LITHOLOGY STRIP LOG
WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	EXPEDITION WATER SOLUTIONS EWS #1
Location:	Sec. 26 T. 8 N., R. 60W, Weld Co., CO
License Number:	API: 15-12339170-00 — Region: Wattenberg
Spud Date:	Aug. 13, 2014 — Drilling Completed: Aug. 25, 2014
Surface Coordinates:	N Latitude 40.639740, W Longitude 104.066820 NWNW 325' FNL, 372' FWL
Bottom Hole Coordinates:	Same
Ground Elevation (ft):	4913' — K.B. Elevation (ft): 4926.5'
Logged Interval (ft):	6100' +/- To: 9900'LTD Total Depth (ft): 9900'DTD
Formation:	Reagan Ss/top of PreCambrian
Type of Drilling Fluid:	Water & Chemical-Gel

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

OPERATOR

Company: Expedition Water Solutions, LLC
Address: 1023 39TH Avenue, Ste. E
Greeley, CO 80634
Contact: Jim Goddard, President; Ph: 970-515-6950

GEOLOGIST

Name: Louise M. Kiteley PG-1715 (WY)
Company: Professional Geologist (l.kiteley@gmail.com)
Address: 5221 WCR 16 3/4
Firestone, CO 80504
303-263-5122

Comments

1) Mud data in Geologic Descriptions Track. Format: mw-vis-wl-pH-chlor-%solids.
2) Open hole logs by PIONEER (PSI) to INTERMED CSG PT (GR, DCAL, SP, RLL3, RILM, RILD, DPOR, CNPOR (TD)), and Schlumberger (SWS) INTERMEDIATE CASING PT TO TD (GR, HCAL, SP, AHT10, AHT30, AHT90, DPHZ, NPOR, PEFZ)
3) Vertical Injection Well, ROP not shifted below casing pt, and is on depth with open hole logs, which is on depth with this striplog. Formation tops correlate with formations and E-log curves identified in this and nearby wells.
4) Contractor: Ensign #138 drilling rig.

ROCK TYPES

Anhy	Congl	Mrlst	Till
Bent	Dol	Salt	sltst
Brec	Gyp	Shale	anhy1
Cht	Igne	Shcol	ssbig2
Clyst	Lmst	Shgy	chalk
Coal	Meta	Ss	

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
- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

OTHER SYMBOLS

POROSITY TYPE
- E Earthy
- Fenest
- F Fracture
- Inter
- Moldic
- Organic
- P Pinpoint
- V Vuggy

SORTING
- W Well
- M Moderate
- P Poor

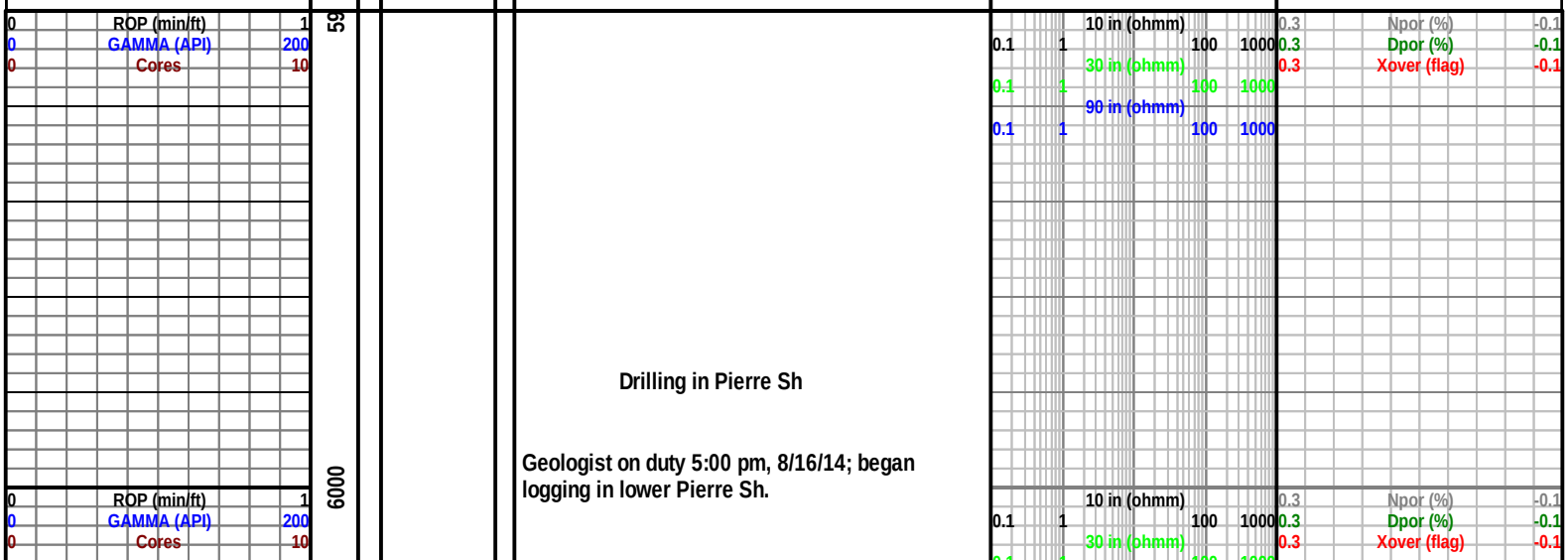
ROUNDING
- R Rounded
- Subrnd
- Subang
- A Angular

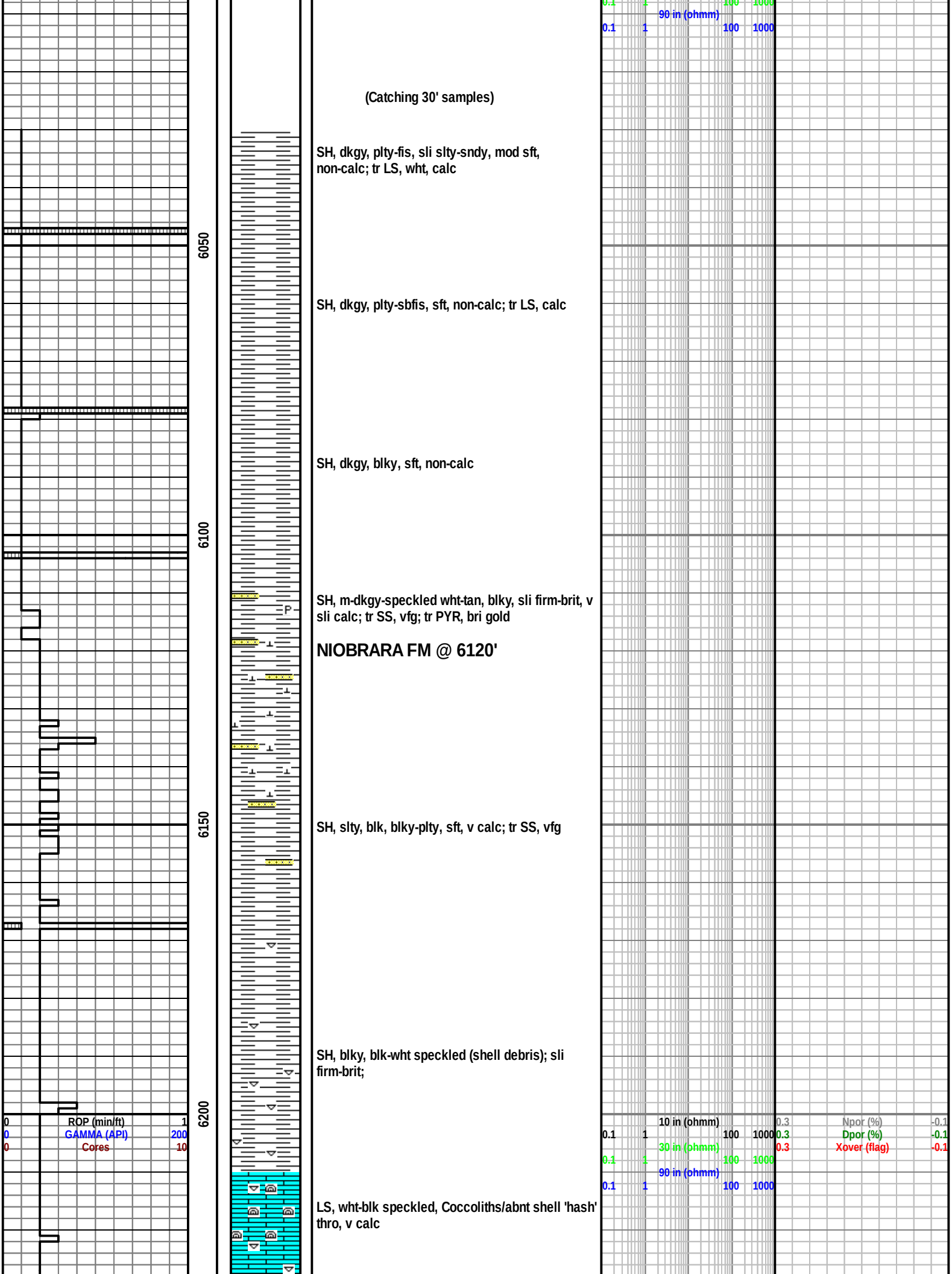
OIL SHOWS
- Even
- Spotted
- near even
- Ques
- D Dead
- vspotty
- St Stain
- Oil in fracture
- bb Bubbling
- BL Bleeding

INTERVALS
- Core
- Dst
- casing

EVENTS
- Rft
- Sidewall
- New bit
- casingr
- casing
- Survey
- Off bottom
- CN conn
- Survey(red)

ROP,GR	Depth	Fractures	Lithology	Oil Shows	Geological Descriptions	Resistivity	Porosity
ROP (min/ft) — GAMMA (API) — Cores						10 in (ohmm) — 30 in (ohmm) — 90 in (ohmm)	Npor (%) — Dpor (%) — Xover (flag)





(Catching 30' samples)

SH, dkgy, plty-fis, sli slty-sndy, mod sft, non-calc; tr LS, wht, calc

SH, dkgy, plty-sbfis, sft, non-calc; tr LS, calc

SH, dkgy, blky, sft, non-calc

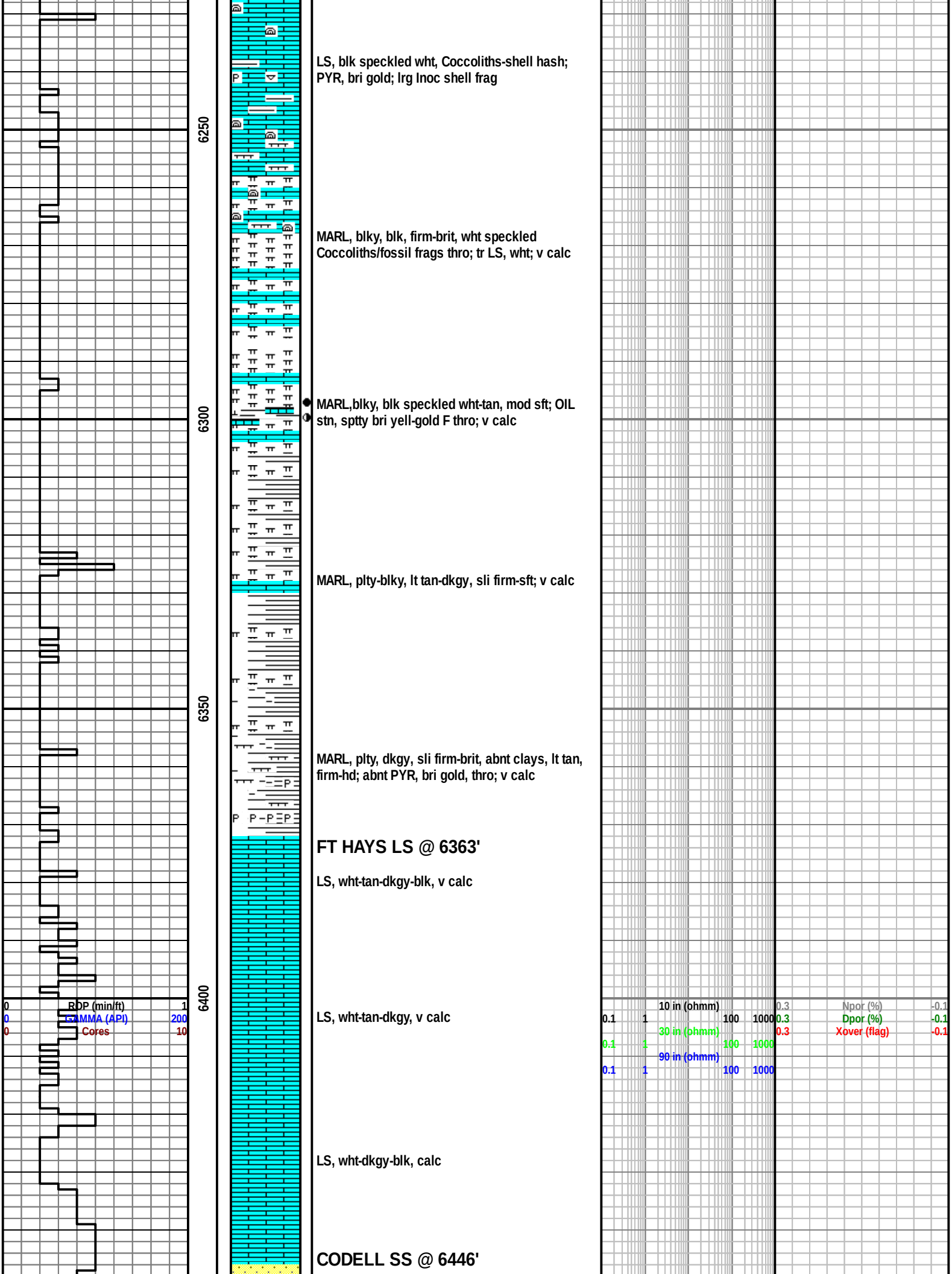
SH, m-dkgy-speckled wht-tan, blky, sli firm-brit, v sli calc; tr SS, vfg; tr PYR, bri gold

