



COMPENSATED DENSITY/NEUTRON LOG

Company	L.D. DRILLING, INC.		
Well	POTTER #1-6		
Field	N/A		
County	NESS	State	KANSAS
Location:	APL # : 15-135-26075-00-00		Other Services
1495' FSL & 1215' FEL		DIL/MEL	
SEC 6 TWP 18S RGE 24W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2346
Log Measured From	KELLY BUSHING 5' A.G.L.	D.F.	2349
Drilling Measured From	KELLY BUSHING	G.L.	2346
Date	08/30/19		
Run Number	ONE		
Depth Driller	4450		
Depth Logger	4452		
Bottom Logged Interval	4432		
Top Log Interval	3500		
Casing Driller	8 5/8" @ 330		
Casing Logger	330		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3/50		
pH / Fluid Loss	9.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.2@83		
Rmt @ Meas. Temp	.90@83		
Rmc @ Meas. Temp	1.44@83		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.83@120		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	///		
Maximum Recorded Temperature	120F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	KIM SHOEMAKER		

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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 ELI WIRELINE, HAYS, KS. (785) 628-6395

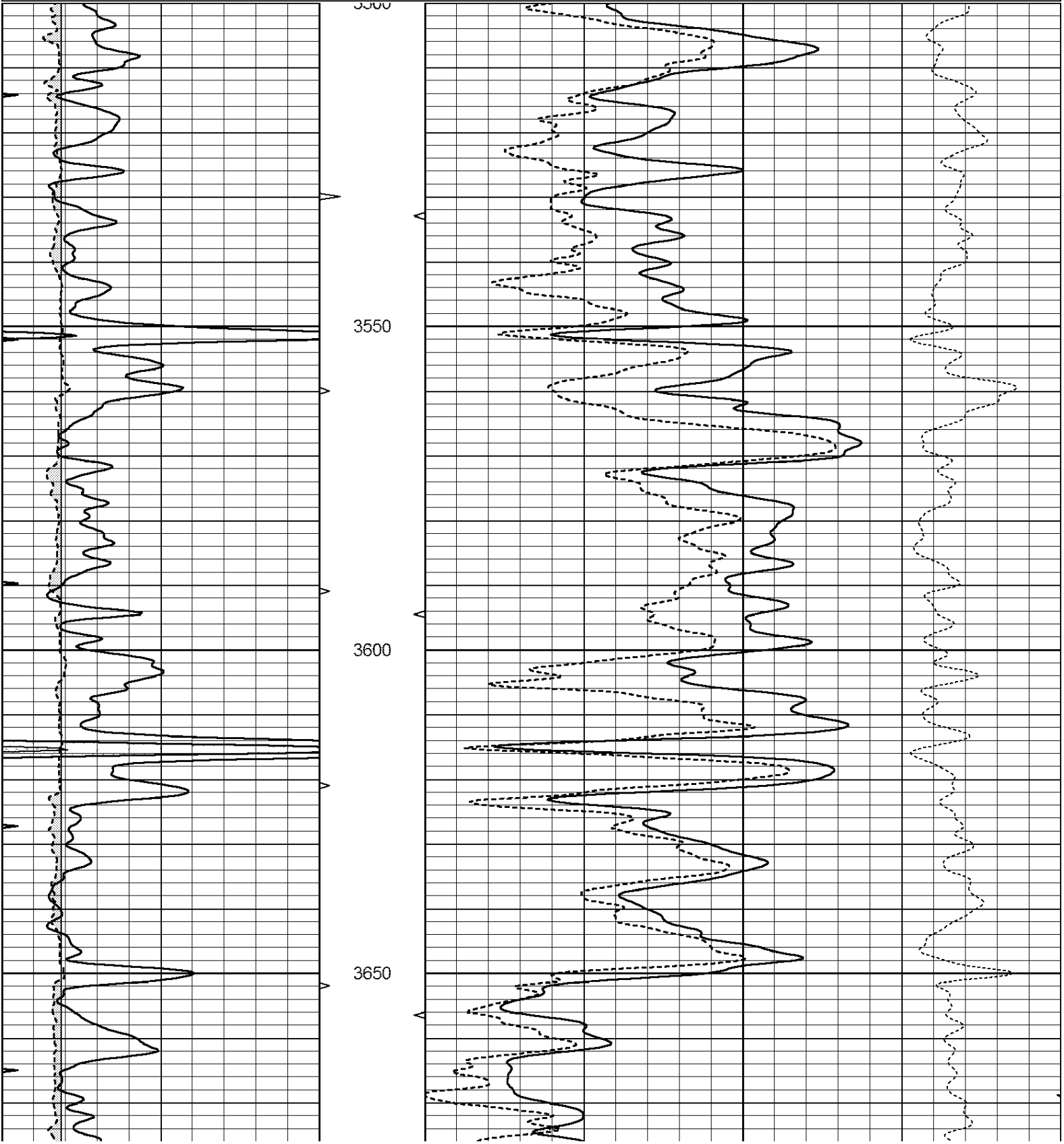
DIRECTIONS
NESS CITY WEST TO N RD., NORTH 4 MILES
1 WEST, NORTH INTO.

