NABORS
COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY / NEUTRON LOG

Company RITCHIE EXPLORATION, INC.
Well #1 WEBER 15 UNIT
Field ANTELOPE RIDGE NORTHEAST
County GOVE State KANSAS

Location: API # : 15-063-22091
2520' FSL & 2400' FWL
SEC 15 TWP 13S RGE 31W

Other Services
DIL

Permanent Datum GROUND LEVEL Elevation 2908
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2913
D.F.
G.L. 2908

Company RITCHIE EXPLORATION, INC.
Well #1 WEBER 15 UNIT
Field ANTELOPE RIDGE NORTHEAST
County GOVE
State KANSAS

Date	3-15-13		
Run Number	ONE		
Depth Driller	4720		
Depth Logger	4722		
Bottom Logged Interval	4698		
Top Log Interval	3600		
Casing Driller	224		
Casing Logger	224		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 59		
pH / Fluid Loss	10.5 / 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.90 @ 96F		
Rmf @ Meas. Temp	0.68 @ 96F		
Rmc @ Meas. Temp	1.08 @ 96F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.710 @ 122F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	5:45 P.M.		
Maximum Recorded Temperature	122F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	ADAM ELDANI		

<<< Fold Here >>>

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
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: OAKLEY, S TO GOVE C.L., 5E, 2S, 1E, N INTO.

