



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company CHARTER ENERGY, INC.
Well LEWIS #1
Field WILDCAT
County GOVE
State KANSAS

Company CHARTER ENERGY, INC.
Well LEWIS #1
Field WILDCAT
County GOVE State KANSAS

Location: API # : 15-063-22228-0000
2495' FSL & 2575' FEL
NW NW NW SE
SEC 7 TWP 13S RGE 29W
Permanent Datum GROUND LEVEL Elevation 2747
Log Measured From KELLY BUSHING 6' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL/MEL
SON
Elevation
K.B. 2763
D.F. 2751
G.L. 2747

Date	10/28/14		
Run Number	ONE		
Depth Driller	4500		
Depth Logger	4502		
Bottom Logged Interval	4478		
Top Log Interval	3600		
Casing Driller	8 5/8" @ 264		
Casing Logger	260		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2200 PPM	
Density / Viscosity	9.3/52		
pH / Fluid Loss	8.0/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.0 @ 70F		
Rmt @ Meas. Temp	.75 @ 70F		
Rmc @ Meas. Temp	1.20 @ 70F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.58 @ 120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	KURT TALBOTT		

<<< 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

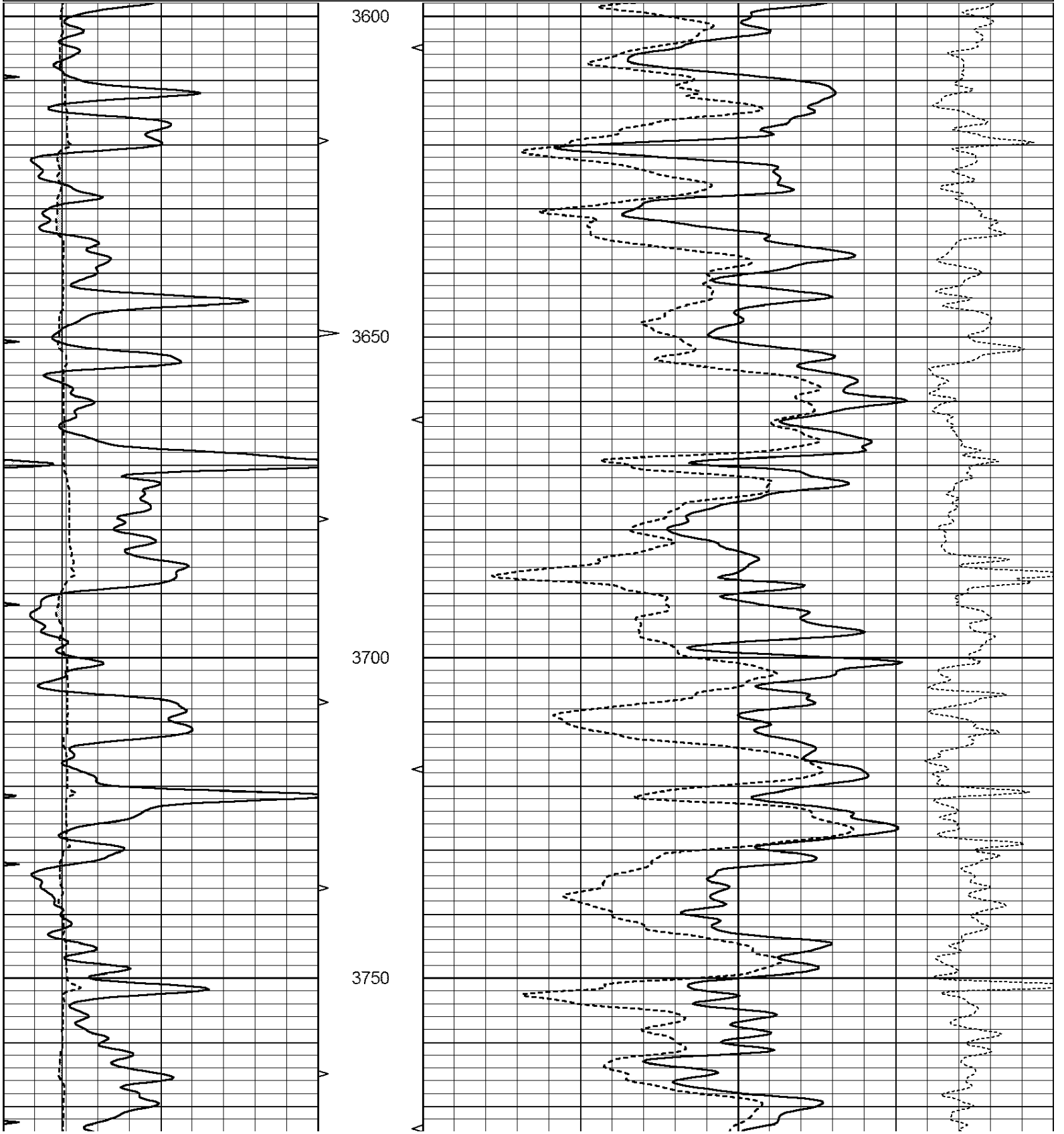
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
GOVE, KS. - 6 WEST TO RD. 34 - 1 1/2 SOUTH - 1/2 EAST - NORTH INTO THRU GATE

