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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

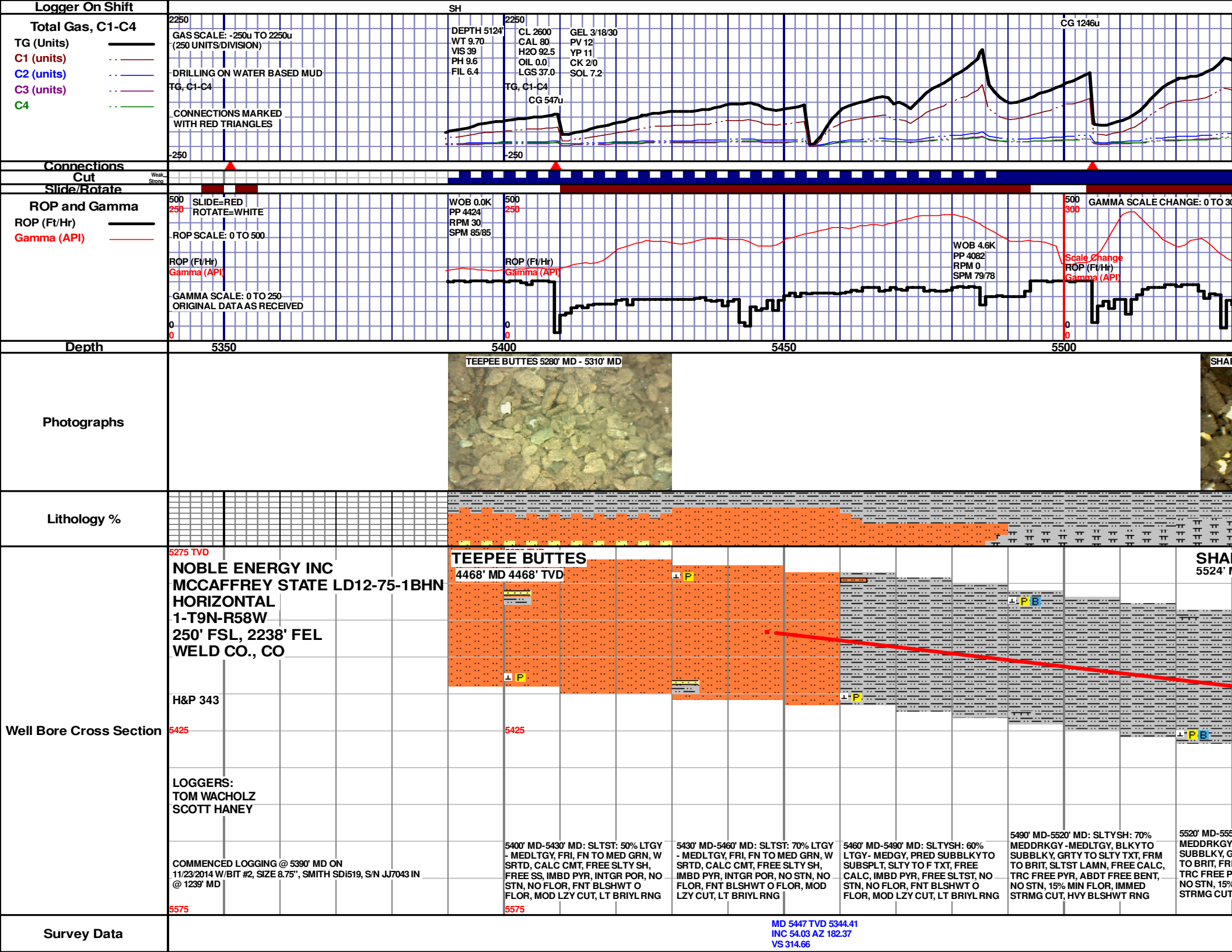
Logger: Tom Wacholz &
Scott Haney
Log Interval: 5390' MD to 10303' MD
Start Date: November 23, 2014
Release Date: November 27, 2014

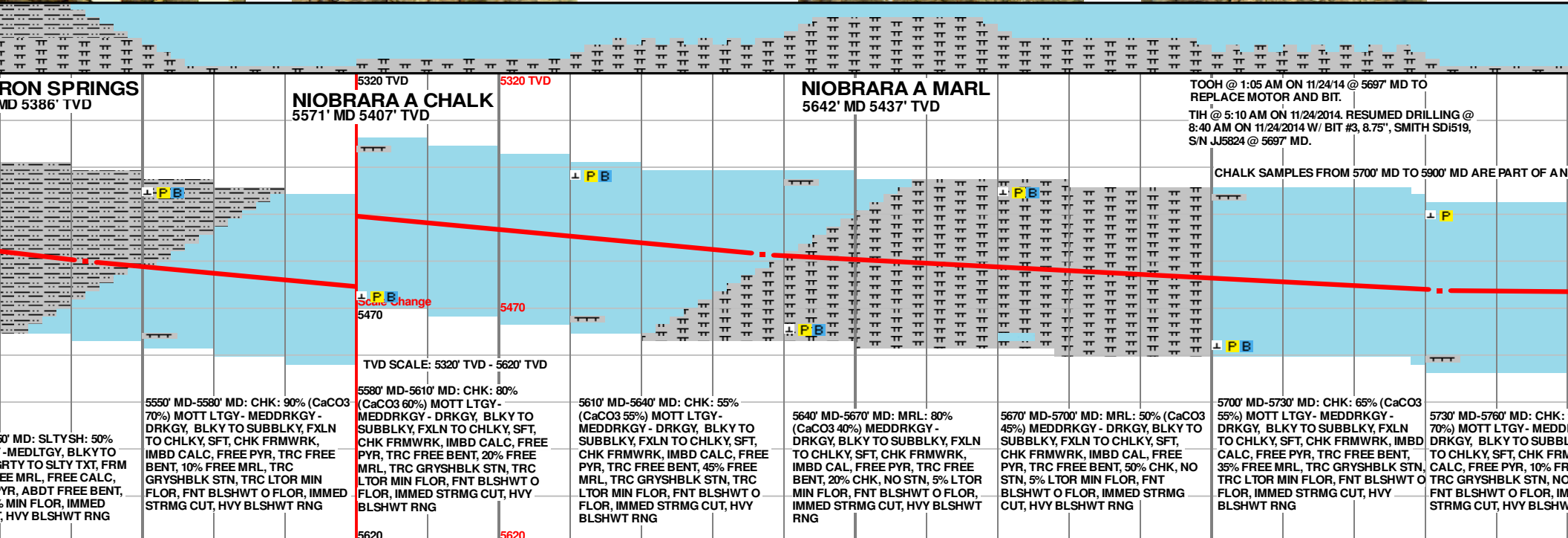
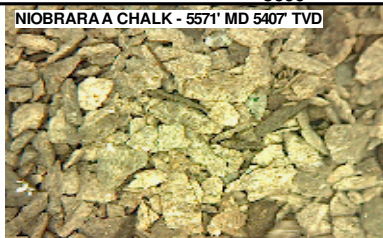
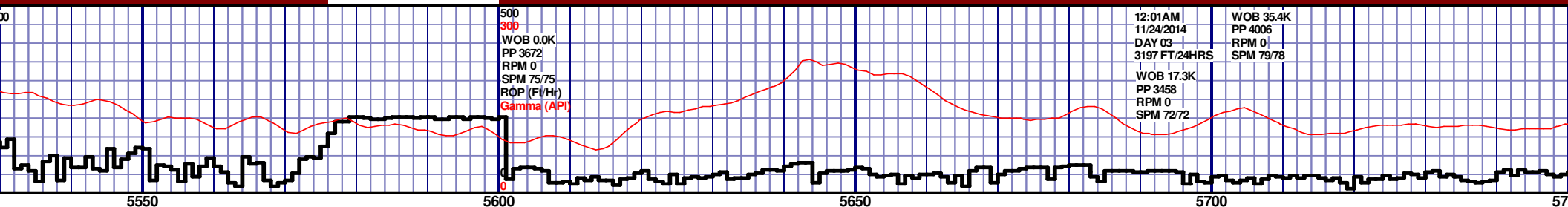
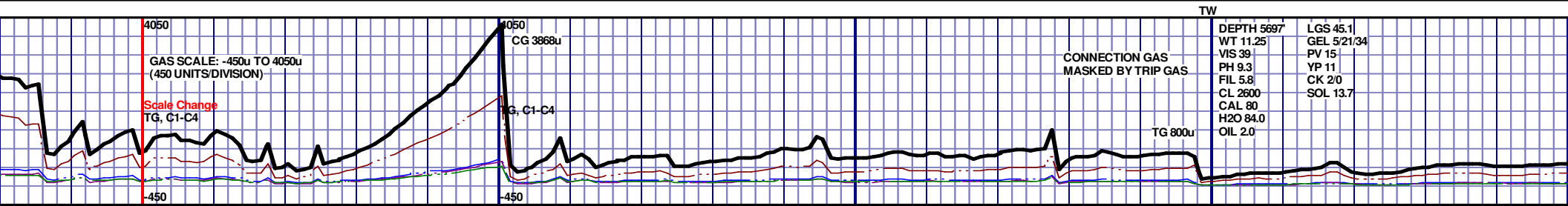
Well Information