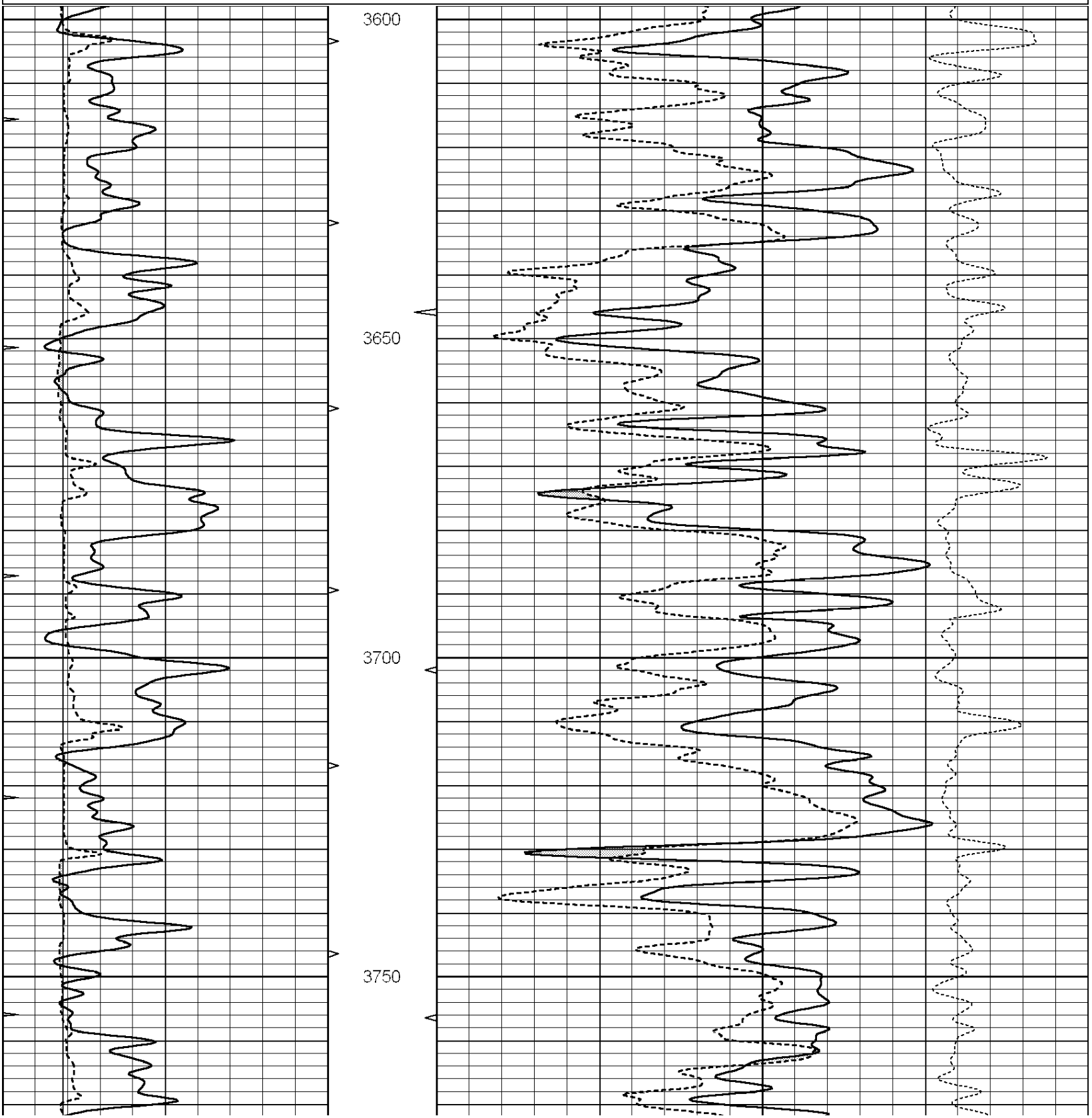
MAIN SECTION