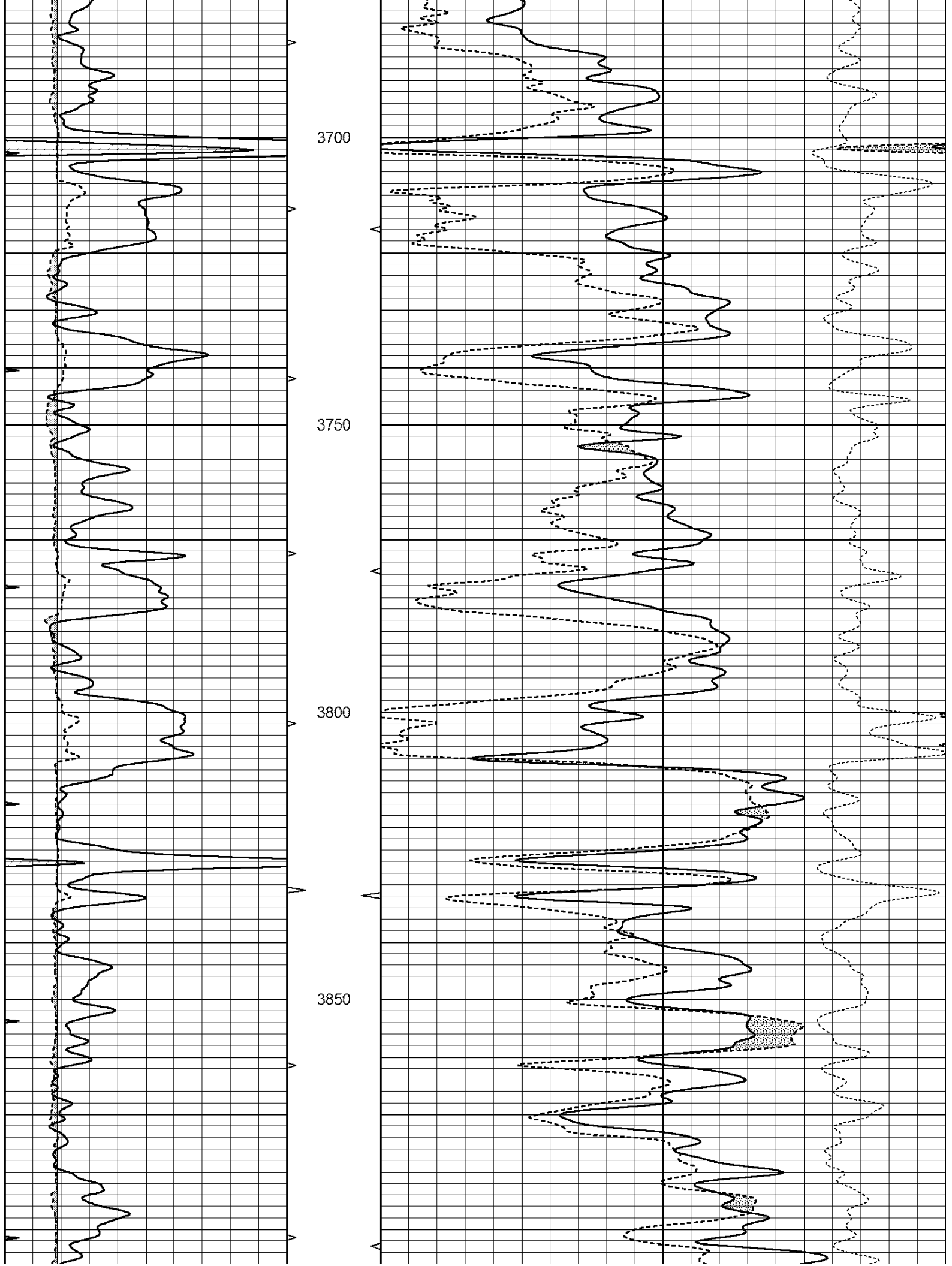


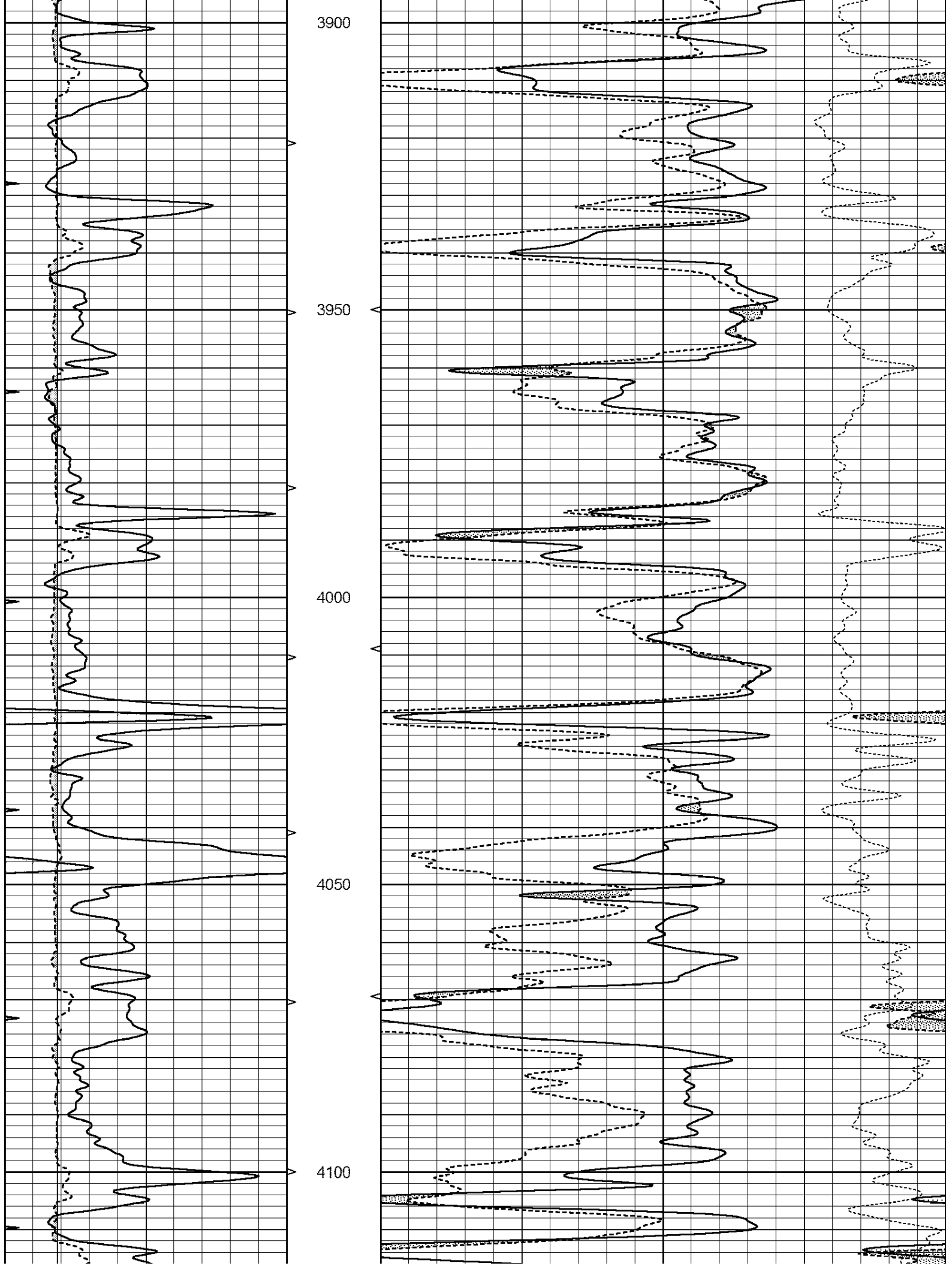
MAIN PASS

