



717 West Platte  
PO BOX 435  
Casper, WY 82601  
307-265-2124

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

Bottom Hole Coordinates:	From SHL, 660' FNL, 480' FWL, Sec. 9, T4S-R65W, Arapahoe County, CO.		
Ground Elevation (ft):	5675'	K.B. Elevation (ft):	5699'
Logged Interval (ft):	8244'	To: XXXX'	Total Depth (ft): XXXX'
Formation:	Niobrara		
Type of Drilling Fluid:	INVERT/OBM		




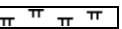
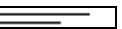
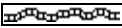


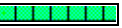

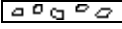


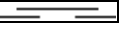



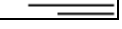
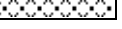
**Name:** Todd Thiesse/Bill Robin/Judith Esposito  
**Company:** Tooke Rockies/ Weatherford SLS  
**Address:** PO Box 435  
Casper, WY. 82602  
307.265.2124

Supervision


















































Project Geologist: Christian Marine- Conoco/Phillips  
Drilling Engineer: Gary Hamilton, Ben Tolman, James Hayes- Conoco/Phillips  
Drilling Sup: Bob Strickler- Conoco/Phillips  
Company Rep: Richard Perez, Wes Evans, (Day Leads)  
Company Rep: Clint Valentine, Mike Weatherly (Night Leads)  
Well Site Safety: Rainey Schexnider, Gerald Doty  
Contact Geologist: Abby Tomkiewicz, Abby Thornton- Conoco/Phillips  
Drilling & Comp. Mgr: Derly Gonzalez-Conoco/Phillips

Other Information

ROCK TYPES

	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

ACCESSORIES

<b>FOSSIL</b>		Ostra		Chtdk		Sandy		Ssstrg
	Algae		Pelec		Chtlt		Silt	<b>TEXTURE</b>
	Amph		Pellet		Dol		Sil	
	Belm		Pisolite		Feldspar		Sulphur	
	Bioclst		Plant		Ferrpel		Tuff	
	Brach		Strom		Ferr			
	Bryozoa	<b>MINERAL</b>			Glau	<b>STRINGER</b>		
	Cephal			Gyp			Anhy	
	Coral			Hvymin			Arg	
	Crin			Kaol			Bent	
	Echin			Marl			Coal	
	Fish			Minxl			Dol	
	Foram			Nodule			Gyp	
	Fossil			Phos			Ls	
	Gastro			Pyr			Mrst	
	Oolite			Salt			Sltstrg	

INTERVALS

■

Core

◼

Dst

EVENTS

▤

Rft

▥

Sidewall

OIL SHOWS

◼

Even

◼

Spotted

◼

Ques

◼

Dead

OTHER SYMBOLS

POROSITY TYPE

◼

Earthy

◼

Fenest

◼

Fracture

◼

Inter

◼

Moldic

◼

Organic

Pinpoint

◼

Vuggy

ROUNDING

◼

Rounded

◼

Subrnd

◼

Subang

Angular

◼

SORTING

◼

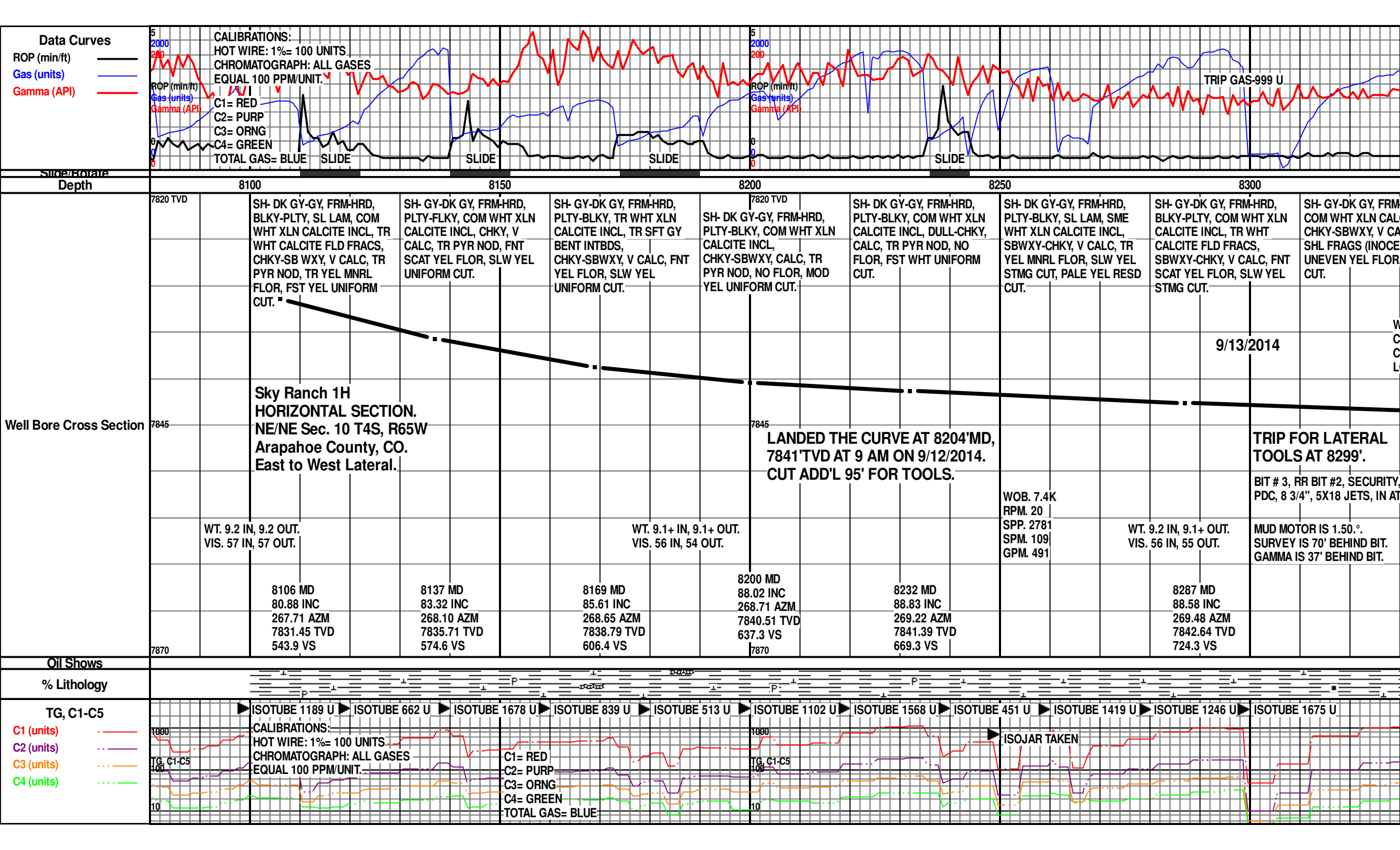
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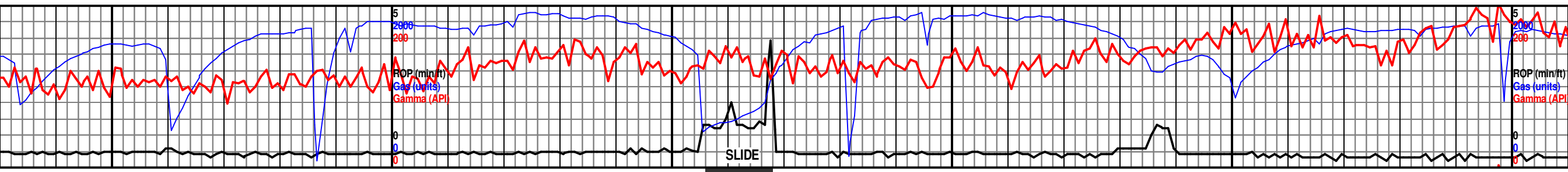
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Moderate

