



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY/NEUTRON LOG

Company	PHILLIPS EXPLORATION COMPANY, L.C.		
Well	HERMAN TRUST #5-34		
Field	KOHART		
County	GRAHAM		
State	KANSAS		
Company	PHILLIPS EXPLORATION COMPANY, L.C.		
Well	HERMAN TRUST #5-34		
Field	KOHART		
County	GRAHAM		
State	KANSAS		
Location:	API # : 15-065-23921-0000 1717' FNL & 1702' FWL		Other Services DIL/MEL
Permanent Datum	SEC 34 TWP 9S RGE 24W	GROUND LEVEL	Elevation
Log Measured From		KELLY BUSHING 5' A.G.L.	K.B. 2518
Drilling Measured From		KELLY BUSHING	D.F. 2516
			G.L. 2513
Date	5/1/13		
Run Number	ONE		
Depth Driller	4150		
Depth Logger	4151		
Bottom Logged Interval	4127		
Top Log Interval	3200		
Casing Driller	8 5/8" @ 218		
Casing Logger	218		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.1/59	CHLORIDES 1400 PPM	
pH / Fluid Loss	10.5/7.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.0 @ 86F		
Rmf @ Meas. Temp	.75 @ 86F		
Rmc @ Meas. Temp	1.02 @ 86F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.73 @ 117F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	117F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	JIM PHILLIPS		

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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 COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:

WAKEENEY, KS. - N. TO REDLINE RD. (RD. H) - 7 W. - S. INTO AT TANK BATTERY



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MAIN SECTION

Database File:

010149ddn.db

Dataset Pathname:

pass3.1

Presentation Format:

