NABORS
COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY / NEUTRON LOG

Company DOWNING-NELSON OIL CO. INC.

Well ROHR TRUST UNIT #1-19

Field WILDCAT

County ELLIS State KANSAS

Location: API # : 15-051-26749-00-00

2500' FNL & 1200' FEL
SW - SW - SE - NE

SEC 19 TWP 14S RGE 18W

Other Services
DIL/MEL
SONIC

Elevation
K.B. 2106
D.F. 2104
G.L. 2098

Permanent Datum GROUND LEVEL Elevation 2098
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Company DOWNING-NELSON OIL CO. INC.
Well ROHR TRUST UNIT #1-19
Field WILDCAT
County ELLIS
State KANSAS

Date	10/15/14		
Run Number	ONE		
Depth Driller	3835		
Depth Logger	3836		
Bottom Logged Interval	3815		
Top Log Interval	3000		
Casing Driller	8 5/8 @ 684'		
Casing Logger	648'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.2/54	CHLORIDES 2,500 PPM	
pH / Fluid Loss	9.5/9.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.75 @ 78F		
Rmf @ Meas. Temp	0.56 @ 78F		
Rmc @ Meas. Temp	0.90 @ 78F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.52 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	114F		
Equipment Number	3802		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	MARC DOWNING		

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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 COMPLETION & PRODUCTION SERVICES CO.
785 (628 - 6395)
THANK YOU FOR YOUR BUSINESS
DIRECTIONS : HAYS, KS. - GOLF COURSE RD. & 230 AVE - SOUTH 2 1/2 MILES - WEST INTO

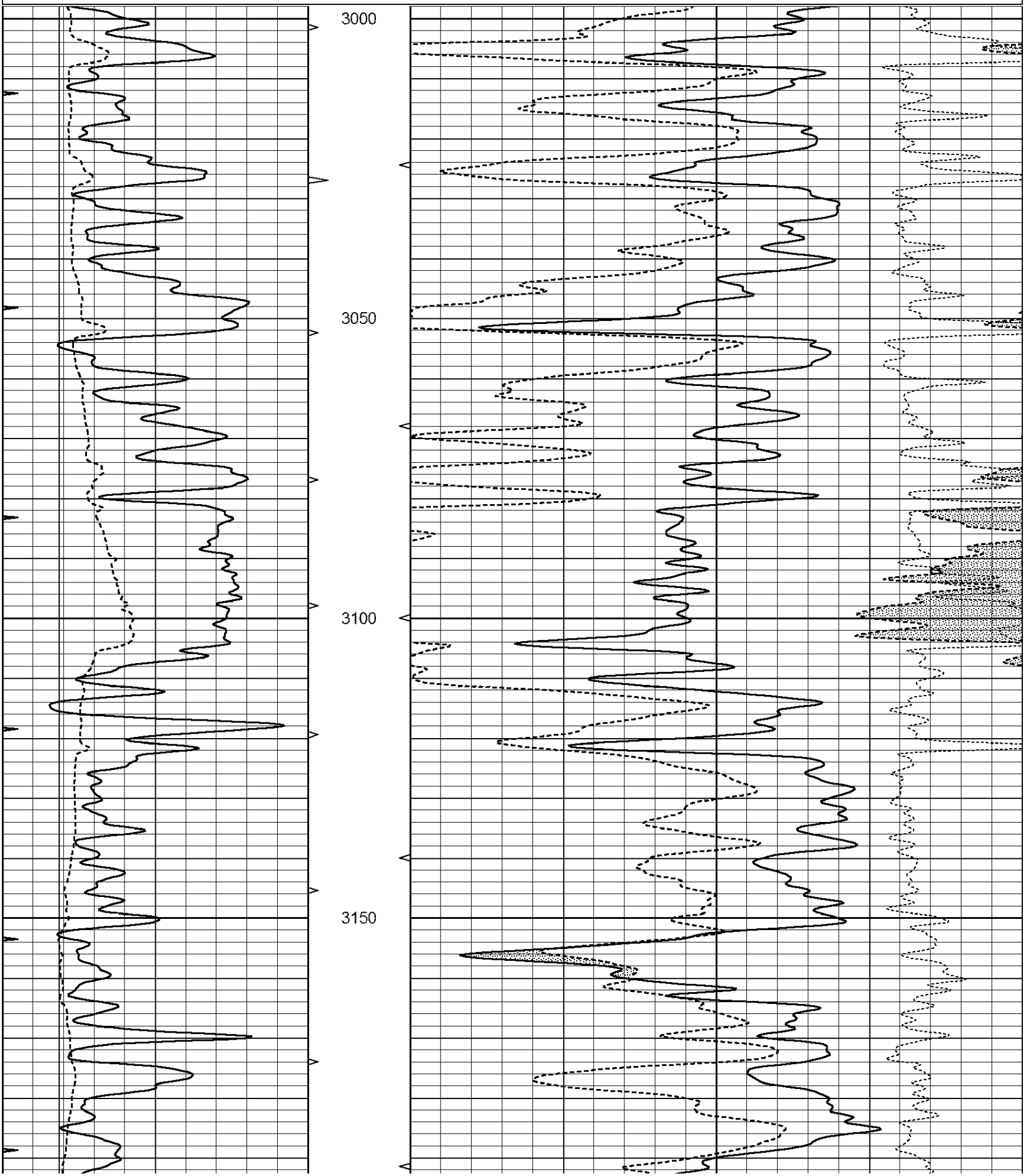
Database File: 26239ddn.db
Dataset Pathname: pass6.4
Presentation Format: _den_neu
Dataset Creation: Wed Oct 15 03:40:33 2014 by Calc Open-Cased 090629

