



**COMPENSATED  
DENSITY/NEUTRON  
LOG**

Company PHILLIPS EXPLORATION COMPANY L.C.  
Well GEYER #3-34  
Field SALINE VALLEY  
County GRAHAM  
State KANSAS

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Well GEYER #3-34  
Field SALINE VALLEY  
County GRAHAM State KANSAS

Location: 330' FSL & 330' FEL  
API #: 15-065-24208-0000  
SEC 34 TWP 10S RGE 24W  
Permanent Datum GROUND LEVEL Elevation 2360  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING  
Elevation  
K.B. 2365  
D.F. 2363  
G.L. 2360

Date	11/04/20
Run Number	ONE
Depth Driller	4000
Depth Logger	3999
Bottom Logged Interval	3979
Top Log Interval	3350
Casing Driller	8 5/8" @ 210
Casing Logger	210
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.1/62
pH / Fluid Loss	11.0/5.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.4 @ 60F
Rmf @ Meas. Temp	1.05 @ 60F
Rmc @ Meas. Temp	1.72 @ 60F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.72 @ 116F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	116F
Equipment Number	1523
Location	HAYS, KANSAS
Recorded By	GUS PFANENSTIEL
Witnessed By	PAT DEENIHAN

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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**

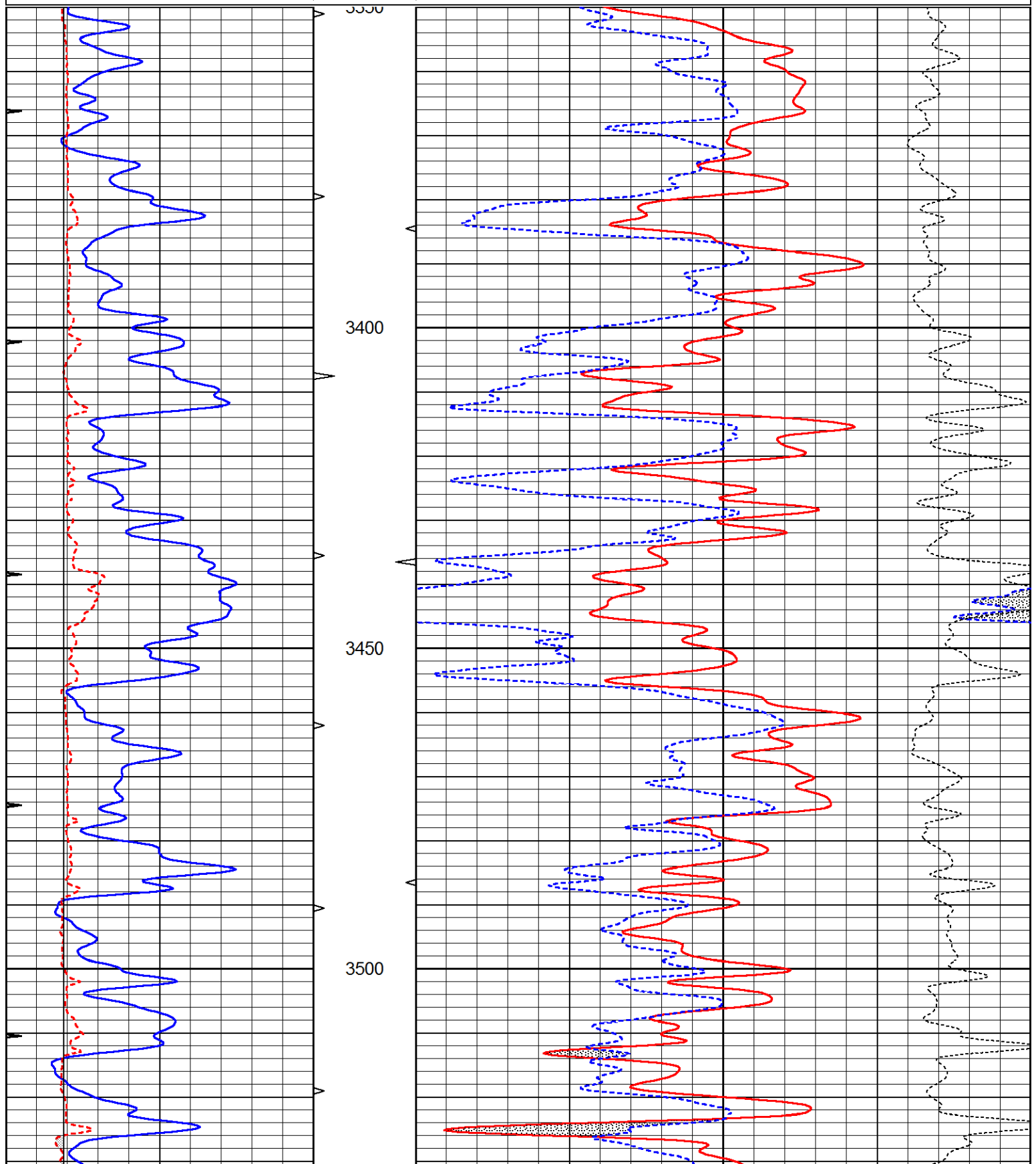
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395  
  
