

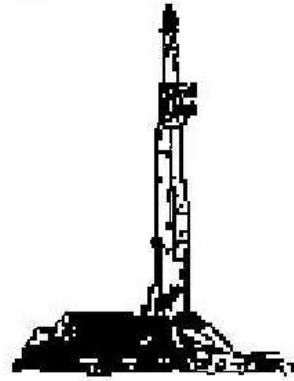
GOOLSBY BROTHERS and associates, inc.

575 Union Blvd, Suite 208
Lakewood, CO 80228
303-945-2860 Office



Geological Wellsite
Supervision

www.goolsbybrothers.com



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

Well Name: Garden Creek 02-06H
Location: Hereford Ranch Prospect - SE/SE Sec 6 T11N R62W Weld County, Colorado
License Number: API: 05-123-31264 Region: DJ Basin
Spud Date: 2/26/11 Drilling Completed: *7" Csg. Pt. on
Surface Coordinates: 600' FSL, 595' FEL SE/SE Section 6 T11N R62W
Latitude 40.946831 Longitude 104.355364
Bottom Hole Coordinates: Proposed: xxx' FNL & xxx' FWL NW/NW Sec 6 11N 62W
Latitude 40. Longitude 104.
Ground Elevation (ft): 5303' K.B. Elevation (ft): 5324'
Logged Interval (ft): To: * Total Depth (ft): * (7" Csg. Pt.)
Formation: Niobrara 'B' Chalk
Type of Drilling Fluid: Water
Printed by WellSight Log Manager from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: EOG Resources, Inc.
Address: 600 17th St., Ste. 1000
Denver, CO 80202
Co. Geologist John Melby

GEOLOGIST

Name: Mike Dodge and Robert Nordeck
Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)
Address: 575 Union Blvd.
Suite 208,
Lakewood CO. 80228

E-Logs

MWD GR from Surface Casing to TD.

Casing

9 5/8" 36# J55 STC set @ 1403'.

7" 23# HC-P110 LTC set @ .

4.5" 11.6# P110 LTC from KOP to TD.

Comments

*A 13½" Hole was previously drilled to 1403', and 9 5/8" S.C. was Preset. After NU & Testing BOP's, the well was Drilled Vertically to KOP of 6867', at which point angle was built to xx° by xxxx' MD (xxxx' TVD). 7" Casing was set and the well was Drilled Horizontally to a TD of xx,xxx' MD. This Vertical Strip Log Covers the interval from Surface Casing to 7" Intermediate Casing, While a Horizontal Strip Log covers from xxxx' (KOP) to TD.

1) Drilling Contractor: SST Energy Corp. - Rig #56

Tool Pusher: David Holgate

Pumps: #1 & #2: BOMCO 6.0" x 12" (.0997 bbl/stk)

2) Company Men: Mike Woolsey, Johnny Turner.

3) Directional Services / MWD GR: Phoenix Technology Energy Services:

Directional: Darin Difeo, Jed .

MWD: John Raia, Ross Lund.

4) Mud Company: Quest Drilling Fluids

Mud Engineer: Kent Denney, Butch Gilliland.

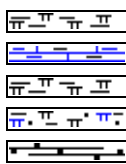
5) Under Balanced/Auto Choke Drilling System from 7" Casing Point to TD: Weatherford.

6) Gas Detection Equipment: Mudlogging Systems Inc.

by Terra Services

Redbox TGC #ML-304 (Total Gas/Chromatograph).

ROCK TYPES



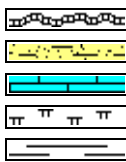
Arg mrlst

Arg chalk

Arg mrlst

Arg chky mrlst

Carb sh



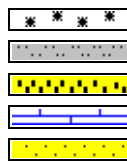
Bent

Arg ss

Ls

Mrlst

Sh



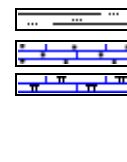
Cement

Sltst

Ss (>fgr)

Chlk

Ss (<f gr)



Sltly sh

Niobrara chalk

Marly chalk

ACCESSORIES

FOSSIL

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

- Plant
- Strom

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

- Dol
- Ls
- Marl strg
- Slt strg
- Ss strg
- Chalk strg

STRINGER

- Carb sh strg
- Arg chlk strg
- Arg
- Bent
- Coal

TEXTURE

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

OTHER SYMBOLS

INTERVALS

- Core
- Dst

EVENTS

- Trip point
- New bit
- Connection
- Survey (mwd)
- Survey (dropped)
- Survey (wireline)

- Casing shoe
- Off bottom

POROSITY TYPE

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

- Vuggy

SORTING

- Well
- Moderate
- Poor

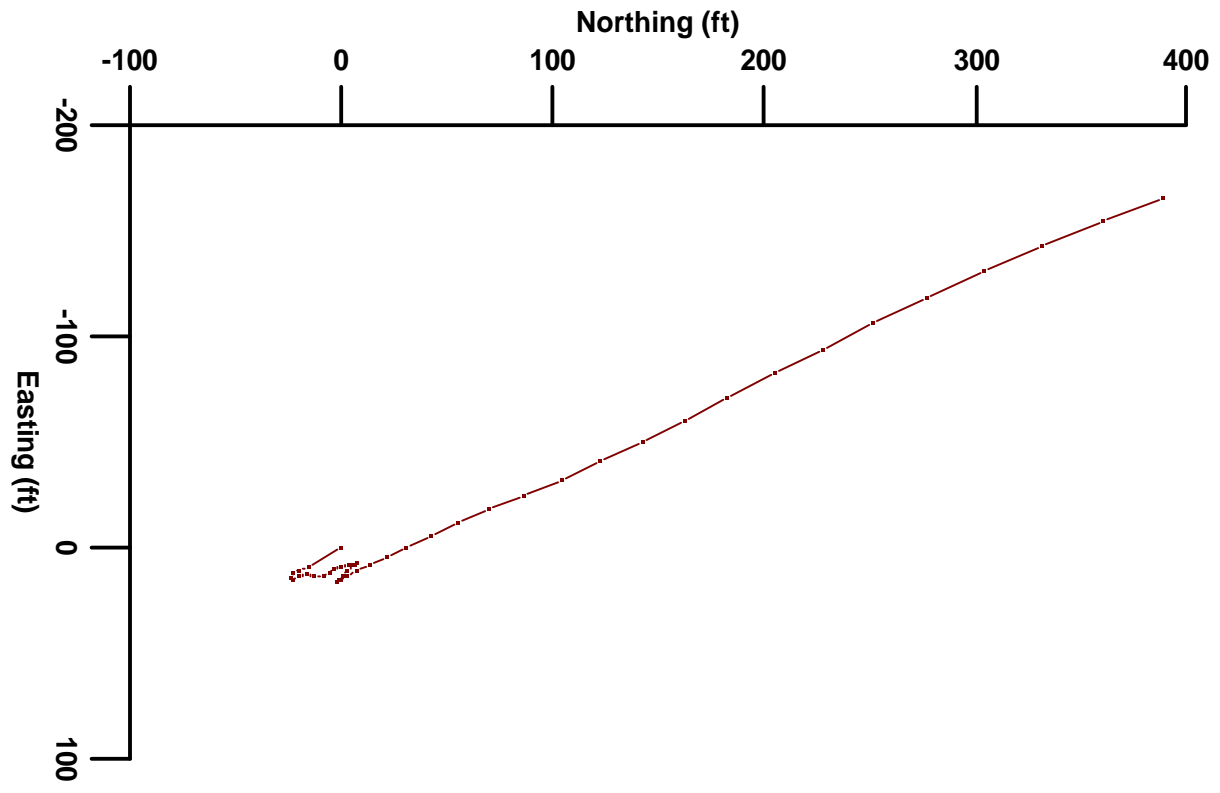
ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOWS

- Even
- Spotty
- Dead
- Very spotty
- Ques
- Patchy



Plan

1350

1400

1450

1500

1550

Gas Detection and Sample Evaluation were begun at 1402', 01:00 am 2/26/11. 50' Lagged Samples were caught by the Drilling Crews from 1400' to 7150', with 30-50' Samples caught from 7150' to TD (One Dry Cut was saved from 7100' to TD).

Drill Out w/ NB #1 8 3/4" STC MI516 (Jets 2x15, 3x16) with Mud Motor/MWD Gamma & Directional BHA.

Drilling in Pierre Shale.

CEMENT (30%).
SH (40%) pred mgy sft Clay, slty, sl calc, sbchky, occ mgy, frm, sbplty.
SLTST (30%) m-lt gy, tr off wh, gybrn, fri-sl frm-sft, blk, sbchky ip, sdy ip, tr slty vf gr Ss, scat carb matr & mica, tr gn cly mnrls.

CEMENT (10%).
SH (50%) m gy, sft-frm, irreg-blky-sbplty, slty, sbchky, sl calc, occ scat mic carb matr.
SLTST (40%) m-lt gy, tr off wh, fri-sft, sl calc-calc, sdy ip / tr grdg-slty vf gr Ss, scat carb matr, tr gn cly mnrls.

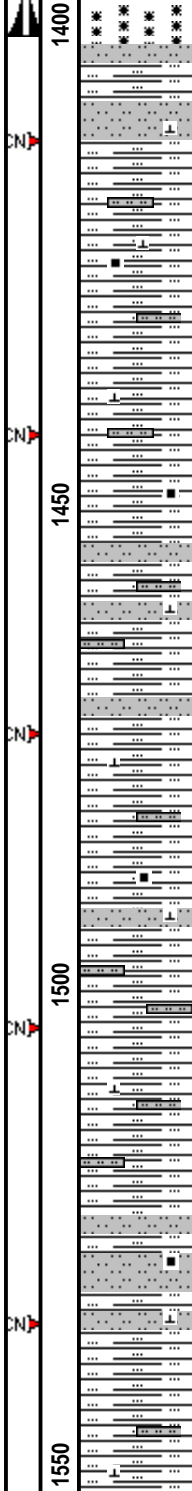
SLTST (50%) m-lt gy, gybrn, fri-sft, blk, sbchky ip, sdy grdg-slty vf gr Ss ip, scat carb matr & mica.
SH (50%) m gy, occ dk gy, gybrn, sft, irreg-sbplty-blky, slty-sbchky txt, sl-tr-non calc, scat carb matr & mica.
SS (Tr) m-lt gy, fri, slty vf gr, sbrnd-sbang, mod srt, sl-mod calc, arg, cly fld, scat mica & carb matr, tt, NSOFC.

ROP (min/ft) 2
Gamma (API) 200
WOB 25

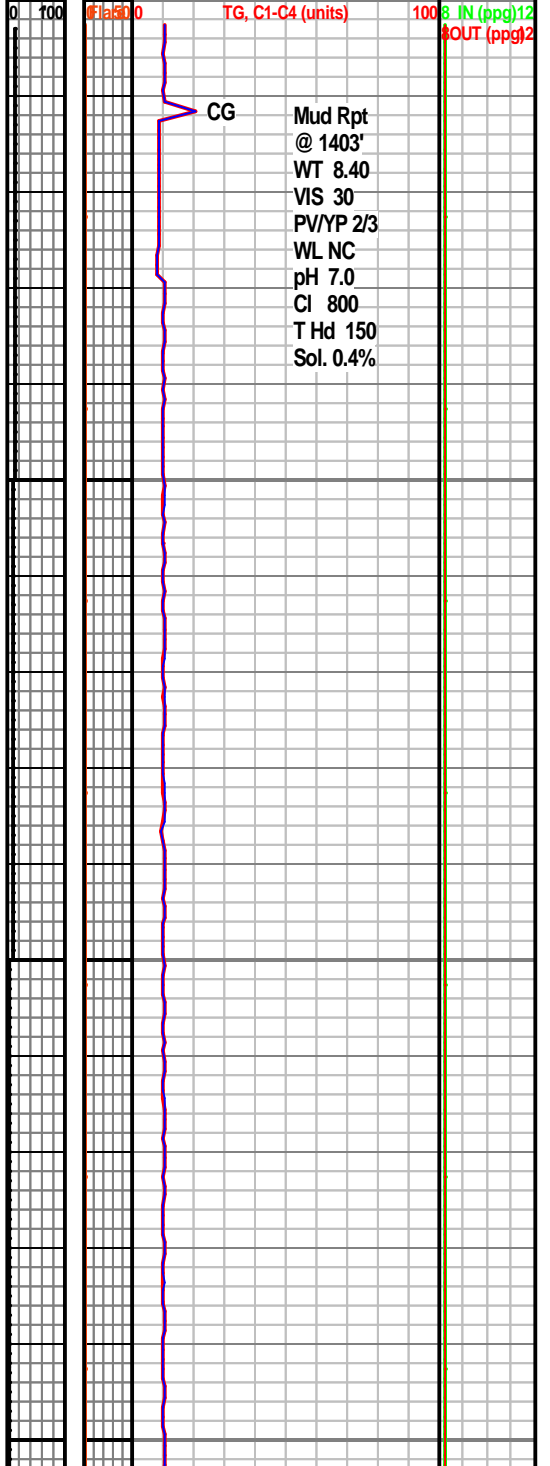
WOB 8
RPM 75
PP 1500
SPM 0/90



WOB 8
RPM 75

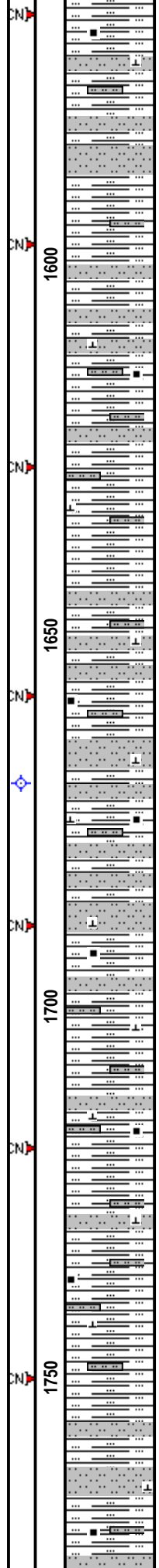
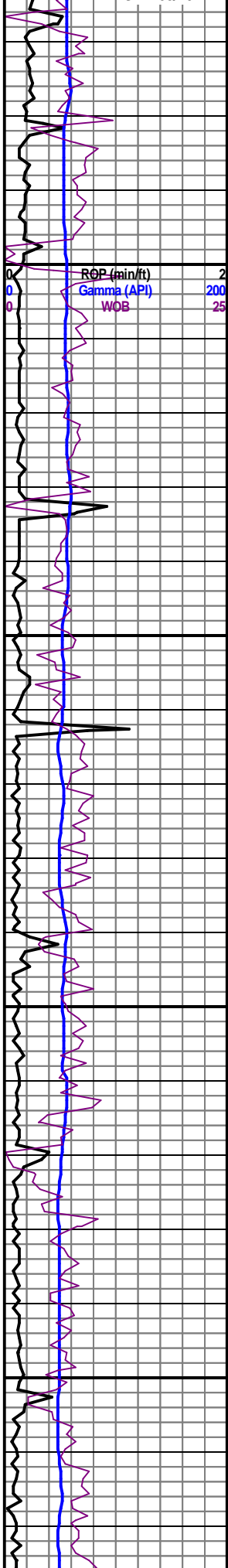


0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000 9100 9200 9300 9400 9500 9600 9700 9800 9900 10000



Mud Rpt @ 1403'
WT 8.40
VIS 30
PV/YP 2/3
WL NC
pH 7.0
CI 800
T Hd 150
Sol. 0.4%

CG

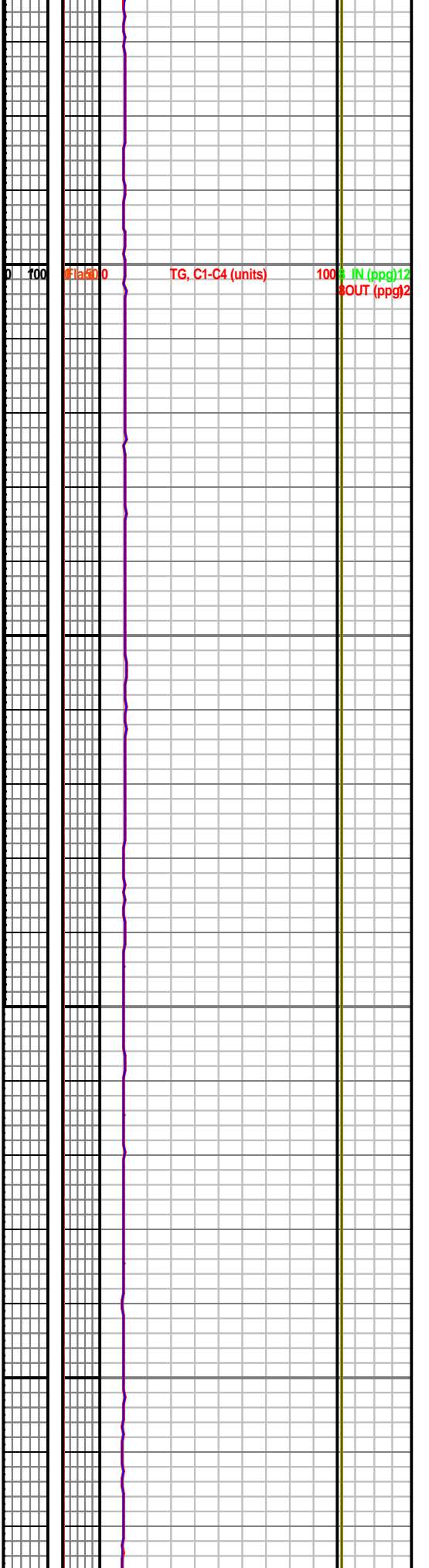


SLTST (60%) gybrn, m-lt gy, sft-fri, sdy grdg-sity vf gr Ss ip, sl-non calc, scat carb matr & mica, rr gn cly mnrls.
SH (40%) m gy, occ gybrn, sft, tr frm, ireg, sbchky ip, sl-non calc, pred slty, occ scat mic carb matr & mica.