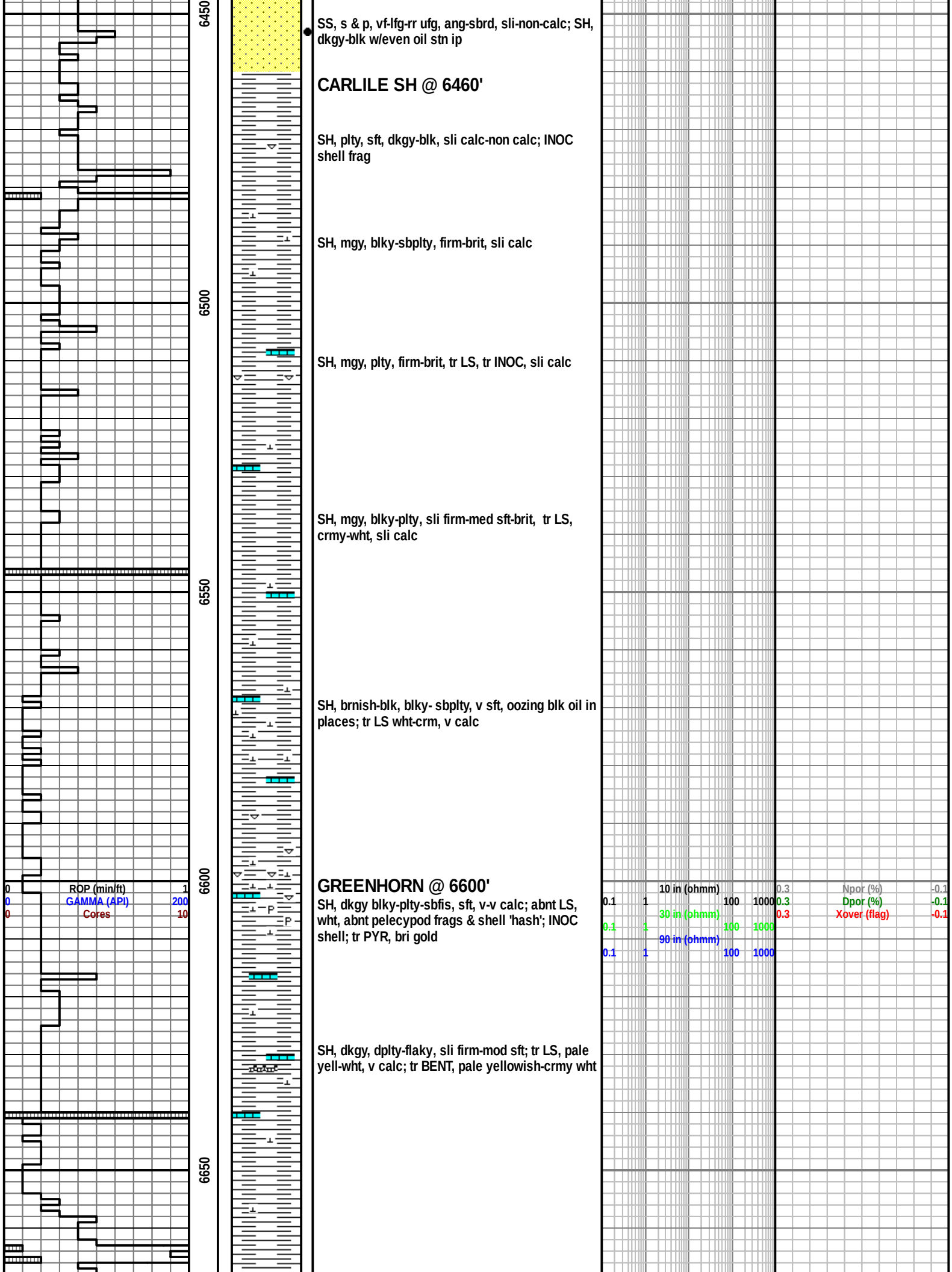
NIOBRARA FM @ 6120'

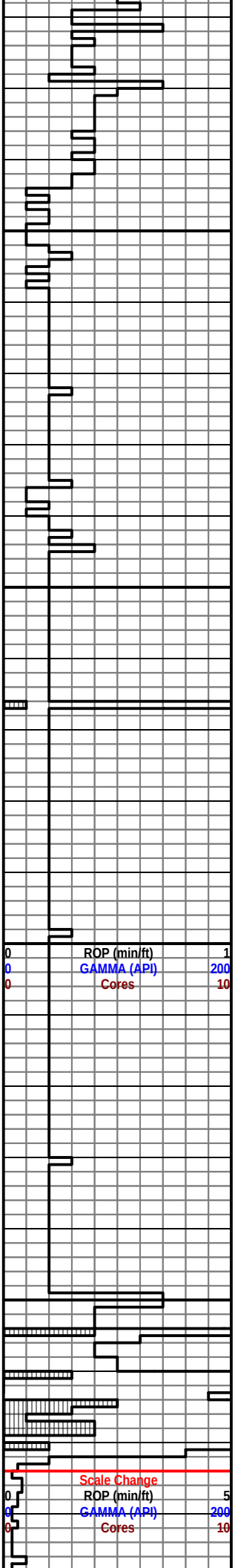
SH, slty, blk, blky-plty, sft, v calc; tr SS, vfg

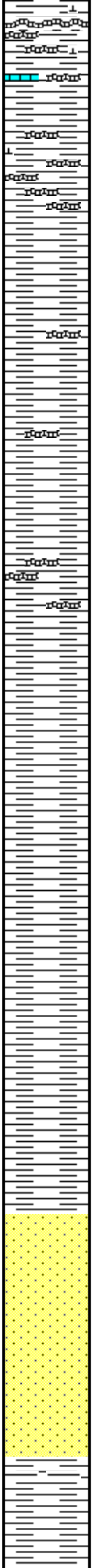
SH, blky, blk-wht speckled (shell debris); sli firm-brit;

LS, wht-blk speckled, Coccoliths/abnt shell 'hash' thro, v calc


6250
6300
6350
6400
LS, blk speckled wht, Coccoliths-shell hash; PYR, bri gold; lrg Inoc shell frag
MARL, blky, blk, firm-brit, wht speckled Coccoliths/fossil frags thro; tr LS, wht; v calc
MARL,blky, blk speckled wht-tan, mod sft; OIL stn, sptty bri yell-gold F thro; v calc
MARL, plty-blky, lt tan-dkgy, sli firm-sft; v calc
MARL, plty, dkgy, sli firm-brit, abnt clays, lt tan, firm-hd; abnt PYR, bri gold, thro; v calc
FT HAYS LS @ 6363'
LS, wht-tan-dkgy-blk, v calc
LS, wht-tan-dkgy, v calc
LS, wht-dkgy-blk, calc
CODELL SS @ 6446'
0 ROP (min/ft) 1
0 GAMMA (API) 200
0 Cores 10
10 in (ohmm)
0.1 1 100 1000
30 in (ohmm)
0.1 1 100 1000
90 in (ohmm)
0.1 1 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1


6450
6500
6550
6600
6650
0 ROP (min/ft) 1
0 GAMMA (API) 200
0 Cores 10
SS, s & p, vf-lfg-rr ufg, ang-sbrd, sli-non-calc; SH, dkgy-blk w/even oil stn ip
CARLILE SH @ 6460'
SH, plty, sft, dkgy-blk, sli calc-non calc; INOC shell frag
SH, mgy, blky-sbplty, firm-brit, sli calc
SH, mgy, plty, firm-brit, tr LS, tr INOC, sli calc
SH, mgy, blky-plty, sli firm-med sft-brit, tr LS, crmy-wht, sli calc
SH, brnish-blk, blky- sbplty, v sft, oozing blk oil in places; tr LS wht-crm, v calc
GREENHORN @ 6600'
SH, dkgy blky-plty-sbfis, sft, v-v calc; abnt LS, wht, abnt pelecypod frags & shell 'hash'; INOC shell; tr PYR, bri gold
SH, dkgy, dplty-flaky, sli firm-mod sft; tr LS, pale yell-wht, v calc; tr BENT, pale yellowish-crmy wht
10 in (ohmm)
0.1 1 100 1000
30 in (ohmm)
0.1 1 100 1000
90 in (ohmm)
0.1 1 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1





X BENTONITE @ 6671'

SH, v dkgy, plty-flky, v sft, calc; lrg frag BENT, pale yell-crmy wht ("X" bent bed); tr LS, v calc

SH, v dkgy- blk, plty-flky-blky, v sft, v calc; FLOOD OF BENT, pale yell-crmy wht-wht, sft

SH, dkgy, plty-blky, sli firm-sft, v calc

SH, dkgy, plty-flky, mod sft; abnt BENT thro, yell-sli grnish yell

SH, vdkgy, blky-plty- sli firm-brit; non calc

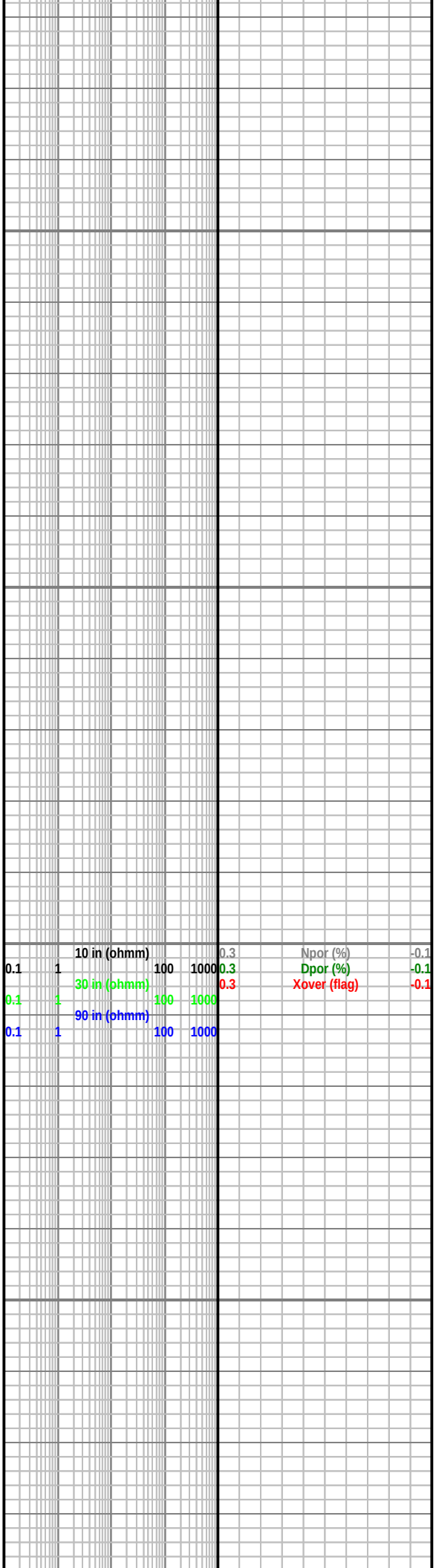
SH, vdkgy-blk,blky-sbfis, sft; oily stn on surface; non-calc

