



**MID CONTINENT WELL LOGGING
SERVICES, INC.**

CONTINUOUS WELL LOGGING / COMPLETE HYDROCARBON ANALYSIS

2222 WESTPARK DR. STE. A
NORMAN, OK 73069
OFFICE (405) 360-7333
OPERATIONS (405) 590-3655
SALES (405) 203-9989

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

Well Name: PEPPER 3419 1-4H **SANDRIDGE ENERGY, INC.**
Location: SECTION 4-T34S-R19W of COMANCHE COUNTY, KS
License Number: API# 15033216450100 **Region:** SADDLE FIELD
Spud Date: 06/23/2012 **Drilling Completed:** 07/08/2012
Surface Coordinates: SHL: 250' FNL & 660' FEL of NE/4
BHL: 330' FSL & 660' FEL of SE/4
Bottom Hole REPORT FOR: KATHY GENTRY
Coordinates: LOGGER: ROBERT MARGRAVE & KEVIN MARGRAVE
Ground Elevation (ft): 1994 **K.B. Elevation (ft):** 2014
Logged Interval (ft): 6050 **To:** 9804 **Total Depth (ft):** 9804
Formation: MISSISSIPPI FORMATION
Type of Drilling Fluid: FRESH WATER & GEL

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: SANDRIDGE ENERGY, INC.
Address: 123 Robert S. Kerr Avenue, Ste. 2430
Oklahoma City, Oklahoma 73102-6406

GEOLOGIST

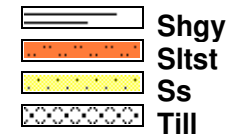
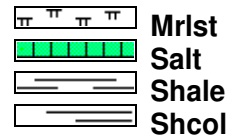
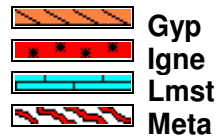
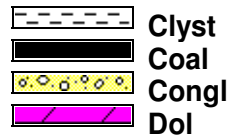
Name: KATHY GENTRY
Company: SANDRIDGE ENERGY, INC.
Address: 123 Robert S. Kerr Avenue, Ste. 2430
Oklahoma City, Oklahoma 73102-6406

Cores

DSTs

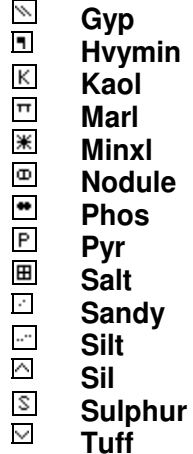
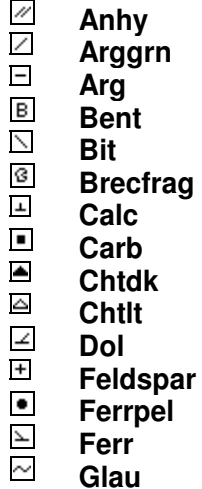
Comments

ROCK TYPES

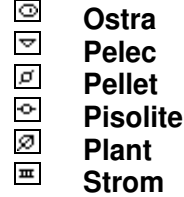
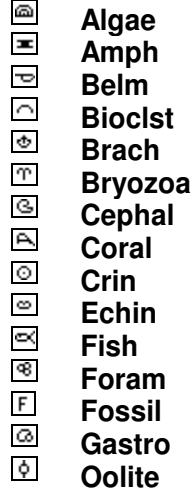


ACCESSORIES

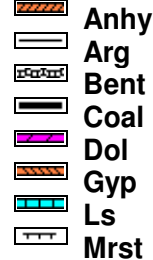
MINERAL



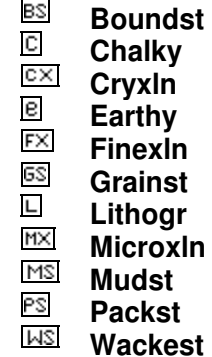
FOSSIL



STRINGER



TEXTURE



OTHER SYMBOLS

POROSITY

- E Earthy
- Fenest
- F Fracture
- ⊗ Inter
- ⊕ Moldic
- Organic
- P Pinpoint

- V Vuggy

SORTING

- W Well
- M Moderate
- P Poor

ROUNDING

- R Rounded
- r Subrnd
- a Subang
- A Angular

OIL SHOW

- Even

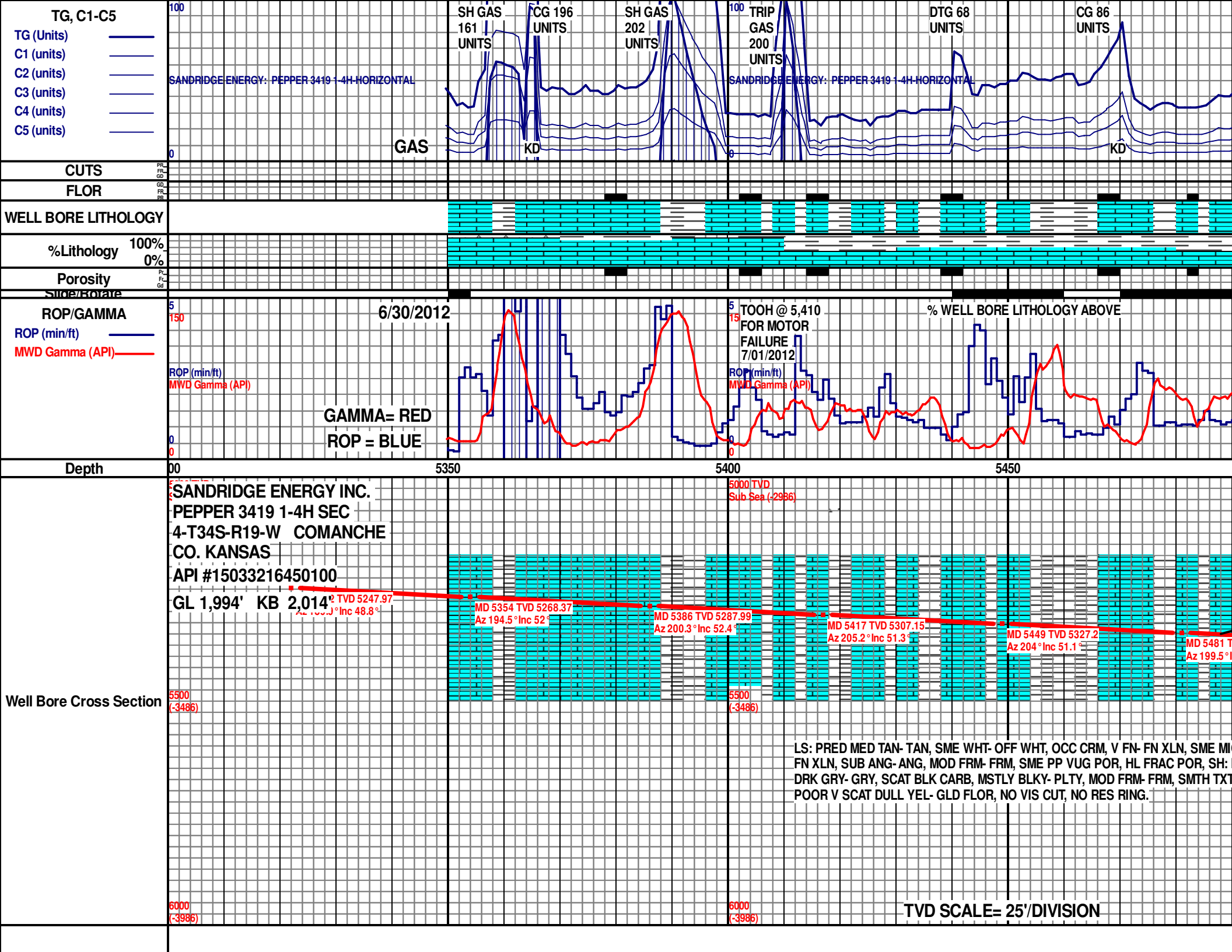
- Spotted
- Ques
- D Dead

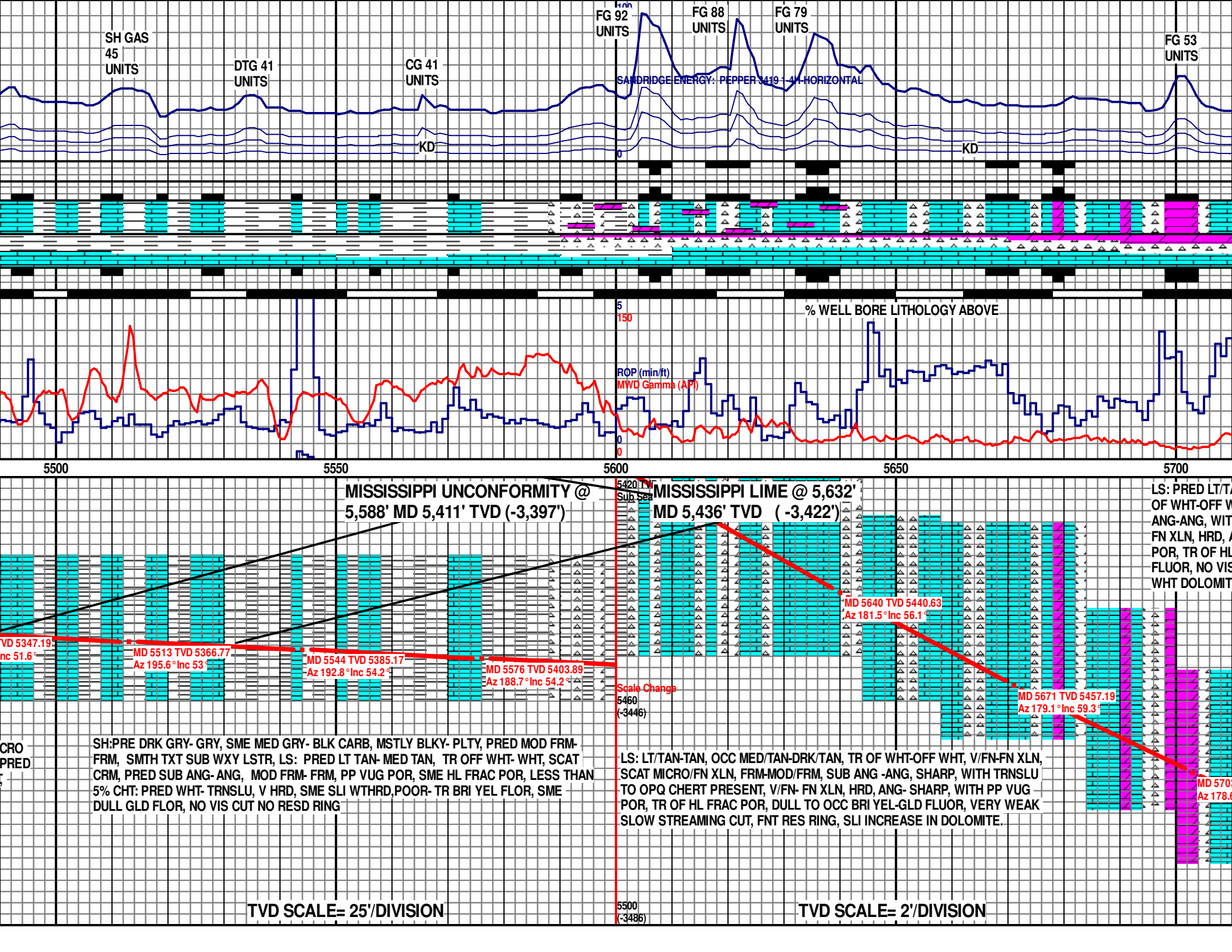
INTERVAL

- Core
- Dst

EVENT

- ▽ Rft
- ▴ Sidewall





SH GAS
45
UNITS

DTG 41
UNITS

CG 41
UNITS

FG 92
UNITS

FG 88
UNITS

FG 79
UNITS

FG 53
UNITS

SANDRIDGE ENERGY: PEPPER 3419-1-4H HORIZONTAL

KD

KD

% WELL BORE LITHOLOGY ABOVE

ROP (min/ft)
MWD Gamma (API)

5500

5550

5600

5650

5700

MISSISSIPPI UNCONFORMITY @
5,588' MD 5,411' TVD (-3,397')

MISSISSIPPI LIME @ 5,632'
MD 5,436' TVD (-3,422')

