

COMPENSATED DENSITY / NEUTRON LOG

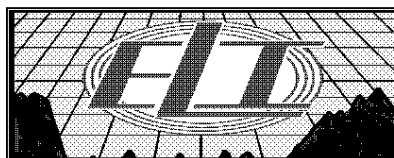
Company	MAI OIL OPERATIONS, INC.		
Well	CHRISTIANSEN #2		
Field	MUELLER		
County	STAFFORD		
State	KANSAS		
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Well	CHRISTIANSEN #2		
Field	MUELLER		
County	STAFFORD		
State	KANSAS		
Location:	API # : 15-185-24039-0000 1320' FNL & 1773' FVL E/2 - W/2 - E/2 - NW		
Permanent Datum	GROUND LEVEL	Elevation	1864
Log Measured From	KELLY BUSHING 8' A.G.L.		
Drilling Measured From	KELLY BUSHING		
SEC 18	TWP 21S	RGE 12W	
Date	11/14/18		
Run Number	ONE		
Depth Driller	3700		
Depth Logger	3700		
Bottom Logged Interval	3676		
Top Log Interval	2900		
Casing Driller	8 5/8" @ 700'		
Casing Logger	700		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9,000 PPM	
Density / Viscosity	9.4/57		
pH / Fluid Loss	8.0/14.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.400 @ 60F		
Rmf @ Meas. Temp	.300 @ 60F		
Rmc @ Meas. Temp	.480 @ 60F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.212 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	3:15 A.M.		
Maximum Recorded Temperature	113F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JIM MUSGROVE		

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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

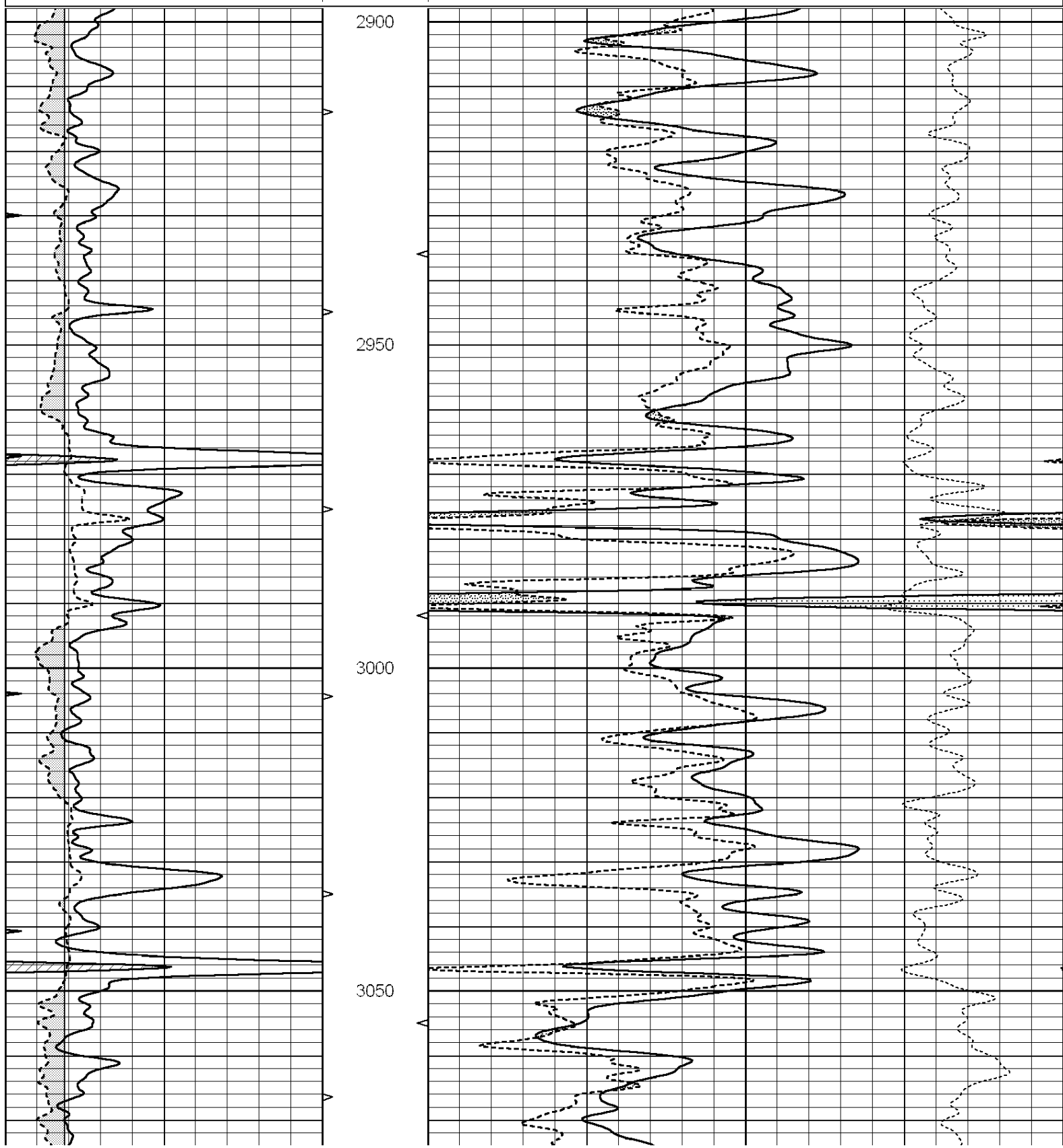
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
GREAT BEND, KS. E. TO DARTMOUTH BLKTOP, 10 S., 1W., 1/4S., E. INTO

