



COMPENSATED DENSITY/NEUTRON PE LOG

Company WOOLSEY OPERATING COMPANY, LLC.

Well MILLS "A" #1

Field MULBERRY

County BARBER State KANSAS

Location: API #: 15-007-24369-0000

2200' FSL & 725' FWL

SEC 31 TWP 30S RGE 14W

Other Services
DIL

Permanent Datum GROUND LEVEL Elevation 1763
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1776
D.F. 1774
G.L. 1763

Date 7/23/20

Run Number ONE

Depth Driller 3980

Depth Logger 3978

Bottom Logged Interval 3964

Top Log Interval 2000

Casing Driller 8 5/8" @ 311

Casing Logger 311

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/53

pH / Fluid Loss 11.0/8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp .50 @ 95F

Rmf @ Meas. Temp .37 @ 95F

Rmc @ Meas. Temp .60 @ 95F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .40 @ 116F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom

Maximum Recorded Temperature 116F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By BILL KLAVER

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

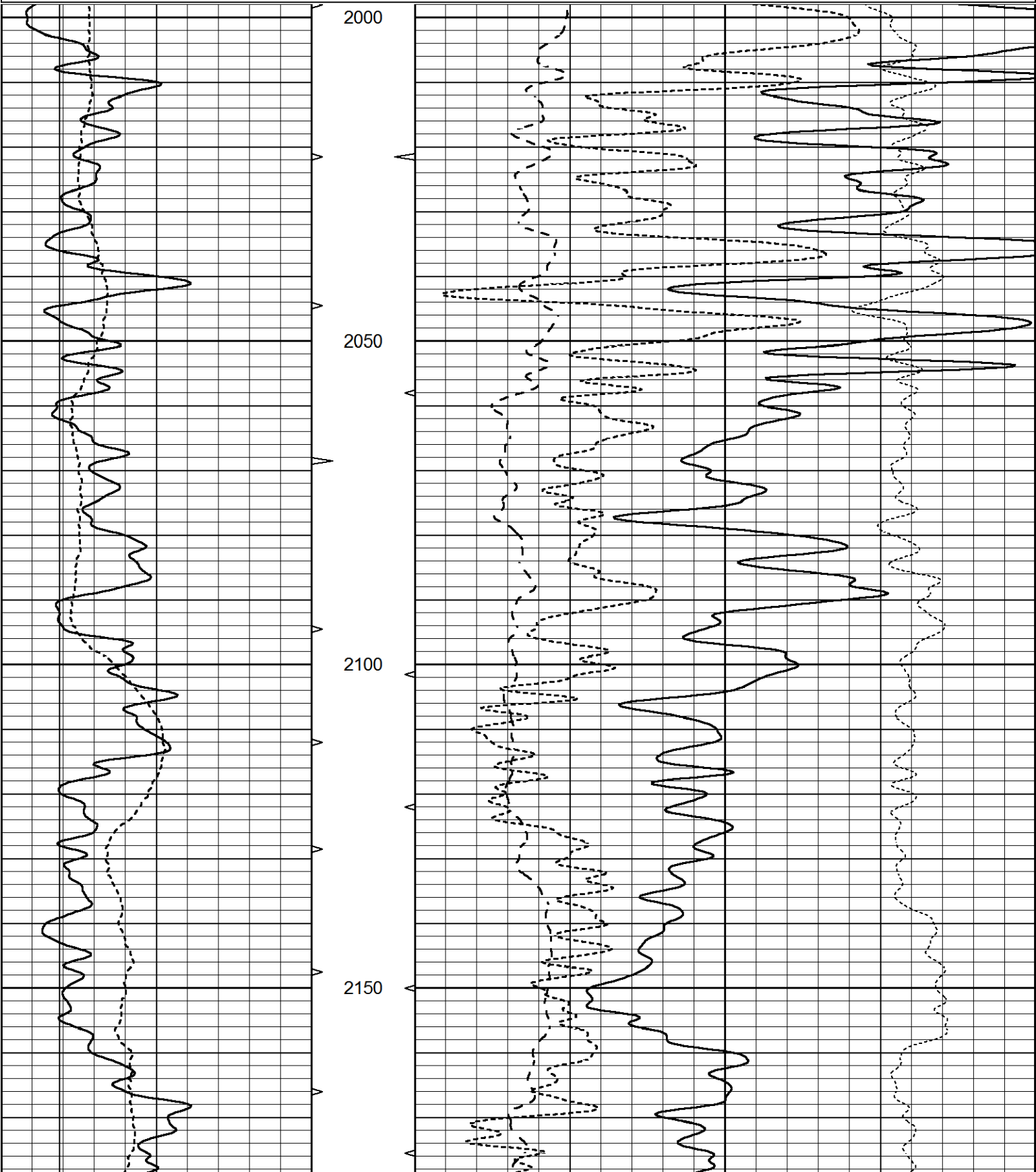
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
SUN CITY, KS. - 1/2 EAST TO SOUTHEAST CURVE - STAY EAST AT CURVE ON
DIRT ROAD AND NORTH INTO EAST OF CEMETARY

