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WWW.HZMUD.COM/25

Customer Information

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

Geologist: Holly Duncan
Noble Energy Inc.

Mud Logging Details

Logger: Ross Apodaca &
Michael Yeager
Log Interval: 5821' MD to 11217' MD
Start Date: January 1, 2014
Release Date: January 5, 2014

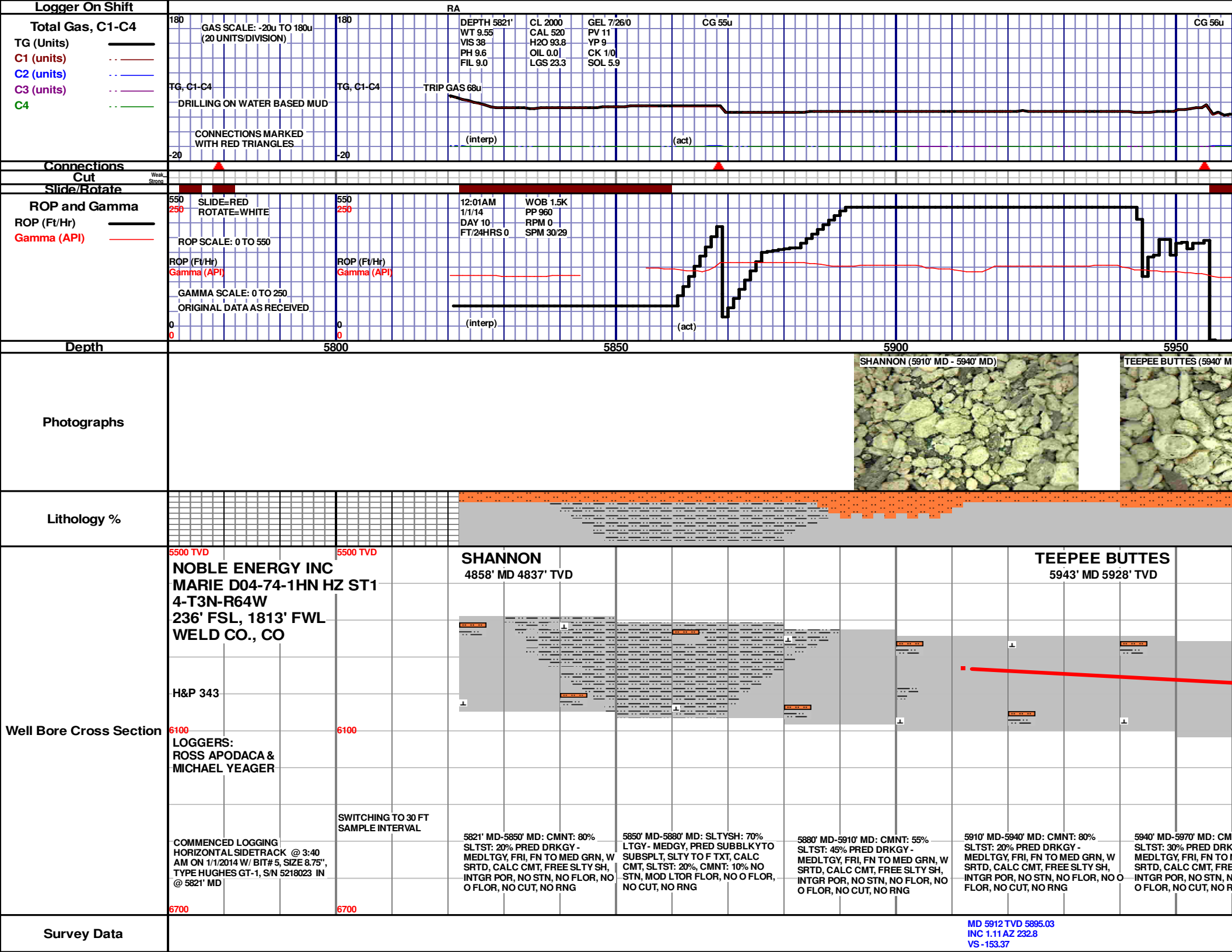
Well Information

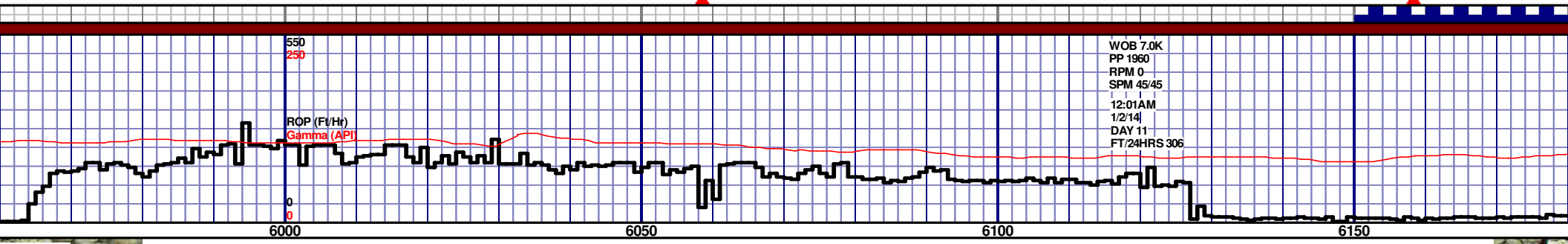
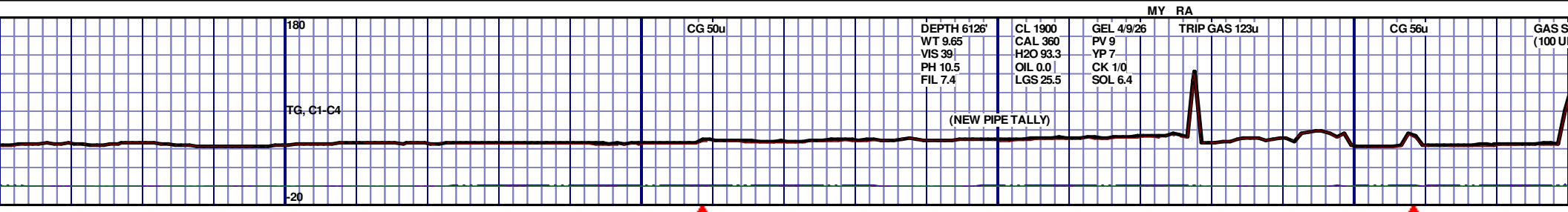
Well Name: Marie D04-74-1HN HZ ST1

Location: 4-T3N-R64W
236' FSL, 1813' FWL

County: Weld
State: Colorado

Drilling Rig: H&P 343
Total Depth: 11217' MD
TD Date: January 5, 2014
Formation: Niobrara C Chalk
KB Elevation: 4744'
GR Elevation: 4720'
API Number: 05-123-38305-0100



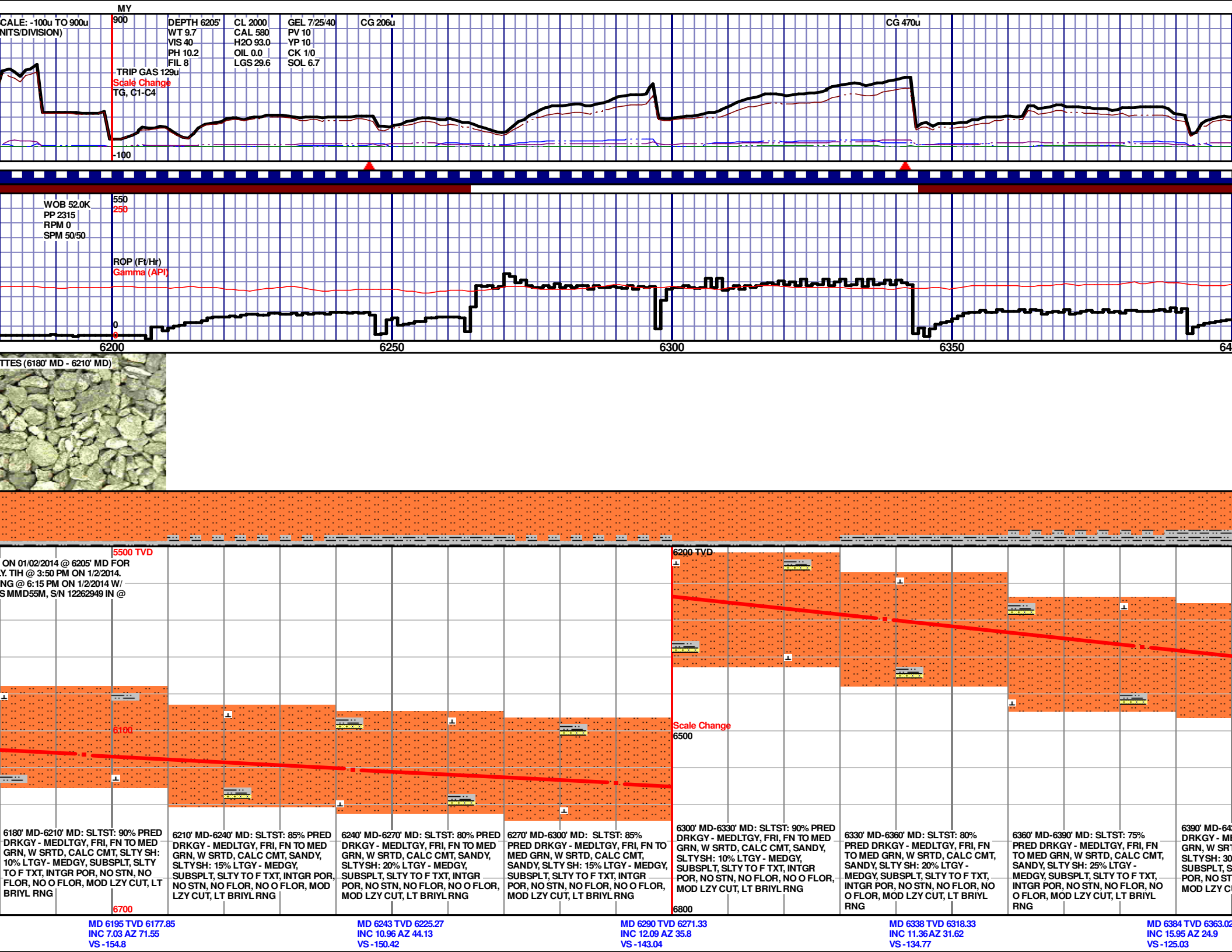


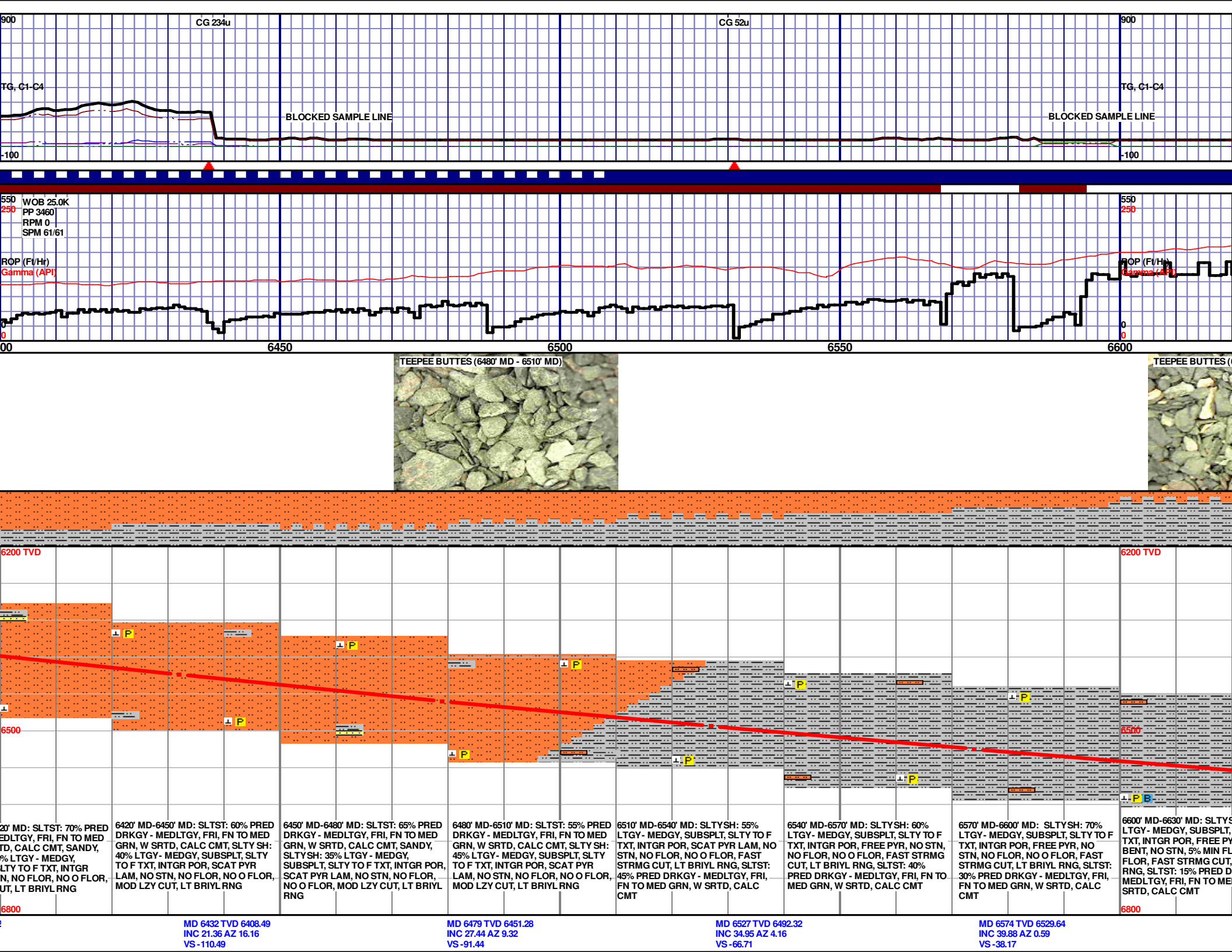
5500 TVD		TOOH @ 6127' MD @ 1:15 PM ON 01/01/2014 TO REPLACE THE MOTOR. TIH @ 2:00AM ON 1/2/2014. RESUMED DRILLING @ 4:45 AM ON 1/2/2014 W/ BIT #6, 8.75", HUGES GT-1, SN 5218023 IN @ 6127' MD.		TOOH @ 11:40AM CURVE ASSEMBLY RESUMED DRILLING BIT #7, 8.75", HDB 6205' MD.			
6100							
6700							
NT: 70% DRKGY - MED GRN, W FREE SLTY SH, NO FLOR, NO CUT, NO RNG	5970' MD-6000' MD: CMNT: 75% SLTST: 25% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, INTGR POR, NO STN, NO FLOR, NO FLOR, NO CUT, NO RNG	6000' MD-6030' MD: CMNT: 75% SLTST: 25% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, INTGR POR, NO STN, NO FLOR, NO O FLOR, NO CUT, NO RNG	6030' MD-6060' MD: CMNT: 90% SLTST: 10% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, INTGR POR, NO STN, NO FLOR, NO O FLOR, NO CUT, NO RNG	6060' MD-6090' MD: CMNT: 90% SLTST: 10% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, INTGR POR, NO STN, NO FLOR, NO O FLOR, NO CUT, NO RNG	6090' MD-6120' MD: CMNT: 90% SLTST: 10% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, INTGR POR, NO STN, NO FLOR, NO O FLOR, NO CUT, NO RNG	6120' MD-6150' MD: CMNT: 70% SLTST: 30% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, INTGR POR, NO STN, NO FLOR, NO O FLOR, NO CUT, NO RNG	6150' MD-6180' MD: SLTST: 90% PRED DRKGY - MEDLTGY, FRI, FN TO MED GRN, W SRTD, CALC CMT, FREE SLTY SH, CMNT: 10%, INTGR POR, NO STN, NO FLOR, NO O FLOR, MOD LZY CUT, LT BRIYL RNG

