

HALLIBURTON

RESERVOIR MONITOR  
TOOL

FIELD COPY

Company	URSA OPERATING CO., LLC.		
Well	TOMPKINS 41C-08-07-95		
Field	PARACHUTE		
County	GARFIELD	State	CO
Company URSA OPERATING CO., LLC. Well TOMPKINS 41C-08-07-95 Field PARACHUTE County GARFIELD State CO			
API No.:	05 045 22481 0000	Serv #:	903425844
Location:	LAT: 39.460024 LONG: -108.013914		
SHL: 223 FSL, 571 FEL BHL: 770 FNL, 660 FEL			CBL-M
Sec: 11 Twp: 6S Rge: 92W			

Permanent Datum	GL	Elevation	5532	Elevation	
Log Measured From	KB	17 Ft. above perm. datum		K.B. 5549 D.F. 5548 G.L. 5532	
Drilling Measured From	KB				
Date @ Time Logged	16-JUL-16@0900	Type Fluid in Hole	FRESH WATER		
Run No.	ONE	Density of Fluid	8.33		
Depth - Driller	7085	Fluid Level	SURFACE		
Depth - Logger	6842	Cement Top Est. Logged	N/A		
Bottom - Logged Interval	6842	Equipment / Location	RS06 / SULLIVAN		US RK
Top - Log Interval	3209	Recorded by			
Max. Recorded Temp.	215	Witnessed by	RICHARD		
CEMENTING DATA	Surface String	Protection String	Production String	Liner	
Date / Time Cemented					
Primary / Squeeze Expected					
Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs	
Cement Volume					
Cement Type / Weight Formulation	/	/	/	/	/
Mud Type / Mud Wgt.	/	/	/	/	/
Borehole Record					
Run Number	Bit	From	To	Size	Weight
	24			16	60
	12.25			8.625	1724.9
	7.875			4.5	7100.8

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

LOG INTERVAL PER CUSTOMER REQUEST

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES

Log Variables

DatabaseC:\ProgramData\Warrior\Data\tompkins\_41c.db  
Dataset field/well/run1/main1/\_vars\_

Top - Bottom

BHTEMP_Src	BHSAL2	BHSAL1	POROS2	POROS1	LTH	UHSGC	RHO CF
TEMP	0	1	0	1	Sandstone	NONE	0.25
SO in 0	BORSAL kppm 150	CASED? Yes	MSGGN 1	USERFTT usec/ft 0	ZREF MRayl 1.7	CASEWGHT lb/ft 11.6	SRFTEMP degF 0
MudWgt lb/gal	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BITSIZE in	

8.34	0.5	4.5	0	7085	200	7.875
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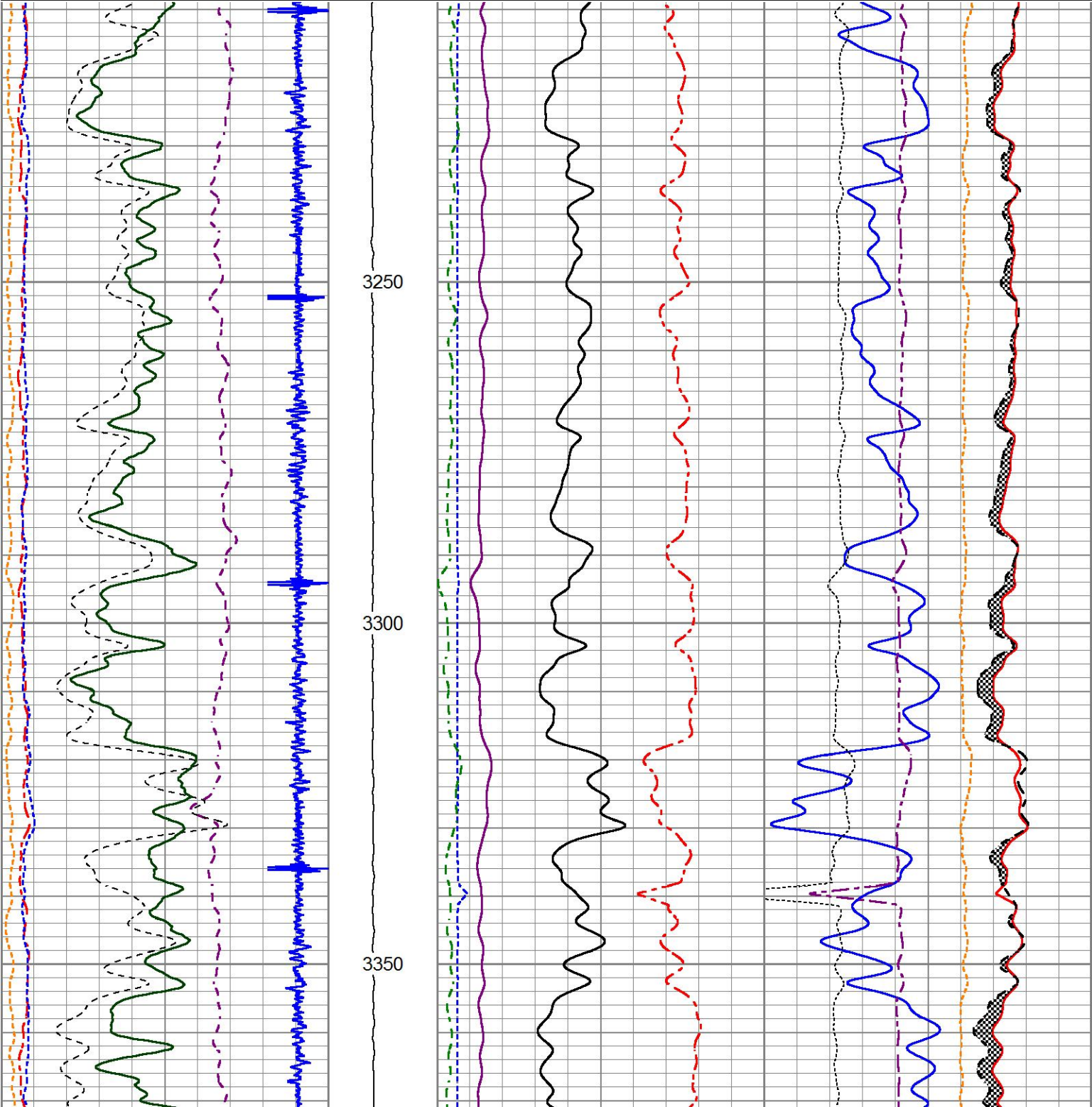
MAIN LOG

