



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company	BLACK DIAMOND OIL, INC.	Company	BLACK DIAMOND OIL, INC.
Well	KS BRAND #1	Well	KS BRAND #1
Field	RAY WEST	Field	RAY WEST
County	NORTON	County	NORTON
State	KANSAS	State	KANSAS
Location:	API # : 15-137-20731-00-00	Other Services	DIL/MEL
Permanent Datum	SW - NW - SE - NW	Elevation	K.B. 2149
Log Measured From	1700' FNL & 1340' FWL	D.F.	2147
Drilling Measured From	SEC 22 TWP 5S RGE 21W	G.L.	2144
Ground Level Elevation	2144		
Log Measured From	KELLY BUSHING 5' A.G.L		
Drilling Measured From	KELLY BUSHING		
Date	5-16-15		
Run Number	ONE		
Depth Driller	3583		
Depth Logger	3583		
Bottom Logged Interval	3569		
Top Log Interval	3050		
Casing Driller	8 5/8 @ 217		
Casing Logger	217		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 750 PPM	
Density / Viscosity	9.4/57		
pH / Fluid Loss	10.0/7.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	2.00 @ 74F		
Rmf @ Meas. Temp	1.50 @ 74F		
Rmc @ Meas. Temp	2.40 @ 74F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	0.01 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	113F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	JEFF LAWLER		

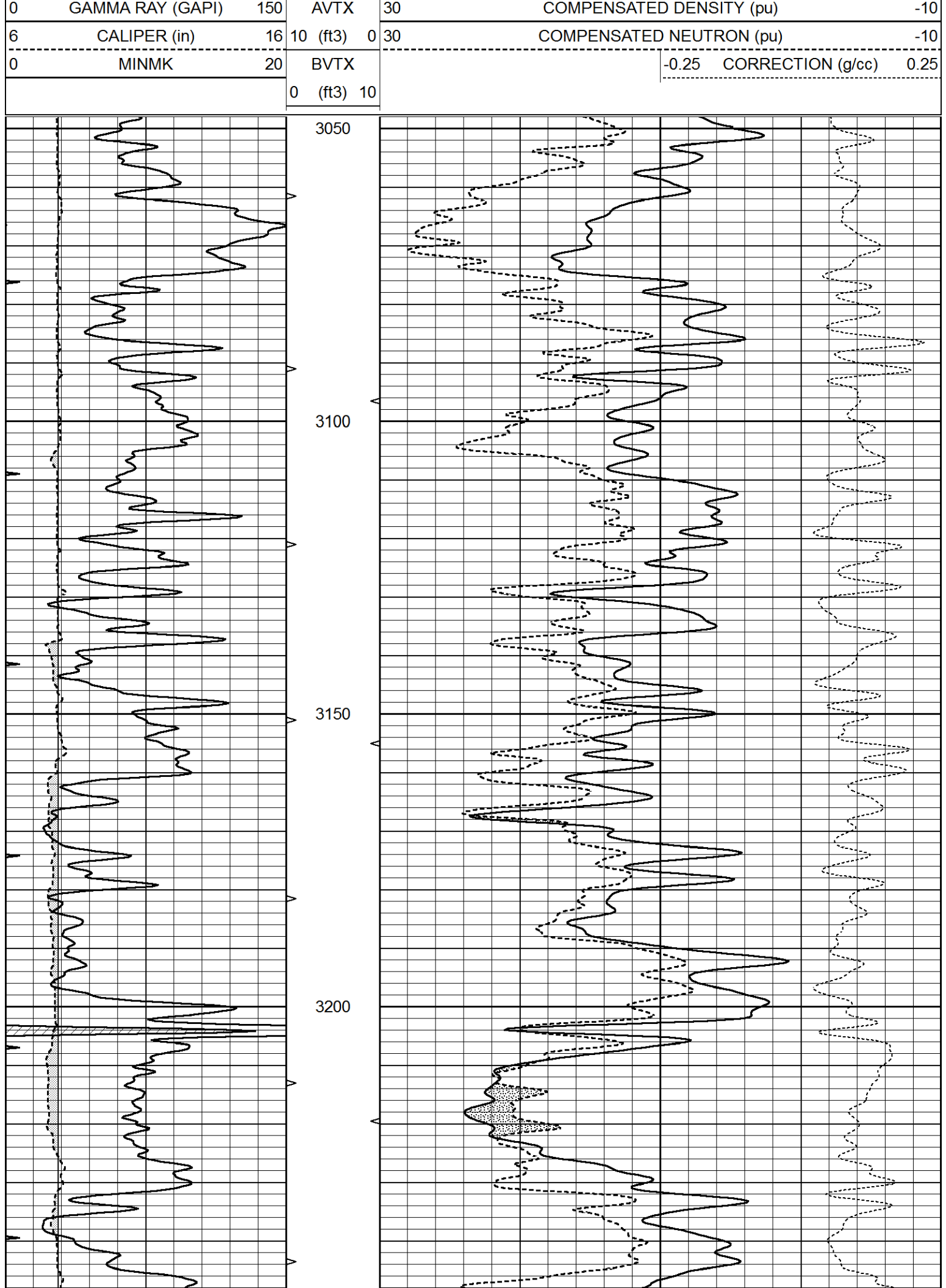
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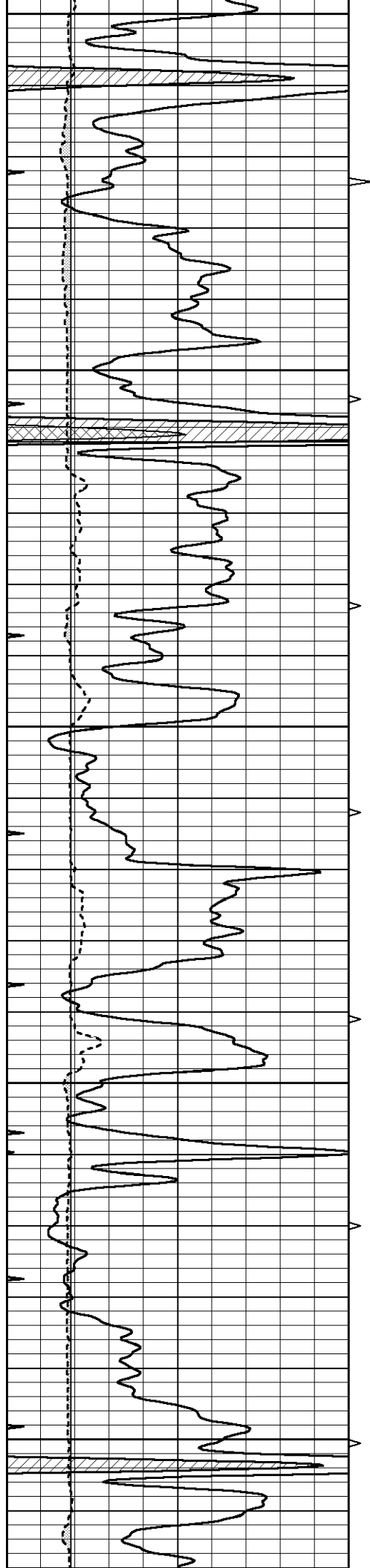
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS : LOGAN, KS. - 5 MILES WEST TO RD 12 - 1.5 MILES SOUTH TO RD Z - 1 MILE WEST TO RD 11 - 3 MIILES SOUTH EAST INTO AT THE CATTLE GUARD.