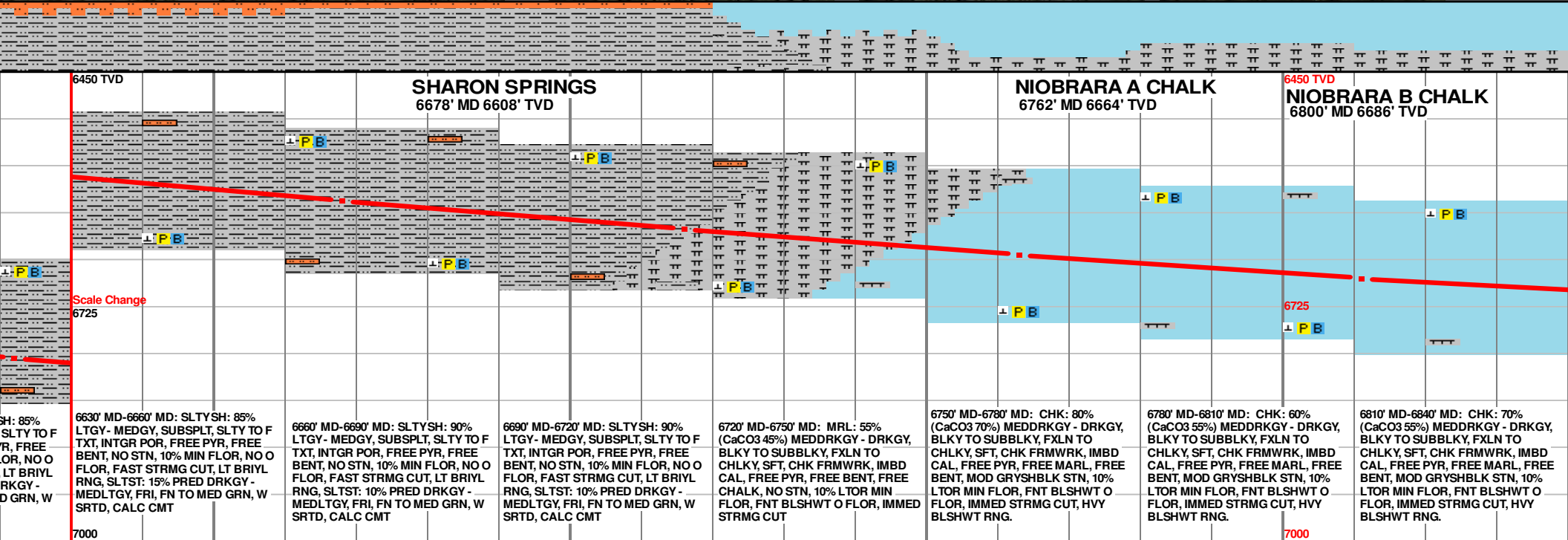
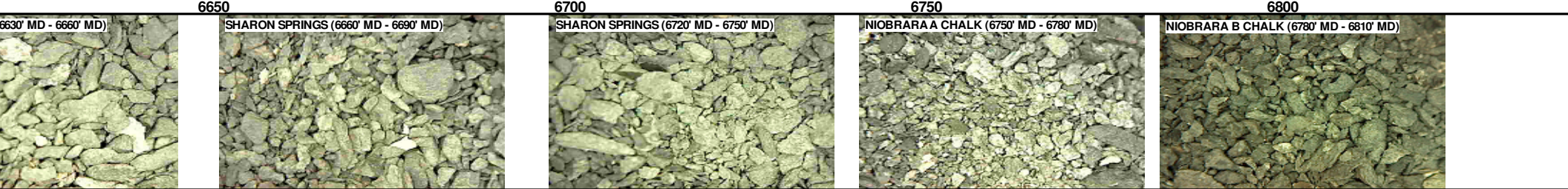
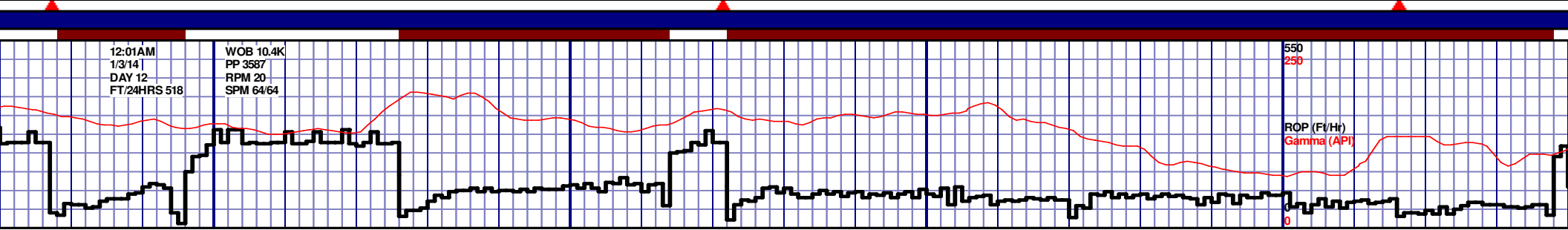
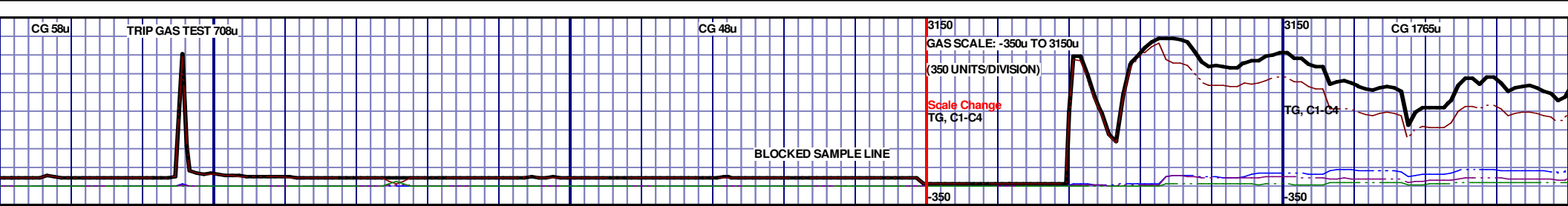
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INC 0.81 AZ 209
VS -154.52

MD 6101 TVD 6084.01
INC 0.61 AZ 209.81
VS -155.57

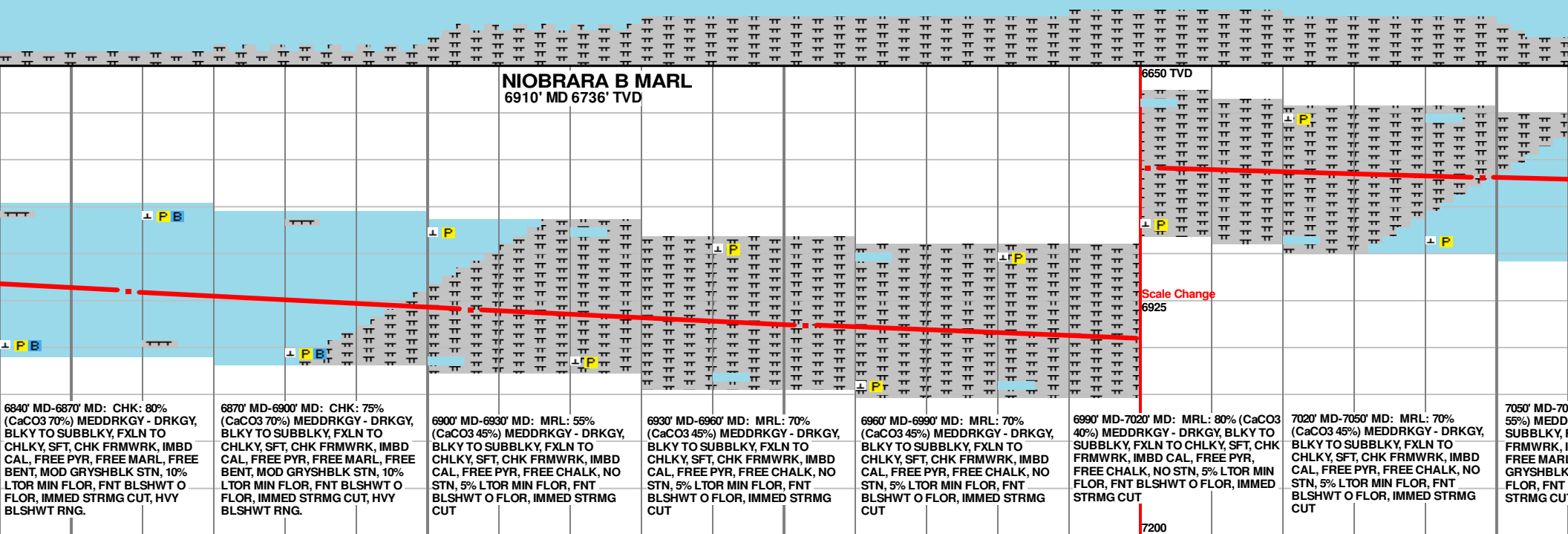
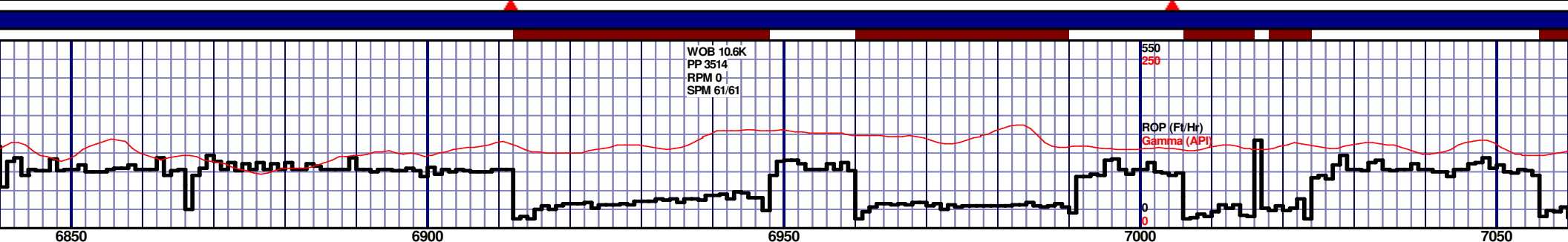
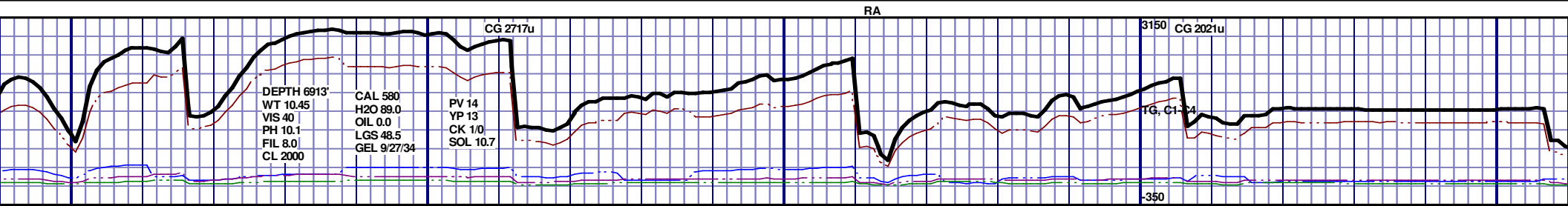
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INC 1.93 AZ 90.8
VS -155.79