HALLIBURTON

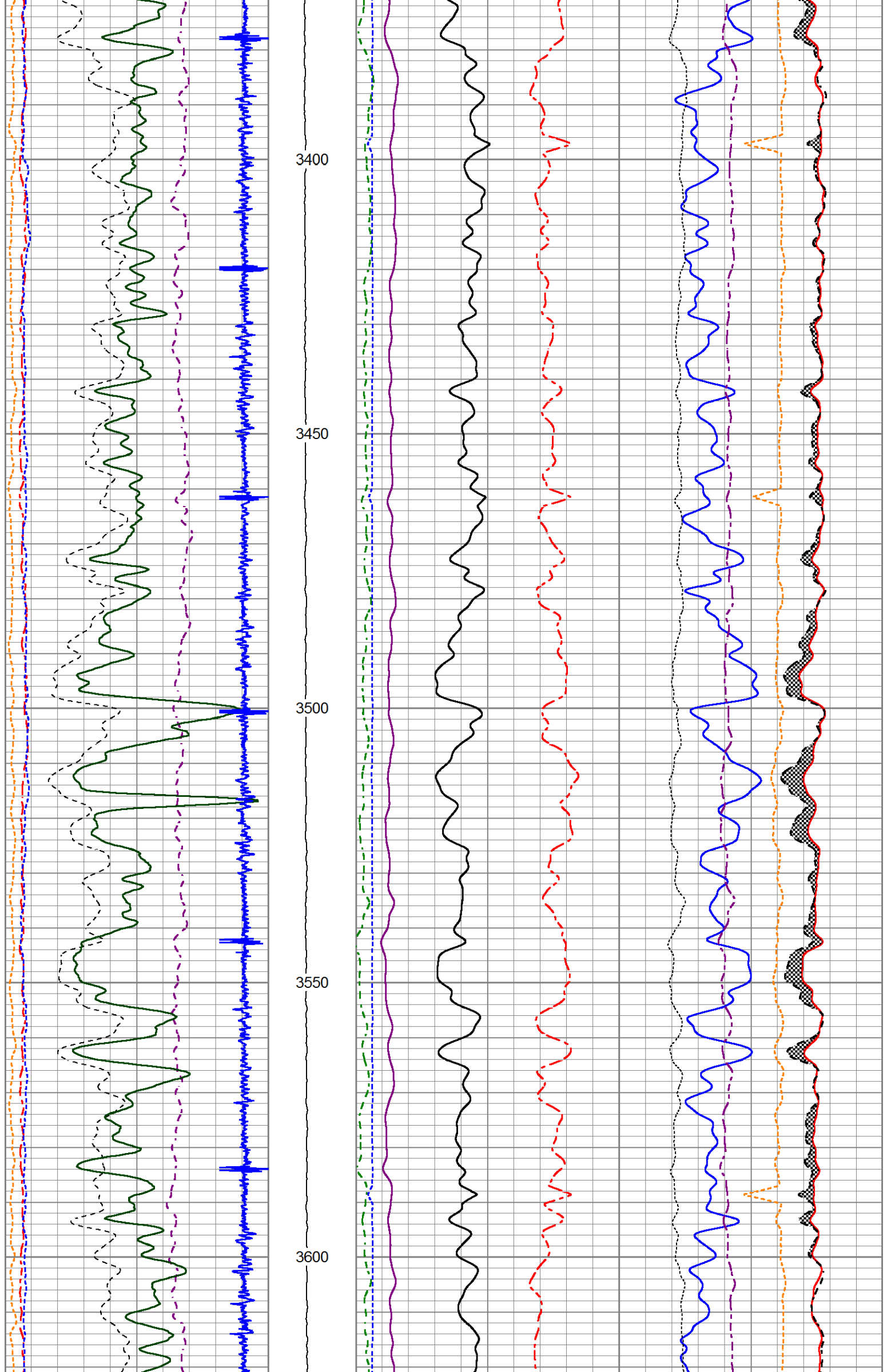
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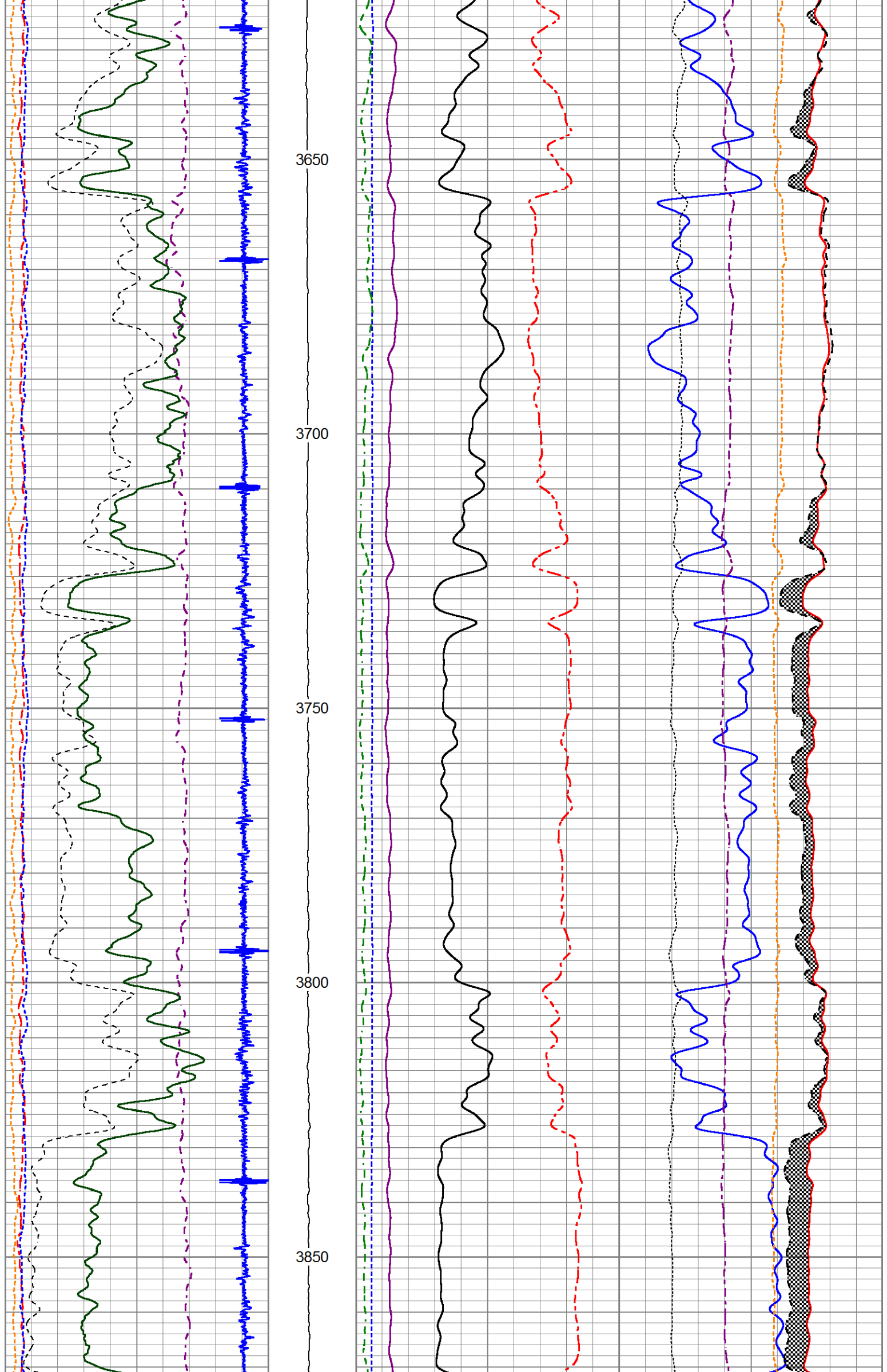
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Dataset Pathname main1  
Presentation Format 1\_ss\_rmti  
Dataset Creation Sat Jul 16 09:18:44 2016  
Charted by Depth in Feet scaled 1:240

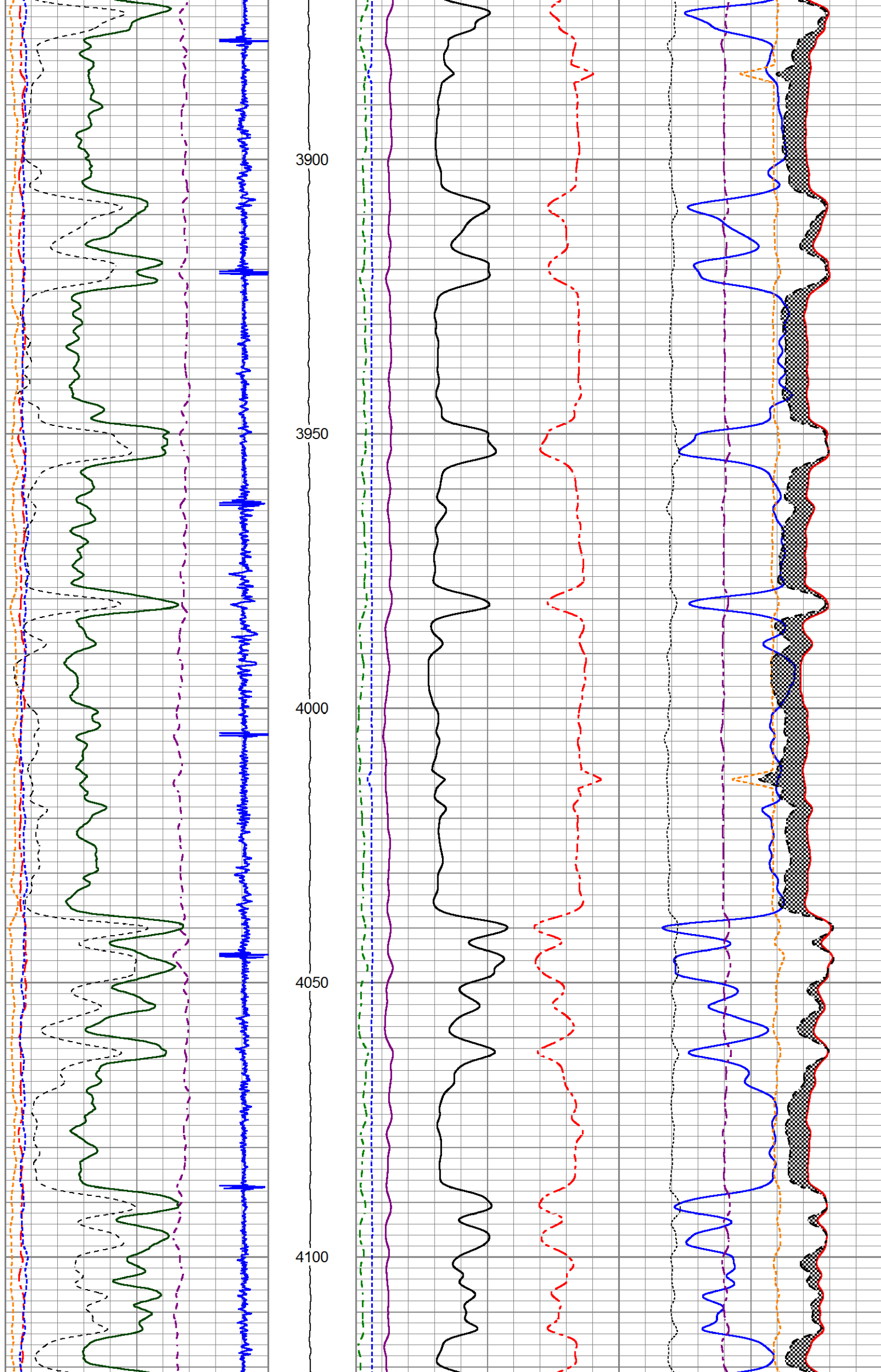
200	NEAR BORE SI (SGBN)	0	TENSION	60	SGIN			0
0	OAI	100	0 (lb,1500	2	RATIO (RNF)	0.5	60000 NEAR COUNTS (NCAP)	0
10	FAR FIT ERR (SGFF)	40		0	RIN	15	60000 FAR COUNTS (FCAP)	0
0	GR (GAPI)	150		0.1	H YIELD (YH2)	1	100000 FAR INTEL CT (FSIN)	0
0	IN FIT ERR (CFTR1) NEAR	1		0	RICF	6	10000(NEAR INTEL CT (NSIN)	0
0	IN FIT ERR (CFTR2) FAR	1		0	H YIELD (YH2)	1	50000 NNIN	-1000
-1000	CCL	100						

