



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company	RITCHIE EXPLORATION, INC.	Company	RITCHIE EXPLORATION, INC.	Location:	API # : 15-063-21783-0000	Other Services
Well	HESS 20D #1	Well	HESS 20D #1	1700' FSL & 2305' FWL		DIL
Field	WILDCAT	Field	WILDCAT			
County	GOVE	County	GOVE			
State	KANSAS	State	KANSAS			
Permanent Datum		GROUND LEVEL		Elevation		2878
Log Measured From		KELLY BUSHING 10' A.G.L.		Elevation		K.B. 2888
Drilling Measured From		KELLY BUSHING		Elevation		D.F. 2886
				Elevation		G.L. 2878

Date	7/3/09
Run Number	ONE
Depth Driller	4600
Depth Logger	4602
Bottom Logged Interval	4578
Top Log Interval	3700
Casing Driller	8 5/8"@216'
Casing Logger	214
Bit Size	7 7/8
Type Fluid In Hole	CHEMICAL MUD
Density / Viscosity	9.0/65
pH / Fluid Loss	9.0/6.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.750@93F
Rmf @ Meas. Temp	.563@93F
Rmc @ Meas. Temp	.900@93F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.576@121F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	8:30 P.M.
Maximum Recorded Temperature	121F
Equipment Number	0836
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	STEVE CARL

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
OAKLEY, KS. 11S. ON HWY 83 TO GOVE RD., 3E., 4S., 1/2E., N. INTO

