



SUPERIOR
Hays,
Kansas

COMPENSATED
NEUTRON / DENSITY
LOG

Company PIONEER RESOURCES
 Well MILLER #2
 Field WILDCAT
 County PHILLIPS
 State KANSAS

Company PIONEER RESOURCES
 Well MILLER #2
 Field WILDCAT
 County PHILLIPS State KANSAS

Location: 521 FSL & 1535' FEL
 API # : 15-147-20666-0000
 Other Services DIL

SEC 3 TWP 3S RGE 19W

Permanent Datum GROUND LEVEL Elevation 2054
 Log Measured From KELLY BUSHING 5' A.G.L.
 Drilling Measured From KELLY BUSHING
 Elevation K.B. 2059
 D.F. 2057
 G.L. 2054

Date	2/17/12
Run Number	ONE
Depth Driller	3640
Depth Logger	3644
Bottom Logged Interval	3620
Top Log Interval	2800
Casing Driller	8 5/8" @ 218
Casing Logger	218
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/58
pH / Fluid Loss	10.0/6.4
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.9 @ 63F
Rmf @ Meas. Temp	1.42 @ 63F
Rmc @ Meas. Temp	2.28 @ 63F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	1.06 @ 113F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	113F
Equipment Number	680
Location	HAYS, KS.
Recorded By	JASON CAPPELLUCCI
Witnessed By	CLIFF OTTAWAY

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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 (785) 628-6395
 DIRECTIONS
 PHILLIPSBURG, KS. - 5 MILES WEST TO RD. 500 - 1 NORTH - 1 WEST - 1 N. - 1/2 W.
 N. INTO

