

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1260340  
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
-----------------------------------	-----------------	---

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: \_\_\_\_\_

1260340

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

<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. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Carmen Schmitt, Inc.
Well Name	Sweetheart 1
Doc ID	1260340

All Electric Logs Run

Sonic Log
Dual Induction
Dual Comp Porosity
Microresistivity





Southwind Drilling, Inc.  
Plugging Orders & Reports

Lease: Sweetheart #1

Plugging Received from KCC Representative:

Name: Kenney Date: 7-17-15 Time: 1:15

1 <sup>st</sup> plug @ <u>3757</u> feet, <u>50</u> sacks	Stands <u>59 1/2</u>
2 <sup>nd</sup> plug @ <u>930</u> feet, <u>50</u> sacks	Stands <u>14 1/2</u>
3 <sup>rd</sup> plug @ <u>510</u> feet, <u>50</u> sacks	Stands <u>8</u>
4 <sup>th</sup> plug @ <u>400</u> feet, <u>20</u> sacks	Stands <u>1</u>
5 <sup>th</sup> plug @ _____ feet, _____ sacks	Stands _____

Mousehole: \_\_\_\_\_ sacks

Rathole: 30 sacks

Total Cement Used: \_\_\_\_\_ sacks

Type of cement: 60/40 POZ 4% Gel 1/4" F10

Plug Down @ 12:00 P.M 7-22-15

Call KCC When Completed:

Name: Robert Date: 7-22-15 Time: 2:15



## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47  
Great Bend KS 67530

ATTN: Brad Rine

### **Sweetheart #1**

#### **20-21s-14w Stafford,KS**

Start Date: 2015.07.19 @ 07:52:00

End Date: 2015.07.19 @ 11:33:00

Job Ticket #: 62896                      DST #: 1

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

Printed: 2015.07.23 @ 09:33:24



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

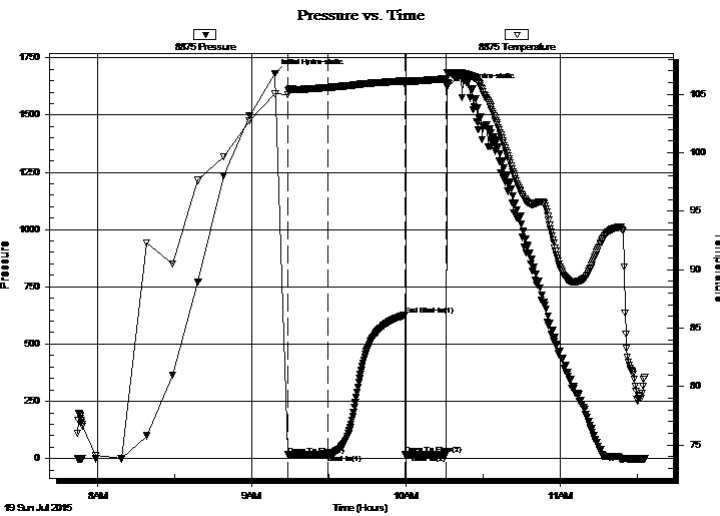
**20-21s-14w Stafford,KS**  
**Sweetheart #1**  
 Job Ticket: 62896 **DST#: 1**  
 Test Start: 2015.07.19 @ 07:52:00

## GENERAL INFORMATION:

Formation: **LKC H**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:14:00  
 Time Test Ended: 11:33:00  
 Interval: **3530.00 ft (KB) To 3550.00 ft (KB) (TVD)**  
 Total Depth: 3550.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8875 Outside**  
 Press@RunDepth: 18.34 psig @ 3545.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.19 End Date: 2015.07.19 Last Calib.: 2015.07.19  
 Start Time: 07:52:05 End Time: 11:33:00 Time On Btm: 2015.07.19 @ 09:09:00  
 Time Off Btm: 2015.07.19 @ 10:15:50

TEST COMMENT: IFP 15 min Weak 1/2"blow .  
 ISI 30 min No blow back.  
 FFP 15 min Dead .  
 FSI N/A



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1682.41	105.07	Initial Hydro-static
5	16.18	104.95	Open To Flow (1)
21	18.34	105.58	Shut-In(1)
51	626.98	106.14	End Shut-In(1)
51	19.33	105.85	Open To Flow (2)
67	18.71	106.32	Shut-In(2)
67	1621.89	106.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
7.00	Mud 100%	0.10

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

**20-21s-14w Stafford,KS**

**Sweetheart #1**

Job Ticket: 62896

**DST#: 1**

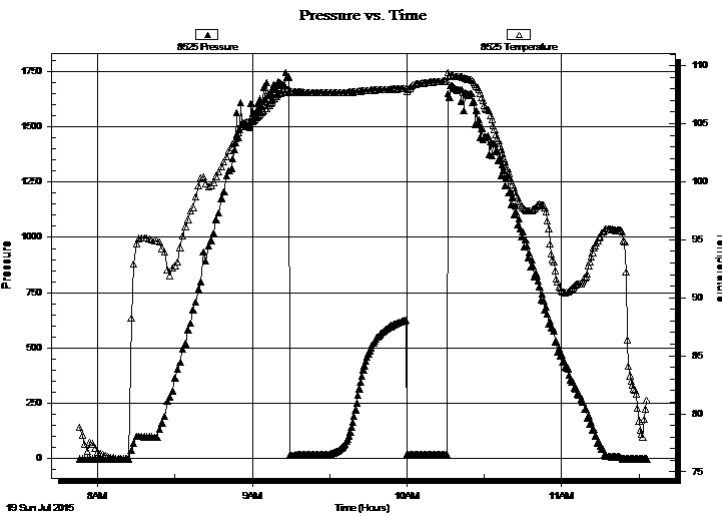
Test Start: 2015.07.19 @ 07:52:00

## GENERAL INFORMATION:

Formation: **LKC H**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:14:00  
 Time Test Ended: 11:33:00  
 Interval: **3530.00 ft (KB) To 3550.00 ft (KB) (TVD)**  
 Total Depth: 3550.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8525** Inside  
 Press@RunDepth: psig @ 3545.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.19 End Date: 2015.07.19 Last Calib.: 2015.07.19  
 Start Time: 07:53:00 End Time: 11:33:00 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP 15 min Weak 1/2"blow .  
 ISI 30 min No blow back.  
 FFP 15 min Dead .  
 FSI N/A



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

Recovery		
Length (ft)	Description	Volume (bbl)
7.00	Mud 100%	0.10

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62896

**DST#: 1**

ATTN: Brad Rine

Test Start: 2015.07.19 @ 07:52:00

## Tool Information

Drill Pipe:	Length: 3518.00 ft	Diameter: 3.80 inches	Volume: 49.35 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 49.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3530.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3513.00	
Hydraulic tool	5.00			3518.00	
Safety Joint	2.00			3520.00	
Top Packer	5.00			3525.00	
Packer	5.00			3530.00	22.00 Bottom Of Top Packer
Anchor	15.00			3545.00	
Recorder	0.00	8525	Inside	3545.00	
Recorder	0.00	8875	Outside	3545.00	
Bullnose	5.00			3550.00	20.00 Anchor Tool
<b>Total Tool Length:</b>	<b>42.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62896

**DST#: 1**

ATTN: Brad Rine

Test Start: 2015.07.19 @ 07:52:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
7.00	Mud 100%	0.098

Total Length: 7.00 ft      Total Volume: 0.098 bbf

Num Fluid Samples: 0

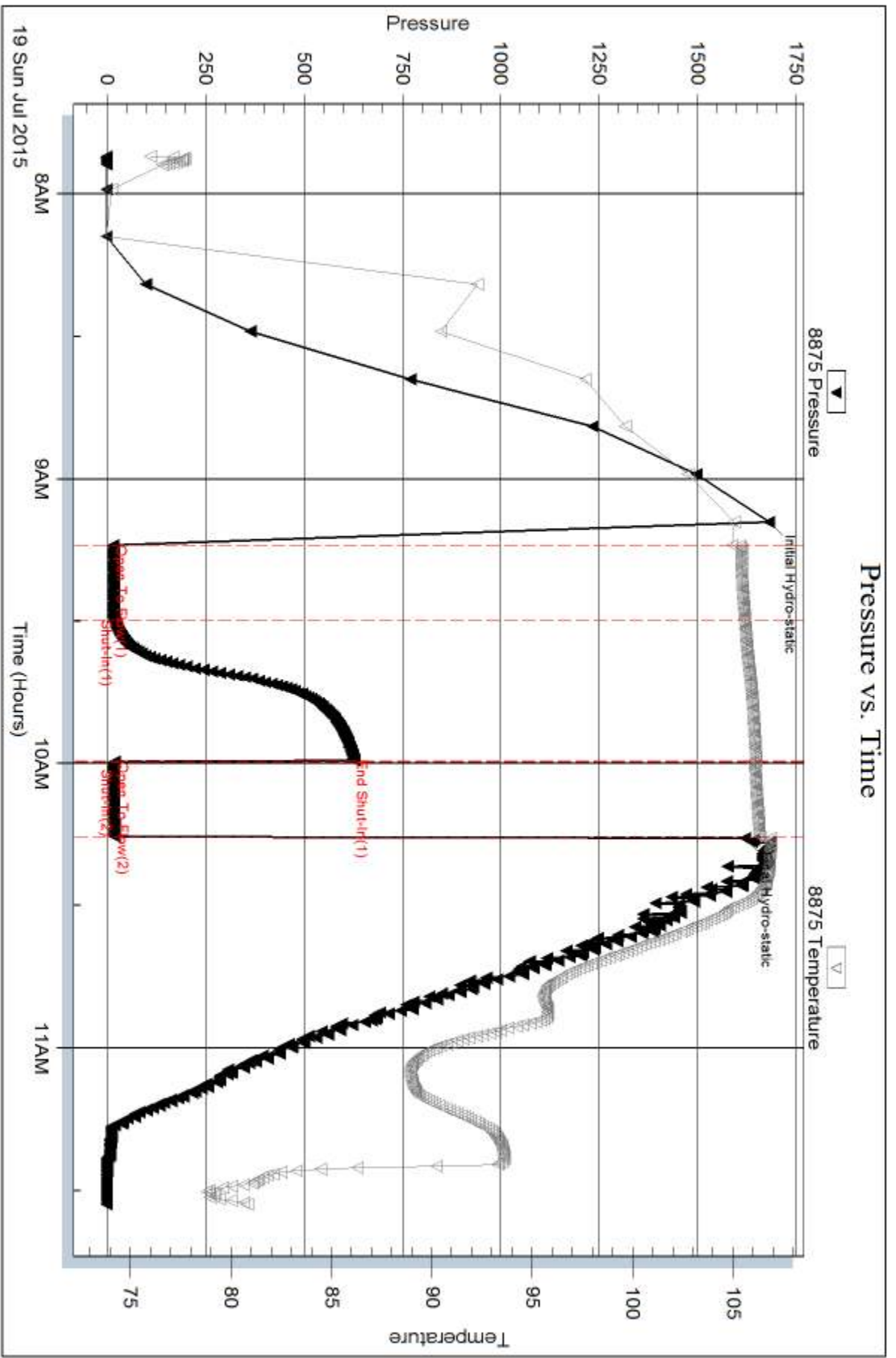
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



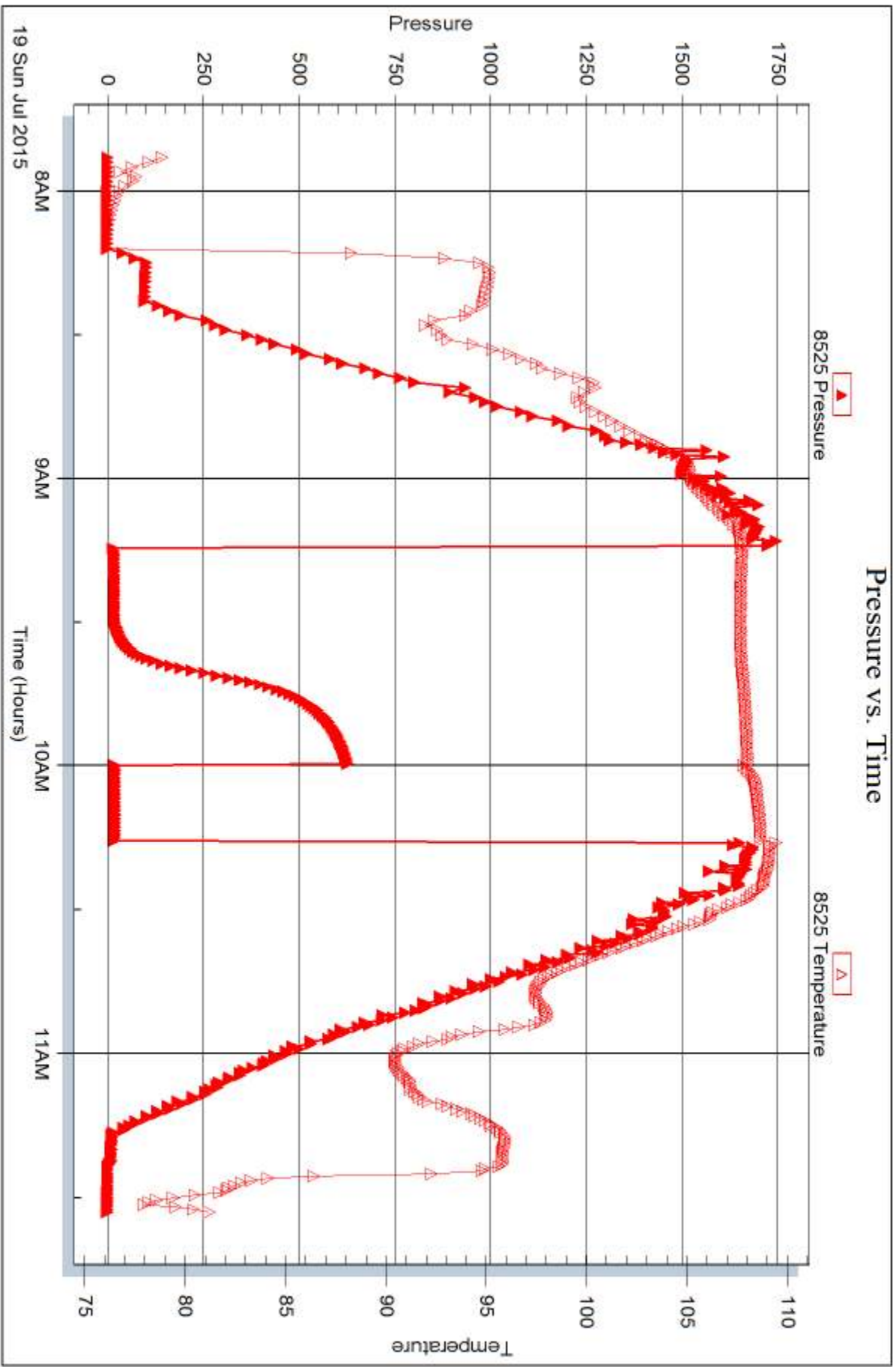
Serial #: 8525

Inside

Carmen Schmitt Inc.

Sweetheart #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47  
Great Bend KS 67530

ATTN: Brad Rine

### **Sweetheart #1**

#### **20-21s-14w Stafford,KS**

Start Date: 2015.07.19 @ 04:45:00

End Date: 2015.07.19 @ 08:13:10

Job Ticket #: 62897                      DST #: 2

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

Printed: 2015.07.23 @ 09:33:05



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

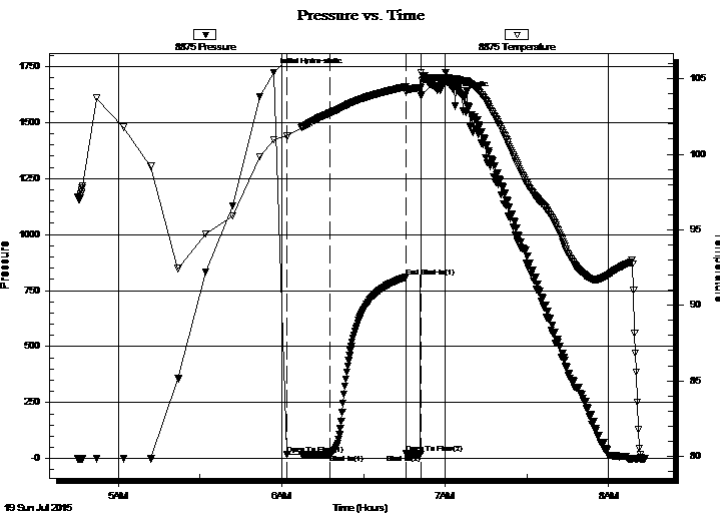
**20-21s-14w Stafford,KS**  
**Sweetheart #1**  
 Job Ticket: 62897 **DST#: 2**  
 Test Start: 2015.07.19 @ 04:45:00

## GENERAL INFORMATION:

Formation: **LKC I**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:02:00  
 Time Test Ended: 08:13:10  
 Interval: **3553.00 ft (KB) To 3568.00 ft (KB) (TVD)**  
 Total Depth: 3568.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8875 Outside**  
 Press@RunDepth: 20.83 psig @ 3563.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.19 End Date: 2015.07.19 Last Calib.: 2015.07.19  
 Start Time: 04:45:05 End Time: 08:13:10 Time On Btm: 2015.07.19 @ 05:57:00  
 Time Off Btm: 2015.07.19 @ 06:51:10

**TEST COMMENT:** IFP 15 min Very weak surface blow .  
 ISI 30 min No blow back  
 FFP 10 min Dead  
 FSI N/A



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1723.44	100.95	Initial Hydro-static
5	19.60	101.20	Open To Flow (1)
21	20.83	102.72	Shut-In(1)
49	809.50	104.47	End Shut-In(1)
49	22.28	104.13	Open To Flow (2)
54	20.38	104.44	Shut-In(2)
55	1620.00	105.42	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%	0.04

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

**20-21s-14w Stafford,KS**  
**Sweetheart #1**  
 Job Ticket: 62897 **DST#: 2**  
 Test Start: 2015.07.19 @ 04:45:00

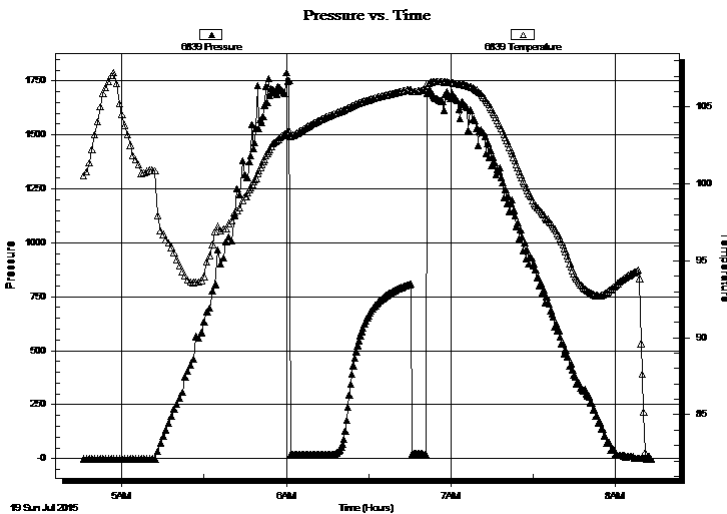
## GENERAL INFORMATION:

Formation: **LKC I**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 06:02:00 Tester: Dustin Ellis  
 Time Test Ended: 08:13:10 Unit No: 59  
 Interval: **3553.00 ft (KB) To 3568.00 ft (KB) (TVD)** Reference Elevations: 1948.00 ft (KB)  
 Total Depth: 3568.00 ft (KB) (TVD) 1940.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

**Serial #: 6839 Inside**  
 Press@RunDepth: psig @ 3563.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.19 End Date: 2015.07.19 Last Calib.: 2015.07.19  
 Start Time: 04:46:00 End Time: 08:13:00 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IFP 15 min Very weak surface blow .  
 ISI 30 min No blow back  
 FFP 10 min Dead  
 FSI N/A

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%	0.04

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62897

**DST#: 2**

ATTN: Brad Rine

Test Start: 2015.07.19 @ 04:45:00

## Tool Information

Drill Pipe:	Length: 3546.00 ft	Diameter: 3.80 inches	Volume: 49.74 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 43000.00 lb
			<u>Total Volume: 49.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3553.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	37.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3536.00	
Hydraulic tool	5.00			3541.00	
Safety Joint	2.00			3543.00	
Top Packer	5.00			3548.00	
Packer	5.00			3553.00	22.00 Bottom Of Top Packer
Anchor	10.00			3563.00	
Recorder	0.00	6839	Inside	3563.00	
Recorder	0.00	8875	Outside	3563.00	
Bullnose	5.00			3568.00	15.00 Anchor Tool
<b>Total Tool Length:</b>	<b>37.00</b>				





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62897

**DST#: 2**

ATTN: Brad Rine

Test Start: 2015.07.19 @ 04:45:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 0.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud 100%	0.042

Total Length: 3.00 ft      Total Volume: 0.042 bbl

Num Fluid Samples: 0

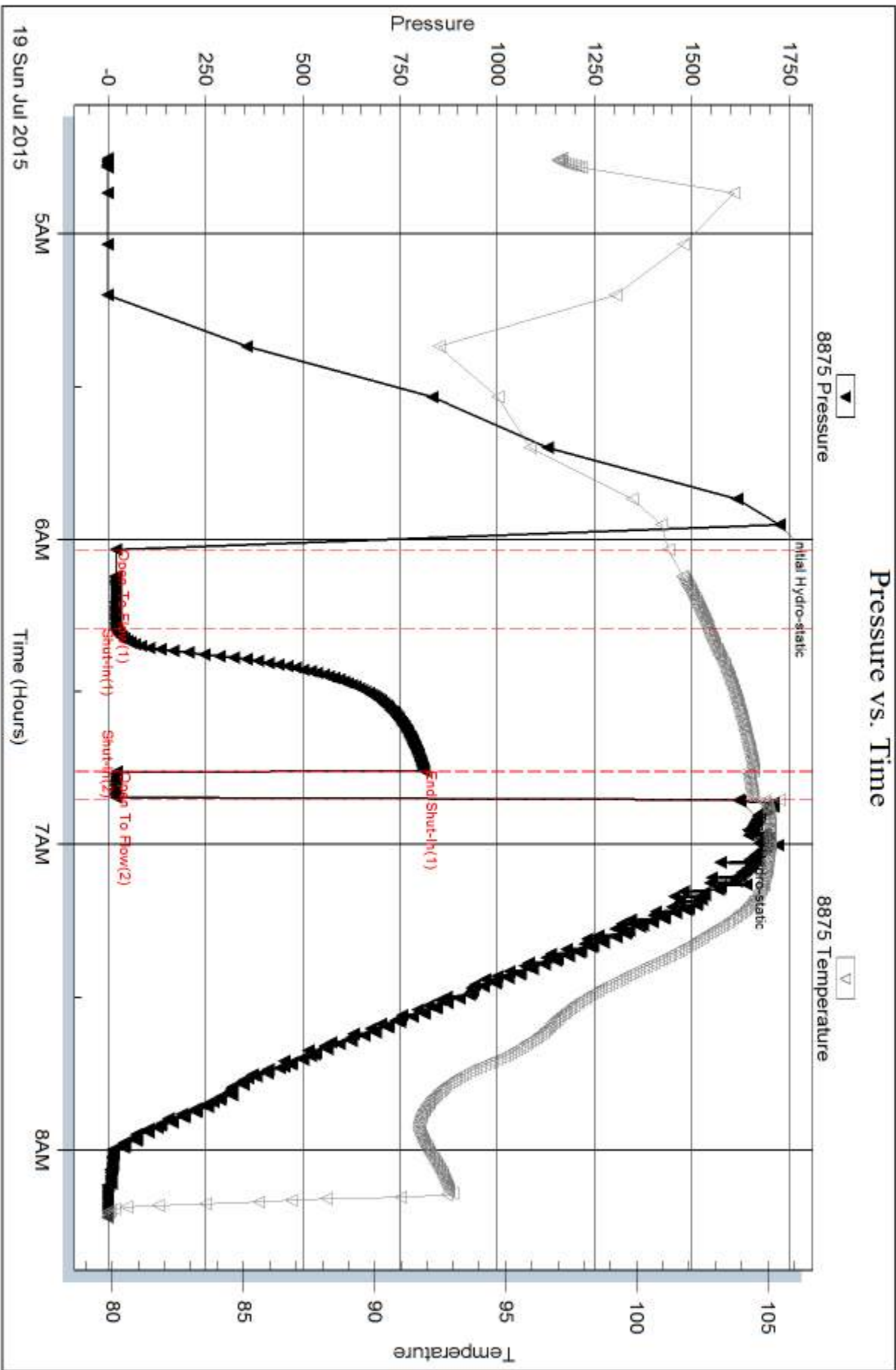
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



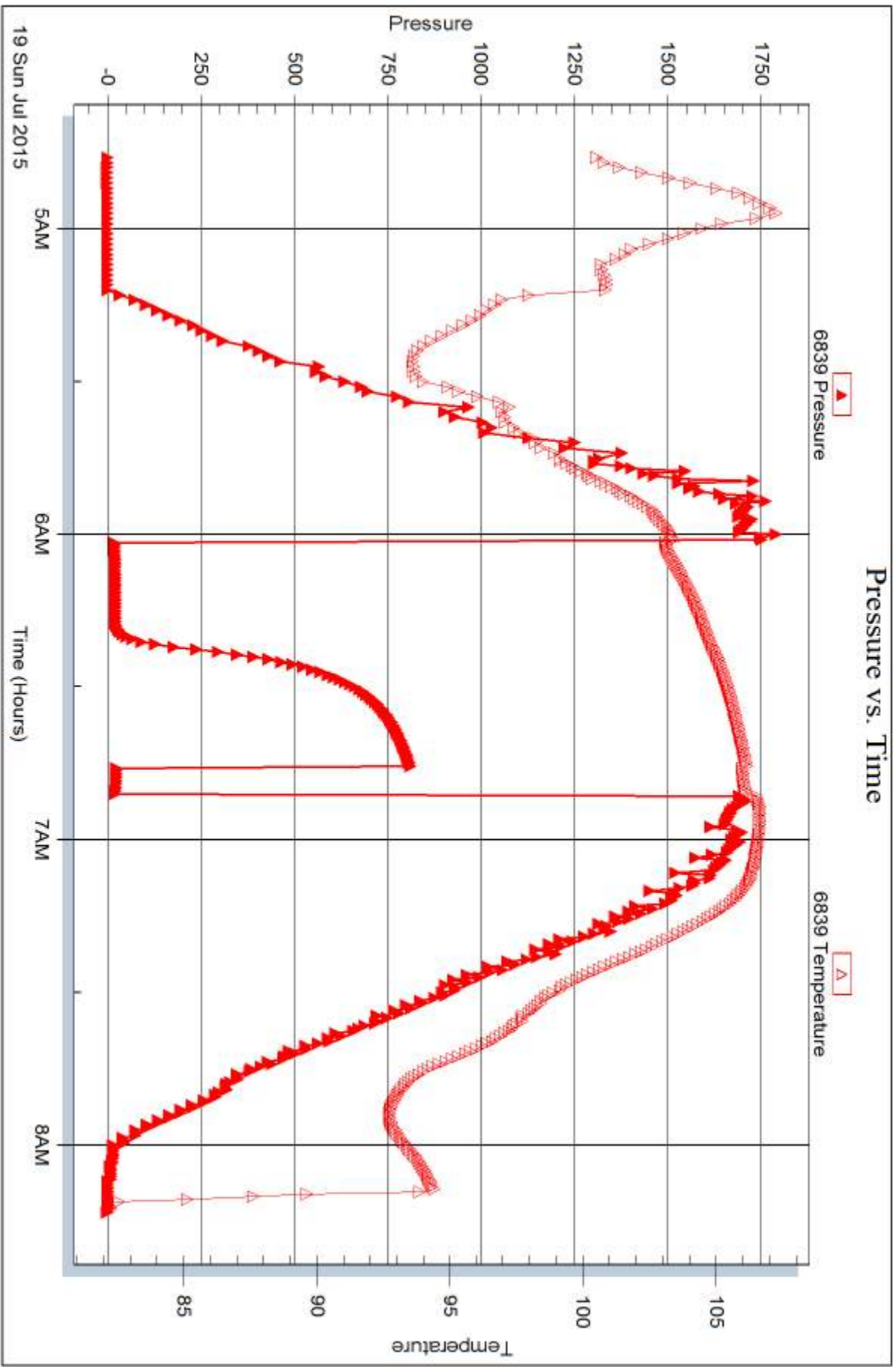
Serial #: 6839

Inside

Carmen Schmitt Inc.

Sweetheart #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62897

Printed: 2015.07.23 @ 09:33:06



## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47  
Great Bend KS 67530

ATTN: Brad Rine

### **Sweetheart #1**

#### **20-21s-14w Stafford,KS**

Start Date: 2015.07.20 @ 04:03:00

End Date: 2015.07.20 @ 08:00:20

Job Ticket #: 62898                      DST #: 3

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

Printed: 2015.07.23 @ 09:32:45

Carmen Schmitt Inc. 20-21s-14w Stafford,KS Sweetheart #1 DST # 3 LKC J 2015.07.20



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

**20-21s-14w Stafford,KS**  
**Sweetheart #1**  
 Job Ticket: 62898 **DST#: 3**  
 Test Start: 2015.07.20 @ 04:03:00

## GENERAL INFORMATION:

Formation: **LKC J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:15:00  
 Time Test Ended: 08:00:20  
 Interval: **3568.00 ft (KB) To 3585.00 ft (KB) (TVD)**  
 Total Depth: 3585.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

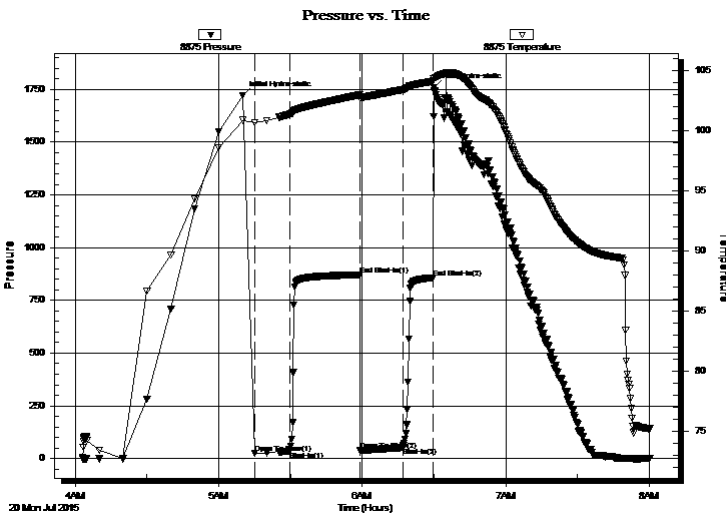
## Serial #: 8875

Inside

Press@RunDepth: 52.78 psig @ 3580.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.20 End Date: 2015.07.20 Last Calib.: 2015.07.20  
 Start Time: 04:03:05 End Time: 08:00:20 Time On Btm: 2015.07.20 @ 05:10:00  
 Time Off Btm: 2015.07.20 @ 06:30:00

TEST COMMENT: IFP 15 min Weak blow built to 3"  
 ISI 30 min No blow back.  
 FFP 15 min Dead  
 FSI 15 min No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.36	100.86	Initial Hydro-static
5	25.41	100.64	Open To Flow (1)
20	36.35	101.36	Shut-In(1)
49	871.56	102.97	End Shut-In(1)
50	39.34	102.71	Open To Flow (2)
67	52.78	103.40	Shut-In(2)
80	857.70	104.10	End Shut-In(2)
80	1760.12	104.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
34.00	MCW 90%water 10%mud	0.48

## Gas Rates

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



TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
PO Box 47  
Great Bend KS 67530  
ATTN: Brad Rine

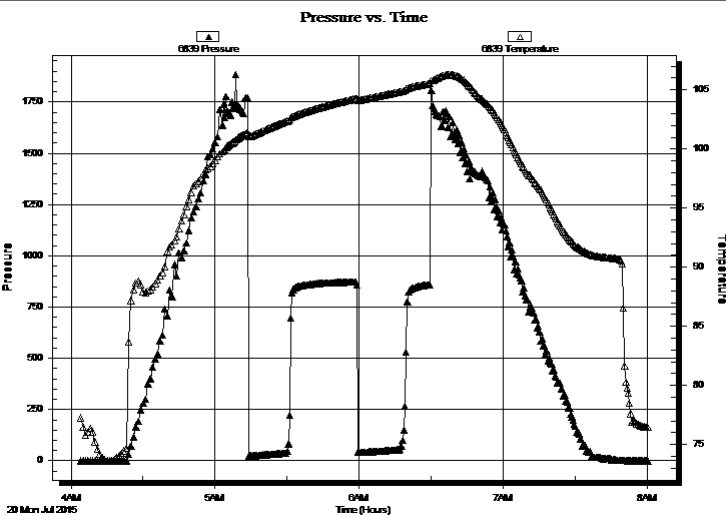
20-21s-14w Stafford, KS  
Sweetheart #1  
Job Ticket: 62898 DST#: 3  
Test Start: 2015.07.20 @ 04:03:00

### GENERAL INFORMATION:

Formation:	<b>LKC J</b>		Test Type:	Conventional Bottom Hole (Initial)
Deviated:	No Whipstock:	ft (KB)	Tester:	Dustin Ellis
Time Tool Opened:	05:15:00		Unit No:	59
Time Test Ended:	08:00:20			
Interval:	<b>3568.00 ft (KB) To 3585.00 ft (KB) (TVD)</b>		Reference Elevations:	1948.00 ft (KB) 1940.00 ft (CF)
Total Depth:	3585.00 ft (KB) (TVD)		KB to GR/CF:	8.00 ft
Hole Diameter:	7.88 inches	Hole Condition: Fair		

<b>Serial #: 6839</b>	<b>Outside</b>		Capacity:	5000.00 psig
Press@RunDepth:	psig @ 3580.00 ft (KB)		Last Calib.:	2015.07.20
Start Date:	2015.07.20	End Date:	2015.07.20	Time On Btm:
Start Time:	04:04:00	End Time:	08:00:00	Time Off Btm:

TEST COMMENT: IFP 15 min Weak blow built to 3"  
ISI 30 min No blow back.  
FFP 15 min Dead  
FSI 15 min No blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
34.00	MCW 90%w ater 10% mud	0.48

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62898

**DST#: 3**

ATTN: Brad Rine

Test Start: 2015.07.20 @ 04:03:00

## Tool Information

Drill Pipe:	Length: 3577.00 ft	Diameter: 3.80 inches	Volume: 50.18 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 50.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3568.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	39.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3551.00	
Hydraulic tool	5.00			3556.00	
Safety Joint	2.00			3558.00	
Top Packer	5.00			3563.00	
Packer	5.00			3568.00	22.00 Bottom Of Top Packer
Anchor	12.00			3580.00	
Recorder	0.00	8875	Inside	3580.00	
Recorder	0.00	6839	Outside	3580.00	
Bullnose	5.00			3585.00	17.00 Anchor Tool
<b>Total Tool Length:</b>	<b>39.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62898

**DST#: 3**

ATTN: Brad Rine

Test Start: 2015.07.20 @ 04:03:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

79000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

#### Recovery Table

Length ft	Description	Volume bbl
34.00	MCW 90%water 10%mud	0.477

Total Length: 34.00 ft      Total Volume: 0.477 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

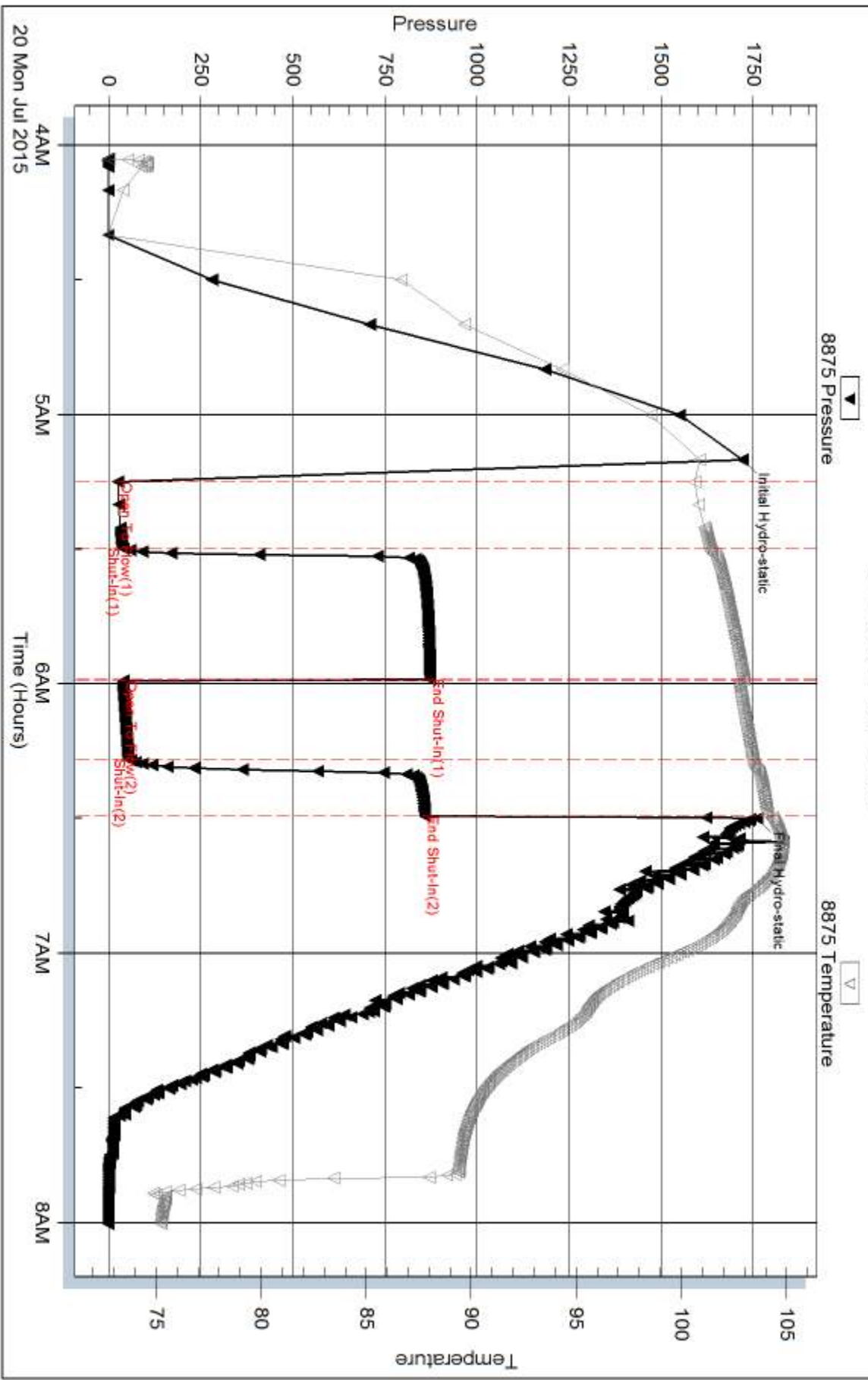
Laboratory Name:

Laboratory Location:

Recovery Comments: Chlorides 79,000



# Pressure vs. Time

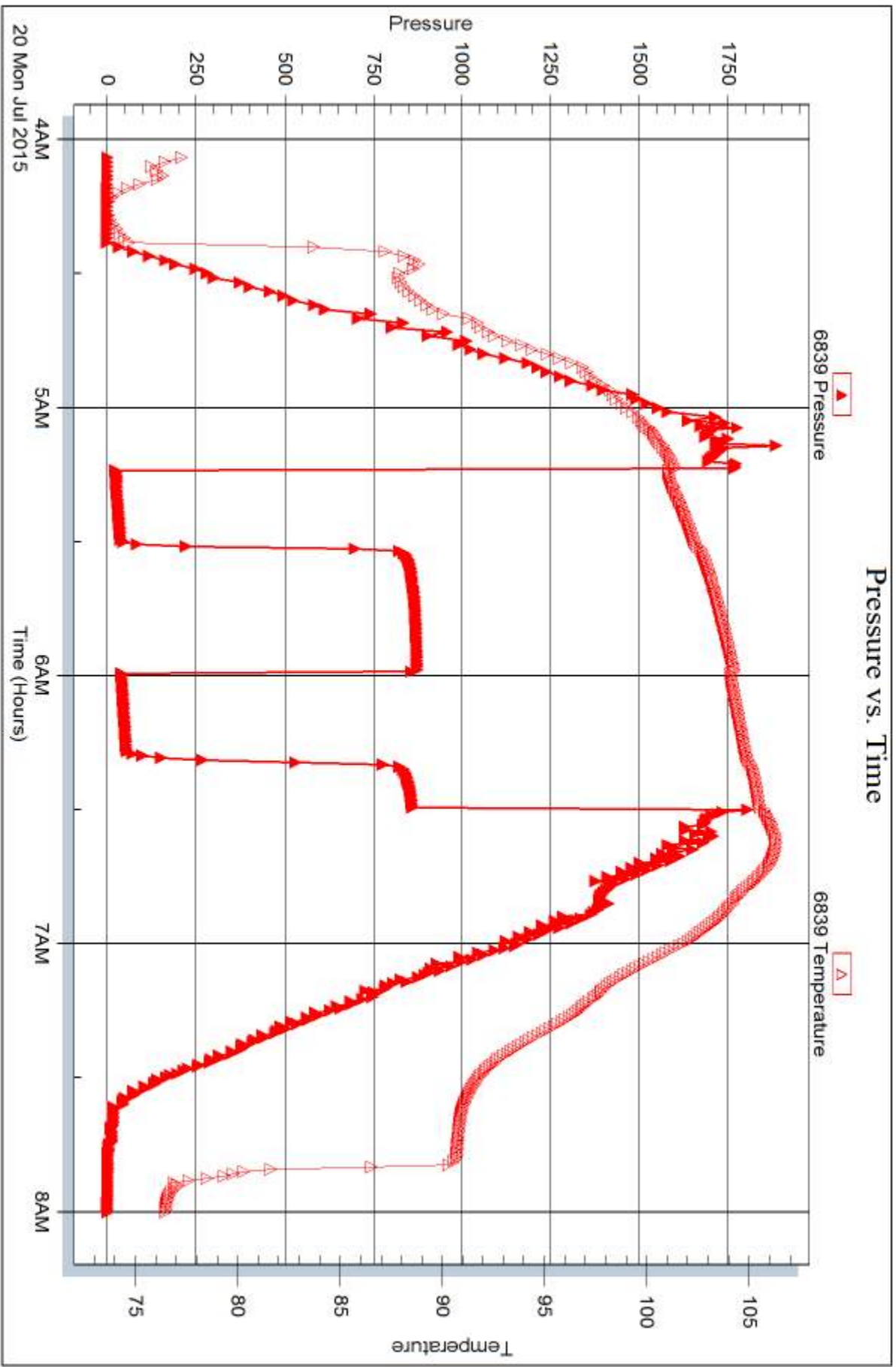


Serial #: 6839

Outside Carmen Schnitt Inc.

Sweetheart #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 62898

Printed: 2015.07.23 @ 09:32:47



## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47  
Great Bend KS 67530

ATTN: Brad Rine

### **Sweetheart #1**

#### **20-21s-14w Stafford,KS**

Start Date: 2015.07.20 @ 21:55:00

End Date: 2015.07.21 @ 03:24:30

Job Ticket #: 62899                      DST #: 4

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

Printed: 2015.07.23 @ 09:31:21



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

**20-21s-14w Stafford,KS**

**Sweetheart #1**

Job Ticket: 62899 **DST#: 4**

Test Start: 2015.07.20 @ 21:55:00

## GENERAL INFORMATION:

Formation: **Simpson**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:22:30  
 Time Test Ended: 03:24:30  
 Interval: **3719.00 ft (KB) To 3755.00 ft (KB) (TVD)**  
 Total Depth: 3755.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

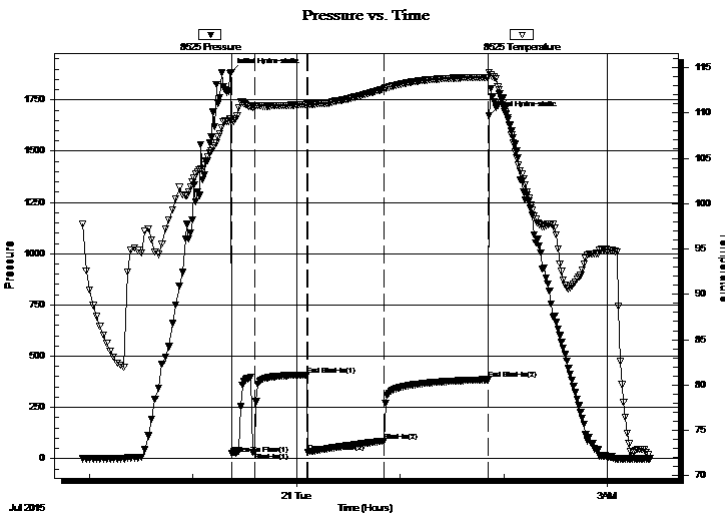
## Serial #: 8525

Inside

Press@RunDepth: 85.81 psig @ 3750.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.20 End Date: 2015.07.21 Last Calib.: 2015.07.21  
 Start Time: 21:56:00 End Time: 03:24:30 Time On Btm: 2015.07.20 @ 23:22:00  
 Time Off Btm: 2015.07.21 @ 01:51:30

TEST COMMENT: IFP 15 min Weak building blow built to 2 1/2"  
 ISI 30 min No blow back  
 FFP 45 min Weak building blow built to 7"  
 FSI 60 min No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1884.29	109.39	Initial Hydro-static
1	23.36	108.89	Open To Flow (1)
14	30.38	110.65	Shut-In(1)
45	408.68	110.95	End Shut-In(1)
45	31.38	110.84	Open To Flow (2)
89	85.81	112.63	Shut-In(2)
149	385.79	113.92	End Shut-In(2)
150	1673.47	114.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Clean oil 100%	0.01
63.00	MW 10% Mud 90% Water	0.88
19.00	MW w / oil spots 15% mud 85% water	0.27

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

**20-21s-14w Stafford,KS**

**Sweetheart #1**

Job Ticket: 62899

**DST#: 4**

Test Start: 2015.07.20 @ 21:55:00

## GENERAL INFORMATION:

Formation: **Simpson**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:22:30  
 Time Test Ended: 03:24:30  
 Interval: **3719.00 ft (KB) To 3755.00 ft (KB) (TVD)**  
 Total Depth: 3755.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

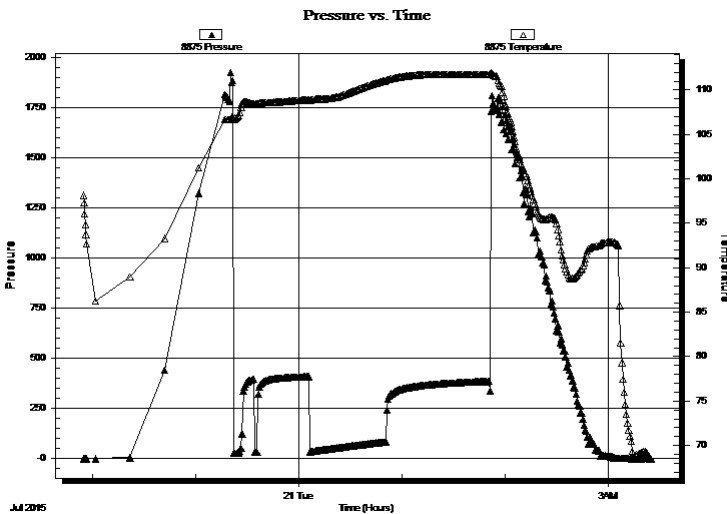
**Serial #: 8875**

**Outside**

Press@RunDepth: psig @ 3750.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.20 End Date: 2015.07.21 Last Calib.: 2015.07.21  
 Start Time: 21:55:05 End Time: 03:24:40 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP 15 min Weak building blow built to 2 1/2"  
 ISI 30 min No blow back  
 FFP 45 min Weak building blow built to 7"  
 FSI 60 min No blow back

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Clean oil 100%	0.01
63.00	MW 10%Mud 90%Water	0.88
19.00	MW w / oil spots 15% mud 85%w ater	0.27

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62899

**DST#: 4**

ATTN: Brad Rine

Test Start: 2015.07.20 @ 21:55:00

## Tool Information

Drill Pipe:	Length: 3710.00 ft	Diameter: 3.80 inches	Volume: 52.04 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 37000.00 lb
			<u>Total Volume: 52.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3719.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3702.00	
Hydraulic tool	5.00			3707.00	
Safety Joint	2.00			3709.00	
Top Packer	5.00			3714.00	
Packer	5.00			3719.00	22.00 Bottom Of Top Packer
Anchor	31.00			3750.00	
Recorder	0.00	8525	Inside	3750.00	
Recorder	0.00	8875	Outside	3750.00	
Bullnose	5.00			3755.00	36.00 Anchor Tool
<b>Total Tool Length:</b>	<b>58.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62899

**DST#: 4**

ATTN: Brad Rine

Test Start: 2015.07.20 @ 21:55:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

75000 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: 0.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
1.00	Clean oil 100%	0.014
63.00	MW 10%Mud 90%Water	0.884
19.00	MW w / oil spots 15% mud 85%w ater	0.267

Total Length: 83.00 ft Total Volume: 1.165 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

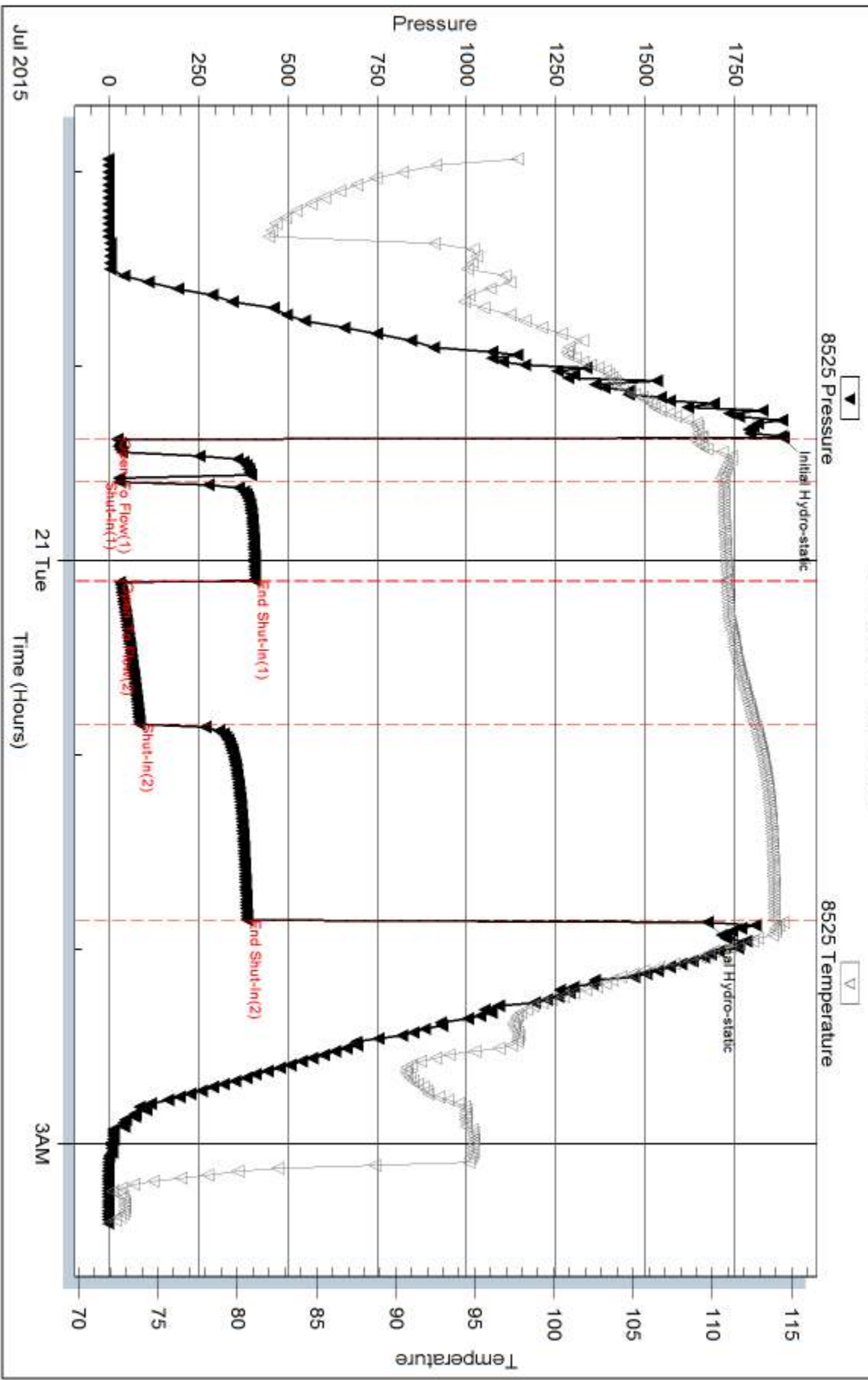
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Chlorides 75,000

# Pressure vs. Time



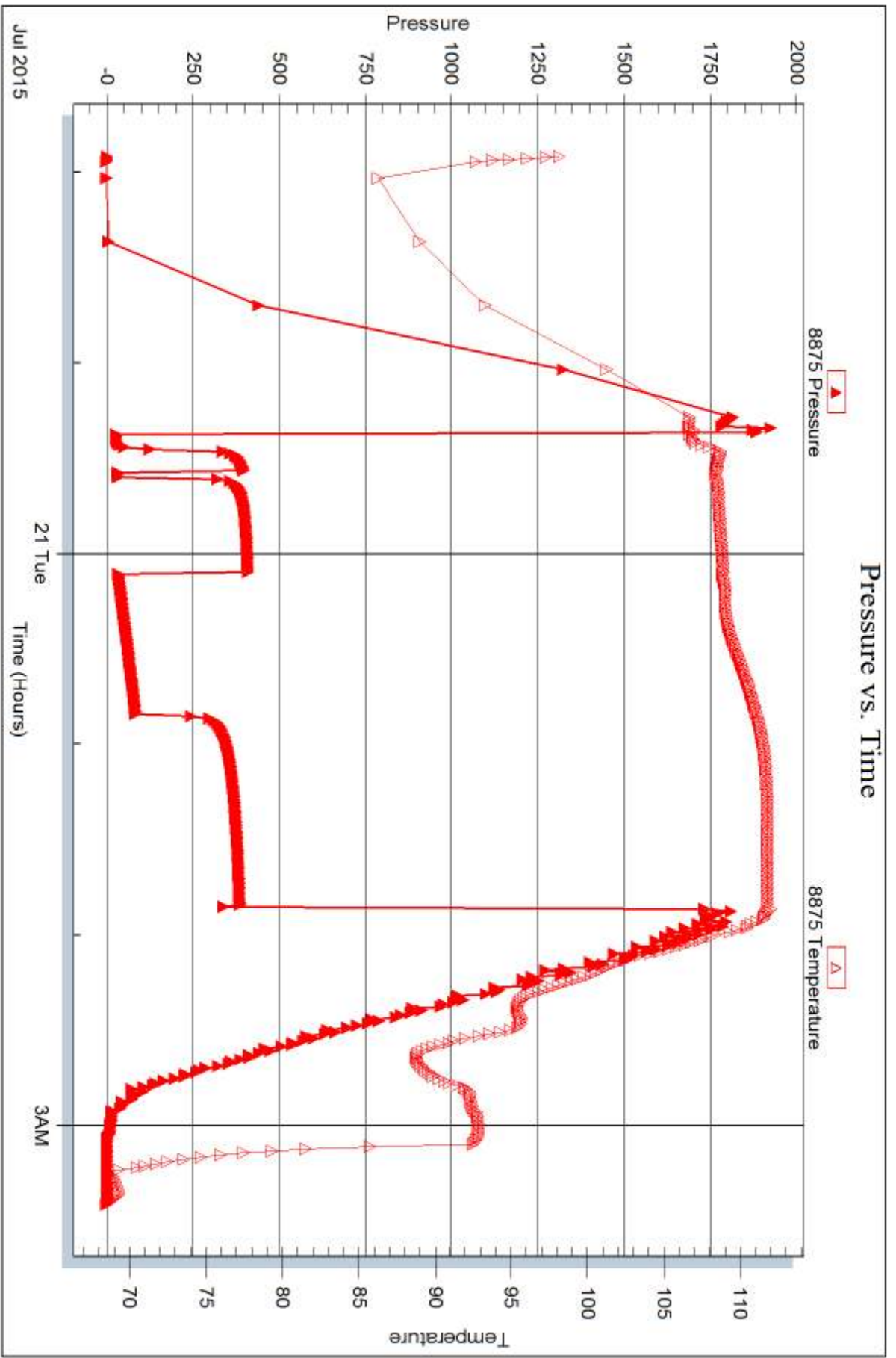


Serial #: 8875

Outside Carmen Schnitt Inc.