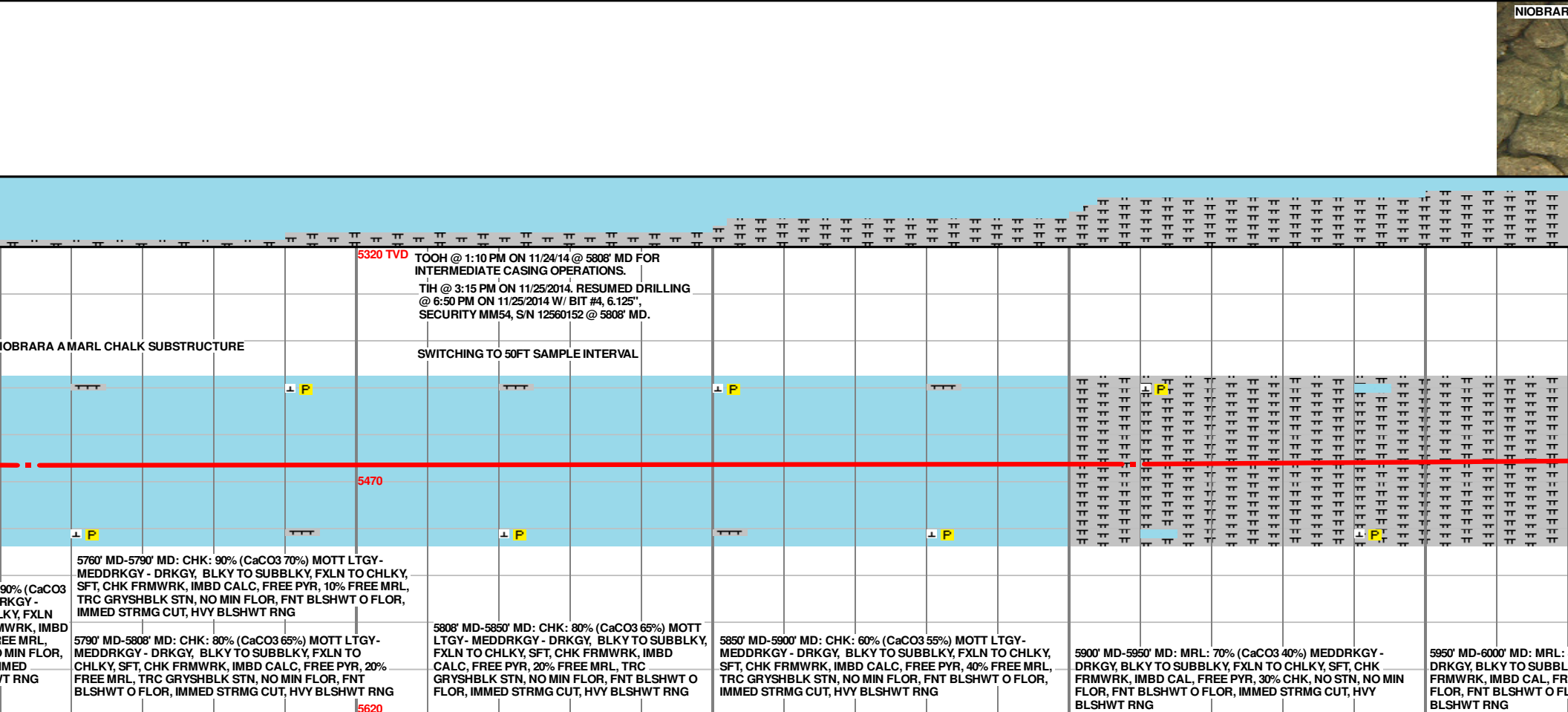
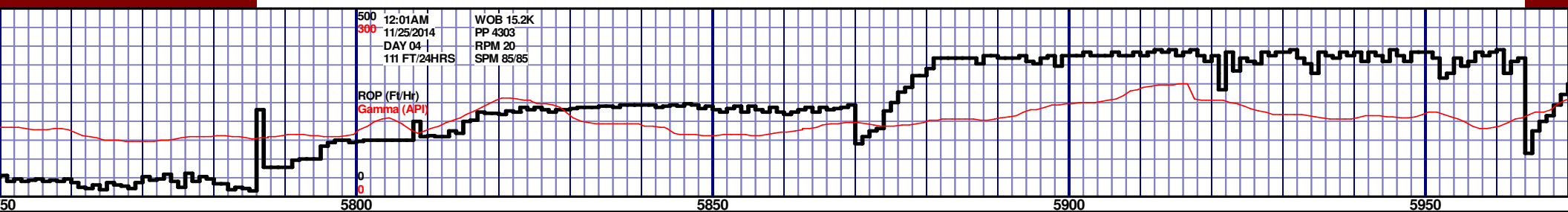
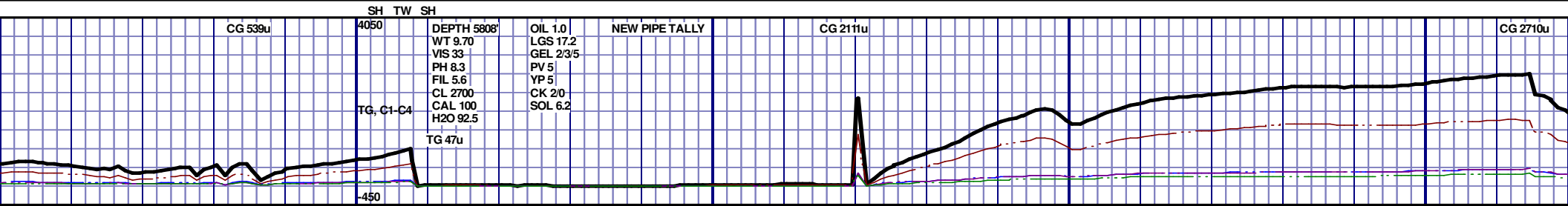
Well Name: McCaffrey State
LD12-75-1BHN Horizontal
Location: 1-T9N-R58W
250' FSL, 2238' FEL

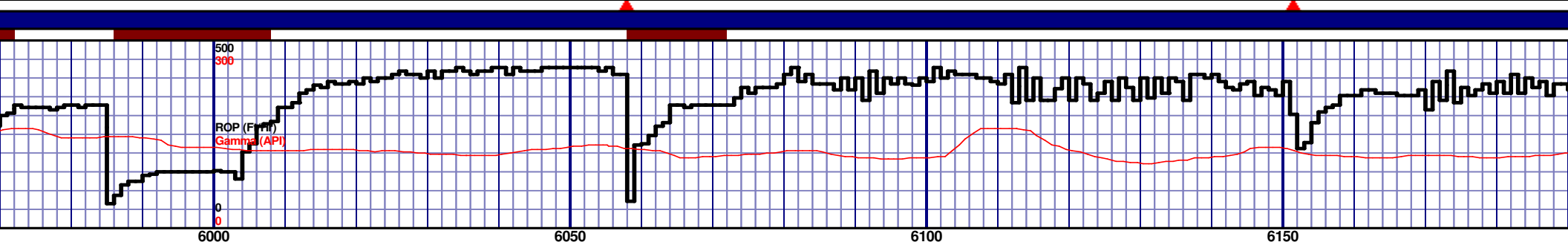
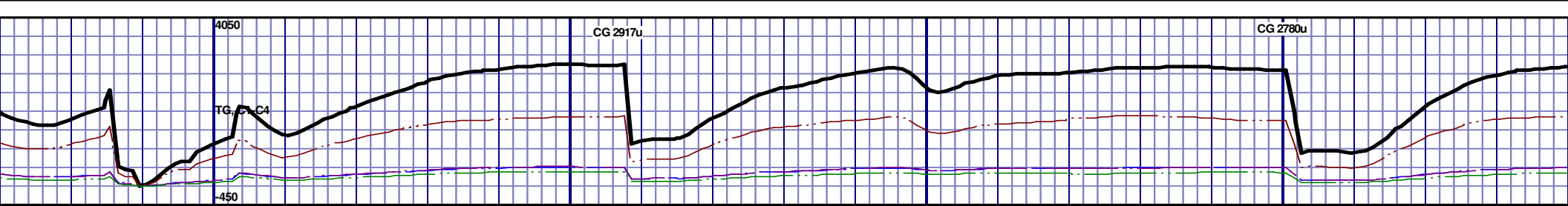
County: Weld
State: Colorado

