



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY
NEUTRON LOG

Company	POPP OPERATING, INC.		
Well	SELLENS HEIRS #3		
Field	TRAPP		
County	RUSSELL	State	KANSAS
Location:	API # : 15-167-23588		Other Services DIL MICRO
840' FSL & 1650' FWL			
SEC 29 TWP 15S RGE 13W			
Permanent Datum	GROUND LEVEL	Elevation	1893
Log Measured From	KELLY BUSHING 8' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Elevation	K.B. 1901		
D.F.			
G.L.	1893		

Date	8-17-09		
Run Number	ONE		
Depth Driller	3390		
Depth Logger	3390		
Bottom Logged Interval	3366		
Top Log Interval	2450		
Casing Driller	878		
Casing Logger	NA		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.1 / 56		
pH / Fluid Loss	10.5 / 9.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.85 @ 86F		
Rinf @ Meas. Temp	0.64 @ 86F		
Rmc @ Meas. Temp	1.02 @ 86F		
Source of Rinf / Rmc	MEASURED		
Rim @ BHT	.670 @ 109F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	109F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	JASON ALM		

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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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: RUSSELL, S TO MICHAELIS RD., 3W, TO TANK BATTERIES, N INTO.

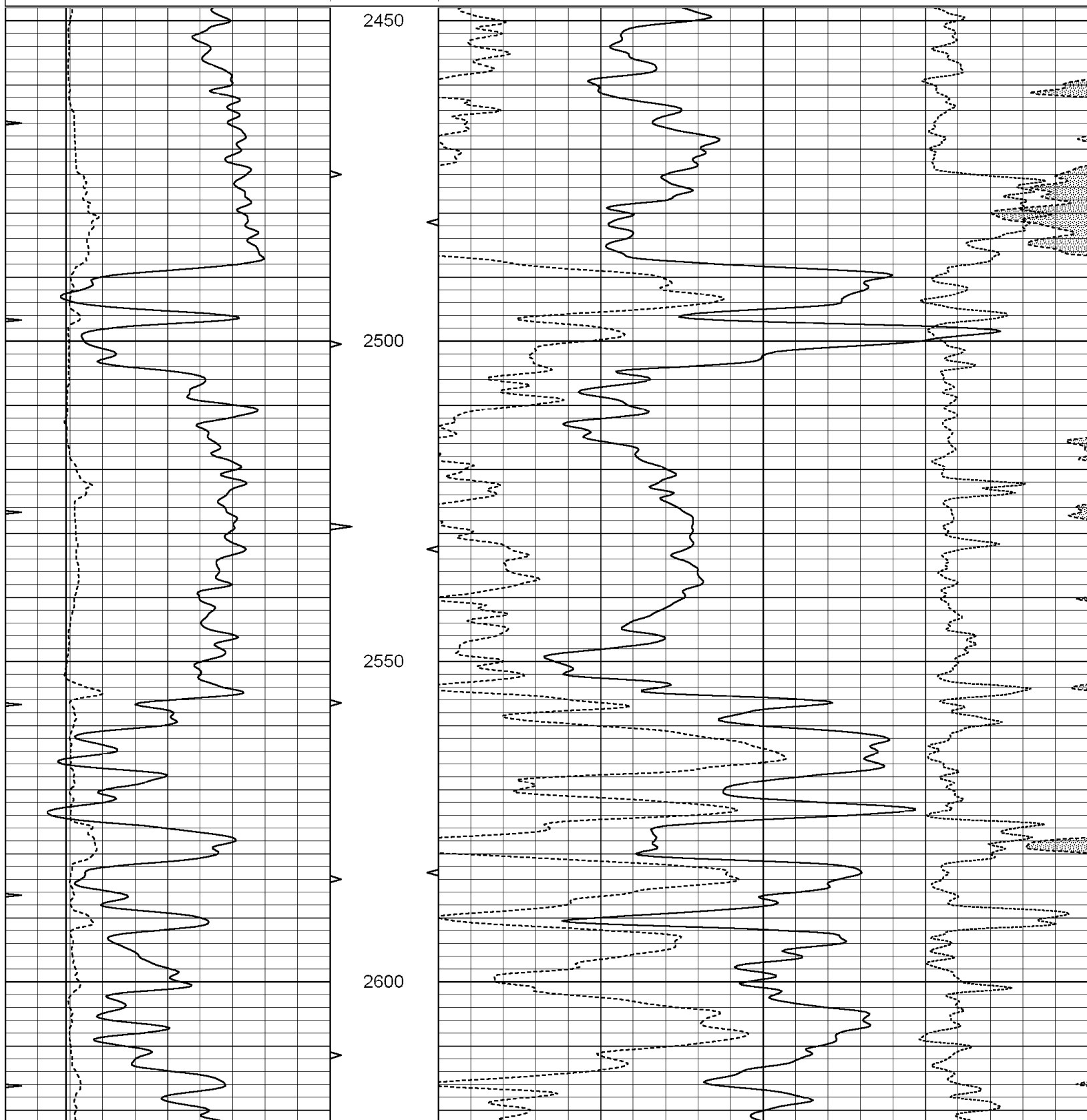


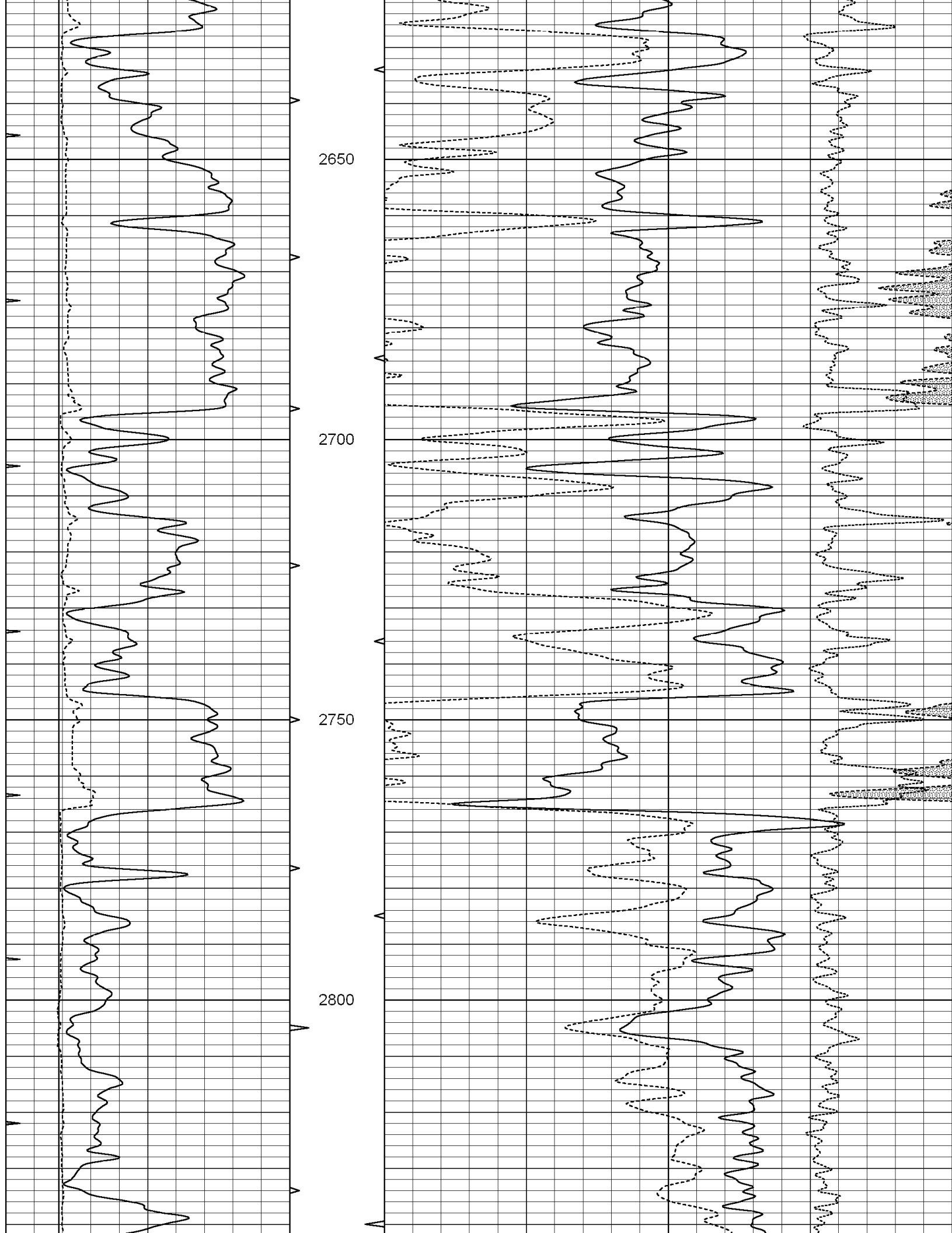
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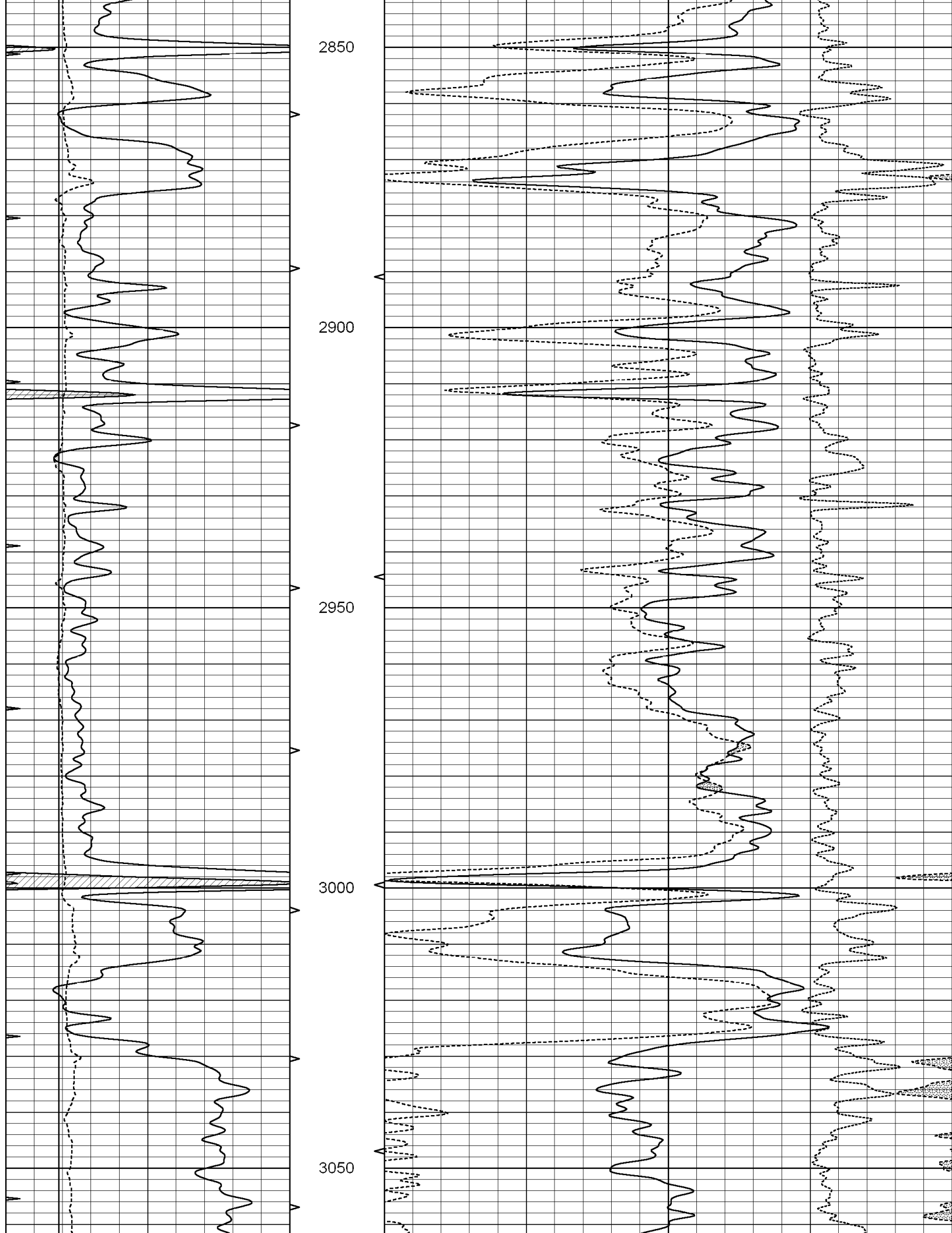
MAIN SECTION

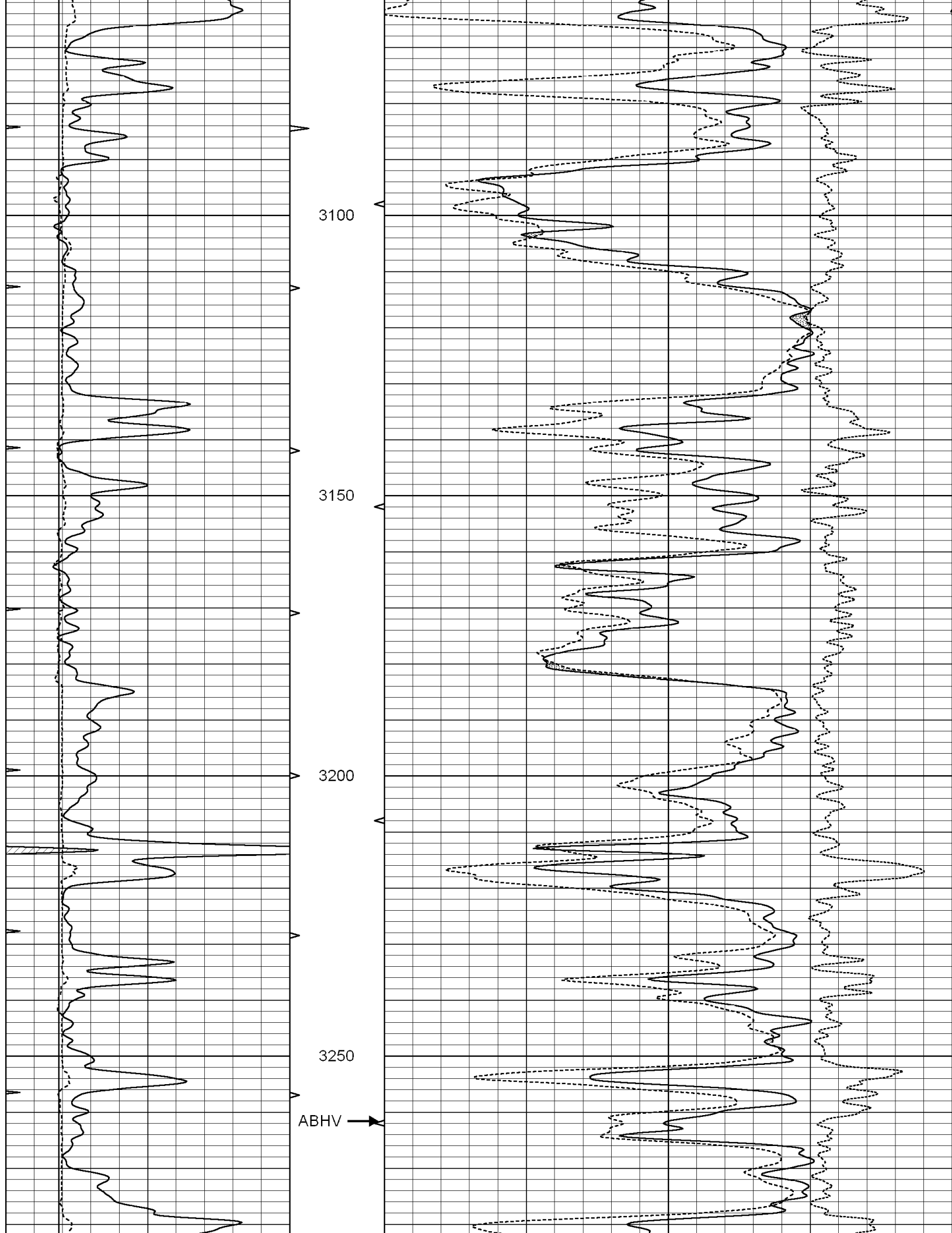
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Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Mon Aug 17 07:05:18 2009 by Calc Open-Cased 051020
Charted by: Depth in Feet scaled 1:240

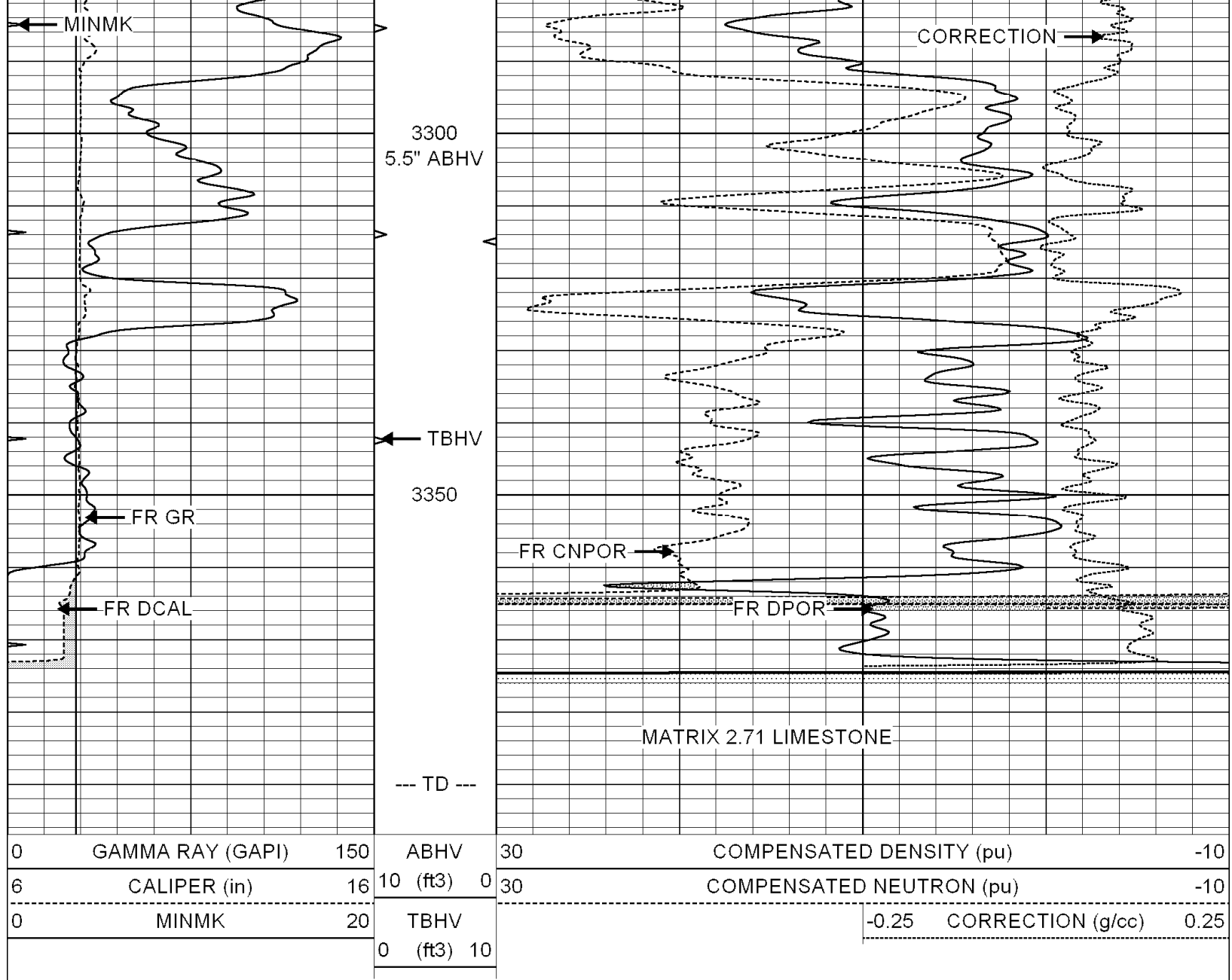
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			









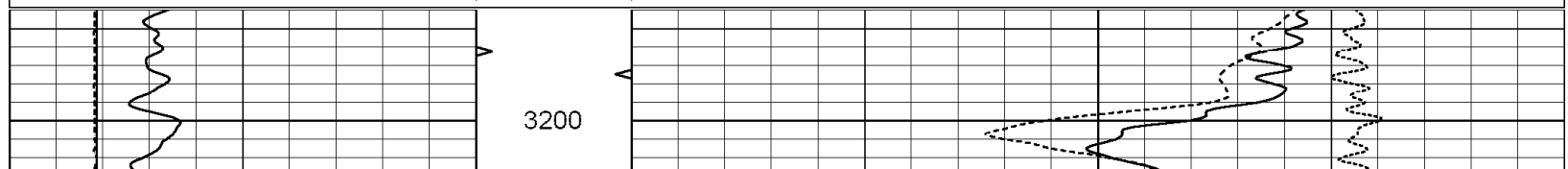


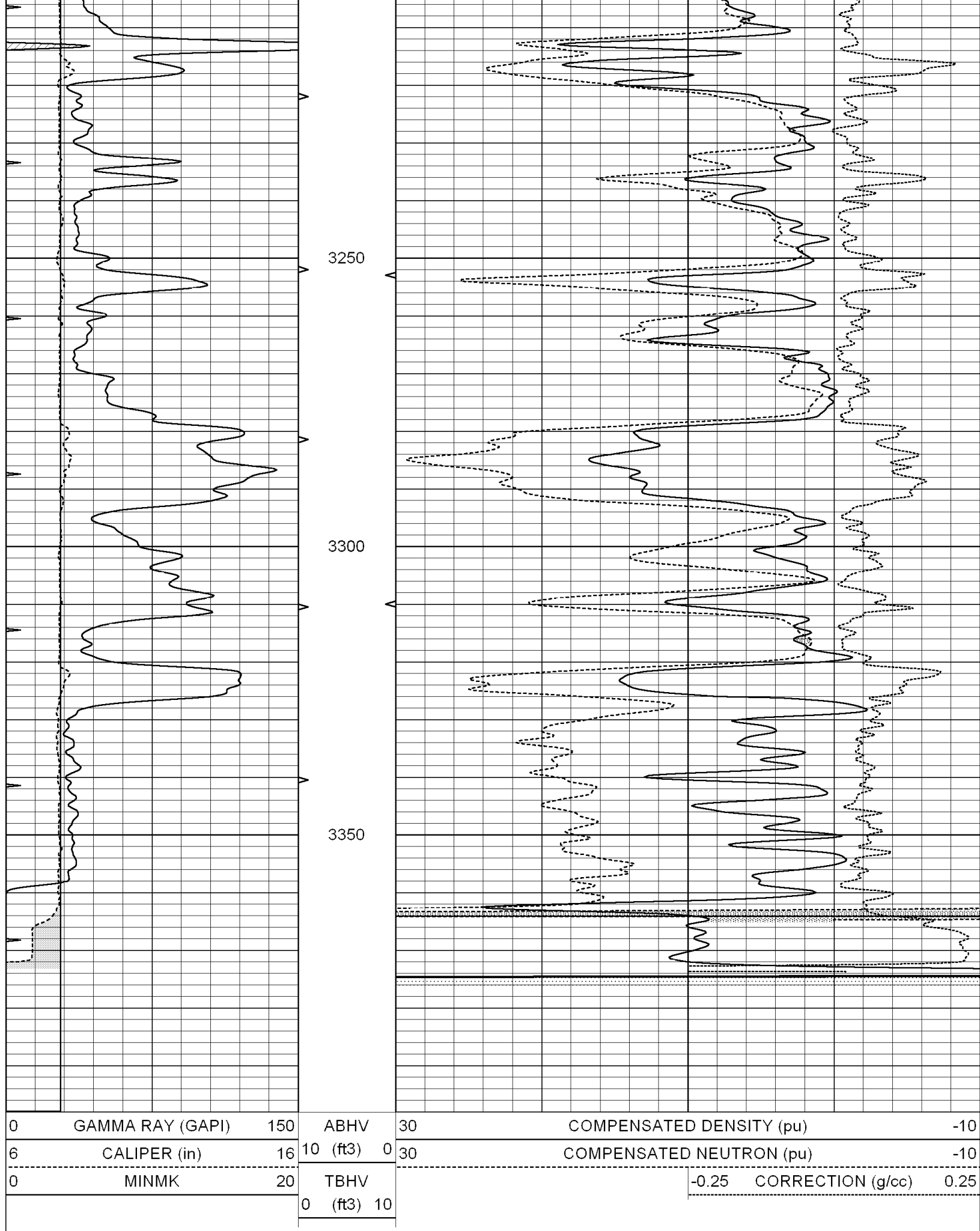
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REPEAT SECTION

Database File: 000718ddn.db
 Dataset Pathname: pass2A
 Presentation Format: den_neu
 Dataset Creation: Mon Aug 17 07:38:05 2009
 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: 000718ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Mon Aug 17 07:05:18 2009 by Calc Open-Cased 051020

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Mon Aug 17 06:53:03 2009

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho-m	490.000	-8.000
Medium	-0.005	0.737	V	0.000	462.500	mmho-m	460.000	-9.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho-m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho-m	627.607	-6.064

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Thu Aug 13 15:53:30 2009

Master Calibration

	Density			Far Detector	Near Detector	
Magnesium	1.710	g/cc		1006.91	528.07	cps
Aluminum	2.610	g/cc		233.49	355.80	cps
Spine Angle = 74.88			Density/Spine Ratio = 0.594			
	Size			Reading		
Small Ring	8.20	in		3.68	V	
Large Ring	14.00	in		6.06	V	

Compensated Neutron Calibration Report

Serial Number: NEU_11
 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: GR5
 Tool Model: OPEN
 Performed: Fri Jul 31 06:50:30 2009

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.5300 GAPI/cps