

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1254757  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well  Re-Entry  Workover
- Oil  WSW  SWD  SIOW
- Gas  D&A  ENHR  SIGW
- OG  GSW  Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening  Re-perf.  Conv. to ENHR  Conv. to SWD
- Plug Back  Conv. to GSW  Conv. to Producer
- Commingled Permit #: \_\_\_\_\_
- Dual Completion Permit #: \_\_\_\_\_
- SWD Permit #: \_\_\_\_\_
- ENHR Permit #: \_\_\_\_\_
- GSW Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1254757

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Ainsworth Operating Co.
Well Name	Davis 4
Doc ID	1254757

All Electric Logs Run

Dual Induction
Microresistivity
Compensated Porosity
CPI
Sonic Log





Pioneer Energy Services

## Dual Compensated Porosity Log

Company **Ainsworth Operating Company**

Well **Davis No. 4**

Field **Red Sun**

County **Graham**

State **Kansas**

Location **2,160' FNL & 440' FEL**

Sec: **34**

Twp: **6S**

Rge: **22W**

Other Services  
DIL  
MEL/BHCS

Elevation

Permanent Datum **Ground Level** Elevation **2245**  
Log Measured From **Kelly Bushing** 10 Ft. Above Perm. Datum  
Drilling Measured From **Kelly Bushing**

K.B. 2255  
D.F. G.I.L. 2245

15-065-24,098-00-00

Date	3/2/2015					
Run Number	One					
Type Log	CNL / CDL					
Depth Driller	3881					
Depth Logger	3882					
Bottom Logged Interval	3861					
Top Logged Interval	3200					
Type Fluid In Hole	Chemical					
Salinity, PPM CL	500					
Density	9.1					
Level	Full					
Max. Rec. Temp. F	115					
Operating Rig Time	4 1/2 Hours					
Equipment -- Location	108 Hays					
Recorded By	J. Long					
Witnessed By	Randy Kilian					
Borehole Record			Casing Record			
Run No	Bit	From	To	Size	Wgt.	To
One	12.25	00	268	8.625	23#	268
Two	7.875	268	TD			

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### Comments

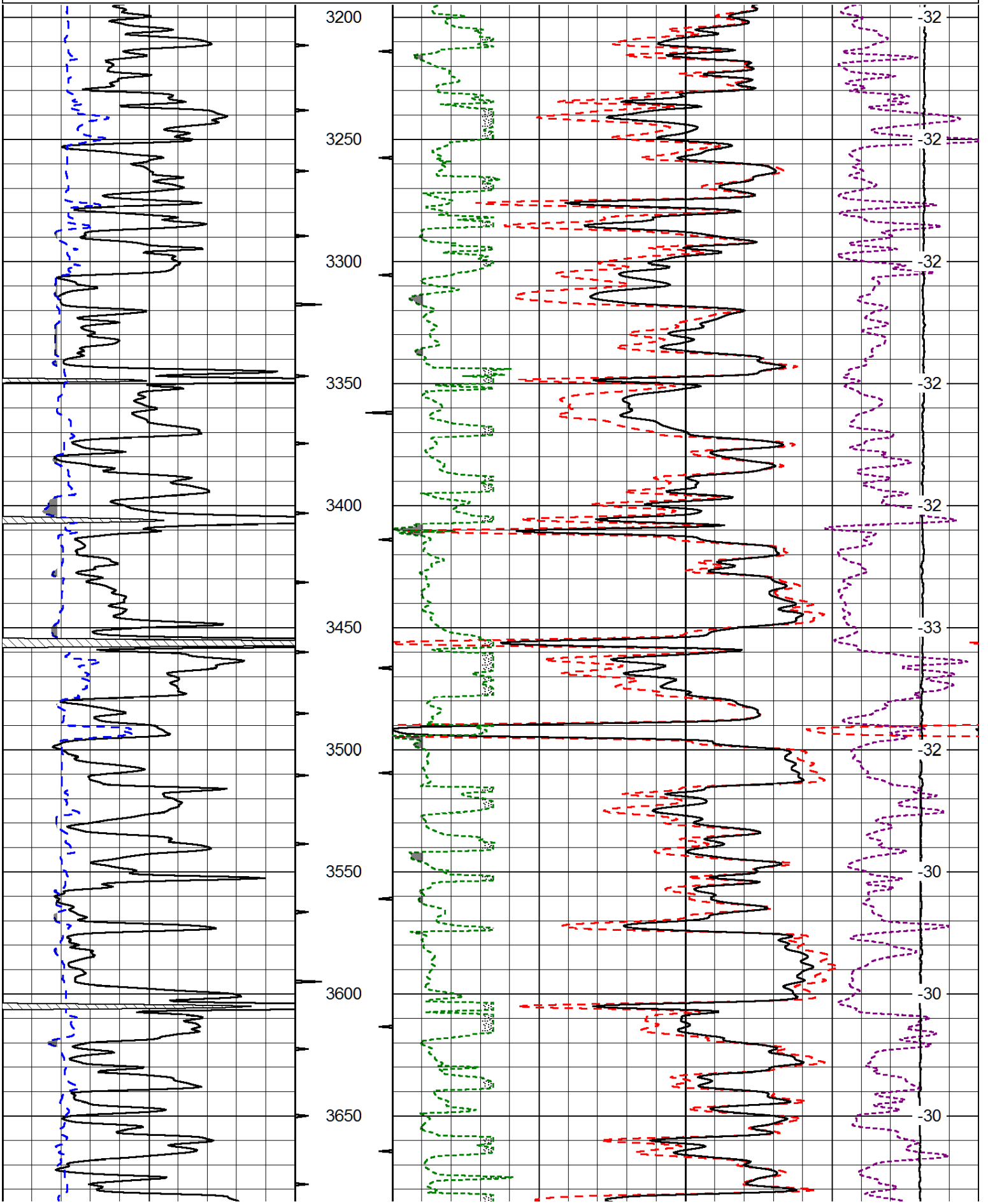
Thank you for using Pioneer Energy Services  
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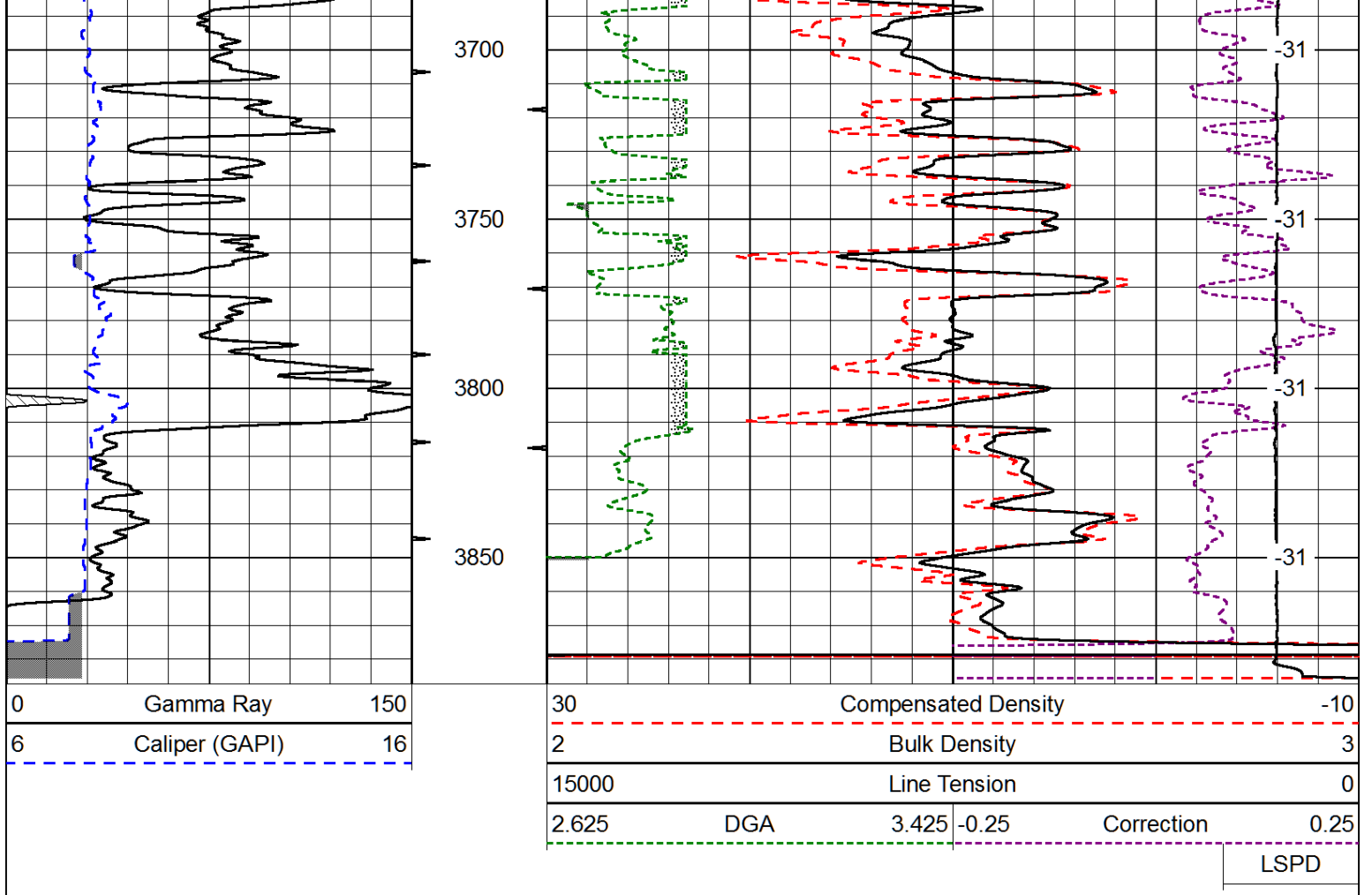
Hill City, 8 North to Y Road, 4 East to 310 Road, 1 North to Z Road, 1/2 East, South Into

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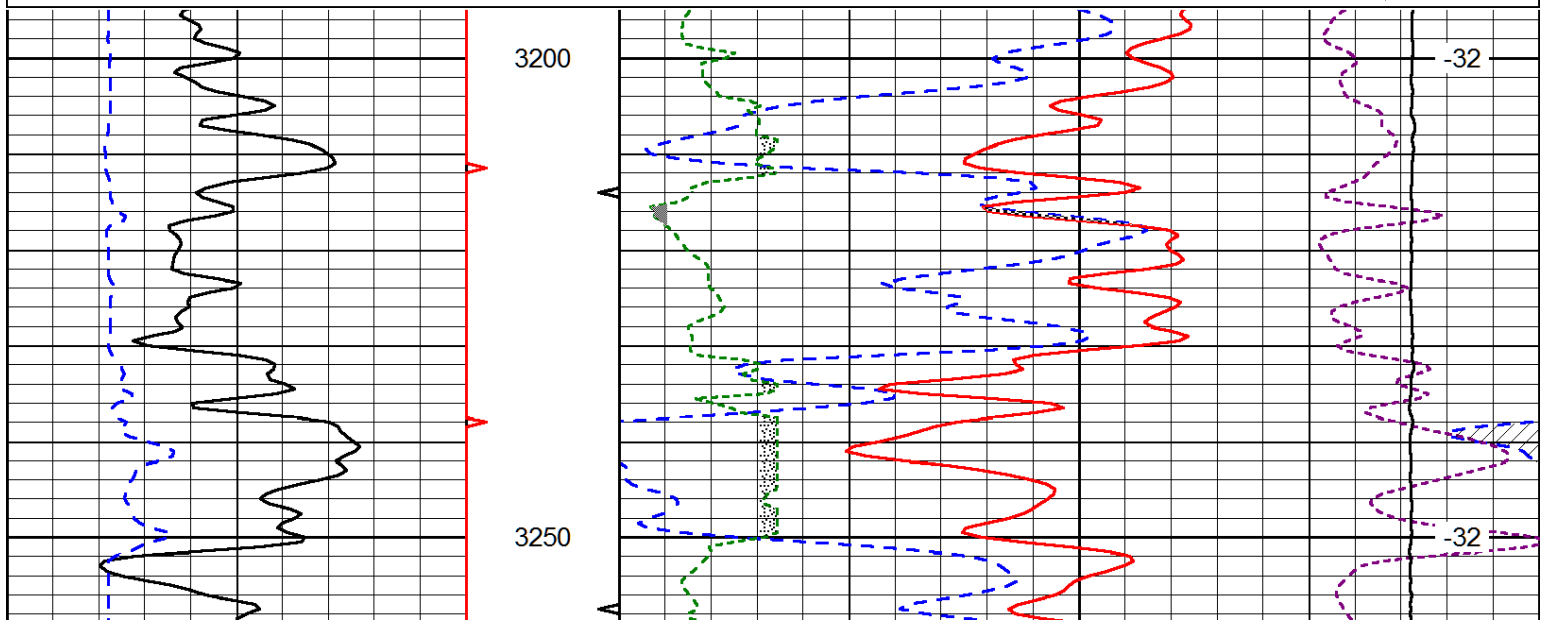
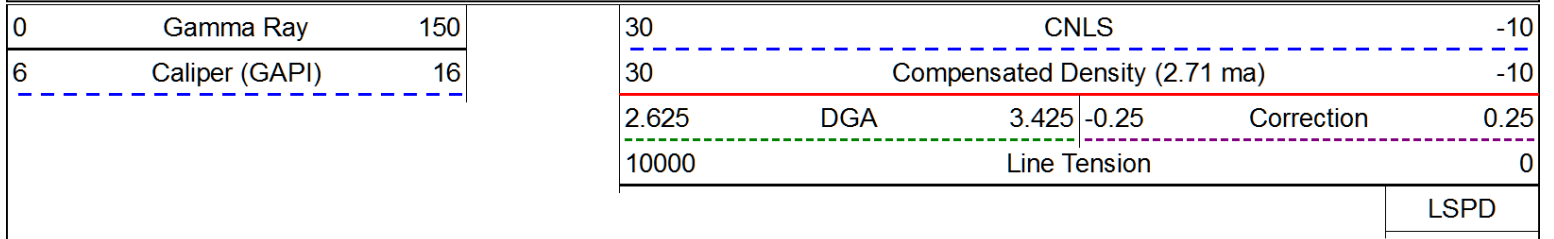
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6	Caliper (GAPI)	16

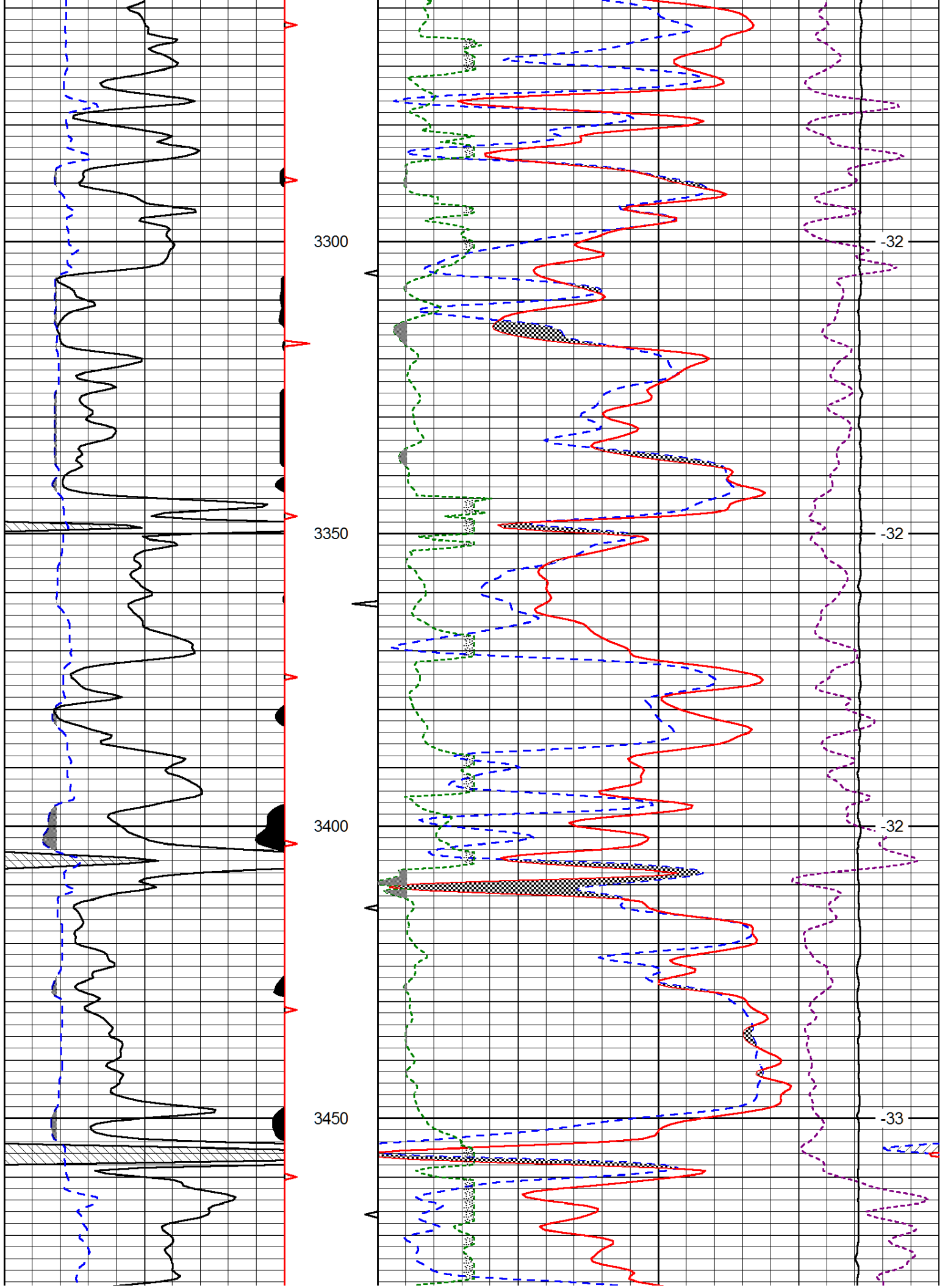
30	Compensated Density		-10
2	Bulk Density		3
15000	Line Tension		0
2.625	DGA	3.425	-0.25
			Correction
			0.25
LSPD			



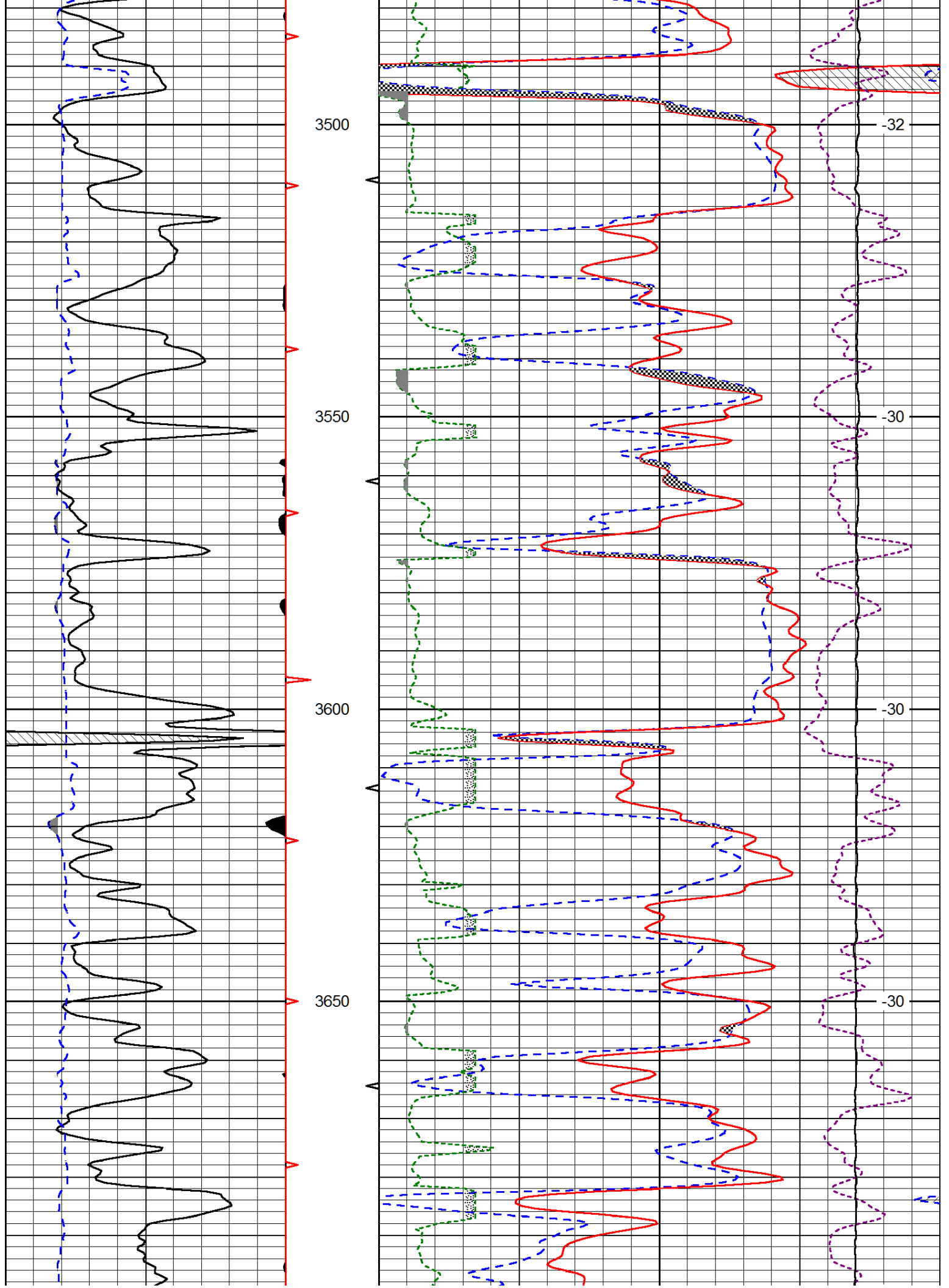


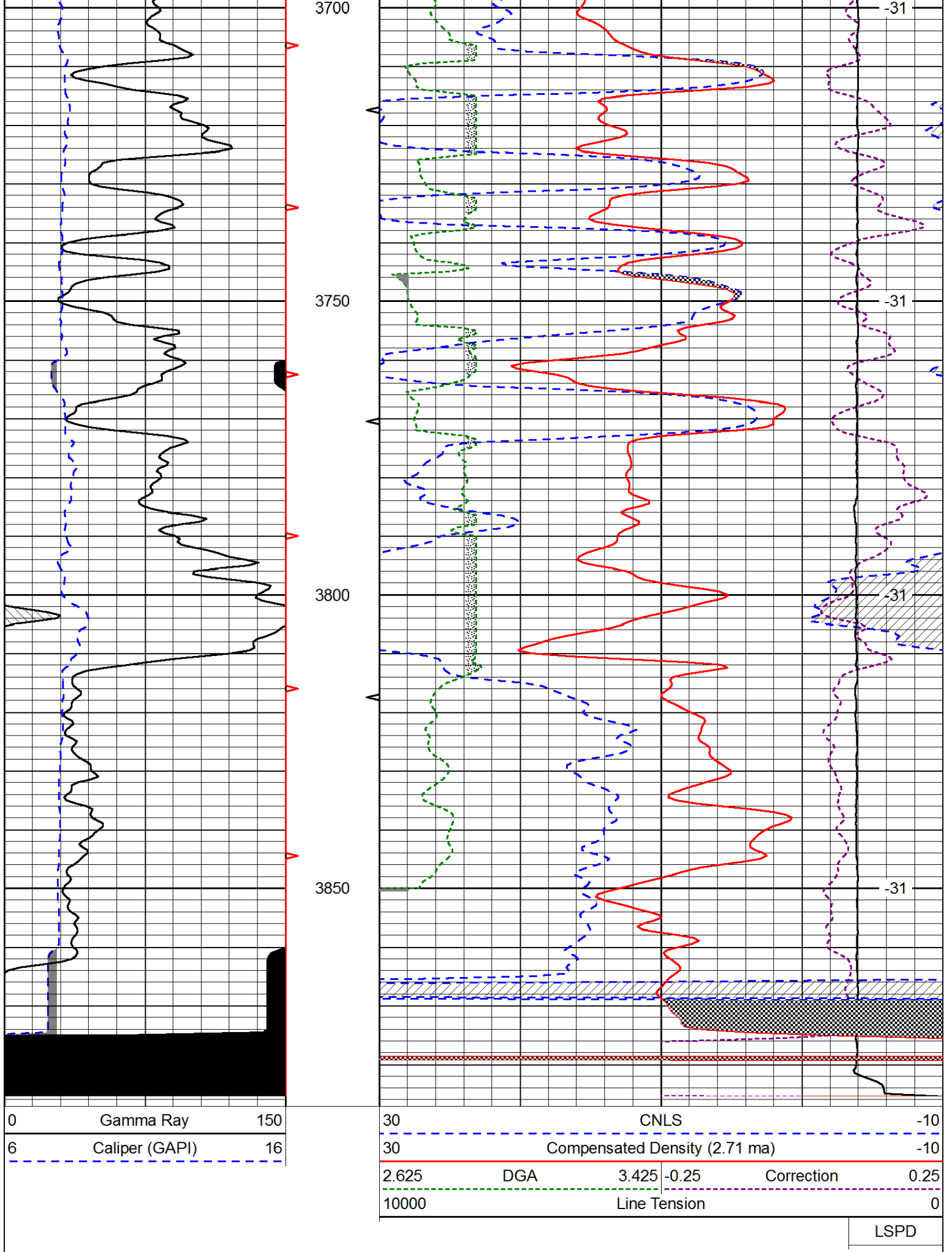
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Pioneer Energy Services

# Microresistivity Log

API No.	15-065-24,098-00-00		
Company	Ainsworth Operating Company		
Well	Davis No. 4		
Field	Red Sun		
County	Graham	State	Kansas
Location	2,160' FNL & 440' FEL		
Sec: 34	Twp: 6S	Rge: 22W	
Permanent Datum	Ground Level	Elevation 2245	Other Services CNL/CDL DIL/BHCS
Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum	
Drilling Measured From	Kelly Bushing		K.B. 2255 D.F. 2245 G.L. 2245

Date	3/2/2015
Run Number	Two
Depth Driller	3881
Depth Logger	3882
Bottom Logged Interval	3881
Top Log Interval	3200
Casing Driller	8.625 @ 268
Casing Logger	266
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	500
Density / Viscosity	9.1   44
pH / Fluid Loss	10.0   8.4
Source of Sample	Flowline
Rm @ Meas. Temp	1.40 @ 66
Rmf @ Meas. Temp	1.05 @ 66
Rmc @ Meas. Temp	1.89 @ 66
Source of Rmf / Rmc	Charts
Rm @ BHT	.80 @ 115
Operating Rig Time	4 1/2 Hours
Max Rec. Temp. F	115
Equipment Number	108
Location	Hays
Recorded By	J. Long
Witnessed By	Randy Kilian

