



COMPENSATED DENSITY/NEUTRON LOG

Company	DOWNING-NELSON OIL CO., INC.	Company	DOWNING-NELSON OIL CO., INC.
Well	GLORIA #1-25	Well	GLORIA #1-25
Field	WILDCAT	Field	WILDCAT
County	RUSH	County	RUSH
State	KANSAS	State	KANSAS
Location:	API # : 15-165-22150-00-00 530 FSL & 330 FEL	Other Services DIL/SONIC MEL	
Permanent Datum Log Measured From Drilling Measured From	GROUND LEVEL KELLY BUSHING 8' A.G.L. KELLY BUSHING	Elevation K.B. 2117 D.F. 2115 G.L. 2109	
Date	08/20/17		
Run Number	ONE		
Depth Driller	3855		
Depth Logger	3858		
Bottom Logged Interval	3834		
Top Log Interval	3000		
Casing Driller	8 5/8@ 1276		
Casing Logger	1276		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6000 PPM	
Density / Viscosity	9.2/5.1		
pH / Fluid Loss	8.5/9.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.70@86		
Rmt @ Meas. Temp	.53@86		
Rmc @ Meas. Temp	.84@86		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.52@115		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	///		
Maximum Recorded Temperature	115F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	MARC DOWNING		

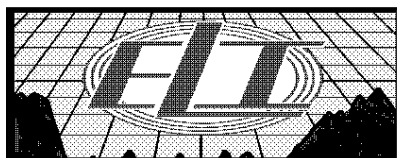
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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

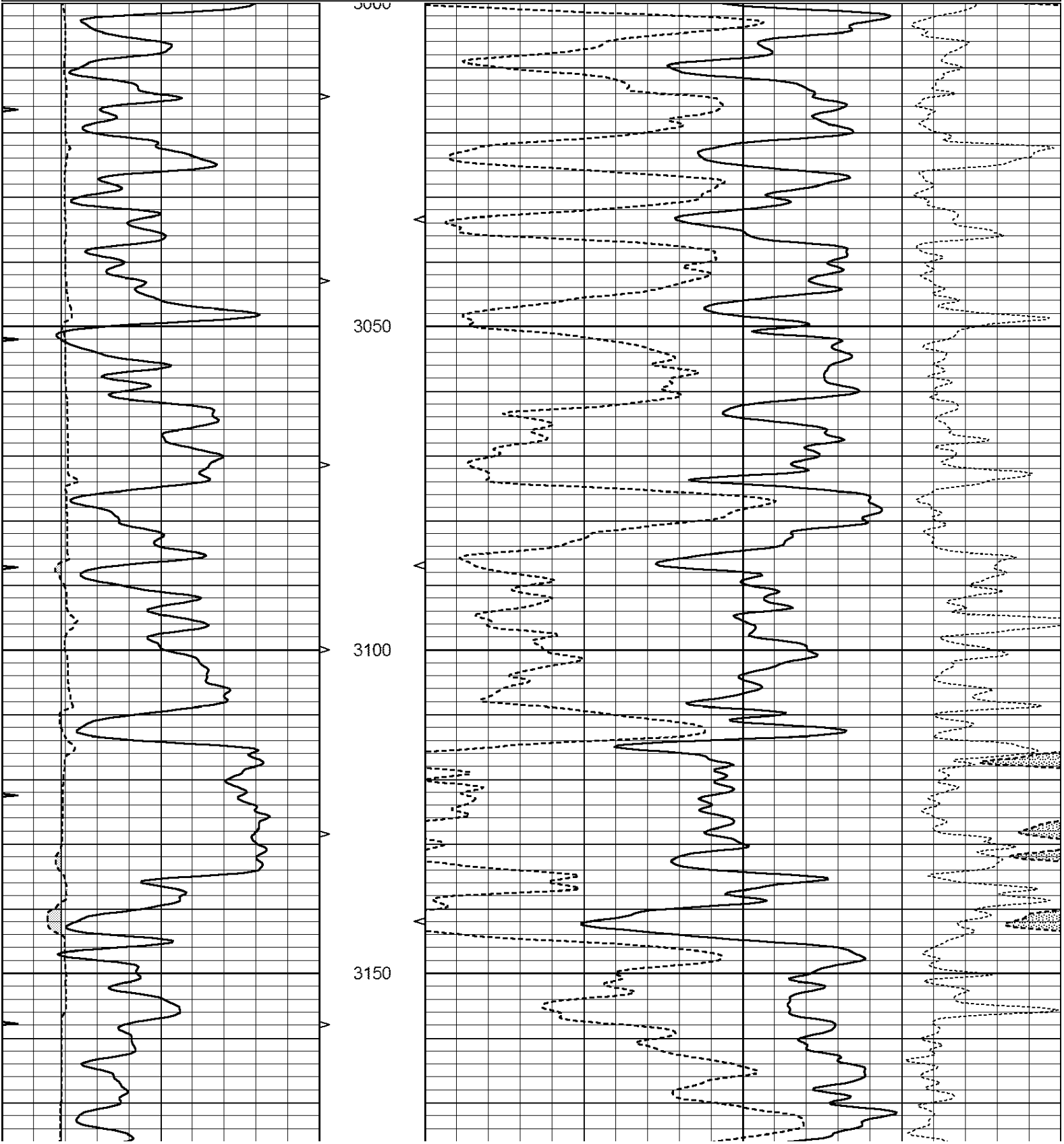
DIRECTIONS
LACROSSE HIGHWAY 4,
3 WEST, 1/4 NORTH, WEST INTO.