Drilling Rig: H&P 343
Total Depth: 10303' MD
TD Date: November 27, 2014
Formation: Niobrara A Chalk
KB Elevation: 4656'
GR Elevation: 4632'
API Number: 05-123-39654-0000







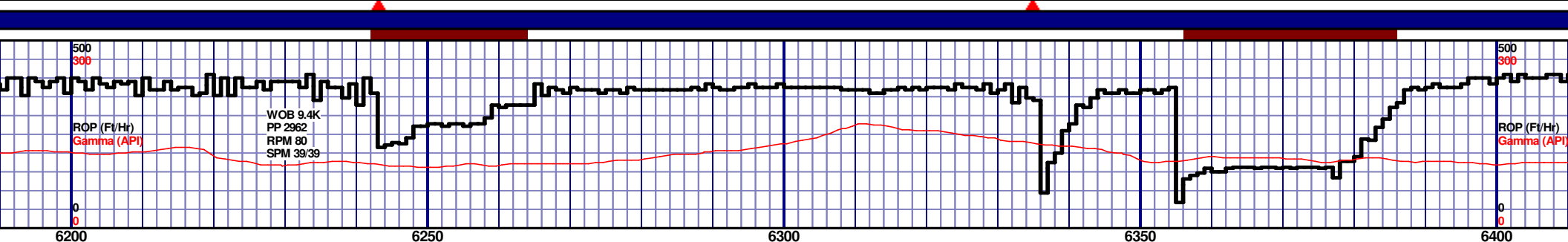
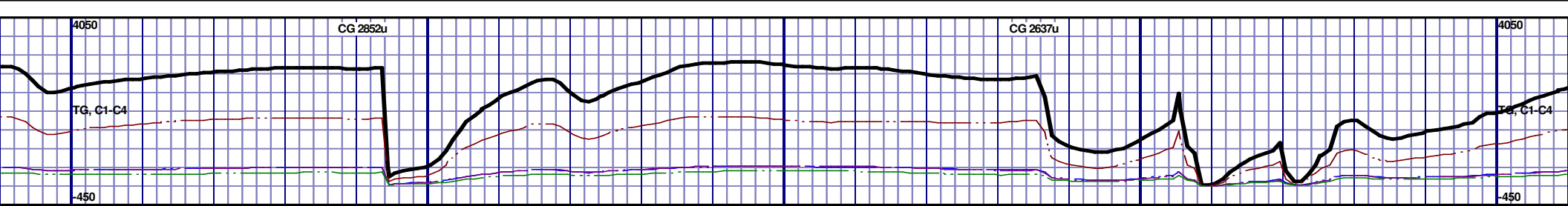


6000' MD-6050' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	6050' MD-6100' MD: MRL: 70% (CaCO3 40%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 30% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	6100' MD-6150' MD: MRL: 55% (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 45% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	6150' MD-6200' MD: MRL: 70% (CaCO3 40%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 30% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG
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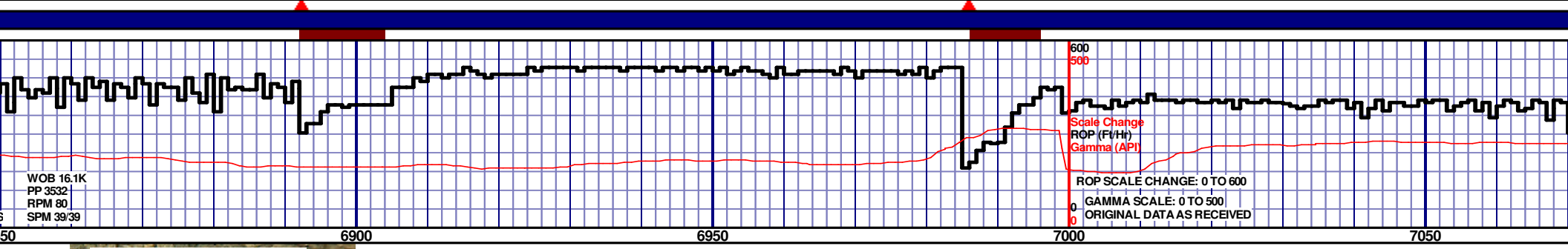
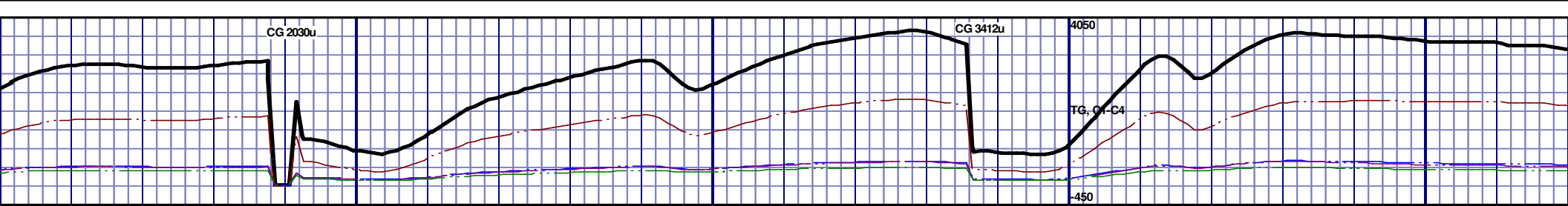
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INC 90.74 AZ 179.48
VS 842.77

MD 6096 TVD 5454.57
INC 90.8 AZ 179.47
VS 935.76

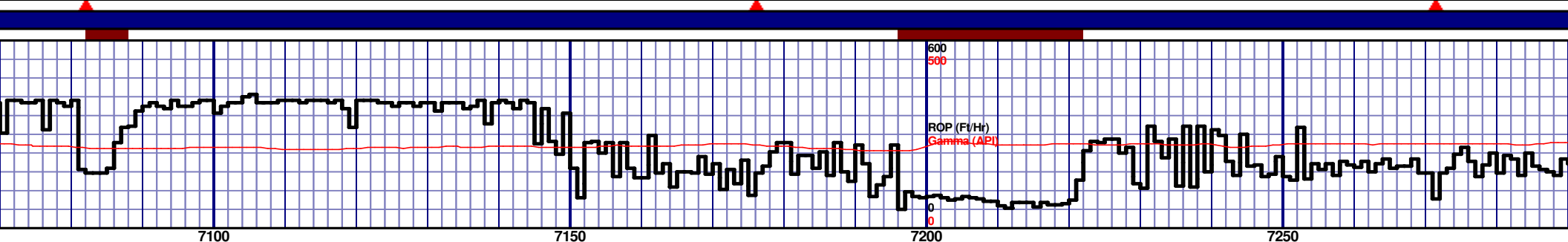
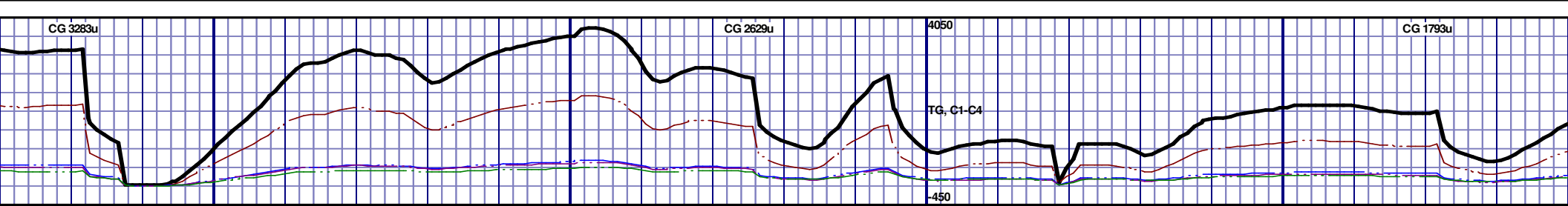
MD
INC
VS



5320 TVD					5320 TVD				
5420					5470				
6200' MD-6250' MD: MRL: 55% (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 45% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG					6250' MD-6300' MD: MRL: 50% (CaCO3 50%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 50% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG				
6300' MD-6350' MD: MRL: 60% (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 40% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG					6350' MD-6400' MD: MRL: 50% (CaCO3 50%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 50% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG				
6400' MD-6450' MD: MRL: 50% (CaCO3 50%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 50% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG					6400' MD-6450' MD: MRL: 50% (CaCO3 50%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 50% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG				



