



GEOSEARCH LOGGING INC.

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

Well Name: Windoes 2242H
Location: Harrison County, WV
License Number: 47-033-05373
Spud Date: 11/22/2010
Surface Coordinates: Lat: 39.1272778
Long: -80.2332417
Bottom Hole Coordinates: Lat: 39.121236
Long: 80.22178
Ground Elevation (ft): 1,320'
Logged Interval (ft): 2,680' To: 11,240'
Formation: Marcellus Shale
Type of Drilling Fluid: Air drilling, Oil based mud

Region: Appalachia
Drilling Completed: 12/14/2010

K.B. Elevation (ft): 1,336'
Total Depth (ft): 11,240'

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: XTO Energy
Address: 600 E. Exchange Avenue
Fort Worth, TX 76164

GEOLOGIST

Name: Kelley Hartley, Daniel Blake, and Noah Sluiter
Company: Geosearch Logging, Inc.
Address: P.O. Box 6005
Edmond, OK 73083-6005
(405) 340-5545

Comments

2 Manned Logging Service: 11/26/2010
Start Logging Date: 11/28/2010
OBM date: 12/01/2010
Released Logging Date: 12/14/2010
Drilling Contractor: UDI #209
PC 193,ML 126, HASP V-42, H-33

ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal

	Congl
	Dol
	Gyp
	Igne
	Lmst
	Meta

	Mrlst
	Salt
	Shale
	Shcol
	Shgy
	Sltst

	Ss
	Till
	Sandstn
	Siltstn
	Granwash
	Dolowash

	Granite
	Cement
	Hotshale

ACCESSORIES

MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol
	Feldspar
	Ferrpel
	Ferr
	Glau

	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff

FOSSIL

	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite

	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom

	Sltstrg
	Ssstrg

STRINGER

	Anhy
	Arg
	Bent
	Coal
	Dol
	Gyp
	Ls
	Mrst

TEXTURE

	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackst

OTHER SYMBOLS

POROSITY TYPE

	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic
	Pinpoint

	Vuggy
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SORTING

	Well
	Moderate
	Poor

ROUNDING

	Rounded
	Subrnd
	Subang
	Angular

OIL SHOWS

	Even
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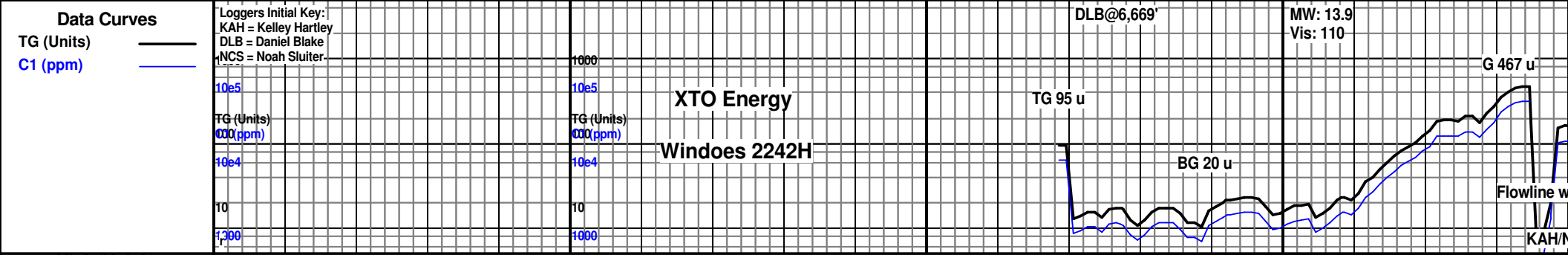
	Spotted
	Ques
	Dead
	poor
	fair
	good
	excelent

INTERVALS

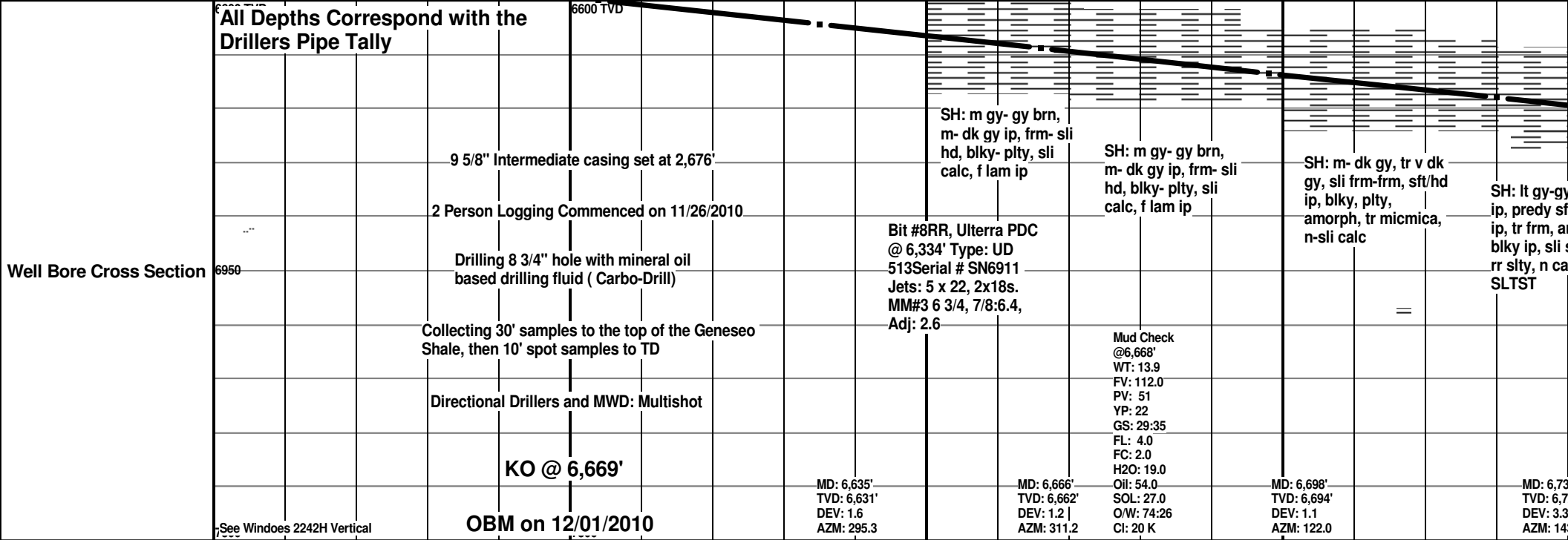
	Core
	Dst

EVENTS

	Rft
	Sidewall



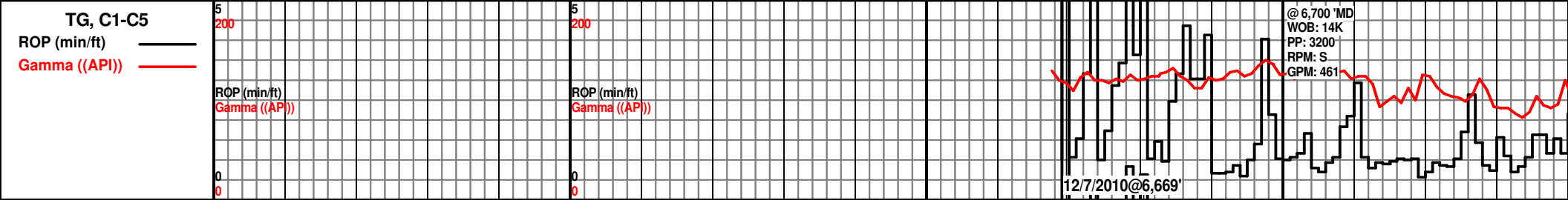
Side/Rotate							
Depth	50	6600	6650	6700			

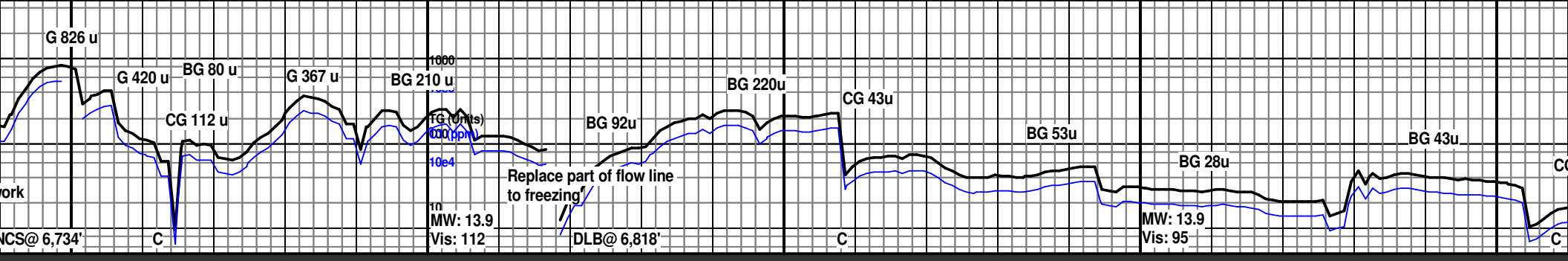


Oil Shows							
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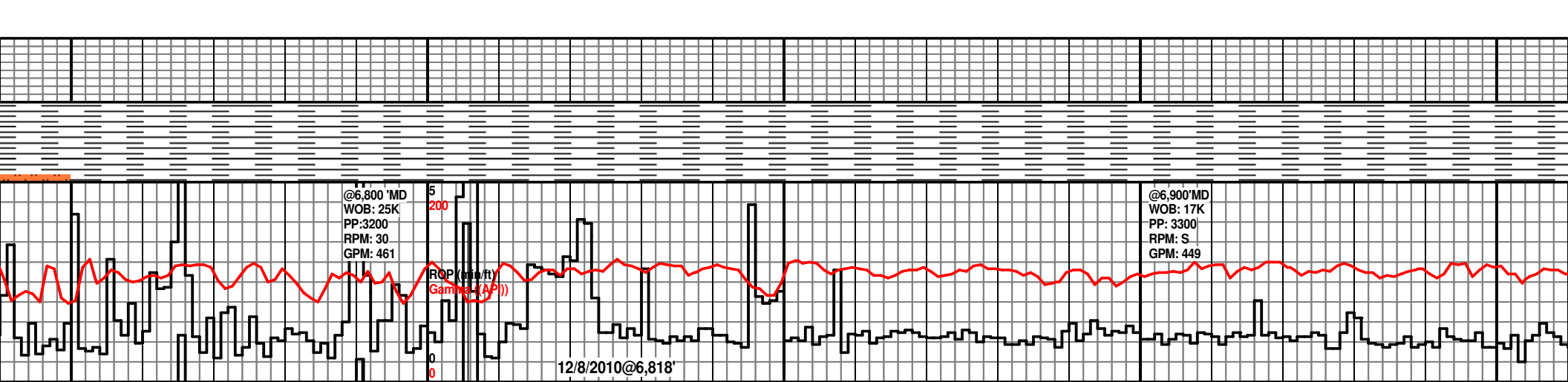
Porosity	24%						
	18%						
	12%						
	6%						

