

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Richland Oil Investments, LLC
Well Name	WHEATLAND 8-3
Doc ID	1374033

All Electric Logs Run

ML
CDNL
DIL
BCS
Cemment Bond / Gamma Ray

Form	ACO1 - Well Completion
Operator	Richland Oil Investments, LLC
Well Name	WHEATLAND 8-3
Doc ID	1374033

Tops

Name	Top	Datum
Anhydrite	2455	+518
Anhydrite Base	2478	+495
Topeka	3816	-843
Heebner	3981	-1008
Toronto	3998	-1025
Lansing	4023	-1050
Muncie Creek	4186	-1213
Stark	4274	-1301
Base KC	4352	-1379
Marmaton	4426	-1453
Pawnee	4472	-1499
Ft. Scott	4511	-1538
Cherokee	4523	-1550
Johnson Zn	4595	-1622
Morrow	4618	-1645
Mississippian	4668	-1695

Form	ACO1 - Well Completion
Operator	Richland Oil Investments, LLC
Well Name	WHEATLAND 8-3
Doc ID	1374033

Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	4600	4603			2000 gal NEFE 15%
4	4596	4598			with "
4	4336	4340			----
4	4286	4290			250 gal MCA 15%
4	4201	4205			250 MCA 15%
4	4072	4076			250 MCA 15%
4	4058	4063			with "
4	4024	4026			250MCA 15%



**BOREHOLE
COMPENSATED
SONIC
LOG**

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove
 State Kansas

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove State Kansas

Location: API #: 15 063 22314
 1310' FSL & 455' FEL
 SEC 8 TWP 14S RGE 32W
 Permanent Datum Ground Level Elevation 2963'
 Log Measured From KB 10' AGL
 Drilling Measured From KB
 Other Services
 ML
 DIL
 CDNL
 Elevation
 K.B. 2973'
 D.F. 2972'
 G.L. 2963'

Date	09-02-17
Run Number	Two
Depth Driller	4725'
Depth Logger	4726'
Bottom Logged Interval	4718'
Top Log Interval	300'
Casing Driller	8 5/8" @ 234'
Casing Logger	234'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.2/56
PH / Fluid Loss	10/8.8
Source of Sample	Pit
Rm @ Meas. Temp	0.50@86degf
Rmf @ Meas. Temp	0.40@86degf
Rmc @ Meas. Temp	0.64@86degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	0.35@122degf
Time Circulation Stopped	11:00 a.m
Time Logger on Bottom	4:30 p.m
Maximum Recorded Temperature	122degf
Equipment Number	T729
Location	Hays, KS
Recorded By	Casey Patterson
Witnessed By	Mr. Keith Reavis

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

South out of Oakley on Hwy. 83 20 mi to Jayhawk Rd.,
 Then 4 mi. East to 14 Rd., Then North 1/2 mi. West into Location

Thanks for using Gemini Wireline LLC
 785-625-1182

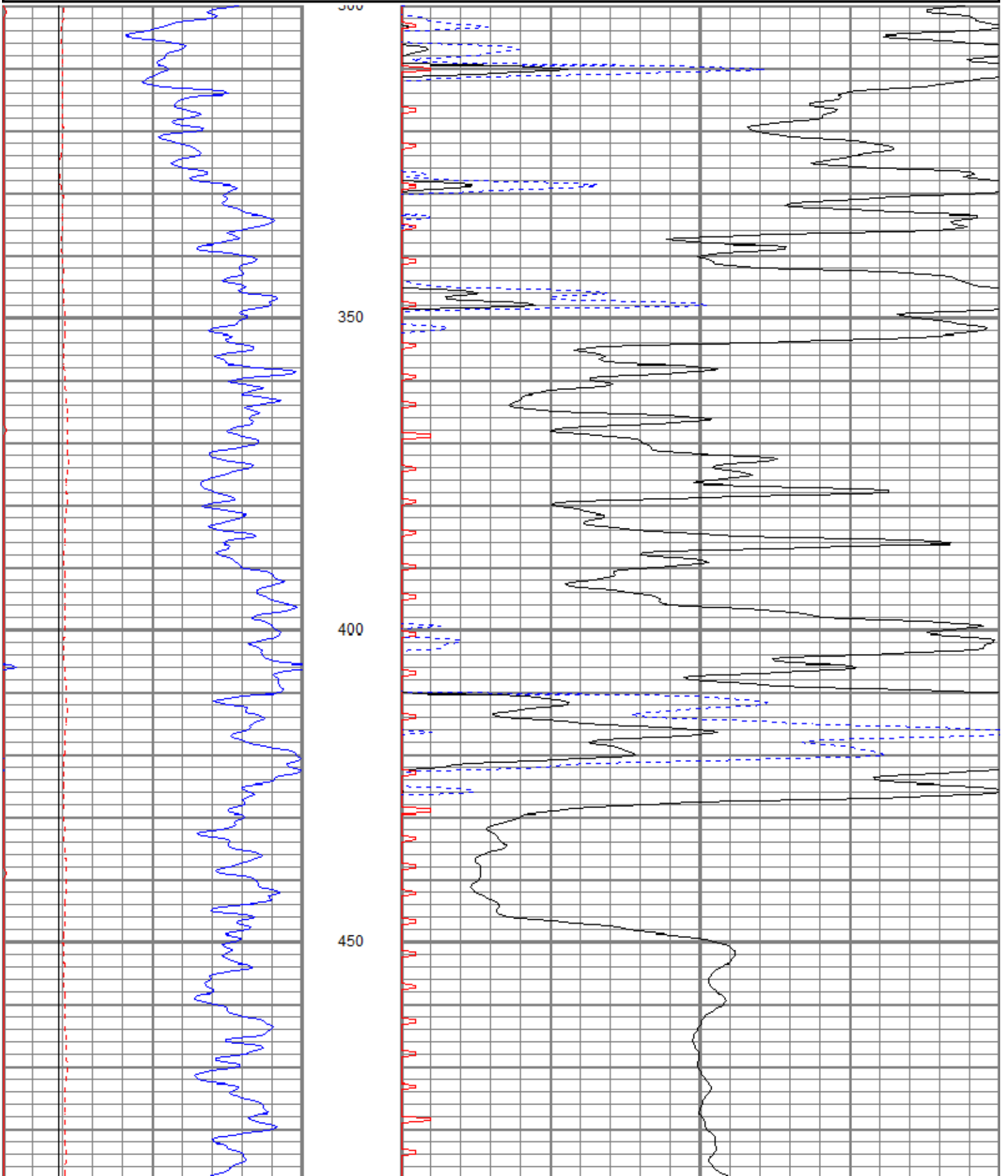


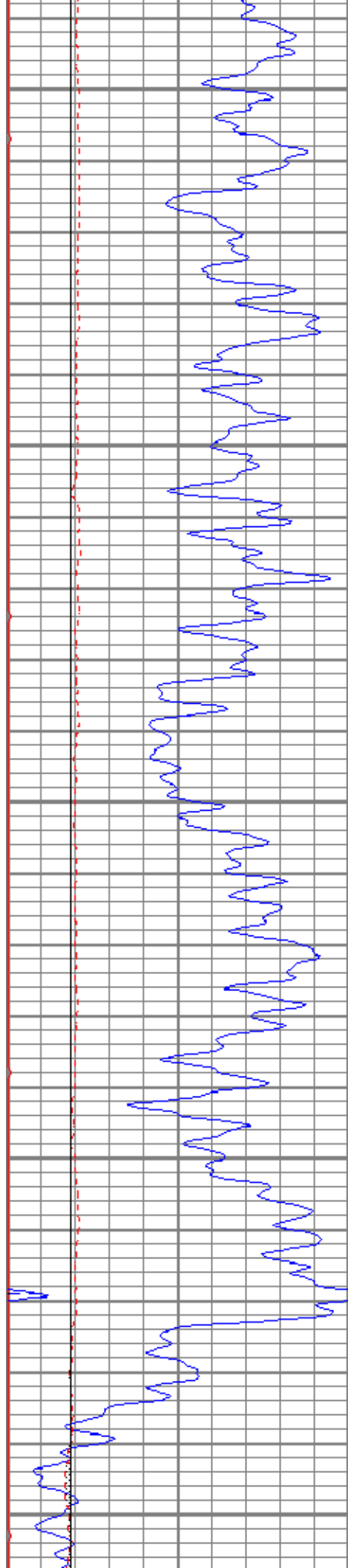
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 Dataset Pathname pass8.1
 Presentation Format kbc
 Dataset Creation Sat Sep 02 18:12:05 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16

140	DT (usec/ft)	40
30	SPOR (pu)	-10
0	ITT (msec)	20





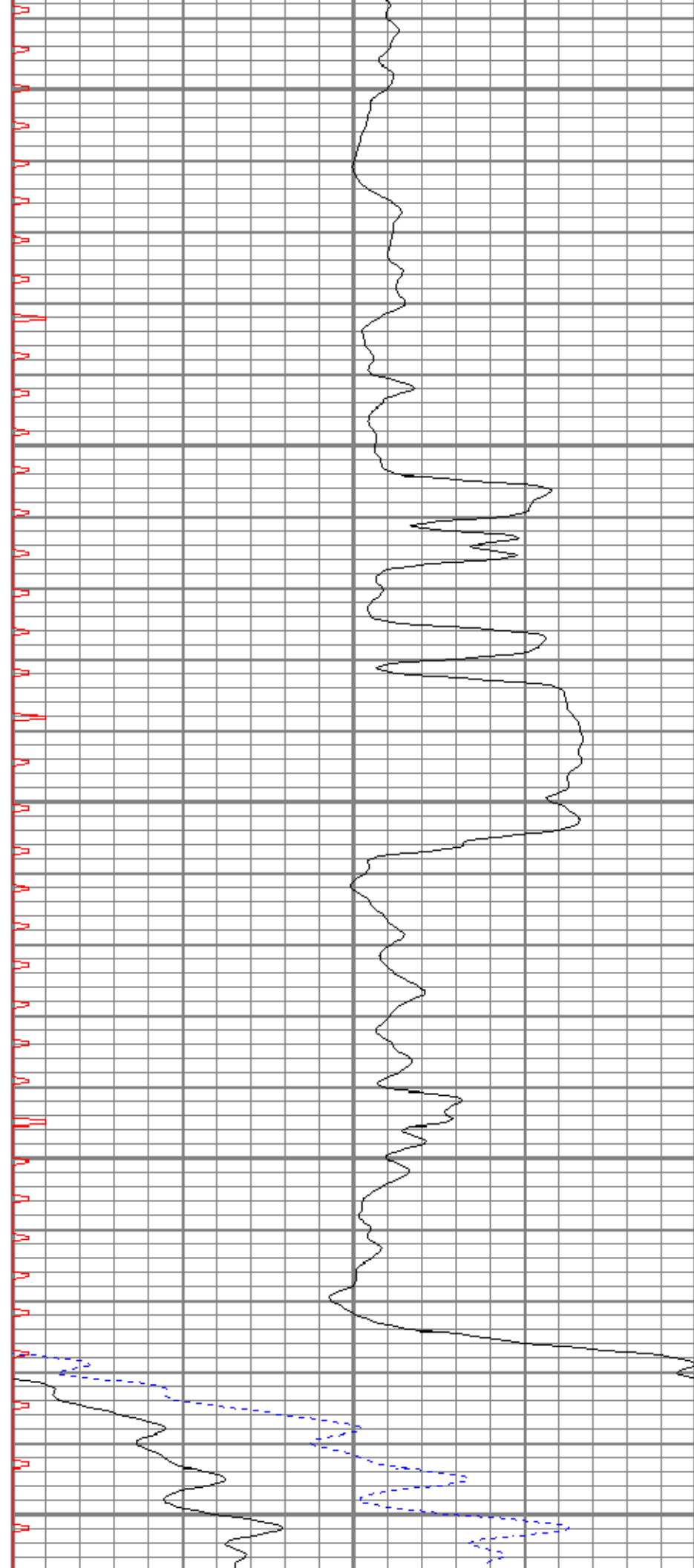
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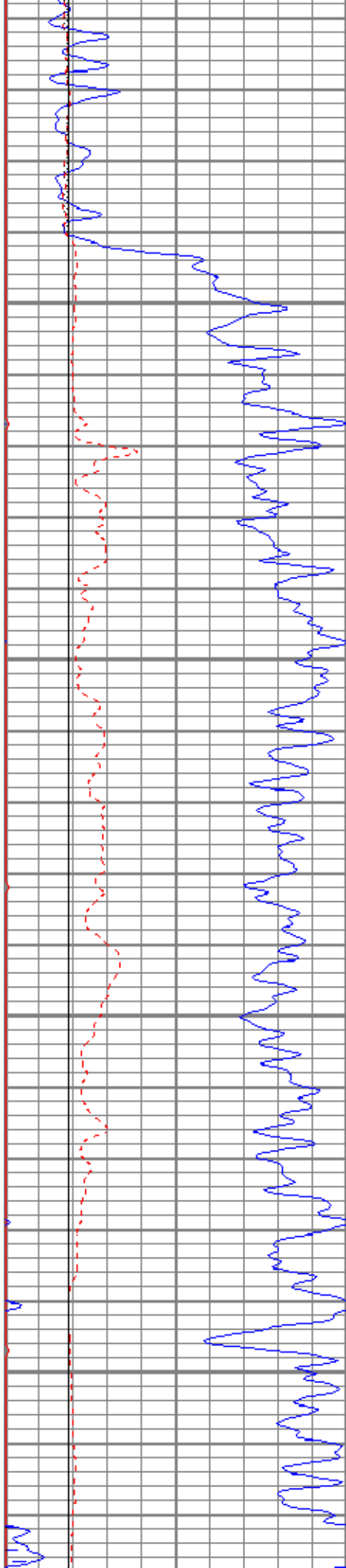
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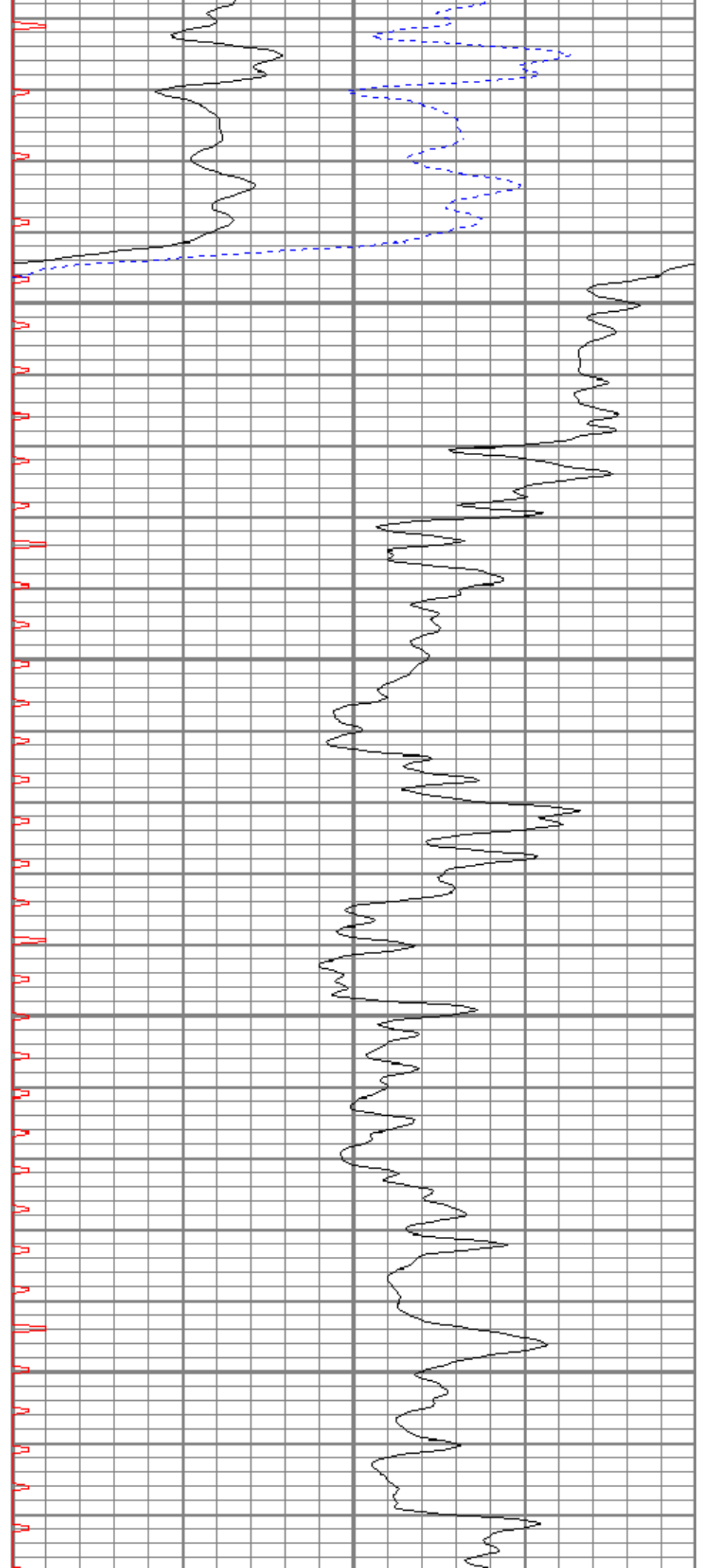


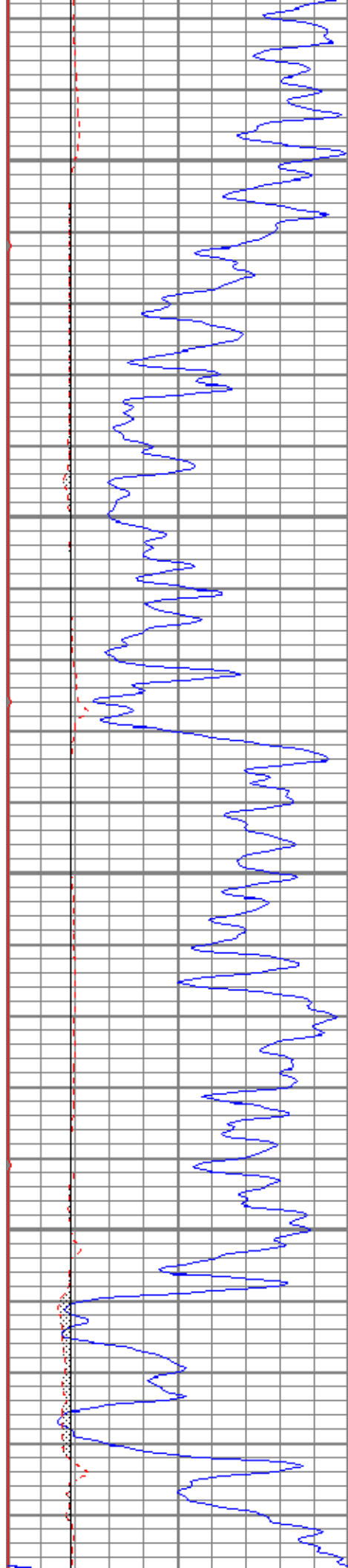
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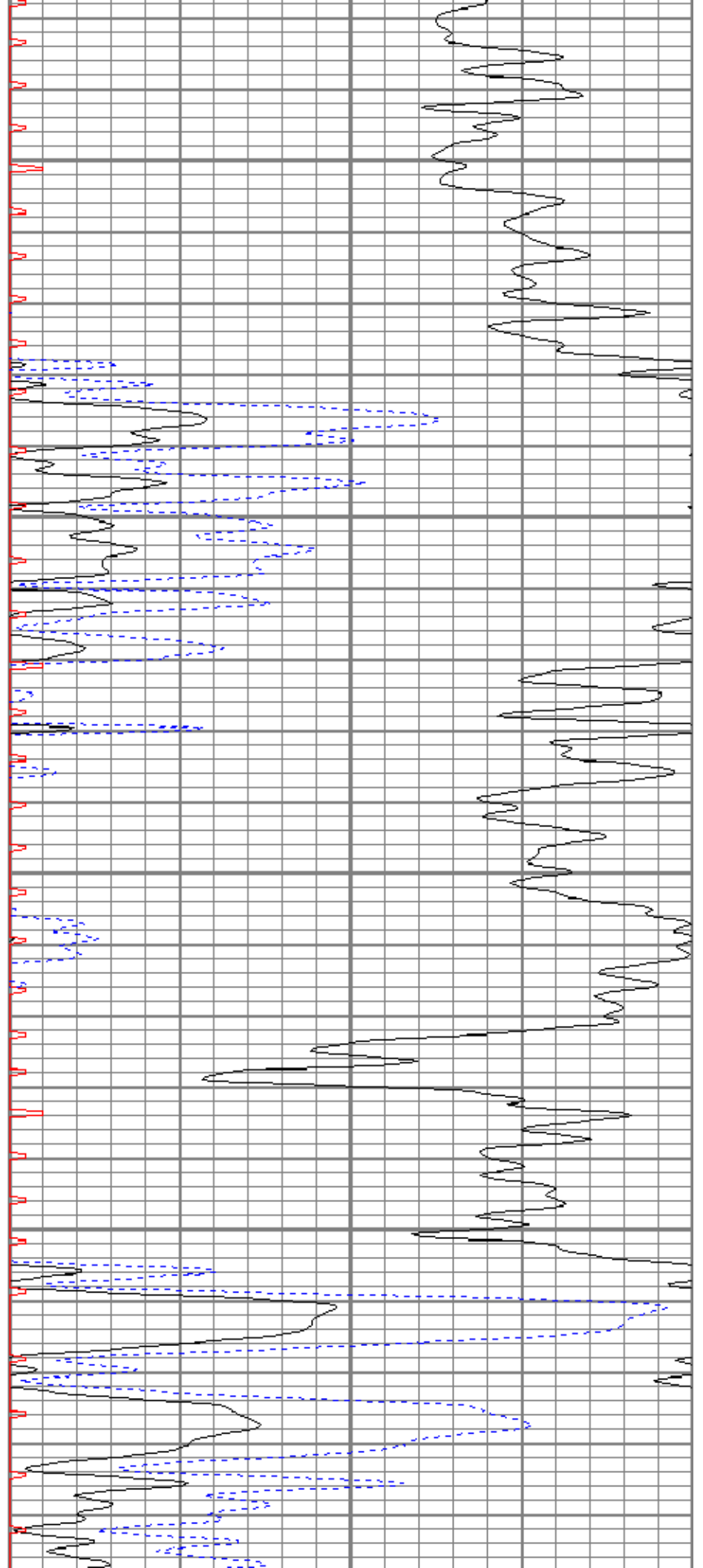