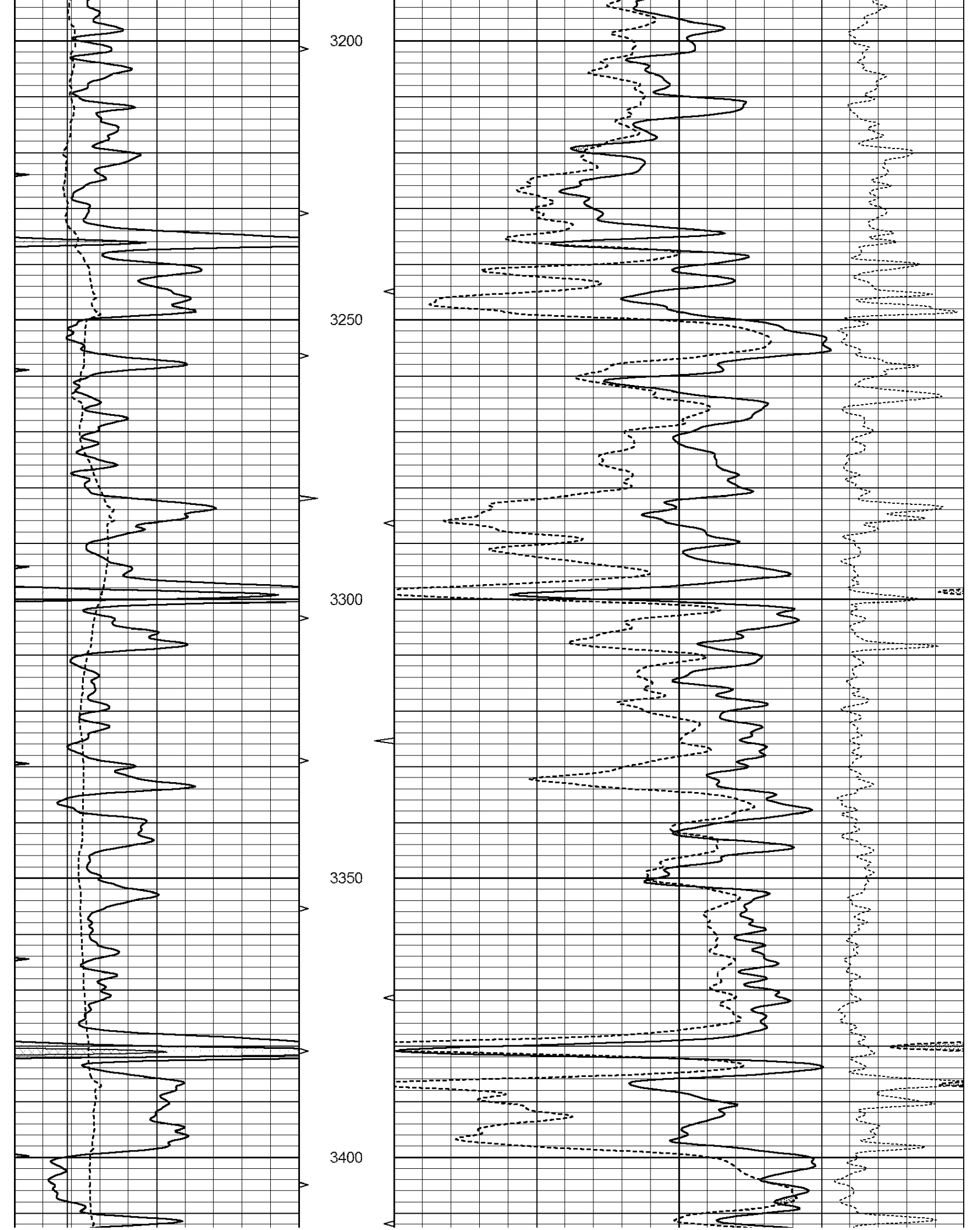
Charted by: Depth in Feet scaled 1:240

