



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY/NEUTRON PE LOG

Company	CITATION OIL & GAS CORP.		
Well	SLIMMER #10		
Field	BEMIS-SHUTTS		
County	ELLIS	State	KANSAS
Location:	2205' FSL & 1090' FWL		Other Services
Permanent Datum	SEC 19 TWP 11S RGE 16W	DIL/MEL	
Log Measured From	GROUND LEVEL	Elevation	1906
Drilling Measured From	KELLY BUSHING 11' A.G.L.	K.B. 1917 D.F. 1915 G.L. 1906	
Date	6/25/13		
Run Number	ONE		
Depth Driller	3510		
Depth Logger	3511		
Bottom Logged Interval	3487		
Top Log Interval	2500		
Casing Driller	8 5/8" @ 1094		
Casing Logger	1094		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2250 PPM	
Density / Viscosity	9.1/52		
pH / Fluid Loss	10.5/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.70 @ 93F		
Rmt @ Meas. Temp	.52 @ 93F		
Rmc @ Meas. Temp	.84 @ 93F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.58 @ 112F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:55 P.M.		
Maximum Recorded Temperature	112F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	ED GLASSMAN		

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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, KS. (785) 628-6395
DIRECTIONS:
HAYS, KS - NORTH TO SALINE RIVER RD - 8 MILES EAST
1 1/2 MILES SOUTH INTO



NABORS
COMPLETION
& PRODUCTION

MAIN SECTION

Database File:

011261pe.db

Dataset Pathname:

pass3.1

Presentation Format:

