



COMPENSATED DENSITY/NEUTRON LOG

Company	L.D. DRILLING, INC.	Company	L.D. DRILLING, INC.
Well	REGIER #2-7	Well	REGIER #2-7
Field	N/A	Field	N/A
County	RENO	County	RENO
State	KANSAS	State	KANSAS
Location:	API # : 15-155-21746-00-00 1650' FSL & 3573' FEL	Other Services DIL	
Permanent Datum	SEC 7 TWP 22S RGE 4W	Elevation	
Log Measured From	GROUND LEVEL	K.B. 1511'	
Drilling Measured From	KELLY BUSHING 5' A.G.L. KELLY BUSHING	D.F. 1509'	
		G.L. 1506'	
Date	09/10/17		
Run Number	ONE		
Depth Driller	4040		
Depth Logger	4043		
Bottom Logged Interval	4019		
Top Log Interval	2300		
Casing Driller	13 3/8" @ 136		
Casing Logger	136		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9100 PPM	
Density / Viscosity	9.4/54		
pH / Fluid Loss	9.0/12.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.70@74		
Rmt @ Meas. Temp	.53@74		
Rmc @ Meas. Temp	.84@74		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.44@116		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	///		
Maximum Recorded Temperature	116F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	ARDEN RATZLAFF		

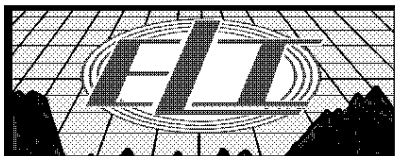
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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, HAYS, KS. (785) 628-6395

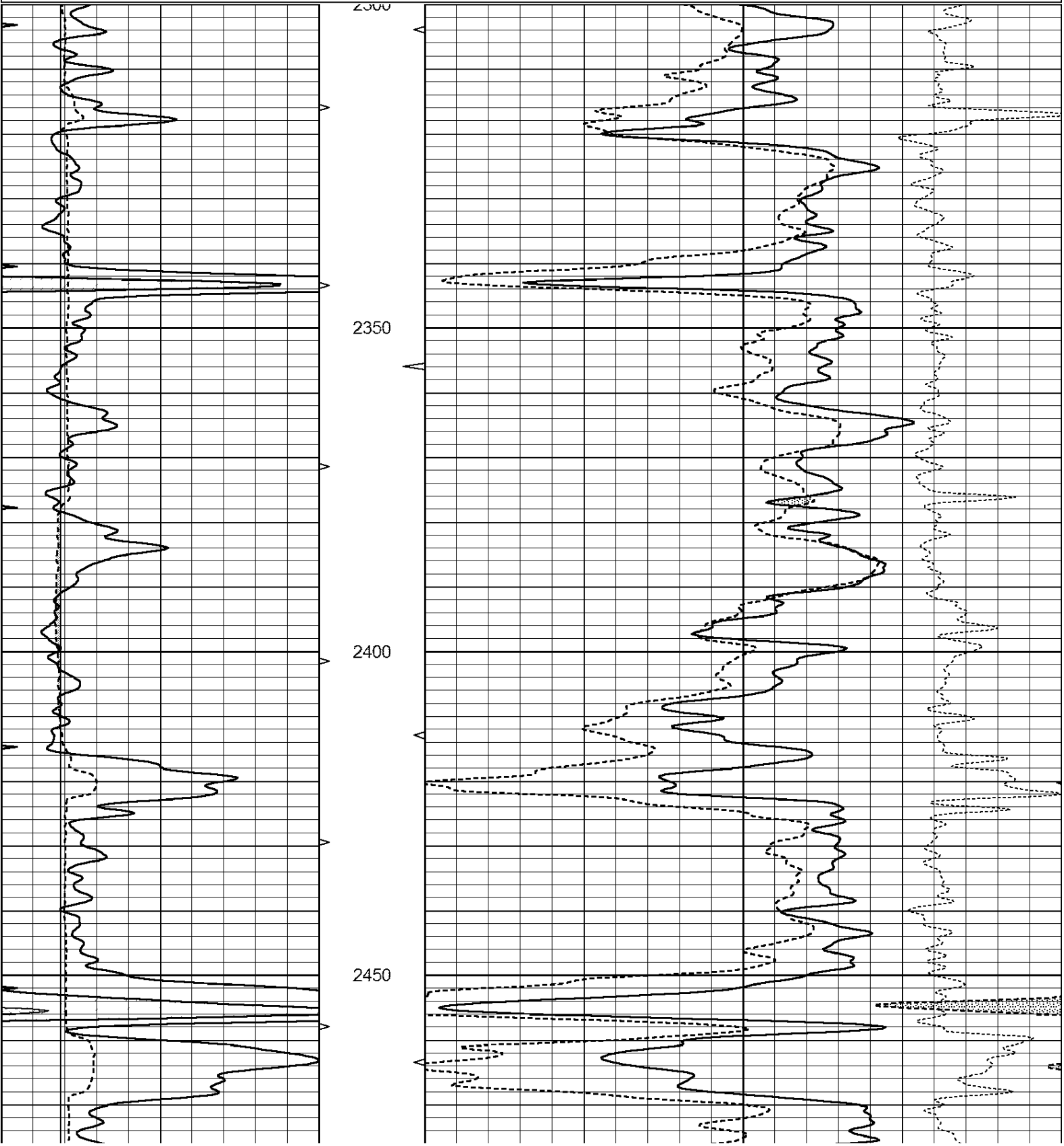
DIRECTIONS
BUHLER 82 RD. 1 1/2 WEST, NORTH INTO.

