



Scale: 9.60" / 100'  
Measured Depth Log

**Well Name** Cow Canyon #1 (CS-1)(M-13)

**Location** SEC 27, T 38N, R 19W. Lat: 37.526

**State** CO

**County** Montezuma

**Country** US

**Rig Number** Nabors M-13

**API Number** 05-083-06709-00

**Field** McElmo

**Spud Date** 2/2/2014

**Surface Coordinates** SEC 27, T38N, R19W

**Ground Elevation** 6459

**K.B. Elevation** 6481.5'

**Logged Interval** Surface To TD

**Total Depth** 8660'

**Formation** Paradox Basin

**Type of Drilling Fluid** Fresh water

## Operator

**Company** KINDER MORGAN

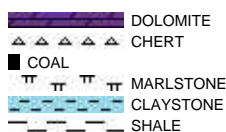
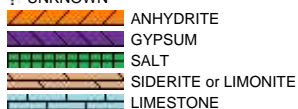
## Geologist

**Name** Steven Moran

**Company** Above Enterprise

## Rock Types

? UNKNOWN



## Accessories

### Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHIOPOD
- BRYOZOA
- CEPHALOPOD
- CORAL
- CRINOID
- ECHINOID
- FISH
- FORAMINIFERA

### F FOSSIL

- GASTROPOD
- OOLITE
- OSTRACOD
- PELECYPOD
- PELLET
- PISOLITE
- PLANT REMAINS
- PLANT SPORES
- SCAPHOPOD
- STROMATOPOROID

### Minerals

- ANHYDRITIC

### — ARGILLACEOUS

- ARGILLITE GRAIN
- BENTONITE
- BITUMENOUS SUBSTANCE
- BRECCIA FRAGMENTS
- CALCAREOUS
- CARBONACEOUS FLAKES
- CHTDK
- CHTLT
- COAL - THIN BEDS
- DOLOMITIC
- FELDSPAR
- FERRUGINOUS PELLET
- FERRUGINOUS

### ∨ GLAUCONITE

- GYPSIFEROUS
- HEAVY MINERAL
- KAOLIN
- MARLSTONE
- MINERAL CRYSTALS
- NODULES
- PHOSPHATE PELLETS
- PYRITE
- SALT CAST
- SANDY
- SILICEOUS
- SILTY
- TUFFACEOUS

### Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLOMITE STRINGER
- GYPSUM STRINGER
- LIMESTONE STRINGER
- MARLSTONE (CALC) STRG
- MARLSTONE (DOL) STRG
- SANDSTONE STRINGER
- SHALE STRINGER
- SILTSTONE STRINGER

## Other Symbols

### Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

### ∩ MOLDIC

- ORGANIC
- PINPOINT
- VUGGY

### Engineering

- BIT
- CONNECTION (LEFT)
- CONNECTION (RIGHT)
- CONNECTION GAS
- CORE - LOST
- CORE - RECOVERED
- DST INTERVAL

### Porosity

- E EARTHY
- F FENESTRAL
- F FRACTURE
- X INTERCRYSTALLINE
- ∅ INTEROOLITIC

### ⚡ FAULT

- FORMATION TOP
- GAS SHOW
- MN DEPTH
- NORMAL FAULT
- OIL SHOW
- OVERTURNED STRATA
- REVERSE FAULT
- SIDEWALL CORE (LEFT)
- SIDEWALL CORE (RIGHT)
- SLIDE
- SURVEY
- TRIP GAS

### ◁ WIRELINE TESTED - LEFT

- ▷ WIRELINE TESTED - RT

### Rounding

- A ANGULAR
- R ROUNDED
- B SUBANG
- r SUBRND

### Textures

- BS BOUNDSTONE
- C CHALKY
- CX CRYPTOXLN

### E EARTHY

- FX FINELYXLN
- GS GRAINSTONE
- L LITHOGRAPHIC
- MX MICROXLN
- MS MUDSTONE
- PS PACKSTONE
- WS WACKESTONE

### Sorting

- M MODERATE
- P POOR
- W WELL

**ROP**  
 ROF ———  
 G-GR ———

**Depth Labels**

**% Lith**

**Lithology Descriptions**

**Total Gas & CO2**  
 GAS ———  
 CO2 ———

**Chromatograph**  
 C1 -  
 C2 -  
 C3 -  
 C4 -

**% Porosity**  
 6  
 12  
 18  
 24  
 30

**Fluorescence**  
 P  
 FR  
 G  
 E

**Cut**  
 P  
 FR  
 G  
 E

60

70

80

90

100

110

120

130

140

150

**Started One-man logging  
 2/1/2014**

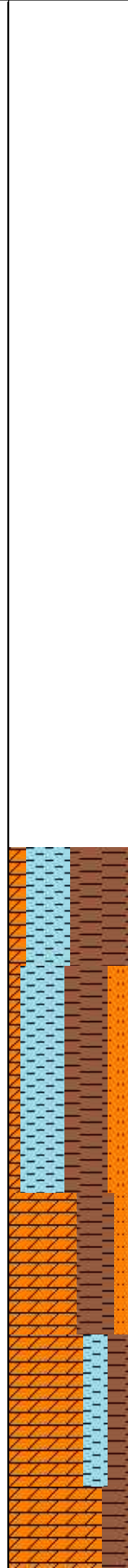
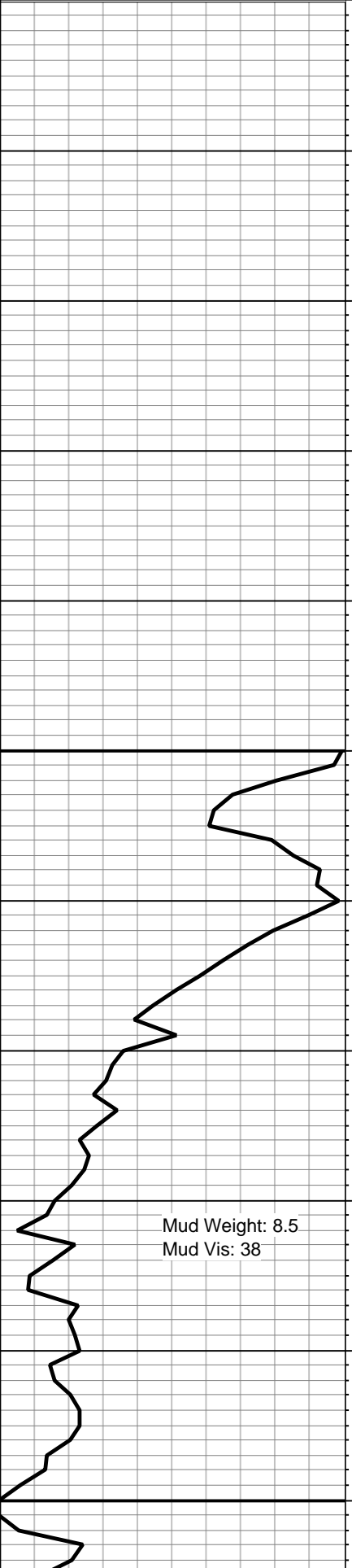
**Kicked off well 101' - 2/2/2014**

CLAYSTONE: LT GRY, GRY,  
 QUARTZ CONTENT

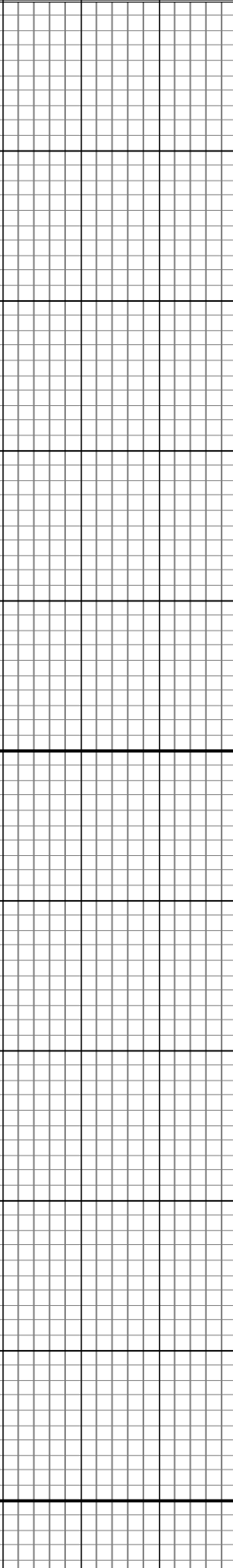
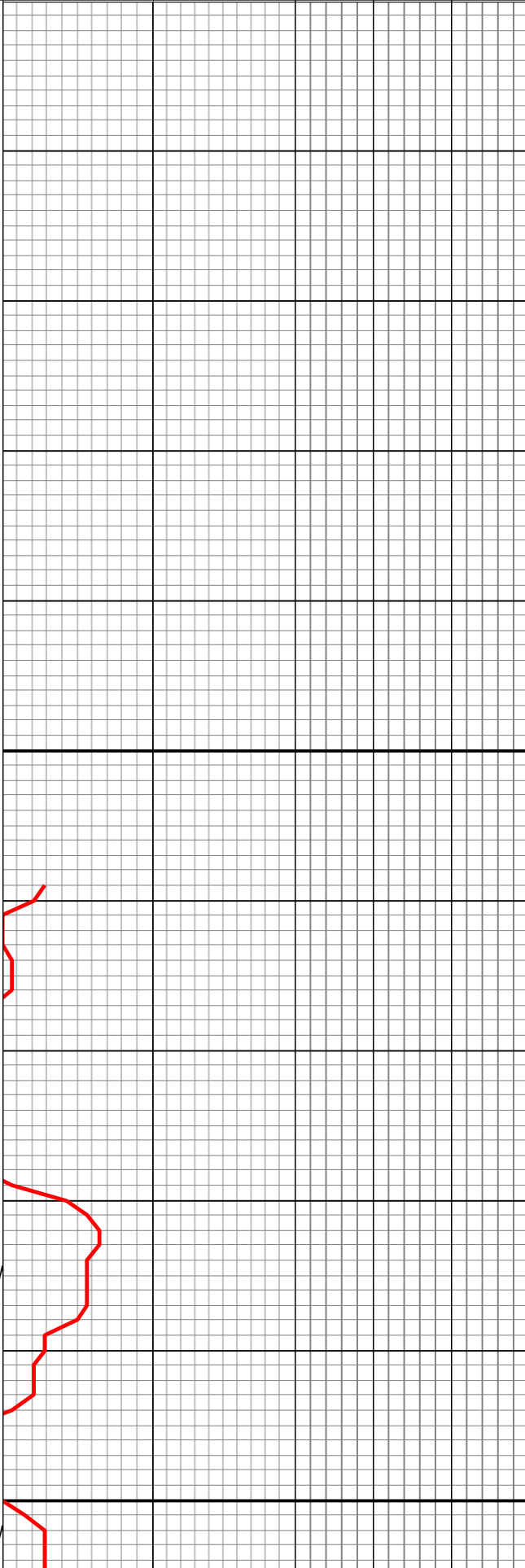
ANHY: WHT, OFF-WHT, CLR, W  
 SRTD

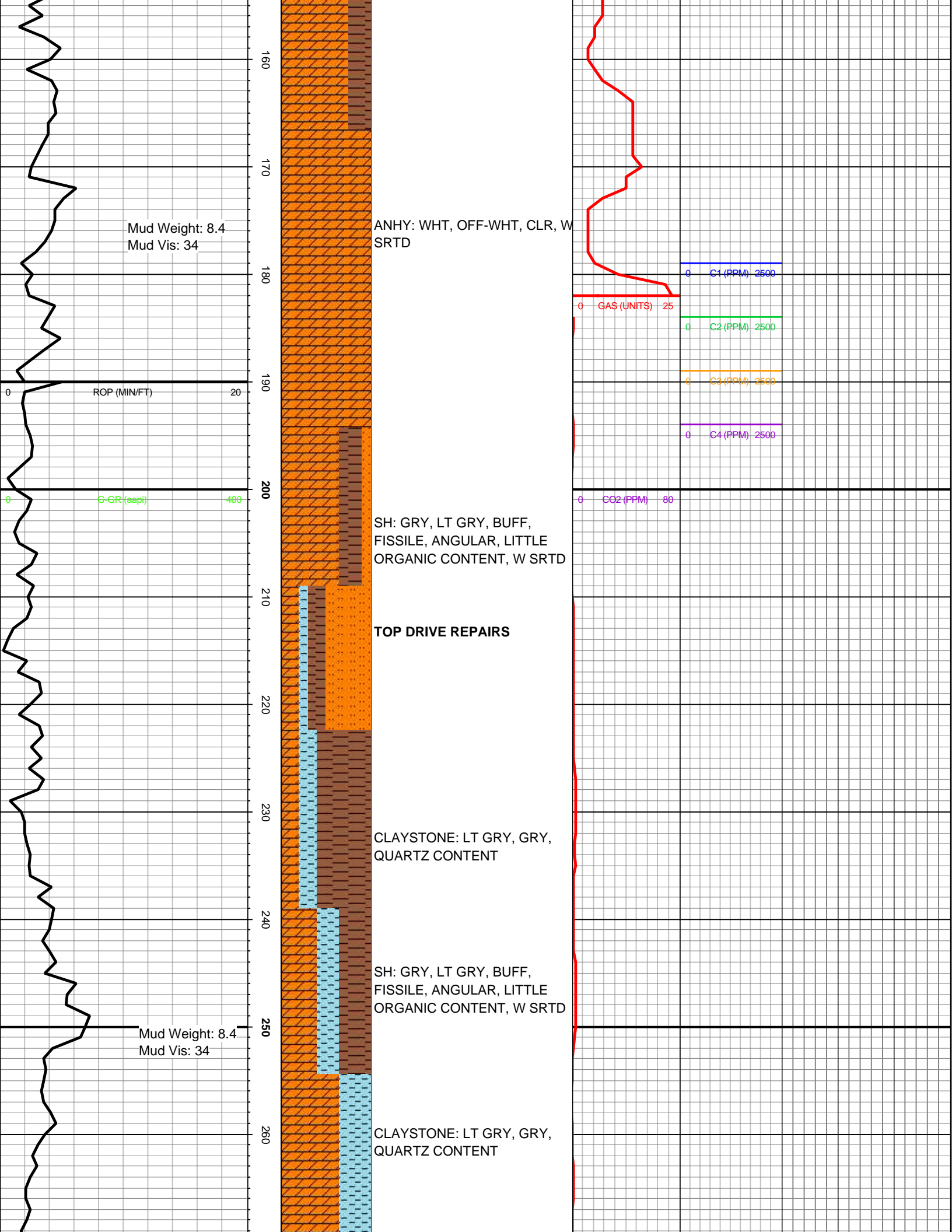
ANHY: WHT, OFF-WHT, CLR, W  
 SRTD

Mud Weight: 8.5  
 Mud Vis: 38



Blank area for Lithology Descriptions, with text annotations for logging events and lithology types.





Bit #: 1  
Type: DCH16 16D-J1  
Size: 12.25"  
Depth In: 101'  
Hours: 6 hrs  
Jets: 6X16  
S/N: A147928

ANHY: WHT, OFF-WHT, CLR, W  
SRTD

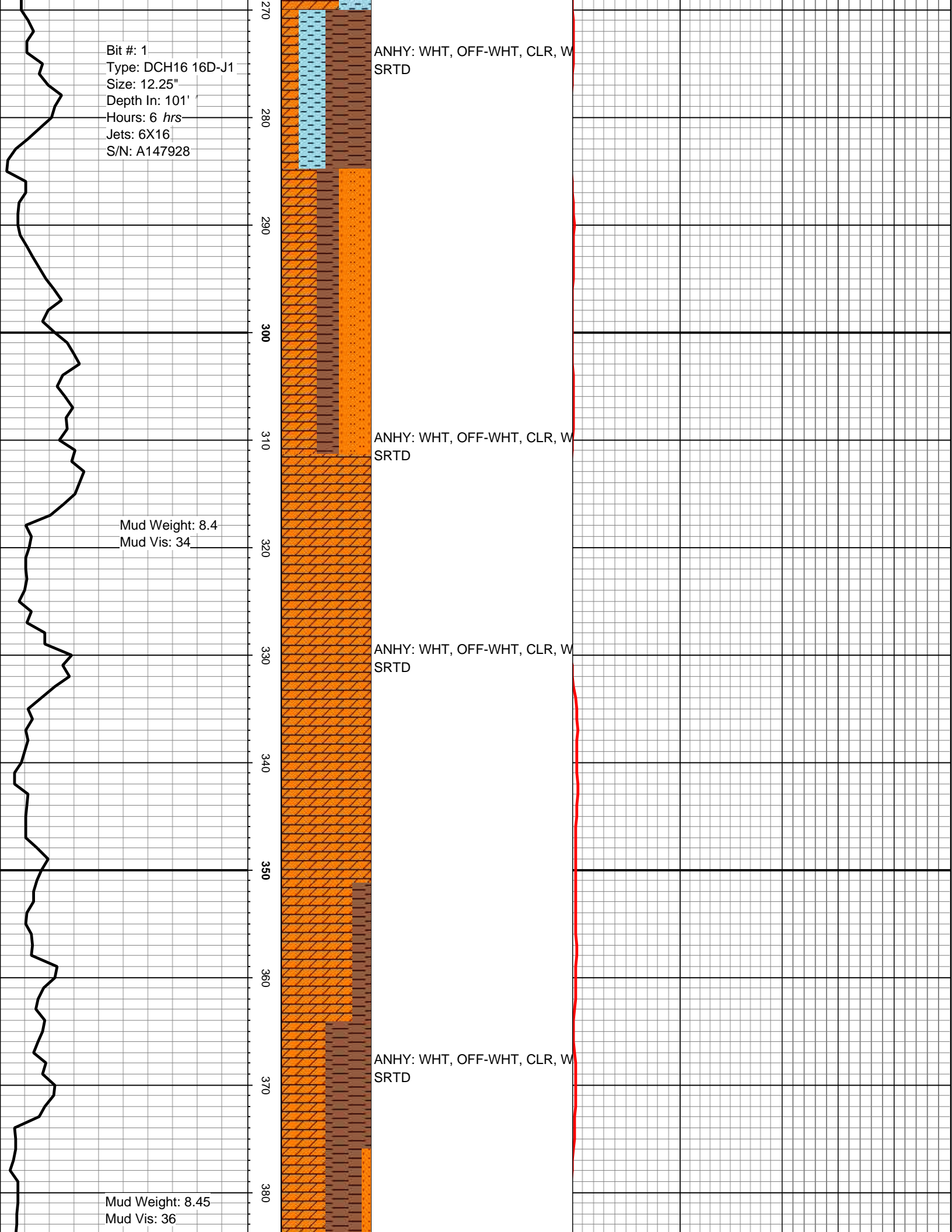
ANHY: WHT, OFF-WHT, CLR, W  
SRTD

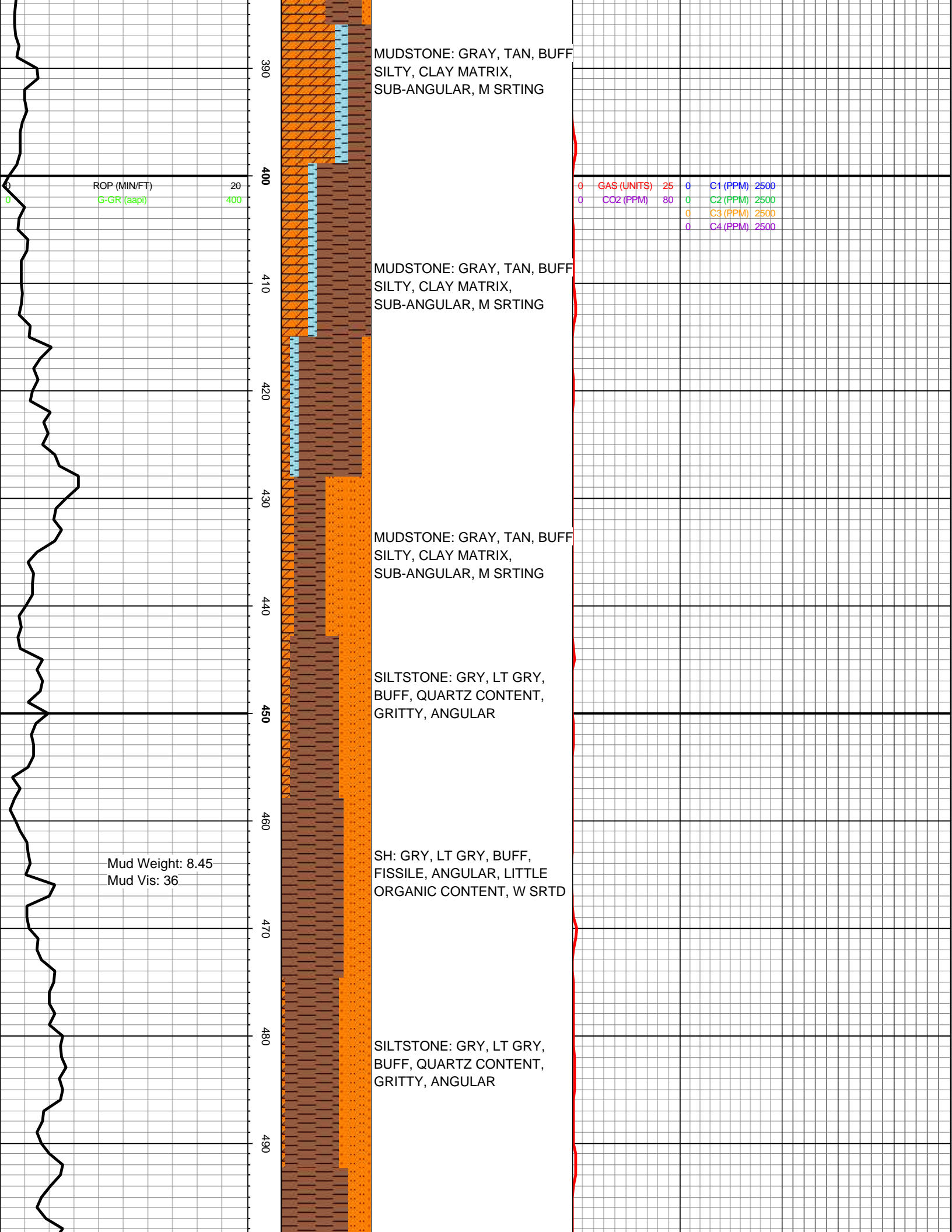
Mud Weight: 8.4  
Mud Vis: 34

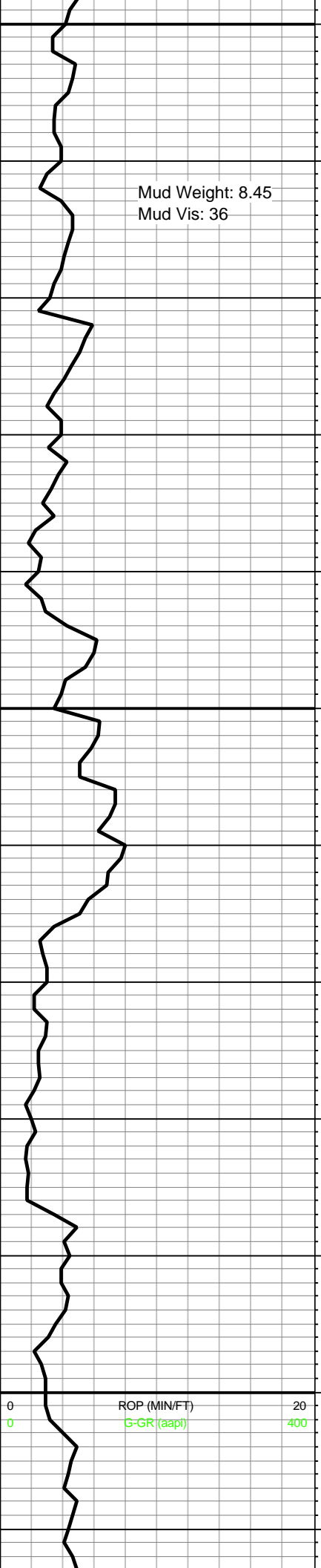
ANHY: WHT, OFF-WHT, CLR, W  
SRTD

ANHY: WHT, OFF-WHT, CLR, W  
SRTD

Mud Weight: 8.45  
Mud Vis: 36







Mud Weight: 8.45  
Mud Vis: 36

SH: GRY, LT GRY, BUFF,  
FISSILE, ANGULAR, LITTLE  
ORGANIC CONTENT, W SRTD

SH: GRY, LT GRY, BUFF,  
FISSILE, ANGULAR, LITTLE  
ORGANIC CONTENT, W SRTD

SH: GRY, LT GRY, BUFF,  
FISSILE, ANGULAR, LITTLE  
ORGANIC CONTENT, W SRTD

SH: GRY, LT GRY, BUFF,  
FISSILE, ANGULAR, LITTLE  
ORGANIC CONTENT, W SRTD

ANHY: WHT, OFF-WHT, CLR, W

0	GAS (UNITS)	25	0	C1 (PPM)	2500
0	CO2 (PPM)	80	0	C2 (PPM)	2500
			0	C3 (PPM)	2500
			0	C4 (PPM)	2500

Mud Weight: 8.9  
Mud Vis: 38

SRTD

620  
630  
640  
650  
660  
670  
680  
690  
700  
710  
720

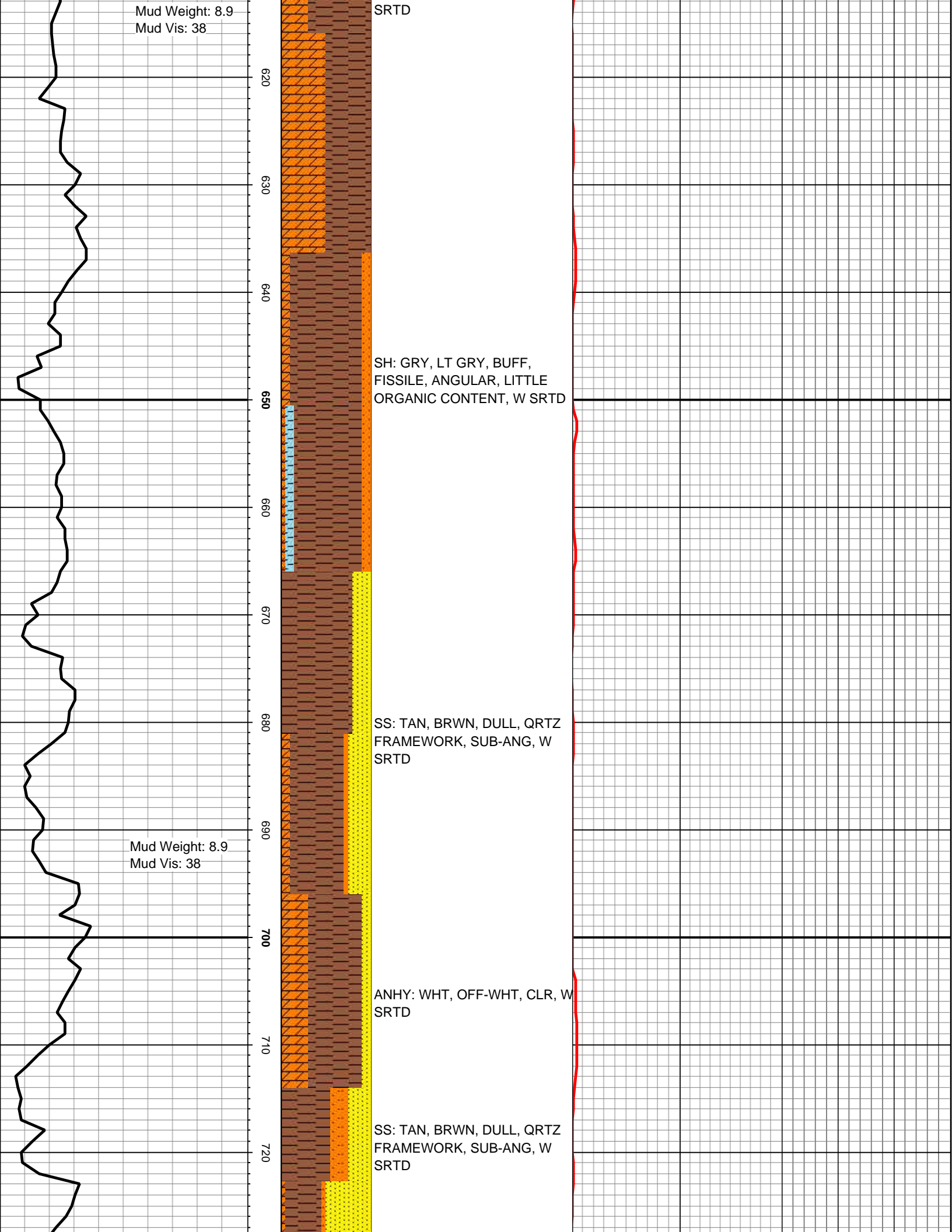
SH: GRY, LT GRY, BUFF,  
FISSILE, ANGULAR, LITTLE  
ORGANIC CONTENT, W SRTD

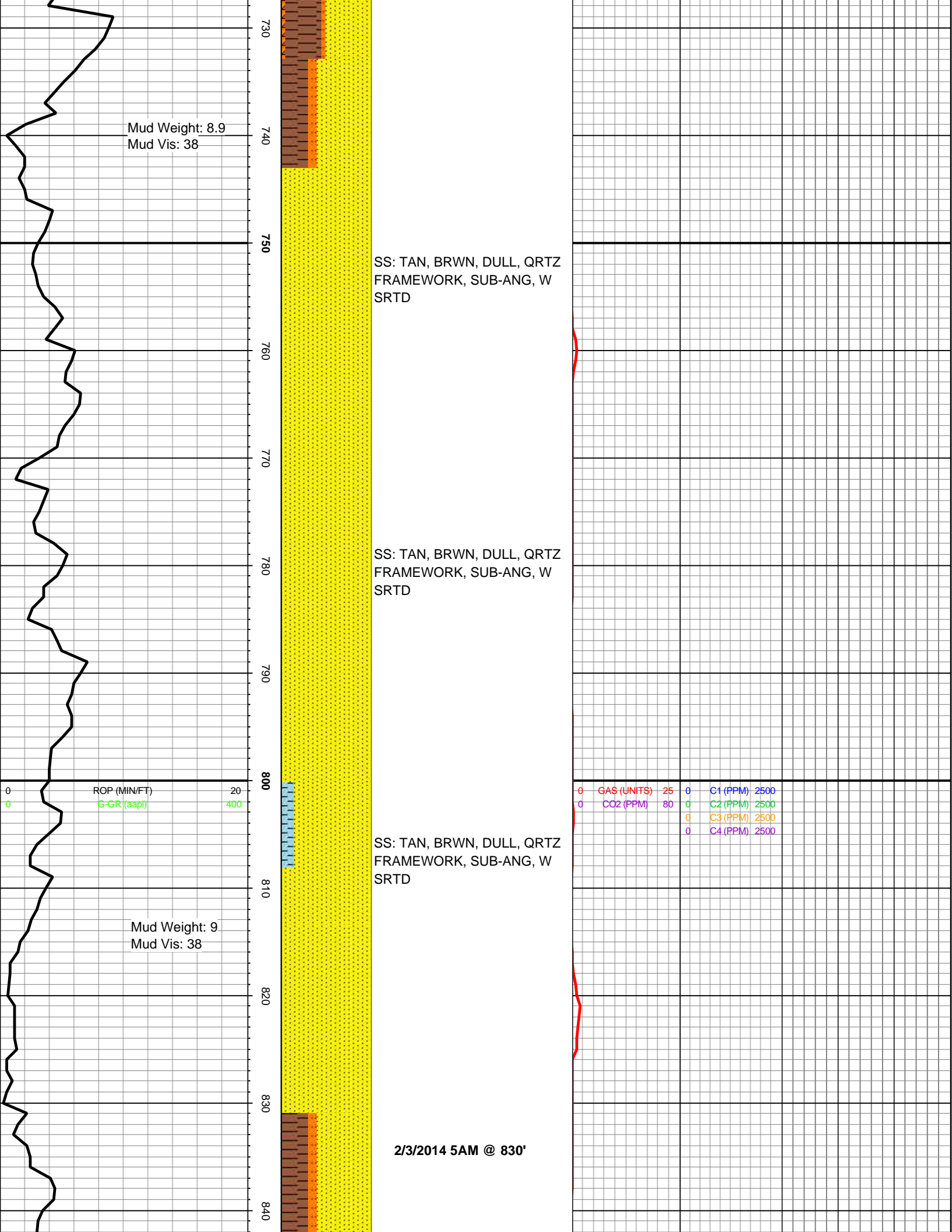
SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD

Mud Weight: 8.9  
Mud Vis: 38

ANHY: WHT, OFF-WHT, CLR, W  
SRTD

SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD





Mud Weight: 8.9  
Mud Vis: 38

SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD

SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD

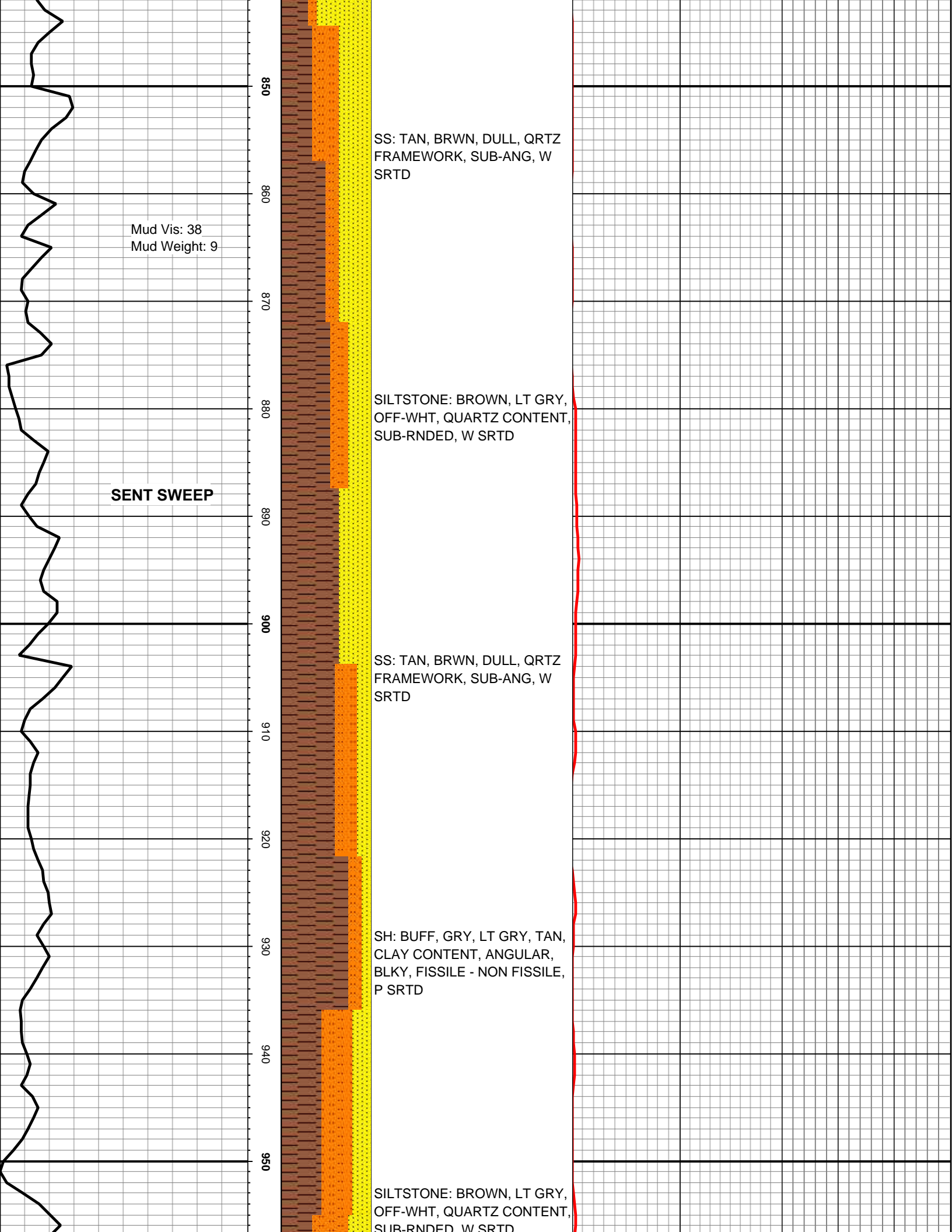
SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD

Mud Weight: 9  
Mud Vis: 38

2/3/2014 5AM @ 830'