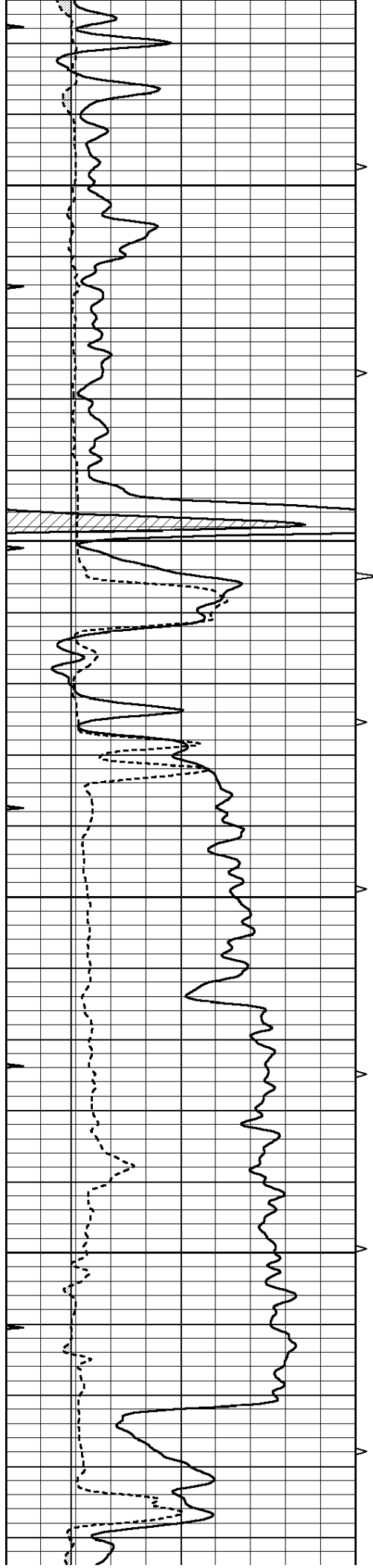


MAIN SECTION

Database File: 3059ddn.db
Dataset Pathname: pass3.5
Presentation Format: den_neu
Dataset Creation: Wed Nov 14 04:23:24 2018
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		



