SUPERIOR WELL SERVICES

SUPERIOR
Hays, Kansas

COMPENSATED DENSITY / NEUTRON LOG

Company MAI OIL OPERATIONS, INC.
Well STRECKER #1
Field GALATIA EAST
County BARTON State KANSAS

Location: API # : 15-009-25400-0000
590' FSL & 640' FEL
APPROX NW - SE - SE - SE
SEC 12 TWP 16S RGE 15W

Other Services
DIL/MEL

Permanent Datum GROUND LEVEL Elevation 1932
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1940
D.F. 1938
G.L. 1932

Company MAI OIL OPERATIONS, INC.
Well STRECKER #1
Field GALATIA EAST
County BARTON
State KANSAS

Date	3/21/10		
Run Number	ONE		
Depth Driller	3480		
Depth Logger	3480		
Bottom Logged Interval	3456		
Top Log Interval	2800		
Casing Driller	8 5/8"@448'		
Casing Logger	450		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 10,000PPM	
Density / Viscosity	9.3/53		
pH / Fluid Loss	9.5/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.400@72F		
Rmf @ Meas. Temp	.300@72F		
Rmc @ Meas. Temp	.480@72F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.259@111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	5:00 P.M.		
Maximum Recorded Temperature	111F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KITT NOAH	ALLEN BANGERT	

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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

