



**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company NEC OPERATING - KANSAS, LLC.
Well KING OF WHALES #1
Field TROUSDALE NORTH
County EDWARDS
State KANSAS

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Location: API #: 15-047-21672-0000
1975' FSL & 650' FEL
NW - SE - NE - SE
SEC 8 TWP 26S RGE 16W
Permanent Datum GROUND LEVEL Elevation 2086
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DILMEL
Elevation K.B. 2094
D.F. 2092
G.L. 2086

Date	7/16/23
Run Number	ONE
Depth Driller	4900
Depth Logger	4896
Bottom Logged Interval	4872
Top Log Interval	3300
Casing Driller	8 5/8"@350'
Casing Logger	350
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/51
pH / Fluid Loss	9.5/7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.700@92F
Rmf @ Meas. Temp	.525@92F
Rmc @ Meas. Temp	.840@92F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.519@124F
Time Circulation Stopped	2.5 HOURS
Time Logger on Bottom	12:00 P.M.
Maximum Recorded Temperature	124F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	KEATON JONES

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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.

15-047-21672-0000 Comments

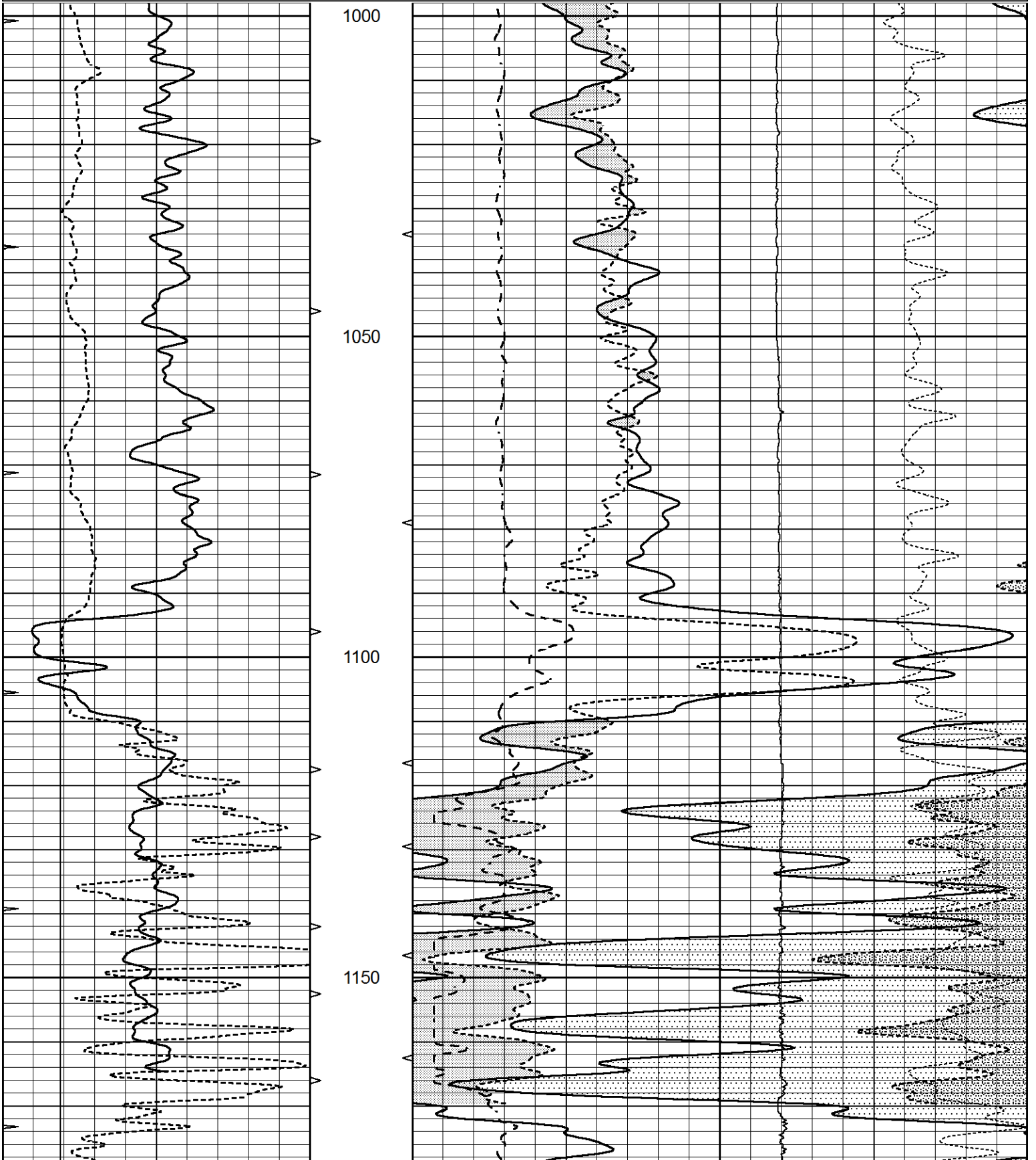
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
TROUSDALE, KS., 1 1/2 S., W. INTO

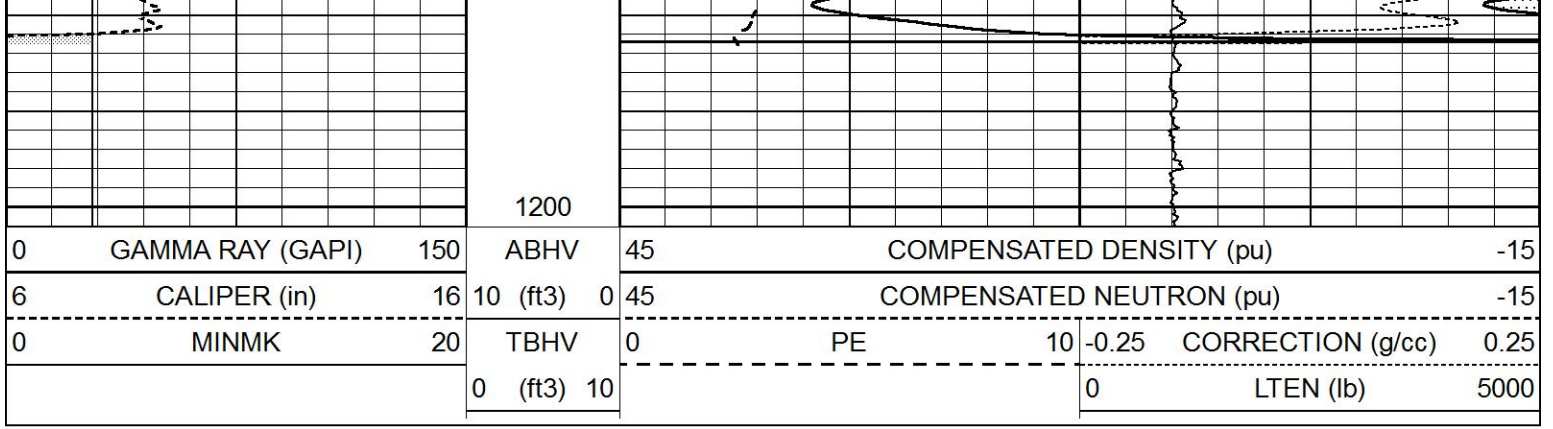


ANHYDRITE REPEAT

Database File 7305pe.db
 Dataset Pathname pass2.1A
 Presentation Format _ldt_neu
 Dataset Creation Sun Jul 16 13:12:16 2023
 Charted by Depth in Feet scaled 1:240

