



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY/NEUTRON
LOG

Company	ATLAS OPERATING, LLC.		
Well	SANDERS SCHMISSER #3		
Field	SPIVEY-GRABS-BASIL		
County	HARPER	State	KANSAS
Location:	API # : 15-077-21776-0000 660' FNL & 380' FWL		Other Services DIL/MEL
SEC 28 TWP 31S RGE 8W			
Permanent Datum	GROUND LEVEL	Elevation	1585
Log Measured From	KELLY BUSHING 10' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	12/21/11		
Run Number	ONE		
Depth Driller	4950		
Depth Logger	4951		
Bottom Logged Interval	4927		
Top Log Interval	3500		
Casing Driller	8 5/8" @ 271		
Casing Logger	269		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6000 PPM	
Density / Viscosity	9.4/48		
pH / Fluid Loss	9.5/12.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.80 @ 76F		
Rmf @ Meas. Temp	0.60 @ 76F		
Rmc @ Meas. Temp	0.96 @ 76F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.49 @ 125F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	125F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEMEG		
Witnessed By	SEAN DEENIHAN		

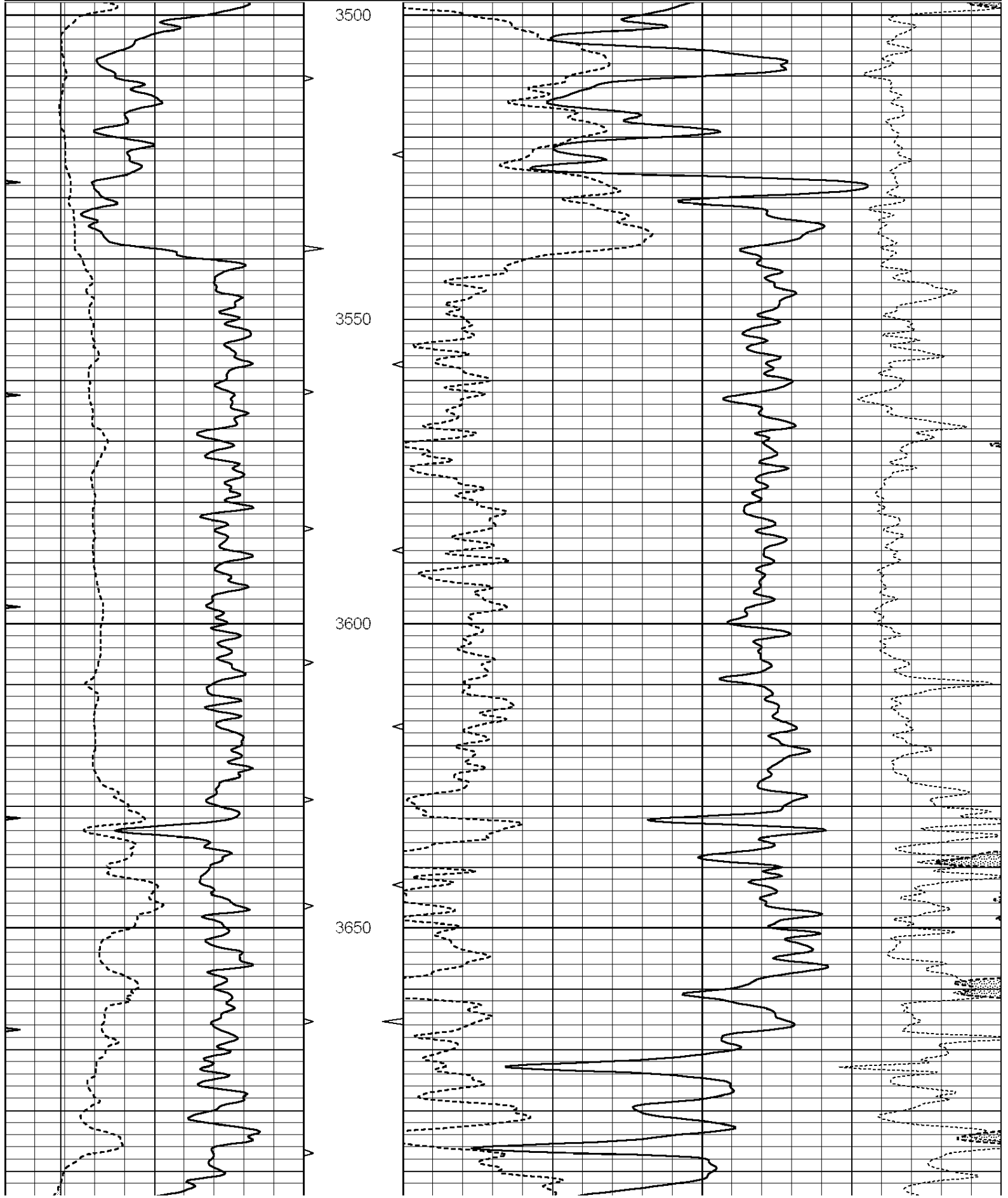
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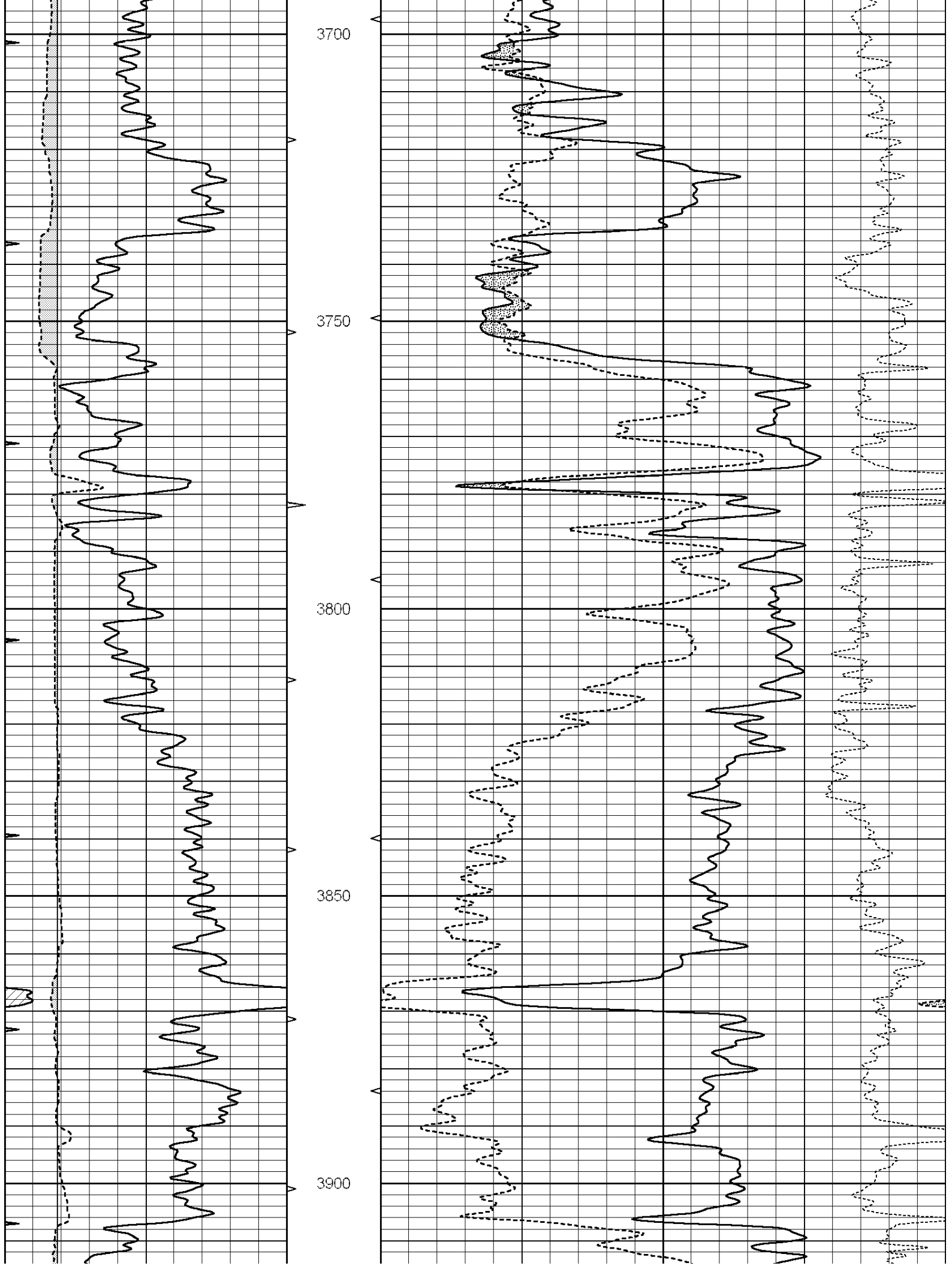
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