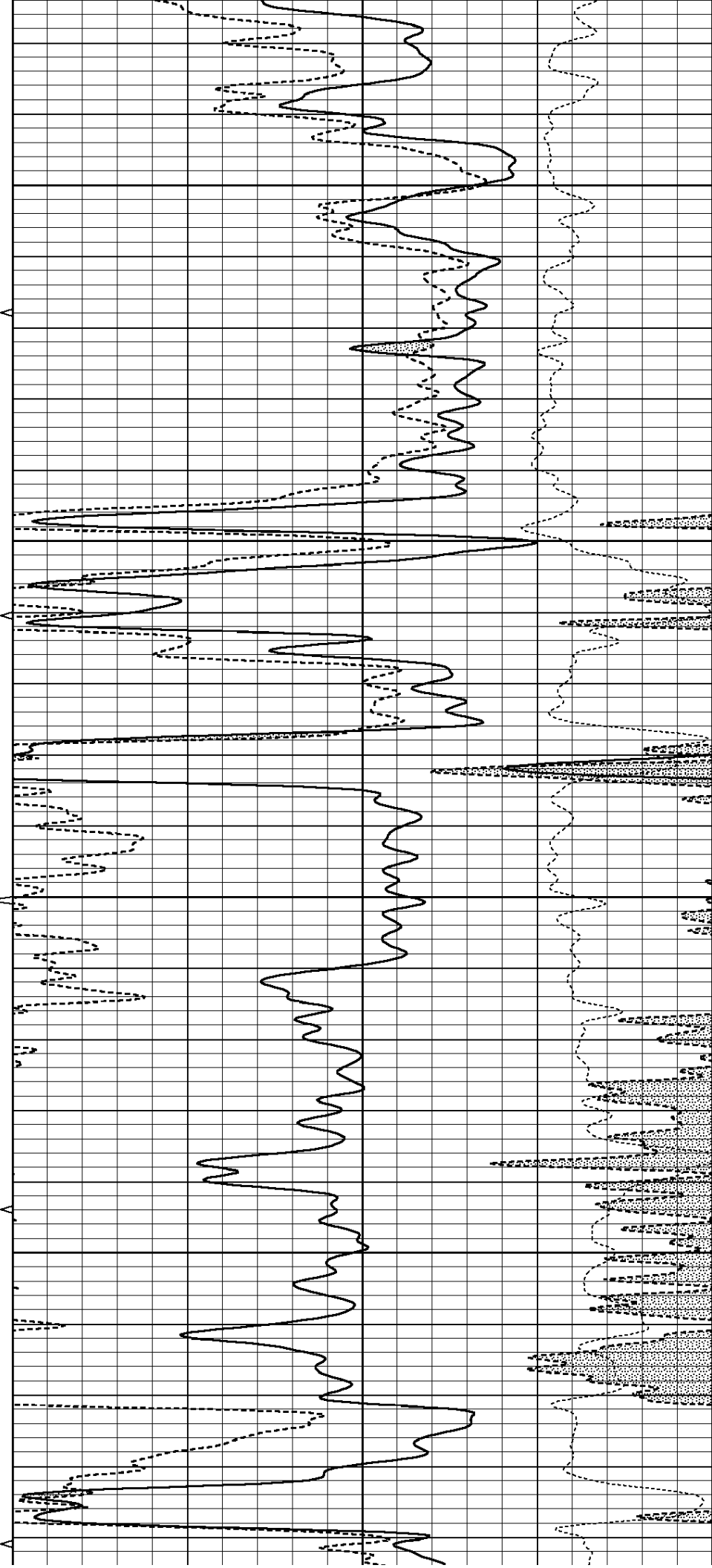


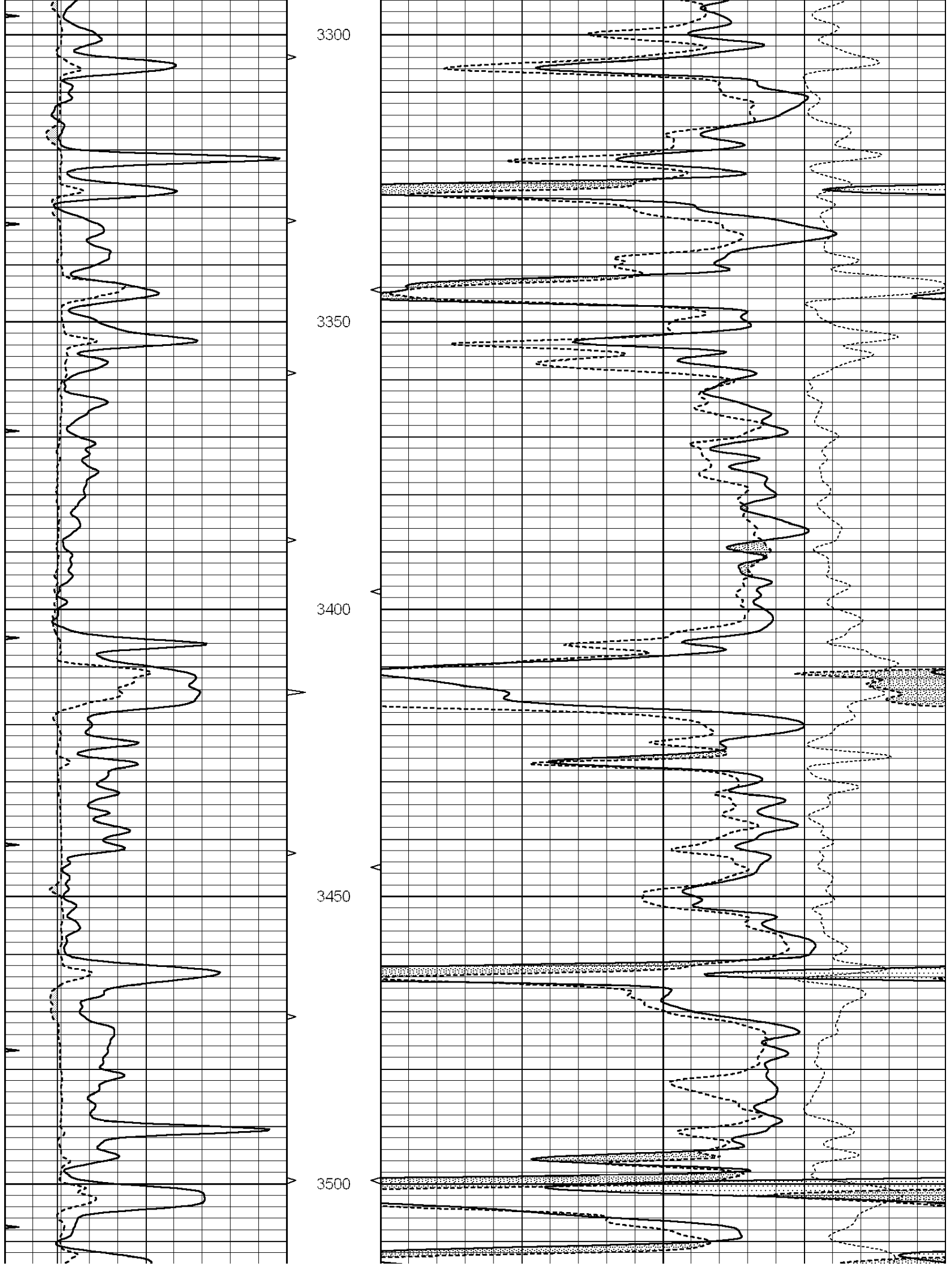
3100

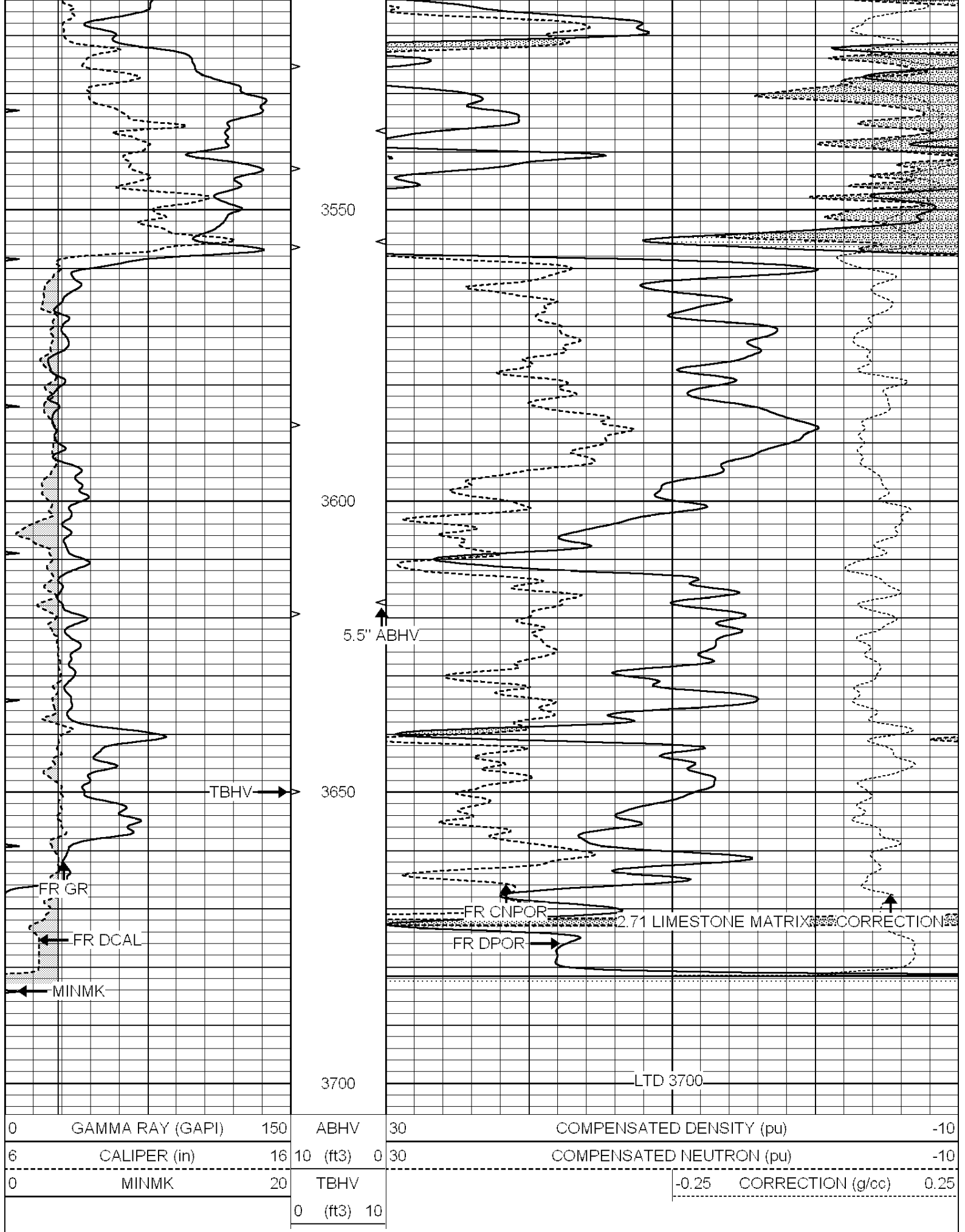
