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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: Cassidy Miller
Noble Energy Inc.

Mud Logging Details

Logger: Andrew Christiano & Hannah
Blatchford

Log Interval: 6660' MD to 16232' MD

Start Date: January 18, 2014

Release Date: January 25, 2014

Well Information

Well Name: NCLP PC AA04-63-1HN
Horizontal

Location: 4-T6N-R63W
637' FSL, 250' FWL

County: Weld
State: Colorado

Drilling Rig: H&P 321

Total Depth: 16232' MD

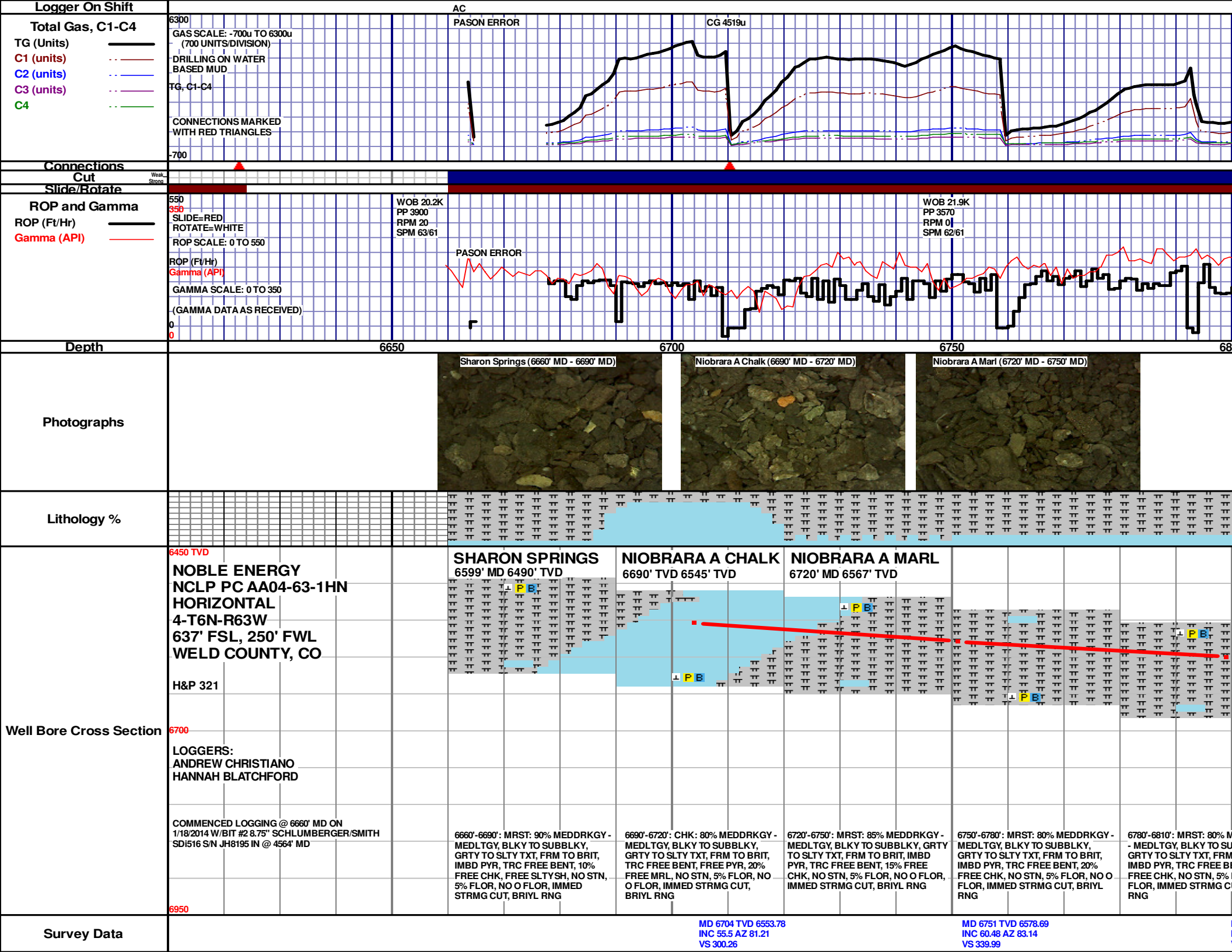
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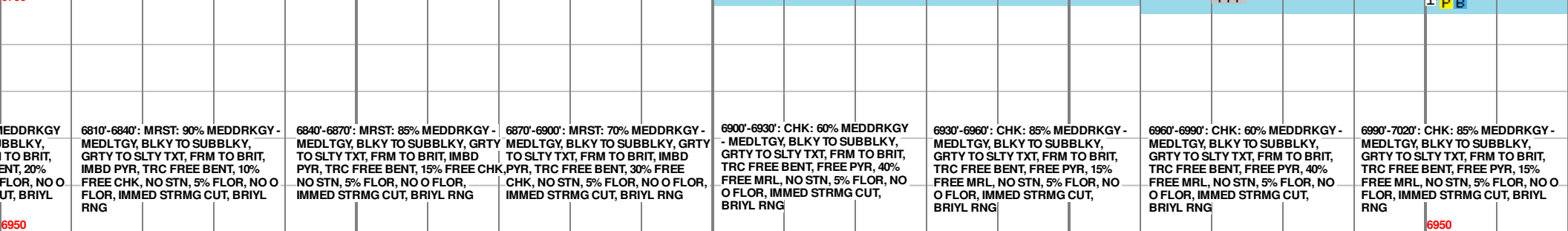
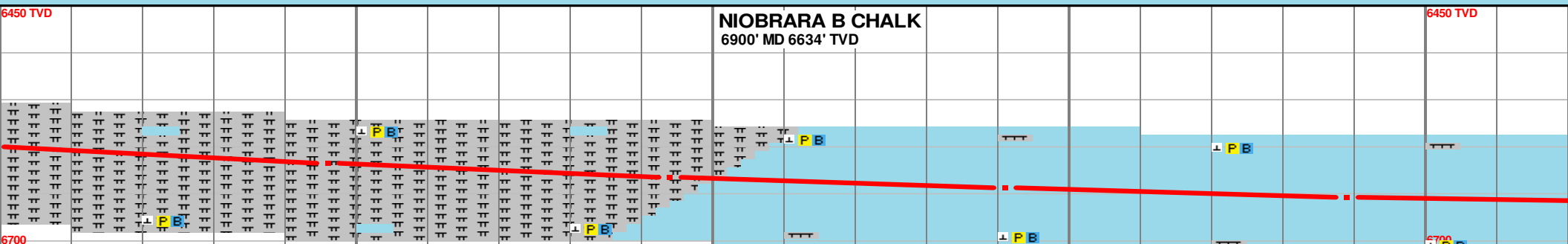
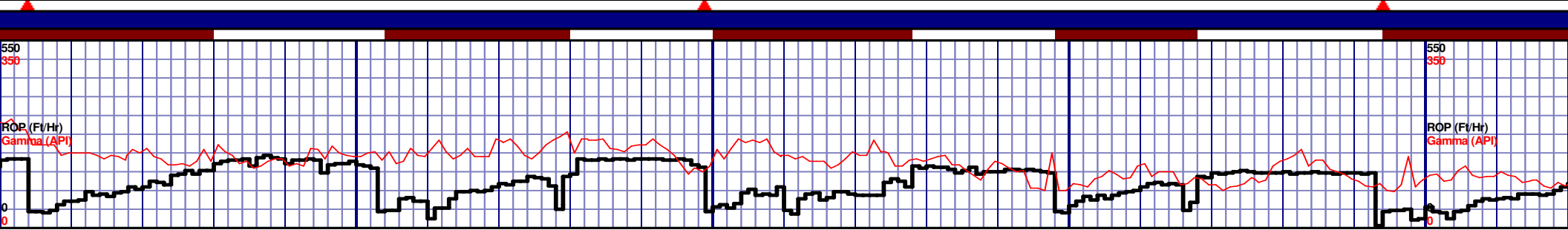
Formation: Niobrara B Chalk

KB Elevation: 4740'

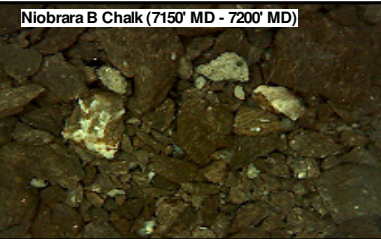
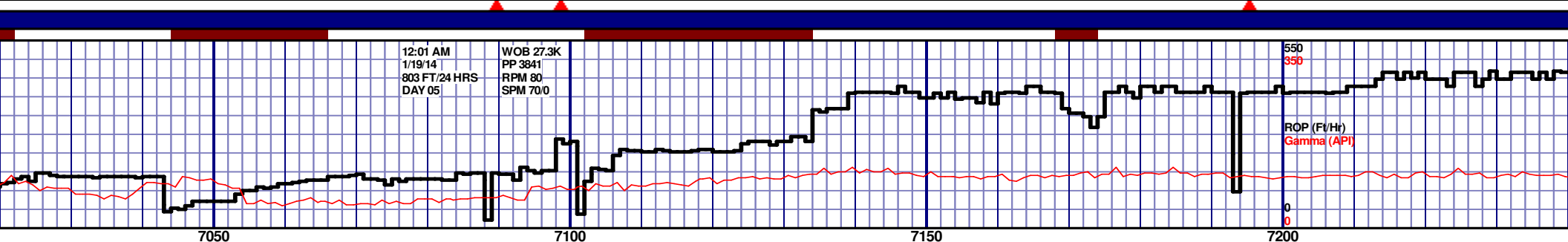
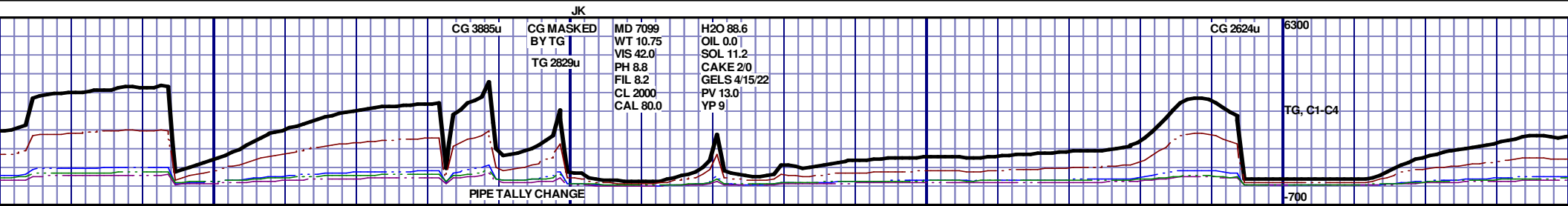
GR Elevation: 4710'

API Number: 05-123-37173-0000

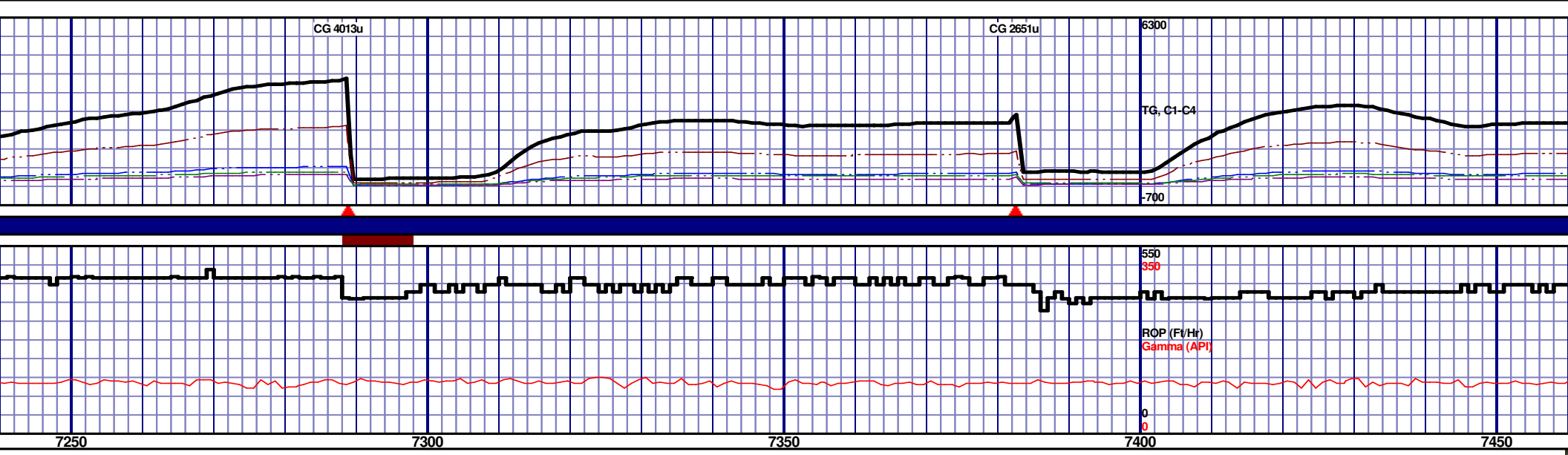




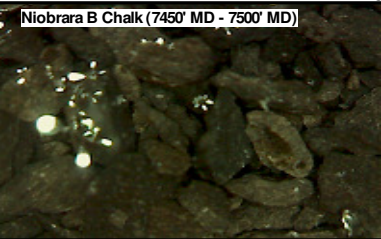
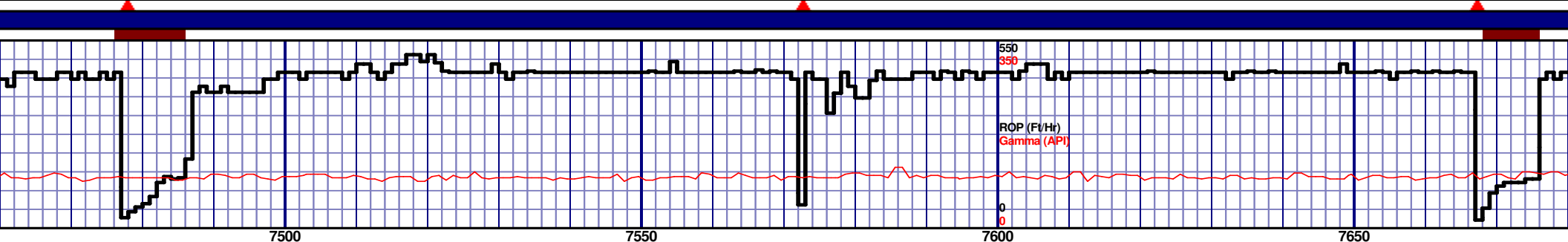
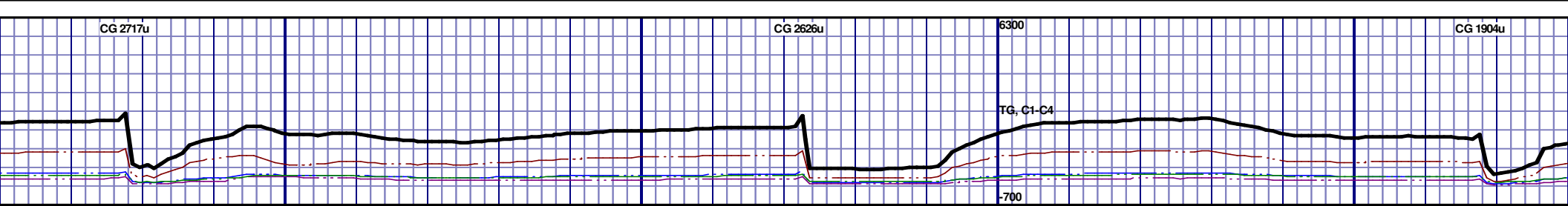
MD 6799 TVD 6600.39	MD 6846 TVD 6618	MD 6894 TVD 6632.66	MD 6941 TVD 6644.08	MD 6989 TVD 6653.26
INC 65.75 AZ 84.29	INC 70.21 AZ 84.06	INC 74.23 AZ 84.07	INC 77.64 AZ 84.96	INC 80.3 AZ 86.28
VS 382.74	VS 426.27	VS 471.93	VS 517.49	VS 564.6



TOOH @ 1:30 PM ON 01/18/14 @ 7099' MD FOR INTERMEDIATE CASING OPERATIONS. TIH @ 1:15PM ON 01/19/14, DRILLING AHEAD @ 7:30PM ON 01/19/14 W/ BIT #3 6.125" NOV SKHIS16M-B1 S/N A184606 IN @ 7099' MD.				6450 TVD	
7020'-7050': CHK: 80% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 20% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	7050'-7080': CHK: 90% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 10% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	SAMPLE INTERVAL CHANGED TO 50'			6700
		7080'-7150': CHK: 95% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 5% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	7150'-7200': CHK: 85% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 15% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	7200'-7250': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6950