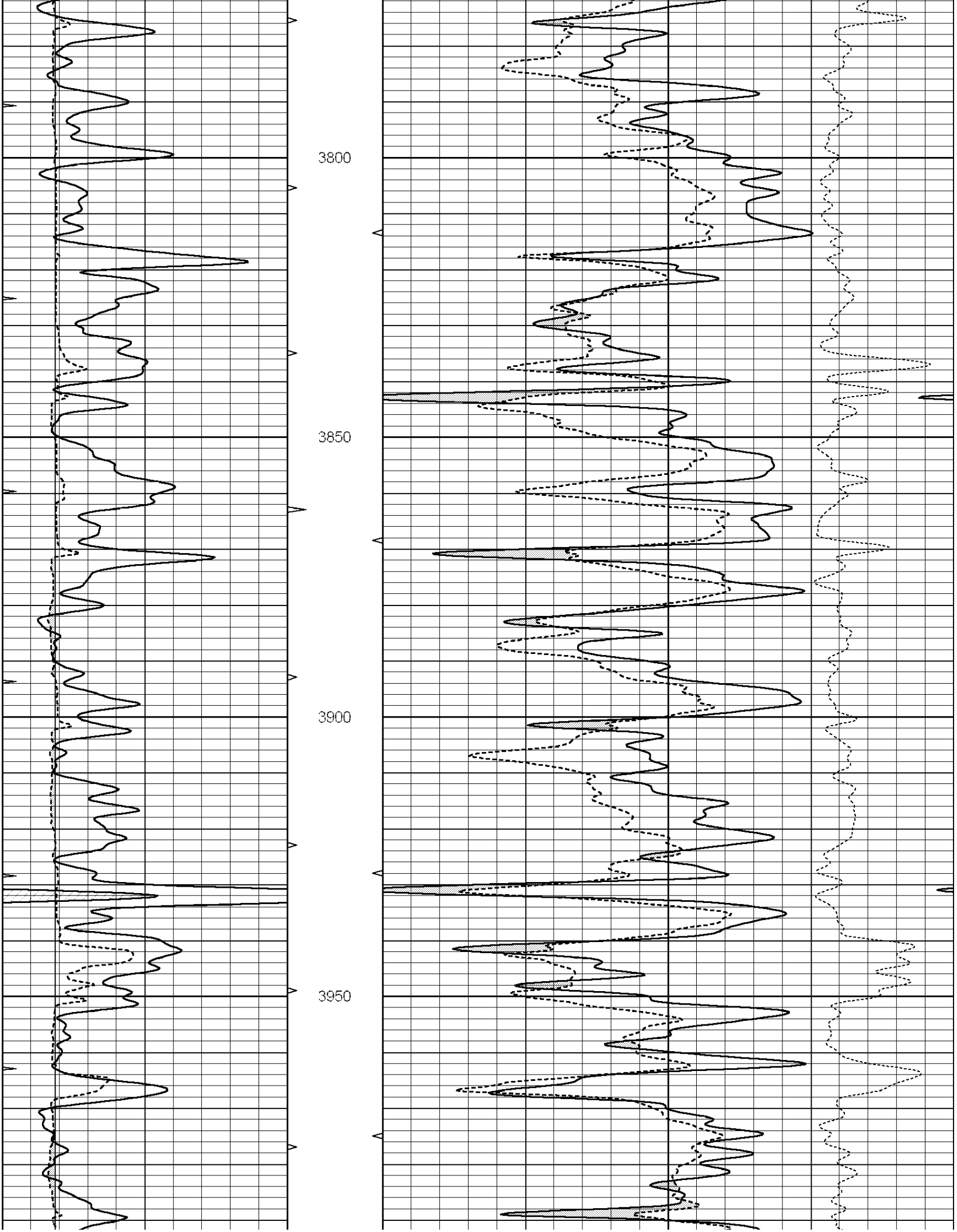
NABORS COMPLETION & PRODUCTION