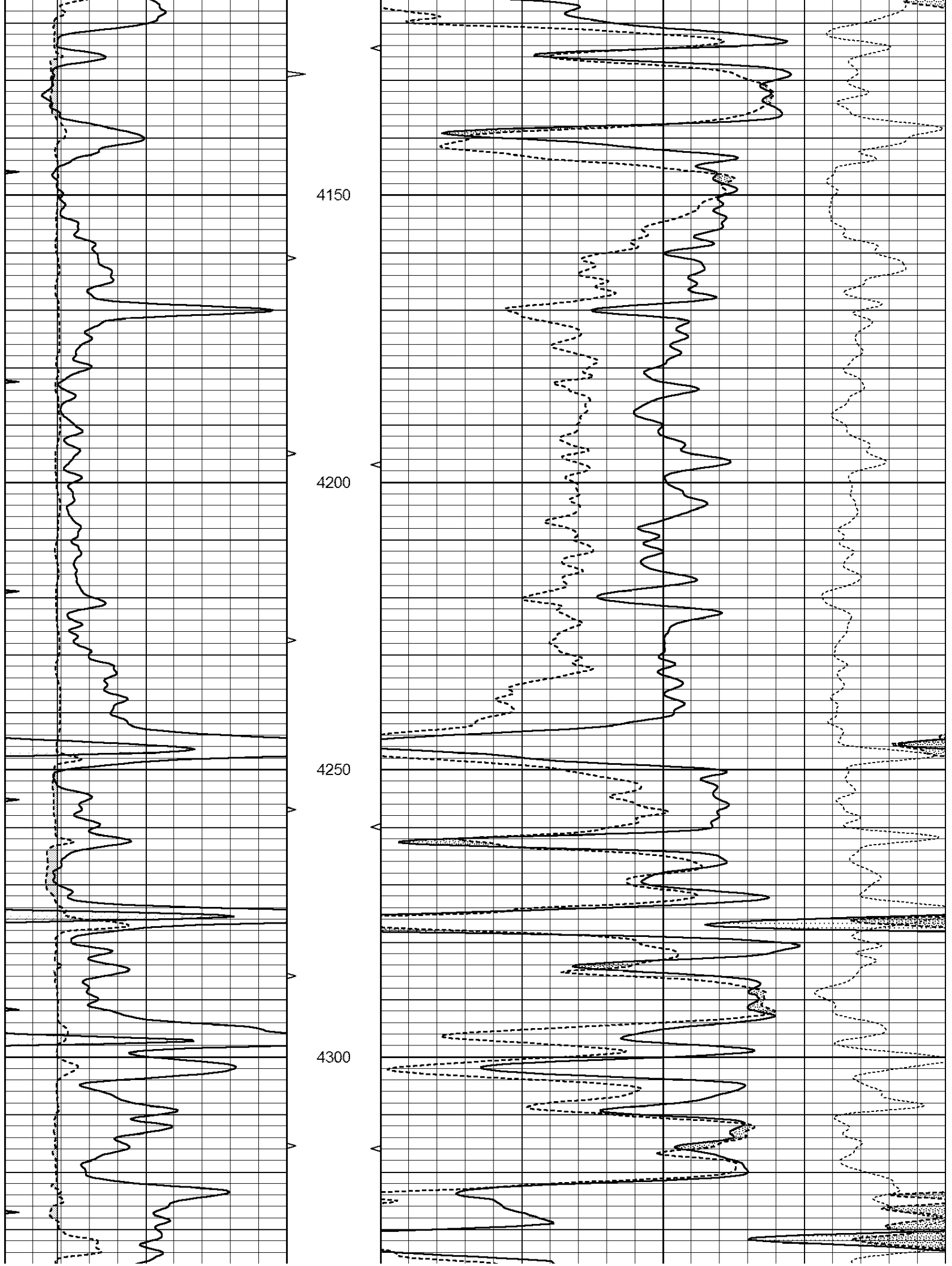
Database File: 4088ddn.db
Dataset Pathname: pass3POR
Presentation Format: den_neu
Dataset Creation: Fri Aug 30 11:46:10 2019
Charted by: Depth in Feet scaled 1:240