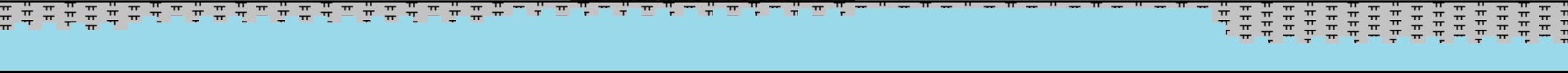
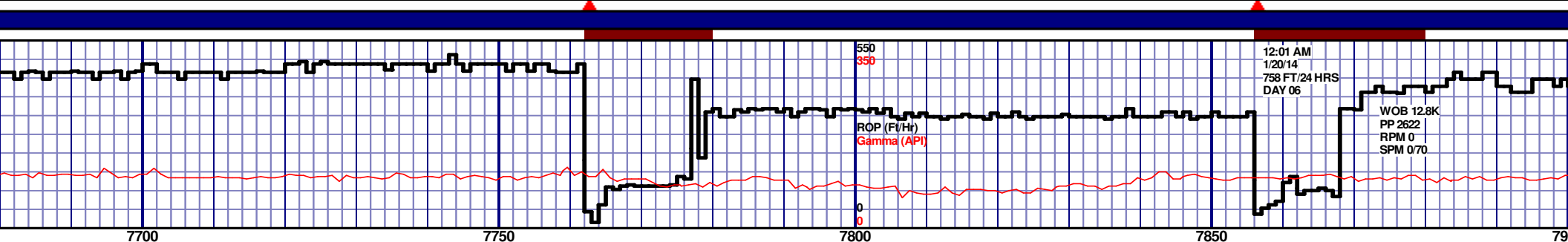
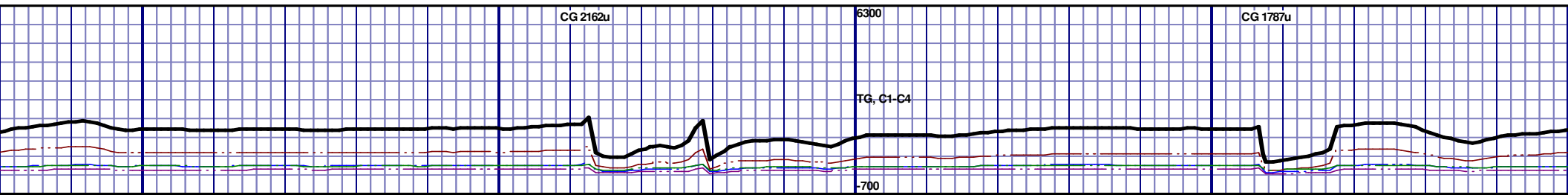
7250'-7300': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7300'-7350': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7350'-7400': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 35% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7400'-7450': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 25% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7450'-7500': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 25% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
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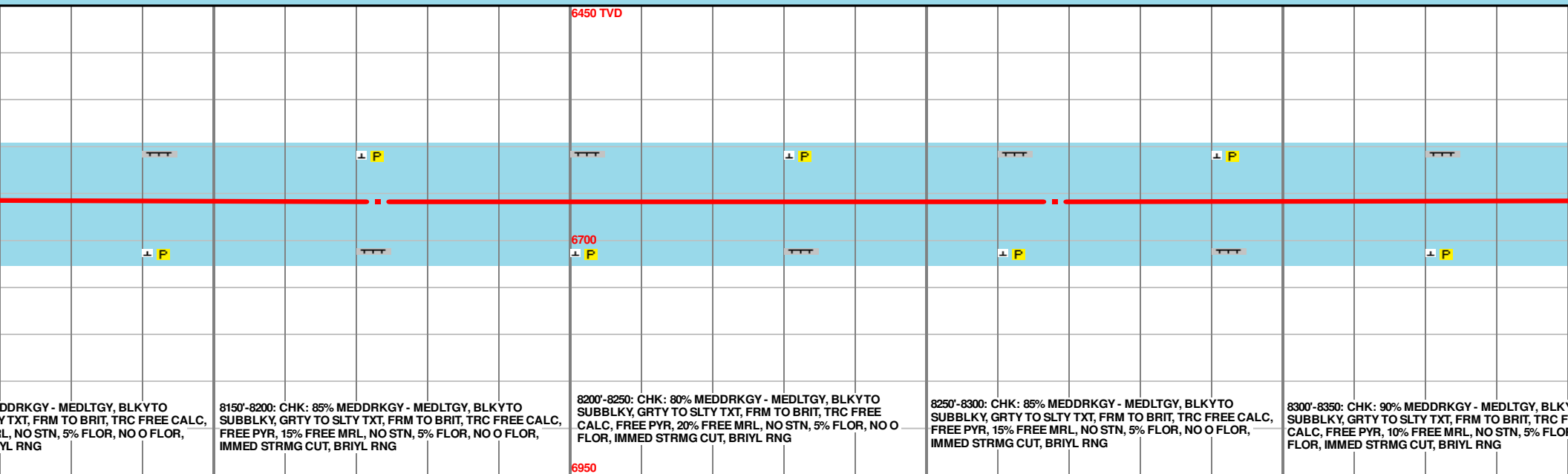
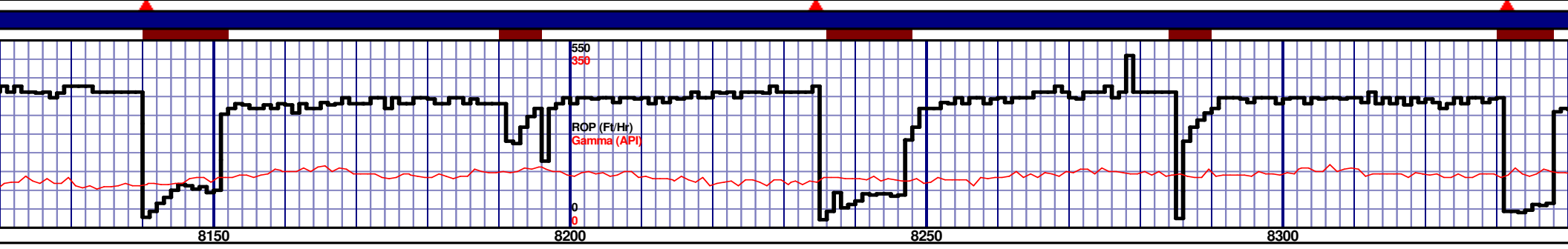
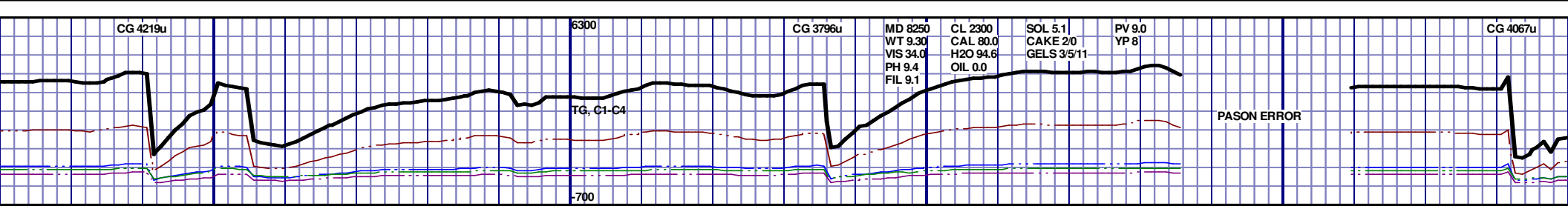
6450 TVD					6700					6950				
CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 45% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7500'-7550': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 45% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7550'-7600': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
7600'-7650': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7650'-7700': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 35% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7700'-7750': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 35% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				

MD 7510 TVD 6662.5
INC 89.97 AZ 89.28
VS 1084.77

MD 7605 TVD 6662.5
INC 90.03 AZ 88.38
VS 1179.68

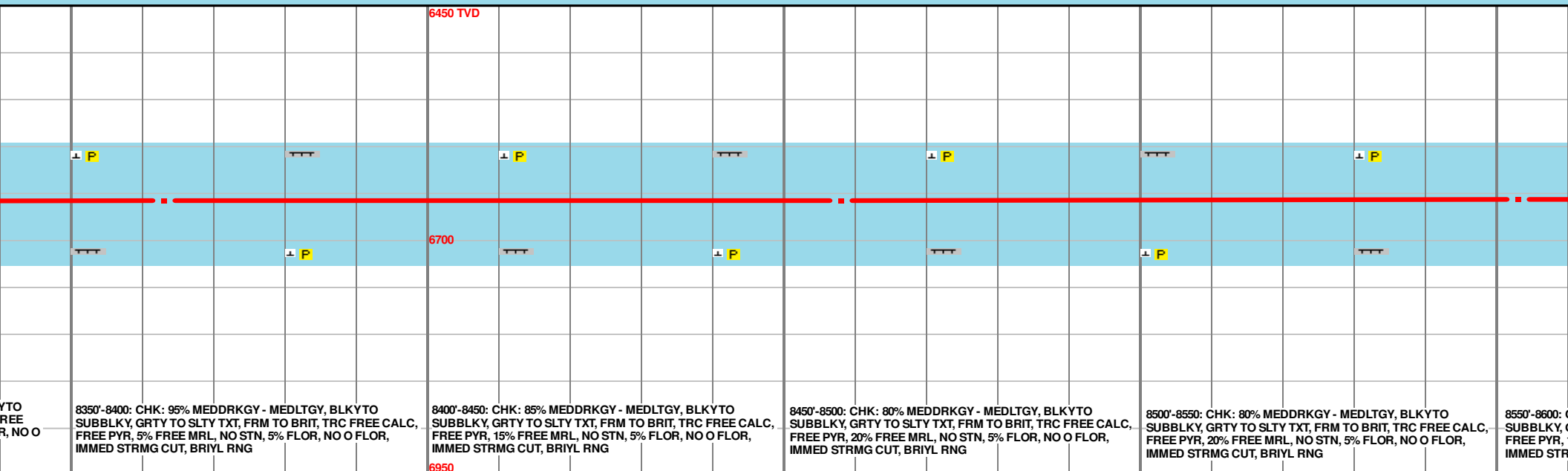
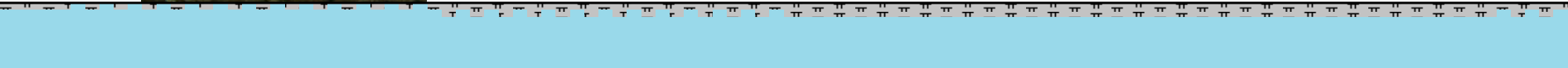
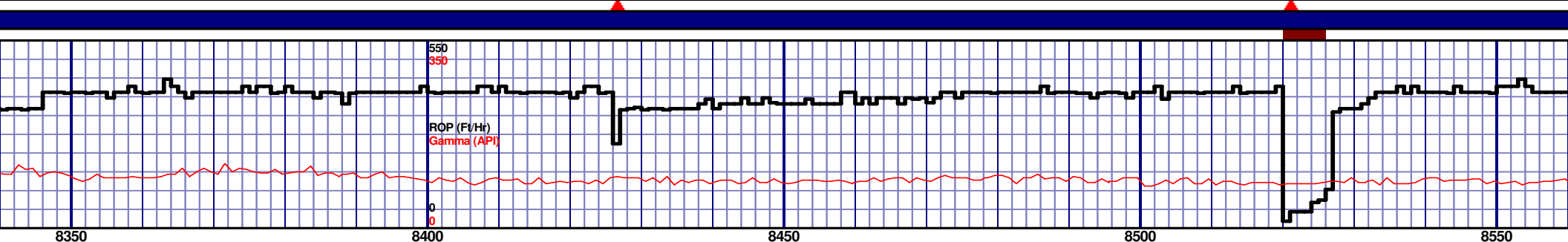
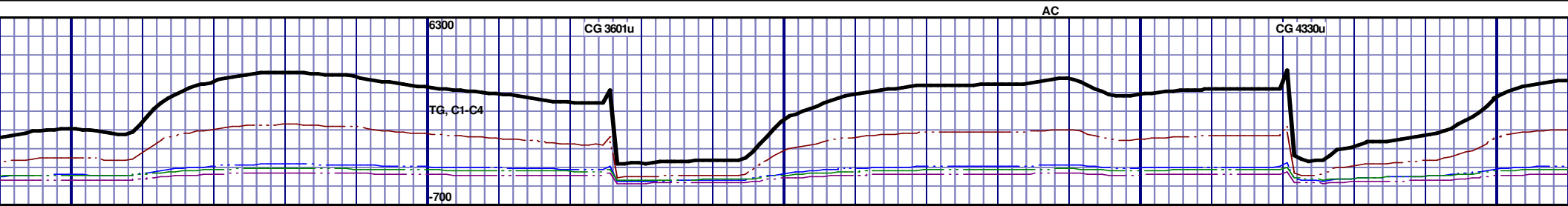


6450 TVD					6700				
EDLTGY, BLKYTO O BRIT, TRC FREE STN, 5% FLOR, NO O G					7700'-7750': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 25% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
7750'-7800': CHK: 85% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 15% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					7800'-7850': CHK: 90% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, FREE PYR, 10% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
7850'-7900': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, 45% FREE CHK, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					6950				



MD 8173 TVD 6658.55
INC 88.95 AZ 89.43
VS 1745.55

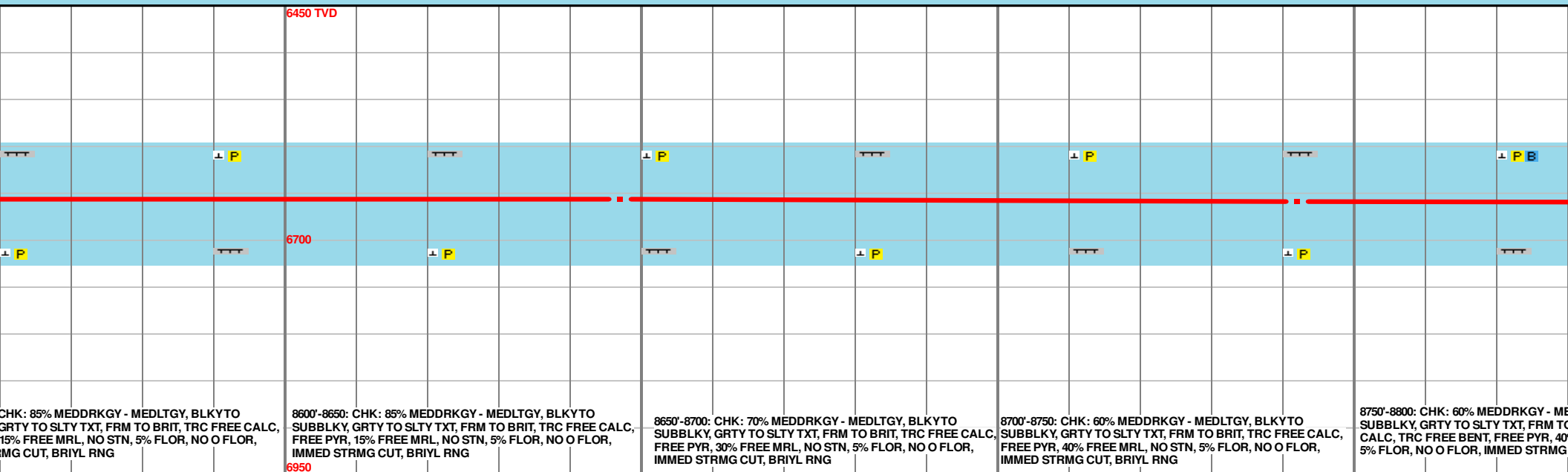
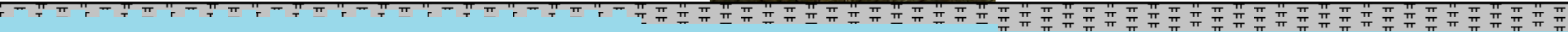
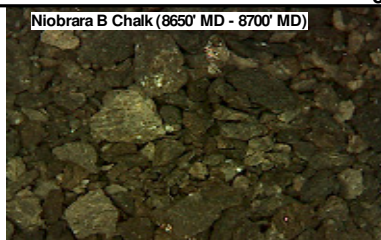
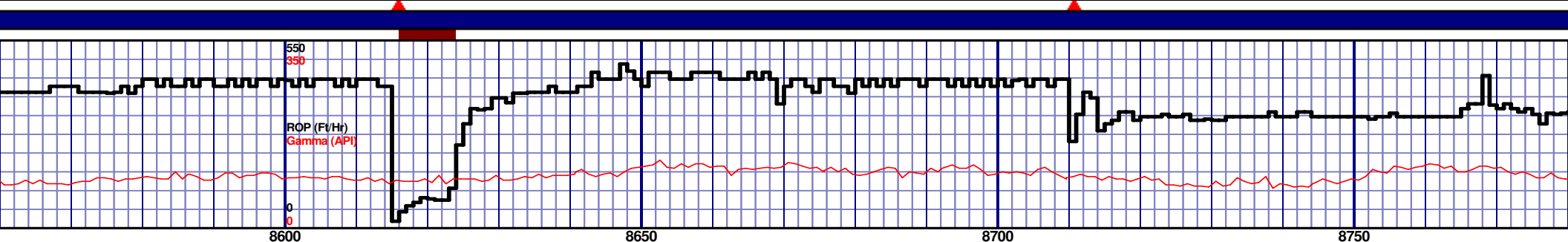
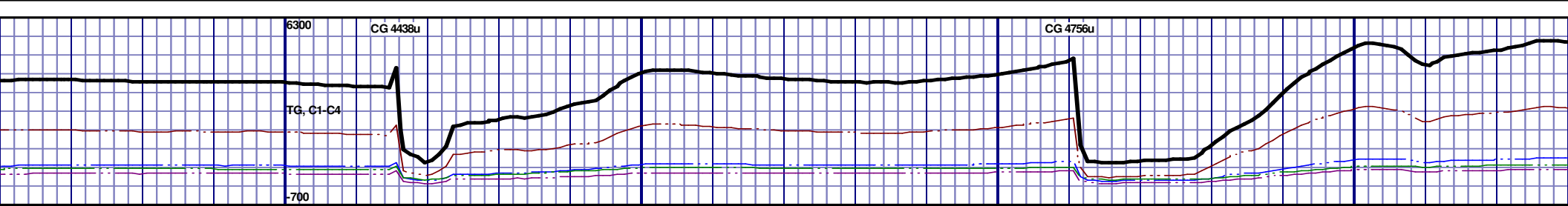
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INC 91.2 AZ 88.53
VS 1840.45

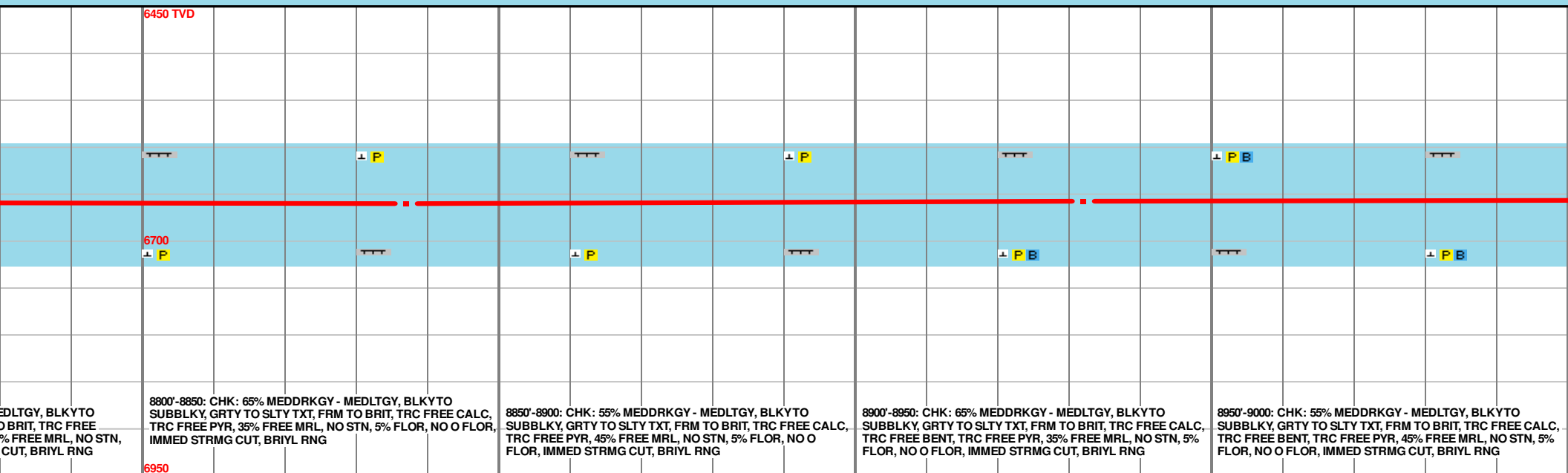
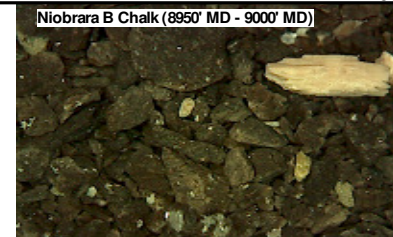
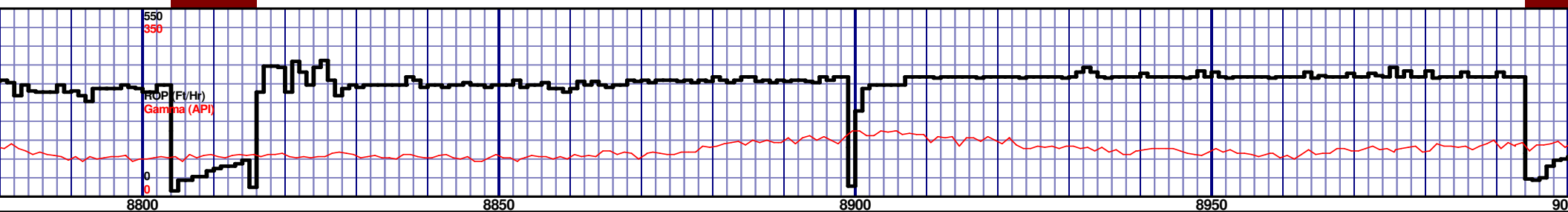