LS: PRED LT/TAN-
ANG-ANG, WIT
FN XLN, HRD, A
POR, TR OF HL
FLUOR, NO VIS
WHT DOLOMIT

TVD 5347.19
Inc 51.6°

MD 5513 TVD 5366.77
Az 195.6° Inc 53°

MD 5544 TVD 5385.17
Az 192.8° Inc 54.2°

MD 5576 TVD 5403.89
Az 188.7° Inc 54.2°

MD 5640 TVD 5440.63
Az 181.5° Inc 56.1°

MD 5671 TVD 5457.19
Az 179.1° Inc 59.3°

MD 5700
Az 178.6°

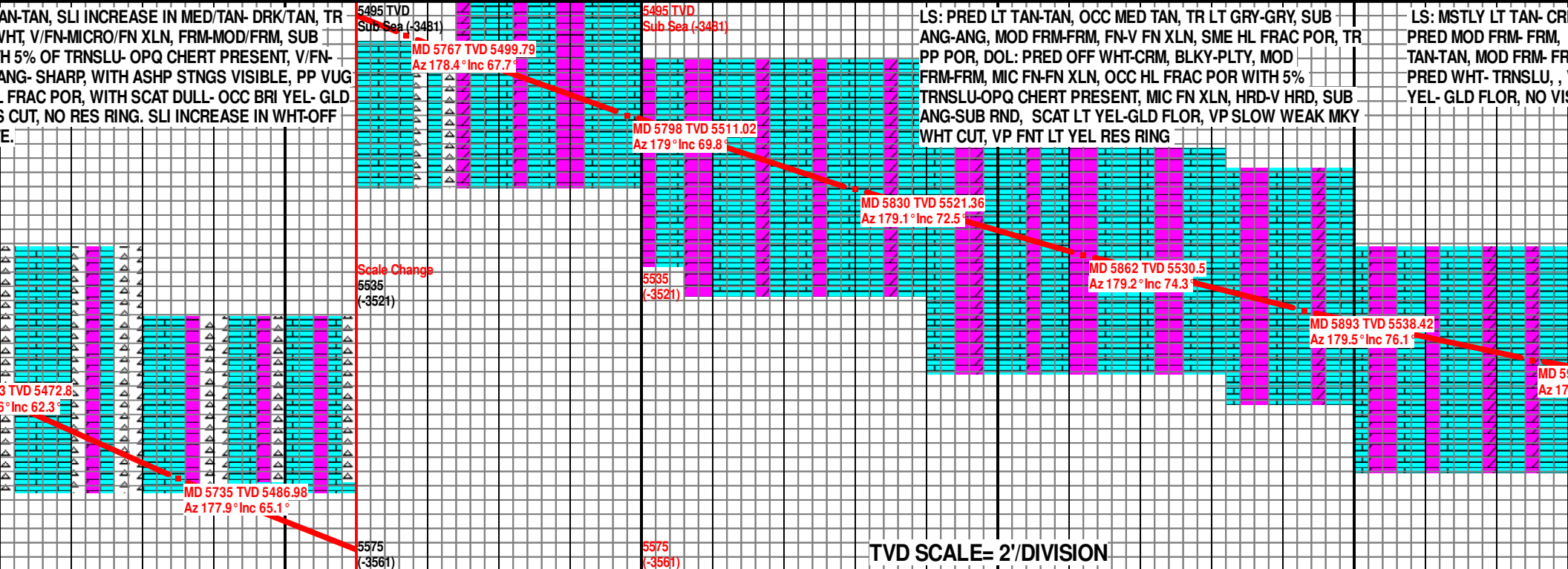
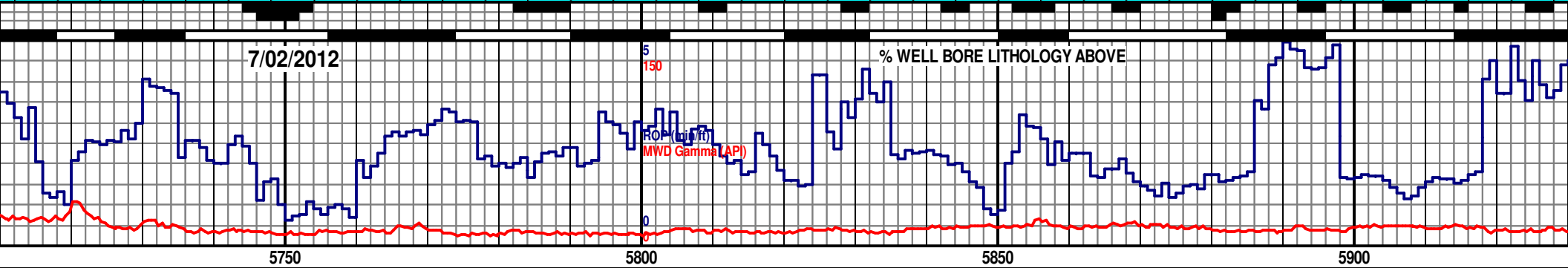
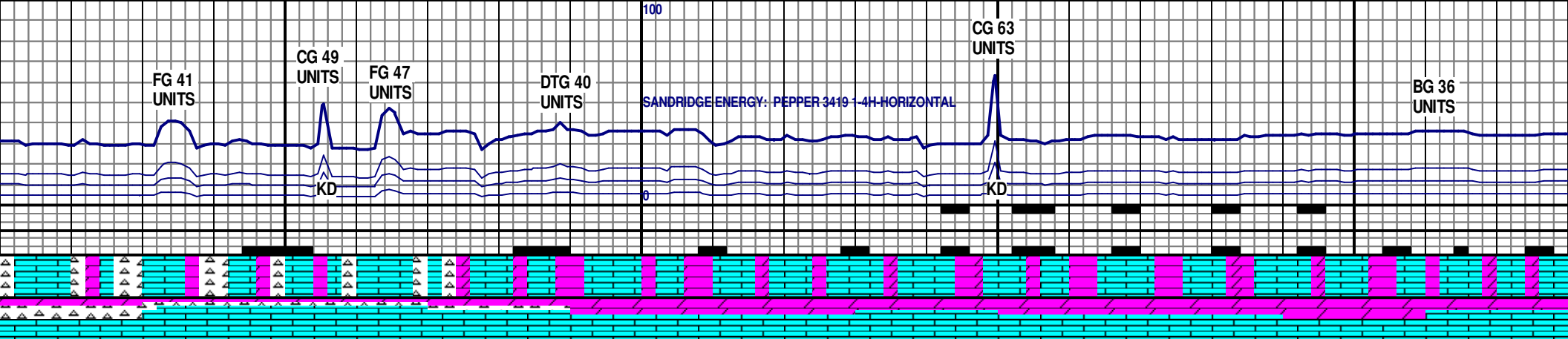
SH: PRE DRK GRY- GRY, SME MED GRY- BLK CARB, MSTLY BLKY- PLTY, PRED MOD FRM-
FRM, SMTH TXT SUB WXY LSTR, LS: PRED LT TAN- MED TAN, TR OFF WHT- WHT, SCAT
CRM, PRED SUB ANG- ANG, MOD FRM- FRM, PP VUG POR, SME HL FRAC POR, LESS THAN
5% CHT: PRED WHT- TRNSLU, V HRD, SME SLI WTHRD, POOR- TR BRI YEL FLOR, SME
DULL GLD FLOR, NO VIS CUT NO RESD RING

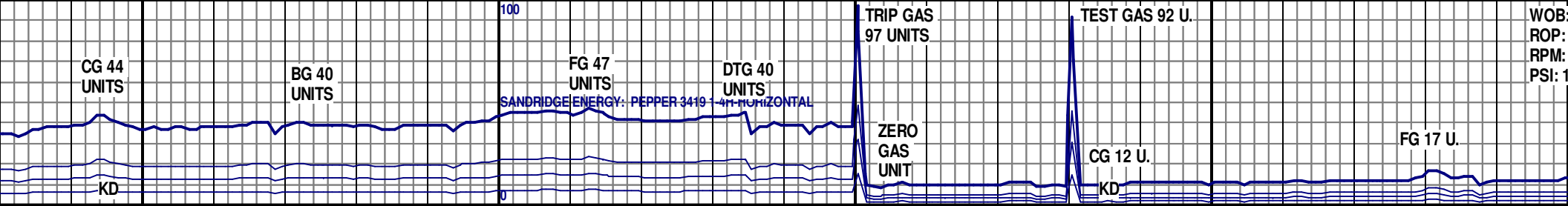
LS: LT/TAN-TAN, OCC MED/TAN-DRK/TAN, TR OF WHT-OFF WHT, V/FN-FN XLN,
SCAT MICRO/FN XLN, FRM-MOD/FRM, SUB ANG -ANG, SHARP, WITH TRNSLU
TO OPQ CHERT PRESENT, V/FN- FN XLN, HRD, ANG- SHARP, WITH PP VUG
POR, TR OF HL FRAC POR, DULL TO OCC BRI YEL-GLD FLUOR, VERY WEAK
SLOW STREAMING CUT, FNT RES RING, SLI INCREASE IN DOLOMITE.

TVD SCALE= 25'/DIVISION

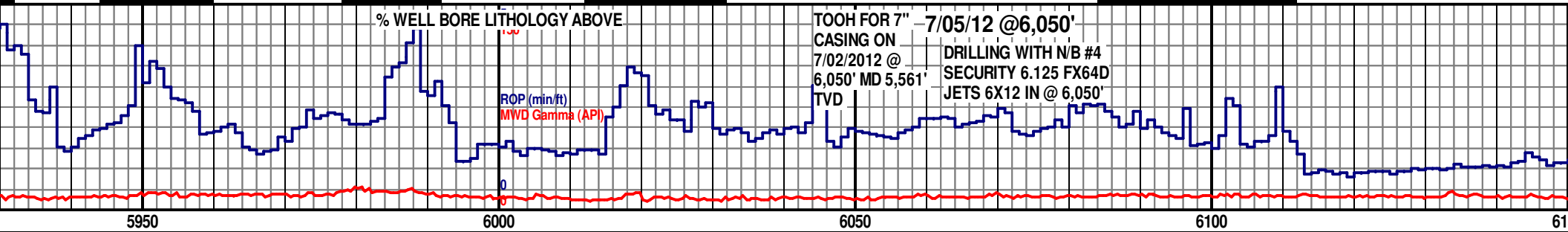
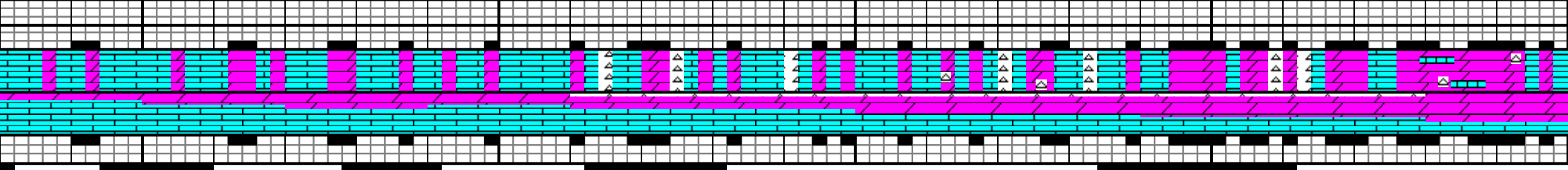
TVD SCALE= 2'/DIVISION

5500
(-3486)





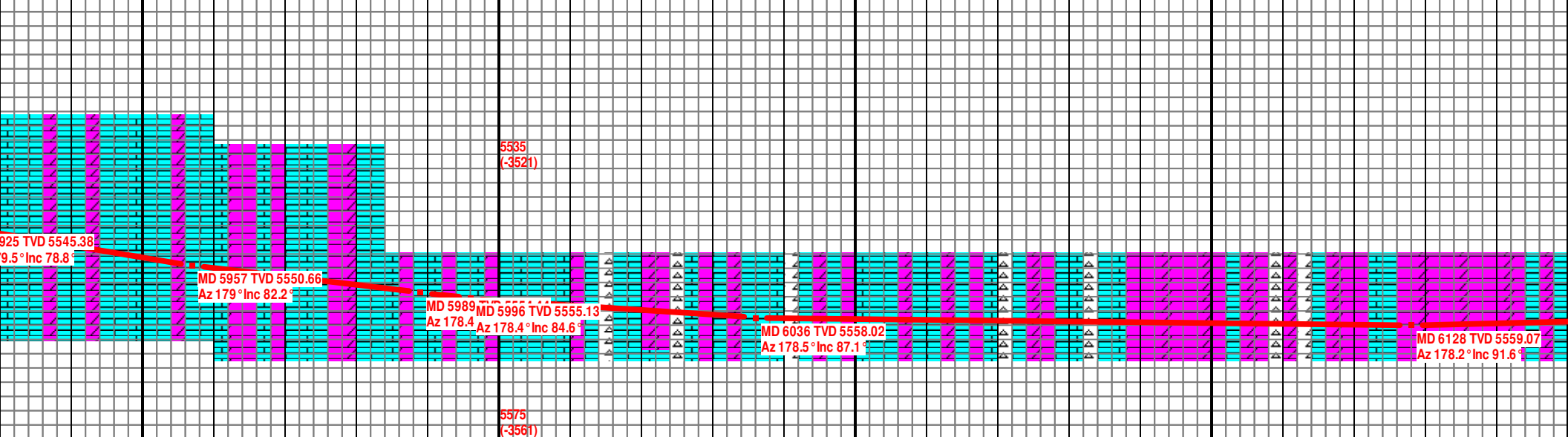
WOB:
ROP:
RPM:
PSI: 1



5950 6000 6050 6100 61

LS: ABUN LT TAN- CRM, OCC OFF WHT- LT GRY, SME MED TAN, SUB ANG- ANG, MOD FRM- FRM, SME DNSE, HL FRAC POR, DOL: OFF WHT- CRM, OCC LT TAN- TAN, MOD FRM- FRM, HL FRAC POR, PRED SUB ANG- ANG, CHT: WHT- TRNSLU, V HRD, SME BRIT, SME SLI WTHRD, SHARP EDGES, POOR- TR YEL- GLD FLOR, NO VIS CUT NO RESD RING

DOL: PRED OFF WHT- WHT, SME CRM, SME PRED MICRO FN- V FN XLN, SME HL FRAC P OFF WHT- WHT, SCAT CRM- LT GRY THRU O MICRO FN- V FN XLN, SUB RND- SUB ANG, S WHT, TR GRY, MSTLY SUB ANG, PRED HRD- BRI YEL- GLD FLOR THRU OUT, NO VIS CUT,



12.0
55.2
51
542

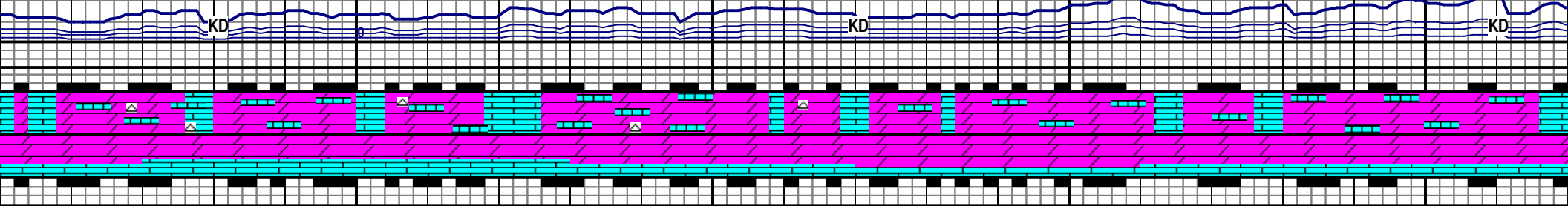
SANDRIDGE ENERGY: PEPPER 3419 1-4H HORIZONTAL

BG 15 U.

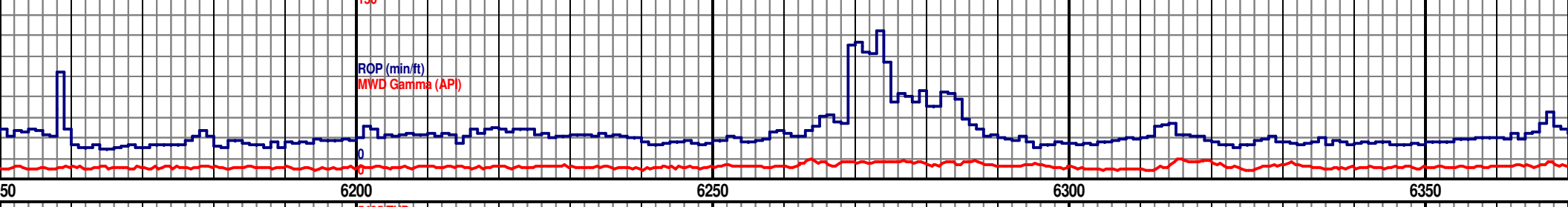
BG 17 U.

FG 22 U.

CG 24 U.