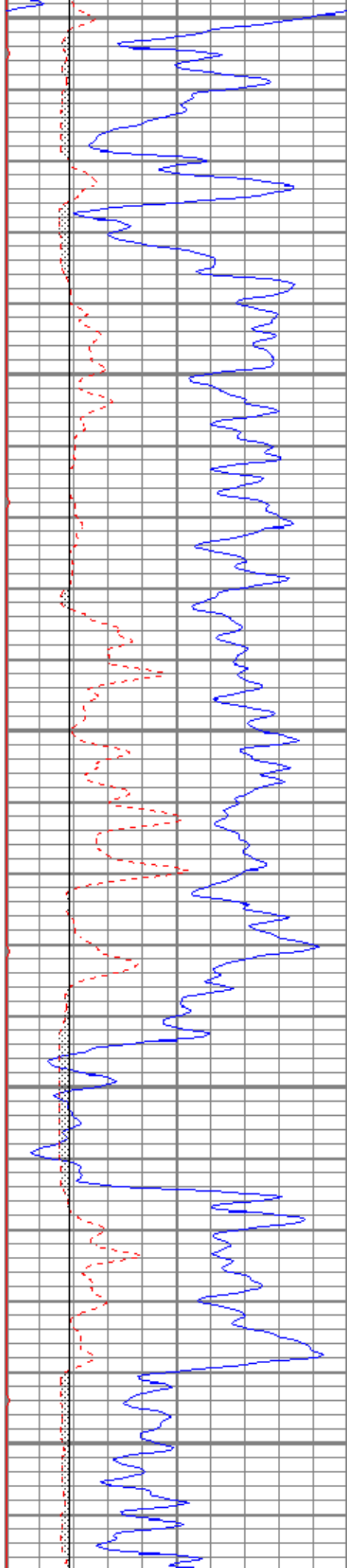
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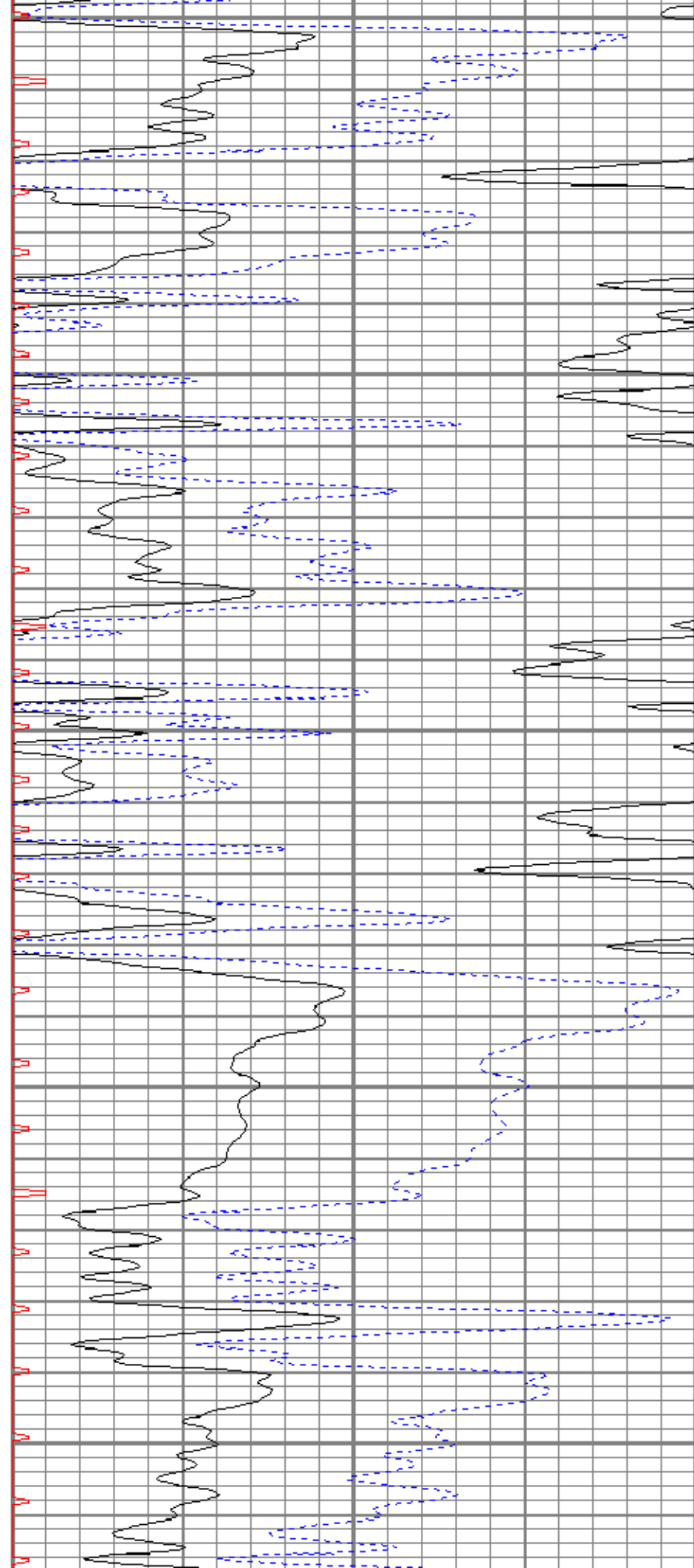
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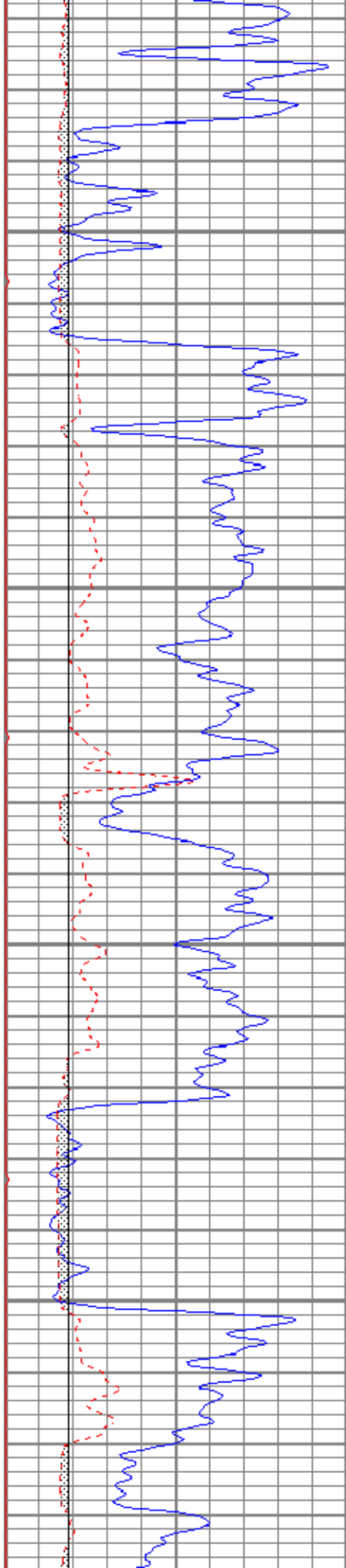
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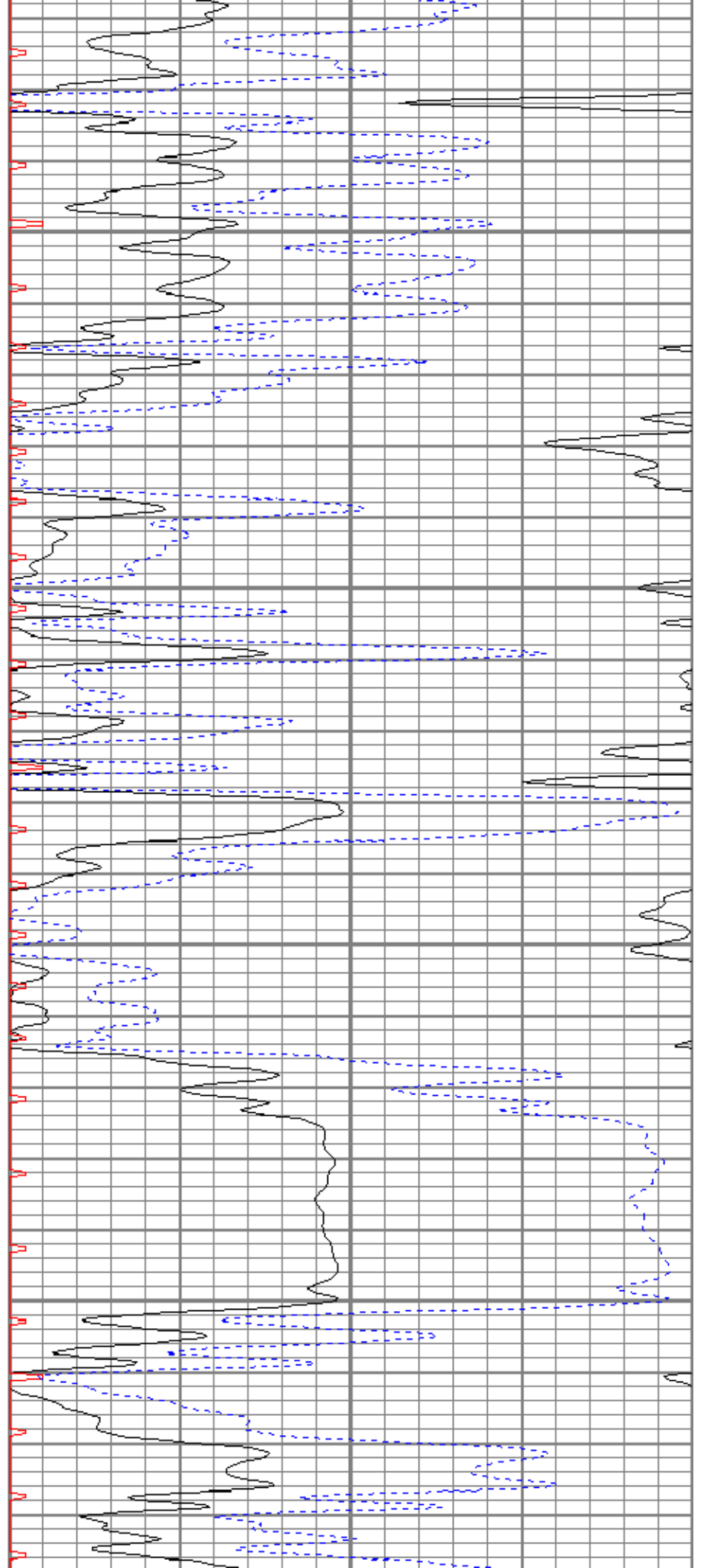


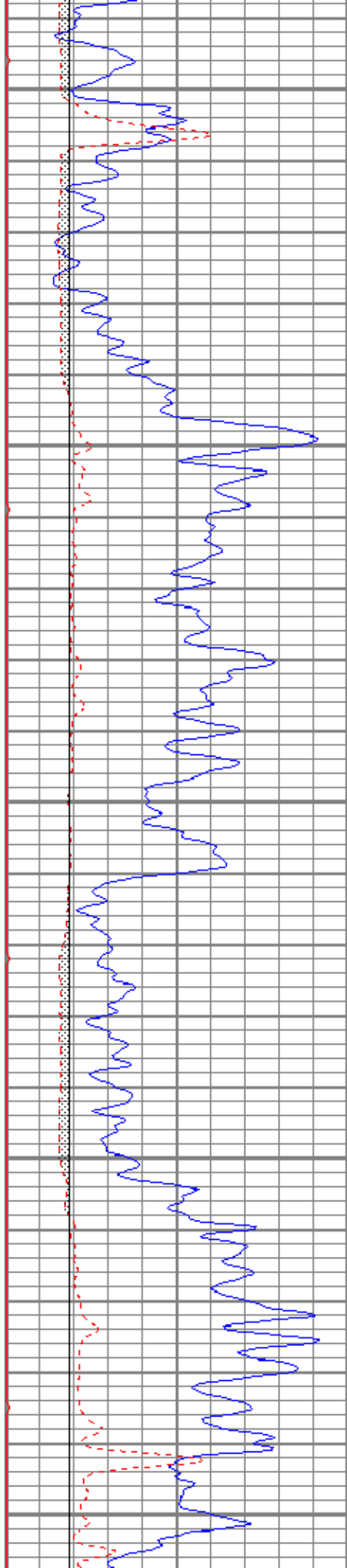
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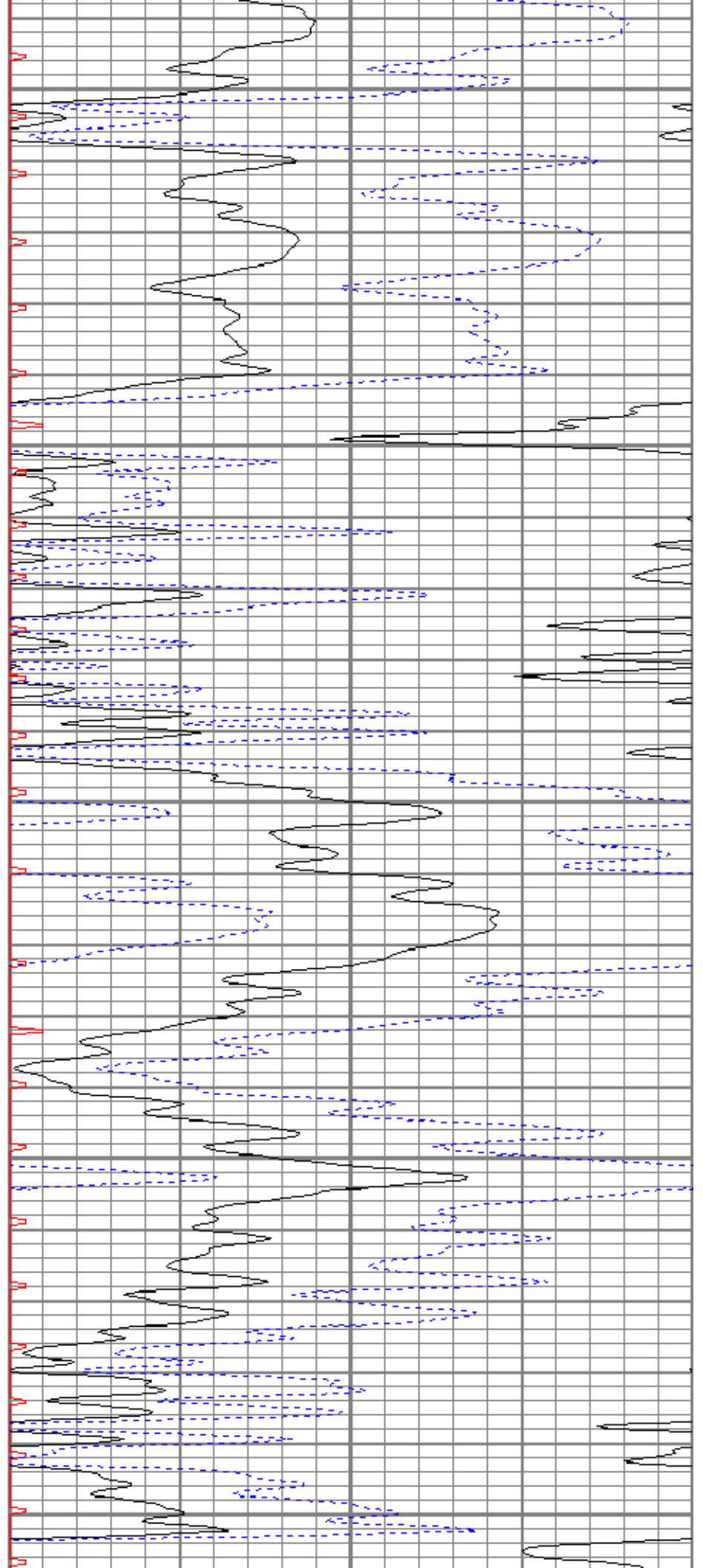
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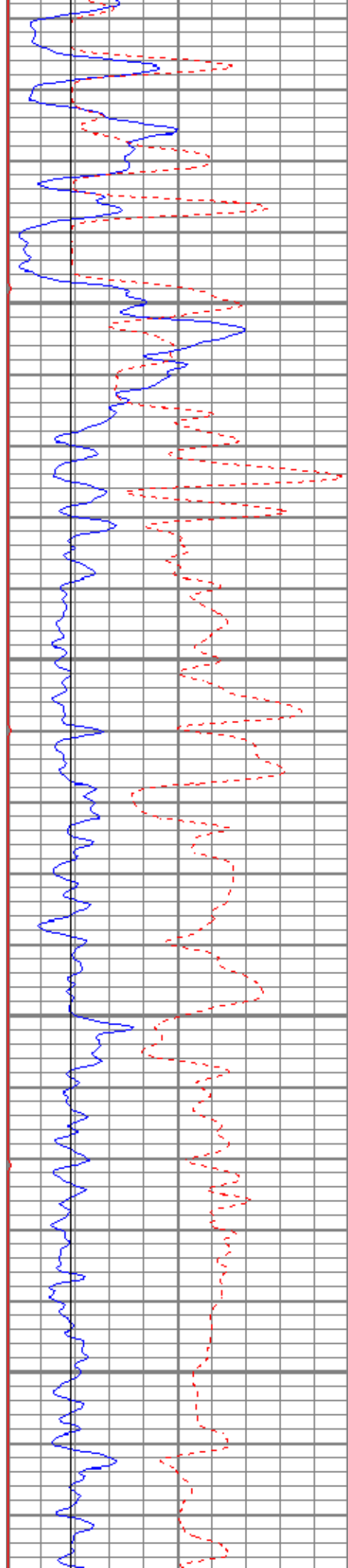
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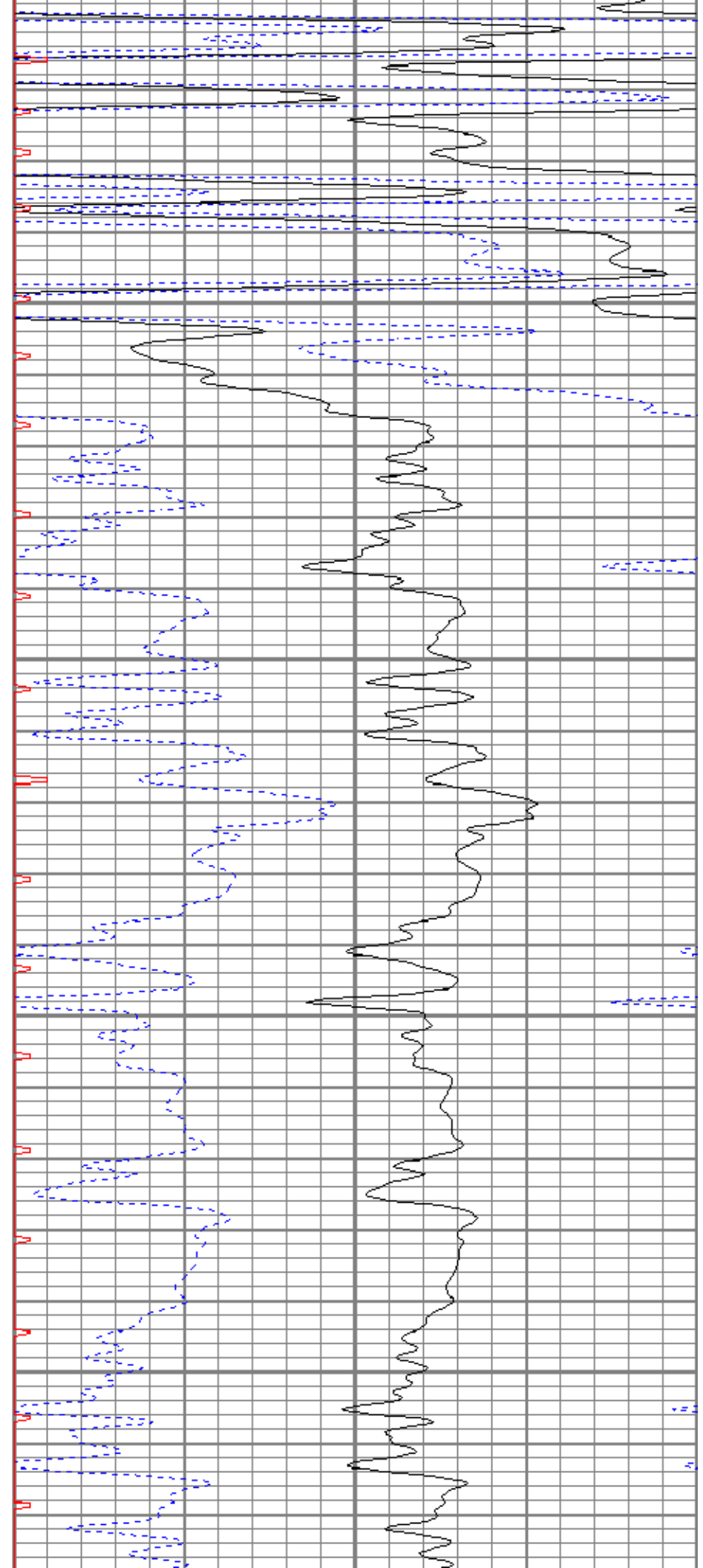


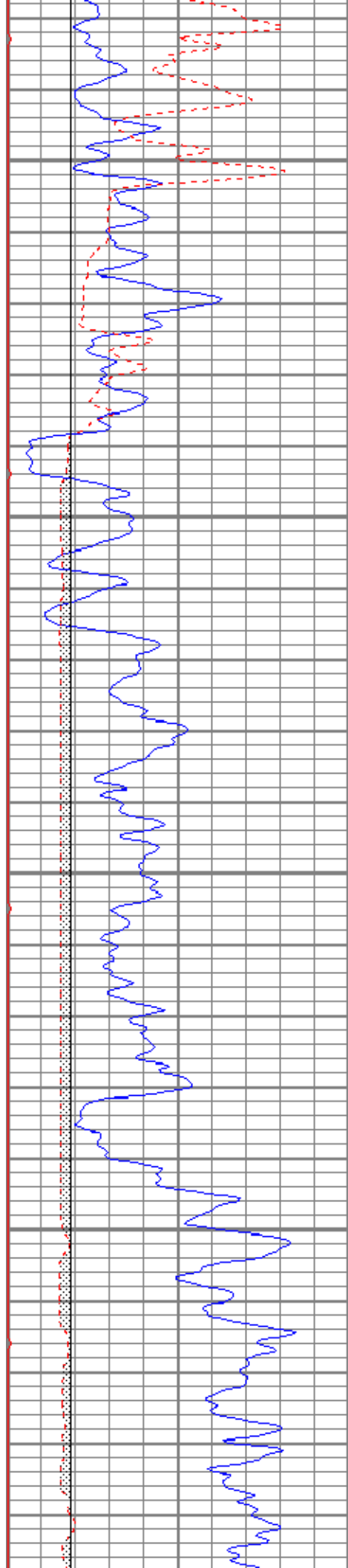
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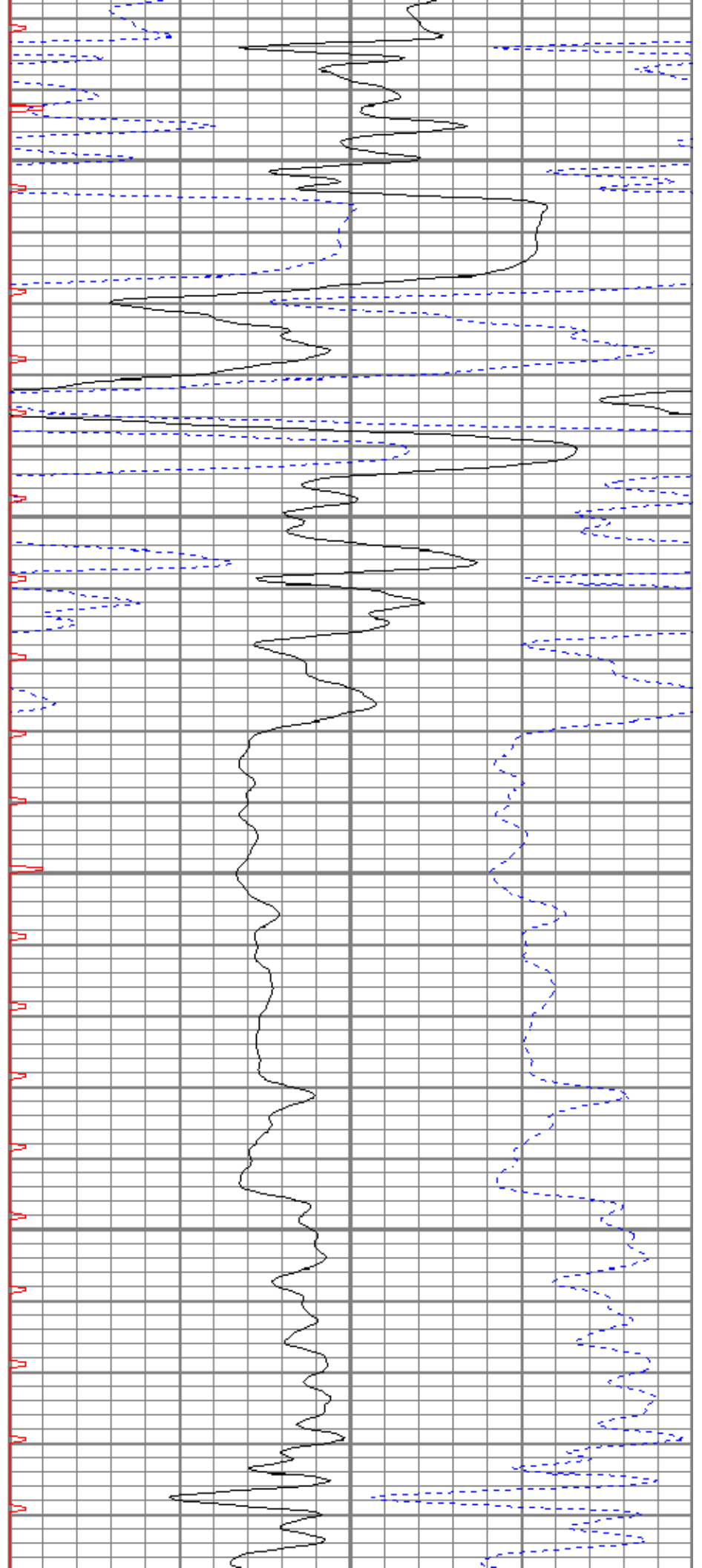