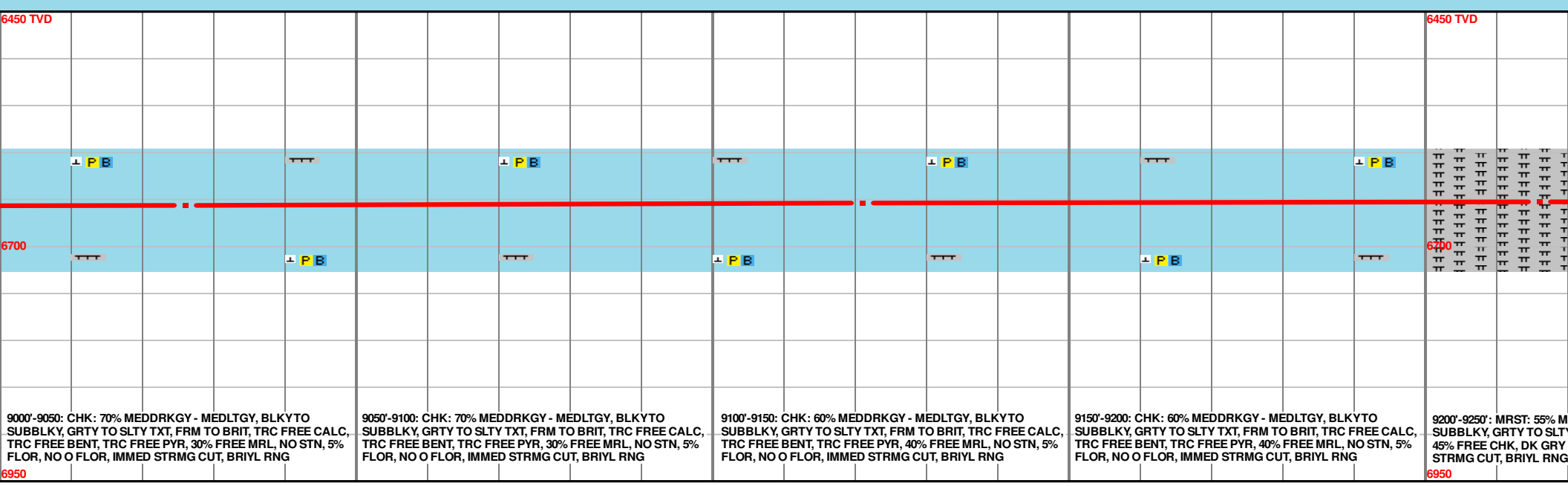
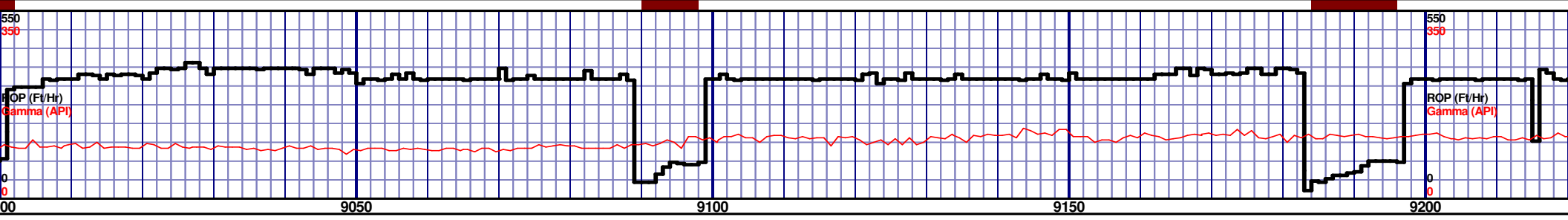
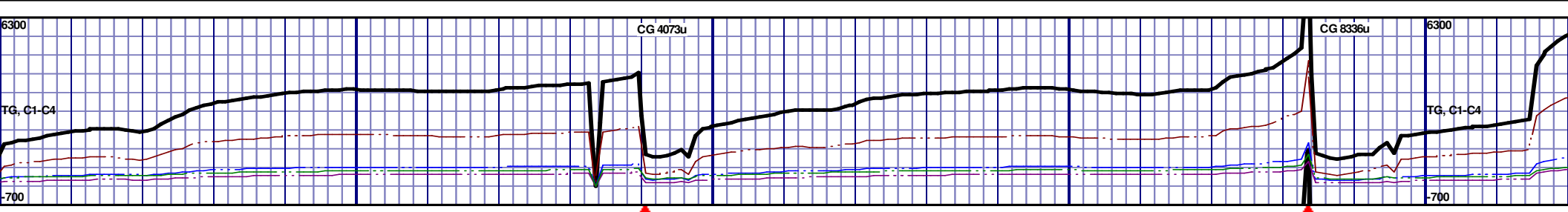
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INC 89.29 AZ 88.25
VS 1935.38

MD 8458 TVD 6657.85
INC 90.92 AZ 88
VS 2030.33

MD 8553
INC 90.8
VS 2125.3



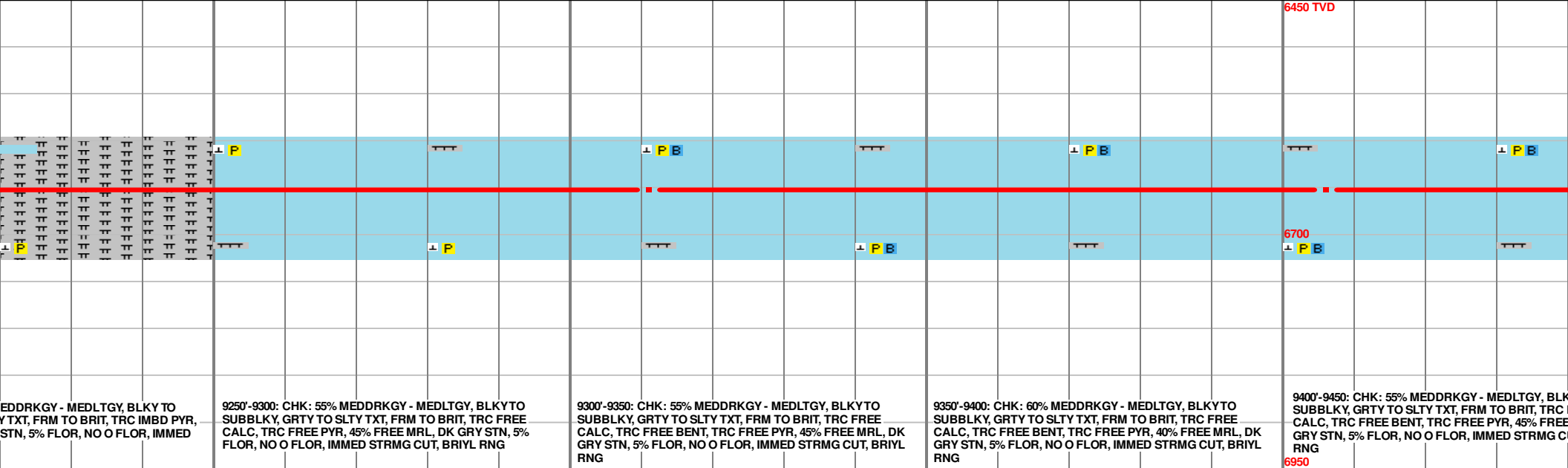
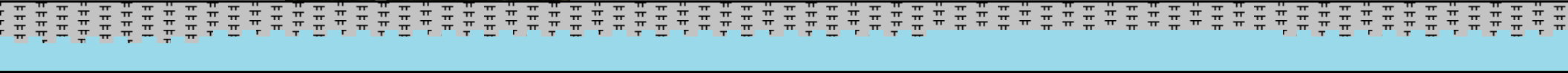
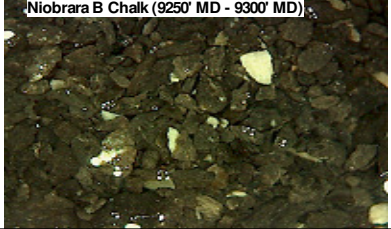
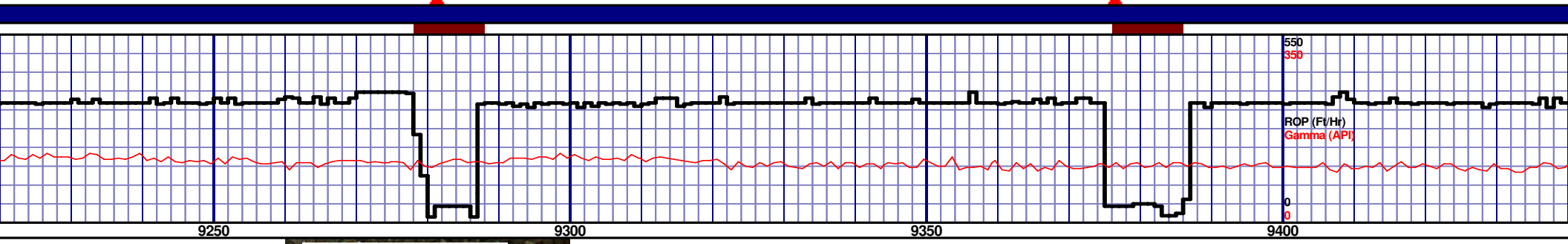
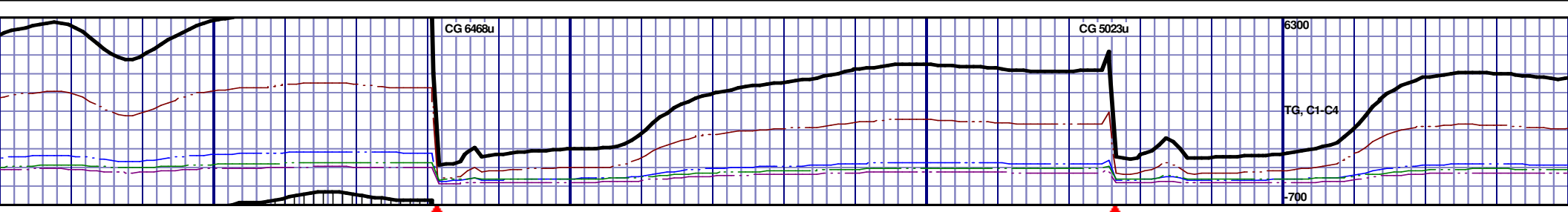


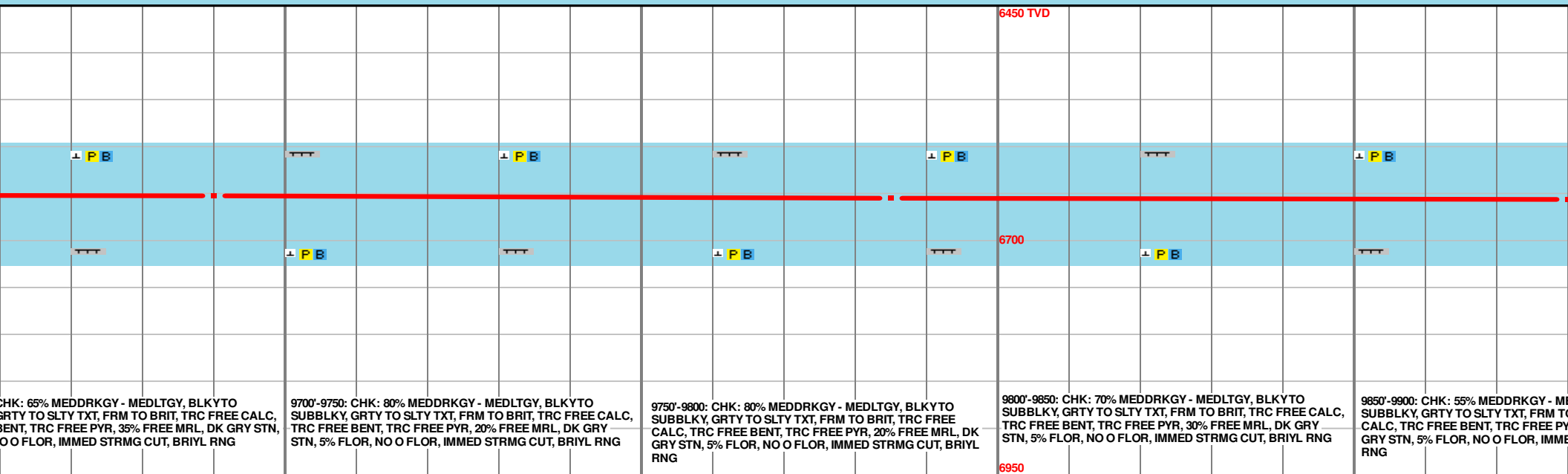
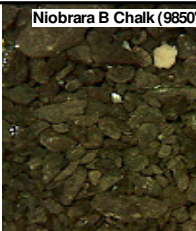
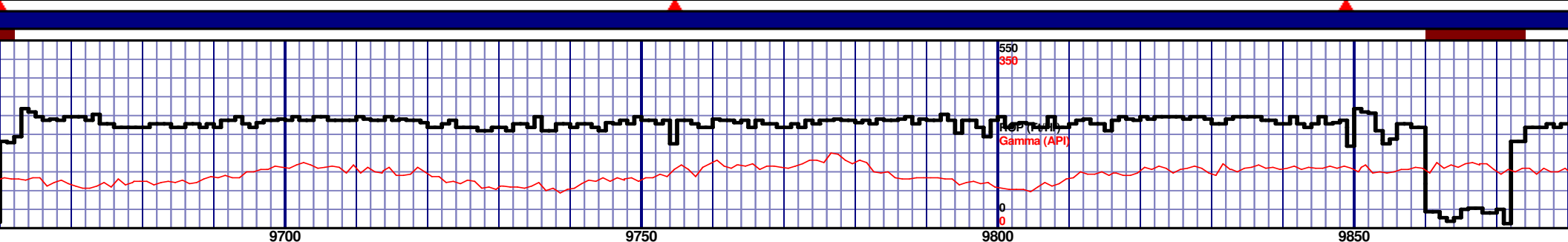


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INC 90.58 AZ 87
VS 2598.16

MD 9121 TVD 6654.34
INC 91.69 AZ 87.39
VS 2693.13

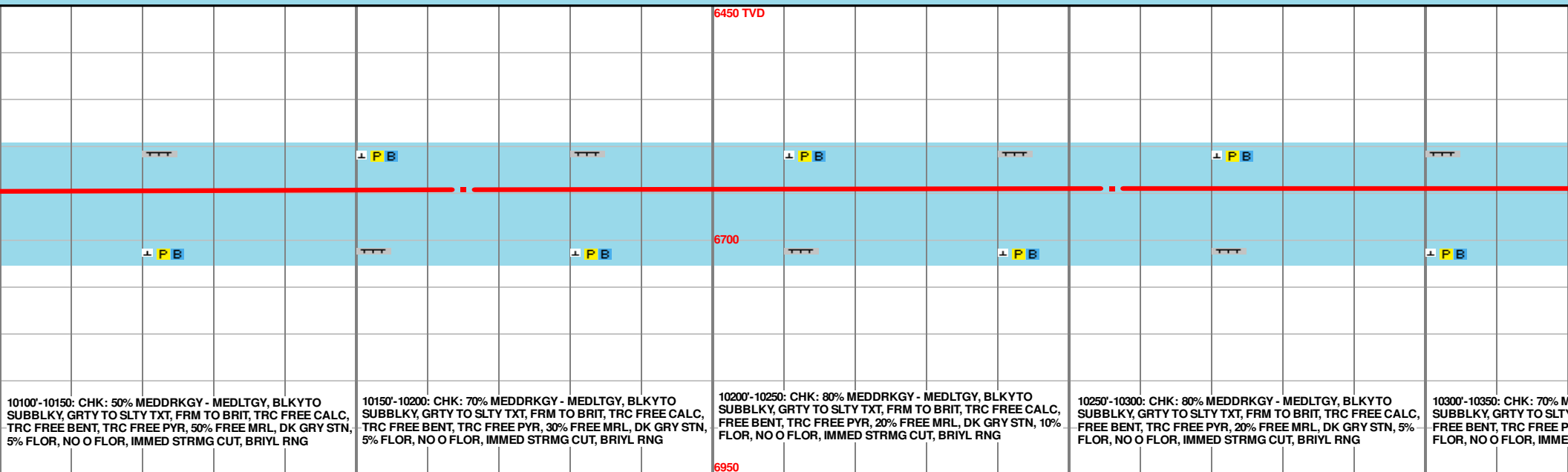
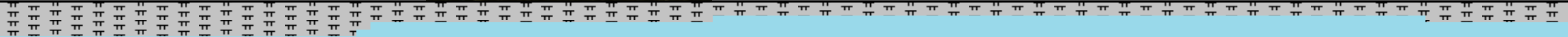
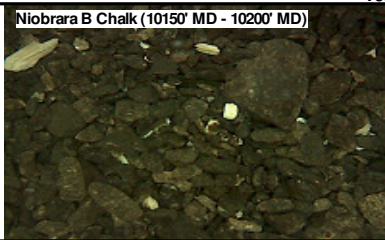
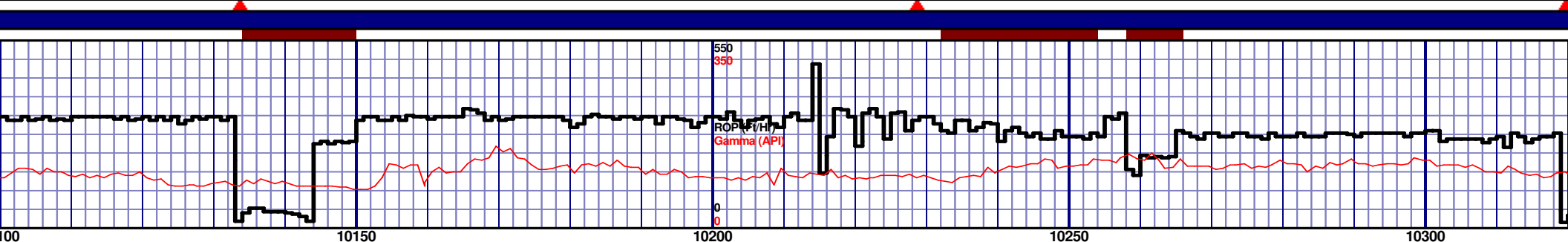
MD
INC
VS 2





