



COMPENSATED DENSITY/NEUTRON LOG

Company MAI OIL OPERATIONS, INC.

Well HOLMES #4

Field BARRY EAST

County ROOKS State KANSAS

Location: API #: 15-163-24414-0000

SE-NW-NW-NW
390' FNL & 410' FWL

Other Services
DIL
ML/SO

SEC 5 TWP 9S RGE 18W

Permanent Datum GROUND LEVEL Elevation 2062
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2071
D.F. 2069
G.L. 2062

Date 09/22/20

Run Number ONE

Depth Driller 3596

Depth Logger 3596

Bottom Logged Interval 3576

Top Log Interval 2800

Casing Driller 8 5/8" @ 215

Casing Logger 215

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.4/48

pH / Fluid Loss 8.0/9.6

Source of Sample FLOWLINE

Rm @ Meas. Temp .95 @ 72F

Rmf @ Meas. Temp .71 @ 72F

Rmc @ Meas. Temp 1.14 @ 72F

Source of Rmf / Rmc MEASURED

Rm @ BHT .61 @ 112F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 111F

Maximum Recorded Temperature 112F

Equipment Number 1523

Location HAYS, KANSAS

Recorded By GUS PFANENSTIEL

Witnessed By JAMES 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, KS. (785) 628-6395

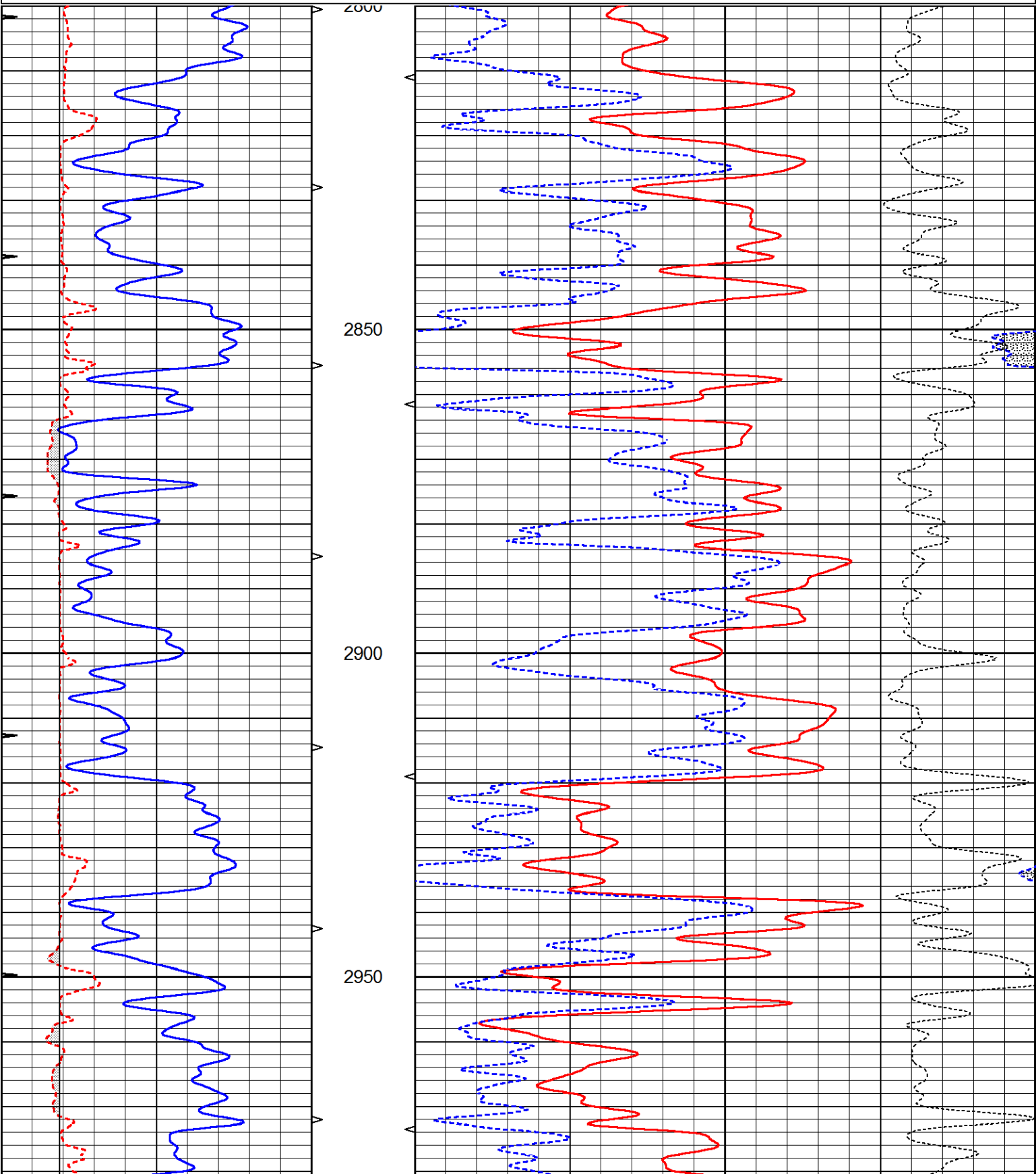
DIRECTIONS: PLAINVILLE NORTH TO S RD., WEST TO 14 RD.,
1/4 SOUTH, EAST INTO.

