

DATE 01/28/2013
FT/24HRS 0'

WOB 11.7K
PP 3057
RPM 85
SPM 66/66

MD 2501 TVD 2477.64
INC 15.23 AZ 359.45
VS 44.11

MD 2596 TVD 2568.87
INC 17.16 AZ 3.17
VS 50.33

MD 2691 TVD 2660.19
INC 14.84 AZ 1.63
VS 56.94

ROP (Ft/Hr)
Gamma (API)

PIERRE
CAME IN BEFORE LOGGING
DEPTH

2500' MD-2600' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, FREE
PYR, INTGR POR, NO STN, NO MIN
FLOR, NO O FLOR, NO CUT, NO
RNG

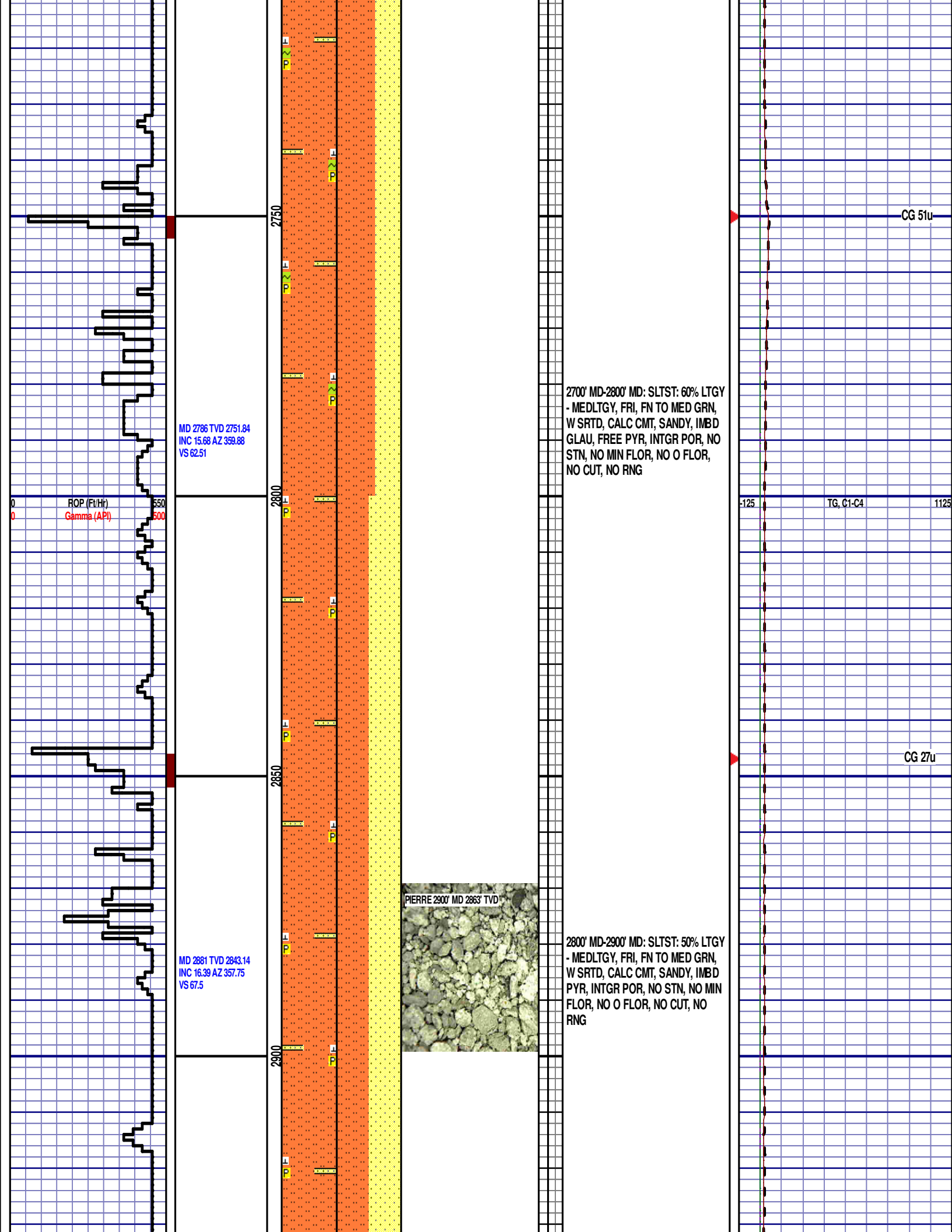
2600' MD-2700' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, IMBD
GLAU, FREE PYR, INTGR POR, NO
STN, NO MIN FLOR, NO O FLOR,
NO CUT, NO RNG

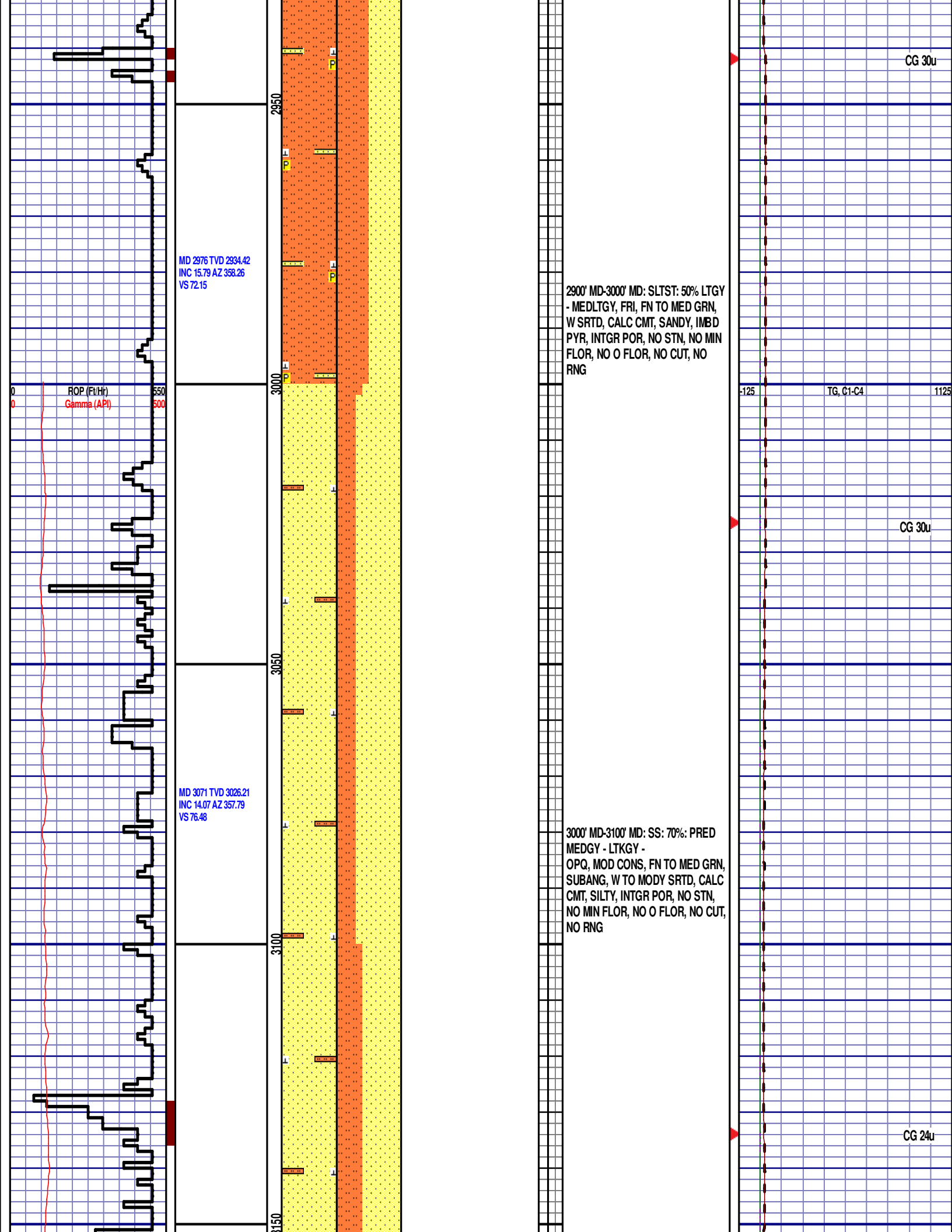
DEPTH 977'
WT 8.65
VIS 27
PH 7.9
FIL 14
CL 1900
CAL 160
H2O 98.5
OIL 0.0
LGS .01
GEL 3/3/4
PV 3
YP 3
CK 1/0
SOL 1.2