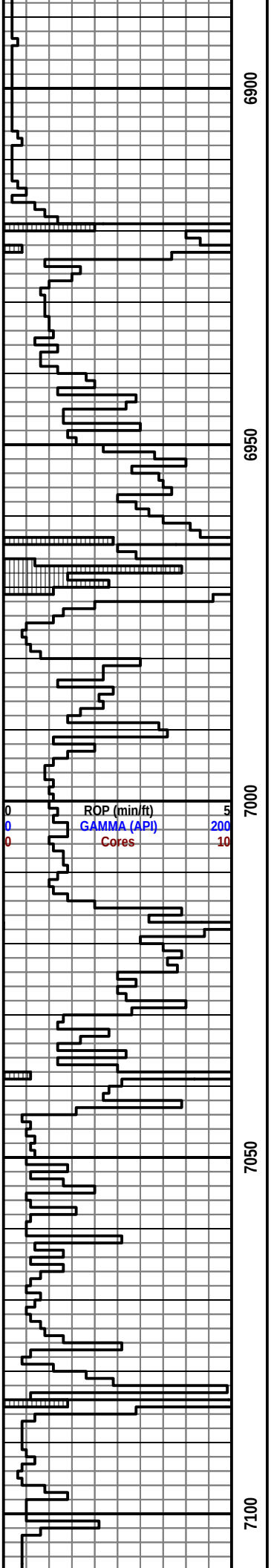
SH, v dkgy-blk; plty-sbfis, sft, non-calc; tr LS, wht, v calc

D SS @ 6837'

SS. clr trnsl-vf-ufg-occ lmg, f-mwsrt; lse fri; SH, dkgy-blk, sbfis-blky, non-v calc

SS. aa





SH, dkgy, plty, non-calc

SH, dkgy, plty-sbfis; tr SS, vf-fg, sbrd, tite, sli calc

J SS @ 6924'

SS, vf-fg, silic cmt; intrbdd SH, dkgy-blk, plty-fis, v sft, sli calc

SS, clr trnsl, lfg-lmg, sbang-sbrd, silic at top

SS, clr trnsl-occ frstd, dom vf-mg-rr lcg, p srt; sbrd-wrd; lse fri; rr clays, wht; est f-g por ~15-20% (60)

SS, clr trnsl-frstd, vf-fg-lcg, p-f srt, sb-wrd-rr ang; lse fri; clays, wht, incrsed; SH, rthy, dkgy, blky-plty, non-calc (80)

SS, clr trnsl, lf-lcg, f-wsrt, sb-wrd; clays, wht; SH, dkgy; tr COAL, blk

SH, rthy, dkgy, plty, firm-brit; tr COAL, blk

SS, vf-fg-cg, f srt, f-wrd; lse fri; rr wht clay; SH, dkgy, plty; abnt PYR crystals bri gold

SS, dom vf-vf-occ c-vcg

SH, dkgy, blk-plty, sft

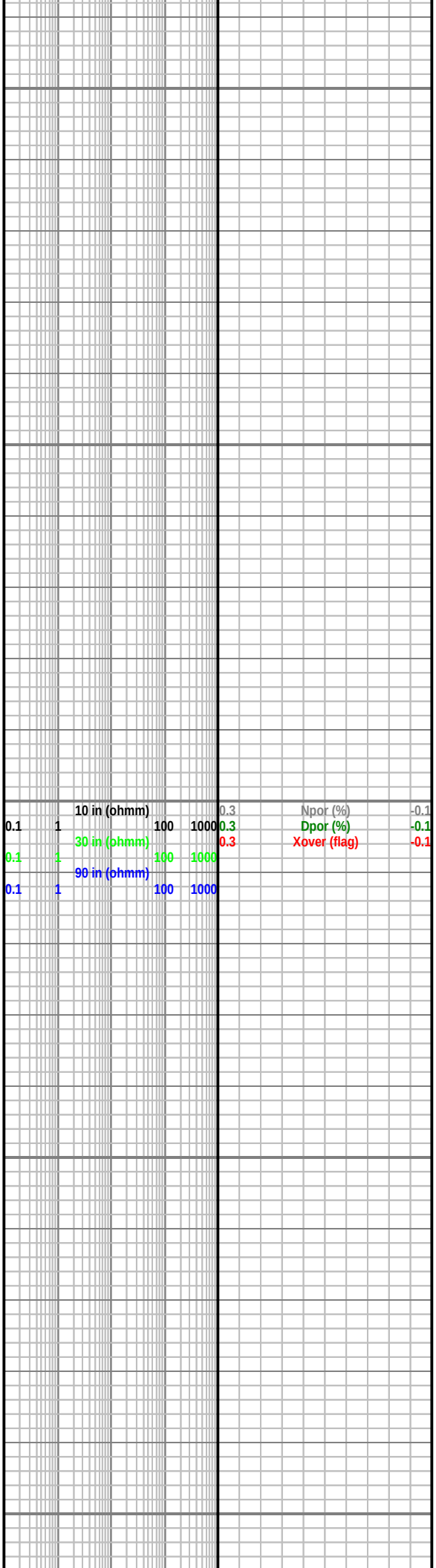
SS, clr trnsl, vf-fg-occ cg; sbrd-wrd-occ ang; PYR ctg some grns

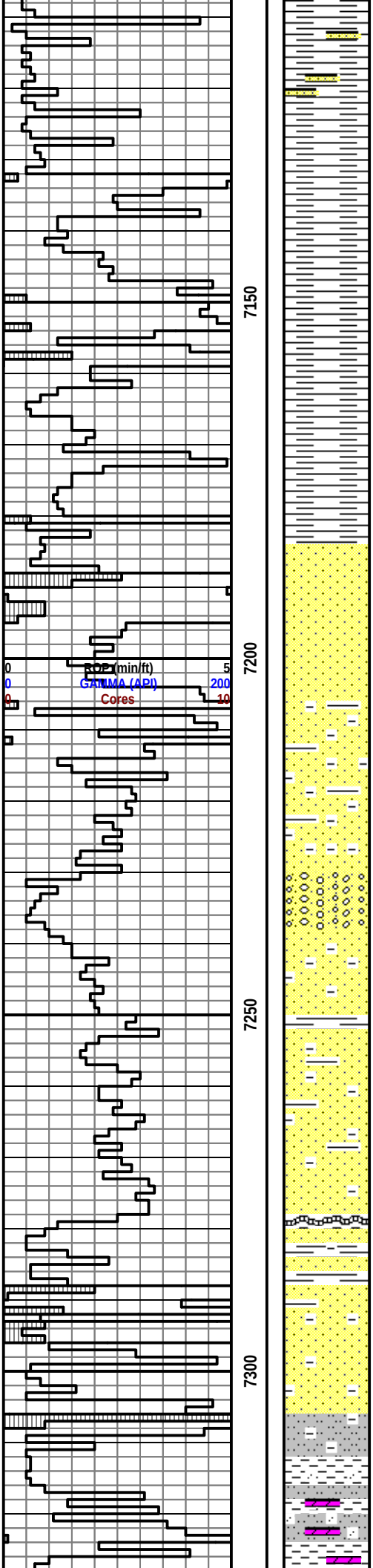
SH, dkgy, plty-fis, sft; SS, vf-ufg-occ vcg, p srt; wrd-ang

SH, dkgy, plty, sft, aa; tr SS, aa

SKULL CR SH @ 7084'

SH, dkgy, blky; tr ANHYD, wht, sft





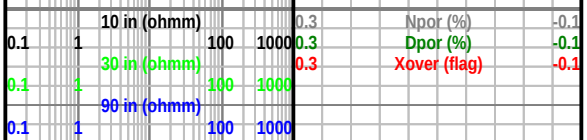
SH, dkgy, plty; tr SS, aa

SH, dkgy, plty, sft

SH, dkgy, blky-plty, sft, non-calc

DAKOTA SS @ 7184'

SS, clr-wht, f-cg, sli firm-lse fri; tr CLYSTN, wht; SH, dkgy-blk, blky, sli firm-brit



SS, clr trnsl, vf-fg, wsrt, wrd, sli firm-sft; SH, dkgy, blky-plty-fis, mxd ~50/50 with CLYSTN, wht

SS, clr trnsl, um-ucg, m-wsrt, wrd, lse fri; SH, dkgy, blky; CLYSTN, wht

SS, clr-mlky wht-frstd, f-cg, wsrt-wrd; lse fri; SH, dkgy-blk, blky, firm-hd; tr CLYSTN, wht

MORRISON FM @ 7280'

