



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

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

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Company: CONOCOPHILLIPS
Address: Attn: Abby Thornton
Three Westlake Park,
550 Westlake Park Blvd,Houston, TX 77079,Office: 832-486-2543.




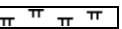
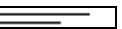
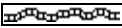


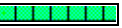

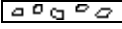


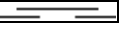



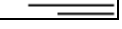
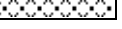
Name: Todd Thiesse, Richard Wagner
Company: Tooke Rockies/ Weatherford SLS
Address: PO Box 435
Casper, WY. 82602
307.265.2124

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

FOSSIL		Ostra		Chtdk		Sandy		Ssstrg
	Algae		Pelec		Chtlt		Silt	TEXTURE
	Amph		Pellet		Dol		Sil	
	Belm		Pisolite		Feldspar		Sulphur	
	Bioclst		Plant		Ferrpel		Tuff	
	Brach		Strom		Ferr			
	Bryozoa	MINERAL			Glau	STRINGER		
	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

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Dst

EVENTS

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Rft

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Sidewall

OIL SHOWS

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Even

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Spotted

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Dead

OTHER SYMBOLS

POROSITY TYPE

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Earthy

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Fenest

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Fracture

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Inter

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Moldic

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Organic

Pinpoint

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Vuggy

ROUNDING

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Rounded

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Subrnd

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Subang

Angular

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SORTING

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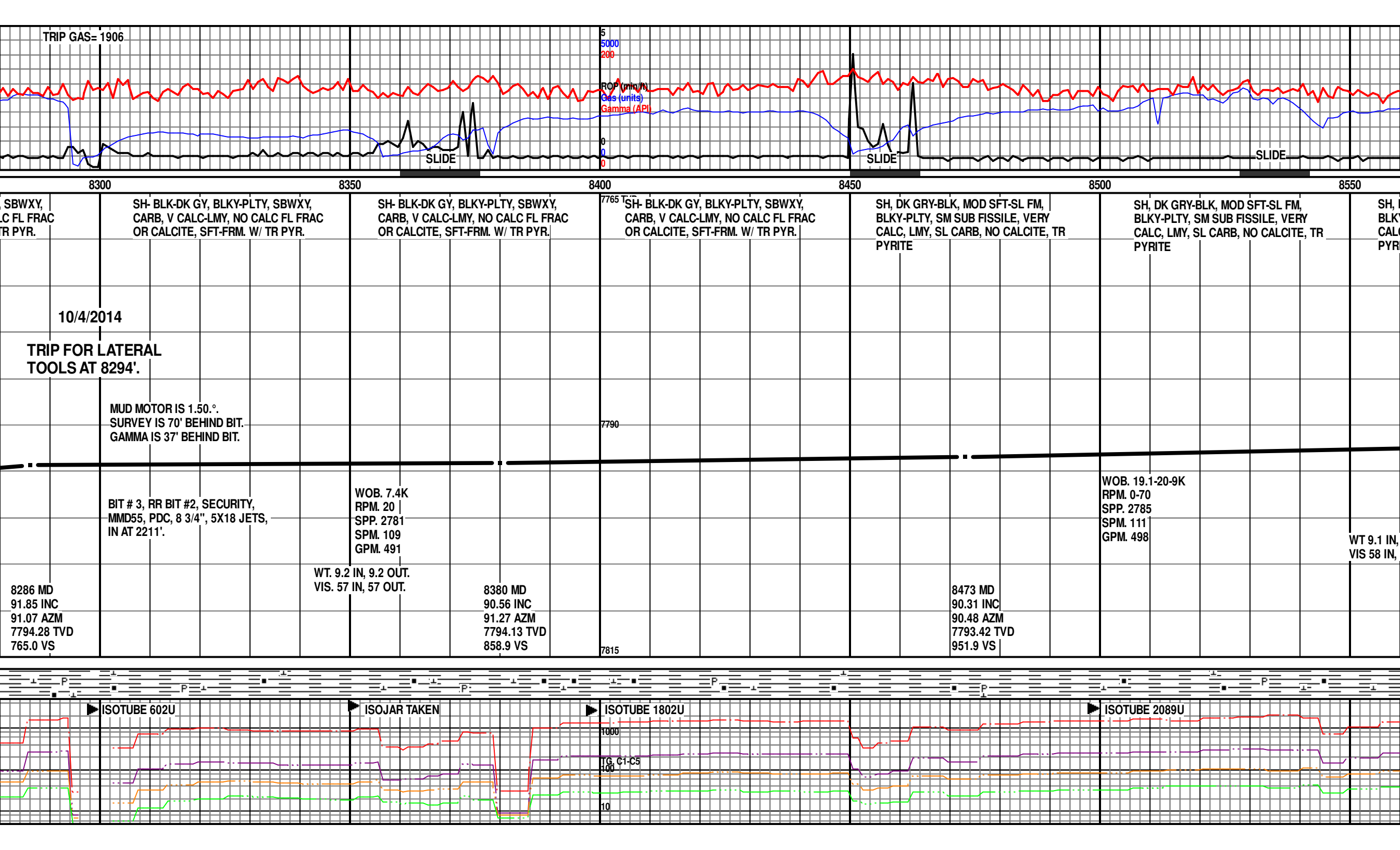
Well

