



COMPENSATED DENSITY / NEUTRON PE LOG

Company RED OAK ENERGY, INC.

Well JHT #1-14

Field WILDCAT

County GREELEY State KANSAS

Location: API #: 15-071-20893-0000

678' FSL & 1409' FEL
NE - SE - SW - SE

SEC 14 TWP 16S RGE 42W

Permanent Datum GROUND LEVEL Elevation 3794
Log Measured From KELLY BUSHING 11" A.G.L.
Drilling Measured From KELLY BUSHING

DIL

Elevation
K.B. 3805
D.F. 3803
G.L. 3794

Date 5/26/20

Run Number ONE

Depth Driller 5160

Depth Logger 5162

Bottom Logged Interval 5138

Top Log Interval 3700

Casing Driller 8 5/8" @ 356'

Casing Logger 354

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.4/62

pH / Fluid Loss 9.0/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp 1.00 @ 108F

Rmf @ Meas. Temp .750 @ 108F

Rmc @ Meas. Temp 1.20 @ 108F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .857 @ 126F

Time Circulation Stopped 2.5 HOURS

Time Logger on Bottom 7:00 P.M.

Maximum Recorded Temperature 126F

Equipment Number 922339

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By RYAN DAVIS

Comments

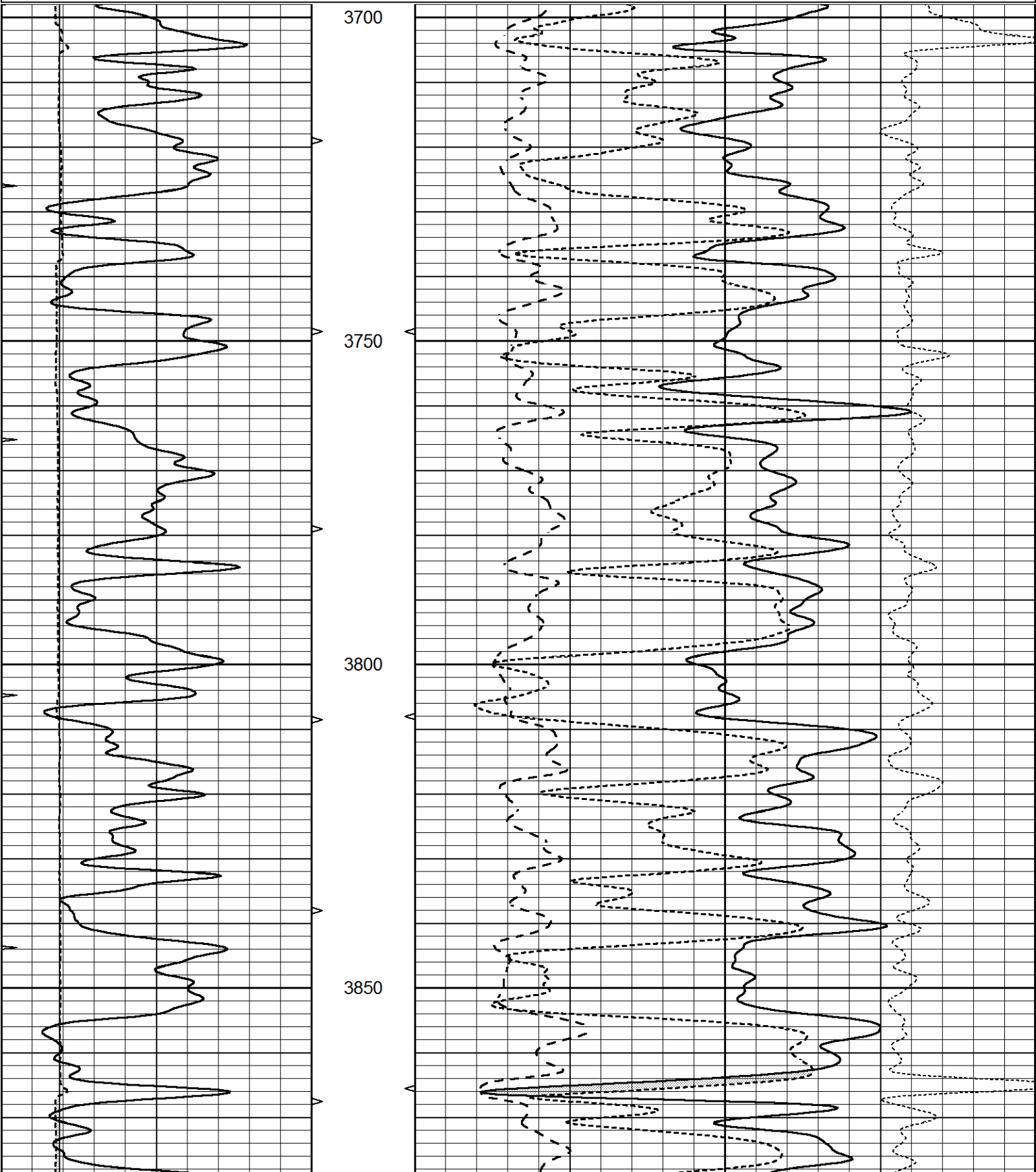
THANK YOU FOR USING E.L.I. WIRELINE SERVICES HAYS, KANSAS (785)628-6395
DIRECTIONS
SHARON SPRINGS, KS. 17S. ON HWY 27 TO "RD. D", 9 1/2W., N. INTO

