NABORS COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY/NEUTRON PE LOG

Company	MULL DRILLING COMPANY, INC.
Well	BENSON #1-4
Field	McDONALD
County	NESS
State	KANSAS

Company MULL DRILLING COMPANY, INC.

Well BENSON #1-4

Field McDONALD

County NESS State KANSAS

Location: API # : 15-135-25482-0000
1500' FNL & 2300' FEL
NE NW SW NE
SEC 4 TWP 19S RGE 24W

Permanent Datum GROUND LEVEL Elevation 2333
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services: DIL/MEL

Elevation
K.B. 2342
D.F. 2340
G.L. 2333

Date	11/10/12		
Run Number	ONE		
Depth Driller	4500		
Depth Logger	4504		
Bottom Logged Interval	4580		
Top Log Interval	3600		
Casing Driller	8 5/8" @ 222		
Casing Logger	228		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.0/74	CHLORIDES 5200 PPM	
pH / Fluid Loss	10.5/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.85 @ 83F		
Rmf @ Meas. Temp	.63 @ 83F		
Rmc @ Meas. Temp	1.02 @ 83F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.58 @ 120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	MACKLIN ARMSTRONG		

<<< Fold Here >>>

Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
NESS CITY, KS. - 5 W. TO RD. N - 1 S. - E. & S. INTO

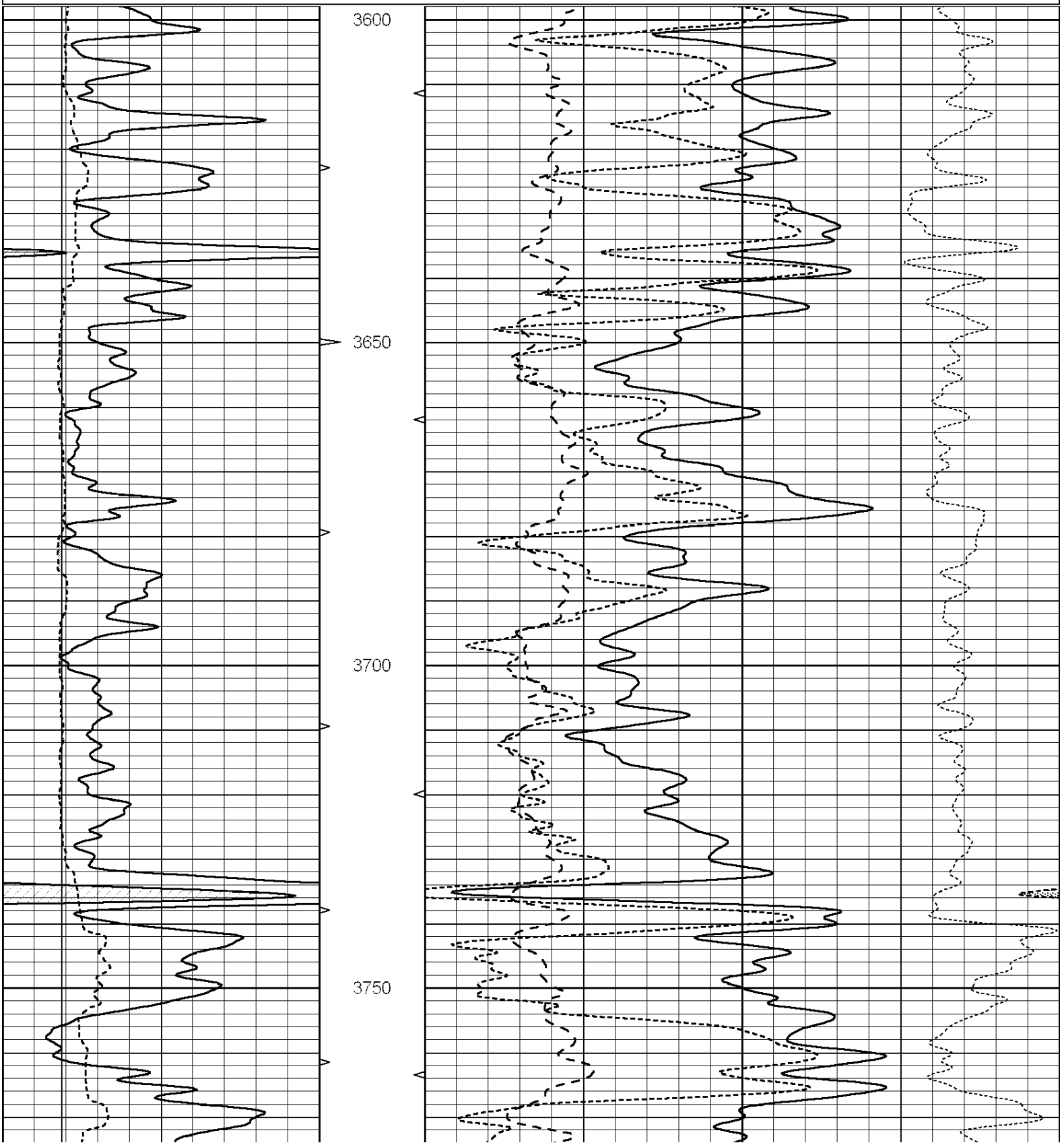
NABORS COMPLETION & PRODUCTION SERVICES CO.

