



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY / NEUTRON LOG

Company MAI OIL OPERATION, INC. Well NUSS-RADKE #2 Field NUSS NORTHEAST County RUSSELL State KANSAS		Company MAI OIL OPERATIONS, INC. Well NUSS-RADKE #2 Field NUSS NORTHEAST County RUSSELL State KANSAS	
Location: API # : 15-167-23869-00-00 1150' FSL & 150' FWL NW - NW - SW - SW SEC 19 TWP 14S RGE 18W		Other Services DIL/MEL Elevation K.B. 1885 D.F. 1883 G.L. 1877	
Permanent Datum GROUND LEVEL Log Measured From KELLY BUSHING 8' A.G.L. Drilling Measured From KELLY BUSHING			
Date	6/10/13		
Run Number	ONE		
Depth Driller	3410		
Depth Logger	3409		
Bottom Logged Interval	3385		
Top Log Interval	2750		
Casing Driller	8 5/8" @ 478'		
Casing Logger	478		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,800 PPM	
Density / Viscosity	9.2/55		
pH / Fluid Loss	11.0/8.0		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	.900 @ 80F		
Rinf @ Meas. Temp	0.675 @ 80F		
Rinc @ Meas. Temp	1.08 @ 80F		
Source of Rinf / Rinc	MEASUREMENT		
Rin @ BHT	.648 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	111F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	WYATT URBAN		