3150

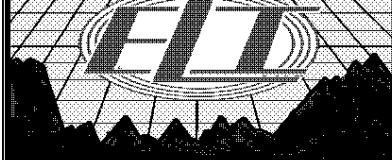
3200

3250





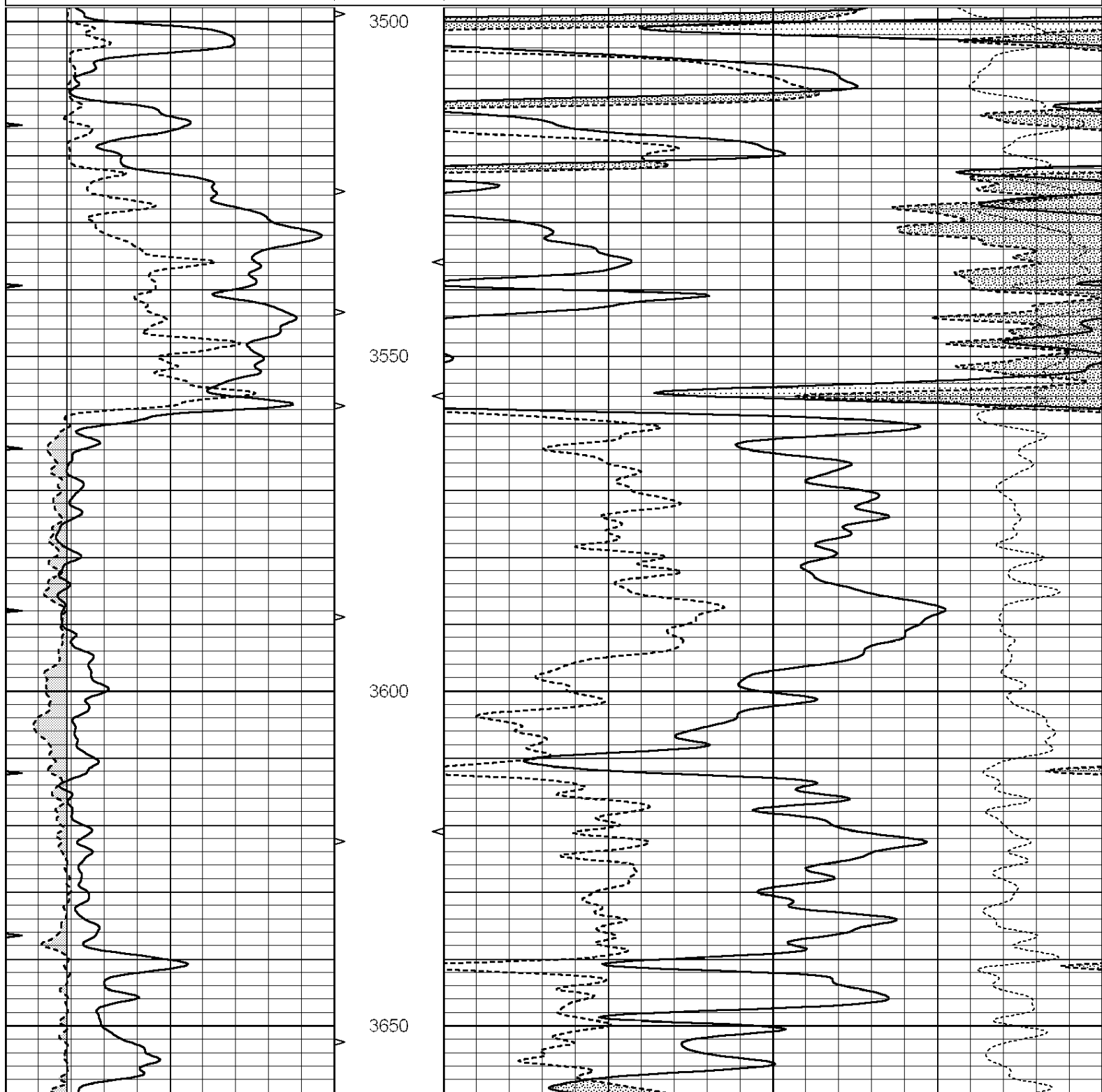