Database File	26441ddn8.db
Dataset Pathname	pass3.3
Presentation Format	_den_neu
Dataset Creation	Sat May 16 11:34:34 2015
Charted by	Depth in Feet scaled 1:240





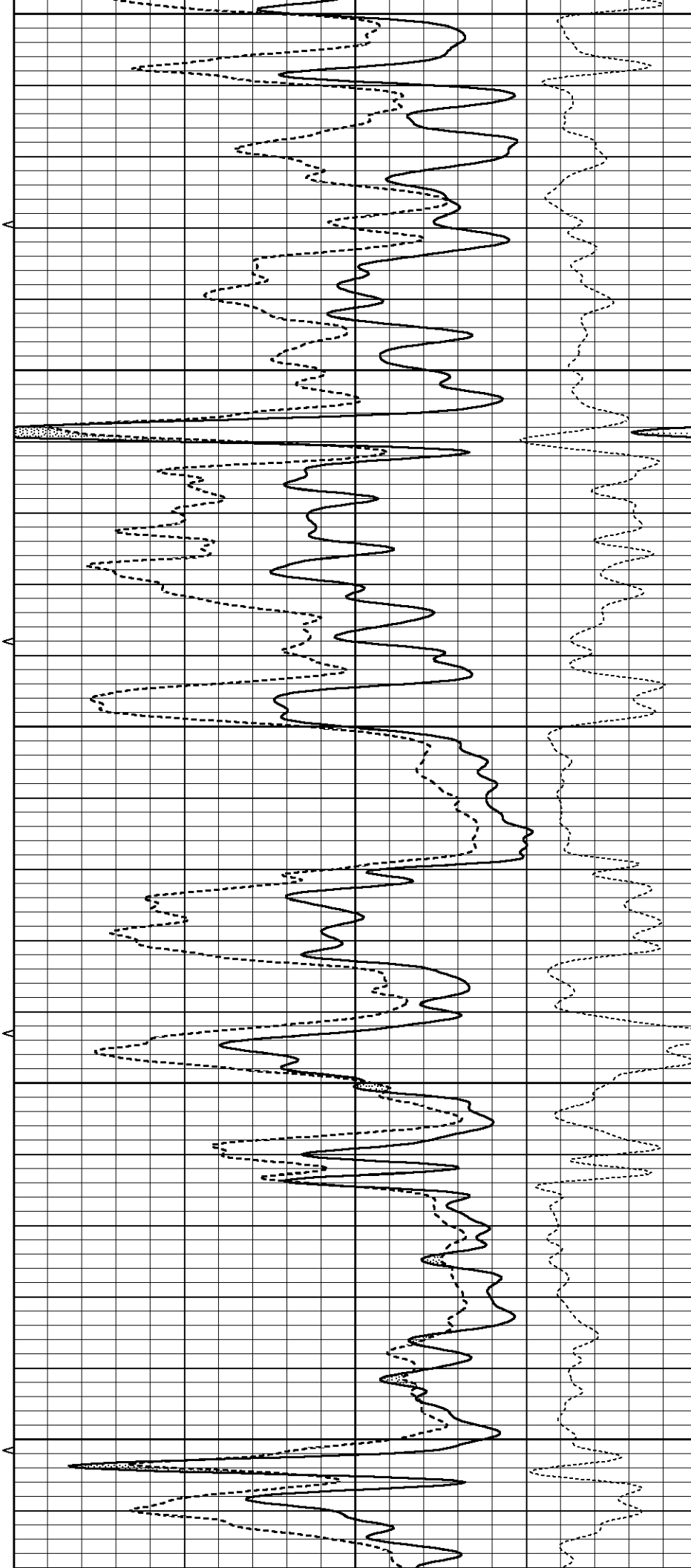
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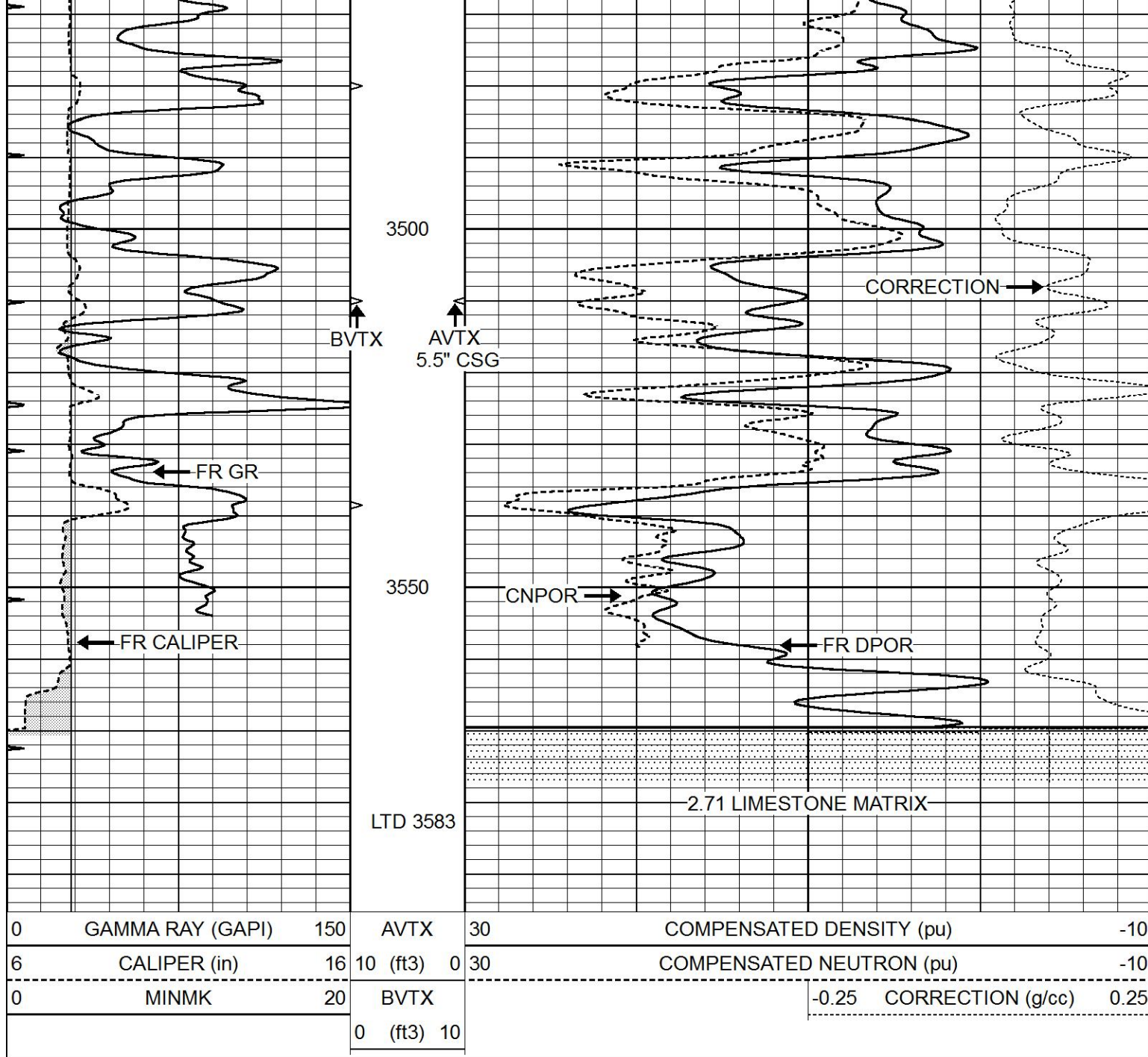
3300