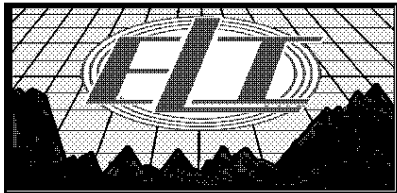
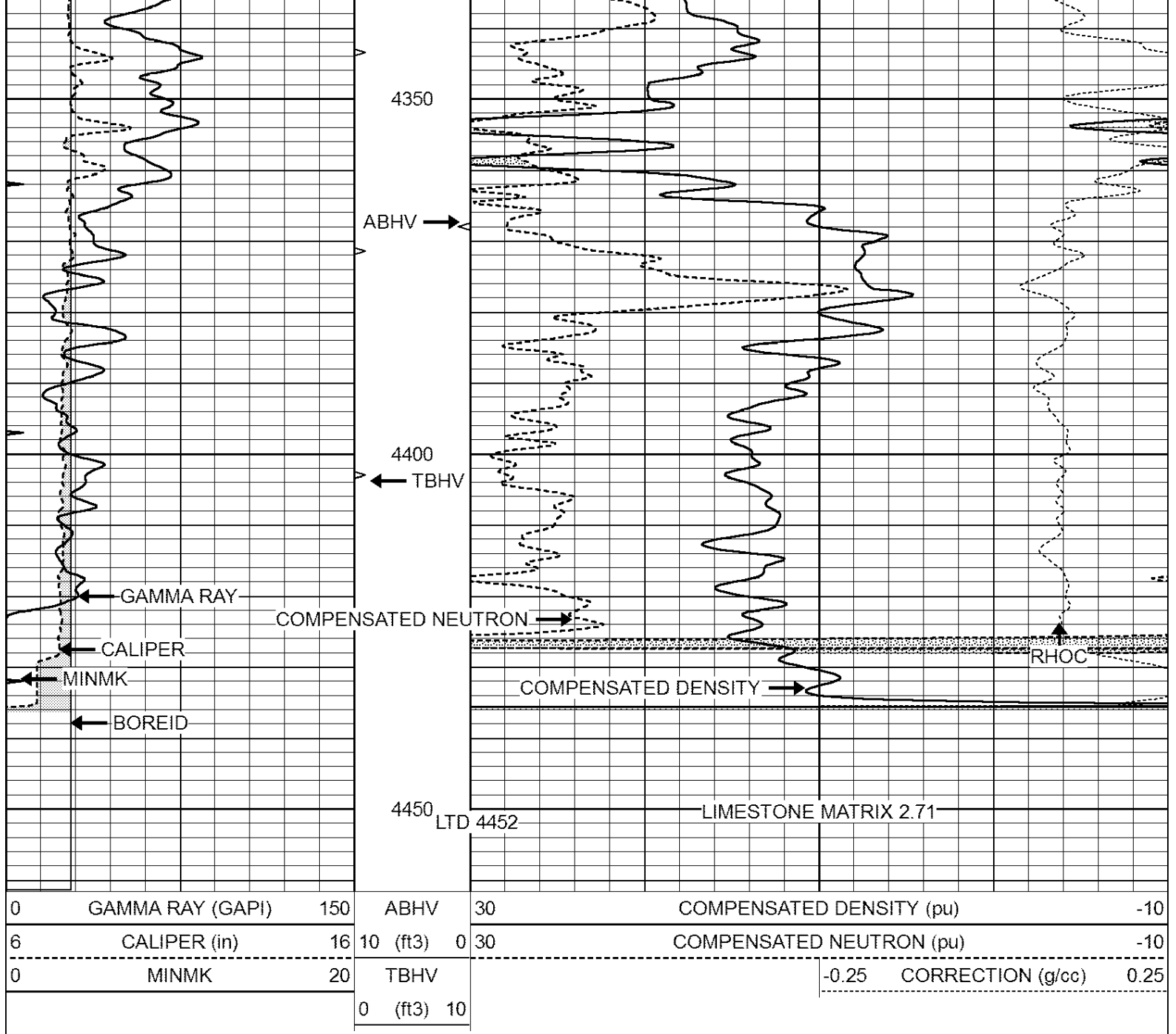
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