SURVEY : 1670° MD, INC 1.2°; AZM 149.9°

SLTST (45%) m gy, gybrn, lt gy, fri-sft, blkly-sbplty, calc-sl calc, sdy ip, scat mica & mic carb matr, rr plnt remn.
SH (35%) m-dk gy, gybrn, sft-sl frm, ireg-sbplty, slty-rthy txt, sbchky ip, scat carb matr & miuca, tr carb ptgs.

SH (60%) pred m gy, occ dkgy ltgy, sbblky, rthy-slty txt, sbchky, calc, scat carb matr, sft-frm.

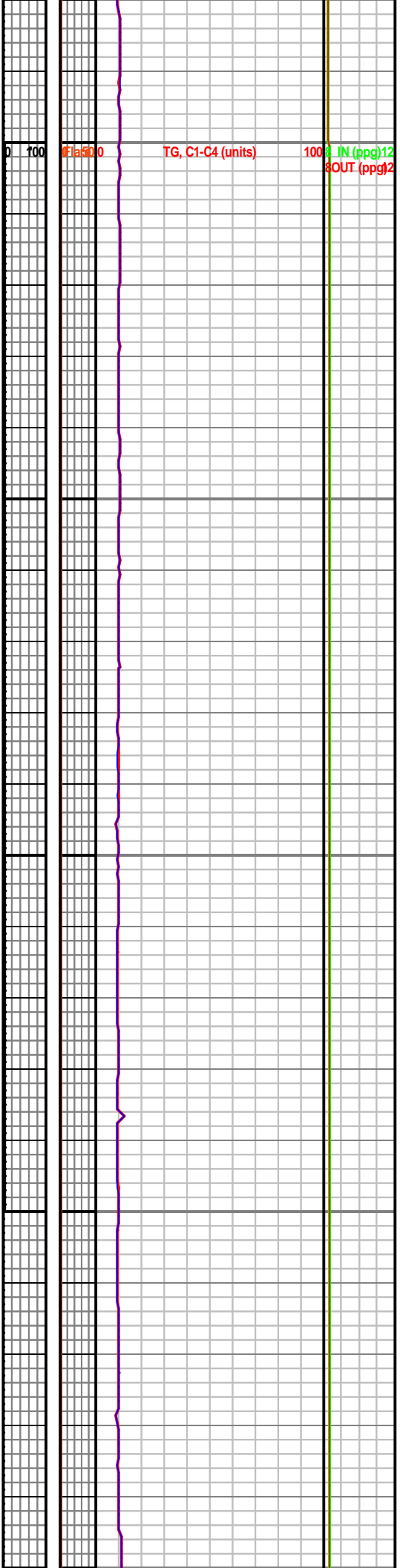
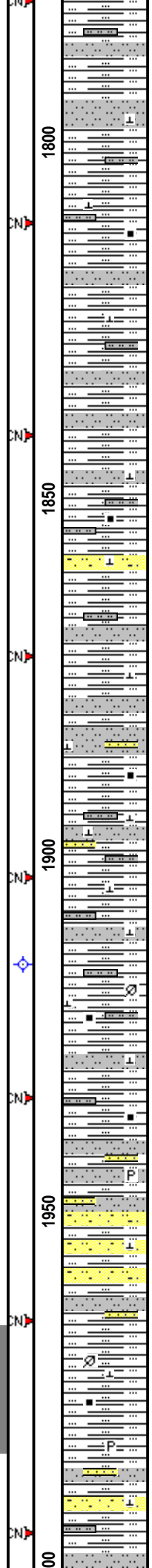
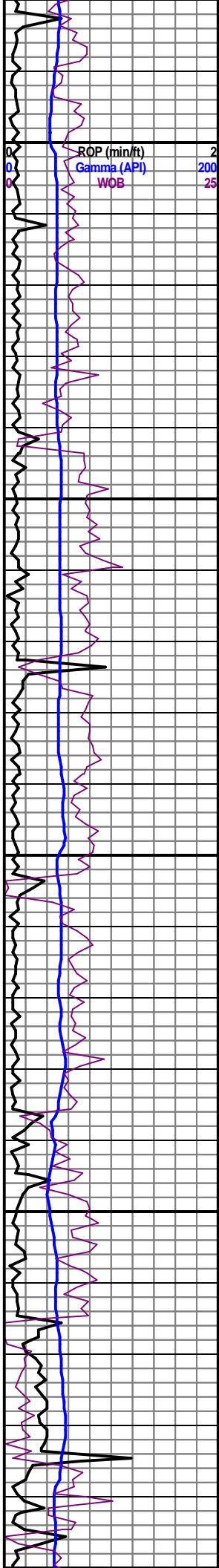


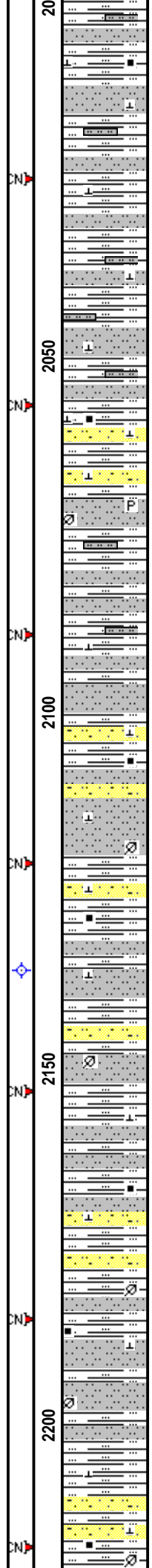
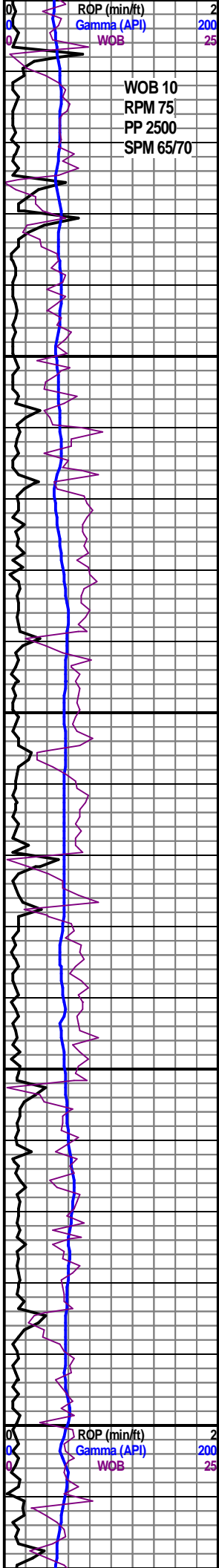
SLTST (40%) lt-m gy, fri-sft, cly, calc, scat carb matr, sl sdy ip.

SH (50%) pred m gy, occ dkgy ltgy, sft-fri- sl frm, sbbkly, slty-rthy txt, sbchky ip, calc, scat carb matr. SLTST (40%) lt-m gy, fri-sft, calc, scat mica & carb matr, sl-v sdy ip. SS (10%) ltgy, fri, L vf-L f gr, slty vf gr ip, ang-sbrnd, mod srt, Calc cmt, cly fld ip, scat orgn gn Qtz grs & dk mica, no vis-vp por, NSOFC.

SURVEY : 1915' MD, INC 1.3'; AZM 167.1°

SLTST (40%) m gy, gybrn, fri-sft-frm, blk, calc, sdy, scat carb matr & mica, tr plnt remn & Pyr. SS (30%) m-lt gy, s&p, off wh, fri-frm, pred slty vf gr, L vf-L f gr ip, ang-sbrnd, mod w-mod srt, Calc cmt, wh cly fld ip, arg ip, scat mica, tr carb matr, tt, NSOFC. SH (30%) m gy, gybrn, sft-sl frm, blk-ireg, slty-rthy-sbchky txt, calc-sl calc, scat carb matr & mica, tr Pyr.

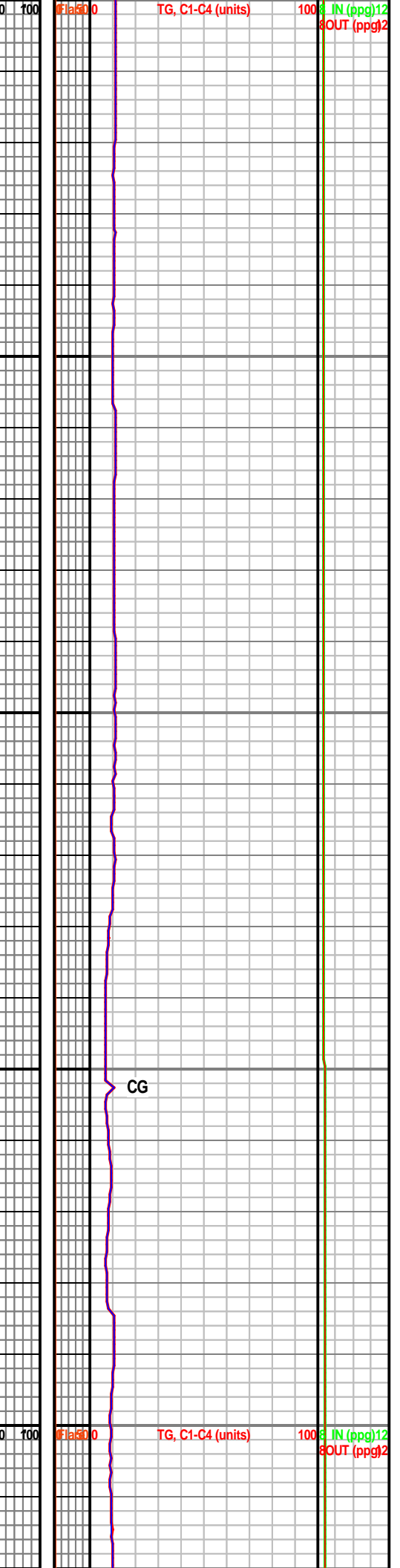




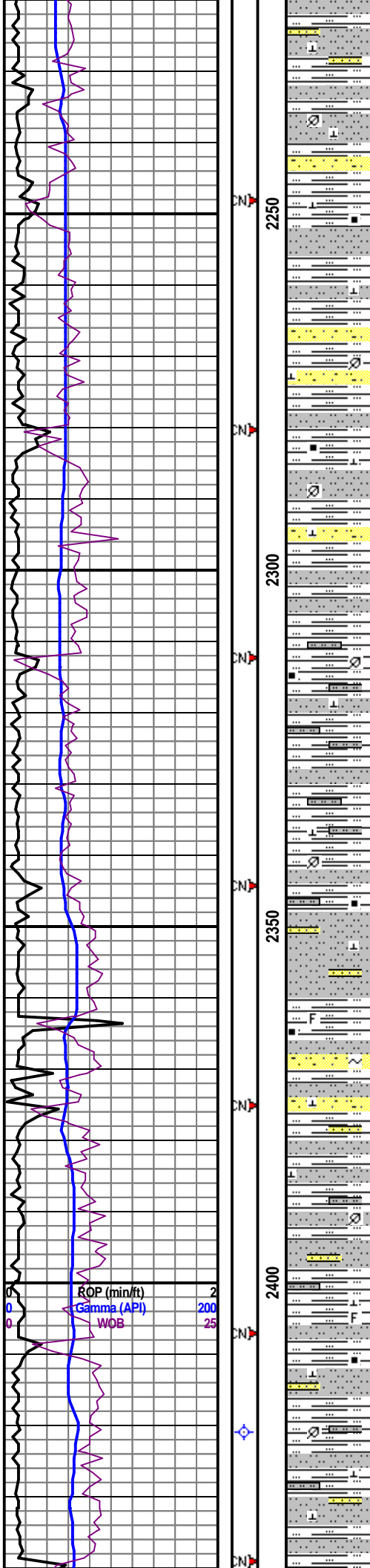
SH (40%) pred mgy, sbbkly, slty-rthy txt, calc-si calc, scat carb matr & mica, tr dkgy blk carb.
 SLTST (40%) m gy, gybrn, fri-sft frm, blkly, calc, sdy, scat carb matr & mica, tr plnt remn, rr Pyr.
 SS (20%) slty arg vf gr.

SURVEY : 2136' MD, INC 0.5°, AZM 99.0°

SH (50%) m gy, gybrn, dk gy, fri-sft frm, sbbkly, slty-rthy, sbchky ip, sl-tr-mod calc, scat carb matr & plnt remn, occ mic mica, tr carb ptgs.
 SLTST (30%) m gy, gybrn, fri, blkly, calc-si alc, sdy grd-g-slty vf gr Ss, scat mica, occ carb matr & plnt remn.
 SS (20%) m-ltgy, s&p, gybrn, fri, slty L-U vf gr, tr L vf-L f gr, mod w-w srt, calc, cly fld, arg, scat mica & carb matr, NSOFC.



CG



CN 2250

CN

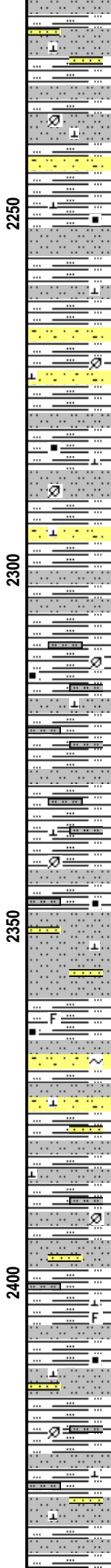
CN 2300

CN 2350

CN

CN 2400

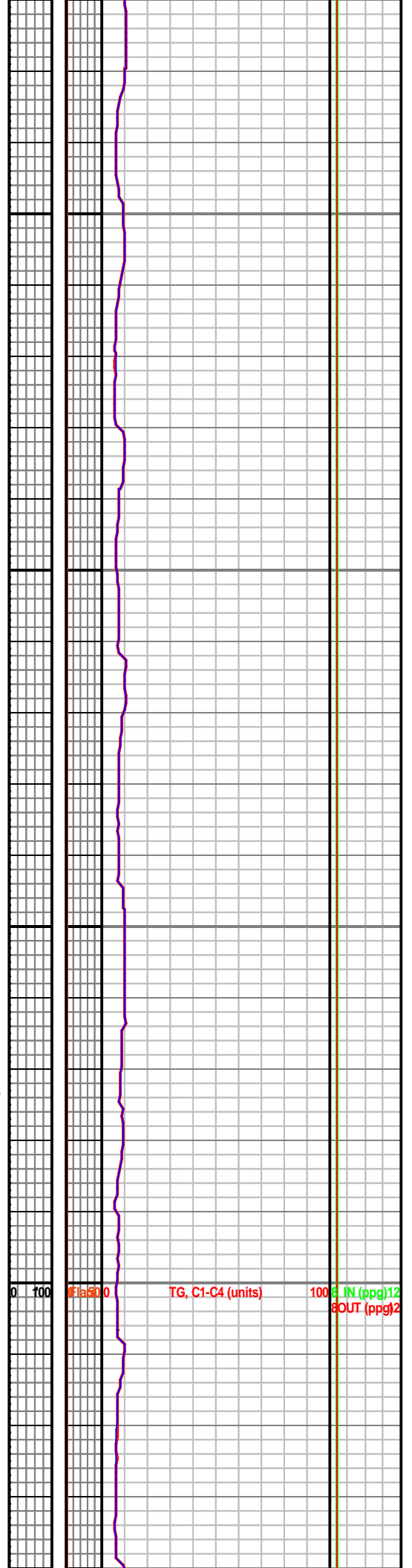
CN



SLTST (40%) m gy, occ gybrn, fri, blkly-sbply,
calc-sl alc, sdy grd-g-slty vf gr Ss, scat mica, occ
carb matr & plnt remn.
SH (40%) m gy, occ gybrn, dk gy, fri-sft frm, sbblky,
slty, sbchky ip, calc-sl calc, scat carb matr & plnt
remn, occ mic mica, tr carb ptgs.
SS (20%) m-ltgy, s&p, gybrn, fri, slty L-U vf gr, tr L
vf-L f gr, mod w-w srt, calc, cly fld, arg, scat mica &
carb matr, NSOFC.

