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Tulsa, Oklahoma 74136-6378

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WWW.HZMUD.COM/25

Customer Information

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

Geologist: Emerson Palmer
Noble Energy Inc.

Mud Logging Details

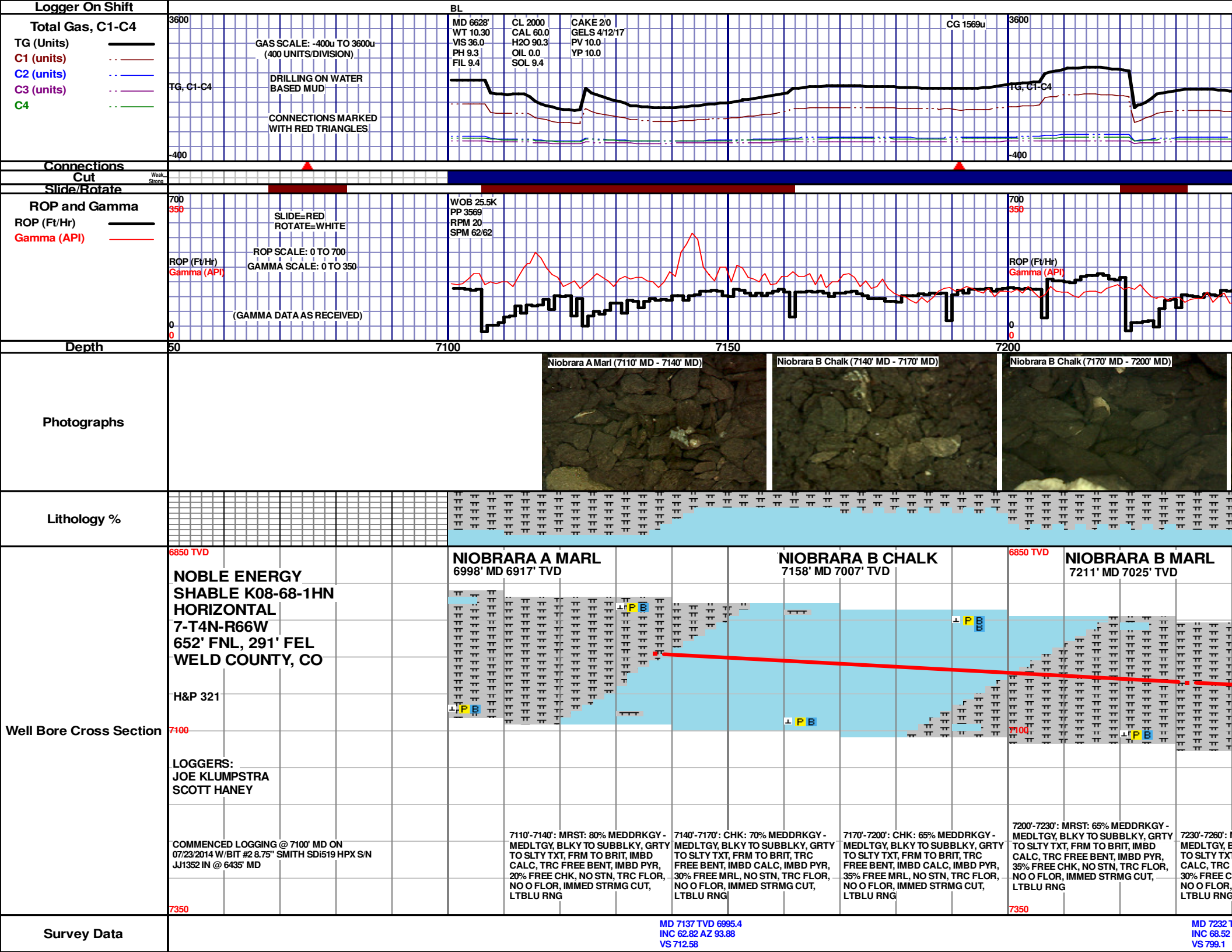
Logger: Joe Klumpstra &
Scott Haney
Log Interval: 7100' MD to 17456' MD
Start Date: July 23, 2014
Release Date: August 3, 2014

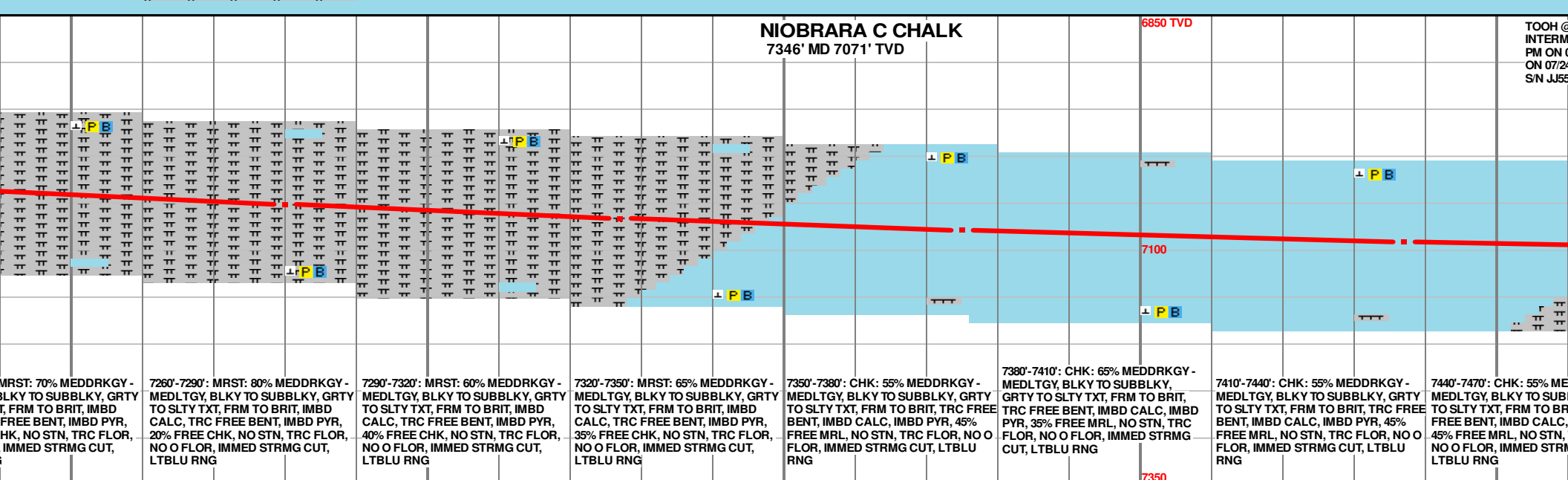
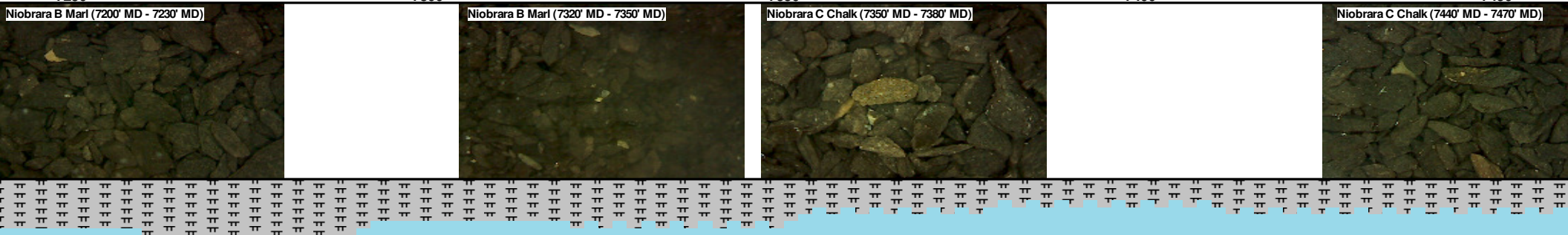
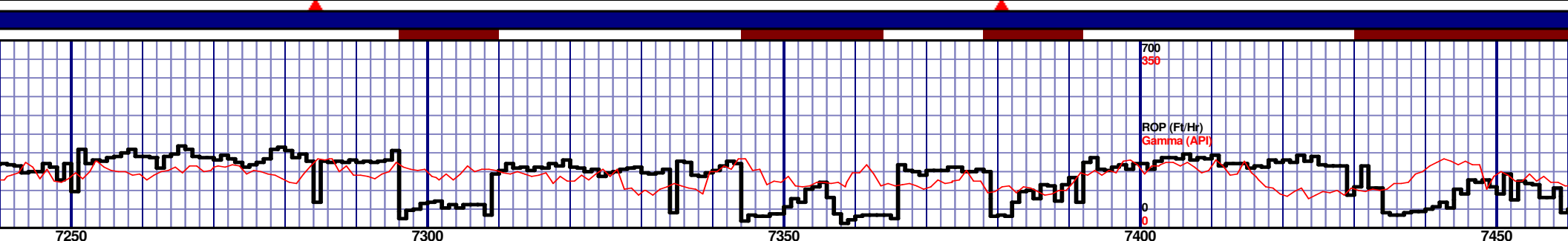
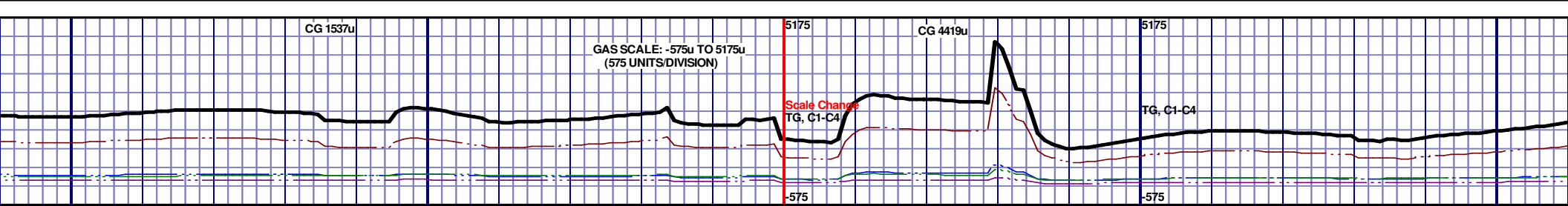
Well Information

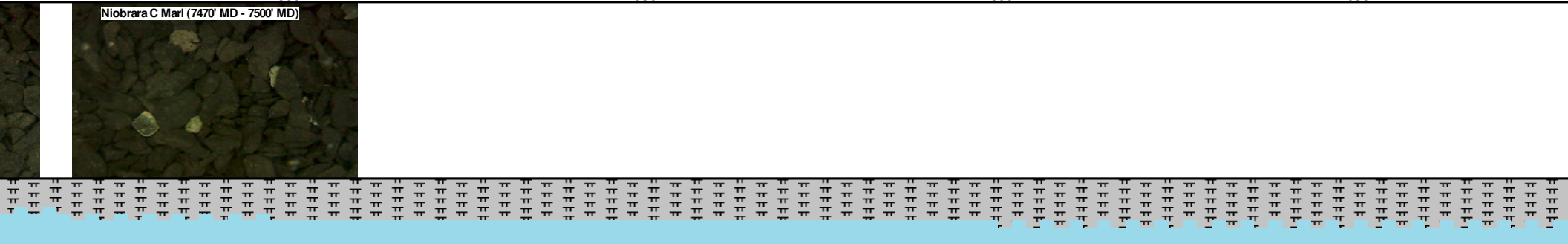
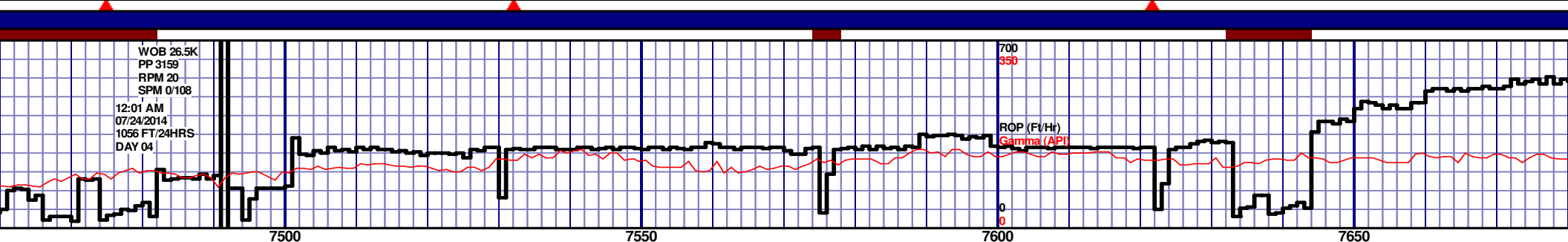
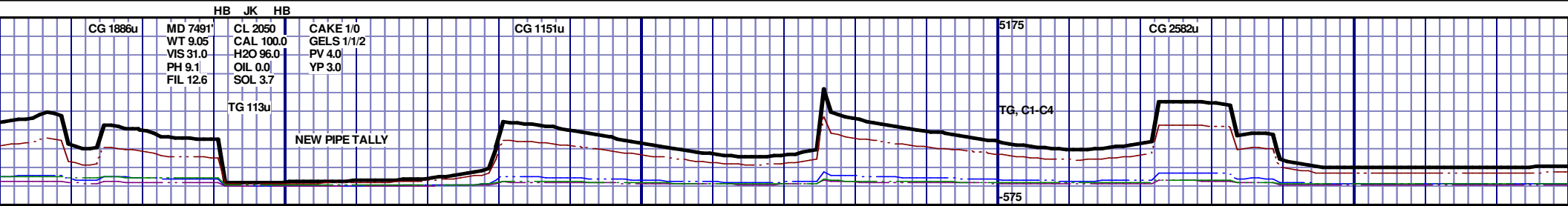
Well Name: Shable K08-68-1HN
Horizontal
Location: 7-T4N-R66W
652' FNL, 291' FEL

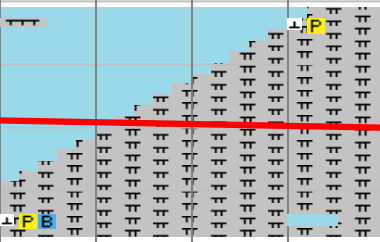
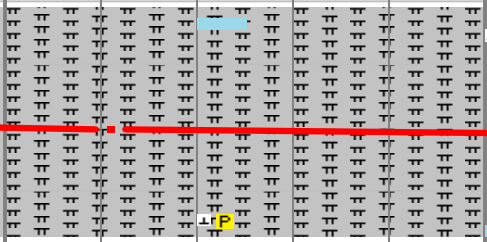
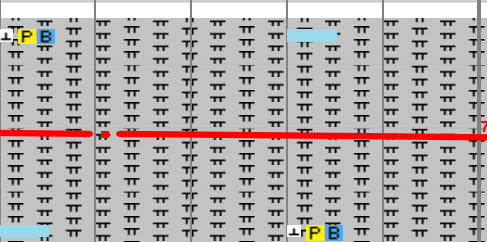
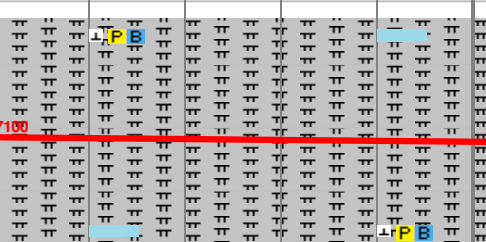

County: Weld
State: Colorado

Drilling Rig: H&P 321
Total Depth: 17456' MD
TD Date: August 3, 2014
Formation: Niobrara C Chalk
KB Elevation: 4745'
GR Elevation: 4715'
API Number: 05-123-39559-0000





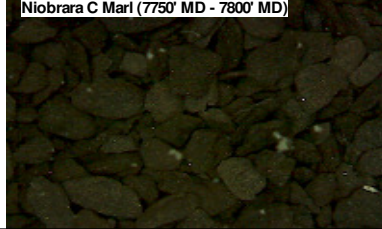
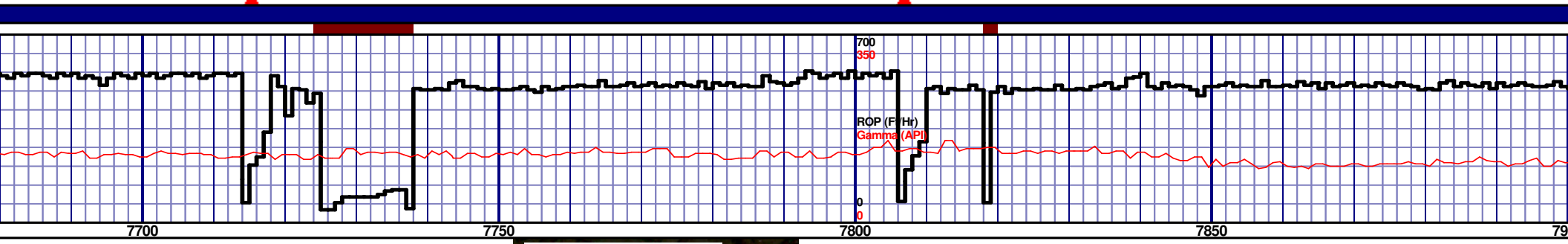
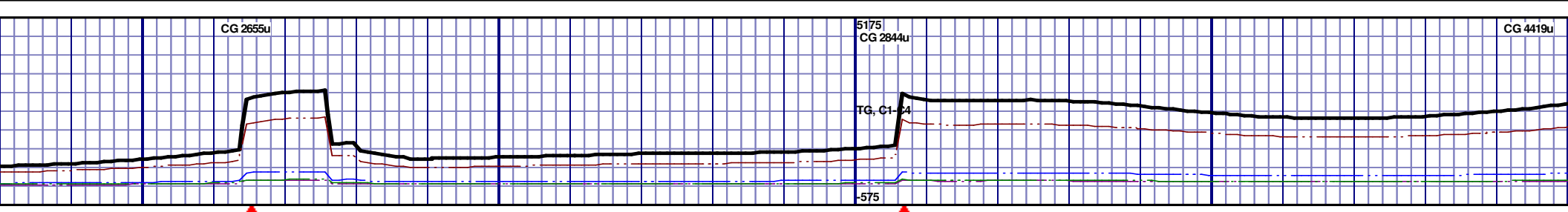


12:15 PM ON 07/23/14 @ 7491' MD FOR IMMEDIATE CASING OPERATIONS. TIH @ 3:00 PM 07/24/14. RESUMED DRILLING @ 7:00 PM 7/14 W/ BIT #3 6.125" SMITH MDI513 UBXP 517 IN @ 7491' MD										NIOBRARA C MARL 7494' MD 7098' TVD										6850 TVD																																							
										SWITCH TO 50' SAMPLE INTERVAL																																																	
																																																											
DDRKGY - BLKY, GRTY, TRC, IMBD PYR, TRC FLOR, MG CUT,										7470'-7500': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, IMBD PYR, 45% FREE CHK, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG										7500'-7550': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC FREE CALC, IMBD PYR, 40% FREE CHK, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG										7550'-7600': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC FREE CALC, TRC FREE BENT, IMBD PYR, 40% FREE CHK, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG										7600'-7650': MRST: 65% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, IMBD PYR, 35% FREE CHK, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG										7650'-7700': MRST: 65% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC FREE CALC, IMBD PYR, 35% FREE CHK, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG									
																				7350																																							