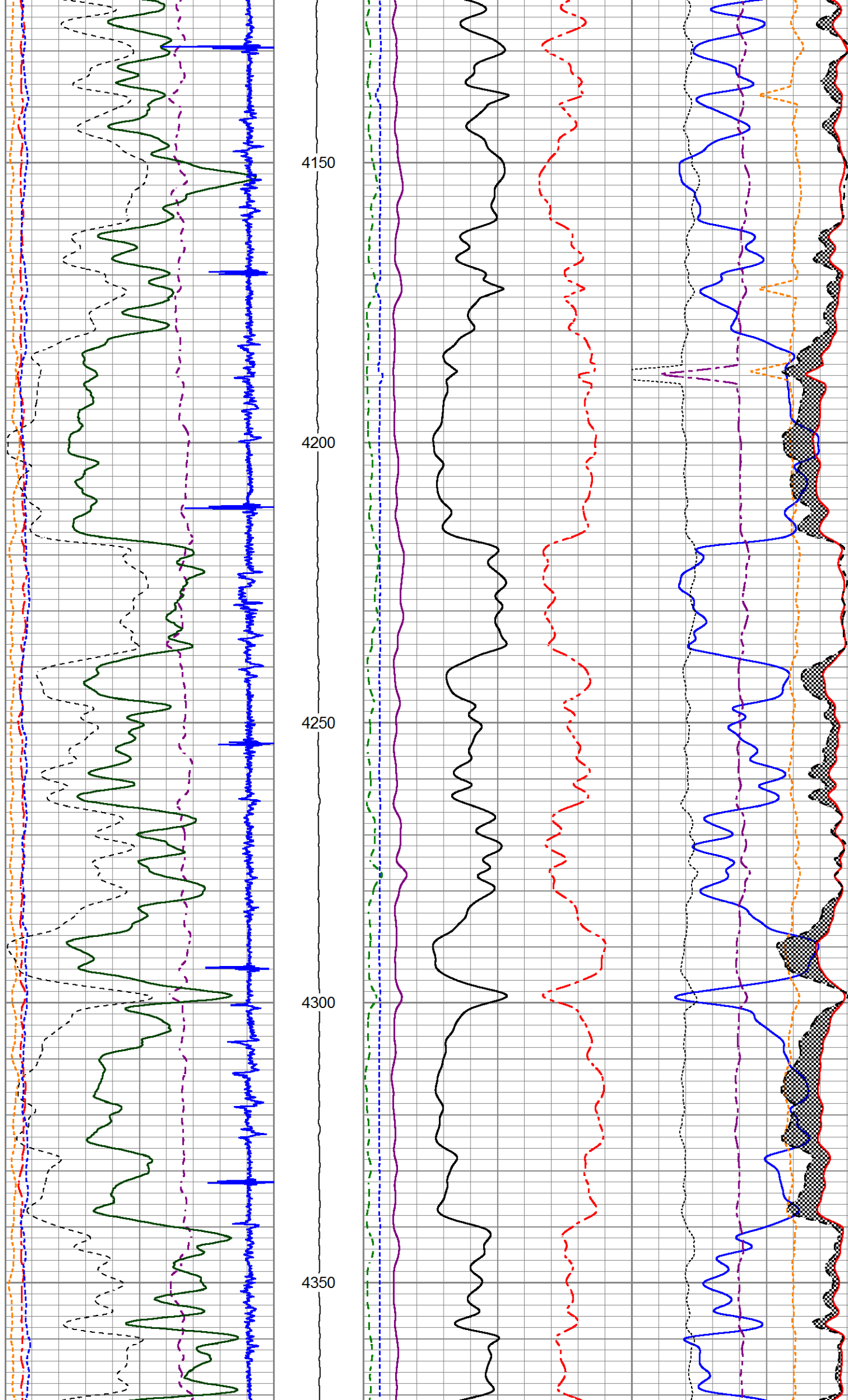


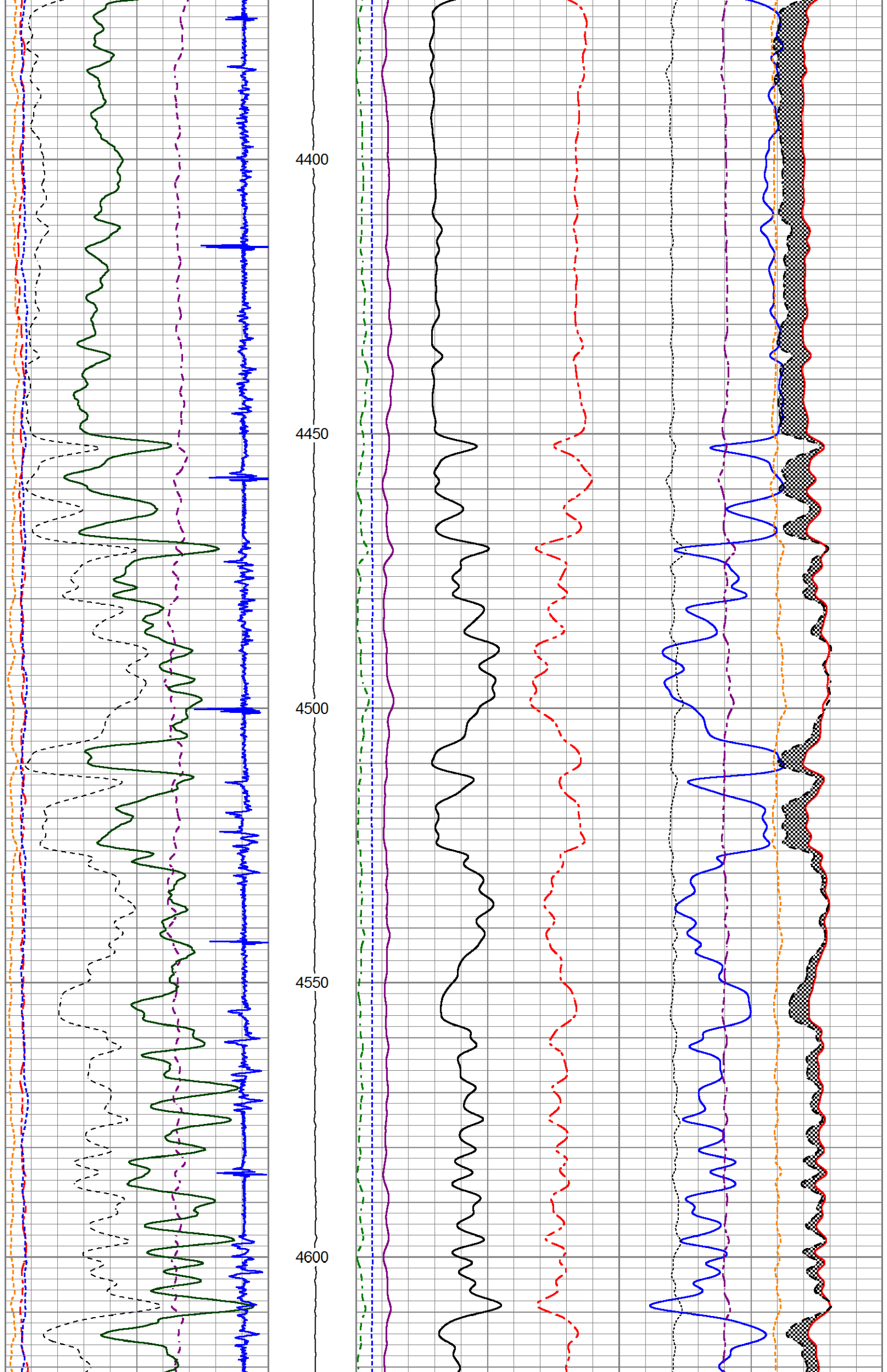


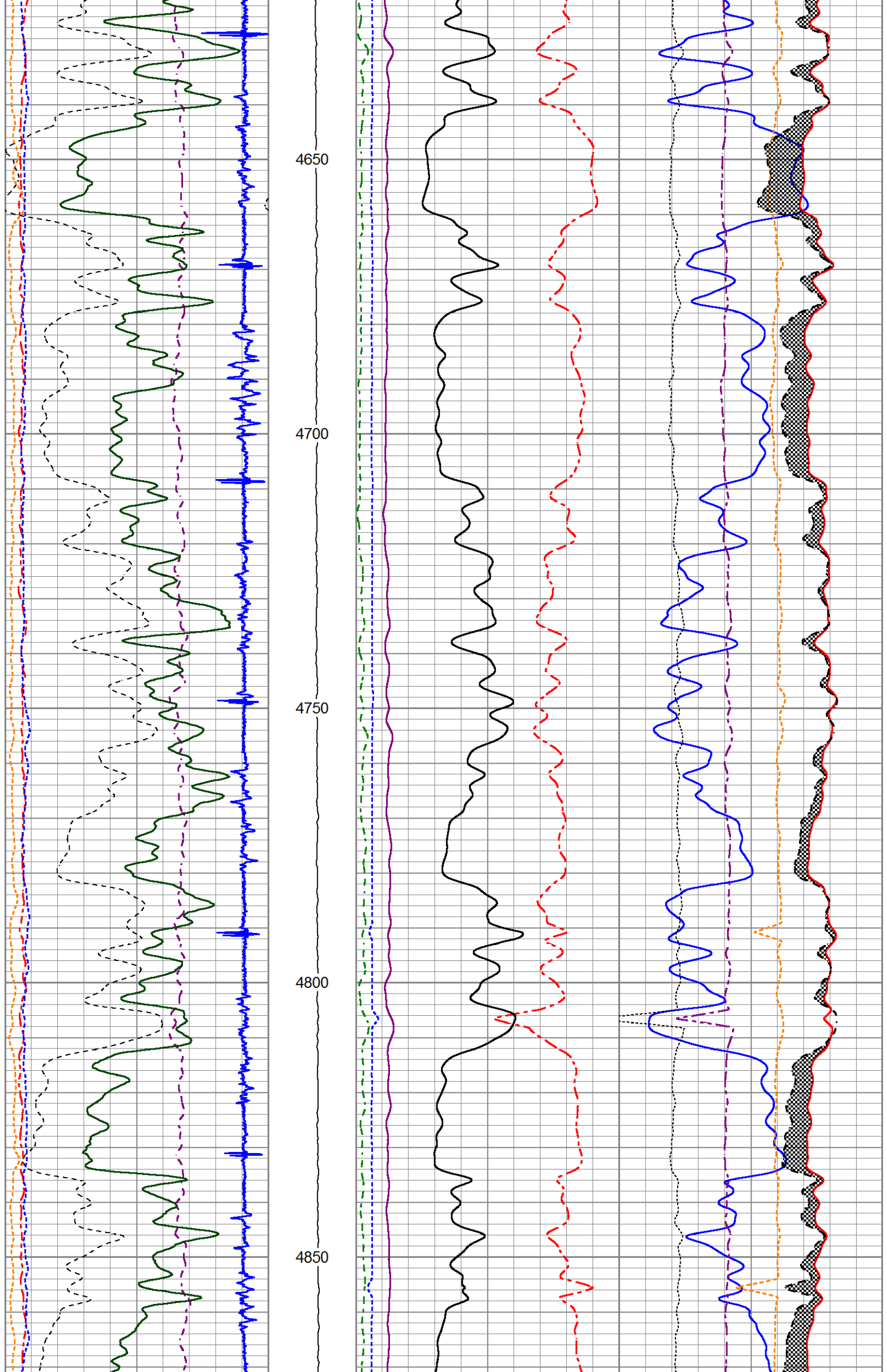




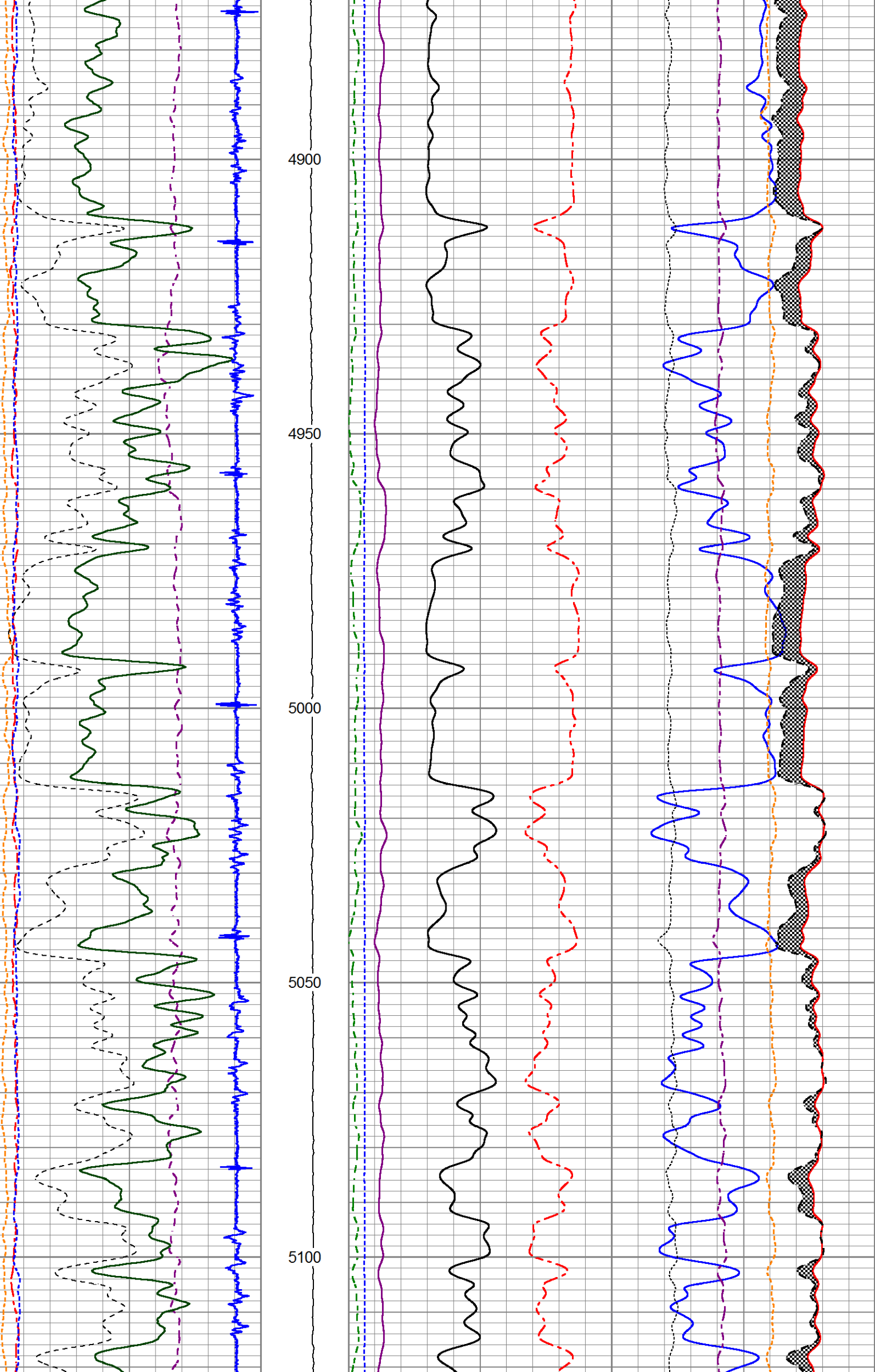