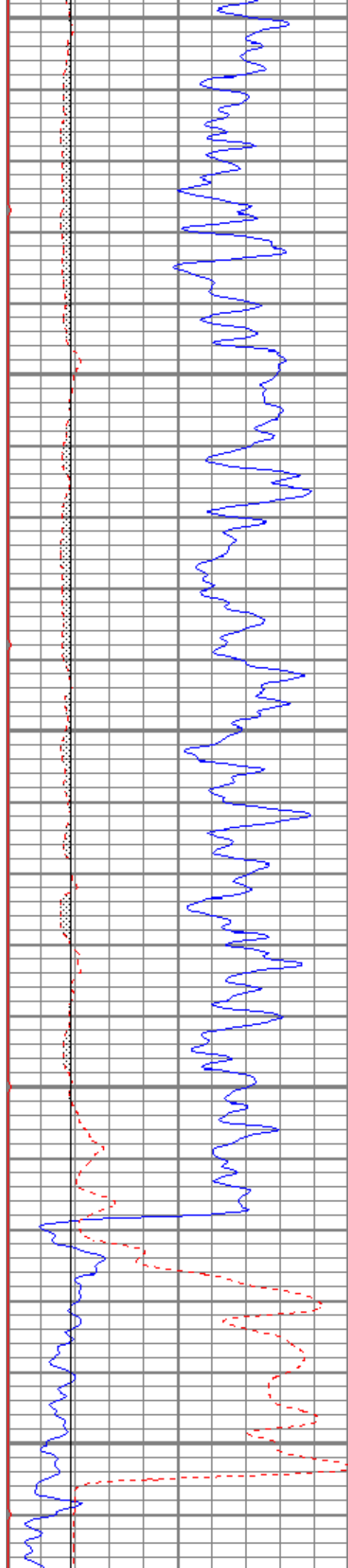
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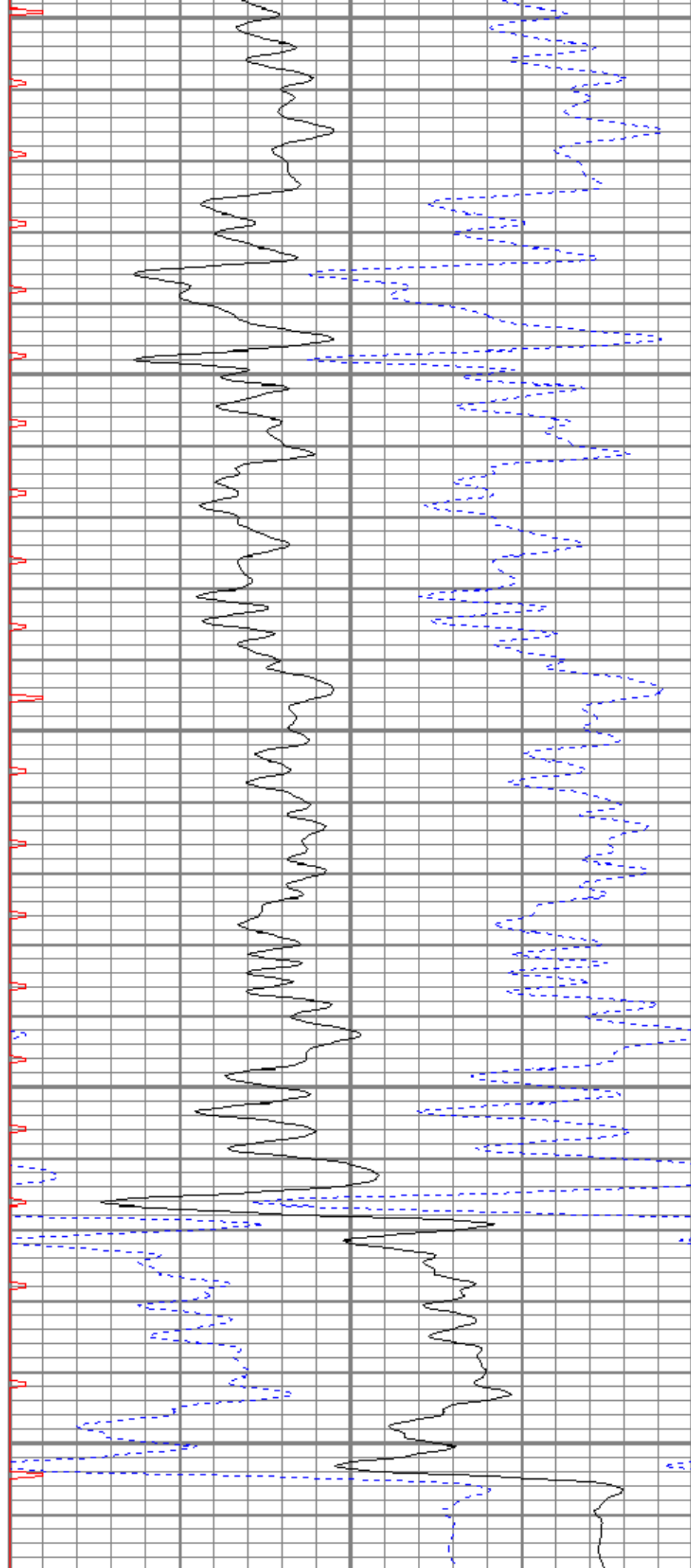
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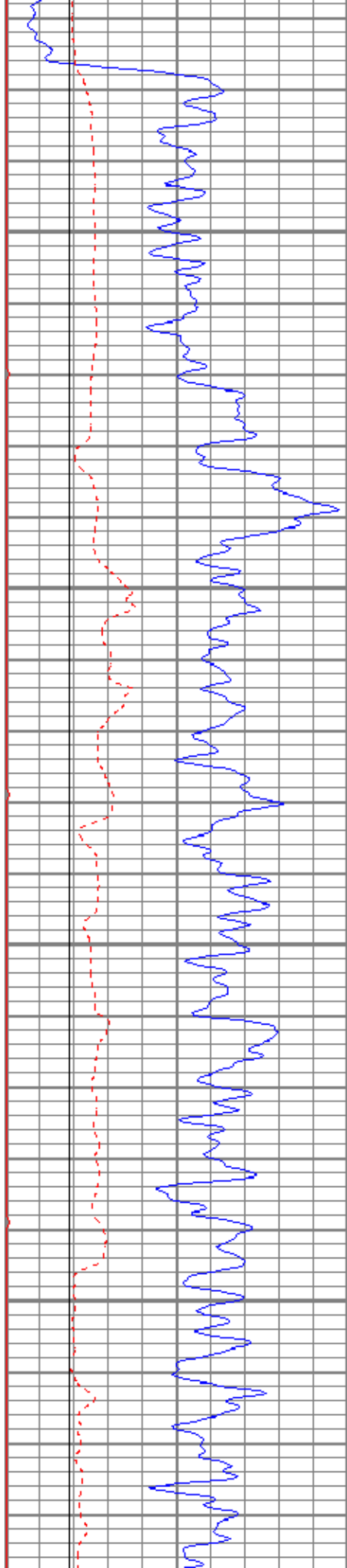
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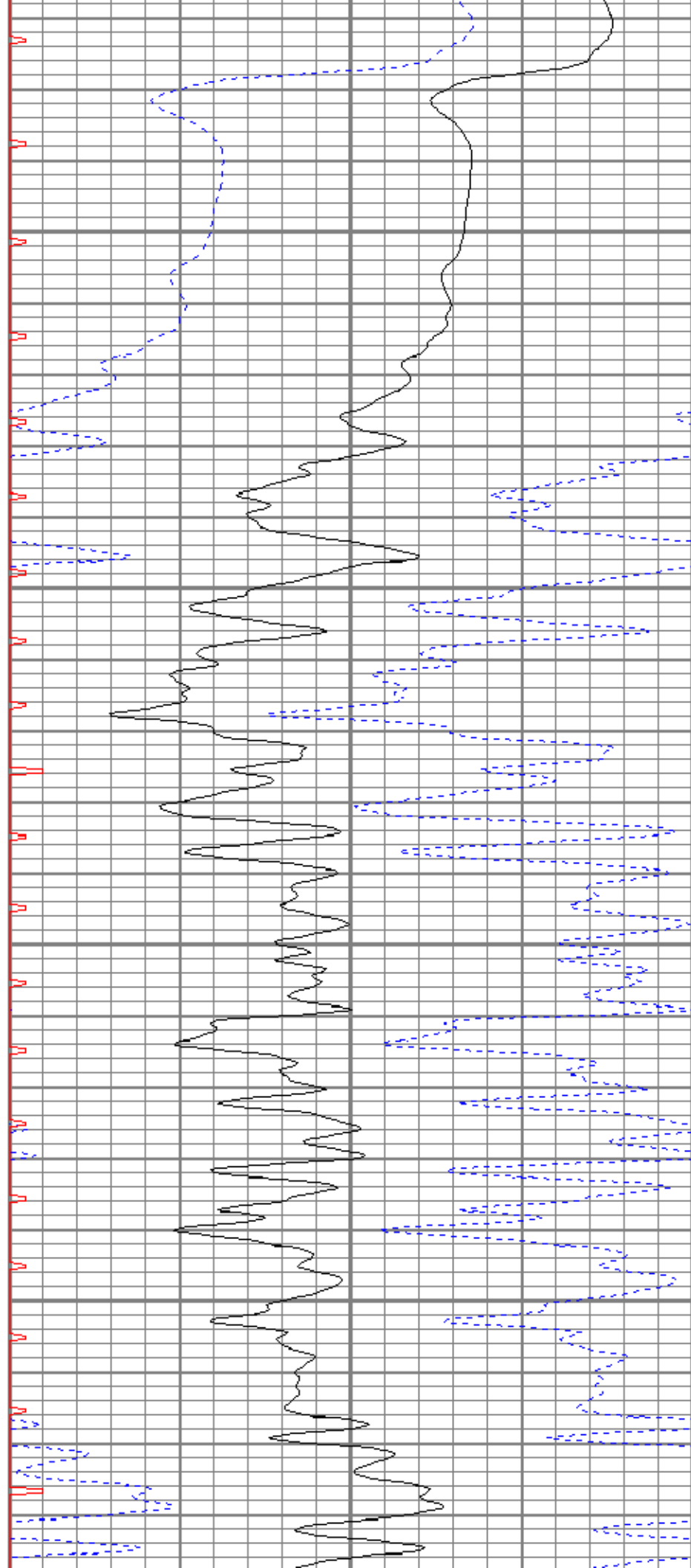


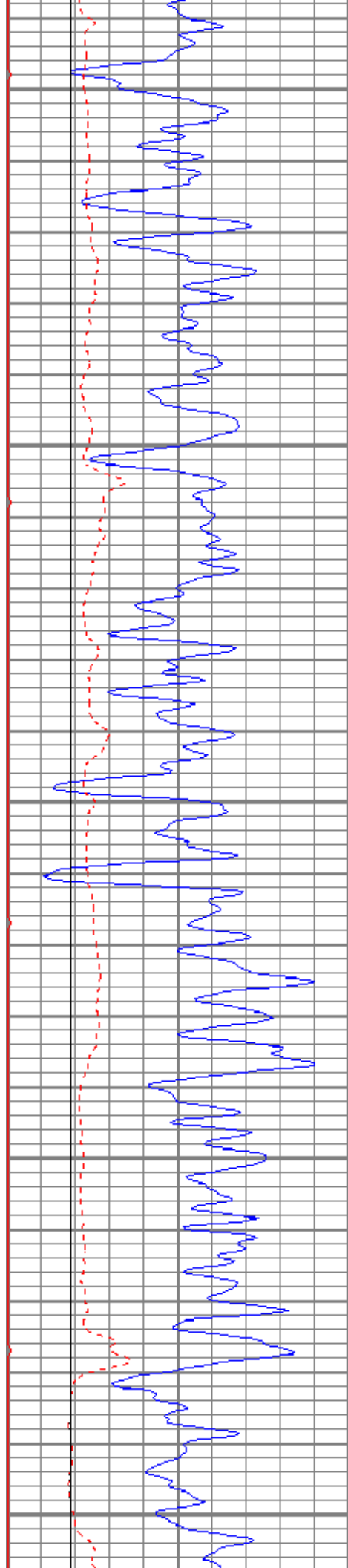
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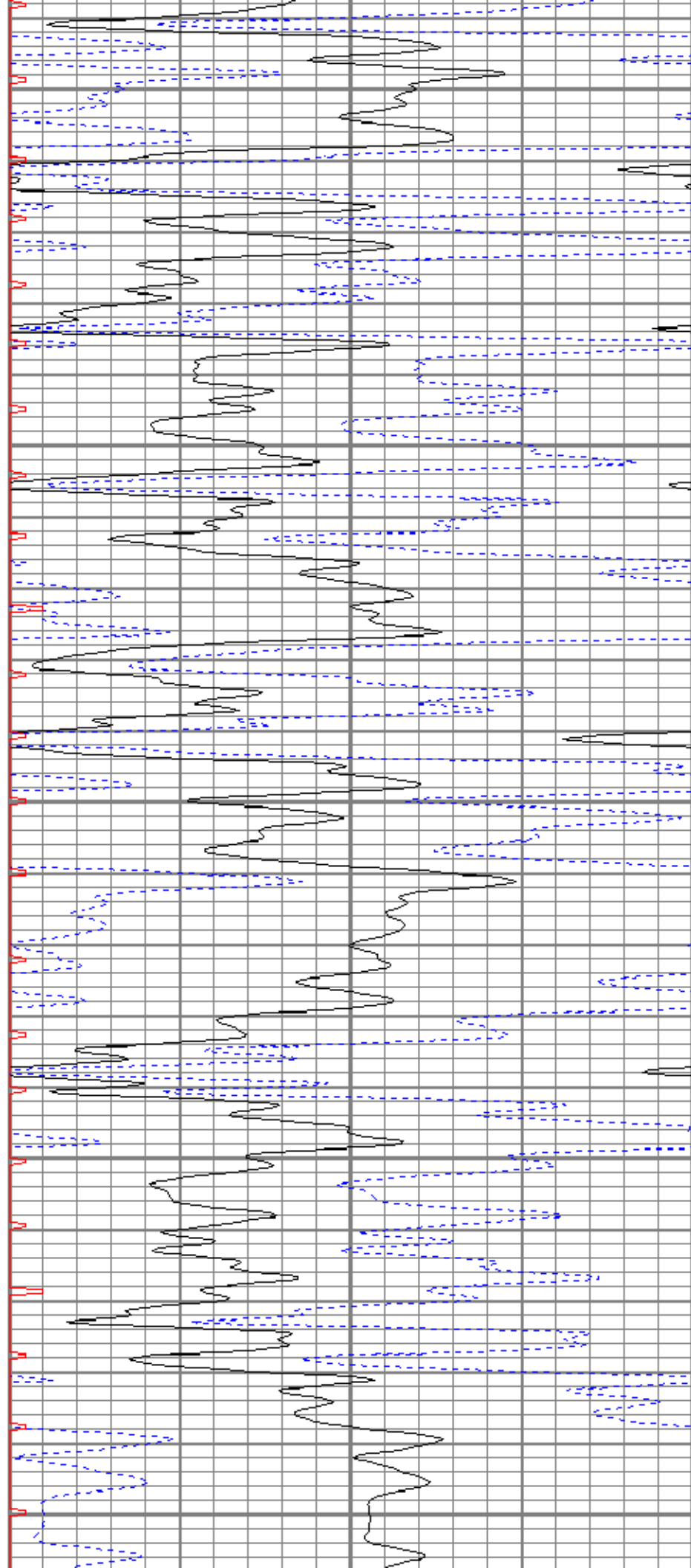
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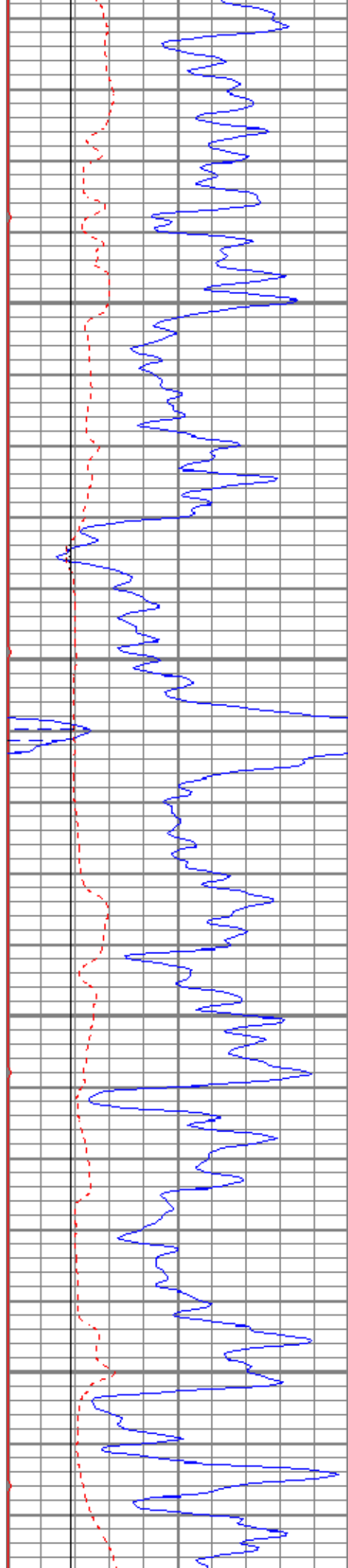
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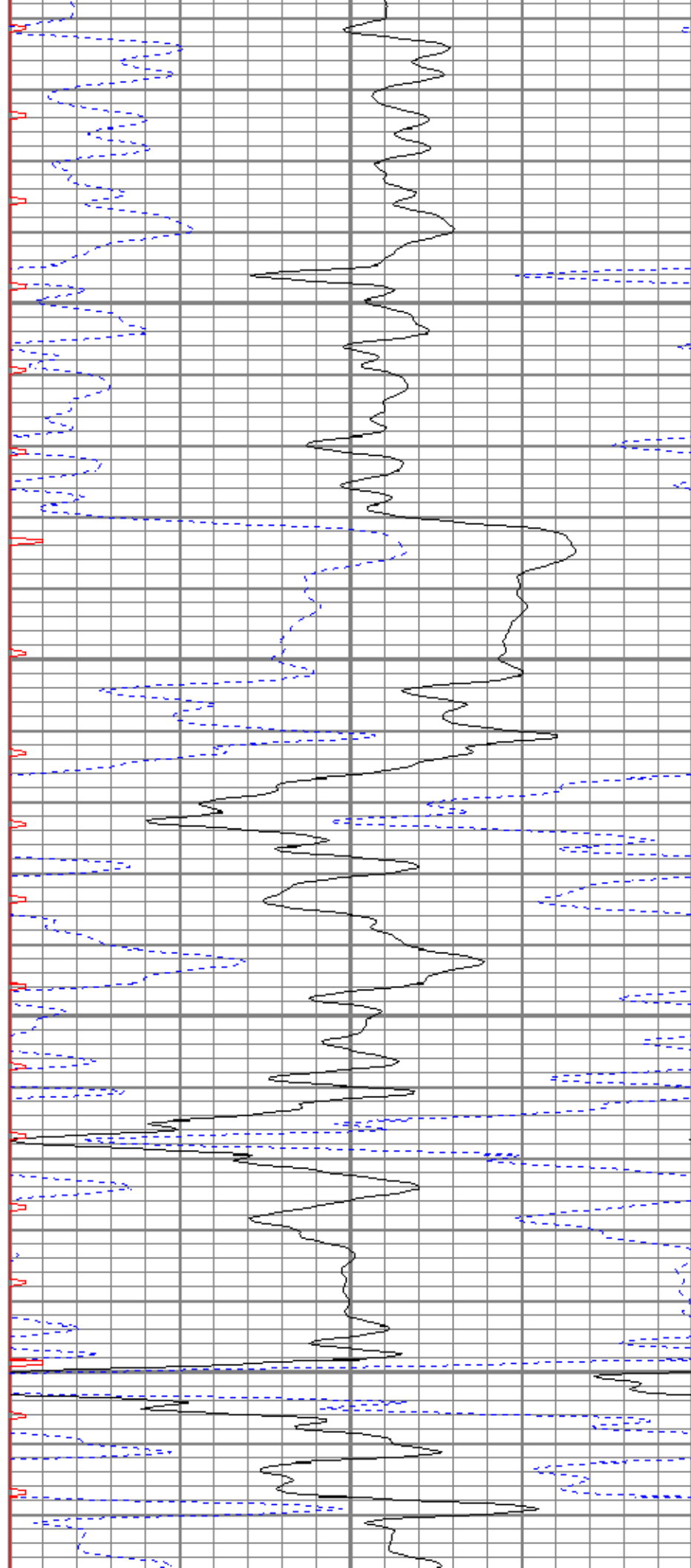


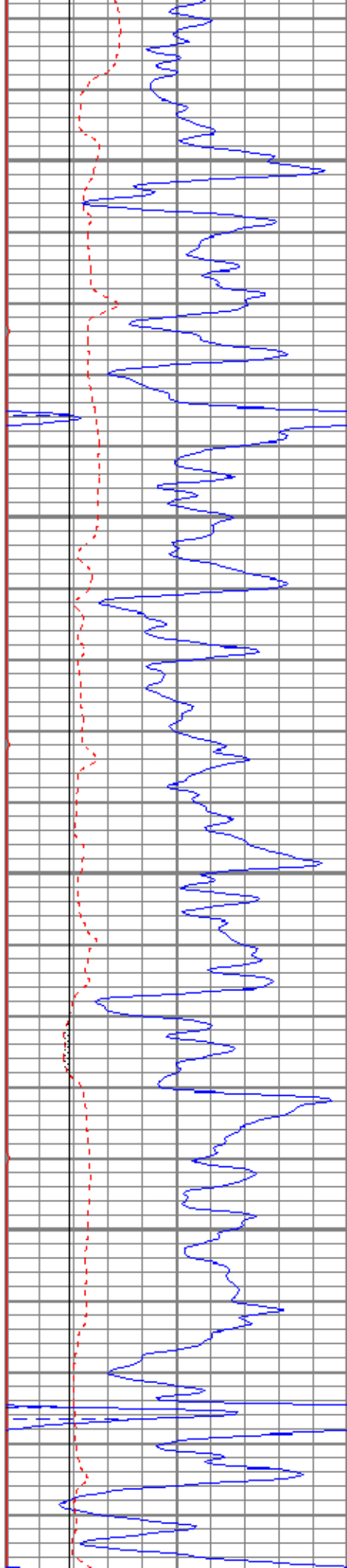
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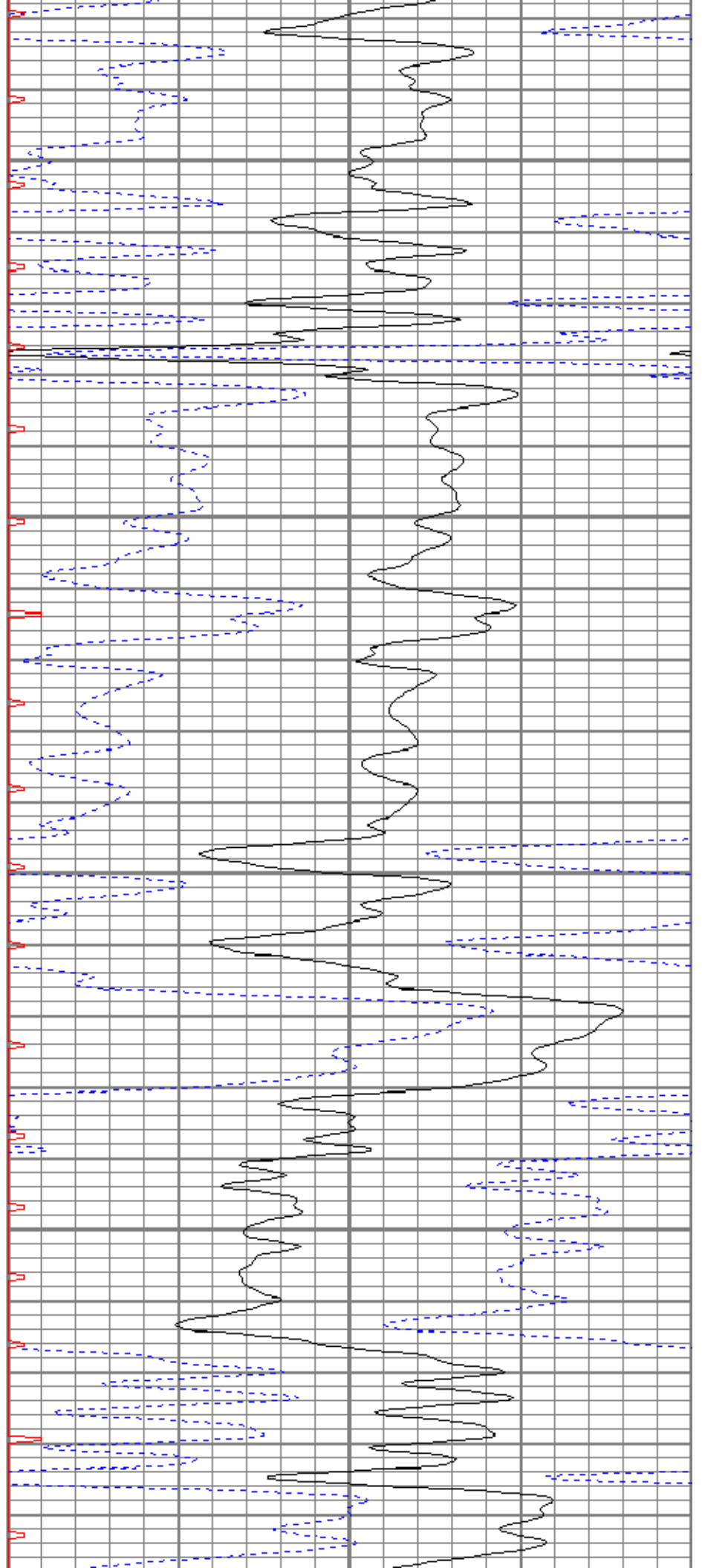


