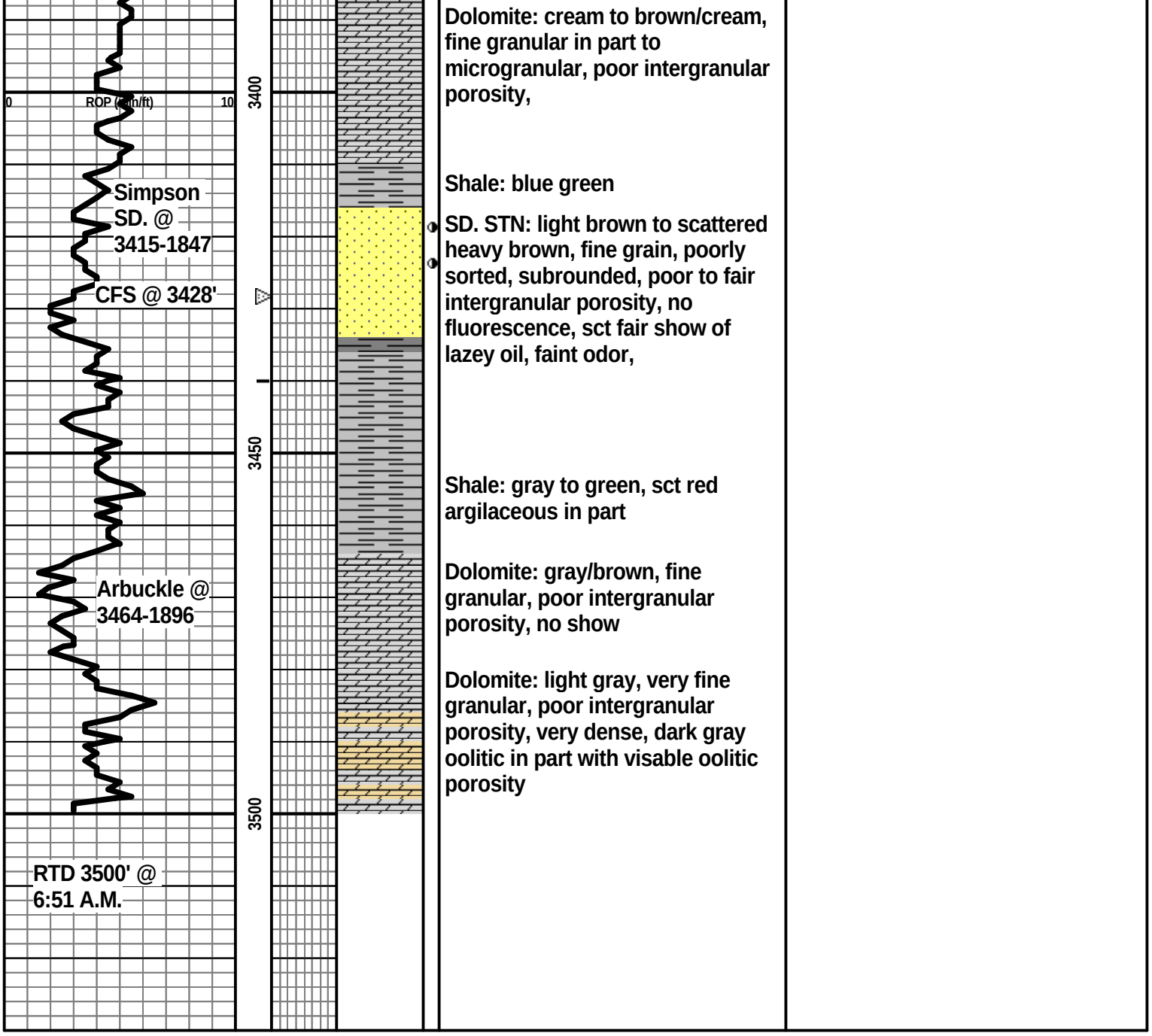
Chert: white, fresh, sharp. Siltstone: light gray, poor intergranular porosity, Shale: gray, dense

Shale: gray to gray/green, soft mushy in part

Shale: green, subwaxy,

Shale: red to gray and green

Dolomite: light gray/white, coarsexyln, good visable porosity, spotted oil stain, fair odor from sample,


0
ROP (min/ft)
10
3400
3450
3500
Simpson
SD. @
3415-1847
CFS @ 3428'
Arbuckle @
3464-1896
RTD 3500' @
6:51 A.M.
Dolomite: cream to brown/cream, fine granular in part to microgranular, poor intergranular porosity,
Shale: blue green
SD. STN: light brown to scattered heavy brown, fine grain, poorly sorted, subrounded, poor to fair intergranular porosity, no fluorescence, sct fair show of lazey oil, faint odor,
Shale: gray to green, sct red argilaceous in part
Dolomite: gray/brown, fine granular, poor intergranular porosity, no show
Dolomite: light gray, very fine granular, poor intergranular porosity, very dense, dark gray oolitic in part with visable oolitic porosity