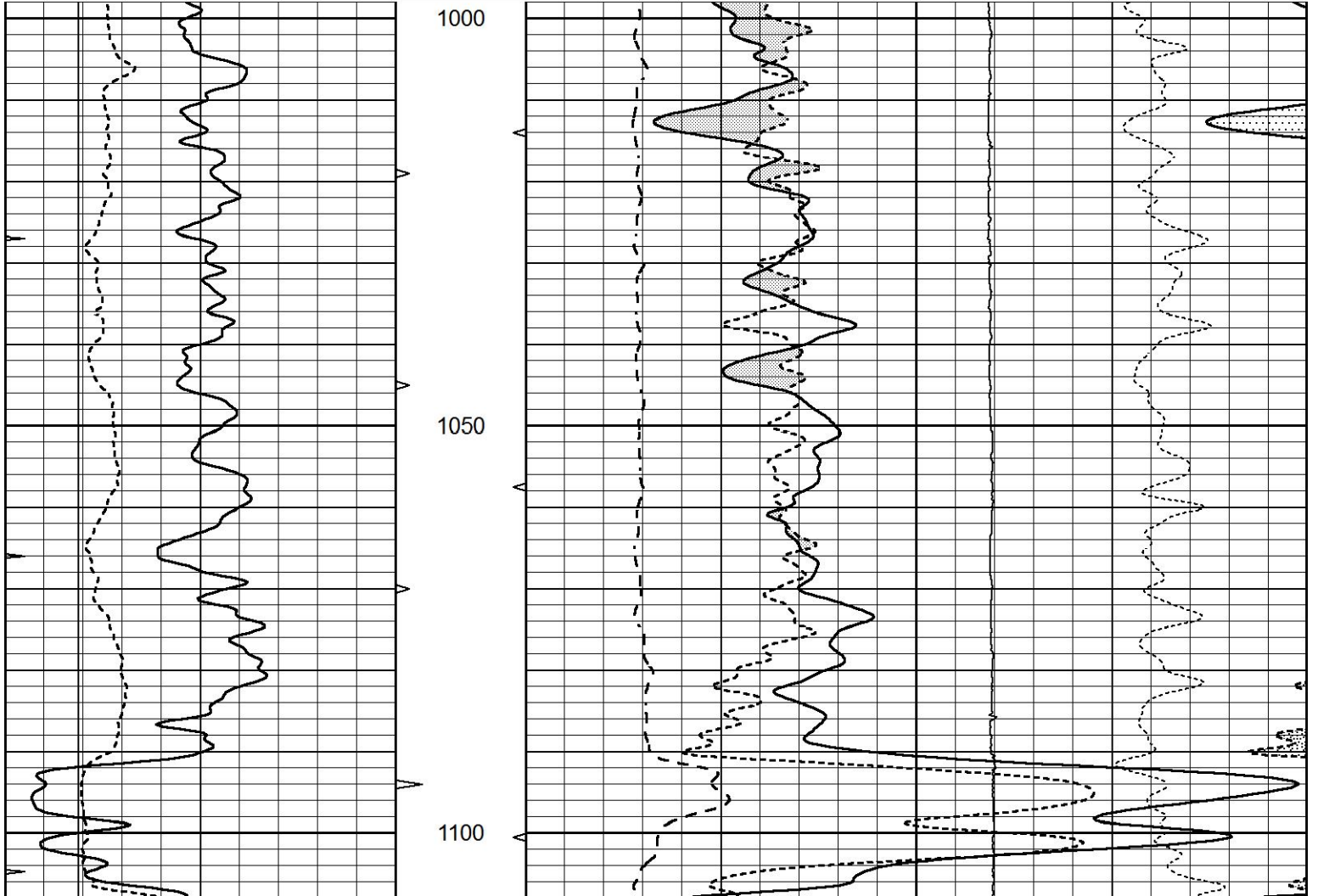
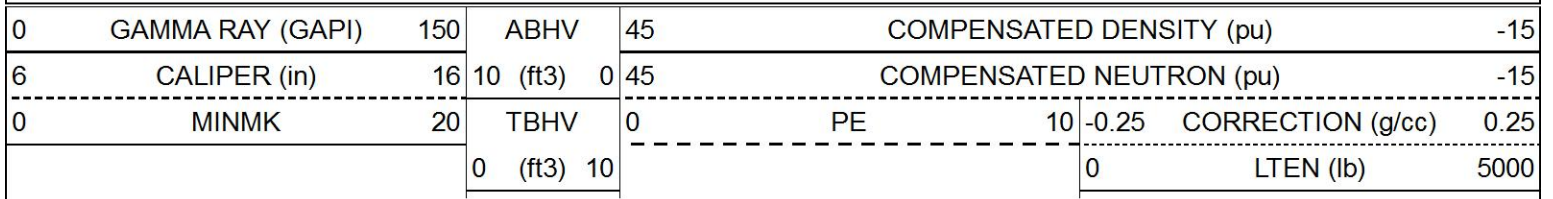
0	GAMMA RAY (GAPI)	150	ABHV	45	COMPENSATED DENSITY (pu)		-15
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-15
0	MINMK	20	TBHV	0	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		0	LTEN (lb) 5000

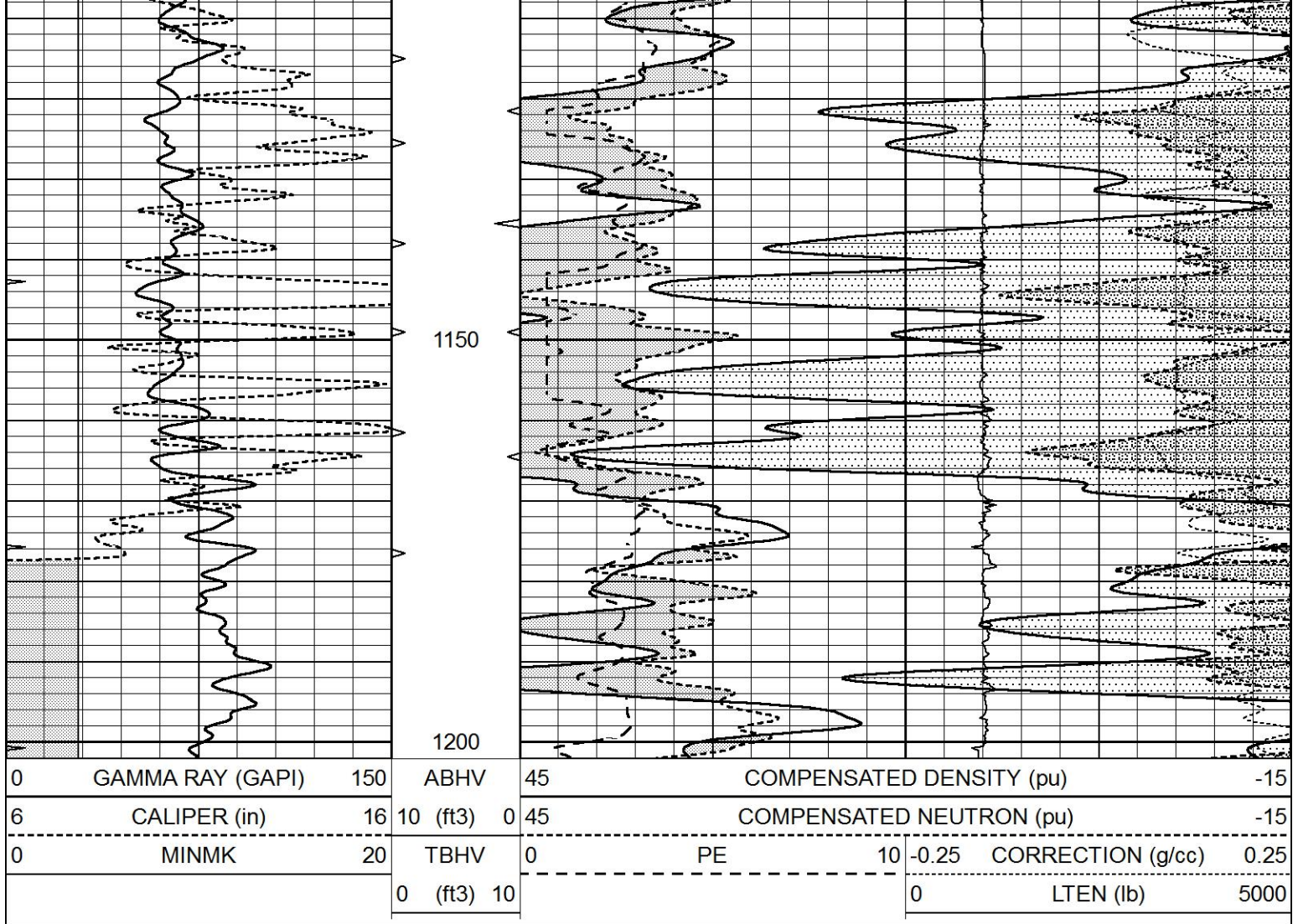




ANHYDRITE

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 Presentation Format _ldt_neu
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 Charted by Depth in Feet scaled 1:240