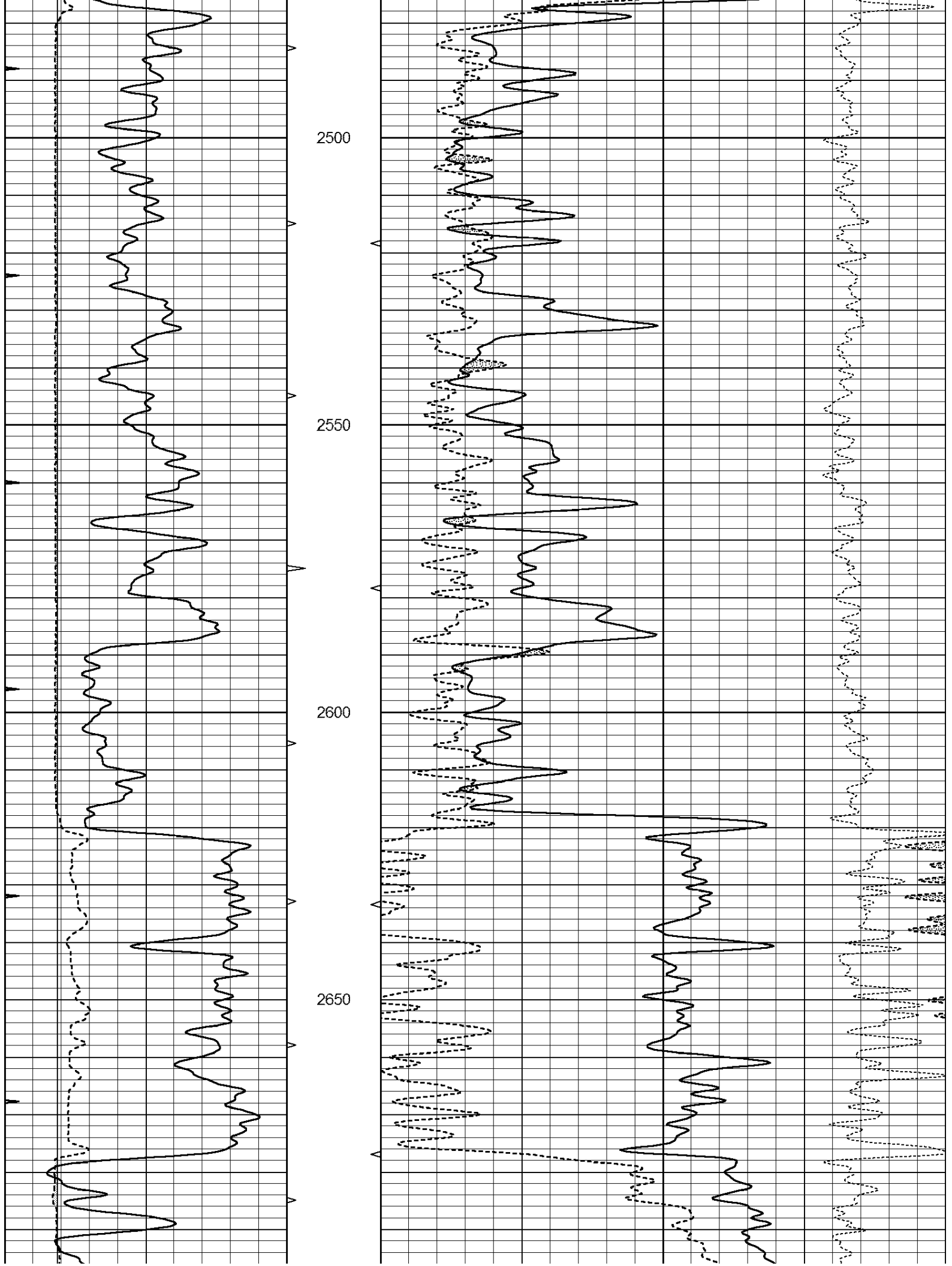


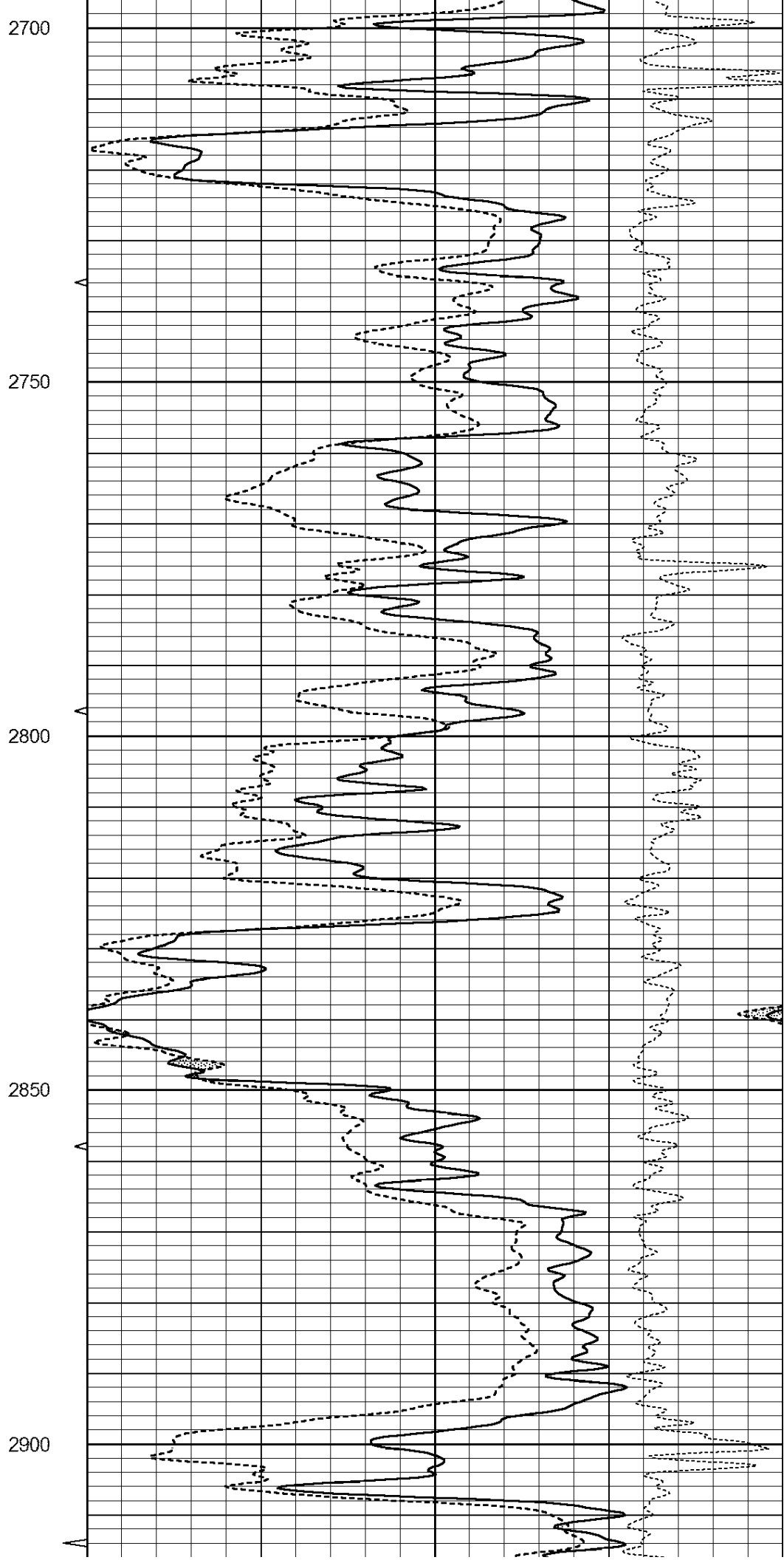
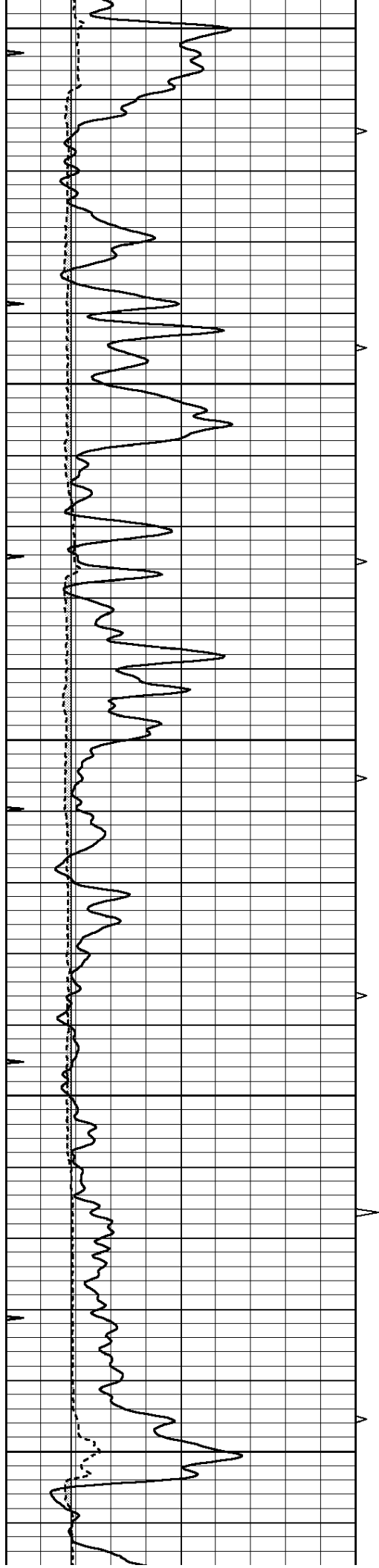
MAIN PASS

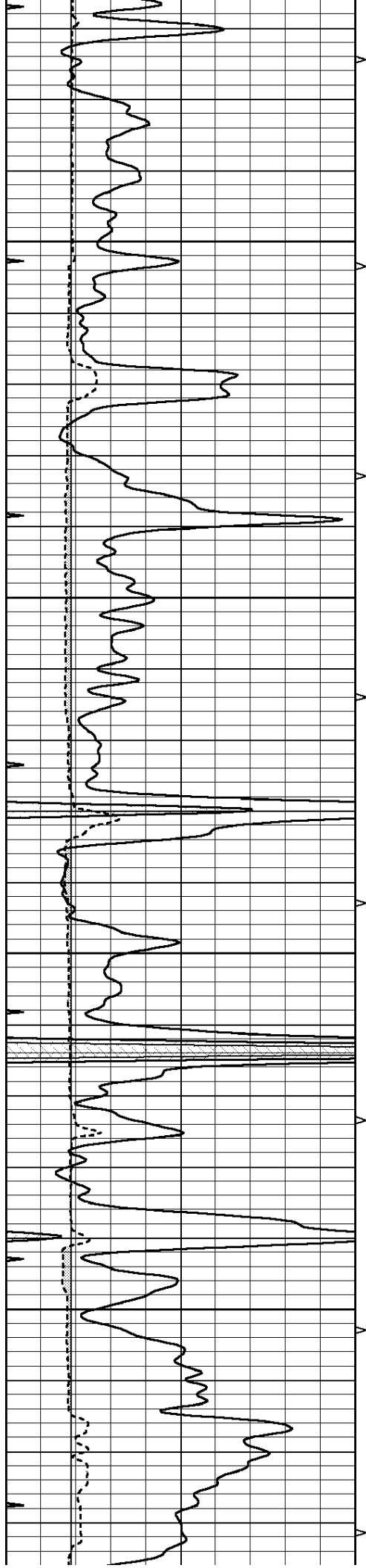
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Dataset Pathname: pass3POR
Presentation Format: den_neu
Dataset Creation: Sun Sep 10 12:58:28 2017 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10		