SLTST (40%) mgy, gybrn, fri-sft-sl frm, sdy ip,
mod-sl calc, scat carb matr & occ mica.
SH (30%) m-dk gy, sft frm, blkly-sbply-ireg, slty-rthy
txt, sl-mod calc, scat carb matr/plnt remn & mica, rr
indist Fos frags.
SS (30%) lt-m gy, off wh, s&p, fri frm, pred L-U vf gr,
tr L vf-U f gr, ang-sbrnd, mod w srt, Calc cmt, cly fld
ip, sl glau ip, occ mica & gn orgng Qtz grs, tt, no
vis-vp por, NSOFC.

SURVEY : 2421' MD, INC 0.6°, AZM 107.8°



0 100

Gamma (API)

TG, C1-C4 (units)

100 IN (ppg) 12

8OUT (ppg) 2

WOB
RPM 70
PP 2600
SPM 68/68

2450

CN

2500

CN

2550

CN

2600

CN

2650

CN

SH (50%) m gy, occ dk gy, sl frm-sft, sbblky-sbplty-splty, tr plty, slty txt, sbchky ip, sl-tr calc, scat mica, tr carb matr & plnt remn, tr indist Fos frags.
SLTST (50%) m-lt gy, gybrn, sft-fri, sl sdy ip, sl-mod calc, scat mica, tr carb matr/plnt remn, occ grdg-slty vf gr Ss.

SLTST (50%) mgy, gybrn, fri, blkly-sbplty, sl calc, sdy, scat carb matr/plnt remn, occ mica.
SH (25%).
SS (25%) m-lt gy, gybrn, fri, slty vf gr, mod w-w srt, calc-sl calc, arg, scat carb matr/plnt remn/mica, tt, NSOFC.

SH/SLTST (70/30%) lt gy, sft-m frm, blkly, rthy, com v slty gdg SLTST, tr vf carb spks & plnt foss frags, v sl calc; Tr SS miclams, arg/slty, tt.

ROP (min/ft) 2
Gamma (API) 200
WOB 25

0 100

Elas 800

CG

TG, C1-C4 (units)

100 IN (ppg)12
8OUT (ppg)2

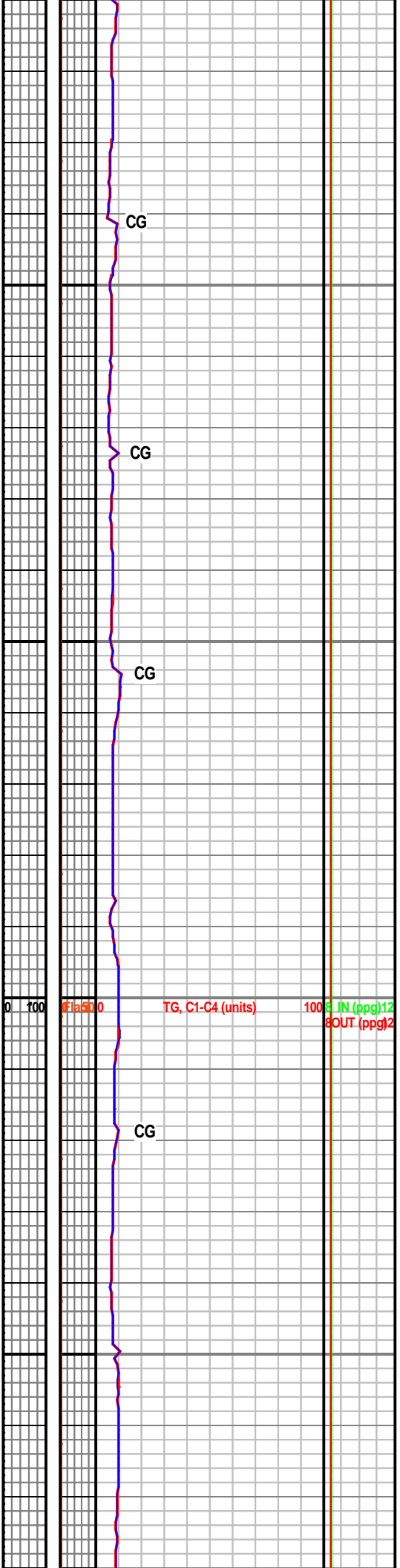
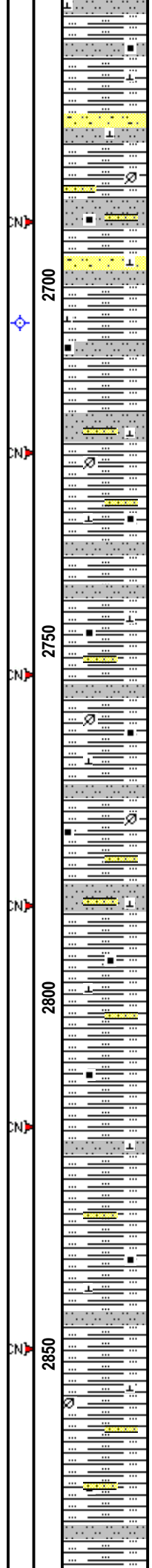
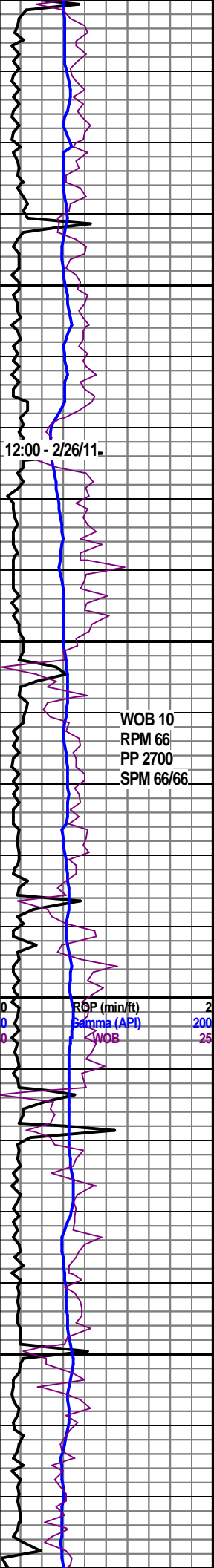
CG

SH/SLTST (80/20%) lt gy, sft-m frm, blk, rthy, com v
slyt gdg SLTST, tr micro musc mica & vf carb spks
& plnt foss frags, v sl calc; Tr SS micro lams, l vf gr,
arg/slyt, tt.

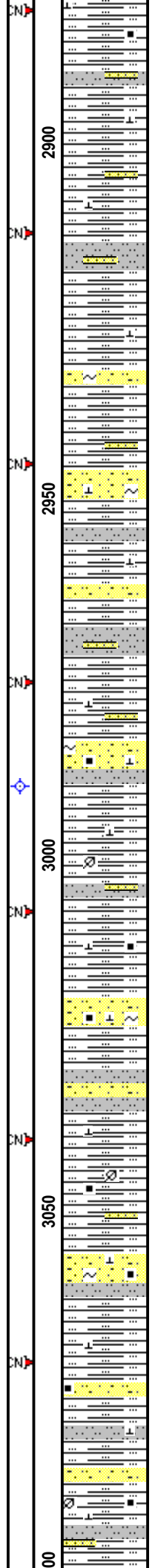
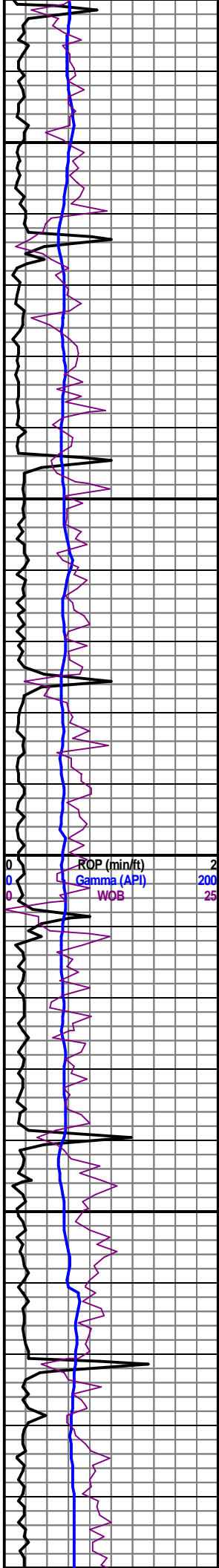
SURVEY : 2705' MD, INC 0.5', AZM 344.6°

SH/SLTST (70%/30%) lt gy, sft-m frm, blk, rthy, com
v slyt gdg SLTST, tr micro musc mica & vf carb spks
& plnt foss frags, v sl calc; Tr SS micro lams, l vf gr,
arg/slyt, tt.

SH/SLTST (90%/10%) lt gy, sft-m frm, blk, rthy, com
v slyt gdg SLTST, tr micro musc mica & vf carb spks
& plnt foss frags, v sl calc; Tr SS micro lams, l vf gr,
arg/slyt, tt.



WOB 10
RPM 66
PP 2700
SPM 66/66



SH/SLTST (50/20%) lt gy, sft-m frm, blk, rthy, com v slty gdg SLTST, com vf musc mica & carb spks, tr vf plnt foss depr, n-v sl calc.
 SS (20%) off wh-lt gy, l/u vf gr, slty & argil, vp srt, a-sr, sft-sl fri, com dk min grs & carb spks, tr musc mica & pl gn glauc, cly fld/tt, sl calc. micro lams, l vf gr, arg/slty, tt.

SURVEY : 2990' MD, INC 0.9°; AZM 329.7°

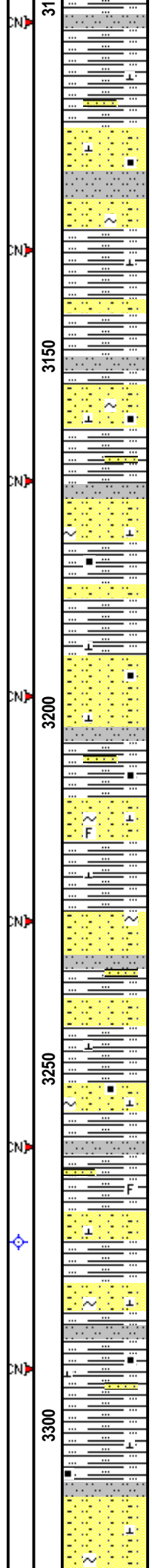
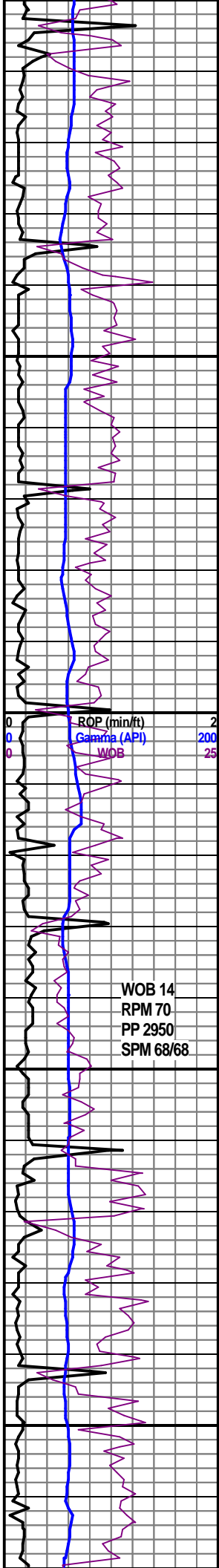
SH/SLTST (60/30%) lt gy, sft-m frm, blk, rthy, com v sity gdg SLTST, com vf musc mica & carb spks, tr vf plnt foss depr, n-v sl calc.
 SS (10%) off wh-lt gy, l/u vf gr, slty & argil, vp srt, a-sr, sft-sl fri, s&p w/abnt dk min grs, carb spks & musc mica, tr pl & dk gn glauc, cly fld/tt, sl calc.



ROP (min/ft) 2
 Gamma (API) 200
 WOB 25

TG, C1-C4 (units) 100
 IN (ppg) 12
 OUT (ppg) 2

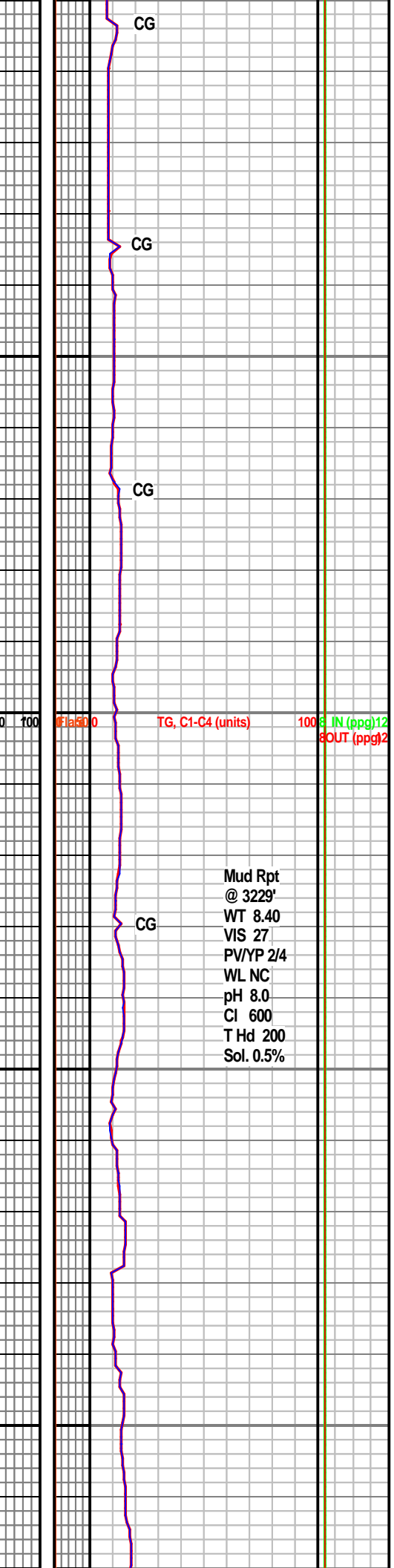
CG



SS (60%) off wh-lt gy, vf-u m gr, slty & argil, p srt, a-sr, sft-sl fri, sl s&p w/ dk min grs, carb spks & musc mica, tr lt & dk gn glauc, cly fld/tt, sl calc. ip ocrs as micro lams, l vf gr, arg/slty, tt. SH/SLTST (20/20%) lt gy, sft-m frm, blk, rthy, com v slty gdg SLTST, com vf musc mica & carb spks, n-v sl calc.

SH/SLTST (40/20%) lt gy, sft-m frm, blk, rthy, com v slty gdg SLTST, com vf musc mica & carb spks, n-v sl calc. SS (40%) off wh-lt gy, l/u vf-l f gr, slty & argil, pr srt, sa-sr, s&p w/com dk min grs, musc mica & tr dk gn glauc, tr vf foss debr, arg/cly fld, dns,tt, m calc.

