

Décollement
Consulting
Inc.



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

Well Name: ECGS # 31-7 WPD005-1
Location: SE/SW Sec.31,T12N,R52W Logan County, Colorado
License Number: 05075-09410 Region: West Peetz
Spud Date: 10/13/2012 Drilling Completed: 10/16/2012
Surface Coordinates: 1065' FSL, 2185' FWL
Bottom Hole 1065' FSL, 2185' FWL
Coordinates:
Ground Elevation (ft): 4555' K.B. Elevation (ft): 4543'
Logged Interval (ft): 1250' To: 5260' Total Depth (ft): 5260'
Formation: Dakota D Sandstone.
Type of Drilling Fluid: WBM

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.co

OPERATOR

Company: East Cheyenne Gas Storage LLC.
Address: 10901 W. Toller Dr. Suite 200
Littleton, CO. 80127

GEOLOGIST

Name: Leo Carrasco
Company: Decollement Consulting, Inc
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Golden, CO 80401

ROCK TYPES

Cmt
 Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal

Congl
 Dol
 Gyp
 Igne
 Lmst
 Meta
 Mrlst

Salt
 Shale
 Shcol
 Shgy
 Sltst
 Ss
 Till

Sh--green
 Sh red-brn
 Sh gy-red
 Shgy
 Sltst--gray
 Sltst-gy red

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

FOSSIL

Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral

Crin
 Echin
 Fish
 Foram
 Fossil
 Gastro
 Oolite
 Ostra
 Pelec
 Pellet
 Pisolite
 Plant
 Strom

STRINGER

Anhy
 Arg
 Bent
 Coal
 Dol

Gyp
 Ls
 Mrst
 Sltstrg
 Ssstrg

TEXTURE

Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

OTHER SYMBOLS

POROSITY

Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic
 Pinpoint
 Vuggy
 Csg shoe right

