SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

COMPENSATED NEUTRON/DENSITY PE LOG

Company O'BRIEN RESOURCES, LLC
Well #1 SNIDER 35
Field HEALY SW
County LANE State KANSAS
Location: API # : 15-101-22289-0000
1103' FSL & 991' FWL
SEC 35 TWP 16S RGE 30W

Other Services
DIL
MEL/SON

Elevation
K.B. 2857
D.F. 2855
G.L. 2852

Permanent Datum GROUND LEVEL Elevation 2852
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Company	O'BRIEN RESOURCES, LLC		
Well	#1 SNIDER 35		
Field	HEALY SW		
County	LANE		
State	KANSAS		
Date	5/11/11		
Run Number	ONE		
Depth Driller	4650		
Depth Logger	4651		
Bottom Logged Interval	4627		
Top Log Interval	3400		
Casing Driller	8 5/8" @ 256'		
Casing Logger	256'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2700 PPM	
Density / Viscosity	9.3 / 49		
pH / Fluid Loss	10.0 / 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.90 @ 98F		
Rmf @ Meas. Temp	0.68 @ 98F		
Rmc @ Meas. Temp	1.08 @ 98F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.72 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	122F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	KIM SHOEMAKER		

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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.

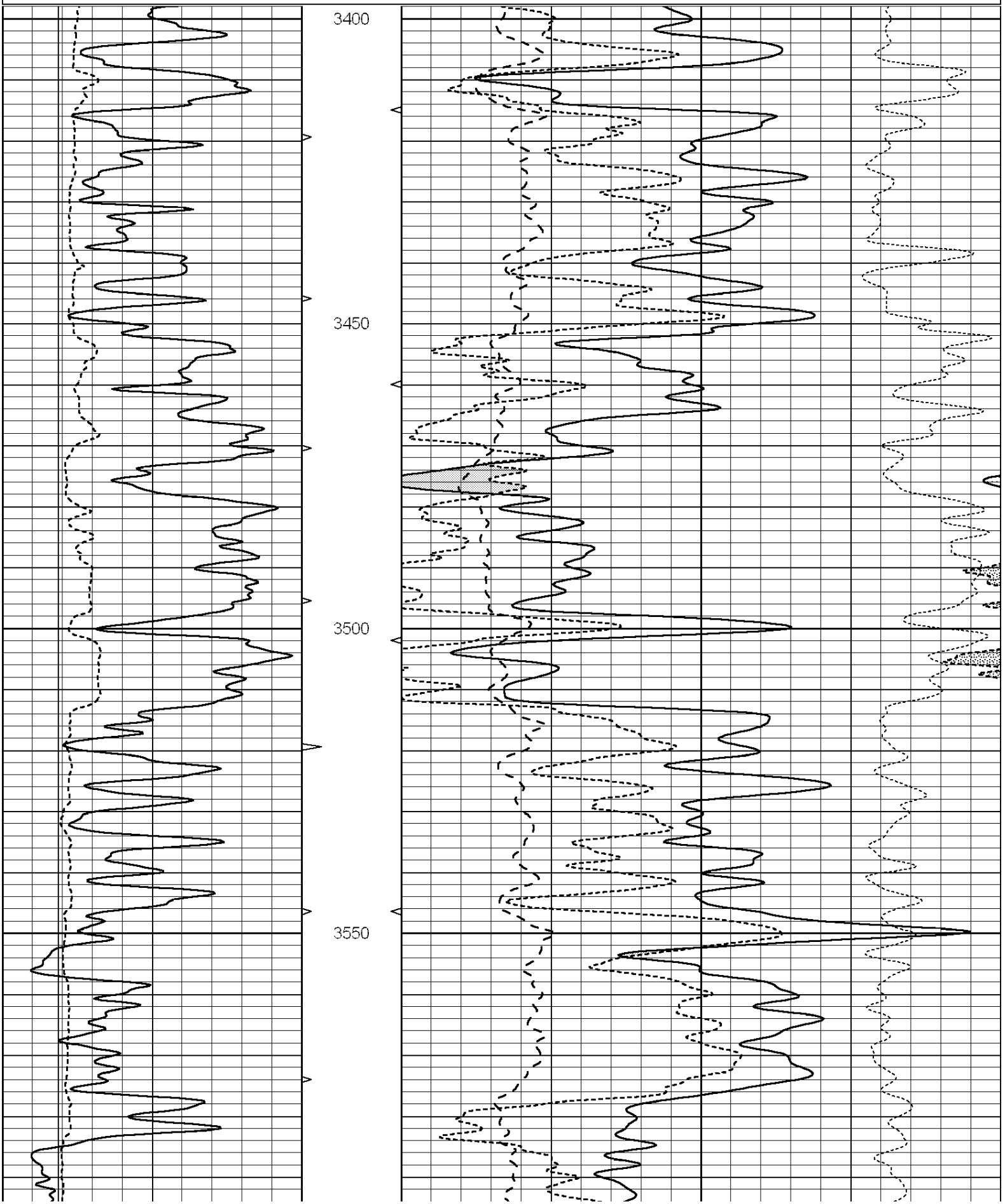
Comments

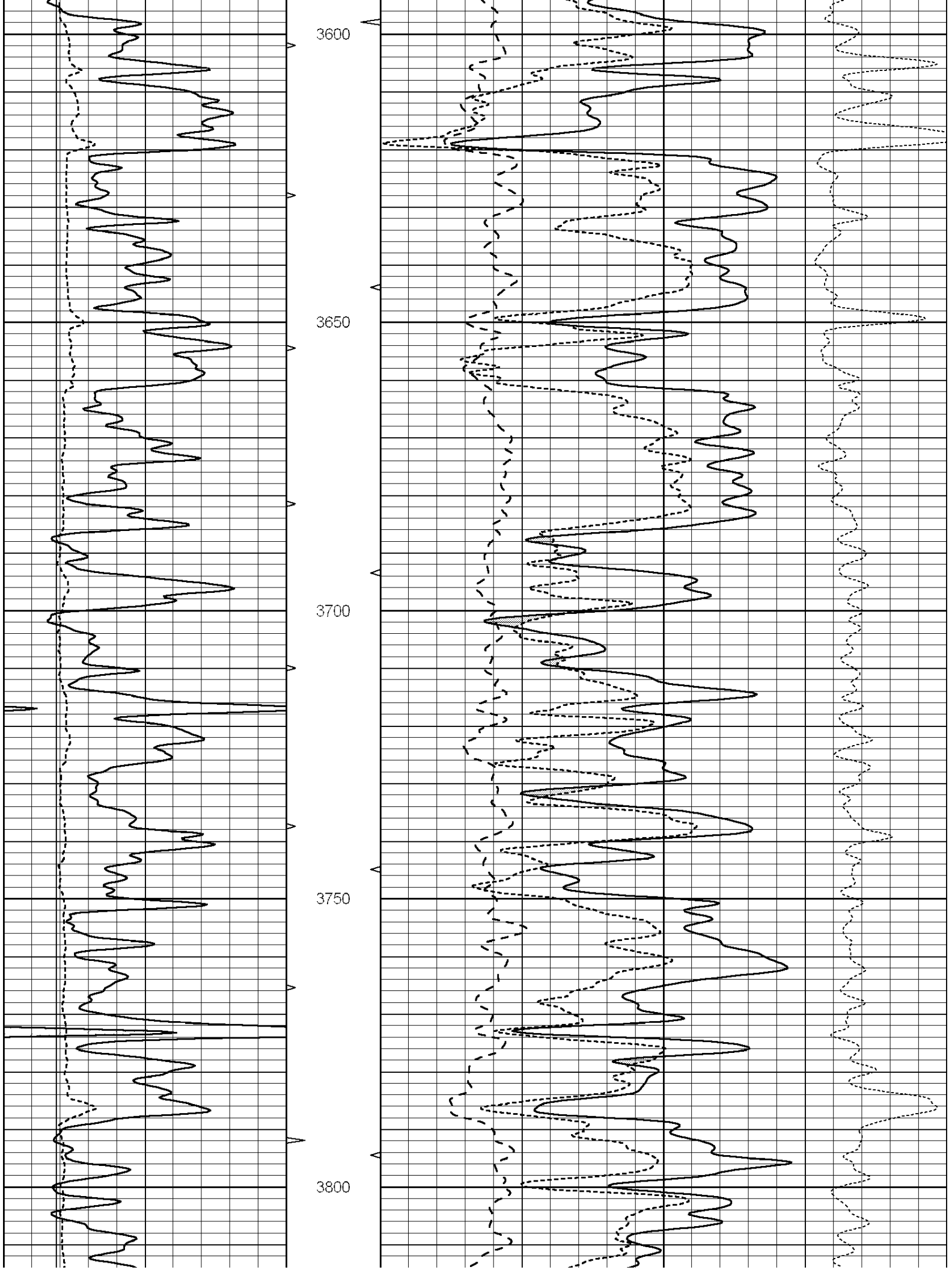
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
HEALY, KS - 1 1/4 MILES NORTH ON DODGE RD (HEALY OIL & GAS STATION)
EAST INTO