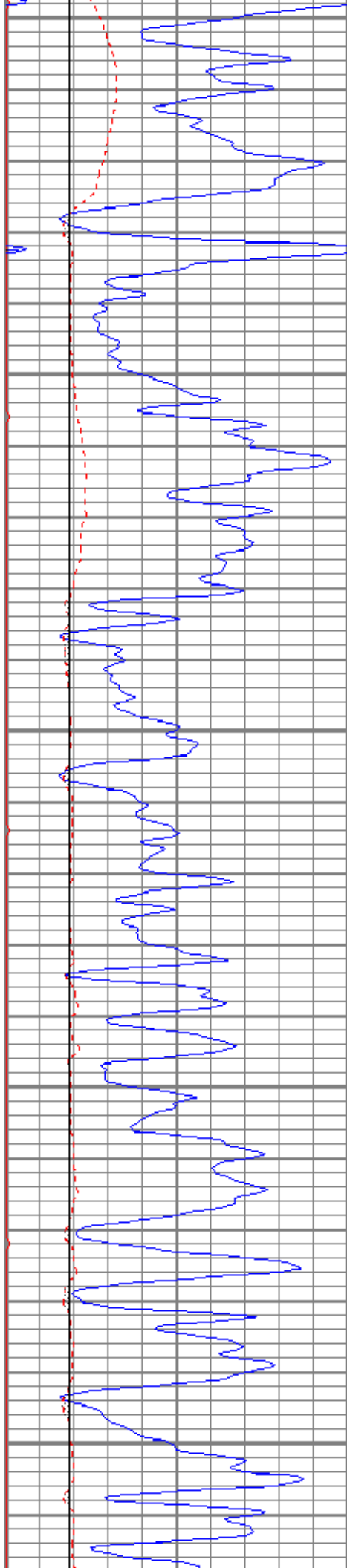
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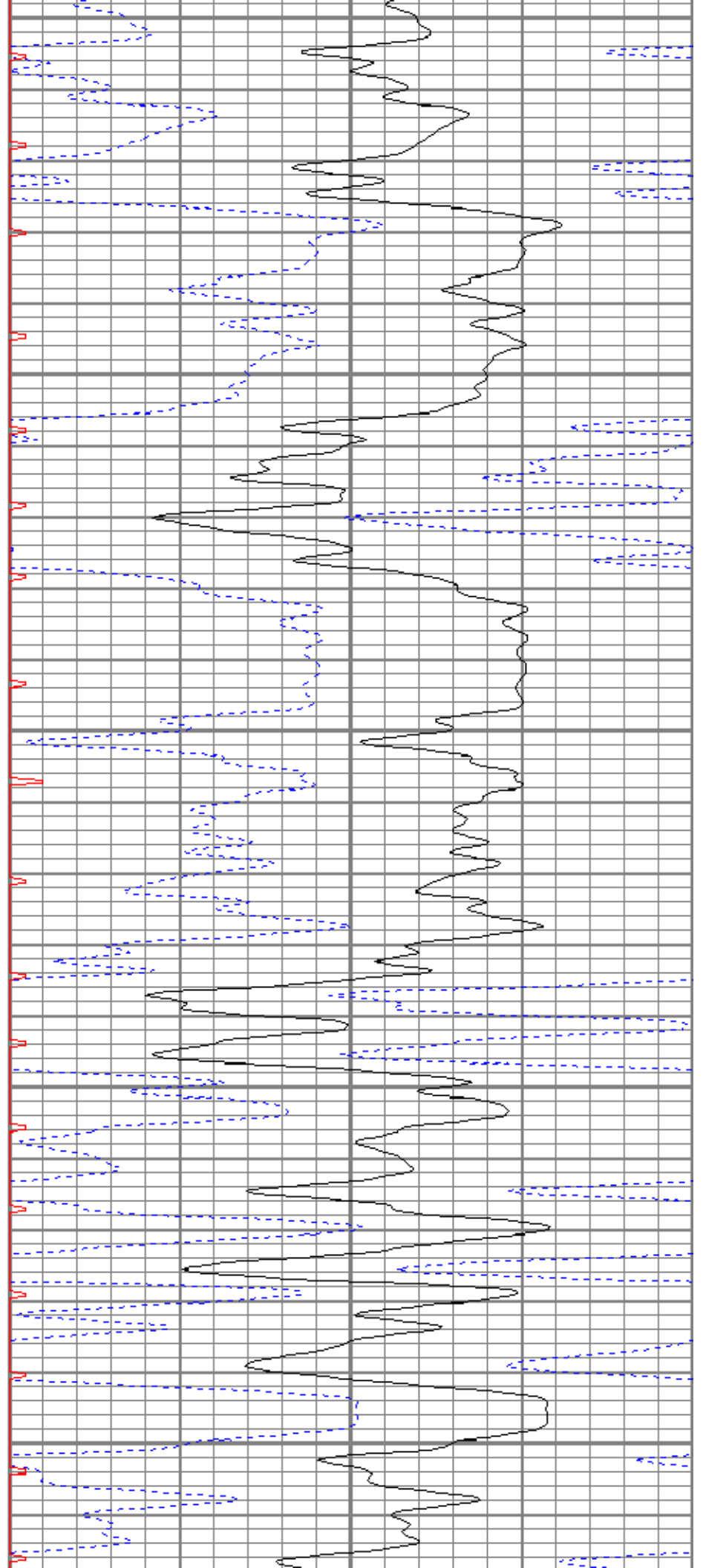
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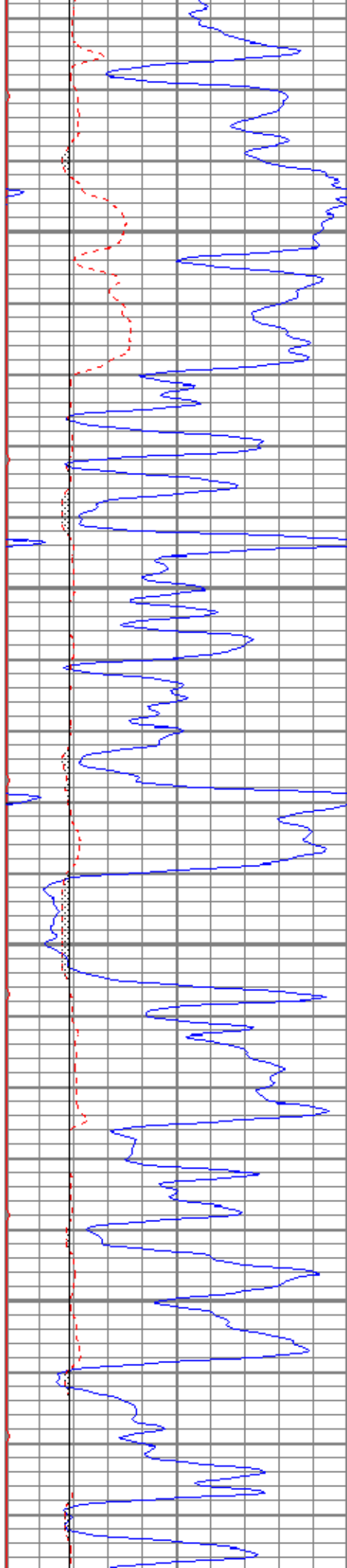
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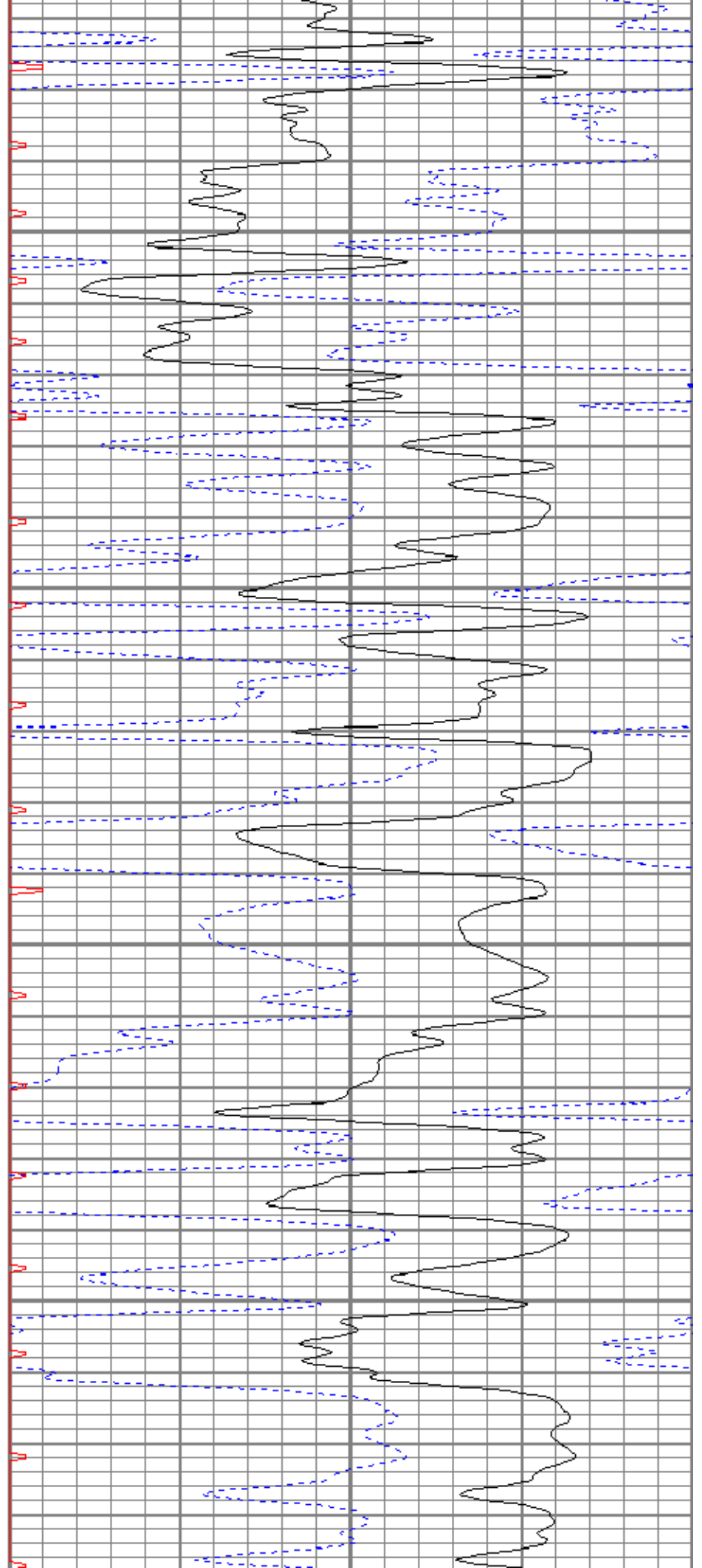


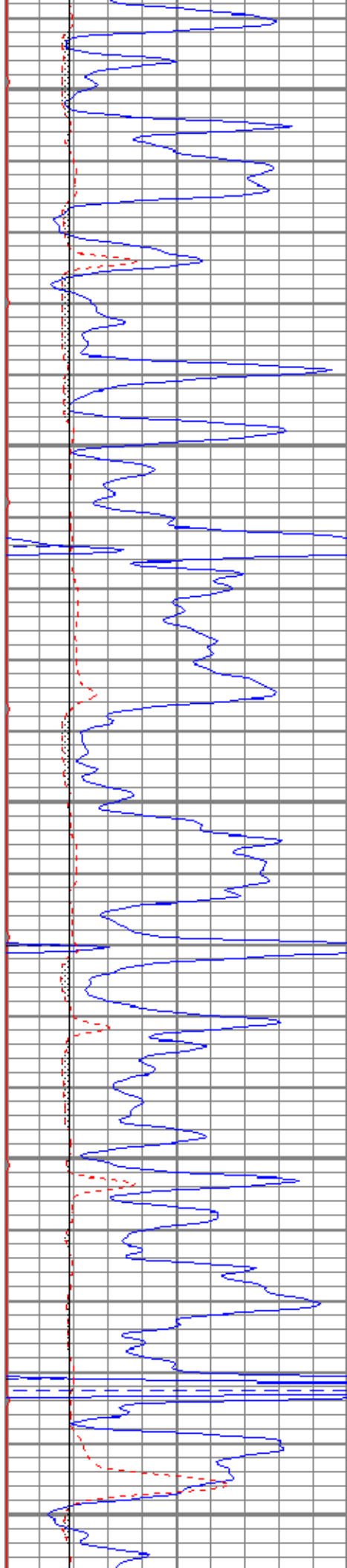
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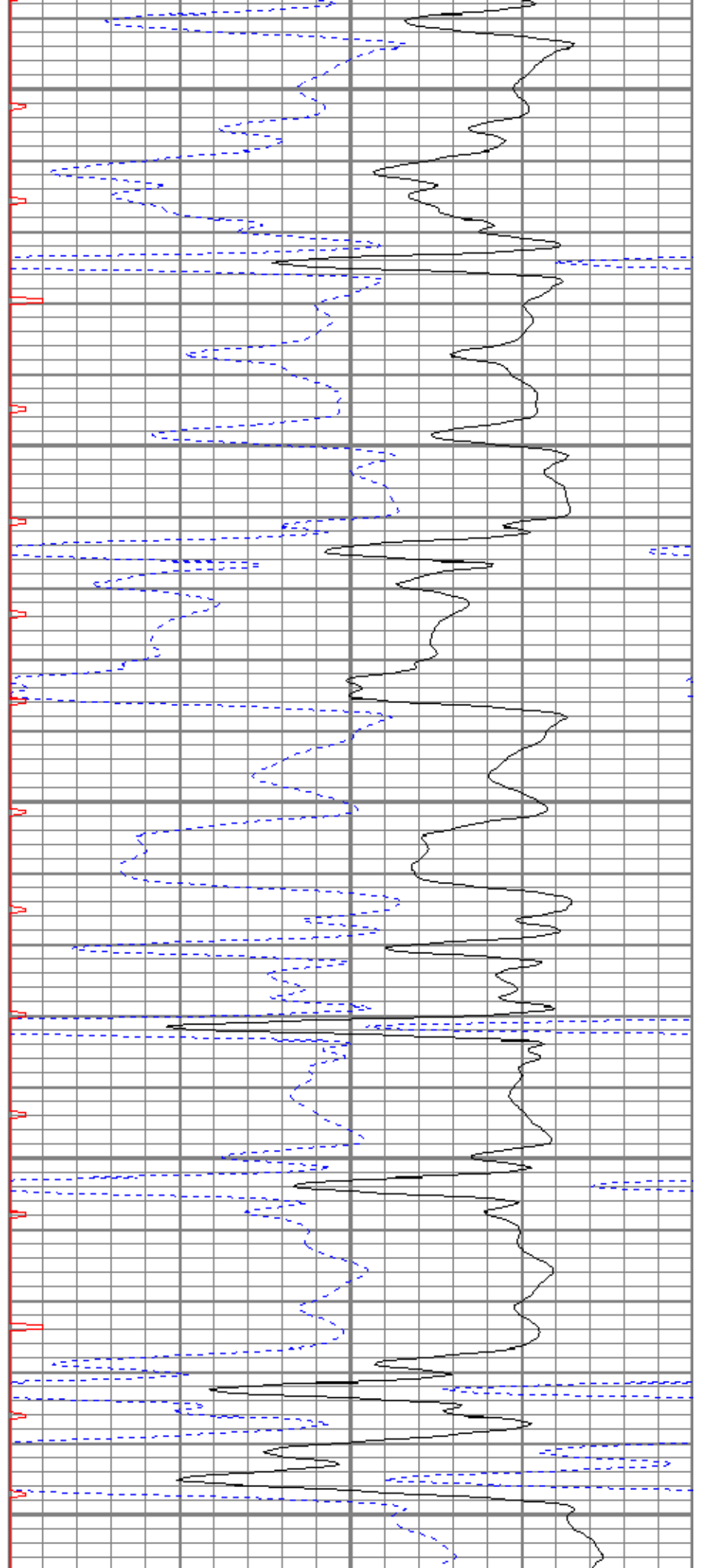
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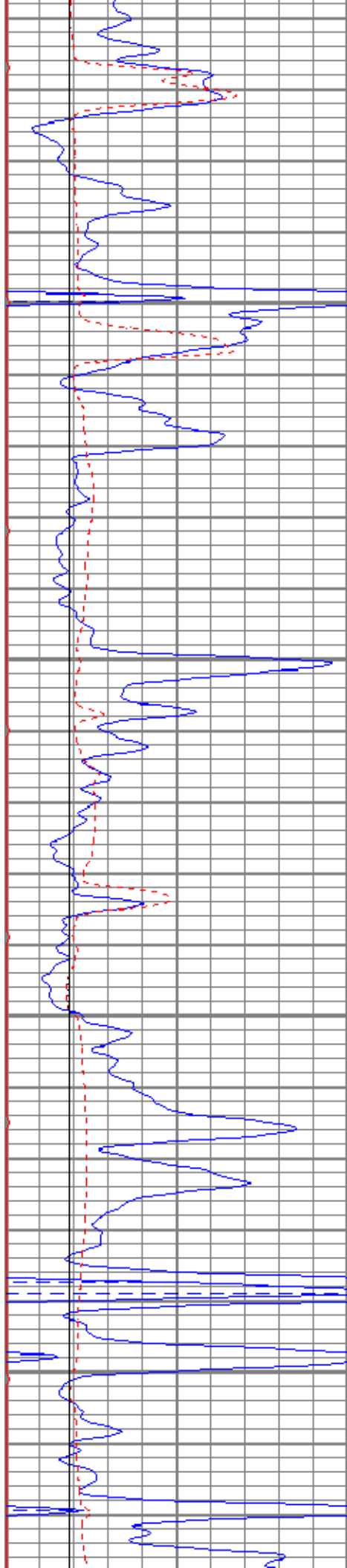
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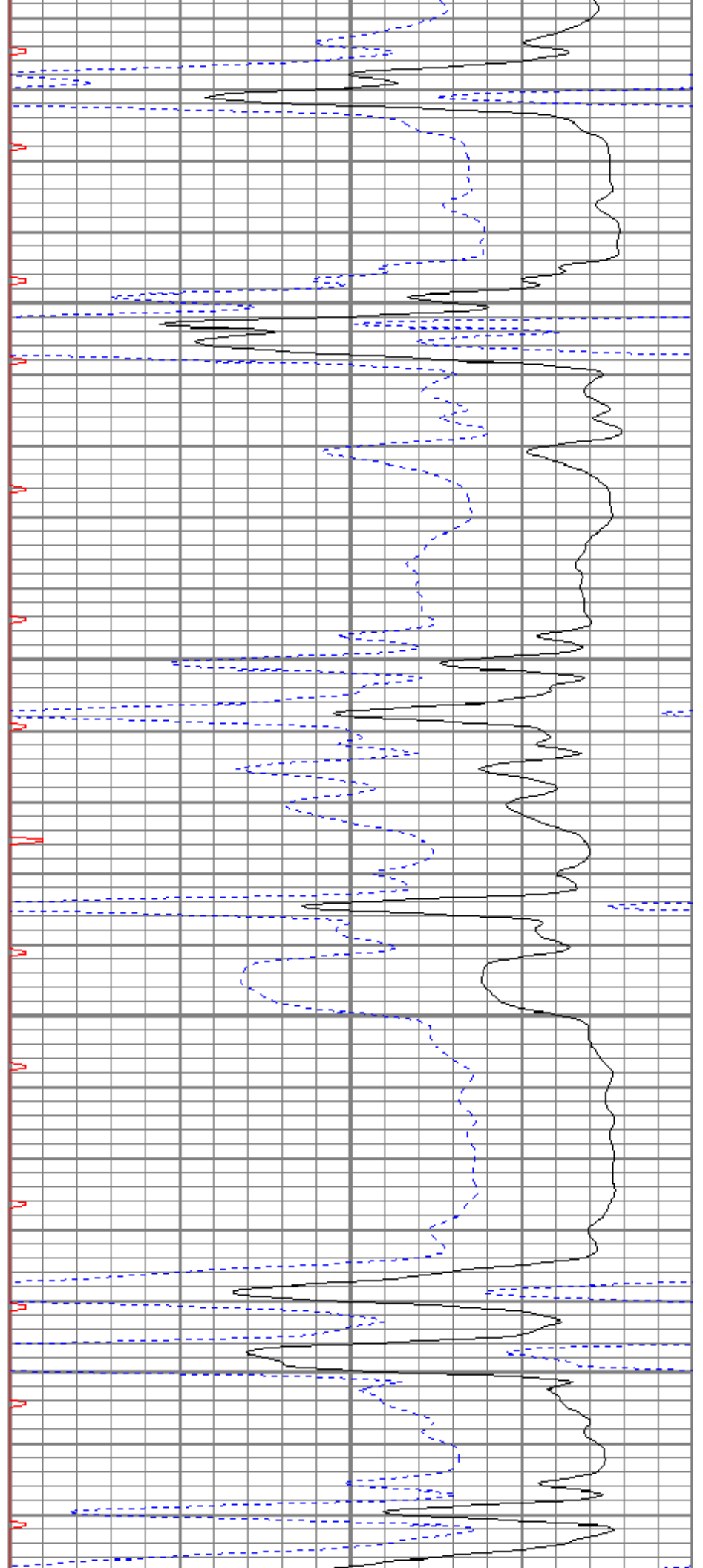