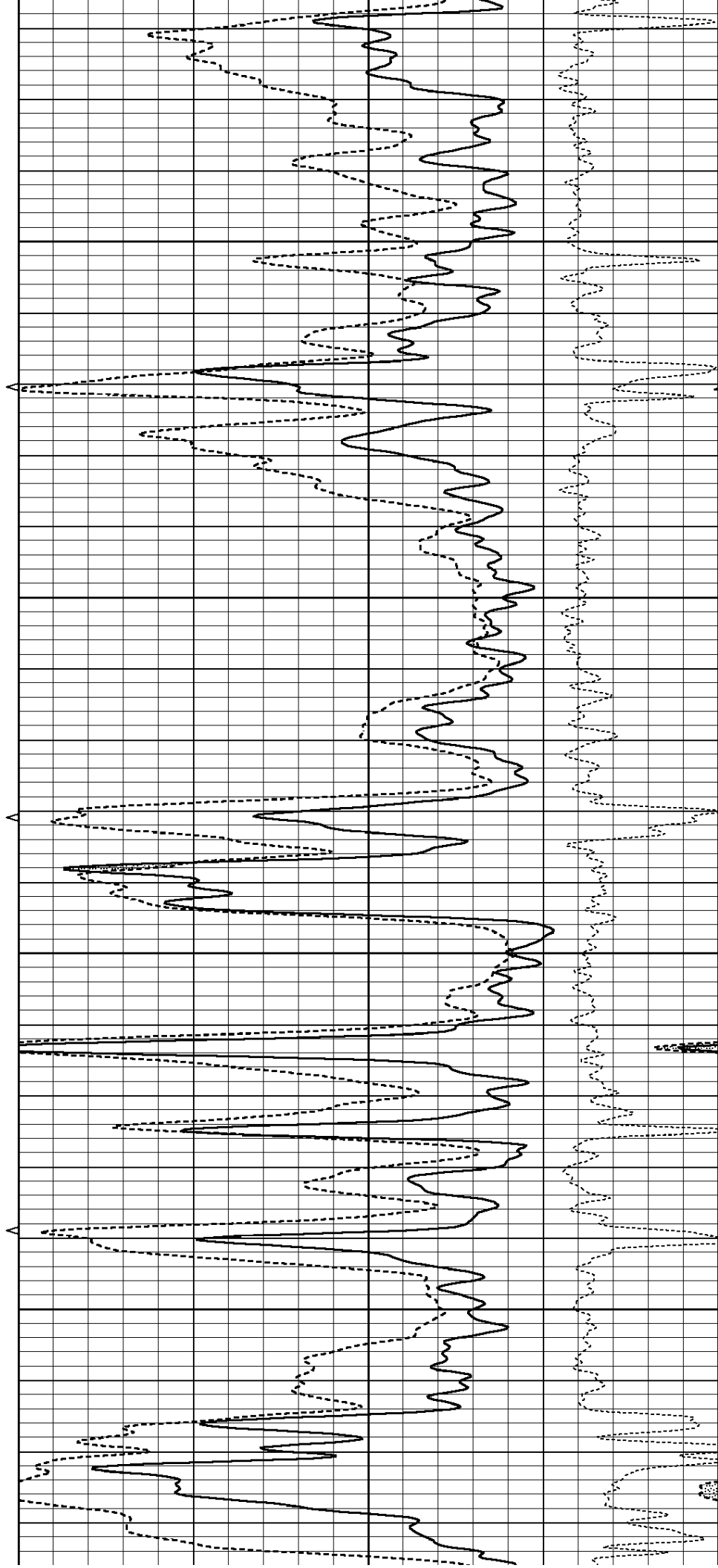


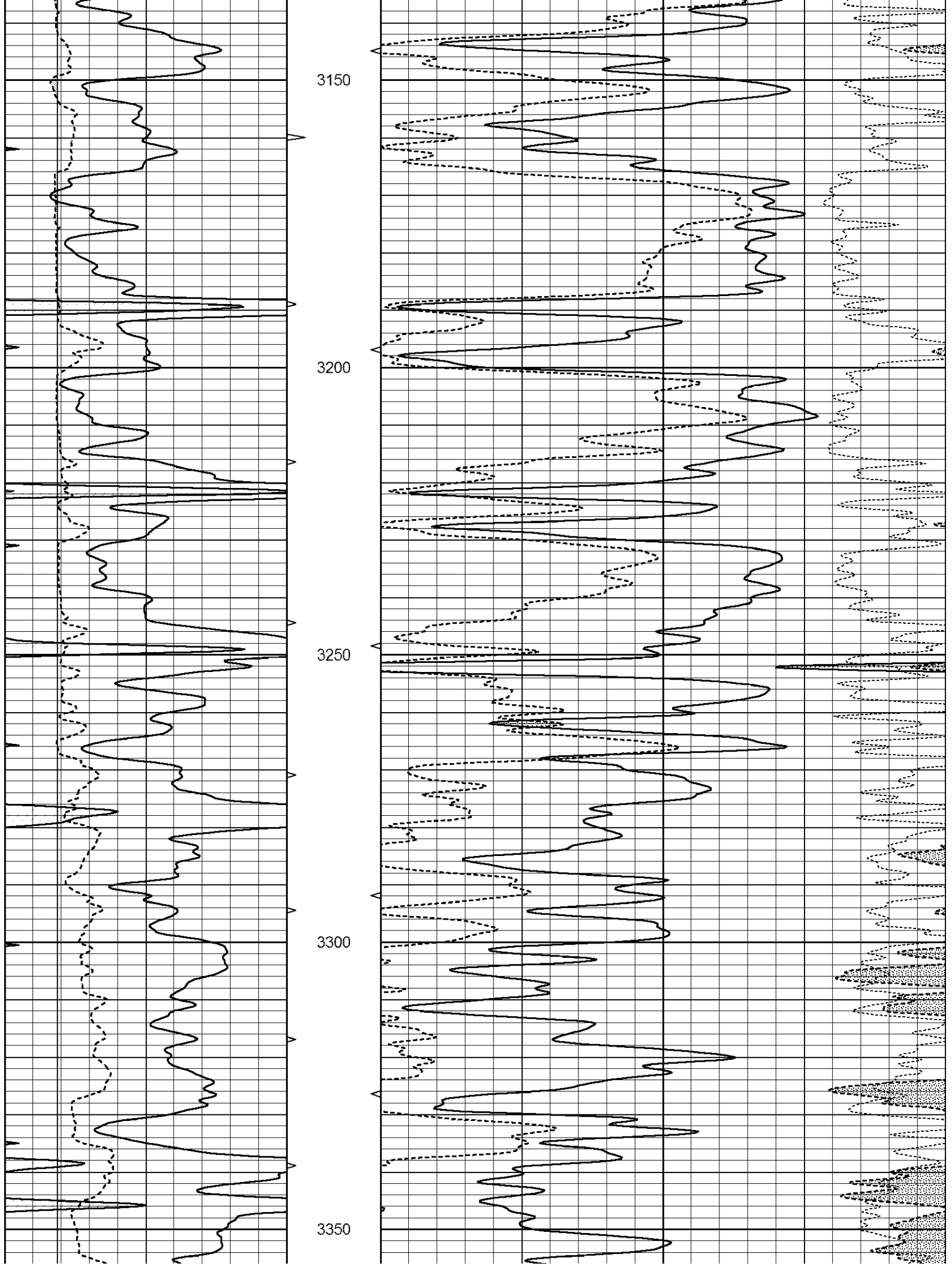
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