_ldt_neu

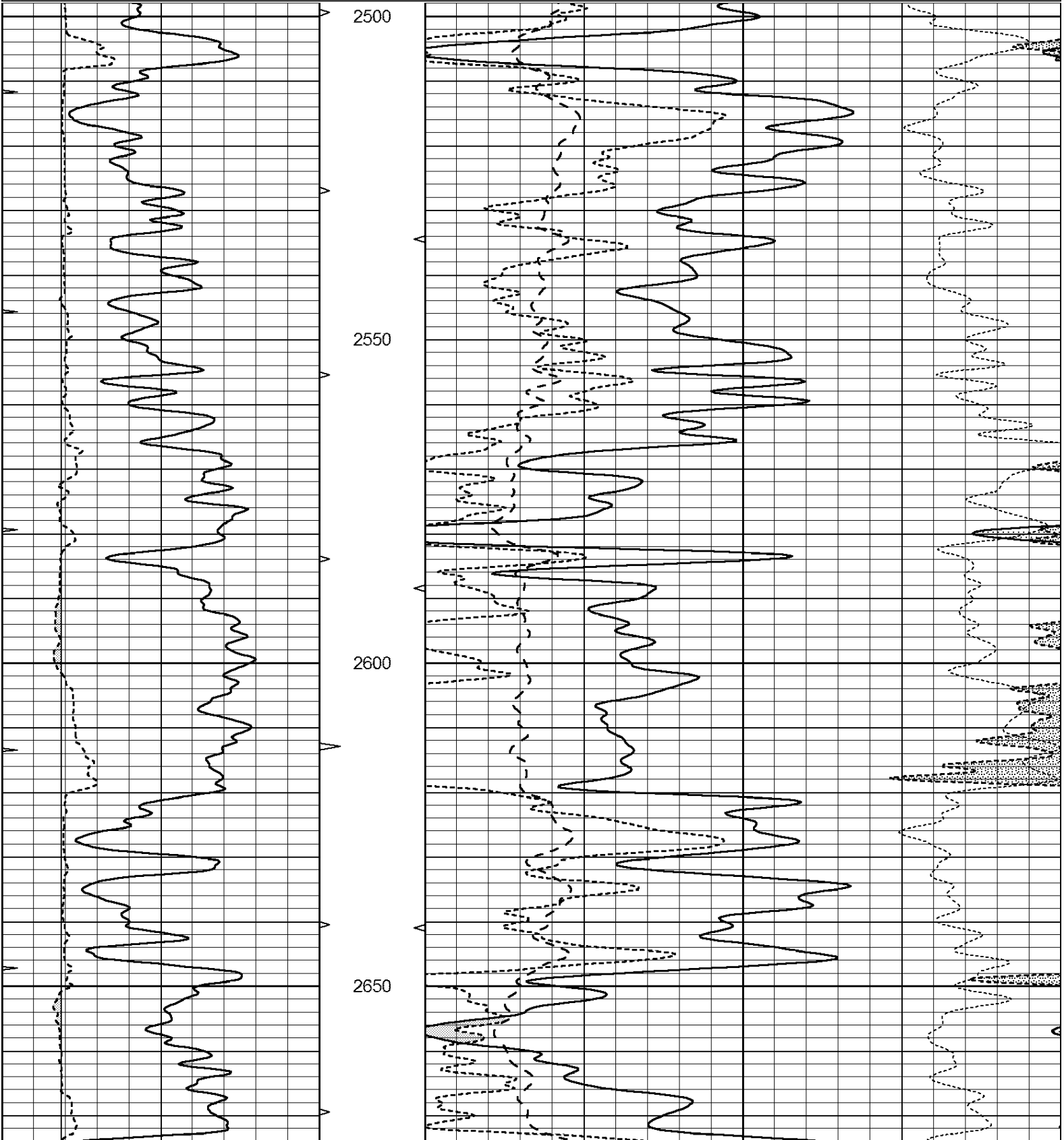
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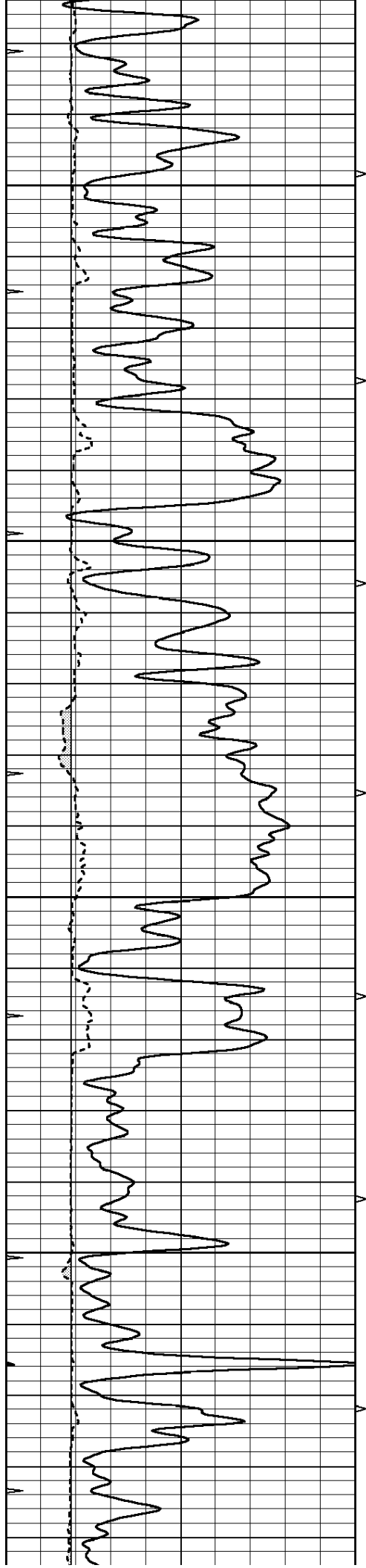
Tue Jun 25 14:47:22 2013 by Calc Open-Cased 090629

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	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		