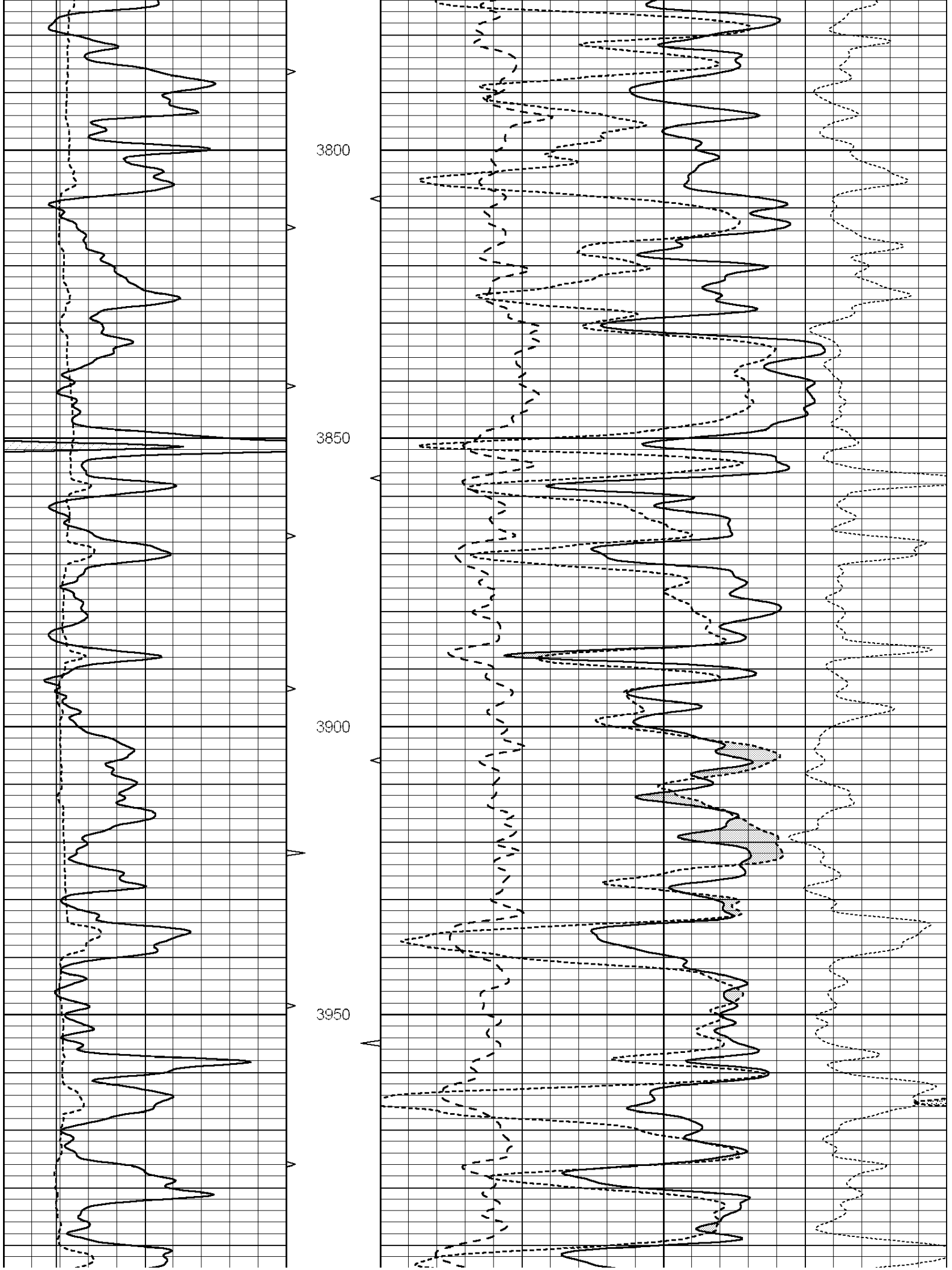
MAIN SECTION