ROP (MIN/FT) 20  
G-GR (aapl) 400

0	GAS (UNITS)	25	0	C1 (PPM)	2500
0	CO2 (PPM)	80	0	C2 (PPM)	2500
			0	C3 (PPM)	2500
			0	C4 (PPM)	2500



SS: TAN, BRWN, DULL, QRTZ FRAMEWORK, SUB-ANG, W SRTD

Mud Vis: 38  
Mud Weight: 9

SILTSTONE: BROWN, LT GRY, OFF-WHT, QUARTZ CONTENT, SUB-RNDED, W SRTD

SENT SWEEP

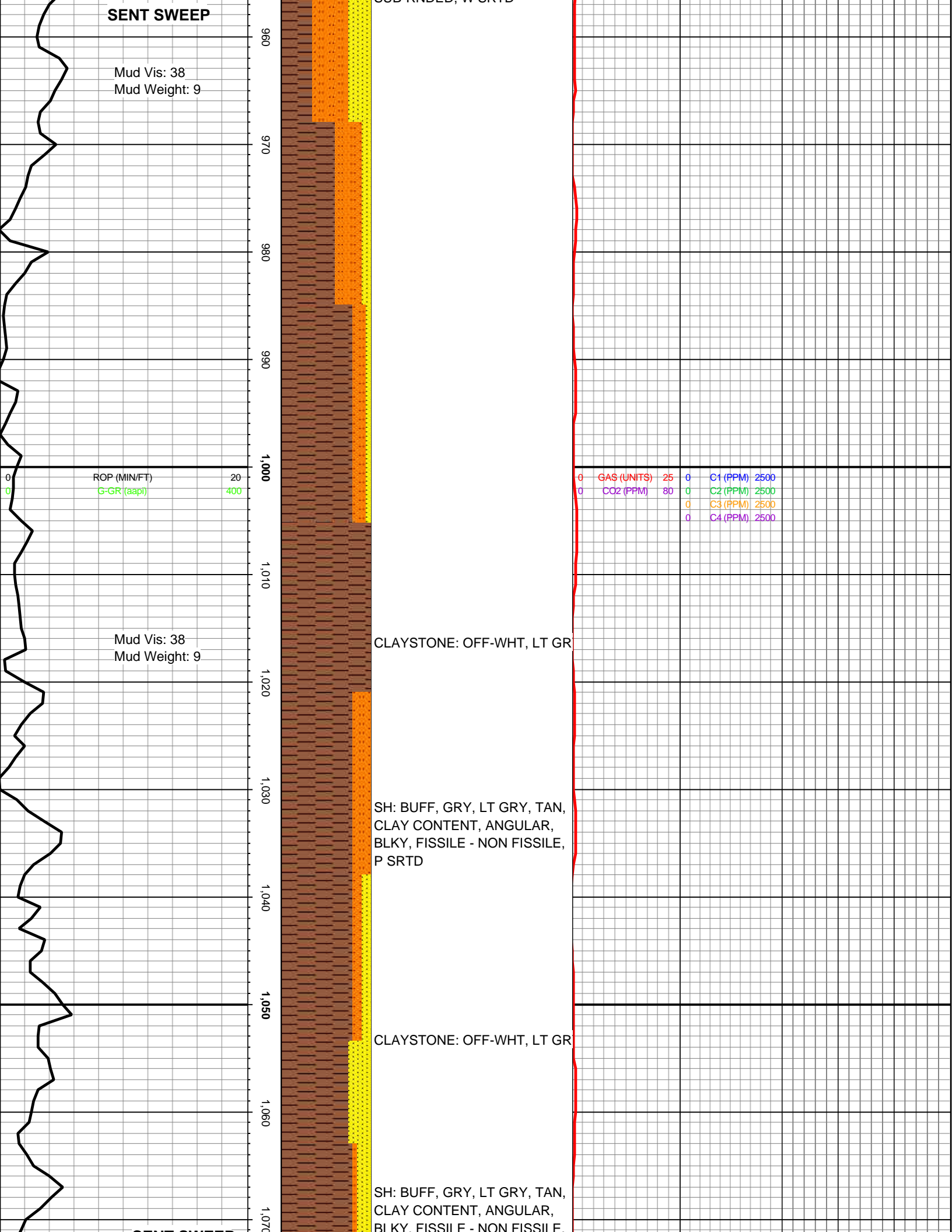
SS: TAN, BRWN, DULL, QRTZ FRAMEWORK, SUB-ANG, W SRTD

SH: BUFF, GRY, LT GRY, TAN, CLAY CONTENT, ANGULAR, BLKY, FISSILE - NON FISSILE, P SRTD

SILTSTONE: BROWN, LT GRY, OFF-WHT, QUARTZ CONTENT, SUB-RNDED, W SRTD

SENT SWEEP

COB INDELED, W CRTD



Mud Vis: 38  
Mud Weight: 9

960  
970  
980  
990  
1,000  
1,010  
1,020  
1,030  
1,040  
1,050  
1,060  
1,070

CLAYSTONE: OFF-WHT, LT GR

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD

CLAYSTONE: OFF-WHT, LT GR

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE

ROP (MIN/FT) 20  
G-GR (aapi) 400

0	GAS (UNITS)	25	0	C1 (PPM)	2500
0	CO2 (PPM)	80	0	C2 (PPM)	2500
			0	C3 (PPM)	2500
			0	C4 (PPM)	2500

SENT SWEEP

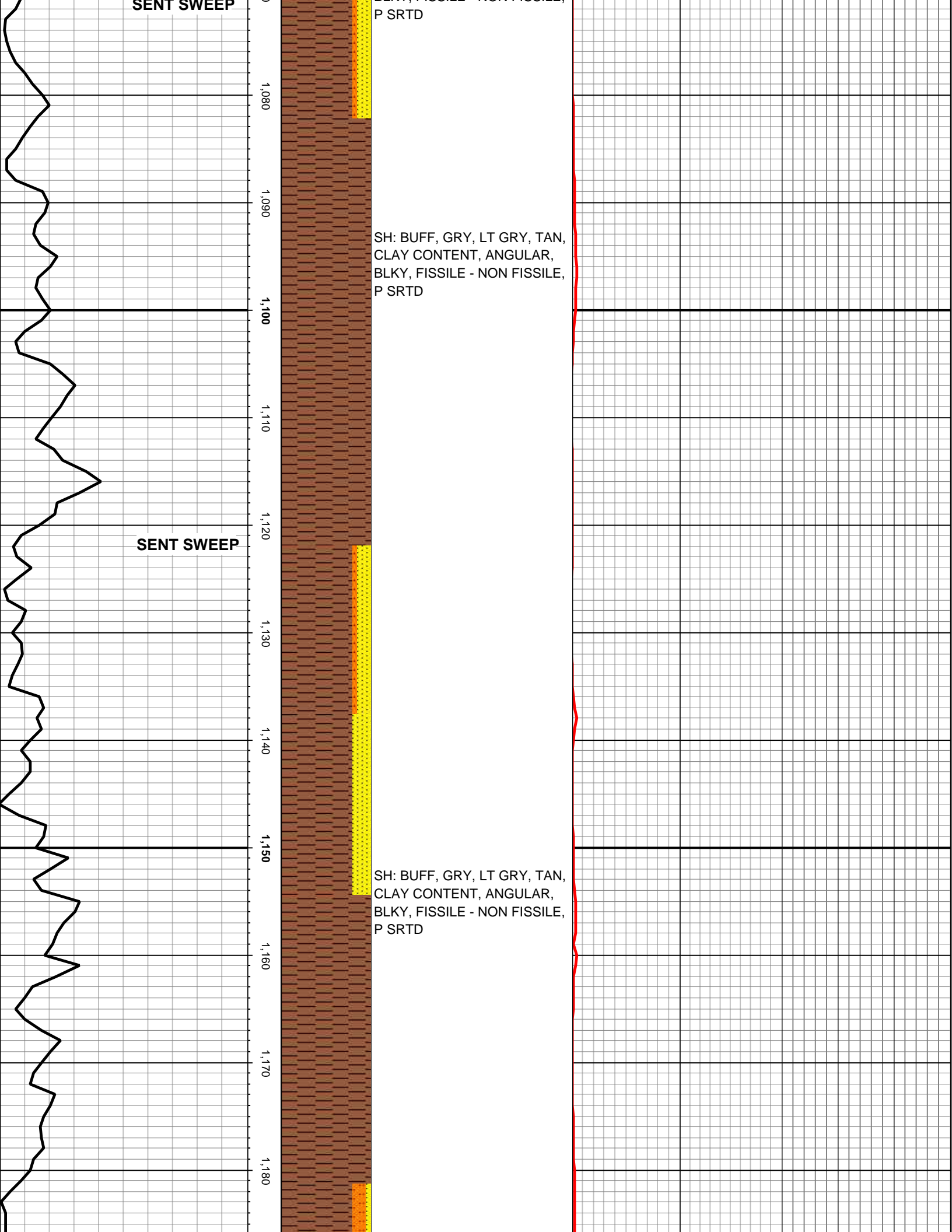
SENT SWEEP

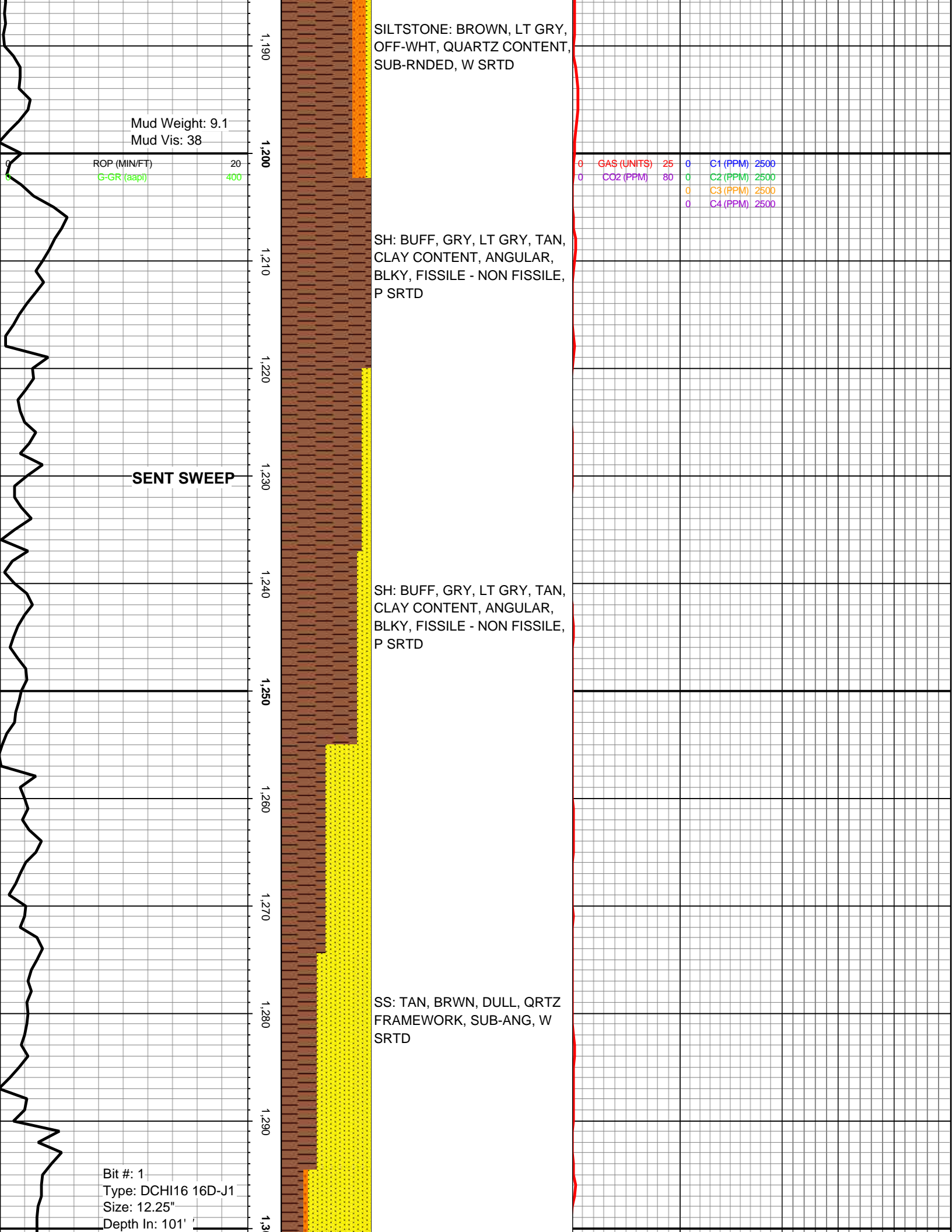
SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD

1,080  
1,090  
1,100  
1,110  
1,120  
1,130  
1,140  
1,150  
1,160  
1,170  
1,180

SENT SWEEP

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD





SILTSTONE: BROWN, LT GRY,  
OFF-WHT, QUARTZ CONTENT,  
SUB-RNDED, W SRTD

Mud Weight: 9.1  
Mud Vis: 38

ROP (MIN/FT) 20  
G-GR (aapl) 400

0	GAS (UNITS)	25	0	C1 (PPM)	2500
0	CO2 (PPM)	80	0	C2 (PPM)	2500
			0	C3 (PPM)	2500
			0	C4 (PPM)	2500

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD

**SENT SWEEP**

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD

SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD

Bit #: 1  
Type: DCH116 16D-J1  
Size: 12.25"  
Depth In: 101'

Hours: 28 hrs  
Jets: 6X16  
S/N: A147928

SENT SWEEP

1,300  
1,310  
1,320  
1,330  
1,340  
1,350  
1,360  
1,370  
1,380  
1,390  
1,400  
1,410

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD

SS: TAN, BRWN, DULL, QRTZ  
FRAMEWORK, SUB-ANG, W  
SRTD

SH: BUFF, GRY, LT GRY, TAN,  
CLAY CONTENT, ANGULAR,  
BLKY, FISSILE - NON FISSILE,  
P SRTD

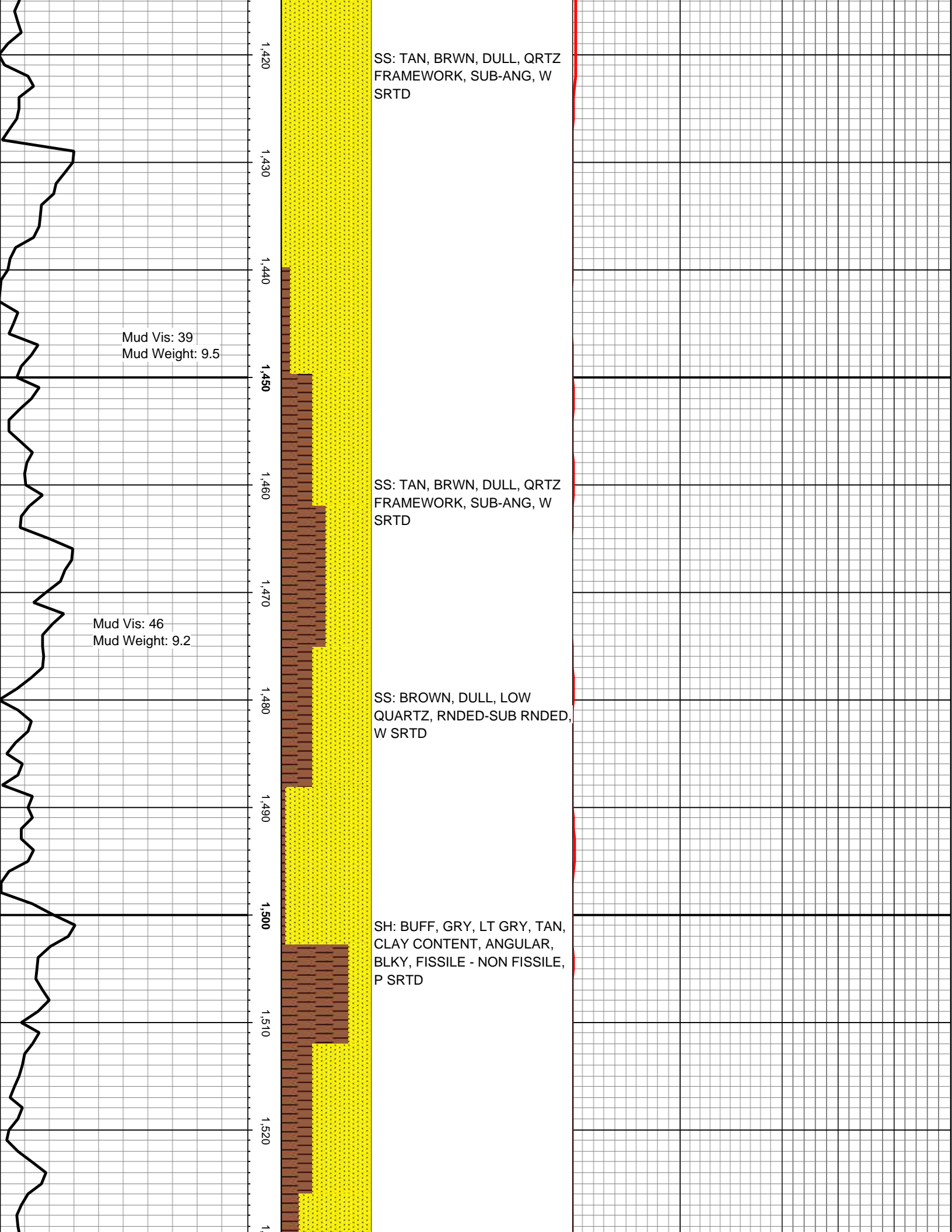
SS: BROWN, DULL, LOW  
QUARTZ, RNDED-SUB RNDED,  
W SRTD

