



**DUAL  
INDUCTION  
LOG**

Company John O. Farmer, Inc.  
Well Reif #1  
Field Trapp  
County Barton  
State KS

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Field Trapp  
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Location: 900' FSL & 1950' FWL  
API #: 15 009 26270  
SEC 13 TWP 16S RGE 14W  
Permanent Datum Ground Level Elevation 1930'  
Log Measured From KB 8' AGL  
Drilling Measured From KB  
Other Services  
CDNL  
ML  
Elevation  
K.B. 1938'  
D.F. 1937'  
G.L. 1930'

Date	09/19/2019
Run Number	One
Depth Driller	3438'
Depth Logger	3438'
Bottom Logged Interval	3436'
Top Log Interval	460'
Casing Driller	8 5/8" @ 472'
Casing Logger	472'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical Mud
Density / Viscosity	9.1/53
pH / Fluid Loss	10.0/9.6
Source of Sample	Pit
Rm @ Meas. Temp	0.8@80degf
Rmt @ Meas. Temp	0.64@80degf
Rmc @ Meas. Temp	1.02@80degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	0.63@101degf
Time Circulation Stopped	3:00 a.m
Time Logger on Bottom	5:10 a.m
Maximum Recorded Temperature	101degf
Equipment Number	T-605
Location	Hays, KS.
Recorded By	C.Patterson
Witnessed By	Mr. Austin Klaus

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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**

Russell, KS South 15 mi. to 200 Rd., Then East 1.5 mi. on 200 Rd.,  
North into Location