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Comments

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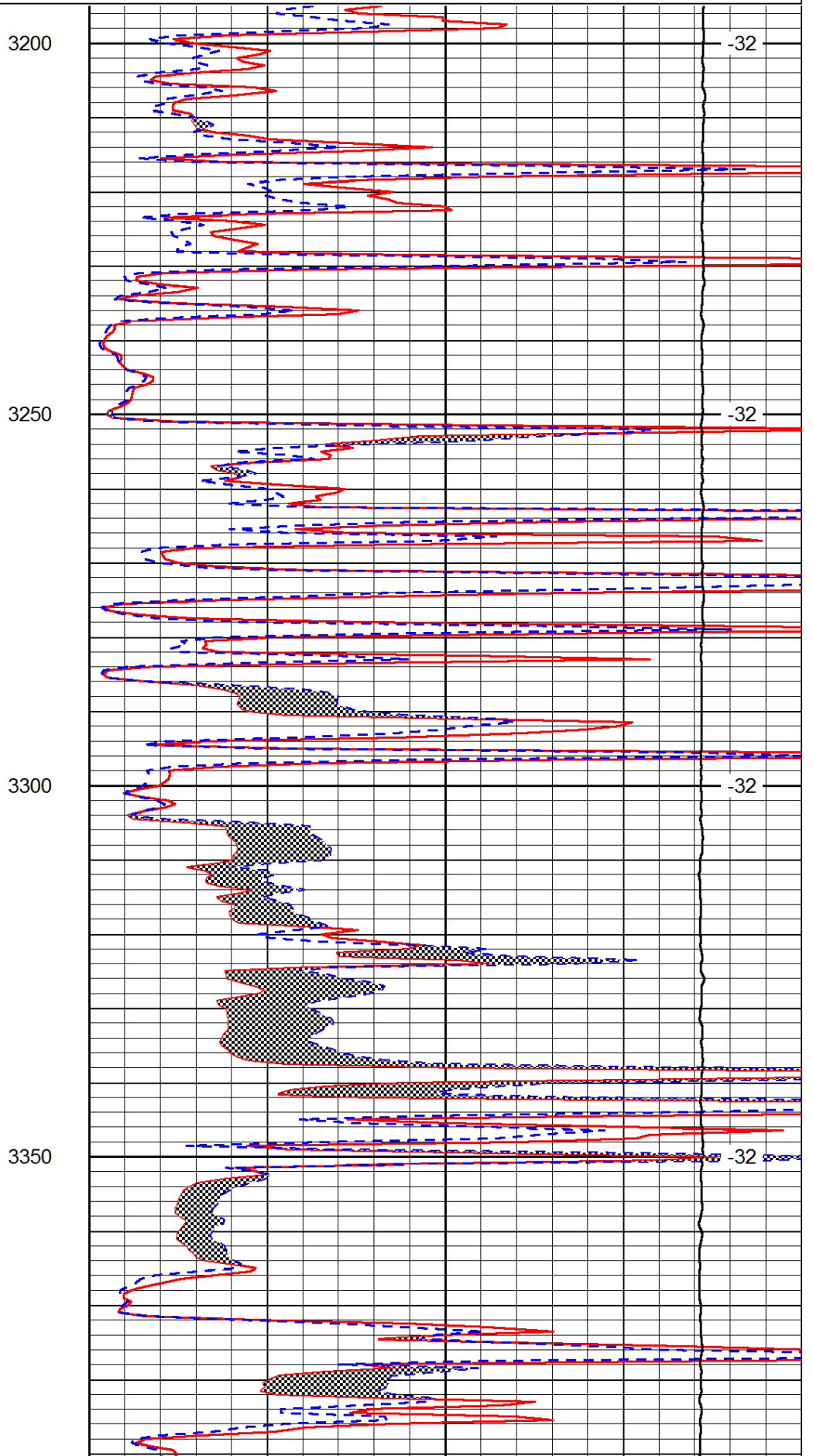
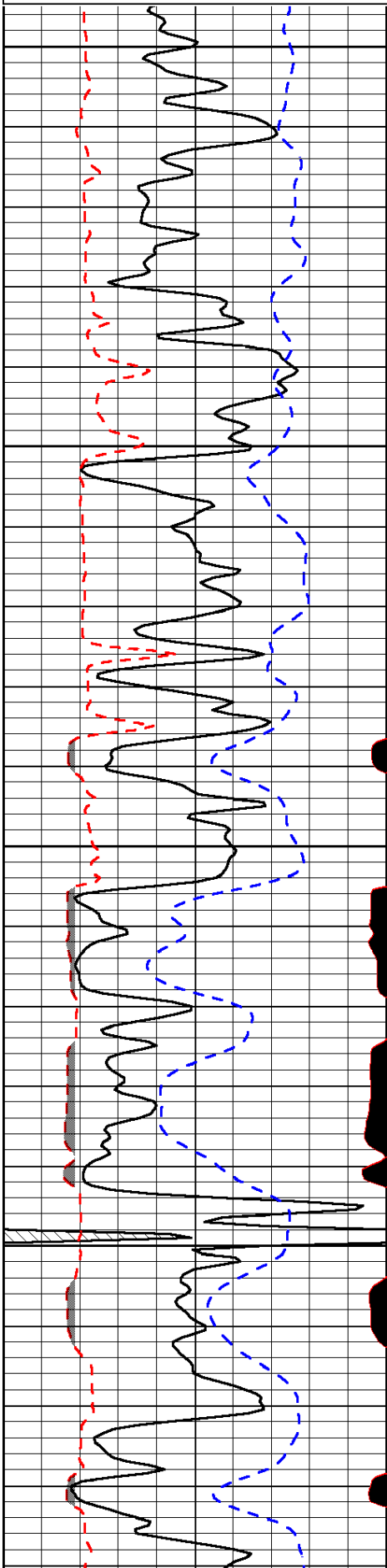
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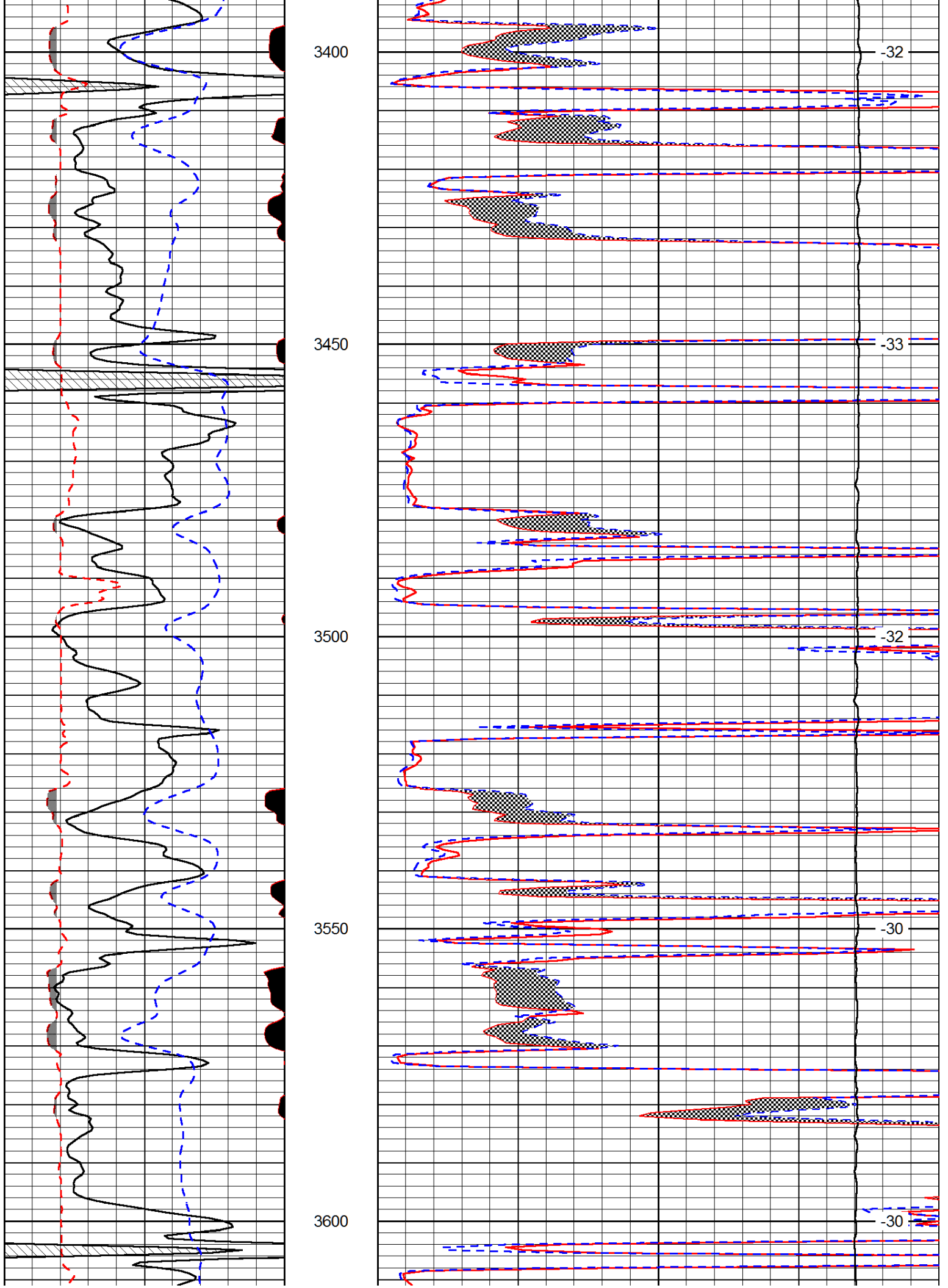
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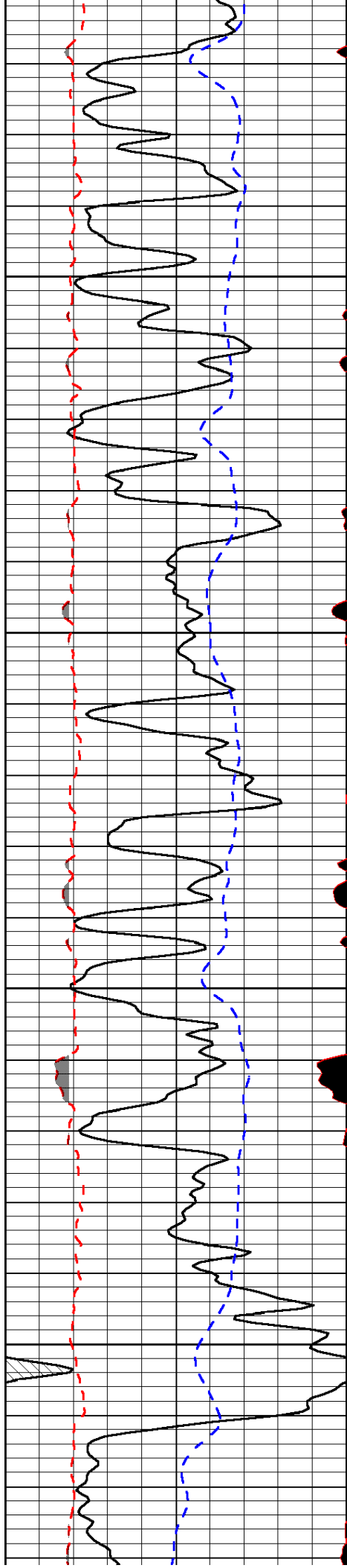
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6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0

LSPD





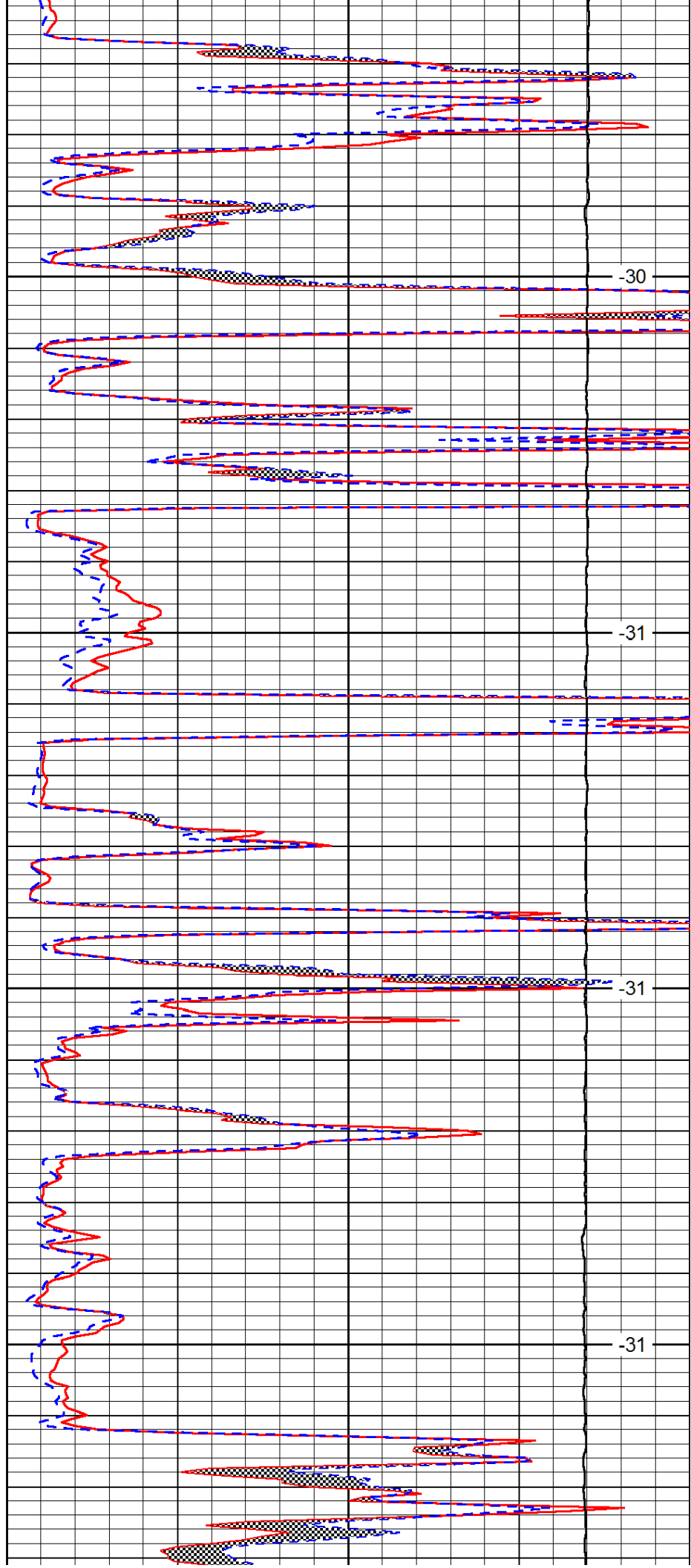


3650

3700

3750

3800

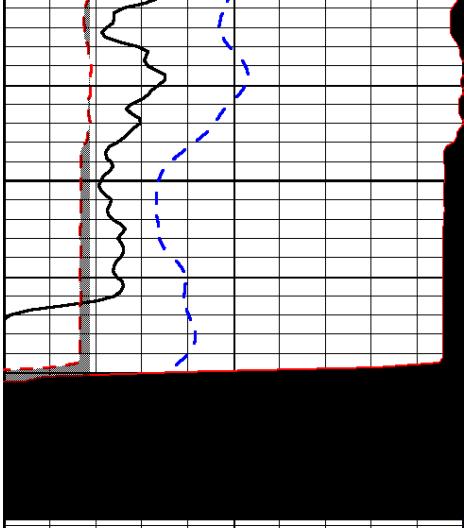


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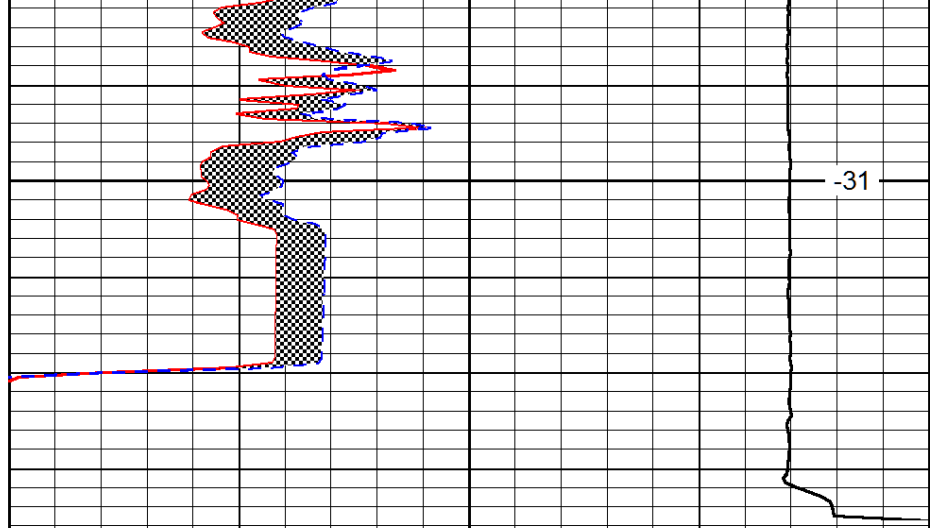
-31

-31



0	Gamma Ray	150
6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP (mV)	0

3850



0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0

LSPD



# Dual Induction Log

Pioneer Energy Services

API No.

15-065-24,098-00-00

Company **Ainsworth Operating Company**

Well **Davis No. 4**

Field **Red Sun**

County **Graham**

State

**Kansas**

Location

**2,160' FNL & 440' FEL**

Other Services  
CNL/CDL  
MEL/BHCS

Sec: **34**

Twp: **6S**

Rge: **22W**

Elevation

Permanent Datum **Ground Level** Elevation **2245**  
Log Measured From **Kelly Bushing** 10 Ft. Above Perm. Datum  
Drilling Measured From **Kelly Bushing**

K.B. 2255  
D.F. 2245  
G.L. 2245

Date

**3/2/2015**

Run Number

**One**

Depth Driller

**3881**

Depth Logger

**3882**

Bottom Logged Interval

**3881**

Top Log Interval

**250**

Casing Driller

**8.625 @ 268**

Casing Logger

**266**

Bit Size

**7.875**

Type Fluid in Hole

**Chemical**

Salinity, ppm CL

**500**

Density / Viscosity

**9.1 44**

pH / Fluid Loss

**10.0 8.4**

Source of Sample

**Flowline**

Rm @ Meas. Temp

**1.40 @ 66**

Rmf @ Meas. Temp

**1.05 @ 66**

Rmc @ Meas. Temp

**1.89 @ 66**

Source of Rmf / Rmc

**Charts**

Rm @ BHT

**.80 @ 115**

Operating Rig Time

**4 1/2 Hours**

Max Rec. Temp. F

**115**

Equipment Number

**108**

Location

**Hays**

Recorded By

**J. Long**

Witnessed By

**Randy Kilian**

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## Comments

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Hill City, 8 North to Y Road, 4 East to 310 Road, 1 North to Z Road, 1/2 East, South Into

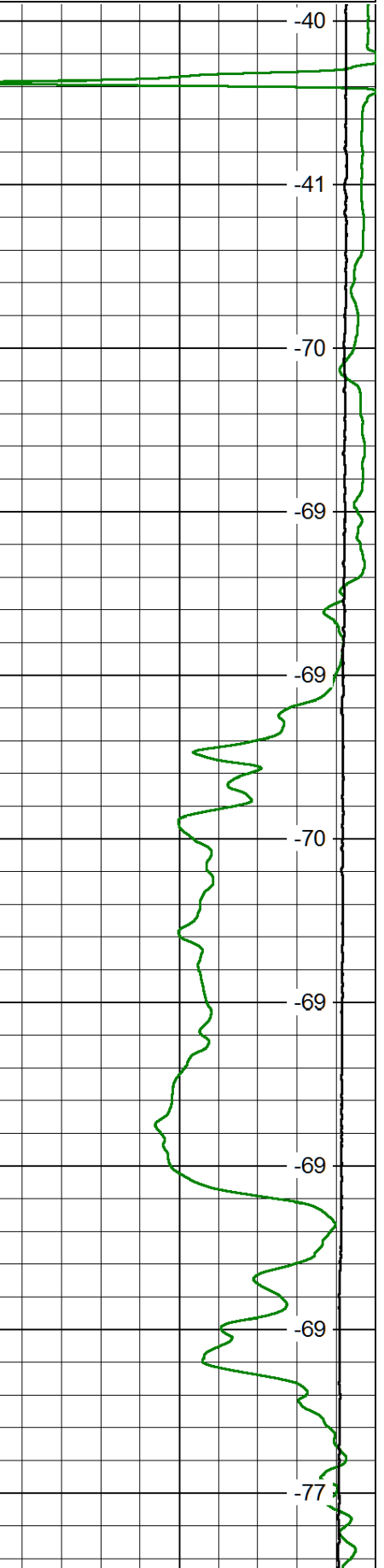
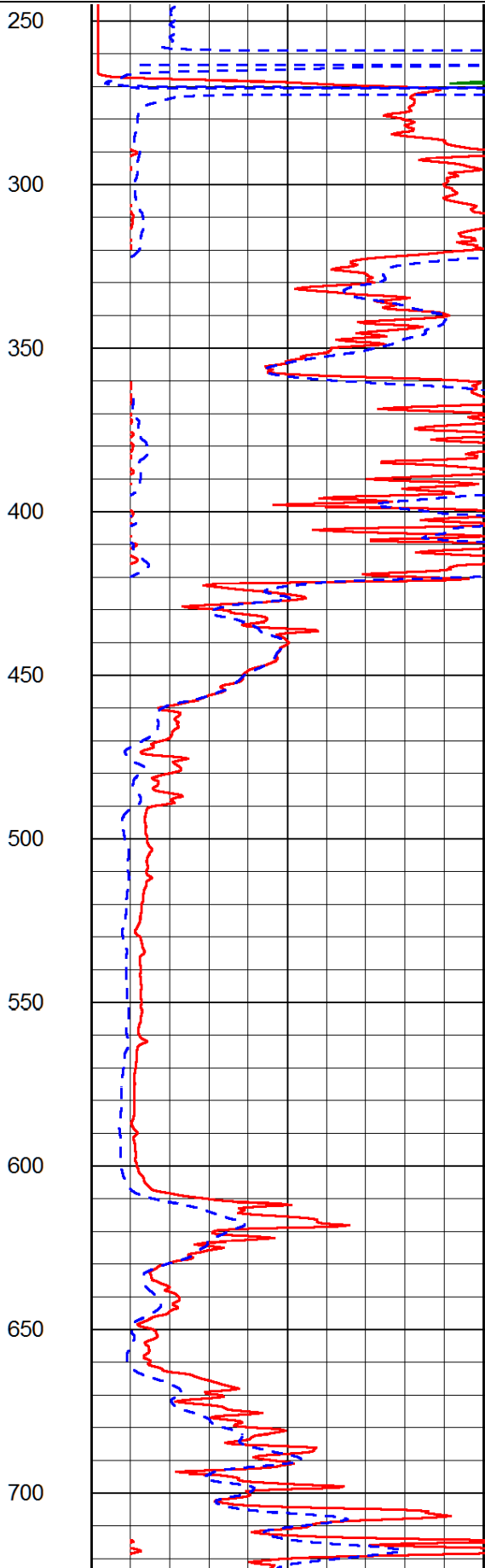
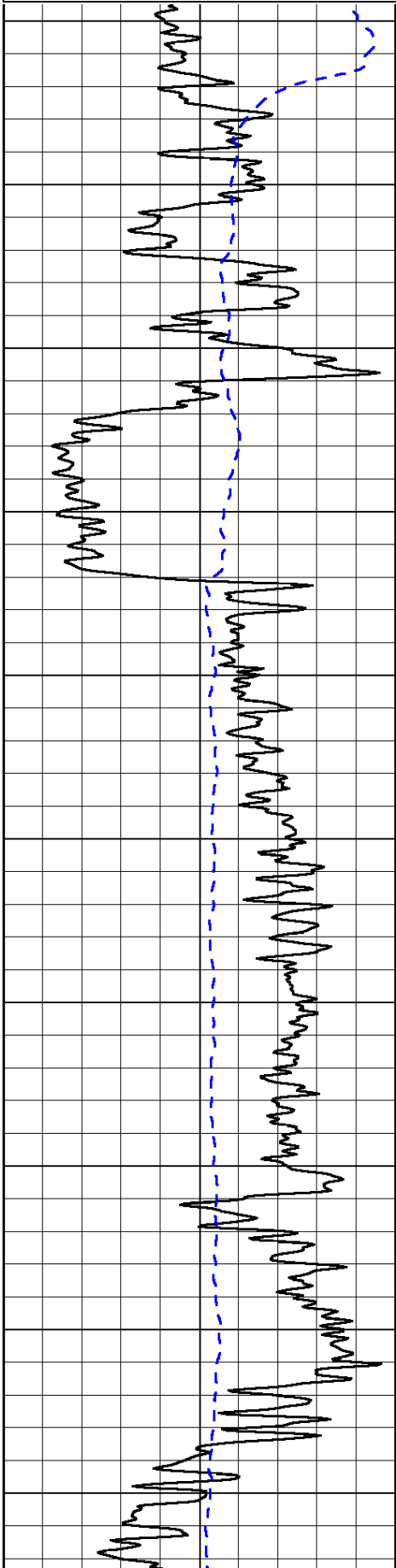
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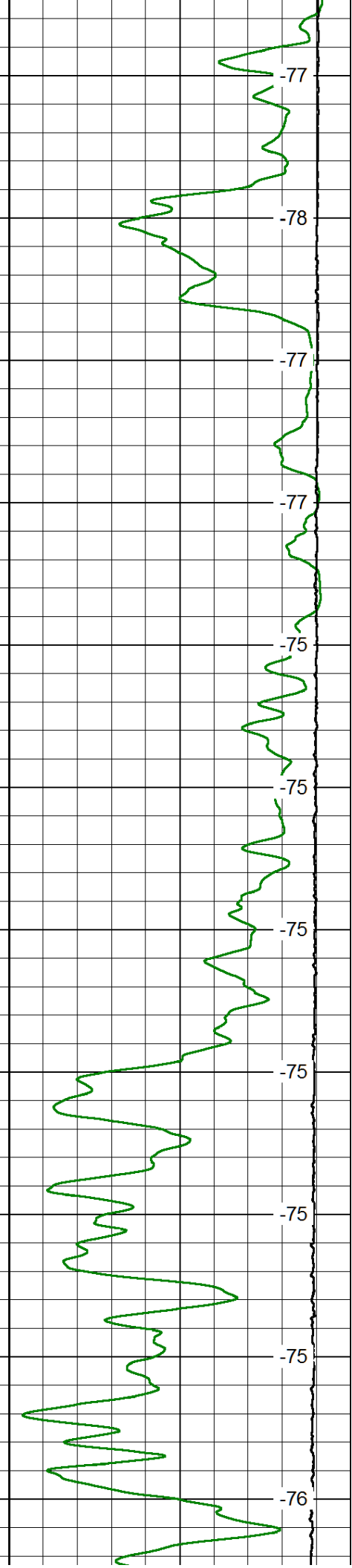
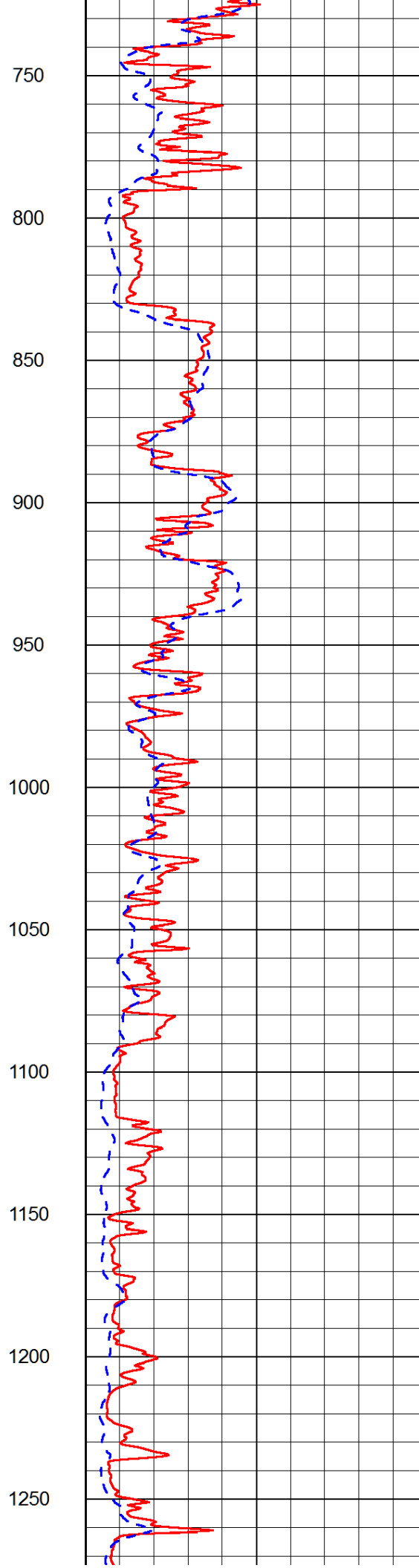
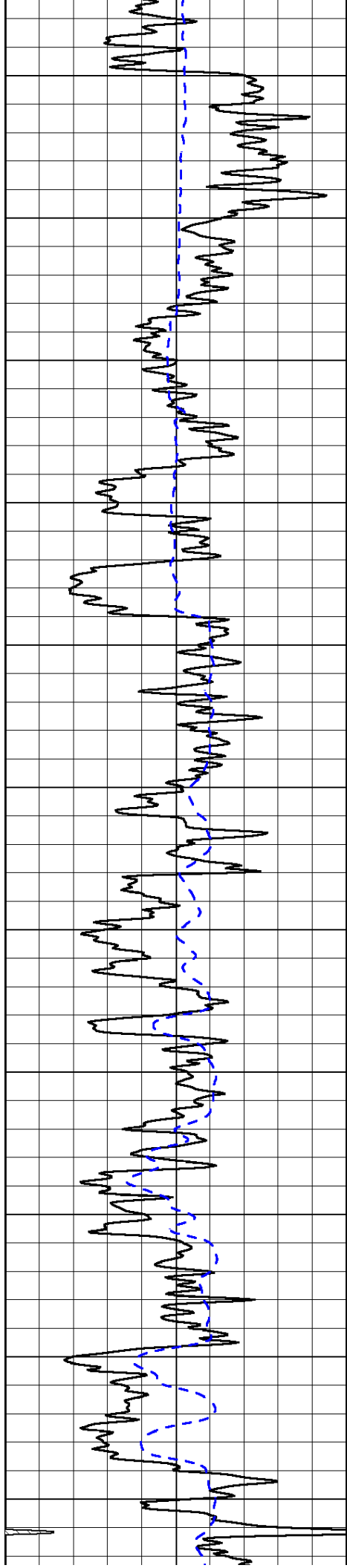