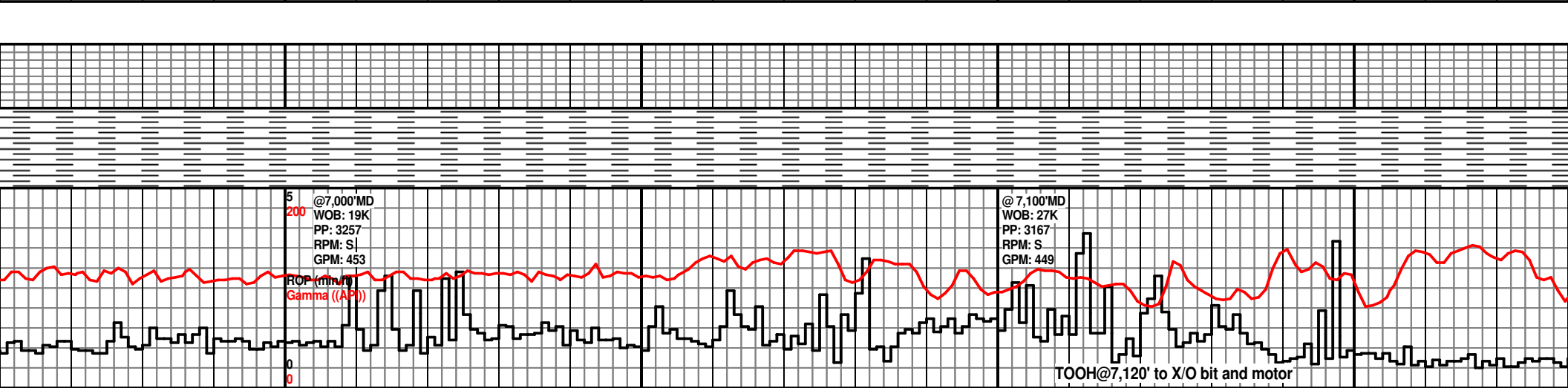
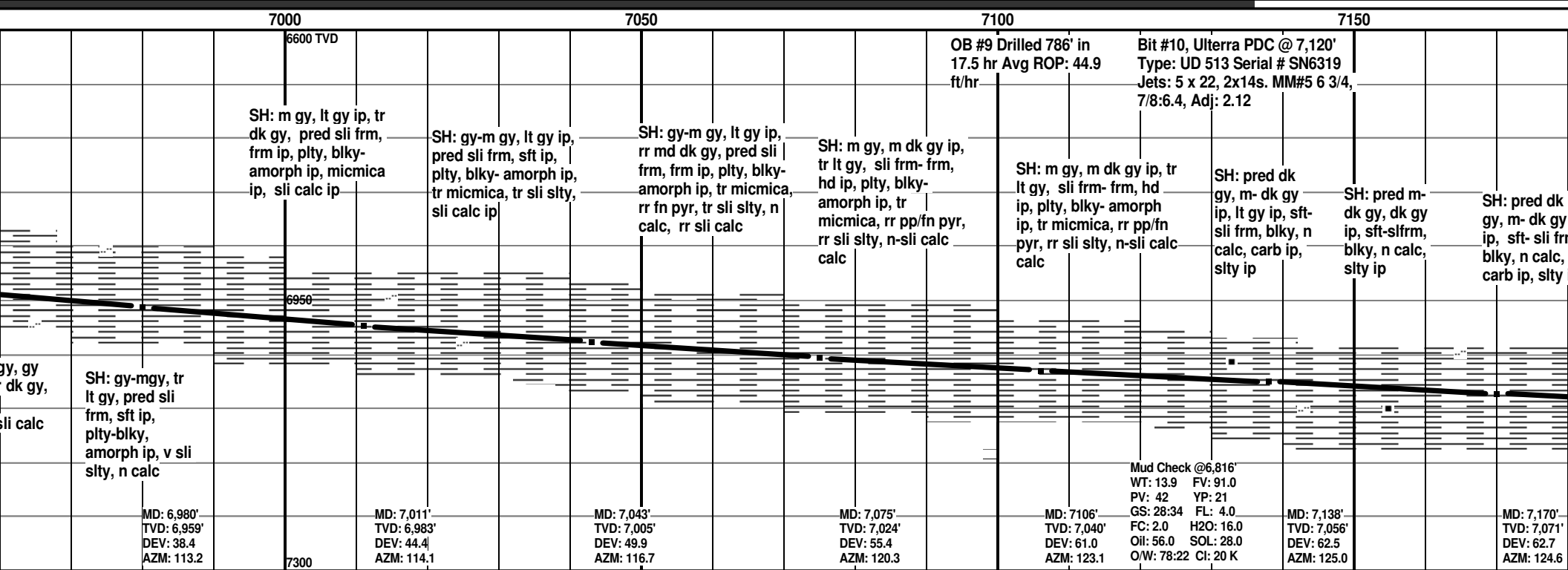
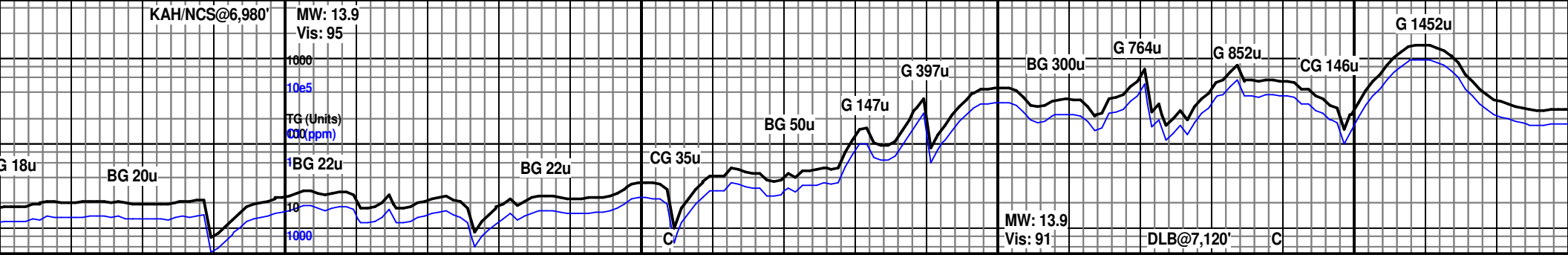
% Lithology							
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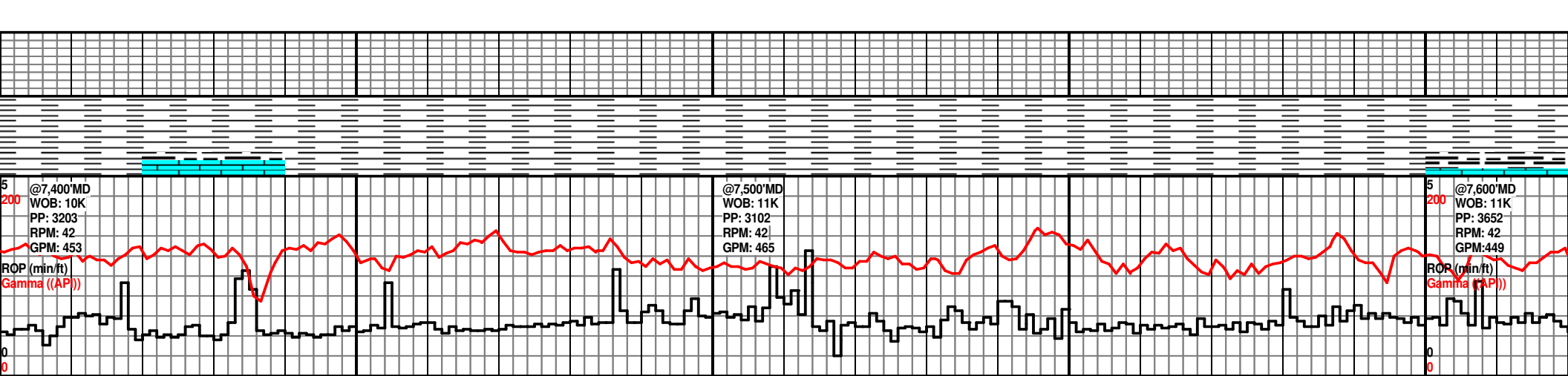
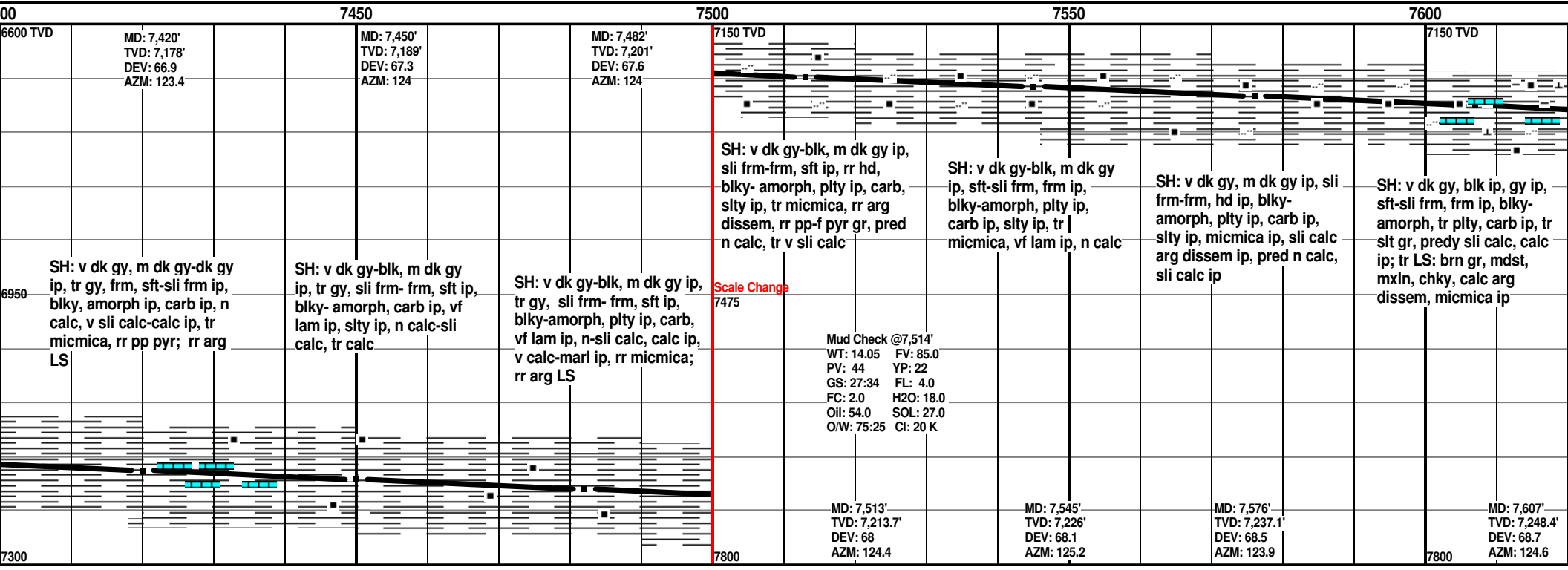
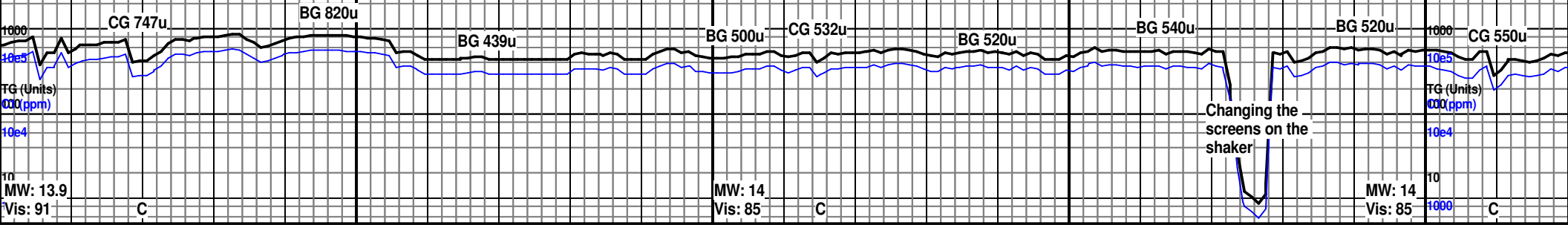


