



SUPERIOR
Hays,
Kansas

COMPENSATED
NEUTRON / DENSITY
LOG

Company	MULL DRILLING CO., INC.	Company	MULL DRILLING COMPANY, INC.
Well	#1-17 WATERSON 'A'	Well	#1-17 WATERSON 'A'
Field		Field	
County	LANE	County	LANE
State	KANSAS	State	KANSAS
Location:	API # : 15-101-22256-0000	Other Services	DIL MEL/SON
Permanent Datum	GROUND LEVEL	Elevation	2709
Log Measured From	KELLY BUSHING 9' A.G.L.	Elevation	K.B. 2718 D.F. 2716 G.L. 2709
Drilling Measured From	KELLY BUSHING		
SEC 17 TWP 17S RGE 27W			
486' FNL & 1320' FEL			
10/8/10	ONE		
Run Number	ONE		
Depth Driller	4680		
Depth Logger	4686		
Bottom Logged Interval	4662		
Top Log Interval	3700		
Casing Driller	8 5/8" @ 230		
Casing Logger	228		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6400 PPM	
Density / Viscosity	9.2 / 48		
pH / Fluid Loss	9.5 / 10.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.75 @ 86F		
Rmf @ Meas. Temp	0.56 @ 86F		
Rmc @ Meas. Temp	0.90 @ 86F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.53 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	122F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEMEG		
Witnessed By	KEVIN KESSLER		

