

# GEOLOGIC REPORT

## DAVID J. GOLDAK

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

Well Name: Murphy #1-25  
Location: Section 25 - T29S - R12W  
License Number: API: 15-151-22377  
Spud Date: 14 July 2011  
Surface Coordinates: 1400' FSL and 990' FEL  
Approx. E/2 - W/2 - SE  
Region: Pratt Co., KS  
Drilling Completed: 26 July 2011  
Bottom Hole Coordinates:  
Ground Elevation (ft): 1866' K.B. Elevation (ft): 1876'  
Logged Interval (ft): 2434' To: 4708' Total Depth (ft): 4708'  
Formation: Arbuckle  
Type of Drilling Fluid: Chemical - Mud-Co

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

### OPERATOR

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

### GEOLOGIST

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

### General Info

CONTRACTOR: Pickrell Drilling, Rig #1

#### BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ - L116	3-15s	316	316	3.00
2	7-7/8	JZ-QX20J	3-14s	4615	4299	109.00
3	7-7/8	JZ-547	3-14s	4708	93	7.25

SURVEYS: 316'-0.5, 1375'-0.75, 2433'-0.50, 3202'-1.25,  
4365'-0.75; 4708'-0.75

#### GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 35,000-40,000 lbs. on bit and 75 RPM.  
Pumping 62 S/M, 7.9 B/M, and 800 psi at standpipe.

## Daily Status

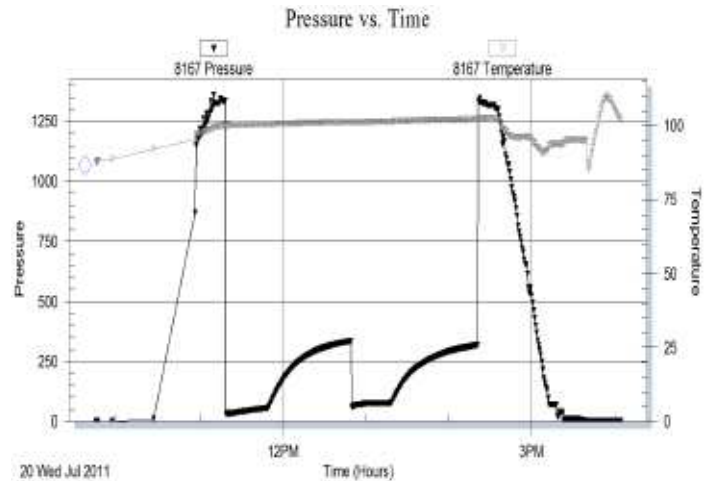
07/14/11 - Spud @ 6:15 PM; Set 8-5/8" Csg at 310'  
07/15/11 - 316' Shut down  
07/16/11 - 316' Shut down  
07/17/11 - 316' Shut down  
07/18/11 - 781' Drilling  
07/19/11 - 2,075' Drilling  
07/20/11 - 2,814' Prep for DST #1  
07/21/11 - 3,180' Drilling; DST #2 in PM  
07/22/11 - 3,427' Drilling  
07/23/11 - 3,864' DST #3  
07/24/11 - 4,135' Drilling  
07/25/11 - 4,535' Drilling; DST #4 in PM  
07/26/11 - 4,625' Drilling; RTD 4708'; Log in PM

**DST #1: 2,768' - 2,814' (Indian Cave)**  
30" - 60" - 30" - 60"

IF: Good blow, BOB in 4-1/2 minutes  
ISI: No blow back  
FF: Weak blow, building to 8 inches  
FSI: No blow back

RECOVERY: 240' GIP & 125' Total Fluid, consisting of:  
125' WM (probably thin drilling mud)  
Chlorides Recovery: 47,000 ppm

SIP: 333-318; FP: 29-54, 59-76; HP: 1335-1330; BHT: 102

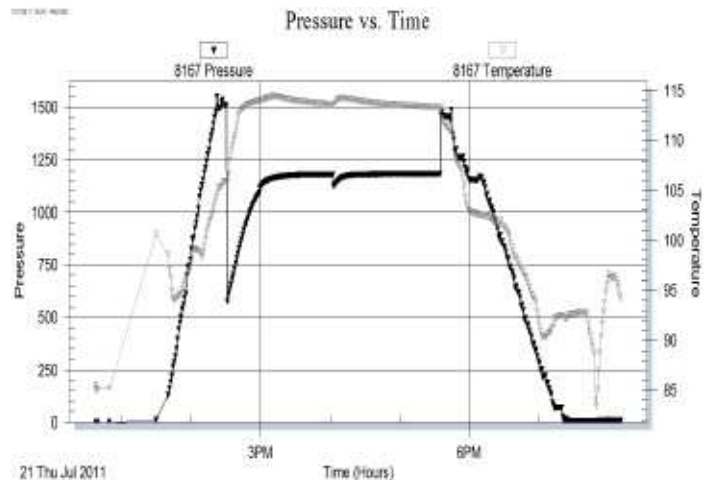


**DST #2: 3,150' - 3,202' (Bern Ls)**  
30" - 60" - 30" - 60"

IF: Good blow, BOB in 35 seconds  
ISI: No blow back  
FF: Good blow, BOB in 50 seconds  
FSI: No blow back

RECOVERY: 2,520' Total Fluid, consisting of:  
310' MW (85% W, 15% M)  
2,210' GCW (4% G, 96% W)  
Chlorides Recovery: 105,000 ppm

SIP: 1181-1183; FP: 576-1093, 1126-1181; HP: 1510-1474;  
BHT: 114

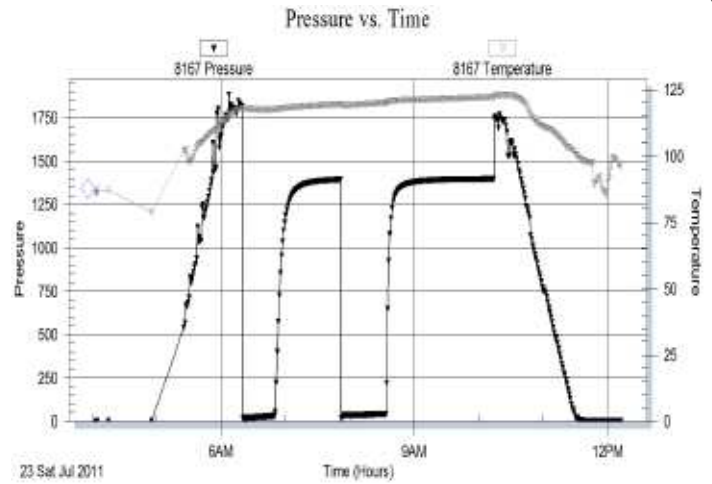


**DST #3: 3,858' - 3,864' (Lower Douglas Sand)**  
 30" - 60" - 45" - 90"

**IF:** Good blow, BOB in 2 minutes  
**ISI:** No blow back  
**FF:** GTS in 16 min. - Guaged through 1/4" orifice:  
 20 & 30 min. - 26 MCF, 40 & 45 min. - 28 MCF  
**FSI:** No blow back

**RECOVERY:** 65' Total Fluid, consisting of:  
 65' MW (55% W, 45% M)  
 Chlorides Recovery: 28,000 ppm

**SIP:** 1393-1396; **FP:** 16-31, 19-41; **HP:** 1820-1757; **BHT:** 122

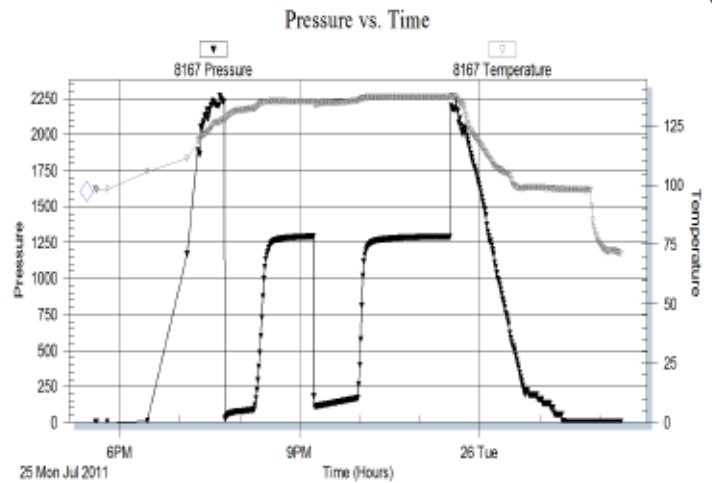


**DST #4: 4,586' - 4,615' (Simpson Sand)**  
 30" - 60" - 45" - 90"


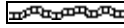
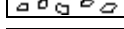





**IF:** Good blow, BOB in 7 minutes  
**ISI:** Fair blow, building to 11 inches  
**FF:** GTS in 9 min. - Guaged through 1/4" orifice:  
 20 min. - 24 MCF, 30 & 45 min. - 26 MCF  
**FSI:** Fair blow, building to BOB



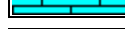



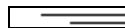

**RECOVERY:** 417' Total Fluid, consisting of:  
 110' GMCO (60% G, 22% O, 18% M)  
 242' GM&WCO (36% G, 44% O, 16% W, 4% M)  
 65' OCMW (5% O, 84% W, 11% M)  
 Chlorides Recovery: 59,000 ppm