Database File:	007076pe.db
Dataset Pathname:	pass3.1
Presentation Format:	_ldt_neu
Dataset Creation:	Wed May 11 19:06:45 2011 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

Started 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
			TBHV		0	PE 10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10			

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3750
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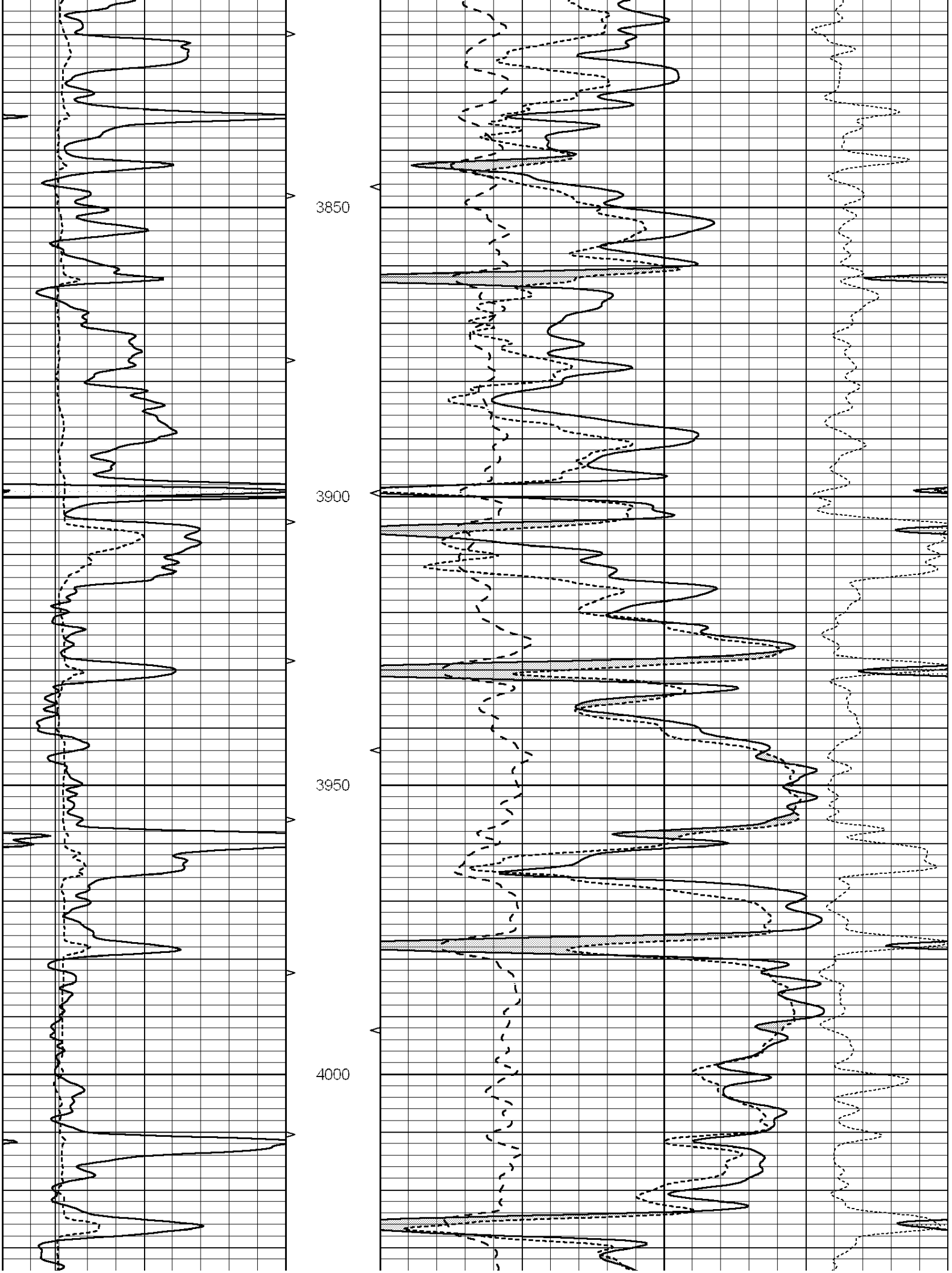
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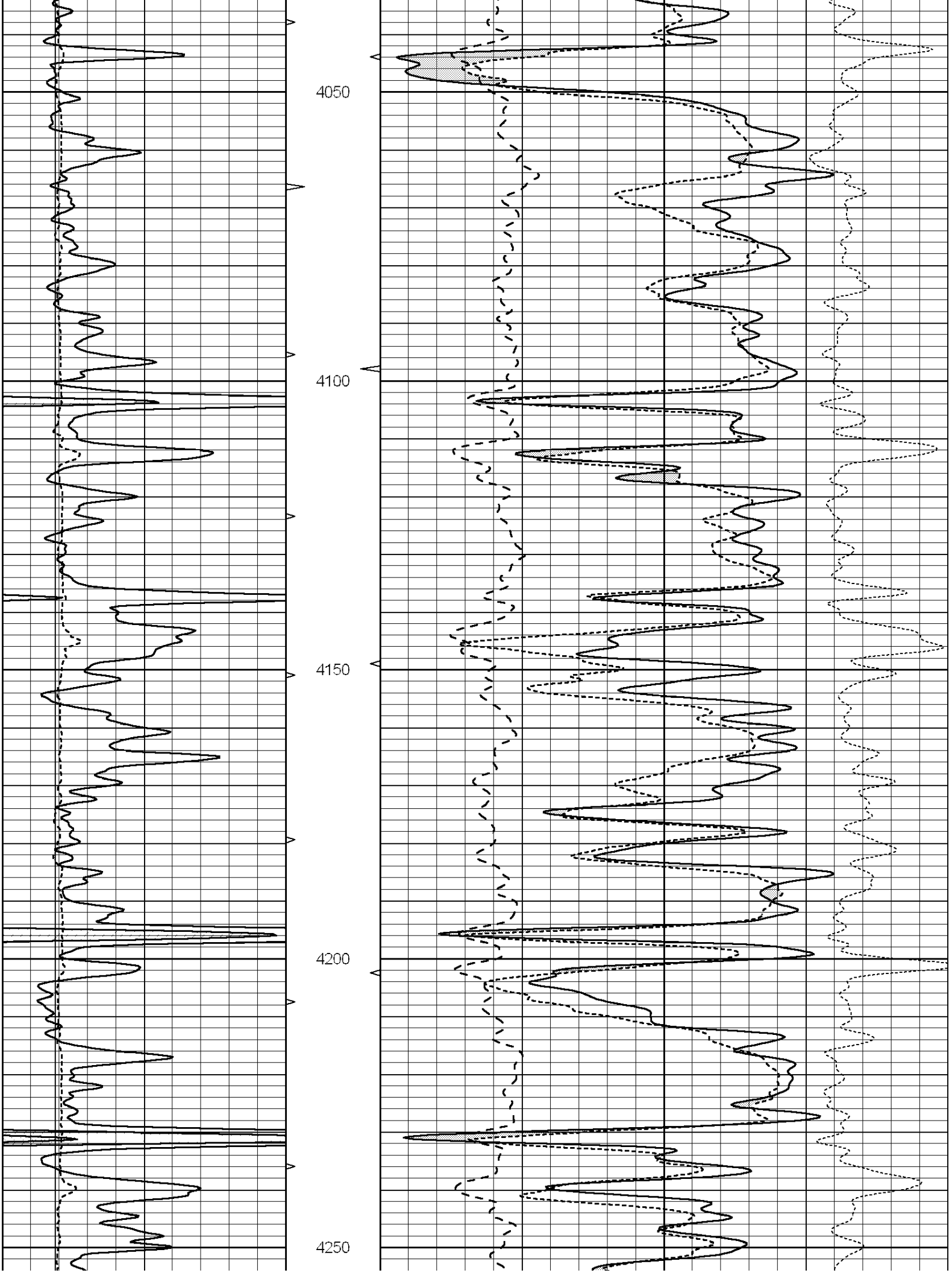