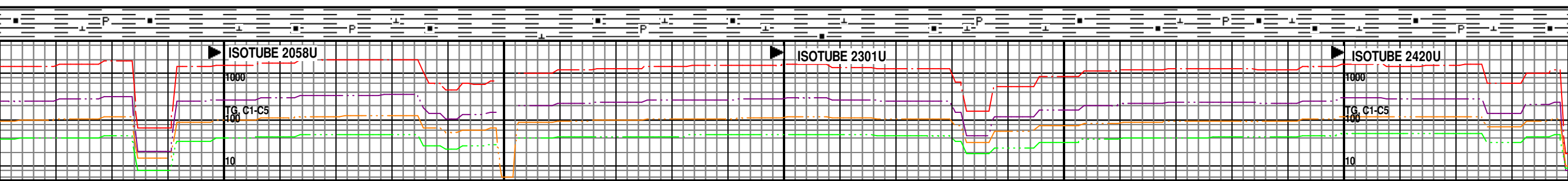
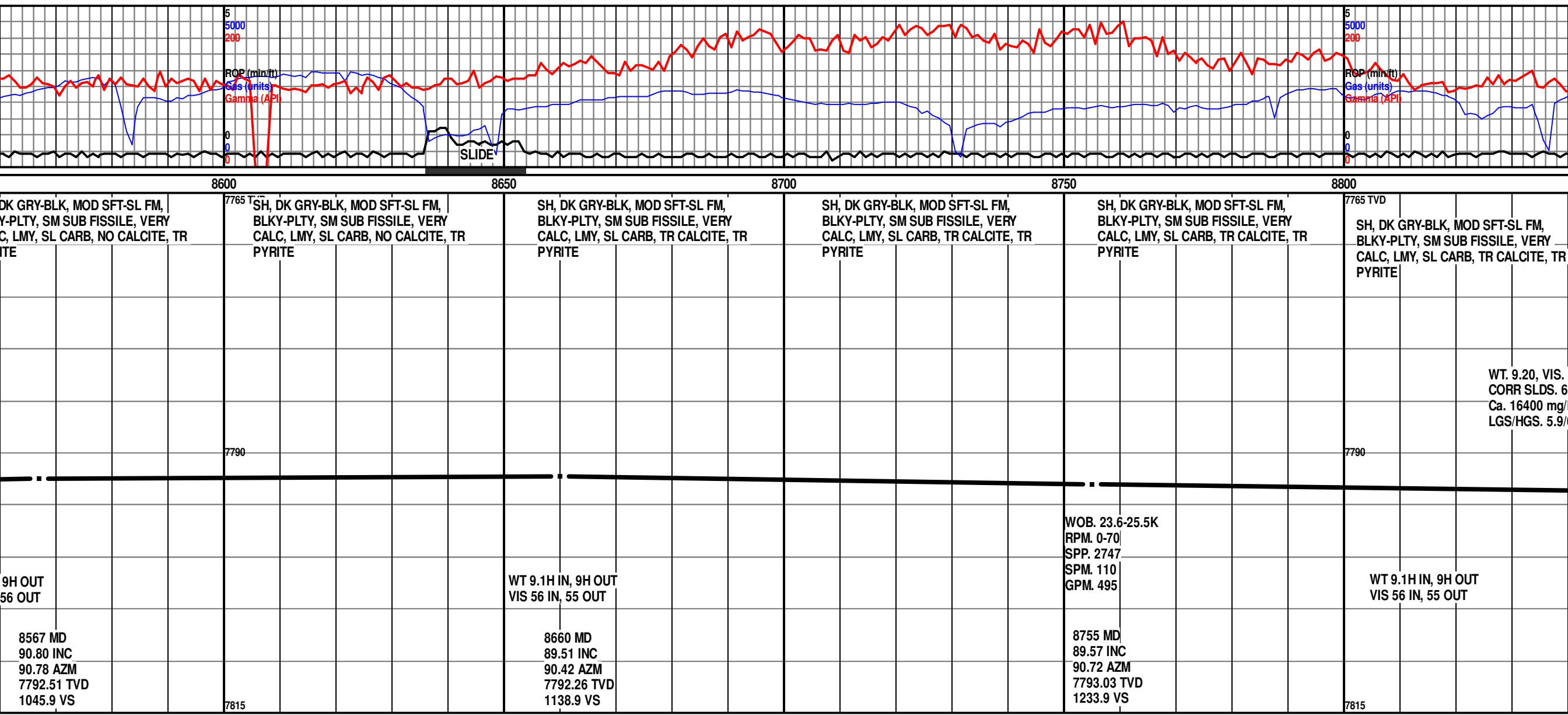
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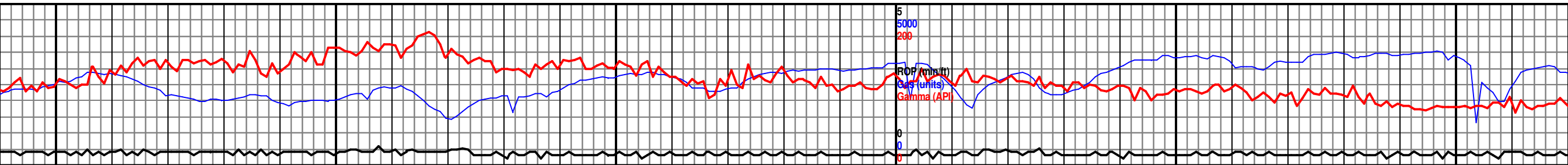
Moderate