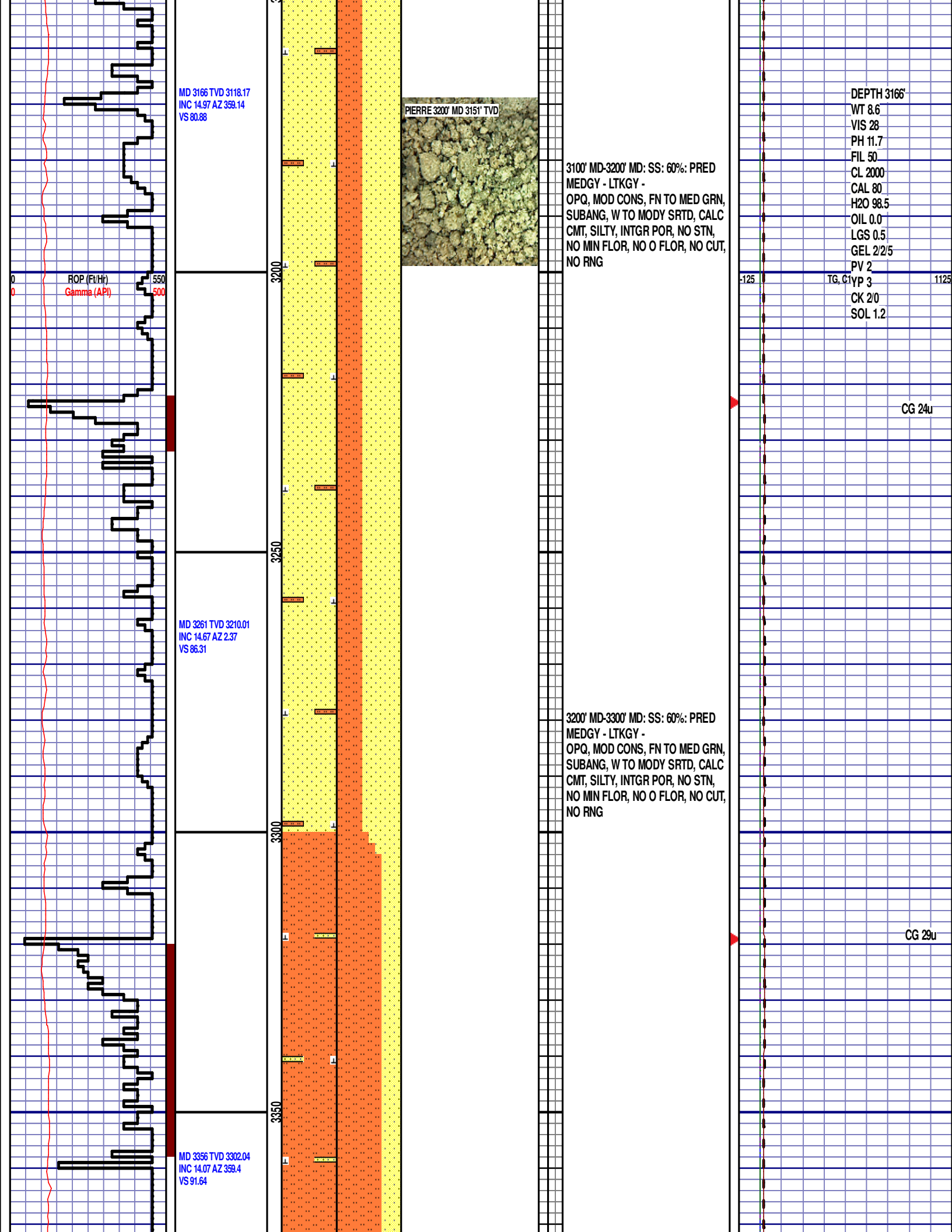
CG 46u

TG, C1-C4

CG 30u







MD 3166 TVD 3118.17
INC 14.97 AZ 359.14
VS 80.88

ROP (ft/hr)
Gamma (API)

MD 3261 TVD 3210.01
INC 14.67 AZ 2.37
VS 86.31

MD 3356 TVD 3302.04
INC 14.07 AZ 359.4
VS 91.64

PIERRE 3200' MD 3151' TVD

3100' MD-3200' MD: SS: 60%: PRED
MEDGY - LTKGY -
OPQ, MOD CONS, FN TO MED GRN,
SUBANG, W TO MODY SRTD, CALC
CMT, SILTY, INTGR POR, NO STN,
NO MIN FLOR, NO O FLOR, NO CUT,
NO RNG

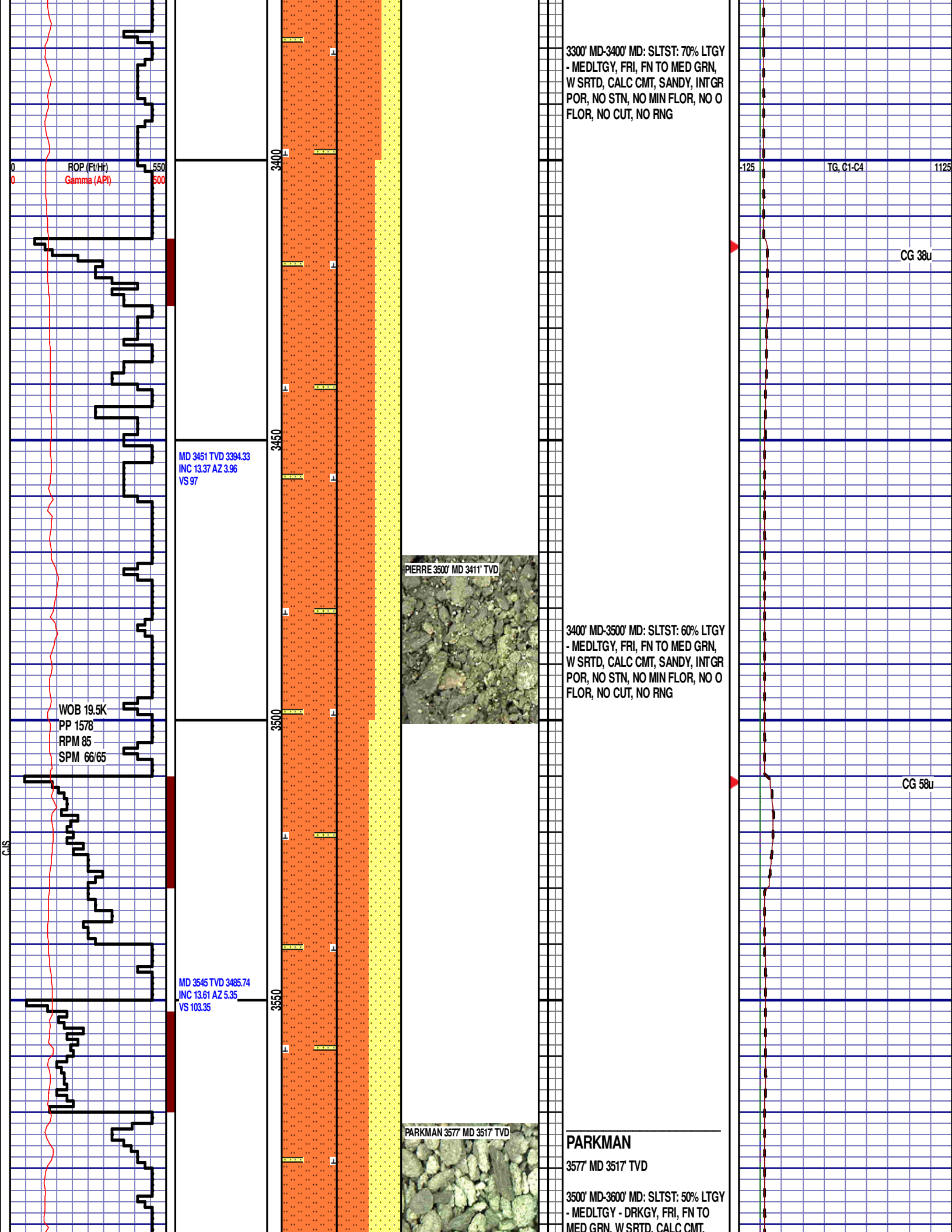
3200' MD-3300' MD: SS: 60%: PRED
MEDGY - LTKGY -
OPQ, MOD CONS, FN TO MED GRN,
SUBANG, W TO MODY SRTD, CALC
CMT, SILTY, INTGR POR, NO STN,
NO MIN FLOR, NO O FLOR, NO CUT,
NO RNG