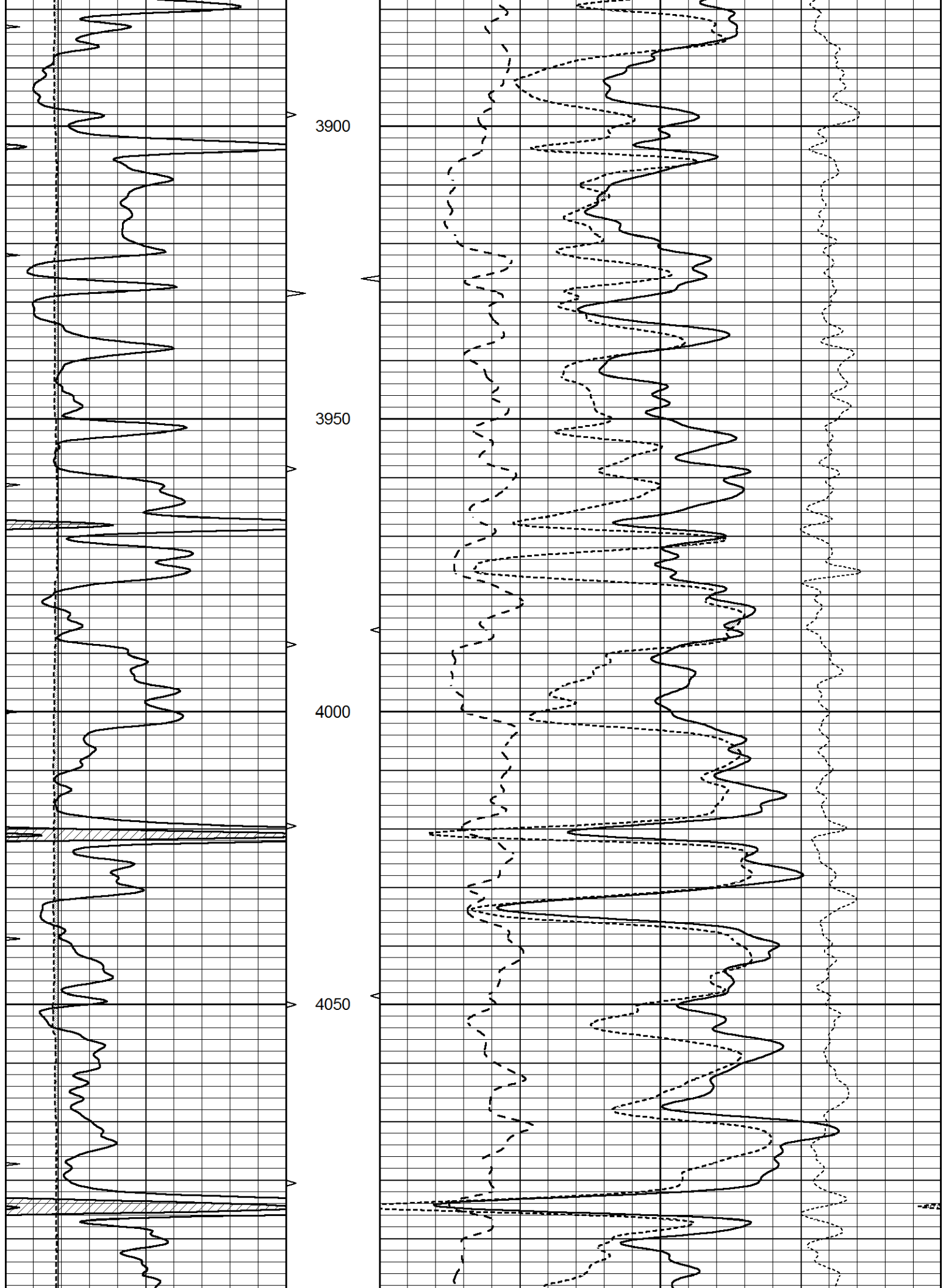


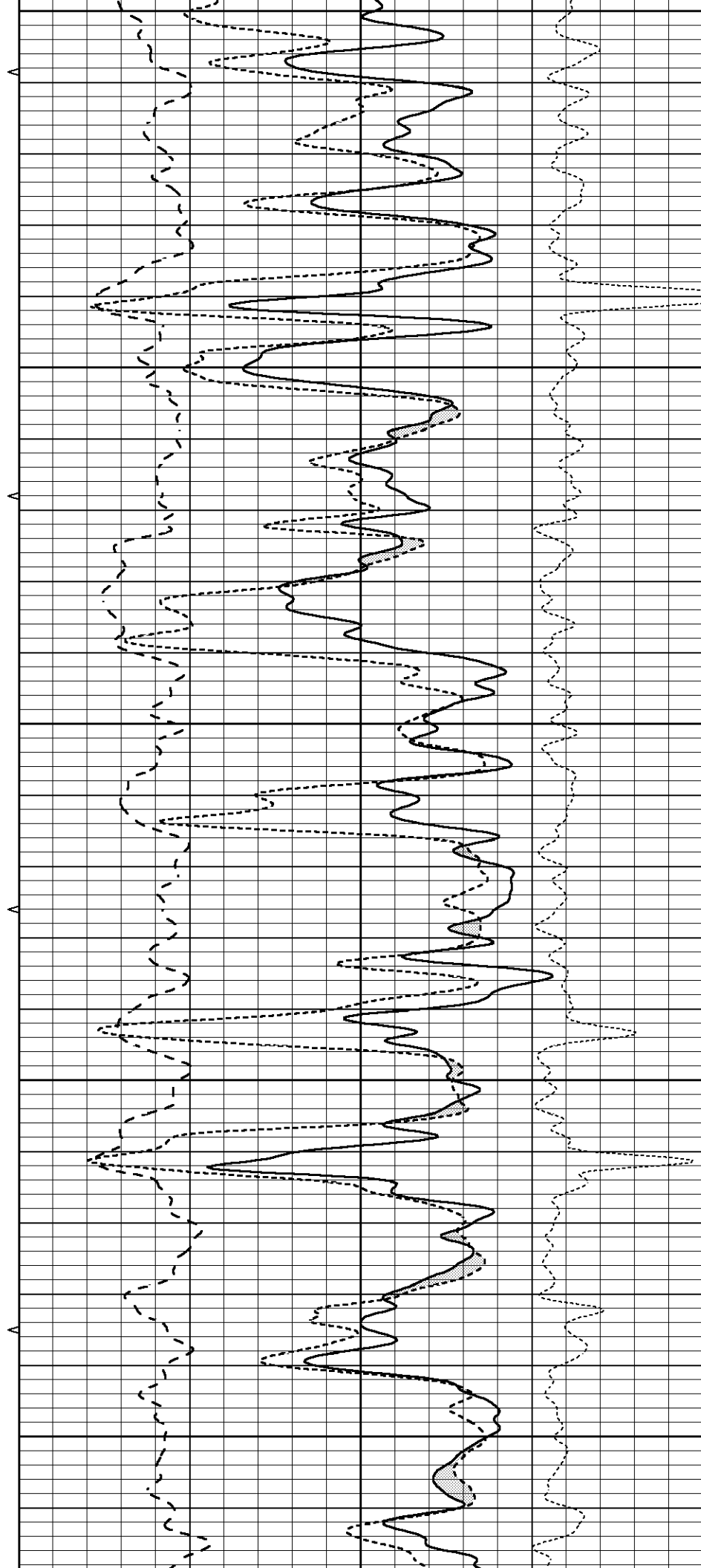
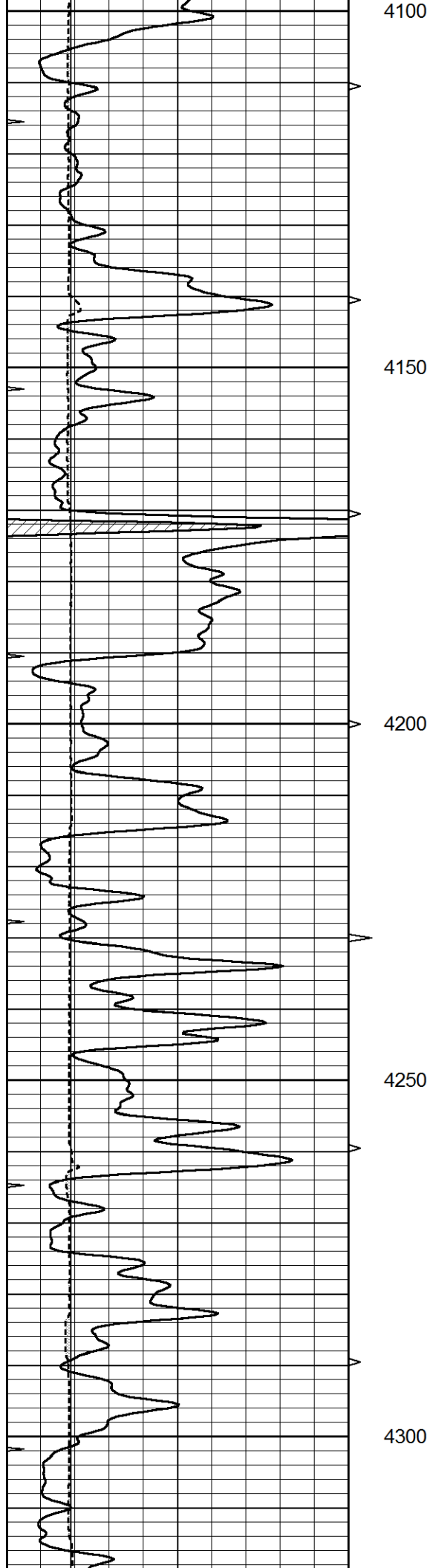
MAIN SECTION

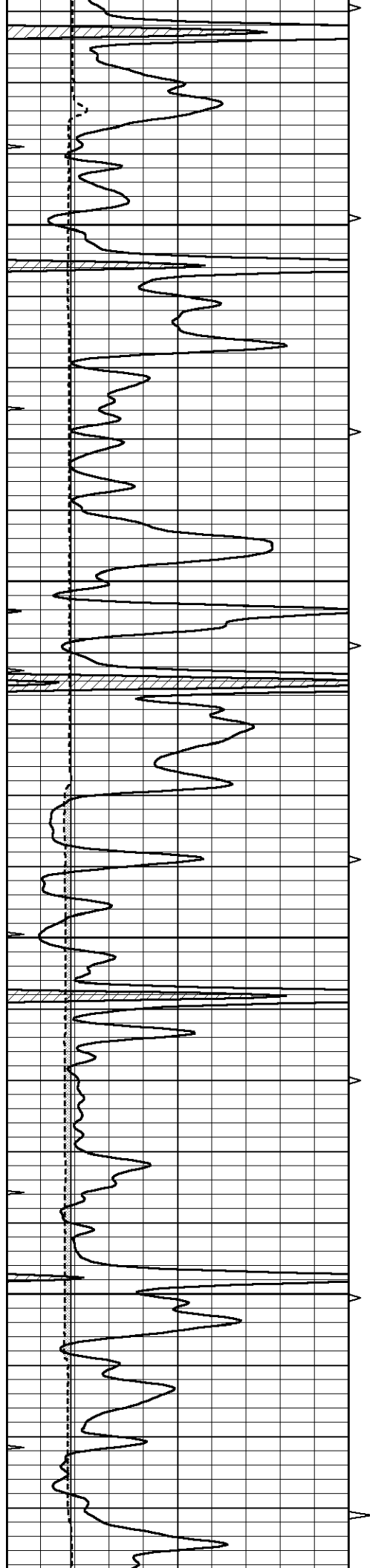
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Dataset Pathname	pass3.1M
Presentation Format	ldt_neu
Dataset Creation	Tue May 26 21:16:34 2020
Charted by	Depth in Feet scaled 1:240

