



COMPENSATED DENSITY/NEUTRON LOG

Company	RAYMOND OIL COMPANY, INC.		
Well	ELMORE A #3 OWWO		
Field	McCRACKEN NORTHEAST		
County	RUSH	State	KANSAS
Location:	AP1 # : 15-165-20187-00-00		Other Services DIL
3330 FSL & 660' FEL			
SEC 17 TWP 17S RGE 20W			
Permanent Datum	GROUND LEVEL	Elevation	2123'
Log Measured From	KELLY BUSHING 8' A.G.L.	K.B. 2131	D.F. 2129
Drilling Measured From	KELLY BUSHING	G.L. 2123	
Date	07/18/17		
Run Number	ONE		
Depth Driller	4250		
Depth Logger	4256		
Bottom Logged Interval	4232		
Top Log Interval	3250		
Casing Driller	@ 1365		
Casing Logger	1368		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 74000 PPM	
Density / Viscosity	9.2/42		
pH / Fluid Loss	8.0/NC		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.40@92		
Rmt @ Meas. Temp	.30@92		
Rmc @ Meas. Temp	.48@92		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.31@118		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	///		
Maximum Recorded Temperature	118F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	ROBERT TURNER		

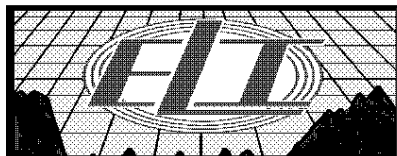
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on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

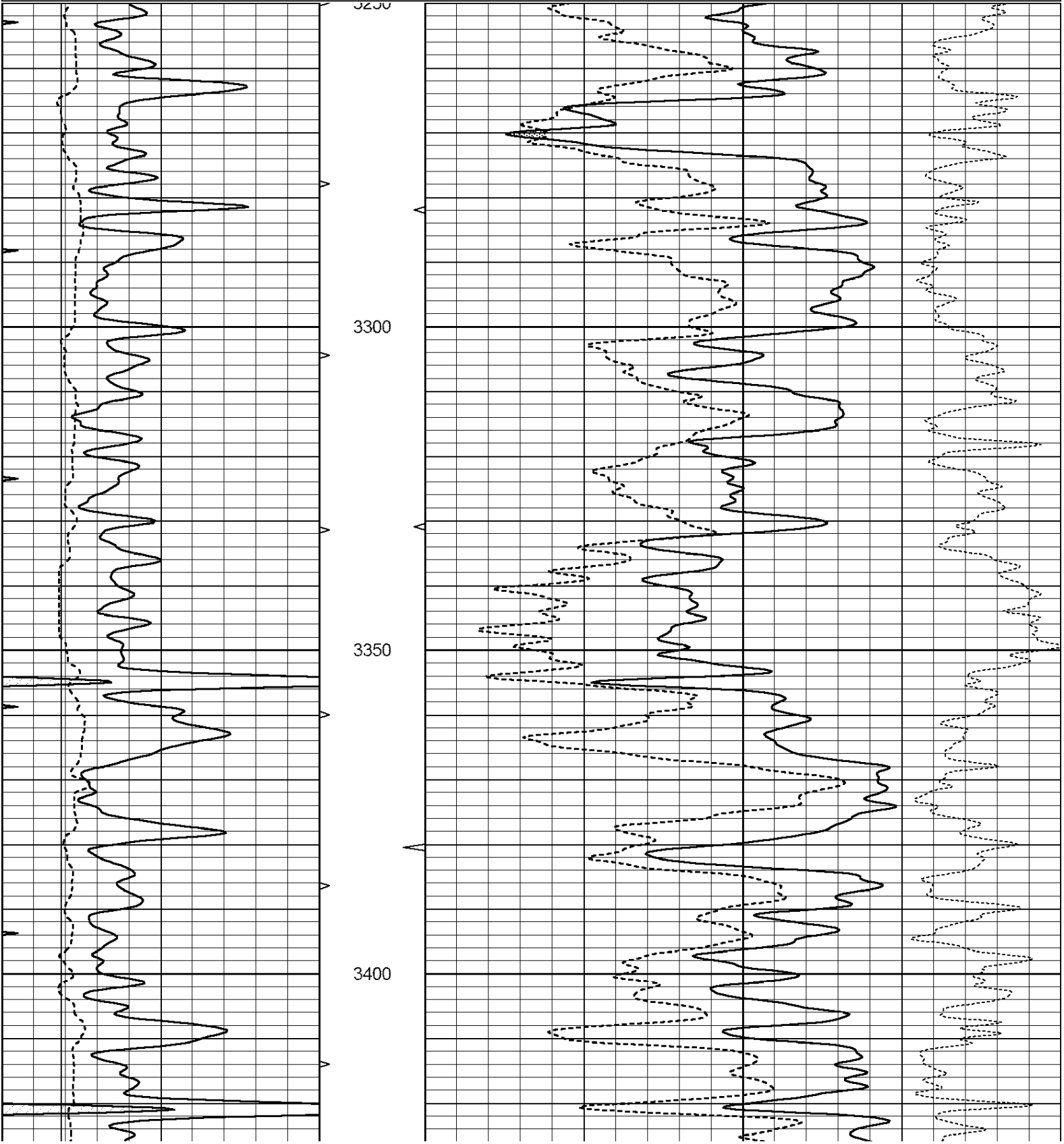
DIRECTIONS
McCRACKEN KS, SOUTH 1 MILE,
2 EAST, NORTH INTO.

