



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company O'BRIEN RESOURCES, LLC. Well MSJ PENNER 28 #2 Field WILDCAT County GOVE State KANSAS		Company O'BRIEN RESOURCES, LLC. Well MSJ PENNER 28 #2 Field WILDCAT County GOVE State KANSAS	
Location: API # : 15-063-22210-0000 1891' FNL & 933' FWL SW - NE - SW - NW SEC 28 TWP 14S RGE 30W		Other Services DIL/MEL Elevation K.B. 2777 D.F. 2775 G.L. 2764	
Permanent Datum GROUND LEVEL Log Measured From KELLY BUSHING 13' A.G.L. Drilling Measured From KELLY BUSHING			
Date	11/5/14		
Run Number	ONE		
Depth Driller	4615		
Depth Logger	4618		
Bottom Logged Interval	4594		
Top Log Interval	3600		
Casing Driller	8 5/8" @ 27'		
Casing Logger	269		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,800 PPM	
Density / Viscosity	9.2/45		
pH / Fluid Loss	11.0/6.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.950 @ 80F		
Rmf @ Meas. Temp	.713 @ 80F		
Rmc @ Meas. Temp	1.14 @ 80F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.623 @ 122F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	6:30 A.M.		
Maximum Recorded Temperature	122F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KURT TALBOTT		

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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 "NABORS" HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 GOVE, KS., 9S. ON HWY 23 TO "CO. RD. 22", 9W., S. INTO @TANK BATTERY

Database File:

25908pe.db

Dataset Pathname:

pass3.4

Presentation Format:

ldt_neu

Dataset Creation:

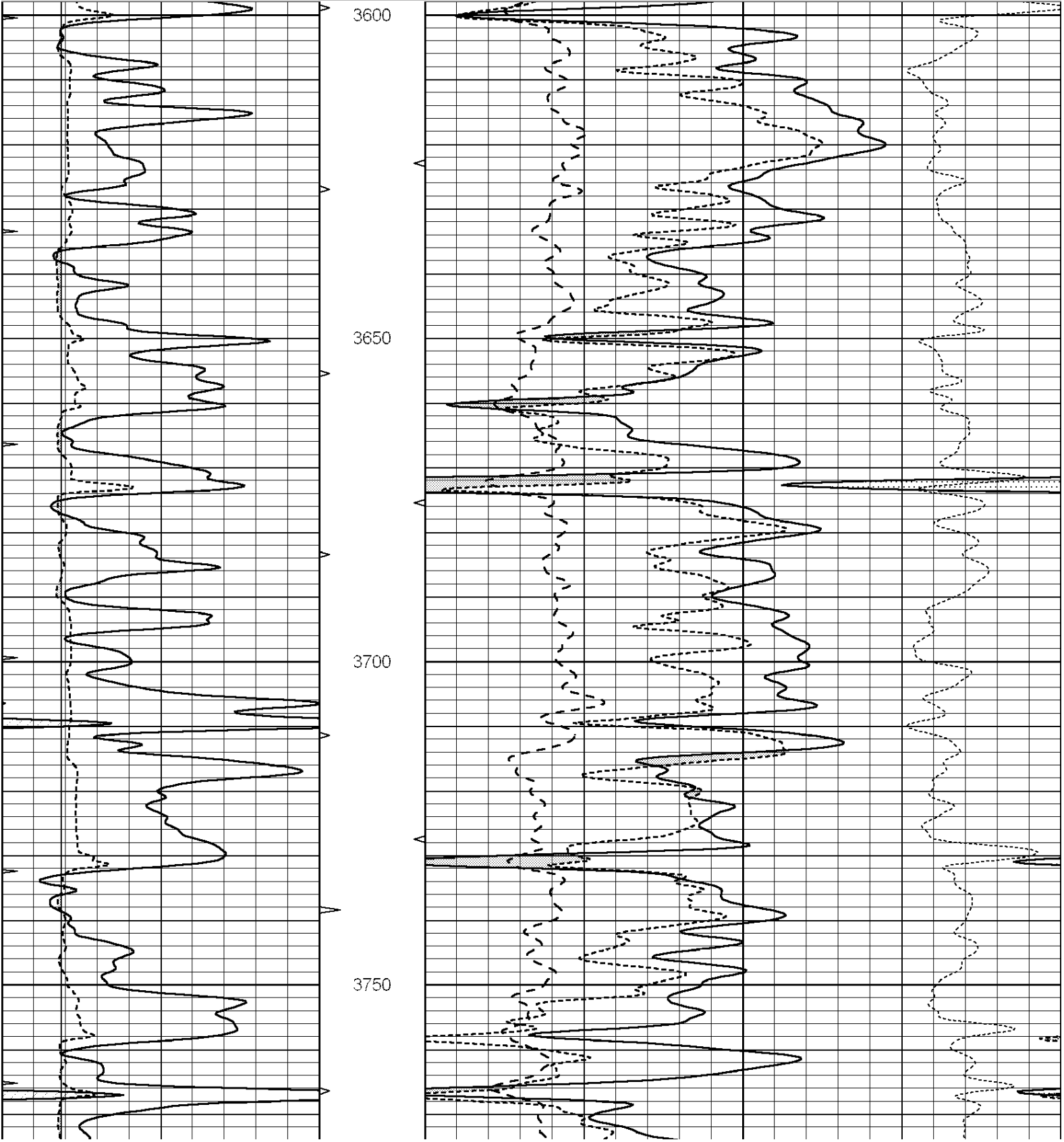
Wed Nov 05 07:55:04 2014

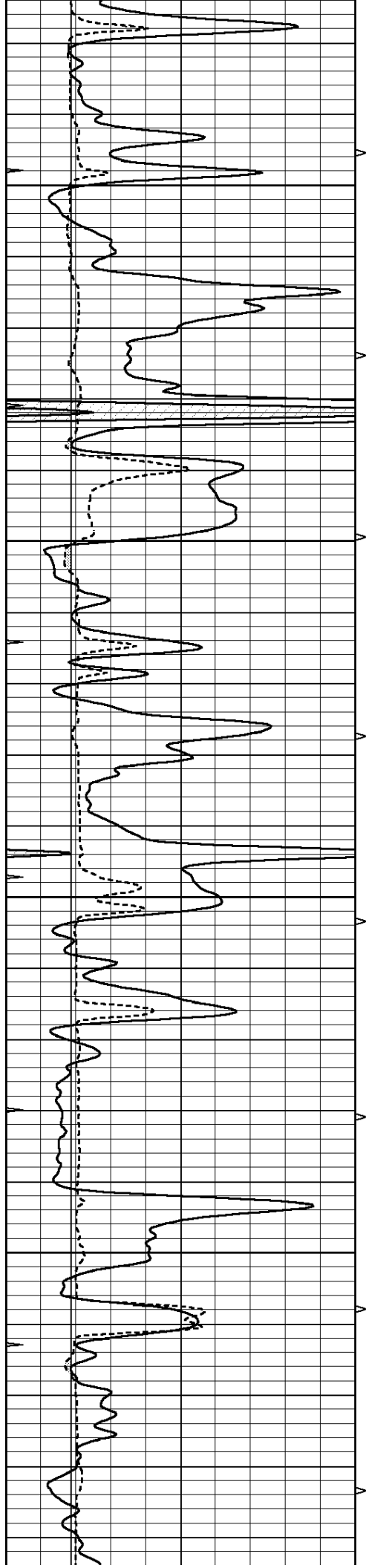
Charted by:

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	-----					



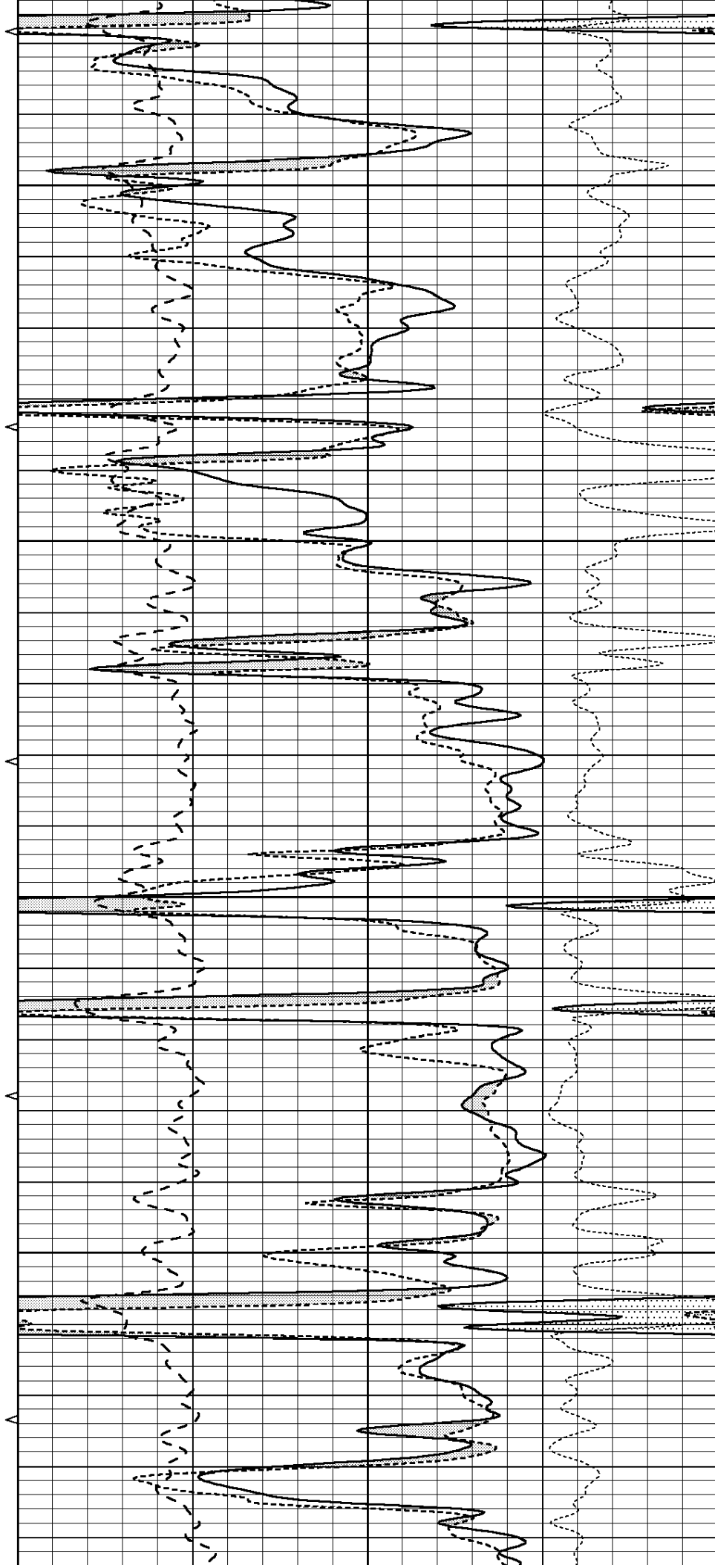


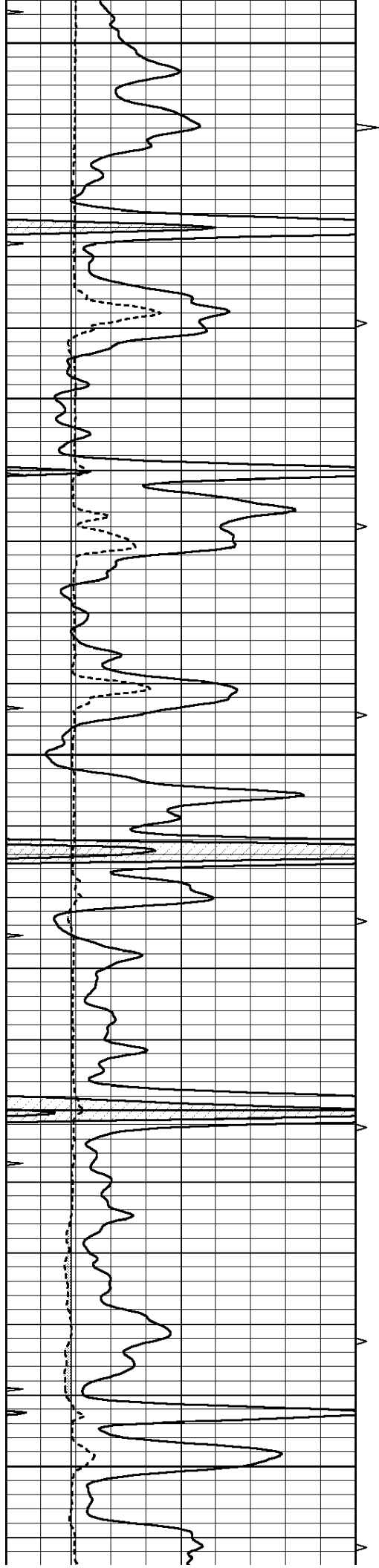
3800

3850

3900

3950