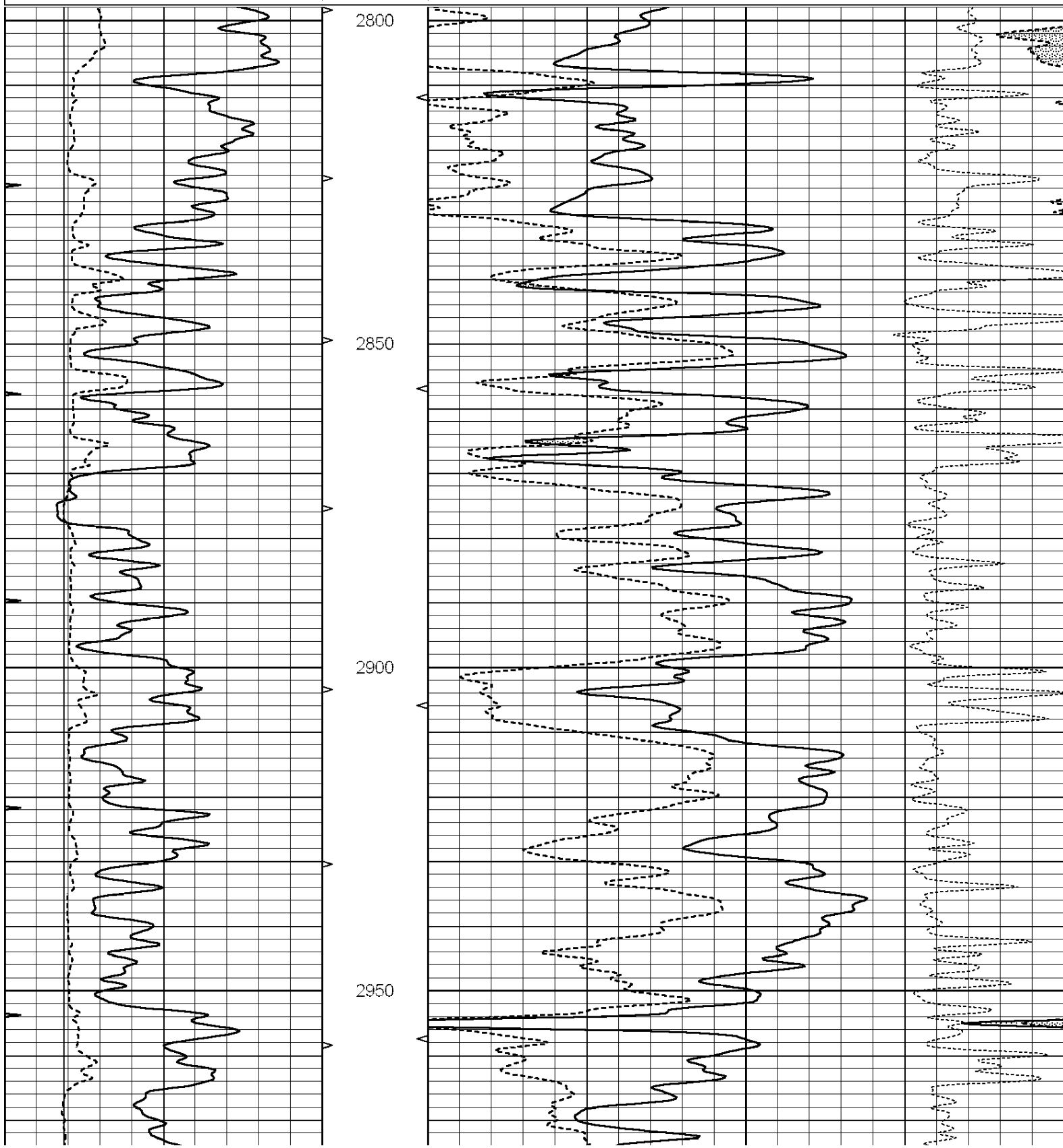


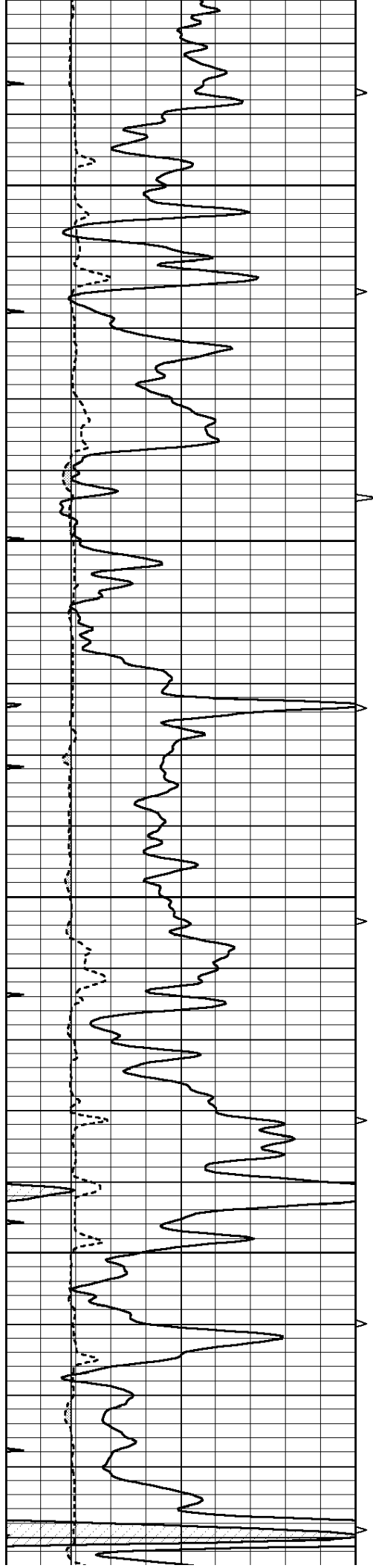
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MAIN SECTION

Database File: 008542ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _den_neu
 Dataset Creation: Fri Feb 17 10:57:38 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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