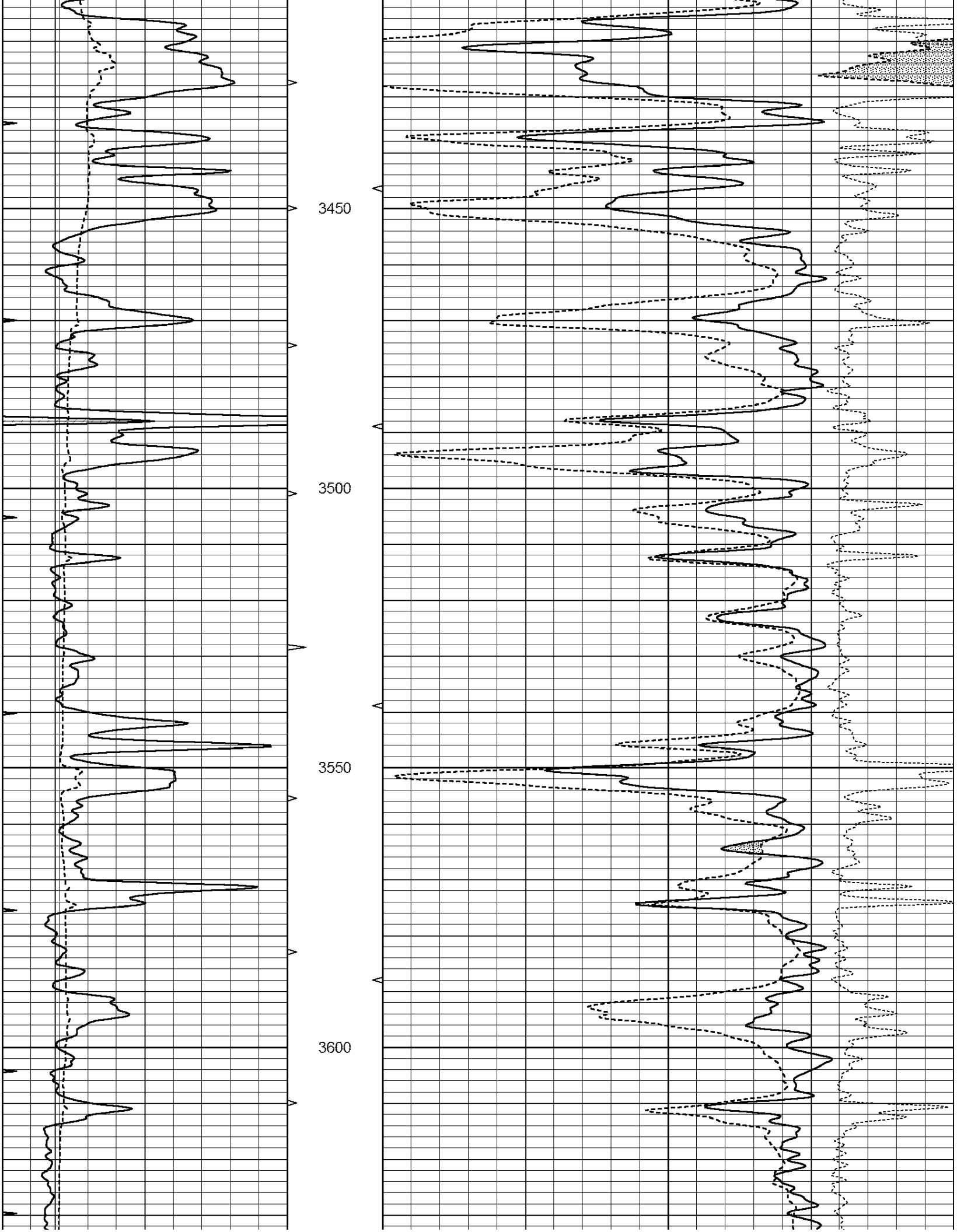
0	GAMMA RAY (GAPI)	150
6	CALIPER (in)	16
0	MINMK	20