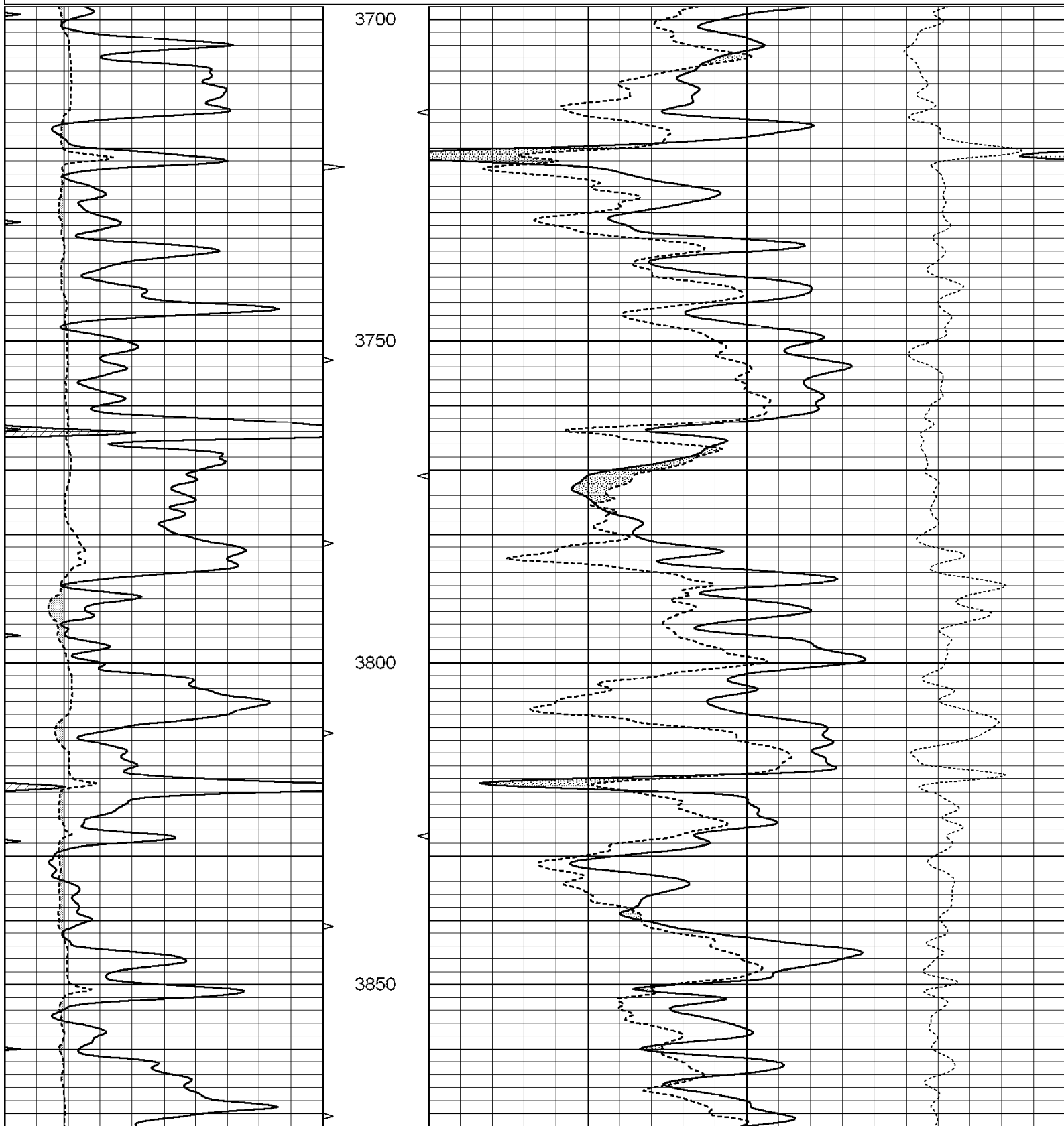


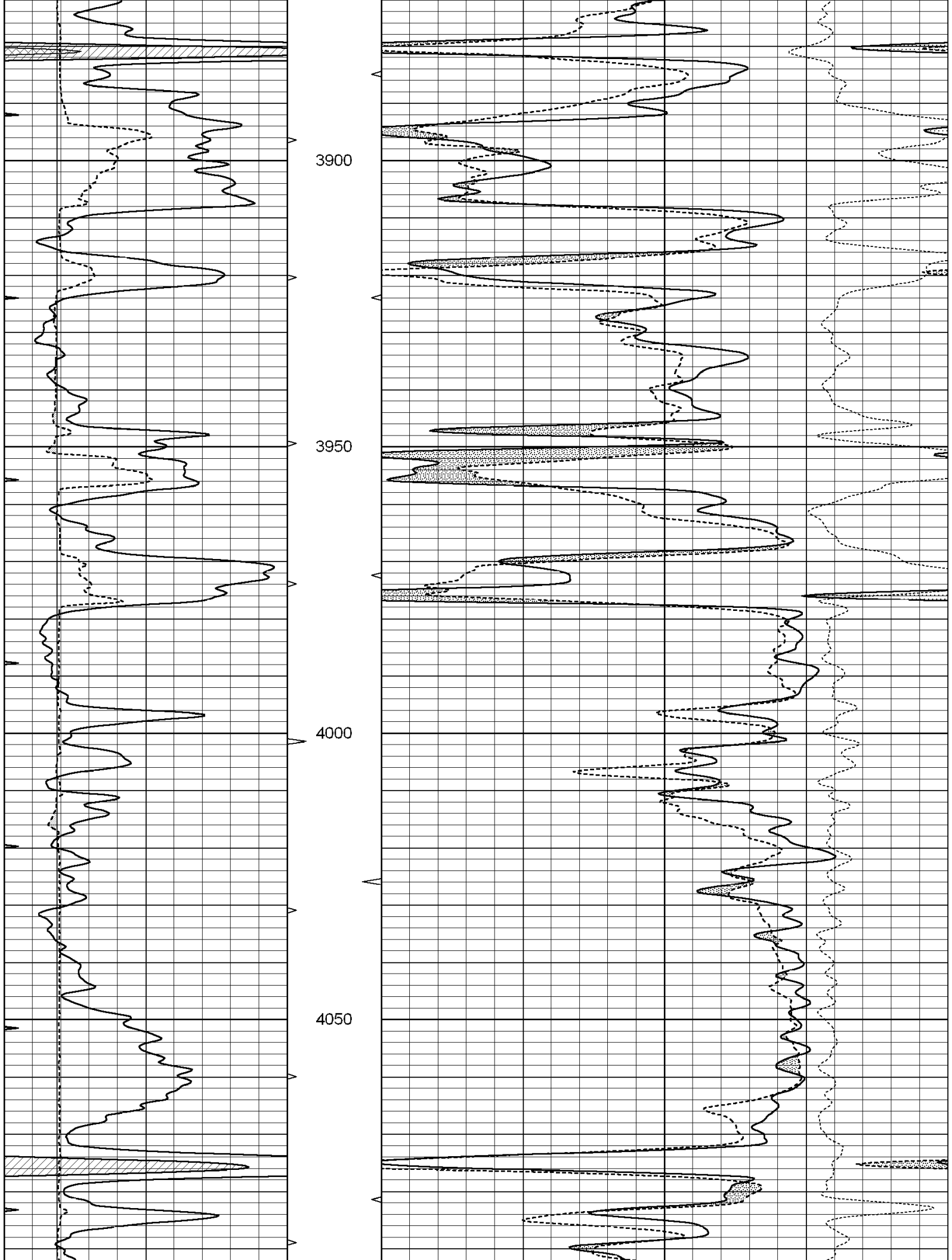
