



**COMPENSATED DENSITY  
NEUTRON  
LOG**

Company	Meridian Energy	Location:	API # : 15 163 24145	Other Services
Well	Hamel 3A		330' FSL & 660' FWL	ML DIL
Field	Lynd	Permanent Datum	SEC 33 TWP 9S RGE 19W	Elevation
County	Rooks	Log Measured From	Ground Level	2208'
State	KS	Drilling Measured From	Elevation	2208'

Date	10-16-13
Run Number	One
Depth Driller	3830'
Depth Logger	3830'
Bottom Logged Interval	3829'
Top Log Interval	3000'
Casing Driller	5/8" @ 220'
Casing Logger	220'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical Mud
Density / Viscosity	9.3/58
pH / Fluid Loss	10.0/8.8
Source of Sample	Pit
Rm @ Meas. Temp	1.95@85degf
Rmf @ Meas. Temp	1.56@85degf
Rmc @ Meas. Temp	2.5@85degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.44@115degf
Time Circulation Stopped	5:00 p.m.
Time Logger on Bottom	7:00 p.m.
Maximum Recorded Temperature	115 degf
Equipment Number	T127
Location	Hays, KS.
Recorded By	L. Smith
Witnessed By	Mr. Pat Deenihan

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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

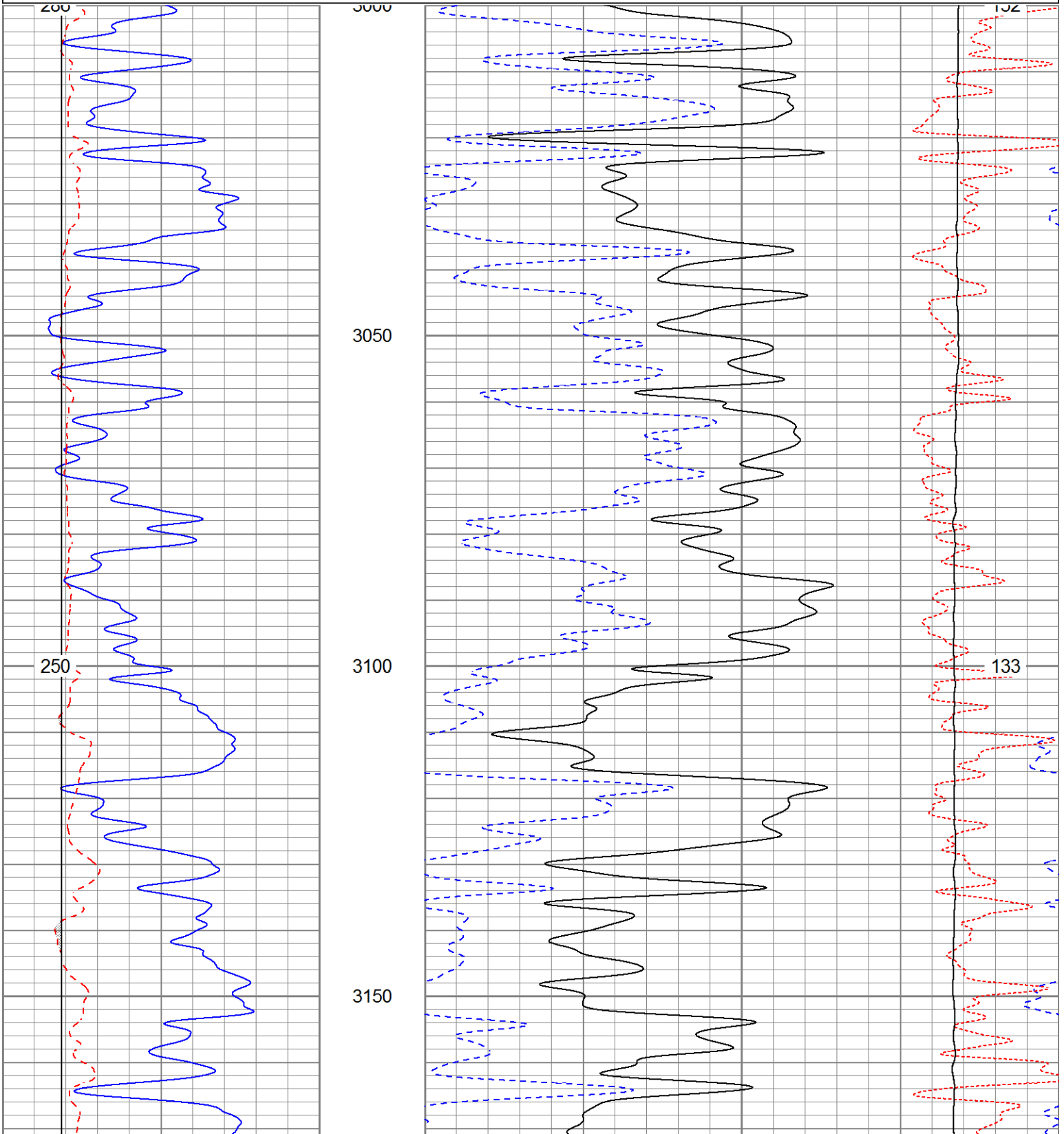
Thank you for using Gemini Wireline  
785-625-1182