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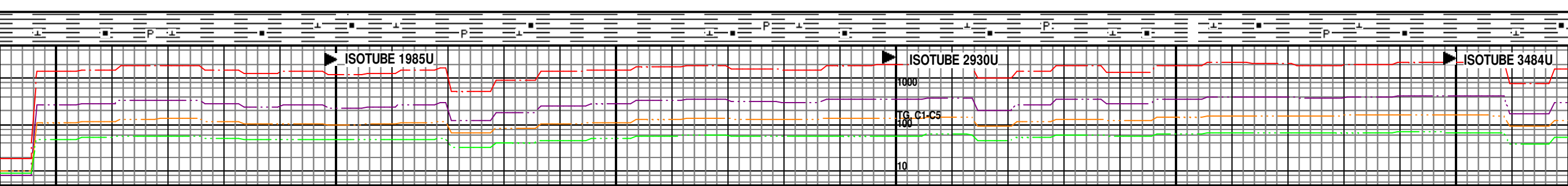
Poor

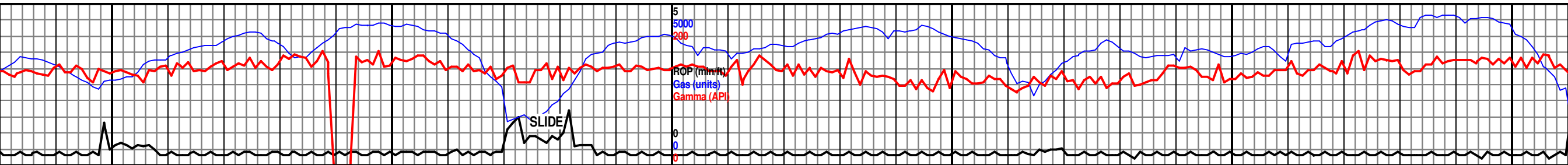




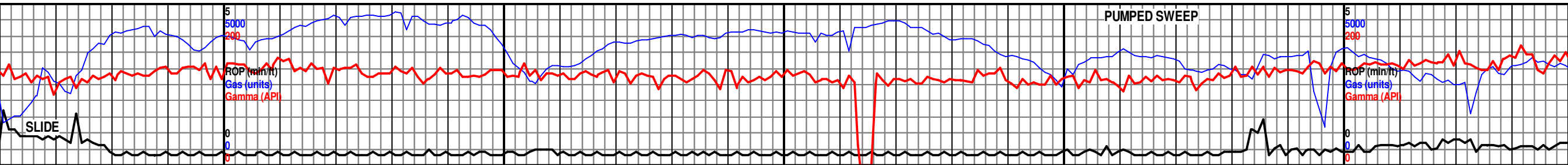


8850					8900					8950					9000					9050					9100				
SH, DK GRY-BLK, MOD SFT-SL FM, BLKY-PLTY, SM SUB FISSILE, VERY CALC, LMY, SL CARB, TR CALCITE, TR PYRITE					SH, DK GRY-BLK, MOD SFT-SL FM, BLKY-PLTY, SM SUB FISSILE, VERY CALC, LMY, SL CARB, TR CALCITE, TR PYRITE					SH, DK GRY-BLK, MOD SFT-SL FM, BLKY-PLTY, SM SUB FISSILE, VERY CALC, LMY, SL CARB, TR CALCITE, TR PYRITE					SH, DK GRY-BLK, MOD SFT-SL FM, BLKY-PLTY, SM SUB FISSILE, VERY CALC, LMY, SL CARB, TR CALCITE, TR PYRITE					SH, DK GRY-BLK, MOD SFT-SL FM, BLKY-PLTY, SM SUB FISSILE, VERY CALC, LMY, SL CARB, TR CALCITE, TR PYRITE					SH, DK GRY-BLK, MOD SFT-SL FM, BLKY-PLTY, SM SUB FISSILE, VERY CALC, LMY, SL CARB, TR CALCITE, TR PYRITE				
					10/5/2014																								
55, PV. 15, YP. 23, HTHP. 3.4@250°, .8%, NAP/H2O. 67:33 Cl. 80000 mg/L, L, CACI2. 15.89 ppb, Excess Lime. 0.39 ppb, 0.9 %, ELEC. 516V, Tau 2.54 lbs/100'sq.																													
					WOB. 25.1-26.8K RPM. 0-70 SPP. 2753 SPM. 110 GPM. 496					WT 9.1H IN, 9H OUT VIS 55 IN, 53 OUT																			
8849 MD 89.63 INC 90.96 AZM 7793.69 TVD 1327.9 VS										8944 MD 89.57 INC 91.11 AZM 7794.35 TVD 1422.9 VS										9038 MD 89.57 INC 91.34 AZM 7795.06 TVD 1516.9 VS									