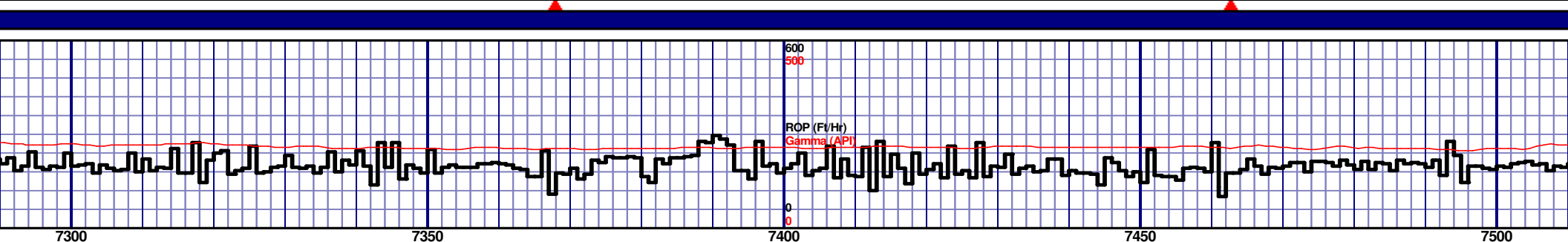
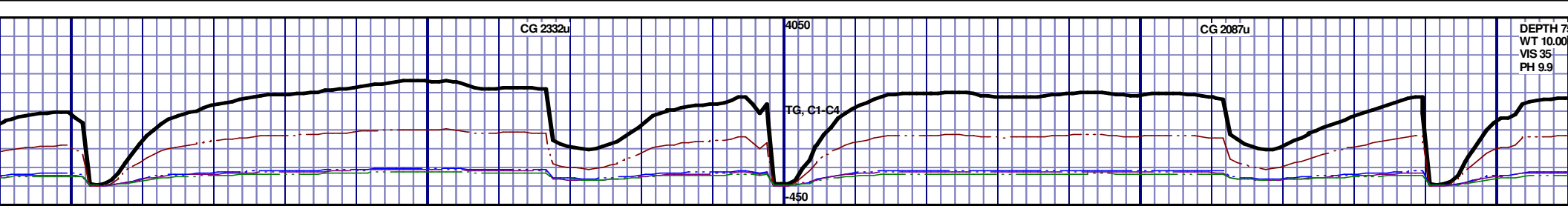
6850' MD-6900' MD: MRL: 60% (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 40% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
6900' MD-6950' MD: CHK: 70% (CaCO3 60%) MOTT LTGY- MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 30% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
6950' MD-7000' MD: CHK: 70% (CaCO3 60%) MOTT LTGY- MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 30% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
7000' MD-7050' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 5% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
7050' MD-7100' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 5% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									



95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 5% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7100' MD-7150' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 5% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7150' MD-7200' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7200' MD-7250' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7250' MD-7300' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG
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INC 90.92 AZ 178.78
VS 1959.45

MD 7216 TVD 5439.9
INC 90.49 AZ 180.97
VS 2055.44

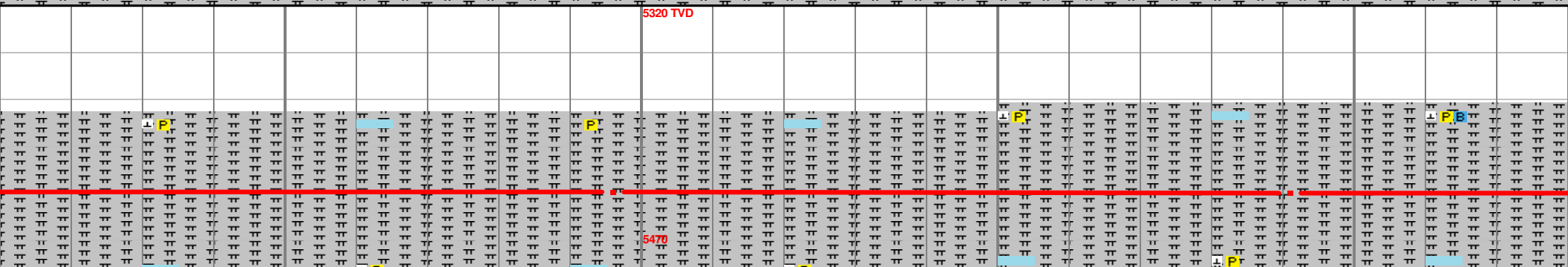
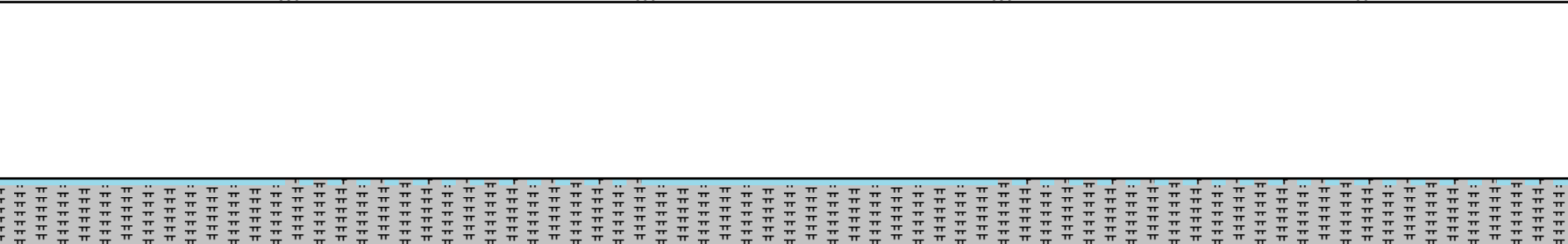
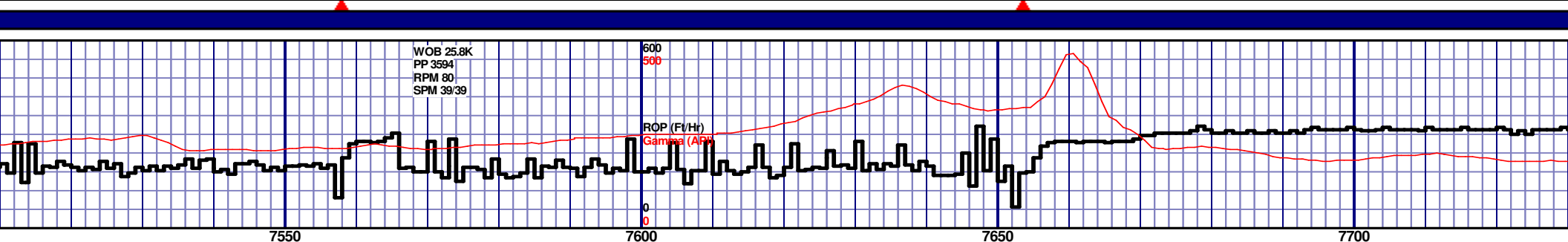


7300' MD-7350' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7350' MD-7400' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 5% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7400' MD-7450' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 5% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7450' MD-7500' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	7500' MD-7550' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, 10% CHK, NO STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG
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INC 90.18 AZ 182.4
VS 2150.39

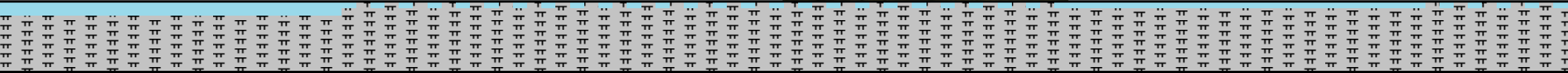
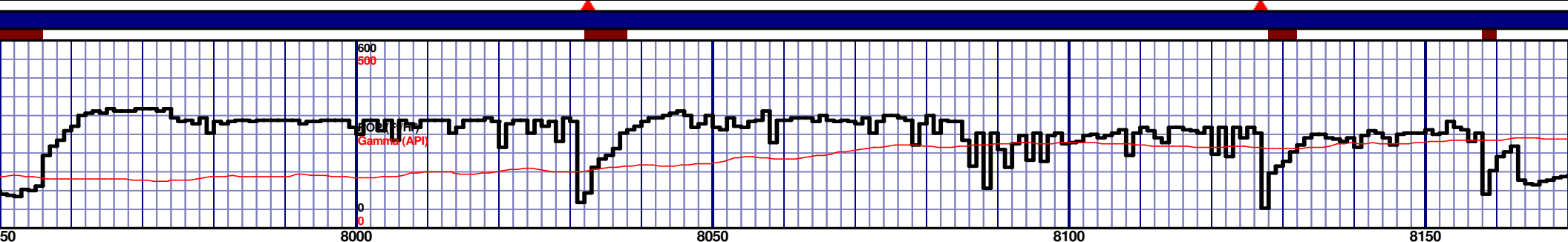
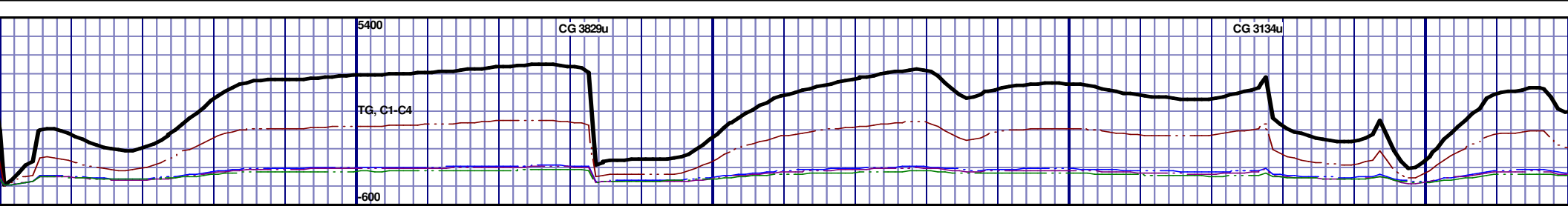
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INC 90 AZ 181.55
VS 2245.32