Sweetheart #1

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47  
Great Bend KS 67530

ATTN: Brad Rine

### **Sweetheart #1**

#### **20-21s-14w Stafford,KS**

Start Date: 2015.07.21 @ 12:57:00

End Date: 2015.07.21 @ 17:56:20

Job Ticket #: 62900                      DST #: 5

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

Printed: 2015.07.23 @ 09:30:00



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
 PO Box 47  
 Great Bend KS 67530  
 ATTN: Brad Rine

**20-21s-14w Stafford,KS**

**Sweetheart #1**

Job Ticket: 62900

**DST#: 5**

Test Start: 2015.07.21 @ 12:57:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:09:00  
 Time Test Ended: 17:56:20  
 Interval: **3775.00 ft (KB) To 3784.00 ft (KB) (TVD)**  
 Total Depth: 3784.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 59  
 Reference Elevations: 1948.00 ft (KB)  
 1940.00 ft (CF)  
 KB to GR/CF: 8.00 ft

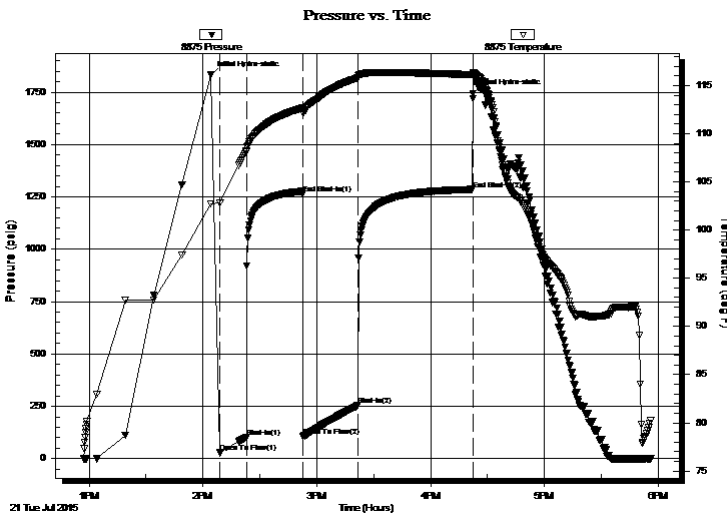
**Serial #: 8875**

**Outside**

Press@RunDepth: 254.69 psig @ 3779.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2015.07.21 End Date: 2015.07.21 Last Calib.: 2015.07.21  
 Start Time: 12:57:05 End Time: 17:56:20 Time On Btm: 2015.07.21 @ 14:04:00  
 Time Off Btm: 2015.07.21 @ 16:22:20

TEST COMMENT: IFP 15 min BOB in 8 min  
 ISI 30 min No blow back  
 FFP 30 min BOB in 7 min.  
 FSI 60 min No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1830.99	102.70	Initial Hydro-static
5	28.09	102.79	Open To Flow (1)
19	102.69	108.19	Shut-In(1)
49	1266.17	112.66	End Shut-In(1)
49	106.59	112.14	Open To Flow (2)
78	254.69	115.78	Shut-In(2)
139	1285.65	116.12	End Shut-In(2)
139	1743.31	116.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
565.00	Water 100%	7.93

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmitt Inc.  
PO Box 47  
Great Bend KS 67530  
ATTN: Brad Rine

**20-21s-14w Stafford, KS**

**Sweetheart #1**

Job Ticket: 62900      **DST#: 5**  
Test Start: 2015.07.21 @ 12:57:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 14:09:00  
Time Test Ended: 17:56:20

Test Type: Conventional Bottom Hole (Initial)  
Tester: Dustin Ellis  
Unit No: 59

Interval: **3775.00 ft (KB) To 3784.00 ft (KB) (TVD)**  
Total Depth: 3784.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1948.00 ft (KB)  
1940.00 ft (CF)  
KB to GR/CF: 8.00 ft

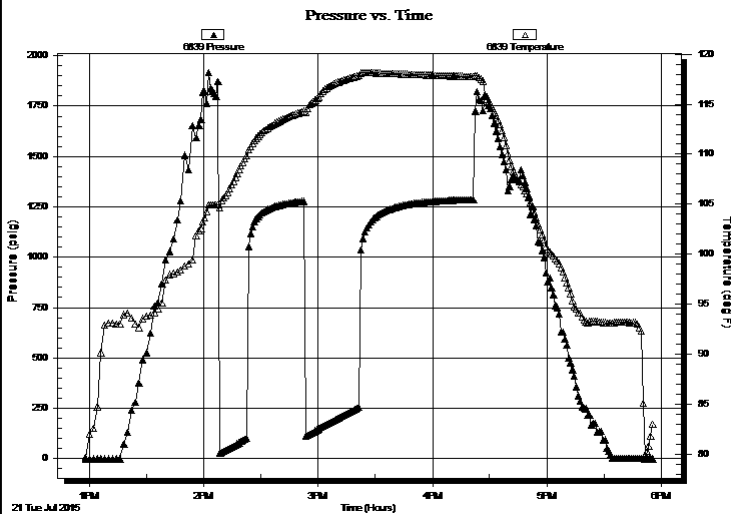
**Serial #: 6839**

**Inside**

Press@RunDepth: psig @ 3779.00 ft (KB)  
Start Date: 2015.07.21 End Date: 2015.07.21  
Start Time: 12:58:00 End Time: 17:56:00

Capacity: 5000.00 psig  
Last Calib.: 2015.07.21  
Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IFP 15 min BOB in 8 min  
ISI 30 min No blow back  
FFP 30 min BOB in 7 min.  
FSI 60 min No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
565.00	Water 100%	7.93

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62900

**DST#: 5**

ATTN: Brad Rine

Test Start: 2015.07.21 @ 12:57:00

## Tool Information

Drill Pipe:	Length: 3777.00 ft	Diameter: 3.80 inches	Volume: 52.98 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	36000.00 lb
			<u>Total Volume: 52.98 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	32000.00 lb
Depth to Top Packer:	3775.00 ft			Final	32000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	9.00 ft				
Tool Length:	31.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3758.00	
Hydraulic tool	5.00			3763.00	
Safety Joint	2.00			3765.00	
Top Packer	5.00			3770.00	
Packer	5.00			3775.00	22.00 Bottom Of Top Packer
Anchor	4.00			3779.00	
Recorder	0.00	6839	Inside	3779.00	
Recorder	0.00	8875	Outside	3779.00	
Bullnose	5.00			3784.00	9.00 Anchor Tool
<b>Total Tool Length:</b>	<b>31.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Carmen Schmitt Inc.

**20-21s-14w Stafford,KS**

PO Box 47  
Great Bend KS 67530

**Sweetheart #1**

Job Ticket: 62900

**DST#: 5**

ATTN: Brad Rine

Test Start: 2015.07.21 @ 12:57:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

96000 ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
565.00	Water 100%	7.925

Total Length: 565.00 ft      Total Volume: 7.925 bbl

Num Fluid Samples: 0

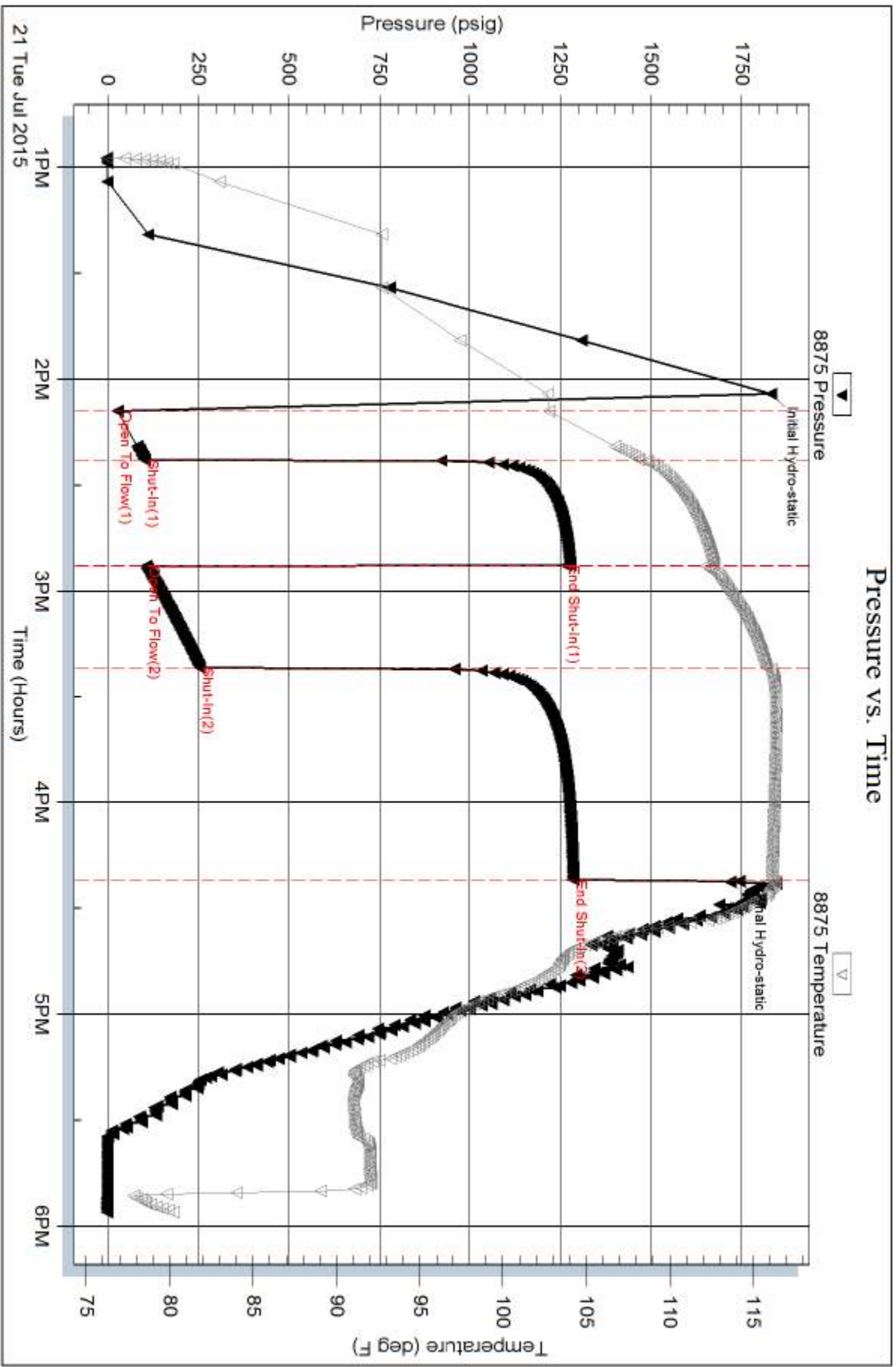
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Chlorides 96,000



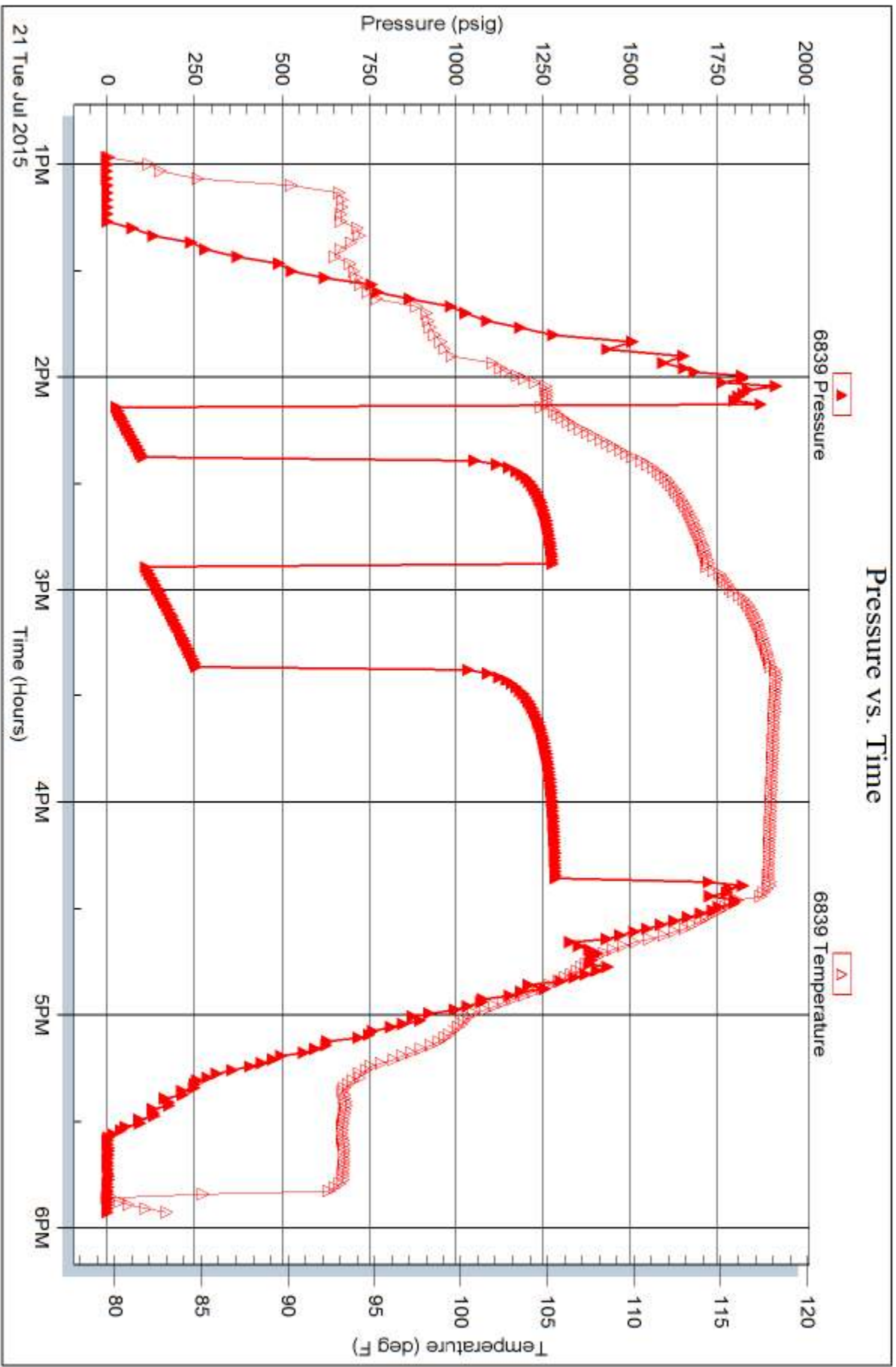
Serial #: 6839

Inside

Carmen Schmitt Inc.

Sweetheart #1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 62900

Printed: 2015.07.23 @ 09:30:01





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62896

Well Name & No. Sweetheart #1 Test No. 1 Date 7-19-15  
 Company Carmen Schmitt Inc Elevation 2948 KB 1940 GL  
 Address PO Box 47 Great Bend KS 67530  
 Co. Rep / Geo. Brad Rine Rig South wind Rig 3  
 Location: Sec. 20 Twp. 21S Rge. 14W Co. Stafford State \_\_\_\_\_

Interval Tested 3530-3550 Zone Tested Kansing #  
 Anchor Length 20 Drill Pipe Run 3518 Mud Wt. 8.8  
 Top Packer Depth 3525 Drill Collars Run 0 Vis 45  
 Bottom Packer Depth 3530 Wt. Pipe Run 32,000 WL 9.2  
 Total Depth 3550 Chlorides 3500 ppm System LCM 0

Blow Description 1st open - weak blow built to 1/2 inch  
1st shut in - No blow back  
2nd open - Dead  
2nd shut in - N/A

Rec	Feet of	%gas	%oil	%water	%mud
<u>7</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 7 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1682  Test 1050 T-On Location 7:10am  
 (B) First Initial Flow 16  Jars \_\_\_\_\_ T-Started 7:52am  
 (C) First Final Flow 18  Safety Joint 75 T-Open 9:13am  
 (D) Initial Shut-In 626  Circ Sub \_\_\_\_\_ T-Pulled 10:18am  
 (E) Second Initial Flow 19  Hourly Standby \_\_\_\_\_ T-Out 11:40am  
 (F) Second Final Flow -  Mileage 32 32 Comments \_\_\_\_\_  
 (G) Final Shut-In -  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1621  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 15  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 15  Day Standby \_\_\_\_\_ Total 1157  
 Final Shut-In N/A  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1157

Approved By \_\_\_\_\_ Our Representative Dustin Ellis

TriLOBITE TESTING INC. shall not be liable for damaged or destroyed property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62897

Well Name & No. Sweetheart #1 Test No. 2 Date 7-19-15  
 Company Carmen Schmitt Inc Elevation 1948 KB 1940 GL  
 Address PO Box 47 Great Bend KS 67530  
 Co. Rep / Geo. Brad Rine Rig \_\_\_\_\_  
 Location: Sec. 20 Twp. 21s Rge. 14w Co. Stafford State KS

Interval Tested 3553 - 3568 Zone Tested Kansing I  
 Anchor Length 15 Drill Pipe Run 3546 Mud Wt. 8.8  
 Top Packer Depth 3548 Drill Collars Run 0 Vis 45  
 Bottom Packer Depth 3553 Wt. Pipe Run \_\_\_\_\_ WL 9.2  
 Total Depth 3568 Chlorides 3500 ppm System LCM 0

Blow Description 1st open - very weak surface blow.

1st shut in - No flow back

2nd open - Dead

2nd shut in - N-A

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 3 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1723

(B) First Initial Flow 19

(C) First Final Flow 20

(D) Initial Shut-In 809

(E) Second Initial Flow 22

(F) Second Final Flow N-A

(G) Final Shut-In N-A

(H) Final Hydrostatic 1620

Test \_\_\_\_\_

Jars \_\_\_\_\_

Safety Joint 75

Circ Sub \_\_\_\_\_

Hourly Standby \_\_\_\_\_

Mileage 32 32

Sampler \_\_\_\_\_

Straddle \_\_\_\_\_

Shale Packer \_\_\_\_\_

Extra Packer \_\_\_\_\_

Extra Recorder \_\_\_\_\_

Day Standby \_\_\_\_\_

Accessibility \_\_\_\_\_

Sub Total 1157

T-On Location 4:15 pm

T-Started 4:45 pm

T-Open 6:05 pm

T-Pulled 7:10 pm

T-Out 8:20 pm

Comments \_\_\_\_\_

\_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_

Ruined Packer \_\_\_\_\_

Extra Copies \_\_\_\_\_

Sub Total 0

Total 1157

MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_

Our Representative Dustin Ellis

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62898

Well Name & No. Sweetheart #1 Test No. 3 Date 7-20-15  
 Company Carmen Schmitt Inc Elevation 1948 KB 1940 GL  
 Address Po Box 47 Great Bend KS 67530  
 Co. Rep / Geo. Brad Aine Rig South Wind Drilling Rig 3  
 Location: Sec. 20 Twp. 21S Rge. 14W Co. Stafford State \_\_\_\_\_

Interval Tested 3568-3585 Zone Tested Lansing J  
 Anchor Length 17 Drill Pipe Run 3577 Mud Wt. 9.23  
 Top Packer Depth 3563 Drill Collars Run 0 Vis 63  
 Bottom Packer Depth 3568 Wt. Pipe Run \_\_\_\_\_ WL 8.0  
 Total Depth 3585 Chlorides 4800 ppm System LCM 0

Blow Description 1st open - weak building blow built to 3 inches  
1st shut in - No blow back.  
2nd open - Dead.  
2nd shut in - no blow back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>34</u>	<u>Watercut mud</u>			<u>90</u>	<u>10</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

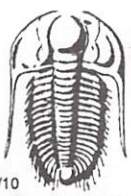
Rec Total 34 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides 79000 ppm

(A) Initial Hydrostatic 1720  Test 1050 T-On Location 3:45am  
 (B) First Initial Flow 25  Jars \_\_\_\_\_ T-Started 4:03am  
 (C) First Final Flow 36  Safety Joint 75 T-Open 5:12am  
 (D) Initial Shut-In 9071  Circ Sub \_\_\_\_\_ T-Pulled 6:30am  
 (E) Second Initial Flow 39  Hourly Standby \_\_\_\_\_ T-Out 8:00am  
 (F) Second Final Flow 52  Mileage 32 Comments \_\_\_\_\_  
 (G) Final Shut-In 857  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1760  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 15  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 15  Day Standby \_\_\_\_\_ Total 1157  
 Final Shut-In 15  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1157

Approved By \_\_\_\_\_ Our Representative Dustin Ellis

TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62899

Well Name & No. Sweetheart #1 Test No. 4 Date 7-20-15  
 Company Carmen Schmitt Inc Elevation 1048 KB 1940 GL  
 Address PO Box 47 Great Bend Ks 67530  
 Co. Rep / Geo. Brad Rice Rig Southwind Drilling Rig 3  
 Location: Sec. 20 Twp. 21s Rge. 14w Co. Stafford State Ks

Interval Tested 3719 - 3755 Zone Tested Simpson  
 Anchor Length 36 Drill Pipe Run 370 Mud Wt. 9.3  
 Top Packer Depth 3714 Drill Collars Run 0 Vis 64  
 Bottom Packer Depth 3719 Wt. Pipe Run 32,000 WL 10.2  
 Total Depth 3755 Chlorides 9200 ppm System LCM 0

Blow Description 1st open - weak blow built to 2 1/2 inches.  
1st shut-in - No blow back.  
2nd open - weak blow built to 7 inches.  
2nd shut-in - No blow back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>lean oil</u>				
<u>63</u>	<u>Waterent mud</u>		<u>90</u>	<u>10</u>	
<u>19</u>	<u>very lightly oil spotted</u>		<u>85</u>	<u>15</u>	
	<u>muddy water</u>				

Rec Total 83 BHT 112 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides 75000 ppm

(A) Initial Hydrostatic 1884  Test 1050 T-On Location 9:20pm  
 (B) First Initial Flow 23  Jars \_\_\_\_\_ T-Started 9:55pm  
 (C) First Final Flow 30  Safety Joint 75 T-Open 11:20pm  
 (D) Initial Shut-In 408  Circ Sub \_\_\_\_\_ T-Pulled 1:50am  
 (E) Second Initial Flow 31  Hourly Standby \_\_\_\_\_ T-Out 3:20am  
 (F) Second Final Flow 85  Mileage 32 Comments \_\_\_\_\_  
 (G) Final Shut-In 395  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1473  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 60

Sub Total 1157  
 Total 1157  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Dustin Ellis

TriLOBITE TESTING INC. shall not be liable for damaged or any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62900

Well Name & No. Sweetheart #1 Test No. 5 Date 7-21-15  
 Company Carmen Schmitt Inc. Elevation 1948 KB 1940 GL  
 Address Po Box 47 Great Bend KS 67530  
 Co. Rep / Geo. Brad Rine Rig Southwind Drilling Rig 3  
 Location: Sec. 20 Twp. 21s Rge. 14w Co. Stafford State KS

Interval Tested 3775 - 3784 Zone Tested Arbuckle  
 Anchor Length 9 Drill Pipe Run 3777 Mud Wt. 9.2  
 Top Packer Depth 3770 Drill Collars Run 0 Vis 67  
 Bottom Packer Depth 3775 Wt. Pipe Run 27000 WL 10.2  
 Total Depth 3784 Chlorides 10500 ppm System LCM 0

Blow Description 1st open - BOB in 8 min.  
1st shut-in - No flow back.  
2nd open - BOB in 7 min.  
2nd shut-in - No blow back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>565</u>	<u>water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 565 BHT 115 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides 96,000 ppm

(A) Initial Hydrostatic 1630  Test 1050 T-On Location 12:20pm  
 (B) First Initial Flow 28  Jars \_\_\_\_\_ T-Started 12:57pm  
 (C) First Final Flow 102  Safety Joint 75 T-Open 2:07pm  
 (D) Initial Shut-In 1266  Circ Sub \_\_\_\_\_ T-Pulled 4:22pm  
 (E) Second Initial Flow 106  Hourly Standby \_\_\_\_\_ T-Out 6:00pm  
 (F) Second Final Flow 254  Mileage 32 Comments \_\_\_\_\_  
 (G) Final Shut-In 1205  Sampler \_\_\_\_\_ 2 Shale Packers.  
 (H) Final Hydrostatic 1743  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 500  Ruined Packer \_\_\_\_\_

Initial Open 15  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1657  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1657

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**BOREHOLE COMPENSATED  
SONIC LOG**

Company CARMEN SCHMITT, INC.  
Well SWEETHEART #1  
Field BAYER  
County STAFFORD  
State KANSAS

Company CARMEN SCHMITT, INC.  
Well SWEETHEART #1  
Field BAYER  
County STAFFORD State KANSAS

Location: API #: 15-185-23941-00-00  
1594' FSL & 2310' FWL  
SEC 20 TWP 21S RGE 14W  
Permanent Datum GROUND LEVEL Elevation 1940  
Log Measured From KELLY BUSHING  
Drilling Measured From KELLY BUSHING  
Other Services  
CNL/CDL  
MEL/DIL  
Elevation  
K.B. 1948  
D.F. N/A  
G.L. 1940

Date	7/22/2015
Run Number	TWO
Type Log	BHGS
Depth Driller	3860
Depth Logger	3859
Bottom Logged Interval	3848
Top Logged Interval	450
Type Fluid In Hole	CHEMICAL
Salinity, PPM CL	10500
Density	9.2
Level	FULL
Max. Rec. Temp. F	115
Operating Rig Time	6 HOURS
Equipment -- Location	91 Hays
Recorded By	D. SCHMIDT
Witnessed By	BRAD RINE

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25	00	467	8.625	23#	00	467
TWO	7.875	467	TD				

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

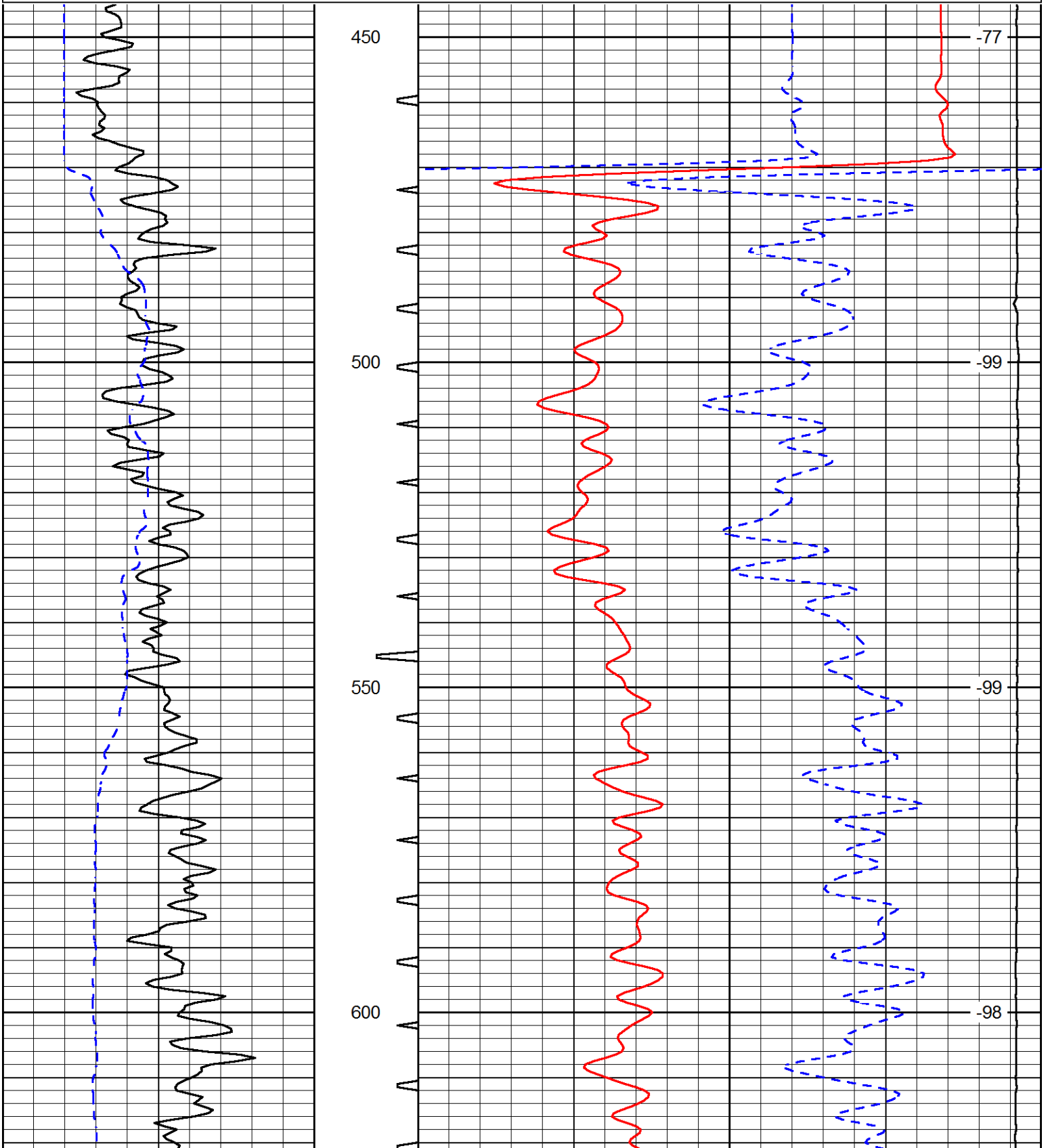
Comments  
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.  
  
RADIUM,  
2 NORTH TO 170TH, 1/2 EAST,  
NORTH INTO  
  
Log Measured From: KELLY BUSHING      8 Ft. Above Permanent Datum  
  
THANK YOU FOR USING PIONEER ENERGY SERVICES  
www.pioneerenergy.com      785-625-3858

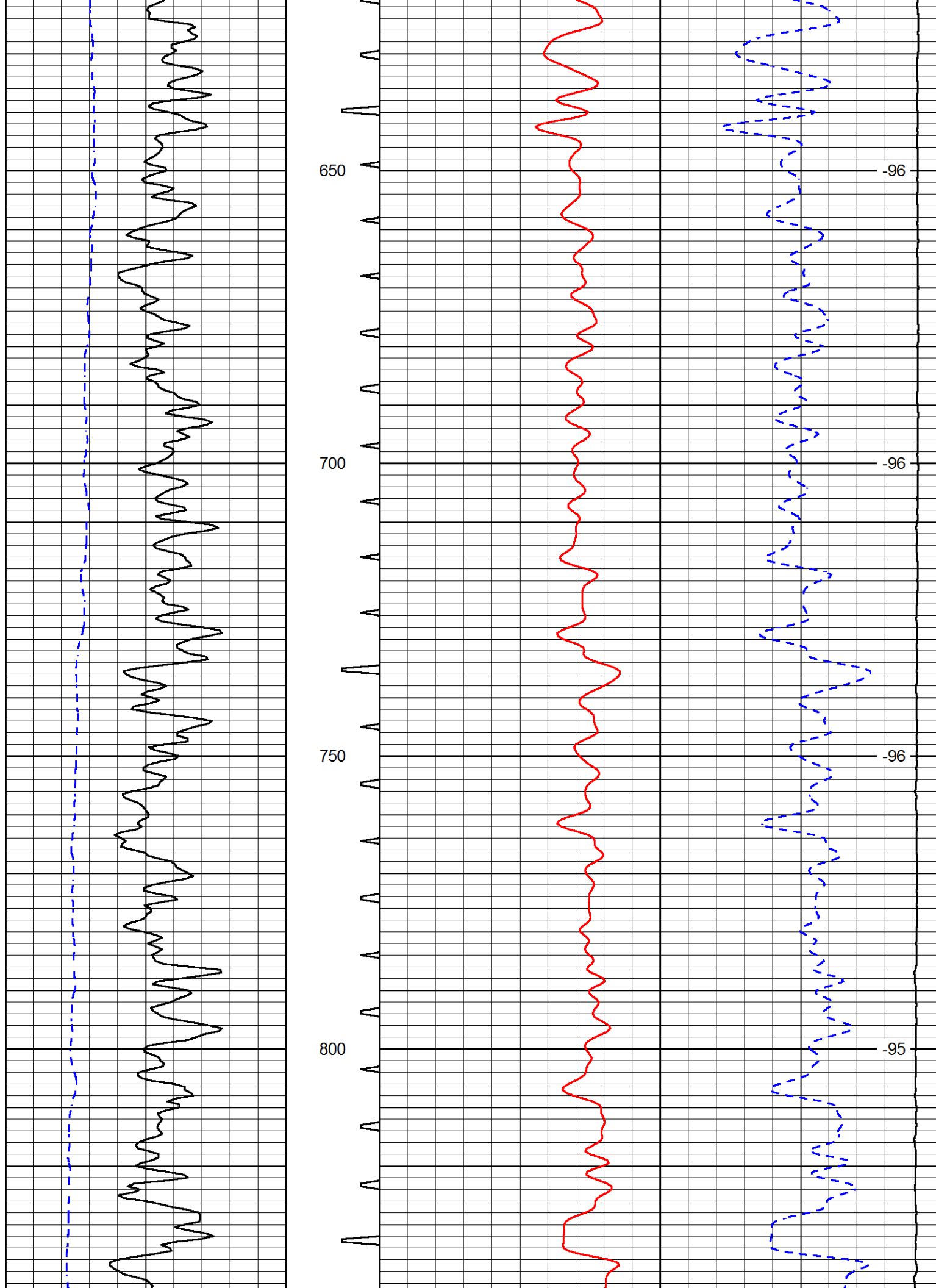
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: BRAD RINE
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Database File carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname DIL/csstack  
 Presentation Format sonic  
 Dataset Creation Wed Jul 22 03:34:57 2015  
 Charted by Depth in Feet scaled 1:240

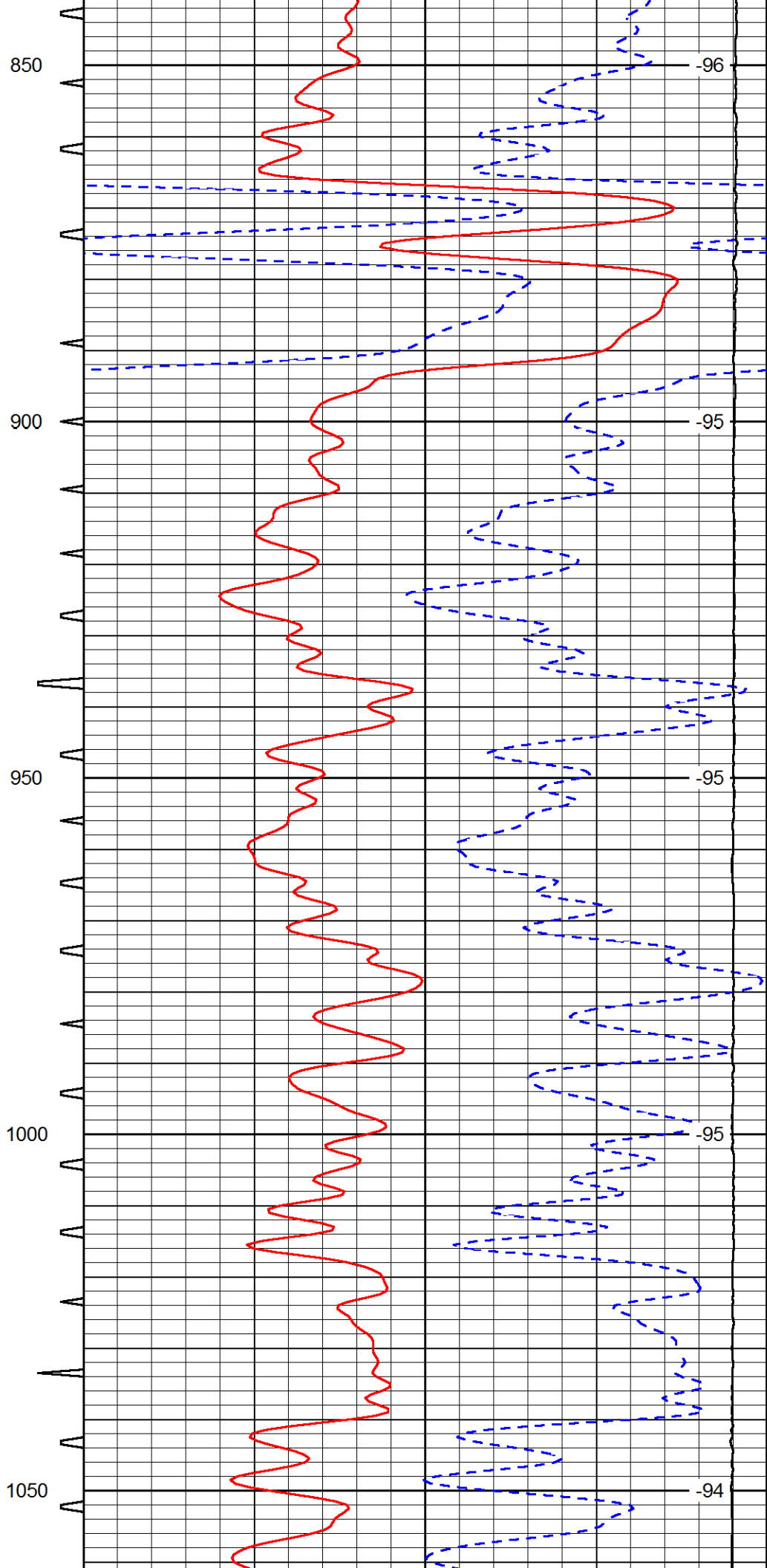
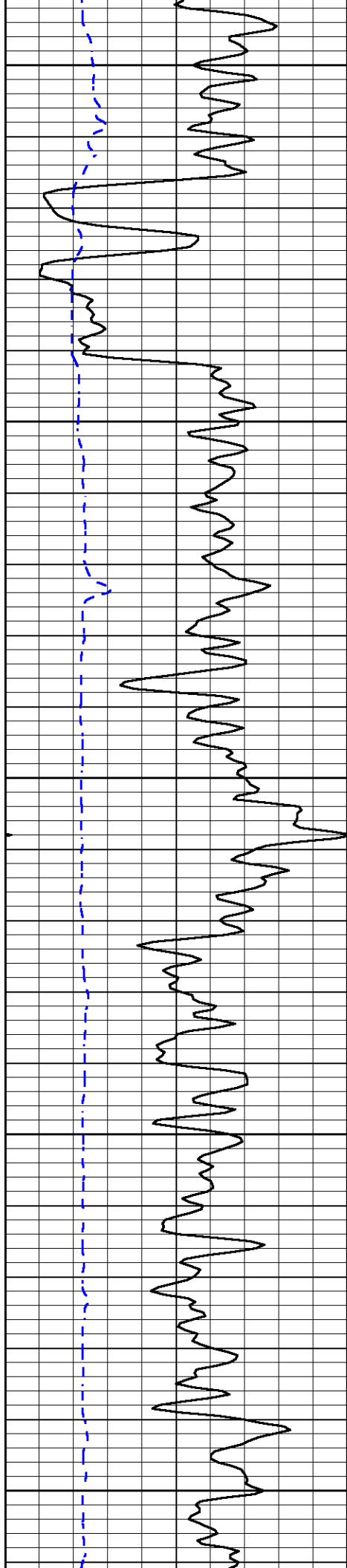
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	Gamma Ray (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	dCAL (in)	16		15000	LTEN (lb) (lb)	0

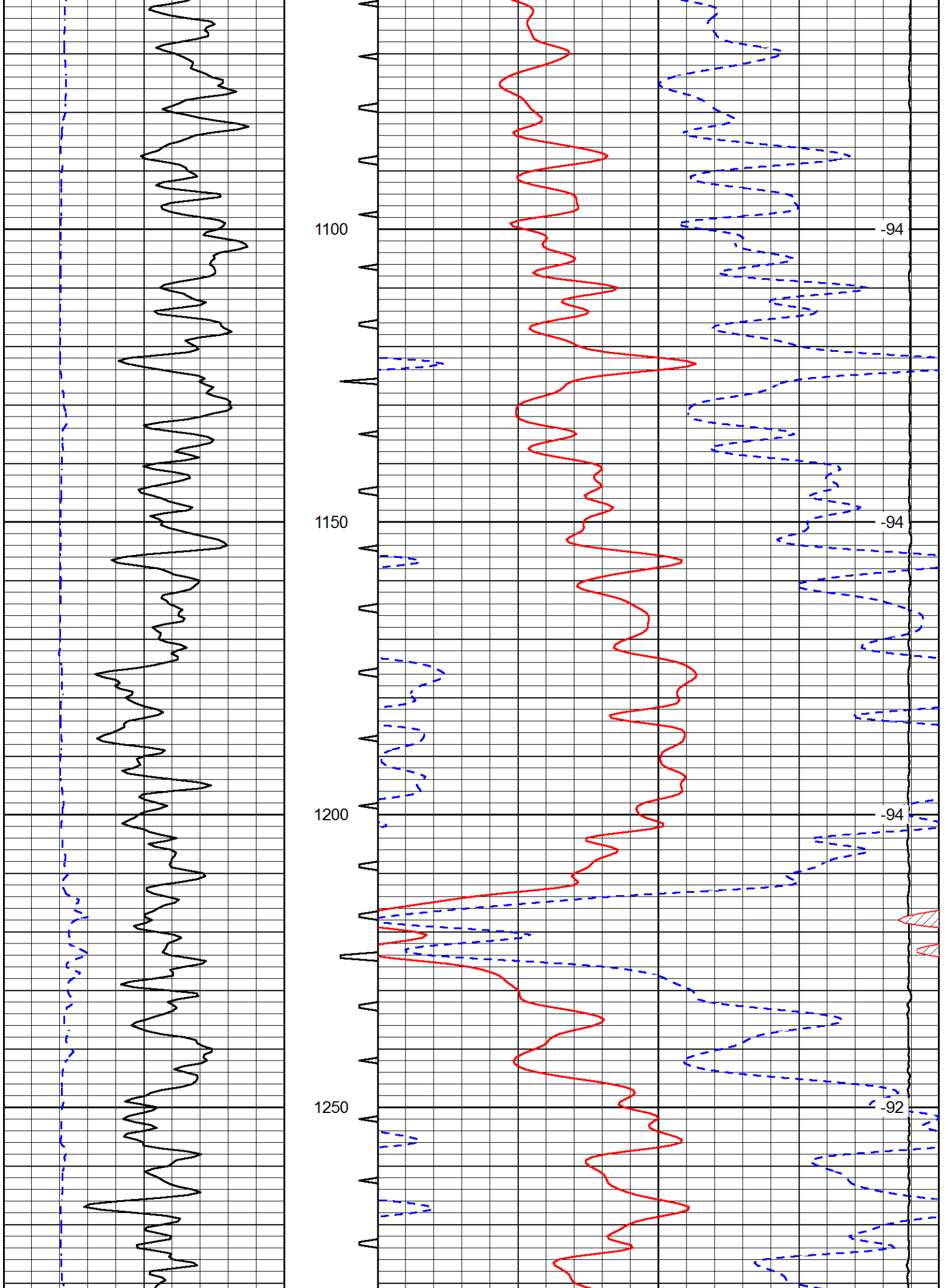
LSPD  
(ft/min)