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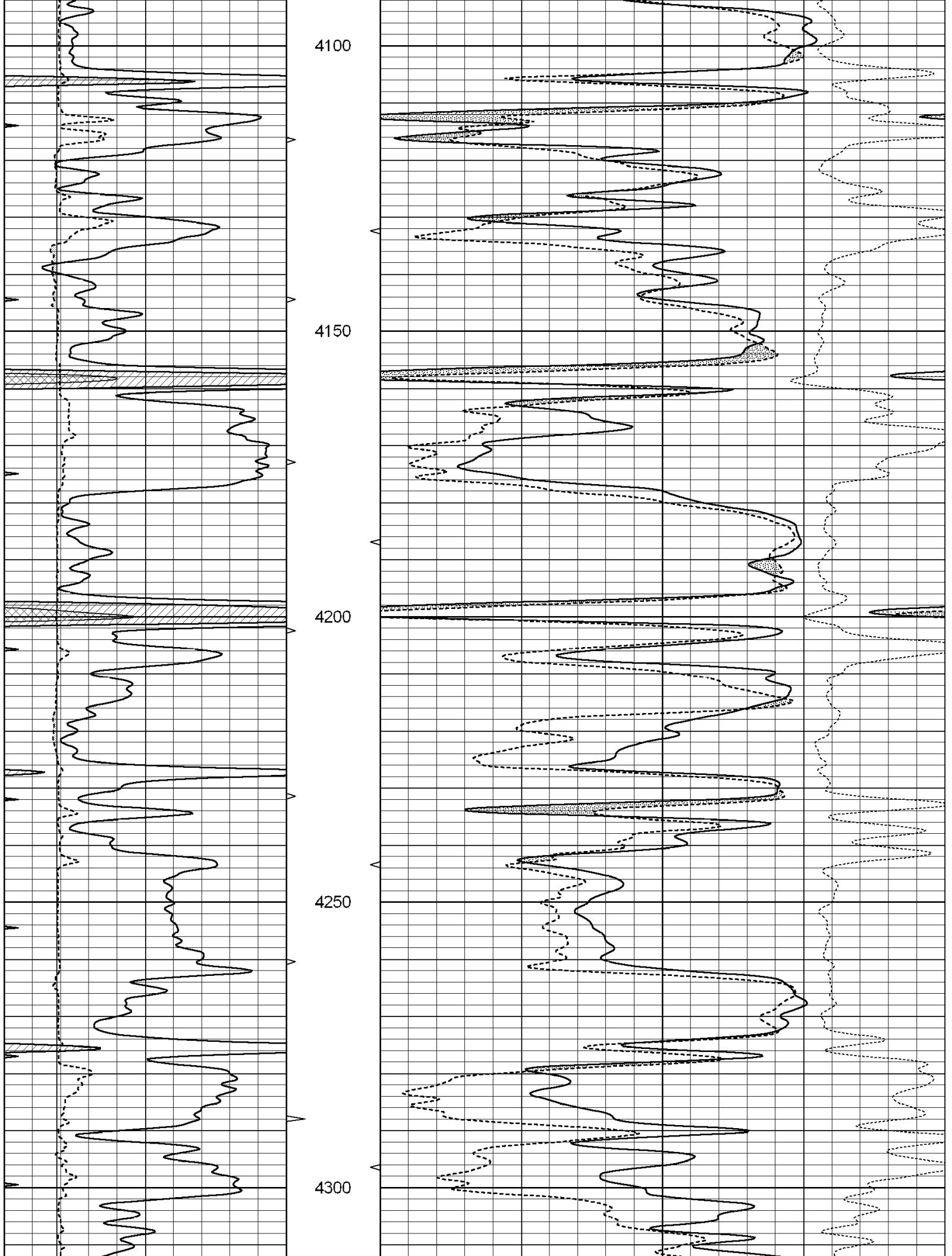
MAIN SECTION