**SIP:** 1292-1291; **FP:** 27-92, 107-168; **HP:** 2233-2190; **BHT:** 137



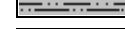
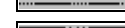




**ROCK TYPES**

-  Anhy
-  Bent
-  Brec
-  Cht
-  Clyst
-  Coal
-  Congl
-  Dol

-  Gyp
-  Igne
-  Lmst
-  Meta
-  Mrlst
-  Salt
-  Shale
-  Shcol

-  Shgy
-  Slst
-  Ss
-  Till
-  Carb sh
-  Dol
-  Dtd
-  Gry sh

-  Sandylms
-  Shale
-  Slstsn
-  Shlyslts
-  Sltysh
-  Lms

## ACCESSORIES

### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- 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
- Sltly

### 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

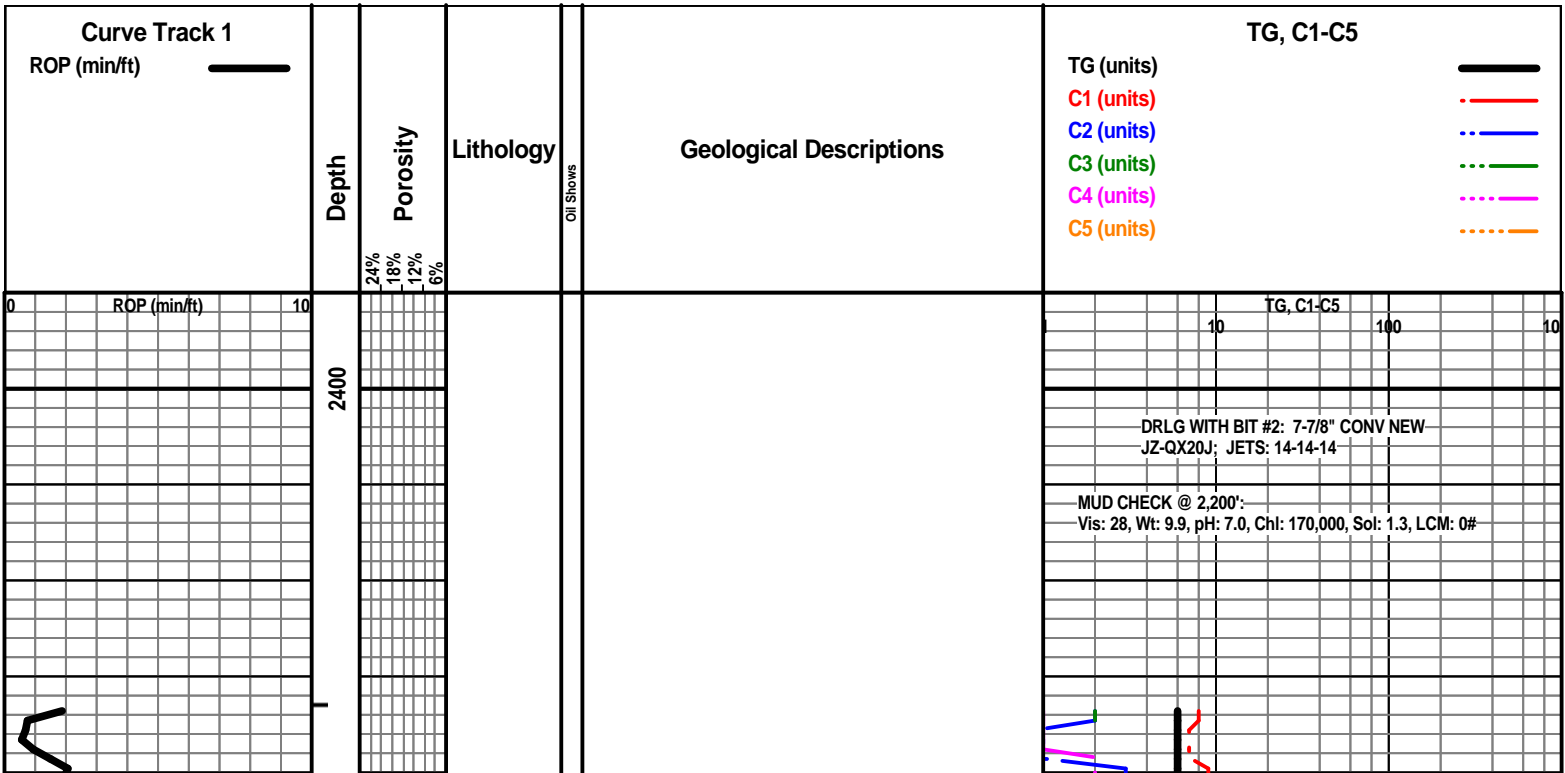
### INTERVALS

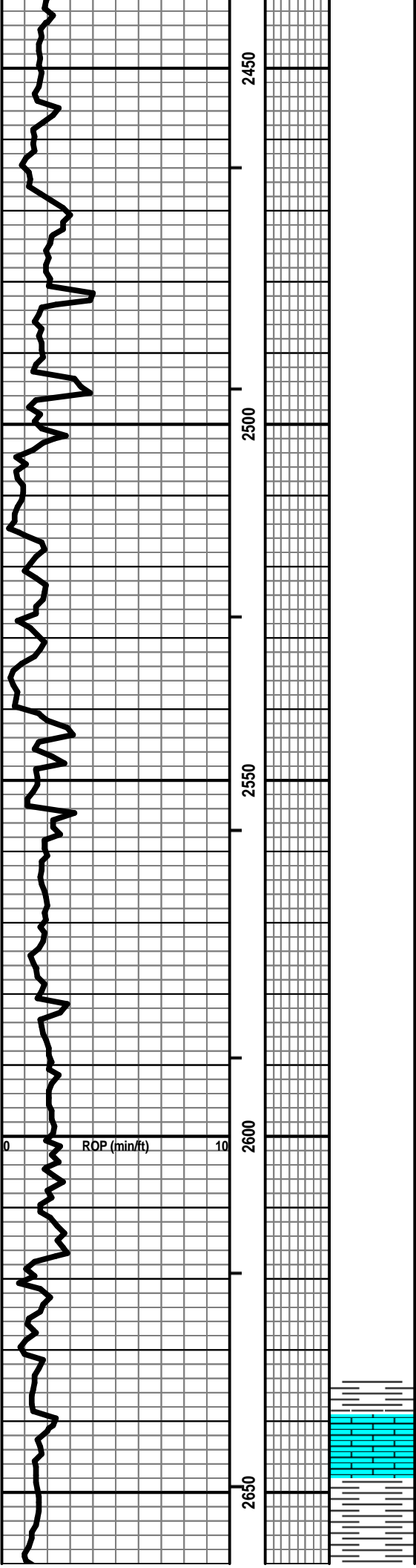
- Core
- Dst

- Dst/2
- Dst

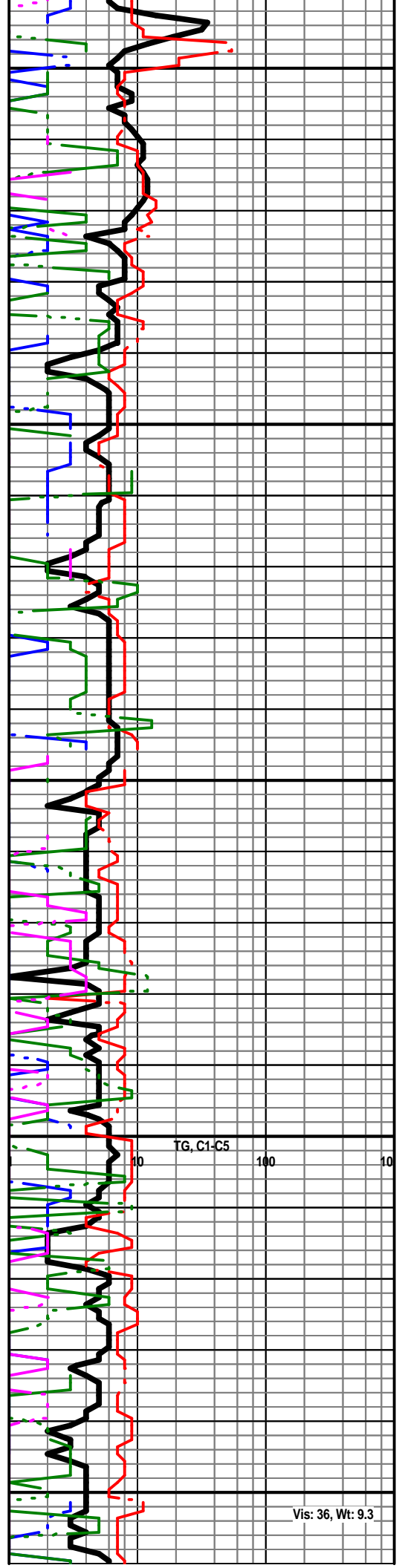
### EVENTS

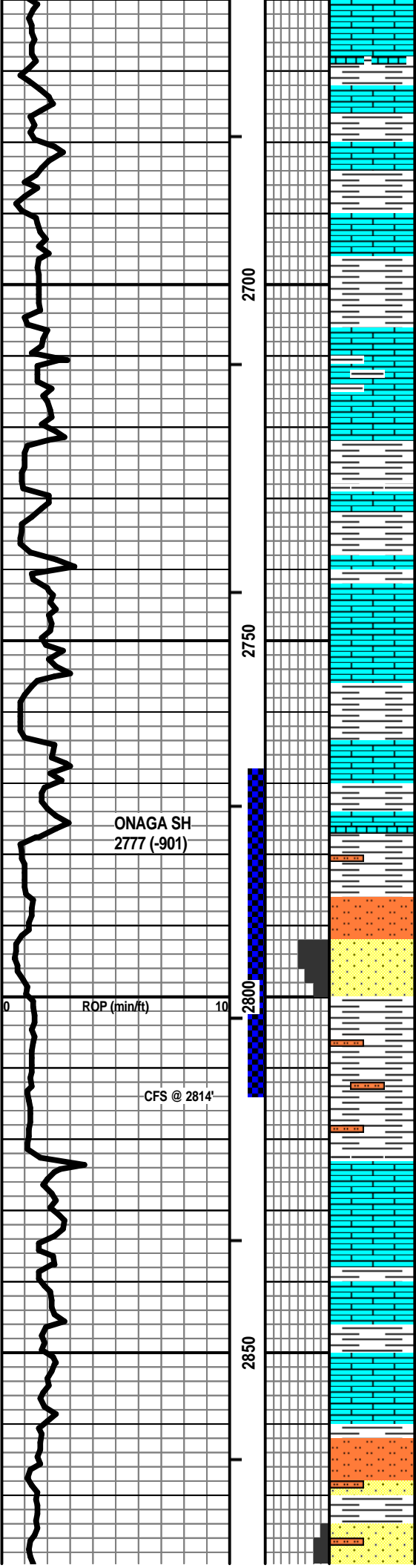
- Rft
- Sidewall
- Conn





LS - GY / CRM, MOT IN PT, F XLN, SCAT M REXLN CALC,  
 FOSS, SCAT PIS, SUBCHKY IN PT, PRED DNS, NS W/ SH -  
 GY / GRN





LS - LT / MED GY / TAN, VF / F XLN, FOSS IN PT, PRED DNS, ARGIL IN PT, NS W/ SH - GY / GRN

LS - CRM / TAN / SCAT GY, MOT IN PT, VF / F XLN, FOSS, OOL IN PT, SUBCHKY IN PT, PRED DNS, NS W/ SH - LT / MED GY

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

LS - TAN / BRN / SCAT GY, VF / F XLN, SCAT FOSS, CHKY IN PT, PRED DNS, NS W/ SH - MED GY

LS - AS ABOVE W/ SH - GY, SLTY IN PT

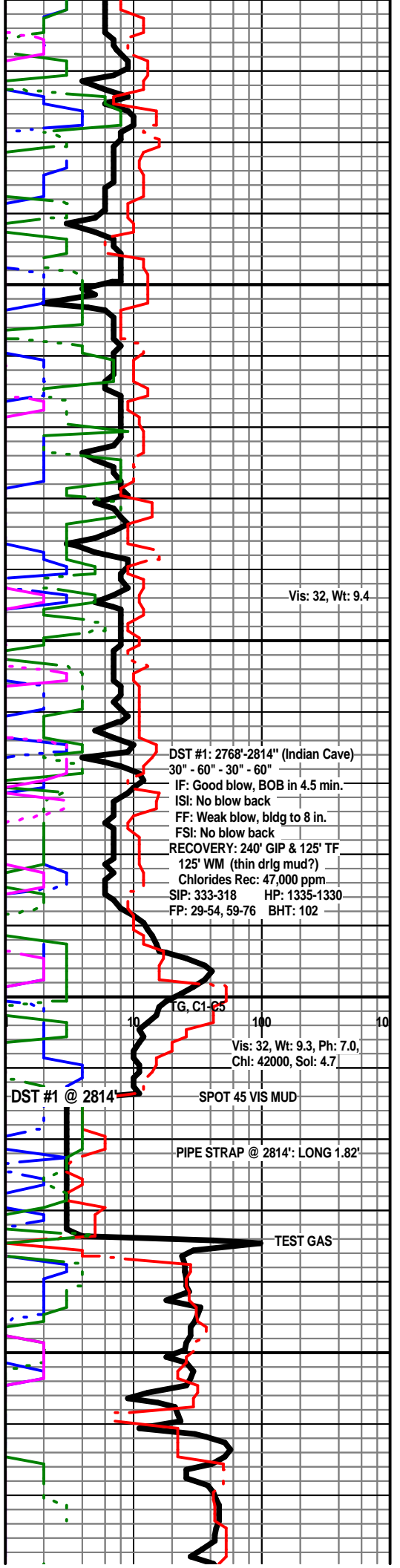
