



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY/NEUTRON LOG

Company	HUTCHINSON OIL COMPANY	Location:	API # : 15-185-23894-00-00	Other Services DIL/MEL SON
Well	T & L #2	Permanent Datum	GROUND LEVEL	Elevation
Field	HUDSON SOUTHWEST	Log Measured From	KELLY BUSHING 9' A.G.L.	K.B. 1856
County	STAFFORD	Drilling Measured From	KELLY BUSHING	D.F. 1853
				G.L. 1847
		SEC 6	TWP 23S	RGE 12W
Date	8/28/14	Run Number	ONE	
Depth Driller	3815	Depth Logger	3816	
Bottom Logged Interval	3792	Top Log Interval	2800	
Casing Driller	8 5/8" @ 334	Casing Logger	334	
Bit Size	7 7/8	Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6000 PPM
Density / Viscosity	9.4/48	pH / Fluid Loss	8.5/11.2	
Source of Sample	FLOWLINE	Rim @ Meas. Temp	0.40 @ 75F	
Rmf @ Meas. Temp	0.12 @ 75F	Rmc @ Meas. Temp	0.19 @ 75F	
Source of Rmf / Rmc	MEASURED	Rim @ BHT	0.26 @ 114F	
Time Circulation Stopped	2 HOURS	Time Logger on Bottom	114F	
Maximum Recorded Temperature	3802	Equipment Number	HAYS, KS.	
Location	IAN MABB	Recorded By	JEFFREY A. BURK	ELI J. FELTS
Witnessed By				

<<< Fold Here >>>

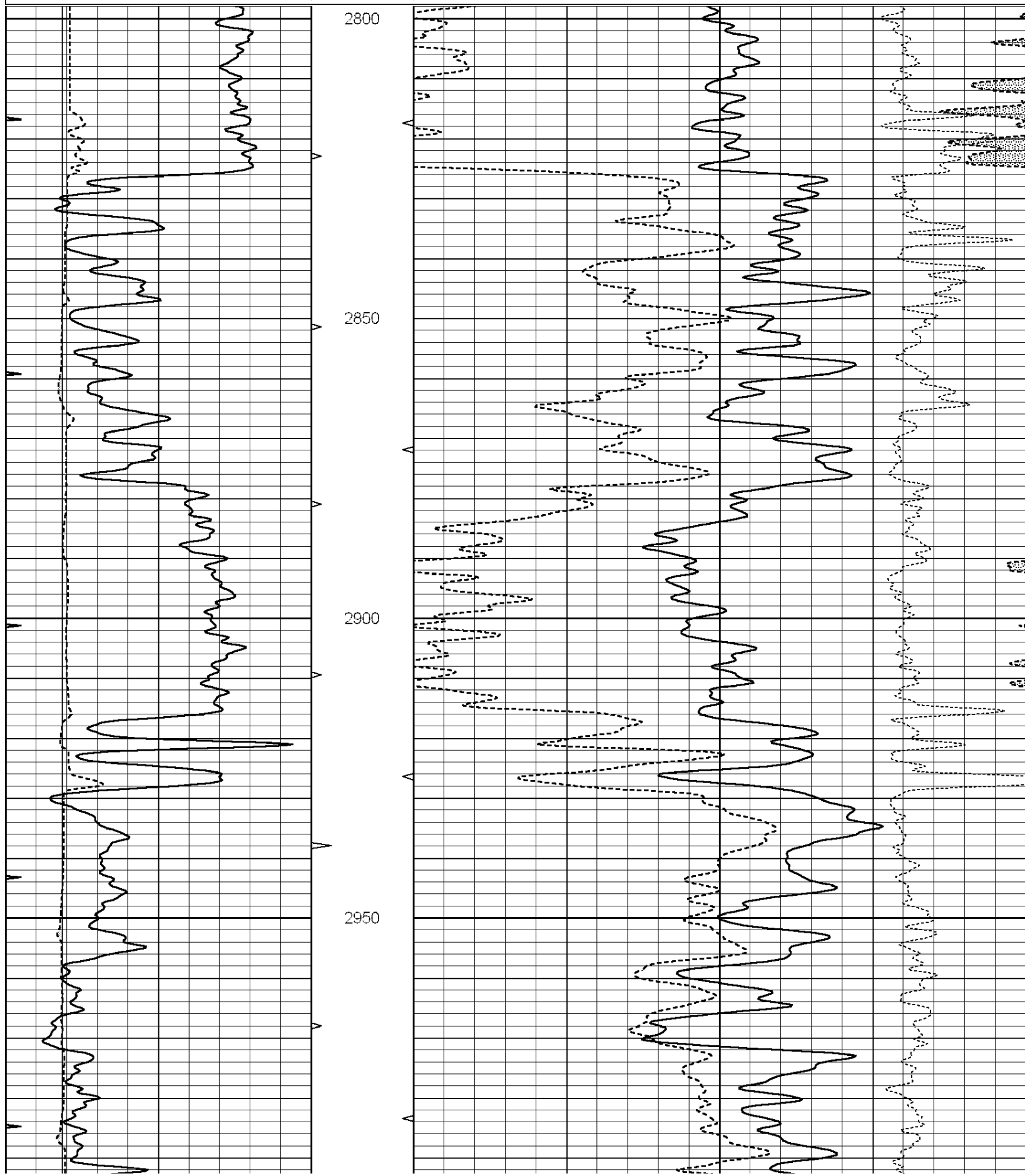
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