MD 6622 TVD 6566.2 INC 40.92 AZ 358.44 VS -7.09	MD 6668 TVD 6600.66 INC 42.02 AZ 357.78 VS 23.31	MD 6716 TVD 6634.85 INC 47.09 AZ 357.56 VS 56.89	MD 6763 TVD 6664.99 INC 53.11 AZ 356.55 VS 92.81	MD 6811 TVD 6691.44 INC 59.96 AZ 357 VS 132.68
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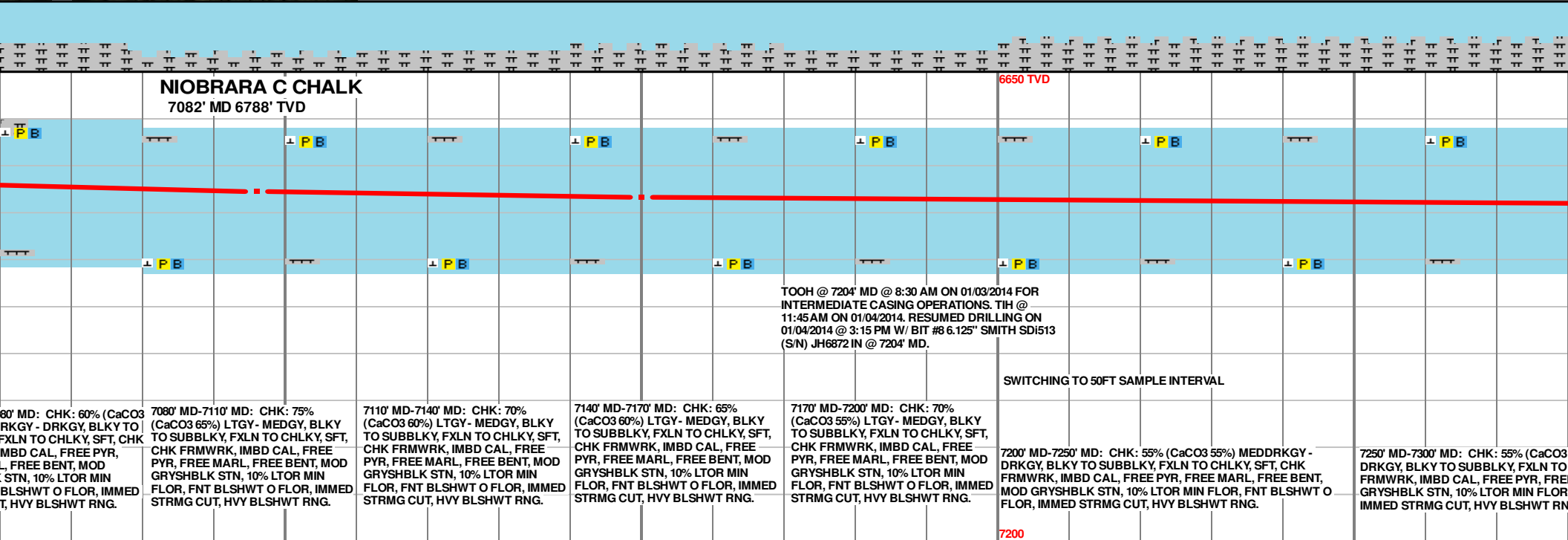
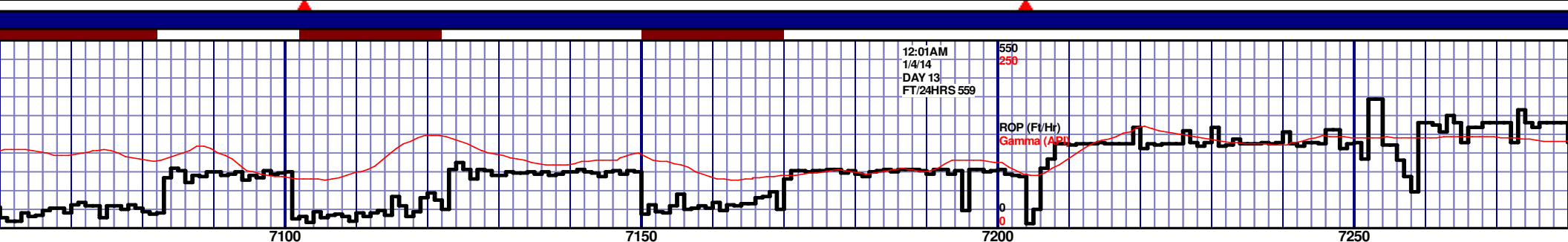
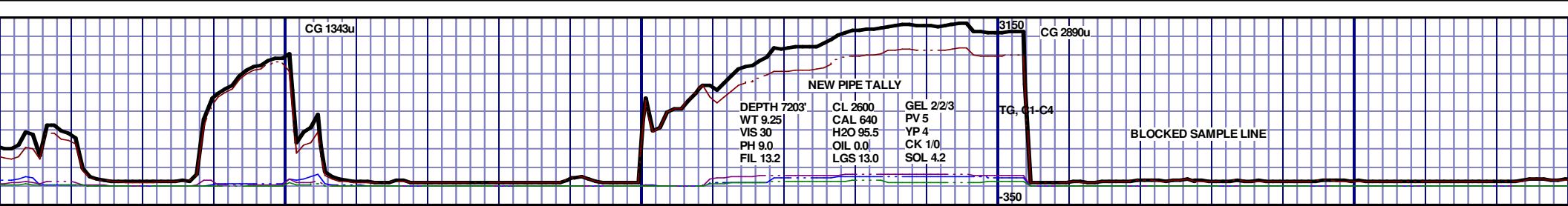
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INC 62.7 AZ 356.83
VS 173.77

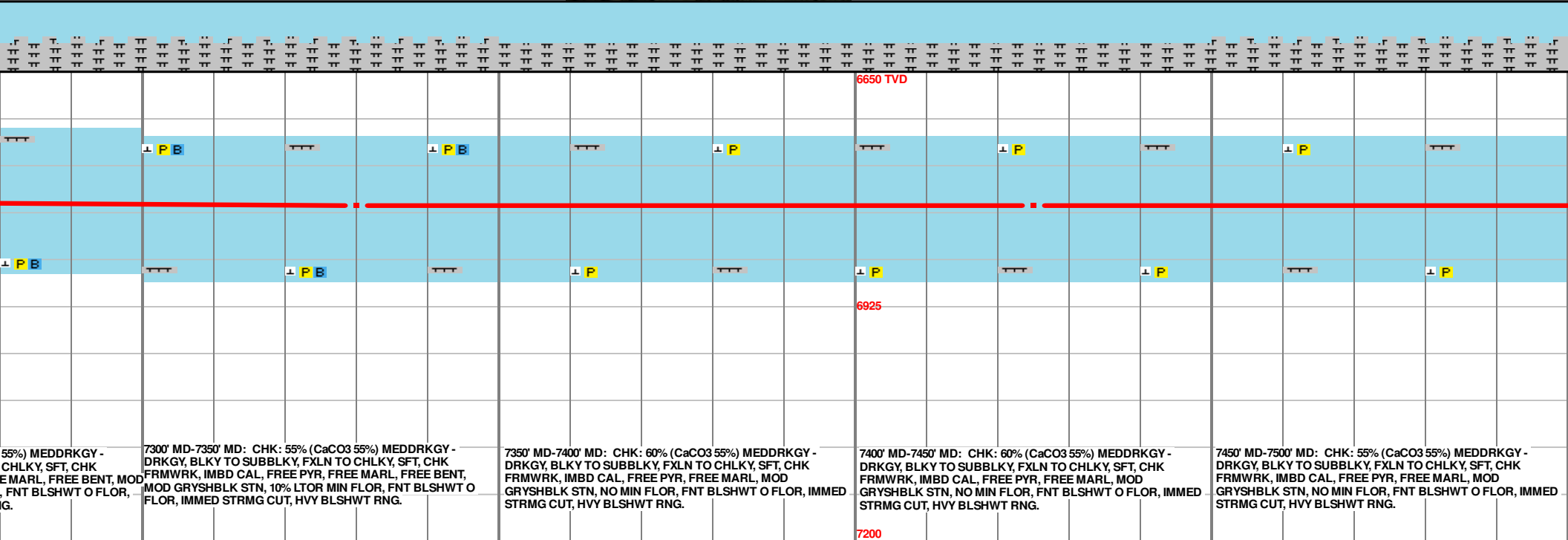
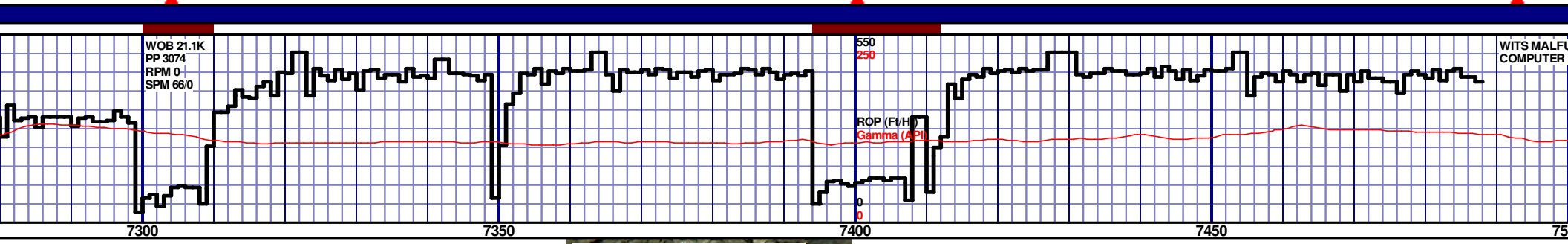
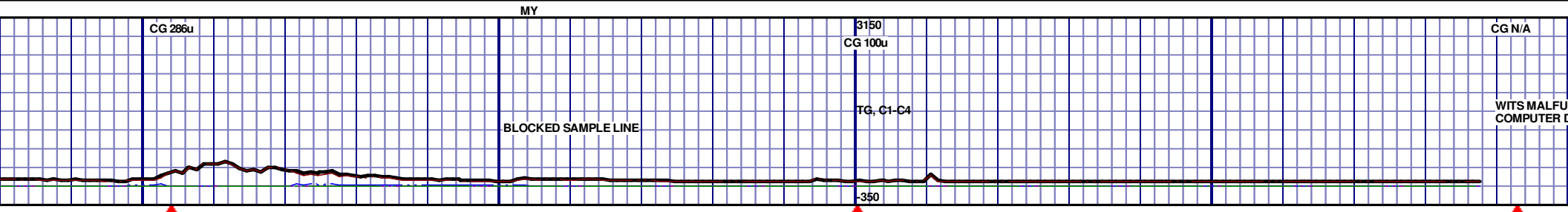
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INC 63.9 AZ 356.62
VS 216.49

MD 6953 TVD 6754.21
INC 69.29 AZ 357.74
VS 259.47

MD 7001 TVD 6769.37
INC 73.89 AZ 358.25
VS 304.91

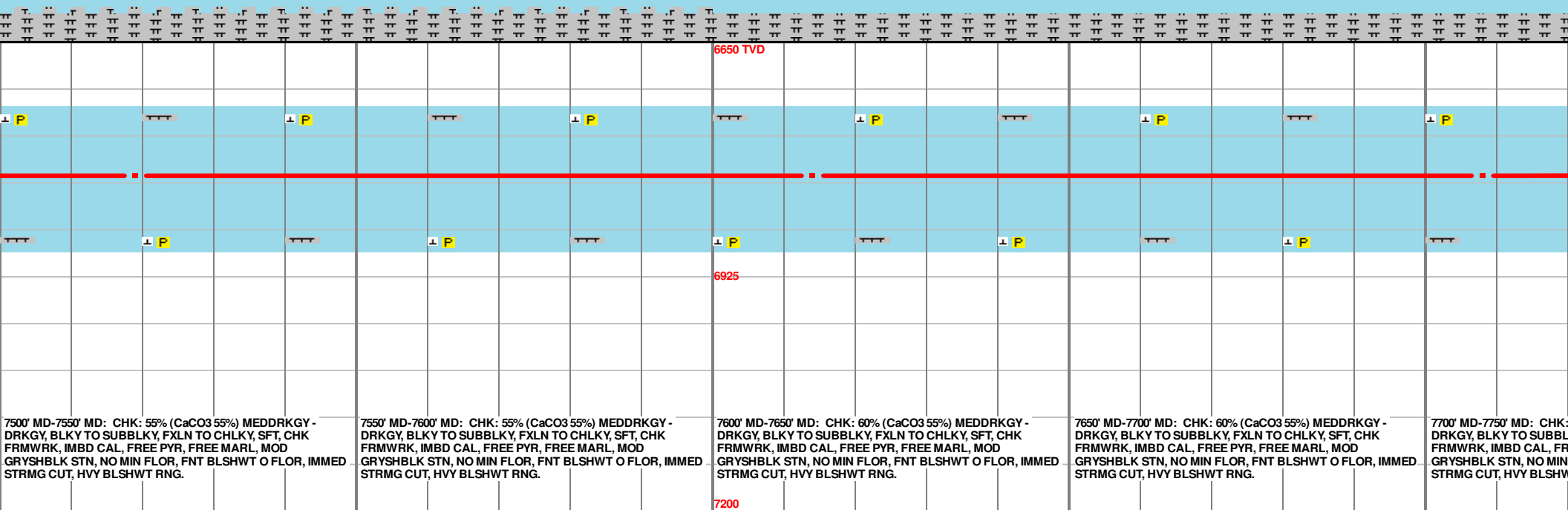
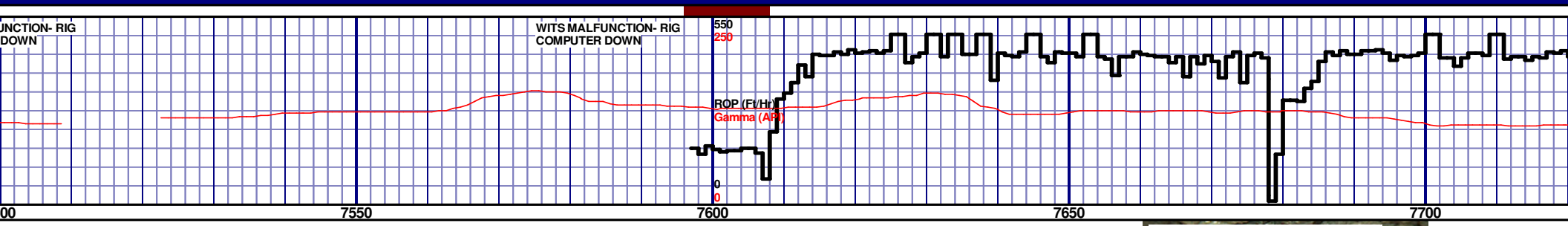
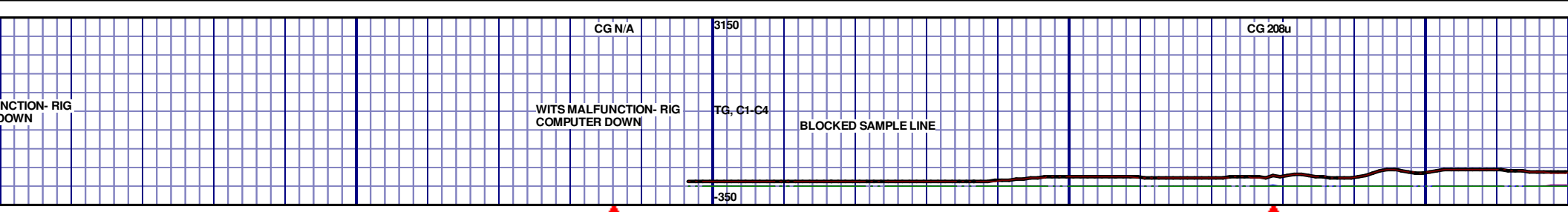
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VS 350.31