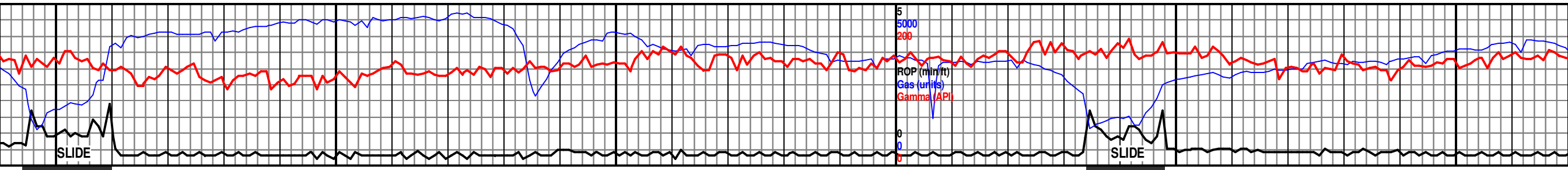




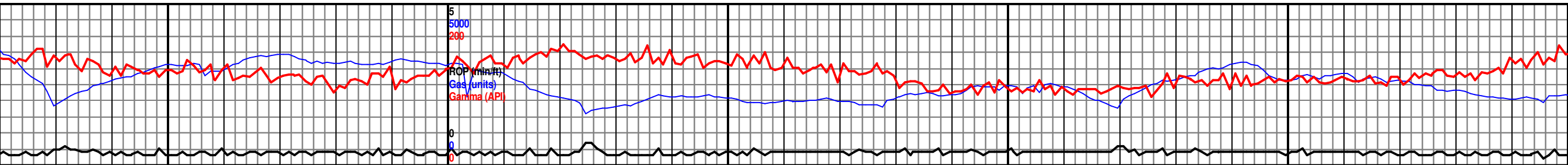
9700				9750				9800				9850				9900				9950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
BLKY-PLTY, TR-NO CALC FL				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR-NO CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC & CALCITE, SFT-FRM.				7765 TVD SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																



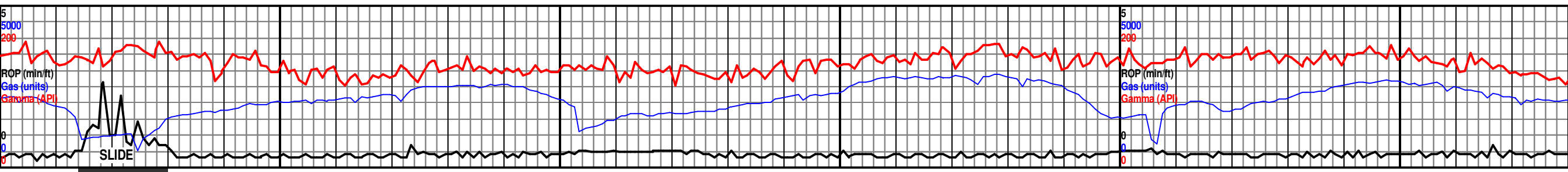
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Y-BLK, BLKY-PLTY, SBWXY, CARB, V Y, TR-OCC CALC FL FRAC & CALCITE,				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR-OCC CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR-OCC CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM. W/ ABNDT SWEEP MATERIAL.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CA CALC-LMY, SME CALC FL FRAC & CALC SFT-FRM. W/ ABNDT SWEEP MATERIAL.			
VOB. 23-26K IPM. 75 PP. 2871 PM. 109 PM. 492												PUMPED SWEEP											
7790				7790				7790				7790				7790							



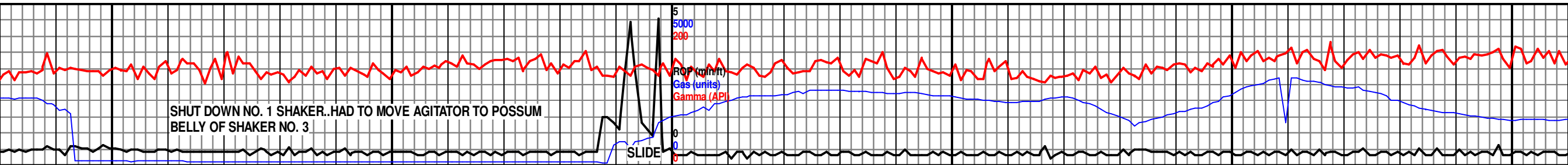