% WELL BORE LITHOLOGY ABOVE



LT GRAY, MOSTLY BLKY, PRED MOD FRM- FRM,
OR, MOSTLY SUB RND- SUB ANG, LS: PRED
UT, PRED BLKY, MOD FRM- FRM, PRED
SME HL FRAC POR, CHT: PRED OFF WHT-
V HD, OCC BRIT, SME SHRP EDGES, SCAT
NO RESD RING

DOL: ABUN OFF WHT- WHT, SME CRM, PRED BLKY- PLTY, MOD FRM- FRM, PRED MICRO FN- V FN
XLN, TR HL FRAC POR, SUB RND- SUB ANG, LS: MOSTLY OFF WHT- WHT, SCAT CRM, PRED BLKY-
PLTY, MOD FRM- FRM, PRED MICRO FN- V FN XLN, SUB RND- SUB ANG, SME HL FRAC POR, LESS
THAN 5% CHT: PRED OFF WHT- WHT, MOSTLY SUB ANG, PRED HRD- V HD, SME SHRP EDGES, SCAT
BRI YEL- GLD FLOR THRU OUT, NO VIS CUT, NO RESD RING

DOL: MOSTLY OFF WHT- WHT, OCC LT GRAY, PRED BLKY- PLTY
MICRO FN- V FN XLN, SME HL FRAC POR, FR INTR XLN POR,
LS: PRED OFF WHT- WHT, PRED BLKY- PLTY, PRED MOD FRM-
FN XLN, SUB RND- SUB ANG, SME HL FRAC POR, SCAT BRI
OUT, NO VIS CUT, NO RESD RING

5535
(-3521)

MD 6220 TVD 5556.9
Az 177.6° Inc 91.1°

MD 6312 TVD 5554.01
Az 177.4° Inc 92.5°

5575
(-3561)

SANDRIDGE ENERGY: PEPPER 3419 1-4H HORIZONTAL

WOB: 18.2
ROP: 52.8
RPM: 52
PSI: 1478

BG 14 U.

KD

KD

% WELL BORE LITHOLOGY ABOVE

% WELL BORE LITHOLOGY ABOVE

ROP (min/ft)
MWD Gamma (API)

6400

6450

6500

6550

MOD FRM-FRM,
SUB RND- SUB ANG,
M-FRM, MICRO FN-V
YEL-GLD FLOR THRU

5495 TVD
Sub Sea (-3481)

DOL: PRED WHT-OFF WHT, OCC CRM-LT TAN, BLKY-PLTY, PRED MOD FRM-FRM, MIC FN-V FN XLN, SCAT HL FRAC POR, LS: PRED OFF WHT-WHT, OCC CRM-LT TAN, TR LT GRY, BLKY-PLTY, MOD FRM-FRM, MIC FN-V FN XLN, SCAT HL FRAC POR, CHT: OFF WHT-WHT, TR LT TAN, SUB ANG-ANG, PRED HRD-V HRD, MIC FN XLN, MIN SCAT DULL YEL-GLD FLOR, NO VIS CUT, NO RES RING

MUD DATA
DEPTH: 6,516'
WT 8.5
FV 28
PV 1
YP 1
GEL 1/1
FIL N/A
CK N/A
SOL 2.0
H2O /98.0
PH 10.5
CL 38,000
HRD 120

DOL: PRED OFF WHT-WHT, SME LT TAN-CRM, BLKY-PLTY, PRED MOD FRM-FRM, MIC FN-V FN XLN, SME SLI SUCRO, FR- GD INTRXLN POR, OCC HL FRAC POR, HC STN, LS: PRED OFF WHT-WHT, OCC CRM-LT TAN, BLKY-PLTY, MOD FRM-FRM, MIC FN-V FN XLN, CHT: WHT-OFF WHT, SME LT TAN, SUB ANG-ANG, PRED V HRD-HRD, MIC FN XLN, MIN SCAT DULL YEL-GLD FLOR,

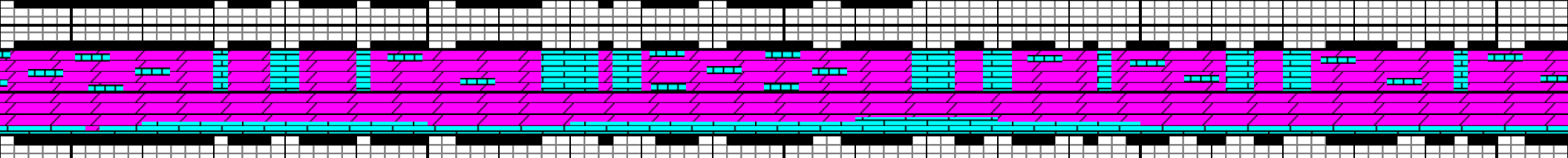
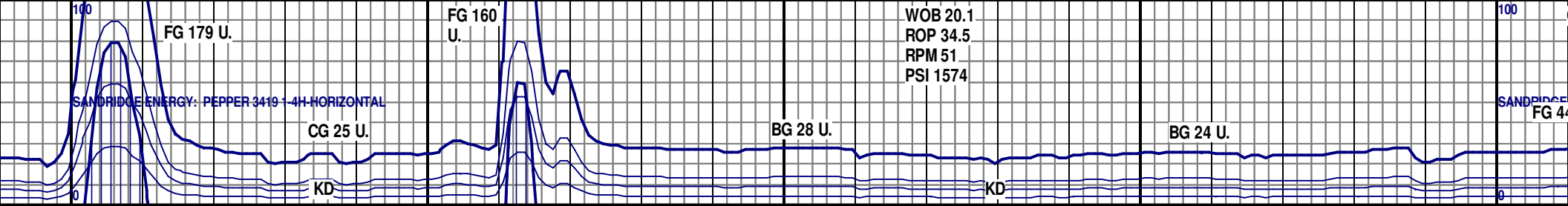
5535
(-3521)

MD 6404 TVD 5550.4
Az 176.7° Inc 92°

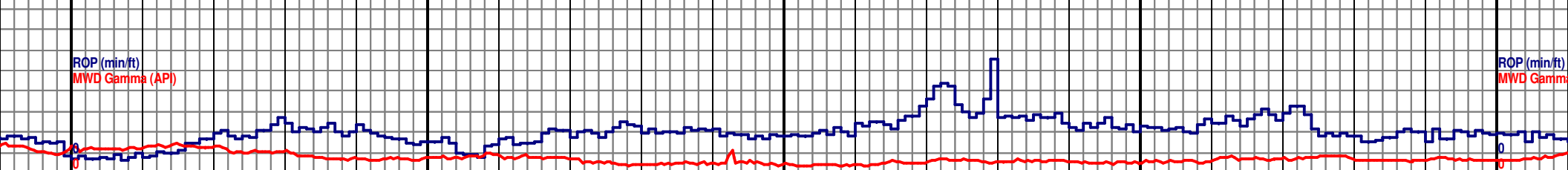
MD 6493 TVD 5547.83
Az 176.6° Inc 91.3°

5575
(-3561)

MD 6493 TVD 5547.83
Az 176.6° Inc 91.3°



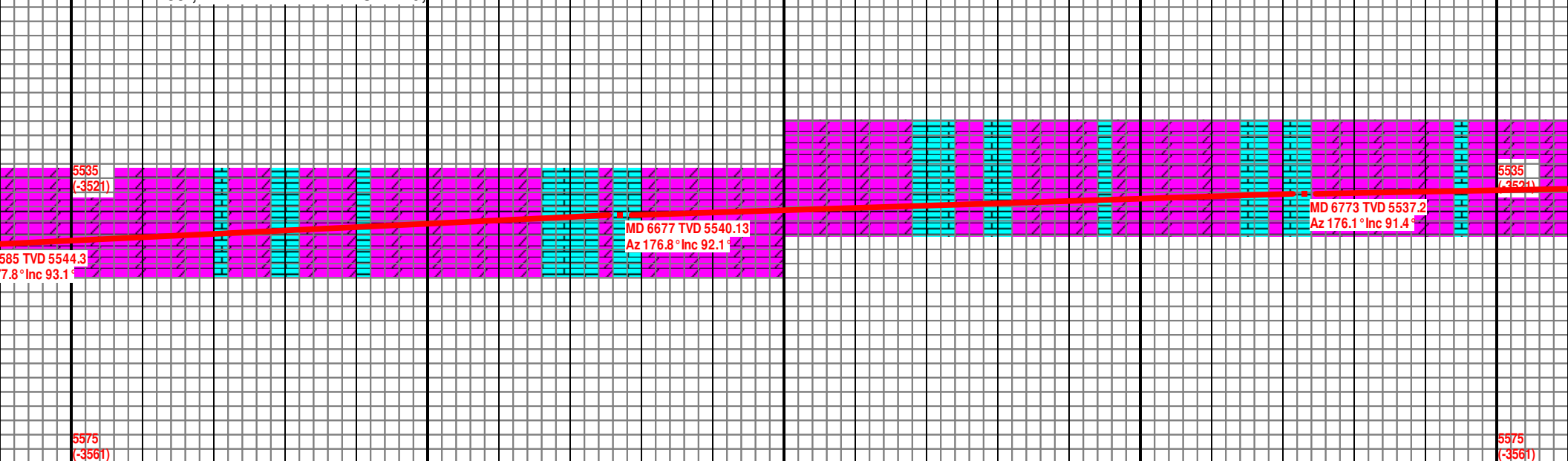
WELL BORE LITHOLOGY ABOVE

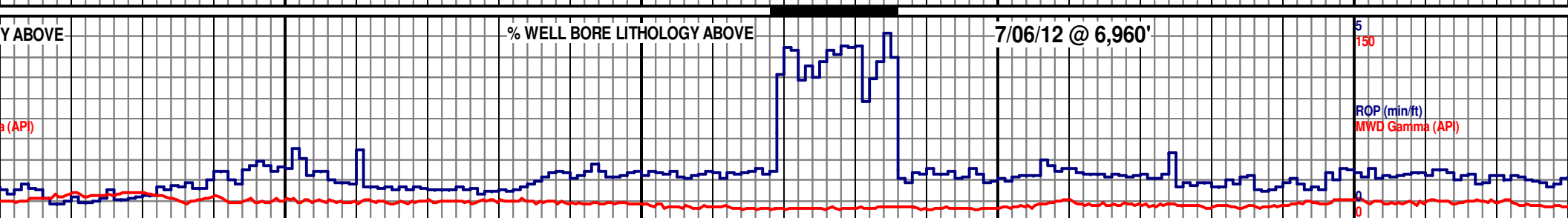
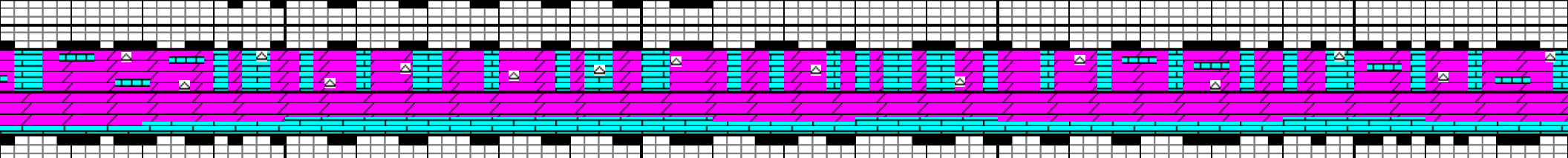
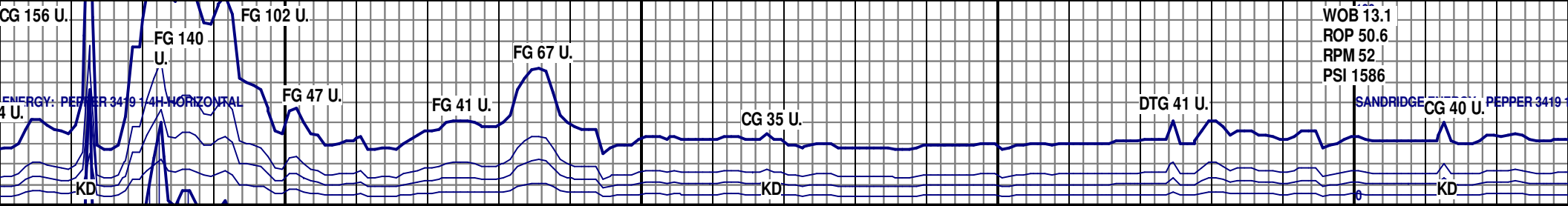


6600 6650 6700 6750 6800

DOL: MSTLY OFF WHT- WHT, SME LT TAN-CRM, PRED BLKY-PLTY, PRED MOD FRM-
 FRM, MICRO FN- V FN XLN, SME SLI SUCRO, FR- GD INTRXLN POR, OCC HL FRAC
 POR, SME HC STN, LS: PRED OFF WHT-WHT, OCC CRM-LT TAN, BLKY-PLTY, MOD
 FRM-FRM, MICRO FN- FN XLN, SCAT DULL YEL-GLD FLOR THRU OUT, FR MLKY WHT
 CUT, FR MLKY YEL- WHT RESD RING,

DOL: MSTLY OFF WHT- WHT, SME LT TAN- LT GRY, BLKY-PLTY, MOD FRM- FRM,
 MICRO FN- V FN XLN, SME SLI SUCRO, FR INTRXLN POR, SME HL FRAC POR, SME
 HC STN, LS: PRED OFF WHT-WHT, OCC LT GRY- LT TAN, BLKY-PLTY, MOD
 FRM-FRM, MICRO FN- FN XLN, SCAT DULL YEL-GLD FLOR THRU OUT, FR- POOR
 MLKY BLU- GRN CUT, FR YEL- WHT RESD RING