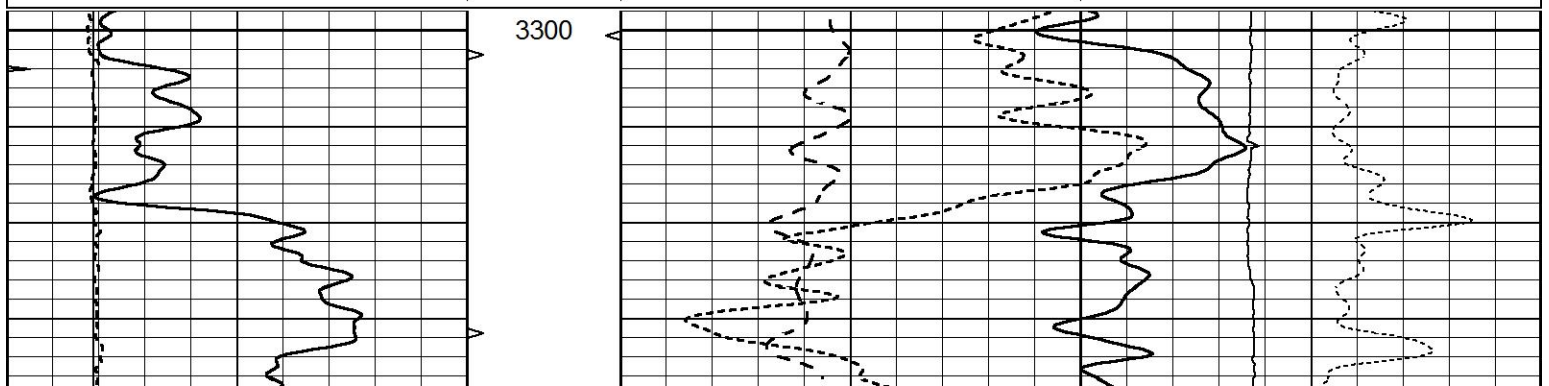


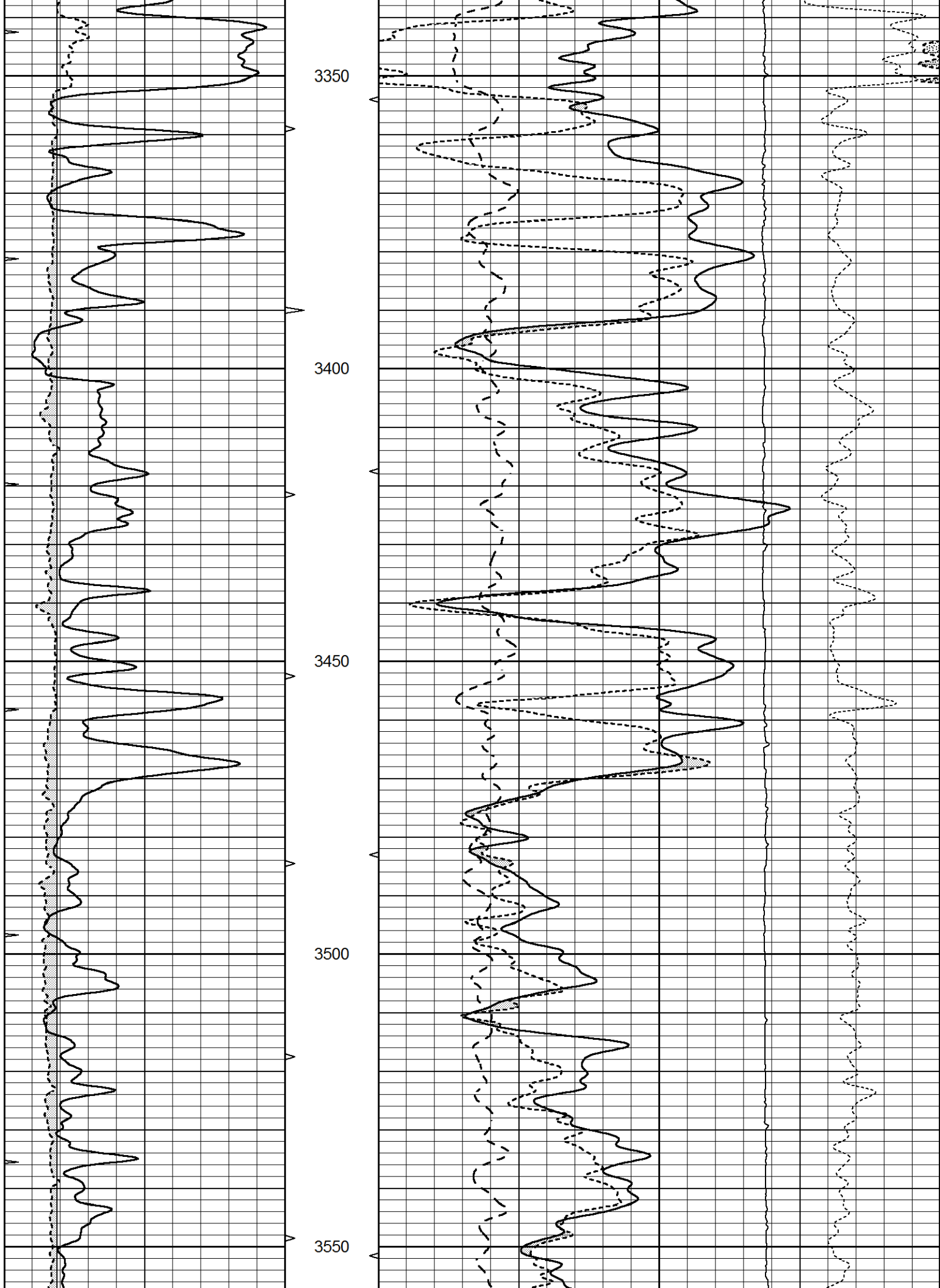


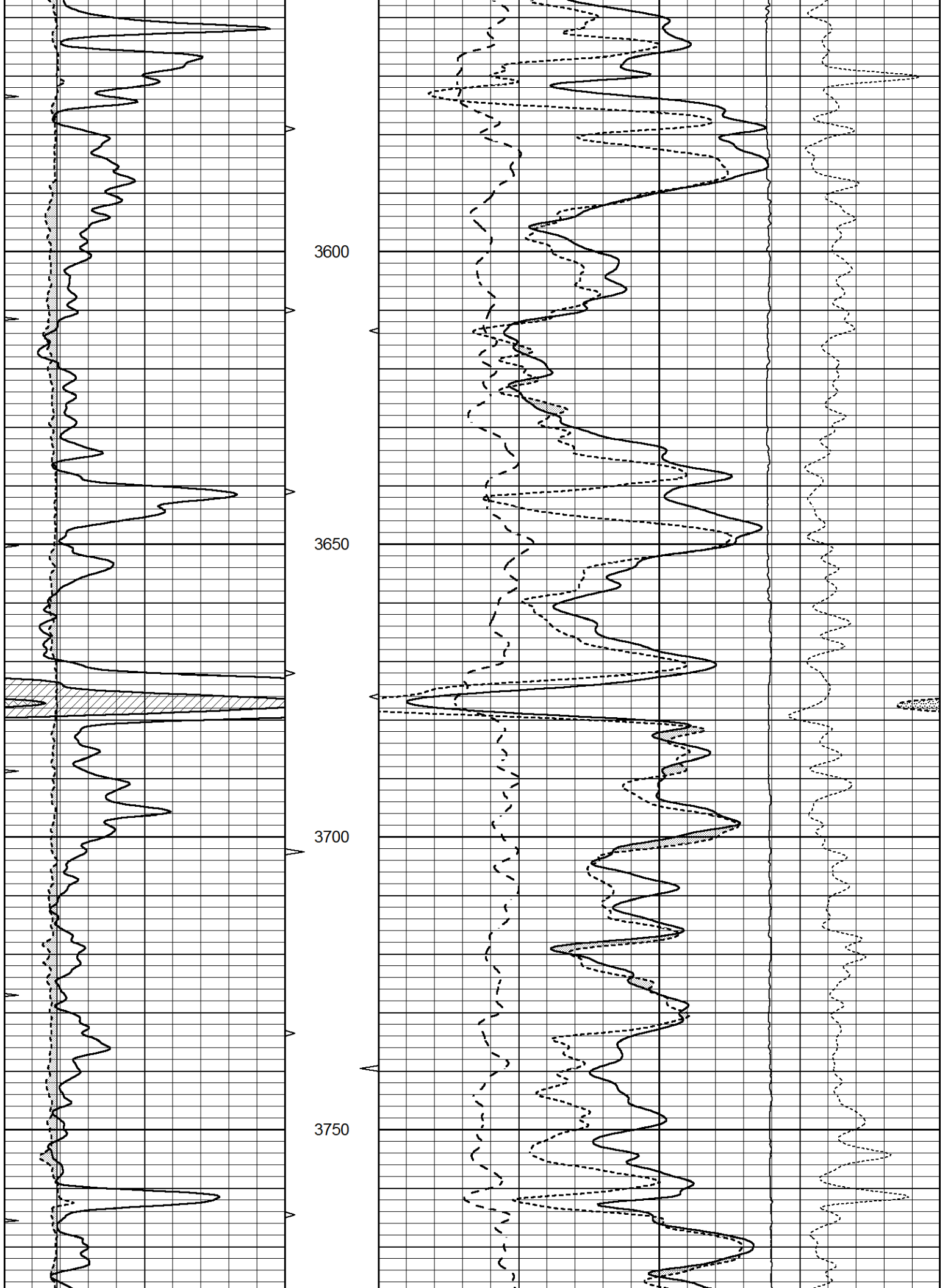
MAIN SECTION

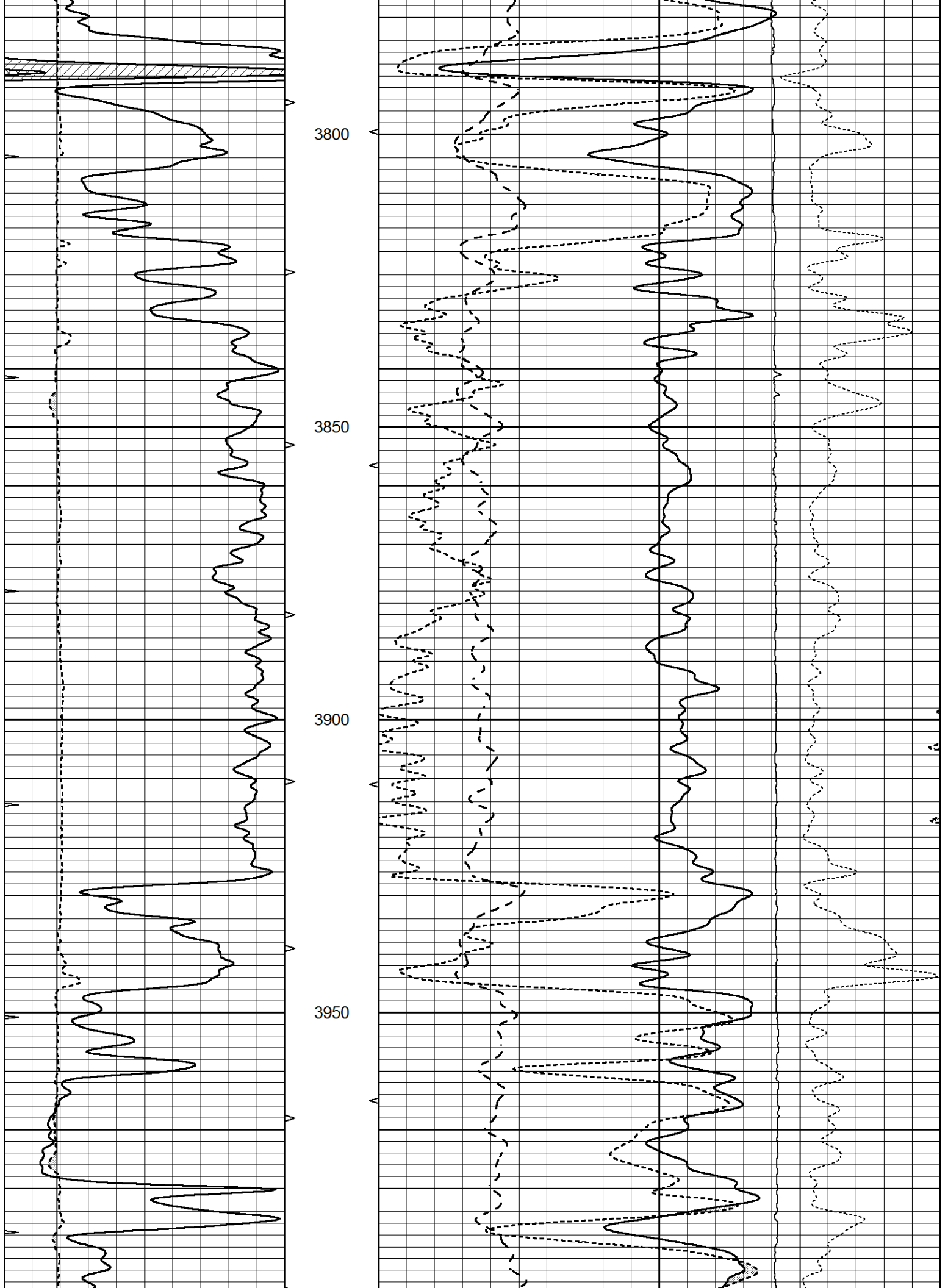
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 Dataset Pathname pass5.1M
 Presentation Format _ldt_neu
 Dataset Creation Sun Jul 16 13:55:19 2023
 Charted by Depth in Feet scaled 1:240