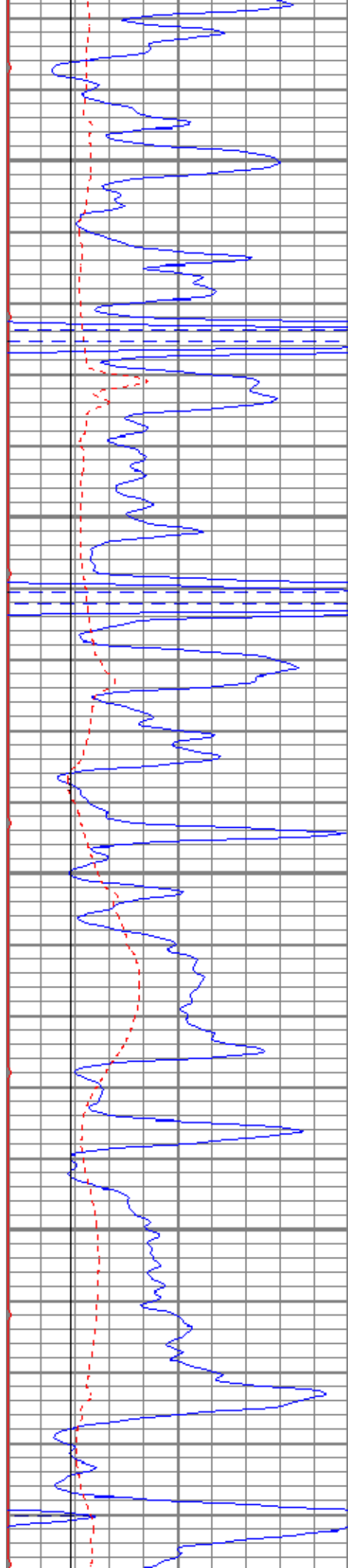
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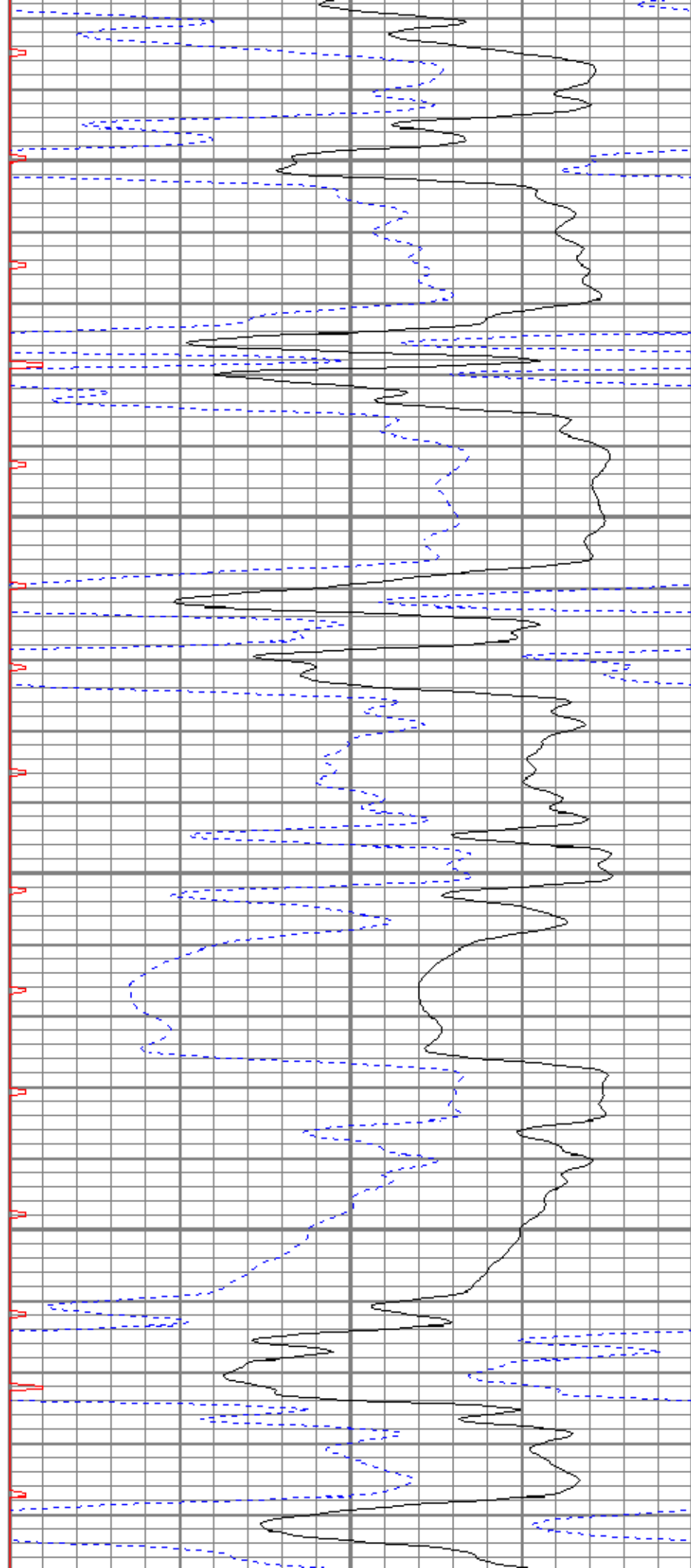


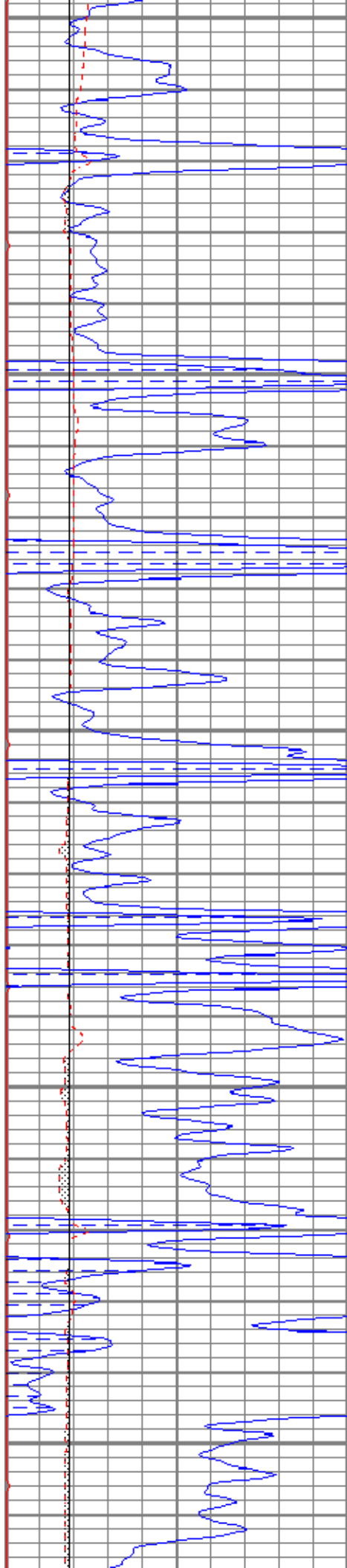
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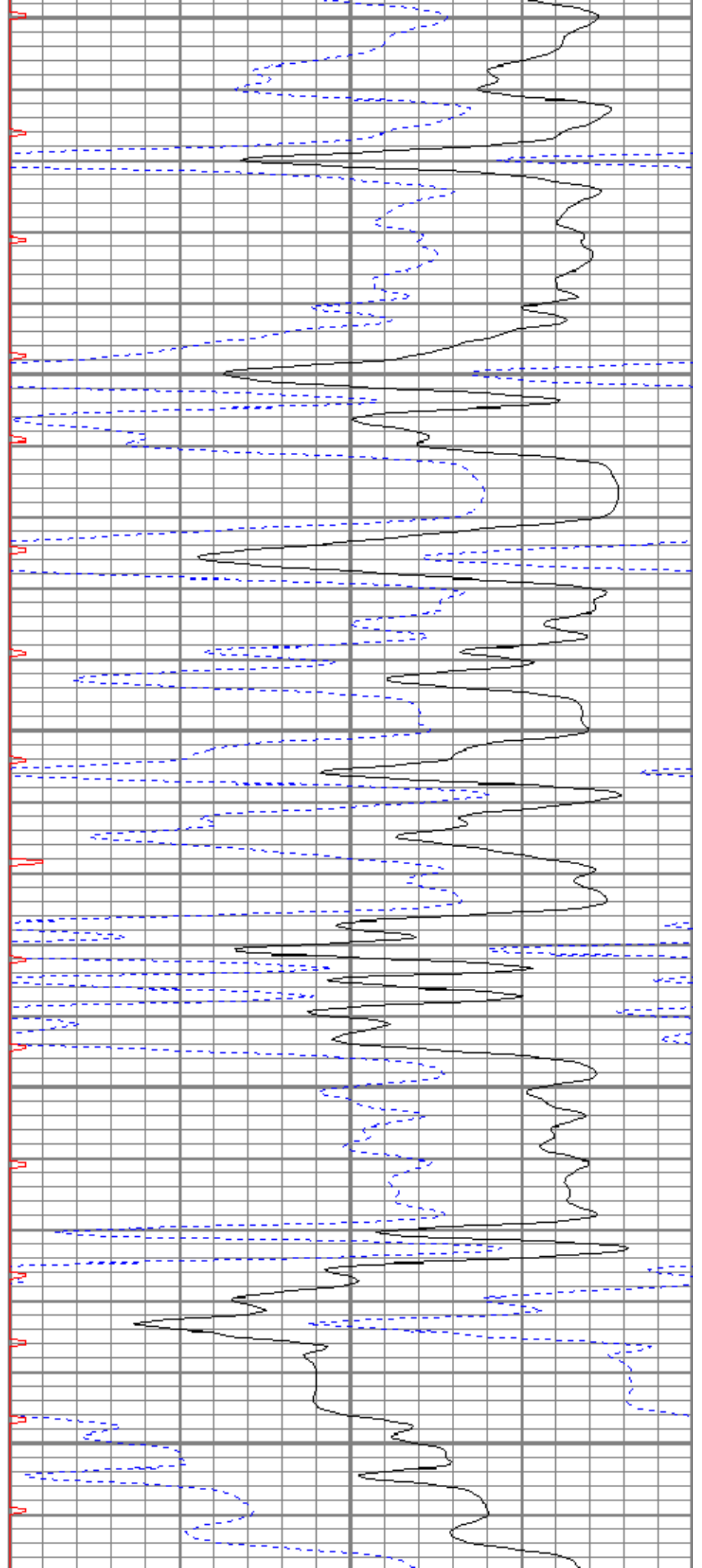
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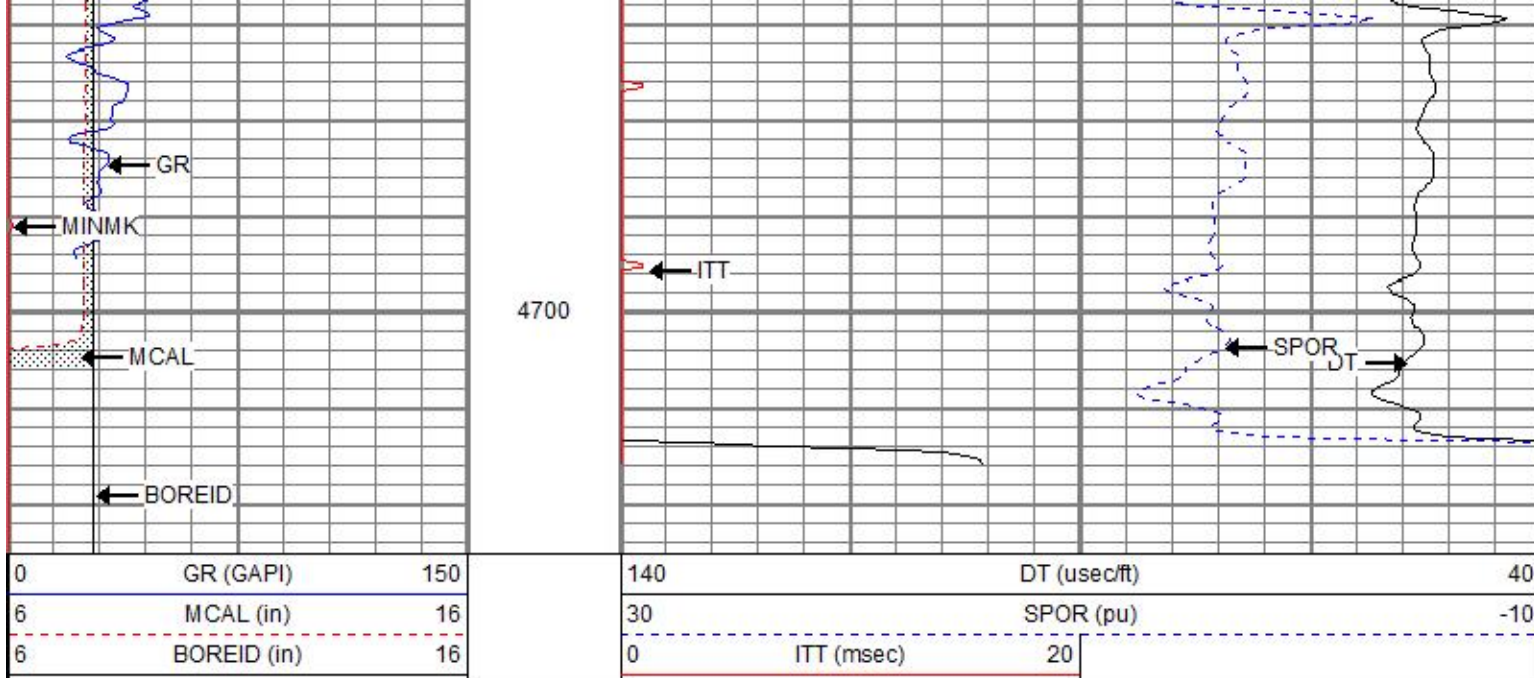
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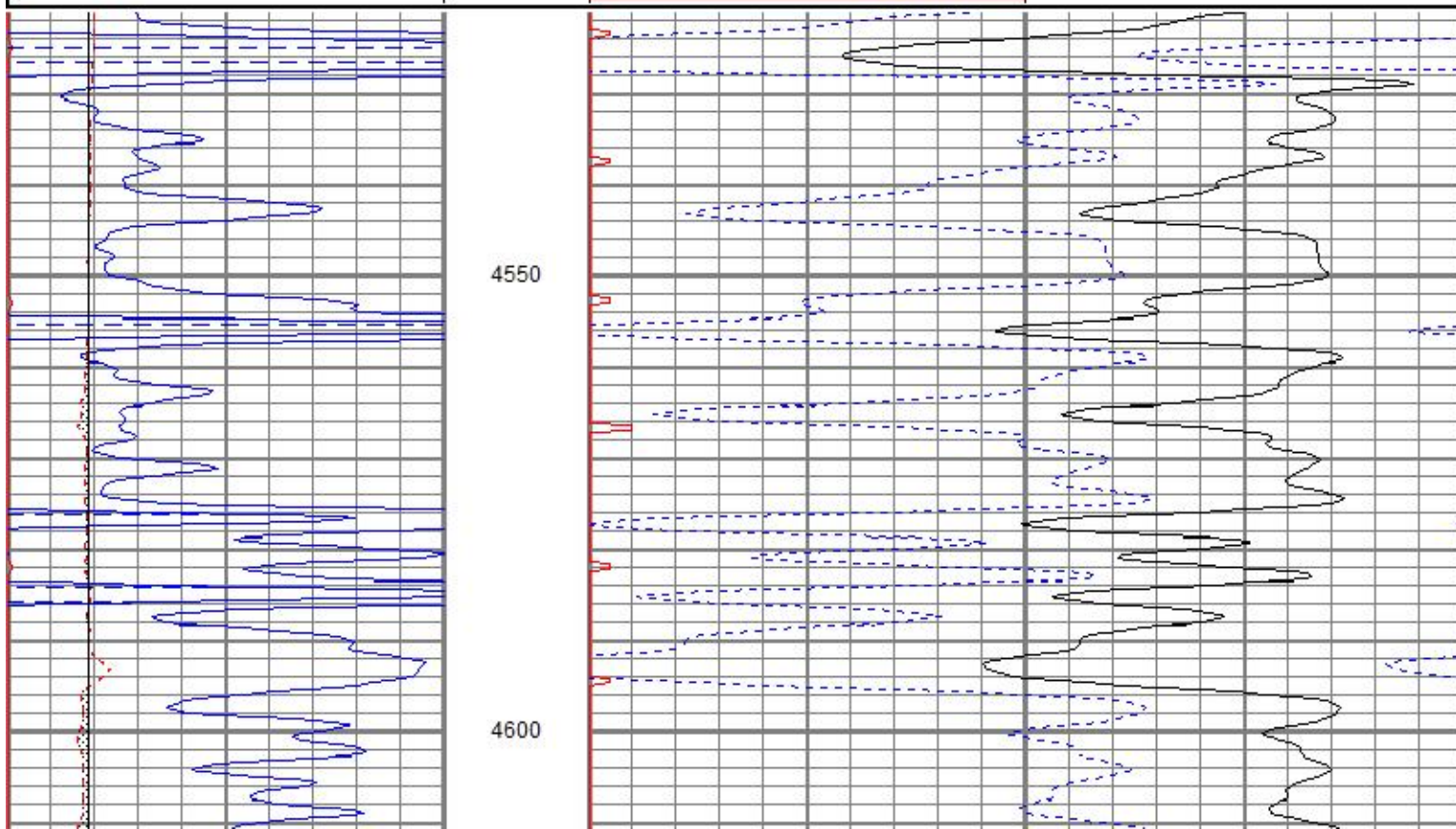


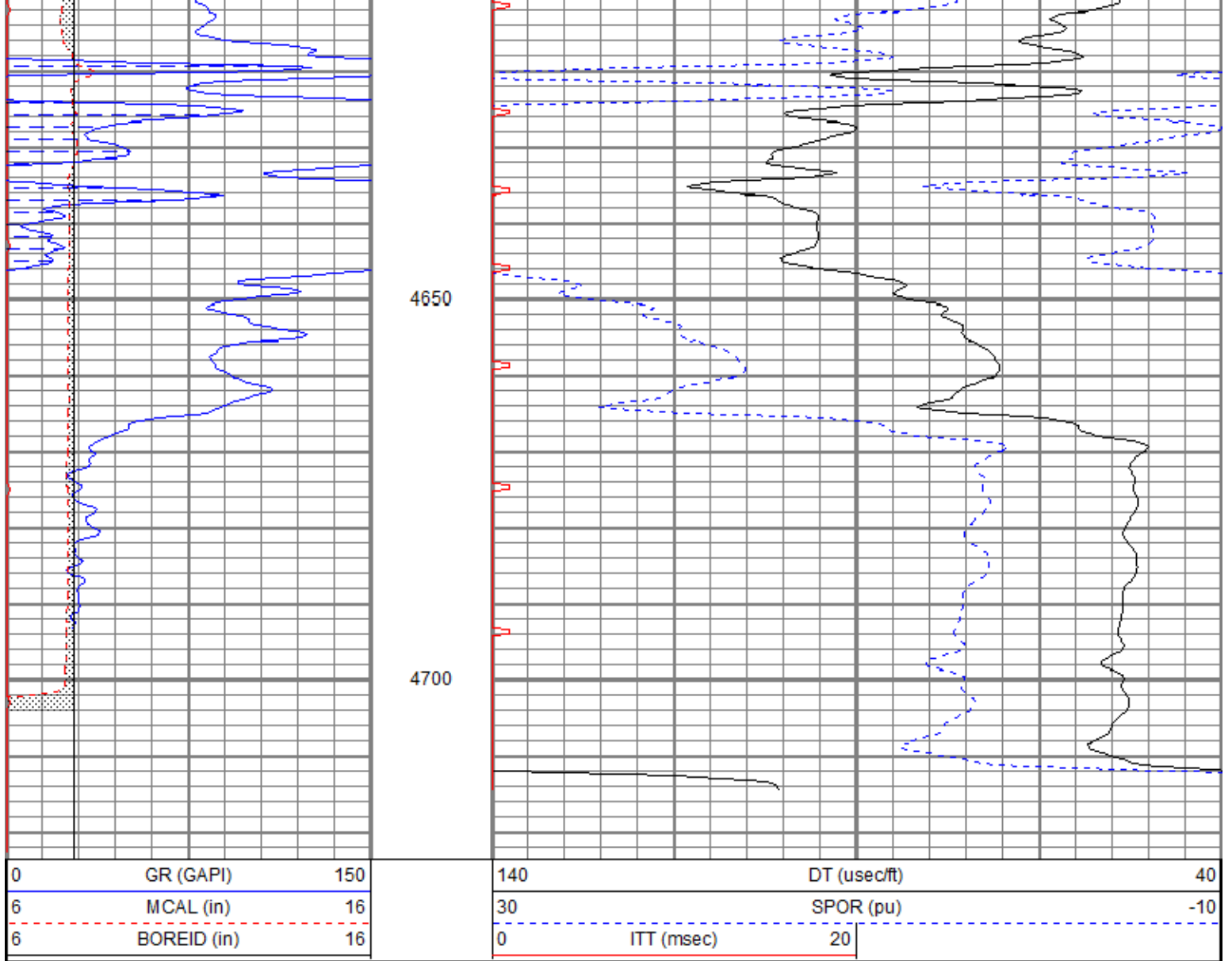


REPEAT SECTION

Database File bewheatland8-3oh.db
 Dataset Pathname pass7.1
 Presentation Format kbc
 Dataset Creation Sat Sep 02 17:33:47 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	140	DT (usec/ft)	40
6	MCAL (in)	16	30	SPOR (pu)	-10
6	BOREID (in)	16	0	ITT (msec)	20





Calibration Report

Database File bewheatland8-3oh.db
 Dataset Pathname pass8.1
 Dataset Creation Sat Sep 02 18:12:05 2017

Microlog Calibration Report

Serial-Model: 1600-Pengo
 Performed: Sat Sep 02 16:31:50 2017

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Normal	-0.0024	0.5832	V	0.0000	10.0000	Ohm-m	17.0626	0.0407
Inverse	-0.0014	0.7570	V	0.0000	8.2000	Ohm-m	10.8127	0.0150
Caliper	1.0301	2.2816	V	6.5000	10.0000	in	2.7968	3.6190

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Aug 03 06:10:54 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			CHD-None	0.75	1.50	5.00	
GR	27.88		GR-OH (2001) 2001	3.56	3.25	40.00	
			ML-Pengo (1600)	6.97	3.50	100.00	
MCAL	21.05						
MI	21.05						
MN	21.05						
WVF4	13.79						
WVF3	12.79			SLT-G (372) Sonic	15.71	3.50	250.00
WVF2	9.79						
WVF1	8.79						
			CENT-OHshort Open Hole short centralizer	4.04	3.50	50.00	
		Dataset:	bewheatland8-3oh.db: field/well/run1/pass8.1				
		Total length:	31.03 ft				
		Total weight:	445.00 lb				
		O.D.:	3.50 in				



**COMPENSATED DENSITY
NEUTRON
LOG**

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove
 State Kansas

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove State Kansas

Location: API #: 15 063 22314
 1310' FSL & 455' FEL
 SEC 8 TWP 14S RGE 32W
 Permanent Datum Ground Level Elevation 2963'
 Log Measured From KB 10' AGL
 Drilling Measured From KB
 Other Services
 BCS
 DIL
 ML
 Elevation
 K.B. 2973'
 D.F. 2972'
 G.L. 2963'

Date	09-02-17
Run Number	One
Depth Driller	4725'
Depth Logger	4726'
Bottom Logged Interval	2704'
Top Log Interval	3750'
Casing Driller	8 5/8" @ 234'
Casing Logger	234'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.2/56
PH / Fluid Loss	10/8.8
Source of Sample	Pit
Rm @ Meas. Temp	0.50@86degf
Rmf @ Meas. Temp	0.40@86degf
Rmc @ Meas. Temp	0.64@86degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	0.35@122degf
Time Circulation Stopped	11:00 a.m
Time Logger on Bottom	2:15 p.m
Maximum Recorded Temperature	122degf
Equipment Number	T729
Location	Hays, KS
Recorded By	Casey Patterson
Witnessed By	Mr. Keith Reavis

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

South out of Oakley on Hwy. 83 20 mi to Jayhawk Rd.,
 Then 4 mi. East to 14 Rd., Then North 1/2 mi. West into Location