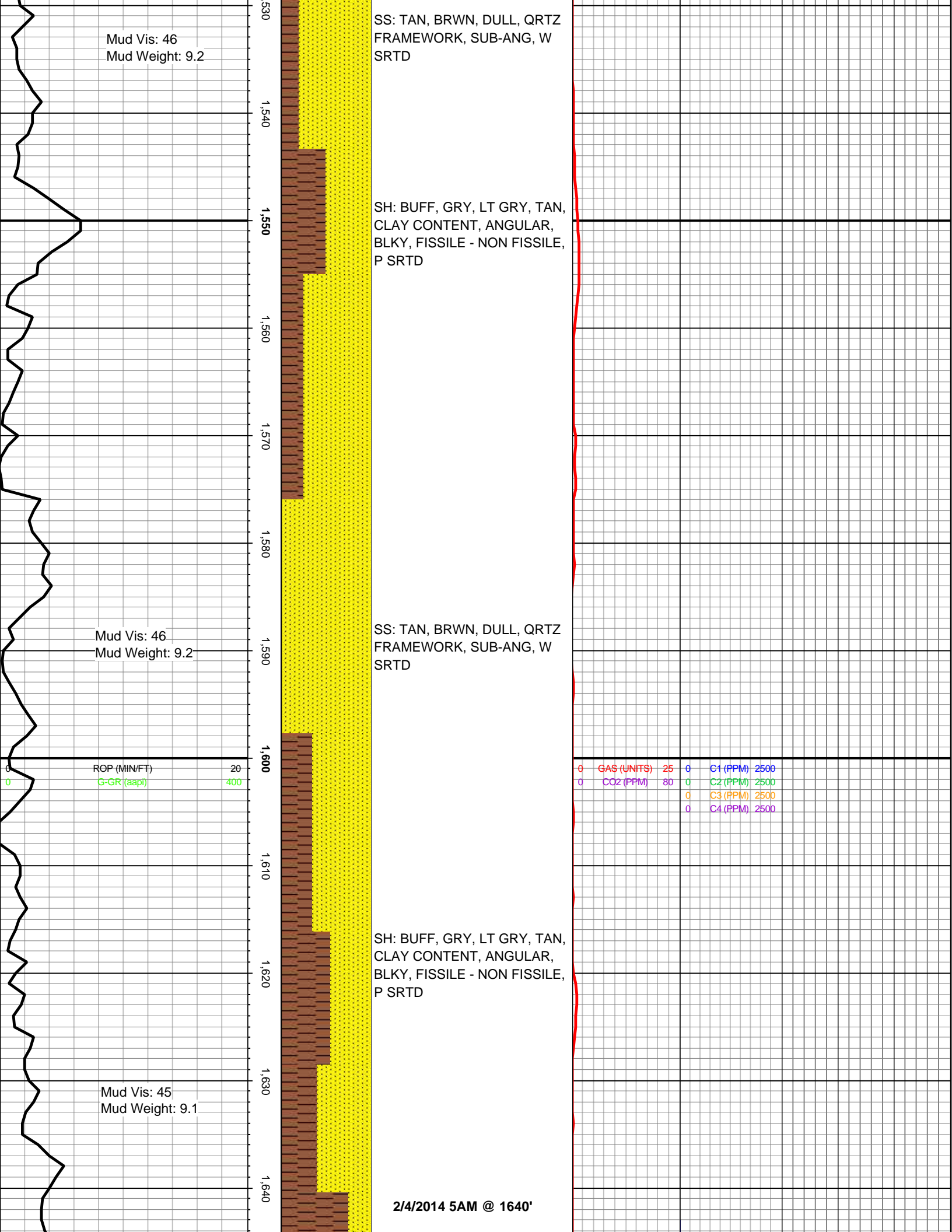
Mud Vis: 39  
Mud Weight: 9.15

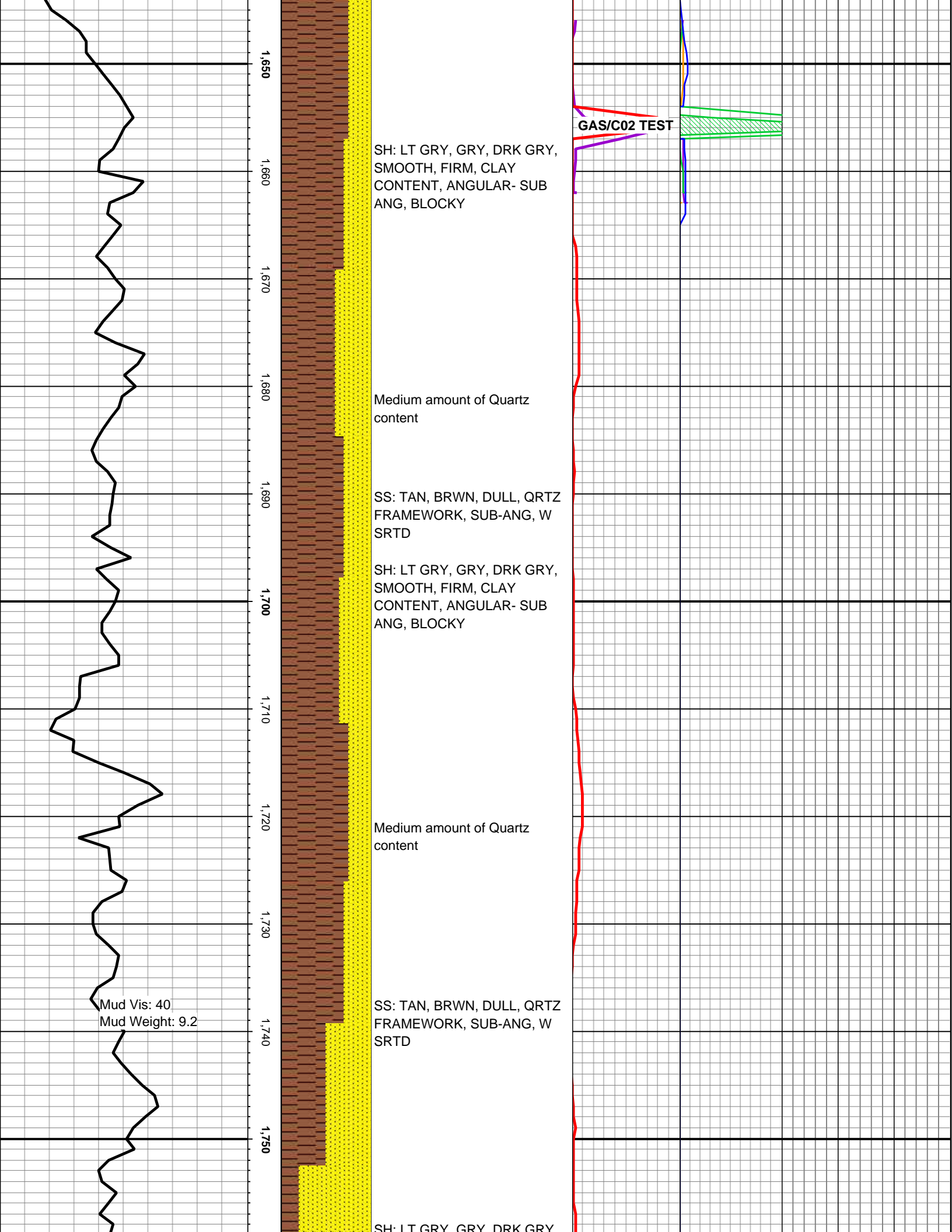
Mud Vis: 39  
Mud Weight: 9.5

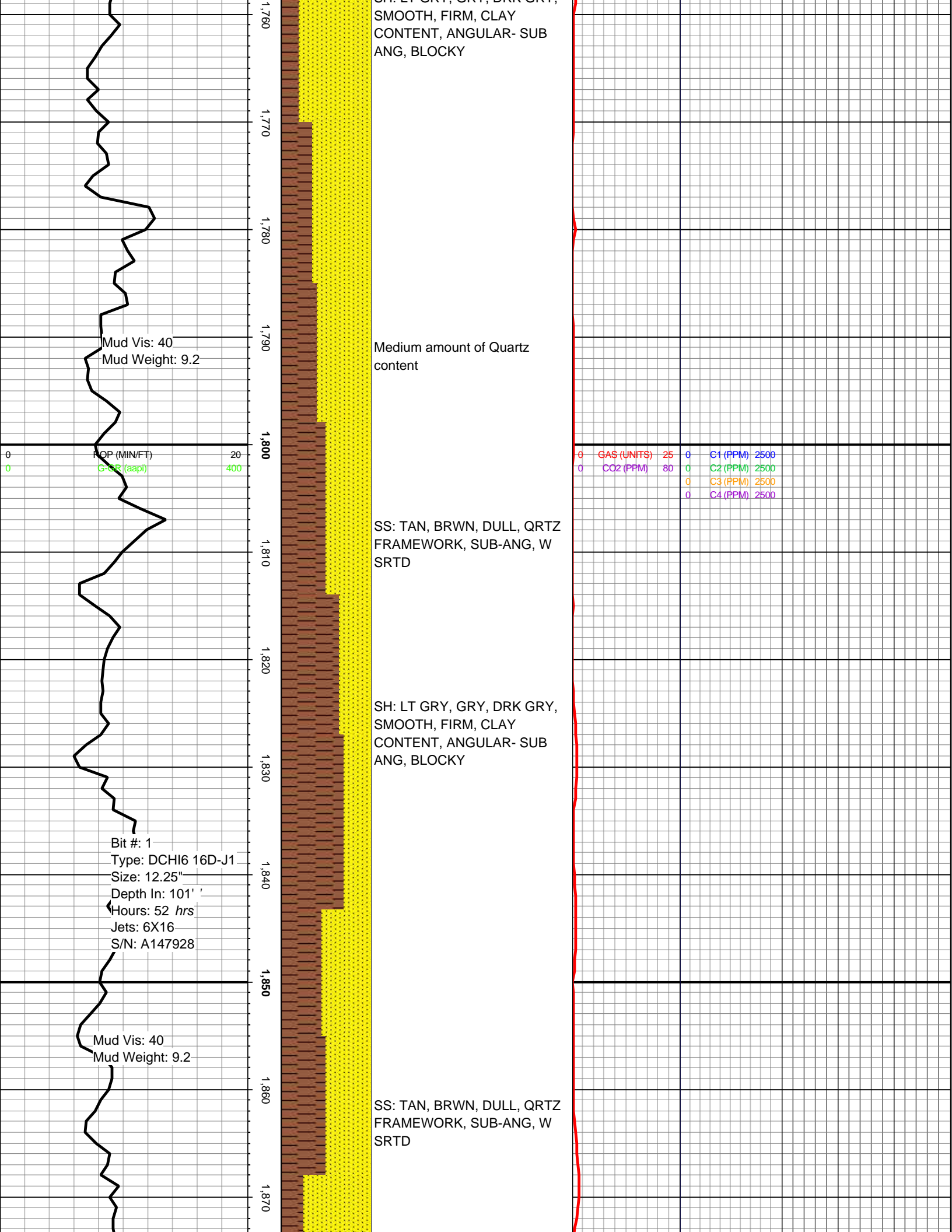
ROP (MIN/FT) 20  
G-CR (aapi) 400

0	GAS (UNITS)	25	0	C1 (PPM)	2500
0	CO2 (PPM)	80	0	C2 (PPM)	2500
			0	C3 (PPM)	2500
			0	C4 (PPM)	2500

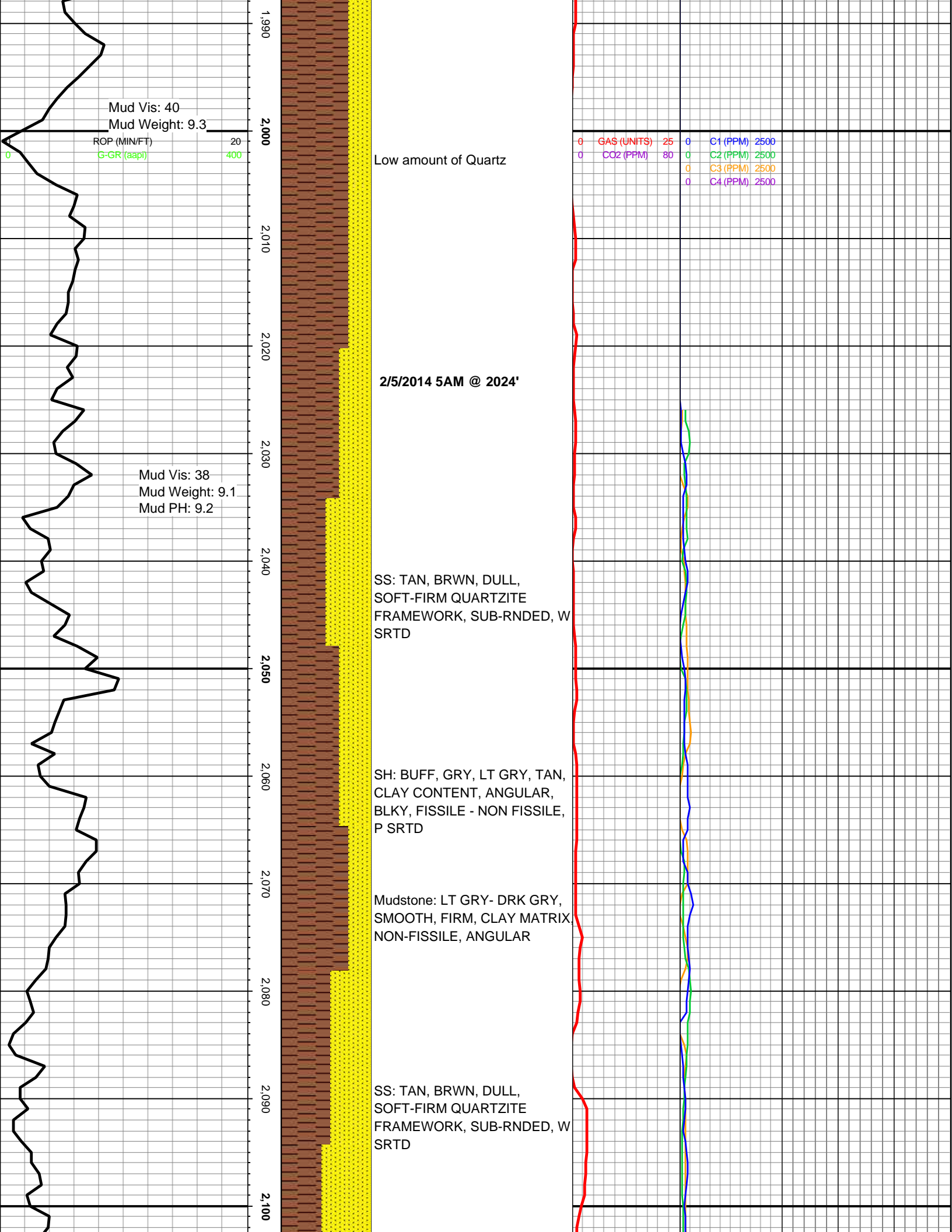


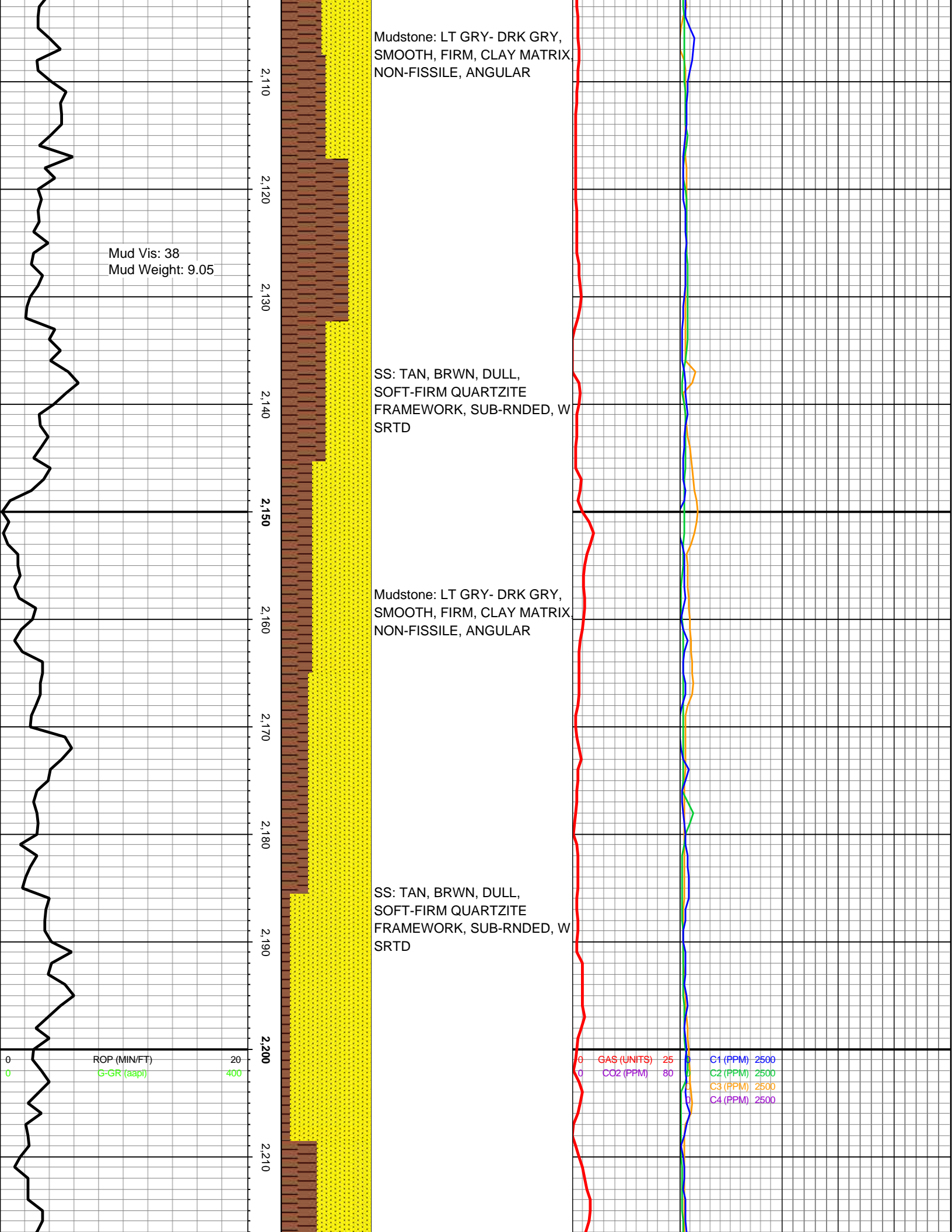


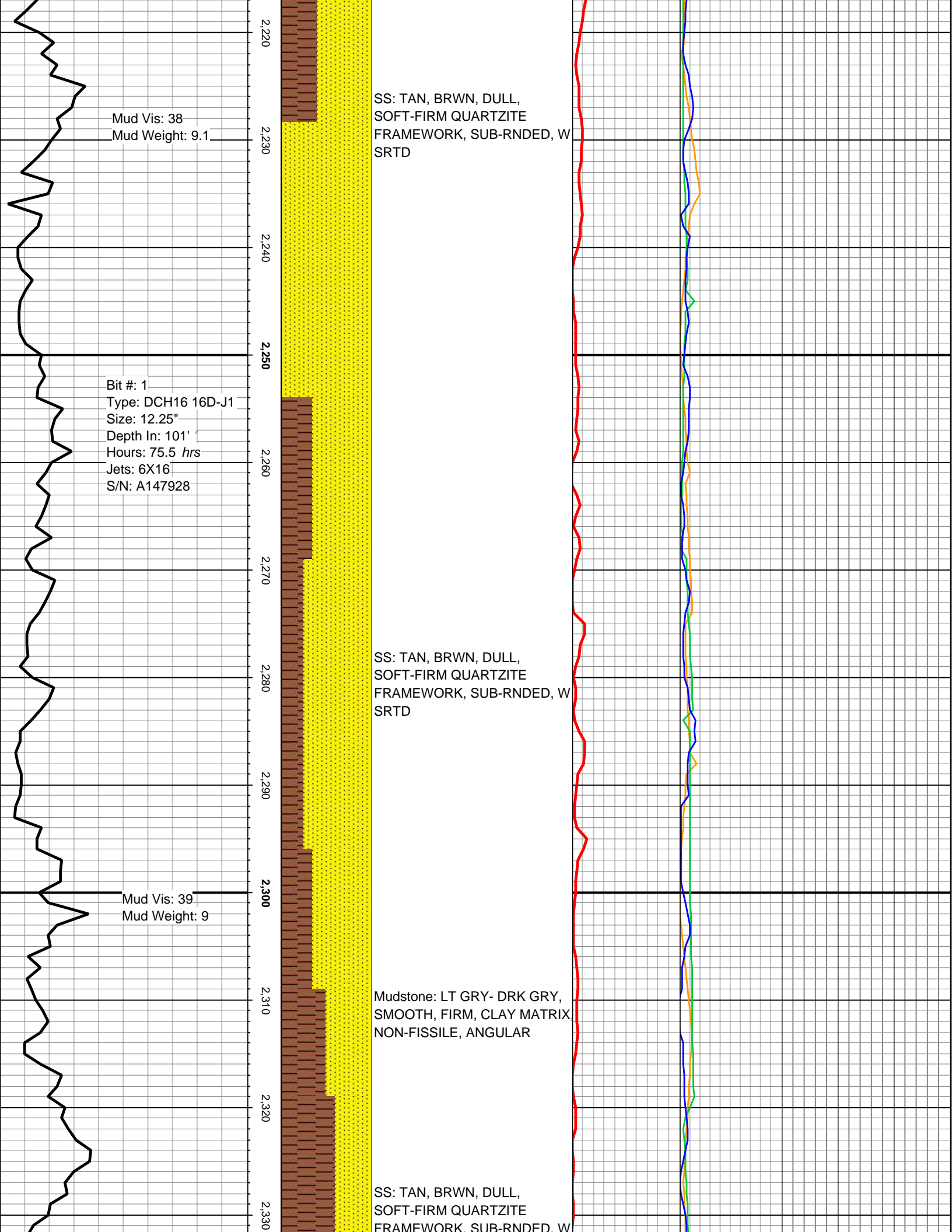


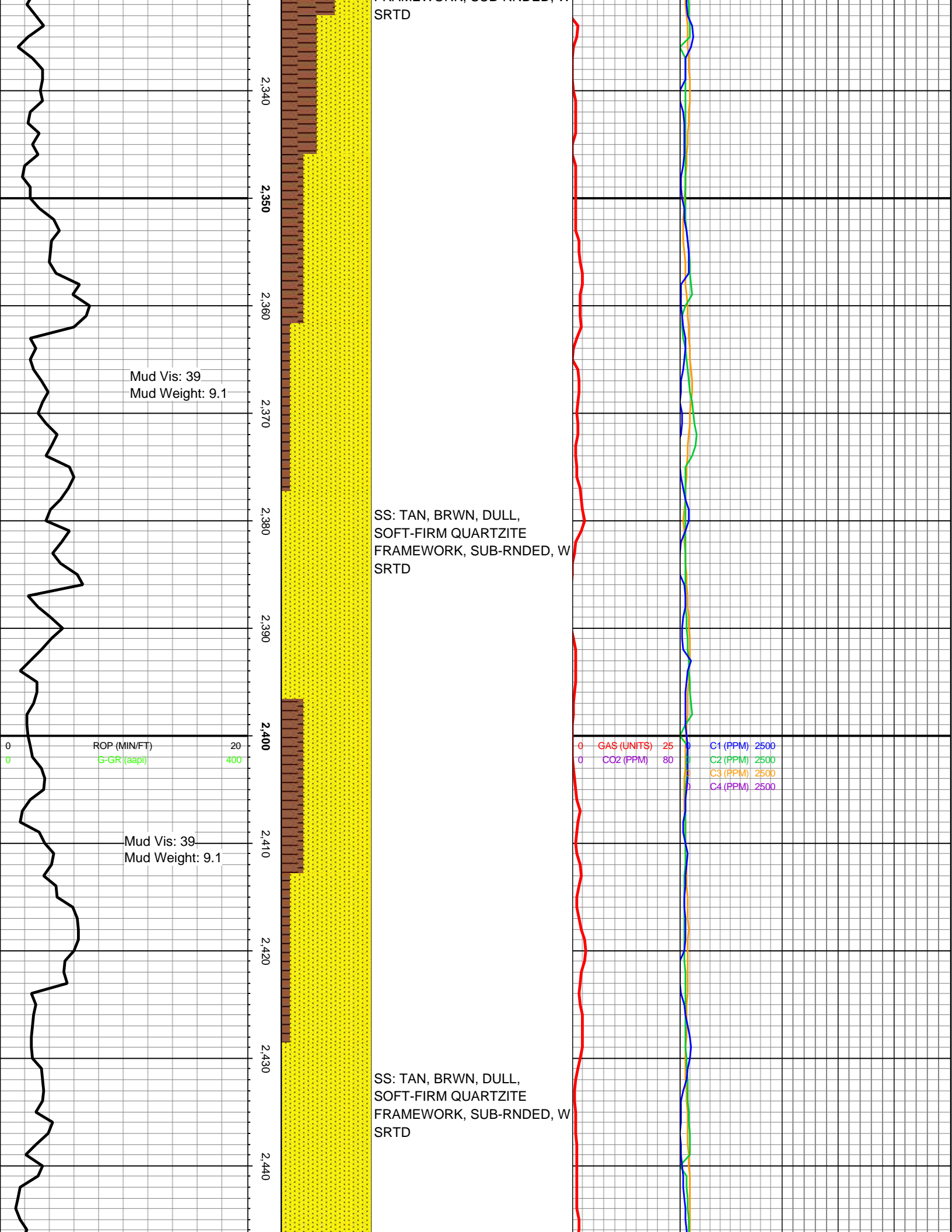


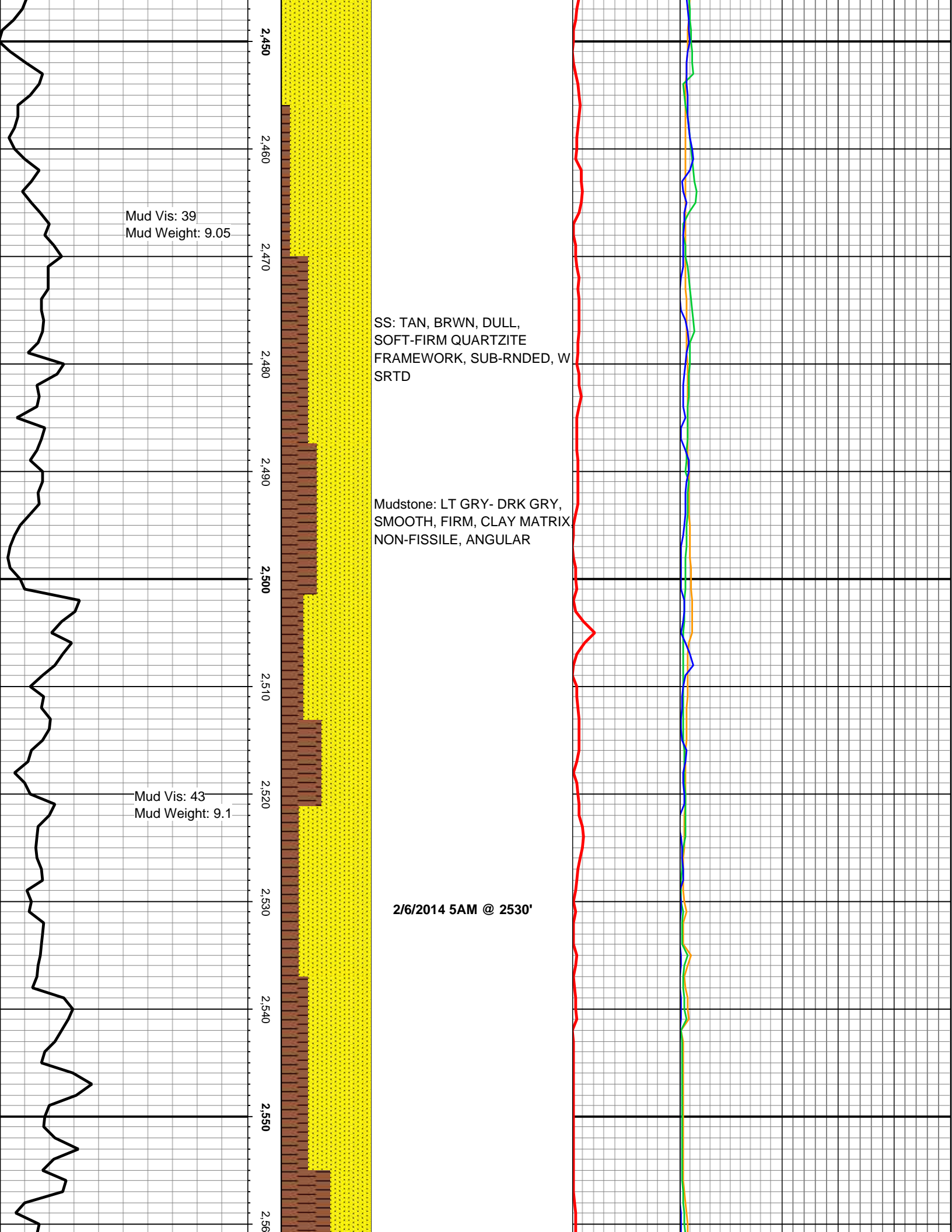












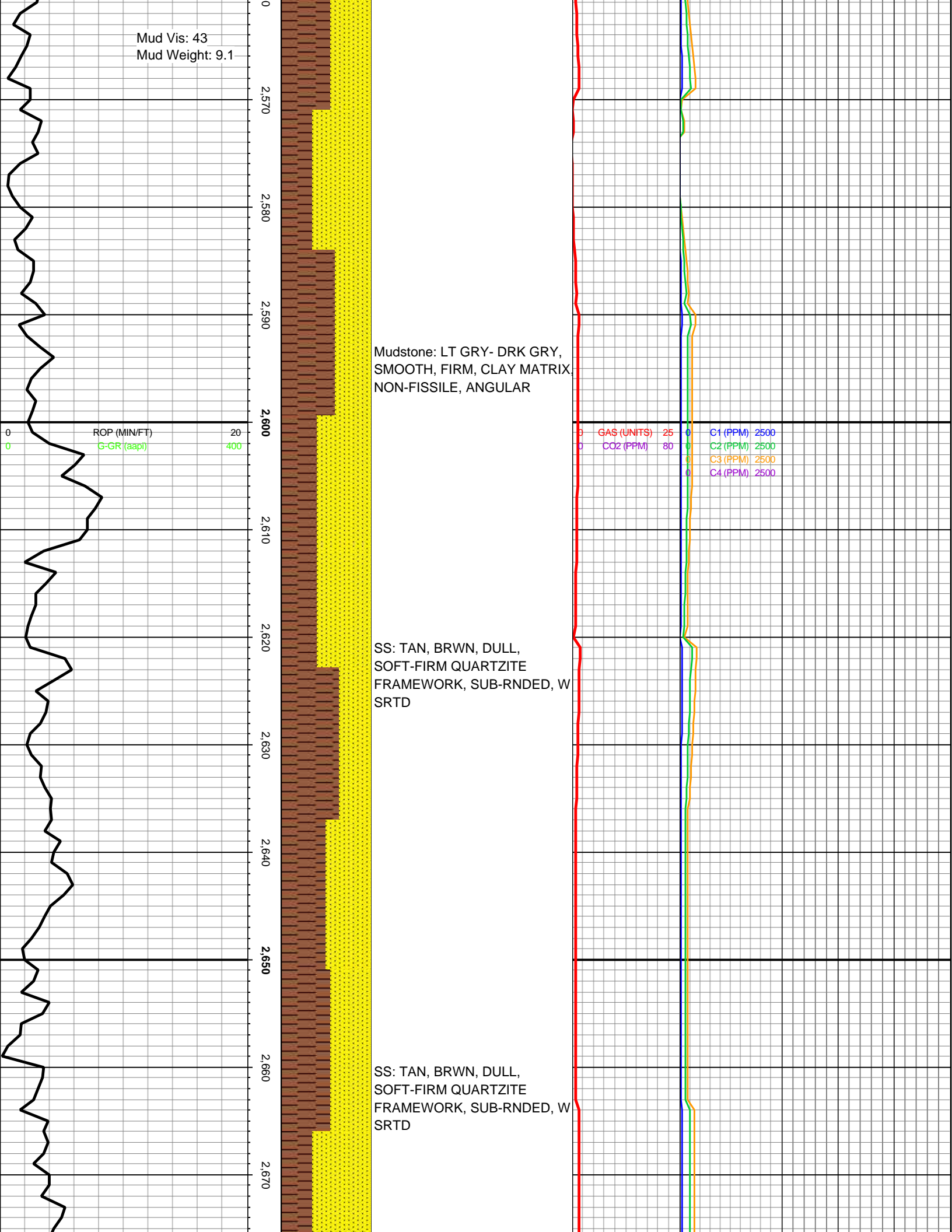
Mud Vis: 39  
Mud Weight: 9.05

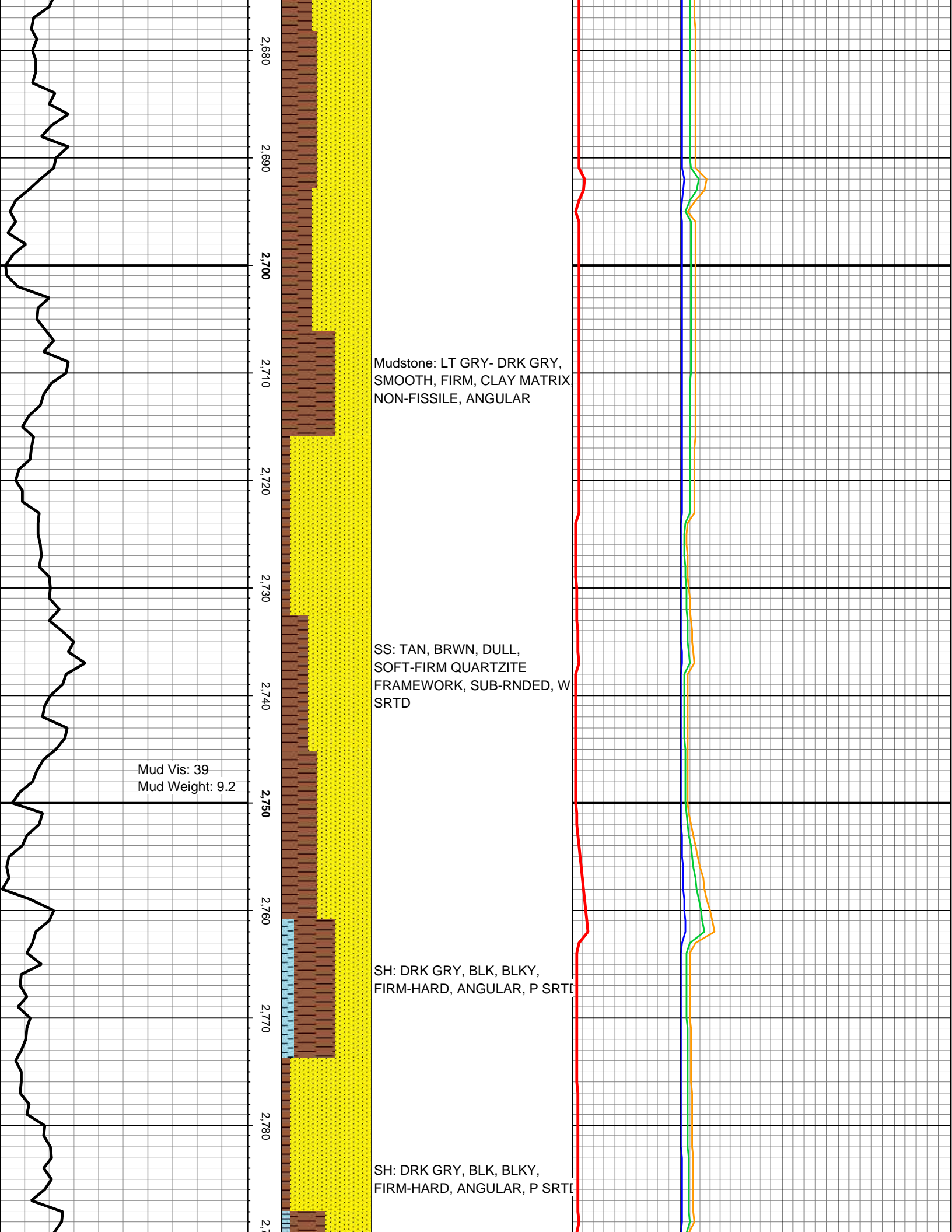
SS: TAN, BRWN, DULL,  
SOFT-FIRM QUARTZITE  
FRAMEWORK, SUB-RNDED, W  
SRTD

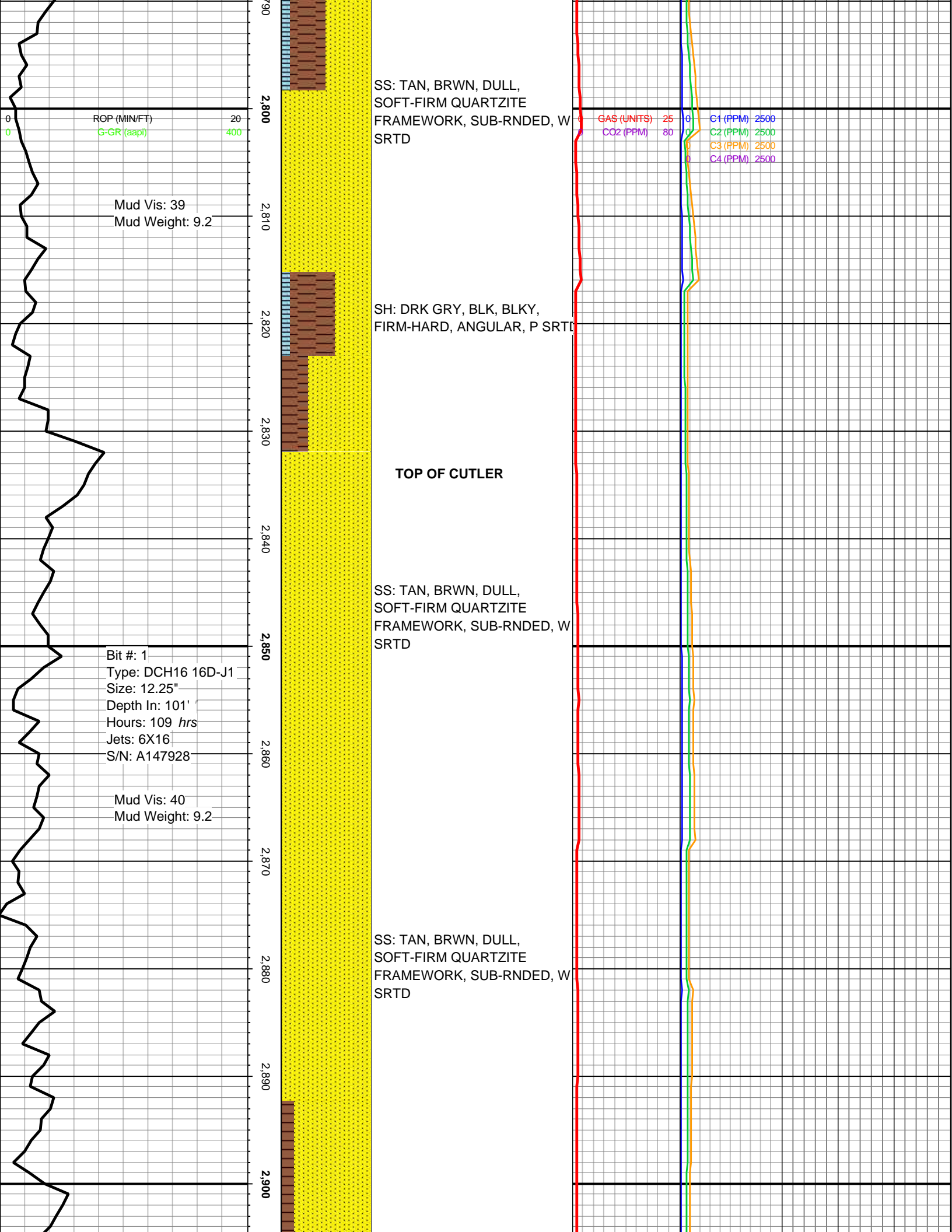
Mudstone: LT GRY- DRK GRY,  
SMOOTH, FIRM, CLAY MATRIX  
NON-FISSILE, ANGULAR

Mud Vis: 43  
Mud Weight: 9.1

2/6/2014 5AM @ 2530'







2800  
2810  
2820  
2830  
2840  
2850  
2860  
2870  
2880  
2890  
2900

SS: TAN, BRWN, DULL,  
SOFT-FIRM QUARTZITE  
FRAMEWORK, SUB-RNDED, W  
SRTD

SH: DRK GRY, BLK, BLKY,  
FIRM-HARD, ANGULAR, P SRTD

**TOP OF CUTLER**

SS: TAN, BRWN, DULL,  
SOFT-FIRM QUARTZITE  
FRAMEWORK, SUB-RNDED, W  
SRTD

SS: TAN, BRWN, DULL,  
SOFT-FIRM QUARTZITE  
FRAMEWORK, SUB-RNDED, W  
SRTD

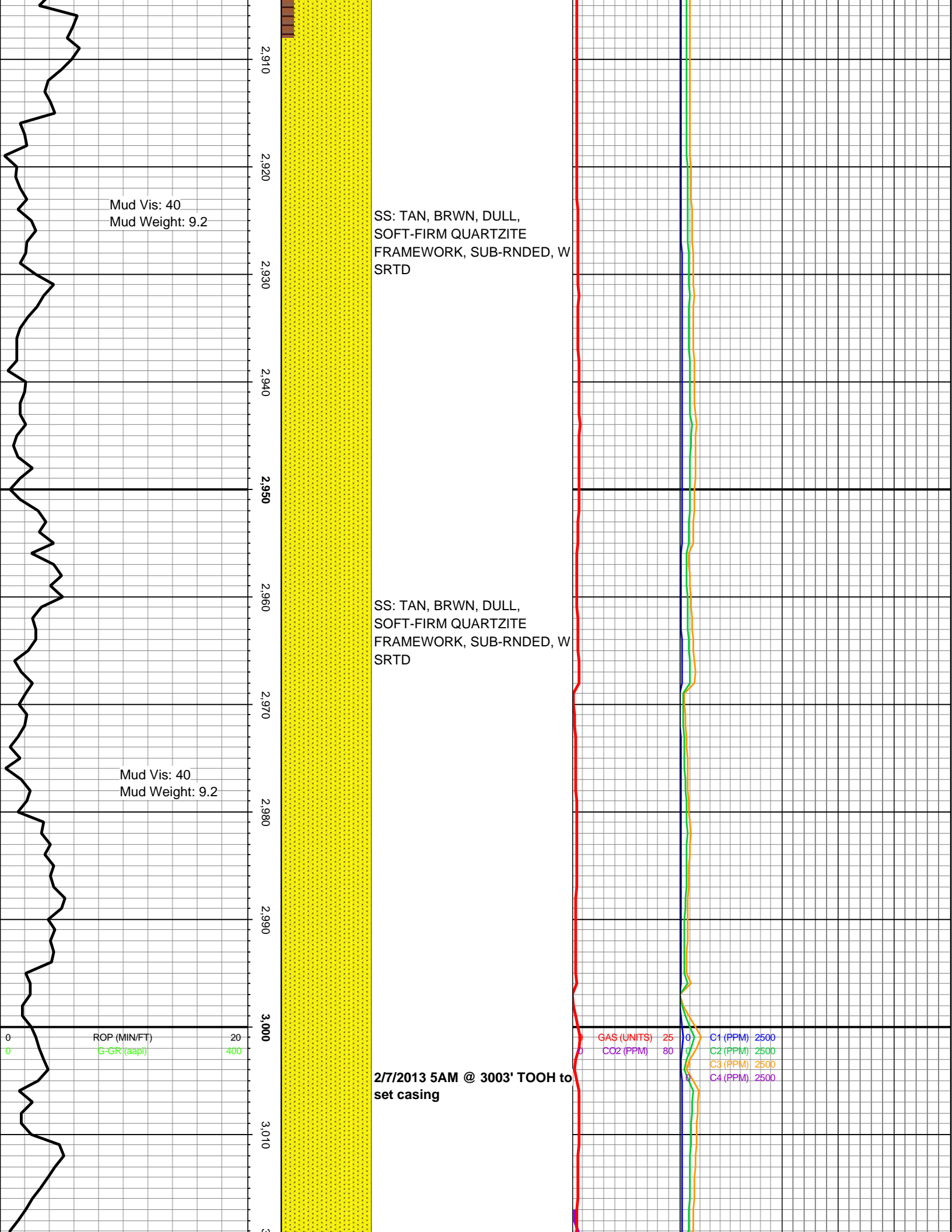
ROP (MIN/FT) 20  
G-GR (aapl) 400

Mud Vis: 39  
Mud Weight: 9.2

Bit #: 1  
Type: DCH16 16D-J1  
Size: 12.25"  
Depth In: 101'  
Hours: 109 hrs  
Jets: 6X16  
S/N: A147928

Mud Vis: 40  
Mud Weight: 9.2

GAS (UNITS) 25  
CO2 (PPM) 80  
C1 (PPM) 2500  
C2 (PPM) 2500  
C3 (PPM) 2500  
C4 (PPM) 2500



Mud Vis: 40  
Mud Weight: 9.2

SS: TAN, BRWN, DULL,  
SOFT-FIRM QUARTZITE  
FRAMEWORK, SUB-RNDED, W  
SRTD

SS: TAN, BRWN, DULL,  
SOFT-FIRM QUARTZITE  
FRAMEWORK, SUB-RNDED, W  
SRTD

Mud Vis: 40  
Mud Weight: 9.2

ROP (MIN/FT)

G-GR (aapi)

20

400

GAS (UNITS) 25

CO2 (PPM) 80

C1 (PPM) 2500

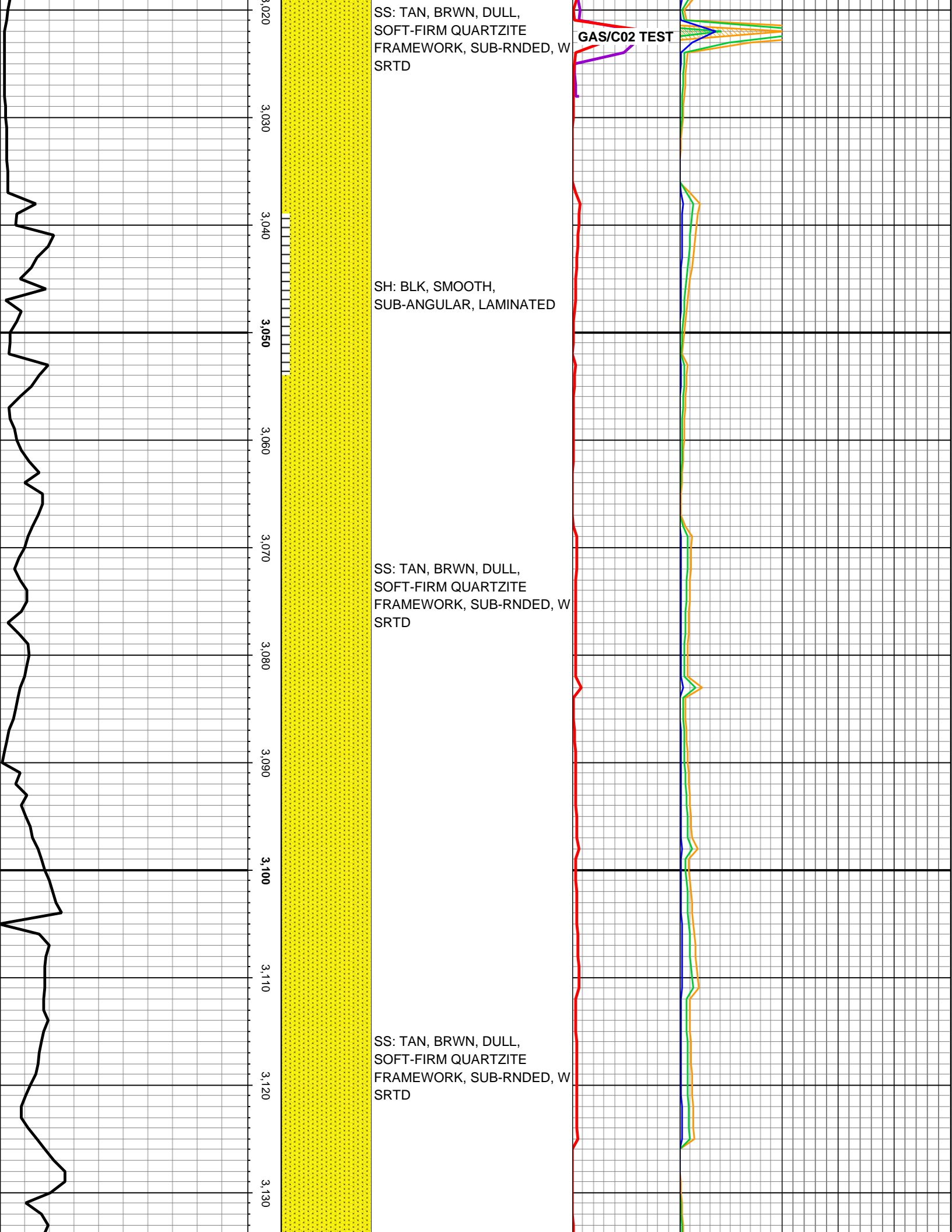
C2 (PPM) 2500

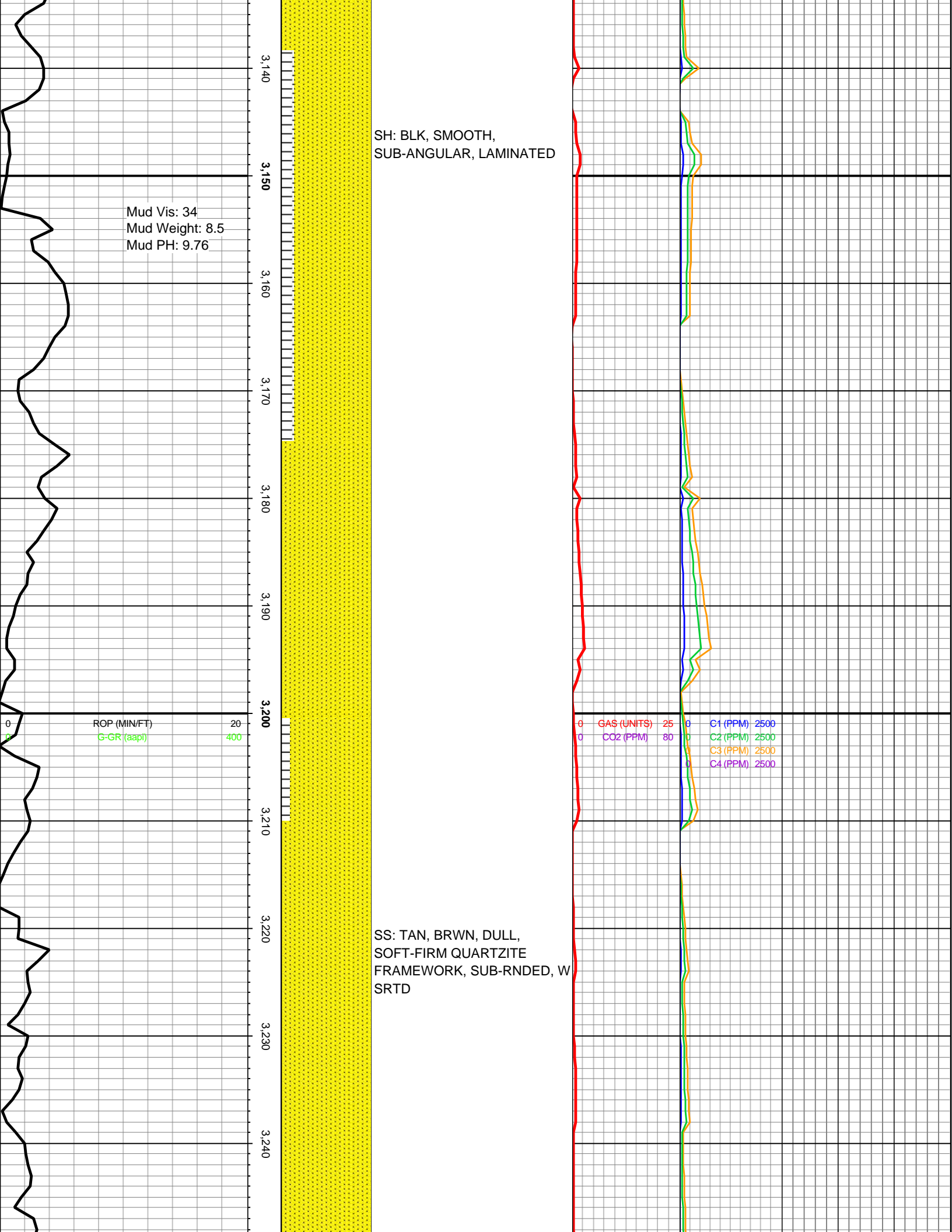
C3 (PPM) 2500

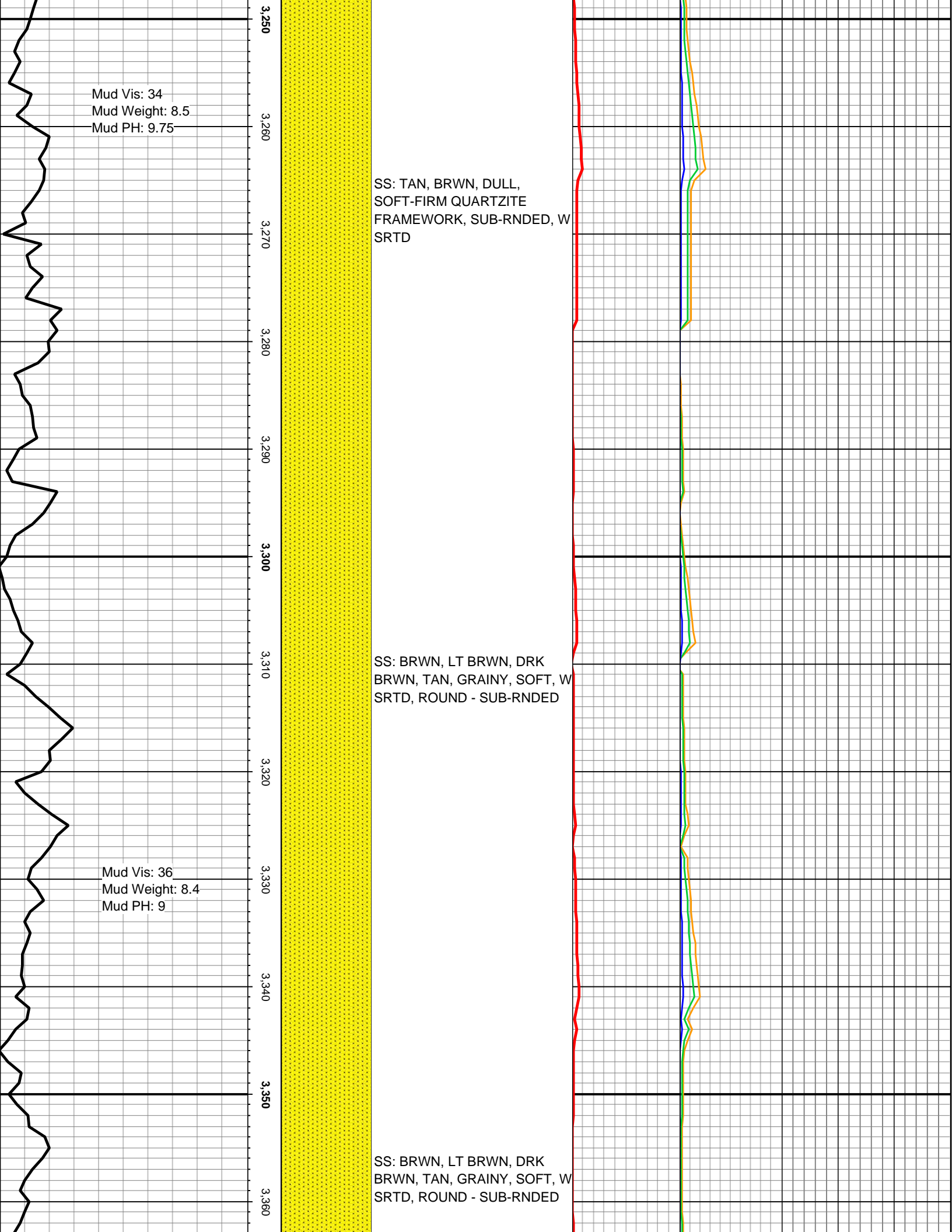
C4 (PPM) 2500

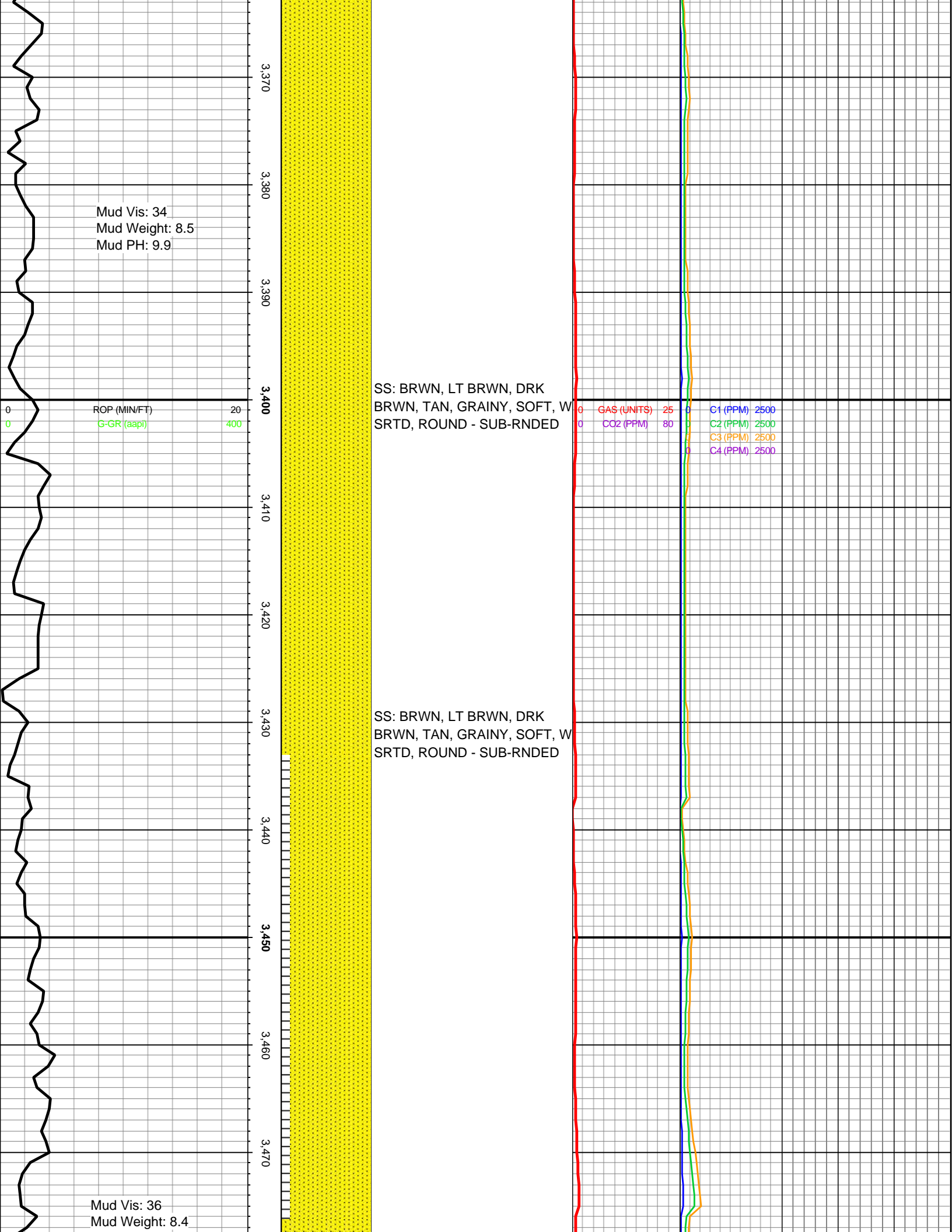
2/7/2013 5AM @ 3003' TOOH to  
set casing