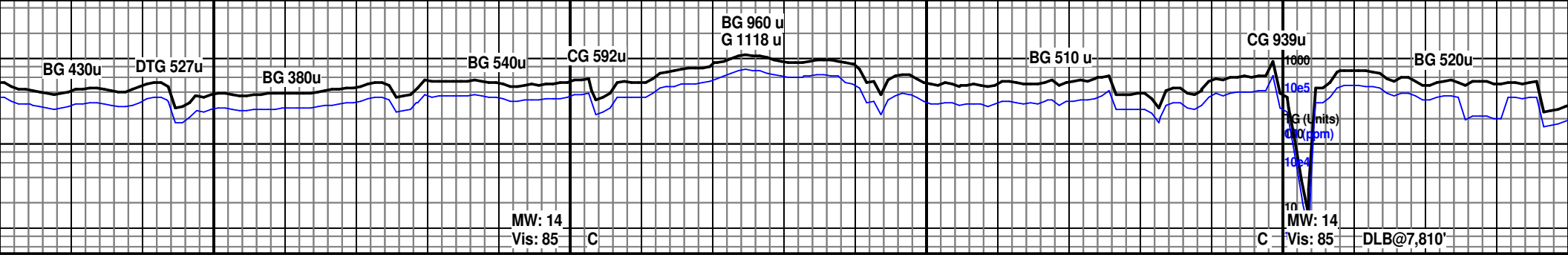


6750	6800	6850	6900	6950
6600 TVD Bit #9, Ulterra PDC @ 6,334' Type: UD 513 rerun Serial # SN6911 Jets: 5x 22, 2x18s. MM#4 6 3/4, 7/8:6.4, Adj: 2.6				
SH: gy, lt gy ip, tr dk gy, sft, tr sli frm, amorph, blkly ip, tr sli slty, rr f lam lt gy SH w SLTST, n calc; tr SLTST	SH: gy, lt gy ip, dk gy ip, tr v dk gy, sft, tr sli frm, amorph, blkly ip, tr plty, tr sli slty ip, tr micmica, rr v sli calc, n calc; tr SLTST	SH: m- dk gy, m gy ip, sft- sli frm, blkly, n calc, sli slty ip	SH: pred dk gy, m gy ip, sft- sli frm, blkly, n calc, carb, slty ip	SH: pred m gy- gy grn, dy gy ip, sft- sli frm, blkly, sli- m calc ip, carb ip
		Mud Check @6,816' WT: 13.9 FV: 95.0 PV: 49 YP: 23 GS: 27:34 FL: 4.0 FC: 2.0 H2O: 17.0 Oil: 56.0 SOL: 26.0 O/W: 77:23 CI: 20 K		
MD: 6,761' TVD: 6,757' DEV: 4.0 AZM: 129.6	MD: 6,793' TVD: 6,789' DEV: 6.8 AZM: 116.3	MD: 6,824' TVD: 6,820' DEV: 11.2 AZM: 113.8	MD: 6,886' TVD: 6,879' DEV: 22.2 AZM: 110.6	MD: 6,917' TVD: 6,907.12' DEV: 27.4 AZM: 111.5
				MD: 6,948' TVD: 6,933' DEV: 32.8 AZM: 113.2

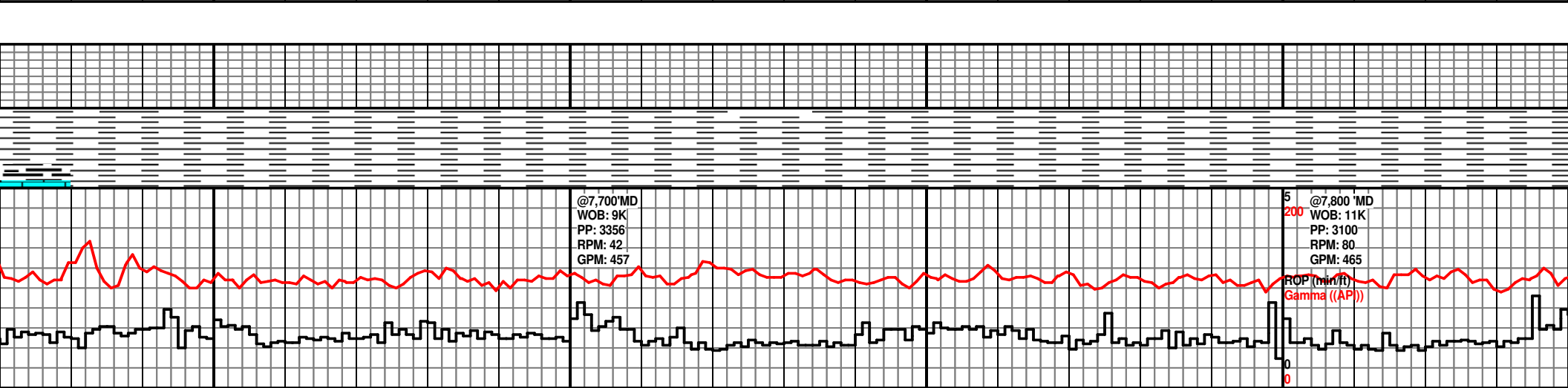


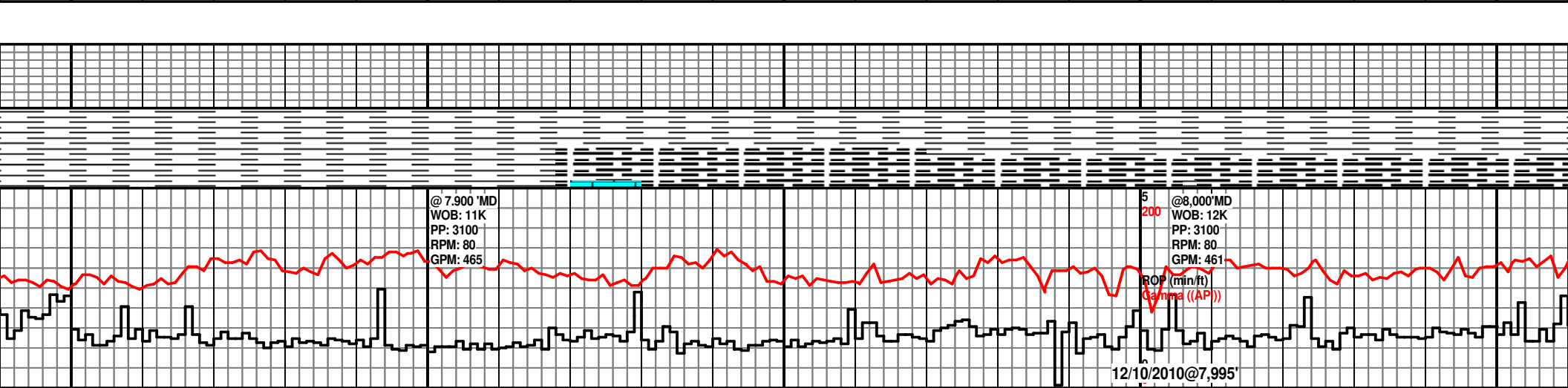
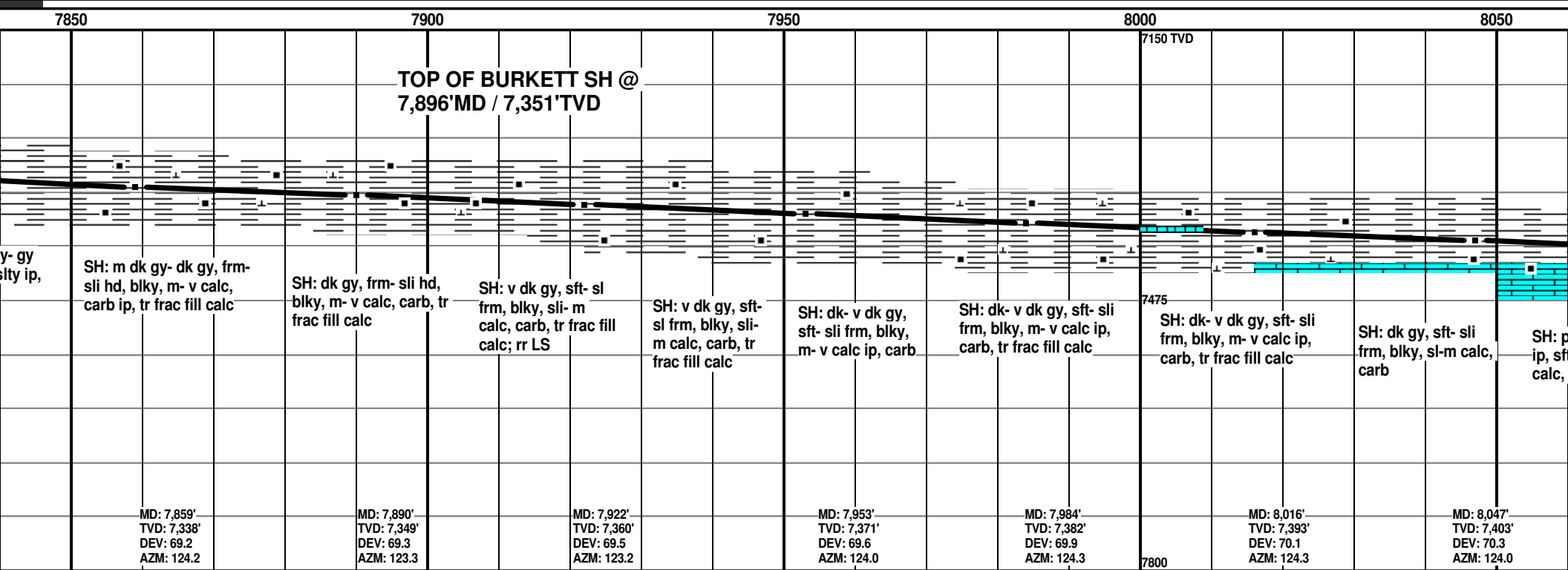
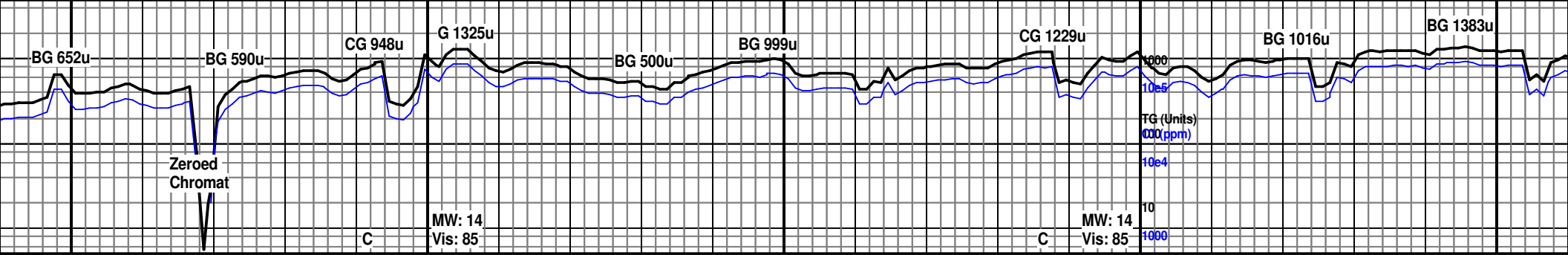