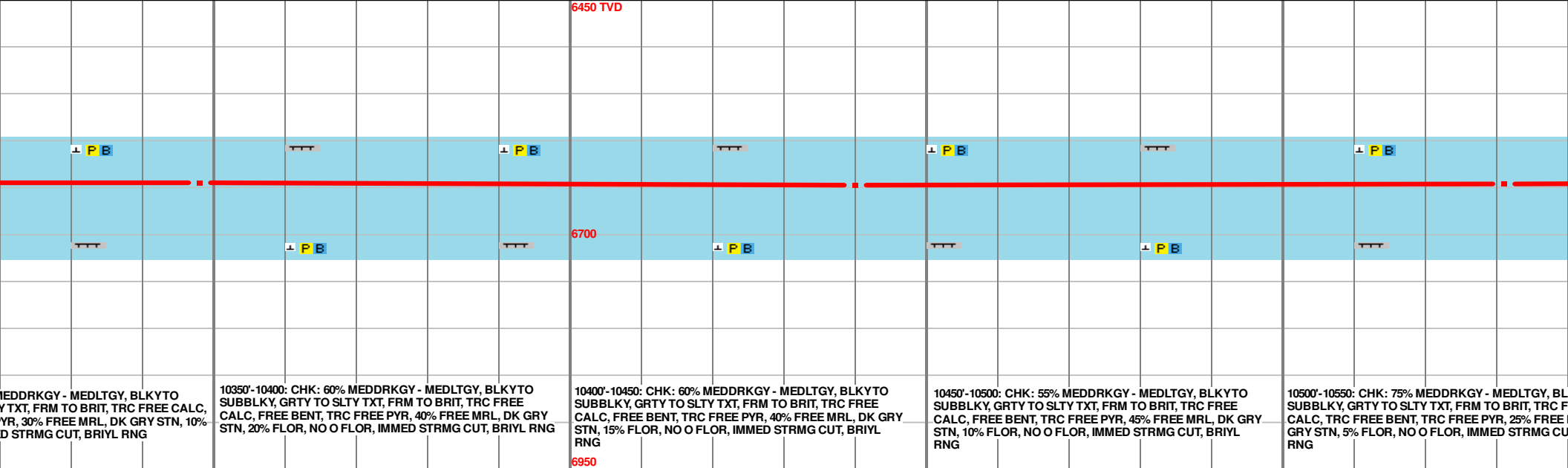
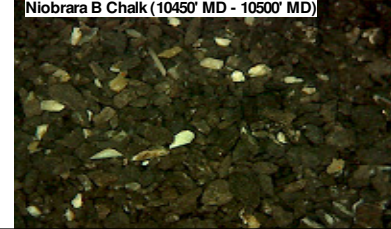
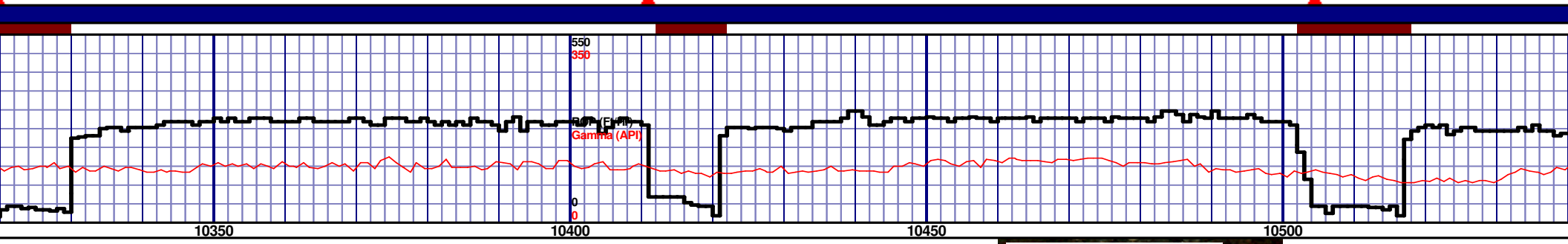
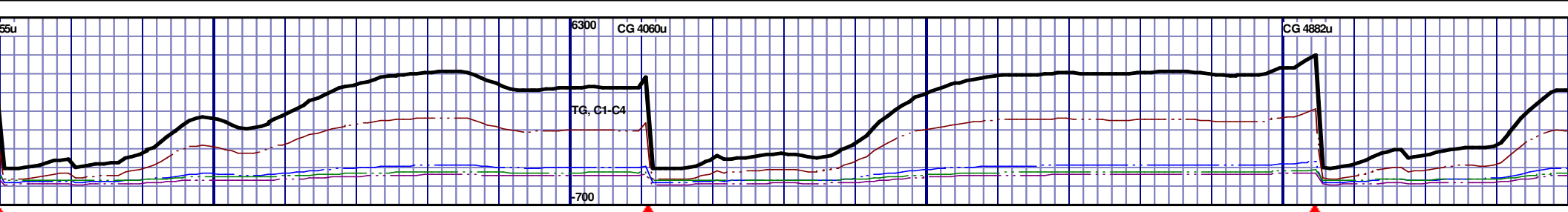
9850'-9900: CHK: 55% MEDDRKGY - MI
SUBBLKY, GRTY TO SLTY TXT, FRM TO
CALC, TRC FREE BENT, TRC FREE PY
GRY STN, 5% FLOR, NO O FLOR, IMME
RNG

MD 9785 TVD 6654.84
INC 88.46 AZ 87.66
VS 3356.4



MD 10165 TVD 6646.87
INC 90.62 AZ 90.3
VS 3735.97

MD 10256 TVD 6645.62
INC 90.95 AZ 90.85
VS 3826.71

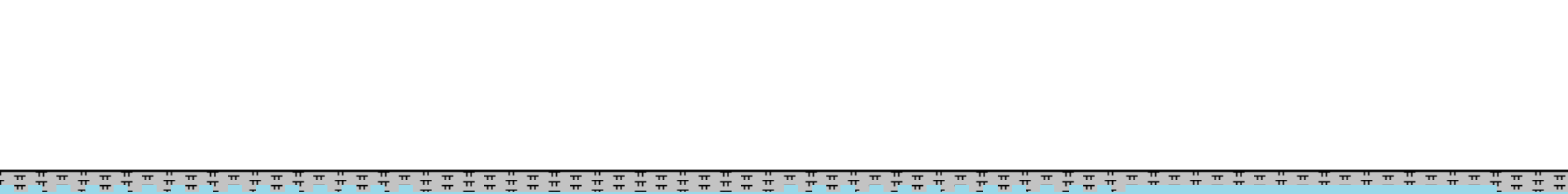
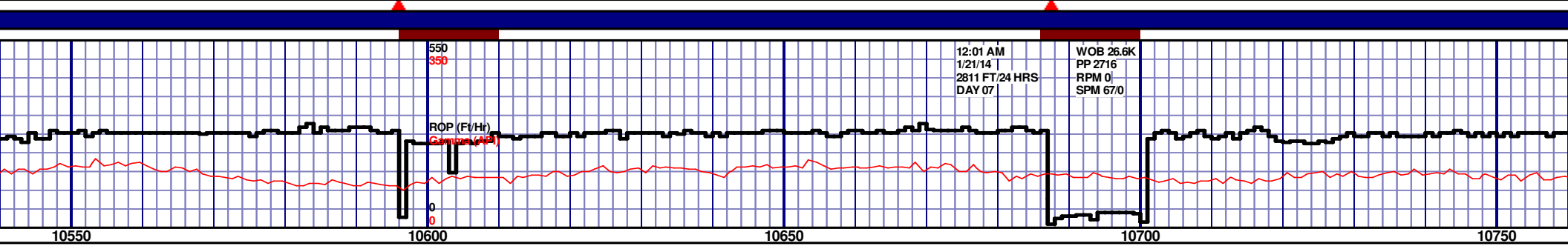
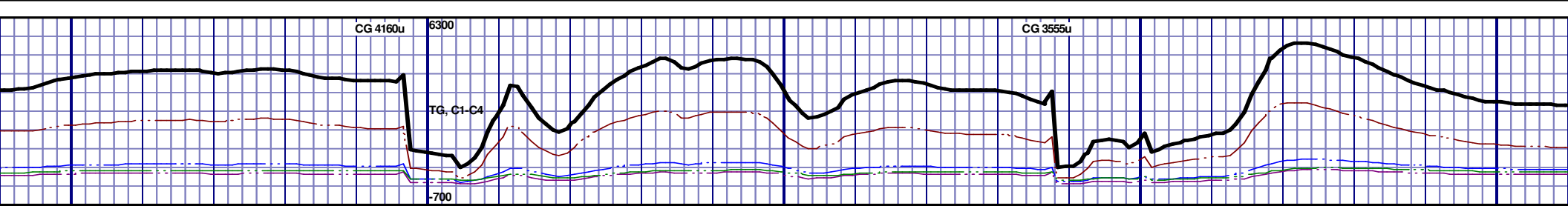


MEDDRKGY - MEDLTGY, BLKYTO YTXT, FRM TO BRIT, TRC FREE CALC, YR, 30% FREE MRL, DK GRY STN, 10% D STRMG CUT, BRIYL RNG	10350'-10400': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, FREE BENT, TRC FREE PYR, 40% FREE MRL, DK GRY STN, 20% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	10400'-10450': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, FREE BENT, TRC FREE PYR, 40% FREE MRL, DK GRY STN, 15% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	10450'-10500': CHK: 55% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, FREE BENT, TRC FREE PYR, 45% FREE MRL, DK GRY STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	10500'-10550': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 25% FREE GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG
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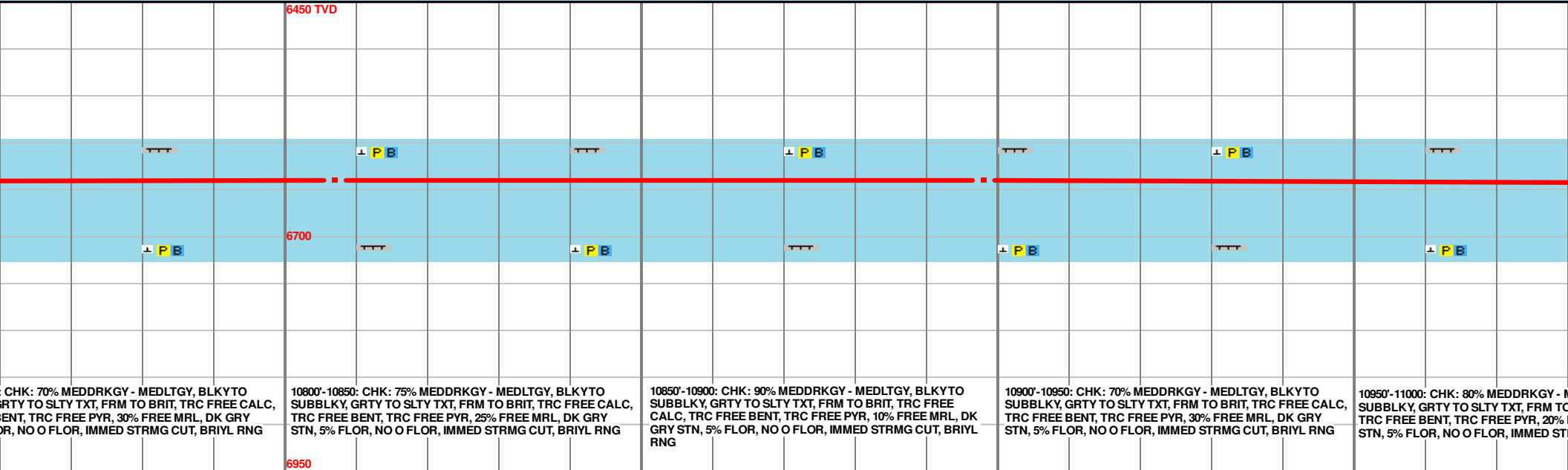
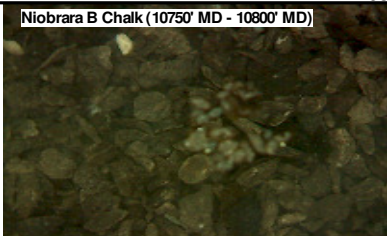
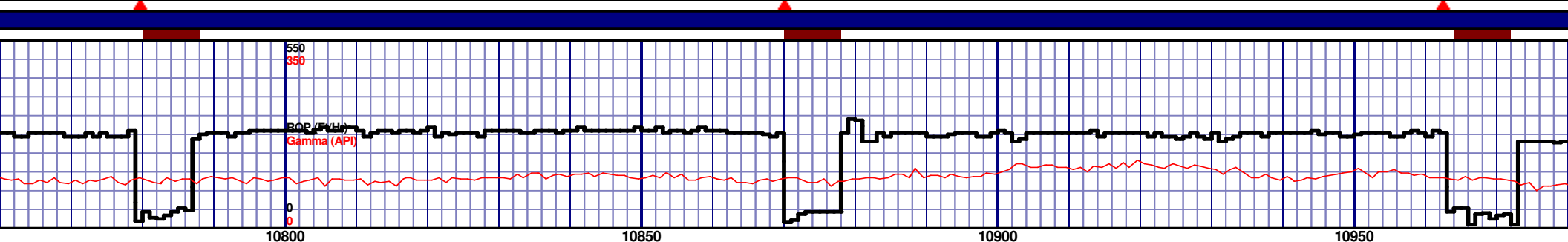
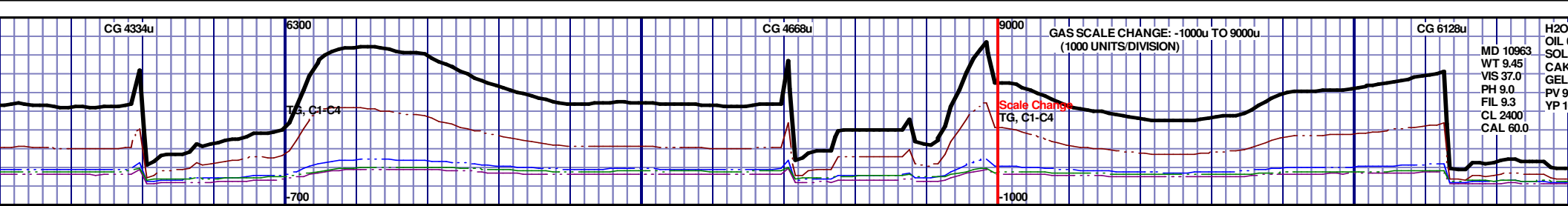
MD 10348 TVD 6645.45
INC 89.26 AZ 88.22
VS 3918.56

MD 10440 TVD 6647.06
INC 88.74 AZ 88.62
VS 4010.49

MD 10531 TVD 6648.12
INC 91.7 AZ 88.62
VS 4101.4

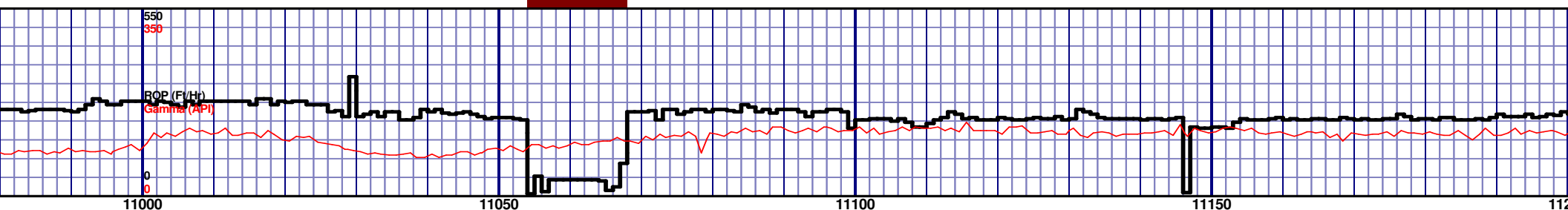
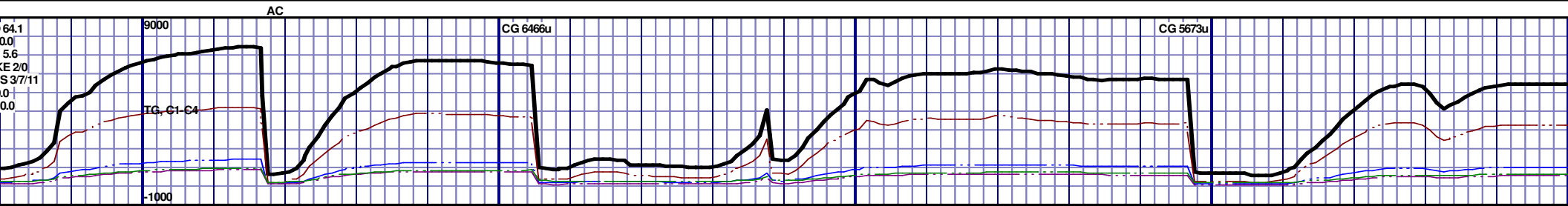


6450 TVD					
6700					
6950					
10550'-10600': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 25% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					
10600'-10650': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 30% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					
10650'-10700': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 25% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					
10700'-10750': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 20% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					
10750'-10800': SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 20% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					

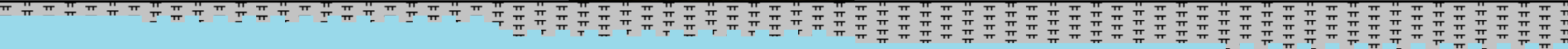


MD 10807 TVD 6639.94
INC 90.8 AZ 90.59
VS 4376.89

MD 10898 TVD 6640.24
INC 88.83 AZ 90.57
VS 4467.64



Niobrara B Chalk (11050' MD - 11100' MD)

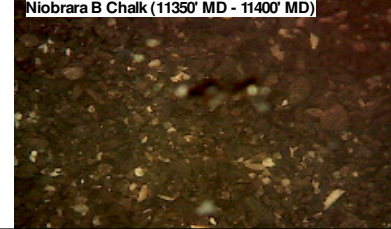
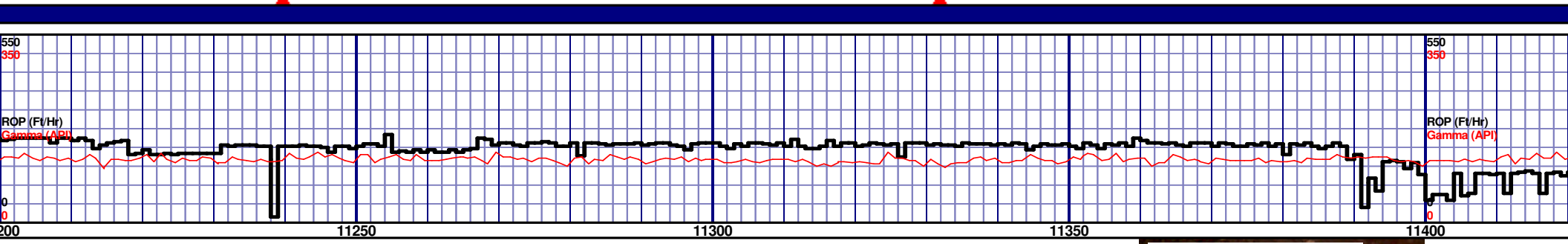
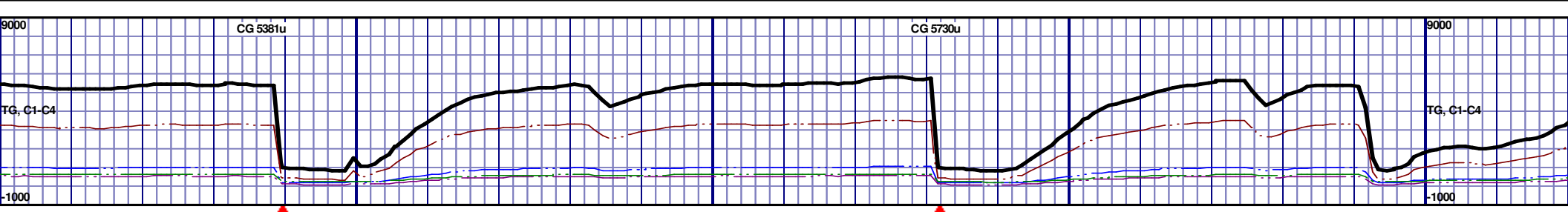


6450 TVD																			
P B				P B				P B				P B				P B			
6700																			
P B				P B				P B				P B				P B			
MEDTGY, BLKY TO BRIT, TRC FREE CALC, FREE MRL, DK GRY RMG CUT, BRIYL RNG				11000'-11050': CHK: 75% MEDDRKGY - MEDTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 25% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				11050'-11100': CHK: 55% MEDDRKGY - MEDTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 45% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				11100'-11150': MRST: 60% MEDDRKGY - MEDTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC IMBD PYR, 40% FREE CHK, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				11150'-11200': MRST: 65% MEDDRKGY - MEDTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC IMBD PYR, 35% FREE CHK, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG			
6950																			