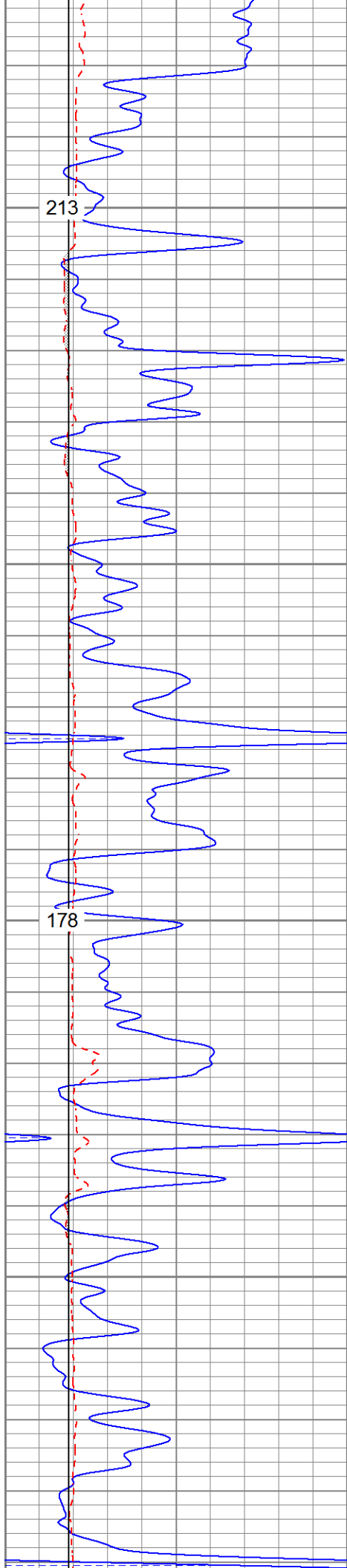


**Main Pass**

Database File mehamel3aoh.db  
 Dataset Pathname pass3.1  
 Presentation Format kcdnl  
 Dataset Creation Wed Oct 16 20:44:09 2013  
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
6	BOREID (in)	16	70	DPOR (pu)	30
TBHV (ft3)			8000	LTEN (lb)	0
				-0.25	RHOC (g/cc)
					0.25
					ABHV (ft3)