MD 7501 TVD 5439.18
INC 89.91 AZ 181.55
VS 2340.32

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	INC 89.75 AZ 180.43	INC 89.45 AZ 180.57
	VS 2625.25	VS 2720.24



7950' MD-8000' MD: MRL: 80% (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	8000' MD-8050' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 5% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	8050' MD-8100' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 5% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	8100' MD-8150' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	8150' MD-8200' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG
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7950' MD-8000' MD: MRL: 80% (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

8000' MD-8050' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 5% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

8050' MD-8100' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 5% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

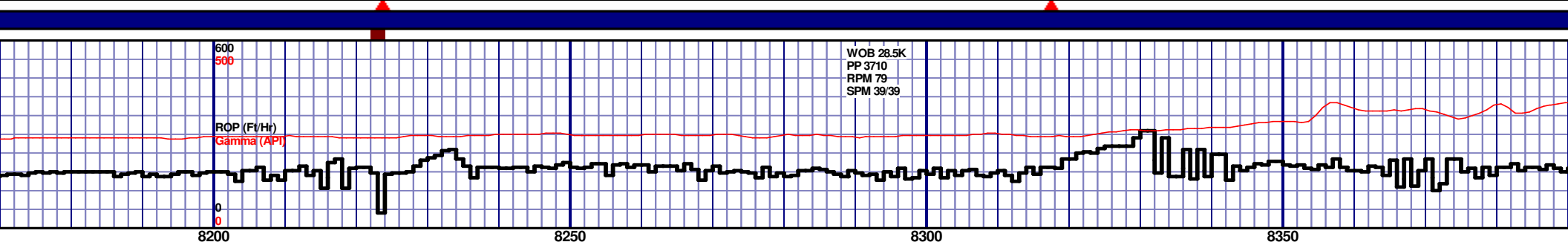
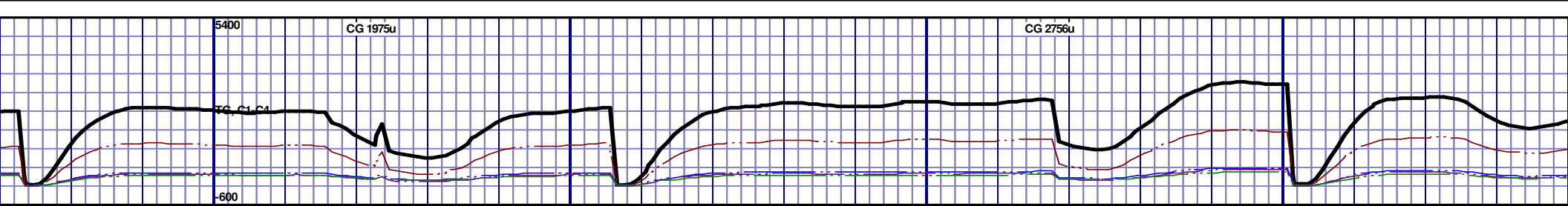
8100' MD-8150' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

8150' MD-8200' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

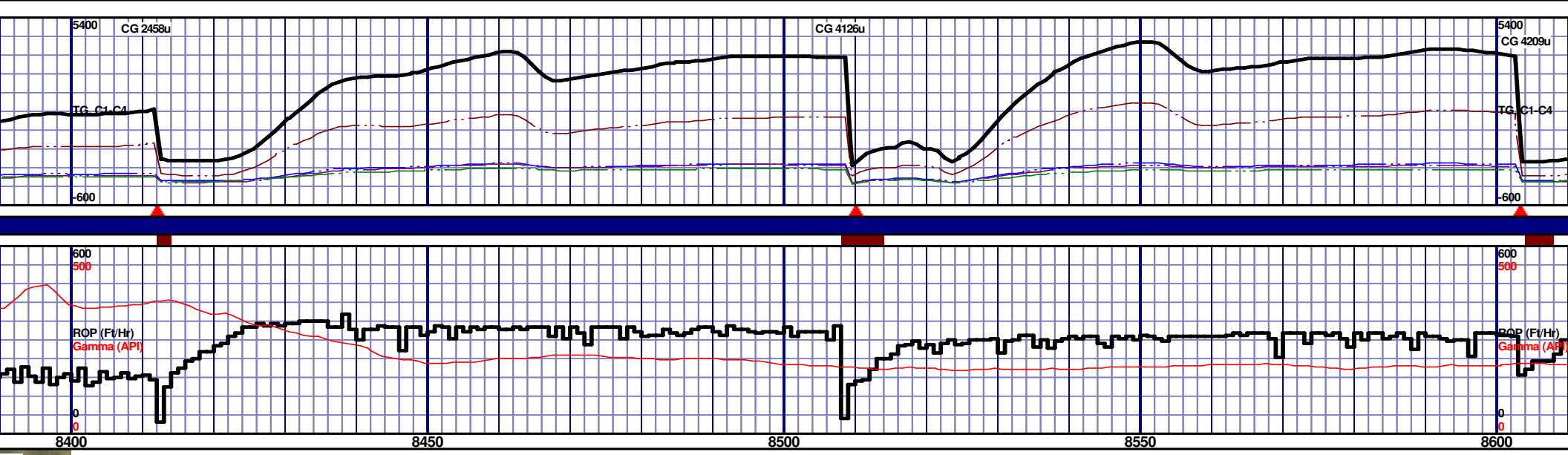
MD 7976 TVD 5440.41
INC 90.62 AZ 180.95
VS 2615.23

MD 8071 TVD 5439.03
INC 91.05 AZ 180.27
VS 2910.21

MD 8150 TVD 5438.03
INC 91.05 AZ 180.27
VS 2910.21

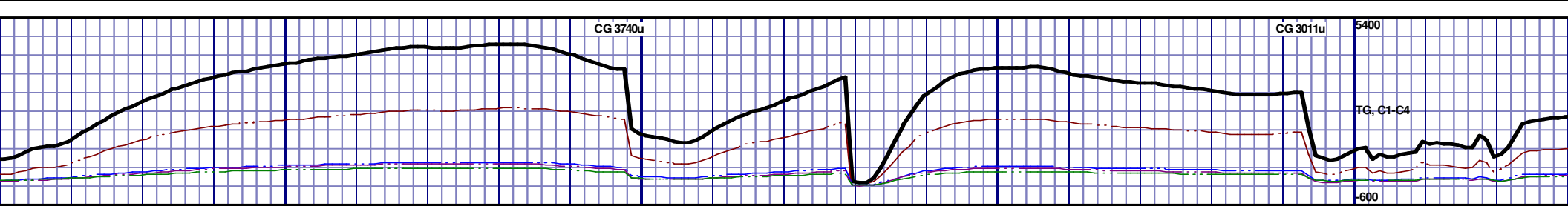


5320 TVD									
5470									
5620									
8200' MD-8250' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 5% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
8250' MD-8300' MD: MRL: 95% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, TRC FREE BENT, 5% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
8300' MD-8350' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, FREE BENT, 20% CHK, NO STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
8350' MD-8400' MD: MRL: 85% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWKR, IMBD CAL, FREE PYR, FREE BENT, 15% STN, 10% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									