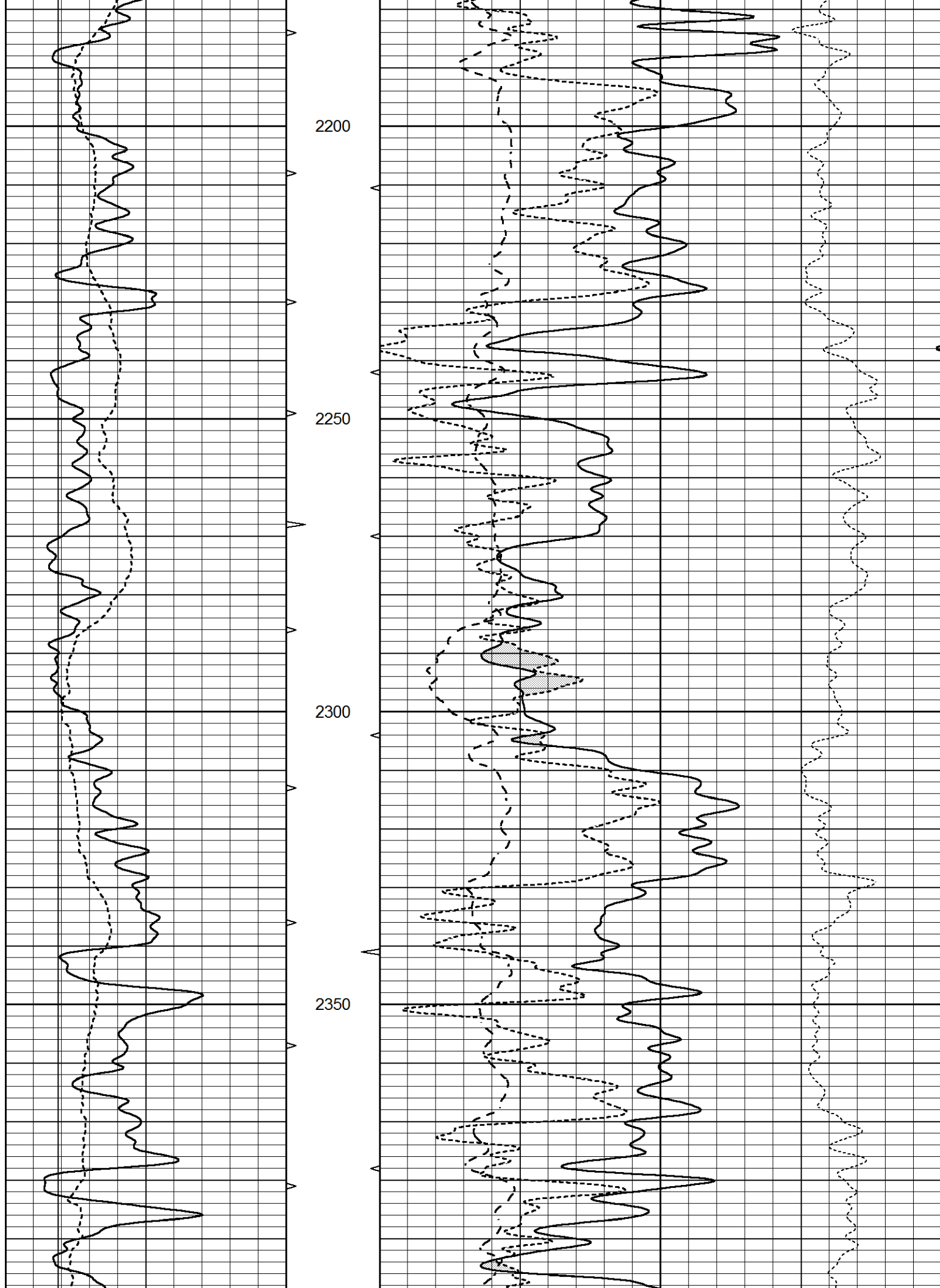


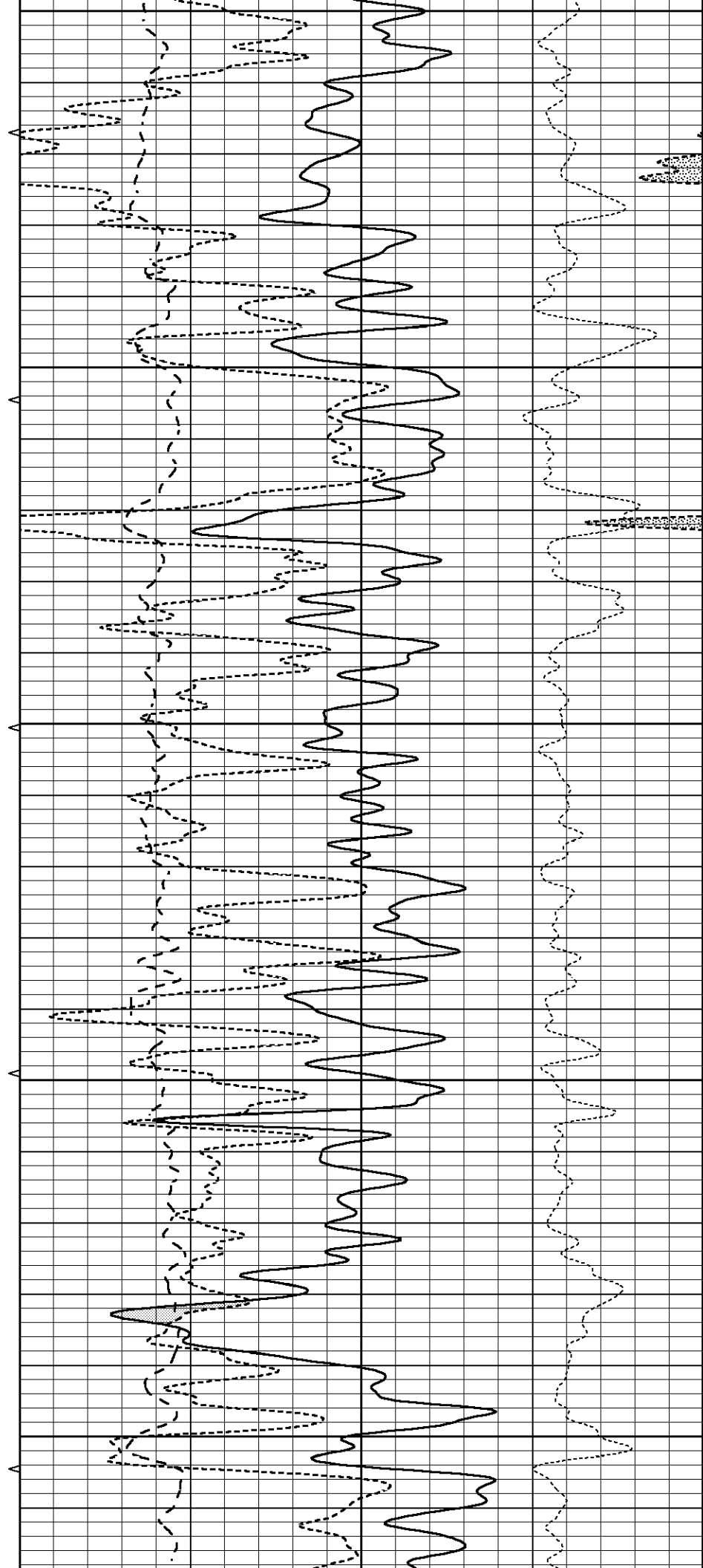
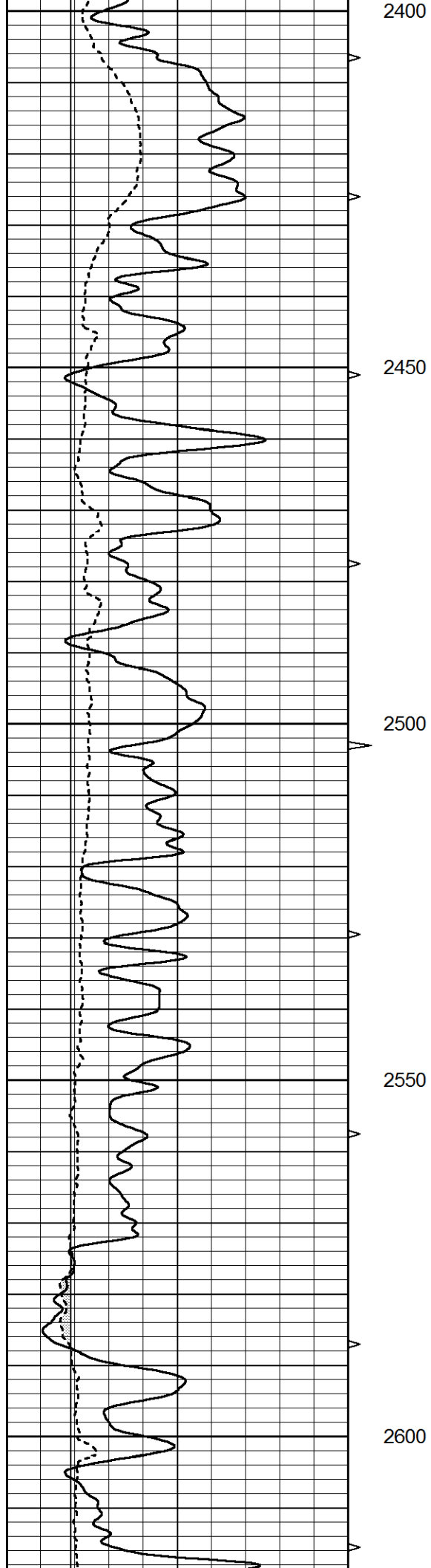
MAIN SECTION