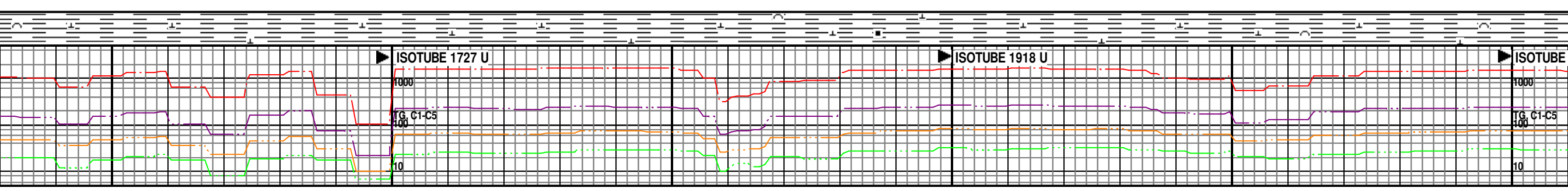
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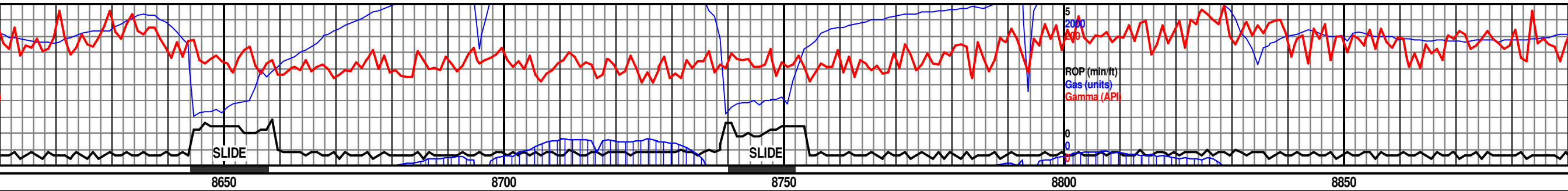
Poor



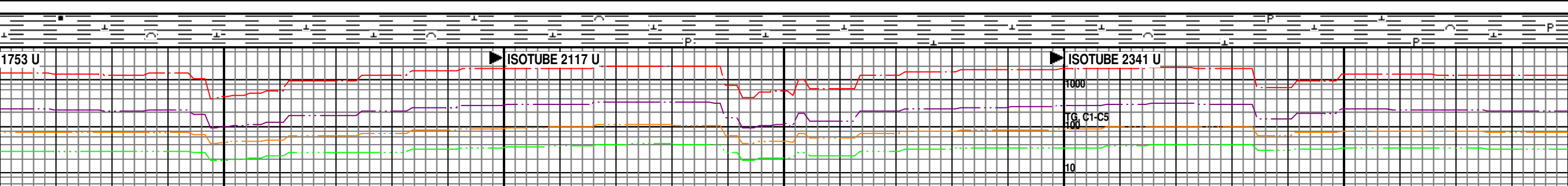


8350					8400					8450					8500					8550					8600				
HRD, BLKY-PLTY, CITE INCL, LCL, CARB IP, TR RAMUS), FNT FST YEL STMG					SH- GY, FRM-HRD, BLKY, SME WHT XLN CALCITE INCL, CHKY-SBWXY, V CALC, V FNT UNEVEN YEL FLOR, MOD YEL STMG CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, TR WHT XLN CALCITE INCL, SBWXY-CHKY, V CALC, FNT UNEVEN YEL FLOR. SLW YEL UNIFORM CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, COM WHT XLN CAL INCL, SBWXY-CHKY, V CALC, FNT UNEVEN YEL FLOR. MOD YEL STMG CUT.					SH- GY, FRM-HRD, PLTY, SL LAM, CHKY-SBWXY, V CALC, COM SHL FRAGS, FNT UNEVEN YEL FLOR, MOD YEL STMG CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, COM WHT XLN CAL INCL, SBWXY-CHKY, V CALC, FNT UNEVEN YEL FLOR. MOD YEL STMG CUT.				
WT. 9.2, VIS. 55, PV. 15, YP. 12, HTHP. 12.0@300°, ORR SLDS. 4.6%, NAP/H2O. 59.33%, Cl. 70000 mg/L, a. 26000 mg/L, CACl2. 25.20 ppb, Excess Lime. 0.39 ppb, GS/HGS. 1.8/2.8 %, ELEC. 475V, Tau 3.46 lbs/100'sq.																													
MMD55, 2207'.															WOB. 20.2K RPM. 75 SPP. 2841 SPM. 115 GPM. 517														
WT. 9.2+ IN, 9.2 OUT. VIS. 66 IN, 56 OUT.										WT. 9.4 IN, 9.3 OUT. VIS. 61 IN, 60 OUT.																			
					8381 MD 89.38 INC 270.76 AZM 7844.31 TVD 818.3 VS										8475 MD 89.07 INC 270.90 AZM 7845.58 TVD 912.3 VS										8570 MD 90.25 INC 271.47 AZM 7846.15 TVD 1007.2 VS				

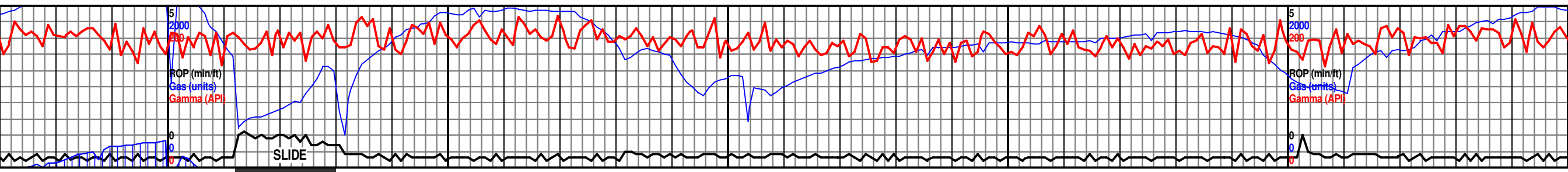




K GY, FRM-HRD, PLTY-BLKY, WXY, V CALC, SL CARB IP, TR SHL (INOCERAMUS), FNT UNEVEN YEL FLOR, STMG CUT.	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, TR WHT XLN CALCITE INCL, CHKY-SBWXY, V CALC, TR SHL FRAGS, FNT SCAT YEL FLOR, SLW YEL STMG CUT.	SH- GY, FRM-HRD, PLTY-BLKY, SL LAM, TR WHT XLN CALCITE INCL, CHKY-SBWXY, V CALC, SME PYR NOD, TR SHL FRAGS, FNT YEL FLOR, MOD YEL STMG CUT.	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SL LAM, CHKY-SBWXY, V CALC, NO FLOR, SLW YEL STMG CUT.	7820 TVD SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SL LAM, TR WHT XLN CALCITE INCL, SBWXY-CHKY, V CALC, TR PYR NOD, TR SHL FRAGS (INOCERAMUS), NO FLOR, MOD YEL STMG CUT.	SH- GY, FRM-HRD, PLTY-BLKY, SL LAM, SBWXY-CHKY, V CALC, COM PYR NOD, FRAGS, NO FLOR, SLW YEL STMG CUT.
N, 9.2+ OUT. N, 56 OUT.	WT. 9.3 IN, 9.2 OUT. VIS. 56 IN, 54 OUT.		WOB. 47.9K RPM. 0 SPP. 2633 SPM. 115 GPM. 517	WT. 9.2+ IN, 9.2 OUT. VIS. 56 IN, 53 OUT.	
	8664 MD 89.88 INC 271.53 AZM 7846.04 TVD 1101.2 VS		8759 MD 88.70 INC 270.84 AZM 7847.22 TVD 1196.2 VS	8853 MD 89.01 INC 270.98 AZM 7849.10 TVD 1290.1 VS	

