



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company **DOUBLE D'S LLC**  
Well **REICHERT #2**  
Field **MARTINA**  
County **ELLIS** State **KANSAS**

Location: **API # : 15-051-26508-00-00**

**SEC 23 TWP 15S RGE 19W**  
**2050' FNL & 330' FEL**  
**N2 - SE - SE - NE**

Other Services  
**DILMEL  
SONIC**

Permanent Datum **GROUND LEVEL** Elevation **1981**  
Log Measured From **KELLY BUSHING 7' A.G.L.**  
Drilling Measured From **KELLY BUSHING**

Elevation  
K.B. 1988  
D.F. 1986  
G.L. 1981

Date	4-15-13		
Run Number	ONE		
Depth Driller	3678		
Depth Logger	3679		
Bottom Logged Interval	3655		
Top Log Interval	2800		
Casing Driller	1163		
Casing Logger	1162		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.1 / 53		
pH / Fluid Loss	10.5 / 7.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.60 @ 72F		
Rmf @ Meas. Temp	0.45 @ 72F		
Rmc @ Meas. Temp	0.72 @ 72F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.38 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	113F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	DUANE BEIKER		

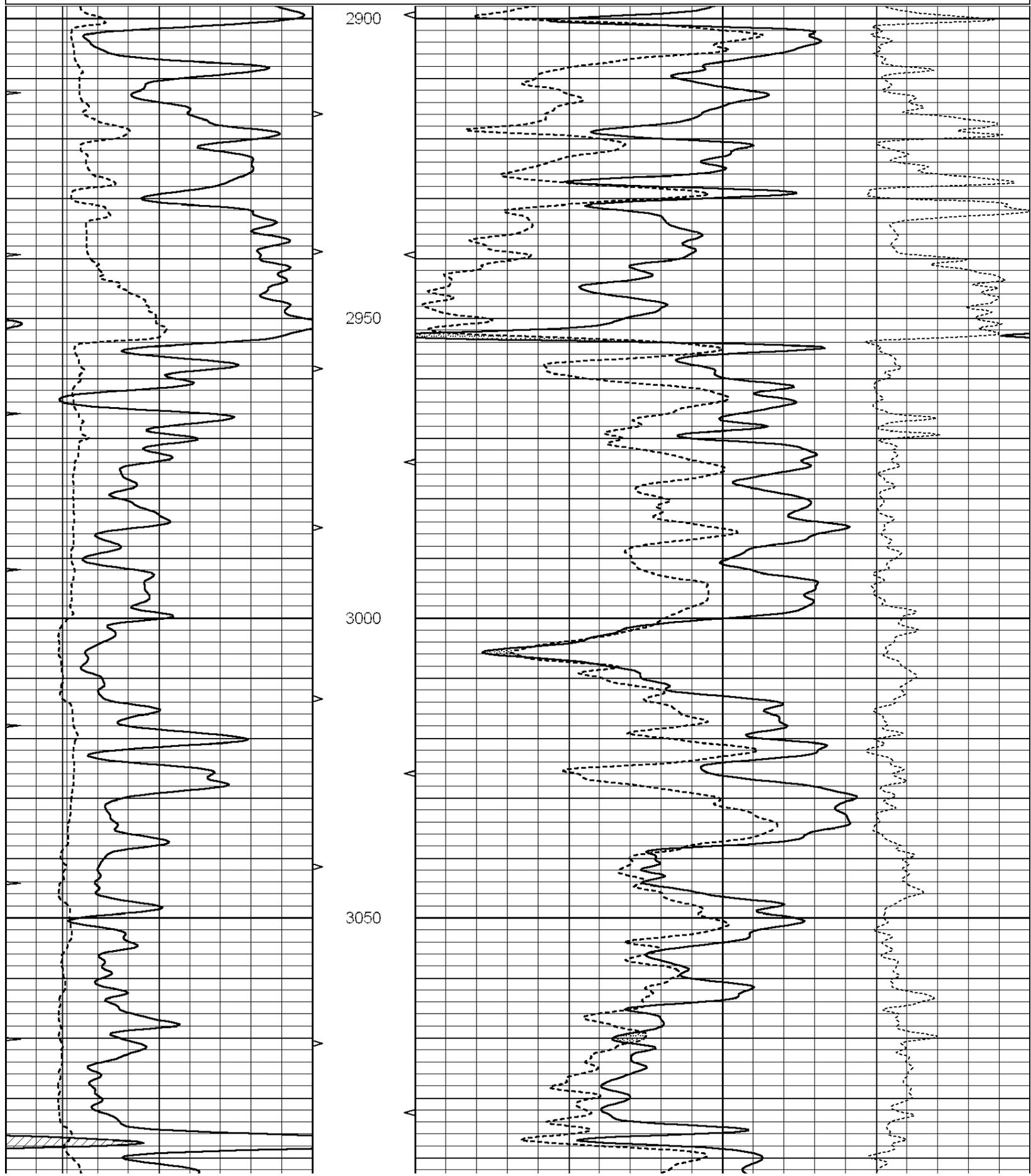
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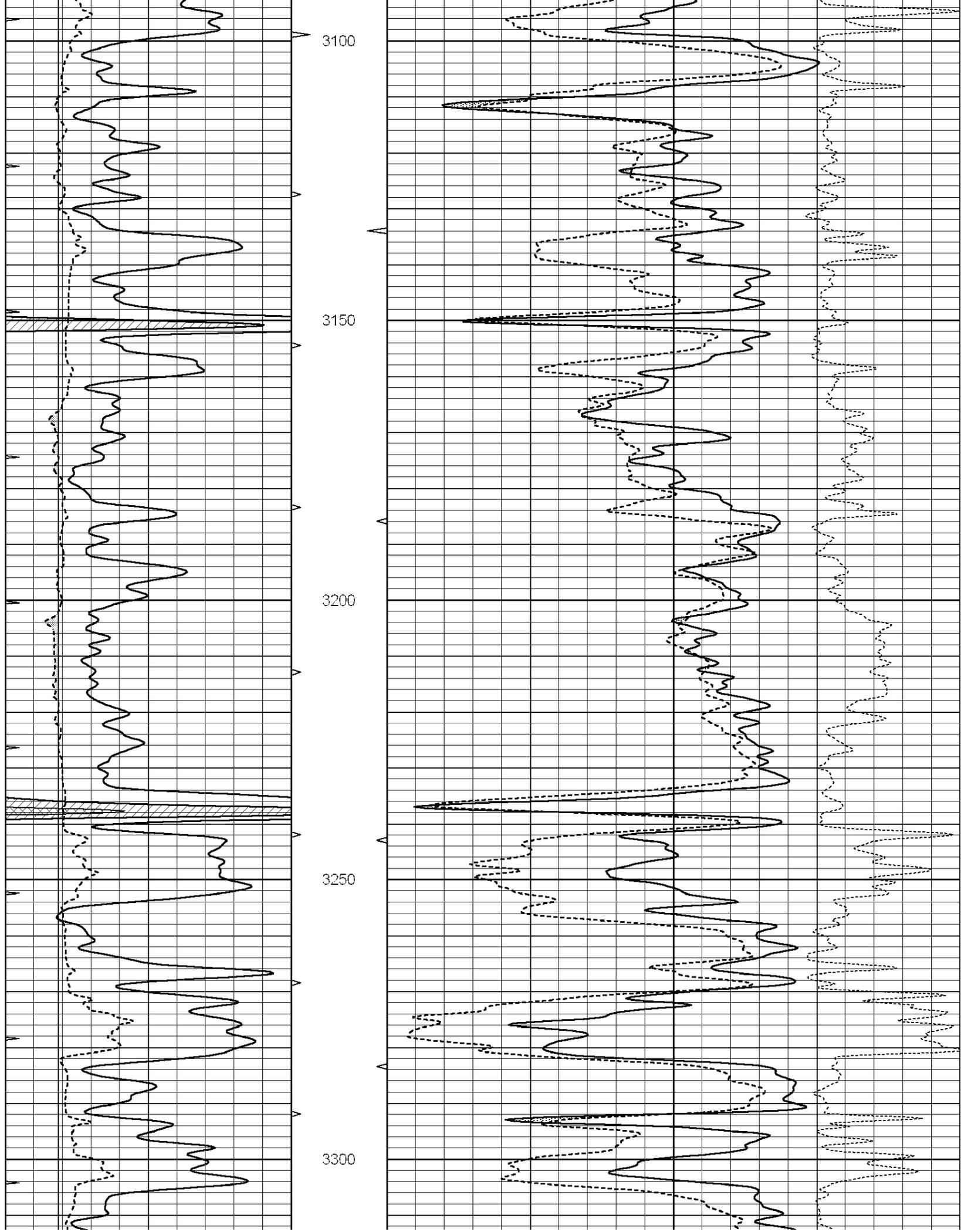
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