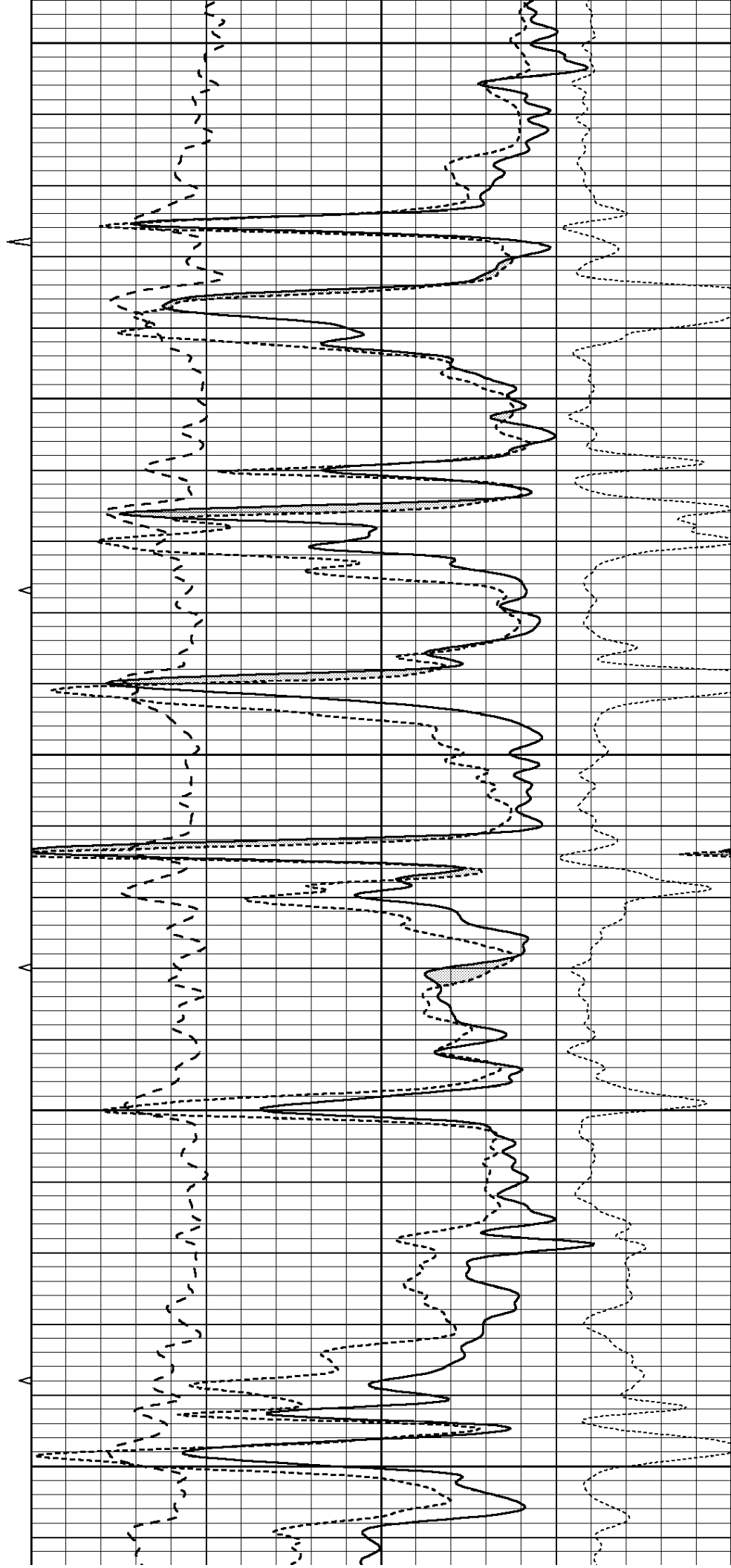
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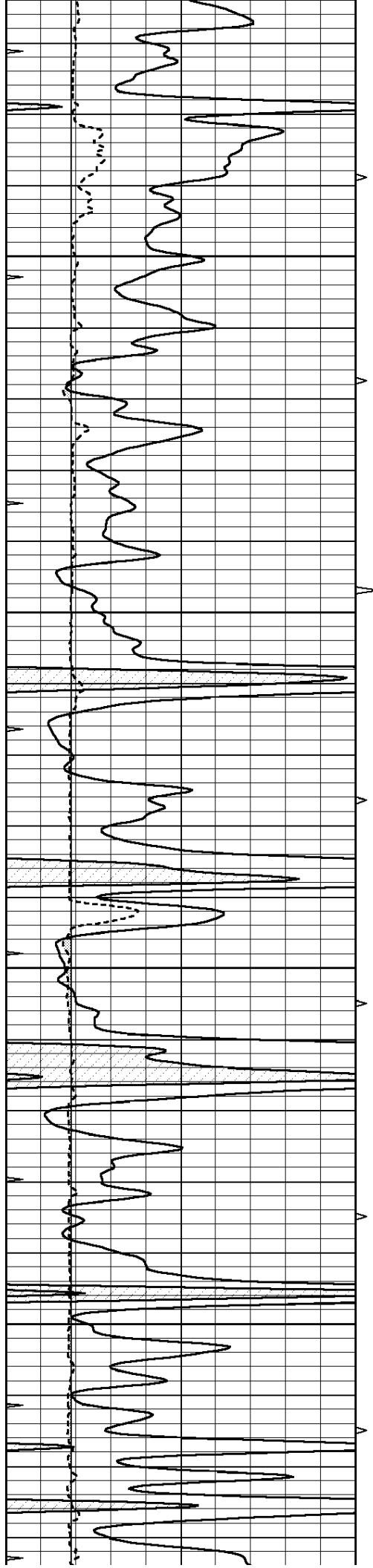
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4100