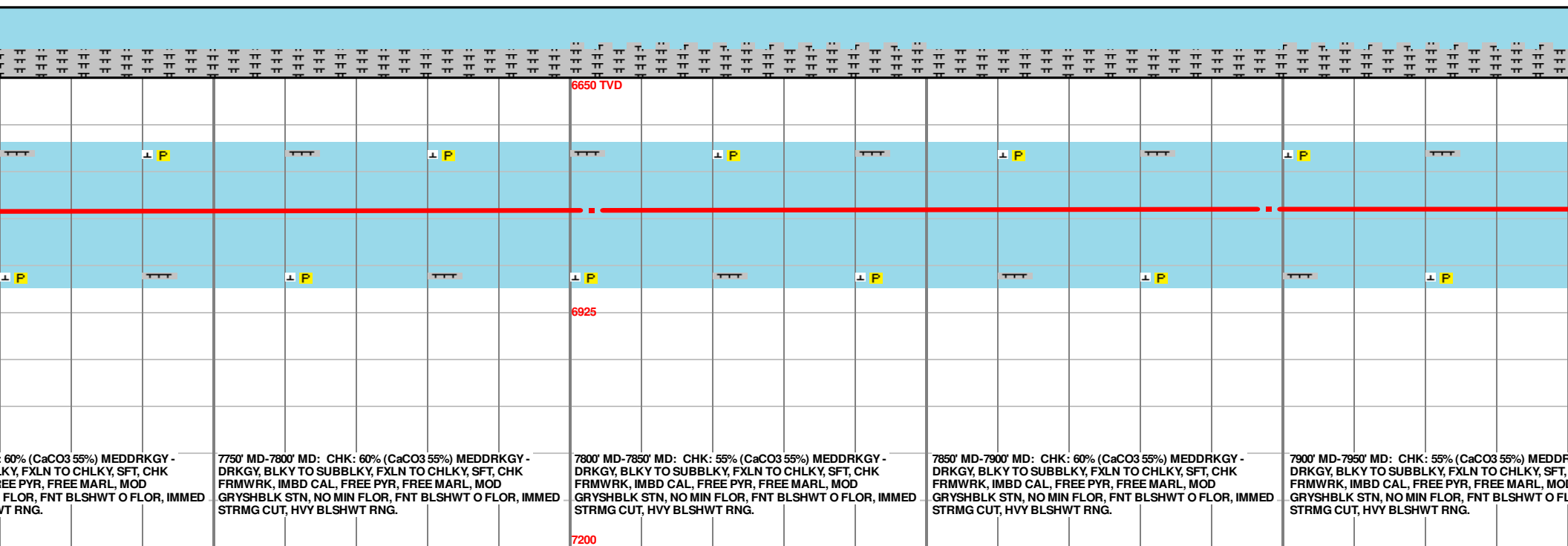
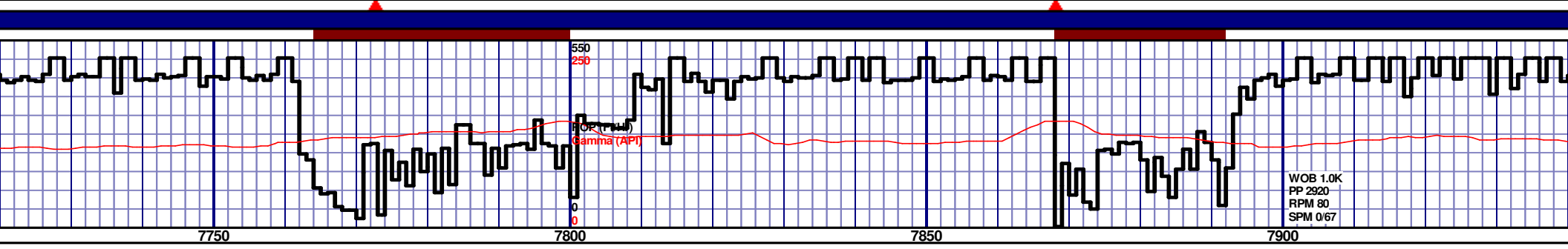
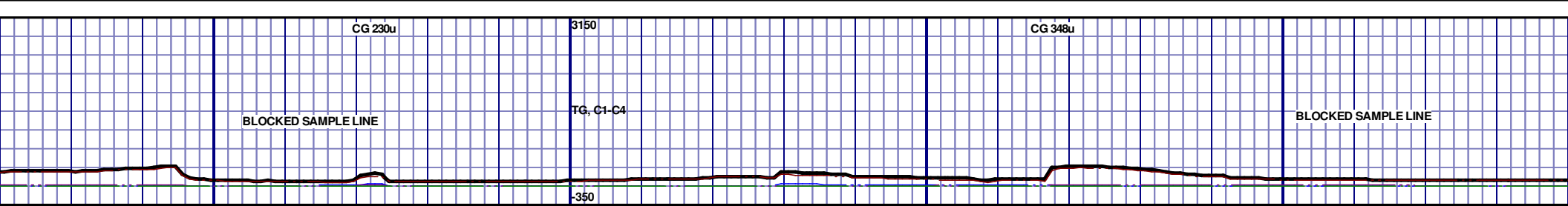


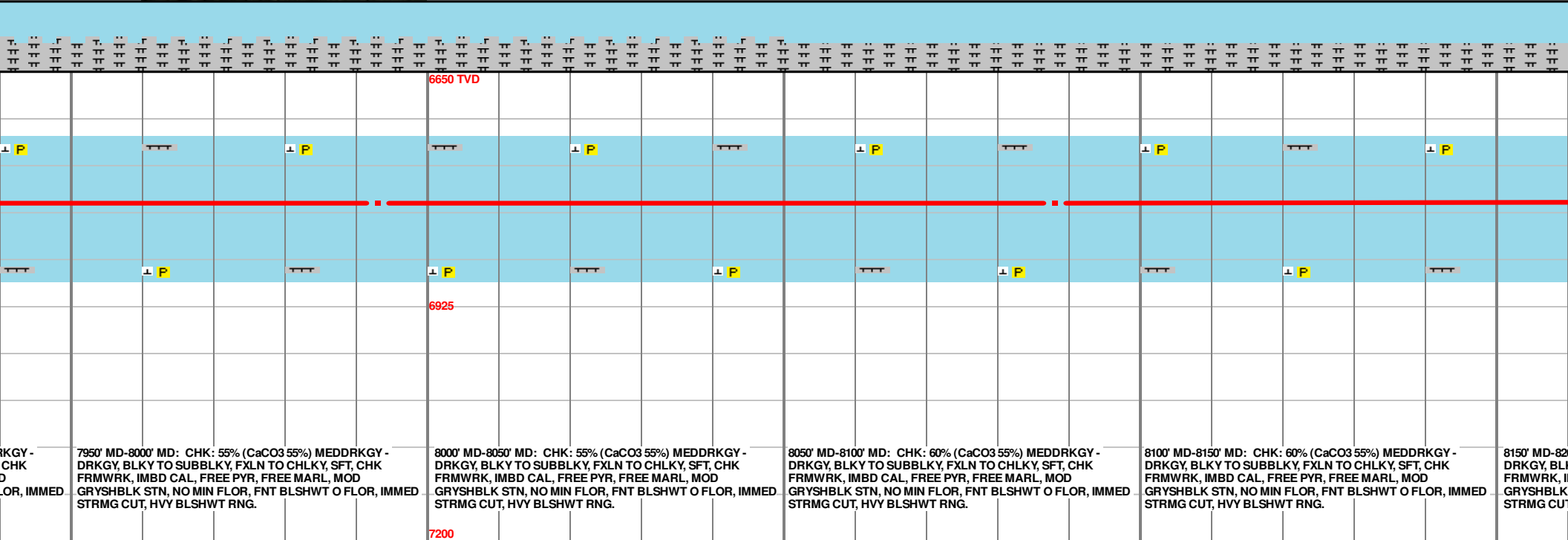
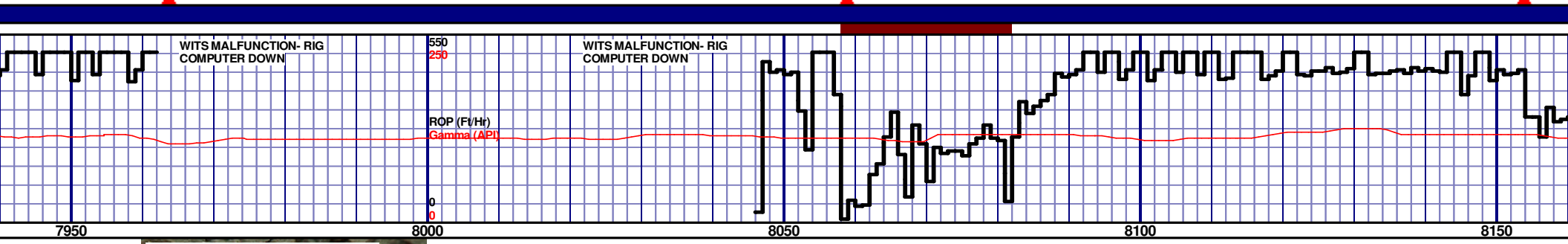
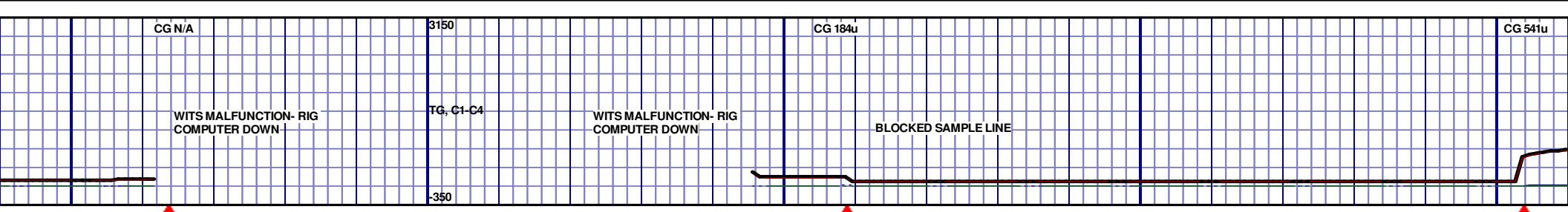


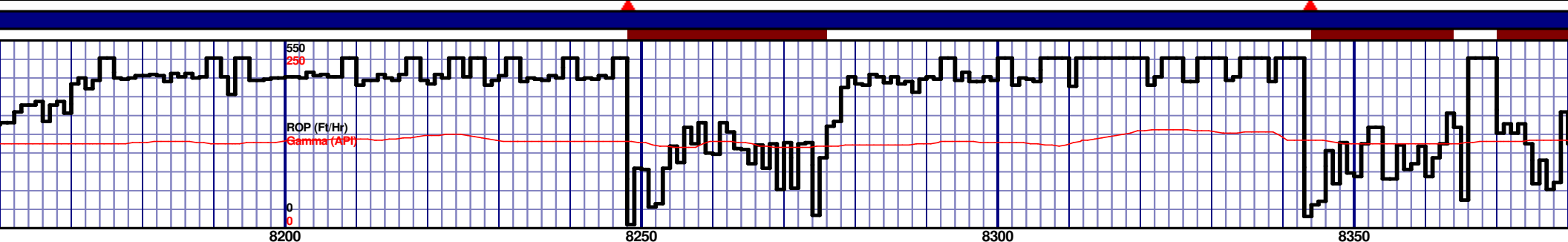
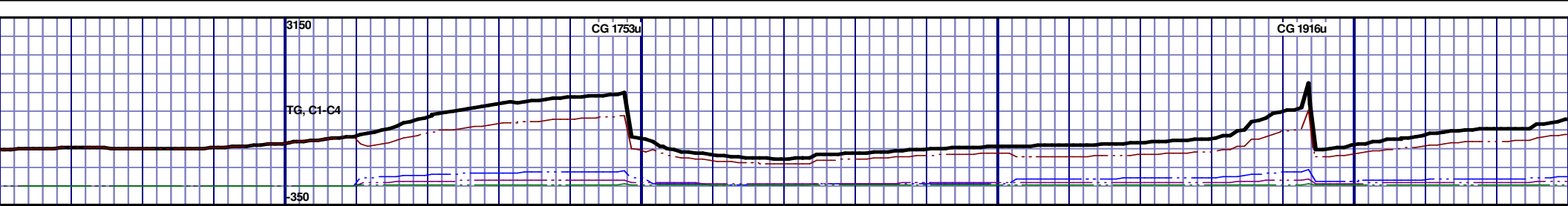
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INC 88.77 AZ 356.36
VS 630.01