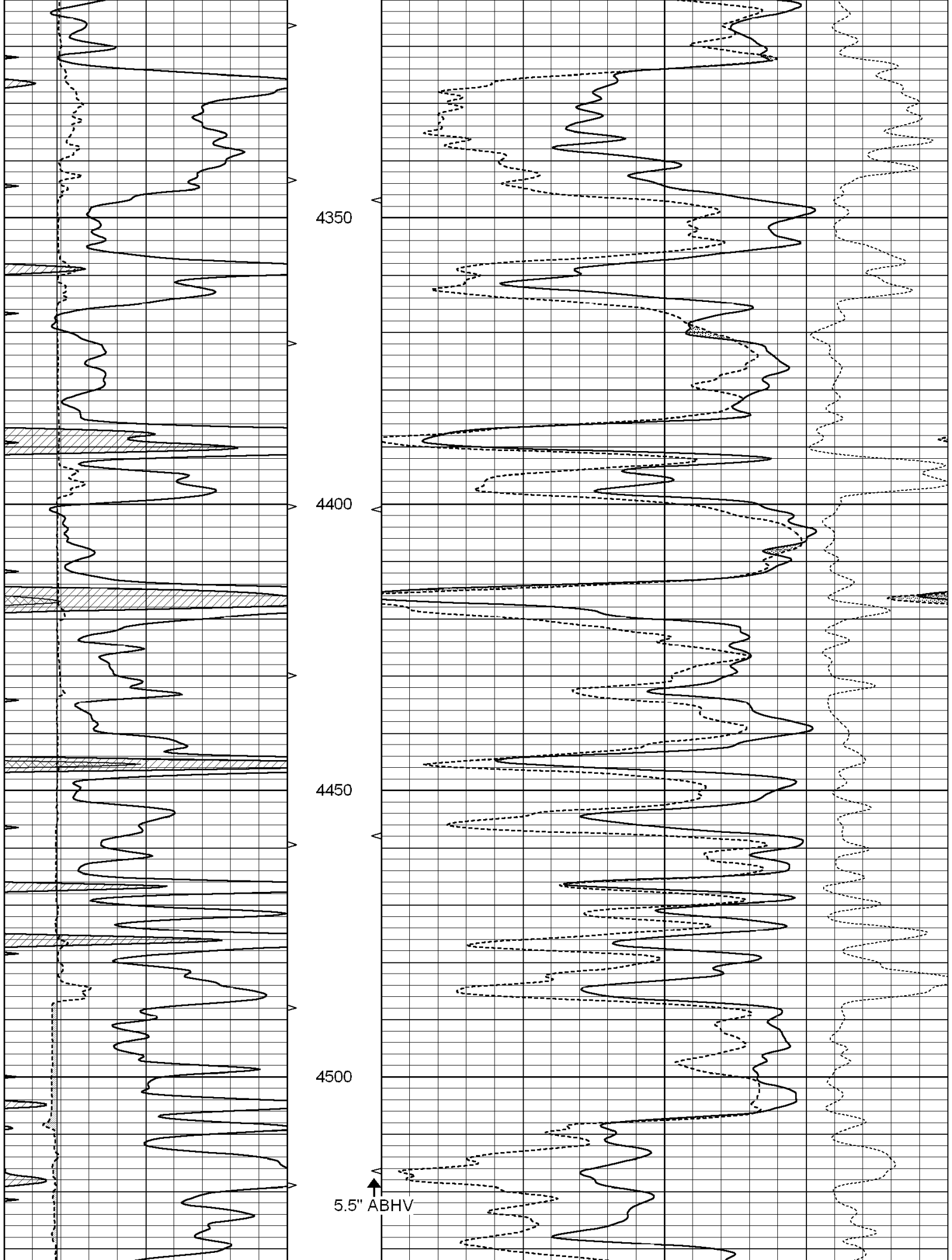
Database File: 003533ddn.db
 Dataset Pathname: pass3.3
 Presentation Format: den_neu
 Dataset Creation: Fri Jul 03 21:17:04 2009 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240