SURVEY : 3274' MD, INC 0.7°; AZM 359.7°

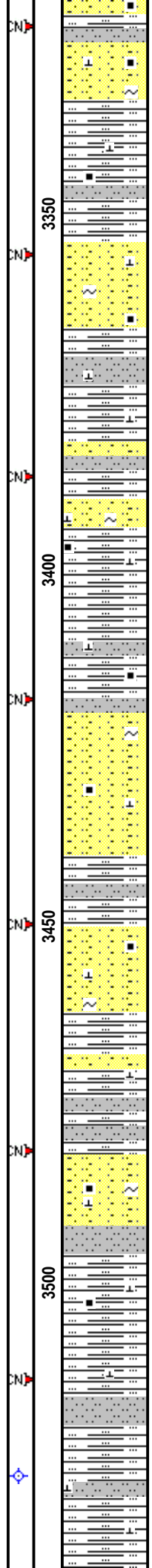
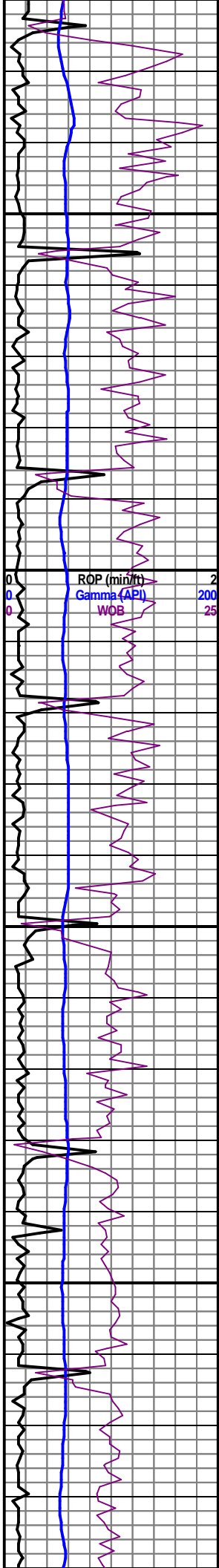


Mud Rpt @ 3229'
 WT 8.40
 VIS 27
 PV/YP 2/4
 WL NC
 pH 8.0
 CI 600
 T Hd 200
 Sol. 0.5%

Elas 800 TG, C1-C4 (units) 100 IN (ppg) 12 8OUT (ppg) 2

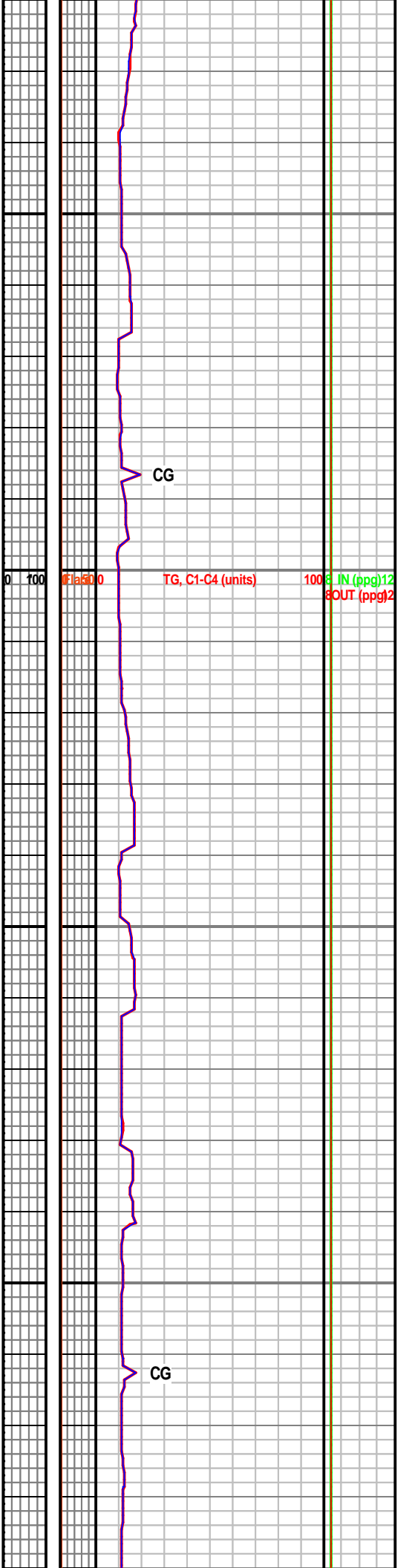
WOB 14
 RPM 70
 PP 2950
 SPM 68/68

ROP (min/ft) 2
 Gamma (API) 200
 WOB 25



SH/SLTST (30/30%) lt gy, sft-m frm, blk, rthy, com v slty gdg SLTST, com vf musc mica & carb spks, n-v sl calc.
 SS (40%) off wh-lt gy, l/u vf-l f gr, slty & argil, pr srt, sa-sr, s&p w/com dk min grs, carb spks, musc mica & tr dk gn glauc, arg/cly fld, dns,tt, m calc.

SS (60%) off wh-lt gy, l/u vf-l f gr, slty & argil, pr srt, sa-sr, s&p w/com dk min grs, carb spks, musc mica & tr dk gn glauc, arg/cly fld, dns,tt, m calc.
 SH/SLTST (40%) lt gy, sft-m frm, blk, rthy, com v slty gdg SLTST, com vf musc mica & carb spks, n-v sl calc.



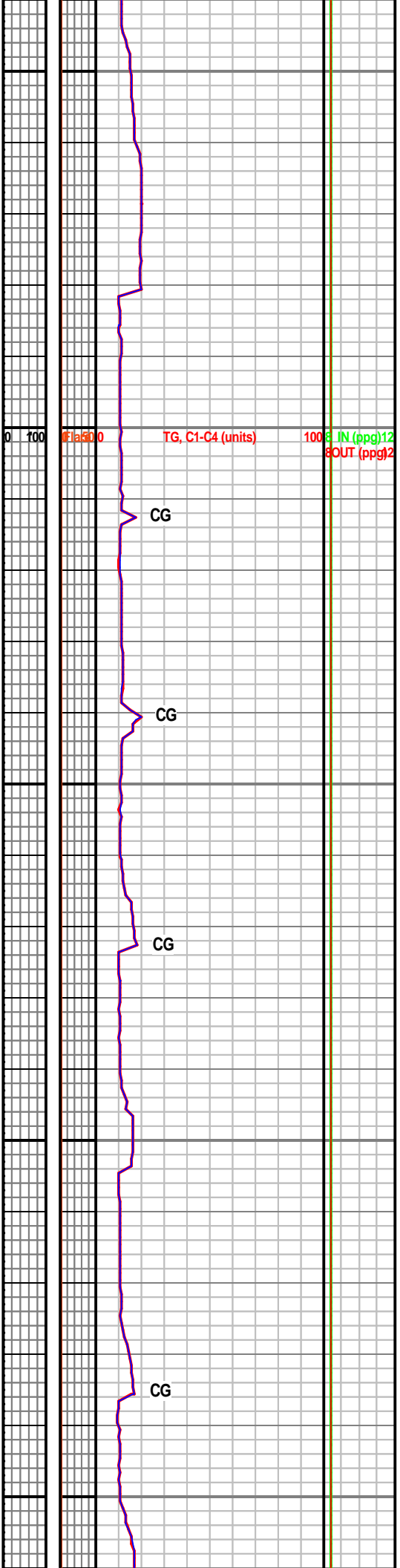
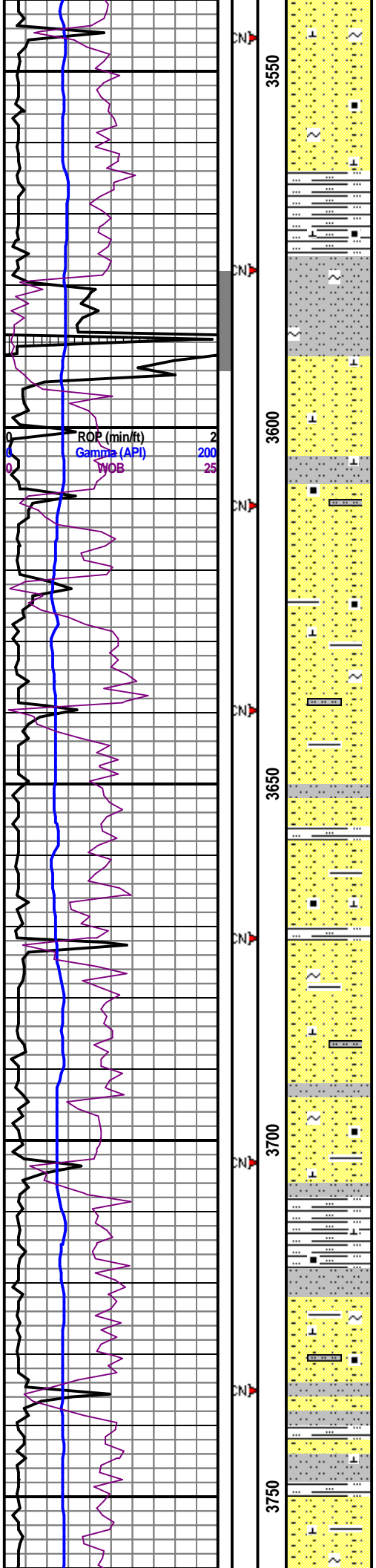
SURVEY : 3527' MD, INC 0.8°, AZM 24.8°

SS (90%) lt gy, l/u vf-u f gr, fr srt, a-sa, frm-sl fri, s&p w/com dk min grs, carb spks, musc mica & dk gn glauc, sm arg micro lams, tt-pr p&p, NSFOC.
 SH/SLTST (10%) lt gy, sft-m frm, blk, rthy, com v sity gdg SLTST, com vf musc mica & carb spks, n-v sl calc.

**TERRY SS (Samples)-
 3589' (+1735)**

SS (95%) lt gy, l/u vf-u f gr, slty & ip v arg, pr srt, a-sa, frm-ip sl fri, s&p w/com dk min grs, carb spks, musc mica & dk gn glauc, sm arg micro lams, gen tt-pr p&p, NSFOC.
 SH/SLTST (10%) lt gy, sft-m frm, blk, rthy, com v sity gdg SLTST, com vf musc mica & carb spks, n-v sl calc.

SS (90%) lt gy, l/u vf-u f gr, fr srt, a-sa, frm-ip sl fri, s&p w/com dk min grs, carb spks, musc mica & dk gn glauc, sm arg micro lams, gen tt-pr p&p, NSFOC.
 SH/SLTST(10%)



WOB 14
RPM 70
PP 3000
SPM 68/68

CN

CN

CN

CN

CN

CN

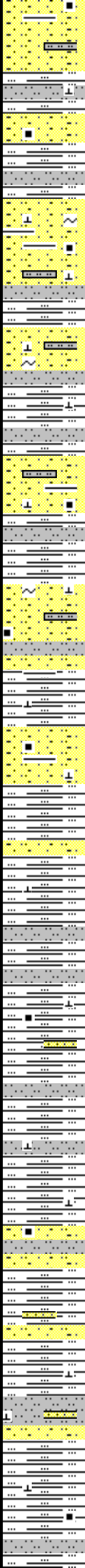
CN

3800

3850

3900

3950



SURVEY : 3813' MD, INC 1.1'; AZM 347.2°

SH/SLTST (30/30%) lt gy, sft-m frm, blk, rthy, com v sity gdg SLTST, com vf musc mica & carb spks, n-v sl calc.
SS (40%) lt gy, l/u vf gr, sity & argil, prr srt, a-sa, m frm-ip sl fri, s&p w/tr dk min grs, carb spks & musc mica, tr dk gn glauc, abnt arg micro lams, tt.

SH/SLTST (50/30%) lt gy, m frm, blk, rthy, ip slty gdg SLTST, com vf musc mica & carb spks, sl-m calc.
SS (20%) lt gy, l/u vf gr, sity & argil, prr srt, a-sa, m frm-ip sl fri, s&p w/tr dk min grs, carb spks & musc mica, tr dk gn glauc, abnt arg micro lams, cly fld, tt, sl-m calc.

0 100

Elas

CG

CG

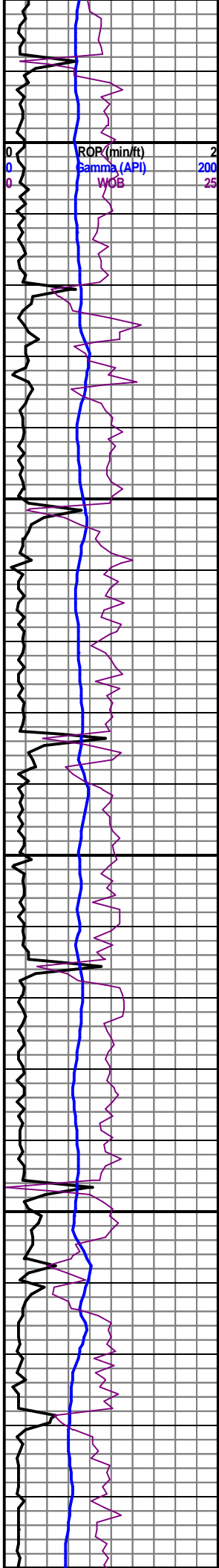
CG

CG

CG

iG, C1-C4 (units)

100 IN (ppg)12
8OUT (ppg)2



CN
4000
4050
4100
4150
4200

ROP (min/ft) 2
Gamma (API) 200
WOB 25

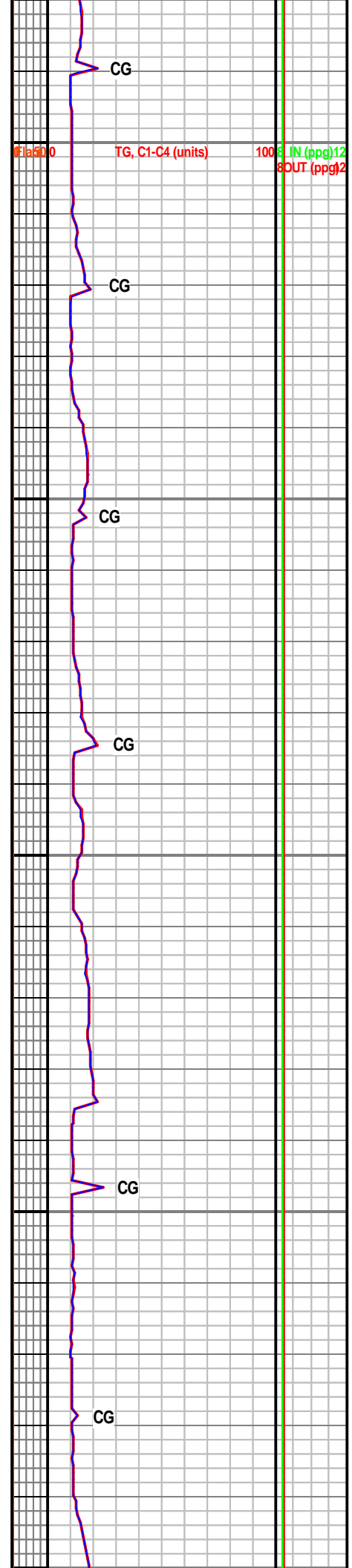
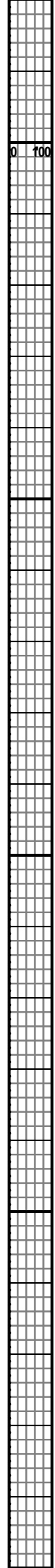


SH (90%) lt-m gy, frm, blk-sb plty, rthy, tr sl slty, rr
vf carb spks, n-v sl calc.
SS (10%) lt gy, l/u vf gr, slty & argil, vp srt, a-sa, tot
cly fld, dns/tt, v sl calc.
LS (Tr) lt brn, frm-hd, crpxln, dns.

SURVEY : 4097' MD, INC 0.5'; AZM 305.5°

**HYGIENE SS (Samples)-
4172' (+1152)**

SS (90%) lt gy, l/u f-u m gr, fr srt, sa-sr, sft, fri, a-sr,
fr srt, sft, fri, abnt lse qtz grs, tr dk min grs & orng
qtz & fldspr?, tr glauc or chlor min, fr p&p, m calc.
SH (10%) lt-m gy, frm, blk-sb plty, rthy, tr sl slty, rr
vf carb spks, n-v sl calc.