MD 10991 TVD 6642.69
INC 88.15 AZ 89.26
VS 4560.43

MD 11083 TVD 6644.54
INC 89.54 AZ 88.58
VS 4652.32

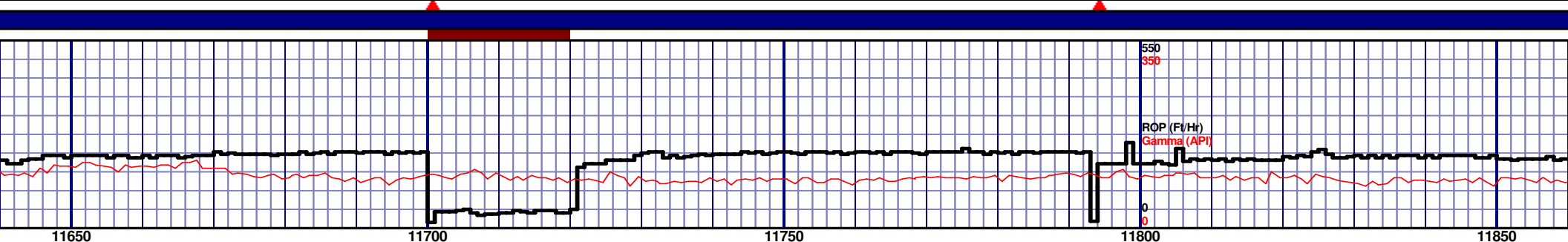
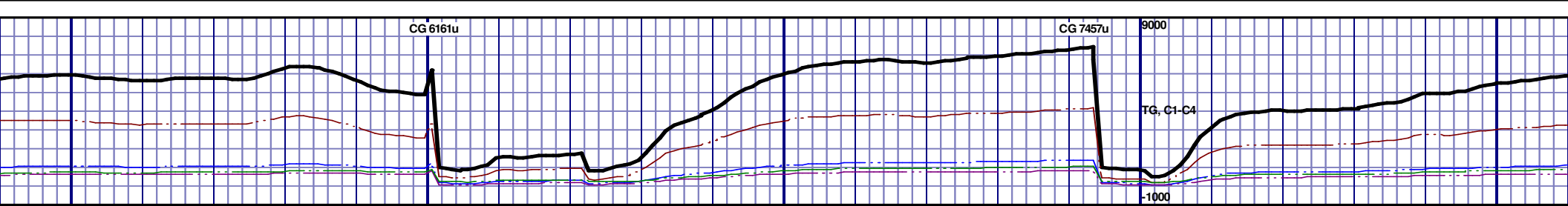
MD 11175 TVD 6644.39
INC 90.65 AZ 88.43
VS 4744.25



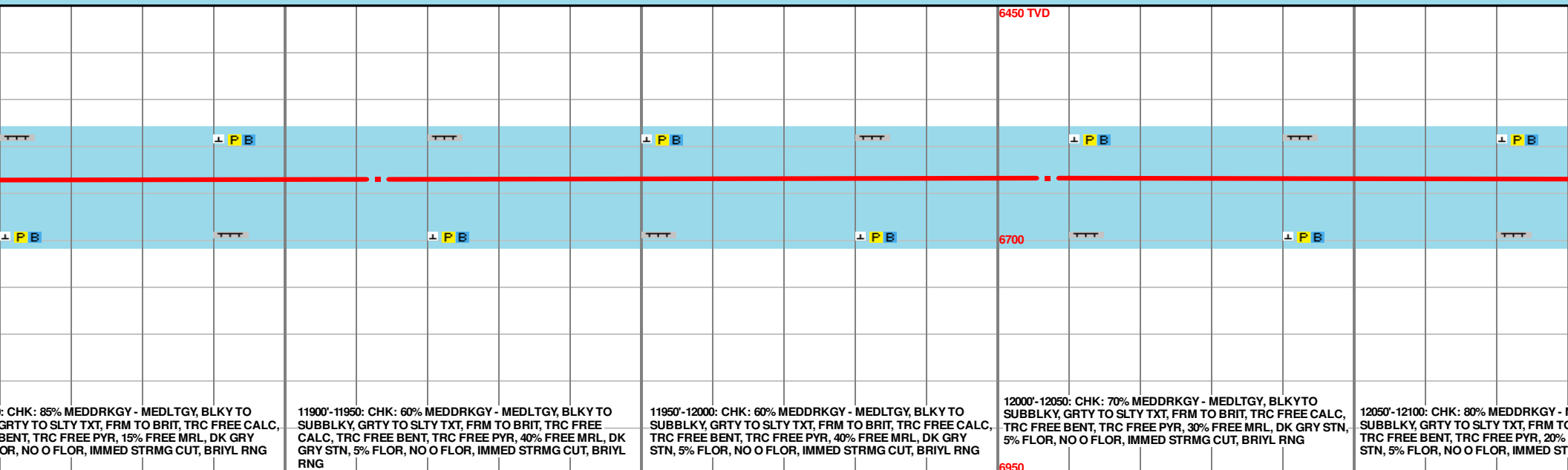
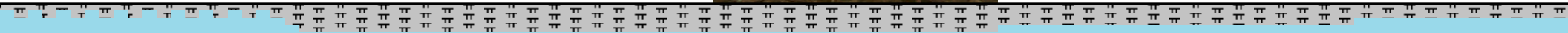
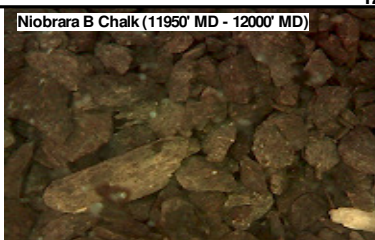
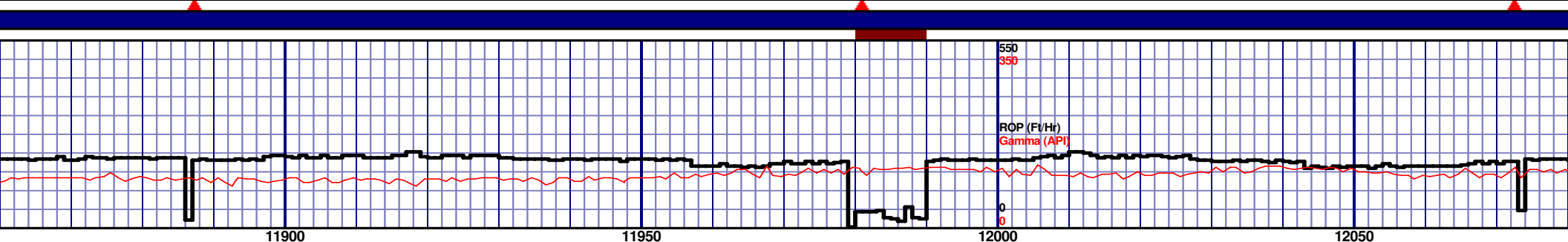
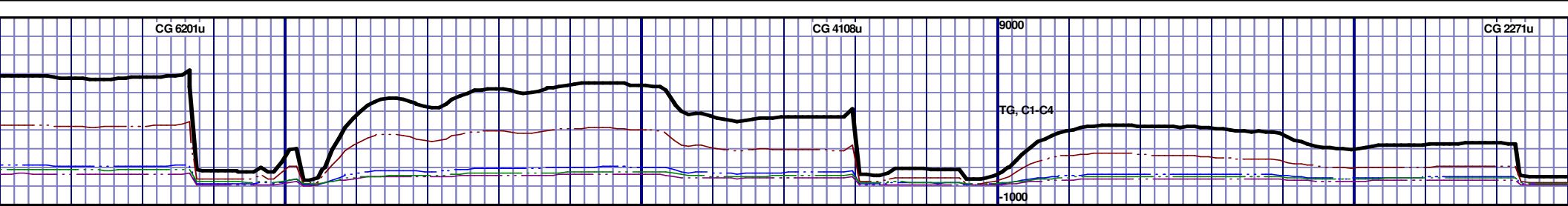
<p>11200'-11250': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC IMBD PYR, 45% FREE CHK, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>11250'-11300': CHK: 55% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 45% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>11300'-11350': MRST: 65% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC IMBD PYR, 35% FREE CHK, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>11350'-11400': MRST: 65% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC IMBD PYR, 35% FREE CHK, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>11400'-11450': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC IMBD PYR, 35% FREE CHK, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>
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MD 11268 TVD 6643.56
INC 90.37 AZ 87.5
VS 4837.21

MD 11360 TVD 6643.79
INC 89.35 AZ 86.98
VS 4929.2

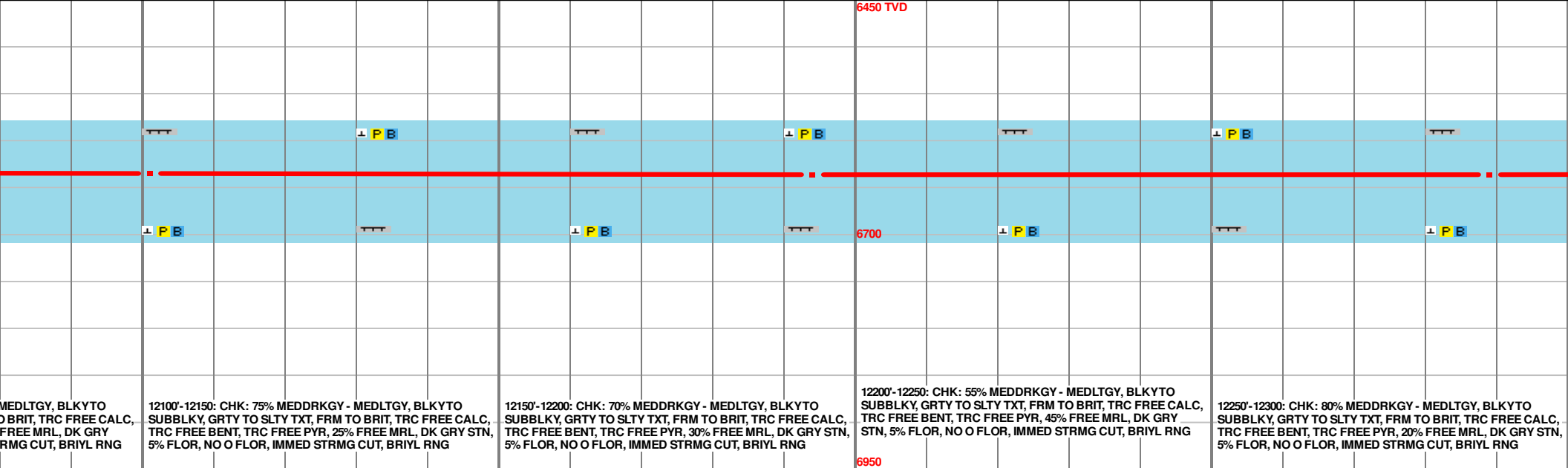
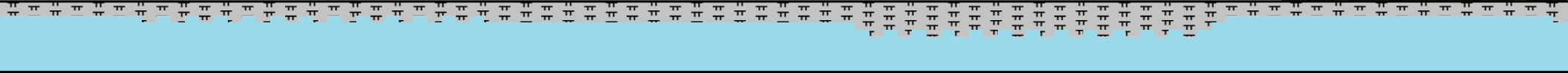
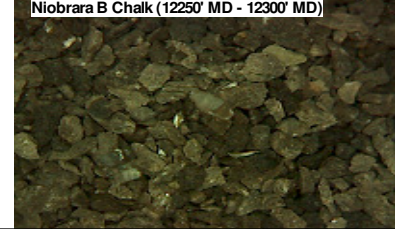
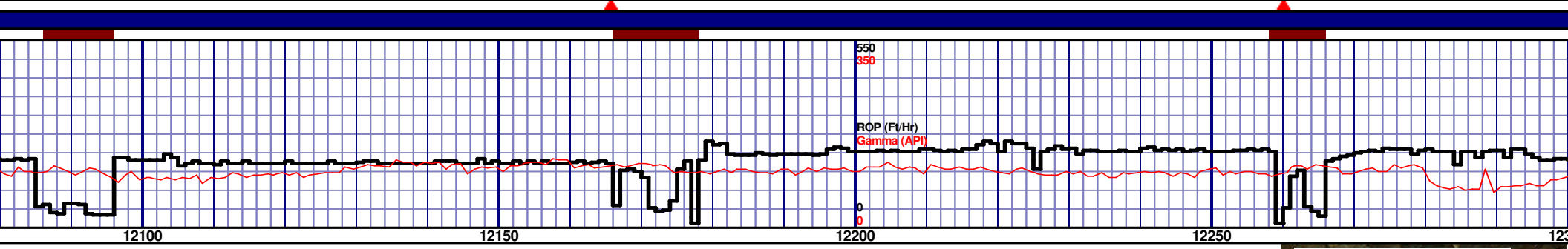
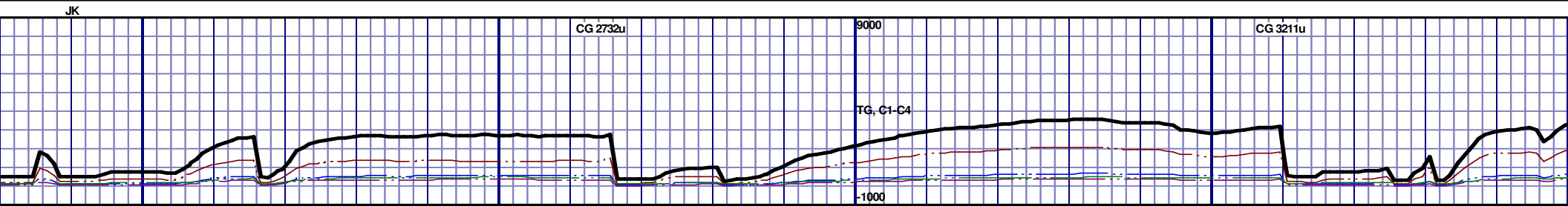


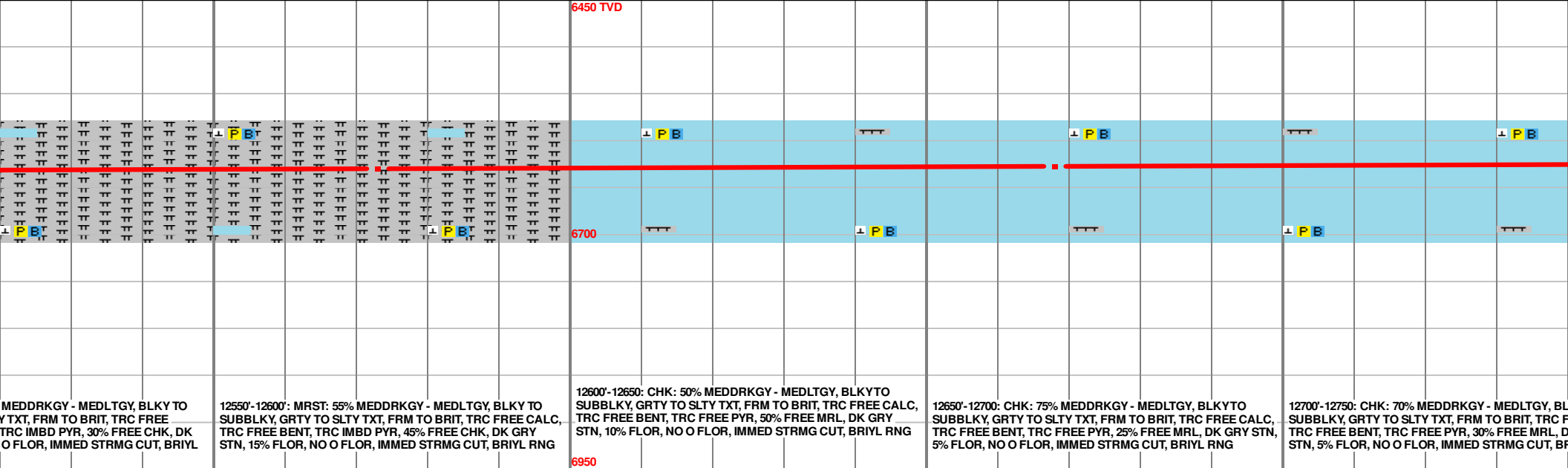
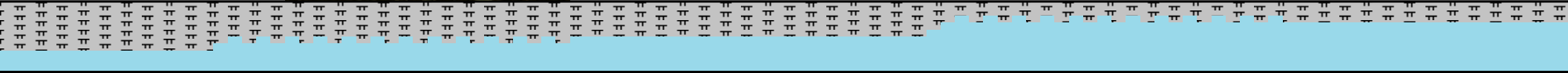
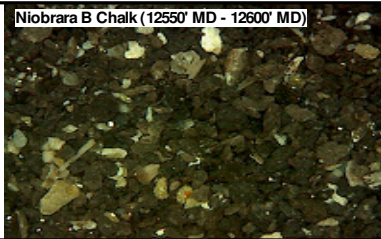
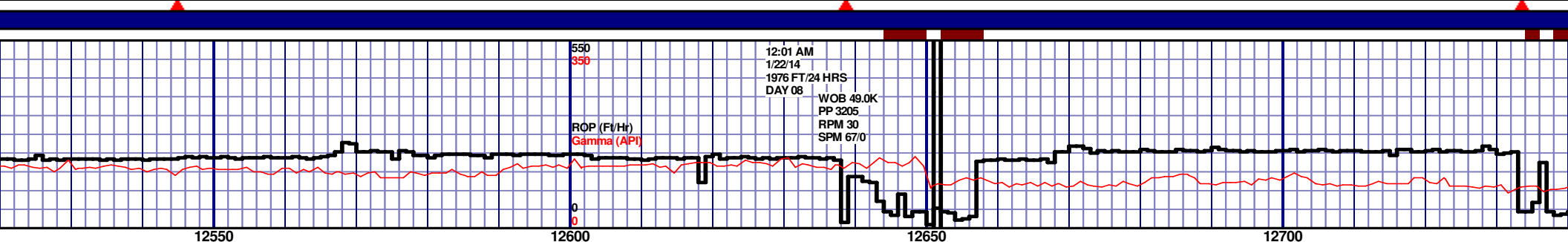
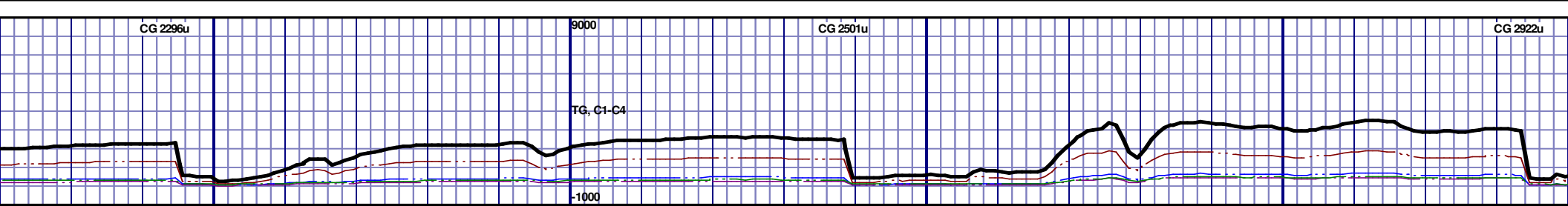
11650'-11700': CHK: 80% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 20% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	11700'-11750': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE PYR, 40% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	11750'-11800': CHK: 65% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 35% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	11800'-11850': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 40% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	11850'-11900': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 40% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG
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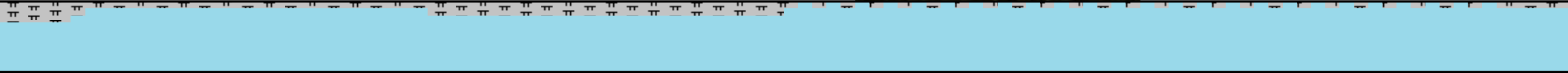
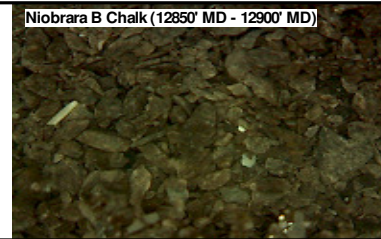
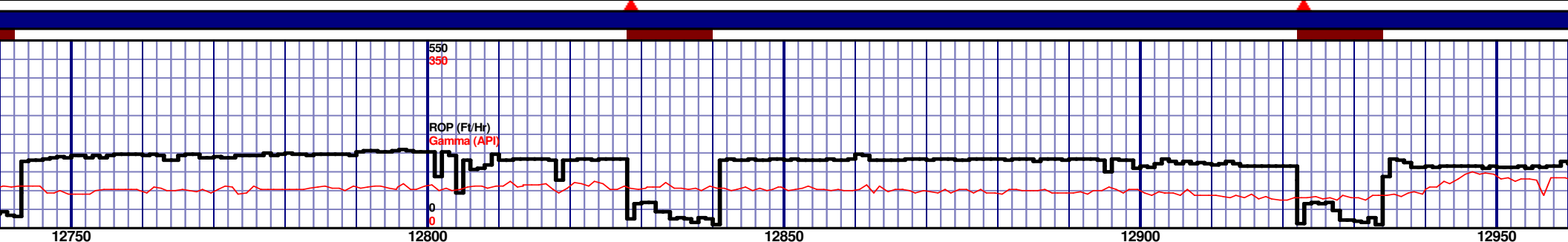
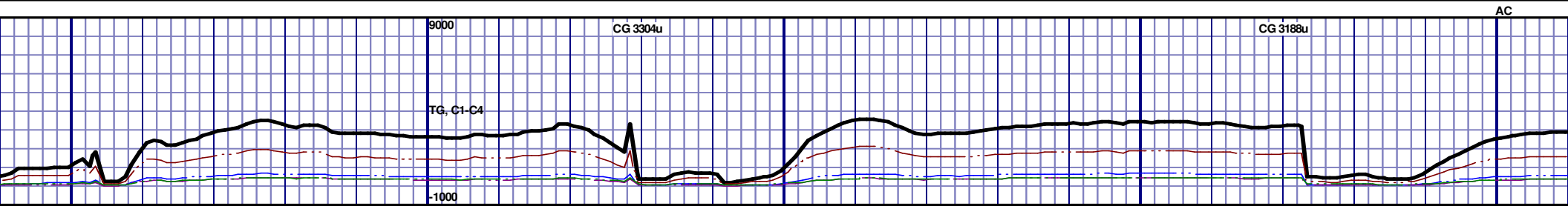


