



**COMPENSATED  
DENSITY/NEUTRON  
LOG**

Company CASTLE RESOURCES, INC.  
Well GEORG-LEGLEITER#1  
Field WILDCAT  
County RUSH  
State KANSAS

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Field WILDCAT  
County RUSH State KANSAS

Location: 1320' FNL & 2275' FWL  
API #: 15-165-22170-00-00  
Other Services DIL/MEL  
Permanent Datum GROUND LEVEL Elevation 2124  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING  
Elevation  
K.B. 2129  
D.F. 2127  
G.L. 2129

Date	08/21/19
Run Number	ONE
Depth Driller	3940
Depth Logger	3940
Bottom Logged Interval	3920
Top Log Interval	3200
Casing Driller	8 5/8" @ 231
Casing Logger	231
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/47
pH / Fluid Loss	10.8/10.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.3@77
Rmt @ Meas. Temp	.98@77
Rmc @ Meas. Temp	1.2@77
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.87@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	JERRY GREEN

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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

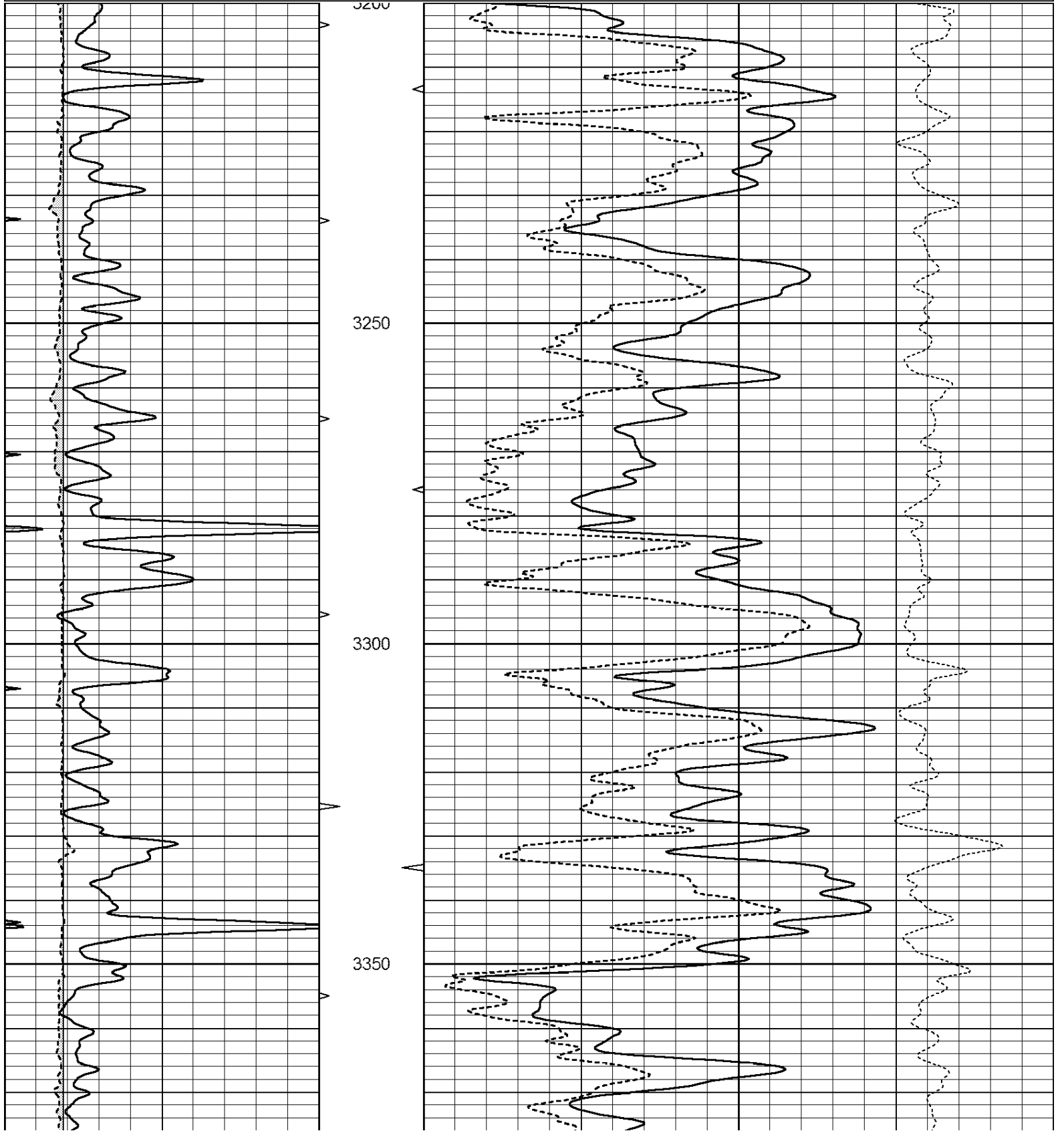
DIRECTIONS  
1 MILE SOUTH OF LIEBENTHAL, WEST TO 180 TH RD,  
SOUTH 3 1/4 MILE, EAST INTO.