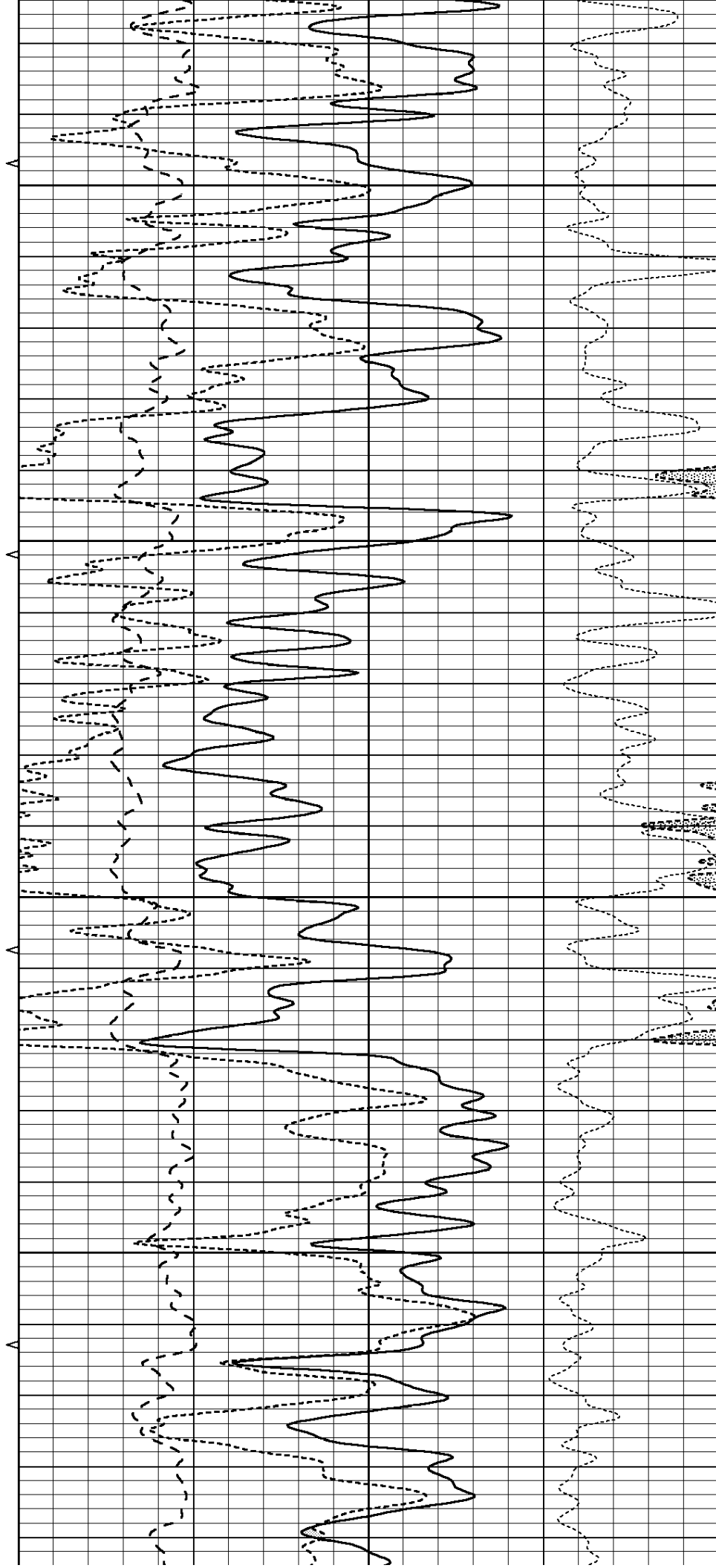


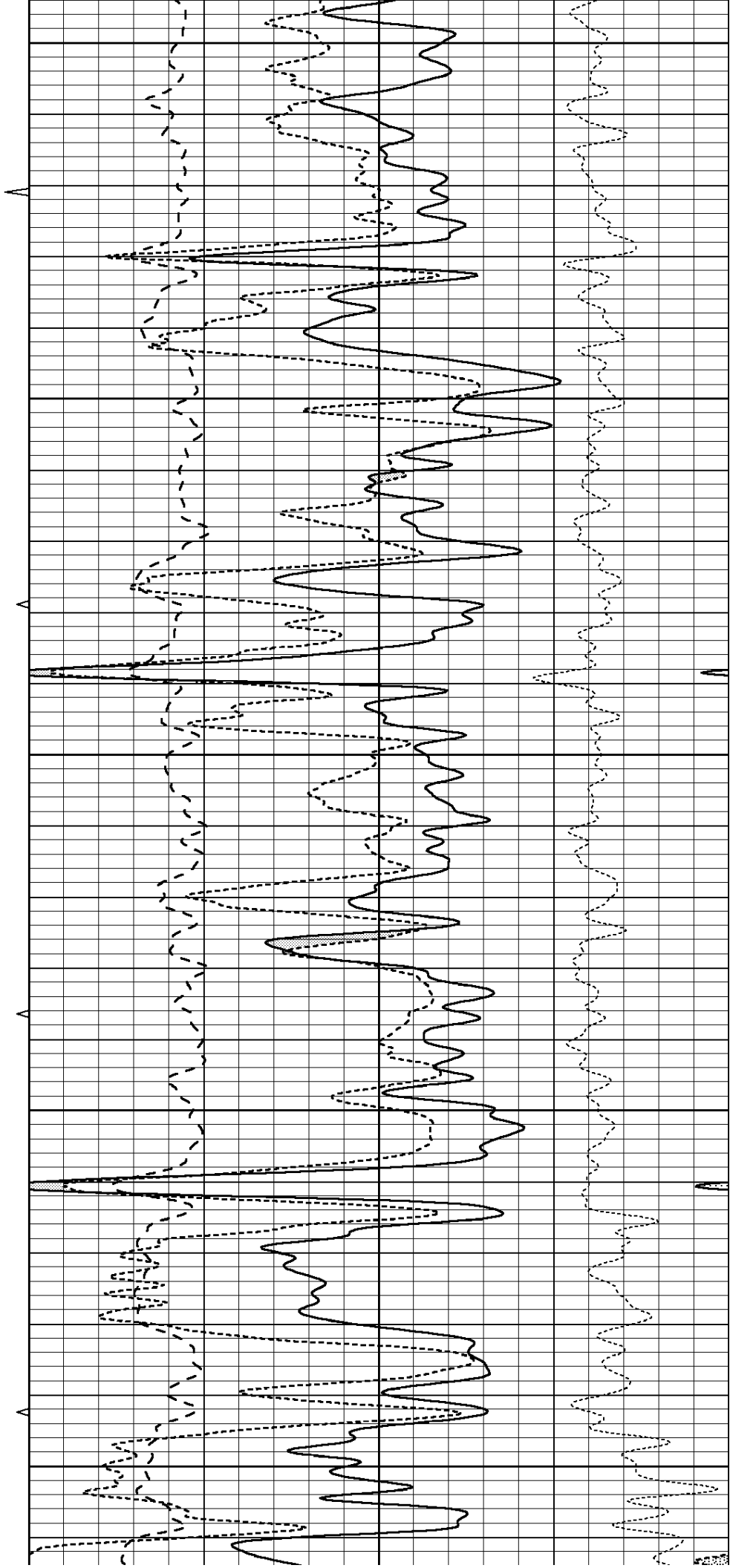
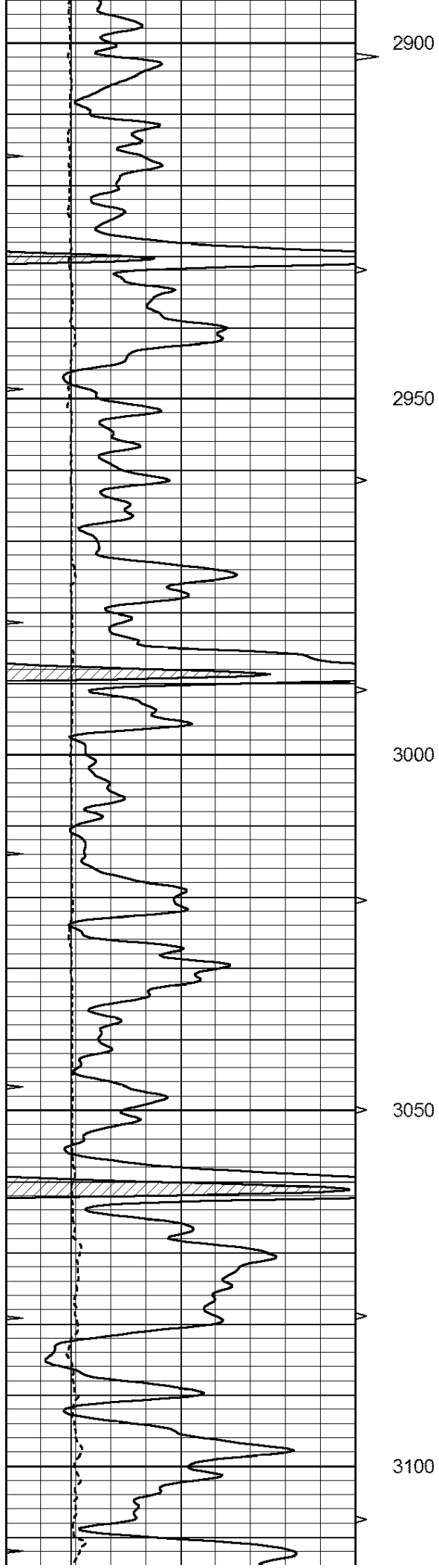