Thanks for using Gemini Wireline LLC
 785-625-1182



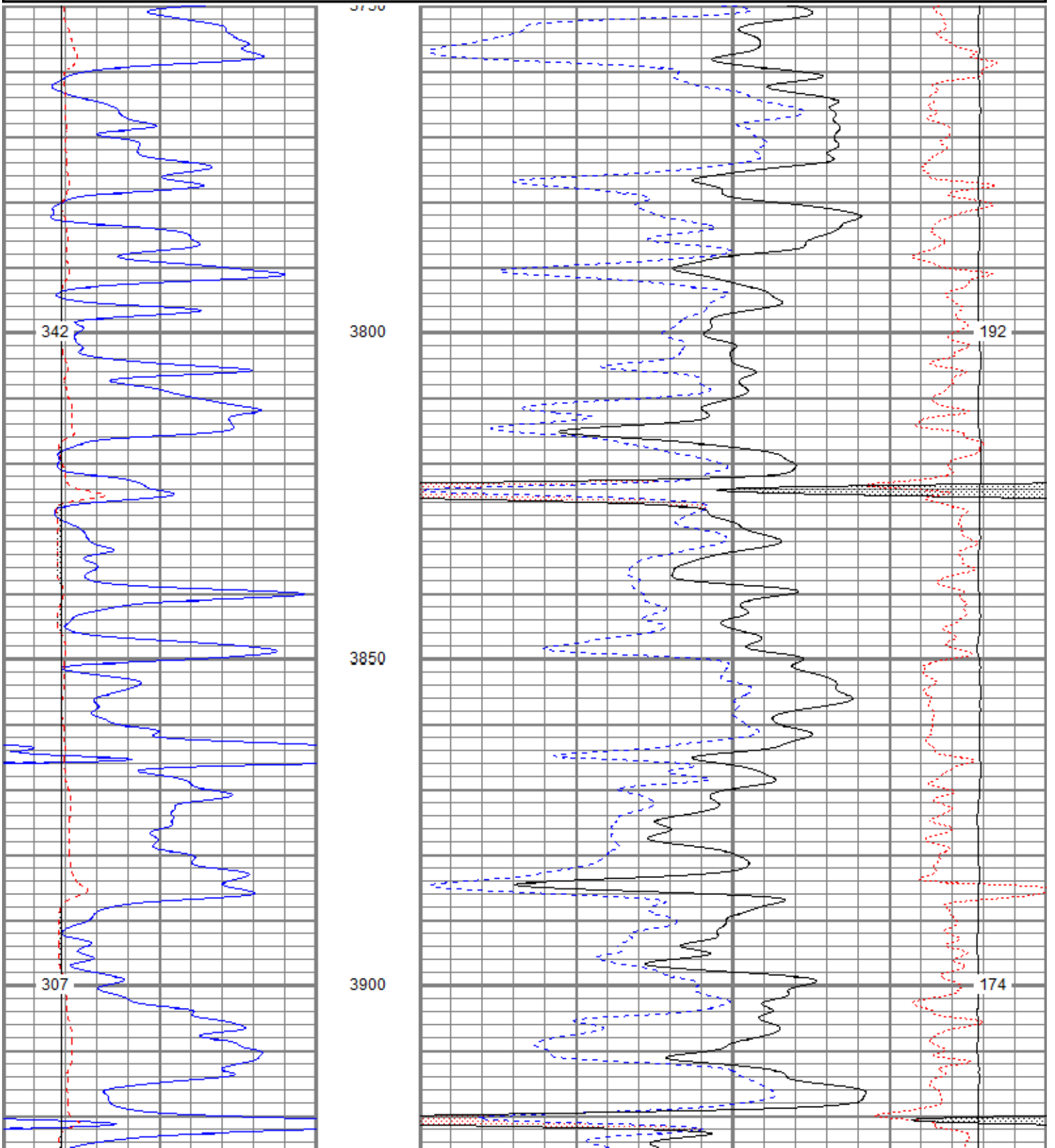
MAIN PASS

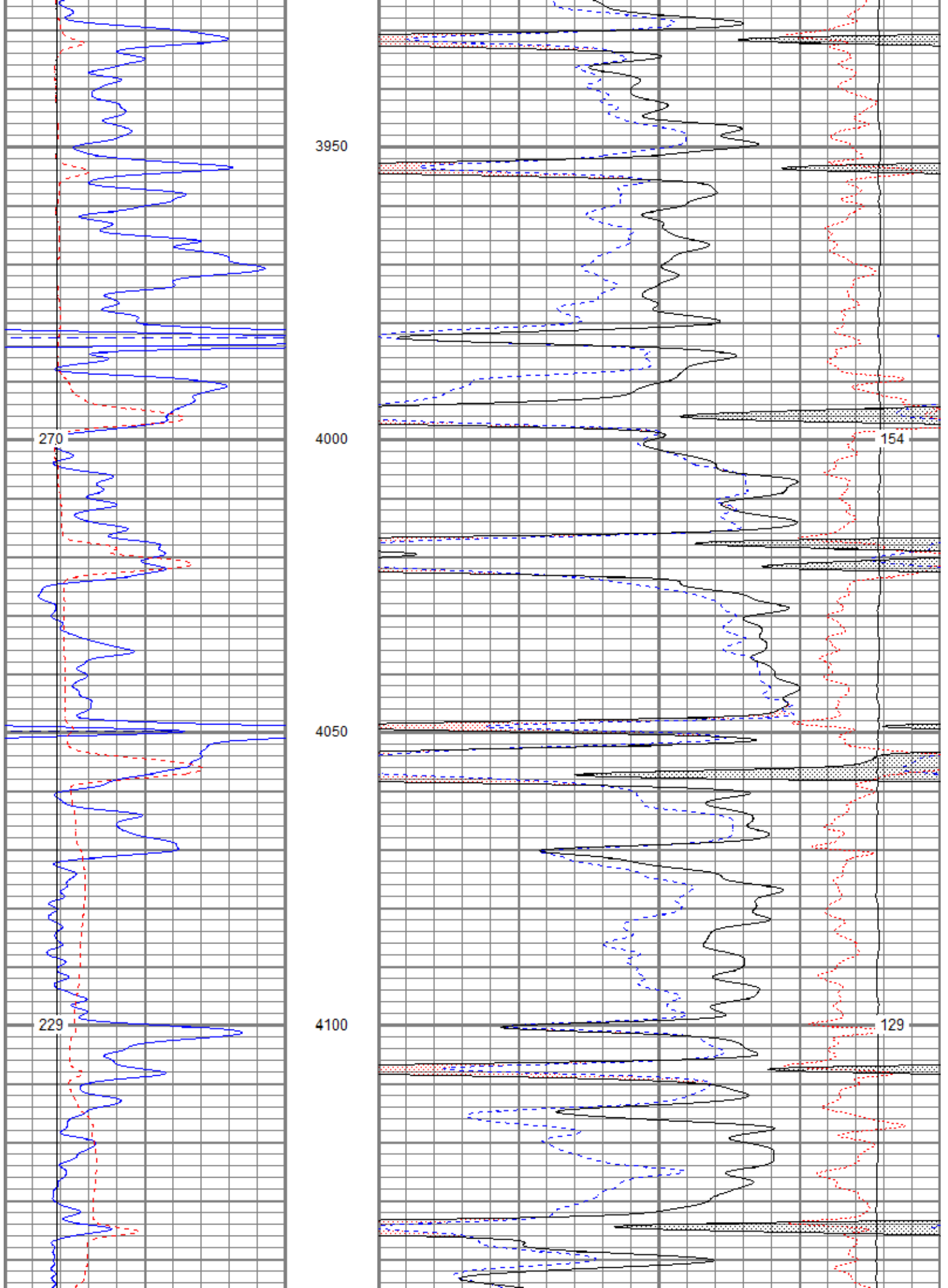
Database File bewheatland8-3oh.db
 Dataset Pathname pass2.1
 Presentation Format kcdnl
 Dataset Creation Sat Sep 02 15:49:29 2017
 Charted by Depth in Feet scaled 1:240

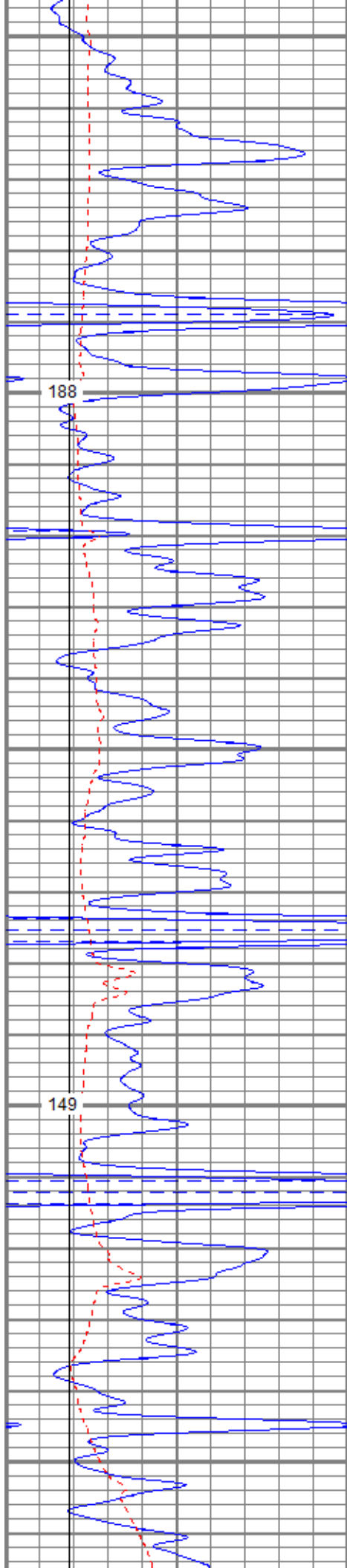
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6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	10000	LTEN (lb)	0
		ABHV (ft3)	







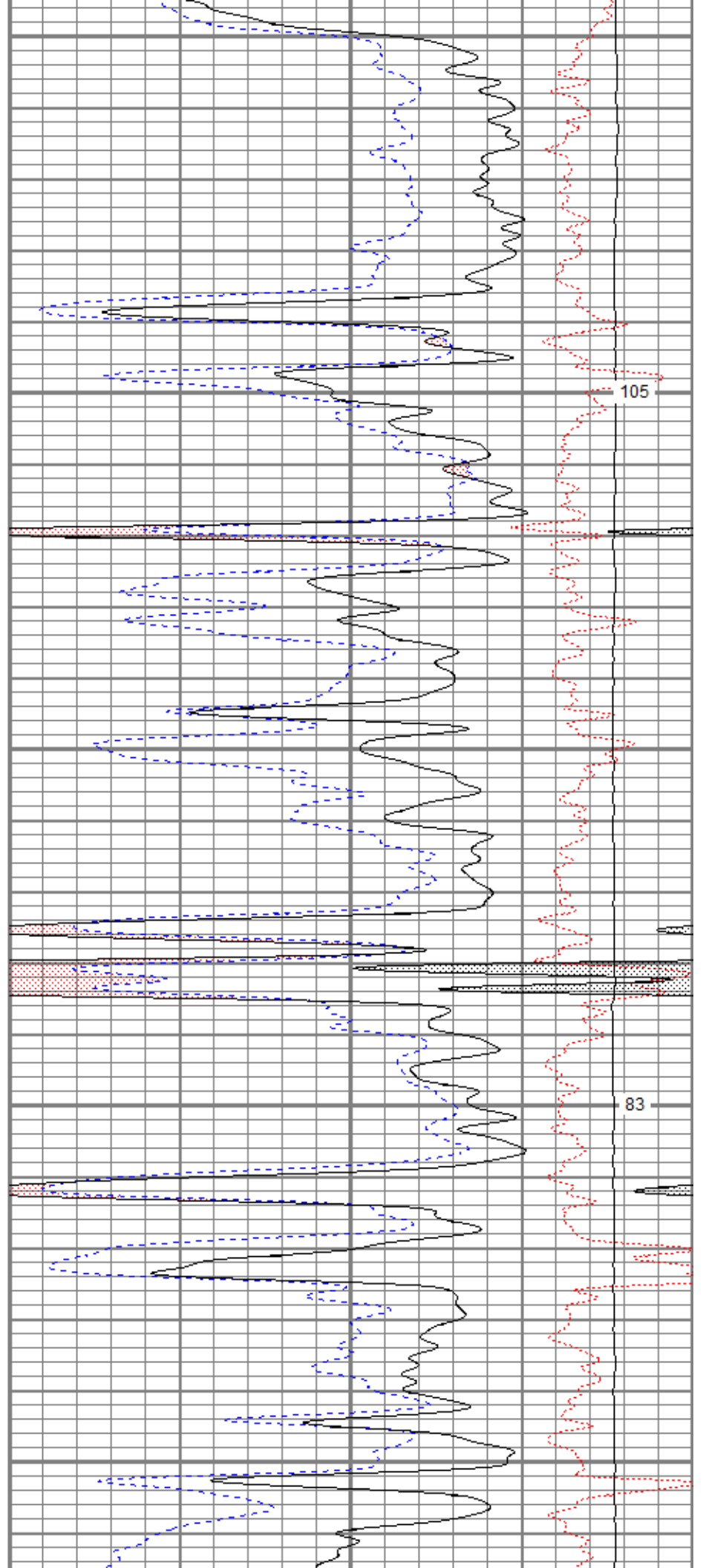
4150

4200

4250

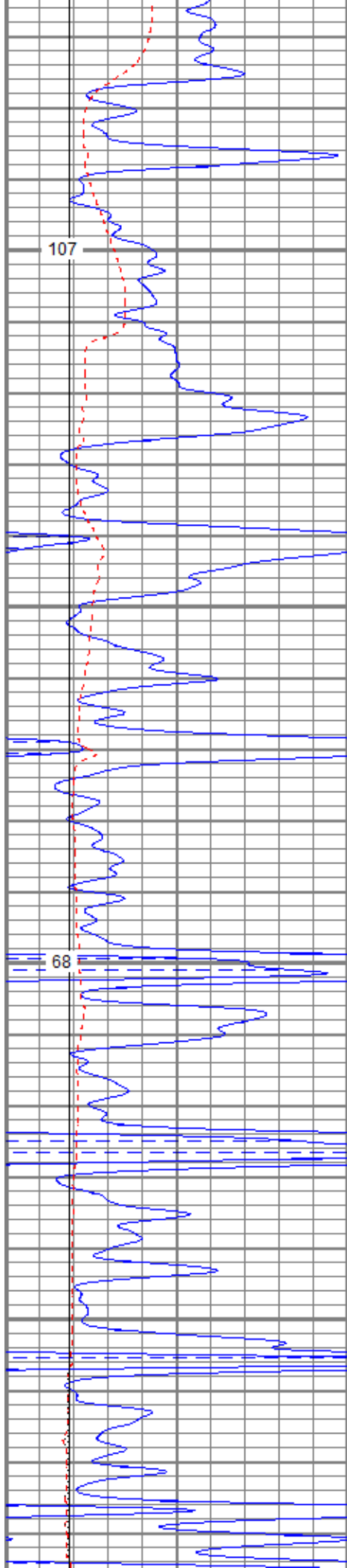
4300

4350



105

83

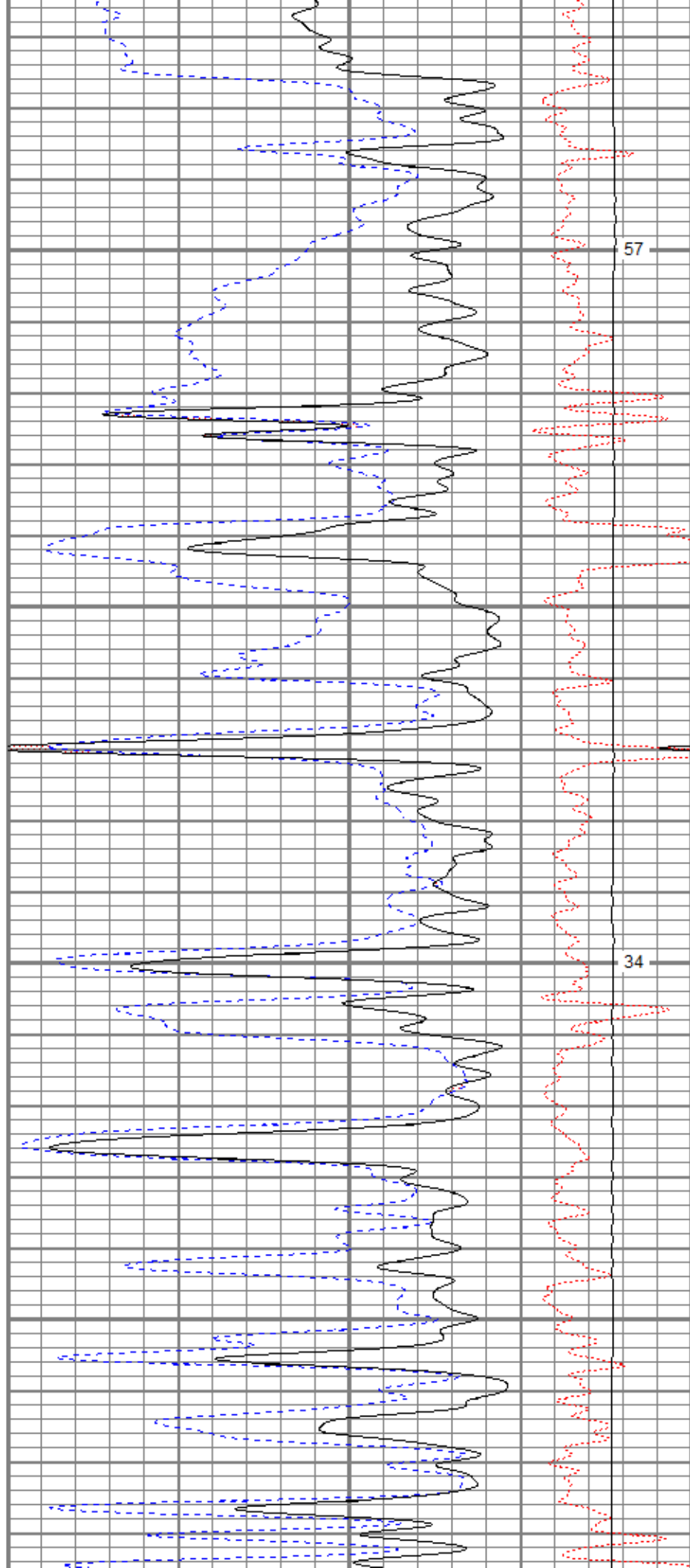


4400

4450

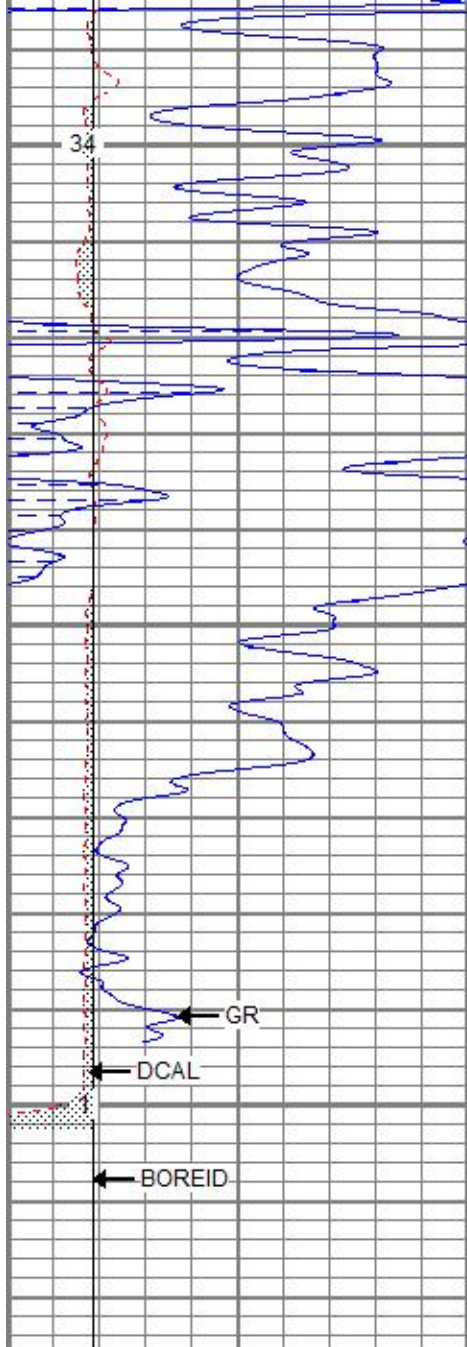
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4550



57

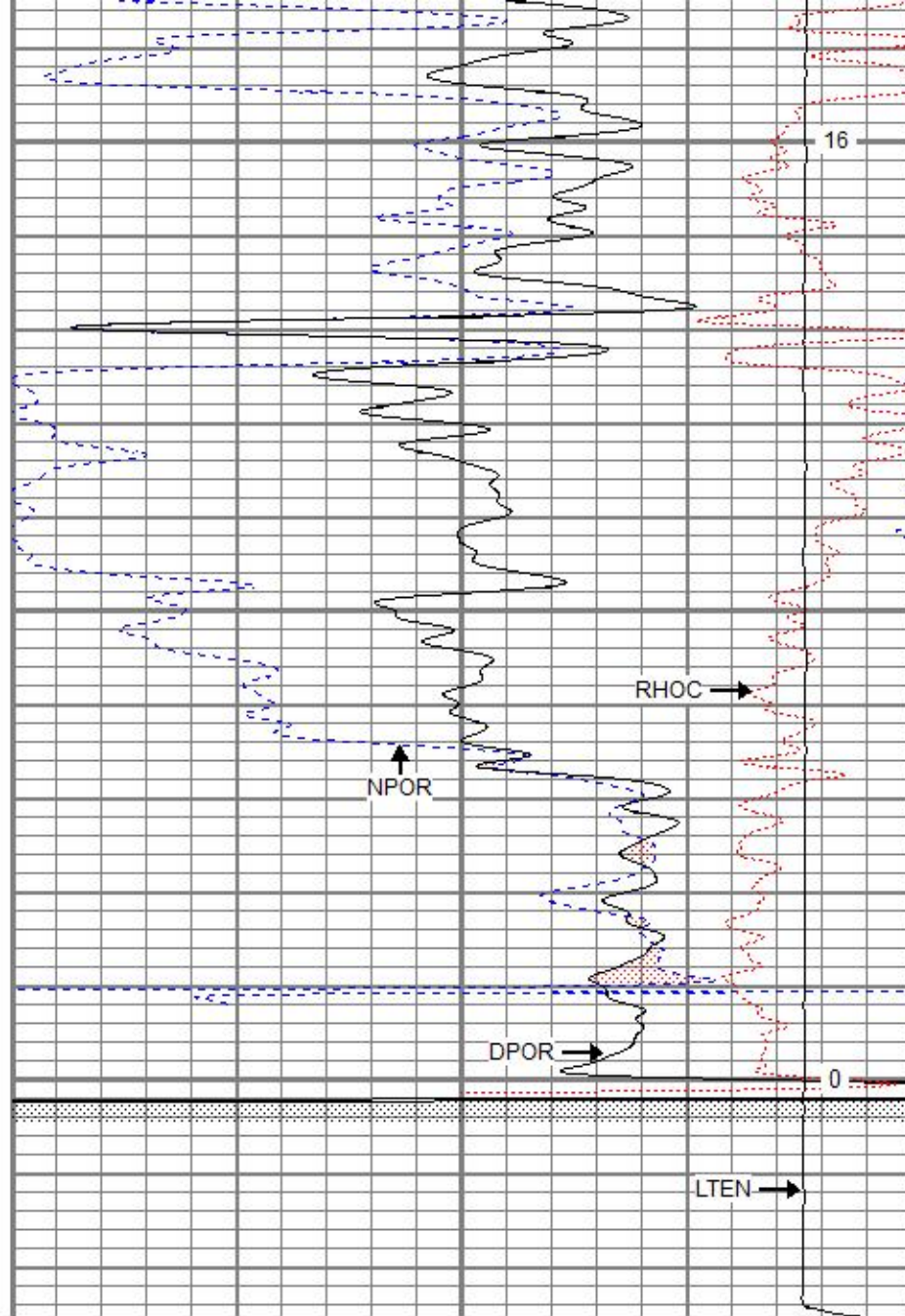
34



4600

4650

4700



16

0

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

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
-0.25	RHOC (g/cc)	0.25
10000	LTEN (lb)	0
ABHV (ft3)		



REPEAT SECTION

Database File bewheatland8-3oh.db
 Dataset Pathname pass1.1
 Presentation Format kcdnl
 Dataset Creation Sat Sep 02 15:51:57 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10

6 BOREID (in) 16

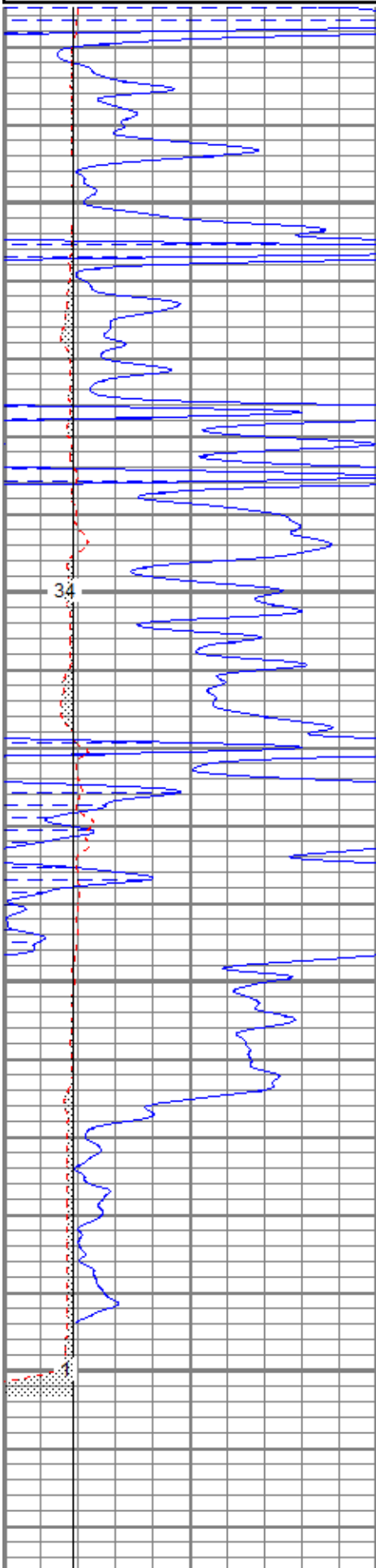
70 DPOR (pu) 30

TBHV (ft3)