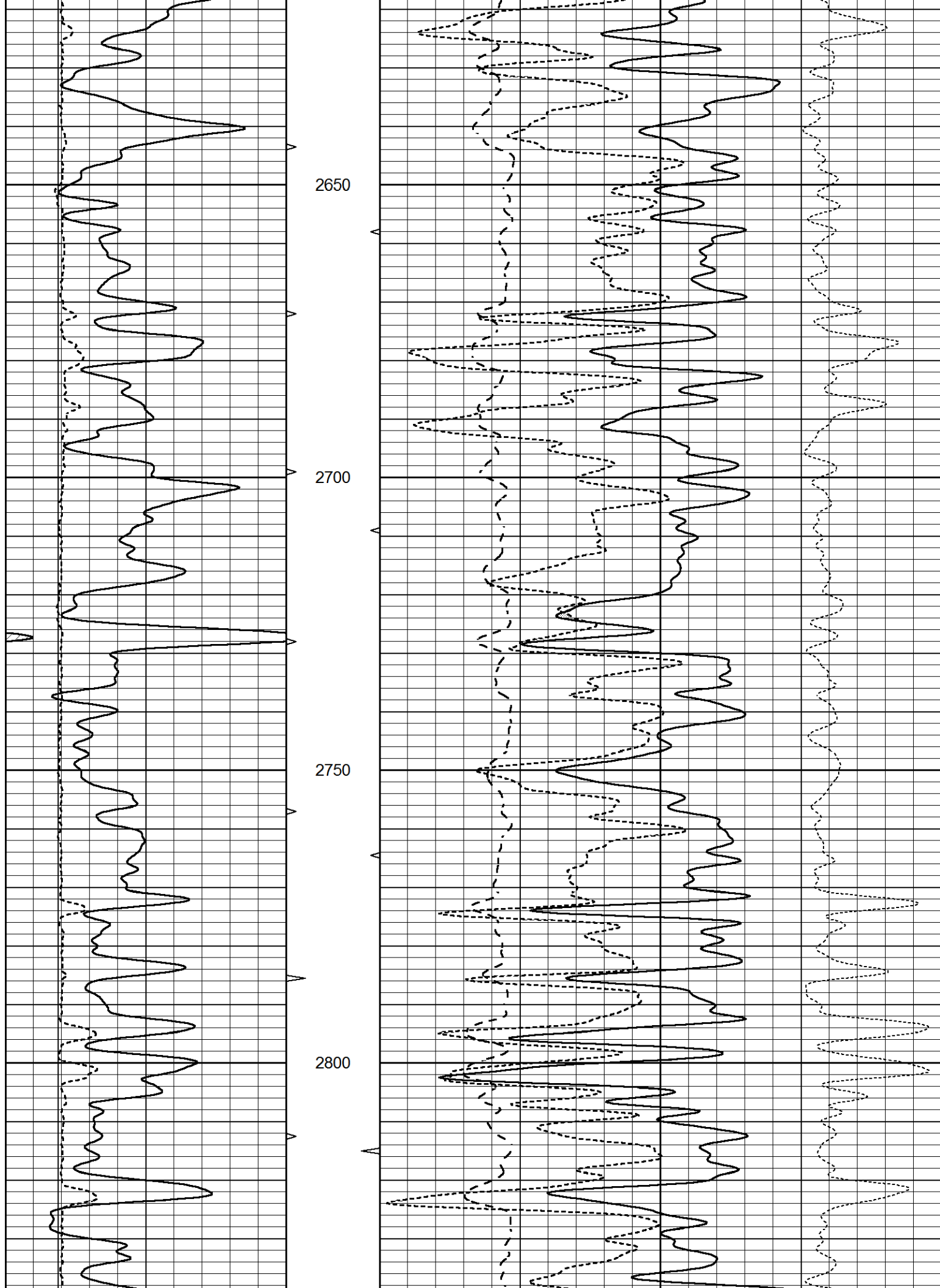
Database File	4746pe.db
Dataset Pathname	pass3.1
Presentation Format	_ldt_neu
Dataset Creation	Thu Jul 23 17:59:50 2020
Charted by	Depth in Feet scaled 1:240

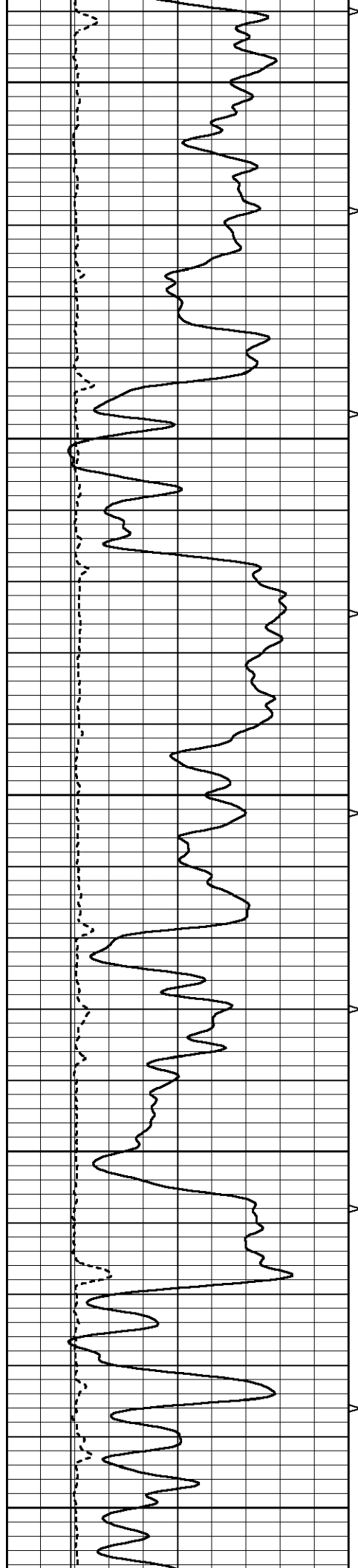
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
			TBHV	0	PE	10 -0.25
			0 (ft3)	10	CORRECTION (g/cc)	0.25