2,910  
2,920  
2,930  
2,940  
2,950  
2,960  
2,970  
2,980  
2,990  
3,000  
3,010









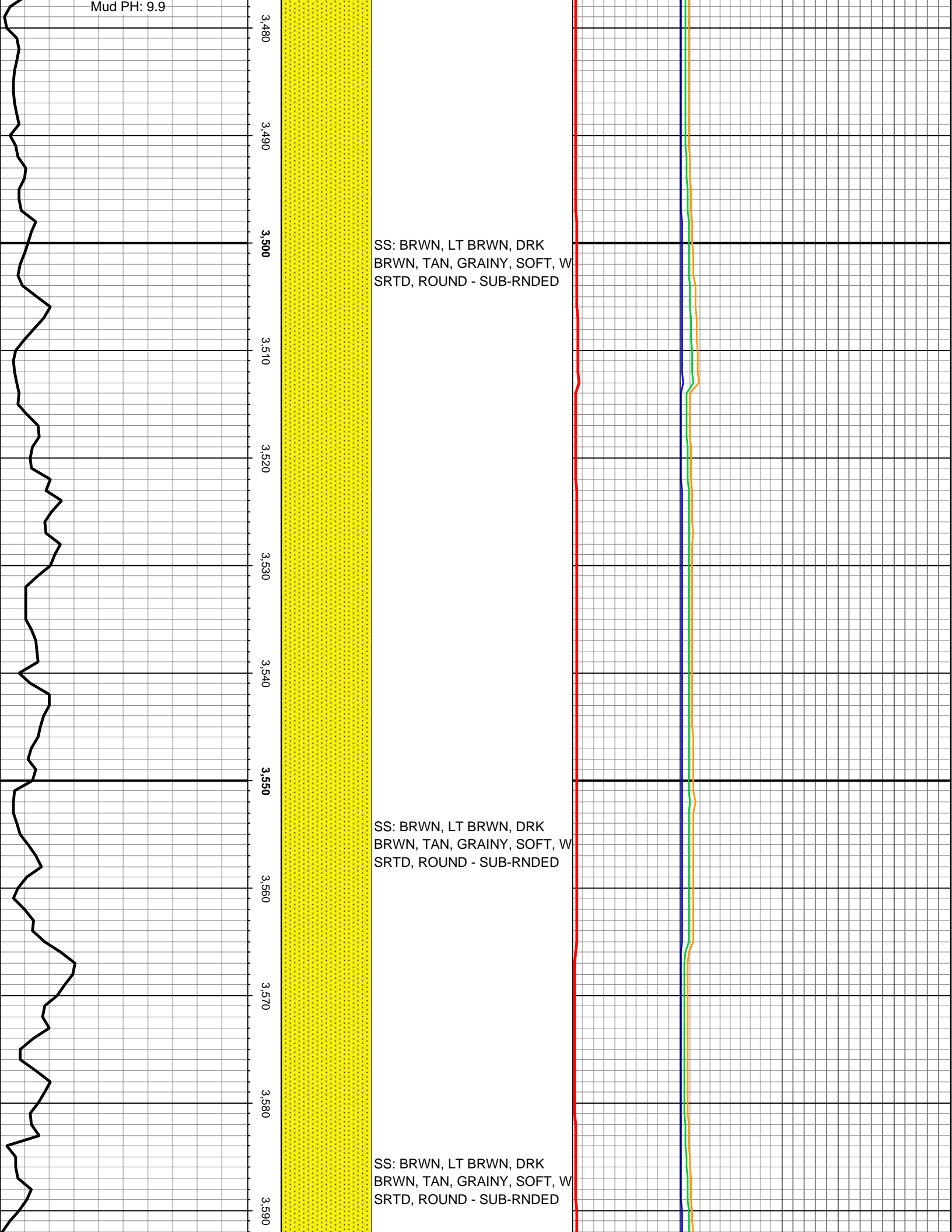
Mud PH: 9.9

3.480  
3.490  
3.500  
3.510  
3.520  
3.530  
3.540  
3.550  
3.560  
3.570  
3.580  
3.590

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED



Mud Vis: 36  
Mud Weight: 8.5  
Mud PH: 9.3

ROP (MIN/FT) 20  
G-GR (aapi) 400

3,600  
3,610  
3,620  
3,630  
3,640  
3,650  
3,660  
3,670  
3,680  
3,690  
3,700

LS: WHT, OFF-WHT, SMOOTH, ROUNDED

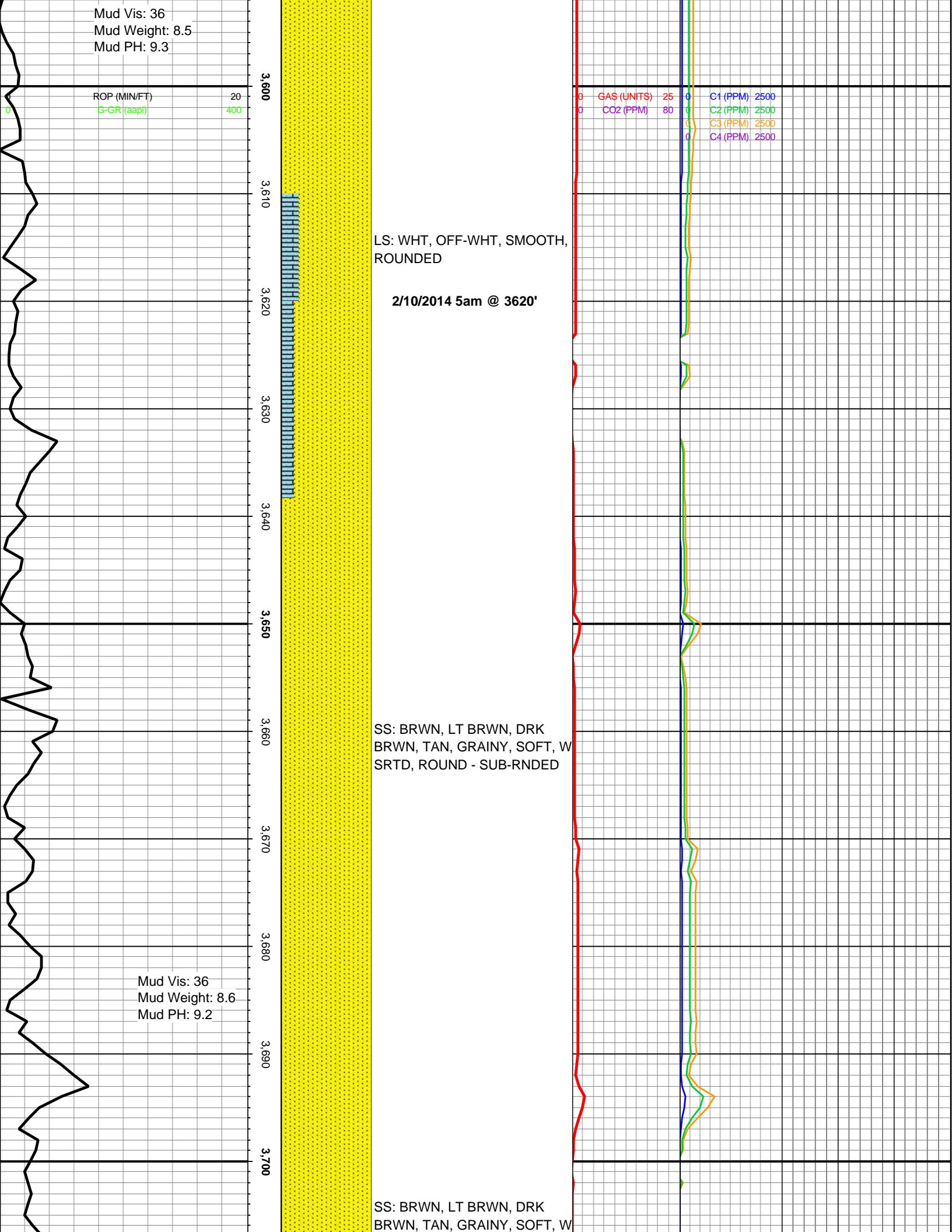
2/10/2014 5am @ 3620'

SS: BRWN, LT BRWN, DRK BRWN, TAN, GRAINY, SOFT, W SRTD, ROUND - SUB-RNDED

Mud Vis: 36  
Mud Weight: 8.6  
Mud PH: 9.2

GAS (UNITS) 25  
CO2 (PPM) 80  
C1 (PPM) 2500  
C2 (PPM) 2500  
C3 (PPM) 2500  
C4 (PPM) 2500

SS: BRWN, LT BRWN, DRK BRWN, TAN, GRAINY, SOFT, W



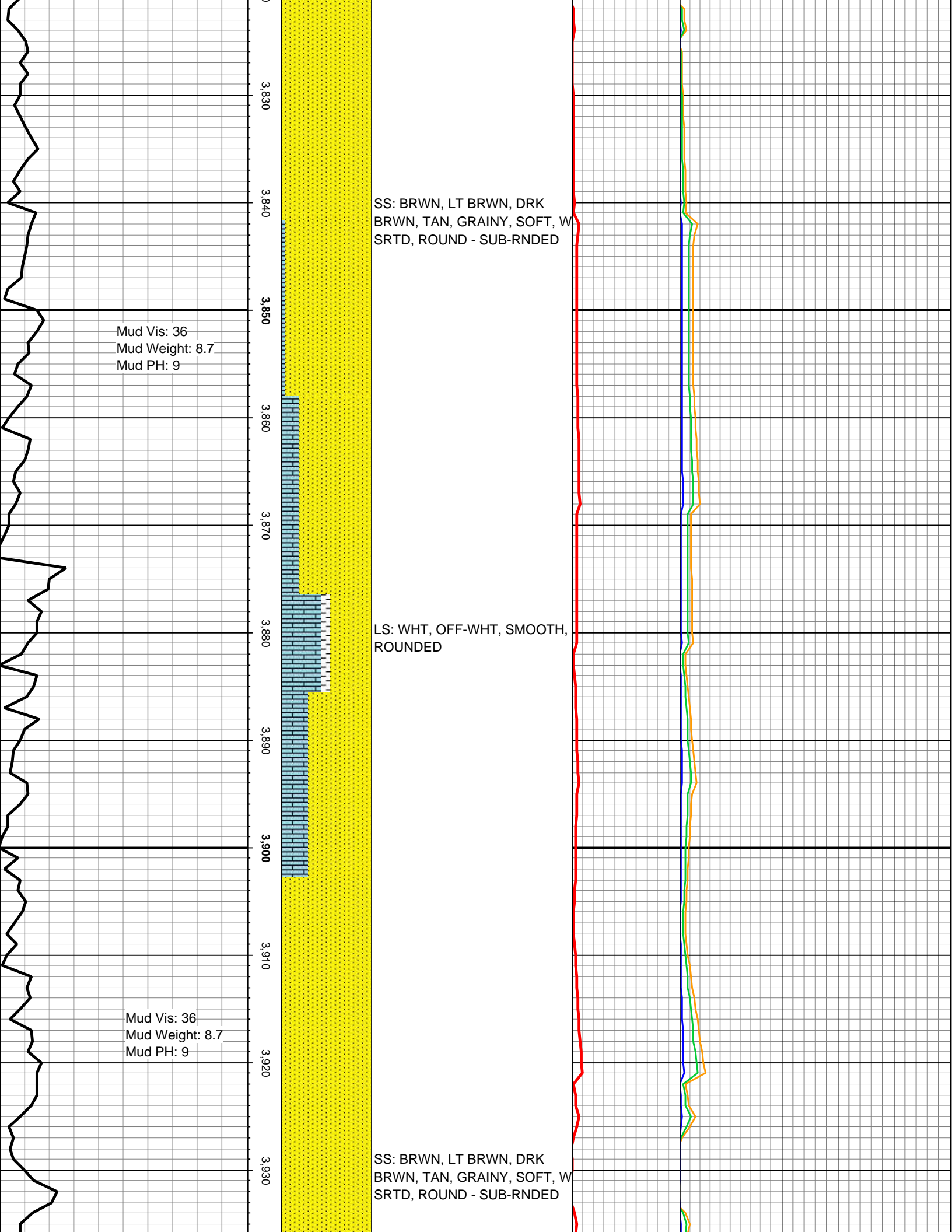
SRTD, ROUND - SUB-RNDED

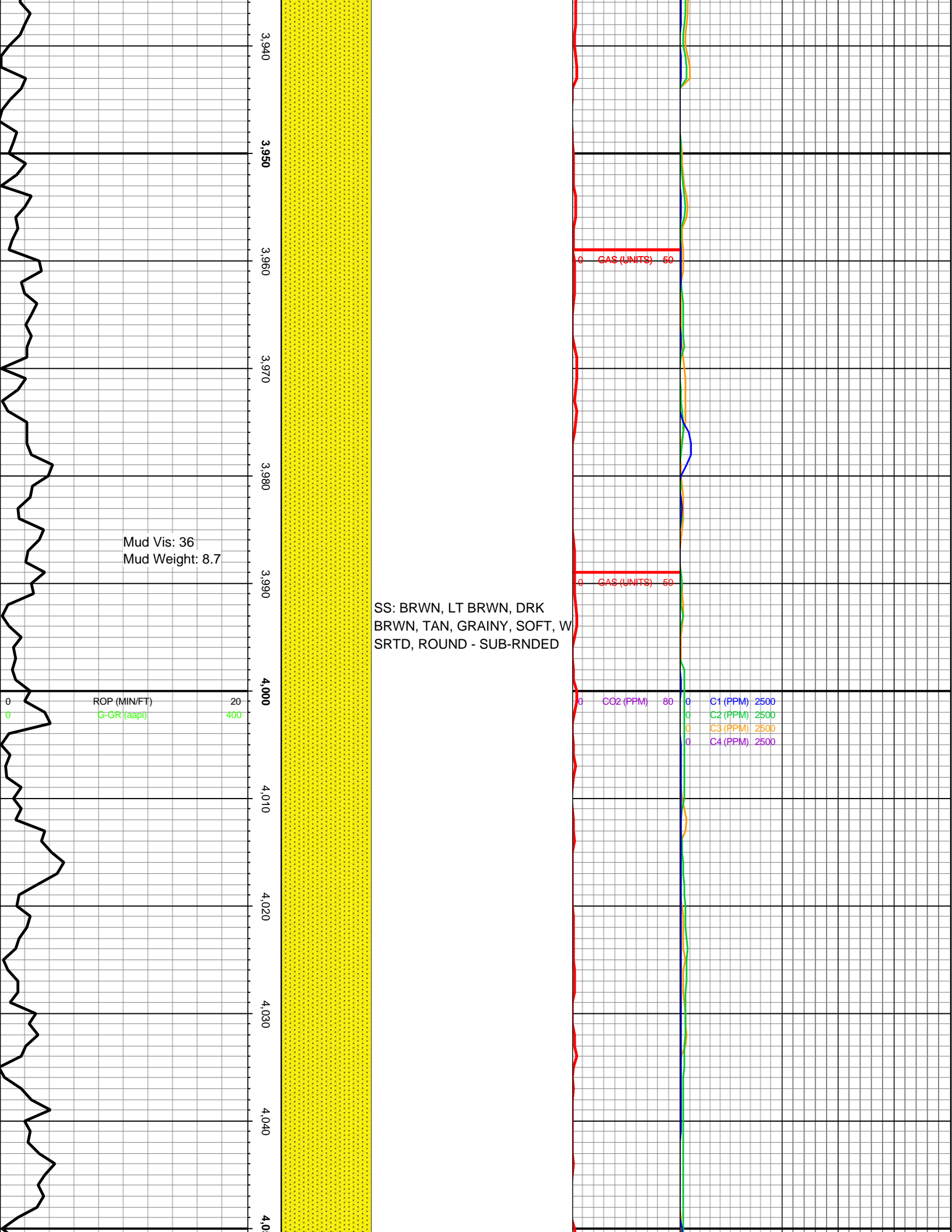


ROP (MIN/FT) 20  
G-GR (aapl) 400

GAS (UNITS) 25  
CO2 (PPM) 80  
C1 (PPM) 2500  
C2 (PPM) 2500  
C3 (PPM) 2500  
C4 (PPM) 2500

LS: WHT, OFF-WHT, SMOOTH, ROUNDED





3,940  
3,950  
3,960  
3,970  
3,980  
3,990  
4,000  
4,010  
4,020  
4,030  
4,040  
4,050

Mud Vis: 36  
Mud Weight: 8.7

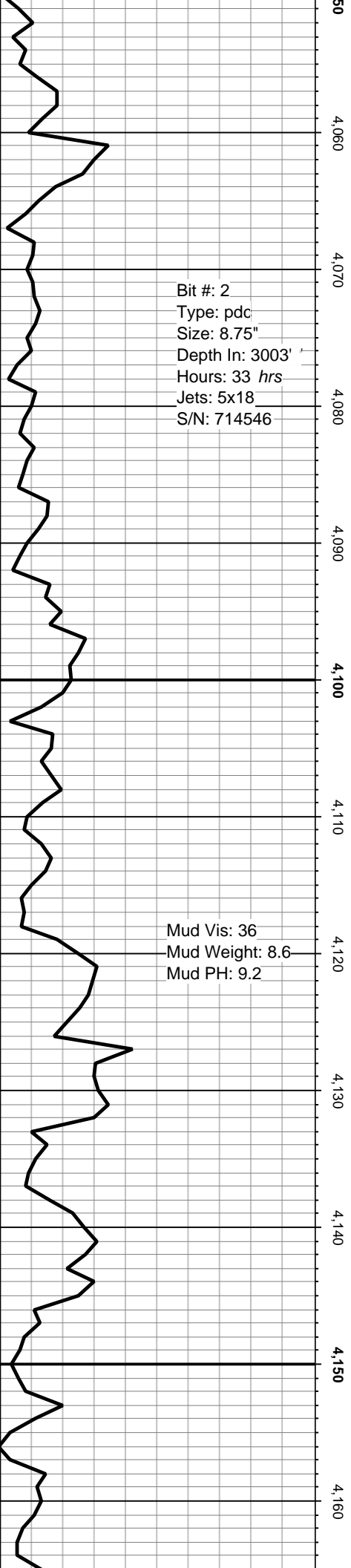
SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRD, ROUND - SUB-RNDED

0 ROP (MIN/FT) 20  
0 G-GR (aapi) 400

0 GAS (UNITS) 60

0 GAS (UNITS) 60

0 CO2 (PPM) 80  
0 C1 (PPM) 2500  
0 C2 (PPM) 2500  
0 C3 (PPM) 2500  
0 C4 (PPM) 2500



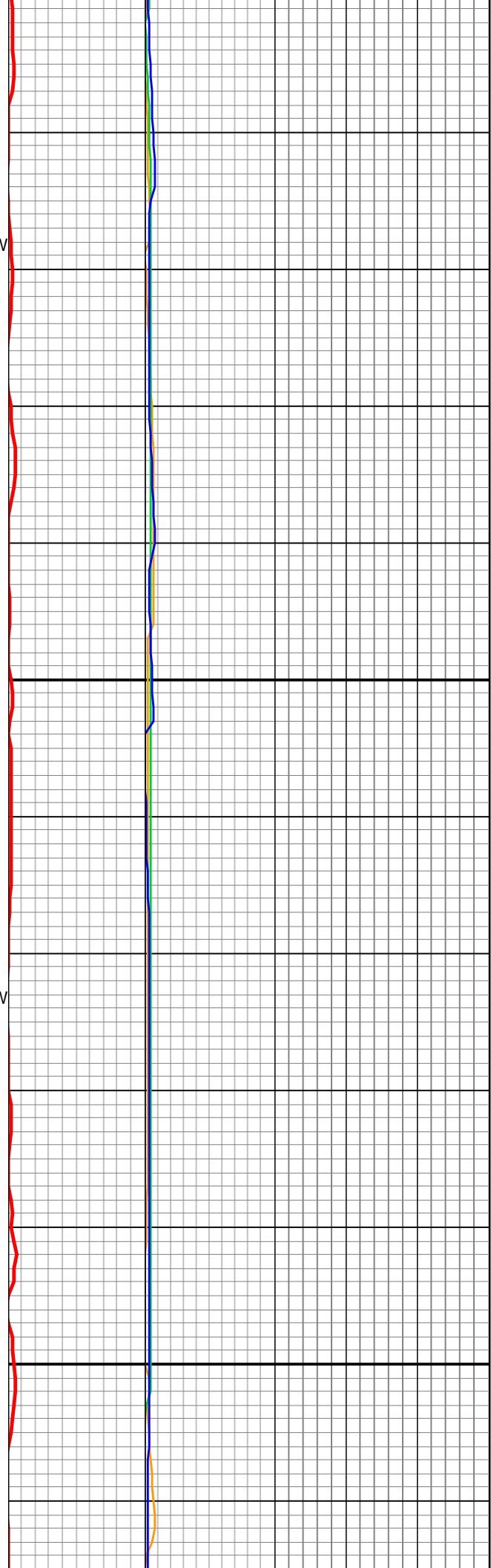
Bit #: 2  
Type: pdc  
Size: 8.75"  
Depth In: 3003'  
Hours: 33 hrs  
Jets: 5x18  
S/N: 714546

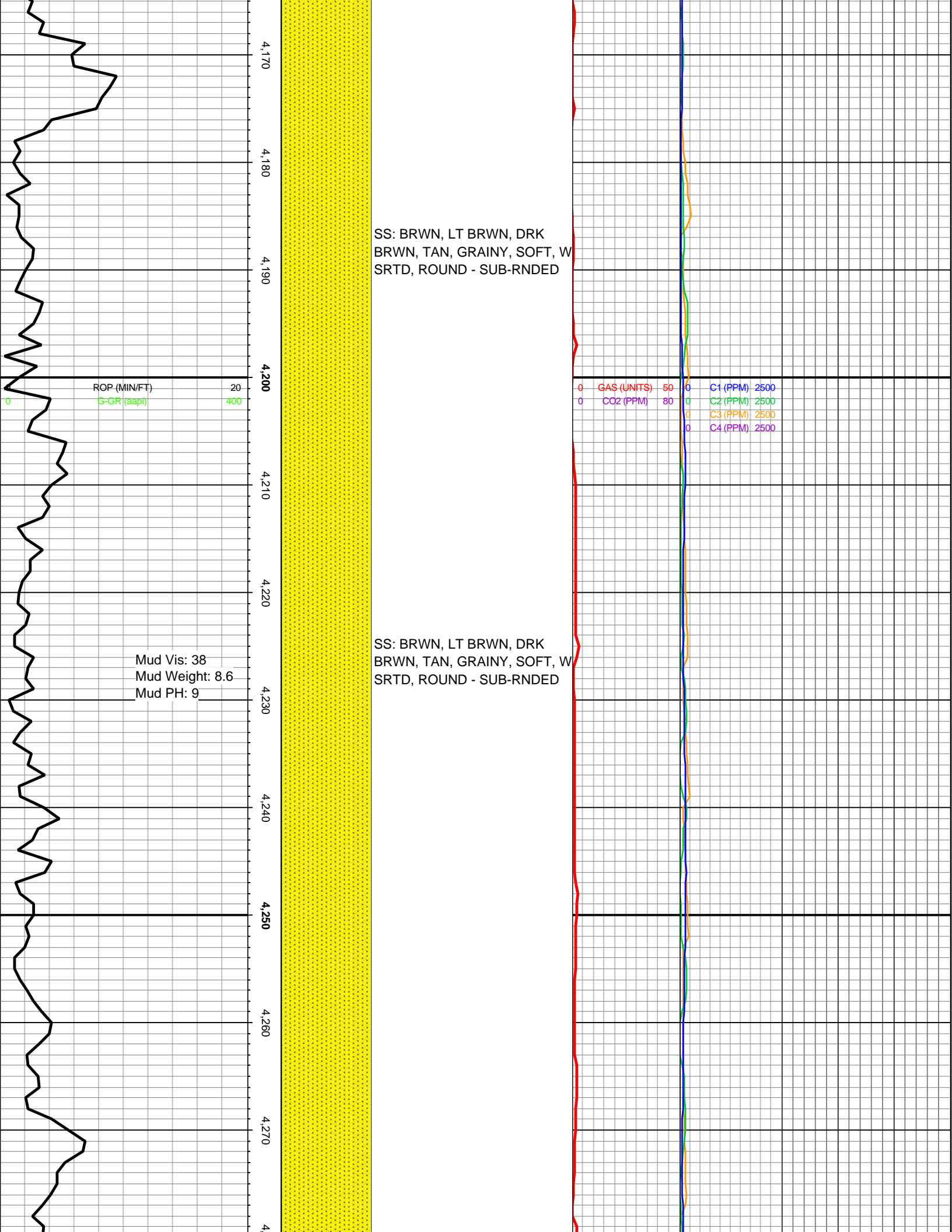
Mud Vis: 36  
Mud Weight: 8.6  
Mud PH: 9.2

50  
4,060  
4,070  
4,080  
4,090  
4,100  
4,110  
4,120  
4,130  
4,140  
4,150  
4,160

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED





4,170  
4,180  
4,190  
4,200  
4,210  
4,220  
4,230  
4,240  
4,250  
4,260  
4,270  
4

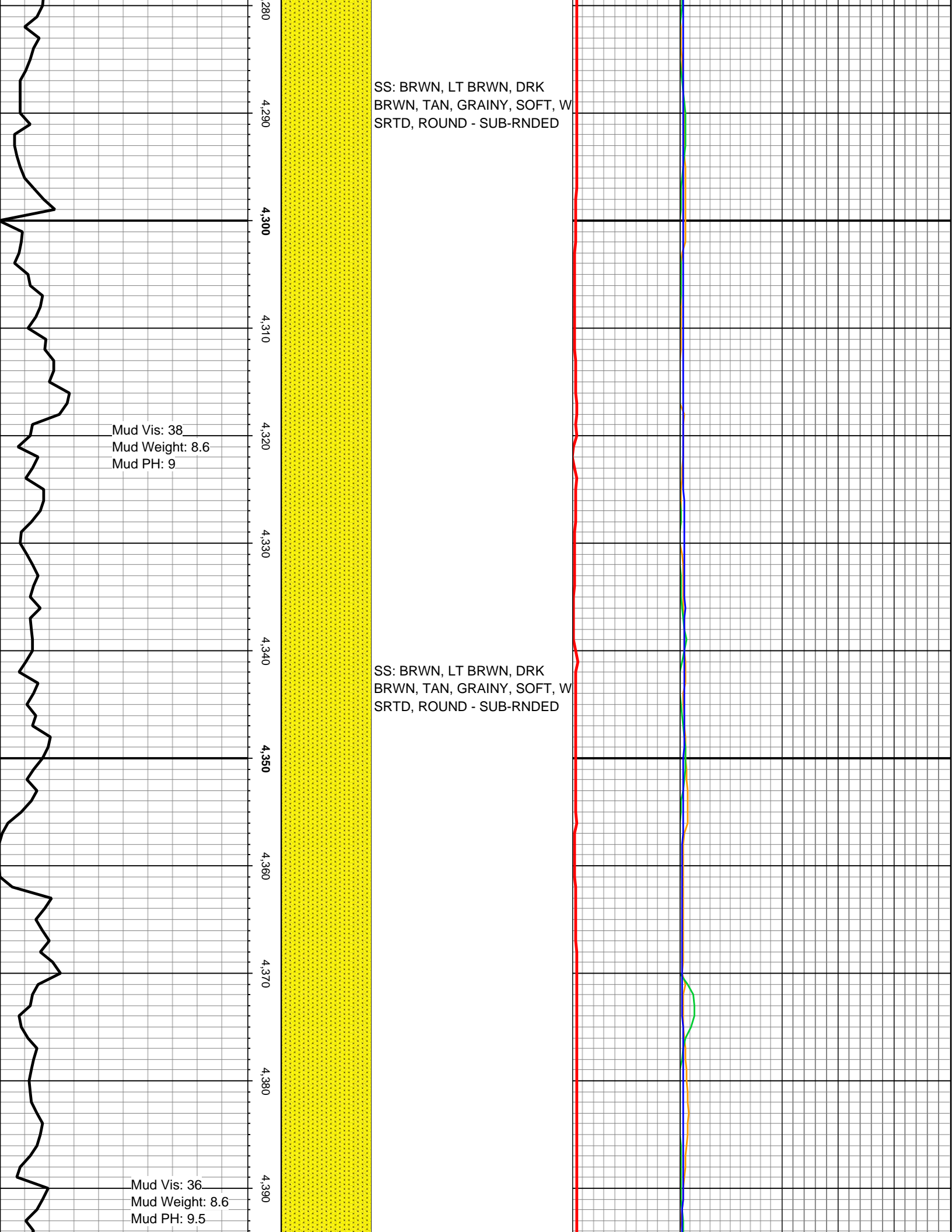
SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

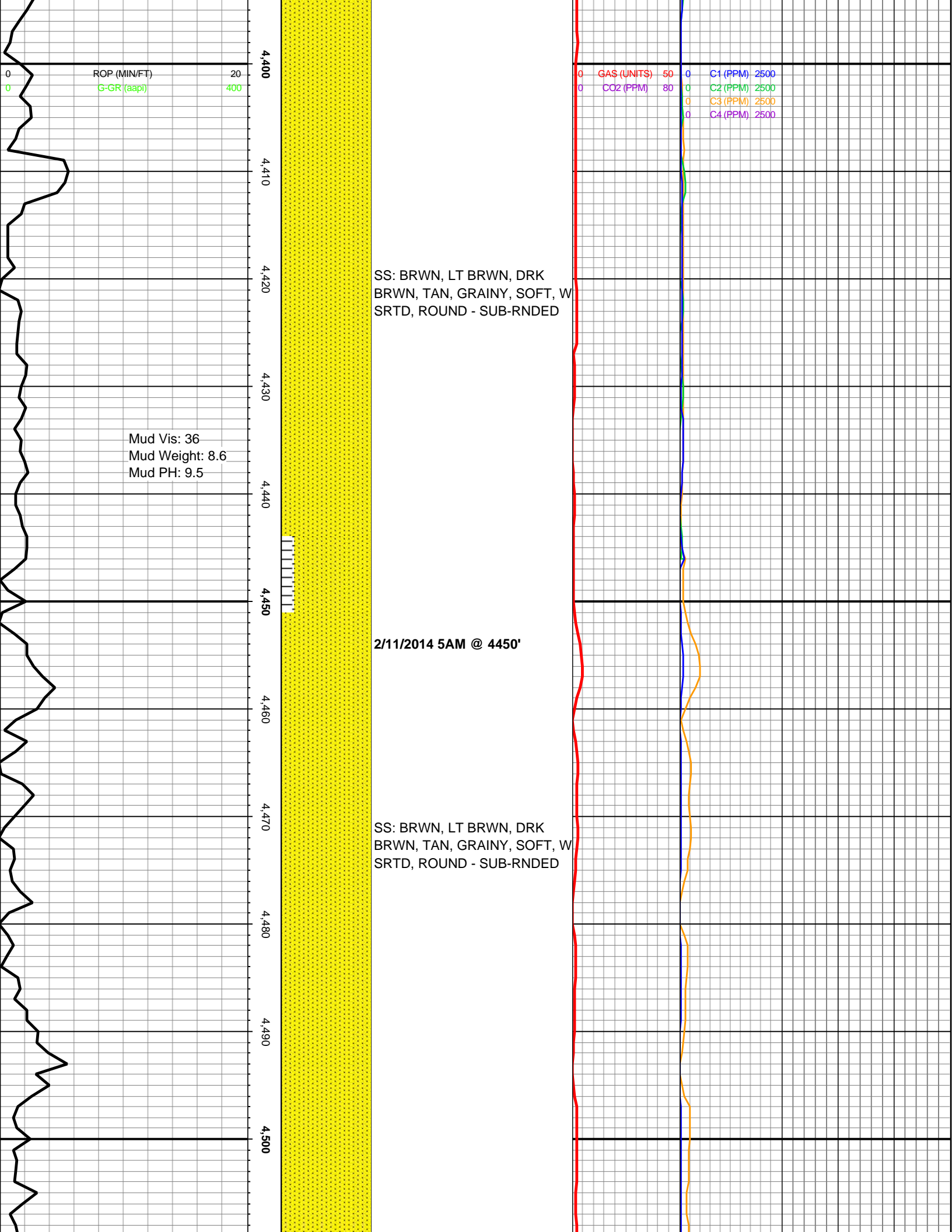
SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