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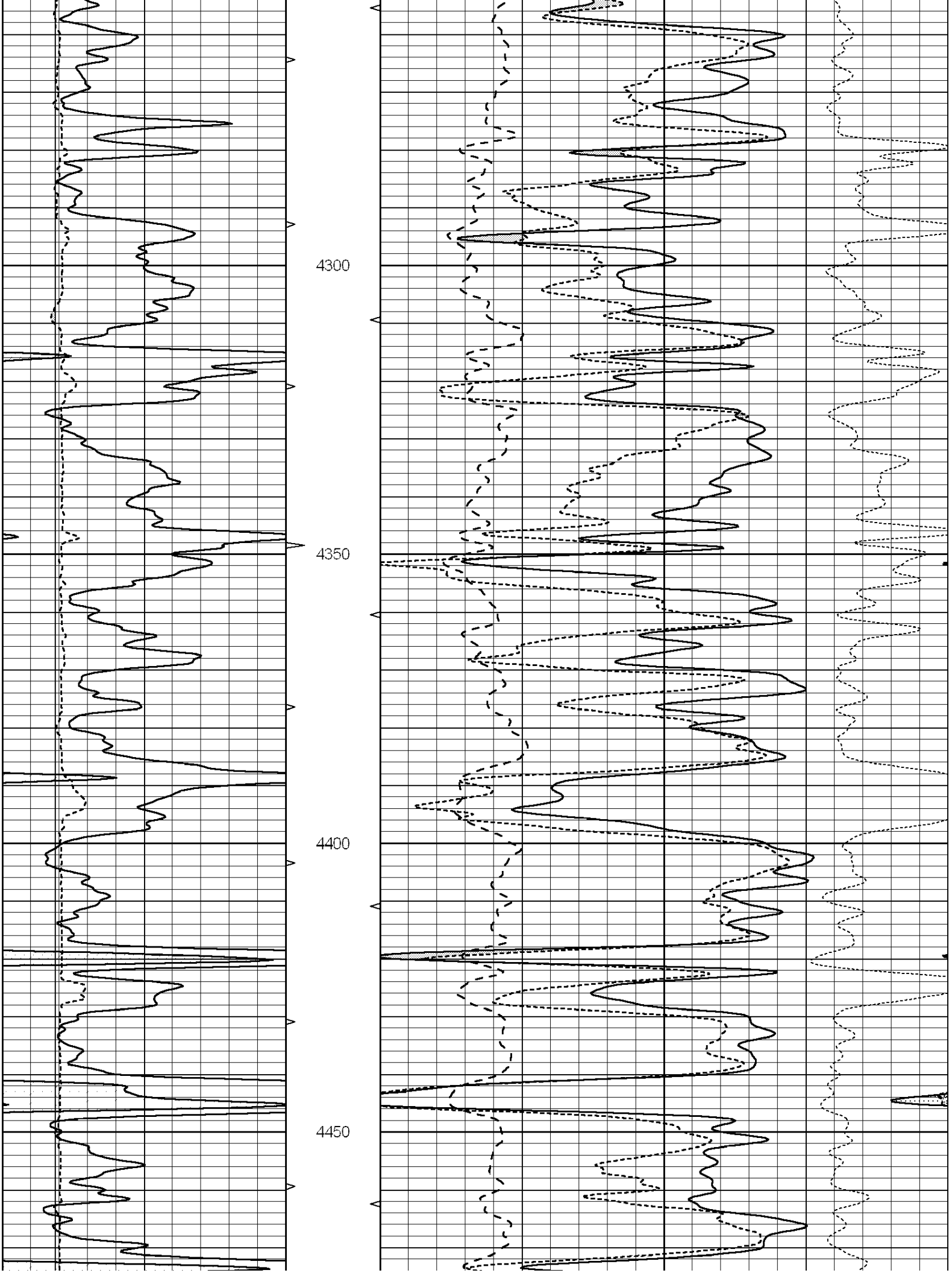
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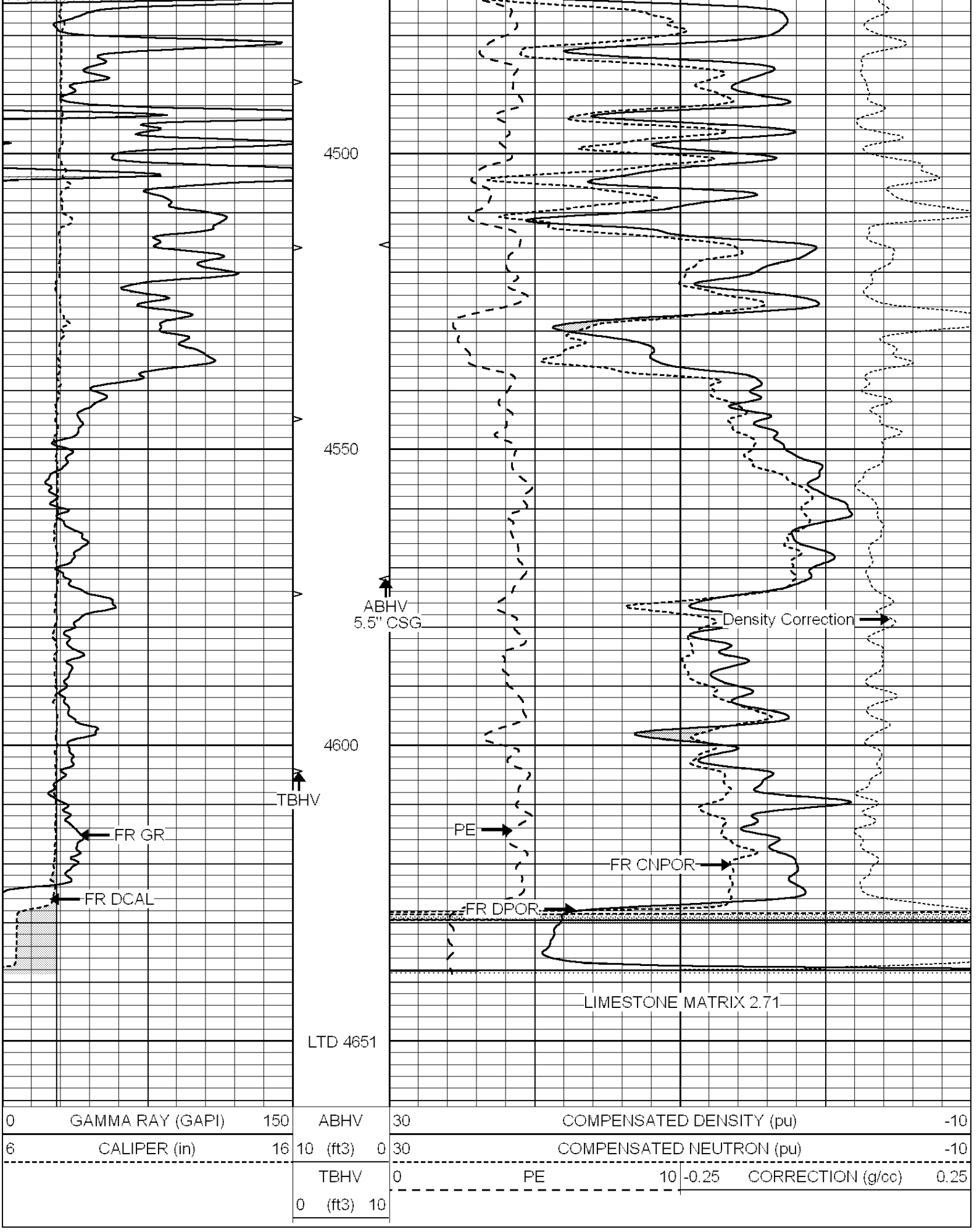