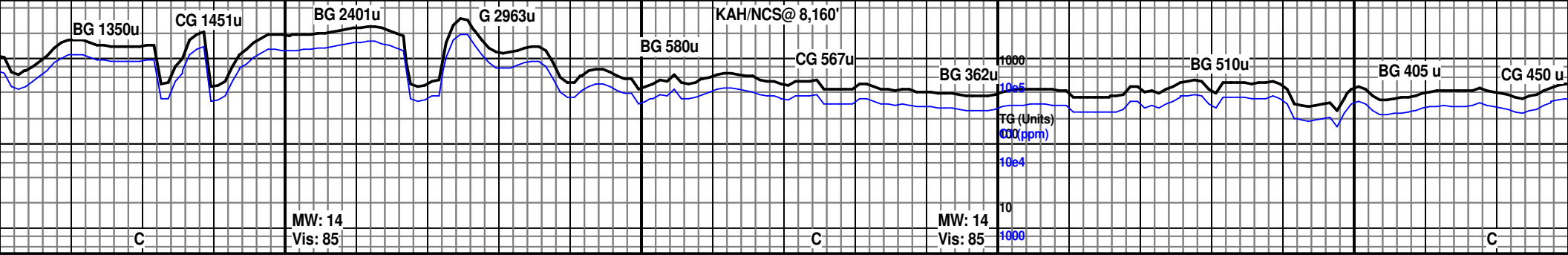




7650		7700			7750			7800	
SH: v dk gy, blk ip, gy ip, sft-sli frm, frm ip, blk-amorph, tr carb, sli calc-calc; rr LS: brn gr, mdst, mxln, chky, calc arg dissem		SH: v dk gy, sme blk ip, md gy ip, sft-sli frm, frm ip, blk-amorph, tr carb, micmica, rr fn pyr, sli calc-calc			SH: m dk gy-v dk gy, gy ip, sme blk ip, sft-sli frm, frm ip, blk-amorph, tr carb, sli calc-calc			SH: v dk gy, m gy/blk ip, sft-sli frm, frm ip, blk-amorph, plty ip, carb, sli calc-calc	
MD: 7,638' TVD: 7,260' DEV: 68.7 AZM: 124.8		MD: 7,670' TVD: 7,271' DEV: 69.0 AZM: 124.2			MD: 7,701' TVD: 7,282' DEV: 69 AZM: 124.8			MD: 7,733' TVD: 7,294' DEV: 69.2 AZM: 125.6	
								Mud Check @7,762' WT: 14.05 FV: 86.0 PV: 43 YP: 24 GS: 27:34 FL: 4.0 FC: 2.0 H2O: 18.0 Oil: 54.0 SOL: 27.22 OW: 75:25 Cl: 20 K	
								MD: 7,764' TVD: 7,304' DEV: 69.4 AZM: 125.6	
								MD: 7,795' TVD: 7,316' DEV: 69.5 AZM: 125.0	
								MD: 7,827' TVD: 7,327' DEV: 69.5 AZM: 124.1	

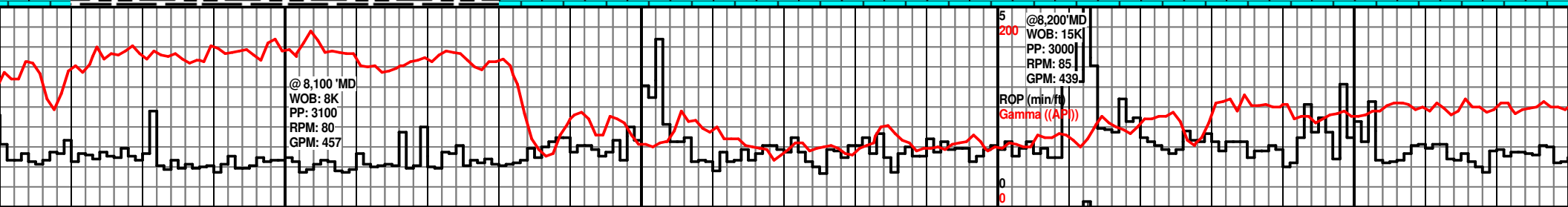
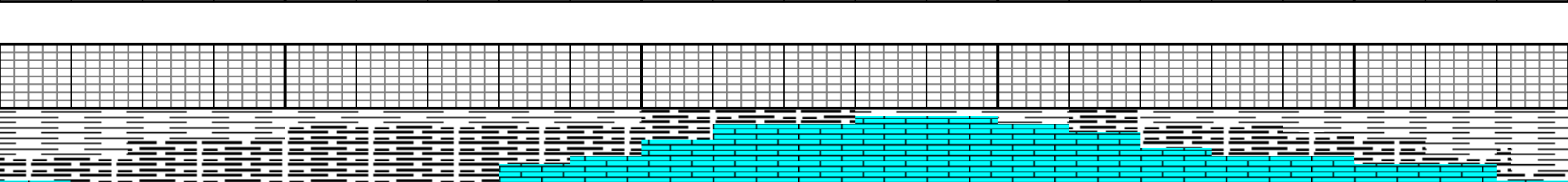
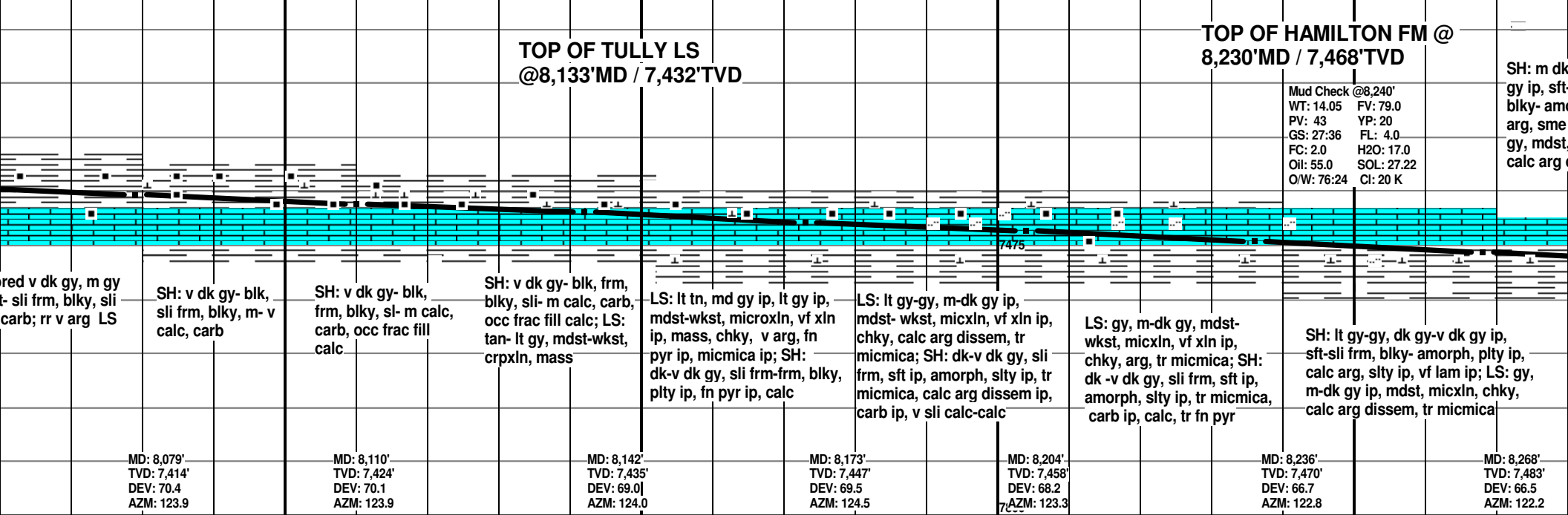