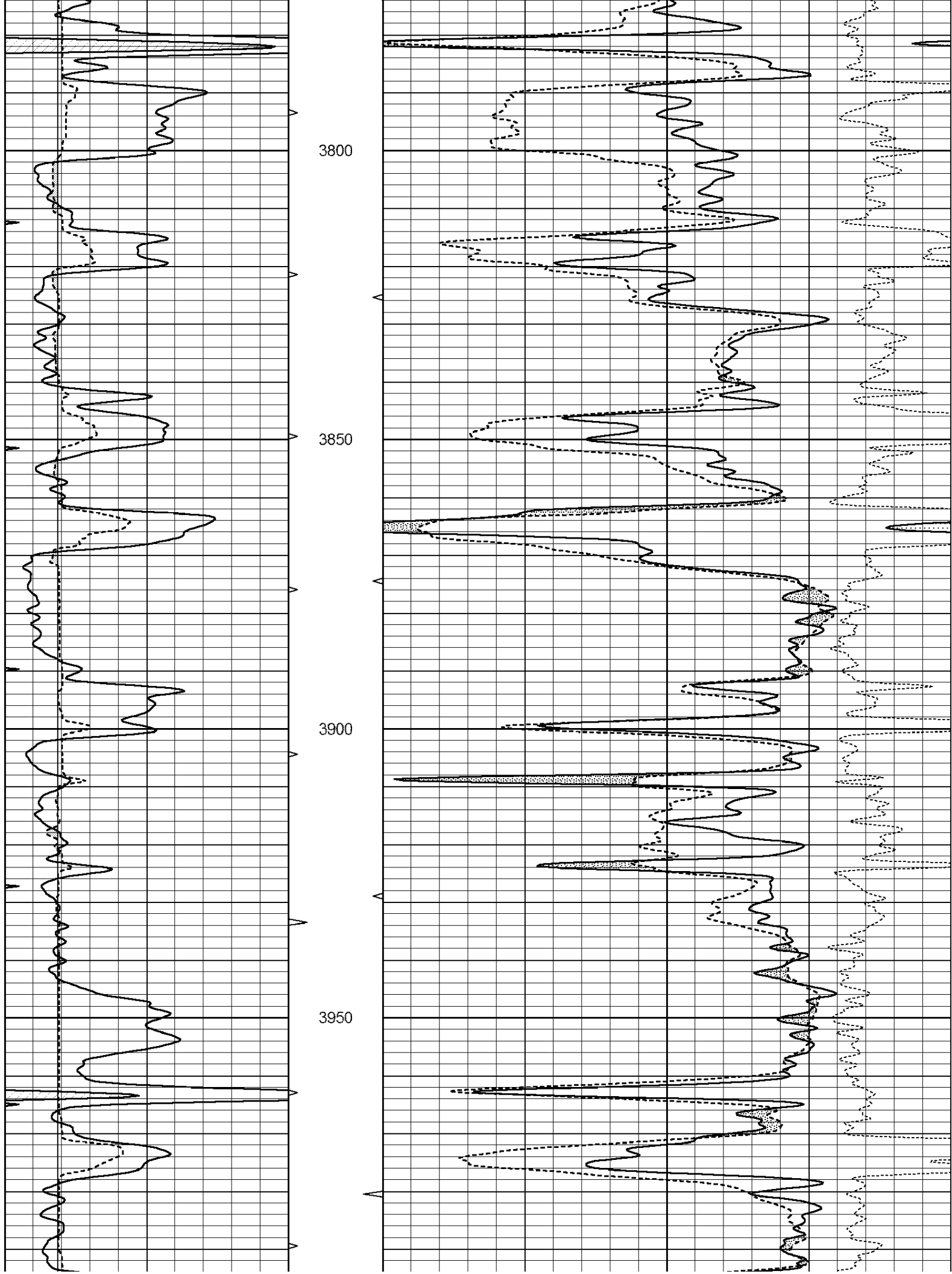


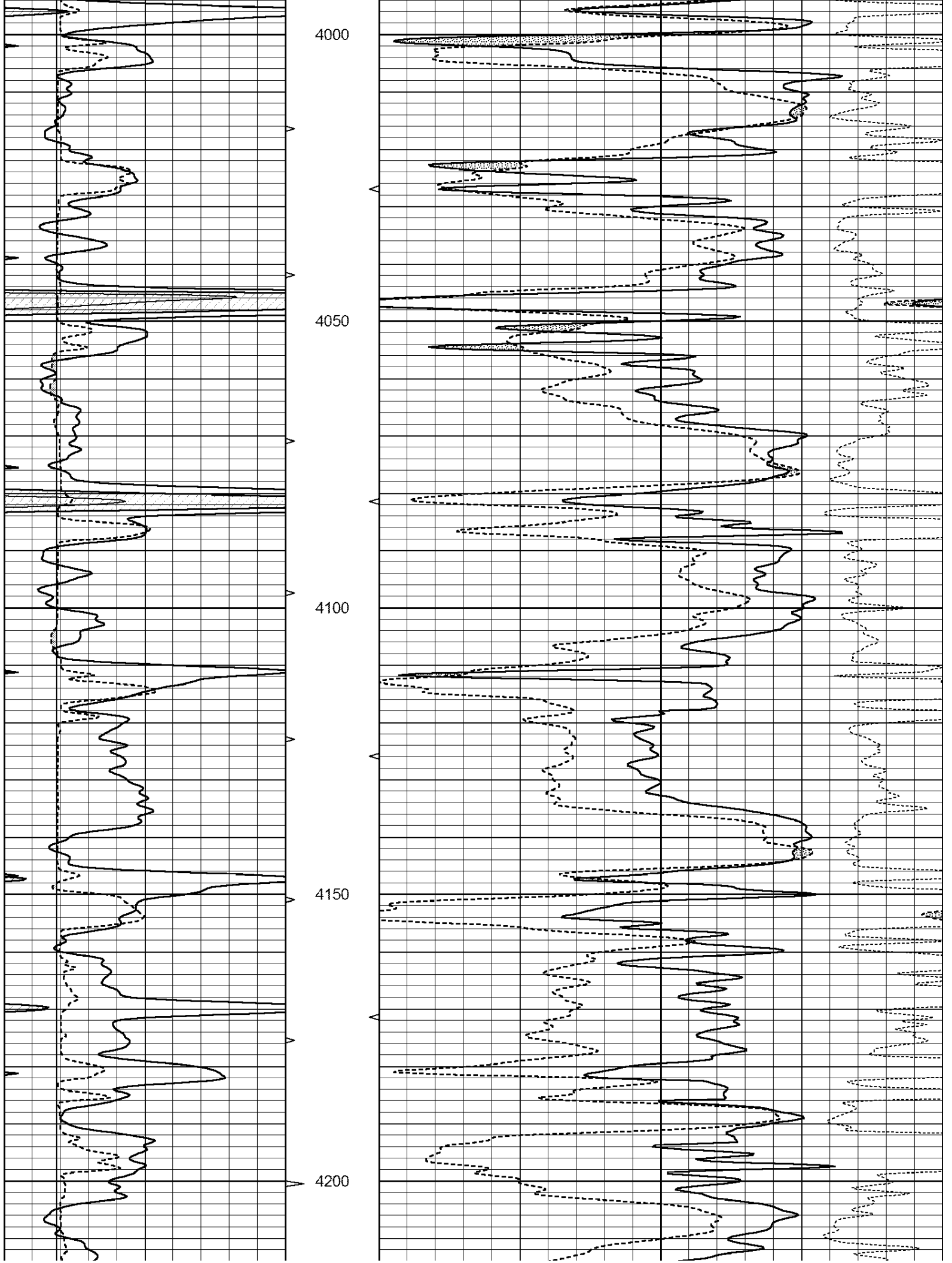
MAIN SECTION