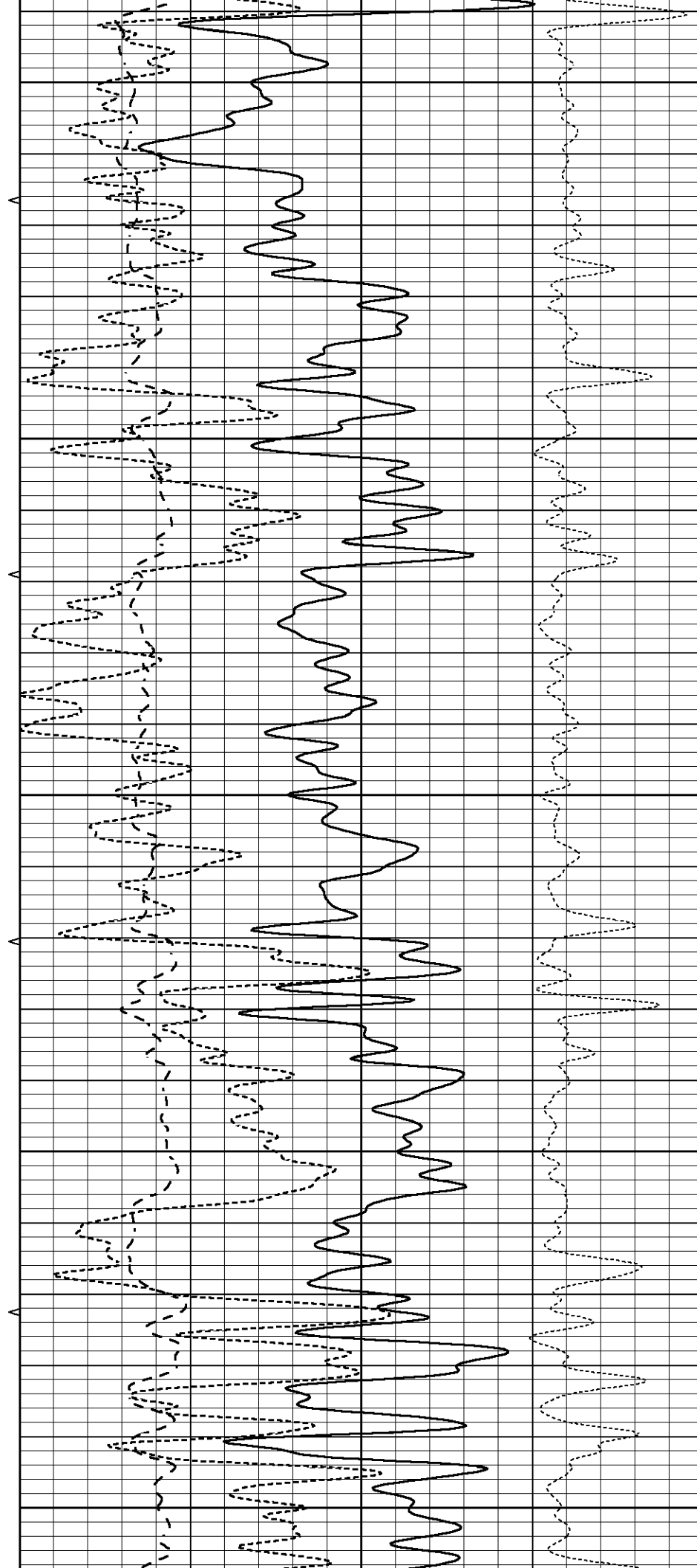
2850

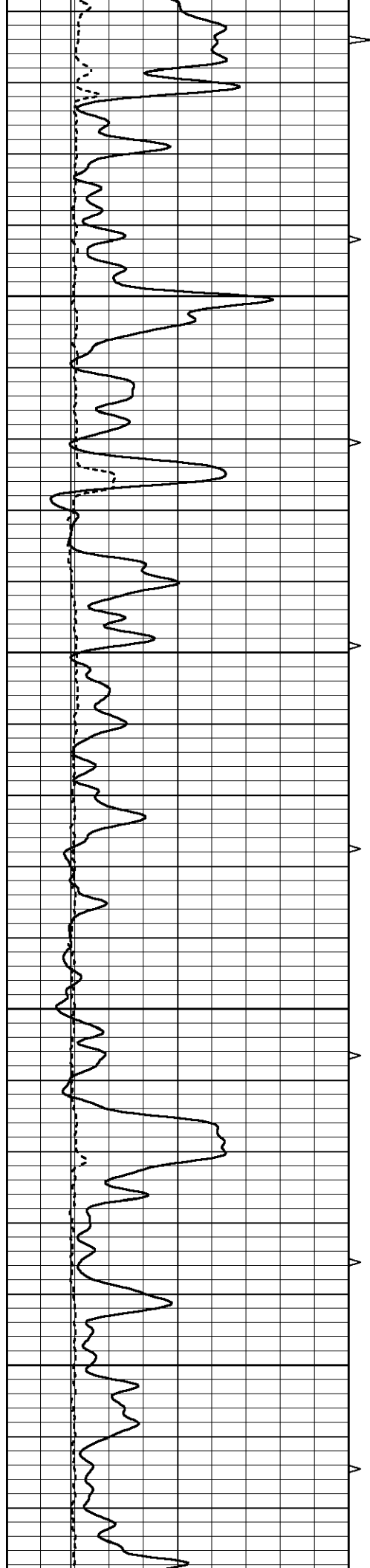
2900

2950

3000

3050