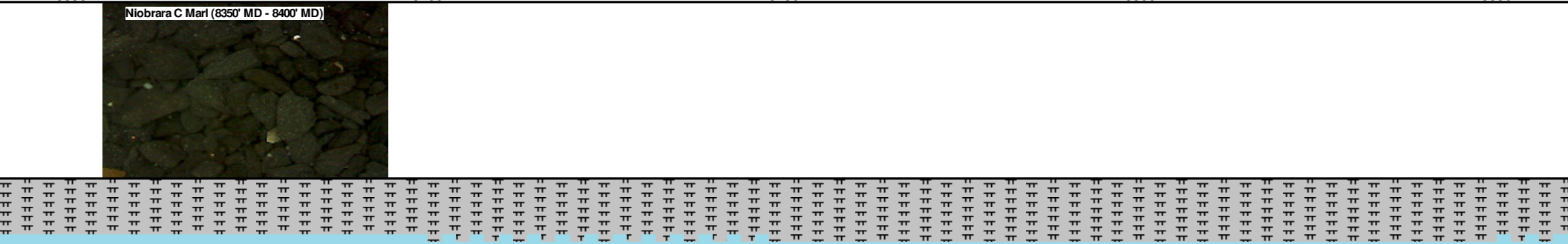
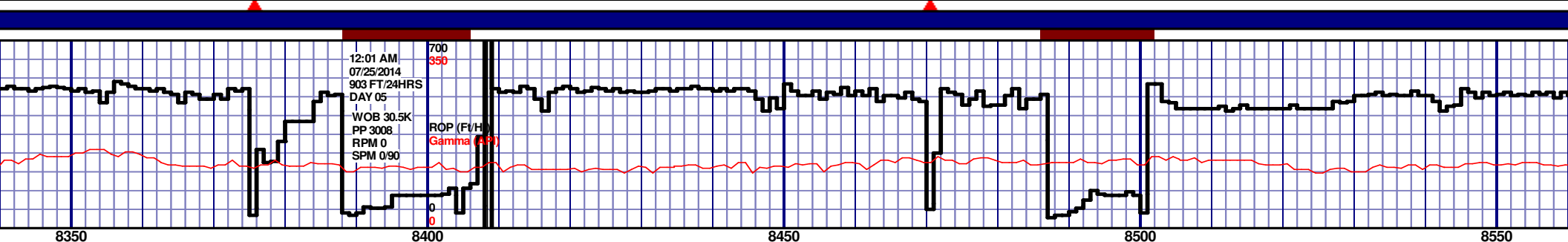
MD 7511 TVD 7100.66
INC 84.66 AZ 90.9
VS 1069.1

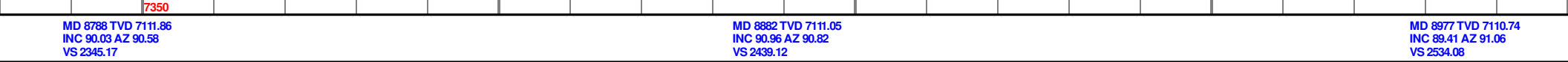
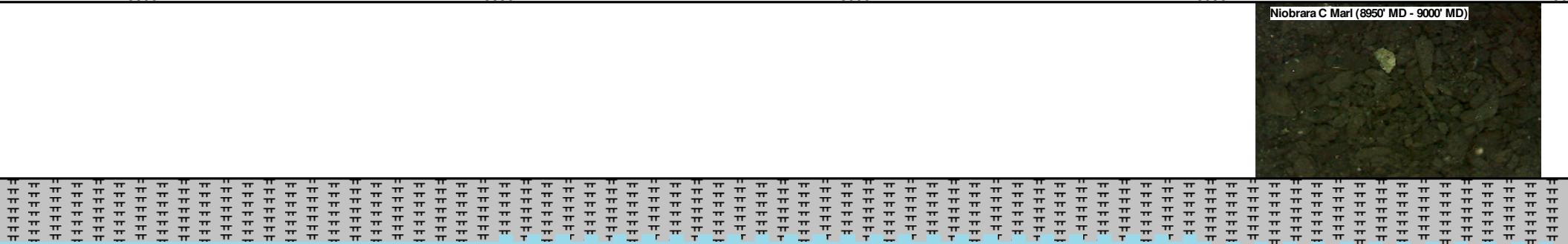
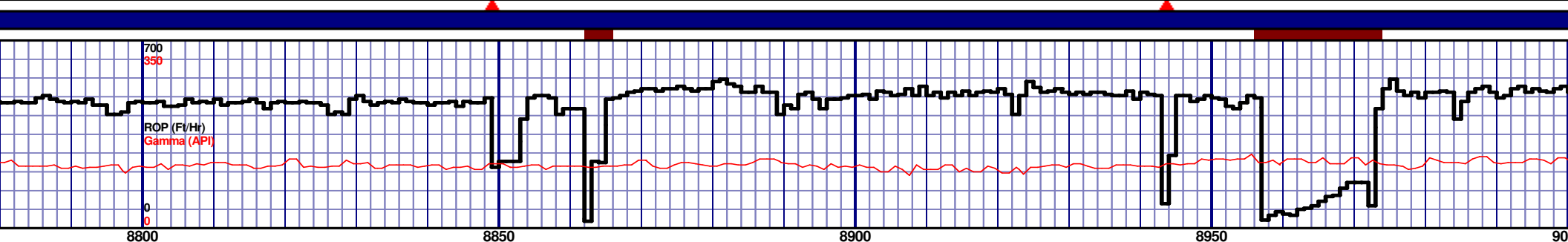
MD 7561 TVD 7105.08
INC 85.21 AZ 90.65
VS 1118.88

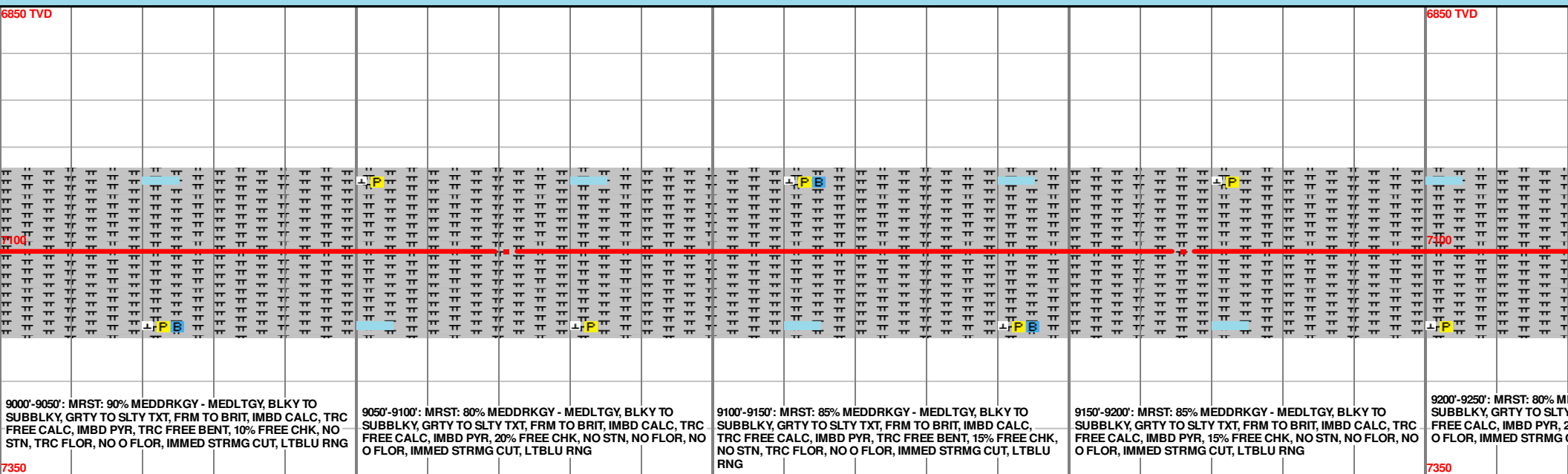
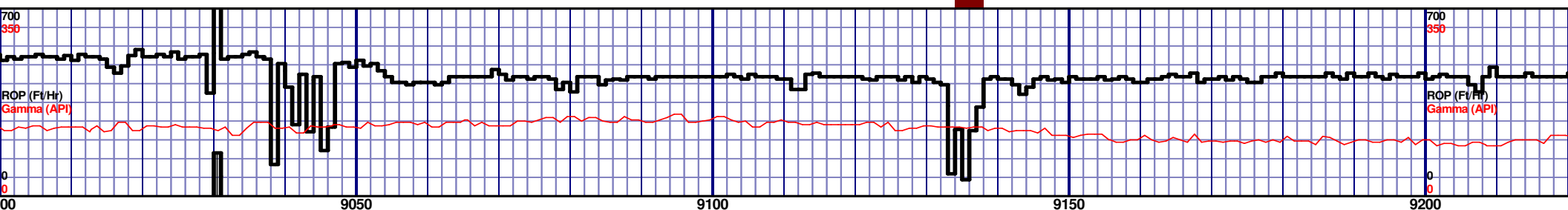
MD 7653 TVD 7111.02
INC 87.38 AZ 90.36
VS 1210.63



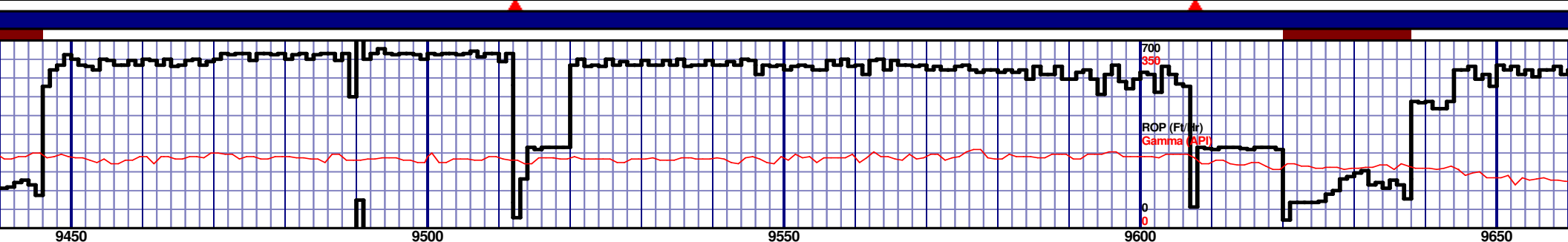
										6850 TVD									
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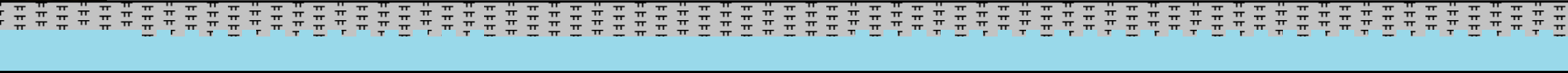
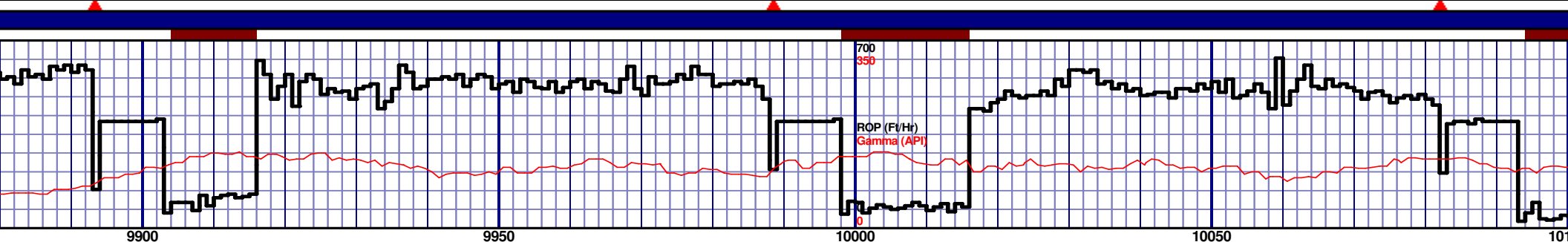
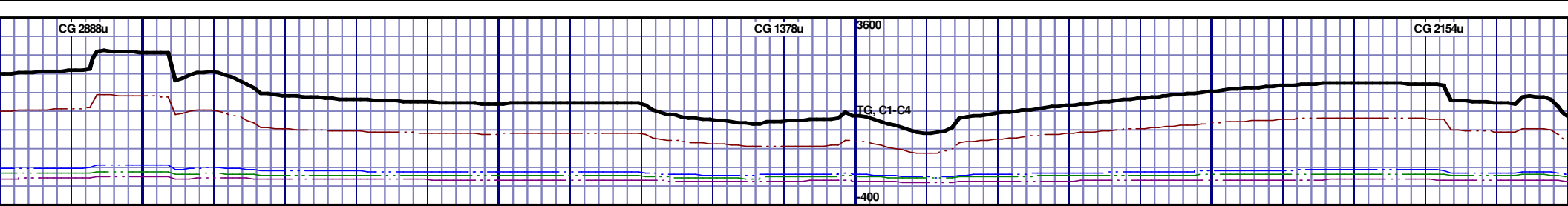
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MD 9166 TVD 7110.71
INC 90.74 AZ 90.79
VS 2722.99

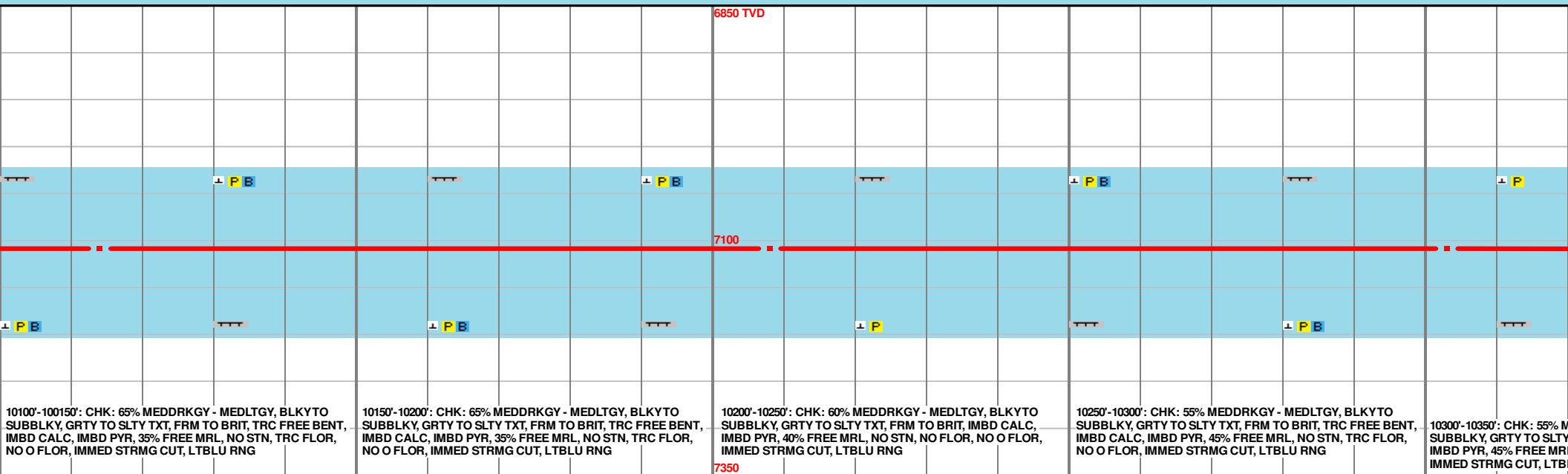
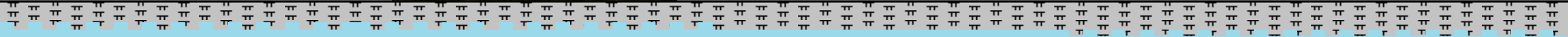
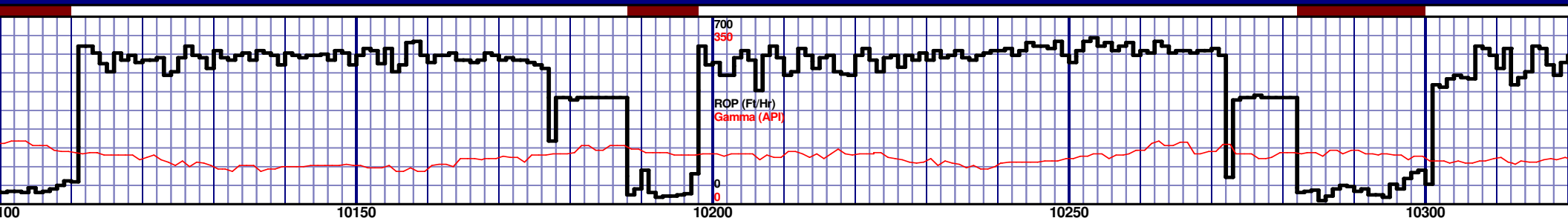
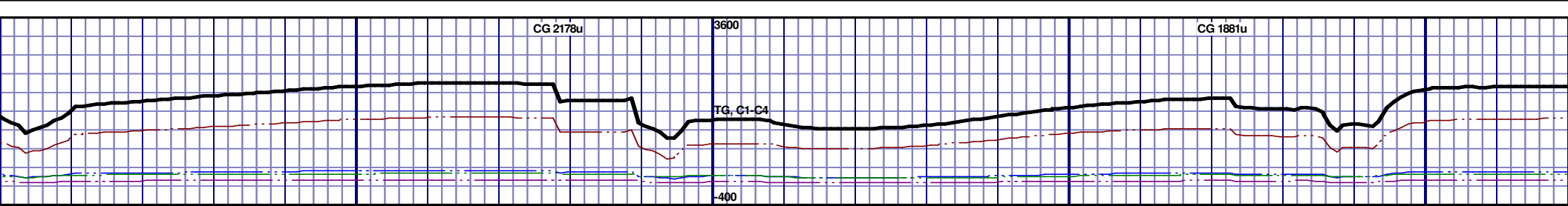
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9900'-9950': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, IMBD CALC, IMBD PYR, 45% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG					9950'-10000': CHK: 50% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, IMBD CALC, IMBD PYR, 50% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG					10000'-10050': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, IMBD CALC, IMBD PYR, 45% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG					10050'-10100': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, IMBD PYR, 45% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG				
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MD 9924 TVD 7110.89
INC 91.14 AZ 91.18
VS 3480.61