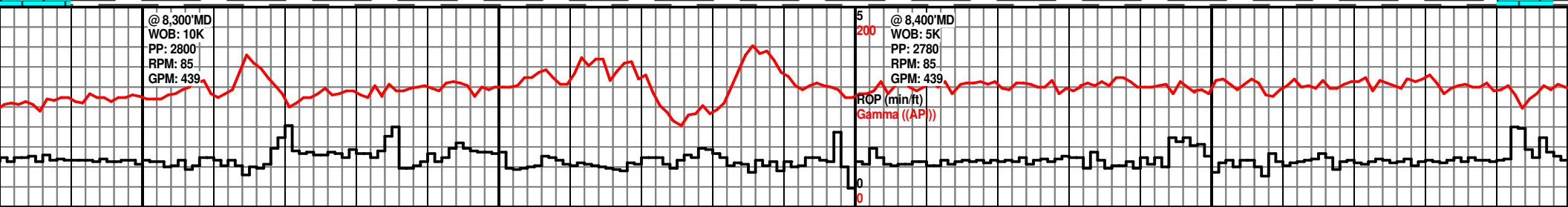
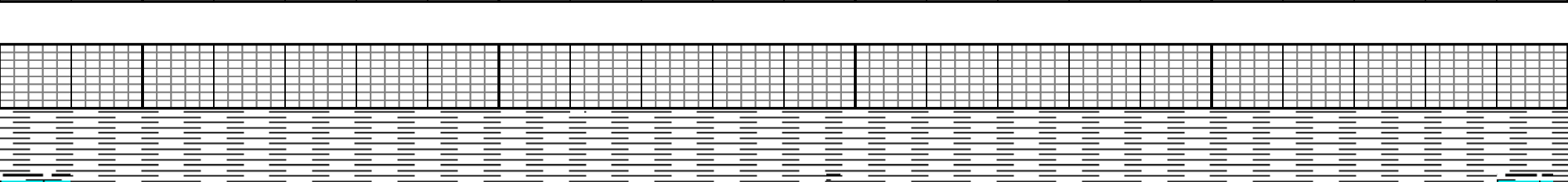
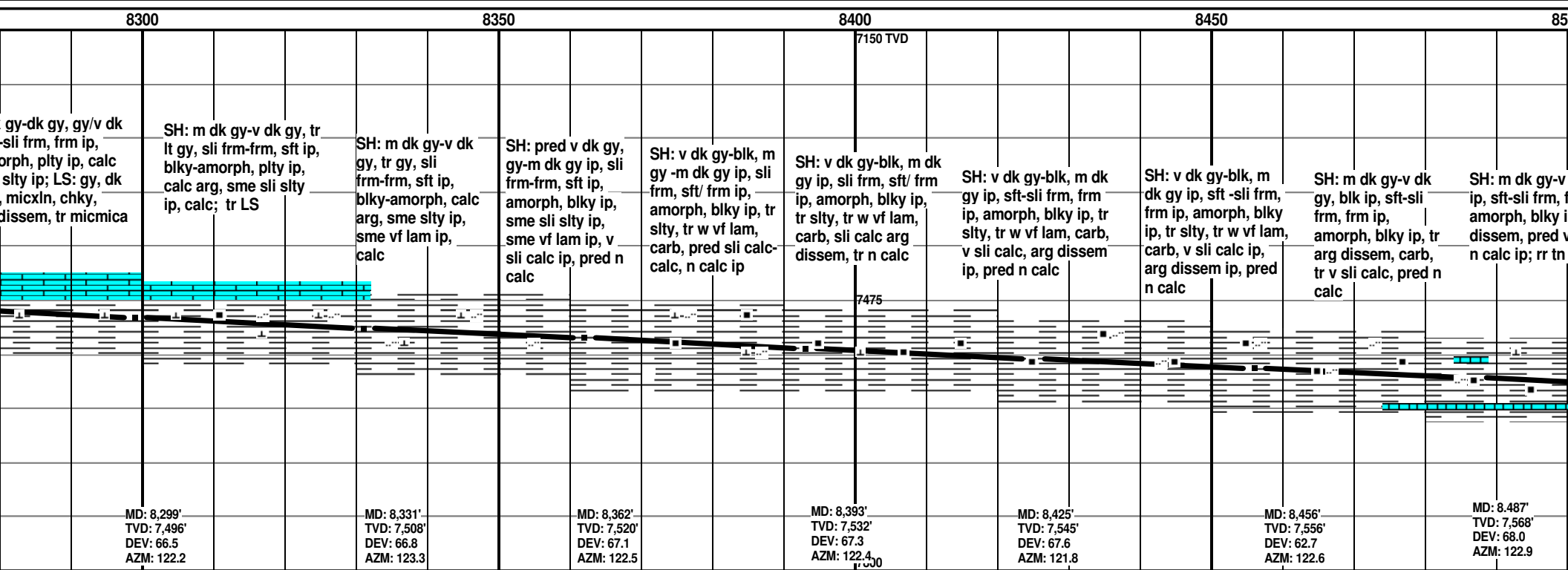
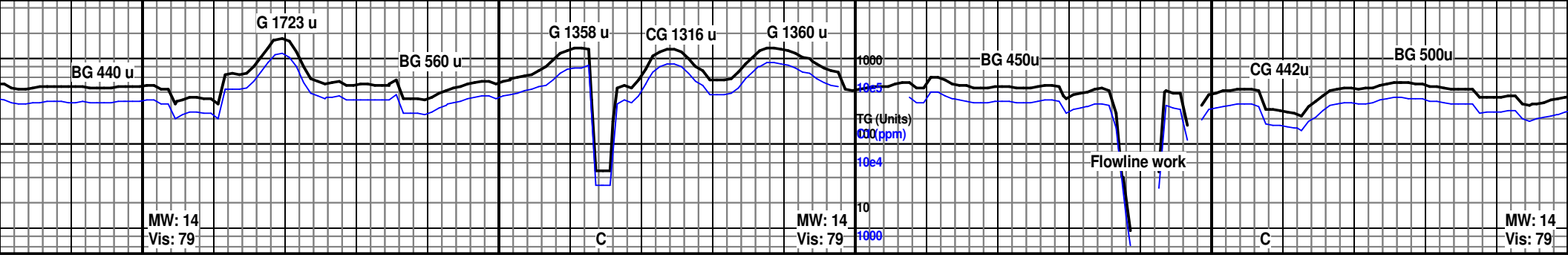


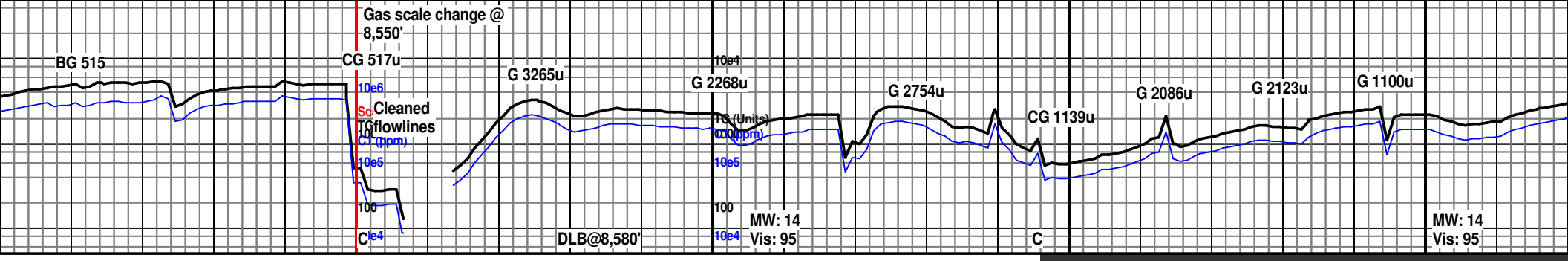


MW: 14 Vis: 85 C C C C

8100 8150 8200 8250

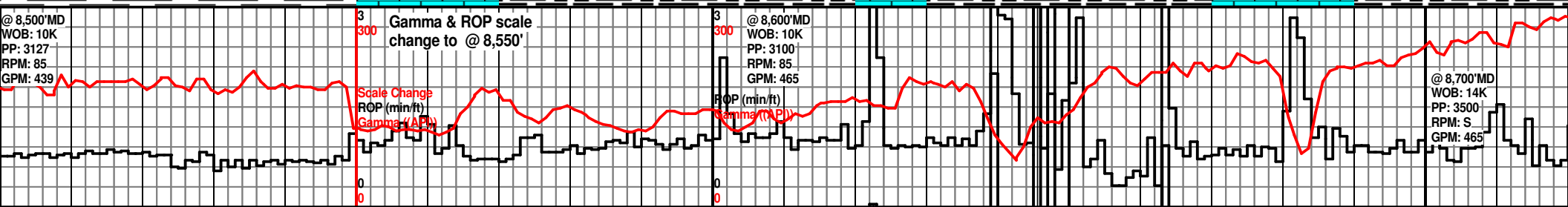
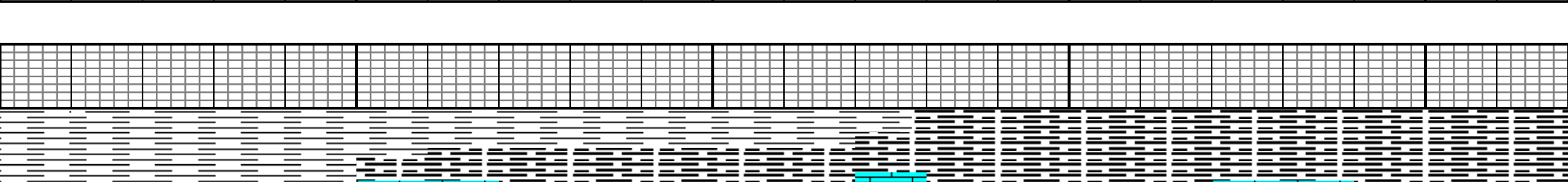