-0.25 RHOC (g/cc) 0.25

10000 LTEN (lb) 0

ABHV (ft3)

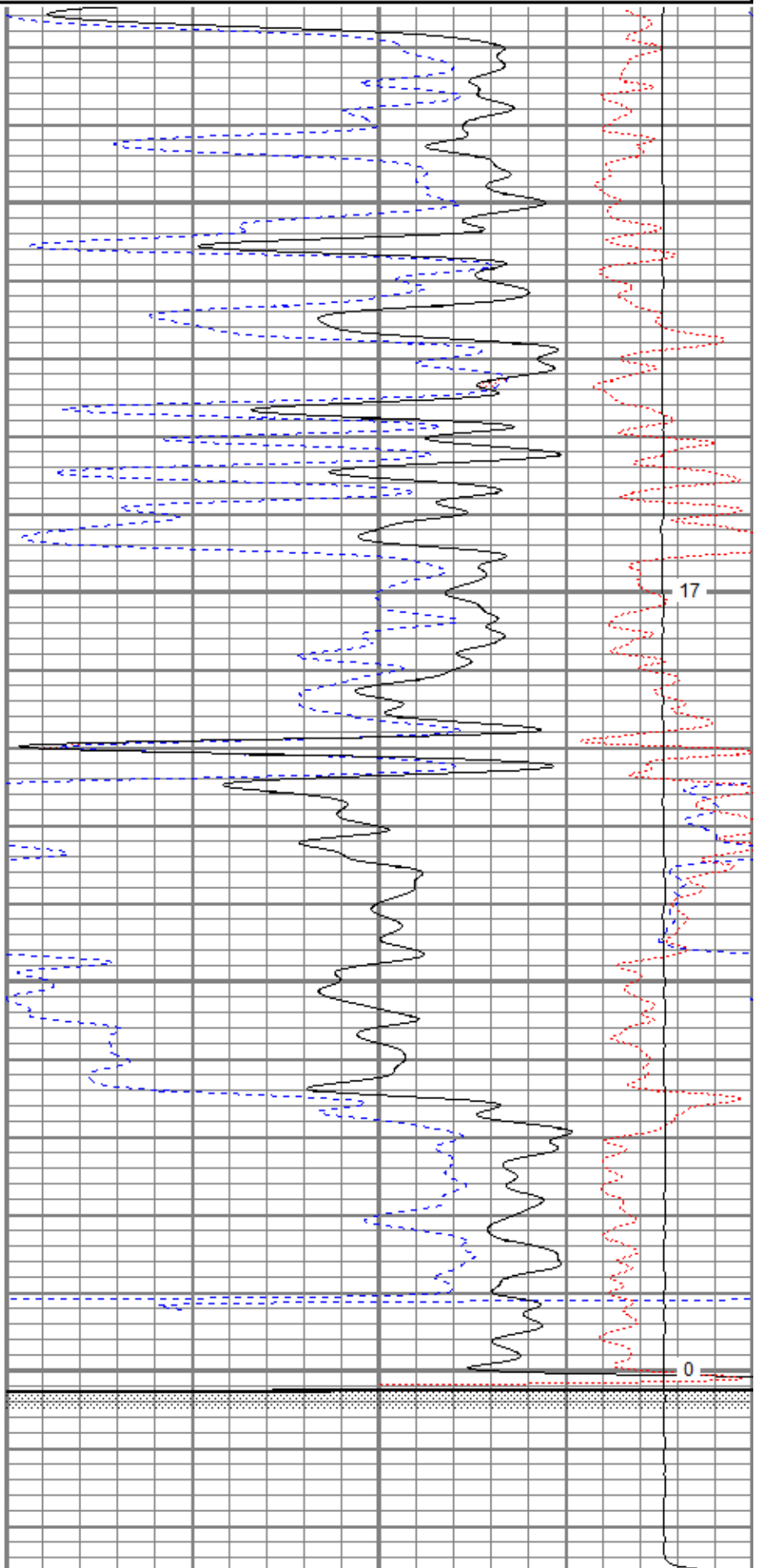


4550

4600

4650

4700



17

0

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

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	10000	LTEN (lb)	0
	ABHV (ft3)		

Calibration Report

Database File bewheatland8-3oh.db
Dataset Pathname pass2.1
Dataset Creation Sat Sep 02 15:49:29 2017

Dual Induction Calibration Report

Serial-Model: 5375-G
Surface Cal Performed: Tue Aug 15 10:21:23 2017
Downhole Cal Performed: Tue Aug 15 10:22:14 2017
After Survey Verification Performed: Tue Aug 15 10:22:14 2017

Surface Calibration

Readings			References			Results		
Loop:	Air	Loop	Air	Loop		m	b	
Deep	-0.003	0.635	V	0.000	350.000	mmho/m	548.445	1.715
Medium	-0.001	0.717	V	0.000	400.000	mmho/m	556.583	0.684
Internal:			Targets			Results		
	Zero	Cal		Zero	Cal		m	b
Deep	-0.003	0.635	V	0.000	350.000	mmho/m	548.268	1.663
Medium	-0.001	0.718	V	0.000	400.000	mmho/m	556.234	0.694

Downhole Calibration

Readings			References			Results		
Internal:	Zero	Cal	Zero	Cal		m	b	
Deep	0.131	349.928	mmho/m	0.052	350.165	mmho/m	1.001	-0.079
Medium	-0.084	400.178	mmho/m	-0.010	400.241	mmho/m	1.000	0.073
Shallow	2.425	0.005	V	500.000	2.000	Ohm-m	205.838	0.894

After Survey Verification

Readings			Targets			Results		
Internal:	Zero	Cal	Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	0.131	349.928	mmho/m	1.001	-0.079
Medium	0.000	0.000	mmho/m	-0.084	400.178	mmho/m	1.000	0.073
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Compensated Density Calibration Report

Serial-Model: 2113TN-Aoilex
Source / Verifier: csv n-20 /
Master Calibration Performed: Thu Jun 09 06:25:13 2016
Before Survey Verification Performed:
After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	466.46	301.08	cps
Aluminum	2.690	g/cc	85.94	195.82	cps

Spine Angle = 75.73

Density/Spine Ratio = 0.539

	Size		Reading	
Small Ring	9.35	in	1.49	V
Large Ring	14.00	in	3.25	V
Before Survey Verification				
	Target		Measured	
		g/cc		g/cc
		g/cc		g/cc
		g/cc		g/cc
After Survey Verification				
	Target		Measured	
		g/cc		g/cc
		g/cc		g/cc
		g/cc		g/cc

Gamma Ray Calibration Report

Serial Number: 2213TN
 Tool Model: Aoilex
 Performed: Mon Feb 20 13:34:10 2017

 Calibrator Value: 1.0 GAPI

 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

 Sensitivity: 1.1000 GAPI/cps

Neutron Calibration Report

Serial Number: 2301AN
 Tool Model: Oilex
 Performed: Tue Jun 28 09:51:54 2016

 Calibrator Value: 1 NAPI

 Calibrator Reading: 1 cps

 Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
NEU	34.62		CHD-None	0.75	1.50	5.00
			NEU-Oilex (2301AN) Oilex 100V NEU	4.27	3.50	80.00
GR	29.60		GR-Aoilex (2213TN) Admyr GR	2.84	4.00	50.00
LSD	24.57		CDL-Aoilex (2113TN) Admyr Oilex	6.80	4.00	250.00
DCAL SSD	24.30 24.05					

SP	10.60		DIL-G (5375) Gearhart	21.47	4.00	345.00
CILD	10.60					
CILM	6.89					
RLL3	1.70					

Dataset: bewheatland8-3oh.db: field/well/run1/pass2.1
 Total length: 36.14 ft
 Total weight: 730.00 lb
 O.D.: 4.00 in



**DUAL
INDUCTION
LOG**

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove
 State Kansas

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove State Kansas

Location: API #: 15 063 22314
 1310' FSL & 455' FEL
 SEC 8 TWP 14S RGE 32W
 Permanent Datum Ground Level Elevation 2963'
 Log Measured From KB 10' AGL
 Drilling Measured From KB
 Other Services
 BCS
 CDNL
 ML
 Elevation
 K.B. 2973'
 D.F. 2972'
 G.L. 2963'

Date	09-02-17
Run Number	One
Depth Driller	4725'
Depth Logger	4726'
Bottom Logged Interval	4724'
Top Log Interval	210'
Casing Driller	8 5/8" @ 234'
Casing Logger	234'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.2/56
PH / Fluid Loss	10/8.8
Source of Sample	Pit
Rm @ Meas. Temp	0.50@86degf
Rmf @ Meas. Temp	0.40@86degf
Rmc @ Meas. Temp	0.64@86degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	0.35@122degf
Time Circulation Stopped	11:00 a.m
Time Logger on Bottom	2:15 p.m
Maximum Recorded Temperature	122degf
Equipment Number	T729
Location	Hays, KS
Recorded By	Casey Patterson
Witnessed By	Mr. Keith Reavis

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Comments

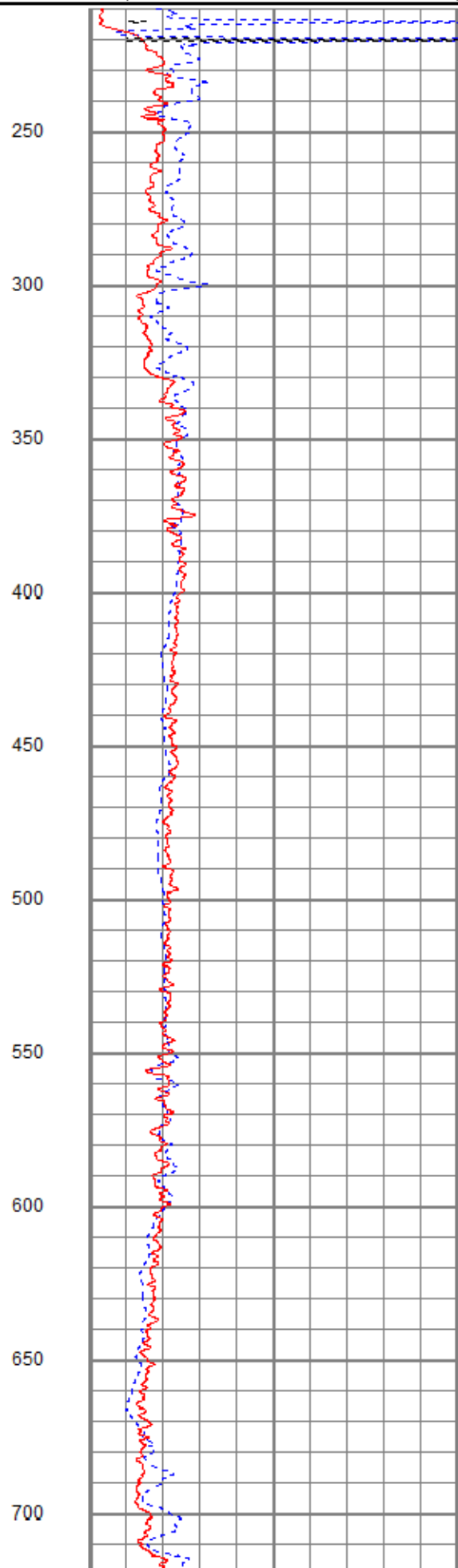
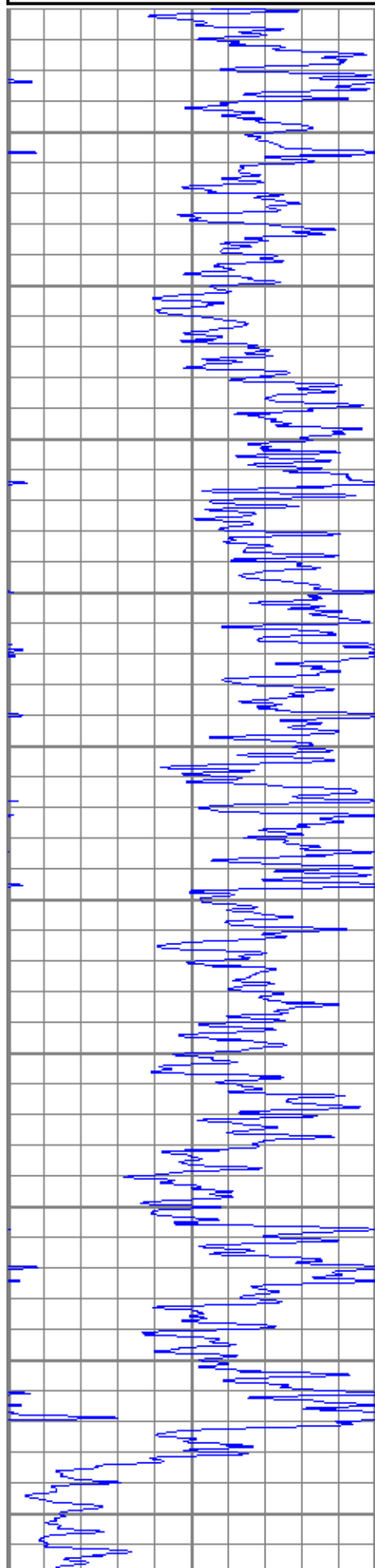
South out of Oakley on Hwy. 83 20 mi to Jayhawk Rd.,
 Then 4 mi. East to 14 Rd., Then North 1/2 mi. West into Location

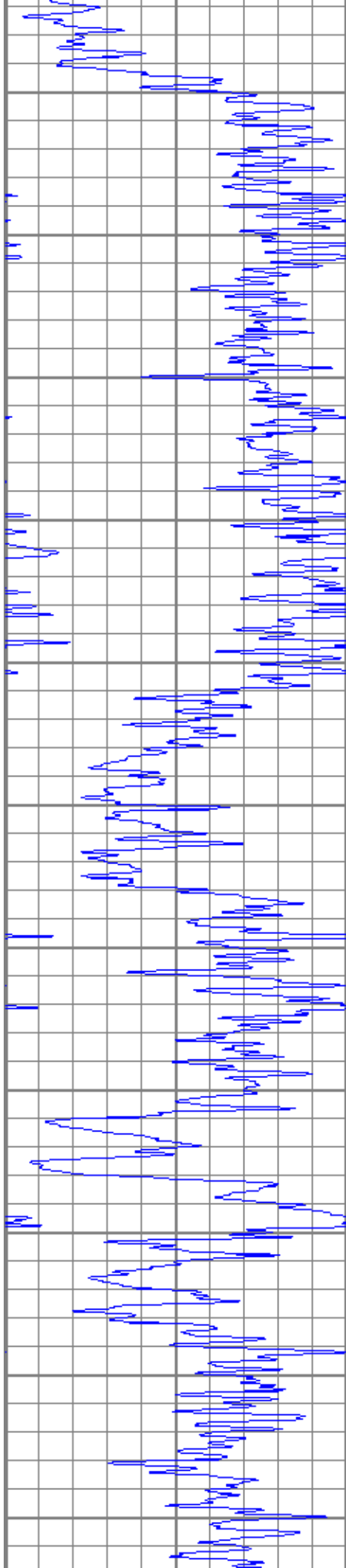
Thanks for using Gemini Wireline LLC
 785-625-1182

Database File	bewheatland8-3oh.db
Dataset Pathname	pass2.2
Presentation Format	kdillinn
Dataset Creation	Sat Sep 02 16:03:17 2017
Charted by	Depth in Feet scaled 1:600

GR (GAPI) 150

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





750

800

850

900

950

1000

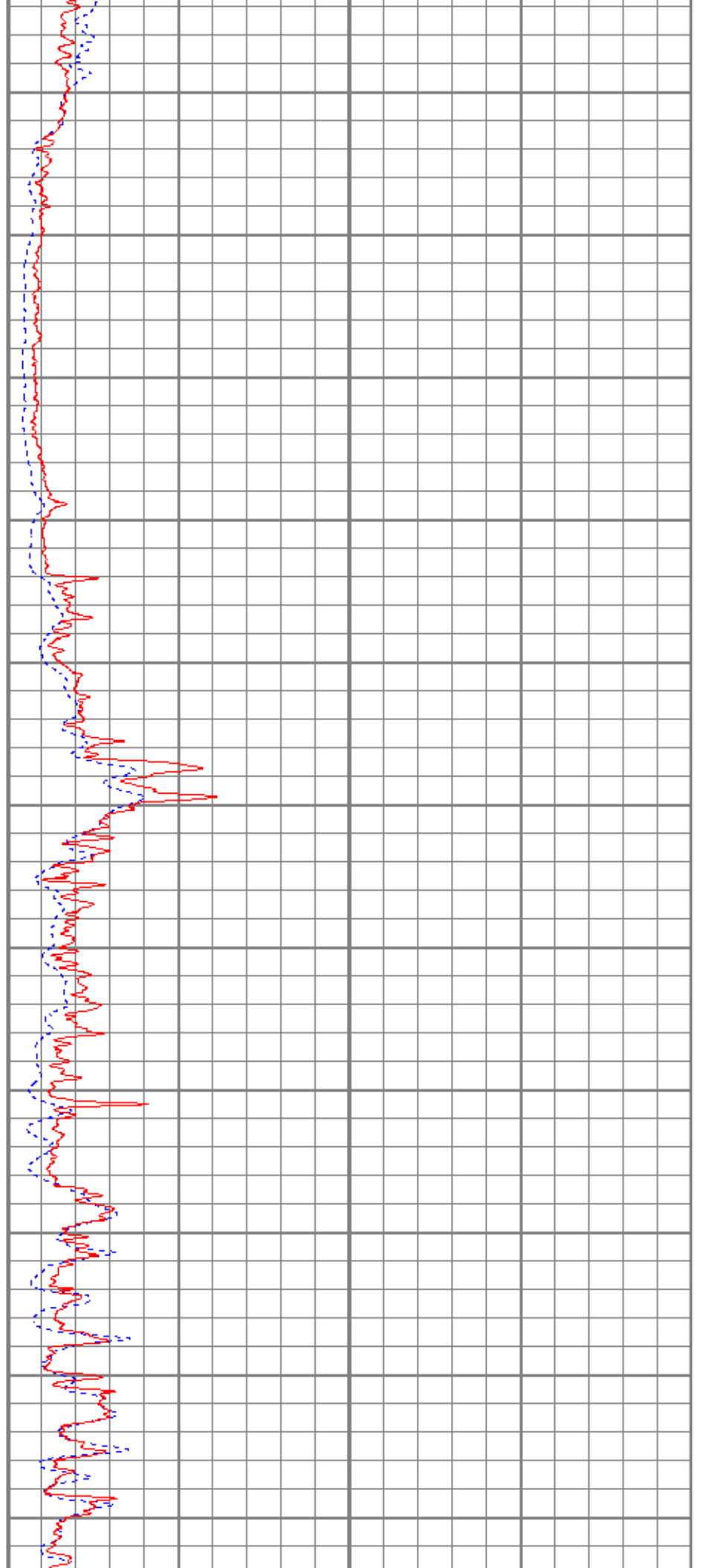
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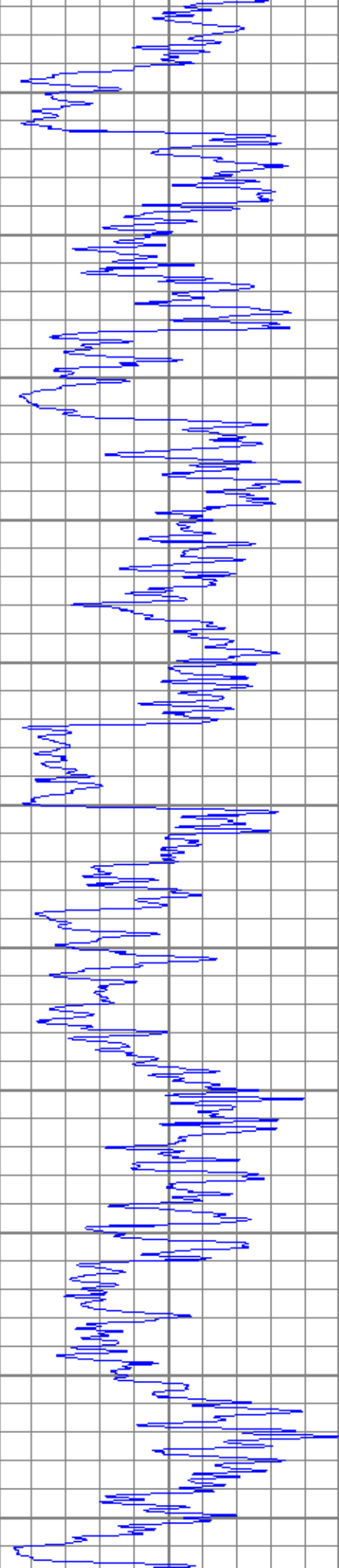
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1150