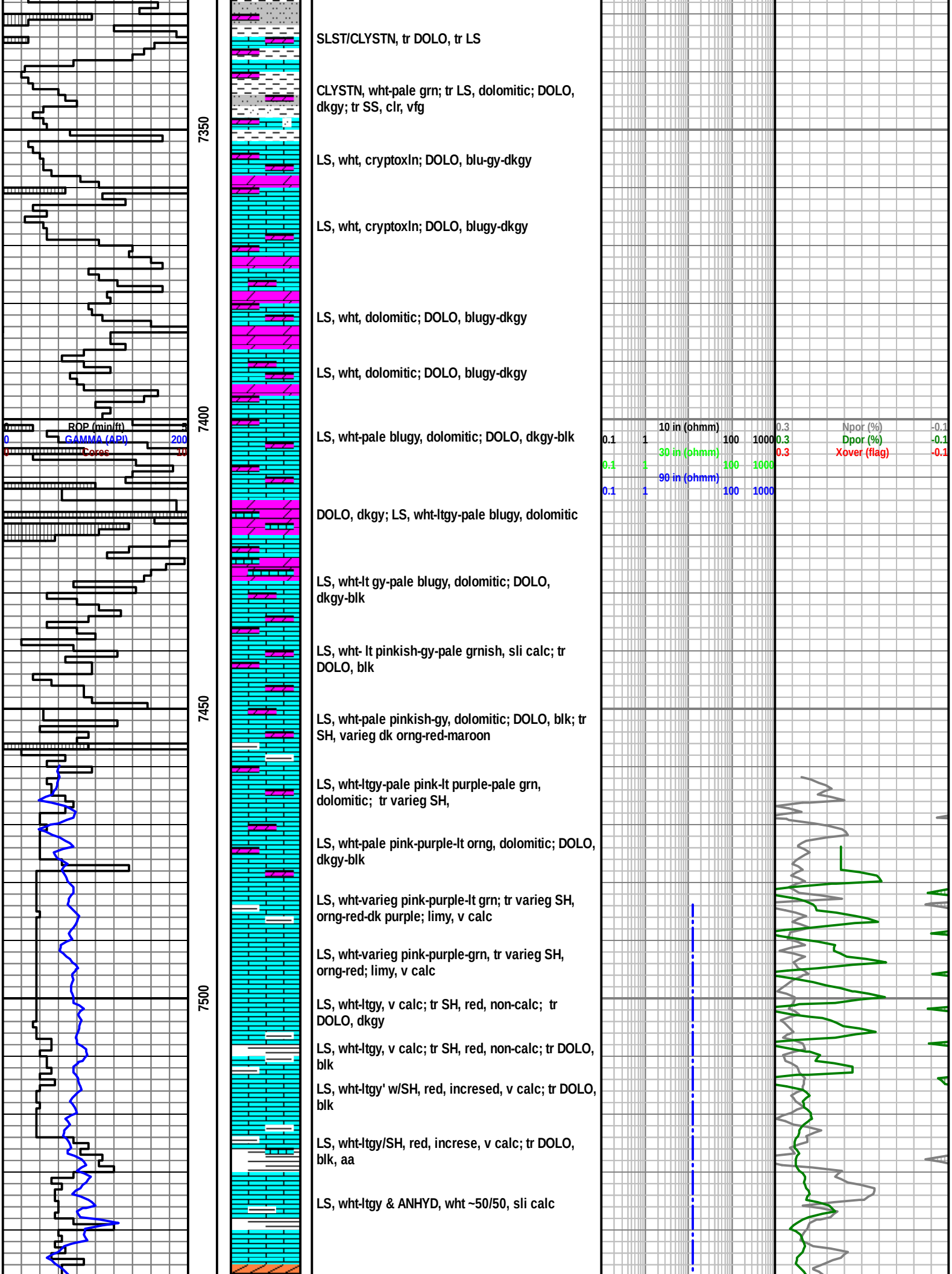
<<<<Unconformity>>>>

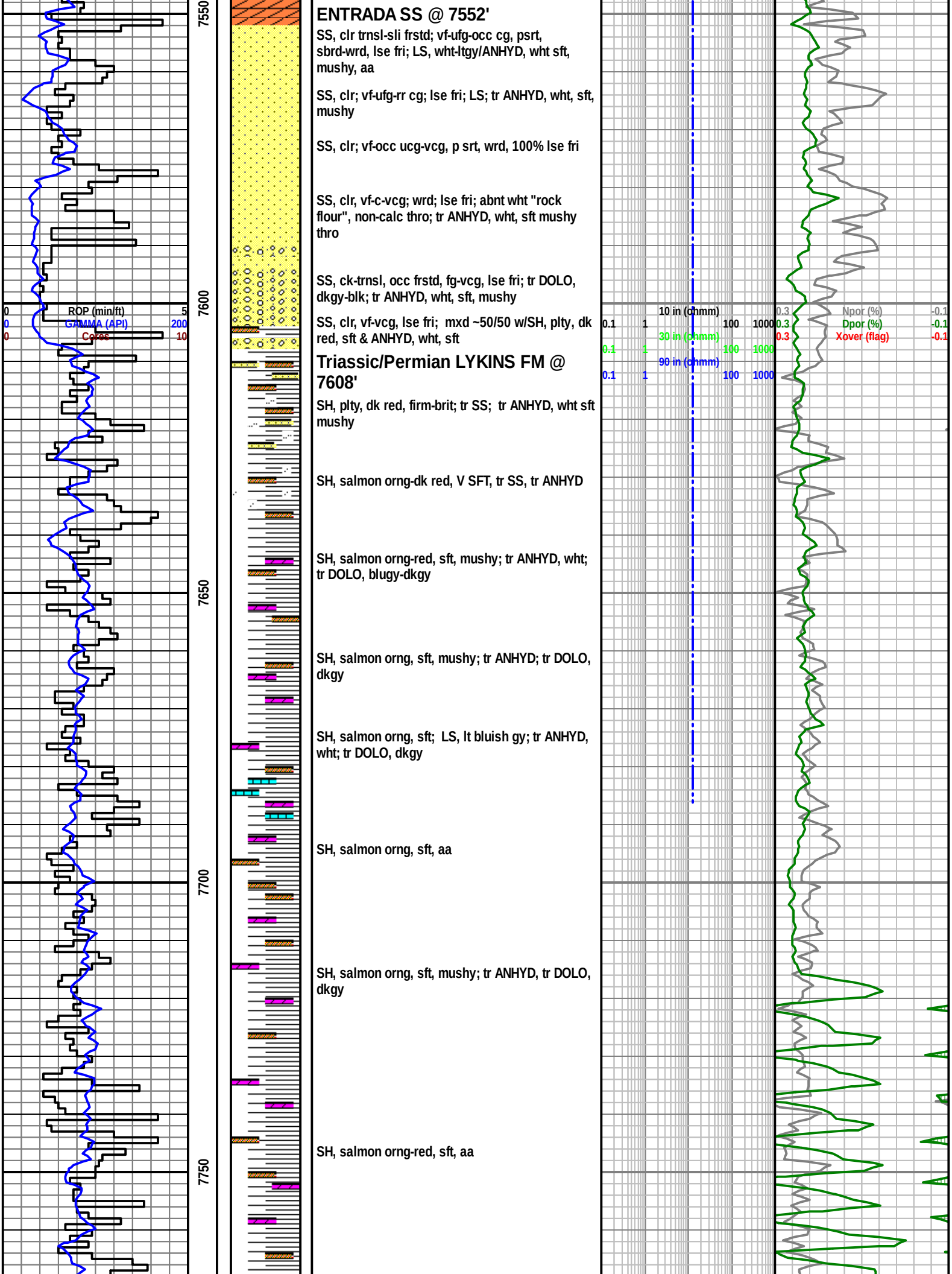
SS, clr, f-cg-vcg, p srt, rd; SH, dkgy-blk; CLYSTN, wht,

SS, f-cg, rd; SH, dkgy-blk; CLYSTN, wht

SLST/CLYSTN w/tr SS, aa; CLYSTN, wht thro; tr SH, dkgy-blk

SLST, ltgy, CLYSTN, wht; tr SH, dkgy; tr SS, vf-fg, lse fri thro; tr DOLO, dkgy


ROP (min/ft)
0
5
GAMMA (API)
0
200
Cores
0
10
7350
7400
7450
7500
SLST/CLYSTN, tr DOLO, tr LS
CLYSTN, wht-pale grn; tr LS, dolomitic; DOLO, dkgy; tr SS, clr, vfg
LS, wht, cryptoxln; DOLO, blu-gy-dkgy
LS, wht, cryptoxln; DOLO, blugy-dkgy
LS, wht, dolomitic; DOLO, blugy-dkgy
LS, wht, dolomitic; DOLO, blugy-dkgy
LS, wht-pale blugy, dolomitic; DOLO, dkgy-blk
DOLO, dkgy; LS, wht-ltgy-pale blugy, dolomitic
LS, wht-lt gy-pale blugy, dolomitic; DOLO, dkgy-blk
LS, wht- lt pinkish-gy-pale grnish, sli calc; tr DOLO, blk
LS, wht-pale pinkish-gy, dolomitic; DOLO, blk; tr SH, varieg dk orng-red-maroon
LS, wht-ltgy-pale pink-lt purple-pale grn, dolomitic; tr varieg SH,
LS, wht-pale pink-purple-lt orng, dolomitic; DOLO, dkgy-blk
LS, wht-varieg pink-purple-lt grn; tr varieg SH, orng-red-dk purple; limy, v calc
LS, wht-varieg pink-purple-grn, tr varieg SH, orng-red; limy, v calc
LS, wht-ltgy, v calc; tr SH, red, non-calc; tr DOLO, dkgy
LS, wht-ltgy, v calc; tr SH, red, non-calc; tr DOLO, blk
LS, wht-ltgy' w/SH, red, incresed, v calc; tr DOLO, blk
LS, wht-ltgy/SH, red, increse, v calc; tr DOLO, blk, aa
LS, wht-ltgy & ANHYD, wht ~50/50, sli calc
10 in (ohmm)
0.1
1
100
1000
30 in (ohmm)
0.1
1
100
1000
90 in (ohmm)
0.1
1
100
1000
0.3
Npor (%)
-0.1
0.3
Dpor (%)
-0.1
0.3
Xover (flag)
-0.1



ENTRADA SS @ 7552'

SS, clr trnsl-sli frstd; vf-ufg-occ cg, psrt, sbrd-wrd, lse fri; LS, wht-ltgy/ANHYD, wht sft, mushy, aa

SS, clr; vf-ufg-rr cg; lse fri; LS; tr ANHYD, wht, sft, mushy

SS, clr; vf-occ ucg-vcg, p srt, wrd, 100% lse fri

SS, clr, vf-c-vcg; wrd; lse fri; abnt wht "rock flour", non-calc thro; tr ANHYD, wht, sft mushy thro

SS, ck-trnsl, occ frstd, fg-vcg, lse fri; tr DOLO, dkgy-blk; tr ANHYD, wht, sft, mushy

SS, clr, vf-vcg, lse fri; mxd ~50/50 w/SH, plty, dk red, sft & ANHYD, wht, sft

Triassic/Permian LYKINS FM @ 7608'

SH, plty, dk red, firm-brit; tr SS; tr ANHYD, wht sft mushy

SH, salmon orng-dk red, V SFT, tr SS, tr ANHYD

SH, salmon orng-red, sft, mushy; tr ANHYD, wht; tr DOLO, blugy-dkgy

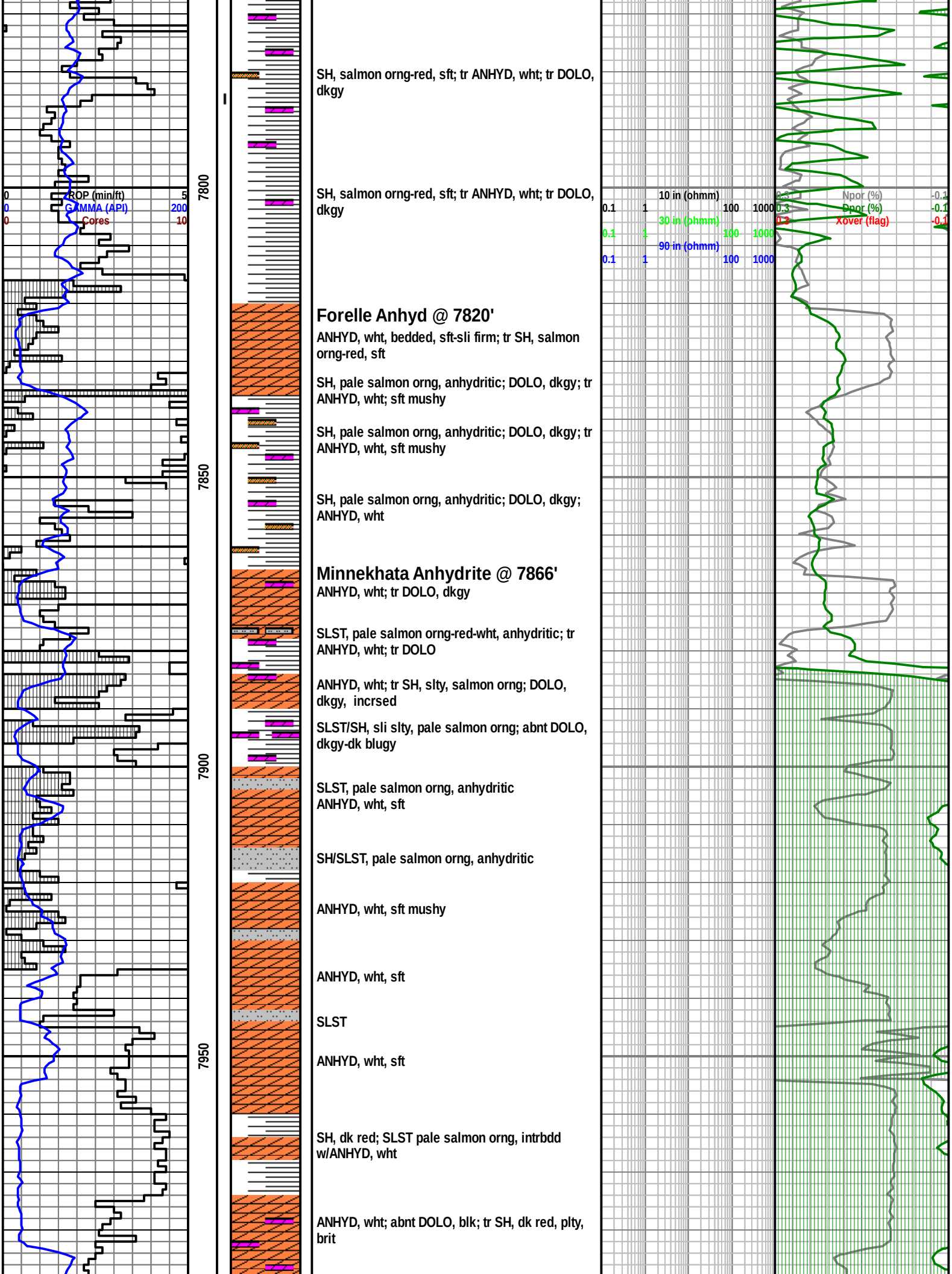
SH, salmon orng, sft, mushy; tr ANHYD; tr DOLO, dkgy