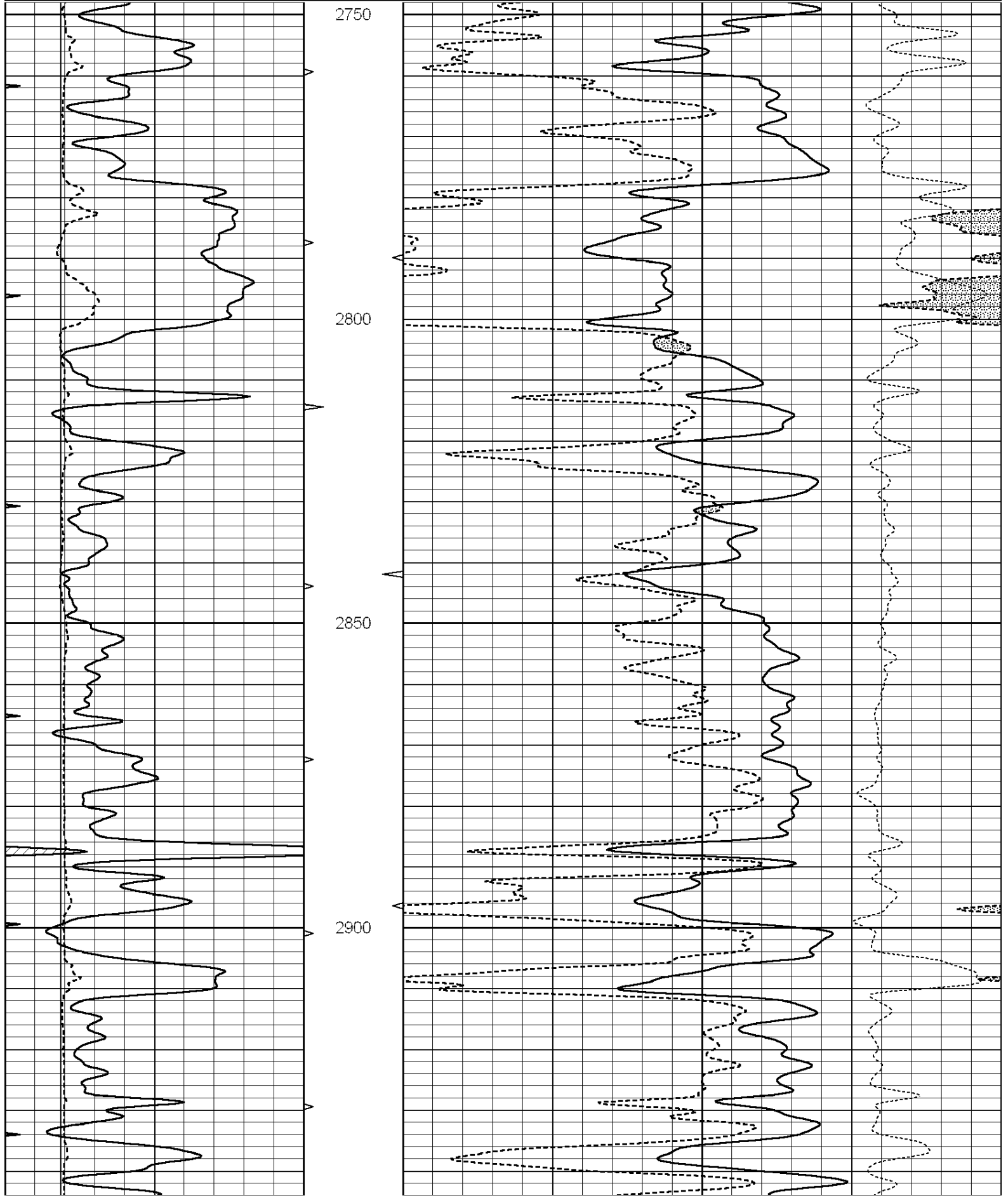
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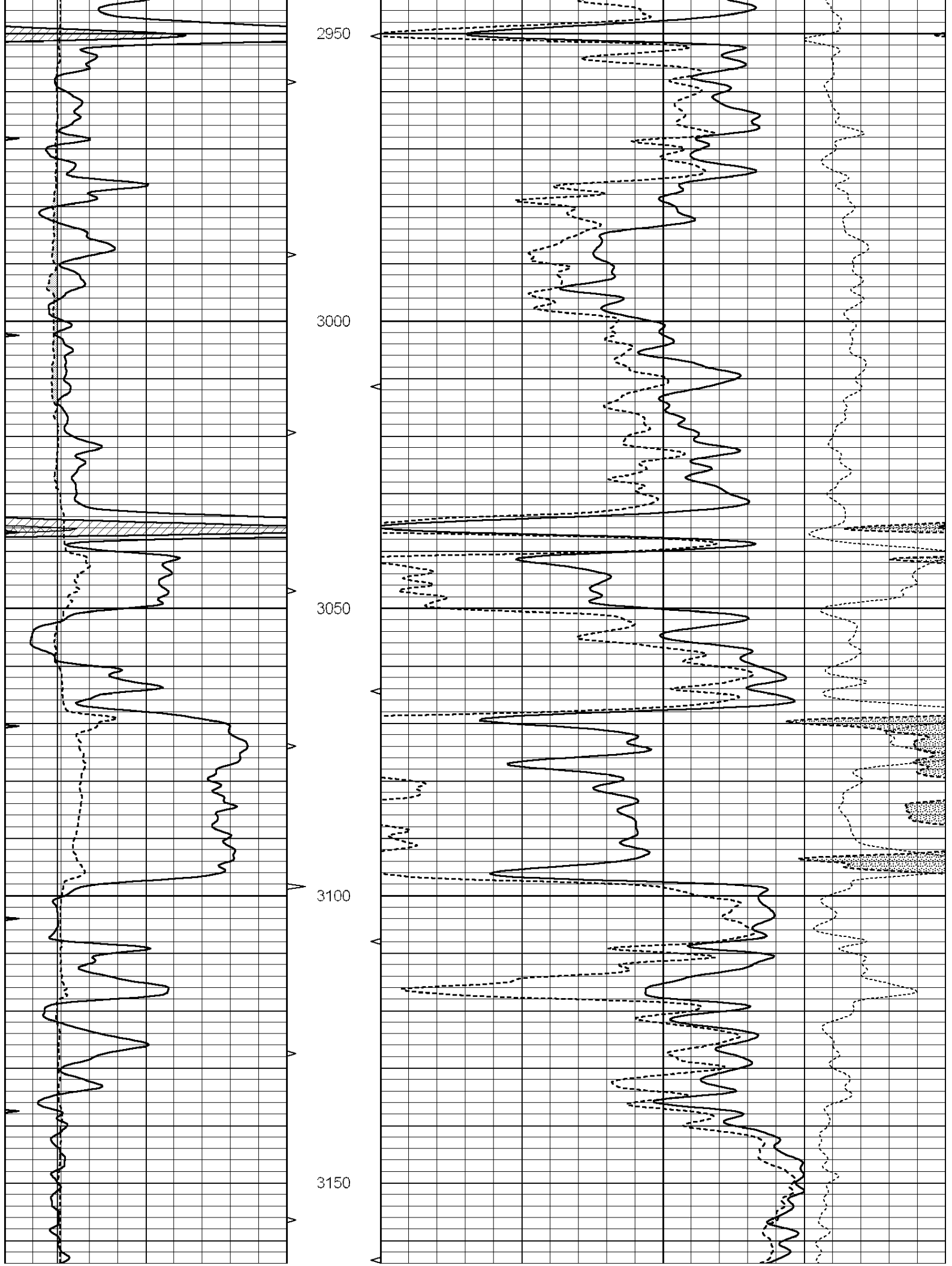
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