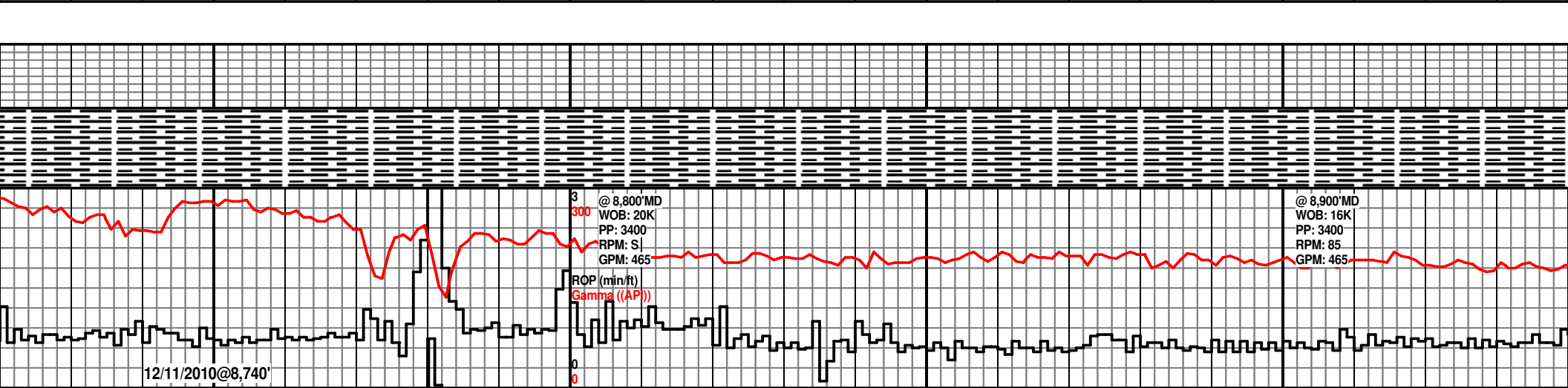
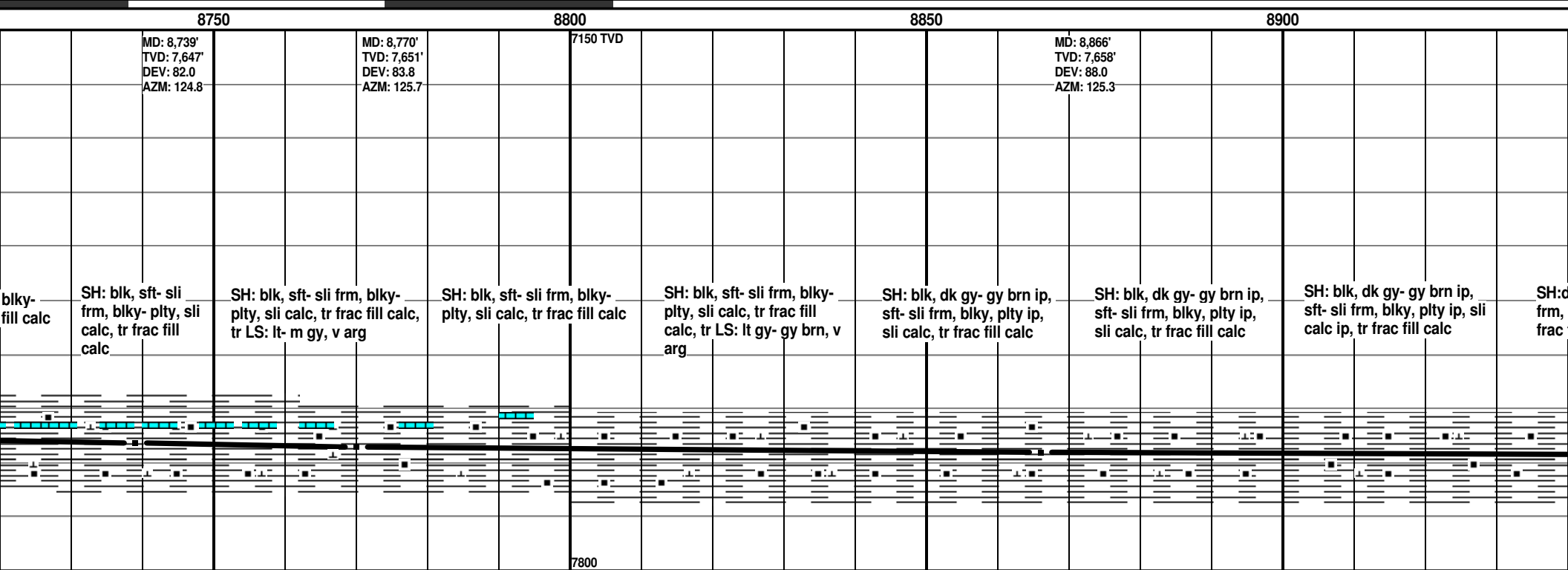
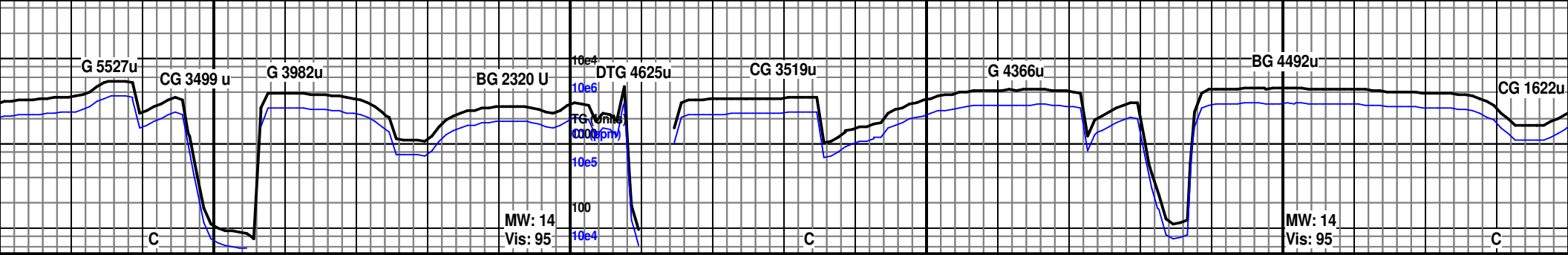


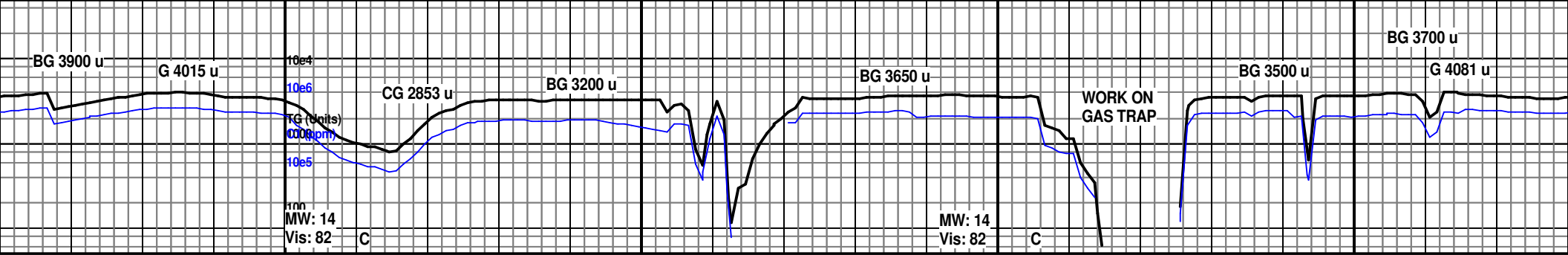


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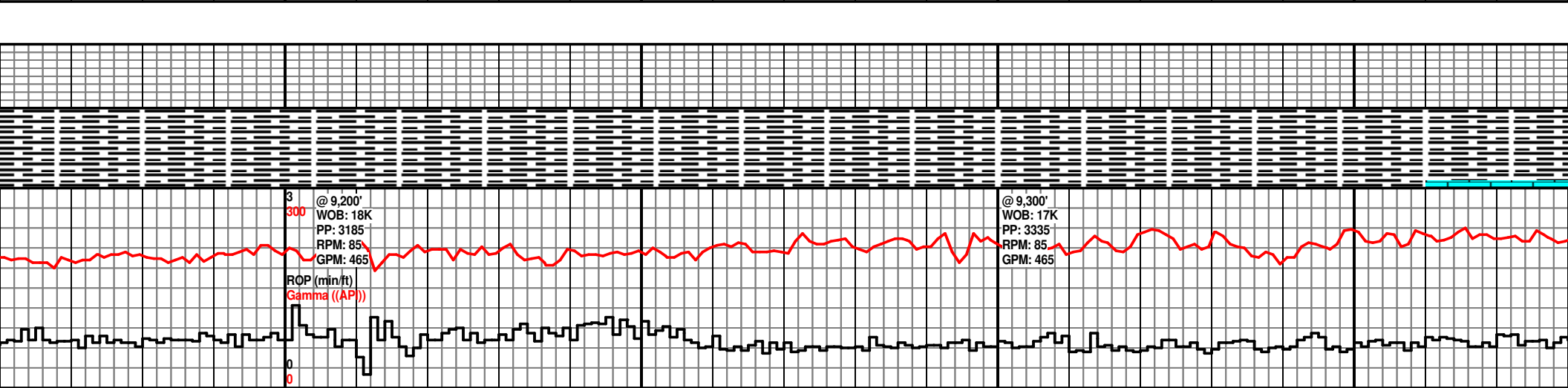
<p>Mud Check @8,510' WT: 13.95 FV: 95.0 PV: 45 YP: 23 GS: 26:35 FL: 4.0 FC: 2.0 H2O: 18.0 Oil: 54.0 SOL: 27.22 O/W: 75:25 Cl: 20 K</p>				<p>7150 TVD</p>	<p>MD: 8.613' TVD: 7,614' DEV: 69.3 AZM: 122.6</p>	<p>MD: 8.645' TVD: 7,625' DEV: 70.2 AZM: 123.6</p>	<p>MD: 8.676' TVD: 7,635' DEV: 73.8 AZM: 125.4</p>		<p>MD: 8,707' TVD: 7,642' DEV: 78.7 AZM: 125.7</p>
<p>dk gy, blk frm ip, p, tr arg sli calc, arg LS</p>	<p>SH: v dk gy- dk gy, blk ip, sft-sli frm, frm ip, blk, amorph- plty ip, arg dissem, pred v sli-sli calc, n calc ip, micmica ip, rr fn pyr</p>	<p>SH: m dk gy, dk gy ip, sft- sli frm, blk, sli- m calc</p>	<p>SH: pred dk- v dk gy, sft- sl frm, blk- plty, sli- m calc; LS; tn- lt gy, mdst- wkst, crpxln, mass, arg</p>	<p>SH: v dk gy, sft- sli frm, blk- plty, sli calc, tr frac fill calc, tr LS</p>	<p>SH: v dk gy, sft- sli frm, blk- plty, sli calc, tr frac fill calc</p>	<p>SH: v dk gy, sft- sli frm, blk- plty, sli calc, tr frac fill calc</p>	<p>SH: v dk gy, sft- sl frm, blk- plty, sli calc, tr frac fill calc, tr LS: tn- lt gy, mdst- wkst, crpxln, mass, arg</p>		<p>SH: blk, sft- sli frm, plty, sli calc, tr frac</p>
<p>MD: 8.519' TVD: 7,580' DEV: 68.3 AZM: 123.9</p>	<p>MD: 8.550' TVD: 7,591' DEV: 68.8 AZM: 123.1</p>		<p>MD: 8.582' TVD: 7,603' DEV: 68.8 AZM: 122.8</p>	<p>7800</p>					