DIRECTIONS: WAKEENEY NORTH TO B RD.  
6 WEST TO 200 RD., NORTH TO ROAD A, EAST 1/8, NORTH INTO.

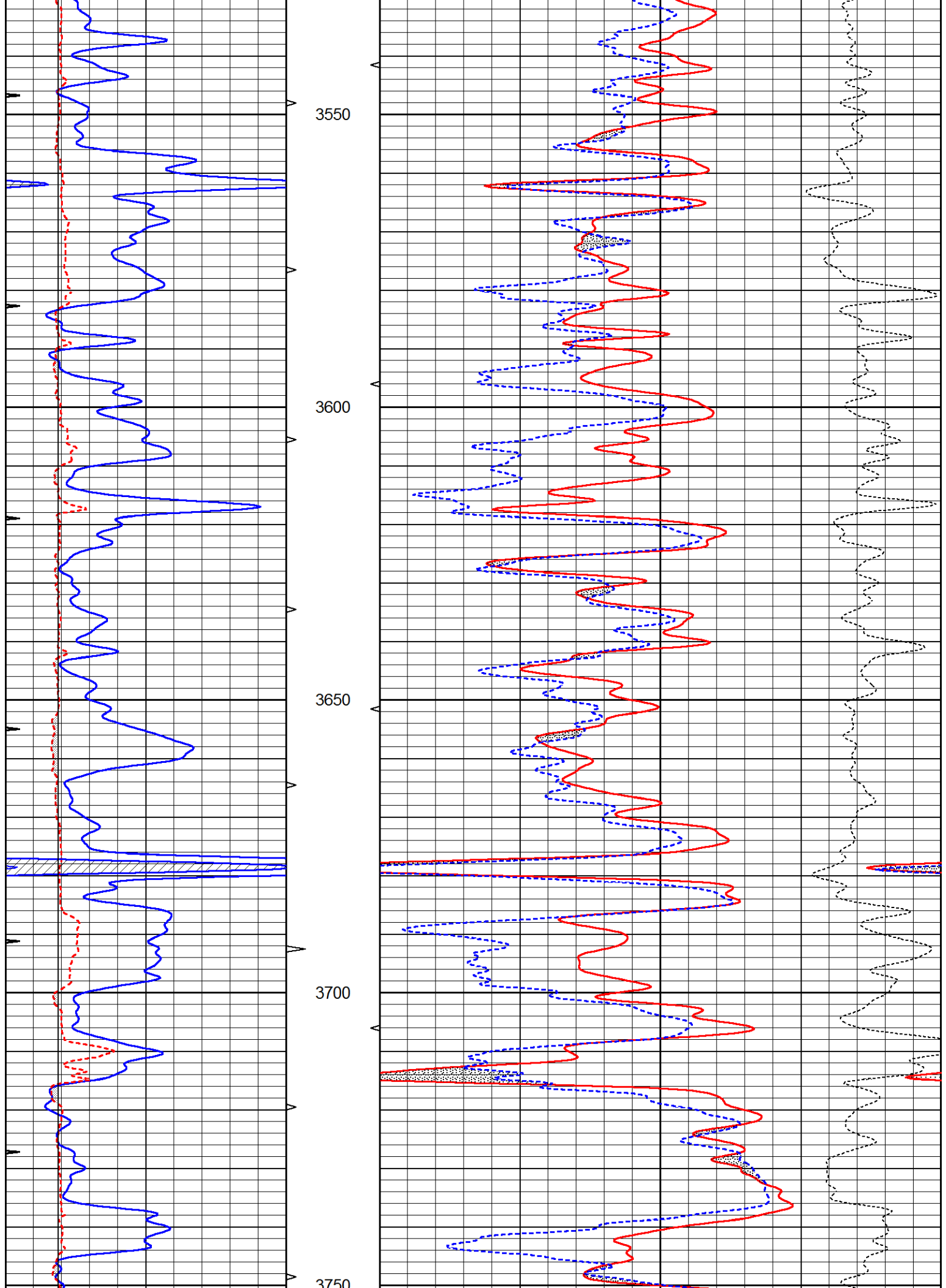


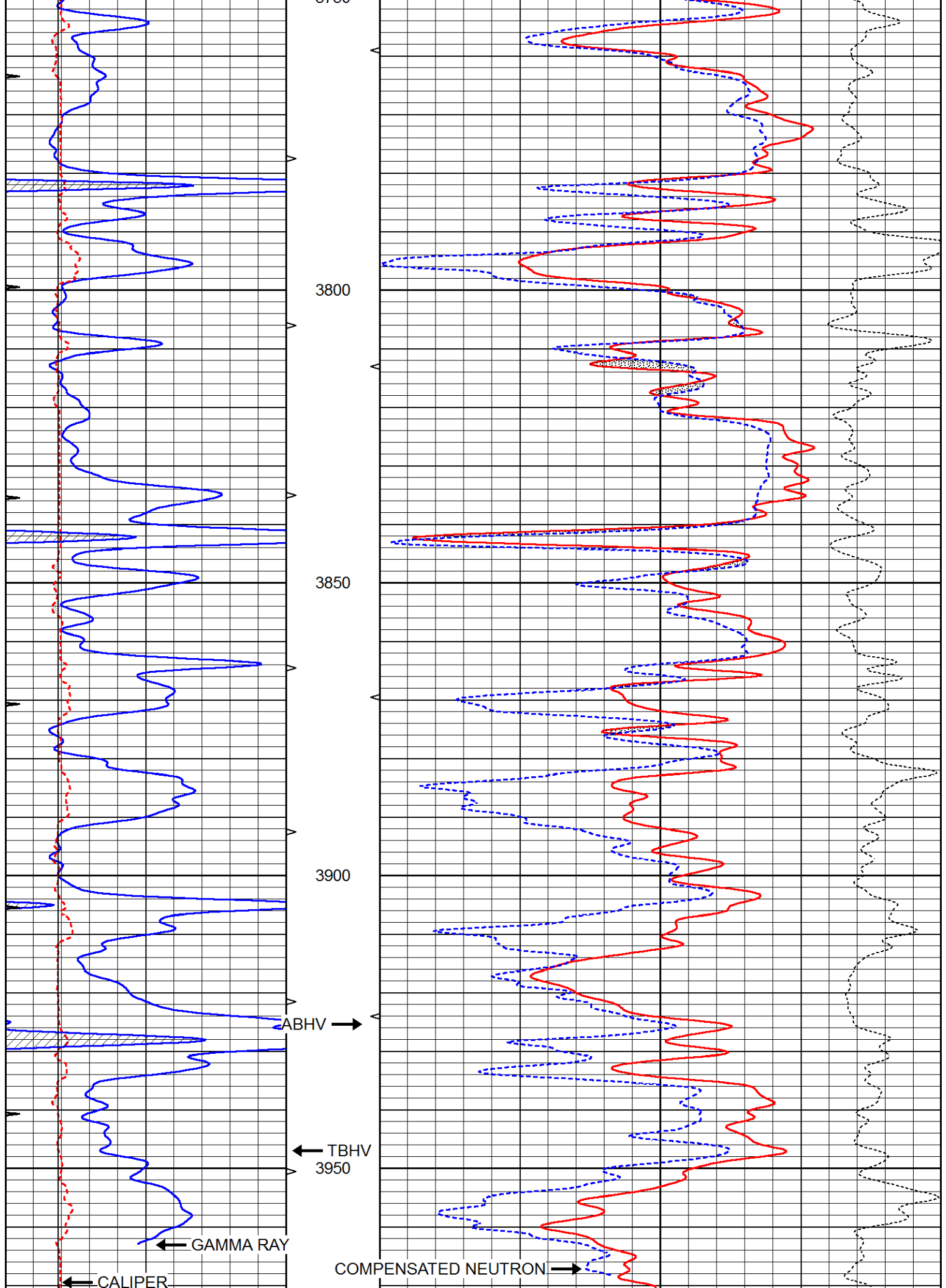
**MAIN PASS**

Database File 5889.db  
 Dataset Pathname pass3.1  
 Presentation Format den\_neu  
 Dataset Creation Thu Nov 04 05:14:35 2021  
 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		