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CARB, V CITE,	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, OCC CALC FL FRAC & CALCITE, SFT-FRM. W/ SME SWEEP MATERIAL.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, OCC CALC FL FRAC & CALCITE, SFT-FRM. W/ SME SWEEP MATERIAL.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, OCC CALC FL FRAC & CALCITE, SFT-FRM. W/ SME SWEEP MATERIAL.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				7765 TVD SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.								SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.								SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.																										
T	WOB. 23-26K RPM. 75 SPP. 2871 SPM. 109 GPM. 492																												WOB. 21-24K RPM. 75 SPP. 2895 SPM. 109 GPM. 492								WT 9.2 IN, 9.2 OUT VIS 50 IN, 48 OUT								CP#2, TA = 10521'														
	10267 MD 90.12 INC 90.68 AZM 7786.59 TVD 2745.8 VS																																																										



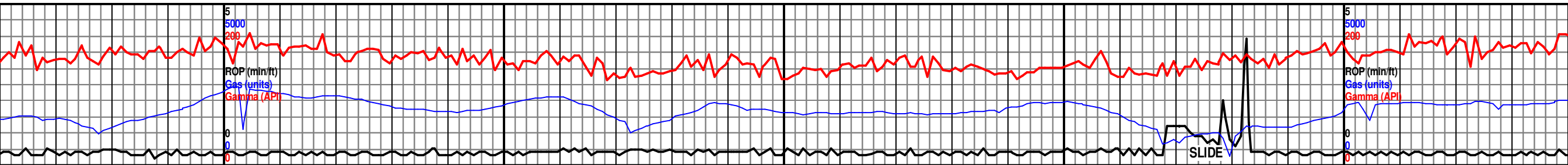
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SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & ABT CALCITE, SFT-FRM.							