RUSSELL, KS. & I-70, S. ON HWY 281 TO RUSSELL / BARTON COUNTY LINE., 4W., 1 3/4S., W. INTO

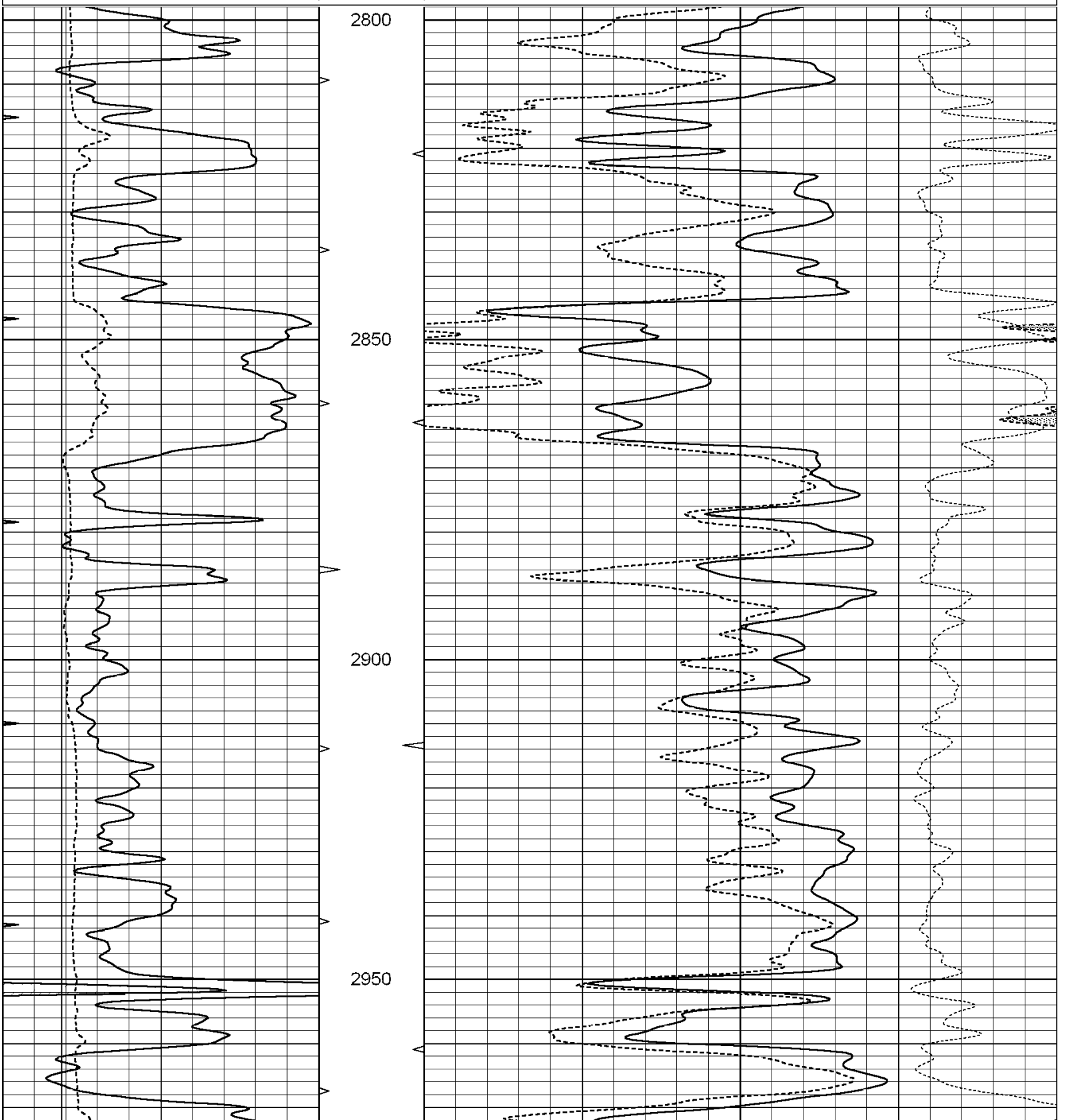