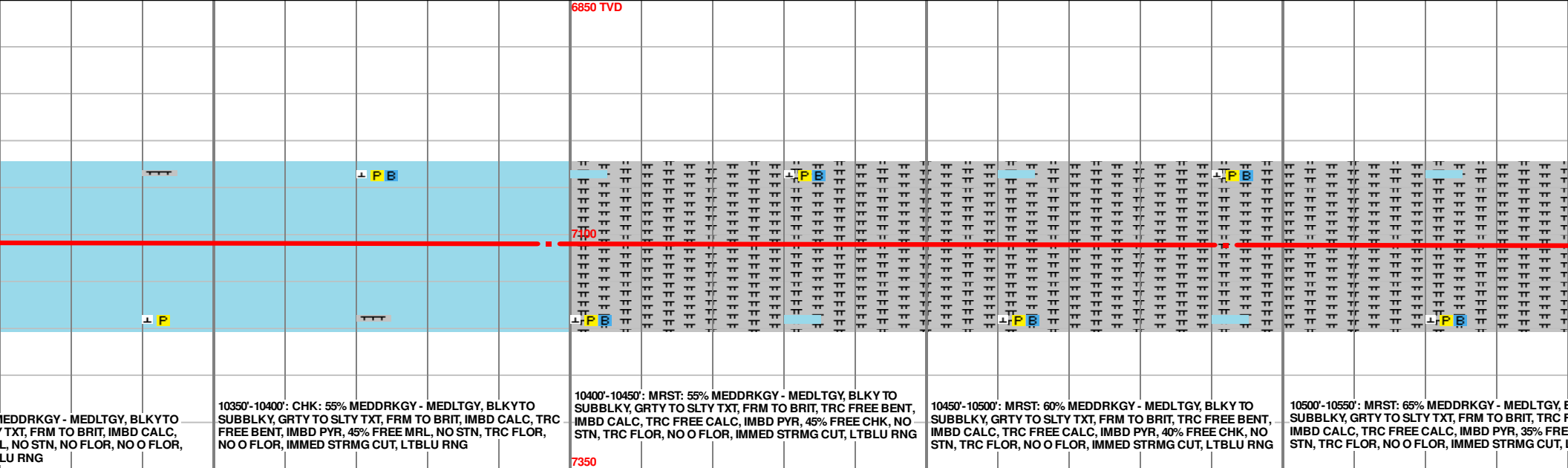
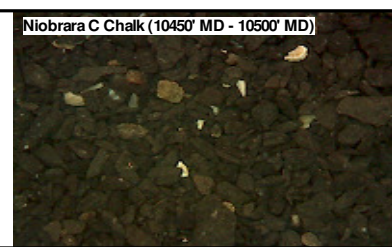
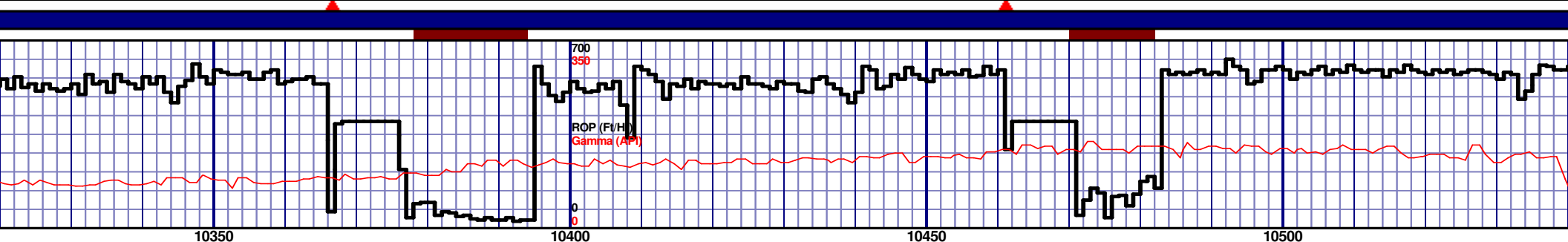
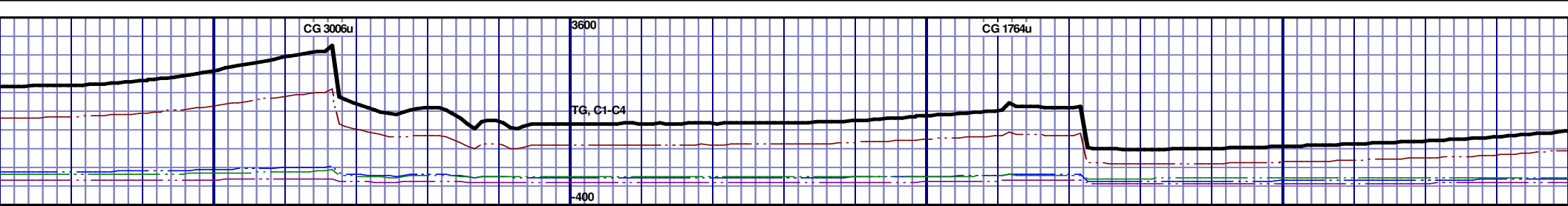
MD 10019 TVD 7109.28
INC 90.8 AZ 91.5
VS 3575.57



MD 10114 TVD 7108.87
INC 89.69 AZ 91.91
VS 3670.56

MD 10208 TVD 7108.87
INC 90.31 AZ 91.95
VS 3764.56

MD 10303 TVD 7108.82
INC 89.75 AZ 91.94
VS 3859.56



MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC,
L, NO STN, NO FLOR, NO O FLOR,
LU RNG

10350'-10400': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC
FREE BENT, IMBD PYR, 45% FREE MRL, NO STN, TRC FLOR,
NO O FLOR, IMMED STRMG CUT, LTBLU RNG

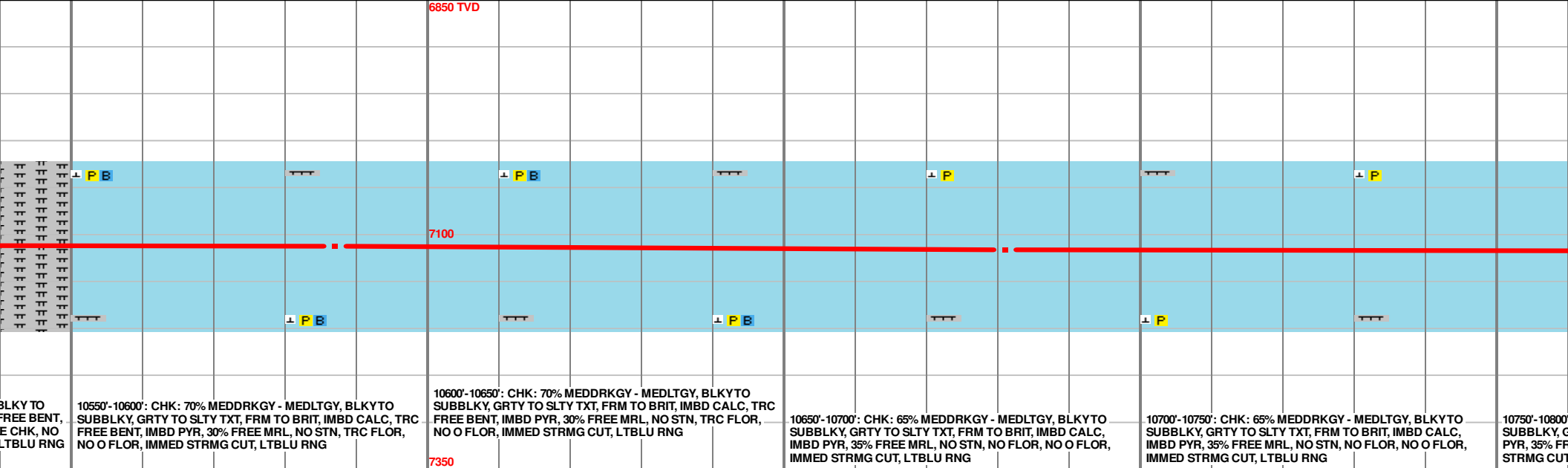
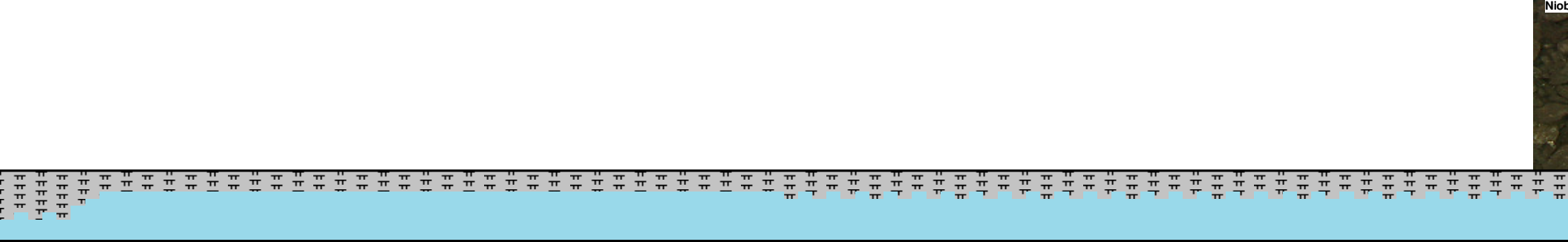
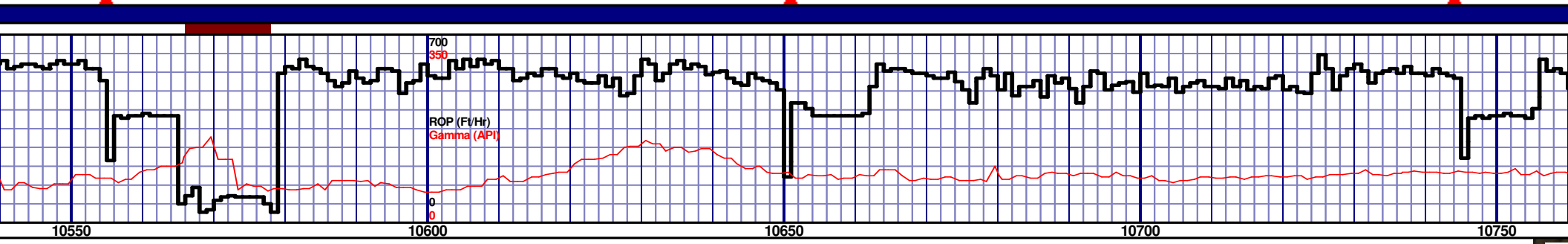
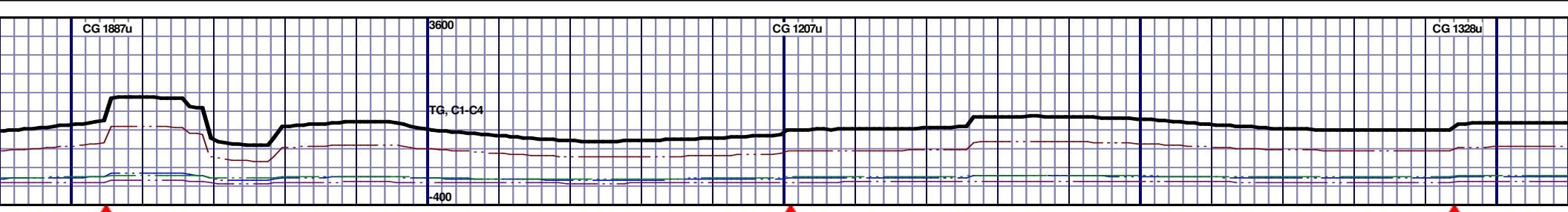
10400'-10450': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT,
IMBD CALC, TRC FREE CALC, IMBD PYR, 45% FREE CHK, NO
STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

10450'-10500': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT,
IMBD CALC, TRC FREE CALC, IMBD PYR, 40% FREE CHK, NO
STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

10500'-10550': MRST: 65% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT,
IMBD CALC, TRC FREE CALC, IMBD PYR, 35% FREE CHK, NO
STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

MD 10397 TVD 7109.66
INC 89.23 AZ 92.2
VS 3953.55

MD 10492 TVD 7110.89
INC 89.29 AZ 91.88
VS 4048.54



10550'-10600': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC FREE BENT, IMBD PYR, 30% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

10600'-10650': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, TRC FREE BENT, IMBD PYR, 30% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

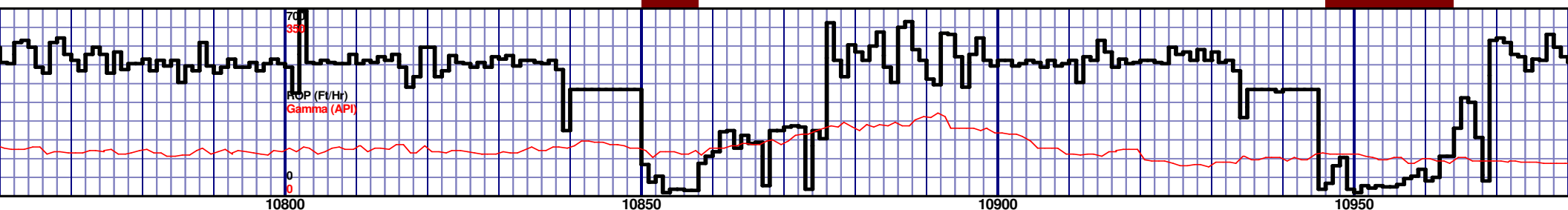
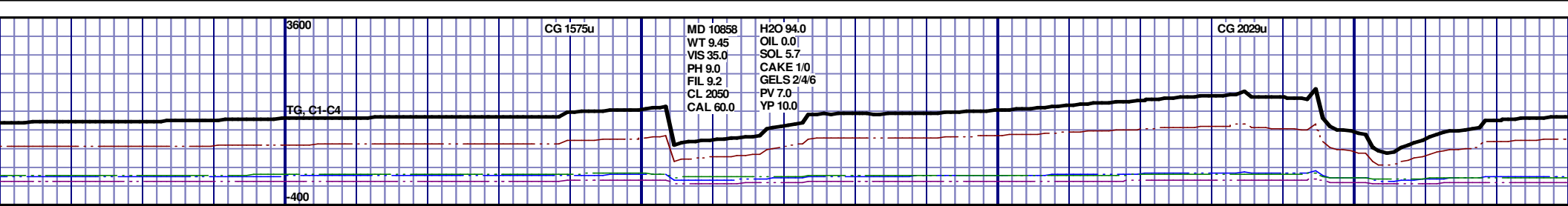
10650'-10700': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, IMBD PYR, 35% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

10700'-10750': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, IMBD PYR, 35% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

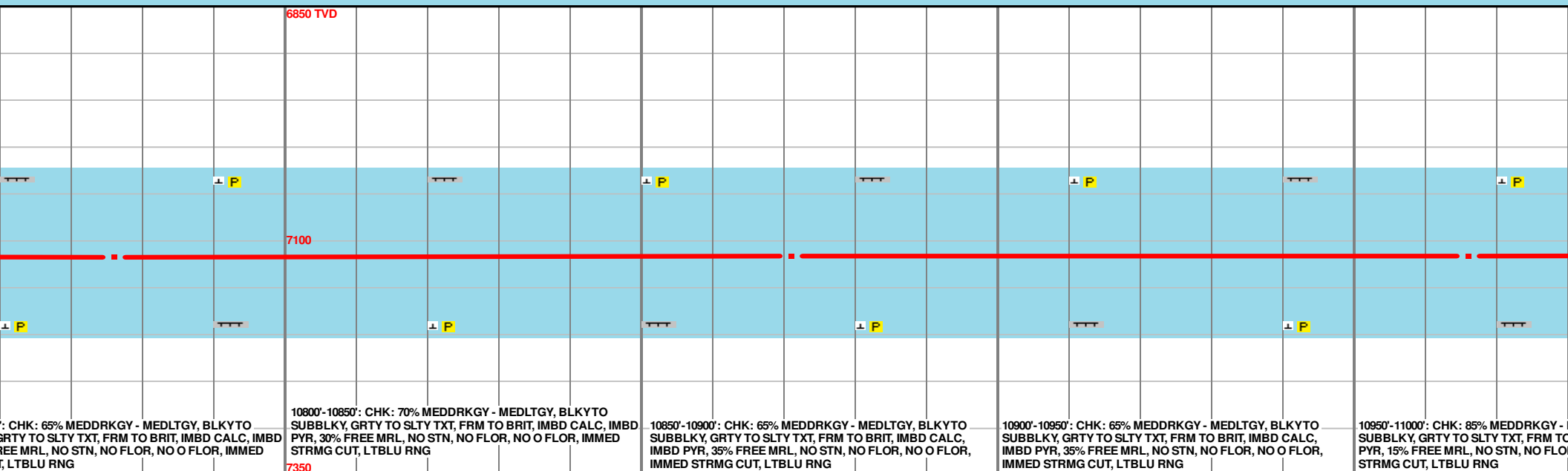
10750'-10800': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD CALC, IMBD PYR, 35% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

MD 10587 TVD 7113.03
INC 88.12 AZ 91.53
VS 4143.5

MD 10681 TVD 7115.81
INC 88.49 AZ 91.1
VS 4237.44



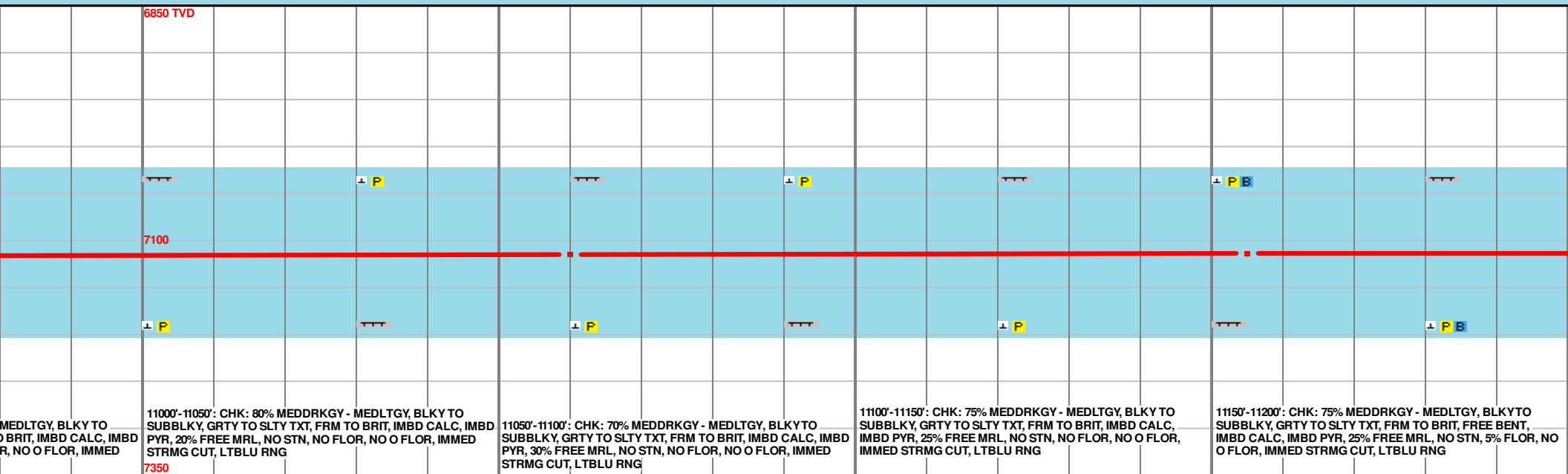
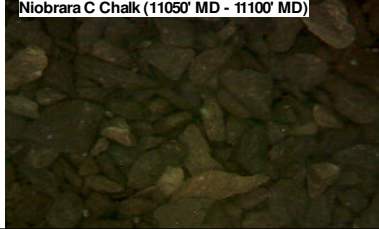
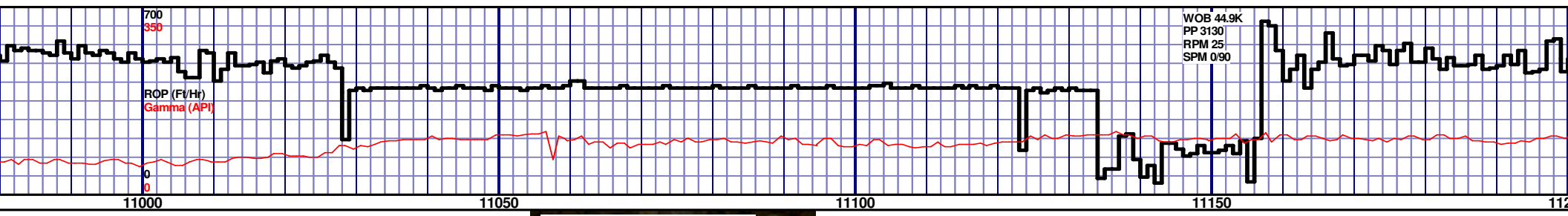
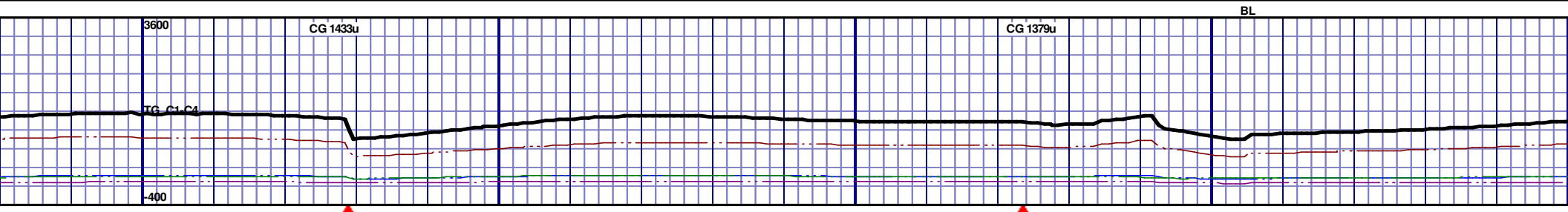
Corara C Chalk (10750' MD - 10800' MD)