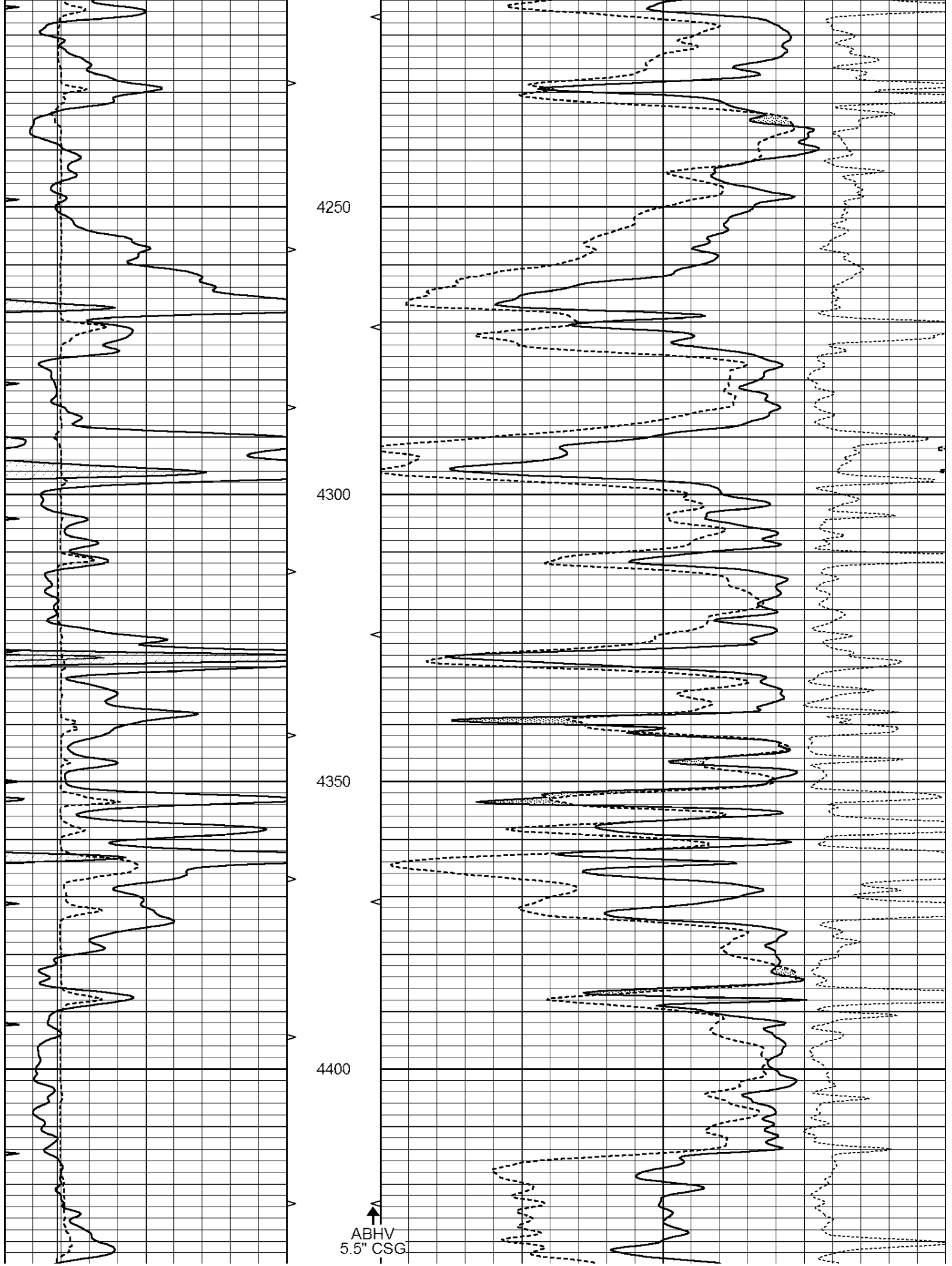
Database File: 26219ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: den_neu
 Dataset Creation: Tue Oct 28 04:44:04 2014
 Charted by: Depth in Feet scaled 1:240