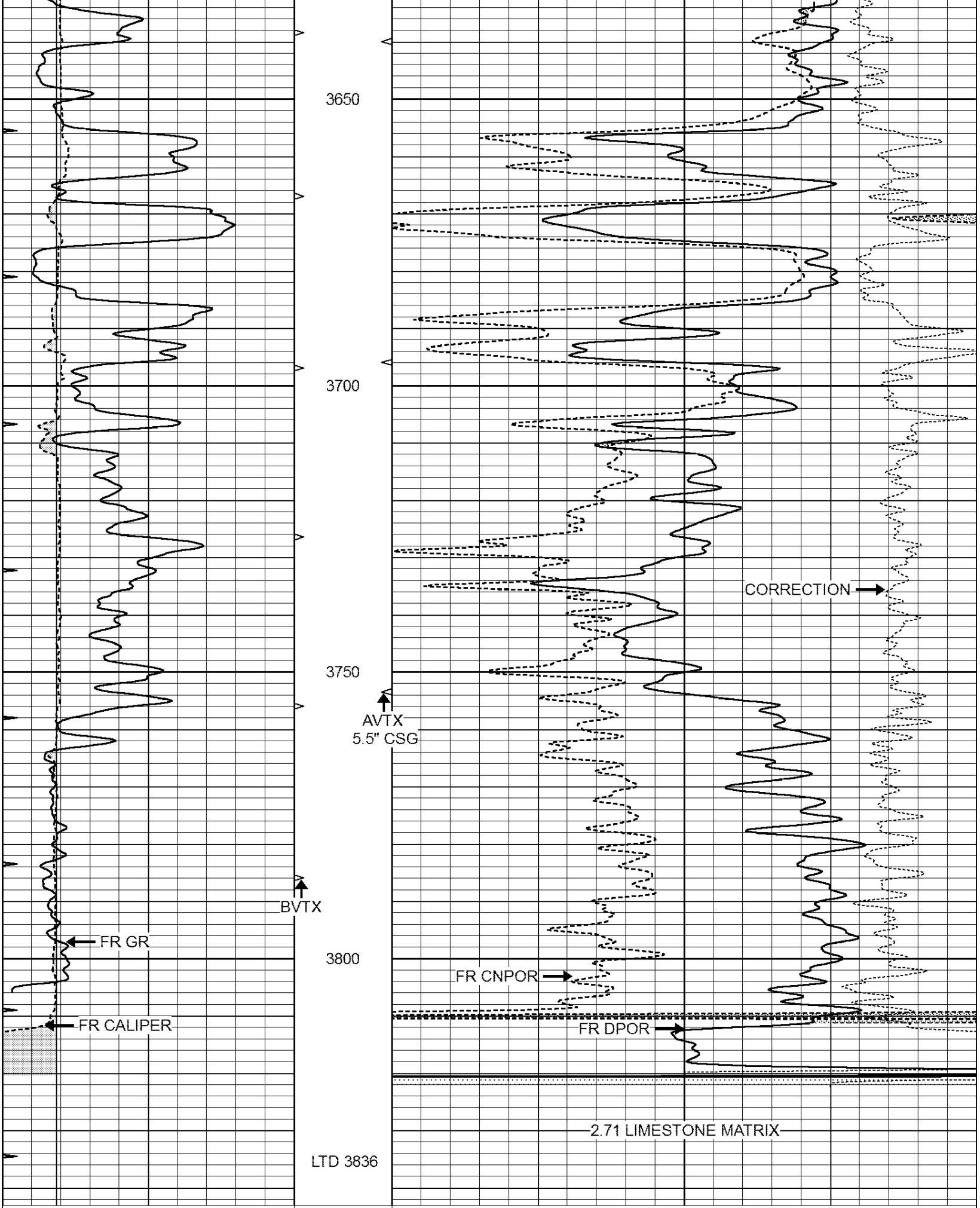
AVTX		
10	(ft3)	0
BVTX		
0	(ft3)	10

30	COMPENSATED DENSITY (pu)	-10
30	COMPENSATED NEUTRON (pu)	-10
-0.25	CORRECTION (g/cc)	0.25




3200
3250
3300
3350
3400


3450
3500
3550
3600


3650
3700
3750
3800
AVTX
5.5" CSG
BVTX
FR GR
FR CALIPER
CORRECTION
FR CNPOR
FR DPOR
2.71 LIMESTONE MATRIX
LTD 3836
0 GAMMA RAY (GAPI) 150
6 CALIPER (in) 16
AVTX
10 (ft3) 0
30 COMPENSATED DENSITY (pu) -10
30 COMPENSATED NEUTRON (pu) -10