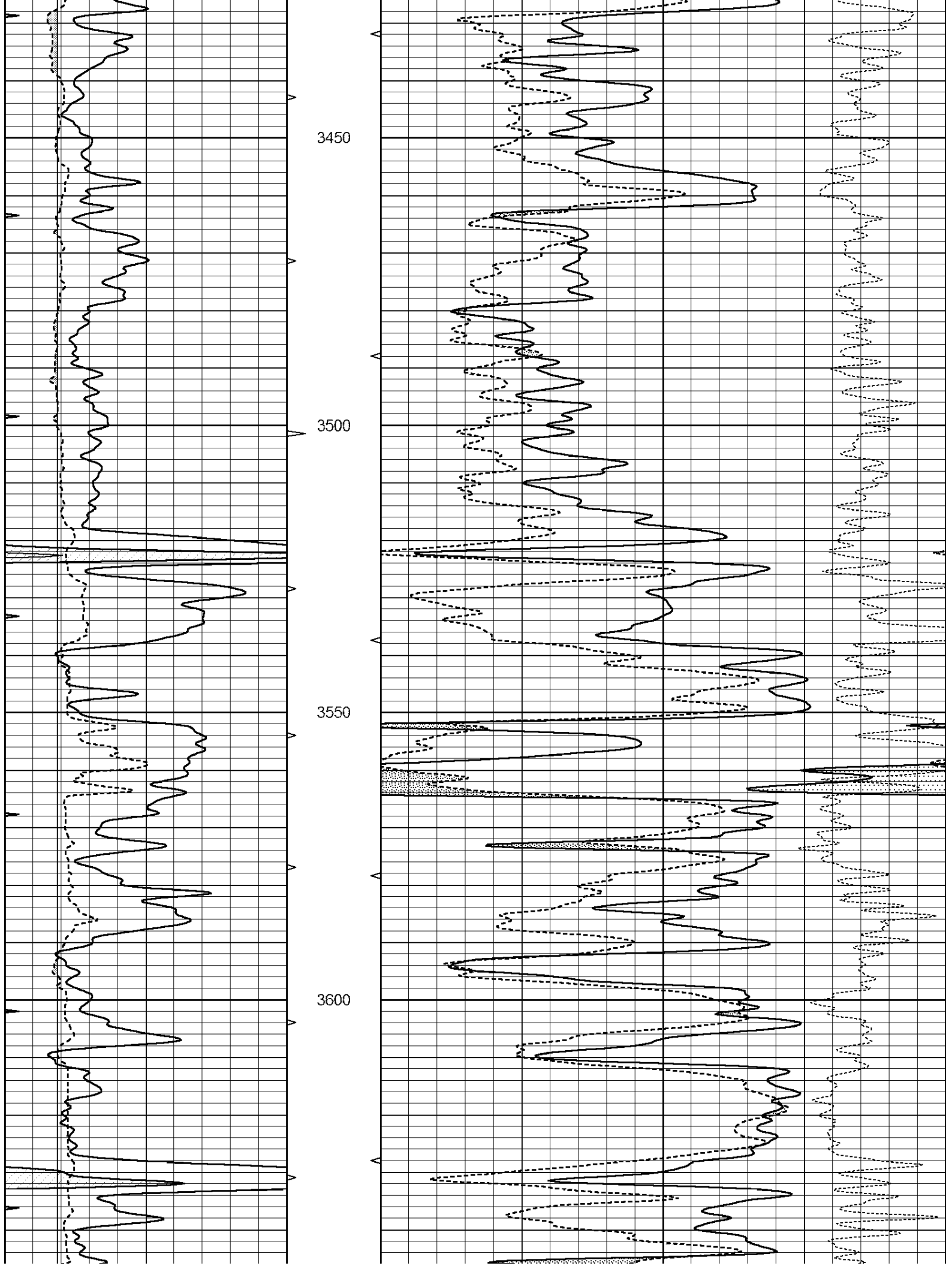


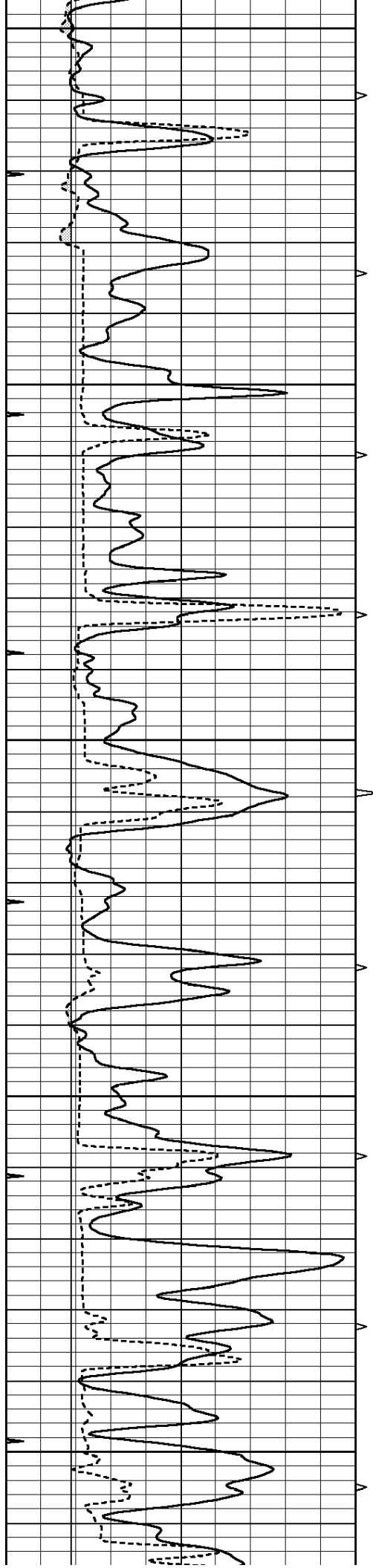
MAIN PASS

Database File: 1806ddn.db
Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Wed Jul 19 01:30:17 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		