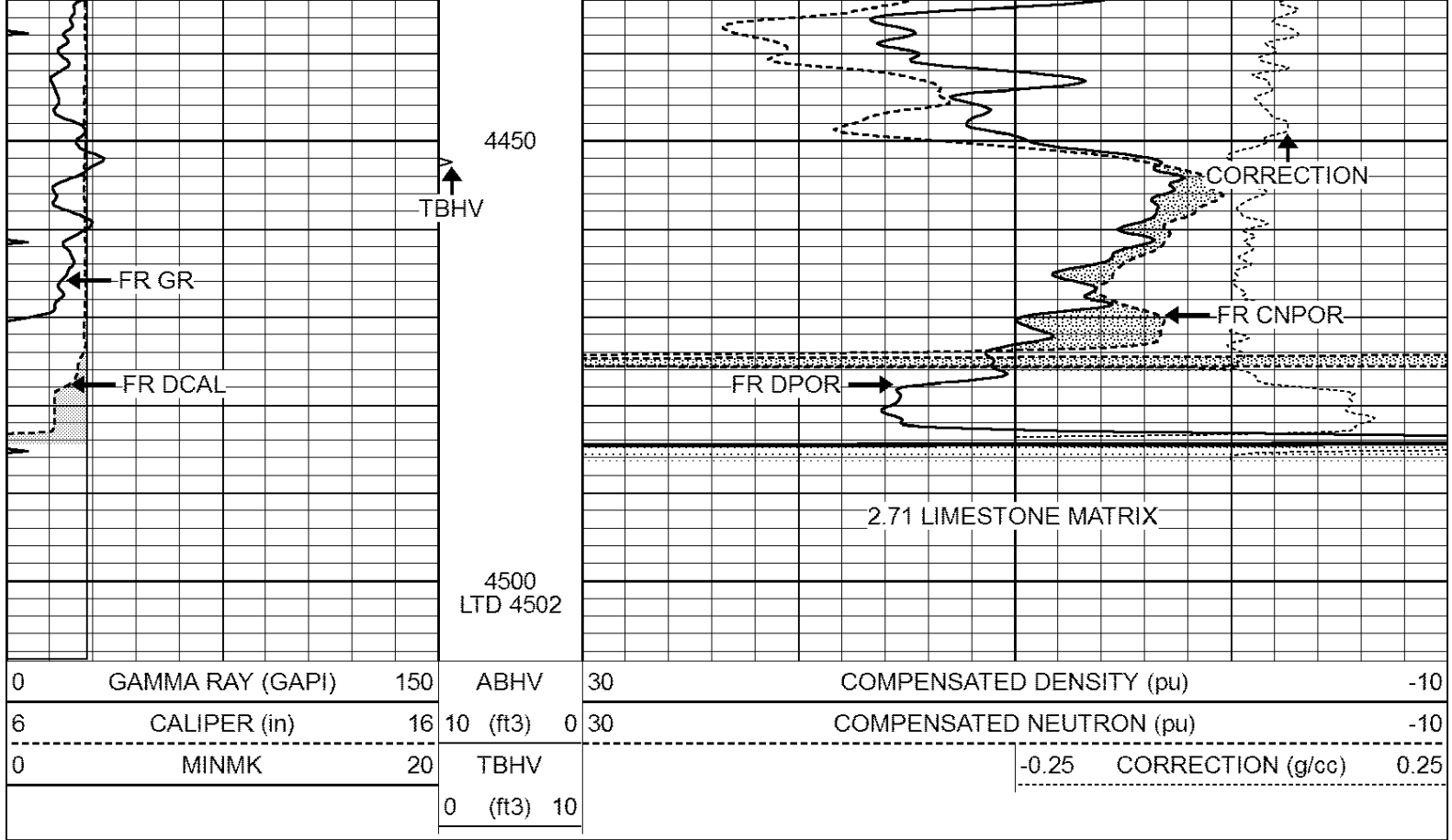
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		