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







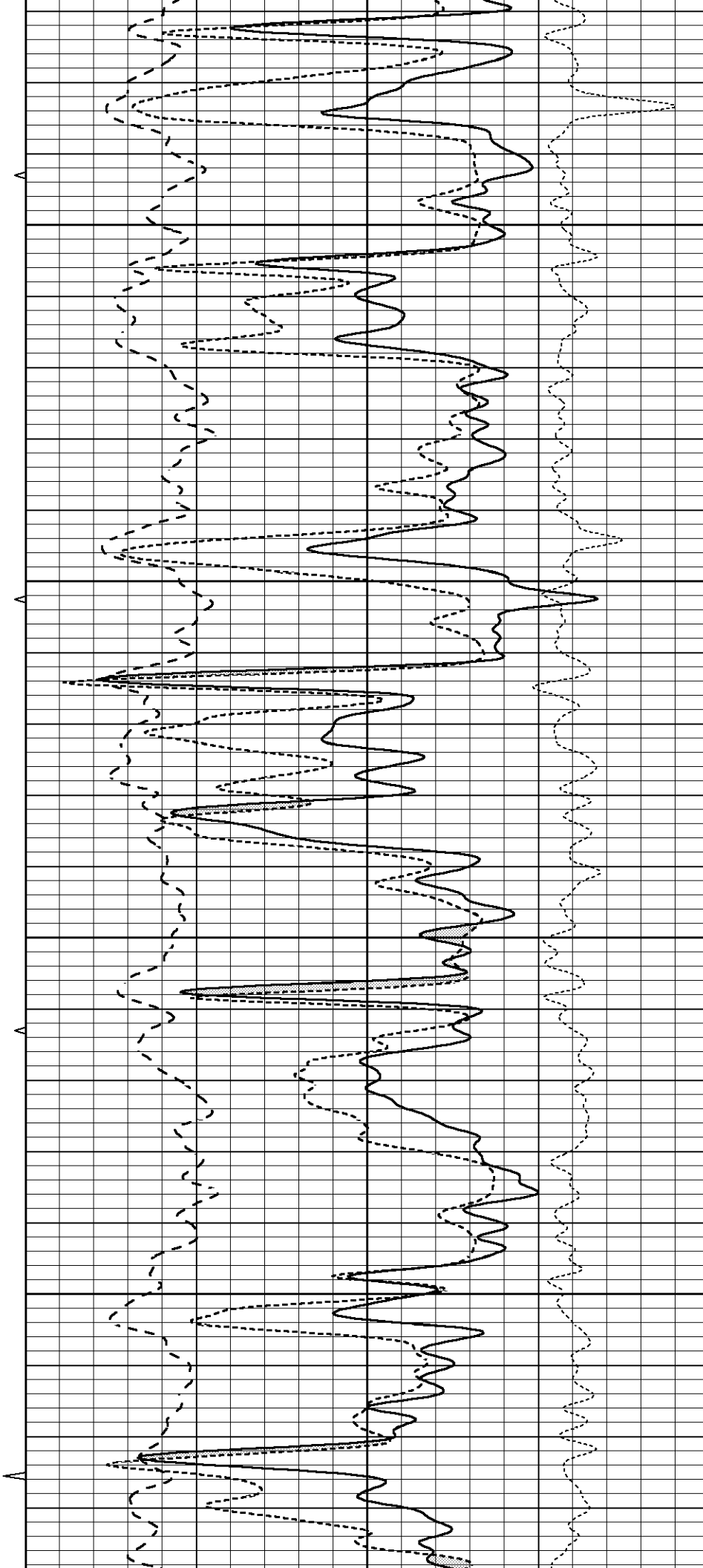


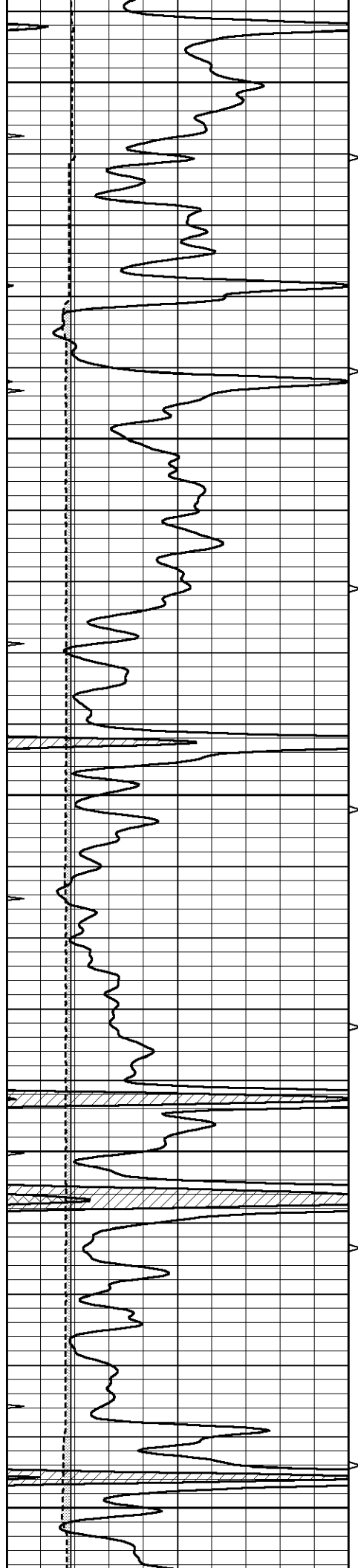
4350

4400

4450

4500