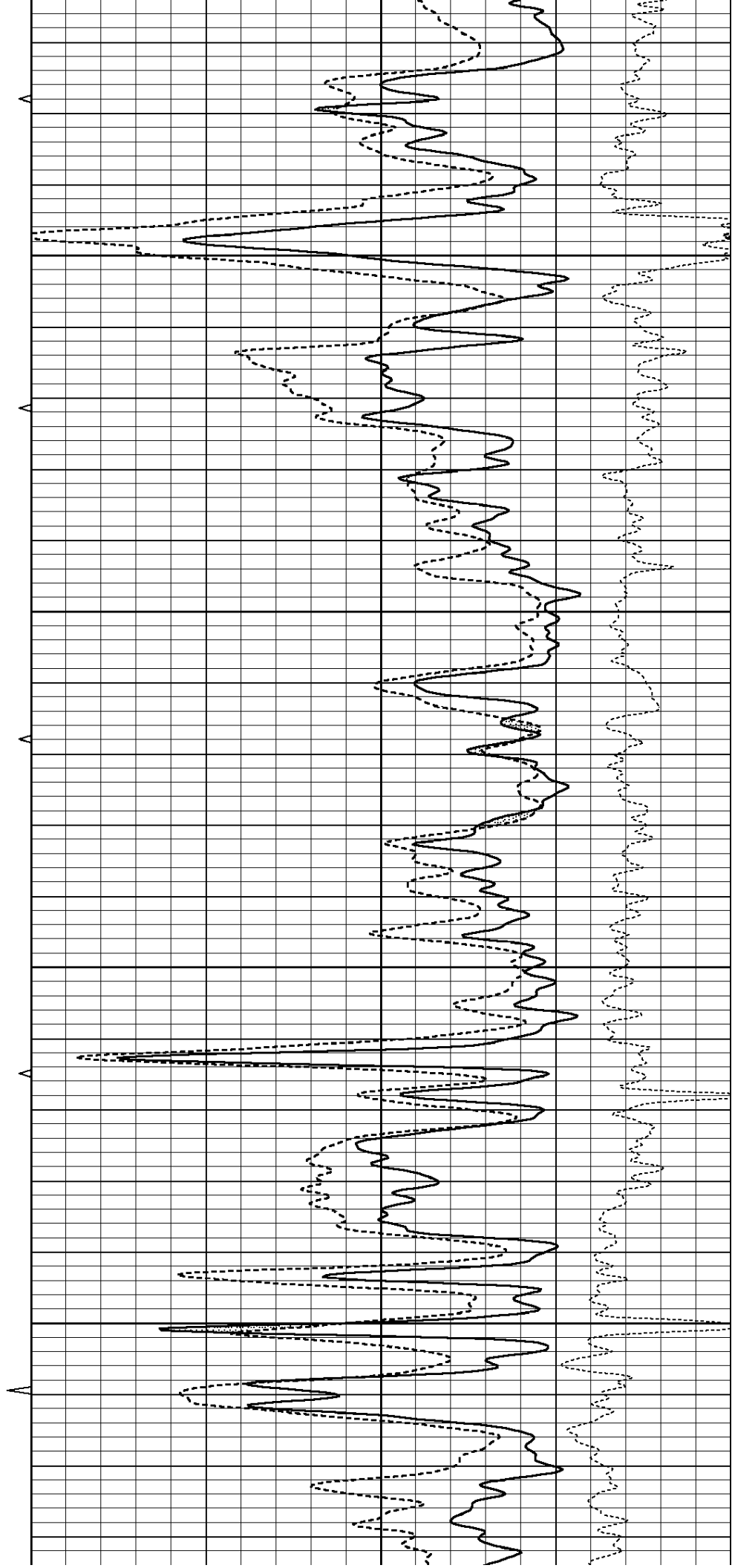
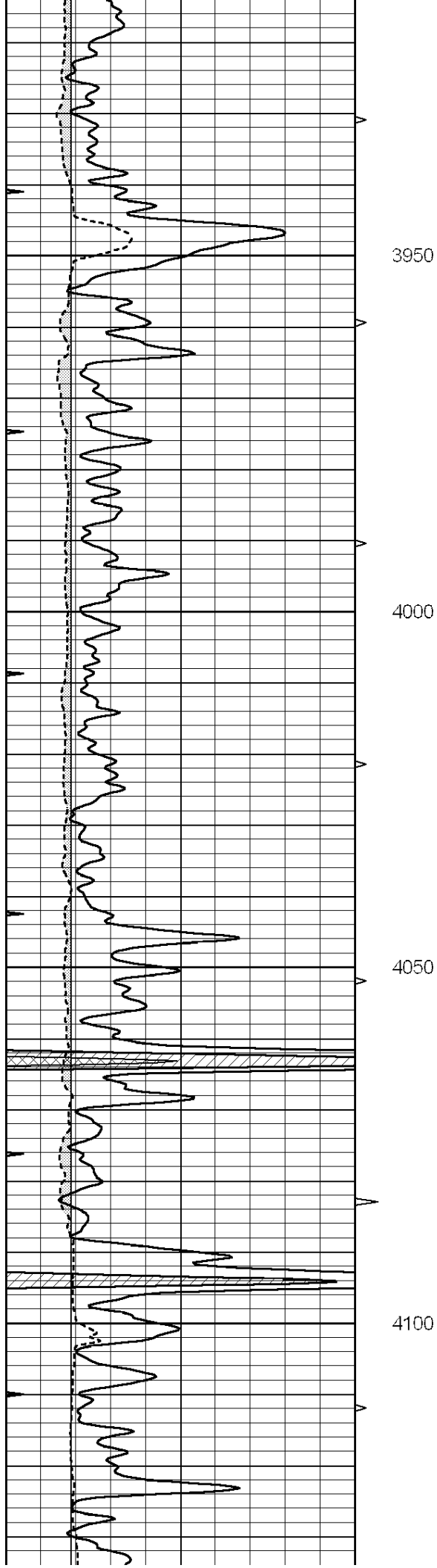
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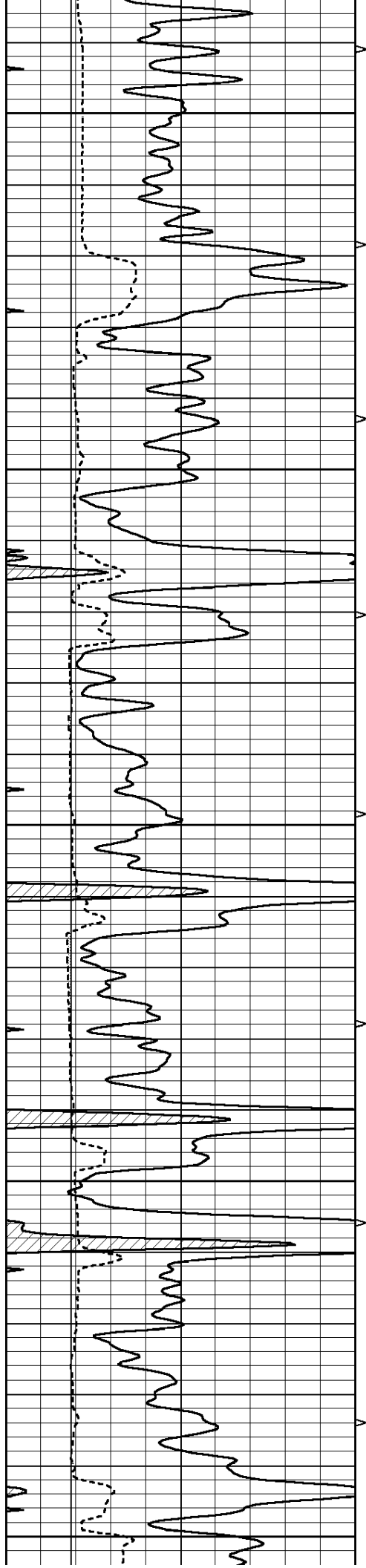
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
ZENDA, KS - 4 MILES EAST TO RD SW50 - SOUTH TO SPIVEY GAS PLANT
2 MILES SOUTH TO NW 130 - 2 MILES EAST TO NW80TH
1/2 SOUTH - EAST INTO