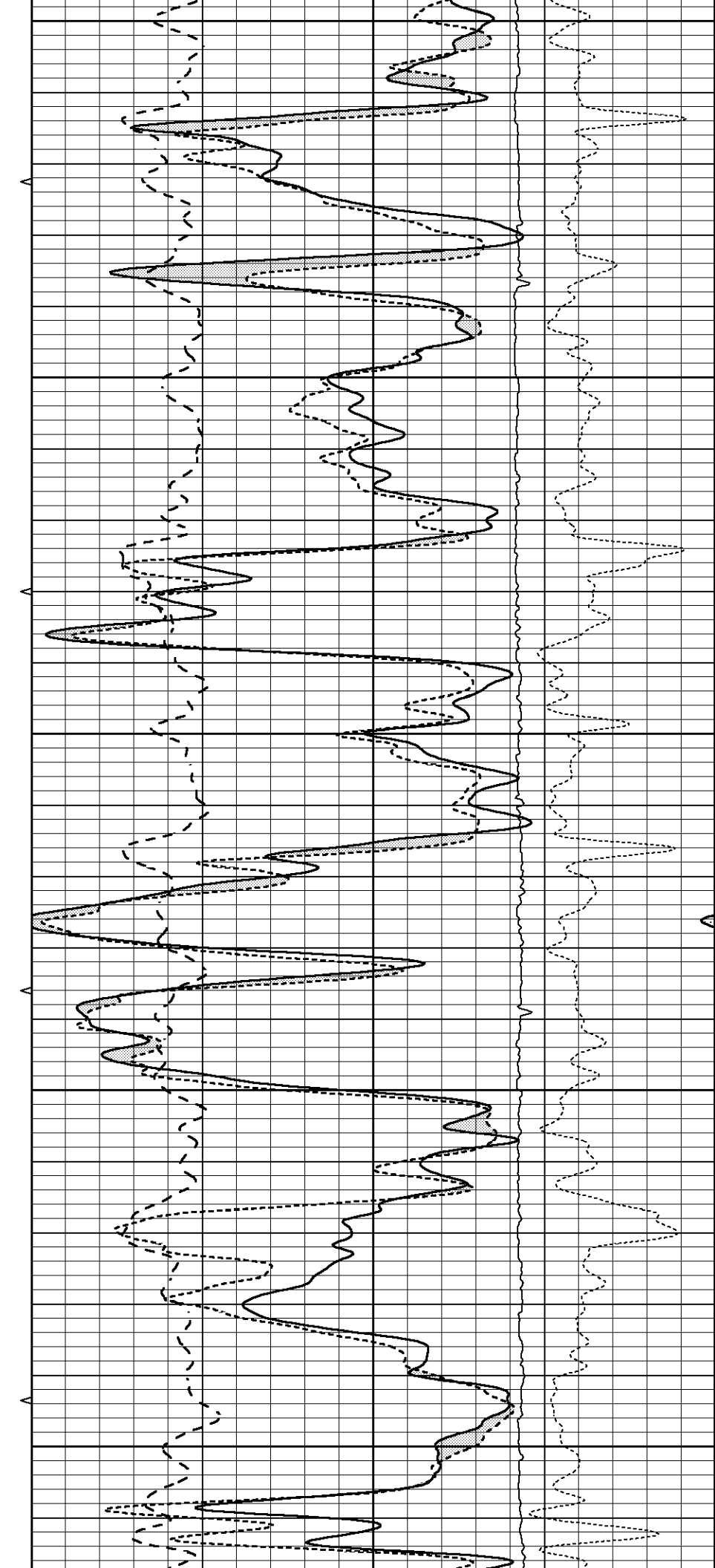
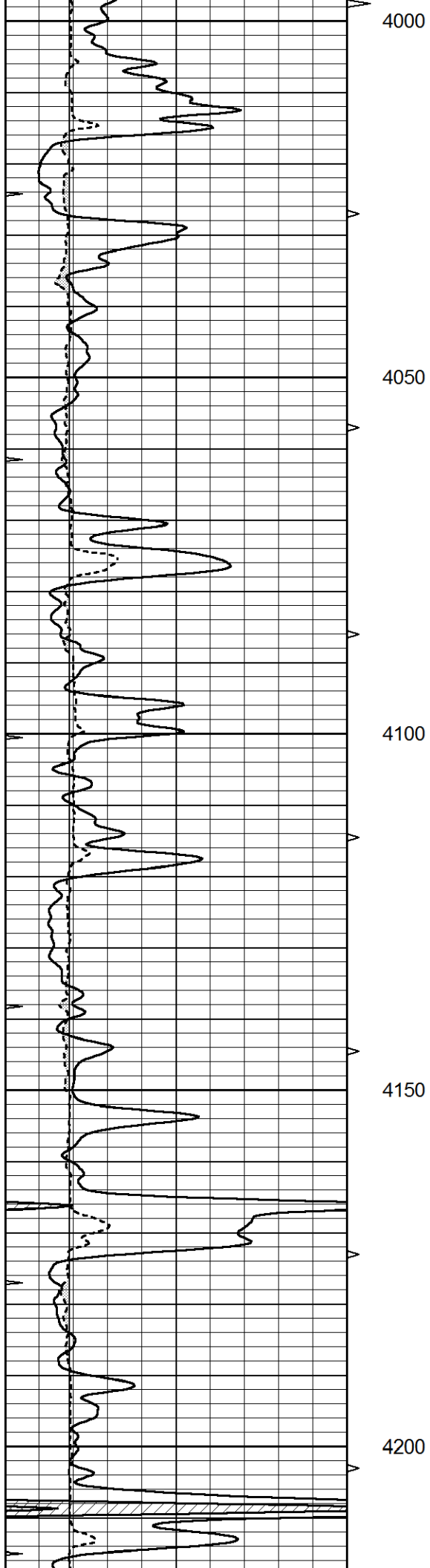
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25
			0 (ft3)	10		CORRECTION (g/cc)
					0	LTEN (lb)
						5000