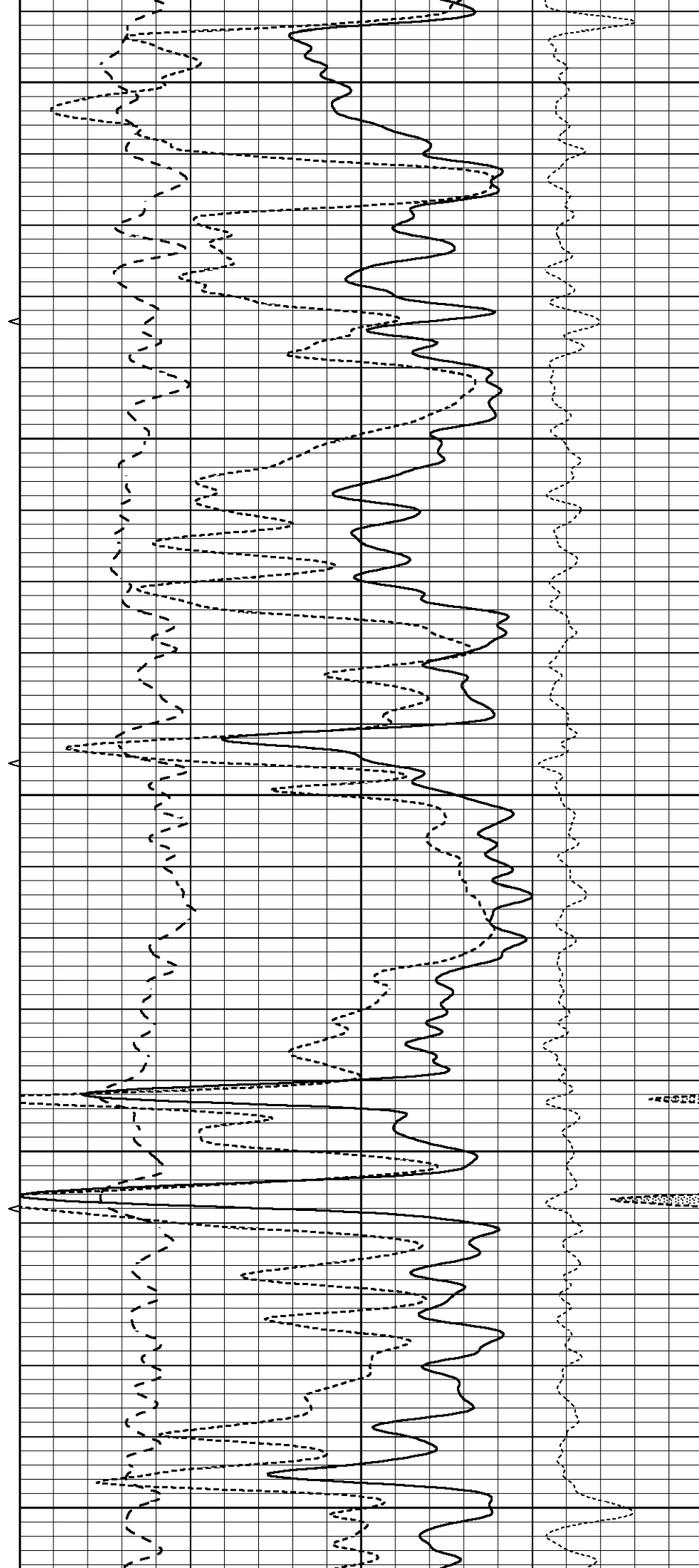
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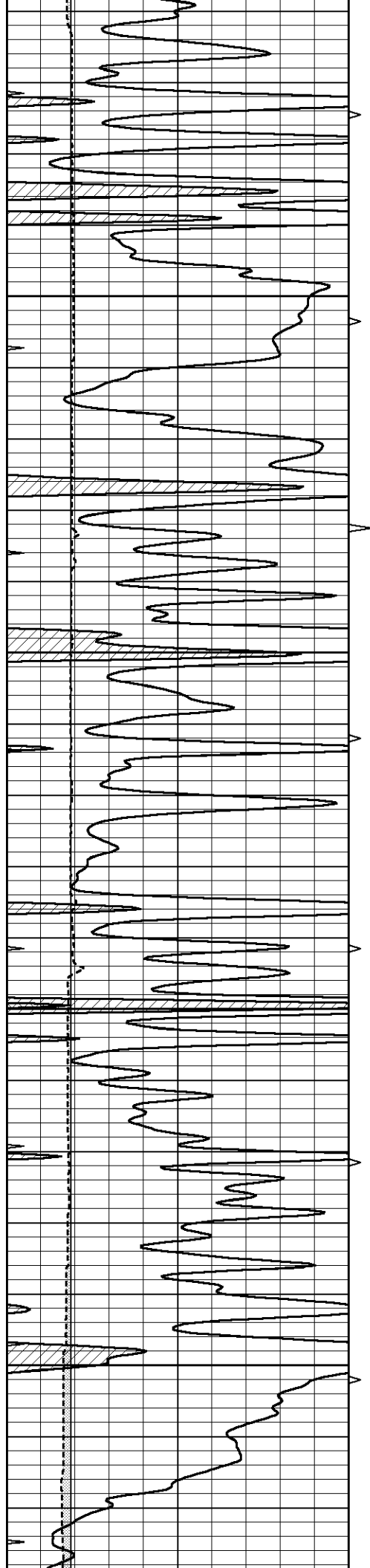
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4650