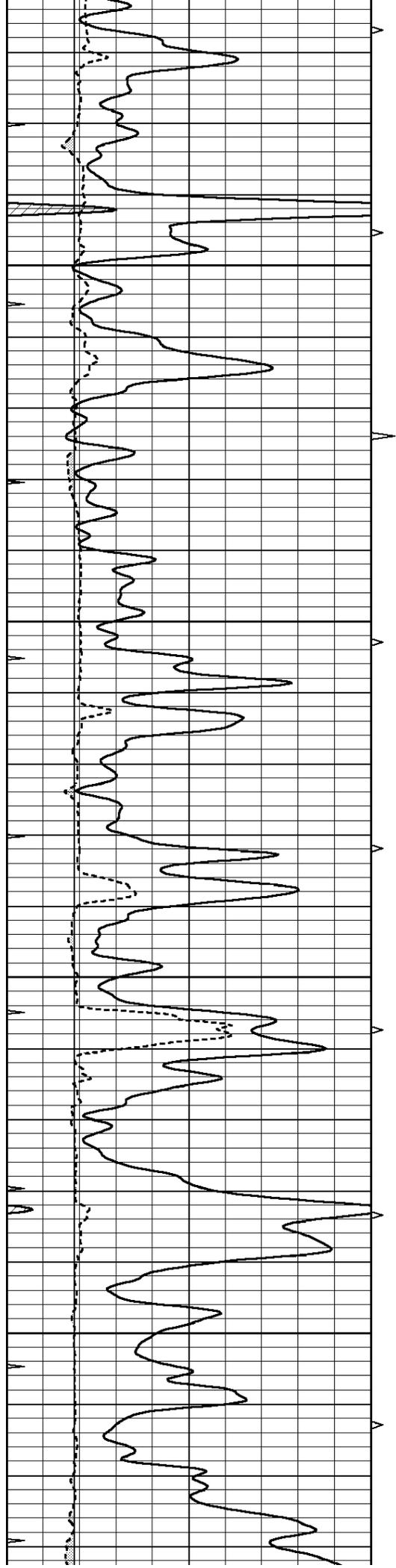
Comments

**NABORS PRODUCTION & COMPLETION SERVICES**  
**785-628-6395**  
**THANK YOU FOR YOUR BUSINESS**  
**DIRECTIONS: ANTONINO, KS. - 3 1/2 MILES SOUTH - WEST INTO**