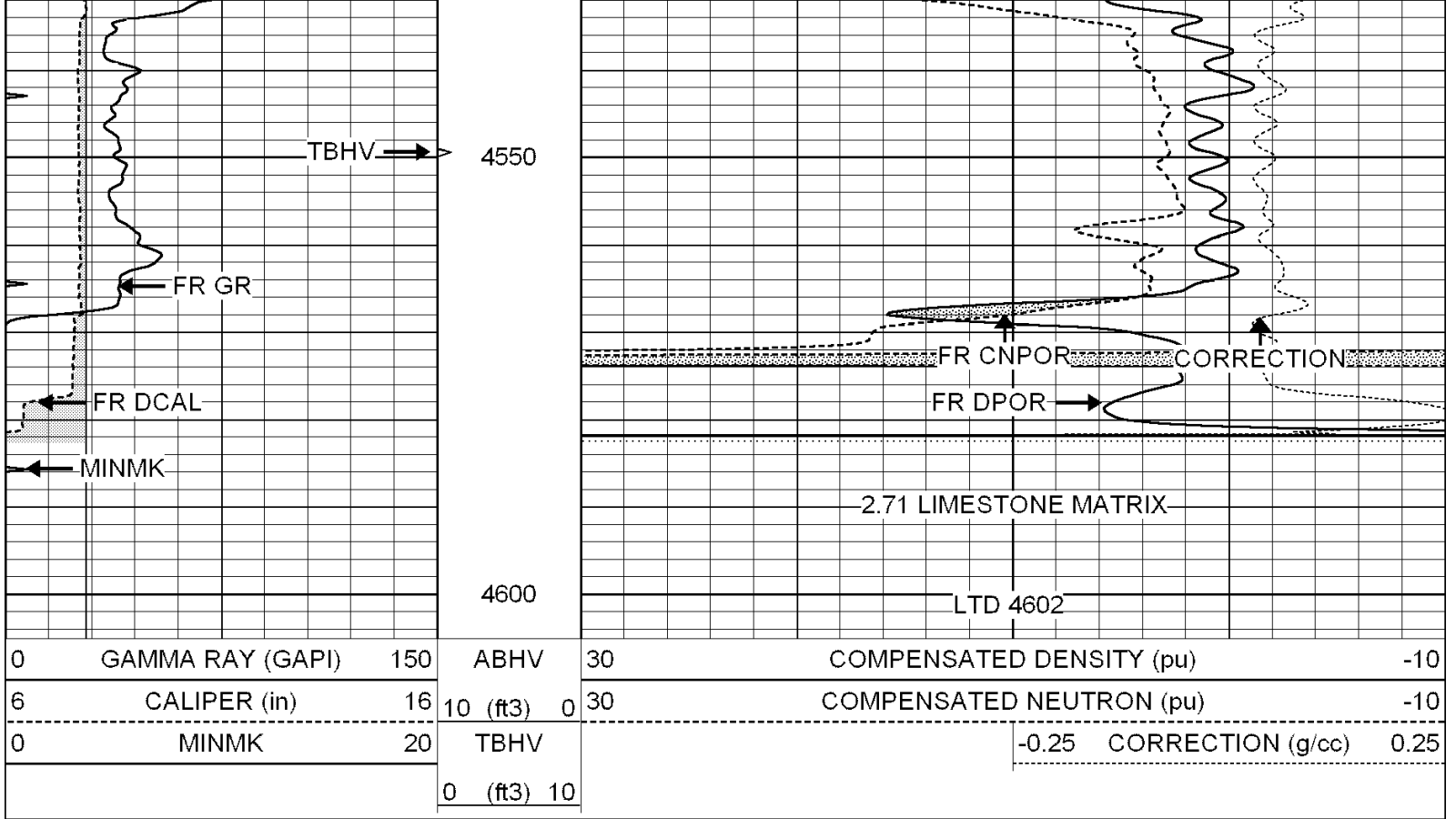
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		









