



7136 South Yale Avenue, Suite 414

Tulsa, Oklahoma 74136-6378

phone 918.925.9739

fax 866.534.4559

WWW.HZMUD.COM

Customer Information

Operator: Noble Energy Inc
1625 Broadway
Suite 2200
Denver, Colorado 80202

Geologist: Cassidy Miller
Noble Energy Inc

Mud Logging Details

Logger: Andrew Christiano & Ryan Bless
Log Interval: 2500' MD to 6900' MD
Start Date: October 6, 2012
Release Date: October 12, 2012

Well Information

Well Name: Wells Ranch AE08-67-1HNR

Location: 8-6N-62W
1523' FNL, 273' FWL

County: Weld
State: Colorado

Drilling Rig: H&P 321
Total Depth: 11148' MD
TD Date: October 12, 2012
Formation: Niobrara
KB Elevation: 5017'
GR Elevation: 4987'
API Number: 05-123-35641

ROCK TYPES

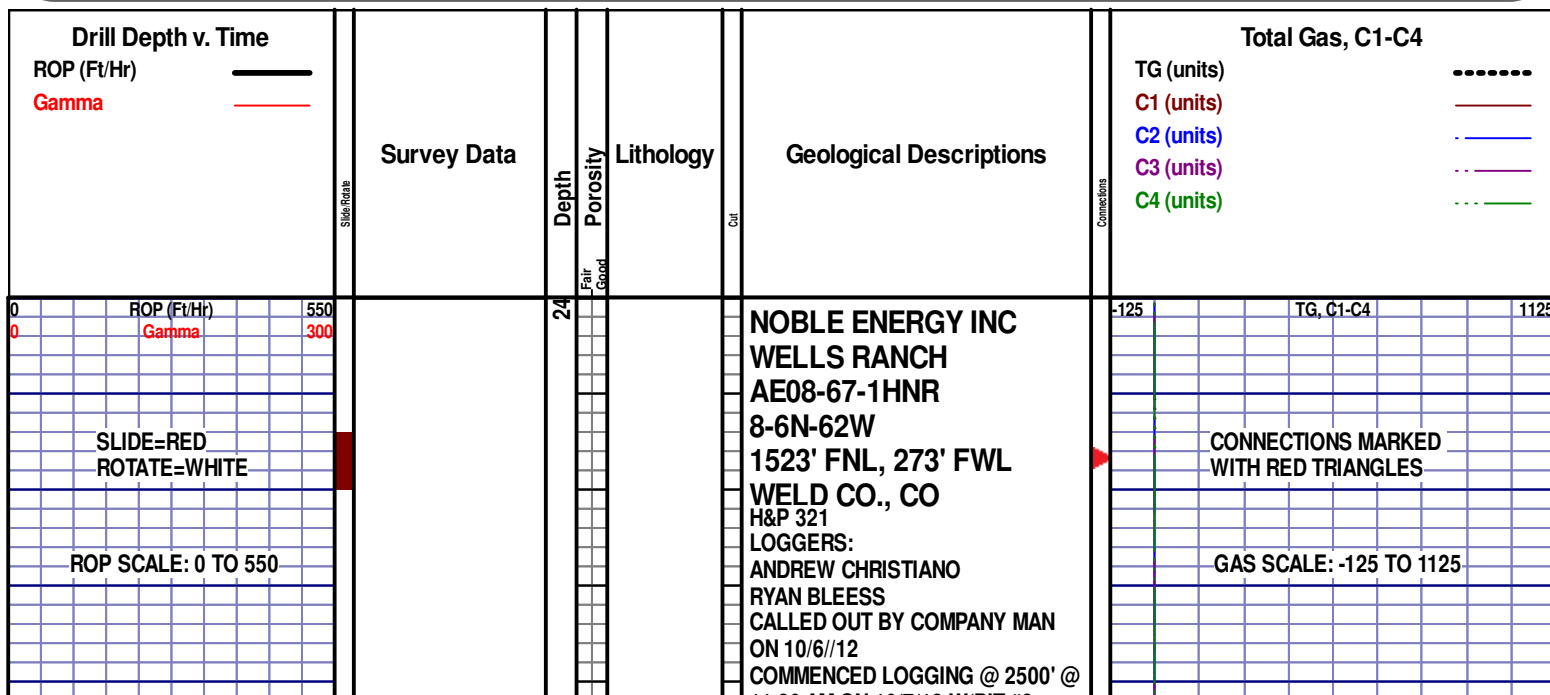
Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal
 Congl

Dol
 Gyp
 Igne
 Chk
 Lmst
 Meta
 Mrlst

Salt
 Shale
 Shcol
 Shgy
 Slstst
 Ss
 Till

gw
 lmywash
 ogw
 olmywash
 oshly gw
 shly gw
 sdygw

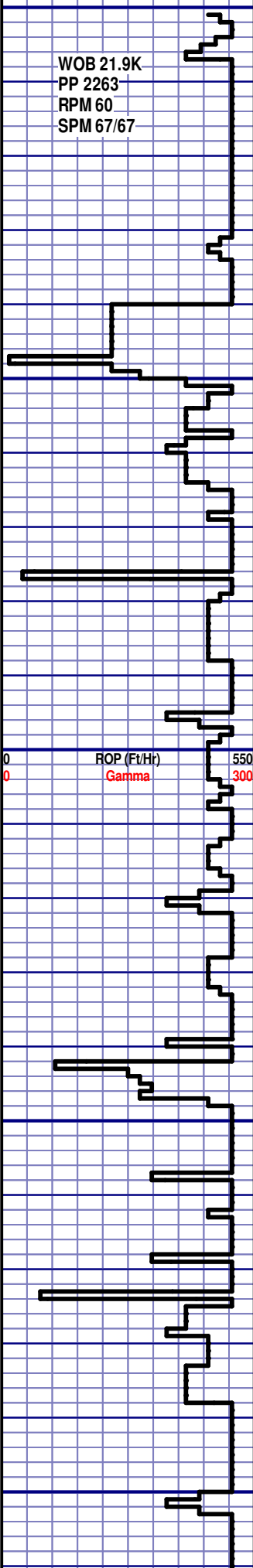
hvycrbsh
 NO SMPL
 Lsdetrst
 sltst
 sdy sh
 Cement



11:30 AM ON 10/7/12 W/BIT #2
8.75" SMITH MDI516 IN @ 815' MD

GAMMA SCALE: 0 TO 300

WOB 21.9K
PP 2263
RPM 60
SPM 67/67



ROP (Ft/Hr)
Gamma

MD 2589 TVD 2588.57
Az 235.91° Inc 4.72°
VS -6.65

MD 2684 TVD 2683.16
Az 250.42° Inc 6.06°
VS -14.61

2500
2550
2600
2650
2700

SILTSTN; 80%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 80%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 80%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

PIERRE
2650' MD 2649' TVD

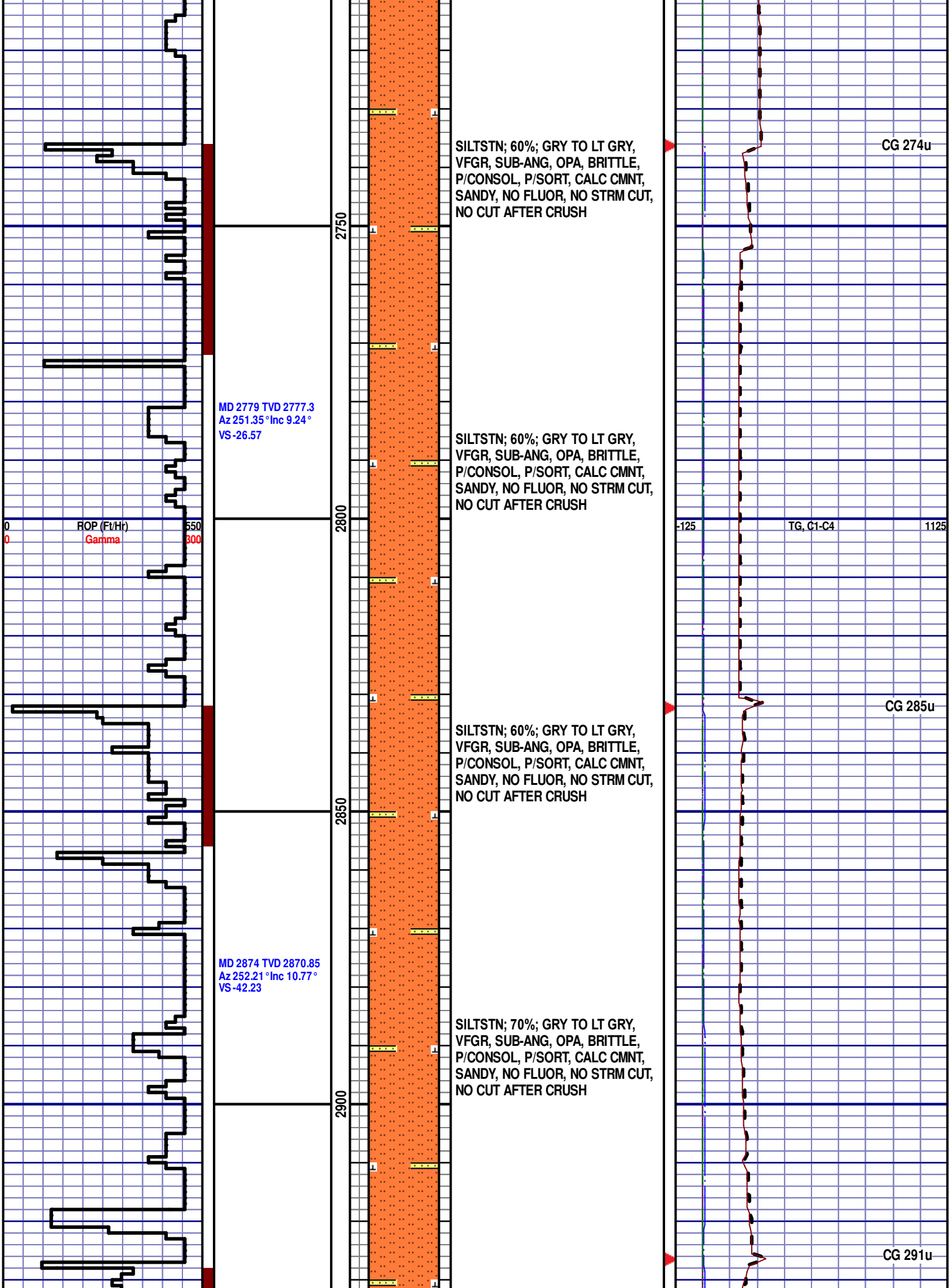
SILTSTN; 70%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