Csg shoe left
 Cmt

SORTING

Well
 Moderate
 Poor

ROUNDING

Rounded

Subrnd
 Subang
 Angular

OIL SHOW

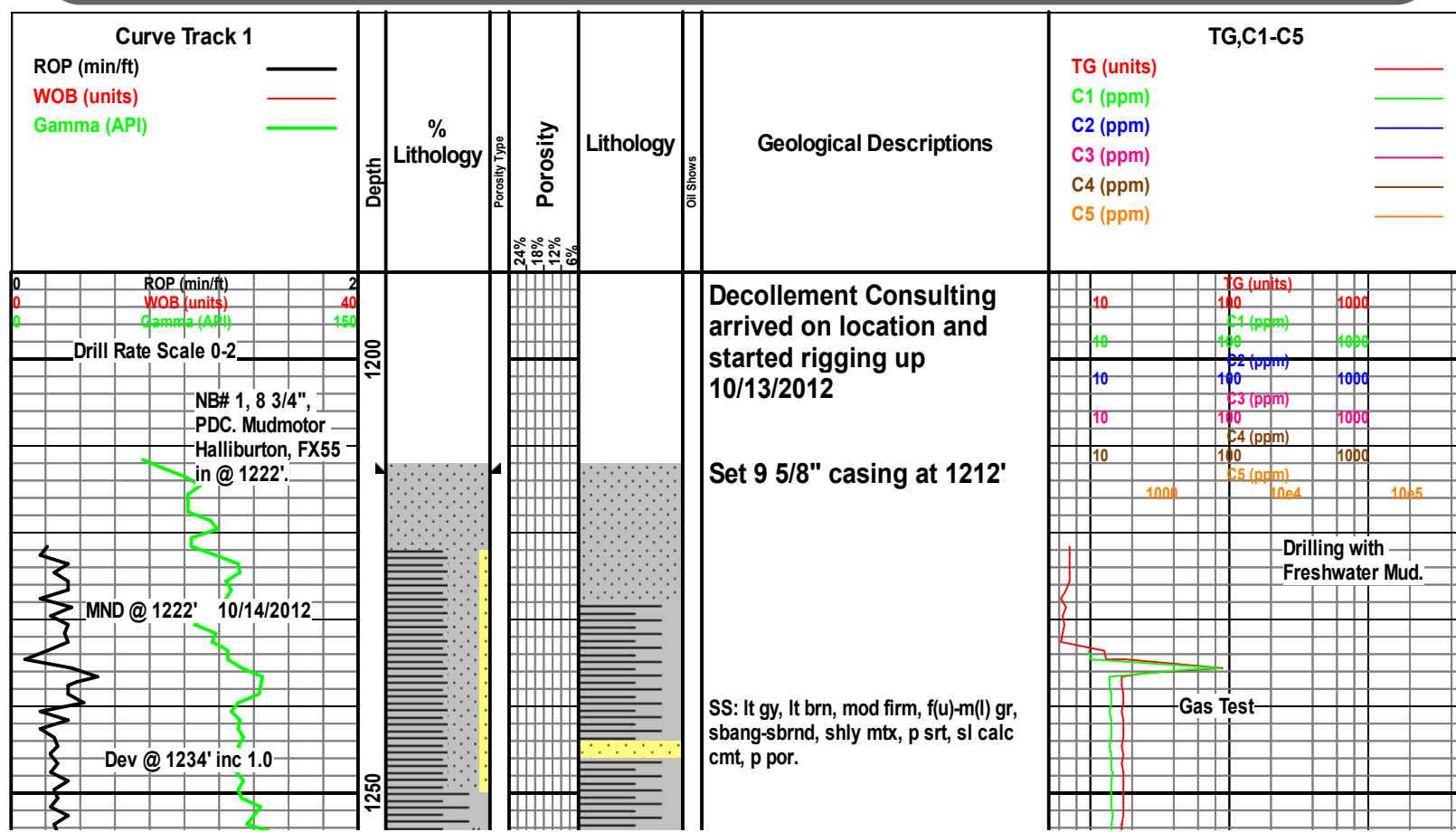
Even
 Spotted
 Ques
 Dead

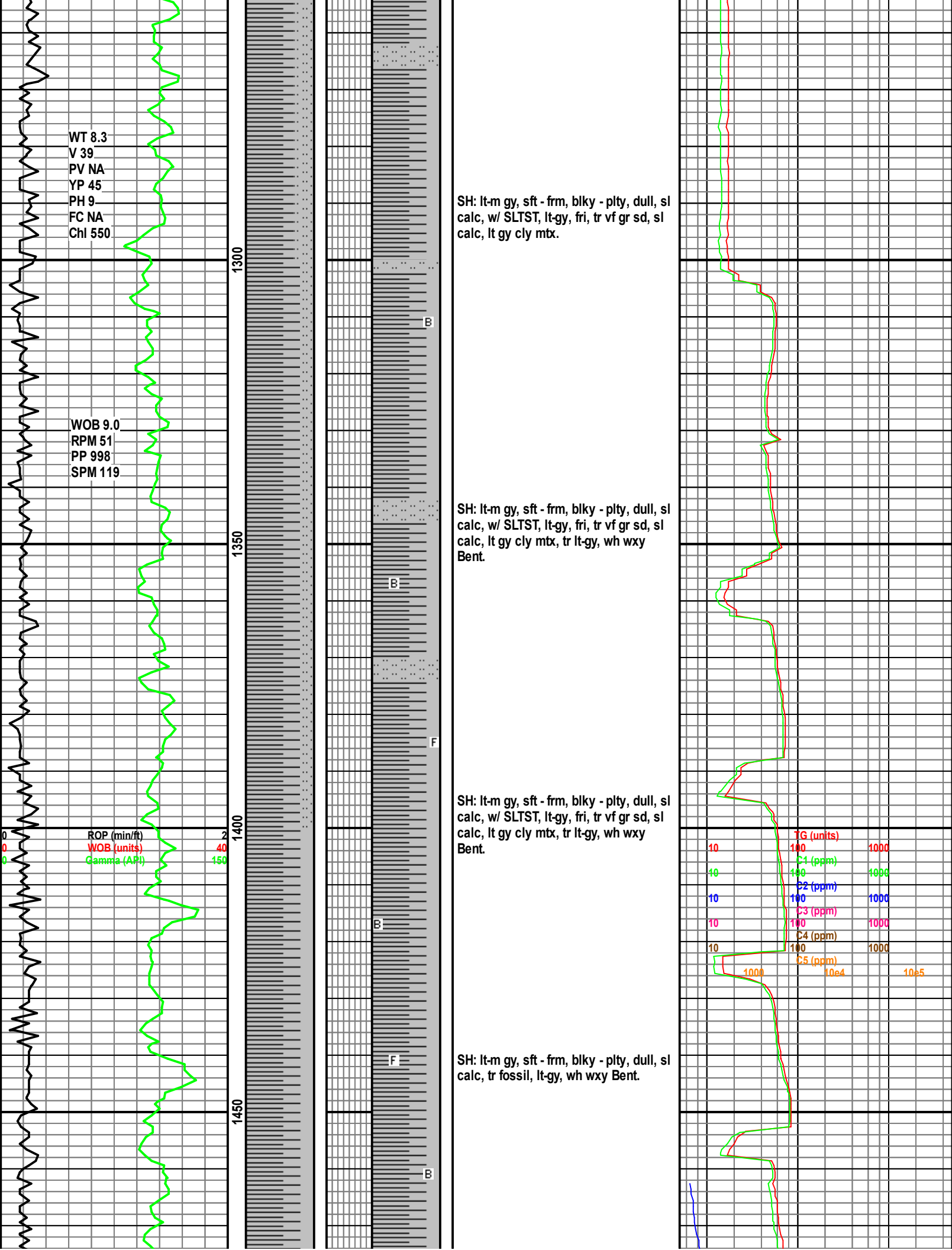
INTERVAL

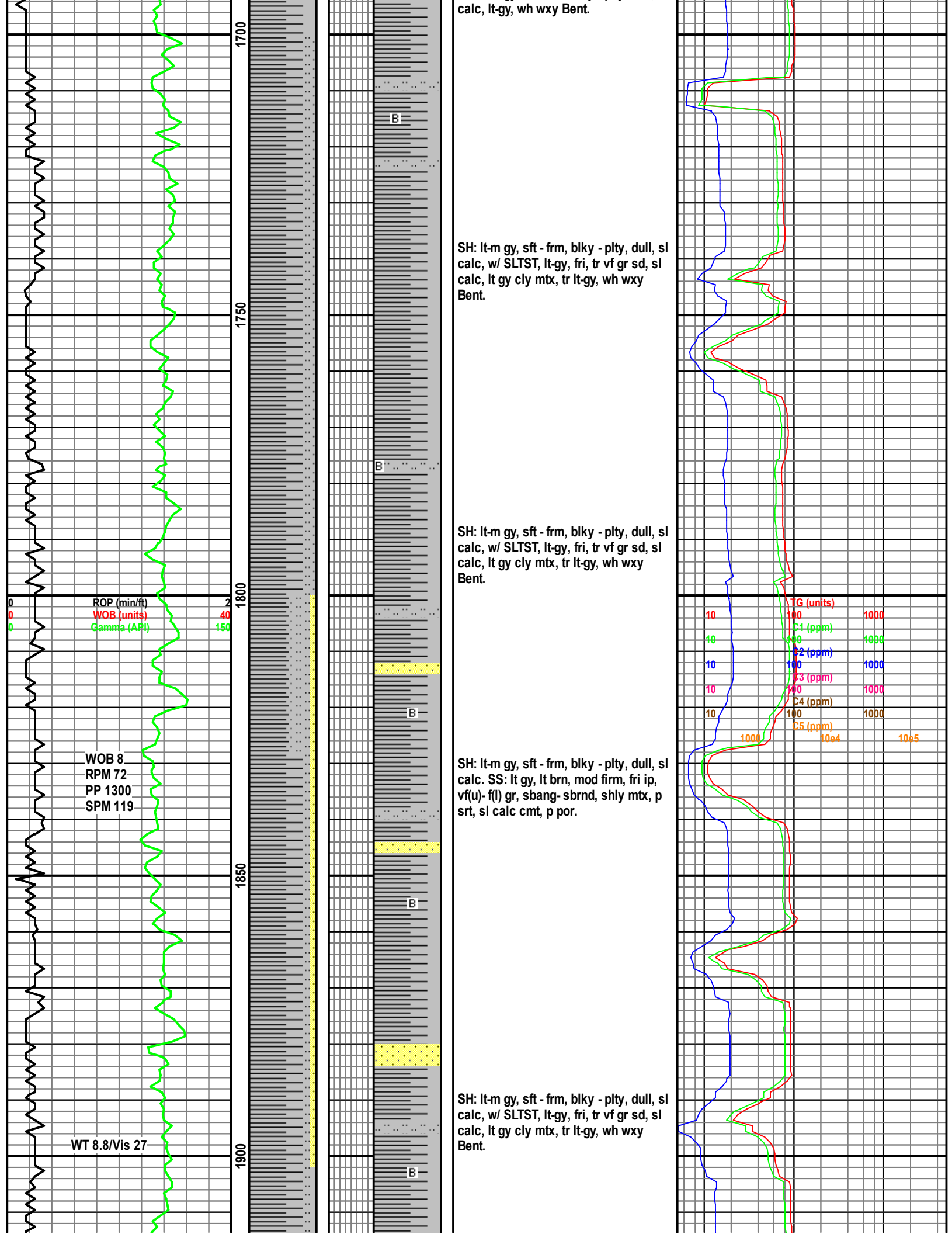
Core
 Dst

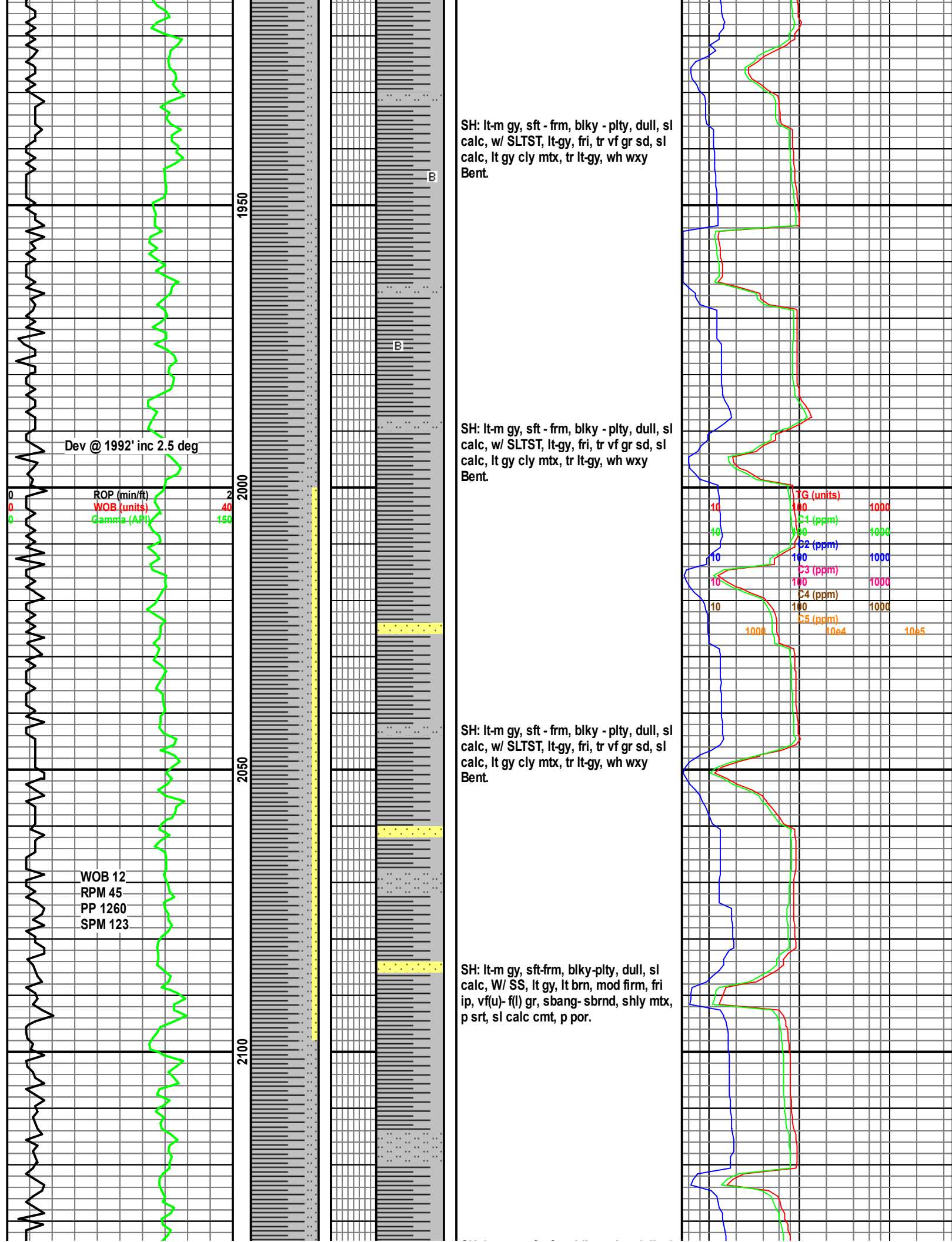
EVENT

Csg shoe right
 Csg shoe left
 Rft
 Sidewall
 Iso-tube









IN WT 8.6/Vis 26
OUT WT 8.8/Vis 27

ROP (min/ft)
WOB (units)
Gamma (API)