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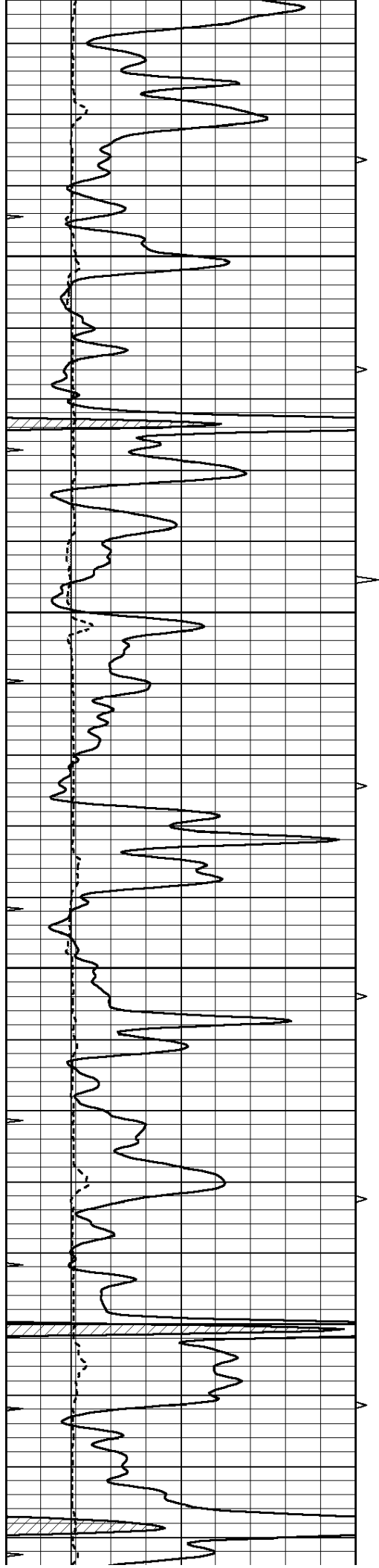