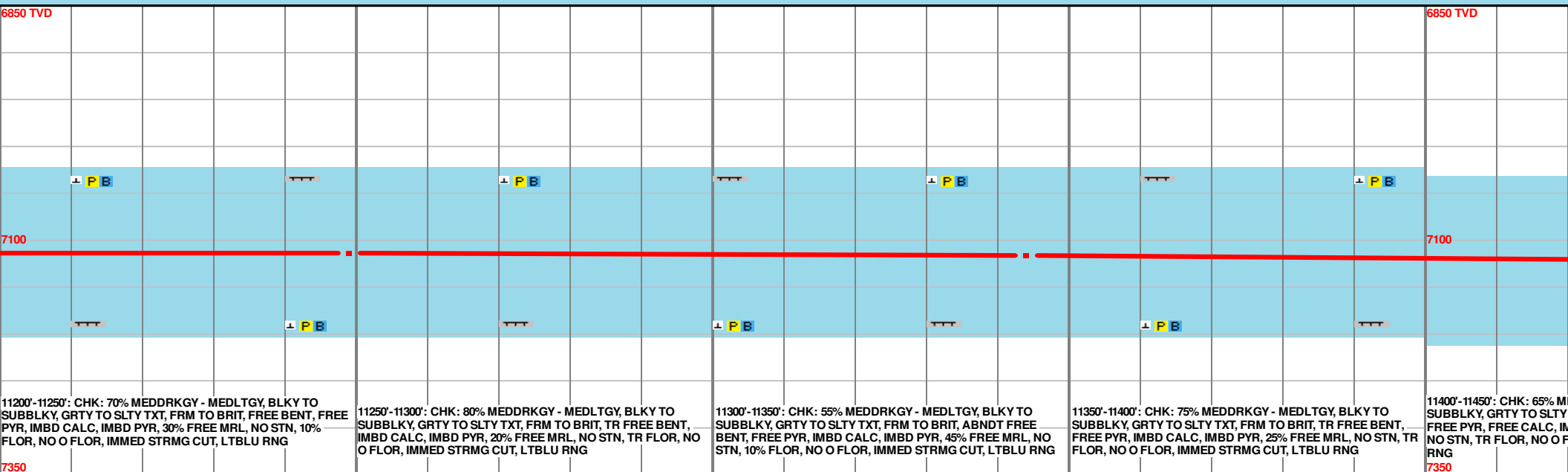
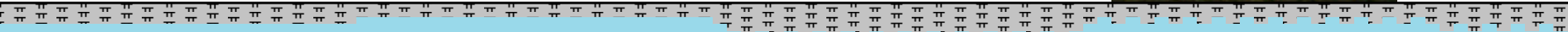
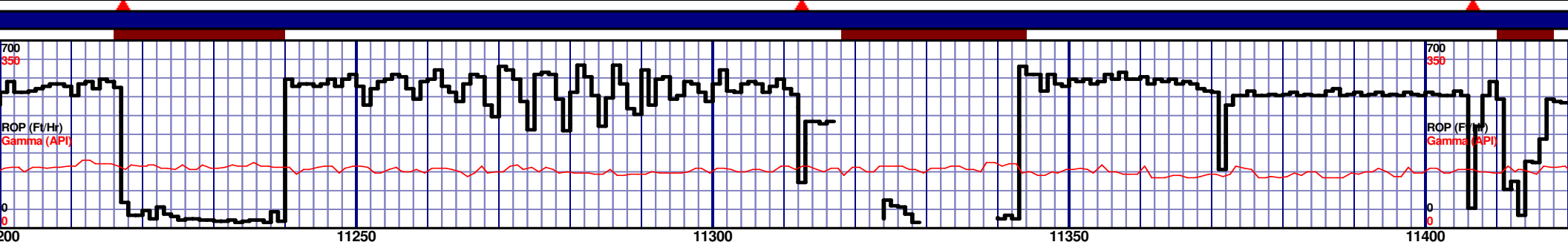
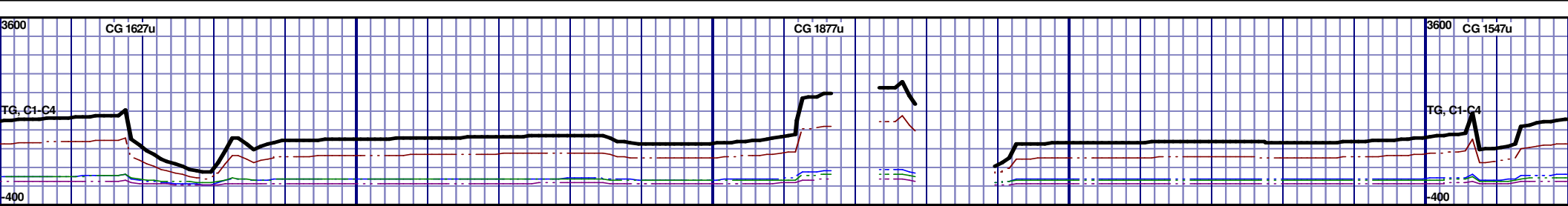


MD 10776 TVD 7117.47
INC 89.51 AZ 88.96
VS 4332.34

MD 10871 TVD 7116.63
INC 91.51 AZ 90.65
VS 4427.22

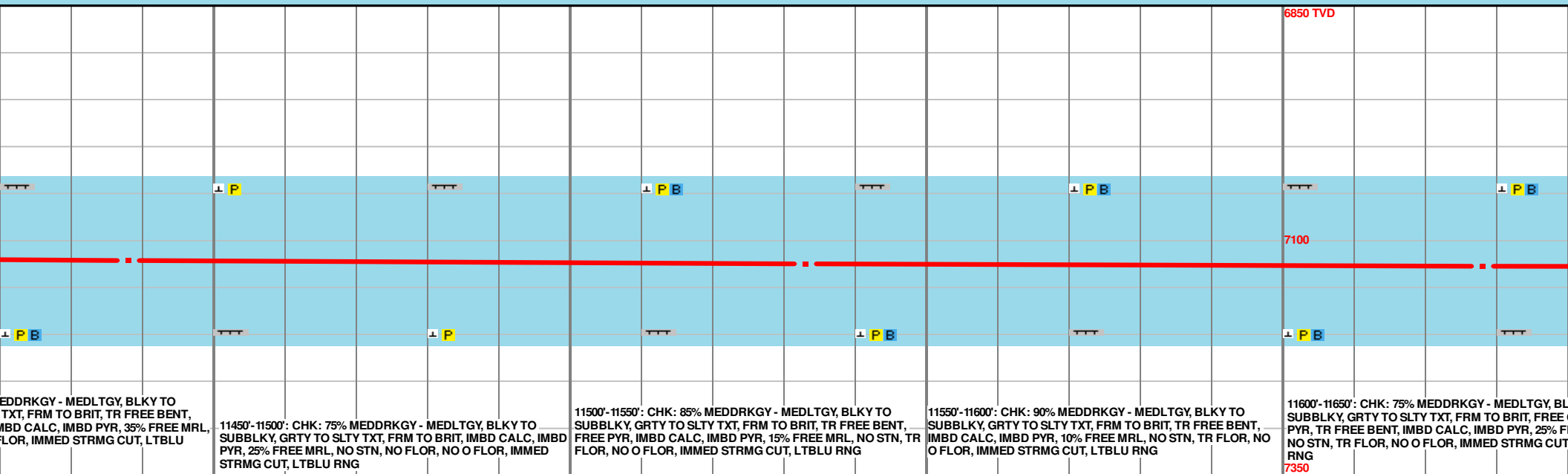
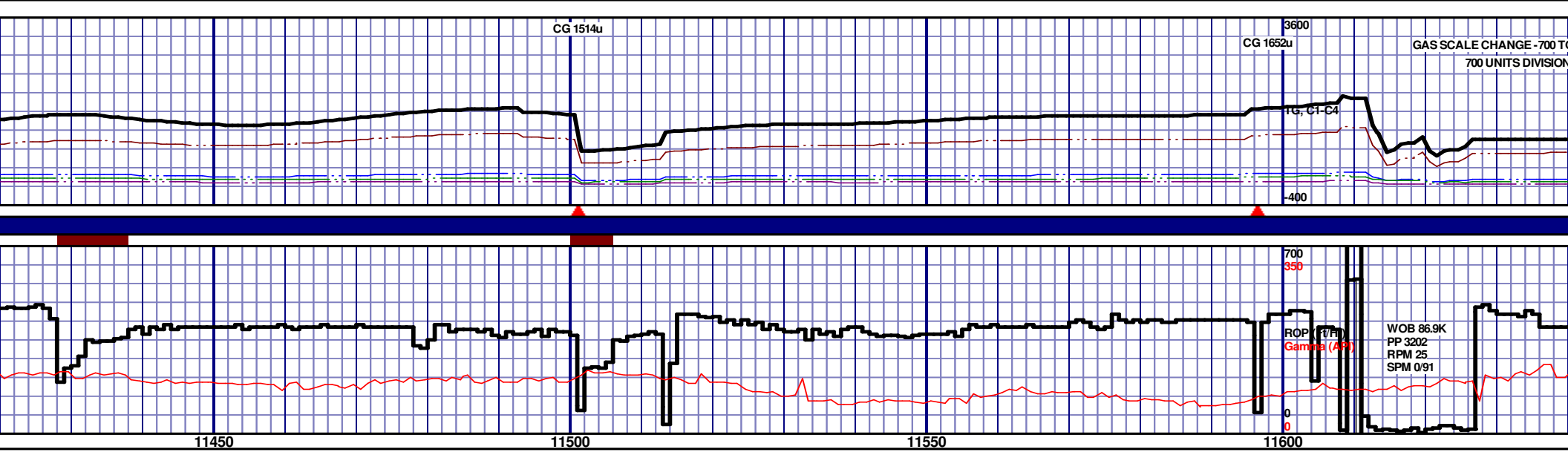
MD 10966 TVD 7116.63
INC 89.57 AZ 91.57
VS 4522.19





MD 11249 TVD 7113.86
INC 89.72 AZ 91.49
VS 4805.07

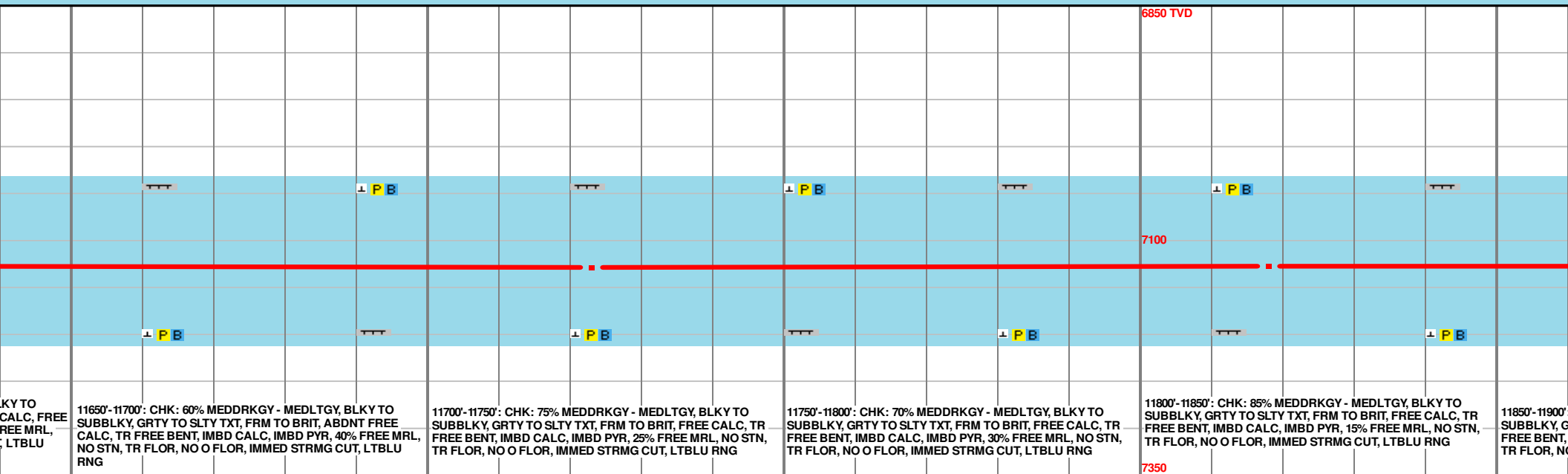
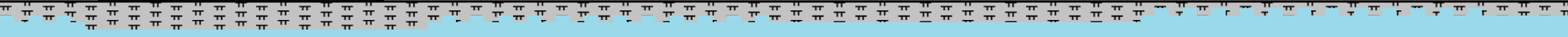
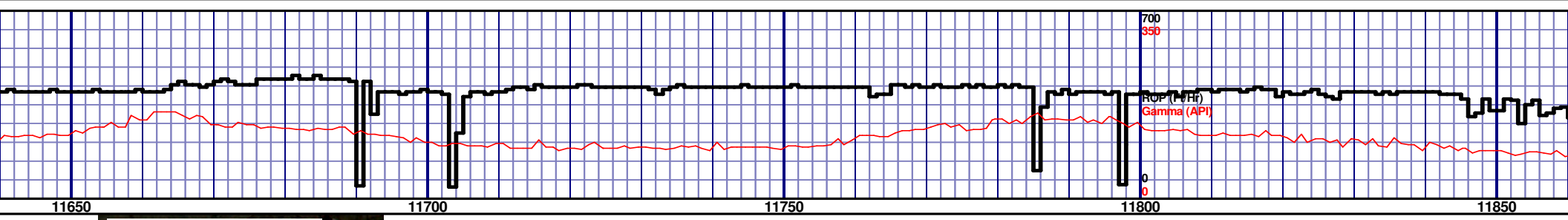
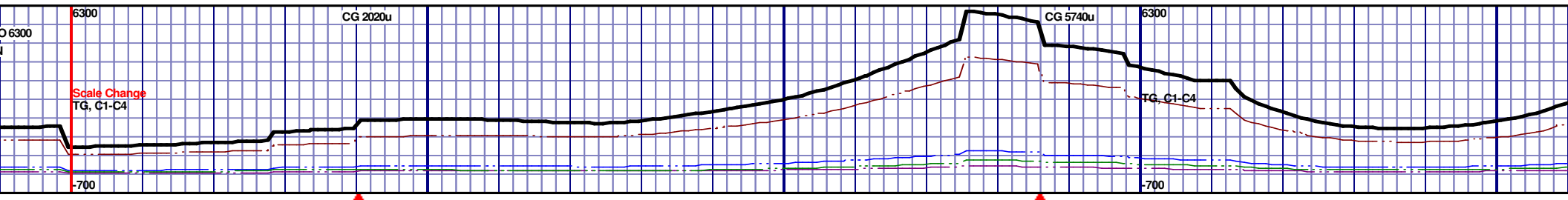
MD 11344 TVD 7116.59
INC 86.98 AZ 90.86
VS 4900



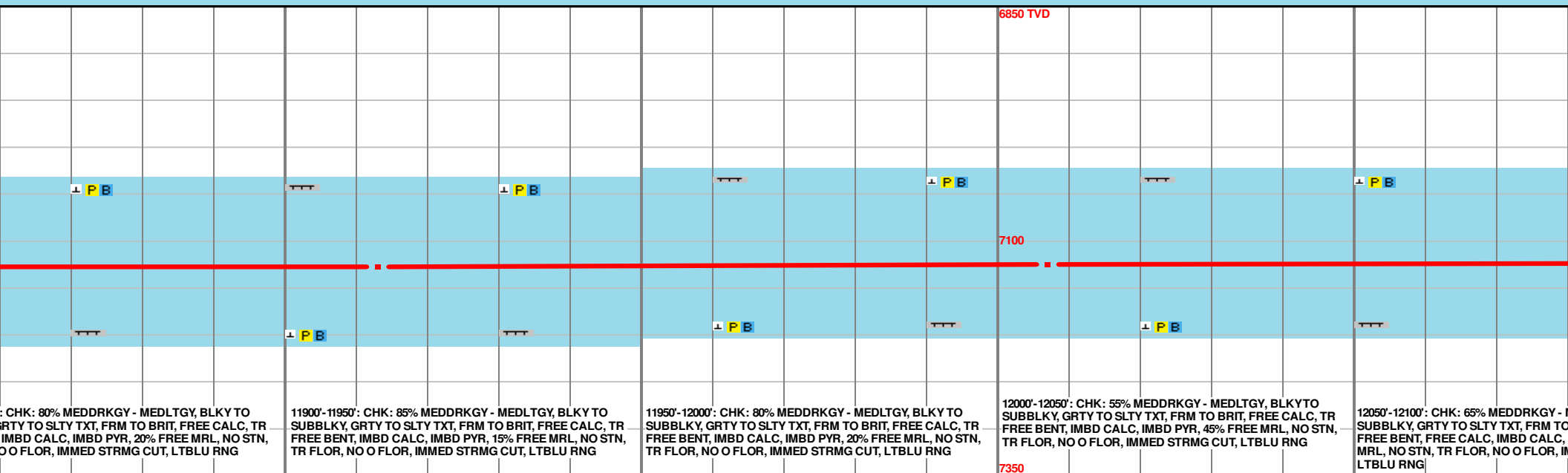
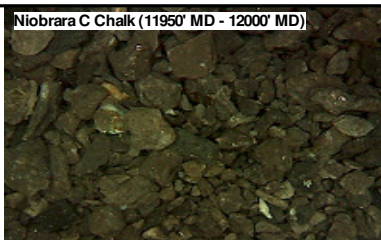
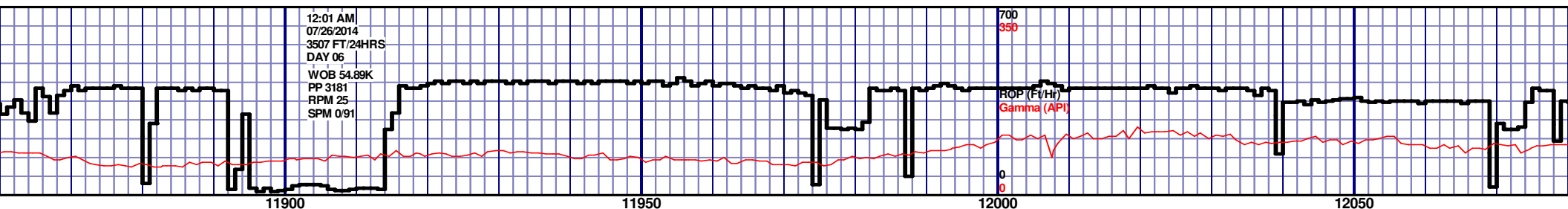
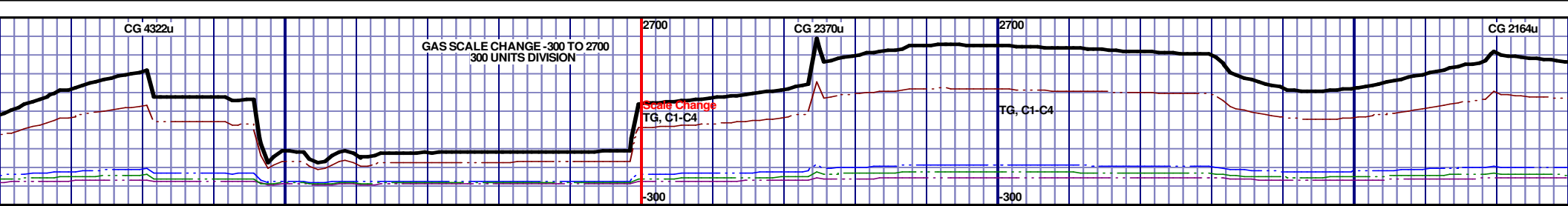
MD 11438 TVD 7120.99
INC 87.66 AZ 90.94
VS 4993.86