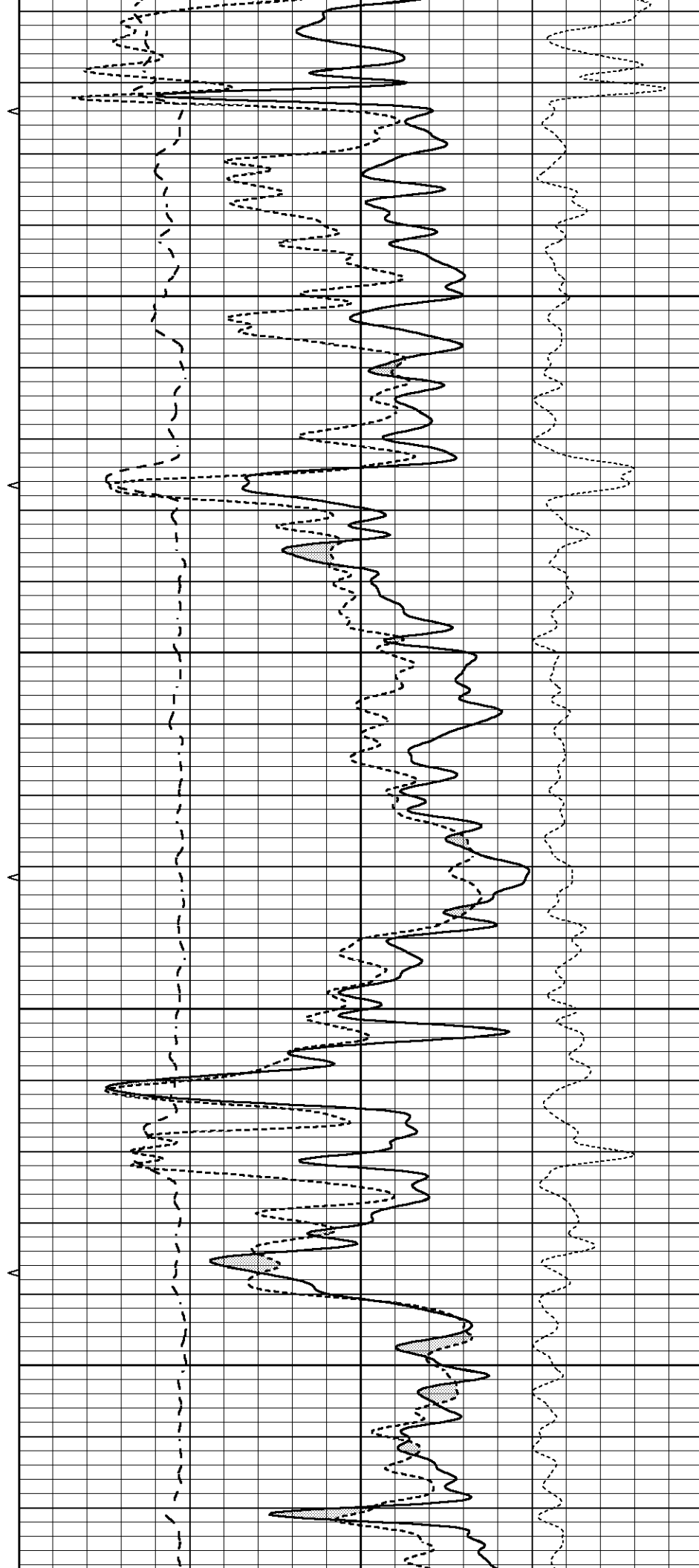


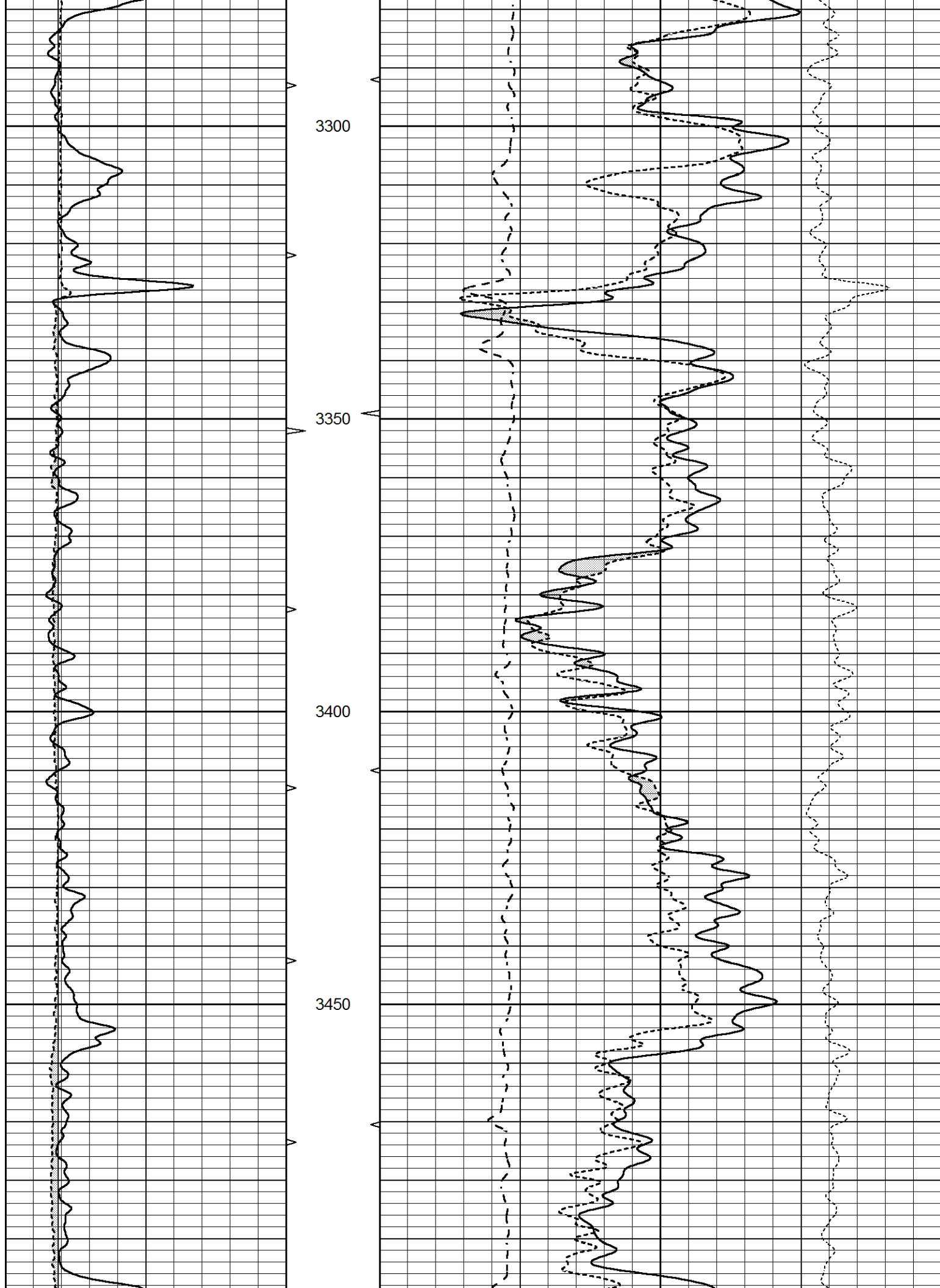
3100

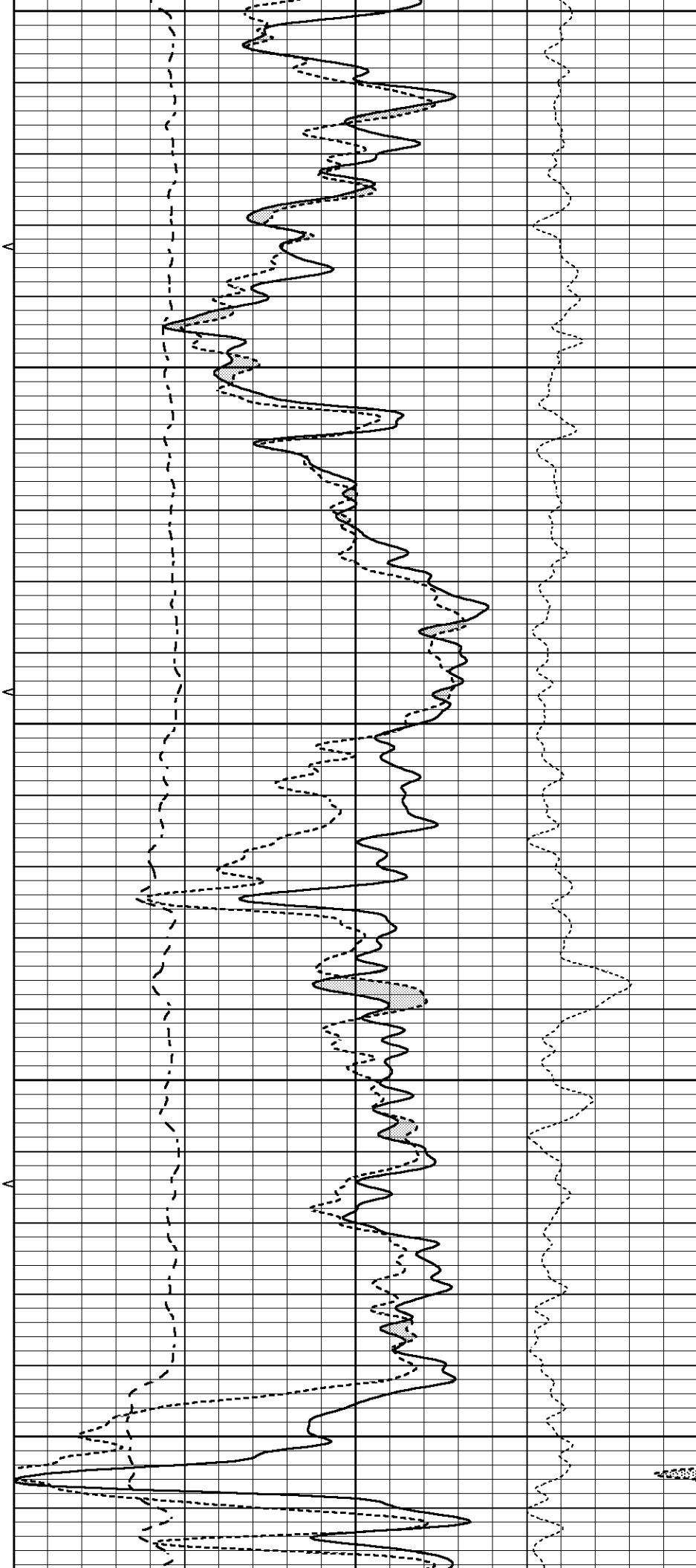