ROP (MIN/FT) 20  
G-GR (aapl) 400

0 GAS (UNITS) 60 0 C1 (PPM) 2500  
0 CO2 (PPM) 80 0 C2 (PPM) 2500  
0 C3 (PPM) 2500  
0 C4 (PPM) 2500

Mud Vis: 38  
Mud Weight: 8.6  
Mud PH: 9





4,400  
4,410  
4,420  
4,430  
4,440  
4,450  
4,460  
4,470  
4,480  
4,490  
4,500

ROP (MIN/FT)  
G-CR (aapi)

20  
400

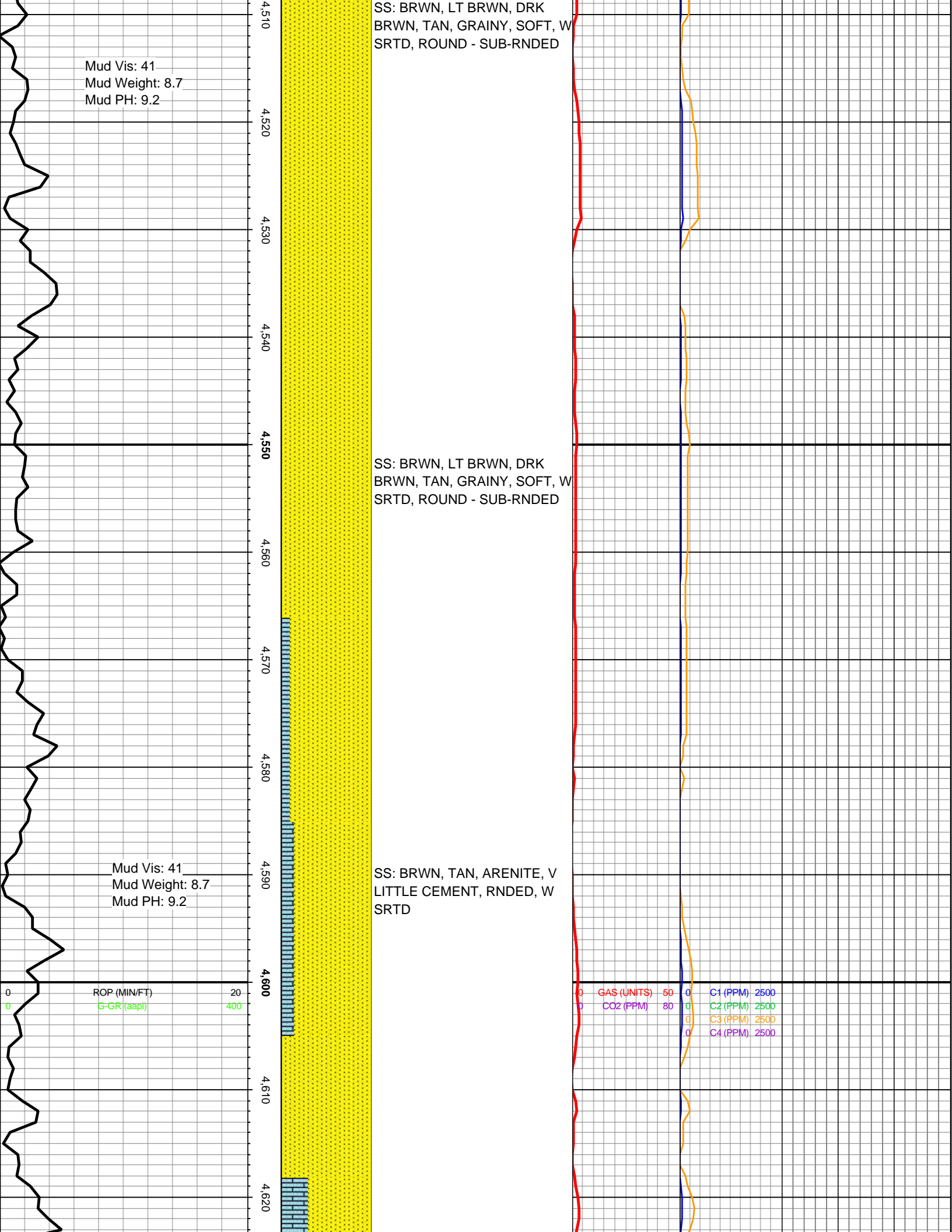
GAS (UNITS) 50  
CO2 (PPM) 80  
C1 (PPM) 2500  
C2 (PPM) 2500  
C3 (PPM) 2500  
C4 (PPM) 2500

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

Mud Vis: 36  
Mud Weight: 8.6  
Mud PH: 9.5

2/11/2014 5AM @ 4450'

SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED



SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

Mud Vis: 41  
Mud Weight: 8.7  
Mud PH: 9.2

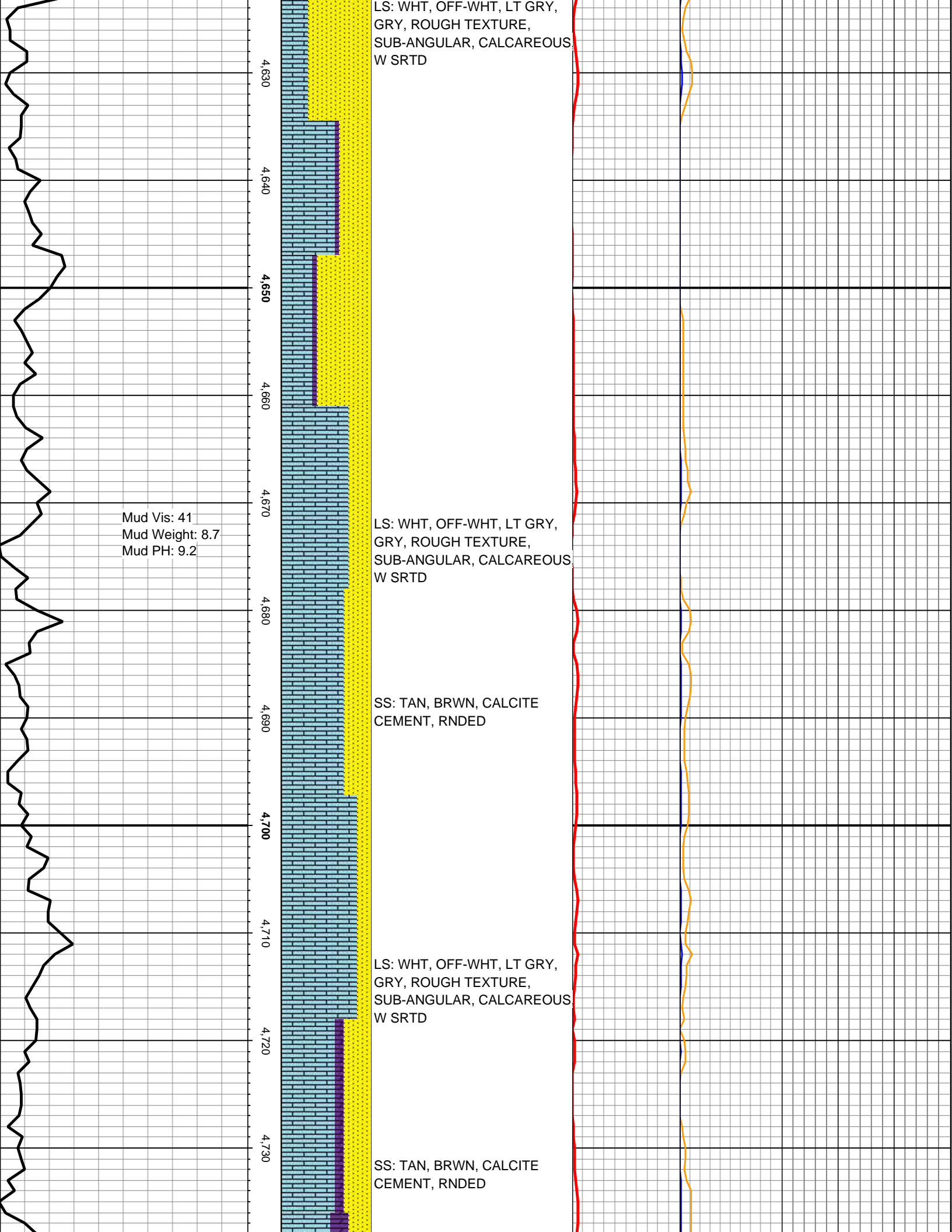
SS: BRWN, LT BRWN, DRK  
BRWN, TAN, GRAINY, SOFT, W  
SRTD, ROUND - SUB-RNDED

SS: BRWN, TAN, ARENITE, V  
LITTLE CEMENT, RNDED, W  
SRTD

0 ROP (MIN/FT) 20  
0 G-GR (aapl) 400

0 GAS (UNITS) 60 0 C1 (PPM) 2500  
0 CO2 (PPM) 80 0 C2 (PPM) 2500  
0 C3 (PPM) 2500  
0 C4 (PPM) 2500

4,510  
4,520  
4,530  
4,540  
4,550  
4,560  
4,570  
4,580  
4,590  
4,600  
4,610  
4,620



Mud Vis: 41  
Mud Weight: 8.7  
Mud PH: 9.2

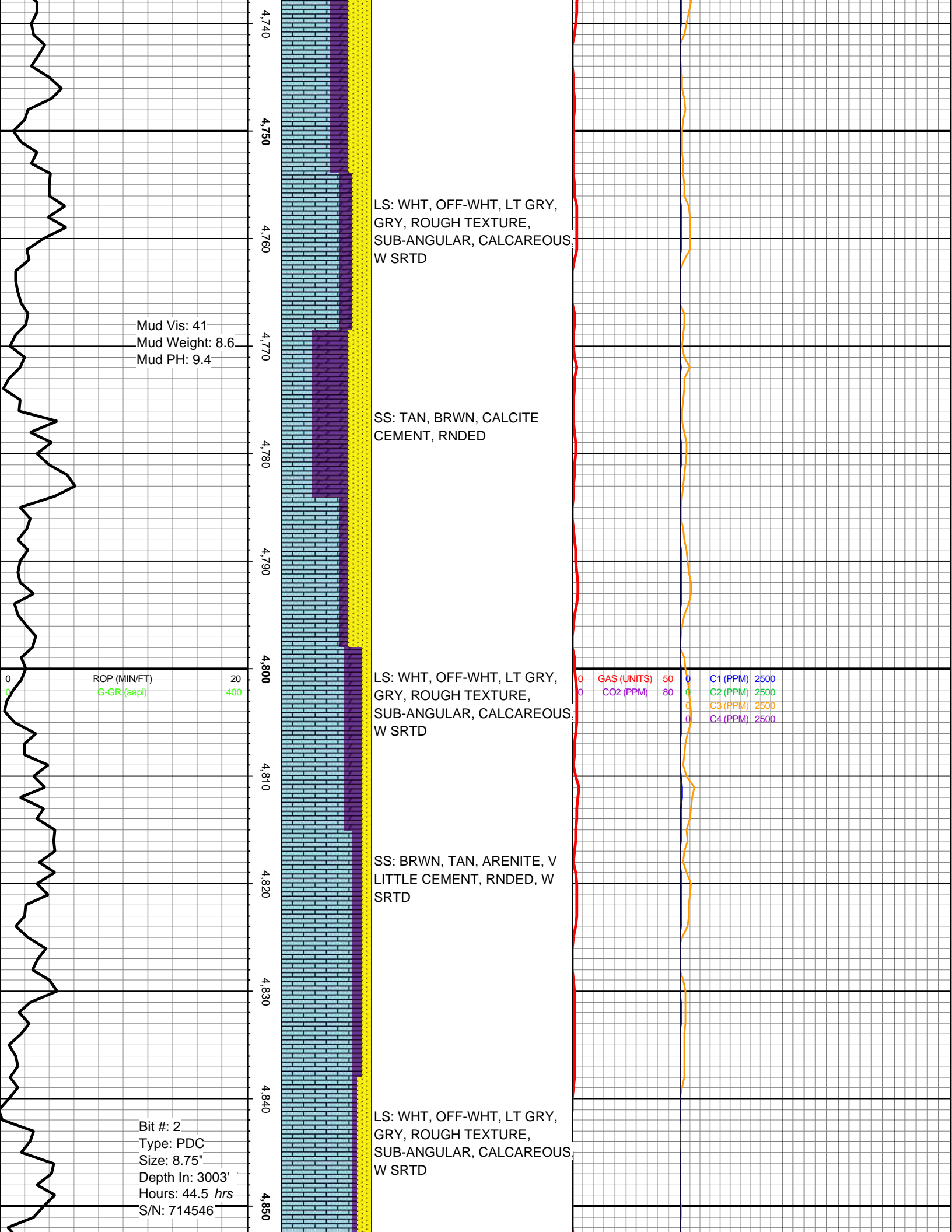
LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD

LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD

SS: TAN, BRWN, CALCITE  
CEMENT, RNDED

LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD

SS: TAN, BRWN, CALCITE  
CEMENT, RNDED



4,740  
4,750  
4,760  
4,770  
4,780  
4,790  
4,800  
4,810  
4,820  
4,830  
4,840  
4,850

LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD

Mud Vis: 41  
Mud Weight: 8.6  
Mud PH: 9.4

SS: TAN, BRWN, CALCITE  
CEMENT, RNDED

ROP (MIN/FT) 20  
G-GR (aapl) 400

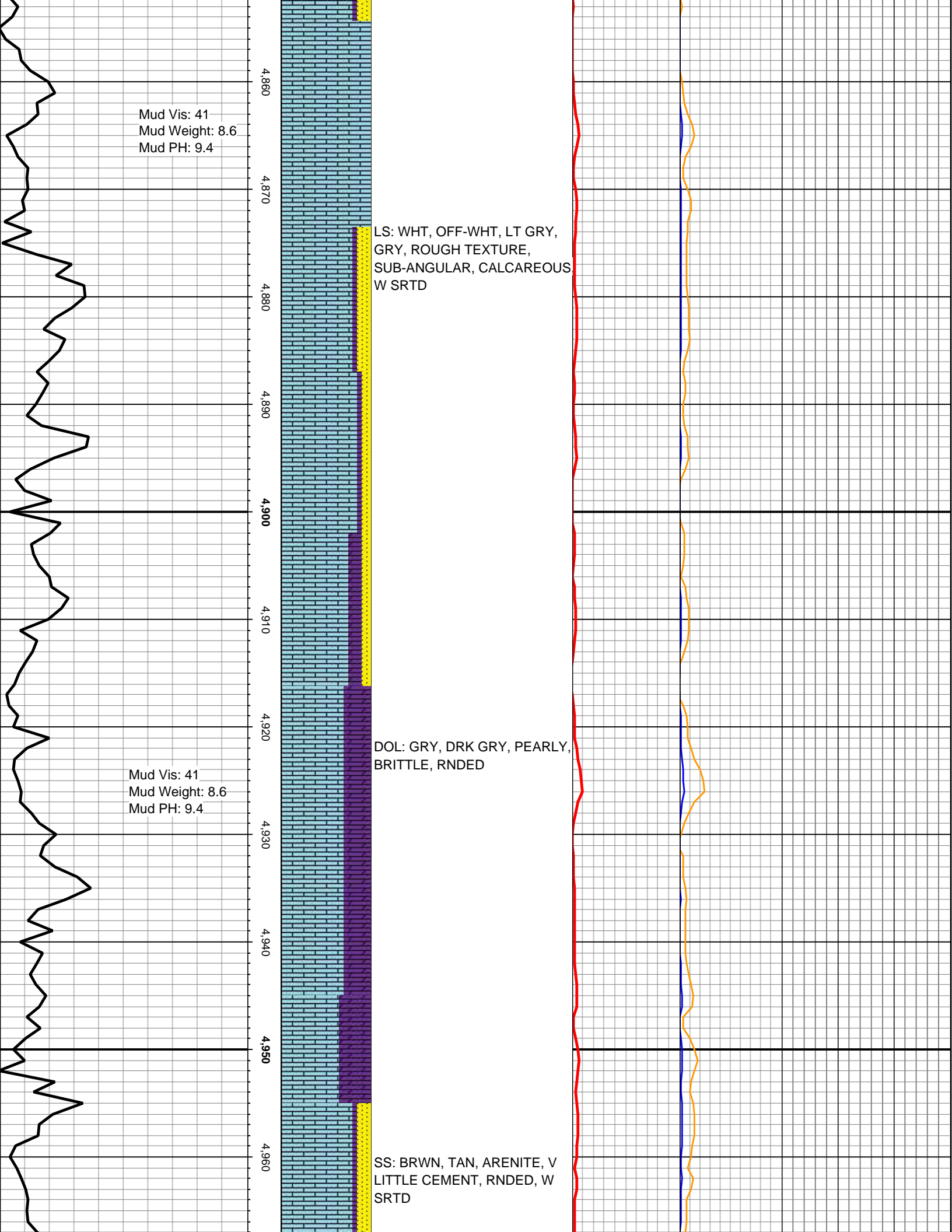
LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD

GAS (UNITS) 60  
CO2 (PPM) 80  
C1 (PPM) 2500  
C2 (PPM) 2500  
C3 (PPM) 2500  
C4 (PPM) 2500

SS: BRWN, TAN, ARENITE, V  
LITTLE CEMENT, RNDED, W  
SRTD

Bit #: 2  
Type: PDC  
Size: 8.75"  
Depth In: 3003'  
Hours: 44.5 hrs  
S/N: 714546

LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD



Mud Vis: 41  
Mud Weight: 8.6  
Mud PH: 9.4

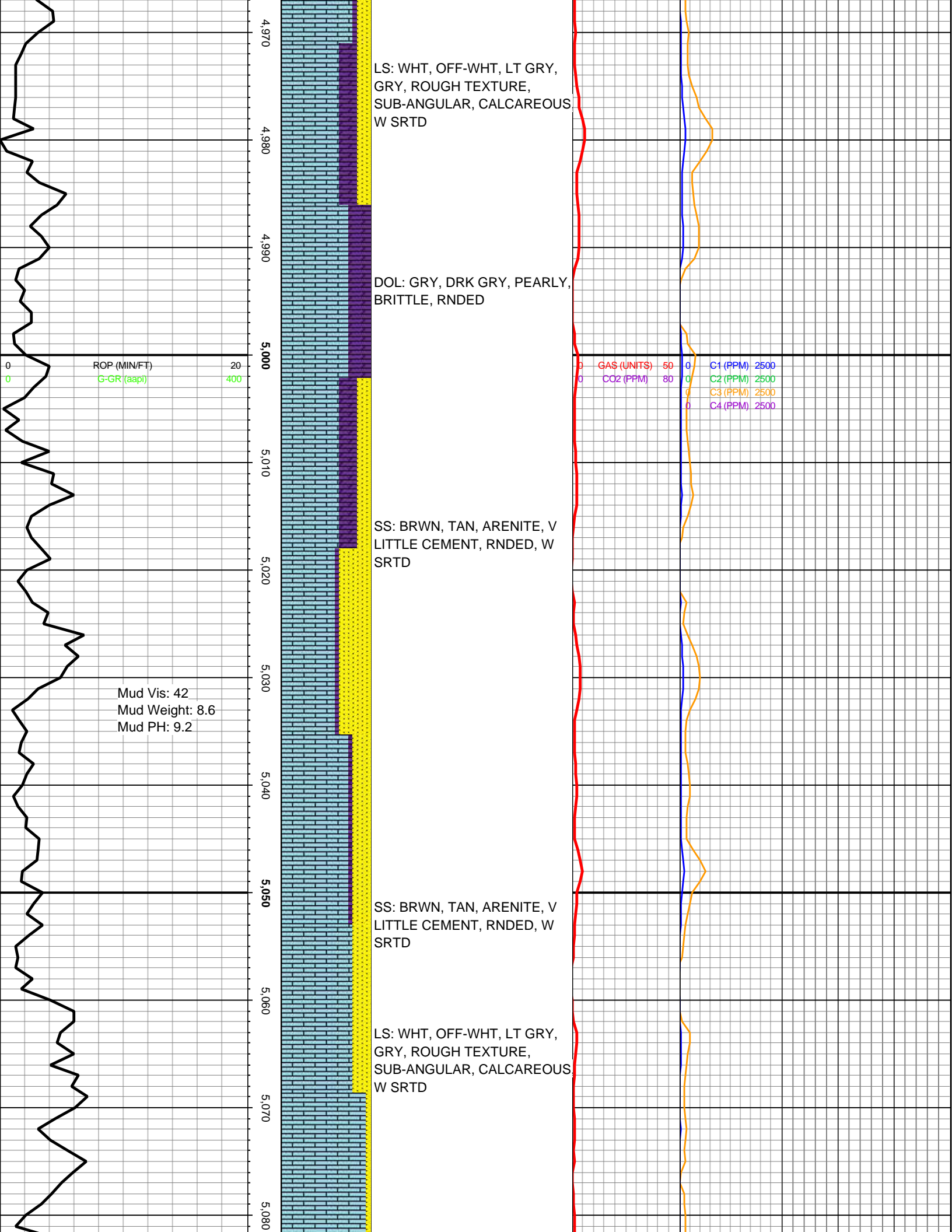
4,860  
4,870  
4,880  
4,890  
4,900  
4,910  
4,920  
4,930  
4,940  
4,950  
4,960

LS: WHT, OFF-WHT, LT GRY,  
GRY, ROUGH TEXTURE,  
SUB-ANGULAR, CALCAREOUS  
W SRTD

DOL: GRY, DRK GRY, PEARLY,  
BRITTLE, RNDED

Mud Vis: 41  
Mud Weight: 8.6  
Mud PH: 9.4

SS: BRWN, TAN, ARENITE, V  
LITTLE CEMENT, RNDED, W  
SRTD



Mud Vis: 42  
Mud Weight: 8.6  
Mud PH: 9.2

5,090  
5,100  
5,110  
5,120  
5,130  
5,140  
5,150  
5,160  
5,170  
5,180  
5,190

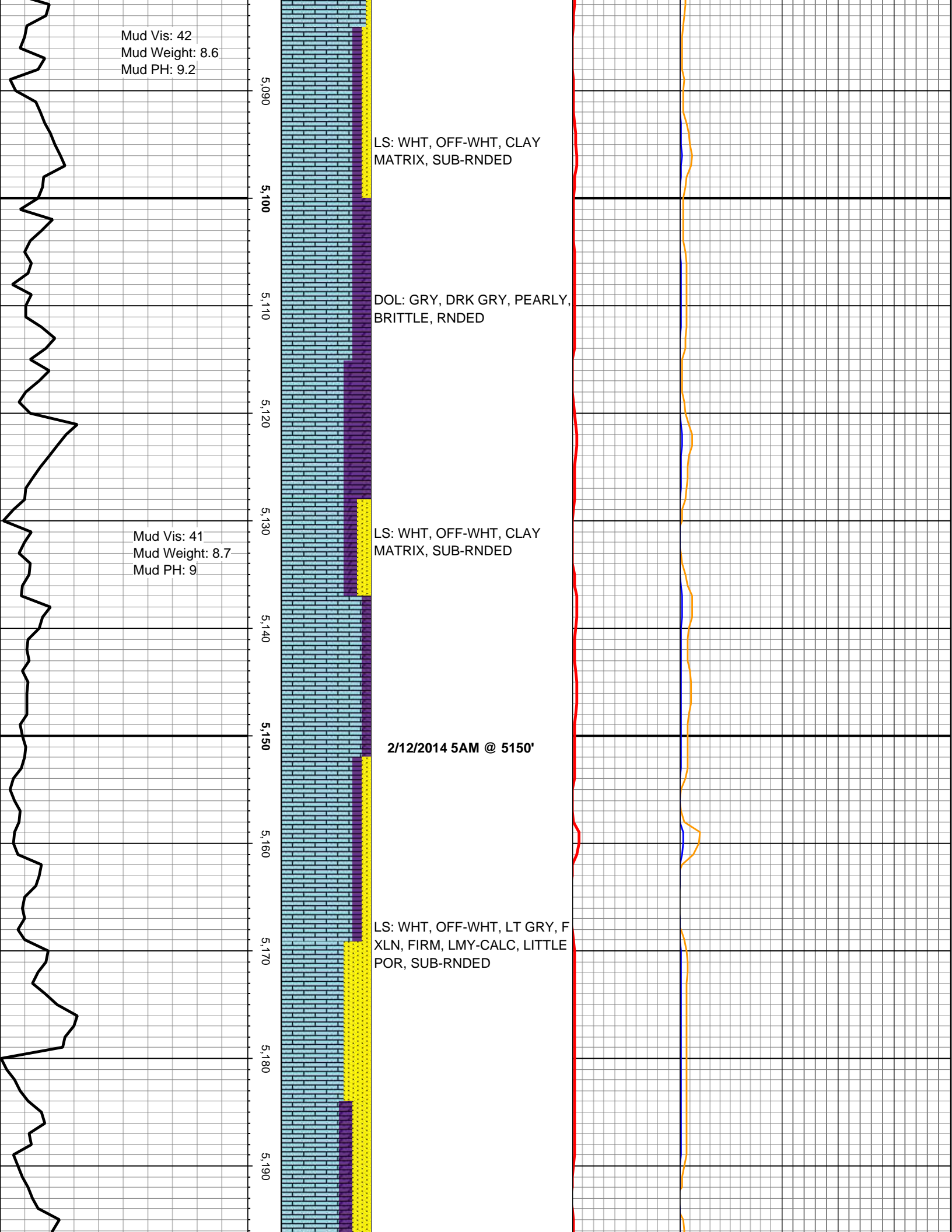
LS: WHT, OFF-WHT, CLAY  
MATRIX, SUB-RNDED

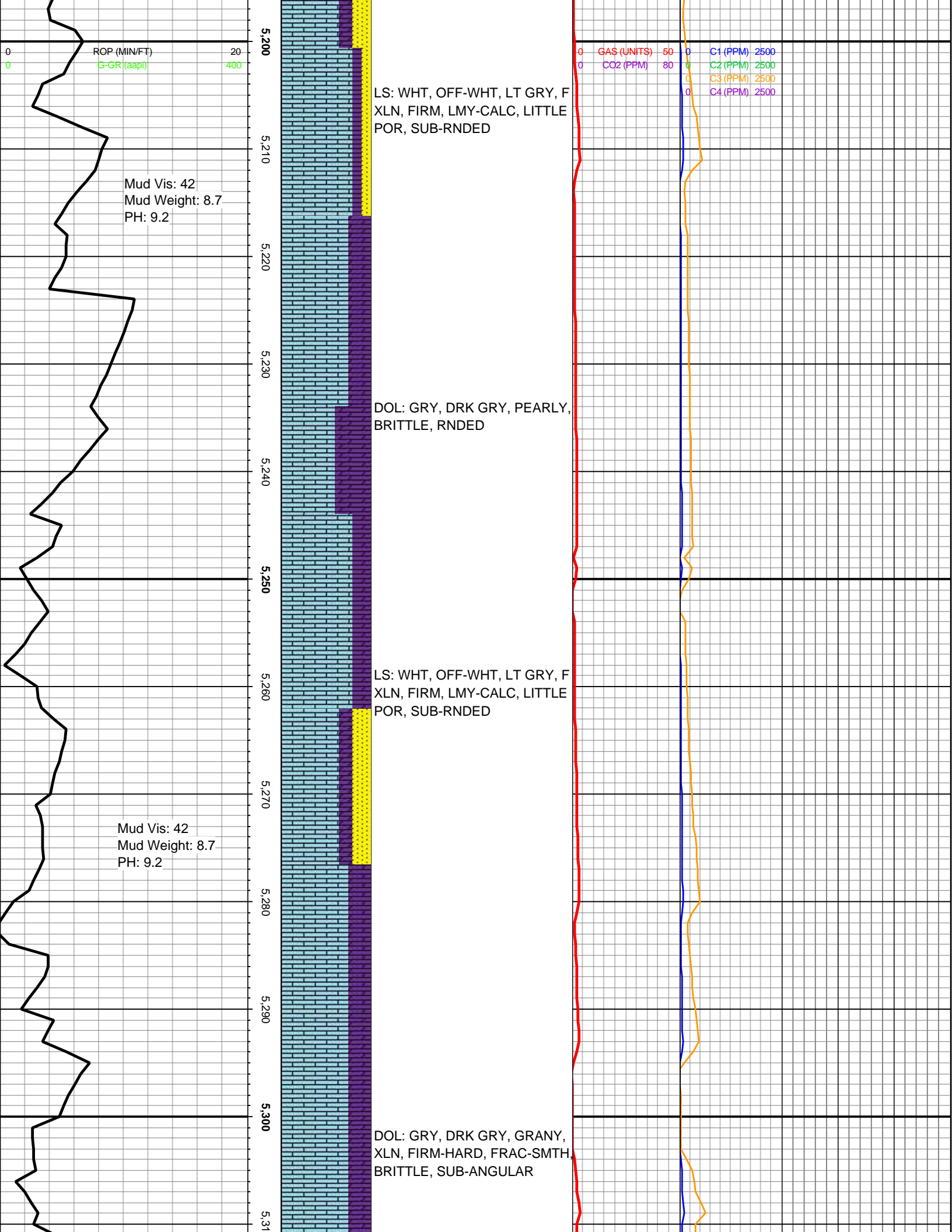
DOL: GRY, DRK GRY, PEARLY,  
BRITTLE, RNDED

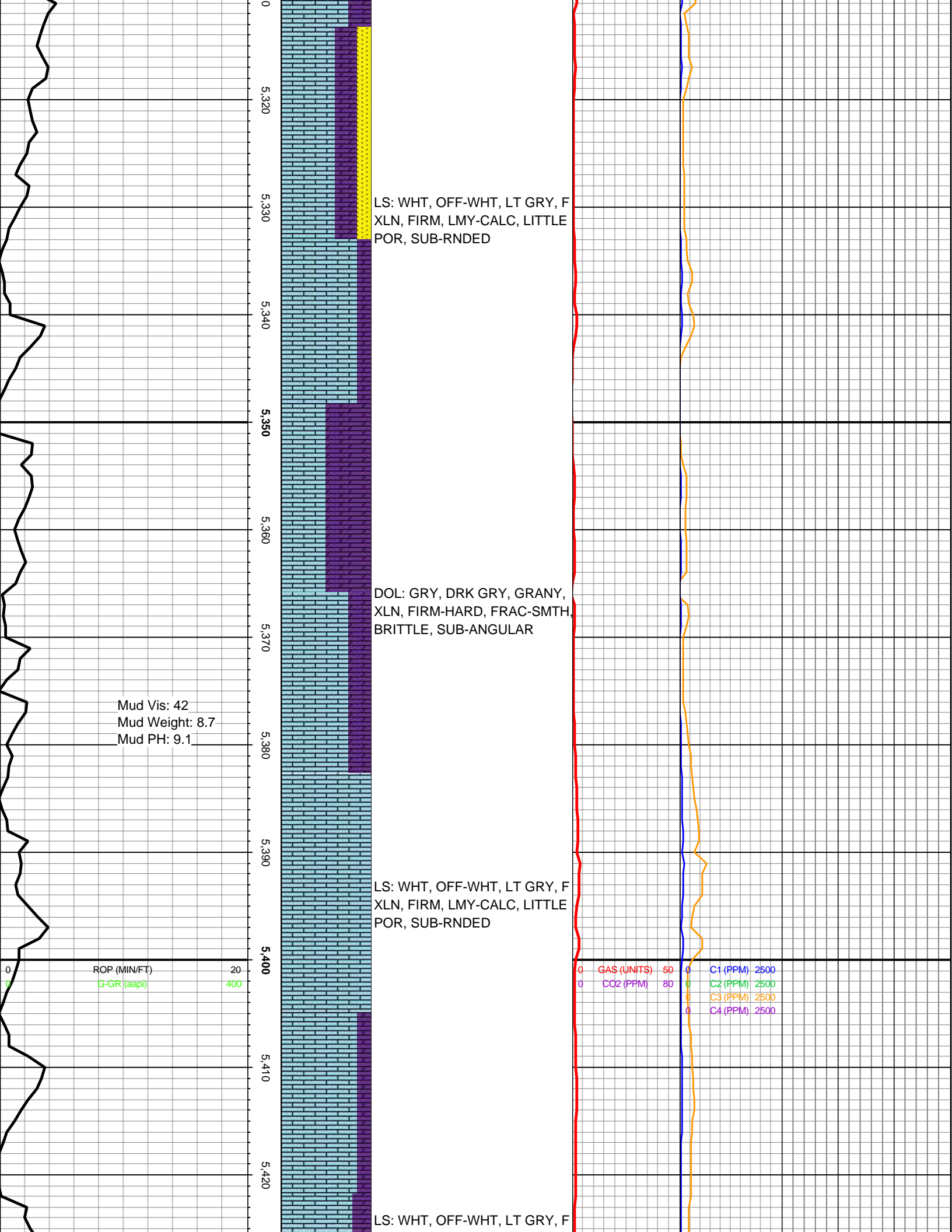
LS: WHT, OFF-WHT, CLAY  
MATRIX, SUB-RNDED

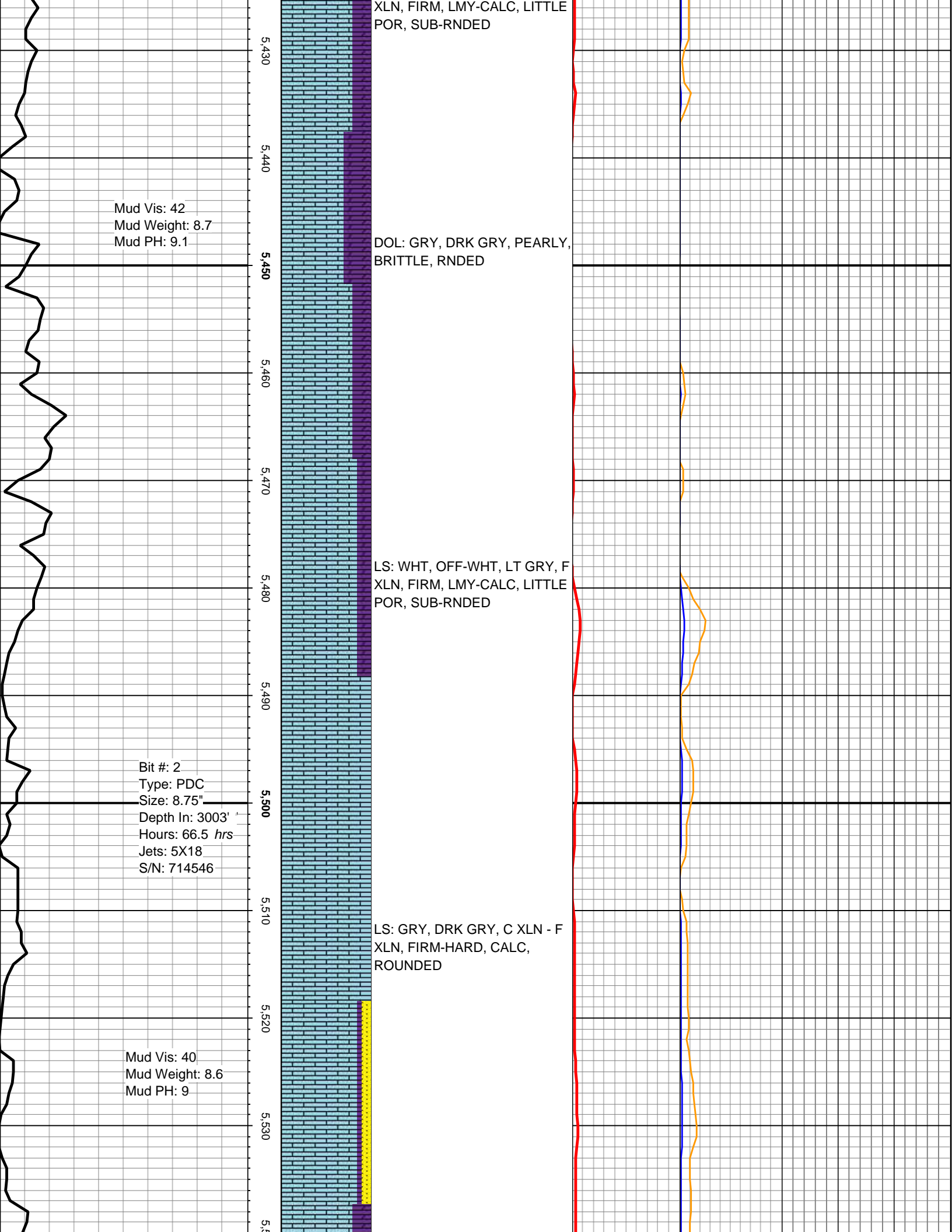
2/12/2014 5AM @ 5150'