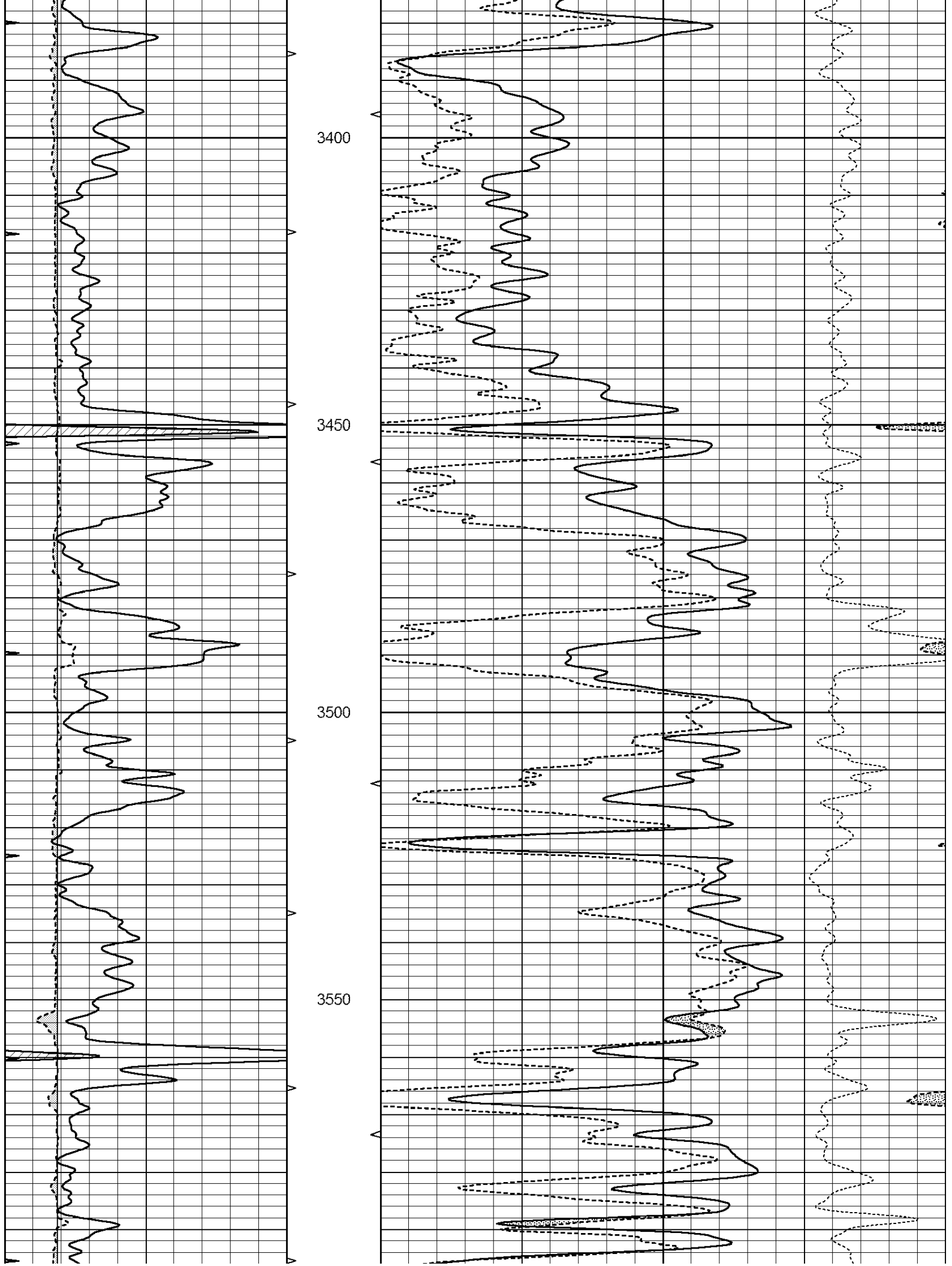


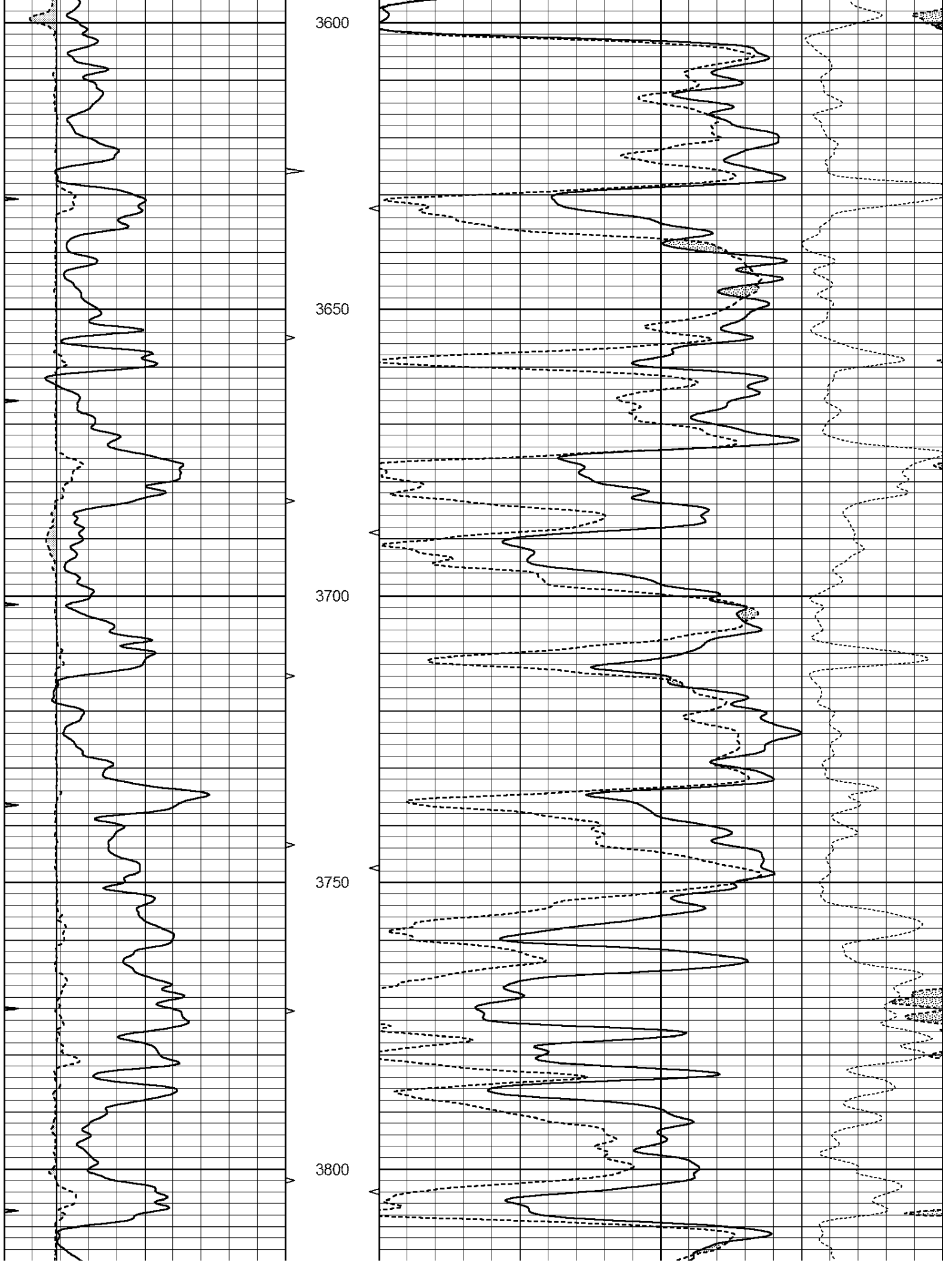
**MAIN PASS**

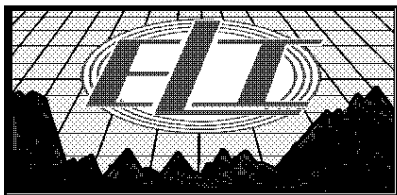