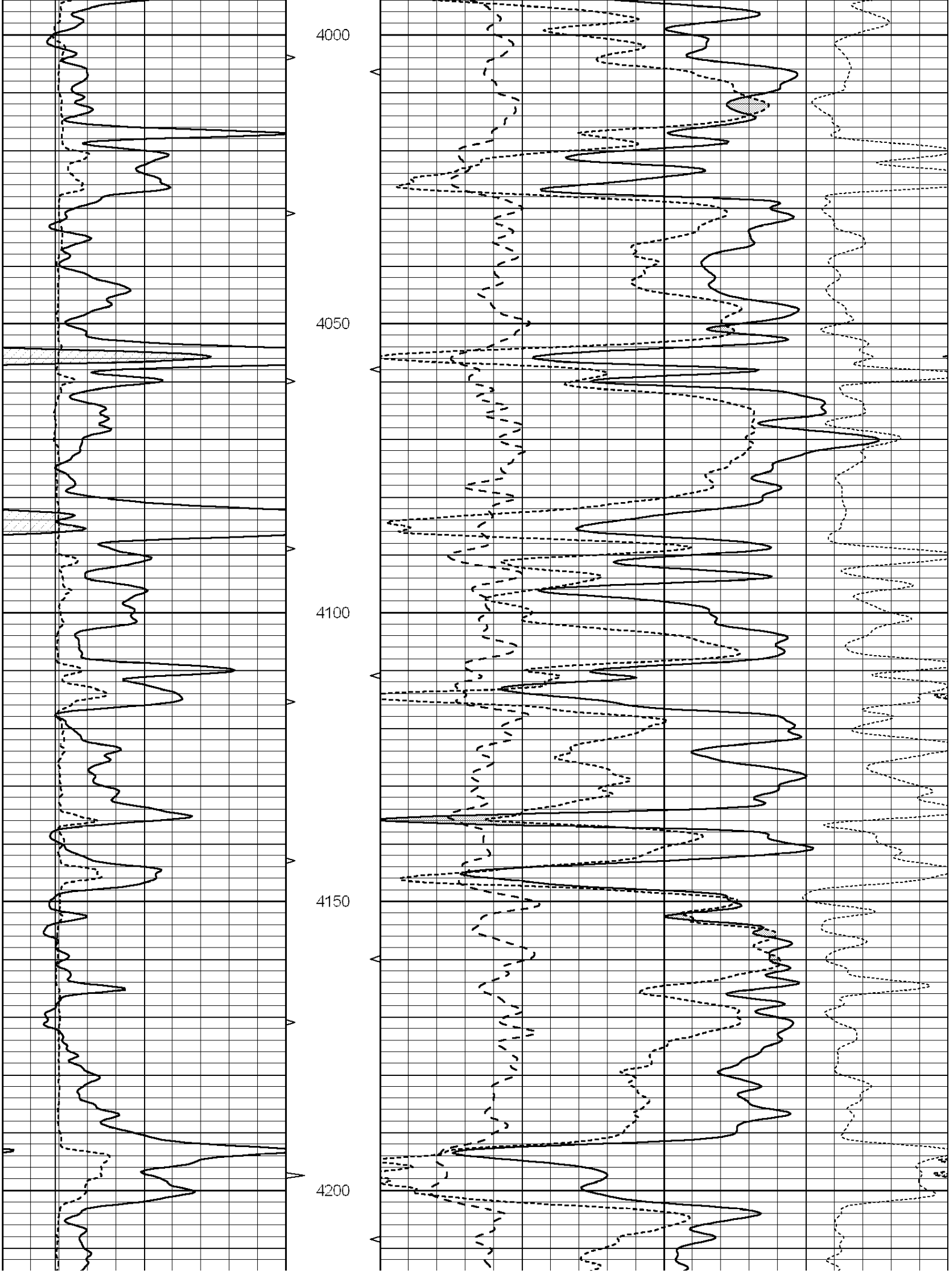
SERVICES CO.