MD 7425 TVD 6807.26
INC 89.94 AZ 356.87
VS 724.62







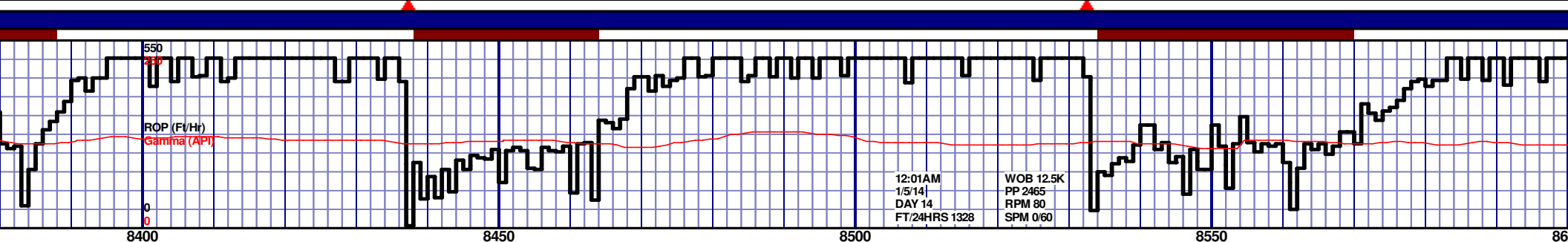
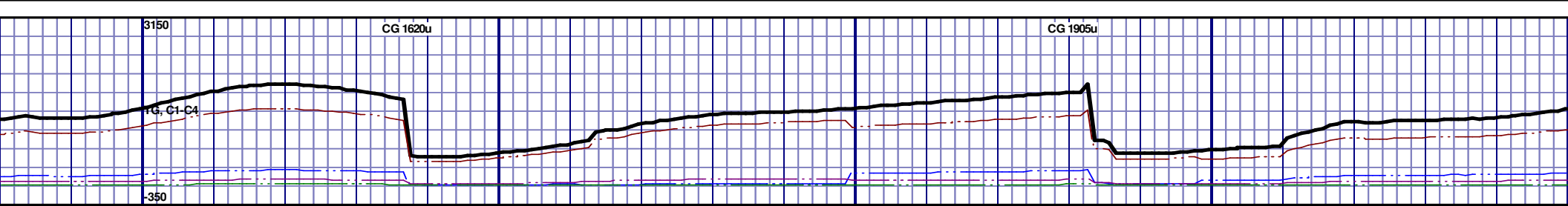


6650 TVD									
6925									
7200									
<p>00' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p> <p>8200' MD-8250' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p> <p>8250' MD-8300' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p> <p>8300' MD-8350' MD: CHK: 55% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p> <p>8350' MD-8400' MD: CHK: 55% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p>									

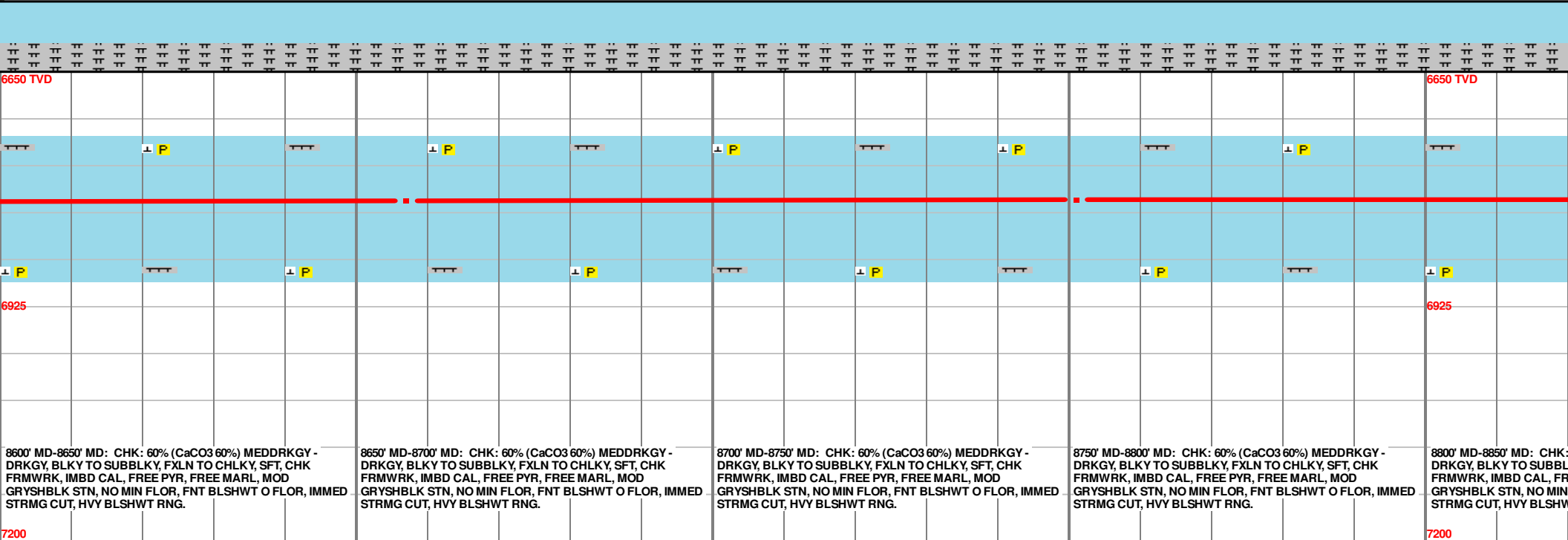
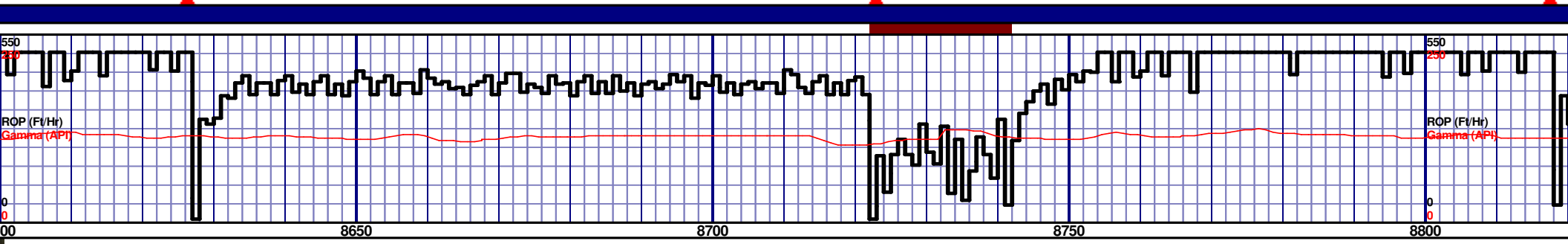
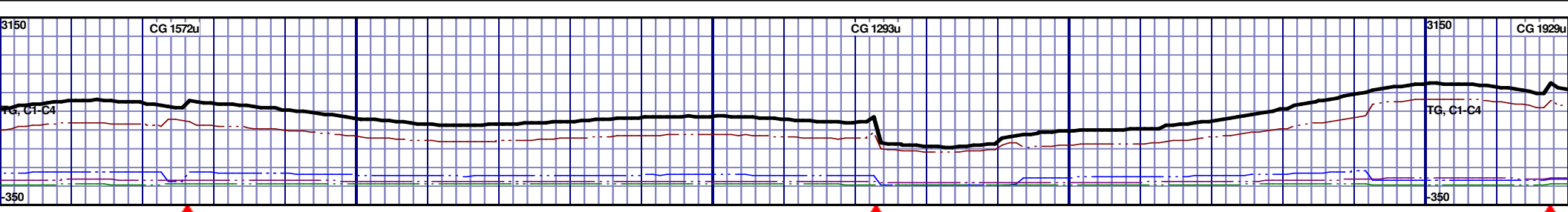
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INC 90.28 AZ 3.63
VS 1481.17

MD 8277 TVD 6802.71
INC 90.12 AZ 4.91
VS 1575.07

MD 8372 TVD 6802.71
INC 90.15 AZ 4.91
VS 1670.07

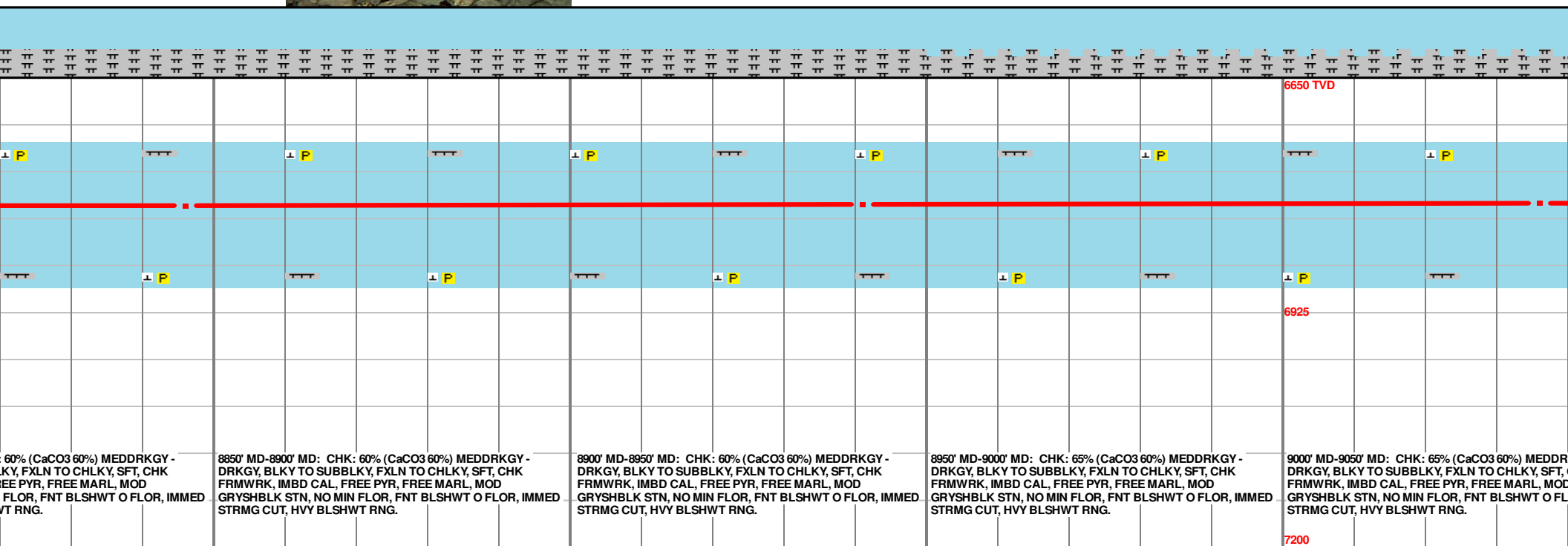
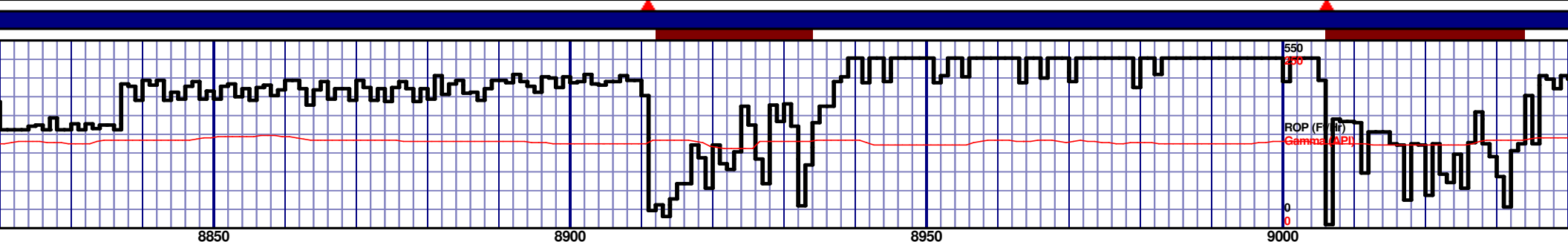
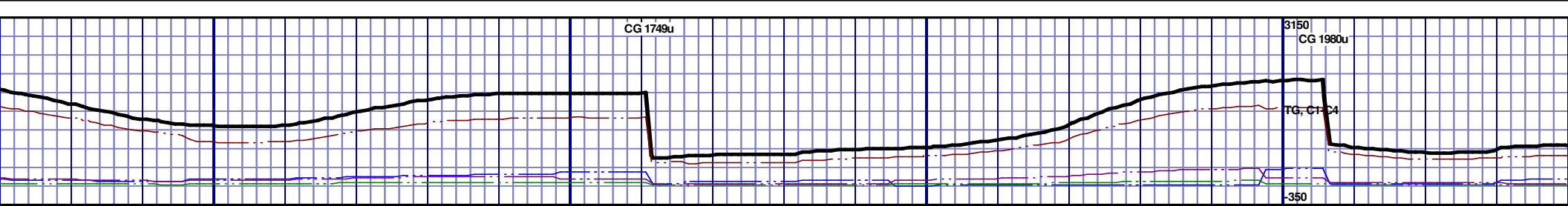


<p>55%) MEDDRKGY - CHLKY, SFT, CHK MARL, MOD BLSHWT O FLOR, IMMED</p>	<p>8400' MD-8450' MD: CHK: 55% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p>	<p>8450' MD-8500' MD: CHK: 60% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, TRC FREE BENT, MOD GRYSHBLK STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p>	<p>8500' MD-8550' MD: CHK: 60% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p>	<p>8550' MD-8600' MD: CHK: 60% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.</p>
<p>6650 TVD</p>	<p>6925</p>			
<p>7200</p>				



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INC 90.49 AZ 358.93
VS 1954.83

MD 8751 TVD 6800.42
INC 90.37 AZ 357.22
VS 2048.63



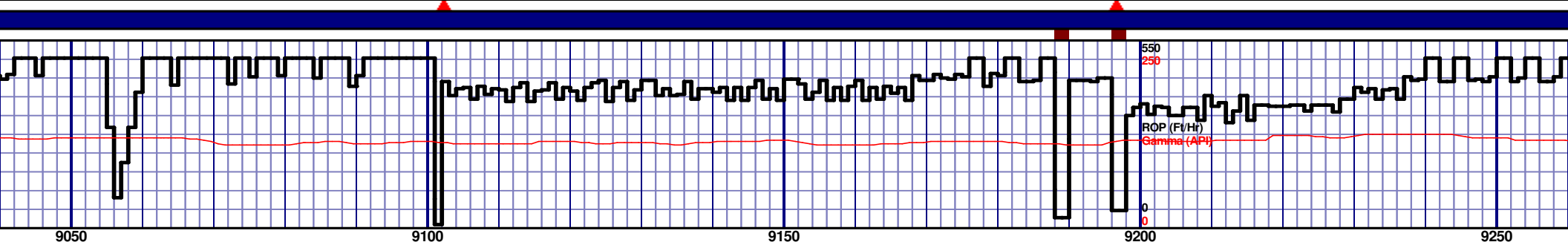
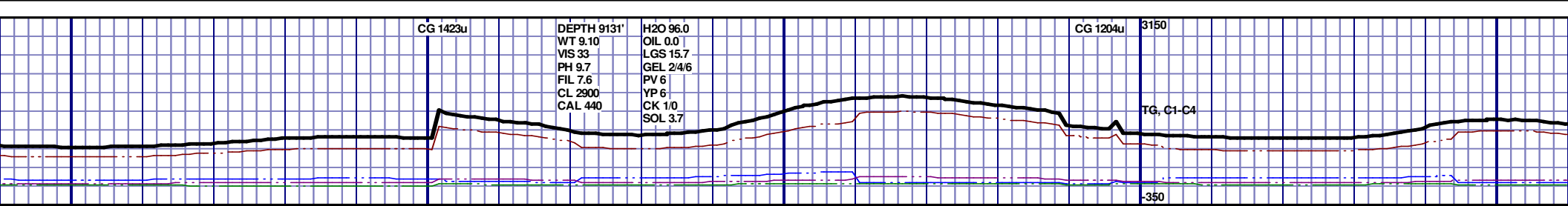
60% (CaCO₃ 60%) MEDDRKGY -
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FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