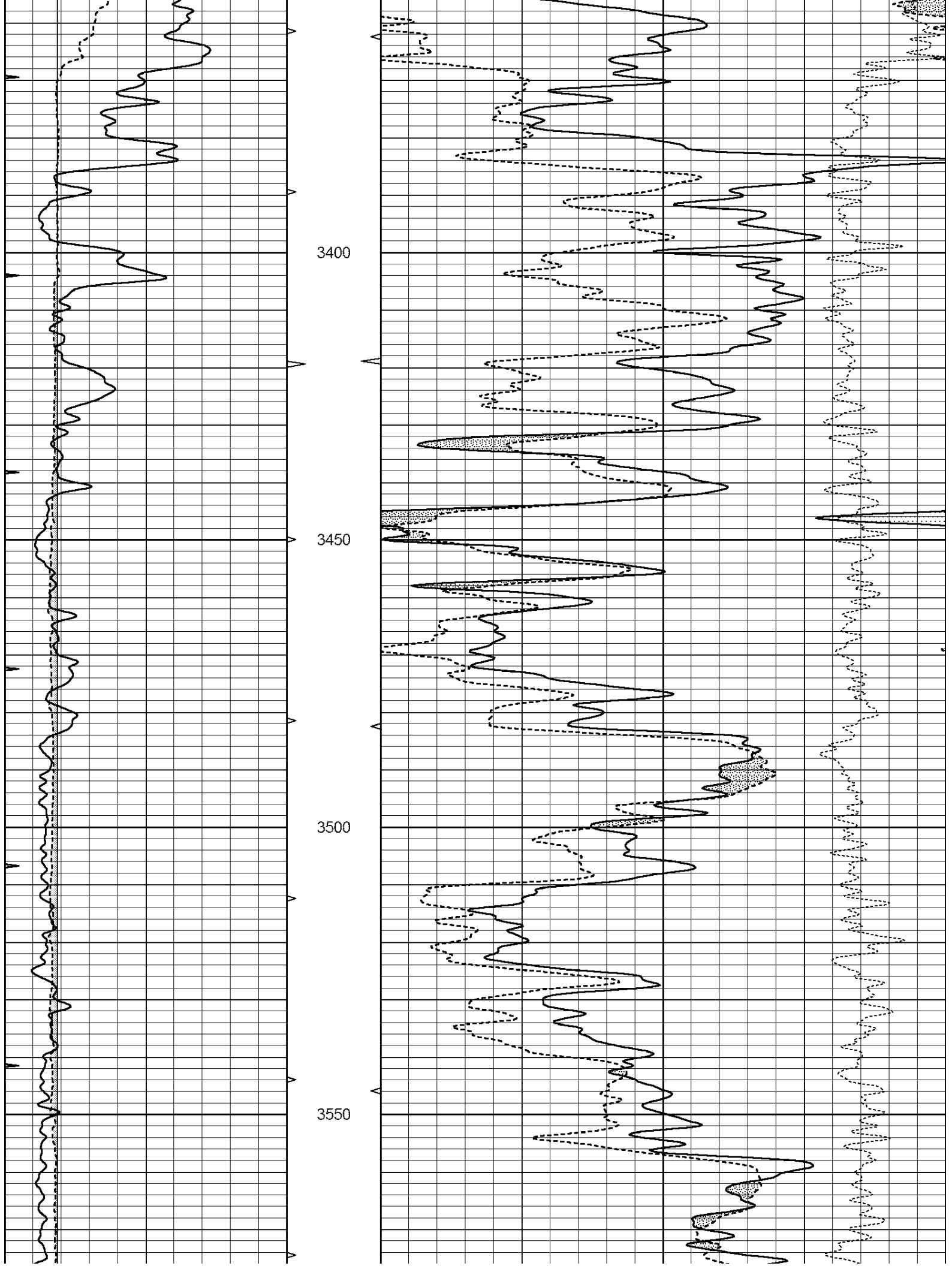
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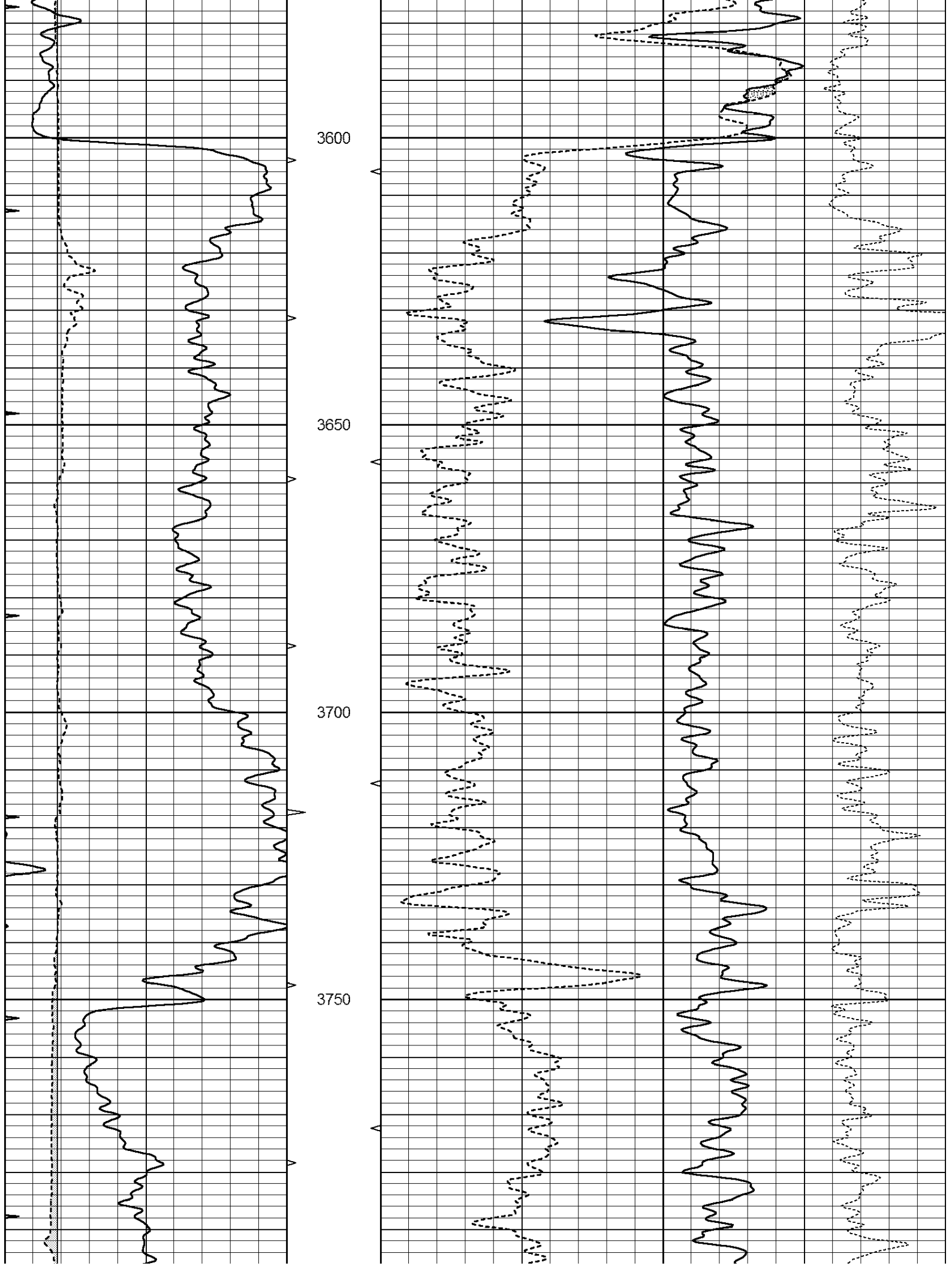