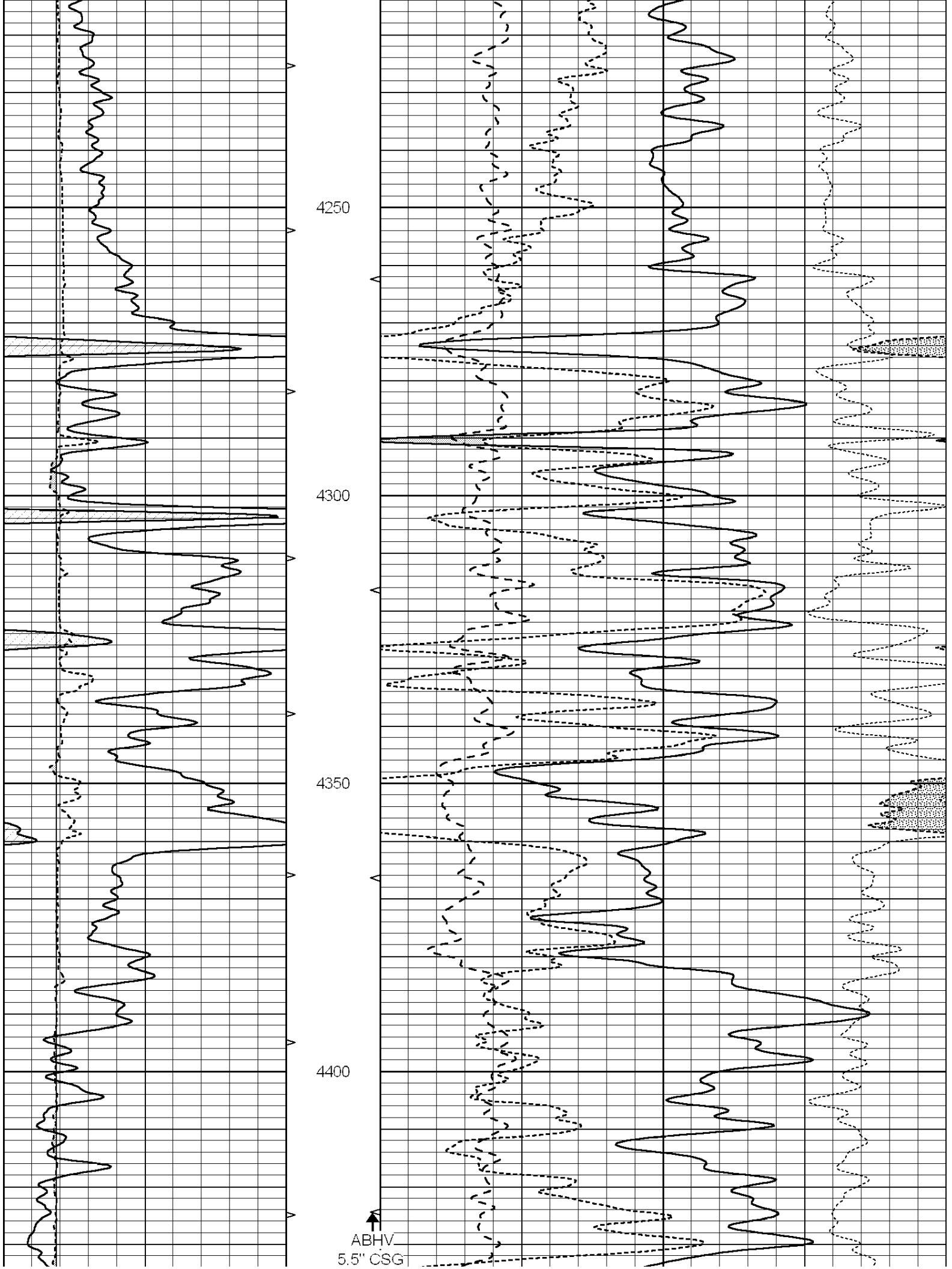
Database File: 010126pe.db
Dataset Pathname: pass3.1
Presentation Format: _ldt_neu
Dataset Creation: Sat Nov 10 20:26:28 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