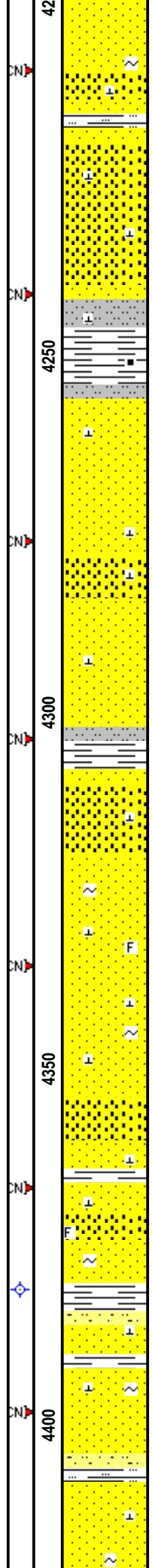
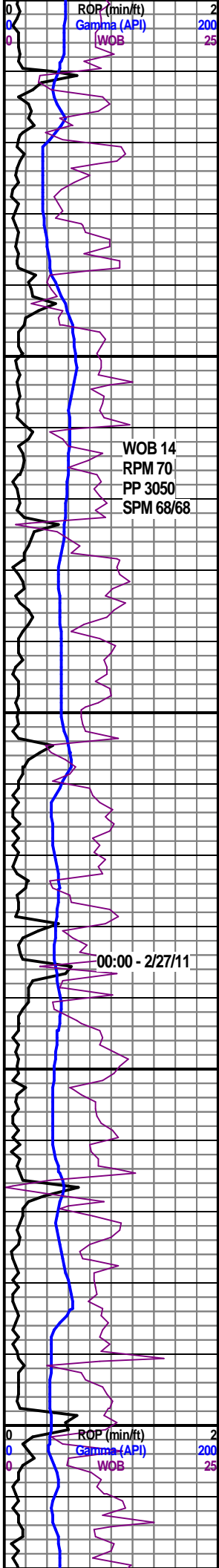


CN
4000
4050
4100
4150
4200

TG, C1-C4 (units)



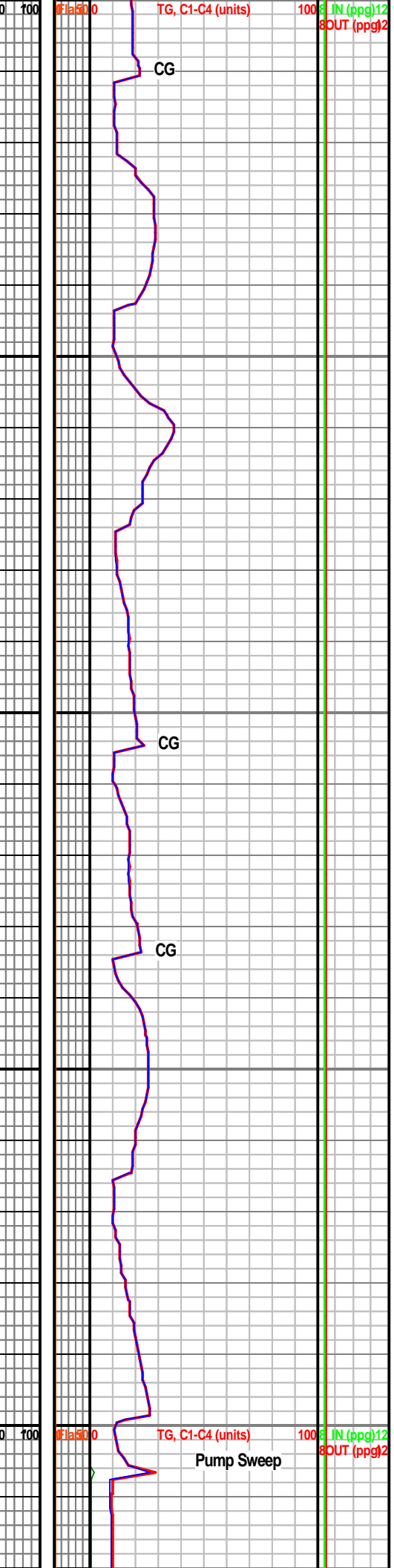
IN (ppg) 12
OUT (ppg) 2

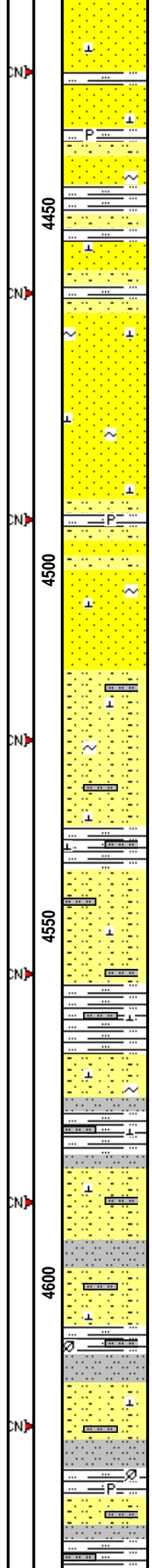
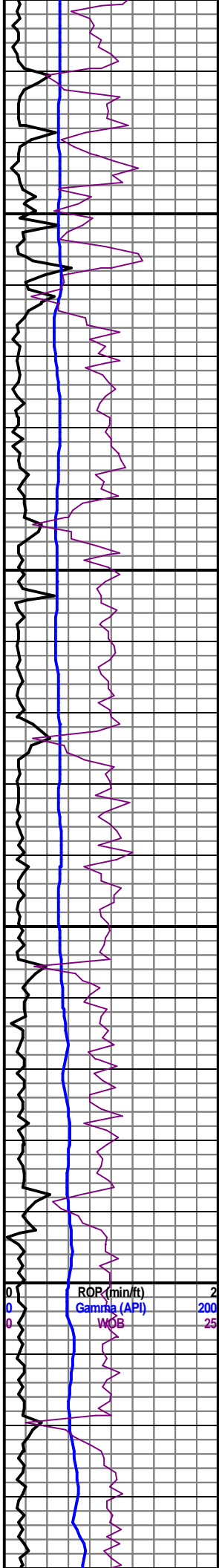


SS (65%) m-lt-dk gy, s&p, fri-frm, pred L vf-U f gr, slty vf gr ip, L vf-L m gr ip, ang-sbrnd, fr-mod-p srt, Calc cmt, wh gy cly fld ip, arg ip, abnt mica, occ scat dk mnrls & orng gn Qtz grs, tt, no vis-vp intgran por, NSOFC.
 SLTST (20%) brn tan lt-mgy, sft-fri, calc, scat mic carb matr.
 SH (15%) dk-m gy, frm, sbblky, rthy txt, non-tr calc, carb ip.

SS (70%) lt-m gy, s&p, wh, fri, pred fr-mod srt L vf-U f gr, mod-p srt L vf-L m gr ip, Calc cmt, pred cly fld, arg ip / occ Sh ptgs, abnt mica, occ glau & dk mnrls, tr Fos frags, tt, no vis-vp por, NSOFC.
 SH (30%) m-dk gy, frm, sbblky-sbply-pty, sl slty-rthy-sm txt, sbchky ip, non-tr calc, tr-occ scat vf carb matr.

SURVEY @ 4381' MD, INC 0.6°, AZM 316.5°;
 TVD 4380.63'





SS (80%) ltgy, s&p, wh, fri, L vf-U f gr, sbang-sbrnd, fr srt, Calc cmt, wh ltgy cly fld, scat mica/dk mnrls & Sh frags/glau & chlor/orng red Qtz grs, no vis por, NSOFC.
SH (20%) dk-m gy, gybrn, brn, frm, blk- sbply-pty-spty, rthy-slty-sdy-sm txt, non-sl calc, occ scat carb matr, tr Pyr.

SS (60%) m-ltgy, s&p, wh, fri-sl frm, L vf-L f gr, sbang-sbrnd, fr srt, Calc cmt, wh ltgy cly fld, incr arg / gybrn Sh & brn Slt strgs com, scat mica & dk mnrls & Sh frags tr glau & chlor/orng red Qtz grs, no vis por, NSOFC.
SH (20%) gybrn brn m-dkgy, frm, sbbly-sbply, slty-rthy txt, sl-mod calc, occ scat carb matr, occ Slt strgs.
SLTST (20%) brn, fri-sl frm, calc, sl-v sdy.

SH (40%) m-dk gybrn, dk-m gy, frm, sbbly-sbply-pty-spty, slty-sdy-rthy txt, sl-non calc, occ scat mic mica & carb matr/plnt remn, tr Pyr, Slt & slty Ss strgs com.
SLTST (30%) gybrn, brn, fri-sl frm, calc-sl calc, pred sdy, scat mica & carb matr, occ Sh ptgs.

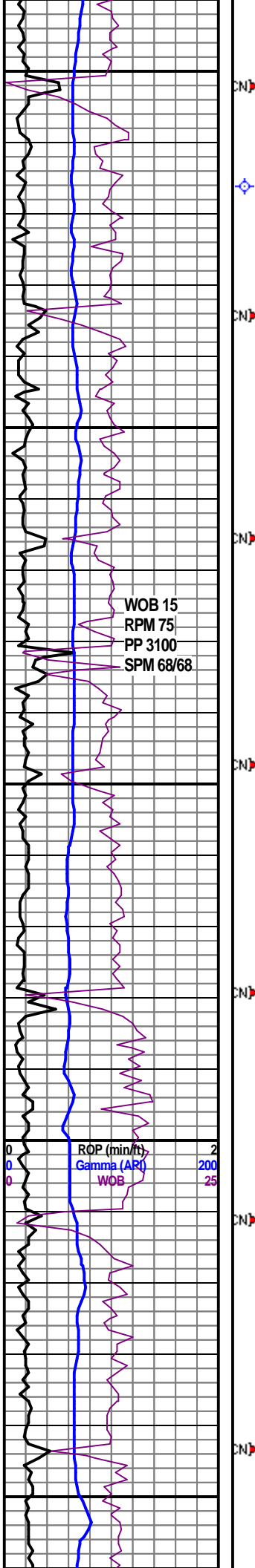


SS (30%) gybrn, m-lt gy, fri-frm, slty vf & L vf-L f gr, mod w srt, Calc cmt, pred cly fld & arg / abnt Sh & Slt ptgs, occ mica, tr glau, tt, NSOFC.

SURVEY @ 4666' MD, INC 0.8', AZM 345.2';
TVD 4665.61'

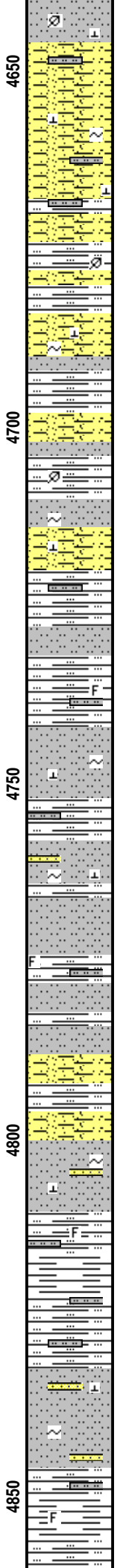
SH (45%) dk-m gy, gybrn, frm, sbbly- sbply-sply, slty txt, tr-sl calc, Slt strgs & ptgs com, occ vf carb matr, tr Inoc & indist Fos frags.
SLTST (40%) m-dk-lt gy, gybrn, fri-frm, calc ip, sdy ip, occ vf carb matr & glau.
SS (15%) pred sity vf gr,m Sh & Slt ptgs com.

SH (45%) dk-m gy, gybrn, frm, sbbly- sbply-sply, slty txt, tr-sl calc, Slt strgs & ptgs com, occ vf carb matr, occ-abnt Inoc & indist Fos frags.
SLTST (45%) m-dk-lt gy, gybrn, fri-frm, calc ip, sdy ip, occ vf carb matr, tr glau.



WOB 15
RPM 75
PP 3100
SPM 68/68

ROP (min/ft) 2
Gamma (AR) 200
WOB 25



Pump Sweep

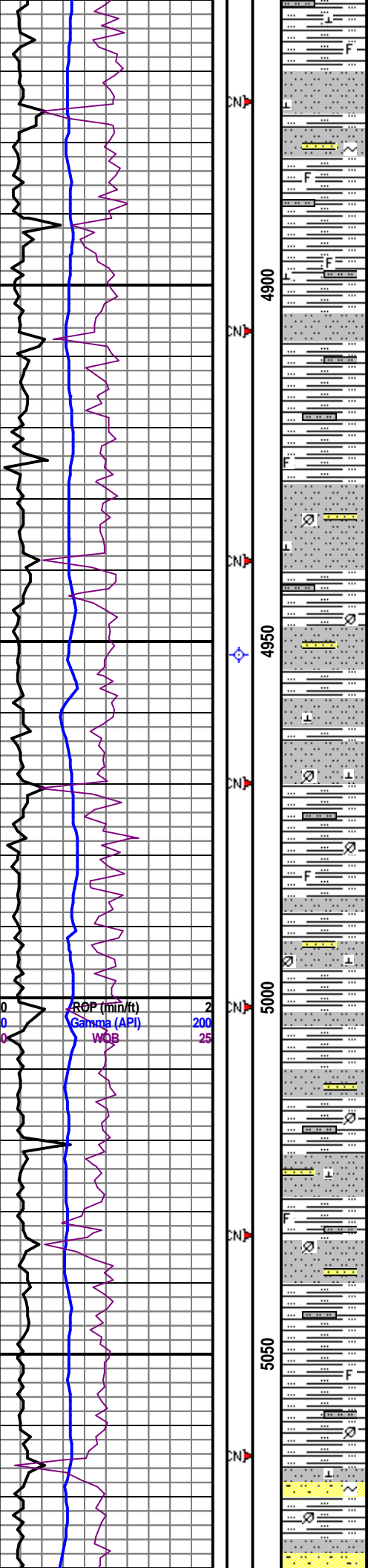
CG

CG

CG

TG, C1-C4 (units) 100 IN (ppg) 12
OUT (ppg) 2

SS (10%) crm, wh, lt-m gy, slty vf gr, Calc, cly fld, pred arg.



CN

4900

CN

4950

CN

5000

CN

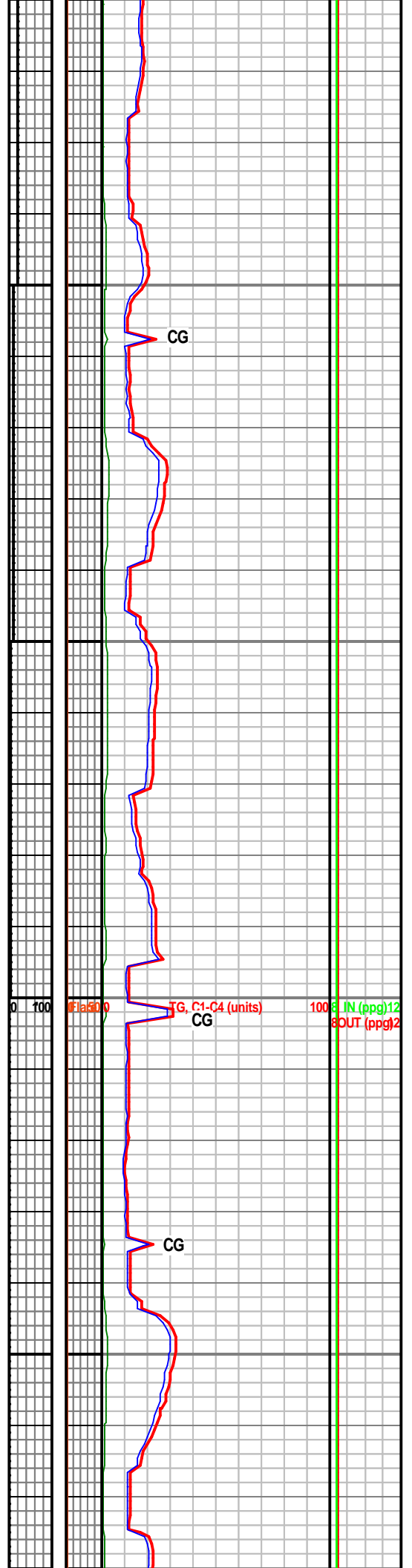
5050

CN

SURVEY @ 4952' MD, INC 0.7', AZM 2.5';
TVD 4951.59'

SH (50%) m-dk gy, gybrn, frm, sbbly, slty txt, tr calc, scat mica & vf carb matr/plnt remn, tr indist Fos frags.
SLTST (50%) gybrn, m-lt gy, fri-sl frm, calc-sl calc, sdy ip / occ slty vf gr Ss strgs, scat mica & vf plnt remn.