Thank you for using Gemini Wireline  
785-625-1182



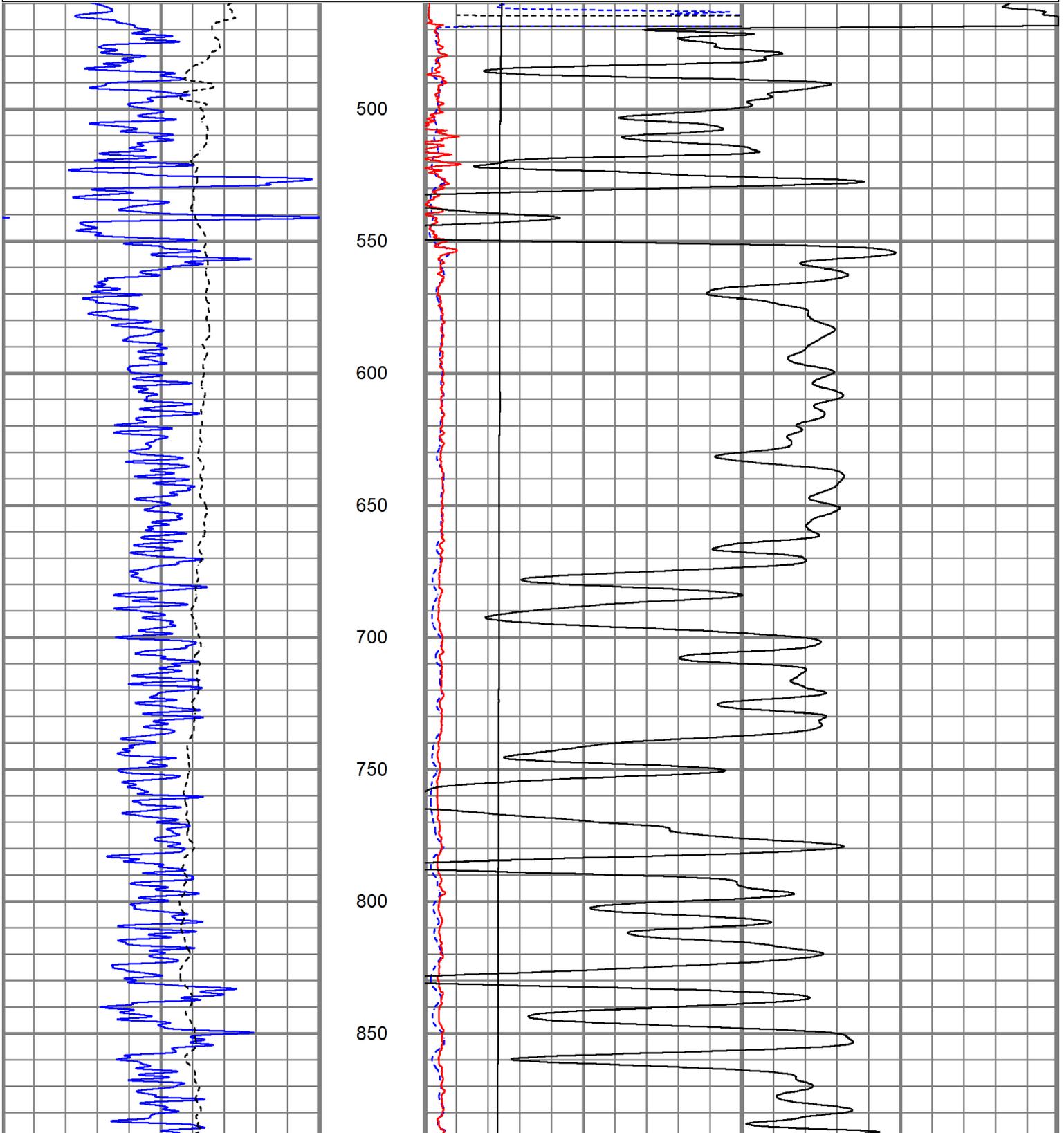
**MAIN PASS**

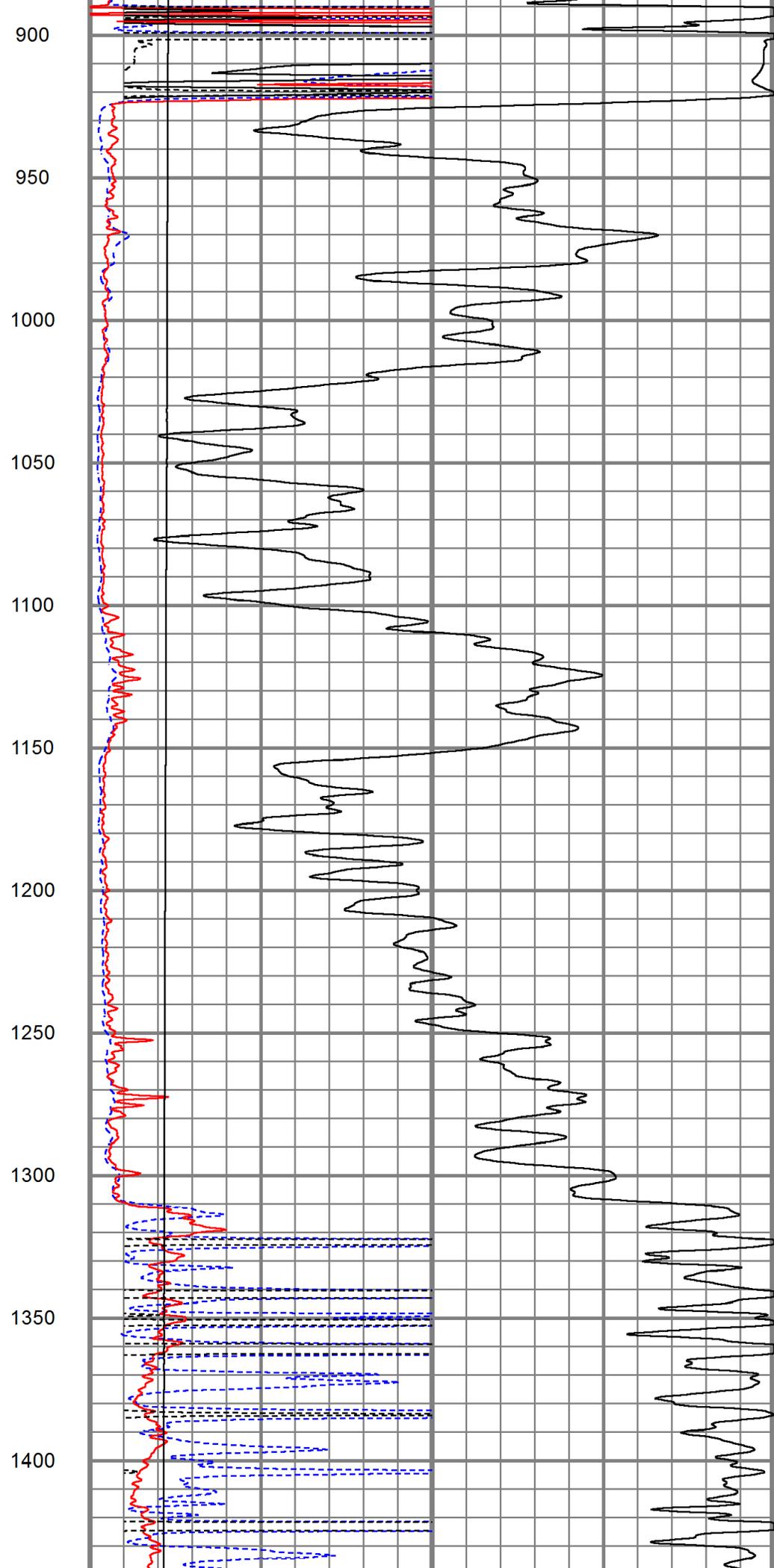
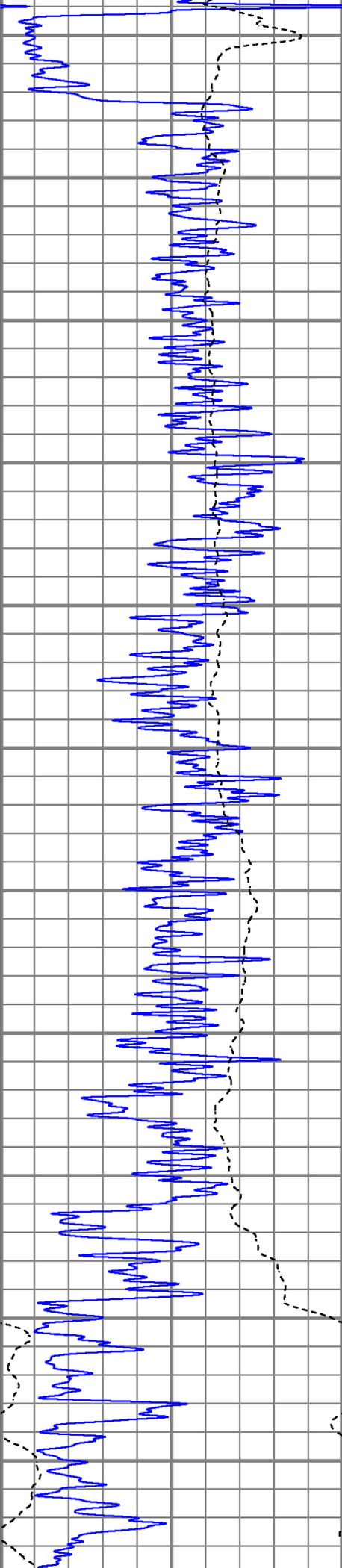
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 