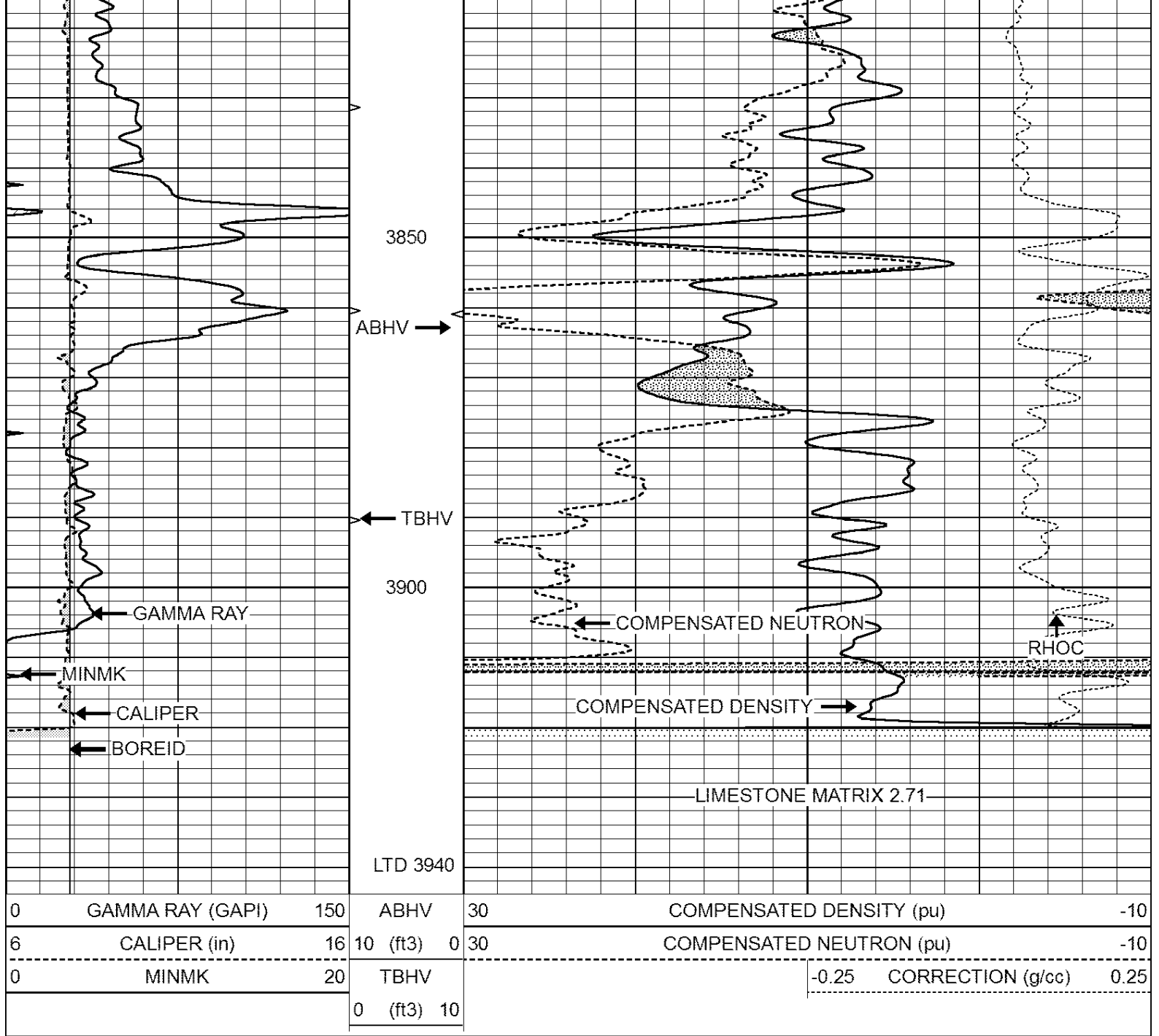
Database File: 4086ddn.db  
 Dataset Pathname: pass3.1  
 Presentation Format: den\_neu  
 Dataset Creation: Wed Aug 21 09:20:56 2019 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