Charted by:		Depth in Feet scaled 1:2.15				
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			









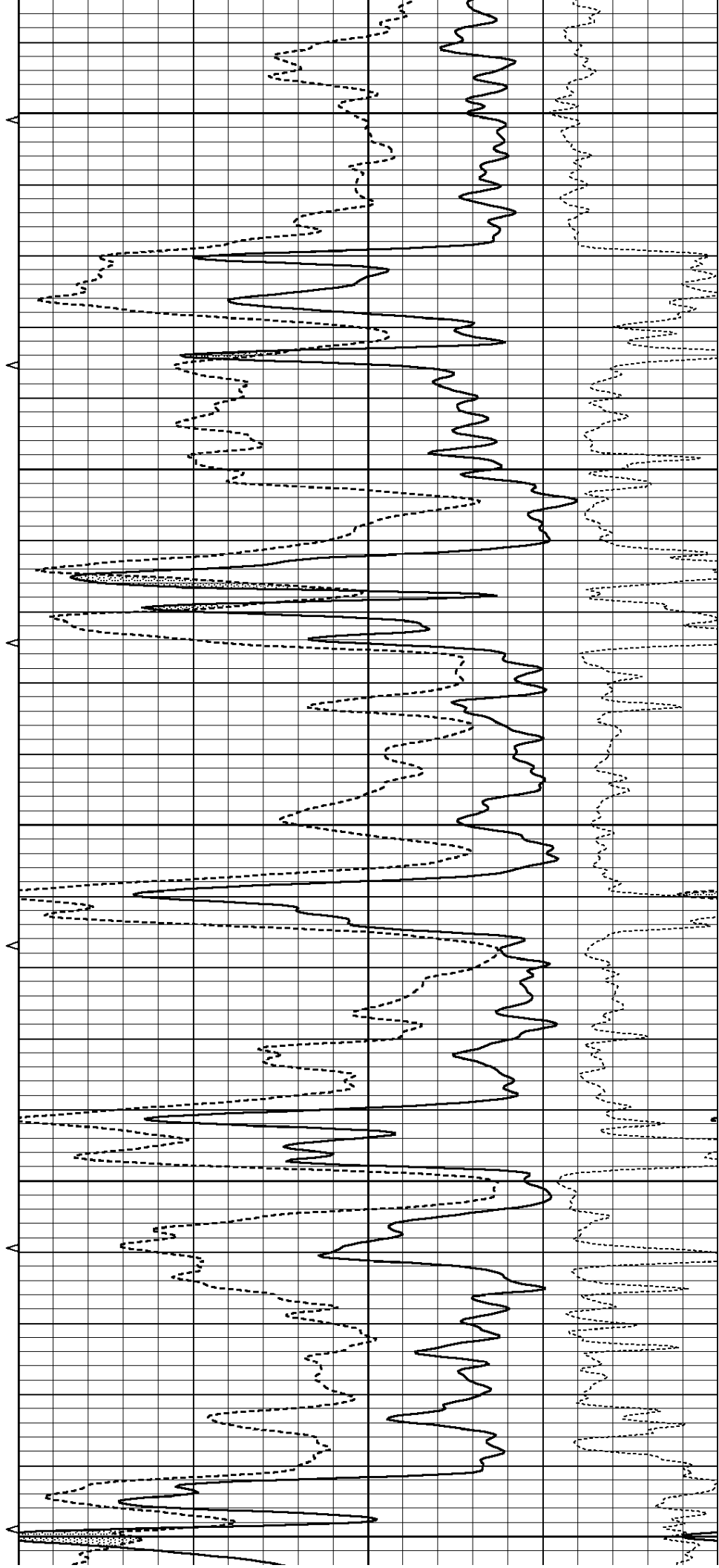
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