Presentation Format kdrillinn  
 Dataset Creation Thu Sep 19 06:22:05 2019  
 Charted by Depth in Feet scaled 1:600

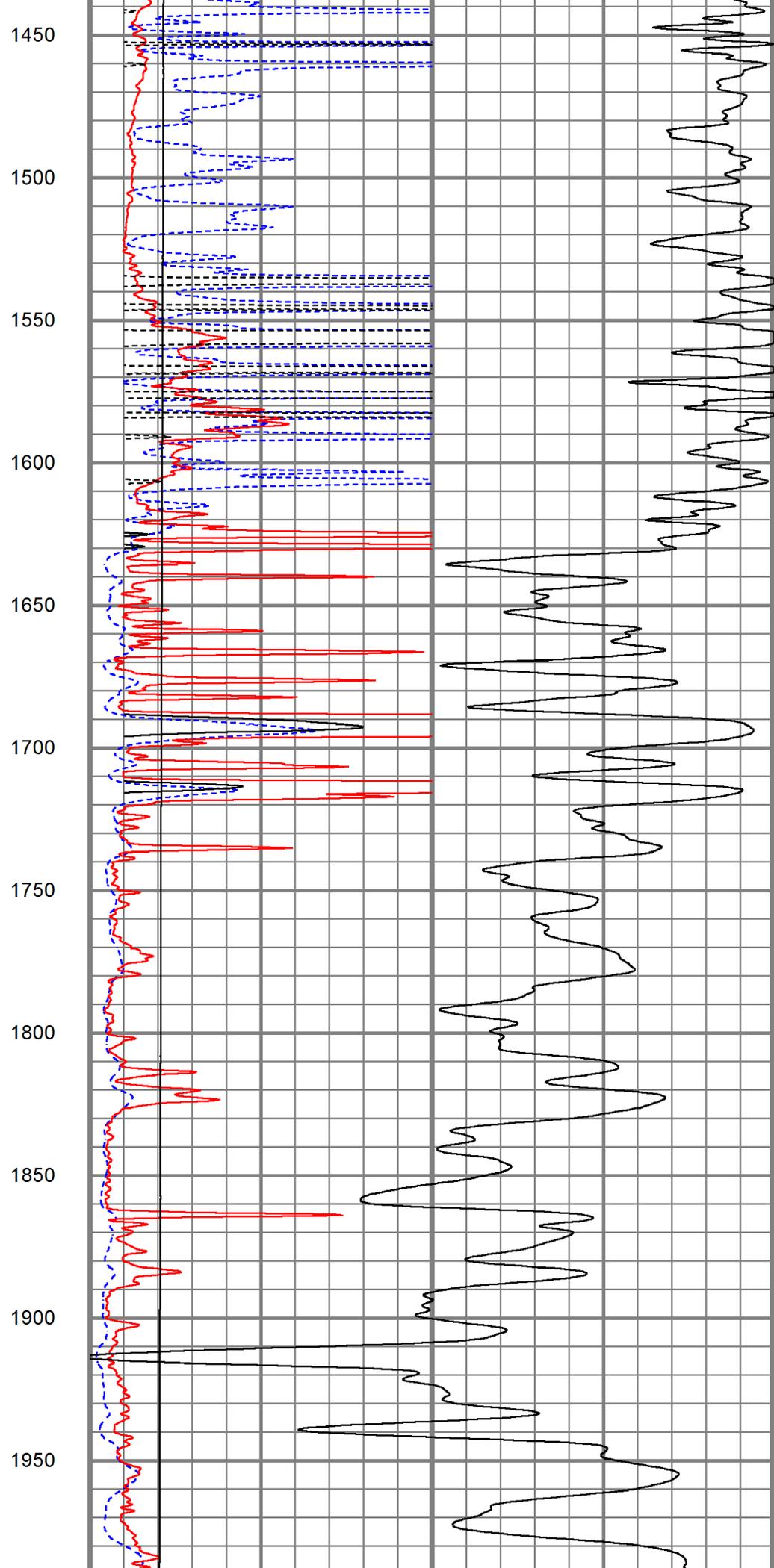
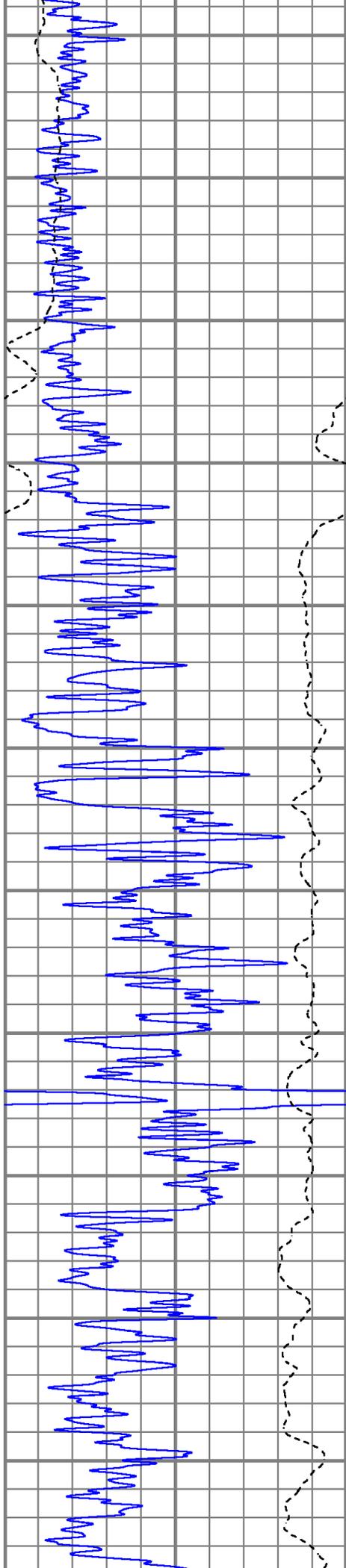
0	GR (GAPI)	150
-100	SP (mV)	100