2400

2450

2500

2550

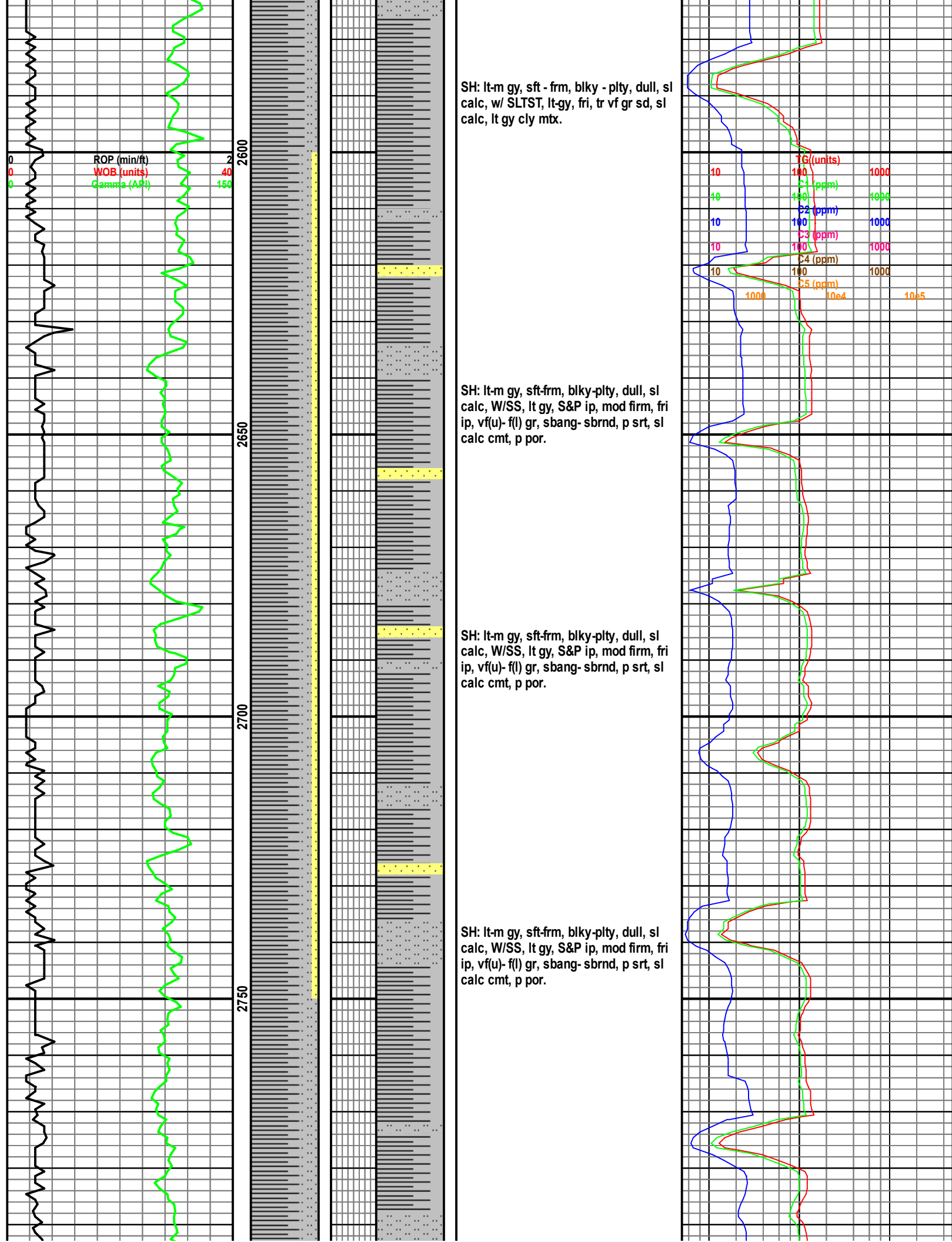
Dev @ 2449' inc 3.5 deg

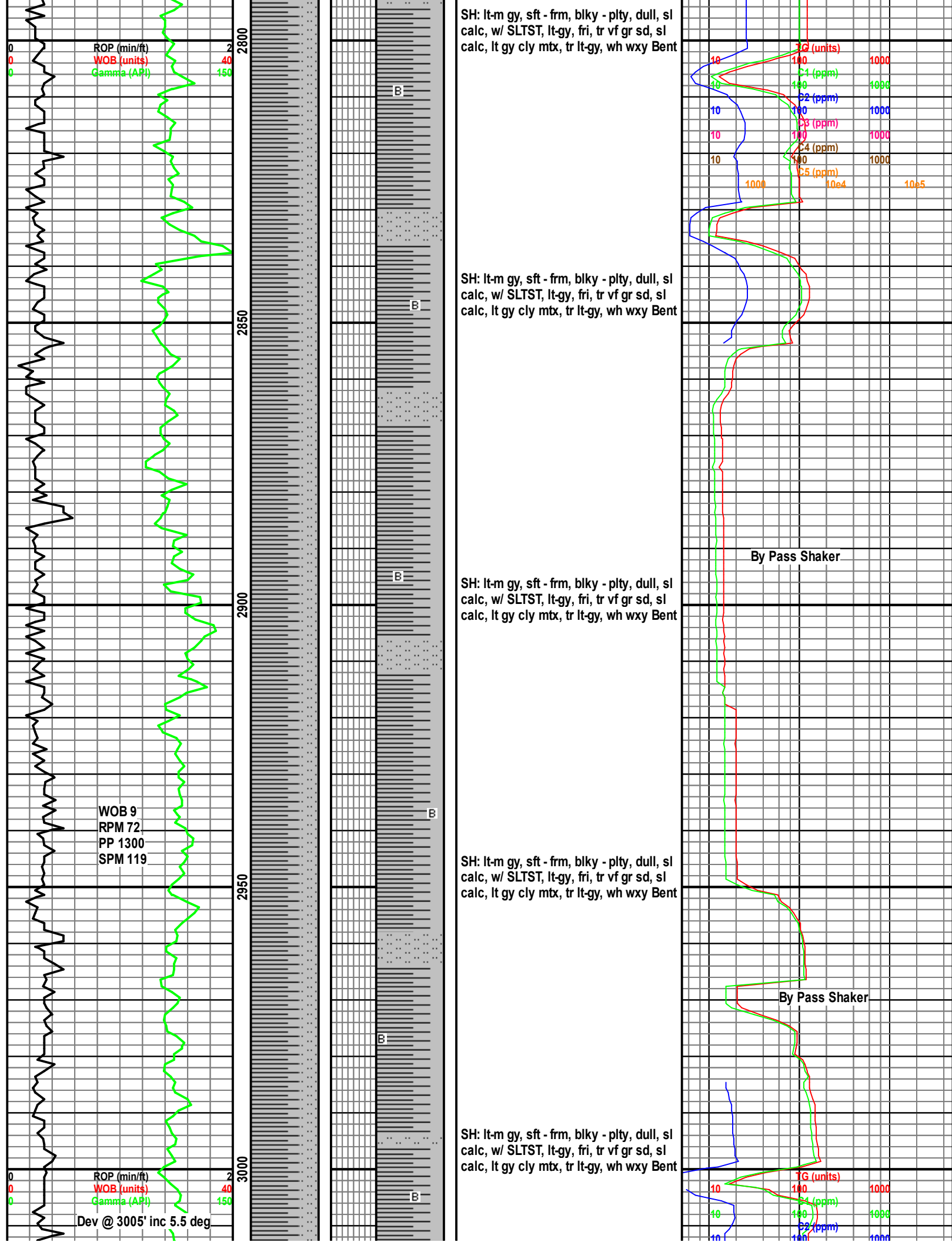
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx.