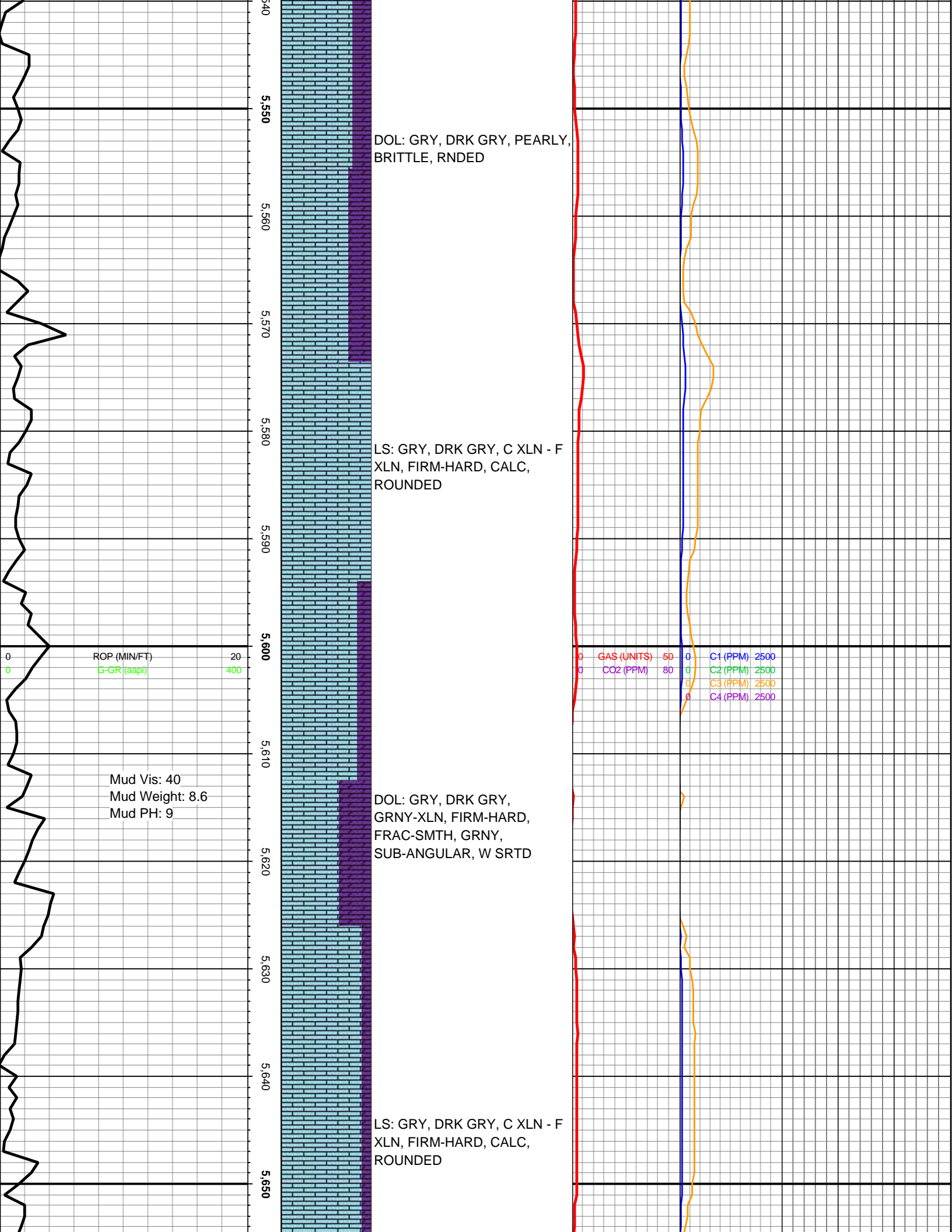
LS: WHT, OFF-WHT, LT GRY, F  
XLN, FIRM, LMY-CALC, LITTLE  
POR, SUB-RNDED

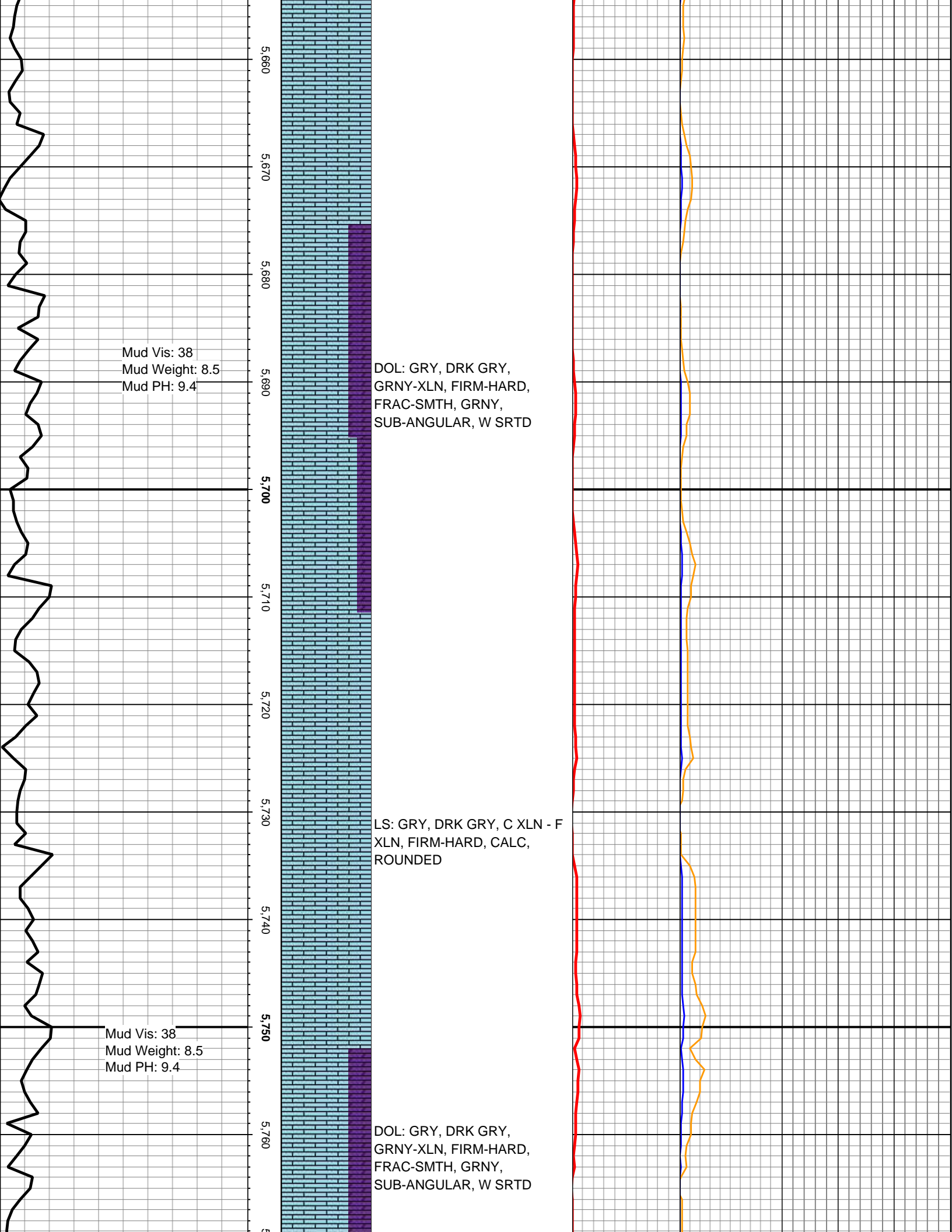


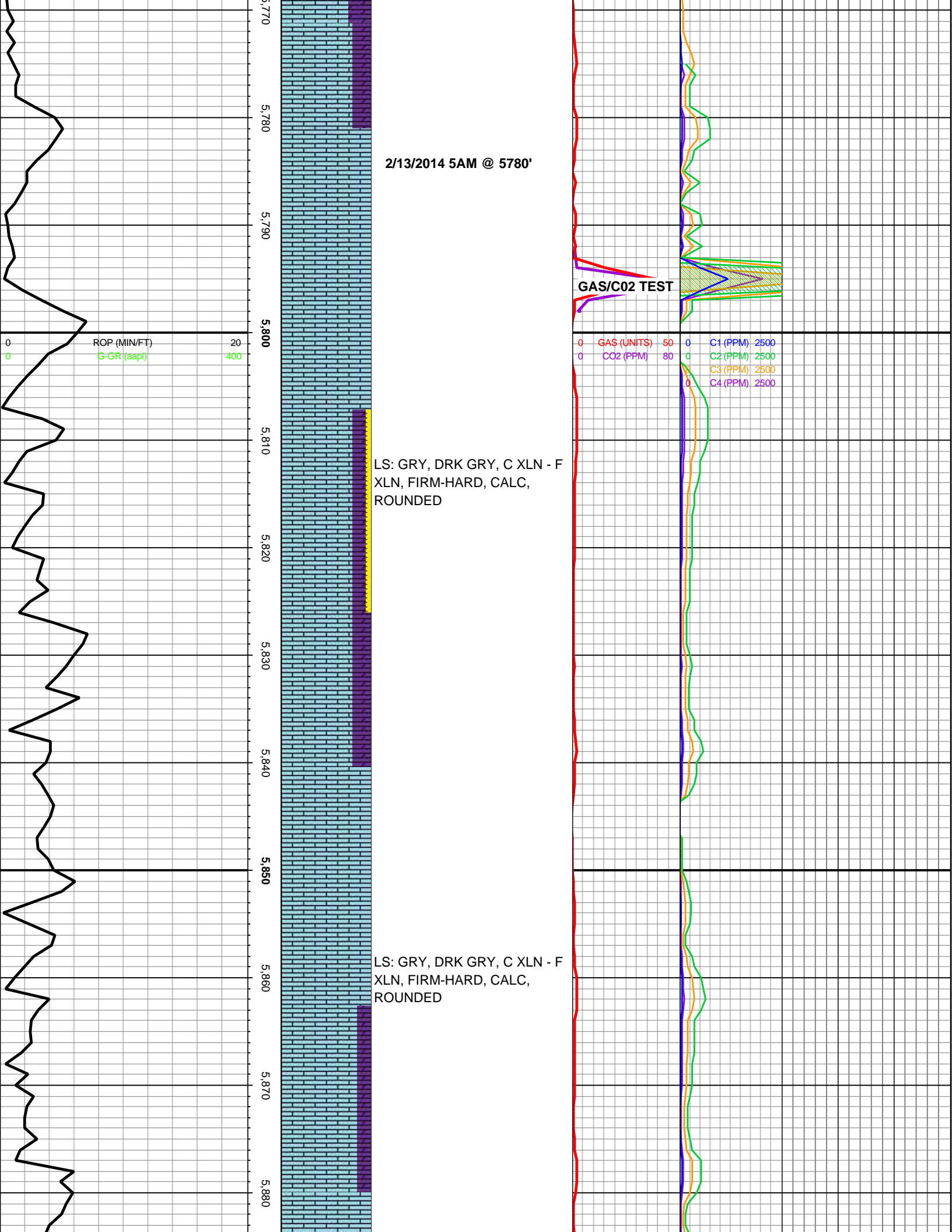












2/13/2014 5AM @ 5780'

GAS/CO2 TEST

ROP (MIN/FT) 20  
 G-GR (aapl) 400

GAS (UNITS) 60  
 CO2 (PPM) 80  
 C1 (PPM) 2500  
 C2 (PPM) 2500  
 C3 (PPM) 2500  
 C4 (PPM) 2500

LS: GRY, DRK GRY, C XLN - F  
 XLN, FIRM-HARD, CALC,  
 ROUNDED

LS: GRY, DRK GRY, C XLN - F  
 XLN, FIRM-HARD, CALC,  
 ROUNDED

5,770  
5,780  
5,790  
5,800  
5,810  
5,820  
5,830  
5,840  
5,850  
5,860  
5,870  
5,880

Mud Vis: 38  
Mud Weight: 8.8  
Mud PH: 10.7

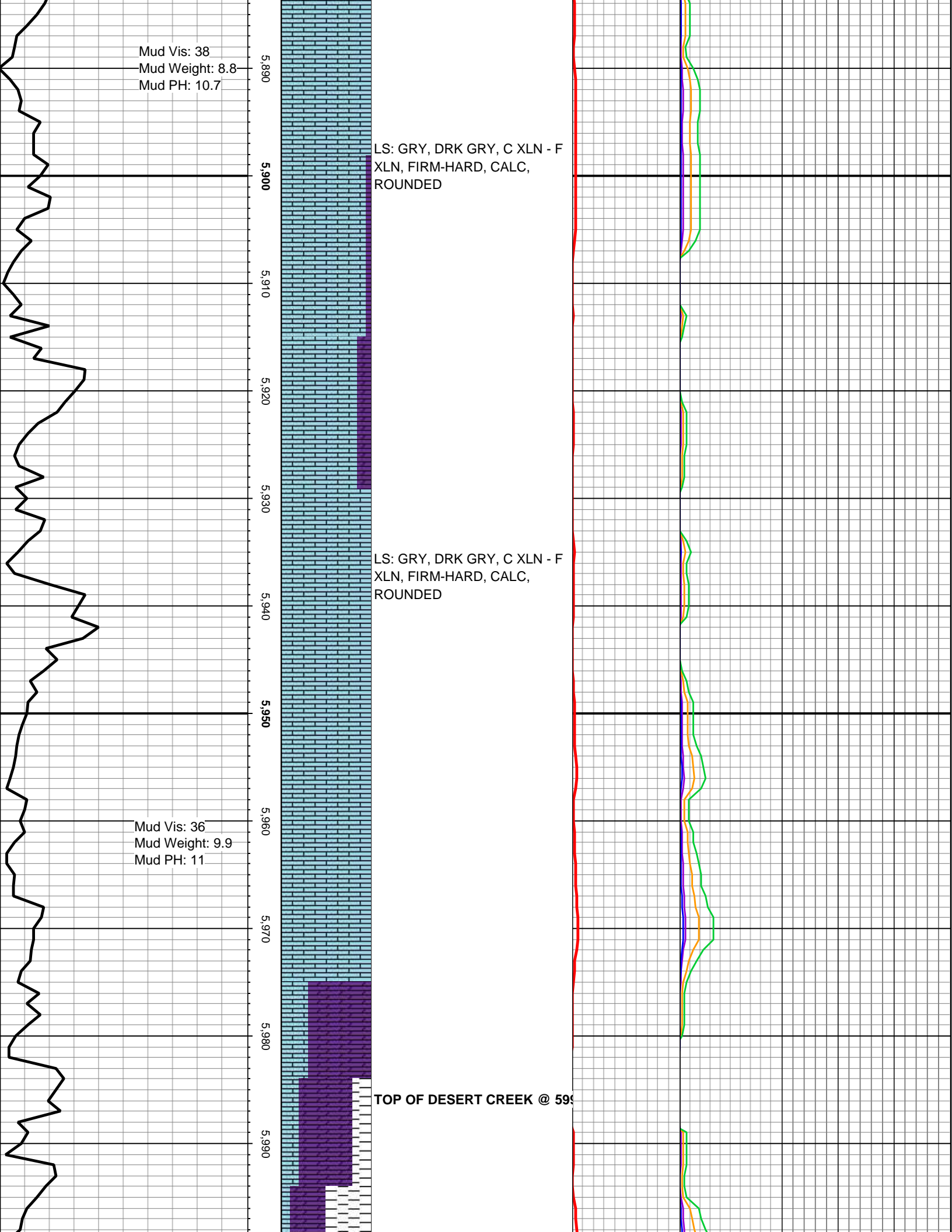
5,890  
5,900  
5,910  
5,920  
5,930  
5,940  
5,950  
5,960  
5,970  
5,980  
5,990

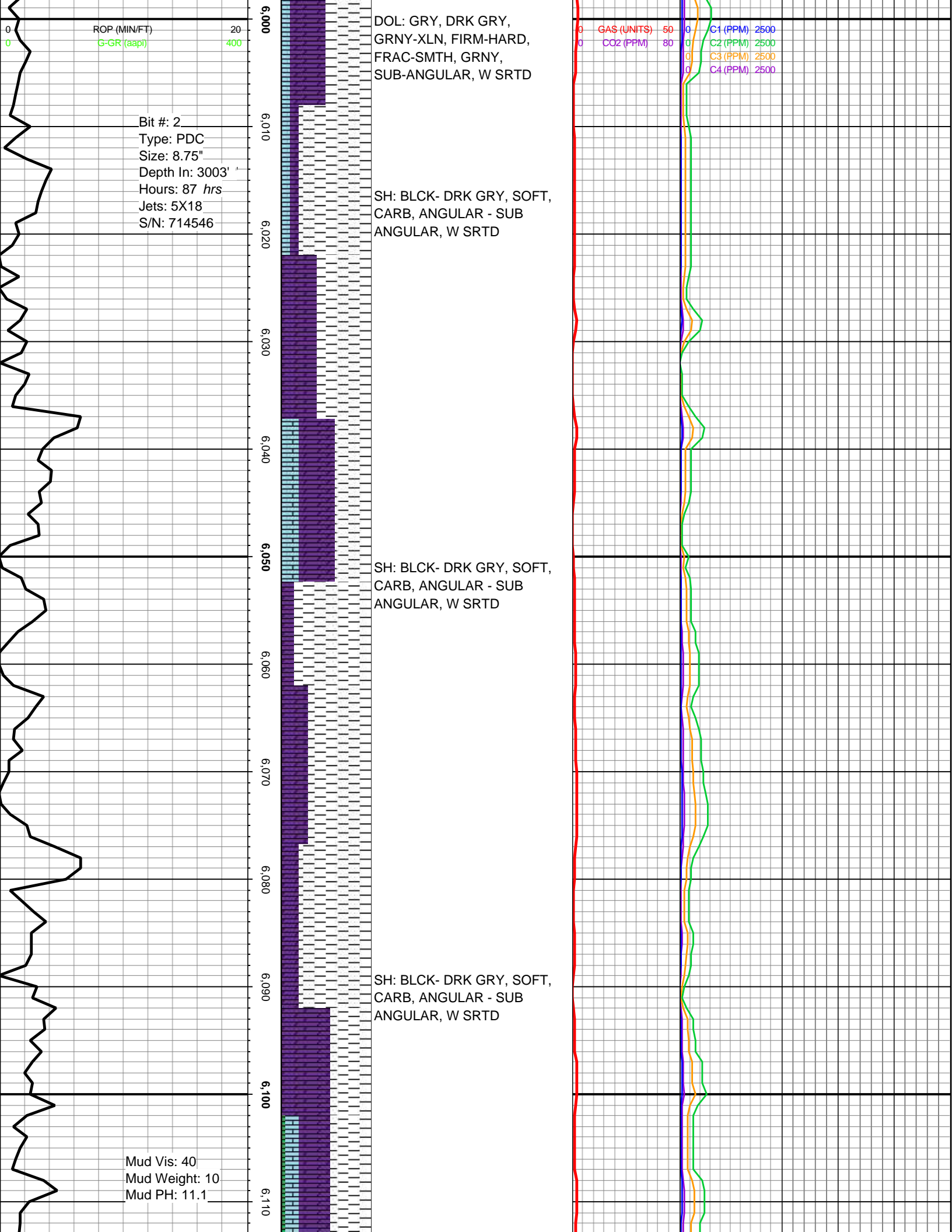
LS: GRY, DRK GRY, C XLN - F  
XLN, FIRM-HARD, CALC,  
ROUNDED

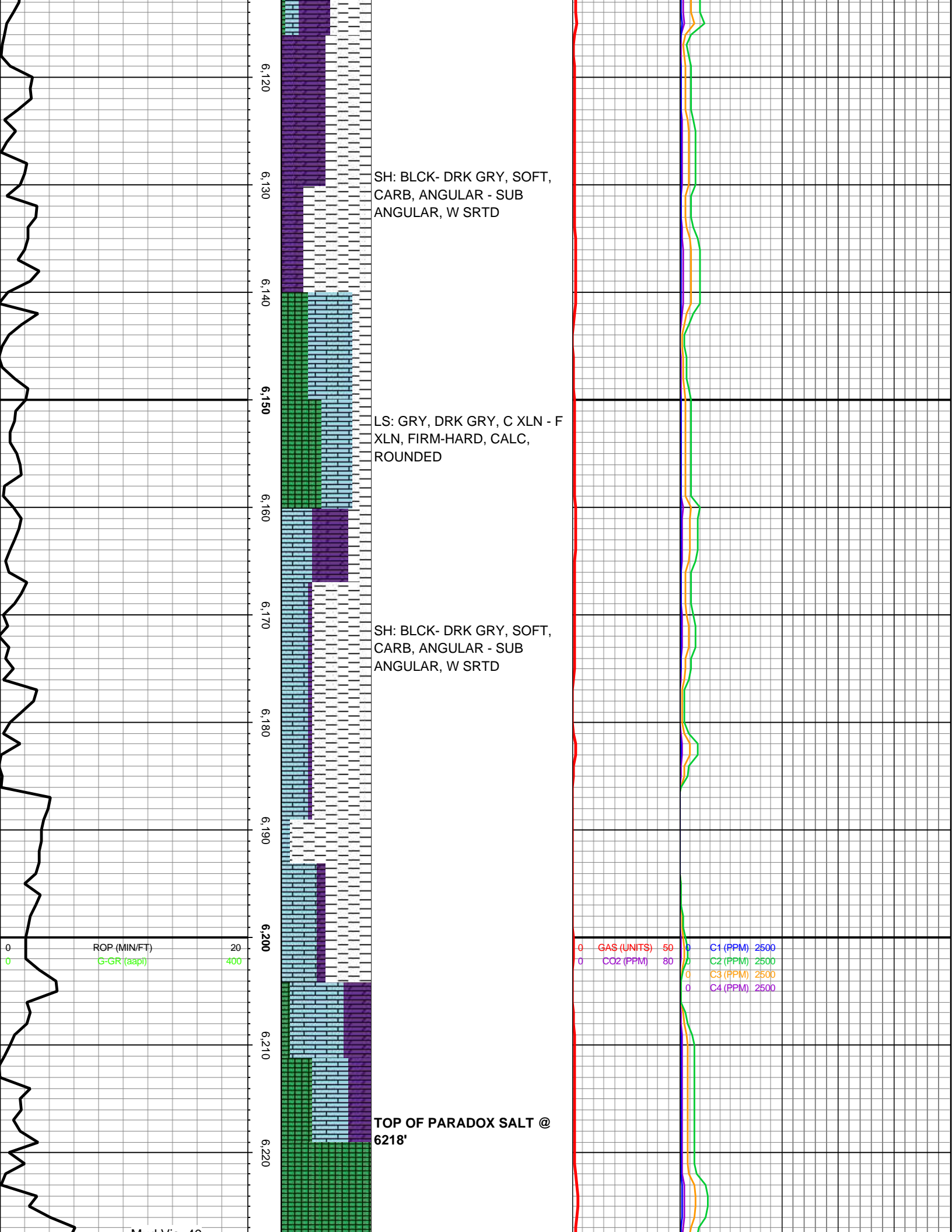
LS: GRY, DRK GRY, C XLN - F  
XLN, FIRM-HARD, CALC,  
ROUNDED

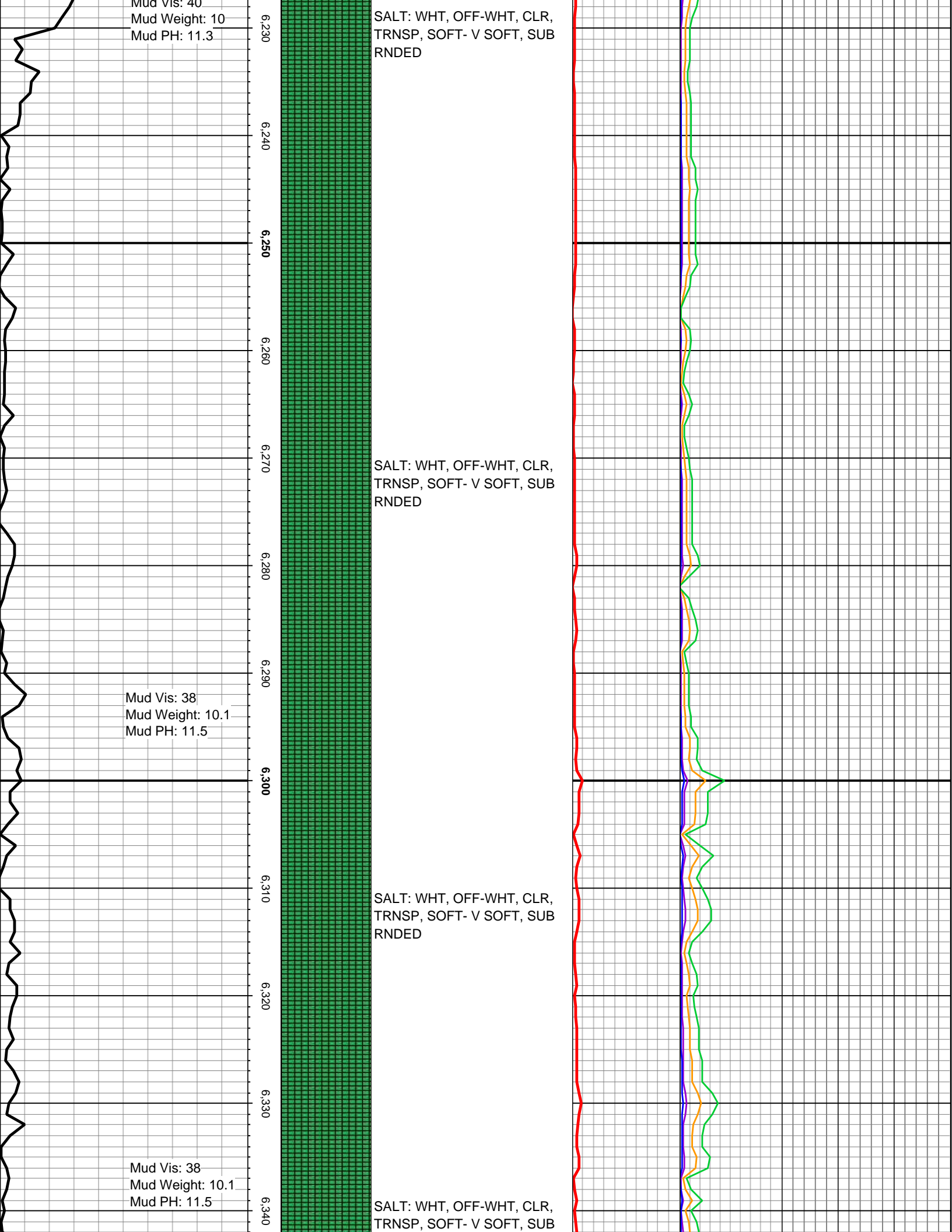
Mud Vis: 36  
Mud Weight: 9.9  
Mud PH: 11

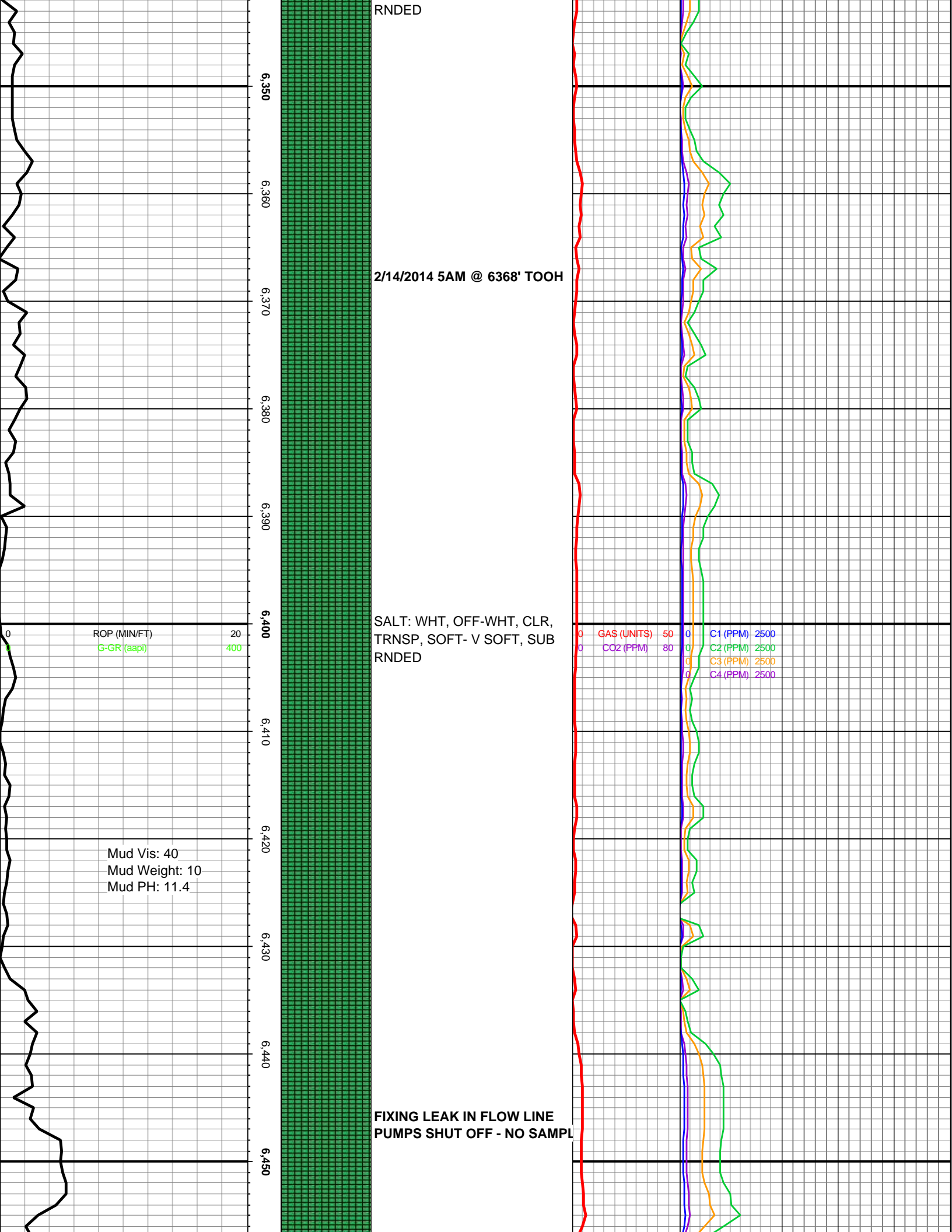
TOP OF DESERT CREEK @ 5990











RNDED

6,350

6,360

2/14/2014 5AM @ 6368' TOO H

6,370

6,380

6,390

6,400

ROP (MIN/FT) 20  
G-CR (aapi) 400

SALT: WHT, OFF-WHT, CLR,  
TRNSP, SOFT- V SOFT, SUB  
RNDED

GAS (UNITS) 50  
CO2 (PPM) 80  
C1 (PPM) 2500  
C2 (PPM) 2500  
C3 (PPM) 2500  
C4 (PPM) 2500

6,410

6,420

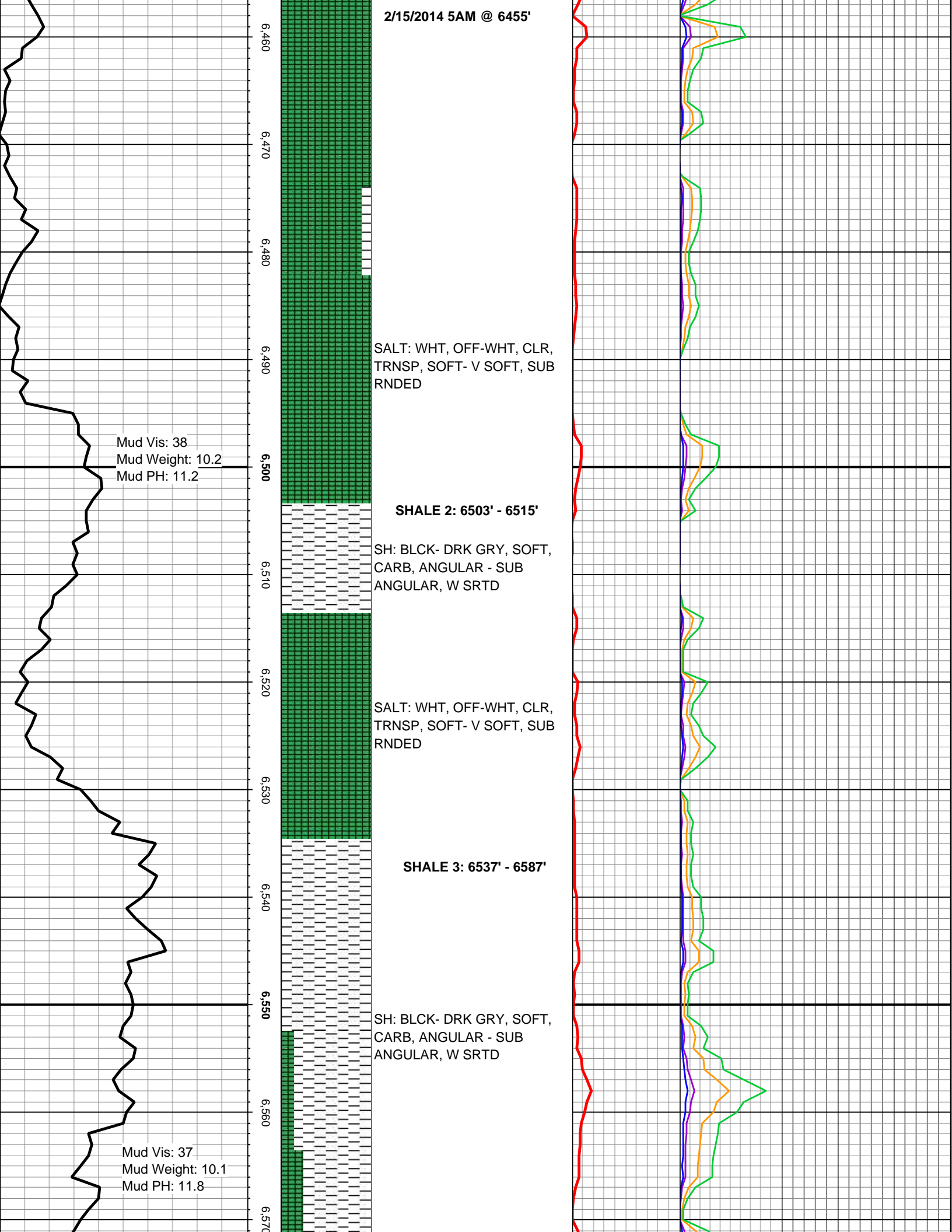
Mud Vis: 40  
Mud Weight: 10  
Mud PH: 11.4

6,430

6,440

FIXING LEAK IN FLOW LINE  
PUMPS SHUT OFF - NO SAMPL

6,450



6,460  
6,470  
6,480  
6,490  
6,500  
6,510  
6,520  
6,530  
6,540  
6,550  
6,560  
6,570

SALT: WHT, OFF-WHT, CLR,  
TRNSP, SOFT- V SOFT, SUB  
RNDED

**SHALE 2: 6503' - 6515'**

SH: BLCK- DRK GRY, SOFT,  
CARB, ANGULAR - SUB  
ANGULAR, W SRTD

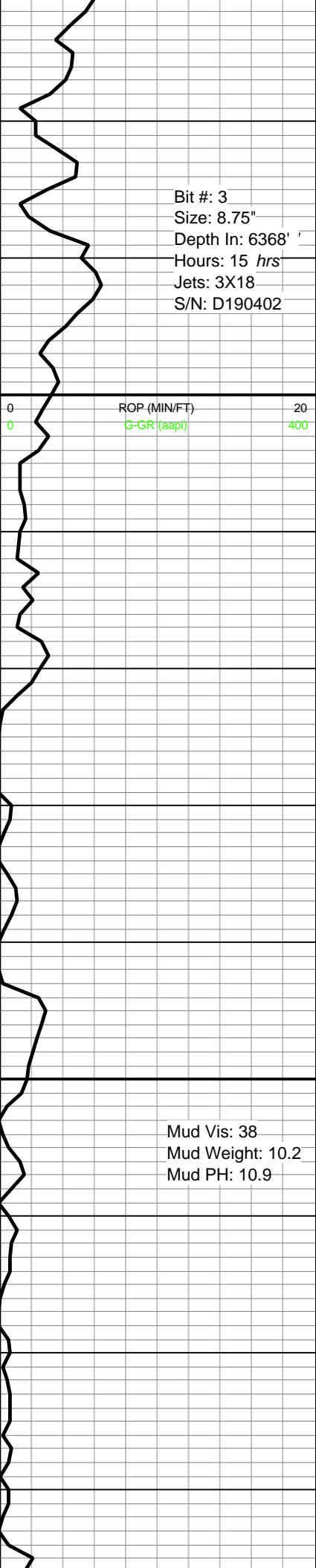
SALT: WHT, OFF-WHT, CLR,  
TRNSP, SOFT- V SOFT, SUB  
RNDED