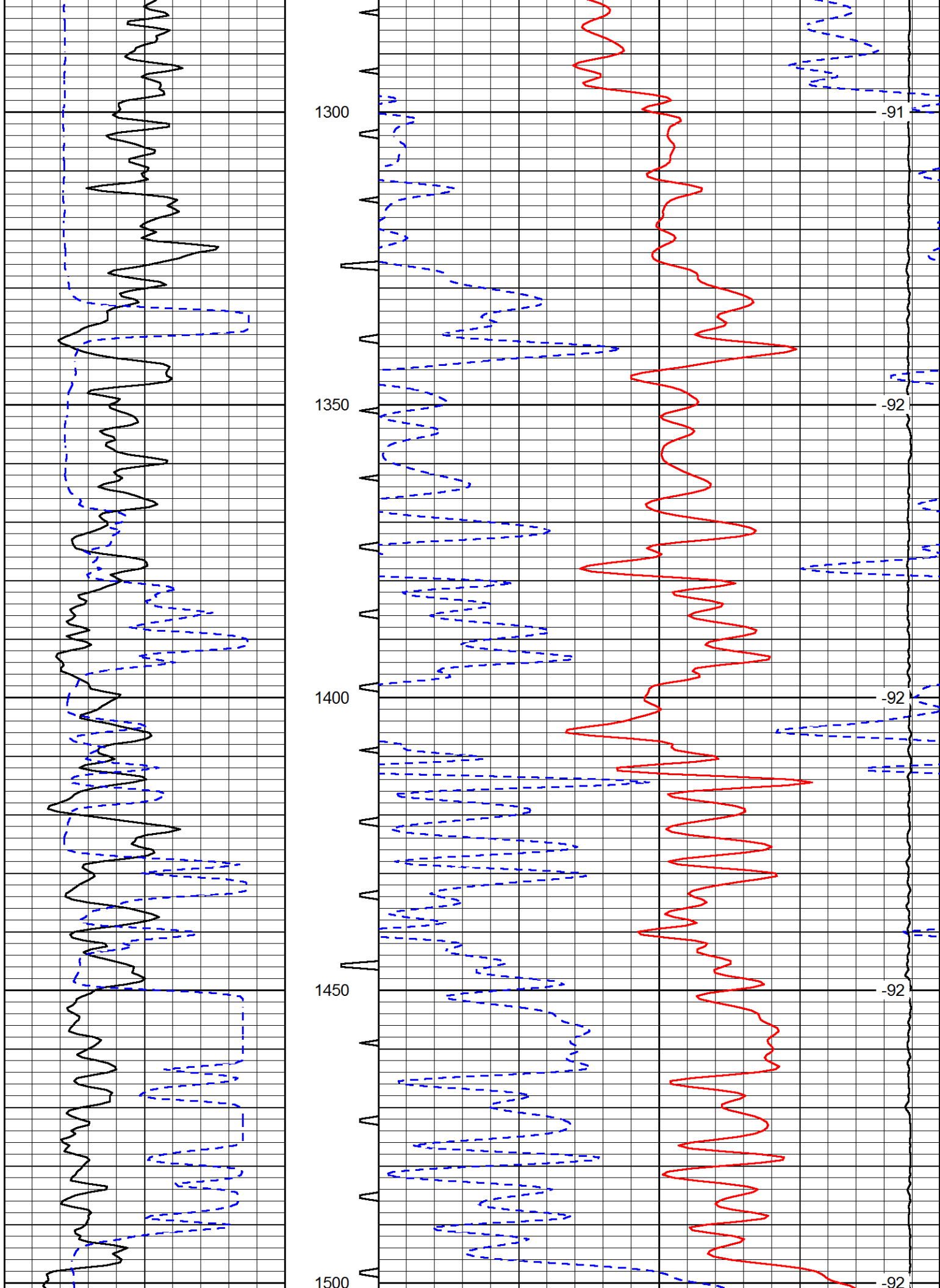


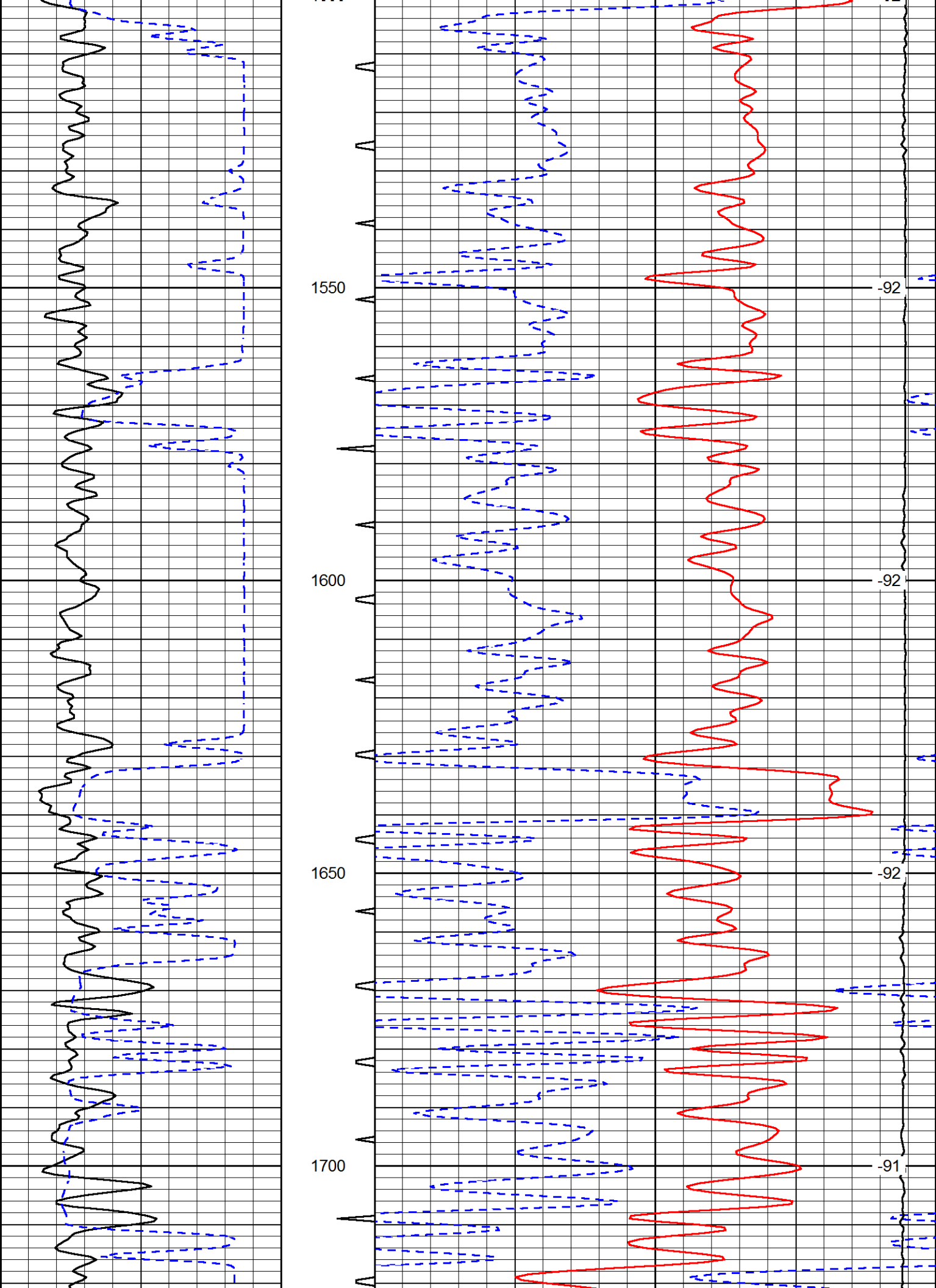


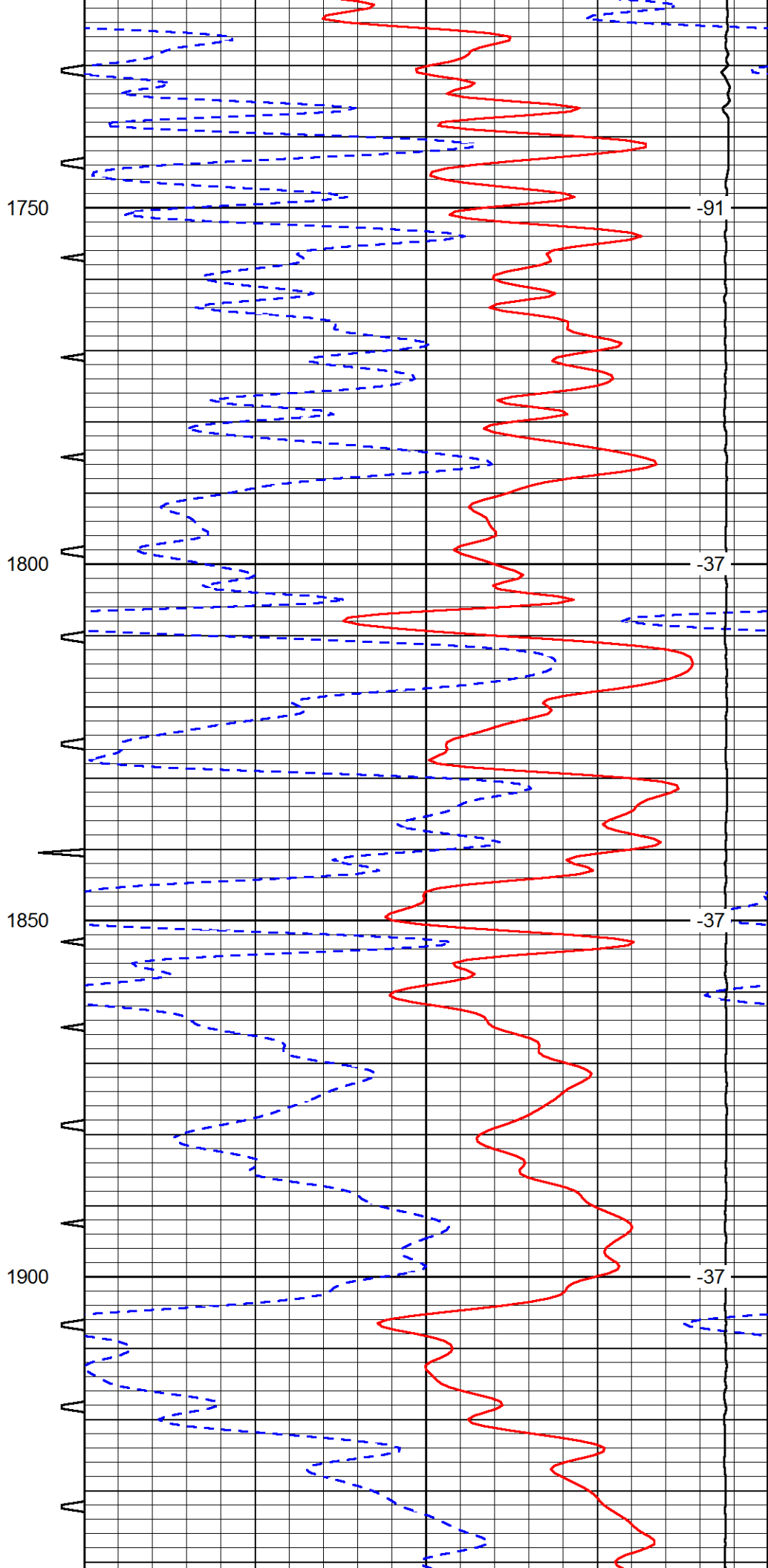
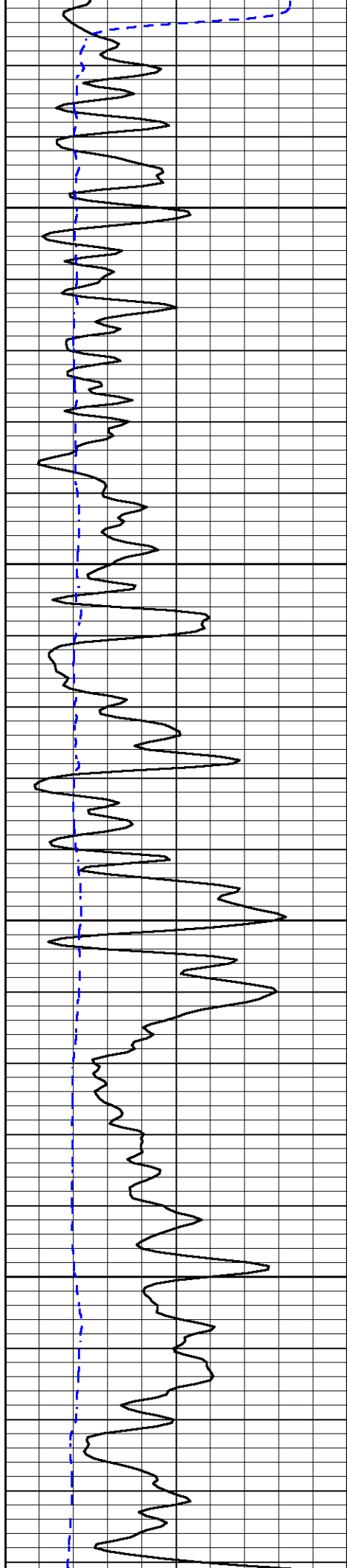


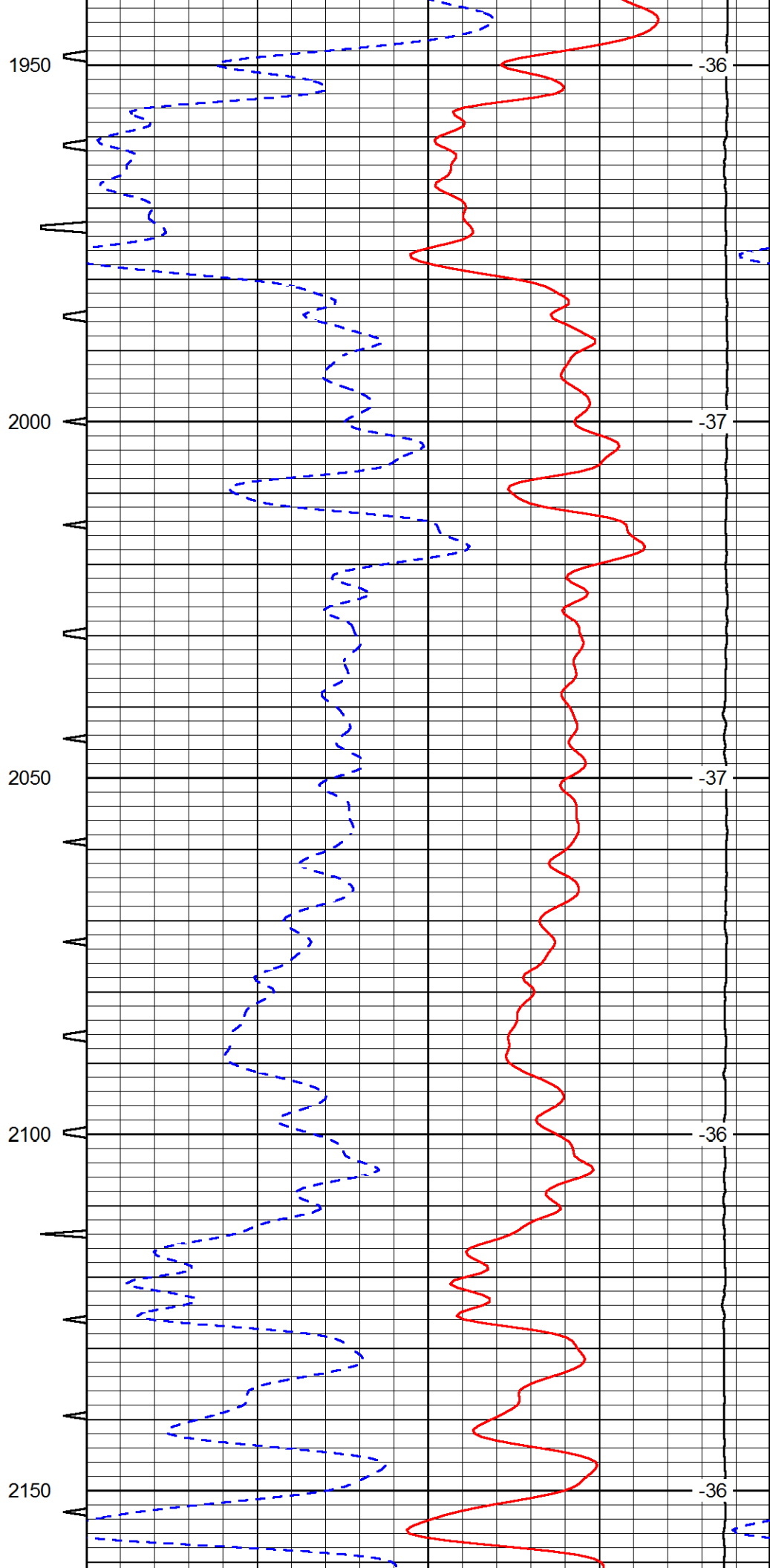
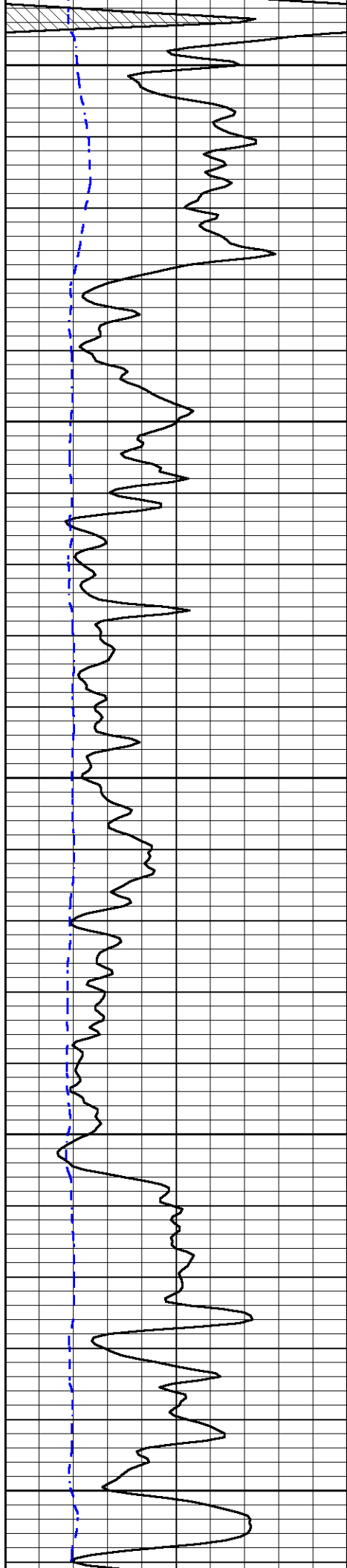


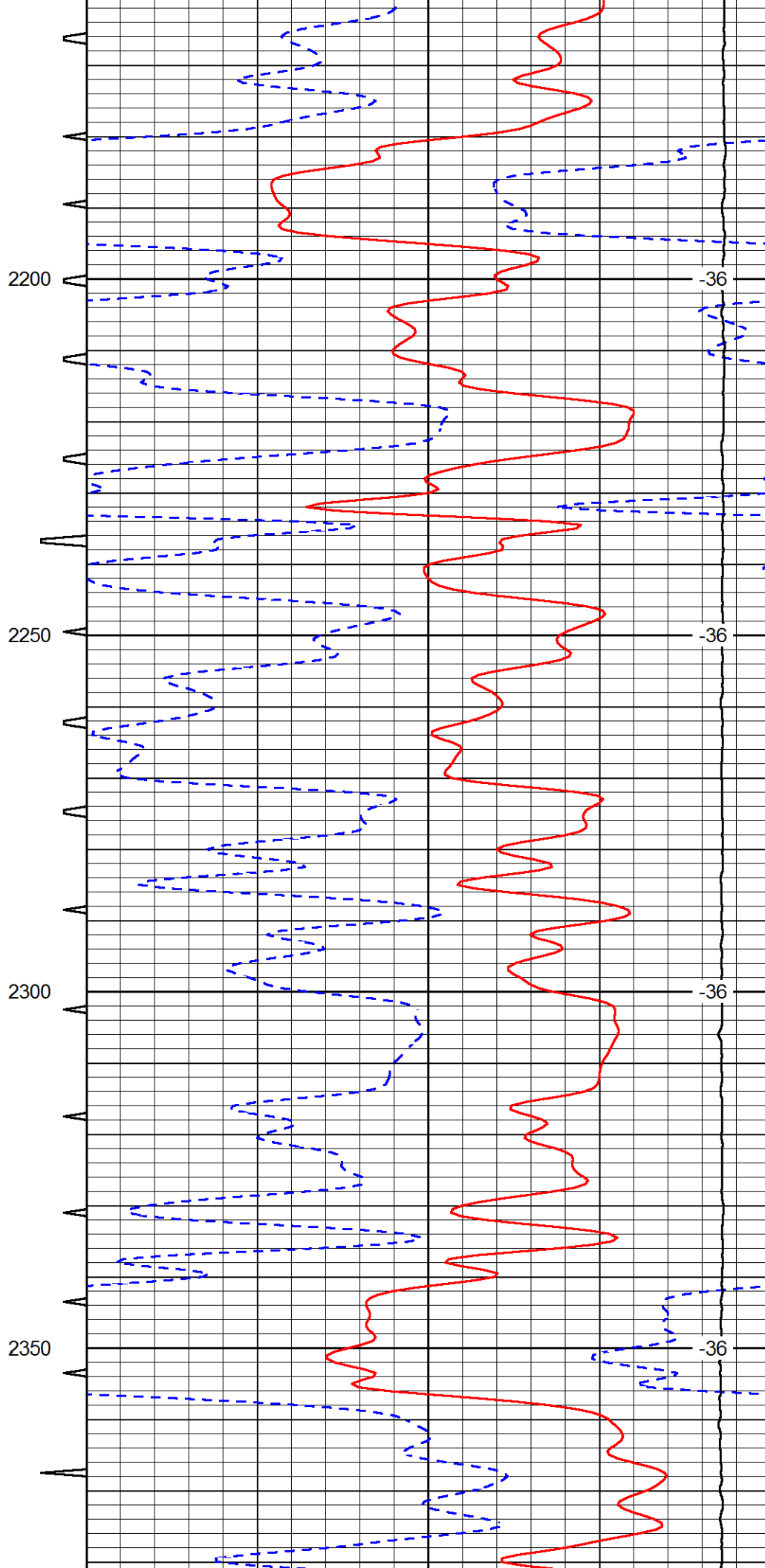
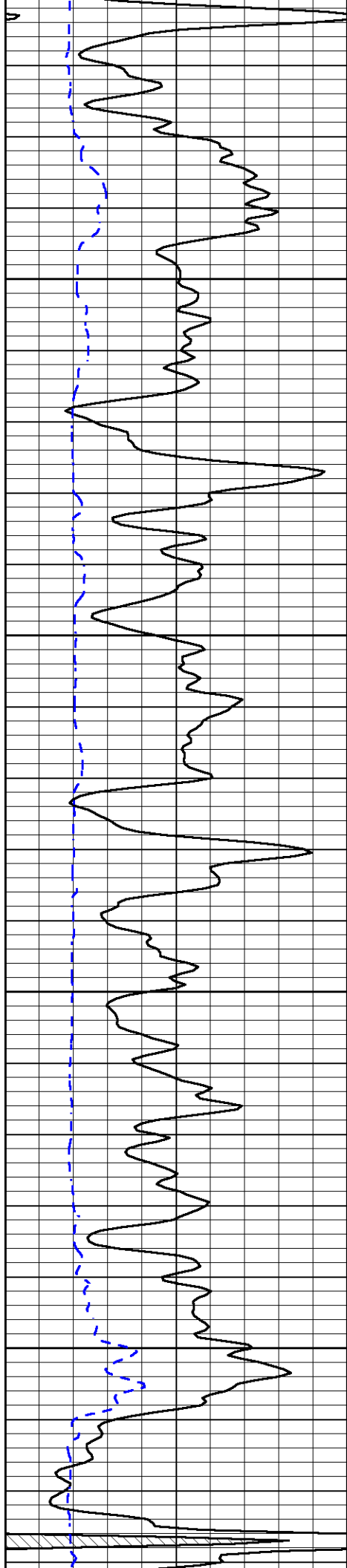


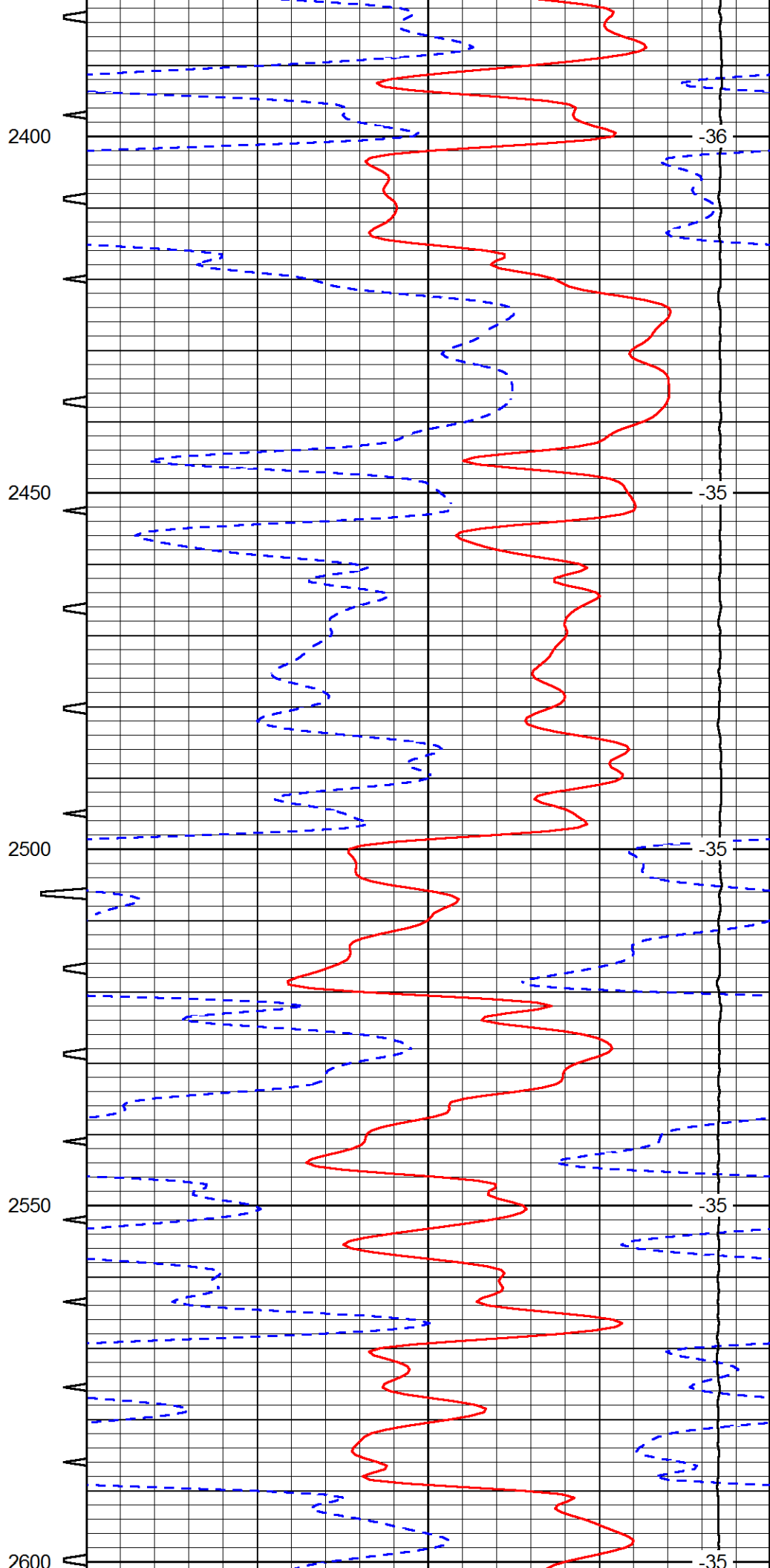
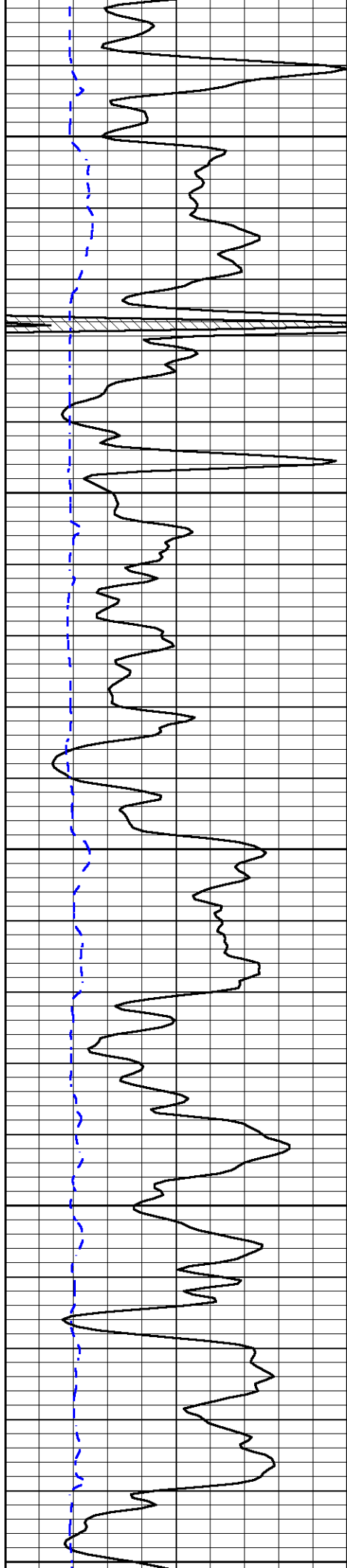




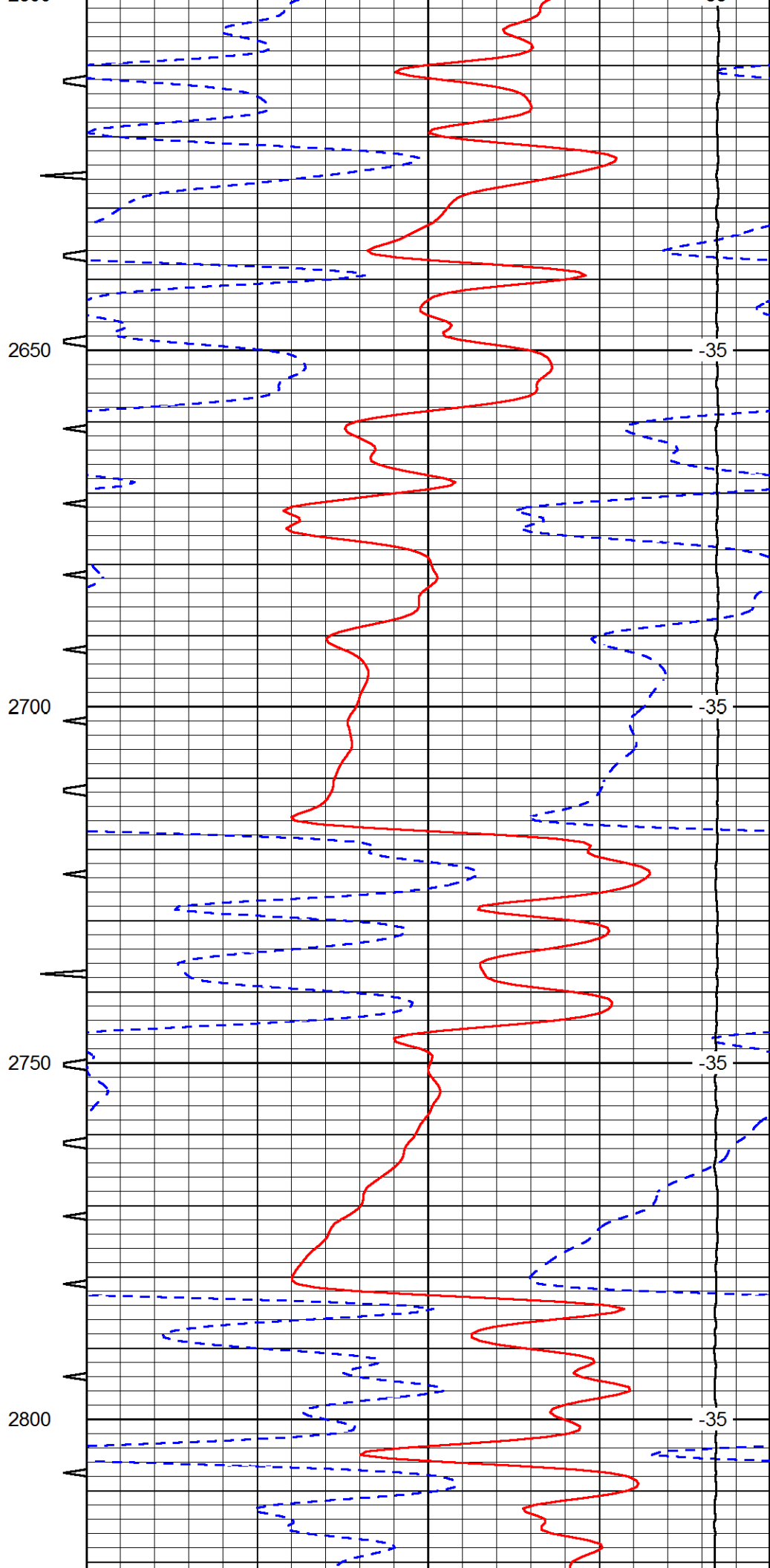
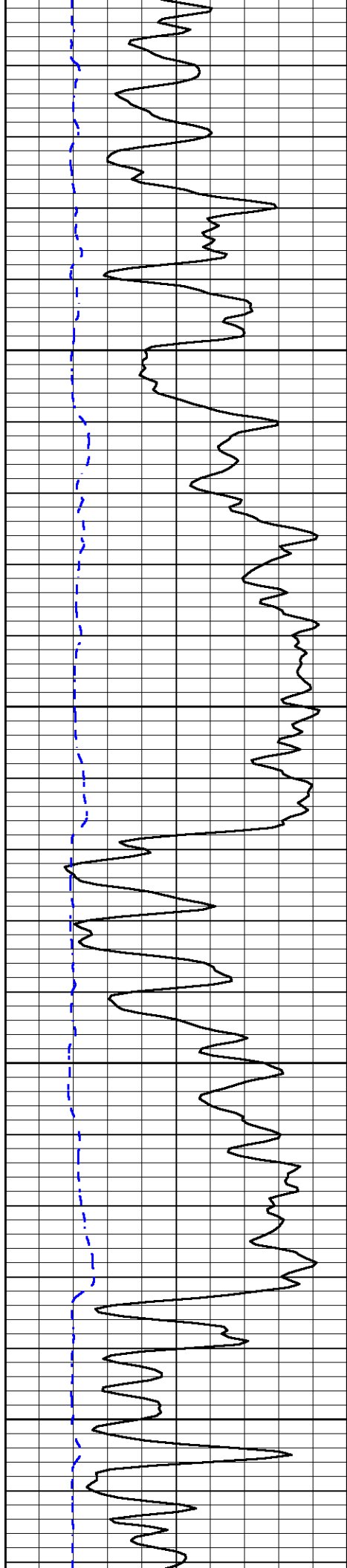


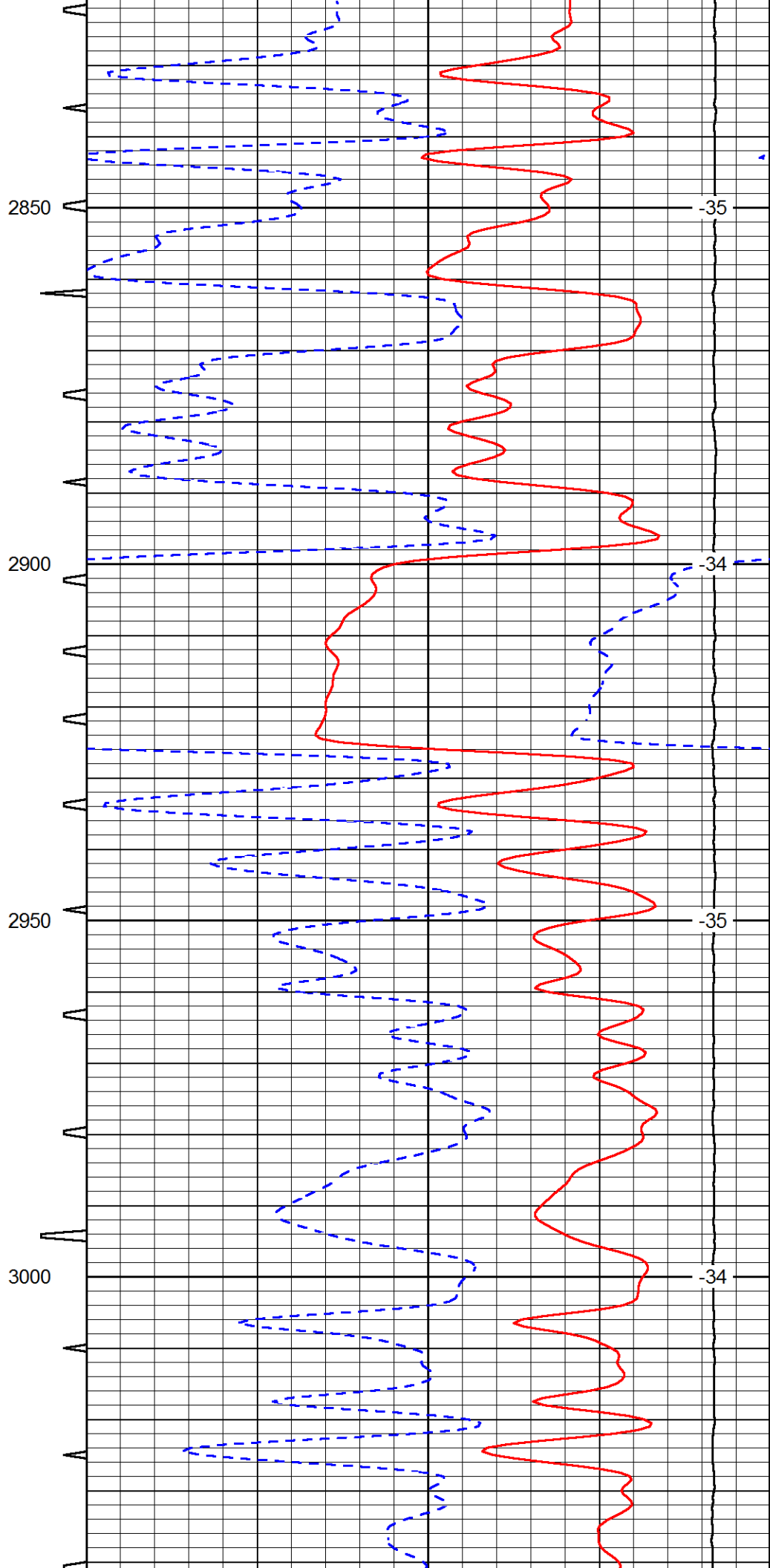
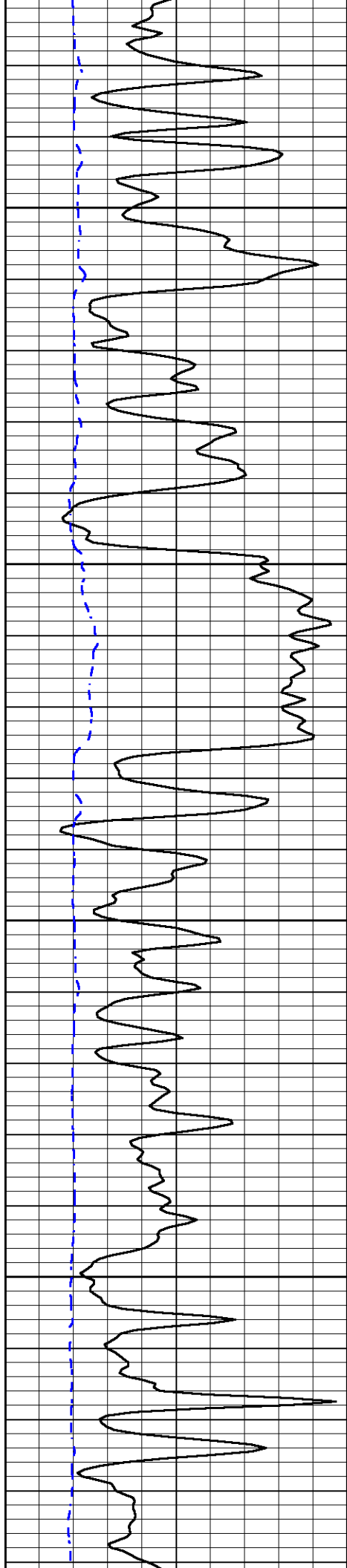


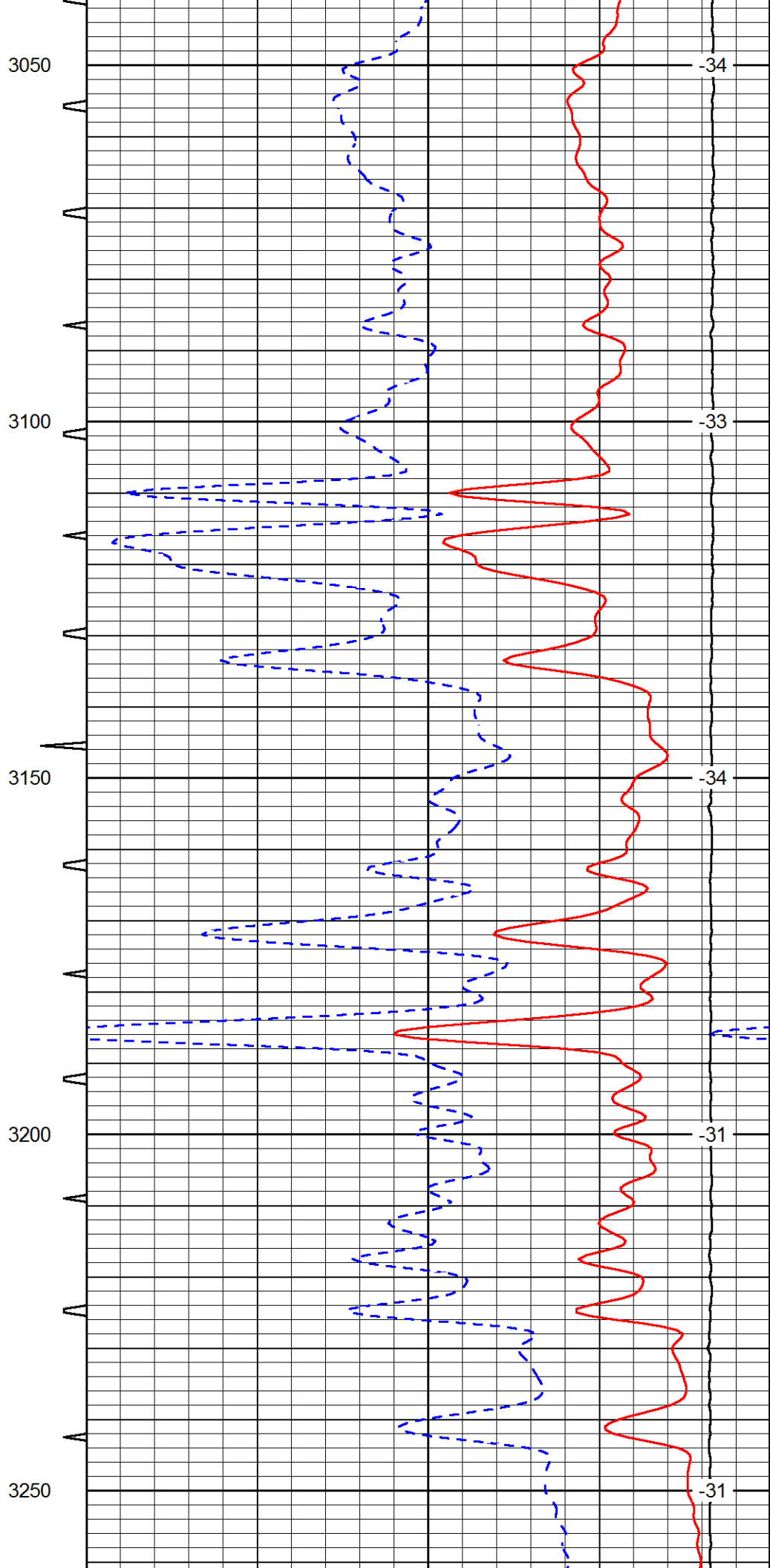
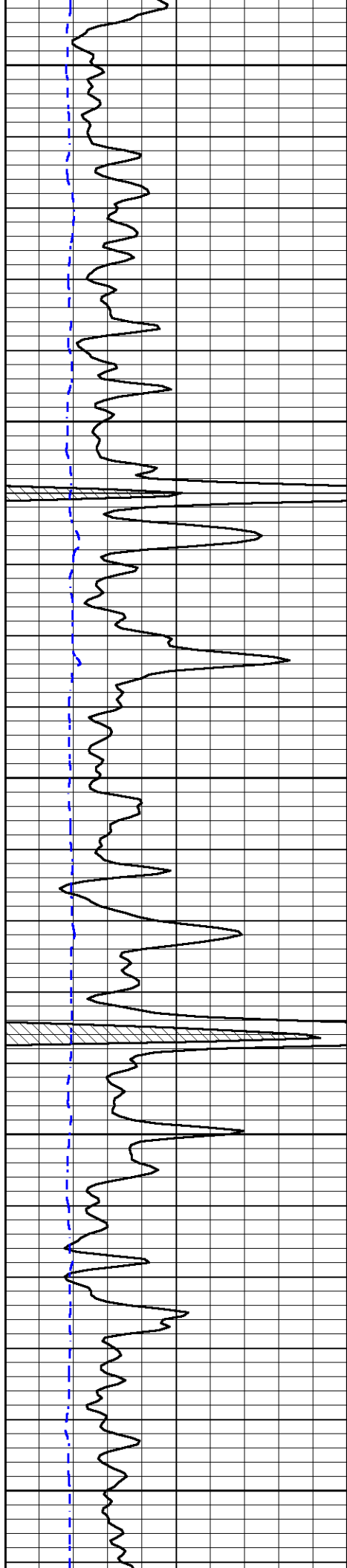


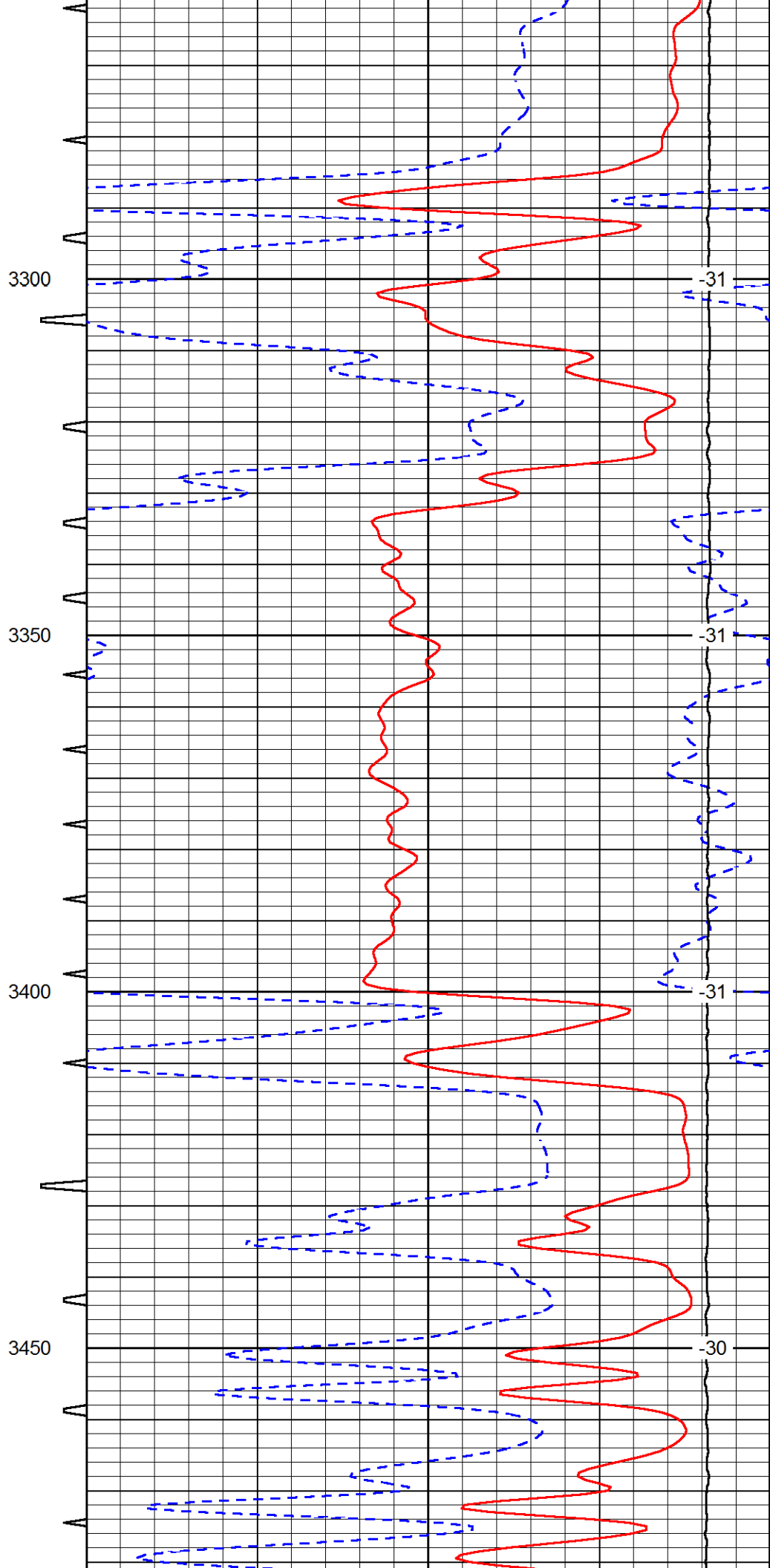
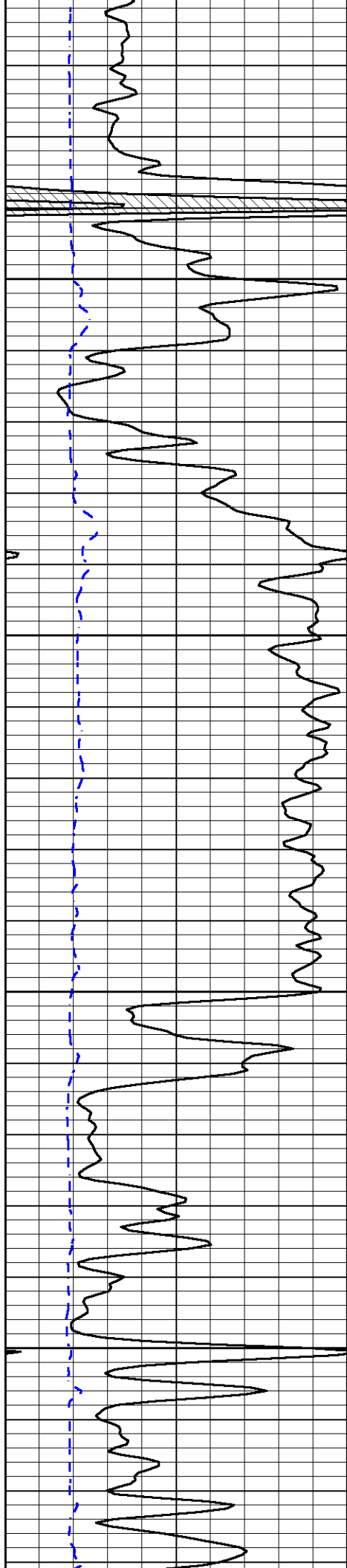


