

HALLIBURTON

RMT-i

Company		RING ENERGY COMPANY	
Well	JANTZ 32		
Field	WILDCAT		
County	GRAY	State	KS

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Well	JANTZ 32		
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API No.:	15-069-20479-00	Serv #:	901691654	Other Services
Location:				

Sec:	Twp:	Rge:	RCBL
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Permanent Datum	GL	Elevation	
Log Measured From	KB	10 Ft. above perm. datum	K.B. D.F. G.L.
Drilling Measured From	KB		

Date @ Time Logged	02OCT2014 @ 21:44	Type Fluid in Hole	FRESH
Run No.	ONE	Density of Fluid	8.3
Depth - Driller	5490	Fluid Level	SURFACE
Depth - Logger	5336	Cement Top Est. Logged	N/A
Bottom - Logged Interval	5336	Equipment / Location	/ LIBERAL
Top - Log Interval	1800	Recorded by	R. BELL
Max. Recorded Temp.	N/A	Witnessed by	M. MCNIEL

CEMENTING DATA		Surface String	Protection String	Production String	Liner
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Date / Time Cemented					
Primary / Squeeze					
Expected Compressive Strength	psi@	hrs	psi@	hrs	psi@
Cement Volume					
Cement Type / Weight	/		/		/
Formulation					
Mud Type / Mud Wgt.	/		/		/

Borehole Record		Casing & Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To

<<< 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 CORRELATED TO SURFACE (-10FT)

GR CALIBRATED TO THORIUM BLANKET TB-185

RMT-i CALIBRATED TO HWT ON 02OCT2014

SJ FOUND AT 5020-42FT

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES

CREW:BELL,LUBOJASKY,GONZALEZ,WRIGHT

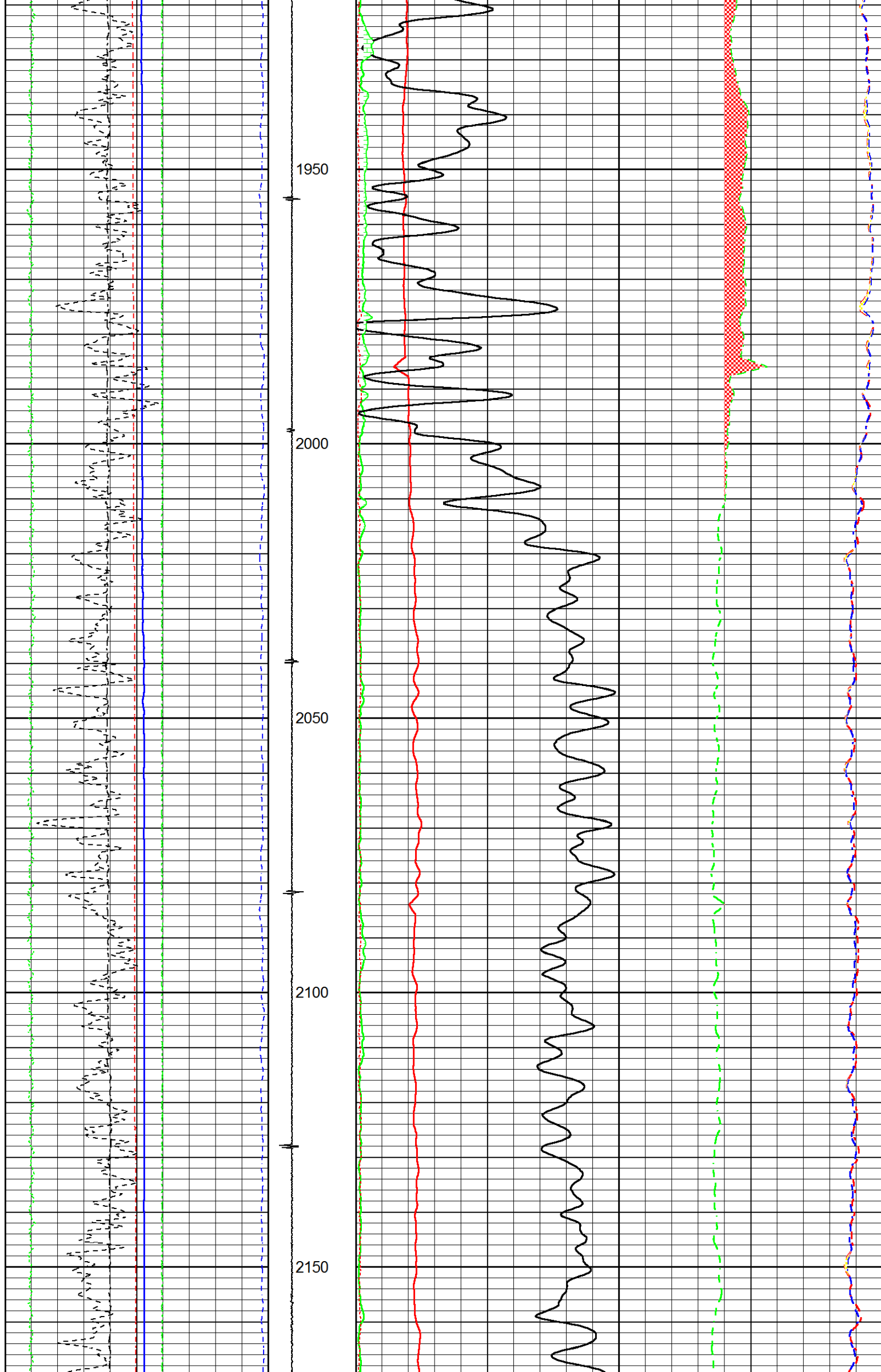
Service Ticket No.	901691654	API No.	15-069-20479-00	PGM Ver
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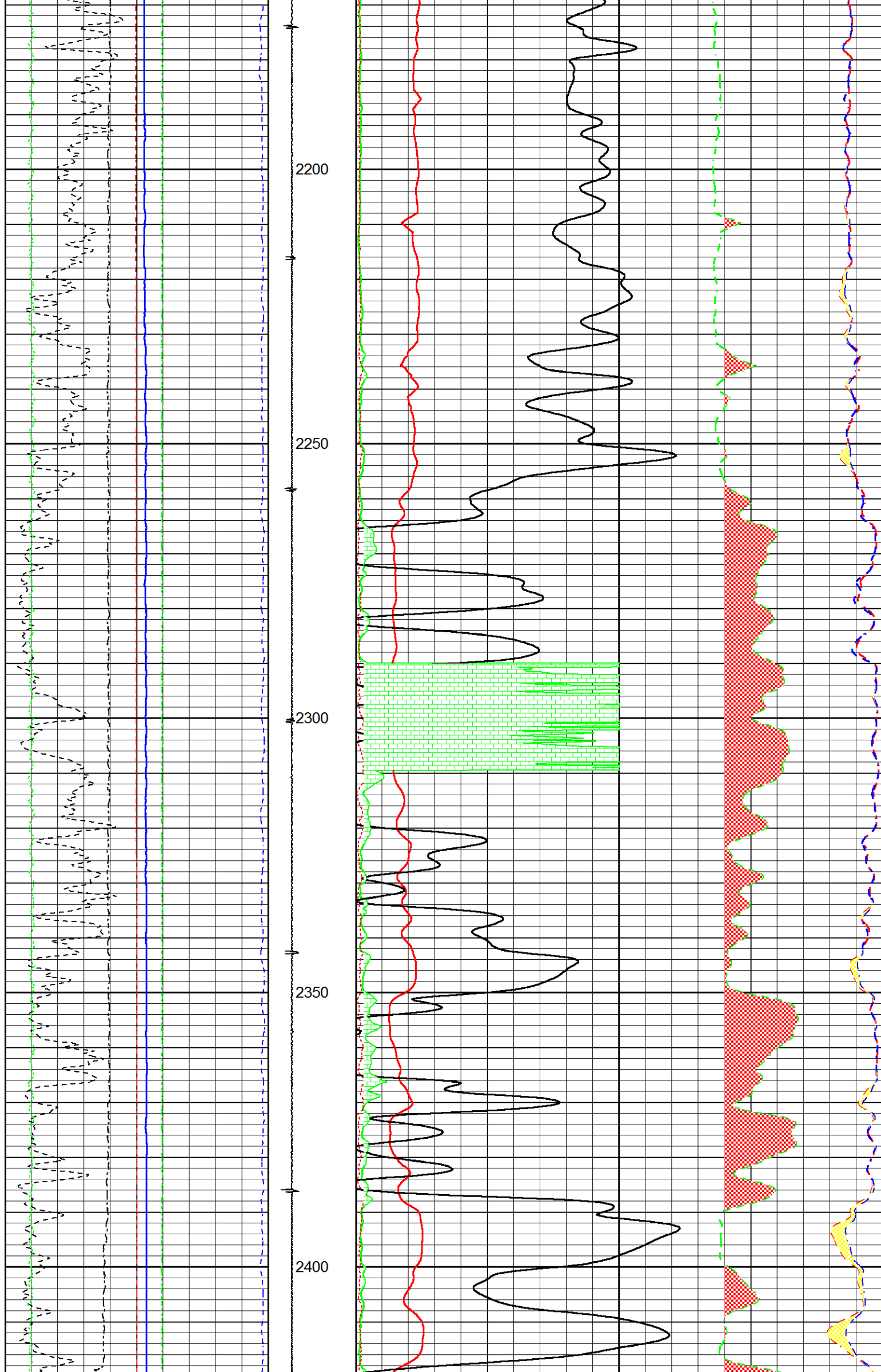
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