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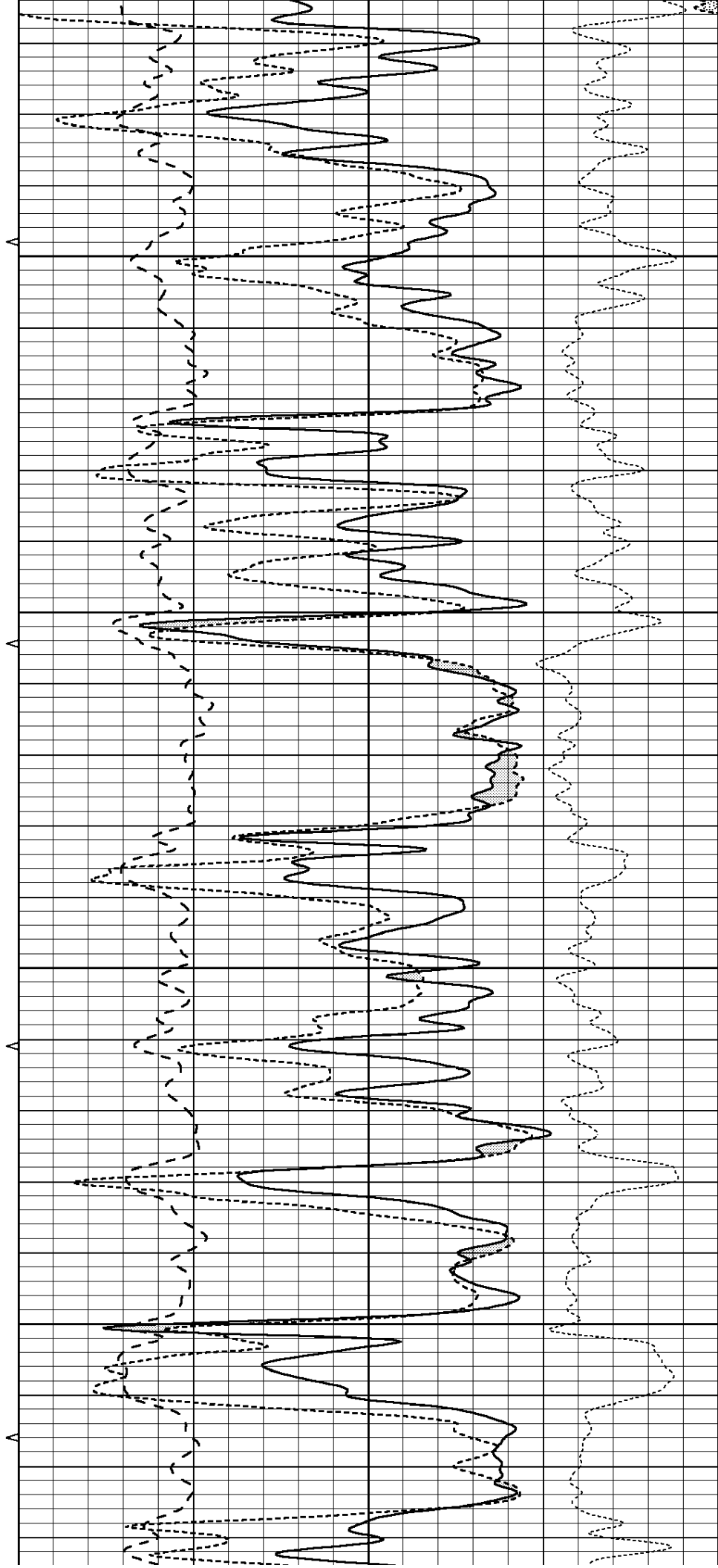