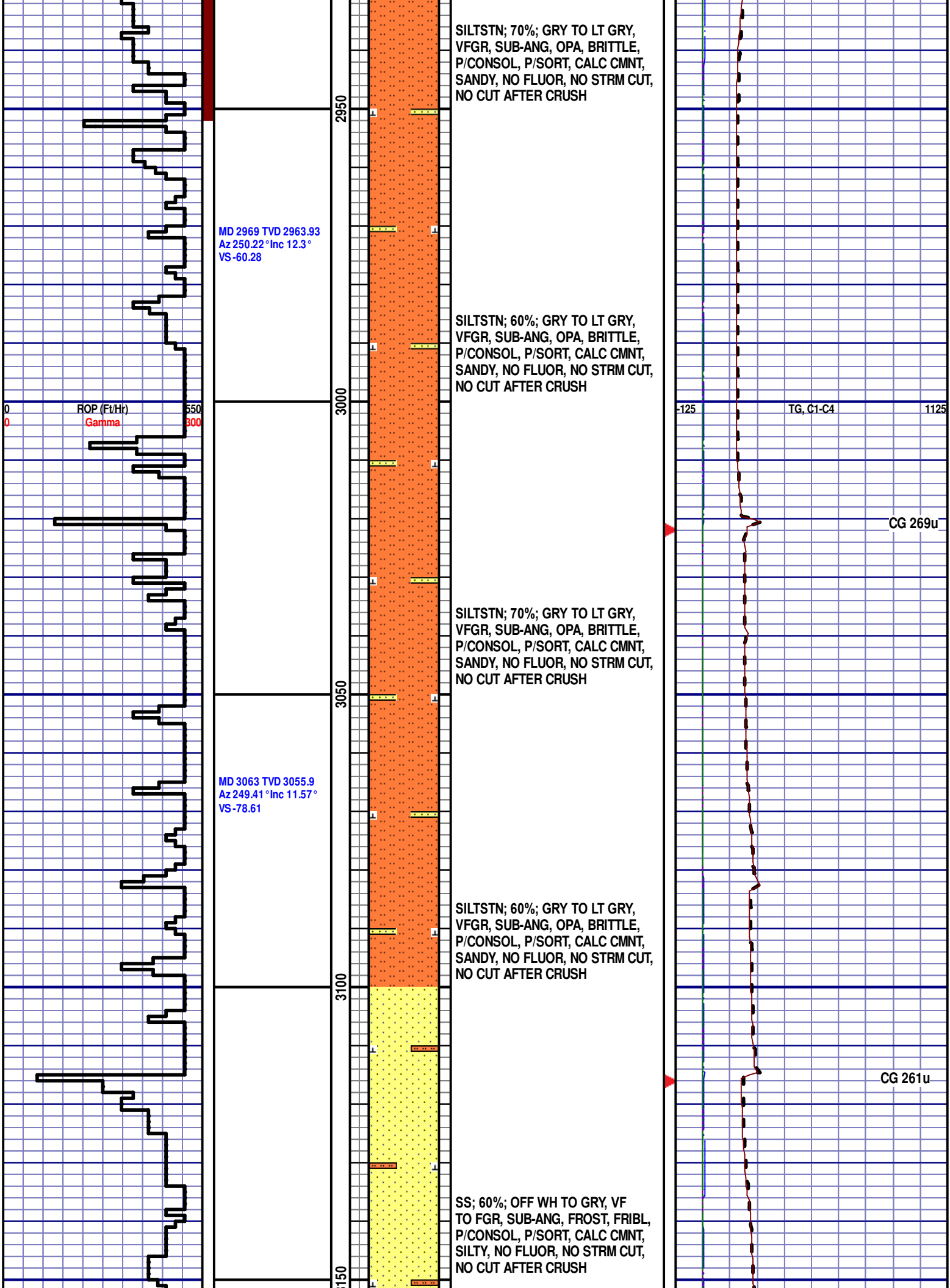
DRILLING ON WBM

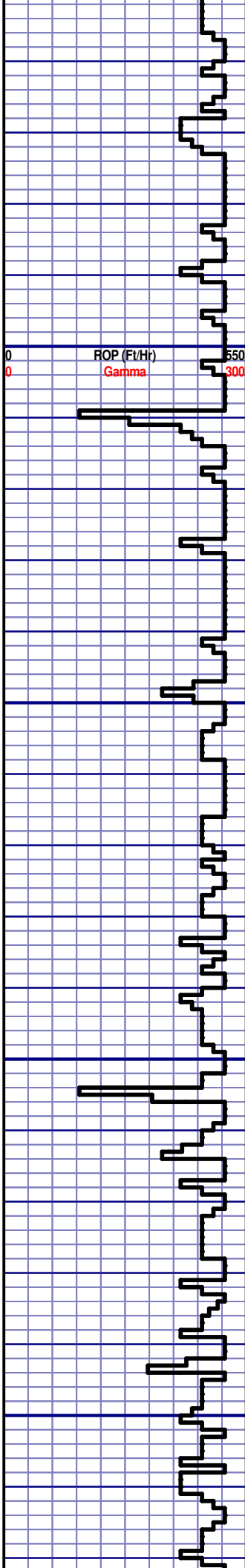
MD 815
WT 8.4
VIS 28
PH 9.0
FIL 25
CL 1900
CAL 80
H2O 99.4
OIL 0
SOL 1.3
GELS 1/2/2
PV 2
YP 2
CG 248u

-125 TG, C1-C4 1125

CG 264u



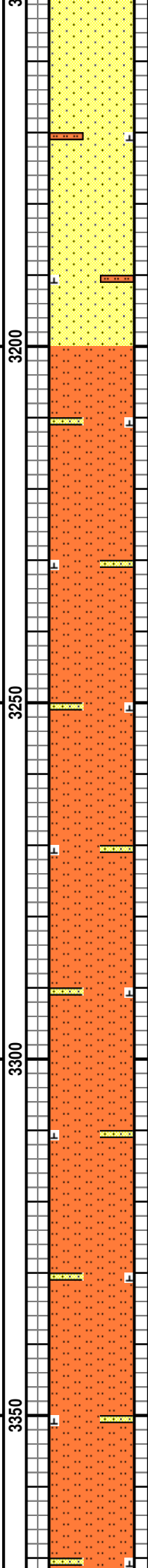




MD 3158 TVD 3148.7
Az 248.71 °Inc 13.06 °
VS-97.62

MD 3253 TVD 3241.39
Az 248.56 °Inc 12.26 °
VS-117.1

MD 3348 TVD 3334.48
Az 247.71 °Inc 10.79 °
VS-134.81

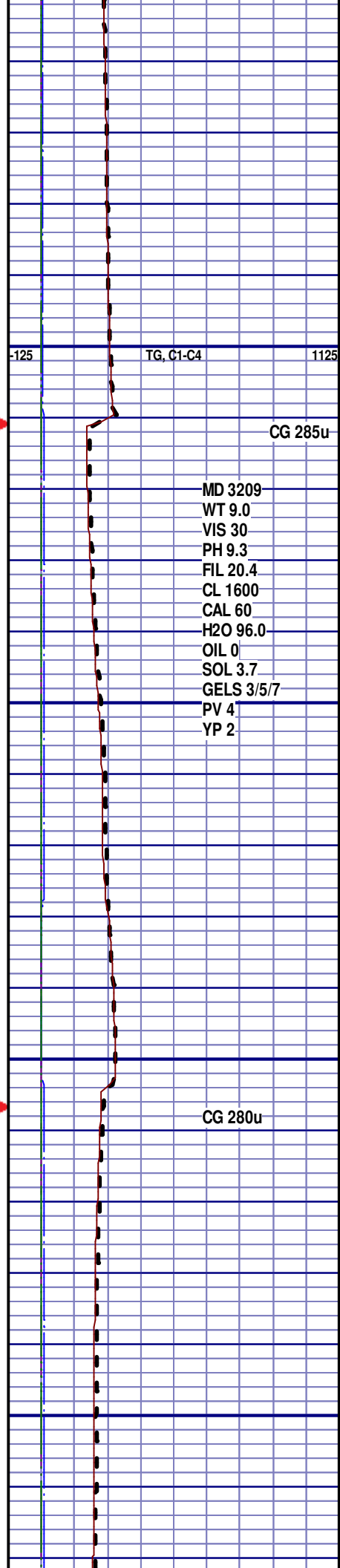


SS; 60%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

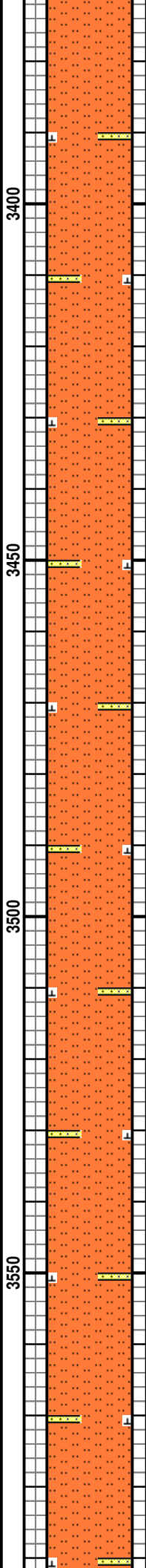
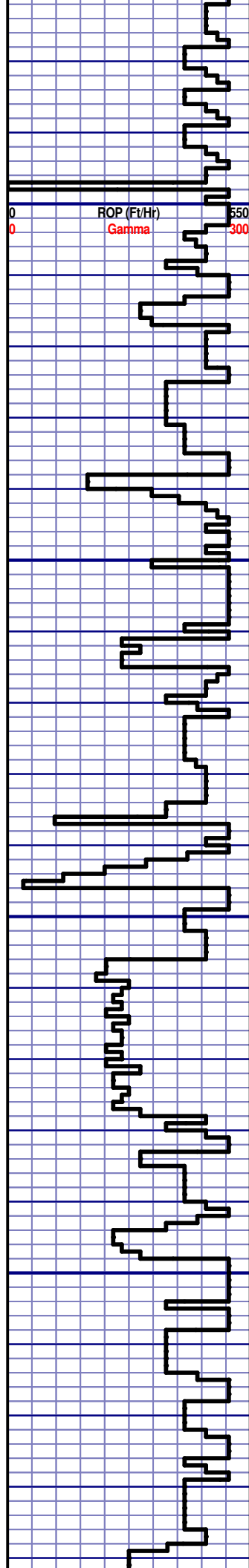
SILTSTN; 70%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH



MD 3209
WT 9.0
VIS 30
PH 9.3
FIL 20.4
CL 1600
CAL 60
H2O 96.0
OIL 0
SOL 3.7
GELS 3/5/7
PV 4
YP 2

CG 280u



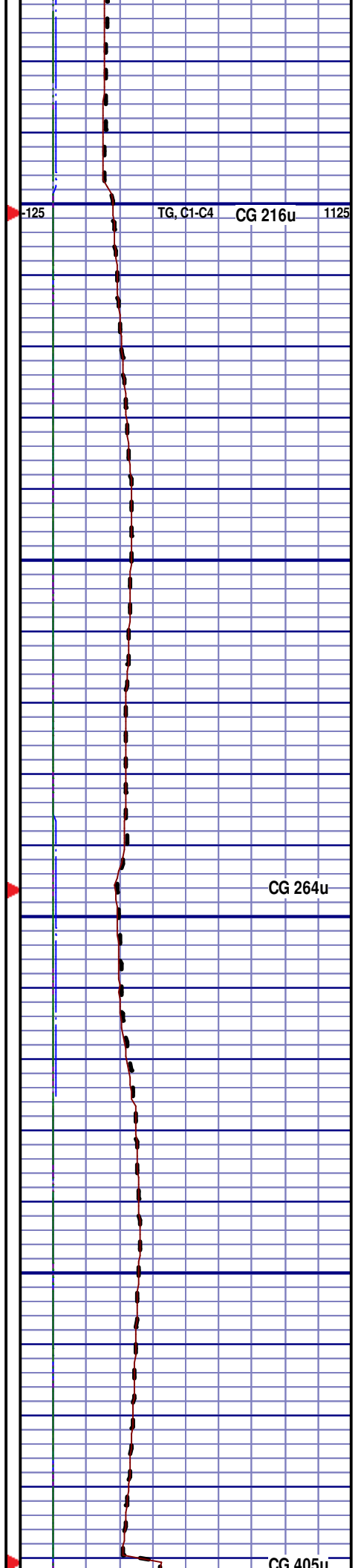
SILTSTN; 70%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

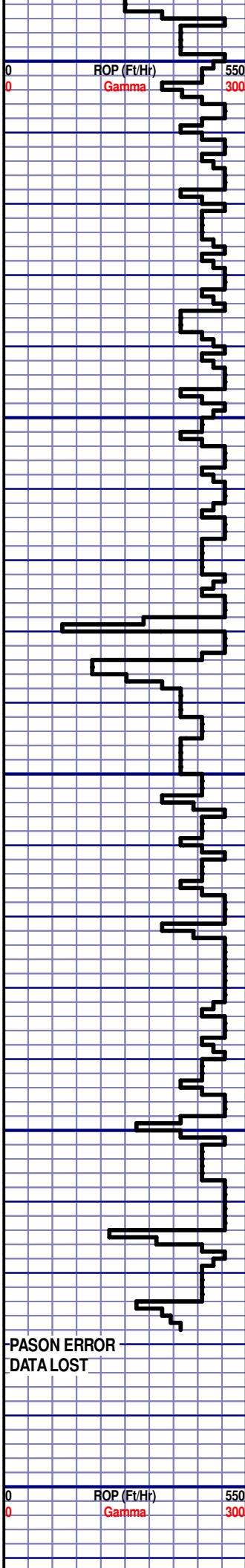
SILTSTN; 80%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 70%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

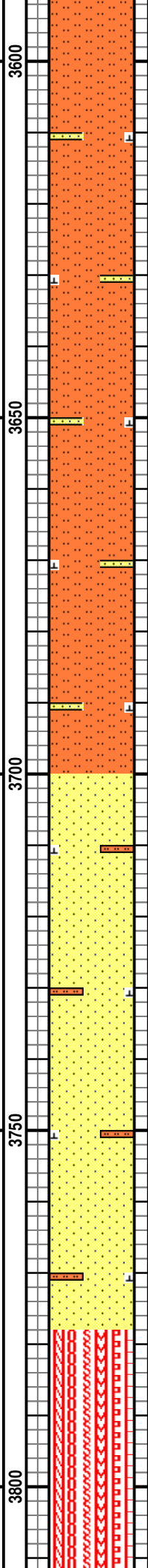
SILTSTN; 70%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,





MD 3633 TVD 3616.27
Az 249.74° Inc 6.51°
VS-174.15

MD 3728 TVD 3710.69
Az 250.45° Inc 6.14°
VS-184.04



P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

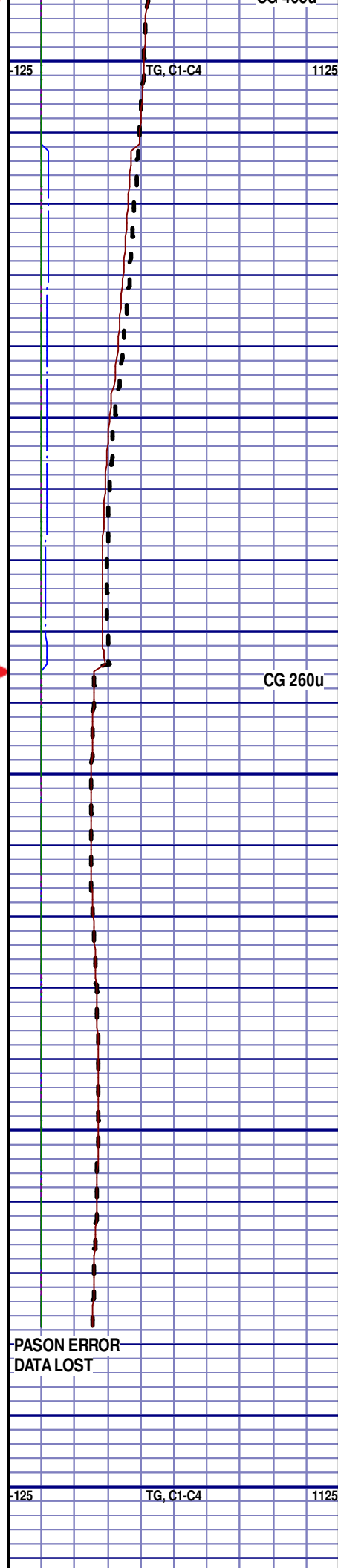
SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

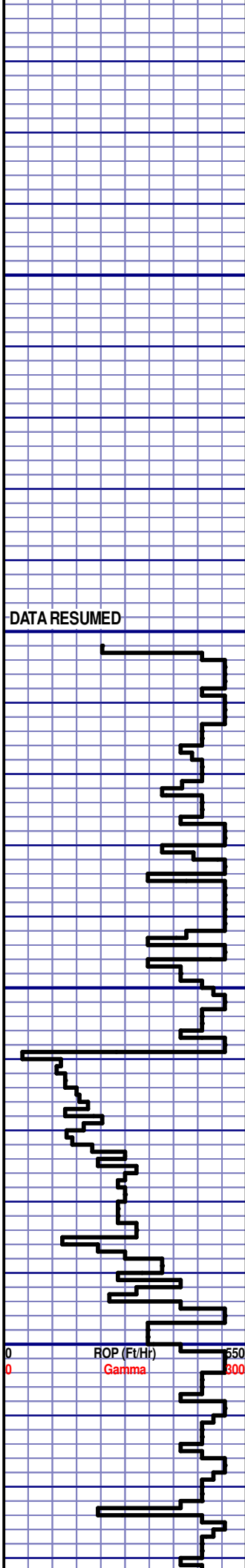
SILTSTN; 50%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

PARKMAN
3700' MD 3682' TVD

SS; 70%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 70%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

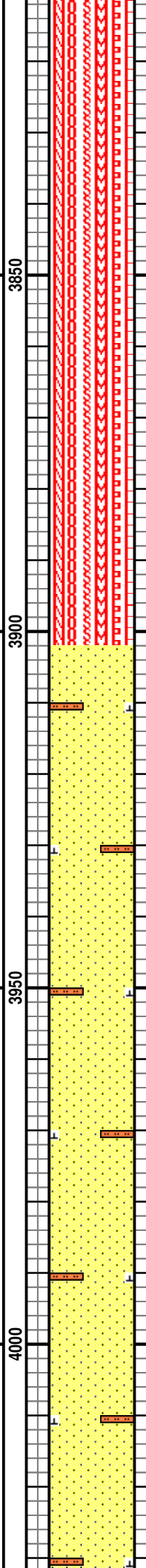




MD 3822 TVD 3804.08
Az 241.09° Inc 6.89°
VS -193.09

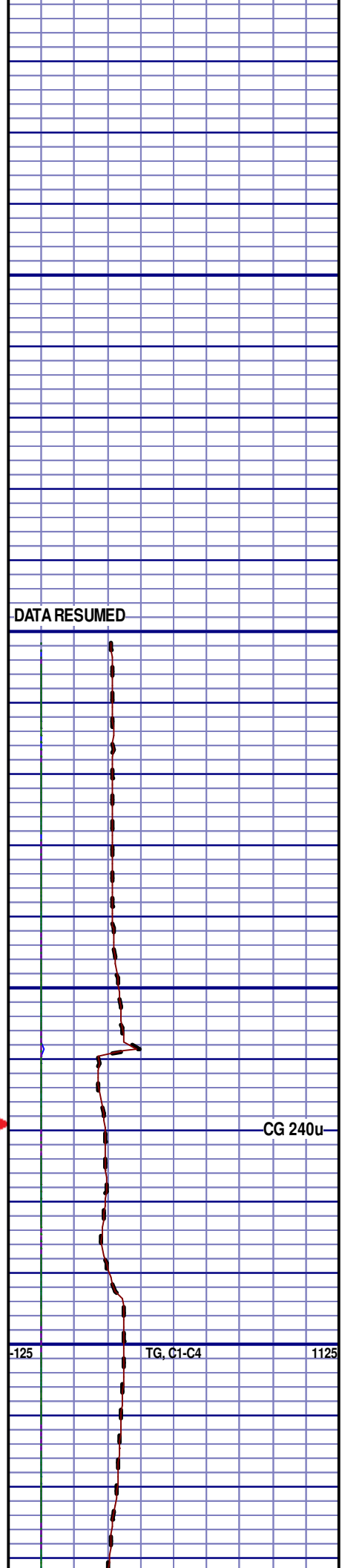
MD 3917 TVD 3898.58
Az 229.14° Inc 4.85°
VS -201.85