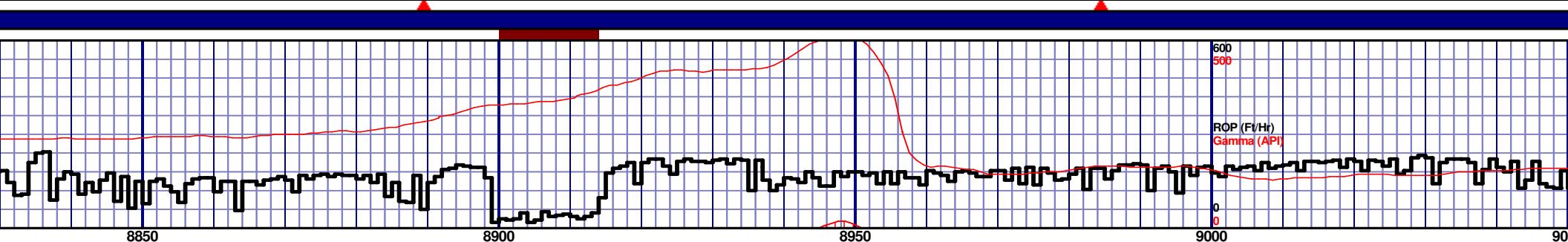
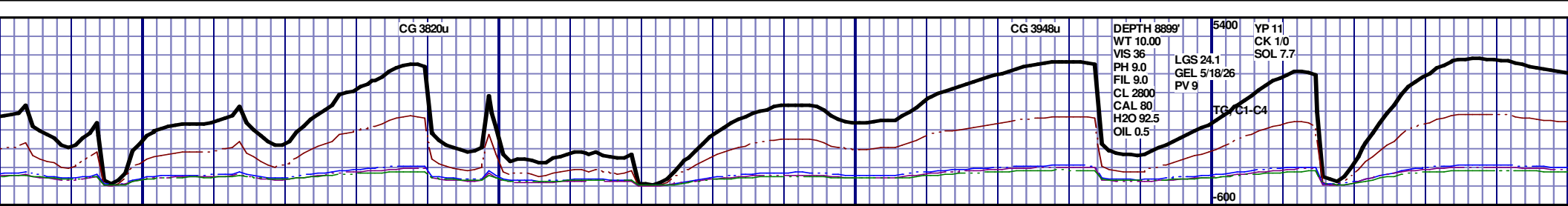
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MD 8452 TVD 5434.01
INC 90.62 AZ 179.83
VS 3291.16

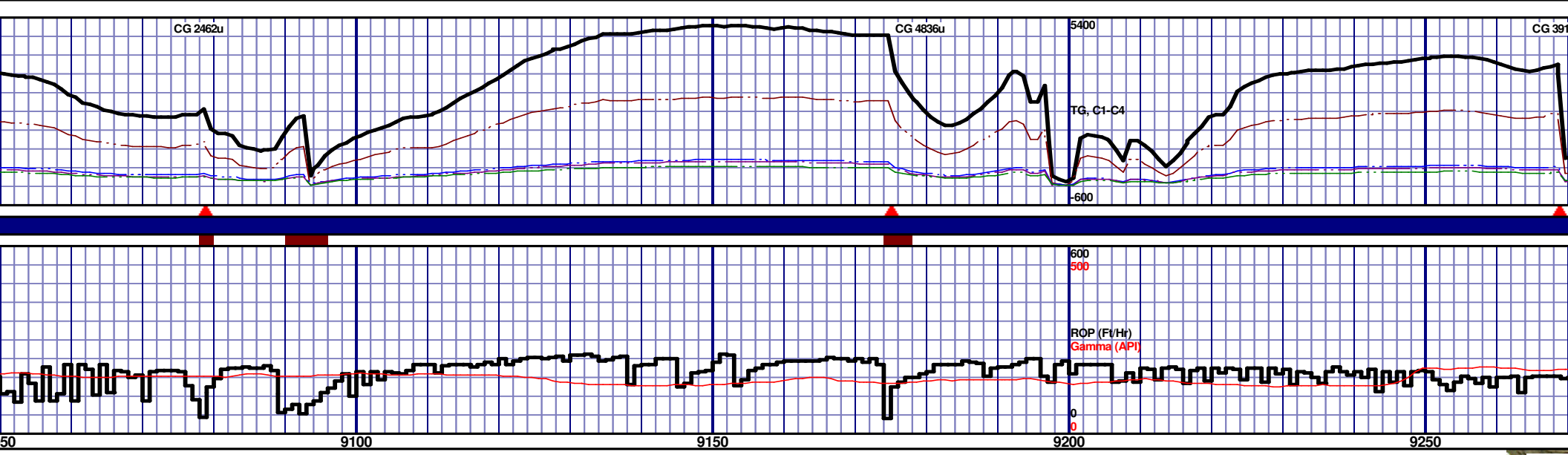
MD 8547 TVD 5433.5
INC 90 AZ 180.14
VS 3386.16



<p>0' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - Y TO SUBBLKY, FXLN TO CHLKY, SFT, CHK IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, C LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED HVY BLSHWT RNG</p>	<p>8650' MD-8700' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>8700' MD-8750' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>8750' MD-8800' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>8800' MD-8850' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>
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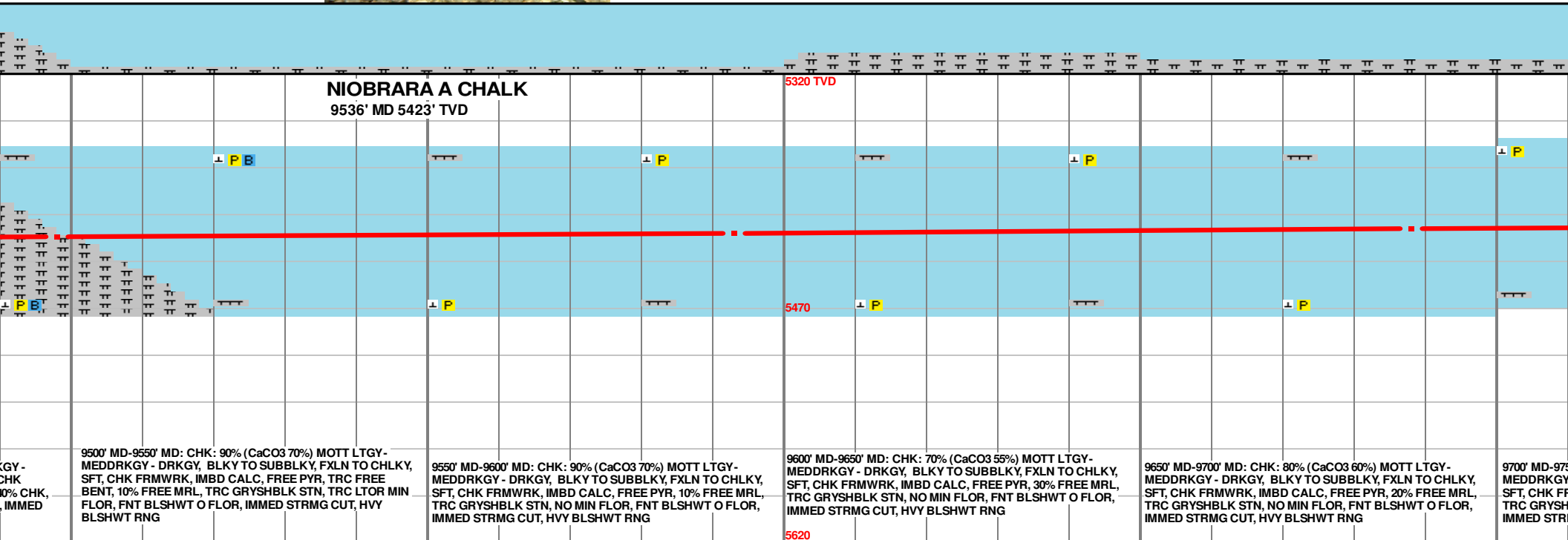
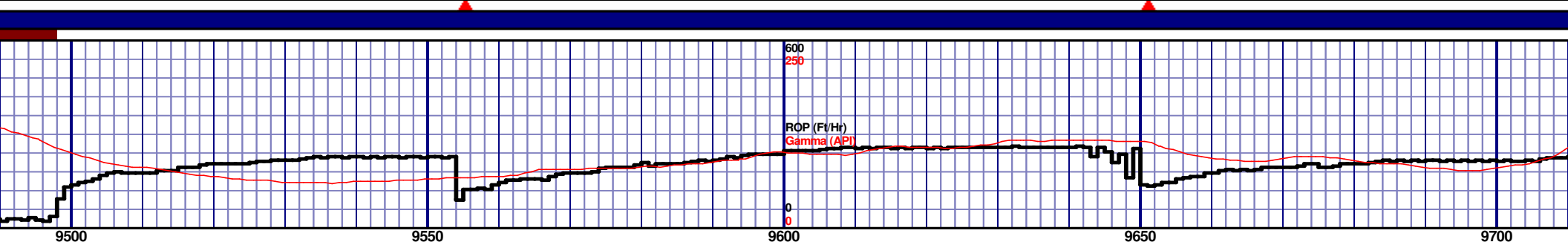
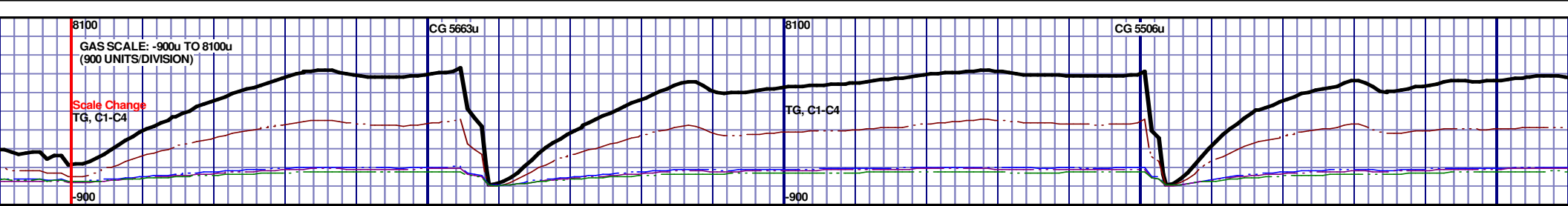
8850' MD-8900' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
8900' MD-8950' MD: MRL: 85% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 15% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
8950' MD-9000' MD: MRL: 75% (CaCO3 40%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 25% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
9000' MD-9050' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, FREE BENT, 20% CHK, NO STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									