SS - CLSTRS, LT GY, VF QTZ GR, W SRTD, SA / R, V MIC, TR CHL, PRED SIL CEM / SL CALC, F INTGR POR, FRI IN PT, SL / F SGB, NO ODOR

SH - GY, SLTY IN PT

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

LS - LT / MED GY, VF XLN, SL FOSS, CHKY IN PT, PRED DNS, NS

SLTST - GY, MIC W/ MOD AMT SS - LT GY, VF QTZ GR, MIC, F INTGR POR, NS W/ SH - PRED LT / MED GY

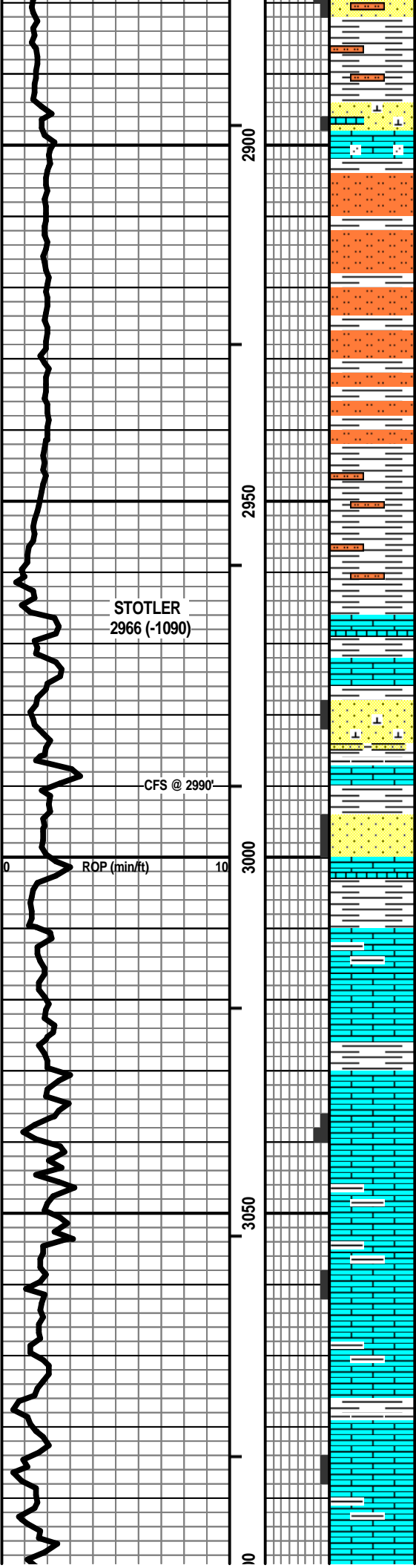


DST #1: 2768'-2814" (Indian Cave)  
 30" - 60" - 30" - 60"  
 IF: Good blow, BOB in 4.5 min.  
 ISI: No blow back  
 FF: Weak blow, bldg to 8 in.  
 FSI: No blow back  
 RECOVERY: 240' GIP & 125' TF  
 125' WM (thin drlg mud?)  
 Chlorides Rec: 47,000 ppm  
 SIP: 333-318 HP: 1335-1330  
 FP: 29-54, 59-76 BHT: 102

Vis: 32, Wt: 9.3, Ph: 7.0,  
 Chl: 42000, Sol: 4.7

PIPE STRAP @ 2814': LONG 1.82'

TEST GAS



LS - TAN / BRN, F XLN, FOSS IN PT, AREN IN PT, PRED DNS, NS W/ SCAT SS - TAN, VF / F QTZ GR, CALC, P / NO INTGR POR, NS

SLTST - LT / MED GY MIC, ARGIL IN PT W/ SH - LT / MED GY, SLTY IN PT, NS

SLTST - AS ABOVE W/ SH - LT / MED GY

SH - LT / MED GY W/ SLTST - AS ABOVE

STOTLER  
2966 (-1090)

CFS @ 2990'

ROP (min/ft)

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

SS - CLSTRS, LT GY / SCAT TAN, SCAT MOT, VF / F QTZ GR, F SRTD, SA / R, SL / MOD MIC, V CALC IN PT, SCAT LS FRAG, P / TR F INTGR POR, NS

SS CLSTRS, LT GY, VF / F QTZ GR, W SRTD, SA / R, SL MIC, P / F INTGR POR, NS W/ LS - GY / CRM, VF / F XLN, FOSS, PRED DNS, NS W/ SH - LT / MED GY