4150

4200



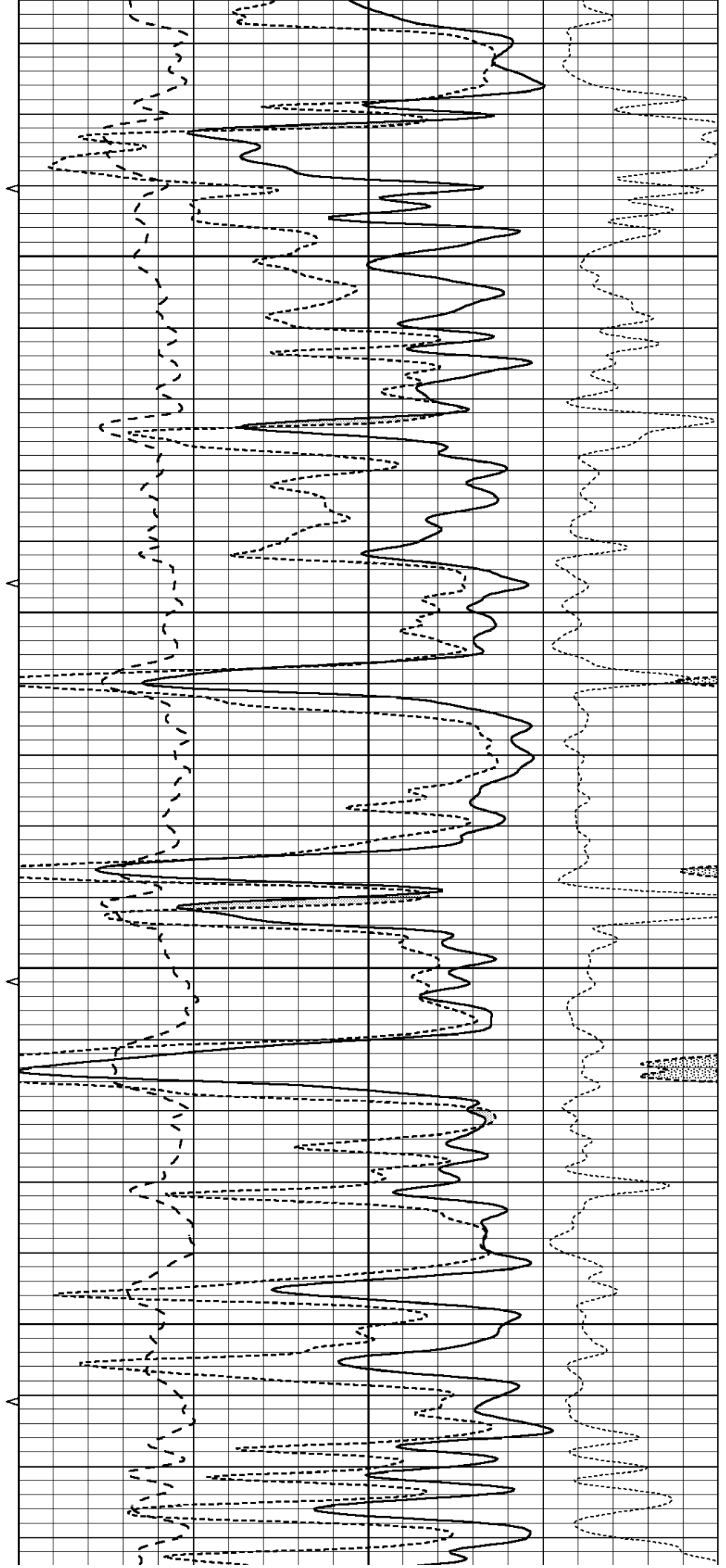