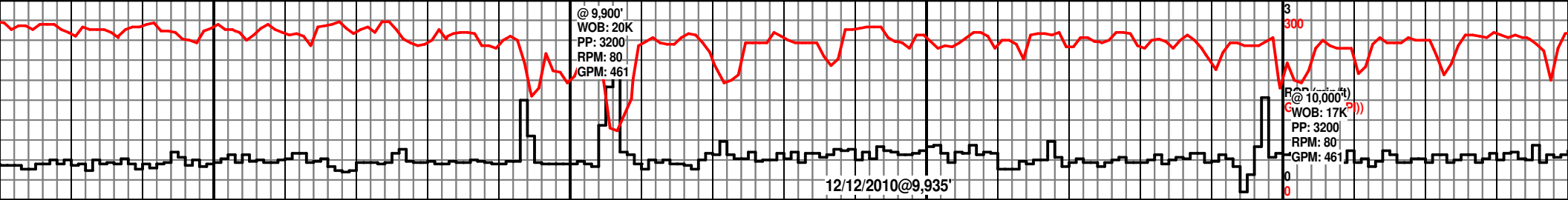
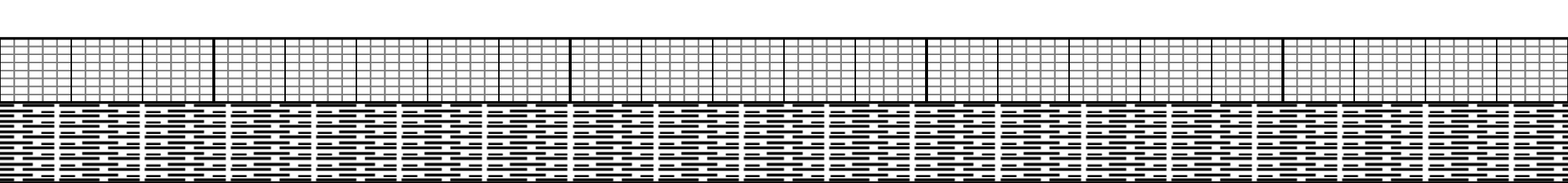
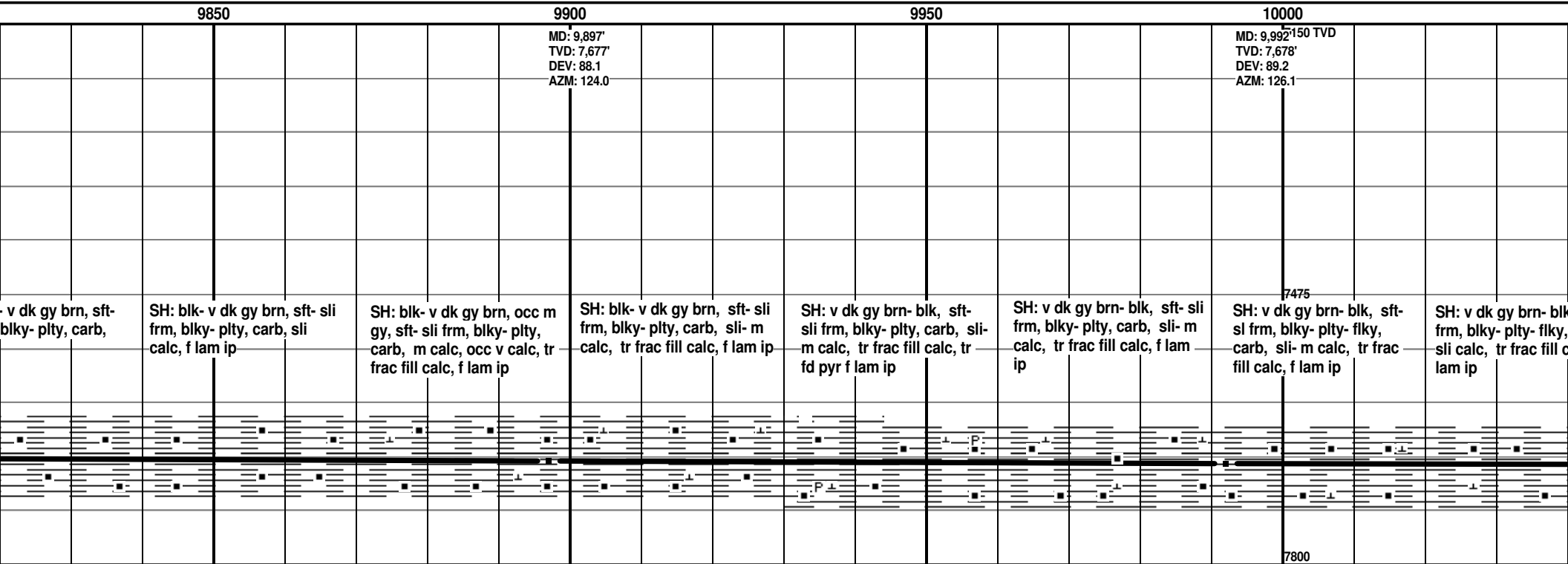
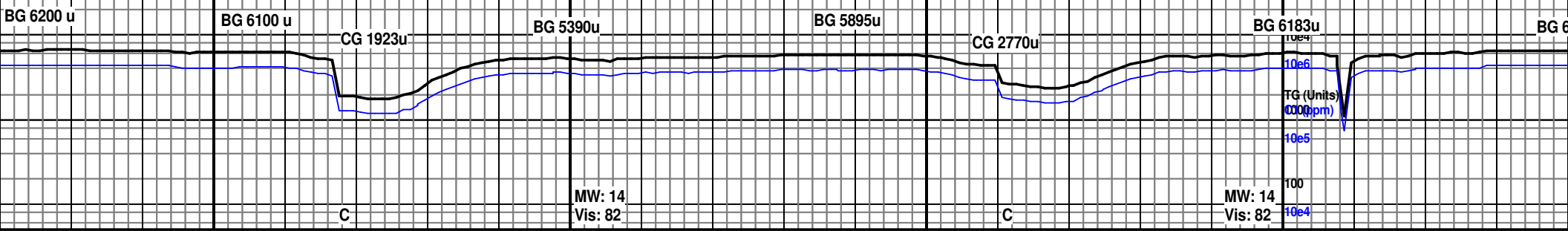


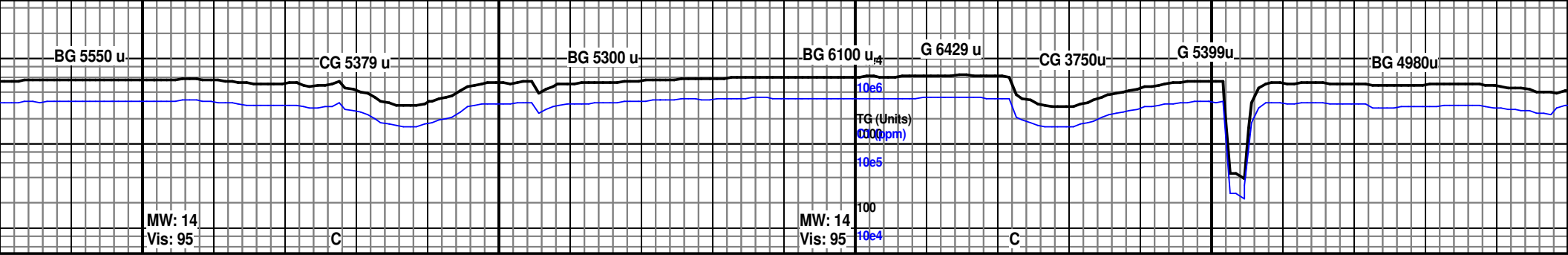




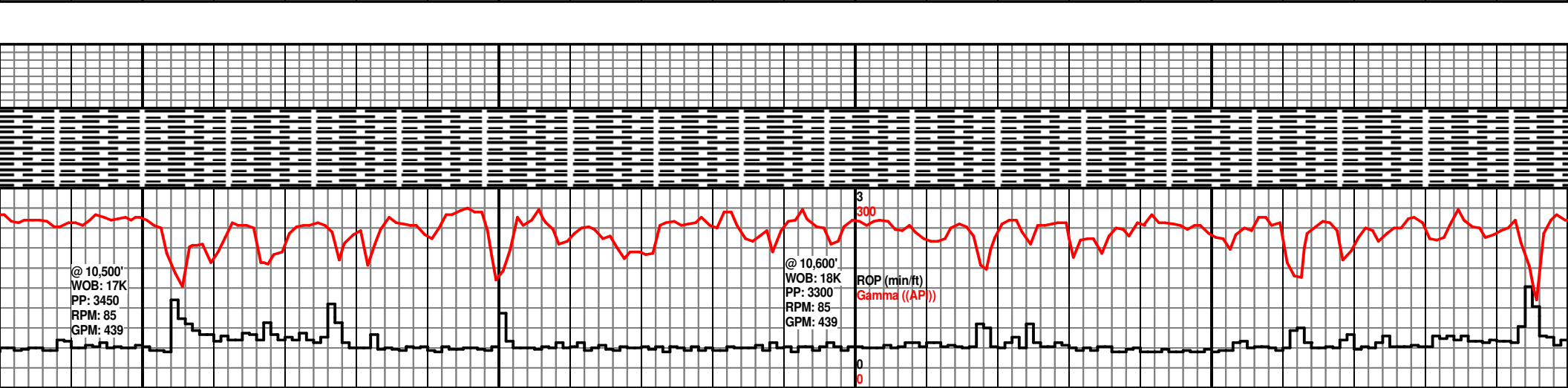
9200		9250		9300		9350	
7150 TVD		MD: 9,241' TVD: 7,664' DEV: 89.6' AZM: 125.6				MD: 9,334' TVD: 7,665.4' DEV: 89.7' AZM: 126.1	
Mud Check @9,210' WT: 13.90 FV: 82.0 PV: 45 YP: 24 GS: 28:37 FL: 4.0 FC: 2.0 H2O: 16.0 Oil: 56.0 SOL: 27.22 O/W: 78:22 CI: 20 K							
dk brn, blk, v dk gy frm, sft/frm ip, amorph, sme slty p pyr, carb, n calc	SH v dk brn, blk, v dk gy ip, sft, sli frm-frm ip, amorph, blkgy ip, sme slty ip, tr pp-vf pyr, carb, n calc	SH: v dk brn, blk, v dk gy ip, sli frm-frm, sft/ hd ip, amorph, blkgy ip, sme slty ip, tr pp pyr, carb, n calc	SH: v dk gy-blk, v dk brn, ip, sft-sli frm, frm/hd ip, amorph, blkgy ip, tr sli slty, tr pp pyr, carb, n calc	SH: pred blk/v dk brn, v dk gy ip, sft-sli frm, frm/hd ip, amorph, tr sli slty, tr pp pyr, carb, n calc	SH: pred blk/v dk brn, v dk gy, sli frm-frm, sft/ hd ip, amorph, tr blkgy, carb, tr sli slty, tr pp pyr, rr f gr pyr flk, n calc	SH: pred blk/v dk brn, v dk gy ip, sli frm-frm, sft/hd ip, amorph, tr blkgy, carb, tr sli slty, tr pp pyr, v sli calc	SH: pred blk/v dk brn, v dk gy ip, sli frm-frm, sft/hd ip, amorph, tr blkgy, carb, rr sli gr, rr pp slty, tr tn LS
7800							

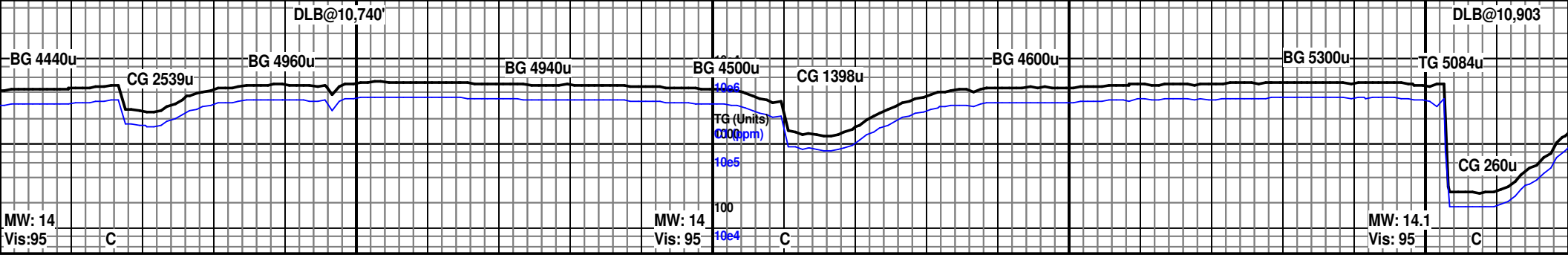






10500				10550				10600				10650				10700															
Mud Check @10,526' WT: 14.0 FV: 95 PV: 52 YP: 24 GS: 31:37 FL: 4.0 FC: 2.0 H2O: 18.0 Oil: 54.0 SOL: 27.22 O/W: 75:25 Cl: 20K				MD: 10,558' TVD: 7,693.1' DEV: 88.2 AZM: 122.2				7150 TVD				MD: 10,653' TVD: 7,696' DEV: 88.3 AZM: 124.2																			
SH: blk, v dk brn, v dk gy, sft-sli frm, frm-hd ip, amorph, blk ip, pp-f pyr ip, sli slty ip, v sli calc ip, pred n calc, tr frac fil calct				SH: v dkgy-blk, v dk brn ip, sft-sli frm, frm ip, amorph, spltry. rr pp pyr, sli slty ip, carb, v sli calc ip, pred n calc				SH: v dk gy-blk, sft-sli frm, frm ip, amorph, blk ip, spltry, tr w vf slt gr, carb, n calc				SH: v dk gy-blk, v dk brn ip, sft-sli frm, amorph, blk ip, sli arg dissem, vf-f lam ip, slty ip, carb, n calc				SH: v dk gy-blk, v dk brn ip, sft-sli frm, amorph, blk ip, sli arg dissem, vf-f lam ip, slty ip, carb, n calc				SH: v dk gy-blk, v dk brn ip, sft-sli frm, amorph, blk ip, sli arg dissem, vf-f lam ip, slty ip, pp pyr ip, rr f pyr nod, carb, n calc				SH: v dk gy brn-blk, sft-sli frm, blk-ply, sli calc, carb, f lam				SH: v dk gy brn-blk, sft-sli frm, blk-ply, sli calc, carb, f lam			
[Log Symbols]				[Log Symbols]				[Log Symbols]				[Log Symbols]				[Log Symbols]															
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7800				7800				7800				7800				7800															