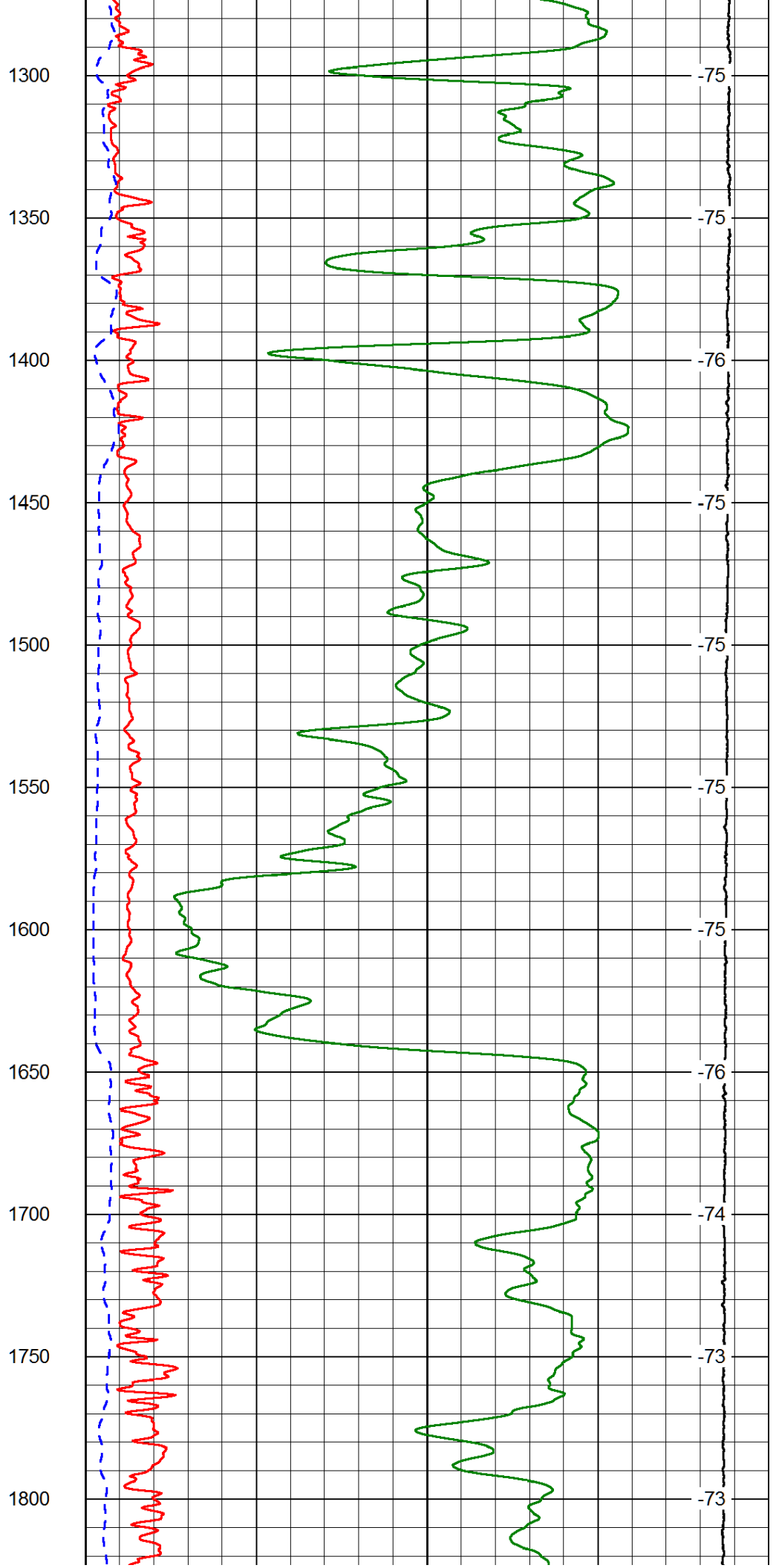
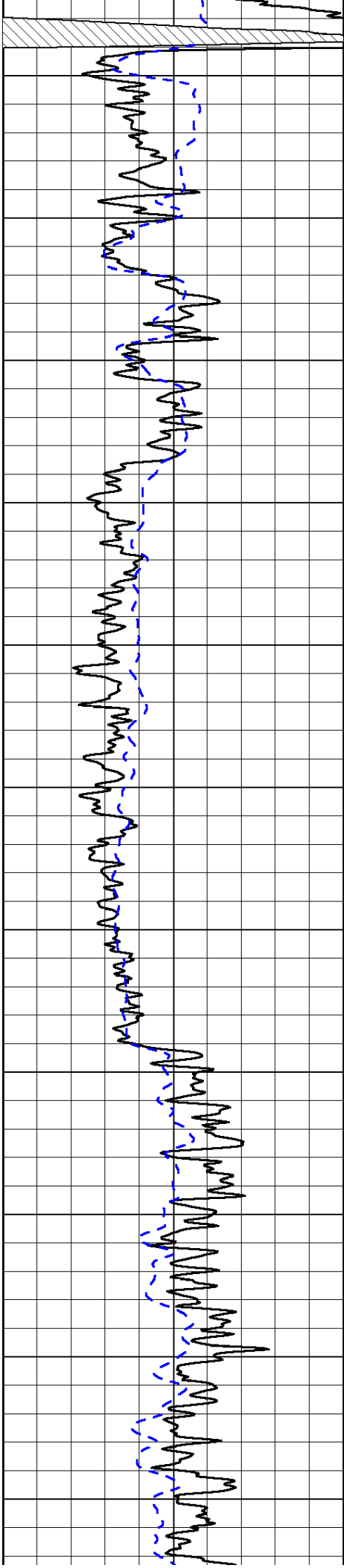
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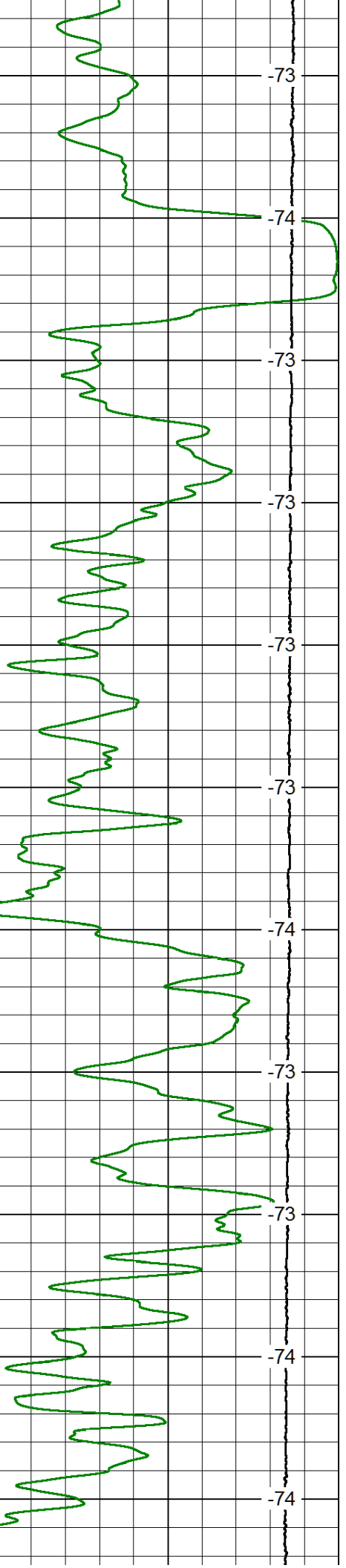
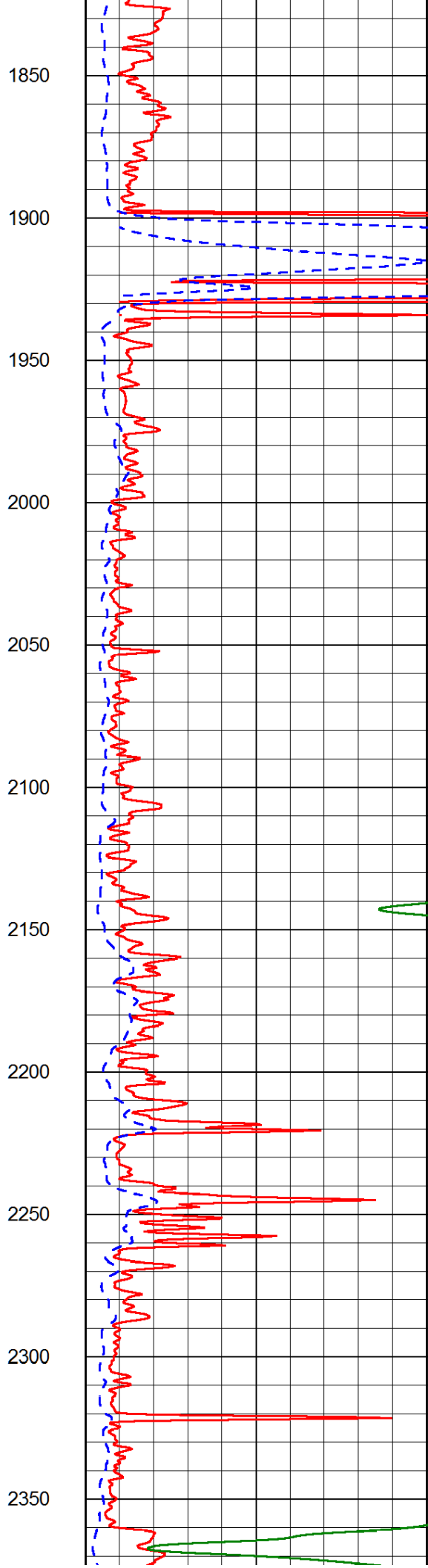
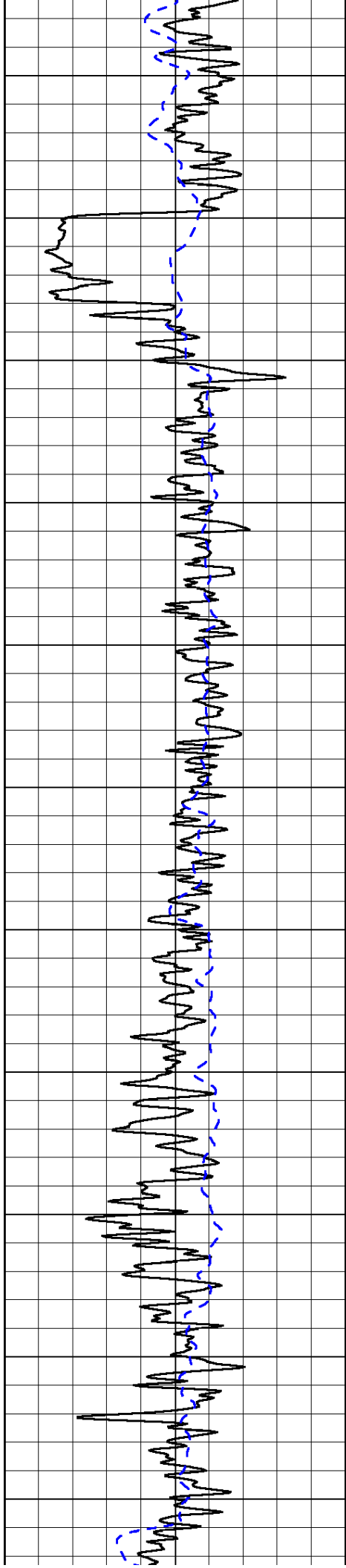
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0	Deep Resistivity	50
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50	Deep Resistivity	500

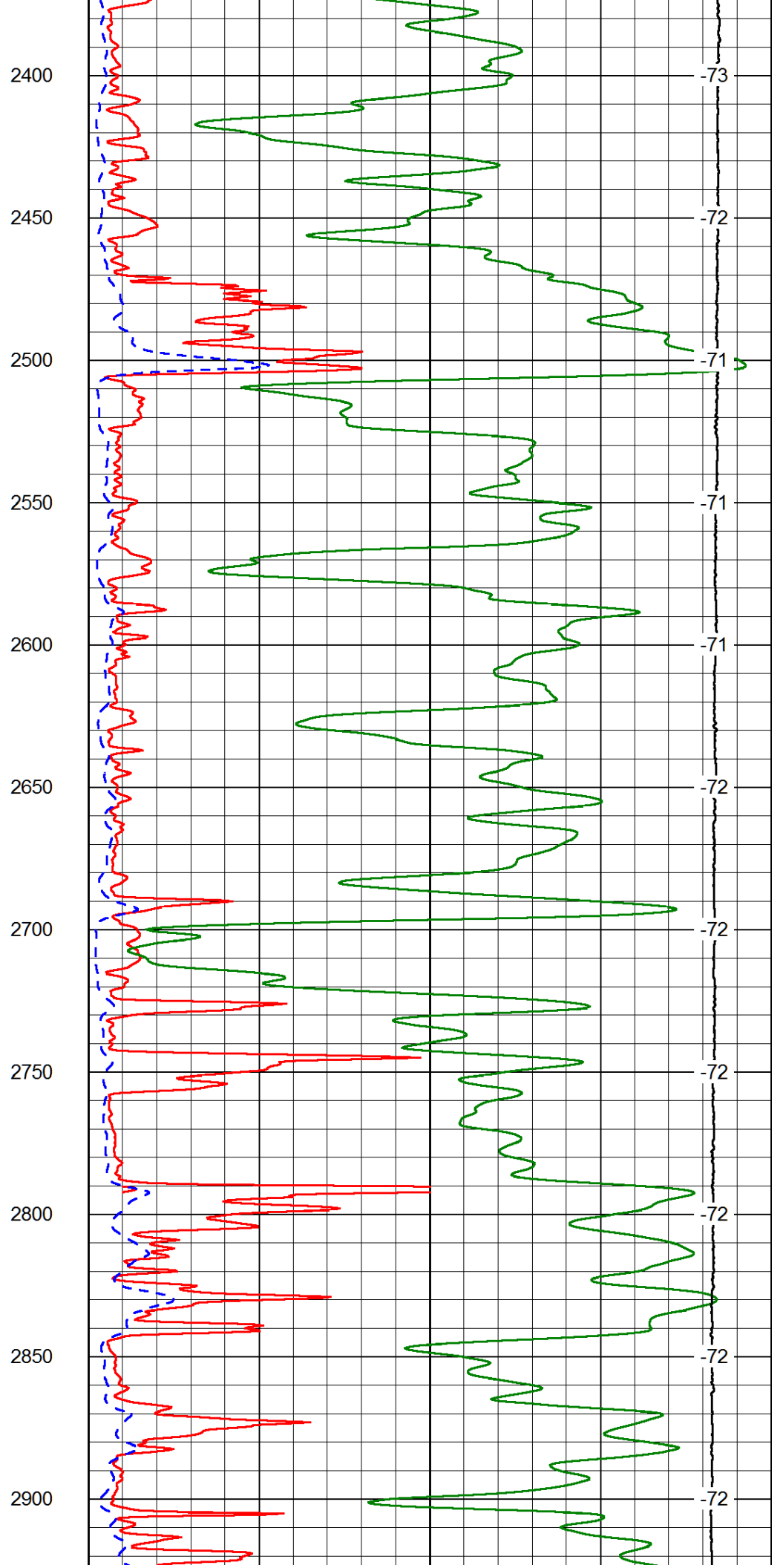
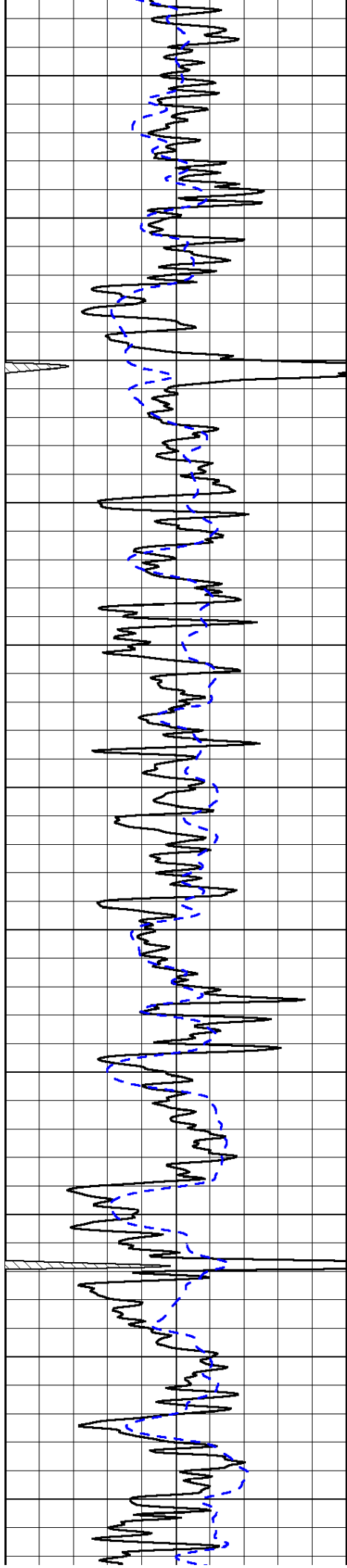
LSPD

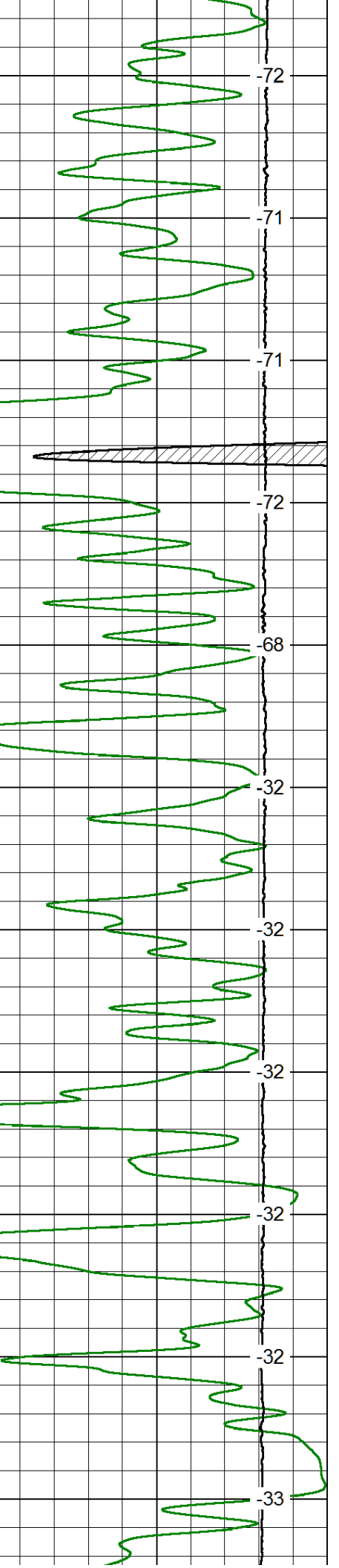
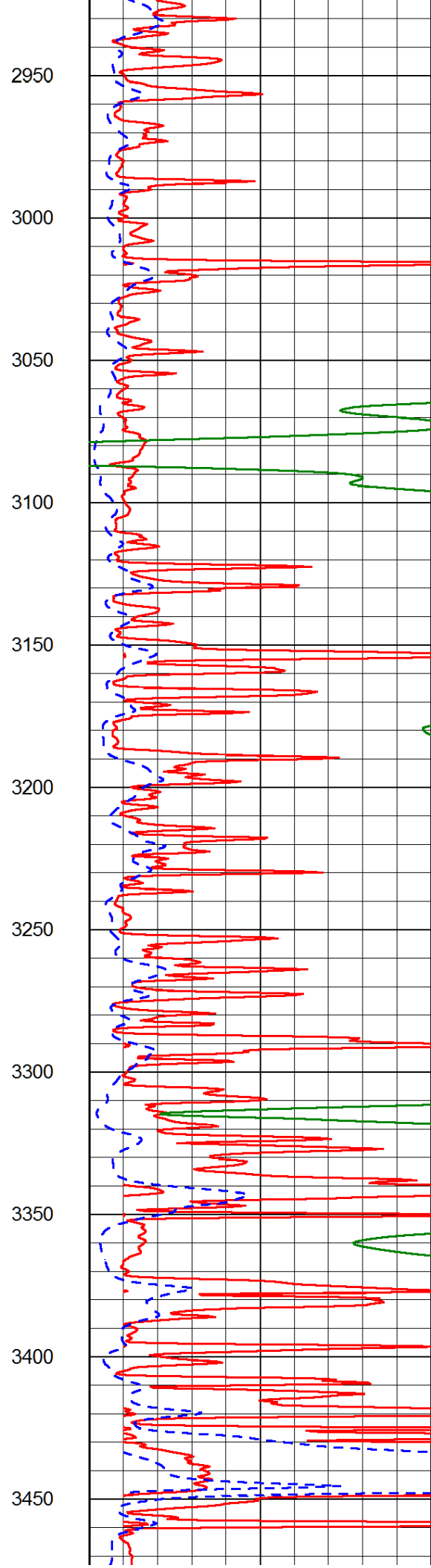
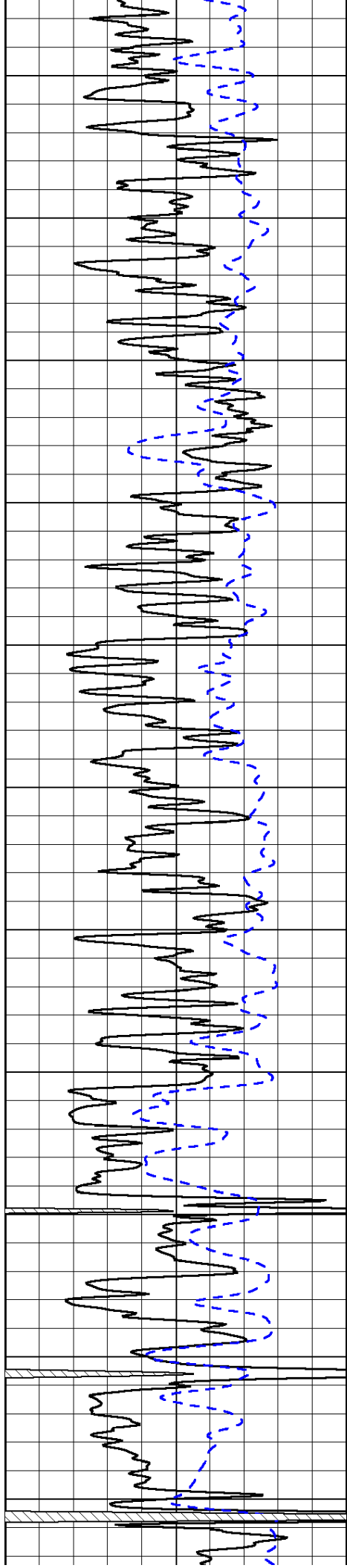


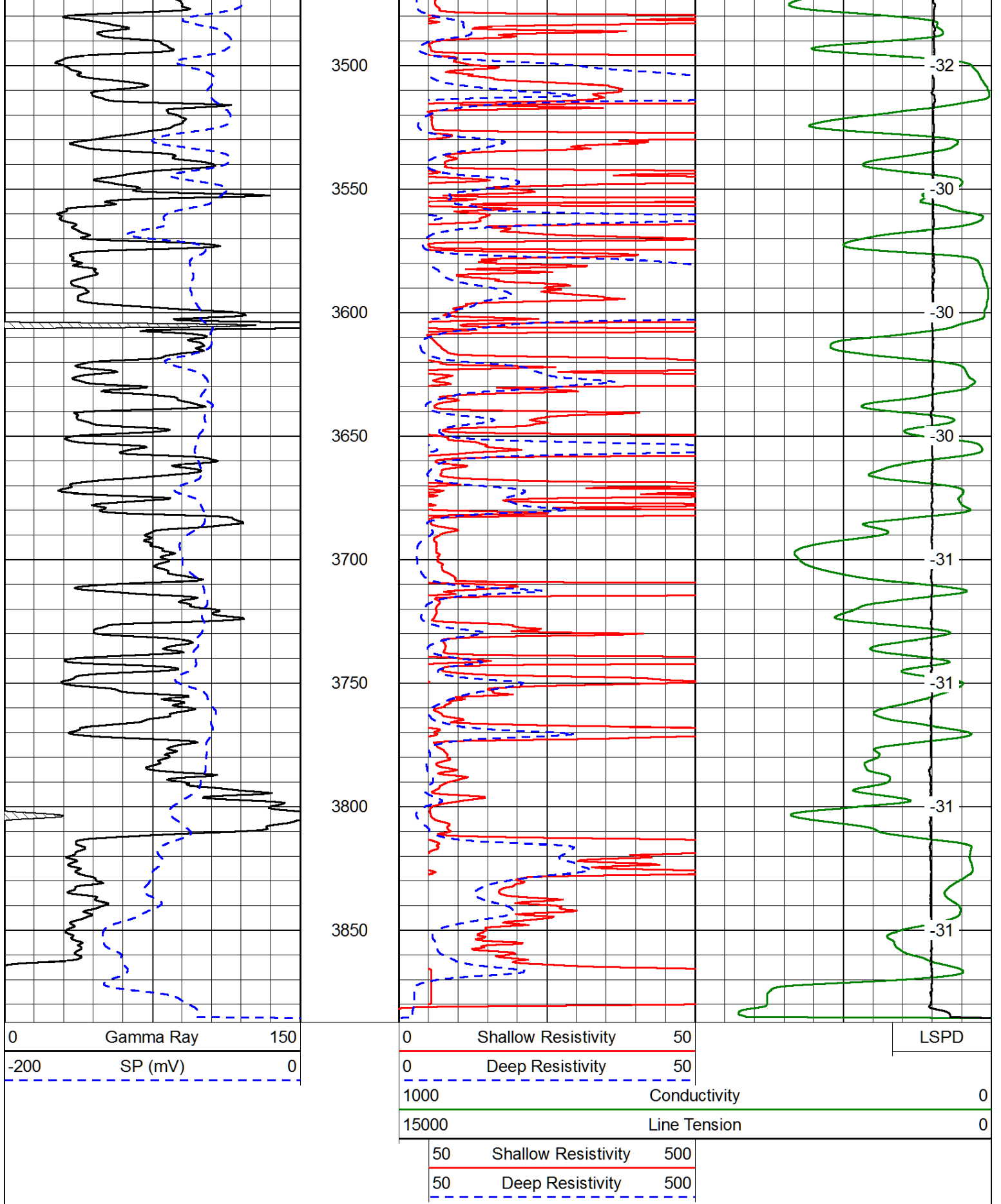










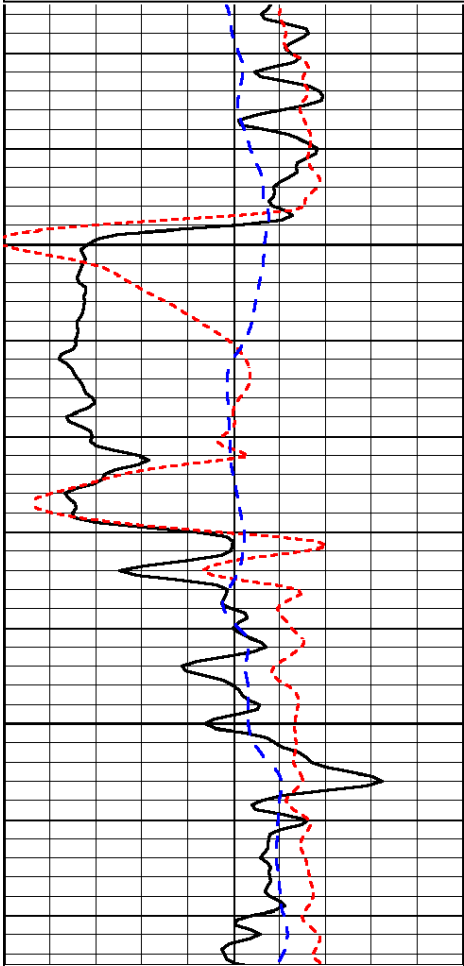


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-160	RxoRt	40
-200	SP (mV)	0

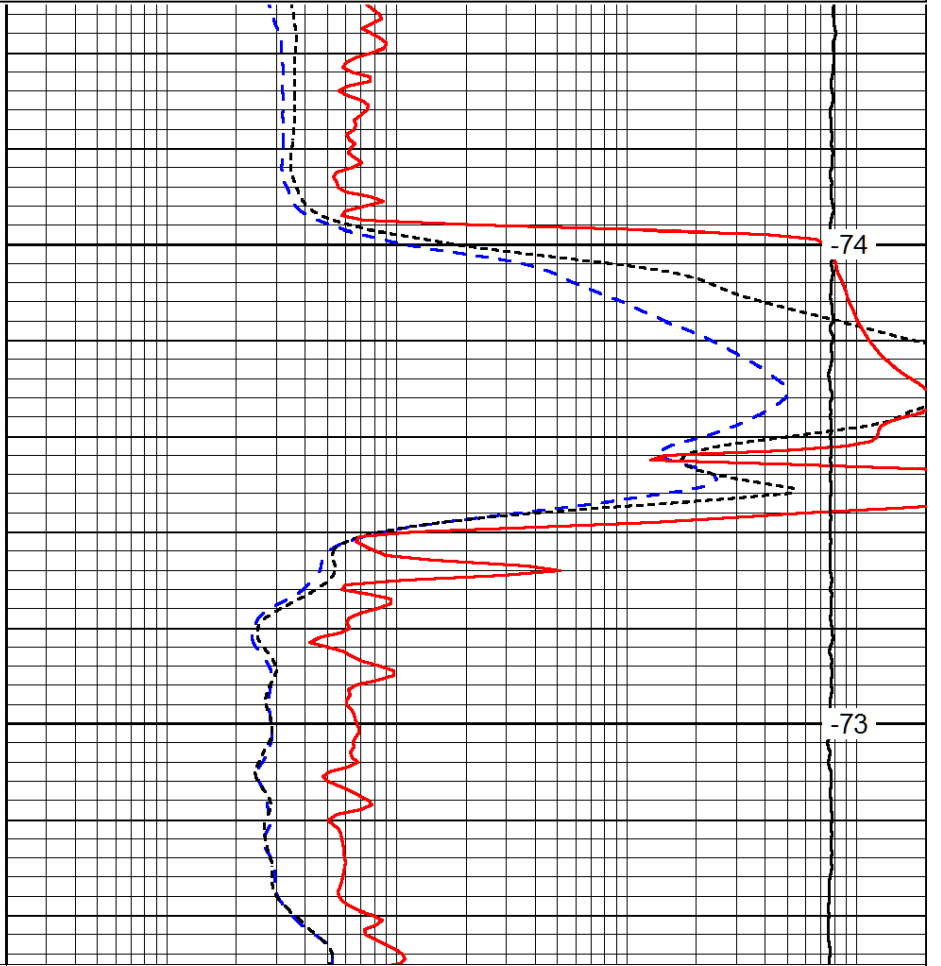
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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



1900

1950



-74

-73

0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

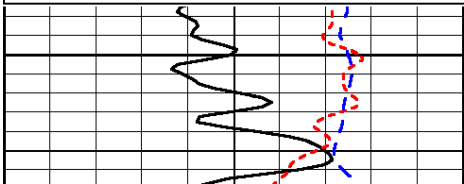
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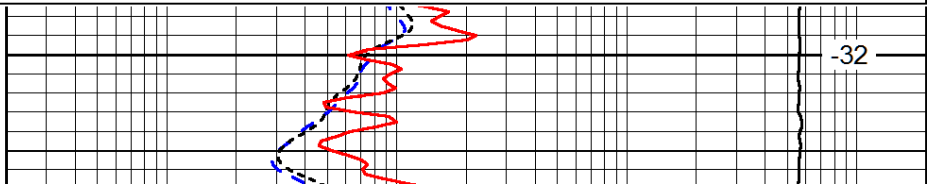
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-200	SP (mV)	0

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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD

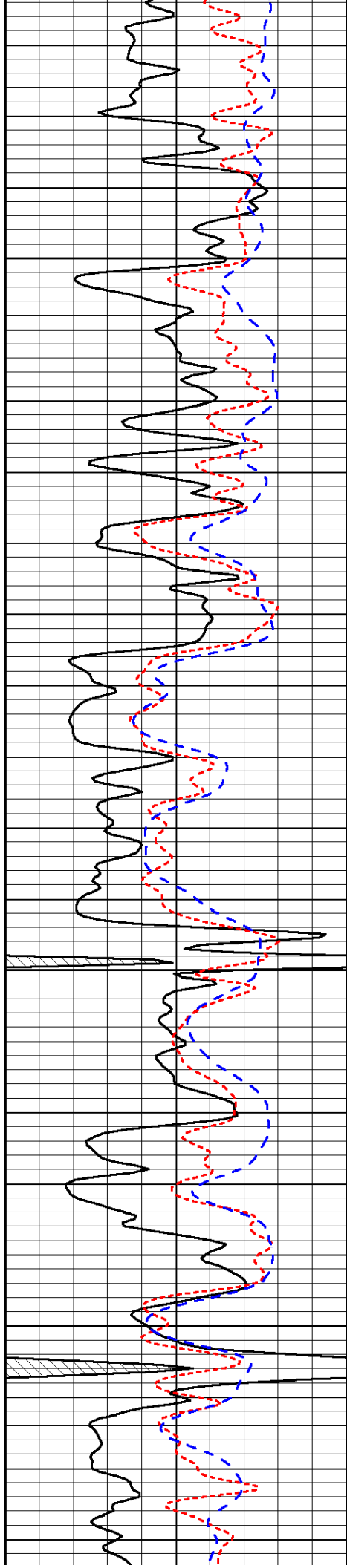


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-32



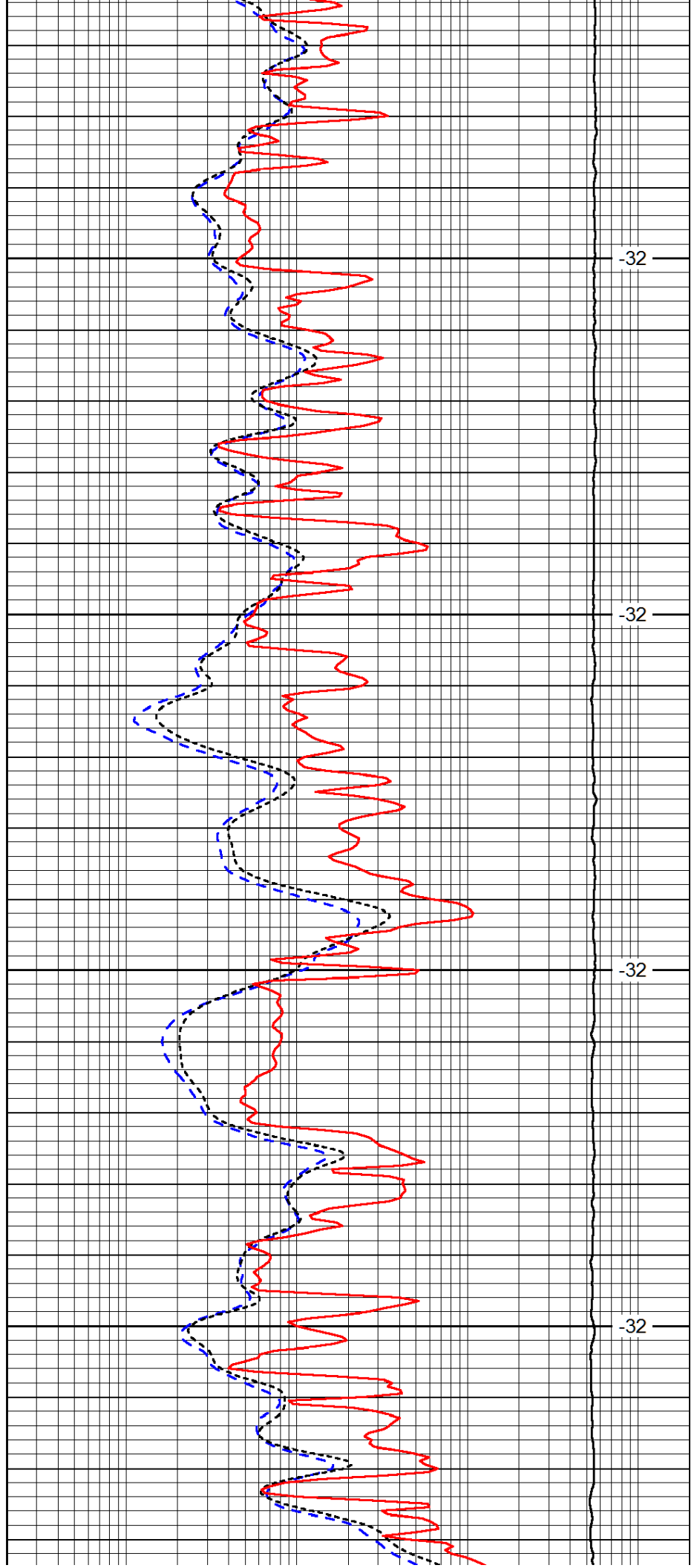


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3300

3350

3400

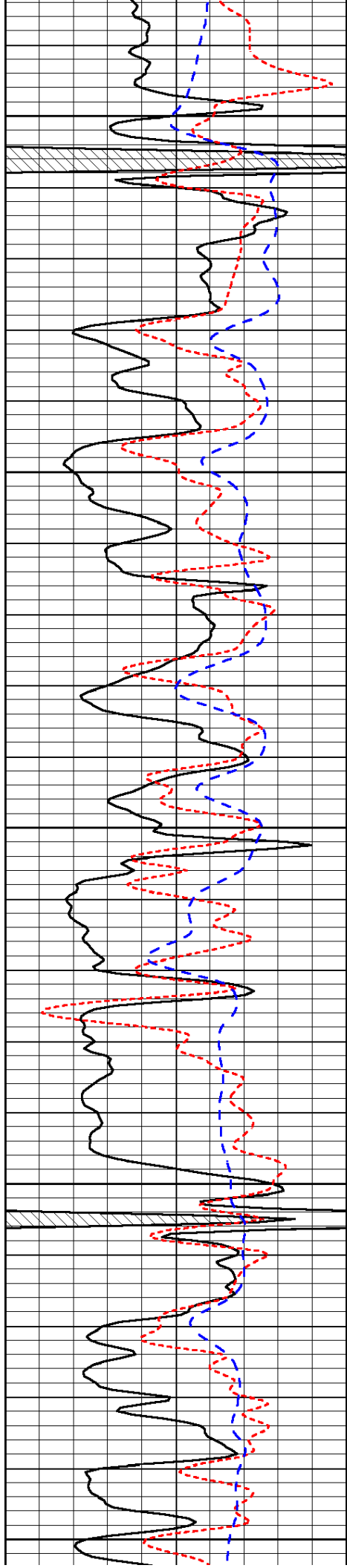


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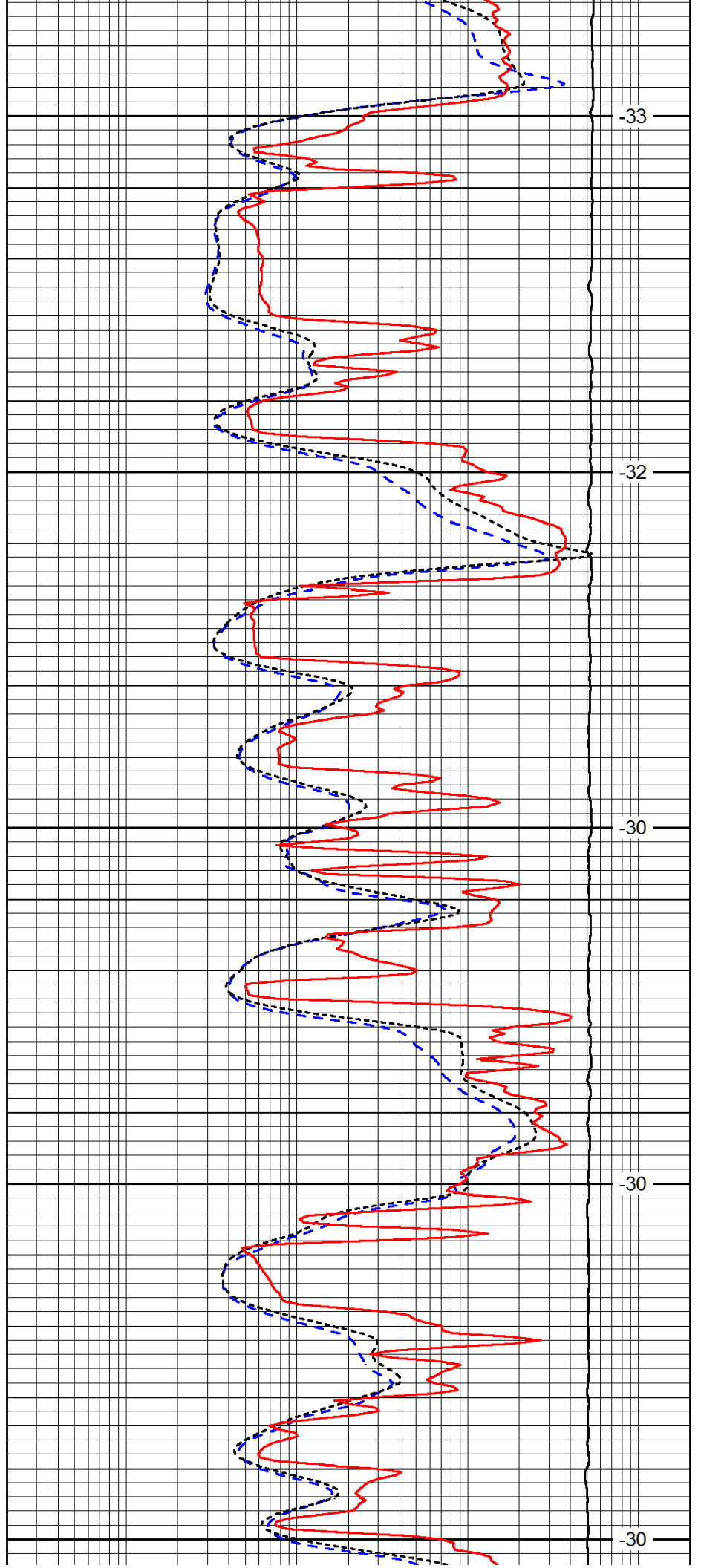
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3500

3550

3600

3650



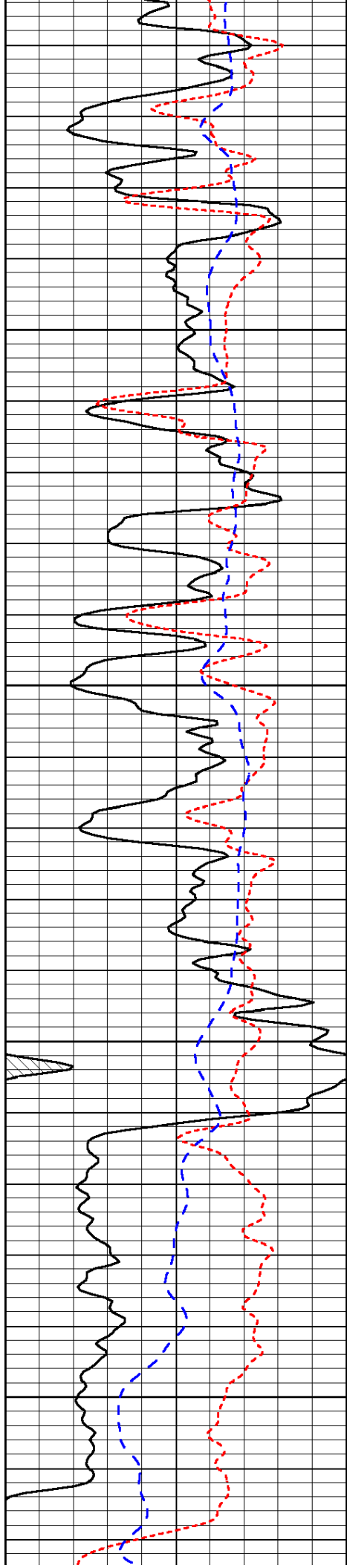
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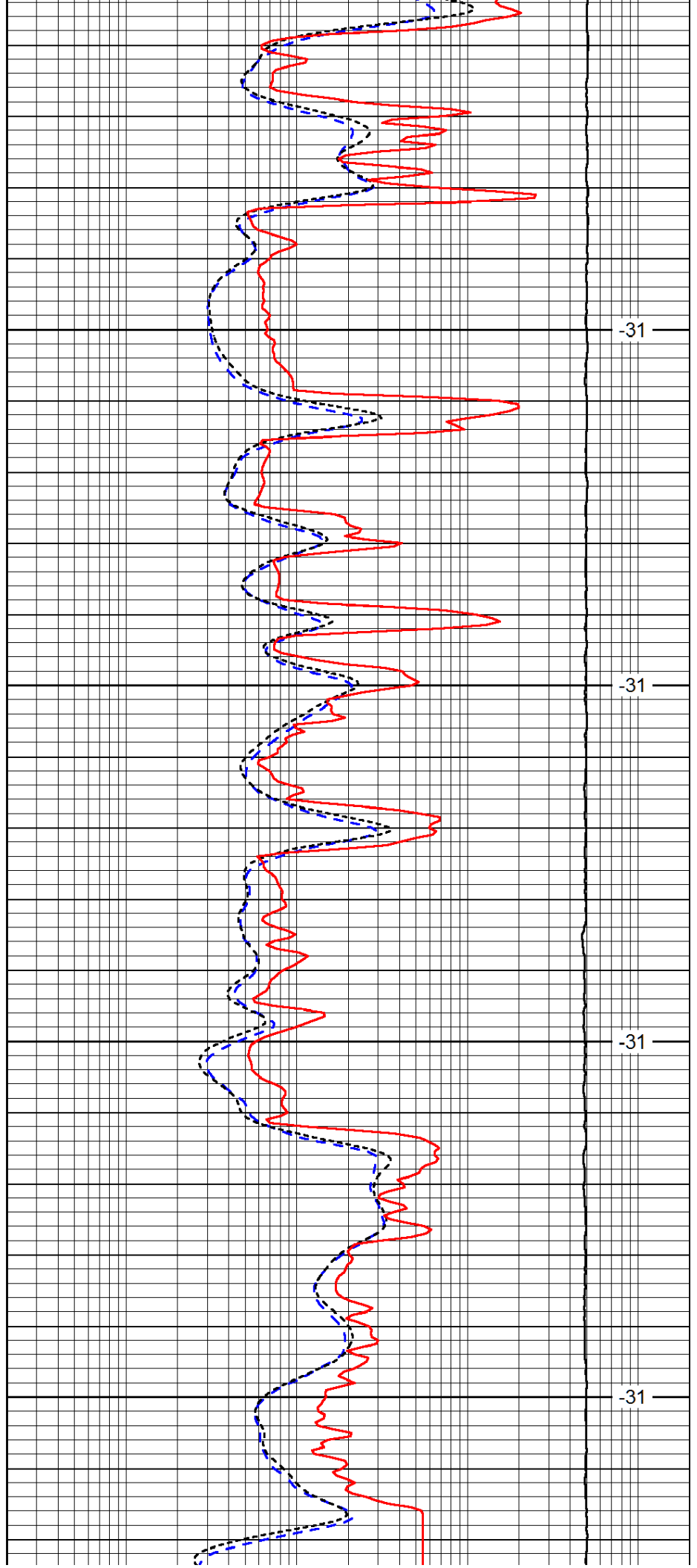


3700

3750

3800

3850

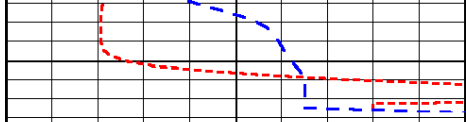


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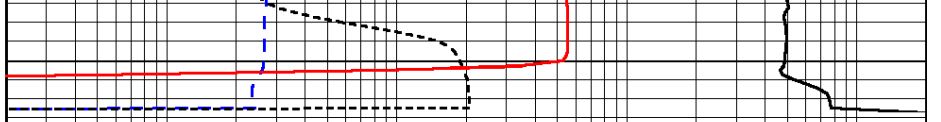
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-31



0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



Pioneer Energy Services

**Borehole Compensated  
Sonic Log**

**Company** Ainsworth Operating Company  
**Well** Davis No. 4  
**Field** Red Sun  
**County** Graham **State** Kansas  
**Location** 2,160' FNL & 440' FEL  
**Sec:** 34 **Twp:** 6S **Rge:** 22W  
**Other Services** CNL/CDL MEL/DIL

**API No.** 15-065-24,098-00-00  
**Permanent Datum** Ground Level **Elevation** 2245  
**Log Measured From** Kelly Bushing **10 Ft. Above Perm. Datum**  
**Drilling Measured From** Kelly Bushing  
**Date** 3/2/2015  
**Elevation** K.B. 2255  
 D.F. G.L. 2245

Run Number	Two
Type Log	BHC Sonic
Depth Driller	3881
Depth Logger	3882
Bottom Logged Interval	3871
Top Logged Interval	250
Type Fluid In Hole	Chemical
Salinity, PPM CL	500
Density	9.1
Level	Full
Max. Rec. Temp. F	115
Operating Rig Time	4 1/2 Hours
Equipment -- Location	108 Hays
Recorded By	J. Long
Witnessed By	Randy Kilian

Borehole Record		Casing Record					
Run No	Bit From	To	Size	Wgt.	From	To	
One	12.25	00	268	8.625	23#	00	268
Two	7.875	268	TD				

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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.

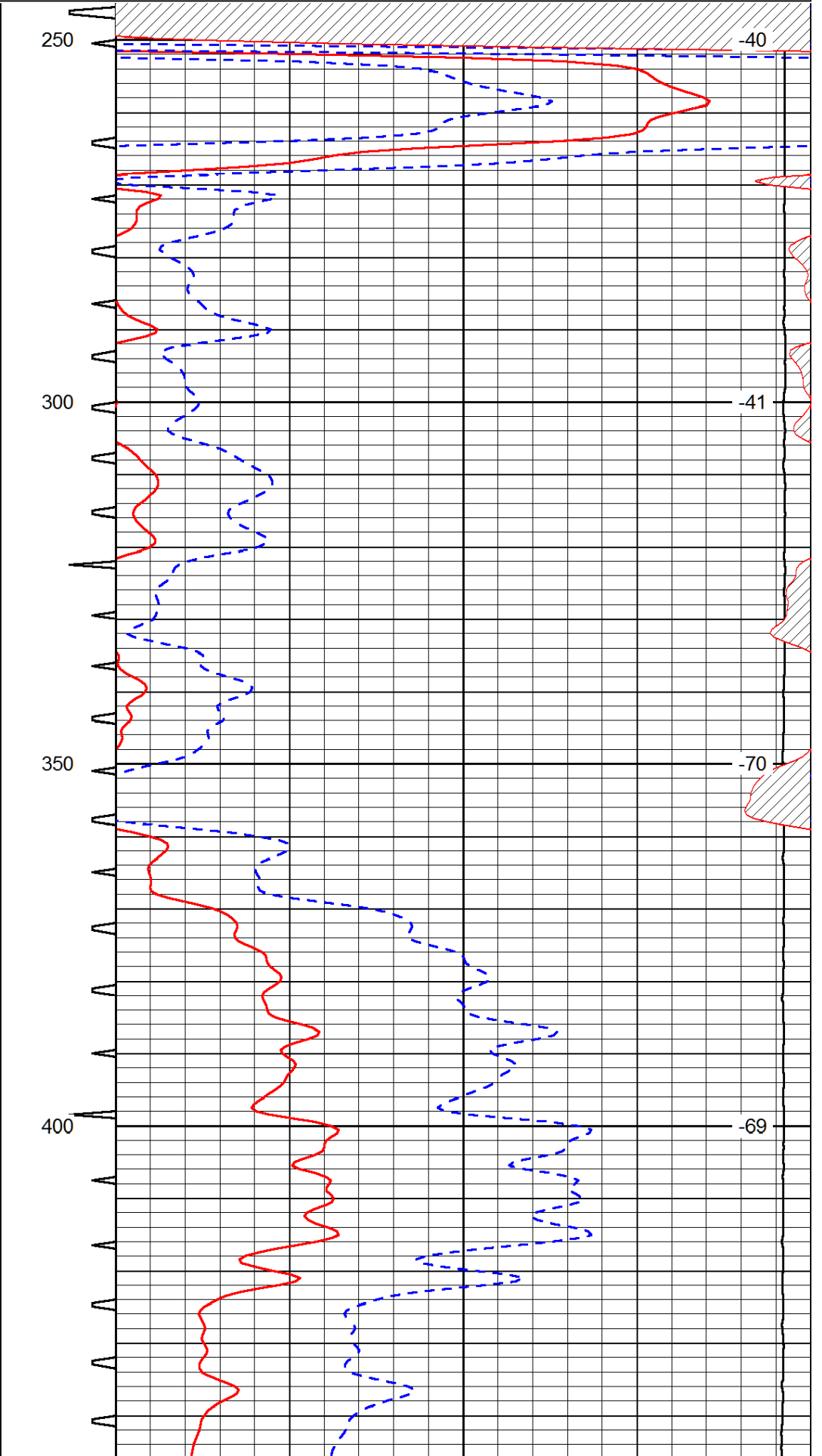
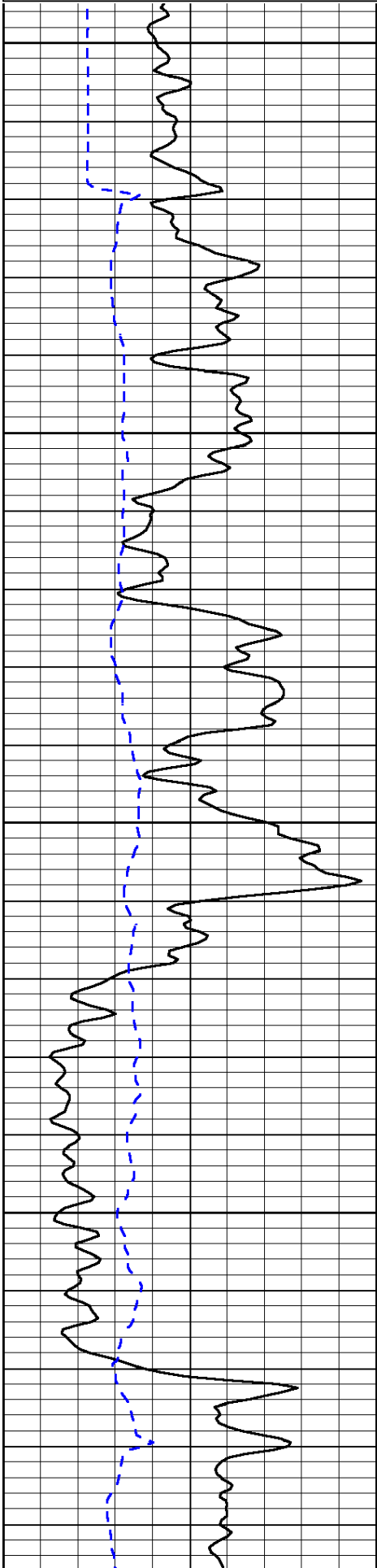
**Comments**

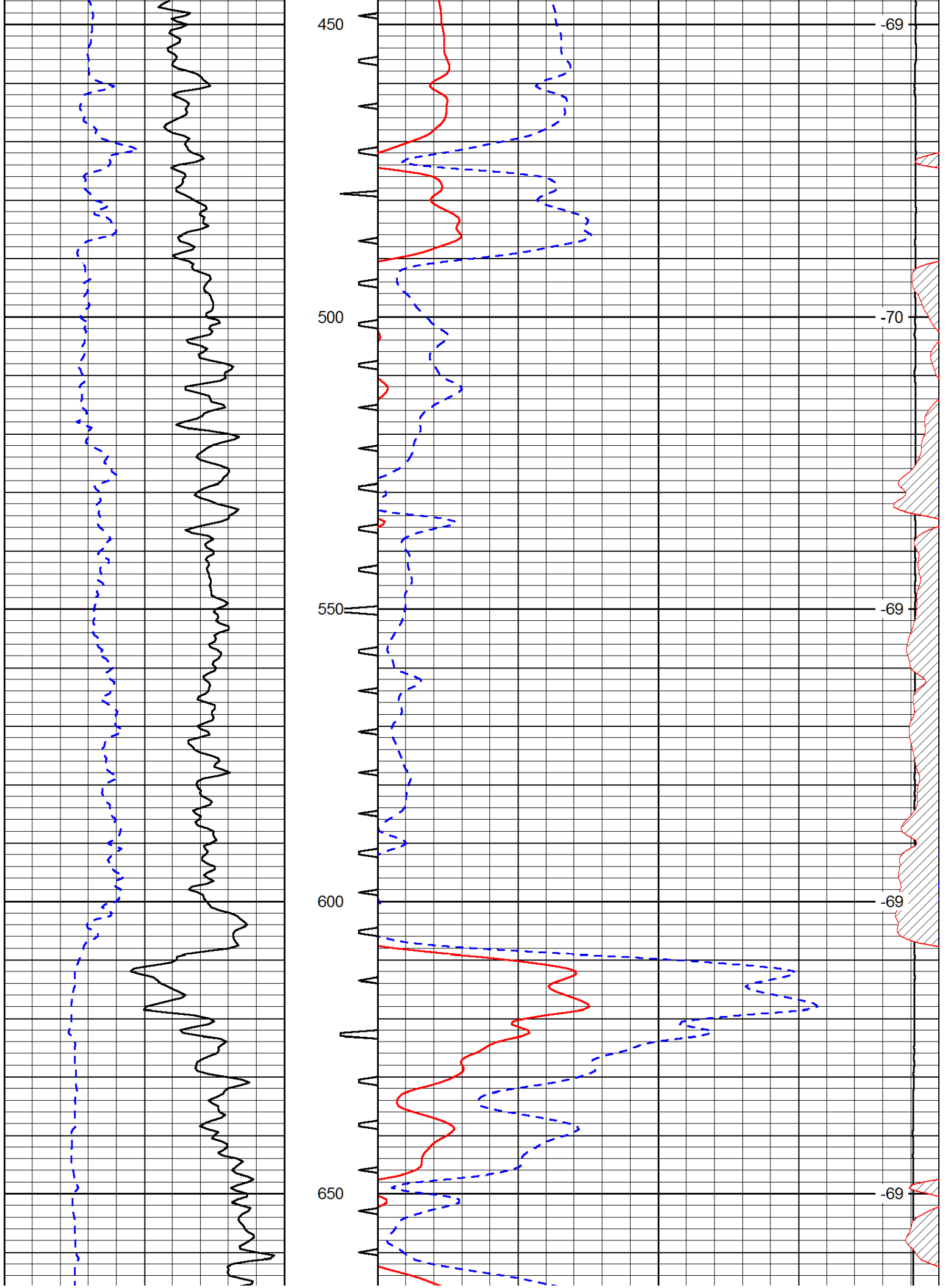
Thank you for using Pioneer Energy Services  
 785.625.3858  
  
 Hill City, 8 North to Y Road, 4 East to 310 Road, 1 North to Z Road, 1/2 East, South Into

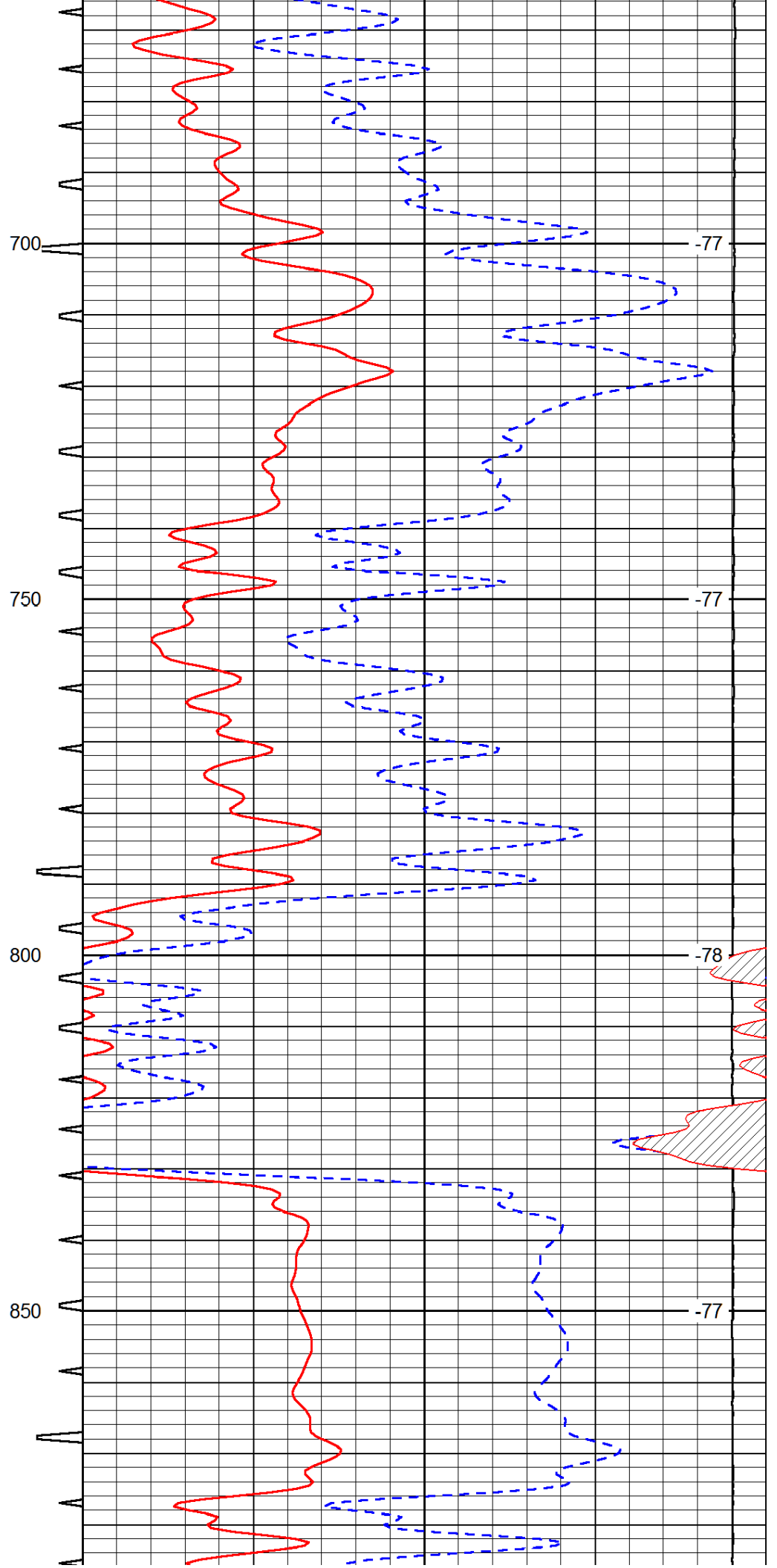
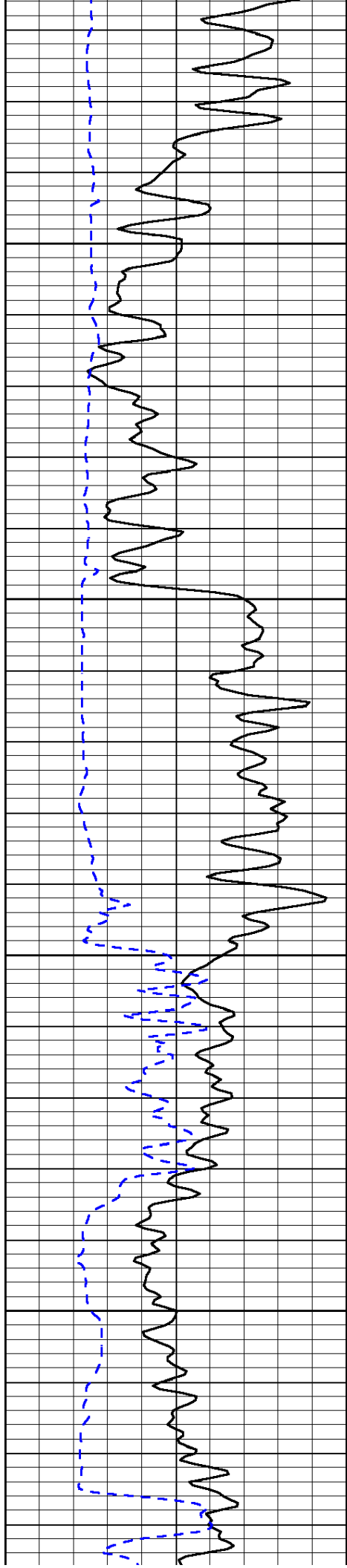
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 Dataset Creation: Sun Mar 01 23:04:51 2015  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	Sonic Int	140	Delta Time (usec/ft)	40
150	Gamma Ray	300	5	0	Sonic Porosity	-10
6	dCAL (GAPI)	16			LTEN (lb)	0