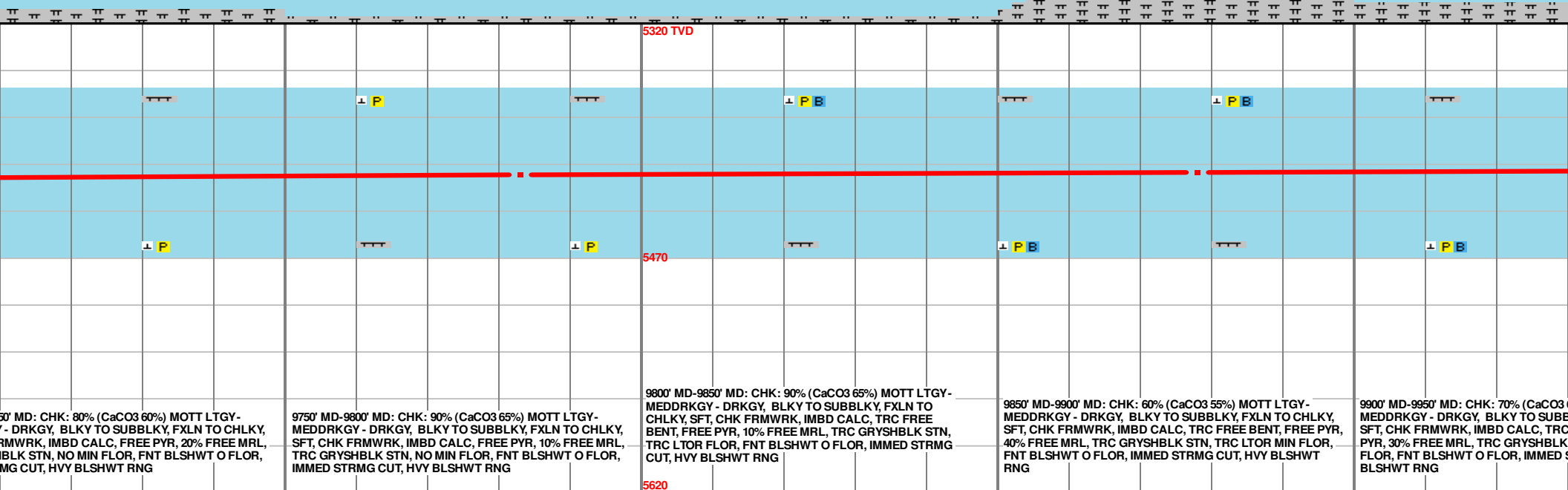
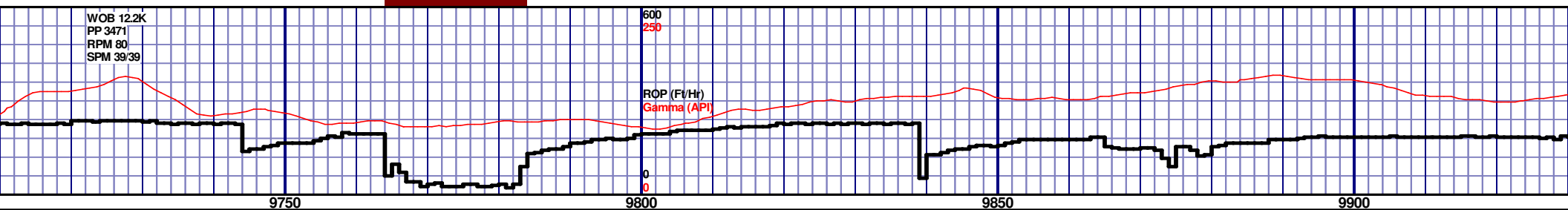
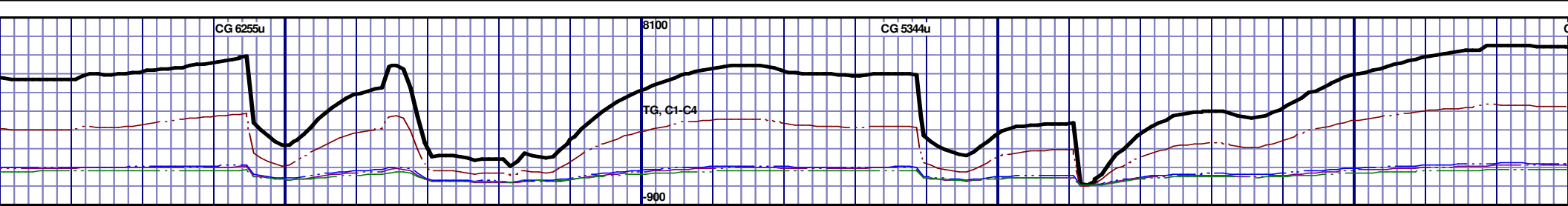


<p>9050' MD-9100' MD: MRL: 80% (CaCO3 40%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>9100' MD-9150' MD: CHK: 50% (CaCO3 50%) MOTT LTGY- MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, TRC FREE BENT, FREE PYR, 50% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>9150' MD-9200' MD: CHK: 70% (CaCO3 55%) MOTT LTGY- MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, TRC FREE BENT, FREE PYR, 30% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>9200' MD-9250' MD: CHK: 50% (CaCO3 45%) MOTT LTGY- MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, TRC FREE BENT, FREE PYR, 50% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>	<p>9250' MD-9300' MD: MRL: DRKGY, BLKY TO SUBBLKY, FRMWRK, IMBD CAL, NO STN, TRC LTOR MIN FLOR, IMMED STRMG CUT, HVY BLSHWT RNG</p>
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MD 9118 TVD 5430.18
INC 91.02 AZ 178.89
VS 3956.93

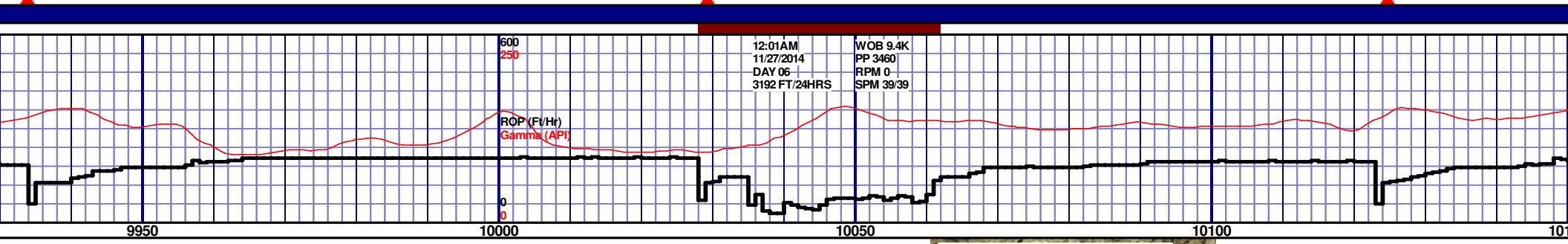
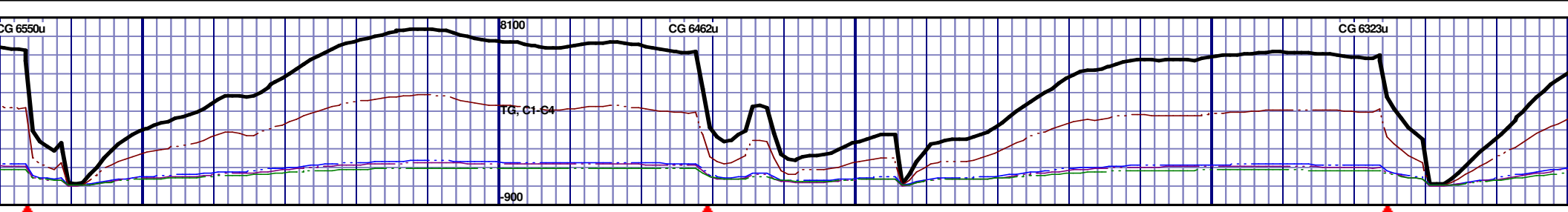
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INC 90.46 AZ 178.16
VS 4051.89