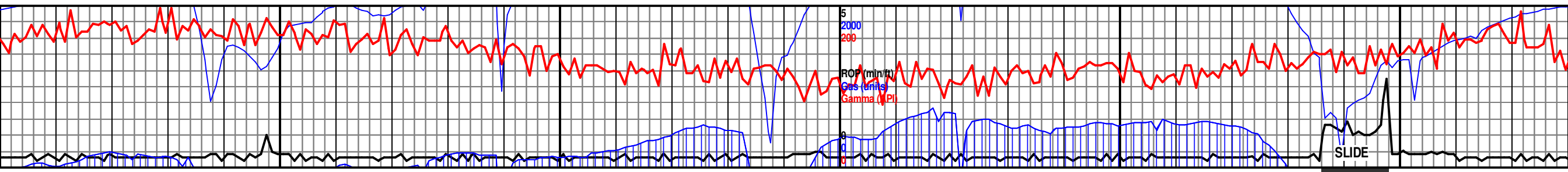




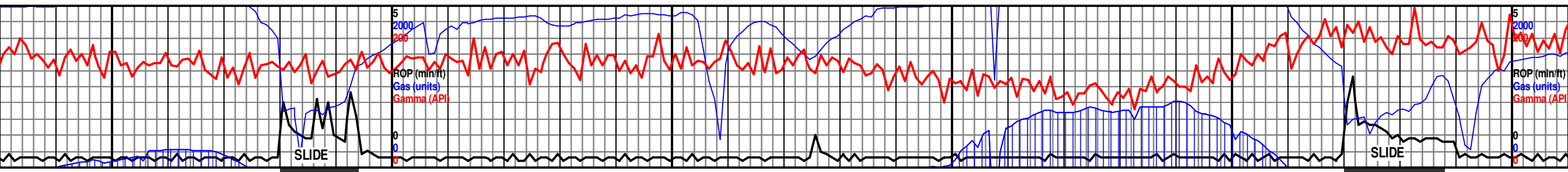


9200			9250			9300			9350			9400			9450		
HRD, PLTY-BLKY, LAM, SME INCL, SBWXY, V CALC, COM FRAGS, FNT YEL FLOR, SLW			7820 TVD SH- GY-DK GY, FRM-HRD, PLTY-BLKY, LAM, SME WHT XLN CALCITE INCL, SBWXY, V CALC, CARB IP, COM PYR NOD, SME SHL FRAGS, FNT YEL FLOR, SLW YEL STMG CUT.			SH- GY-DK GY, FRM-HRD, PLTY-BLKY, LAM, SME WHT XLN CALCITE INCL, SBWXY, V CALC, CARB IP, COM PYR NOD, SME SHL FRAGS, FNT YEL FLOR, SLW YEL STMG CUT.			SH- GY-DK GY, FRM-HRD, PLTY-BLKY, LAM, SBWXY, V CALC, CARB IP, SME PYR NOD, SME SHL FRAGS, FNT YEL FLOR, SLW YEL STMG CUT.			SH- GY-DK GY, FRM-HRD, PLTY-BLKY, LAM, SBWXY, V CALC, CARB IP, SME PYR NOD, SME SHL FRAGS, FNT YEL FLOR, SLW YEL STMG CUT.			7820 TVD SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, SME PYR NOD, SME SHL FRAGS, FNT YEL FLOR, SLW YEL STMG CUT.		

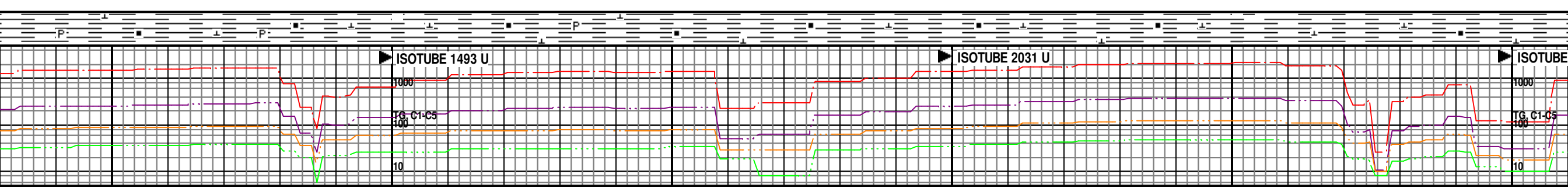




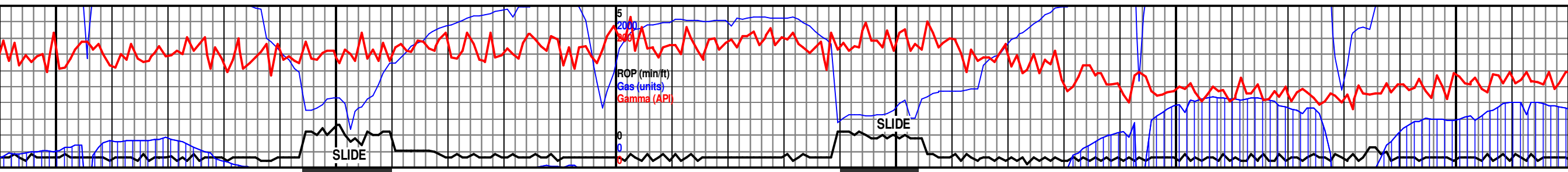
50					9500					9550					9600					9650					9700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, SME PYR NOD, SME SHL FRAGS, TR CLR CALC INCLS, SLW YEL STMG CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, SME PYR NOD, SME SHL FRAGS, TR CLR CALC INCLS, SLW YEL STMG CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR CLR CALC INCLS, SLW YEL STMG CUT.					7820 TVD SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, SLW YEL STMG CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR PYR, SLW YEL-WHT UNIFORM CUT.					SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR PYR, SLW YEL-WHT UNIFORM CUT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				



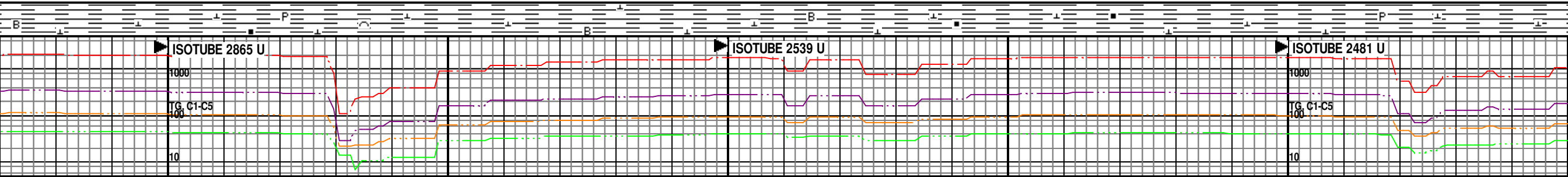
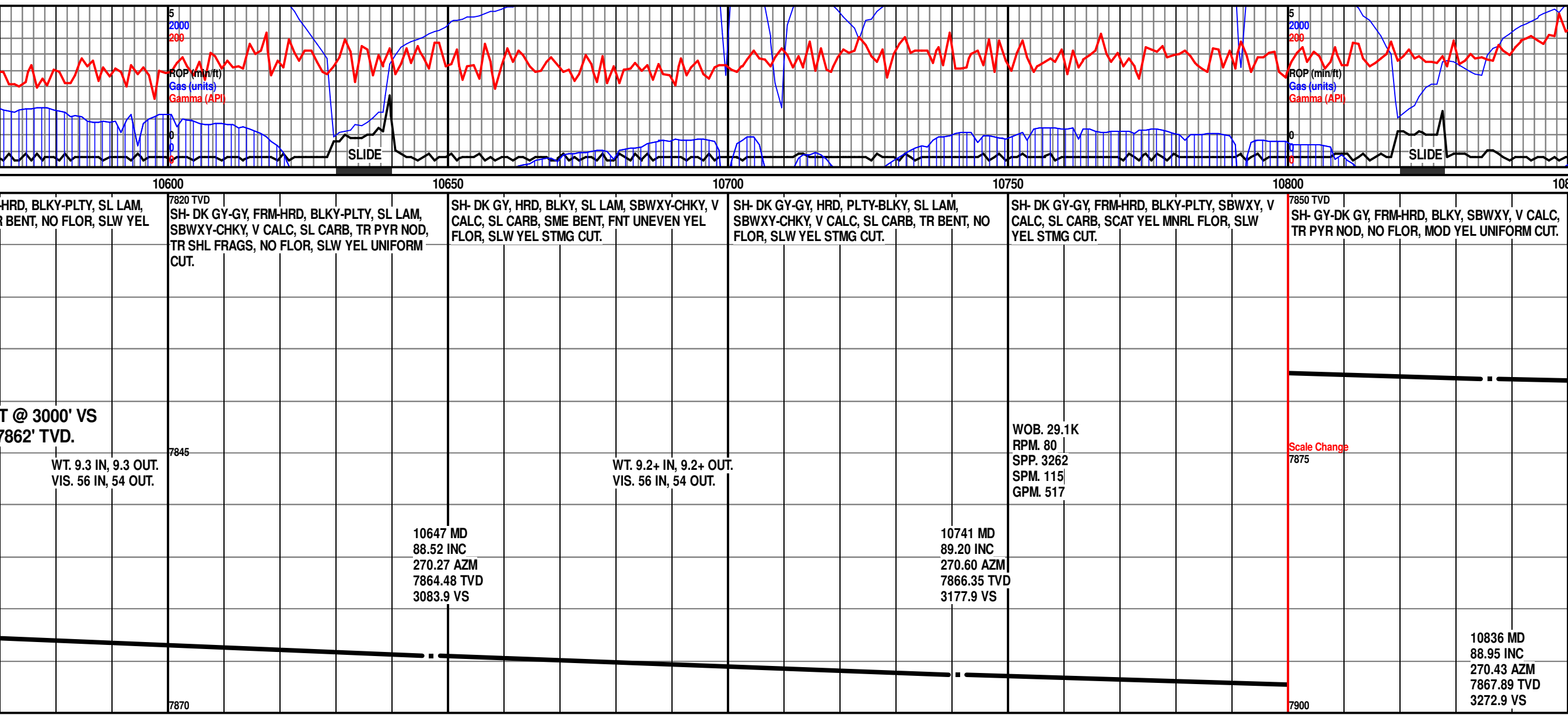
9750	9800	9850	9900	9950	10000
-BLKY, SBWXY, V YEL-WHT	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR PYR, SLW YEL-WHT UNIFORM CUT.	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR PYR, SLW YEL-WHT UNIFORM CUT.	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, SLW YEL-WHT UNIFORM CUT.	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR SHL FRAGS, SLW YEL-WHT UNIFORM CUT.	SH- GY-DK GY, FRM-HRD, PLTY-BLKY, SBWXY, V CALC, CARB IP, TR SHL FRAGS, SLW YEL-WHT UNIFORM CUT.
P. 15, HTHP. 6.0@300°, O. 58.5:33.5%, Cl. 79000 mg/L, 81 ppb, Excess Lime. 0.39 ppb, 485V, Tau 3.88 lbs/100'sq					
	WOB. 19.5K RPM. 81 SPP. 2825 SPM. 104 GPM. 490				WOB. 22.9 K RPM. 81 SPP. 2696 SPM. 105 GPM. 470