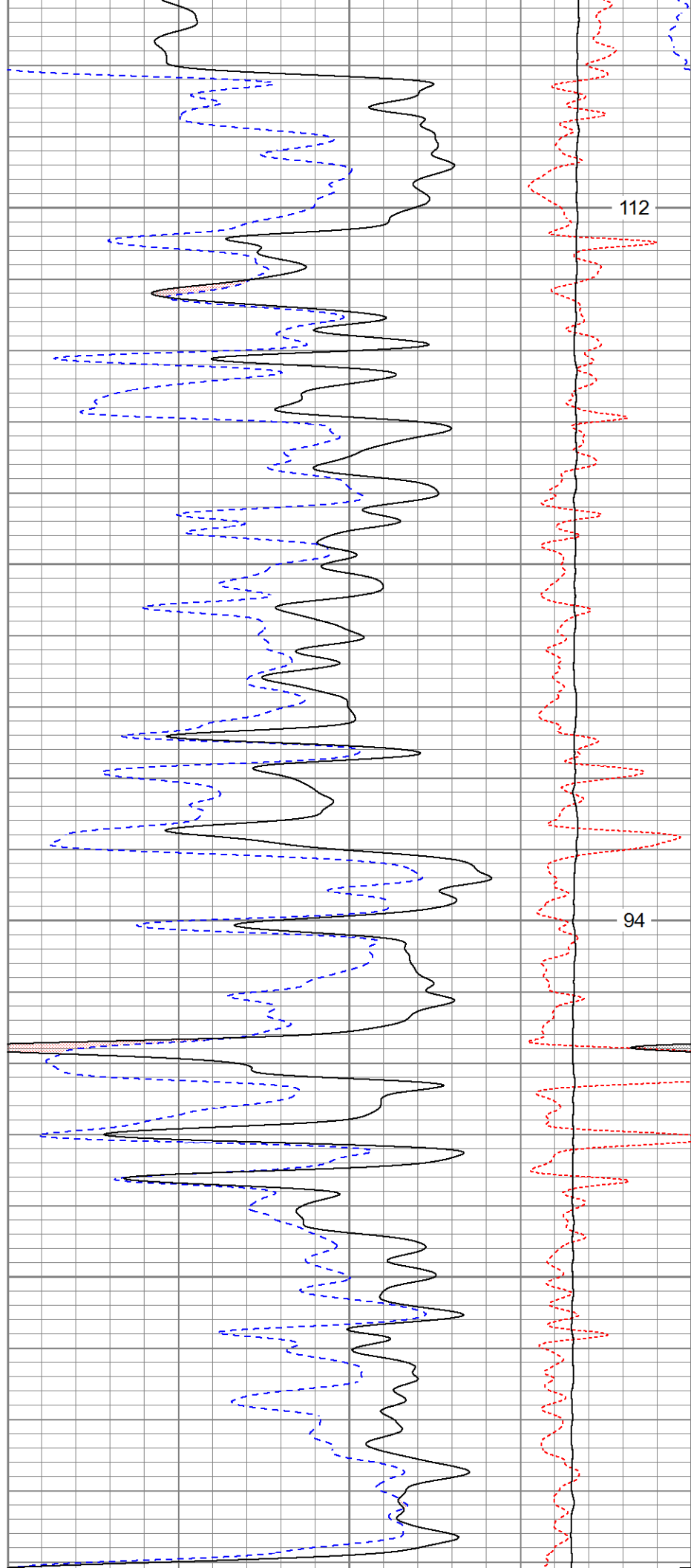


3200

3250

3300

3350