3750

3800

3850

3900

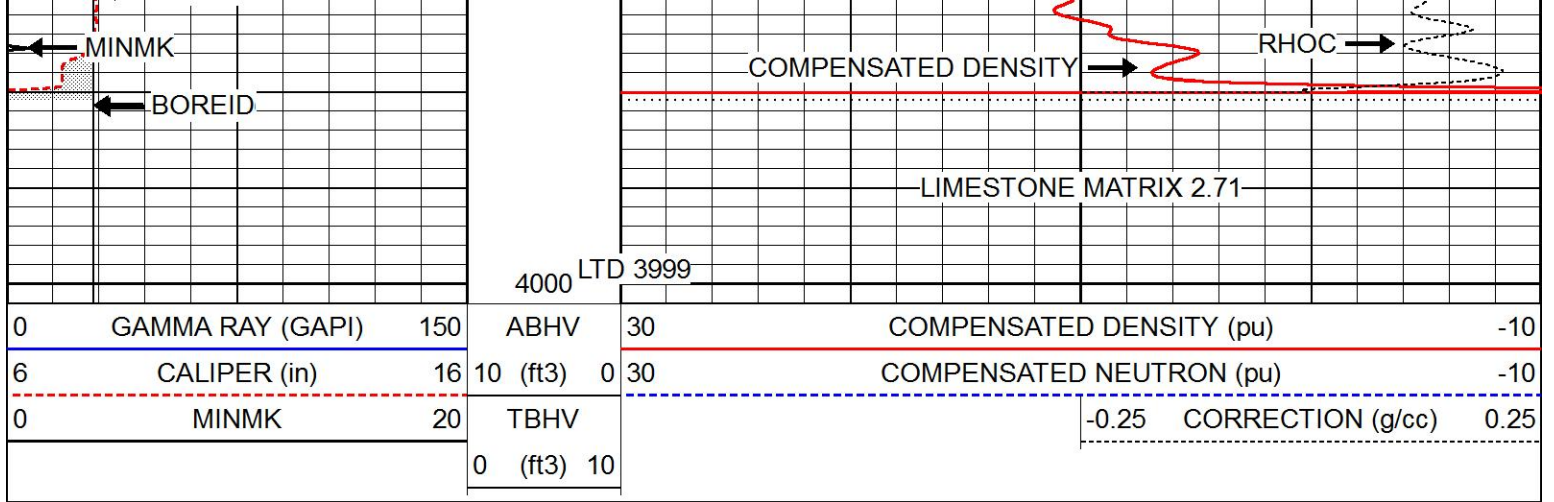
ABHV →

← TBHV  
3950

← GAMMA RAY

← CALIPER

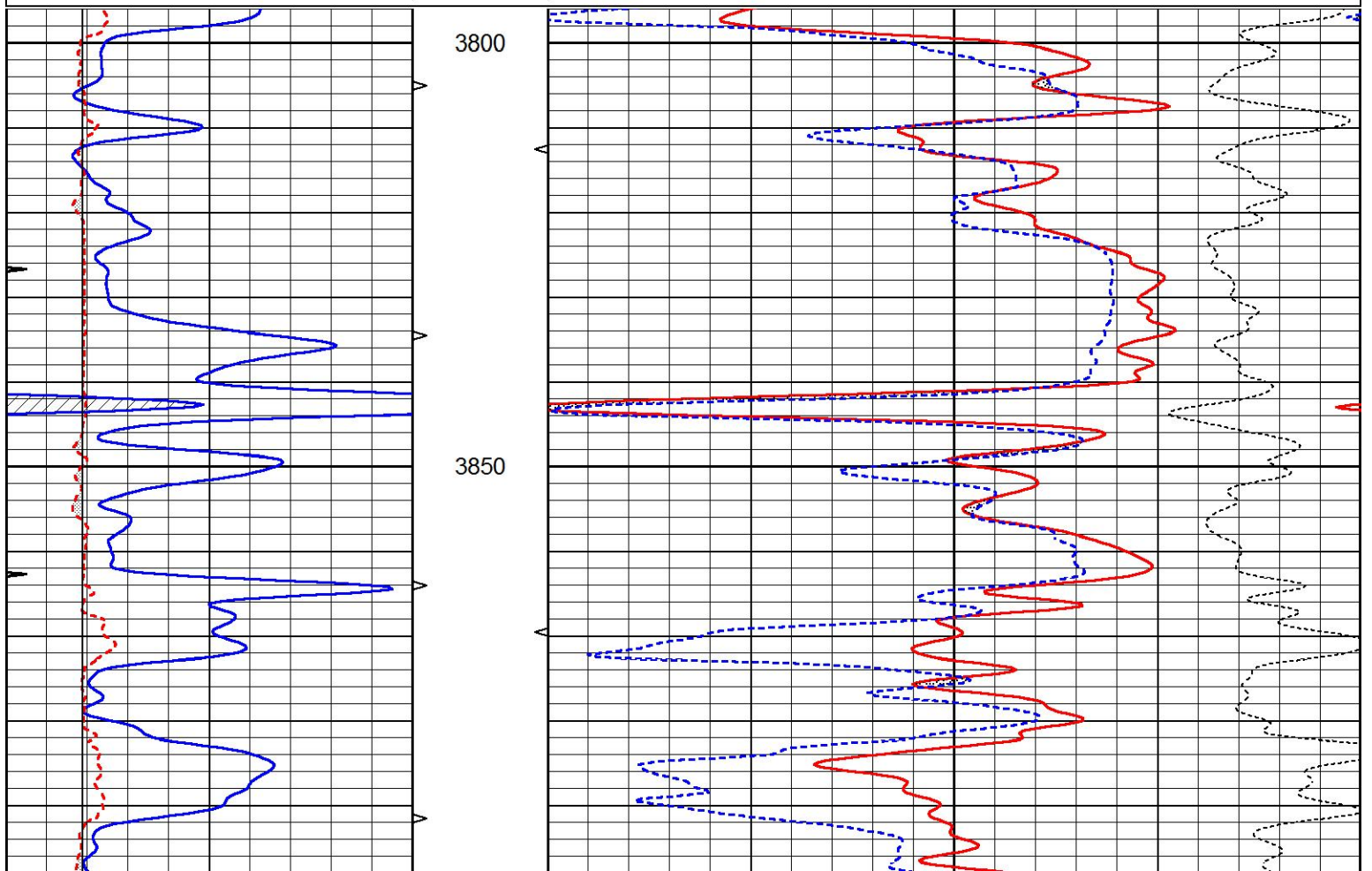
COMPENSATED NEUTRON →

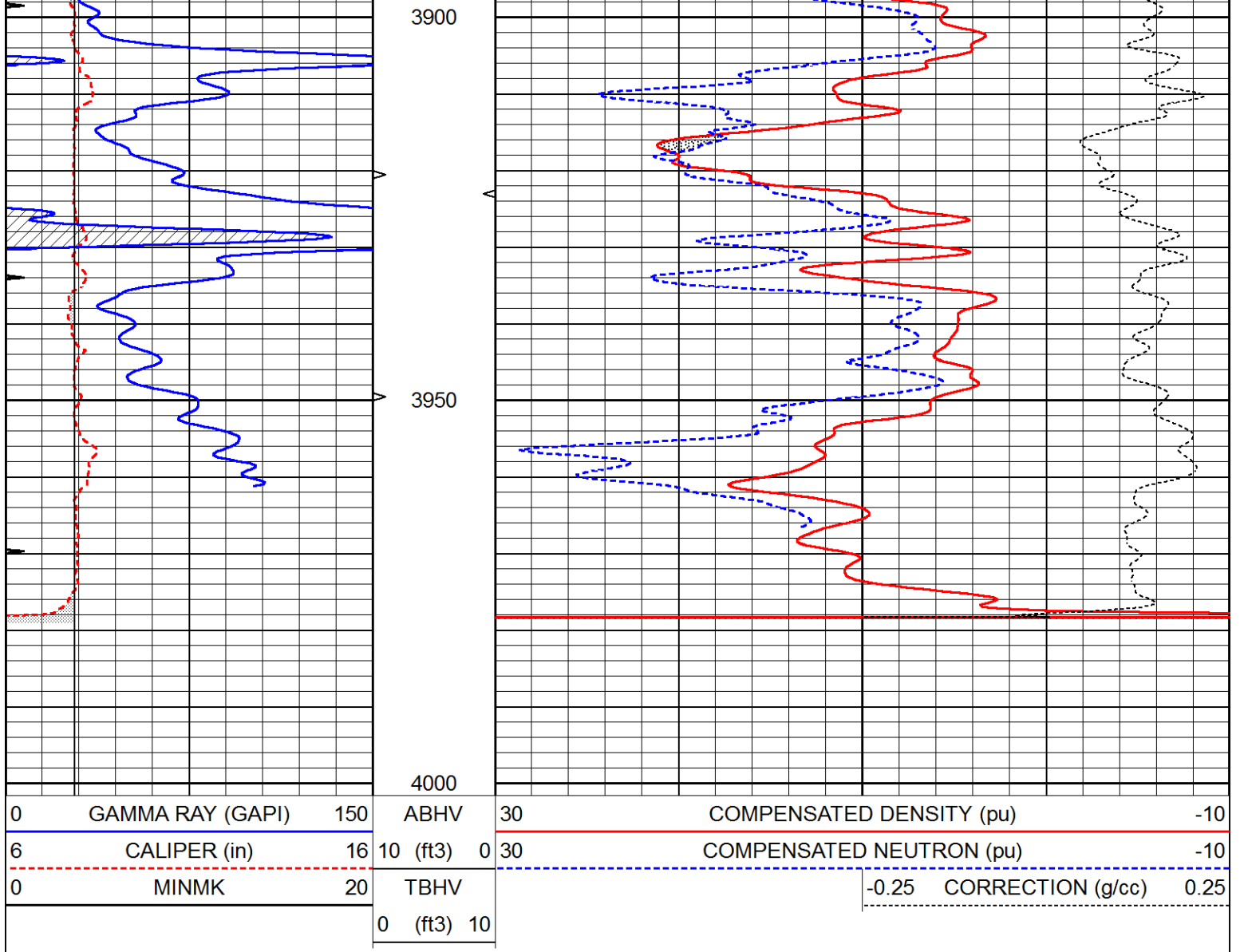


# REPEAT SECTION

Database File 5889.db  
 Dataset Pathname pass2.1  
 Presentation Format den\_neu  
 Dataset Creation Thu Nov 04 05:30:42 2021  
 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 5889.db  
 Dataset Pathname pass2.1  
 Dataset Creation Thu Nov 04 05:30:42 2021

### Dual Induction Calibration Report

Serial-Model: DIL4-GEAR  
 Surface Cal Performed: Tue Mar 01 11:19:26 2011  
 Downhole Cal Performed: Tue Sep 25 17:01:29 2001  
 After Survey Verification Performed: Sat Jun 11 16:07:12 2005

#### Surface Calibration

Loop:	Readings				References			Results	