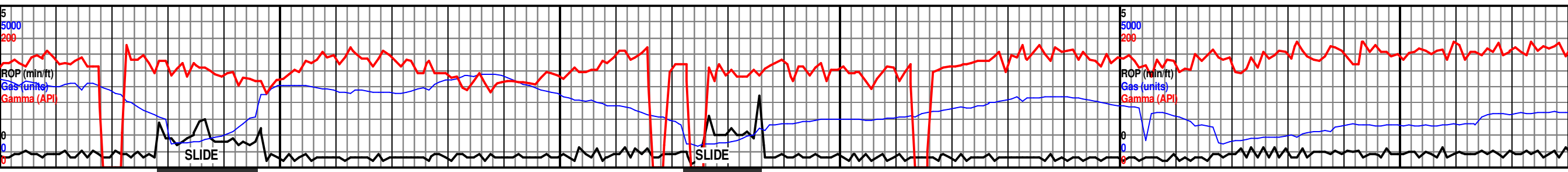
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7765 TVD	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & ABT CALCITE, SFT-FRM.							SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & ABT CALCITE, SFT-FRM.							7765 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.							SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.	



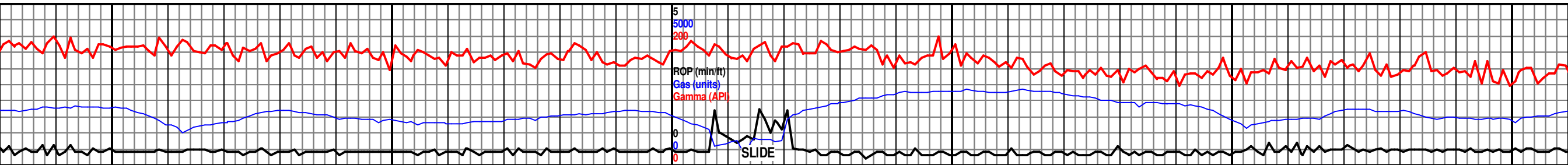
11100				11150				11200				11250				11300				11350							
TY, SBWXY, C FL FRAC &				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				7765 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- CAR- CAL			
												10/6/2014															



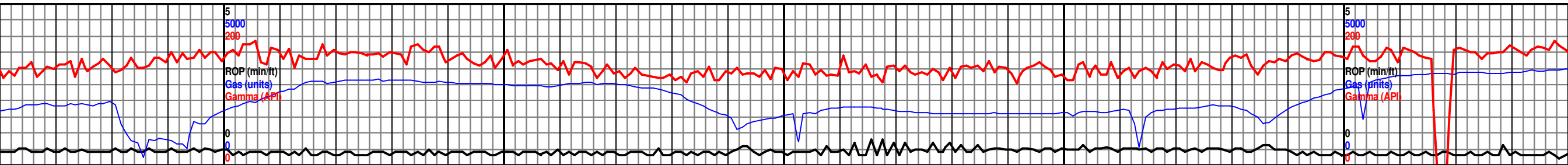
11400				11450				11500				11550				11600			
BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.			