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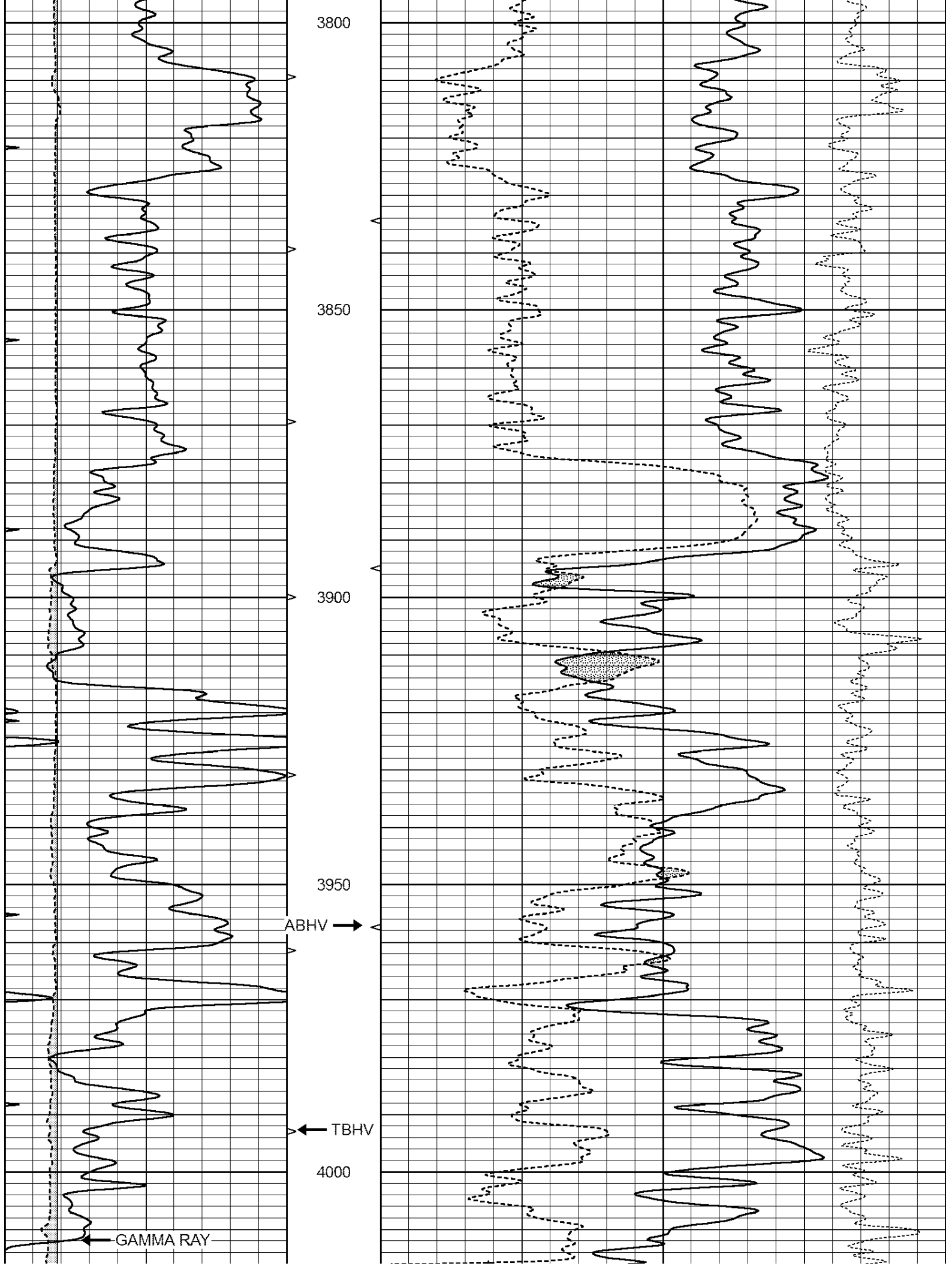