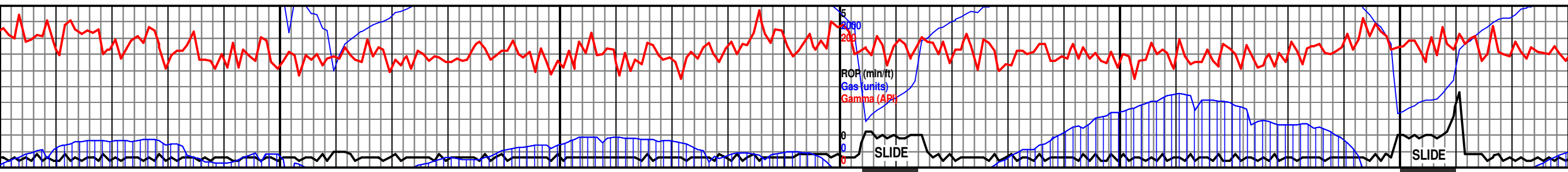




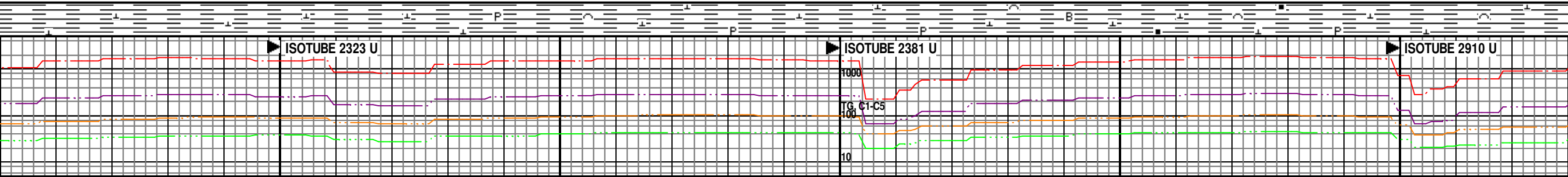


10300				10350				10400				10450				10500				10550							
FLD R, SLW				DH- DK GY-BLK, FRM-HRD, BLKY, SBWXY, V CALC, SL CARB, TR SHL FRAGS, NO FLOR, SLW YEL UNIFORM CUT.				SH- GY, FRM-HRD, PLTY-BLKY, SBWXY-CHKY, V CALC, COM PYR NOD, SME SHL FRAGS (INOCERAMUS), NO FLOR, SLW YEL UNIFORM CUT.				7820 TVD SH- DK GY-GY, FRM-HRD, BLKY, SBWXY, V CALC, TR SHL FRAGS, TR BENT, FNT UNEVEN YEL FLOR, SLW YEL STMG CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, CHKY-SBWXY, V CALC, CARB , TR PYR NOD, TR SHL FRAGS, FNT YEL FLOR, SLW YEL STMG CUT, PALE YEL RESD CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SL LAM, CHKY-SBWXY, V CALC, SL CARB, TR PYR NOD, TR BENT, NO FLOR, MOD YEL STMG CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SL LAM, CHKY-SBWXY, V CALC, SL CARB, TR PYR NOD, TR BENT, NO FLOR, MOD YEL STMG CUT.			

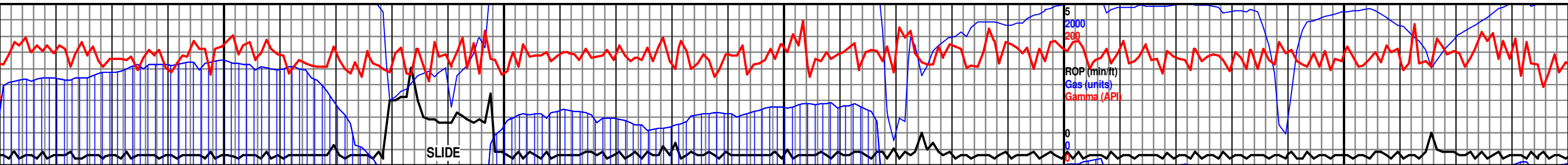




350	10900	10950	11000	11050	11100
SH- GY-DK GY, HRD, BLKY-PLTY, DULL-SBWXY, V CALC, NO FLOR, SLW YEL STMG CUT.	SH- GY-DK GY, FRM-HRD, BLKY-PLTY, DULL-SBWXY, V CALC, TR PYR NOD, SCAT FNT YEL FLOR, MOD YEL UNIFORM CUT.	SH- GY, FRM-HRD, PLTY-BLKY, SL LAM, TR WHT XLN CALCITE INCL, SBWXY-CHKY, V CALC, SME PYR NOD, TR SHL FRAGS, NO FLOR, MOD YEL STMG CUT.	7850 TVD SH- GY-DK GY, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, TR PYR NOD, TR BENT, TR SHL FRAGS	SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SL LAM, SBWXY, V CALC, CARB, SME PYR NOD, TR SHL FRAGS (INOCERAMUS)	SH- GY-DK GY, FRM-HRD, BLKY-PLTY, FLD FRACS, DULL-SBWXY, V CALC, SME SHL FRAGS (INOCERAMUS), YEL STMG CUT.
	WT. 9.2+ IN, 9.2+ OUT. VIS. 55 IN, 52 OUT.		WOB. 25.7K RPM. 80 SPP. 3194 SPM. 115 GPM. 516		WT. 9.3+ IN, 9.3+ OUT. VIS. 55 IN, 54 OUT.
	10930 MD 89.69 INC 270.62 AZM 7869.00 TVD 3366.9 VS		11025 MD 89.32 INC 269.67 AZM 7869.82 TVD 3461.9 VS		11119 MD 89.26 INC 268.84 AZM 7870.99 TVD 3555.9 VS



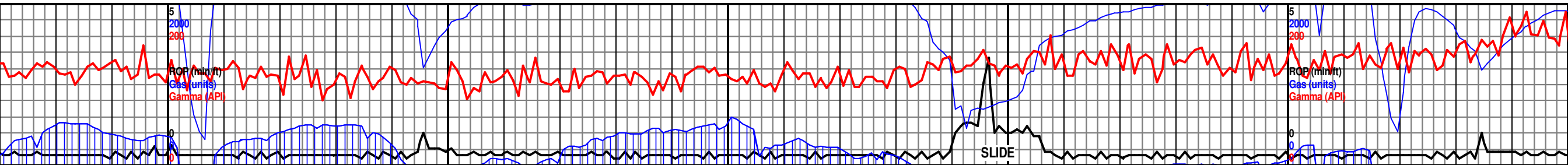




11450				11500				11550				11600				11650							
Y-GY, FRM-HRD, BLKY-PLTY, WXY, V CALC, TR SHL FRAGS, NO FLOR, UNIFORM CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, DULL-SBWXY, V CALC, TR PYR NOD, TR SHL FRAGS, NO FLOR, SLW YEL STMG CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, DULL-SBWXY, V CALC, TR PYR NOD, TR SHL FRAGS, NO FLOR, SLW YEL STMG CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, DULL-SBWXY, V CALC, TR PYR NOD, TR SHL FRAGS, NO FLOR, SLW YEL STMG CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, DULL-SBWXY, V CALC, TR PYR NOD, TR SHL FRAGS, NO FLOR, SLW FNT YEL UNIFORM CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, DULL-SBWXY, V CALC, TR PYR NOD, TR SHL FRAGS, NO FLOR, SLW FNT YEL UNIFORM CUT.			