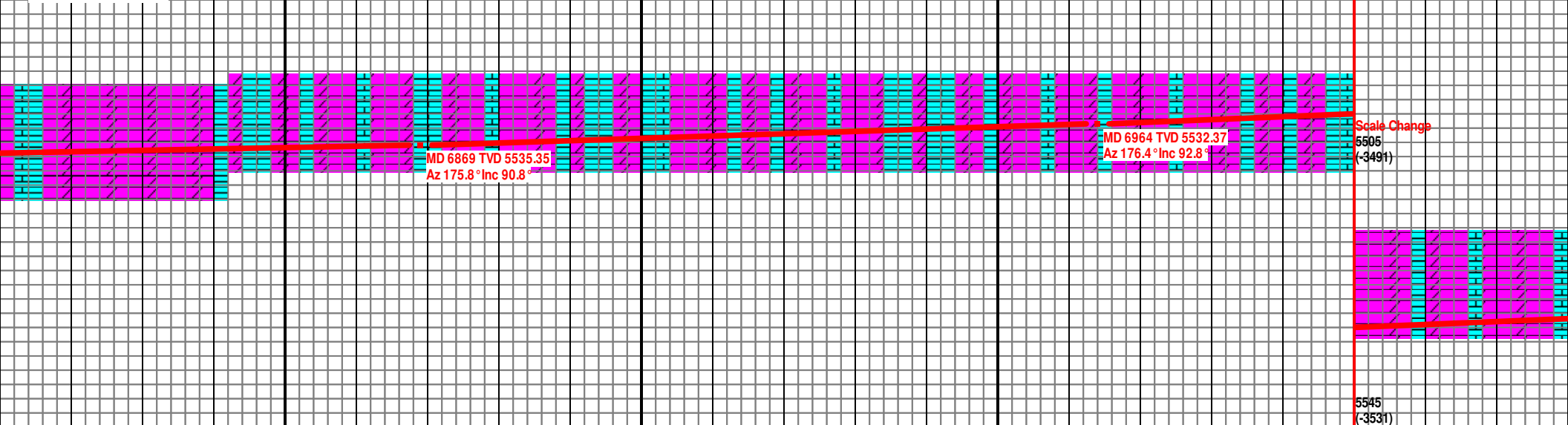


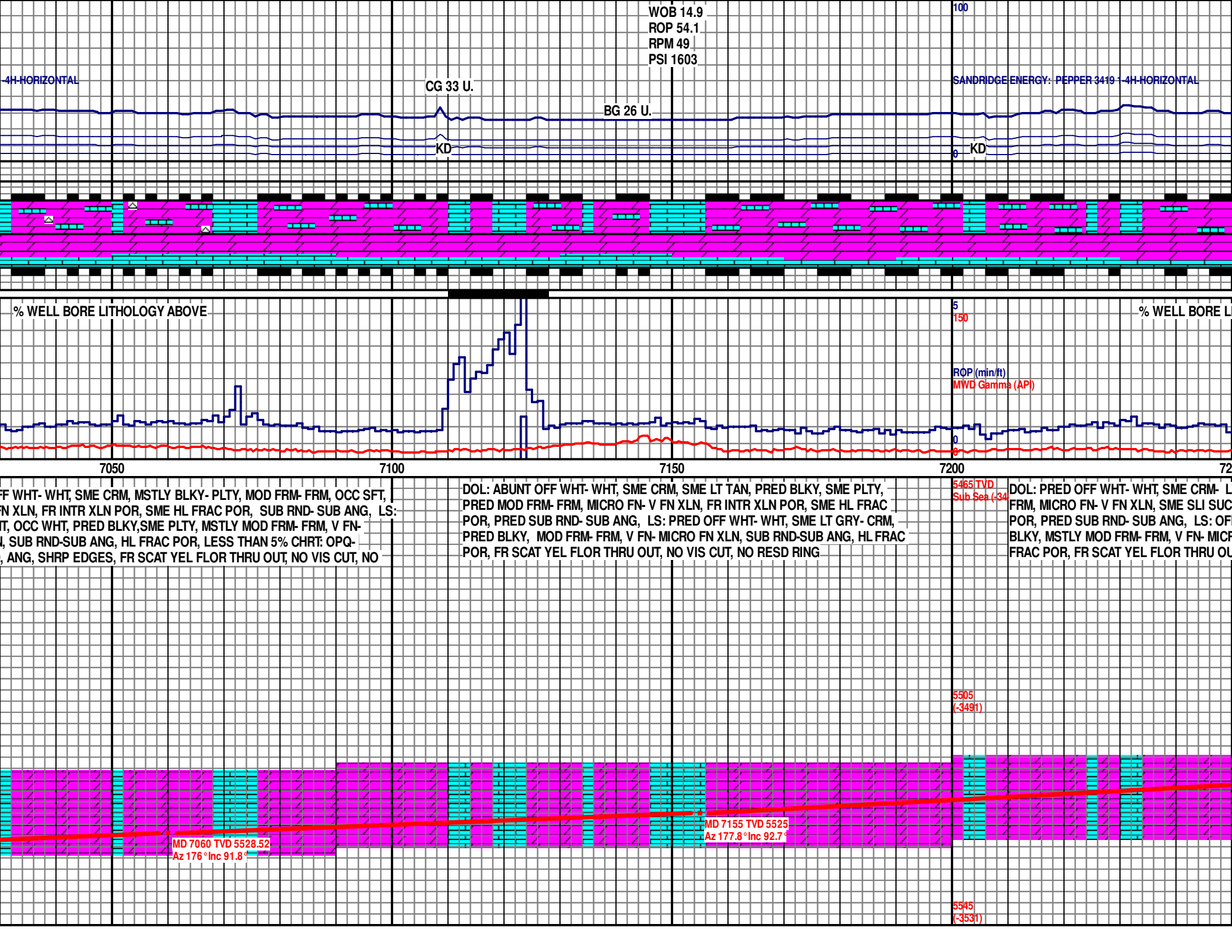


DOL: ABUNT OFF WHT-WHT, OCC LT GRY- LT TAN, MSTLY BLKY-PLTY, PRED MOD FRM- FRM, MICRO FN- V FN XLN, SME SLI SUCRO, FR INTRXLN POR, SME HL FRAC POR, OCC HC STN, LS: PRED OFF WHT-WHT, OCC LT GRY- LT TAN, PRED BLKY-PLTY, MOD FRM-FRM, MICRO FN- FN XLN, LESS THAN 5% CHT: PRED OPQ- TRSLU, V HRD- HRD, MICRO FN XLN, MSTLY SUB RND, FR SCAT DULL YEL-GLD FLOR THRU OUT, FNT SLOW MILKY WHT CUT, FNT THIN YEL-WHT RES RING

DOL: PRED WHT-OFF WHT, SME LT TAN-CRM, PRED BLKY-PLTY, MOD FRM- FRM, FN- MIC FN XLN, HL FRAC POR, LS: PRED OFF WHT-WHT, OCC LT TAN-CRM, BLKY-PLTY, MOD FRM-FRM, FN- MIC FN XLN, LESS THAN 5% CHT: PRED OPQ- TRSLU, V HRD- HRD, MICRO FN XLN, SUB ANG-ANG, FR SCAT DULL YEL-GLD FLOR THRU OUT, FNT MLKY WHT CUT, FNT THIN WHT RESD RING,

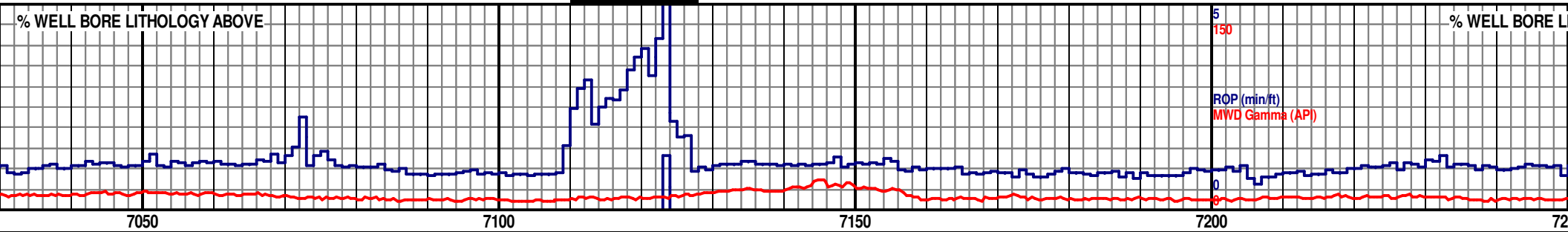
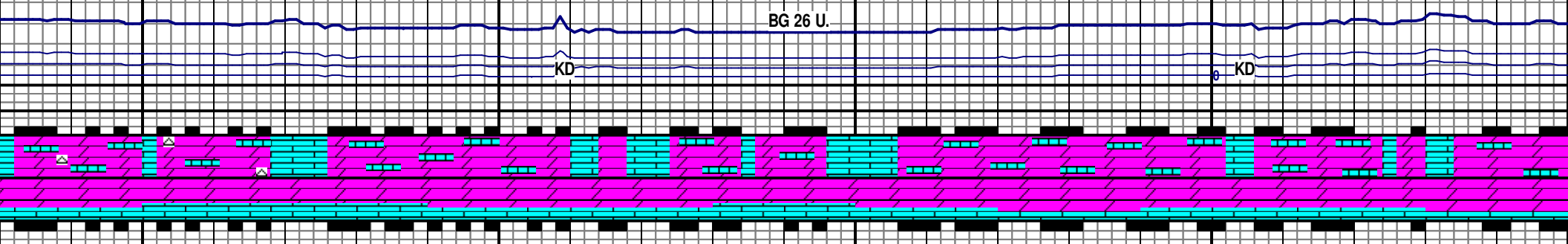
DOL: PRED OF MICRO FN- V F PRED OFF WH MICRO FN XLN TRNSLU, V HD RESD RING





WOB 14.9
 ROP 54.1
 RPM 49
 PSI 1603

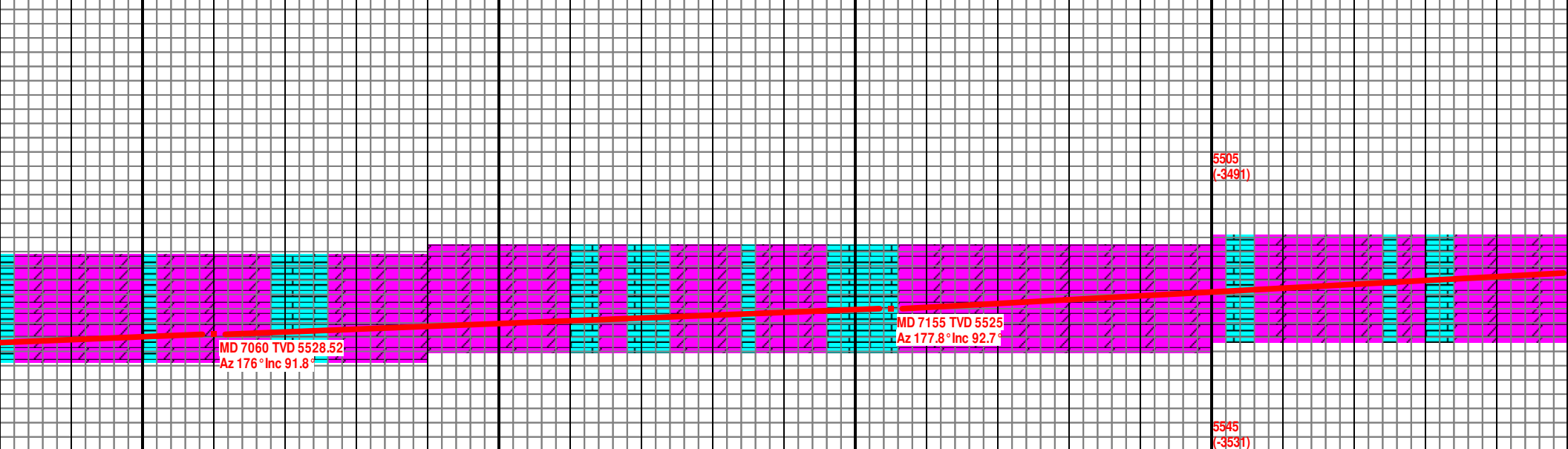
4H-HORIZONTAL CG 33 U. BG 26 U. SANDRIDGE ENERGY: PEPPER 3419-1 4H-HORIZONTAL



FF WHT- WHT, SME CRM, MSTLY BLKY- PLTY, MOD FRM- FRM, OCC SFT,
 FN XLN, FR INTR XLN POR, SME HL FRAC POR, SUB RND- SUB ANG, LS:
 T, OCC WHT, PRED BLKY, SME PLTY, MSTLY MOD FRM- FRM, V FN-
 I, SUB RND-SUB ANG, HL FRAC POR, LESS THAN 5% CHRT: OPQ-
 , ANG, SHRP EDGES, FR SCAT YEL FLOR THRU OUT, NO VIS CUT, NO

DOL: ABUNT OFF WHT- WHT, SME CRM, SME LT TAN, PRED BLKY, SME PLTY,
 PRED MOD FRM- FRM, MICRO FN- V FN XLN, FR INTR XLN POR, SME HL FRAC
 POR, PRED SUB RND- SUB ANG, LS: PRED OFF WHT- WHT, SME LT GRY- CRM,
 PRED BLKY, MOD FRM- FRM, V FN- MICRO FN XLN, SUB RND-SUB ANG, HL FRAC
 POR, FR SCAT YEL FLOR THRU OUT, NO VIS CUT, NO RESD RING

DOL: PRED OFF WHT- WHT, SME CRM- L
 FRM, MICRO FN- V FN XLN, SME SLI SUC
 POR, PRED SUB RND- SUB ANG, LS: OF
 BLKY, MSTLY MOD FRM- FRM, V FN- MIFC
 FRAC POR, FR SCAT YEL FLOR THRU OU



MD 7060 TVD 5528.52
 Az 176° Inc 91.8°

MD 7155 TVD 5525
 Az 177.8° Inc 92.7°

5465 TVD
 Sub Sea (-34)

5505
 (-3491)

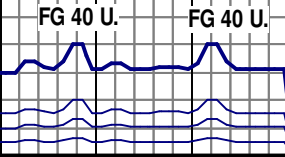
5545
 (-3531)

WOB 17.3
ROP 37.3
RPM 55
PSI 1526

WOB 17.9
ROP 60
RPM 55
PSI 2121

SANDRIDGE ENERGY: PEPPER 3419-1 4H HORIZONTAL

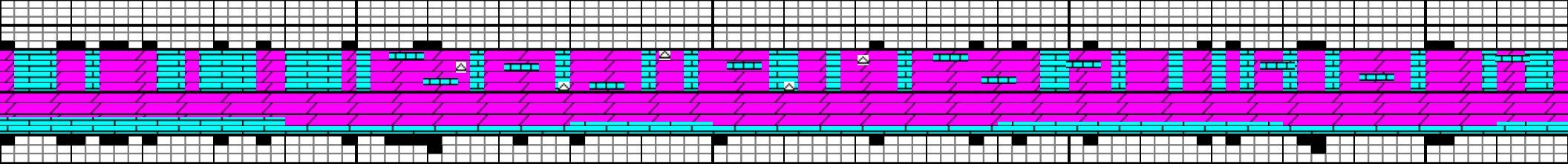
EQUI
FIXE
READ
7,466



EQUIPMENT FAILURE UNABLE TO RECORD GAS @ 7,281'