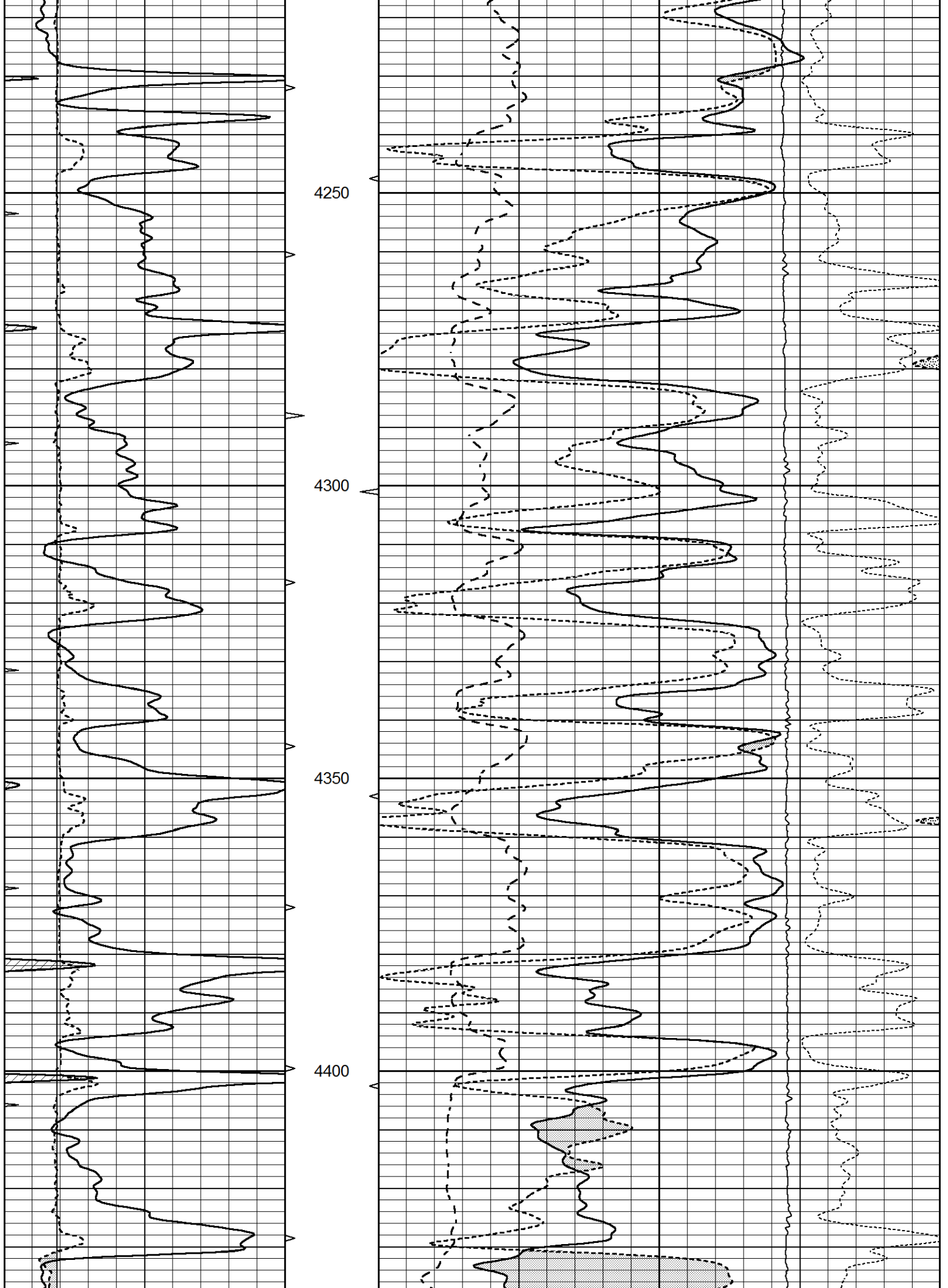


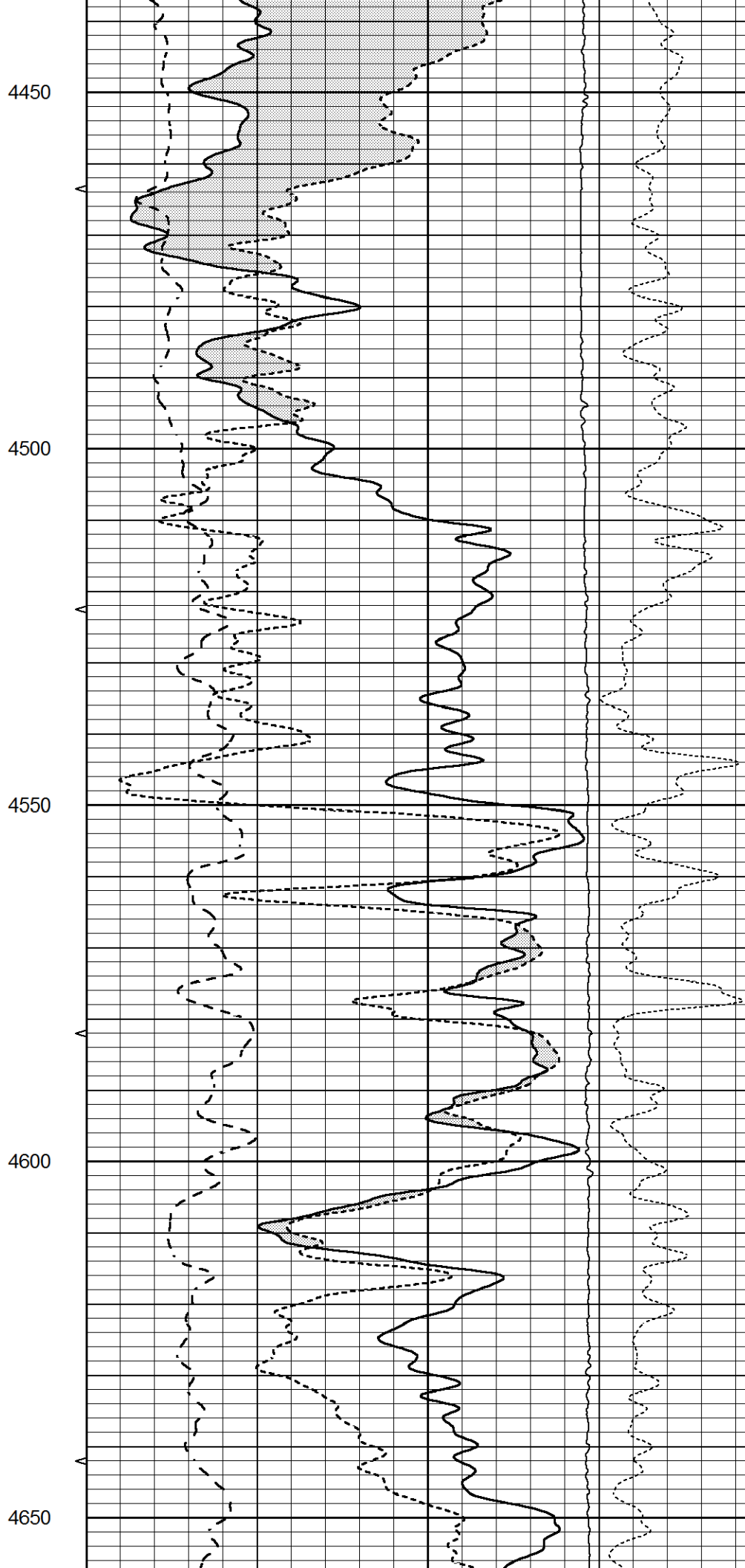
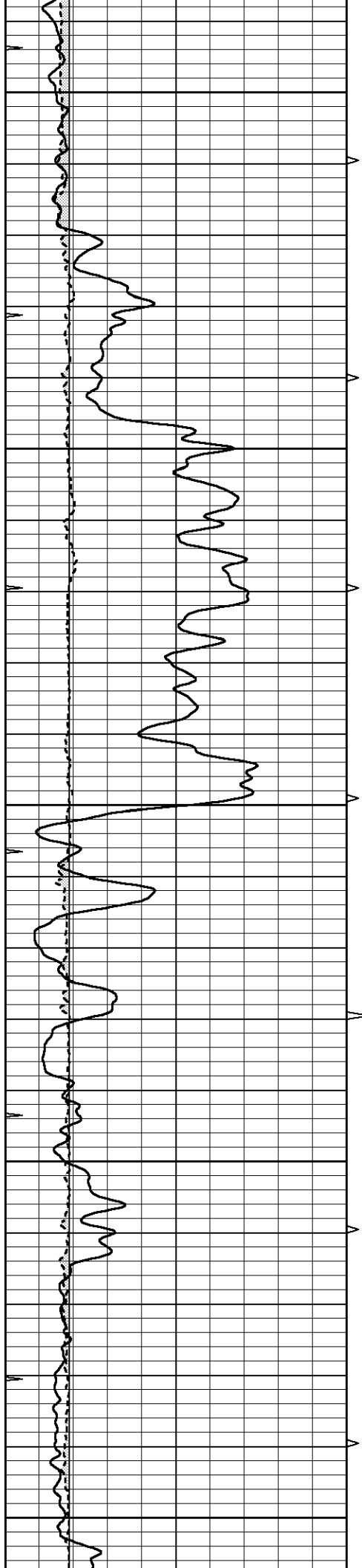