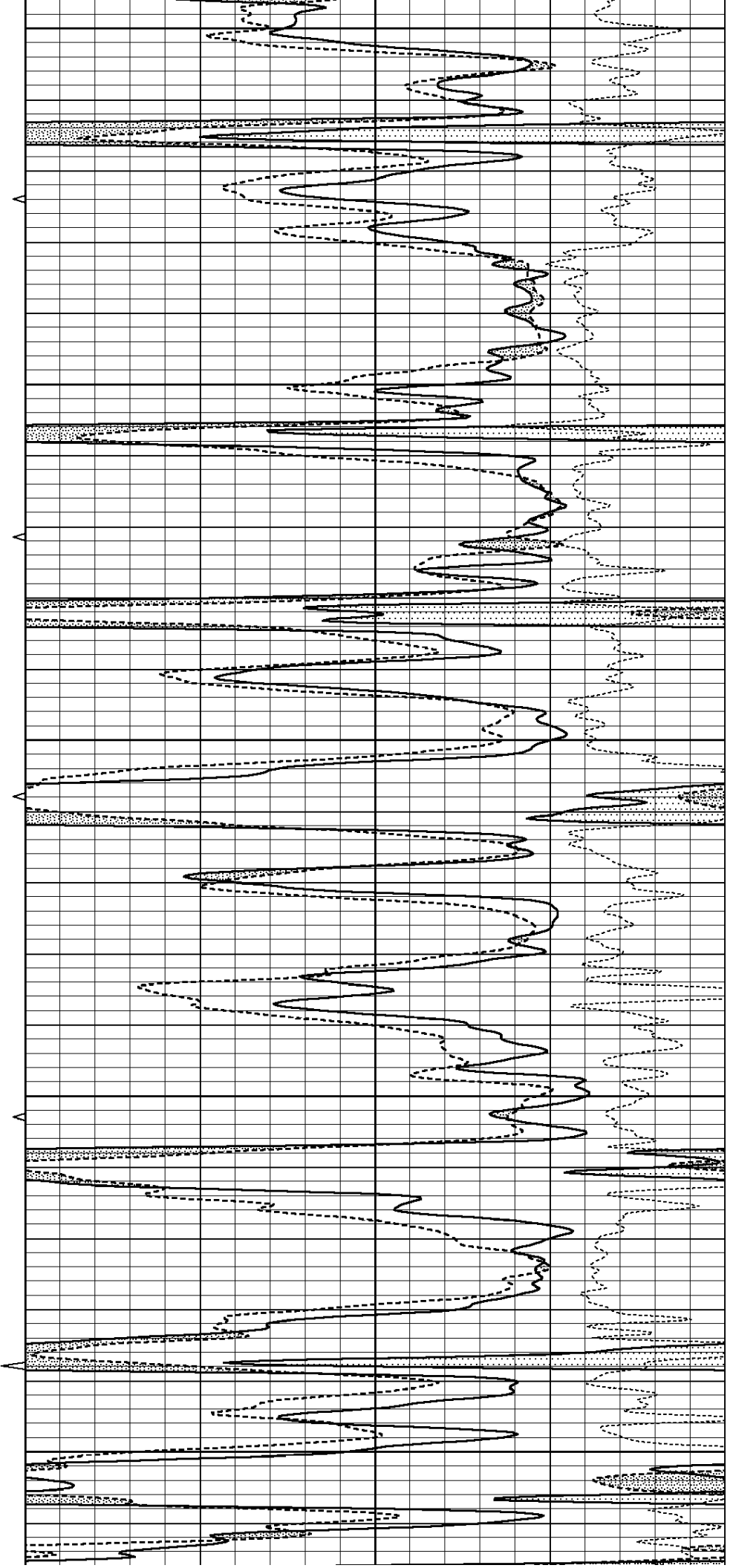
3650

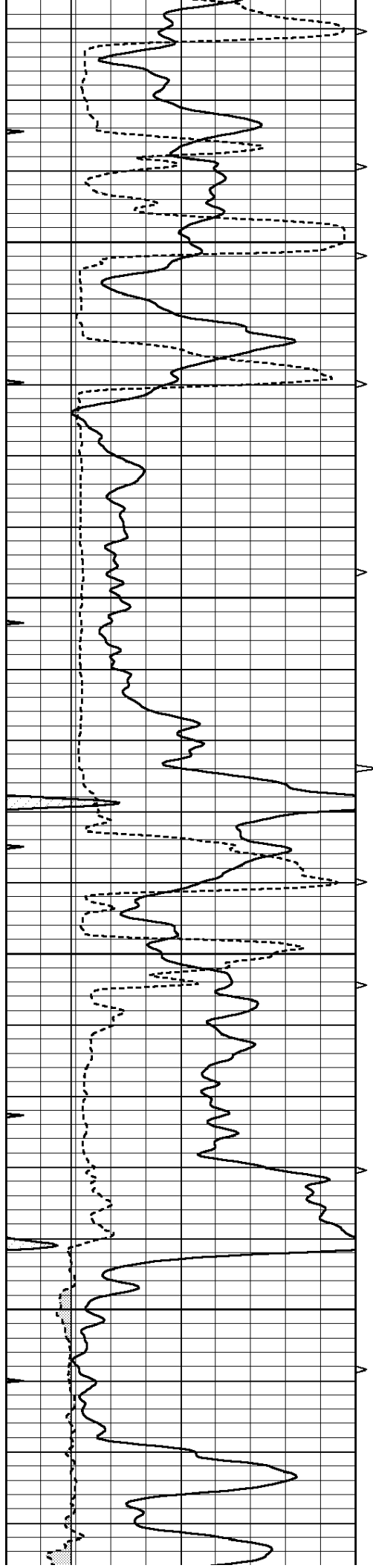