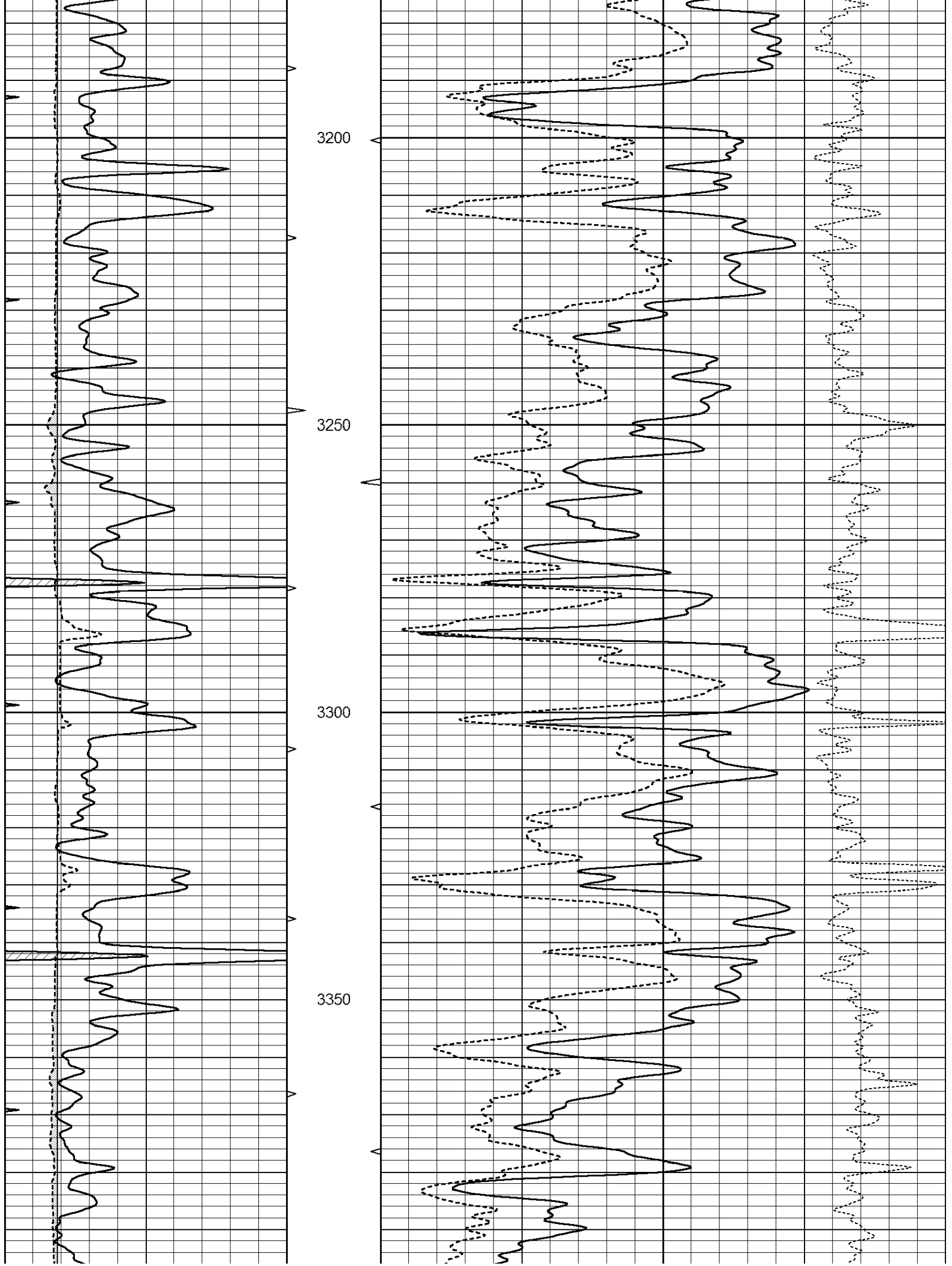


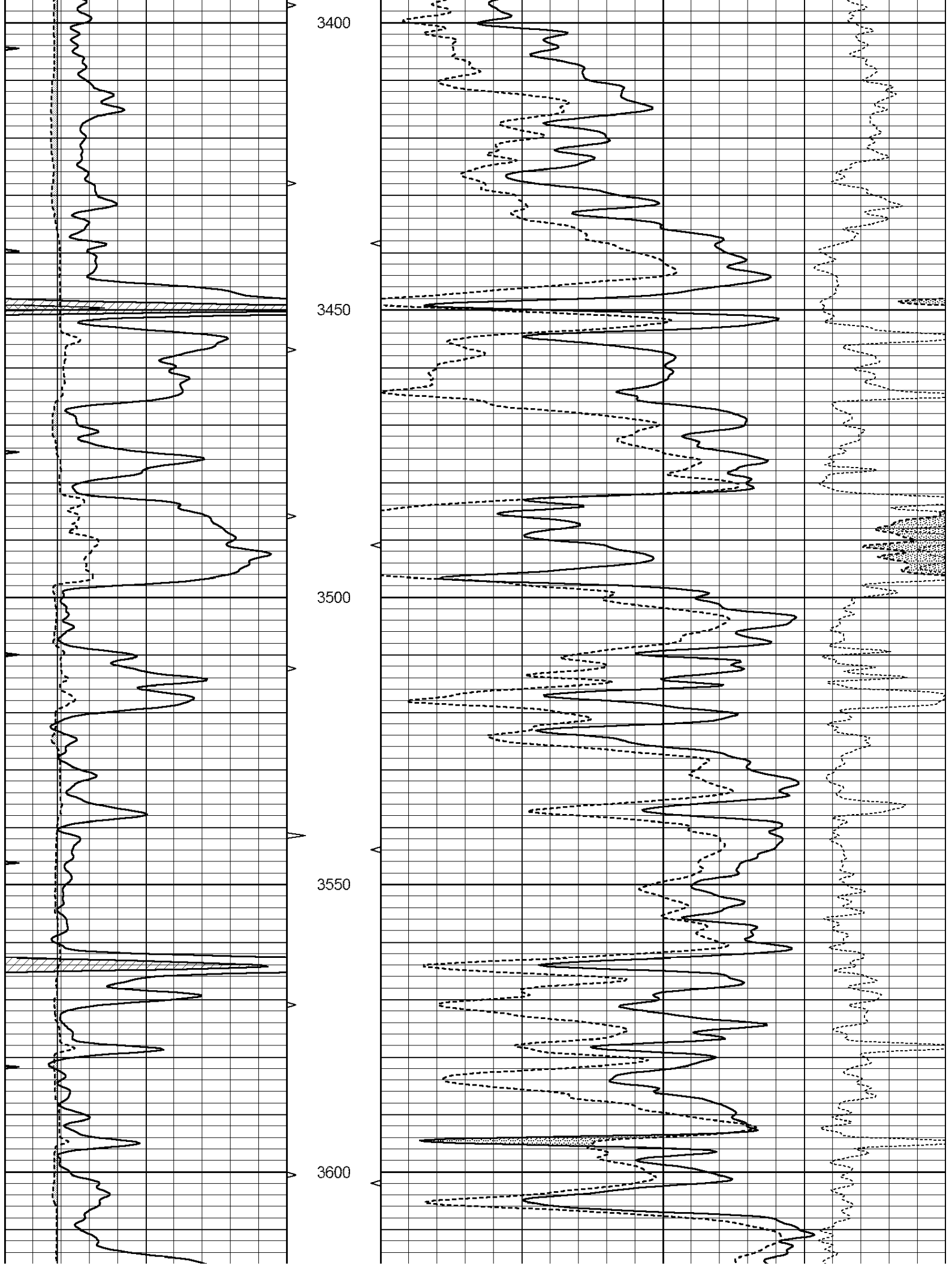
MAIN PASS