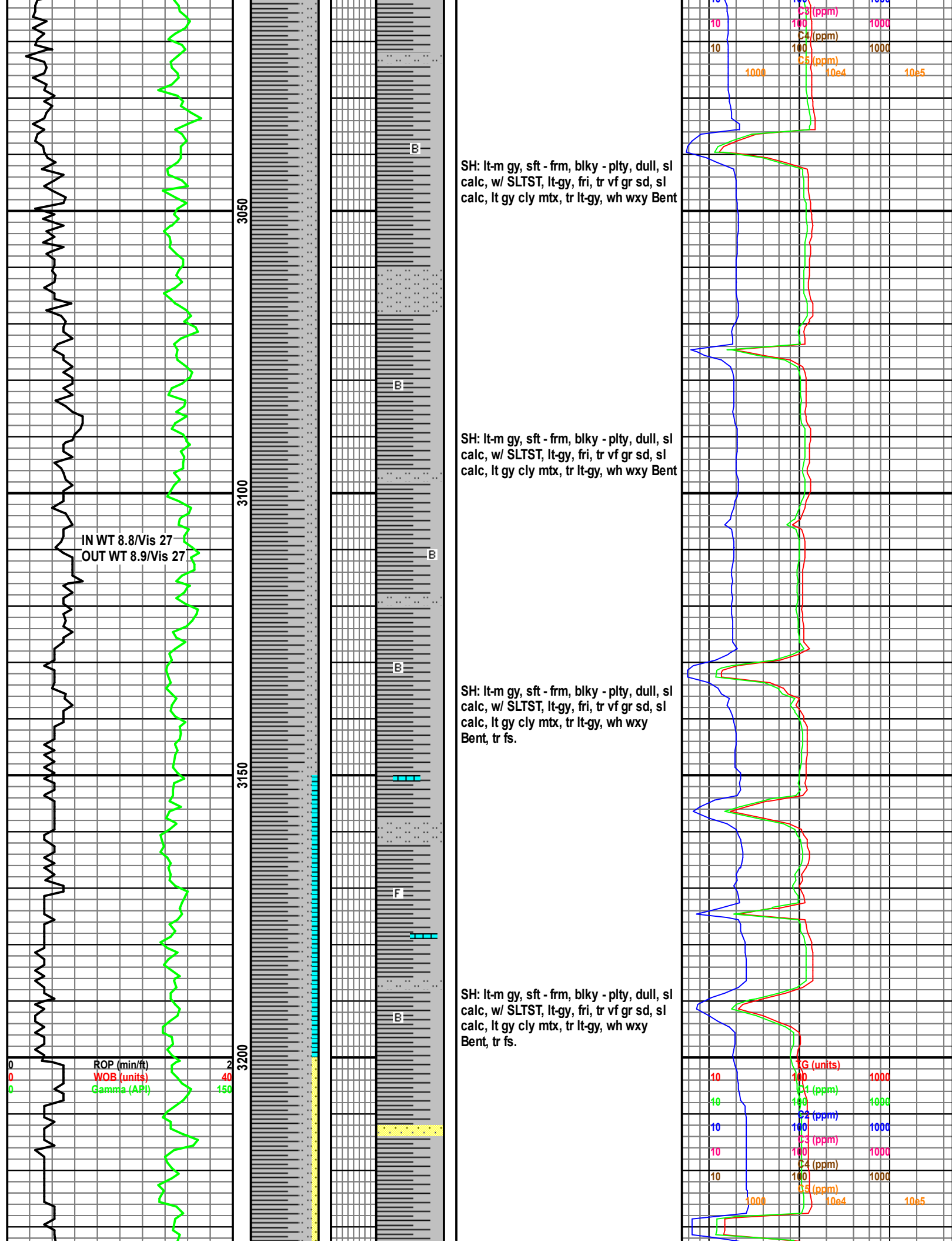
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx.

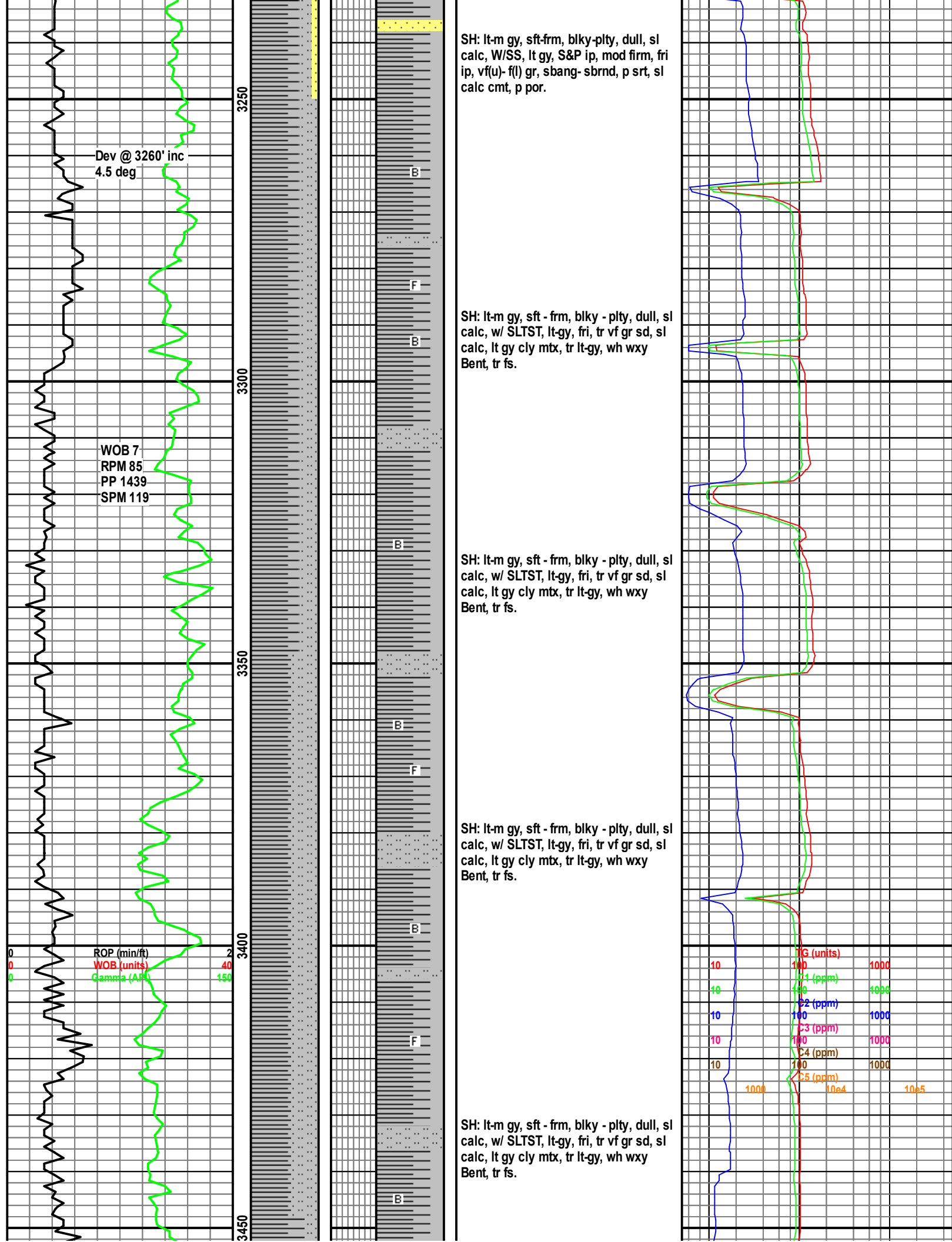
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx.