**SHALE 3: 6537' - 6587'**

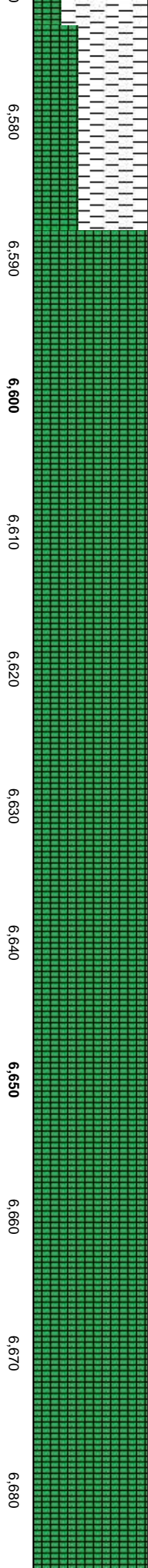
SH: BLCK- DRK GRY, SOFT,  
CARB, ANGULAR - SUB  
ANGULAR, W SRTD

Mud Vis: 38  
Mud Weight: 10.2  
Mud PH: 11.2

Mud Vis: 37  
Mud Weight: 10.1  
Mud PH: 11.8



Bit #: 3  
 Size: 8.75"  
 Depth In: 6368'  
 Hours: 15 hrs  
 Jets: 3X18  
 S/N: D190402



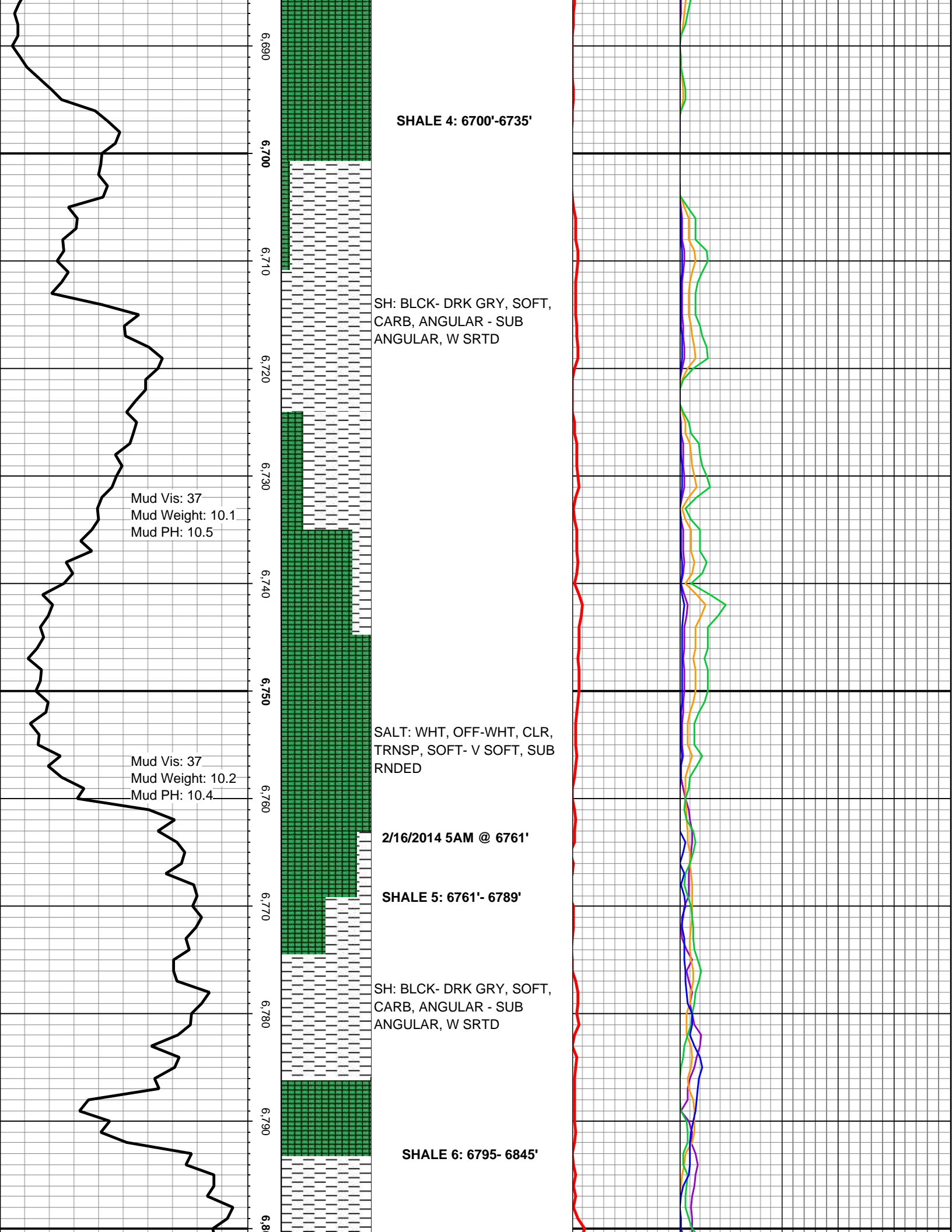
SALT: WHT, OFF-WHT, CLR,  
 TRNSP, SOFT- V SOFT, SUB  
 RNDED

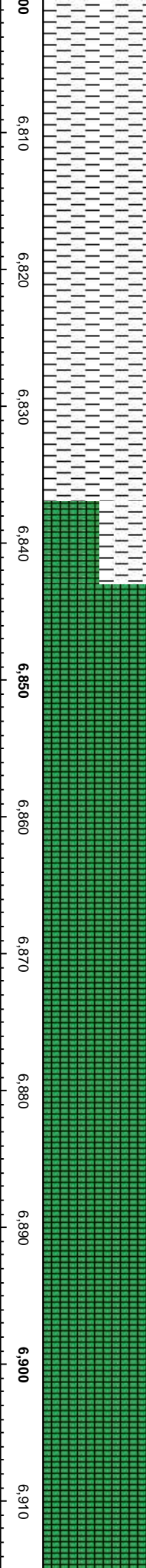
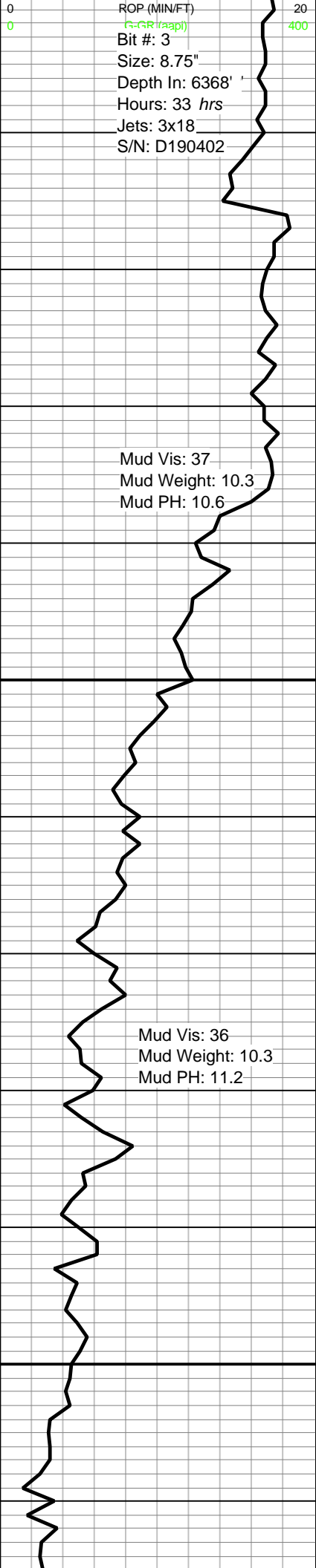
SALT: WHT, OFF-WHT, CLR,  
 TRNSP, SOFT- V SOFT, SUB  
 RNDED

SALT: WHT, OFF-WHT, CLR,  
 TRNSP, SOFT- V SOFT, SUB  
 RNDED

Mud Vis: 38  
 Mud Weight: 10.2  
 Mud PH: 10.9







SH: BLCK - DRK GRY, V HARD,  
SUB ANG, FISSILE, SOME  
CALCITE, W SRTD

SH: BLCK - DRK GRY, V HARD,  
SUB ANG, FISSILE, SOME  
CALCITE, W SRTD

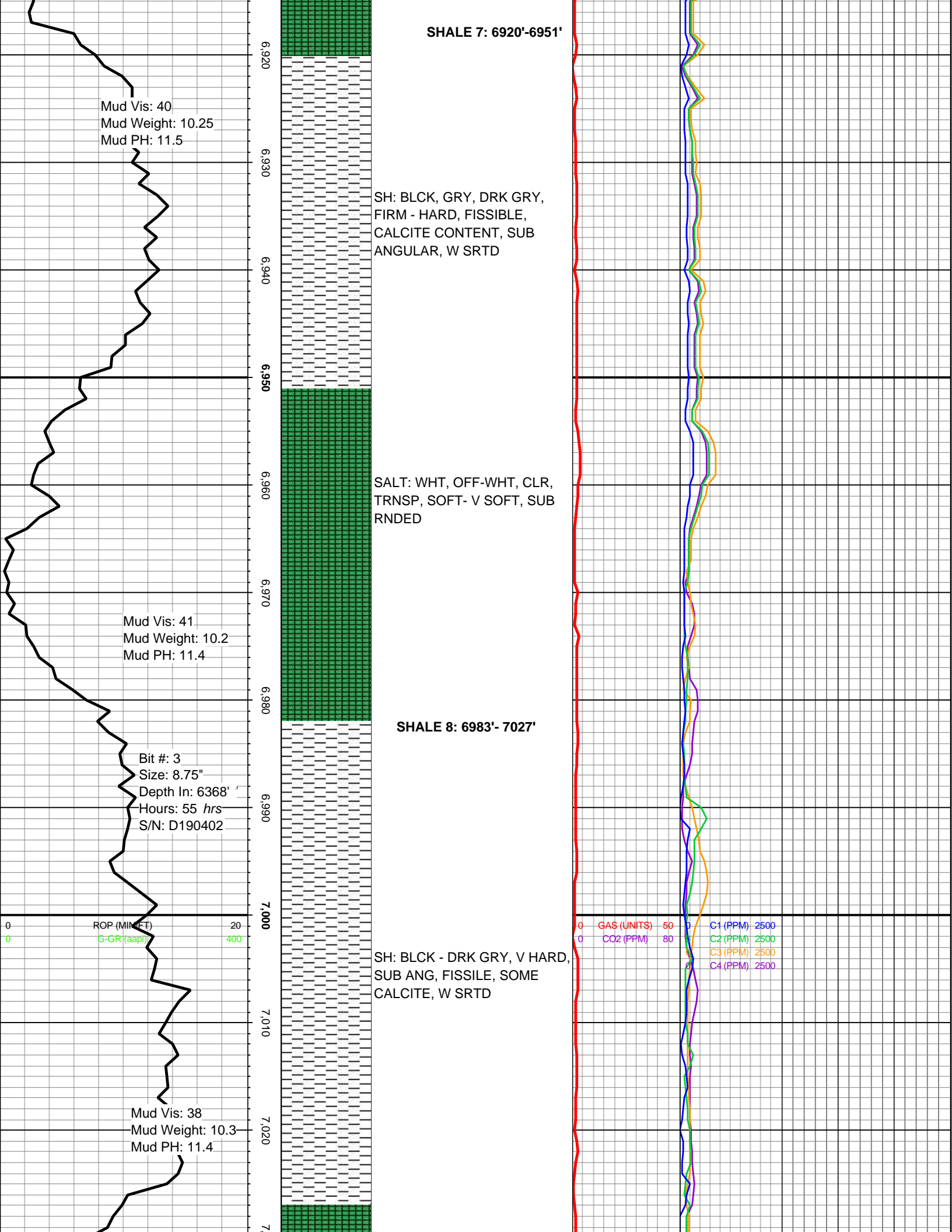
SALT: WHT, OFF-WHT, CLR,  
TRNSP, SOFT- V SOFT, SUB  
RNDED

**2/17/2014 5AM @ 6855'**

SALT: WHT, OFF-WHT, CLR,  
TRNSP, SOFT- V SOFT, SUB  
RNDED

SALT: WHT, OFF-WHT, CLR,  
TRNSP, SOFT- V SOFT, SUB  
RNDED





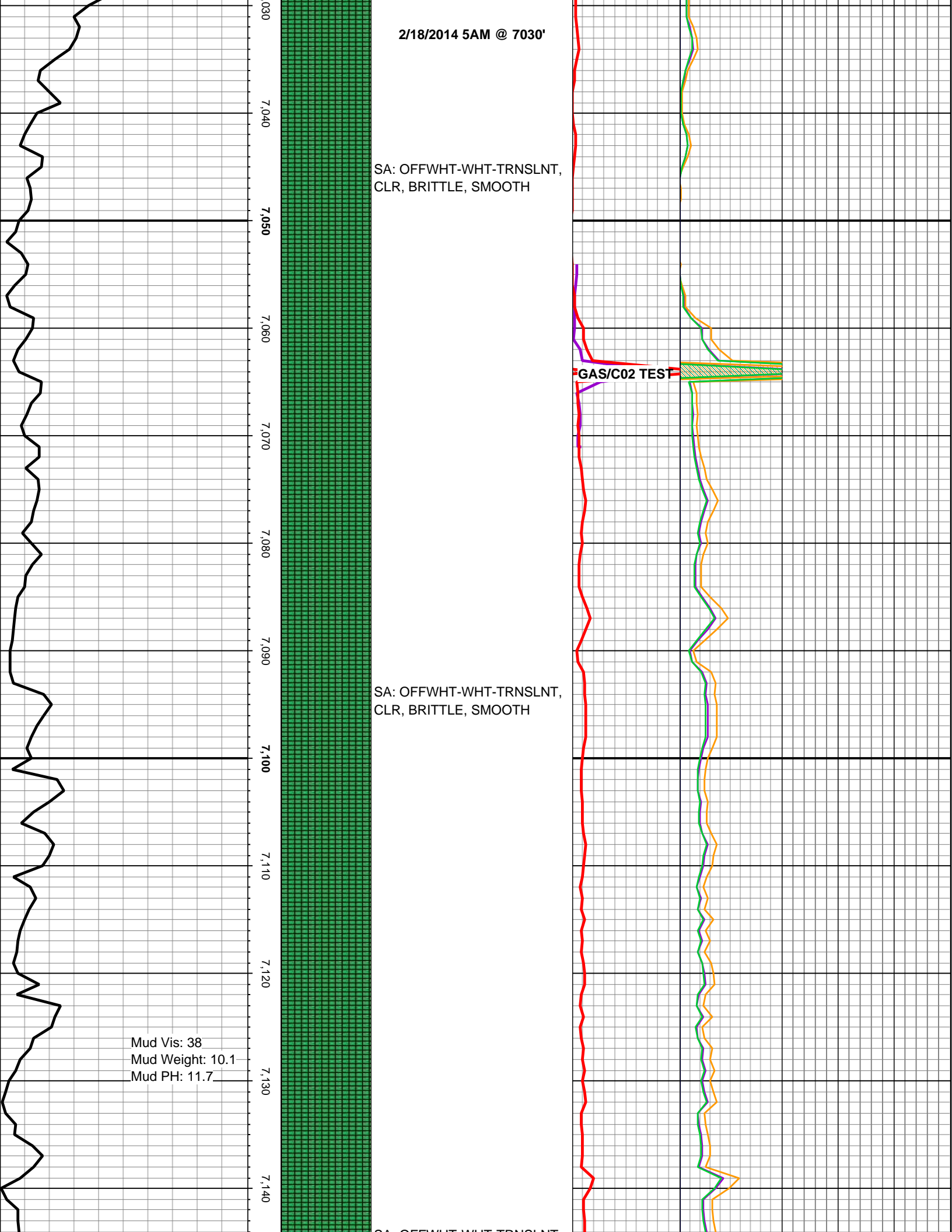
2/18/2014 5AM @ 7030'

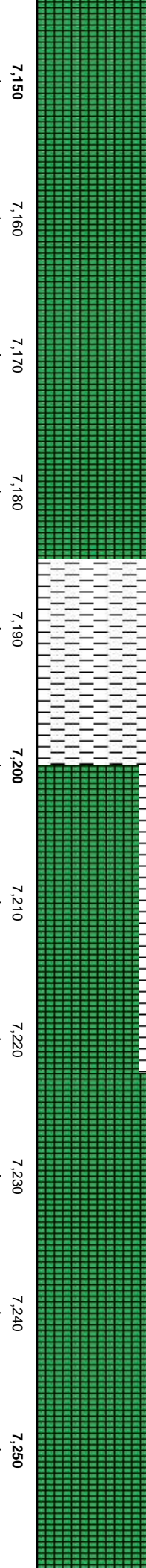
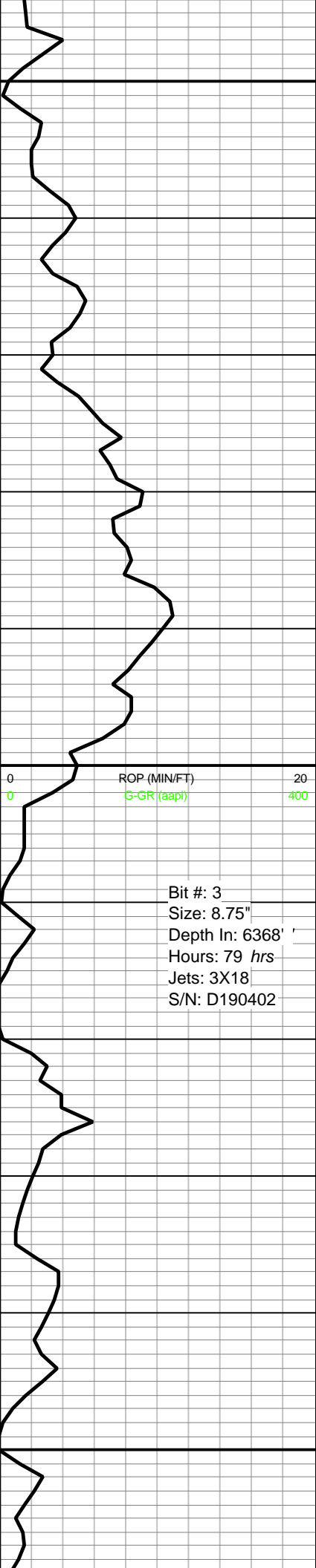
SA: OFFWHT-WHT-TRNSLNT,  
CLR, BRITTLE, SMOOTH

GAS/C02 TEST

SA: OFFWHT-WHT-TRNSLNT,  
CLR, BRITTLE, SMOOTH

Mud Vis: 38  
Mud Weight: 10.1  
Mud PH: 11.7



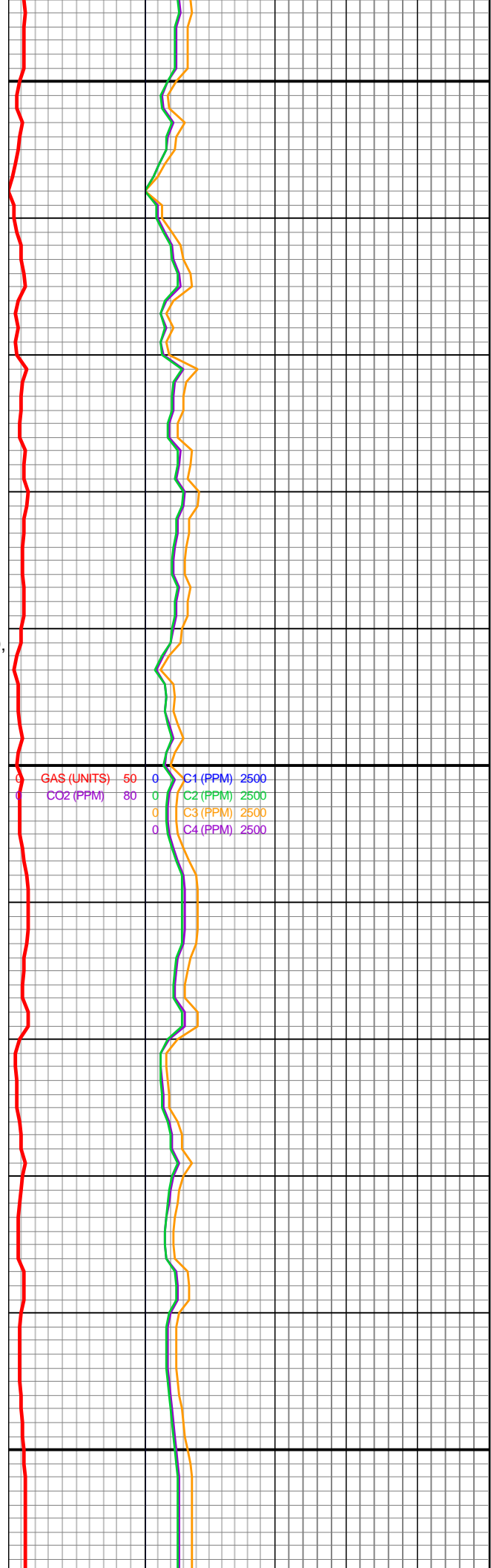


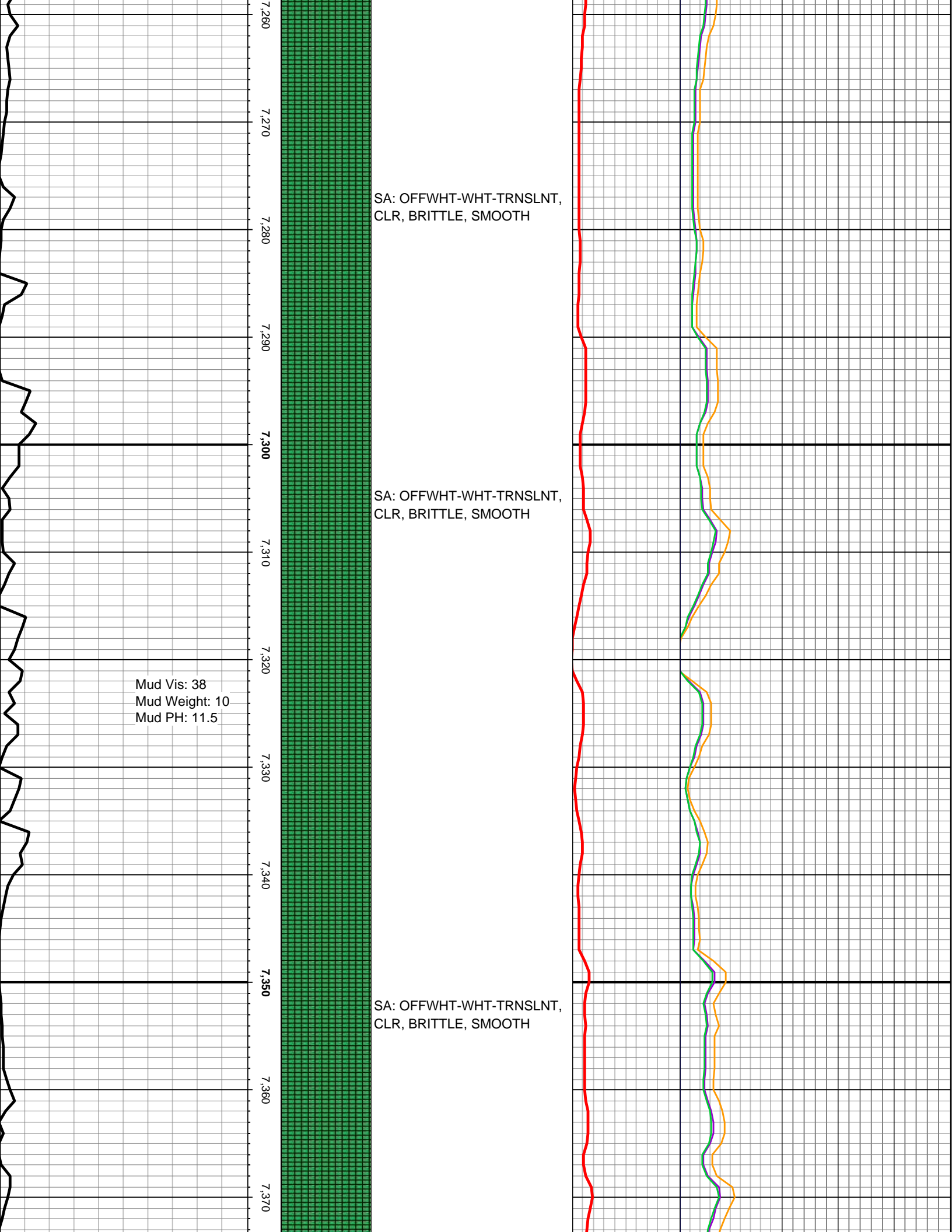
SA: OFFWHT-WHT-TRNSLNT, CLR, BRITTLE, SMOOTH

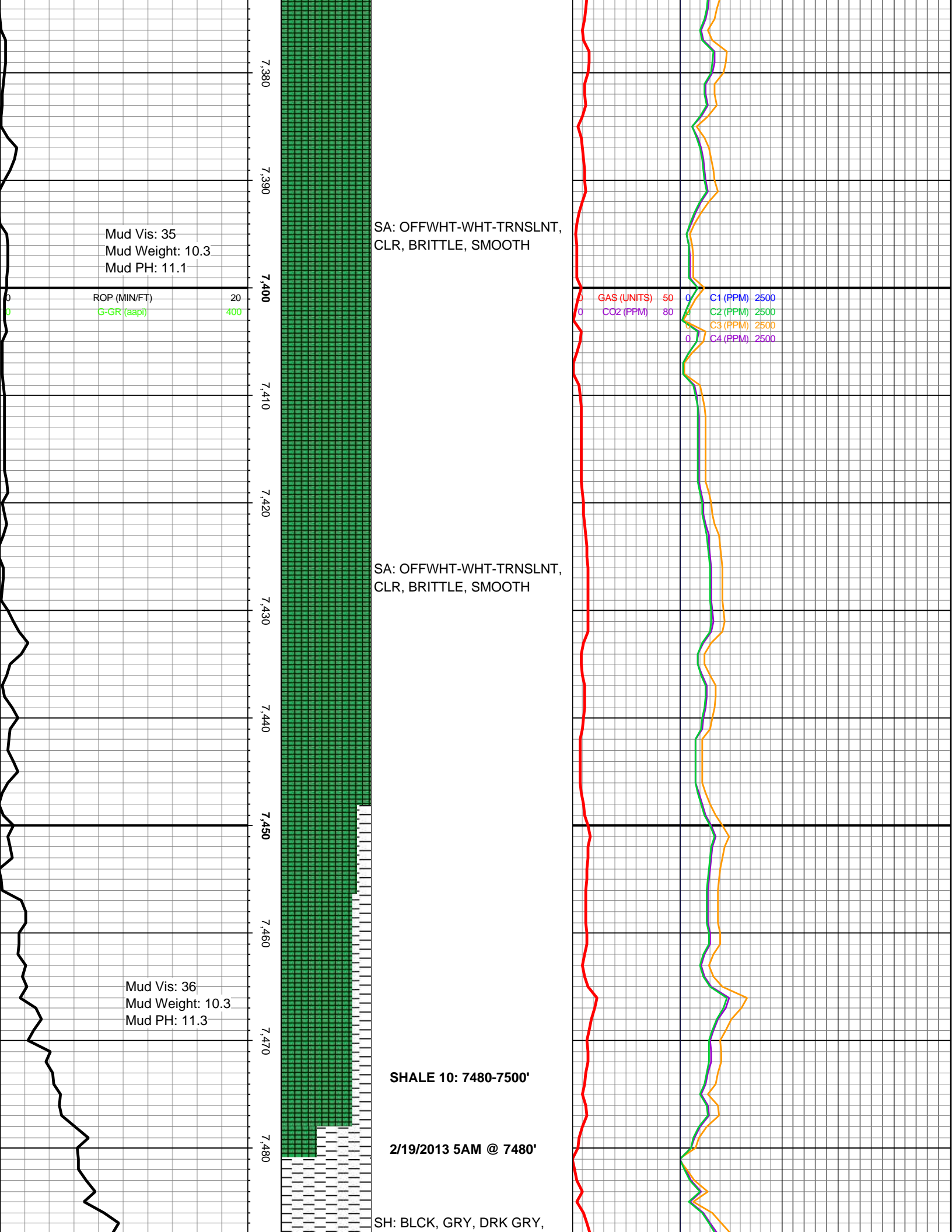
SHALE 9: 7186'-7200'

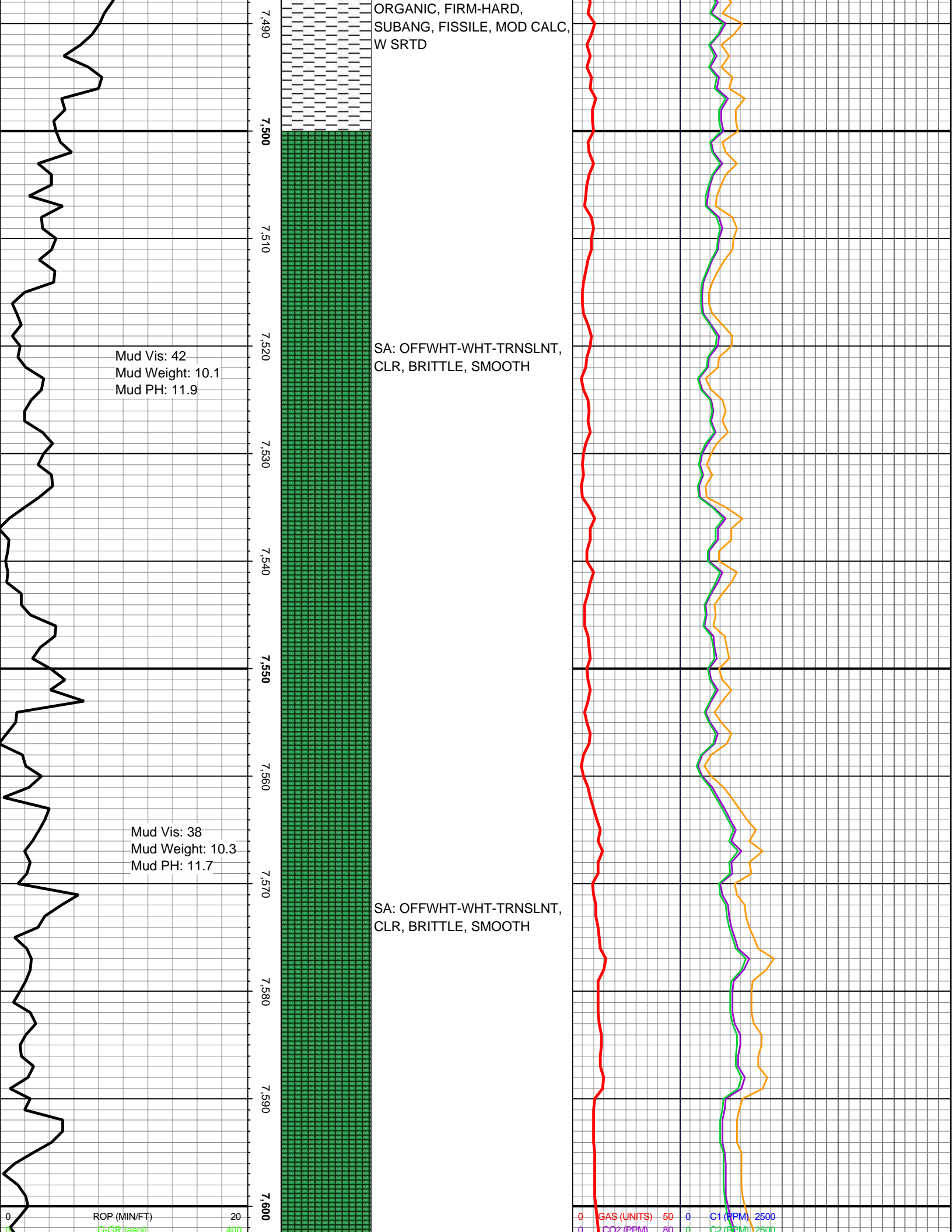
SH: BLCK - DRK GRY, V HARD, SUB ANG, FISSILE, SOME CALCITE, W SRTD

SA: OFFWHT-WHT-TRNSLNT, CLR, BRITTLE, SMOOTH









ORGANIC, FIRM-HARD,  
SUBANG, FISSILE, MOD CALC,  
W SRTD

7,490  
7,500  
7,510  
7,520  
7,530  
7,540  
7,550  
7,560  
7,570  
7,580  
7,590  
7,600

SA: OFFWHT-WHT-TRNSLNT,  
CLR, BRITTLE, SMOOTH

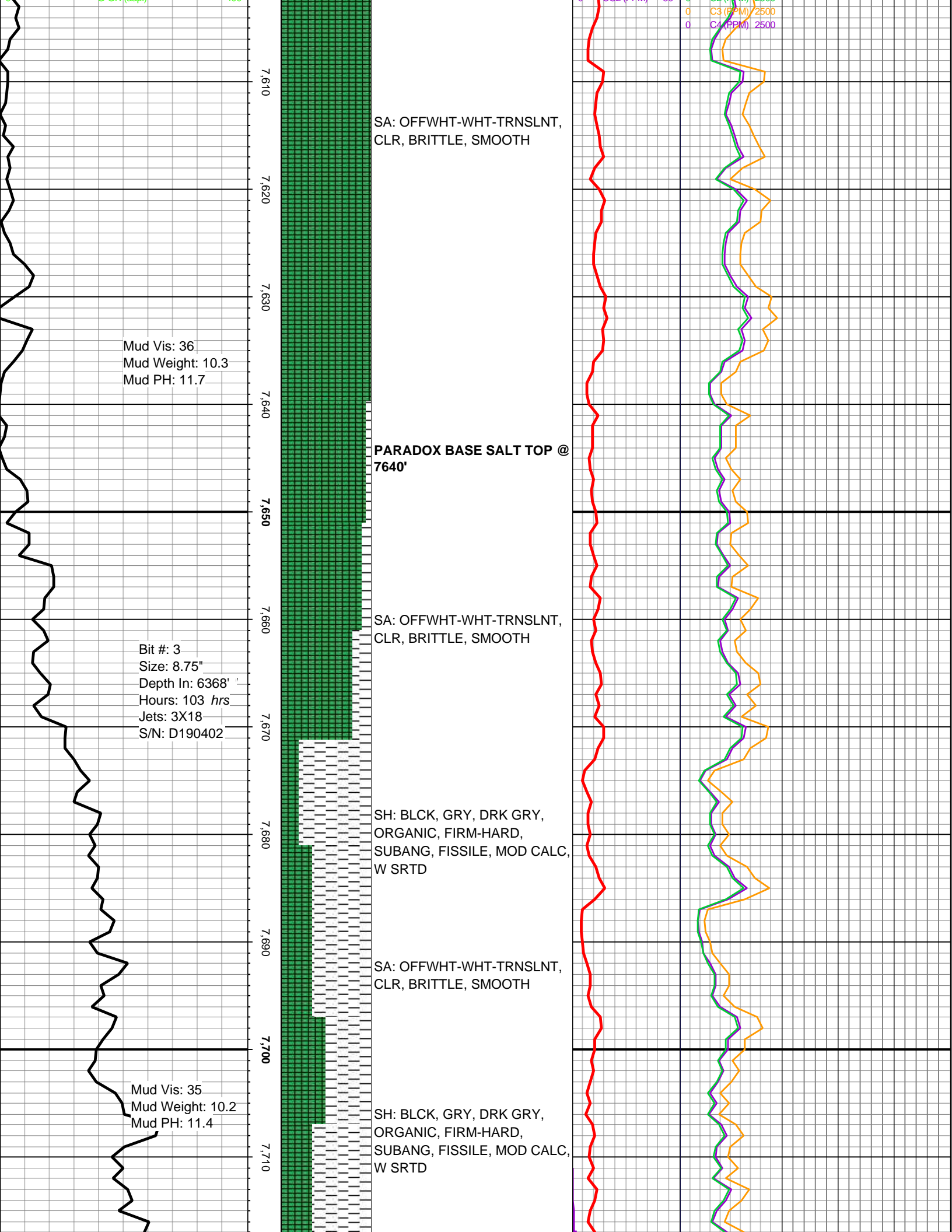
Mud Vis: 42  
Mud Weight: 10.1  
Mud PH: 11.9

SA: OFFWHT-WHT-TRNSLNT,  
CLR, BRITTLE, SMOOTH

Mud Vis: 38  
Mud Weight: 10.3  
Mud PH: 11.7

0 ROP (MIN/FT) 20  
G-GR (gaapi) 400

0 GAS (UNITS) 50 0 C1 (PPM) 2500  
0 CO2 (PPM) 80 0 C2 (PPM) 2500



2/20/2014 5AM @ 7720'