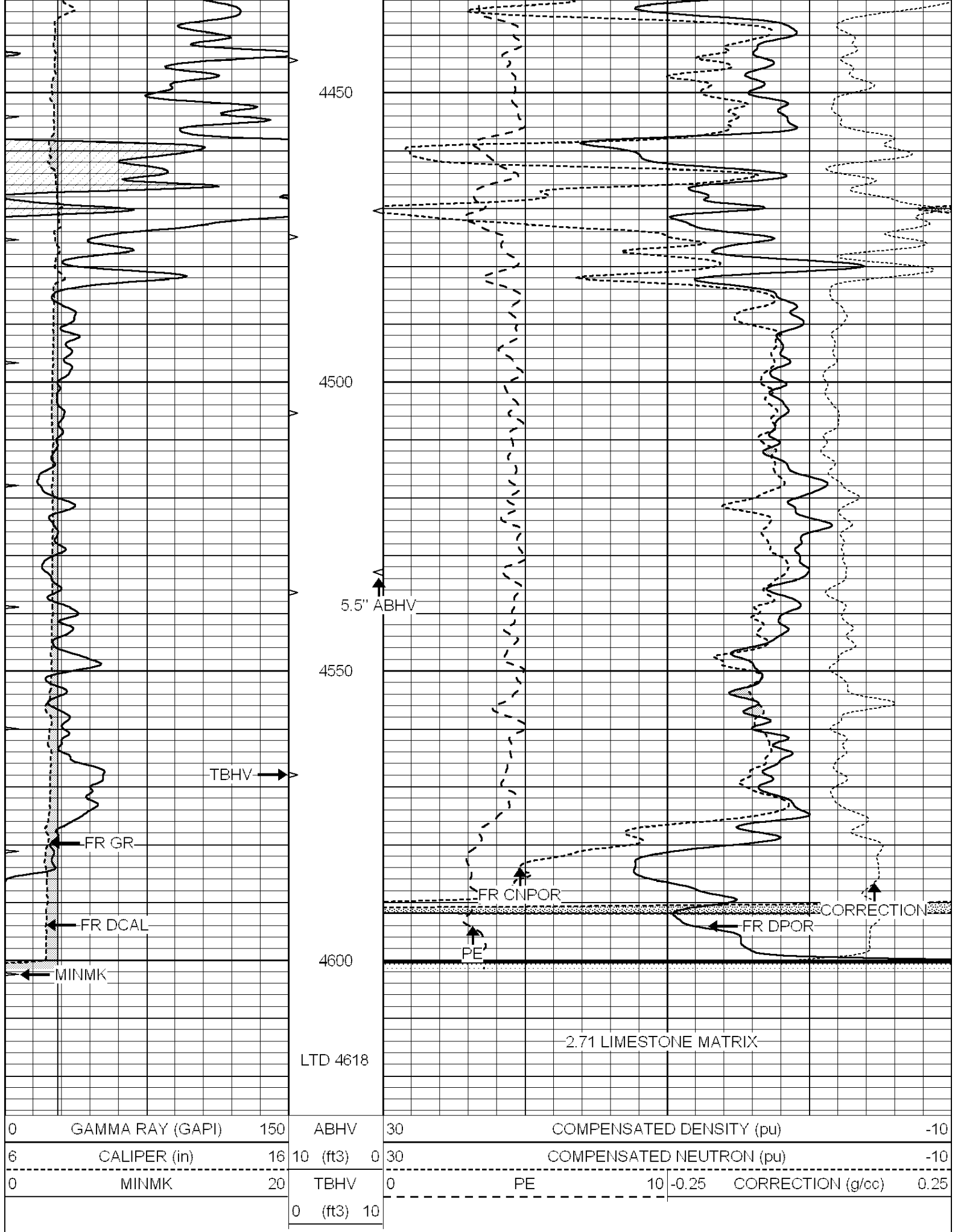
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