MD 11533 TVD 7124.67
INC 87.9 AZ 90.28
VS 5088.74

MD 11628 TVD 7128.67
INC 88.86 AZ 91.04
VS 5183.67

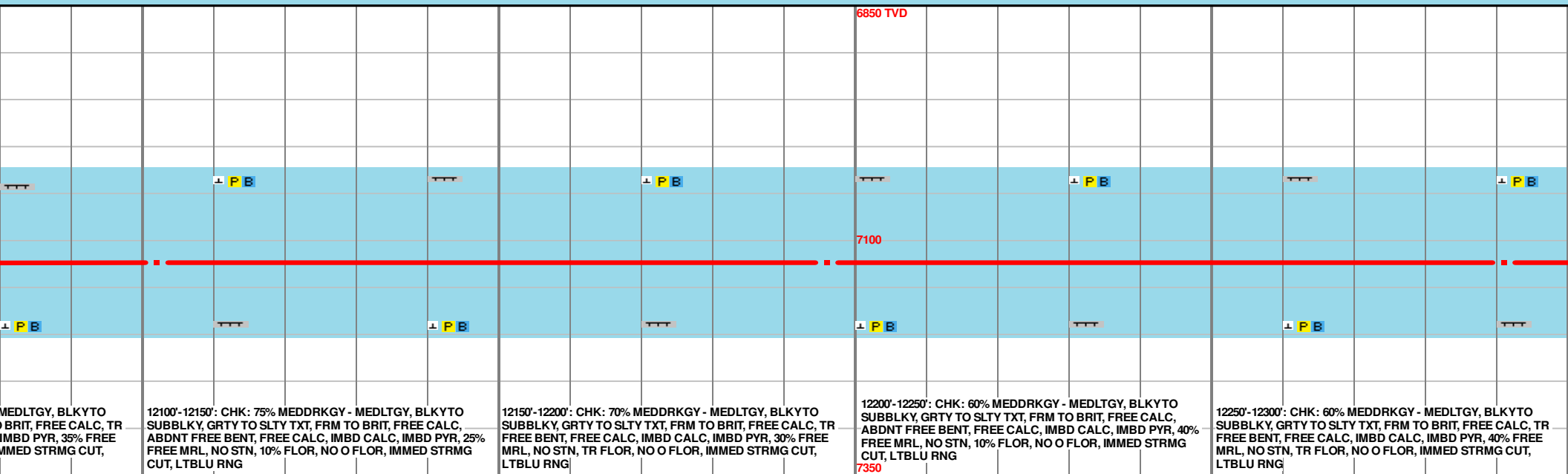
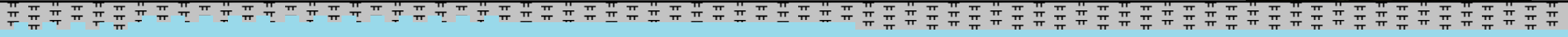
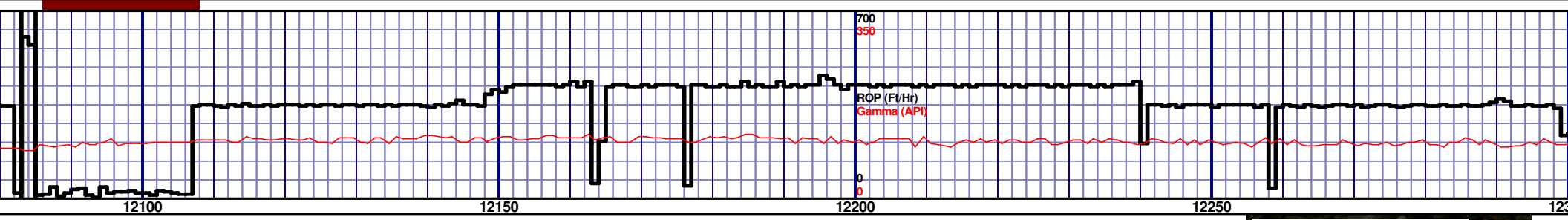
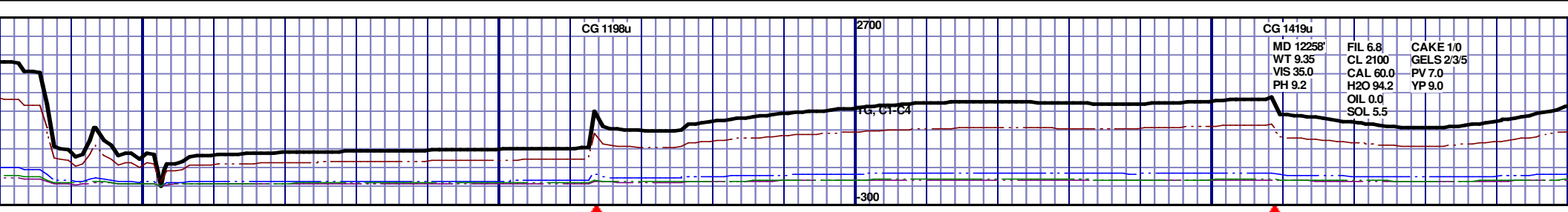


11650'-11700': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDNT FREE CALC, TR FREE BENT, IMBD CALC, IMBD PYR, 40% FREE MRL, NO STN, TR FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG	11700'-11750': CHK: 75% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TR FREE BENT, IMBD CALC, IMBD PYR, 25% FREE MRL, NO STN, TR FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG	11750'-11800': CHK: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TR FREE BENT, IMBD CALC, IMBD PYR, 30% FREE MRL, NO STN, TR FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG	11800'-11850': CHK: 85% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TR FREE BENT, IMBD CALC, IMBD PYR, 15% FREE MRL, NO STN, TR FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG	11850'-11900': CHK: 85% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TR FREE BENT, IMBD CALC, IMBD PYR, 15% FREE MRL, NO STN, TR FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG
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MD 11913 TVD 7126.92
INC 90.74 AZ 92.37
VS 5468.6

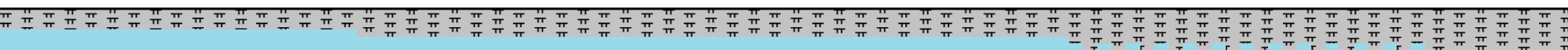
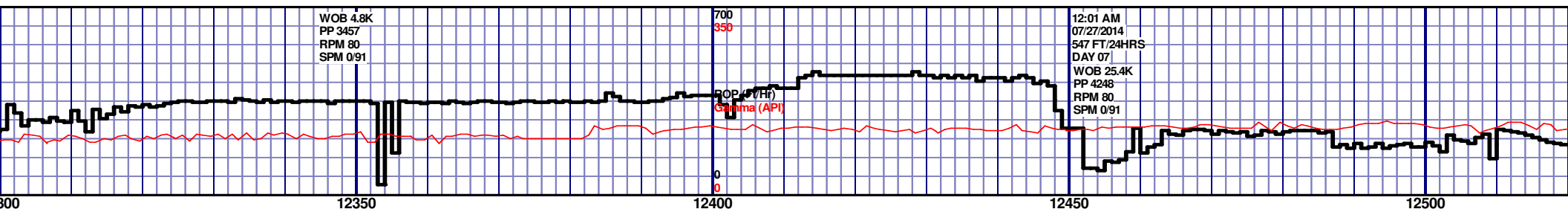
MD 12007 TVD 7125.08
INC 91.51 AZ 91.79
VS 5562.58



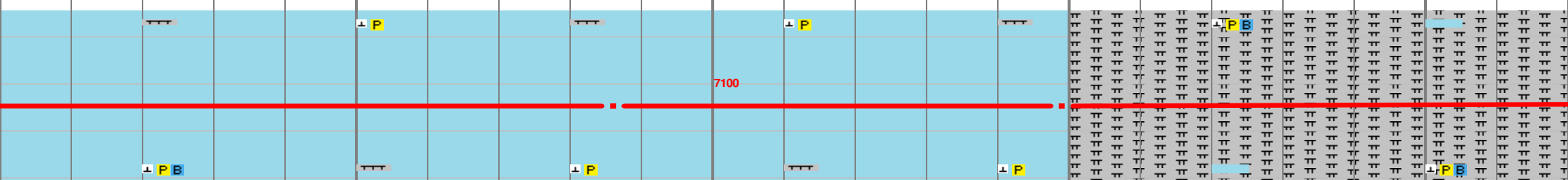
MD 12102 TVD 7123.44
INC 90.46 AZ 92.49
VS 5657.56

MD 12196 TVD 7123.34
INC 89.66 AZ 91.96
VS 5751.56

MD 12291 T
INC 90.31 A
VS 5846.56



6850 TVD

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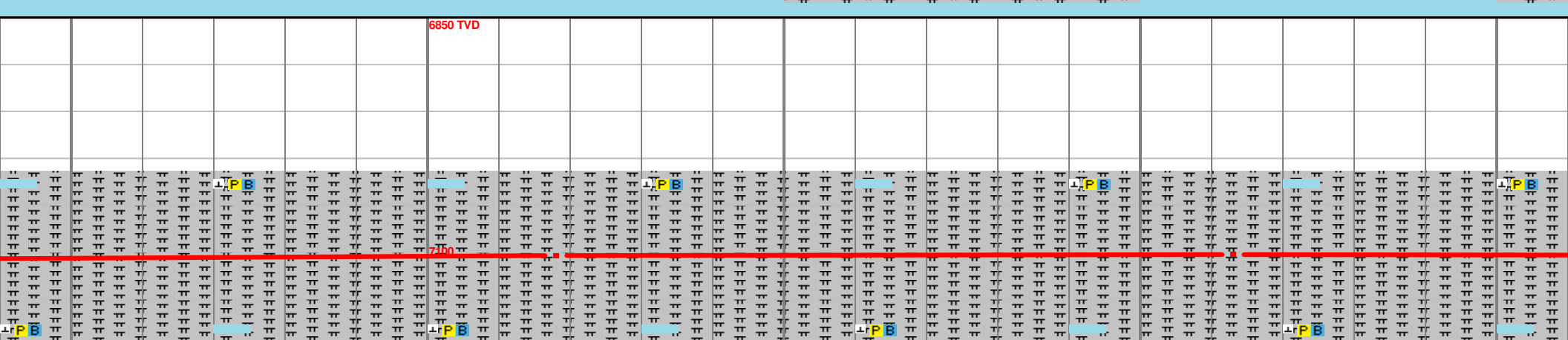
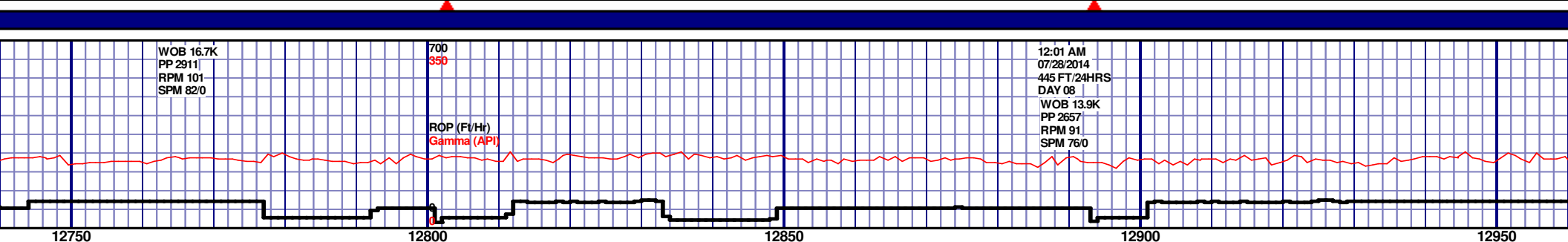
12400'-12450': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDNT FREE
CALC, FREE CALC, IMBD CALC, IMBD PYR, 40% FREE MRL,
NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, TLBLU
RNG

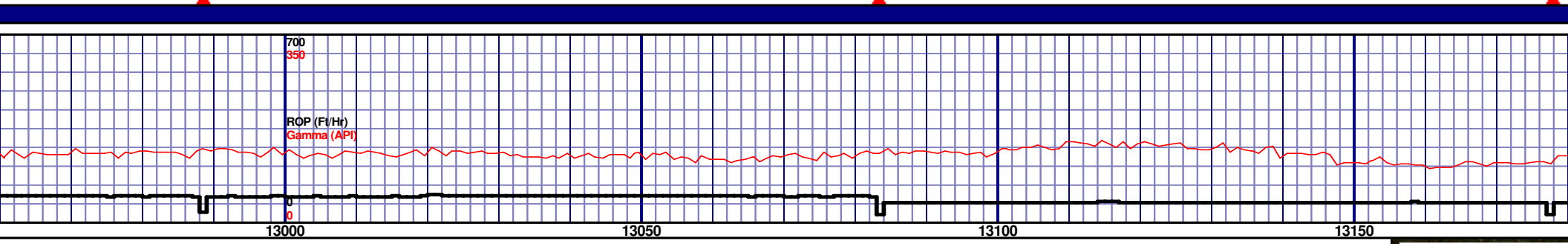
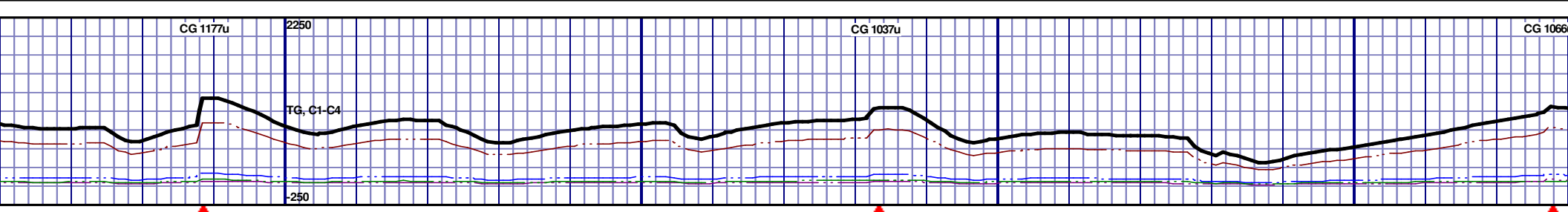
12450'-12500': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, IMBD
CALC, TRC FREE CALC, IMBD PYR, 45% FREE CHK, NO STN,
15% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

12500'-12550': MRST: 60%
SUBBLKY, GRTY TO SLTY
IMBD CALC, TRC FREE C
STN, TRC FLOR, NO O FL
RNG

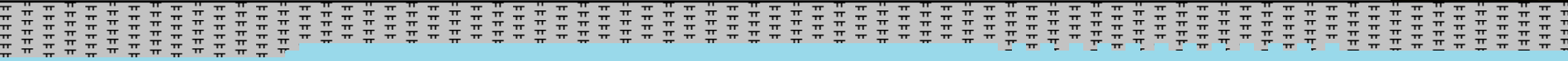
MD 12386 TVD 7123.44
INC 89.6 AZ 90.81
VS 5941.53

MD 12449 TVD 7123.66
INC 90 AZ 92.87
VS 6004.52

[illegible]



Niobrara C Chalk (13150' MD - 13100' MD)

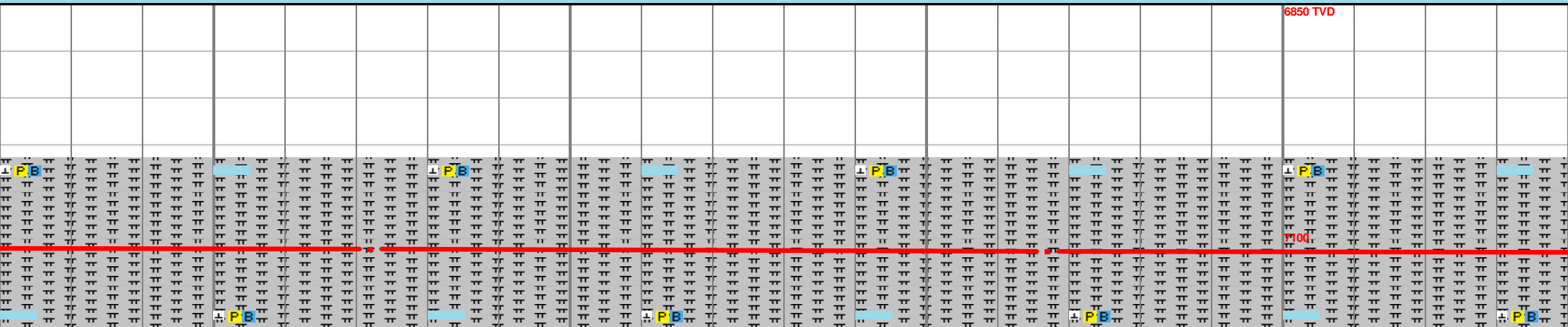
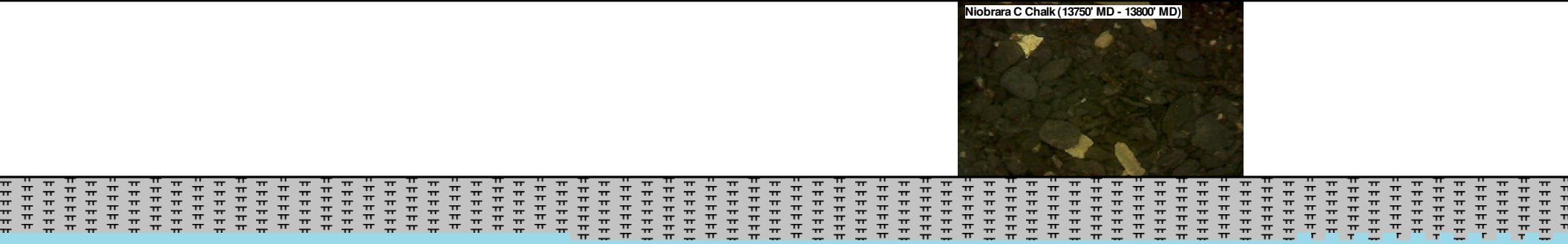


6850 TVD									
7100									
7350									
13000'-13050': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, IMBD CALC, TRC FREE CALC, IMBD PYR, 40% FREE CHK, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG									
13050'-13100': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, IMBD CALC, TRC FREE CALC, IMBD PYR, 40% FREE CHK, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG									
13100'-13150': MRST: 65% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, IMBD CALC, TRC FREE CALC, IMBD PYR, 35% FREE CHK, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG									
13150'-13200': MRST: 70% MEDDRKGY - SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, IMBD CALC, TRC FREE CALC, IMBD PYR, 30% FREE CHK, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG									

MD 13008 TVD 7103.91
INC 89.16 AZ 93.33
VS 6562.44

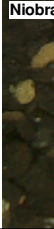
MD 13103 TVD 7105.38
INC 89.07 AZ 92.91
VS 6657.42





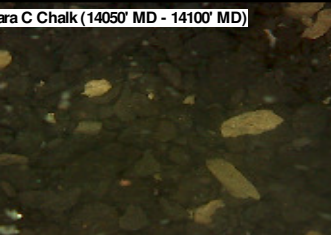
13800'-13850': MRST: 85% MEDDRKGY - MEDLTGY, B
SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, FREE
CALC, TRC FREE CALC, IMBD PYR, 15% FREE CHK
15% FLOR, NO O FLOR. IMMED STRMG CUT, LTBLU

MD 13767 TVD 7113.44
INC 89.01 AZ 90.8
VS 7321.28



6850 TVD

MD 14050 TV
INC 89.79 AZ
VS 7603.88

[illegible][illegible]

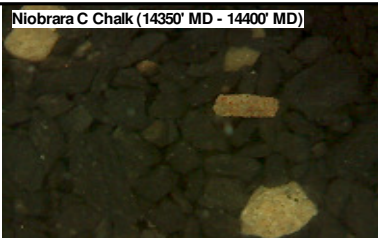
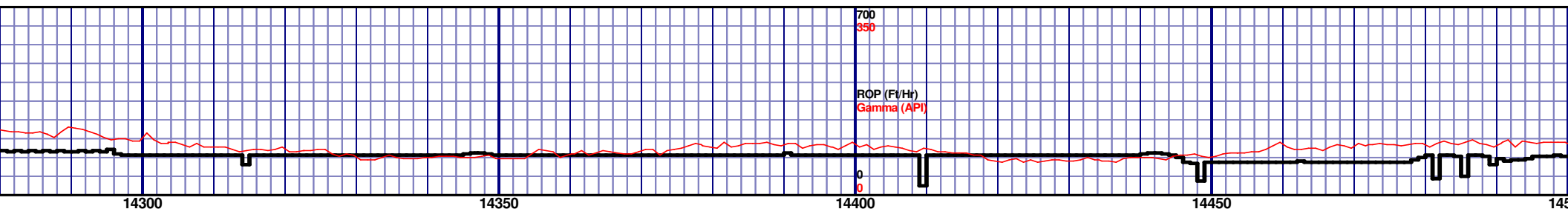
MRST: 90% MEDDRKGY - MEDLTGY, BLKY TO
GRY TO SLTY TXT, FRM TO BRIT, ABDNT FREE
CALC, TRC FREE CALC, IMBD PYR, 10% FREE
N, 15% FLOR, NO O FLOR, IMMED STRMG CUT,