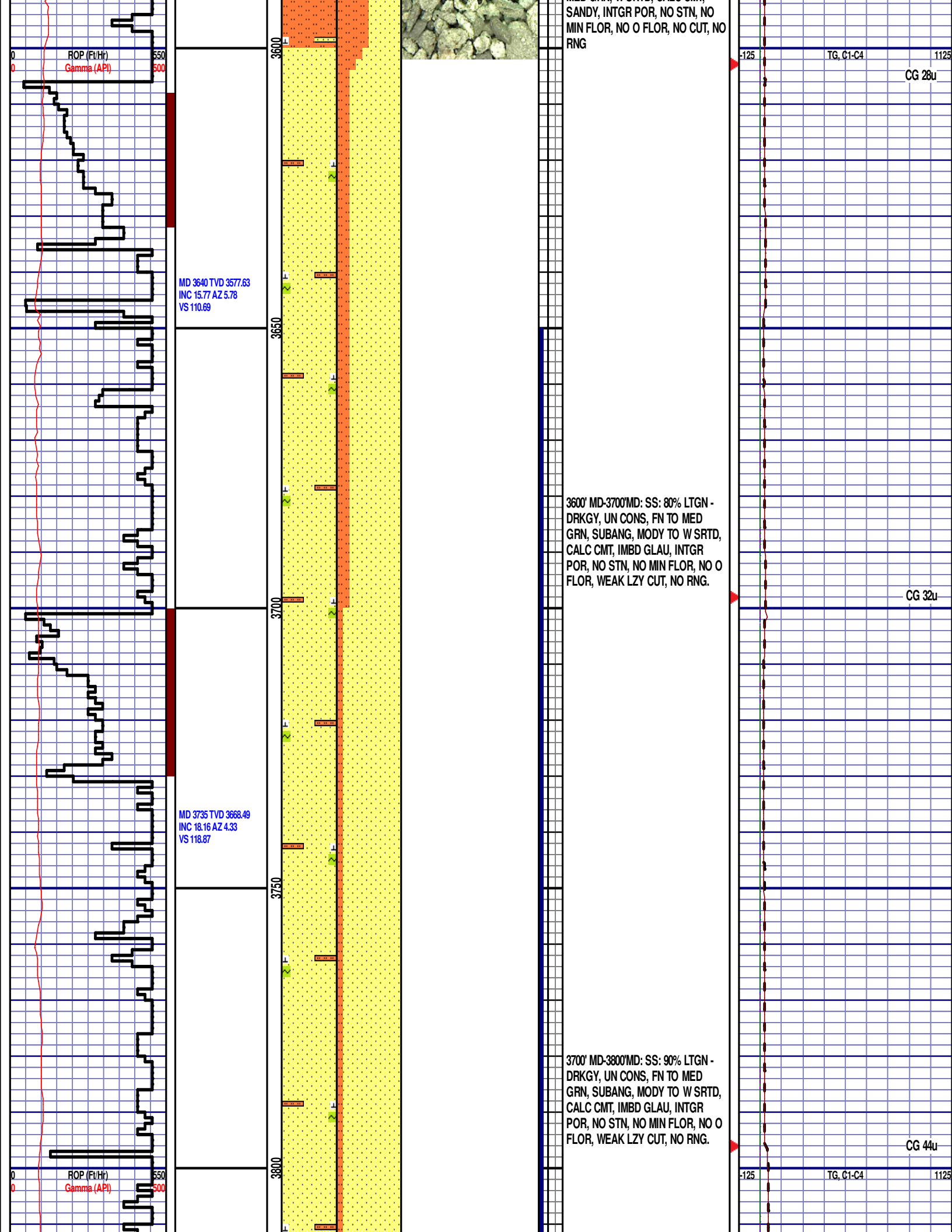
DEPTH 3166'

WT 8.6
VIS 28
PH 11.7
FIL 50
CL 2000
CAL 80
H2O 98.5
OIL 0.0
LGS 0.5
GEL 2/2/5
PV 2
TG, C1yp 3
CK 2/0
SOL 1.2

CG 24u

CG 29u





MD 3830 TVD 3758.37
INC 19.61 AZ 4.02
VS 127.51

3850

3900

MD 3925 TVD 3847.23
INC 21.8 AZ 4.51
VS 137.01

3950

4000

MD 4020 TVD 3935.94
INC 20.15 AZ 0.85
VS 145.76

EQUIPMENT
MALFUNCTION
FROM 3909' MD TO
3966' MD



PARKMAN 3900' MD 3824' TVD

3800' MD-3900' MD: SS: 90% LTGN -
DRKGY, UN CONS, FN TO MED
GRN, SUBANG, MODY TO W SRTD,
CALC CMT, IMBD GLAU, INTGR
POR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZY CUT, NO RNG.

CG 40u

EQUIPMENT
MALFUNCTION
FROM 3909' MD TO
3966' MD

3900' MD-4000' MD: SS: 90% LTGN -
DRKGY, UN CONS, FN TO MED
GRN, SUBANG, MODY TO W SRTD,
CALC CMT, IMBD GLAU, INTGR
POR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZY CUT, NO RNG.

CG 51u

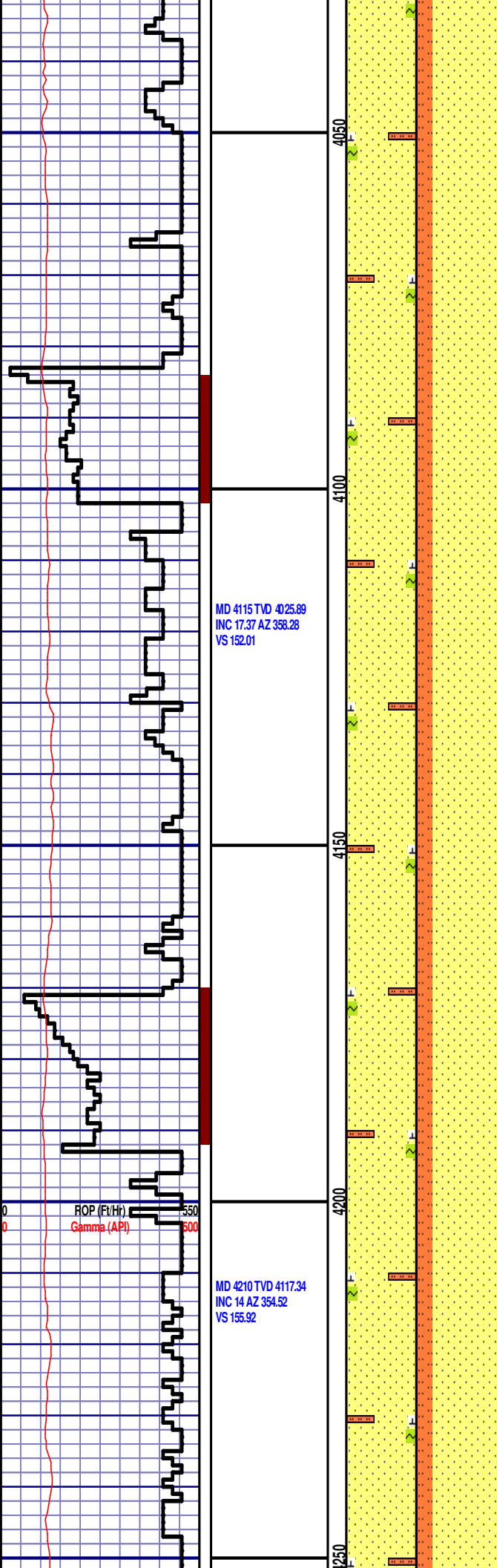
ROP (Ft/Hr)
Gamma (API)

550
500

-125

TG, C1-C4

1125



MD 4115 TVD 4025.89
INC 17.37 AZ 358.28
VS 152.01

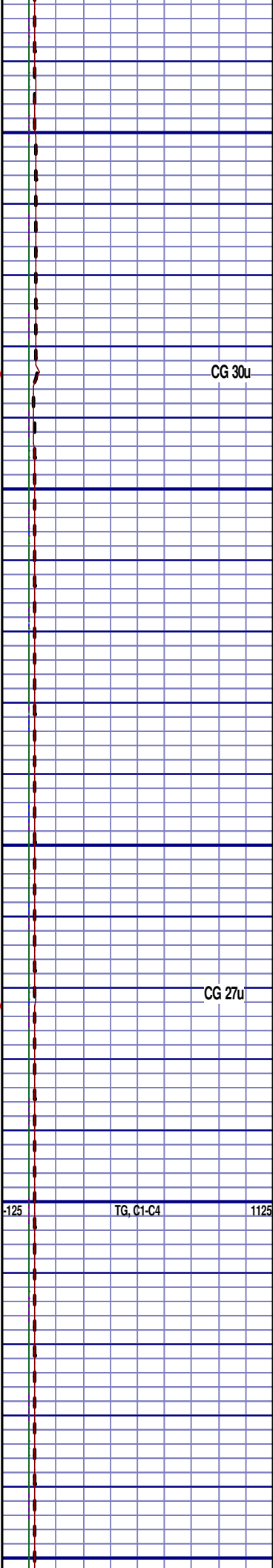
MD 4210 TVD 4117.34
INC 14 AZ 354.52
VS 155.92



4000' MD-4100' MD: SS: 80% LTGN -
DRKGY, MOD CONS, FN TO MED
GRN, SUBANG, MODY TO W SRTD,
CALC CMT, IMBD GLAU, INTGR
POR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZY CUT, NO RNG.