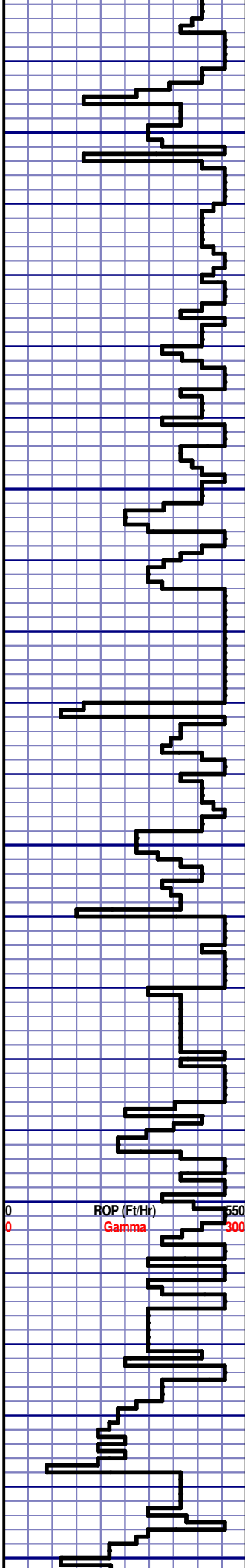
MD 4012 TVD 3993.42
Az 219.47° Inc 1.72°
VS -205.84



SS; 80%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

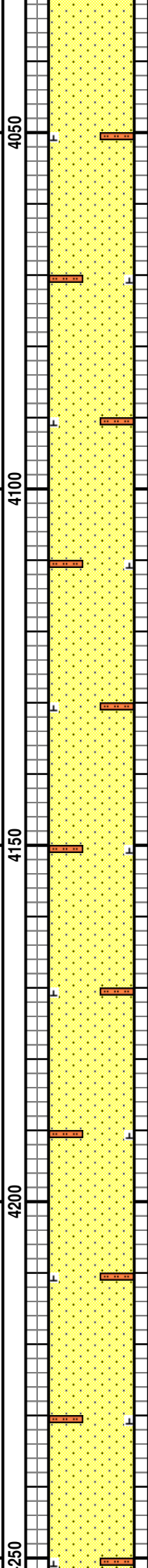
SS; 80%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH





MD 4107 TVD 4088.37
Az 219.67° Inc 1.76°
VS -207.71

MD 4202 TVD 4183.33
Az 232.56° Inc 1.46°
VS -209.62



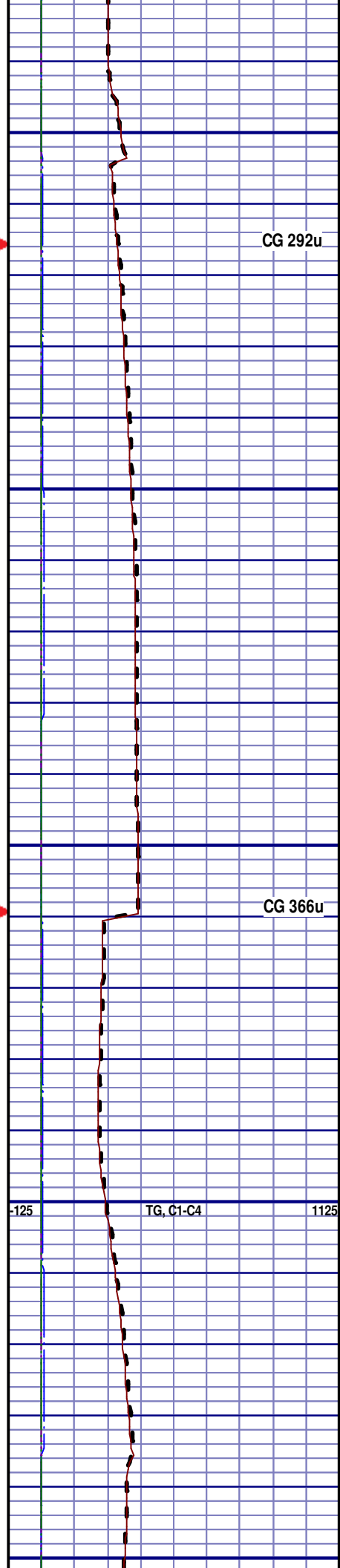
SS; 85%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 80%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 80%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 70%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

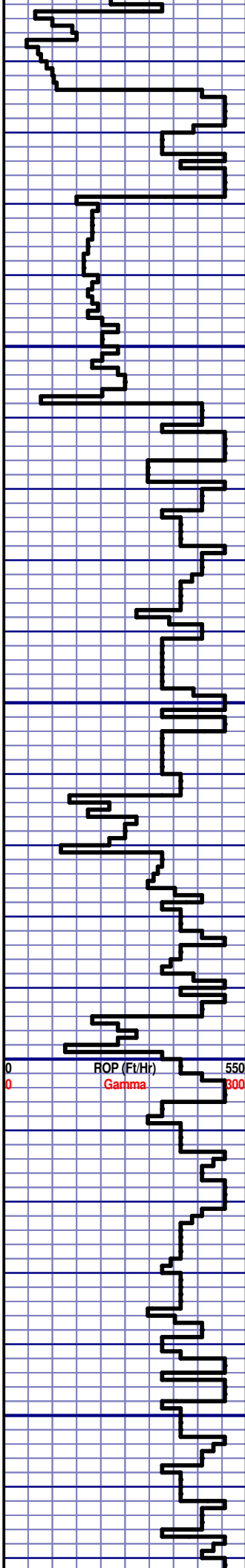
SS; 70%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH



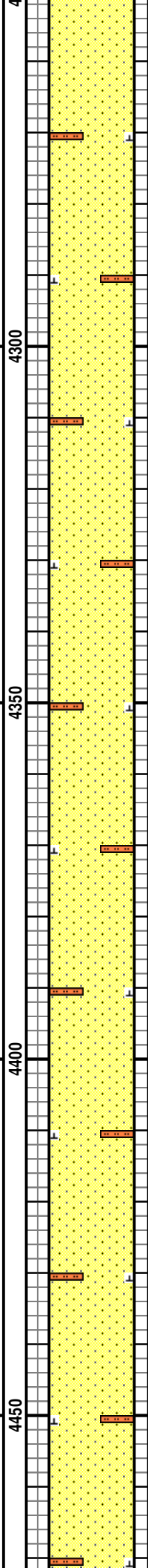
CG 292u

CG 366u

-125 TG, C1-C4 1125



MD 4297 TVD 4278.32
Az 259.41° Inc 0.87°
VS-211.30

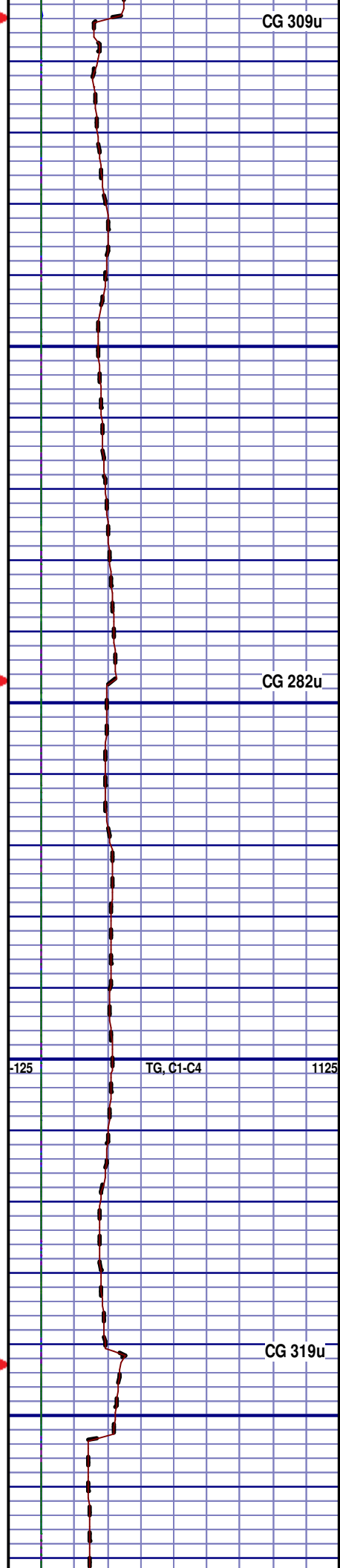


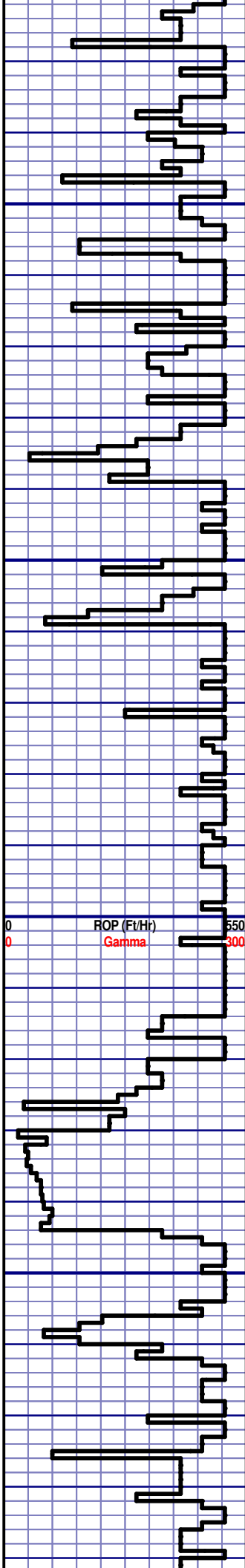
SS; 60%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 60%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 70%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 55%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH





MD 4582 TVD 4563.29
Az 273.45° Inc 0.58°
VS 214.87

MD 4676 TVD 4657.29
Az 268.76° Inc 0.13°
VS -215.45

4500

4550

4600

4650

SS; 55%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SUSSEX
4500' MD 4480' TVD