_den_neu

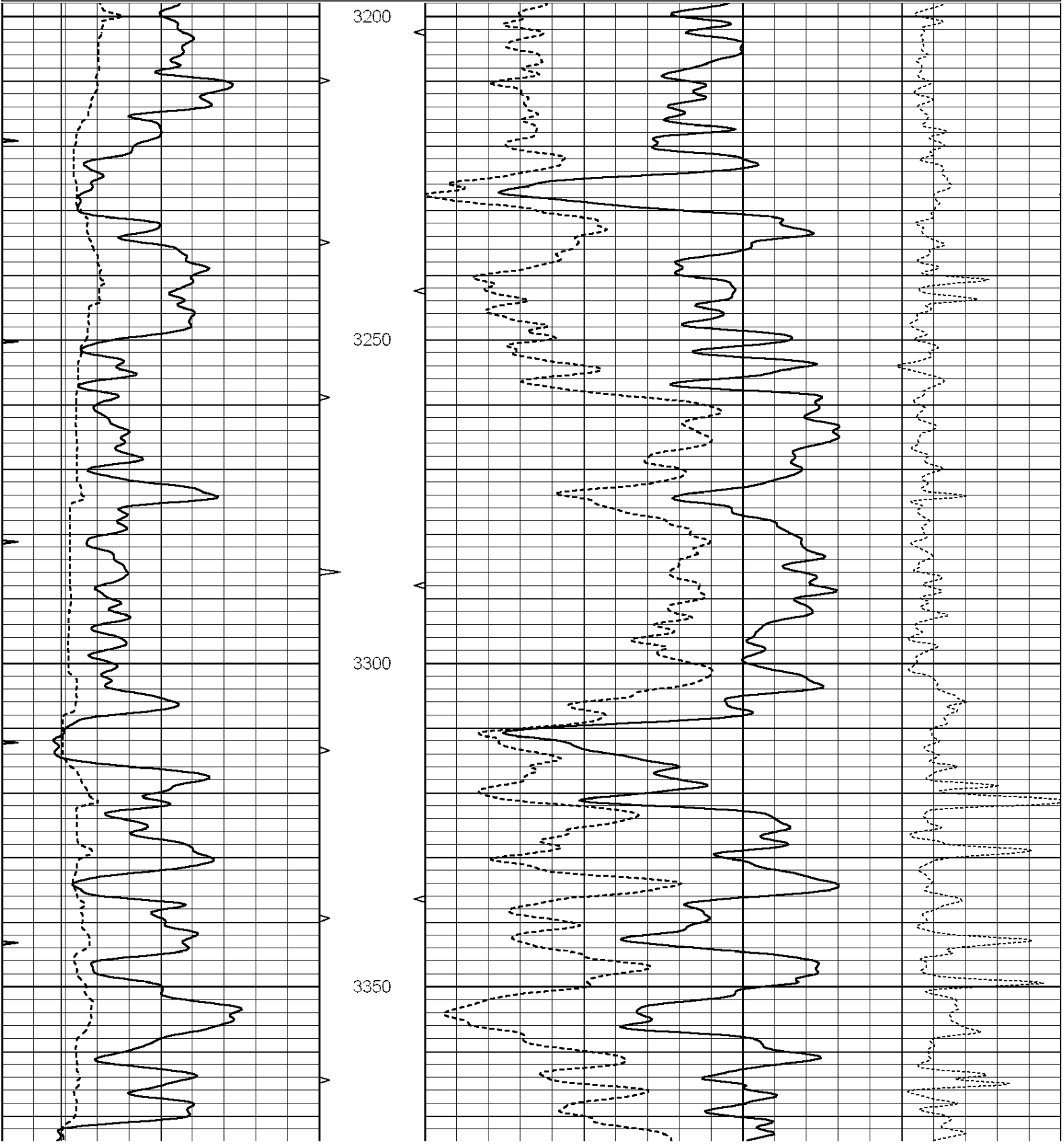
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