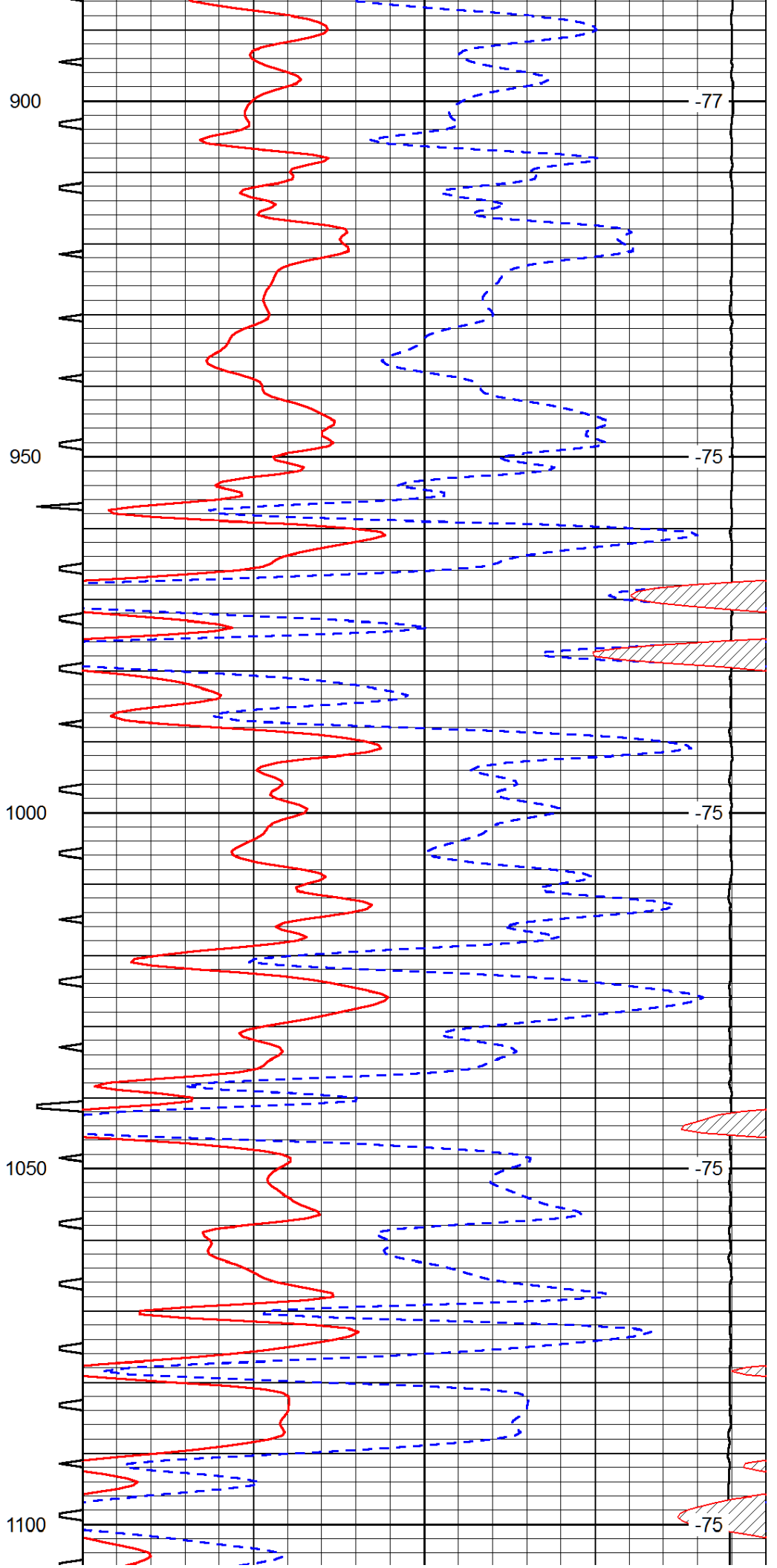
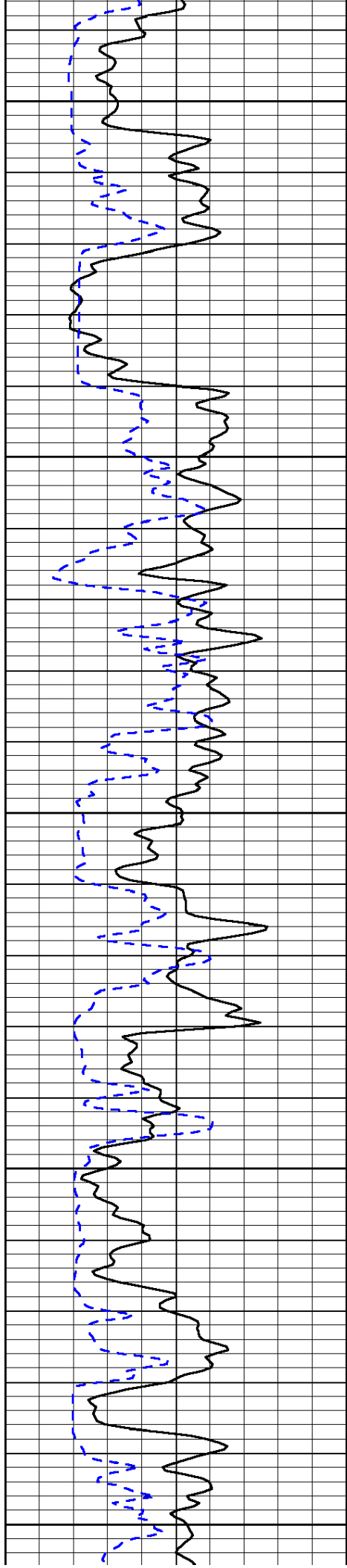
LSPD

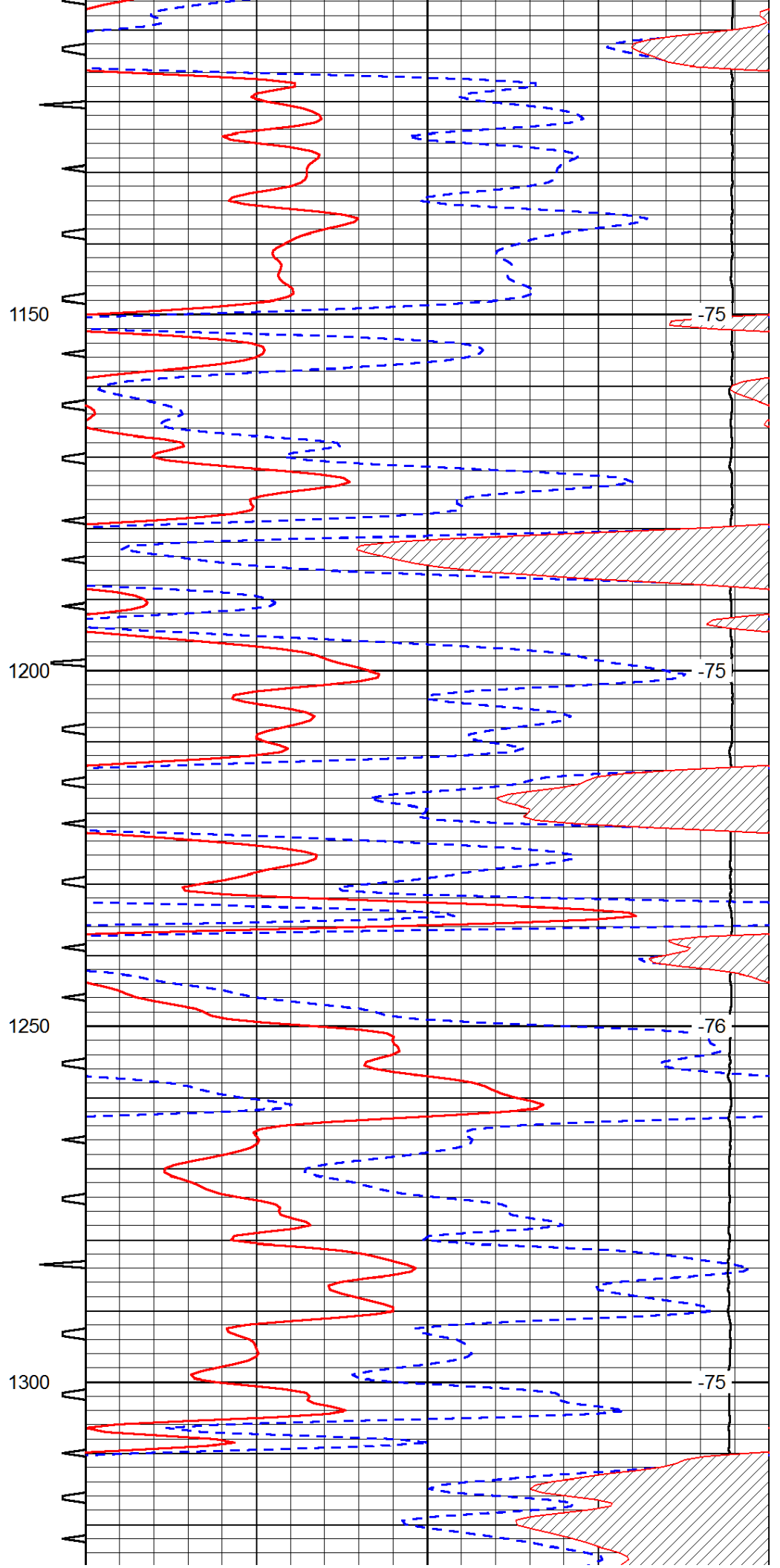
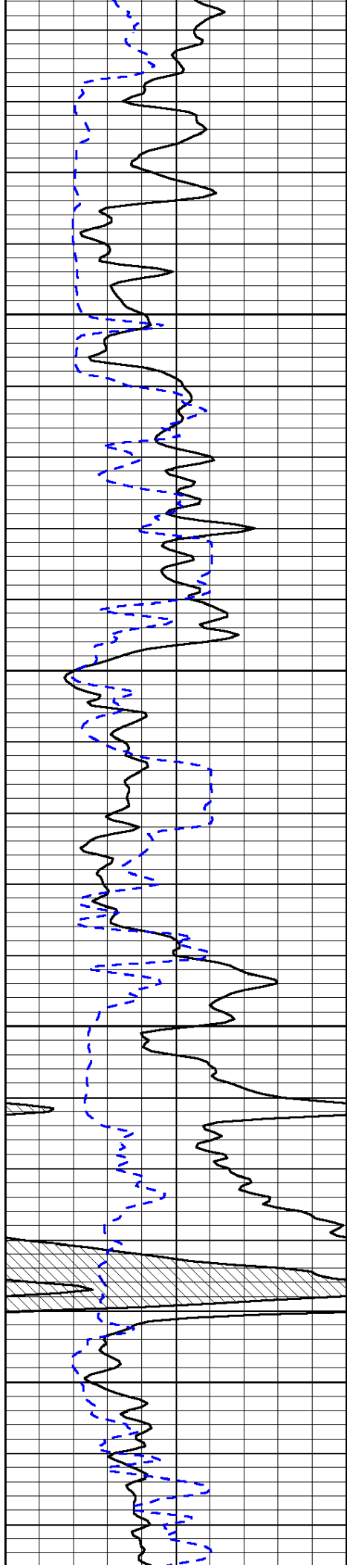


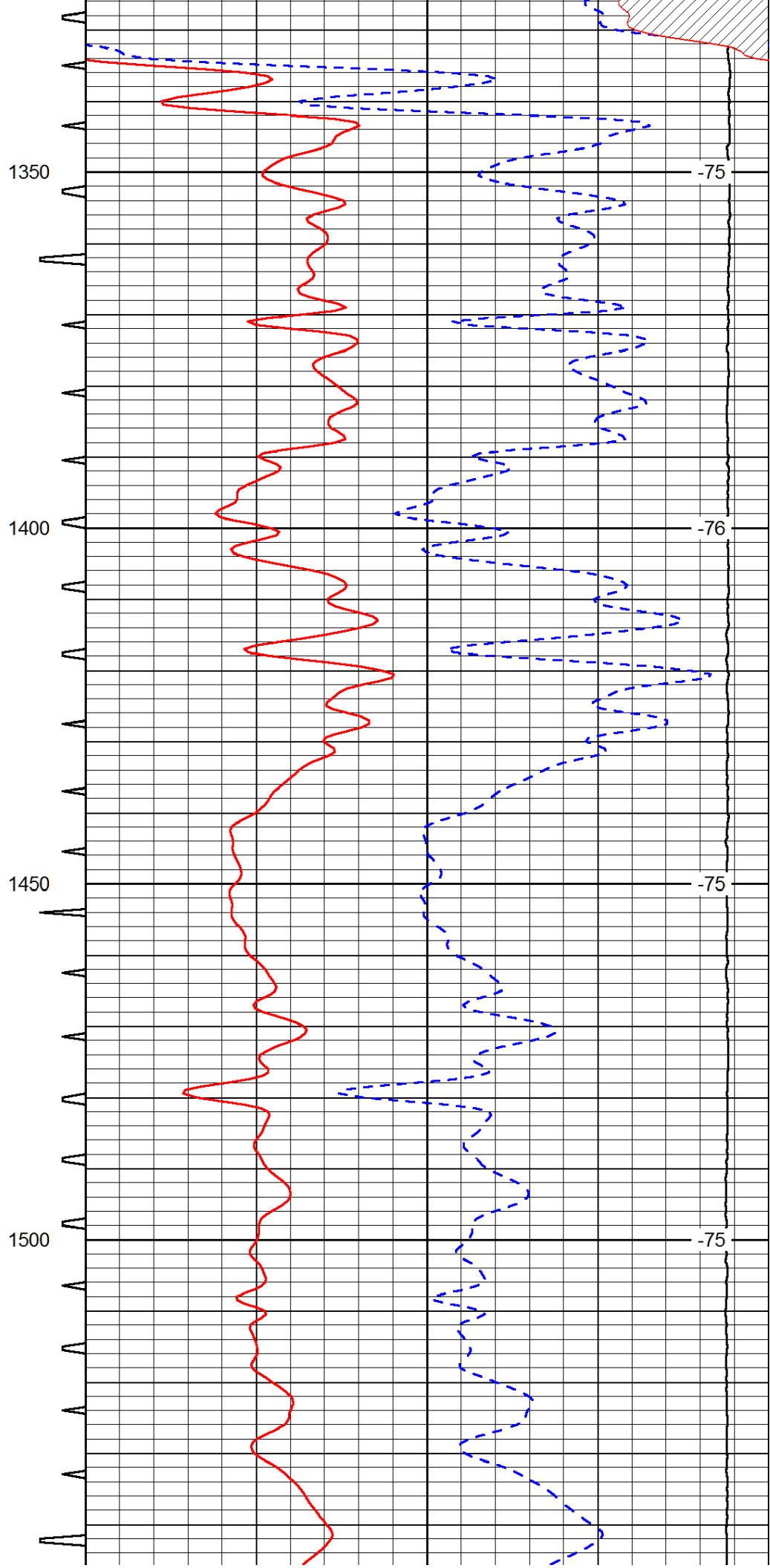
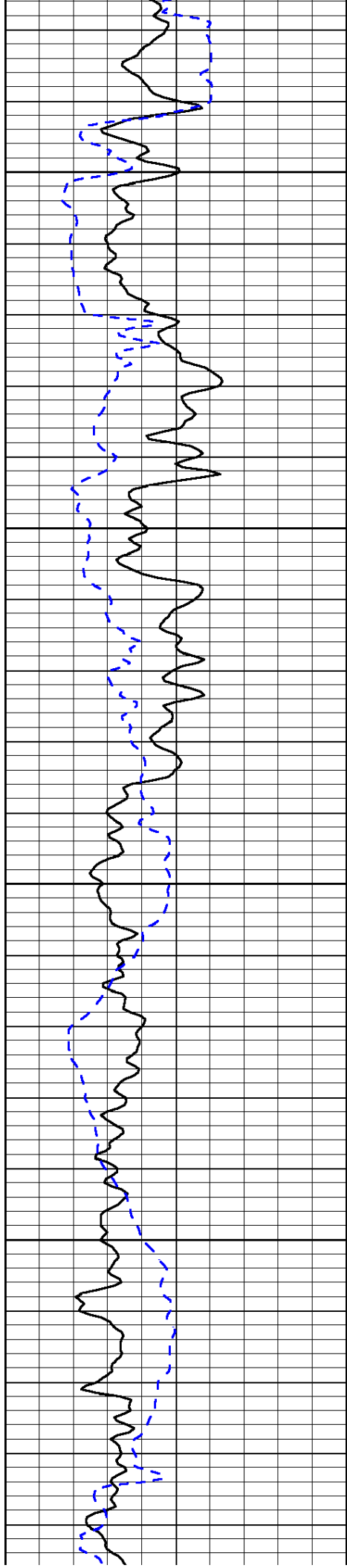


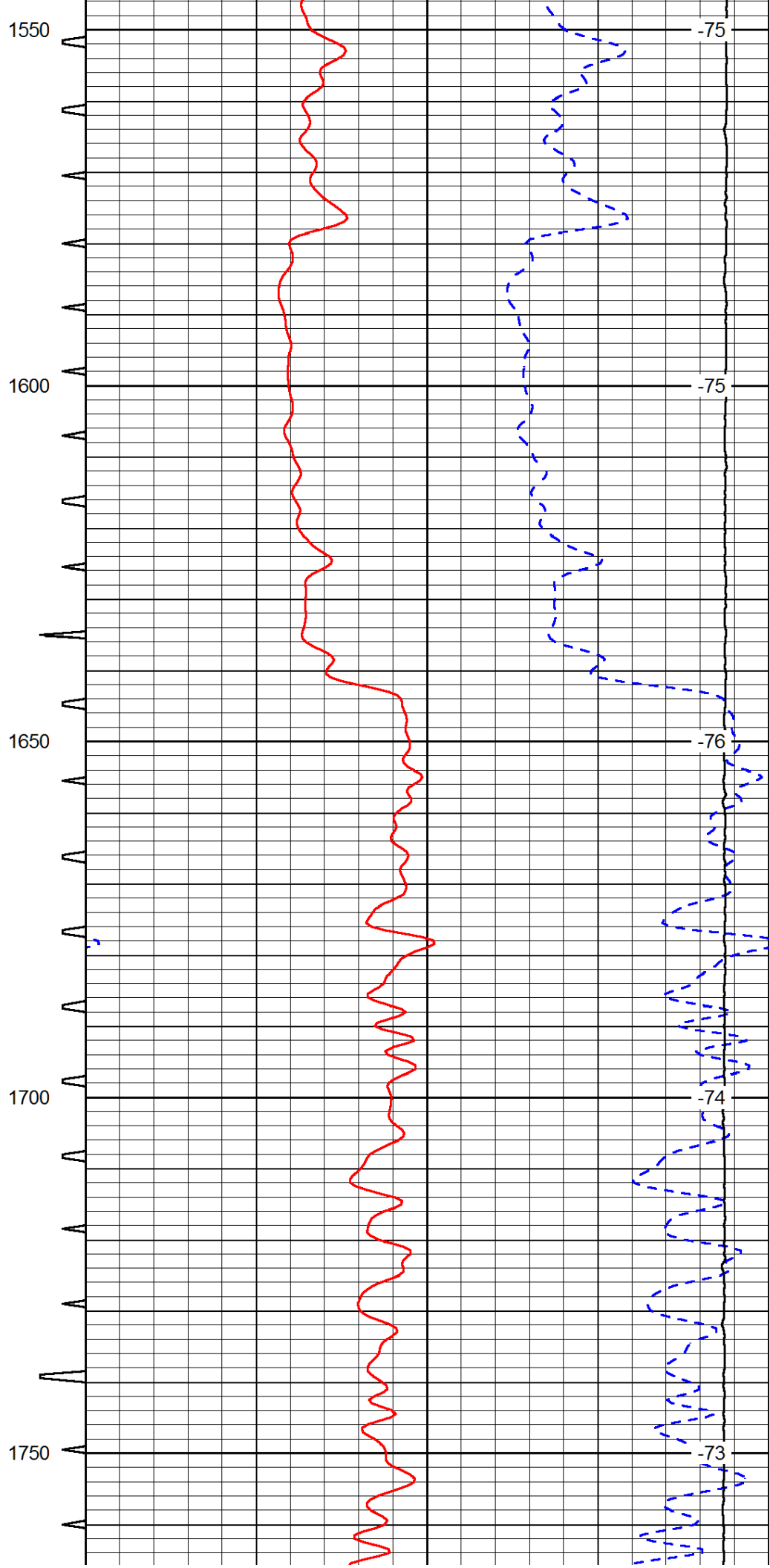
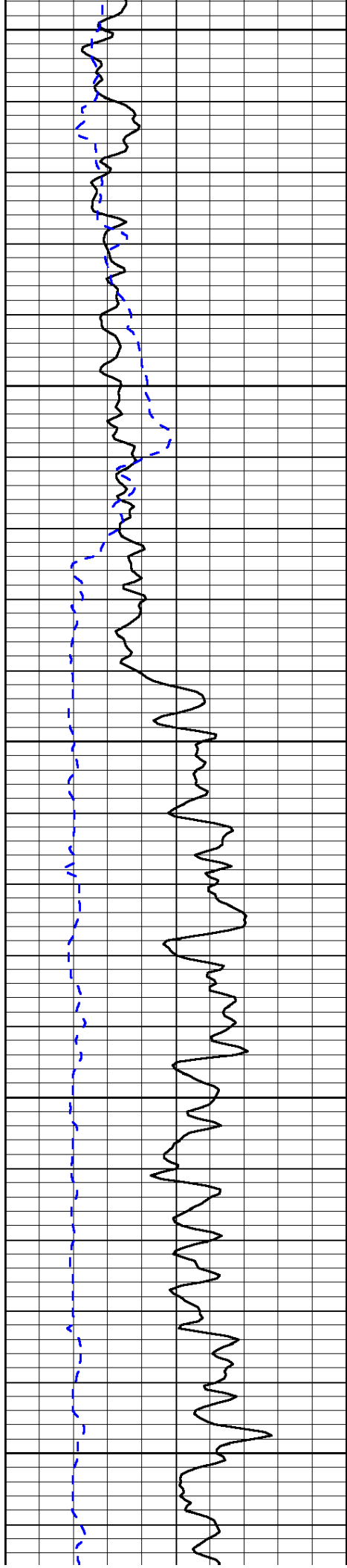


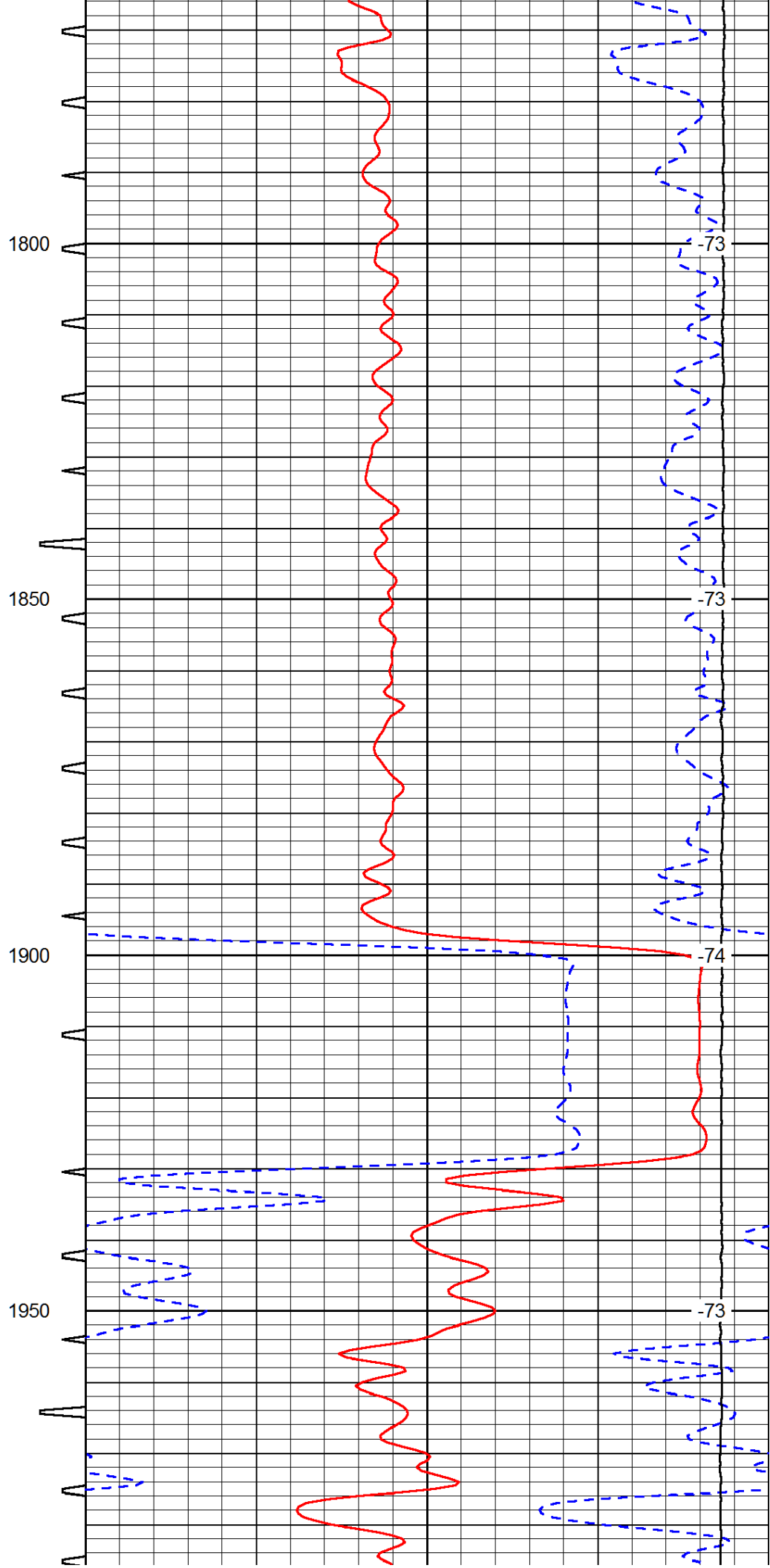
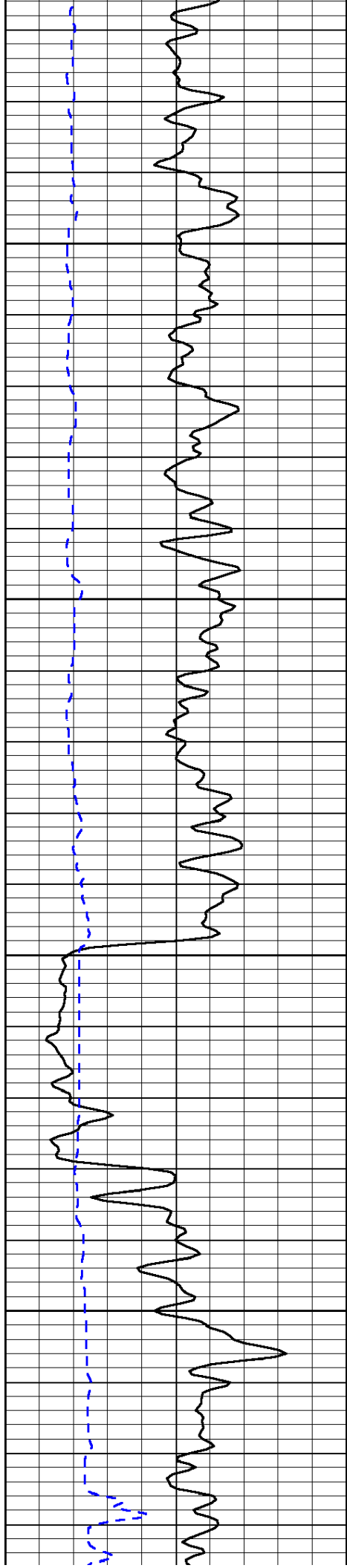