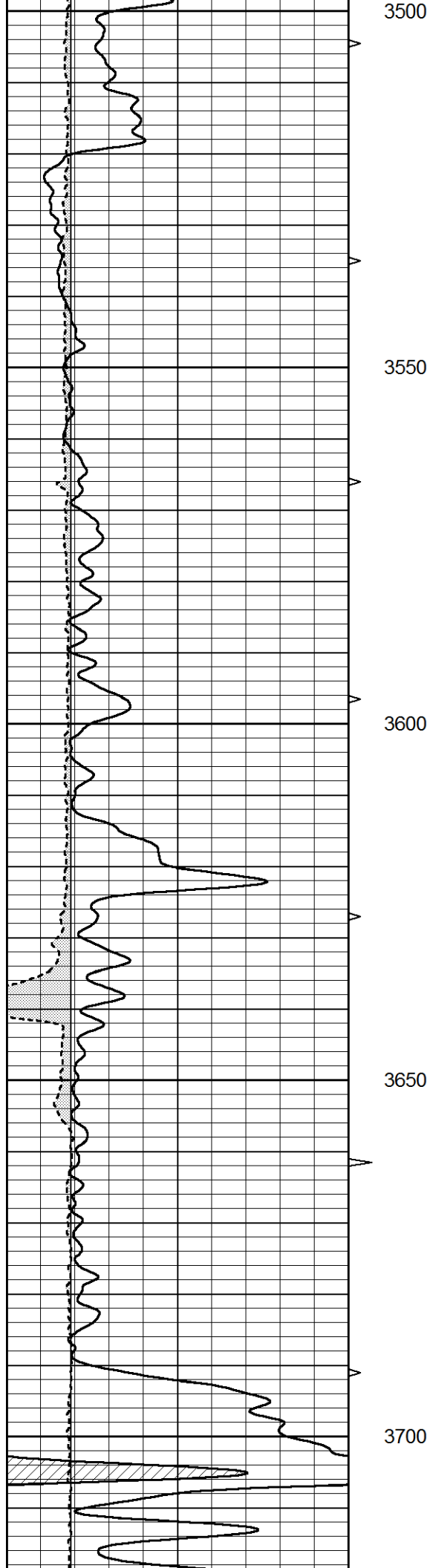
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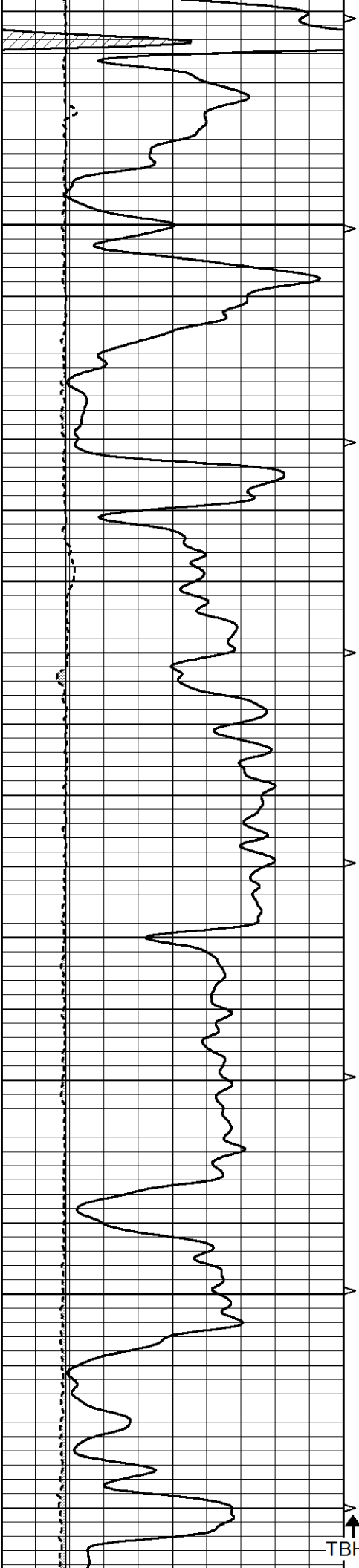
3200