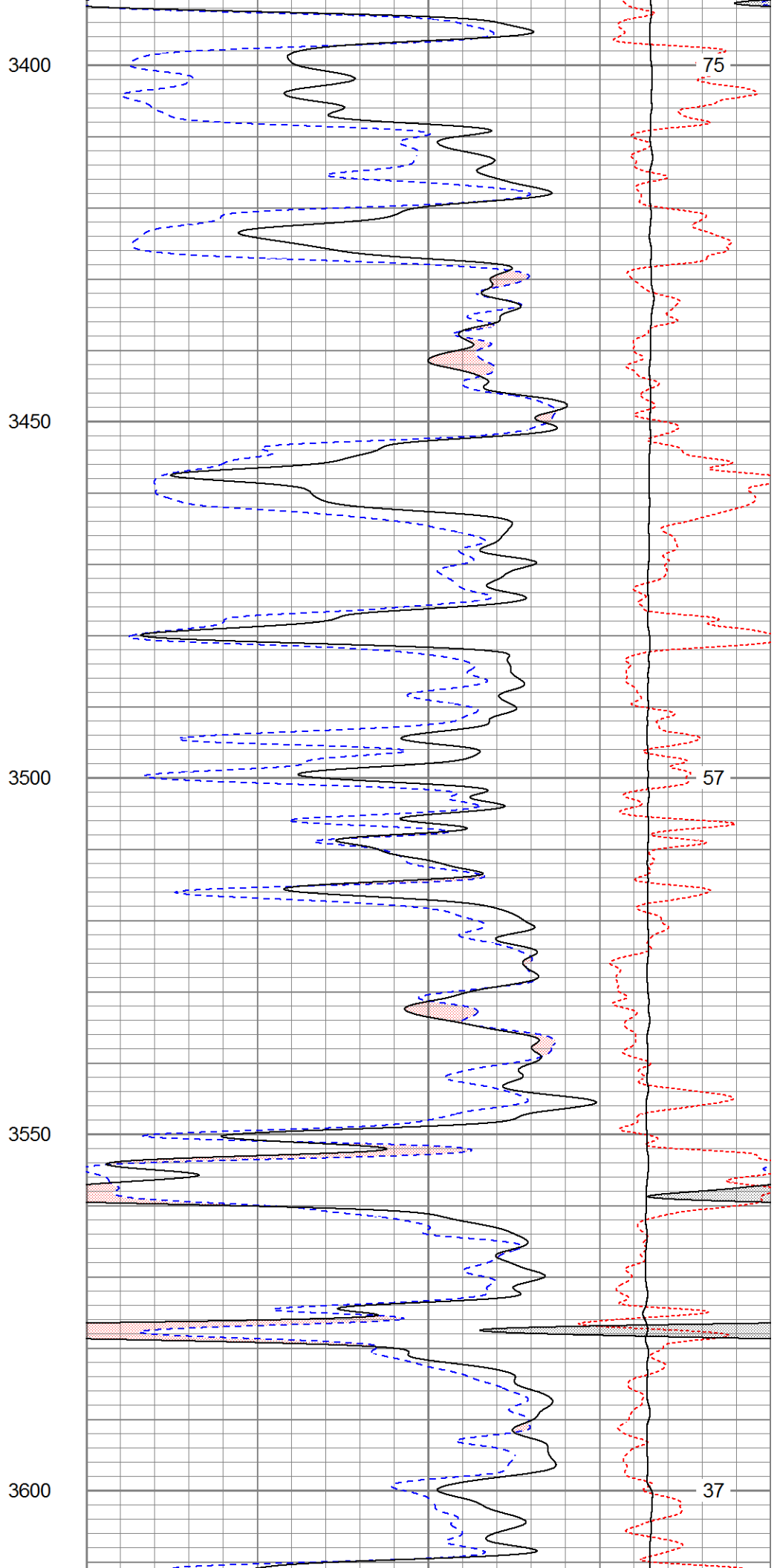
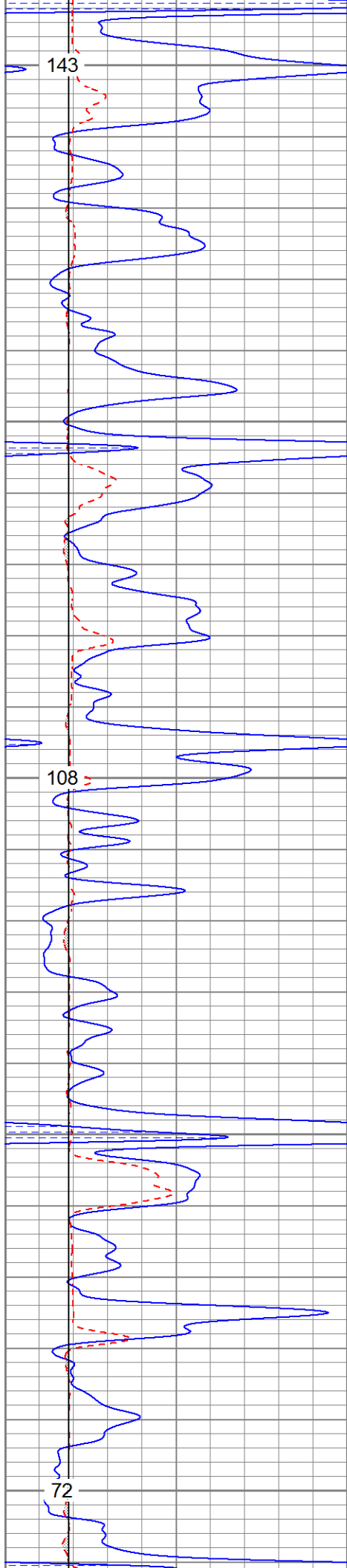