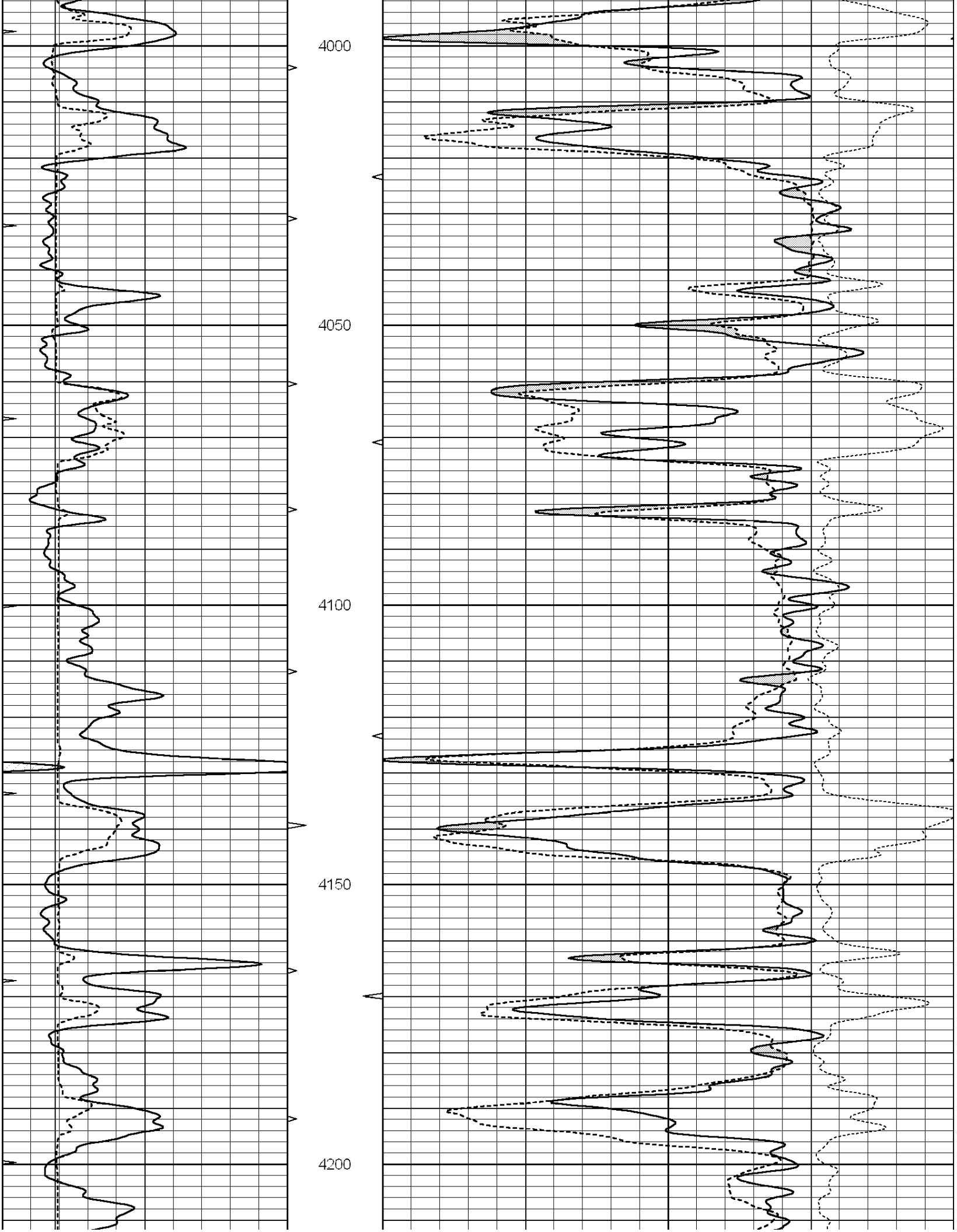
& PRODUCTION
SERVICES CO.