MAIN SECTION

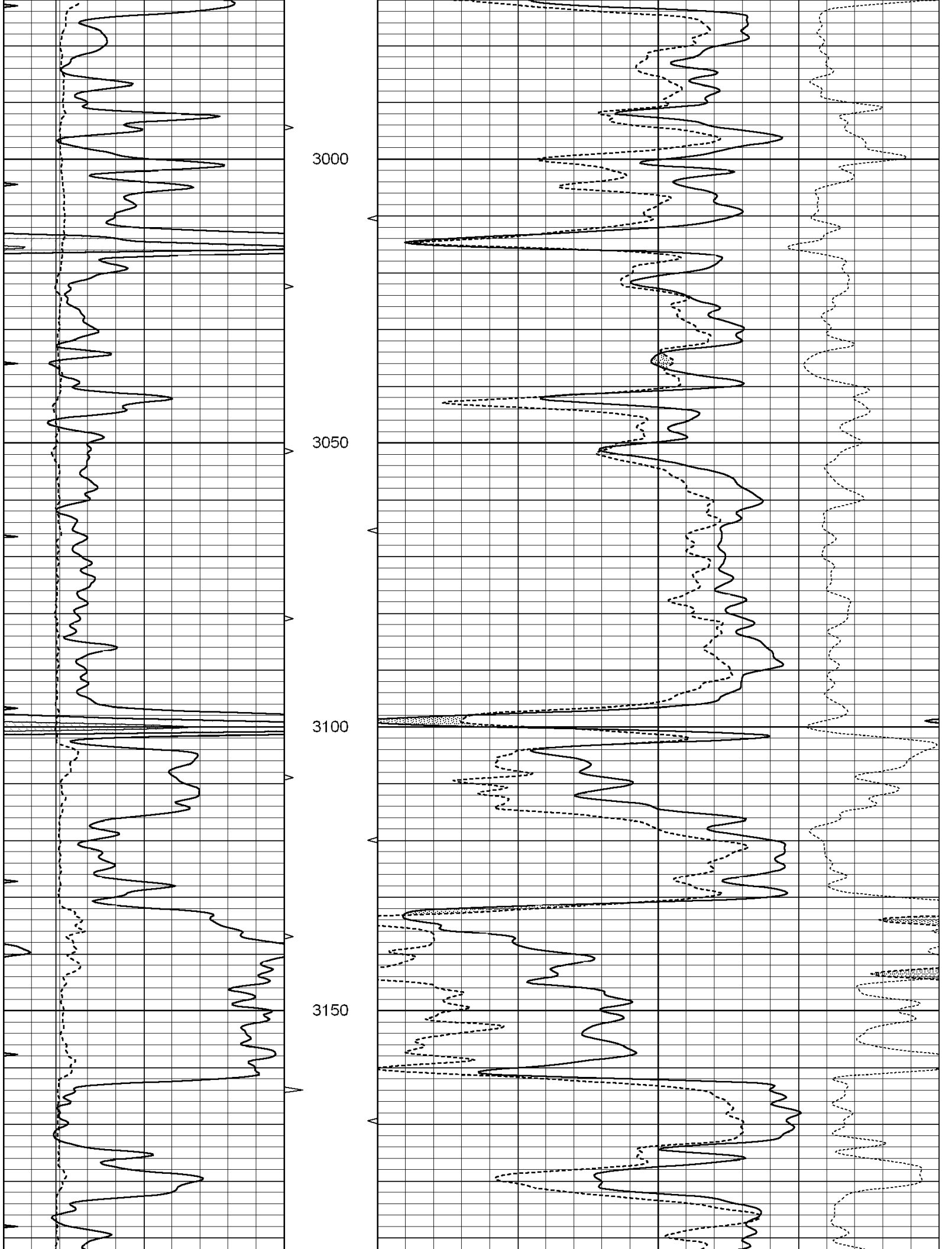
SUPERIOR WELL SERVICES
SUPERIOR
Hays, Kansas