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		





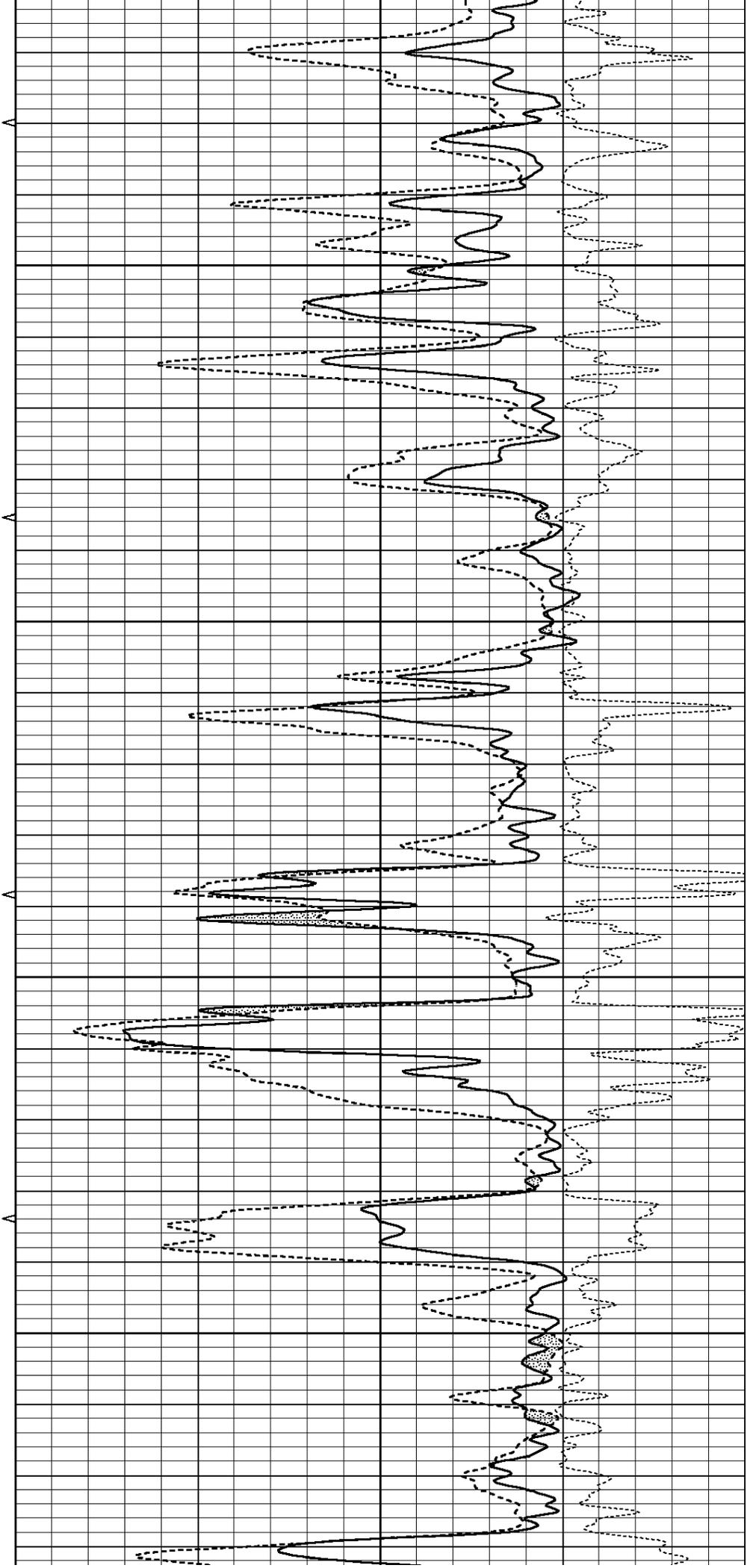


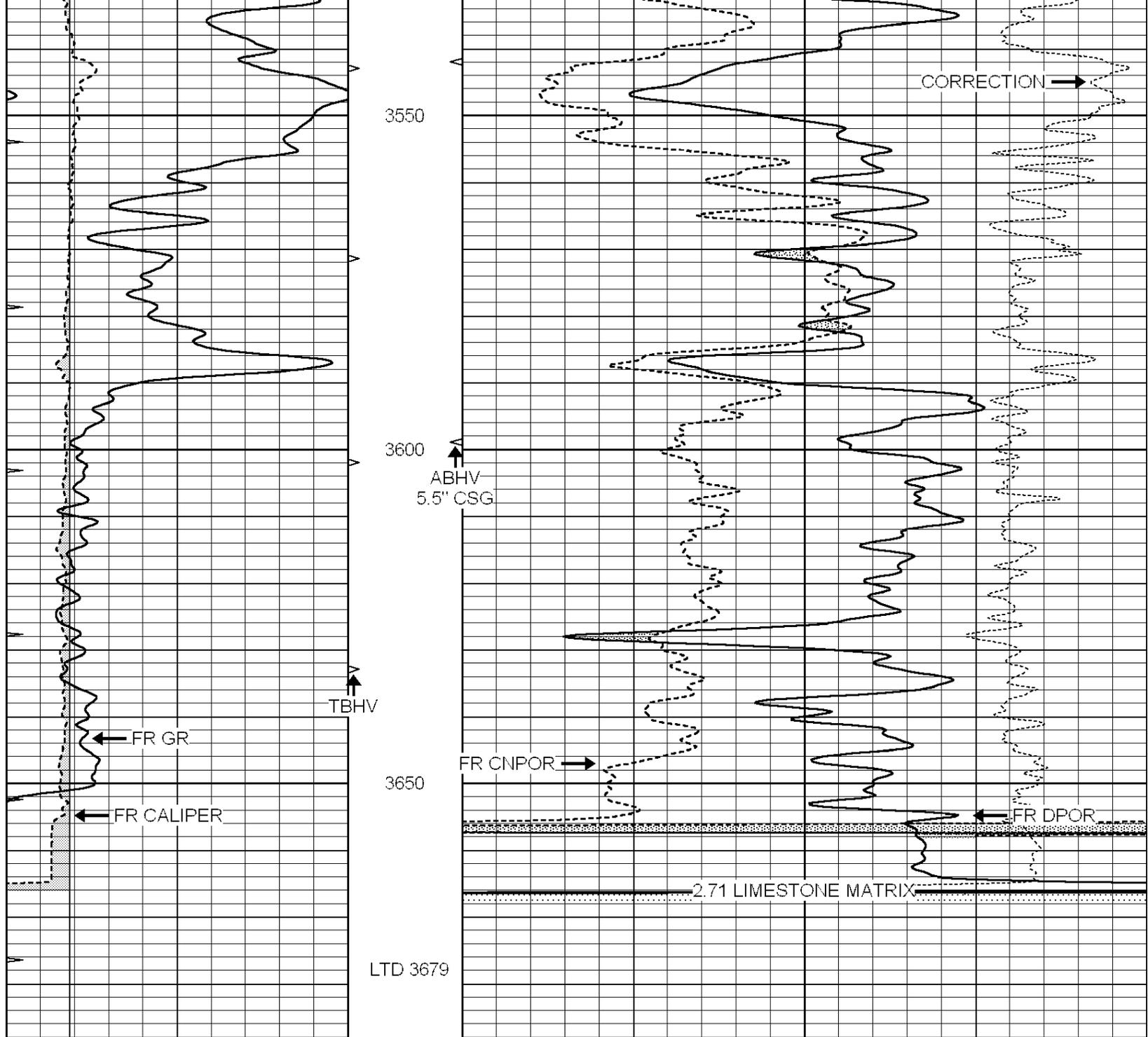
3350

3400

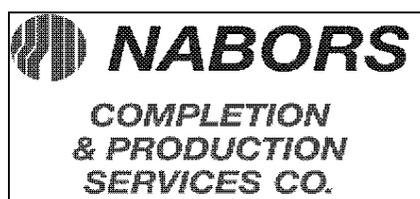
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3500