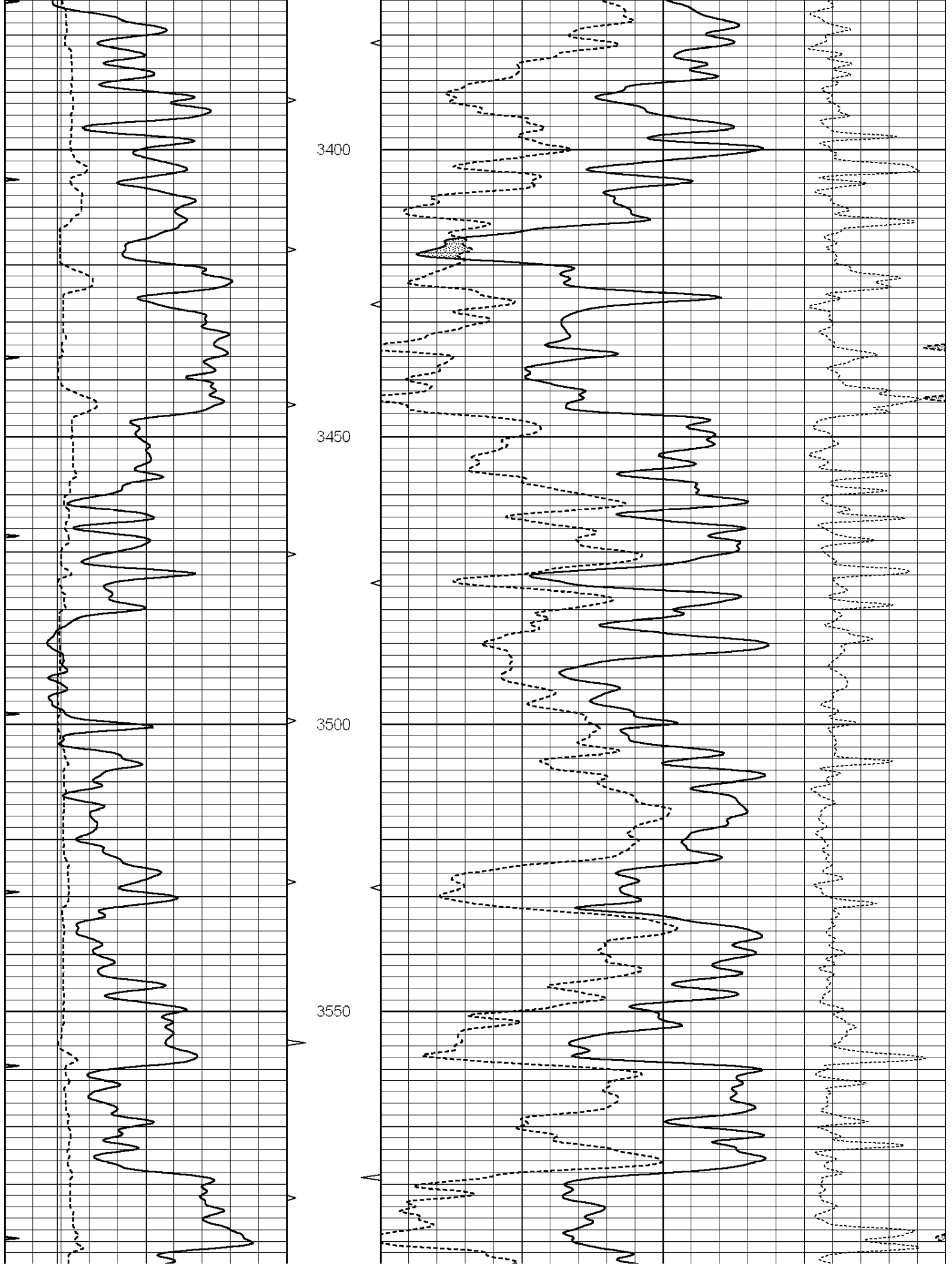
Wed May 01 18:56:11 2013 by Calc Open-Cased 090629