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,

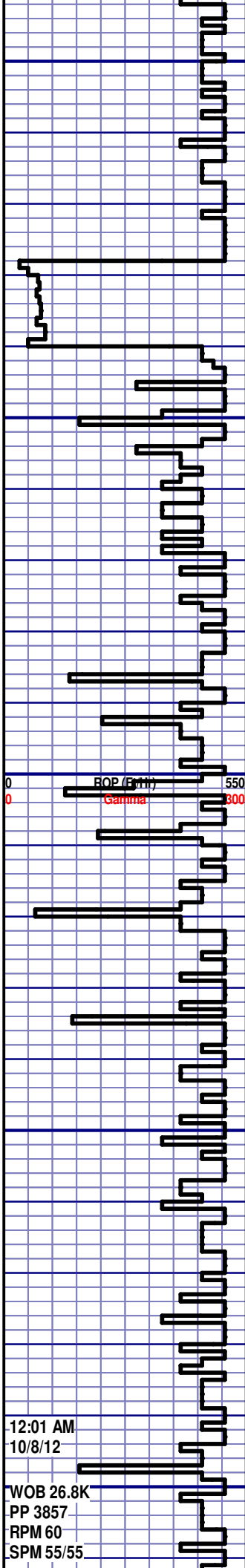
-125

TG, C1-C4

1125

CG 299u

CG 272u

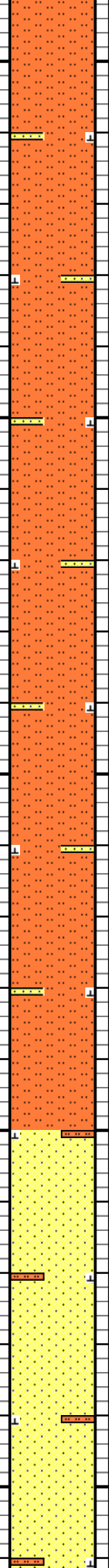


12:01 AM
10/8/12
WOB 26.8K
PP 3857
RPM 60
SPM 55/55

MD 4771 TVD 4752.28
Az 183.06° Inc 1.13°
VS -215.62

MD 4866 TVD 4847.26
Az 171.23° Inc 1.54°
VS -215.50

4700
4750
4800
4850
4900



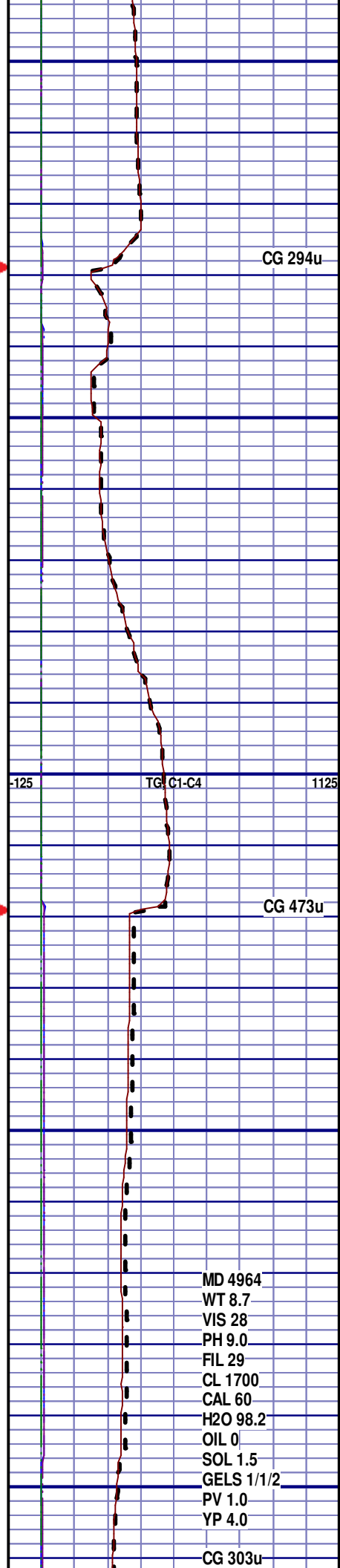
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

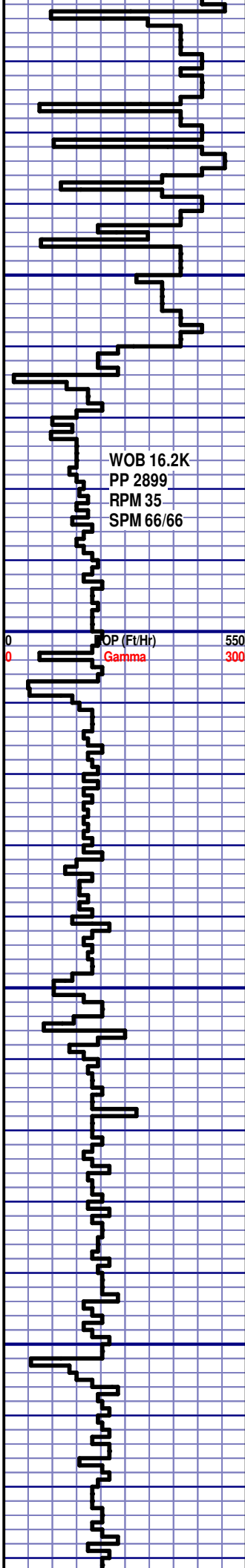
SILTSTN; 55%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 70%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 60%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH





MD 4958 TVD 4939.23
Az 166.36° Inc 1.51°
VS -215.05

4950

5000

5050

5100

TOOH @ 1:30 AM ON 10/8/2012 @
4964' MD TO PICK UP NEW TOOLS
TIH @ 6:00AM ON 10/8/12
RESUMED DRILLING @ 11:00AM
ON 10/8/12 W/ BIT #3 8.75 SMITH
MD1516 IN @ 4963' MD

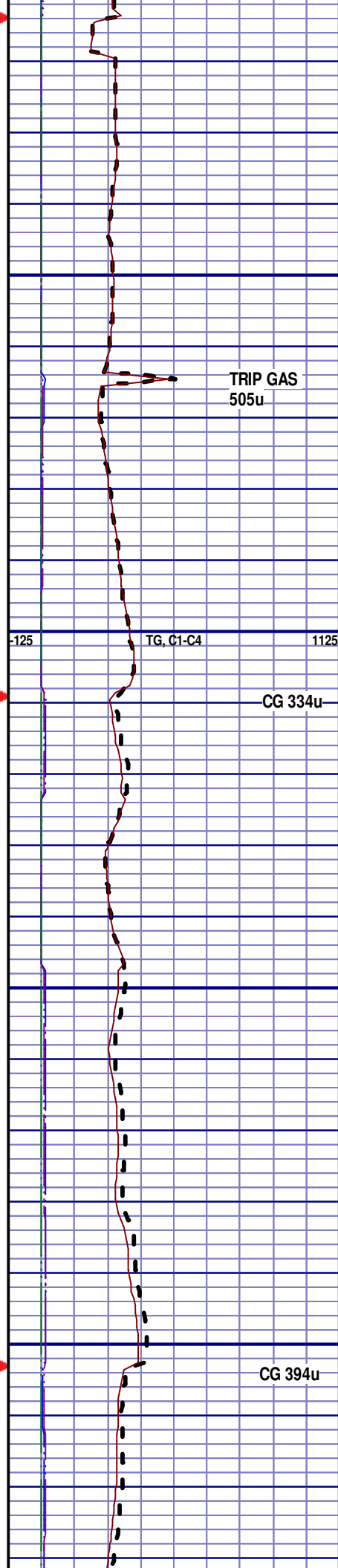
SS; 60%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

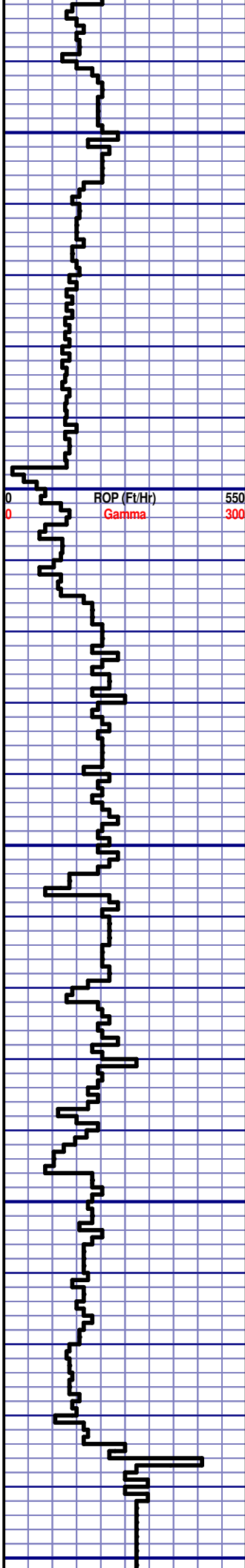
SS; 60%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 55%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SILTSTN; 55%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

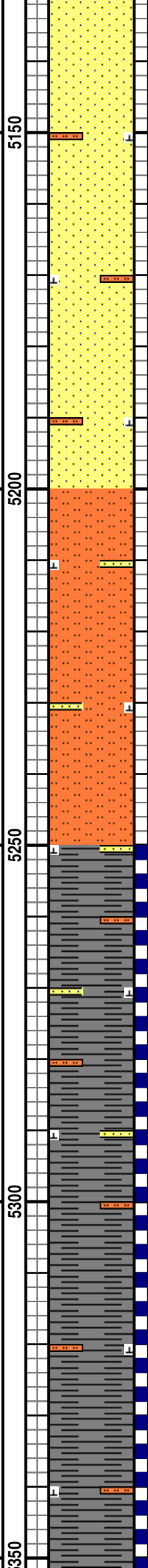
SHANNON
5100' MD 5081' TVD





MD 5148 TVD 5129.14
Az 162.48° Inc 1.87°
VS -213.59

MD 5243 TVD 5224.13
Az 302.44° Inc 0.36°
VS -213.39



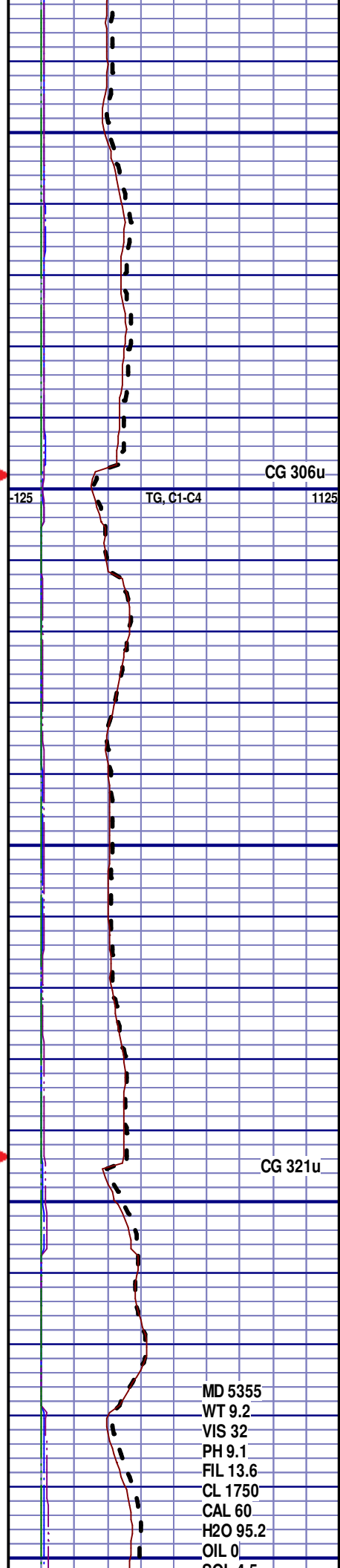
SS; 55%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SS; 55%; OFF WH TO GRY, VF
TO FGR, SUB-ANG, FROST, FRIBL,
P/CONSOL, P/SORT, CALC CMNT,
SILTY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