SH (45%) m-dk gy, gybrn, fri-frm, sbbly-sbply, slty-rthy-sdy txt, tr-sl calc, scat mica & vf carb matr/plnt remn, tr indist Fos frags.
SLTST (40%) gybrn, m-lt gy, fri-sl frm, calc-sl calc, sdy ip / occ slty vf gr Ss strgs, scat mica & vf plnt remn, tr glau.
SS (15%) lt-mgy, wh, gybrn, fri-frm, slty vf gr, Calc, arg ip, scat mica & glau, tt, NSOFC.
BENT (Tr) wh ltgy crm tan, frm, plty, sbwxy, scat



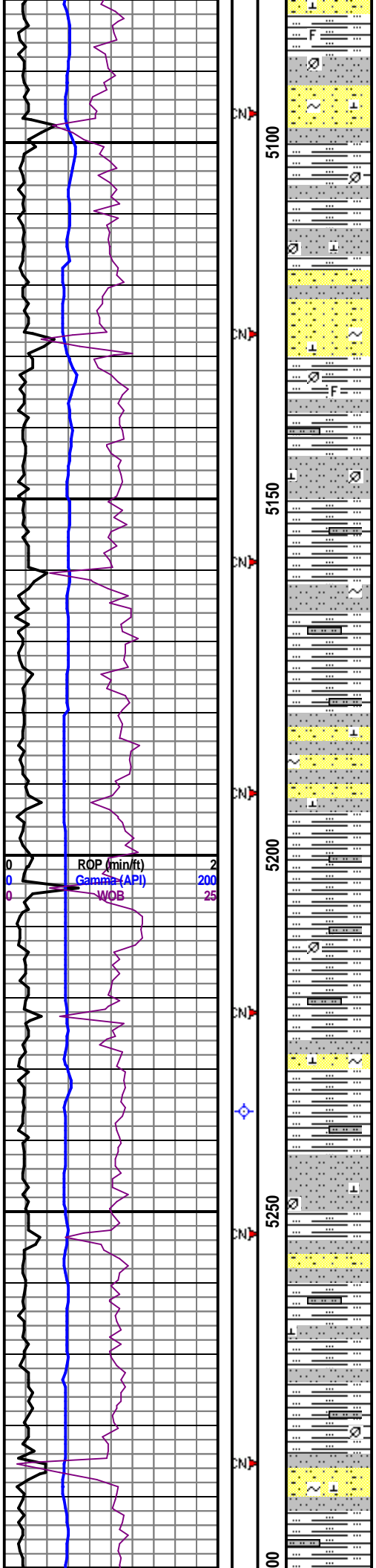
CG

CG, C1-C4 (units)

IN (ppg)

CG

mica.



5100

5150

5200

5250

5300

SH (40%) dk-m gy, gybrn, frm, sbpity- sbblky, slty-rthy txt, non-sl calc, scat mica & carb matr/plnt remn, rr Fos frags.
 SLTST (30%) mgy gybrn, fri, calc-sl calc, Sh & slty vf gr Ss ptgs, scat mica & vf carb matr, tr glau.
 SS (30%) lt-med gy gybrn, tr wh-ltgy, fri, slty arg vf gr, v slty grdg-Sltst ip, calc, m-lt gy cly fld, scat mica, tr glau & dk mnrls, no vis por, NSOFC.

SURVEY @ 5236' MD, INC 0.4°, AZM 322.3°;
 TVD 5235.57'

SLTST/SS (50%/25%) lt-med gy gybrn, tr wh-ltgy, fri, slty arg vf gr, sdy Sltst & slty vf gr Ss, mod w srt, calc, mgy ltgy wh cly fill, scat mica, tr glau & dk mnrls, no vis por, NSOFC.
 SH (25%) dkgy, gybrn, frm, sbpity, slty-rthy txt, non-sl calc, scat mica & carb matr/plnt remn.



CG

CG

CG

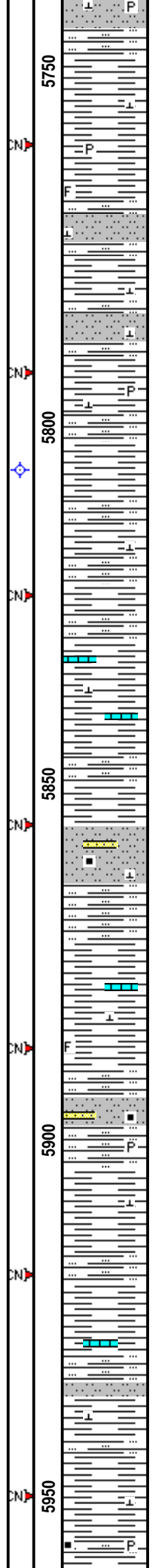
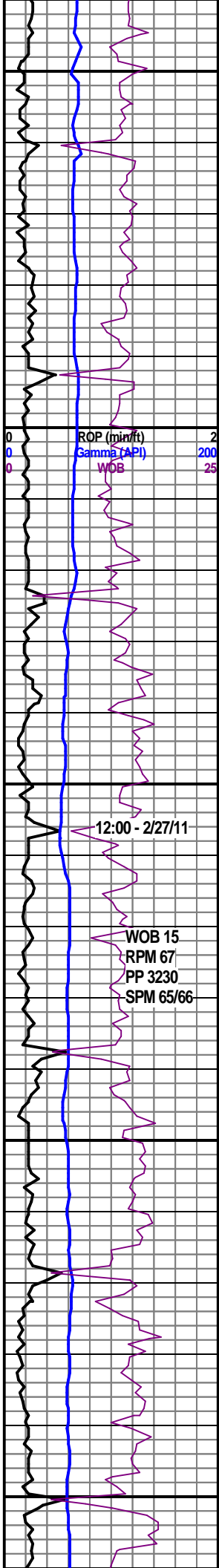
0 100

0 100

TG, C1-C4 (units)

100 IN (ppg)

OUT (ppg)

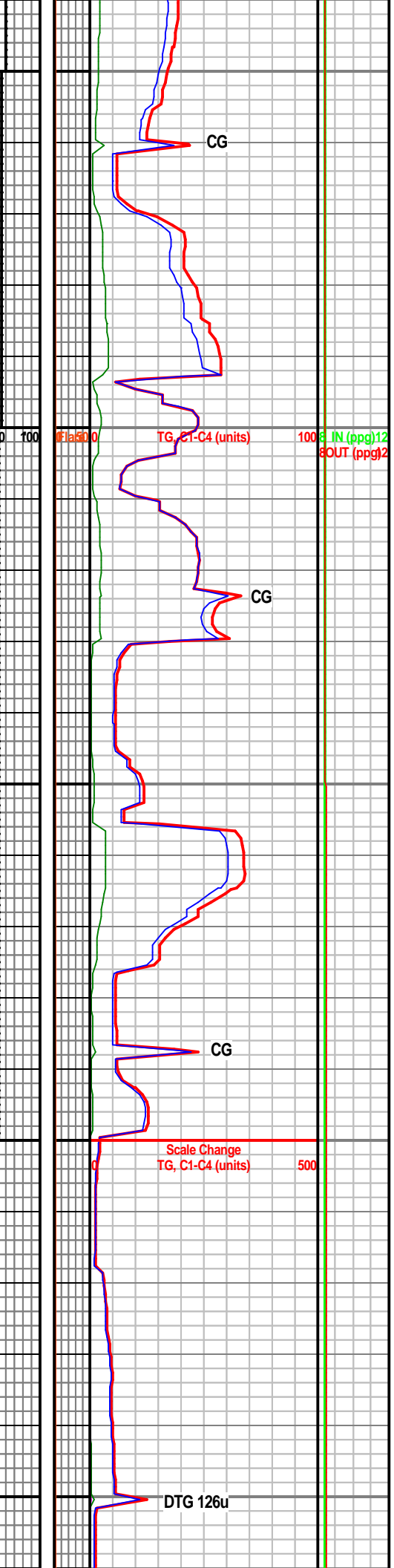


SH (90%) m gy, frm, blk-y-sb plty, rthy-ip sl sbwxy, tr slty gdg Sltst (10%), tr vf carb spks, tr w/ vf dism pyr spks, tr tn unident foss frags, sl-m calc.

SURVEY @ 5806' MD, INC 0.7° AZM 127.9°, 5805.56'

SH (95%) m gy, frm, blk-y-sb plty, rthy-ip sl sbwxy, ip slty gdg Sltst (5%), rr vf carb spks, tr w/ vf dism pyr spks, tr tn unident foss frags, sl-m calc; TR LS, lt brn, crpxln, tr c xln calc inclus, hd/dns.

SH (100%) m gy, frm, blk-y-sb plty, rthy-ip sl sbwxy, ip slty gdg Sltst (Tr), rr vf carb spks, tr w/ vf dism pyr spks, tr tn unident foss frags, sl-m calc. TR LS, lt brn, crpxln, tr c xln calc inclus, hd/dns.



TVD

100 IN (ppg)12
8OUT (ppg)2

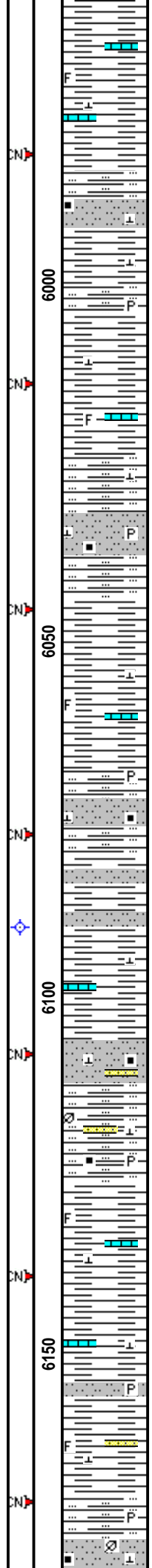
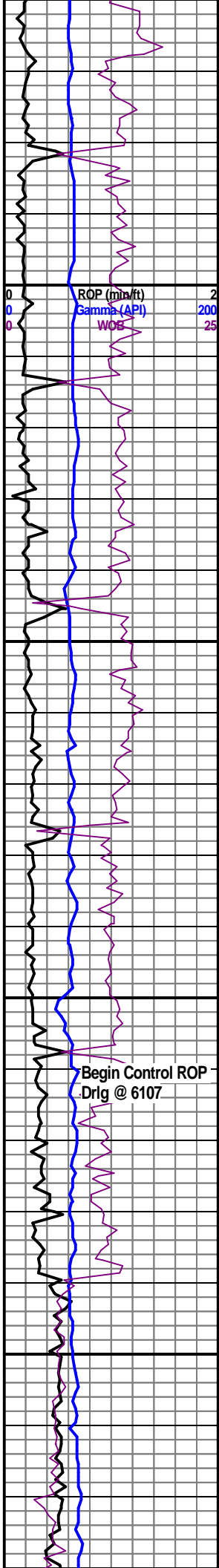
Scale Change
TG, C1-C4 (units) 500

CG

CG

CG

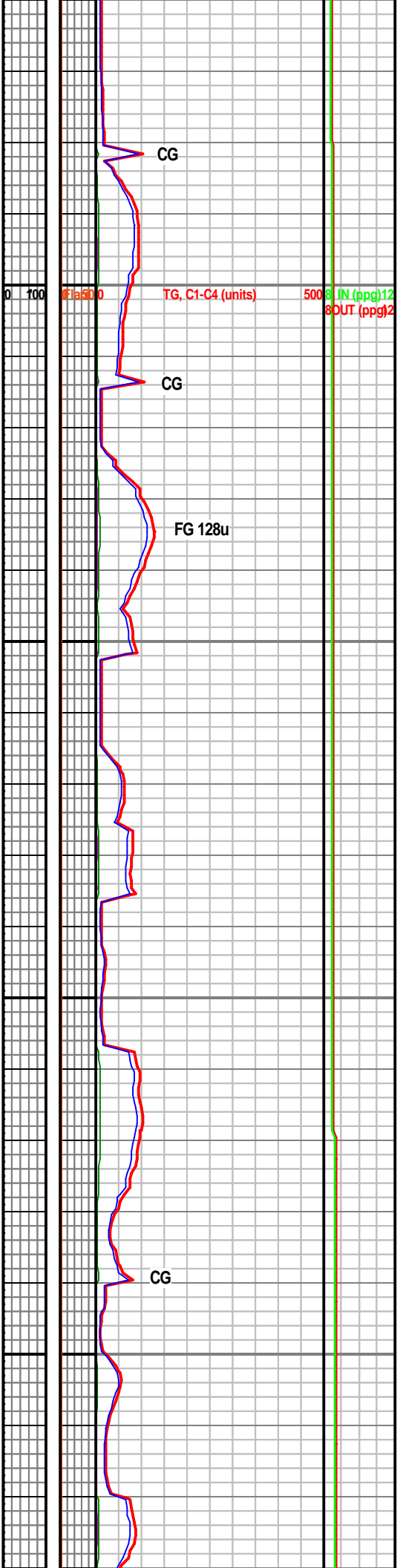
DTG 126u

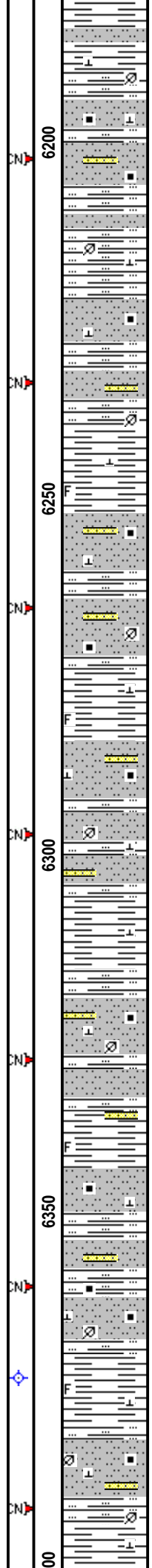
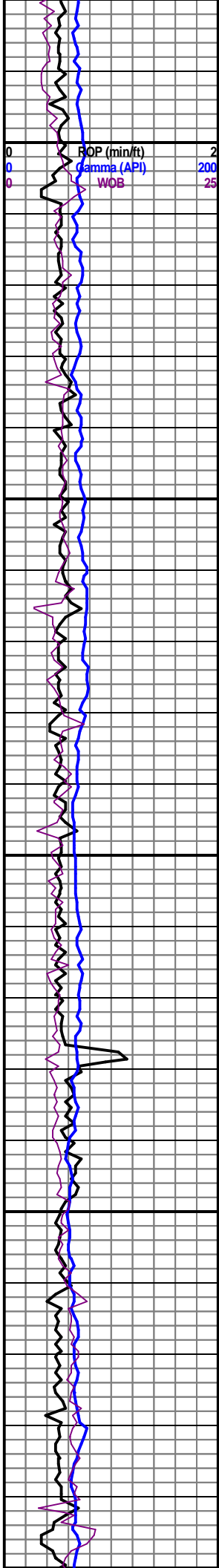


SH (90%) m gy, frm, blk-y-sb plty, rthy-ip sl sbwxy, ip slty gdg sltst (10%), m gy brn, m frm, blk-y, rthy, tr vf carb spks, tr w/ vf dism pyr spks, tr tn unident foss frags, sl-m calc.
TR LS, lt brn, crpxln, tr c xln calc inclus, hd/dns.

SURVEY @ 6090' MD, INC 0.9° AZM 146.5°
TVD 6089.54'

SH (75%) m gy, frm, blk-y-sb plty, rthy-ip sb wxy, loc sl slty, tr vf carb & mica spks, tr w/ vf dism pyr spks, tr tn unident foss frags, sl-m calc.
SLTST (25%) m brn gy, frm, blk-y, rthy, tr l vf gr sdy & sdy micro lams, incr vf carb spks & plnt foss depr, sl-m calc.
TR LS, lt brn, crpxln, tr c xln calc inclus, hd/dns.