8850' MD-8900' MD: CHK: 60% (CaCO₃ 60%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

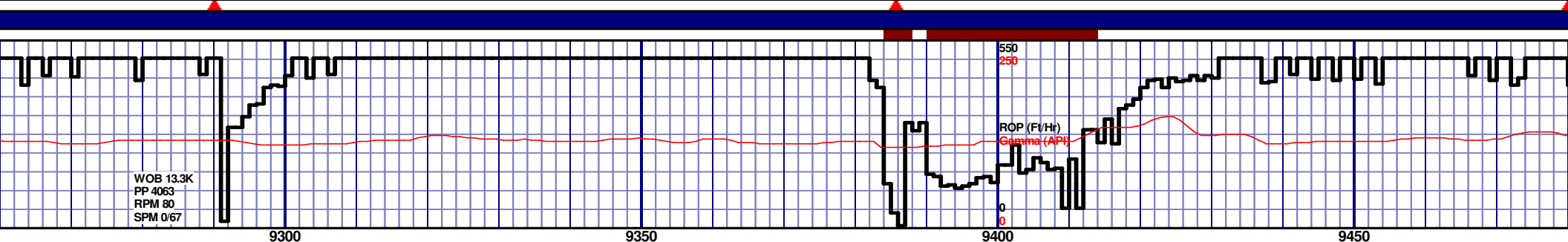
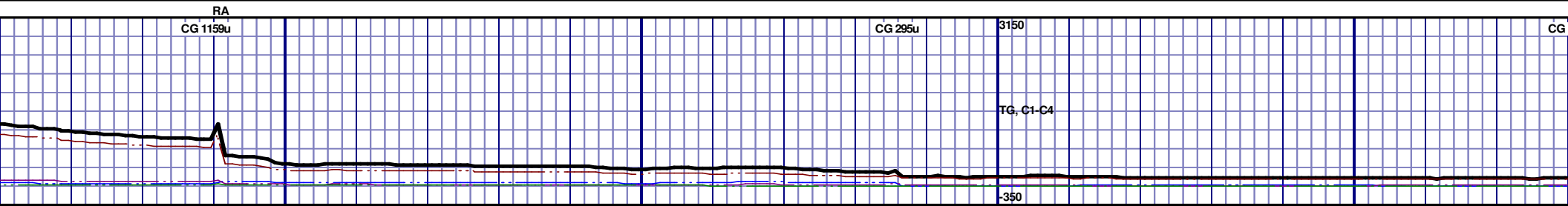
8900' MD-8950' MD: CHK: 60% (CaCO₃ 60%) MEDDRKGY -
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GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

8950' MD-9000' MD: CHK: 65% (CaCO₃ 60%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

9000' MD-9050' MD: CHK: 65% (CaCO₃ 60%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.



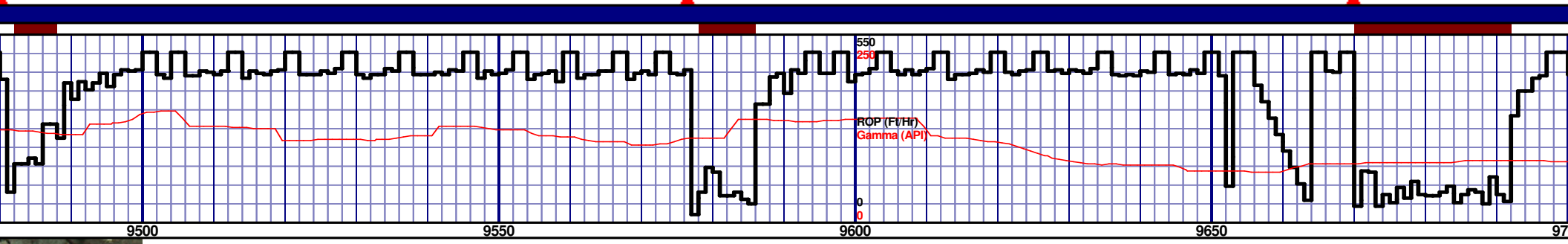
9050' MD-9100' MD: CHK: 65% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.									
9100' MD-9150' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, TRC FREE BENT, MOD GRYSBLK STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.									
9150' MD-9200' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.									
9200' MD-9250' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.									
9250' MD-9300' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.									



6650 TVD									
<div>00' MD: CHK: 60% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK MBD CAL, FREE PYR, FREE MARL, MOD STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMM STRMG CUT, HVY BLSHWT RNG.</div>									
<div>9300' MD-9350' MD: CHK: 70% (CaCO3 58%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMM STRMG CUT, HVY BLSHWT RNG.</div>									
<div>9350' MD-9400' MD: CHK: 70% (CaCO3 58%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMM STRMG CUT, HVY BLSHWT RNG.</div>									
<div>9400' MD-9450' MD: CHK: 65% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMM STRMG CUT, HVY BLSHWT RNG.</div>									
<div>9450' MD-9500' MD: CHK: 70% (CaCO3 55%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMM STRMG CUT, HVY BLSHWT RNG.</div>									
7200									

MD 9321 TVD 6794.67
INC 90.59 AZ 0.41
VS 2617.82

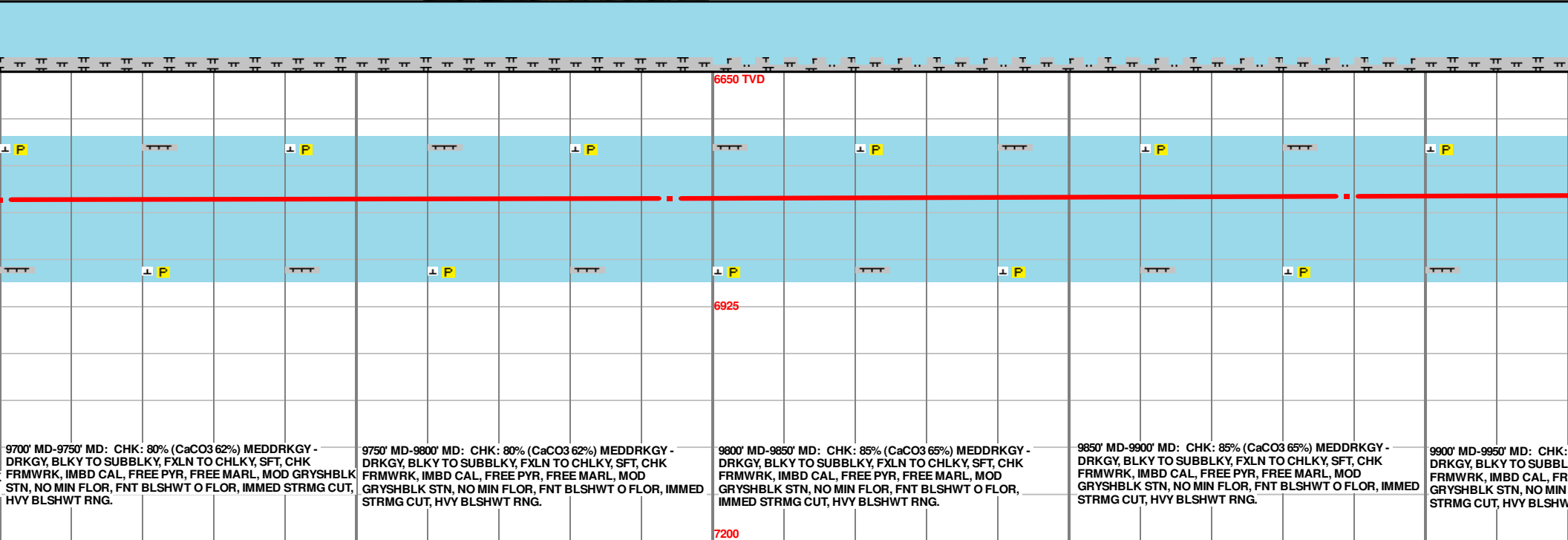
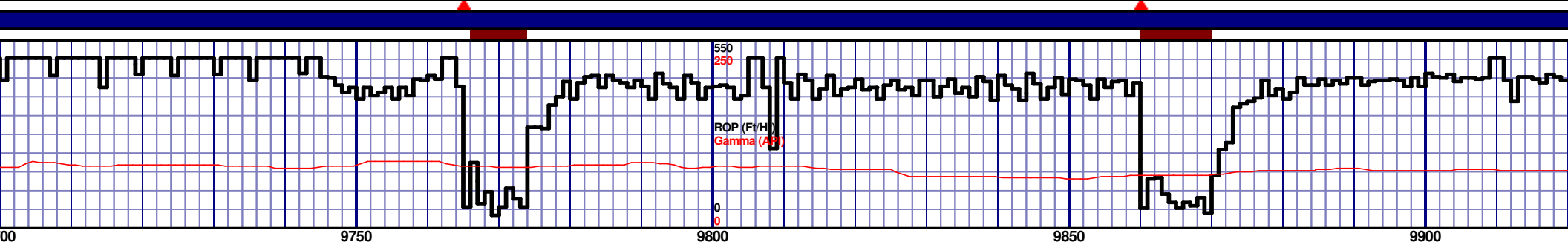
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INC 89.2 AZ 358.61
VS 2711.75

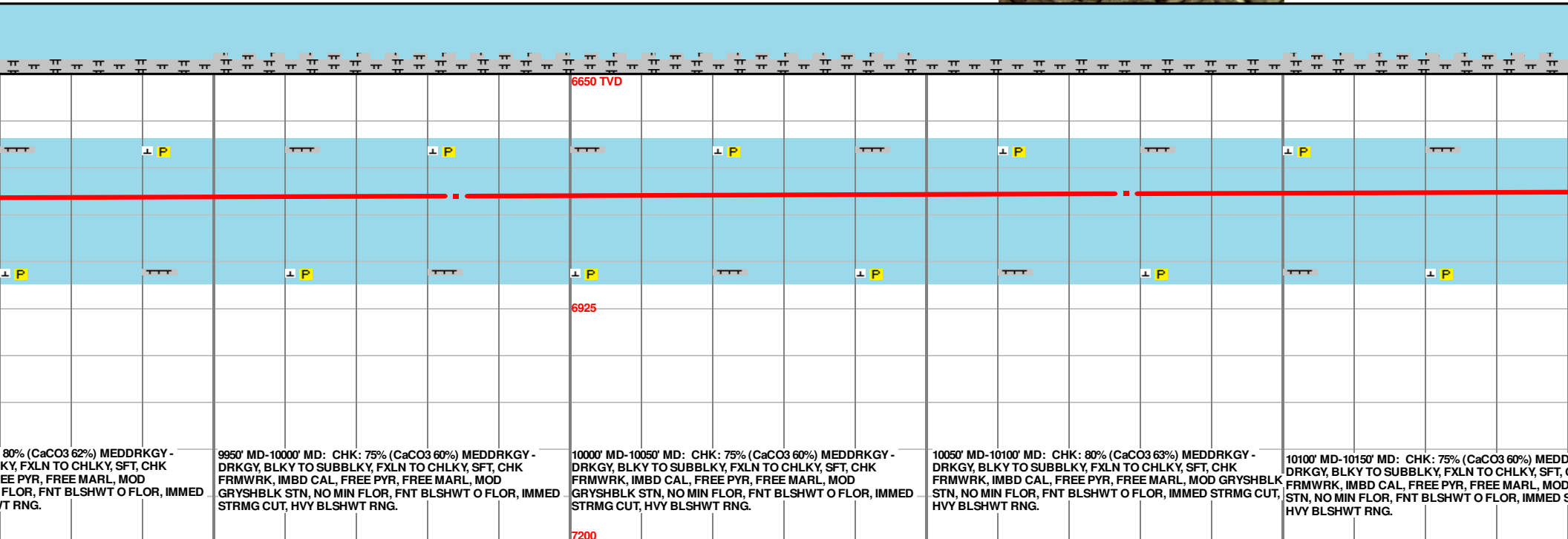
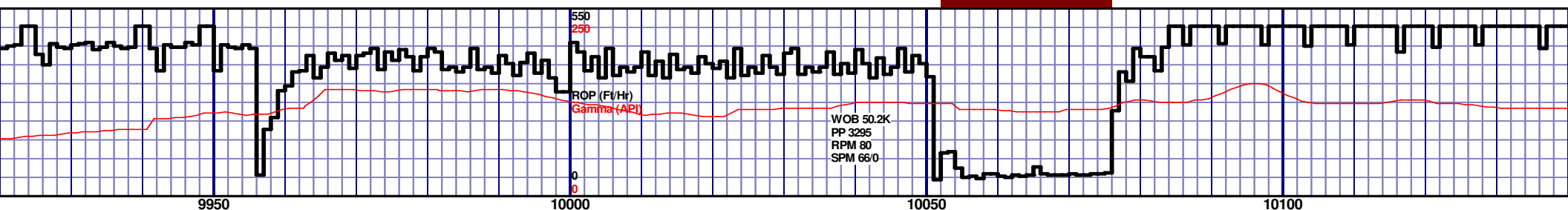
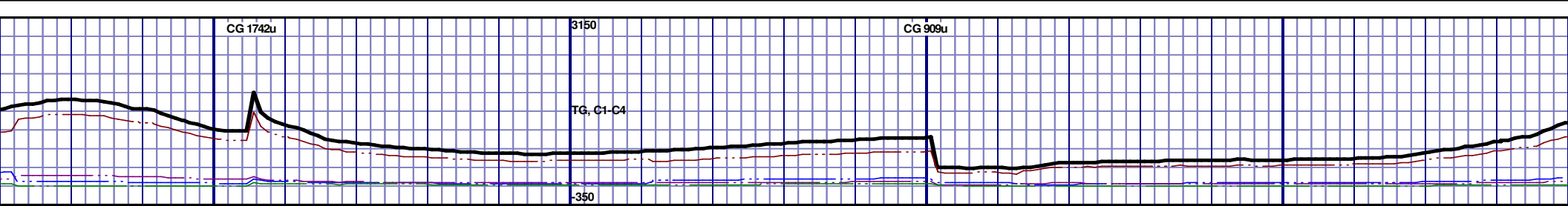


6650 TVD					6925					7200				
58% MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK E MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, IMMED STRMG CUT, HVY BLSHWT RNG.					9500' MD-9550' MD: CHK: 70% (CaCO3 58%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.					9550' MD-9600' MD: CHK: 75% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.				
9600' MD-9650' MD: CHK: 75% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.					9650' MD-9700' MD: CHK: 75% (CaCO3 60%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG.									