SUSSEX
4128' MD 4038' TVD

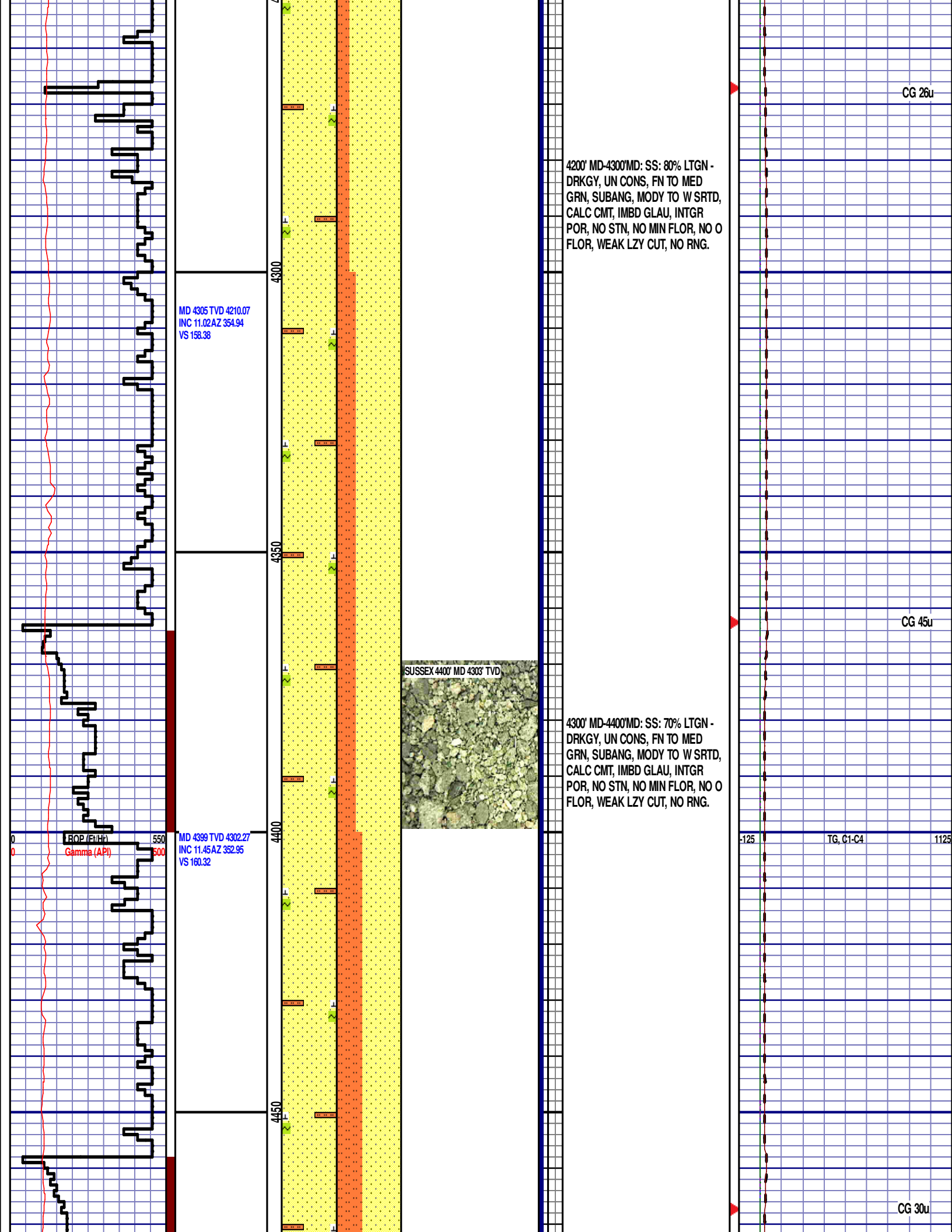
4100' MD-4200' MD: SS: 80% LTGN -
DRKGY, UN CONS, FN TO MED
GRN, SUBANG, MODY TO W SRTD,
CALC CMT, IMBD GLAU, INTGR
POR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZY CUT, NO RNG.



CG 30u

CG 27u

TG, C1-C4



CG 26u

4200' MD-4300' MD: SS: 80% LTGN - DRKGY, UN CONS, FN TO MED GRN, SUBANG, MODY TO W SRTD, CALC CMT, IMBD GLAU, INTGR POR, NO STN, NO MIN FLOR, NO O FLOR, WEAK LZY CUT, NO RNG.

MD 4305 TVD 4210.07
INC 11.02 AZ 354.94
VS 158.38

CG 45u



4300' MD-4400' MD: SS: 70% LTGN - DRKGY, UN CONS, FN TO MED GRN, SUBANG, MODY TO W SRTD, CALC CMT, IMBD GLAU, INTGR POR, NO STN, NO MIN FLOR, NO O FLOR, WEAK LZY CUT, NO RNG.

MD 4399 TVD 4302.27
INC 11.45 AZ 352.95
VS 160.32

ROP (ft/hr)
Gamma (API)

1125 TG, C1-C4 1125

CG 30u

MD 4494 TVD 4395.12
INC 12.93 AZ 353.25
VS 162.16

MD 4589 TVD 4488.1
INC 10.78 AZ 347.79
VS 163.15

ROP (Ft/Hr)
Gamma (API)

MD 4684 TVD 4581.7
INC 8.94 AZ 358.68
VS 164.53

4400' MD-4500' MD: SS: 60% LTGN -
DRKGY, UN CONS, FN TO MED
GRN, SUBANG, MODY TO W SRTD,
CALC CMT, IMBD GLAU, INTGR
POR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZY CUT, NO RNG.

4500' MD-4600' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, FREE
PYR, INTGR POR, NO STN, NO MIN
FLOR, NO O FLOR, WEAK LZY CUT,
NO RNG