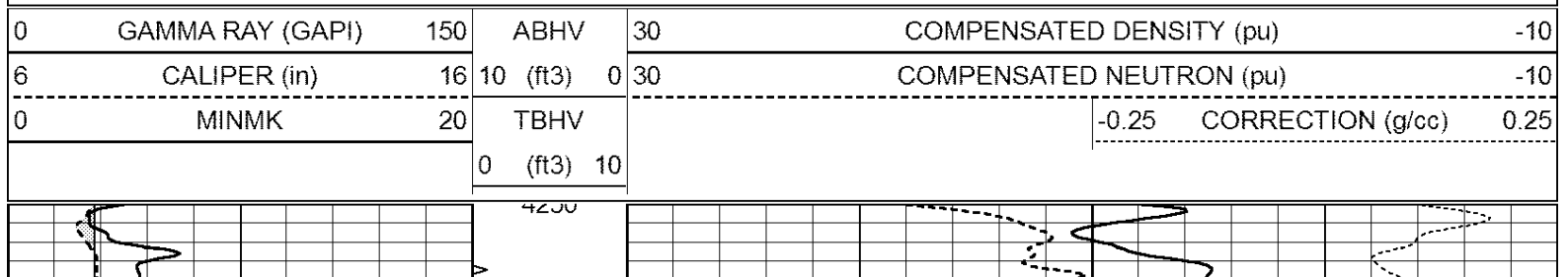


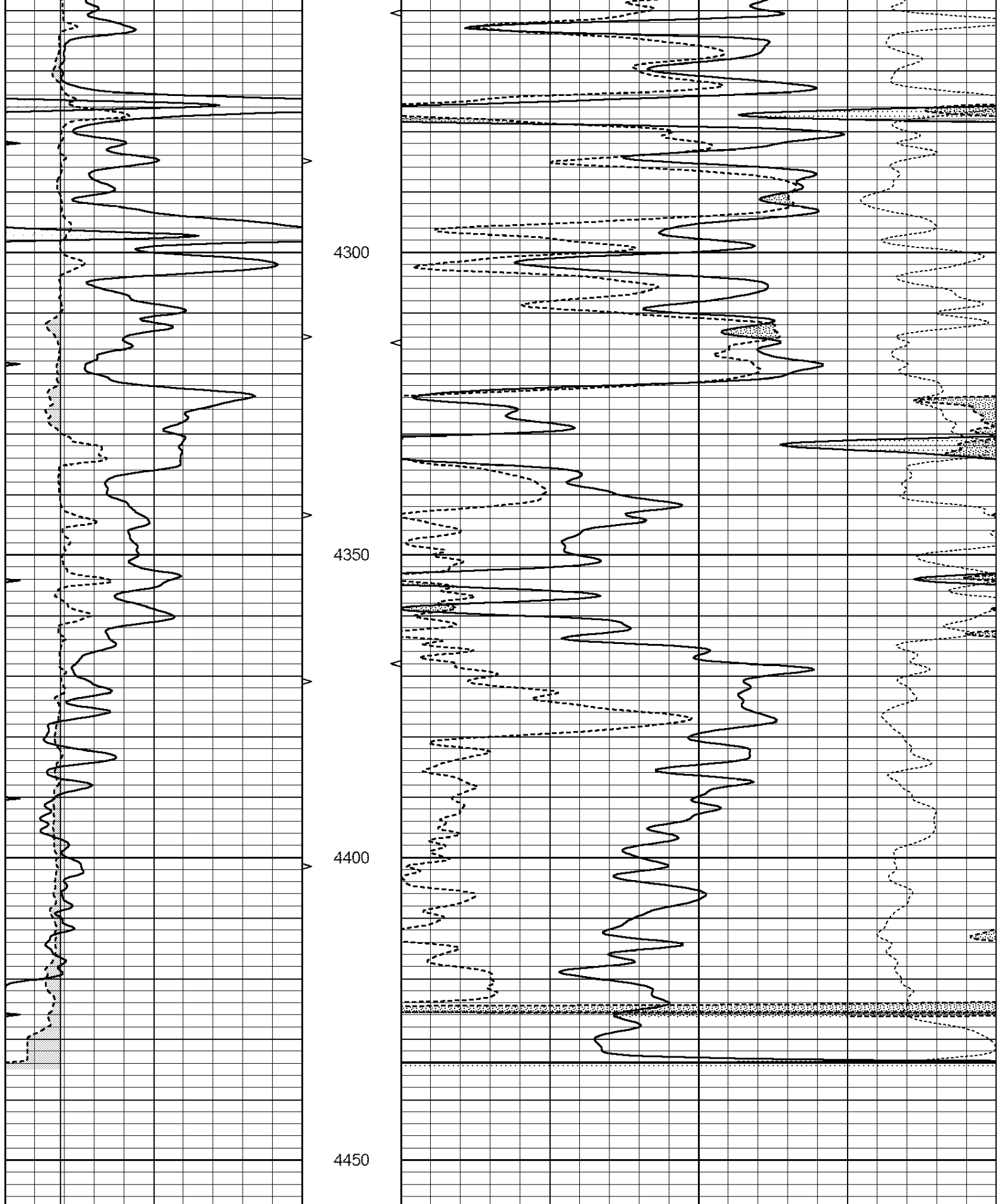




REPEAT SECTION

Database File: 4088ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Fri Aug 30 11:51:12 2019 by Calc Open-Cased 090629
 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:		4088ddn.db						
Dataset Pathname:		pass2.1						
Dataset Creation:		Fri Aug 30 11:51:12 2019 by Calc Open-Cased 090629						
Dual Induction Calibration Report								
Serial-Model:			PROBE8-DILG					
Surface Cal Performed:			Mon Sep 10 14:28:35 2018					
Downhole Cal Performed:			Mon Sep 10 14:28:38 2018					
After Survey Verification Performed:			Mon Sep 10 14:28:40 2018					
Surface Calibration								
		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
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		
Litho Density Calibration Report								
Serial: 001N			Model: PRB					
Master Calibration		Performed Fri Feb 22 10:21:38 2019						
	Background	Magnesium		Aluminum		Sandstone		
Window 1	1650.2	7609.7		2906.5		8386.5		cps
Window 2	1538.2	6635.9		2614.4		7212.4		cps
Window 3	1257.0	3718.7		1765.8		3927.1		cps
Window 4	376.8	375.6		373.4		374.5		cps
Long Space	0.0	5097.7		1076.2		5674.2		cps
Short Space	2.8	1704.3		1106.3		1723.6		cps
Rho		1.7100		2.5900		1.3800		g/cc
Pe		0.0000		2.5700		1.5500		
Rib Angle	: 44.5	Rib Slope	: 0.982	Density/Spine Ratio			: 0.545	
Spine Angle	: 74.5	Spine Slope	: 3.599	Spine Intercept			: -18.2	
Before Survey Verification		Performed Wed Dec 31 18:00:00 1999						

Before Survey Verification					
Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

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

PRE-SURVEY VERIFICATION						
	Detector	Readings		Measured		Target
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		
3)	Short Space		cps			
	Long Space		cps	pu		

POST-SURVEY VERIFICATION						
	Detector	Readings		Measured		Target
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		pu
3)	Short Space		cps			
	Long Space		cps	pu		pu

Gamma Ray Calibration Report

Serial Number:	GR6
Tool Model:	OPEN
Performed:	Wed Jul 03 12:57:34 2019

Calibrator Value:	150.0	GAPI
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Background Reading:	0.0	cps
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Calibrator Reading:	276.0	cps
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Sensitivity:	0.5700	GAPI/cps
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