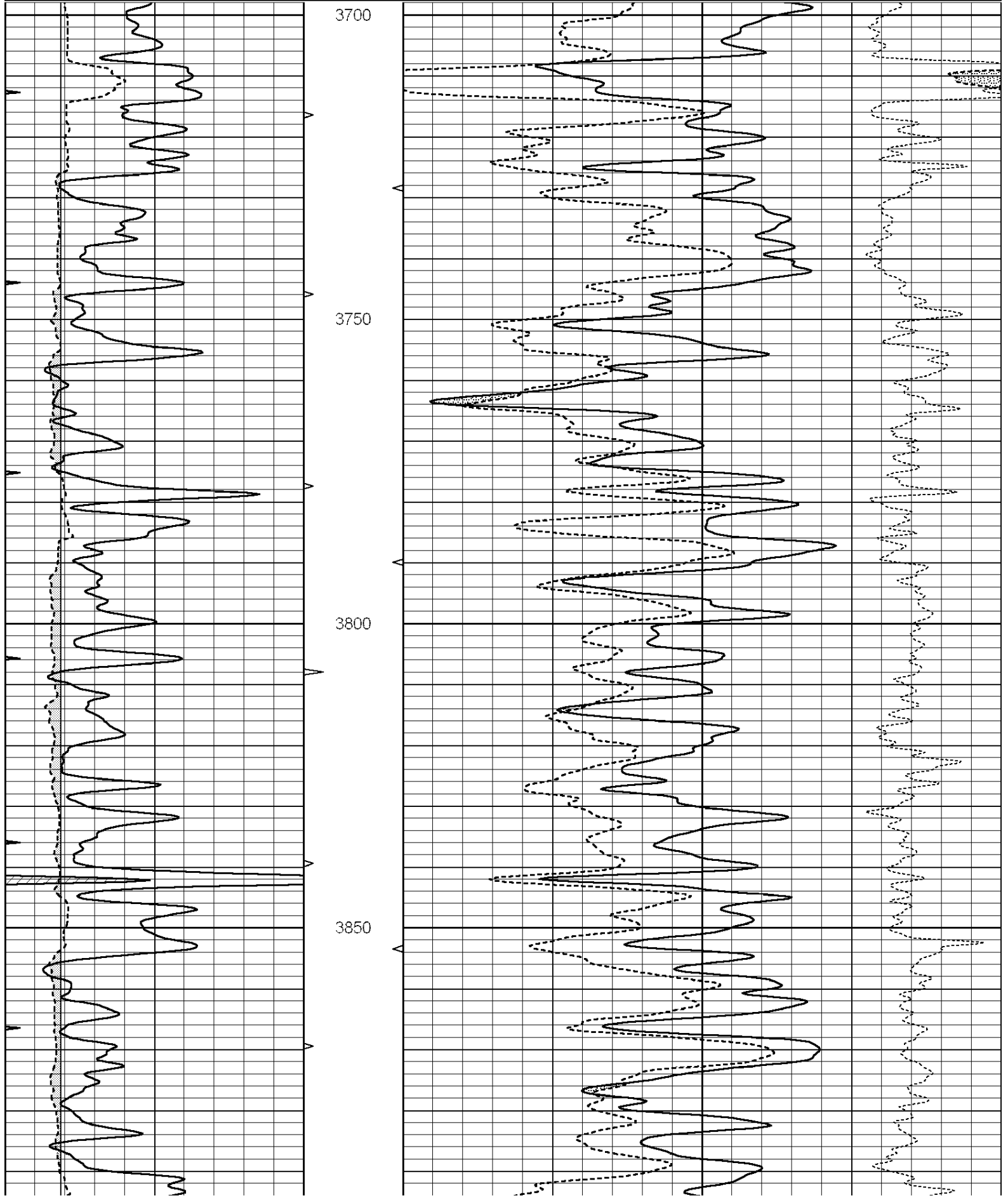
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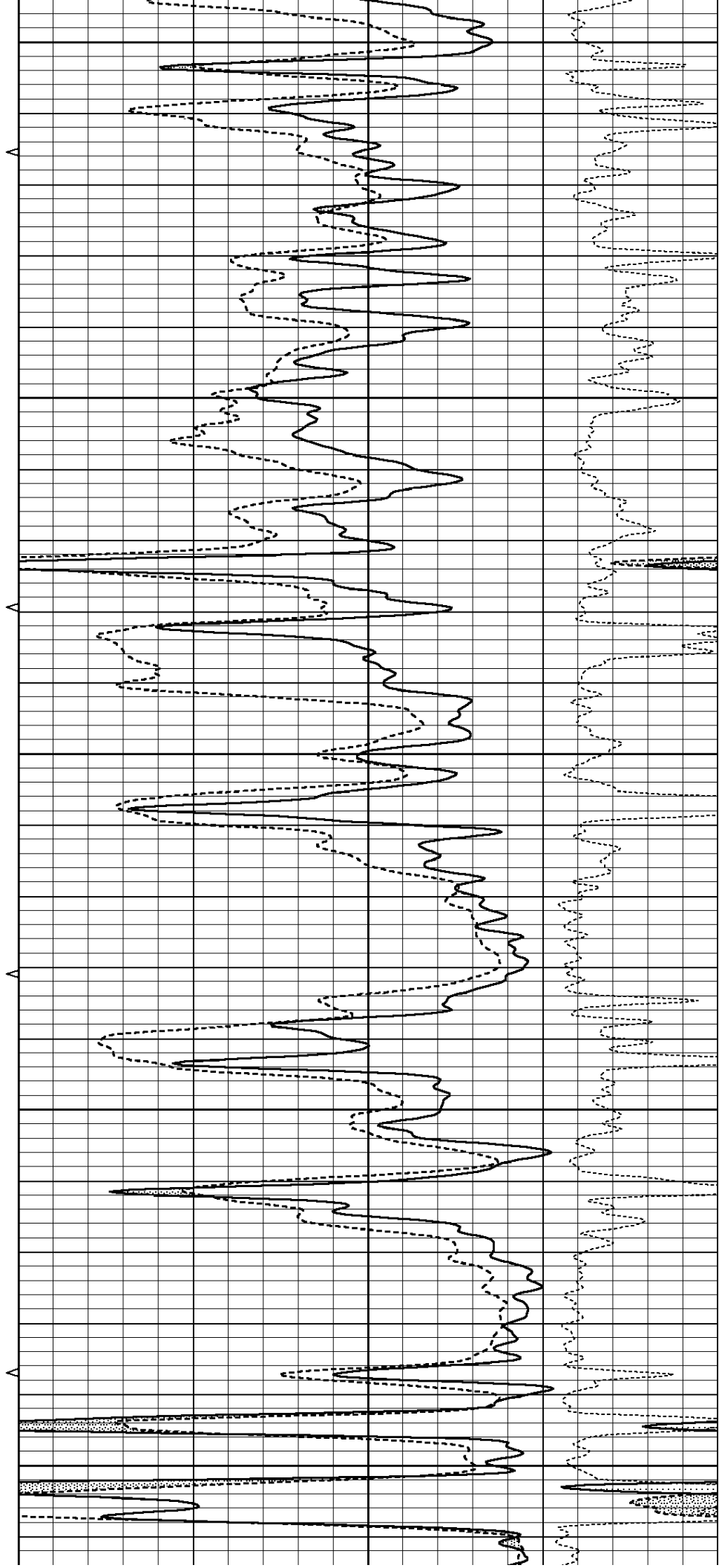