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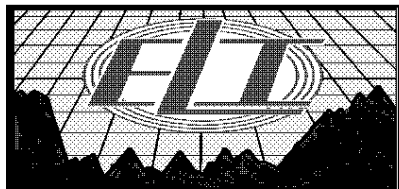
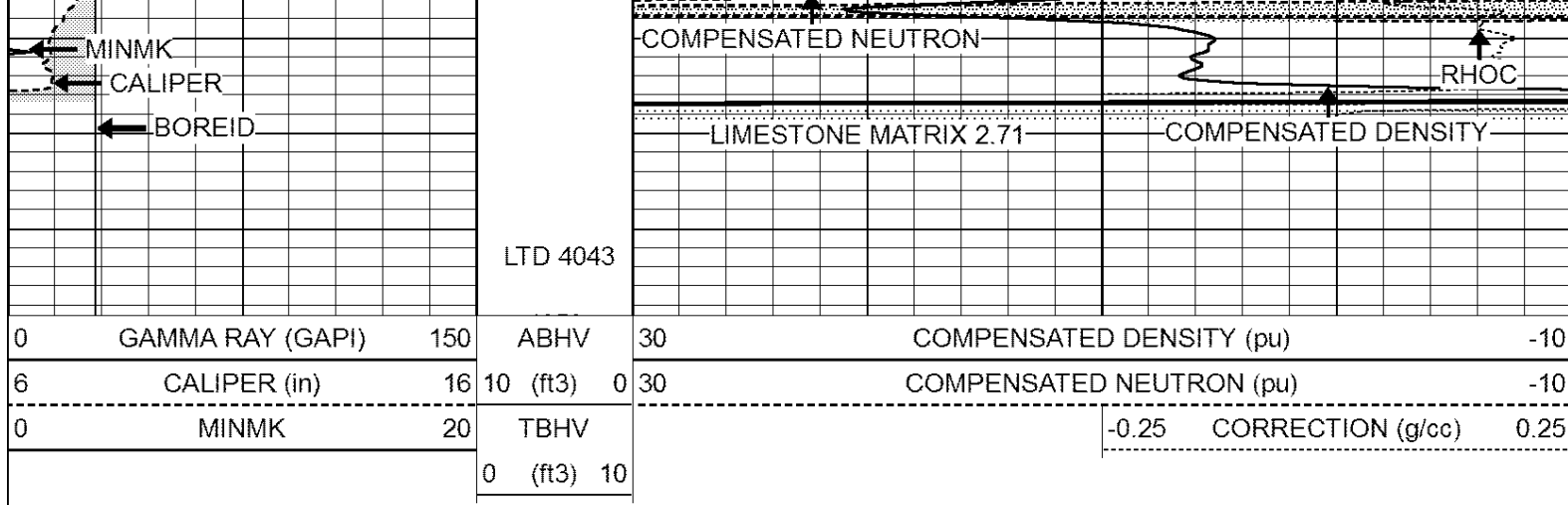