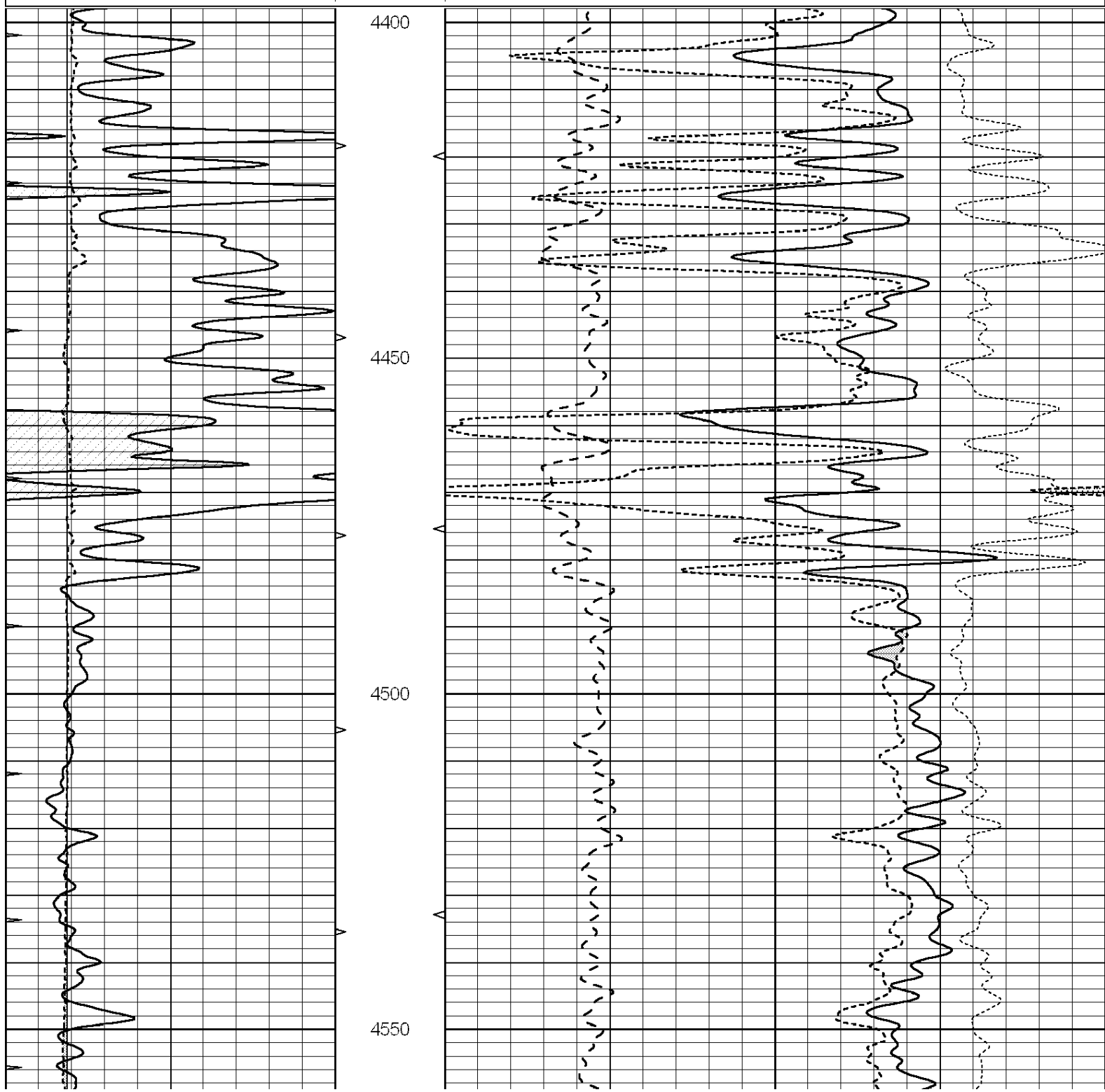