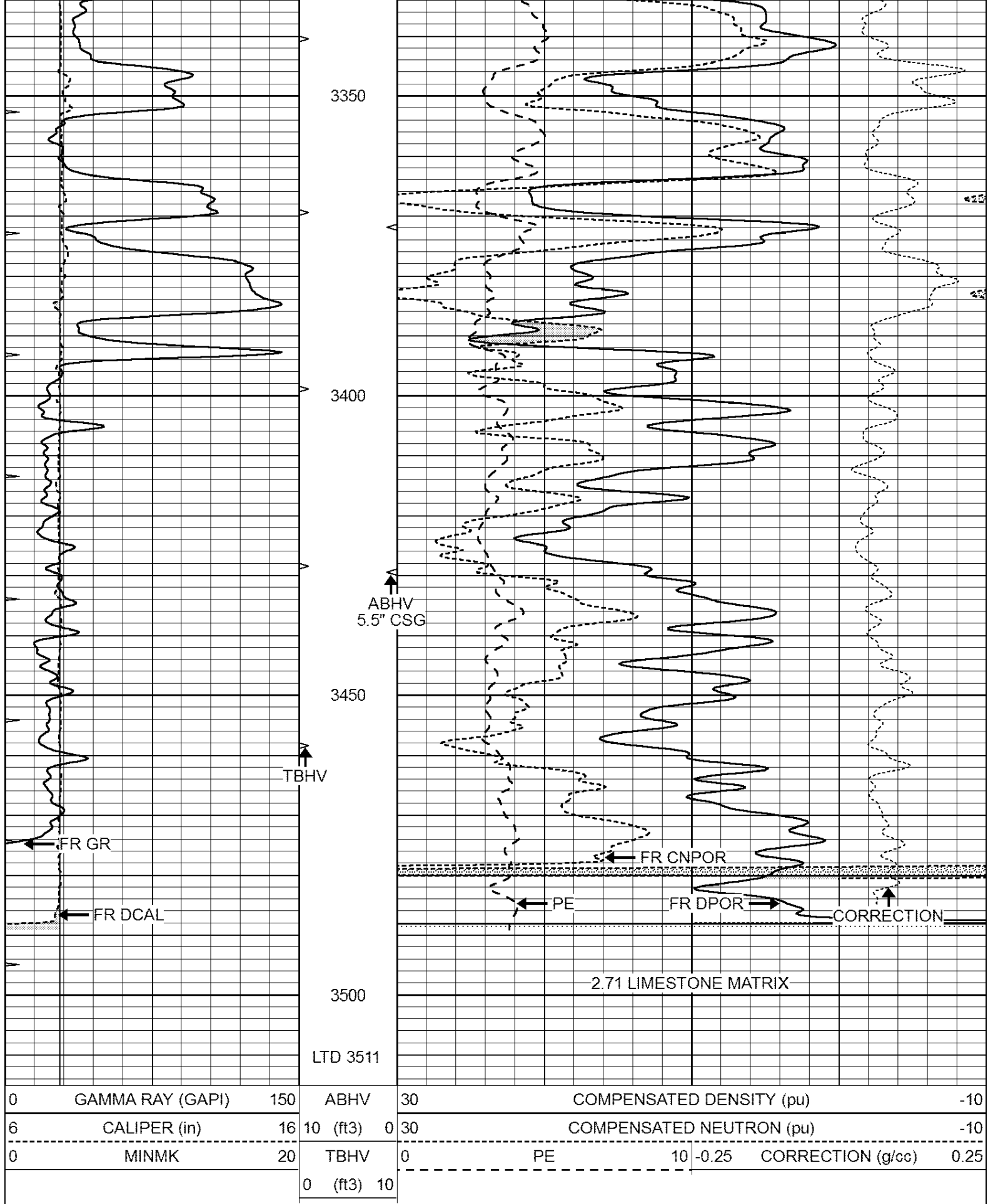
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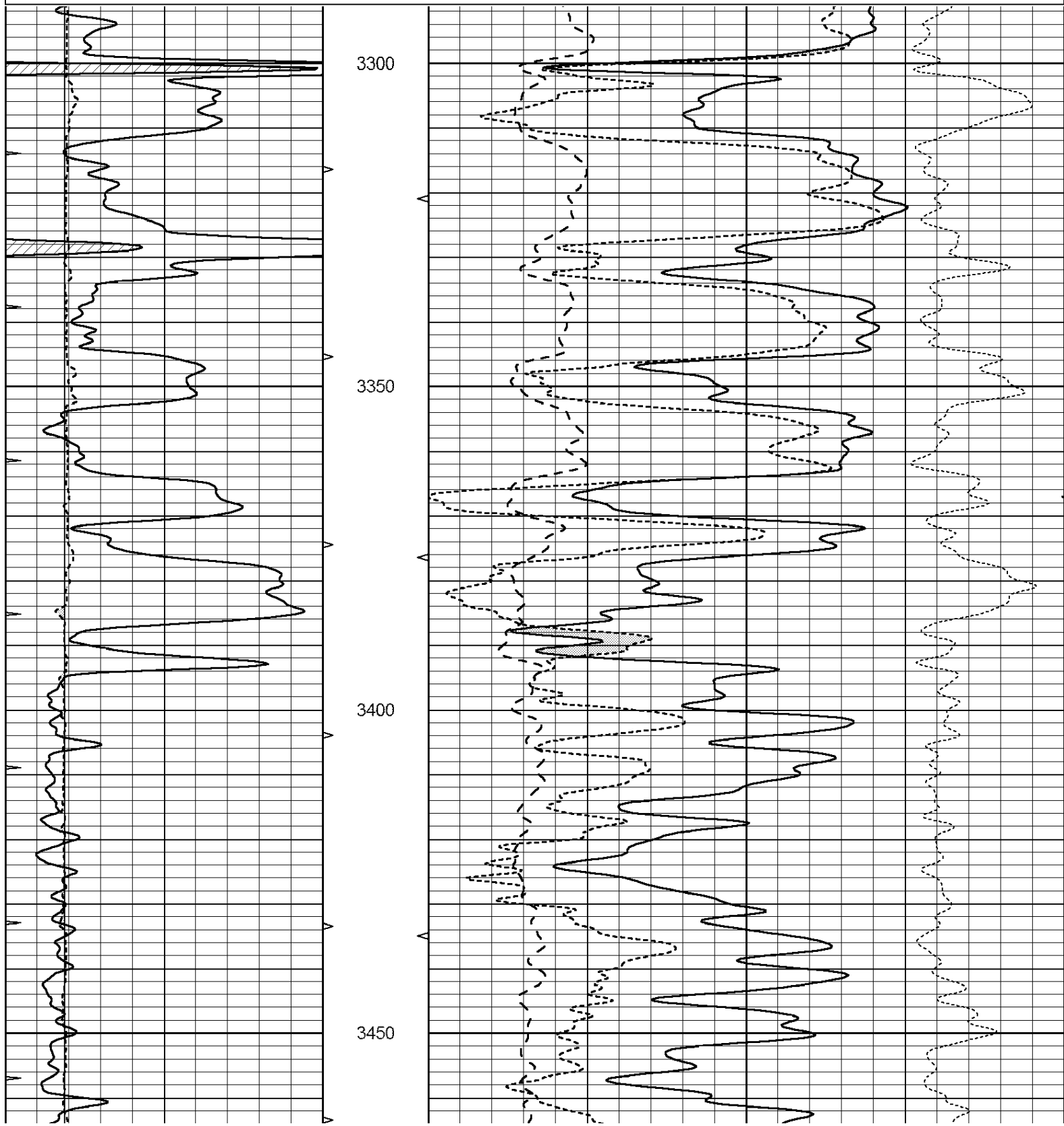