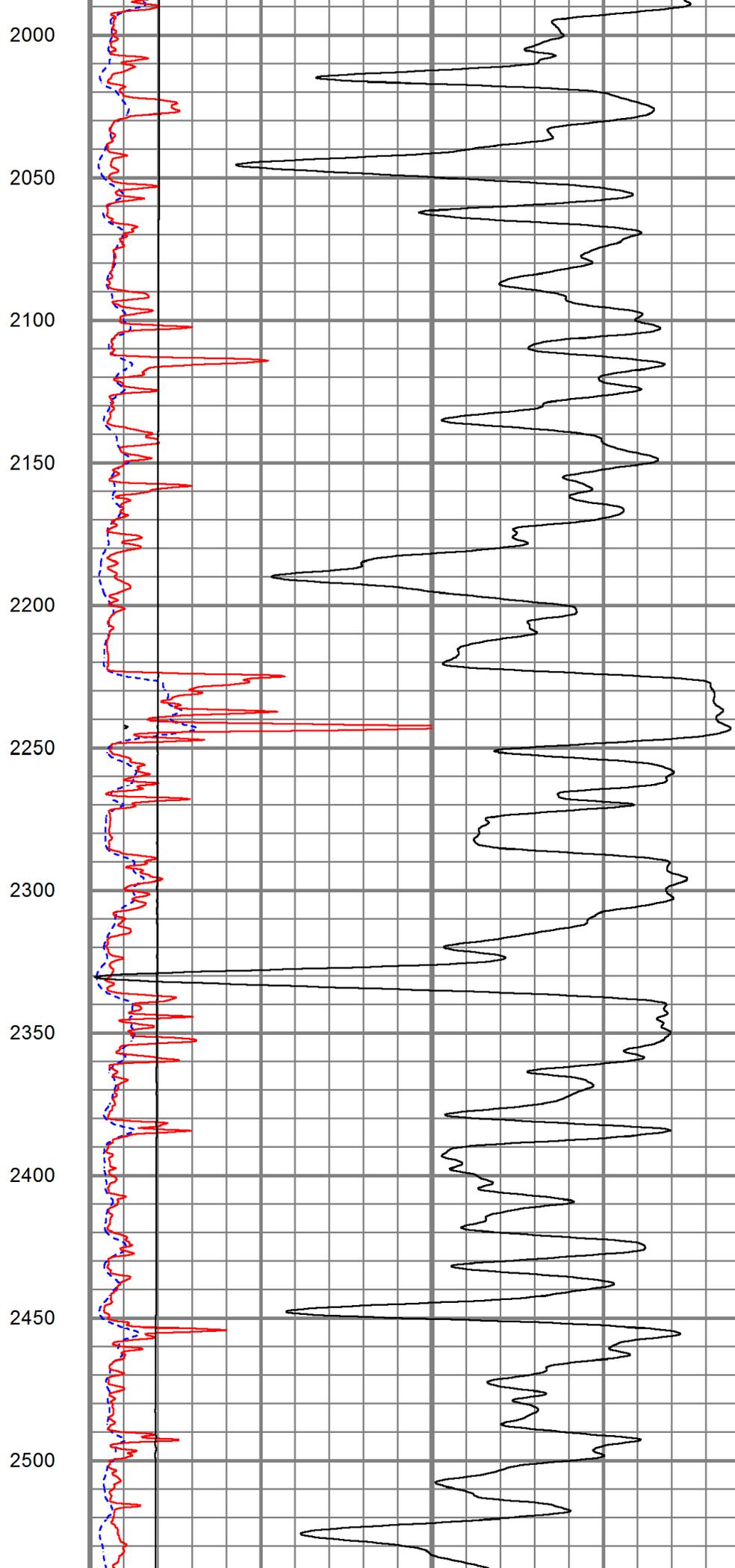
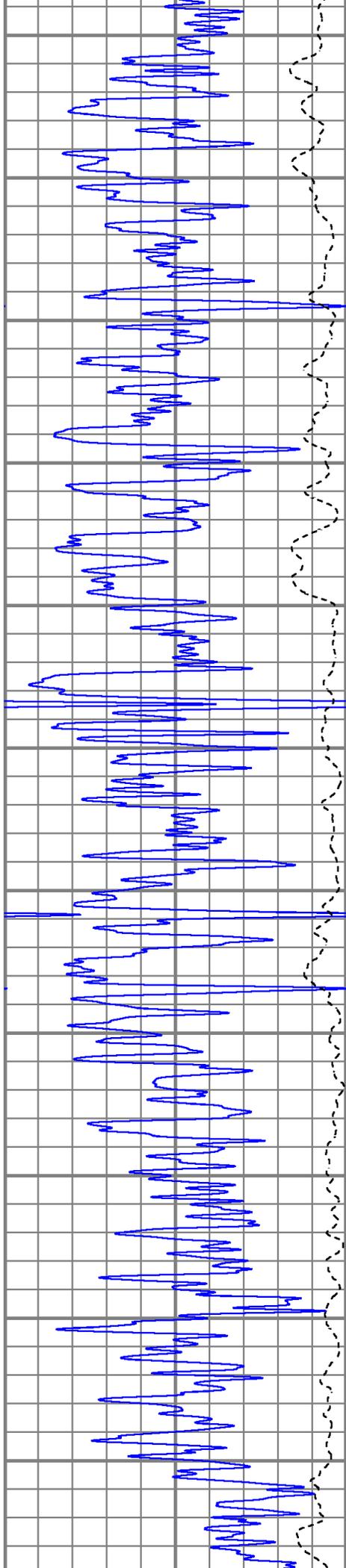
1000	CILD (mmho/m)	0
10000	LTEN (lb)	0