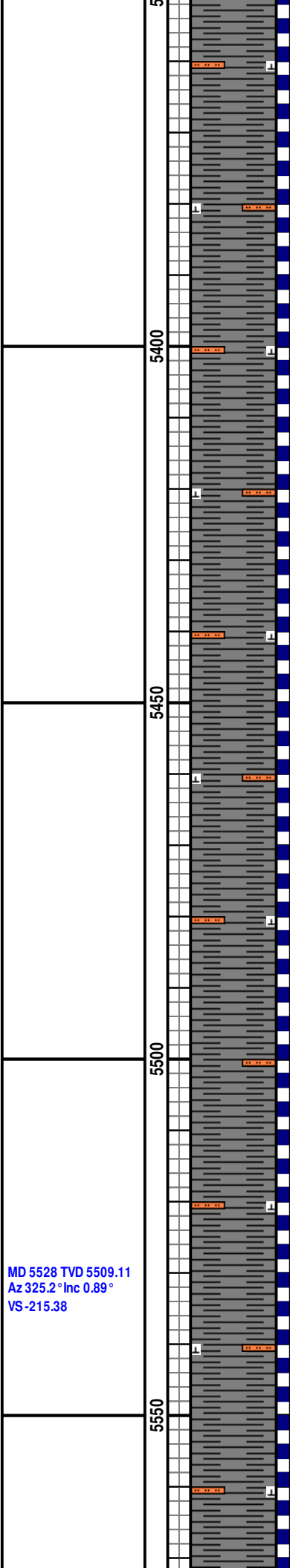
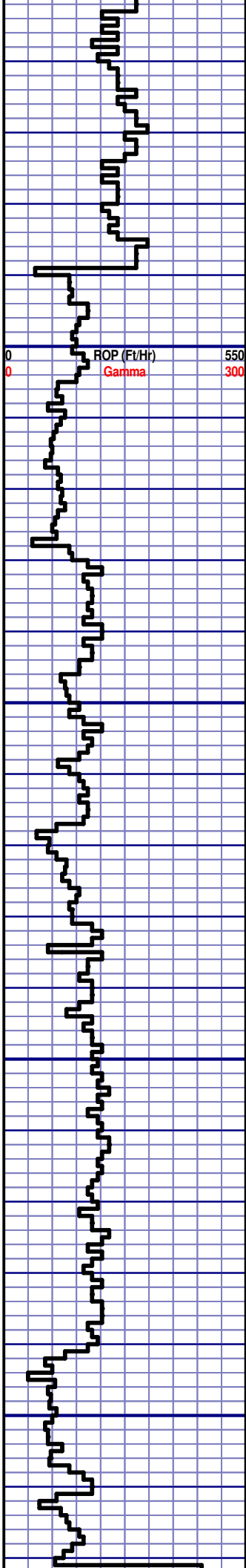
SILTSTN; 60%; GRY TO LT GRY,
VFGR, SUB-ANG, OPA, BRITTLE,
P/CONSOL, P/SORT, CALC CMNT,
SANDY, NO FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH

SH; 60%; BLK TO DK GRY, SMOOTH
TXT, SOFT TO FIRM, SANDY, SILTY,
NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

SH; 70%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY



SOL 4.5
GELS 2/15/20
PV 8.0
YP 6.0



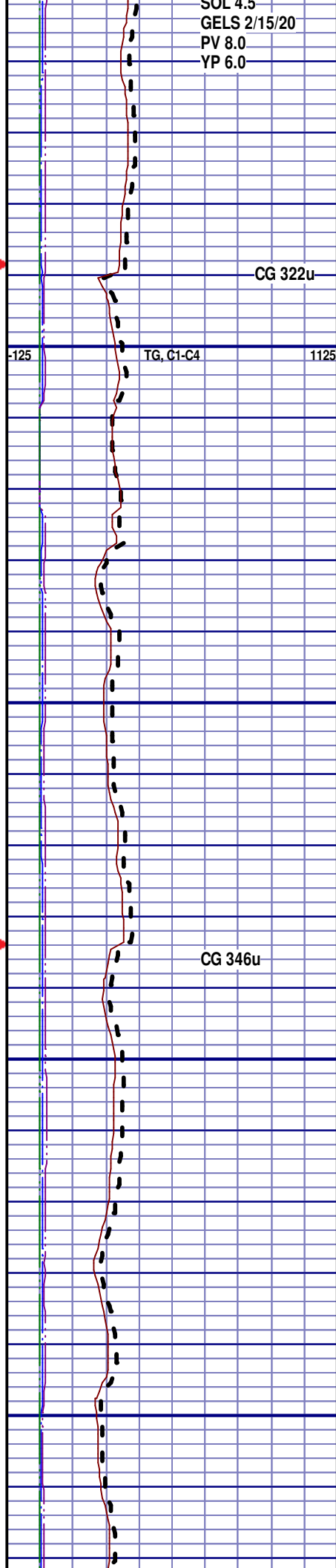
SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

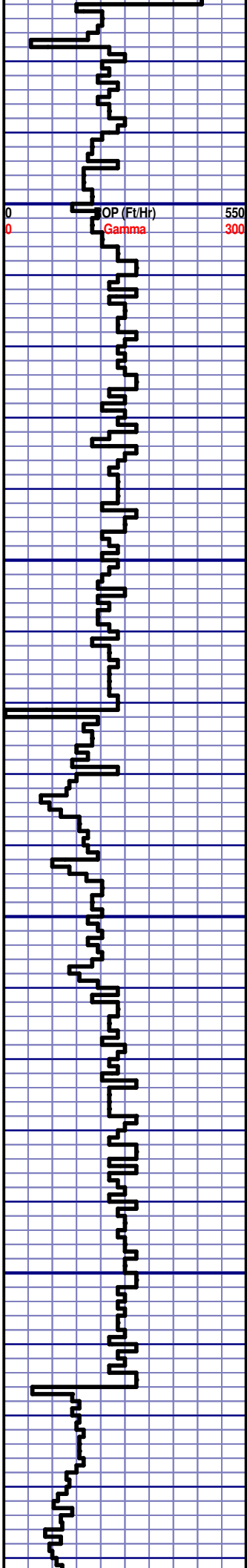
SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

MD 5528 TVD 5509.11
Az 325.2° Inc 0.89°
VS -215.38





5600

5650

5700

5750

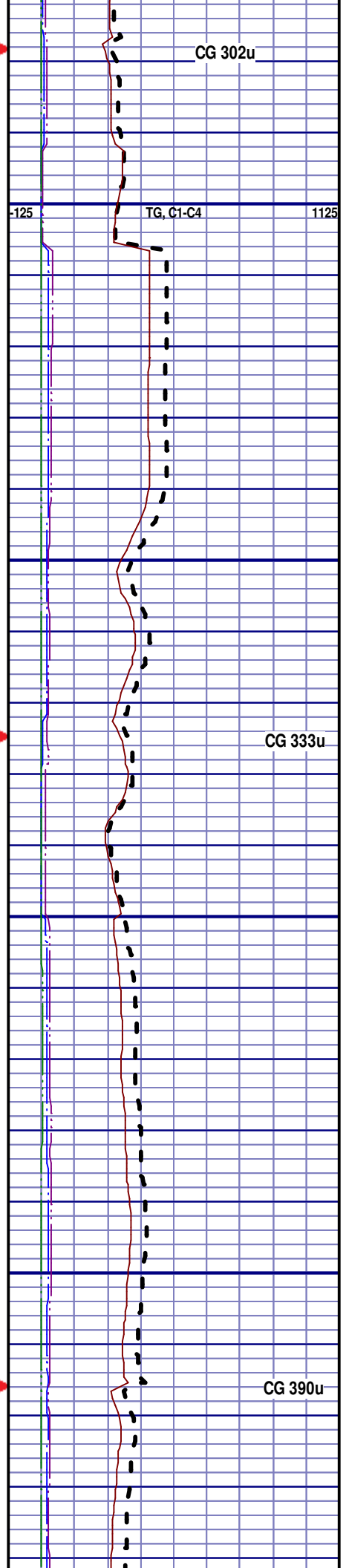
SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

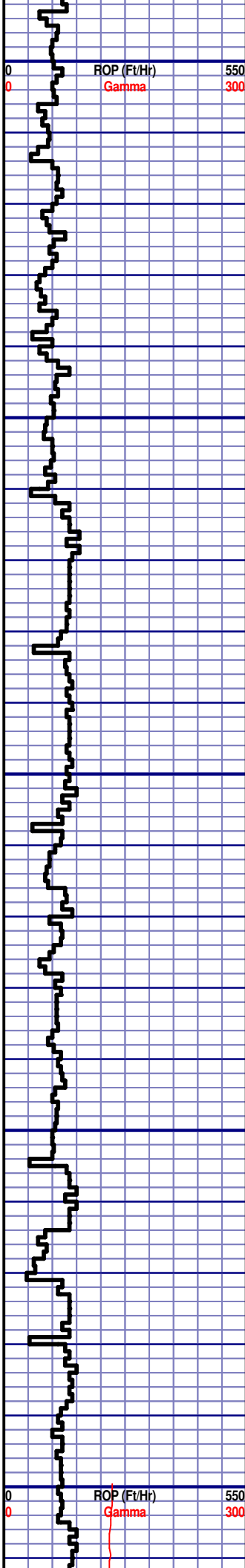
SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