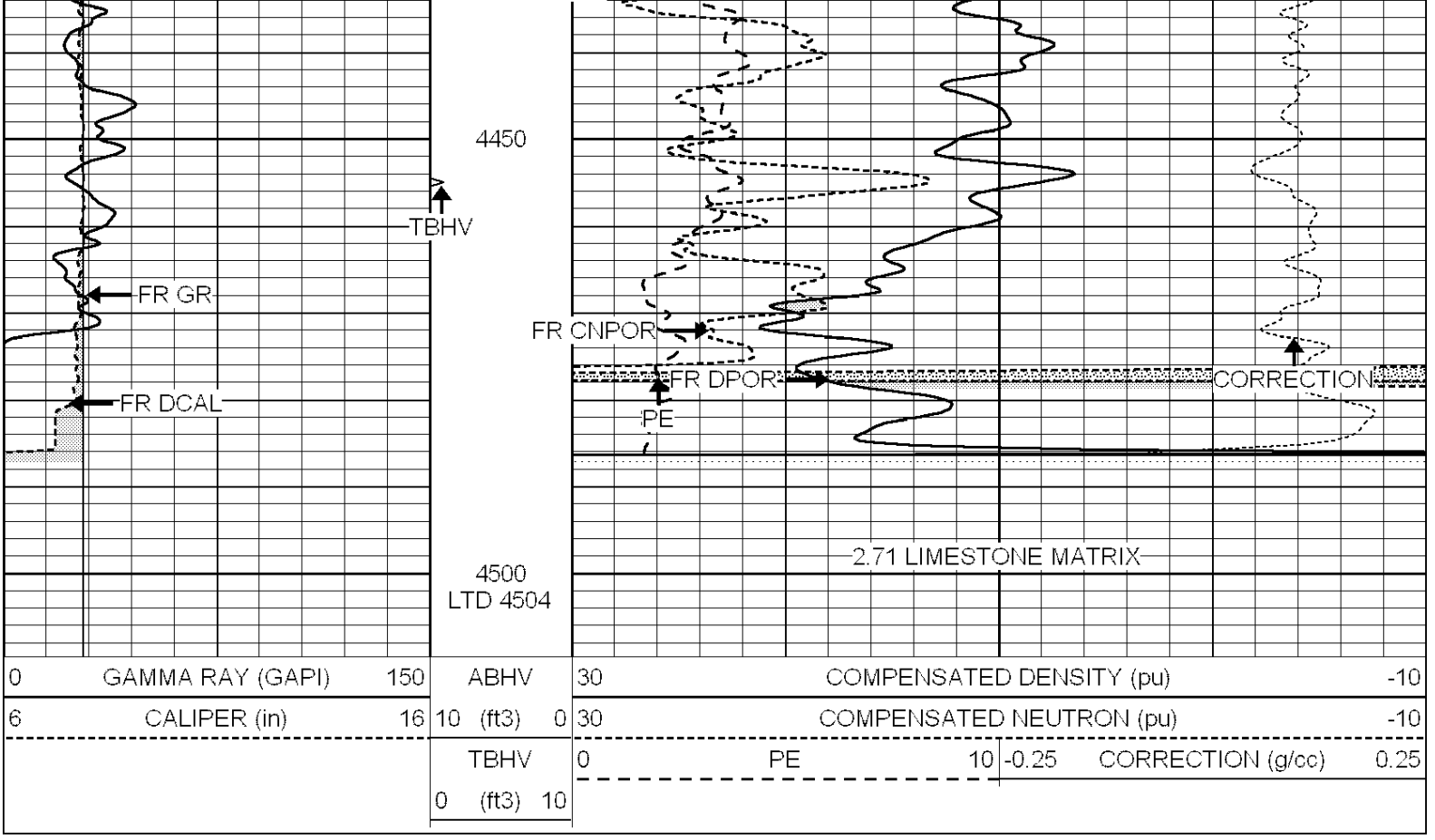
0 GAMMA RAY (GAPI) 150	ABHV	30 COMPENSATED DENSITY (pu) -10
6 CALIPER (in) 16	10 (ft3) 0	30 COMPENSATED NEUTRON (pu) -10
	TBHV	0 PE 10 -0.25 CORRECTION (g/cc) 0.25
	0 (ft3) 10	