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

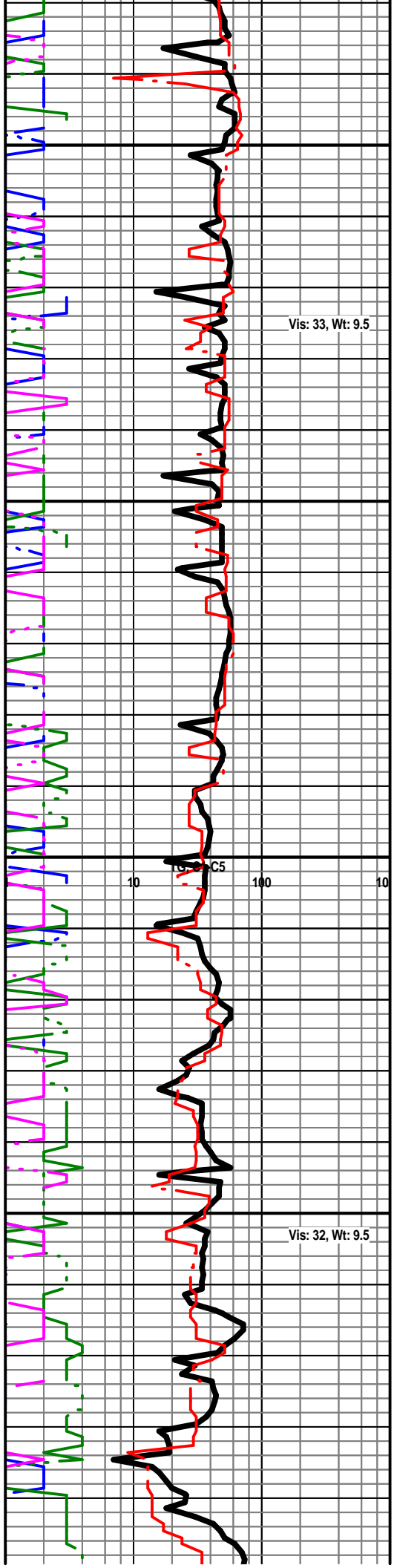
LS - CRM / TAN, F XLN, FOSS, SCAT P / F INTXN POR, SUBCHKY IN PT, PRED DNS, NS

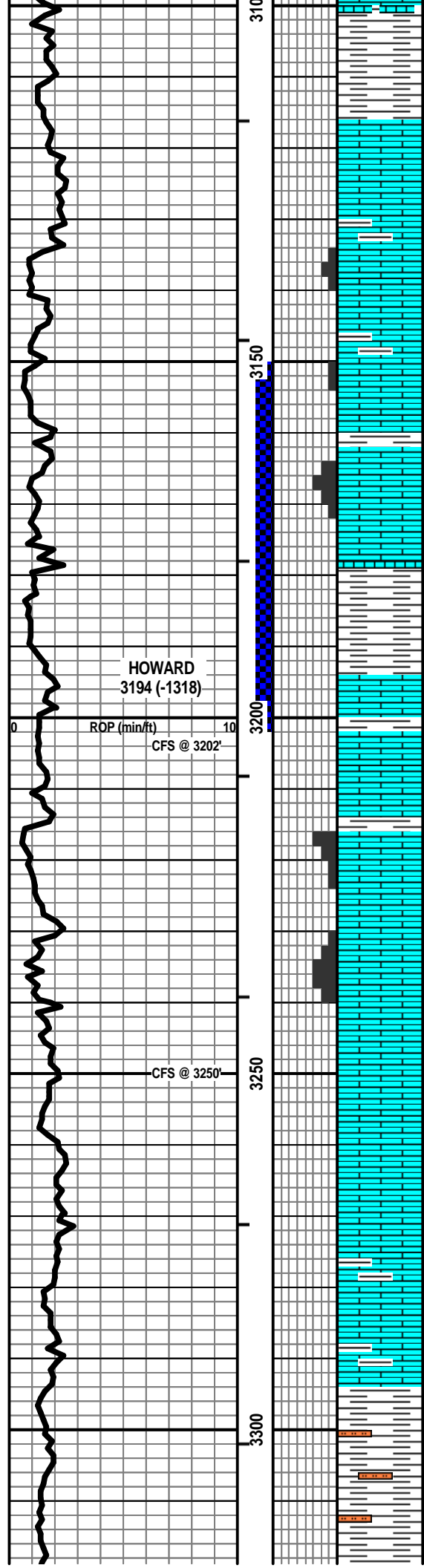
LS - TAN / CRM / SCAT GY, VF / F XLN, OOL IN PT, SL FOSS, P / NO INTXN POR, SCAT SPTY GILS STN, NSFO, NO ODOR

LS - OFF WHT / CRM, VF / F XLN, FOSS IN PT, VP / NO INTXN POR, TR SPTY DK BRN / BLK GILS STN, NSFO, NO ODOR

Vis: 33, Wt: 9.5

Vis: 32, Wt: 9.5





SH - LT / MED GY

LS - LS - GY / CRM / SCAT TAN, MOT IN PT, VF / F XLN, SL FOSS, P / TR F INTXLN POR IN PT, PRED DNS, TR FO, TR SPTY STN, P / NO FLOUR + CUT

LS - CRM / TAN / SCAT GY, F / M XLN, OOL IN PT, PRED P INTXLN POR, SSFO + GB, NO ODOR, TR SPTY STN, P / NO FLOUR + CUT

LS - CRM / TAN, F / M XLN, OOL, FOSS IN PT, P / F INTXLN + VUG POR, SCAT OOM POR, P / SCAT F SFO + GB, NO ODOR, SPTY BRN STN IN PT, P / G FLOUR + CUT

SH - GY / GRN

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

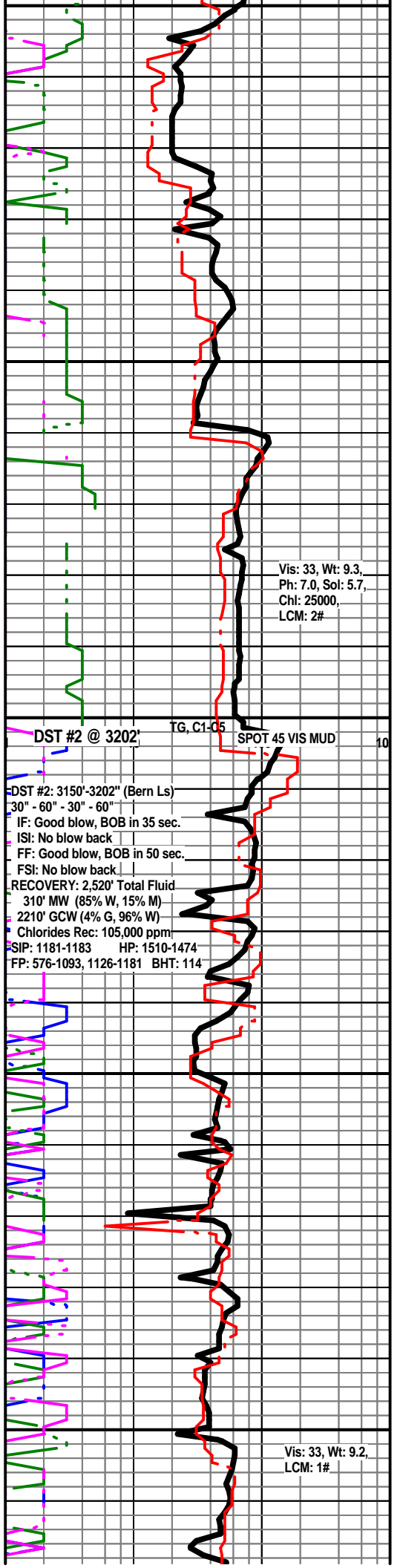
LS - LT GY / CRM, F XLN, OOL IN PT, SL FOSS, P / F INTXLN + VUG POR, CHKY IN PT, TR SPTY GILS STN, NSFO, NO ODOR

LS - LT GY / CRM / SCAT TAN, VF / F XLN, OOL + FOSS IN PT, P / F INTXLN POR, SCAT P VUG POR, SCAT CHKY, NS

LS - GY / CRM / TAN, VF / CRYPTO XLN, FOSS IN PT, SUBCHKY IN PT, PRED DNS, NS

LS - CRM / TAN / SCAT GY, VF / CRYPTO XLN, SCAT F / M REXLN CALC, FOSS IN PT, SUBCHKY IN PT, PRED DNS, NS W/ SCAT SH - GY / GRN

SH - LT / DK GY, SLTY IN PT



**HOWARD**  
3194 (-1318)

DST #2 @ 3202'

Vis: 33, Wt: 9.3,  
Ph: 7.0, Sol: 5.7,  
Chl: 25000,  
LCM: 2#

DST #2: 3150'-3202" (Bern Ls)  
30" - 60" - 30" - 60"  
IF: Good blow, BOB in 35 sec.  
ISI: No blow back  
FF: Good blow, BOB in 50 sec.  
FSI: No blow back  
RECOVERY: 2,520' Total Fluid  
310' MW (85% W, 15% M)  
2210' GCW (4% G, 96% W)  
Chlorides Rec: 105,000 ppm  
SIP: 1181-1183 HP: 1510-1474  
FP: 576-1093, 1126-1181 BHT: 114