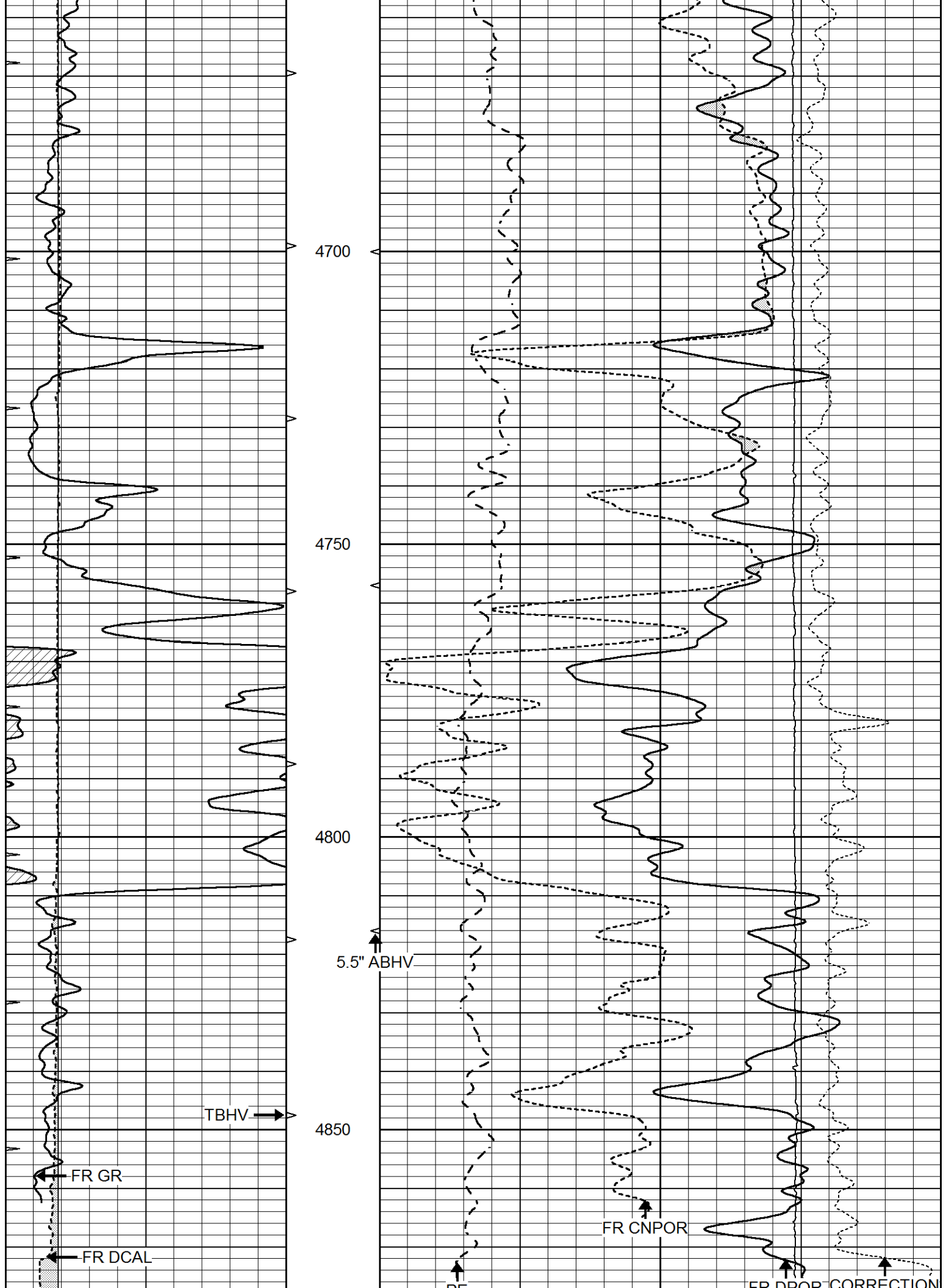












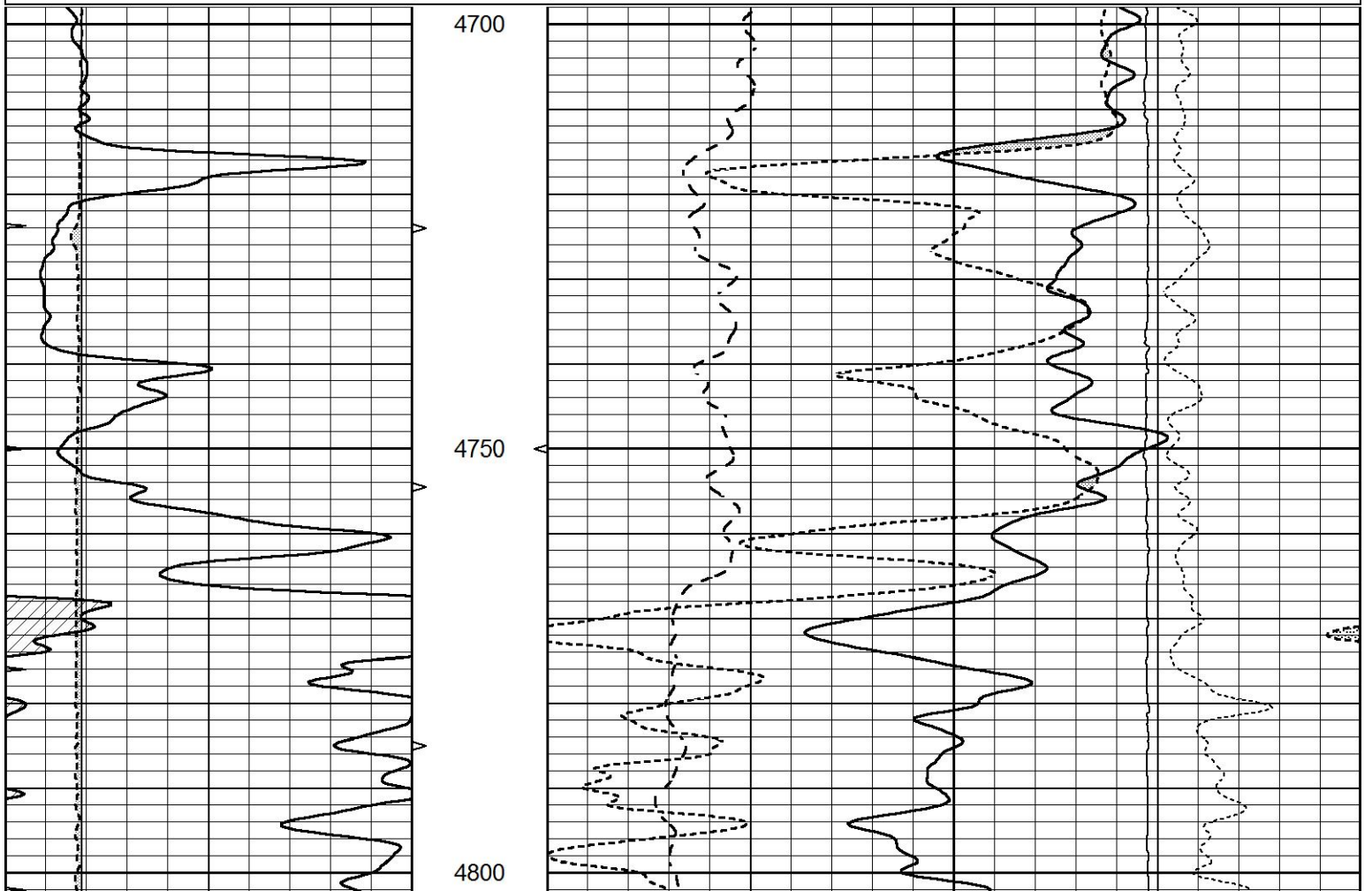
MINMK				PE		2.71 LIMESTONE MATRIX		TR DPOK CORRECTION			
		LTD 4896						LTEN →			
		4900									
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10		
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)				-10	
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25		
			0 (ft3)	10					0	LTEN (lb)	5000