TG(units)
T1 (ppm)
T2 (ppm)
T3 (ppm)
T4 (ppm)
T5 (ppm)
1000
1000
1000
1000
1000
10e4
10e5



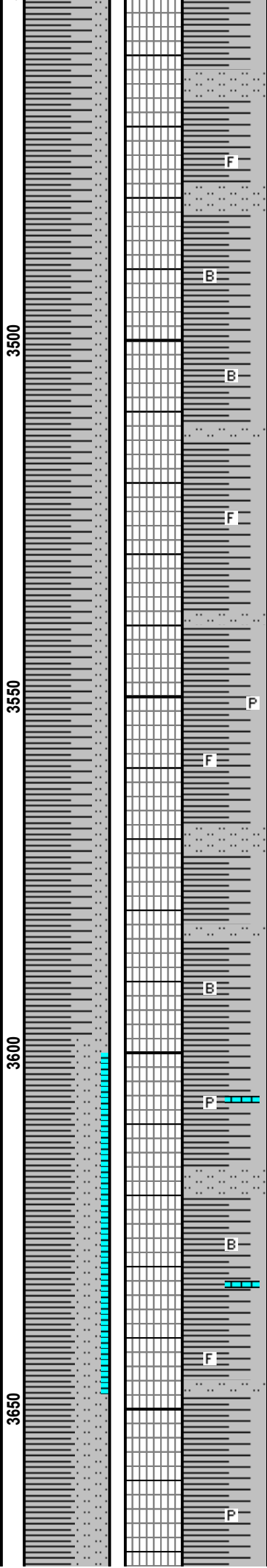
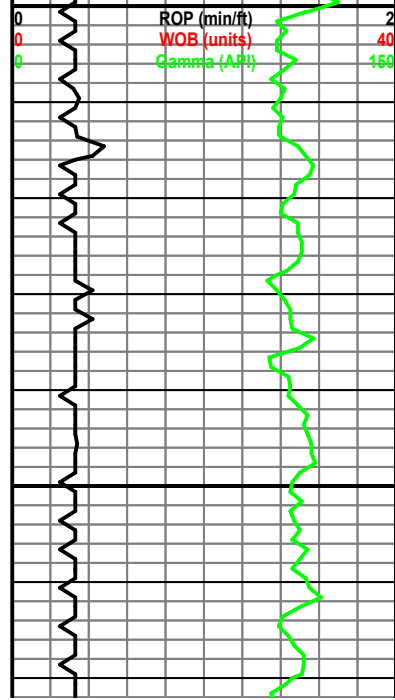






IN WT 8.8/Vis 27
OUT WT 8.9/Vis 26

Dev @ 3482' inc 3.5 deg

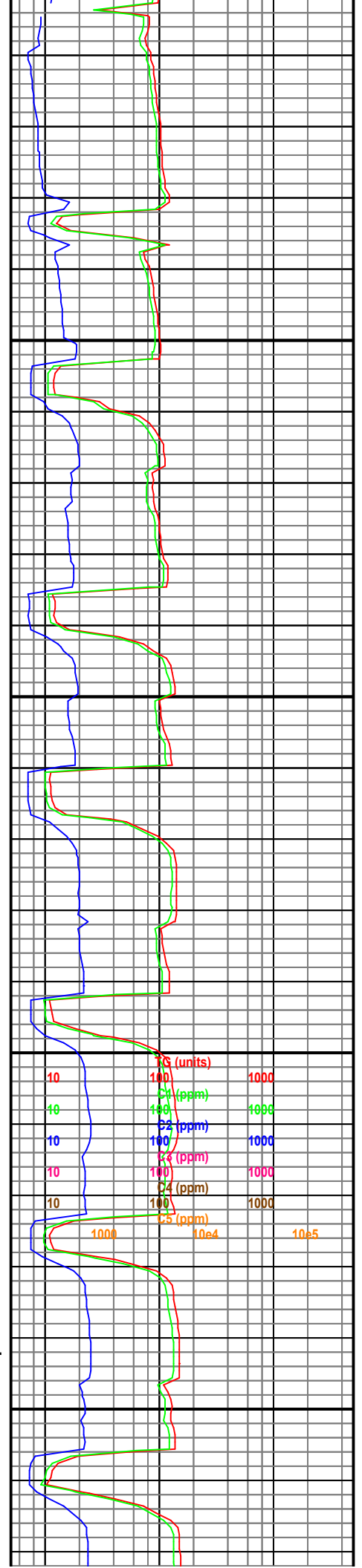


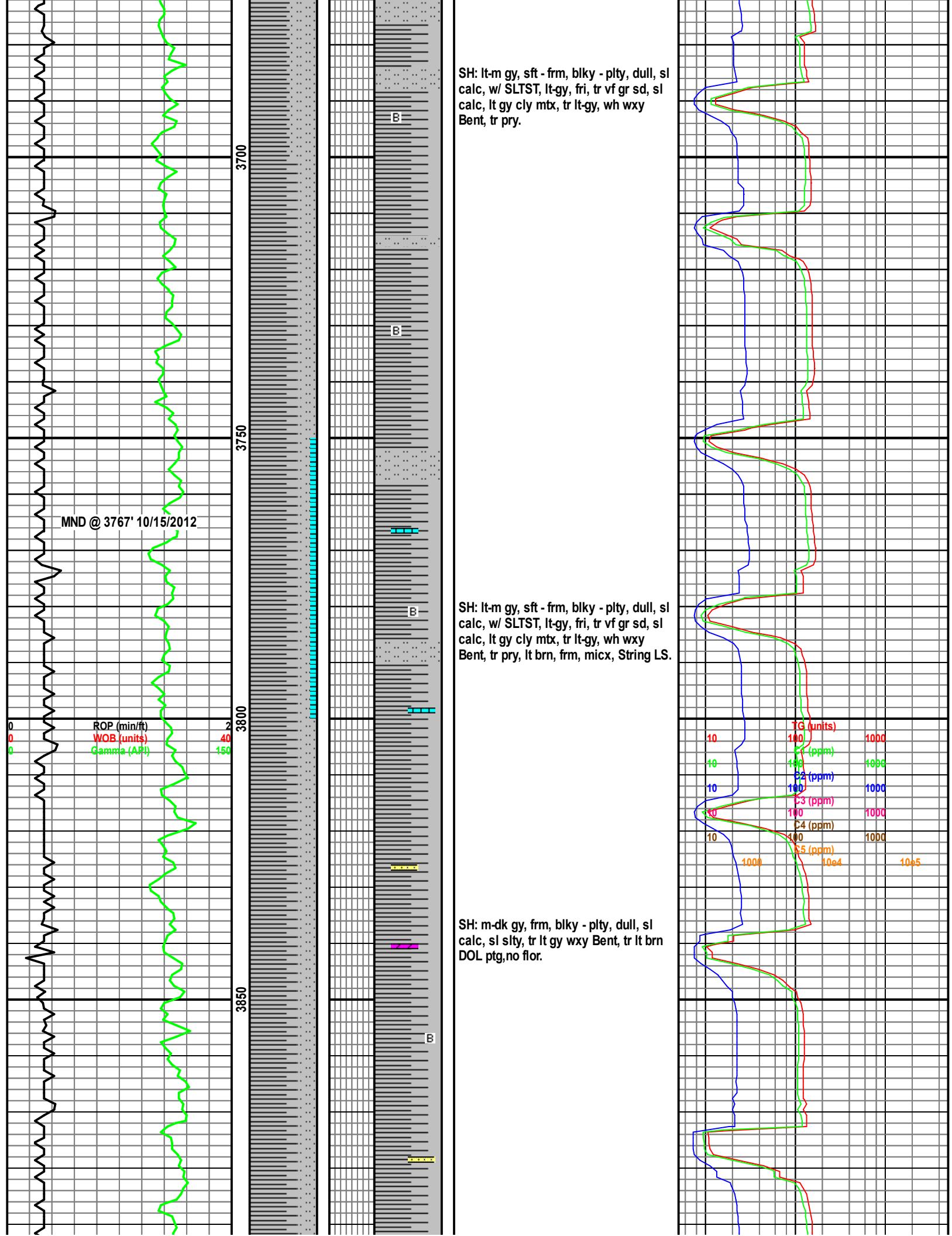
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx, tr lt-gy, wh wxy
Bent, tr fs.