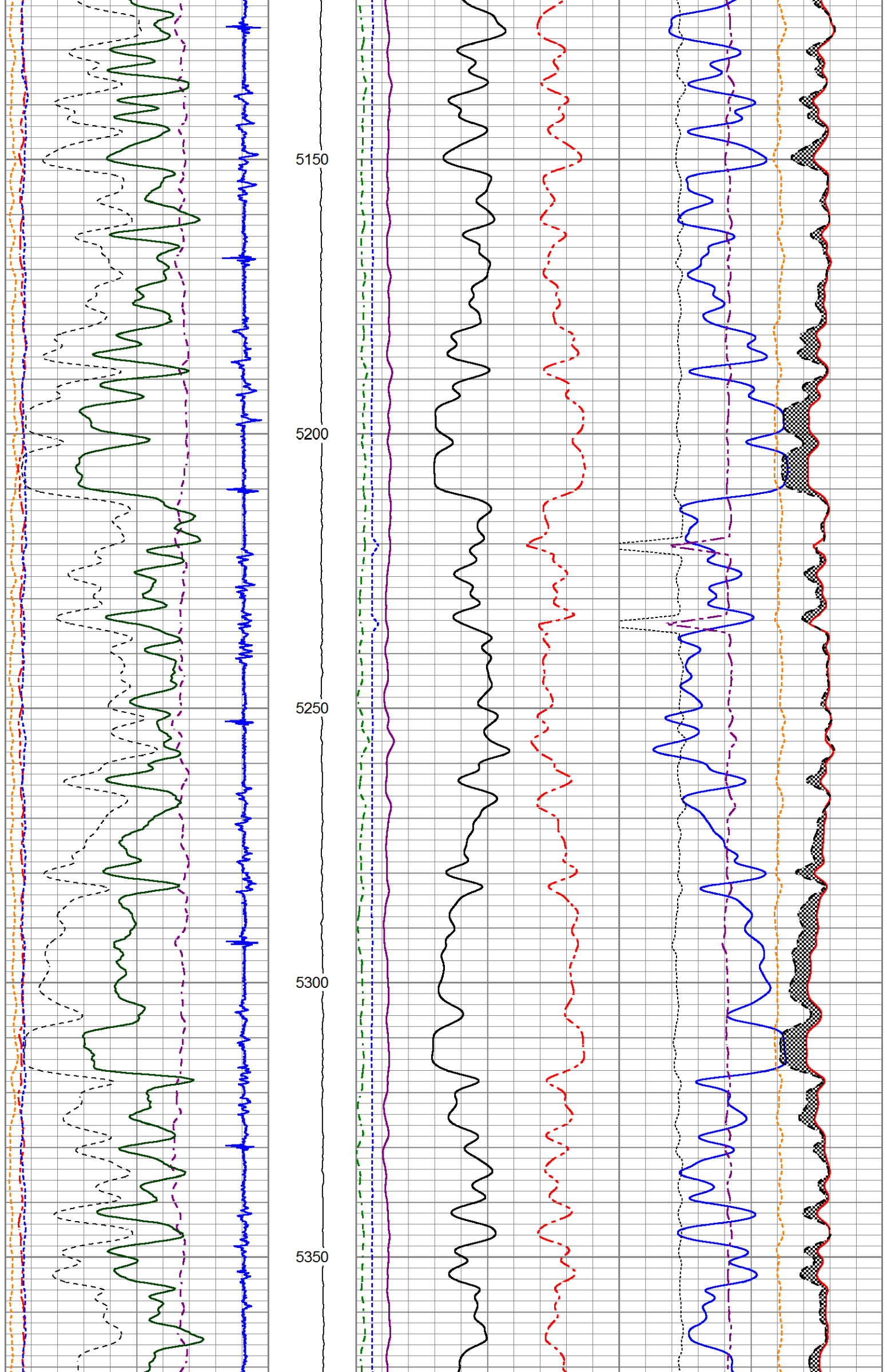


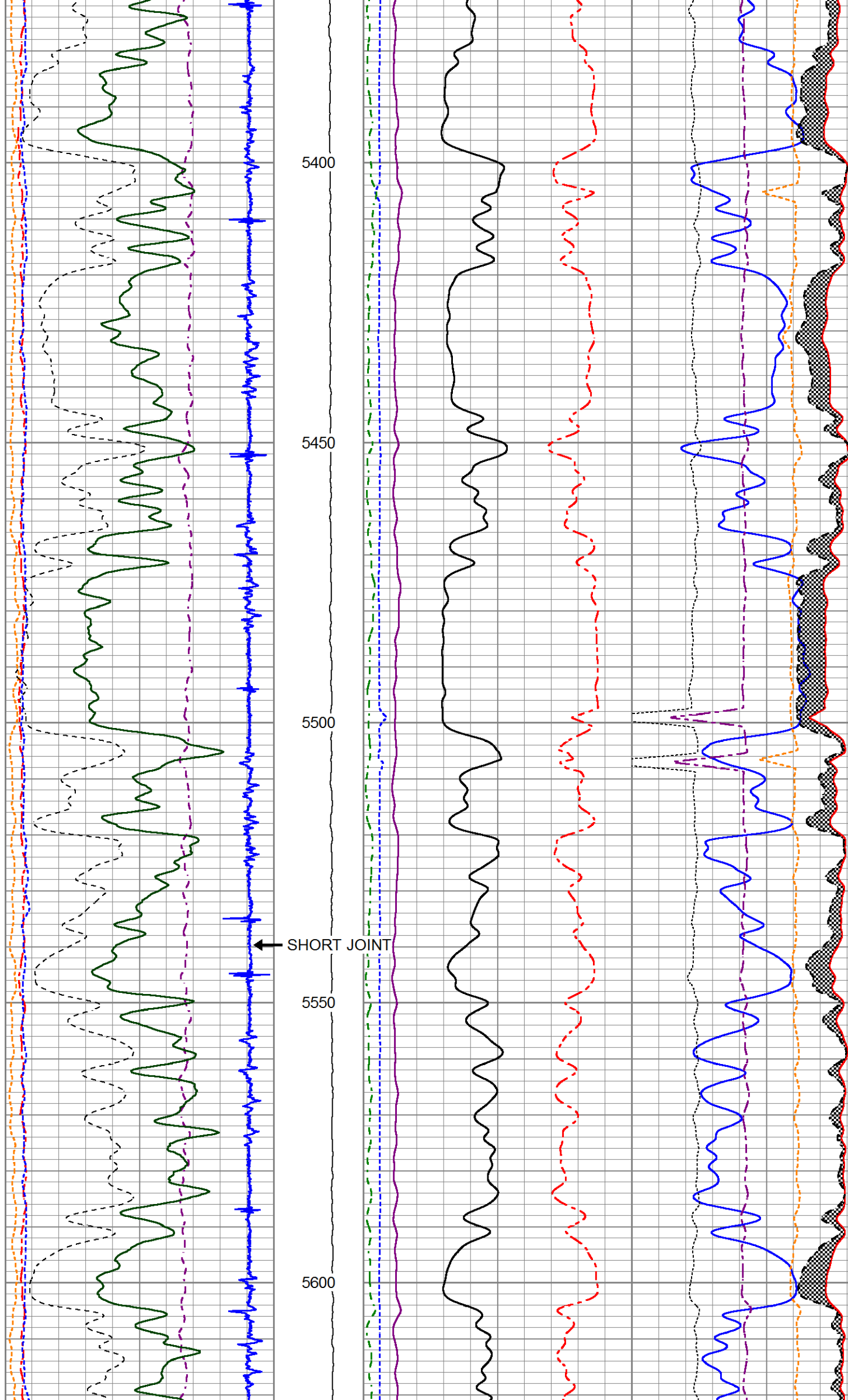


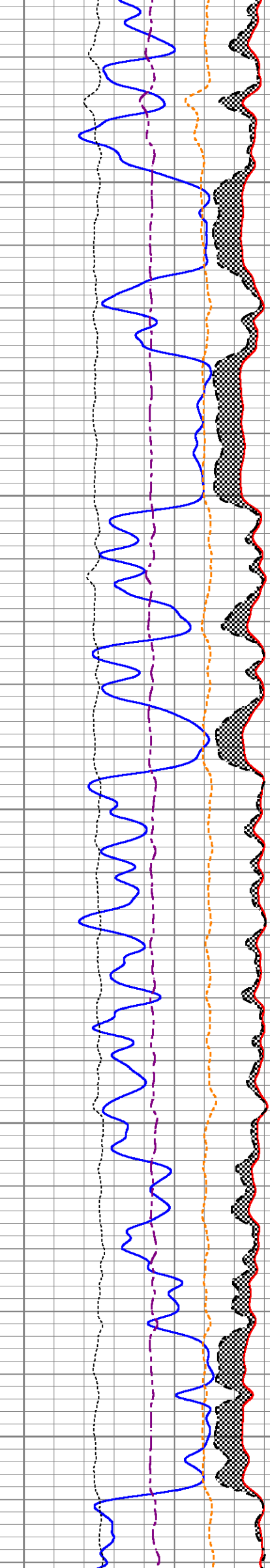