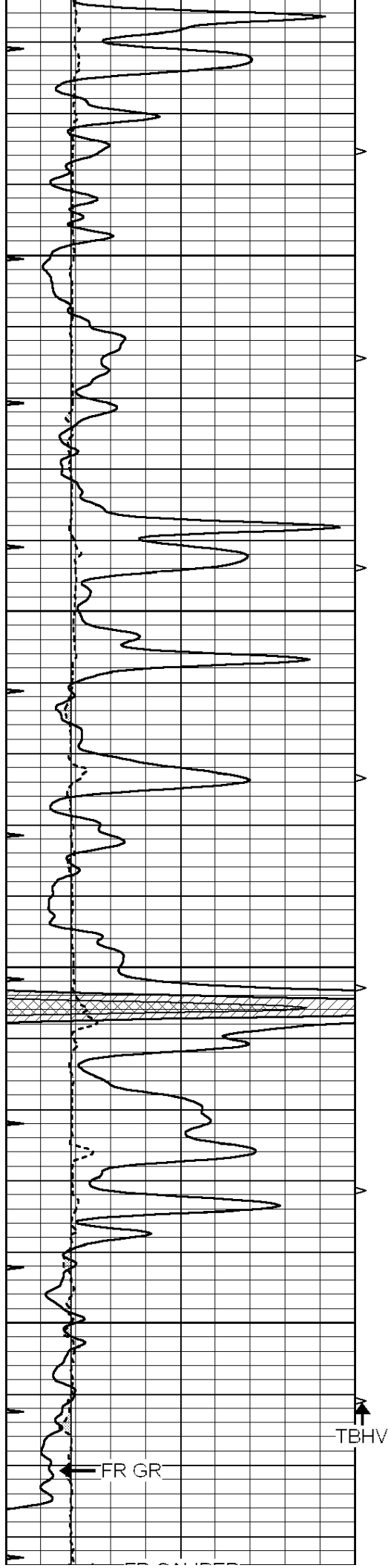
Comments

THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 RUSSELL, KS. - SOUTH ON 281 TO RADKE SIGN WEST 2 MILES SOUTH 1/2 MILE EAST INTO

Charted by:		Depth in Feet scaled 1:2.15			
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		