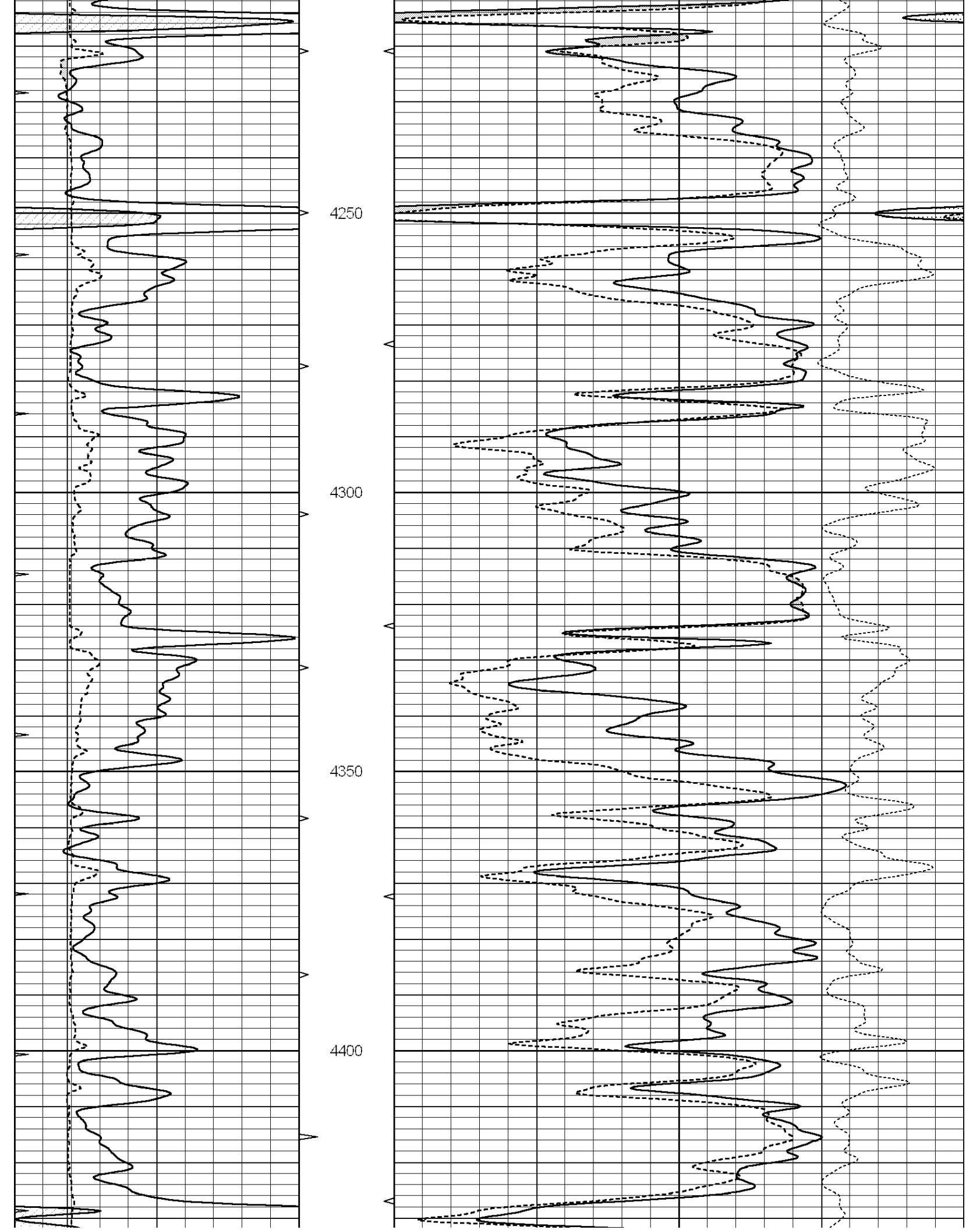
Database File: 010836ddn.db
Dataset Pathname: pass3.2A
Presentation Format: ldt_neu
Dataset Creation: Fri Mar 15 19:22:16 2013
Charted by: Depth in Feet scaled 1:240