12000	12050	12100	12150	12200	12250
RM-HRD, BLKY-PLTY, SBWXY, NDS & SPECS, TR BENT, NO L-WHT STMG CUT.	SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, TR PYR NODS & SPECS, TR BENT, NO FLOR, MOD-FST YEL-WHT STMG CUT.	SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, TR SHL FRAGS, COM PYR NODS, TR BENT, NO FLOR, MOD-FST YEL-WHT STMG CUT.	SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, COM PYR NODS, TR BENT, NO FLOR, MOD YEL-WHT STMG CUT.	SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, COM PYR NODS, TR BENT, NO FLOR, MOD YEL-WHT STMG CUT.	SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, COM PYR NODS, NO BENT, NO FLOR, SLW YEL-WHT STMG CUT.
	7875				
	7875				
	7875				
	7875				
	7875				
	7875				
	7875				

WT. 9.4, VIS. 53, PV. 18, YP. 14, HTHP. 9.0@300°,  
CORR SLDS. 7.2%, NAP/H2O. 57.0:32.0%, Cl. 75500 mg/L,  
Ca. 24000 mg/L, CACl2. 23.26 ppb, Excess Lime. 0.65 ppb,  
LGS/HGS. 5.9/1.3%, ELEC. 489V, Tau 4.10 lbs/100'sq

9/15/2014

WOB. 19.9 K  
RPM. 81  
SPP. 3466  
SPM. 116  
GPM. 520

WT. 9.4 IN, 9.3+ OUT.  
VIS. 52 IN, 50 OUT.

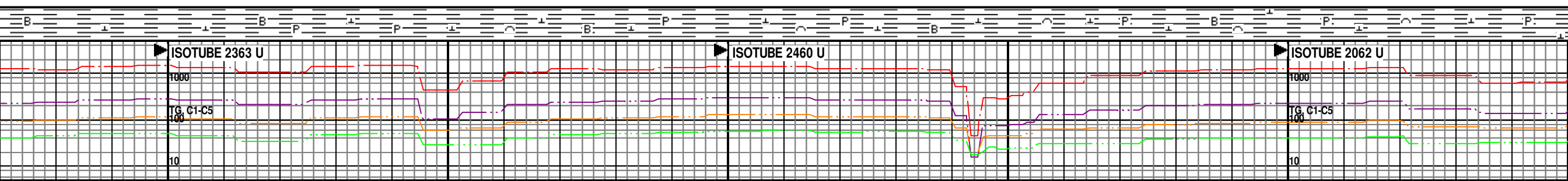
WT. 9.4+ IN, 9.3+ OUT.  
VIS. 52 IN, 50 OUT.

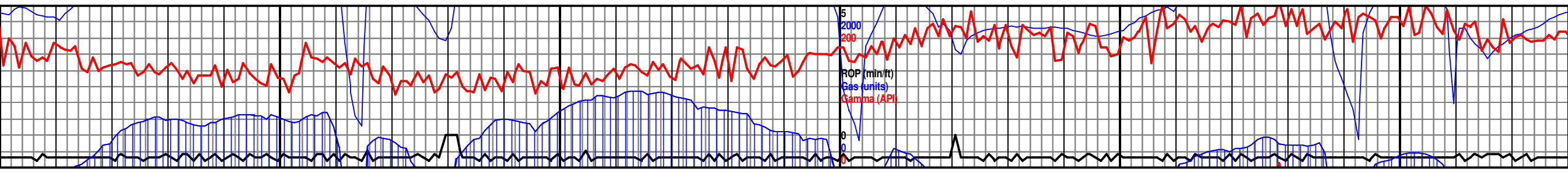
69 MD  
14 INC  
9.90 AZM  
0.40 TVD  
5.8 VS

12063 MD  
89.81 INC  
270.09 AZM  
7881.02 TVD  
4499.8 VS

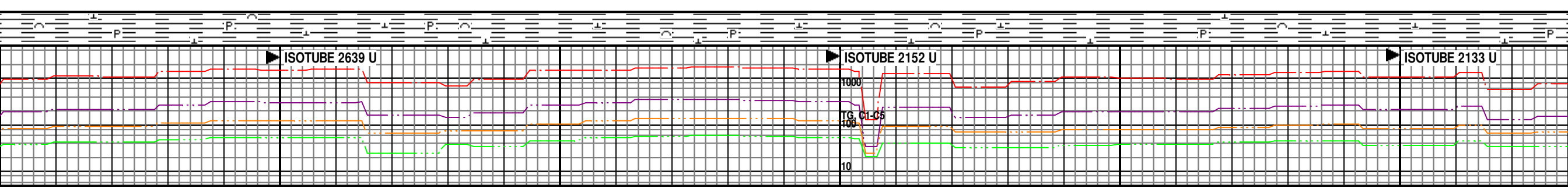
12158 MD  
88.58 INC  
269.60 AZM  
7882.35 TVD  
4594.8 VS

7900

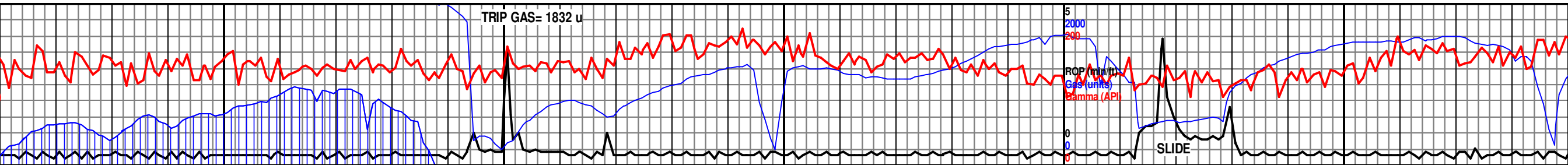




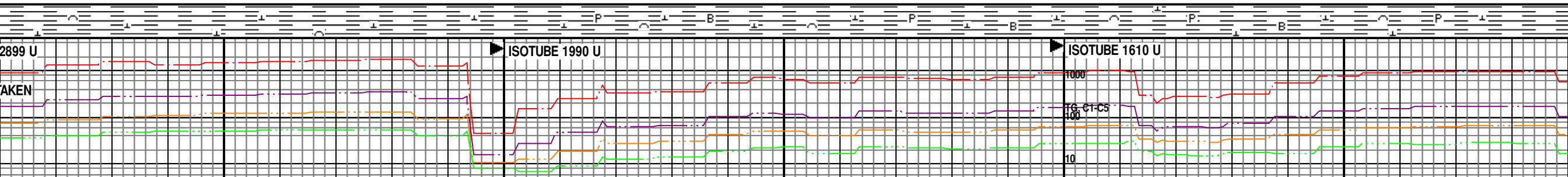
12250					12300					12350					12400					12450					12500				
SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, COM PYR NODS, NO BENT, NO FLOR, SLW YEL-WHT STMG CUT.					SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, COM PYR NODS, NO BENT, NO FLOR, SLW YEL-WHT STMG CUT.					SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, TR PYR, NO BENT, NO FLOR, SLW YEL-WHT STMG CUT.					SH- DK GY-GY, SL FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, TR PYR, NO BENT, NO FLOR, SLW YEL-WHT STMG CUT.					SH- DK GY-GY, SLTLY FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, TR PYR, NO BENT, NO FLOR, SLW YEL-WHT STMG CUT.					SH- GY- DK GY, FRM-HRD, PLT CHKY-SBWXY, V CALC, COM F FLOR, SLW PALE YEL STMG C				
WOB. 22.5 K RPM. 81 SPP. 3391 SPM. 116 GPM. 522										WT. 9.4+ IN, 9.4+ OUT. VIS. 52 IN, 50 OUT.					7875					WT. 9.4+ IN, 9.4 OUT. VIS. 53 IN, 50 OUT.					WOB. 28.4 K RPM. 80 SPP. 3491 SPM. 116 GPM. 521				
2252 MD 8.89 INC 69.40 AZM 884.43 TVD 688.7 VS										12347 MD 89.20 INC 270.00 AZM 7886.01 TVD 4783.7 VS					7900					12441 MD 89.32 INC 269.93 AZM 7887.22 TVD 4877.7 VS									