Vis: 33, Wt: 9.2,  
LCM: 1#



TOPEKA  
3341 (-1465)

3350

SH - LT / DK GY

LS - TAN / BRN, MOT IN PT, VF / CRYPTO XLN, SL FOSS,  
PRED DNS, NS

LS - CRM / TAN / BRN, MOT IN PT, F / CRYPTO XLN, SCAT  
REXLN CALC, TR P INTXLN POR, CHKY IN PT, PRED DNS,  
NS

3400

ROP (min/ft)

LS - CRM / TAN, VF / F XLN, SL FOSS, P / TR F INTXLN POR,  
SCAT P PPT POR, SUBCHKY IN PT, NS

TG, C1-C3

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

3450

LS - CRM / TAN, VF / F XLN, FOSS IN PT, PRED DNS, NS W/  
ABNT SH - DK GY / BLK / SCAT GRN

SH - GY / BLK, SCAT CARB

3500

LS - GY, VF XLN, SL FOSS, PRED DNS, NS W/ SH - BLK,  
CARB W/ LS - TAN, VF / F XLN, CHKY IN PT, PRED DNS, NS

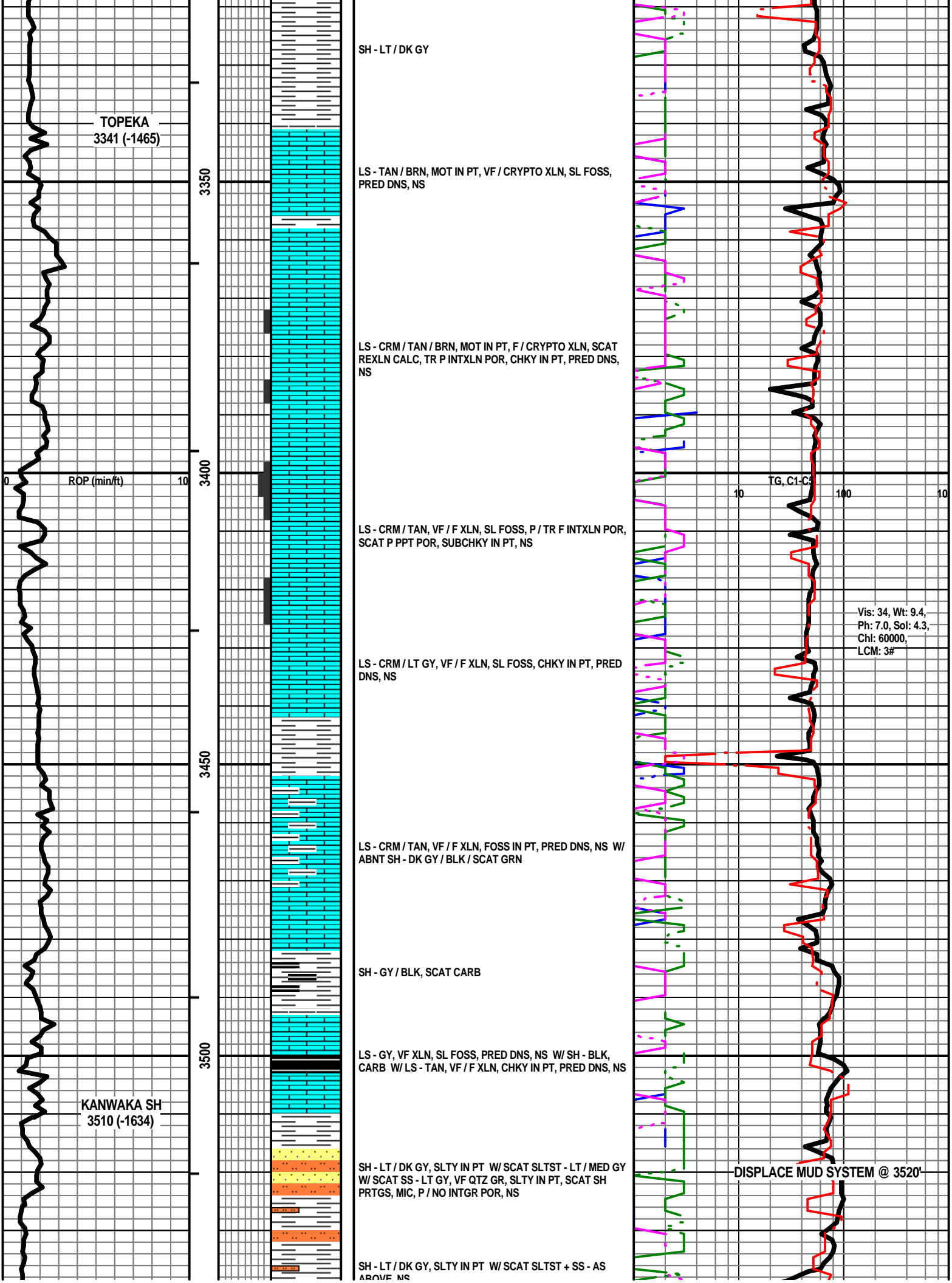
KANWAKA SH  
3510 (-1634)

SH - LT / DK GY, SLTY IN PT W/ SCAT SLTST - LT / MED GY  
W/ SCAT SS - LT GY, VF QTZ GR, SLTY IN PT, SCAT SH  
PRTGS, MIC, P / NO INTGR POR, NS

DISPLACE MUD SYSTEM @ 3520'

SH - LT / DK GY, SLTY IN PT W/ SCAT SLTST + SS - AS  
ABOVE NS

Vis: 34, Wt: 9.4,  
Ph: 7.0, Sol: 4.3,  
Chl: 60000,  
LCM: 3#



ADUVE, NS

3550

SLTST - LT / MED GY, MIC W/ SCAT SS - LT GY, VF QTZ GR, SLTY IN PT, P / NO INTGR POR, NS

SS - LT GY, VF QTZ GR, W SRTD, SA / SR, MIC, SL GLAUC, SL / MOD CALC CEM, P / SCAT F INTGR POR, MOD FRI IN PT, NS

CFS @ 3581'

SH - LT / DK GY W/ SLTST - LT / MED GY

ROP (min/ft)

3600

LS - TAN / GY, MOT, VF XLN, AREN IN PT, SL FOSS, PRED DNS, NS

Vis: 47, Wt: 8.9  
LCM: 1#

TG, C1-C5

LS - TAN / BRN / SCAT GY, MOT IN PT, F / M XLN, PRED DNS, NS

LS - CRM / TAN / BRN, MOT IN PT, F / M XLN, TR FOSS, PRED DNS, NS W/ SH - LT / MED GY

3650

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

HEEBNER  
3701 (-1825)

3700

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

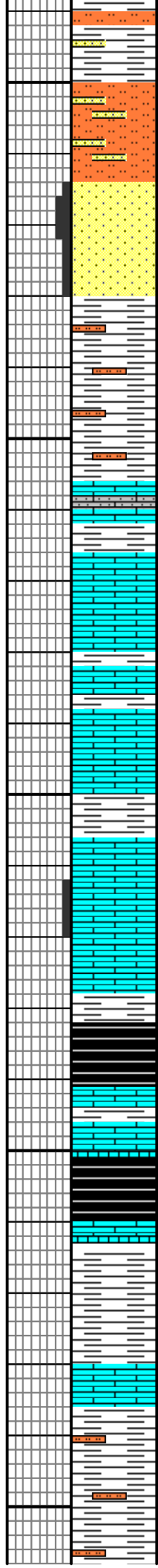
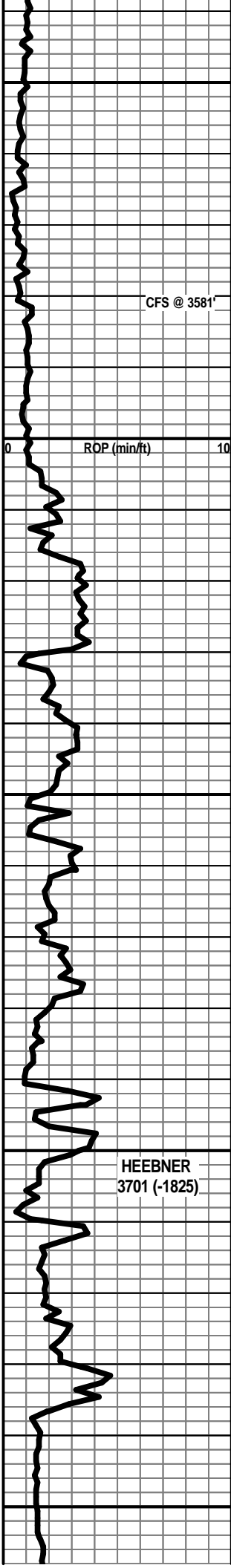
Vis: 53, Wt: 8.9  
LCM: 1#