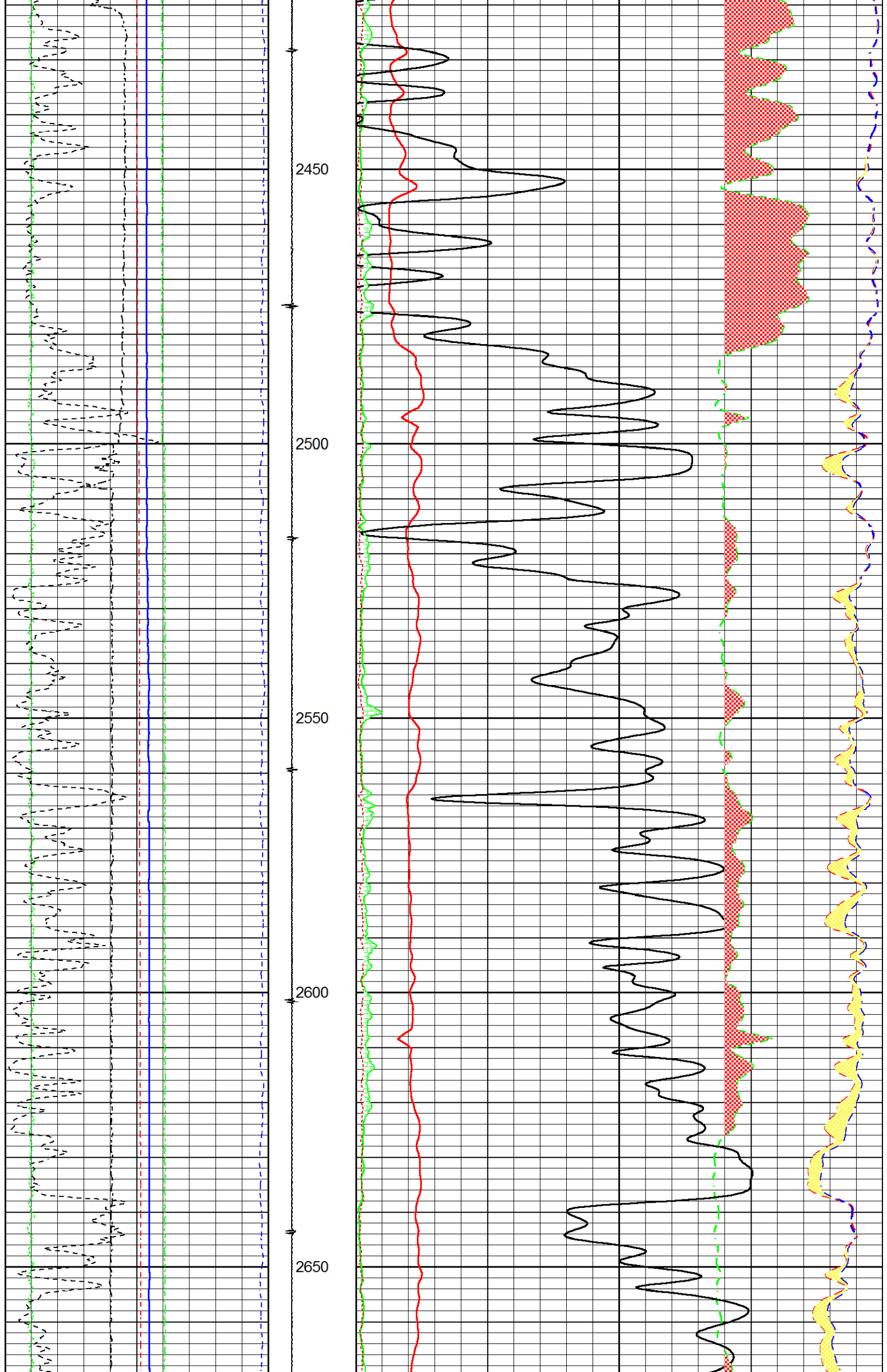
EQUIPMENT DATA							
RMTi		XHU		TTTC-U			
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	12376240	Serial No.	12461940	Serial No.	10012461	Serial No.	
Model No.		Model No.		Model No.		Model No.	
Diameter		Diameter		Diameter		Diameter	