3350

3400

3450

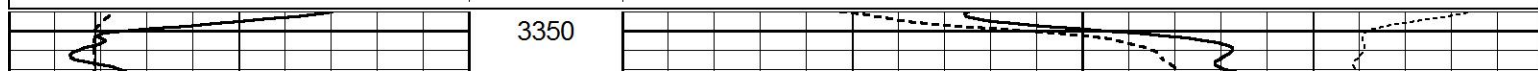


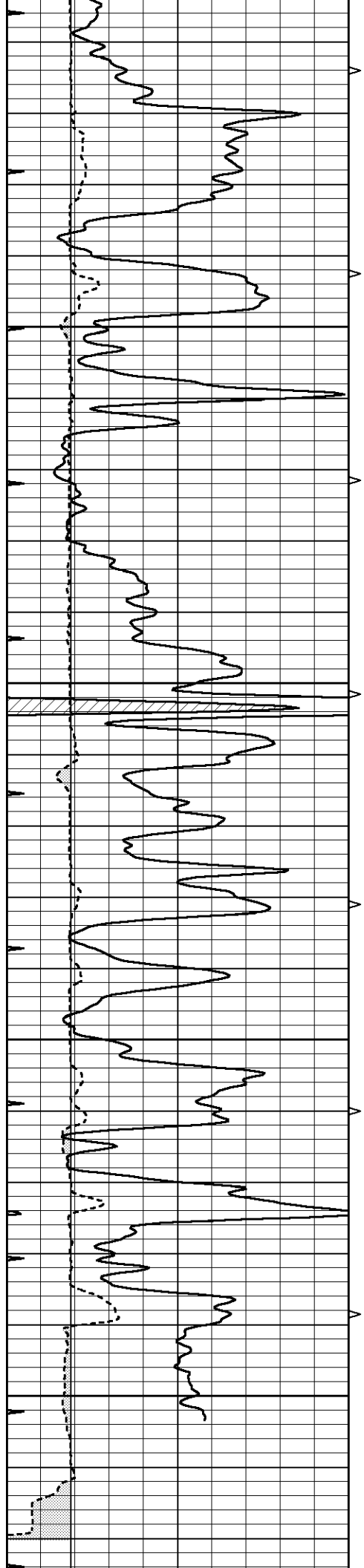


REPEAT SECTION

Database File 26441ddn8.db
 Dataset Pathname pass2.2
 Presentation Format _den_neu
 Dataset Creation Sat May 16 11:19:17 2015
 Charted by Depth in Feet scaled 1:240