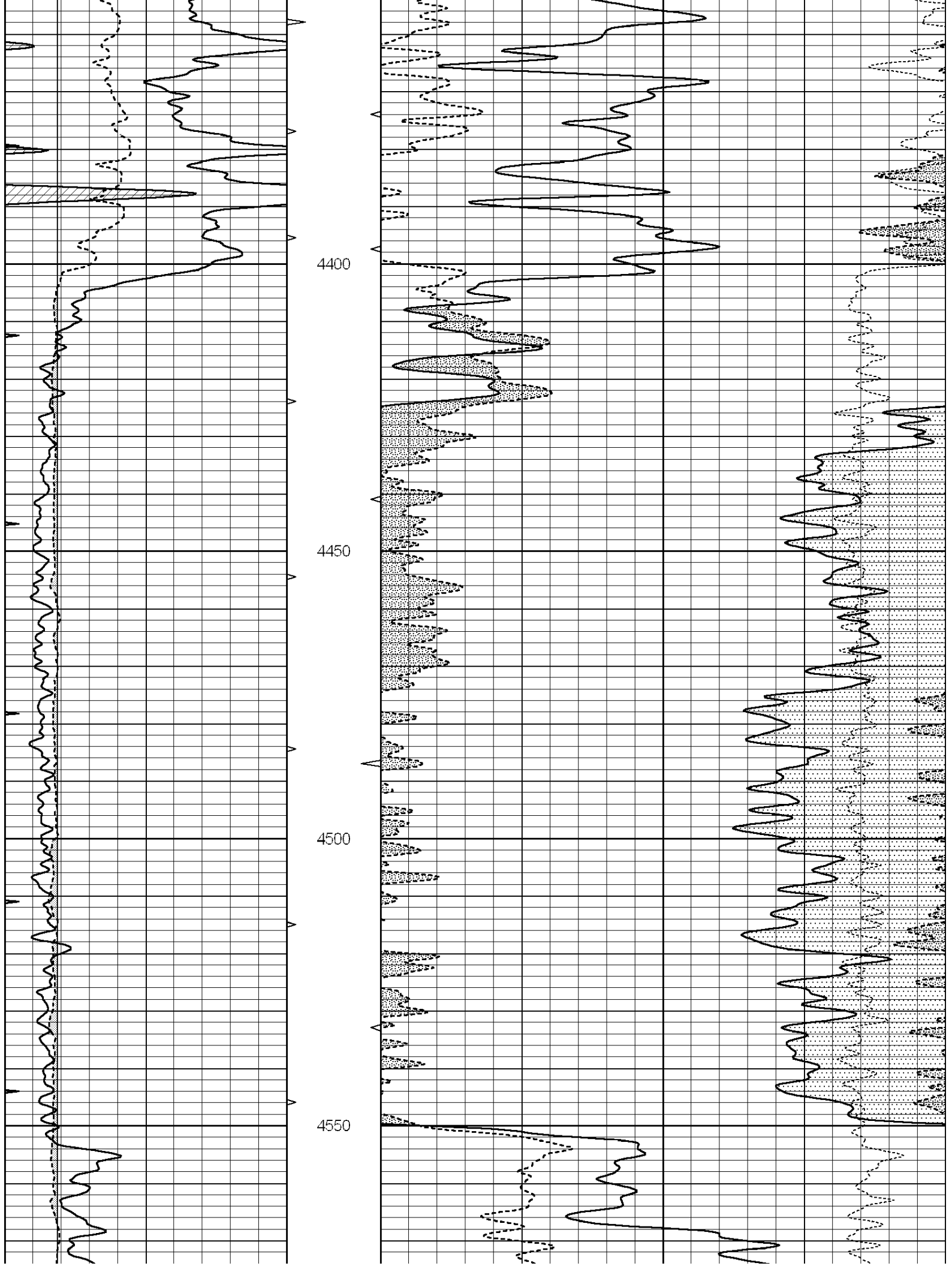
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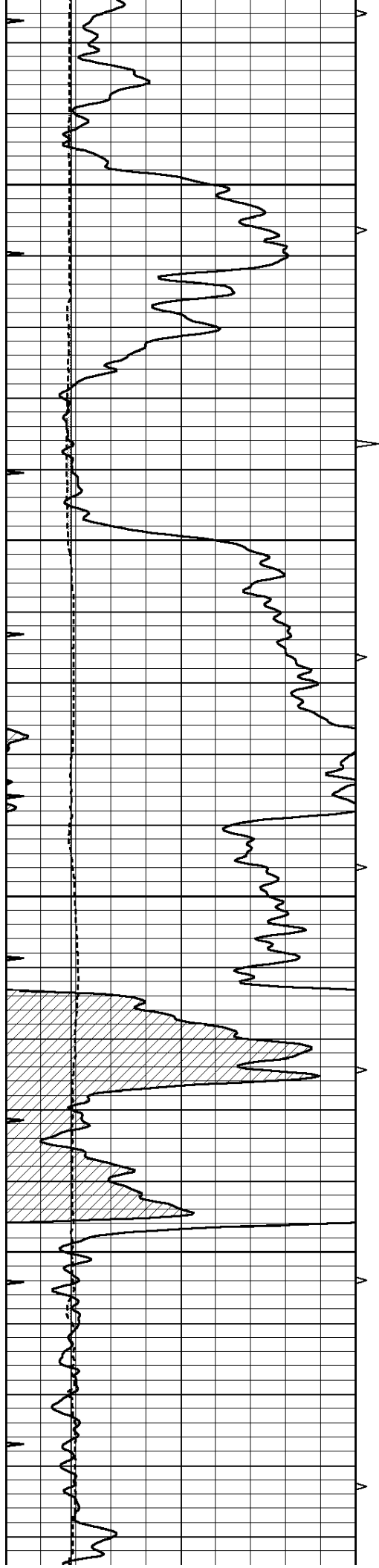
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4350