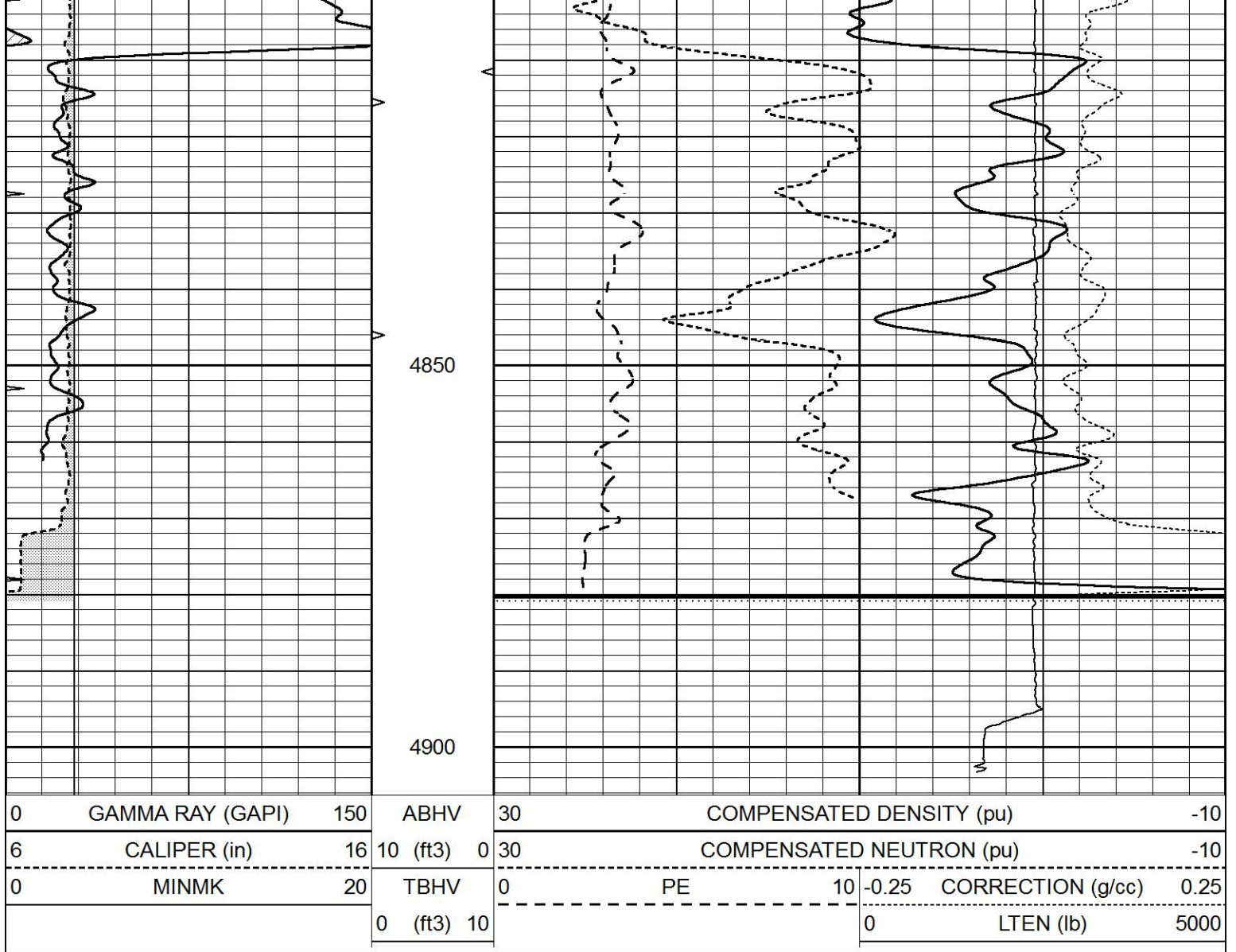


REPEAT SECTION

Database File 7305pe.db
 Dataset Pathname pass4.1R
 Presentation Format _ldt_neu
 Dataset Creation Sun Jul 16 13:28:21 2023
 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	PE	10	-0.25	CORRECTION (g/cc)	0.25		
			0 (ft3)	10					0	LTEN (lb)	5000

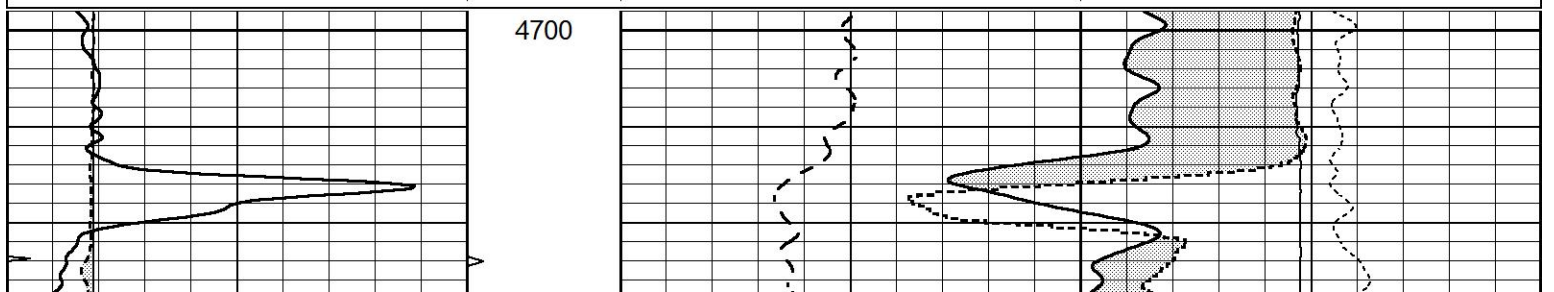


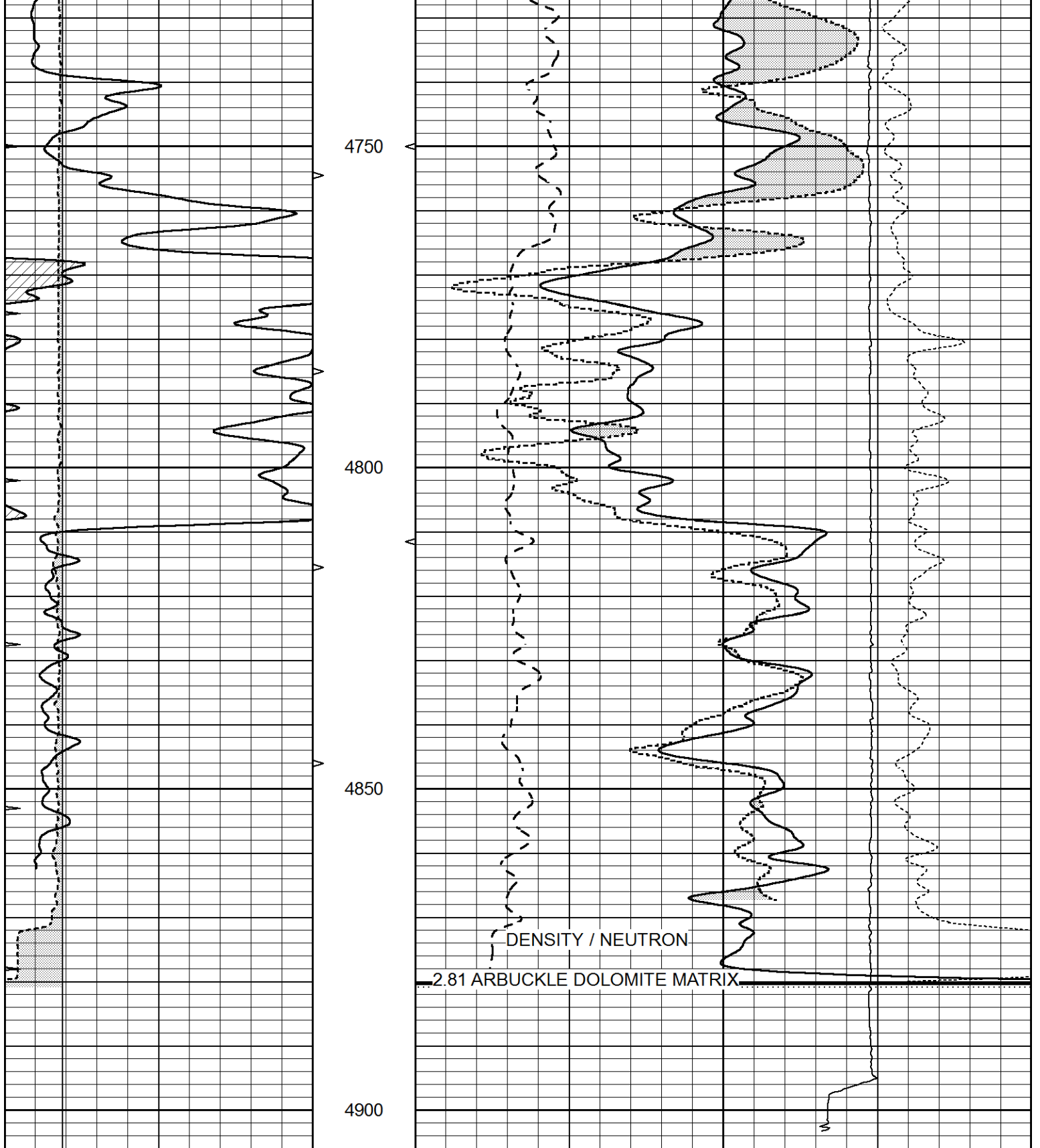


DOLOMITE MATRIX

Database File 7305pe.db
 Dataset Pathname pass4.1D
 Presentation Format _ldt_neu
 Dataset Creation Sun Jul 16 13:32:23 2023
 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	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10			0	LTEN (lb)	5000





0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10	
0	MINMK	20	TBHV	0	PE	10	
			0 (ft3)	10	-0.25	CORRECTION (g/cc)	0.25
					0	LTEN (lb)	5000

Calibration Report

Database File 7305pe.db
 Dataset Pathname pass5.1M
 Dataset Creation Sun Jul 16 13:55:19 2023

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Sun Jul 16 12:22:30 2023
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	660.000	16.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	650.000	0.000
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		

Litho Density Calibration Report
Serial: 004 Model: PRB

Master Calibration

Performed Tue Aug 02 11:29:35 2022

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1154.2	10019.5	3137.9	2795.6	cps
Window 2	1054.4	8597.6	2733.4	2469.5	cps
Window 3	902.3	5241.4	1832.1	1719.3	cps
Window 4	251.9	261.1	255.8	252.9	cps
Long Space	0.0	7543.2	1679.0	1415.0	cps
Short Space	4.4	2049.3	1321.7	1116.8	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio	: 0.562
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept	: -17.2

Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps

Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808PMC
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: 070558
Tool Model: OPEN_GR
Performed: Thu Jul 13 13:43:34 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps