



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY/NEUTRON
LOG

MULL DRILLING COMPANY, INC.

BOWIE #1-14

WILDCAT

HODGEMAN

KANSAS

Company MULL DRILLING COMPANY, INC.

Well BOWIE #1-14

Field WILDCAT

County HODGEMAN State KANSAS

Location: API # : 15-083-21702-0000

361' FNL & 970' FWL

SEC 14 TWP 21S RGE 22W

Permanent Datum GROUND LEVEL Elevation 2194
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
DIL
MEL/SON
Elevation
K.B. 2199
D.F. 2197
G.L. 2194

Date 5/19/11

Run Number ONE

Depth Driller 4500

Depth Logger 4500

Bottom Logged Interval 4476

Top Log Interval 3600

Casing Driller 8 5/8" @ 228

Casing Logger 228

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.9/50

pH / Fluid Loss 7.0/6.0

Source of Sample FLOWLINE

Rim @ Meas. Temp .22 @ 91F

Rmf @ Meas. Temp .16 @ 91F

Rmc @ Meas. Temp .26 @ 91F

Source of Rmf / Rmc MEASURED

Rim @ BHT .16 @ 120F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 120F

Maximum Recorded Temperature 120F

Equipment Number 680

Location HAYS, KS.

Recorded By JASON CAPPELLUCCI

Witnessed By MACKLIN ARMSTRONG

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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
HANSTON KS. - HWY 156 & RD 228 - 7 N. - 1/4 E. - S. INTO

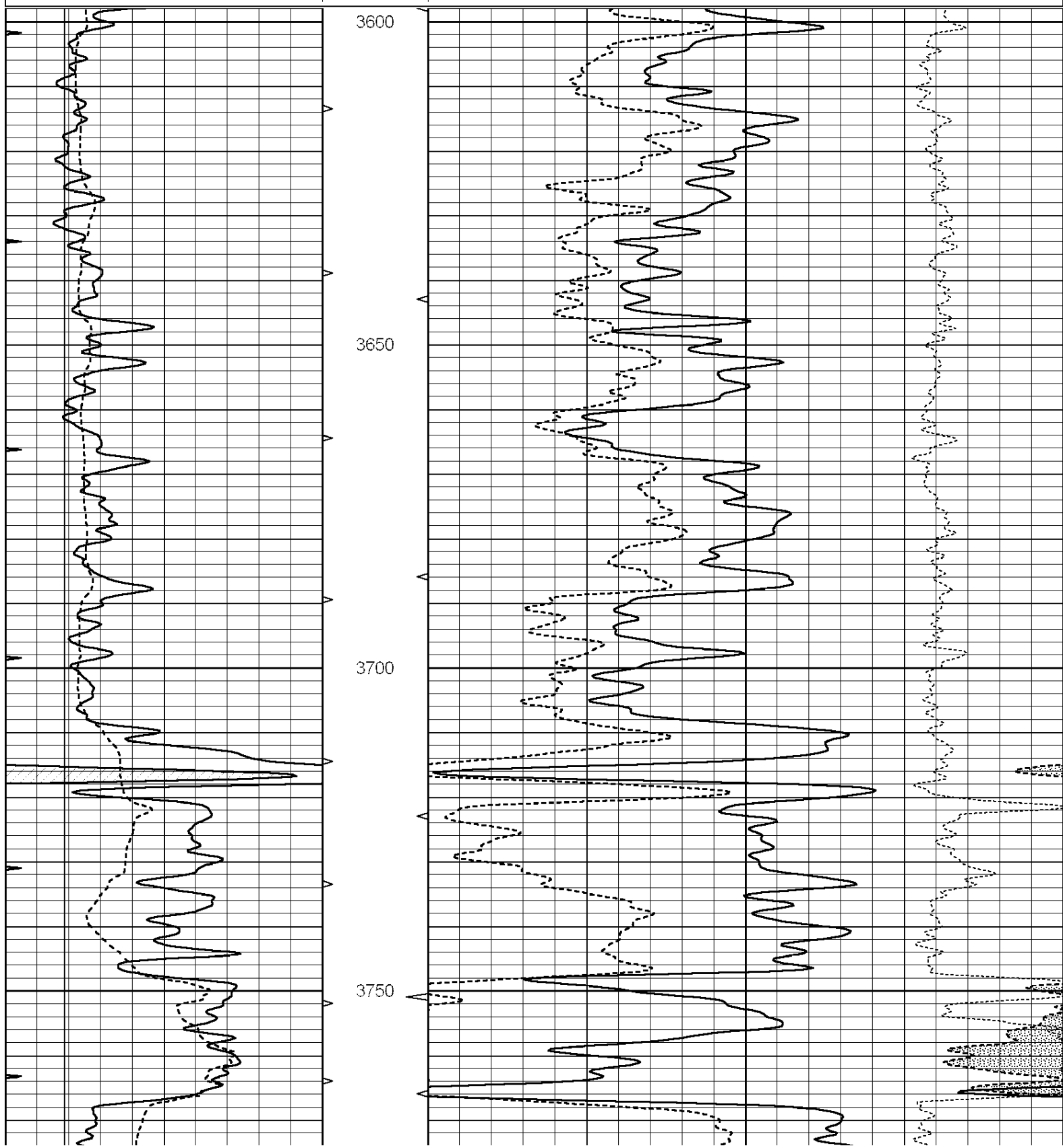


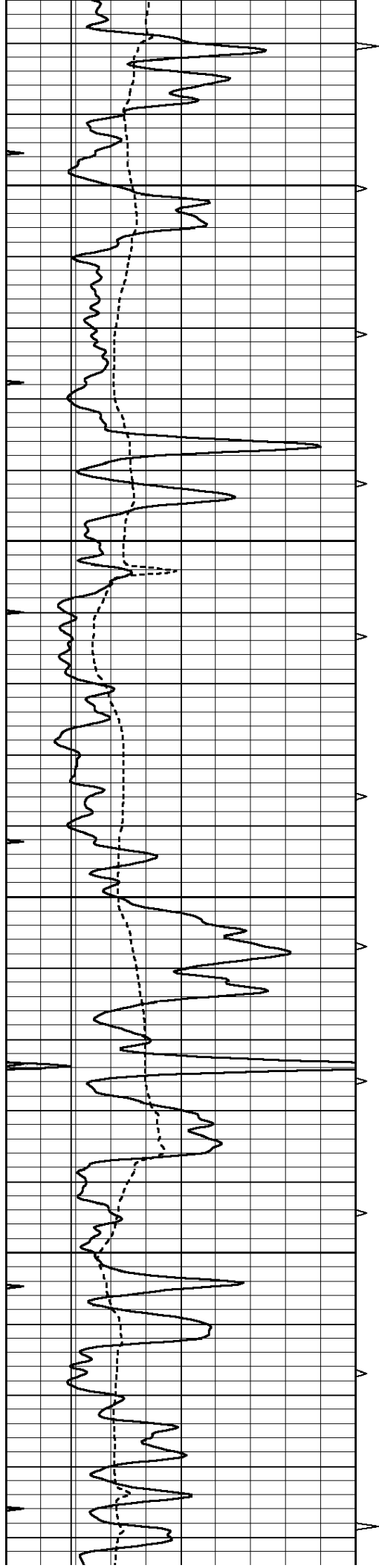
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MAIN SECTION

Database File: 007065ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _den_neu
 Dataset Creation: Thu May 19 18:41:18 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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



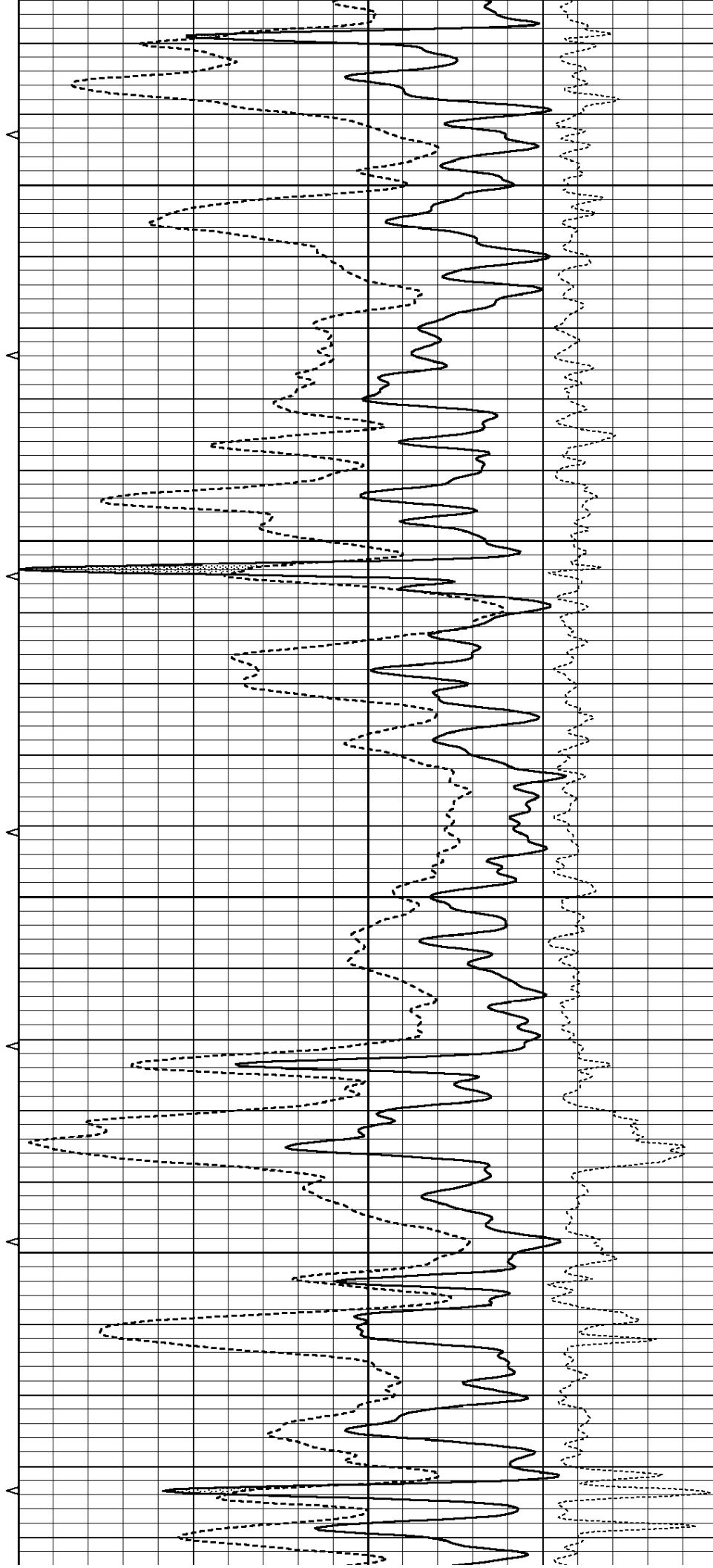


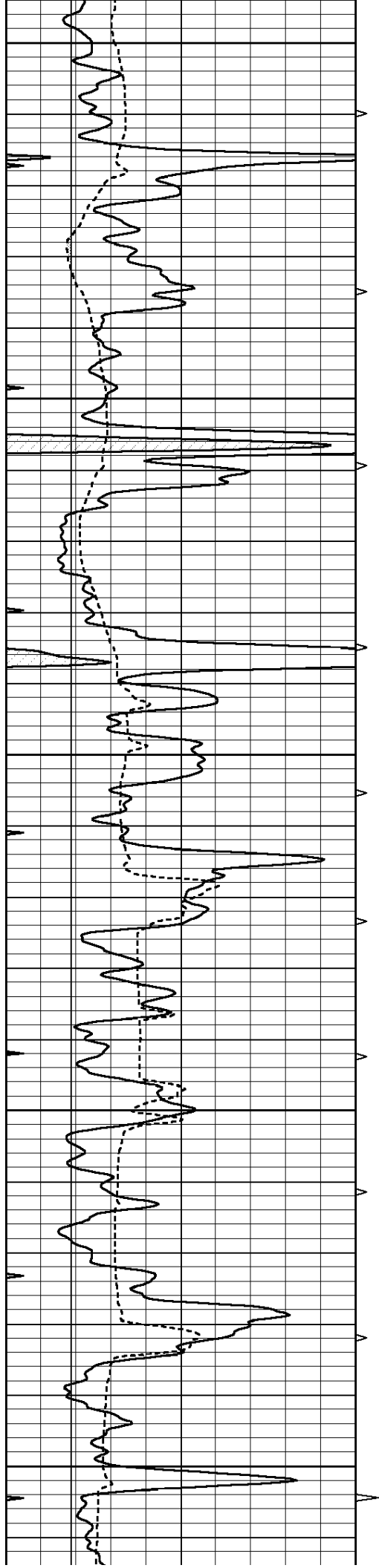
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3850

3900

3950





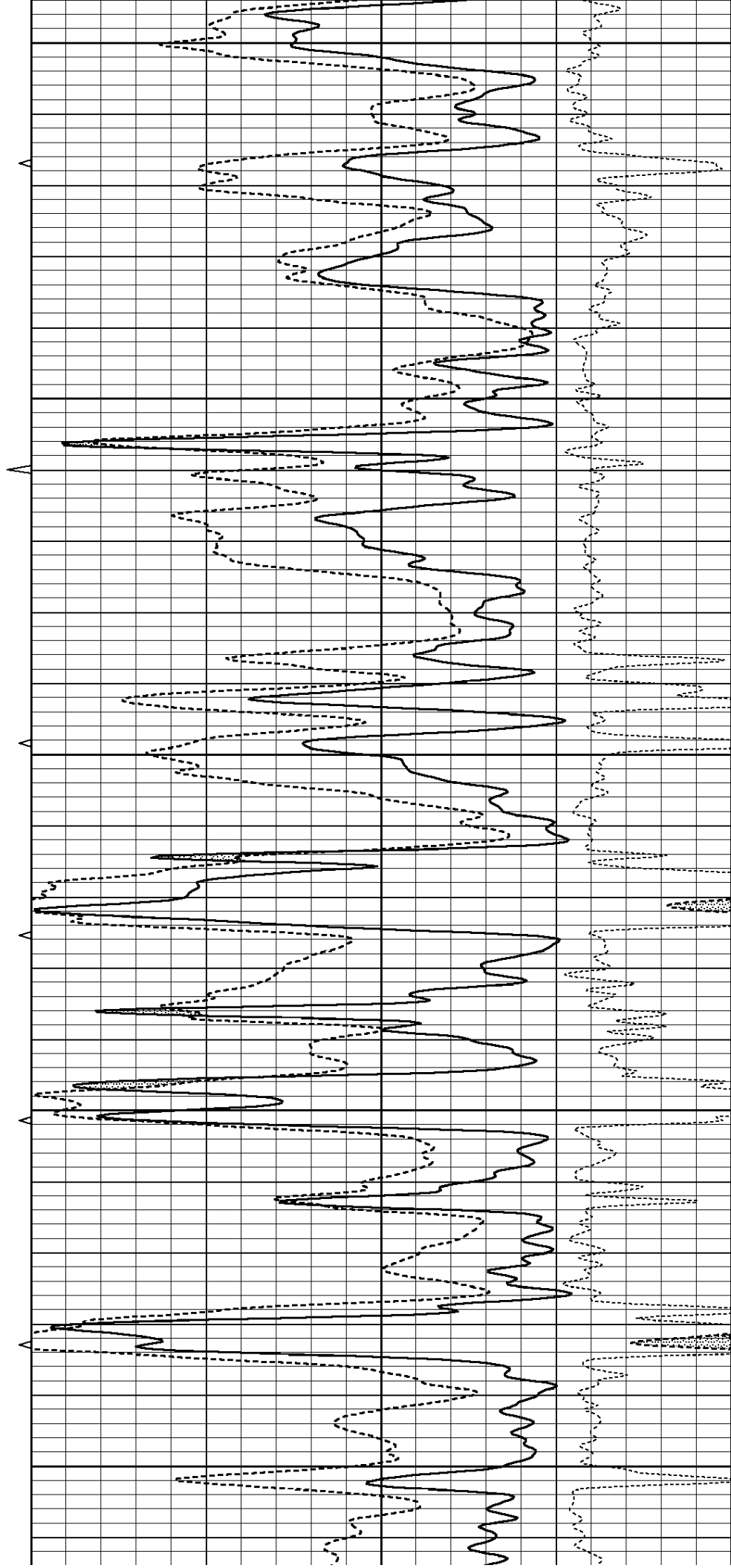
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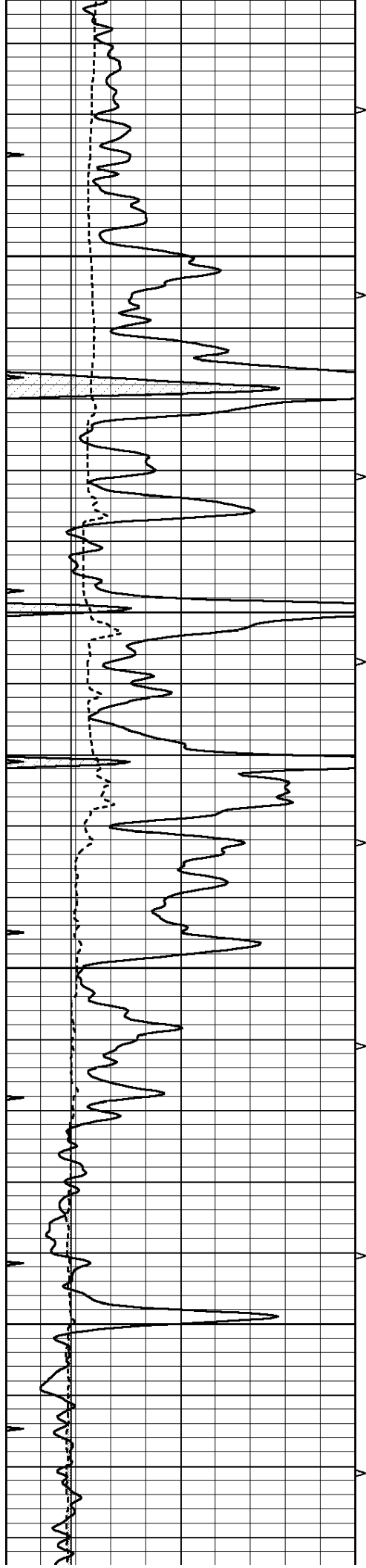
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4150

4200





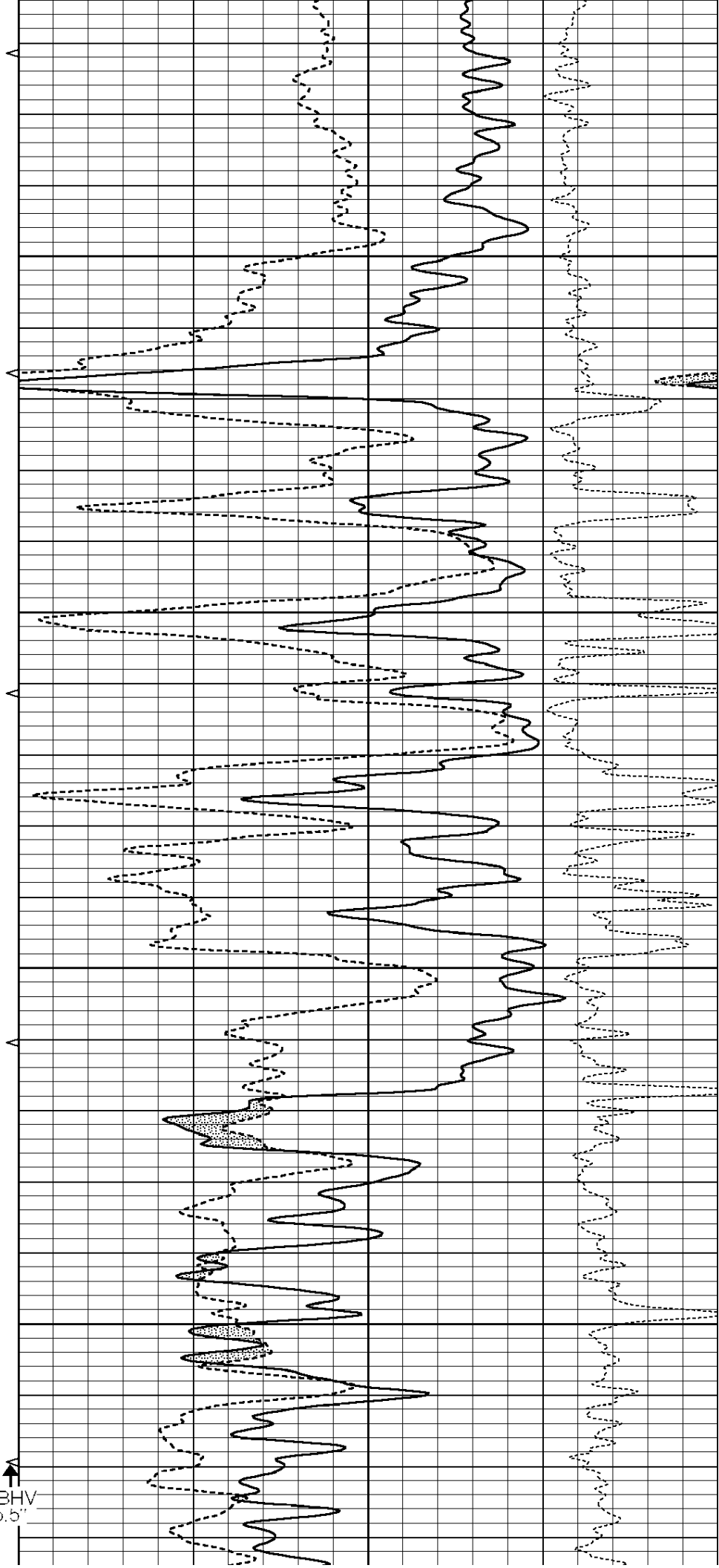
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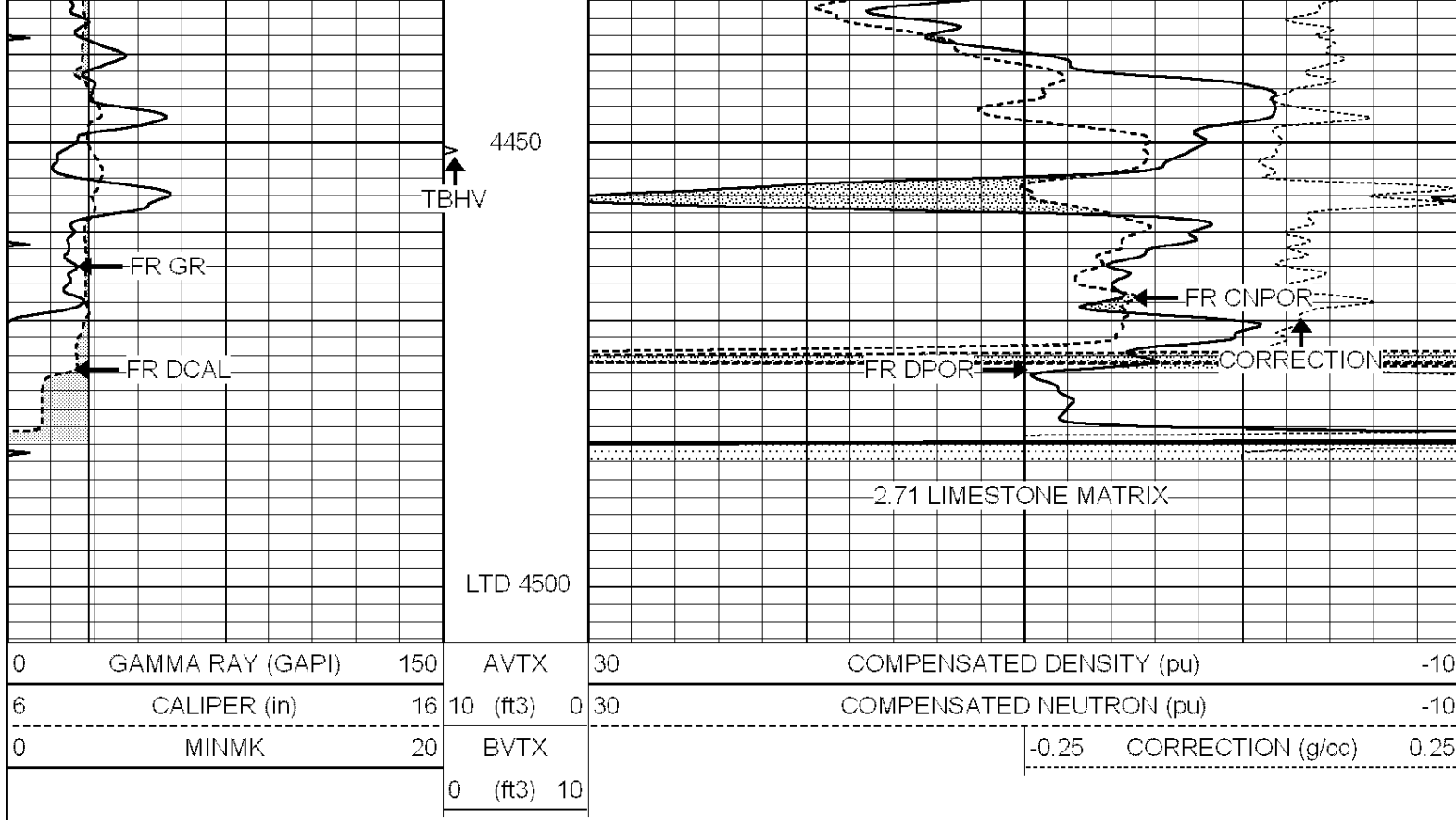
4300