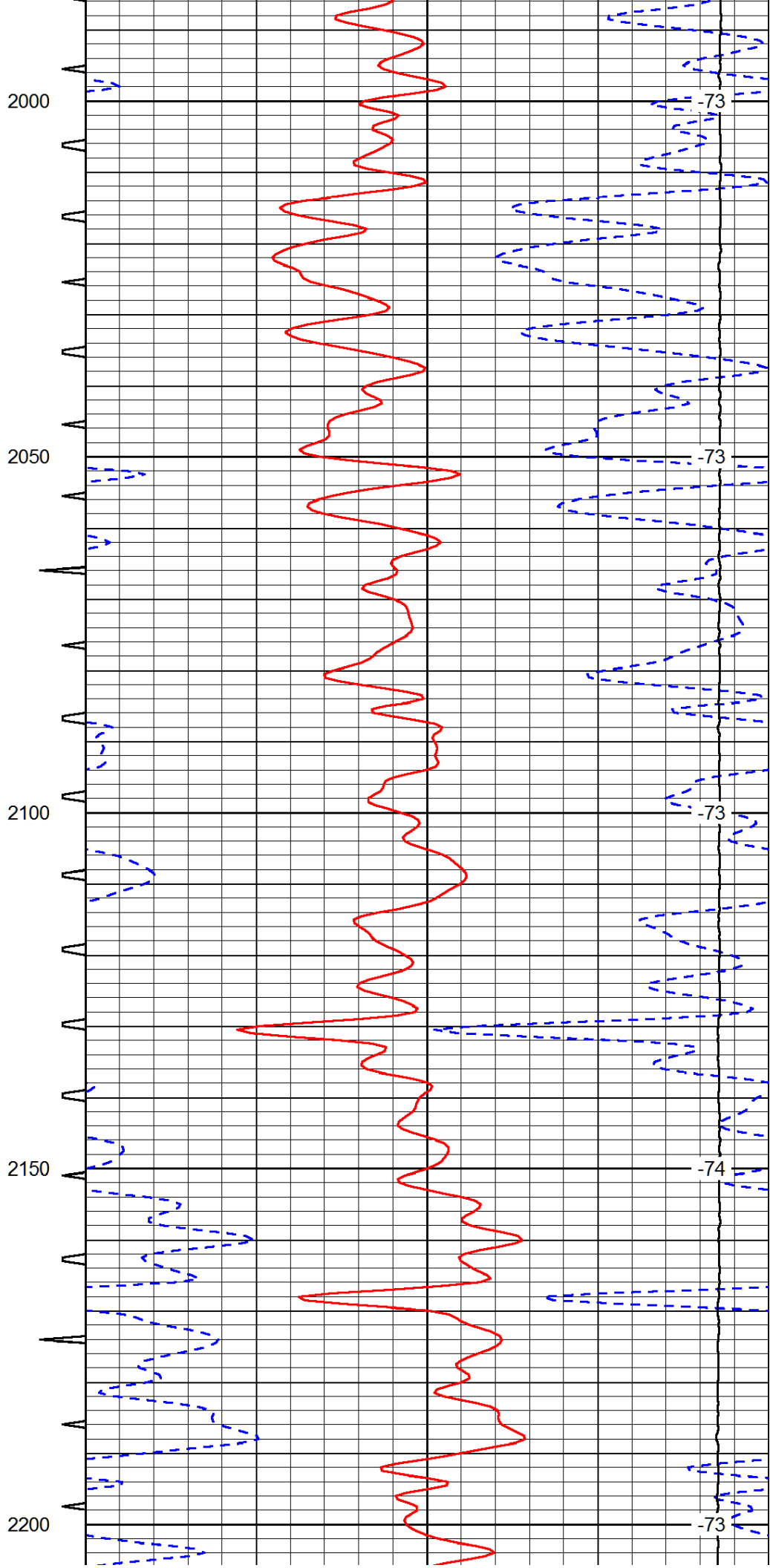
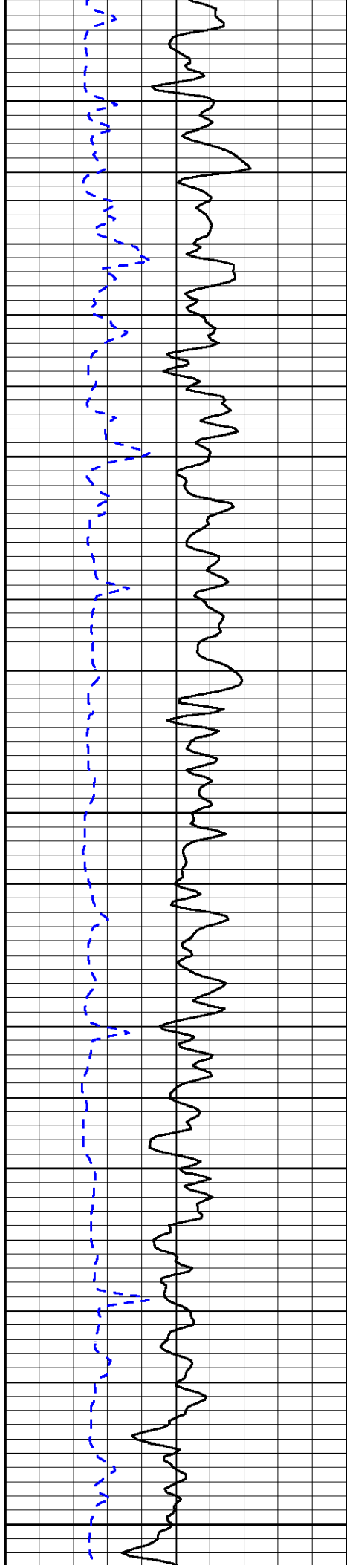


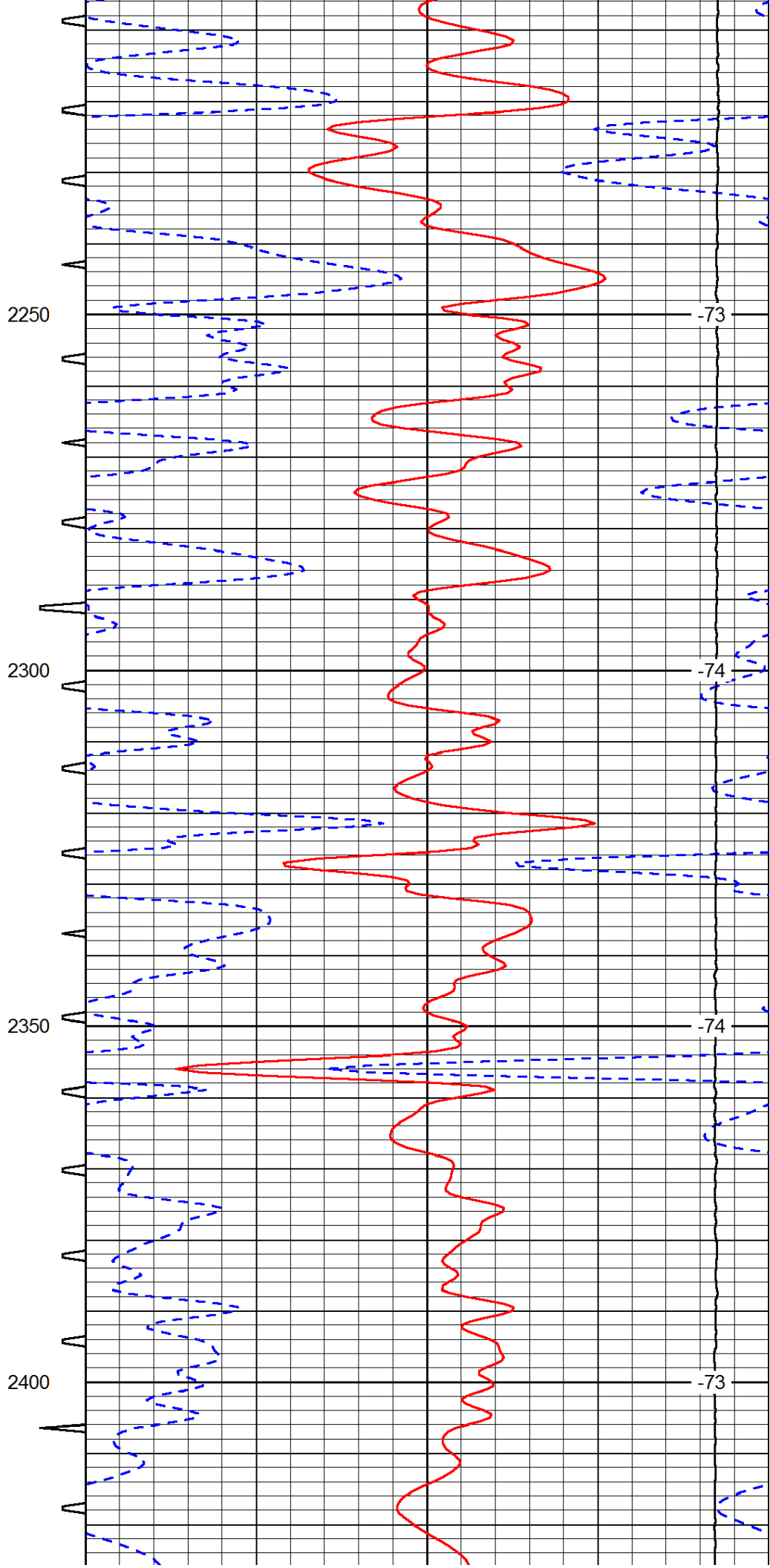
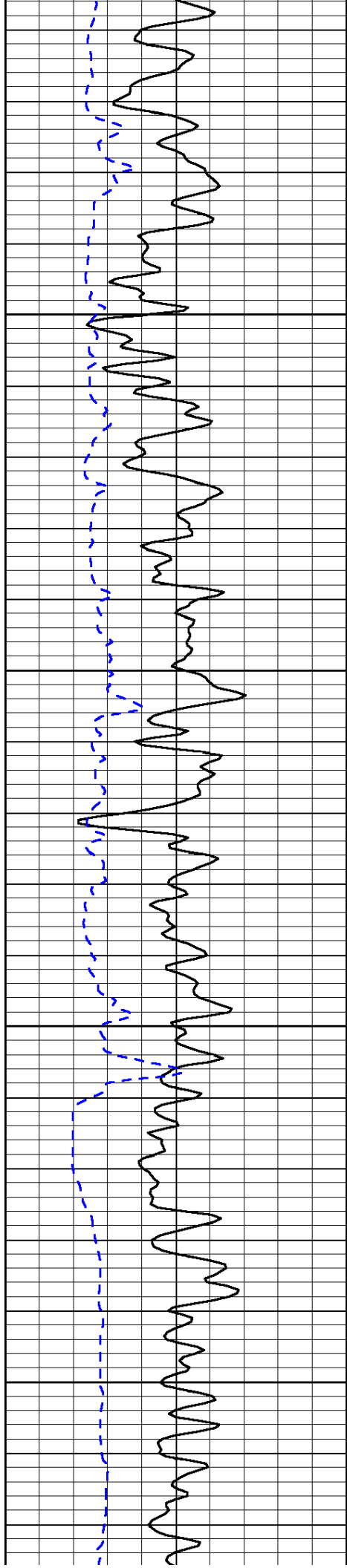


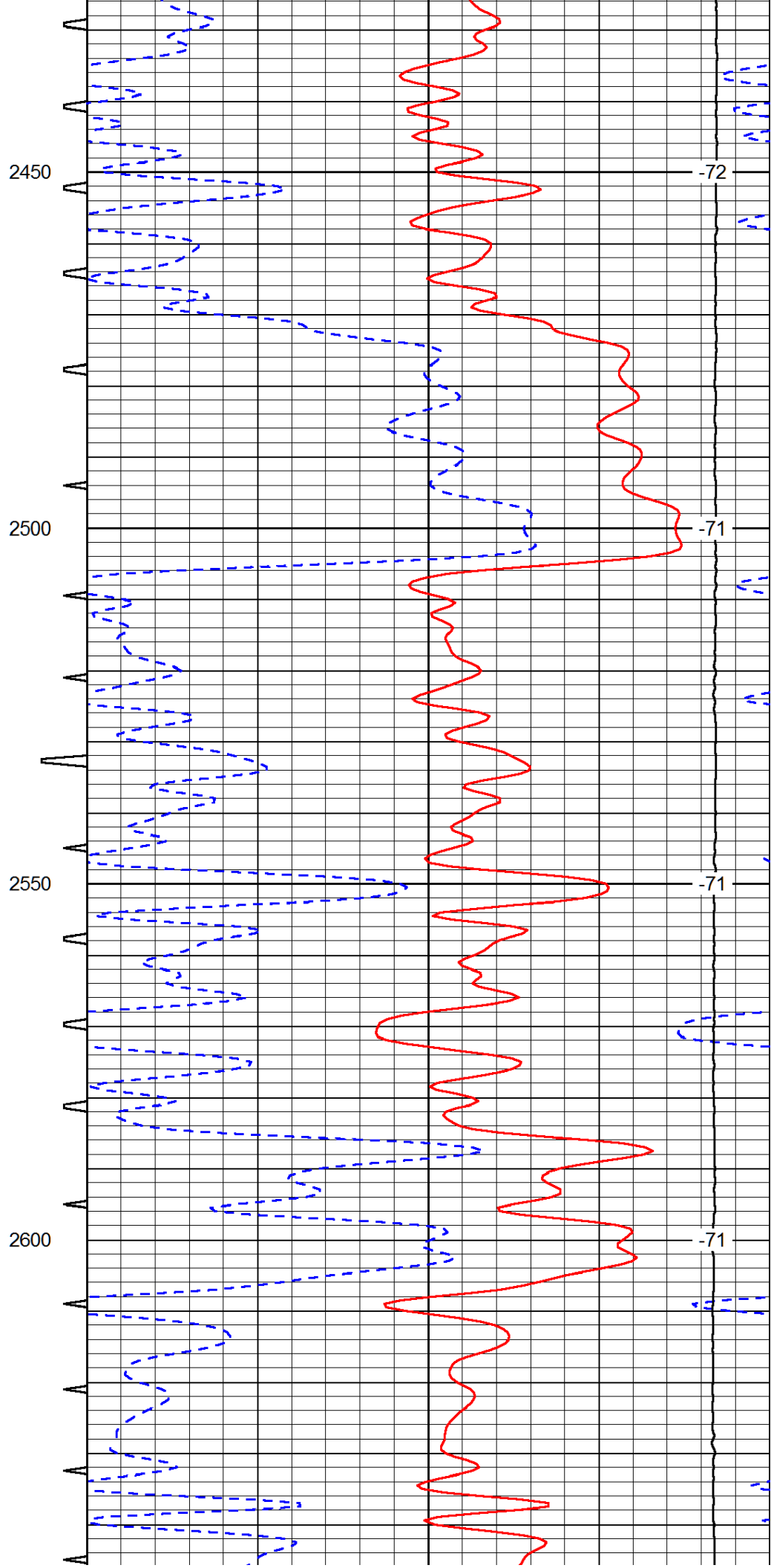
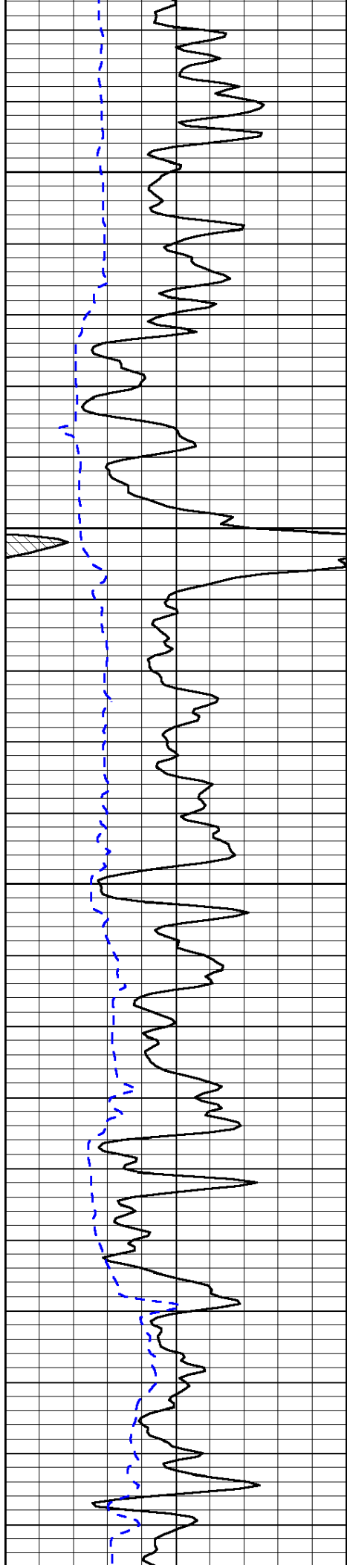




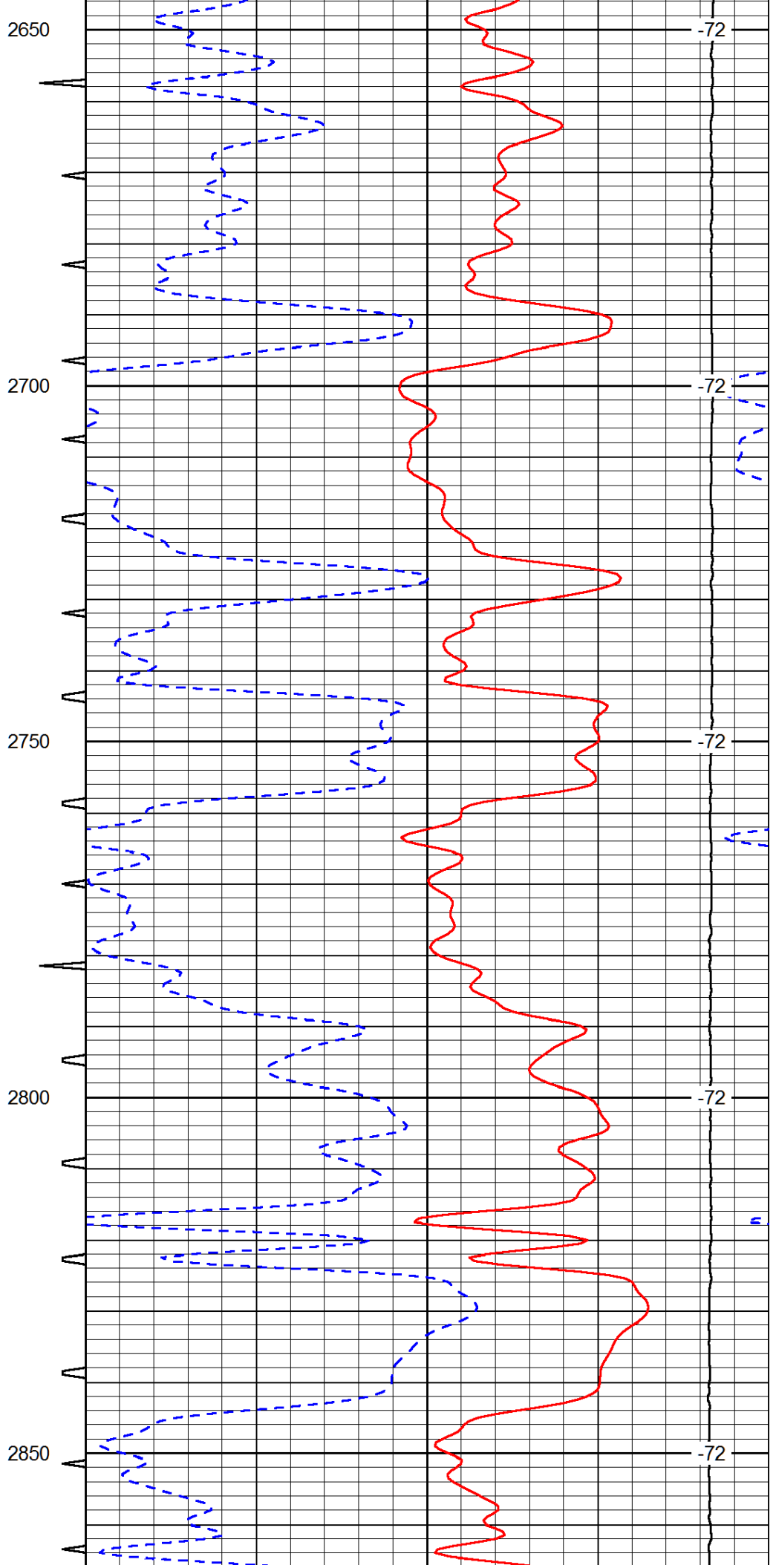
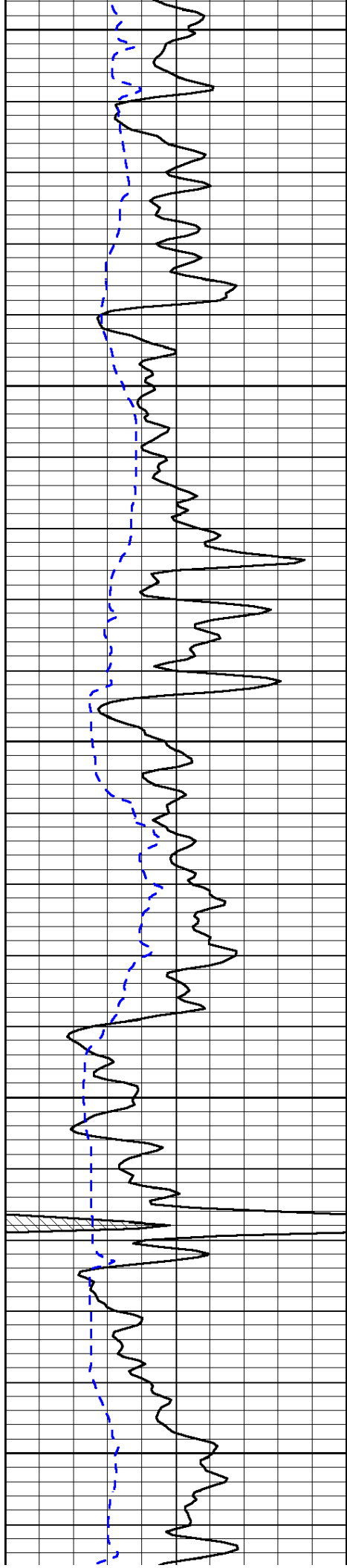


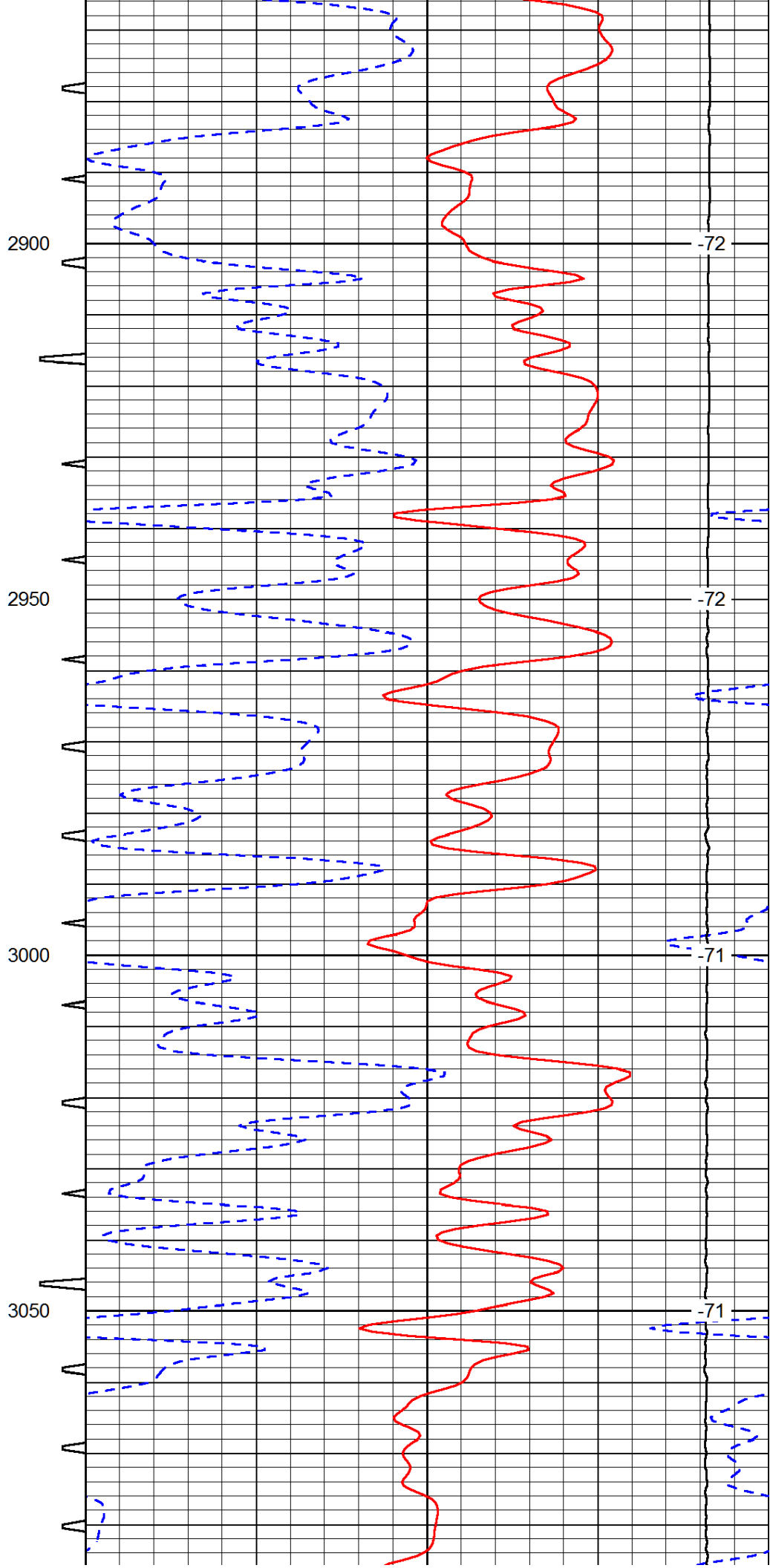
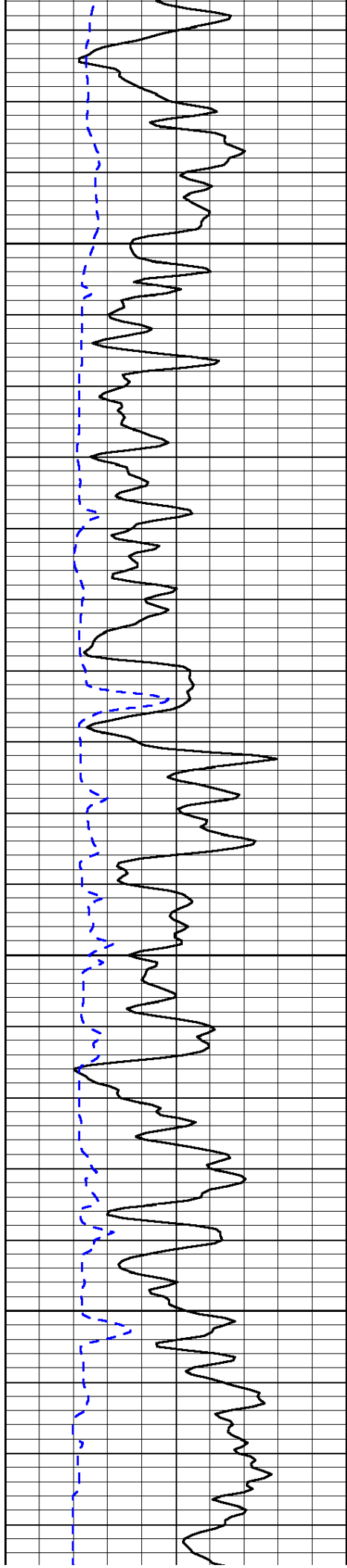


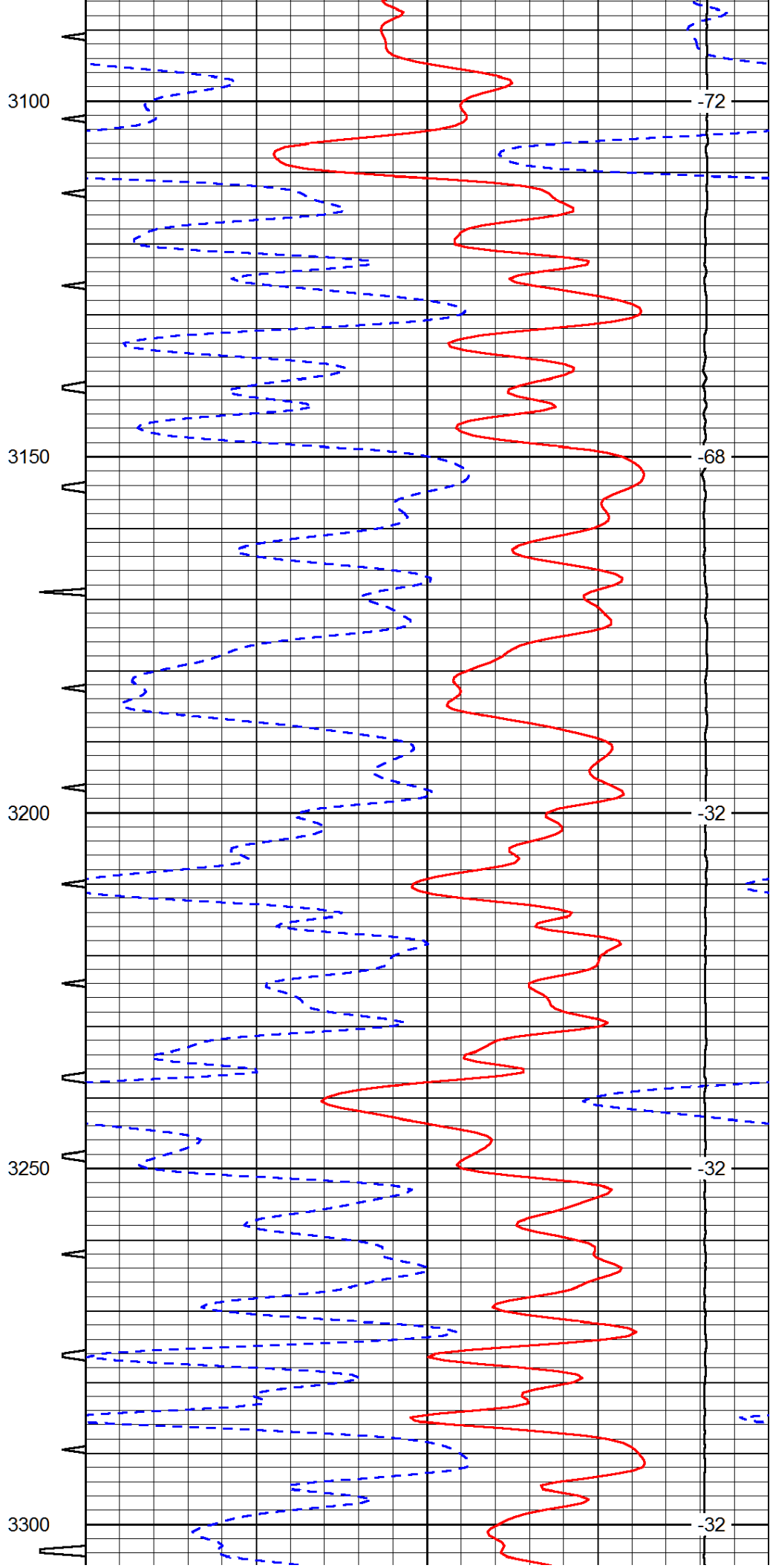
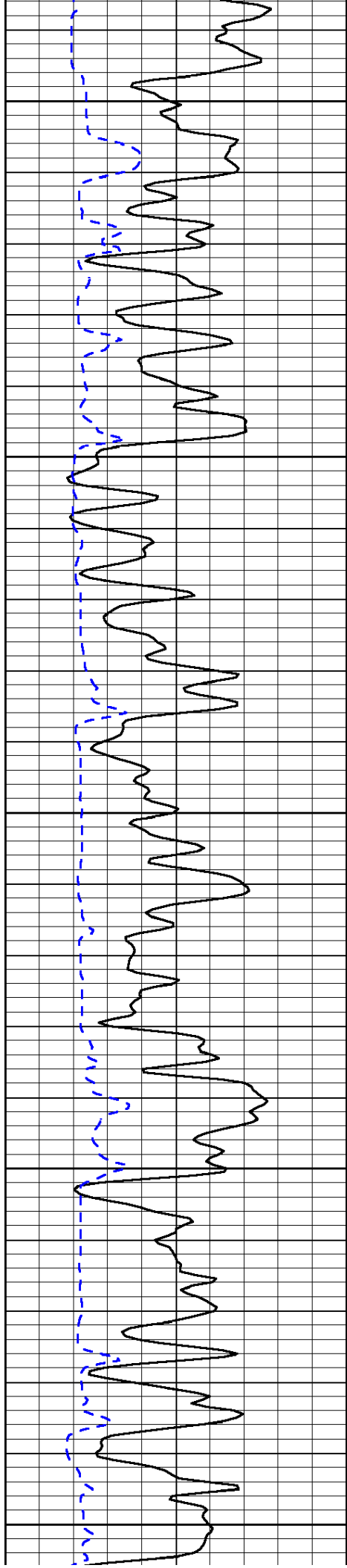