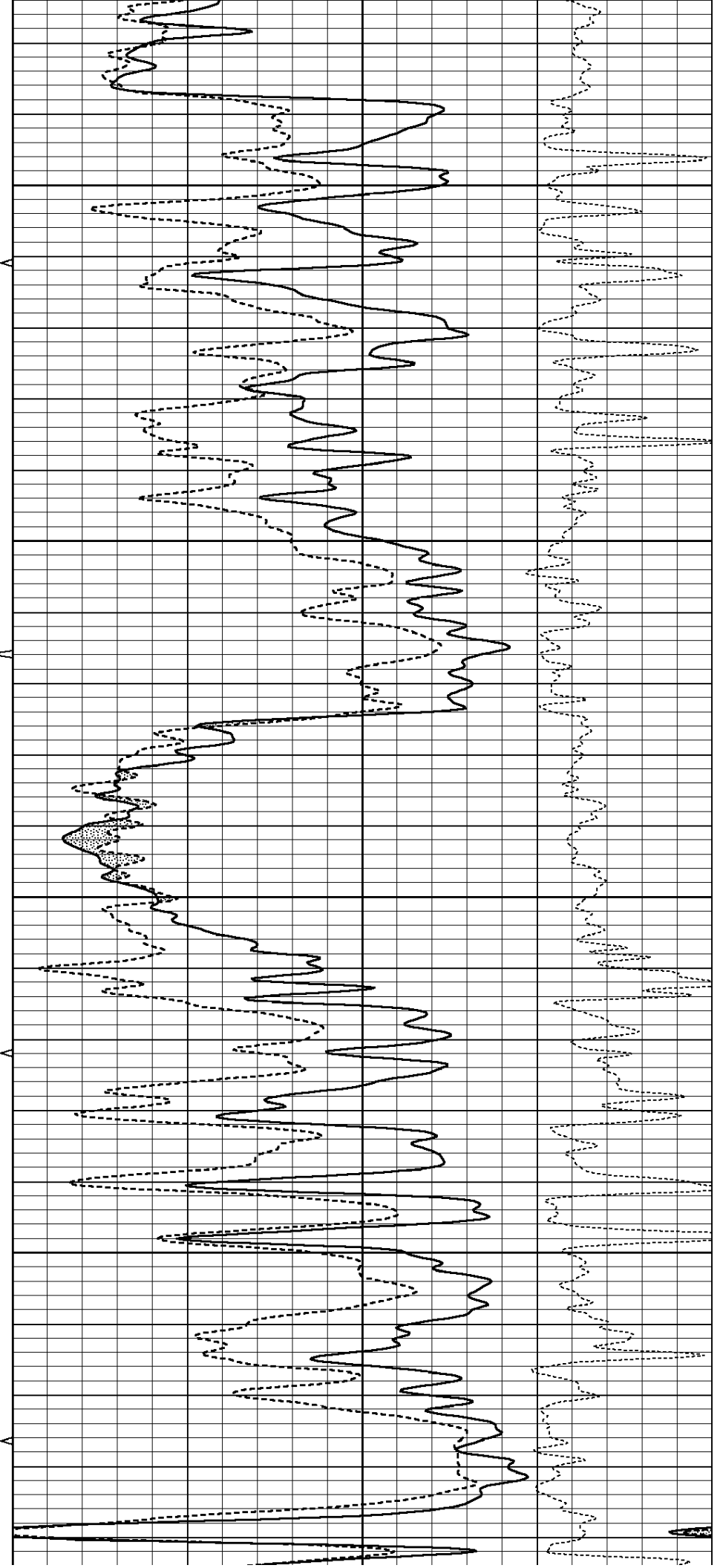
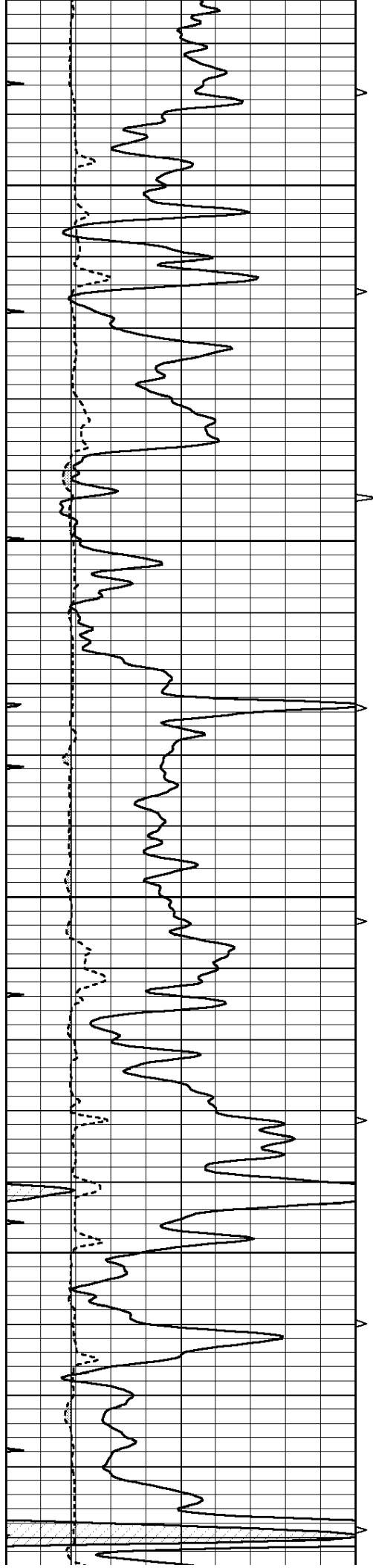