MD 11913 TVD 6635.46
INC 90.65 AZ 90.39
VS 5481.27

MD 12007 TVD 6634.09
INC 91.02 AZ 89.47
VS 5575.08





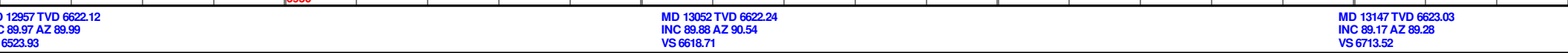
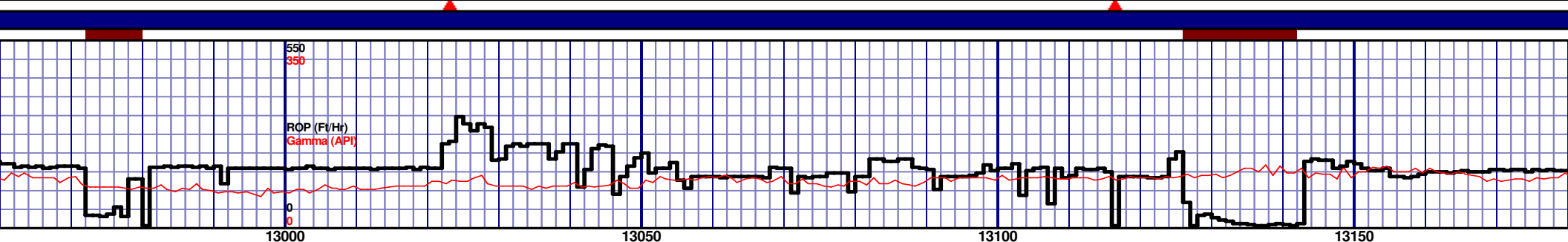


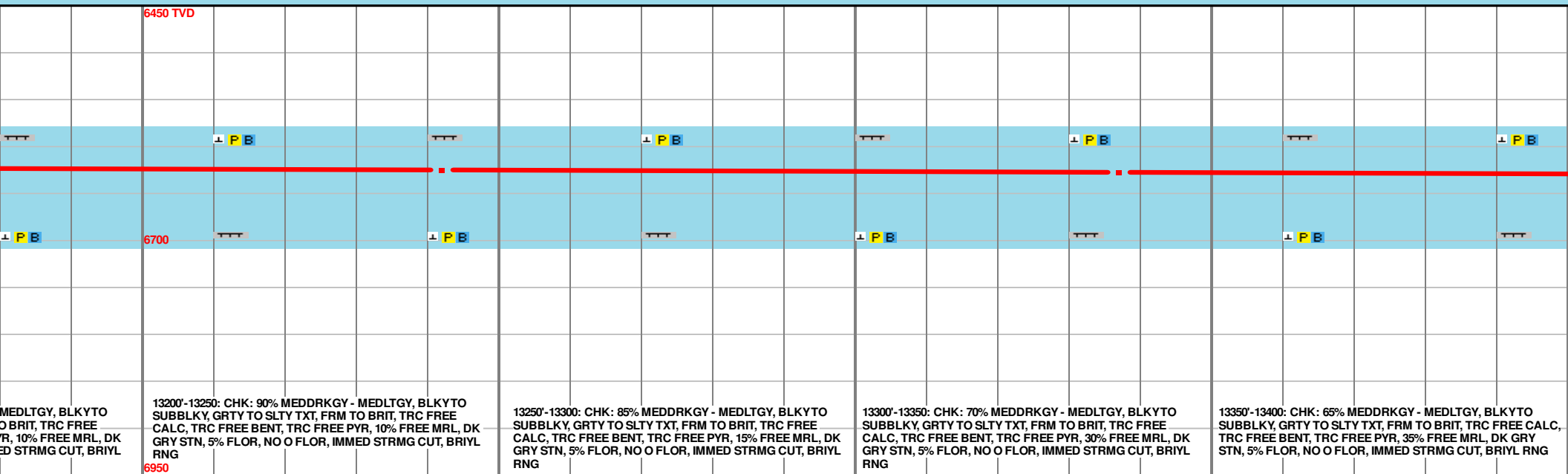
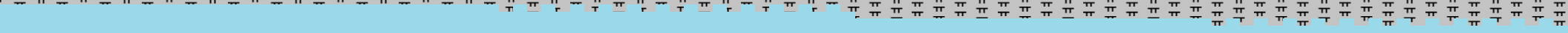
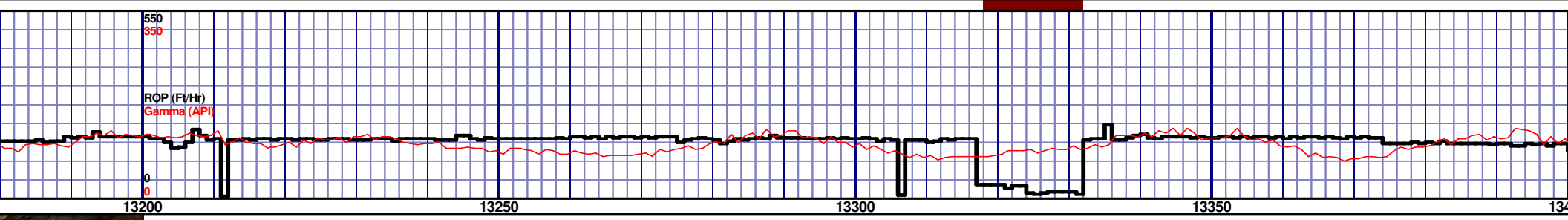
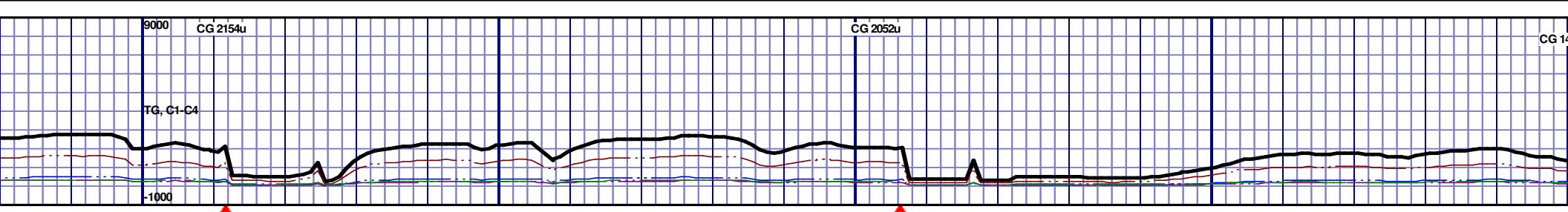
6450 TVD									
6700									
12750'-12800: CHK: 90% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 10% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					12800'-12850: CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 20% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
6950									
12850'-12900: CHK: 95% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 5% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					12900'-12950: CHK: 95% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 5% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
					12950'-12900: CHK: 95% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 5% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				

MD 12763 TVD 6625.45
INC 91.33 AZ 90.13
VS 6330.46

MD 12858 TVD 6623.24
INC 91.33 AZ 90.83
VS 6425.19

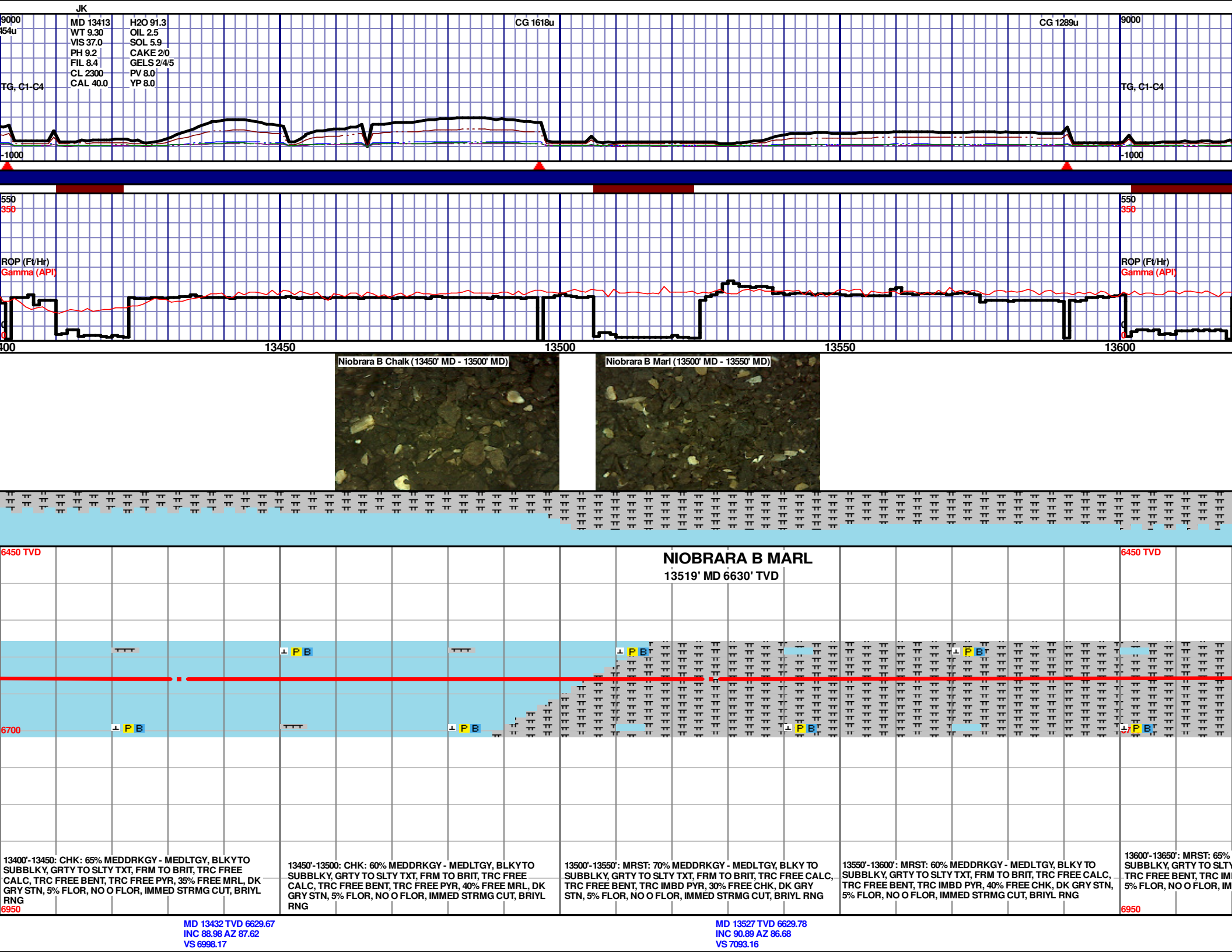
MD
INC
VS

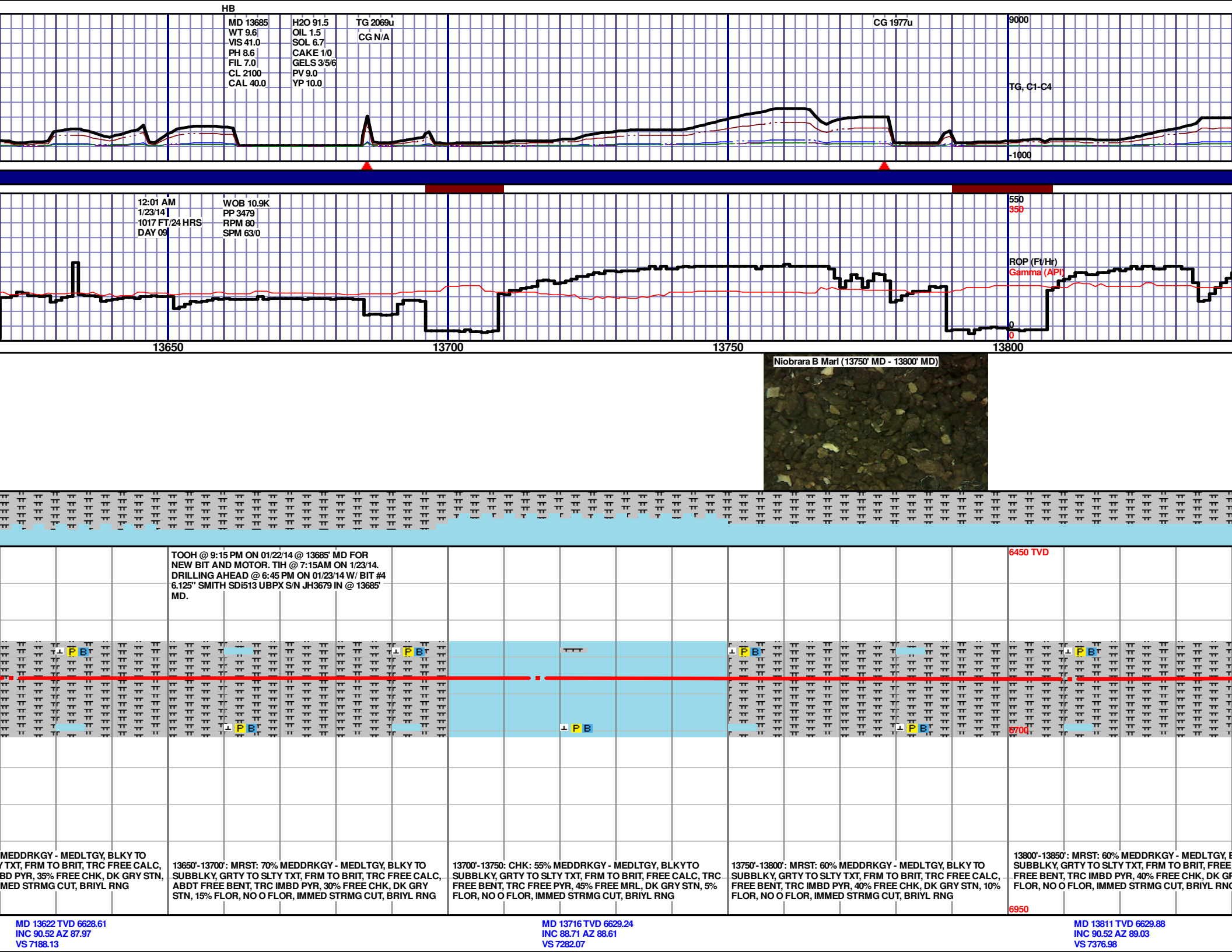


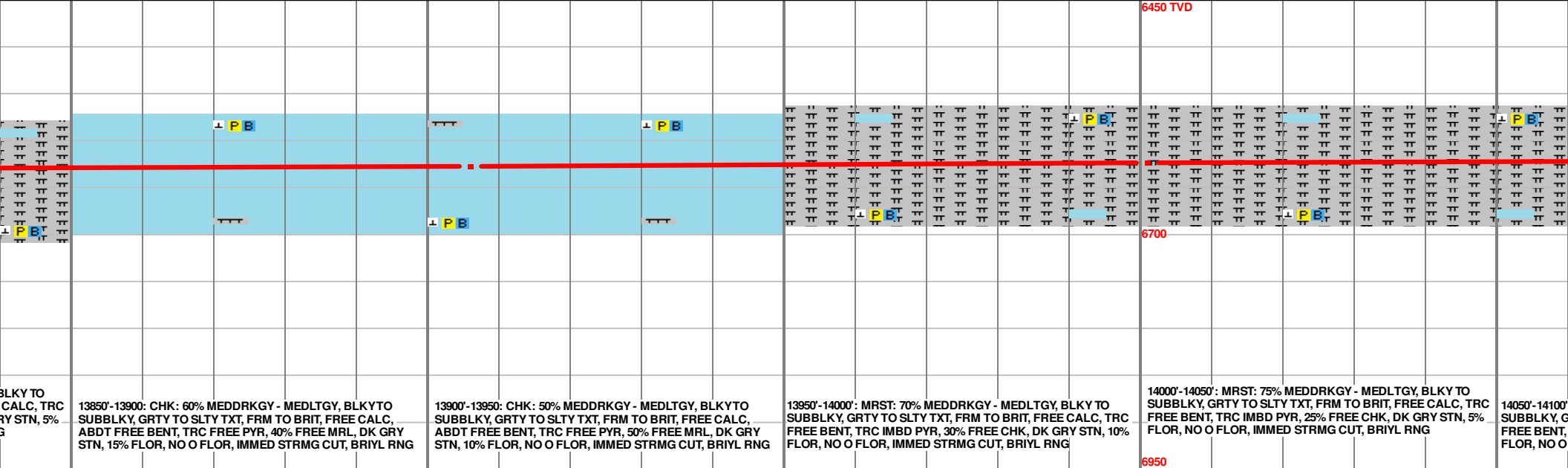
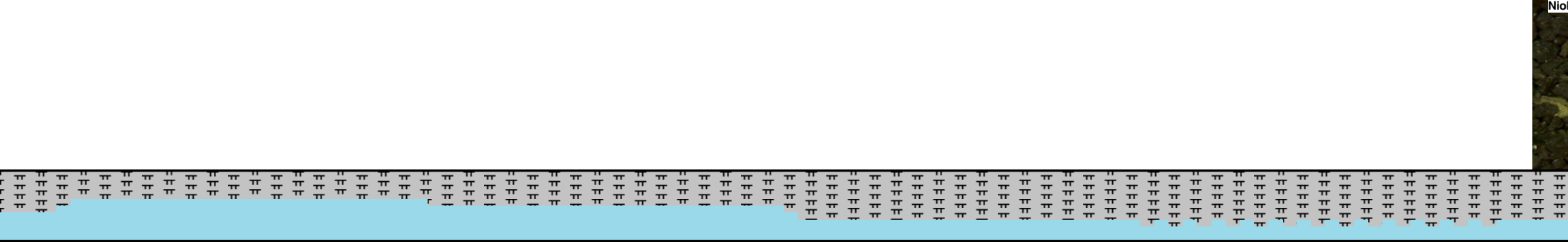
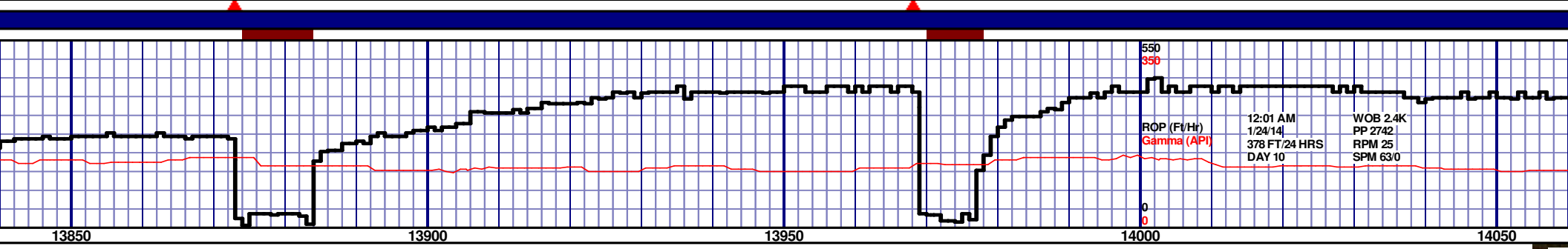
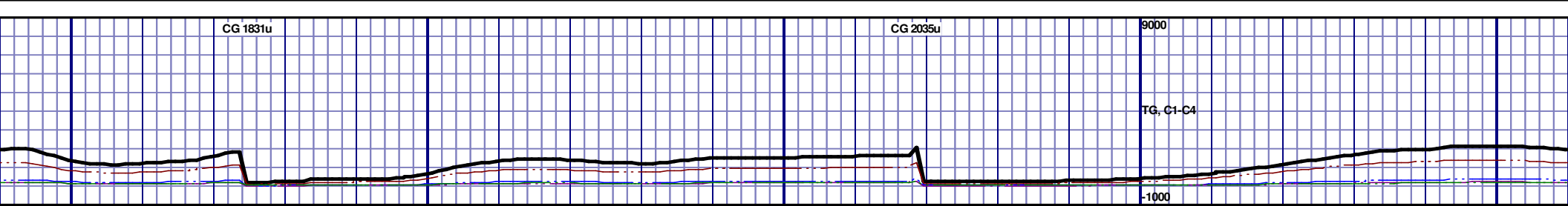