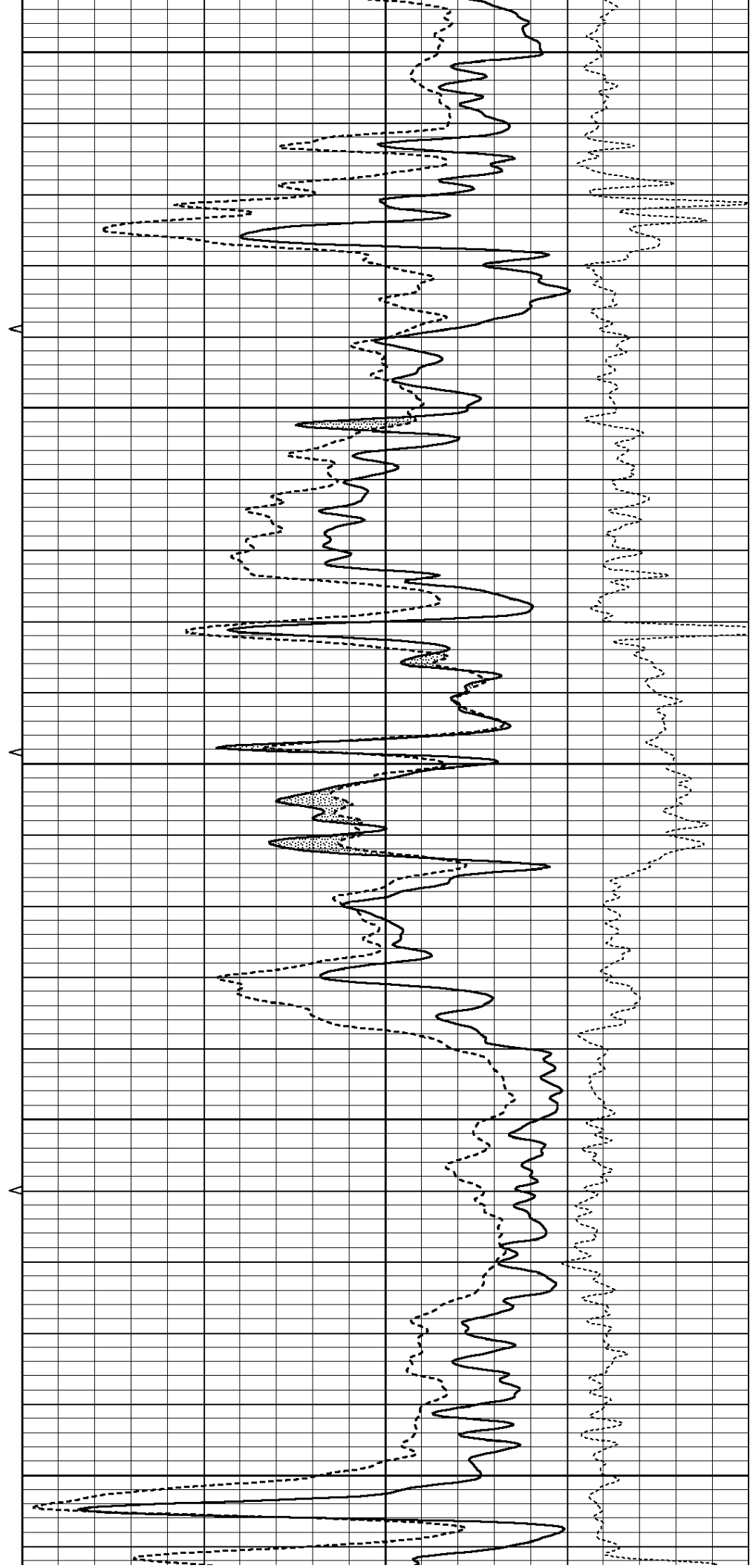
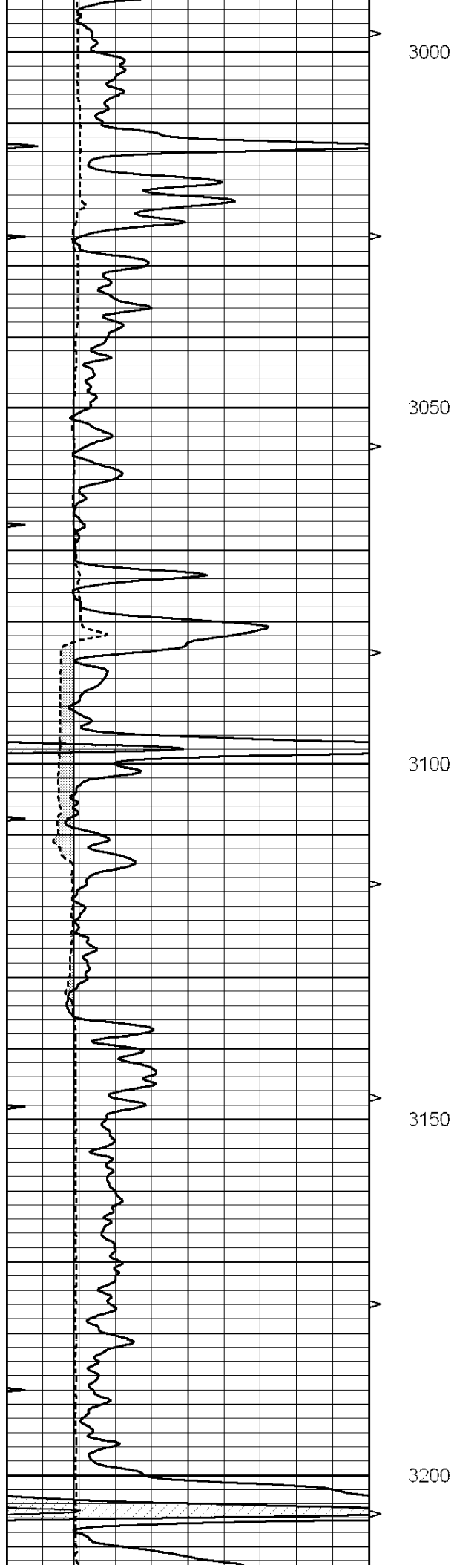
Comments