4700

4750



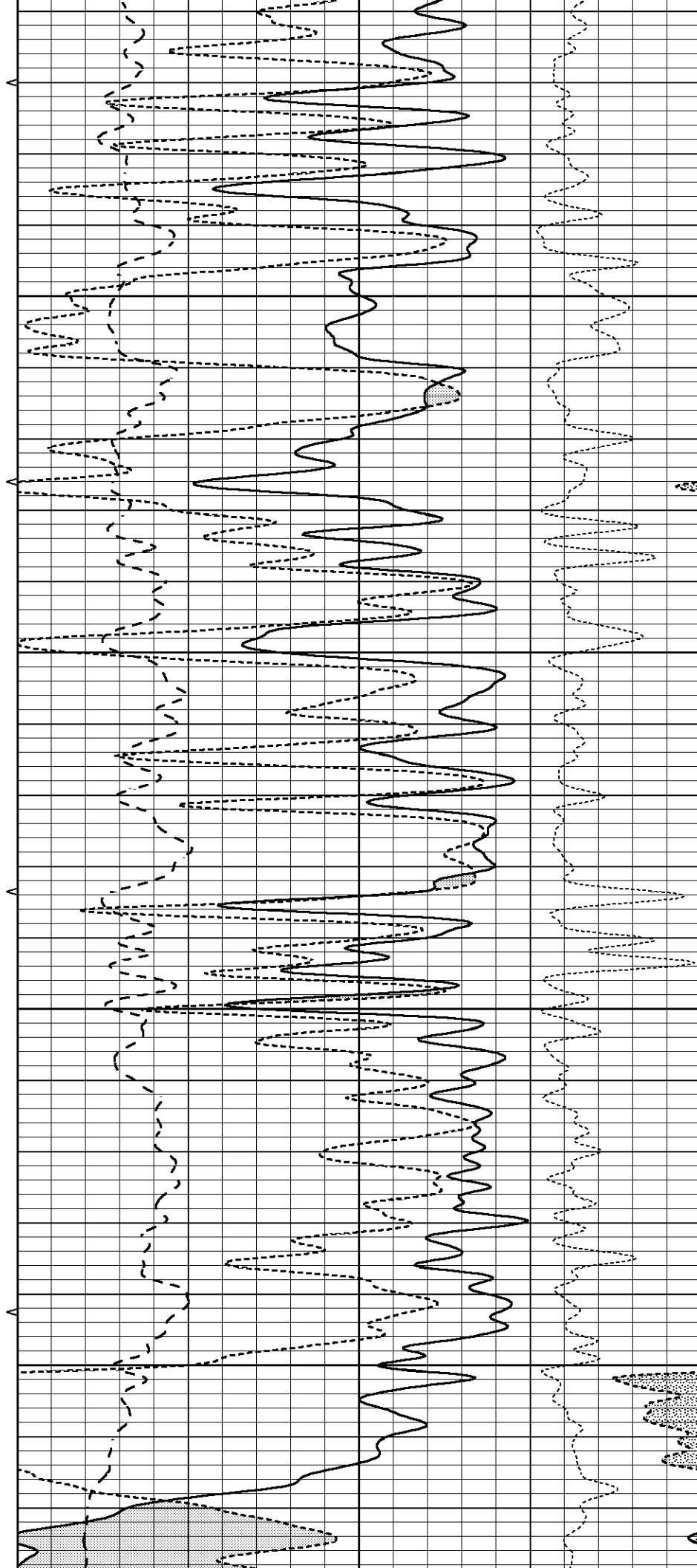


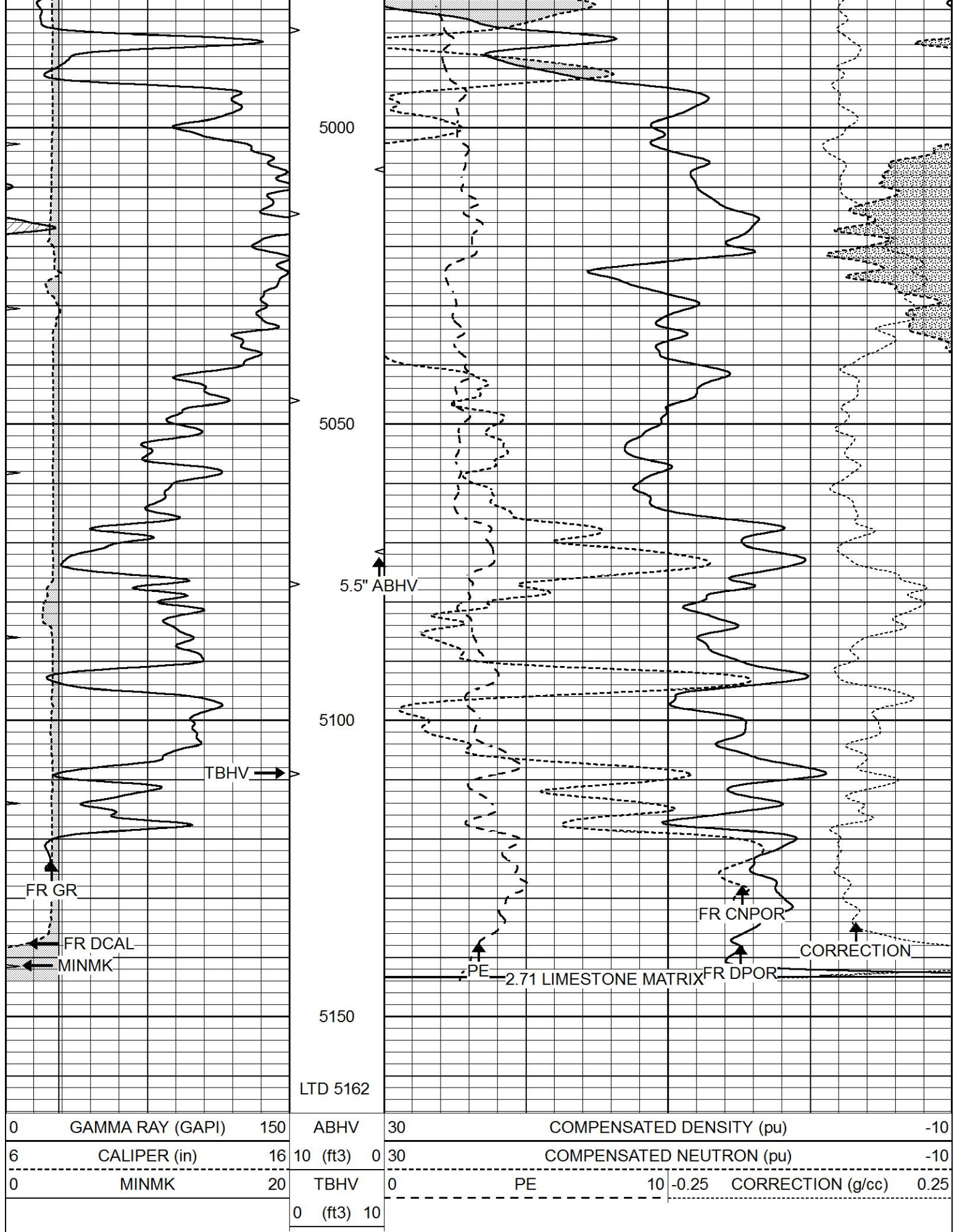