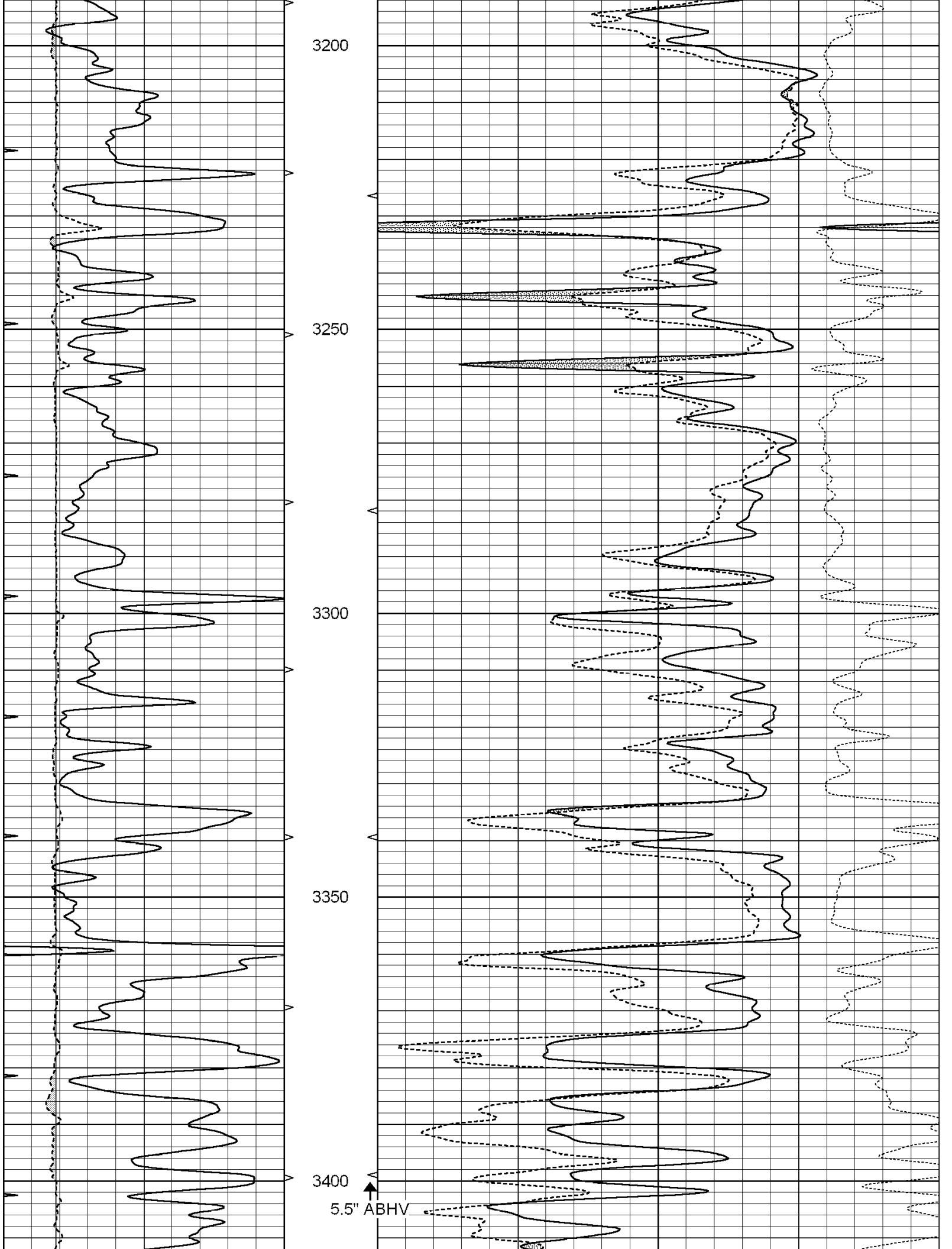
Kansas

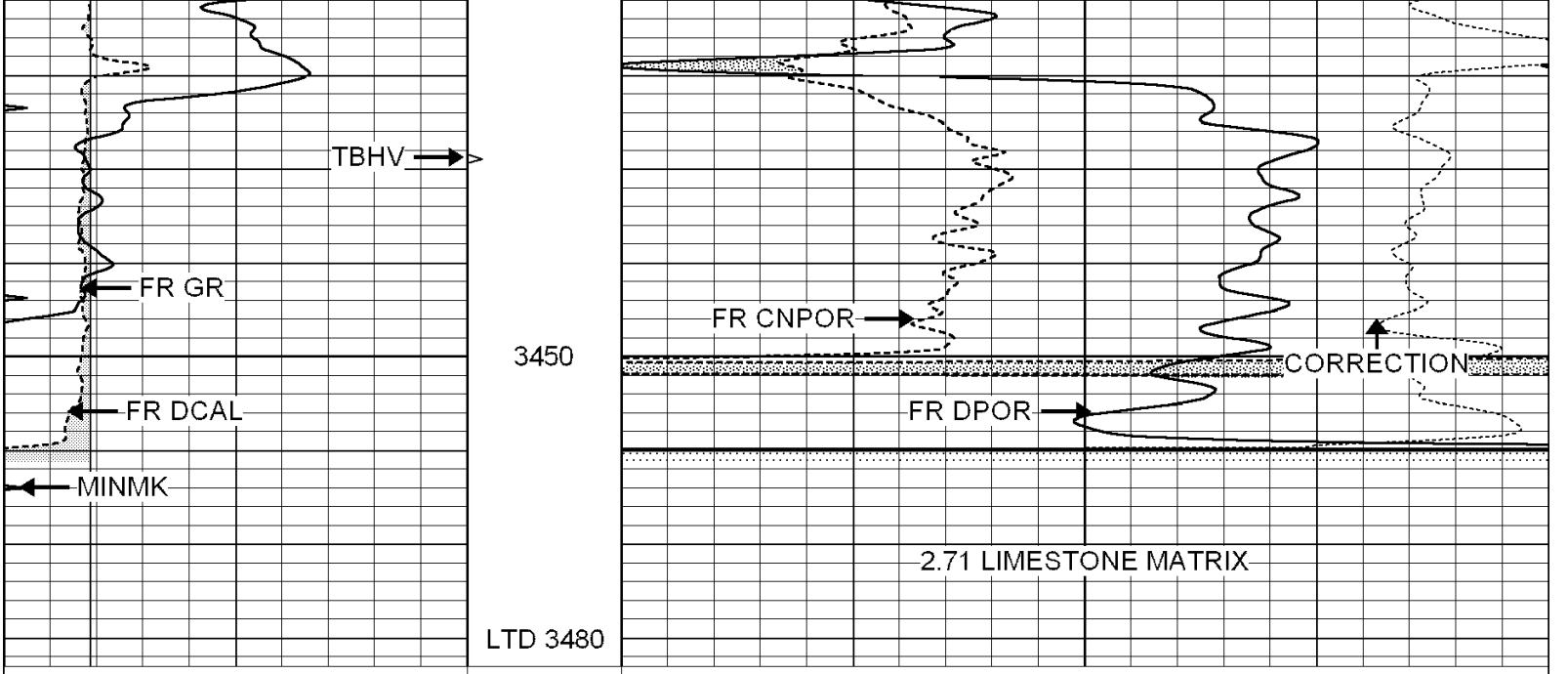
Database File: 004835ddn.db
Dataset Pathname: pass3.4
Presentation Format: den_neu
Dataset Creation: Sun Mar 21 17:39:44 2010 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:240