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		





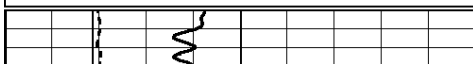


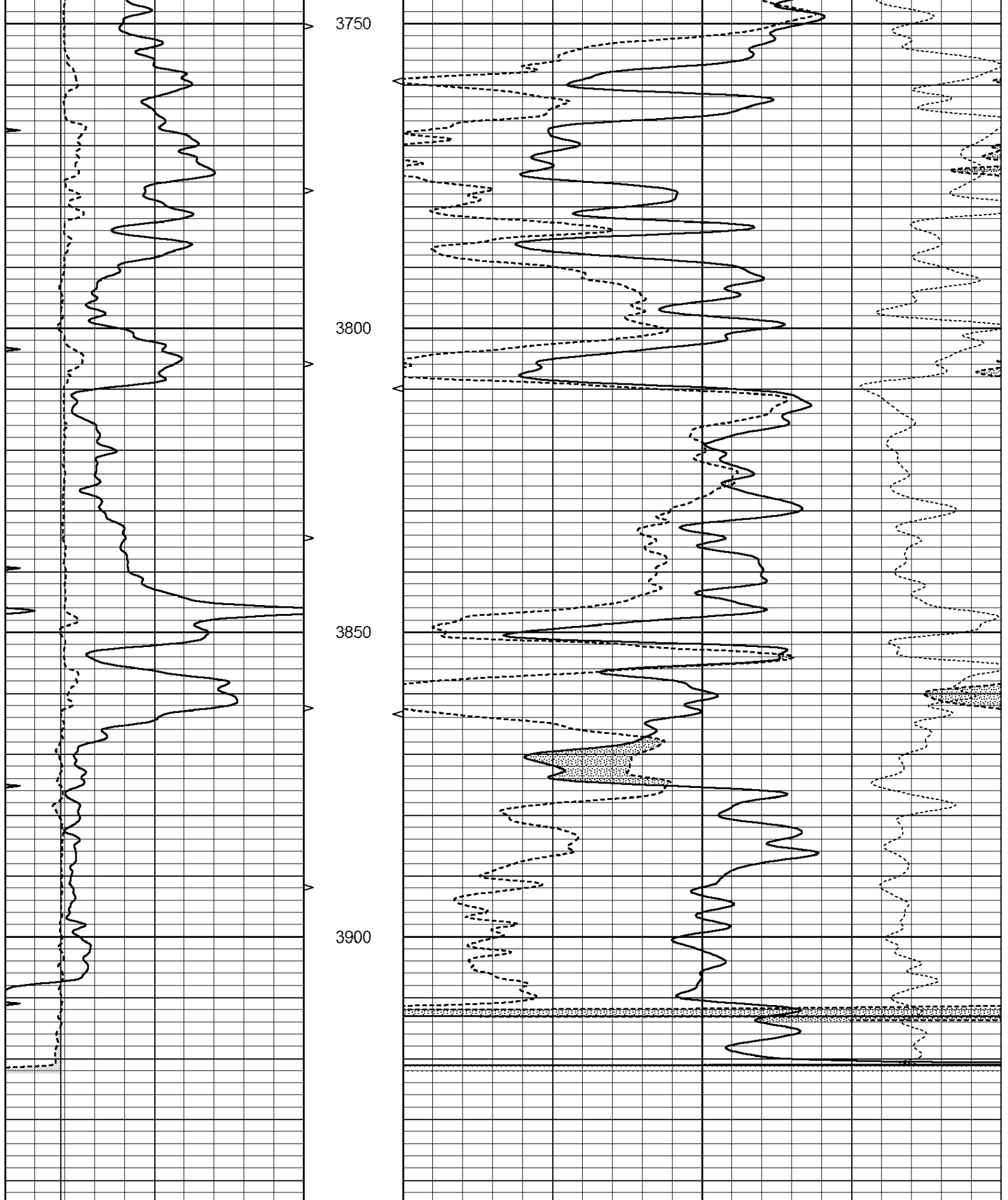


# REPEAT SECTION

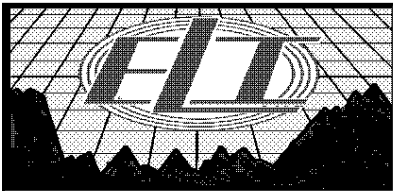
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 Dataset Pathname: pass2.1  
 Presentation Format: den\_neu  
 Dataset Creation: Wed Aug 21 09:19:58 2019 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