	Air	Loop	V		Air	Loop	mmho/m	m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	470.000	-6.000	
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	460.000	-8.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365	
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549	

#### Downhole Calibration

Internal:	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Shallow	2.525	0.026	V	500.000	2.000	Ohm-m	220.000	-6.300

After Survey Verification								
Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Litho Density Calibration Report  
Serial: 002N      Model: PRB

Master Calibration		Performed Tue Mar 10 15:08:00 2020						
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	780.1	6981.9	2088.6	1871.2			cps	
Window 2	718.6	5898.2	1813.8	1664.1			cps	
Window 3	580.0	2989.5	1088.0	1039.1			cps	
Window 4	172.8	175.7	175.3	173.5			cps	
Long Space	0.0	5179.6	1095.2	945.5			cps	
Short Space	1.1	1228.6	821.2	690.4			cps	
Rho		1.7100	2.5900	0.0000			g/cc	
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 45.5	Rib Slope	: 1.016	Density/Spine Ratio			: 0.548	
Spine Angle	: 75.5	Spine Slope	: 3.857	Spine Intercept			: -18.9	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969						
	Background	Magnesium	Aluminum	Aluminum+Fe				
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						
	Background	Magnesium	Aluminum	Aluminum+Fe				
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: Thu Jul 30 20:04:35 2020

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 276.0 cps

Sensitivity: 0.7500 GAPI/cps