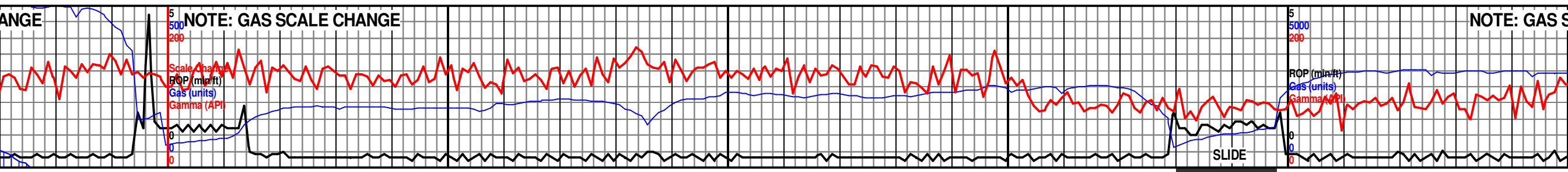




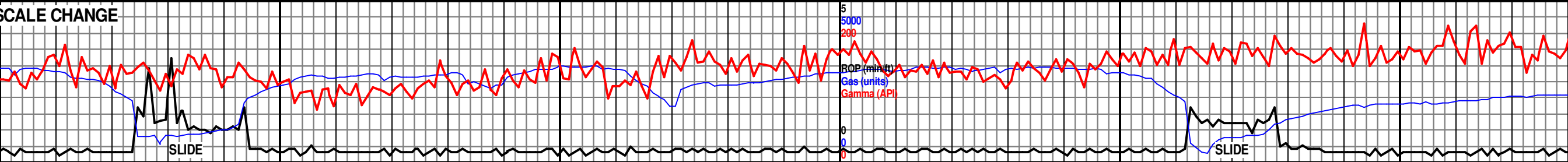
K GY, FRM-HRD, PLTY-BLKY, WXY, V CALC, TR PYR NOD, SME SHL NT UNEVEN YEL FLOR, MOD YEL CUT.	SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, NO FLOR, MOD YEL UNIFORM CUT.	SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, SME PYR NODS, TR BENT, NO FLOR, SLW YEL UNIFORM CUT.	SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, SME PYR NODS, TR BENT, NO FLOR, SLW YEL UNIFORM CUT.	7880 TVD SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, SME SHL FRAGS, SME PYR NODS, TR BENT, NO FLOR, MOD YEL-WHT UNIFORM CUT.	SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SE CALC, SME SHL FRAGS, SME PYR NODS, TR BENT, NO FLOR, MOD YEL-WHT UNIFORM CUT.
	TRIP TO MOVE HWDP UP HOLE AT 12894'.  9/16/2014  WT. 9.5 IN, 9.4+ OUT. VIS. 53 IN, 50 OUT.	WT. 9.6, VIS. 72, PV. 18, YP. 16, HTHP. 7.0@300°, CORR SLDS. 6.5%, NAP/H2O. 58.0:32.0%, Cl. 71000 mg/L, Ca. 26000 mg/L, CACl2. 25.20 ppb, Excess Lime. 0.52 ppb, LGS/HGS. 2.8/3.8%, ELEC. 493V, Tau 3.94 lbs/100'sq	WT. 9.6 IN, 9.5+ OUT. VIS. 68 IN, 61 OUT.	WOB. 25.8K RPM. 81 SPP. 3953 SPM. 109 GPM. 490  Scale Change 7905	
12819 MD 88.89 INC 269.99 AZM 7893.89 TVD 5255.6 VS		12938 MD 90.37 INC 270.39 AZM 7894.66 TVD 5374.6 VS		13032 MD 89.44 INC 270.54 AZM 7894.82 TVD 5468.6 VS	WT. 9.5 IN, 9.4 OUT. VIS. 65 IN, 59 OUT.



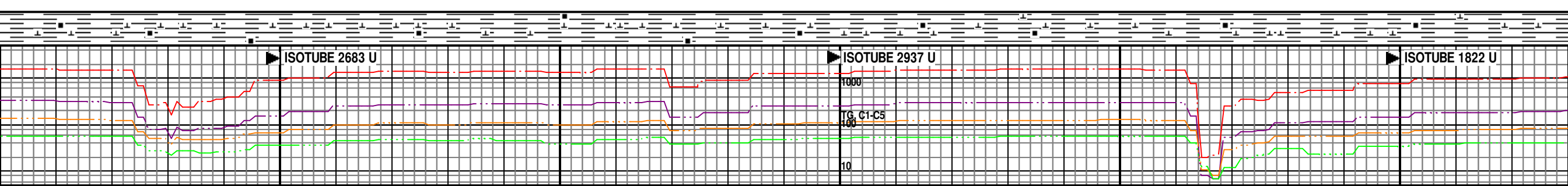




13400				13450				13500				13550				13600				13650			
KY, SBWXY, CARB, SME CALCITE, V CALC-LMY,				SH- GY-DK GY, BLKY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, BLKY, SBWXY, CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, BLKY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, BLKY, SBWXY, CARB, INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			
7880 TVD																7880 TVD							

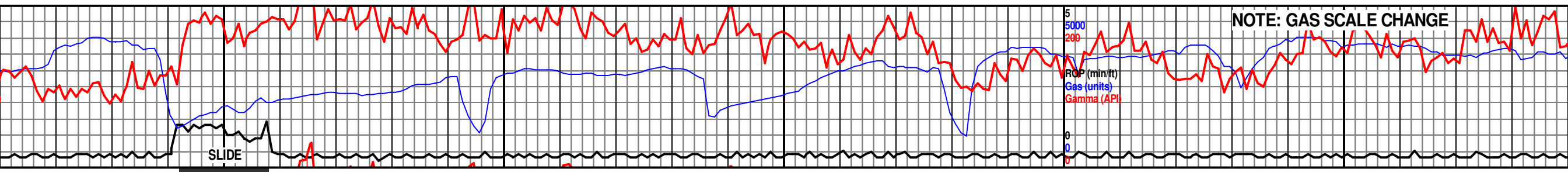


13550	13700	13750	13800	13850	13900
SH- GY-DK GY, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, BLK, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, BLK, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, BLK, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, BLK, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.
WT. 9.6, VIS. 63, PV. 18, YP. 15, HTHP. 8.8@300°, CORR SLDS. 7.4%, NAP/H2O. 57.0:32.0%, Cl. 72000 mg/L, Ca. 24000 mg/L, CACI2. 23.26 ppb, Excess Lime. 0.39 ppb, LGS/HGS. 4.6/2.8%, ELEC. 550V, Tau 5.33 lbs/100'sq					
7905					
WT. 9.6 IN, 9.6 OUT. VIS. 56 IN, 56 OUT.					
13694 MD 87.10 INC 270.86 AZM 7906.63 TVD 6130.4 VS					
WOB. 25-28K RPM. 85 SPP. 3716 SPM. 109 GPM. 487					
13789 MD 87.28 INC 271.04 AZM 7911.29 TVD 6225.3 VS					
7930					
WT. 9.6 IN, 9.5 OUT. VIS. 54 IN, 53 OUT.					
13884 MD 87.04 INC 270.80 AZM 7916.00 TVD 6320.2 VS					