MD 9783 TVD 5416.64
INC 90.4 AZ 180.27
VS 4621.65

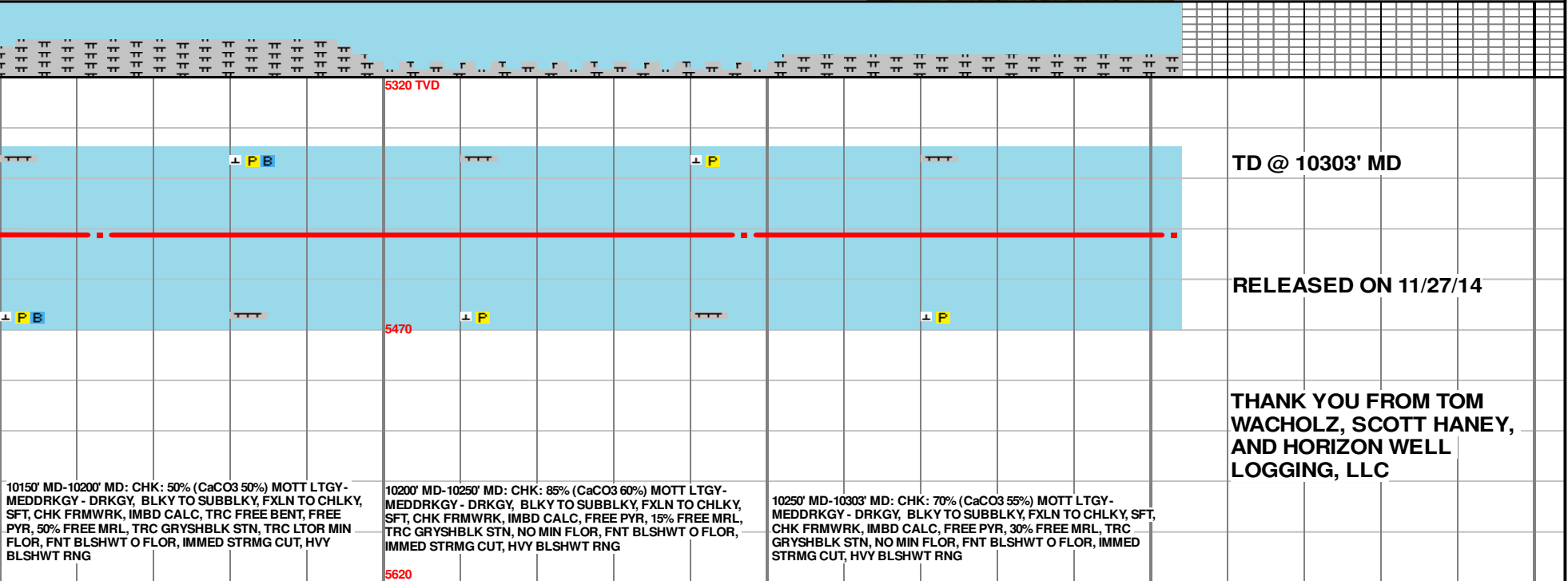
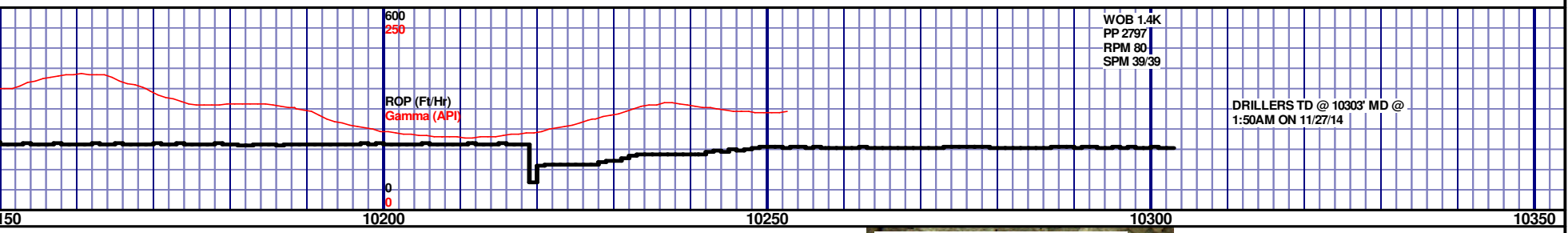
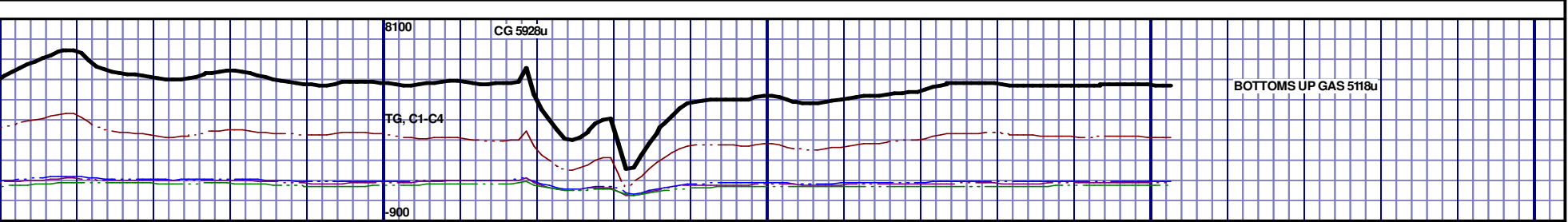
MD 9878 TVD 5415.49
INC 90.99 AZ 179.99
VS 4716.64



5320 TVD					5470					5620				
1 P B					1 P					1 P				
1 P B					1 P					1 P				
60% MOTT LTGY - BLKY, FXLN TO CHLKY, FREE BENT, FREE STN, TRC LTOR MIN STRMG CUT, HVY					9950' MD-10000' MD: CHK: 80% (CaCO3 60%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, TRC FREE BENT, FREE PYR, 20% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG					10000' MD-10050' MD: CHK: 90% (CaCO3 70%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE PYR, 10% FREE MRL, TRC GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG				
					10050' MD-10100' MD: CHK: 95% (CaCO3 70%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE PYR, 5% FREE MRL, TRC GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG					10100' MD-10150' MD: CHK: 70% (CaCO3 55%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE PYR, 30% FREE MRL, TRC GRYSBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG				

MD 9973 TVD 5413.62
INC 91.26 AZ 179.01
VS 4811.62

MD 10067 TVD 5412.92
INC 89.6 AZ 181.45
VS 4905.6



10150' MD-10200' MD: CHK: 50% (CaCO3 50%) MOTT LTGY-MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CALC, TRC FREE BENT, FREE PYR, 50% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHW O FLOR, IMMED STRMG CUT, HVY BLSHW RNG

10200' MD-10250' MD: CHK: 85% (CaCO3 60%) MOTT LTGY-MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CALC, FREE PYR, 15% FREE MRL, TRC GRYSBLK STN, NO MIN FLOR, FNT BLSHW O FLOR, IMMED STRMG CUT, HVY BLSHW RNG

10250' MD-10303' MD: CHK: 70% (CaCO3 55%) MOTT LTGY-MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWK, IMBD CALC, FREE PYR, 30% FREE MRL, TRC GRYSBLK STN, NO MIN FLOR, FNT BLSHW O FLOR, IMMED STRMG CUT, HVY BLSHW RNG

THANK YOU FROM TOM
WACHOLZ, SCOTT HANEY,
AND HORIZON WELL
LOGGING, LLC