4350

4400

ABHV
5.5"



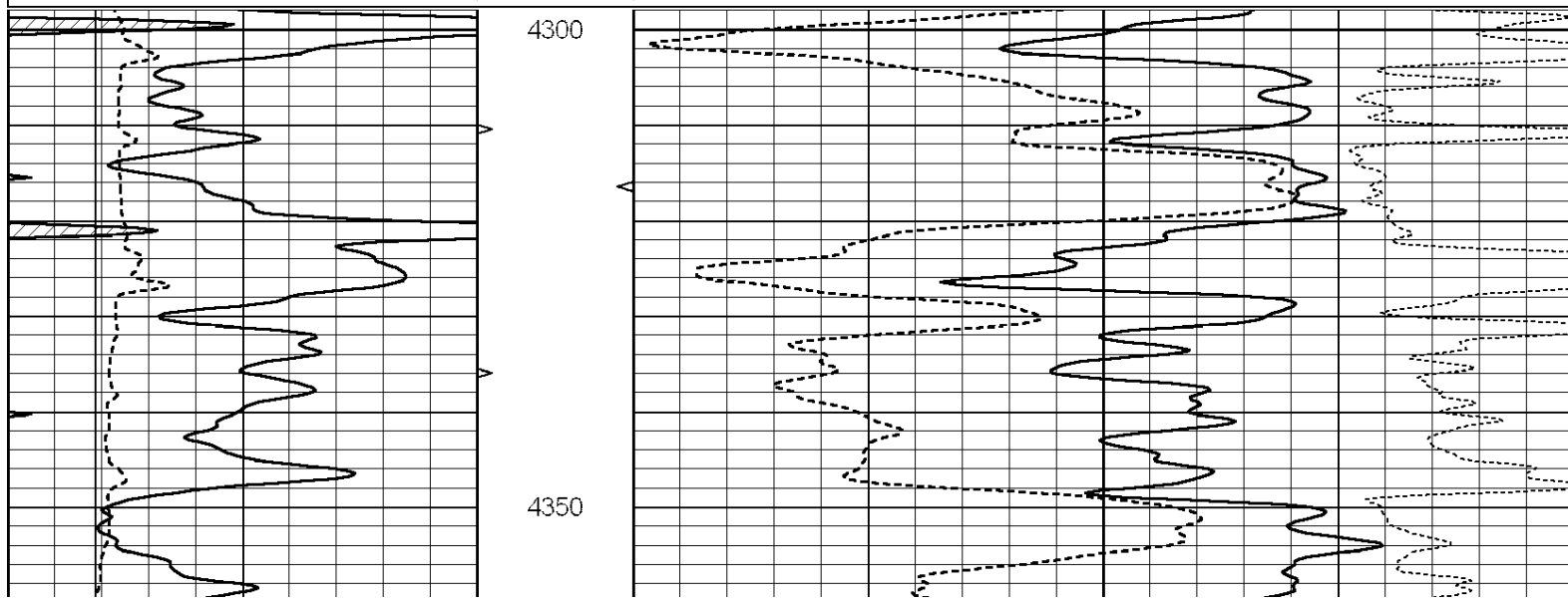


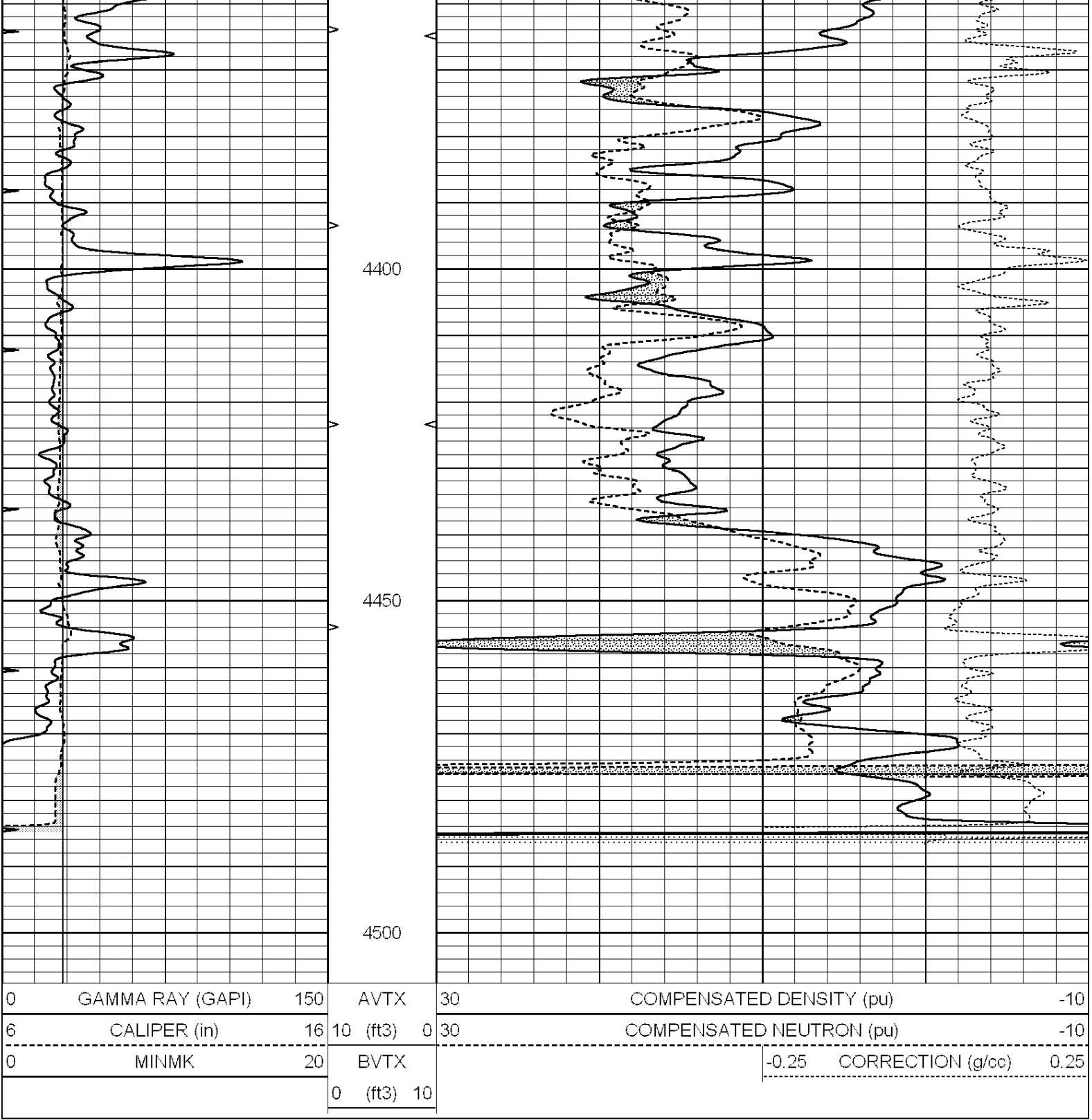
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REPEAT SECTION

Database File: 007065ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _den_neu
 Dataset Creation: Thu May 19 18:50:41 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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





Calibration Report

Database File: 007065ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Thu May 19 18:50:41 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

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		

Compensated Density Calibration Report

Serial-Model:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Wed Jan 26 17:58:17 2011

Master Calibration								
	Density			Far Detector		Near Detector		
Magnesium	1.710	g/cc		1015.91		497.51	cps	
Aluminum	2.600	g/cc		227.67		350.20	cps	
Spine Angle = 76.79				Density/Spine Ratio = 0.579				
	Size			Reading				
Small Ring	8.00	in		2.50	V			
Large Ring	14.00	in		4.70	V			

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

Performed:	Sun Apr 10 22:50:30 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8971	GAPI/cps