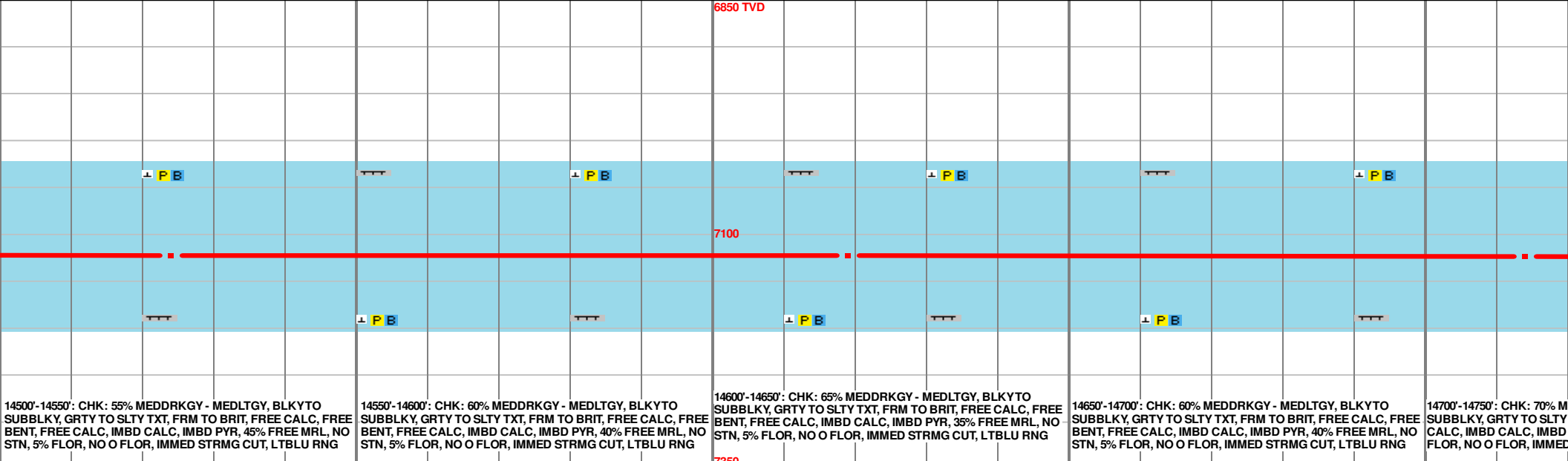
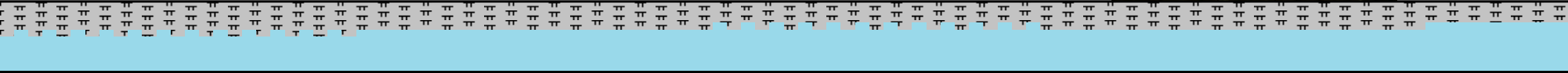
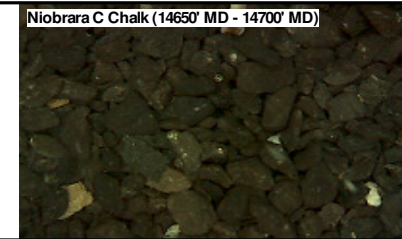
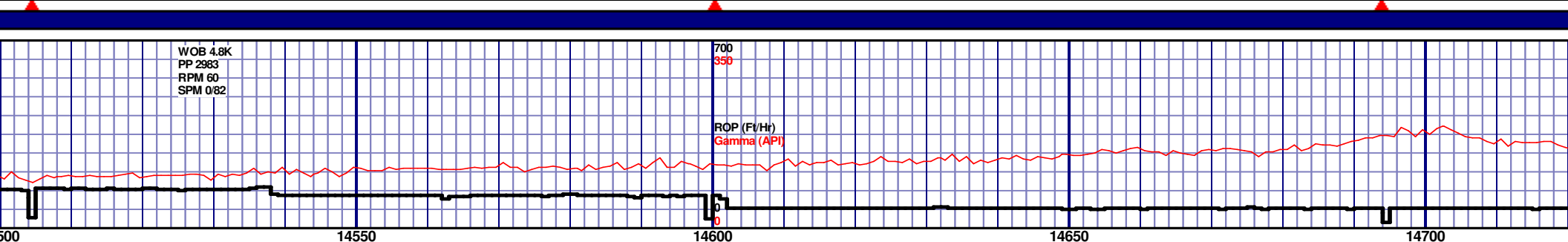
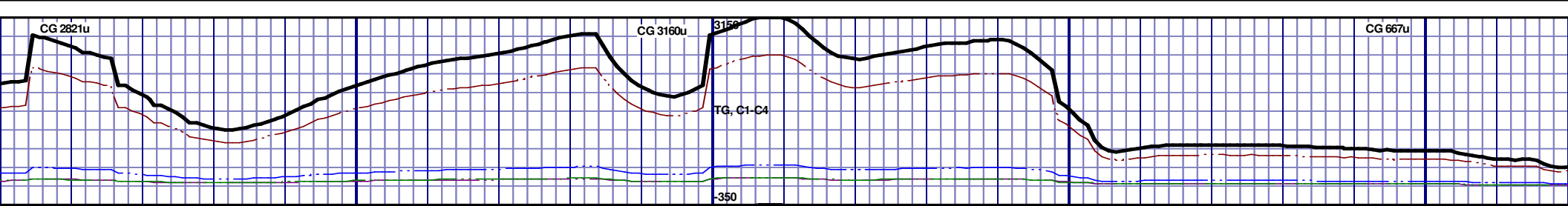
14100'-14150': MRST: 85% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABNT FREE
BENT, IMBD CALC, TRC FREE CALC, IMBD PYR, 15% FREE
CHK, NO STN, 15% FLOR, NO O FLOR, IMMED STRMG CUT,
LTBLU RNG

14150'-14200': MRST: 80% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDNT FREE
BENT, IMBD CALC, TRC FREE CALC, IMBD PYR, 20% FREE
CHK, NO STN, 20% FLOR, NO O FLOR, IMMED STRMG CUT,
LTBLU RNG

14200'-14250': MRST: 85% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, IMBD
CALC, TRC FREE CALC, IMBD PYR, 15% FREE CHK, NO STN,
10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

14250'-14300': MRST: 90% MEDDRKGY -
SUBBLKY, GRTY TO SLTY TXT, FRM TO
IMBD CALC, TRC FREE CALC, IMBD PY
STN, 10% FLOR, NO O FLOR, IMMED ST

[illegible]



14500'-14550': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, FREE
BENT, FREE CALC, IMBD CALC, IMBD PYR, 45% FREE MRL, NO
STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

14550'-14600': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, FREE
BENT, FREE CALC, IMBD CALC, IMBD PYR, 40% FREE MRL, NO
STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

14600'-14650': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, FREE
BENT, FREE CALC, IMBD CALC, IMBD PYR, 35% FREE MRL, NO
STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

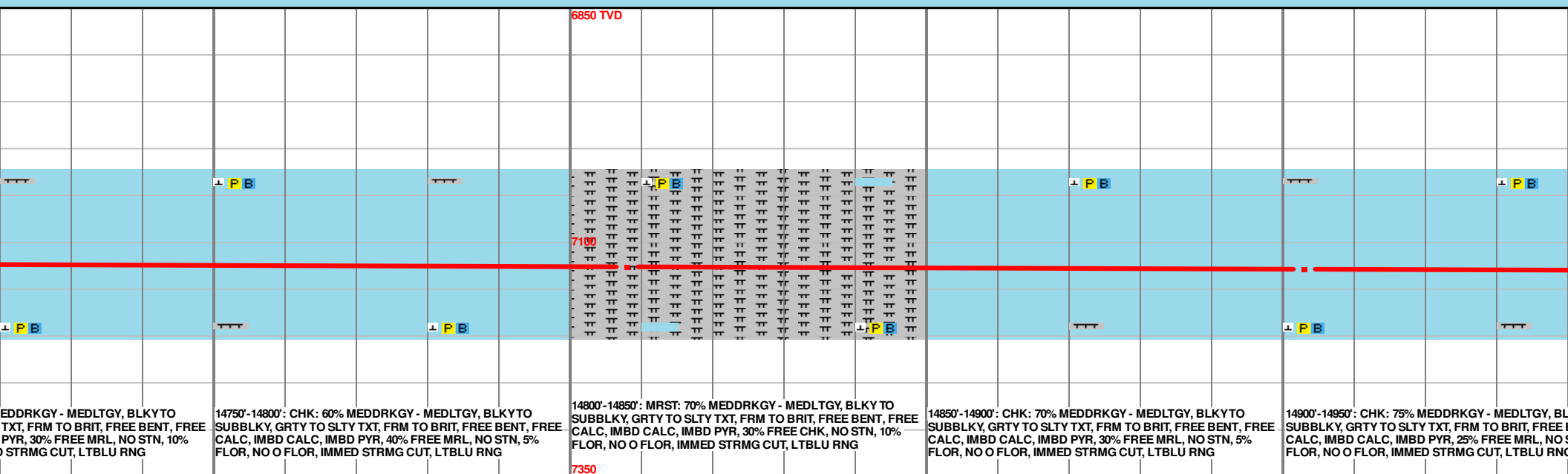
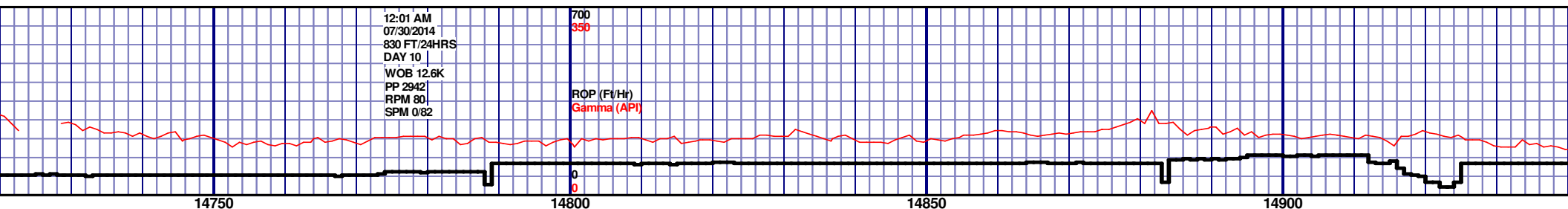
14650'-14700': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, FREE
BENT, FREE CALC, IMBD CALC, IMBD PYR, 40% FREE MRL, NO
STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

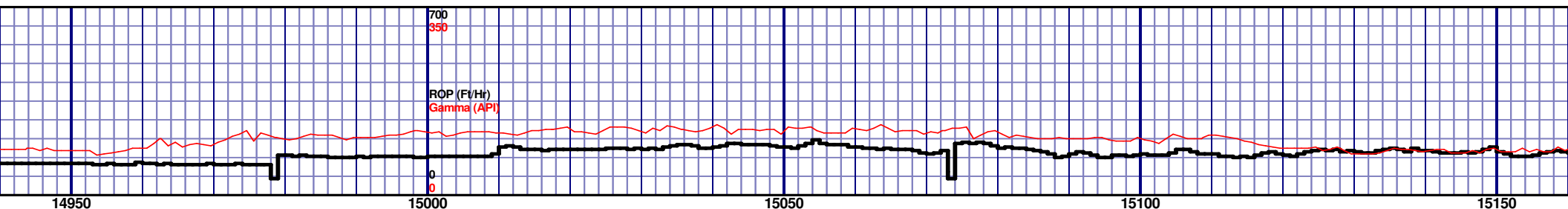
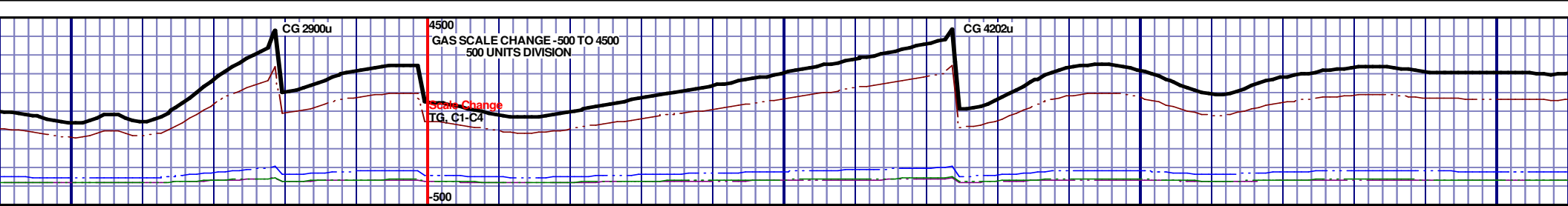
14700'-14750': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, FREE
BENT, FREE CALC, IMBD CALC, IMBD PYR, 40% FREE MRL, NO
STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

MD 14524 TVD 7122.34
INC 89.78 AZ 92.61
VS 8077.62

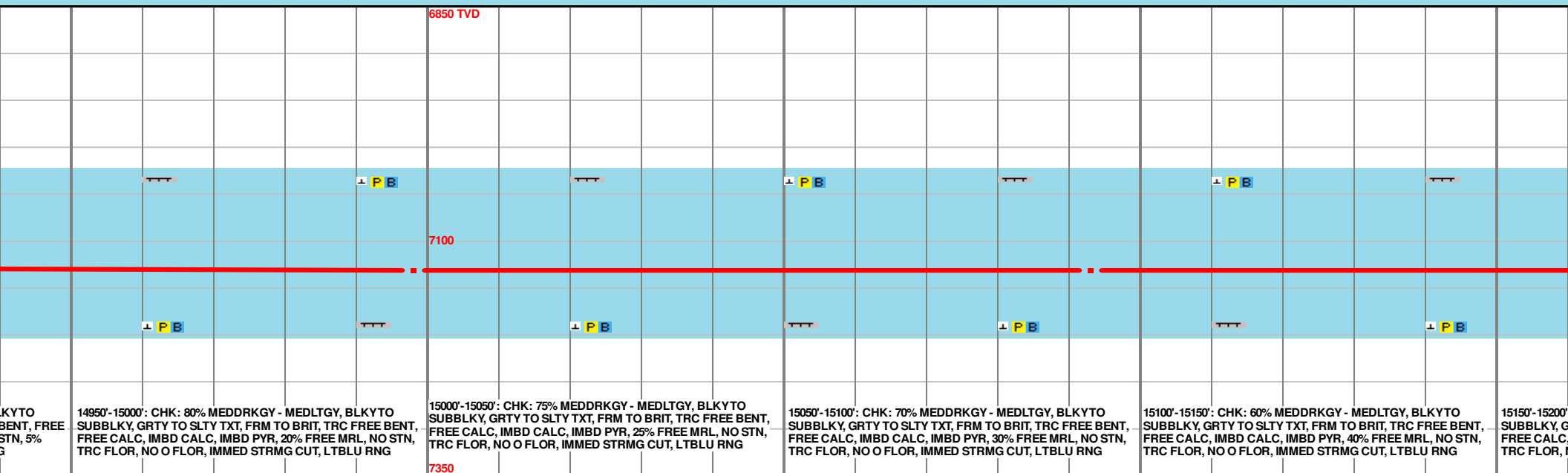
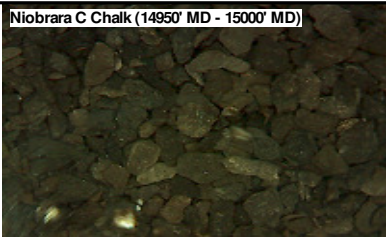
MD 14619 TVD 7122.78
INC 89.69 AZ 91.86
VS 8172.62

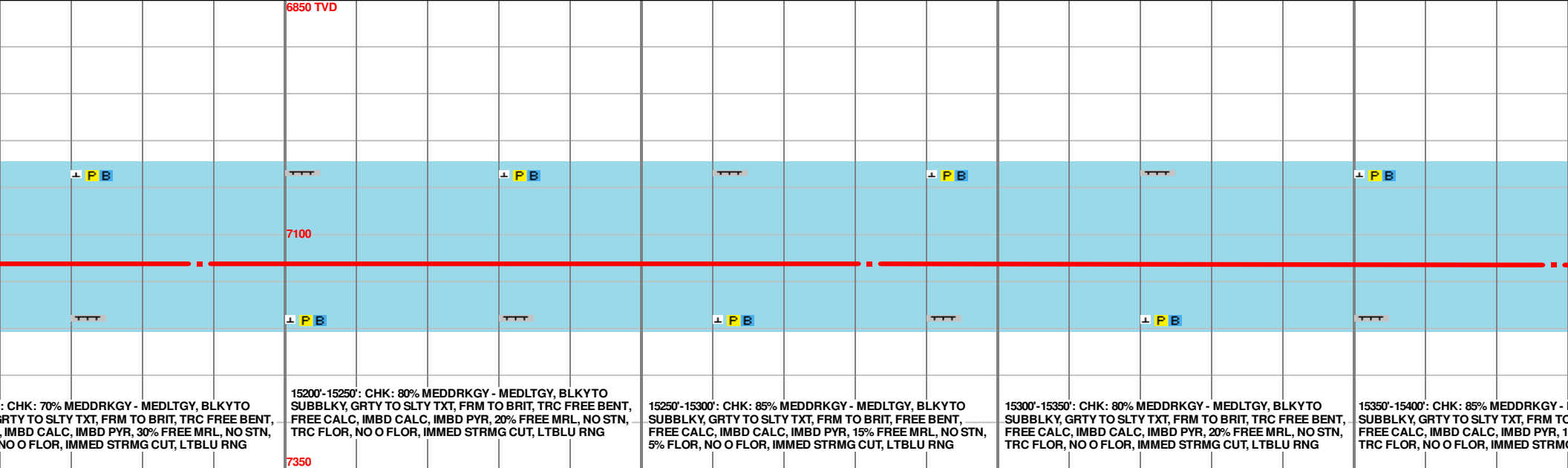
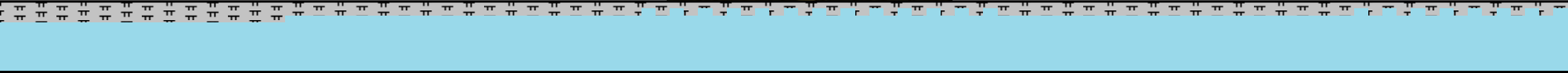
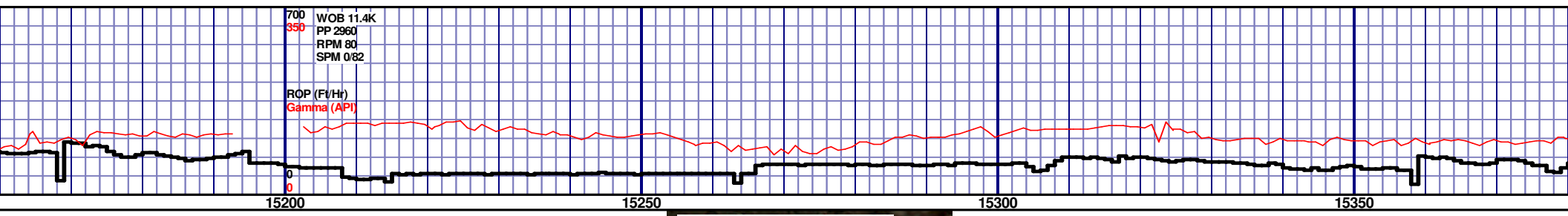
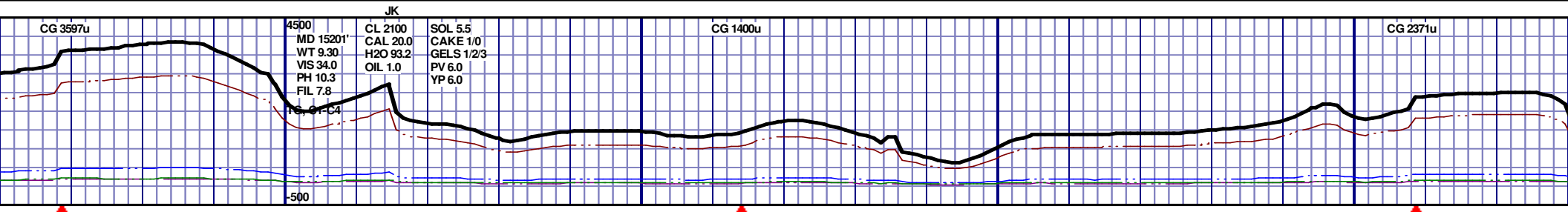
MD 14714 TVD 7123.14
INC 89.61 AZ 91.86
VS 8267.62