3700

3750

3800

3850



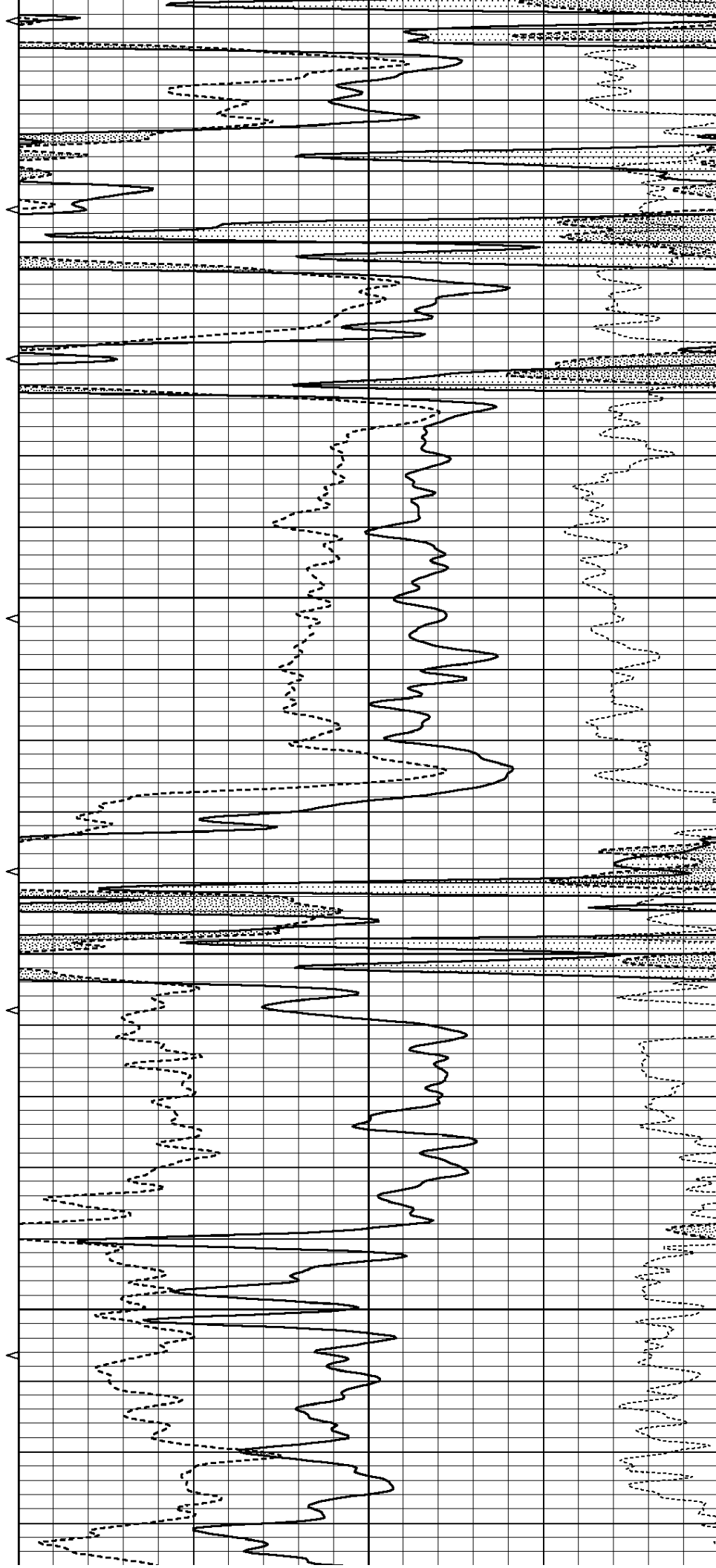