SH - MED / DK GY

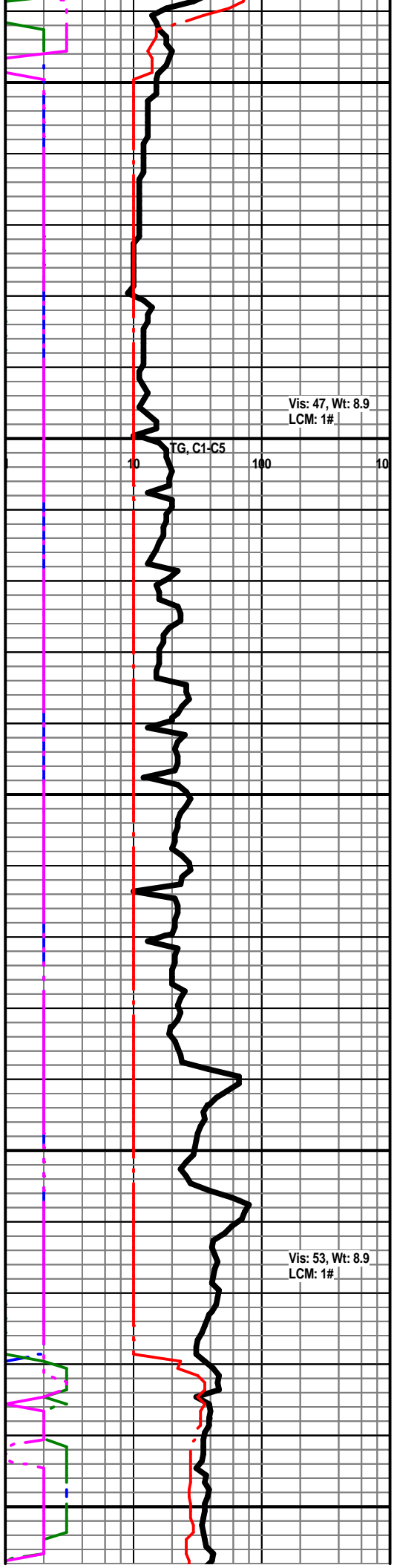
LS - CRM, F XLN, SCAT M REXLN CALC, TR FOSS, PRED DNS, NS

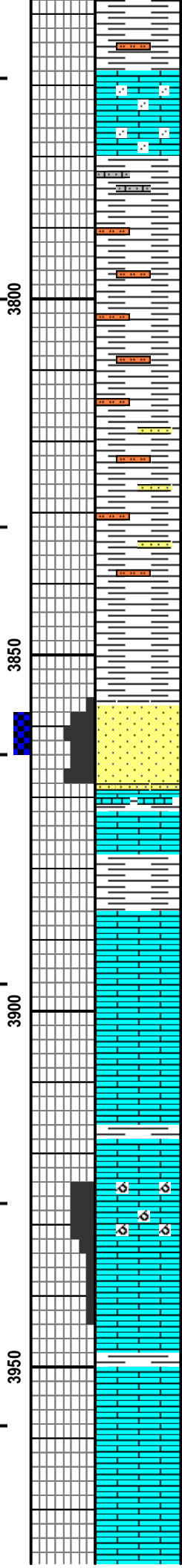
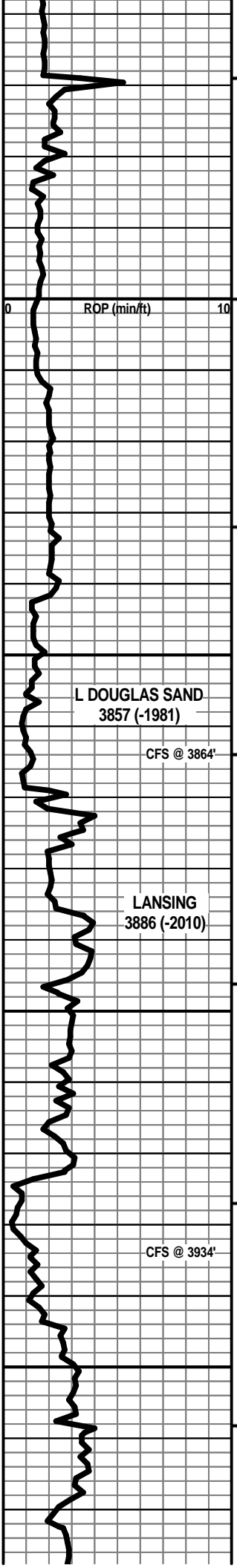
3750

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



Lithology descriptions for various depth intervals.





LS - CRM / GY, MOT IN PT, VF XLN, AREN IN PT, SLT / VF QTZ GR, P / NO VIS POR, SCAT TR GB, PRED NS

SH - LT / DK GY, SLTY IN PT

SH - LT / DK GY, SILTY IN PT W/ SCAT SS - LT GY, VF QTZ GR, W SRTD, SA / R, PRED SIL CEM, SL MIC, P / NO INTGR POR, NS

SH - LT / DK GY, SLTY IN PT

SS - LT GY, VF / SCAT F QTZ GR, W SRTD, SA / R, V SL CALC / PRED SIL CEM, MIC, P / G INTGR POR, FRI IN PT, F / G SGB, SSFO + OILY FILM, NO ODOR, P / F FLOUR, P / G CUT

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

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

LS - CRM / TAN, F XLN, OOL, SL FOSS, F OOM + INTXLN POR, SUBCHKY IN PT, NS

LS - GY / TAN, VF / F XLN, SCAT REXLN CALC, SL FOSS, PRED DNS, NS

L DOUGLAS SAND  
3857 (-1981)

CFS @ 3864'

LANSING  
3886 (-2010)

CFS @ 3934'

3800

3850

3900

3950

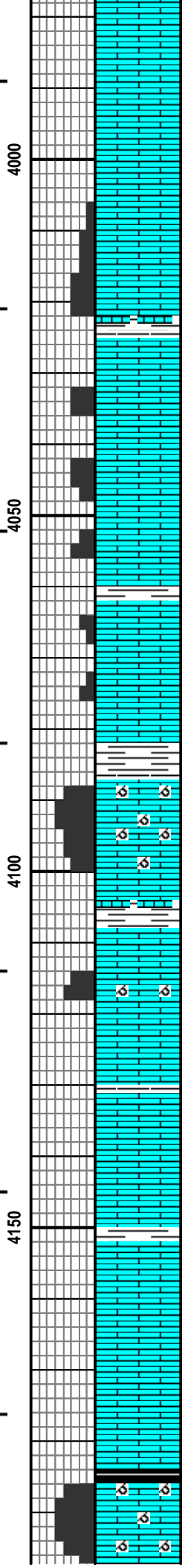
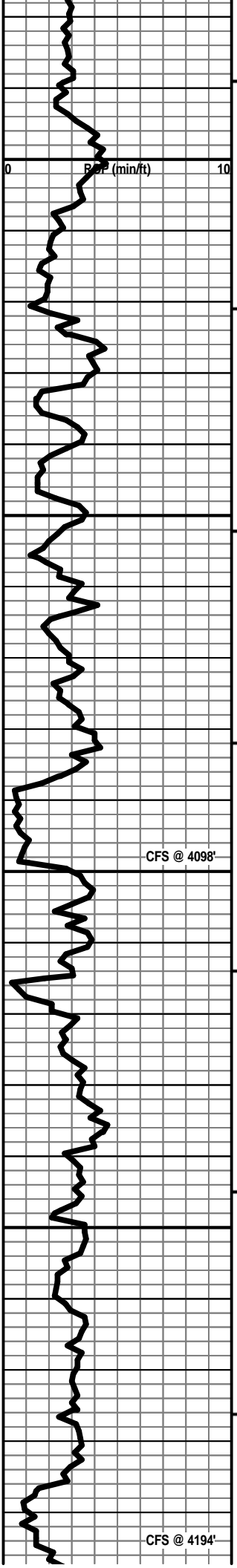
Vis: 55, Wt: 8.9  
LCM: 4#

DST #3: 3858'-3864" (Douglas Sand)  
30" - 60" - 45" - 90"  
IF: Good blow, BOB in 2 min.  
IS: No blow back  
FF: BOB in 1 sec. - GTS in 16 min.  
Gas gauged thru 1/4" orifice: 20 & 30 min. - 26 MCF, 40 & 45 min. - 28 MCF  
FSI: No blow back  
RECOVERY: 65' Total Fluid  
65' MW (55% W, 45% M)  
Chlorides Rec: 28,000 ppm  
SIP: 1393-1396 HP: 1820-1757  
FP: 16-31, 19-41 BHT: 122

Vis: 54, Wt: 9.0,  
YP: 17, Gels: 14/48,  
pH: 10.0, WL: 9.6,  
Chl: 4000, Sol: 4.8,  
LCM: 3#

DST #3 @ 3864'