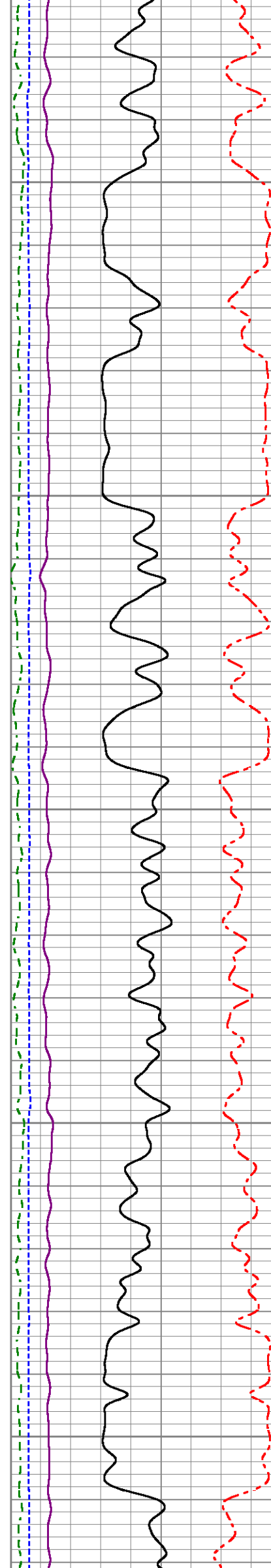
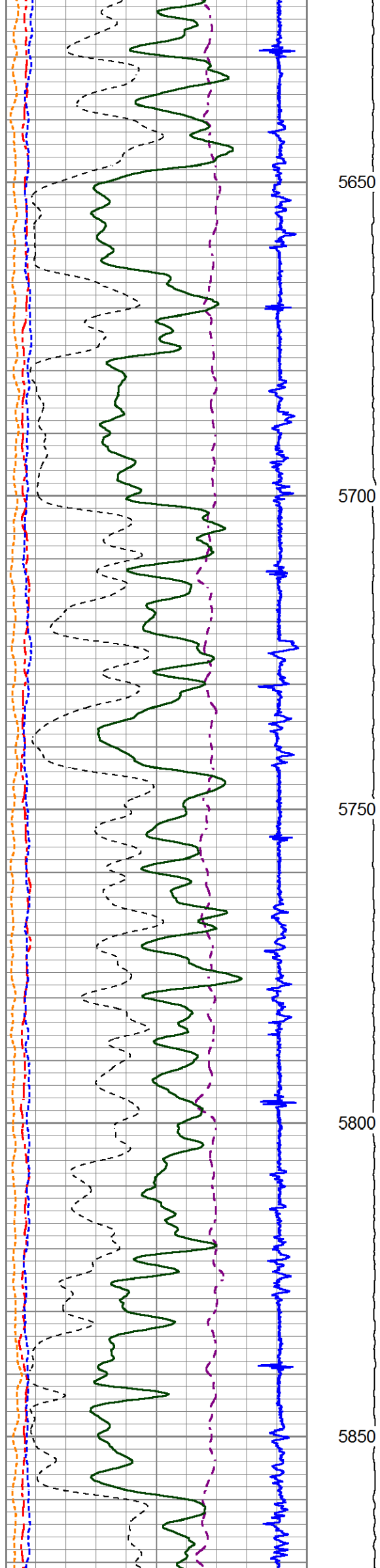




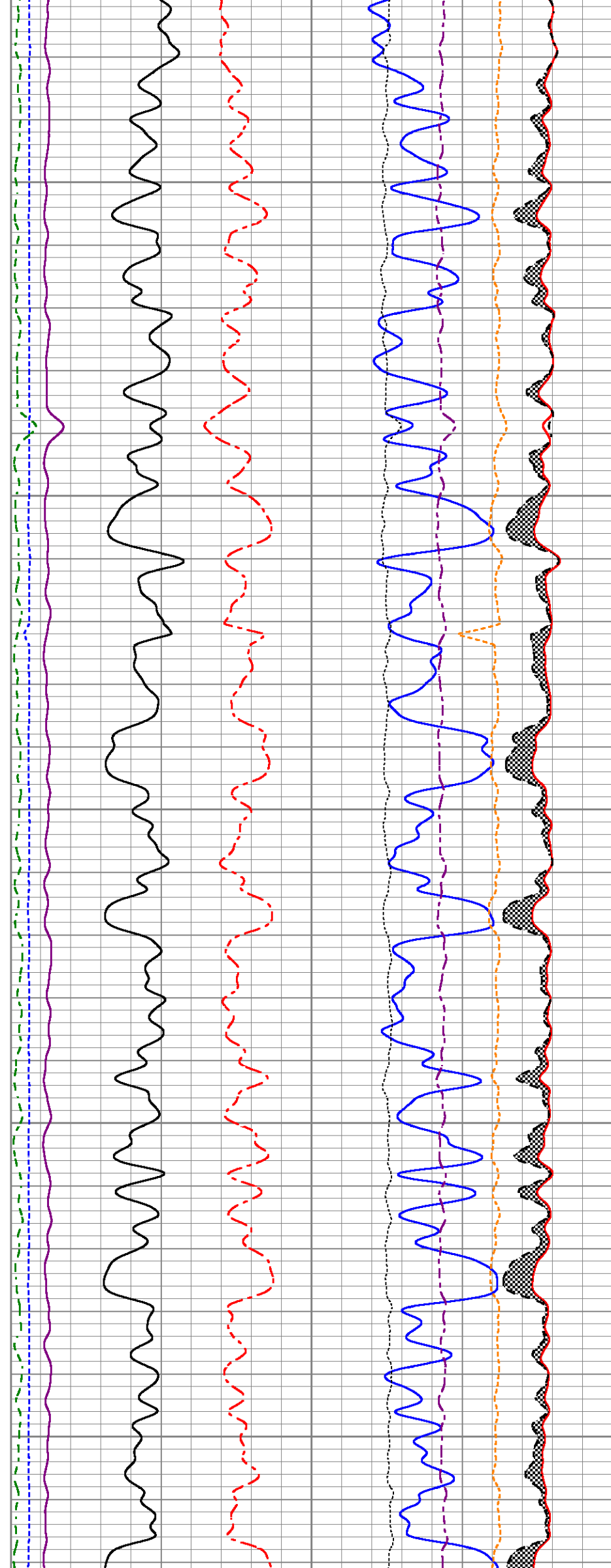
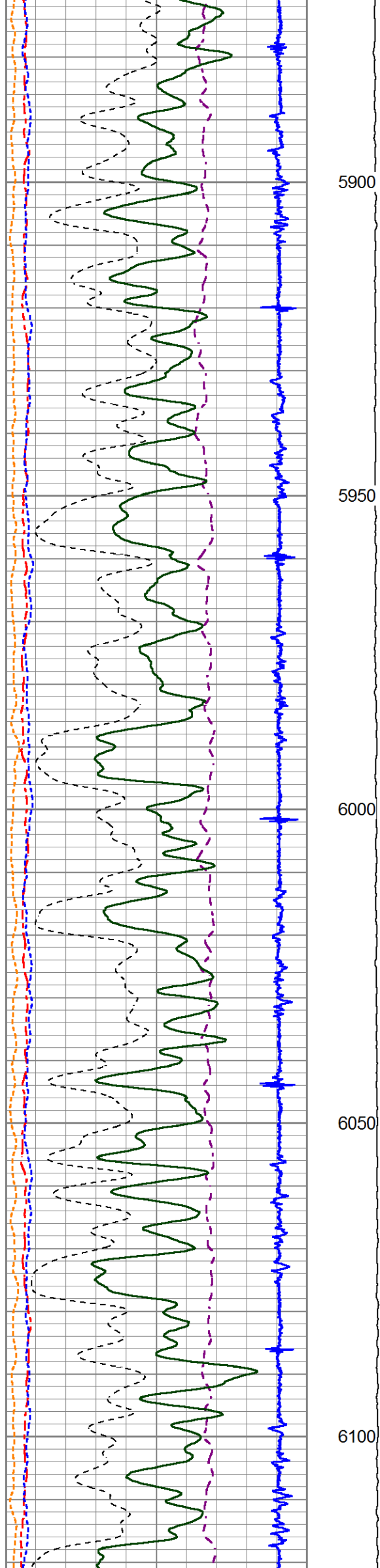