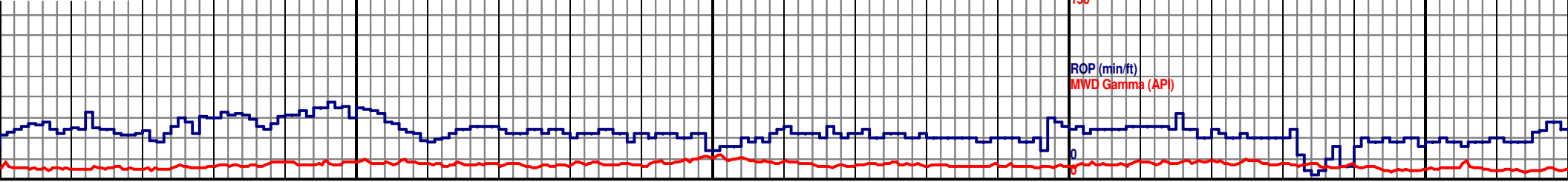
KD

KD



LITHOLOGY ABOVE

% WELL BORE LITHOLOGY ABOVE

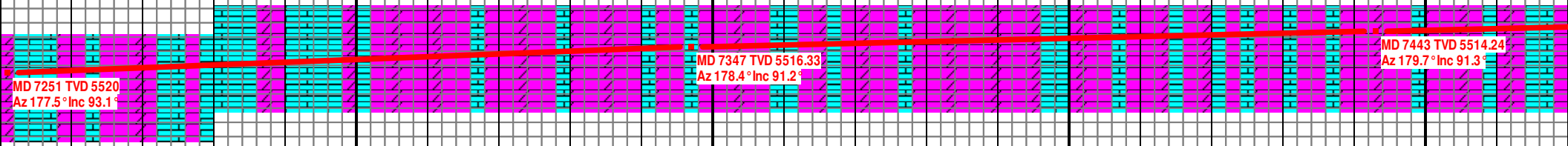


T TAN, PRED BLKY- PLTY, MSTLY MOD FRM-
RO, FR- PR INTR XLN POR, SME HL FRAC
F WHT-WHT, SME LT GRY- CRM, PRED
RO FN XLN, PRED SUB RND-SUB ANG, HL
JT, NO VIS CUT, NO RESD RING

DOL: PRED OFF WHT-WHT, SME LT TAN-CRM, BLKY-PLTY, PRED MOD FRM-FRM,
MIC FN-FN XLN SCAT HL FRAC POR, LS: PRED OFF WHT-WHT, OCC LT TAN,
BLKY-PLTY, PRED MOD FRM-FRM, MIC FN-FN XLN, HL FRAC POR, LESS THAN 5%
CHRT: OFF WHT-WHT, SUB ANG-ANG, HRD, SCAT LT YEL-GLD FLOR THRU OUT,
NO VIS CUT, NO RESD RING

5465 TVD
MUD DATA (3451)
DEPTH: 7,429'
WT 8.6
FV 29
PV 1
YP 1
GEL 1/1
FIL 60.0
CK NP
SOL 2.0
H2O /98.0
PH 10.0
CL 28,000
HRD 80)

DOL: PRED OFF WHT-WHT, SME LT TAN-CRM, BLKY-PLTY,
FRM-FRM, MIC FN-V FN XLN, HL FRAC POR, LS: PRED OFF
LT TAN-LT GRY, BLKY-PLTY, PRED MOD FRM-FRM, MIC FN-
FRAC POR, SCAT LT YEL-GLD FLOR THRU OUT , NO VIS C
RING



MD 7251 TVD 5520
Az 177.5° Inc 93.1°

MD 7347 TVD 5516.33
Az 178.4° Inc 91.2°

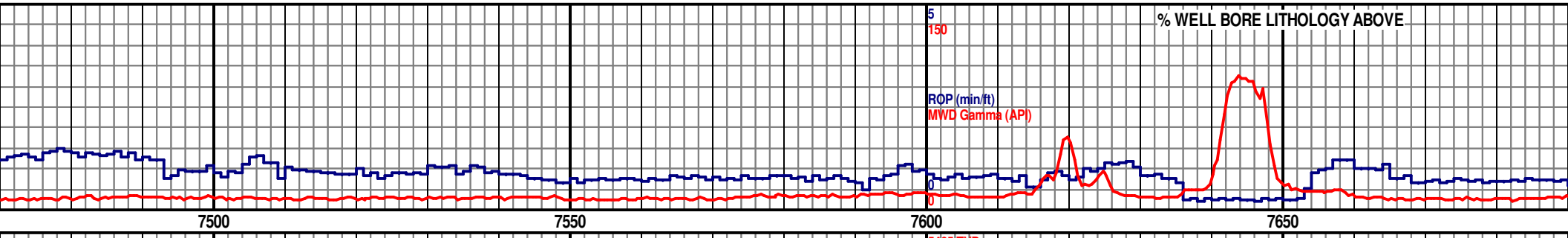
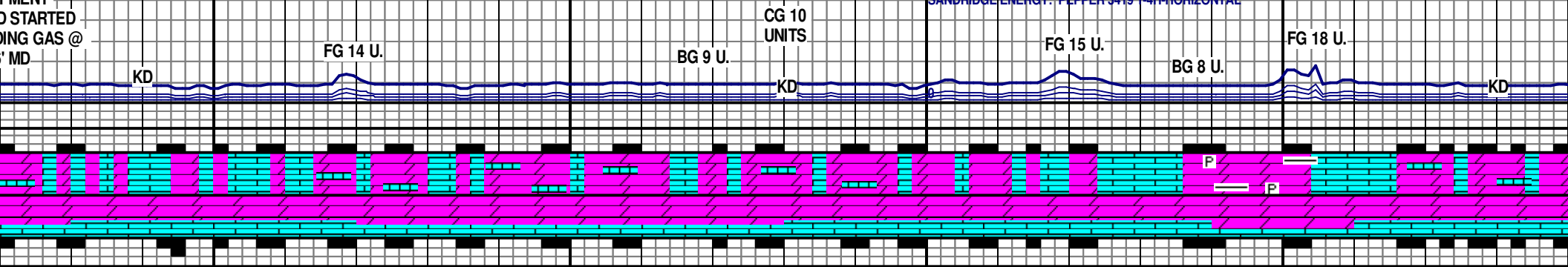
MD 7443 TVD 5514.24
Az 179.7° Inc 91.3°

5545
(-3531)

EMENT
D STARTED
ING GAS @
' MD

WOB 15.7
ROP 79.2
RPM 51
PSI 2086

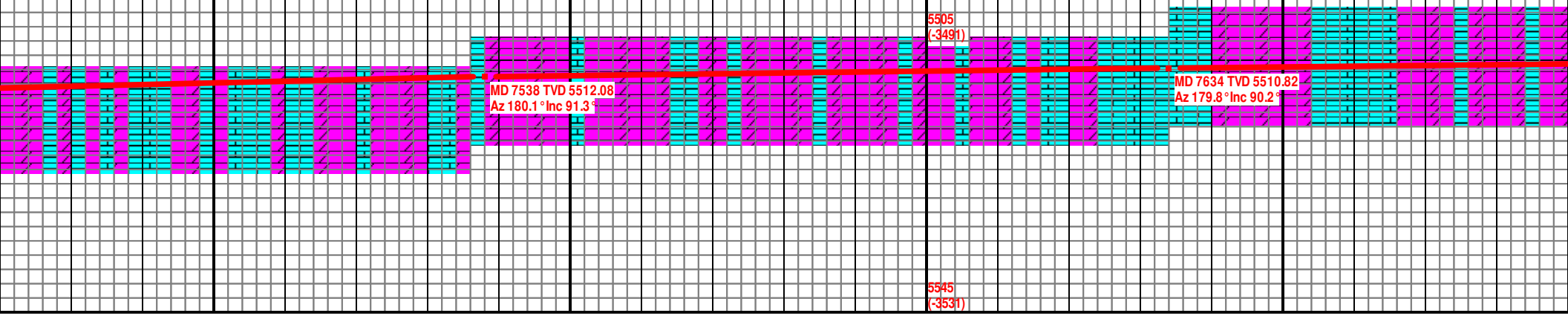
SANDRIDGE ENERGY: PEPPER 3419 1-4H HORIZONTAL



PRED MOD
F WHT-WHT, OCC
V FN XLN, HL
CUT, NO RESD

DOL: PRED OFF WHT-WHT, SME LT TAN-CRM, BLKY-PLTY, PRED MOD
FRM-FRM, FN-MIC FN XLN, HL FRAC POR, LS: PRED OFF WHT-WHT,
OCC LT TAN, BLKY-PLTY, PRED MOD FRM-FRM, FN-MIC FN XLN, HL
FRAC POR, SCAT LT YEL-GLD FLOR THRU OUT, NO VIS CUT, NO RESD
RING

DOL: ABUNT OFF WHT- WHT, SME CRM, SME LT TAN, PRED BLKY, PRED MOD
FRM- FRM, MICRO FN- V FN XLN, FR INTR XLN POR, SME HL FRAC POR, PRED
SUB RND- SUB ANG, LS: PRED OFF WHT- WHT, SME LT GRY- CRM, PRED BLKY,
MOD FRM- FRM, MICRO FN- V FN XLN, SUB RND-SUB ANG, HL FRAC POR, LESS
THAN 5% SH: PRED LT GRY, V SFT W/ SME PYRITE, FR SCAT YEL FLOR THRU
OUT, NO VIS CUT, NO RESD RING

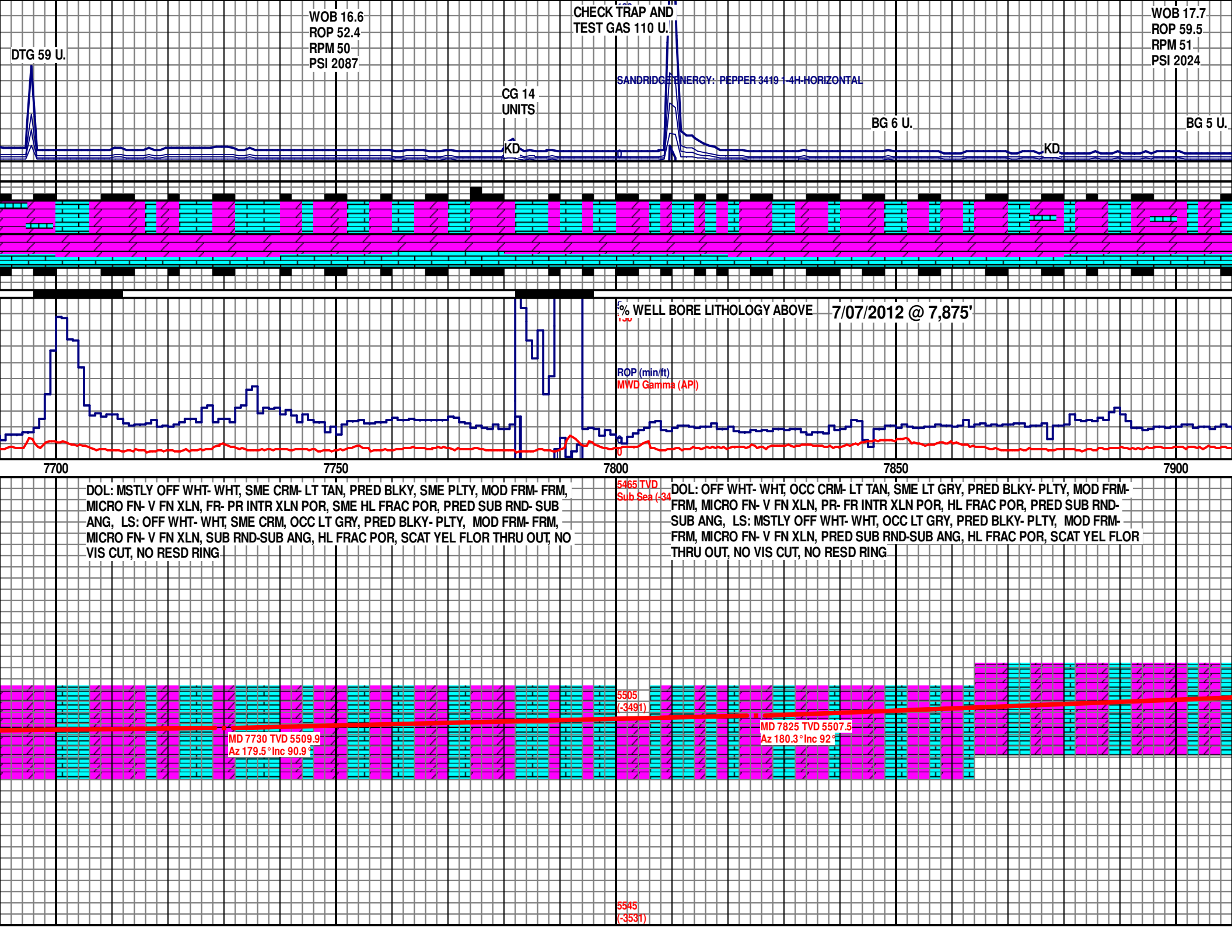


MD 7538 TVD 5512.08
Az 180.1° Inc 91.3°

MD 7634 TVD 5510.82
Az 179.8° Inc 90.2°

5505
(-3491)

5545
(-3531)



DTG 59 U.

WOB 16.6
ROP 52.4
RPM 50
PSI 2087

CHECK TRAP AND
TEST GAS 110 U.

WOB 17.7
ROP 59.5
RPM 51
PSI 2024

CG 14
UNITS

SANDRIDGE ENERGY: PEPPER 3419 1-4H HORIZONTAL

BG 6 U.

BG 5 U.