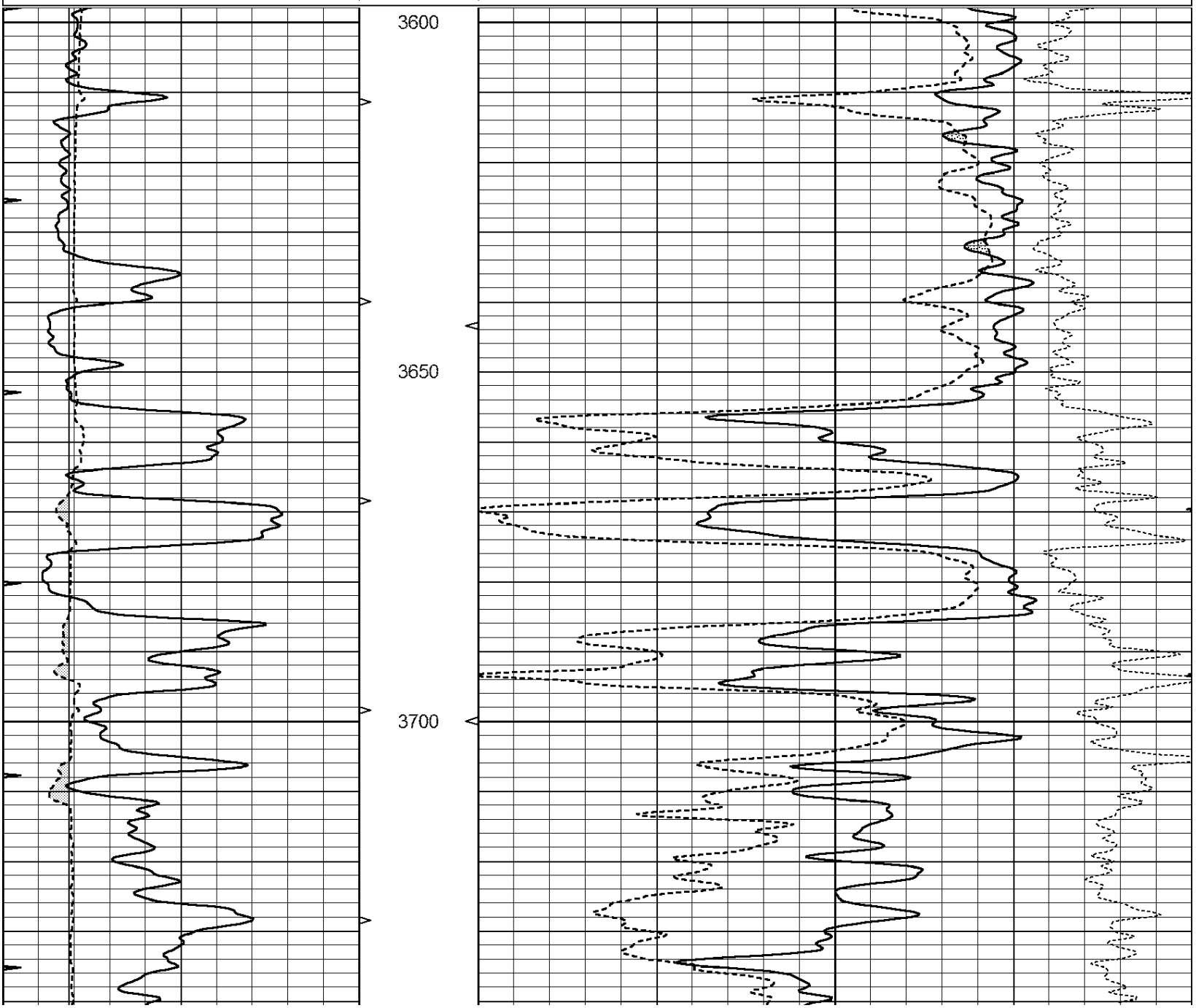
0	MINMK	20	BVTX			-0.25	CORRECTION (g/cc) 0.25
			0 (ft3) 10				