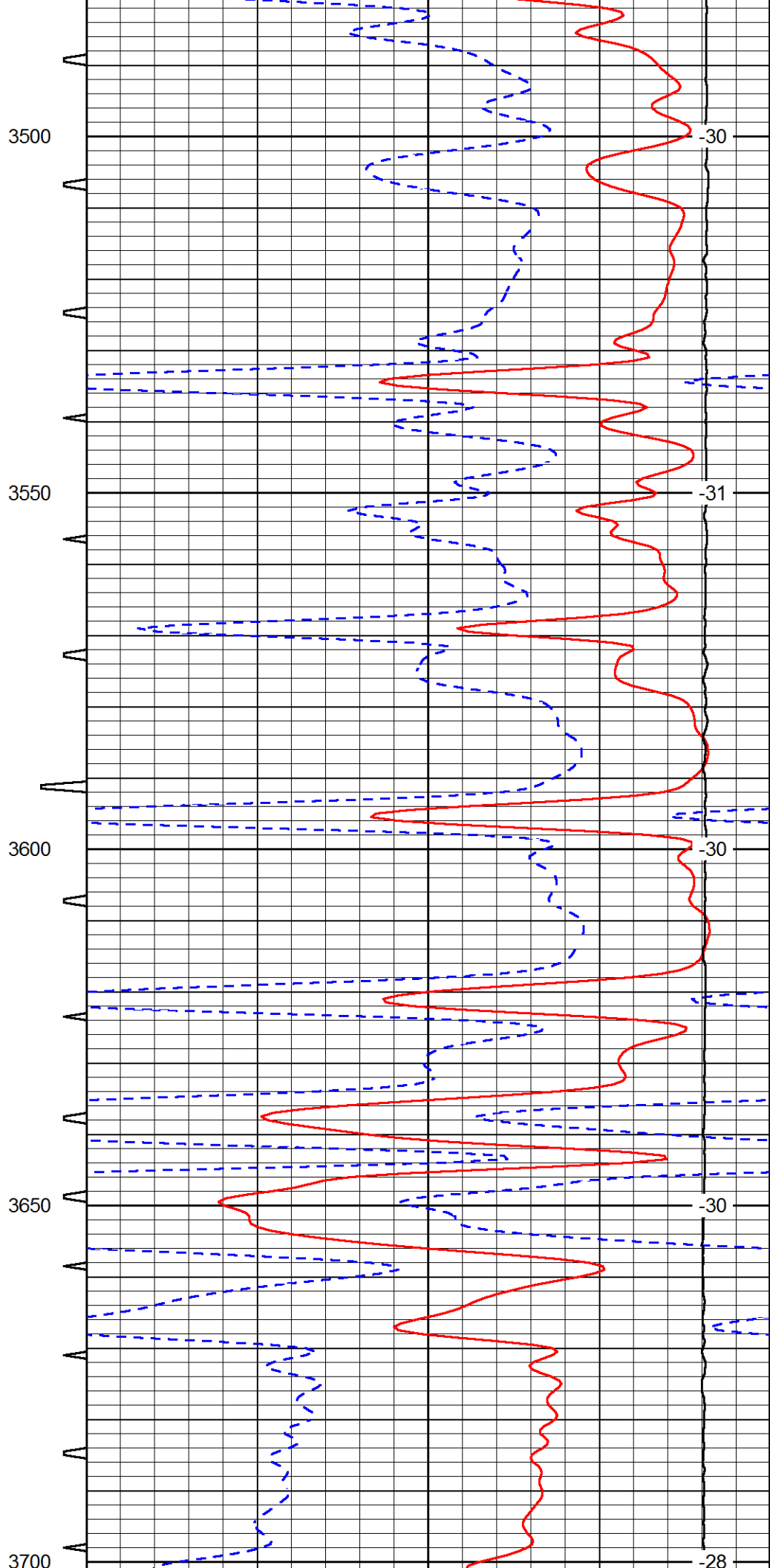
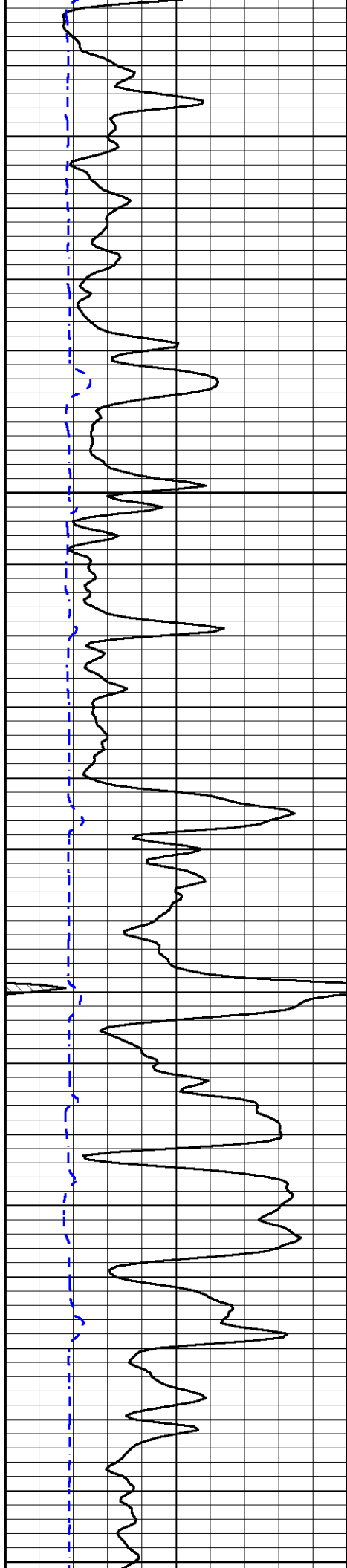


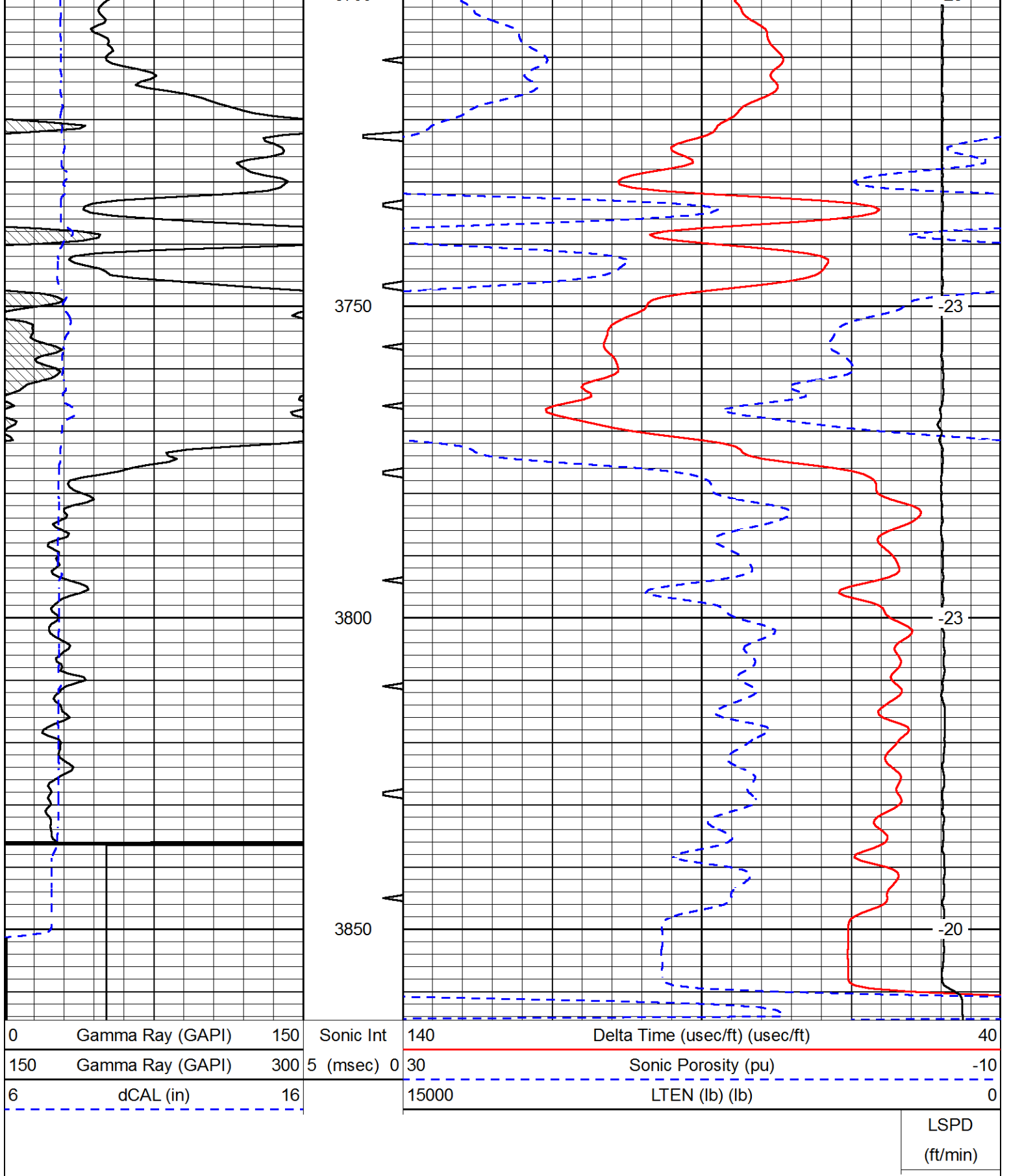














**Computer Processed  
Interpretation**

Company CARMEN SCHMITT, INC.  
Well SWEETHEART #1  
Field BAYER  
County STAFFORD  
State KANSAS

Company CARMEN SCHMITT, INC.  
Well SWEETHEART #1  
Field BAYER  
County STAFFORD State KANSAS

Location: API #: 15-185-23941-00-00  
1594' FSL & 2310' FWL  
SEC 20 TWP 21S RGE 14W  
Permanent Datum GROUND LEVEL Elevation 1940  
Log Measured From KELLY BUSHING  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL/CNL/CDL  
BHCS/MEL  
Elevation  
K.B. 1948  
D.F. N/A  
G.L. 1940

Date Recorded	7/22/2015
Depth Logger	3659
	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	D. SCHMIDT
Witnessed By	BRAD RINE
Analysis By	TIM MARTIN

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

**Comments**

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

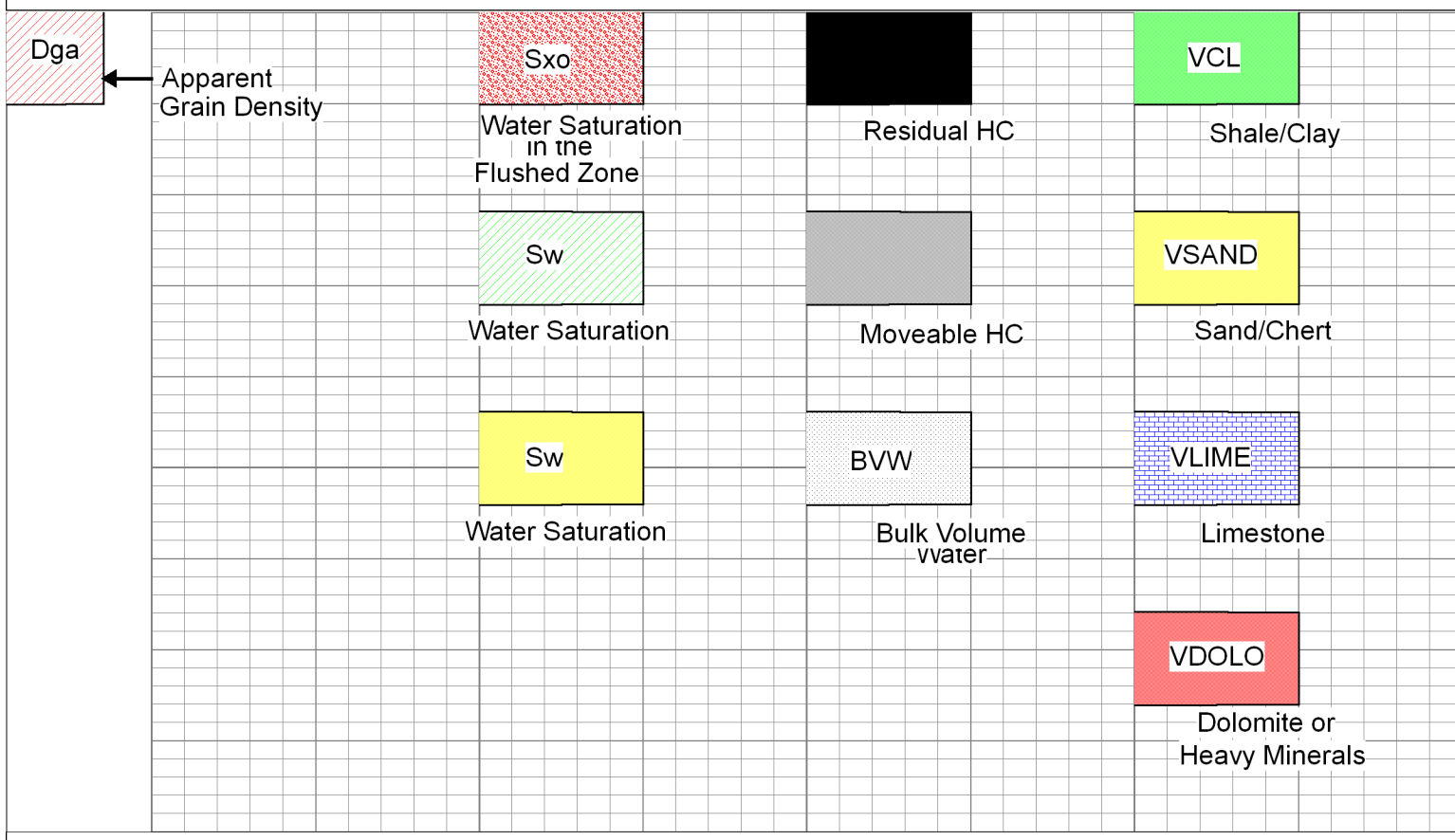
RADIUM,  
2 NORTH TO 170TH, 1/2 EAST,  
NORTH INTO

Log Measured From: KELLY BUSHING      8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
www.pioneerenergy.com      785-625-3858

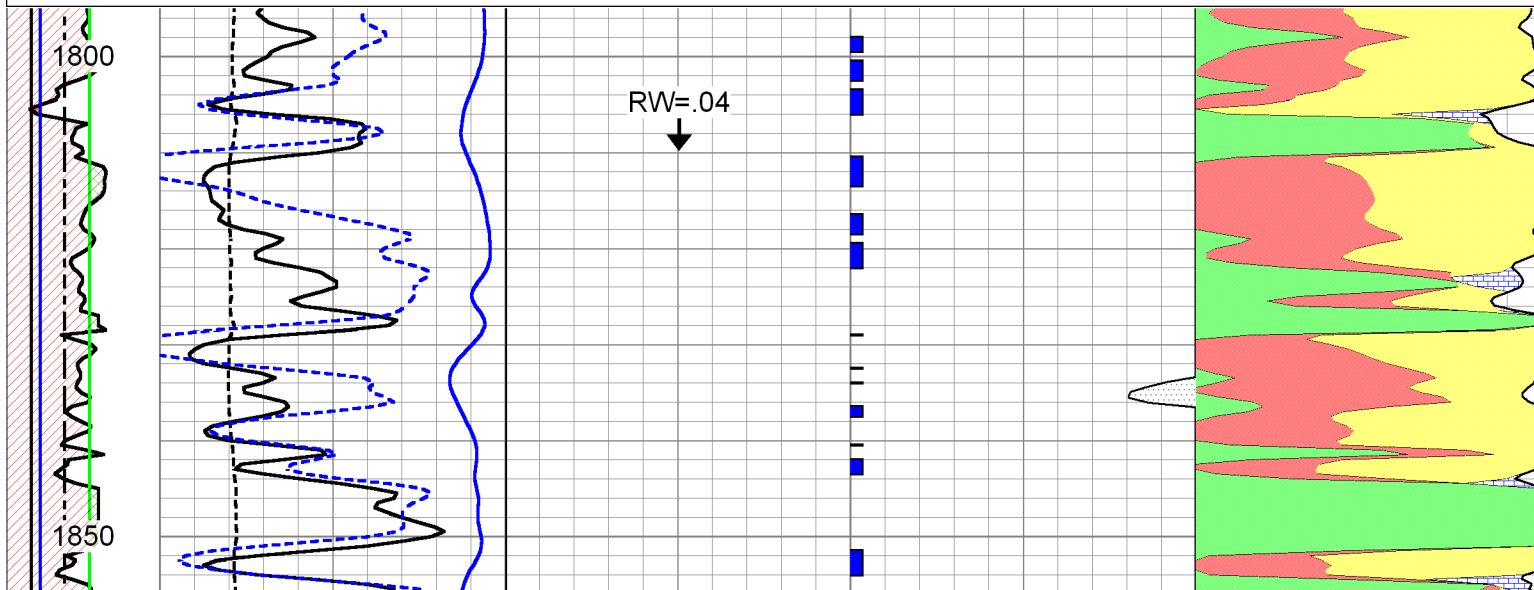
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT Operator: Operator: Operator:	Primary Witness: BRAD RINE Secondary Witness: Secondary Witness: Secondary Witness:

Database File cross plots\3wxplt.db  
 Dataset Pathname bricks  
 Presentation Format 3wxplt  
 Dataset Creation Wed May 14 10:04:54 1997  
 Charted by Depth in Feet scaled 1:240

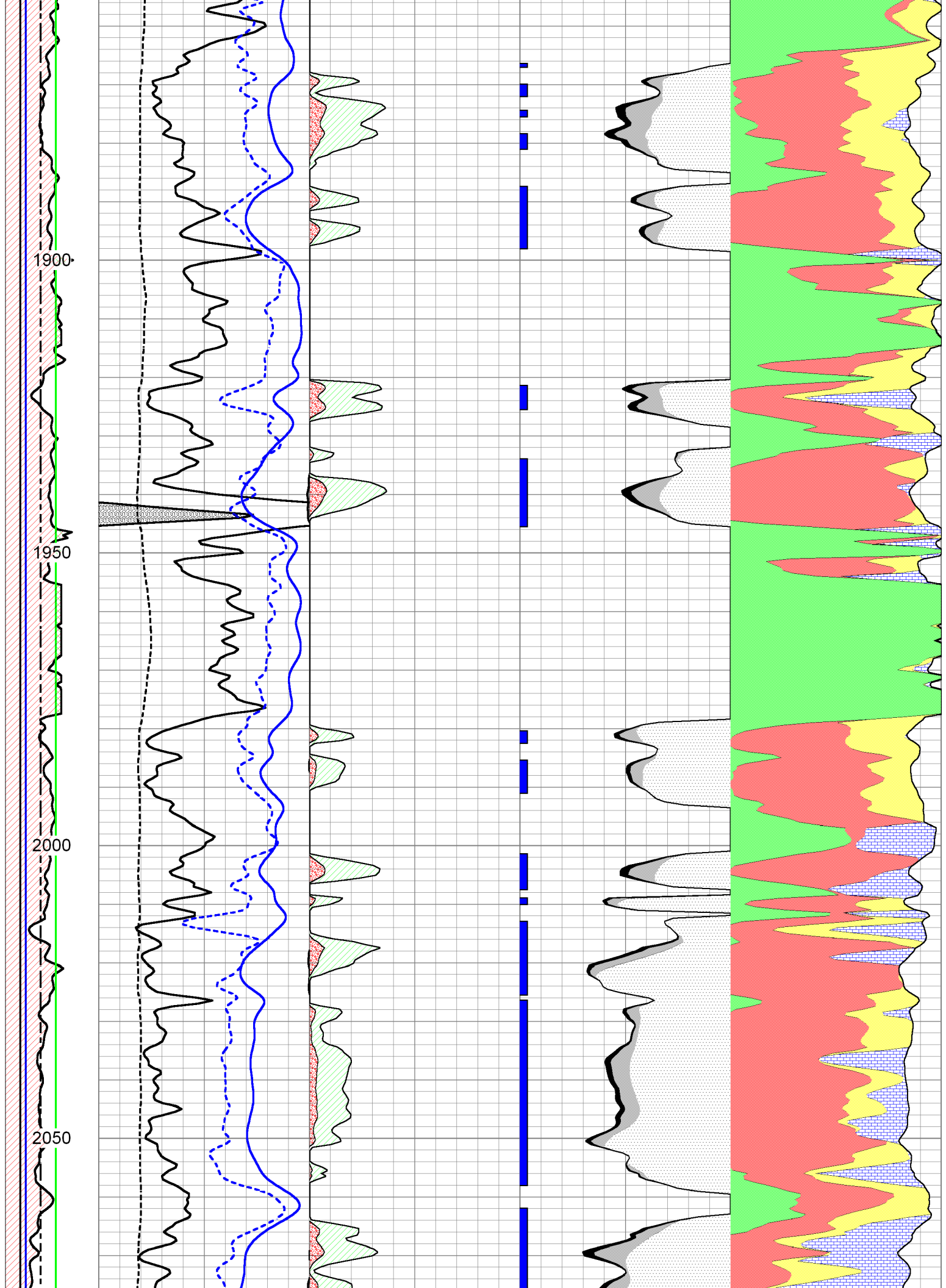


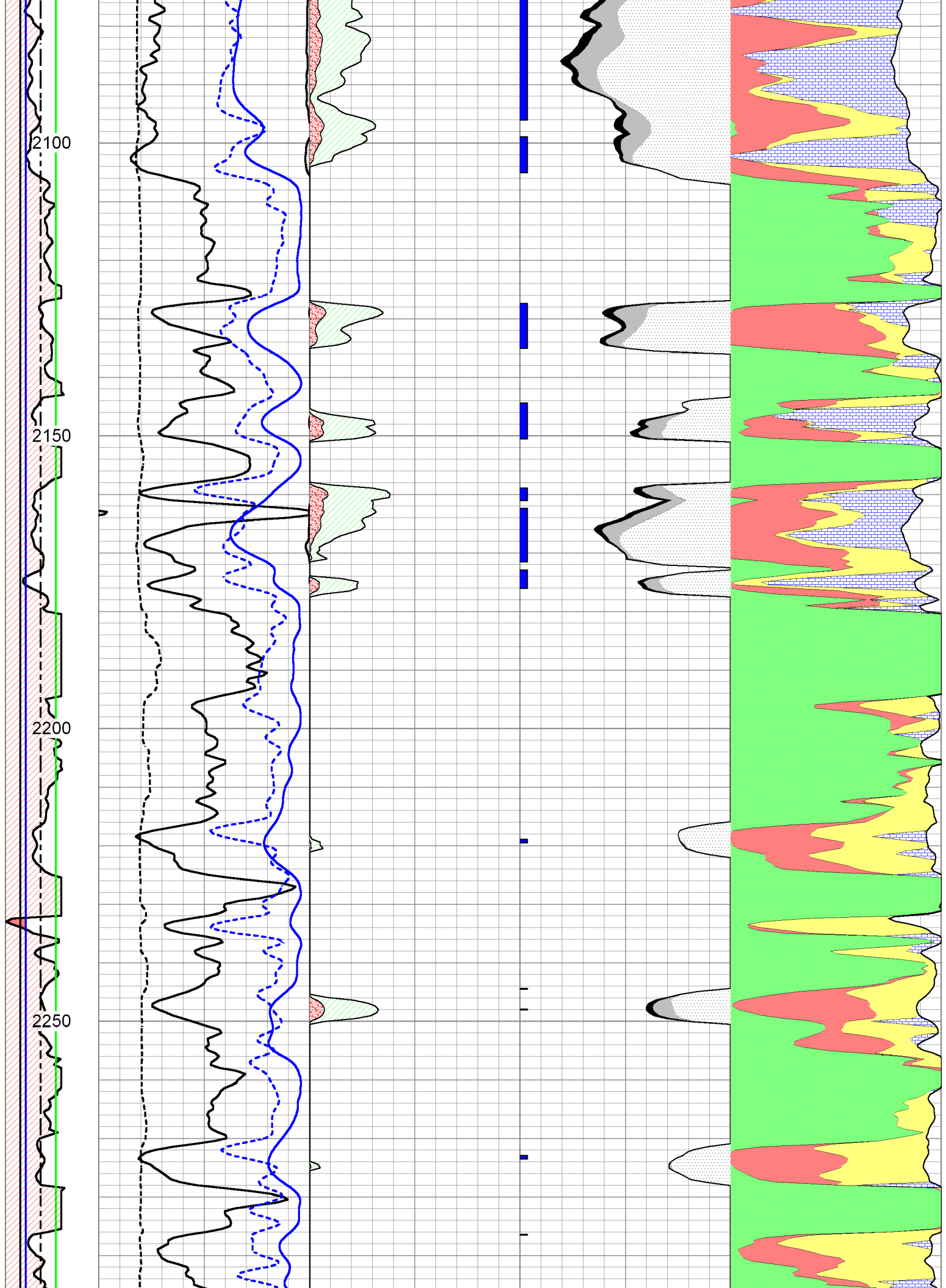
Database File carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname DIL/cscpi  
 Presentation Format aalitho  
 Dataset Creation Wed Jul 22 06:35:58 2015  
 Charted by Depth in Feet scaled 1:240

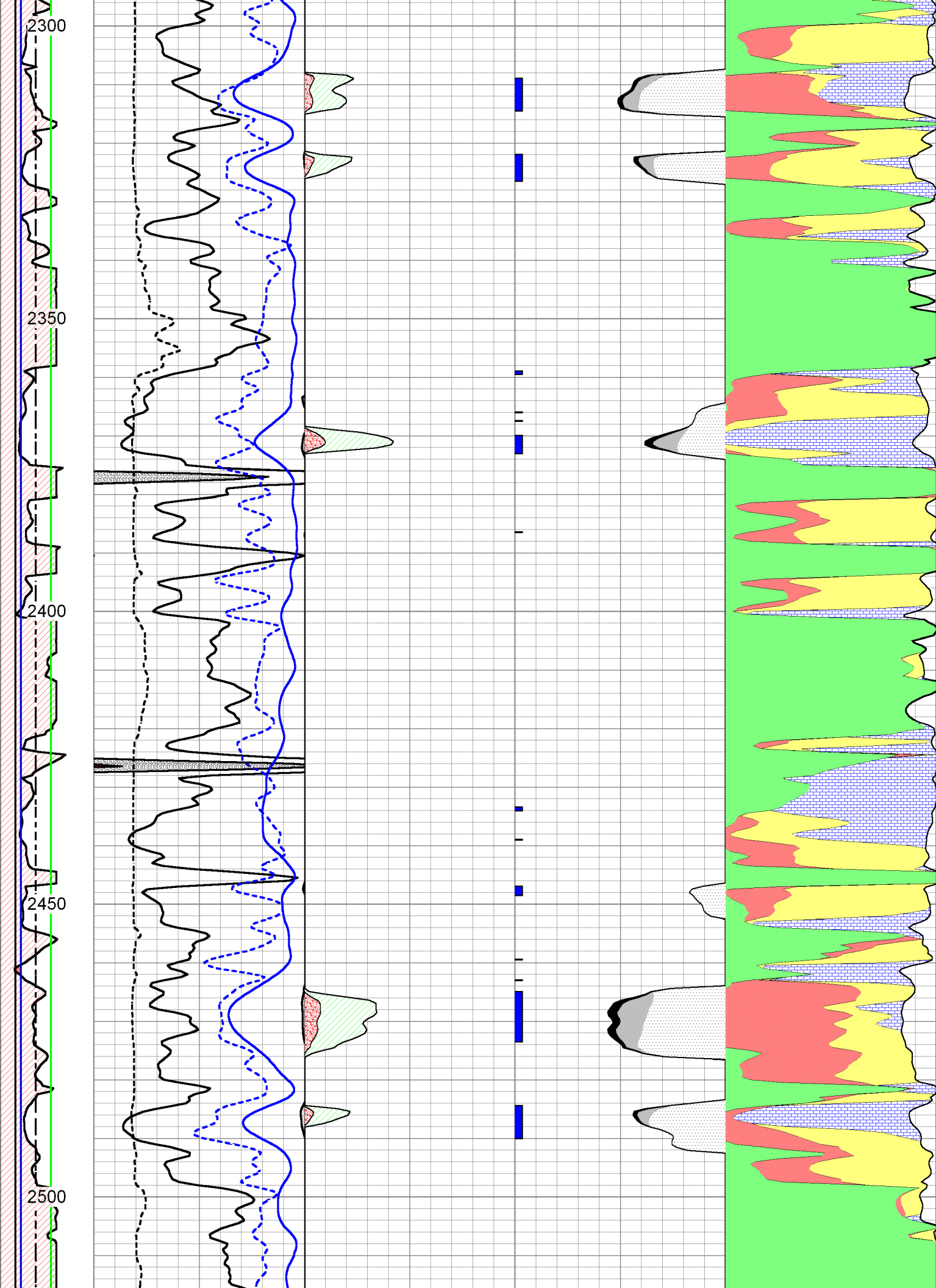
DGA	Gamma Ray	1	SW	0	0.3	PHIE	0	0	VCL	1	
(g/cc)	(GAPI)	150	PAYFLAG	0	0.3	BVW	0	0	VSAND	1	
2.6 3.1	DCAL (in)	16	1	SXO	0	0	PERM	30	0	VLIME	1
	-150 SPC	0				0.3	BVWSXO	0	0	VDOLO	1

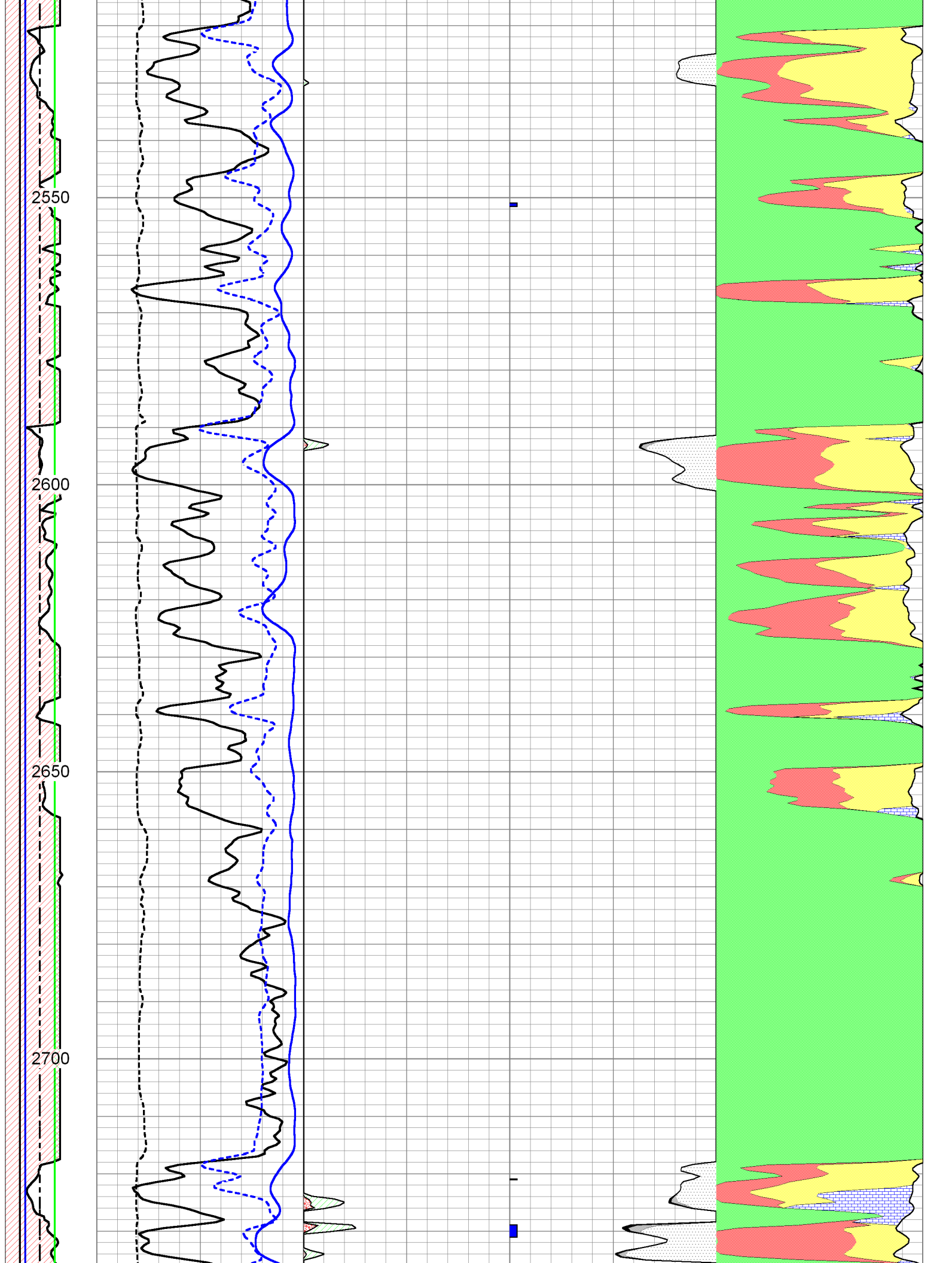


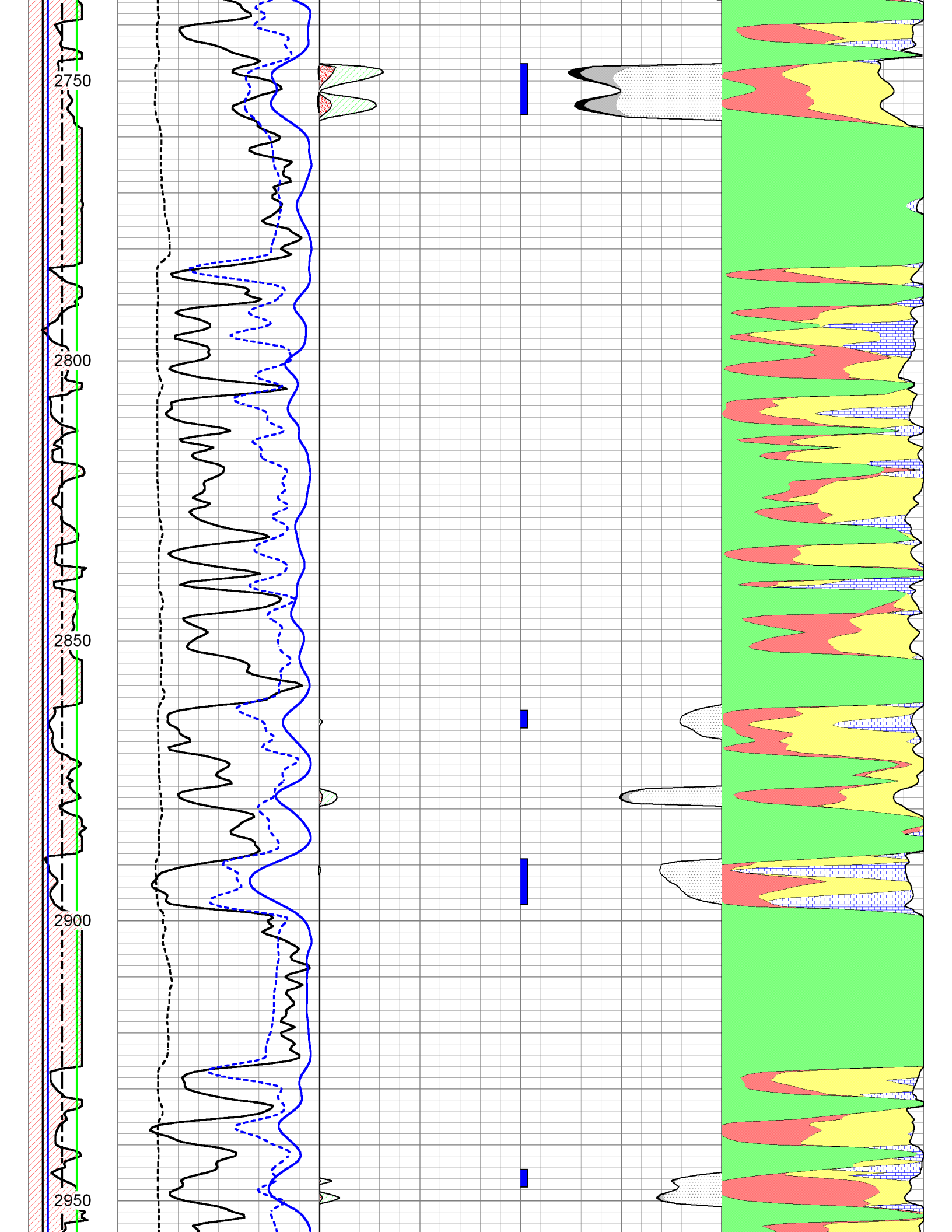


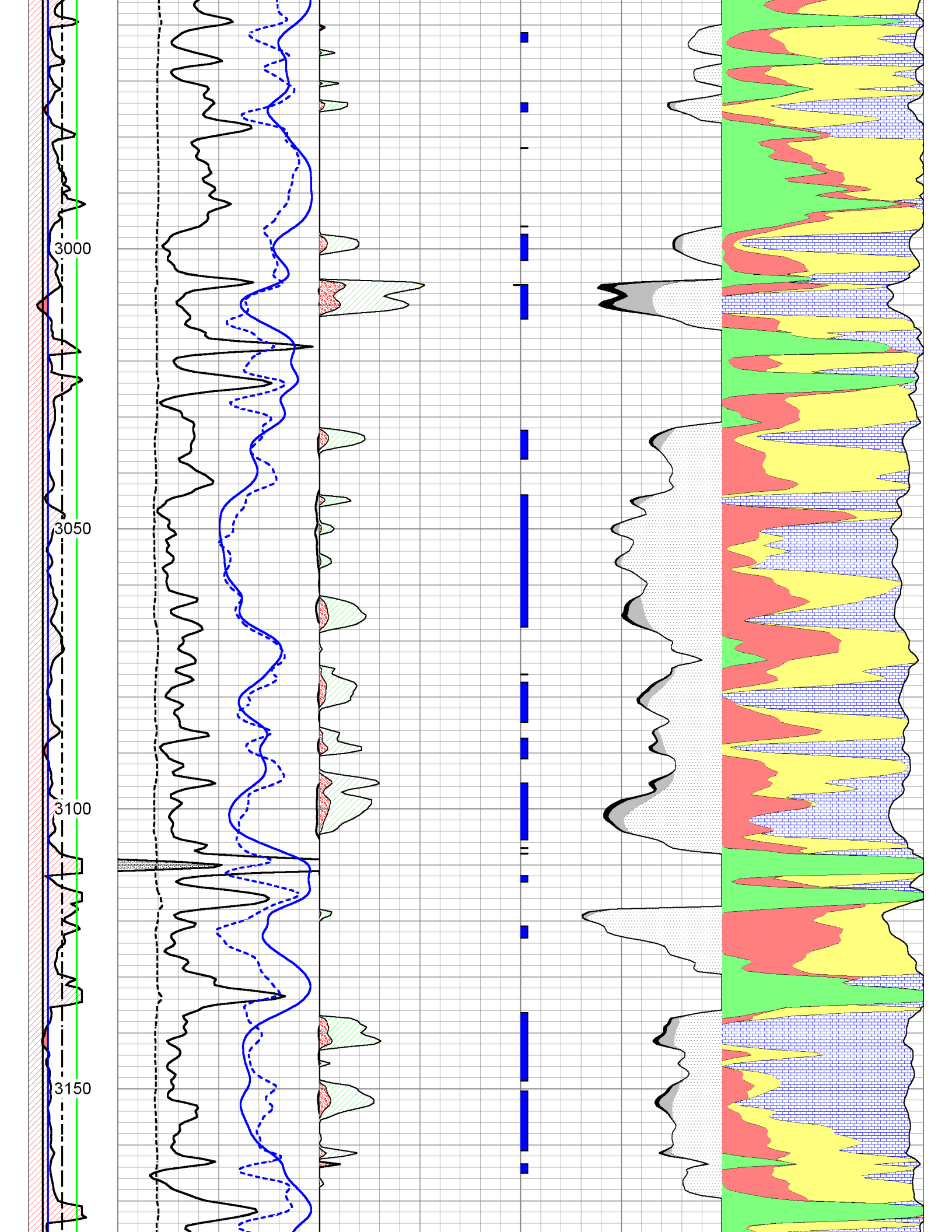


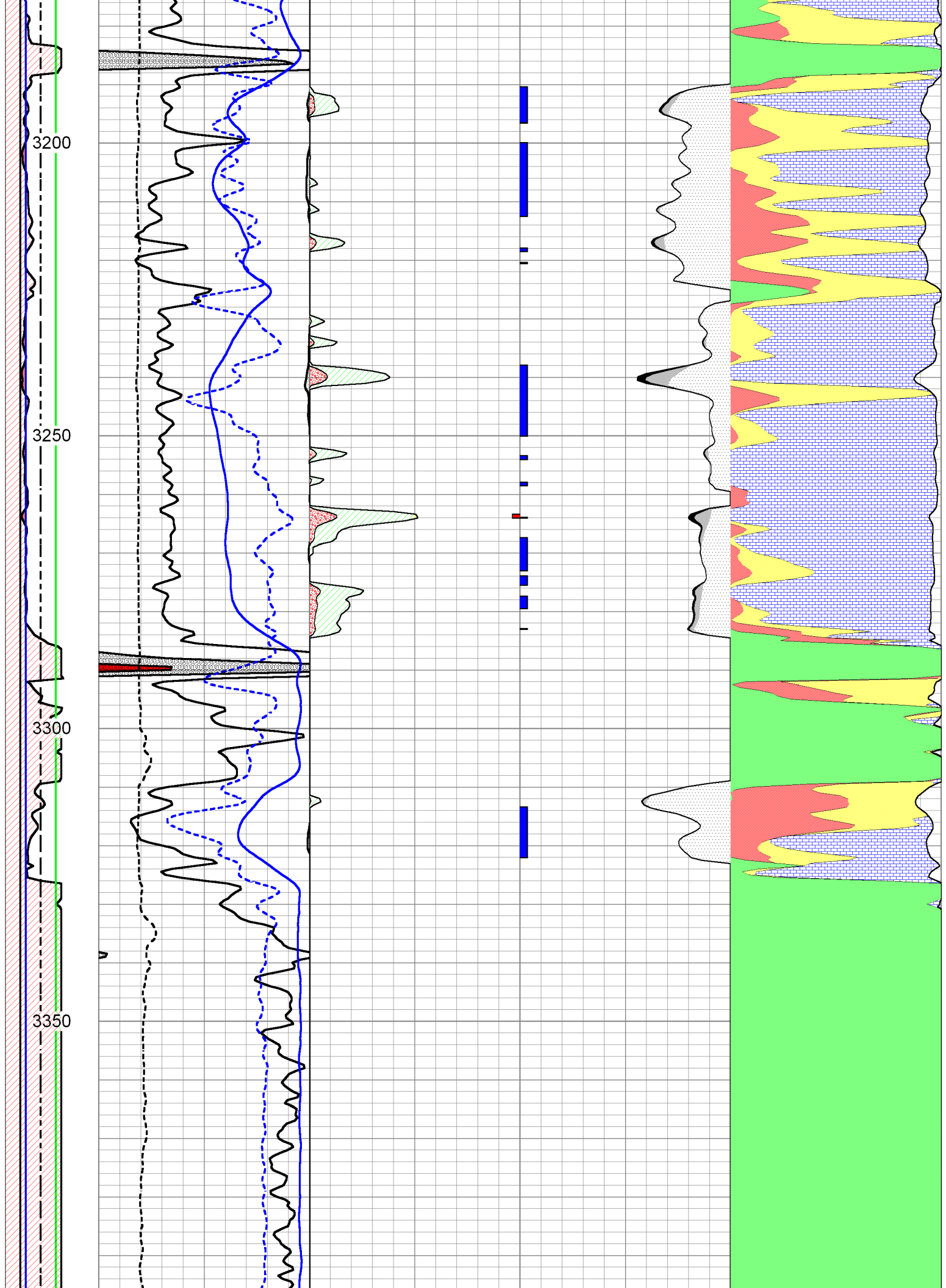


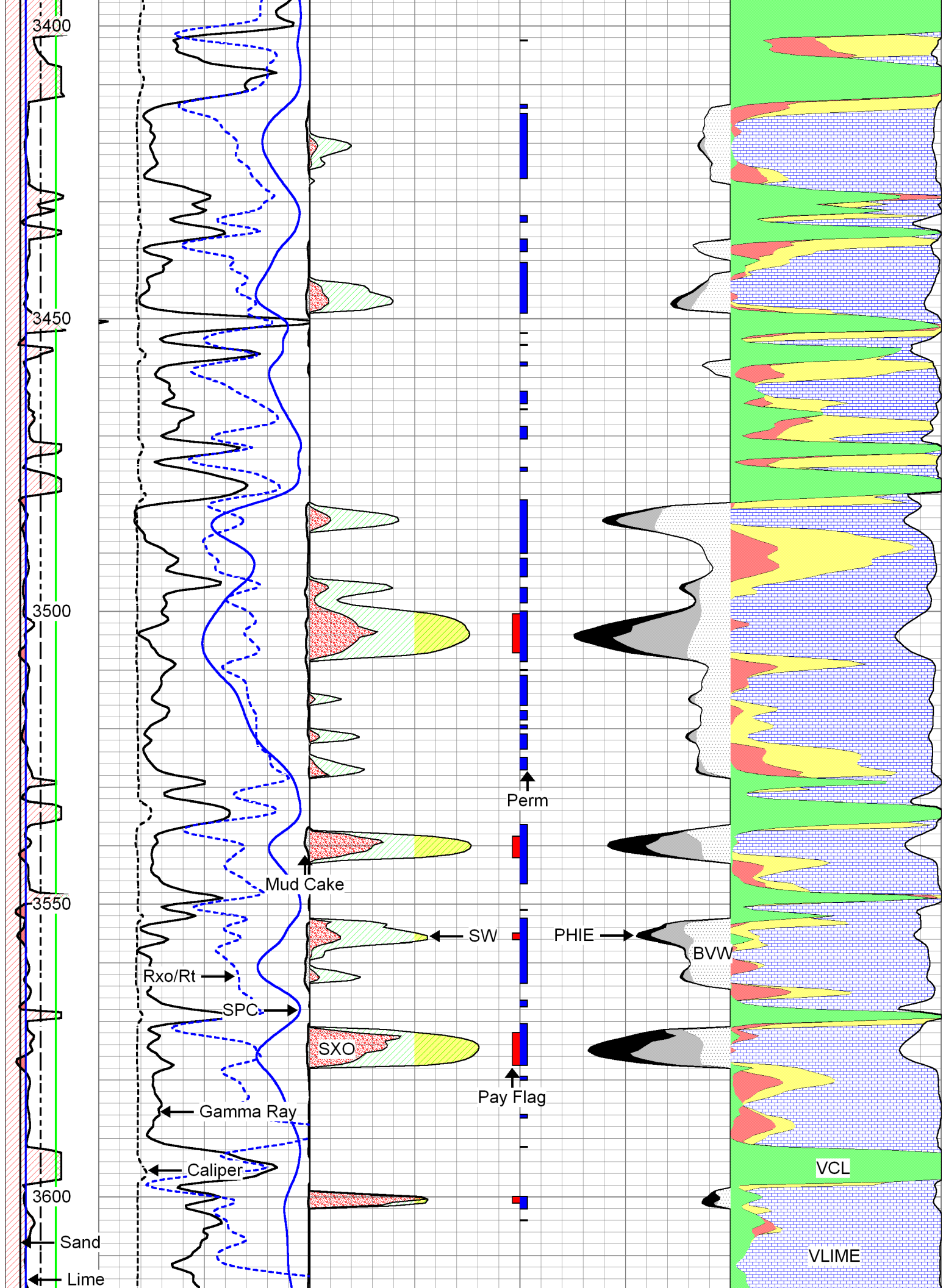




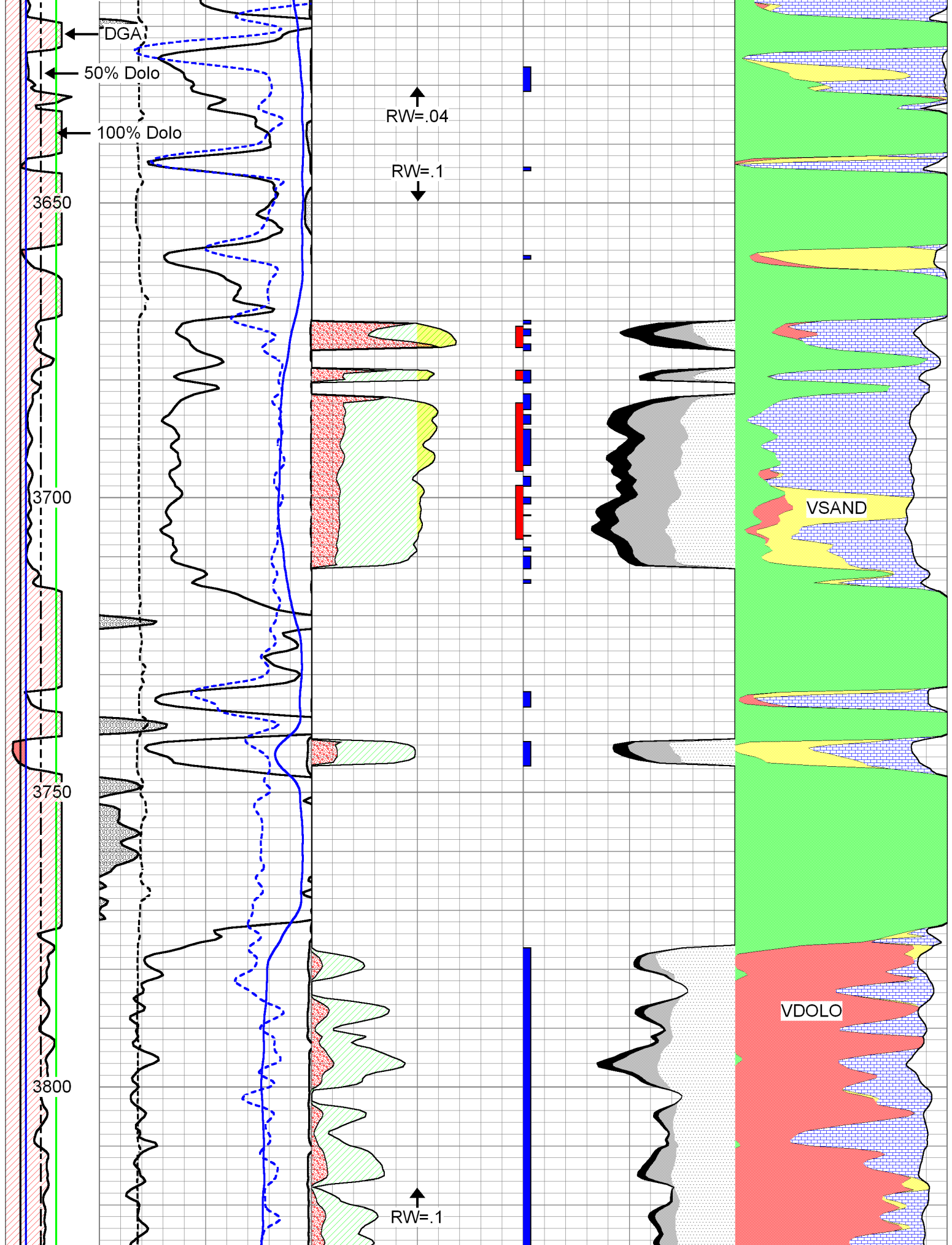












2.6	3.1	6	DCAL (in)	16	1	SXO	0	0	PERM	30	0	VLIME	1
		-150	SPC	0			0.3		BVWSXO	0	0	VDOLO	1



**DUAL INDUCTION LOG**

Company **CARMEN SCHMITT, INC.**  
 Well **SWEETHEART #1**  
 Field **BAYER**  
 County **STAFFORD**  
 State **KANSAS**