KD

KD

% WELL BORE LITHOLOGY ABOVE 7/07/2012 @ 7,875'

ROP (min/ft)
MWD Gamma (API)

7700

7750

7800

7850

7900

DOL: MSTLY OFF WHT- WHT, SME CRM- LT TAN, PRED BLKY, SME PLTY, MOD FRM- FRM, MICRO FN- V FN XLN, FR- PR INTR XLN POR, SME HL FRAC POR, PRED SUB RND- SUB ANG, LS: OFF WHT- WHT, SME CRM, OCC LT GRY, PRED BLKY- PLTY, MOD FRM- FRM, MICRO FN- V FN XLN, SUB RND-SUB ANG, HL FRAC POR, SCAT YEL FLOR THRU OUT, NO VIS CUT, NO RESD RING

DOL: OFF WHT- WHT, OCC CRM- LT TAN, SME LT GRY, PRED BLKY- PLTY, MOD FRM- FRM, MICRO FN- V FN XLN, PR- FR INTR XLN POR, HL FRAC POR, PRED SUB RND- SUB ANG, LS: MSTLY OFF WHT- WHT, OCC LT GRY, PRED BLKY- PLTY, MOD FRM- FRM, MICRO FN- V FN XLN, PRED SUB RND-SUB ANG, HL FRAC POR, SCAT YEL FLOR THRU OUT, NO VIS CUT, NO RESD RING

5465 TVD
Sub Sea (-34)

MD 7730 TVD 5509.9
Az 179.5° Inc 90.9°

5505
(-3491)

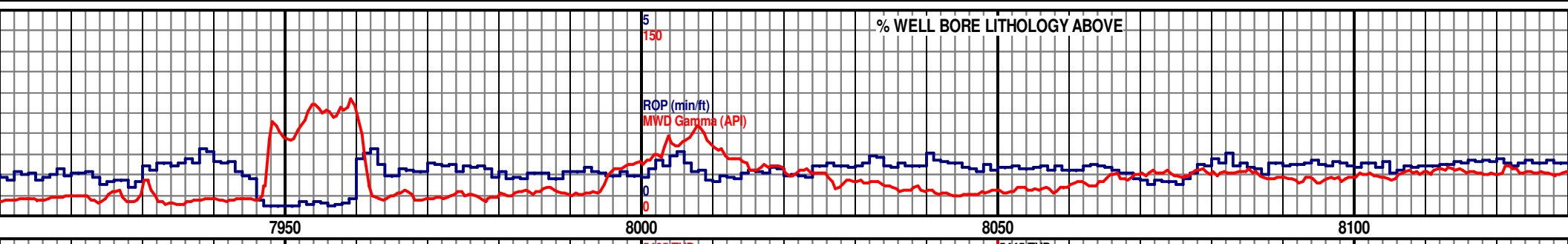
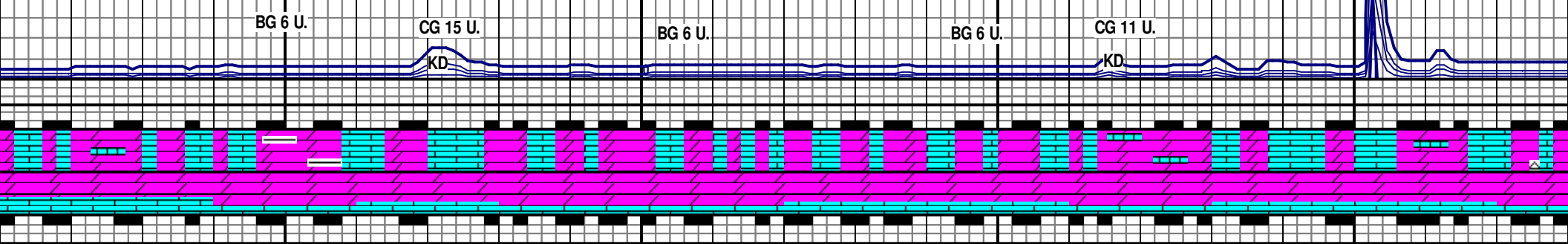
MD 7825 TVD 5507.5
Az 180.3° Inc 92°

5545
(-3531)

WOB 18.9
ROP 52.6
RPM 50
PSI 1997

CHECK TRAP
AND TEST
GAS 142 U.

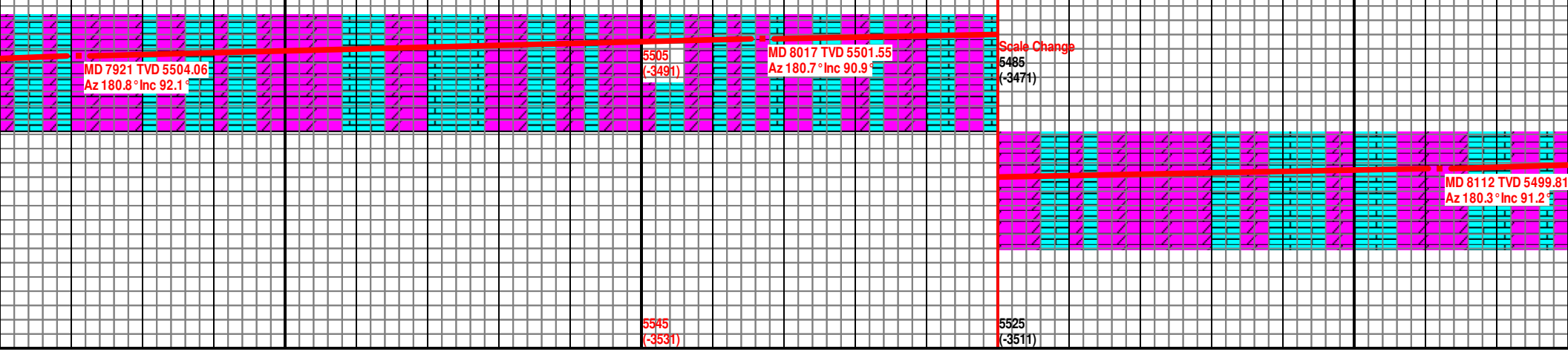
SANDRIDGE ENERGY: PEPPER 3419-1 4H-HORIZONTAL



DOL: OFF WHT- WHT, ABUNT CRM- LT TAN, BLKY- PLTY, PRED MOD FRM- FRM, MIC FN-FN XLN, SME HC STN, PR- FR INTR XLN POR, SME HL FRAC POR, LS: -ABUNT OFF WHT- WHT, SME CRM, BLKY- PLTY, PRED MOD FRM- FRM, MIC FN- FN XLN, HL FRAC POR, SCAT LT YEL FLOR THRU OUT, NO VIS CUT, NO RESD RING

DOL: ABUN OFF WHT- WHT, SME CRM- LT TAN, SME LT GRY, MSTLY BLKY- PLTY, PRED MOD FRM- FRM, MICRO FN- V FN XLN, SME HC STN, PR- FR INTR XLN POR, HL FRAC POR, PRED SUB RND- SUB ANG, LS: PRED OFF WHT- WHT, SME LT GRY, PRED BLKY- PLTY, MOD FRM- FRM, MICRO FN- V FN XLN, PRED SUB RND-SUB ANG, HL FRAC POR, SCAT YEL FLOR THRU OUT, NO VIS CUT, NO RESD RING

DOL: ABUN OFF WHT- MOD FRM- FRM, MICRO HC STN, PRED SUB RND- BLKY- PLTY, MOD FRM- FRAC POR, SCAT YEL



WOB 19.1
ROP 43.9
RPM 52
PSI 2018

CG 17 U.

KD

FG 304 U.

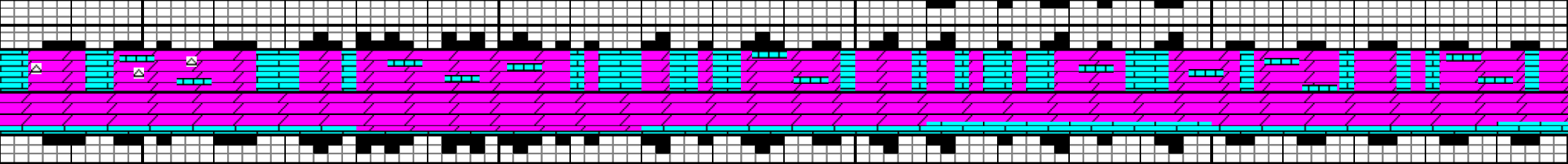
CG 123 U.

FG 127 U.

BG 23 U.

SANDRIDGE ENERGY: PEPPER 3419 - 4H HORIZONTAL

KD



% WELL BORE LITHOLOGY ABOVE

5

150

ROP (min/ft)

MWD Gamma (API)

8150

8200

8250

8300

8350

WHT, SME CRM- LT TAN, SME LT GRY, MSTLY BLKY- PLTY, PRED
 FN- V FN XLN, SME SLI SUCRO POR, FR INTR XLN POR, SME
 D- SUB ANG, LS: PRED OFF WHT- WHT, SME LT GRY, PRED
 FRM, MICRO FN- V FN XLN, PRED SUB RND-SUB ANG, HL
 FLOR THRU OUT, NO VIS CUT, NO RESD RING

5445 TVD

Sub Sea (-3)

DOL: OFF WHT- WHT, SCAT LT TAN- LT GRY, BLKY- PLTY, MOD FRM- FRM, MSTLY MICRO
 FN- V FN XLN, SME SLI SUCRO POR, FR INTR XLN POR, SME HC STN, PRED SUB RND-
 SUB ANG, LS: OFF WHT- WHT, SCAT LT TAN- LT GRY, PRED BLKY- PLTY, MOD FRM- FRM,
 MICRO FN- V FN XLN, SUB RND-SUB ANG, HL FRAC POR, SCAT YEL FLOR THRU OUT, VP
 SLOW WEAK MLKY BLU-BLU WHT CUT, MED THK WHT RES RING

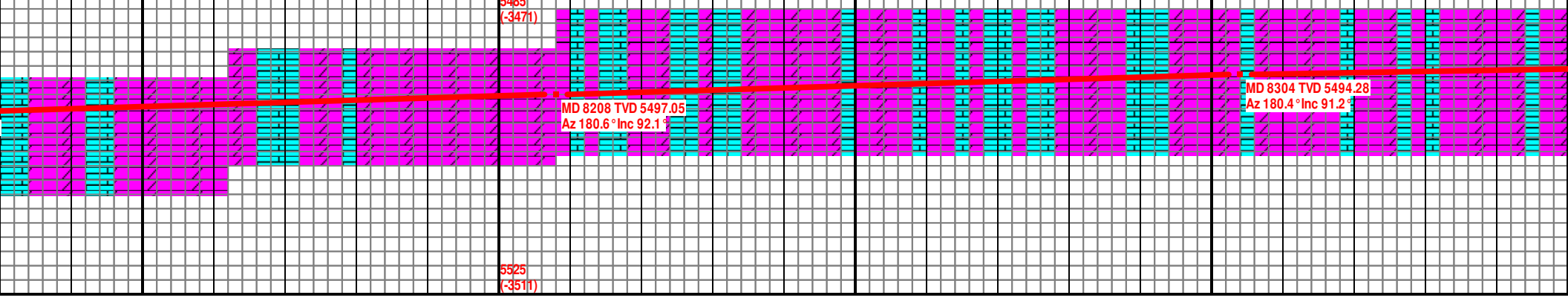
DOL: PRED WHT-OFF WHT, SME LT TA
 MOD FRM-FRM, MIC FN- V FN XLN, HL
 WHT-WHT, OCC LT TAN-CRM, BLKY-PL
 XLN, SCAT HL FRAC POR, SCAT YEL F
 RING

5485
(-3471)

MD 8208 TVD 5497.05
 Az 180.6° Inc 92.1°

MD 8304 TVD 5494.28
 Az 180.4° Inc 91.2°

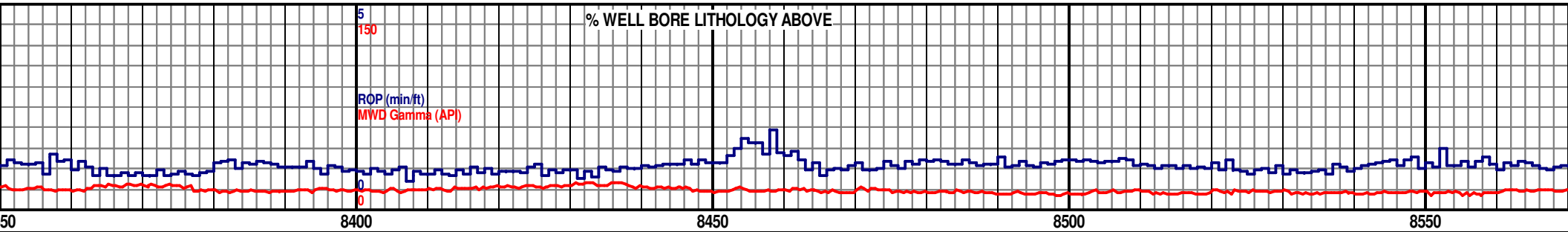
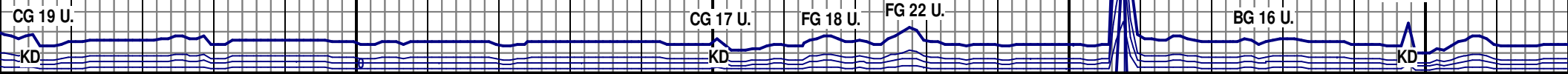
5525
(-3511)



WOB 18
ROP 70.2
RPM 53
PSI 2000

CHECK TRAP AND
TEST GAS 157 U.

SANDRIDGE ENERGY: PEPPER 3419-1 4H HORIZONTAL



N-CRM, TR LT GRY, BLKY-PLTY, PRED
FRAC POR, TR HC STN, LS: PRED OFF
TY, PRED MOD FRM-FRM, MIC FN- V FN
FLOR THRU OUT, NO VIS CUT, NO RES

DOL: ABUNT OFF WHT-WHT, OCC LT TAN-CRM, TR LT GRY, BLKY-PLTY,
PRED MOD FRM-FRM, MIC FN- V FN XLN, SCAT HL FRAC POR, TR HC STN,
LS: ABUNT OFF WHT-WHT, SME LT TAN-CRM, BLKY-PLTY, PRED MOD
FRM-FRM, MIC FN- V FN XLN, HL FRAC POR, SCAT LT YEL FLOR THRU
OUT, NO VIS CUT, NO RES RING

DOL: MSTLY OFF WHT- WHT, SME CRM- LT TAN, MSTLY B
PRED MOD FRM- FRM, MICRO FN- V FN XLN, SME HC STN
INTR XLN POR, HL FRAC POR, PRED SUB RND- SUB ANG
OFF WHT- WHT, PRED BLKY- PLTY, MOD FRM- FRM, MIC
XLN, PRED SUB RND-SUB ANG, HL FRAC POR, SCAT YEL
OUT, V FNT MLKY YEL- WHT CUT, FNT THIN WHT RESD R

MUD DATA
DEPTH: 8,451'
WT 8.6
FV 30
PV N/A
YP N/A
GEL N/A
FIL N/A
CK N/A
SOL 2.0
H2O /98.0
PH 9.5
CL 24,000
HRD 80

5445 TVD
Sub Sea (-3481)

5485
(-3471)

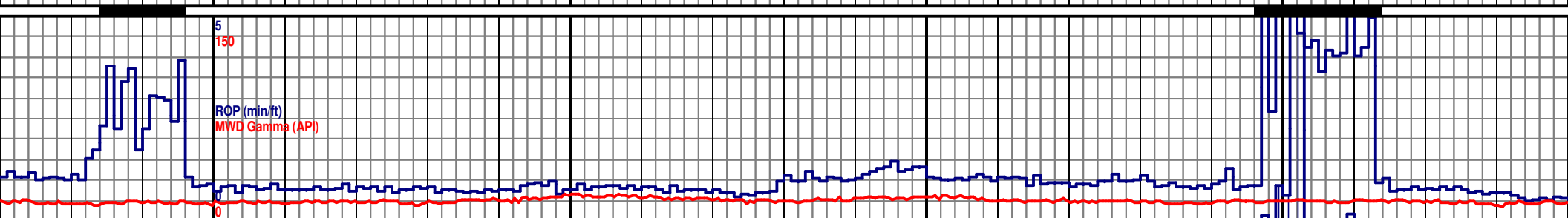
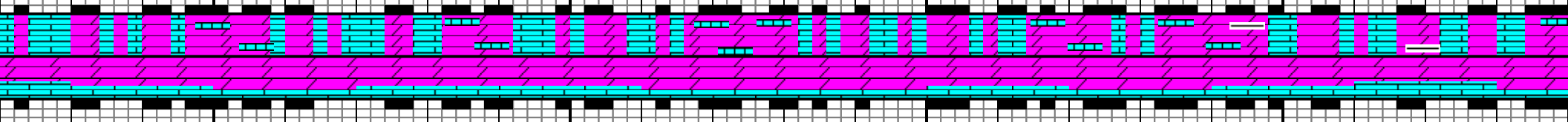
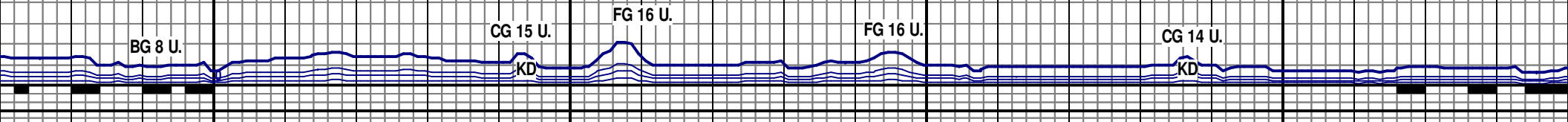
MD 8399 TVD 5492.54
Az 180.7° Inc 90.9°