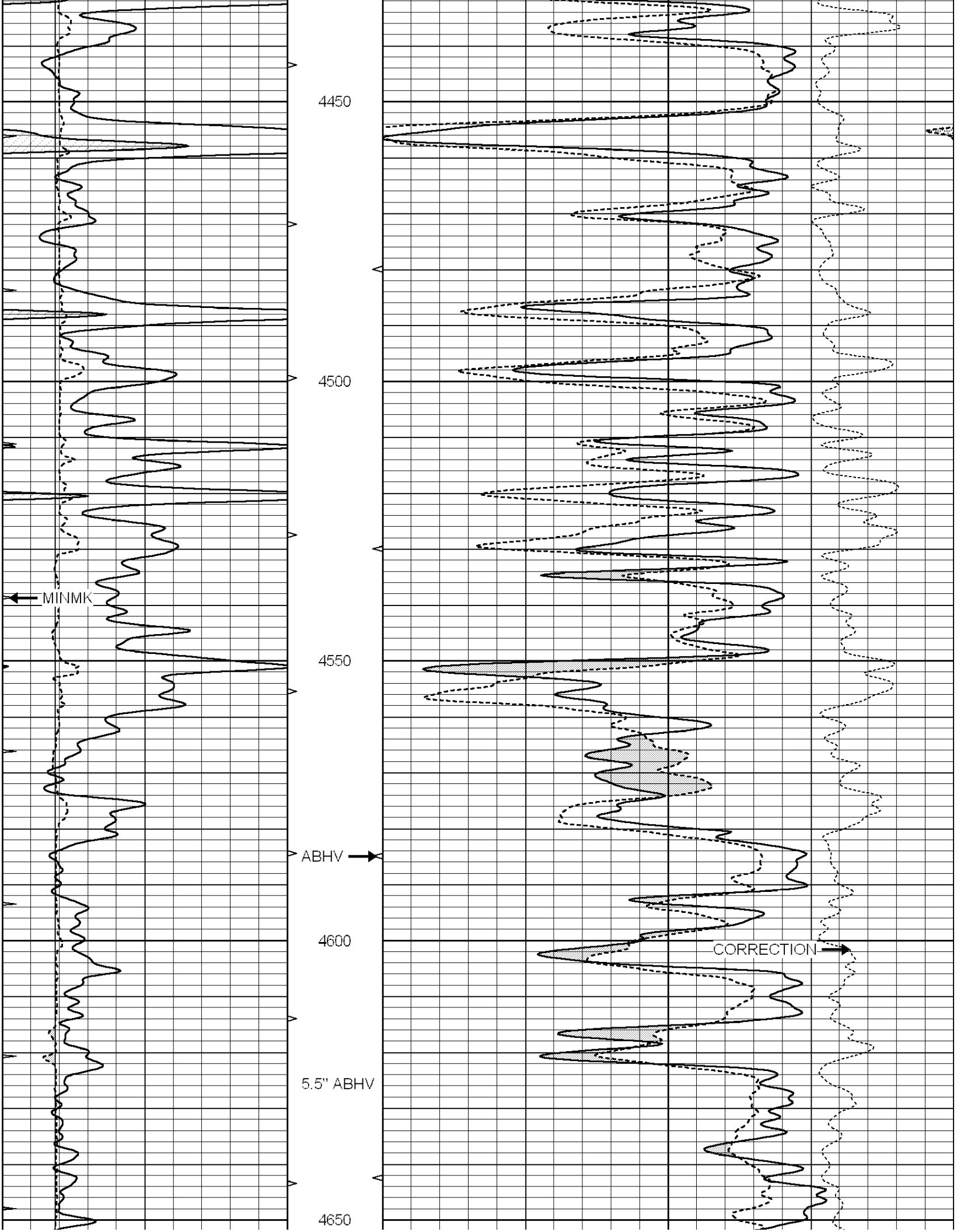
0	GAMMA RAY (GAPI) 150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in) 16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK 20	TBHV		-0.25 CORRECTION (g/cc)	0.25
		0 (ft3) 10			