3800
3850
3900
3950


4000
4050
4100
4150
4200

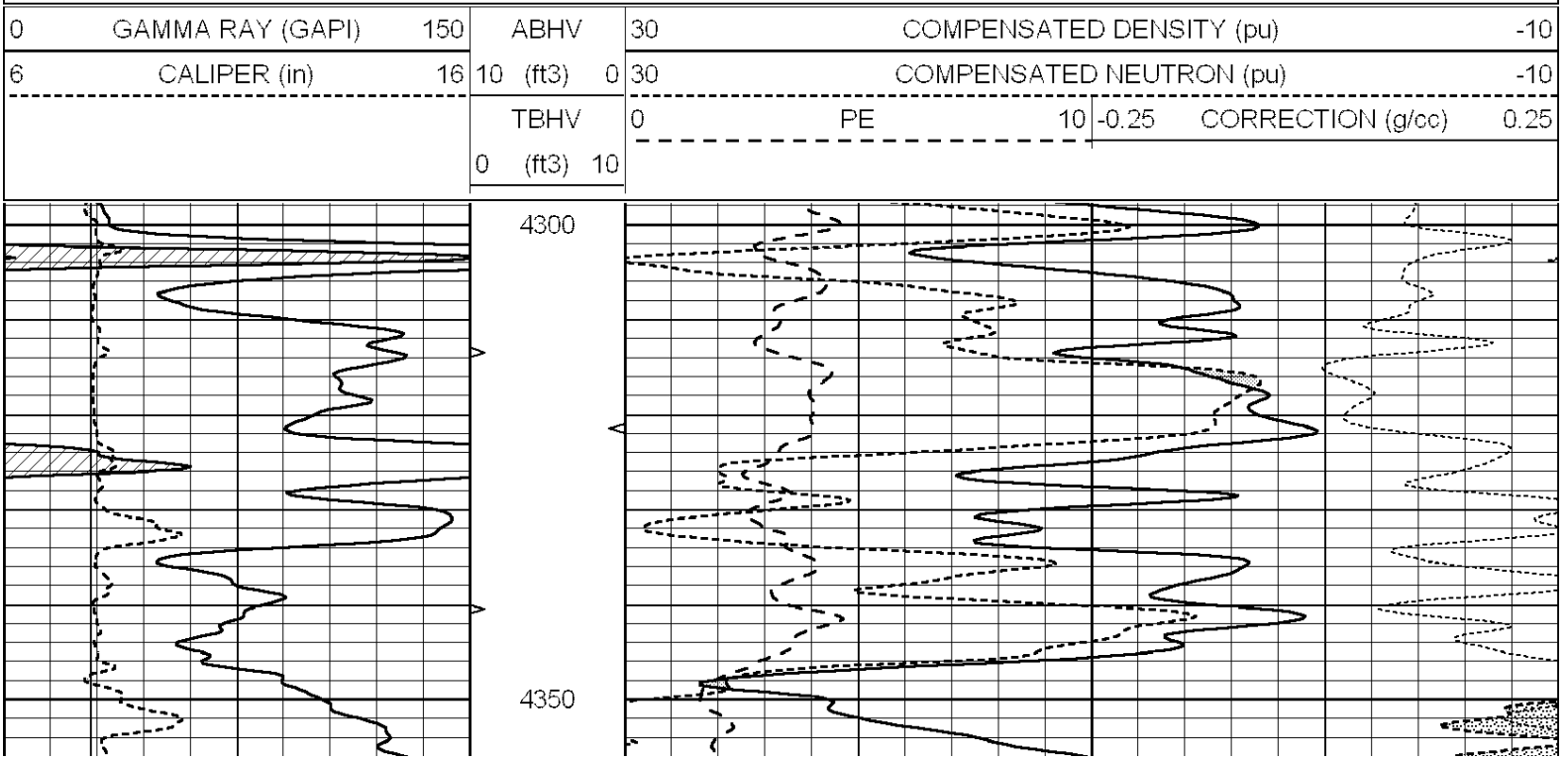

4250
4300
4350
4400
ABHV
5.5" CSG

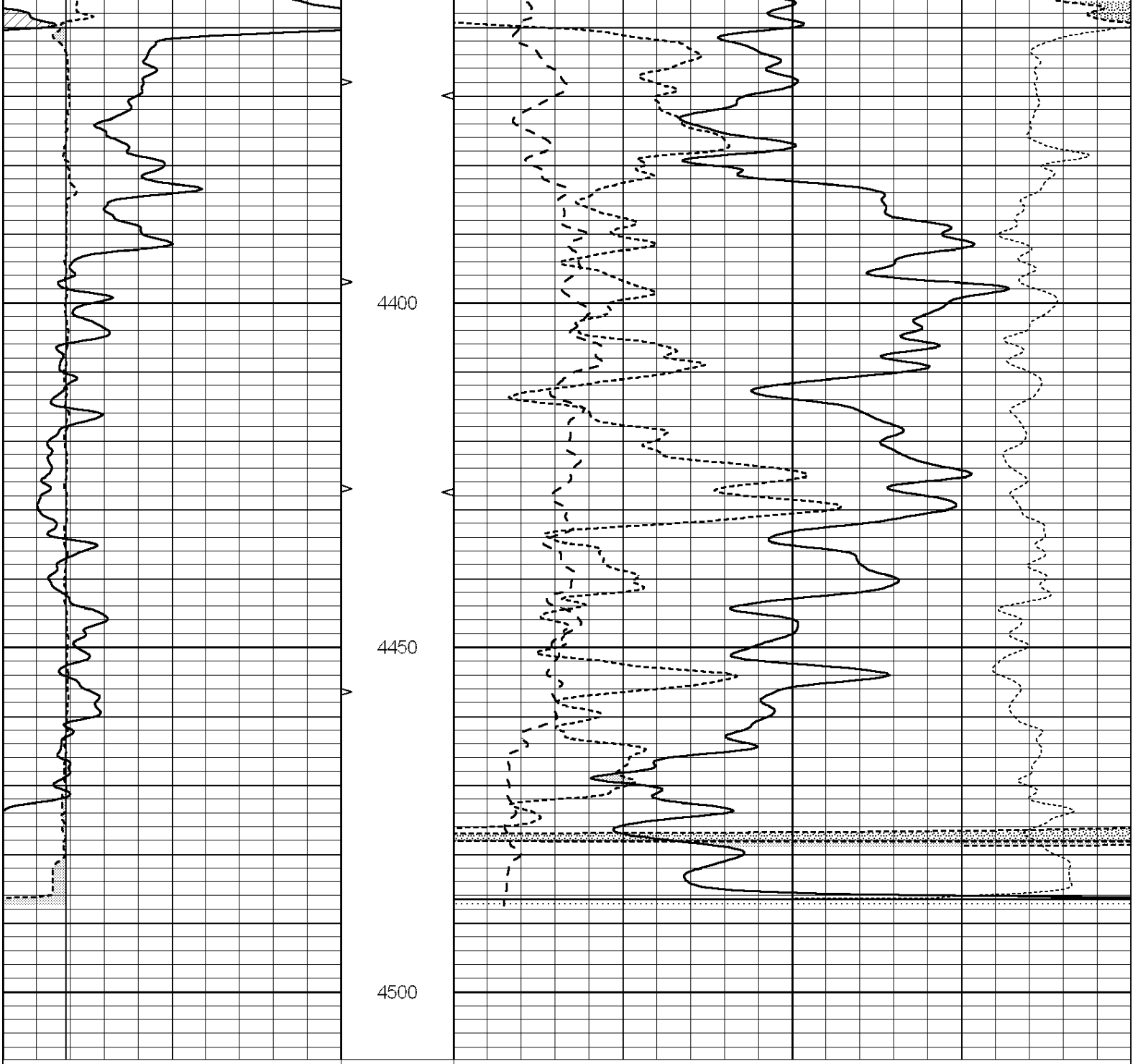


NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File: 010126pe.db
Dataset Pathname: pass2.1
Presentation Format: _ldt_neu
Dataset Creation: Sat Nov 10 20:19:51 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 010126pe.db
Dataset Pathname: pass3.1
Dataset Creation: Sat Nov 10 20:26:28 2012 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Fri Aug 01 06:33:19 2008
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings Air	Readings Loop		References Air	References Loop		Results m	Results b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
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 Zero	Readings Cal		References Zero	References Cal		Results m'	Results 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 Zero	Readings Cal		Targets Zero	Targets Cal		Results m'	Results 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		

Litho Density Calibration Report

Serial: 002 Model: PRB
Performed Thu May 24 10:48:35 2012

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	869.0	7503.7	2278.2	8031.6	cps
Window 2	814.2	6016.2	1916.9	6332.7	cps
Window 3	662.8	3301.5	1210.8	3422.7	cps
Window 4	200.3	202.6	201.6	200.2	cps
Long Space	0.0	5202.0	1102.6	5518.5	cps
Short Space	1.2	998.0	637.9	1006.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 43.9	Rib Slope	: 0.963	Density/Spine Ratio	: 0.545
Spine Angle	: 73.9	Spine Slope	: 3.466	Spine Intercept	: -15.4

Caliper

	Readings	Reference
Low Ref	3.7	8.0
High Ref	6.1	14.0
	Gain: 2.5	Offset: -2.3

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

Gamma Ray Calibration Report

Serial Number:	#8	
Tool Model:	OPEN	
Performed:	Mon Jun 13 16:56:43 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8371	GAPI/cps