TG, C5



LS - CRM / TAN / BRN, MOT IN PT, F / CRYPTO XLN, FOSS + OOL IN PT, SUBCHKY IN PT, PRED DNS, NS

LS - CRM / TAN, F XLN, FOSS, SCAT OOL, P / F INTXLN + VUG POR, SUBCHKY IN PT, SCAT SPTY GILS STN, NSFO

LS - CRM / TAN / BRN, PRED F / CRYPTO XLN, SCAT M XLN, OOL + FOSS IN PT, P / G INTXLN POR, F VUG POR IN PT, NS

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

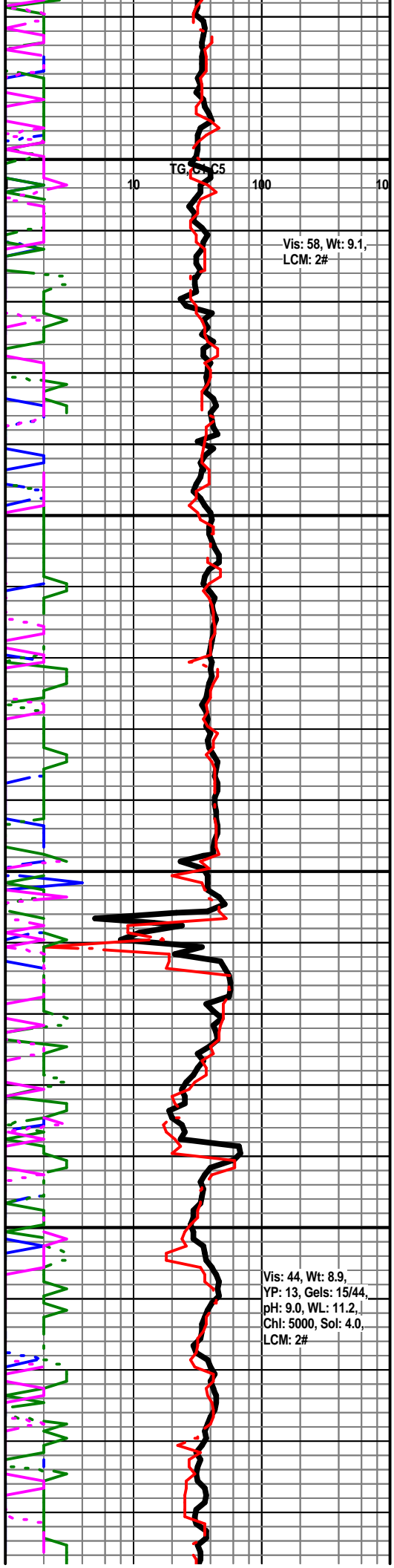
LS - CRM / TAN, F XLN, OOL, SL FOSS, F / G OOM + INTXLN POR, NS

LS - CRM / WHT / SCAT TAN, VF / F XLN, OOL IN PT, SCAT F OOM + INTXLN POR, PRED DNS, NS

LS - LT GY / CRM, F / CRYPTO XLN, SL FOSS IN PT, PRED DNS, NS

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

LS - CRM / TAN, F XLN, OOL, F / G OOM + INTXLN POR, TR CHKY, NS

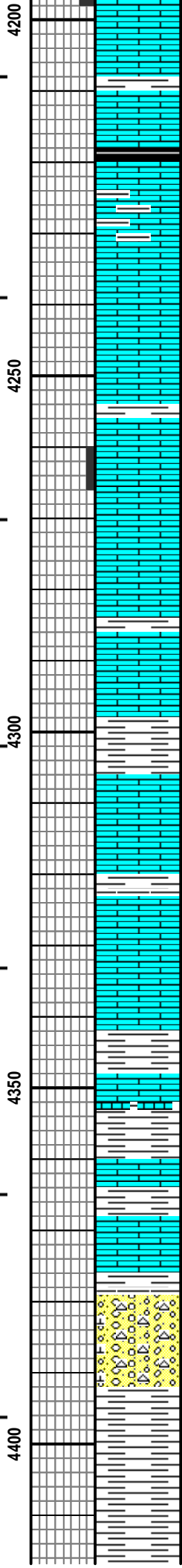
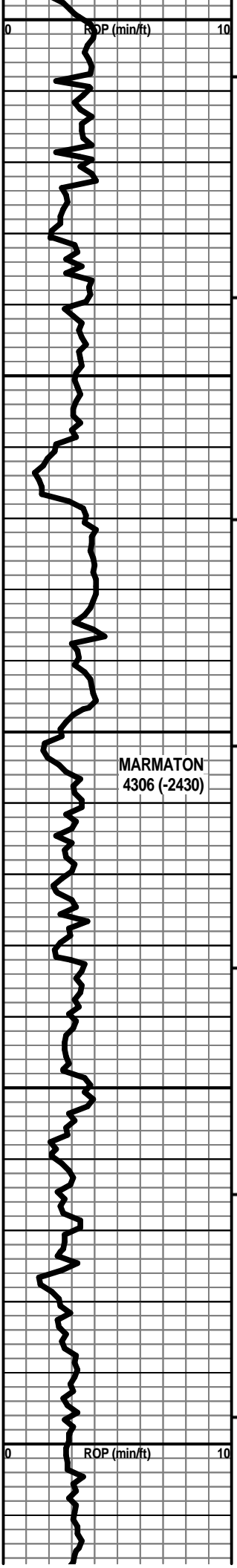


Vis: 58, Wt: 9.1, LCM: 2#

Vis: 44, Wt: 8.9, YP: 13, Gels: 15/44, pH: 9.0, WL: 11.2, Chl: 5000, Sol: 4.0, LCM: 2#

CFS @ 4098'

CFS @ 4194'



LS - GY / WHT / SCAT CRM, VF XLN, TR FOSS, SUBCHKY IN PT, PRED DNS, NS W/ SCAT SH - BLK, CARB

LS - GY / CRM, VF / CRYPTO XLN, SUBCHKY IN PT, PRED DNS, NS

LS - CRM / TAN / BRN, MOT IN PT, SCAT FOSS + OOL, TR P INTXLN + VUG POR, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN / BRN, MOT IN PT, SCAT FOSS + OOL, CHKY IN PT, PRED DNS, NS

SH - GY / BLK / GRN W/LS - GY / CRM, VF / F XLN, SUBCHKY IN PT, PRED DNS, NS

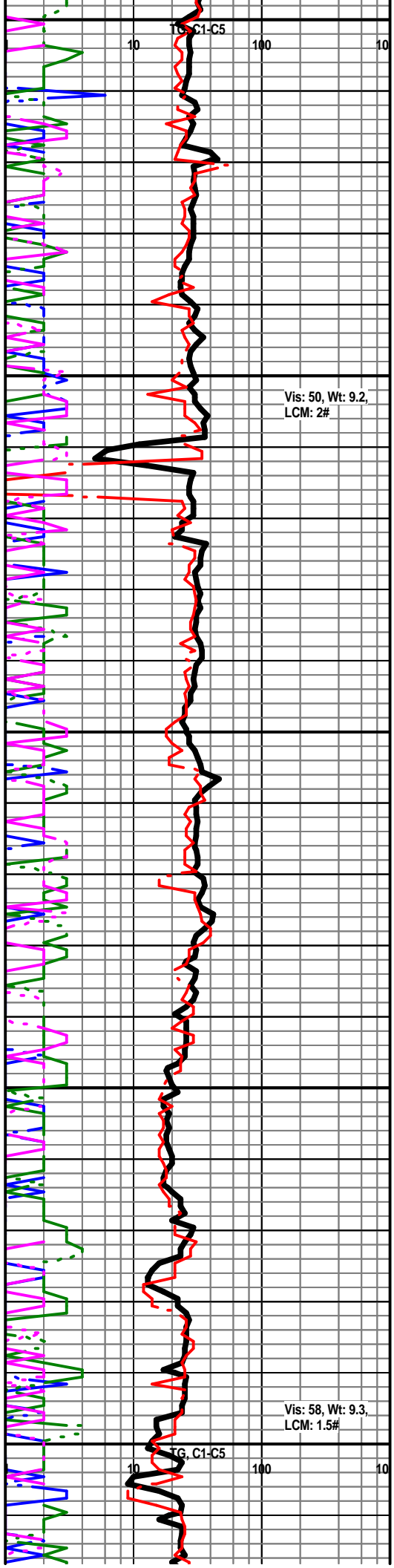
LS - TAN / CRM / SCAT BRN, MOT IN PT, VF / F XLN, FOSS IN PT, NO VIS POR, SUBCHKY IN PT, PRED DNS, TR GB, SCAT GILS STN, NSFO, NO ODOR