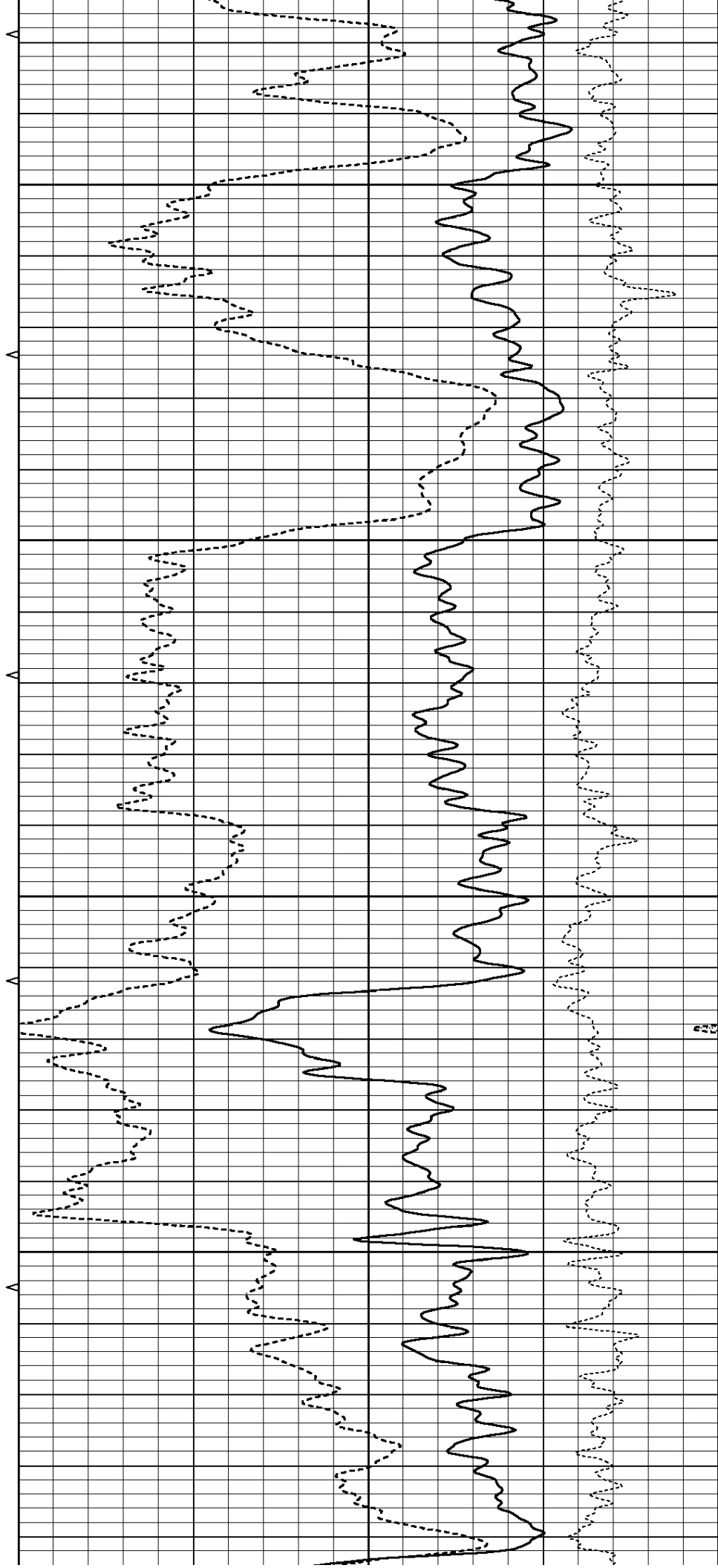


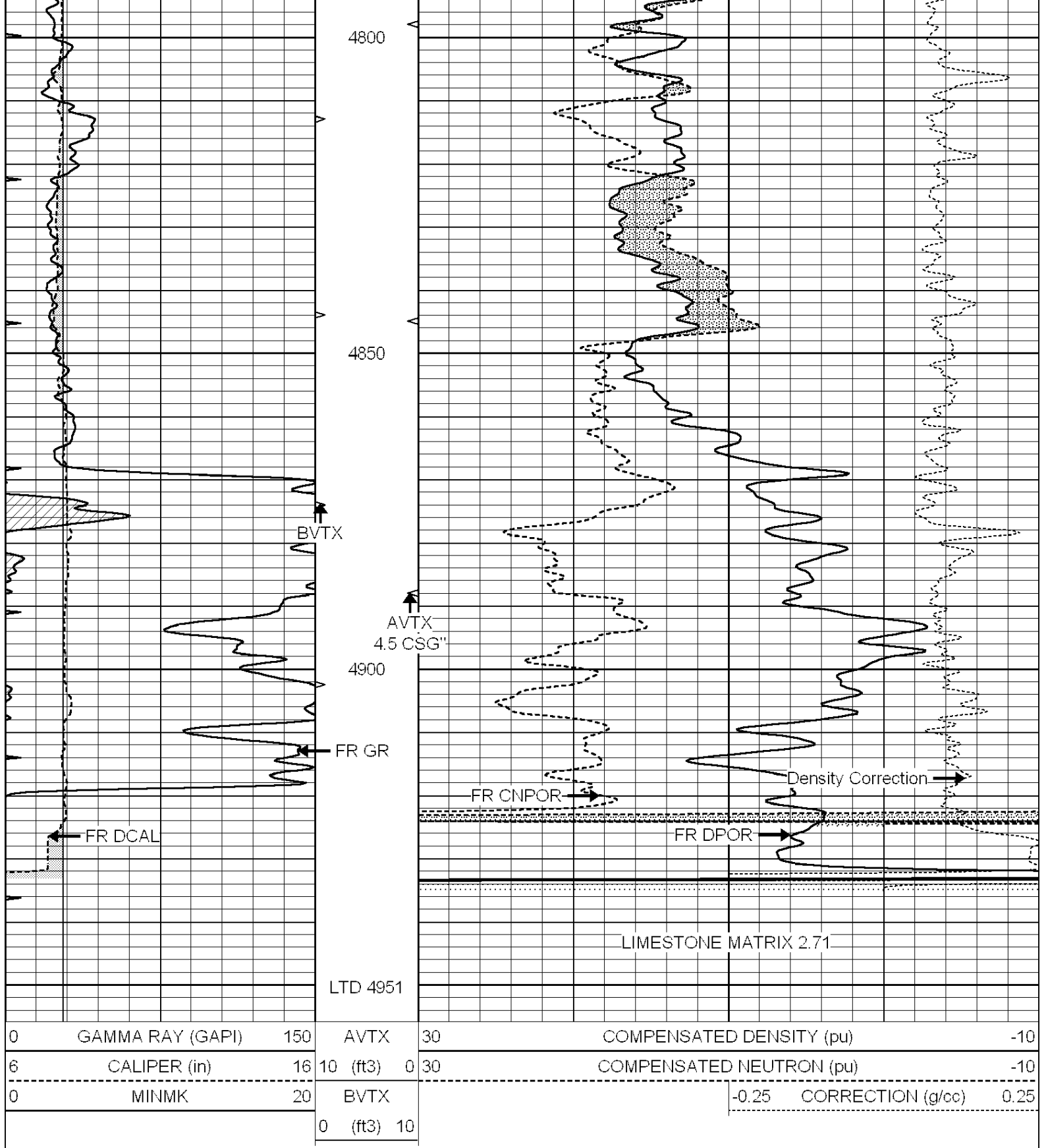
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4650