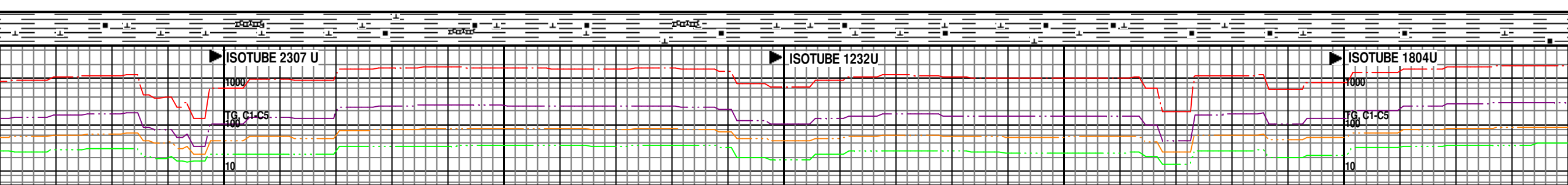
1200				12250				12300				12350				12400				12450			
7765 TVD SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, TR-SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, TR-SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, TR-SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, TR-NO CALC FL FRAC & CALCITE, SFT-FRM.				7765 TVD SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, TR-NO CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, SBWXY, V CALC-LMY, CARB, FRAC & CALCITE, SFT-FRM.			

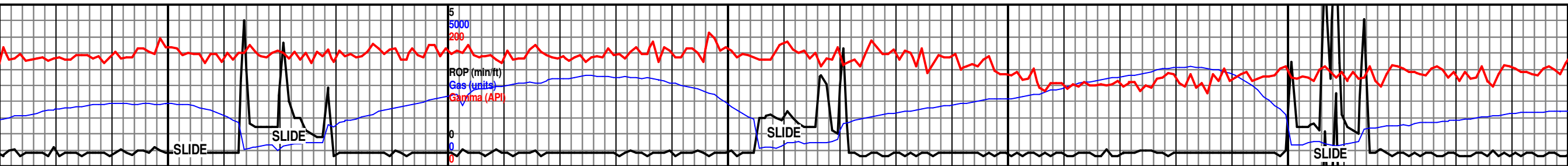


12500				12550				12600				12650				12700				12750							
N, BLKY-PLTY, TR-NO CALC FL				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM. W/ TR BENT- LT GY-GN.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM. W/ TR BENT- LT GY-GN.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM.			
				X																							
				CP#4, TARGET @ 5000' VS = 12521' MD, 7774' TVD.								NOTE: SCALE CHANGE															

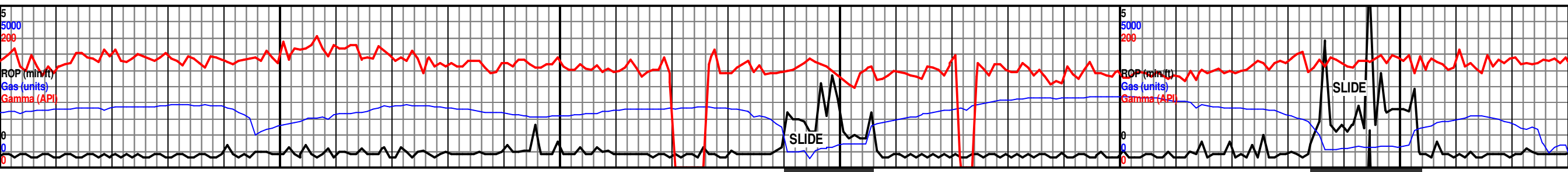


12800				12850				12900				12950				13000			
Y-BLK, OCC DK BRN, BLKY-PLTY, V CALC-LMY, CARB, SME CALC FL CALCITE, SFT-FRM.				SH- DK GY-BLK, OCC DK BRN, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, SFT-FRM. W/ TR BENT- LT GY.				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, W/ TR BENT- LT GY.				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, W/ TR BENT- LT GY.				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, W/ TR BENT- LT GY.			
WOB. 23-25K RPM. 75 SPP. 3477 SPM. 109 GPM. 490								WT 9.55 IN, 9.6 OUT VIS 59 IN, 59 OUT				WOB. 22-23K RPM. 75 SPP. 3411-3413 SPM. 109 GPM. 431				CP#5, TARGET @ 5500' VS = 13021' MD, 7765' TVD.			
				12818 MD 91.36 INC 91.35 AZM 7769.58 TVD 5296.4 VS				12913 MD 91.36 INC 91.08 AZM 7767.33 TVD 5391.4 VS				13007 MD 91.30 INC 90.77 AZM 7765.16 TVD 5485.4 VS							