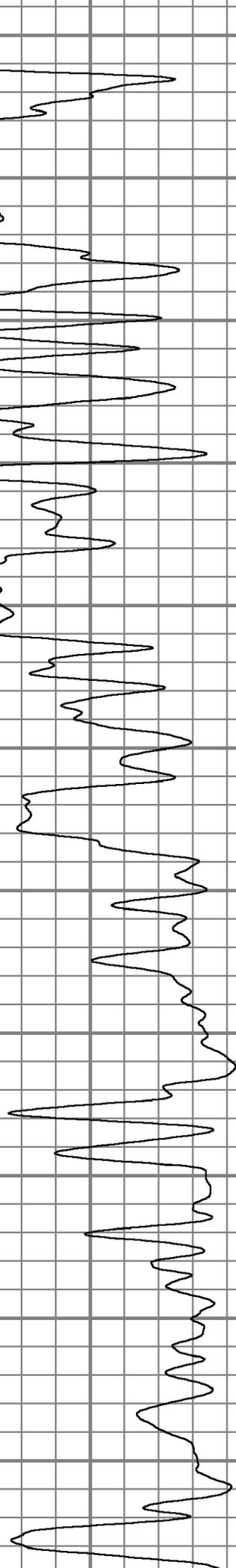
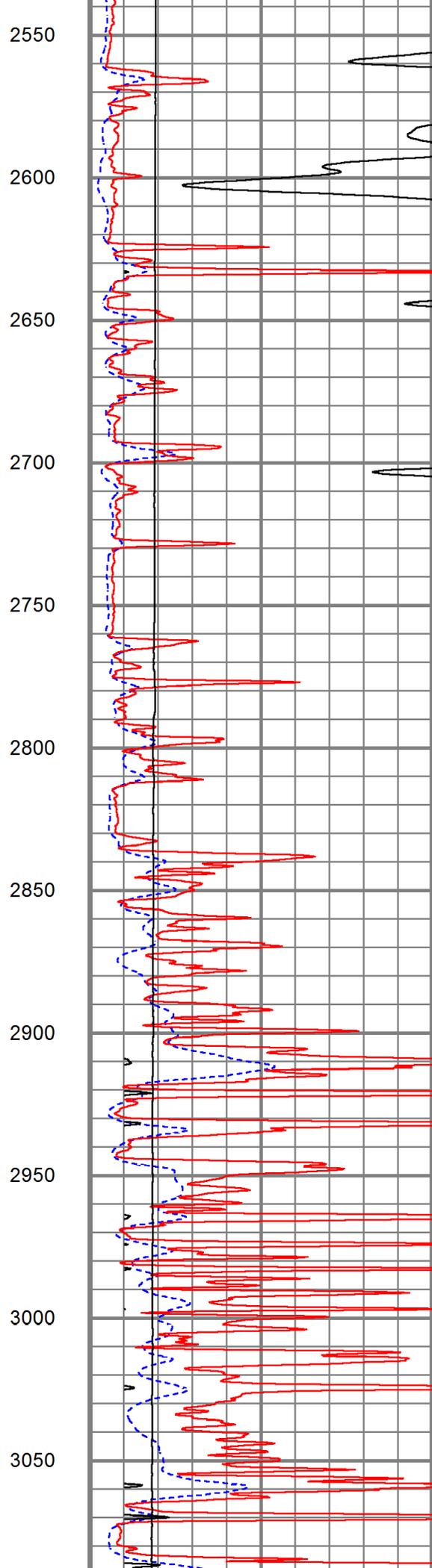
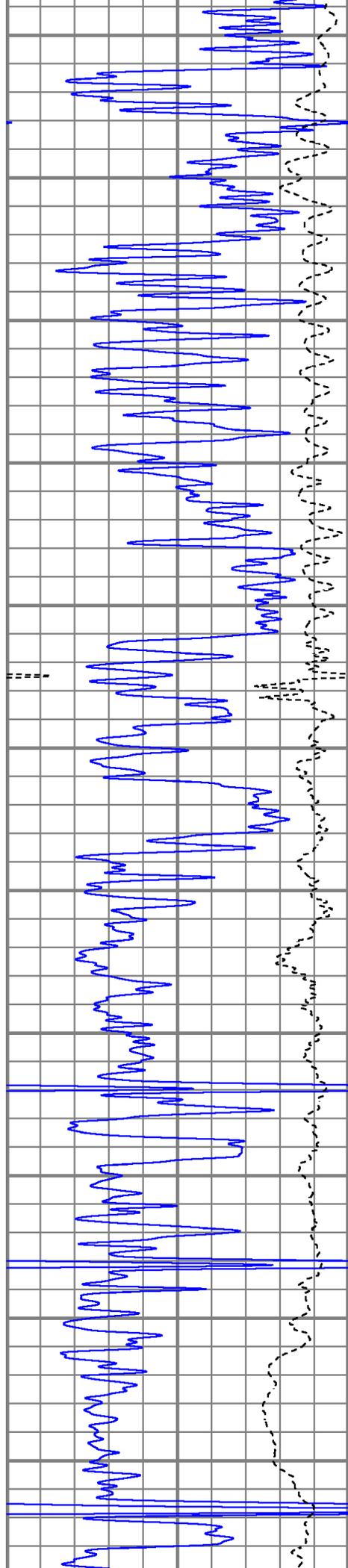
0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

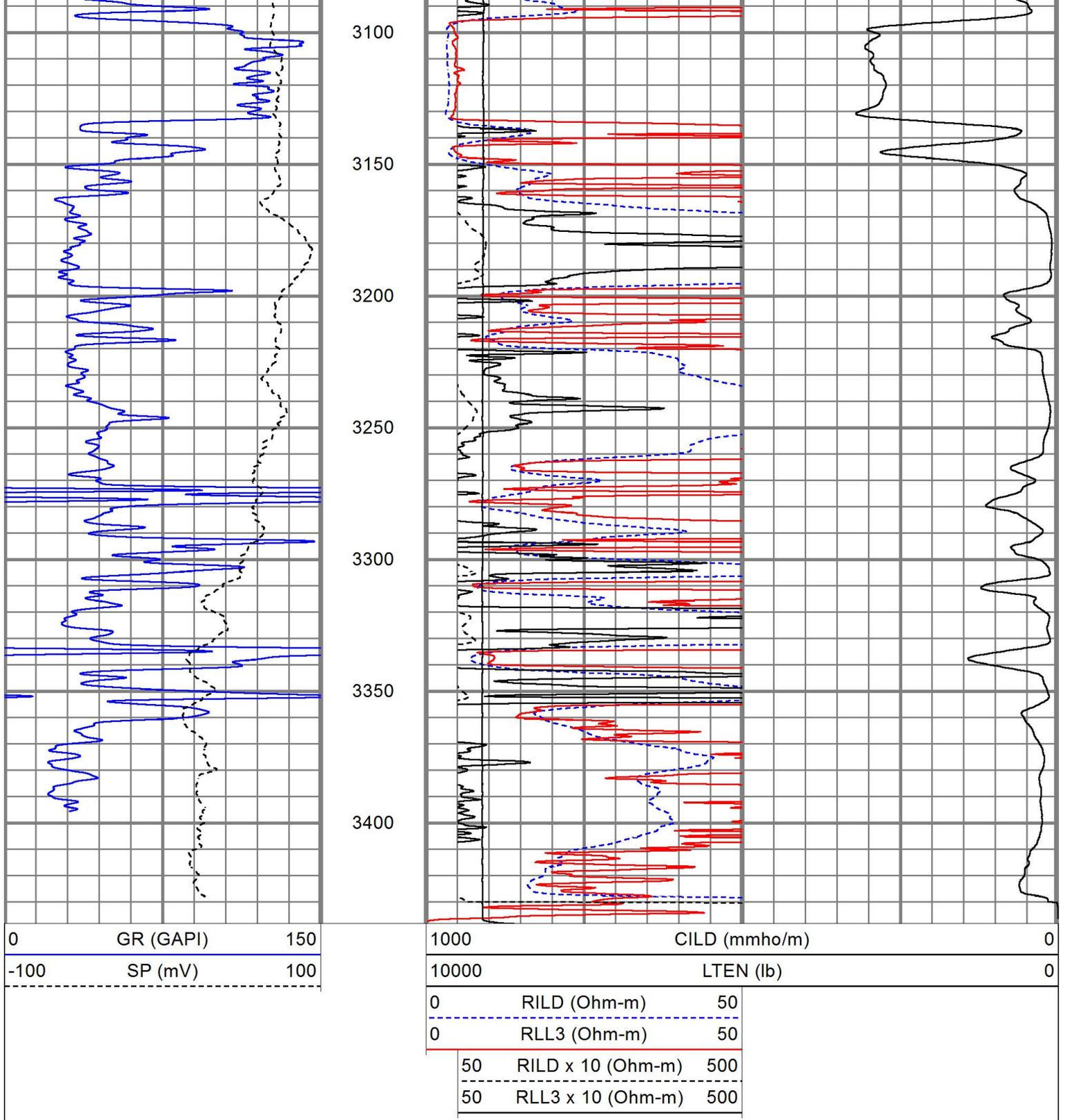










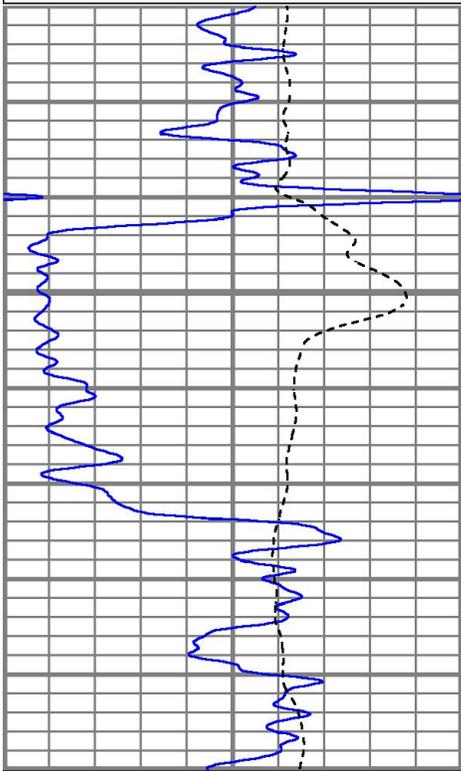


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 Presentation Format   kdil  
 Dataset Creation    Thu Sep 19 06:22:05 2019  
 Charted by          Depth in Feet scaled 1:240