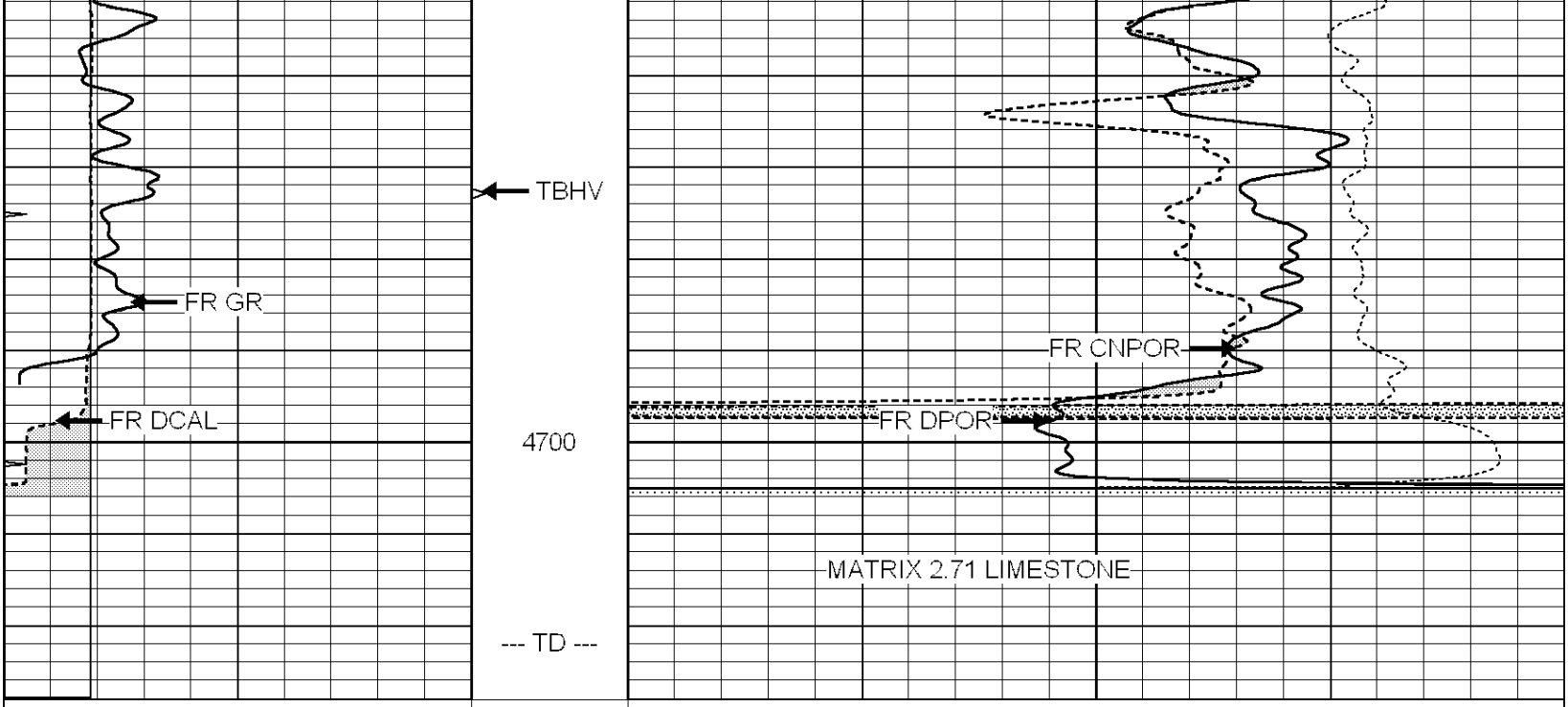



3800
3850
3900
3950


4000
4050
4100
4150
4200


4250
4300
4350
4400


4450
4500
MINMK
4550
ABHV
4600
CORRECTION
5.5" ABHV
4650



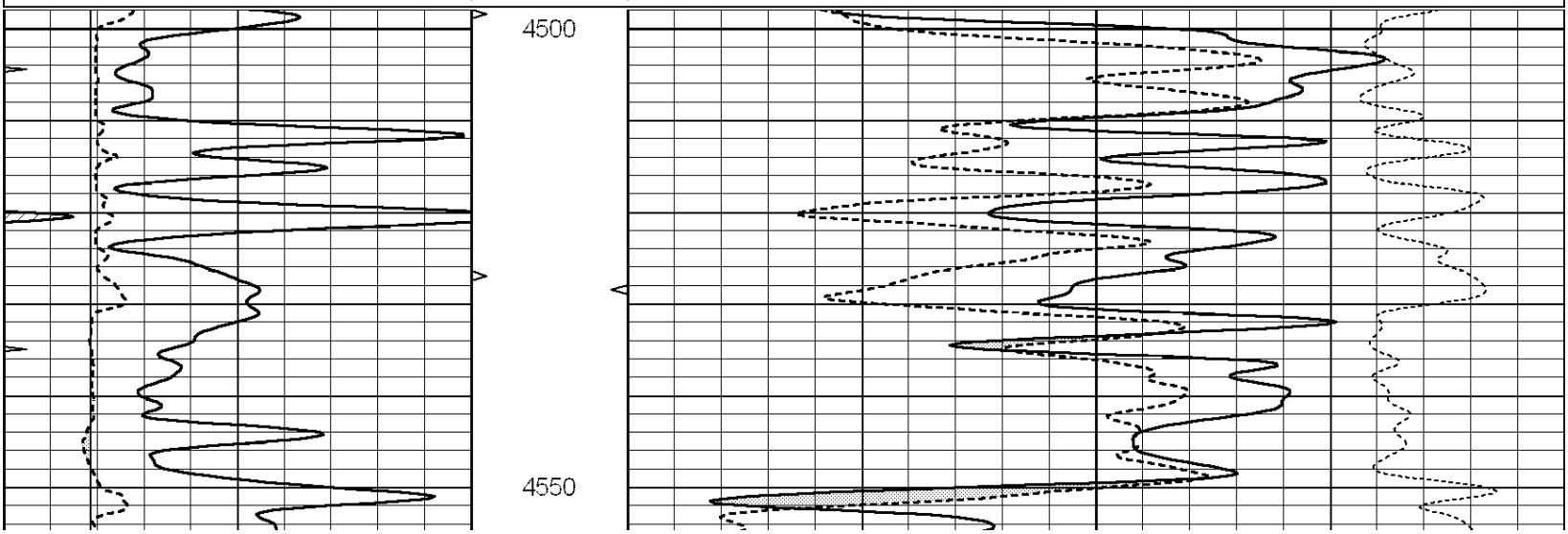
0	GAMMA RAY (GAPI)	150	ABHV		30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV			-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10			