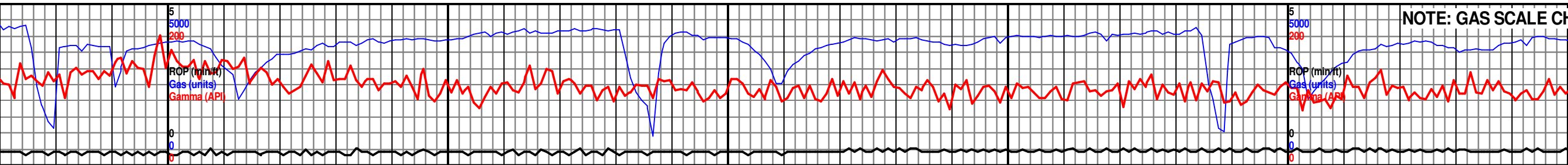






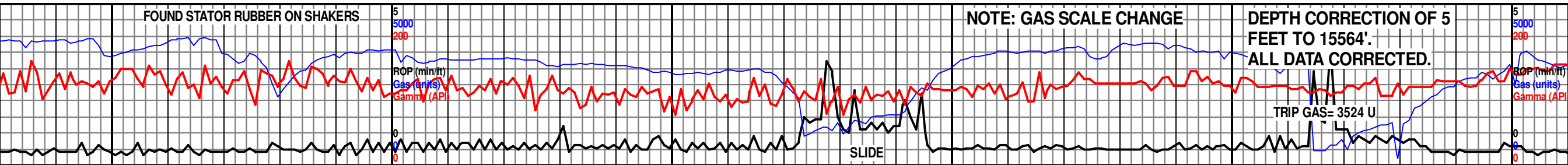
14250				14300				14350				14400				14450							
Y-BLK, HRD, BLKY, SBWXY-CHKY, V RB, COM SHL FRAGS (INOCERAMUS), SLW YEL STMG CUT.				SH- DK GY-BLK, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, CARB, SME SHL FRAGS (INOCERAMUS), NO FLOR, SLW YEL UNIFORM CUT.				SH- DK GY-BLK, HRD, BLKY, SBWXY-CHKY, V CALC, CARB, SME SHL FRAGS (INOCERAMUS), FNT UNEVEN YEL FLOR, SLW YEL STMG CUT.				SH- DK GY-BLK, HRD, BLKY-PLTY, SBWXY, V CALC, CARB, COM SHL FRAGS (INOCERAMUS), FNT UNEVEN YEL FLOR, MOD YEL STMG CUT.				7910 TVD SH- DK GY-BLK, FRM-HRD, BLKY, SBWXY, V CALC, CARB, COM SHL FRAGS (INOCERAMUS), FNT UNEVEN YEL FLOR, MOD PALE YEL UNIFORM CUT.				SH- DK GY-BLK, FRM-HRD, BLKY-PLTY, SBWXY-CHKY, V CALC, CARB, SME SHL FNT SCAT YEL FLOR, SLW YEL STMG CUT.			



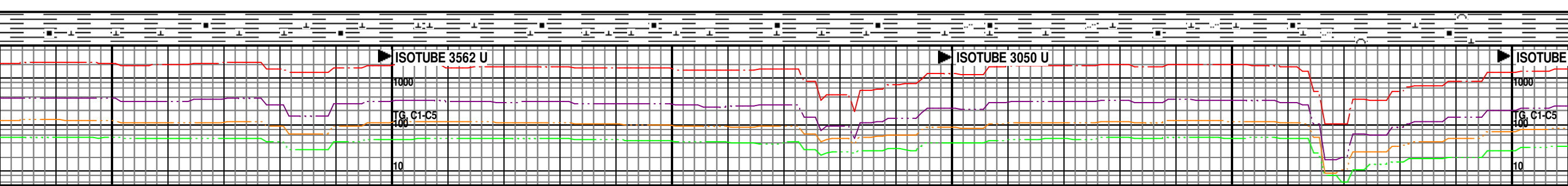


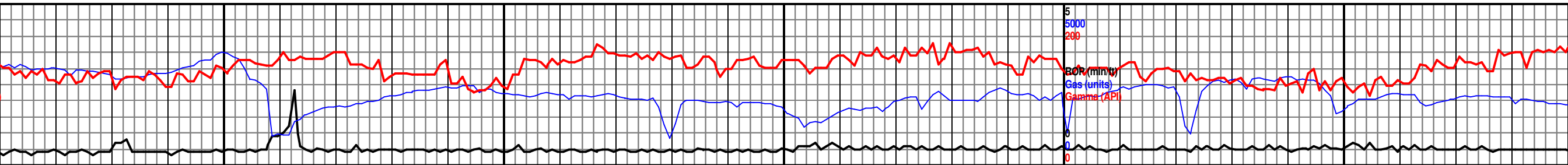
14800				14850				14900				14950				15000							
M-HRD, BLKY, SBWXY-CHKY, E SHL FRAGS (INOCERAMUS), R, SLW PALE YEL UNIFORM				7910 TVD SH- DK GY-GY, FRM-HRD, BLKY, SBWXY-CHKY, V CALC, CARB, TR SHL FRAGS, NO FLOR, SLW PALE YEL STMG CUT.				SH- DK GY-GY, FRM-HRD, BLKY-PLTY, SBWXY-CHKY, V CALC, CARB, SME SHL FRAGS (INOCERAMUS), NO FLOR, SLW YEL STMG CUT.				SH- DK GY-BLK, FRM-HRD, BLKY, SBWXY-CHKY, V CALC, CARB, COM SHL FRAGS (INOCERAMUS), NO FLOR, SLW YEL STMG CUT.				SH- DK GY-GY, HRD, BLKY, SBWXY, V CALC, SL CARB, SME SHL FRAGS (INOCERAMUS), NO FLOR, SLW YEL UNIFORM CUT.				7910 TVD SH- DK GY, HRD, BLKY, SBWXY, V CALC, CARB, COM SHL FRAGS (INOCERAMUS), NO FLOR, SLW YEL UNIFORM CUT.			





15350		15400		15450		15500		15550		15600	
SBWXY, C & CALCITE,		SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.		SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.		SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.		SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.		SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	
		FOUND STATOR RUBBER ON SHAKERS				WT. 9.7, VIS. 62, PV. 20, YP. 17, HTHP. 8.6@300°, CORR SLDS. 8.5%, NAP/H2O. 57.0:31.0%, Cl. 71000 mg/L, Ca. 24000 mg/L, CACl2. 23.26 ppb, Excess Lime. 0.39 ppb, LGS/HGS. 5.9/2.6%, ELEC. 442V, Tau 4.93 lbs/100'sq				CP#7, TARGET @ 8000' VS = 15564' MD, 7927' TVD.	
								X			
								9/18/2014			
								TRIP FOR NEW MUD MOTOR AT 15569'.			
								DEPTH CORRECTION OF 5 FEET TO 15564'.			
						WOB. 21-23K RPM. 80 SPP. 4053 SPM. 106 GPM. 473				NEW BIT #4, SECURITY MMD55, 8 3/4", PDC, 5X18 JETS IN AT 15564'. MUD MOTOR IS 1.50°. SURVEY IS 70' BEHIND BIT. GAMMA IS 37' BEHIND BIT.	
						15494 MD 88.95 INC 269.16 AZM 7929.81 TVD 7929.9 VS				15558 MD 88.39 INC 268.92 AZM 7931.29 TVD 7993.8 VS	