Company **CARMEN SCHMITT, INC.**  
 Well **SWEETHEART #1**  
 Field **BAYER**  
 County **STAFFORD** State **KANSAS**

Location: **API # : 15-185-23941-00-00**  
**1594' FSL & 2310' FWL**  
**SEC 20 TWP 21S RGE 14W**  
 Permanent Datum **GROUND LEVEL Elevation 1940**  
 Log Measured From **KELLY BUSHING**  
 Drilling Measured From **KELLY BUSHING**  
 Other Services **CNL/CDL MEL/BHCS**  
 Elevation **K.B. 1948 D.F. N/A G.L. 1940**

Date	7/22/2015
Run Number	ONE
Depth Driller	3860
Depth Logger	3859
Bottom Logged Interval	3858
Top Log Interval	450
Casing Driller	8,625 @ 467
Casing Logger	470
Bit Size	7.875
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	10500
Density / Viscosity	9.2 67
pH / Fluid Loss	10.5 10.2
Source of Sample	Flowline
Rm @ Meas. Temp	0.30 @ 80
Rmt @ Meas. Temp	0.23 @ 80
Rmc @ Meas. Temp	0.41 @ 80
Source of Rmf / Rmc	Charts
Rm @ BHT	0.21 @ 115
Operating Rig Time	6 HOURS
Max Rec. Temp. F	115
Equipment Number	91
Location	Hays
Recorded By	D. SCHMIDT
Witnessed By	BRAD RINE

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

RADIUM,  
 2 NORTH TO 170TH, 1/2 EAST,  
 NORTH INTO

Log Measured From: **KELLY BUSHING** 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
[www.pioneerenergy.com](http://www.pioneerenergy.com) 785-625-3858

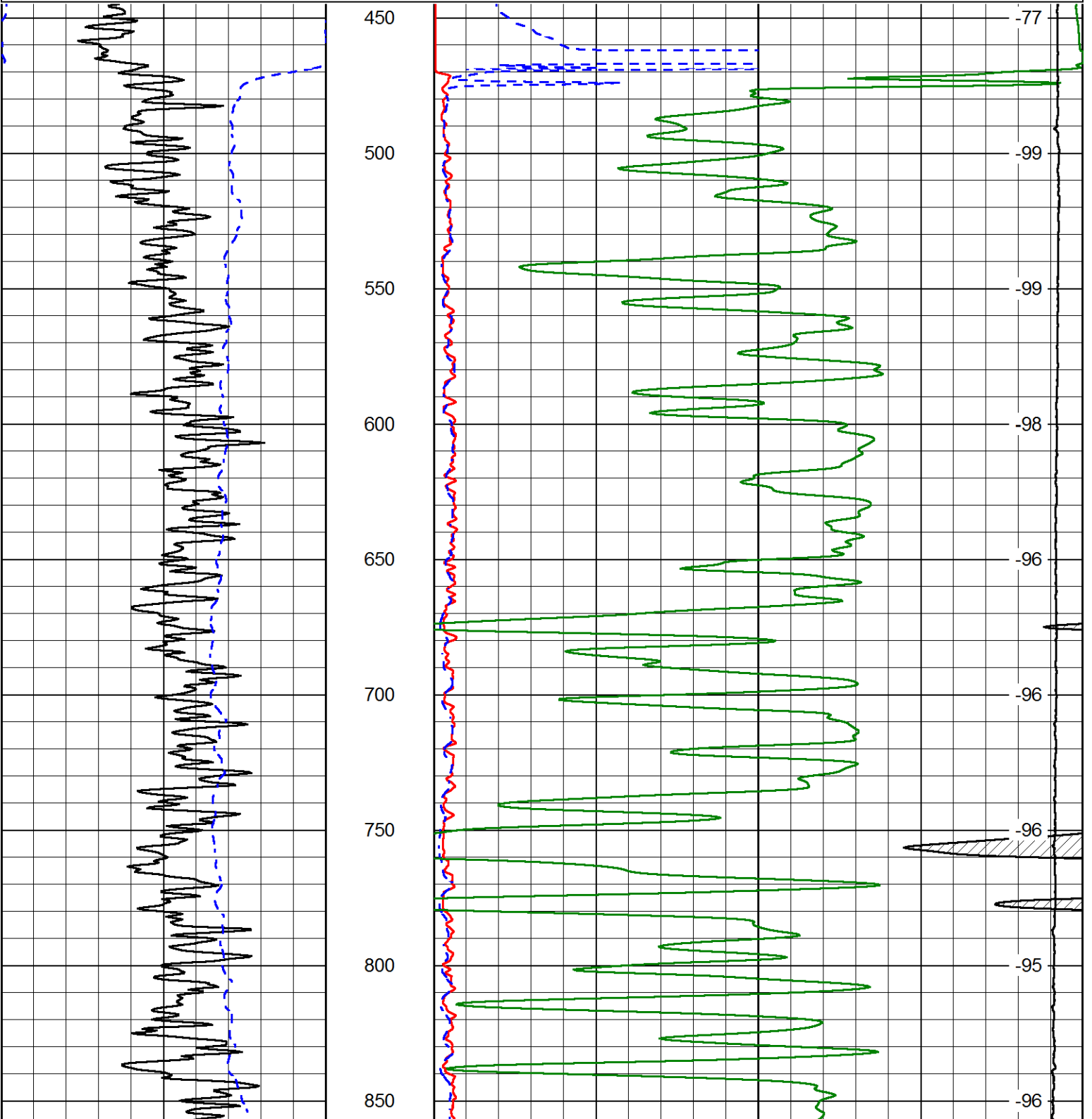
Your Pioneer Energy Services Crew Engineer: <b>D. SCHMIDT</b> Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: <b>BRAD RINE</b> Secondary Witness: Secondary Witness: Secondary Witness:
---	---

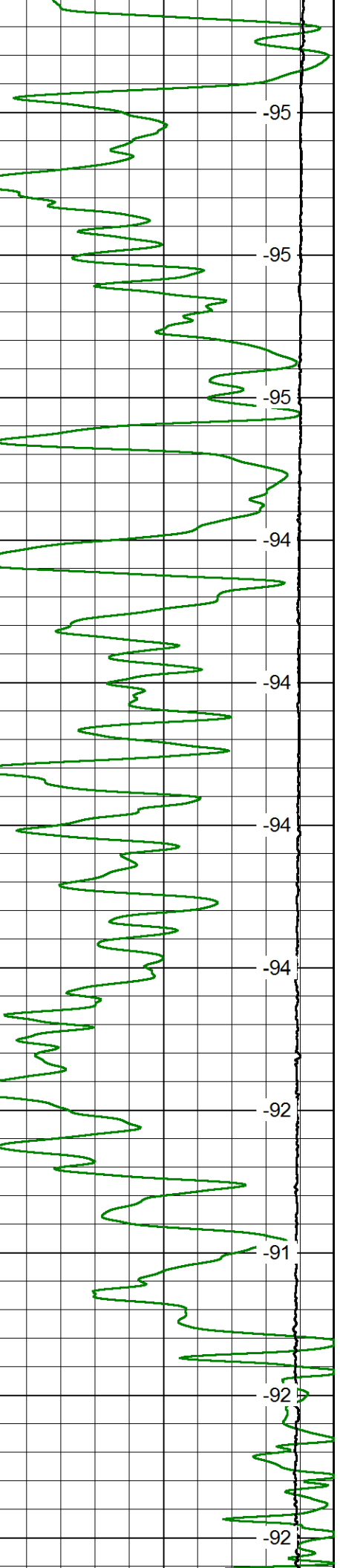
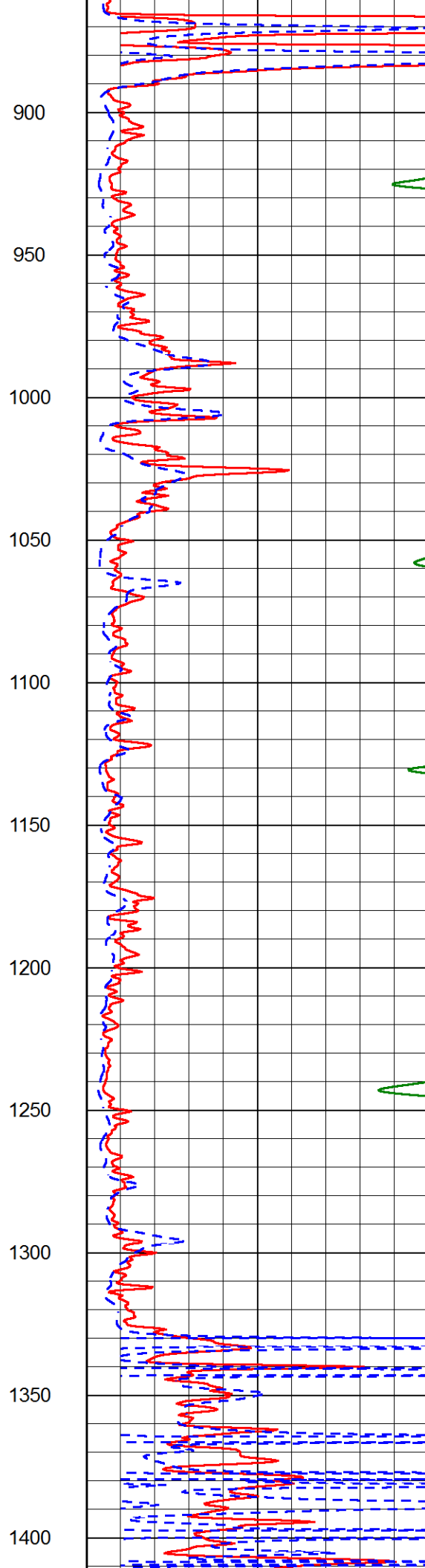
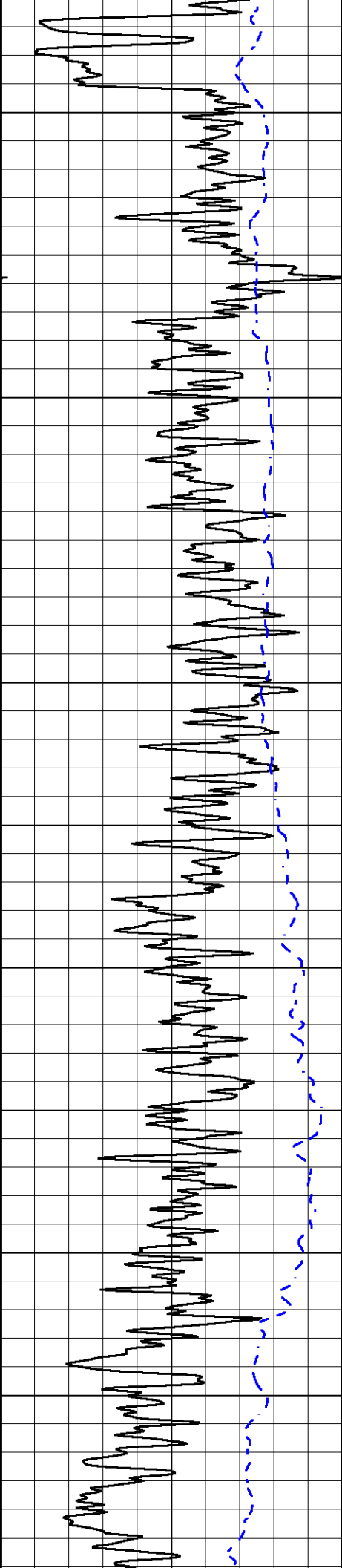
Database File carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname DIL/csstack  
 Presentation Format dil2in  
 Dataset Creation Wed Jul 22 03:34:57 2015  
 Charted by Depth in Feet scaled 1:600

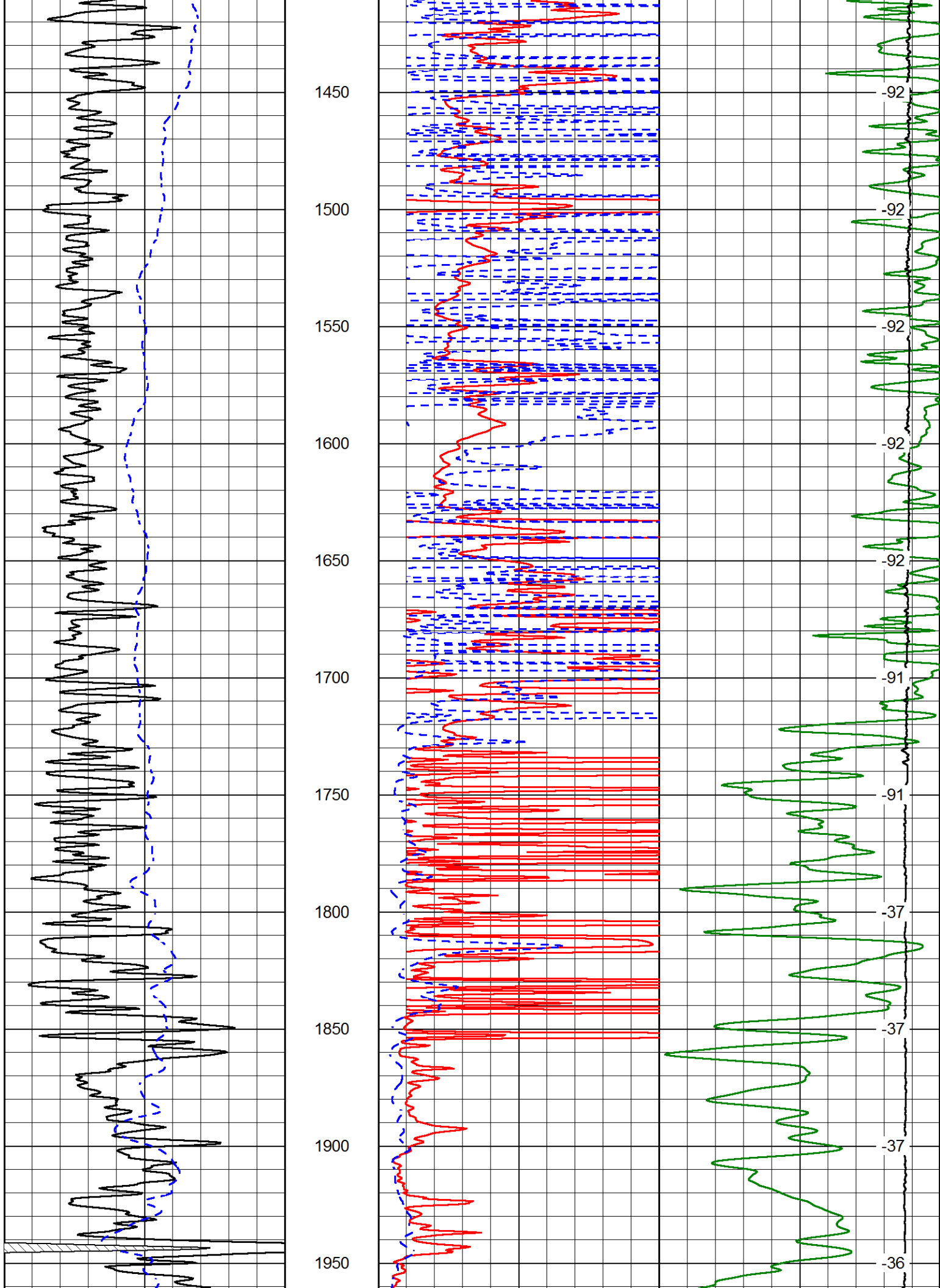
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

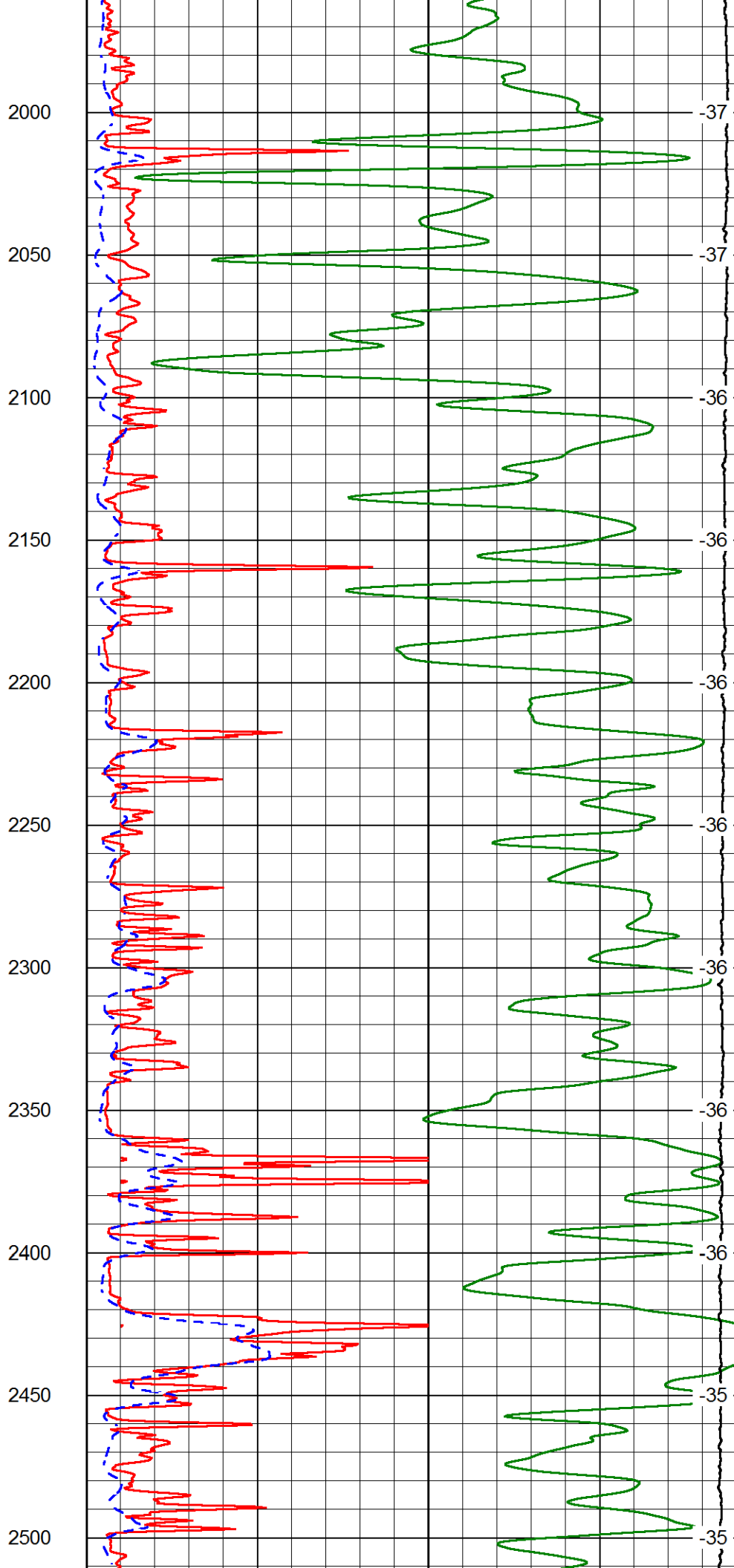
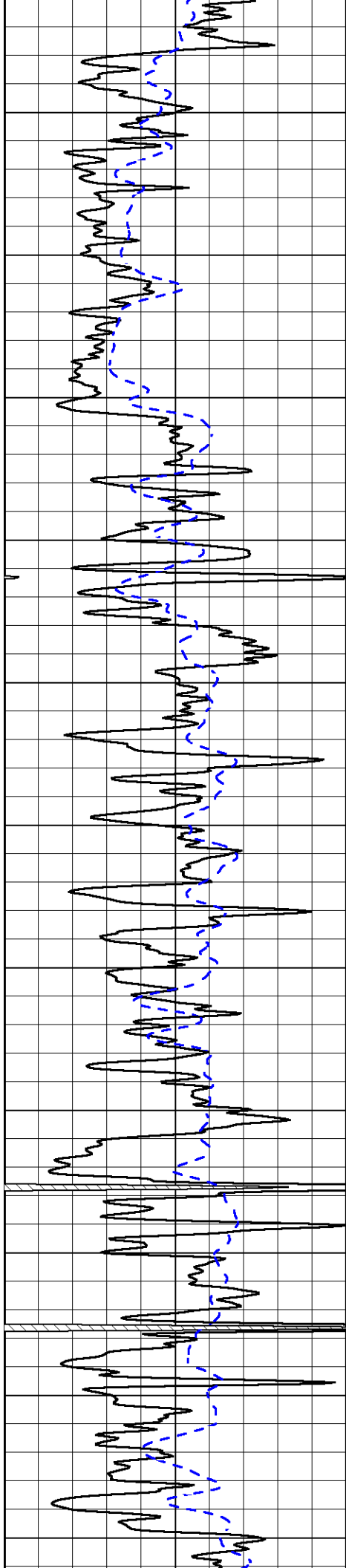
1000	Conductivity	0
15000	Line Tension (lb)	0

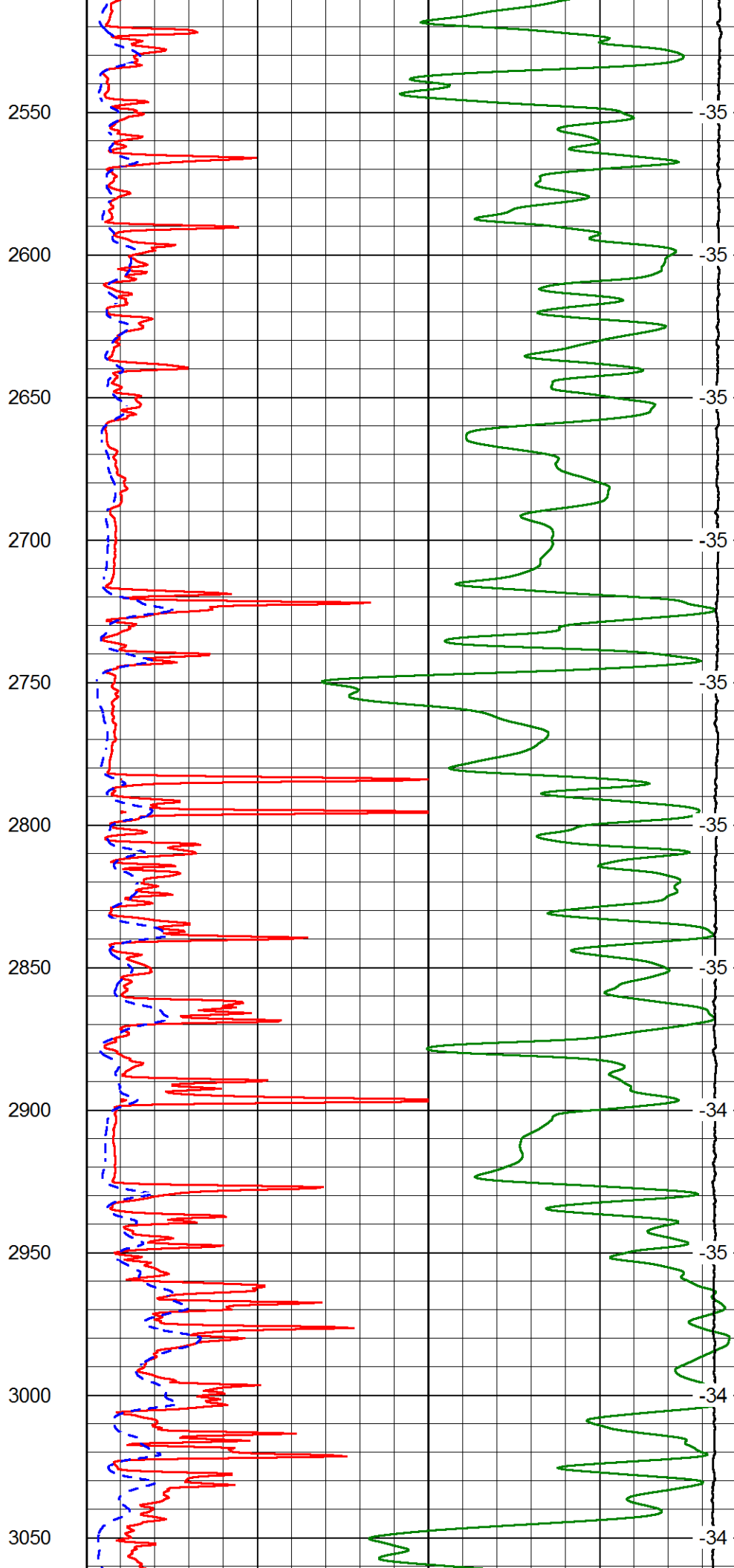
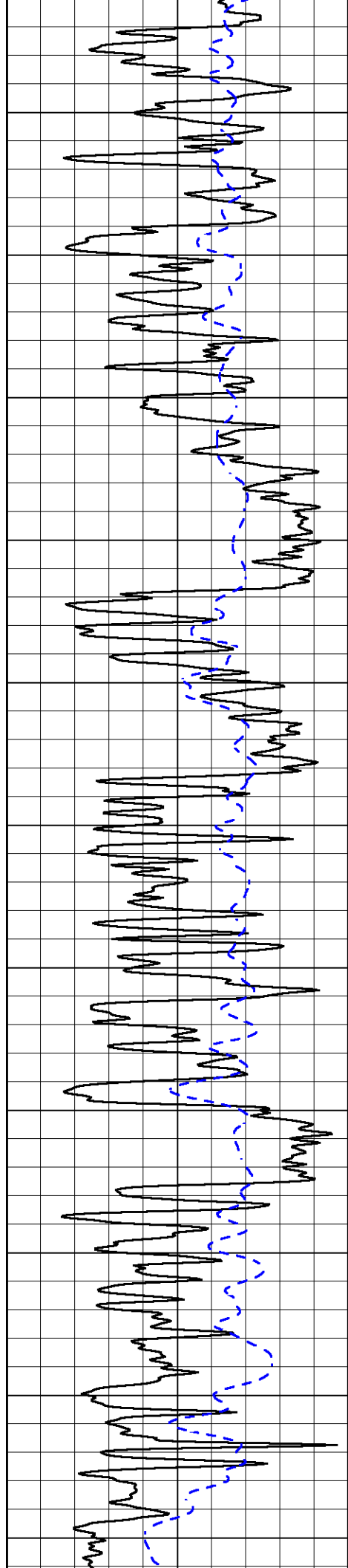
0	Shallow Resistivity (Ohm-m)	50	LSPD (ft/min)
0	Deep Resistivity (Ohm-m)	50	
Shallow Resistivity			
50	(Ohm-m)	500	
50	Deep Resistivity (Ohm-m)	500	



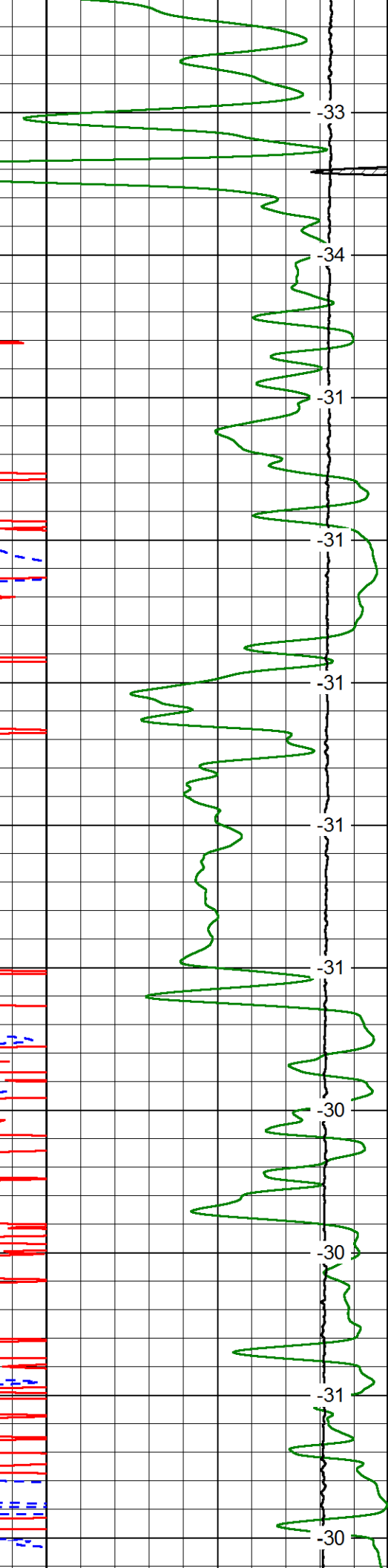
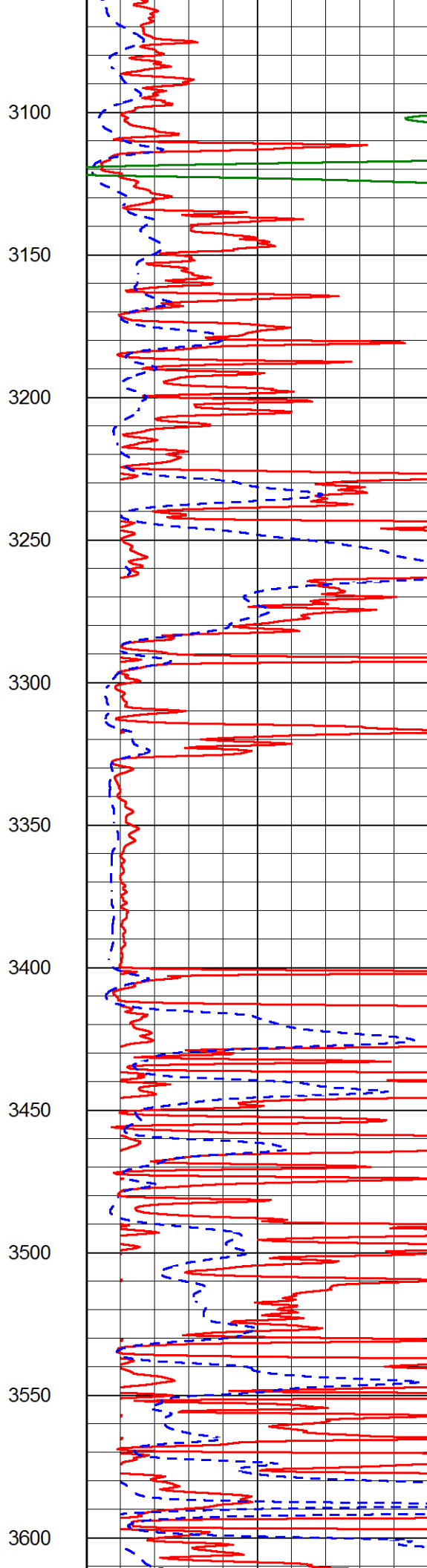
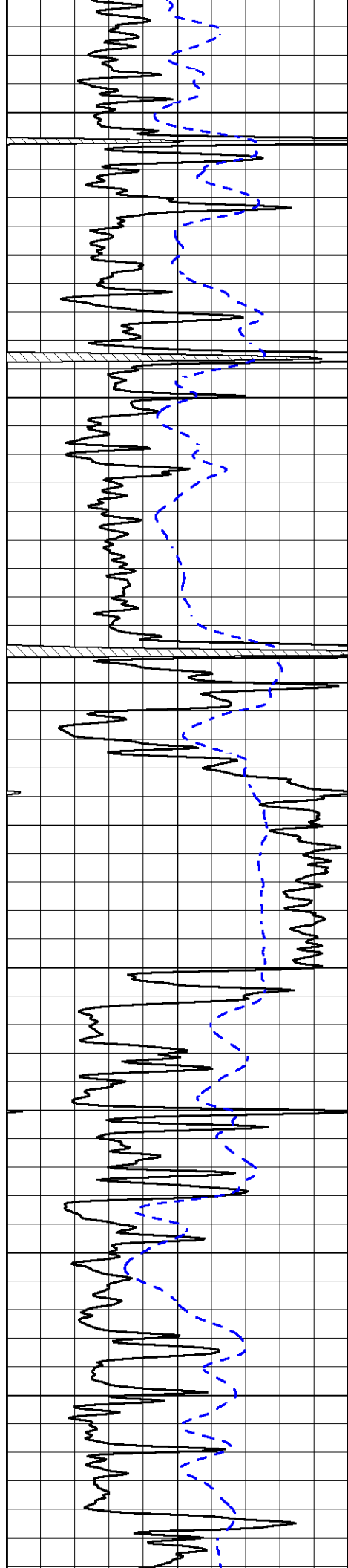


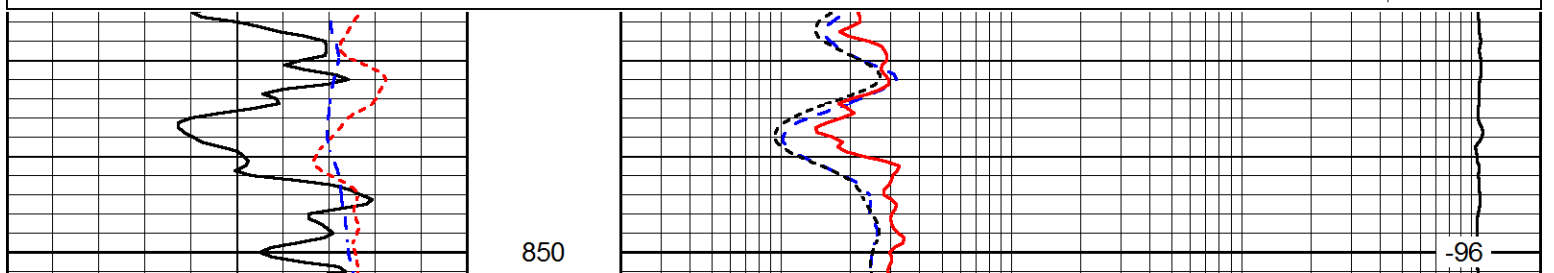
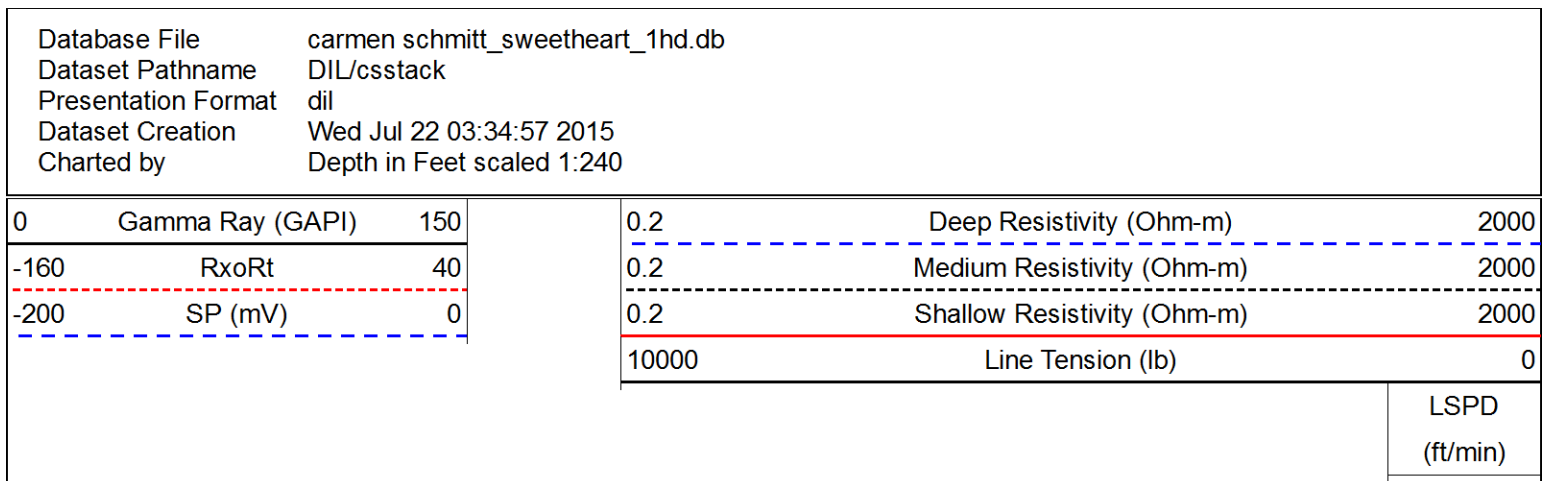
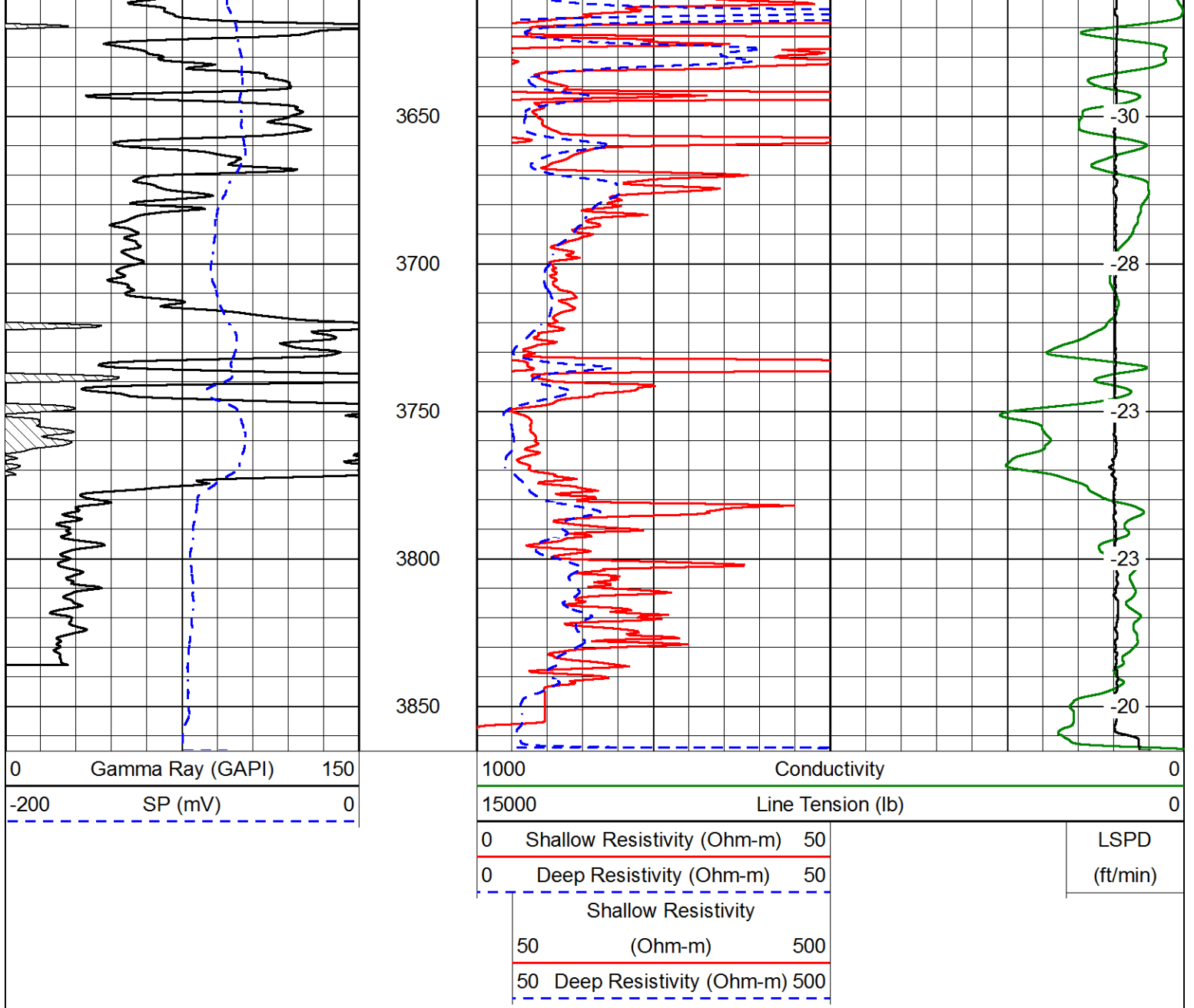


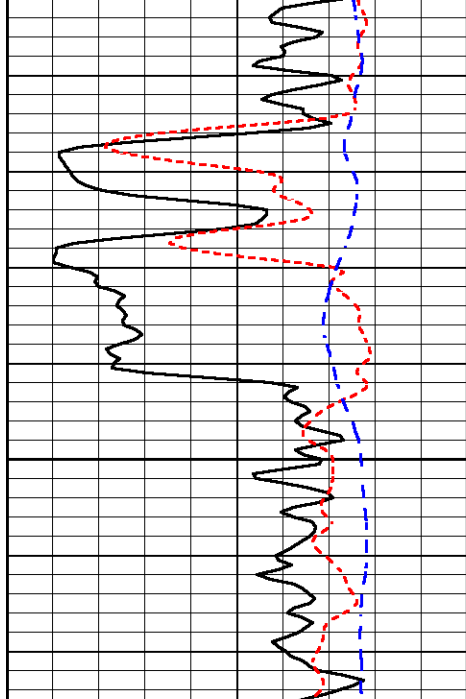






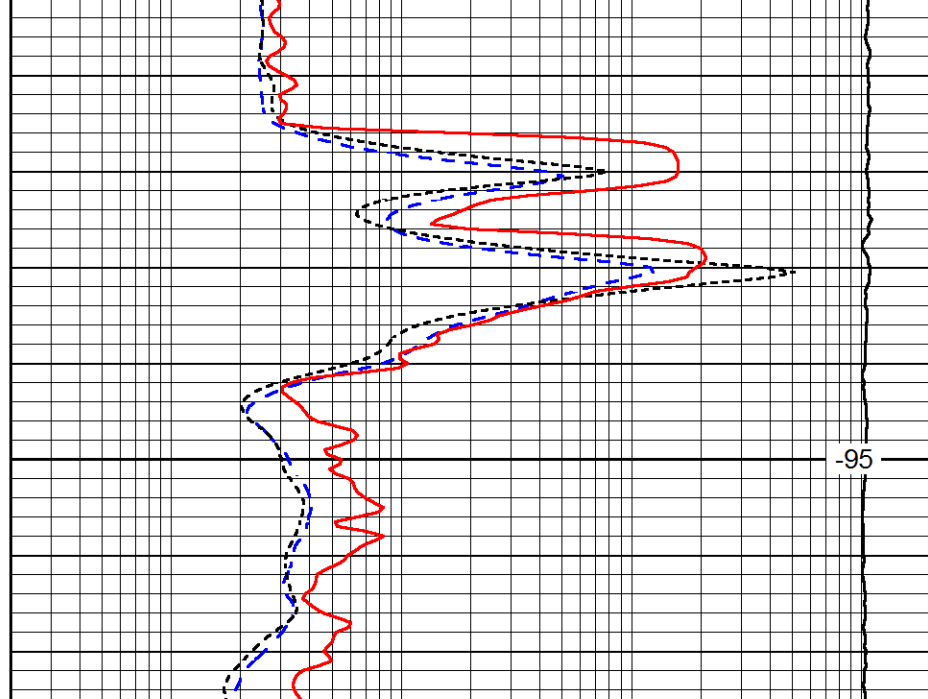






0	Gamma Ray (GAPI)	150
-160	RxoRt	40
-200	SP (mV)	0

900



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

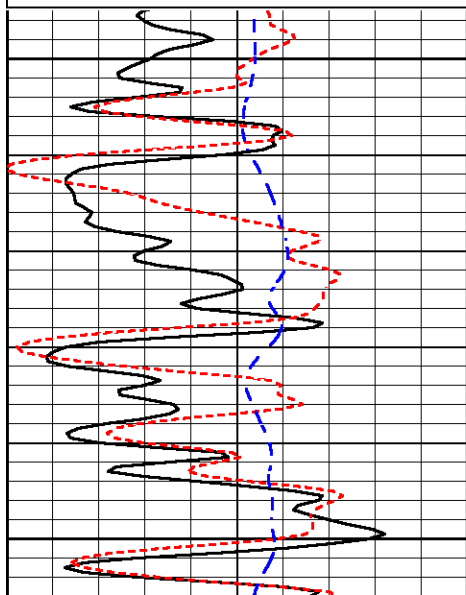
LSPD  
(ft/min)

Database File carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname DIL/csstack  
 Presentation Format dil  
 Dataset Creation Wed Jul 22 03:34:57 2015  
 Charted by Depth in Feet scaled 1:240

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

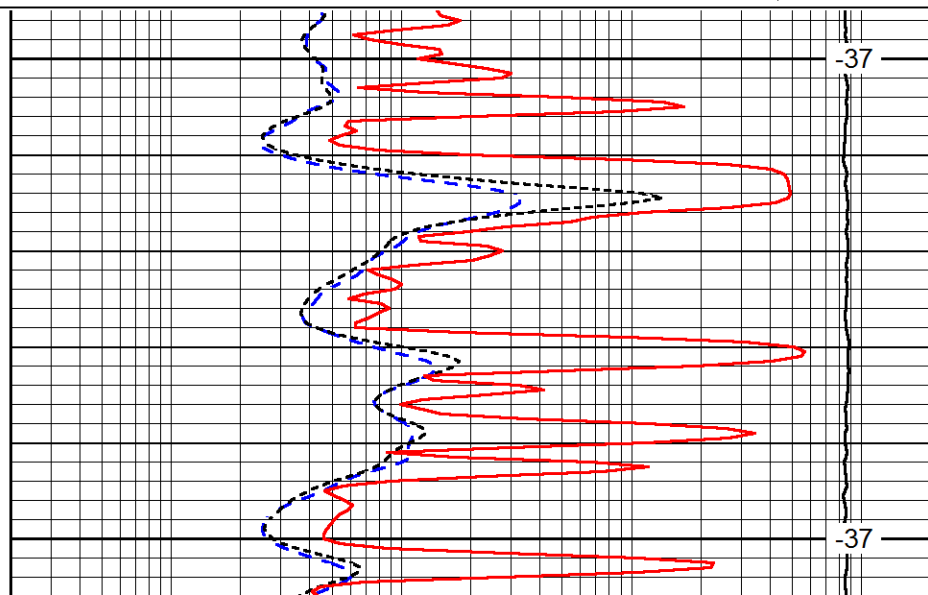
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD  
(ft/min)