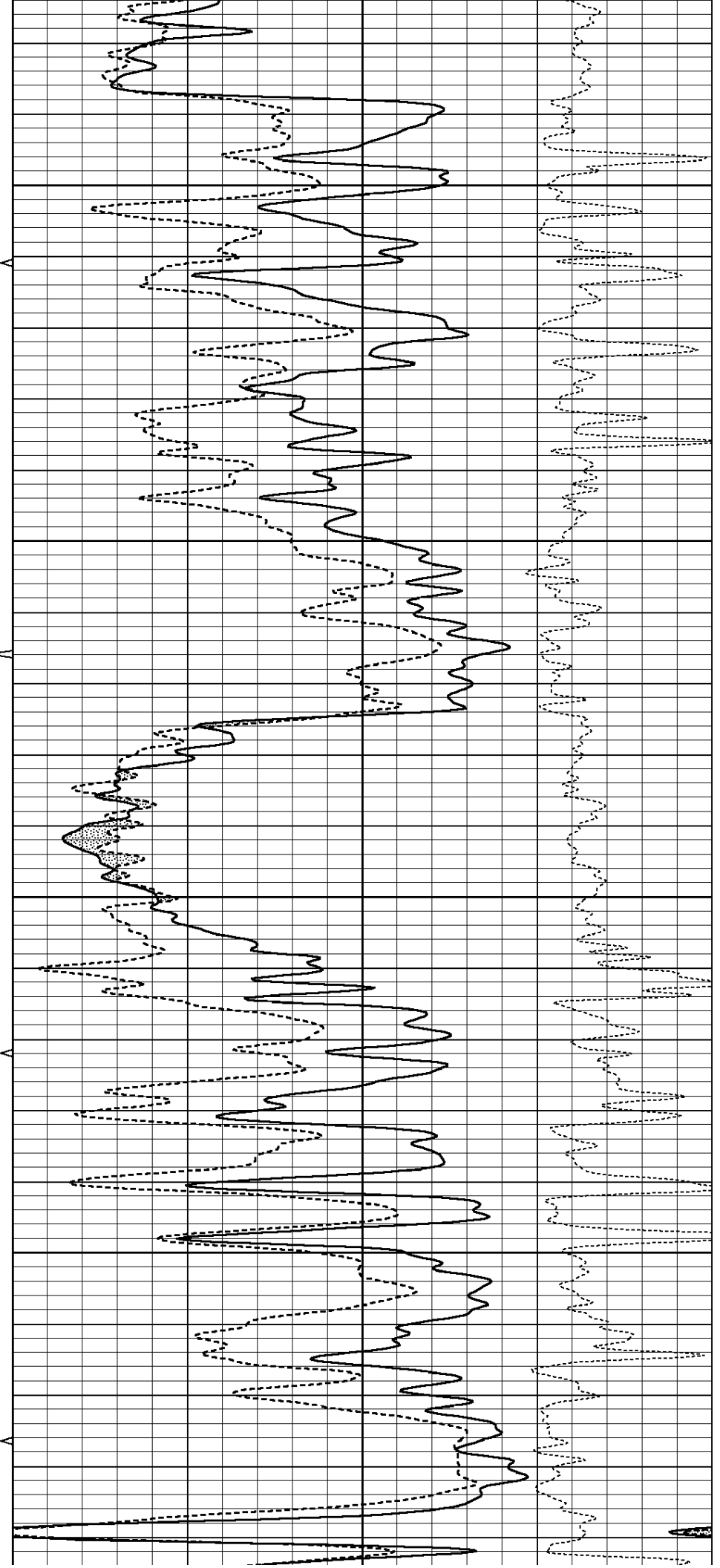