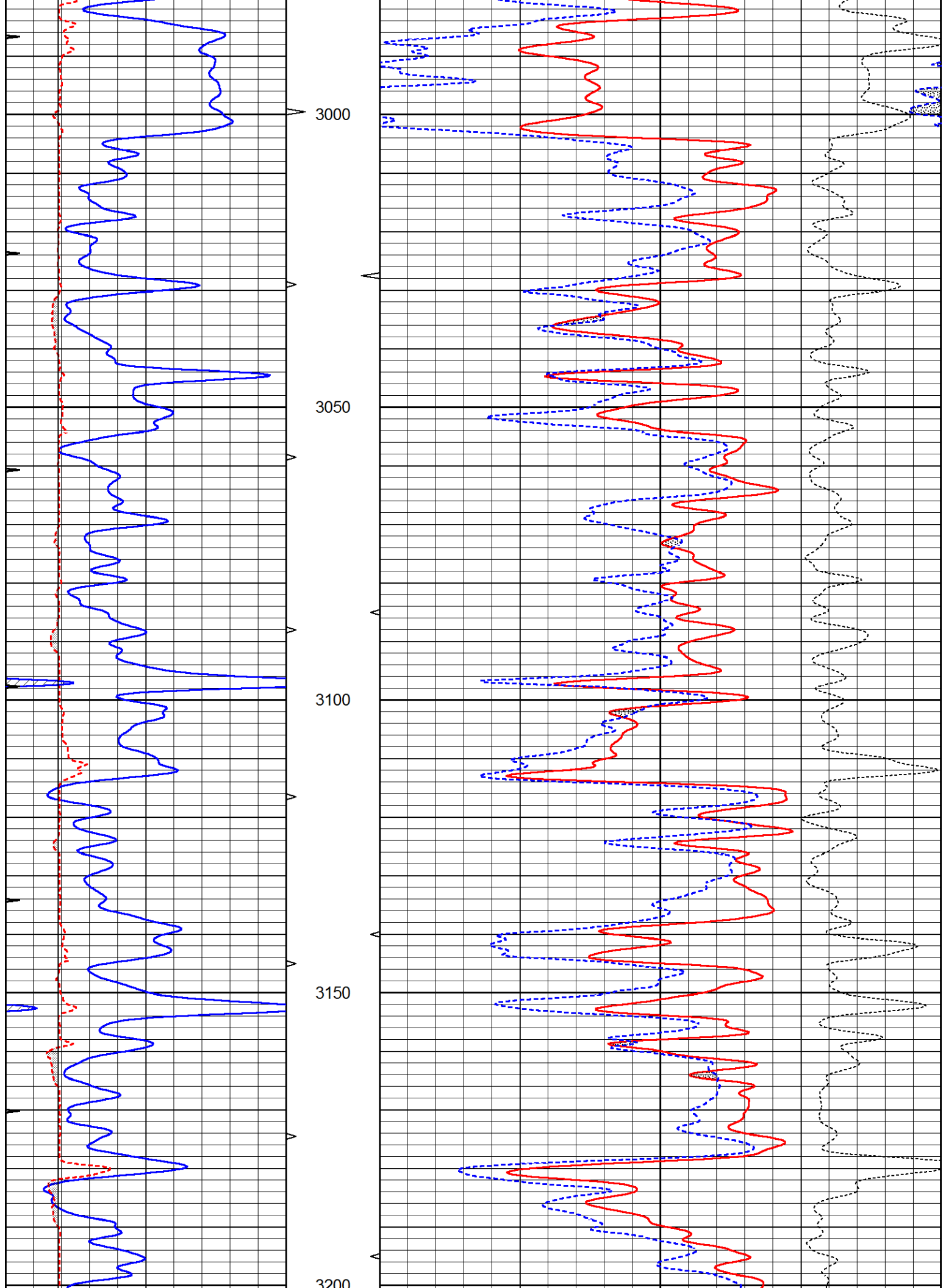