3250









3750

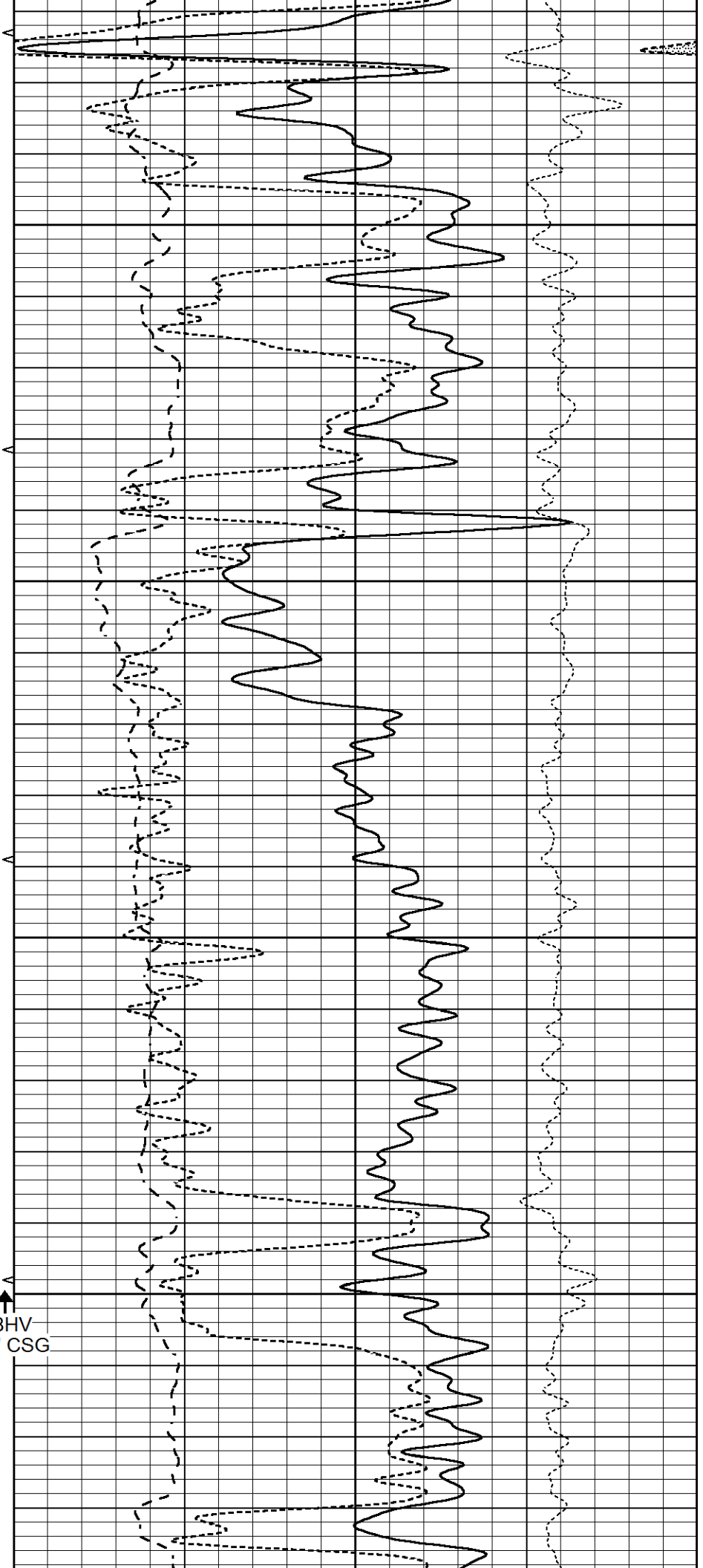
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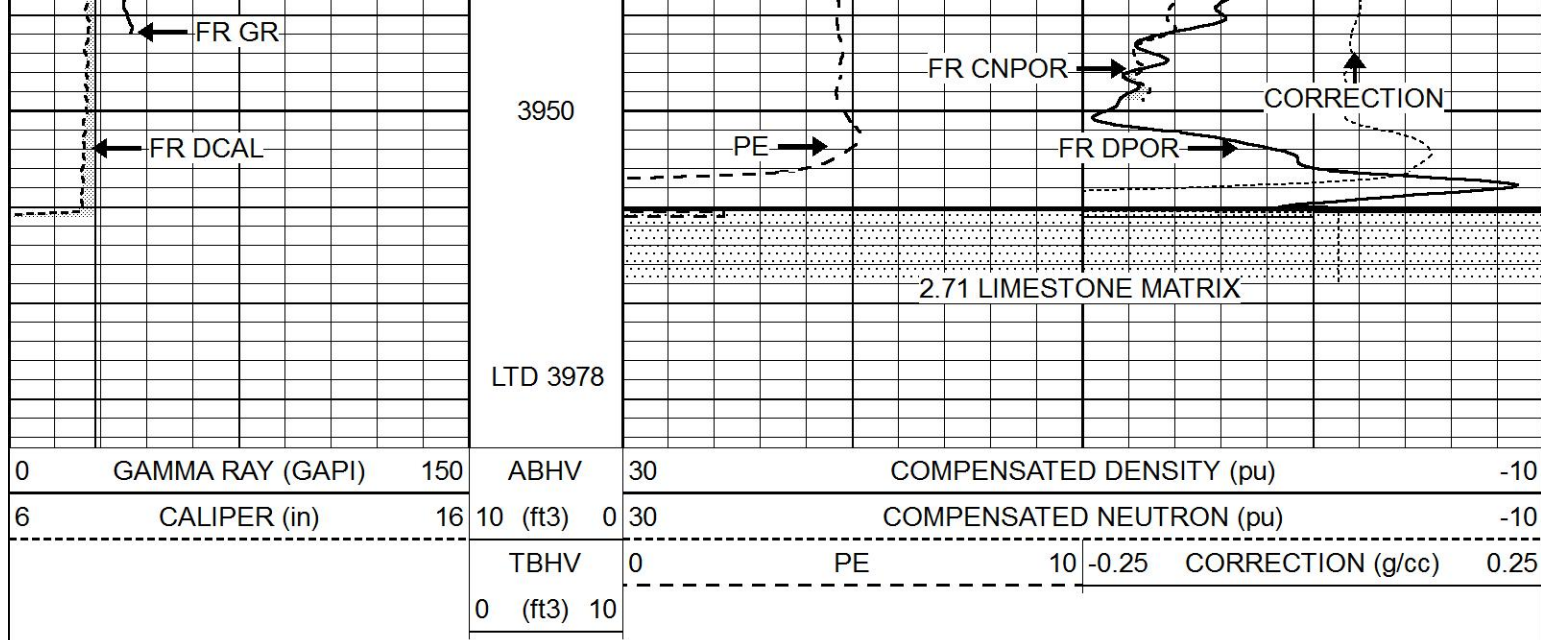
3850