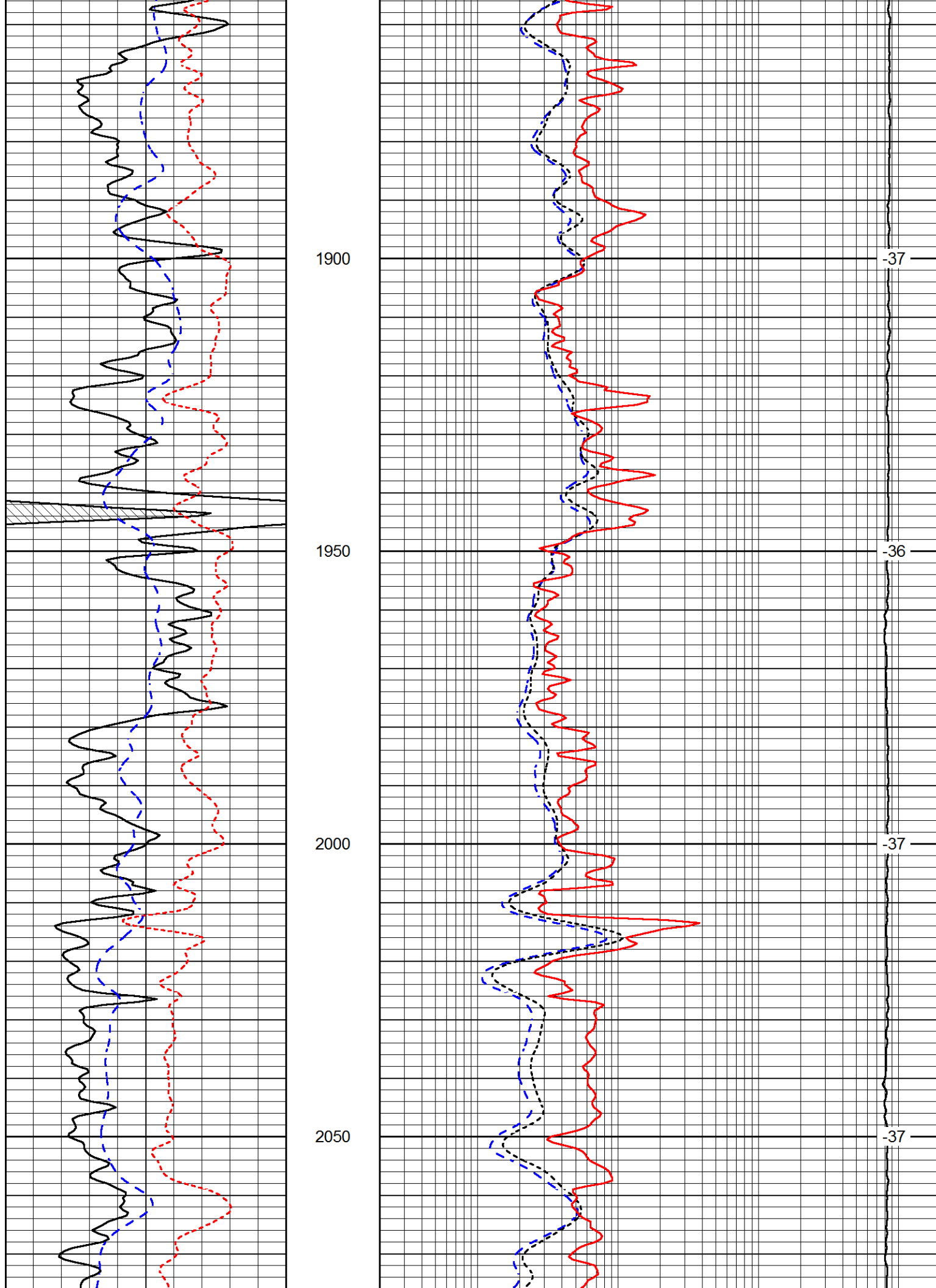
1800

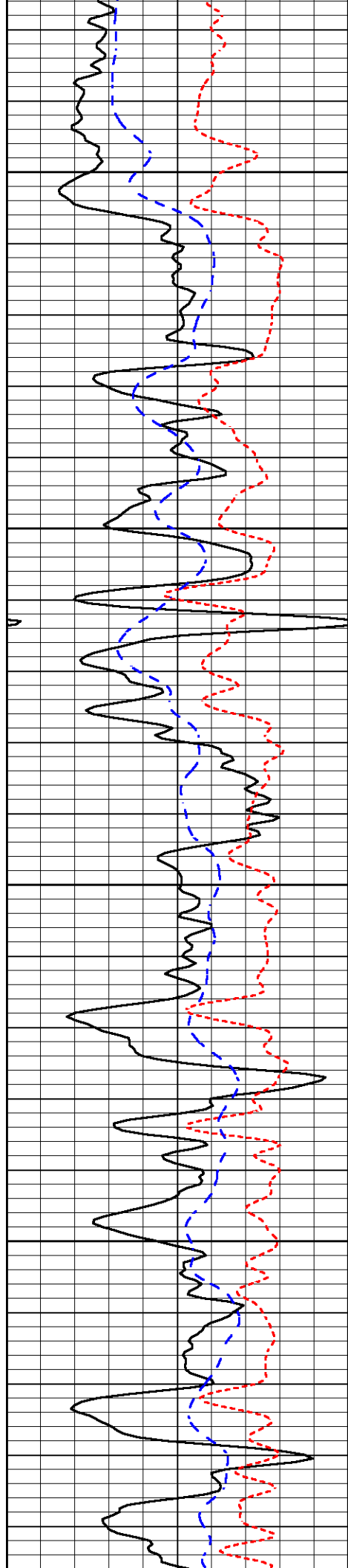
1850



-37

-37



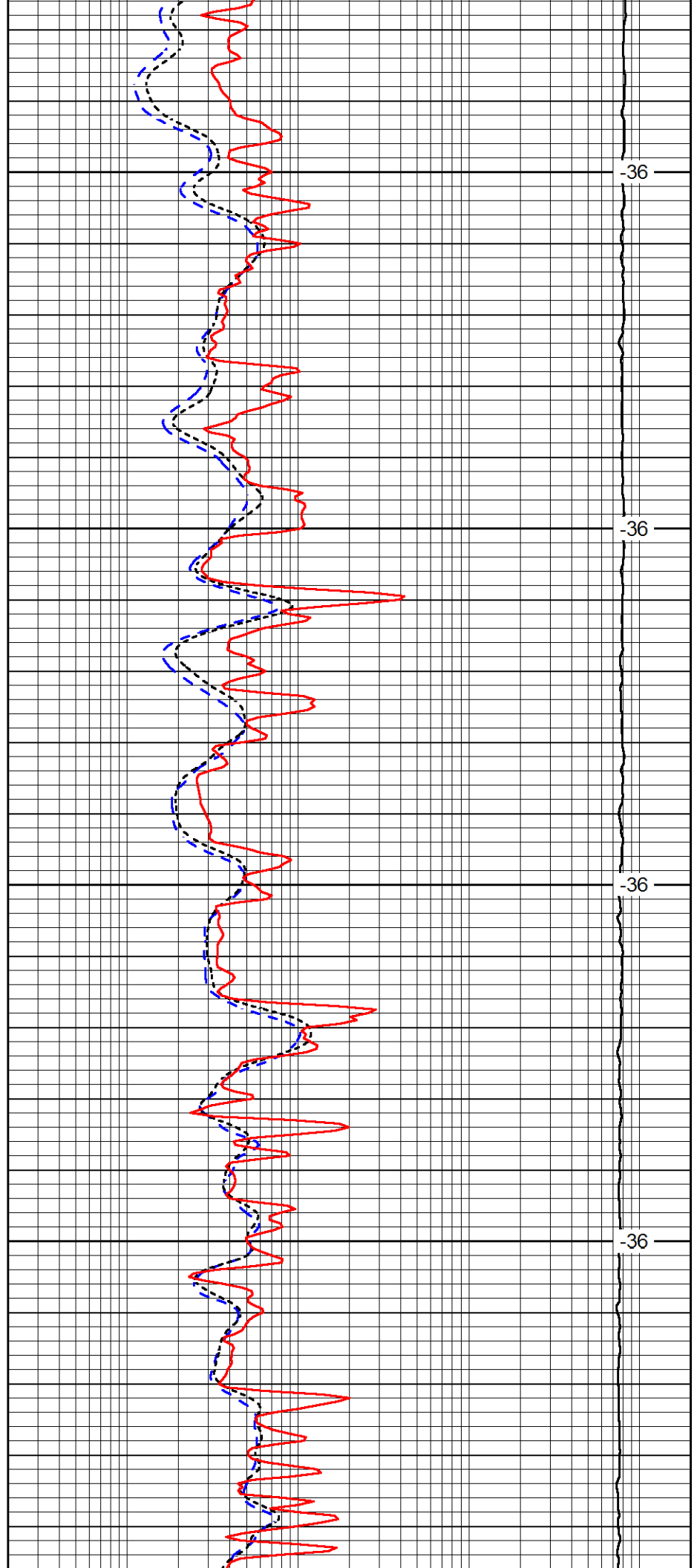


2100

2150

2200

2250

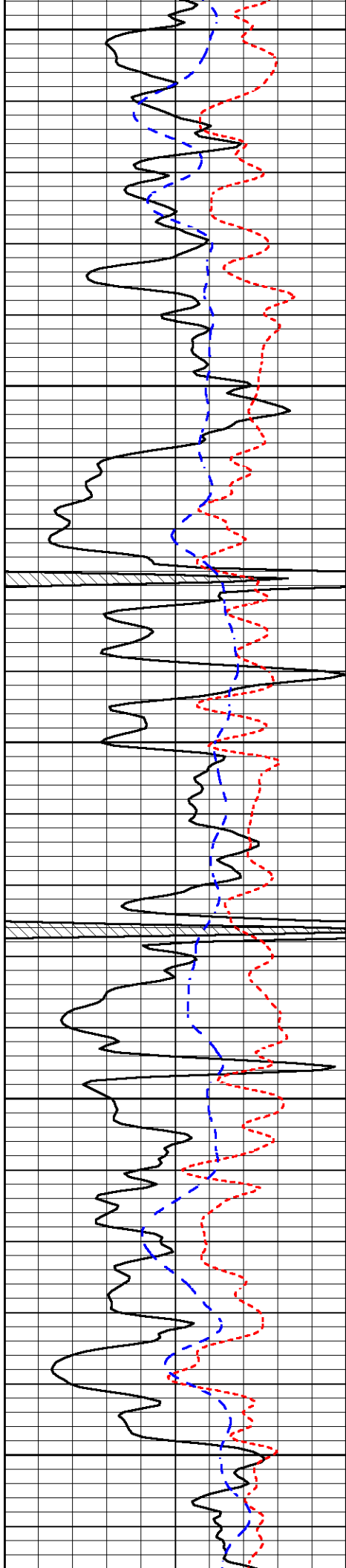


-36

-36

-36

-36



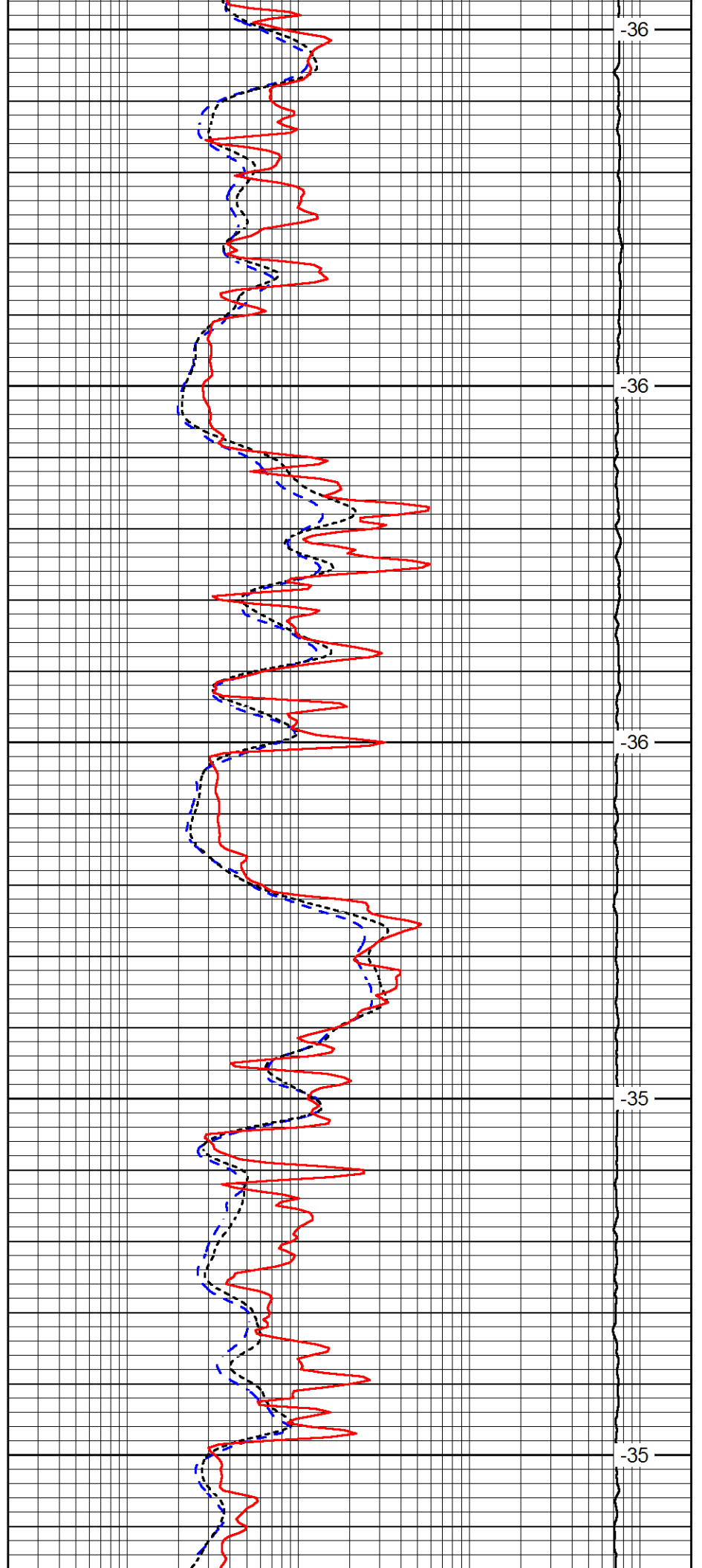
2300

2350

2400

2450

2500



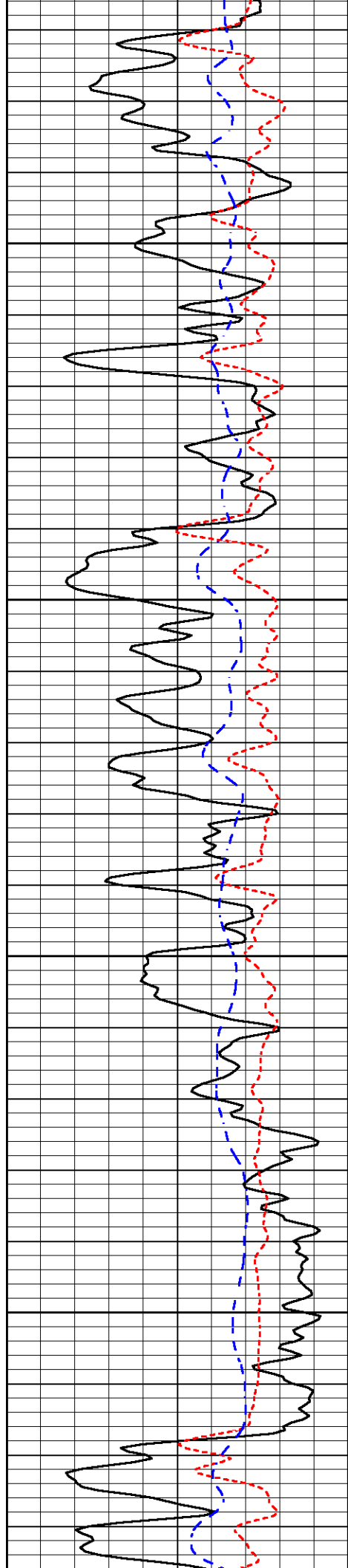
-36

-36

-36

-35

-35

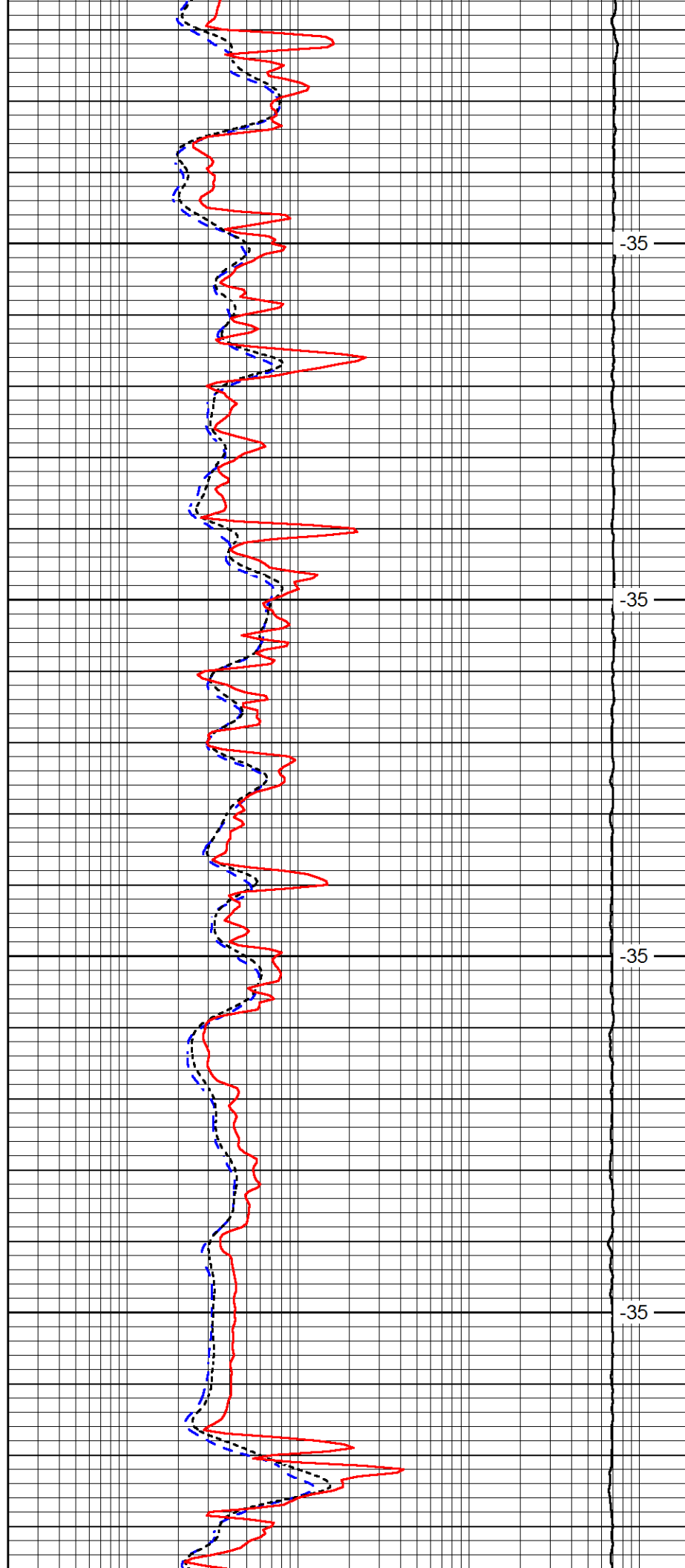


2550

2600

2650

2700

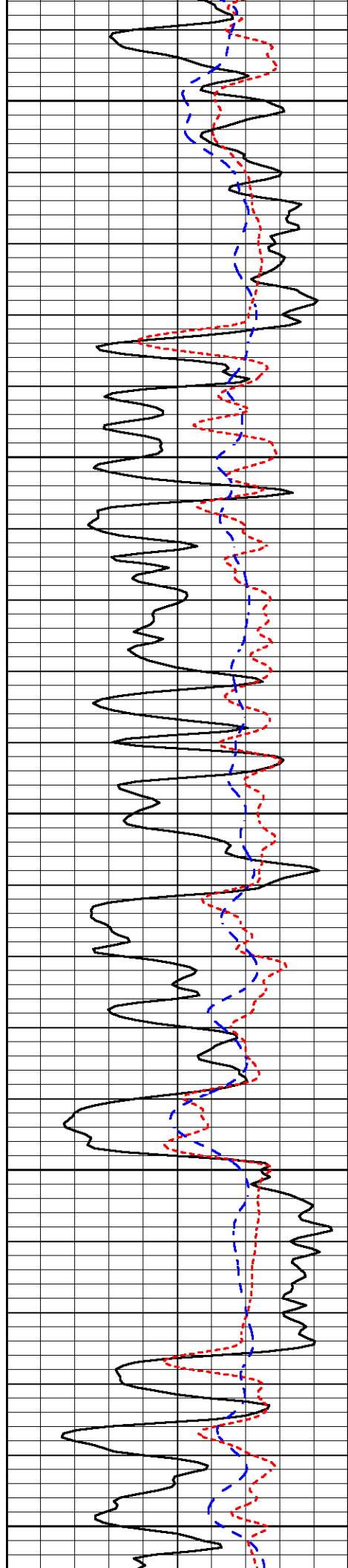


-35

-35

-35

-35



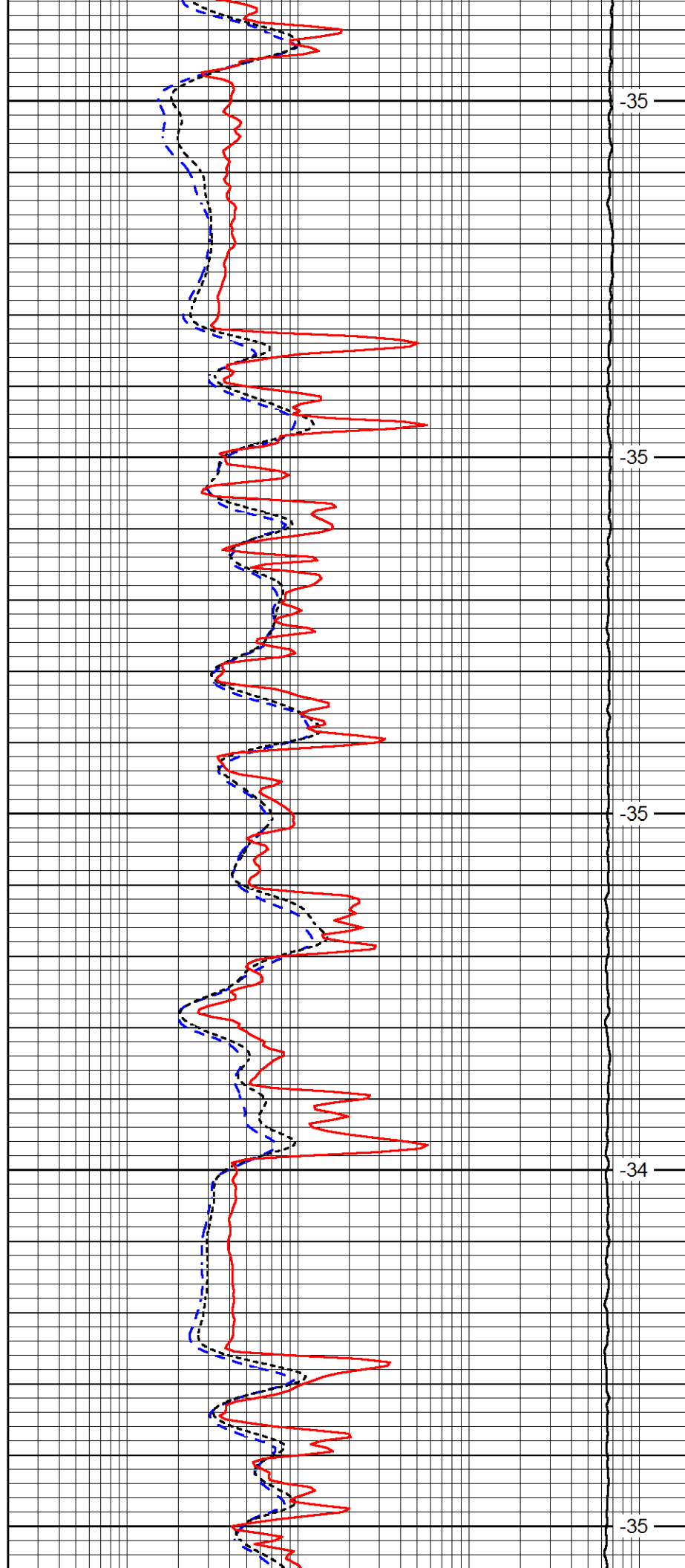
2750

2800

2850

2900

2950



35

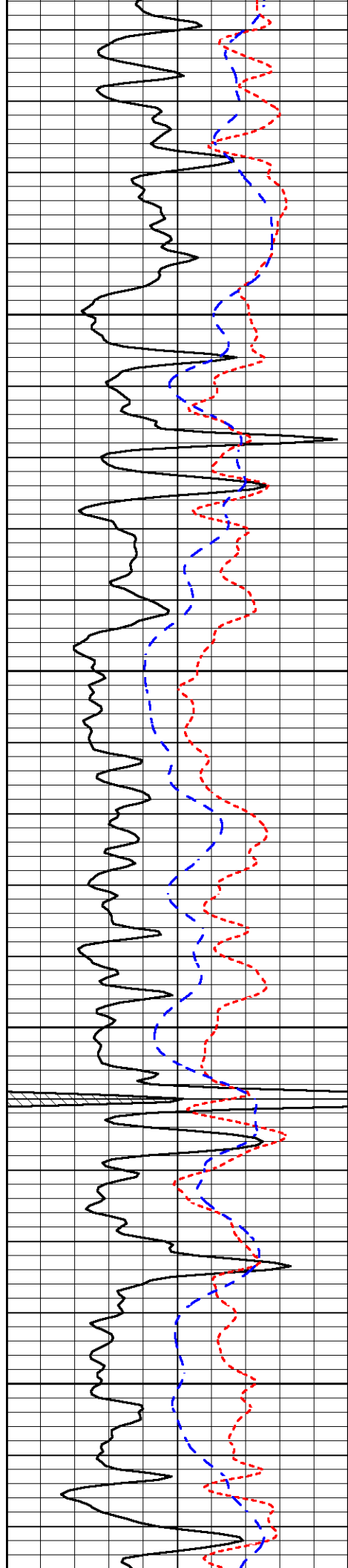
35

35

34

35



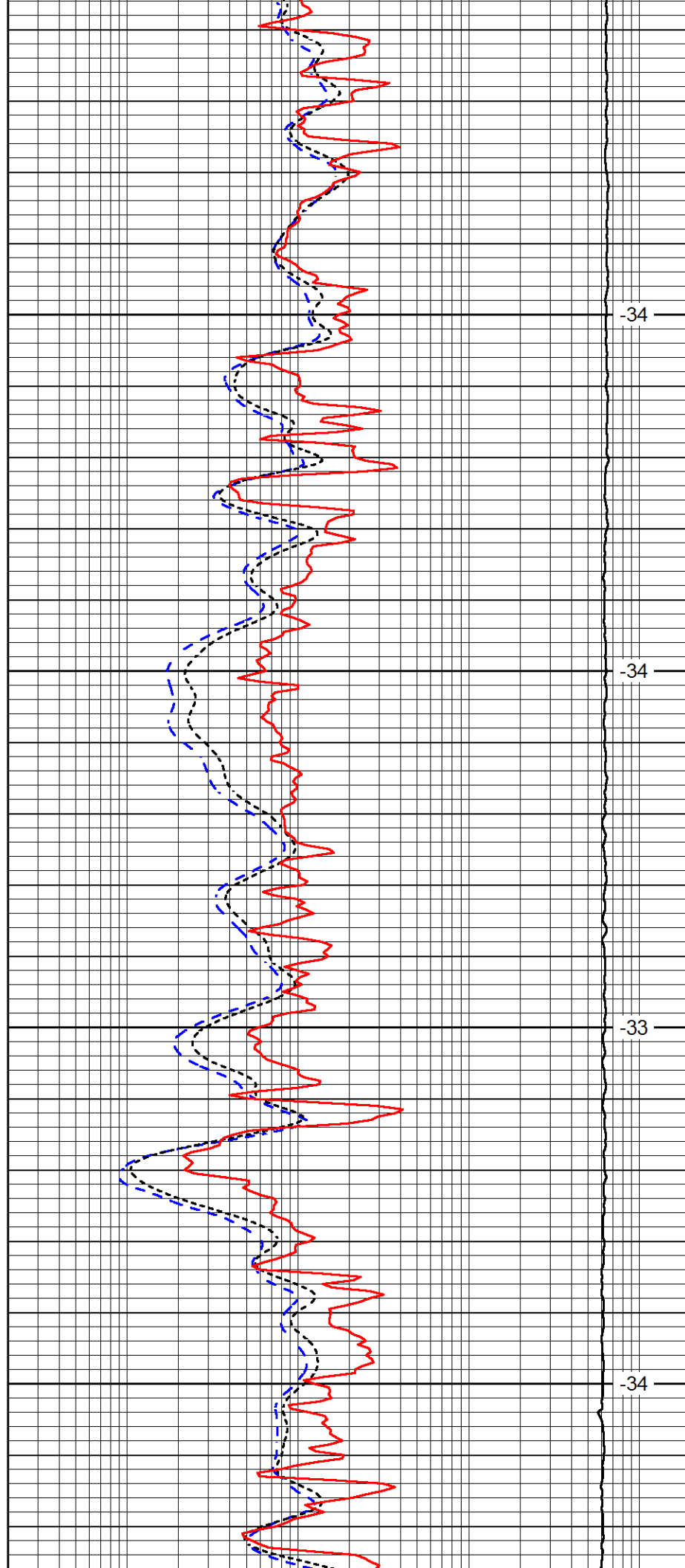


3000

3050

3100

3150

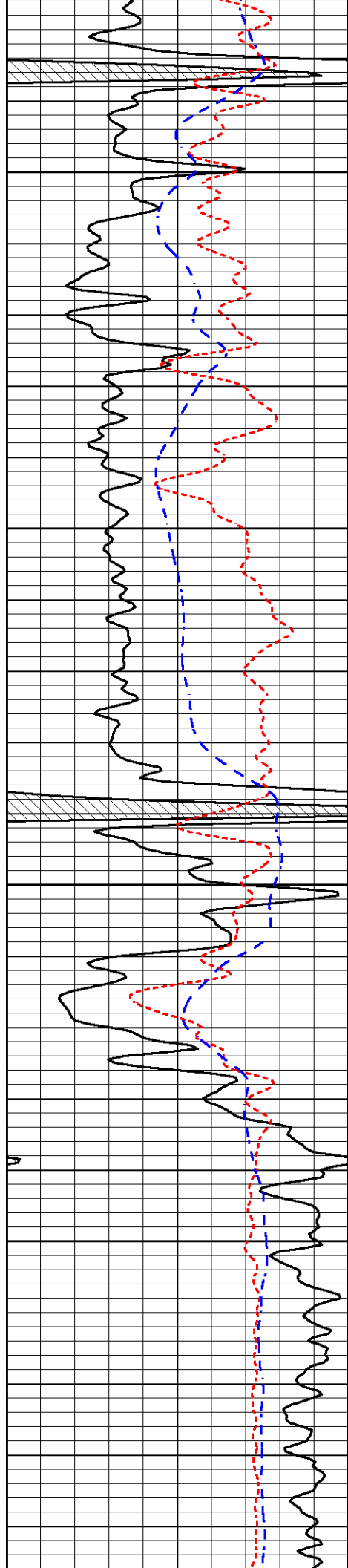


-34

-34

-33

-34

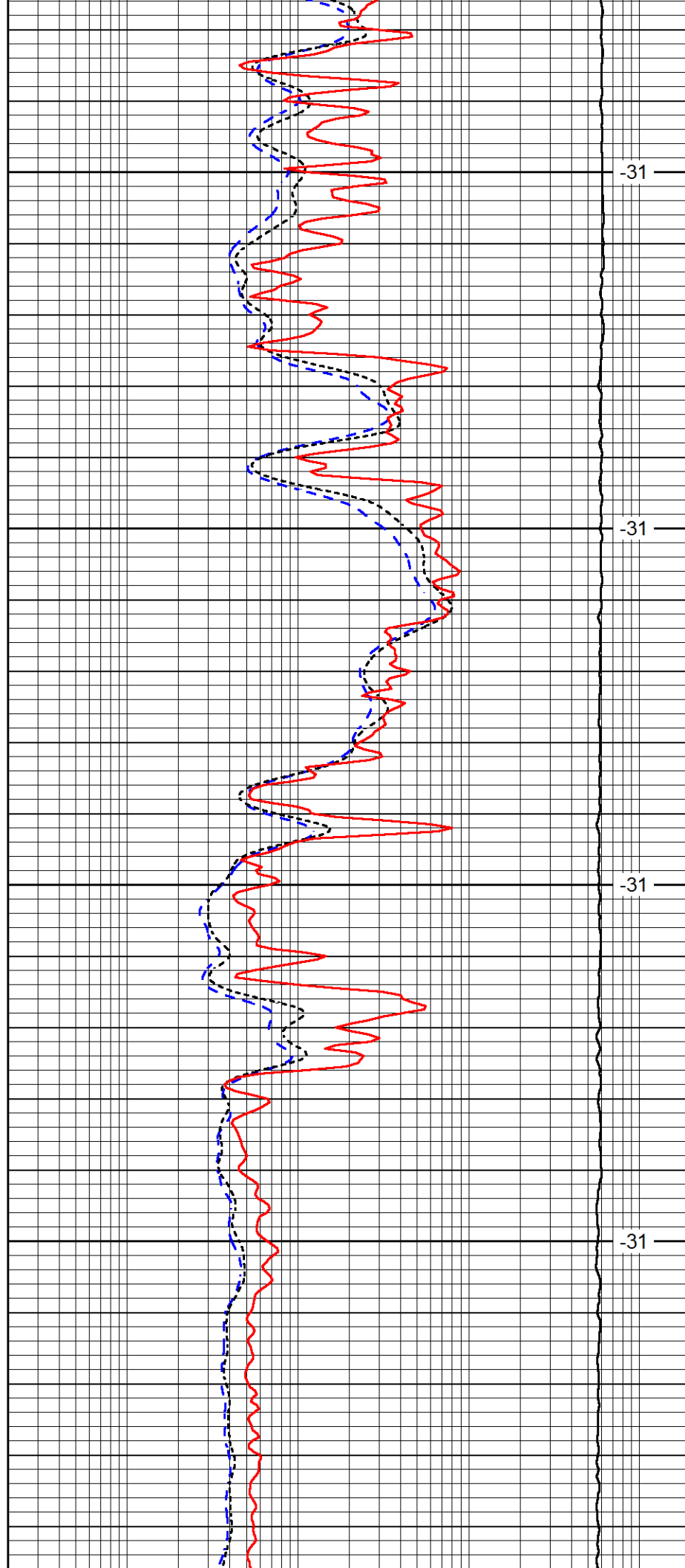


3200

3250

3300

3350

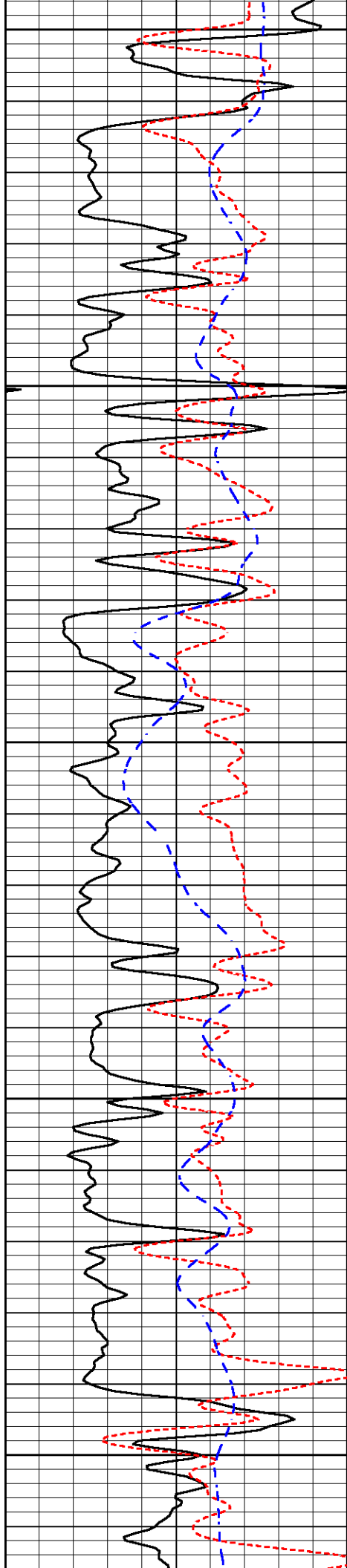


-31

-31

-31

-31



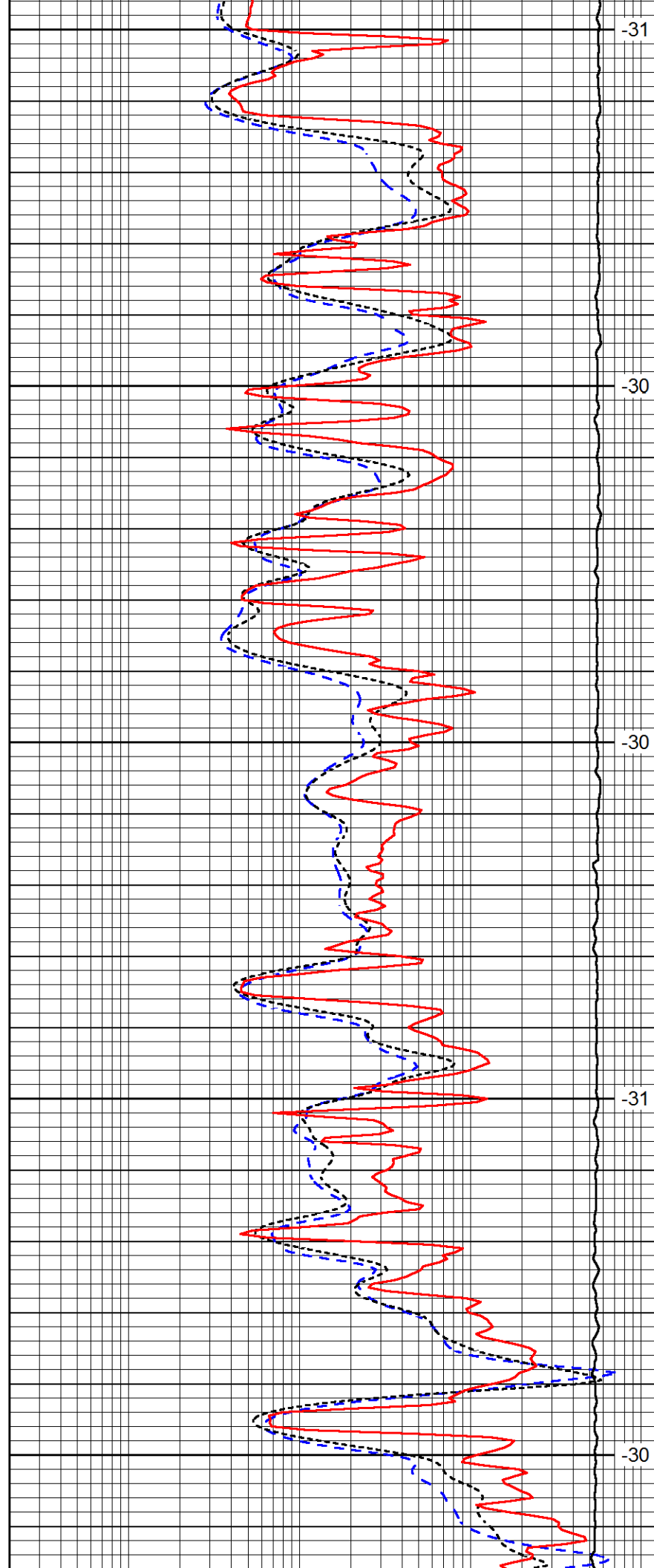
3400

3450

3500

3550

3600



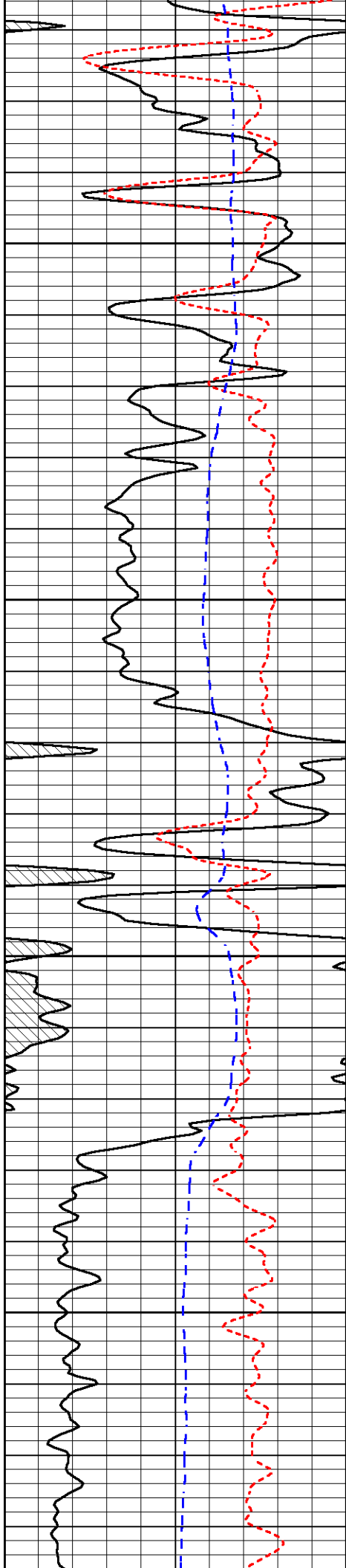
-31

-30

-30

-31

-30

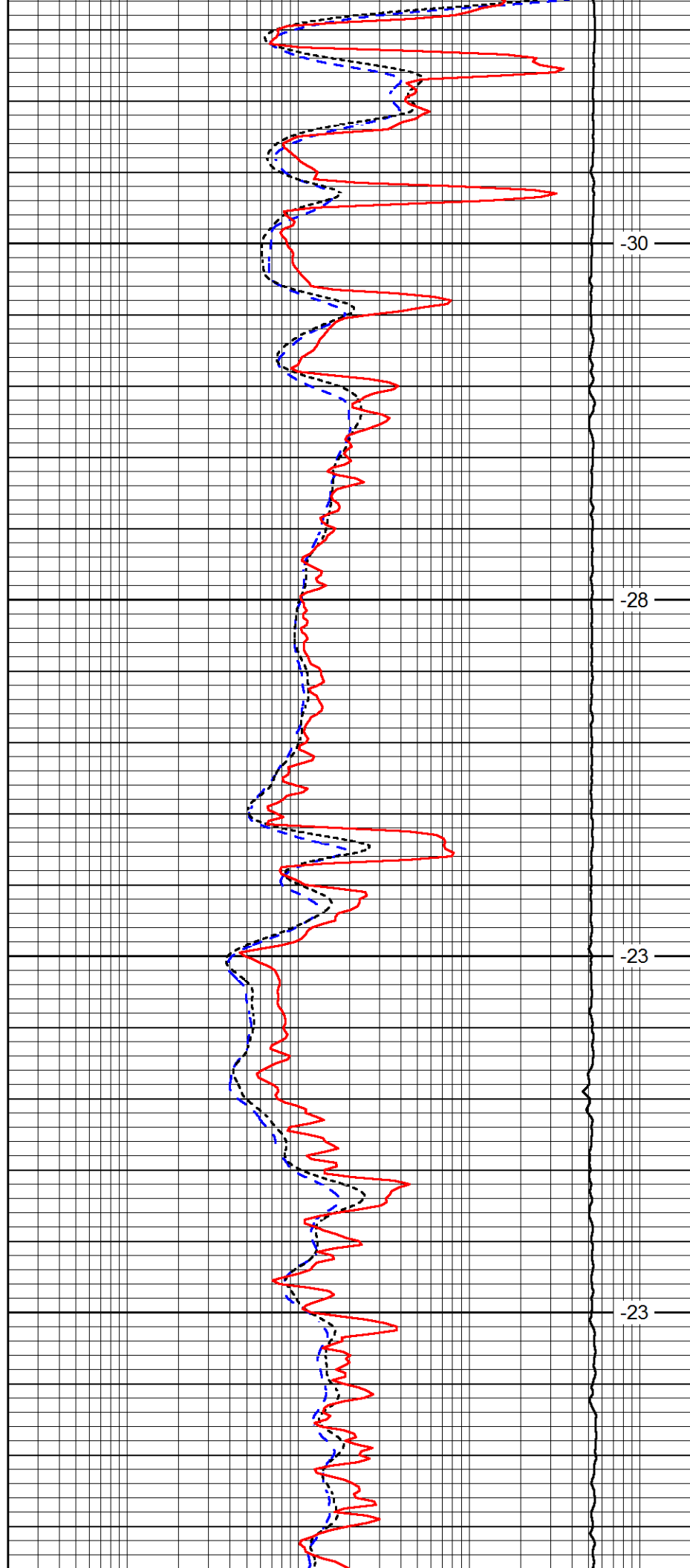


3650

3700

3750

3800

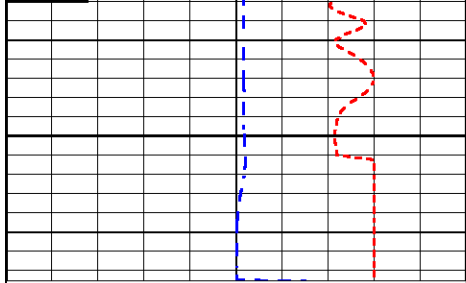


-30

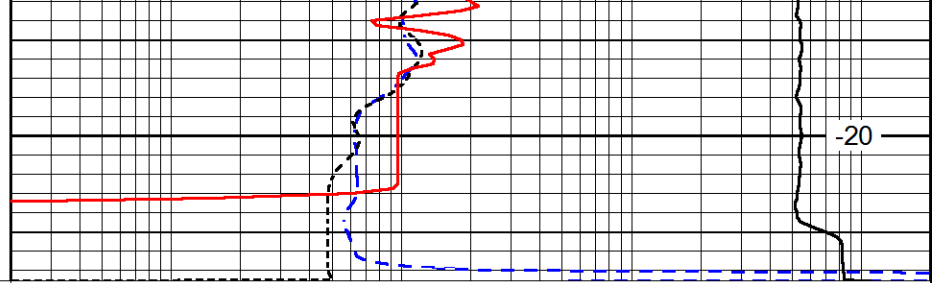
-28

-23

-23



3850



-20

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

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD  
(ft/min)



# DUAL COMP POROSITY LOG

Company CARMEN SCHMITT, INC.  
Well SWEETHEART #1  
Field BAYER  
County STAFFORD  
State KANSAS

Company CARMEN SCHMITT, INC.  
Well SWEETHEART #1  
Field BAYER  
County STAFFORD State KANSAS

Location: API #: 15-185-23941-00-00  
1594' FSL & 2310' FWL  
SEC 20 TWP 21S RGE 14W  
Permanent Datum GROUND LEVEL Elevation 1940  
Log Measured From KELLY BUSHING  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL  
MEL/BHCS  
Elevation  
K.B. 1948  
D.F. N/A  
G.L. 1940

Date	7/22/2015						
Run Number	ONE						
Type Log	CNL/CDL/ML/DIL						
Depth Driller	3860						
Depth Logger	3859						
Bottom Logged Interval	3838						
Top Logged Interval	1800						
Type Fluid In Hole	CHEMICAL						
Salinity, PPM CL	10500						
Density	9.2						
Level	FULL						
Max. Rec. Temp. F	115						
Operating Rig Time	6 HOURS						
Equipment -- Location	91 Hays						
Recorded By	D. SCHMIDT						
Witnessed By	BRAD RINE						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25	00	467	8.625	23#	00	467
TWO	7.875	467	TD				
Casing Record							

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

RADIUM,  
2 NORTH TO 170TH, 1/2 EAST,  
NORTH INTO

Log Measured From: KELLY BUSHING      8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
www.pioneerenergy.com      785-625-3858

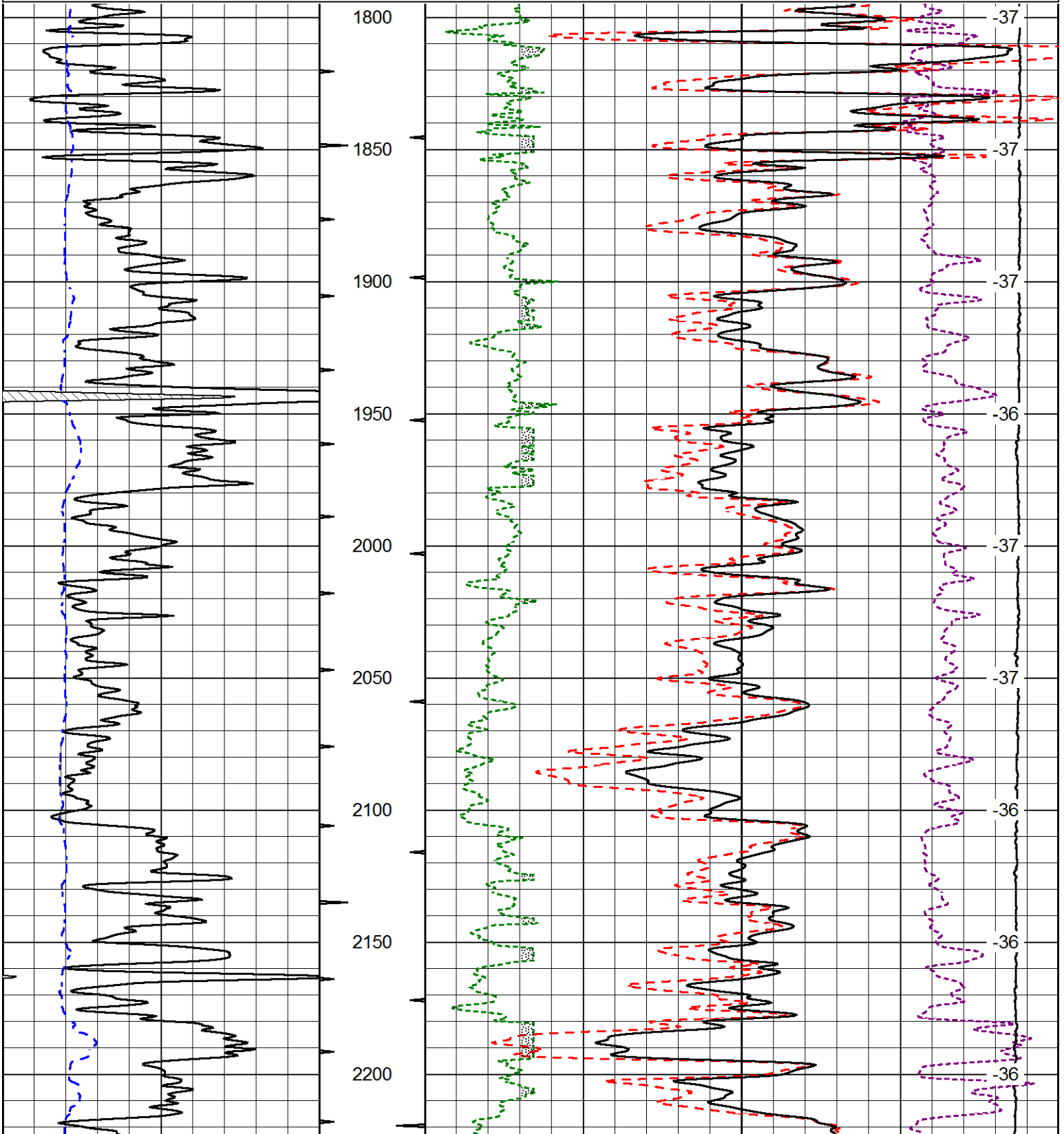
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: BRAD RINE
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

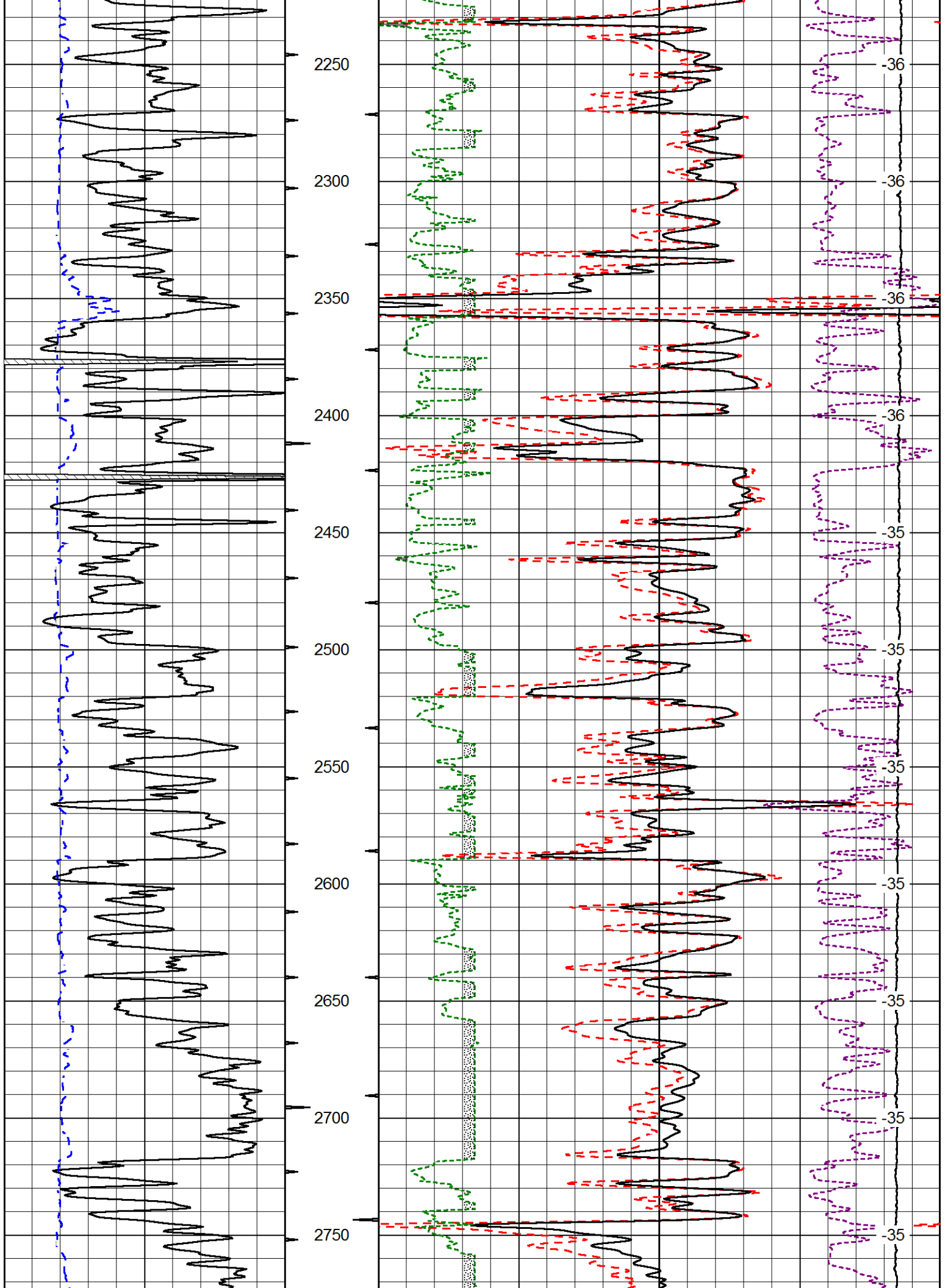
Database File carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname DIL/csstack  
 Presentation Format cdl  
 Dataset Creation Wed Jul 22 03:34:57 2015  
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