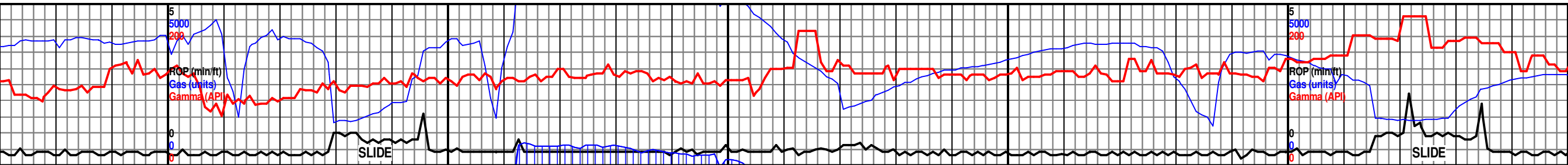




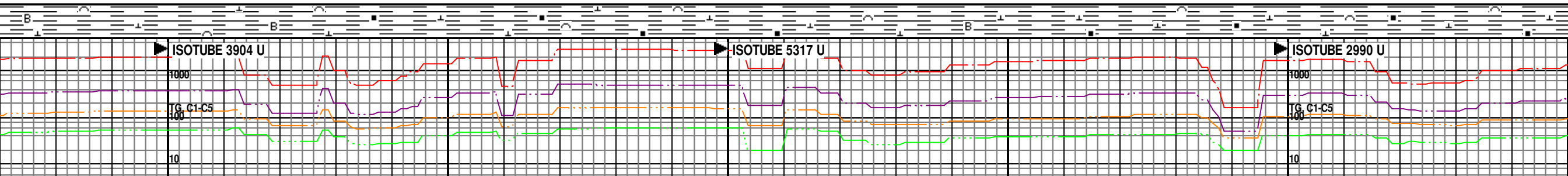
15650				15700				15750				15800				15850							
Y-BLK, FRM-HRD, BLKY, SBWXY, V RB, COM SHL FRAGS.				SH- DK GY-BLK & BRN/BLK, FRM-HRD, BLKY-PLTY, SME WHT MICXLN CALCITE FL FRACS, SBWXY, V CALC, CARB, COM SHL FRAGS.				SH- DK GY-BLK, FRM-HRD, BLKY-PLTY, SBWXY-CHKY, V CALC, CARB, SME SHL FRAGS				SH- DK GY-BLK, FRM-HRD, PLTY-BLKY, SME WHT XLN CALCITE & PYR FL FRACS, SBWXY-CHKY, V CALC, SL CARB, SME SHL FRAGS.				7910 TVD SH- DK GY-GY, FRM-HRD, PLTY-BLKY, SL LAM, SME WHT XLN CALCITE INCL, SBWXY-CHKY, V CALC, TR SHL FRAGS.				SH- DK GY-BLK, FRM-HRD, BLKY-PLTY, T XLN CALCITE FL FRACS, SBWXY, V CAL SME SHL FRAGS.			
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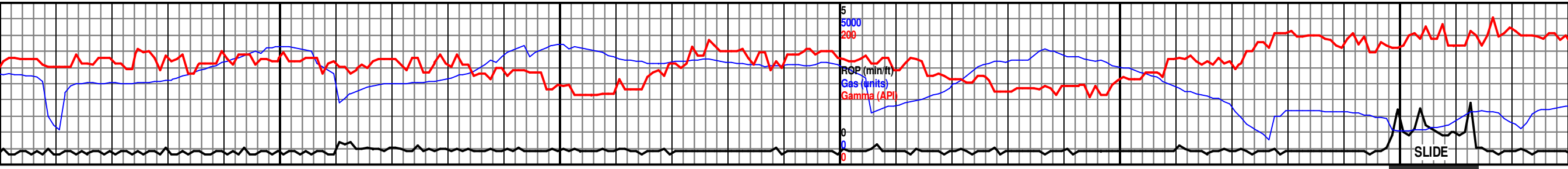




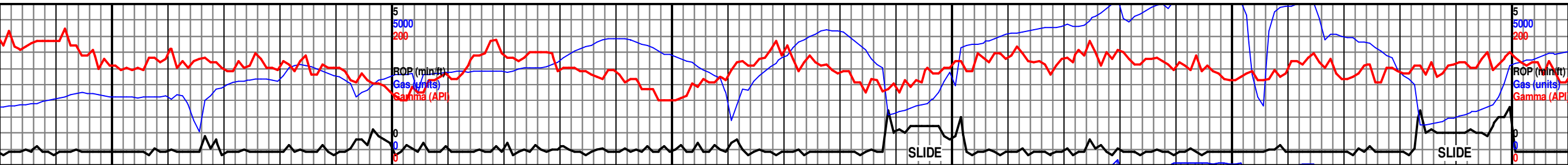


16200	16210 TVD	16250	16300	16350	16400
HRD PLTY-BLKY, LC, SL CARB, TR BENT, COM	SH- GY-DK GY & BLK, FRM-HRD, PLTY-BLKY, CHKY-SBWXY, V CALC, CARB IP, TR BENT, COM SHL FRAGS.	SH- DK GY-BLK, FRM-HRD, PLTY-BLKY, SME WHT CALCITE FL FRACS, CHKY-SBWXY, V CALC, CARB, COM SHL FRAGS.	SH- GY-DK GY & BLK, FRM-HRD, BLKY-PLTY, SBWXY-CHKY, V CALC, CARB IP, TR BENT, SME SHL FRAGS.	SH- DK GY-BLK, FRM-HRD, BLKY-PLTY, SBWXY, V CALC, CARB, SME SHL FRAGS.	SH- DK GY-BLK, FRM-HRD, BLKY-PLTY, SB WXY-CHKY, V CALC, CARB, COM SHL FRAGS.
<p>WT. 9.6 IN, 9.6 OUT. VIS. 65 IN, 60 OUT.</p>					
<p>WT. 9.7 IN, 9.4+ OUT. VIS. 65 IN, 60 OUT.</p>					
<p>WOB. 13.0K RPM. 80 SPP. 4031 SPM. 106 GPM. 475</p>					
<p>16251 MD 88.64 INC 269.38 AZM 7939.70 TVD 8686.7 VS</p>					
<p>16346 MD 89.14 INC 269.71 AZM 7941.54 TVD 8781.7 VS</p>					
<p>16440 MD 87.84 INC 269.47 AZM 7944.01 TVD 8875.7 VS</p>					

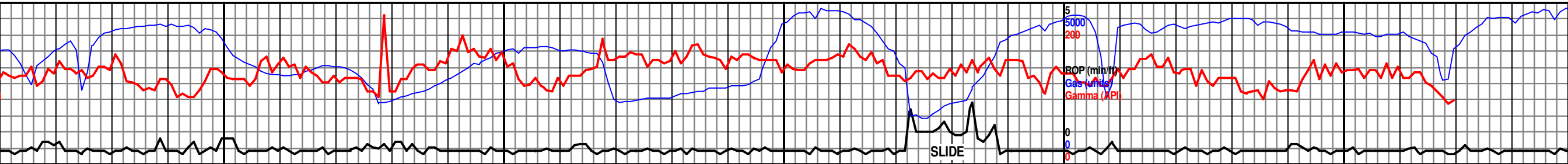




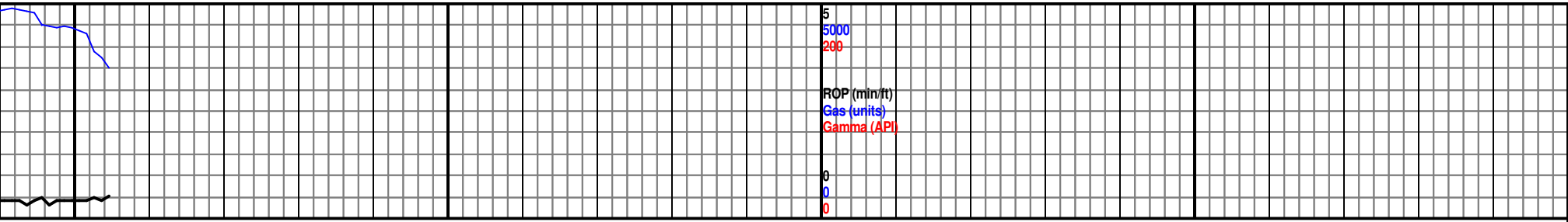
150					16500					16550					16600					16650					16700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
SH- DK GY-BLK, FRM-HRD, BLKY, SME WHT CALCITE FL FRACS, SBWXY, V CALC, CARB, COM SHL FRAGS.					SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.					SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.					7910 TVD SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.					SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.					SH- DK GY-BLK, GY, BLKY, S CARB, SL SLTY IN PT, SME C FRAC & CALCITE, V CALC-LM SFT-FRM.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											



16750						16800						16850						16900						16950						17000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
BWXY, CALC FL MY,						SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.						SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.						SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.						SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.						SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR BENT- LT GY.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											



17050				17100				17150				17200				17250			
SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL PT, SME CALC FL FRAC & CALCITE, V Y, SFT-FRM. W/ TR BENT- LT GY.				SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/TR BENT- TAN-BUFF, LT GY.				SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL SLTY IN PT, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/TR BENT- TAN-BUFF, LT GY.				SH- DK GY-BLK, GY, BLKY, SBWXY, CARB, SL PT, TR CALC FL FRAC & CALCITE, V CA SFT-FRM. W/TR BENT- TAN-BUFF, LT GY			



17300					17350					17400					17450					17500				
RB, SL SLTY IN															7910 TVD									
ALC-LMY,																								
Y.																								