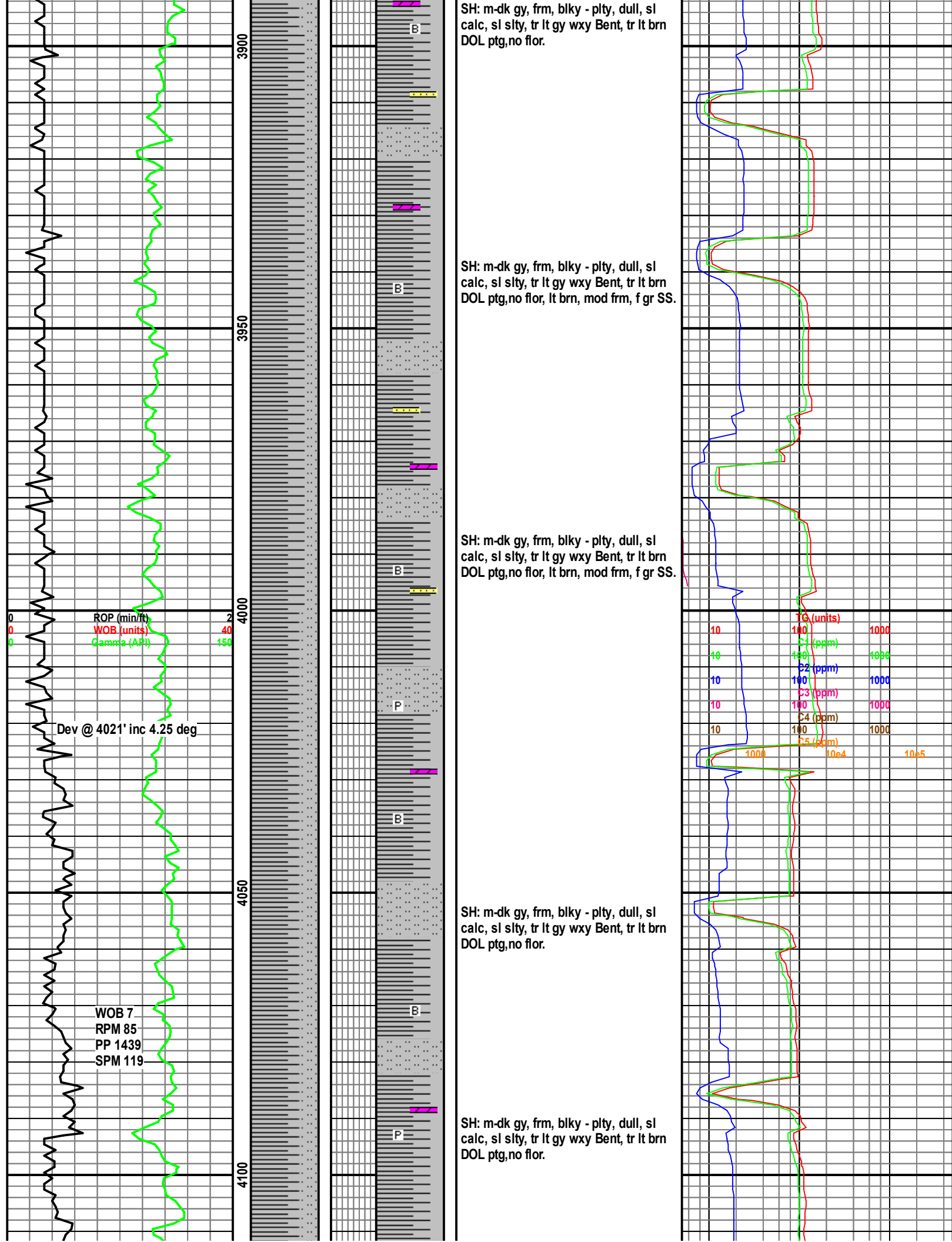
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx, tr lt-gy, wh wxy
Bent, tr pry.

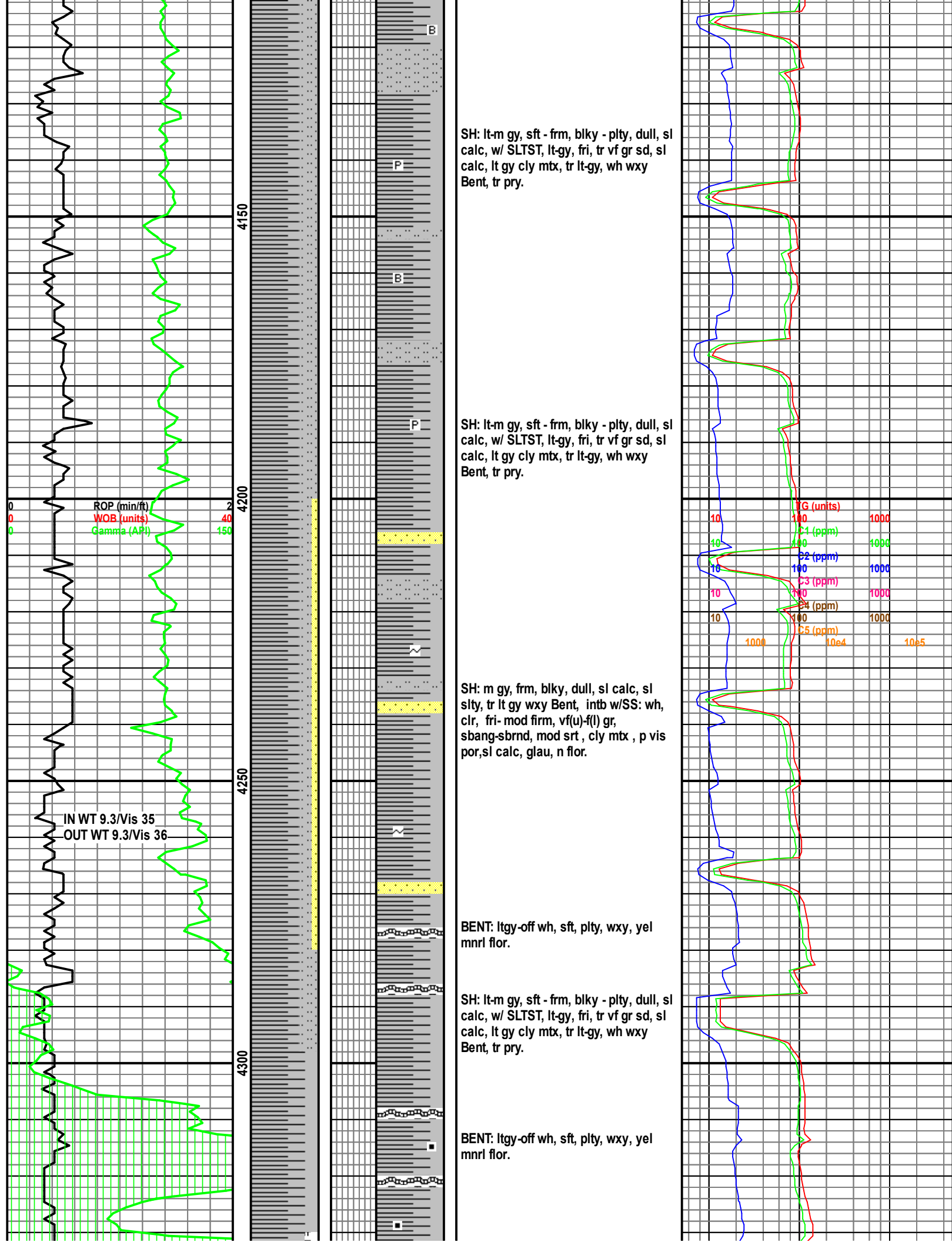
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx, tr lt-gy, wh wxy
Bent, tr pry.

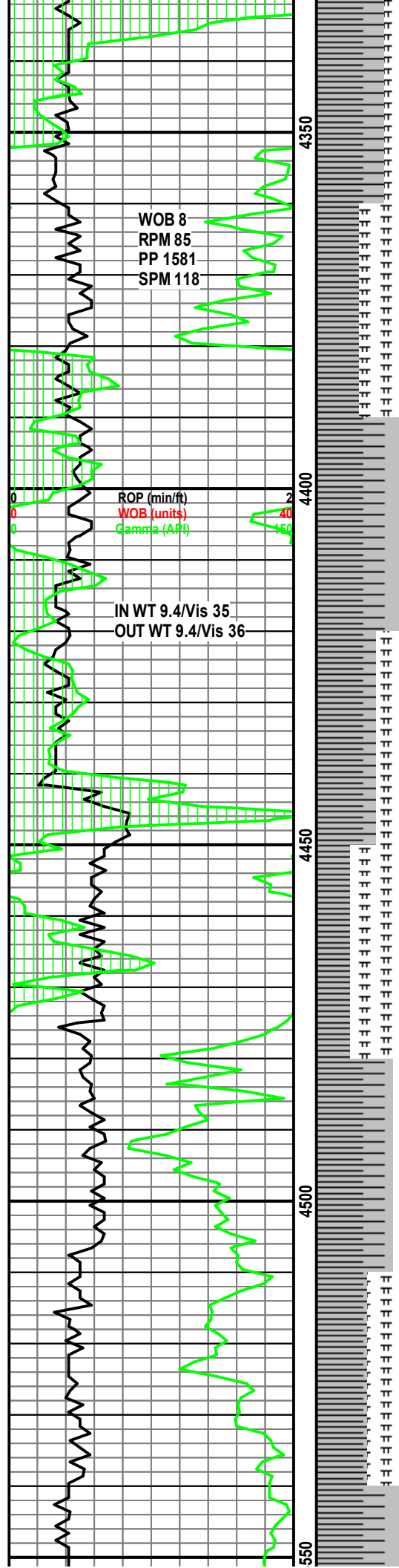
SH: lt-m gy, sft - frm, blk-y - plty, dull, sl
calc, w/ SLTST, lt-gy, fri, tr vf gr sd, sl
calc, lt gy cly mtx, tr lt-gy, wh wxy
Bent, tr pry, lt brn, frm, micx, String LS.