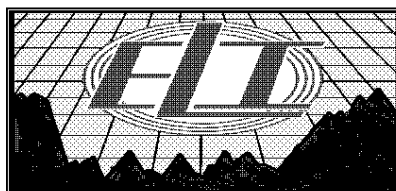
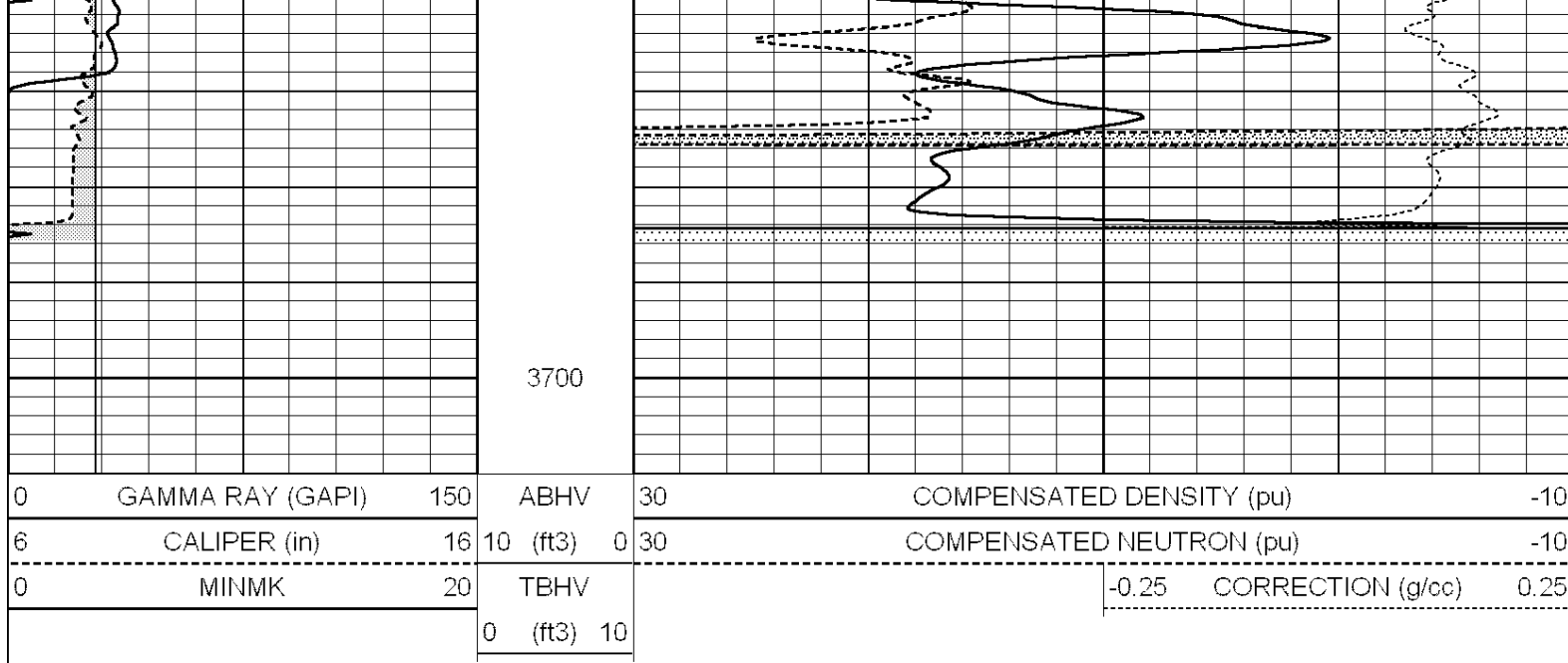


REPEAT SECTION

Database File: 3059ddn.db
Dataset Pathname: pass2.3
Presentation Format: den_neu
Dataset Creation: Wed Nov 14 03:33:58 2018
Charted by: Depth in Feet scaled 1:240