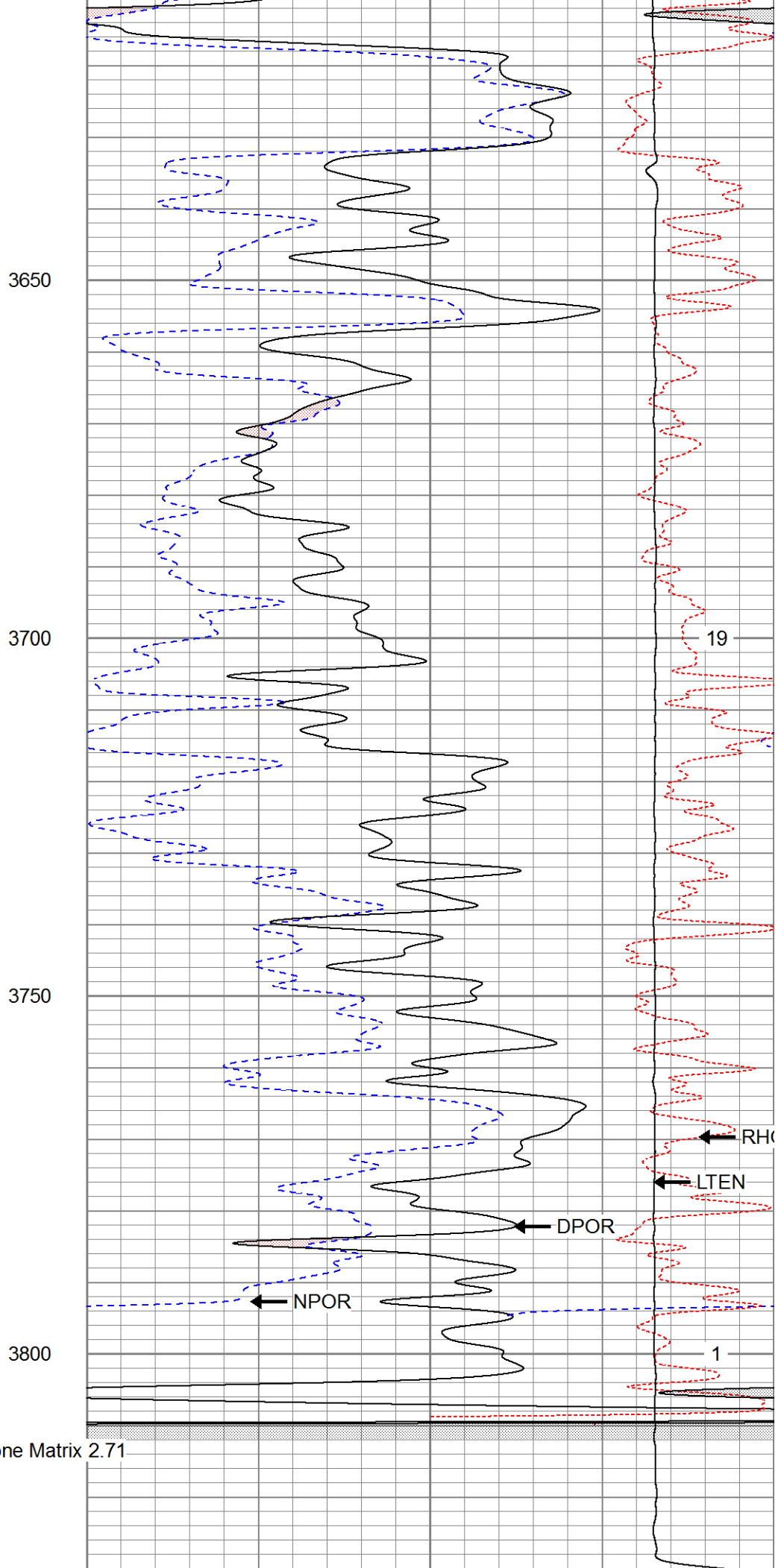
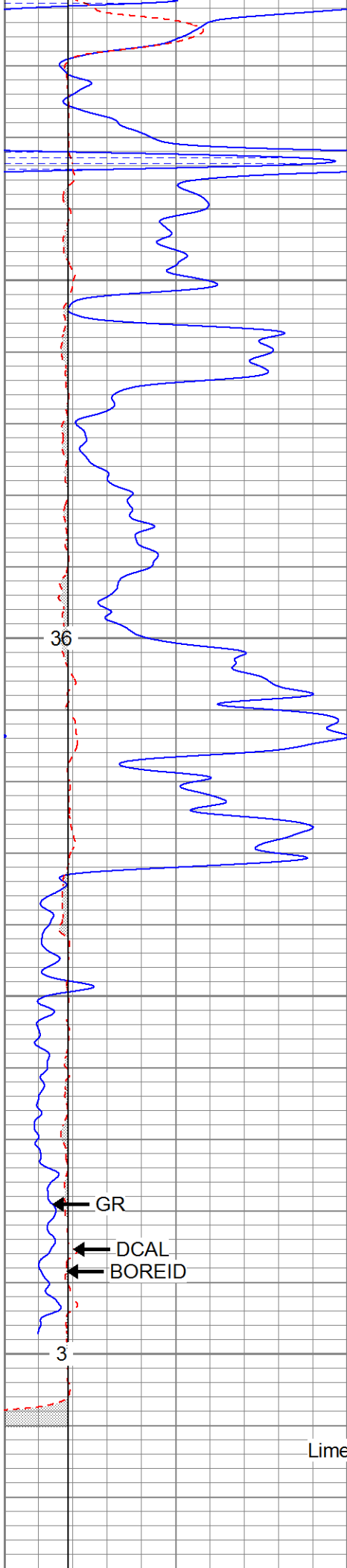
112

94

213

178





Limestone Matrix 2.71

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
TBHV (ft3)		

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
8000	LTEN (lb)	0
	RHOC (g/cc)	0.25
	ABHV (ft3)	

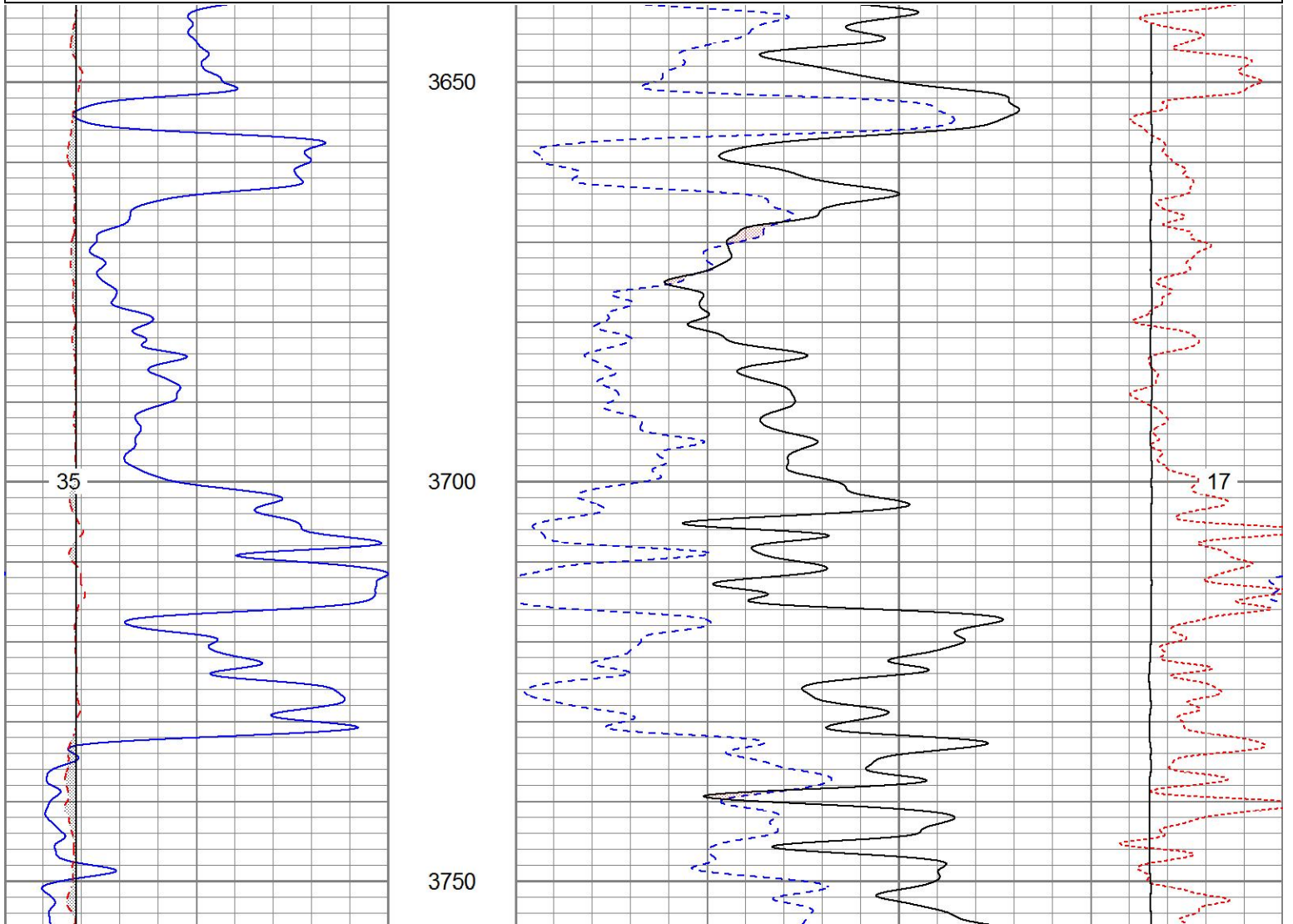


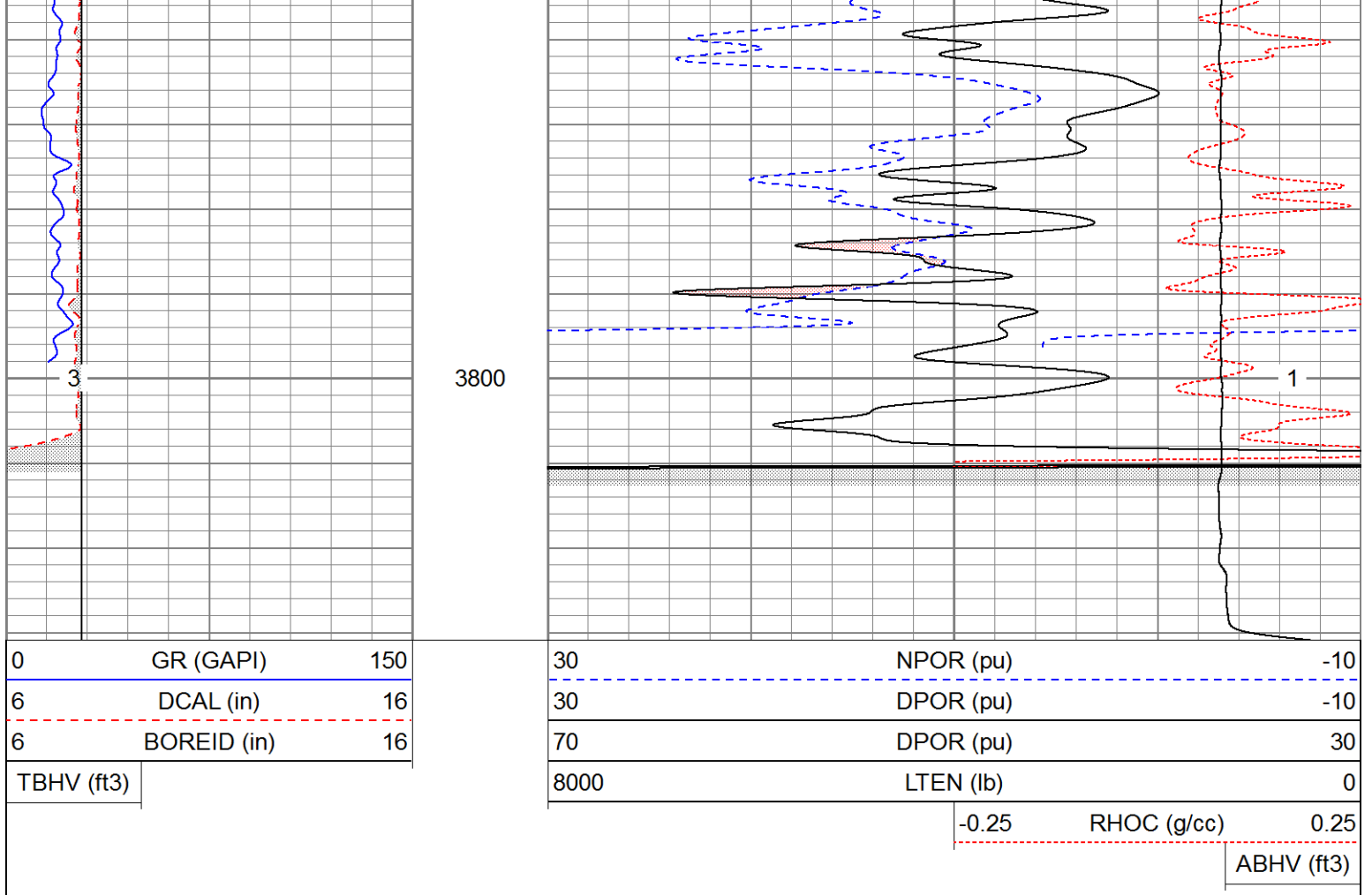
# Repeat Pass

Database File mehamel3aoh.db  
 Dataset Pathname pass2.1  
 Presentation Format kcdnl  
 Dataset Creation Wed Oct 16 19:59:39 2013  
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
TBHV (ft3)		

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
8000	LTEN (lb)	0
	RHOC (g/cc)	0.25
	ABHV (ft3)	





### Calibration Report

Database File mehamel3aoh.db  
 Dataset Pathname pass2.1  
 Dataset Creation Wed Oct 16 19:59:39 2013

### Dual Induction Calibration Report

Serial-Model: 1842-ADM  
 Surface Cal Performed: Wed Oct 16 17:05:25 2013  
 Downhole Cal Performed: Wed Oct 16 17:05:29 2013  
 After Survey Verification Performed: Wed Oct 16 17:05:31 2013

#### Surface Calibration

Loop:	Readings			V	References			Results	
	Air	Loop			Air	Loop	mmho/m	m	b