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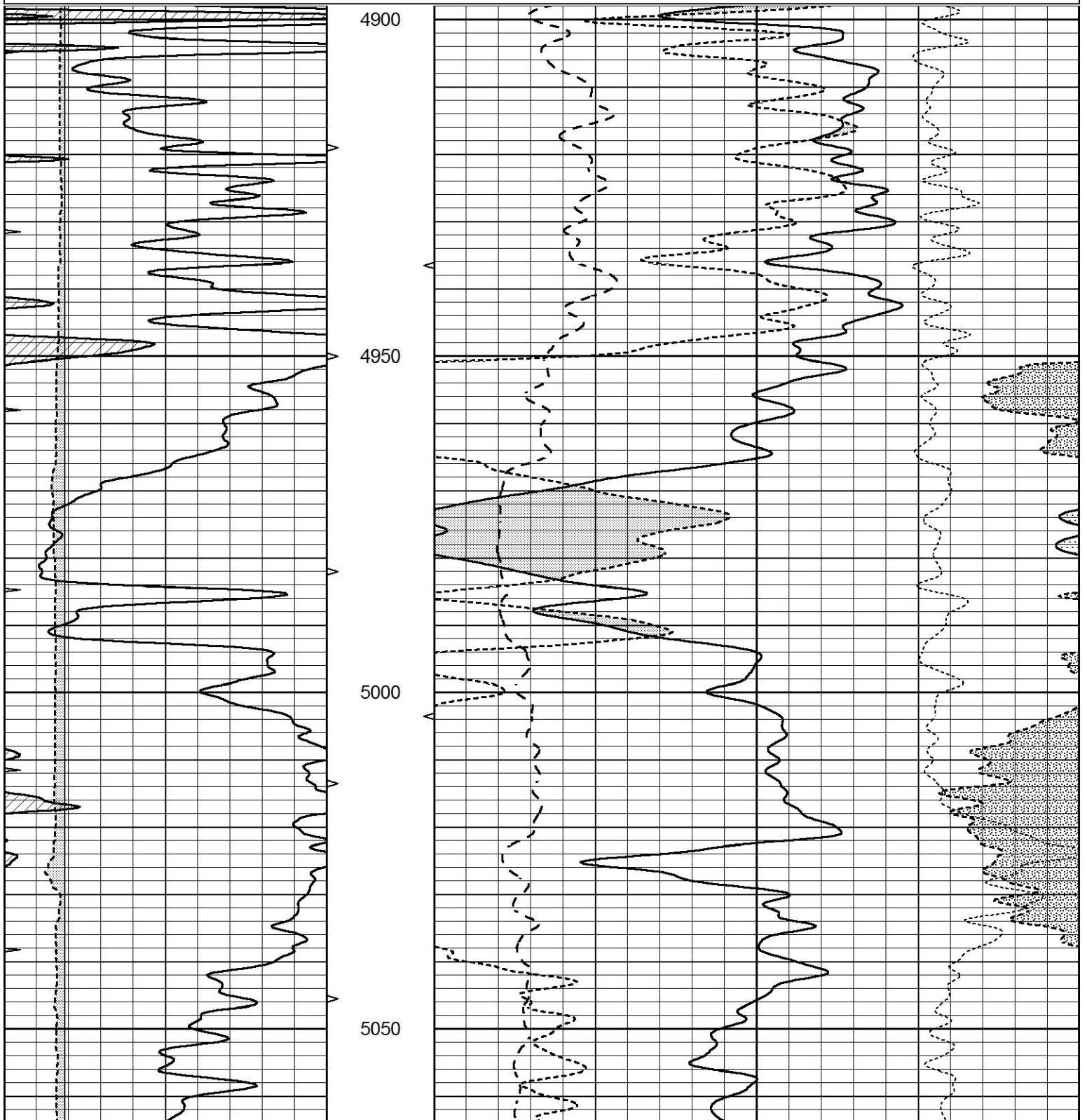