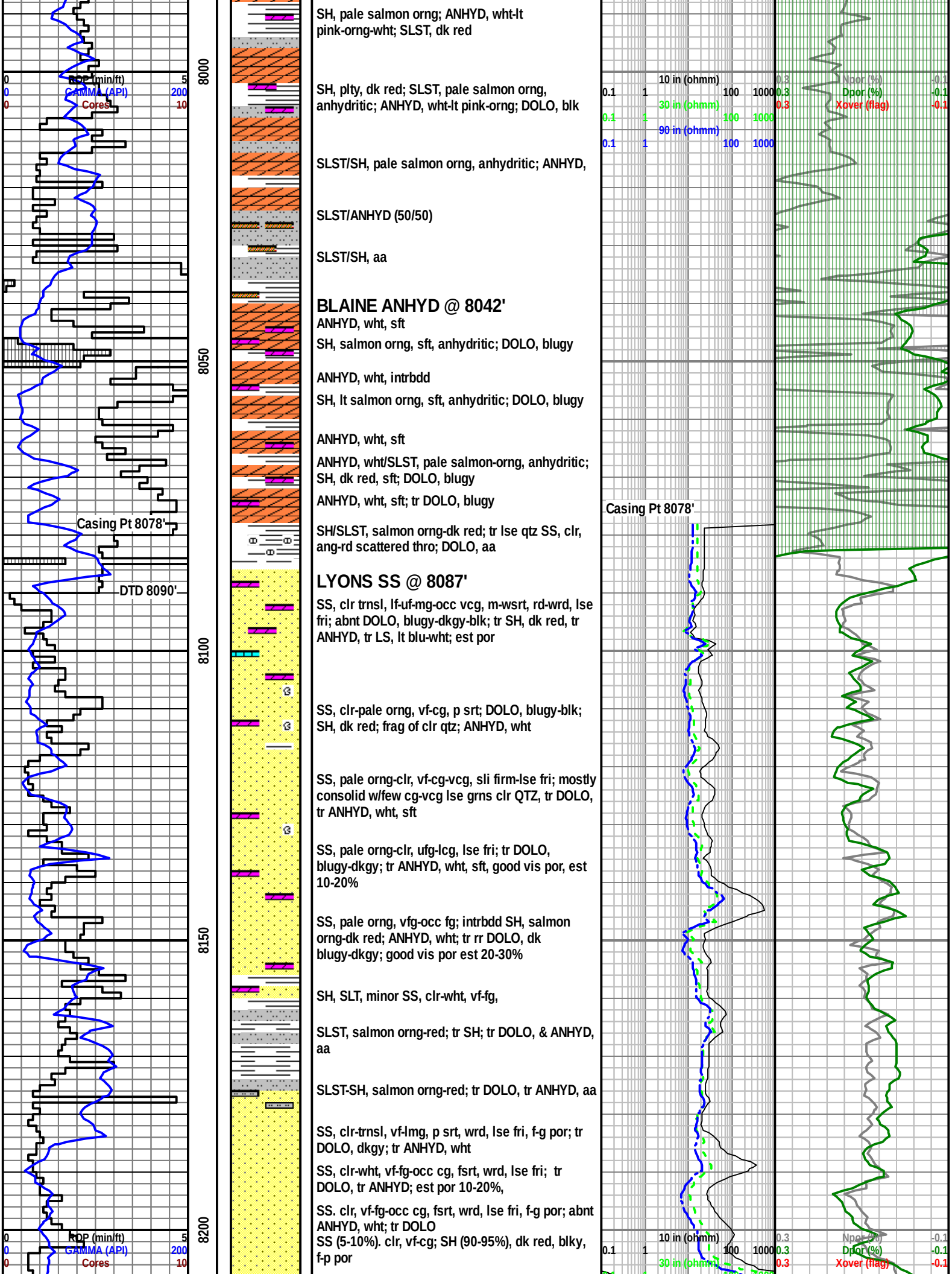
SH, salmon orng, sft; LS, lt bluish gy; tr ANHYD, wht; tr DOLO, dkgy

SH, salmon orng, sft, aa

SH, salmon orng, sft, mushy; tr ANHYD, tr DOLO, dkgy

SH, salmon orng-red, sft, aa


0 ROP (min/ft) 5
0 GAMMA (API) 200
0 Cores 10
7800
7850
7900
7950
SH, salmon orng-red, sft; tr ANHYD, wht; tr DOLO, dkgy
SH, salmon orng-red, sft; tr ANHYD, wht; tr DOLO, dkgy
10 in (ohmm)
0.1 1 100 1000
30 in (ohmm)
0.1 1 100 1000
90 in (ohmm)
0.1 1 100 1000
Npor (%) -0.1
Dpor (%) -0.1
Xover (flag) -0.1
Forelle Anhyd @ 7820'
ANHYD, wht, bedded, sft-sli firm; tr SH, salmon orng-red, sft
SH, pale salmon orng, anhydritic; DOLO, dkgy; tr ANHYD, wht; sft mushy
SH, pale salmon orng, anhydritic; DOLO, dkgy; tr ANHYD, wht, sft mushy
SH, pale salmon orng, anhydritic; DOLO, dkgy; ANHYD, wht
Minnekhata Anhydrite @ 7866'
ANHYD, wht; tr DOLO, dkgy
SLST, pale salmon orng-red-wht, anhydritic; tr ANHYD, wht; tr DOLO
ANHYD, wht; tr SH, slty, salmon orng; DOLO, dkgy, incrsed
SLST/SH, sli slty, pale salmon orng; abnt DOLO, dkgy-dk blugy
SLST, pale salmon orng, anhydritic ANHYD, wht, sft
SH/SLST, pale salmon orng, anhydritic
ANHYD, wht, sft mushy
ANHYD, wht, sft
SLST
ANHYD, wht, sft
SH, dk red; SLST pale salmon orng, intrbdd w/ANHYD, wht
ANHYD, wht; abnt DOLO, blk; tr SH, dk red, plty, brit



SH, pale salmon orng; ANHYD, wht-lt pink-orng-wht; SLST, dk red

SH, plty, dk red; SLST, pale salmon orng, anhydritic; ANHYD, wht-lt pink-orng; DOLO, blk

SLST/SH, pale salmon orng, anhydritic; ANHYD,

SLST/ANHYD (50/50)

SLST/SH, aa

BLAINE ANHYD @ 8042'

ANHYD, wht, sft

SH, salmon orng, sft, anhydritic; DOLO, blugy

ANHYD, wht, intrbdd

SH, lt salmon orng, sft, anhydritic; DOLO, blugy

ANHYD, wht, sft

ANHYD, wht/SLST, pale salmon-orng, anhydritic; SH, dk red, sft; DOLO, blugy

ANHYD, wht, sft; tr DOLO, blugy

SH/SLST, salmon orng-dk red; tr lse qtz SS, clr, ang-rd scattered thro; DOLO, aa

LYONS SS @ 8087'

SS, clr trnsl, lf-uf-mg-occ vcg, m-wsrt, rd-wrd, lse fri; abnt DOLO, blugy-dkgy-blk; tr SH, dk red, tr ANHYD, tr LS, lt blu-wht; est por

SS, clr-pale orng, vf-cg, p srt; DOLO, blugy-blk; SH, dk red; frag of clr qtz; ANHYD, wht

SS, pale orng-clr, vf-cg-vcg, sli firm-lse fri; mostly consolid w/few cg-vcg lse grns clr QTZ, tr DOLO, tr ANHYD, wht, sft

SS, pale orng-clr, ufg-lcg, lse fri; tr DOLO, blugy-dkgy; tr ANHYD, wht, sft, good vis por, est 10-20%

SS, pale orng, vfg-occ fg; intrbdd SH, salmon orng-dk red; ANHYD, wht; tr rr DOLO, dk blugy-dkgy; good vis por est 20-30%

SH, SLT, minor SS, clr-wht, vf-fg,

SLST, salmon orng-red; tr SH; tr DOLO, & ANHYD, aa

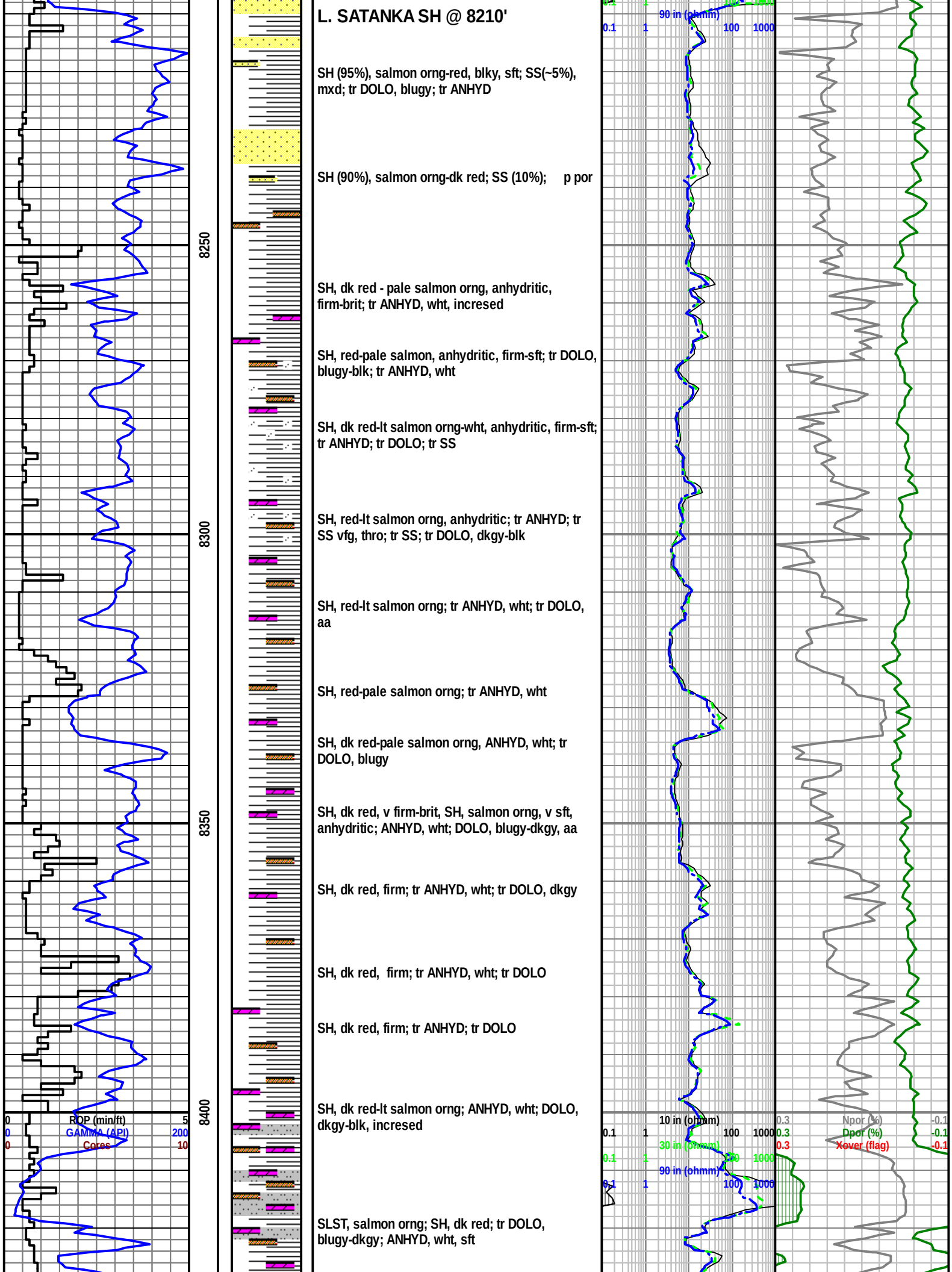
SLST-SH, salmon orng-red; tr DOLO, tr ANHYD, aa