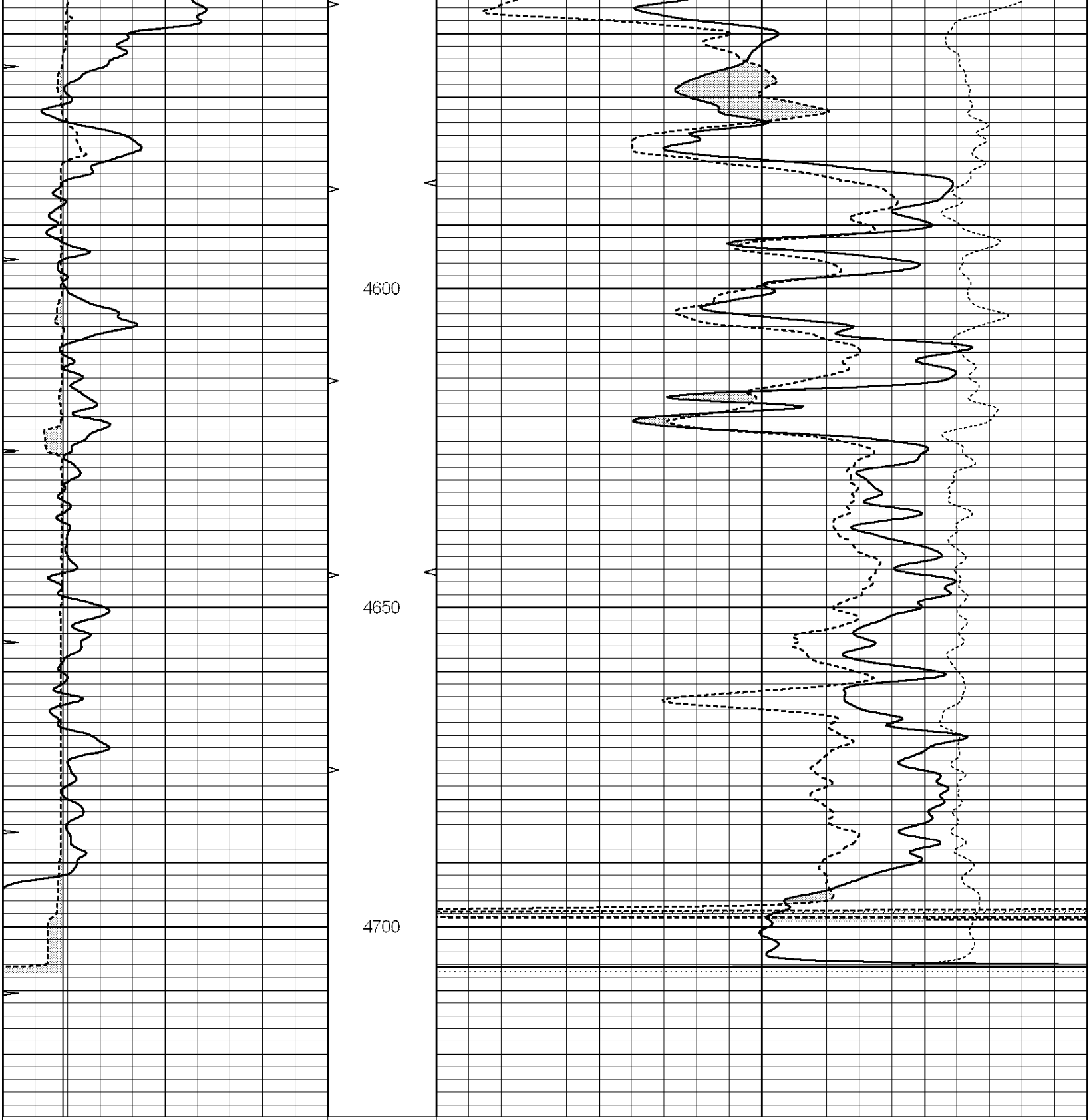
NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File: 010836ddn.db
Dataset Pathname: pass2A
Presentation Format: ldt_neu
Dataset Creation: Fri Mar 15 18:39:21 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	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV			-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10			





Calibration Report

Database File: 010836ddn.db
Dataset Pathname: pass3.2A
Dataset Creation: Fri Mar 15 19:22:16 2013

Dual Induction Calibration Report

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Fri Mar 15 18:44:03 2013
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	600.000	-7.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	700.000	-63.000
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		

Litho Density Calibration Report

Serial: 002 Model: PRB
Performed Mon Apr 02 17:56:53 2012

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	872.3	7266.3	2292.6	7931.5	cps
Window 2	822.9	5957.5	1958.0	6389.6	cps
Window 3	670.4	3219.9	1211.9	3388.2	cps
Window 4	201.6	201.1	202.3	204.6	cps
Long Space	0.0	5134.6	1135.0	5566.6	cps
Short Space	1.1	994.2	674.4	1059.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.6	Rib Slope	: 1.020	Density/Spine Ratio	: 0.569
Spine Angle	: 75.6	Spine Slope	: 3.888	Spine Intercept	: -18.3

Caliper

	Readings	Reference
Low Ref	4.3	8.4
High Ref	6.1	14.0
	Gain: 3.0	Offset: -4.4

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:	Fri Mar 15 18:42:26 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	2.3000	GAPI/cps