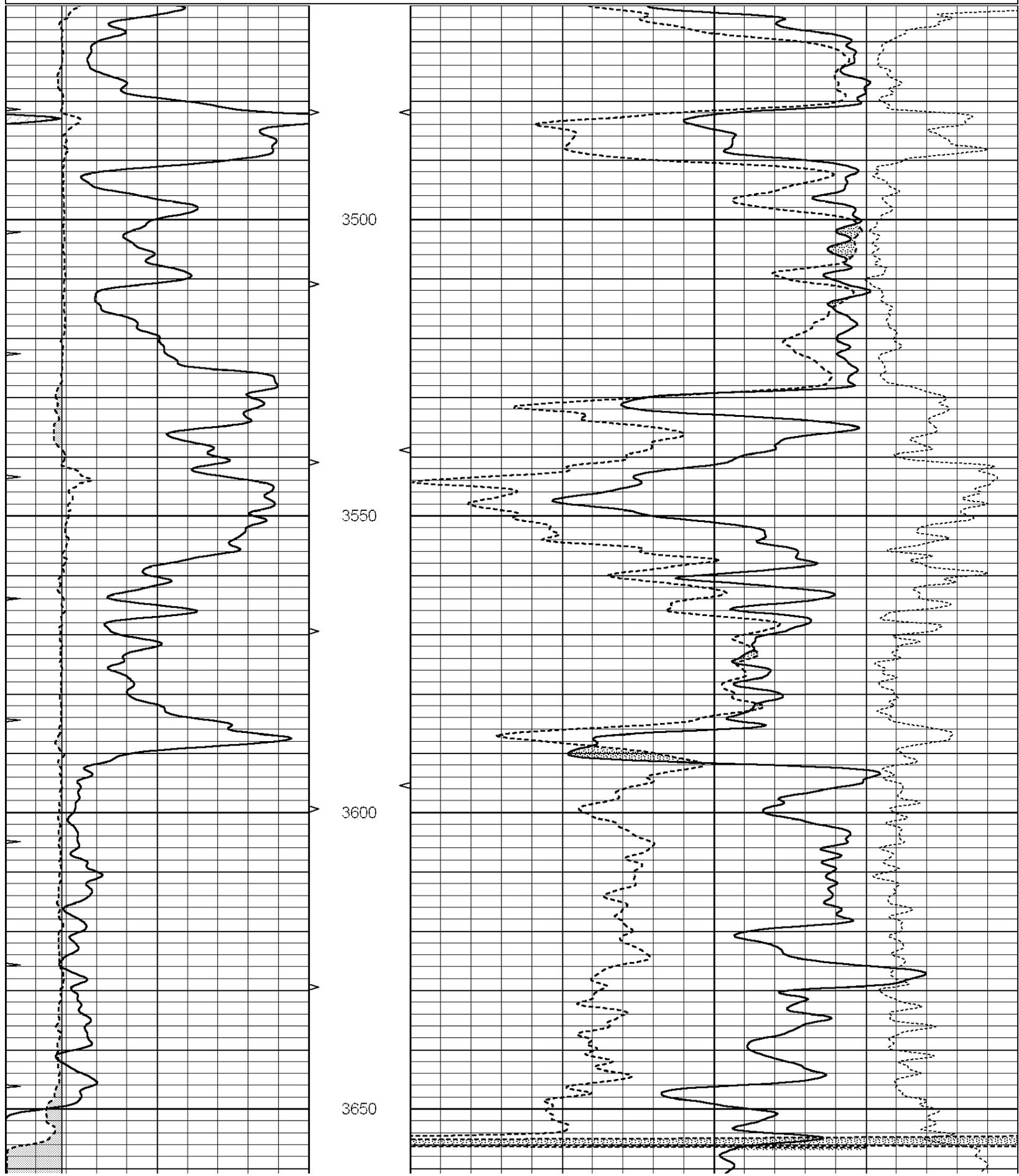
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	(ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			(ft3)	10		



# REPEAT SECTION

Database File: 010986ddn.db  
 Dataset Pathname: pass2.3  
 Presentation Format: \_den\_neu  
 Dataset Creation: Mon Apr 15 23:45:40 2013 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	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					

Calibration Report

Database File: 010986ddn.db  
Dataset Pathname: pass3.2  
Dataset Creation: Mon Apr 15 23:47:51 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
Surface Cal Performed: Mon Apr 15 03:17:53 2013  
Downhole Cal Performed: Sat Jan 19 19:51:38 2013  
After Survey Verification Performed: Sat Jan 19 19:51:38 2013

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	620.000	3.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	680.000	-45.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART  
Source / Verifier: 147 / 147  
Master Calibration Performed: Mon Apr 15 03:17:36 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1205.77	610.74	cps
Aluminum	2.590	g/cc	271.21	419.72	cps
Spine Angle = 75.89			Density/Spine Ratio = 0.572		
	Size		Reading		
Small Ring	7.10	in	4.69	V	
Large Ring	14.00	in	6.52	V	

Compensated Neutron Calibration Report

Serial Number: NEU\_4I  
 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

Gamma Ray Calibration Report

Serial Number: GR5  
 Tool Model: OPEN  
 Performed: Mon Apr 15 05:00:24 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 2.5000 GAPI/cps