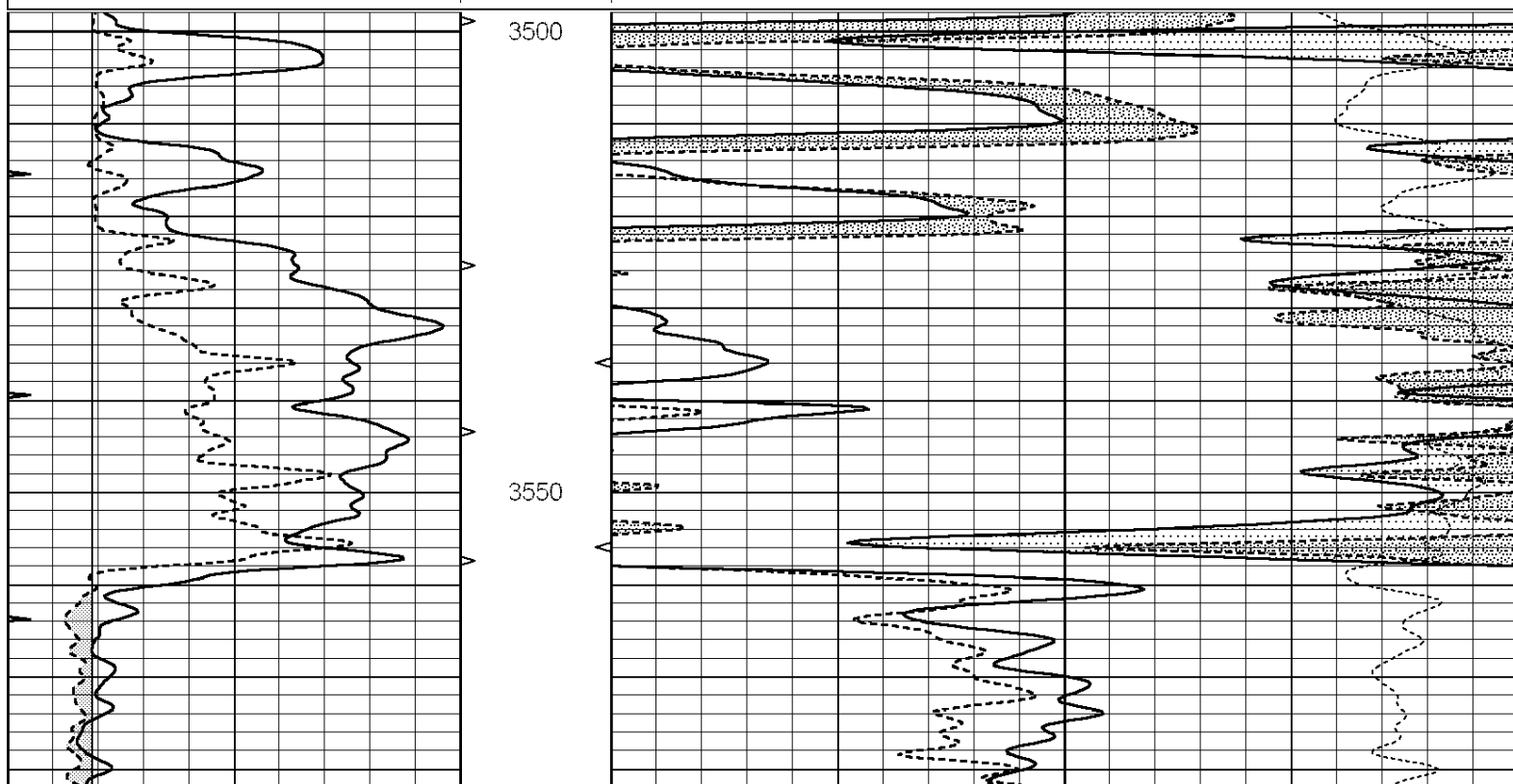
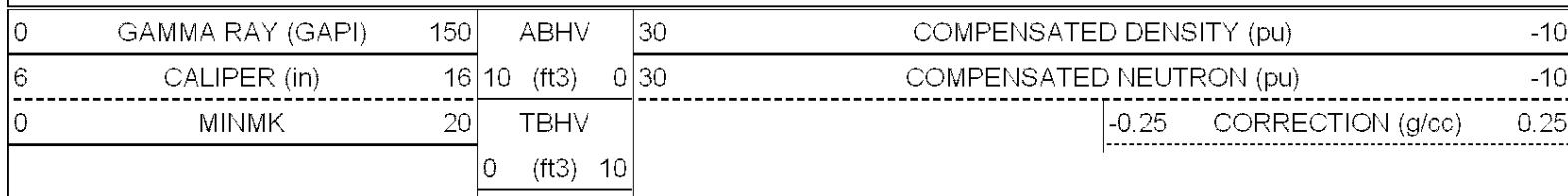
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