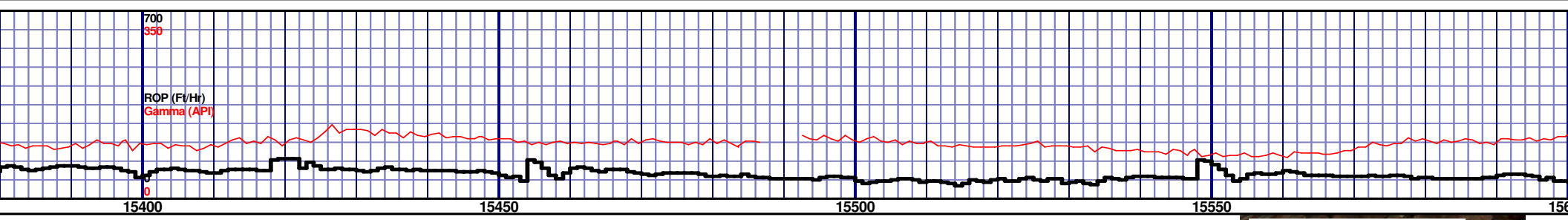
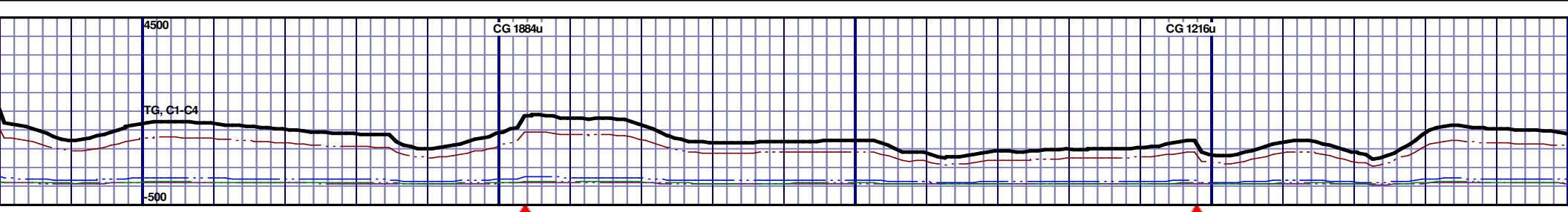
Niobrara C Chalk (14950' MD - 15000' MD)

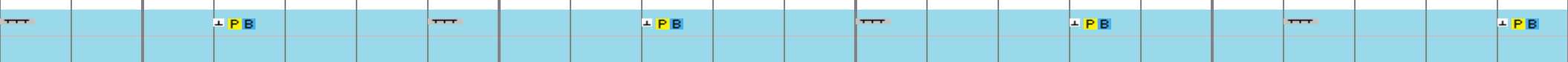
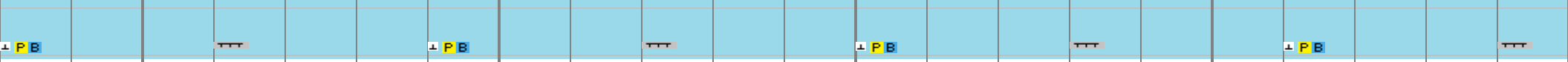


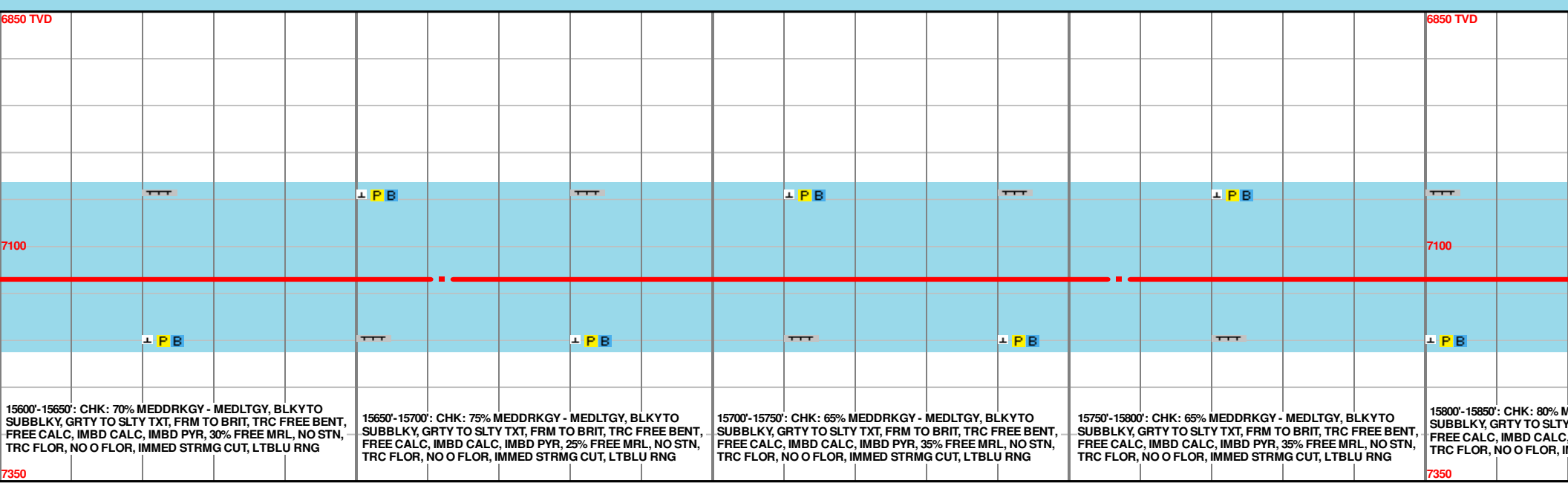
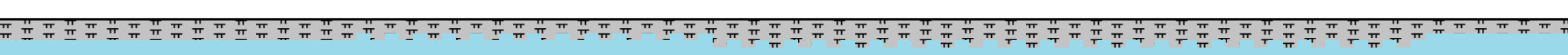
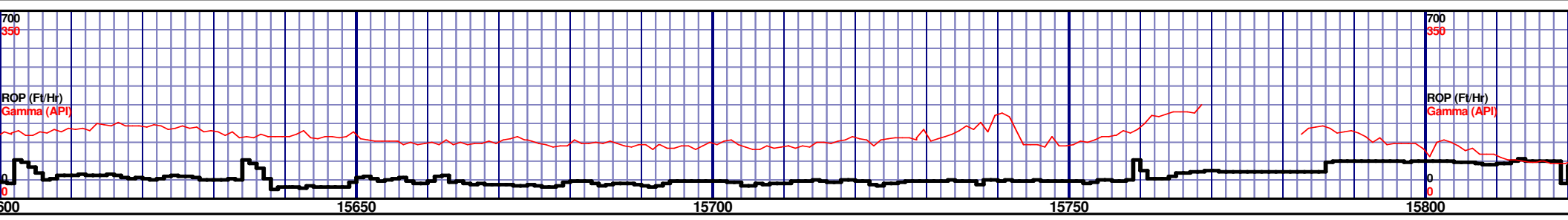
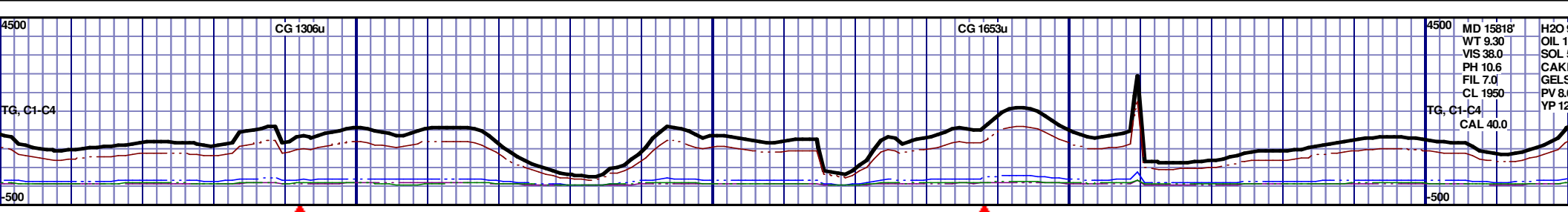


MD 15188 TVD 7131.19
INC 90.82 AZ 89.02
VS 8740.31

MD 15282 TVD 7131.35
INC 88.98 AZ 90.91
VS 8834.21

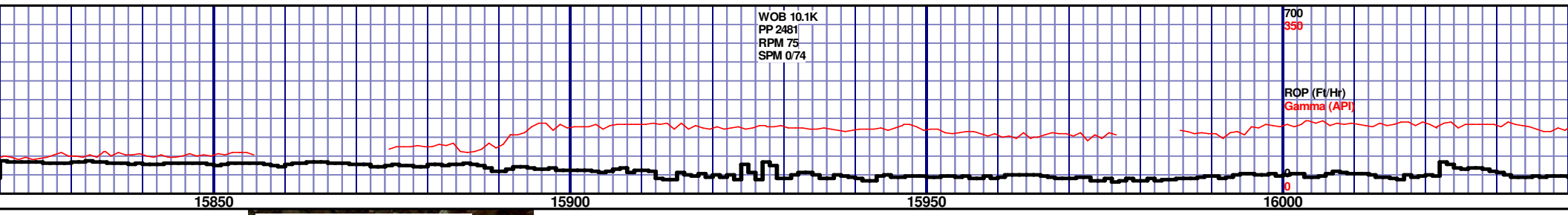
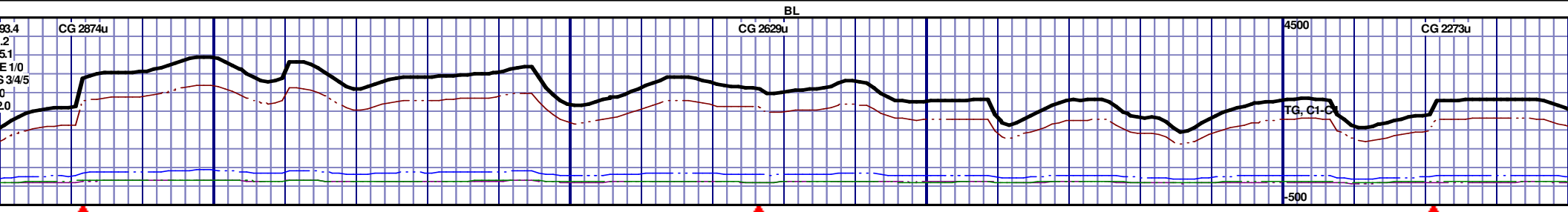


6850 TVD									
									
7100									
									
7350									
<p>MEDLTGY, BLKYTO D BRIT, TRC FREE BENT, 5% FREE MRL, NO STN, G CUT, LTBLU RNG</p>									
<p>15400'-15450': CHK: 85% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 15% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG</p>									
<p>15450'-15500': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 20% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG</p>									
<p>15500'-15550': CHK: 85% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 15% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG</p>									
<p>15550'-15600': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 25% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG</p>									

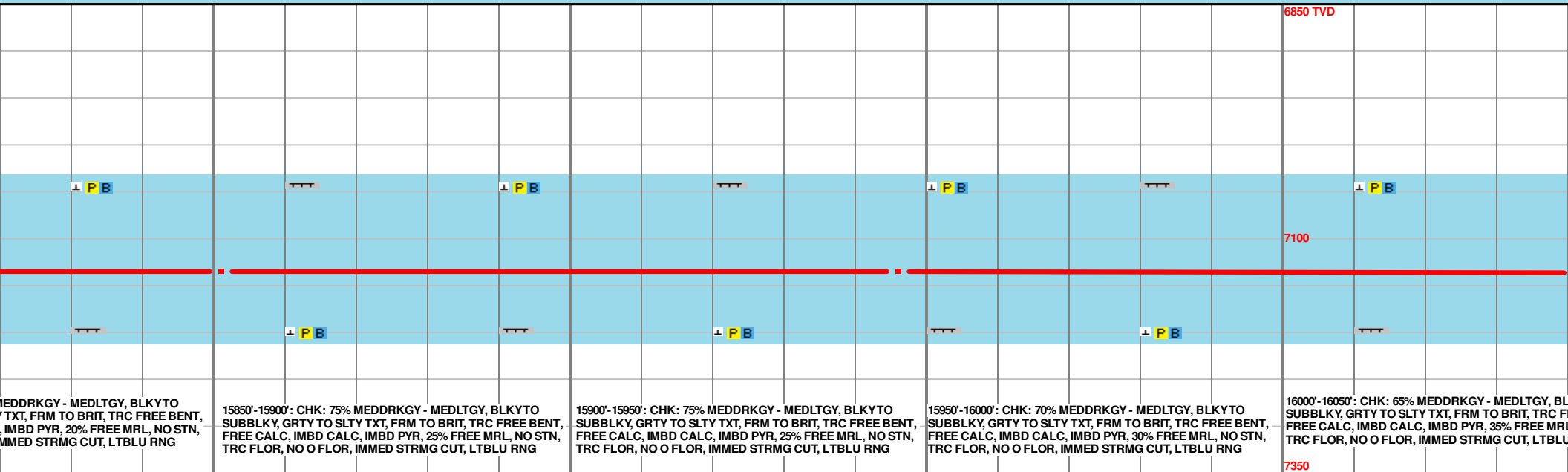
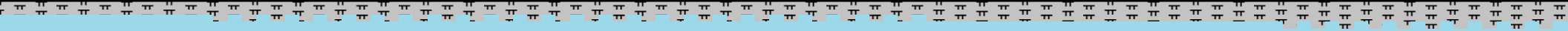
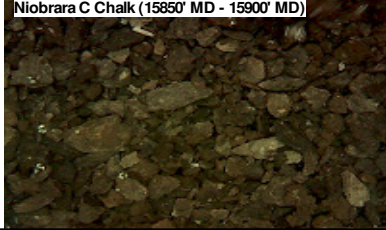


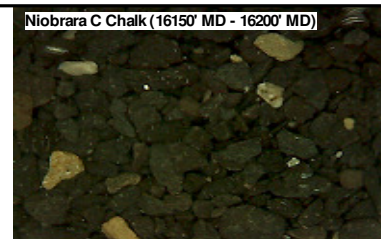
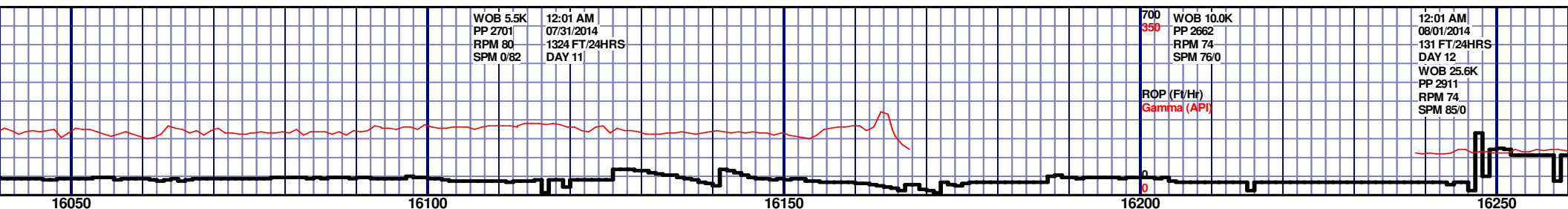
MD 15662 TVD 7135.13
INC 90.06 AZ 90.77
VS 9214.01

MD 15757 TVD 7134.98
INC 90.12 AZ 90.72
VS 9308.96



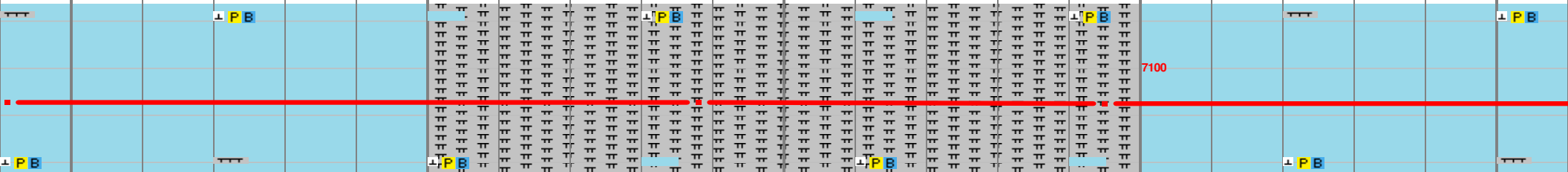
Niobrara C Chalk (15850' MD - 15900' MD)





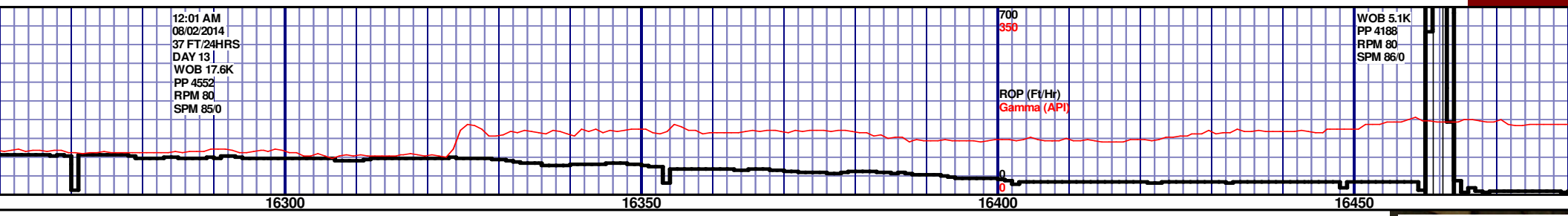
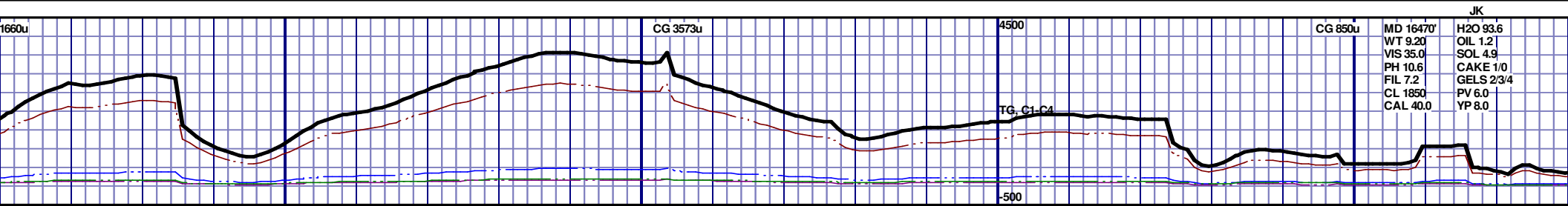
6850 TVD

TOOH @ 11:00 PM ON 07/31/14 @ 16247' M
 FAILED AGITATOR/ P/U SPERRY TOOLS.
 1:15 PM ON 08/01/14. RESUMED DRILLING
 PM ON 08/01/14 W/ BIT #5 6.125" SMITH S
 J4895 @ 16247' MD



16200'-16250': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO
SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT,
FREE CALC, IMBD CALC, IMBD PYR, 40% FREE MRL, NO STN,
TRC FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG

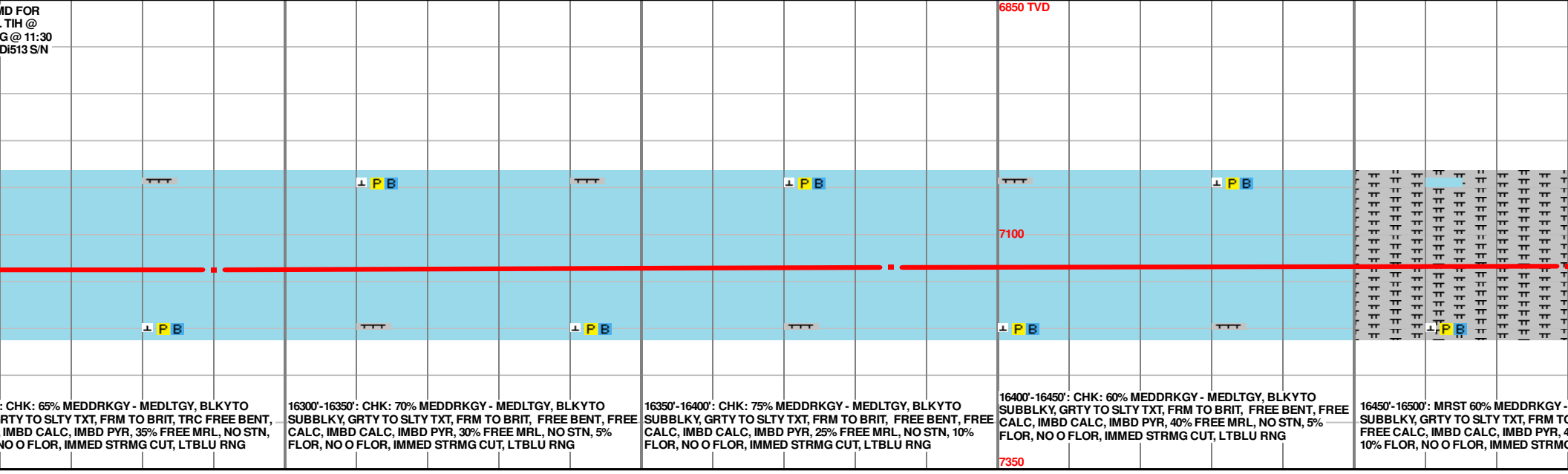
16250'-16300'
SUBBLKY, G
FREE CALC,
TRC FLOR, M



Niobrara C Chalk (16450' MD - 16

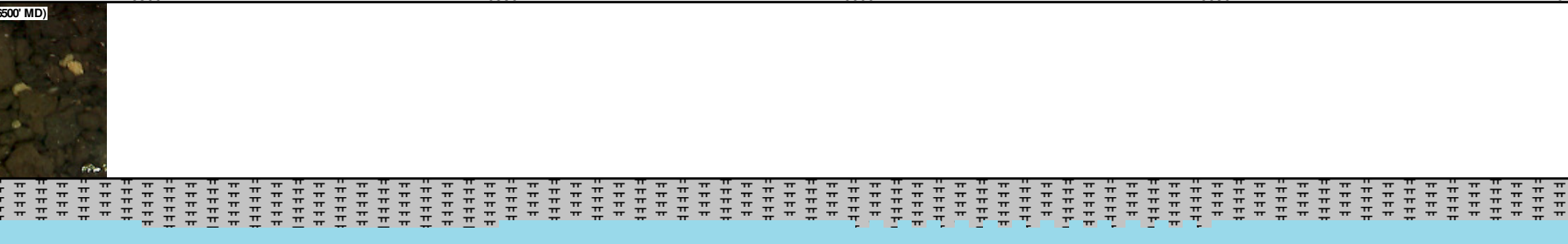
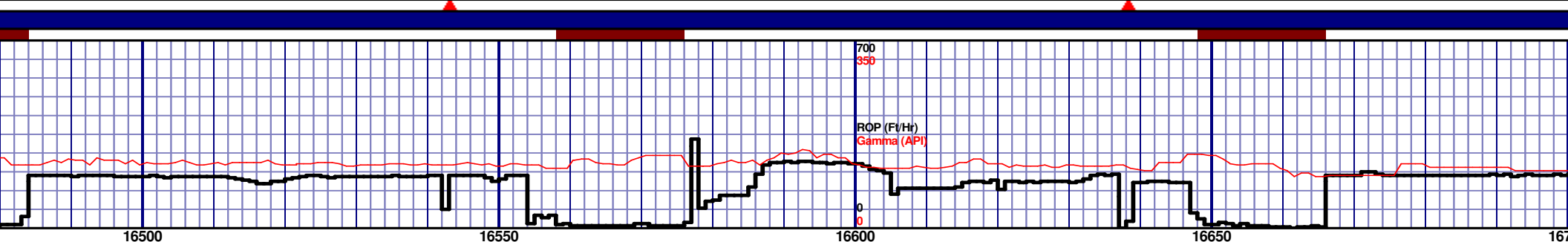
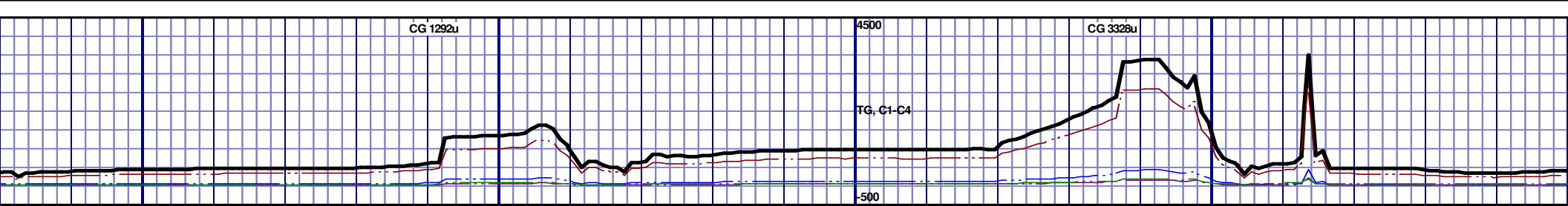


MD FOR
.TIH @
G @ 11:30
DI513 S/N

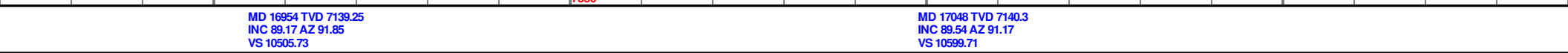
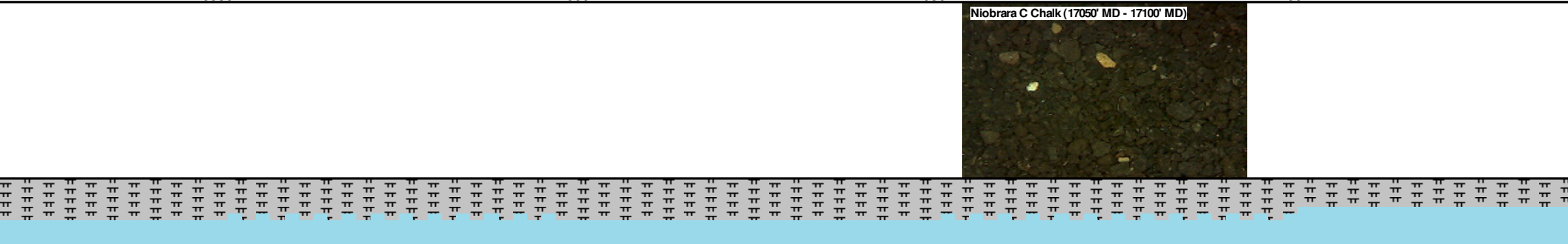
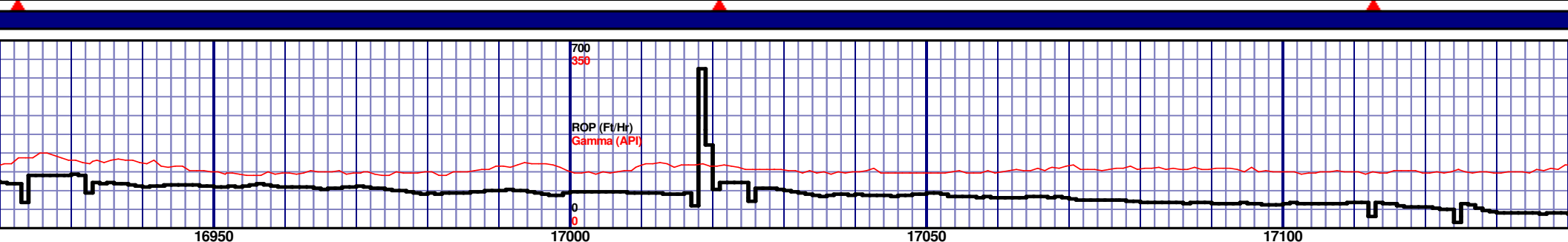


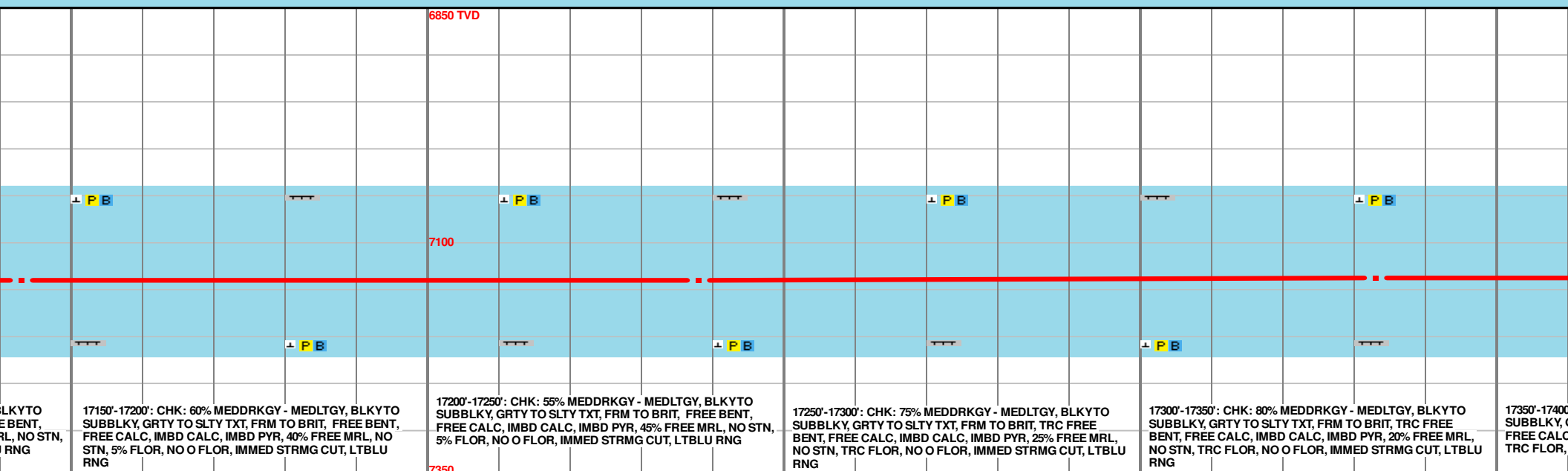
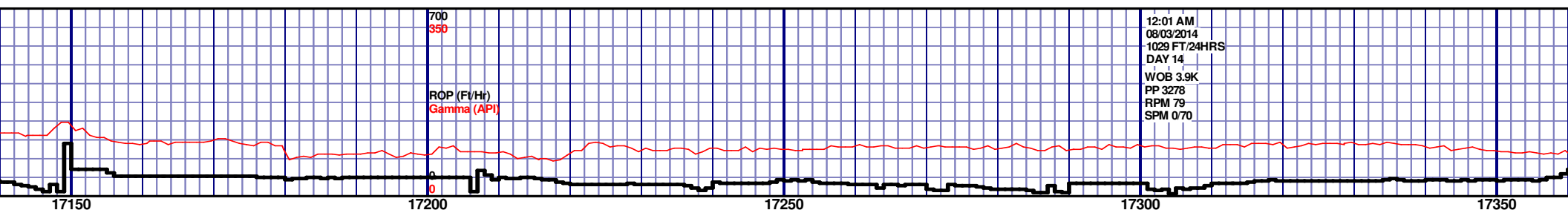
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INC 90.49 AZ 92.36
VS 9841.86

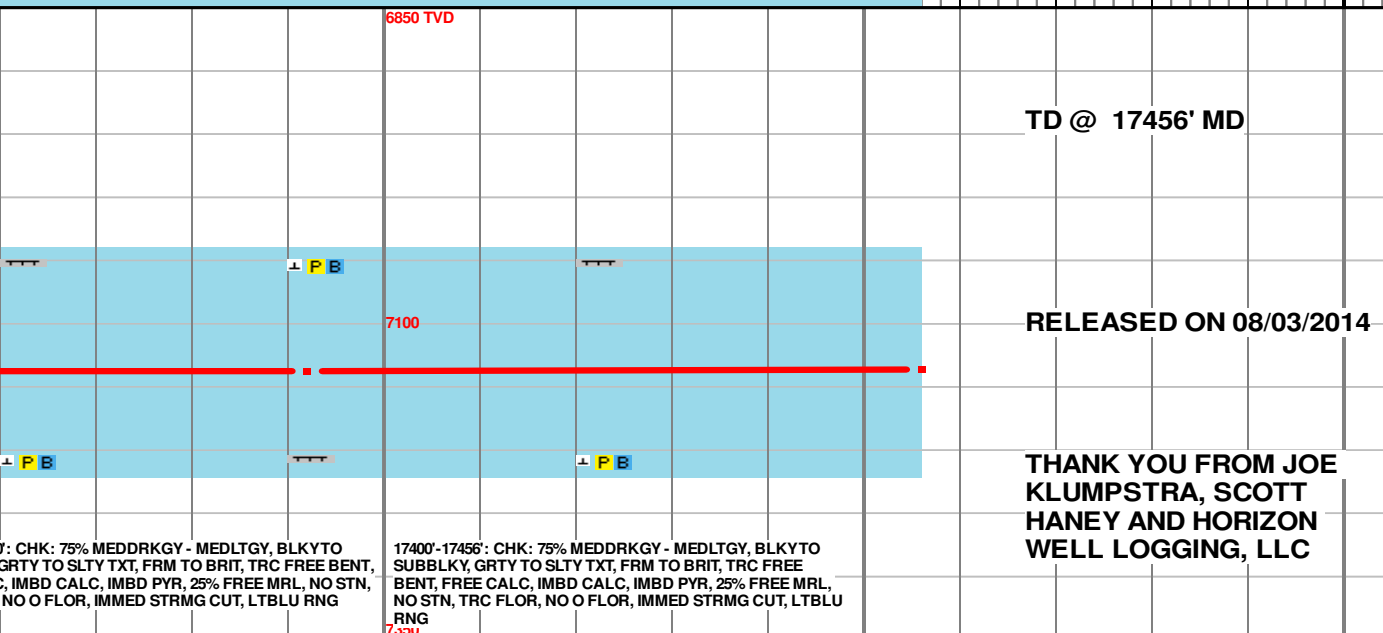
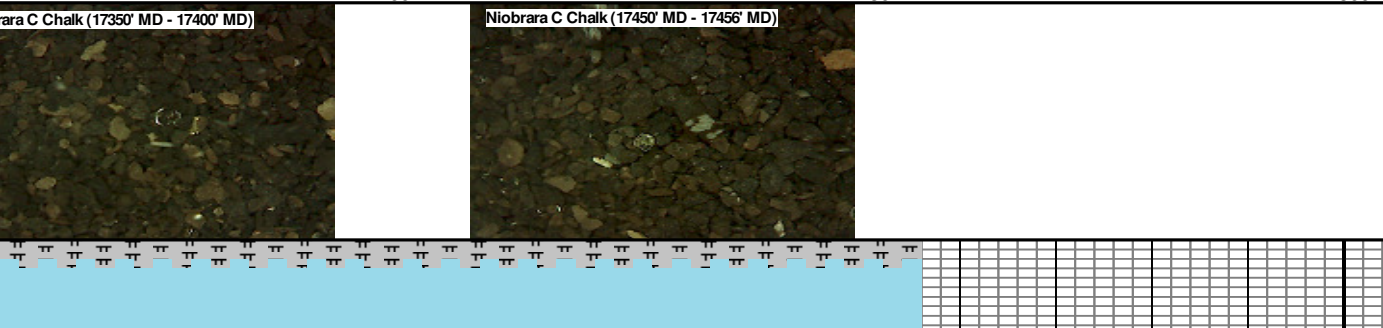
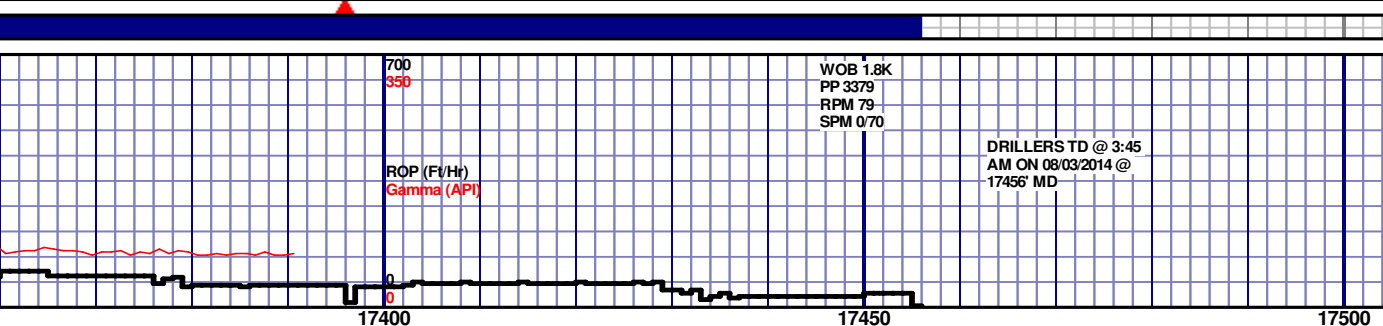
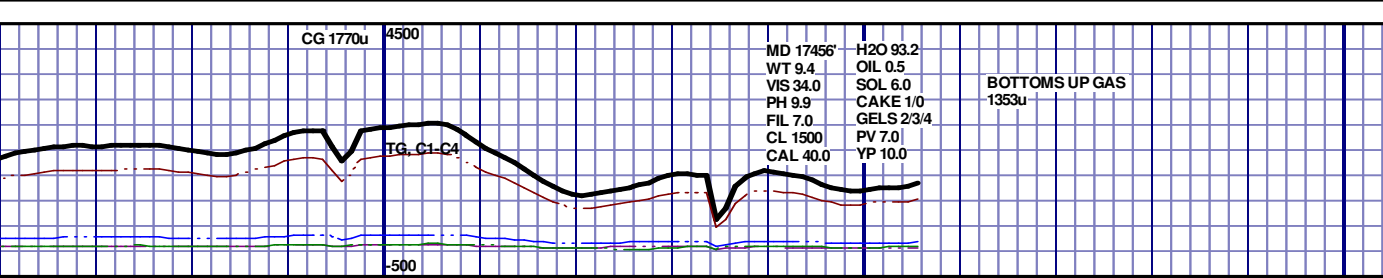
MD 16385 TVD 7135.39
INC 91.67 AZ 91.74
VS 9936.84



6850 TVD					7100					7350				
MEDITGY, BLKYTO D BRIT, FREE BENT, 10% FREE CHK, NO STN, G CUT, LTBLU RNG					MEDITGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 30% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG					MEDITGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 35% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG				
16500'-16550': MRST 70% MEDDRKGY - MEDITGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 30% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG					16550'-16600': MRST 60% MEDDRKGY - MEDITGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 40% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG					16600'-16650': MRST 65% MEDDRKGY - MEDITGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 35% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG				
16650'-16700': MRST 60% MEDDRKGY - MEDITGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE CALC, IMBD CALC, IMBD PYR, 40% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, LTBLU RNG														







MD 17392 TVD 7137.15
INC 91.08 AZ 90.98
VS 10943.64

PTB MD 17456 TVD 7135.94
INC 91.08 AZ 90.98
VS 11007.6