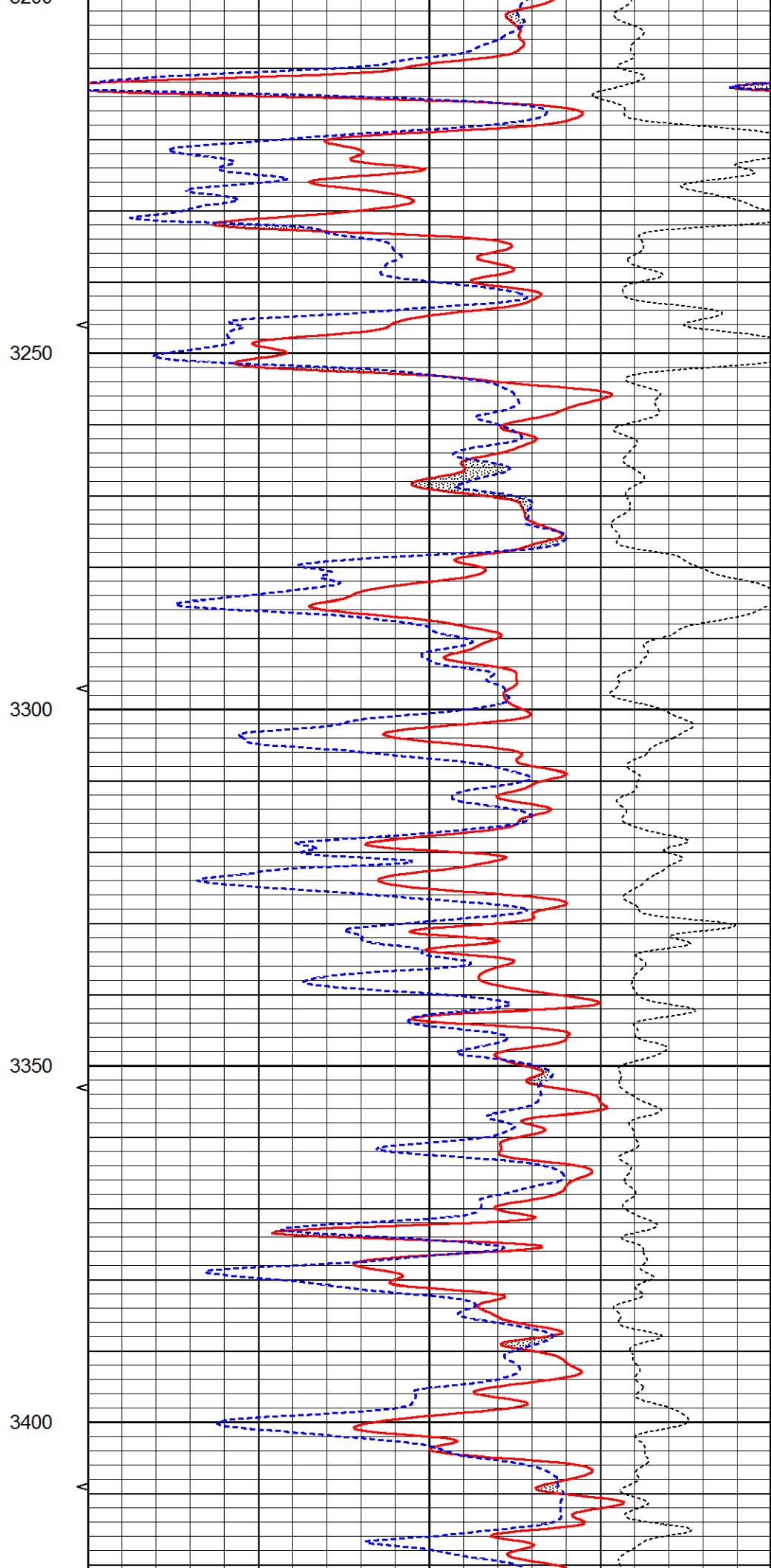