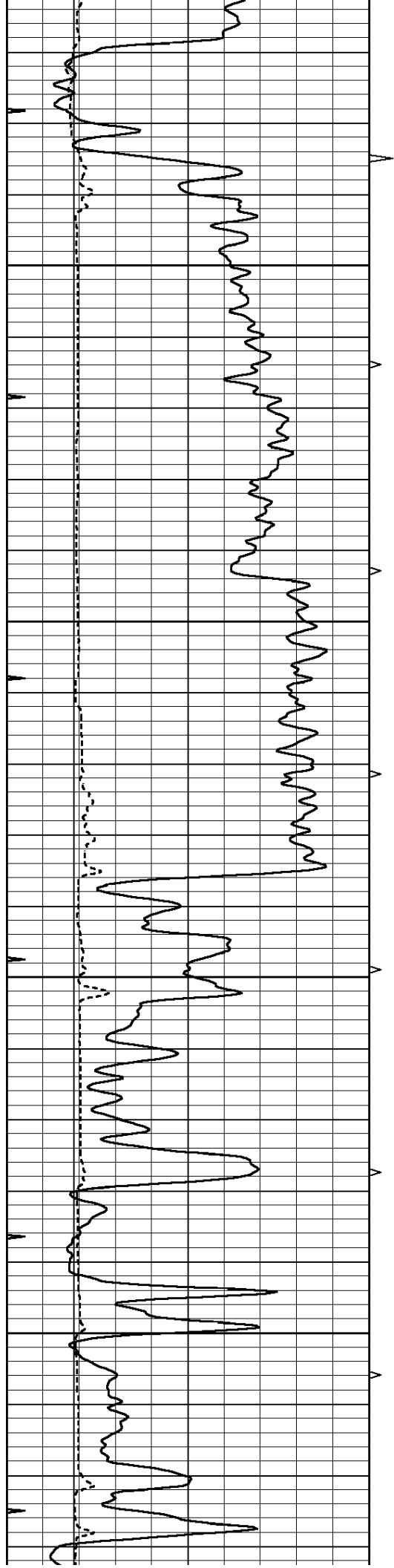
THANK YOU FOR USING NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:
HUDSON, KS. - 1 WEST TO NE 40 RD. - 1/2 SOUTH - WEST INTO