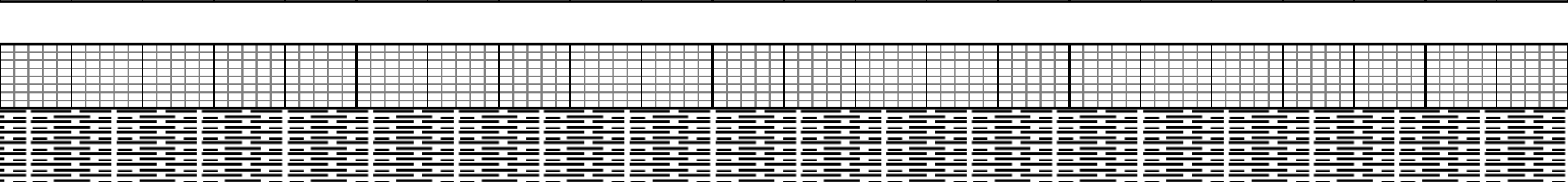
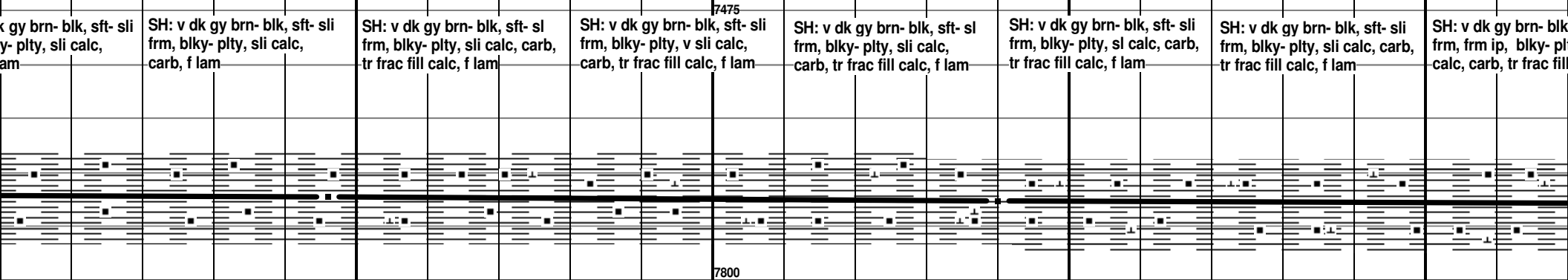


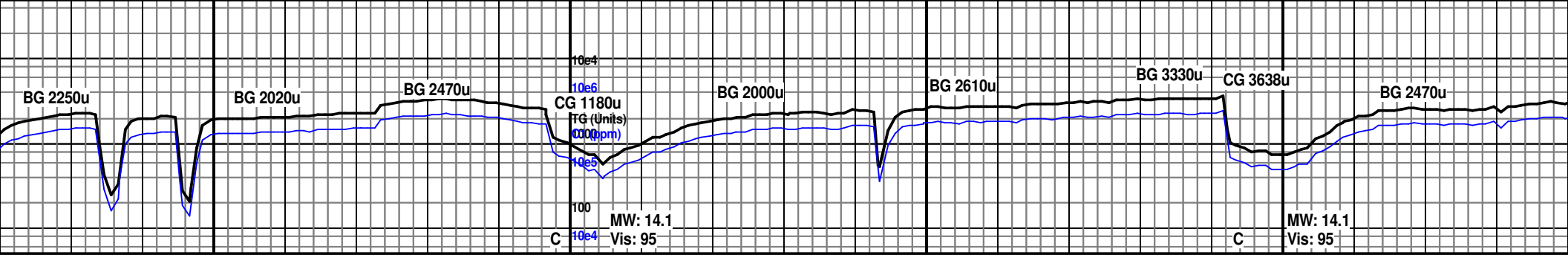


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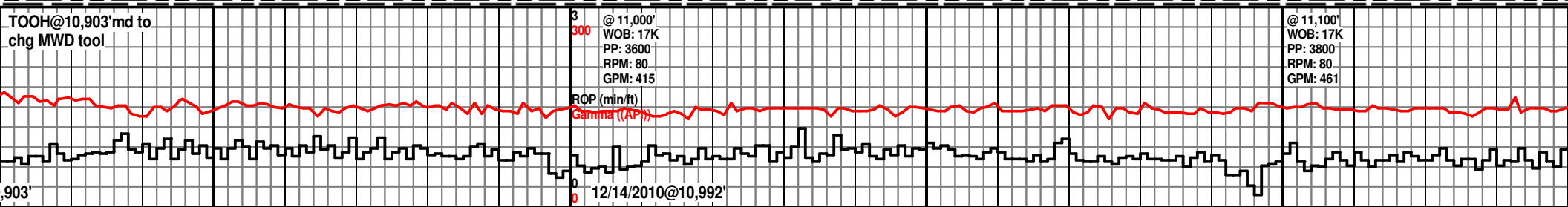
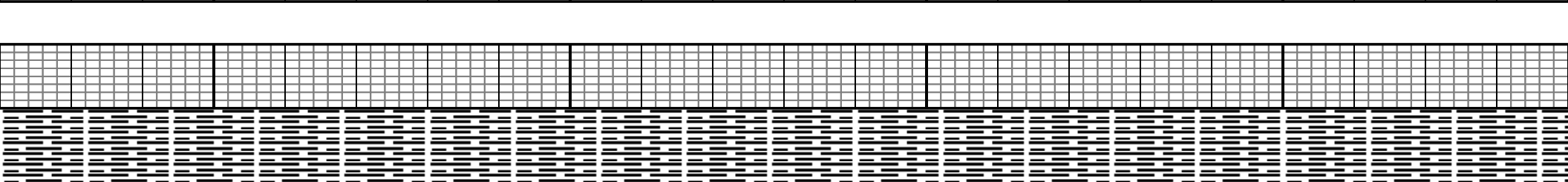
MD: 10,746' TVD: 7,699' DEV: 87.5 AZM: 124.7 7150 TVD MD: 10,840' TVD: 7,703' DEV: 87.7 AZM: 124.4 ST/WIPER@10,903' TOOH@10,903'm to chg MWD tool

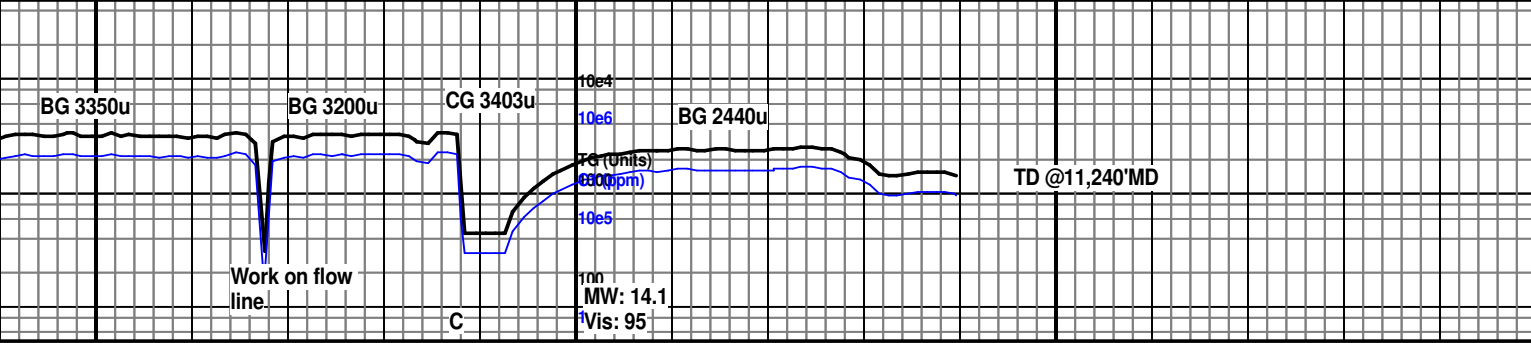
SH: v dk gy brn- blk, sft- sli frm, blk- ply, sli calc, carb, tr frac fill calc, f lam





10950			11000			11050			11100		
MD: 10,935' TVD: 7,707' DEV: 87.8 AZM: 124.4			7150 TVD			MD: 11,029' TVD: 7,710' DEV: 87.6 AZM: 123.6			MD: 11,123' TVD: 7,715' DEV: 87.4 AZM: 123.9		
sft- sli ty, sli calc	SH: v dk gy brn- blk, frm- frm, blk- plty, sli calc, carb	sft- sil frm- frm, blk- plty, sli calc, carb, tr frac fill calc	SH: v dk gy brn- blk, sli frm- frm, blk- plty, v sli calc, carb, tr frac fill calc	SH: v dk gy brn- blk, sli frm- frm, blk- plty, sli calc, carb, tr frac fill calc	SH: v dk gy brn- blk, sli frm- frm, blk- plty, sli calc, carb, tr frac fill calc, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty, sli calc, carb, tr frac fill calc, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, tr frac fill calc, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, tr frac fill calc, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, tr frac fill calc, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, tr frac fill calc, f lam	
7475			7800								





11150	11200	11250	11300
	MD: 11,178' TVD: 7,717' DEV: 87.3 AZM: 123.7	7150 TVD	ST/WIPER@11,240' MD
			TD@ 11,240' MD AT 4:40AM ON 12/14/2010
	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, tr frac fill calc, tr fd pyr, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, f lam	SH: v dk gy brn- blk, sli frm- frm, blk- plty- flky, sli calc, carb, tr frac fill calc, f lam
		7475	Loggers released from duty @4:23PM on 12/14/2010
		7800	