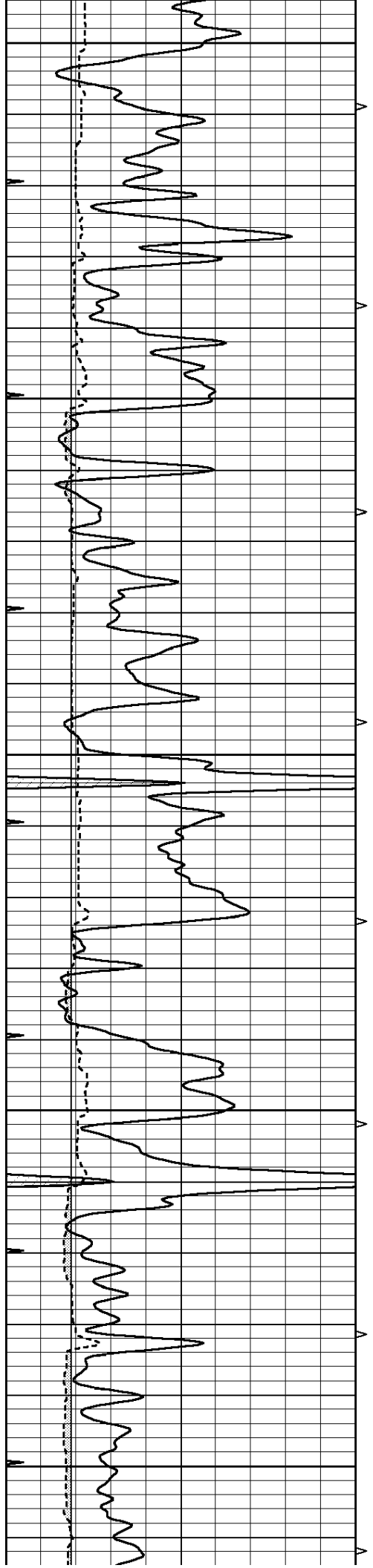
Charted by:

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		







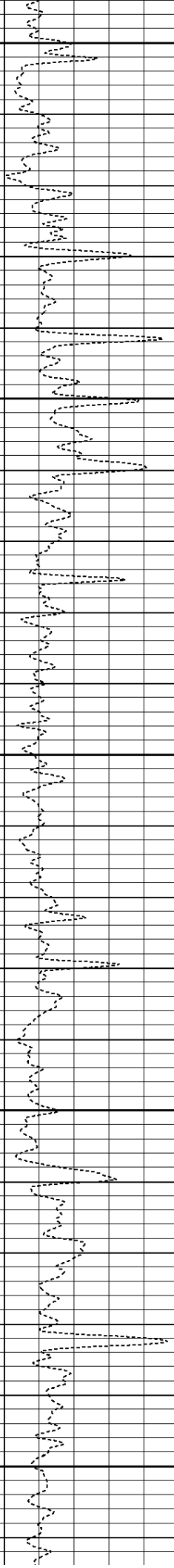
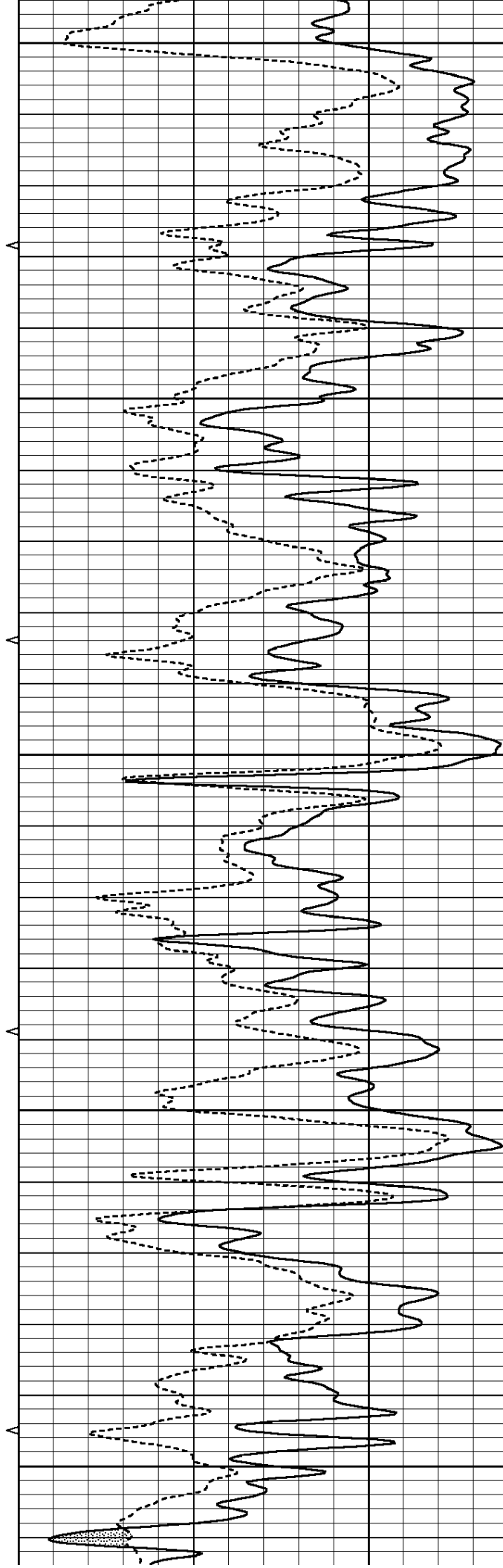