MD 13242 TVD 6624.79
INC 88.71 AZ 89.73
VS 6908.37

MD 13337 TVD 6627.34
INC 88.21 AZ 88.13
VS 6903.23

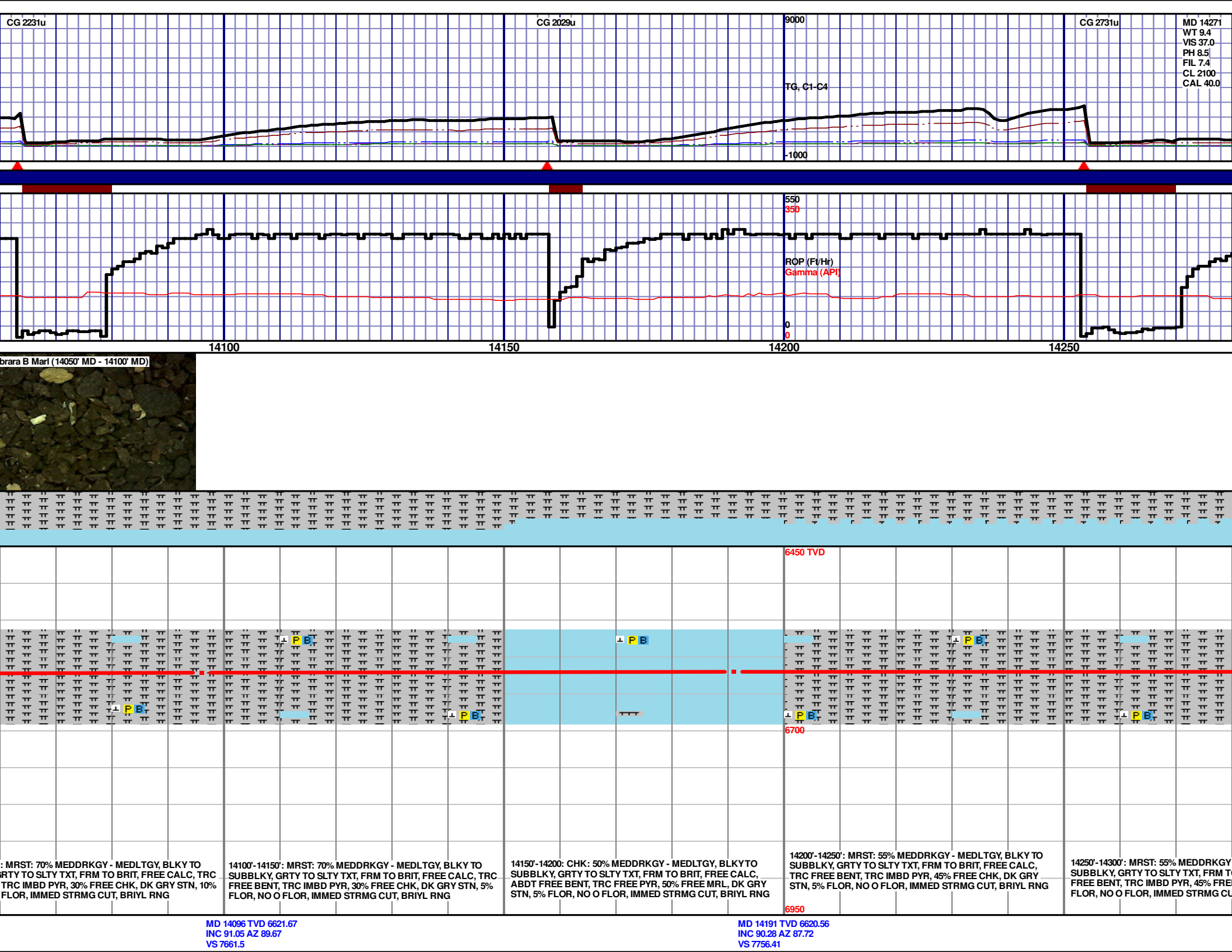


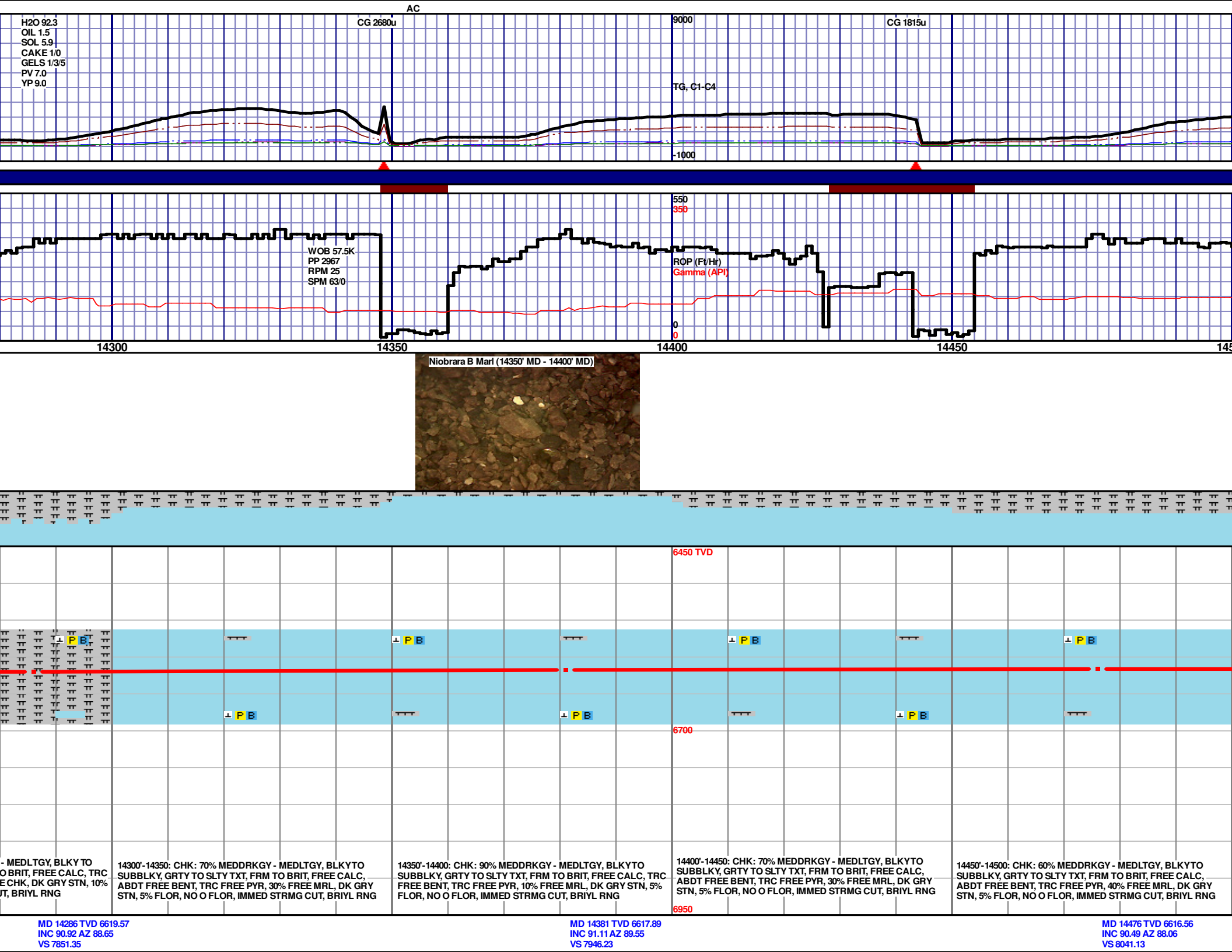


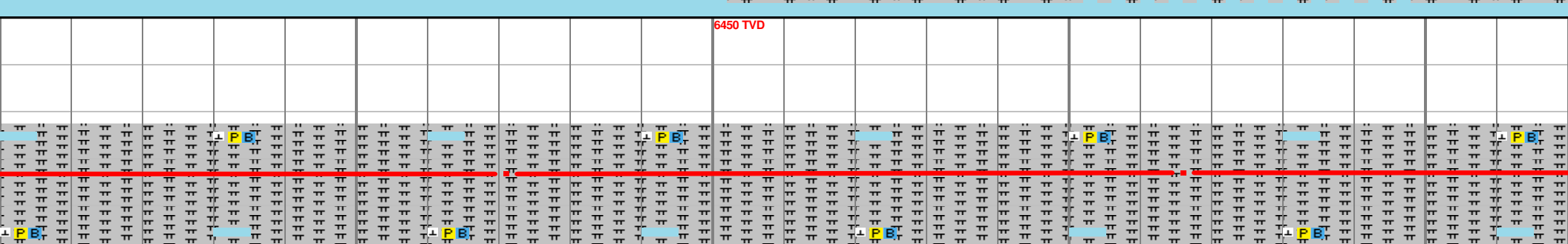
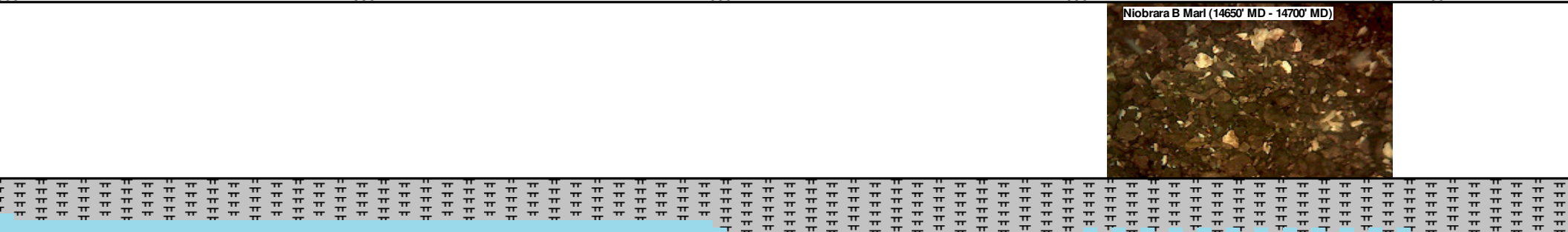
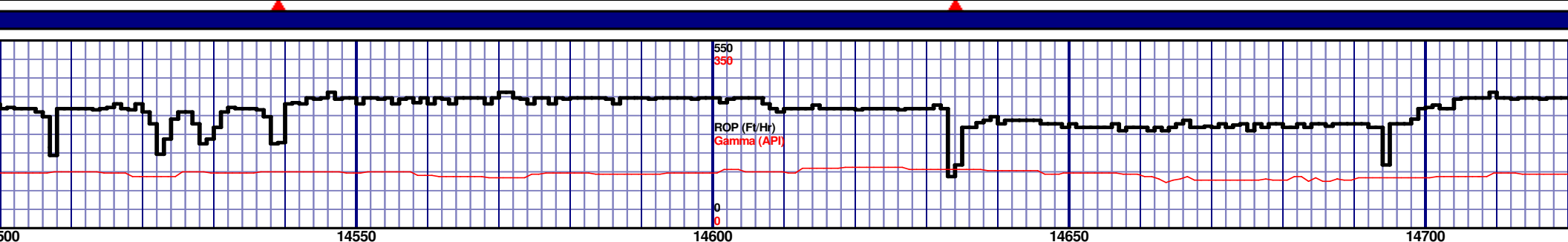


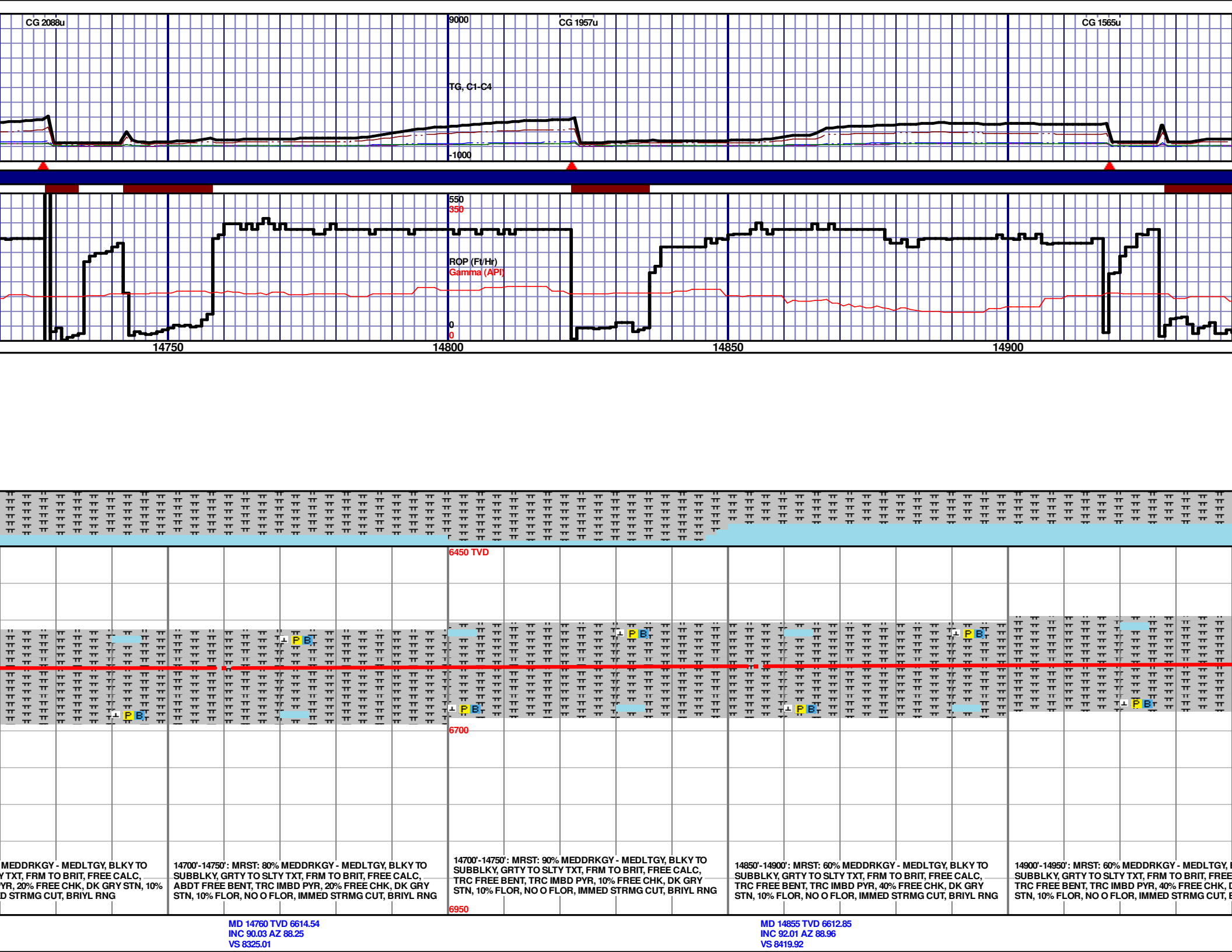
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INC 92.35 AZ 89.43
VS 7471.83

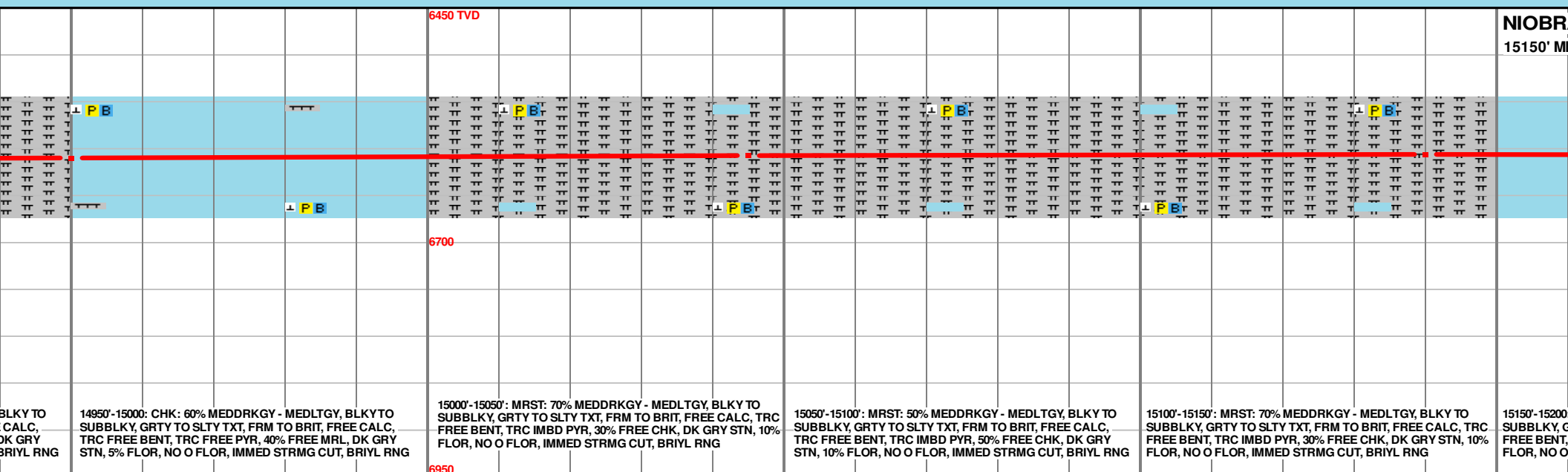
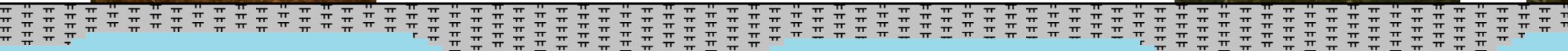
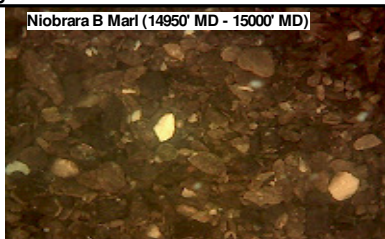
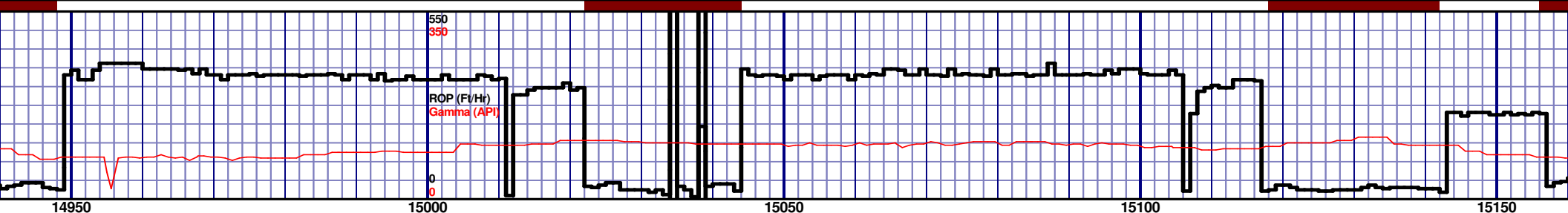
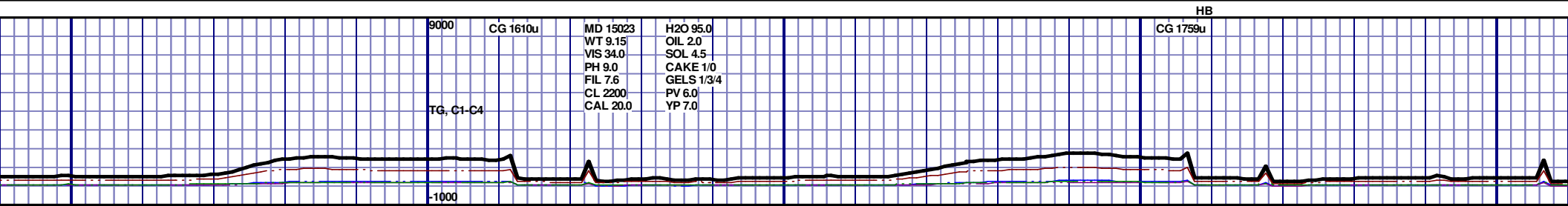
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INC 91.82 AZ 88.93
VS 7566.65