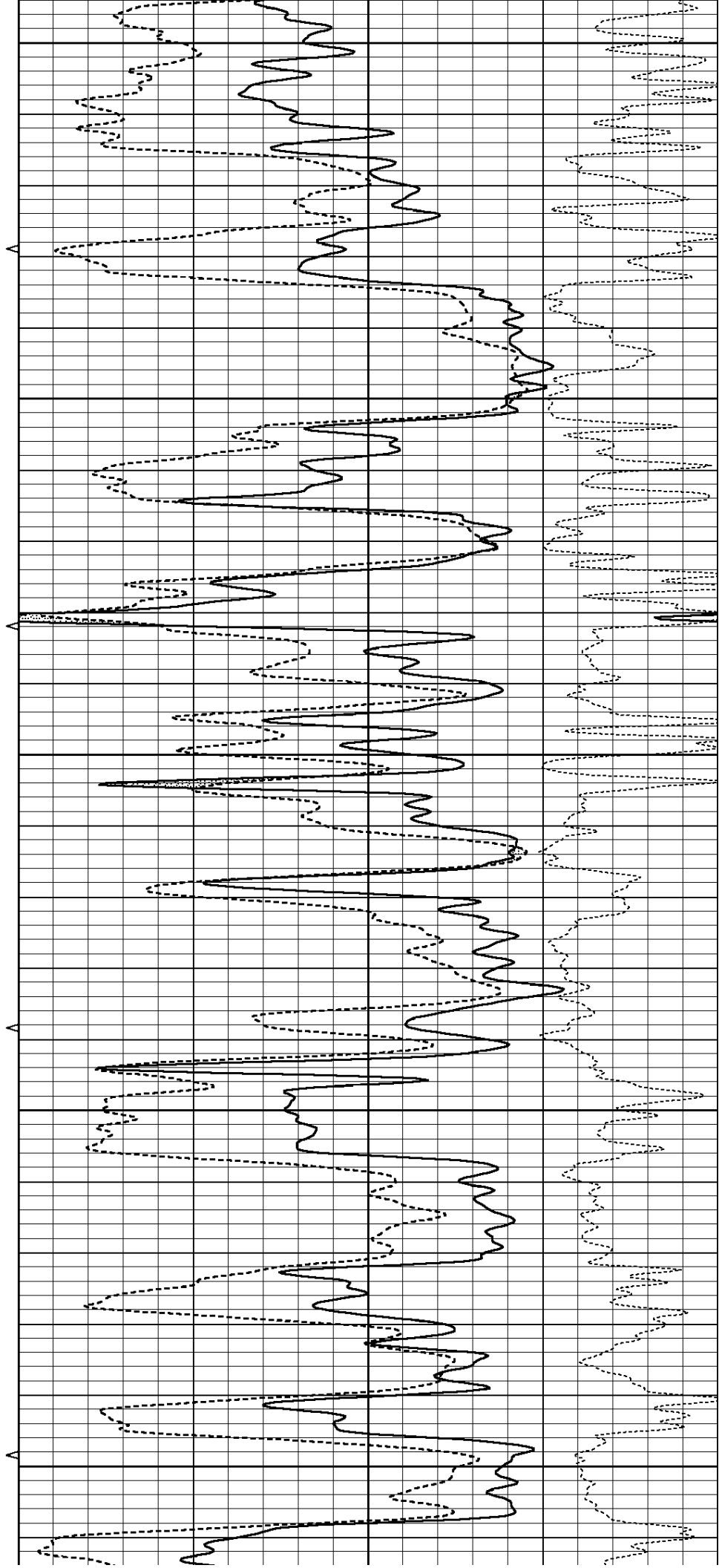
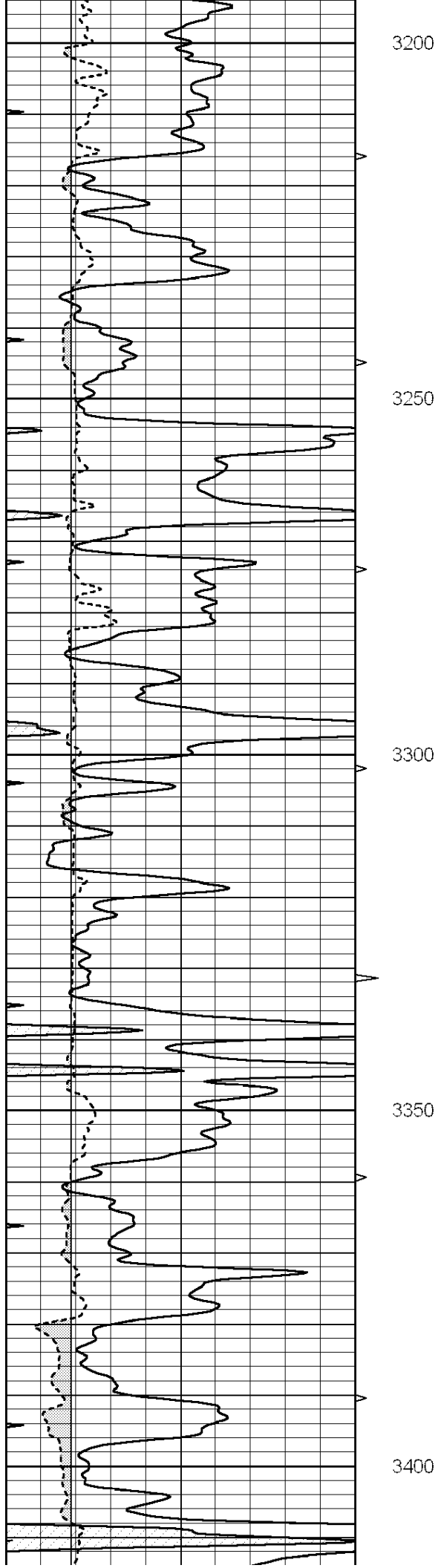