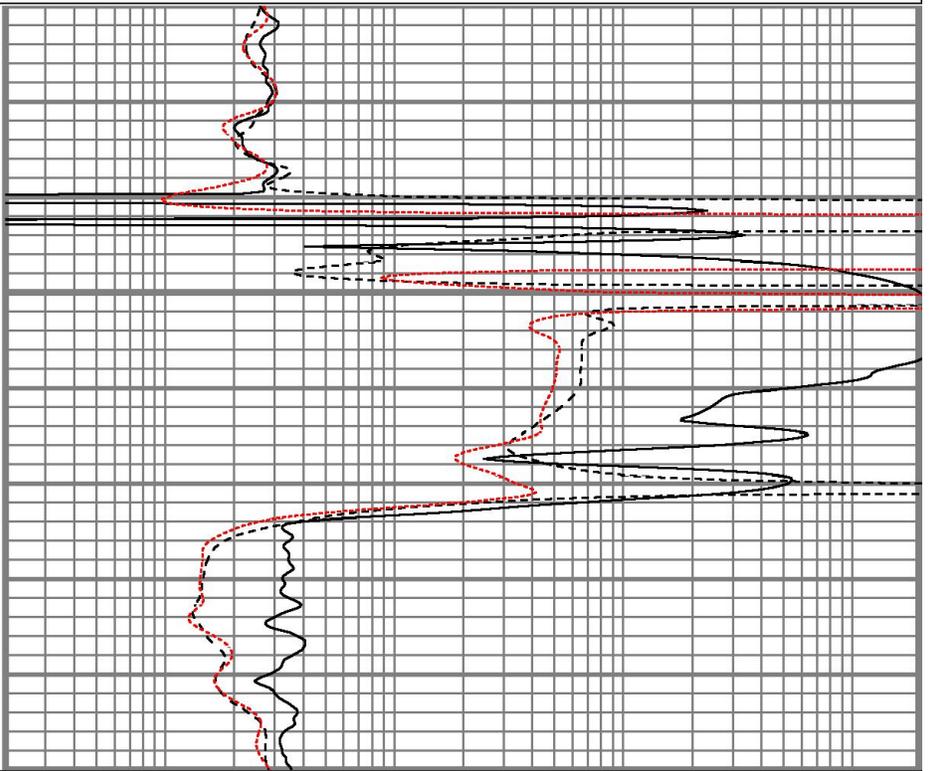
-100 SP (mV) 100



0 GR (GAPI) 150  
-100 SP (mV) 100

0.2 RLL3 (Ohm-m) 2000

0.2 RILM (Ohm-m) 2000



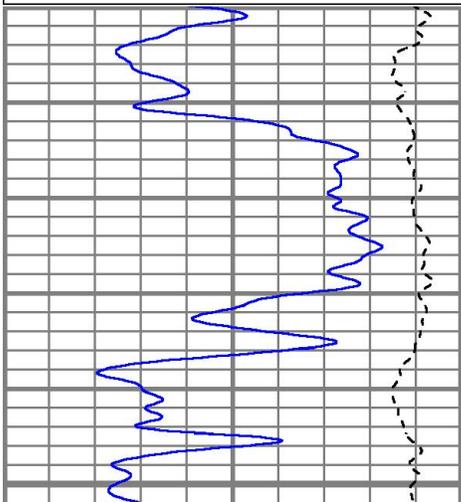
0.2 RILD (Ohm-m) 2000  
0.2 RLL3 (Ohm-m) 2000  
0.2 RILM (Ohm-m) 2000



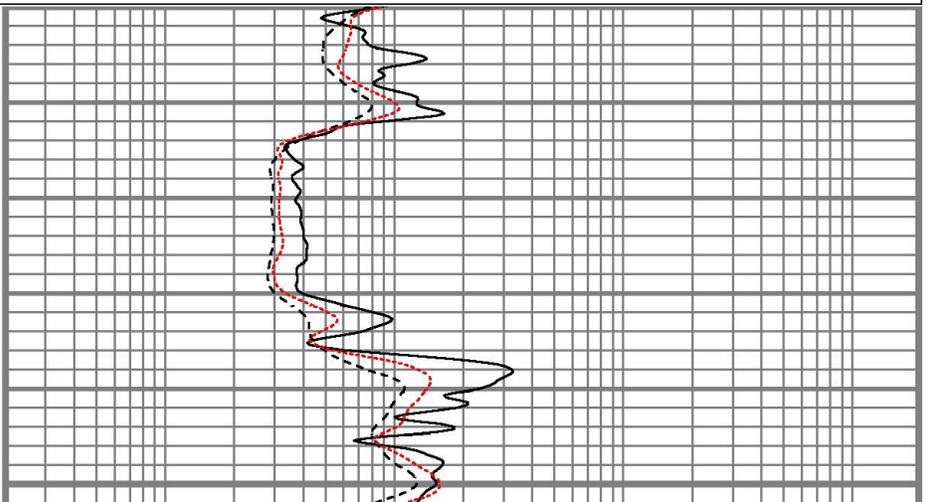
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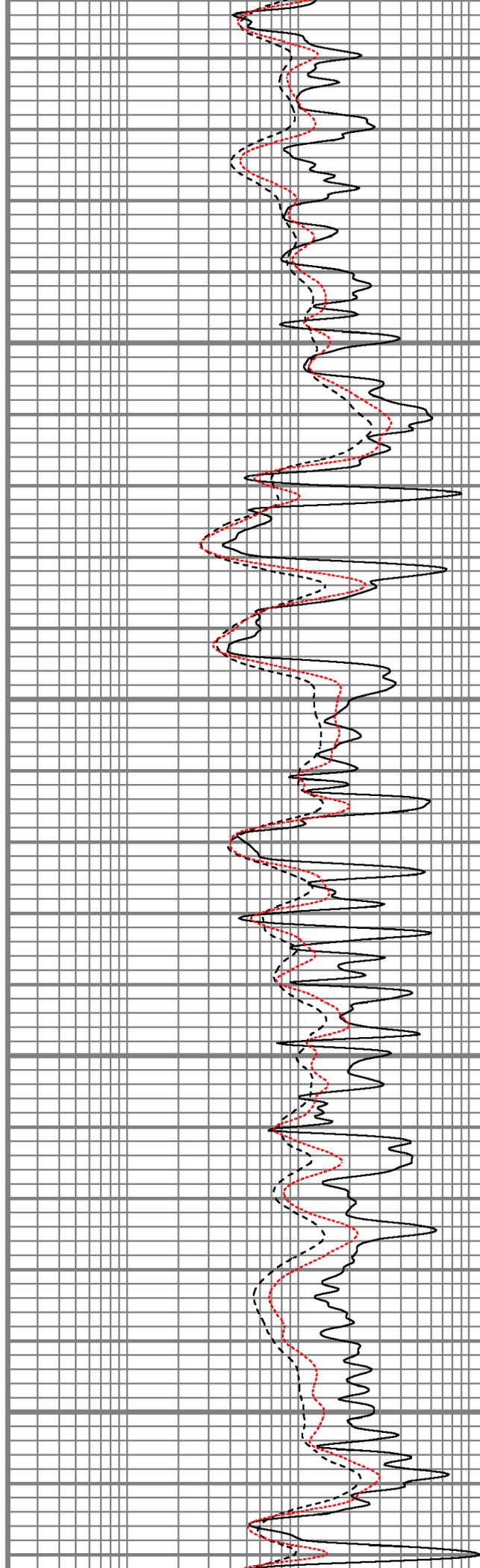
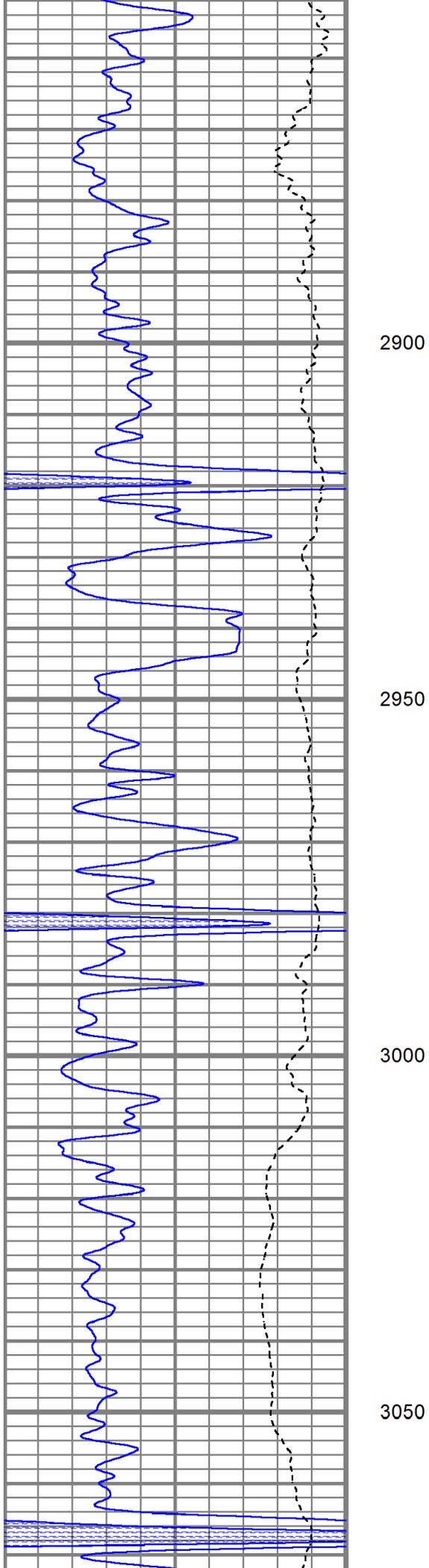
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Presentation Format kdil  
Dataset Creation Thu Sep 19 06:22:05 2019  
Charted by Depth in Feet scaled 1:240