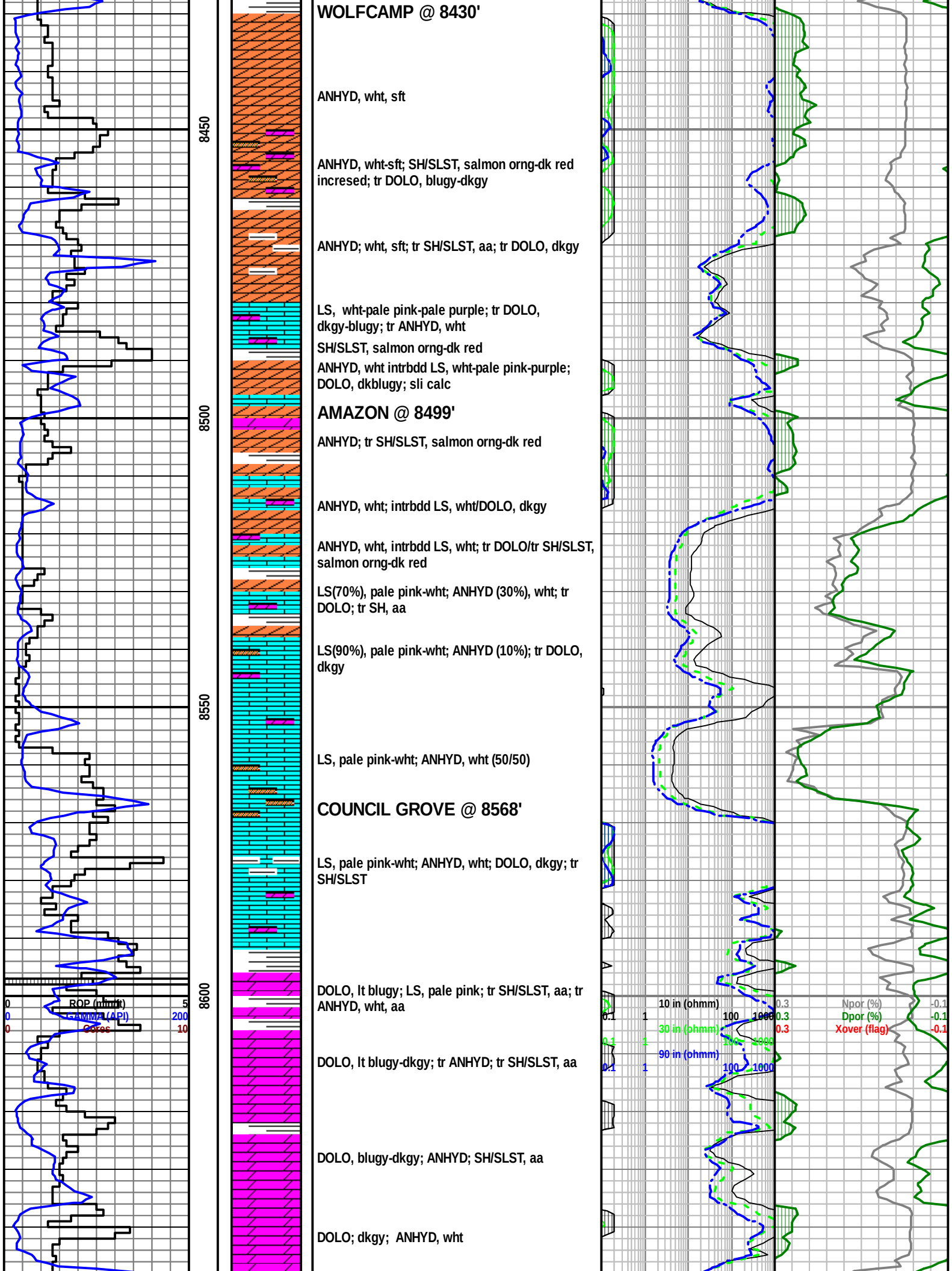
SS, clr-trnsl, vf-lmg, p srt, wrd, lse fri, f-g por; tr DOLO, dkgy; tr ANHYD, wht

SS, clr-wht, vf-fg-occ cg, fsrt, wrd, lse fri; tr DOLO, tr ANHYD; est por 10-20%,

SS. clr, vf-fg-occ cg, fsrt, wrd, lse fri, f-g por; abnt ANHYD, wht; tr DOLO

SS (5-10%). clr, vf-cg; SH (90-95%), dk red, blky, f-p por


L. SATANKA SH @ 8210'
SH (95%), salmon orng-red, blky, sft; SS(~5%), mxd; tr DOLO, blugy; tr ANHYD
SH (90%), salmon orng-dk red; SS (10%); p por
SH, dk red - pale salmon orng, anhydritic, firm-brit; tr ANHYD, wht, incresed
SH, red-pale salmon, anhydritic, firm-sft; tr DOLO, blugy-blk; tr ANHYD, wht
SH, dk red-lt salmon orng-wht, anhydritic, firm-sft; tr ANHYD; tr DOLO; tr SS
SH, red-lt salmon orng, anhydritic; tr ANHYD; tr SS vfg, thro; tr SS; tr DOLO, dkgy-blk
SH, red-lt salmon orng; tr ANHYD, wht; tr DOLO, aa
SH, red-pale salmon orng; tr ANHYD, wht
SH, dk red-pale salmon orng, ANHYD, wht; tr DOLO, blugy
SH, dk red, v firm-brit, SH, salmon orng, v sft, anhydritic; ANHYD, wht; DOLO, blugy-dkgy, aa
SH, dk red, firm; tr ANHYD, wht; tr DOLO, dkgy
SH, dk red, firm; tr ANHYD, wht; tr DOLO
SH, dk red, firm; tr ANHYD; tr DOLO
SH, dk red-lt salmon orng; ANHYD, wht; DOLO, dkgy-blk, incresed
SLST, salmon orng; SH, dk red; tr DOLO, blugy-dkgy; ANHYD, wht, sft
8250
8300
8350
8400
0 ROP (min/ft) 5
0 GAMMA (API) 200
0 Cores 10
90 in (ohmm)
10 in (ohmm)
30 in (ohmm)
0.1 1 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1



WOLFCAMP @ 8430'

ANHYD, wht, sft

ANHYD, wht-sft; SH/SLST, salmon orng-dk red incresed; tr DOLO, blugy-dkgy

ANHYD; wht, sft; tr SH/SLST, aa; tr DOLO, dkgy

LS, wht-pale pink-pale purple; tr DOLO, dkgy-blugy; tr ANHYD, wht

SH/SLST, salmon orng-dk red

ANHYD, wht intrbdd LS, wht-pale pink-purple; DOLO, dkblugy; sli calc

AMAZON @ 8499'

ANHYD; tr SH/SLST, salmon orng-dk red

ANHYD, wht; intrbdd LS, wht/DOLO, dkgy

ANHYD, wht, intrbdd LS, wht; tr DOLO/tr SH/SLST, salmon orng-dk red

LS(70%), pale pink-wht; ANHYD (30%), wht; tr DOLO; tr SH, aa

LS(90%), pale pink-wht; ANHYD (10%); tr DOLO, dkgy

LS, pale pink-wht; ANHYD, wht (50/50)

COUNCIL GROVE @ 8568'

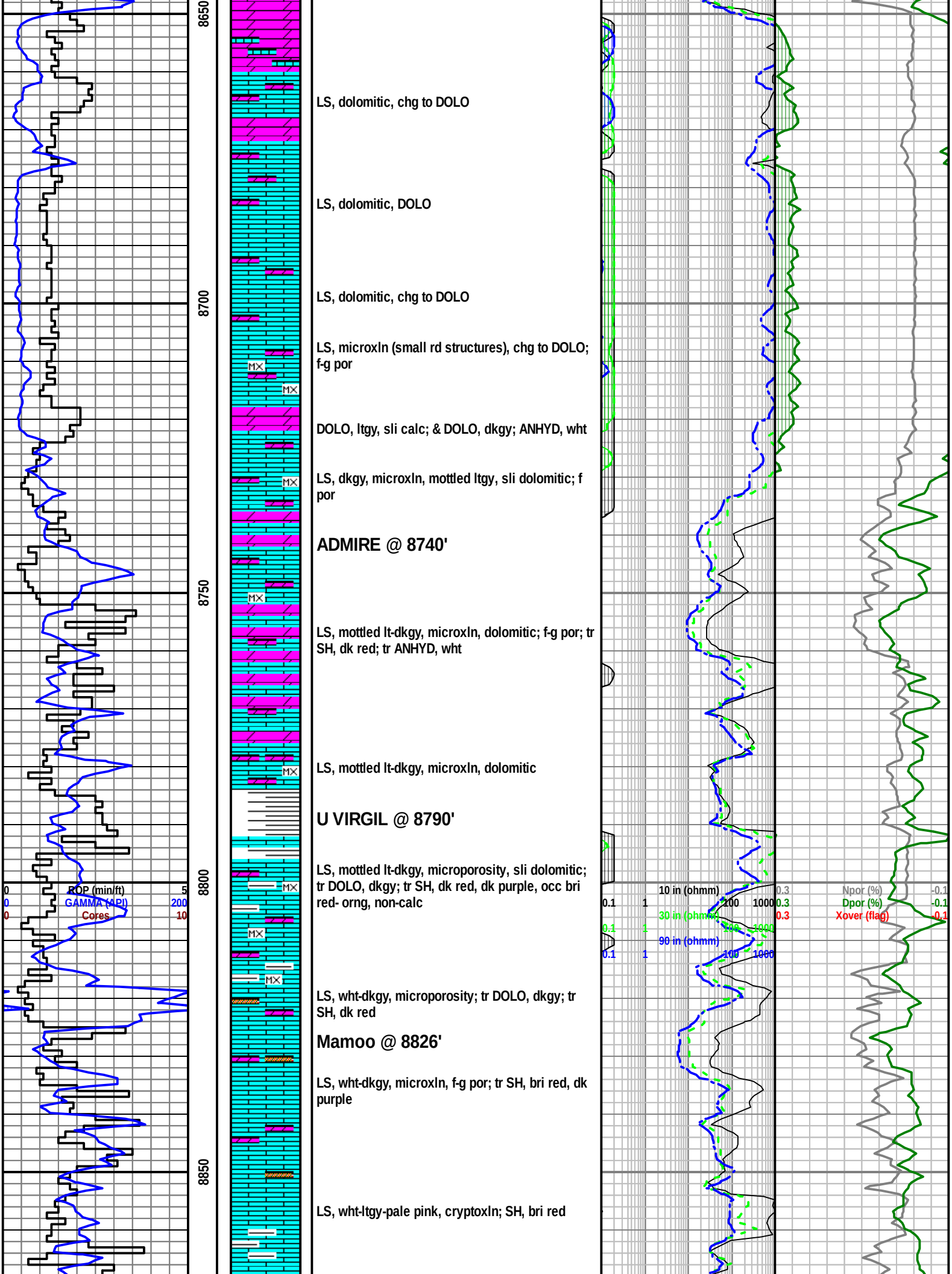
LS, pale pink-wht; ANHYD, wht; DOLO, dkgy; tr SH/SLST

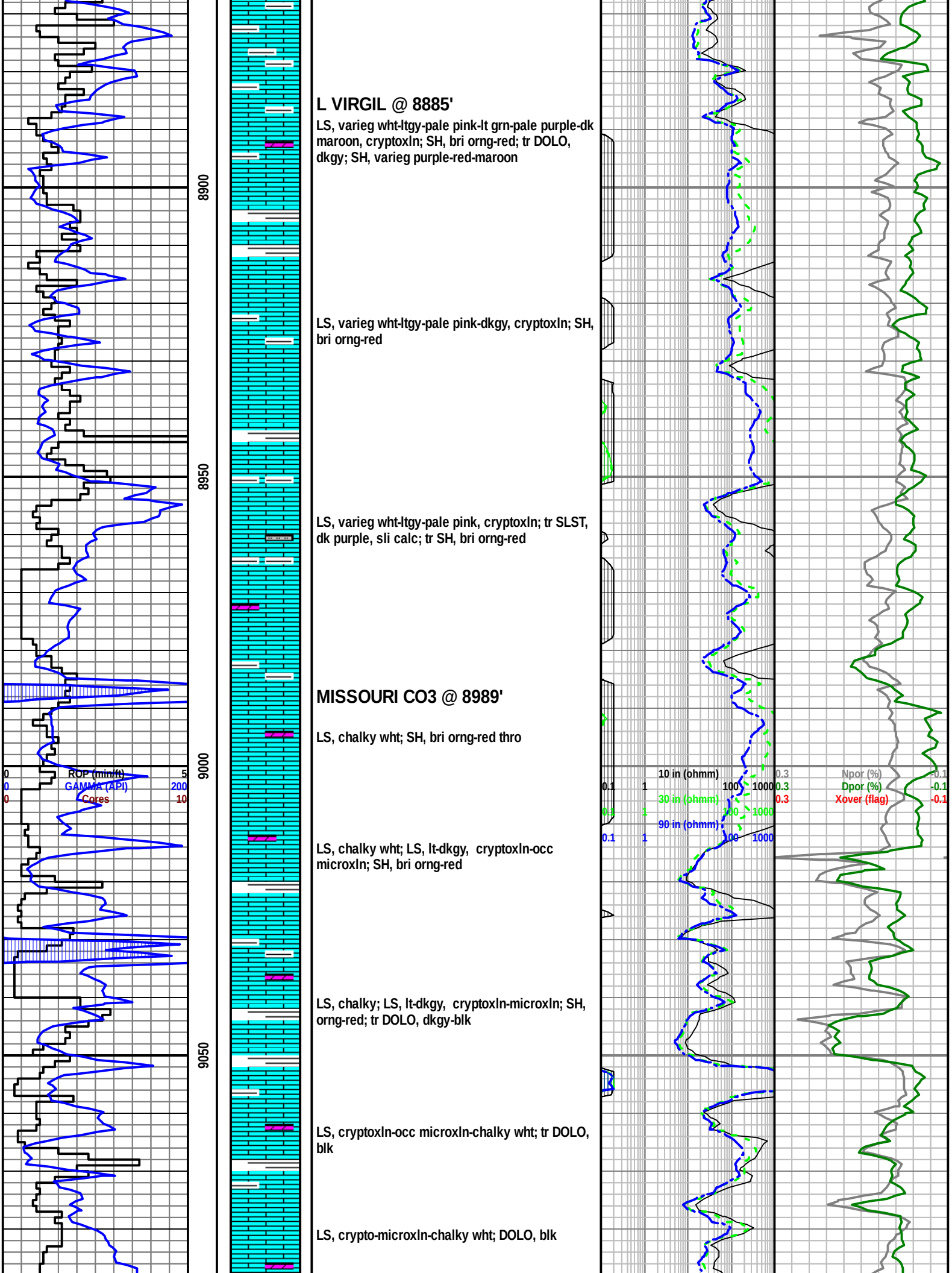
DOLO, lt blugy; LS, pale pink; tr SH/SLST, aa; tr ANHYD, wht, aa