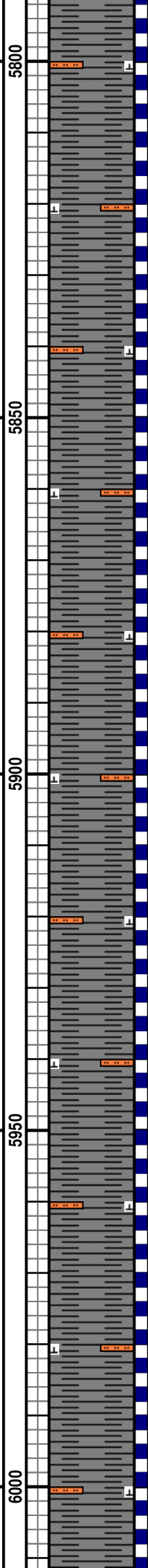
SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY





MD 5812 TVD 5793.07
Az 315.61° Inc 0.98°
VS -218.29

MD 6002 TVD 5983.03
Az 324.78° Inc 1.33°
VS -220.67



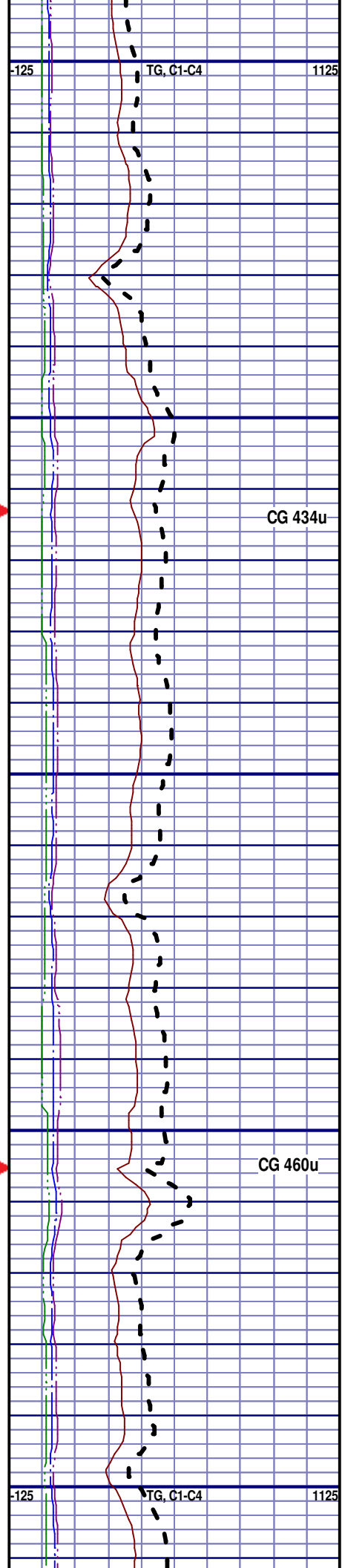
SLOW, BLU STRM CUT, YLW RING CUT, MINOR CALC, BLKY TO PLATY

SH; 90%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

SH; 80%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

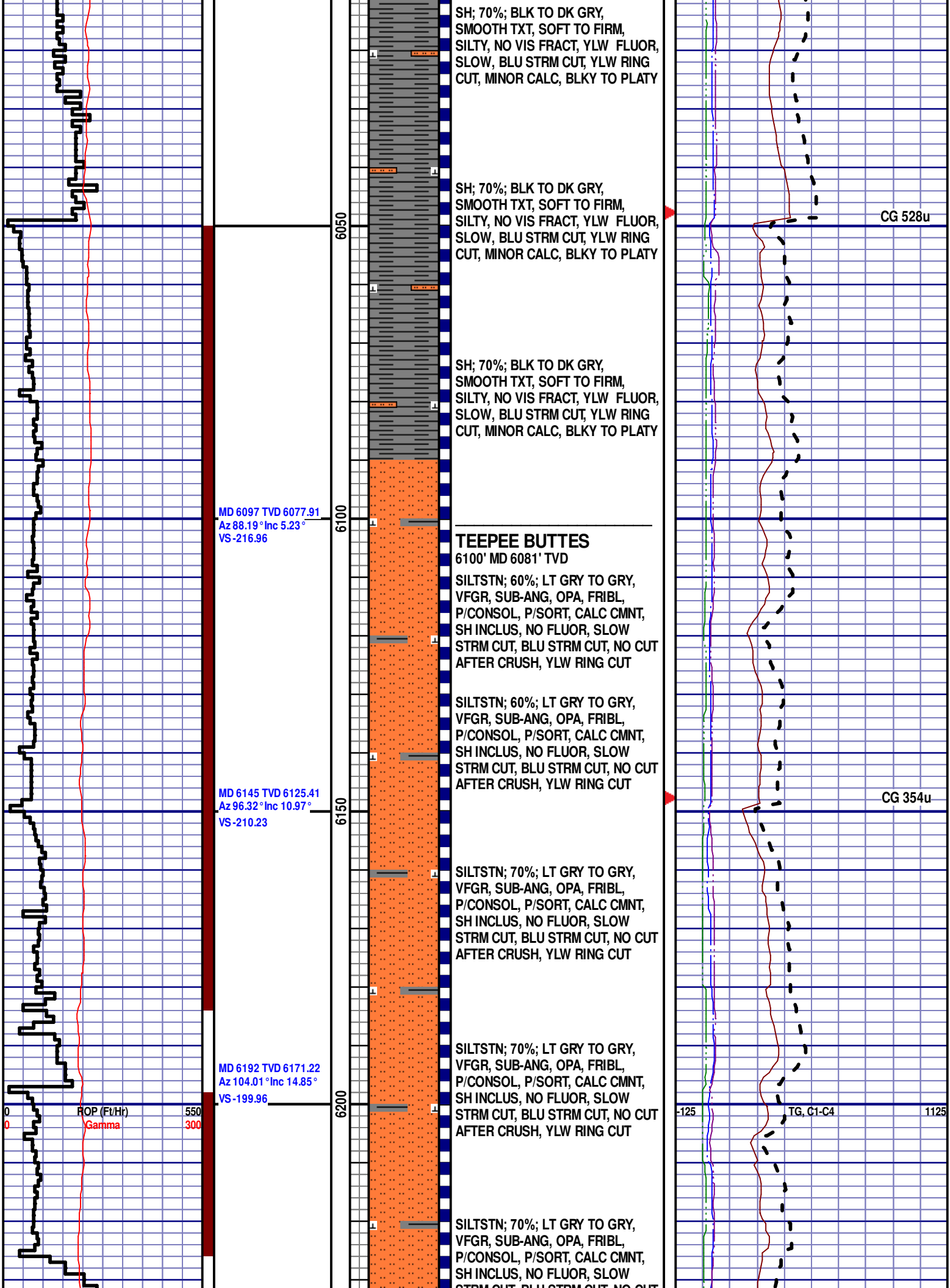
SH; 70%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

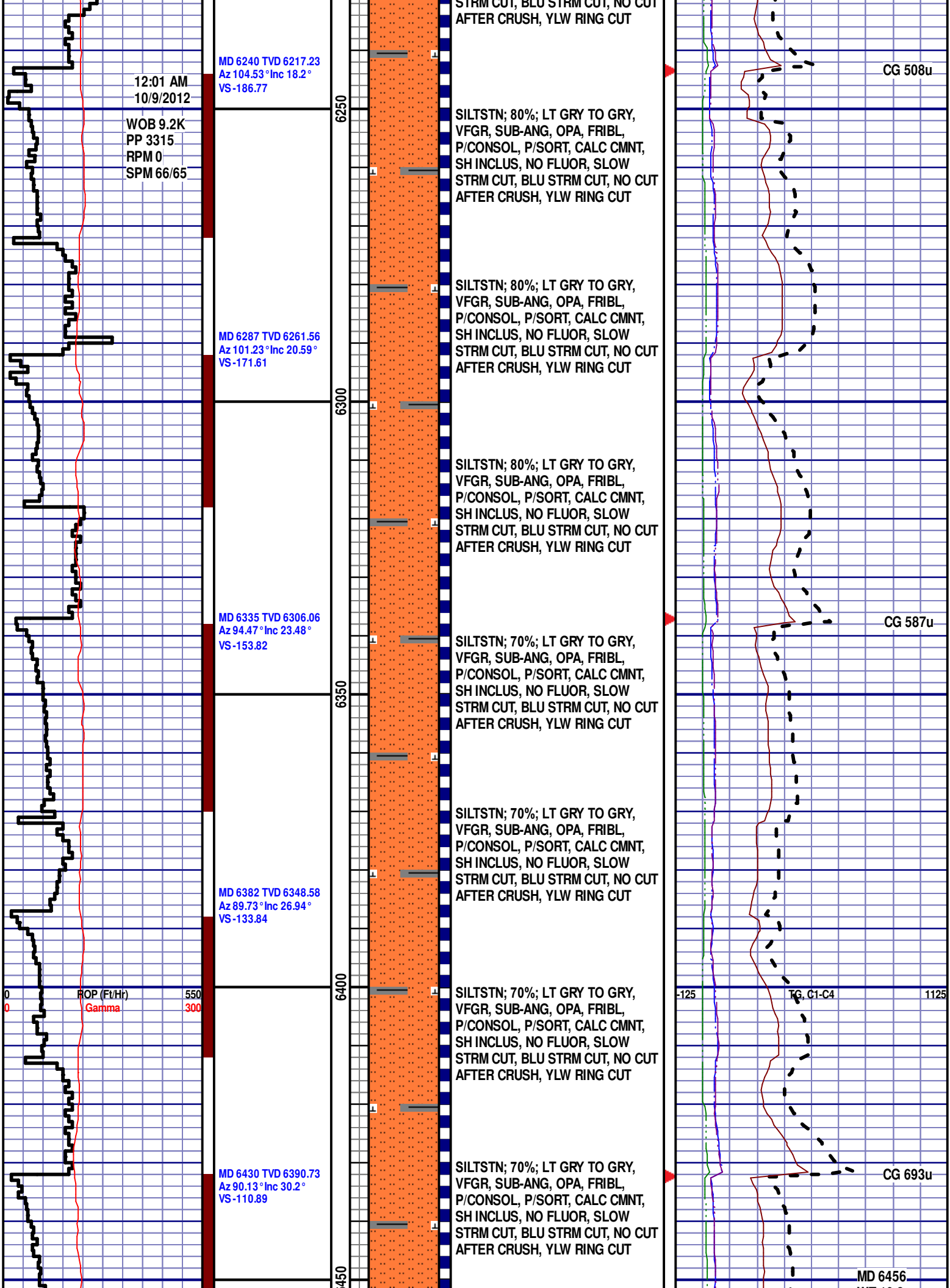
SH; 70%; BLK TO DK GRY,
SMOOTH TXT, SOFT TO FIRM,
SILTY, NO VIS FRACT, YLW FLUOR,
SLOW, BLU STRM CUT, YLW RING
CUT, MINOR CALC, BLKY TO PLATY