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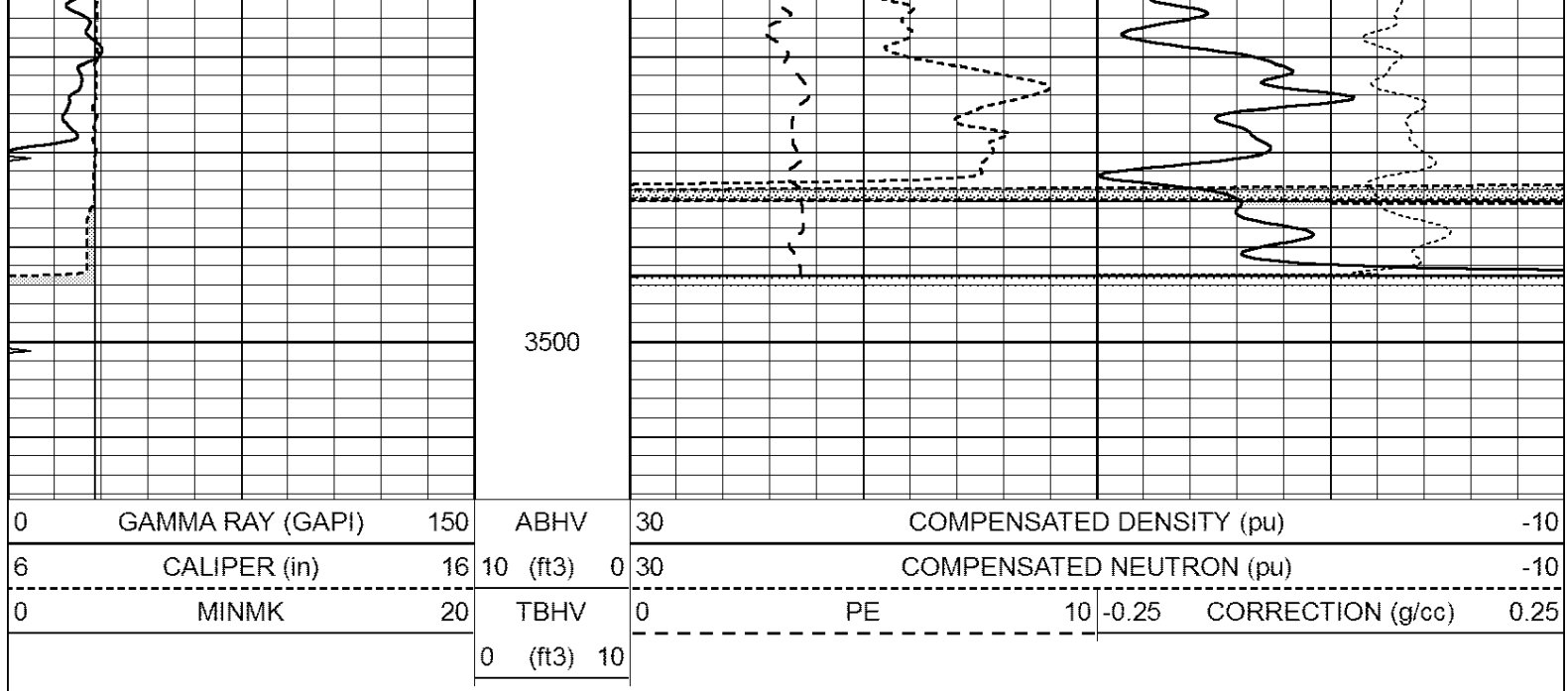