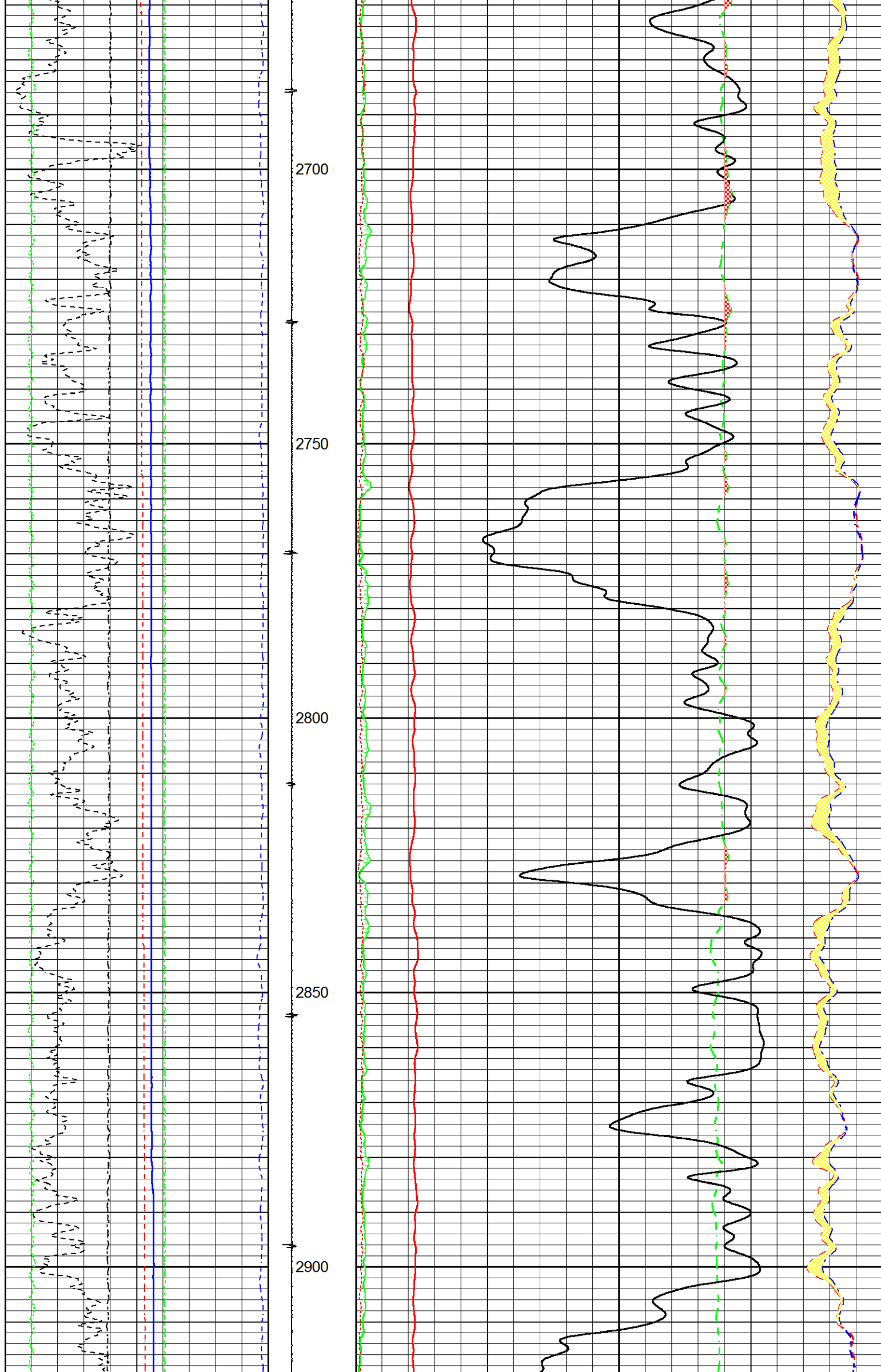
LOGGING DATA

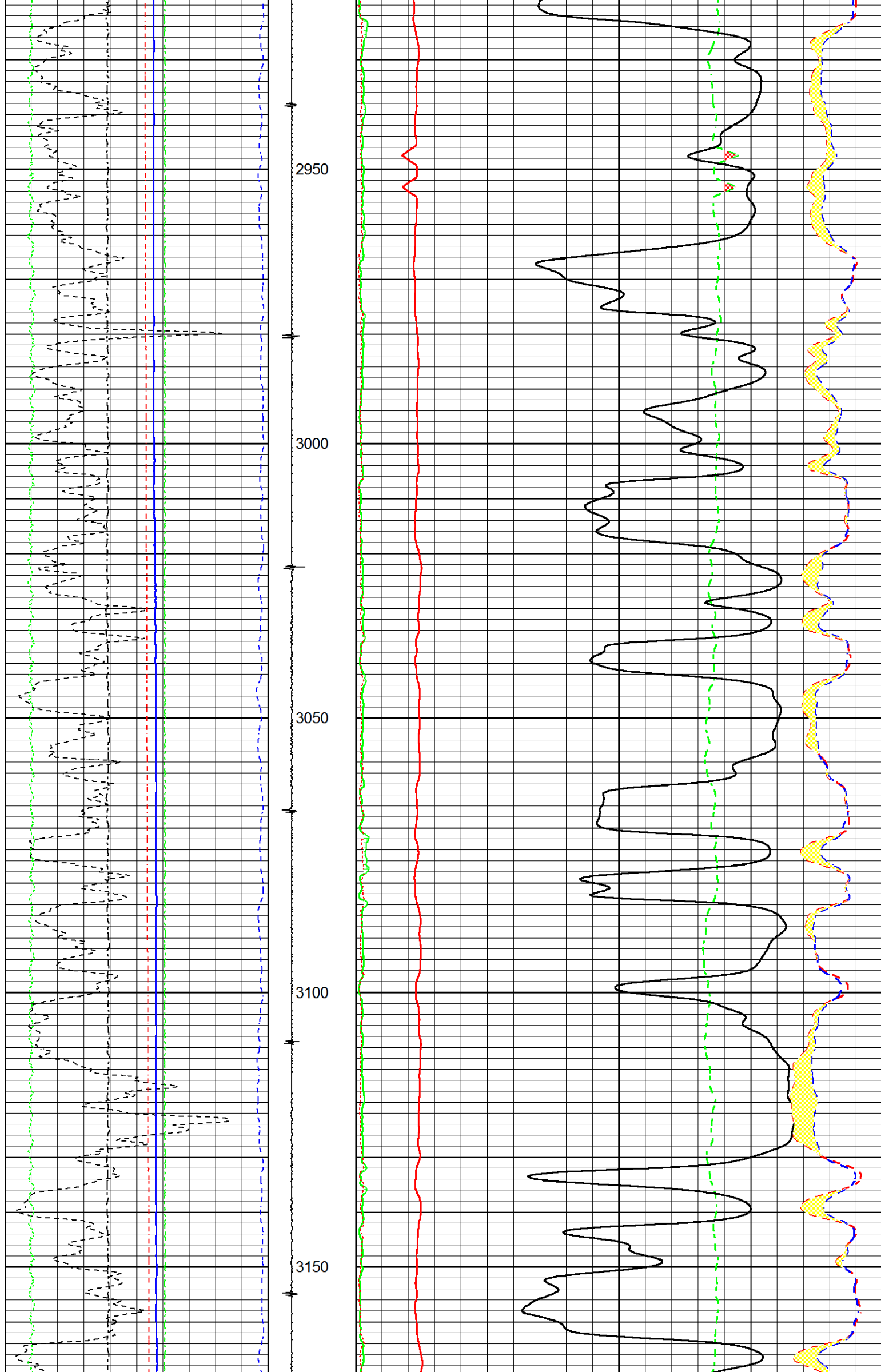
General Data							
Pass	Depths		Well Head	Speed	Logging Run Comments		
No	From	To	Pressure	Ft/Min			