3900

ABHV
5.5" CSG

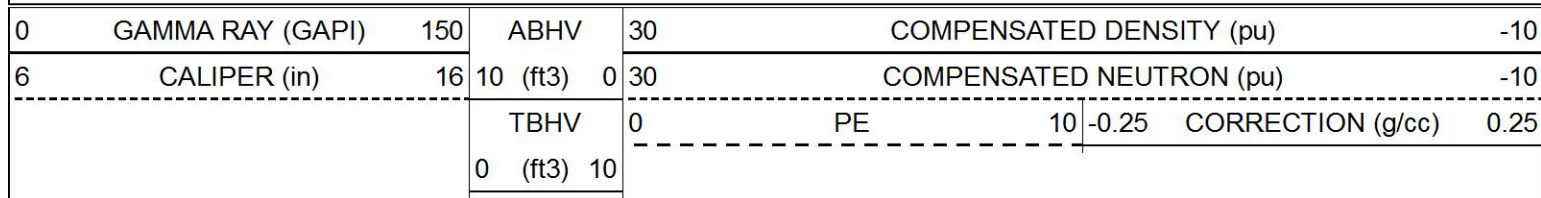
TBHV

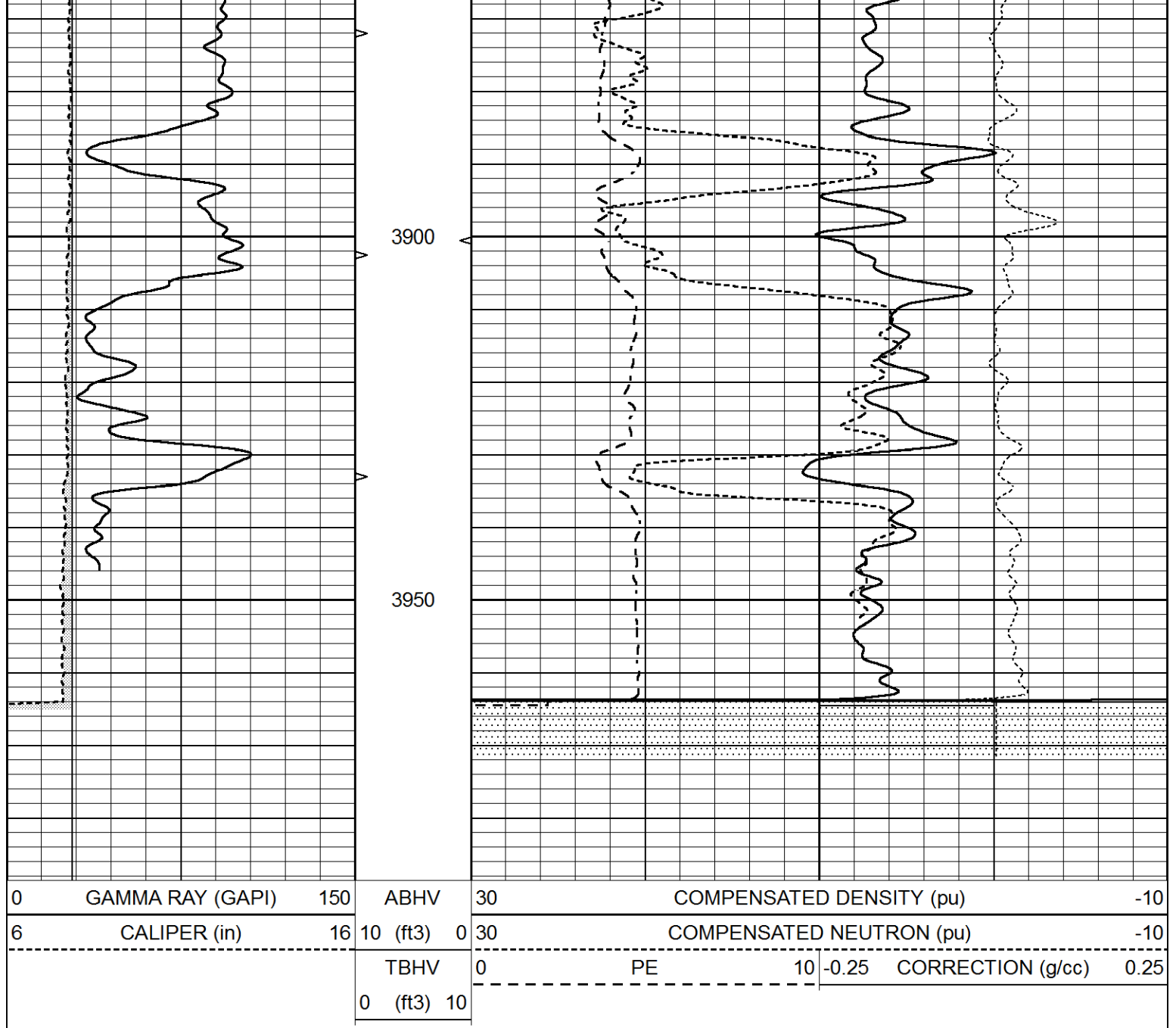




REPEAT SECTION

Database File 4746pe.db
 Dataset Pathname pass2.1
 Presentation Format _ldt_neu
 Dataset Creation Thu Jul 23 17:26:02 2020
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File 4746pe.db
 Dataset Pathname pass2.1
 Dataset Creation Thu Jul 23 17:26:02 2020

Dual Induction Calibration Report

Serial-Model: FW1410-56-Probe
 Surface Cal Performed: Mon Jun 15 22:52:02 2020
 Downhole Cal Performed: Tue Jul 25 12:15:37 2017
 After Survey Verification Performed: Tue Jul 25 12:15:38 2017

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.765	V	1.000	400.000	mmho/m	400.061	-3.201
Medium	-0.056	0.761	V	1.000	464.000	mmho/m	425.187	32.510
Internal:	Zero	Cal		Zero	Cal		m	b

	Deep	0.005	0.624	V	0.000	400.000	mmho/m	645.611	-3.034
	Medium	0.012	0.721	V	0.000	464.000	mmho/m	653.591	-7.532
Downhole Calibration									
Readings				References			Results		
		Zero	Cal		Zero	Cal		m'	b'
	Deep	-0.647	301.329	mmho/m	-0.780	336.378	mmho/m	1.117	-0.058
	Medium	38.256	411.013	mmho/m	39.046	441.706	mmho/m	1.080	-2.280
	LL3		7.471	V		2500.000	Ohm-m		
			0.001	V		20.000	Ohm-m		
			-7.085	V		5000.000	mmho-m		
After Survey Verification									
Readings				Targets			Results		
		Zero	Cal		Zero	Cal		m'	b'
	Deep	0.000	0.000	mmho/m	-0.647	301.329	mmho/m	1.000	0.000
	Medium	0.000	0.000	mmho/m	38.256	411.013	mmho/m	1.000	0.000
	LL3		0.000	Ohm-m		1500.000	Ohm-m		
			0.000	Ohm-m		20.000	Ohm-m		
			0.000	mmho-m		3745.000	mmho-m		
Litho Density Calibration Report									
Serial: 140703									
Model: V4_10P									
Source Number: 74GBq-19									
Master Calibration					Performed: Thu May 21 10:43:15 2020				
		Background		Aluminum		Magnesium			
	Window 1	531.08		5459.71		23833.72	cps		
	Window 2	42.08		1230.06		5814.64	cps		
	Window 4	232.81		1236.34		5296.40	cps		
	Window 5	564.62		8687.43		16546.07	cps		
	Window 6	44.20		1453.03		2846.27	cps		
	Window 8	270.67		2786.28		5209.33	cps		
	Bulk Density	-		2.6020		1.6830	g/cc		
	Pe	-		3.0000		2.5070	b/e		
	LS Alpha:	: -1.8459		SS Alpha:	: -0.7701		LS CPE:	: 1.1427	
	LS Beta:	: 125609.8082		SS Beta:	: 19396.7594		SS CPE:	: 1.5007	
Before Survey Background Counts Verification					Performed: Wed Dec 31 18:00:00 1969				
	Window 1	0.00		cps					
	Window 2	0.00		cps					
	Window 4	0.00		cps					
	Window 5	0.00		cps					
	Window 6	0.00		cps					
	Window 8	0.00		cps					
After Survey Background Counts Verification					Performed: Wed Dec 31 18:00:00 1969				
	Window 1	0.00		cps					
	Window 2	0.00		cps					
	Window 4	0.00		cps					
	Window 5	0.00		cps					
	Window 6	0.00		cps					
	Window 8	0.00		cps					

Lithodensity Caliper Calibration				Performed: Thu May 21 10:43:15 2020	
Results	Readings		References (in)		
	Low	High	Low	High	Gain
	4564.4	7712.2	8.0	14.0	0.0
Before Survey Caliper Verification					Performed:
	Reference		Reading		
Caliper (in)	_____		_____		
After Survey Caliper Verification					Performed:
	Reference		Reading		
Caliper (in)	_____		_____		
Compensated Neutron Calibration Report					
			Serial Number:	080621PMC	
			Tool Model:	NABORS	
PRE-SURVEY VERIFICATION					
	Detector	Readings	Measured	Target	
	Short Space	cps			
	Long Space	cps	pu	pu	
POST-SURVEY VERIFICATION					
	Detector	Readings	Measured	Target	
	Short Space	cps			
	Long Space	cps	pu	pu	
Gamma Ray Calibration Report					
Serial Number:		7			
Tool Model:		Probe1			
Performed:		Tue Dec 10 10:02:55 2019			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.4800	GAPI/cps		