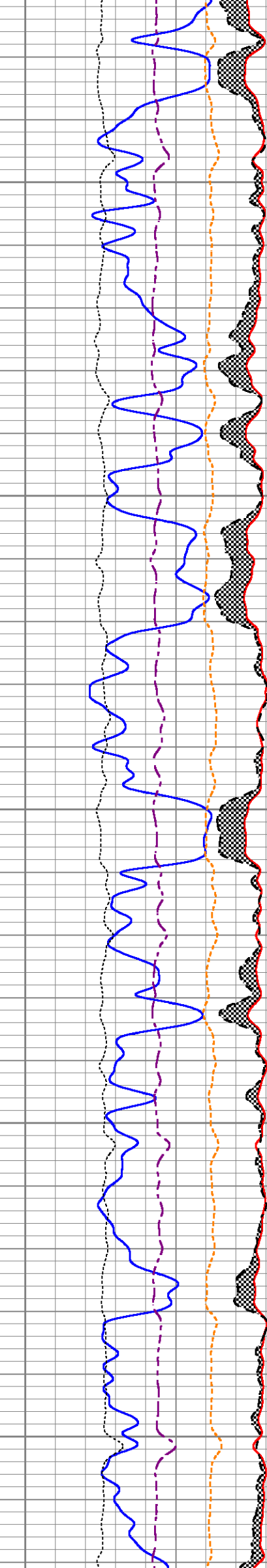
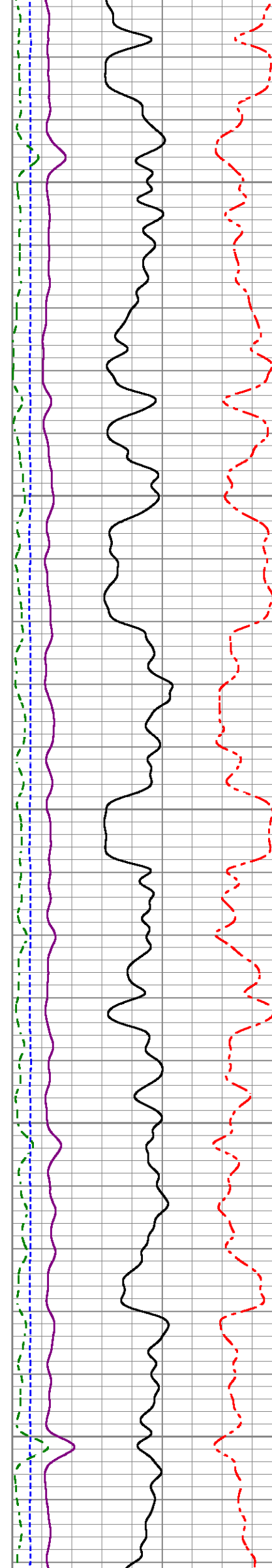
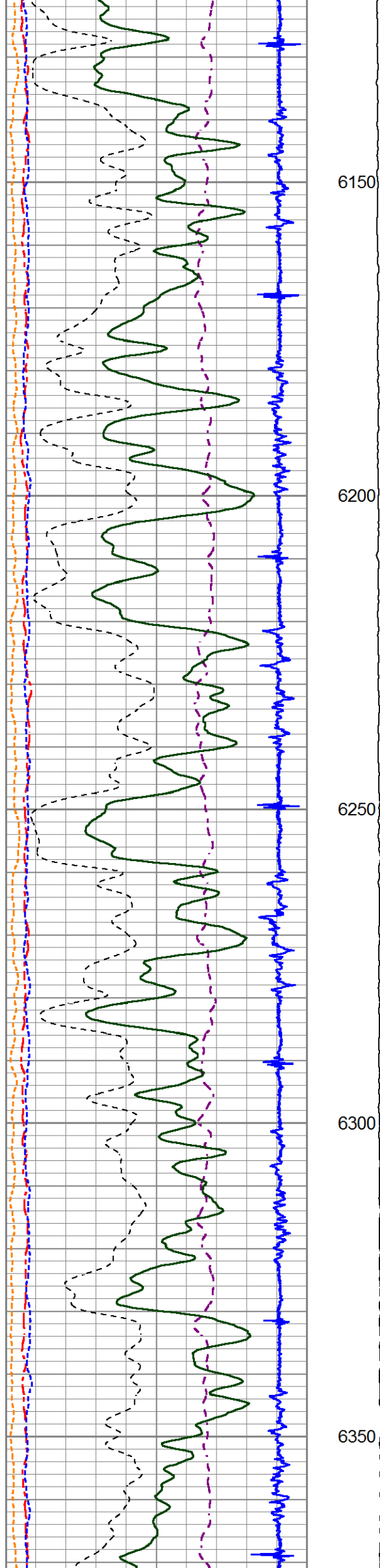