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



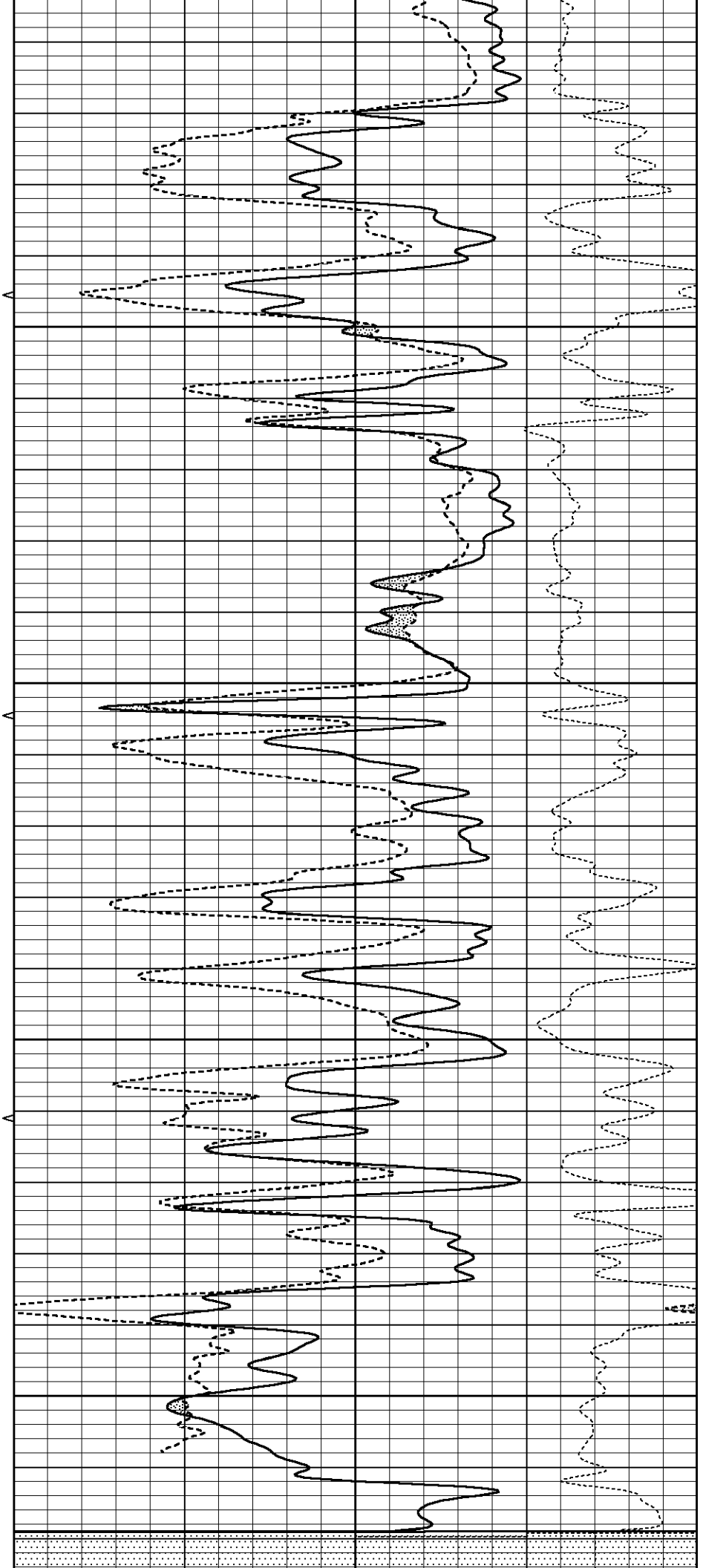


3400

3450

3500

3550



Master Calibration	Performed: Wed Feb 11 16:57:09 2015
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	Background	Aluminum	Magnesium		
Window 1	594.39	6349.98	29204.00	cps	
Window 2	47.14	1460.46	7334.94	cps	
Window 4	261.52	1478.45	6338.23	cps	
Window 5	633.19	10381.10	19565.80	cps	
Window 6	49.78	1758.01	3436.39	cps	
Window 8	302.39	3297.16	6093.06	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8570	SS Alpha:	: -0.7600	LS CPE:	: 1.1652
LS Beta:	: 157430.0395	SS Beta:	: 22665.8398	SS CPE:	: 1.4739

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

Lithodensity Caliper Calibration				Performed: Wed Feb 11 16:57:09 2015	
Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
5280.9	9455.1	8.6	14.0	0.0	1.2

Before Survey Caliper Verification		Performed:	
	Reference	Reading	
	_____	_____	
Caliper (in)			

After Survey Caliper Verification		Performed:	
	Reference	Reading	
	_____	_____	
Caliper (in)			

Compensated Neutron Calibration Report	
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Serial Number:	080621PMC
Tool Model:	NABORS

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	070558		
Tool Model:	Probe1		
Performed:	Tue Jun 10 17:54:10 2014		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3000	GAPI/cps	