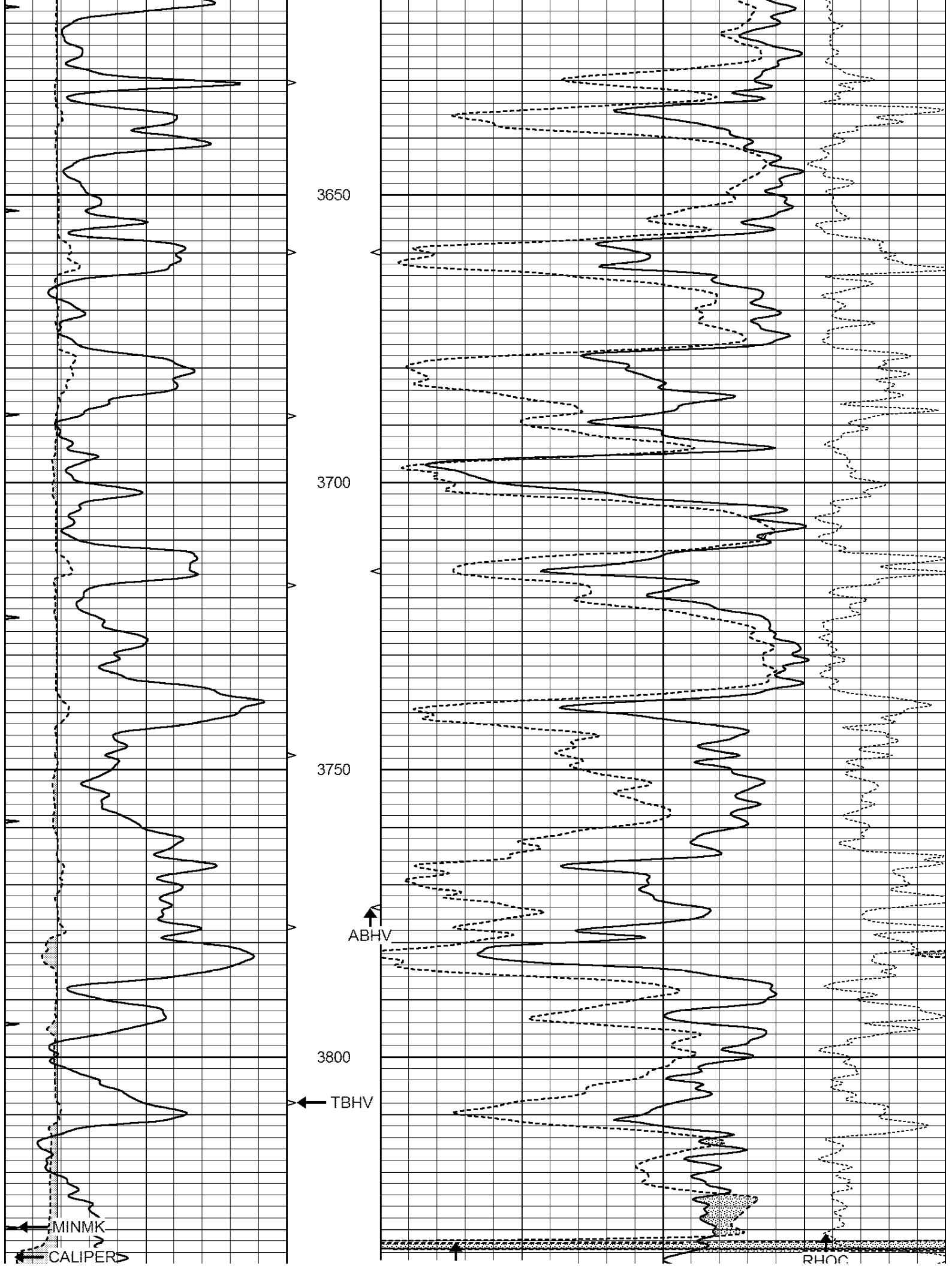
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Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Sun Aug 20 17:59:23 2017
Charted by: Depth in Feet scaled 1:240