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		





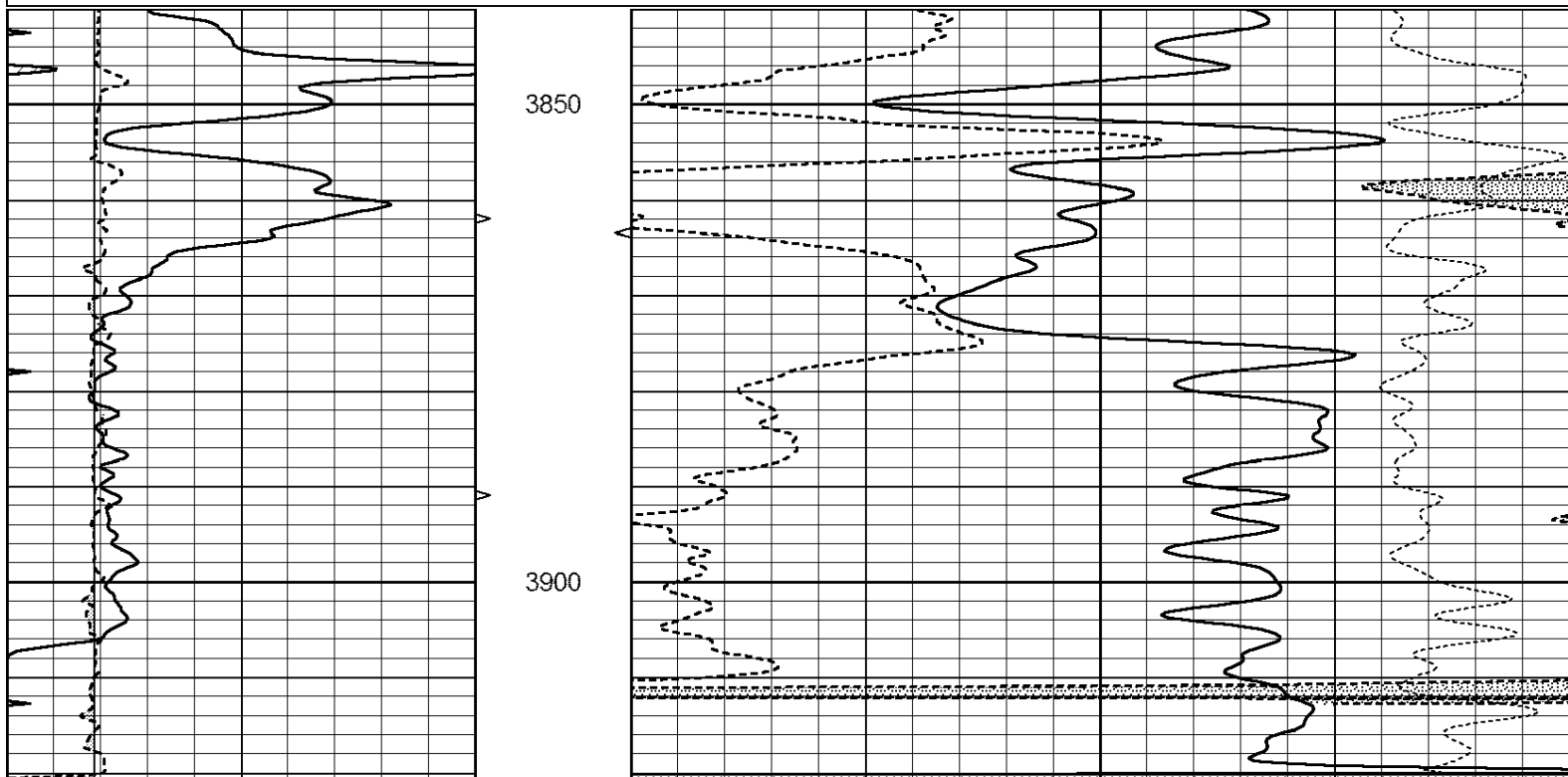
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		



# SANDSTONE MATRIX 2.65

Database File: 4086ddn.db  
 Dataset Pathname: pass3SAND  
 Presentation Format: den\_neu  
 Dataset Creation: Wed Aug 21 08:38:20 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		



SANDSTONE MATRIX 2.65

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: 4086ddn.db  
 Dataset Pathname: pass2.1  
 Dataset Creation: Wed Aug 21 09:19:58 2019 by Calc Open-Cased 090629

## Dual Induction Calibration Report

Surface Cal Performed:  
 Downhole Cal Performed:  
 After Survey Verification Performed:

Mon Sep 10 14:28:35 2018  
 Mon Sep 10 14:28:38 2018  
 Mon Sep 10 14:28:40 2018

Surface Calibration								
Loop:	Readings			References			Results	
	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 1969			
	Background	Magnesium	Aluminum	Sandstone				
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	0.0000				g/cc

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

Background Reading: 0.0 cps  
 Calibrator Reading: 276.0 cps

Sensitivity:

0.5700

GAP/cps