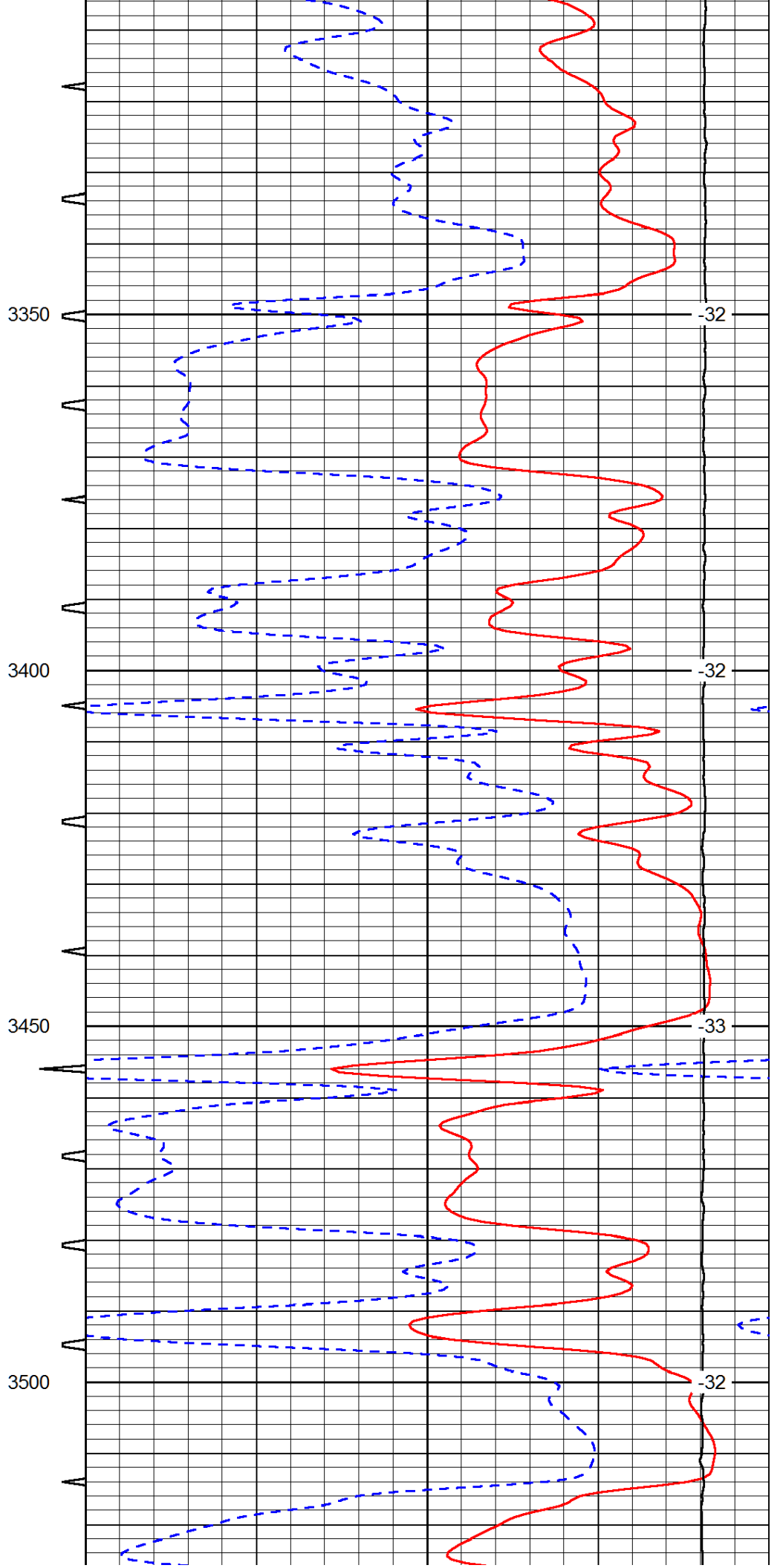
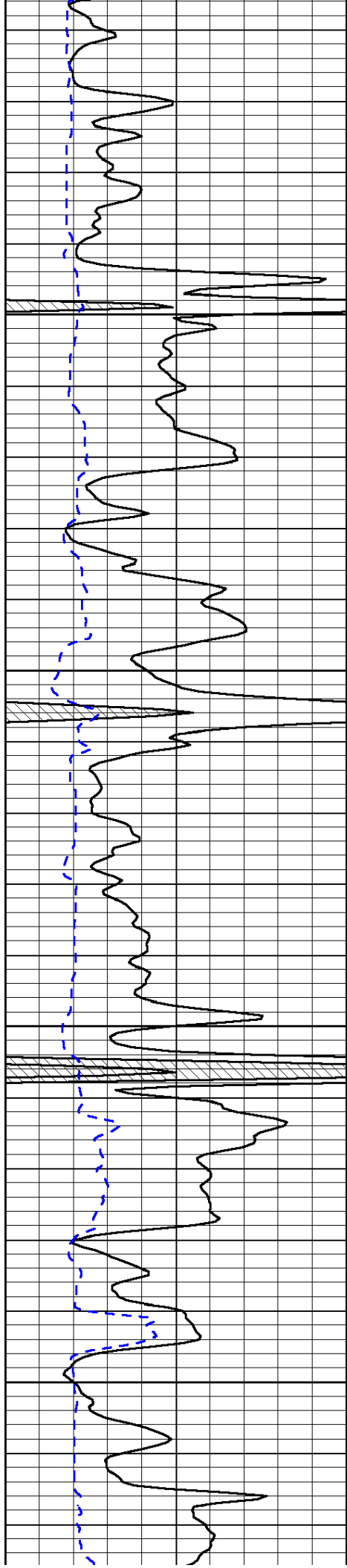


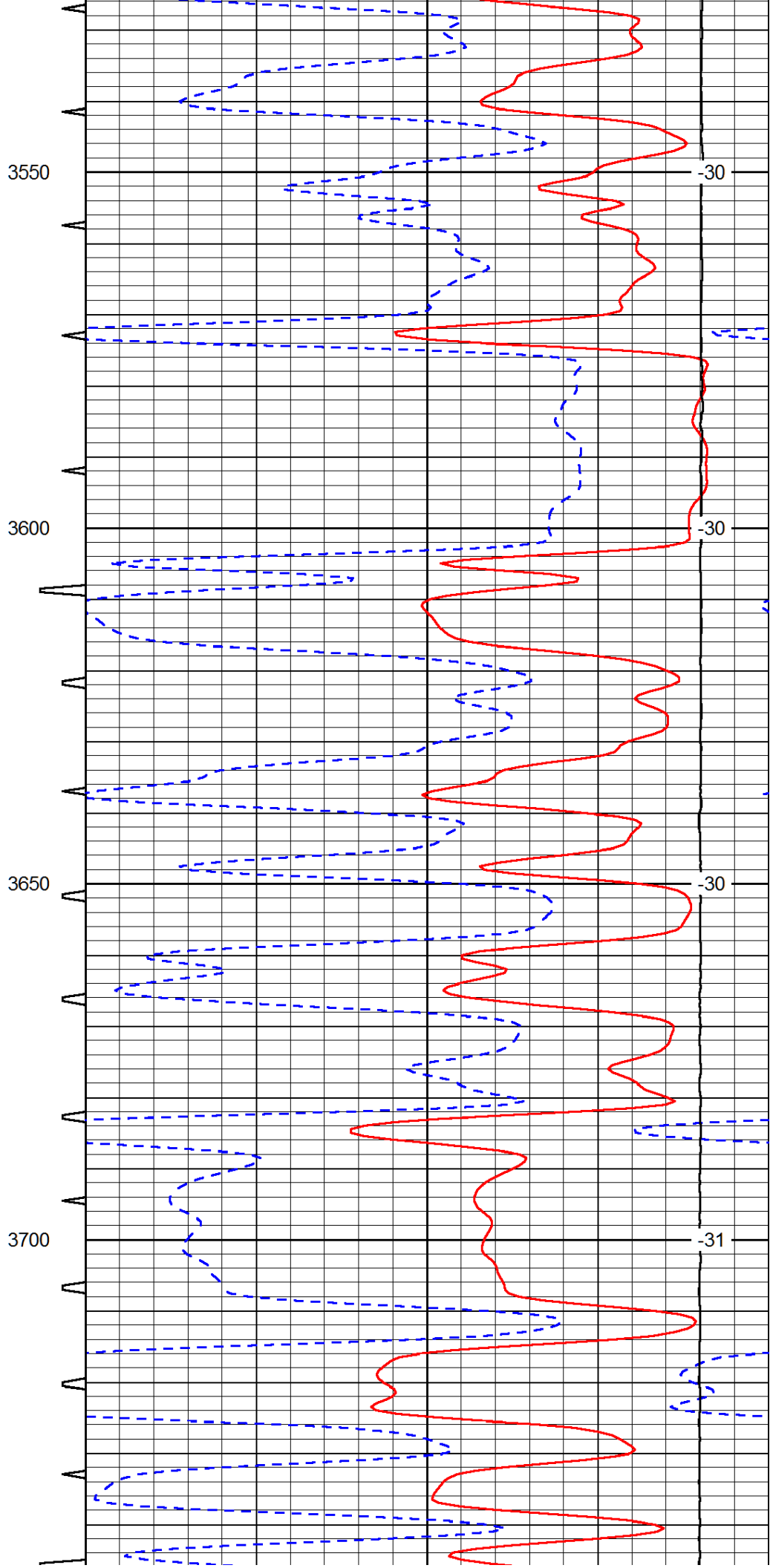
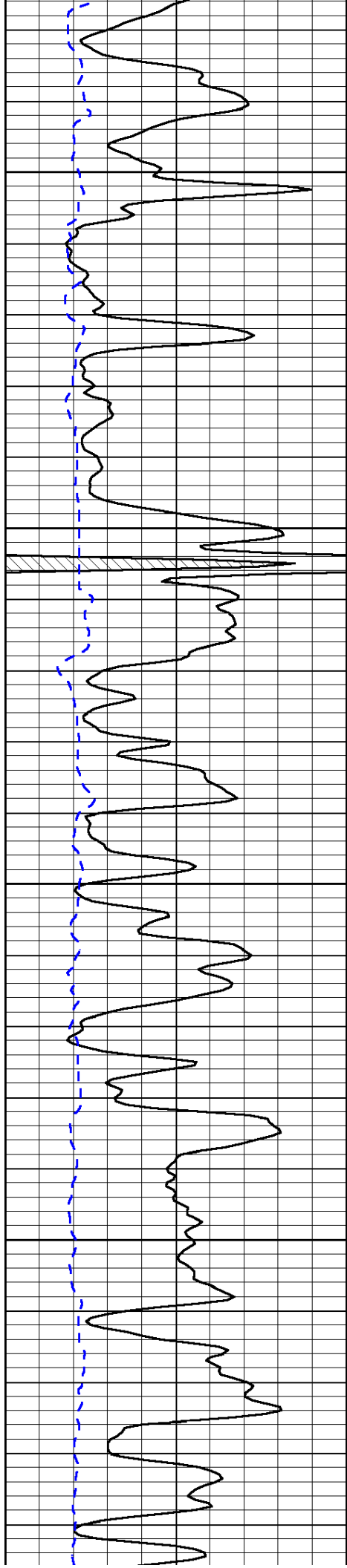


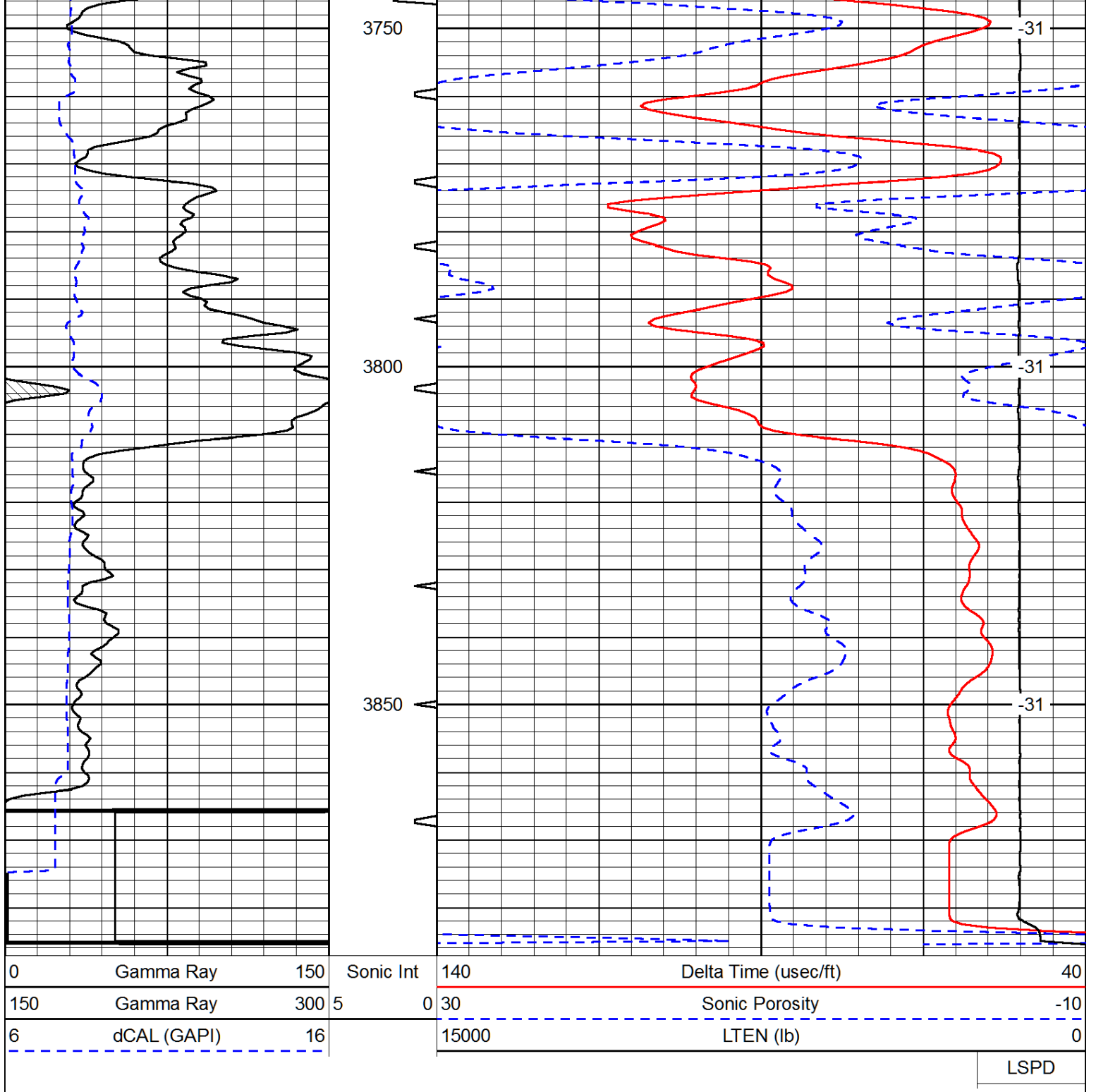














Pioneer Energy Services

## Computer Processed Interpretation

15-065-24,098-00-00

API No.

Company **Ainsworth Operating Company**

Well **Davis No. 4**

Field **Red Sun**

County **Graham** State **Kansas**

Location **2,160' FNL & 440' FEL**

Sec: **34** Twp: **6S** Rge: **22W**

Other Services  
DIL/CNL/CDL  
BHC/S/MEL

Elevation

Permanent Datum **Ground Level** Elevation **2245**  
Log Measured From **Kelly Bushing** 10 Ft. Above Perm. Datum  
Drilling Measured From **Frolicly Bushing**

K.B. 2255  
D.F. 2245  
G.L. 2245

Date Recorded **3/2/2015**

Depth Logger **3682**

Curve Definitions

SW **Water Saturation**

SXO **Water Saturation In The Flushed Zone**

VCL **Volume Of Clay**

PHIE **Density - Neutron Crossplot Shale Corrected**

BWV **Bulk Volume Water**

BVWSXO **Bulk Volume Water In Flushed Zone**

DCAL **Caliper**

SPC **SP Corrected For Baseline**

DGA **Apparent Grain Density**

Payflag **If: PHIE> 2, VCL< 40, SPC> -10, SW< 50 & DCAL< 11**

Recorded By **J. Long**

Witnessed By **Randy Kilian**

Analysis By **T. Martin**

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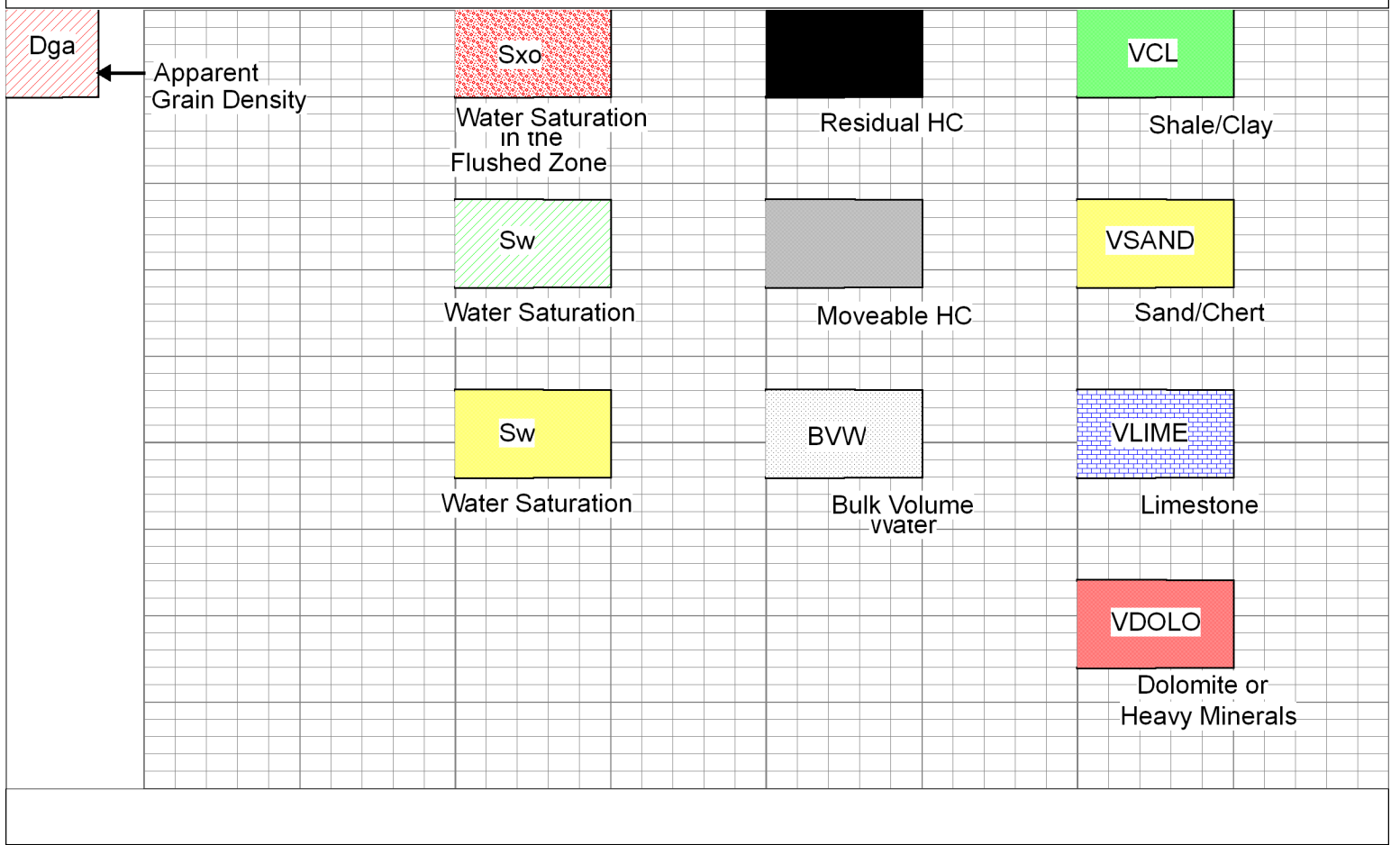
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Pioneer Energy Services  
785.625.3858

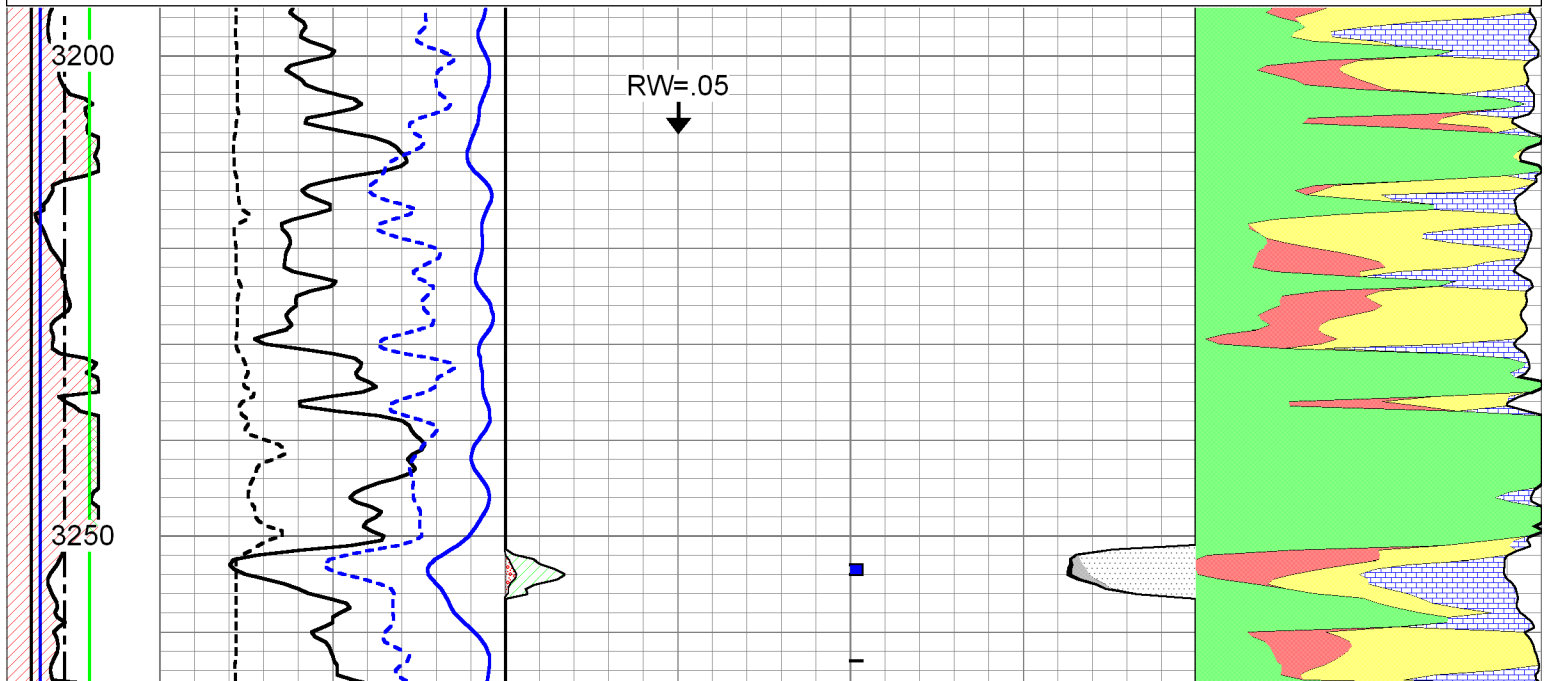
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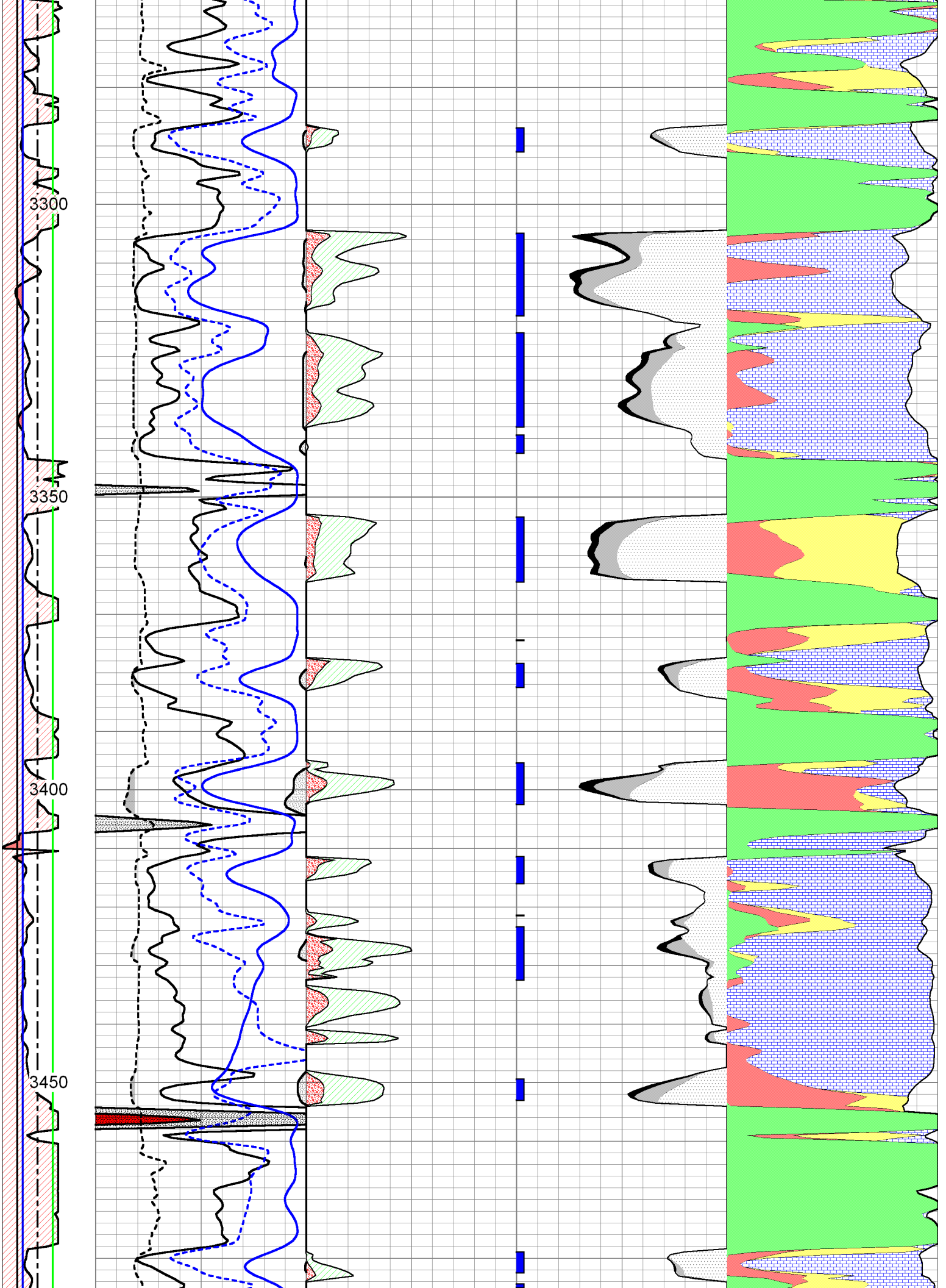