4700

4750



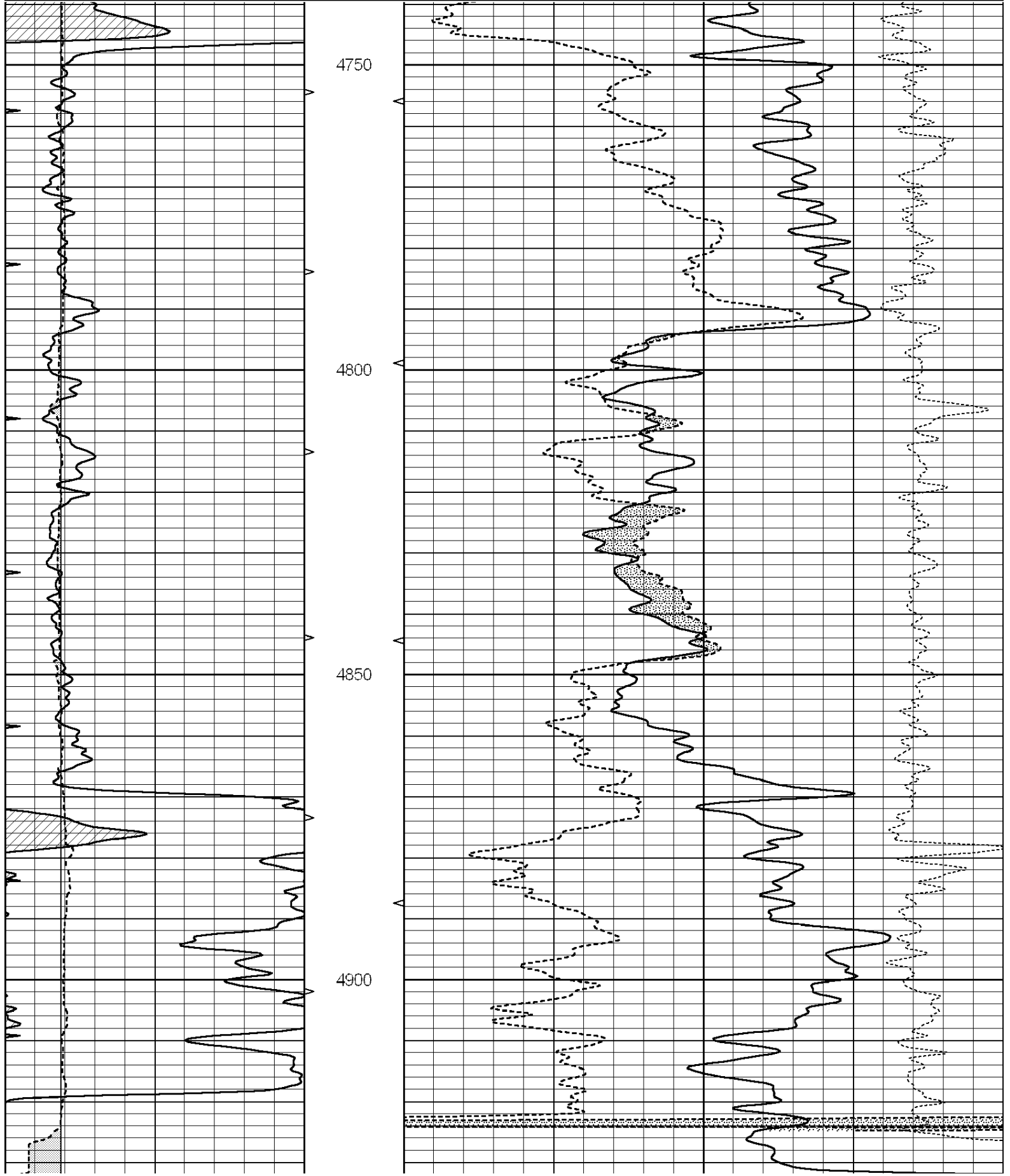


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REPEAT SECTION

Database File: 008658ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _den_neu
 Dataset Creation: Wed Dec 24 09:59:45 2014 by Gals Open Quest 000000

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		



Serial-Model:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Sat Jul 16 17:35:04 2011

	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		2.25	V	
Large Ring	14.00	in		4.37	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