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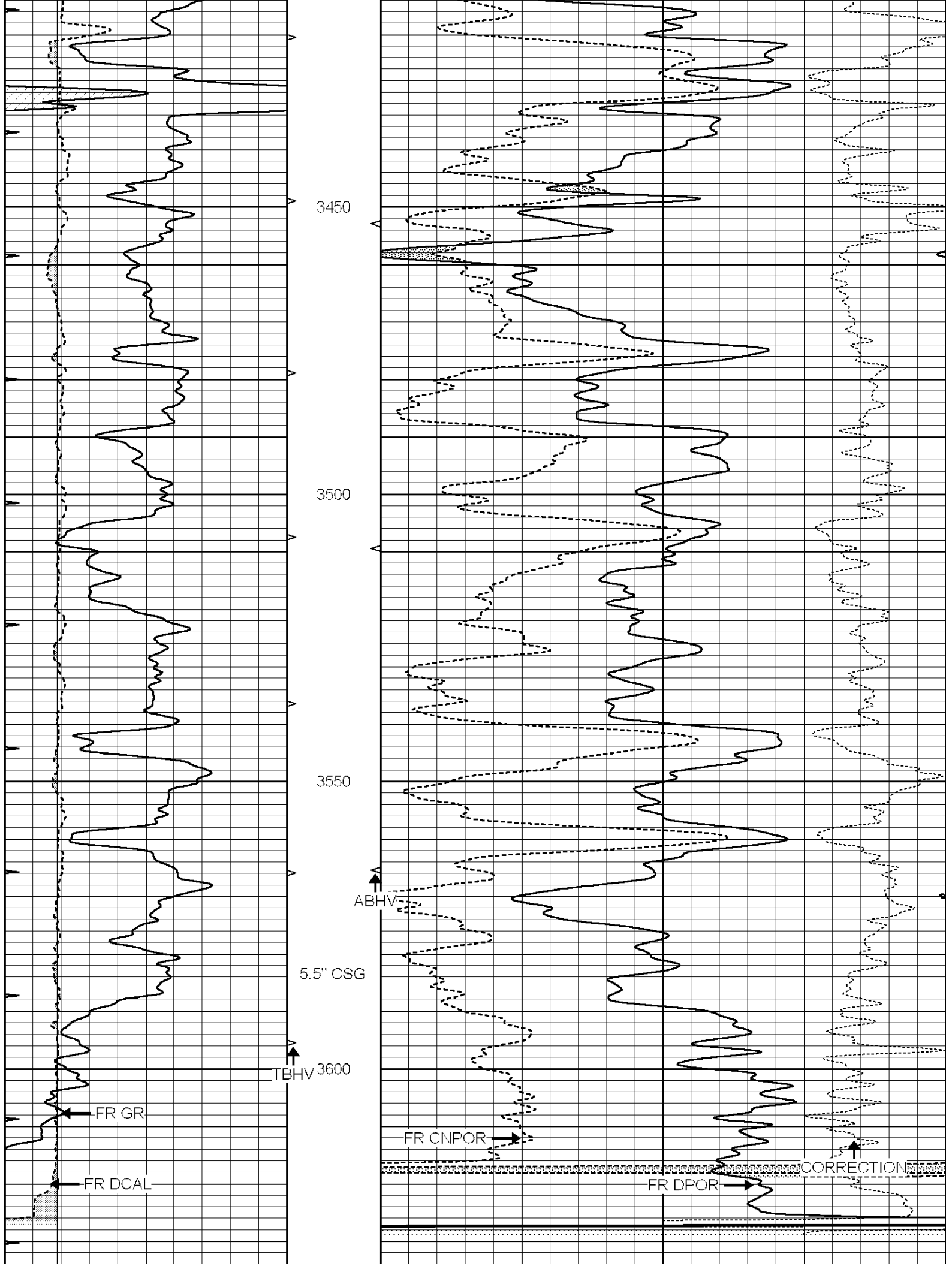
3050