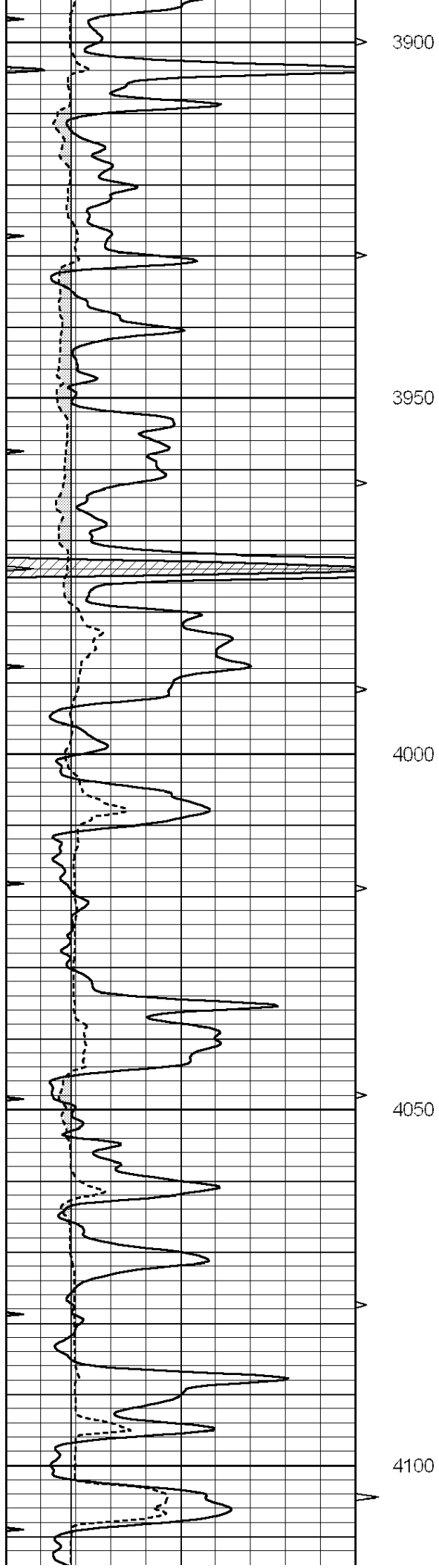
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