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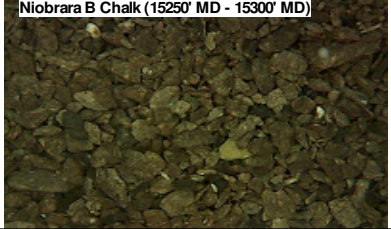
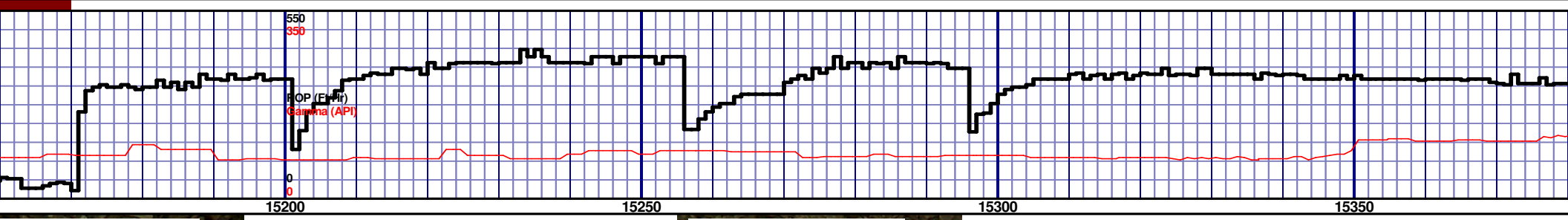
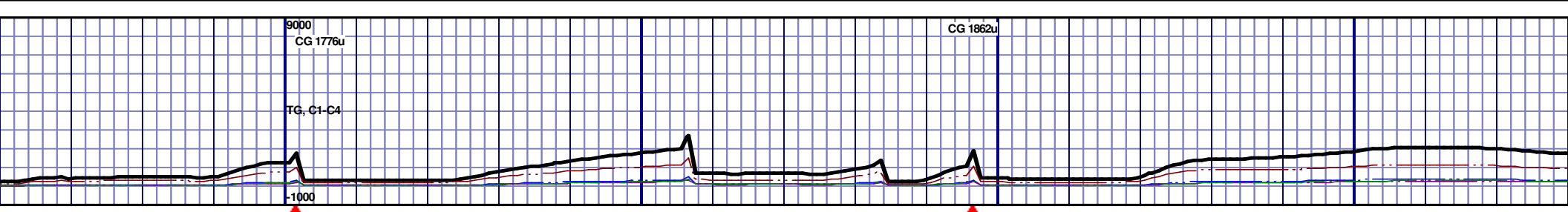




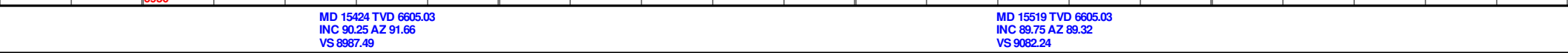
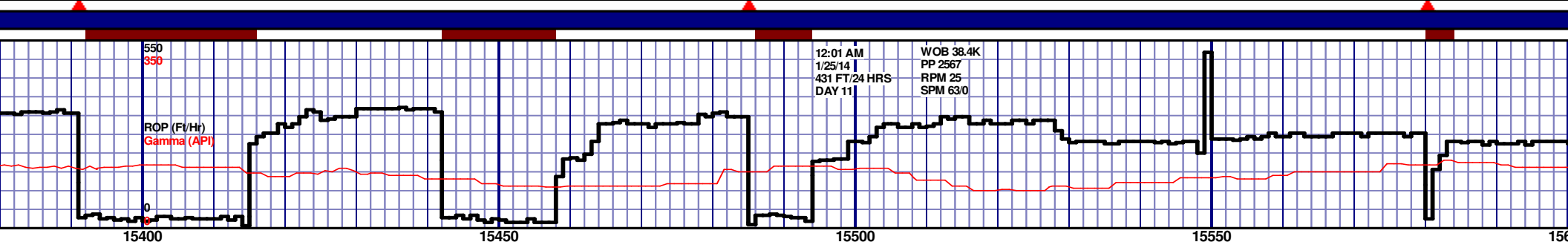
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INC 91.85 AZ 89.74
VS 8514.73

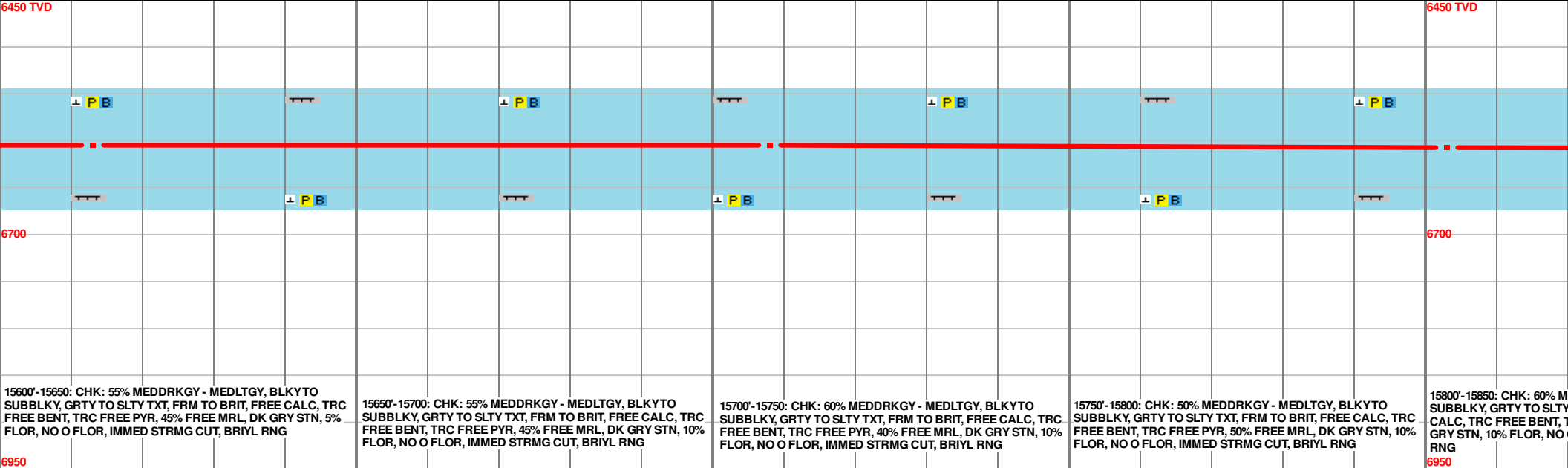
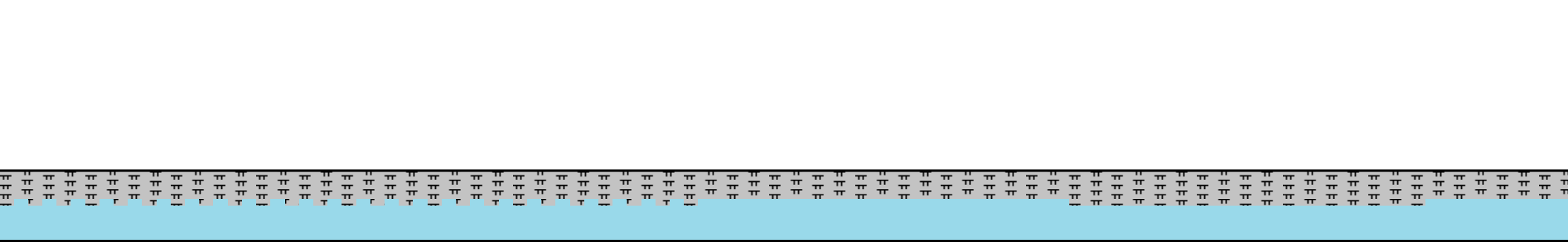
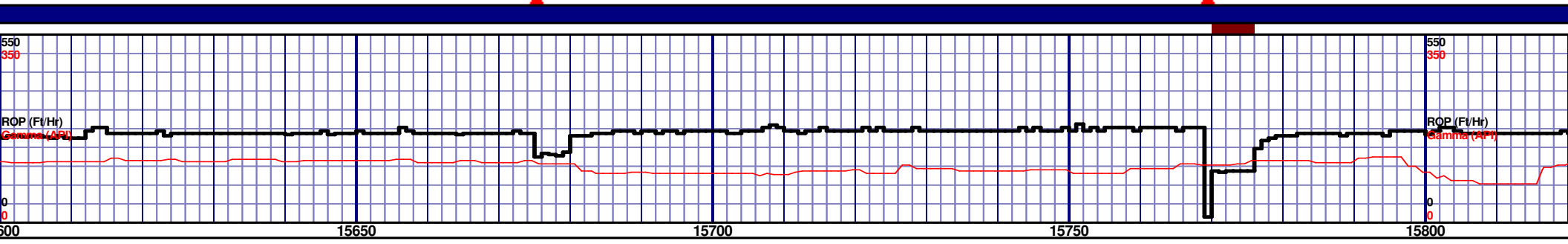
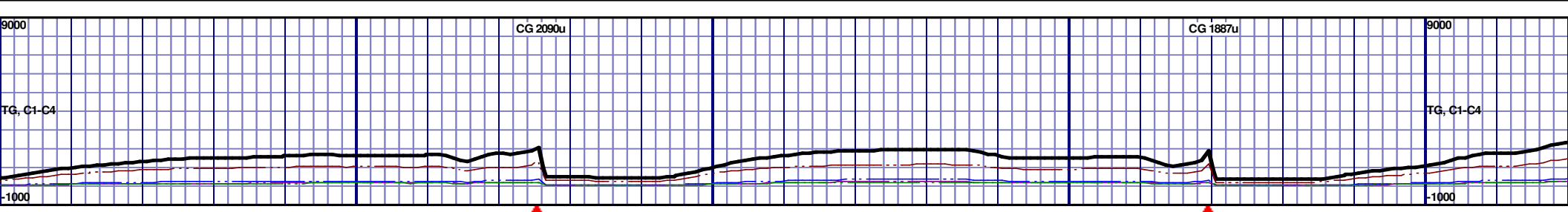
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INC 91.39 AZ 90.14
VS 8609.51

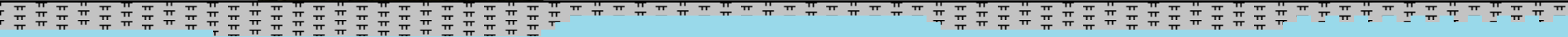
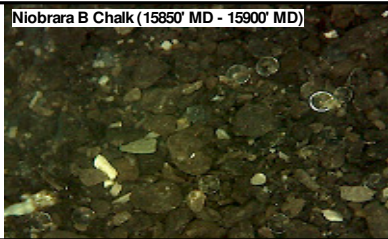
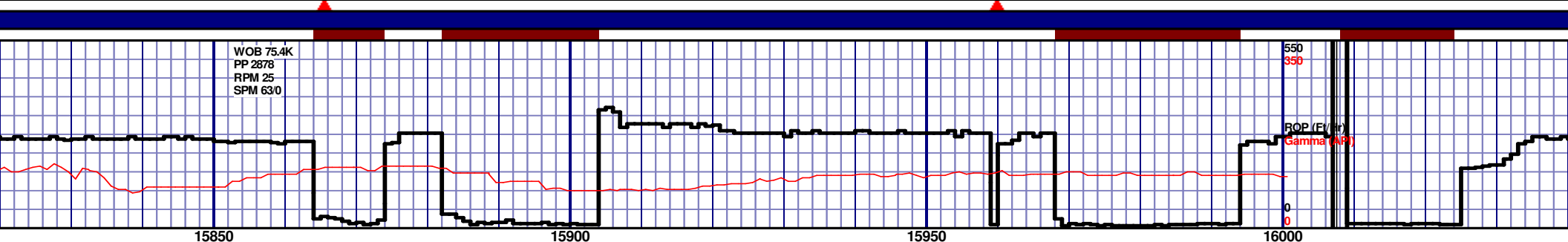
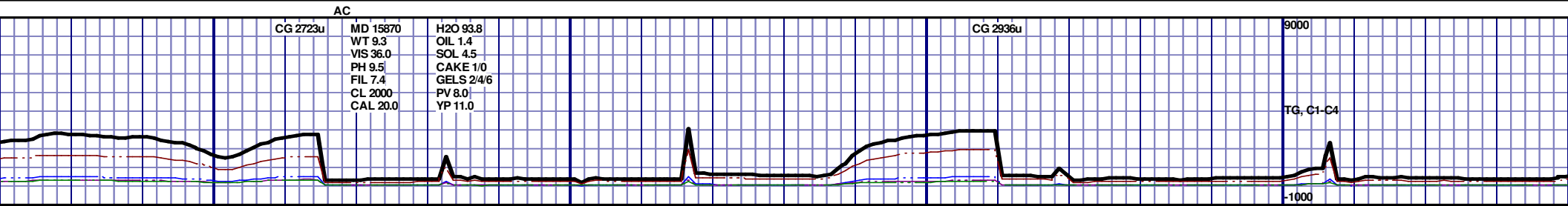
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INC 89.35 AZ 89.32
VS 8704.34



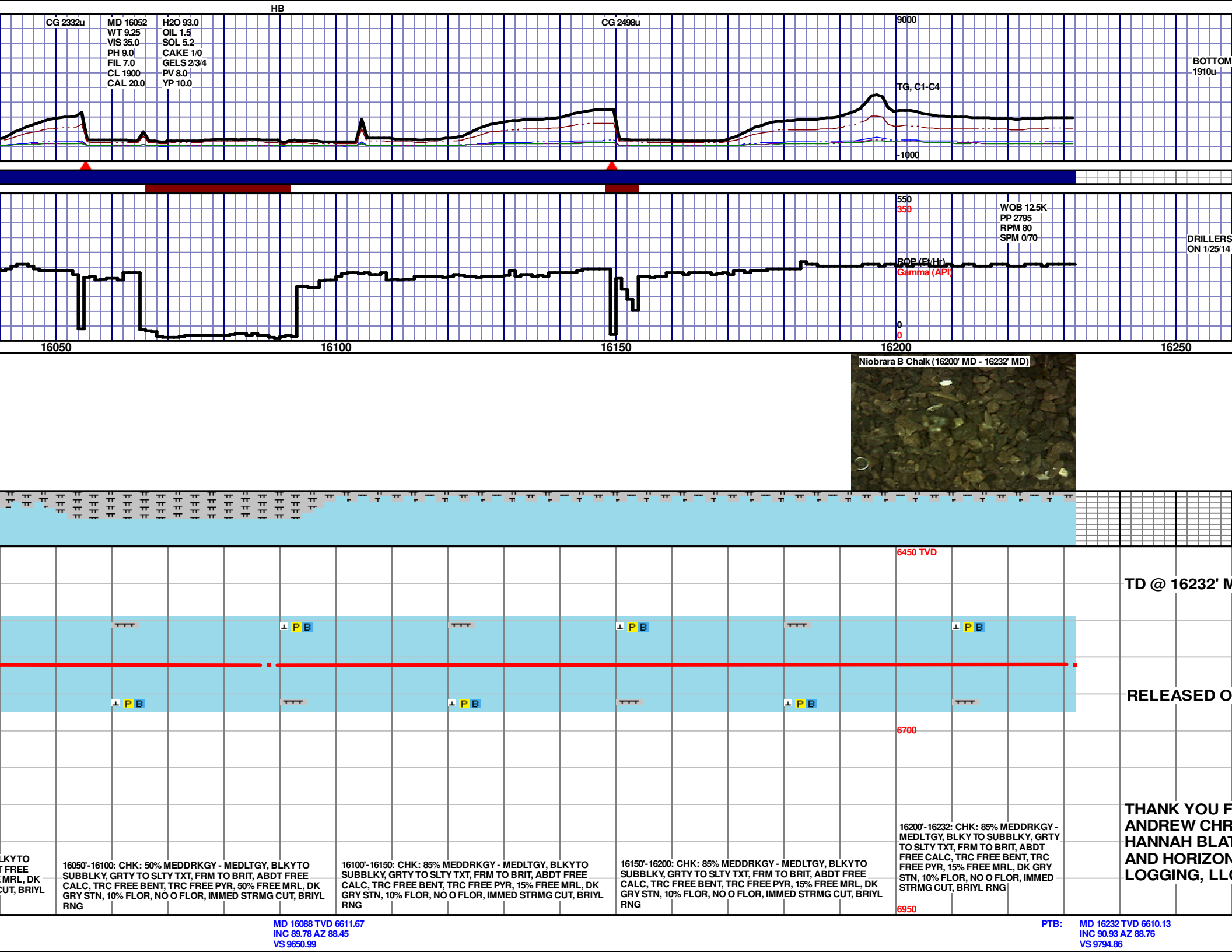
Niobrara B Chalk (15150' MD - 15200' MD)		Niobrara B Chalk (15250' MD - 15300' MD)		Niobrara B Chalk (15300' MD - 15350' MD)		Niobrara B Chalk (15350' MD - 15400' MD)	
6450 TVD		6700		6950			
CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 20% FREE MRL, DK GRY STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG		CHK: 85% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 15% FREE MRL, DK GRY STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG		CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 20% FREE MRL, DK GRY STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG		CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC FREE BENT, TRC FREE PYR, 40% FREE MRL, DK GRY STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	







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