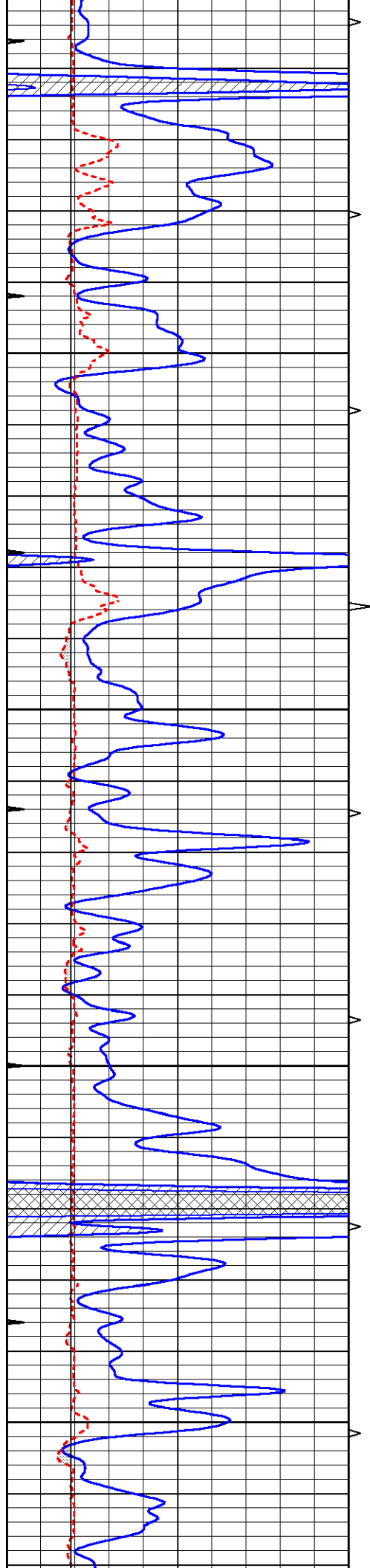
MAIN PASS