SUPERIOR

REPEAT SECTION

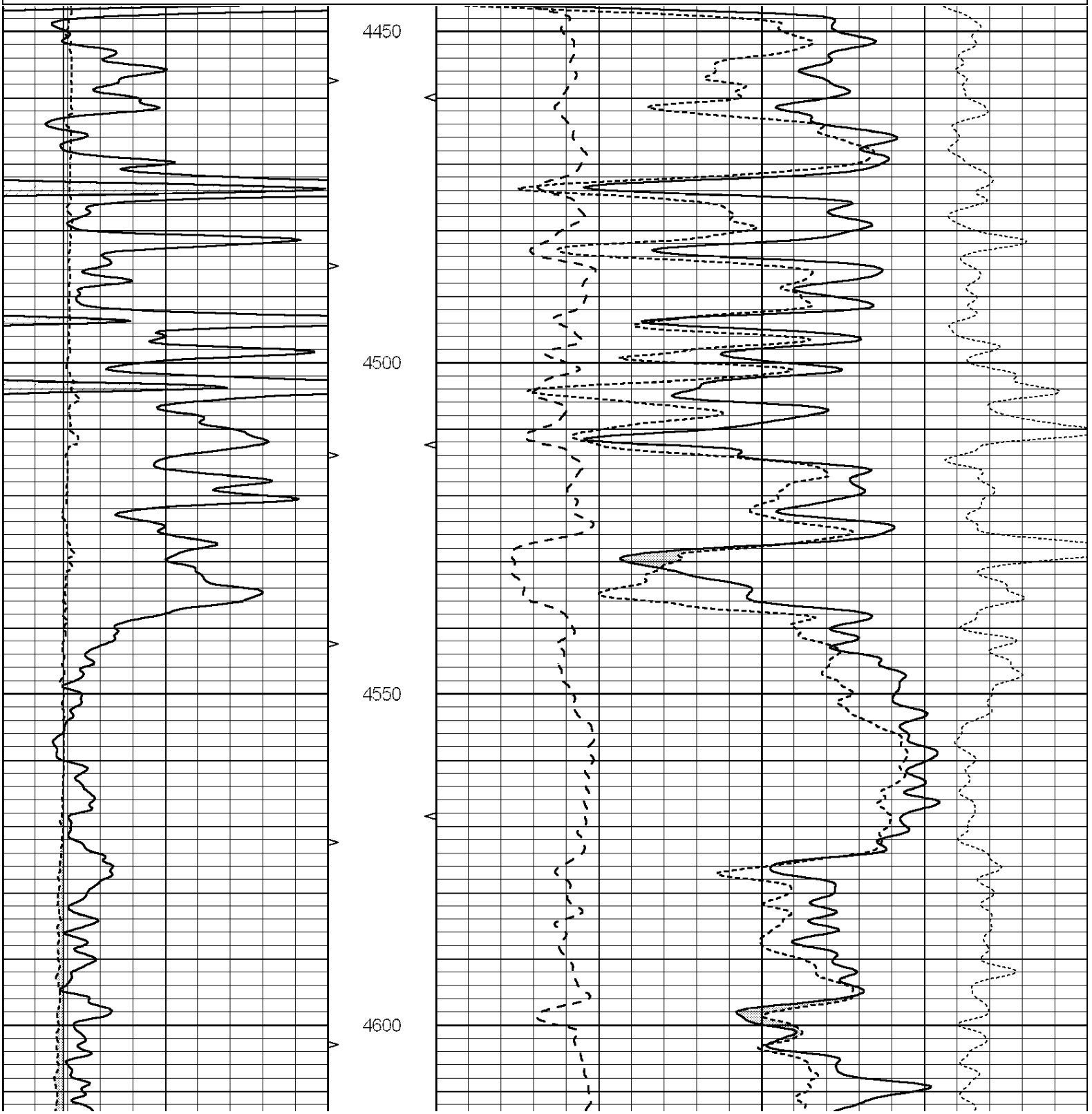
SUPERIOR WELL SERVICES

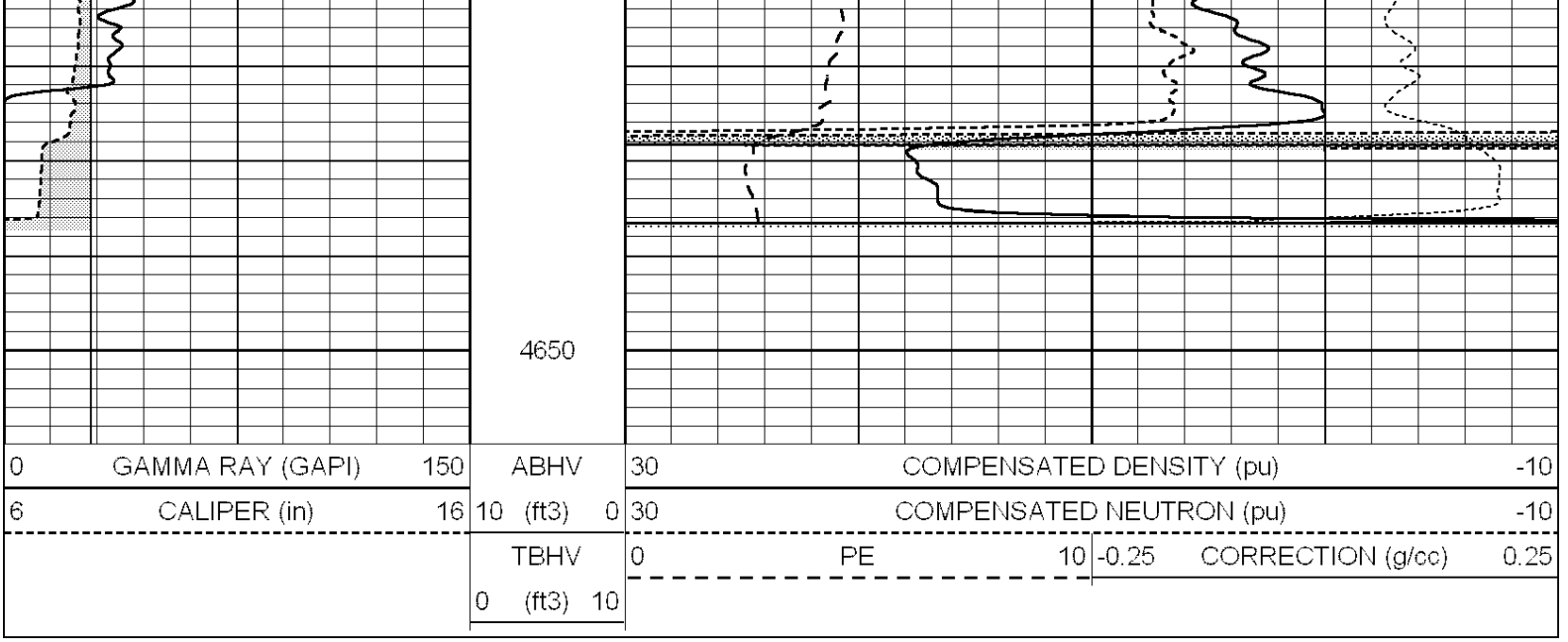
Hays, Kansas

REPEAT SECTION

Database File:	007076pe.db
Dataset Pathname:	pass2.1
Presentation Format:	_ldt_neu
Dataset Creation:	Wed May 11 18:27:12 2011 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
			TBHV	0 PE 10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10		





Calibration Report

Database File: 007076pe.db
Dataset Pathname: pass3.1
Dataset Creation: Wed May 11 19:06:45 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Wed Jul 30 06:14:24 2008
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	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
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		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: 002 Model: PRB
Performed Mon Oct 29 15:40:49 2007

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1056.3	9118.0	2809.7	10378.4	cps
Window 2	969.9	7671.9	2431.6	8565.8	cps
Window 3	683.8	2939.8	1161.0	3161.8	cps
Window 4	231.4	231.6	226.7	230.8	cps
Long Space	0.0	6702.0	1461.7	7595.9	cps
Short Space	1.2	1433.6	959.4	1568.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.559
Spine Angle	: 75.2	Spine Slope	: 3.791	Spine Intercept	: -18.7

Caliper

	Readings	Reference
Low Ref	2.8	8.0
High Ref	5.0	14.0

Gain: 2.7 Offset: -1.2

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

Gamma Ray Calibration Report

Serial Number: #8
Tool Model: OPEN
Performed: Sun Apr 10 22:50:36 2011

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 175.0 cps

Sensitivity: 0.8971 GAPI/cps