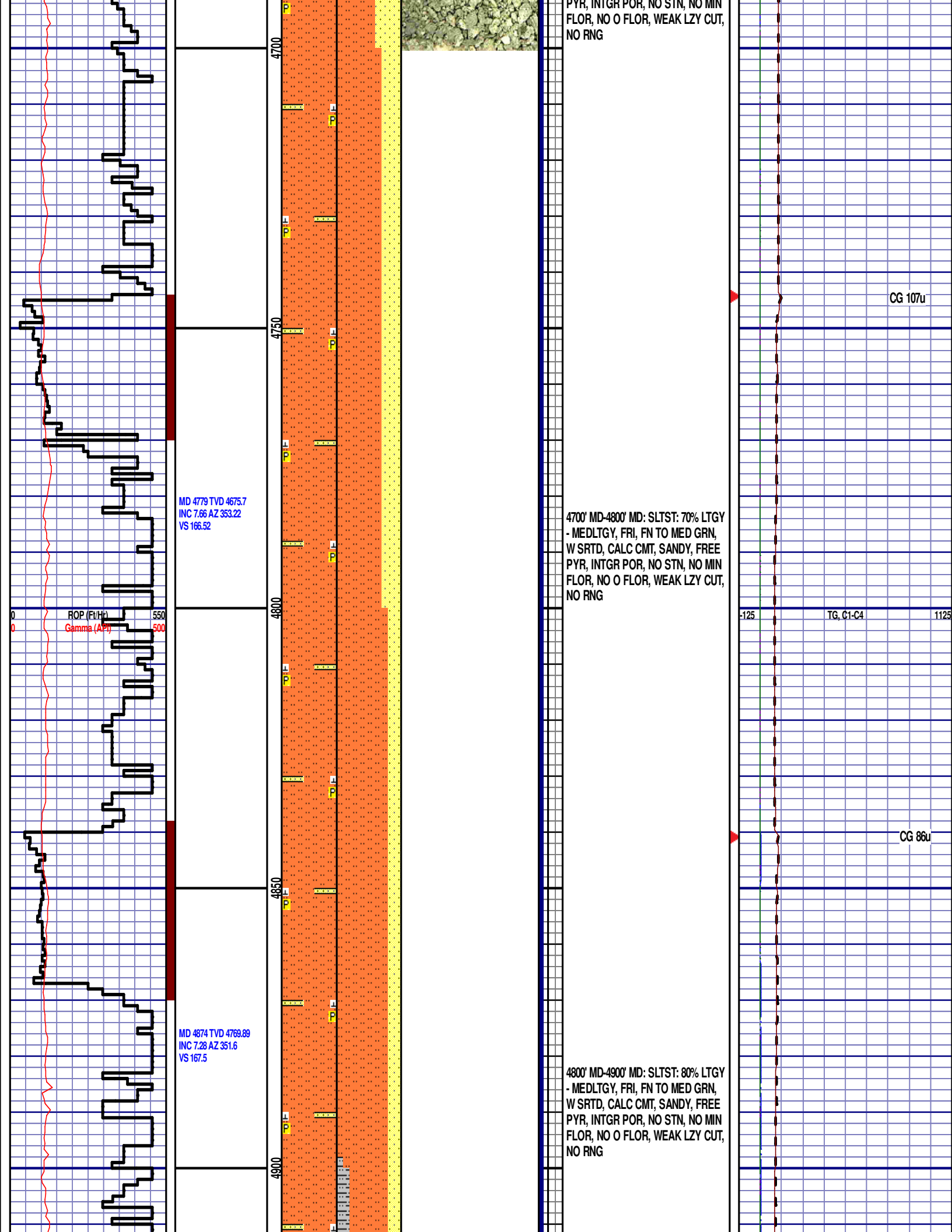
SUSSEX 4700' MD 4597' TVD

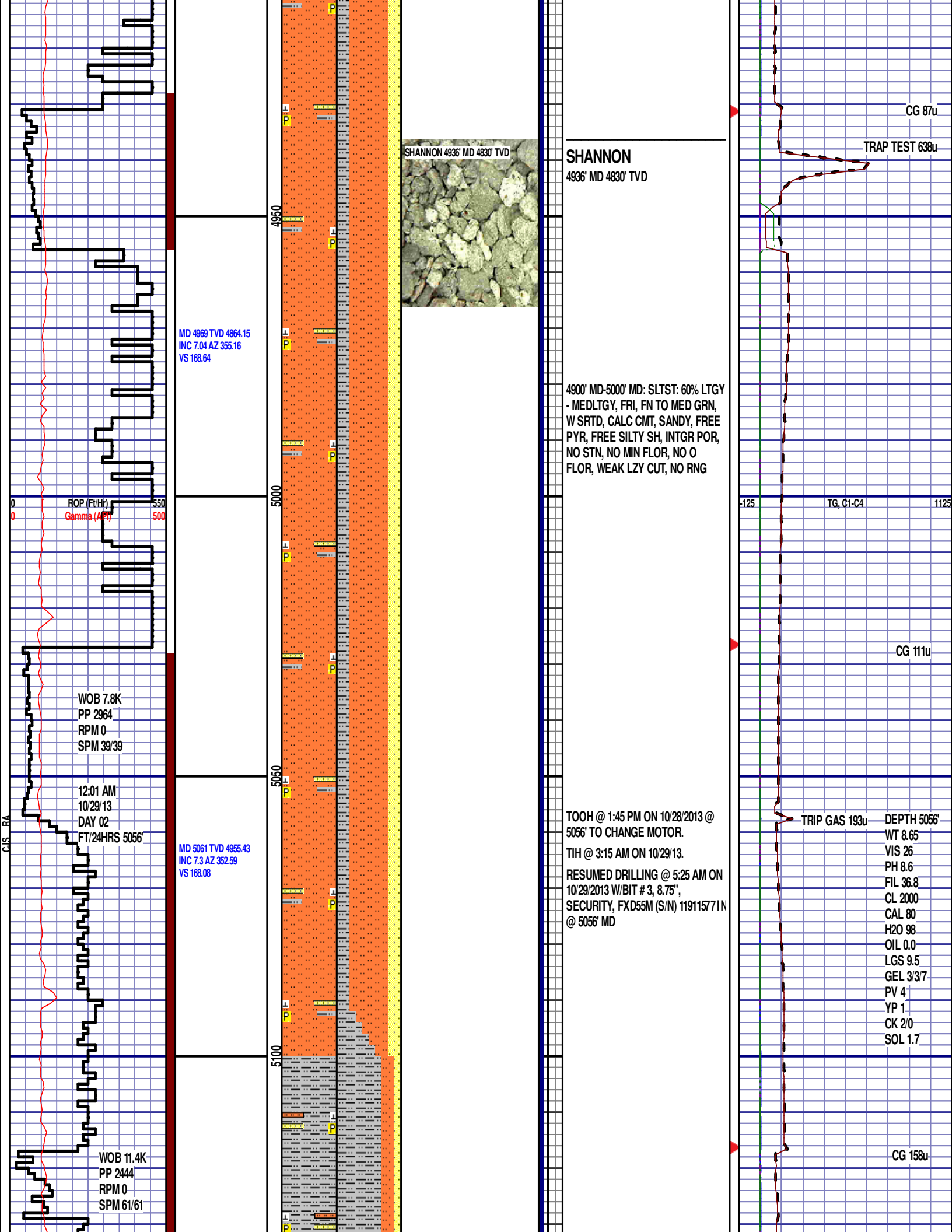
4600' MD-4700' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, FREE
PYR, INTGR POR, NO STN, NO MIN
FLOR, NO O FLOR, WEAK LZY CUT,
NO RNG