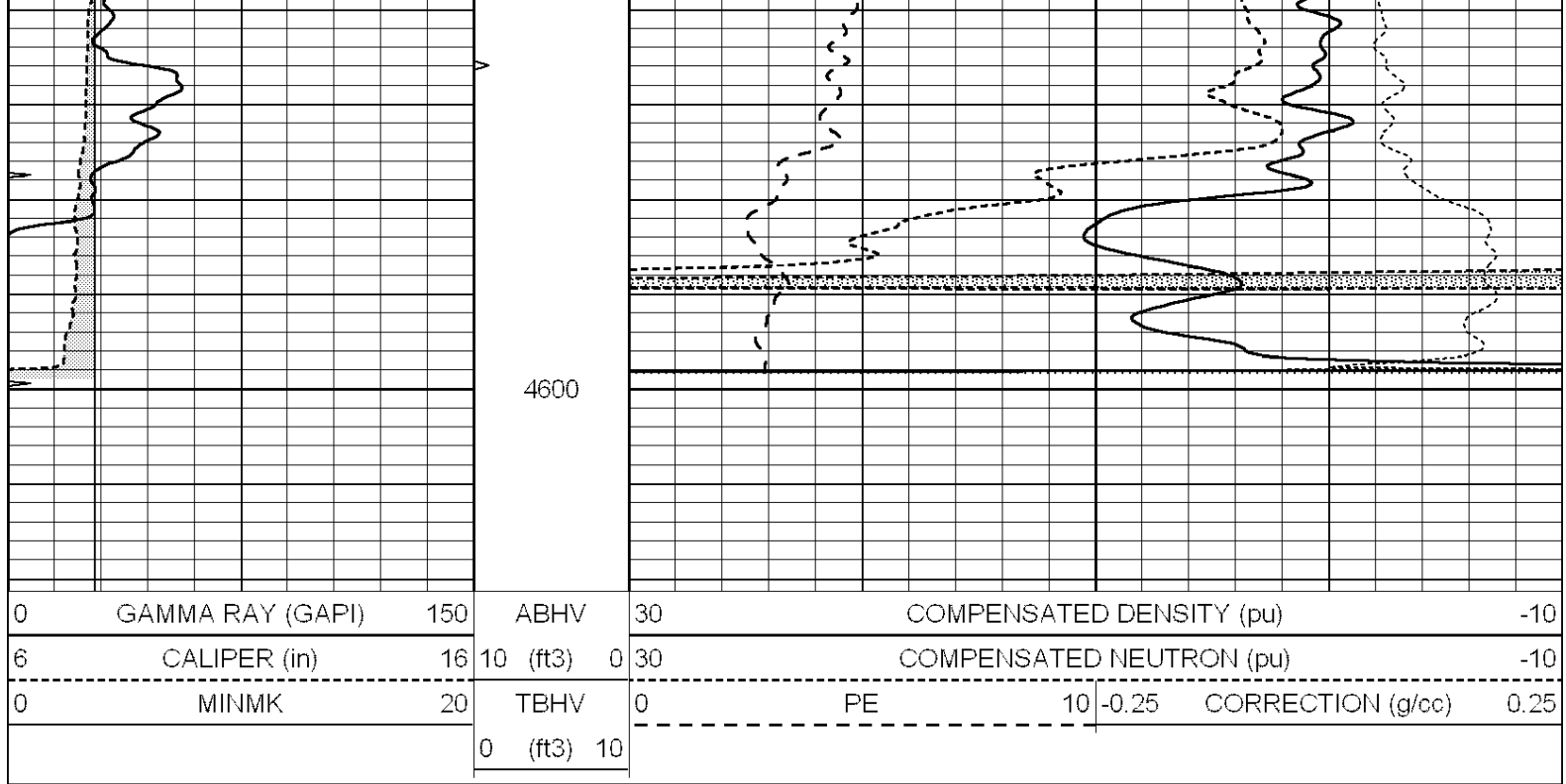


REPEAT SECTION

Database File: 25908pe.db
 Dataset Pathname: pass2.2
 Presentation Format: ldt_neu
 Dataset Creation: Wed Nov 05 06:31:17 2014 by Calc SOC 120430
 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
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		





Calibration Report

Database File: 25908pe.db
 Dataset Pathname: pass3.4
 Dataset Creation: Wed Nov 05 07:55:04 2014

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Wed Nov 05 06:16:07 2014
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	670.000	-11.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	670.000	-21.000
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	1.000	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		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

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: 004N Model: PRB

Master Calibration			Performed Fri May 30 11:01:00 2014					
	Background		Magnesium		Aluminum		Sandstone	
Window 1	1378.8		10804.6		3492.0		12453.4	cps
Window 2	1262.4		9313.5		3076.7		10594.7	cps
Window 3	1077.6		5668.7		2076.0		6314.8	cps
Window 4	306.4		313.0		306.4		315.6	cps
Long Space	0.0		8051.0		1814.3		9332.3	cps
Short Space	1.9		1706.1		1146.0		1707.6	cps
Rho			1.7100		2.5900		1.3800	g/cc
Pe			0.0000		2.5700		1.5500	
Rib Angle	: 45.0		Rib Slope	: 1.002	Density/Spine Ratio		: 0.571	
Spine Angle	: 75.0		Spine Slope	: 3.745	Spine Intercept		: -18.9	

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:	070808
Tool Model:	Probe

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:		Mon Jun 30 21:53:39 2014			
Calibrator Value:		1.0		GAPI	
Background Reading:		0.0		cps	
Calibrator Reading:		1.0		cps	
Sensitivity:		0.2800		GAPI/cps	