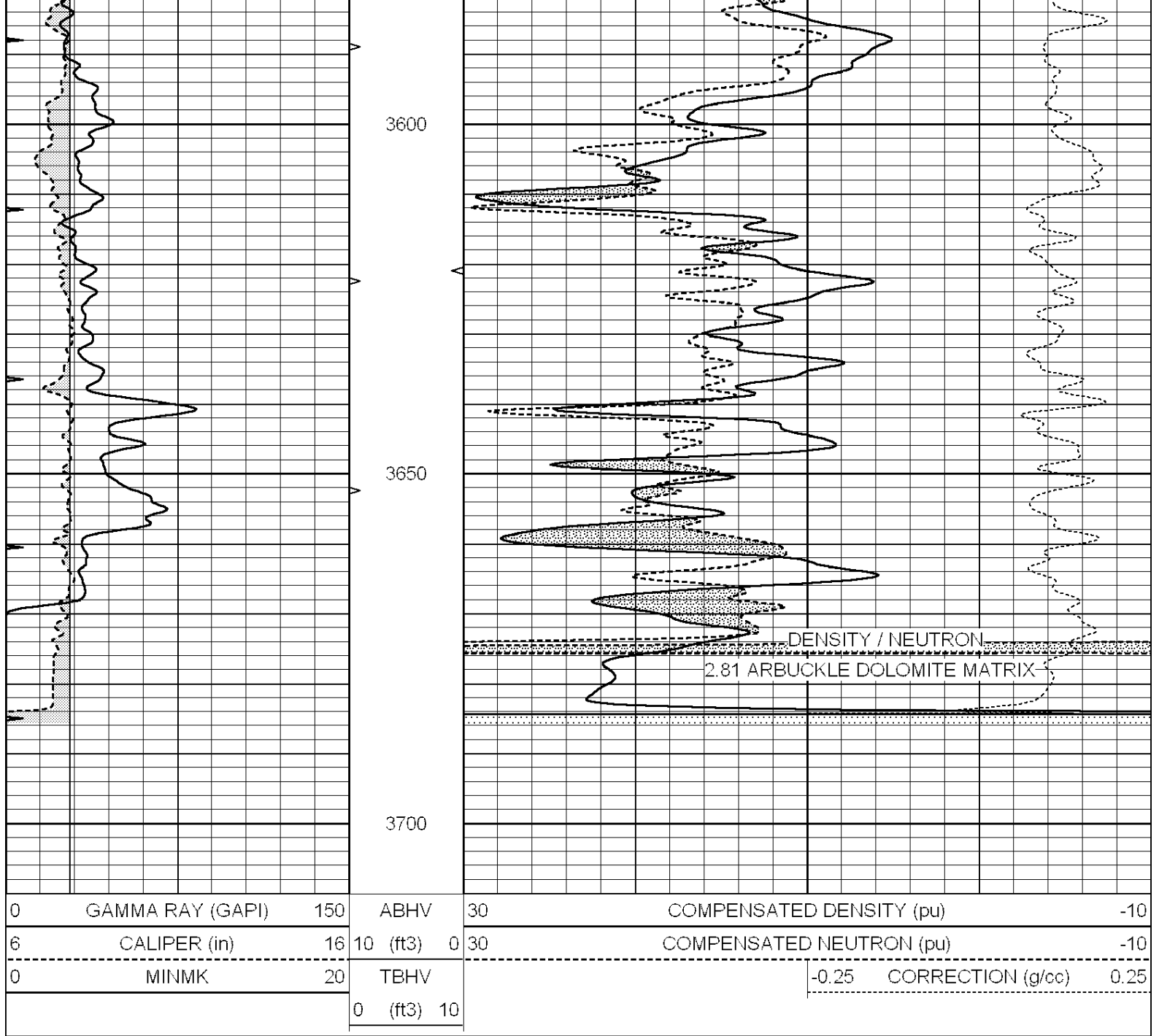




DOLOMITE MATRIX

Database File: 3059ddn.db
 Dataset Pathname: pass2.3D
 Presentation Format: den_neu
 Dataset Creation: Wed Nov 14 03:36:55 2018
 Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 1598ddn.db
 Dataset Pathname: pass4
 Dataset Creation: Wed Aug 30 02:13:00 2017 by Log SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Aug 30 00:06:33 2017
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-44.000
Internal:	Zero	Cal		Zero	Cal		m	b

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102
Downhole Calibration								
	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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: 002			Model: PRB					
Master Calibration			Performed Mon Aug 21 11:27:42 2017					
	Background	Magnesium		Aluminum		Sandstone		
Window 1	837.1	10632.5		2945.1		12110.1		cps
Window 2	772.0	9117.4		2570.1		10197.3		cps
Window 3	631.7	4669.0		1481.9		5042.9		cps
Window 4	187.0	187.5		185.9		189.9		cps
Long Space	0.0	8345.4		1798.1		9425.3		cps
Short Space	1.1	1927.9		1285.9		2050.2		cps
Rho		1.7100		2.5960		1.3800		g/cc
Pe		0.0000		2.5700		1.5500		
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio			: 0.558	
Spine Angle	: 75.2	Spine Slope	: 3.790	Spine Intercept			: -19.6	
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:		070808			
Tool Model:		Probe			
PRE-SURVEY VERIFICATION					
Detector	Readings	Measured	Target		
Short Space	cps				
Long Space	cps	pu	pu		
POST-SURVEY VERIFICATION					
Detector	Readings	Measured	Target		
Short Space	cps				
Long Space	cps	pu	pu		
Gamma Ray Calibration Report					
Serial Number:		070558			
Tool Model:		OPEN_GR			
Performed:		Wed May 31 00:09:32 2017			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.2800	GAPI/cps		