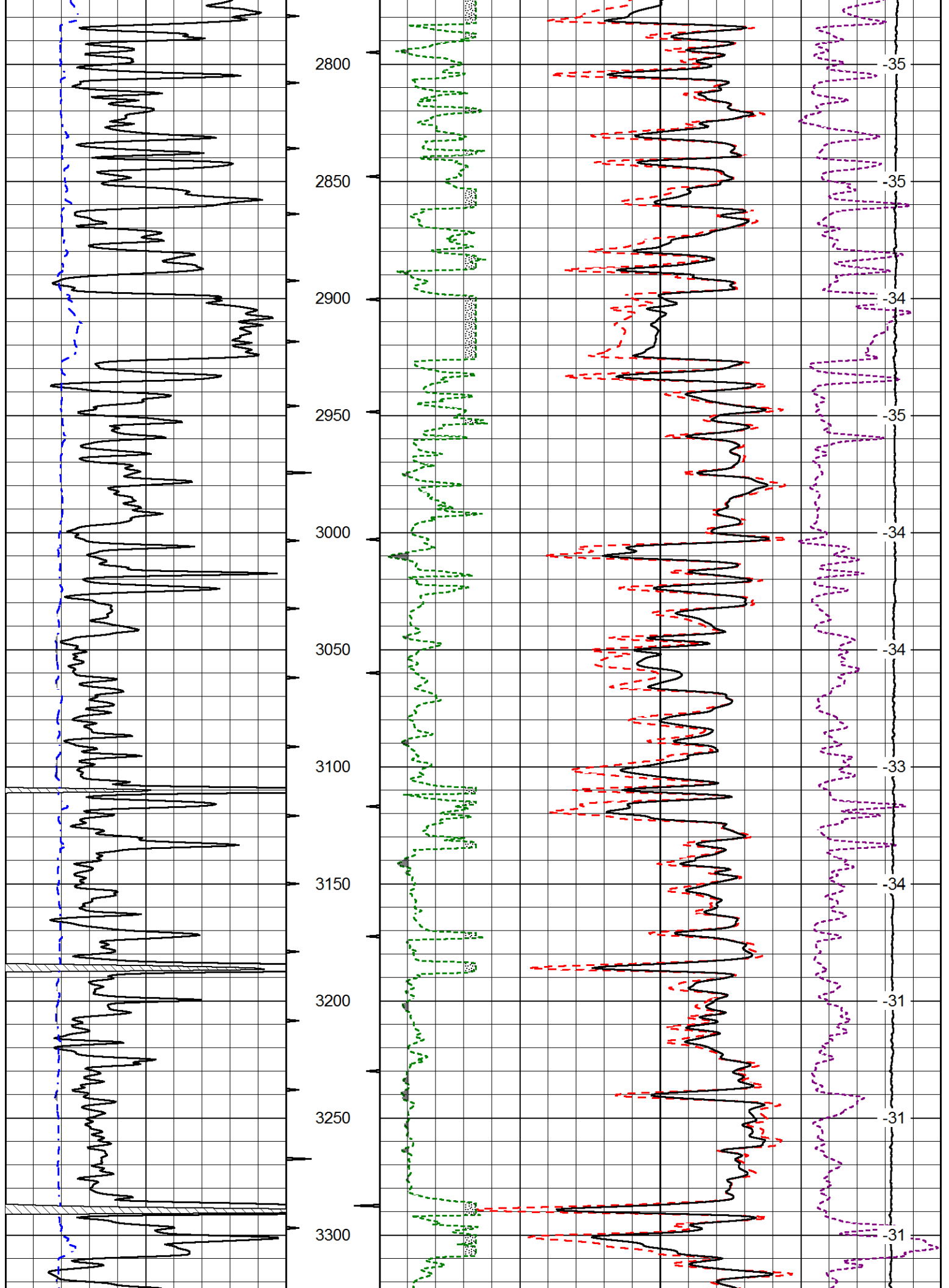
30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
2.625	DGA (g/cc)	3.425	-0.25
	Correction (g/cc)		0.25

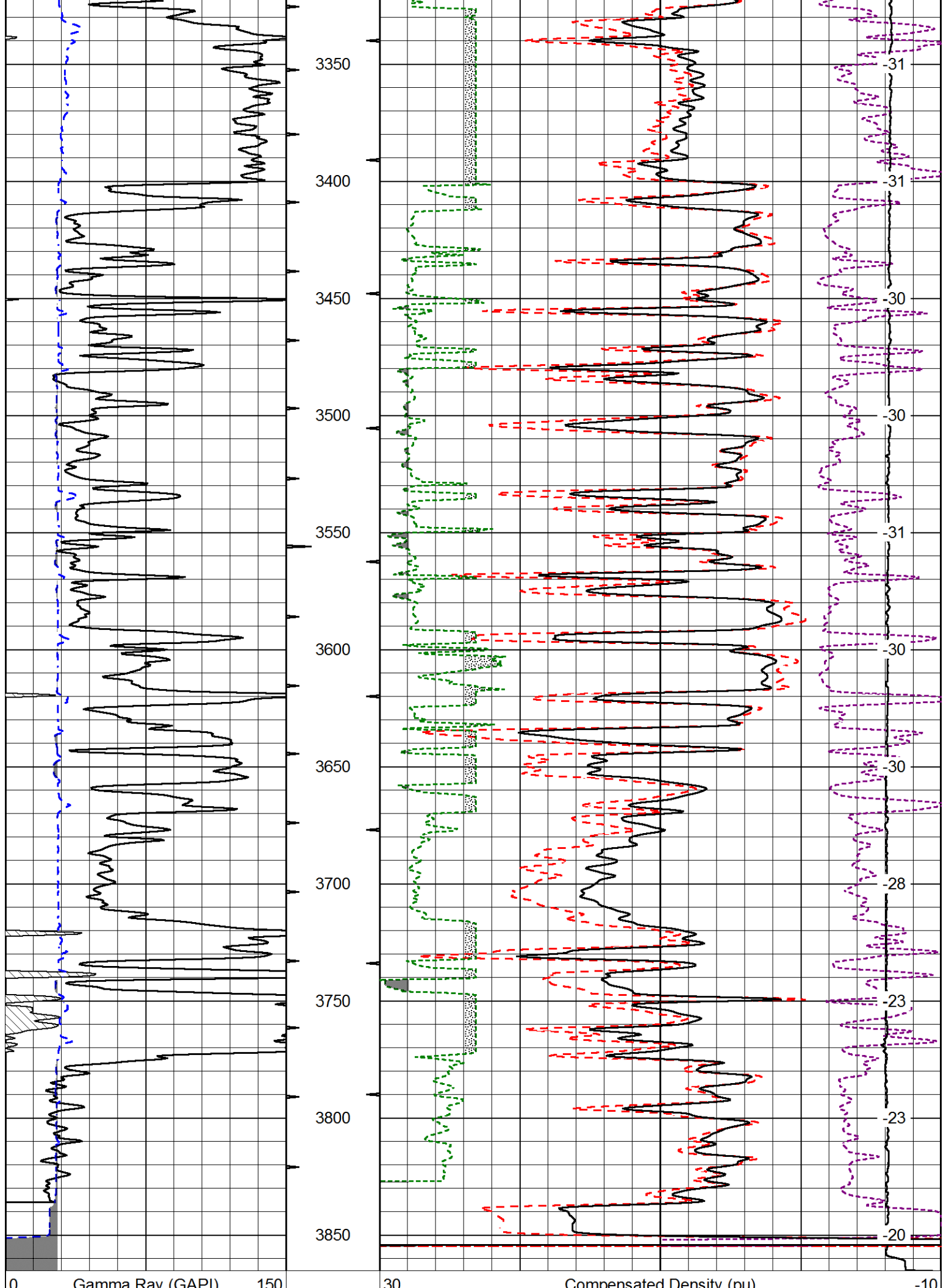
LSPD  
(ft/min)











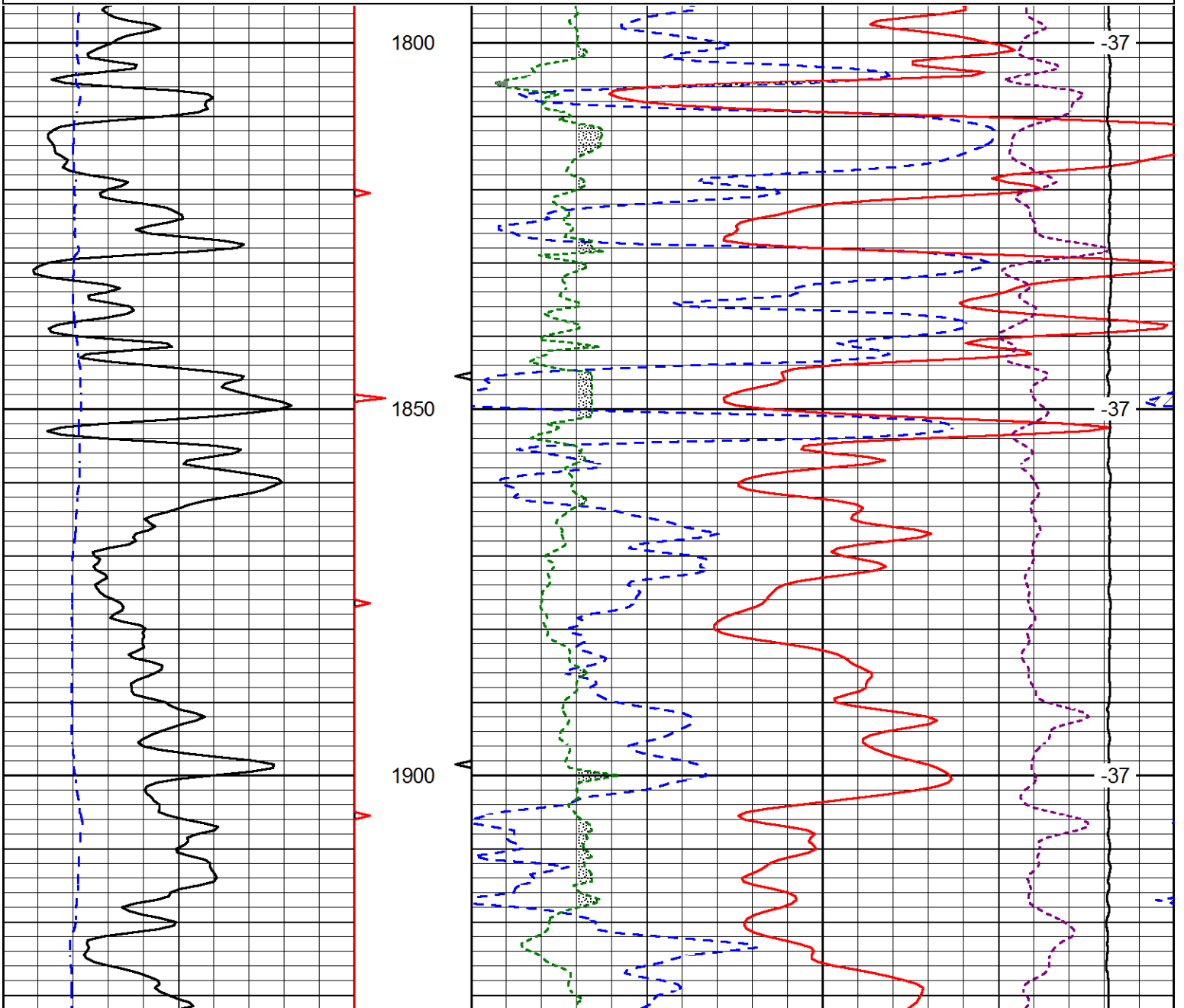
6	Gamma Ray (GAPI)	16
6	Caliper (in)	16

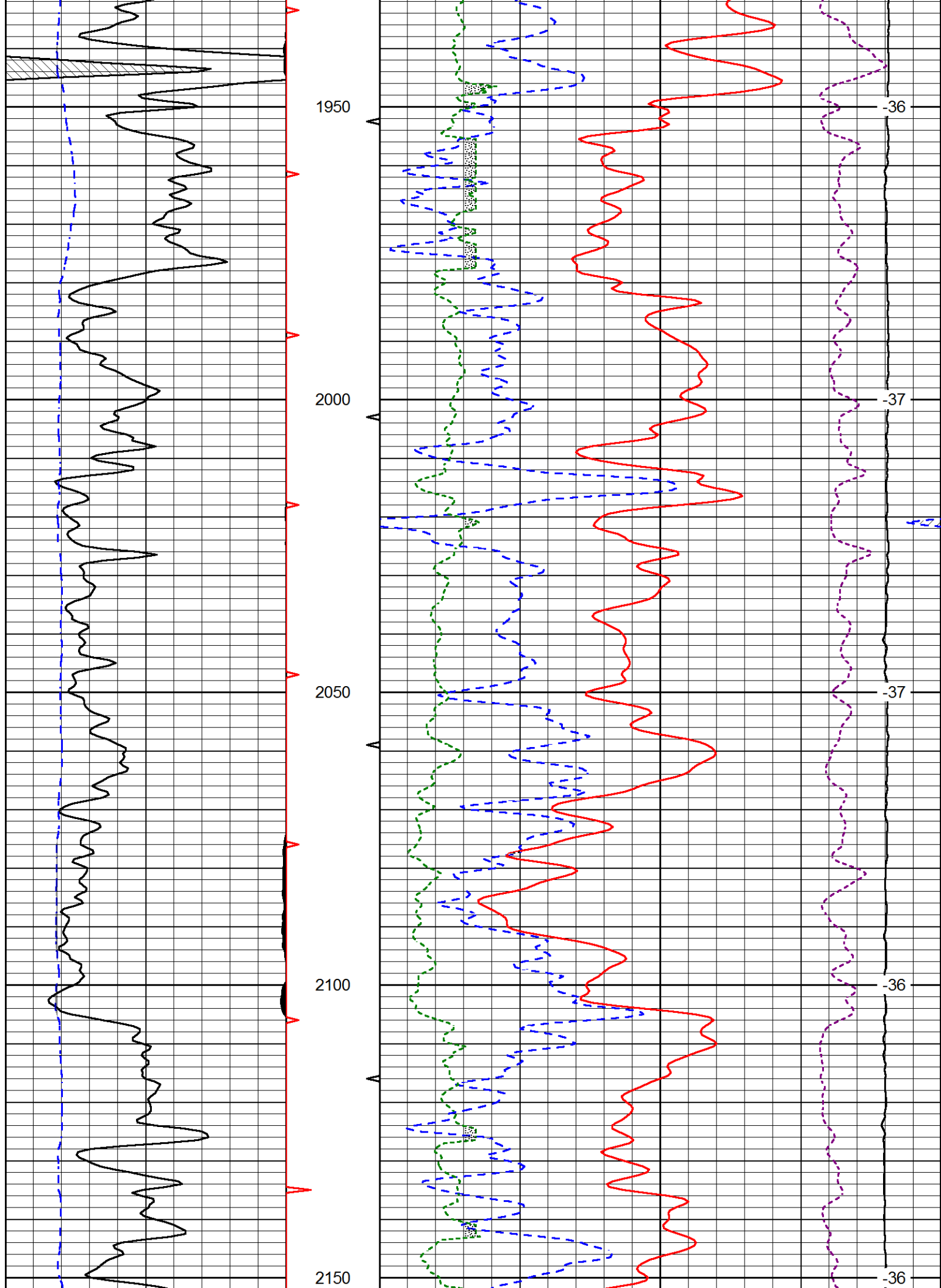
2	Compensated Density (pu)			3	
15000	Line Tension (lb)			0	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
LSPD (ft/min)					

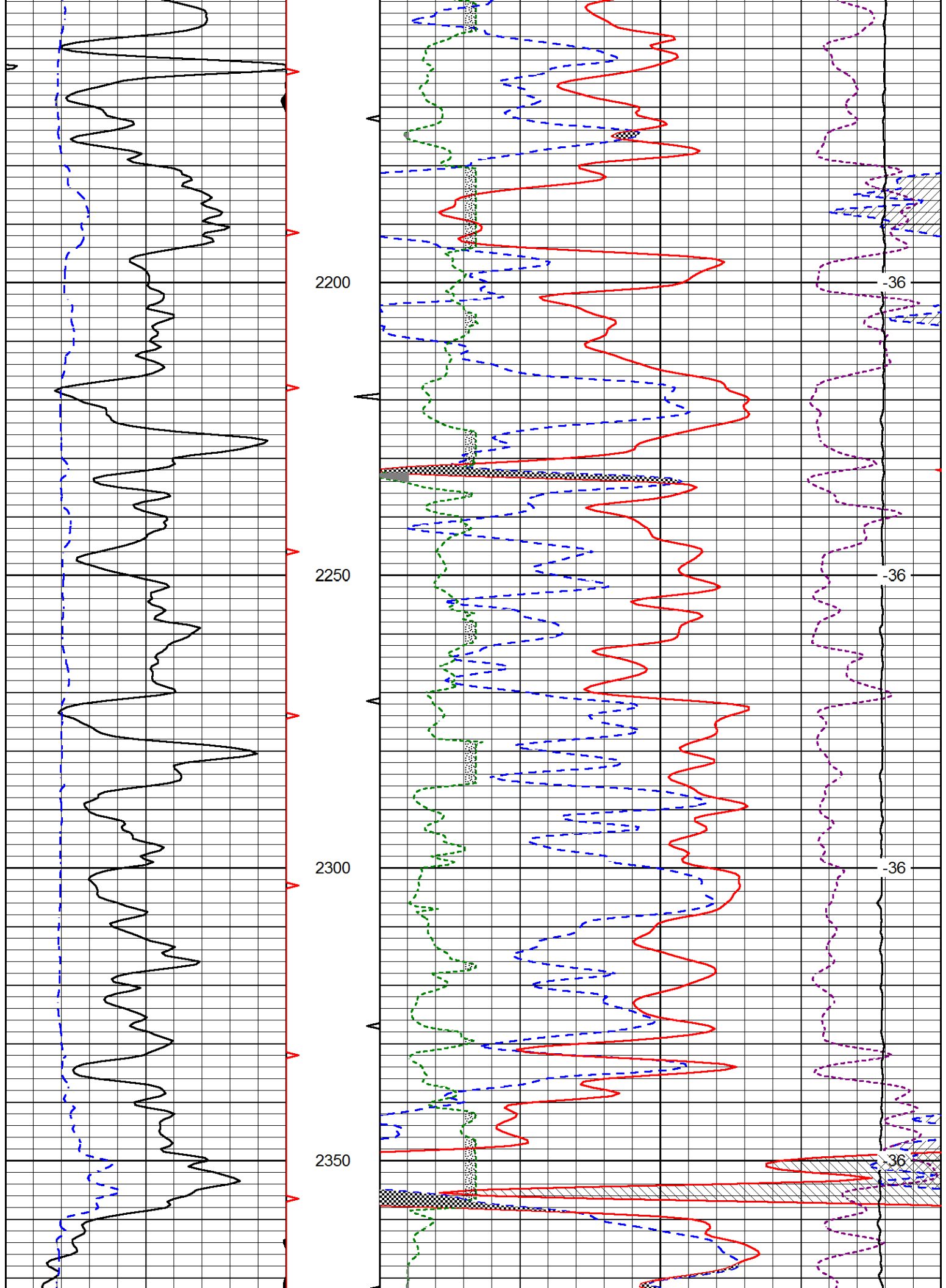
Database File: carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname: DIL/csstack  
 Presentation Format: cndlspec  
 Dataset Creation: Wed Jul 22 03:34:57 2015  
 Charted by: Depth in Feet scaled 1:240

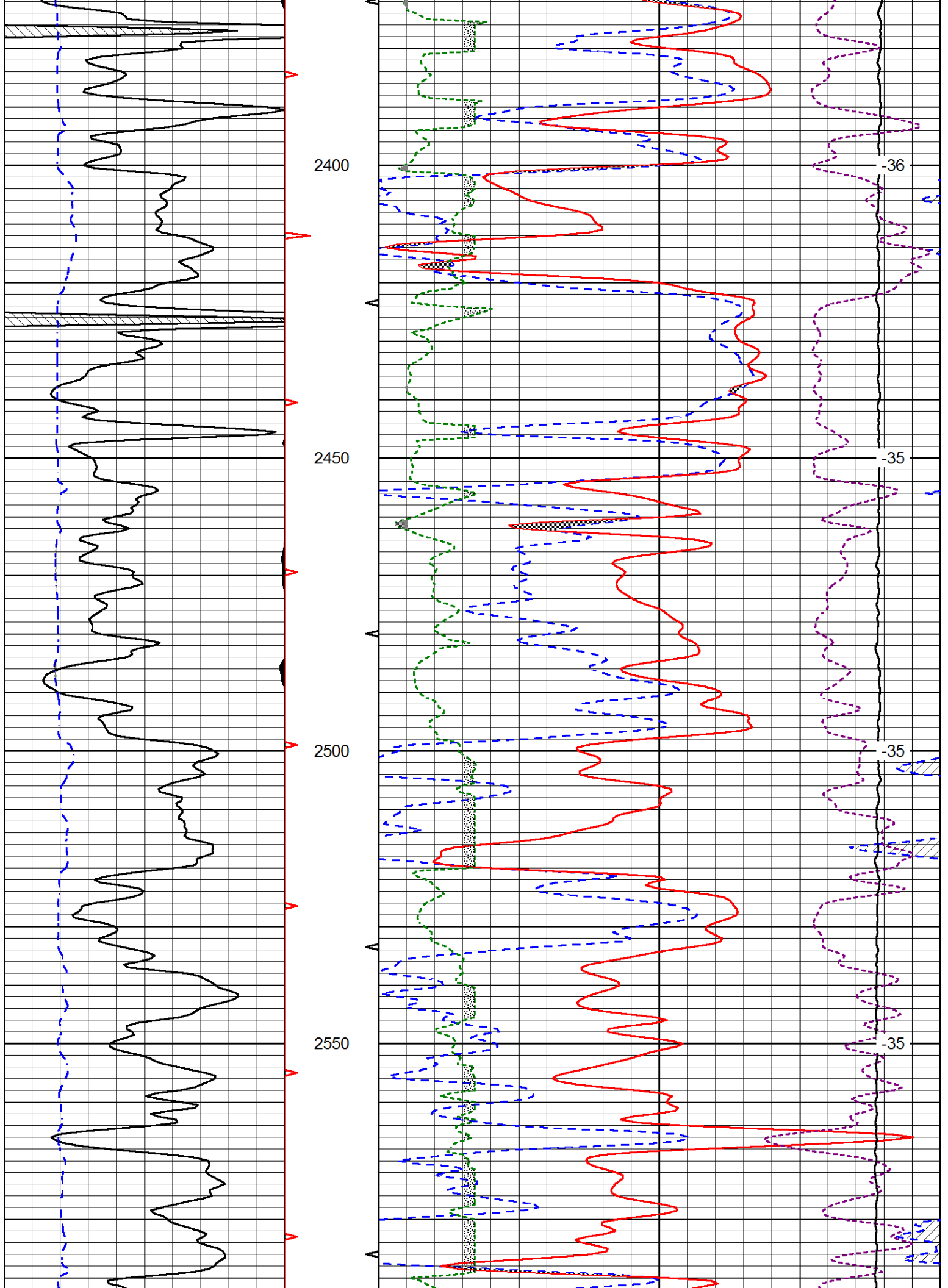
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

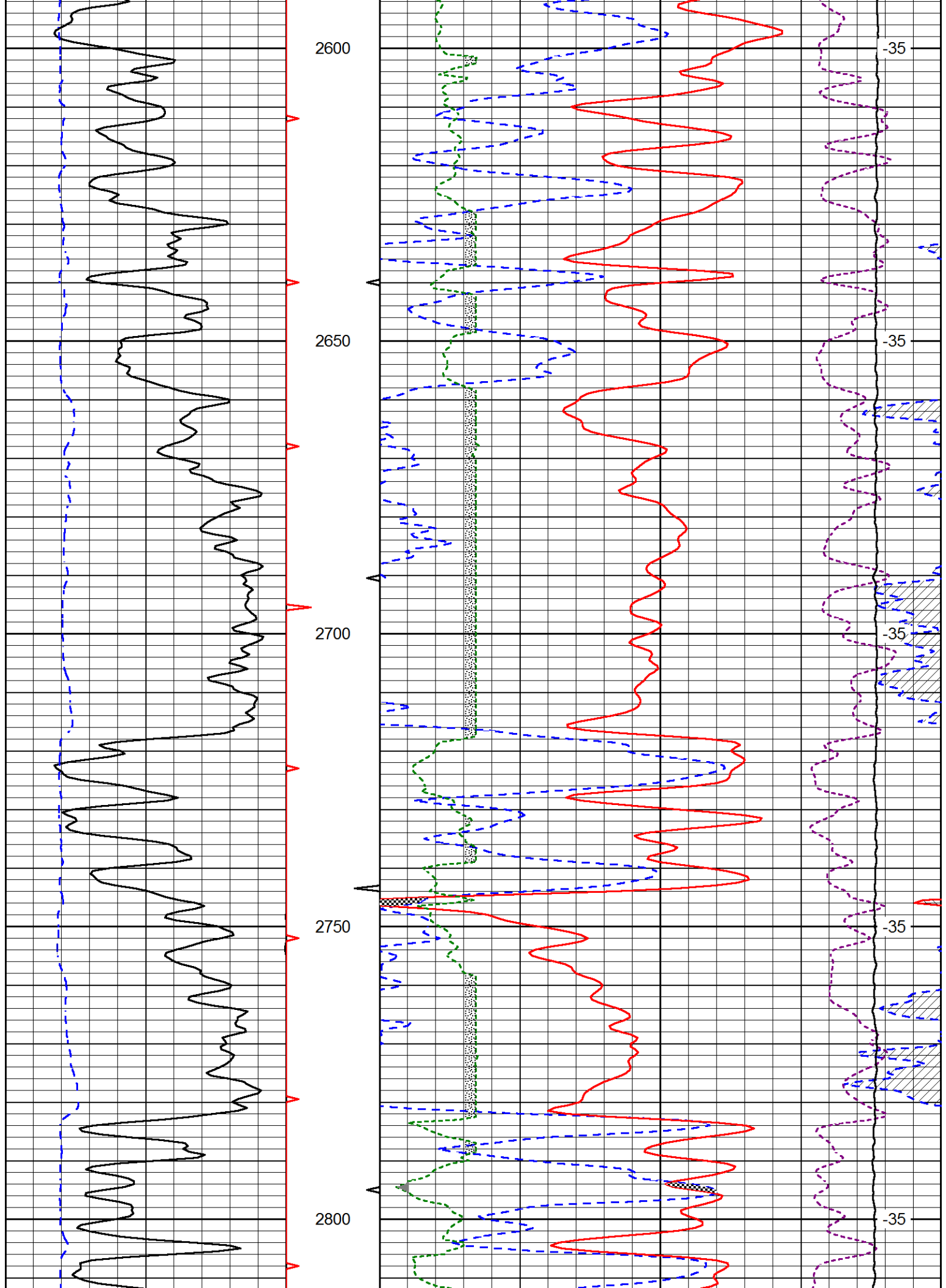
30	CNLS (pu)			-10	
30	Compensated Density (2.71 ma) (pu)			-10	
10000	Line Tension (lb)			0	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
LSPD (ft/min)					

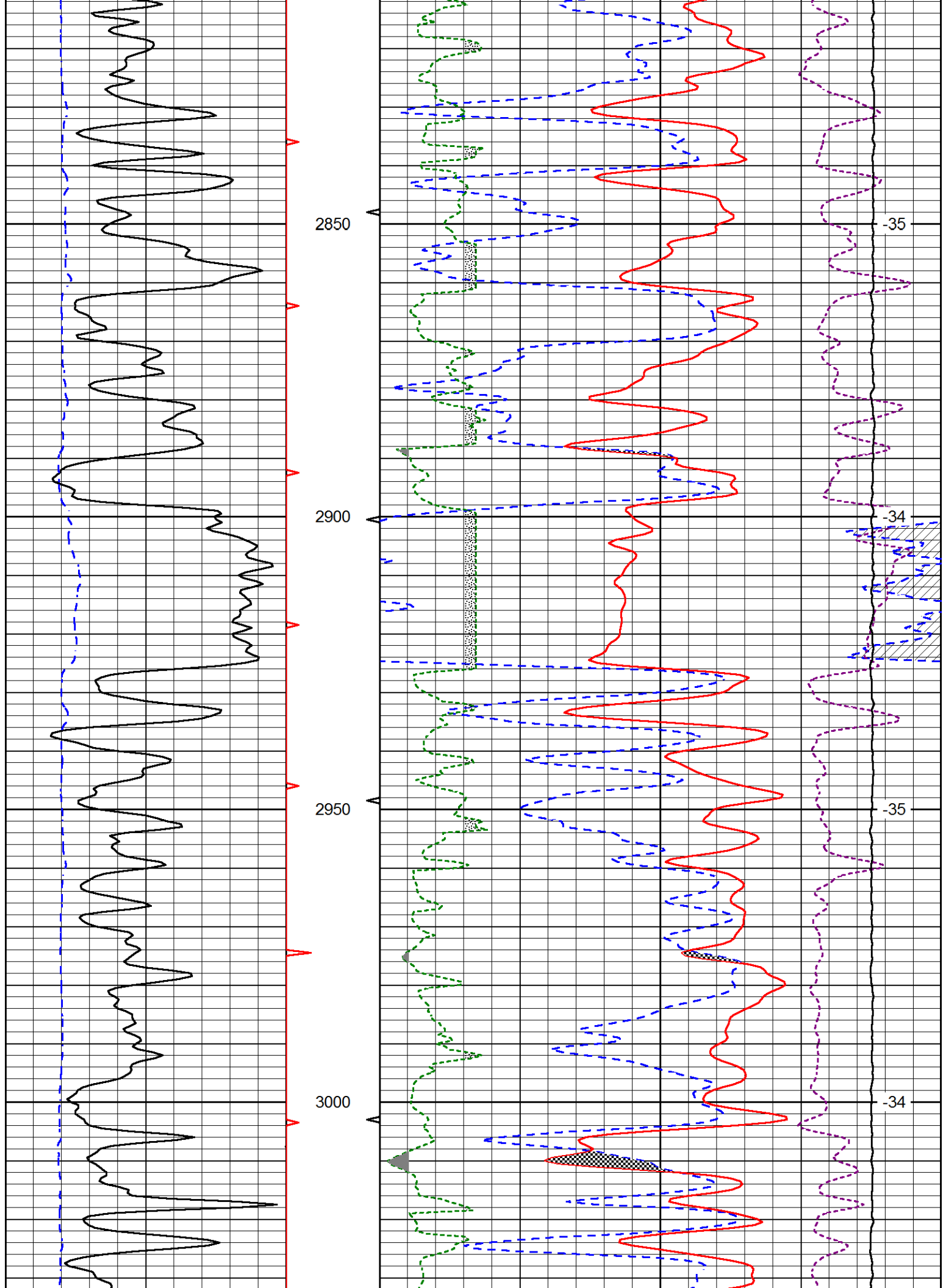




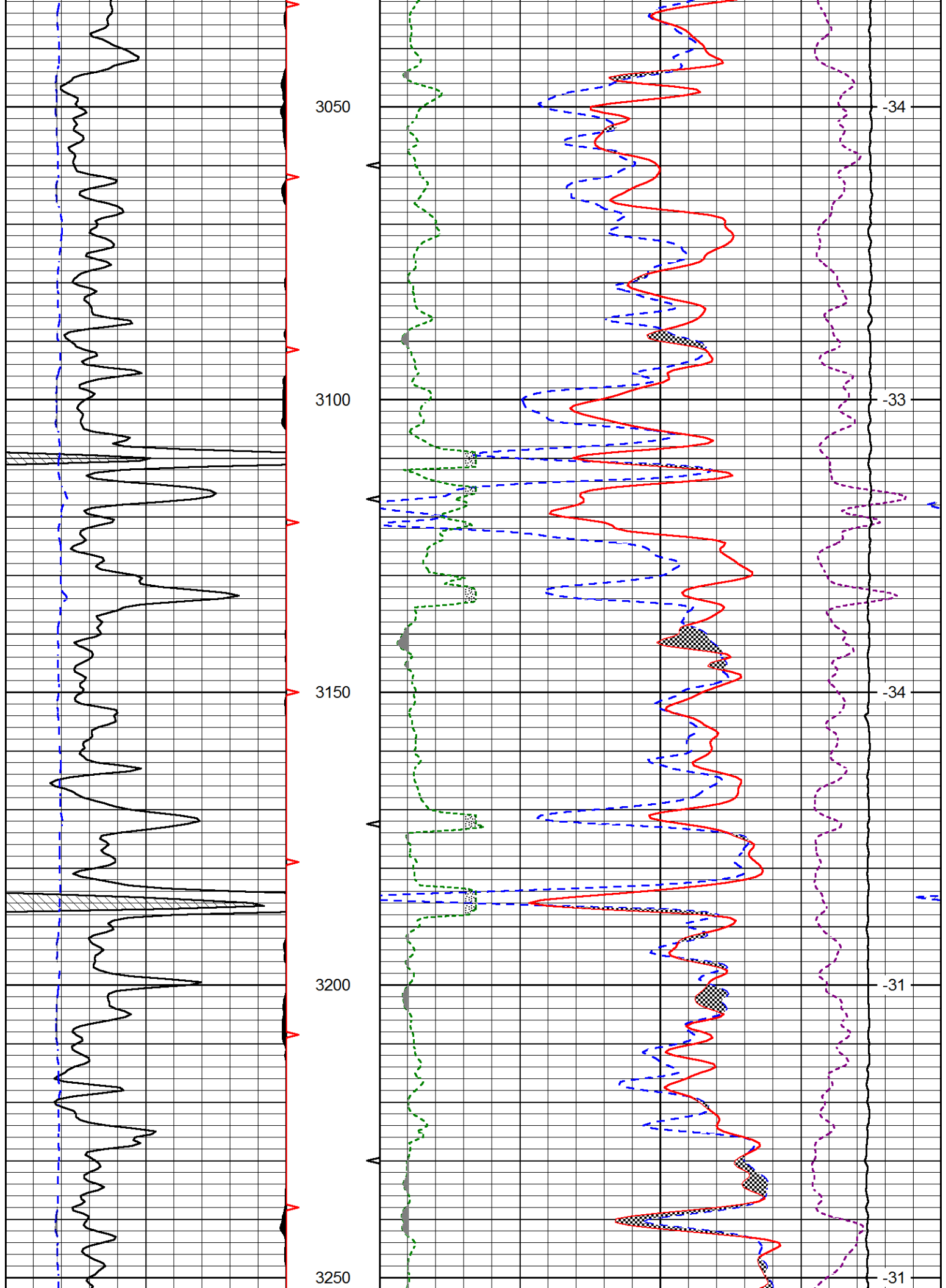


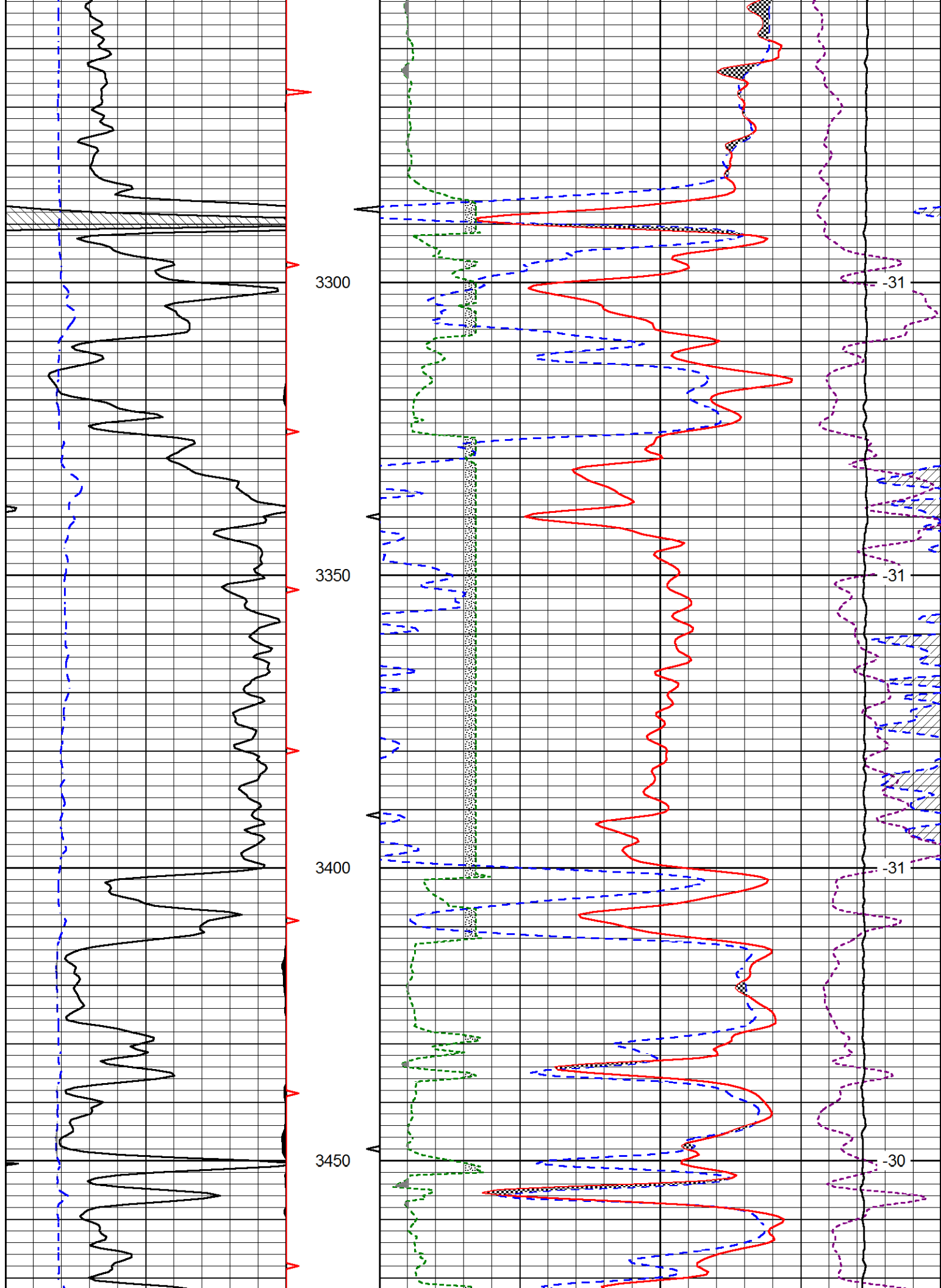


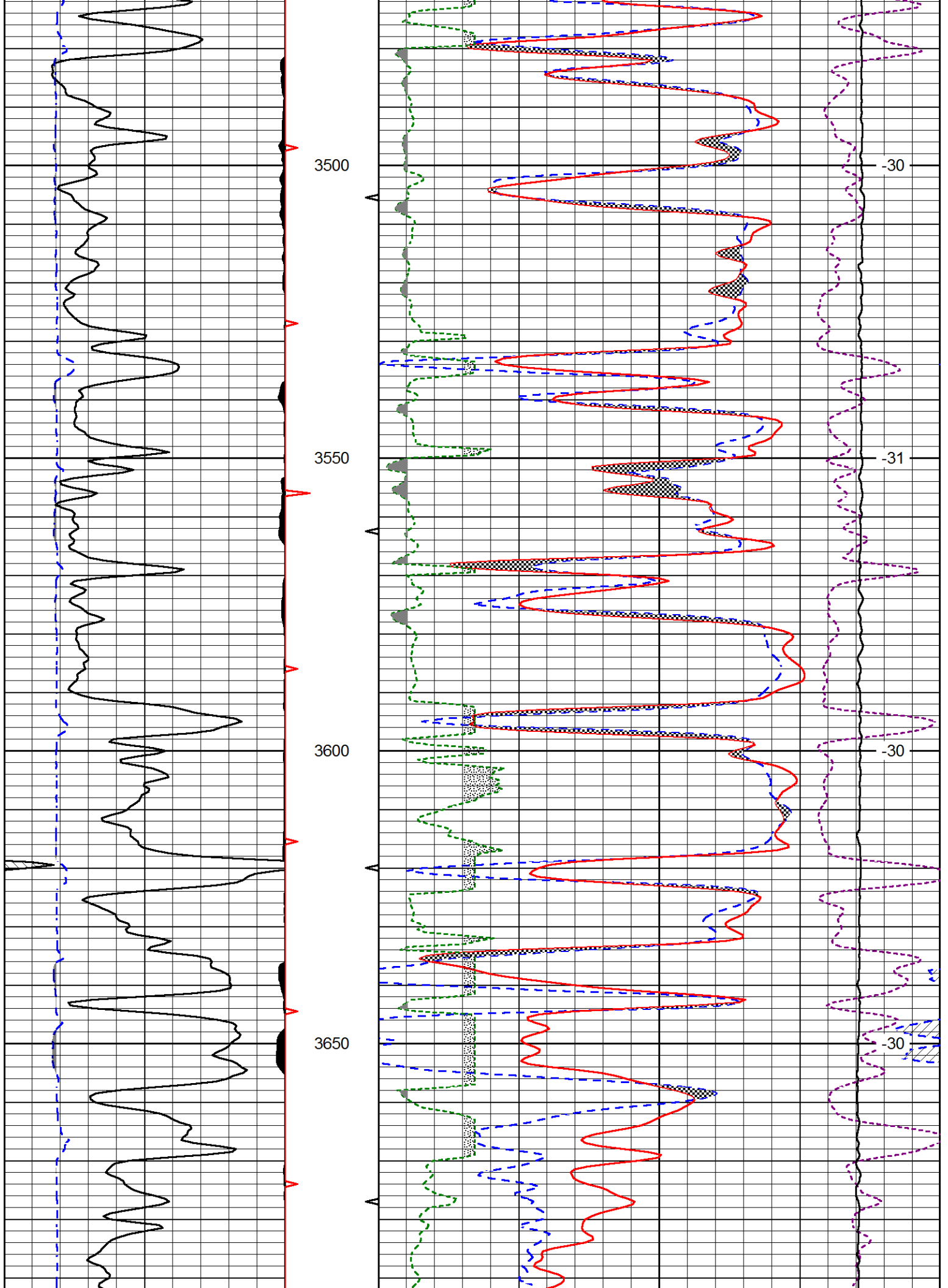


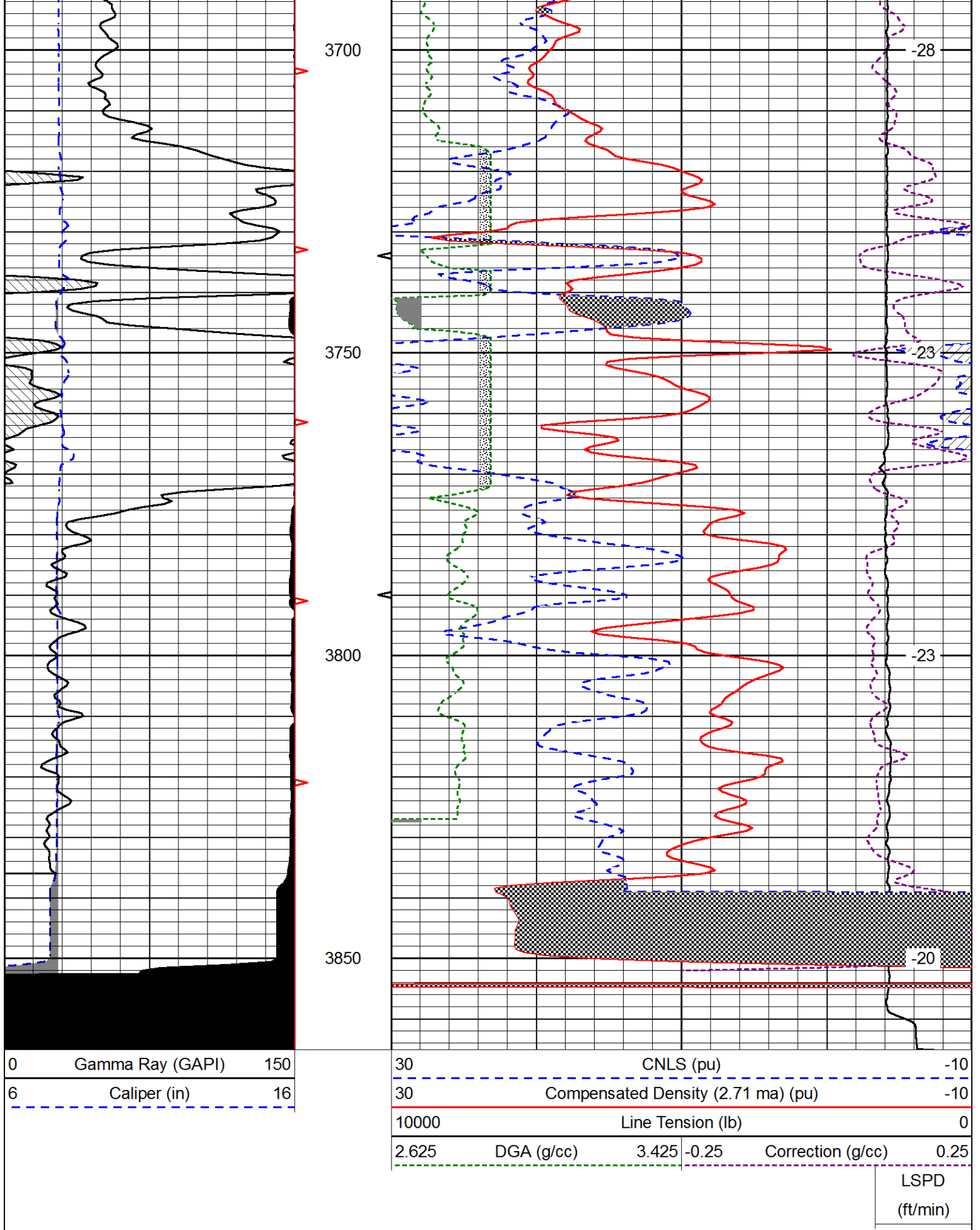














Pioneer Energy Services

# Microresistivity Log

API No.	15-185-23941-00-00	
Company	CARMEN SCHMITT, INC.	
Well	SWEETHEART #1	
Field	BAYER	
County	STAFFORD	State
		KANSAS
Location	1594' FSL & 2310' FWL	
Sec: 20	Twp: 21S	Rge: 14W
Permanent Datum	GROUND LEVEL	Elevation 1940
Log Measured From	KELLY BUSHING	8 Ft. Above Perm. Datum
Drilling Measured From	KELLY BUSHING	
		Other Services CNL/CDL DIL/BHCS
		Elevation K.B. 1948 D.F. N/A G.L. 1940

Date	7/22/2015
Run Number	TWO
Depth Driller	3860
Depth Logger	3859
Bottom Logged Interval	3858
Top Log Interval	1800
Casing Driller	8.625 @ 467
Casing Logger	470
Bit Size	7.875
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	10500
Density / Viscosity	9.2   67
pH / Fluid Loss	10.5   10.2
Source of Sample	Flowline
Rm @ Meas. Temp	0.30 @ 80
Rmf @ Meas. Temp	0.23 @ 80
Rmc @ Meas. Temp	0.41 @ 80
Source of Rmf / Rmc	Charts
Rm @ BHT	0.21 @ 115
Operating Rig Time	6 HOURS
Max Rec. Temp. F	115
Equipment Number	91
Location	HAYS
Recorded By	D. SCHMIDT
Witnessed By	BRAD RINE

<<< 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.