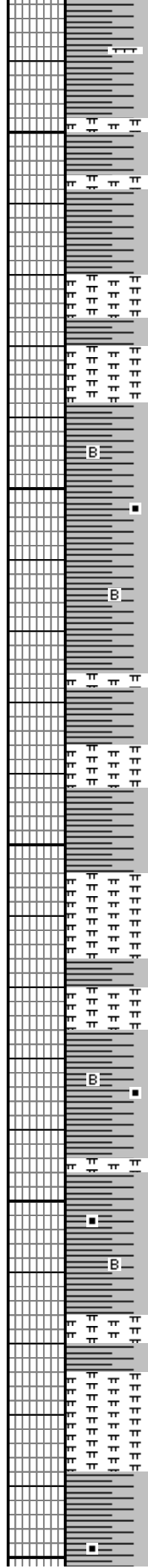




WOB 8
RPM 85
PP 1581
SPM 118

ROP (min/ft)
WOB (units)
Gamma (API)

IN WT 9.4/Vis 35
OUT WT 9.4/Vis 36



Top Niobrara @ 4332' MD.

Chalky Marlst: lt gybrn, wh specs, frm, sb blk, calc, chlky tex, carb mat, pyr, no vis por, no flor, slow pale wh cut.

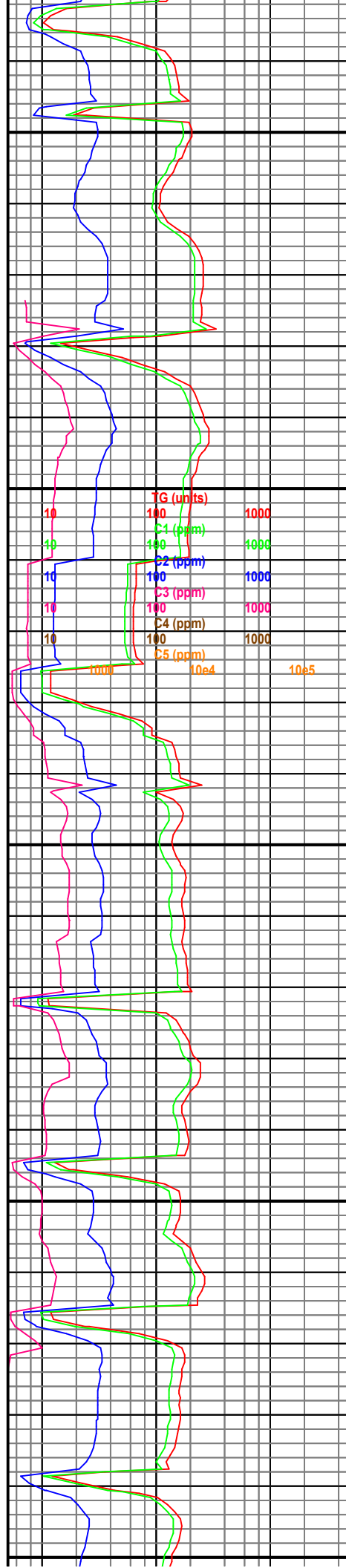
MARLST: ltgy, lt gy, specs & mot specs, frm, chlky, calc, whispy carb mat, pyr, no vis por, no flor, mod wh cut, wh resd ring.

SH: dk gy, blk, blk-pty, mod calc, carb specs, tr pyr, tr Bent, no flor, occ fnt wh cut.

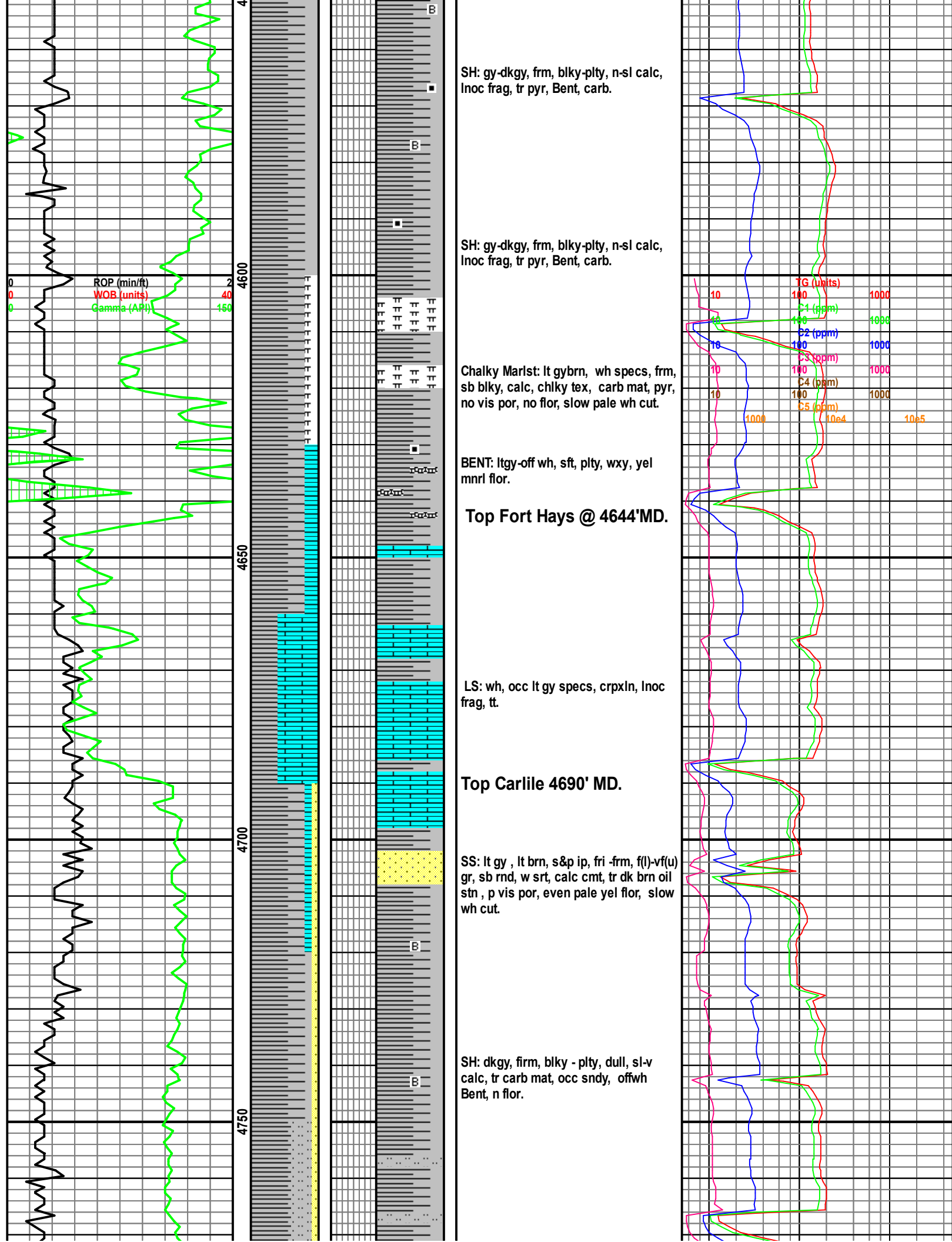
MARLST: ltgy, lt gy, specs & mot specs, frm, chlky, calc, whispy carb mat, pyr, no vis por, no flor, mod wh cut, wh resd ring.