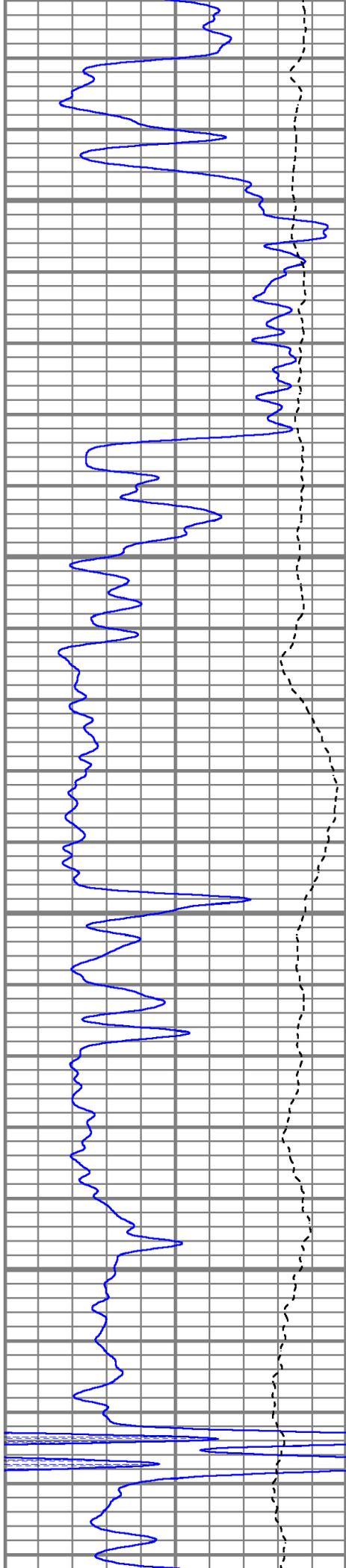
0 GR (GAPI) 150  
-100 SP (mV) 100



0.2 RILD (Ohm-m) 2000  
0.2 RLL3 (Ohm-m) 2000  
0.2 RILM (Ohm-m) 2000





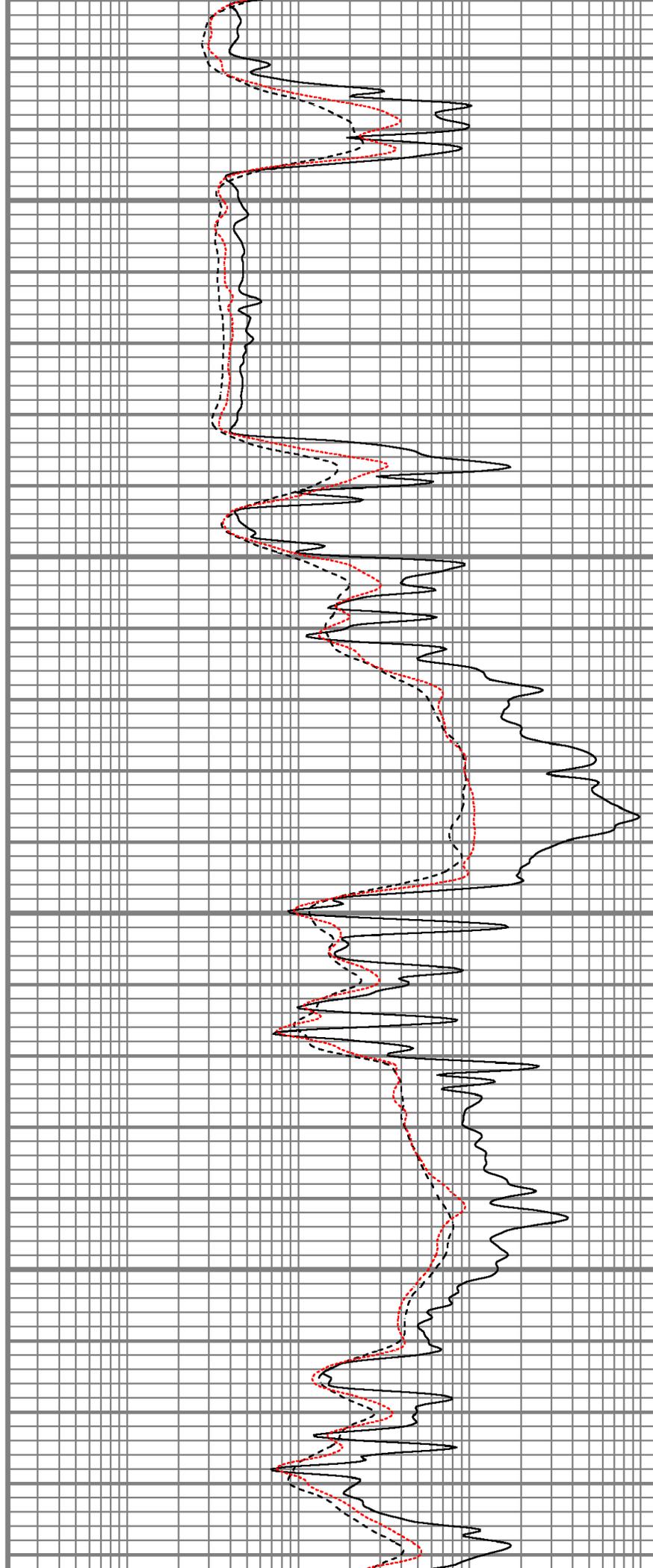


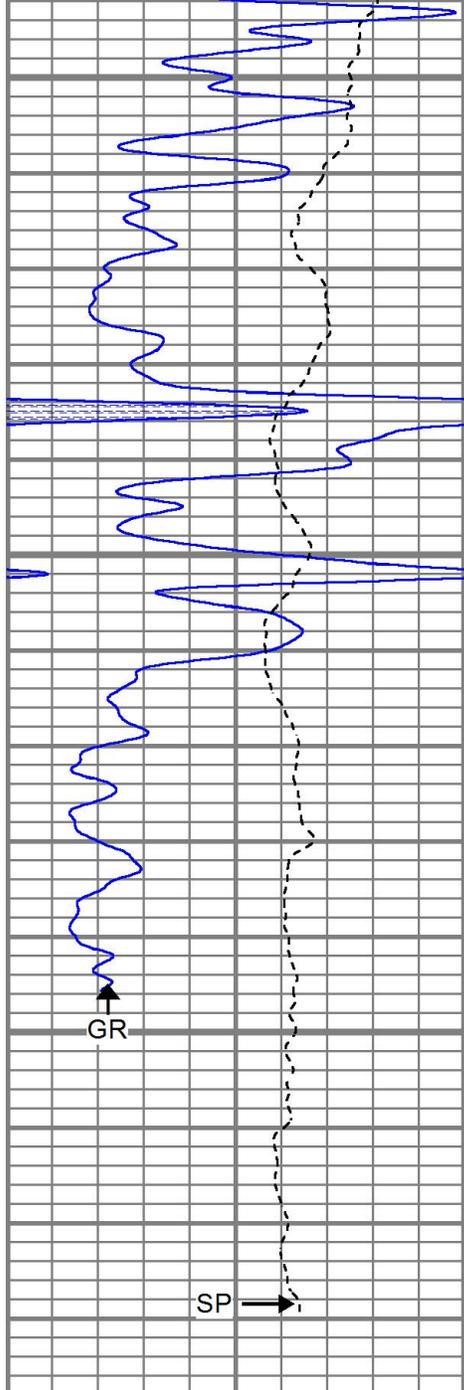
3100

3150

3200

3250





3300

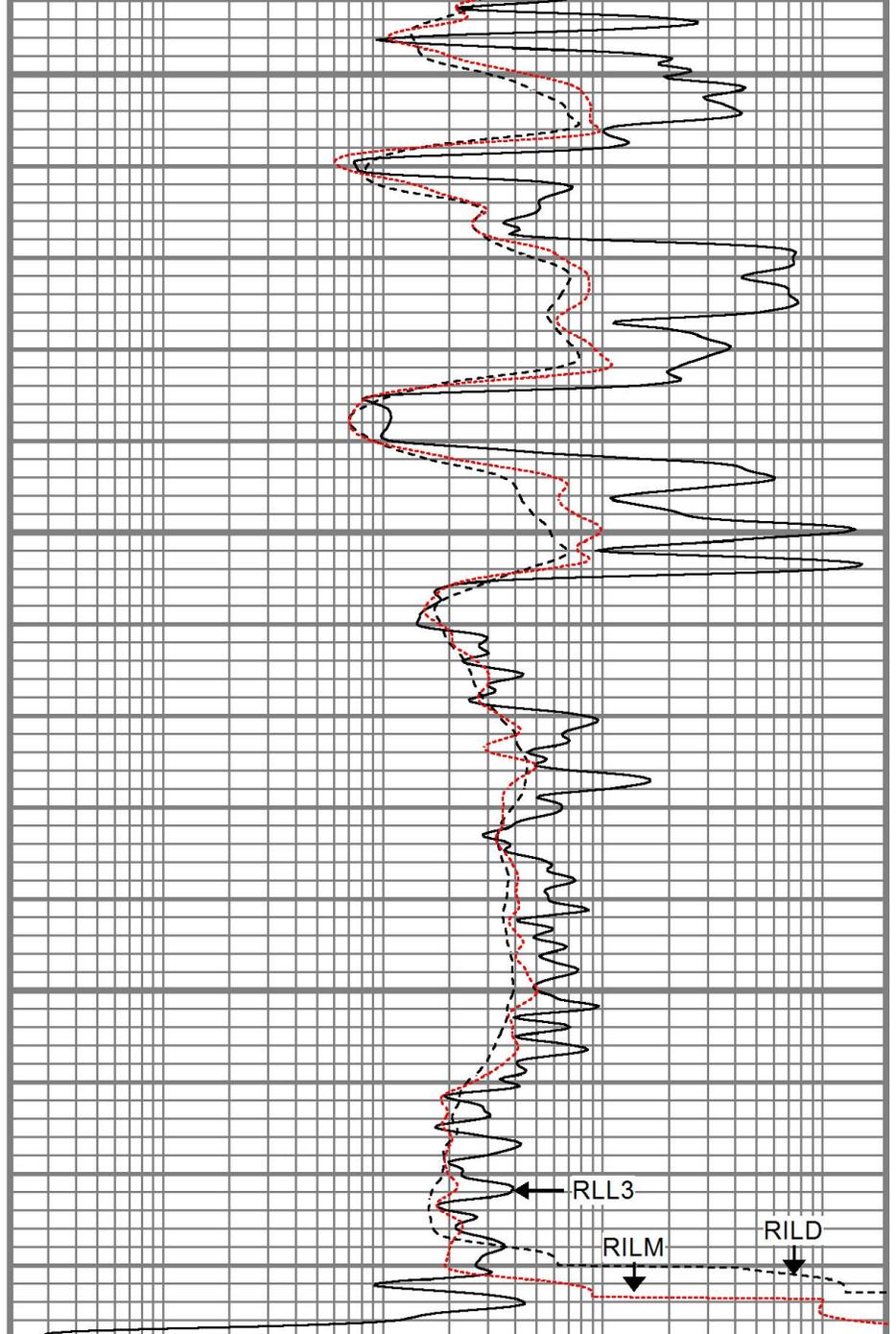
3350

3400

GR

SP

0	GR (GAPI)	150
-100	SP (mV)	100



RLL3

RILM

RILD

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

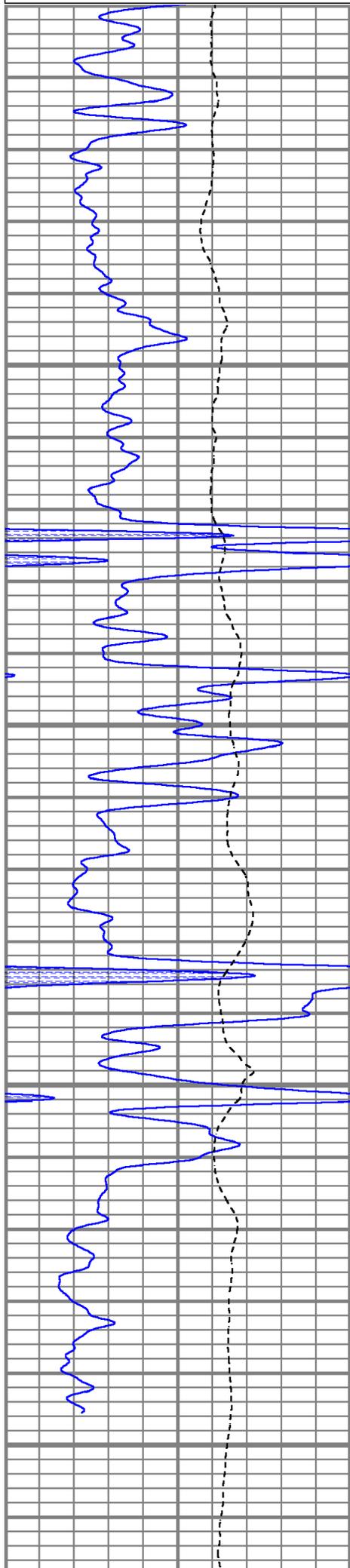


# REPEAT SECTION

Database File jofreif#1oh.db  
 Dataset Pathname pass1.1  
 Presentation Format kdil  
 Dataset Creation Thu Sep 19 05:38:09 2019  
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