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		




3000
3050
3100
3150


3200
3250
3300
3350
3400
5.5" ABHV



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				

SUPERIOR WELL SERVICES

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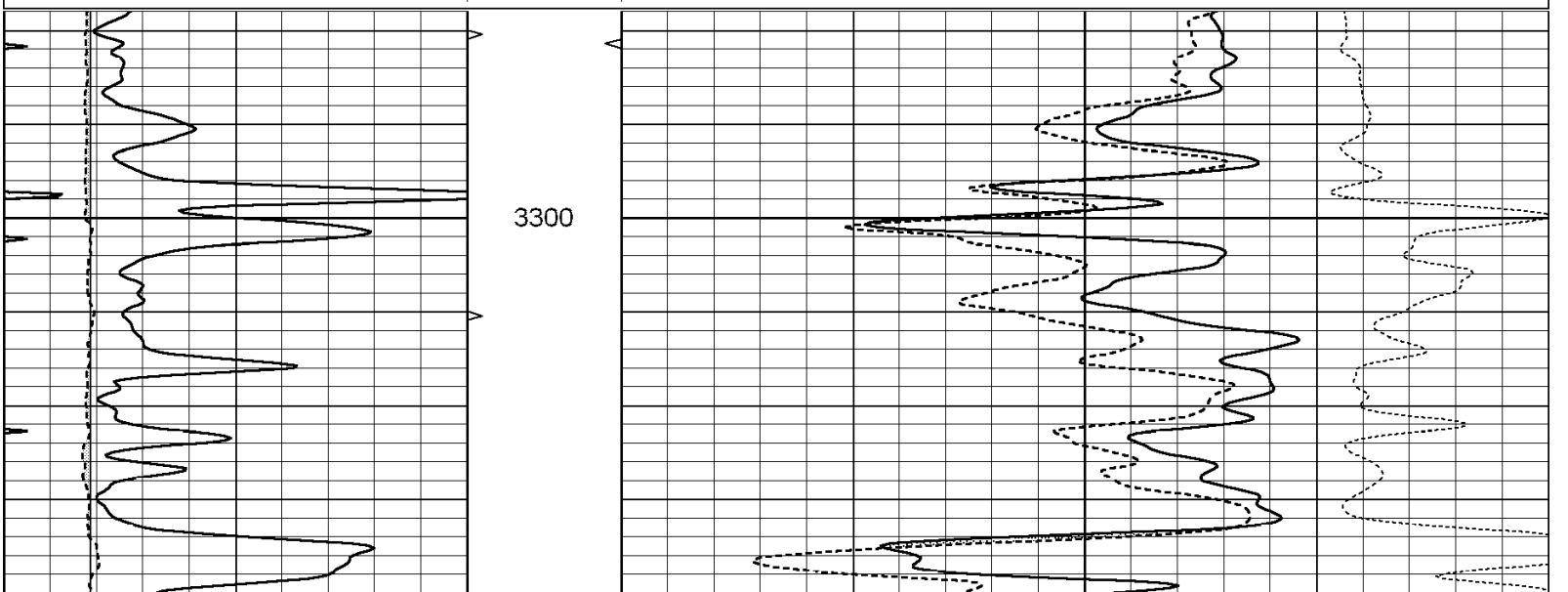
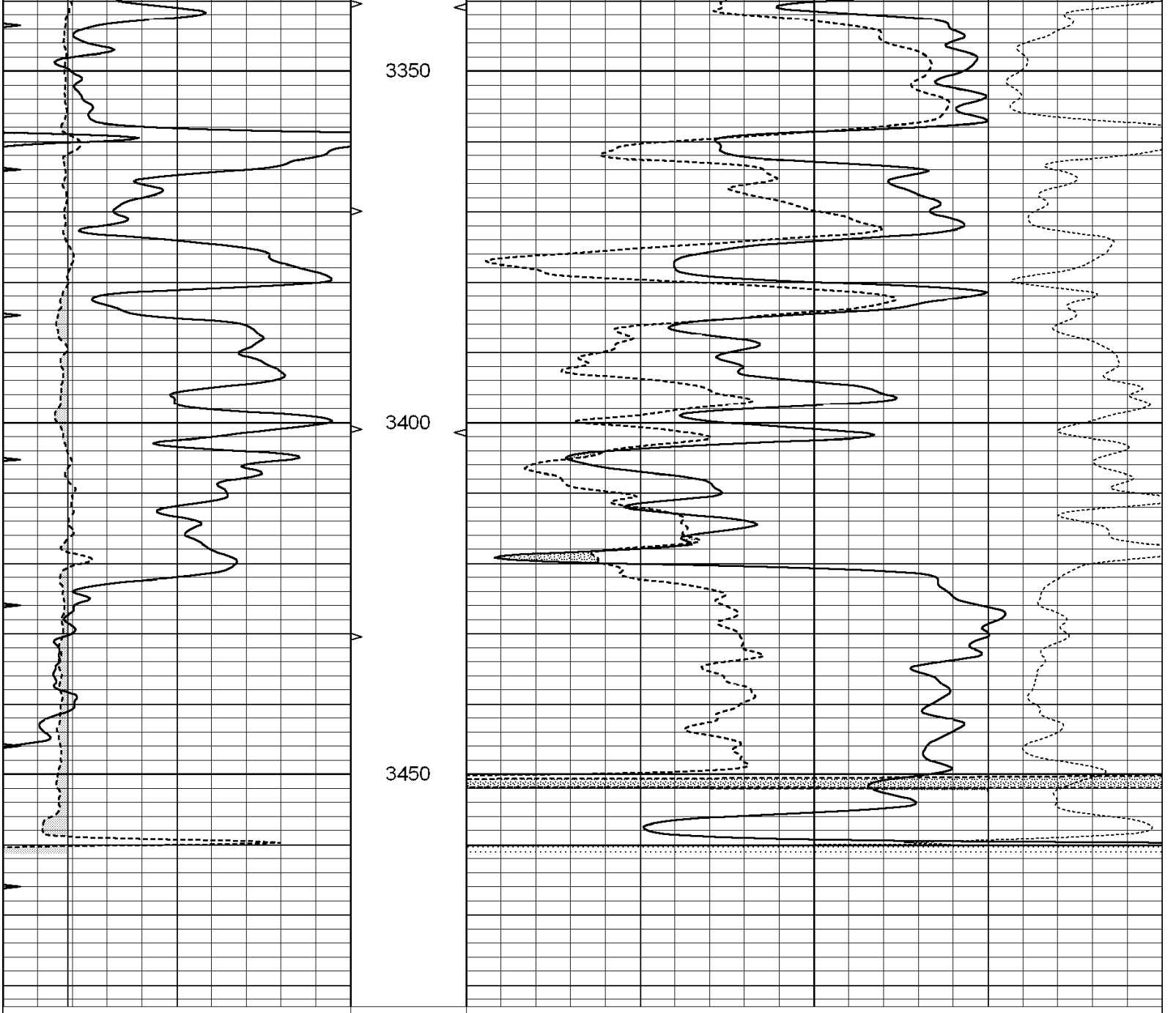
REPEAT SECTION