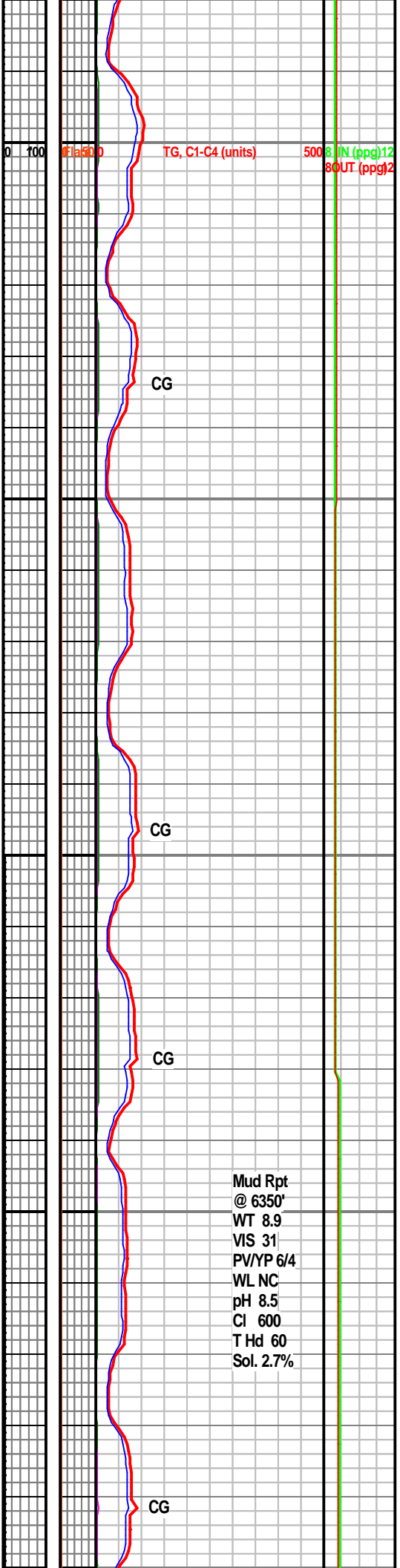


SLTST (60%) m brn gy, frm, blk, rthy, loc l vf gr sdy, tr vf carb spks & f plnt foss depr, v sl calc; gds to:
SH (40%) m gy-m brn gy, frm, blk-sb plty, rthy-ip sb wxy, loc slty, tr vf carb spks, tr unident tn macro foss frags, sl-m calc.

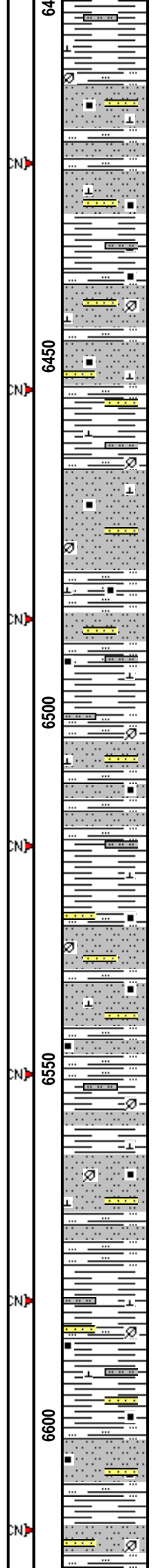
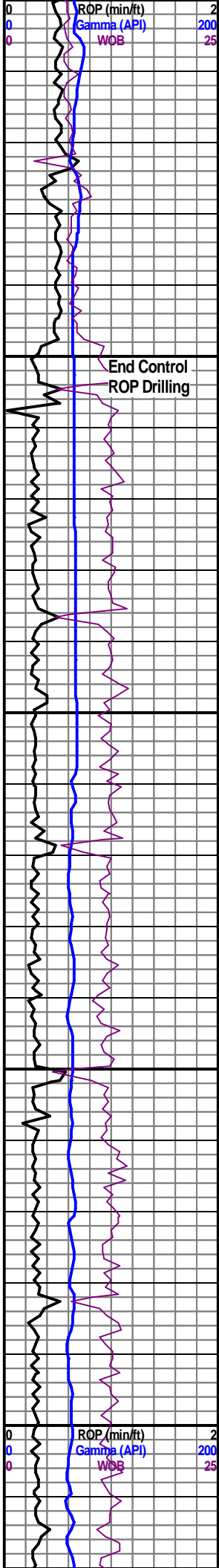
MRKR 6 - 6277' MD (- 953' SS)

SH (60%) A/A: m gy-m brn gy, frm, blk-sb plty, rthy-ip sb wxy, loc slty, tr vf carb spks, tr unident tn macro foss frags, sl-m calc.
SLTST (40%) m gy-m brn gy, frm, blk, rthy, com SS micro lams, l/u vf gr, slty & arg, tr vf carb spks & f plnt foss depr, sl-m calc.

SURVEY @ 6373' MD, INC 0.5° AZM 122.3°;
TVD 6372.52'

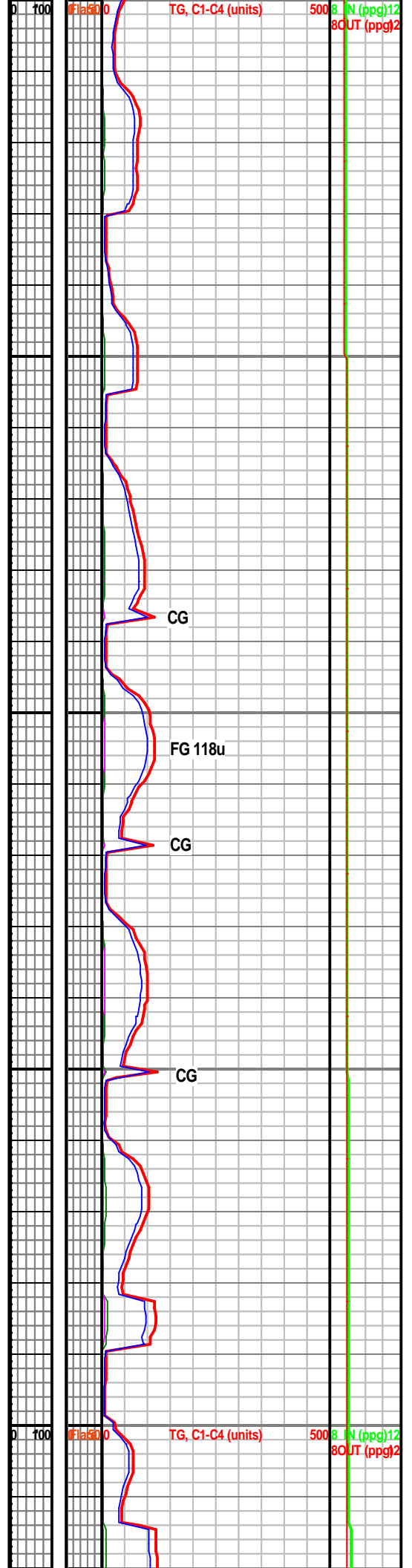


Mud Rpt @ 6350'
WT 8.9
VIS 31
PV/YP 6/4
WL NC
pH 8.5
Cl 600
T Hd 60
Sol. 2.7%



SH (50%) A/A: m gy-m brn gy, frm, blk-y-sb plty, rthy-ip sb wxy, ip slty, tr vf carb spks, tr unident tn macro foss frags, sl-m calc.
 SLTST (50%) m gy-m brn gy, frm, blk-y, rthy, Tr SS micro lams, l/u vf gr, slty & arg, tr vf carb spks & f plnt foss depr, sl-m calc.

SH (60%) A/A: m gy-m brn gy, frm, blk-y-sb plty, rthy-ip sb wxy, ip slty, tr vf carb spks, tr unident tn macro foss frags, sl-m calc.
 SLTST (40%) m gy-m brn gy, frm, blk-y, rthy, com SS micro lams, l/u vf gr, slty & arg, tt, tr vf carb spks & vf plnt foss depr, sl-m calc.

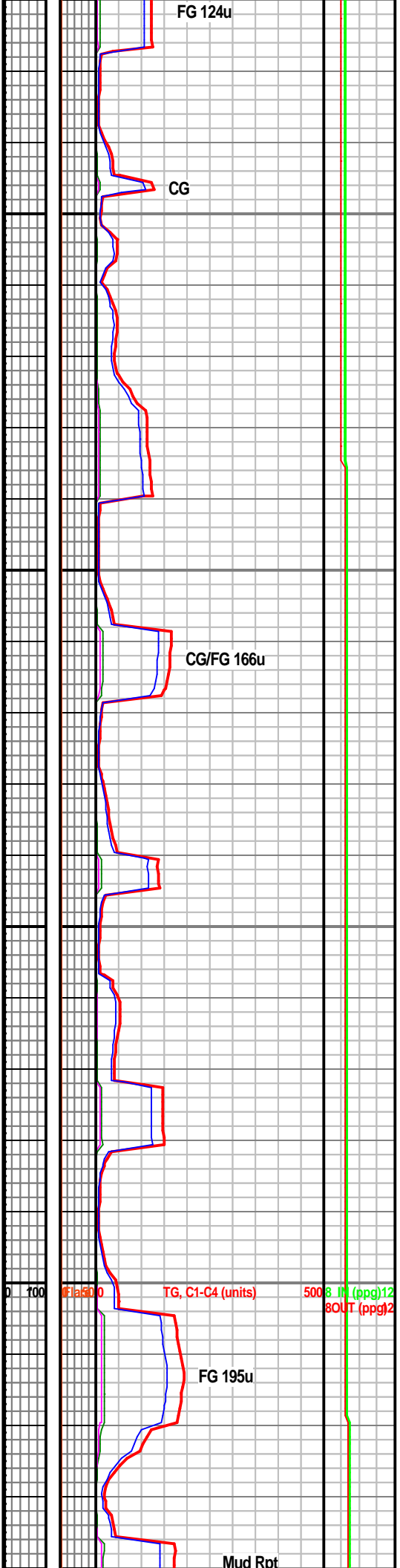
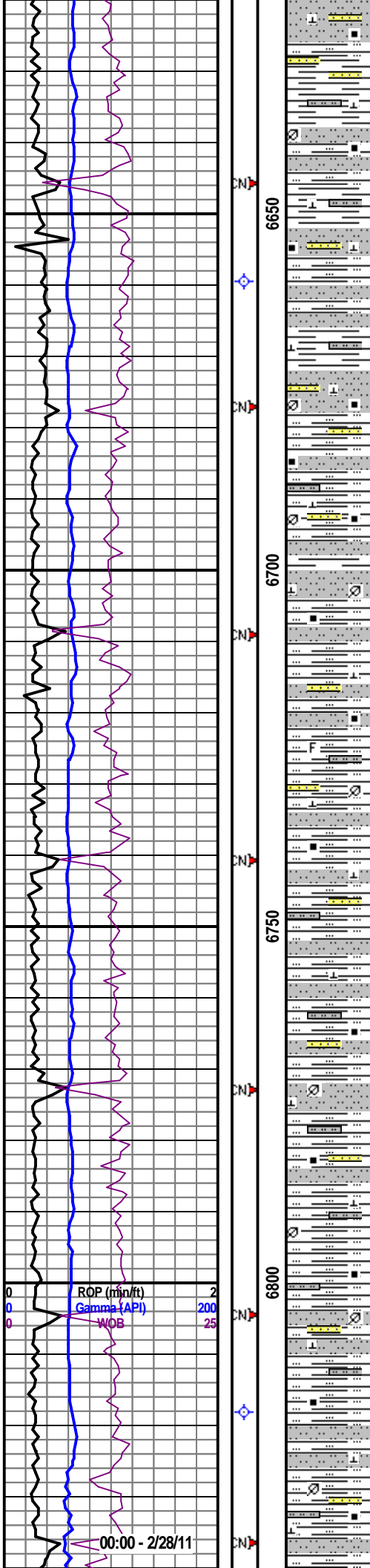


SH (50%) A/A: m gy-m brn gy, frm, blk-sb plty, rthy-ip sb wxy, ip slty, tr vf carb spks, tr unident tn macro foss frags, sl-m calc.
 SLTST (40%) m gy-m brn gy, frm, blk, rthy, tr vf carb spks & vf plnt foss depr, sl-m calc; incr sdy w/ SS (10%) l/u vf gr, slty & arg, s&p w/carb spks, cly fld & tt, sl-m calc; ocrs as micro lams.

SURVEY @ 6659' MD, INC 0.6° AZM 133.4°; TVD 6658.50'

SH (60%) gybrn, dk-m gy, frm, sbplty-sbblk-pty-splty, slty-rthy txt, sl-tr calc, Slit & slty vf gr Ss strgs com, scat vf carb matr/plnt remn, r Fos frags.
 SLTST (30%) brngy, m-lt gy, fri-frm, sbblk-pty-splty, sdy ip, vf carb matr, grdg to:
 SS (10%) lt-m gy, s&p, fri, slty vf gr, sl-mod calc, pred arg, tt, NSOFC.

SURVEY @ 6818' MD, INC 0.2° AZM 129.1°; TVD 6817.50'

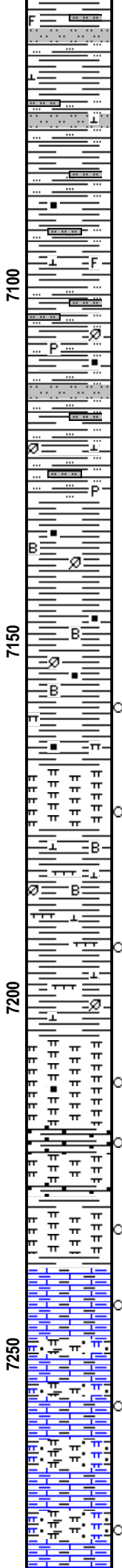
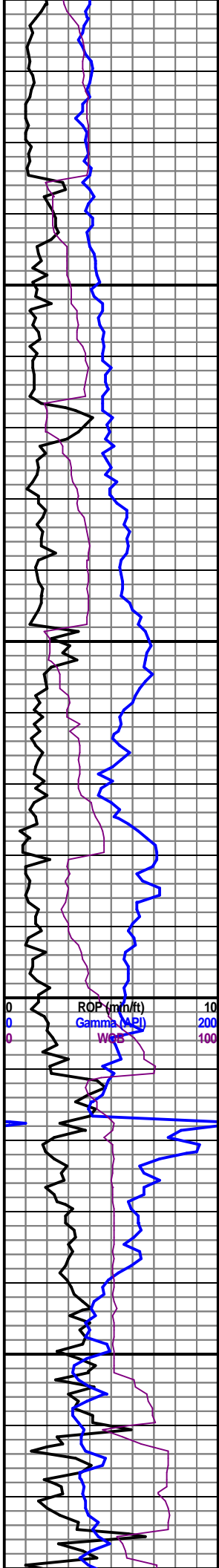


ROP (min/ft) 2
 Gamma (API) 200
 WOB 25

00:00 - 2/28/11

Elas 800 TG, C1-C4 (units) 500 8.11 (ppg) 12
 80UT (ppg) 2

Mud Rot



SURV: MD 7067' INC 21.5° AZM 334.6° TVD 7061.94'

SH (80%) dk gybrn-dk brn, dk gy, frm, sbply-sbblky-sply, rthy-sly-sm txt, non-tr-sl calc, occ mic mica, tr carb matr, rr indist Fos frags.
SLTST (20%) dk-m gy, gybrn, fri-frm-v frm, sl-mod calc, sdy ip, tr-occ grdg-sly arg vif gr Ss, occ scat carb matr & mica.

SURV: MD 7099' INC 25.0° AZM 334.8° TVD 7091.33'

SH (70%) dkbrn, dk gybrn, dk gy, frm-brit-v frm, sbply-pty-sbblky-sply, sly-rthy txt, tr sm-sbwxy, non-tr calc, mic mica ip, tr-occ scat carb matr & mic plnt remn, tr disp Pyr.
SLTST (30%) brn, m-lt gy, fri-frm, sl-mod calc, sl sdy ip, tr carb matr & mic plnt remn.
BENT (Tr) tan crm ltgy, sbwxy.

SHARON SPRINGS- 7131' MD, 7120' TVD (-1796)

SURV: MD 7131' INC 28.5° AZM 336.2° TVD 7119.9'

Start 30' Samples.

SH (85%) dk-v dkgy, dk brngy, frm-brit, sbply-sbblky-sply, rthy-sly sly-sbwxy txt, non calc, scat carb matr, occ plnt remn, NSOF, wk mlky-v slow strmg yel cuts, wk-mod yel resd ring.
SLTST (10%).
BENT (5%) crm tan ltgy, sft-sl frm, sbwxy-rthy-grny- sbchky, tr mic mica, brt yel mnrl flor.