LS - GY, VF / CRYPTO XLN, PRED DNS, NS

LS - CRM / TAN / GY, VF / F XLN, PRED DNS, NS W/ SH - GY / GRN

CONGL: CHT - VARICOL, VIT W/LS - GY / TAN / SCAT WHT, VF / F XLN, PRED DNS, NS W/ SCAT SH - GY / GRN

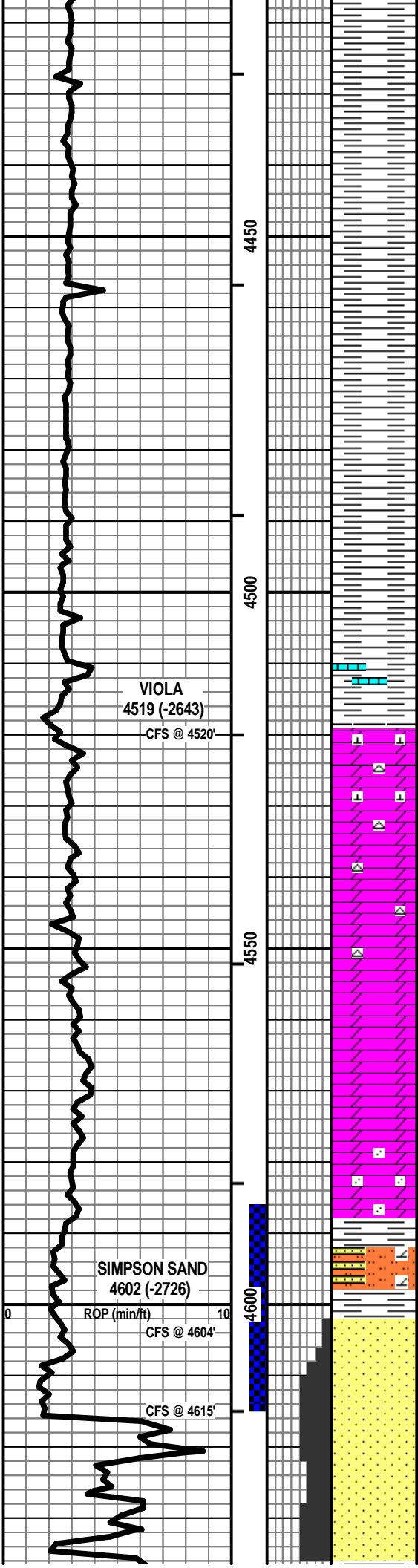
SH - GY / GRN / RED



MARMATON  
4306 (-2430)

Vis: 50, Wt: 9.2,  
LCM: 2#

Vis: 58, Wt: 9.3,  
LCM: 1.5#



SH - GY / GRN / RED

SH - GY / GRN / RED

SH - PRED MED / DK GY / SCAT BLK

VIOLA  
4519 (-2643)  
CFS @ 4520'

LS + DOLO LS + DOLO - GY / WHT / SCAT TAN, PRED VF / F XLN, COMPACT + FIRM / SCAT CHKY, CHTY IN PT, AREN IN PT, NO VIS POR, TR GB + OILY FILM IN FEW PCES, PRED NS

DOLO + DOLO LS - GY / CRM / SCAT TAN, VF / F XLN, COMPACT + FIRM / SCAT CHKY, CHTY IN PT, PRED DNS, NS

DOLO - TAN, VF XLN, PRED V DNS, NS

DOLO - CRM / TAN, PRED VF / F XLM, TR M XLN, AREN IN PT, VF GR, PRED DNS, NO NIS POR, NS

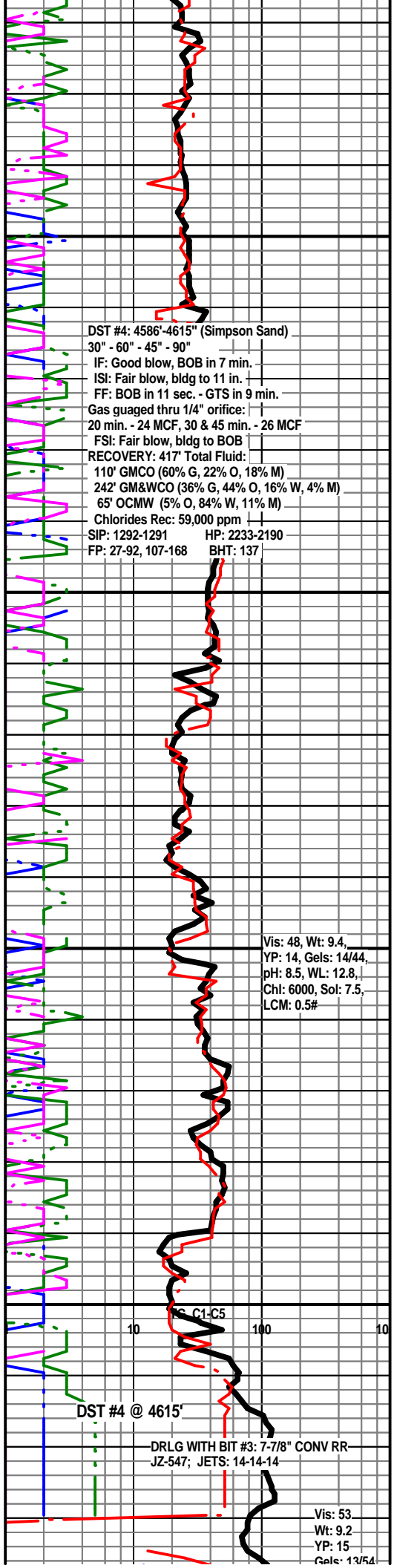
SIMPSON SAND  
4602 (-2726)  
CFS @ 4604'

SLTST + SS - CRM / TAN / GY, VF / SLT GR, DOLO, P / NO VIS POR, NS

SS - CLR / LT GY, F / M / SCAT C GR, F SRTG, SA / R, P / G INTGR POR, MOD FRI, MOD CALC CEM, F / G SGB, F SFO, NO ODOR, SPTY / SEMI SAT LT BRN STN, G FLOUR, F / G CUT W/ MOD ABNT UNCONS QTZ GR

CFS @ 4615'

SS - LT GY / CLR / SCAT TAN, MOT IN PT, DOLO IN PT, VF / F / SCAT M GR, FW SRTD, SA / R, SL GLAUC IN PT, P / G INTGR POR, FRI IN PT, P / F SGB + FO, BARR IN PT, NO ODOR W/ MOD AMT UNCONS QTZ, F / C GR



DST #4: 4586'-4615" (Simpson Sand)  
30" - 60" - 45" - 90"  
IF: Good blow, BOB in 7 min.  
ISI: Fair blow, bldg to 11 in.  
FF: BOB in 11 sec. - GTS in 9 min.  
Gas gauged thru 1/4" orifice:  
20 min. - 24 MCF, 30 & 45 min. - 26 MCF  
FSI: Fair blow, bldg to BOB  
RECOVERY: 417' Total Fluid:  
110' GMCO (60% G, 22% O, 18% M)  
242' GM&WCO (36% G, 44% O, 16% W, 4% M)  
65' OCMW (5% O, 84% W, 11% M)  
Chlorides Rec: 59,000 ppm  
SIP: 1292-1291 HP: 2233-2190  
FP: 27-92, 107-168 BHT: 137

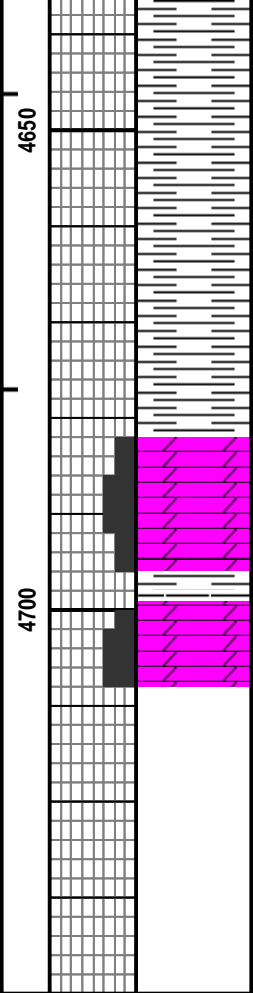
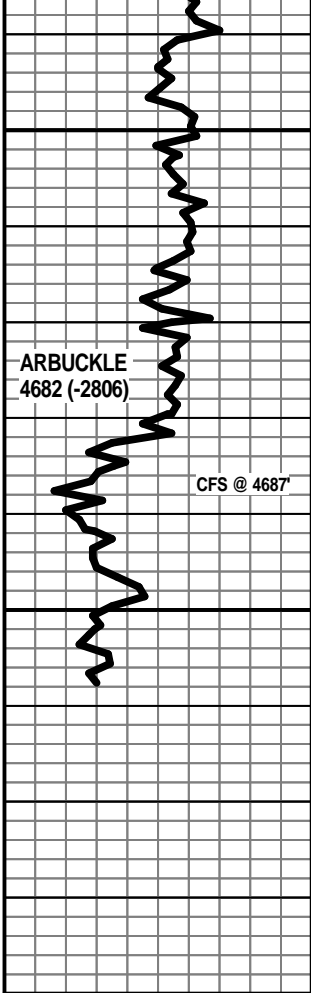
Vis: 48, Wt: 9.4,  
YP: 14, Gels: 14/44,  
pH: 8.5, WL: 12.8,  
Chl: 6000, Sol: 7.5,  
LCM: 0.5#

DST #4 @ 4615'

DRLG WITH BIT #3: 7-7/8" CONV RR  
JZ-547; JETS: 14-14-14

Vis: 53  
Wt: 9.2  
YP: 15  
Gels: 13/54

pH: 9.0  
WL: 10.4  
Chl: 4000  
Sol: 6.2  
LCM: 2#



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

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

DOLO - CRM / TAN, F / M XLN, F INTXLN POR, SCAT P / F  
VUG POR, NS, NO ODOR

DOLO - CRM / TAN / LT GY, VF / F XLN, SCAT M XLN, F  
INTXLN POR, TR VUG POR, NS, NO ODOR