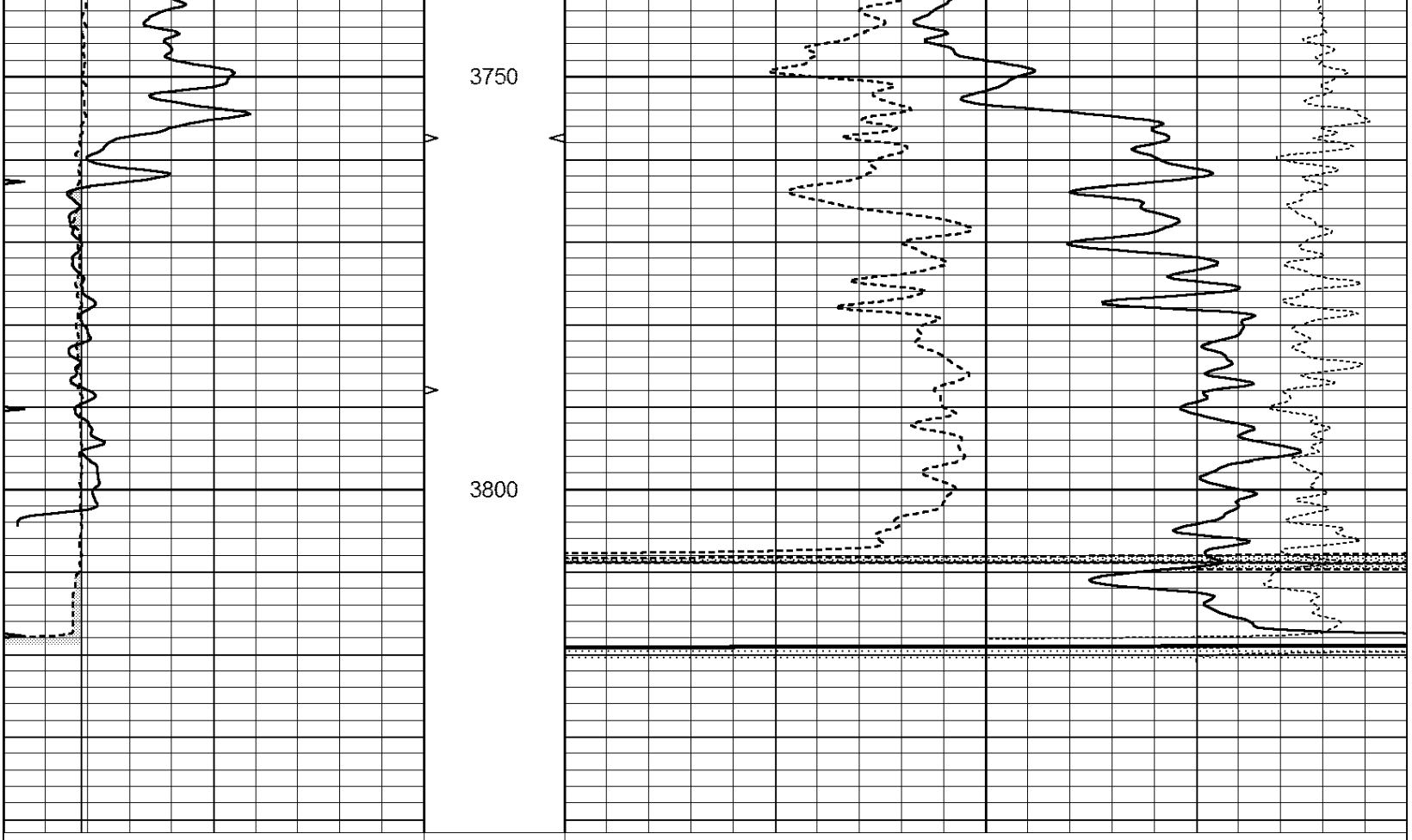
NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File: 26239ddn.db
Dataset Pathname: pass5.1
Presentation Format: _den_neu
Dataset Creation: Wed Oct 15 03:04:28 2014 by Calc Open-Cased 090629
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			





Calibration Report

Database File: 26239ddn.db
Dataset Pathname: pass6.4
Dataset Creation: Wed Oct 15 03:40:33 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Sat Aug 02 01:54:49 2014
Downhole Cal Performed:	Sat Jan 19 19:51:38 2013
After Survey Verification Performed:	Sat Jan 19 19:51:38 2013

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	550.000	14.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	580.000	-32.000
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: GEAR5-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Sat Aug 02 01:49:41 2014

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	943.83	576.01	cps
Aluminum	2.610	g/cc	212.01	399.19	cps

Spine Angle = 76.20 Density/Spine Ratio = 0.585

	Size		Reading	
Small Ring	8.40	in	1.64	V
Large Ring	14.00	in	2.93	V

Compensated Neutron Calibration Report

Serial Number: 080620
Tool Model: Probe

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: 46001
Tool Model: Probe1
Performed: Sat Aug 02 01:56:52 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2600 GAPI/cps