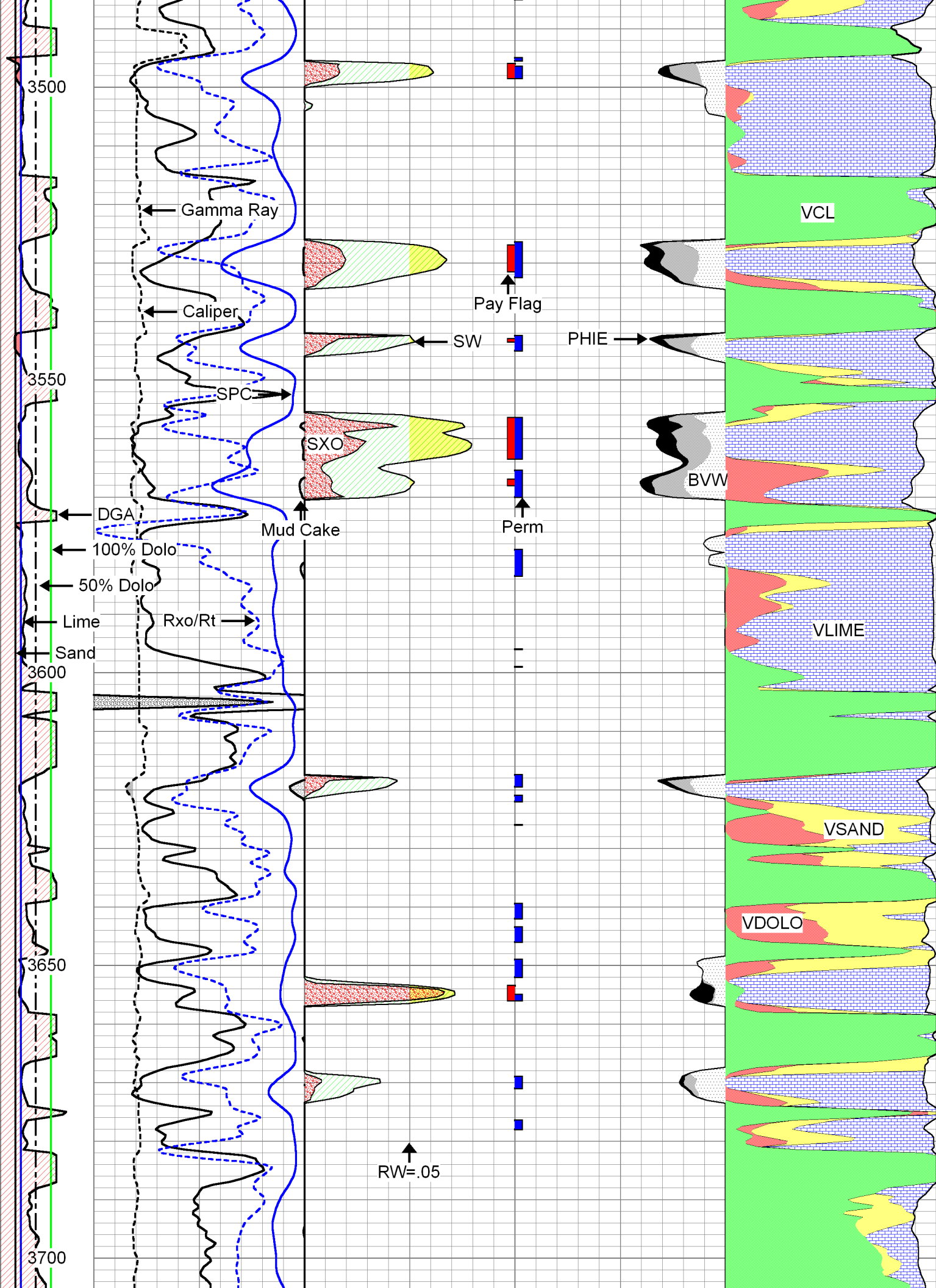
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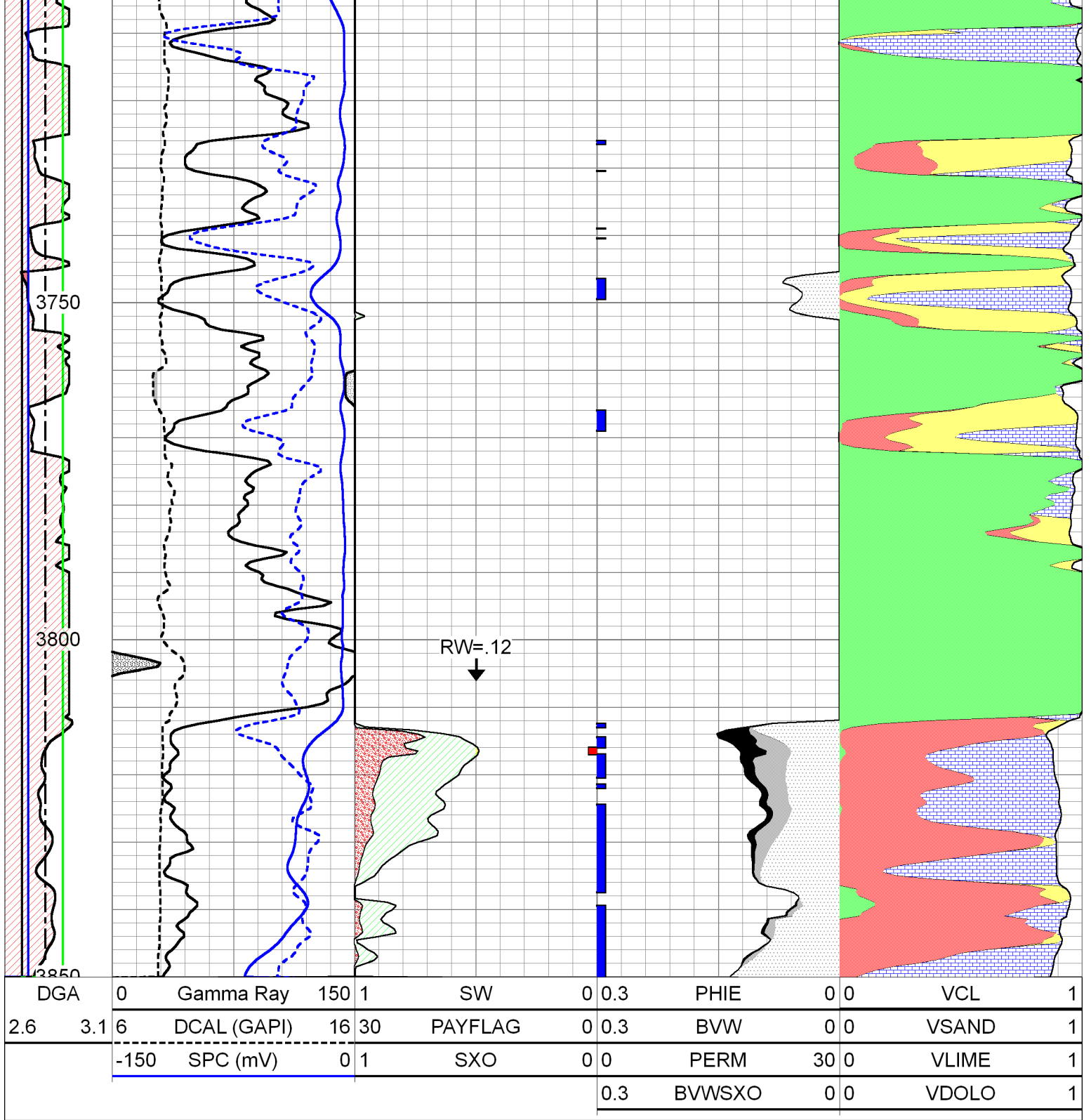
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2.6	3.1	6	DCAL (GAPI)	16	30	PAYFLAG	0	0.3	BVW	0	0	VSAND	1
		-150	SPC (mV)	0	1	SXO	0	0	PERM	30	0	VLIME	1
							0.3	BVWSXO	0	0		VDOLO	1











RW=.12



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1136

Date	3-2-15	Sec.	34	Twp.	6	Range	22	County	Graham	State	Ks	On Location		Finish	1:00 PM
------	--------	------	----	------	---	-------	----	--------	--------	-------	----	-------------	--	--------	---------

Lease ~~200~~ **Davis** Well No. **4** Owner **to 22<sup>nd</sup> 3/4<sup>th</sup> 5<sup>th</sup> 1/2<sup>nd</sup>**

Contractor **Southwind** 1 To Quality Oilwell Cementing, Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job **Top Stage** Charge To **Hinsworth operating**

Hole Size **7 7/8"** T.D. **3881'** Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Csg. **5 1/2" 14# New** Depth **3881'** The above was done to satisfaction and supervision of owner agent or contractor.

Tbg. Size \_\_\_\_\_ Depth \_\_\_\_\_ Cement Amount Ordered **350 @ 80/20 QMDC 1/4#**

Tool **DU Tool** Depth **1893'** Cement Left in Csg. \_\_\_\_\_ Shoe Joint \_\_\_\_\_

Meas Line \_\_\_\_\_ Displace **46 BUS** **Flowseal** Common **200 } 350**

**EQUIPMENT** Poz. Mix **70 }**

Pumptrk	20	No.	Cementor	Nick	Rick
Bulktrk	21	No.	Driver	Ryan	
Bulktrk	9	No.	Driver	Taylor	

**JOB SERVICES & REMARKS** Hulls \_\_\_\_\_

Remarks: \_\_\_\_\_ Salt \_\_\_\_\_

Rat Hole \_\_\_\_\_ Flowseal **87#**

Mouse Hole \_\_\_\_\_ Kol-Seal \_\_\_\_\_

Centralizers \_\_\_\_\_ Mud CLR 48 \_\_\_\_\_

Baskets \_\_\_\_\_ CFL-117 or CD110 CAF 38 \_\_\_\_\_

DN or Port Collar **#45 @ 1893'** Sand \_\_\_\_\_

Pipe on bottom break Circulation Handling **350**

plug Rathole w/ 305x plug mousehole Mileage \_\_\_\_\_

w/ 155x Hook to Casing + Mix **Flowseal**

305 sx Cement, shut down wash Guide Shoe \_\_\_\_\_

pump + lines Released plug + Displaced Centralizer \_\_\_\_\_

w/ 46 BUS of water. Baskets \_\_\_\_\_

Released + held 19ft pressure 800# AFU Inserts \_\_\_\_\_

Land plug to 1500# Float Shoe \_\_\_\_\_

Latch Down \_\_\_\_\_

**Cement did Circulate**

Pumptrk Charge **prod string 2** **Top Stage**

Mileage **N/C** Tax \_\_\_\_\_ Discount \_\_\_\_\_ Total Charge \_\_\_\_\_

X Signature **Ann Weimberg**

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

No. 1092

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

Date	2-25-15	Sec.	34	Twp.	6	Range	22	County	GRAHAM	State	KANSAS	On Location		Finish	1230 AM
Location								Hill City 8N 4E 1N 1/2E							

Lease	Davis	Well No.	4	Owner	To Quality Oilwell Cementing, Inc.
Contractor	SOUTHWIND	DAWB. Rig #1		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Type Job	SURFACE			Charge To	AINS WORTH Operating Co.
Hole Size	12 1/4	T.D.	270'	Street	
Csg.	8 5/8 New	Depth	270'	City	
Tbg. Size	23 sq	Depth		State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	20'	Shoe Joint		Cement Amount Ordered	180 sx 8 9/20

Meas Line	Displace	16 BBL	Common	145
EQUIPMENT			Poz. Mix	35
Pumptrk	18	No. Cementer Helper	Gel.	3
Bulktrk	15	No. Driver	Calcium	7
Bulktrk		No. Driver	Hulls	

JOB SERVICES & REMARKS		Salt
Remarks:		Flowseal
Rat Hole		Kol-Seal
Mouse Hole		Mud CLR 48
Centralizers		CFL-117 or CD110 CAF 38
Baskets		Sand
D/V or Port Collar		Handling

Set @ 270'	Mileage	190
FLOAT EQUIPMENT		
	Guide Shoe	
	Centralizer	
	Baskets	
	AFU Inserts	
	Float Shoe	
	Latch Down	

Cement DID CIRCULATE

THANKS!  
[Signature]

Pumptrk Charge	Surface
Mileage	45
Tax	
Discount	
Total Charge	

X Signature

# QUALITY OILWELL CEMENTING, INC.

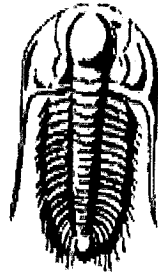
Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1135

Date	3-2-15	Sec.	34	Twp.	6	Range	22	County	Graham	State	Ks	On Location		Finish	11:15 AM
Lease	Davis		Well No.	4		Owner	Hill City, Ks N to Y Rd, SE to 310 Rd IN to 2 Rd, 3/4 E, 1/2 into								
Contractor	Southwind		1		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.										
Type Job	Bottom stage														
Hole Size	7 7/8"		T.D.	3881'		Charge To	Ainsworth operating								
Csg.	5 1/2" New 14#		Depth	3881'		Street									
Tbg. Size			Depth			City	State								
Tool	D U Tool		Depth	1893'		The above was done to satisfaction and supervision of owner agent or contractor.									
Cement Left in Csg.	20'		Shoe Joint	20'		Cement Amount Ordered 150 Com 10% Salt 2% Gel									
Meas Line			Displace			500 gal mud clear 10 BLS KCL									
<b>EQUIPMENT</b>															
Pumptrk	20	No.	Cementor	Nick		Rick	Common 150								
Bulktrk	9	No.	Helper	Ryan			Poz. Mix								
Bulktrk	21	No.	Driver	Tutor			Gel. 3								
<b>JOB SERVICES &amp; REMARKS</b>															
Remarks:						KCL @ 1 gal									
Rat Hole						Salt 13									
Mouse Hole						Flowseal									
Centralizers	35 36 8 10 44 63					Kol-Seal									
Baskets	1 11 45 64					Mud CLR 48 500 gal									
DN or Port Collar	#45 @ 1893'					CFL-117 or CD110 CAF 38									
pipe on bottom, break Circulation pump 500 gal mud clear pump 10 BLS of KCL plug mouse hole w/ 200# Hook to 55' casing + mix 150 sx Cement. shut down wash pump + lines. Released plug + Displaced with 94 BLS 48 water 46 mud Released + held. Lift pressure 600 # Land plug to 1600 # Drop Dart wait 10 mins open tool w/ 800 # Break Circulation															
<b>FLOAT EQUIPMENT</b>															
Guide Shoe	DU Tool w/ latch down														
Centralizer	7														
Baskets	4														
AFU Inserts															
Float Shoe	1														
Latch Down															
Rotating head															
Pumptrk Charge	prod string 2					Bottom Stage									
Mileage	45														
												Tax			
												Discount			
												Total Charge			
X Signature Ann Newby															



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ainsworth Operating Co**

4676 Commercaill ST.SE 412  
Salem OR 97302

ATTN: Al Ainsworth

**Davis #4**

**34 6s-22w Graham,KS**

Start Date: 2015.02.28 @ 12:55:50

End Date: 2015.02.28 @ 21:10:44

Job Ticket #: 61147                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.03.02 @ 09:44:10

Ainsworth Operating Co    34 6s-22w Graham,KS    Davis #4    DST # 1    LKC "A"    2015.02.28



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Ainsworth Operating Co  
4676 Commercall ST. SE 412  
Salem OR 97302  
ATTN: Al Ainsworth

**34 6s-22w Graham, KS**  
**Davis #4**  
Job Ticket: 61147      **DST#: 1**  
Test Start: 2015.02.28 @ 12:55:50

## GENERAL INFORMATION:

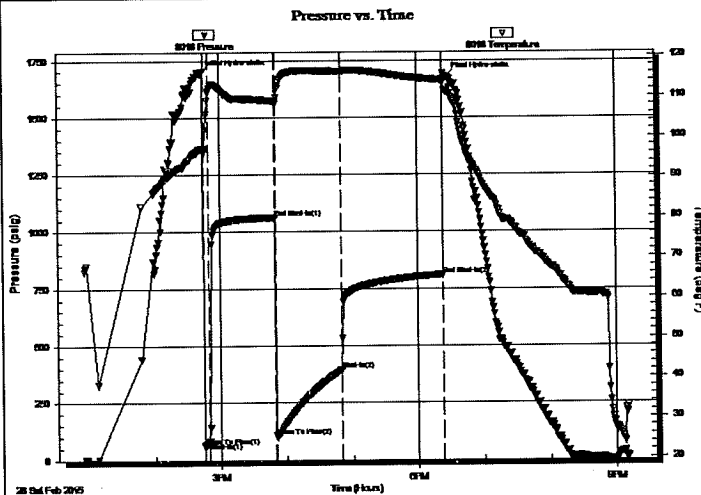
Formation: **LKC "A"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 14:45:15  
Time Test Ended: 21:10:44  
Interval: **3489.00 ft (KB) To 3515.00 ft (KB) (TVD)**  
Total Depth: 3515.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Ray Schwager  
Unit No: 70  
Reference Elevations: 2255.00 ft (KB)  
2248.00 ft (CF)  
KB to GR/CF: 7.00 ft

## Serial #: 8018

## Inside

Press@RunDepth: 395.17 psig @ 3490.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.02.28 End Date: 2015.02.28 Last Calib.: 2015.02.28  
Start Time: 12:55:50 End Time: 21:10:44 Time On Btm: 2015.02.28 @ 14:42:15  
Time Off Btm: 2015.02.28 @ 18:25:44

TEST COMMENT: 5-IFP-strg bl in 3 min  
60-ISIP-1 1/2" bl bk  
60-FFP-strg bl thru-out  
90-FSIP-1/2" bl bk



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1691.26	96.86	Initial Hydro-static
3	61.03	95.91	Open To Flow (1)
8	81.05	111.28	Shut-In(1)
68	1062.56	108.85	End Shut-In(1)
69	105.93	108.16	Open To Flow (2)
128	395.17	116.15	Shut-In(2)
220	807.52	113.92	End Shut-In(2)
224	1674.97	111.01	Final Hydro-static

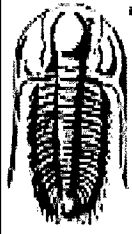
## Recovery

Length (ft)	Description	Volume (bbl)
0.00	1220 GIP	0.00
1015.00	clean oil	14.24
60.00	GMO 20%G10%M70%O	0.84

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Ainsworth Operating Co	34 6s-22w Graham, KS
4676 Commercaill ST. SE 412 Salem OR 97302	Davis #4
ATTN: Al Ainsworth	Job Ticket: 61147      DST#: 1
	Test Start: 2015.02.28 @ 12:55:50

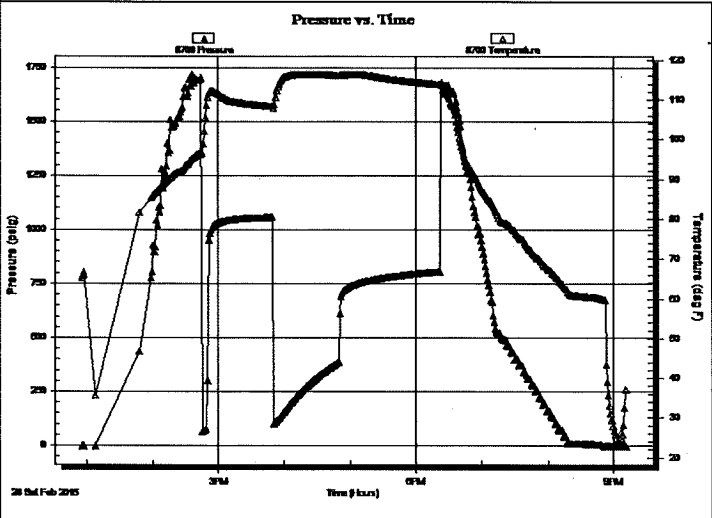
**GENERAL INFORMATION:**

Formation: <b>LKC "A"</b>	
Deviated: No Whipstock: ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 14:45:15	Tester: Ray Schwager
Time Test Ended: 21:10:44	Unit No: 70
Interval: <b>3489.00 ft (KB) To 3515.00 ft (KB) (TVD)</b>	Reference Elevations: 2255.00 ft (KB)
Total Depth: 3515.00 ft (KB) (TVD)	2248.00 ft (CF)
Hole Diameter: 7.88 inches	KB to GR/CF: 7.00 ft
Hole Condition: Fair	

**Serial #: 8700**      **Outside**

Press@RunDepth: psig @ 3490.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2015.02.28      End Date: 2015.02.28	Last Calib.: 2015.02.28
Start Time: 12:55:40      End Time: 21:10:19	Time On Btm:
	Time Off Btm:

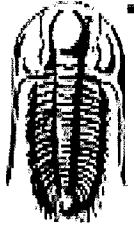
**TEST COMMENT:** 5-IFP-strg bl in 3 min  
60-ISIP-1 1/2" bl bk  
60-FFP-strg bl thru-out  
90-FSIP-1/2" bl bk



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
0.00	1220 GIP	0.00
1015.00	clean oil	14.24
60.00	GMO 20%G10%M70%O	0.84

Gas Rates			
Time (Min.)	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ainsworth Operating Co  
4676 Commercaill ST. SE 412  
Salem OR 97302  
ATTN: Al Ainsworth

**34 6s-22w Graham, KS**  
**Davis #4**  
Job Ticket: 61147 **DST#: 1**  
Test Start: 2015.02.28 @ 12:55:50

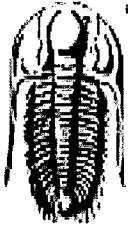
### Tool Information

Drill Pipe:	Length: 3495.00 ft	Diameter: 3.80 inches	Volume: 49.03 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 49.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	3489.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3466.00	
Shut In Tool	5.00			3471.00	
Hydraulic tool	5.00			3476.00	
Safety Joint	3.00			3479.00	
Packer	5.00			3484.00	24.00 Bottom Of Top Packer
Packer	5.00			3489.00	
Stubb	1.00			3490.00	
Recorder	0.00	8018	Inside	3490.00	
Recorder	0.00	8700	Outside	3490.00	
Perforations	22.00			3512.00	
Bullnose	3.00			3515.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 50.00**



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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Ainsworth Operating Co  
4676 Commercaill ST. SE 412  
Salem OR 97302

**34 6s-22w Graham, KS**

**Davis #4**

Job Ticket: 61147      **DST#: 1**

ATTN: Al Ainsworth

Test Start: 2015.02.28 @ 12:55:50

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 32 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.35 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 250.00 ppm		
Filter Cake: 1.00 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1220 GIP	0.000
1015.00	clean oil	14.238
60.00	GMO 20%G10%M70%O	0.842

Total Length: 1075.00 ft      Total Volume: 15.080 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

Serial #: 8018

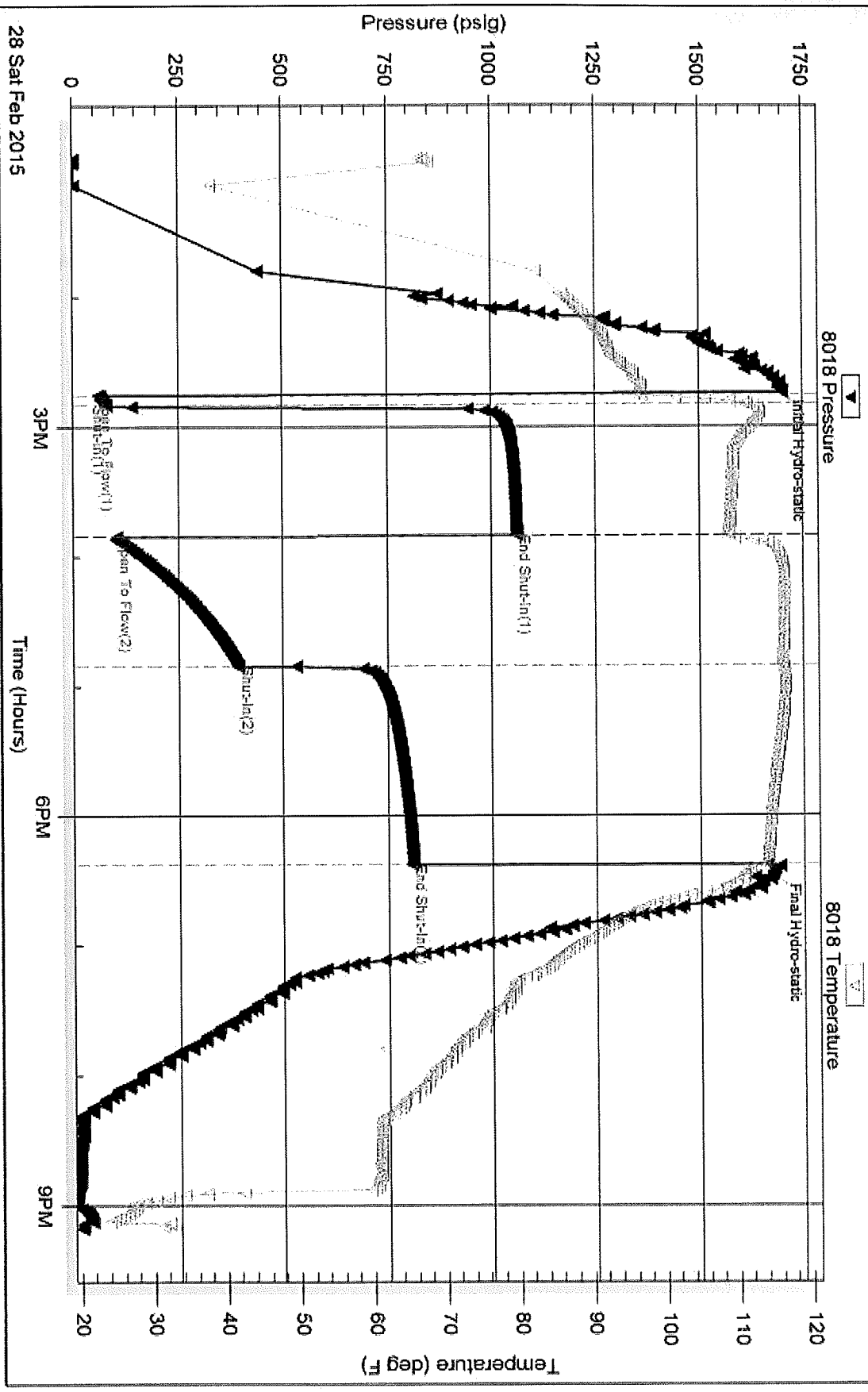
Inside

Airsw orth Operating Co

Davis #4

DSI Test Number 1

### Pressure vs. Time



Tribble Testing, Inc

Ref. No: 61147

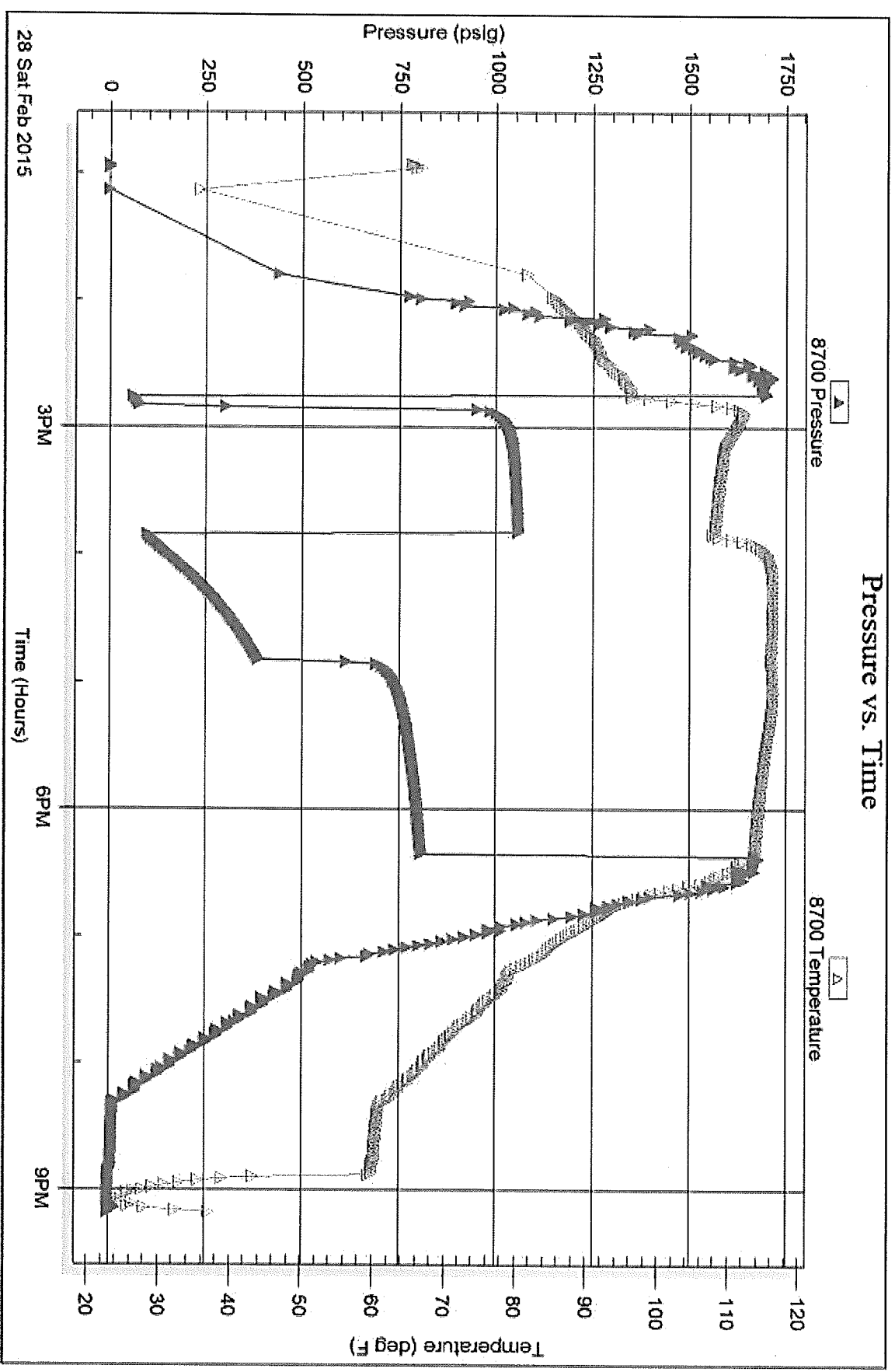
Printed: 2015.03.02 @ 09:44:11

Serial #: 8700

Outside Ainsworth Operating Co

Davis #4

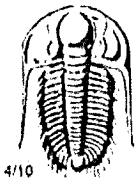
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 61147

Printed: 2015.03.02 @ 09:44:11



# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61147

Well Name & No. DAVIS #4 Test No. 1 Date 2-28-15  
 Company AINSWORTH OPERATING Co Elevation 2255 KB 2248 GL  
 Address 4676 COMMERCIAL ST, SE412 SALEM, OR, 97302  
 Co. Rep / Geo. Randy Killian Rig Southwind rig  
 Location: Sec. 34 Twp. 6<sup>s</sup> Rge. 22<sup>nd</sup> Co. GRAHAM State Ks

Interval Tested 3489-3515 Zone Tested LKC 'A'  
 Anchor Length 26 Drill Pipe Run 3495 Mud Wt. 9.1  
 Top Packer Depth 3484 Drill Collars Run - Vis 54  
 Bottom Packer Depth 3489 Wt. Pipe Run - WL 8.4  
 Total Depth 3515 Chlorides 250 ppm System LCM 2 1/2 #

Blow Description I/FP - STRONG BLOW IN 3min  
TSTP - 1/2" Blow BACK  
FFP - STRONG BLOW THRU-OUT  
FSTP - 1/2" Blow BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>1220</u>	<u>GIP</u>				
<u>1015</u>	<u>CO</u>				
<u>60</u>	<u>MGO</u>	<u>20</u>	<u>70</u>		<u>10</u>

Rec Total 1075 BHT 114 Gravity 32 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1691  Test 1050 T-On Location 1130  
 (B) First Initial Flow 61  Jars - T-Started 1255  
 (C) First Final Flow 81  Safety Joint 75 T-Open 1445  
 (D) Initial Shut-In 1062  Circ Sub - T-Pulled 1820  
 (E) Second Initial Flow 105  Hourly Standby - T-Out 2110  
 (F) Second Final Flow 395  Mileage 150 RT 135  
 (G) Final Shut-In 807  Sampler -  
 (H) Final Hydrostatic 1674  Straddle -  Ruined Shale Packer -

Initial Open 5  Shale Packer -  Ruined Packer -  
 Initial Shut-In 60  Extra Packer -  Extra Copies -  
 Final Flow 60  Extra Recorder - Sub Total 0  
 Final Shut-In 90  Day Standby - Total 1260  
 Accessibility - MP/DST Disc't -  
 Sub Total 1260

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER *Thank you*

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