MD 8495 TVD 5491.37
Az 180.5° Inc 90.5°

5525
(-3511)

100
WOB 21.7
ROP 77.5
RPM 48
PSI 1651

SANDRIDGE ENERGY: PEPPER 3419-1 4H HORIZONTAL



8600

8650

8700

8750

BLKY-PLTY,
PR-FR
LS: PRED
FN-V FN
FLOR THRU
NG,

5445 TVD
Sub Sea (-3481)

DOL: PRED OFF WHT- WHT, OCC LT TAN, PRED BLKY- PLTY, MSTLY MOD FRM- FRM,
PRED MICRO FN- V FN XLN, PR- FR INTR XLN POR, SME HL FRAC POR, PRED SUB
RND- SUB ANG, LS: MSTLY OFF WHT- WHT, PRED BLKY- PLTY, MOD FRM- FRM,
PRED MICRO FN- V FN XLN, SUB RND-SUB ANG, HL FRAC POR, SCAT YEL FLOR
THRU OUT, NO VIS CUT, NO RESD RING

DOL: ABUN OFF WHT-WHT, OCC LT TAN-CRM, PRED MOD FRM-FRM, FN- MIC
FN XLN, SCAT HL FRAC POR, LS: ABUN OFF WHT-WHT, SME CRM, PRED MO
FRM-FRM, FN- MIC FN XLN, HL FRAC POR, SCAT LT YEL FLOR THRU OUT, VP
WEAK MLKY YEL CUT, VP THN WHT RES RING

5485
(-3471)

MD 8591 TVD 5490.45
Az 180.4° Inc 90.6°

MD 8686 TVD 5489.78
Az 179.9° Inc 90.2°

MD 8782
Az 179.6°

5525
(-3511)

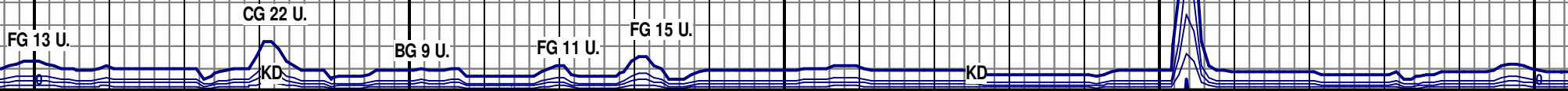
WOB 17.3
ROP 95.3
RPM 57
PSI 1916

CHECK TRAP AND
TEST GAS 105 U.

GAS SCA
UNITS

SANDRIDGE ENERGY: PEPPER 3419 1 4H-HORIZONTAL

SANDRIDGE



7/08/12 @ 8,910'

ROP (min/ft)
MWD Gamma (API)

ROP (min/ft)
MWD Gamma (API)

8800 8850 8900 8950 9000

DOL: PRED OFF WHT- WHT, SME LT TAN- CRM, PRED MOD FRM-FRM, MIC FN-V FN XLN, HL FRAC POR, LS: ABUN OFF WHT- WHT, OCC CRM- LT TAN, PRED MOD FRM- FRM, MIC FN- V FN XLN, HL FRAC POR, SCAT DULL YEL FLOR THRU OUT, VP FNT MLKY YEL CUT, VP THN WHT RES RING

DOL: MSTLY OFF WHT- WHT, SME CRM, MSTLY MOD FRM-FRM, PRED MICRO FN- V FN XLN, SME HL FRAC POR, FR INTRXLN POR, LS: ABUN OFF WHT- WHT, SME CRM- LT TAN, PRED MOD FRM- FRM, MICRO FN- V FN XLN, SME HL FRAC POR, SCAT DULL YEL FLOR THRU OUT, FR- GD MLKY BLU- BIR YEL CUT, FR YEL- WHT RESD RING

5485
(-3471)

5485
(-3471)

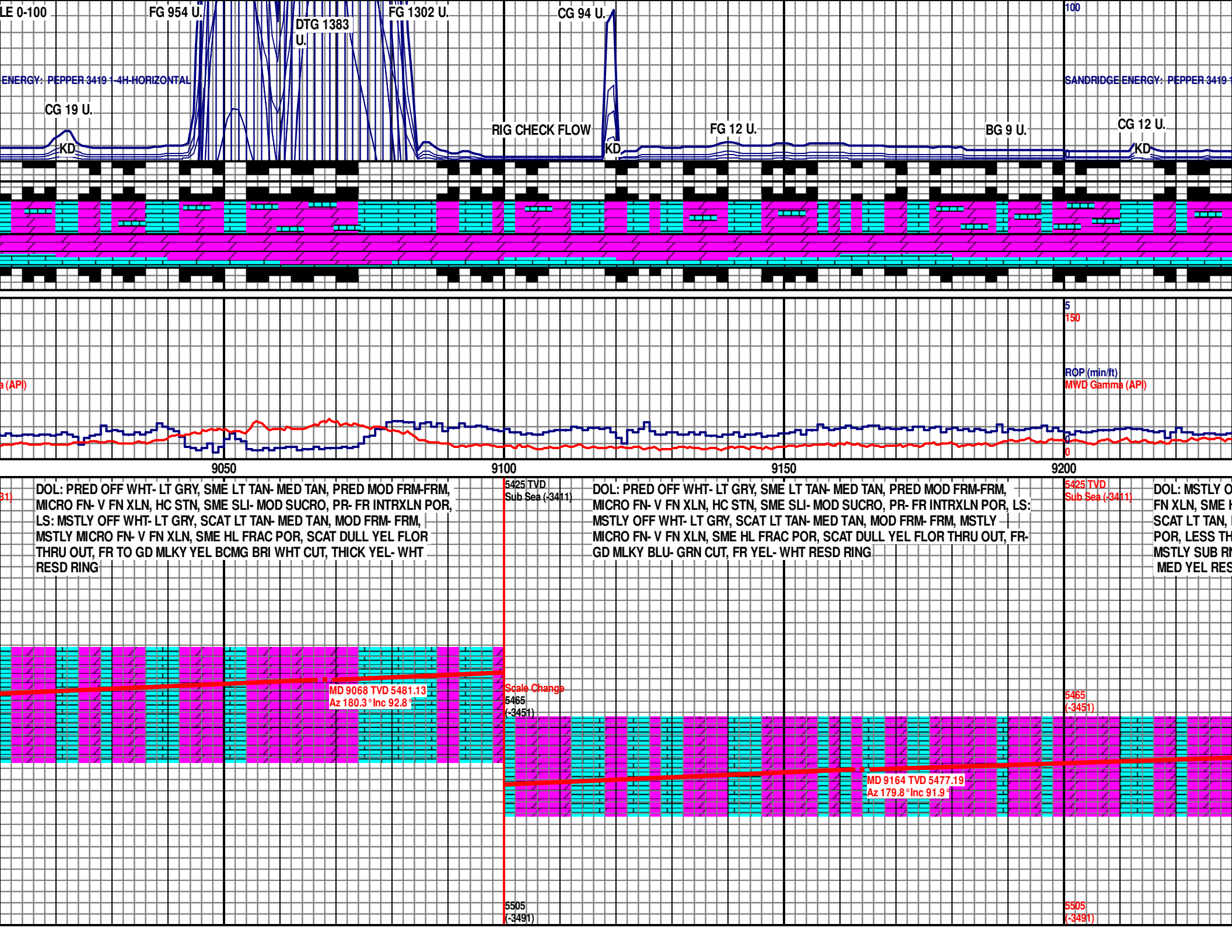
TVD 5488.78
Inc 91°

MD 8877 TVD 5487.37
Az 179.8° Inc 90.7°

MD 8973 TVD 5485.11
Az 180.1° Inc 92°

5525
(-3511)

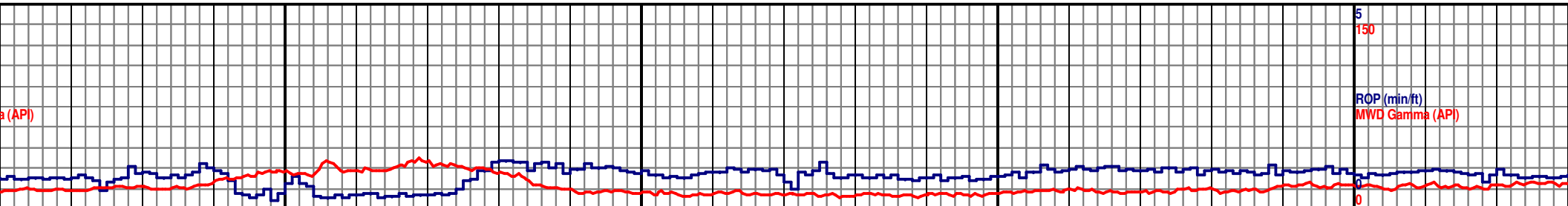
5525
(-3511)



LE 0-100 FG 954 U. DTG 1383 U. FG 1302 U. CG 94 U. 100

ENERGY: PEPPER 3419 - 4H-HORIZONTAL SANDRIDGE ENERGY: PEPPER 3419

CG 19 U. KD RIG CHECK FLOW KD FG 12 U. BG 9 U. CG 12 U. KD



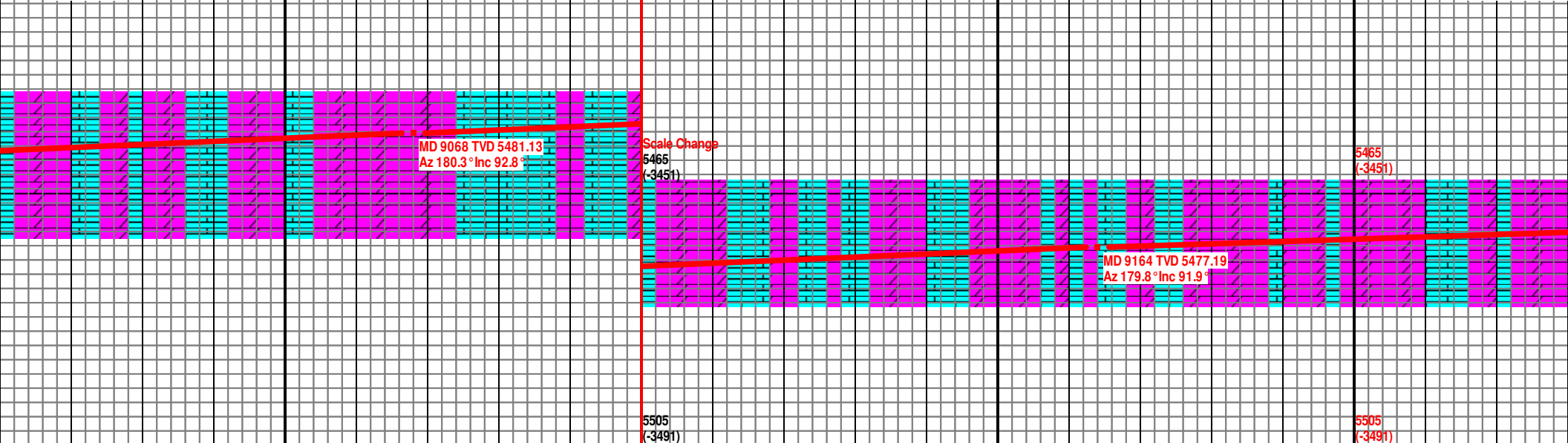
ROP (min/ft) MWD Gamma (API)

9050 9100 9150 9200

DOL: PRED OFF WHT- LT GRY, SME LT TAN- MED TAN, PRED MOD FRM-FRM, MICRO FN- V FN XLN, HC STN, SME SLI- MOD SUCRO, PR- FR INTRXLN POR, LS: MSTLY OFF WHT- LT GRY, SCAT LT TAN- MED TAN, MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, SME HL FRAC POR, SCAT DULL YEL FLOR THRU OUT, FR TO GD MLKY YEL BCMG BRI WHT CUT, THICK YEL- WHT RESD RING

DOL: PRED OFF WHT- LT GRY, SME LT TAN- MED TAN, PRED MOD FRM-FRM, MICRO FN- V FN XLN, HC STN, SME SLI- MOD SUCRO, PR- FR INTRXLN POR, LS: MSTLY OFF WHT- LT GRY, SCAT LT TAN- MED TAN, MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, SME HL FRAC POR, SCAT DULL YEL FLOR THRU OUT, FR- GD MLKY BLU- GRN CUT, FR YEL- WHT RESD RING

DOL: MSTLY OFF WHT- LT GRY, SME LT TAN- MED TAN, PRED MOD FRM-FRM, MICRO FN- V FN XLN, HC STN, SME SLI- MOD SUCRO, PR- FR INTRXLN POR, LS: MSTLY OFF WHT- LT GRY, SCAT LT TAN- MED TAN, MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, SME HL FRAC POR, SCAT DULL YEL FLOR THRU OUT, FR- GD MLKY BLU- GRN CUT, FR YEL- WHT RESD RING