MD 9510 TVD 6796.69
INC 88.58 AZ 357.44
VS 2806.53

MD 9605 TVD 6798.63
INC 89.07 AZ 355.43
VS 2901.1





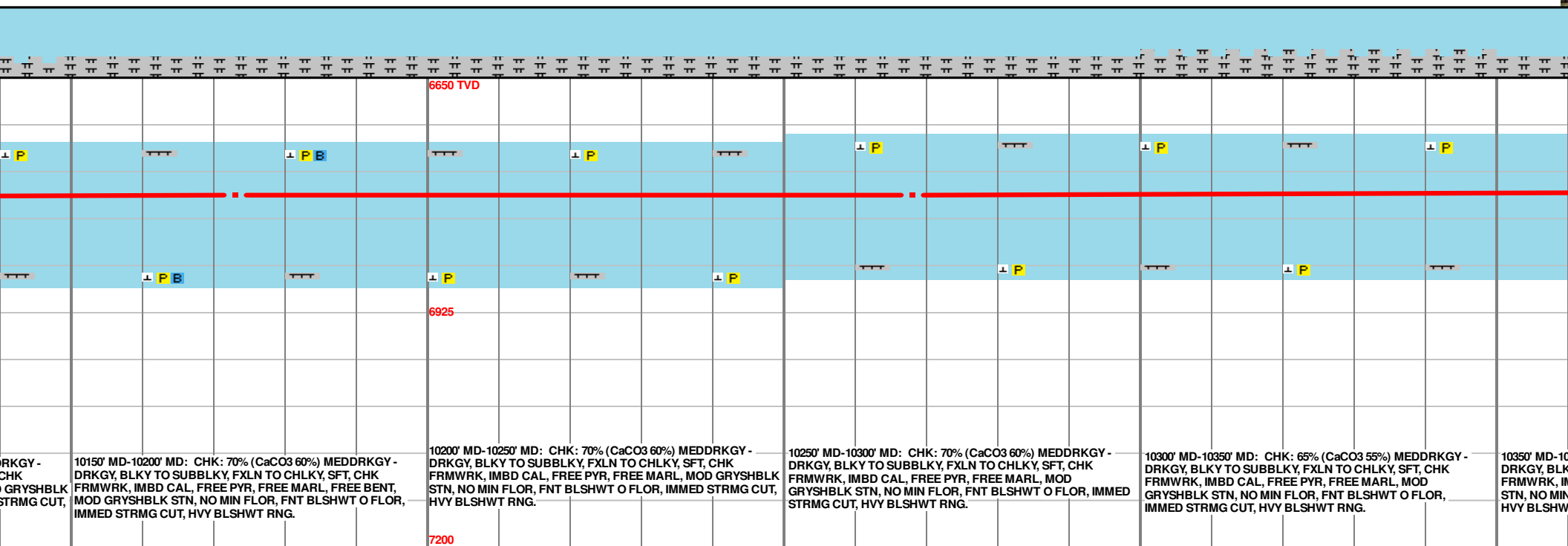
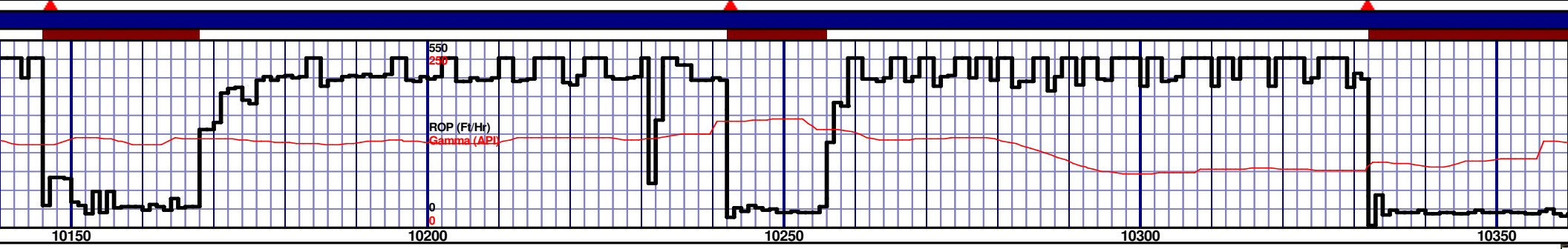
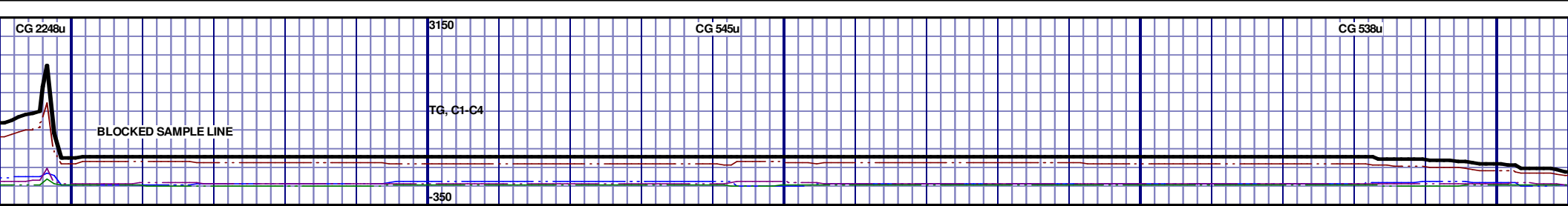
80% (CaCO3 62%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

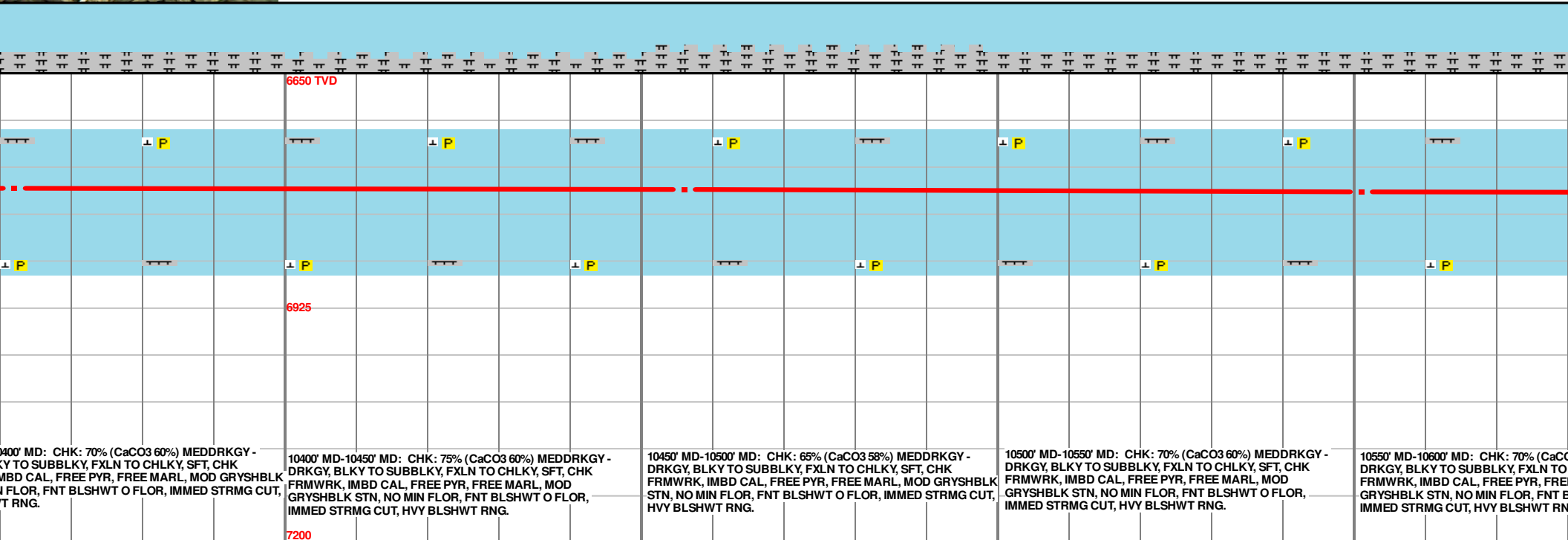
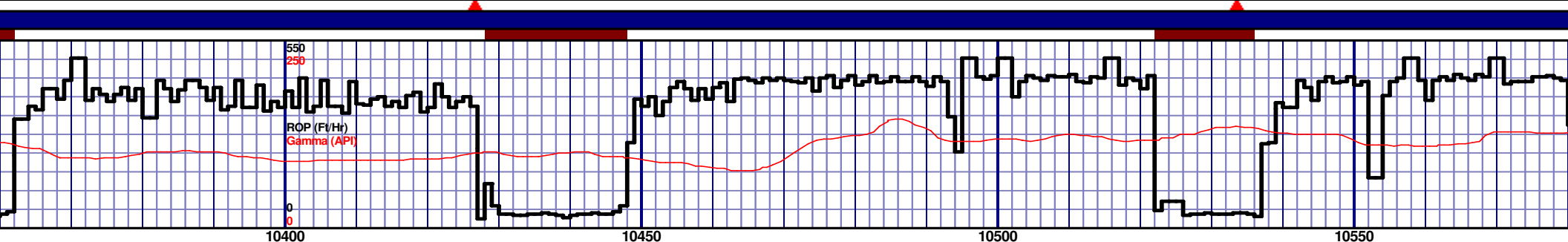
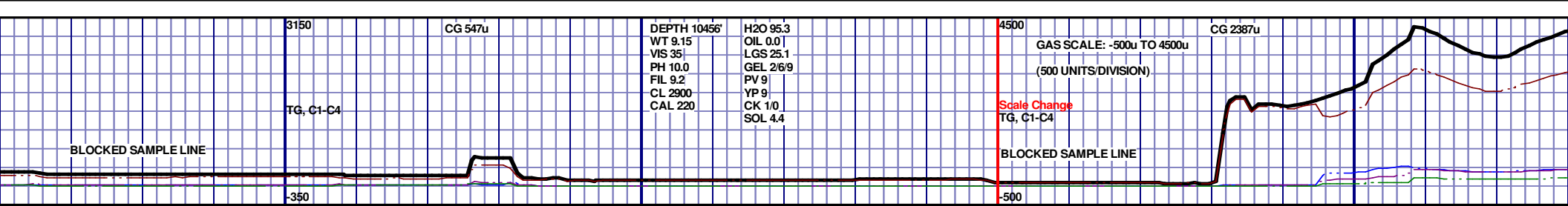
9950' MD-10000' MD: CHK: 75% (CaCO3 60%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

10000' MD-10050' MD: CHK: 75% (CaCO3 60%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

10050' MD-10100' MD: CHK: 80% (CaCO3 63%) MEDDRKGY -
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD GRYSHBLK
STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT,
HVY BLSHWT RNG.

10100' MD-10150' MD: CHK: 75% (CaCO3 60%) MEDD
DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, FREE MARL, MOD
GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED
STRMG CUT, HVY BLSHWT RNG.