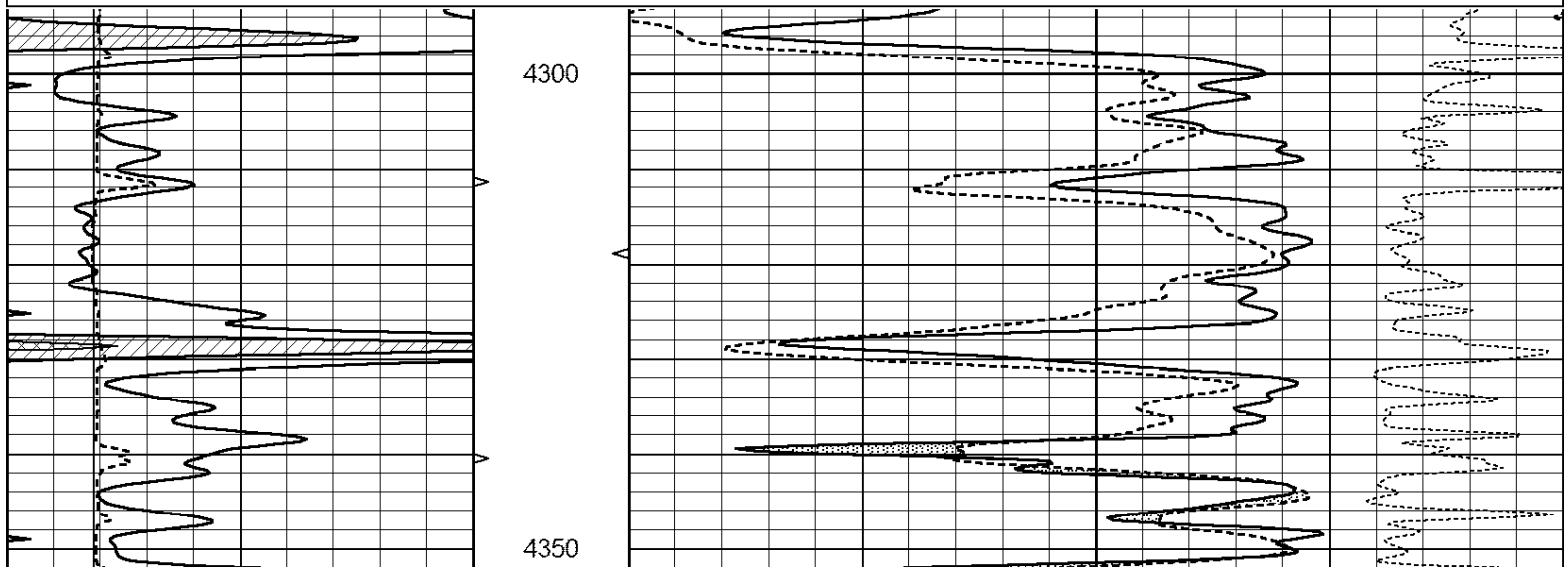


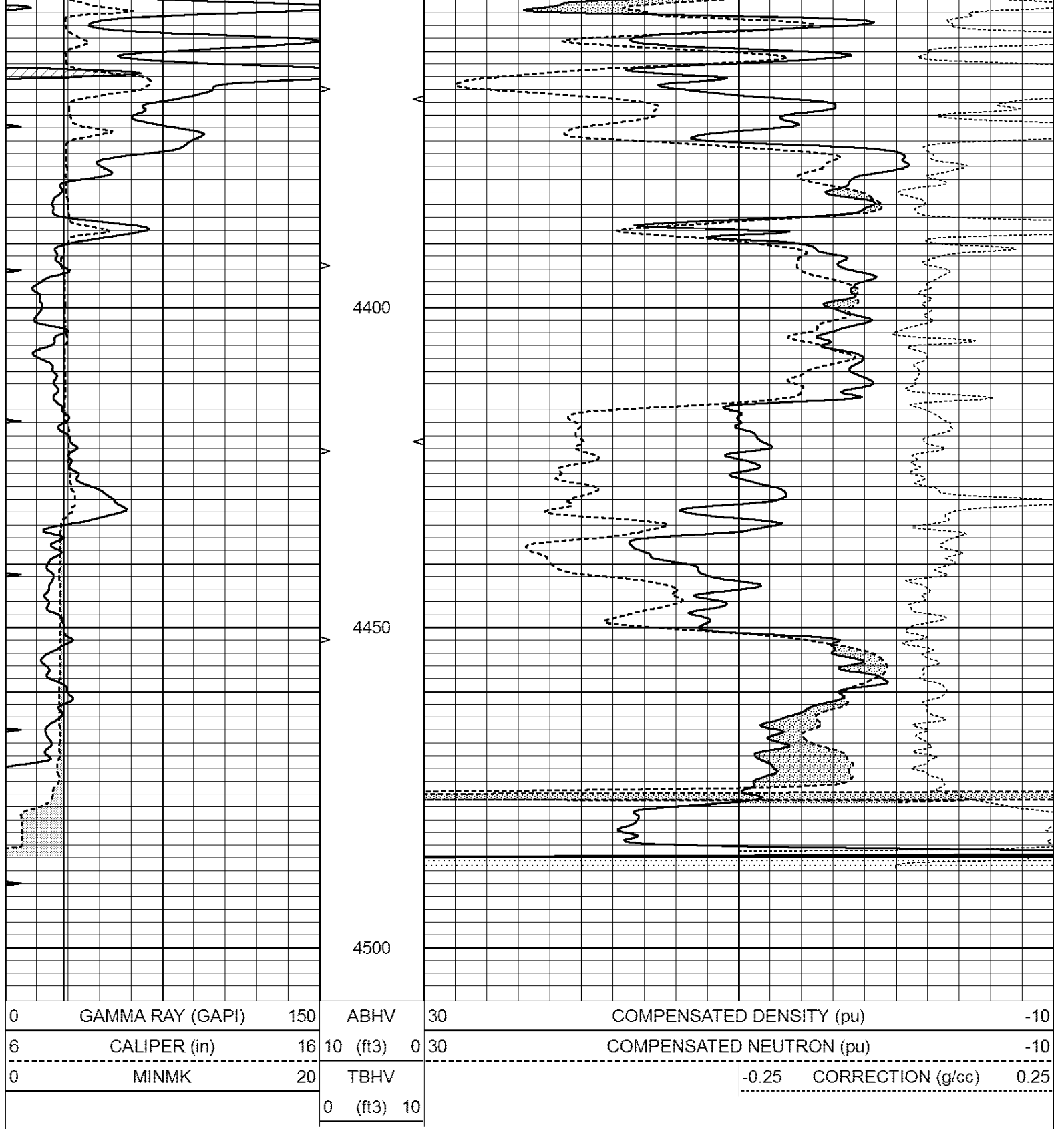


REPEAT SECTION

Database File: 26219ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Tue Oct 28 04:49:31 2014 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: 26219ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Tue Oct 28 04:49:31 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Sun Aug 17 08:09:53 2014
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration								
			Readings		References		Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	-2.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-16.000
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		References		Results	
			Zero	Cal	Zero	Cal	m'	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		Targets		Results	
			Zero	Cal	Zero	Cal	m'	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		

Compensated Density Calibration Report

Serial-Model:	GEAR3-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Sun Aug 17 08:09:42 2014
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration						
			Density	Far Detector	Near Detector	
Magnesium	1.710	g/cc	935.36	501.55	cps	
Aluminum	2.600	g/cc	209.32	357.01	cps	
Spine Angle = 77.21			Density/Spine Ratio = 0.580			
			Size	Reading		
Small Ring	8.00	in	4.29	V		
Large Ring	14.00	in	6.24	V		

Before Survey Verification						
			Target	Measured		
			g/cc	g/cc		
			g/cc	g/cc		
			g/cc	g/cc		

After Survey Verification						
			Target	Measured		
			g/cc	g/cc		
			g/cc	g/cc		
			g/cc	g/cc		

g/cc
g/cc
g/cc

g/cc
g/cc
g/cc

Compensated Neutron Calibration Report

Serial Number: 61
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

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
1) Short Space	cps		
Long Space	cps	pu	pu
2) Short Space	cps		
Long Space	cps	pu	
3) Short Space	cps		
Long Space	cps	pu	

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
1) Short Space	cps		
Long Space	cps	pu	pu
2) Short Space	cps		
Long Space	cps	pu	pu
3) Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: GR6
Tool Model: OPEN
Performed: Sun Aug 17 15:23:09 2014

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 276.0 cps

Sensitivity: 0.7000 GAPI/cps