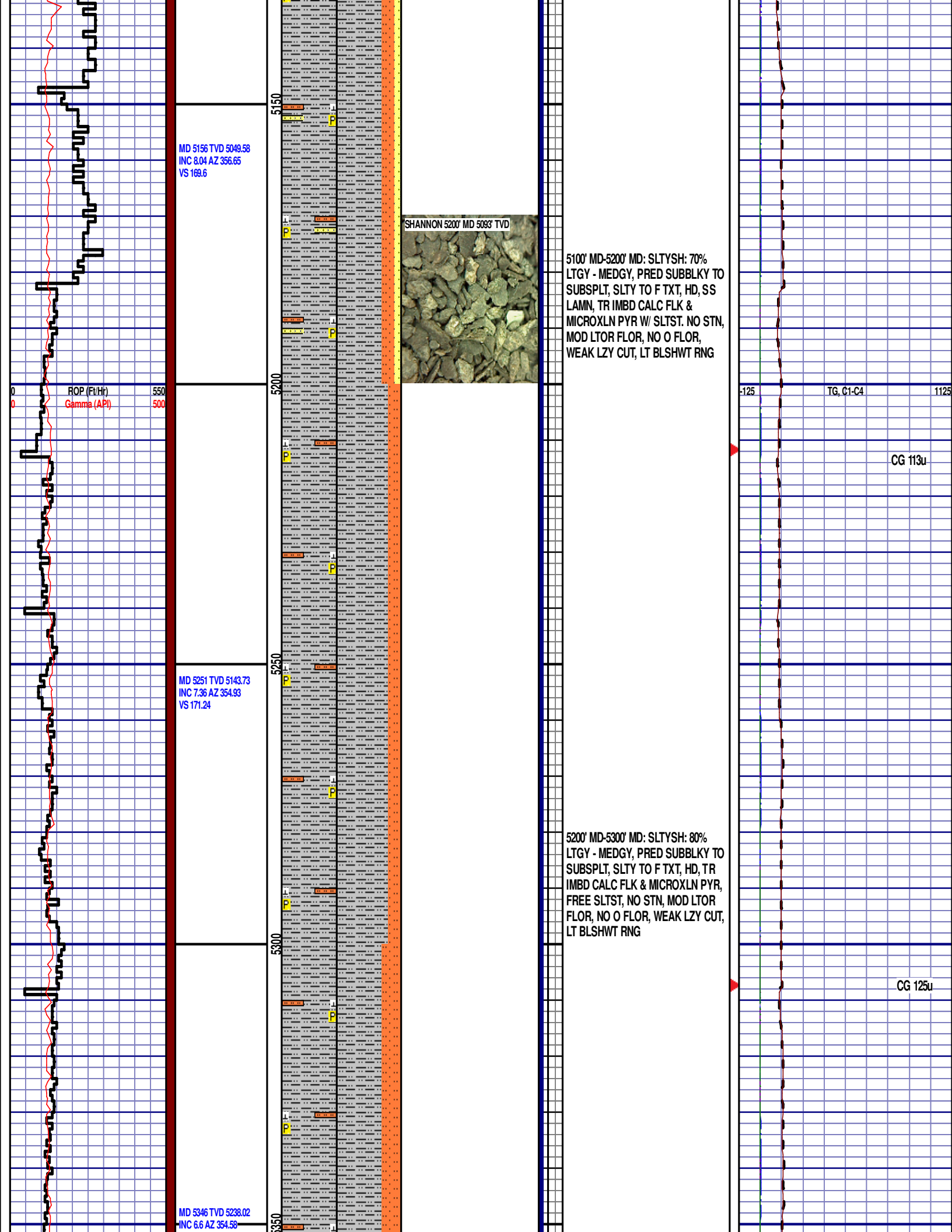
CG 26u

TG, C1-C4

CG 480u







MD 5156 TVD 5049.58
INC 8.04 AZ 356.65
VS 169.6

SHANNON 5200' MD 5093' TVD

5100' MD-5200' MD: SLTYSH: 70%
LTGY - MEDGY, PRED SUBBLKY TO
SUBSPLT, SLTY TO F TXT, HD, SS
LAMN, TR IMBD CALC FLK &
MICROXLN PYR W/ SLTST. NO STN,
MOD LTOR FLOR, NO O FLOR,
WEAK LZY CUT, LT BLSHWT RNG

ROP (Ft/Hr)
Gamma (API)

550
500

MD 5251 TVD 5143.73
INC 7.36 AZ 354.93
VS 171.24

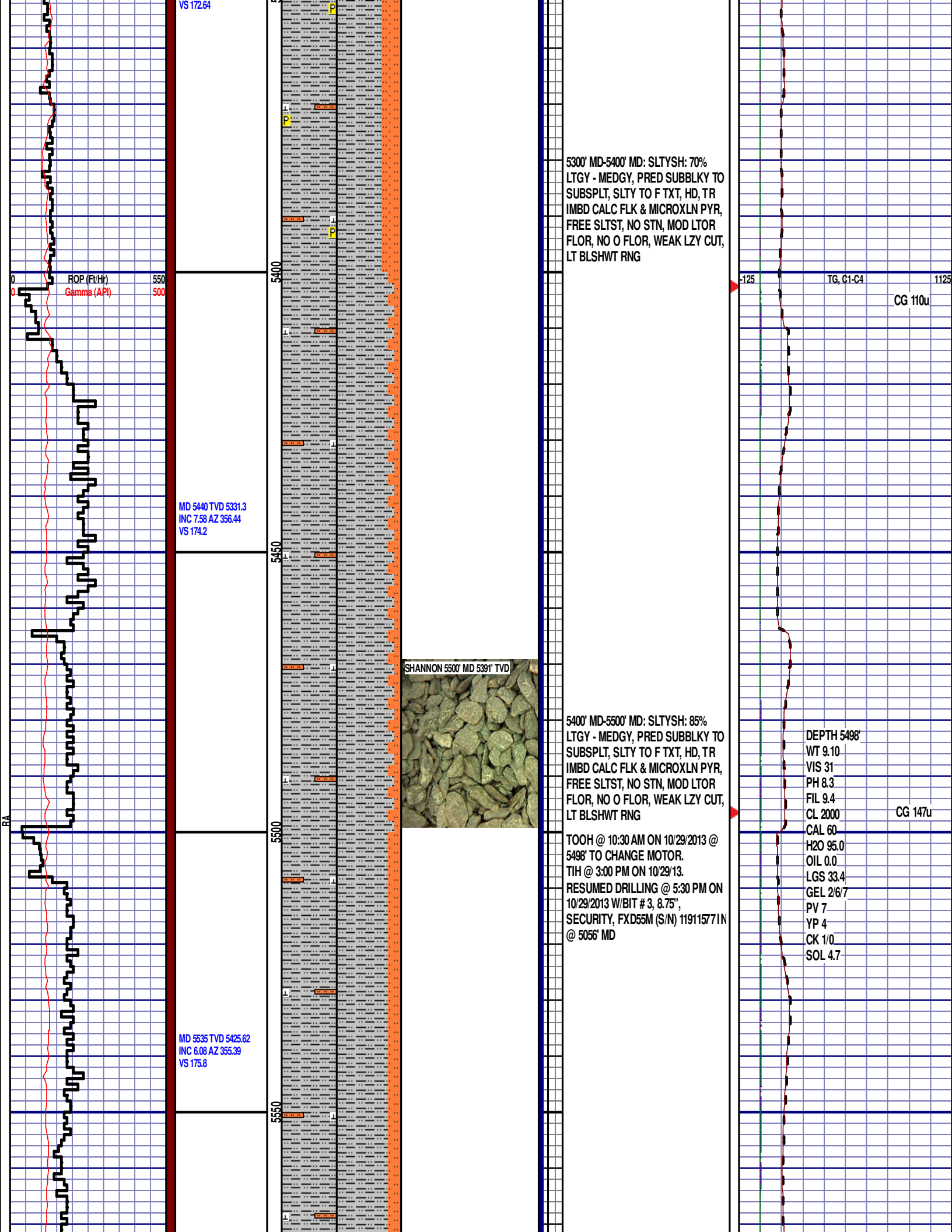
5200' MD-5300' MD: SLTYSH: 80%
LTGY - MEDGY, PRED SUBBLKY TO
SUBSPLT, SLTY TO F TXT, HD, TR
IMBD CALC FLK & MICROXLN PYR,
FREE SLTST, NO STN, MOD LTOR
FLOR, NO O FLOR, WEAK LZY CUT,
LT BLSHWT RNG