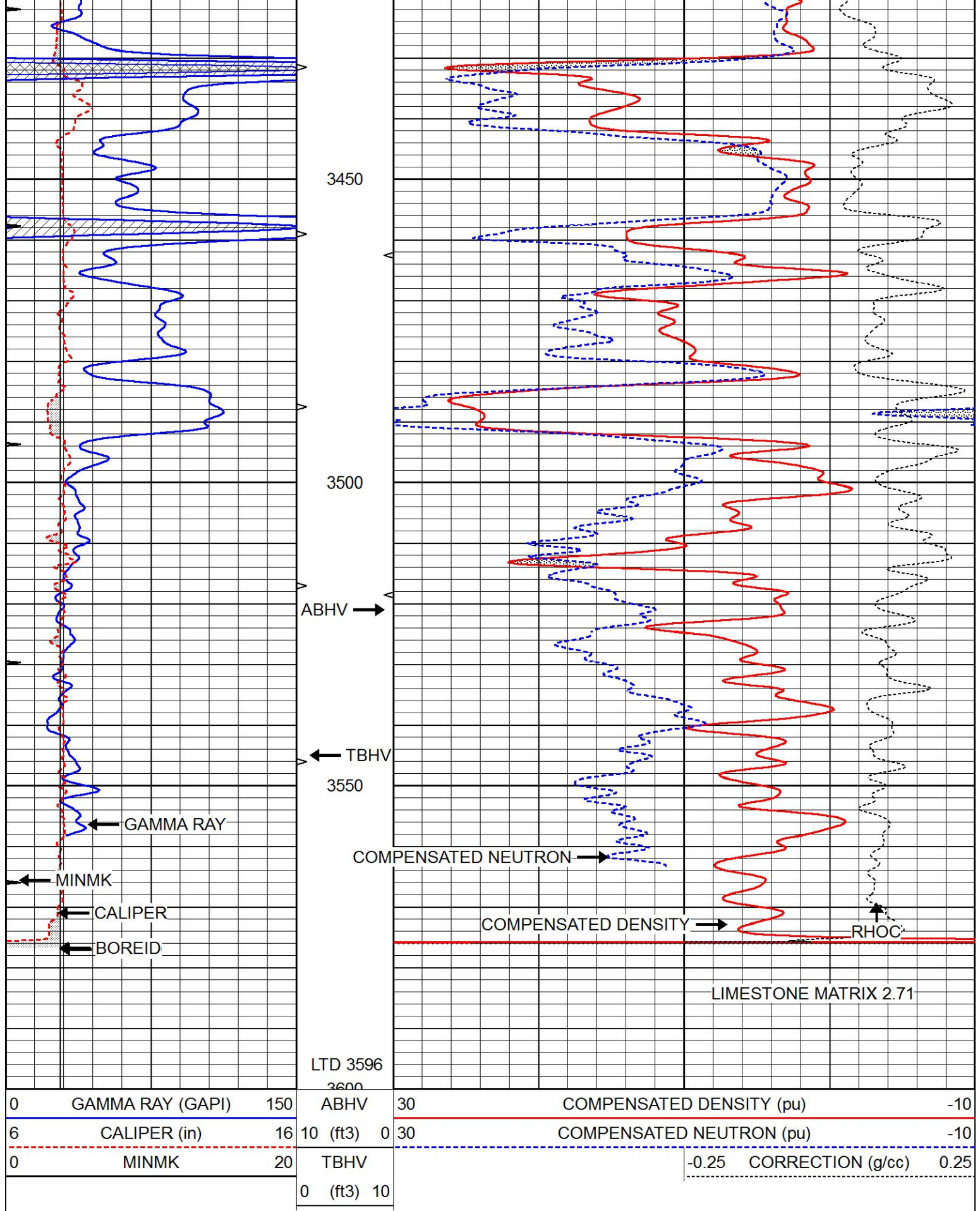
Database File	5028ddn.db
Dataset Pathname	pass3.1
Presentation Format	den_neu
Dataset Creation	Tue Sep 22 08:32:16 2020
Charted by	Depth in Feet scaled 1:240