3200

3250

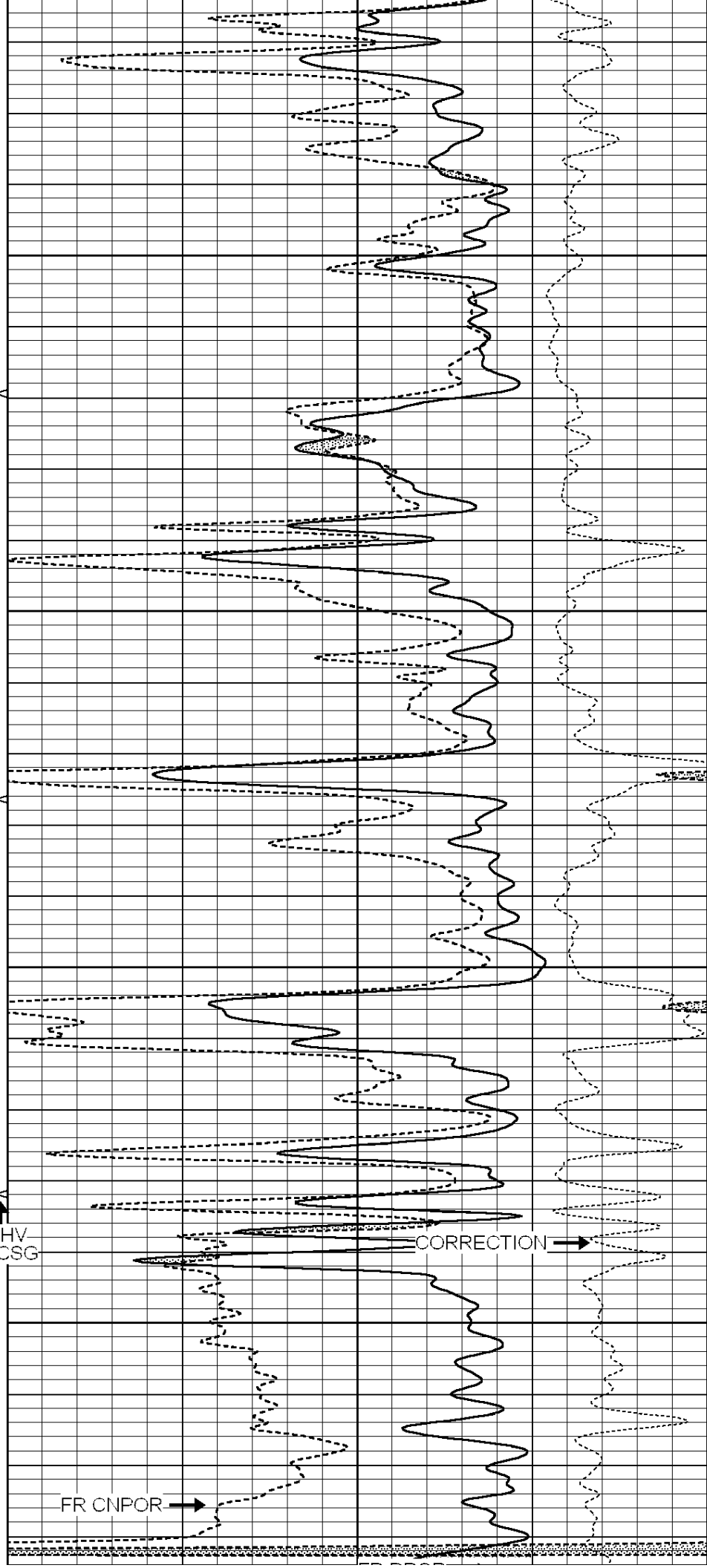
3300

3350

ABHV
5.5" CSG

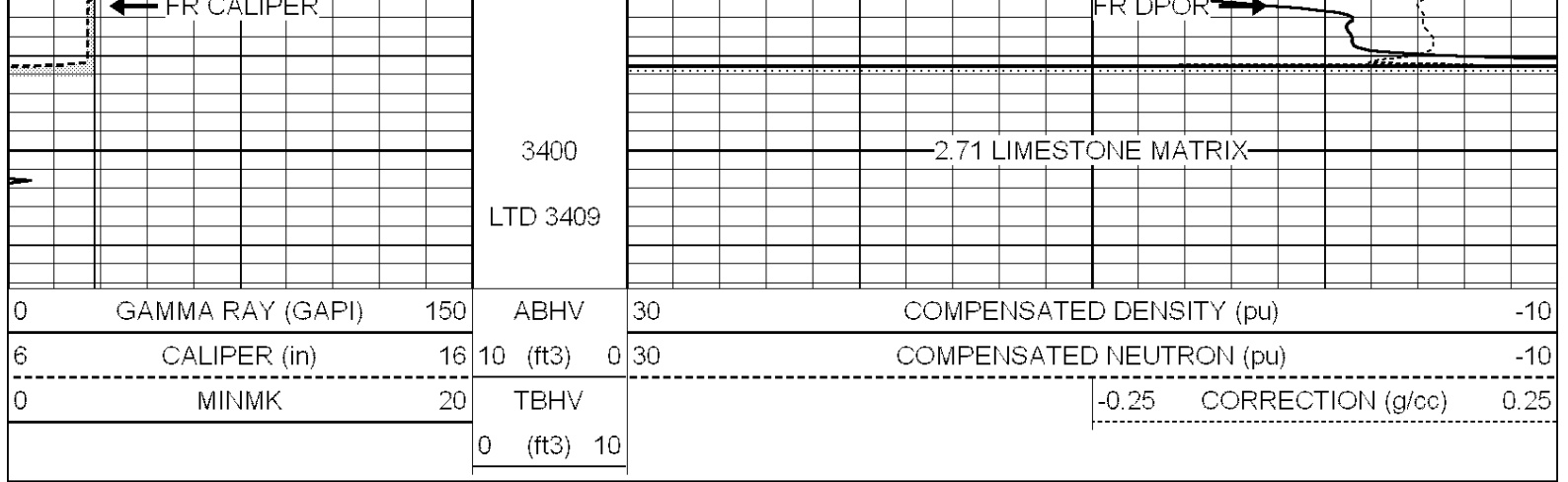
TBHV

FR GR



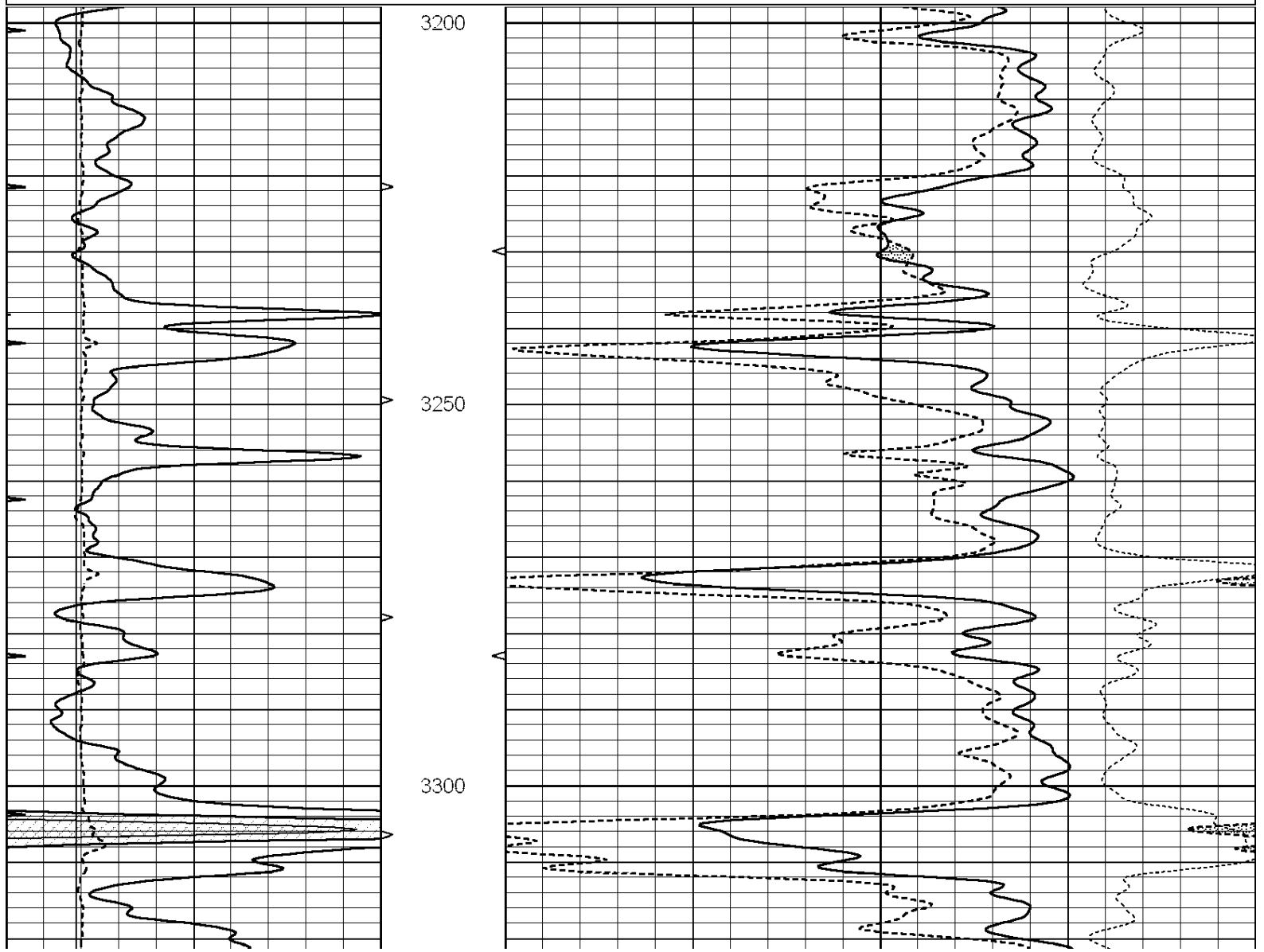
CORRECTION

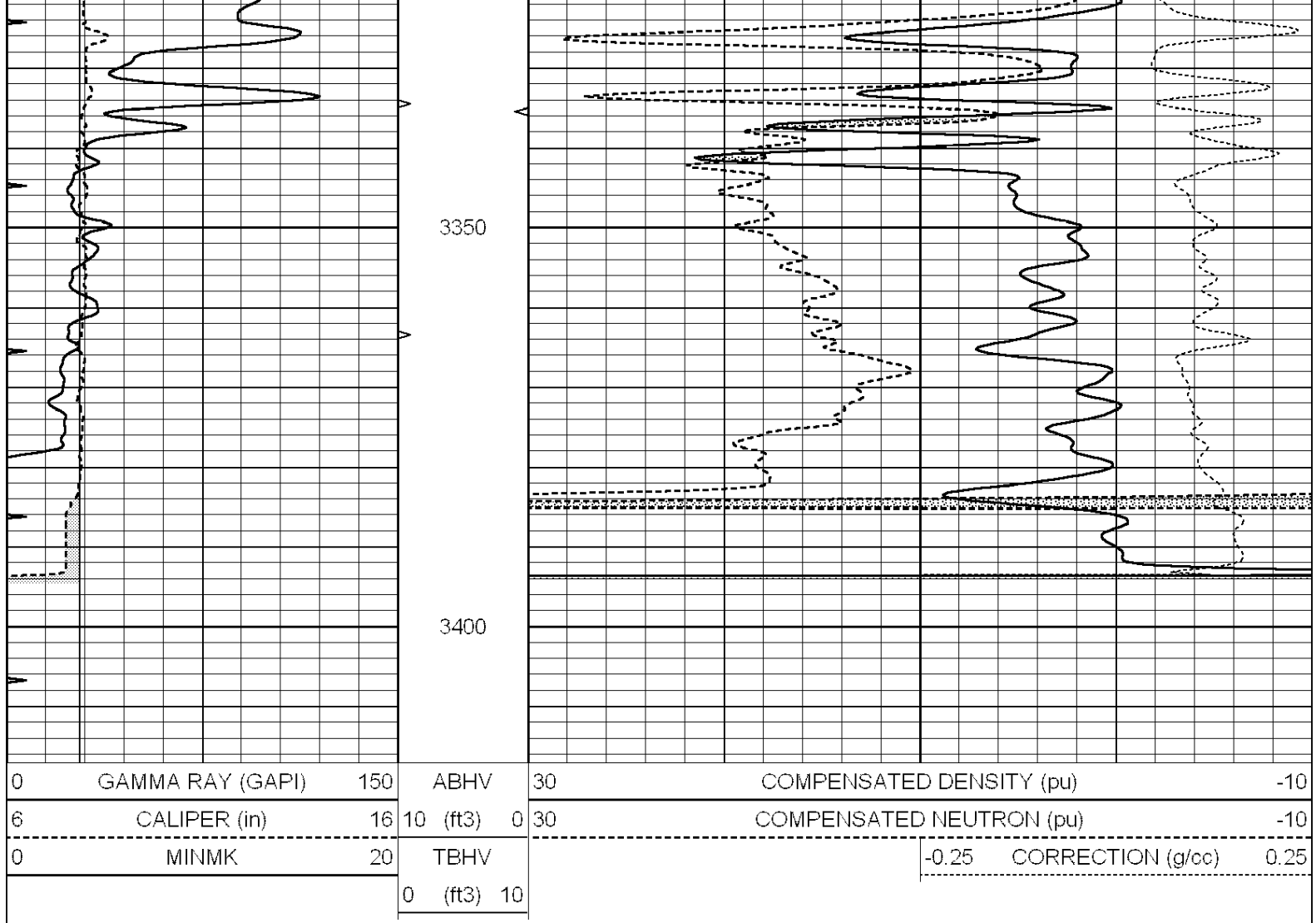
FR CNPOR



Database File: 010921ddn.db
 Dataset Pathname: pass2.3
 Presentation Format: den_neu
 Dataset Creation: Mon Jun 10 11:25:33 2013 by Calc SOC 120430
 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: 010921ddh.db
Dataset Pathname: pass3.2
Dataset Creation: Mon Jun 10 11:55:46 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
Surface Cal Performed: Sat Jun 08 11:36:08 2013
Downhole Cal Performed: Mon Jul 28 12:02:56 2008
After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	-10.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-15.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000

		Serial Number: Tool Model:	070808 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:	070559		
Tool Model:	OPEN_GR		
Performed:	Mon Apr 15 10:30:52 2013		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3300	GAPI/cps	