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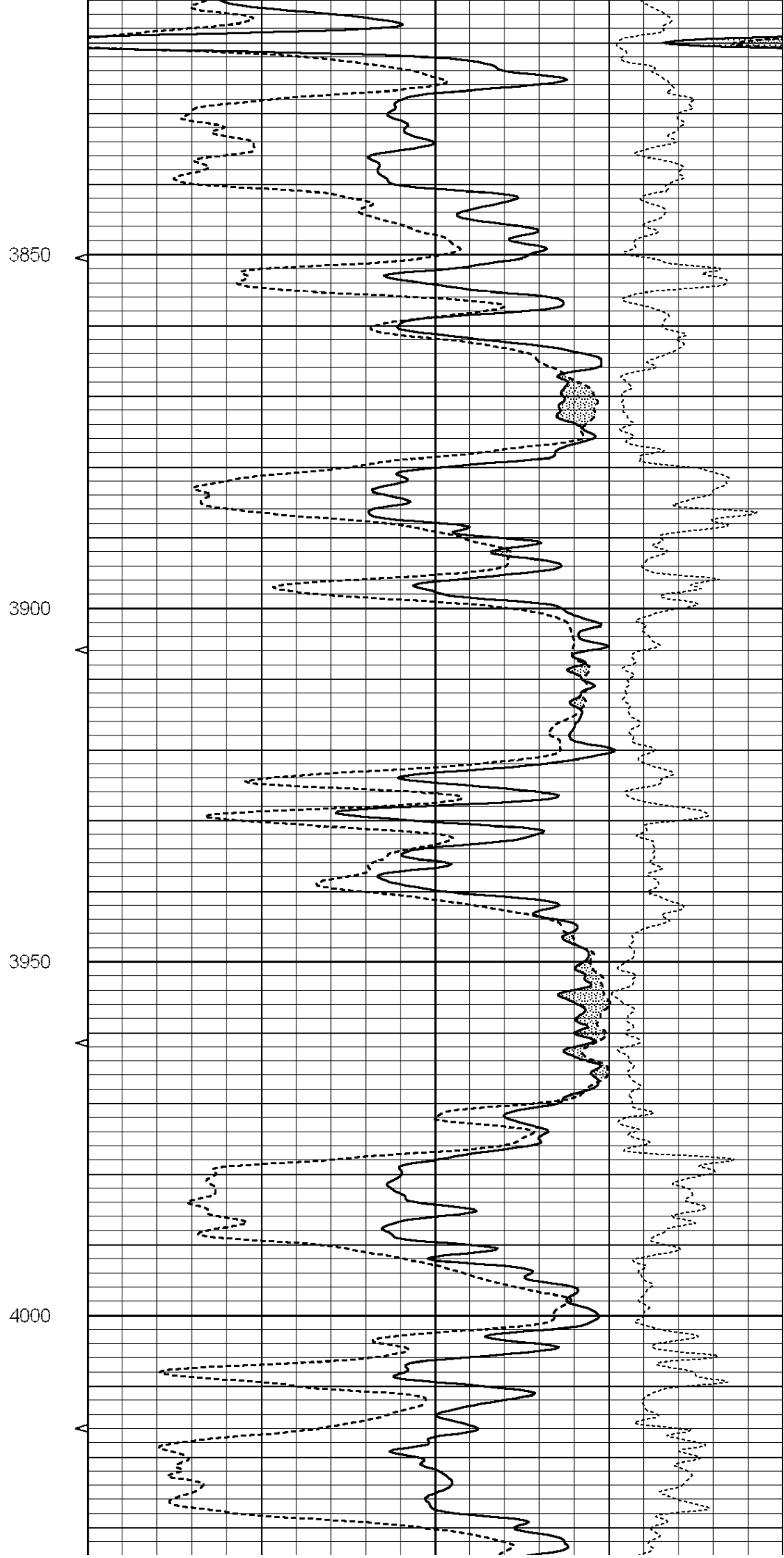
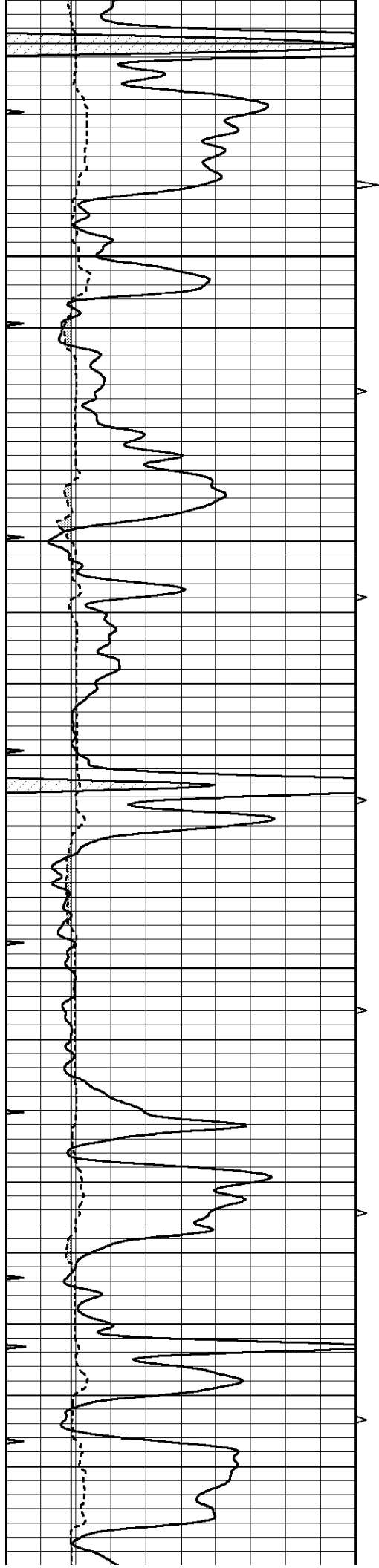
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