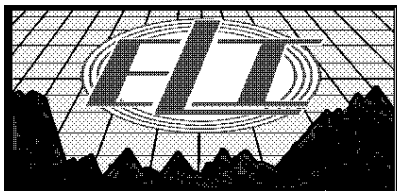
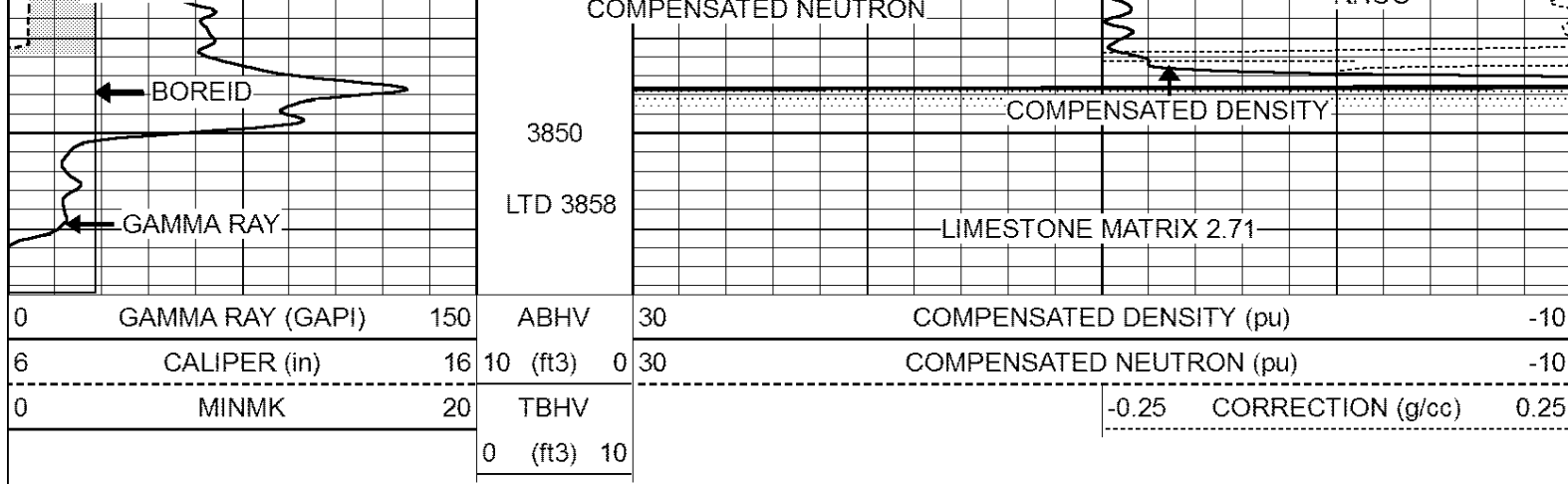
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		