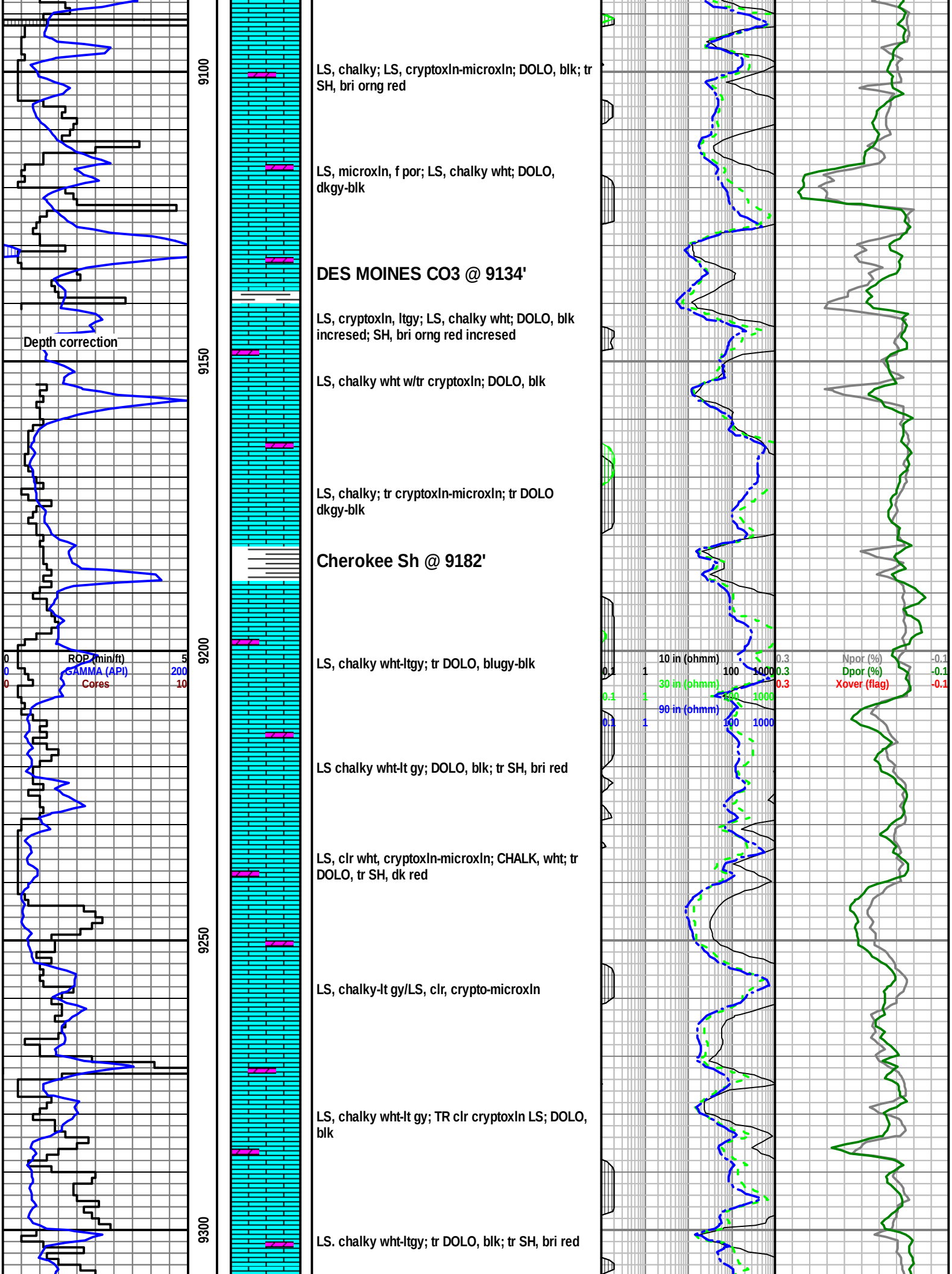
DOLO, lt blugy-dkgy; tr ANHYD; tr SH/SLST, aa