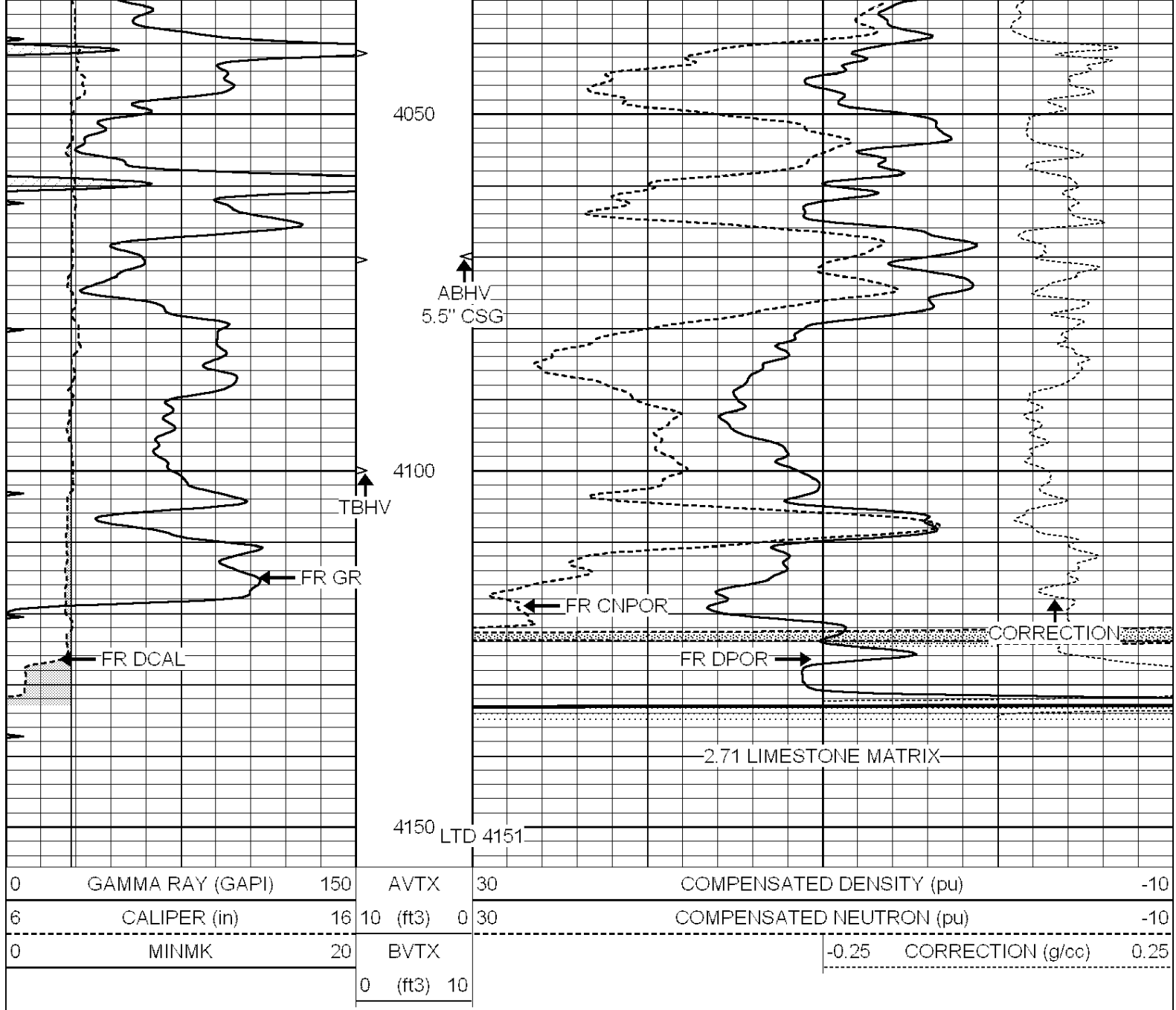
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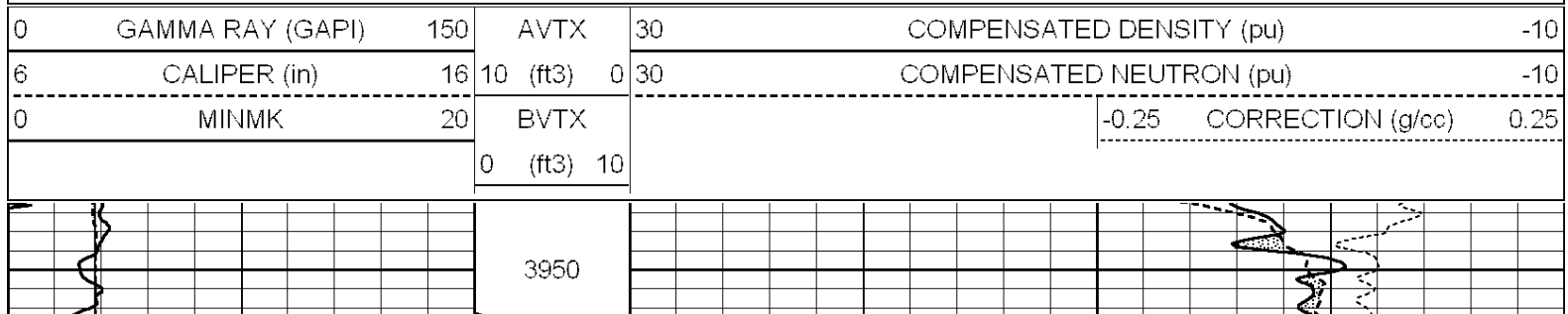