SURV: MD 7162' INC 32.0° AZM 336.7° TVD 7146.68'

SH (>95%) v dk-dk gy, gybrn, frm-brit-sft, sbply-sbblky-sply, flky ip, rthy-sbwxy, calc-v calc, marly grdg-Mrlst ip, scat carb matr/plnt remn, no vis stn or flor, p-fr mlky & slow strmg yel cuts, mod-brt yel resd ring.
BENT (<5%).

SURV: MD 7194' INC 35.5° AZM 337.6° TVD 7173.28'

NIOBRARA FM. - 7205' MD, 7182' TVD (-1858')

SH (50%) dk-v dkgy, blk, frm-brit-v frm, sbply-sbblky-sply, tr flky, rthy, mod-v calc, marly ip, scat carb matr, tr carb ptgs, no vis stn or flor, p-fr mlky & slow strmg yel cuts, mod-brt yel resd ring.
MRLST (50%) gybrn brn m-dk-ltgy, mott ip, fri-sft-frm, rthy-grny, sbchky ip, occ scat carb matr, no vis stn or flor, p mlky & slow strmg yel cuts, mod-brt yel resd ring.
BENT (Tr) lt-mgy, sbwxy, pty, tr mica, brt yel mnrl flor.

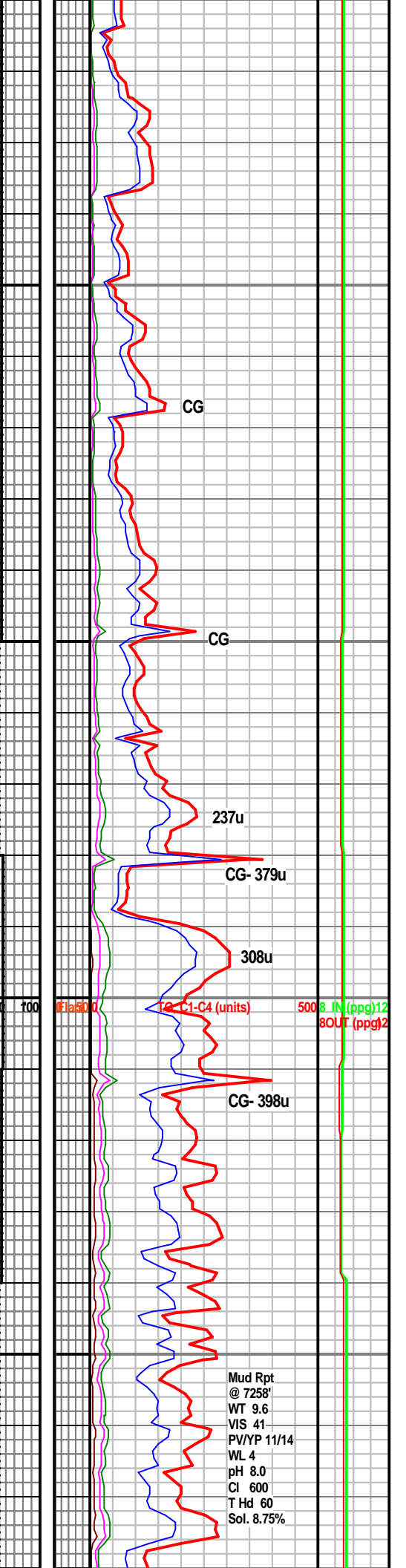
SURV: MD 7226' INC 38.7° AZM 337.2° TVD 7198.80'

B1 CHALK - 7238 MD, 7208' TVD (-1884')

CHK (70%) m-dk brn gy, ip mttld ltr brn, m sft, crmbly, loc w/mic gran txt, rthy-tr sb wxy, hi arg cont; Tr ? dl yl flor, v wk slw mlky cut & v wk dl yl resid ring flor. MRLST (30%) v dk gy, frm, blk, pred sb wxy, tr mic gran txt, loc sl Chlky, v shly gdg mrlly Sh, NSFOC. Tr Bent w/brt yl min flor.

SURV: MD 7258' INC 41.5° AZM 335.7° TVD 7223.28'

CHK (80%) m-dk gy brn, ip mttld ltr brn spks & micro lams, m sft, crmbly, loc w/mic gran txt, rthy, hi arg cont; Tr ? spty dl yl



flor, v pr wk slw milky cut & v wk dl yl resid ring flor. MRLST (20%) v dk gy, frm, blk, pred sb wxy, tr mic gran txt, loc sl Chlky, v shly gdg mrlly Sh, NSFOC. Tr Bent w/brt yl min flor.

SURV: MD 7290' INC 44.0° AZM 334.0° TVD 7246.77'

'B' Chalk - 7294' MD, 7250' TVD (-1926)

CHK (90%) lt-m gy brn, mttld w/tr brn spks & micro lams, sft-m frm, rthy, ip v crmbly, mod hi arg/shly cont, tr spty dl yl flor, tr blk dd oil stn, vp slw milky cut, wk yl resid ring flor. MRLST/SH (10%) v dk gy, frm, blk, pred sb wxy, tr mic gran txt, loc sl Chlky, v shly gdg mrlly Sh, NSFOC.

SURV: MD 7321' INC 47.1° AZM 331.6° TVD 7268.48'

TOH for New Dir BHA @ 7343'. ReRun Bit #2 w/ New Mud Motor (2.38') & MWD Gamma/ Directional BHA.

CHK (70%) lt-m gybrn, lt-m gy, mott, frm-sft, rthy-grny-sbwxy, sl-mod arg, marly ip / occ Sh & Mrlst ptgs, fnt petro odor, occ patchy brn o stn, fnt spty yel flor, fast-slow strmg yel cut, brt yel resd ring. MRLST/SH (30%).

SURV: MD 7352' INC 50.0° AZM 332.2° TVD 7289.00'

'B' Marl - 7352' MD, 7289' TVD (-1965')

MRLST (50%) dk gybrn, dkbrn, v dkgy, frm-brit-hd, blk-sbply, sbwxy-rthy, occ Sh ptgs, carb ip, no vis stn or flor, slow-fast strmg yel cut, brt yel resd ring.

CHK (40%) gen as before, soft-fri ip, grny-mic sucr ip, mod-sl arg, Show as before. SH (10%) v dkgy, blk, frm-brit, sbply-sply-pty, calc, carb, marly ip.

'M3' Marker- 7380' MD, 7306' TVD (-1982)

SURV: MD 7384' INC 53.1° AZM 332.8° TVD 7308.90'

MRLST (75%) v dk gy, frm-m hd, blk-sbply, ip sply, sb wxy, tr mic xln-mic gran txt & chky, v hi arg cont, ip grd-g mrlly SH, NSOF, slow-fast strmg yel cuts, mod yel resd ring. CHK (25%) m-dk gy brn, m frm, blk, rthy, tr micro lam, occ amorp wh calc spks/inclus, hi arg cont, NSO, occ fnt yel flor, slow-fast strmg yel cuts, mod-wk resd ring.

SURV: MD 7415' INC 56.1° AZM 333.1° TVD 7326.84'

TOH for New Dir BHA @ 7434'. ReRun Bit #2 w/ New Mud Motor (2.77') & MWD Gamma/ Directional BHA.

'M2B' Marker- 7438' MD, 7339' TVD (-2015)

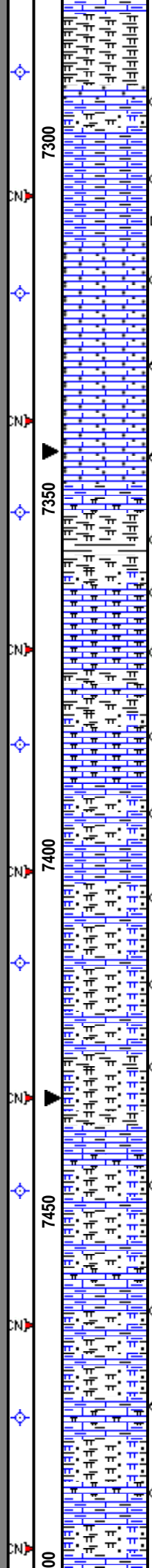
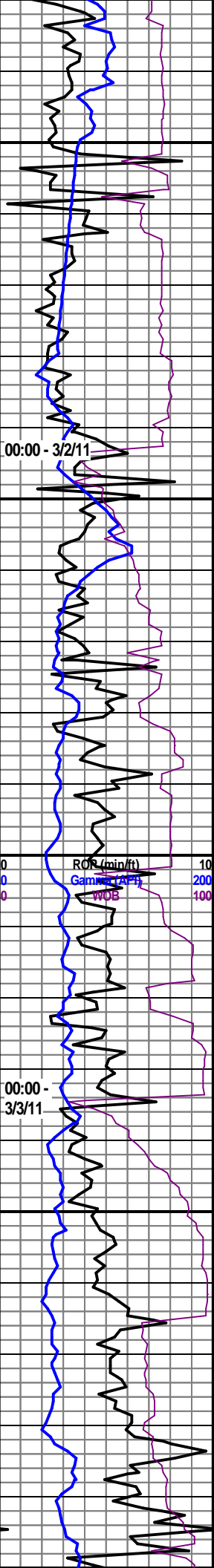
MRLST (60%) dk-v dkgy, dk gybrn, brit-frm, blk- sbply-sply, sbwxy-rthy, sbchky ip, mod-v arg, occ Sh ptgs, tr-occ carb matr, NSOF, slow-fast strmg yel cuts, mod resd ring. CHK (20%) m-ltgy, gybrn, brn, sft-fri-sl frm, blk, grny-mic sucr-sucr txt, mod arg, Show as before. SH (20%) dkgy, blk, frm-brit, pty-sply, carb ip, marly ip, sl-mod calc.

SURV: MD 7447' INC 60.4° AZM 333.7° TVD 7343.69'

MRLST (60%) dk-v dkgy, dk brn, brit-frm-v frm, blk-sply, rthy-sbwxy, tr Sh/Slt strgs, tr-occ carb matr, NSOF, slow strmg yel cut, mod resd ring. CHK (40%) mgy, brn, sft-fri, blk, grny-rthy, mod-sl arg, tr carb matr, NSOF, slow strmg yel cut, mod-brt yel resd ring.

SURV: MD 7479' INC 64.4° AZM 334.5° TVD 7358.51'

MRLST (50%) dk-v dk-m gy, gybrn, brn, mott ip, sft-fri-frm, rthy-sbwxy-chky txt, occ dkgy Sh ptgs, occ carb matr, NSOF, slow-fast strmg cuts, mod-brt yel resd ring. CHK (40%) m-dk gy, brn, sft-fri, rthy-grny, mod-sl arg, scat carb matr, marly ip, NSOF, slow-fast strmg yel cuts, mod-brt yel resd ring. SH (10%) dkgy blk, brit, pty-sply, rthy-sm txt, v calc ip, carb ip.



Elas 80 CG C1-C4 (units) 500.8 IN (ppg) 12 80U (ppg) 2

75
7550
7600
7650
7700

SURV: MD 7511' INC 69.1° AZM 335.7° TVD 7371.14'

MRLST (80%) v dk gy & dk gybrn, frm, sb plty, sb wxy-ip rthy, ip mixln txt, v argil, sm Sh lams, ip sl chky, No flor, fr mlky-slow strmg cut & dl yl resid ring flor. CHK (20%) m-dk g brn, gen m frm, ip sft & crmbly, rthy, tr w/ mttld ltr spks & micro lams, hi arg cont, tr fnt spty dl yl flor, fr slow strmg cut & brt yl resid ring flor.

'M2A' Marker- 7534' MD, 7378' TVD (-2054')

SURV: MD 7543' INC 73.3° AZM 337.1° TVD 7381.42'

MRLST (60%) v dk gy & dk gy brn, frm, sb plty, sb wxy-ip rthy, ip mixln txt, v argil, sm Sh lams, ip sl chky, No flor, fr mlky-slow strmg cut & dl yl resid ring flor. CHK (40%) dk brn gy, m frm - ip sft & crmbly, rthy, tr w/ mttld ltr brn spks, tr fnt micro lams, hi arg cont, fnt ? spty dl yl flor, fr imed strmg cut, brt yl resid ring flor.

SURV: MD 7575' INC 78.0° AZM 338.5° TVD 7389.32'

MRLST (75%) v dk gy & dk gy brn, frm, sb plty, sb wxy-ip rthy, ip mixln txt, v argil, sm Sh lams, tr chky m lams, No flor, fr mlky-slow strmg cut & dl yl resid ring flor. CHK (25%) dk gy brn-brn gy, frm - ip sft & crmbly, rthy, tr w/ mttld ltr brn spks & m lams, hi arg cont, tr ? fnt spty dl yl flor, fr imed strmg cut, brt yl resid ring flor.

SURV: MD 7606' INC 82.9° AZM 339.7° TVD 7394.47'

MRLST (85%) v dkgy, dk gybrn-dk brn, blk, pred sft-fri-frm, v frm ip, blkly-sbplty-splty, rthy-sbwxy-grny txt, sbchky ip, tr carb matr & mic/dism Pyr, NSOF, slow strmg yel cuts, mod-brt yel resid ring. CHK (15%) pred mod-v arg grdg-chky Mrlst, as before, tr mgy, grny, sl arg.

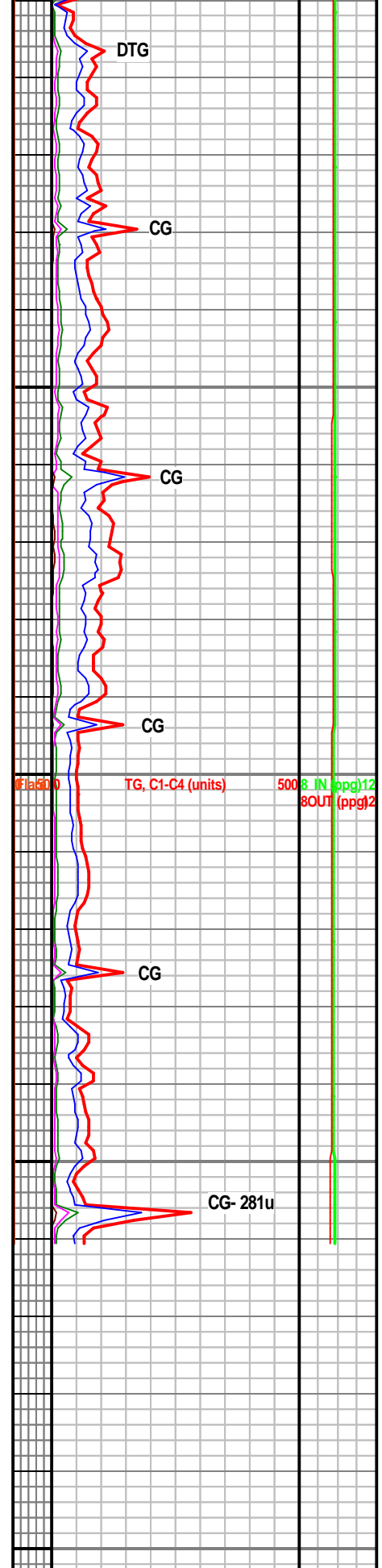
MRLST (90%) v dkgy, dk brngy, blk, frm-brit-sft, blkly-splty-sbplty, rthy-sbwxy, occ dkgy Sh ptgs & carb matr, tr Pyr, NSOF, slow-fast strmg yel cuts, mod-brt resid ring. CHK (10%) m gy, brn, fr-fri, blkly, grny-rthy, NSOF, slow strmg yel cuts, mod yel resid ring.

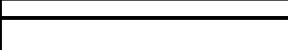
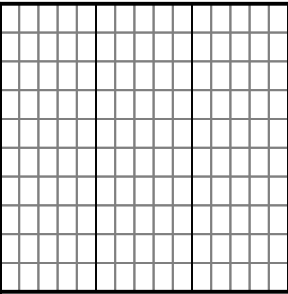
Projected to Bit: MD 7661' INC 91.0° AZM 340.0° TVD 7397.39' VS 440.89'

Reach Landing Pt. of 7661' MD @ 04:30am 3/4/11. Bit #2 Cut 794' in 60.5 Hrs.

ROP (min/ft)
Gamma (API)
10
200
100

00:00 -
3/4/11





50