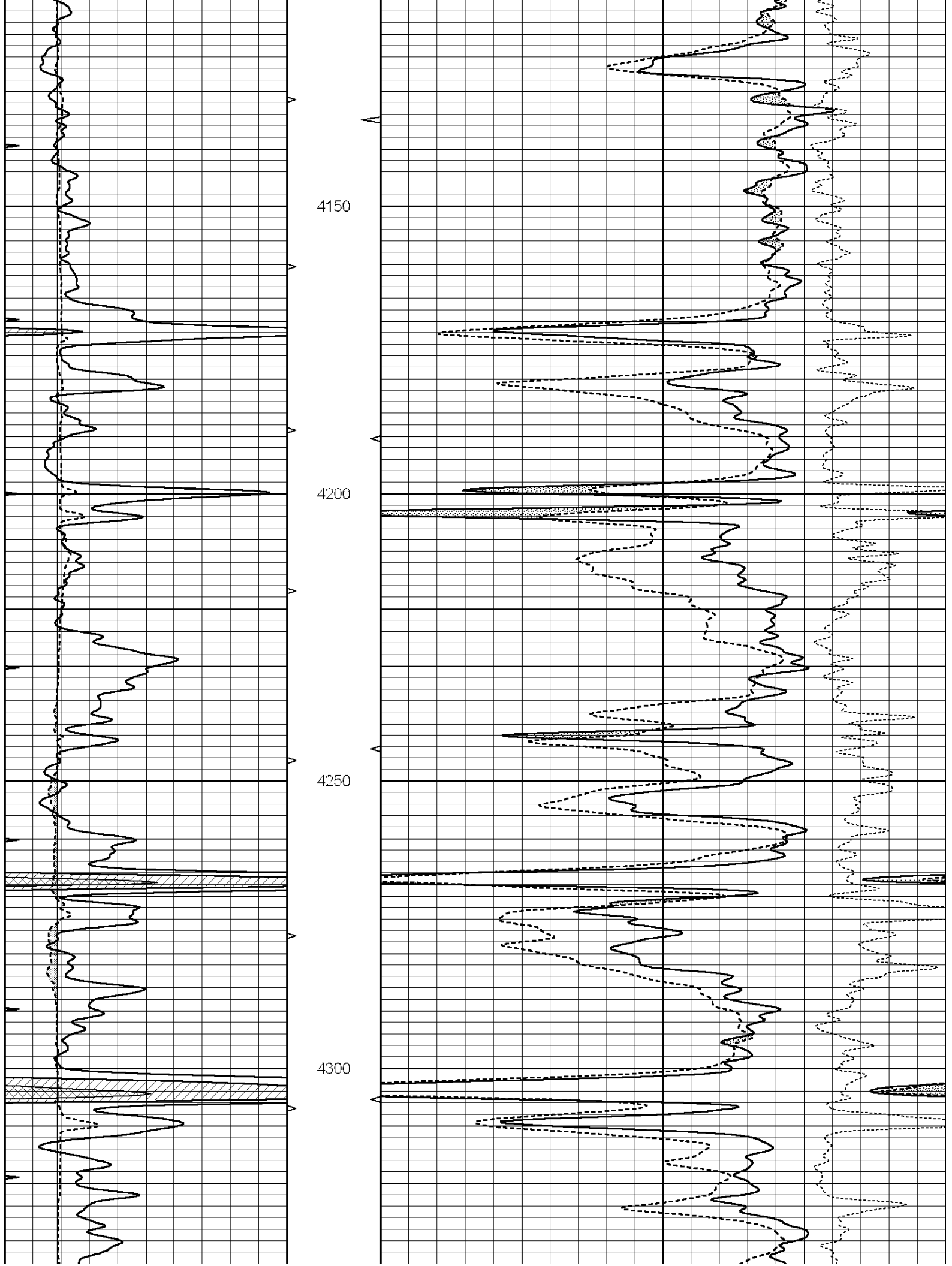
Comments

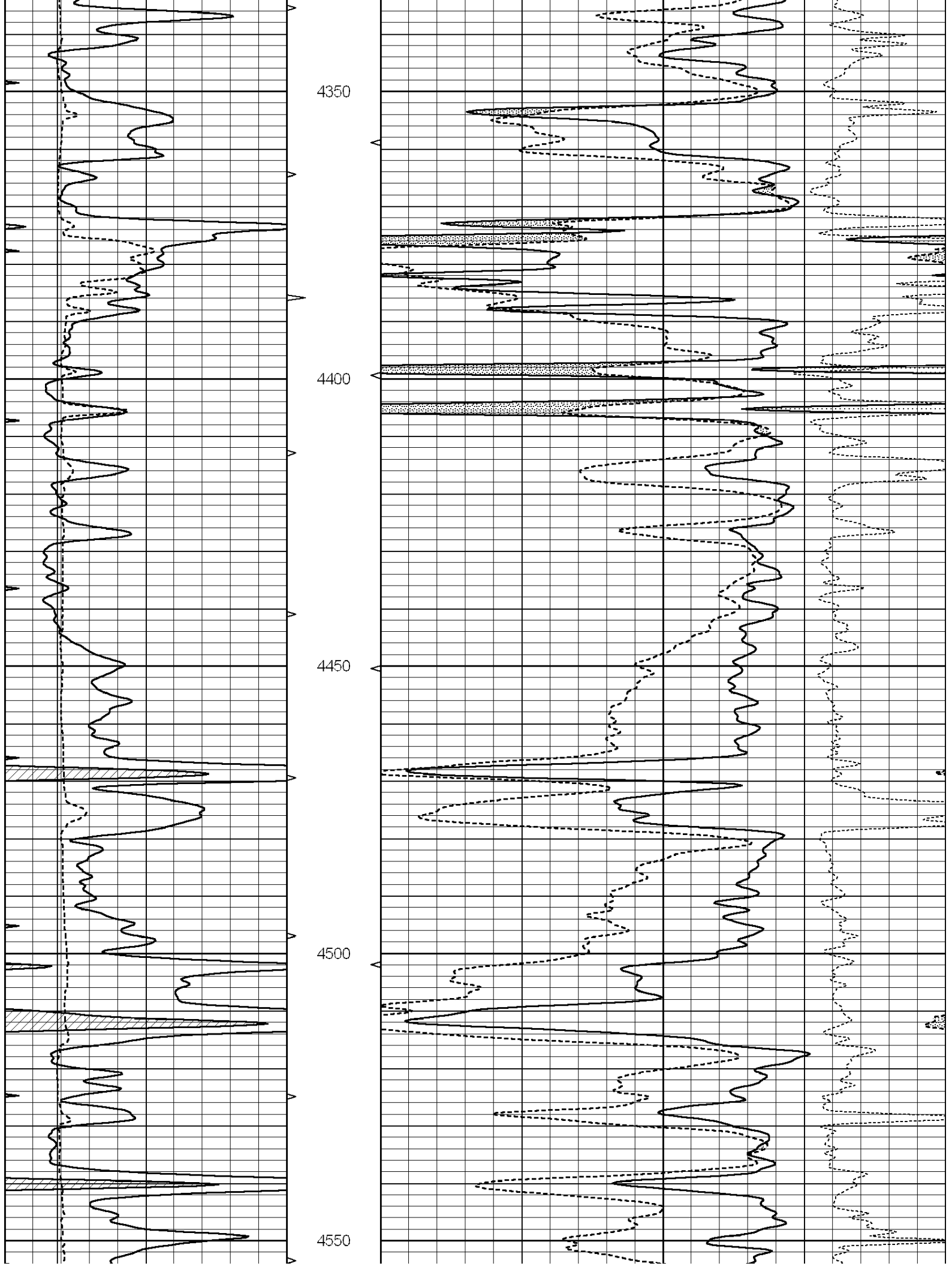
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
UTICA, KS - WEST TO SCOUT RD - 3 MILES SOUTH - 1/2 MILE WEST
SOUTH INTO