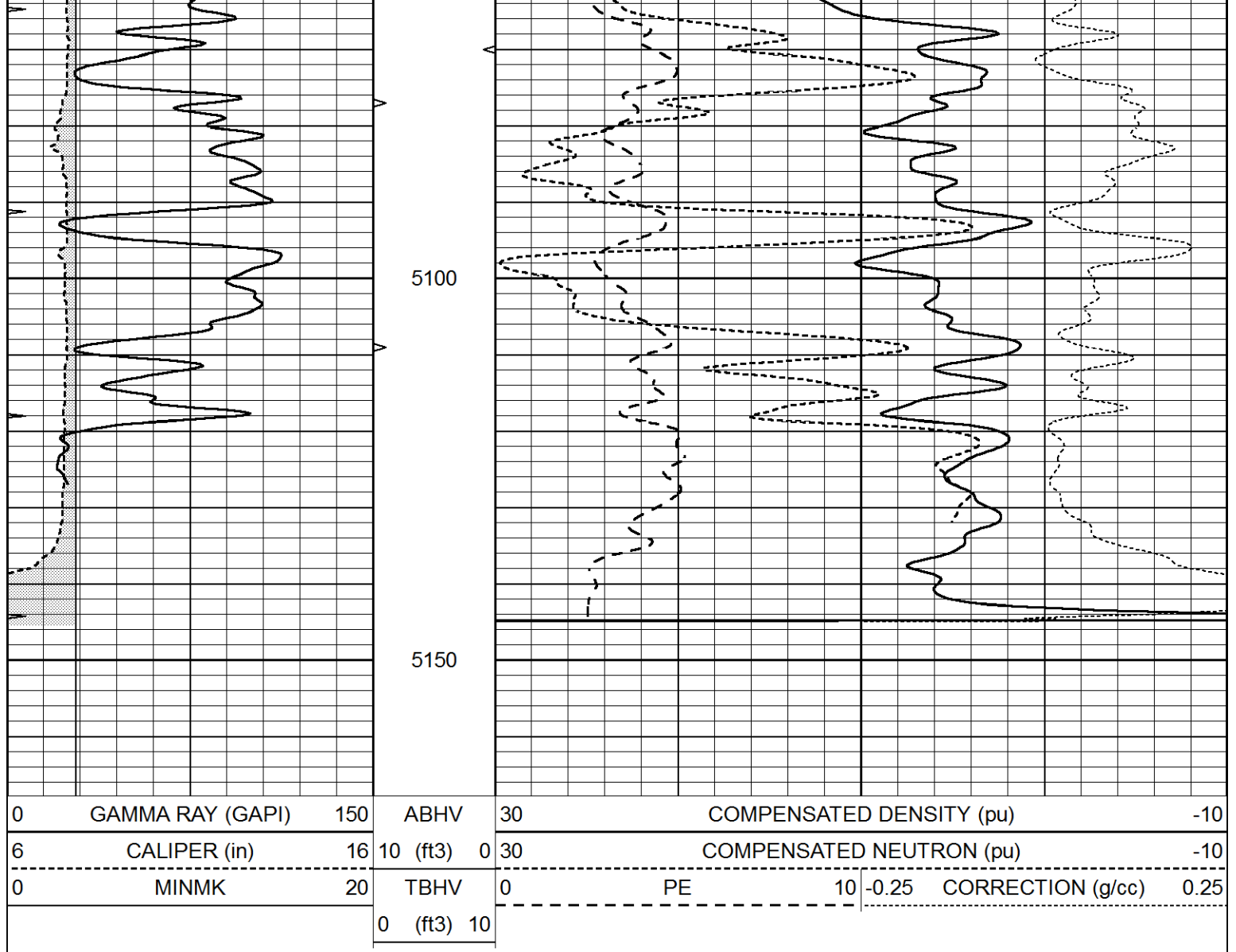


REPEAT SECTION

Database File 4542pe.db
Dataset Pathname pass2.7R
Presentation Format ldt_neu
Dataset Creation Tue May 26 20:00:48 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	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10			





Calibration Report

Database File 4542pe.db
Dataset Pathname pass3.1M
Dataset Creation Tue May 26 21:16:34 2020

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
Surface Cal Performed: Tue May 26 20:02:33 2020
Downhole Cal Performed: Thu Mar 12 11:45:10 2020
After Survey Verification Performed: Thu Mar 12 11:45:00 2020

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	620.000	-8.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-54.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings References Results

	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	0.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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		
		0.000	mmho-m		4000.000	mmho-m		

Litho Density Calibration Report								
Serial: 004 Model: PRB								

Master Calibration					Performed Mon May 11 10:45:58 2020			
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	1199.7	10039.4	3208.4	2838.9				cps
Window 2	1096.3	8590.5	2806.1	2527.9				cps
Window 3	934.1	5176.2	1855.7	1739.5				cps
Window 4	267.0	271.6	264.8	264.9				cps
Long Space	0.0	7494.2	1709.8	1431.6				cps
Short Space	1.1	1784.3	1183.7	971.1				cps
Rho		1.7100	2.5900	0.0000				g/cc
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 44.5	Rib Slope	: 0.982	Density/Spine Ratio			: 0.574	
Spine Angle	: 74.5	Spine Slope	: 3.601	Spine Intercept			: -18.0	

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 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:	Wed Jul 03 10:25:53 2019		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3000	GAPI/cps	