Mud Vis: 33  
Mud Weight: 10.2  
Mud PH: 11.4

SH: BLCK, GRY, DRK GRY,  
ORGANIC, FIRM-HARD,  
SUBANG, FISSILE, MOD CALC,  
W SRTD

GAS/C02 TEST

SH: BLCK, GRY, DRK GRY,  
ORGANIC, FIRM-HARD,  
SUBANG, FISSILE, MOD CALC,  
W SRTD

ROP (MIN/FT) 20  
G-GR (aapl) 400

0 GAS (UNITS) 60 0 C1 (PPM) 2500  
0 CO2 (PPM) 80 0 C2 (PPM) 2500  
0 C3 (PPM) 2500  
0 C4 (PPM) 2500

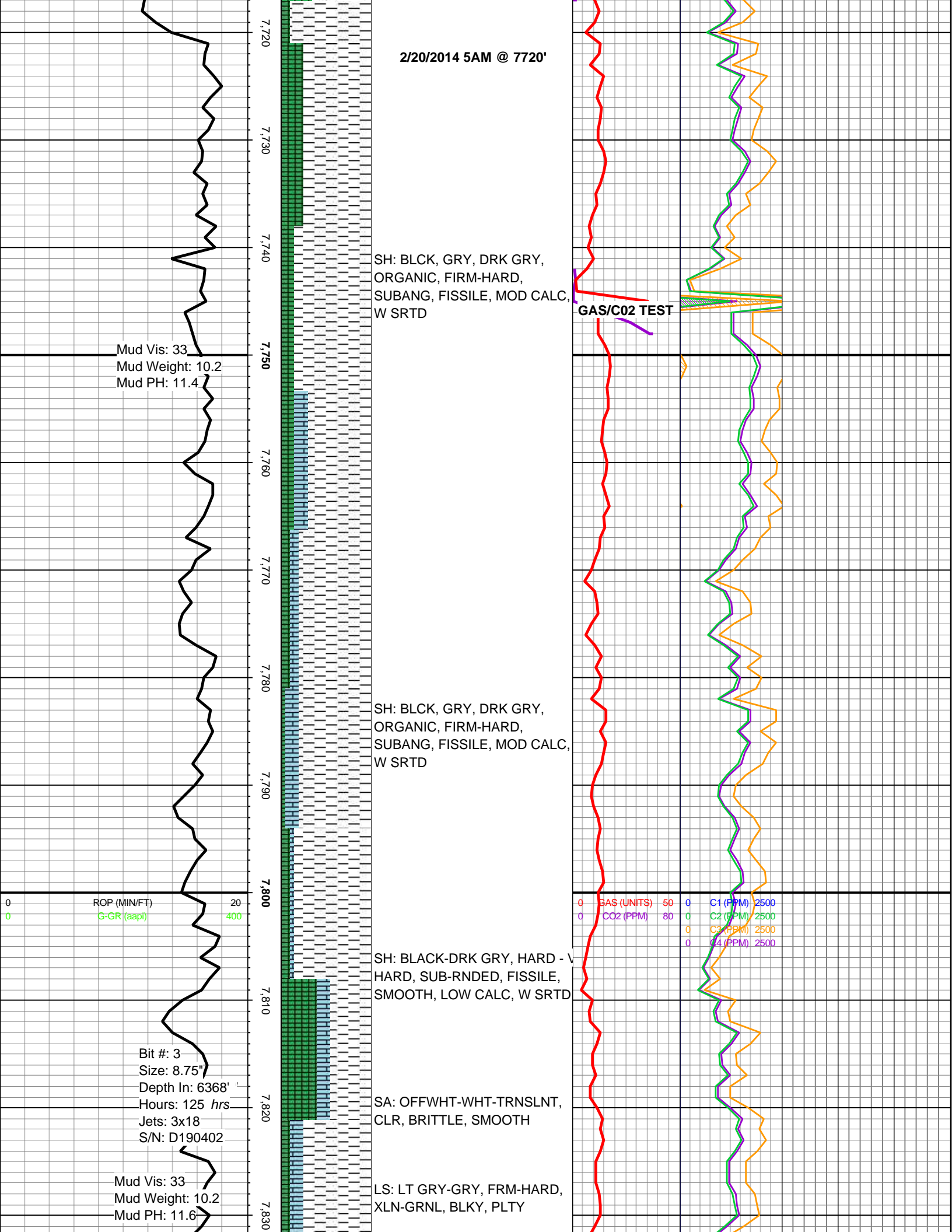
SH: BLACK-DRK GRY, HARD - V  
HARD, SUB-RNDED, FISSILE,  
SMOOTH, LOW CALC, W SRTD

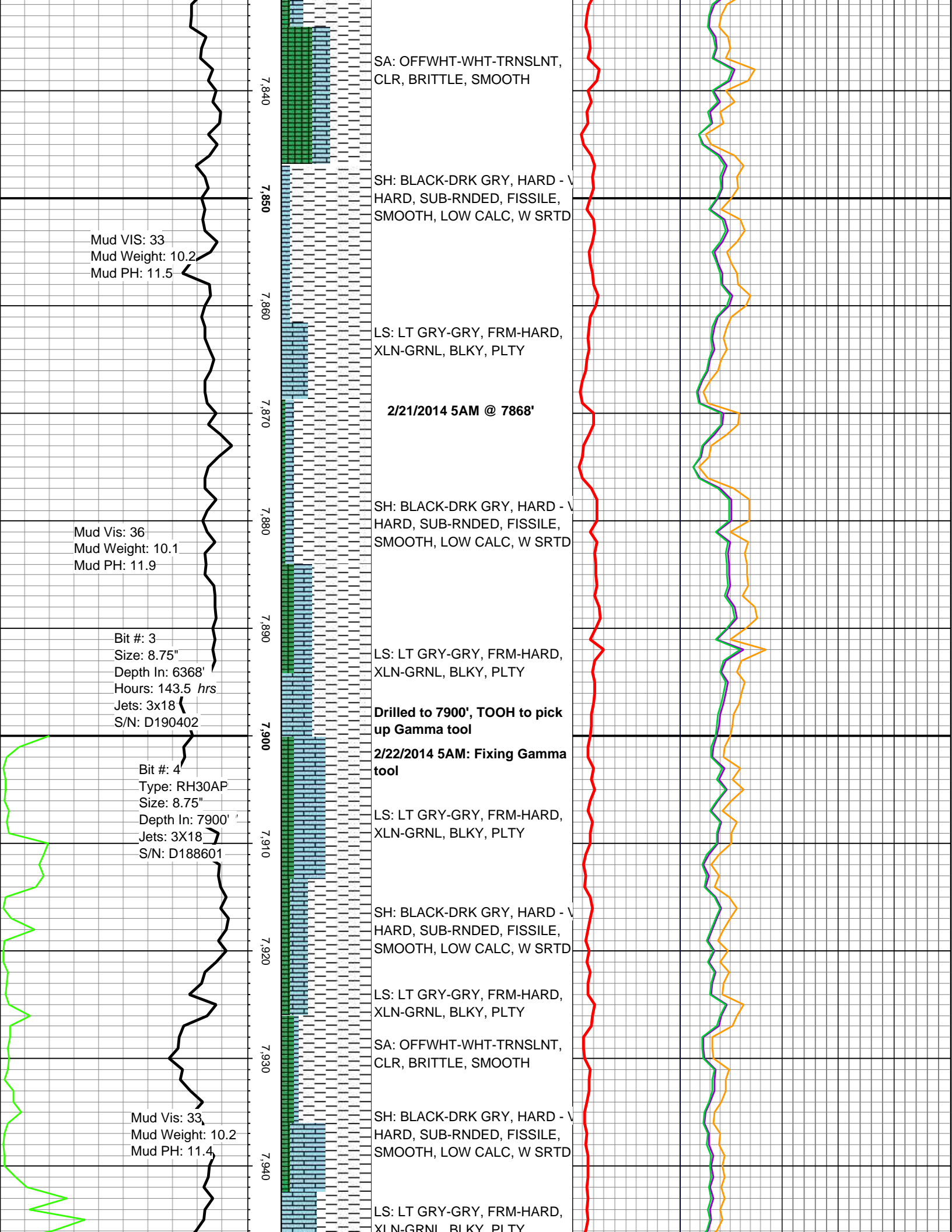
Bit #: 3  
Size: 8.75"  
Depth In: 6368'  
Hours: 125 hrs  
Jets: 3x18  
S/N: D190402

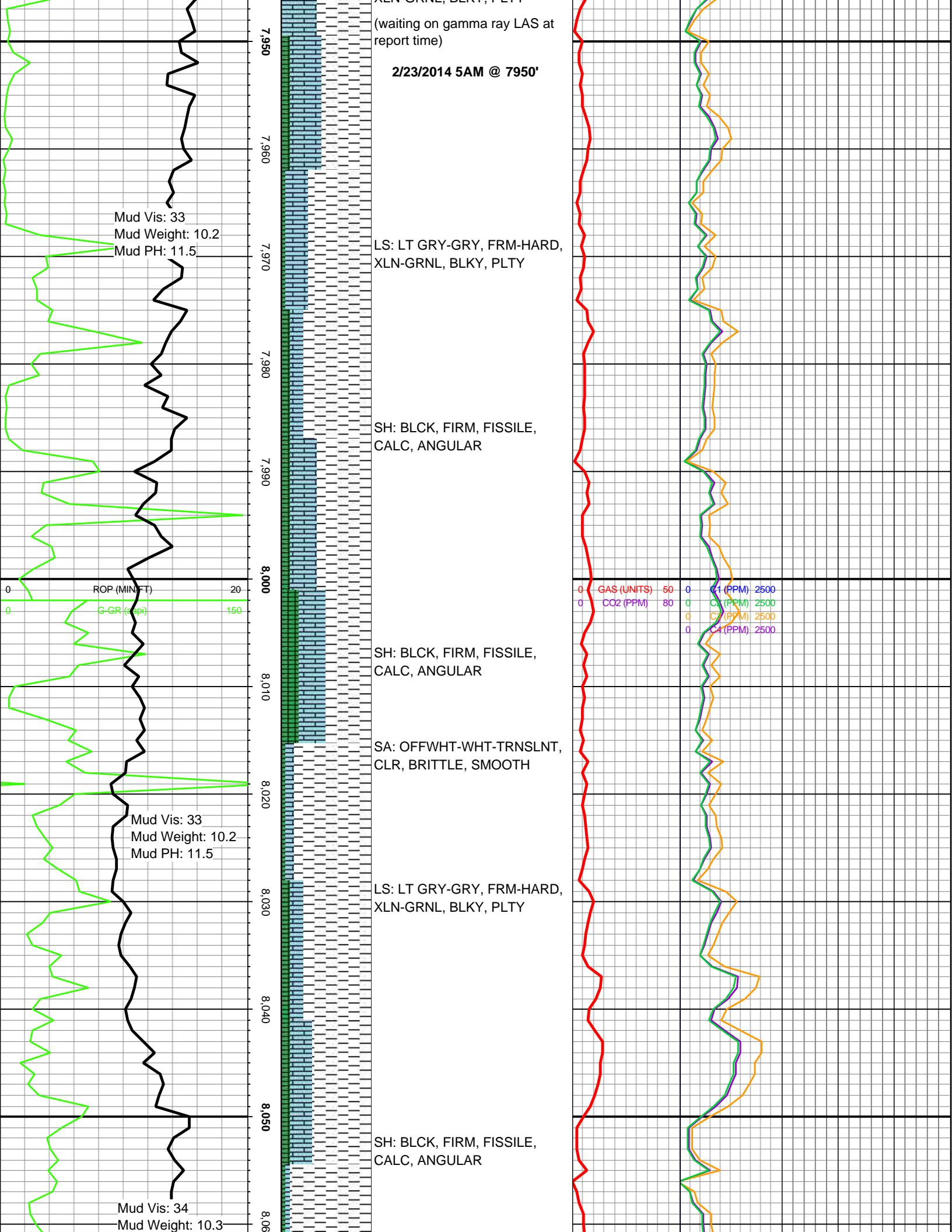
SA: OFFWHT-WHT-TRNSLNT,  
CLR, BRITTLE, SMOOTH

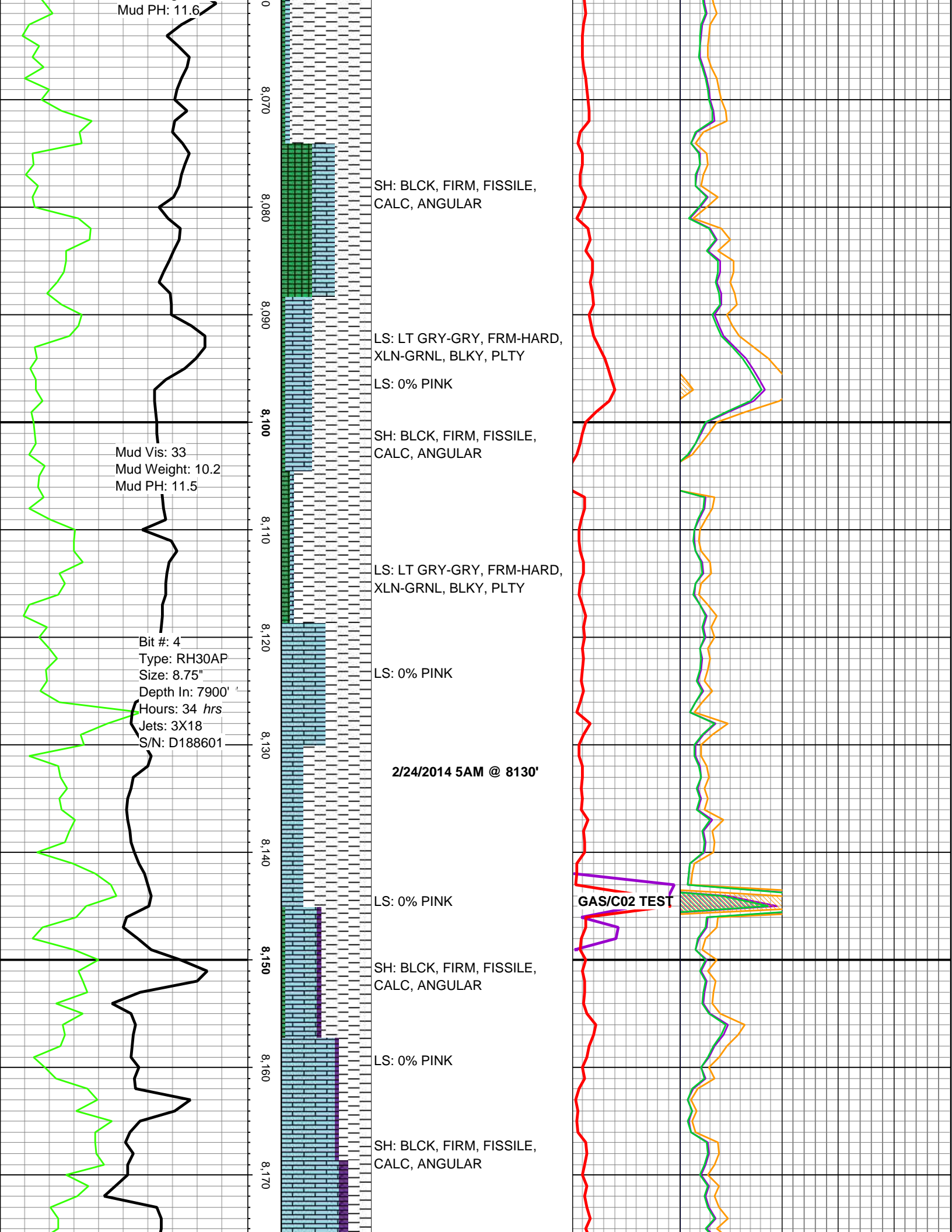
Mud Vis: 33  
Mud Weight: 10.2  
Mud PH: 11.6

LS: LT GRY-GRY, FRM-HARD,  
XLN-GRNL, BLKY, PLTY









Mud PH: 11.6

0  
8,070  
8,080  
8,090  
8,100  
8,110  
8,120  
8,130  
8,140  
8,150  
8,160  
8,170

SH: BLCK, FIRM, FISSILE,  
CALC, ANGULAR

LS: LT GRY-GRY, FRM-HARD,  
XLN-GRNL, BLKY, PLTY  
LS: 0% PINK

SH: BLCK, FIRM, FISSILE,  
CALC, ANGULAR

LS: LT GRY-GRY, FRM-HARD,  
XLN-GRNL, BLKY, PLTY

LS: 0% PINK

**2/24/2014 5AM @ 8130'**

LS: 0% PINK

SH: BLCK, FIRM, FISSILE,  
CALC, ANGULAR

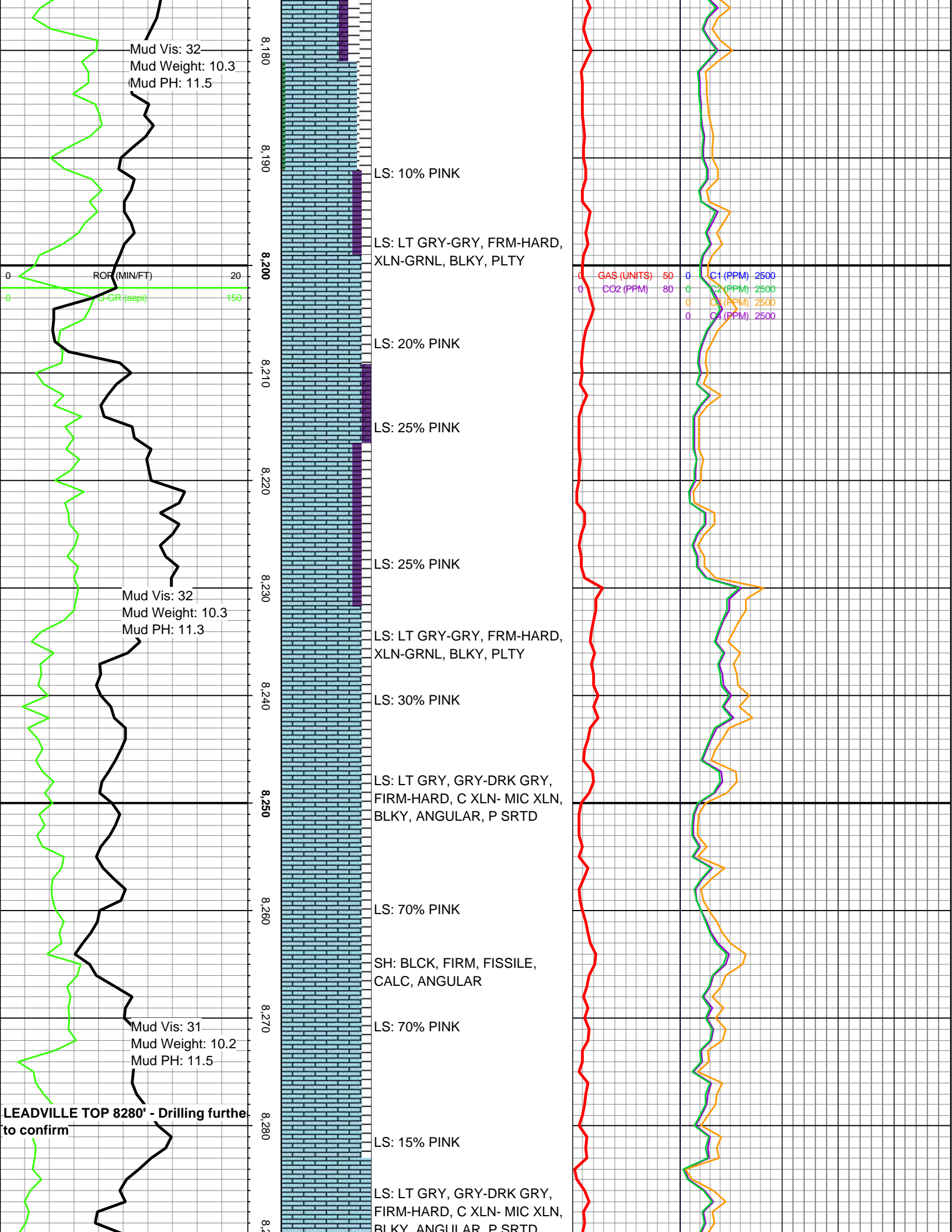
LS: 0% PINK

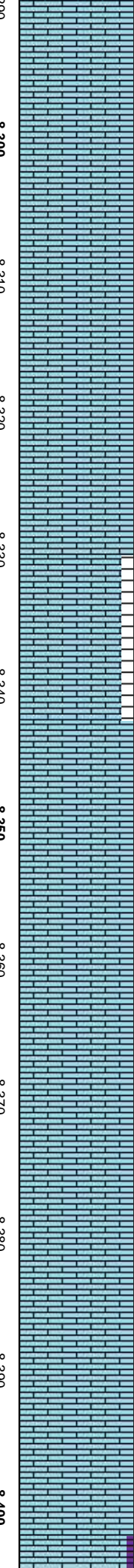
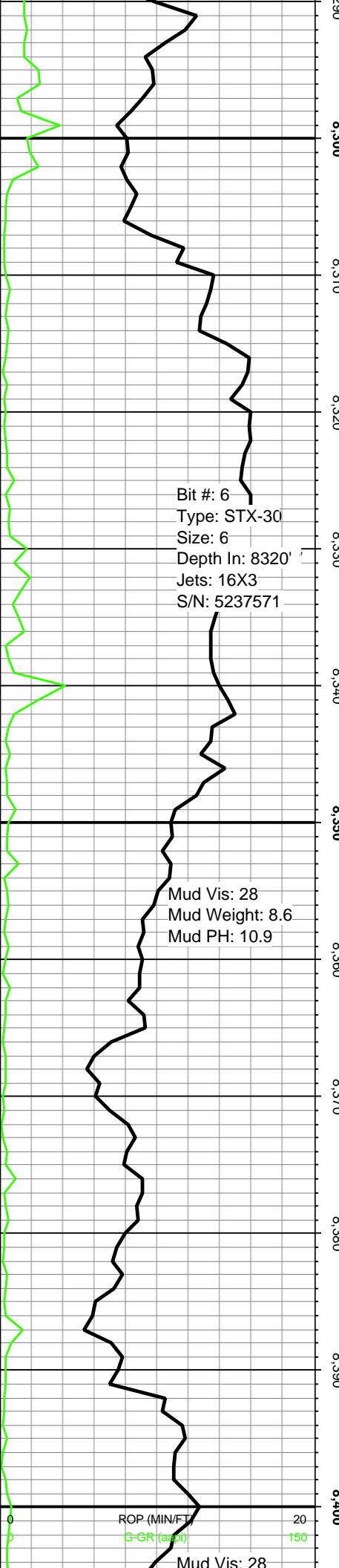
SH: BLCK, FIRM, FISSILE,  
CALC, ANGULAR

Mud Vis: 33  
Mud Weight: 10.2  
Mud PH: 11.5

Bit #: 4  
Type: RH30AP  
Size: 8.75"  
Depth In: 7900'  
Hours: 34 hrs  
Jets: 3X18  
S/N: D188601

**GAS/C02 TEST**





2/25/2014 5AM @ 8297'

LS: 0% PINK

LS: LT GRY, GRY-DRK GRY, FIRM-HARD, C XLN- MIC XLN, BLKY, ANGULAR, P SRTD

TOOH to rig up loggers

2/26/2014 8320'

2/27-2/28 Logging hole

3/1-3/3 Running casing/waiting for it to dry

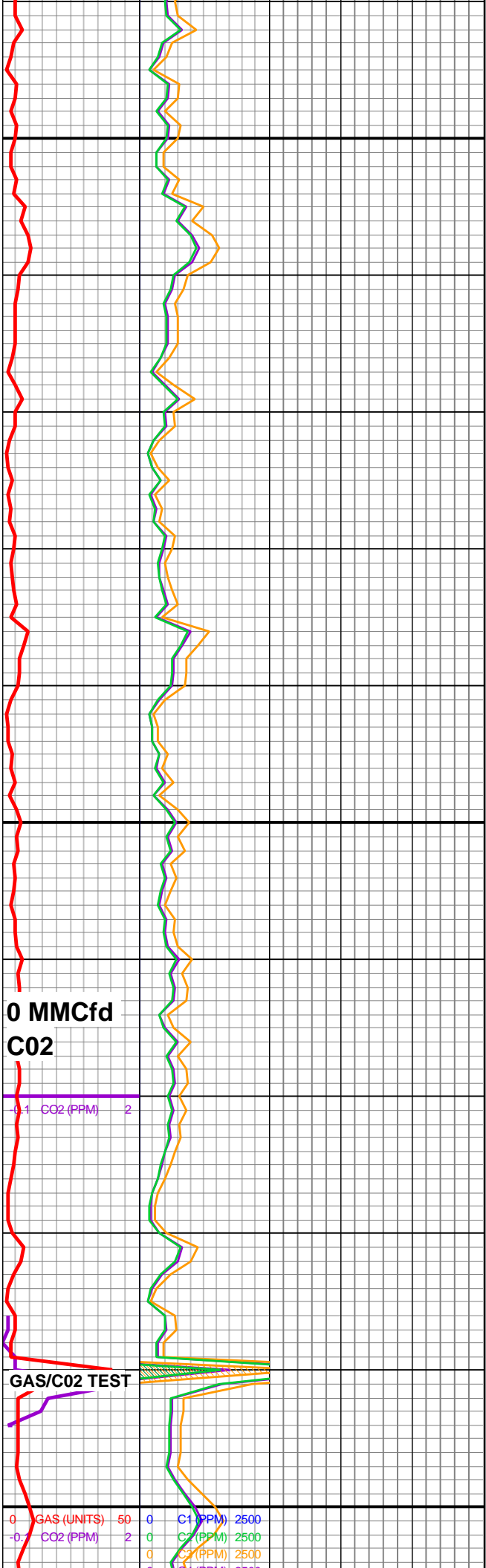
Dress out cement/  
 3/4 9pm: drilling ahead

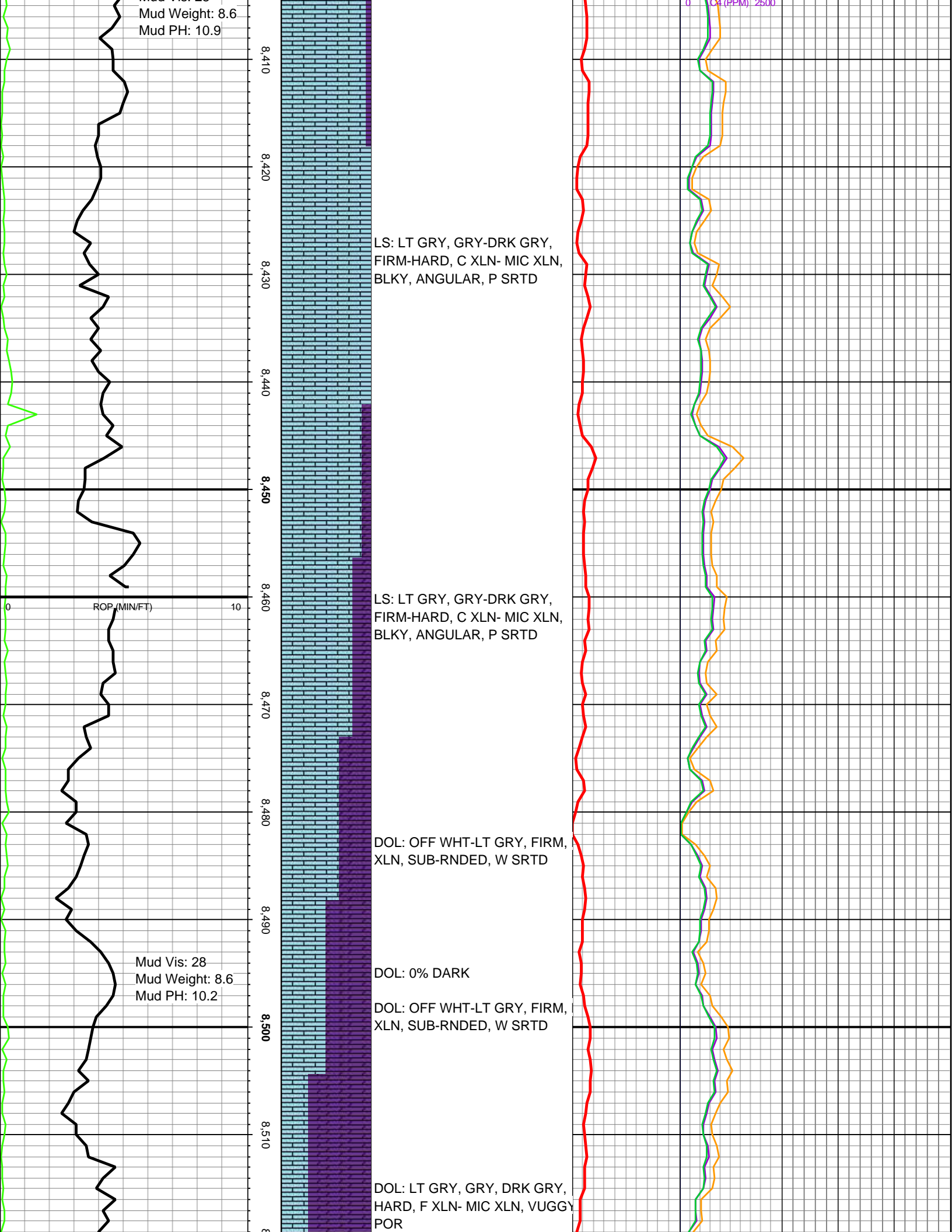
LS: 0% PINK

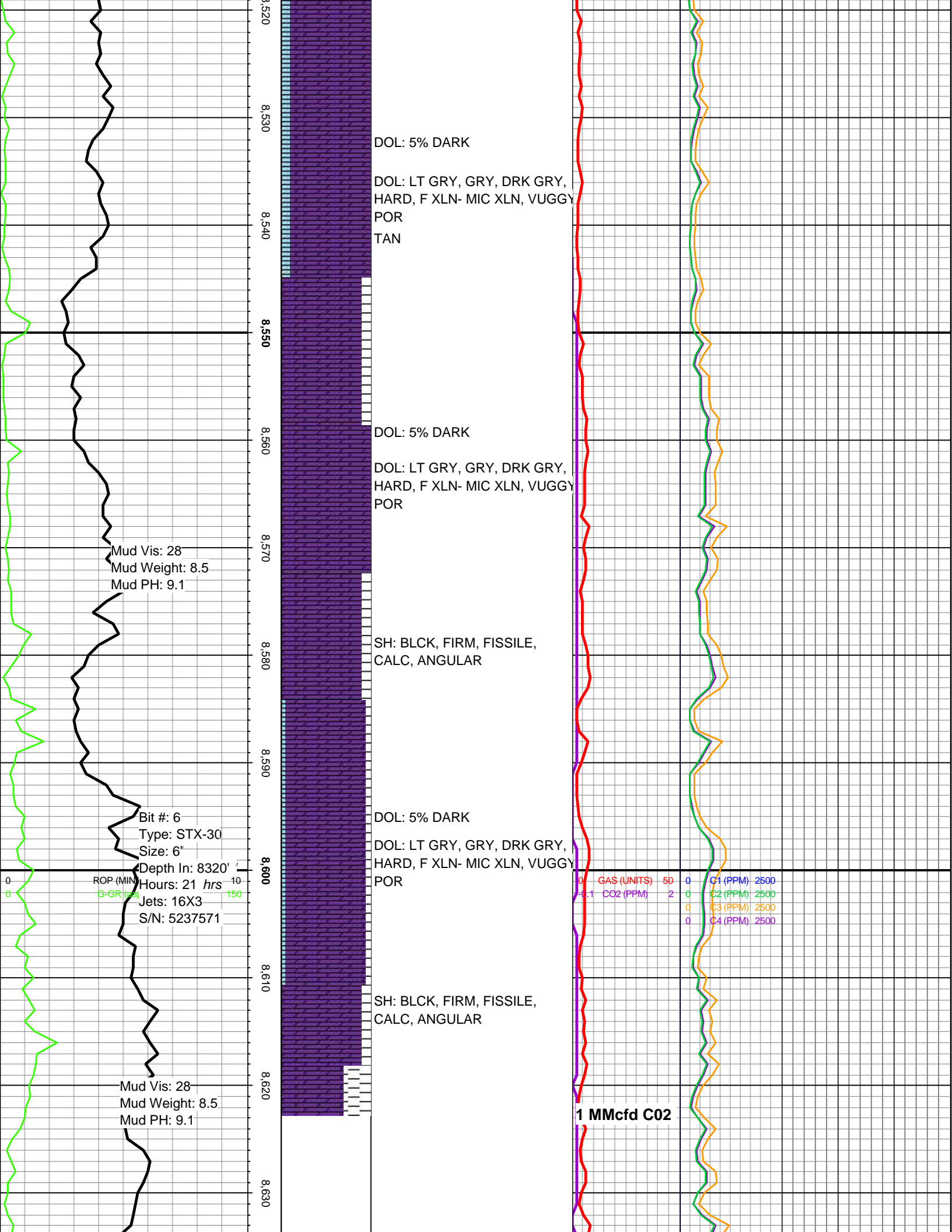
LS: LT GRY, GRY-DRK GRY, FIRM-HARD, C XLN- MIC XLN, BLKY, ANGULAR, P SRTD

3/5/2014 5AM @ 8378'

LS: LT GRY, GRY-DRK GRY, FIRM-HARD, C XLN- MIC XLN, BLKY, ANGULAR, P SRTD







8,520  
8,530  
8,540  
8,550  
8,560  
8,570  
8,580  
8,590  
8,600  
8,610  
8,620  
8,630

DOL: 5% DARK  
DOL: LT GRY, GRY, DRK GRY,  
HARD, F XLN- MIC XLN, VUGGY  
POR  
TAN

DOL: 5% DARK  
DOL: LT GRY, GRY, DRK GRY,  
HARD, F XLN- MIC XLN, VUGGY  
POR

Mud Vis: 28  
Mud Weight: 8.5  
Mud PH: 9.1

SH: BLCK, FIRM, FISSILE,  
CALC, ANGULAR

Bit #: 6  
Type: STX-30  
Size: 6"  
Depth In: 8320'  
Hours: 21 hrs  
Jets: 16X3  
S/N: 5237571

DOL: 5% DARK  
DOL: LT GRY, GRY, DRK GRY,  
HARD, F XLN- MIC XLN, VUGGY  
POR

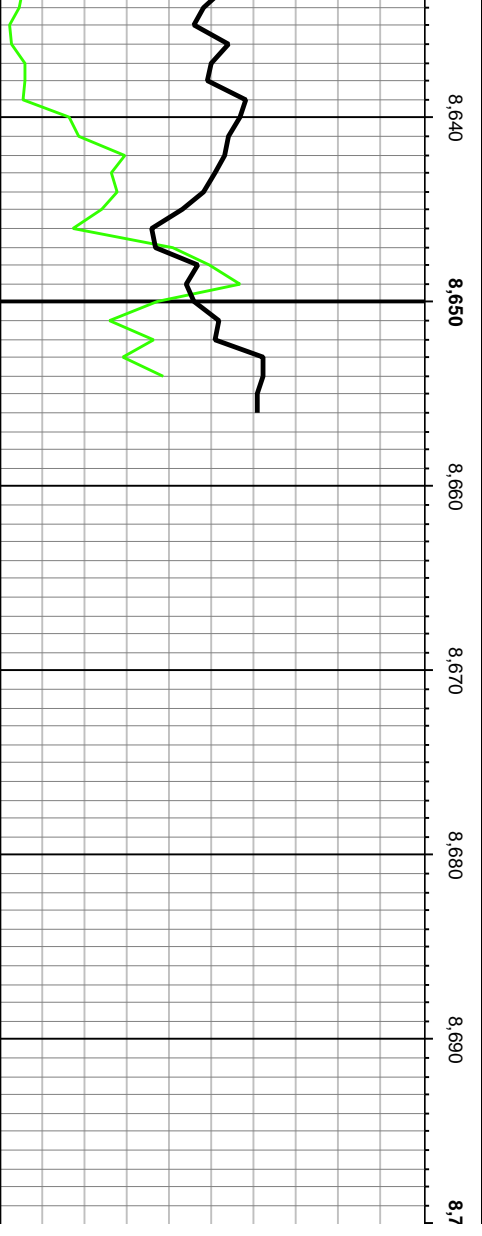
SH: BLCK, FIRM, FISSILE,  
CALC, ANGULAR

Mud Vis: 28  
Mud Weight: 8.5  
Mud PH: 9.1

0 GAS (UNITS) 50 0 C4 (PPM) 2500  
-1.1 CO2 (PPM) 2 0 C2 (PPM) 2500  
0 C3 (PPM) 2500  
0 C4 (PPM) 2500

1 MMcf/d CO2

ROP (MIN) 10  
G-GR (ft/hr) 150



LOST CIRCULATION - NO  
RETURNS OVER SHAKERS

3/6/2014 5AM: TOOH

**TD-8660'**

Released by CM

Curtis Slaughter

3/6/2014

thanks for using

Above Enterprises