Database File: 004835ddn.db
Dataset Pathname: pass2.6
Presentation Format: den_neu
Dataset Creation: Sun Mar 21 17:44:02 2010 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				





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			

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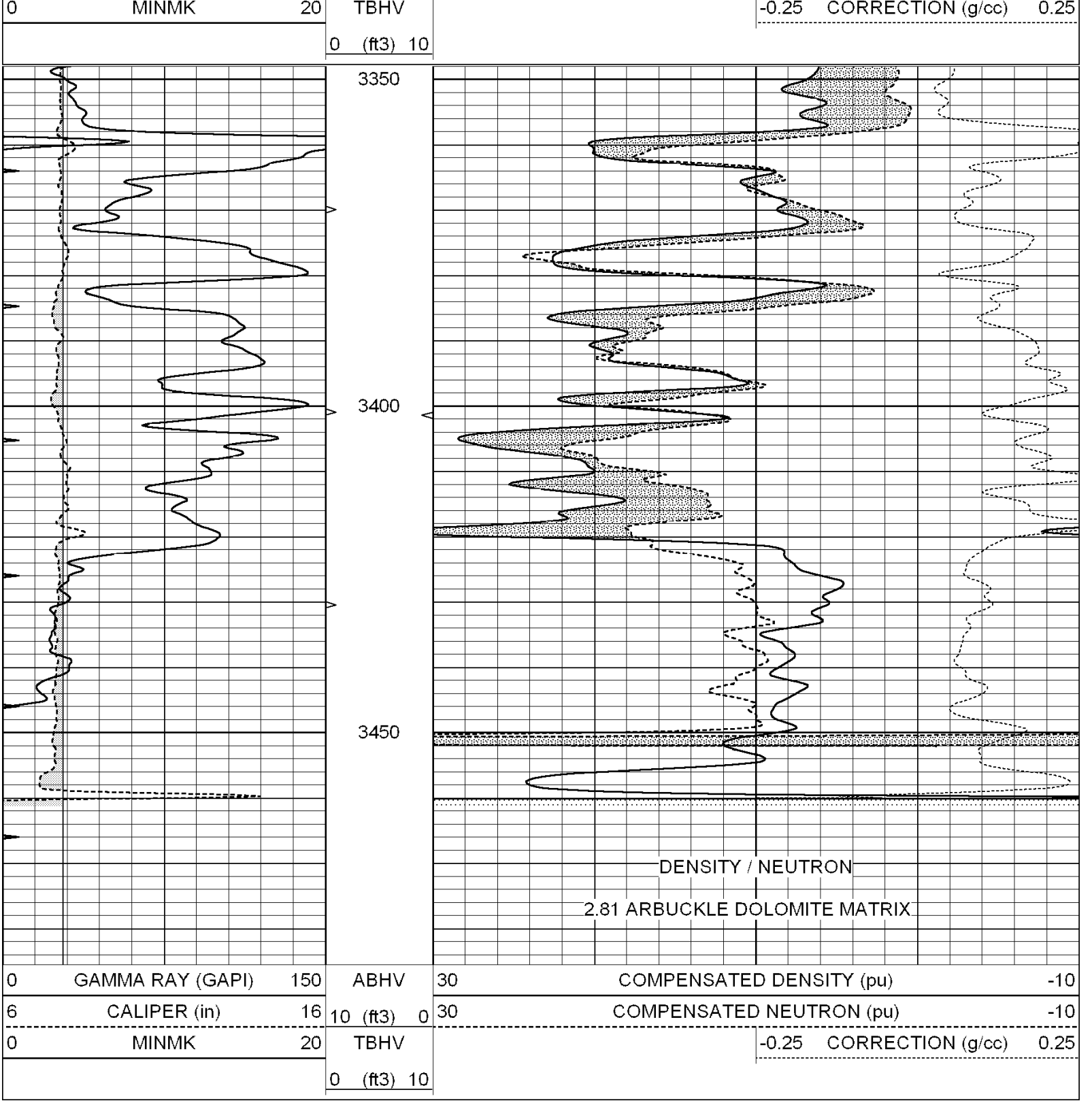
DOLOMITE MATRIX

Database File:	004835ddn.db
Dataset Pathname:	pass2.8
Presentation Format:	den_neu
Dataset Creation:	Sun Mar 21 17:56:44 2010
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



Calibration Report

Database File: 004835ddn.db
Dataset Pathname: pass3.4
Dataset Creation: Sun Mar 21 17:39:44 2010 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
Performed: Tue Mar 09 11:47:51 2010

	Readings		References		Results	
Loop:	Air	Loop	Air	Loop	m	b

Deep	0.001	0.644	V	0.000	400.000	mmho-m	660.000	-5.000
Medium	0.020	0.738	V	0.000	462.500	mmho-m	740.000	-23.000

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000

Litho Density Calibration Report

Serial: 004N Model: PRB
Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.5	Rib Slope	: 1.017	Density/Spine Ratio	: 0.573
Spine Angle	: 75.5	Spine Slope	: 3.865	Spine Intercept	: -19.7

Caliper

	Readings	Reference
Low Ref	0.9	6.9
High Ref	2.9	14.0

Gain: 3.5 Offset: 3.8

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: Sun Mar 21 17:06:50 2010

Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	0.7000	GAPI/cps