Database File: 011261pe.db
 Dataset Pathname: pass2.1
 Presentation Format: _ldt_neu
 Dataset Creation: Tue Jun 25 14:45:53 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10			





Database File:		011261pe.db		Calibration Report	
Dataset Pathname:		pass3.1			
Dataset Creation:		Tue Jun 25 14:47:22 2013 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								
Readings			References			Results		
Loop:	Air	Loop		Air	Loop		m	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			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	0.000	0.000	0.000
1.000	mmho-m	1.000	mmho-m

Litho Density Calibration Report

Serial: 002 Model: PRB

Master Calibration		Performed Thu Feb 07 10:52:14 2013			
	Background	Magnesium	Aluminum	Sandstone	
Window 1	863.7	7238.8	2276.4	7857.4	cps
Window 2	793.4	5538.8	1841.2	5896.4	cps
Window 3	628.1	2999.7	1149.1	3136.4	cps
Window 4	191.1	195.7	198.0	197.8	cps
Long Space	0.0	4745.3	1047.7	5103.0	cps
Short Space	0.8	978.5	647.5	1041.5	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 44.7	Rib Slope	: 0.990	Density/Spine Ratio	: 0.562
Spine Angle	: 74.7	Spine Slope	: 3.658	Spine Intercept	: -16.7

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification		Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

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

PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target

1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	
3)	Short Space Long Space	cps cps	pu	
POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	pu
3)	Short Space Long Space	cps cps	pu	pu
Gamma Ray Calibration Report				
Serial Number:		#8		
Tool Model:		OPEN		
Performed:		Tue Jun 18 19:34:11 2013		
Calibrator Value:		150.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		175.0	cps	
Sensitivity:		0.8371	GAPI/cps	