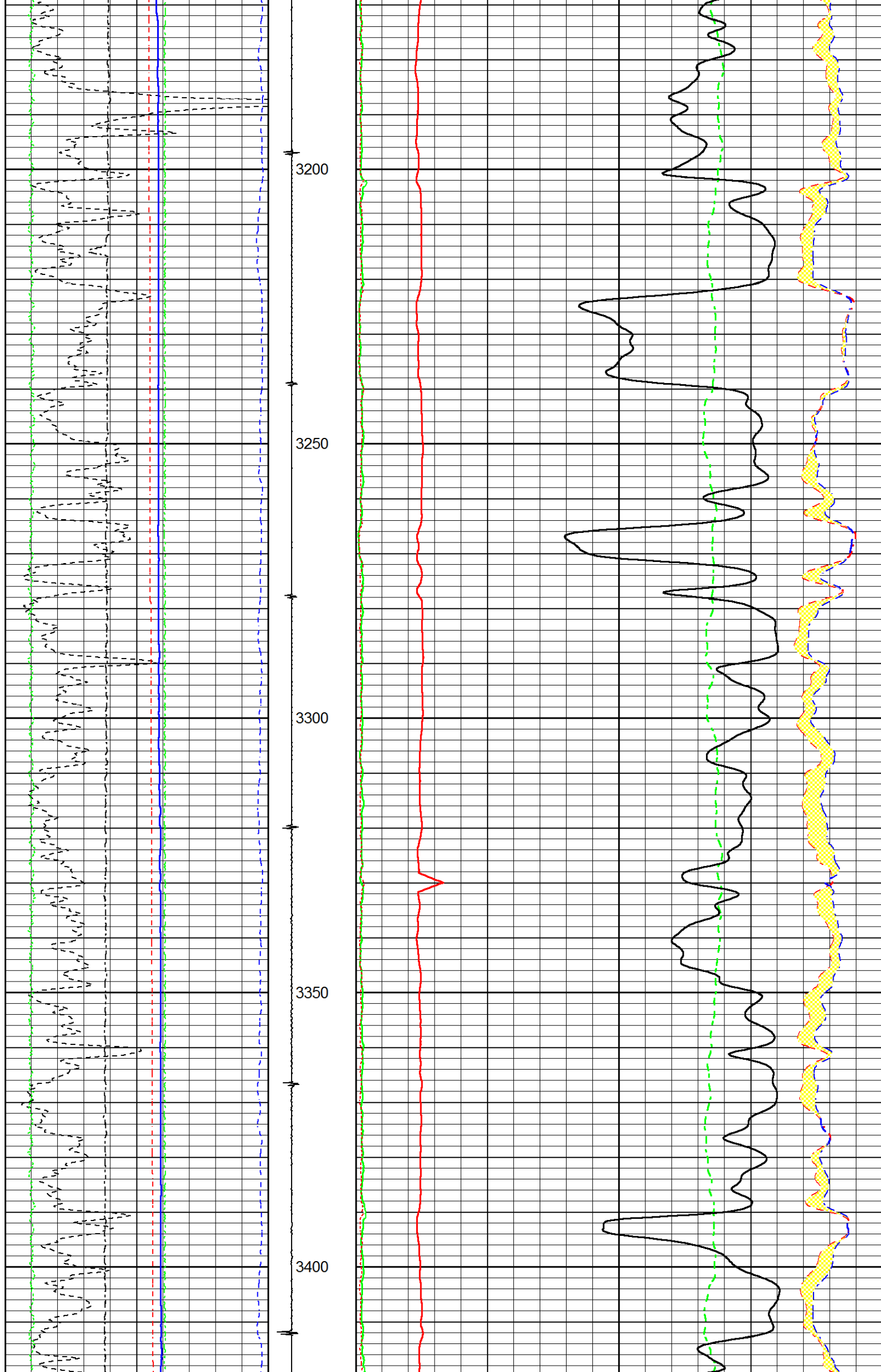


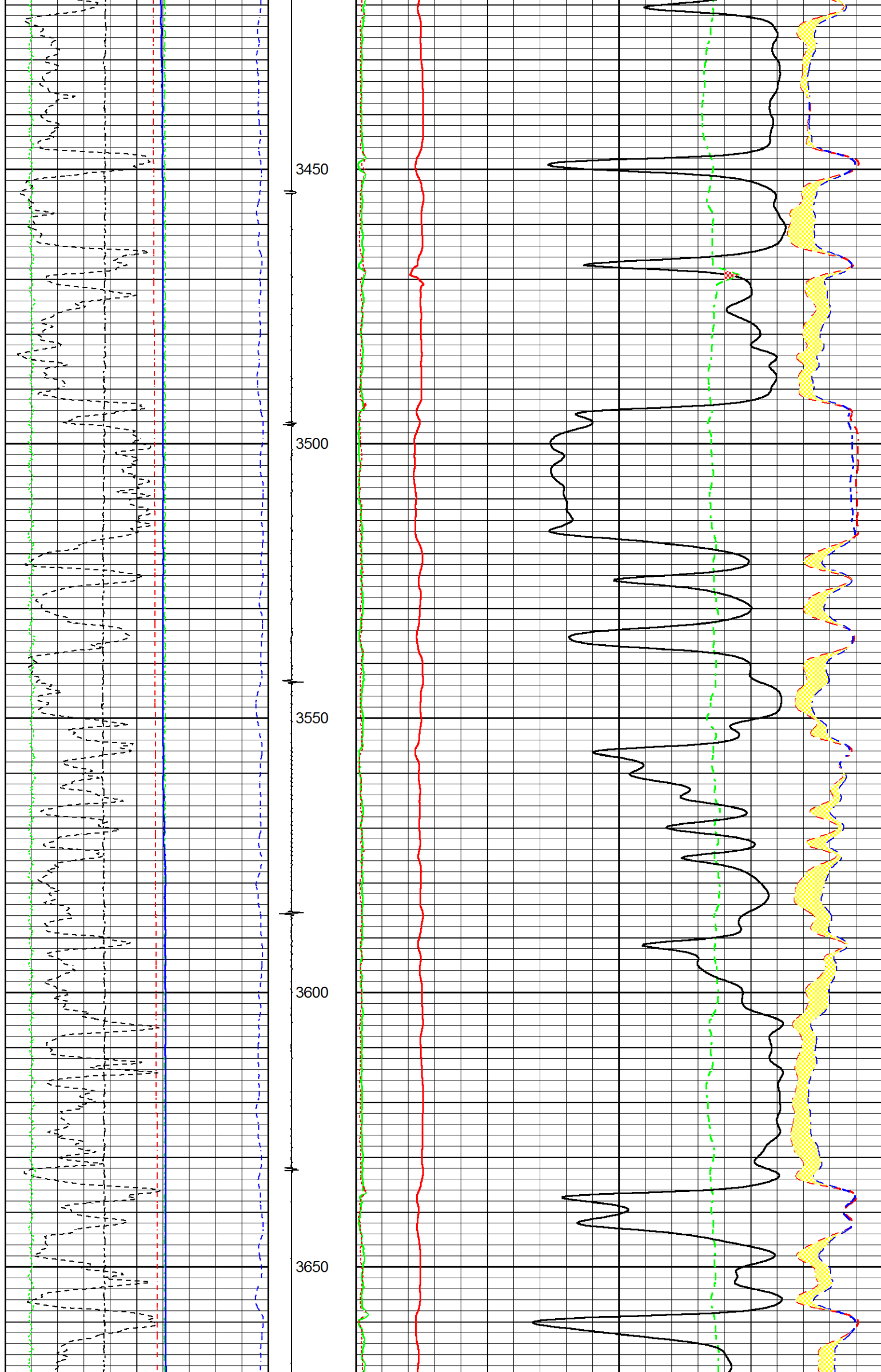


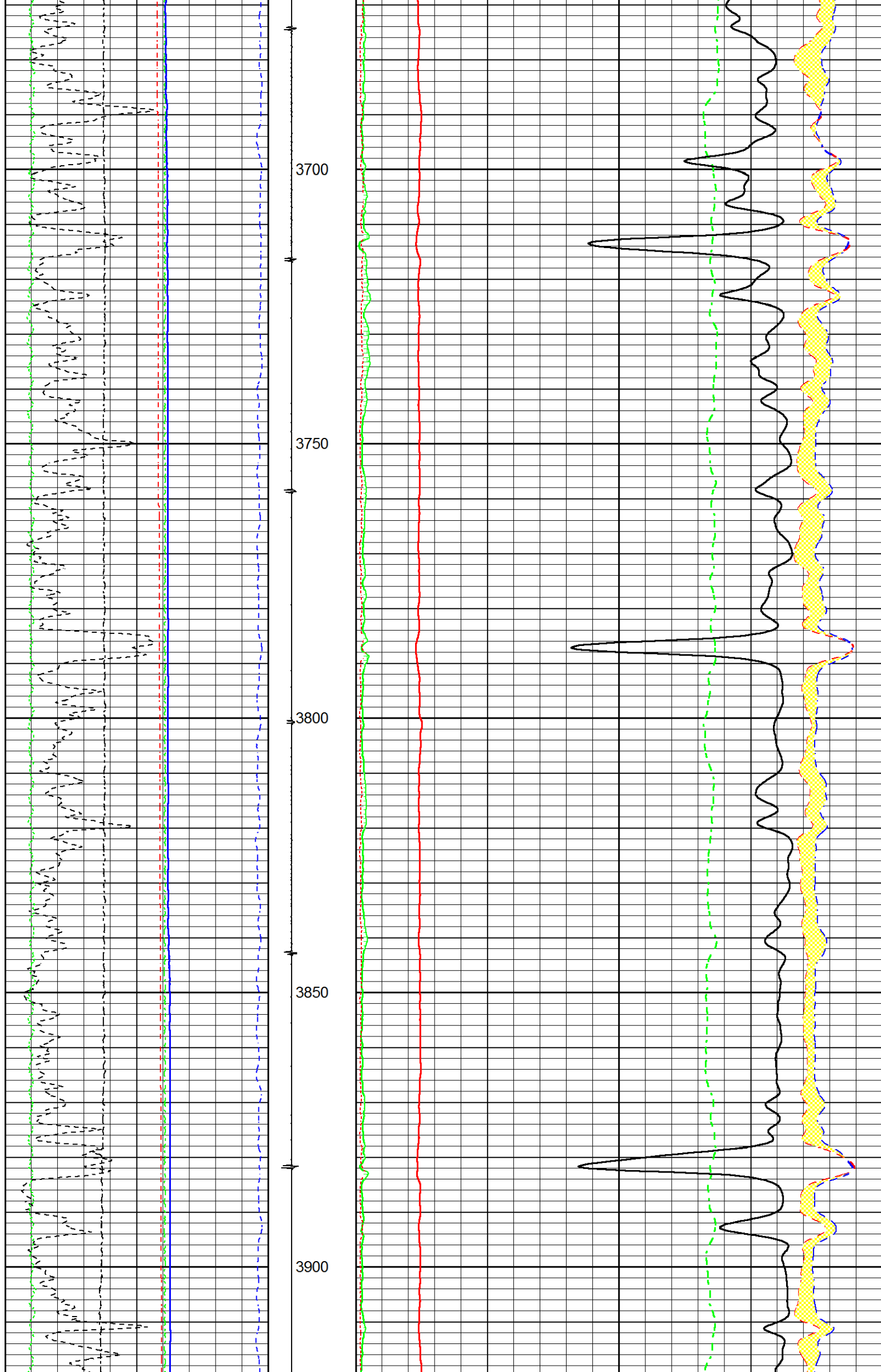