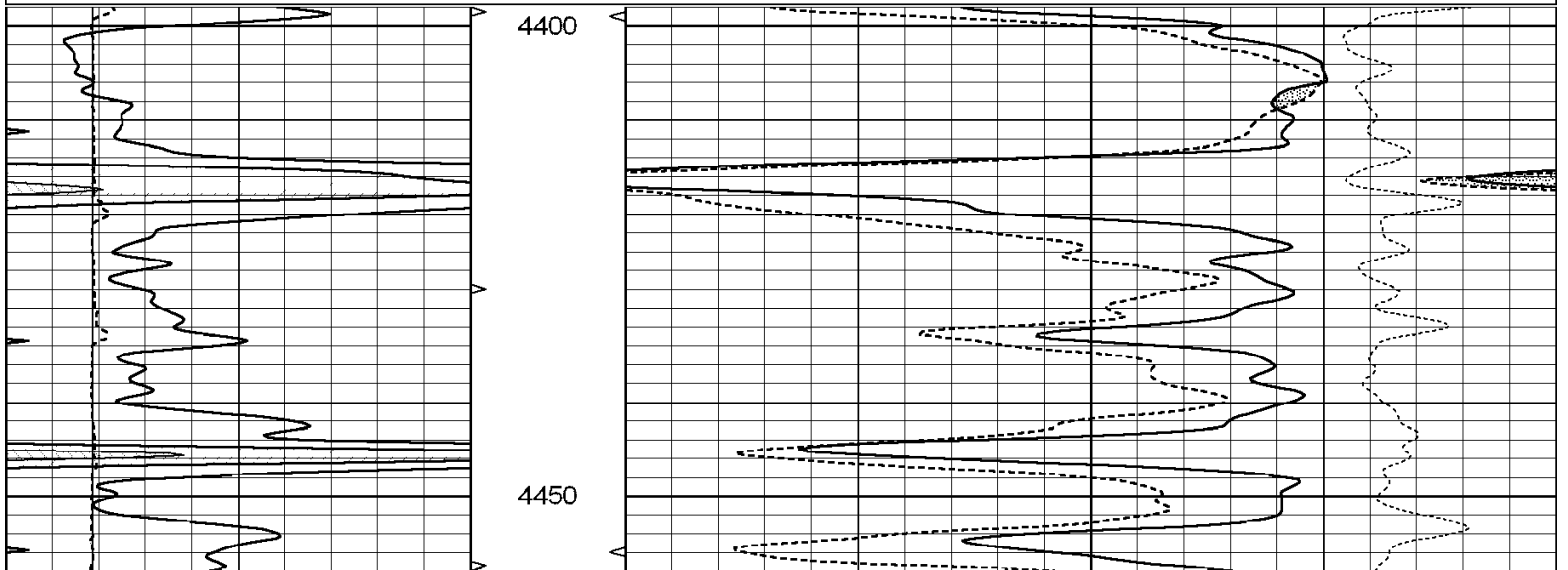


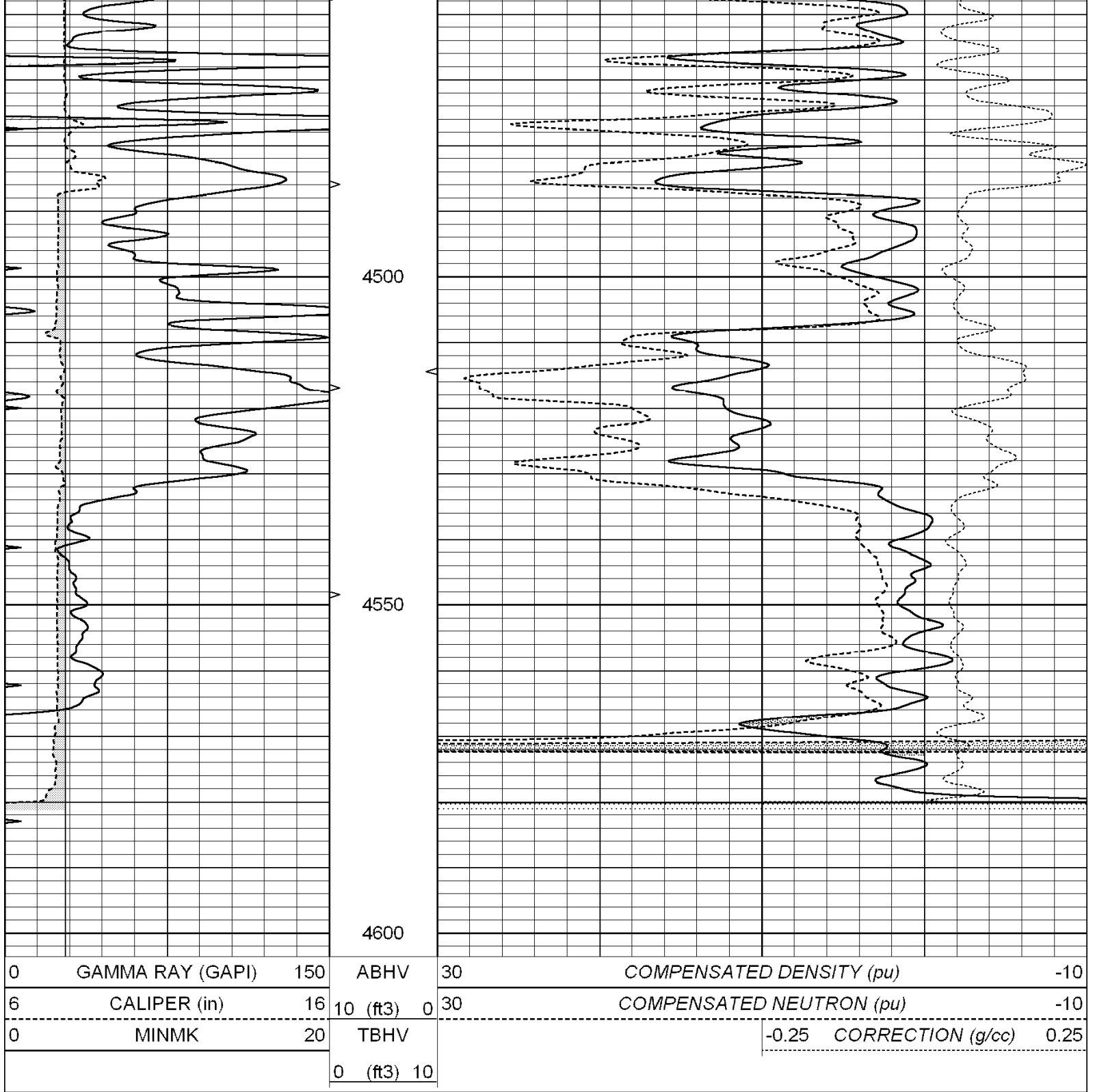
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REPEAT SECTION

Database File: 003533ddn.db
 Dataset Pathname: pass2.5
 Presentation Format: den_neu
 Dataset Creation: Fri Jul 03 21:01:55 2009 by Calc Open-Cased 060407
 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: 003533ddn.db
 Dataset Pathname: pass3.3
 Dataset Creation: Fri Jul 03 21:17:04 2009 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL2-GEAR
 Performed: Thu Jul 02 03:59:19 2009

Readings

References

Results

Loop:	Air	Loop	Air	Loop	m	b
Deep	0.002	0.667	0.000	400.000	mmho m	650.000 6.000

Deep	0.002	0.007	V	0.000	400.000	mmho-m	650.000	0.000
Medium	-0.003	0.739	V	0.000	462.500	mmho-m	720.000	-15.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.658	V	0.000	400.000	mmho-m	609.010	-0.700
Medium	0.015	0.761	V	0.000	462.500	mmho-m	620.392	-9.326

Litho Density Calibration Report
Serial: 004N Model: PRB
Performed Wed Feb 18 14:22:08 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1561.2	10815.1	3655.8	12418.8	cps
Window 2	1425.2	9176.3	3183.9	10387.8	cps
Window 3	1092.2	4291.0	1759.2	4746.8	cps
Window 4	339.5	347.6	341.8	348.3	cps
Long Space	0.0	7751.0	1758.7	8962.6	cps
Short Space	1.3	1175.2	770.9	1319.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio	: 0.571
Spine Angle	: 74.1	Spine Slope	: 3.518	Spine Intercept	: -15.9

Caliper

	Readings	Reference	
Low Ref	2.0	6.6	
High Ref	4.7	16.0	
Gain: 3.5			Offset: -0.3

Compensated Neutron Calibration Report

Serial Number: NEU_4I
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	996.00 cps	1000.00 cps	1.0000
Long Space	977.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number:	GR4
Tool Model:	OPEN
Performed:	Fri Jul 03 19:06:26 2009
Calibrator Value:	200.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	189.0 cps
Sensitivity:	1.0500 GAPI/cps