Deep	0.014	0.660			0.000	350.000	mmho/m	541.845	-7.742
Medium	0.003	0.761			0.000	400.000	mmho/m	527.924	-1.569
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.013	0.663	V	0.000	350.000	mmho/m	538.740	-6.964	
Medium	0.003	0.761	V	0.000	550.000	mmho/m	726.060	-2.265	

#### Downhole Calibration

Internal:	Readings			V	References			Results	
	Zero	Cal			Zero	Cal	mmho/m	m	b
Deep	-0.857	351.396	mmho/m	-0.737	351.280	mmho/m	0.999	0.118	
Medium	0.187	400.000	mmho/m	0.077	300.000	mmho/m	1.000	0.110	

Medium	0.187	400.090	mmho/m	0.077	399.987	mmho/m	1.000	-0.110
Shallow	2.543	0.024	V	500.000	2.000	Ohm-m	197.760	-4.200

After Survey Verification

Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.857	351.396	mmho/m	0.999	0.118
Medium	0.000	0.000	mmho/m	0.187	400.090	mmho/m	1.000	-0.110
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Compensated Density Calibration Report

Serial-Model: 2388DHT-DHT  
Source / Verifier: csv j12 / csv j12  
Master Calibration Performed: Mon Oct 14 17:07:01 2013  
Before Survey Verification Performed:  
After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	637.65	312.75	cps
Aluminum	2.650	g/cc	121.25	205.62	cps
Spine Angle = 75.82			Density/Spine Ratio = 0.526		
	Size		Reading		
Small Ring	8.30	in	5771.32		
Large Ring	14.00	in	10165.20		

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

Gamma Ray Calibration Report

Serial Number: 2001  
Tool Model: OH  
Performed: Mon Oct 14 17:07:10 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.2300 GAPI/cps

Neutron Calibration Report

Serial Number: 5108  
Tool Model: PROBE  
Performed: Mon Oct 14 17:07:15 2013



Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
NEU	36.50		None	0.75	1.50	5.00
			NEU-PROBE (5108) Probe	4.92	3.63	85.00
GR	30.56		GR-OH (2001) 2001	3.56	3.25	40.00
			DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
LSD	22.02					
DCAL	21.73					
SSD	21.48					
HEADVOLT	19.71					
SP	10.60					
CILD	10.60			DIL-ADM (1842) Dual Induction	19.71	4.00
CILM	6.89					
RLL3	1.70					

Dataset: mehamel3aoh.db: field/well/run1/pass2.1  
 Total length: 38.63 ft  
 Total weight: 631.00 lb  
 O.D.: 4.00 in