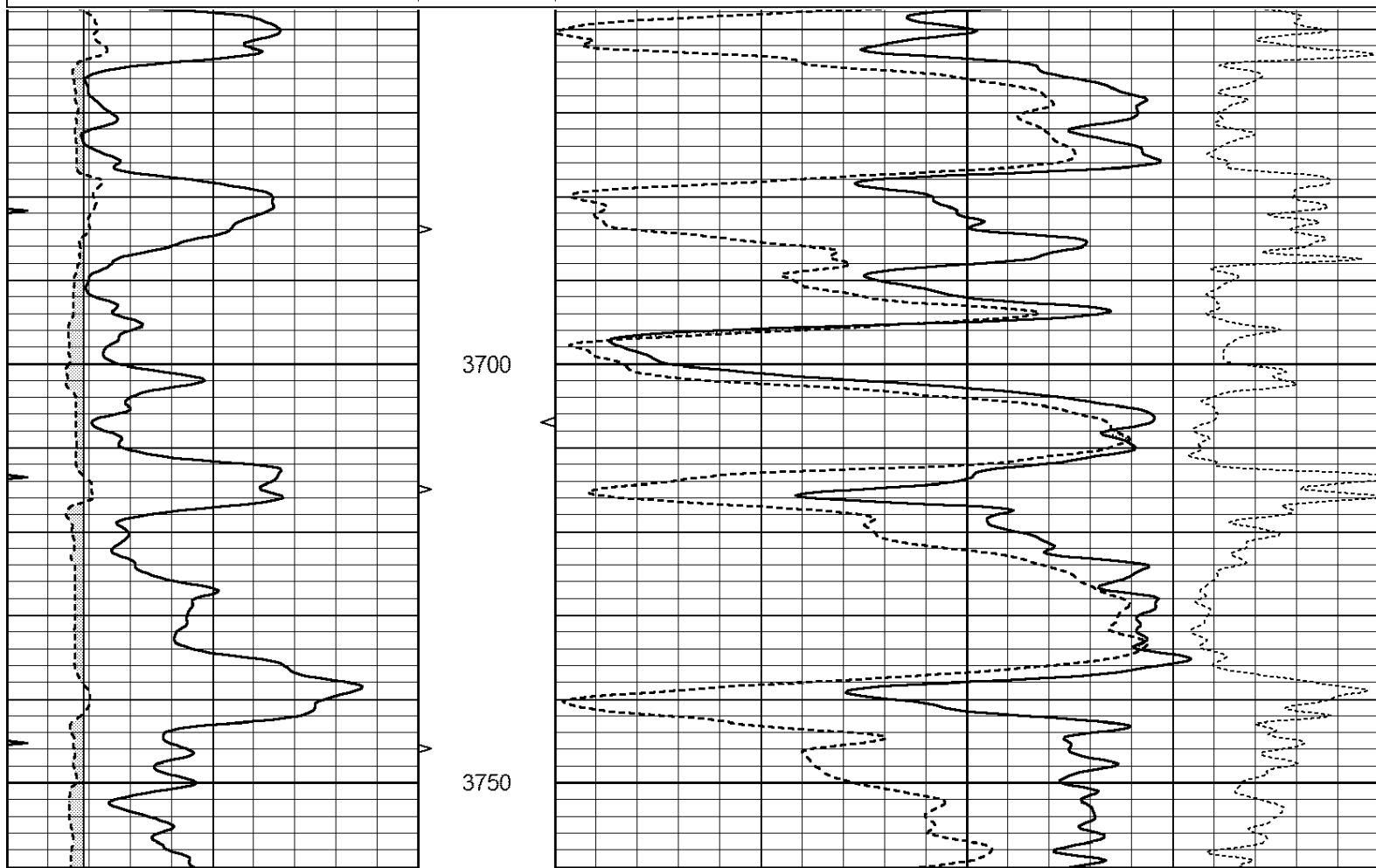


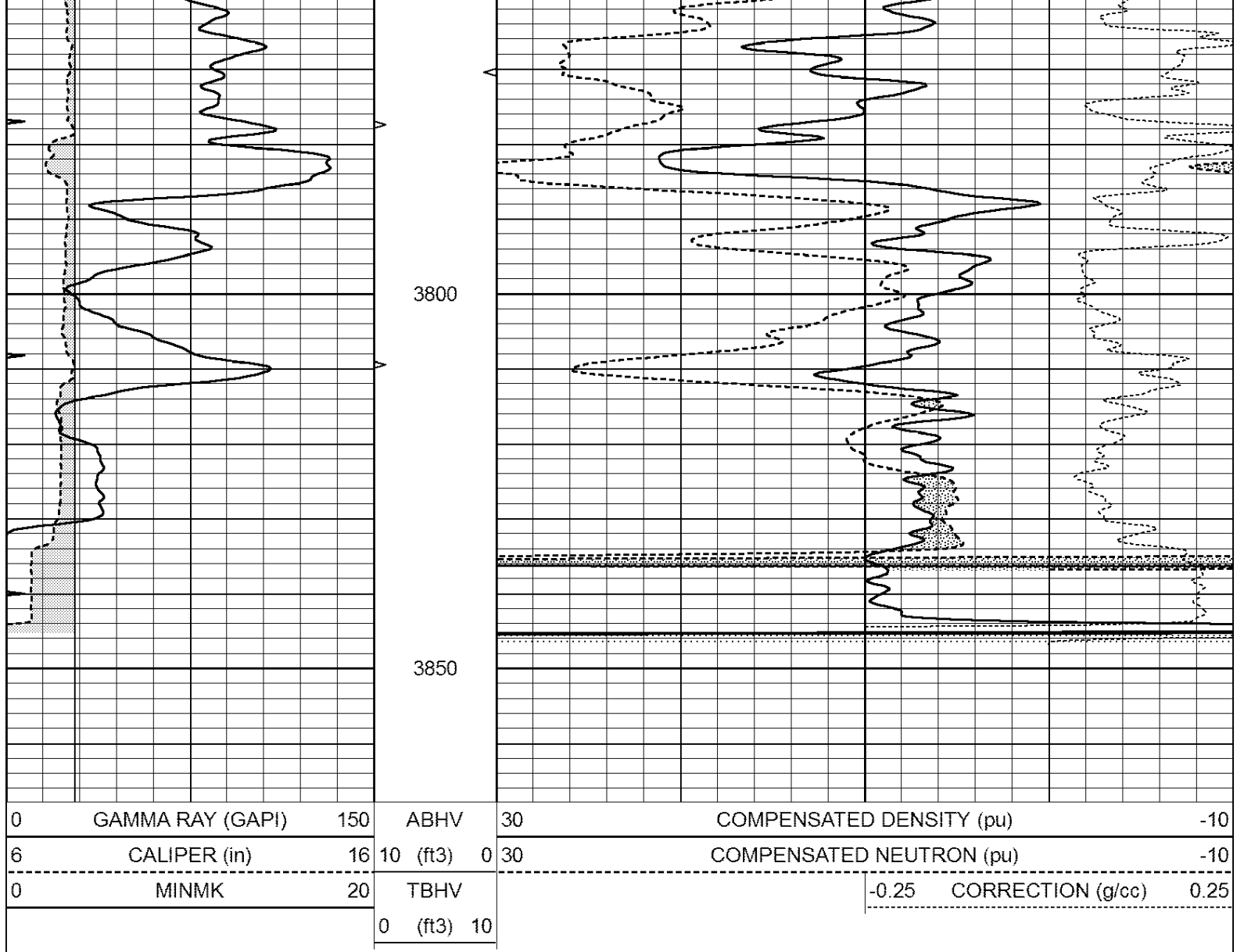


REPEAT SECTION

Database File: 1812ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Sun Aug 20 18:34:18 2017 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: 1812ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Sun Aug 20 18:34:18 2017 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
Surface Cal Performed: Wed Aug 16 15:20:52 2017
Downhole Cal Performed: Wed Aug 16 15:20:57 2017
After Survey Verification Performed: Wed Aug 16 15:20:58 2017

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		

Compensated Density Calibration Report								
Serial-Model:				GEAR5-GEARHART				
Source / Verifier:				/				
Master Calibration Performed:				Wed Aug 16 15:20:33 2017				
Before Survey Verification Performed:								
After Survey Verification Performed:								

Master Calibration								
	Density			Far Detector		Near Detector		
Magnesium	1.710	g/cc		798.83		465.02	cps	
Aluminum	2.570	g/cc		178.16		318.19	cps	
Spine Angle = 75.81				Density/Spine Ratio = 0.556				
	Size			Reading				
Small Ring	7.15	in		1.47	V			
Large Ring	14.00	in		3.01	V			

Before Survey Verification								
	Target			Measured				

After Survey Verification								
	Target			Measured				

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 Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	
3)	Short Space Long Space	cps cps	pu	
POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	pu
3)	Short Space Long Space	cps cps	pu	pu
Gamma Ray Calibration Report				
Serial Number:		GR6		
Tool Model:		OPEN		
Performed:		Wed Aug 16 15:20:23 2017		
Calibrator Value:		150.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		276.0	cps	
Sensitivity:		0.5500	GAPI/cps	