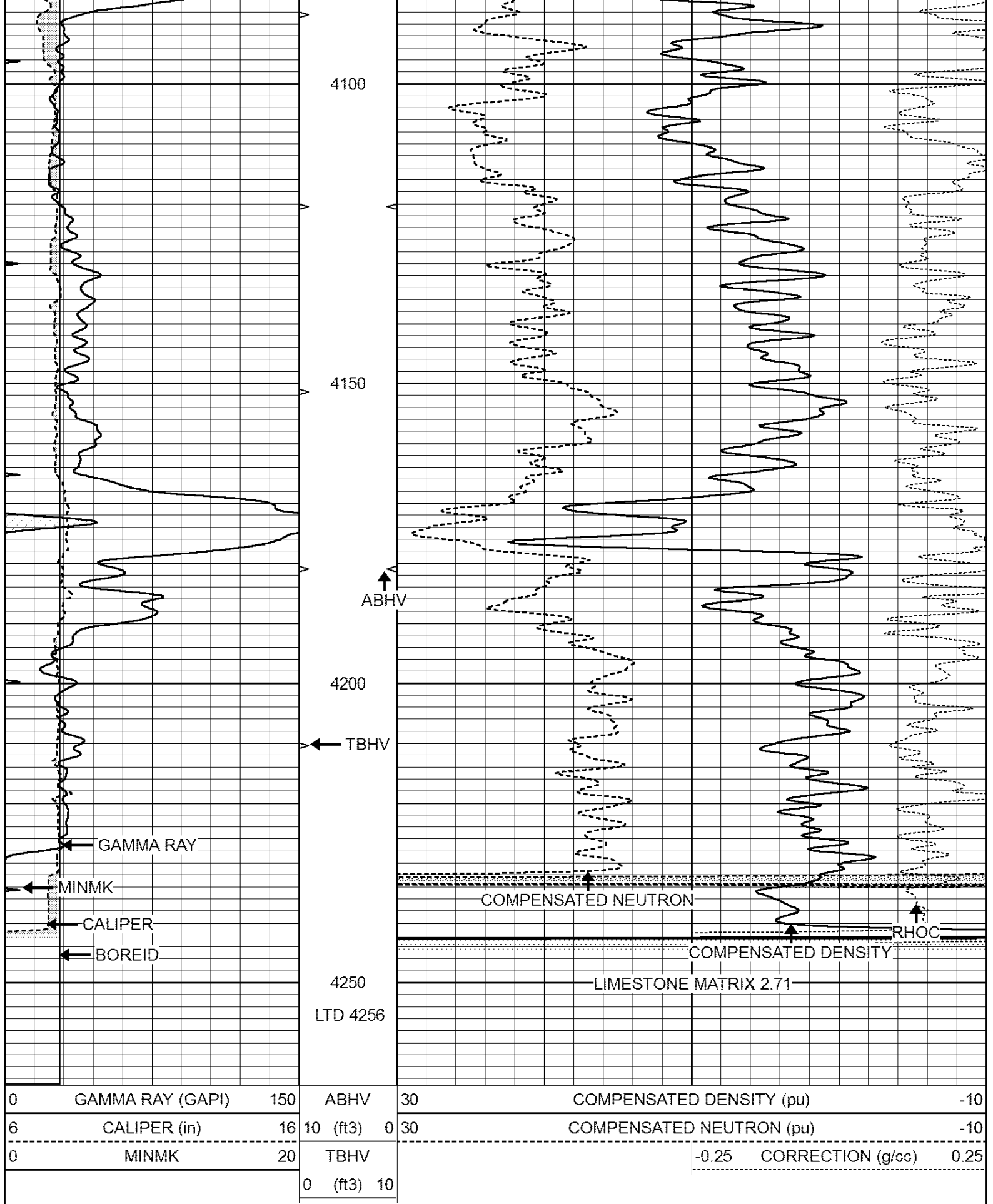
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3950