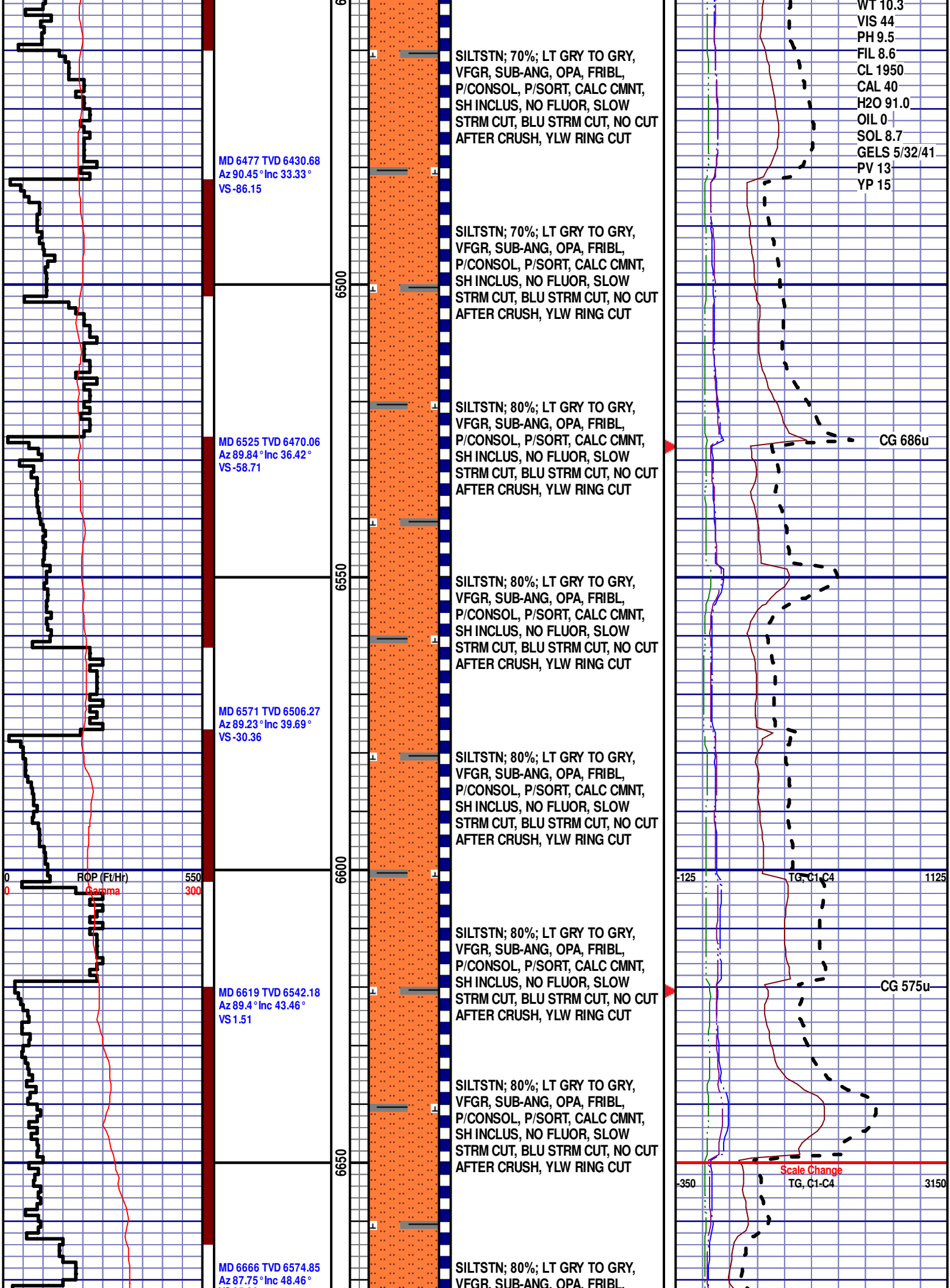


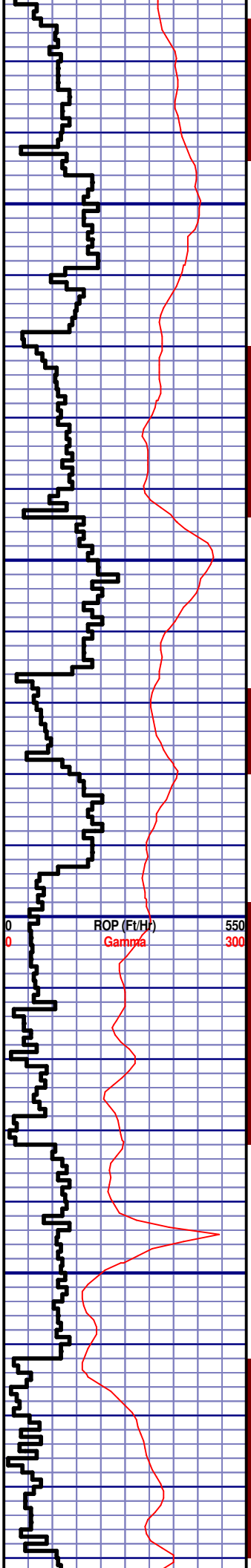
CG 434u

CG 460u









VS35.28

MD 6714 TVD 6605.2
Az 87.29° Inc 53.03°
VS 72.4

MD 6761 TVD 6632.22
Az 88.12° Inc 56.8°
VS 110.86

MD 6809 TVD 6657.78
Az 89.25° Inc 58.85°
VS 151.48

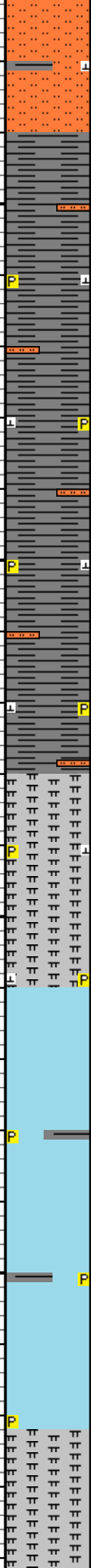
MD 6856 TVD 6681.47
Az 89.06° Inc 60.61°
VS 192.07

6700

6750

6800

6850



P/CONSOL, P/SORT, CALC CMNT,
SH INCLUS, NO FLUOR, SLOW
STRM CUT, BLU STRM CUT, NO CUT
AFTER CRUSH, YLW RING CUT

SHARON SPRINGS

6690' MD 6590' TVD

SH; 60%; DK GRY TO GRY, FINE
TXT, SOFT TO FIRM, PYR INCLUS,
SILTY, PYR NODULES, NO FLUOR,
SLOW STRM CUT, YLW RING CUT,
MINOR CALC

SH; 80%; DK GRY TO GRY, FINE
TXT, SOFT TO FIRM, PYR INCLUS,
SILTY, PYR NODULES, NO FLUOR,
SLOW STRM CUT, YLW RING CUT,
MINOR CALC

SH; 80%; DK GRY TO GRY, FINE
TXT, SOFT TO FIRM, PYR INCLUS,
SILTY, PYR NODULES, NO FLUOR,
SLOW STRM CUT, YLW RING CUT,
MINOR CALC

NIOBRARA

6780' MD 6642' TVD

MRL; 28%; GRY TO DK GRY, SOFT
TO BRITTLE, PYR INCLUS, NO VIS
FRACT, MINOR CALC, POOR
INTRXLN POR, NO FLUOR, IMMED
BLU STRM CUT, YLW RING CUT

NIOBRARA A

6810' MD 6658' TVD

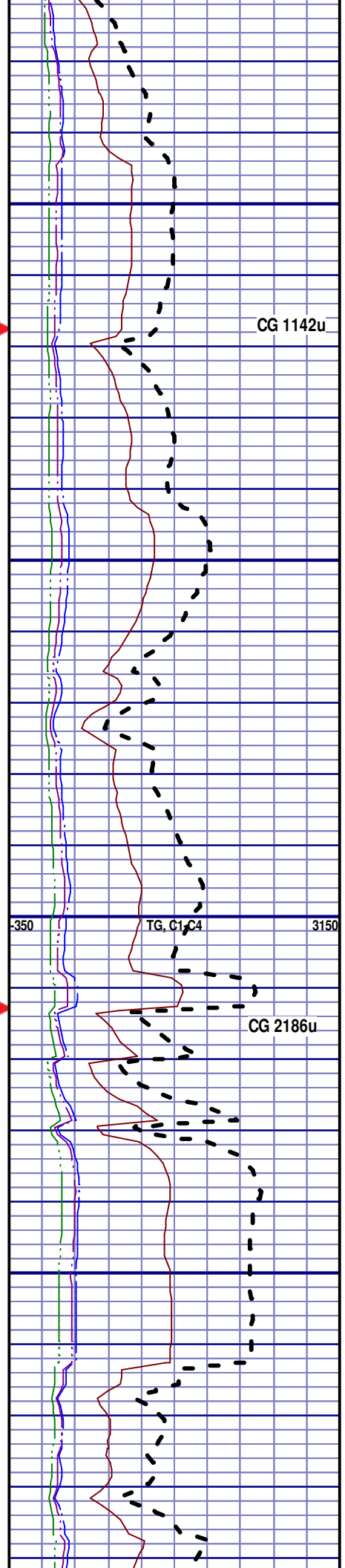
CHK; 63%; LT GRY TO GRY, SOFT,
SH INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, POOR
INTRXLN POR, NO FLUOR, IMMED
BLU STRM CUT, YLW RING CUT, NO
VIS STAIN

CHK; 52%; LT GRY TO GRY, SOFT,
SH INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, POOR
INTRXLN POR, NO FLUOR, IMMED
BLU STRM CUT, YLW RING CUT, NO
VIS STAIN

NIOBRARA A MARL

6870' MD 6688' TVD

MRL; 37%; GRY TO DK GRY, SOFT
TO BRITTLE, PYR INCLUS, NO VIS



CG 1142u

-350 TG, C1, C4 3150

CG 2186u