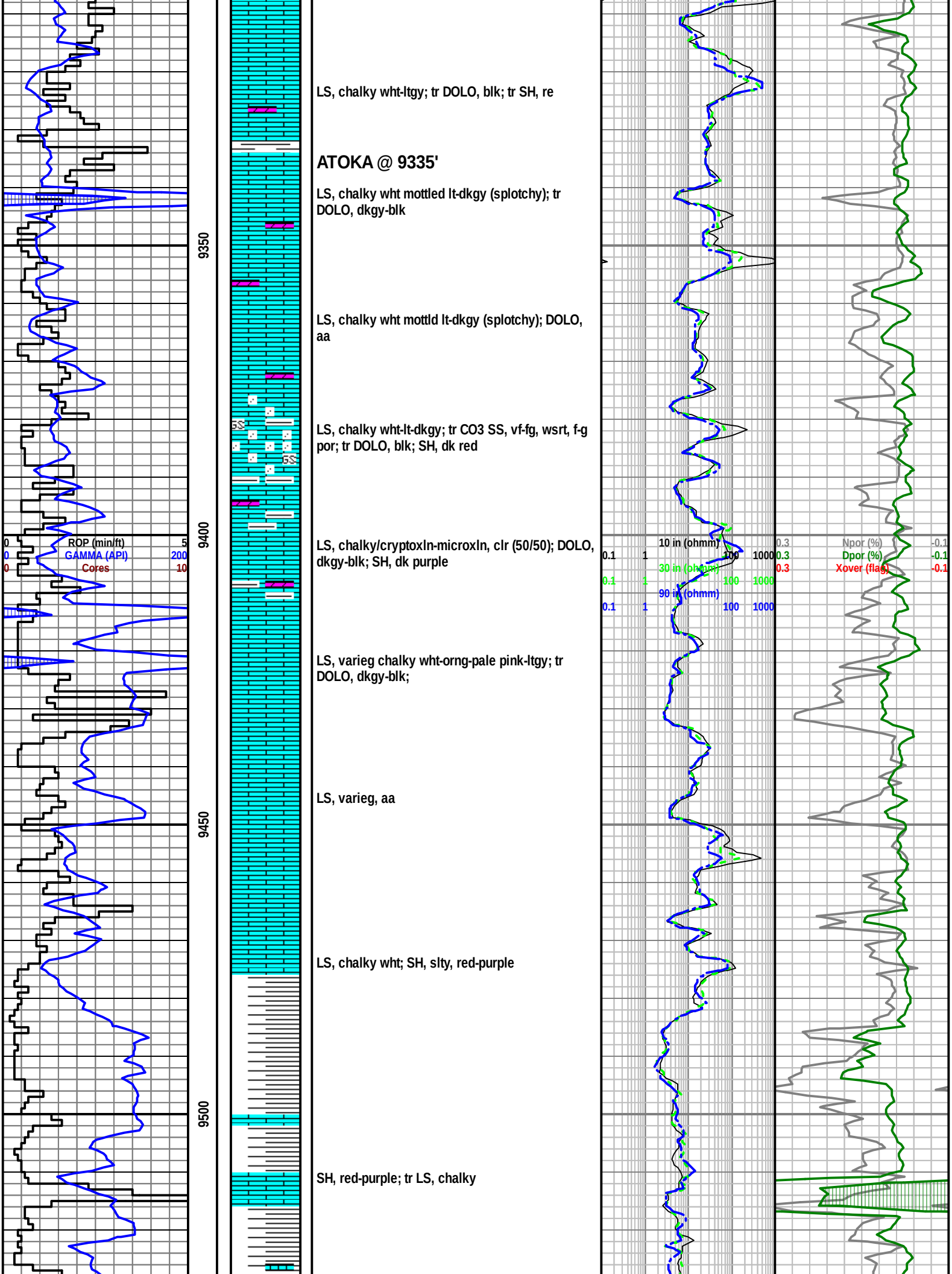
DOLO, blugy-dkgy; ANHYD; SH/SLST, aa

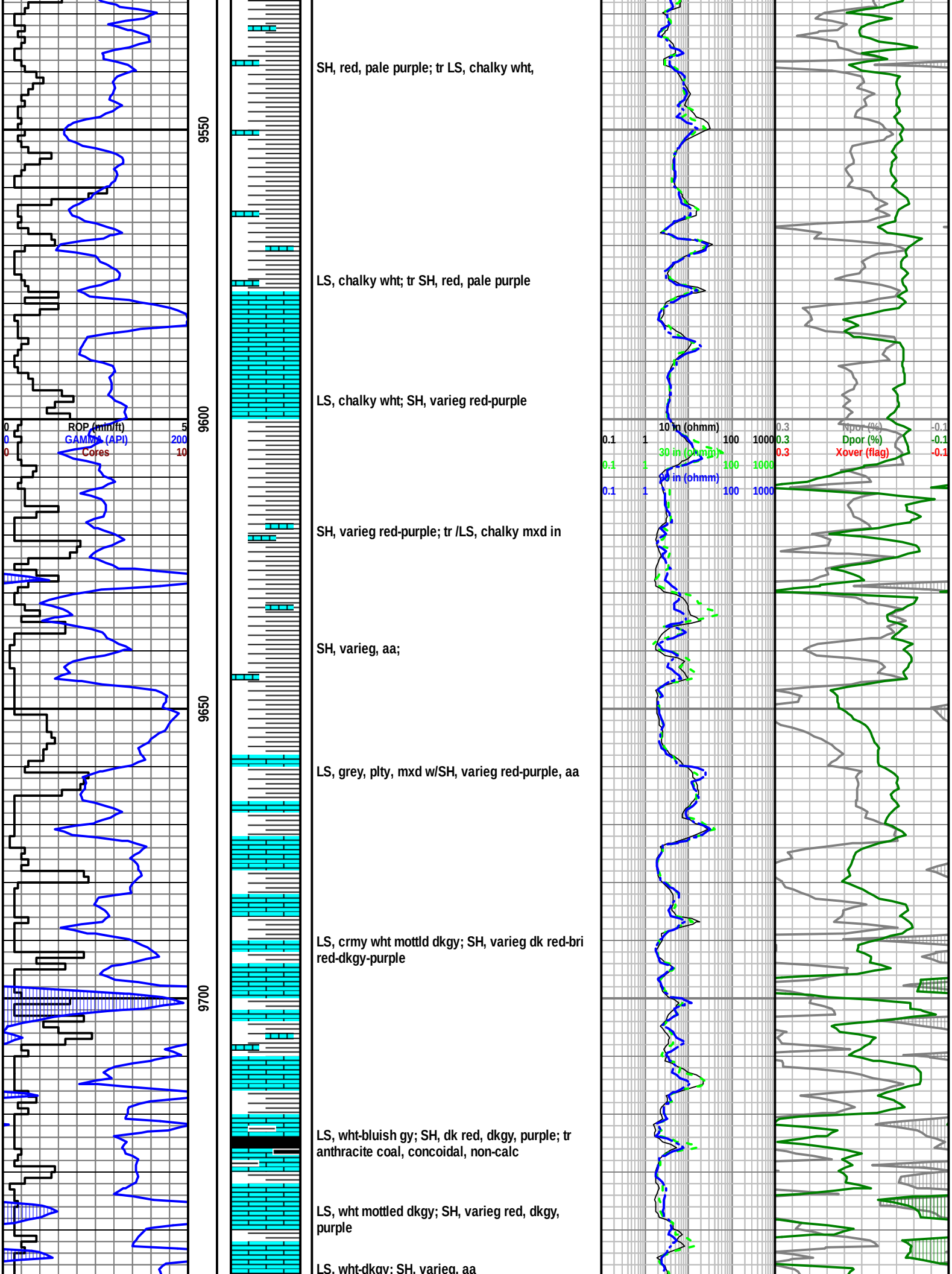
DOLO; dkgy; ANHYD, wht

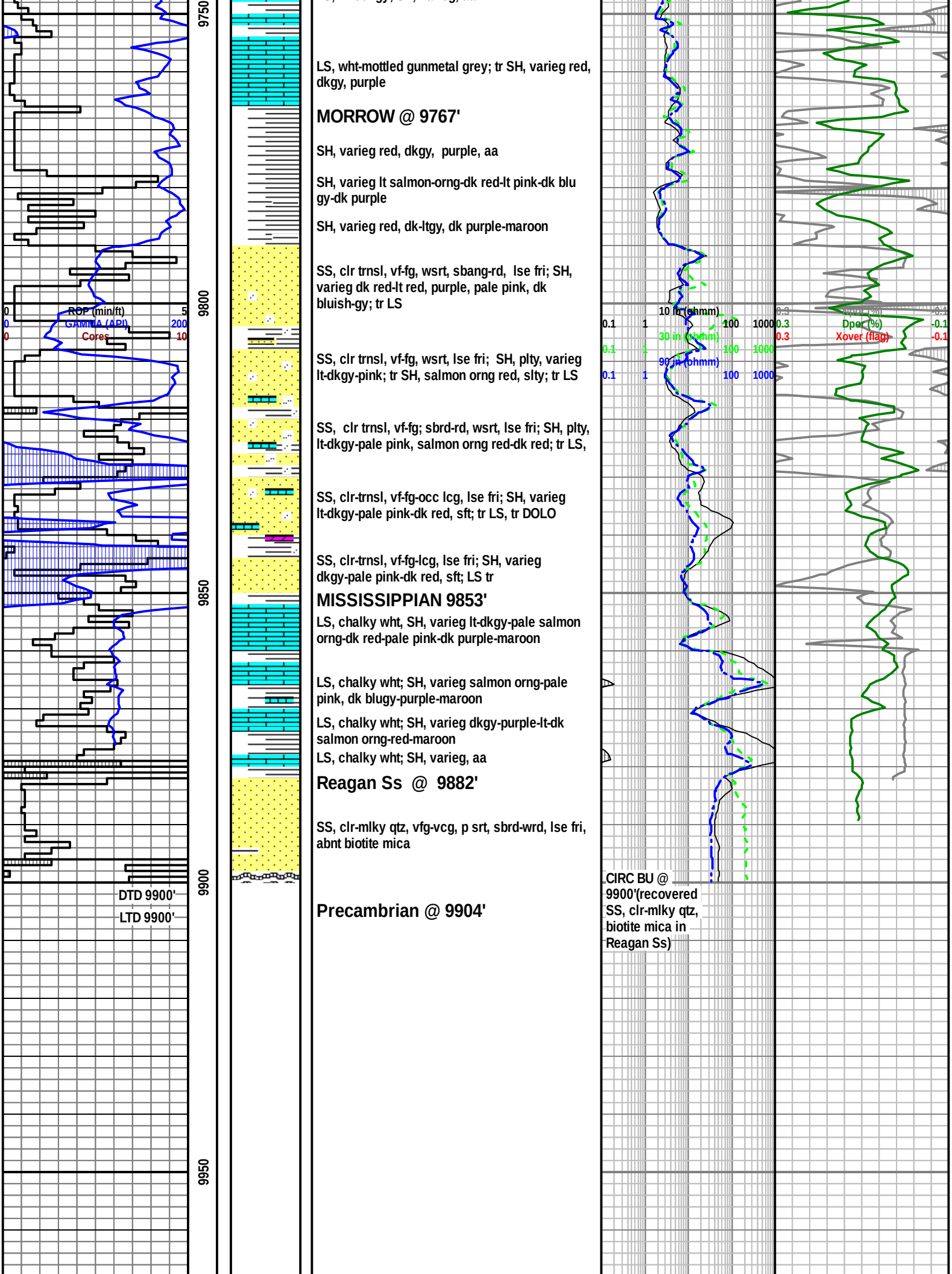

8650
8700
8750
8800
8850
0 ROP (min/ft) 5
0 GAMMA (API) 200
0 Cores 10
LS, dolomitic, chg to DOLO
LS, dolomitic, DOLO
LS, dolomitic, chg to DOLO
LS, microxln (small rd structures), chg to DOLO; f-g por
DOLO, ltgy, sli calc; & DOLO, dkgy; ANHYD, wht
LS, dkgy, microxln, mottled ltgy, sli dolomitic; f por
ADMIRE @ 8740'
LS, mottled lt-dkgy, microxln, dolomitic; f-g por; tr SH, dk red; tr ANHYD, wht
LS, mottled lt-dkgy, microxln, dolomitic
U VIRGIL @ 8790'
LS, mottled lt-dkgy, microporosity, sli dolomitic; tr DOLO, dkgy; tr SH, dk red, dk purple, occ bri red- orng, non-calc
LS, wht-dkgy, microporosity; tr DOLO, dkgy; tr SH, dk red
Mamoo @ 8826'
LS, wht-dkgy, microxln, f-g por; tr SH, bri red, dk purple
LS, wht-ltgy-pale pink, cryptoxln; SH, bri red
MX
10 in (ohmm)
30 in (ohmm)
90 in (ohmm)
0.1 1 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1


8900
8950
9000
9050
0 ROP (min/ft) 5
0 GAMMA (API) 200
0 Cores 10
L VIRGIL @ 8885'
LS, varieg wht-ltgy-pale pink-lt grn-pale purple-dk maroon, cryptoxln; SH, bri orng-red; tr DOLO, dkgy; SH, varieg purple-red-maroon
LS, varieg wht-ltgy-pale pink-dkgy, cryptoxln; SH, bri orng-red
LS, varieg wht-ltgy-pale pink, cryptoxln; tr SLST, dk purple, sli calc; tr SH, bri orng-red
MISSOURI CO3 @ 8989'
LS, chalky wht; SH, bri orng-red thro
LS, chalky wht; LS, lt-dkgy, cryptoxln-occ microxln; SH, bri orng-red
LS, chalky; LS, lt-dkgy, cryptoxln-microxln; SH, orng-red; tr DOLO, dkgy-blk
LS, cryptoxln-occ microxln-chalky wht; tr DOLO, blk
LS, crypto-microxln-chalky wht; DOLO, blk
0.1 1 10 in (ohmm) 100 1000
0.1 1 30 in (ohmm) 100 1000
0.1 1 90 in (ohmm) 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1


9100
9150
9200
9250
9300
Depth correction
0 ROP (min/ft) 5
0 GAMMA (API) 200
0 Cores 10
LS, chalky; LS, cryptoxln-microxln; DOLO, blk; tr SH, bri orng red
LS, microxln, f por; LS, chalky wht; DOLO, dkgy-blk
DES MOINES CO3 @ 9134'
LS, cryptoxln, ltgy; LS, chalky wht; DOLO, blk incresed; SH, bri orng red incresed
LS, chalky wht w/tr cryptoxln; DOLO, blk
LS, chalky; tr cryptoxln-microxln; tr DOLO dkgy-blk
Cherokee Sh @ 9182'
LS, chalky wht-ltgy; tr DOLO, blugy-blk
LS chalky wht-lt gy; DOLO, blk; tr SH, bri red
LS, clr wht, cryptoxln-microxln; CHALK, wht; tr DOLO, tr SH, dk red
LS, chalky-lt gy/LS, clr, crypto-microxln
LS, chalky wht-lt gy; TR clr cryptoxln LS; DOLO, blk
LS. chalky wht-ltgy; tr DOLO, blk; tr SH, bri red
10 in (ohmm)
0.1 1 100 1000
30 in (ohmm)
0.1 1 100 1000
90 in (ohmm)
0.1 1 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1


ROP (min/ft)
GAMMA (API)
Cores
9350
9400
9450
9500
LS, chalky wht-ltgy; tr DOLO, blk; tr SH, re
ATOKA @ 9335'
LS, chalky wht mottled lt-dkgy (splotchy); tr DOLO, dkgy-blk
LS, chalky wht mottld lt-dkgy (splotchy); DOLO, aa
LS, chalky wht-lt-dkgy; tr CO3 SS, vf-fg, wsrt, f-g por; tr DOLO, blk; SH, dk red
LS, chalky/cryptoxln-microxln, clr (50/50); DOLO, dkgy-blk; SH, dk purple
LS, varieg chalky wht-orng-pale pink-ltgy; tr DOLO, dkgy-blk;
LS, varieg, aa
LS, chalky wht; SH, slty, red-purple
SH, red-purple; tr LS, chalky
10 in (ohmm)
30 in (ohmm)
90 in (ohmm)
Npor (%)
Dpor (%)
Xover (flag)


9550
9600
9650
9700
0 ROP (min/ft) 5
0 GAMMA (API) 200
0 Cores 10
SH, red, pale purple; tr LS, chalky wht,
LS, chalky wht; tr SH, red, pale purple
LS, chalky wht; SH, varieg red-purple
10 in (ohmm)
0.1 1 100 1000
30 in (ohmm)
0.1 1 100 1000
90 in (ohmm)
0.1 1 100 1000
0.3 Npor (%) -0.1
0.3 Dpor (%) -0.1
0.3 Xover (flag) -0.1
SH, varieg red-purple; tr /LS, chalky mxd in
SH, varieg, aa;
LS, grey, plty, mxd w/SH, varieg red-purple, aa
LS, crmy wht mottld dkgy; SH, varieg dk red-bri red-dkgy-purple
LS, wht-bluish gy; SH, dk red, dkgy, purple; tr anthracite coal, concoidal, non-calc
LS, wht mottled dkgy; SH, varieg red, dkgy, purple
LS, wht-dkgy; SH, varieg, aa


9750
9800
9850
9900
9950
0
ROP (min/ft)
5
0
GAMMA (API)
200
0
Cores
10
DTD 9900'
LTD 9900'
LS, wht-mottled gunmetal grey; tr SH, varieg red, dkgy, purple
MORROW @ 9767'
SH, varieg red, dkgy, purple, aa
SH, varieg lt salmon-orng-dk red-lt pink-dk blu gy-dk purple
SH, varieg red, dk-ltgy, dk purple-maroon
SS, clr trnsl, vf-fg, wsrt, sbang-rd, lse fri; SH, varieg dk red-lt red, purple, pale pink, dk bluish-gy; tr LS
SS, clr trnsl, vf-fg, wsrt, lse fri; SH, plty, varieg lt-dkgy-pink; tr SH, salmon orng red, slty; tr LS
SS, clr trnsl, vf-fg; sbrd-rd, wsrt, lse fri; SH, plty, lt-dkgy-pale pink, salmon orng red-dk red; tr LS,
SS, clr-trnsl, vf-fg-occ lcg, lse fri; SH, varieg lt-dkgy-pale pink-dk red, sft; tr LS, tr DOLO
SS, clr-trnsl, vf-fg-lcg, lse fri; SH, varieg dkgy-pale pink-dk red, sft; LS tr
MISSISSIPPIAN 9853'
LS, chalky wht, SH, varieg lt-dkgy-pale salmon orng-dk red-pale pink-dk purple-maroon
LS, chalky wht; SH, varieg salmon orng-pale pink, dk blugy-purple-maroon
LS, chalky wht; SH, varieg dkgy-purple-lt-dk salmon orng-red-maroon
LS, chalky wht; SH, varieg, aa
Reagan Ss @ 9882'
SS, clr-mlky qtz, vfg-vcg, p srt, sbrd-wrd, lse fri, abnt biotite mica
Precambrian @ 9904'
10 in (ohmm)
0.1
1
100
1000
30 in (ohmm)
0.1
1
100
1000
90 in (ohmm)
0.1
1
100
1000
CIRC BU @ 9900'(recovered SS, clr-mlky qtz, biotite mica in Reagan Ss)
0.3
Dper (%)
-0.1
0.3
Xover (flag)
-0.1

0	ROP (min/ft)	5	10000		10 in (ohmm)				0.3	Npor (%)	-0.1
0	GAMMA (API)	200		0.1	1	100	1000	0.3	Dpor (%)	-0.1
0	Cores	10			30 in (ohmm)			0.3	Xover (flag)	-0.1
				0.1	1	100	1000			
					90 in (ohmm)					
				0.1	1	100	1000			
			10050							
			10100							
			10150							

200