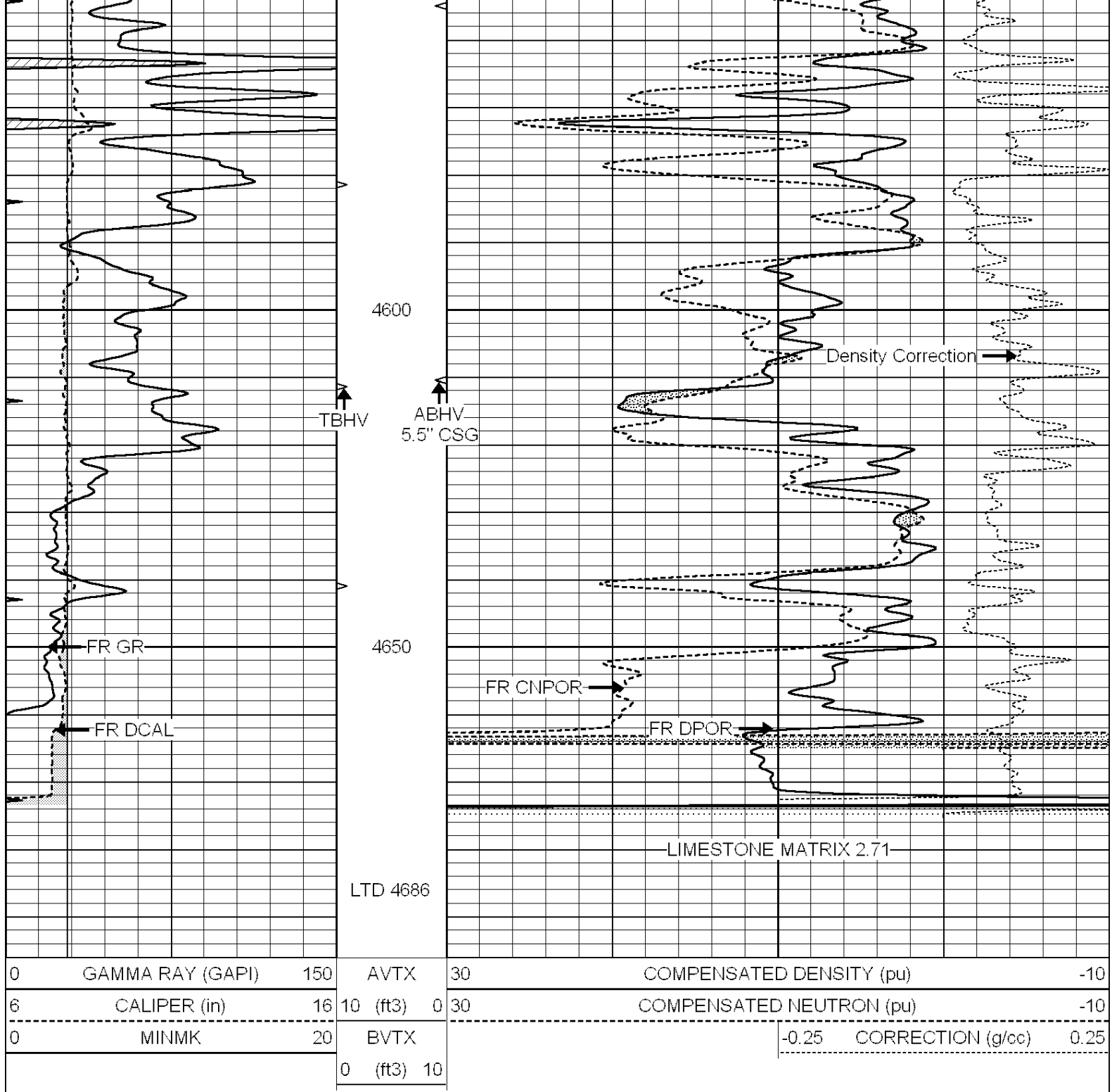
Charted by:		Depth in Feet scaled 1:2.15				
0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			











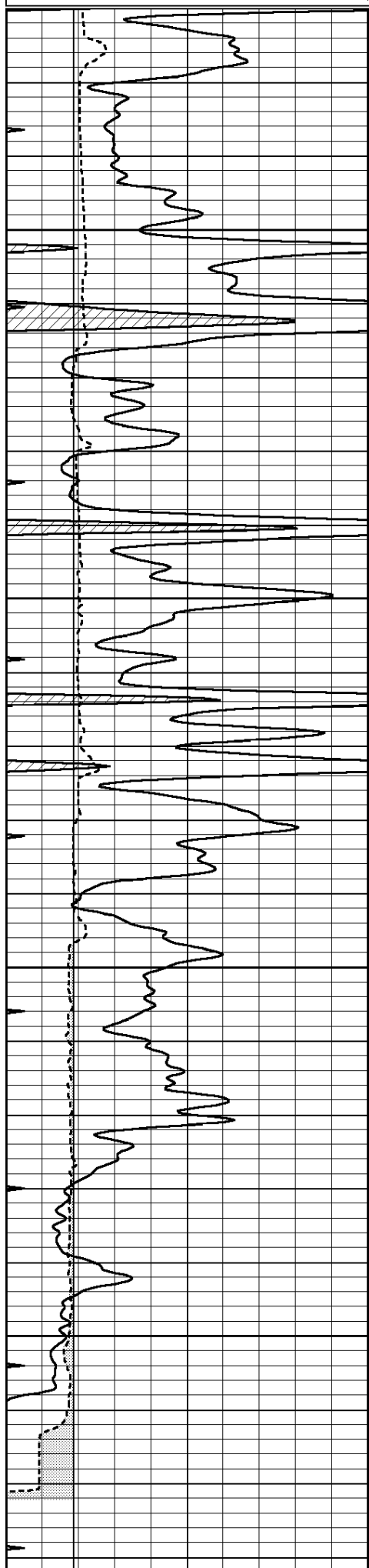
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REPEAT SECTION