3100

3150







2.71 LIMESTONE MATRIX

LTD 3644

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

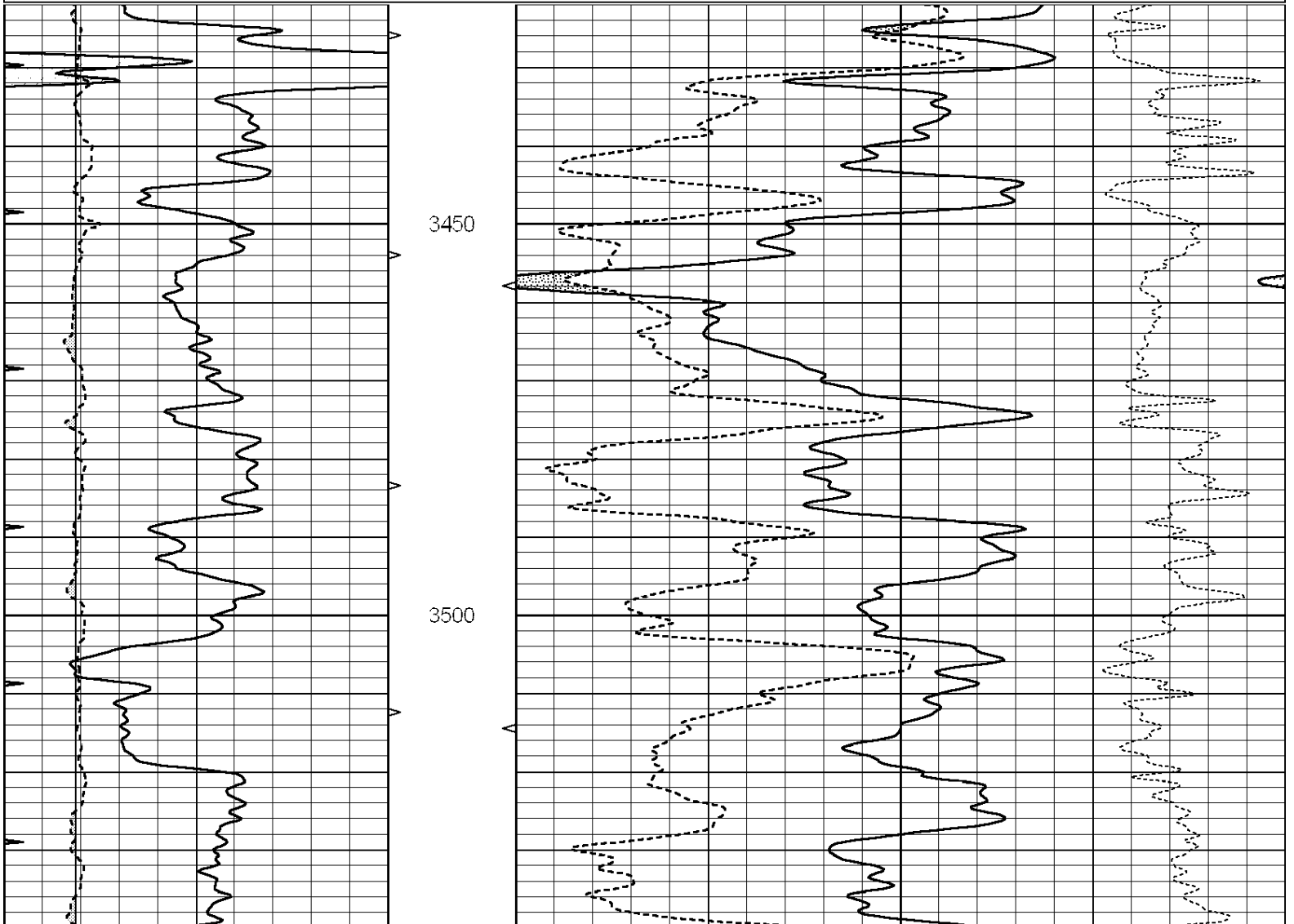


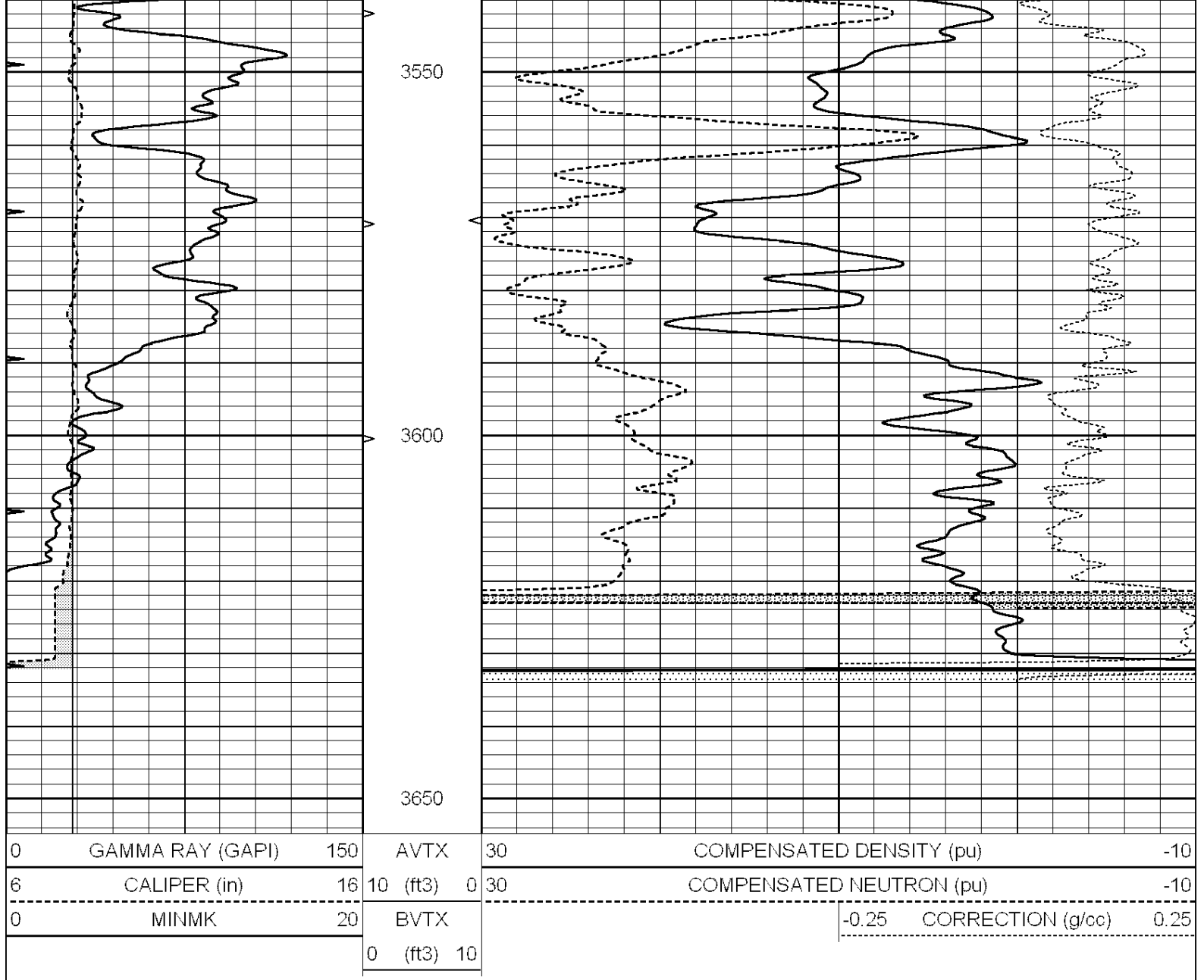
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REPEAT SECTION

Database File: 008542ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _den_neu
 Dataset Creation: Fri Feb 17 10:41:39 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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





Calibration Report

Database File: 008542ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Fri Feb 17 10:57:38 2012 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

Loop:	Readings			V	References		Results	
	Air	Loop			Air	Loop	m	b
Deep	0.015	0.648		0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796		0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657		0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757		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:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Fri Jan 06 21:06:59 2012

Master Calibration		Density		Far Detector		Near Detector	
Magnesium		1.710	g/cc	1015.91		497.51	cps
Aluminum		2.580	g/cc	227.67		350.20	cps
Spine Angle = 76.79				Density/Spine Ratio = 0.566			
		Size		Reading			
Small Ring		8.00	in	2.25	V		
Large Ring		14.00	in	4.37	V		

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	

Gamma Ray Calibration Report

Serial Number:	#8
Tool Model:	OPEN
Performed:	Mon Jun 13 16:56:43 2011
Calibrator Value:	150.0
	GAPI
Background Reading:	0.0
Calibrator Reading:	175.0
	cps
	cps
Sensitivity:	0.8371
	GAPI/cps