4000

4050

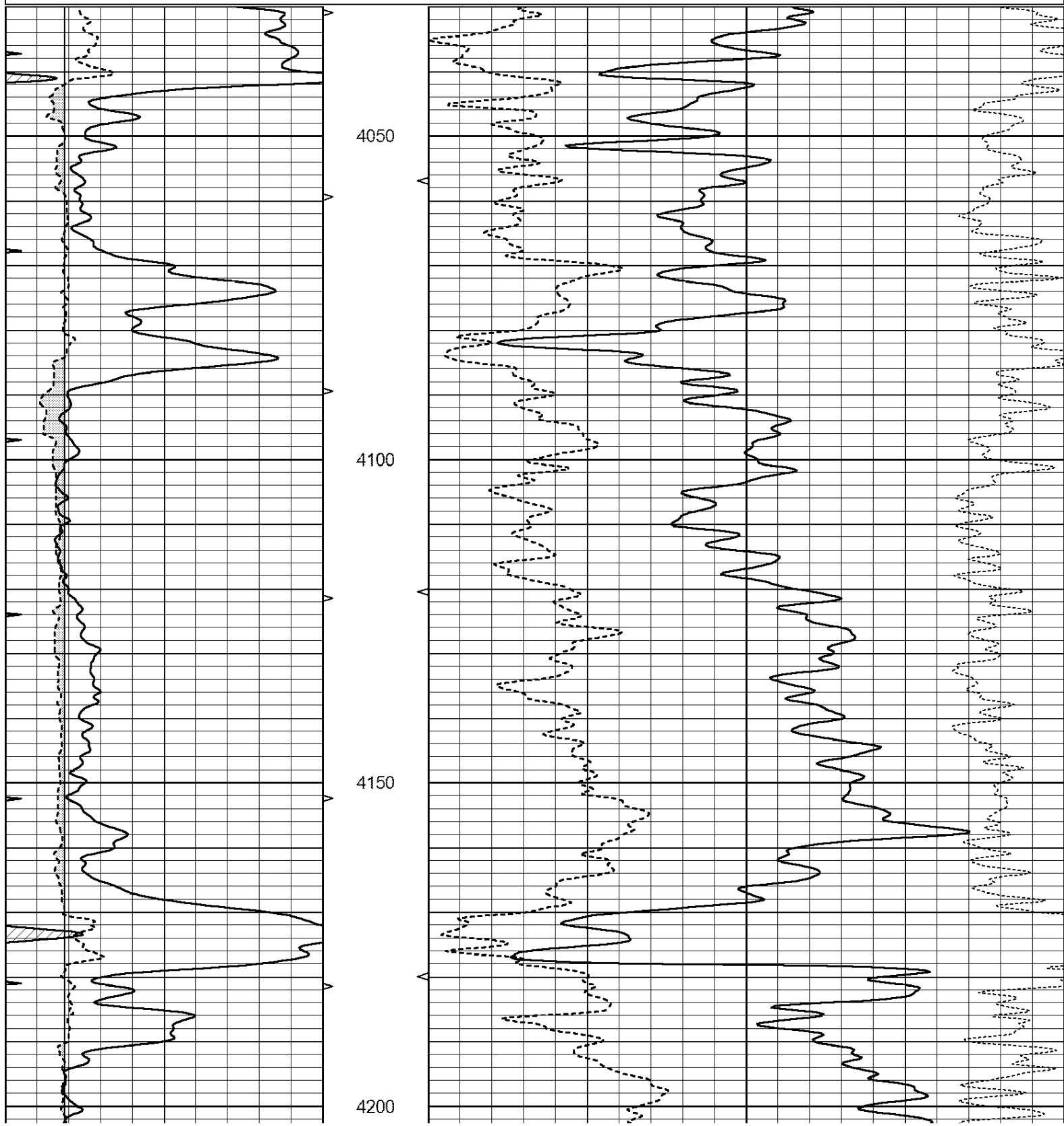


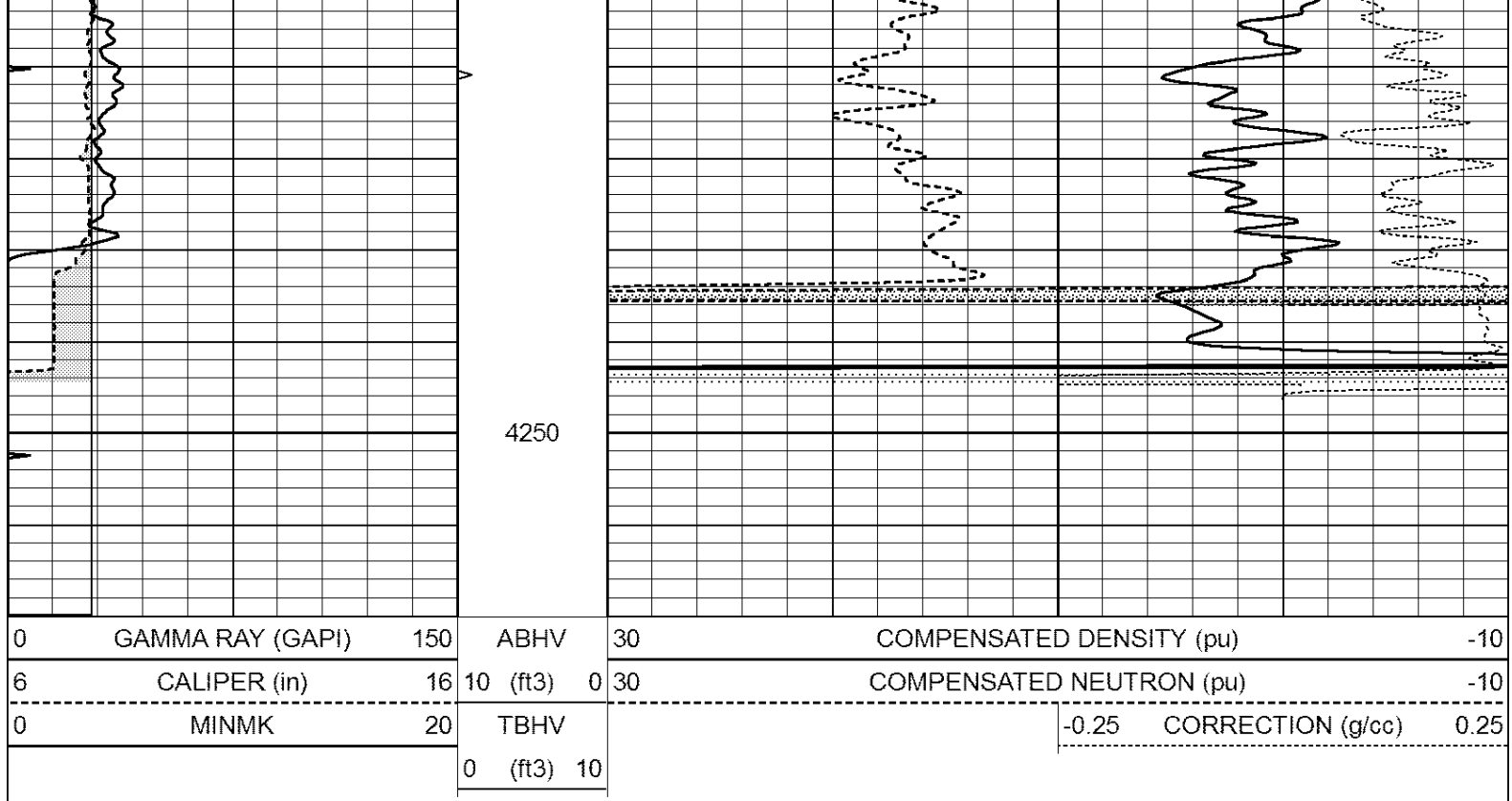


REPEAT SECTION

Database File: 1806ddn.db
Dataset Pathname: pass2.1
Presentation Format: den_neu
Dataset Creation: Wed Jul 19 01:00:43 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			





Calibration Report

Database File: 1806ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Wed Jul 19 01:00:43 2017

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
Surface Cal Performed: Tue Mar 21 18:55:38 2017
Downhole Cal Performed: Tue Mar 21 18:55:43 2017
After Survey Verification Performed: Tue Mar 21 18:55:45 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:			Tue Mar 21 18:56:14 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	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:		Tue Mar 21 18:56:51 2017		
Calibrator Value:		150.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		276.0	cps	
Sensitivity:		0.5800	GAPI/cps	