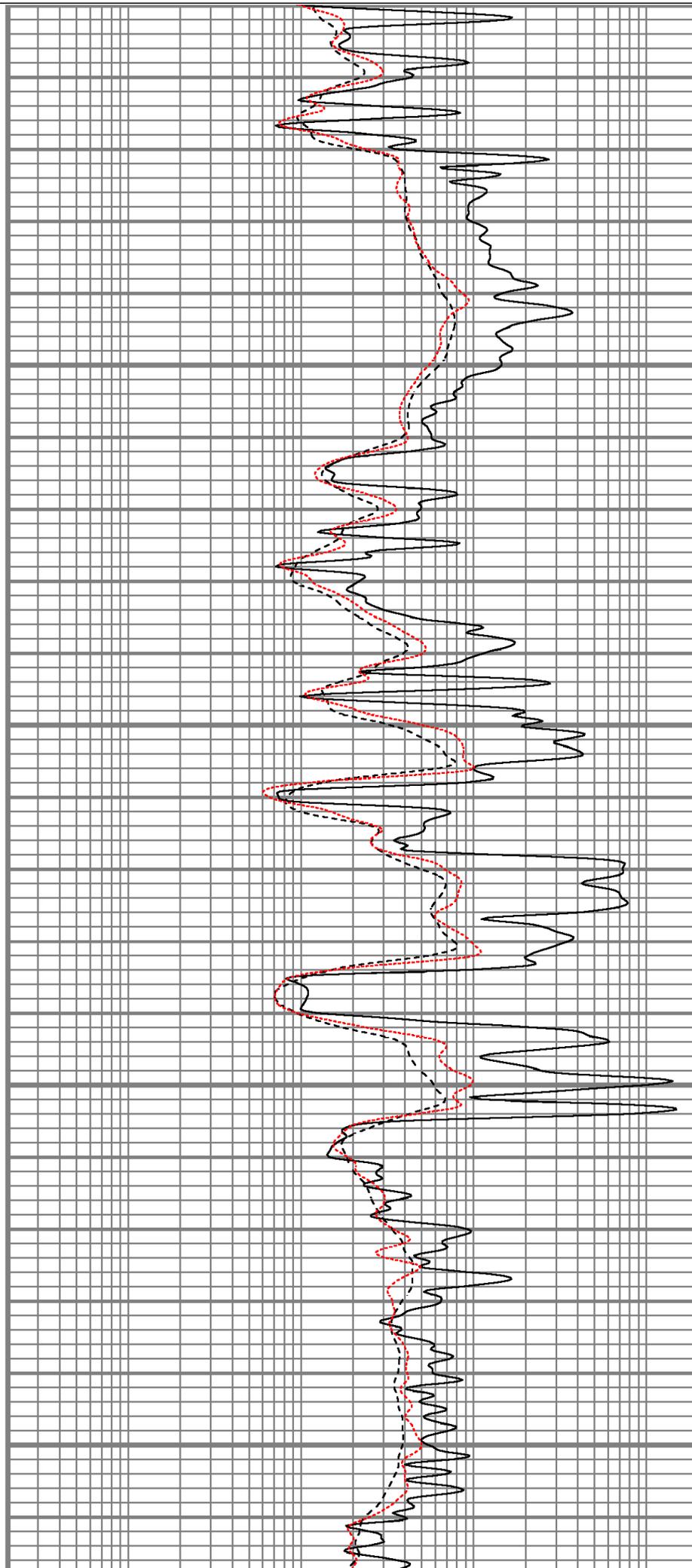
3200

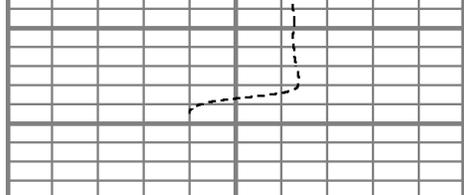
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3300

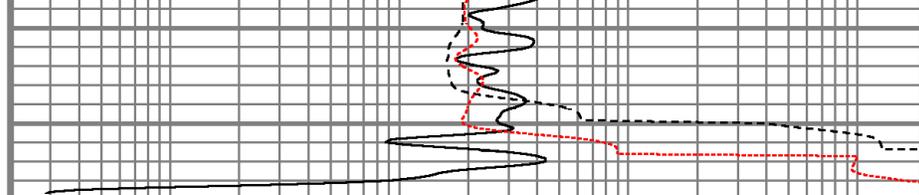
3350

3400





0	GR (GAPI)	150
-100	SP (mV)	100



0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

### Calibration Report

Database File jofreiff#1oh.db  
 Dataset Pathname pass2.1  
 Dataset Creation Thu Sep 19 06:22:05 2019

### Dual Induction Calibration Report

Serial-Model: 5375-G  
 Surface Cal Performed: Fri Apr 19 12:45:28 2019  
 Downhole Cal Performed: Fri Apr 19 12:45:28 2019  
 After Survey Verification Performed: Fri Apr 19 12:45:28 2019

#### Surface Calibration

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.002	0.642	V	0.000	350.000	mmho/m	546.631	-1.028	
Medium	0.006	0.727	V	0.000	400.000	mmho/m	555.208	-3.897	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.002	0.642	V	0.000	350.000	mmho/m	546.502	-0.822	
Medium	0.006	0.727	V	0.000	550.000	mmho/m	763.570	-4.829	

#### Downhole Calibration

Internal:	Readings				References			Results	
	Zero	Cal			Zero	Cal		m	b
Deep	0.000	0.000	mmho/m	-0.206	349.877	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	0.014	399.930	mmho/m	1.000	0.000	
Shallow	2.429	0.011	V	500.000	2.000	Ohm-m	200.929	0.282	

#### After Survey Verification

Internal:	Readings				Targets			Results	
	Zero	Cal			Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	1.000	0.000	
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000	

### Neutron Calibration Report

Serial Number: AD5139  
 Tool Model: ADMY5139  
 Performed: (Not Performed)

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity:

1

NAPI/cps

## Temperature Calibration Report

Serial Number: WithMC  
 Tool Model: WMC  
 Performed: Fri Apr 19 12:15:04 2019

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF
Gain:	1.00	
Offset:	0.00	
Delta Spacing	1	

## Inclinometer Calibration Report

Performed:	Fri Apr 19 12:14:53 2019				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

## Gamma Ray Calibration Report

Serial Number: WithMC  
 Tool Model: WMC  
 Performed: Fri Apr 19 12:14:18 2019

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.07		CHD-STD	0.50	1.69	1.00
ACCY	38.91		ADT-WMC (WithMC)	4.58	3.50	120.00
ACCX	38.91		Admyr Telemetry With Mudcell			
SSTAT	38.49					
PSTAT	37.66					
ASTAT	37.66					
GRD	36.82		NEU-ADMY5139 (AD5139)	5.65	3.50	50.00
TEMP	36.82		Admyer NEU DIGITAL			
NEU	32.76					
LStat	24.30					
LS8	23.64					
LS7	23.64					
LS6	23.64		ADT1LITH-A (1)	9.29	3.50	240.00
LS5	23.64		Admyr Litho Density Tool			
LS4	23.64					
LS3	23.64					

LS3	23.64				
LS2	23.64				
LS1	23.64				
LSV	23.64				
LSD	23.62				
SSV	23.43				
SS8	23.43				
SS7	23.43				
SS6	23.43				
SS5	23.43				
SS4	23.43	DIL-G (5375) Gearhart	21.47	4.00	345.00
SS3	23.43				
SS2	23.43				
SS1	23.43				
DCAL	23.37				
SSD	23.04				
SP	10.60				
CILD	10.60				
CILM	6.89				
RLL3	1.70				
TR_Mon	0.00				

Dataset: jofreif#1oh.db: field/well/run1/pass2.1  
 Total length: 41.49 ft  
 Total weight: 756.00 lb  
 O.D.: 4.00 in