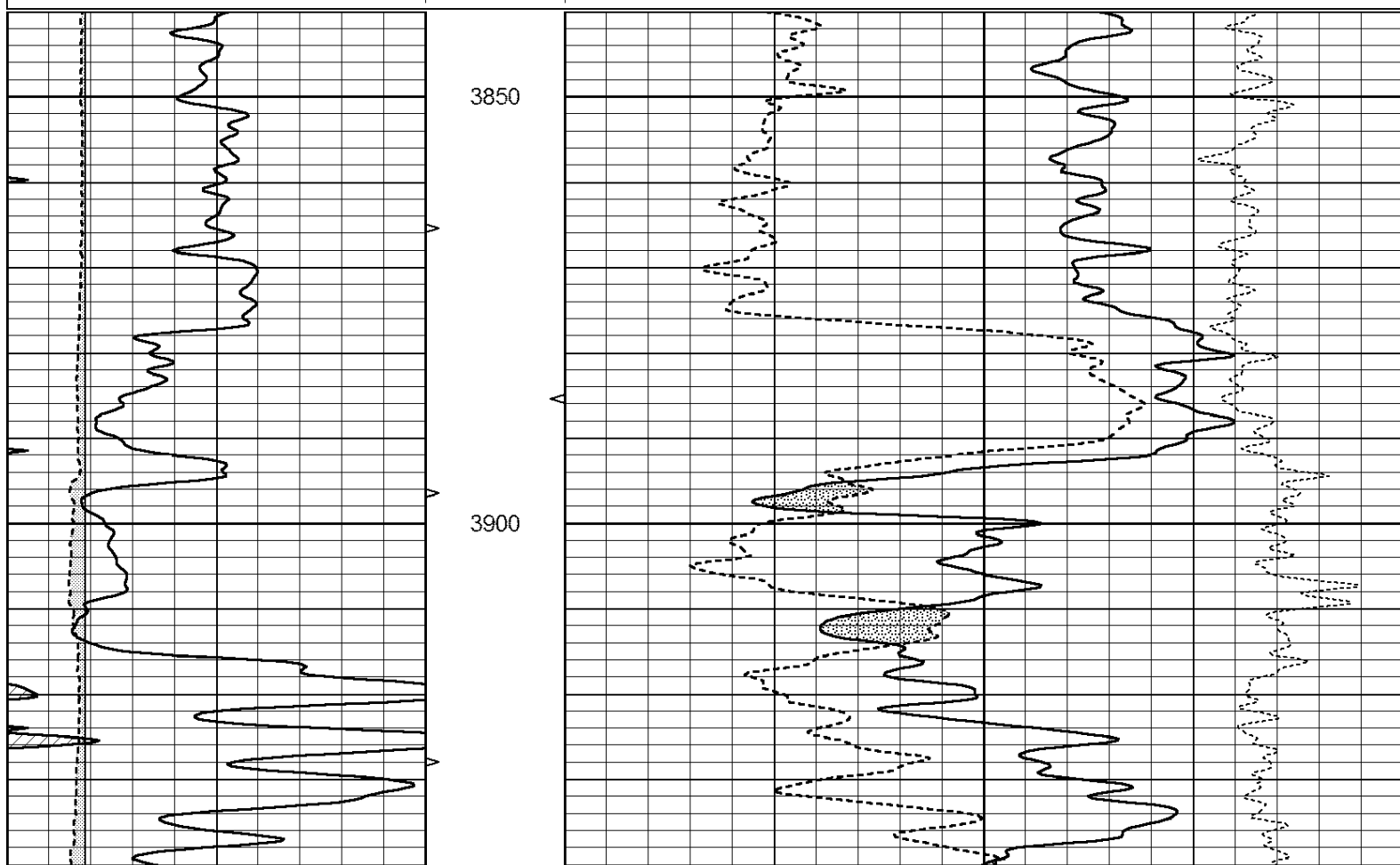


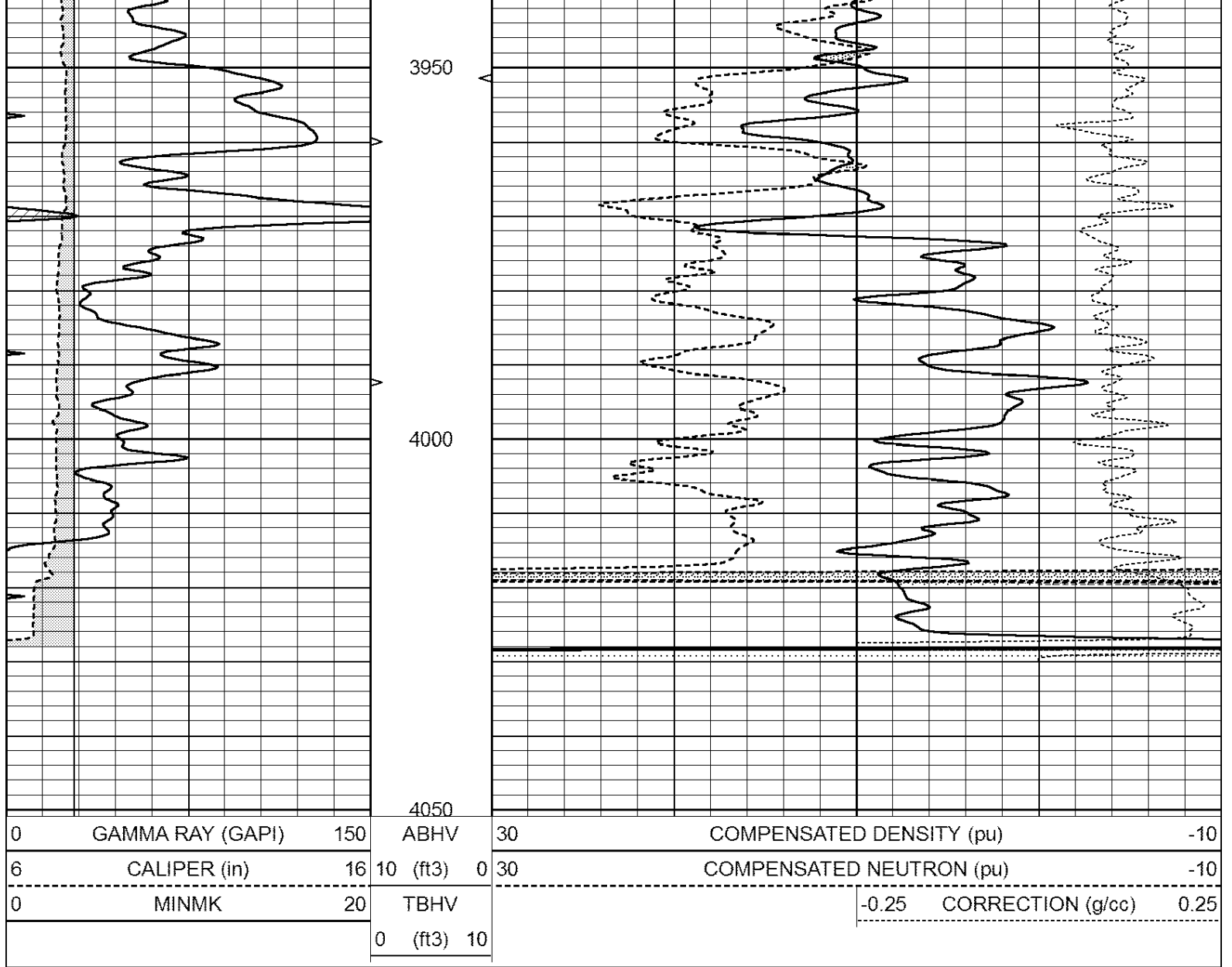


REPEAT SECTION

Database File: 1819ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Sun Sep 10 12:33:37 2017 by Calc Open-Cased 090629
 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 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





Calibration Report

Database File: 1819ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Sun Sep 10 12:33:37 2017 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
Surface Cal Performed: Mon Aug 21 11:58:18 2017
Downhole Cal Performed: Mon Aug 21 11:58:21 2017
After Survey Verification Performed: Mon Aug 21 11:58:23 2017

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings			References				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification								
Readings			Targets				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Compensated Density Calibration Report								
Serial-Model:					GEAR5-GEARHART			
Source / Verifier:					/			
Master Calibration Performed:					Wed Aug 16 15:20:33 2017			
Before Survey Verification Performed:								
After Survey Verification Performed:								

Master Calibration						
	Density			Far Detector		Near Detector
Magnesium	1.710	g/cc		798.83		465.02 cps
Aluminum	2.570	g/cc		178.16		318.19 cps
Spine Angle = 75.81				Density/Spine Ratio = 0.556		
	Size			Reading		
Small Ring	7.15	in		1.47	V	
Large Ring	14.00	in		3.01	V	

Before Survey Verification						
	Target			Measured		
			g/cc			g/cc
			g/cc			g/cc
			g/cc			g/cc

After Survey Verification						
	Target			Measured		
			g/cc			g/cc
			g/cc			g/cc
			g/cc			g/cc

Compensated Neutron Calibration Report						
Serial Number:				6I		
Tool Model:				G		

CALIBRATION						
Detector	Readings			Target		Normalization
Short Space	1.00	cps		1.00	cps	1.0000
Long Space	1.00	cps		1.00	cps	1.0000

PRE-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	
POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu
Gamma Ray Calibration Report				
Serial Number:		GR6		
Tool Model:		OPEN		
Performed:		Mon Aug 21 11:59:01 2017		
Calibrator Value:		150.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		276.0	cps	
Sensitivity:		0.5500	GAPI/cps	