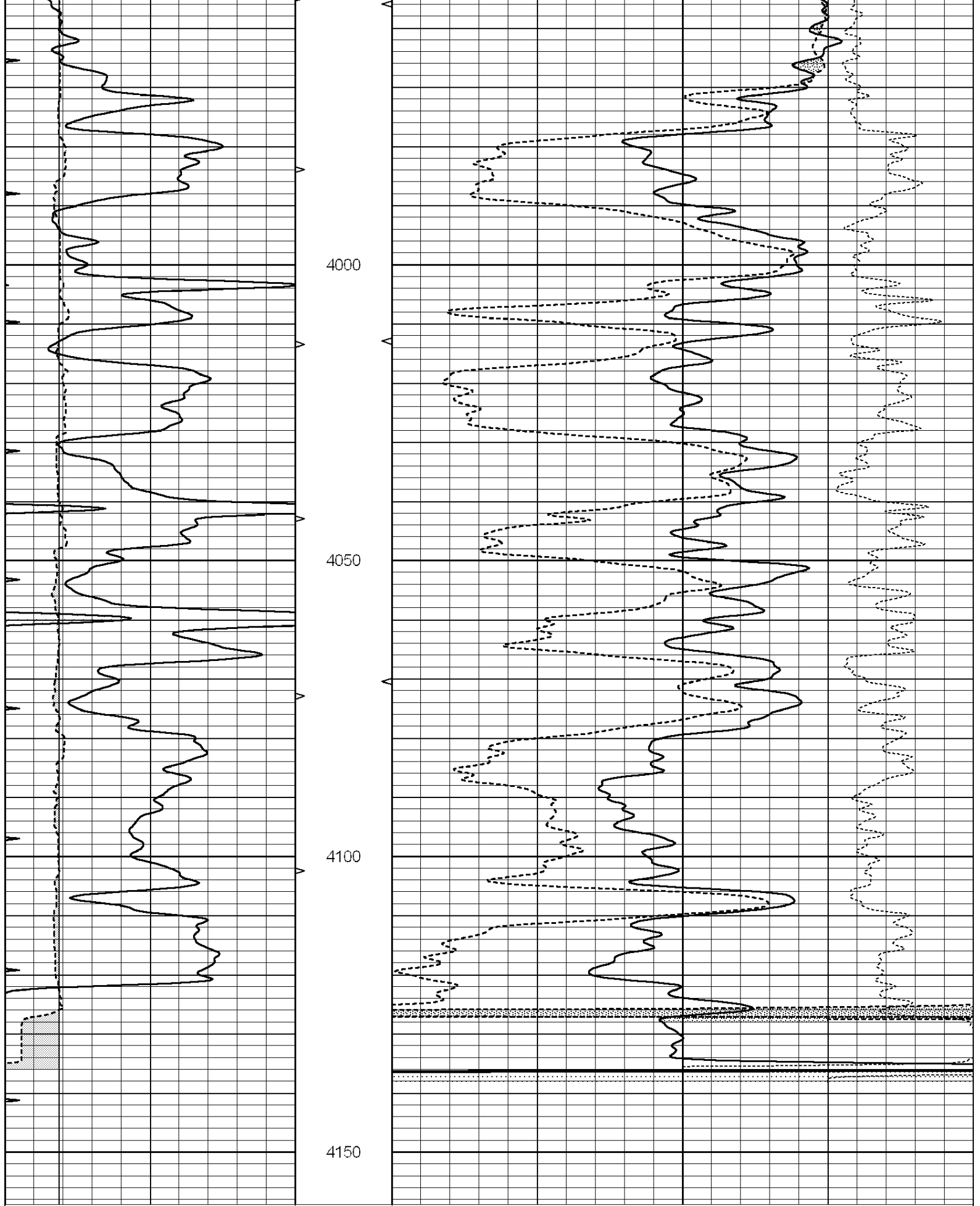


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REPEAT SECTION

Database File: 010149ddn.db
Dataset Pathname: pass2.1
Presentation Format: _den_neu
Dataset Creation: Wed May 01 18:56:53 2013 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

Calibration Report

Database File: 010149ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Wed May 01 18:56:53 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	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: GEAR3-GEARHART
 Source / Verifier: 143 / 143
 Master Calibration Performed: Thu Jan 26 19:46:16 2012

Master Calibration

	Density			Far Detector	Near Detector		
Magnesium	1.710	g/cc		971.18	557.33	cps	
Aluminum	2.580	g/cc		212.31	367.26	cps	
Spine Angle = 74.66				Density/Spine Ratio = 0.552			
	Size			Reading			
Small Ring	8.00	in		4.29	V		
Large Ring	14.00	in		6.24	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:		Mon Jun 13 16:56:43 2011				
Calibrator Value:		150.0		GAPI		
Background Reading:		0.0		cps		
Calibrator Reading:		175.0		cps		
Sensitivity:		0.8371		GAPI/cps		