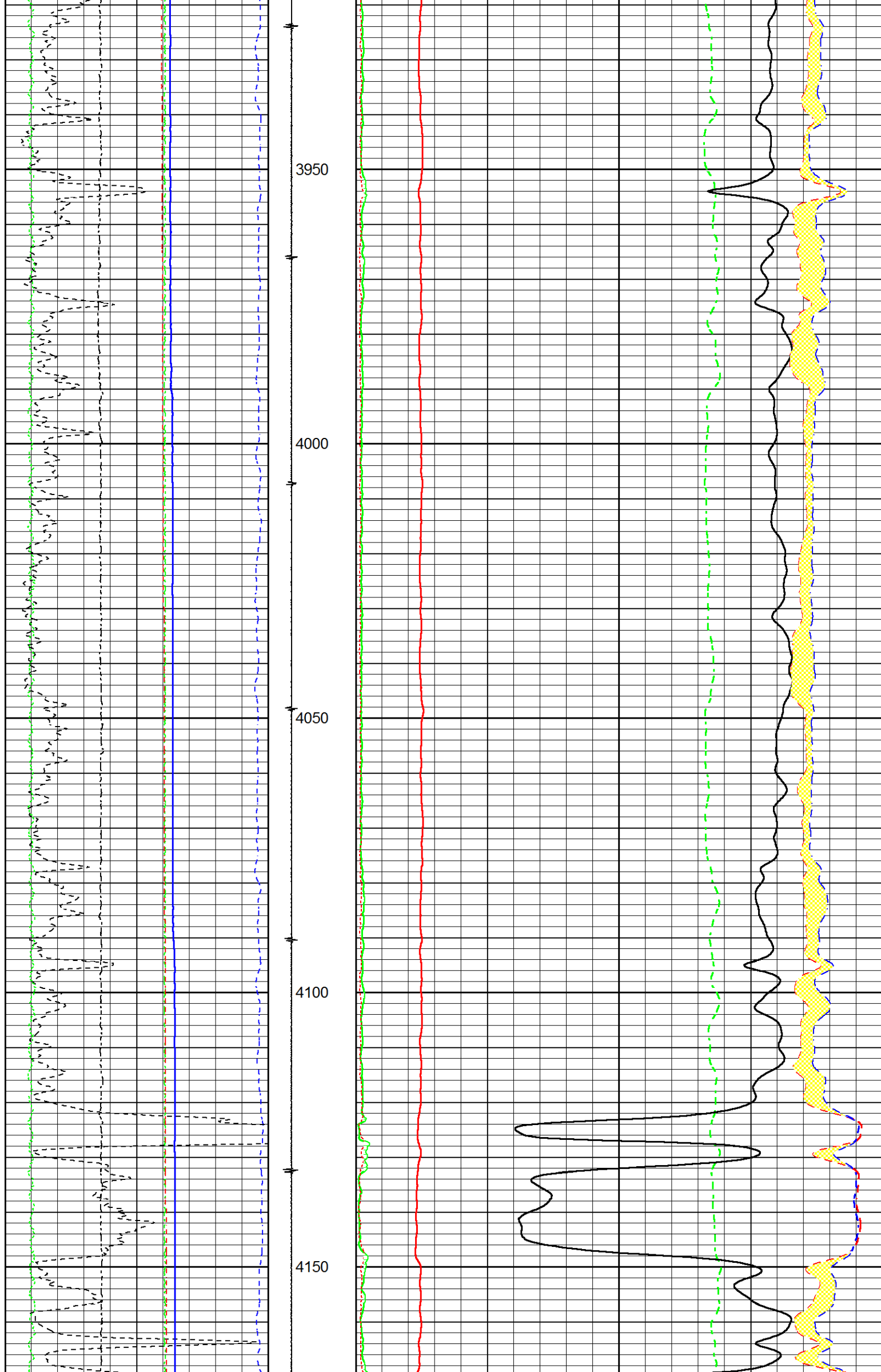


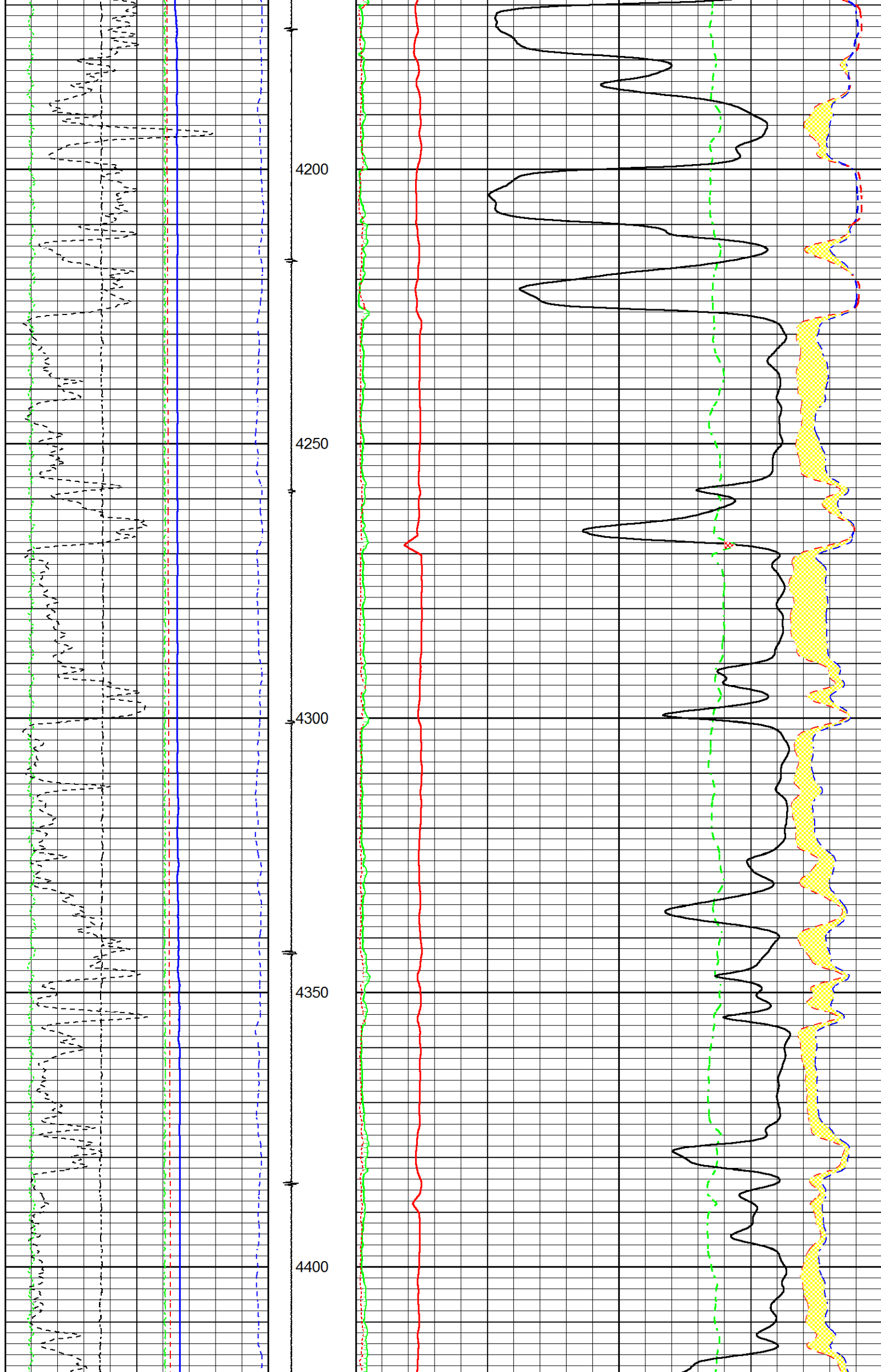


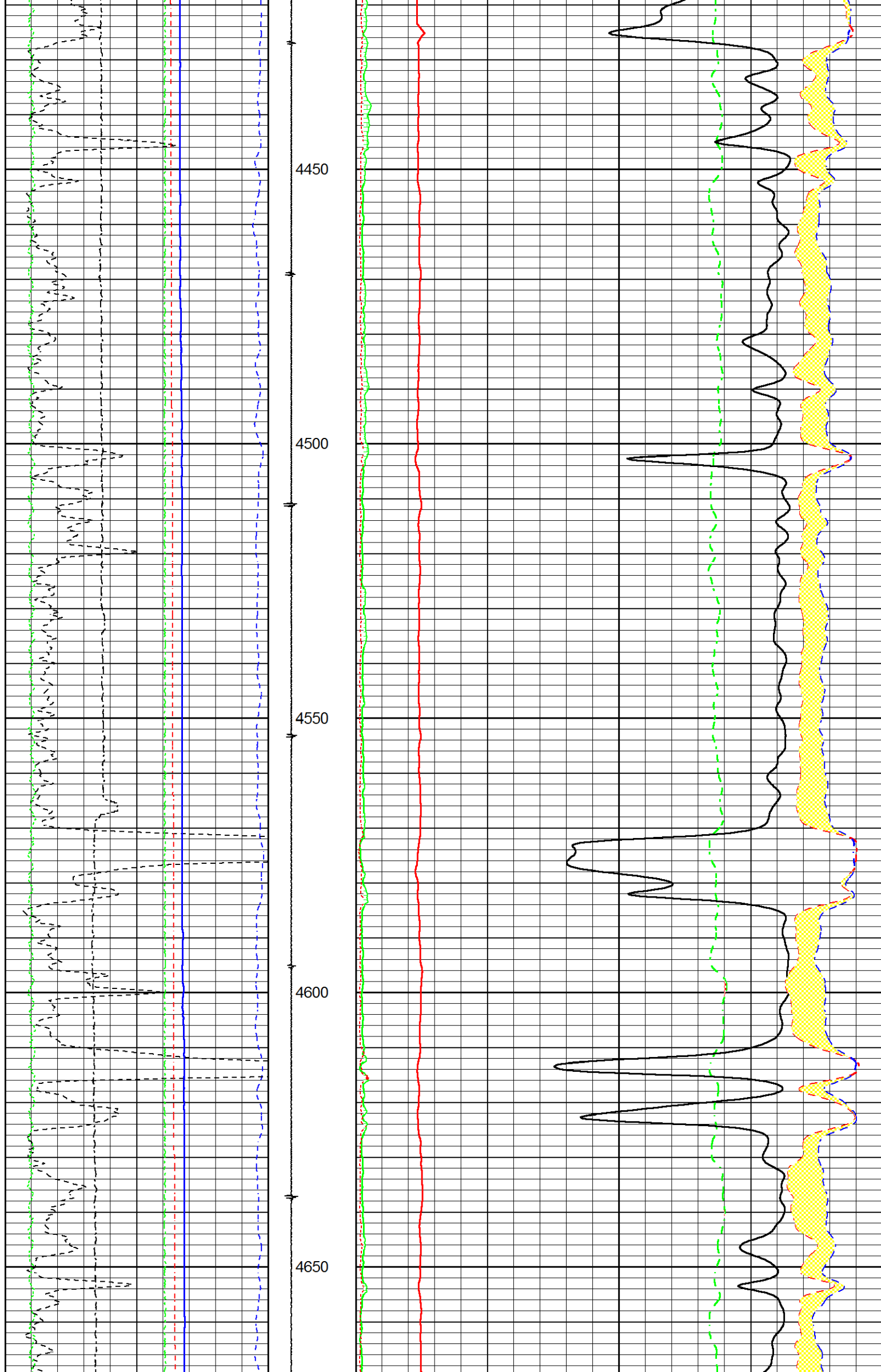