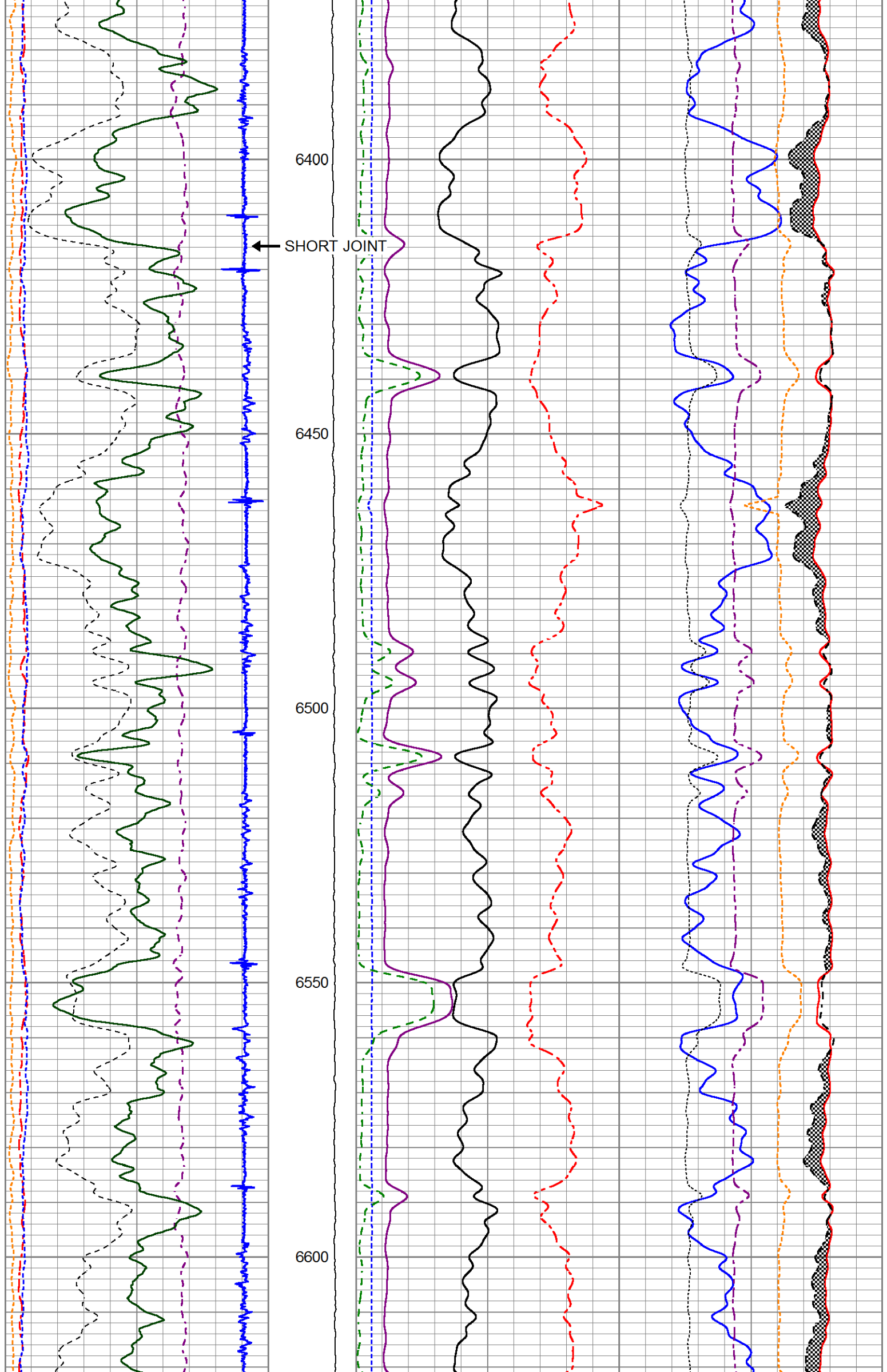


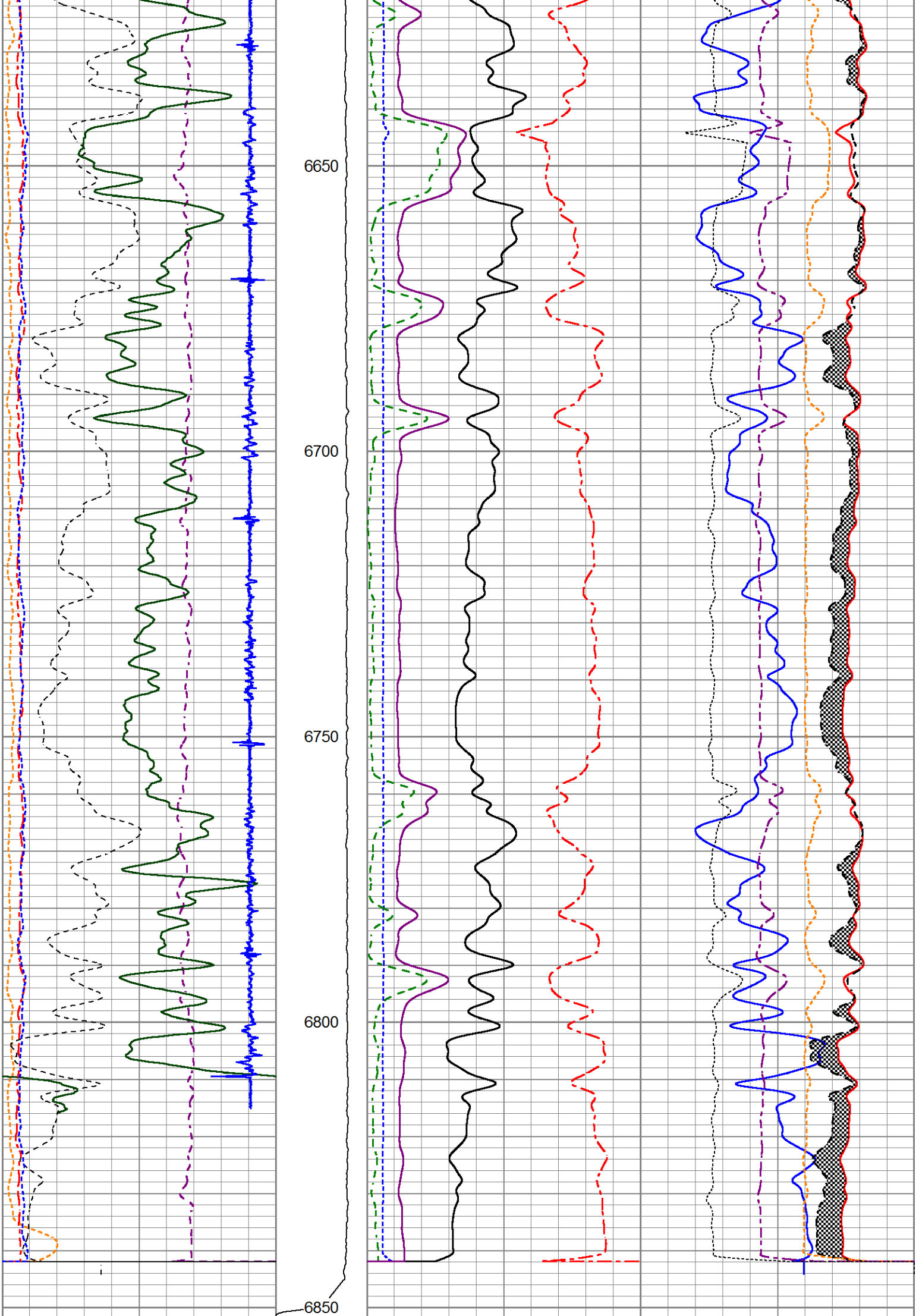












200	NEAR BORE SI (SGBN)	0	TENSION	60	SGIN	0
0	OAI	100	(lb,1500	2	RATIO (RNF)	0.5
10	FAR FIT ERR (SGFF)	40		0	RIN	15
0	GR (GAPI)	150		0.1	H YIELD (YH2)	1
					60000 NEAR COUNTS (NCAP)	0
					60000 FAR COUNTS (FCAP)	0
					100000 FAR INTEL CT (FSIN)	0



0	IN FIT ERR (CFTR1) NEAR	1
0	IN FIT ERR (CFTR2) FAR	1
-1000	CCL	100

0	RICF	6	10000(NEAR INTEL CT (NSIN)	0	
0	H YIELD (YH2)	1	50000	NNIN	-1000

MAIN LOG

HALLIBURTON

5"=100'

REPEAT PASS

HALLIBURTON

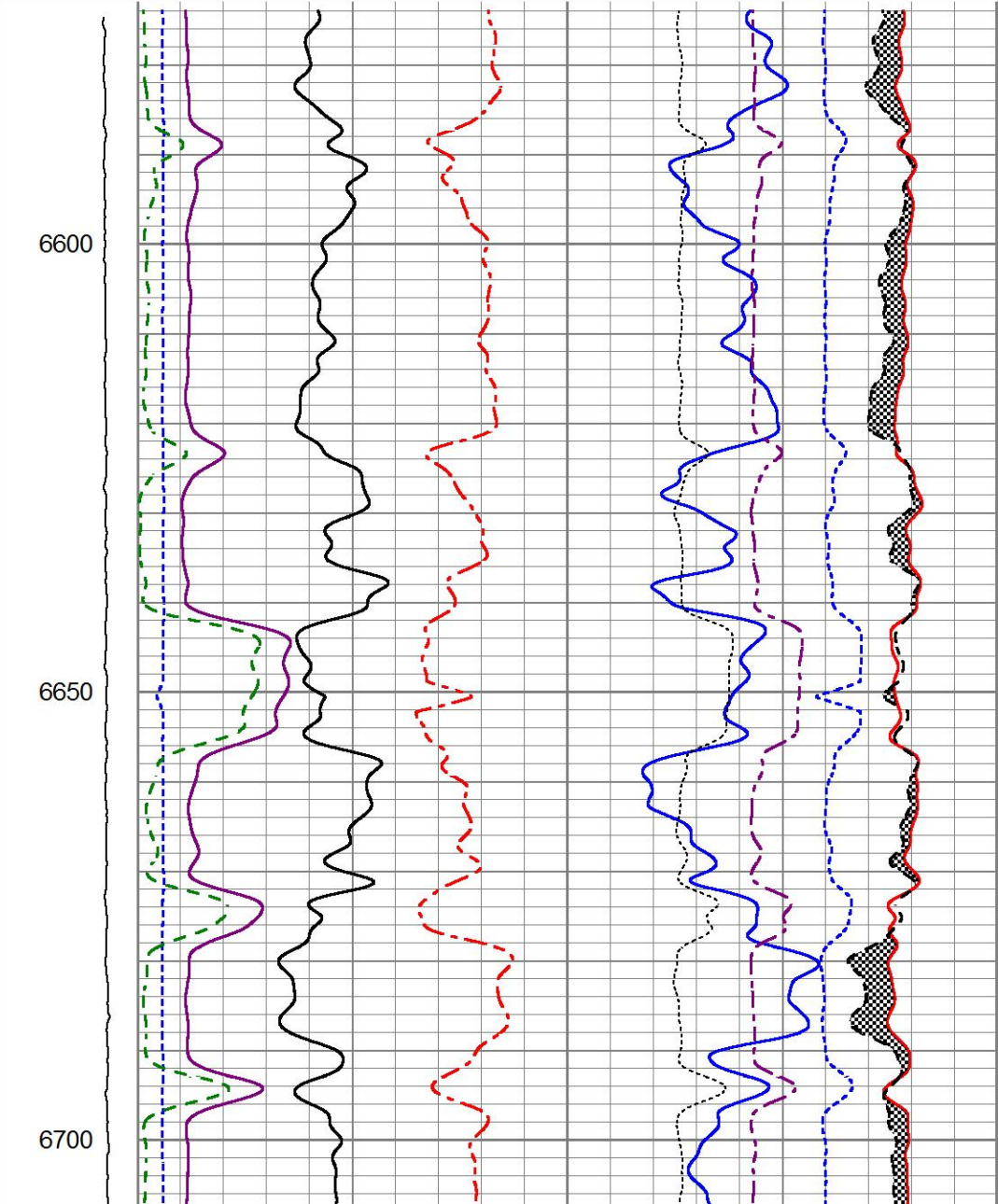
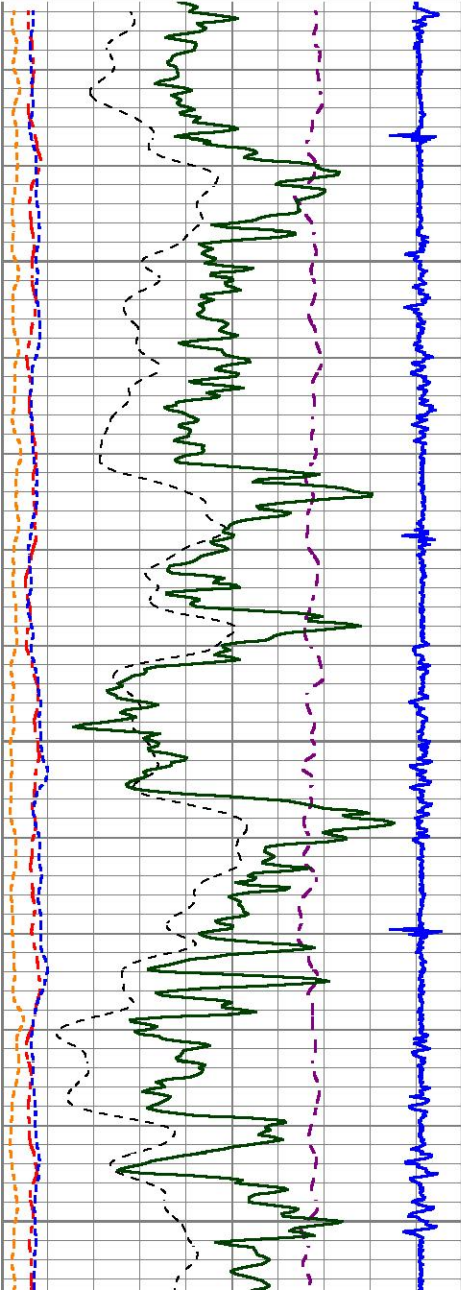
5"=100'