Database File: 005931ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: _den_neu
 Dataset Creation: Sat Oct 09 01:25:59 2010 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

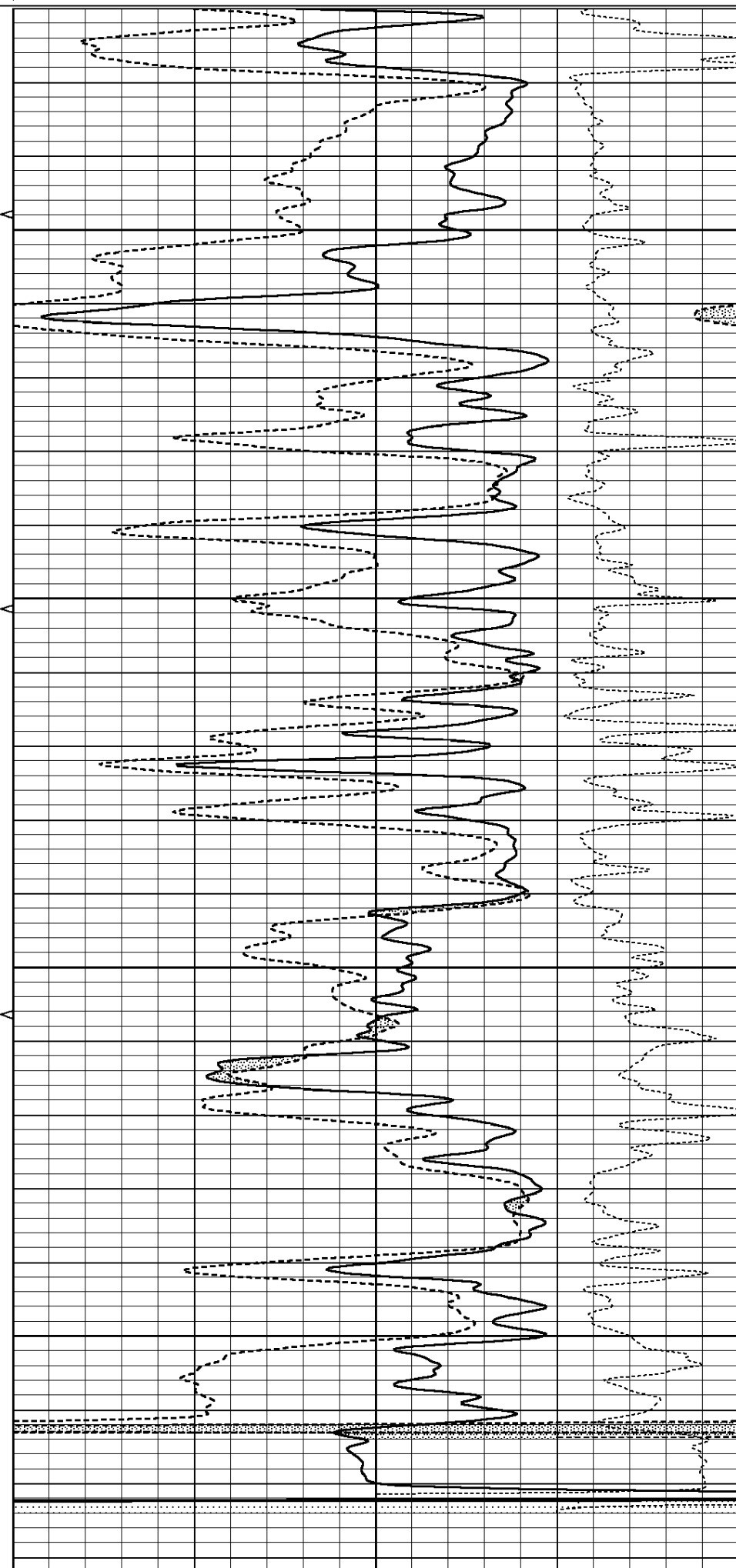


4500

4550

4600

4650



[illegible]

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:	5I
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:	GR6	
Tool Model:	OPEN	
Performed:	Wed Jul 14 14:14:30 2010	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.5335	GAPI/cps