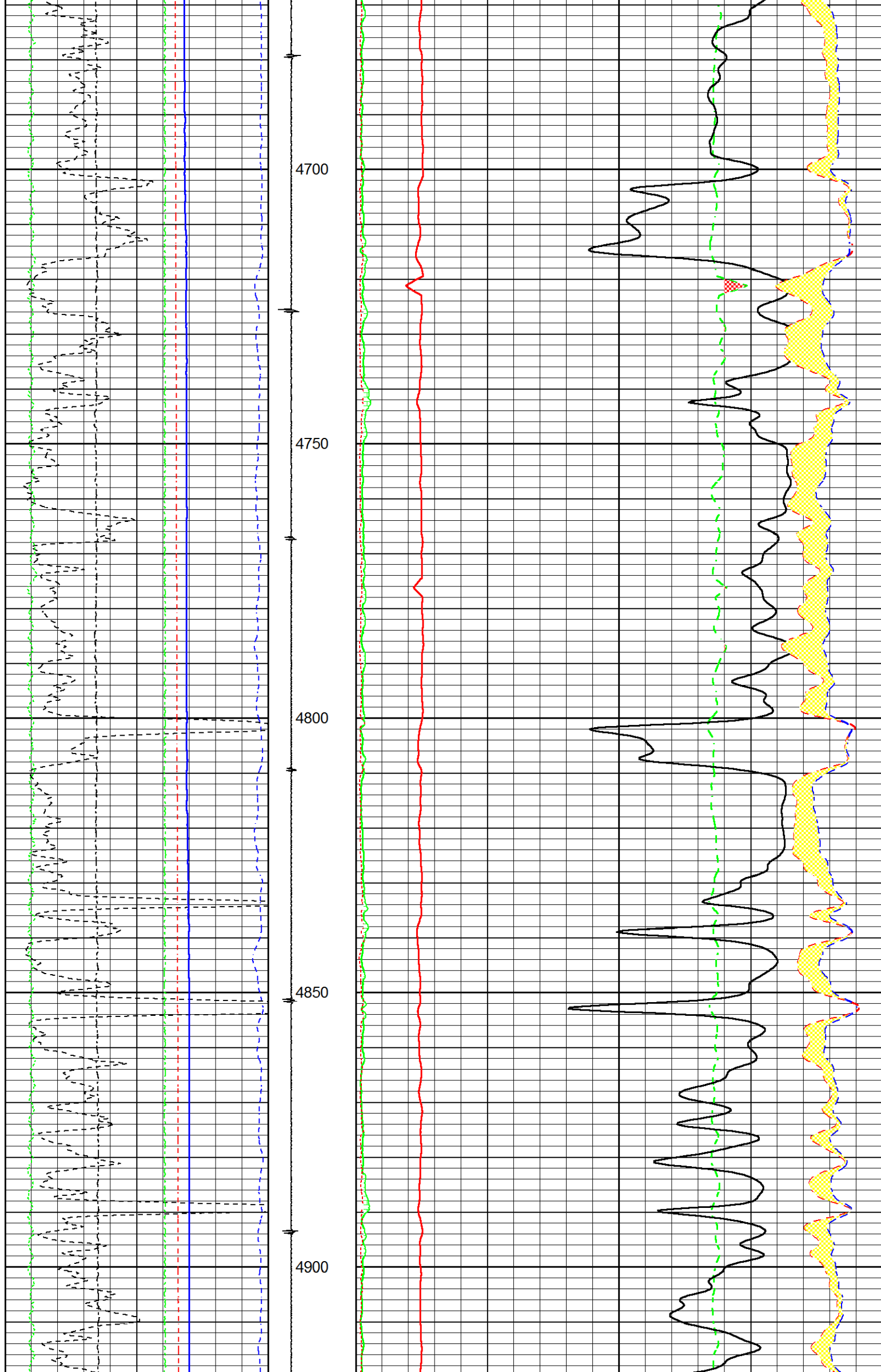


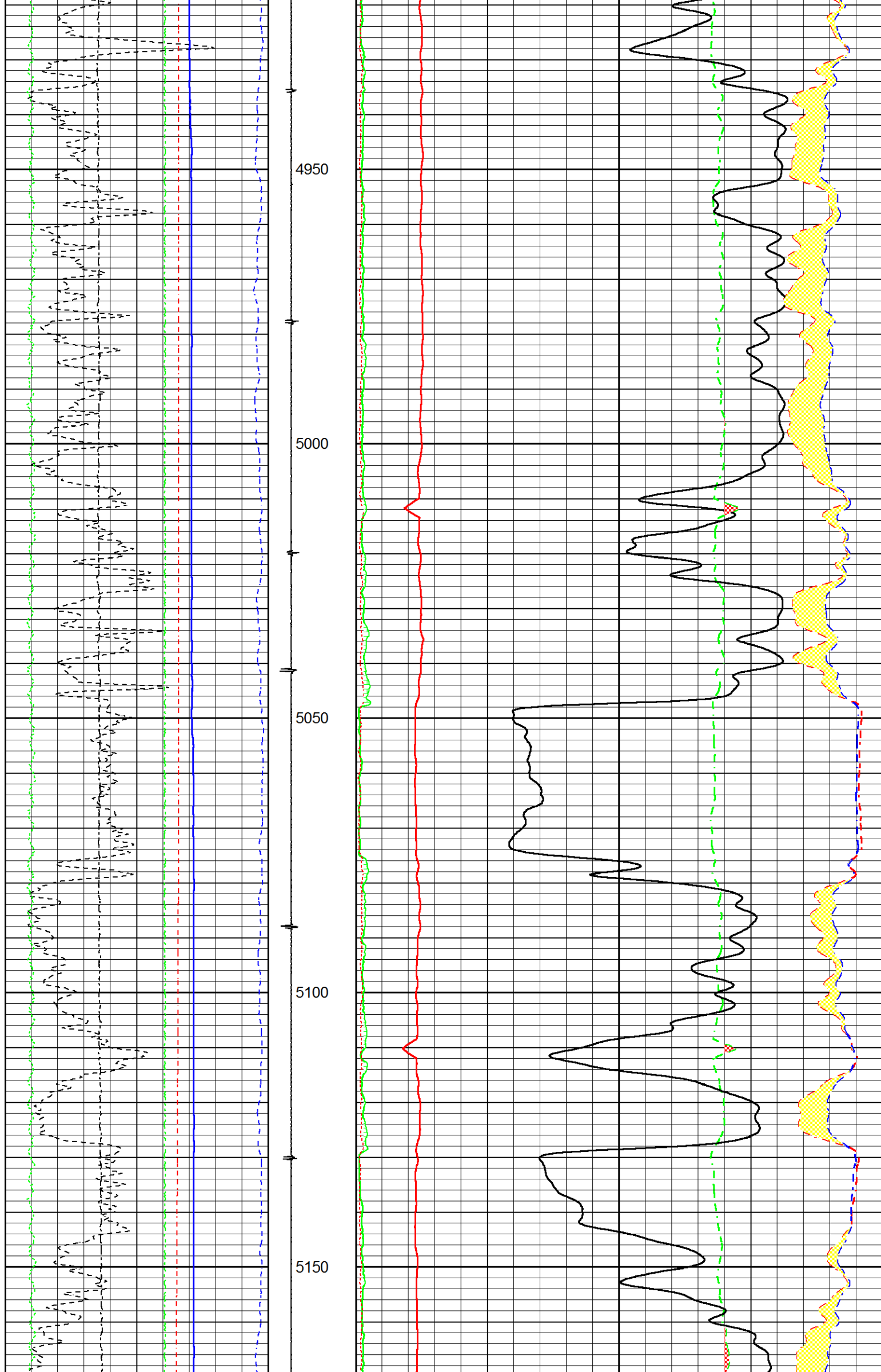


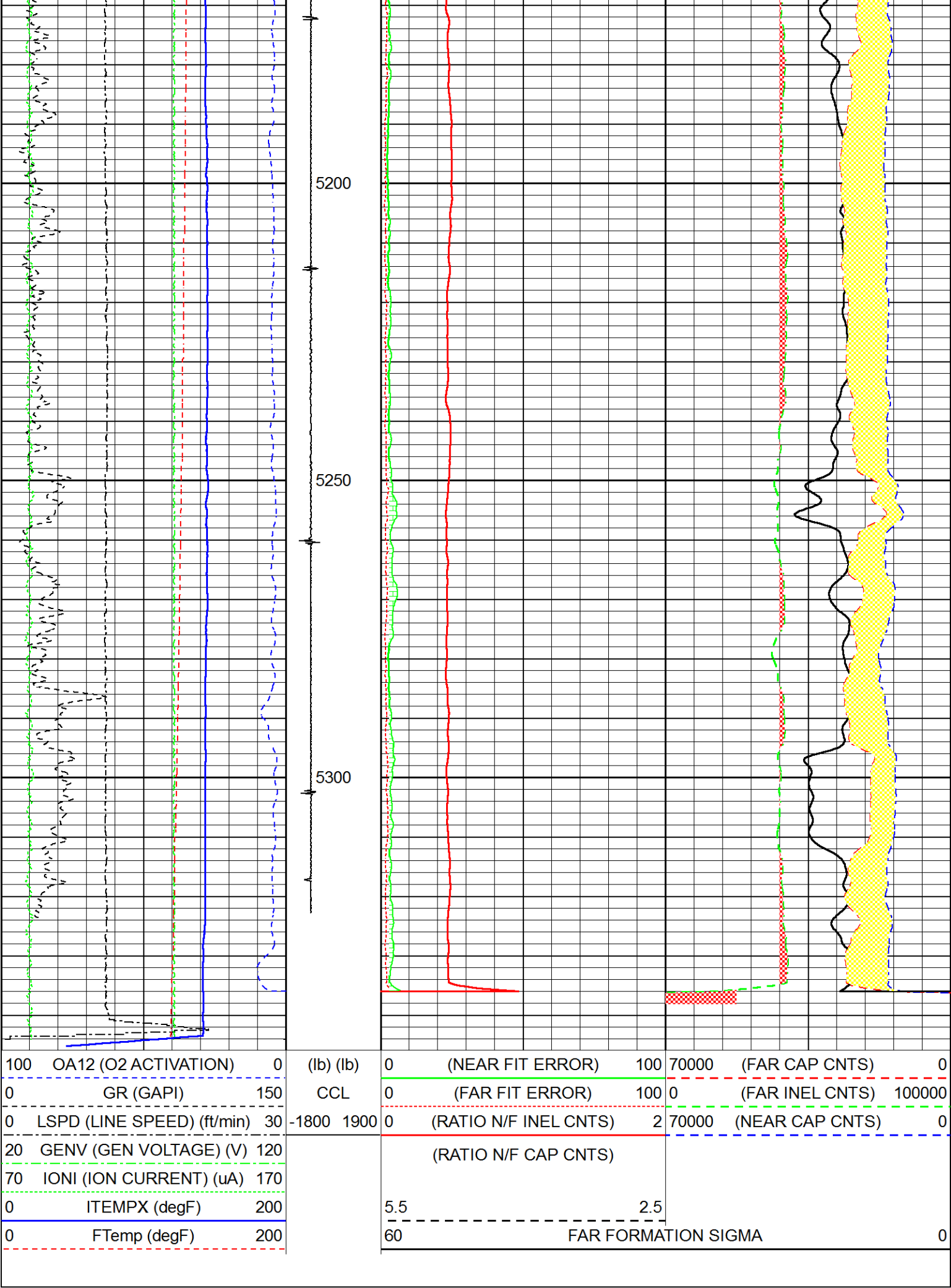












Carbon/Oxygen Mode

Stabilization

Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	82.00	80.00	2.00	+/-15.00	V
ITCR2	3235	3250	-15	+/-250	cps