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			





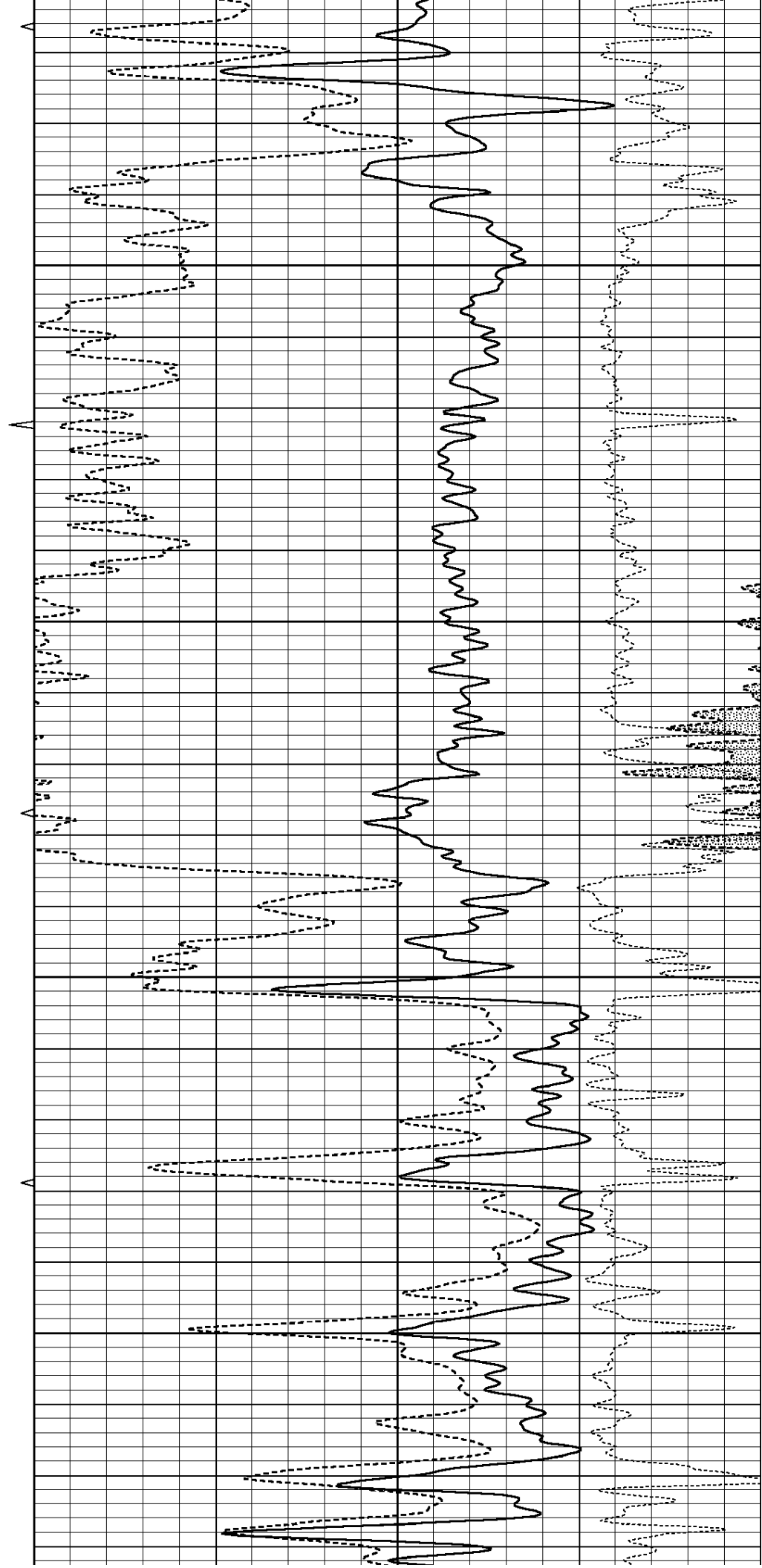