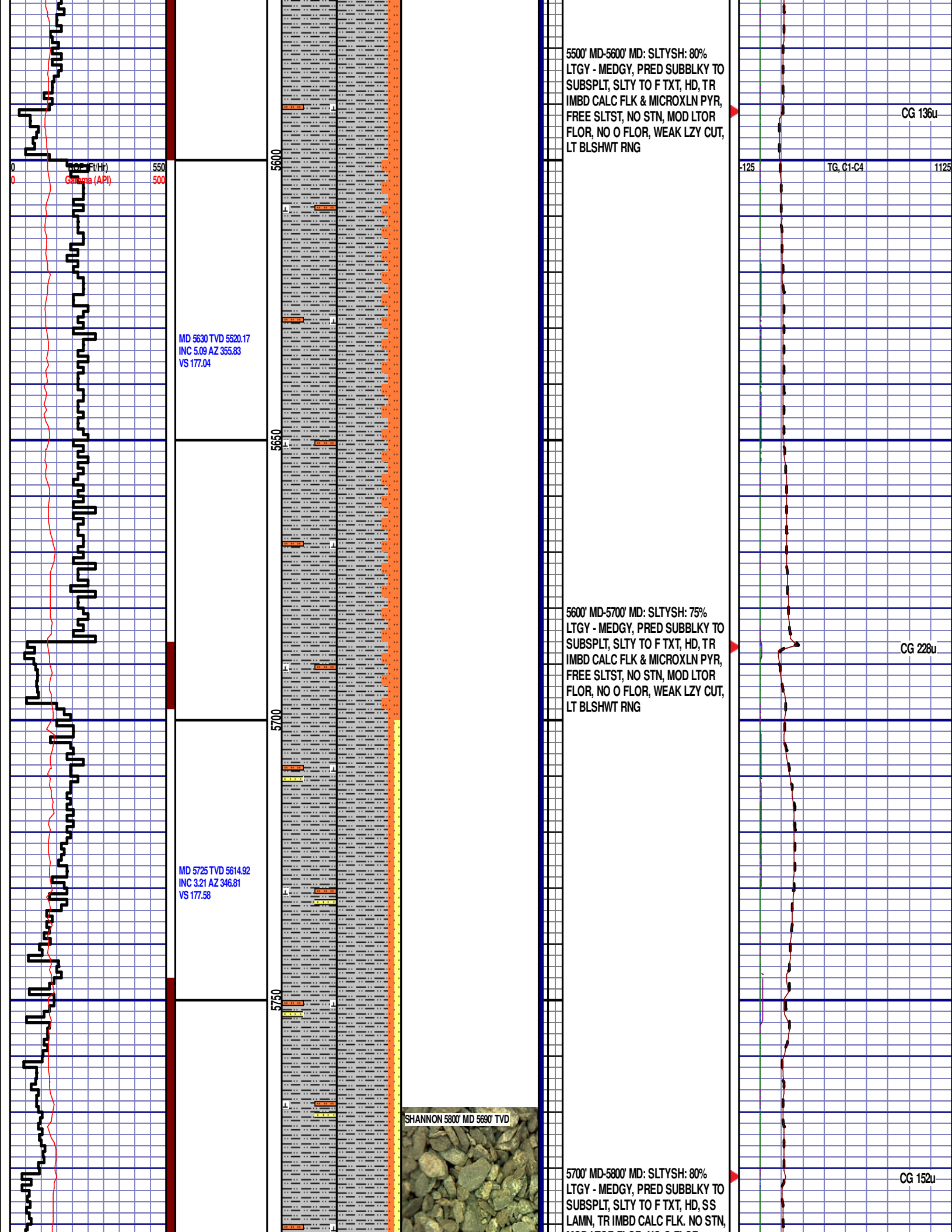
MD 5346 TVD 5238.02
INC 6.6 AZ 354.58

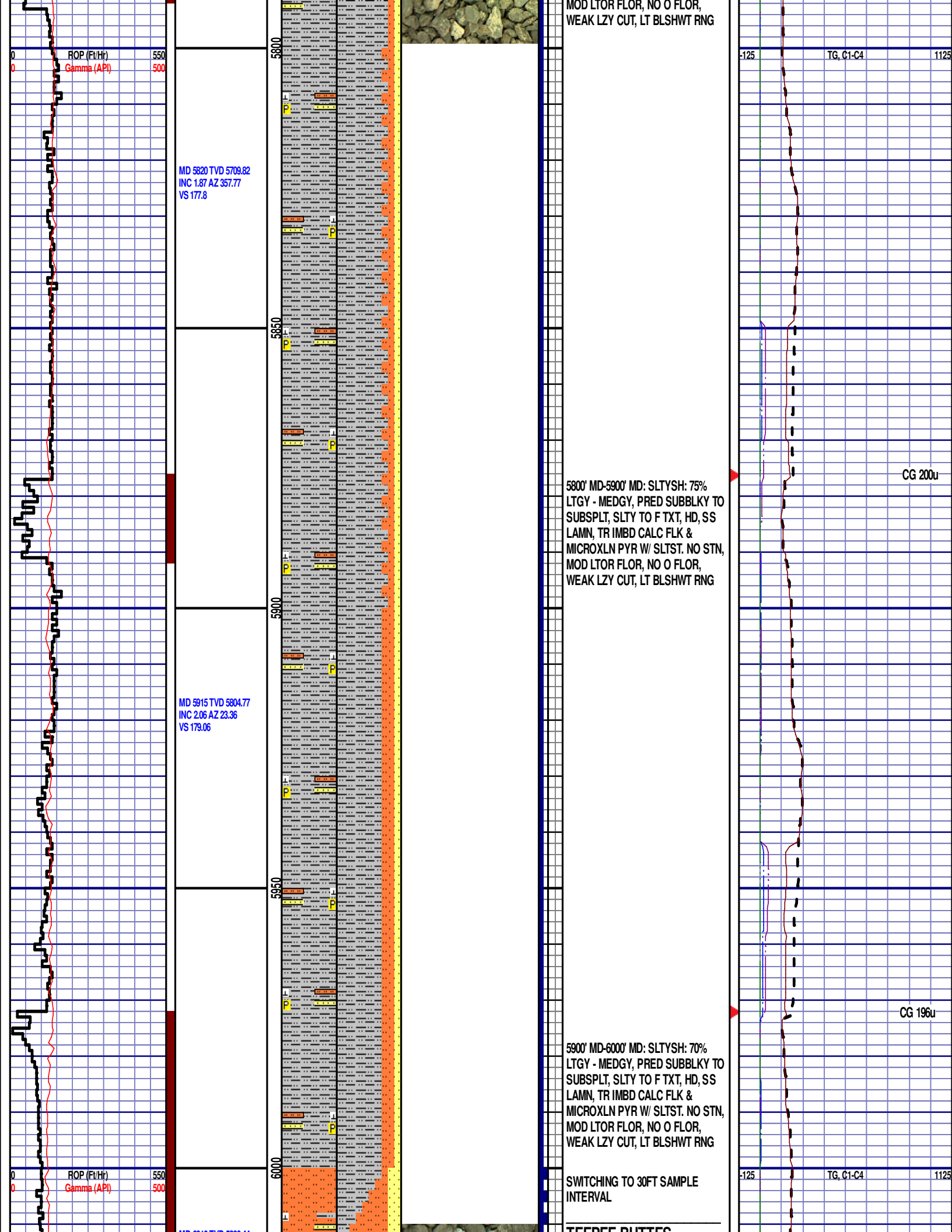
TG, C1-C4

CG 113u

CG 125u







MD 6010 TVD 5889.44
INC 7.54 AZ 82.73
VS 186.27

MD 6057 TVD 5945.6
INC 13.79 AZ 87.85
VS 194.87

MD 6105 TVD 5991.96
INC 16.26 AZ 90.01
VS 207.07

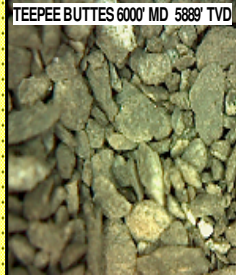
MD 6152 TVD 6036.78
INC 18.74 AZ 90.13
VS 220.88

MD 6200 TVD 6081.97
INC 20.65 AZ 91.37
VS 236.65

12:01 AM
10/30/13
DAY 03
FT/24HRS 1020'

WOB 16.9K
PP 2957
RPM 7
SPM 61/61

ROP (Ft/Hr)
Gamma (API)



TEEPEE BUTTES

6000' MD 5889' TVD

6000' MD-6030' MD: SLTST: 60%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, SLOW LZ Y STRM, LT BRIYL
RNG

6030' MD-6060' MD: SLTST: 60%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, SLOW LZ Y STRM, LT BRIYL
RNG

6060' MD-6090' MD: SLTST: 70%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, SLOW LZ Y STRM, LT BRIYL
RNG

6090' MD-6120' MD: SLTST: 70%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, SLOW LZ Y STRM, LT BRIYL
RNG

6120' MD-6150' MD: SLTST: 65%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, SLOW LZ Y STRM, LT BRIYL
RNG

6150' MD-6180' MD: SLTST: 70%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, INTGR POR, NO STN, NO
FLOR, NO O FLOR, SLOW LZ Y
STRM, LT BRIYL RNG