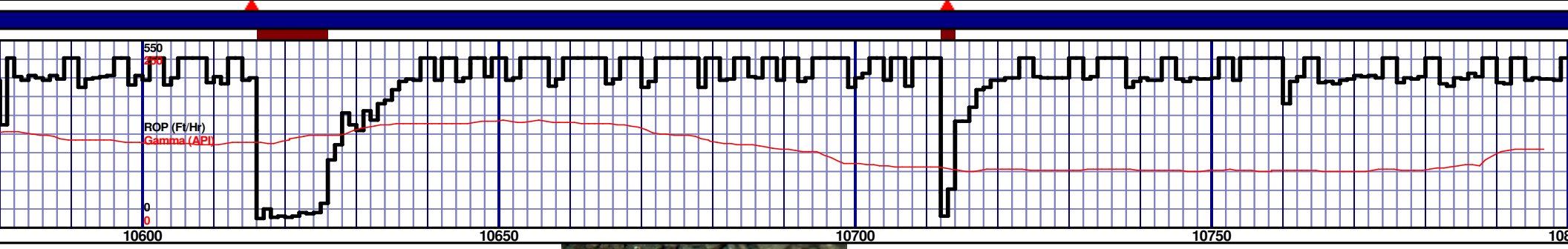
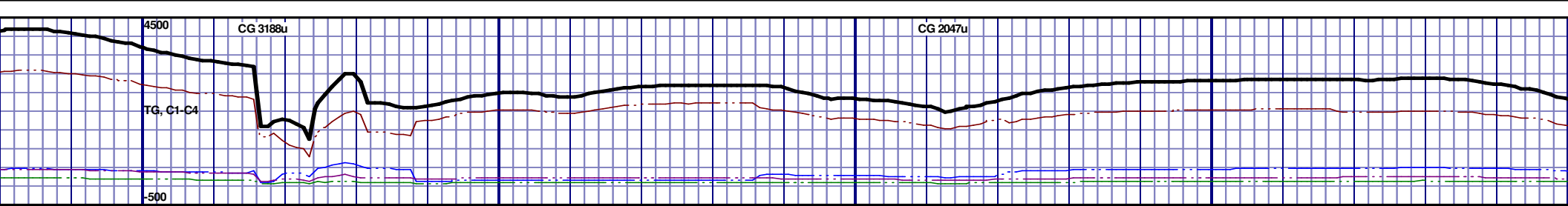




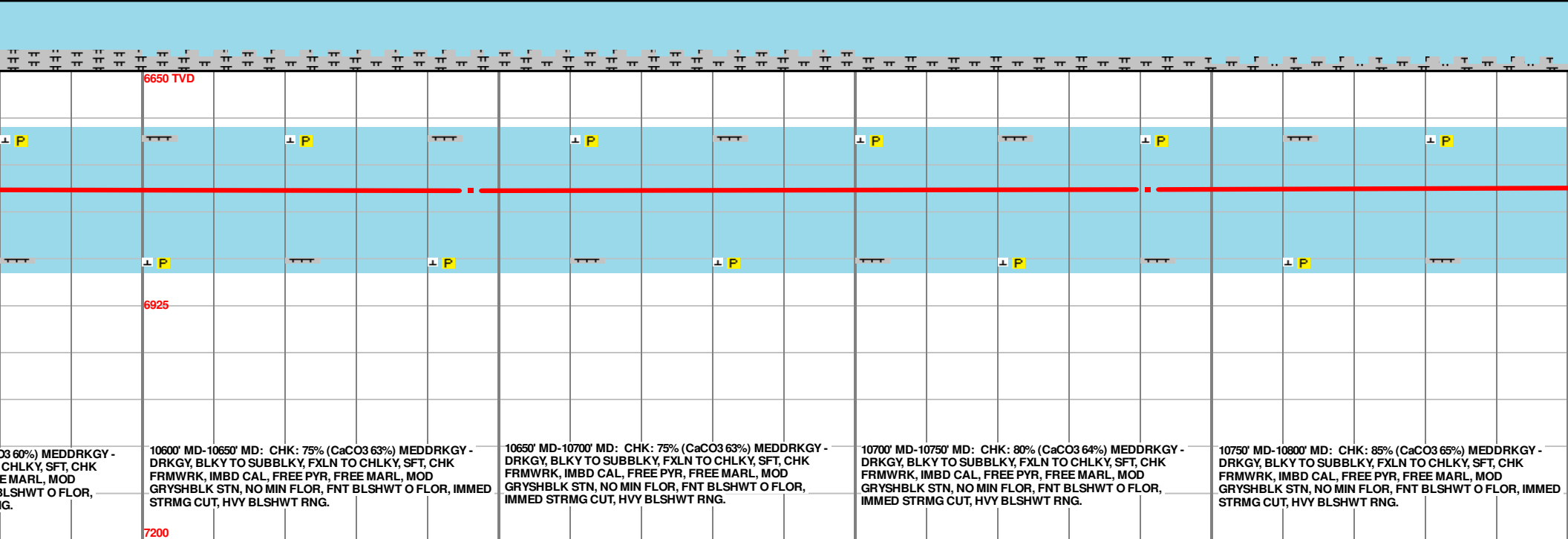
MD 10362 TVD 6785.3
INC 91.76 AZ 0.6
VS 3655.67

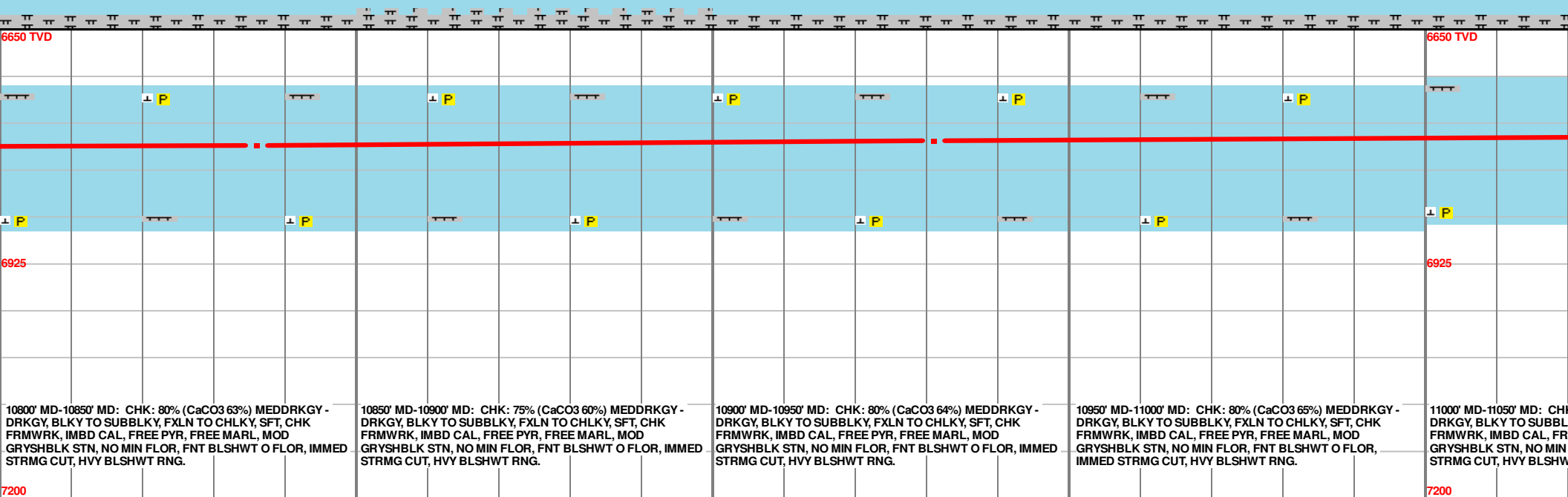
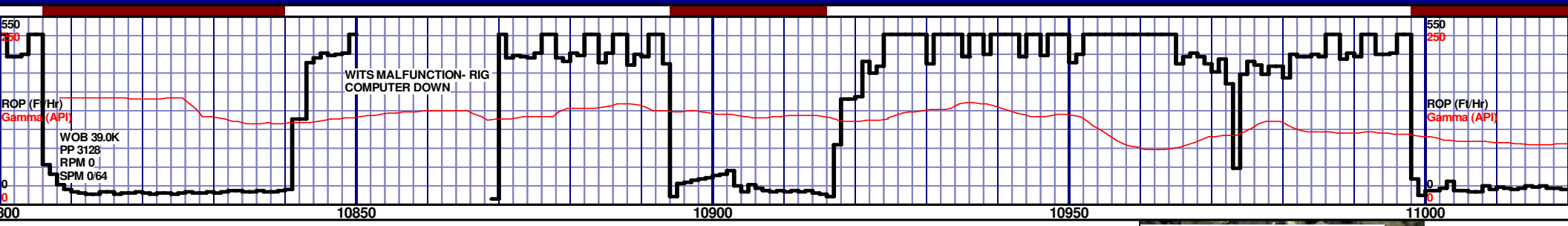
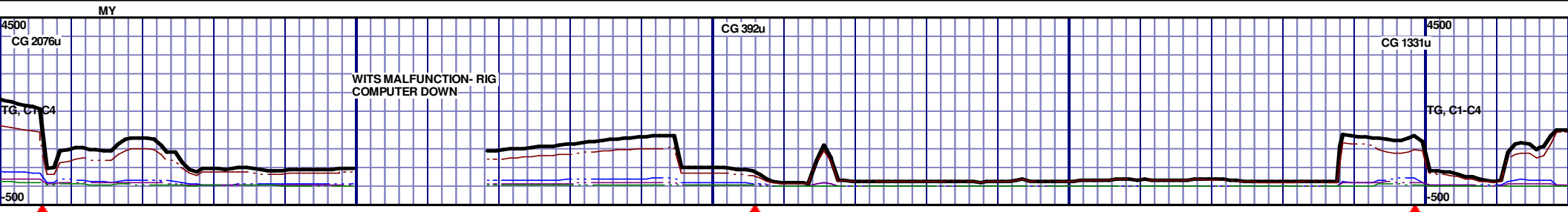
MD 10456 TVD 6785.88
INC 87.53 AZ 359.23
VS 3749.6

MD 10551 TVD 6788.85
INC 88.89 AZ 359.74
VS 3844.48



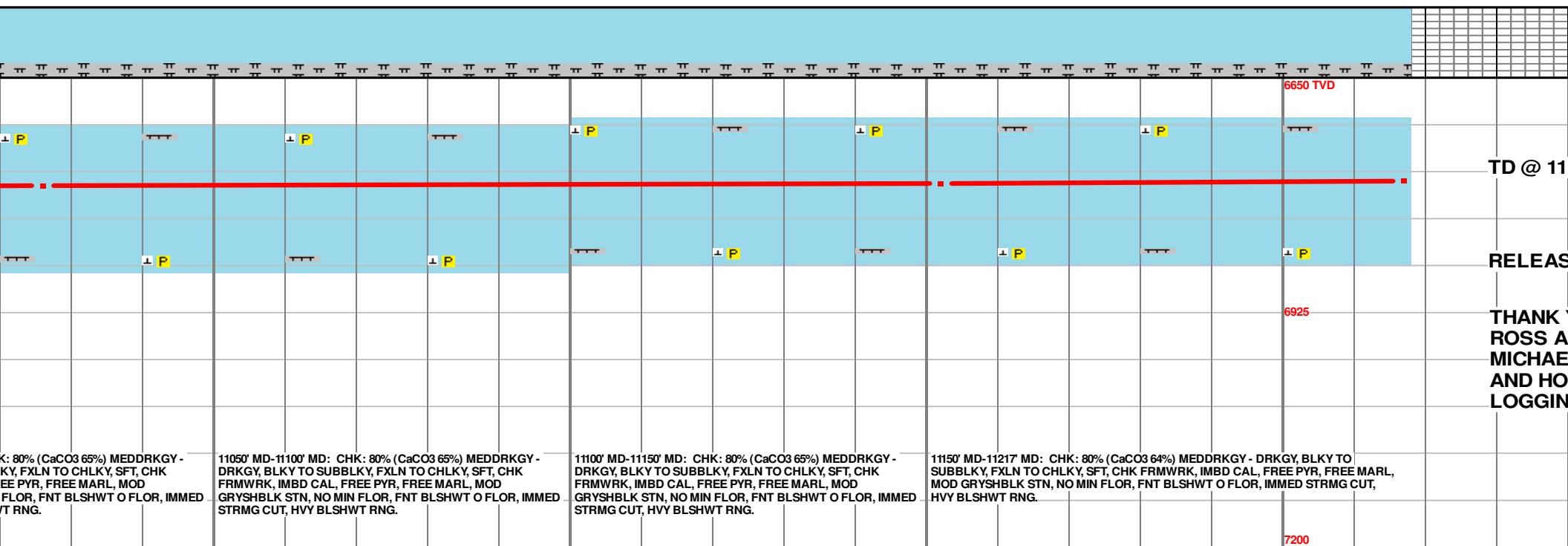
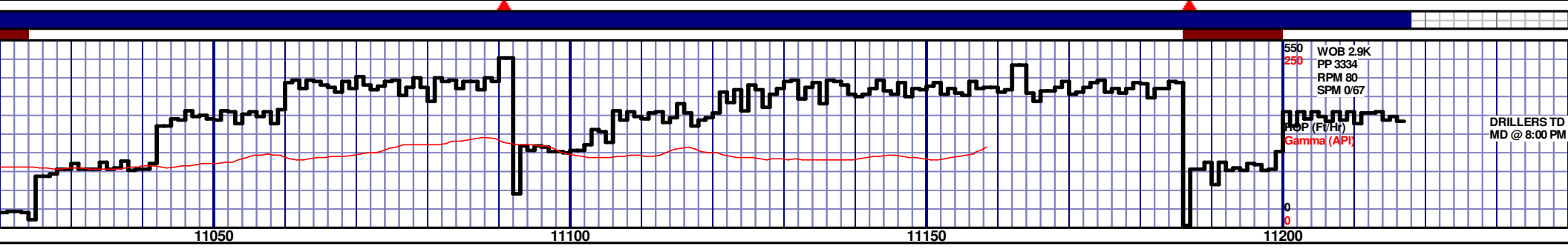
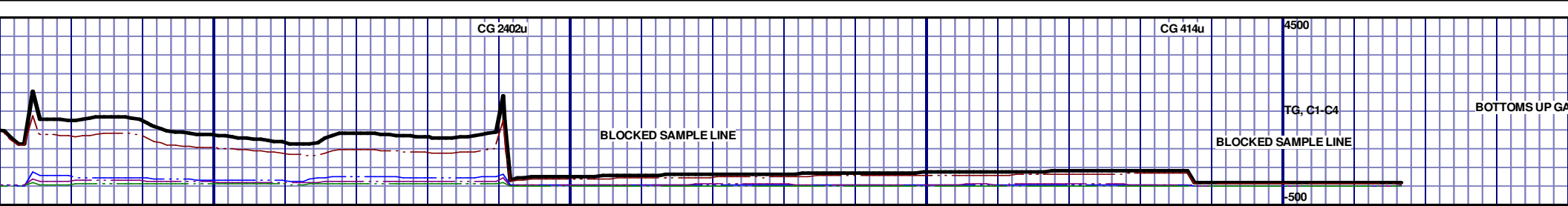
NIOBRARA C CHALK (10650' MD - 10700' MD)





MD 10836 TVD 6785.78
INC 93.64 AZ 359.23
VS 4128.96

MD 10931 TVD 6780.13
INC 93.18 AZ 0.51
VS 4223.74



MD 11026 TVD 6777.01
INC 90.59 AZ 1.69
VS 4318.67

MD 11152 TVD 6774.06
INC 92.1 AZ 0.75
VS 4444.63

PTB: MD 11217 TVD 6771.68
INC 92.1 AZ 0.75
VS 4509.57

S 413u		
@ 11217 ON 1/5/2014		
11250		
217' MD		
ED ON 1/5/2014		
YOU FROM PODACA, L YEAGER RIZON WELL G, LLC		