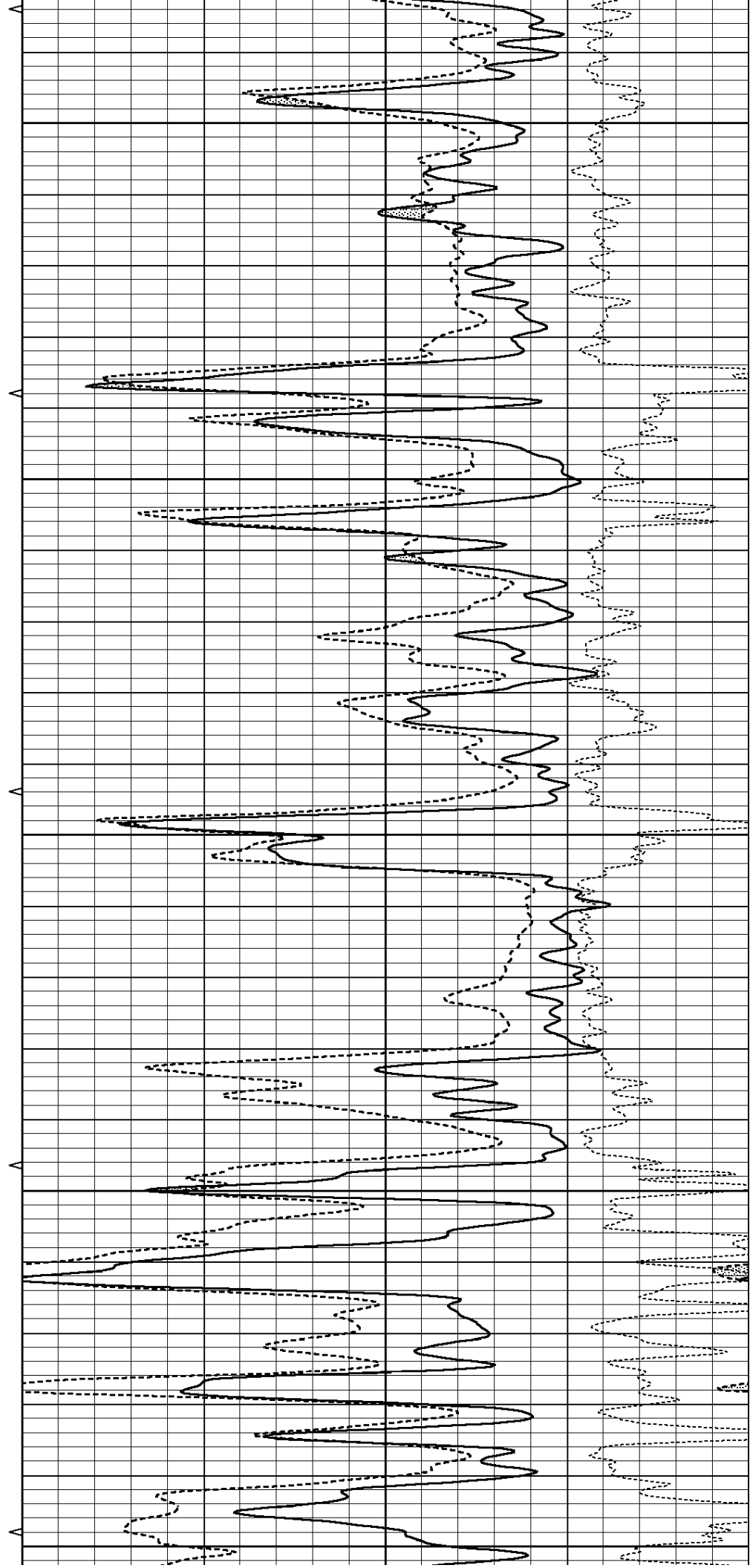
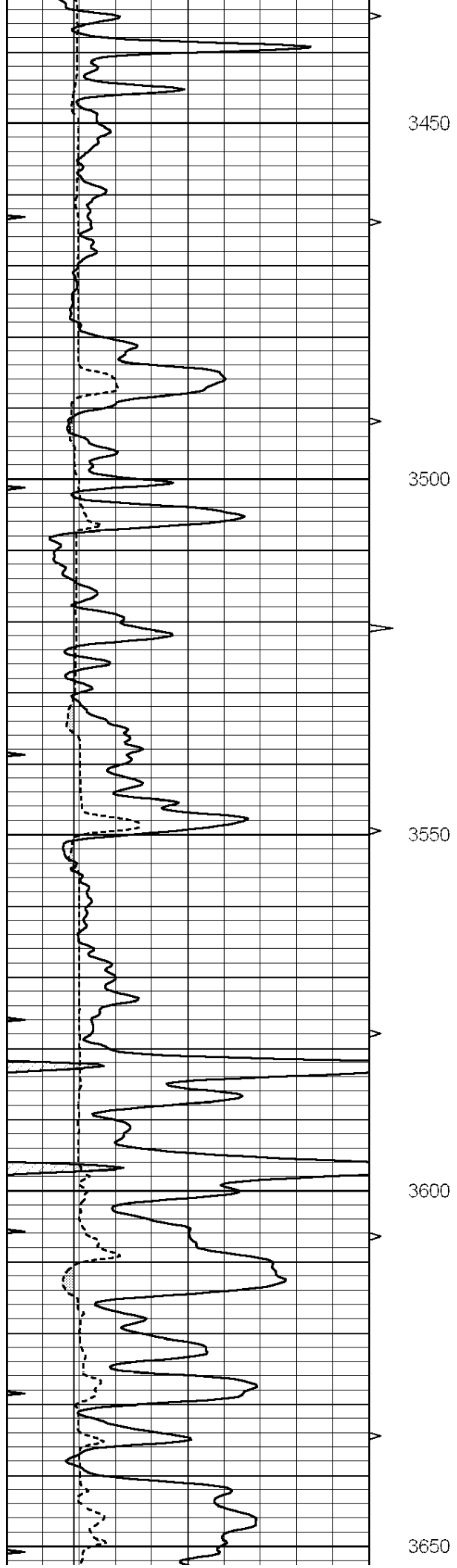
3250