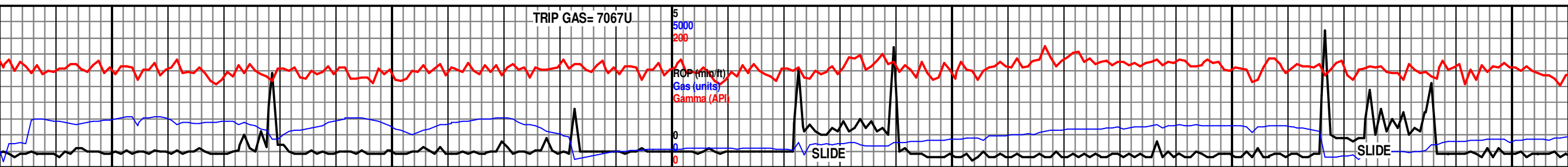




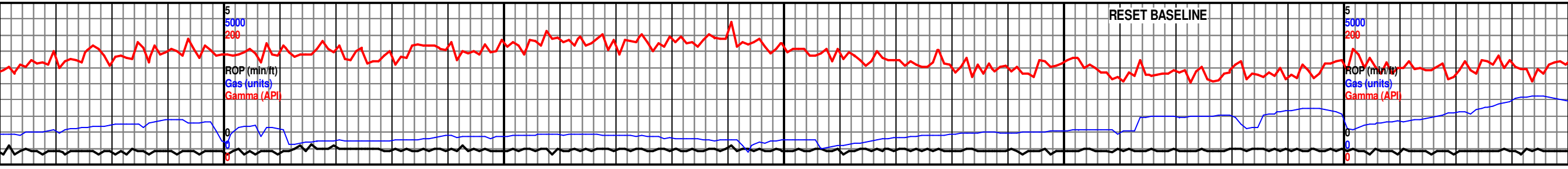
13350				13400				13450				13500				13550				13600			
K, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE, T GY.				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE				SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLTY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE			
				10/7/2014																			
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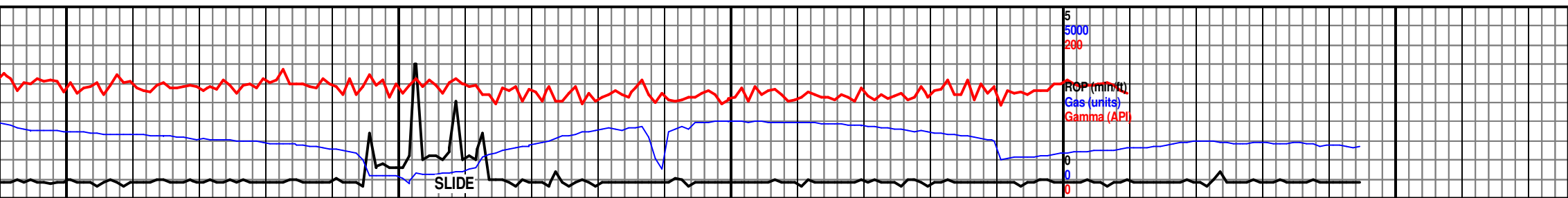
13600					13650					13700					13750					13800					13850				
7735 TVD SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLATY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE					SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLATY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE					SH- DK GY-BLK, OCC DK BRN, SFT-FM, BLKY-PLATY, SBWXY, V CALC-LMY, CARB, SME CALC FL FRAC & CALCITE					SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.					7735 TVD SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.					SH- DK GY-BLK, BLKY-PLTY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM. W/ SME RUBBER.				
																				MUD MOTOR STATOR RUBBER FOUND ON SHAKERS.									
7760										WT 9.5H IN, 9.5H OUT VIS 61 IN, 59 OUT										7760									



13900					13950					14000					14050					14100					14150				
SBWXY, L FRAC & STATOR					SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM. W/ SME STATOR RUBBER.					SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.					SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM. VERY POOR SAMPLES, SWEEP COMING BACK					SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM. VERY POOR SAMPLES, SWEEP COMING BACK					SH- D CARB CALC				



14200				14250				14300				14350				14400							
K GY-BLK, BLKY-PLTY, SBWXY, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM				SH- BLK-DK GY, BLKY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-OCC PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-OCC PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.			



14450				14500				14550				14600				14650			
SH- BLK-DK GY, BLKY-OCC PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-OCC PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-OCC PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, BLKY-OCC PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.							