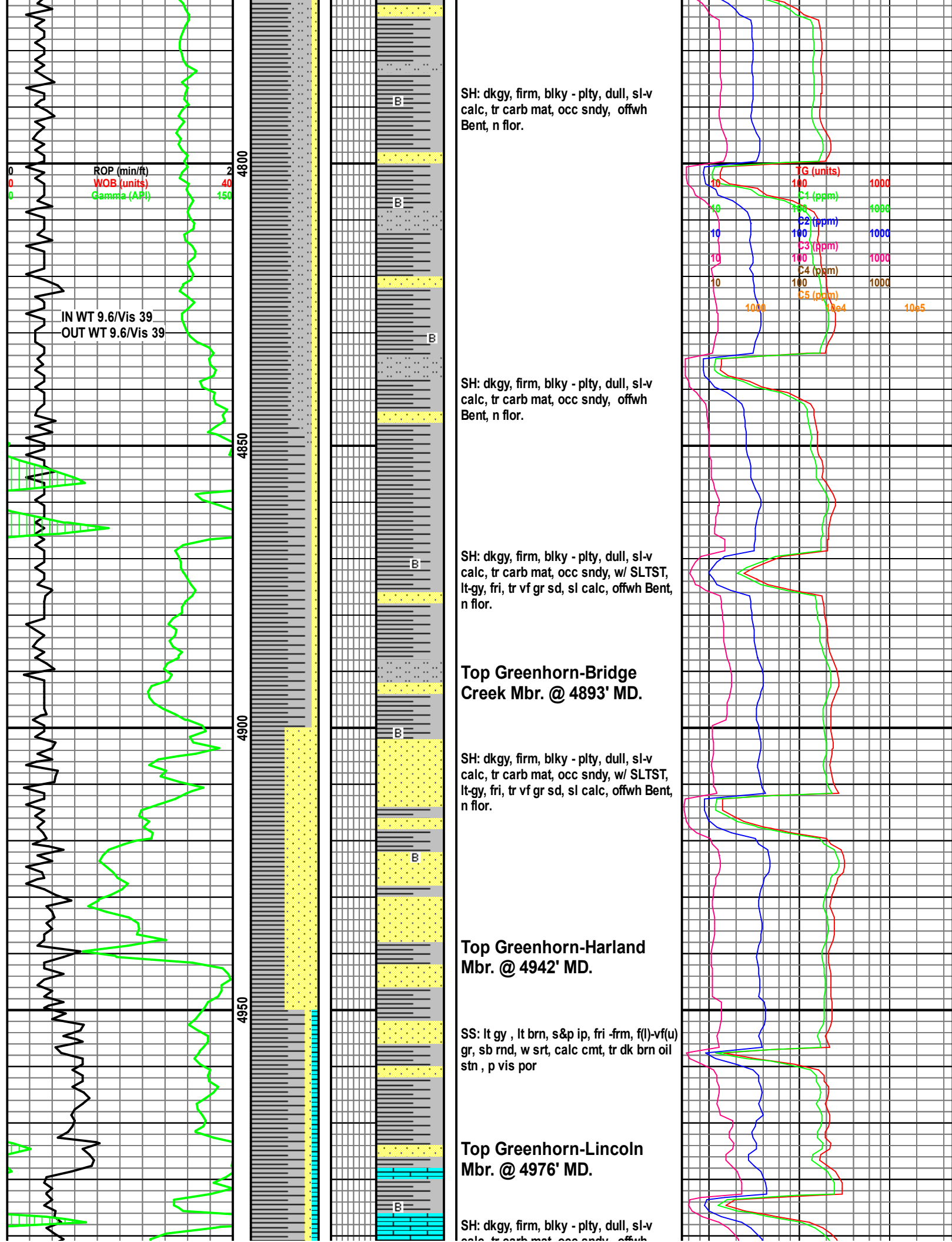
Chalky Marlst: lt gybrn, wh specs, frm, sb blk, calc, chlky tex, carb mat, pyr, no vis por, no flor, slow pale wh cut.

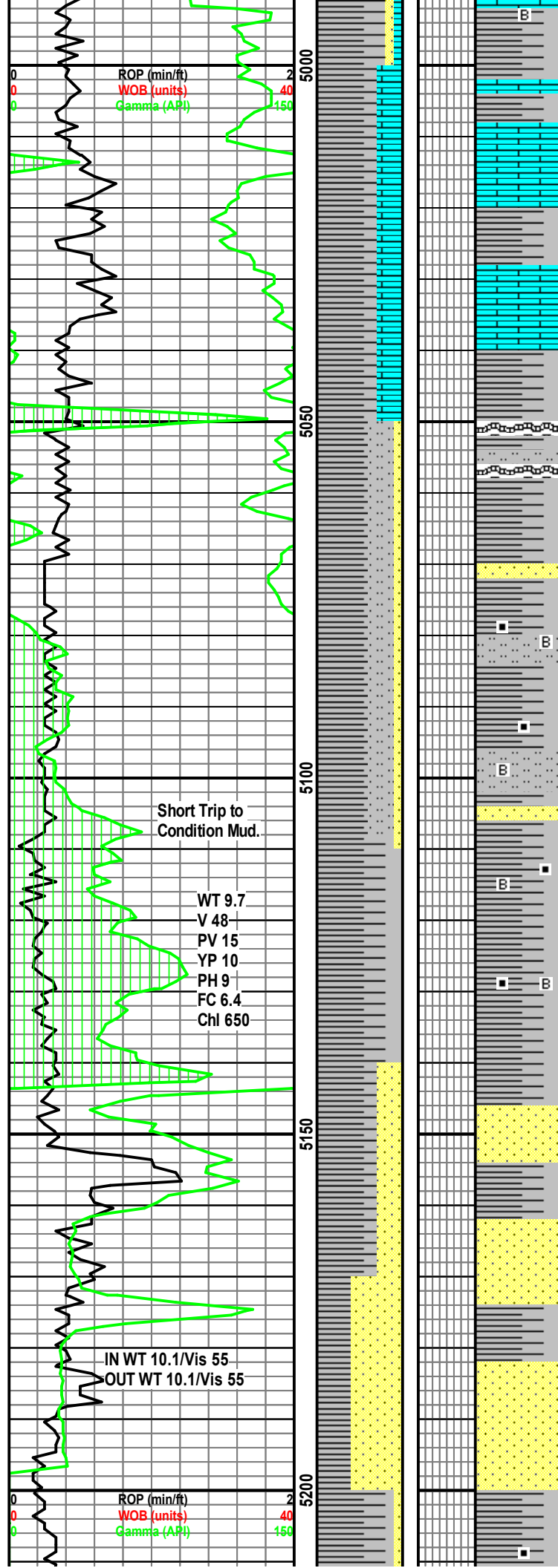
MARLST: ltgy, lt gy, specs & mot specs, frm, chlky, calc, whispy carb mat, pyr, no vis por, no flor, mod wh cut, wh resd ring.



TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)
C5 (ppm)







calc, tr carb mat, occ sndy, olivn Bent, n flor.

LS: ltbrn - brn, gybrn, occ lt gy specs, crpxln, lnoc frag, tt.

Top Graneros Shale X-Bentonite 5050' MD.

BENT: ltgy-off wh, sft, plty, wxy, yel mnrl flor

SH: dkgy, firm, blkly - plty, dull, sl calc, tr carb mat, occ sndy, abnt offwh Bent, n flor.

SH: dkgy, firm, blkly - plty, dull, sl-v calc, tr carb mat, occ sndy, abnt offwh Bent.

Top Dakota D1 @ 5145'MD

SS: wh, lt brn ip, frm, f(l) gr, sbrnd, w srt, sil cmt, wh clay fill, sl calc, mod vis por, tr Bentonite, tr pry, ptchy bri yel flor,slow strmg yelwh cuts from lt brn .

Top Dakota D2 @ 5161'MD

Top Dakota D3 @ 5177'MD

SS: wh, lt brn ip, frm, f(l) gr, sbrnd, w srt, sil cmt, wh clay fill, sl calc, mod vis por, tr Bentonite, tr pry, ptchy bri yel flor,slow strmg yelwh cuts from lt brn .

Top Huntsman @ 5200'MD