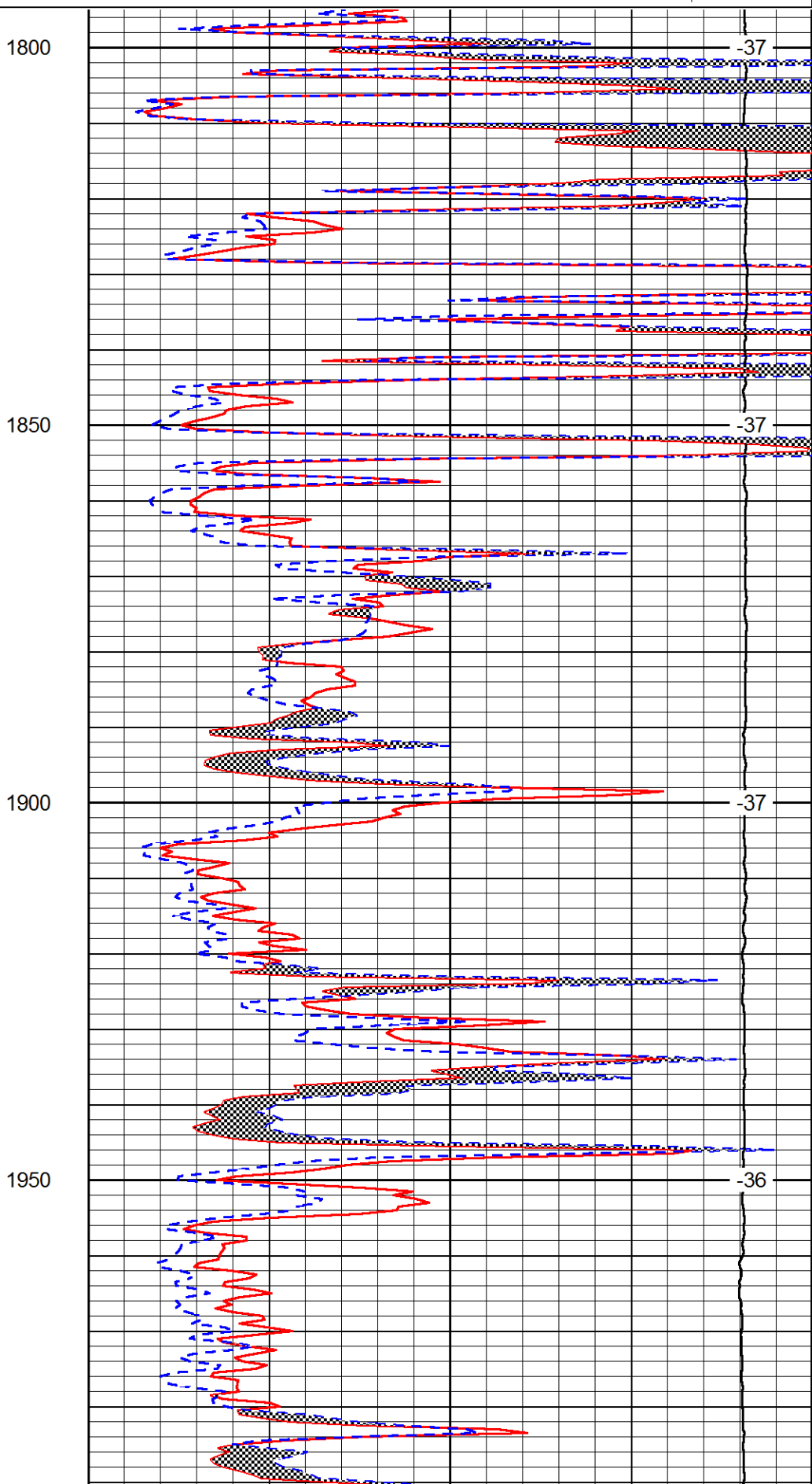
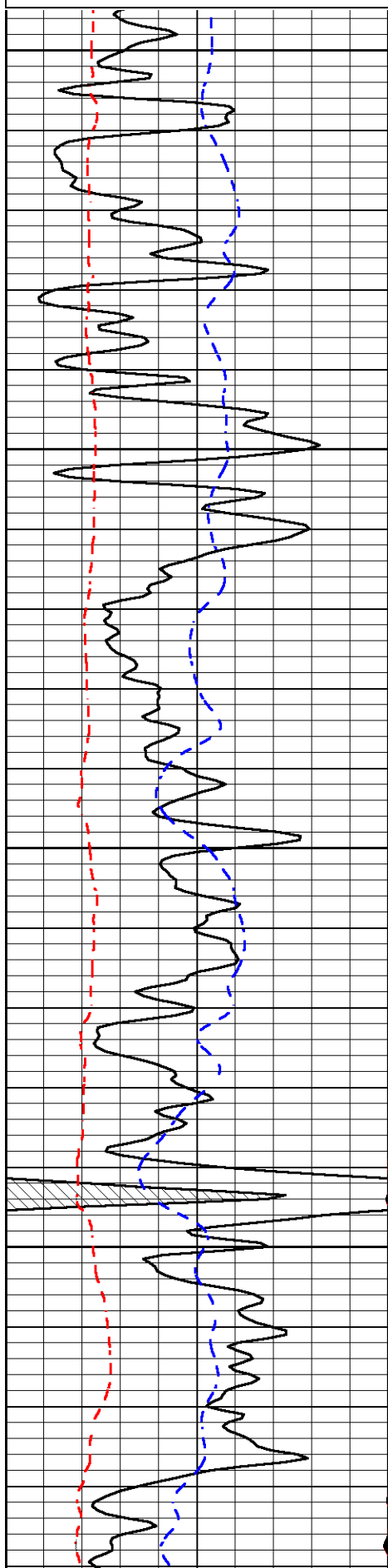
### Comments

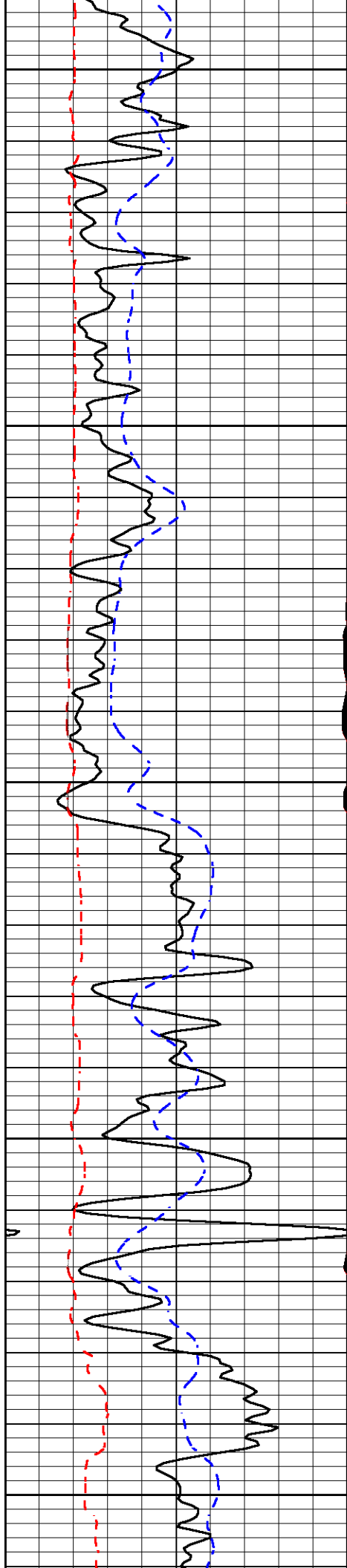
Thank you for using Pioneer Energy Services  
 785.625.3858  
 RADIUM,  
 2 NORTH TO 170TH, 1/2 EAST,  
 NORTH INTO

Database File carmen schmitt\_sweetheart\_1hd.db  
 Dataset Pathname DIL/csstack  
 Presentation Format micro  
 Dataset Creation Wed Jul 22 03:34:57 2015  
 Charted by Depth in Feet scaled 1:240

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

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0
	LSPD (ft/min)	





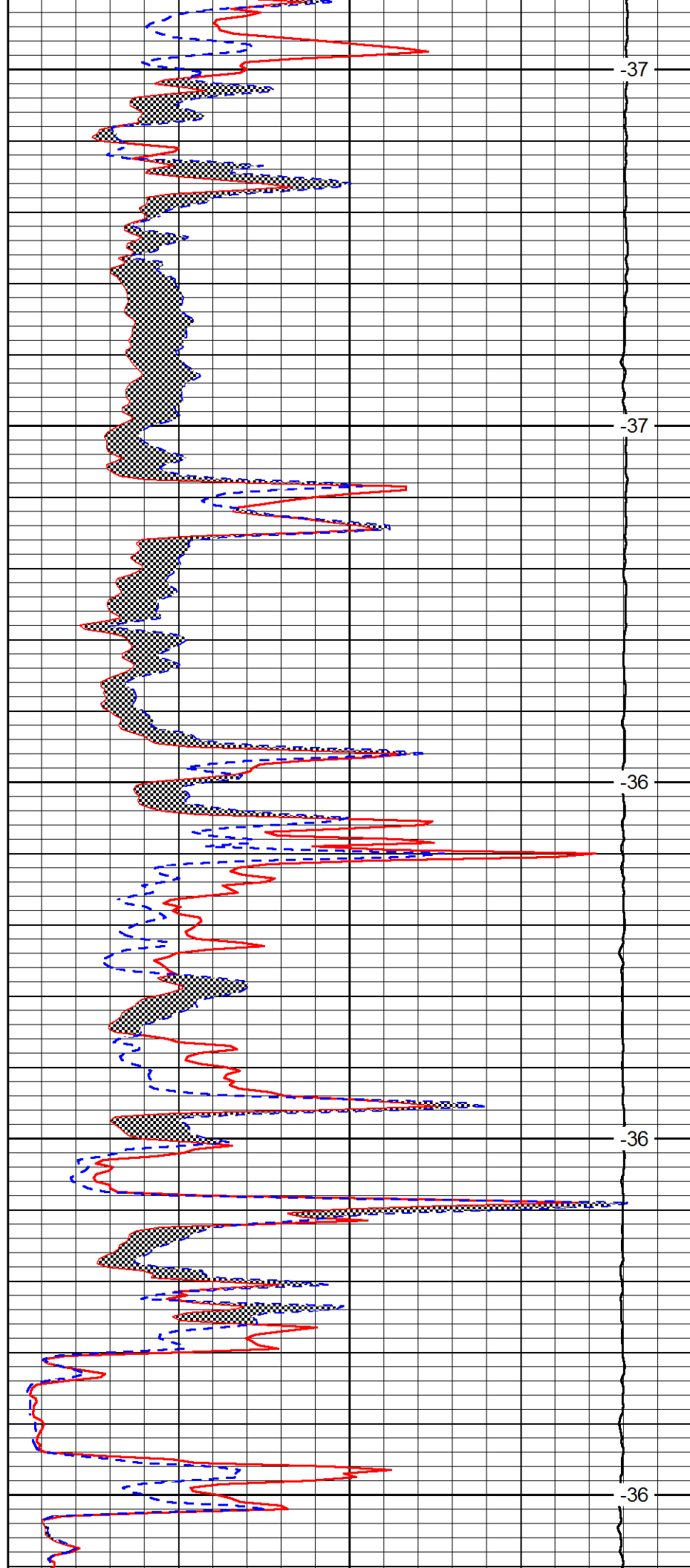
2000

2050

2100

2150

2200



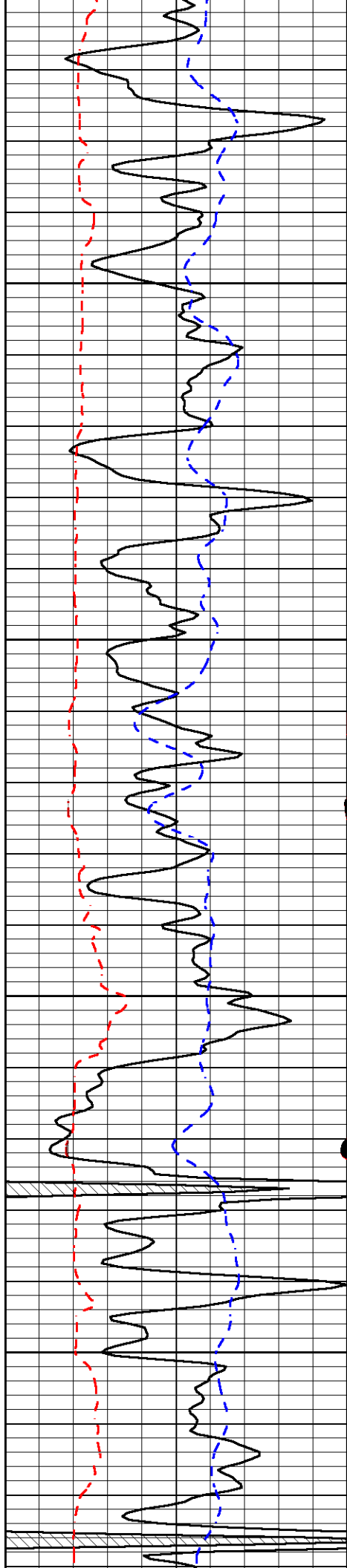
-37

-37

-36

-36

-36

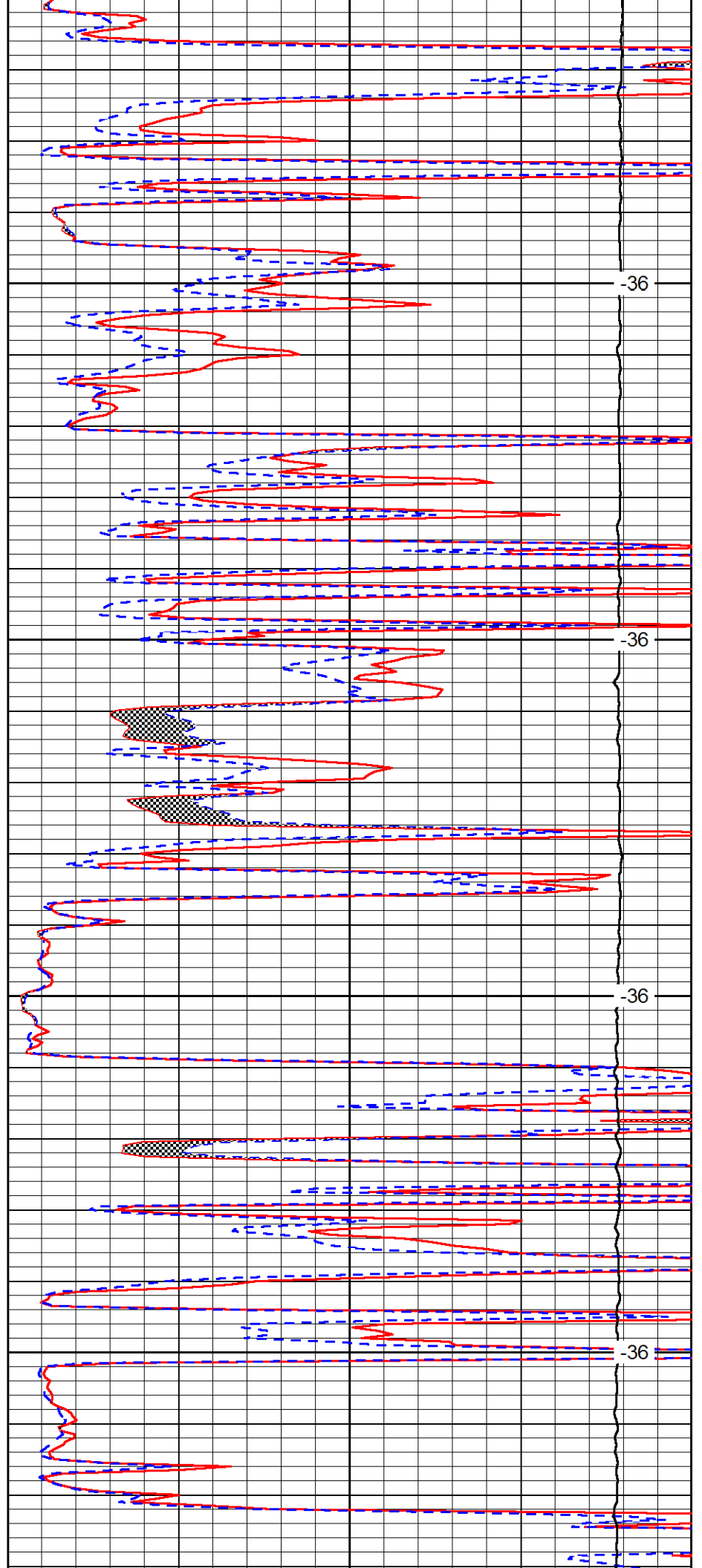


2250

2300

2350

2400



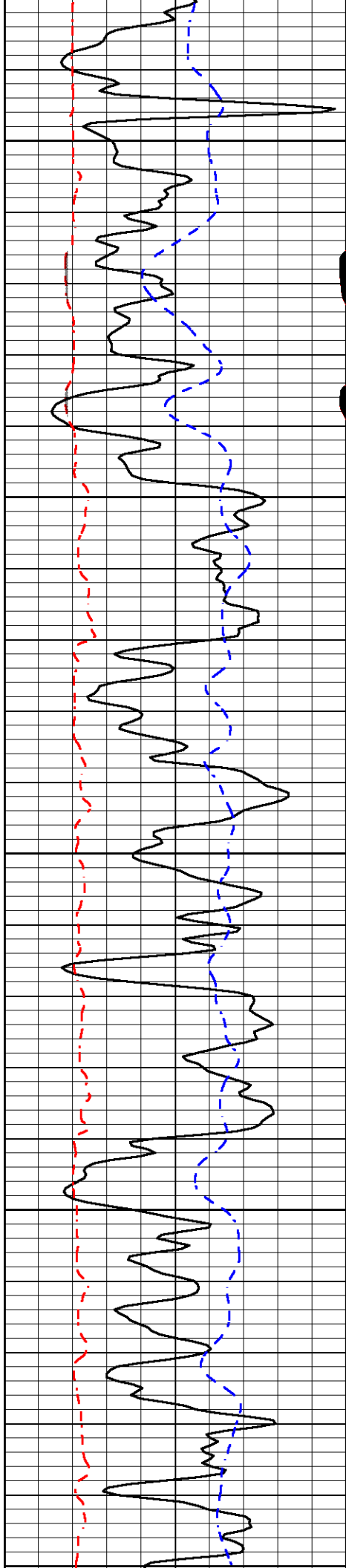
-36

-36

-36

-36





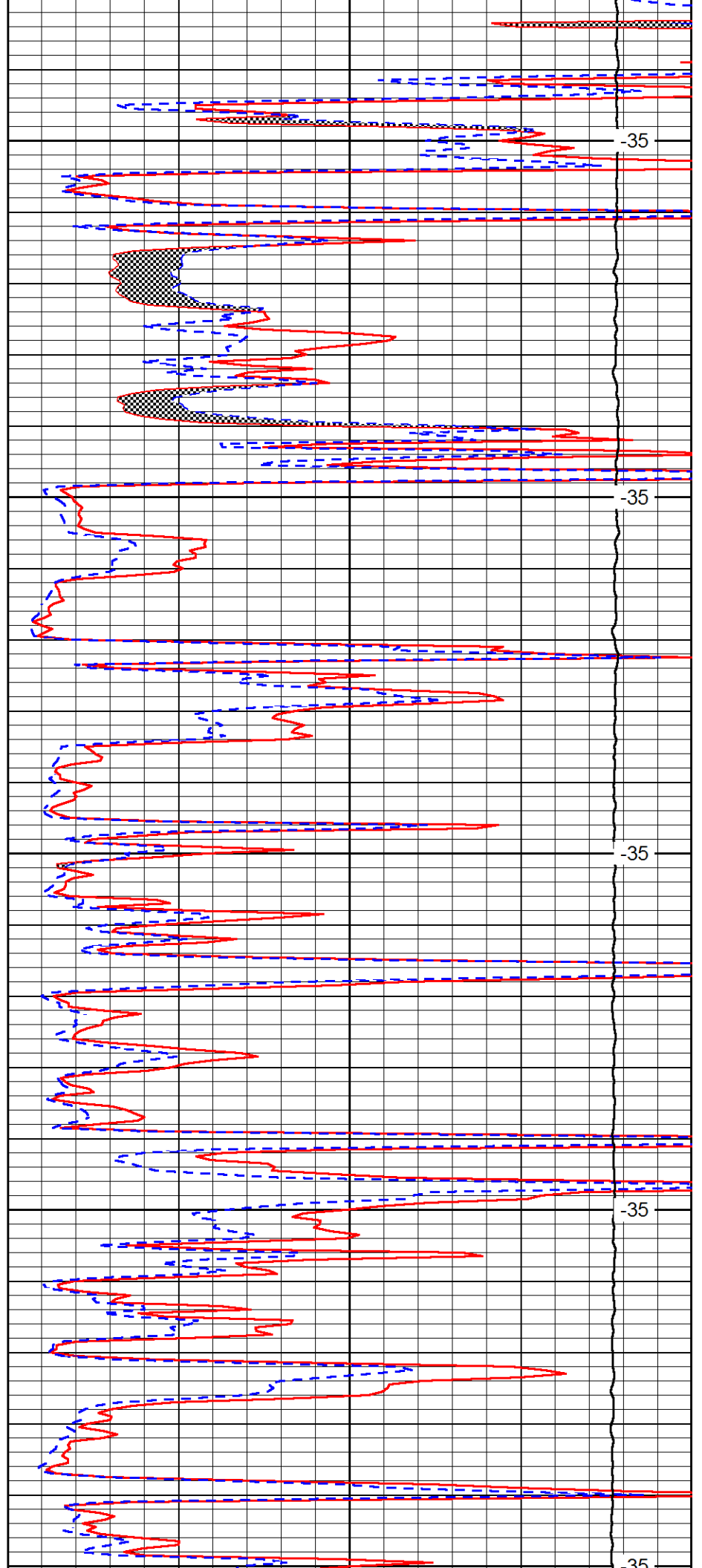
2450

2500

2550

2600

2650



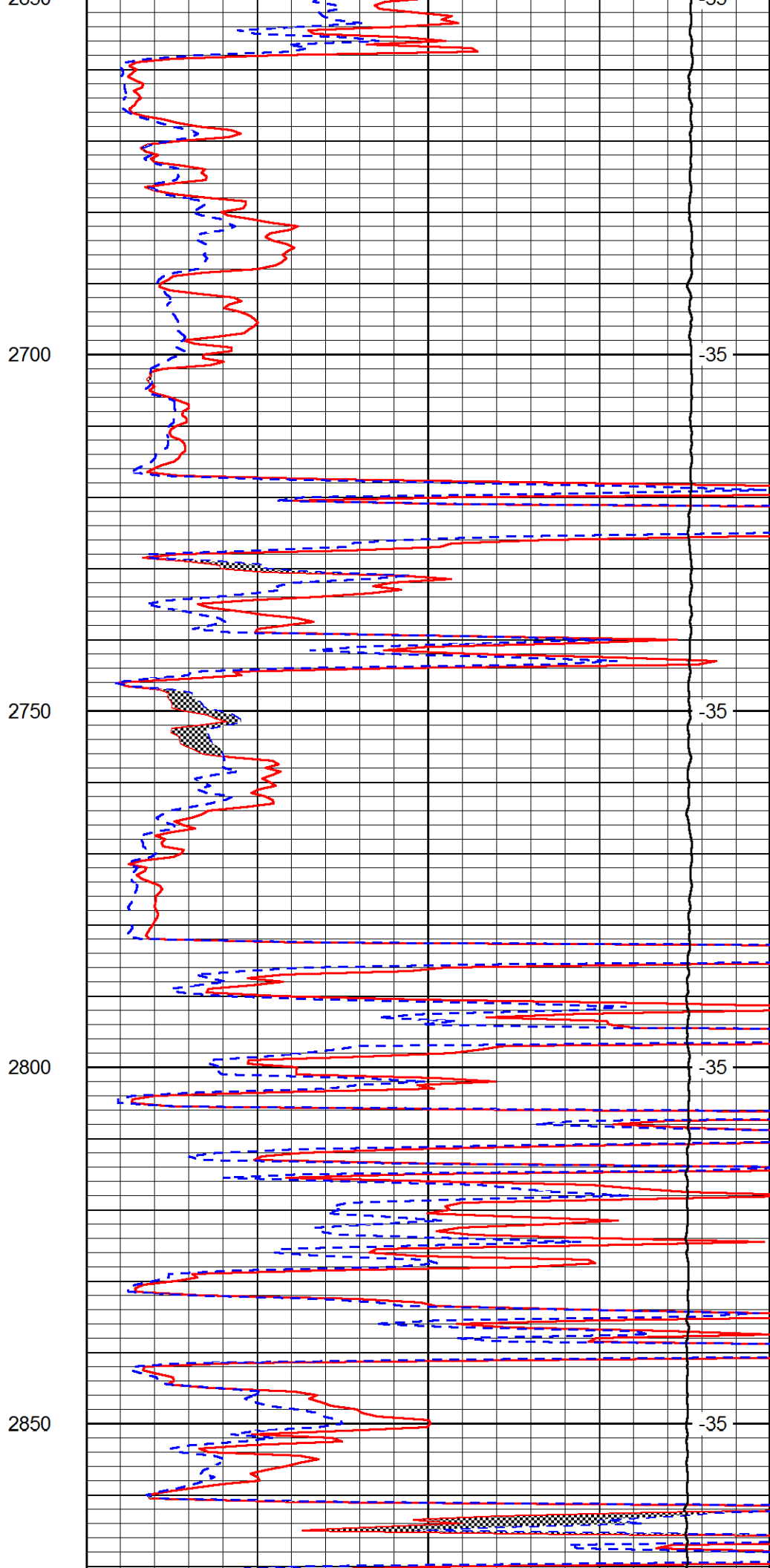
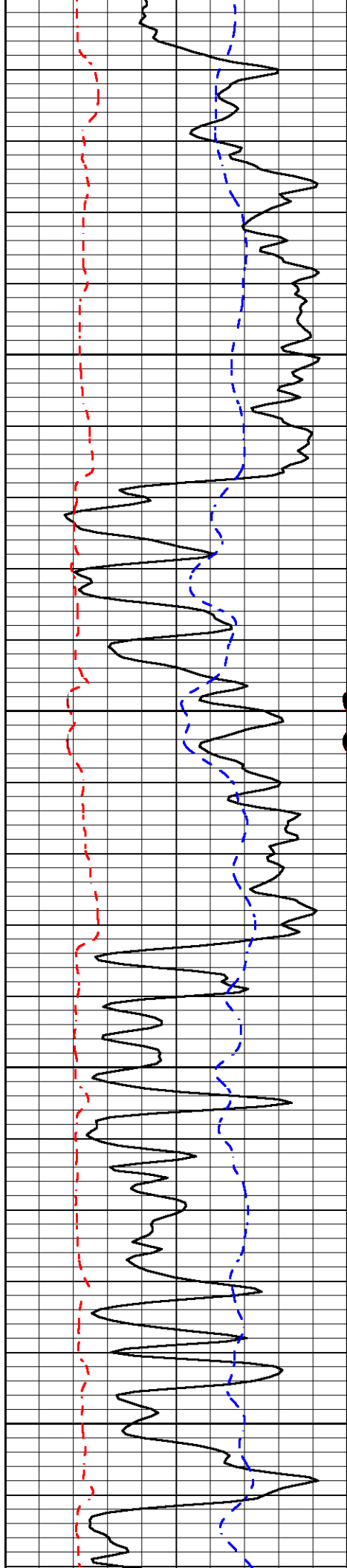
35

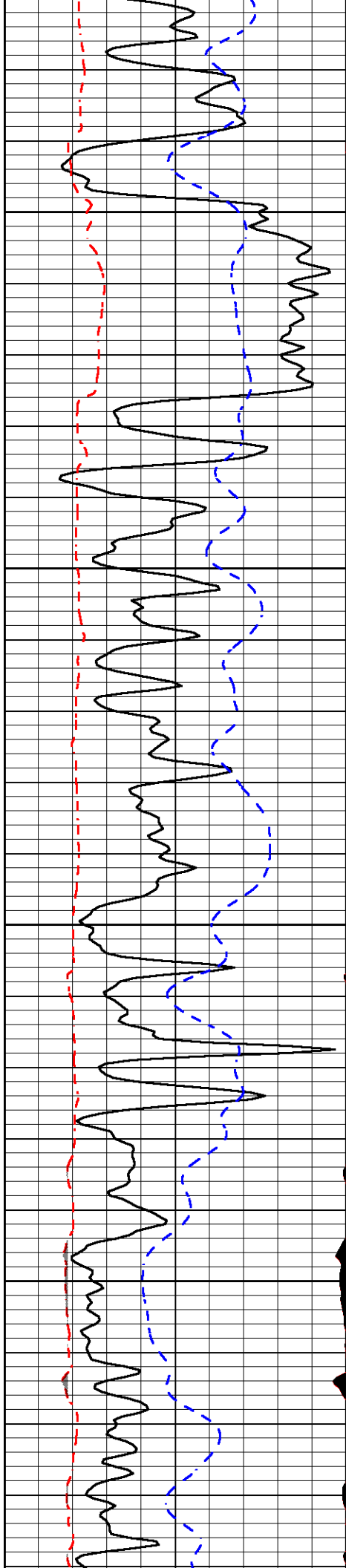
35

35

35

35



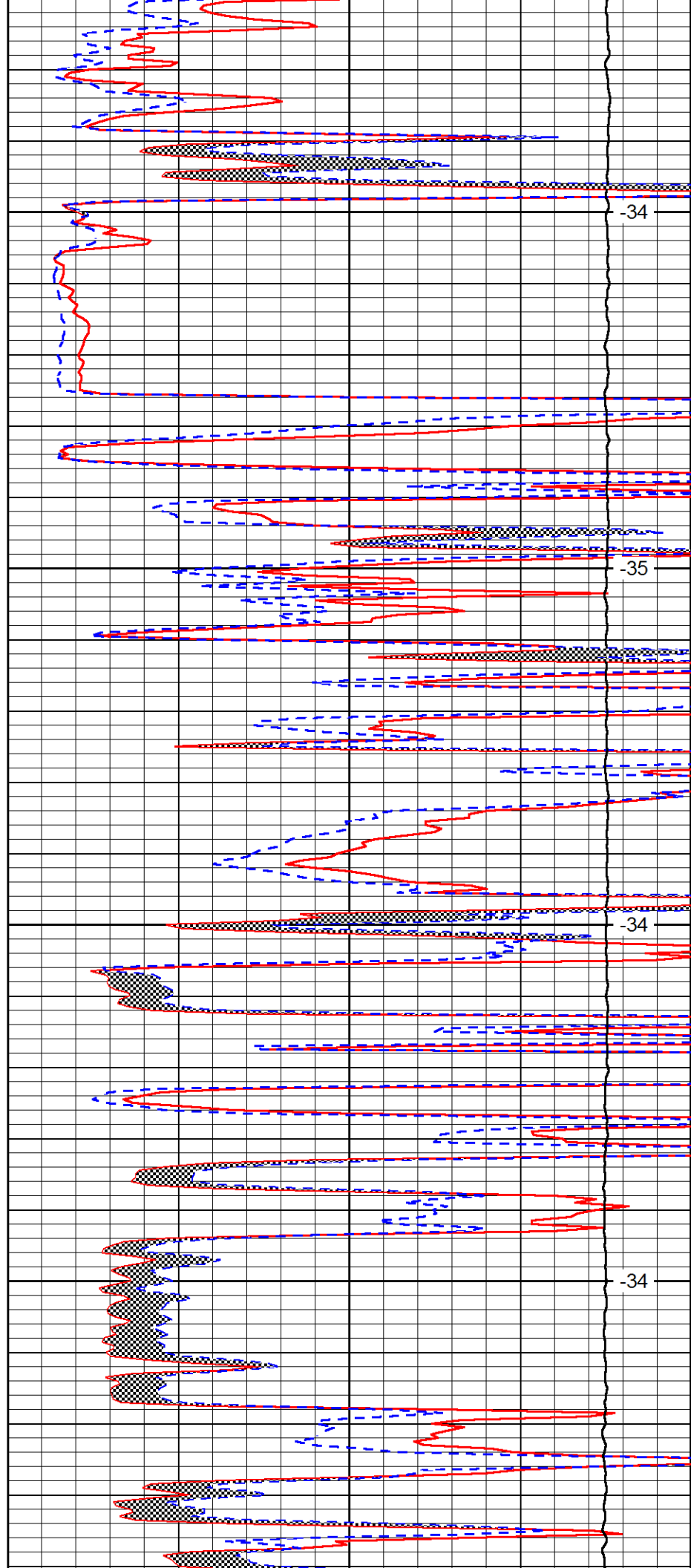


2900

2950

3000

3050

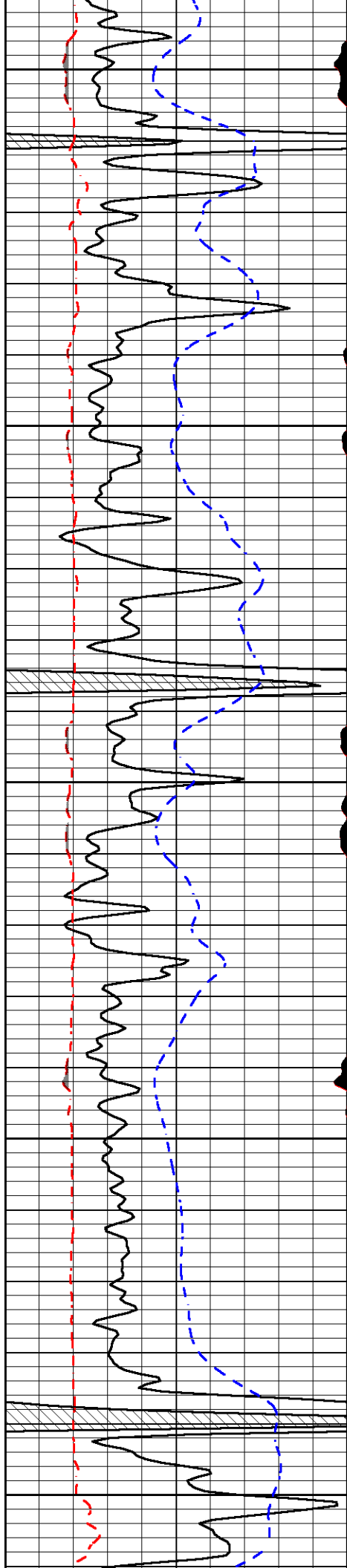


-34

-35

-34

-34



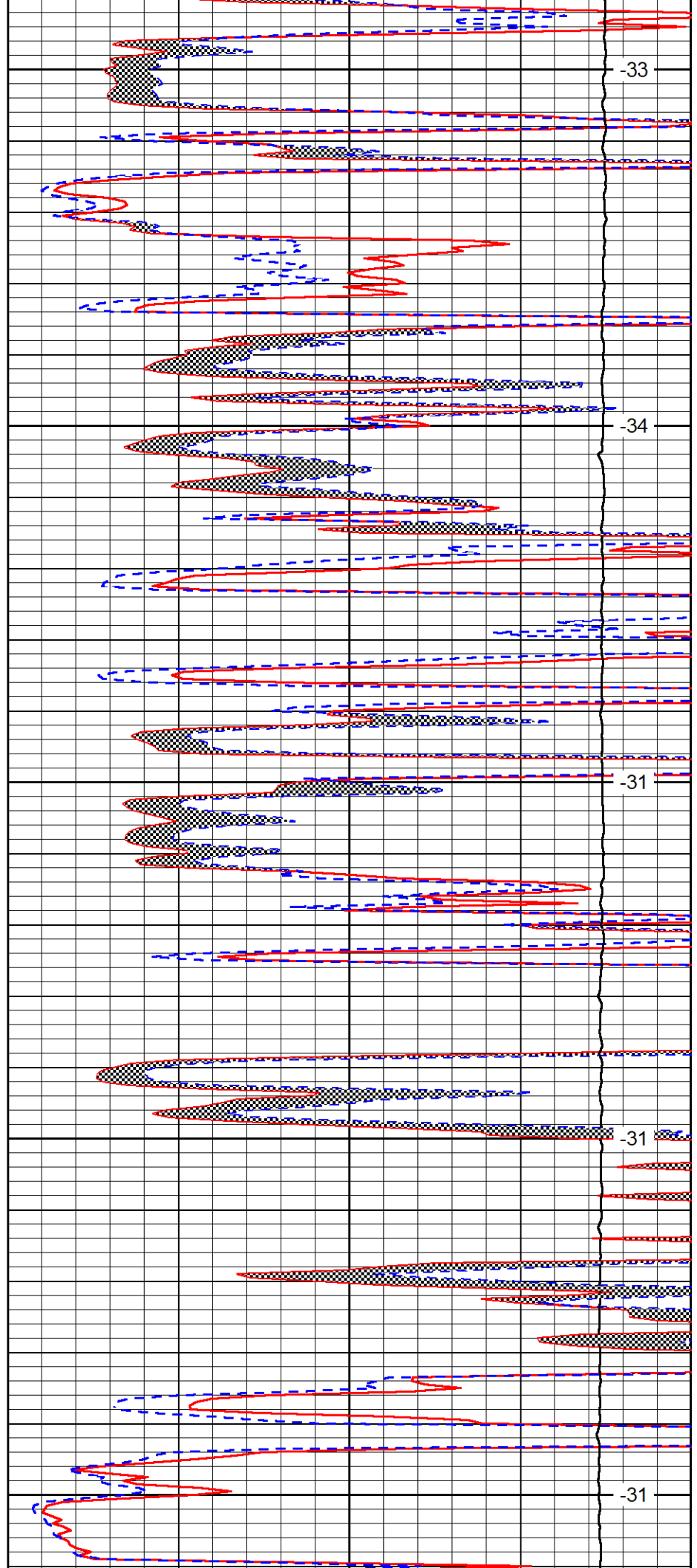
3100

3150

3200

3250

3300



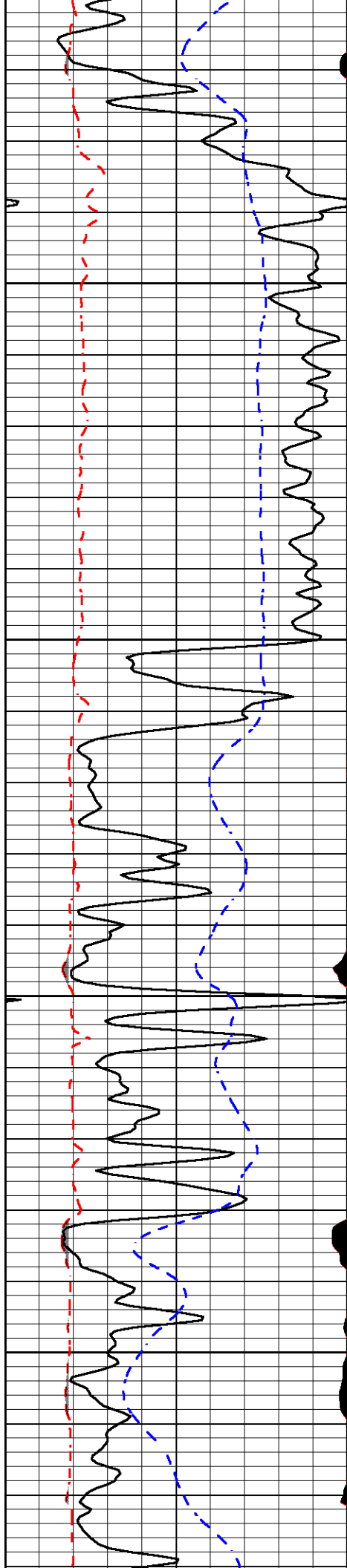
-33

-34

-31

-31

-31

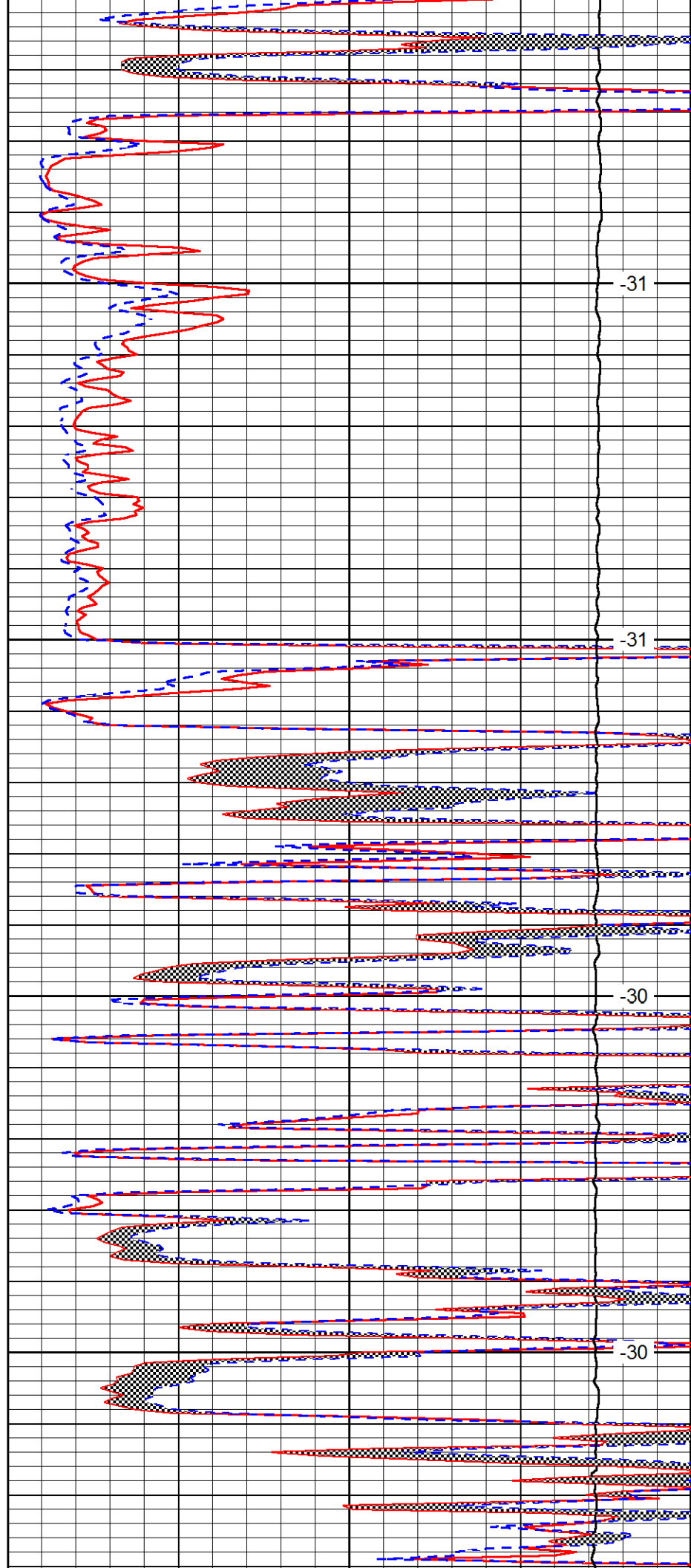


3350

3400

3450

3500

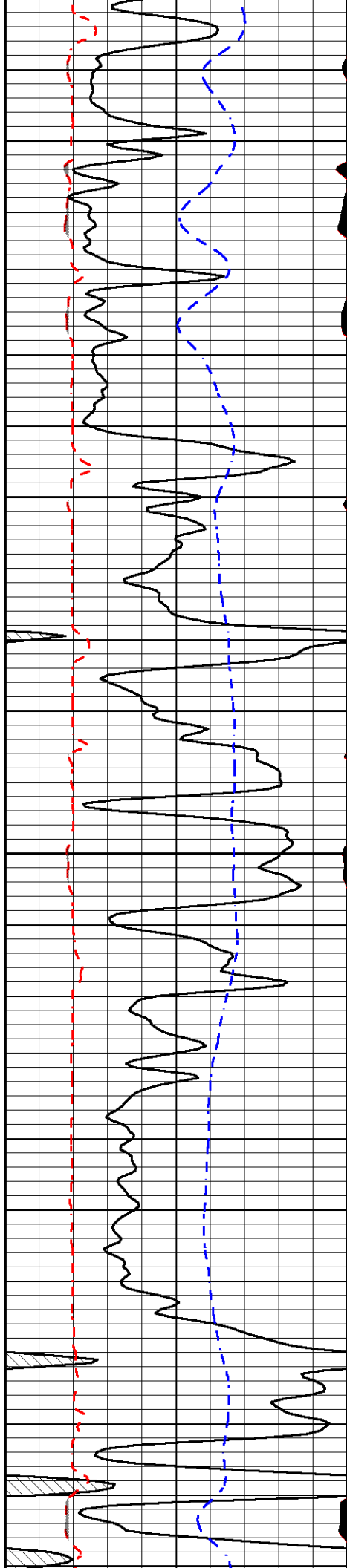


-31

-31

-30

-30



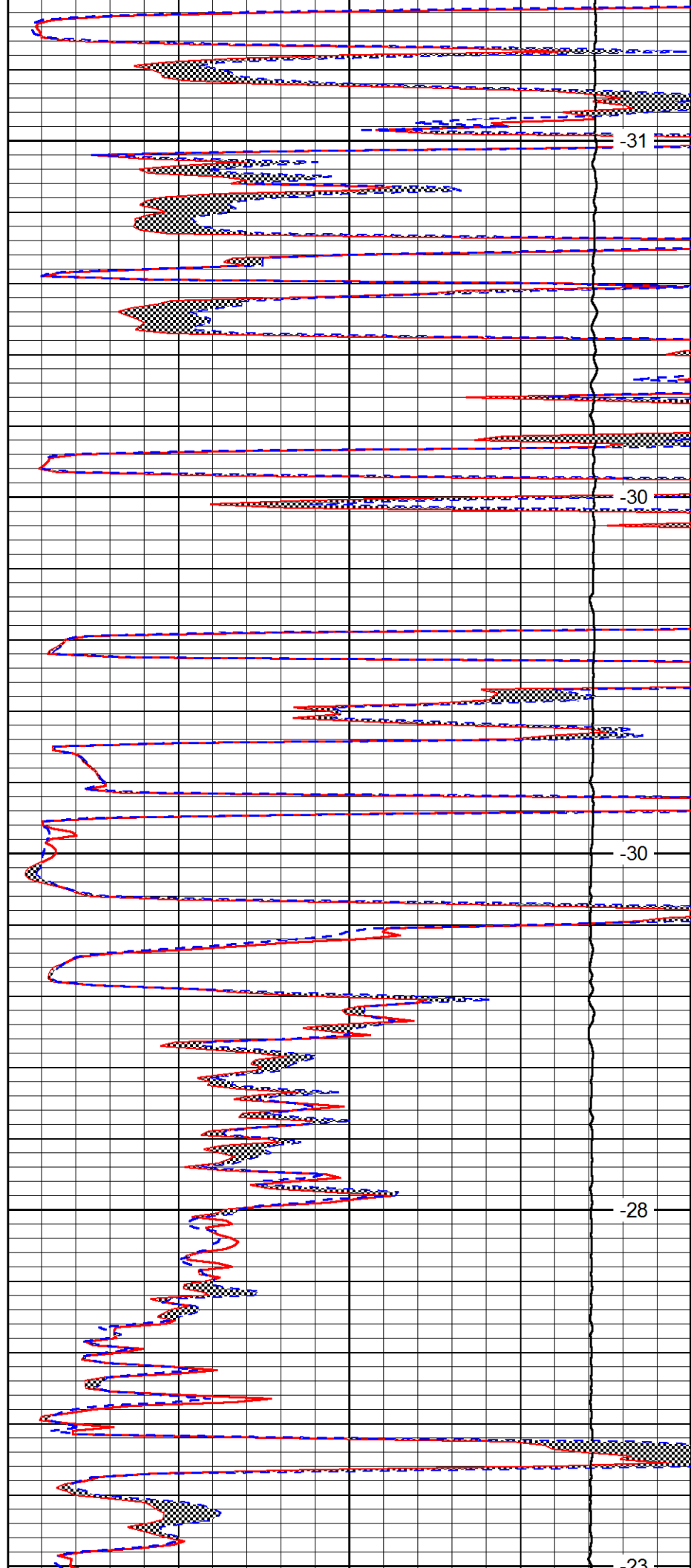
3550

3600

3650

3700

3750



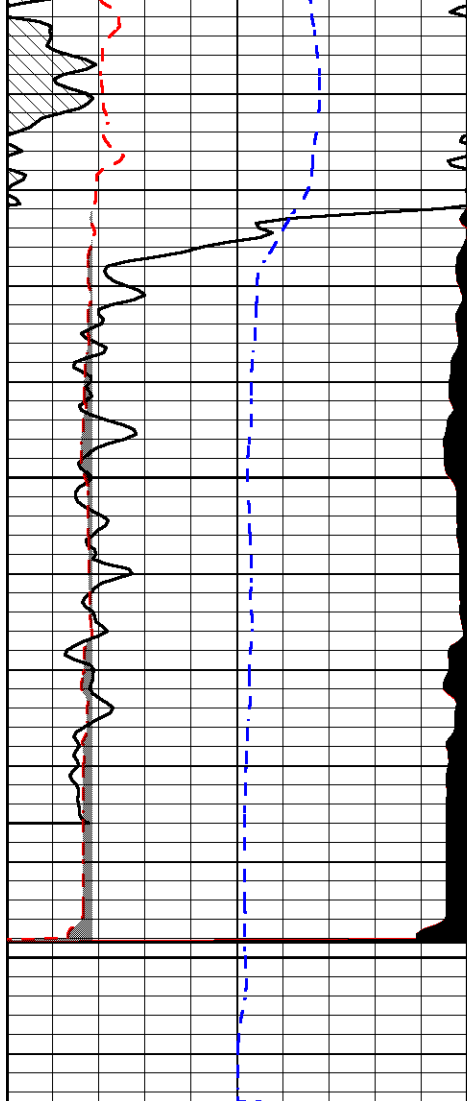
-31

-30

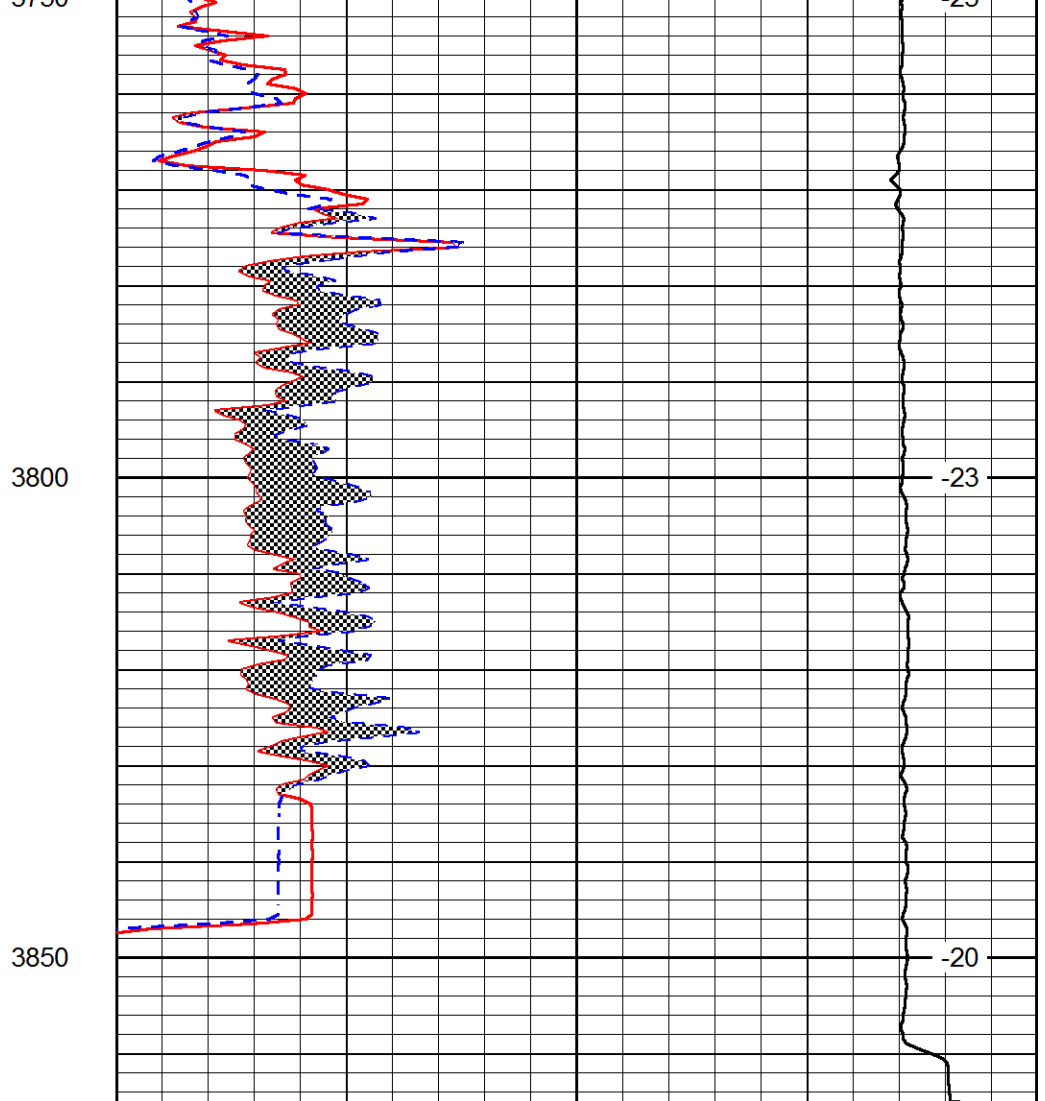
-30

-28

-23



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



0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

LSPD  
(ft/min)