Near Detector

	Channel	Expected Value	Amplitude	FWHM	Tol.
H	59	60 +/-2	0.0286	4.91	<6.00
Fe	206	206 +/-2	0.0974	-----	-----
NGAIN = 0.995	NZOFF = 0.9				

Far Detector

	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0385	4.99	<6.50
Fe	210	208 +/-2	0.0909	-----	-----
FGAIN = 0.991	FZOFF = 0.1				

Flask Temperature 63.5 degF

Result	Logged	Expected Value	Diff.	Tol.	Units
COIR2	0.45	0.45	-0.00	+/-0.02	
LIRI2	1.64	1.64	0.00	+/-0.05	
TCCR2	5746	5000	746	+/-1000	cps
ITCR2	3309	3200	109	+/-250	cps

Sigma Mode

Stabilization

Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	81.00	80.00	1.00	+/-15.00	V
FCAP	10133	10000	133	+/-500	

Horizontal Water Tank

Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	0.94	0.95	-0.01	+/-0.10	
N/F Inel Norm	0.62	0.61	0.01	+/-0.06	
RNF	1.06	1.07	-0.01	+/-0.12	
RINC	1.62	1.64	-0.02	+/-0.18	
SGFN	24.25	24.00	0.25	+/-0.50	cu
SGFF	22.98	22.85	0.13	+/-0.50	cu
FSIN	24361	24000	361	+/-2000	cps
FCAP	10291	10000	291	+/-1000	cps
NFTR	0.69			<5.00	
FFTR	0.79			<5.00	
NBKG	197			<500	cps
FBKG	103			<500	cps
RTN					
RTF	0.44	0.40	0.04	+/-0.10	usec

Calibration Software Modules

HRMTI Module	2013.11.14.0
RMTI Module	2014.2.14.3

Log Data Acquisition Software Modules

HRMTI Module	2013.11.14.0
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Gamma Ray Calibration Report

Serial Number:	10012461	
Tool Model:	002	
Performed:	Thu Oct 02 11:46:26 2014	
Calibrator Value:	228.0	GAPI
Background Reading:	31.0	cps
Calibrator Reading:	197.1	cps
Sensitivity:	1.3723	GAPI/cps

Log Variables

DatabaseC:\ProgramData\Warrior\Data\ring_energy_jantz32_rmt_2oct14.db
Dataset field/well/run1/merge1

Top - 1800.00 ft

BITSIZE in 0	BOTTEMP degF 0	TDEPTH ft 0	PERFS 0	CASEOD in 0	CASETHCK in 0	MudWgt lb/gal 0	SRFTEMP degF 0
CASED? No	BORSAL kppm 0	SO in 0	RHO CF 0	UHSGC 0	LTH Limestone	CASEWGHT lb/ft 0	POROS1 0
POROS2 0	BHSAL1 0	BHSAL2 0					

1800.00 ft - 2500.00 ft

BITSIZE in 10	BOTTEMP degF 150	TDEPTH ft 5330	PERFS 0	CASEOD in 4.5	CASETHCK in 0	MudWgt lb/gal 8.3	SRFTEMP degF 0
CASED? Yes	BORSAL kppm 150	SO in 0	RHO CF 0.25	UHSGC 1	LTH Sandstone	CASEWGHT lb/ft 11.6	POROS1 1
POROS2 0	BHSAL1 1	BHSAL2 0					

2500.00 ft - 5345.80 ft

BITSIZE in 10	BOTTEMP degF 150	TDEPTH ft 5330	PERFS 0	CASEOD in 4.5	CASETHCK in 0	MudWgt lb/gal 8.3	SRFTEMP degF 0
CASED? Yes	BORSAL kppm 150	SO in 0	RHO CF 0.25	UHSGC 1	LTH Sandstone	CASEWGHT lb/ft 11.6	POROS1 1
POROS2 0	BHSAL1 1	BHSAL2 0					

5345.80 ft - Bottom

BITSIZE in 0	BOTTEMP degF 0	TDEPTH ft 0	PERFS 0	CASEOD in 0	CASETHCK in 0	MudWgt lb/gal 0	SRFTEMP degF 0
CASED? No	BORSAL kppm 0	SO in 0	RHO CF 0	UHSGC 0	LTH Limestone	CASEWGHT lb/ft 0	POROS1 0

POROS2	BHSAL1	BHSAL2	
0	0	0	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CCL	21.16		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
GR	18.91					
RmtTFGT	8.25					
RmtFBACK	8.25					
RmtFCAPT	8.25					
RmtFINEL	8.25					
RmtTNGT	7.75					
RmtNBACK	7.75					
RmtNCAPT	7.75					
RmtNINEL	7.75					
HVOLTX	0.00					
ITEMPX	0.00					
TSTAMP	0.00		TTTCU-002 (10012461) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00
XHUCUR4	0.00					
XHUCUR3	0.00					
XHUCUR2	0.00					
XHUCUR1	0.00					
XHUSTAT	0.00					
XHUTEMP	0.00					
XHUERR2	0.00					
XHUERR1	0.00					
TLINITCNT	0.00					
RImpBTEST	0.00		XHU-003 (12461940) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
RImpBCYC	0.00					
RImpBRGW	0.00					
RImpBRGO	0.00					
RImpState	0.00					
RImpPhase	0.00					
RImpCyc	0.00					
RmtGenClampV	0.00					
RmtFTemp	0.00					
RmtFP5V	0.00					
RmtFPMHV	0.00					
RmtFPMI	0.00					
RmtFPrgSt1	0.00					
RmtFDetStat	0.00					
RmtNTemp	0.00					
RmtNPMHV	0.00					
RmtNPMI	0.00					
RmtNPrgSt1	0.00					
RmtNDetStat	0.00		RMTI-A (12376240) Halliburton RMTI Tool	14.00	2.13	77.00
RmtGenIonI	0.00					
RmtGen15BusV	0.00					
RmtGenLvdsV	0.00					
RmtGenSyncV	0.00					
RmtGenClampV	0.00					
RmtGenP5V	0.00					
RmtGenP33V	0.00					
RmtGen200V	0.00					
RmtGenP15VI	0.00					
RmtGenTemp	0.00					
RmtGenP5VI	0.00					
RmtGenI	0.00					
RmtGenPv	0.00					
RmtGenCmd	0.00					
RmtGenIspl	0.00					

RmtGenIspr	0.00				
RmtGenIsprPv	0.00				
RmtGenIsprCmd	0.00				
RmtGenRepPv	0.00				
RmtGenRepV	0.00				
RmtGenRepSv	0.00				
Dataset: ring_energy_jantz32_rmt_2oct14.db: field/well/run1/merge1					
Total length: 24.73 ft					
Total weight: 185.00 lb					
O.D.: 2.13 in					

Company	RING ENERGY COMPANY			
Well	JANTZ 32			
Field	WILDCAT			
County	GRAY	State	KS	
HALLIBURTON	RMT-i			