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			





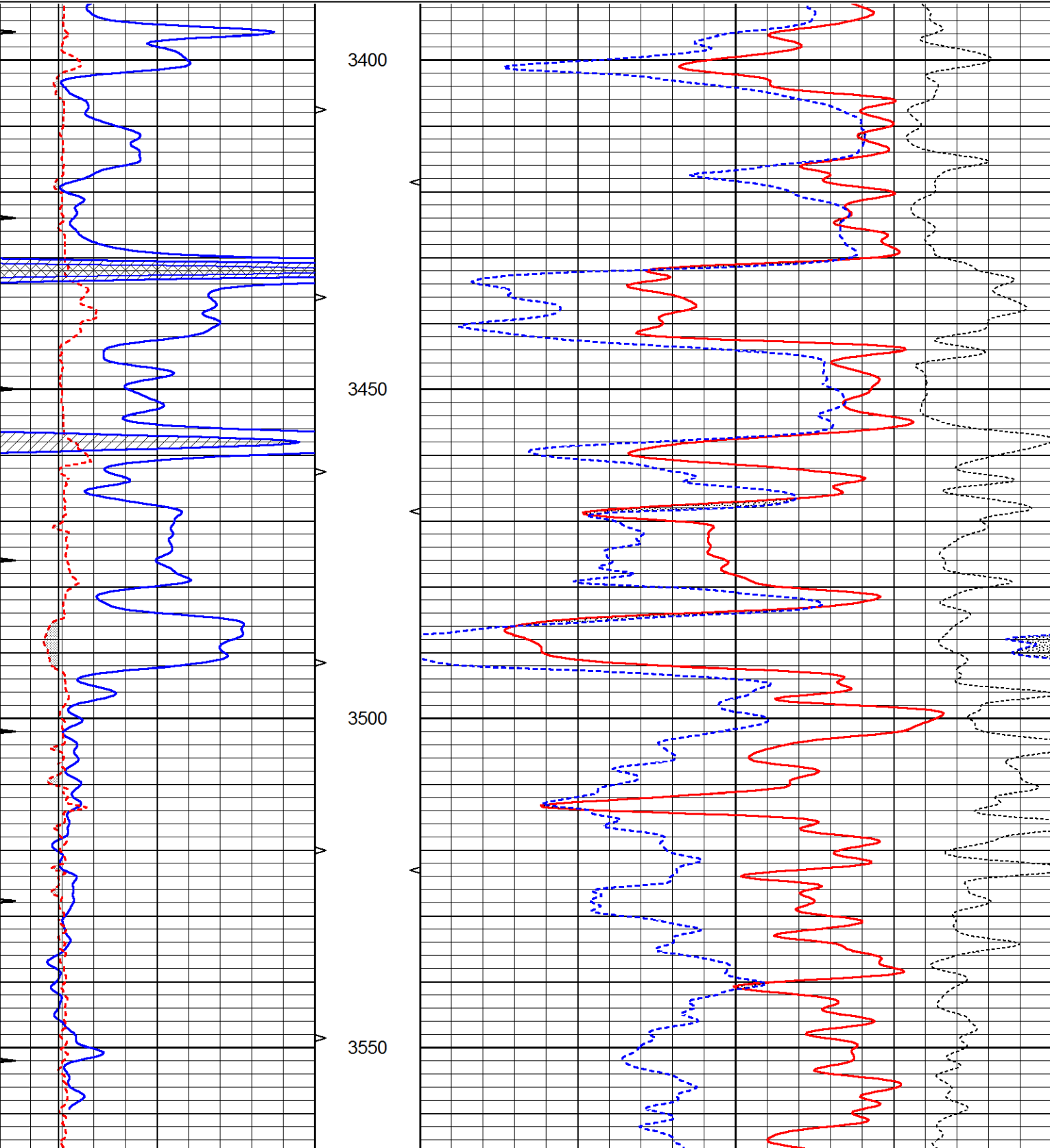




REPEAT SECTION

Database File5028ddn.dbDataset Pathnamepass2.1Presentation Formatden_neuDataset CreationTue Sep 22 07:25:09 2020Charted byDepth 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	3600	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	5028ddn.db								
Dataset Pathname	pass2.1								
Dataset Creation	Tue Sep 22 07:25:09 2020								
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			

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			
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
	Long Space	1.00	cps	1.00	cps
					1.0000
					1.0000

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

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:		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