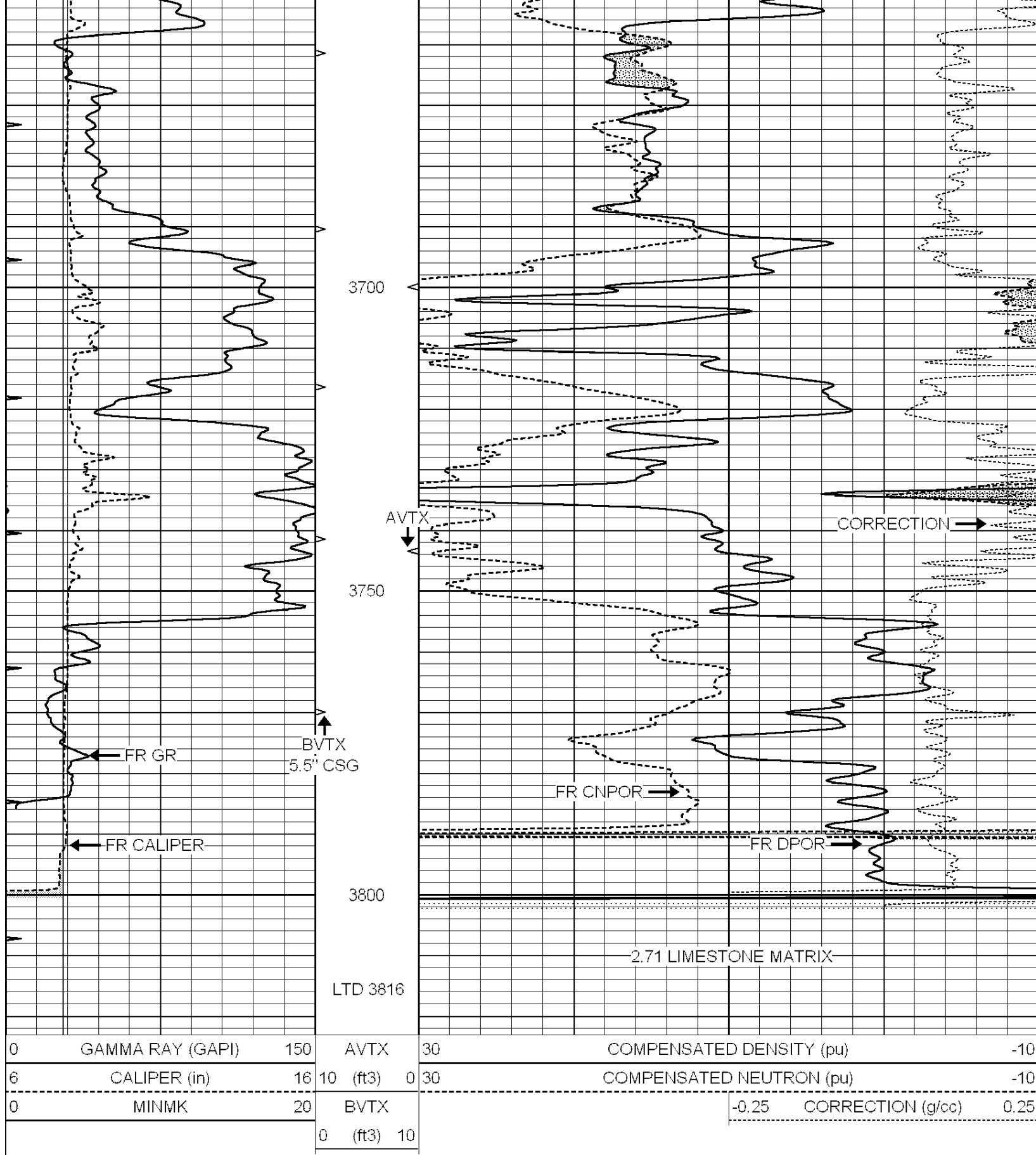
3300

3350

3400

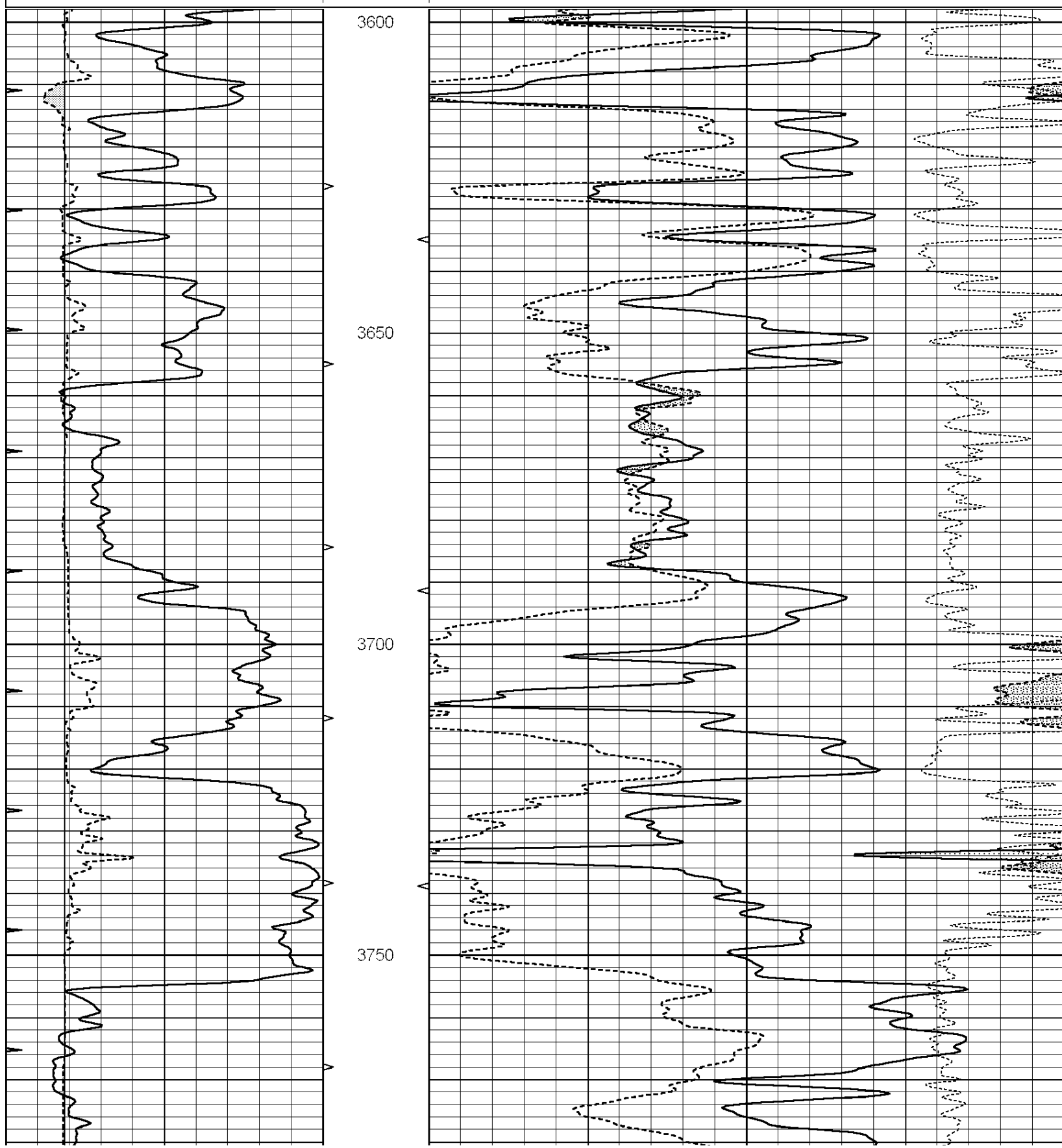


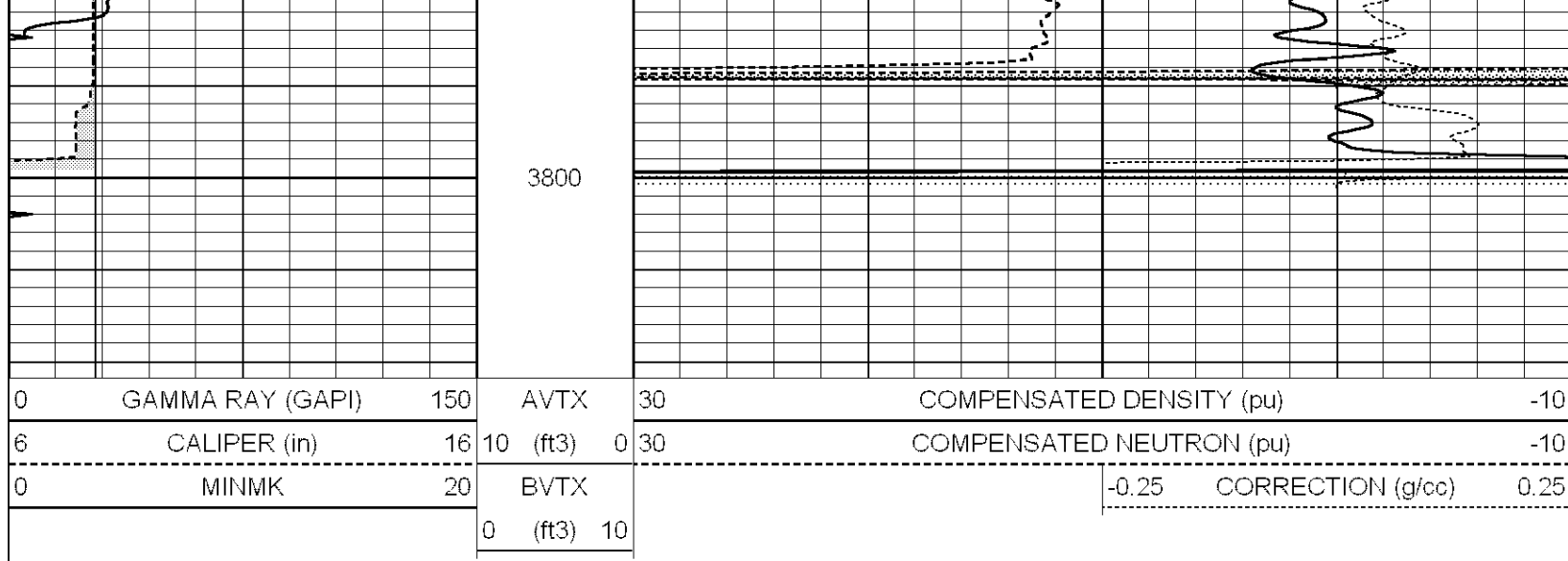




Database File: 20810001.db
Dataset Pathname: pass2.1
Presentation Format: _den_neu
Dataset Creation: Thu Aug 28 21:40:26 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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: 25810ddn.db
 Dataset Pathname: pass3.4
 Dataset Creation: Thu Aug 28 22:18:30 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Sat May 17 16:06:41 2014

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	550.000	8.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	540.000	-5.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000

Compensated Density Calibration Report

Serial-Model: GEAR5-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Sat Aug 02 01:49:41 2014

Master Calibration

	Density		Far Detector		Near Detector	
Magnesium	1.710	g/cc	943.83		576.01	cps
Aluminum	2.610	g/cc	212.01		399.19	cps
Spine Angle = 76.20			Density/Spine Ratio = 0.585			
	Size		Reading			
Small Ring	8.40	in	1.64	V		
Large Ring	14.00	in	2.93	V		

Compensated Neutron Calibration Report

Serial Number: 080620
 Tool Model: Probe

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:	46001		
Tool Model:	Probe1		
Performed:	Sat Aug 02 01:56:52 2014		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2600	GAPI/cps	