MD 9068 TVD 5481.13
Az 180.3° Inc 92.8°

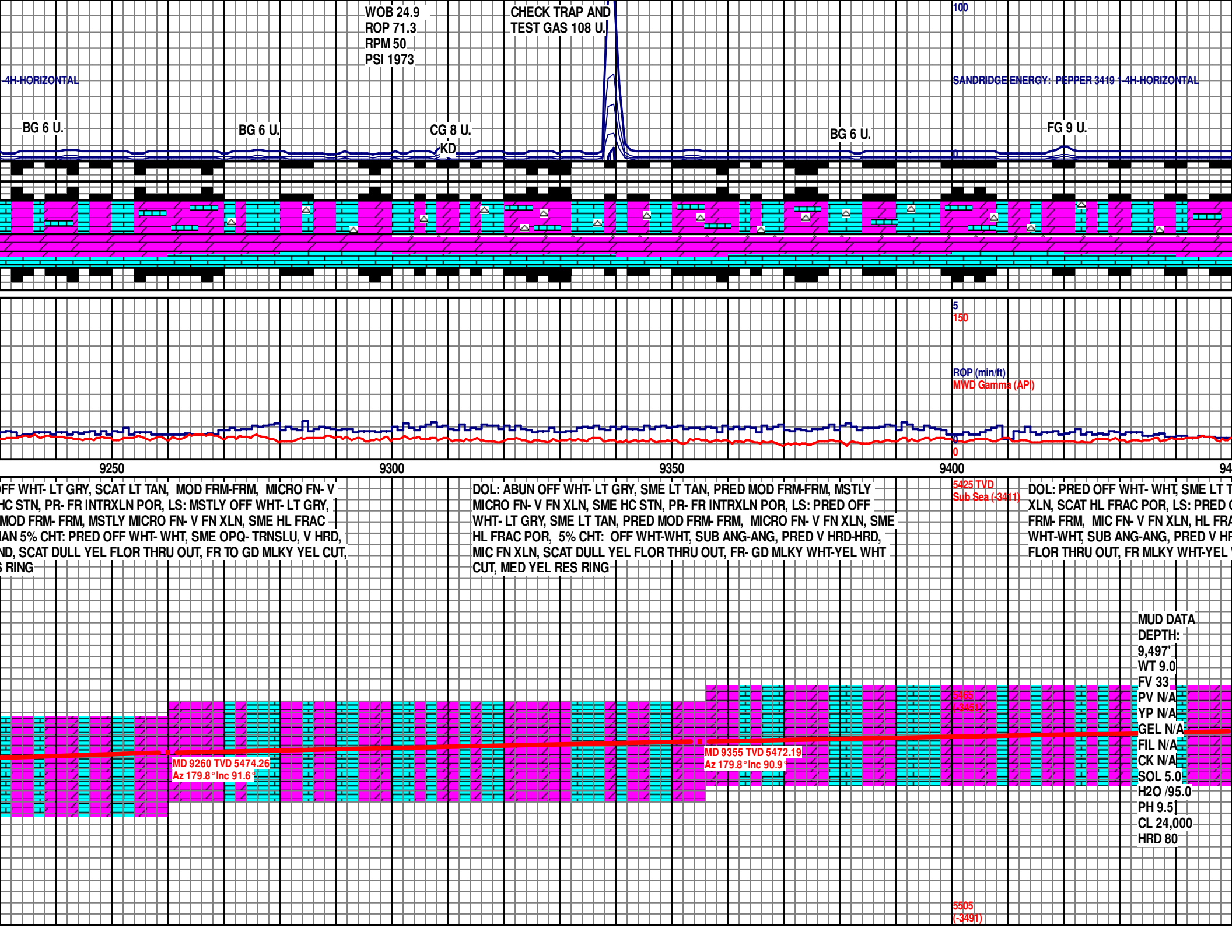
Scale Change
5465
(-3451)

MD 9164 TVD 5477.19
Az 179.8° Inc 91.9°

5465
(-3451)

5505
(-3491)

5505
(-3491)



WOB 24.9
 ROP 71.3
 RPM 50
 PSI 1973

CHECK TRAP AND
 TEST GAS 108 U.

SANDRIDGE ENERGY: PEPPER 3419-1 4H-HORIZONTAL

BG 6 U.

BG 6 U.

CG 8 U.

BG 6 U.

FG 9 U.

KD

5
 150
 ROP (min/ft)
 MWD Gamma (API)

9250

9300

9350

9400

9450

OFF WHT- LT GRY, SCAT LT TAN, MOD FRM-FRM, MICRO FN- V
 HC STN, PR- FR INTRXLN POR, LS: MSTLY OFF WHT- LT GRY,
 MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, SME HL FRAC
 AN 5% CHT: PRED OFF WHT- WHT, SME OPQ- TRNSLU, V HRD,
 ND, SCAT DULL YEL FLOR THRU OUT, FR TO GD MLKY YEL CUT,
 6 RING

DOL: ABUN OFF WHT- LT GRY, SME LT TAN, PRED MOD FRM-FRM, MSTLY
 MICRO FN- V FN XLN, SME HC STN, PR- FR INTRXLN POR, LS: PRED OFF
 WHT- LT GRY, SME LT TAN, PRED MOD FRM- FRM, MICRO FN- V FN XLN, SME
 HL FRAC POR, 5% CHT: OFF WHT-WHT, SUB ANG-ANG, PRED V HRD-HRD,
 MIC FN XLN, SCAT DULL YEL FLOR THRU OUT, FR- GD MLKY WHT-YEL WHT
 CUT, MED YEL RES RING

DOL: PRED OFF WHT- WHT, SME LT T
 XLN, SCAT HL FRAC POR, LS: PRED O
 FRM- FRM, MIC FN- V FN XLN, HL FRA
 WHT-WHT, SUB ANG-ANG, PRED V HF
 FLOR THRU OUT, FR MLKY WHT-YEL

MD 9260 TVD 5474.26
 Az 179.8° Inc 91.6°

MD 9355 TVD 5472.19
 Az 179.8° Inc 90.9°

5425 TVD
 Sub Sea (-3411)

MUD DATA
 DEPTH:
 9,497'
 WT 9.0
 FV 33
 PV N/A
 YP N/A
 GEL N/A
 FIL N/A
 CK N/A
 SOL 5.0
 H2O /95.0
 PH 9.5
 CL 24,000
 HRD 80

5505
 (-3491)

CHECK TRAP AND
TEST GAS 125 U.

WOB 28.2
ROP 86.0
RPM 50
PSI 2217

SANDRIDGE ENERGY: PEPPER 3419-1 4H-HORIZONTAL

BG 6 U.

CG 7 U.
KD

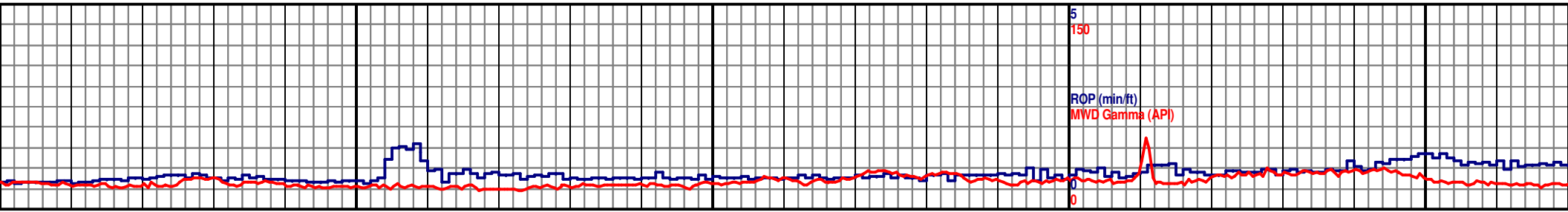
BG 6 U.

BG 5 U.

CG 16 U.
KD

BG 7 U.

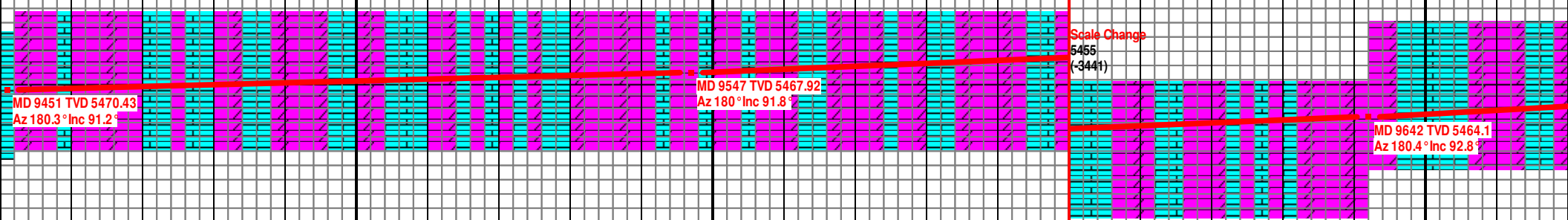
BG 8 U.



AN-CRM, MOD FRM-FRM, MIC FN- V FN
OFF WHT- WHT, SME CRM-LT TAN, MOD
AC POR, LESS THAN 5% CHT: OFF
RD-HRD, MIC FN XLN, SCAT DULL YEL
WHT CUT, THN YEL RES RING

DOL: PRED OFF WHT- WHT, ABUN LT TAN-CRM, PRED MOD FRM-FRM, MIC FN-
FN XLN, HL FRAC POR, LS: PRED OFF WHT- WHT, OCC CRM-LT TAN, PRED
MOD FRM- FRM, MIC FN- FN XLN, HL FRAC POR, CHT: PRED OFF WHT-WHT,
SUB ANG-ANG, V HRD-HRD, MIC FN XLN, SCAT DULL YEL FLOR THRU OUT, FR
MLKY YEL- WHT CUT, FNT THIN WHT RESD RING

DOL: ABUN OFF WHT- WHT, SME CRM, SME LT TAN, P
MICRO FN- V FN XLN, SME V SCAT SUCRO TXT, FR INT
POR, LS: PRED OFF WHT- WHT, OCC CRM-LT TAN, PR
MICRO FN- V FN XLN, HL FRAC POR, CHT: PRED OFF V
ANG, V HRD- HRD, SCAT DULL YEL FLOR THRU OUT, F
FNT THIN YEL RESD RING



MD 9451 TVD 5470.43
Az 180.3° Inc 91.2°

MD 9547 TVD 5467.92
Az 180° Inc 91.8°

MD 9642 TVD 5464.1
Az 180.4° Inc 92.8°

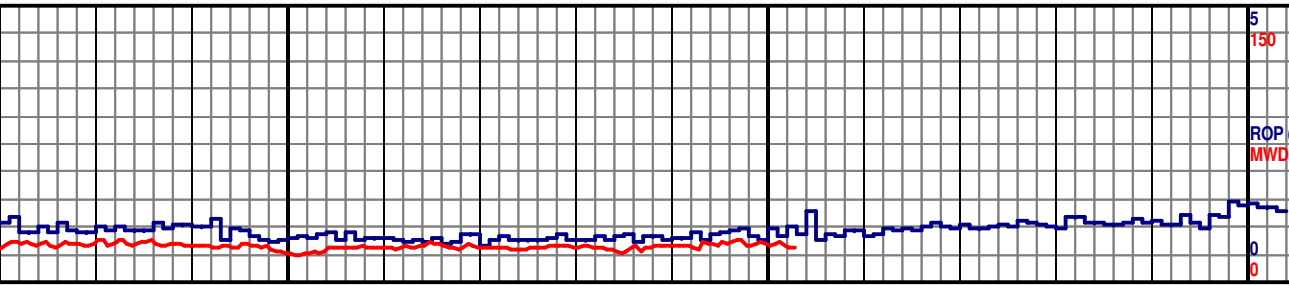
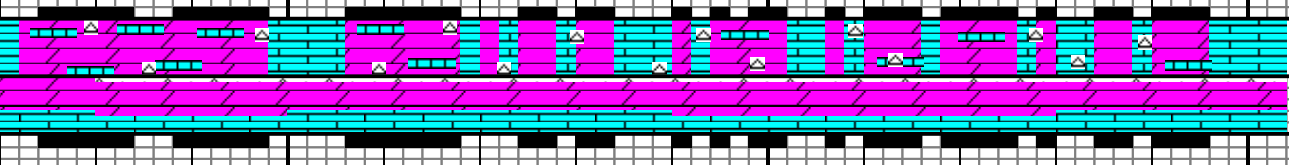
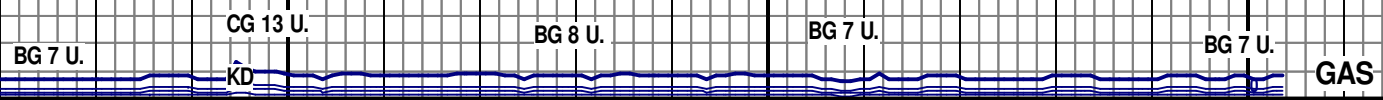
Scale Change
5455
(-3441)

5495
(-3481)

WOB 22.5
ROP 66.7
RPM 61
PSI 2201

100 GAS SCALE 0-100
UNITS

SANDRIDGE ENERGY: PEPPER 3419 1-4H HORIZONTAL



GAMMA= RED
ROP= BLUE

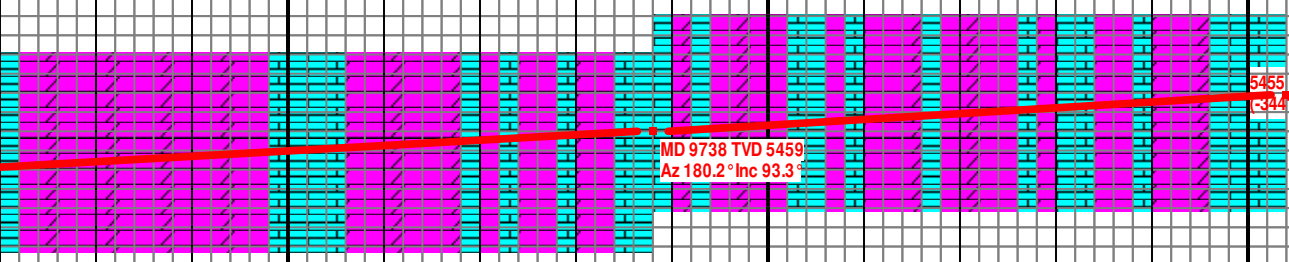
DRILLERS TD WELL @
9,804' MD AND 5,455' TVD

RED MOD FRM-FRM,
RXLN POR, HL FRAC
ED MOD FRM-FRM,
WHT-WHT, SUB ANG-
FR MLKY YEL CUT,

DOL: MSTLY OFF WHT- WHT, SCAT CRM, MSTLY MOD FRM- FRM, PRED MICRO
FN- V FN XLN, PR- FR INTRXLN POR, HL FRAC POR, LS: PRED OFF WHT- WHT,
SME CRM- LT TAN, MOD FRM- FRM, MICRO FN- V FN XLN, HL FRAC POR, CHT:
PRED OFF WHT- WHT, SUB RND- SUN ANG, PRED V HRD- HRD, SCAT DULL YEL
FLOR THRU OUT, MLKY BLU- GRN CUT, FNT THIN YEL RESD RING

5415 TVD
Sub Sea (-3401)

SANDRIDGE ENERGY INC.
PEPPER 3419 1-4H SEC
4-T34S-R19-W COMANCHE
CO. KANSAS
API #15033216450100
GL 1,994' KB 2,014'



MD 9738 TVD 5459
Az 180.2° Inc 93.3°

5455
(-3441)
MD 9804 TVD 5455.2
Az 180° Inc 93.3°

5495
(-3481)