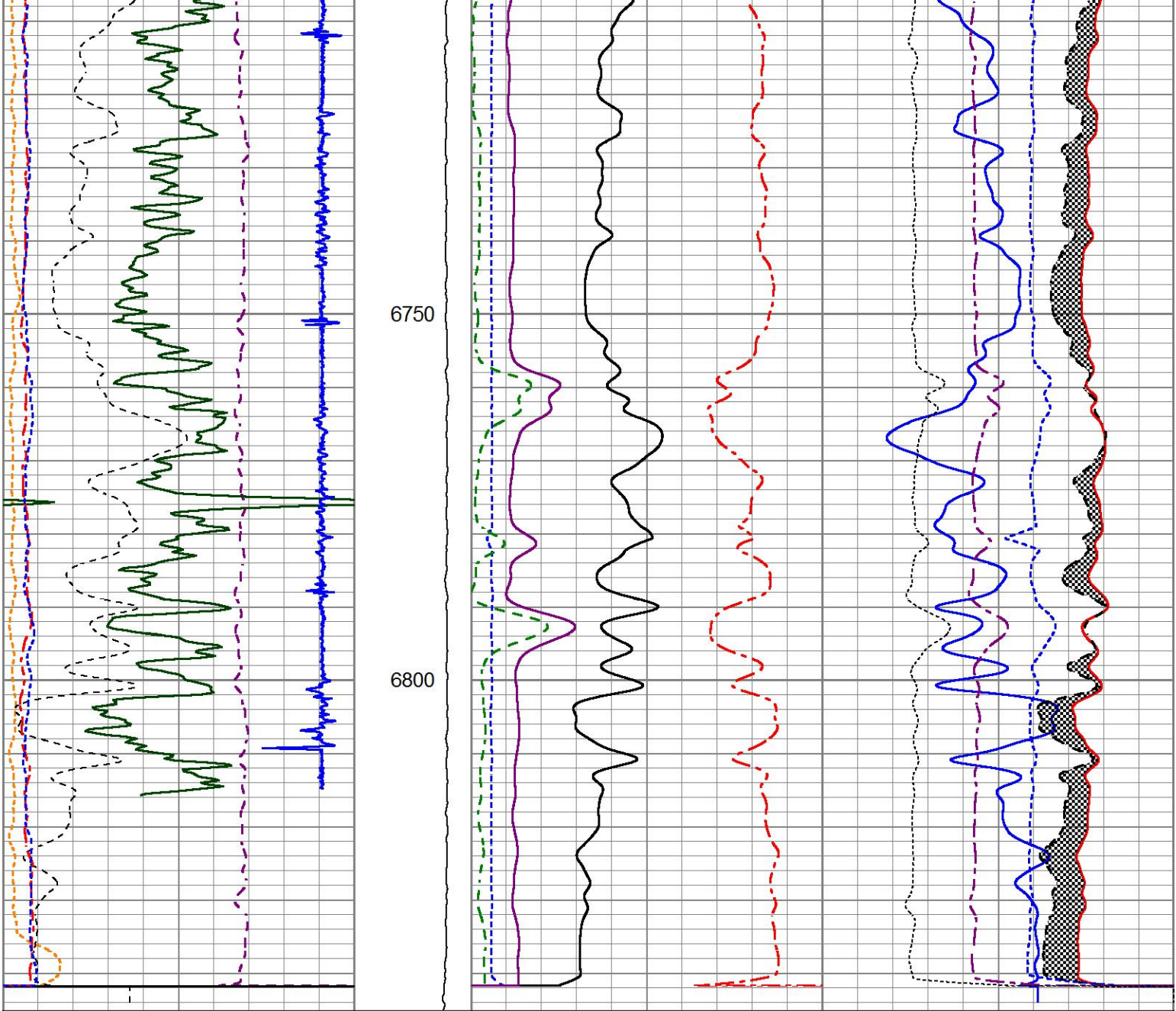
Database File
Dataset Pathname
Presentation Format
Dataset Creation
Charted by

tompkins\_41c.db
repeat2
1\_ss\_rmti
Sat Jul 16 08:59:37 2016
Depth in Feet scaled 1:240

200	NEAR BORE SI (SGBN)	0
0	OAI	100
10	FAR FIT ERR (SGFF)	40
0	GR (GAPI)	150
0	IN FIT ERR (CFTR1) NEAR	1
0	IN FIT ERR (CFTR2) FAR	1
-1000	CCL	100

TENSION	60	SGIN		0	
0 (lb 1500	2	RATIO (RNF)	0.5	60000 NEAR COUNTS (NCAP)	0
	0	RIN	15	60000 FAR COUNTS (FCAP)	0
	0.1	H YIELD (YH2)	1	100000 FAR INTEL CT (FSIN)	0
	0	RICF	6	10000(NEAR INTEL CT (NSIN)	0
	0	H YIELD (YH2)	1	50000 NNIN	-1000





200	NEAR BORE SI (SGBN)	0	TENSION	60	SGIN	0
0	OAI	100	0 (lb 1500	2	RATIO (RNF)	0.5
10	FAR FIT ERR (SGFF)	40		0	RIN	15
0	GR (GAPI)	150		0.1	H YIELD (YH2)	1
0	IN FIT ERR (CFTR1) NEAR	1		0	RICF	6
0	IN FIT ERR (CFTR2) FAR	1		0	H YIELD (YH2)	1
-1000	CCL	100				
					60000	NEAR COUNTS (NCAP)
					60000	FAR COUNTS (FCAP)
					100000	FAR INTEL CT (FSIN)
					10000	(NEAR INTEL CT (NSIN)
					50000	NNIN
						-1000

REPEAT PASS

5"=100'

Calibration Report

Database File tompkins\_41c.db  
Dataset Pathname repeat2  
Dataset Creation Sat Jul 16 08:59:37 2016

Reservoir Monitor Tool I Calibration Report

Serial-Model: 11680605-A  
Shop Calibration Performed: Wed Jul 13 15:33:10 2016



Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	95.00	80.00	15.00	+/-15.00	V
ITCR2	3142	3250	-108	+/-250	cps
Near Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0246	5.58	<6.00
Fe	207	206 +/-2	0.0940	-----	-----
NGAIN = 0.994	NZOFF = 0.6				
Far Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0388	5.12	<6.50
Fe	209	208 +/-2	0.0914	-----	-----
FGAIN = 0.992	FZOFF = 0.3				
Flask Temperature	73.0 degF				
Result	Logged	Expected Value	Diff.	Tol.	Units
COIR2	0.44	0.45	-0.01	+/-0.02	
LIRI2	1.36	1.36	0.00	+/-0.05	
TCCR2	5240	5000	240	+/-1000	cps
ITCR2	3133	3200	-67	+/-250	cps

Sigma Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	95.00	80.00	15.00	+/-15.00	V
FCAP	10378	10000	378	+/-500	cps
Horizontal Water Tank					
Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	0.94	0.95	-0.01		
N/F Inel Norm	0.62	0.61	0.01		
RNF	1.06	1.07	-0.01	+/-0.12	
RINC	1.61	1.64	-0.03	+/-0.18	
SGFN	24.09	24.00	0.09	+/-0.50	cu
SGFF	22.90	22.85	0.05	+/-0.50	cu
FSIN	24969	24000	969	+/-2000	cps
FCAP	10530	10000	530	+/-1000	cps
NFTR	0.83			<5.00	
FFTR	0.89			<5.00	
NBKG	133			<500	cps
FBKG	102			<500	cps
RTN	0.41	0.40	0.01	+/-0.10	usec
RTF	0.44	0.40	0.04	+/-0.10	usec

Calibration Software Modules	
HRMTI Module	2015.5.4.0
RMTI Module	2015.5.15.1
Log Data Acquisition Software Modules	
HRMTI Module	2015.5.4.0
RMTI Module	2015.5.15.1

Cement Bond Log Shop Calibration Report

Serial-Model:	11794522-A
Calibration Performed:	Sat Jul 16 07:44:50 2016

## Free Pipe Calibration

	Measured	Units
TT	246.9	usec
Amplitude	425.9	mV
Log Base Line	8.2	mV

## Calibration References and Gain

Name	Value	Units
Pipe O.D.	4.500	in
Pipe Weight	11.6	lb/ft
Pipe Ref. Amp.	81.2	mV
Amp. Gain	0.194	

## Gamma Ray Calibration Report

Type / Serial: 002 / 12105787

## SHOP CALIBRATION

Wed Jul 13 14:17:13 2016

	Counts/Sec.	Gain	Offset	Jig	Units
Background	27.9				cps
Calibrator	197.3				cps
		1.4165			GAPI/cps

## PRIMARY VERIFICATION


Background	39.6				cps
Calibrator	280.8				cps
Difference				241.2	GAPI

## BEFORE SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

## AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
CCL	34.87		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00	
			TTTCU-002 (12105787) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00	
GR	32.61		XHU-003 (12461938) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00	
			CENT-CASTM-CENT (00002) CAST M INLINE CENTRALIZER	2.16	3.13	25.00	



Temp	22.89					
TT3FT	20.64		HCBLM-A (11794522)	9.38	2.75	116.00
AMP3FT	20.64		Halliburton HCBLM Tool			
WVF5FT	19.68					
WVF3FT	16.16		CENT-CASTM-CENT (00003)	2.16	3.13	25.00
			CAST M INLINE CENTRALIZER			
RmtTFGT	8.25					
RmtTNGT	7.75		RMTI-A (11680605)	14.00	2.13	77.00
			Halliburton RMTI Tool			
LLMTEN	0.00					
RmtFP5V	0.00					
RmtNFwvMcsPr	0.00					
RmtCommFWar	0.00					
Dataset: tompkins_41c.db: field/well/run1/main1						
Total length: 38.44 ft						
Total weight: 351.00 lb						
O.D.: 3.13 in						

Company	URSA OPERATING CO., LLC.				
Well	TOMPKINS 41C-08-07-95				
Field	PARACHUTE				
County	GARFIELD		State	CO	
HALLIBURTON	RESERVOIR MONITOR TOOL FIELD COPY				