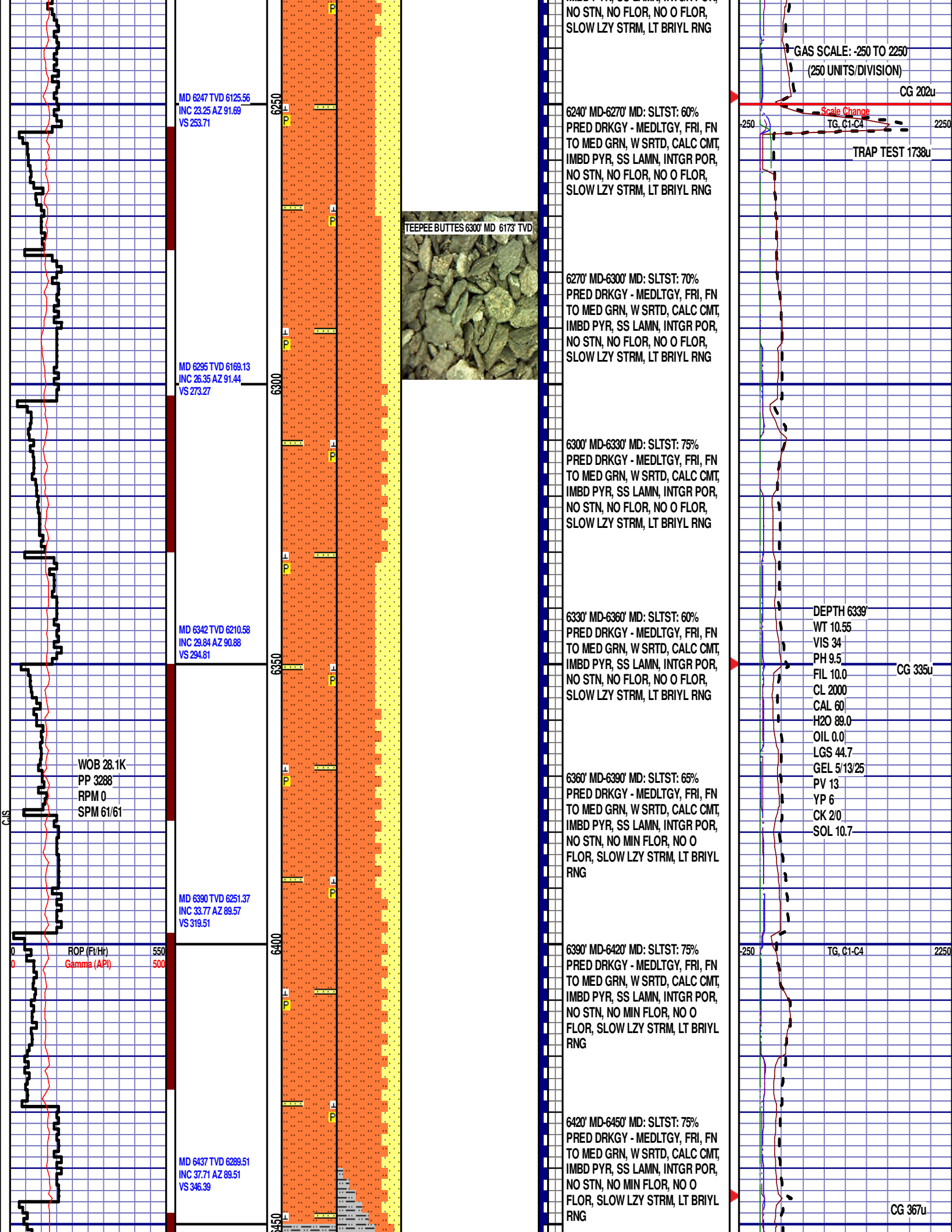
6180' MD-6210' MD: SLTST: 70%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
SANDY, INTGR POR, NO STN, NO
FLOR, NO O FLOR, SLOW LZ Y
STRM, LT BRIYL RNG

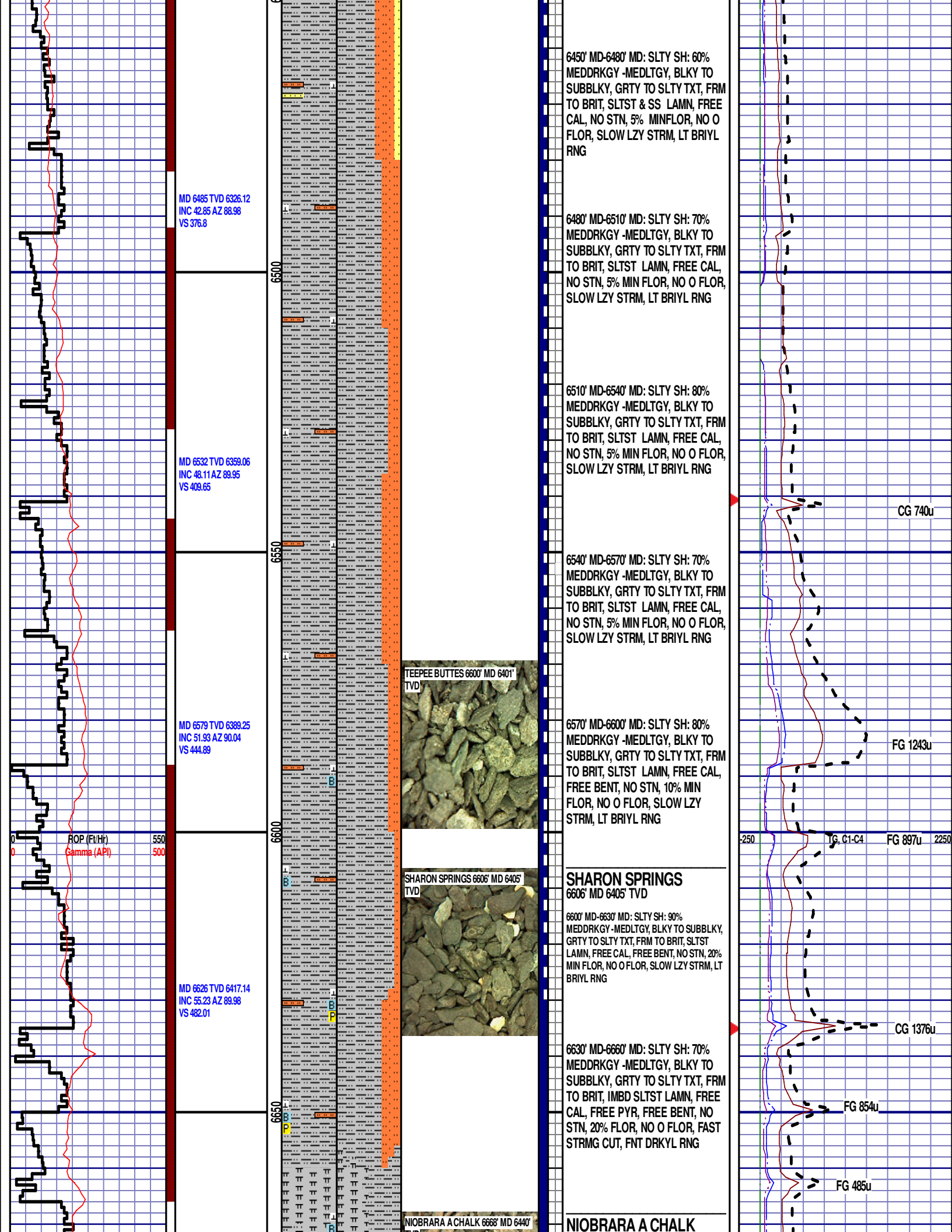
6210' MD-6240' MD: SLTST: 65%
PRED DRKGY - MEDLTGY, FRI, FN
TO MED GRN, W SRTD, CALC CMT,
IMBD PYR. SS LAMN. INTGR POR.

CG 186u

CG 245u

-125 TG, C1-C4 1125





MD 6674 TVD 6443.28
INC 58.77 AZ 90.07
VS 521.35

MD 6721 TVD 6466.04
INC 63.28 AZ 88.87
VS 561.61

6700

6750

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6700

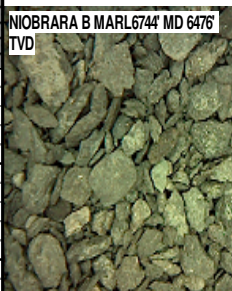
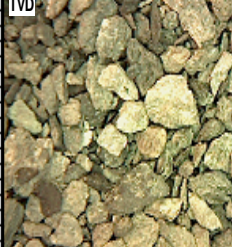
6750

00

6700

6750

00



NIOBRARA B MARL 6744' MD 6476'
TVD

6668' MD 6440' TVD
6660' MD-6690' MD:MRL: 45% MEDDRKG -
DRKG,
BLKY TO SUBBLKY, FXLN TO
CHLKY, FRM TO FRI, CHK FRMWRK, IMBD
CAL, FREE PYR, FREE BENT, FREE SLTYSH,,
TT - PP POR, NO STN, 25% LTOR MIN FLOR,
FNT BLSHWT O FLOR, IMMED STRMG CUT

6690' MD-6720' MD: CHK: 55% V/LTGY
- MEDGY -DRKG, BLKY TO
SUBBLKY, IMBD PYRC SPEC, FREE
BENT, OCC FREE CAL, FREE SH,
TRC GYSHBLK STN, 10% LTOR MIN
FLOR, FNT BLSHWT O FLOR,
IMMED STRMG CUT

6720' MD-6750' MD: CHK: 60% V/LTGY -
MEDGY -DRKG, BLKY TO SUBBLKY, IMBD
PYRC SPEC, OCC FREE CAL, FREE SH, TRC
GYSHBLK STN, 5% LTOR MIN FLOR, FNT
BLSHWT O FLOR, IMMED STRMG CUT

NIOBRARA B MARL
6744' MD 6476' TVD

END OF VERTICAL LOG @ 6750' MD
ON 10/30/2013, CONTINUED ON
HORIZONTAL LOG