1200

1250





1300

1350

1400

1450

1500

1550

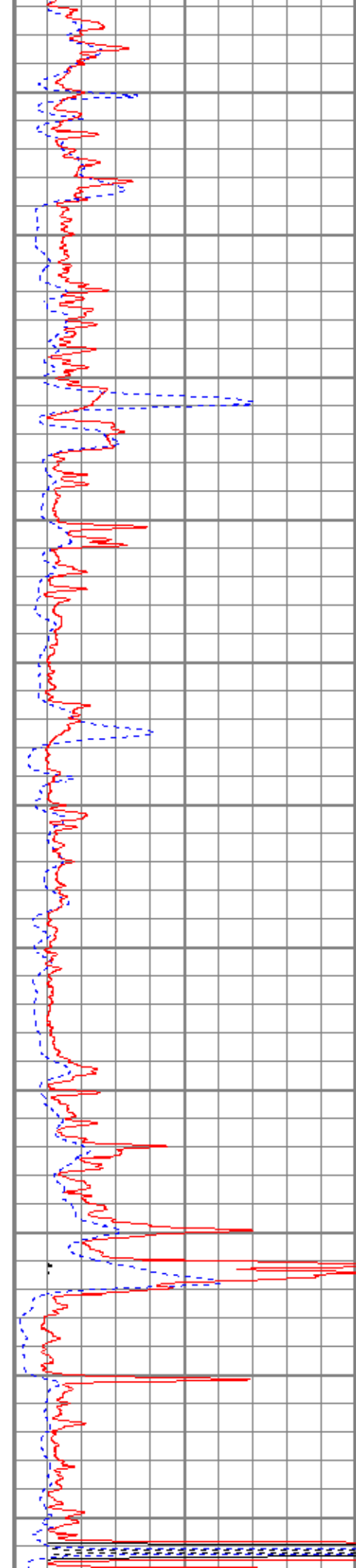
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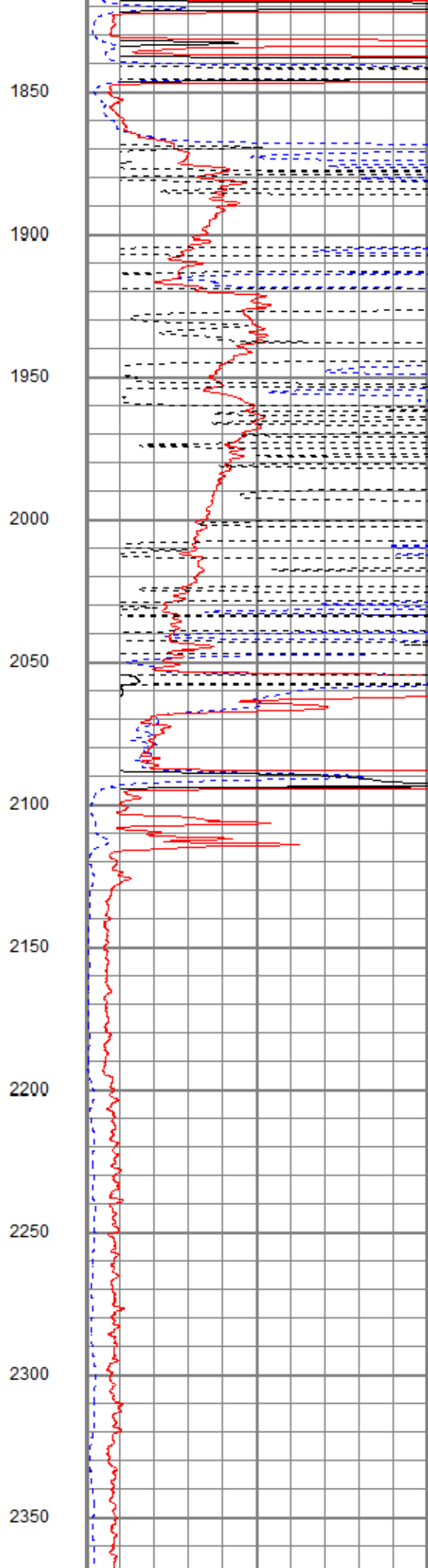
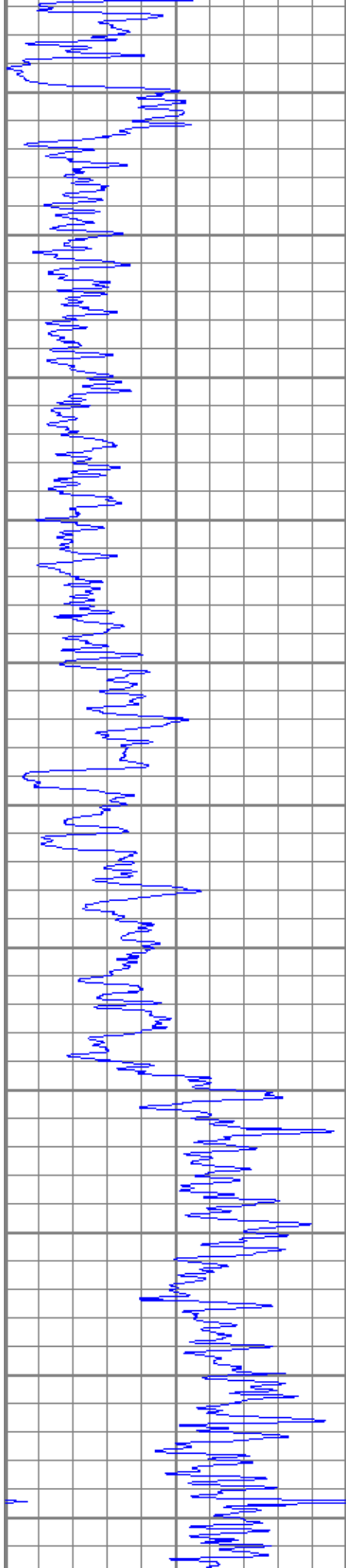
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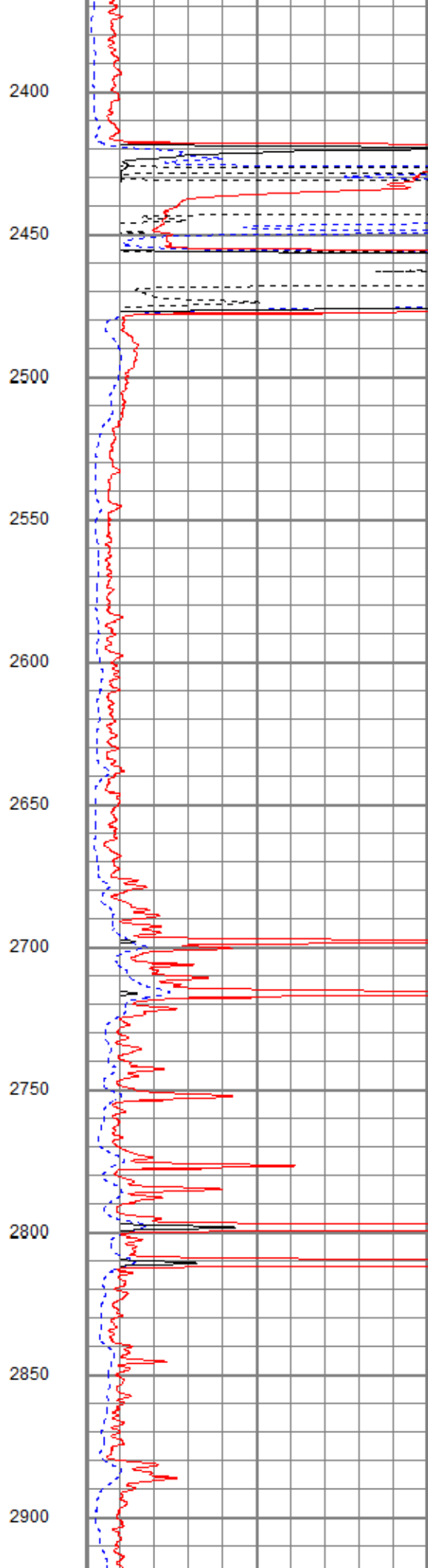
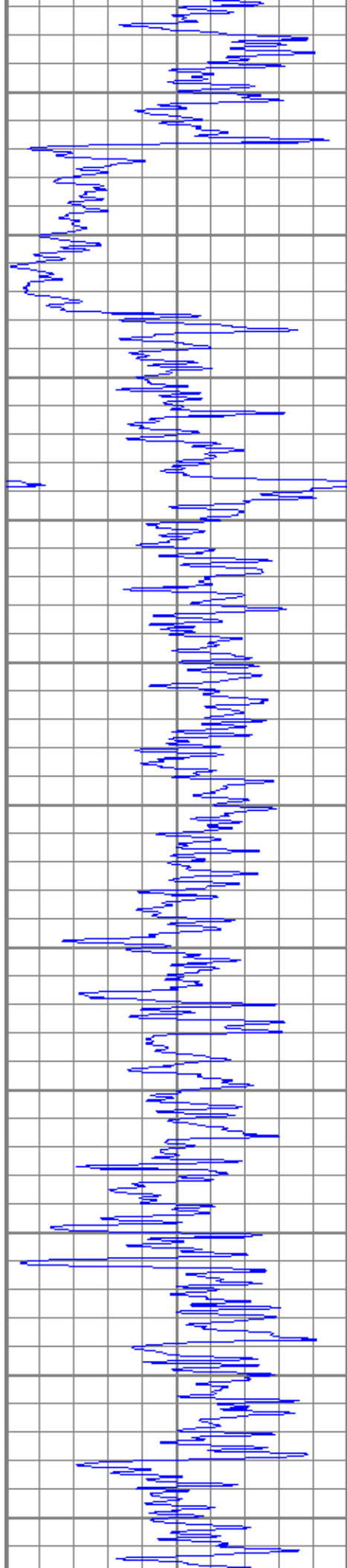
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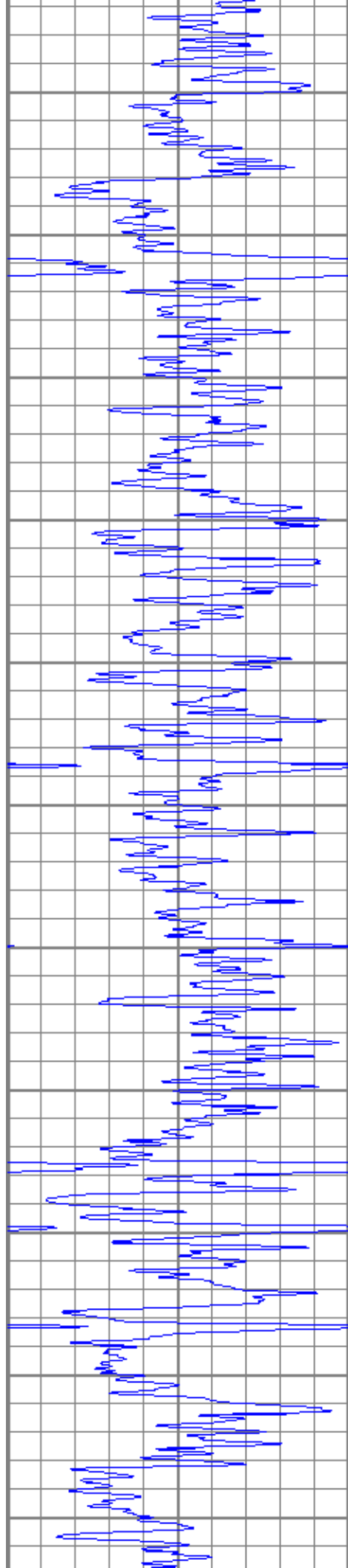
1750

1800









2950

3000

3050

3100

3150

3200

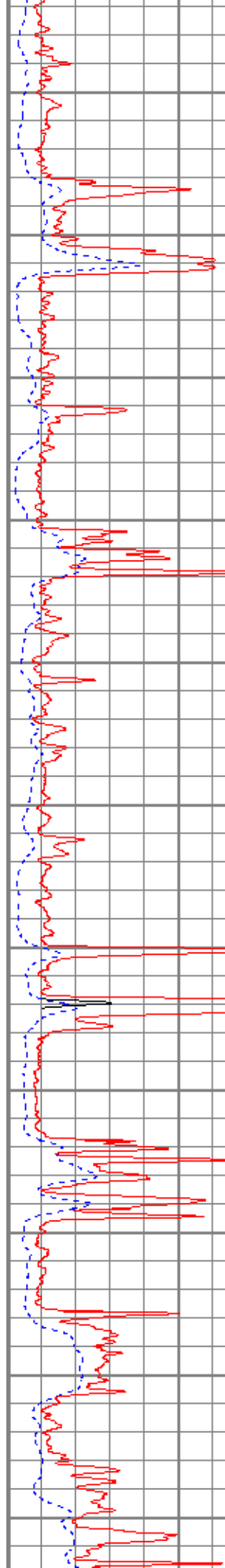
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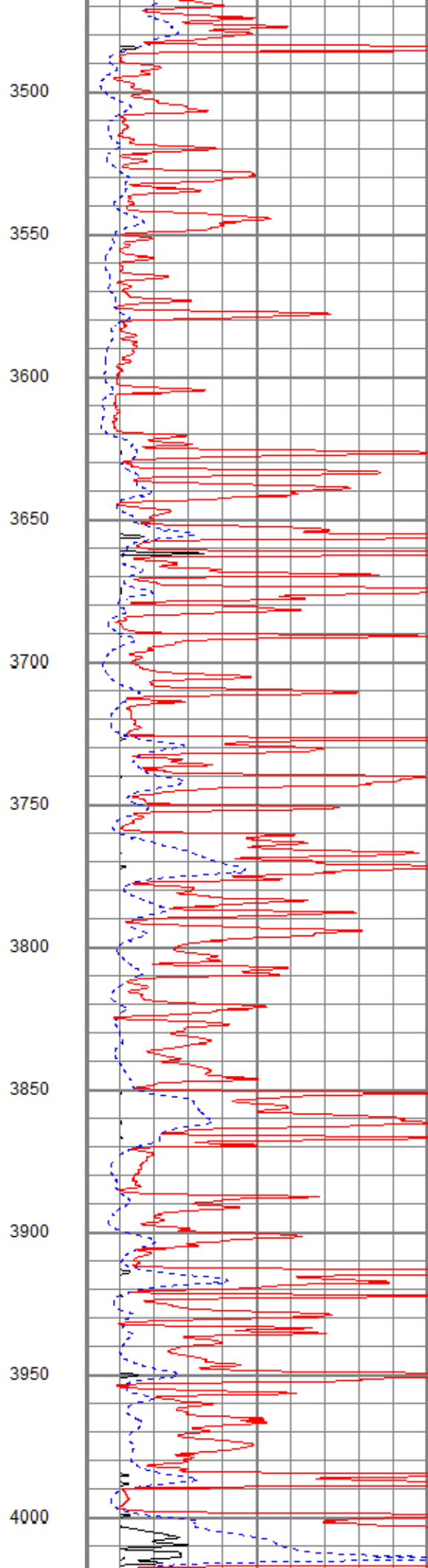
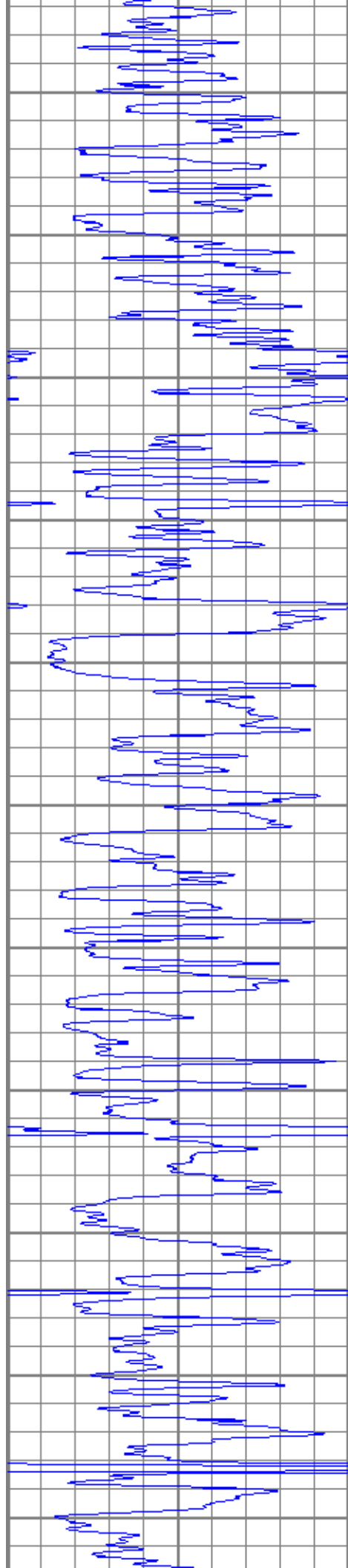
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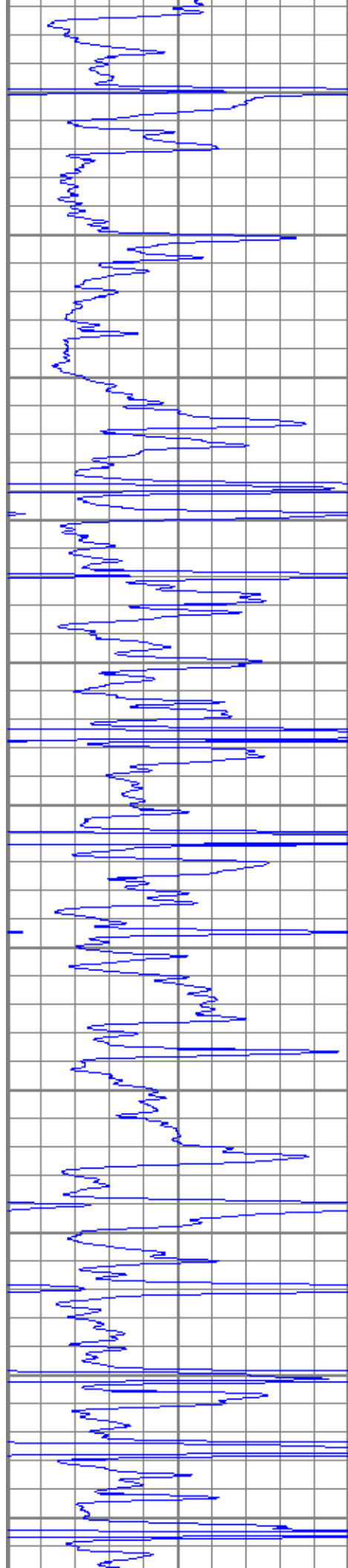
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3400

3450







4050

4100

4150

4200

4250

4300

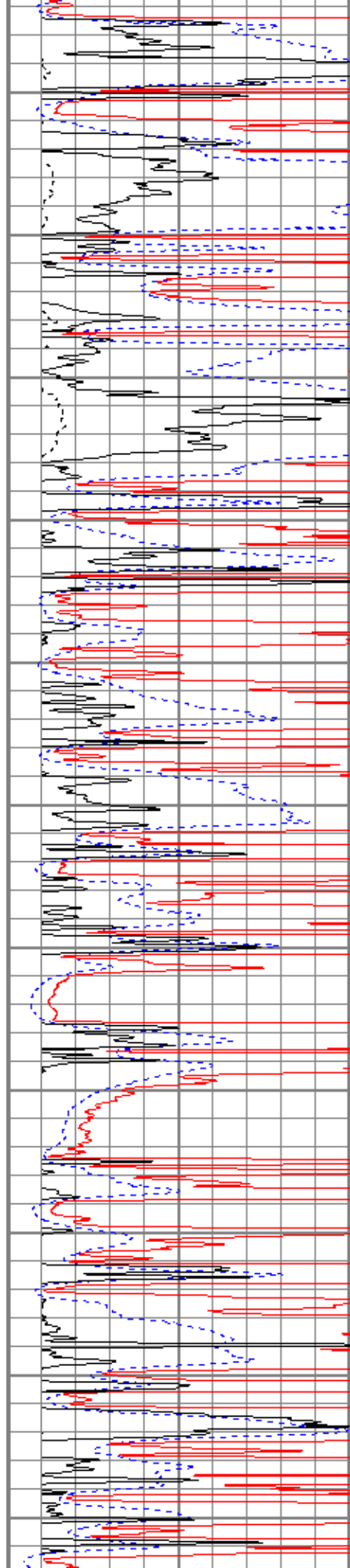
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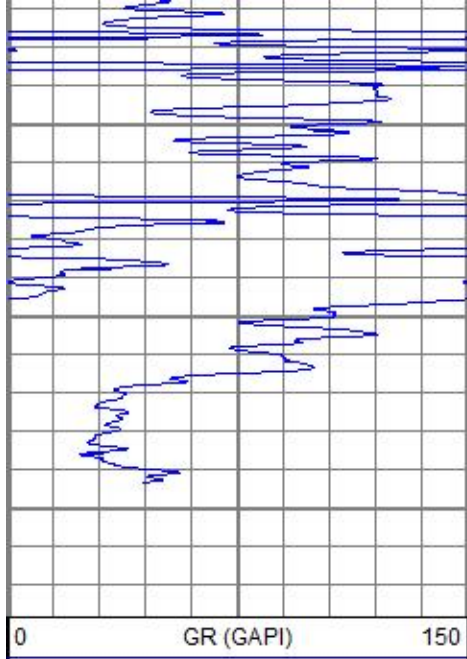
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4450

4500

4550



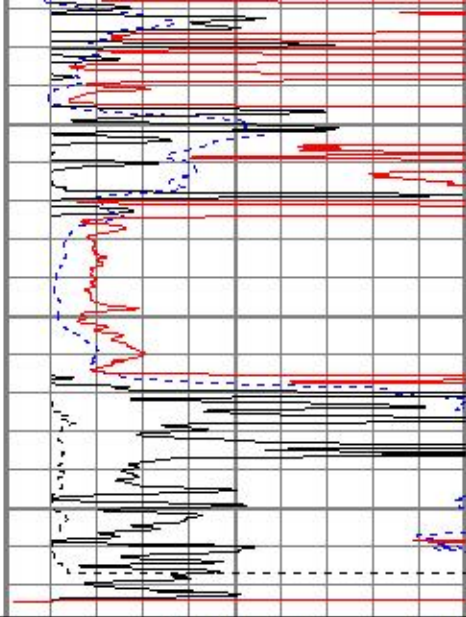


4600

4650

4700

0 GR (GAPI) 150



0 RILD (Ohm-m) 50

0 RLL3 (Ohm-m) 50

50 RILD x 10 (Ohm-m) 500

50 RLL3 x 10 (Ohm-m) 500

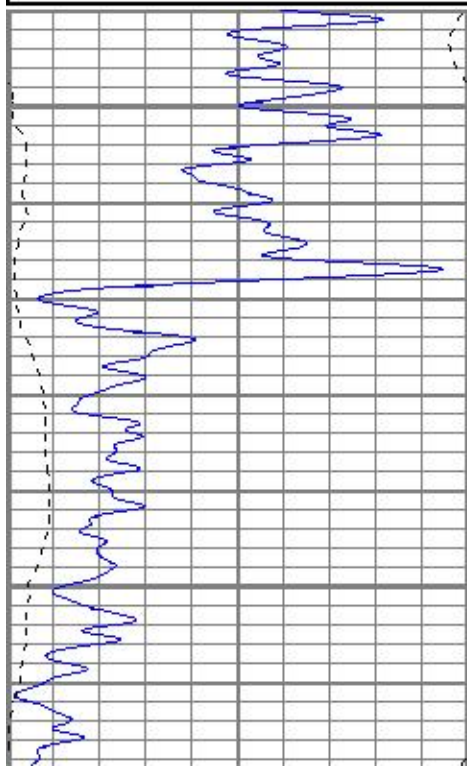


MAIN PASS

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 Dataset Pathname pass2.1
 Presentation Format kdil
 Dataset Creation Sat Sep 02 15:49:29 2017
 Charted by Depth in Feet scaled 1:240

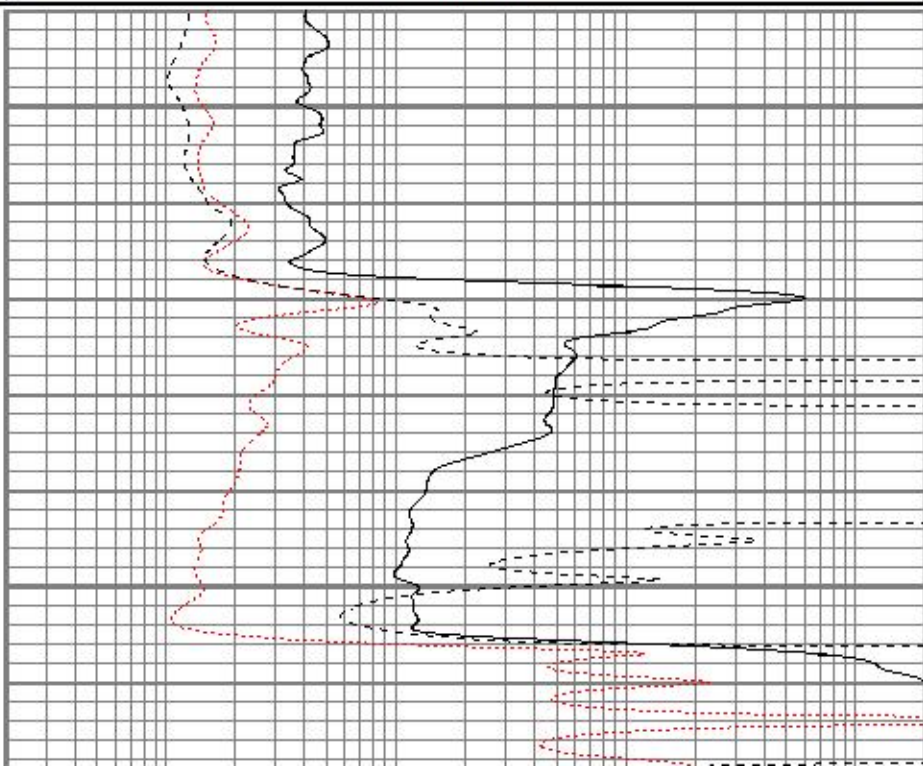
0 GR (GAPI) 150
 -100 SP (mV) 100

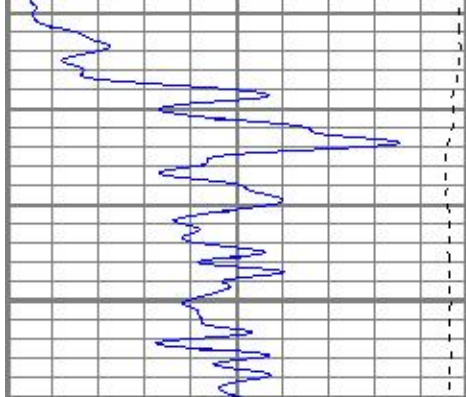
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 0.2 RILD (Ohm-m) 2000
 0.2 RLL3 (Ohm-m) 2000



2400

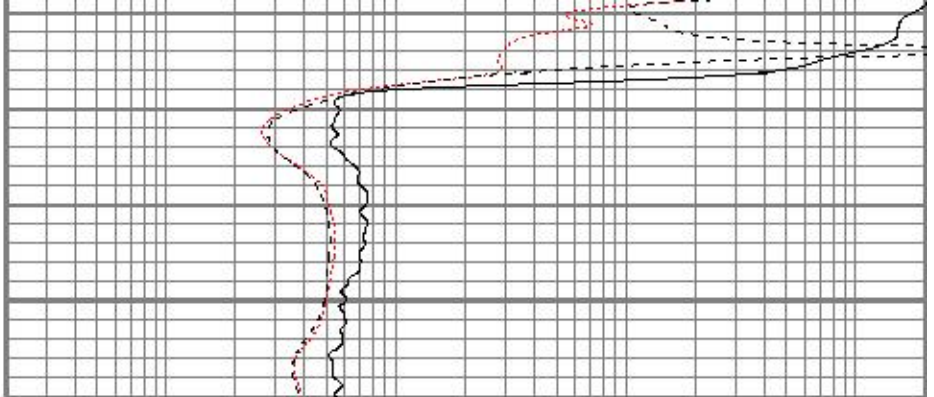
2450





2500

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



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

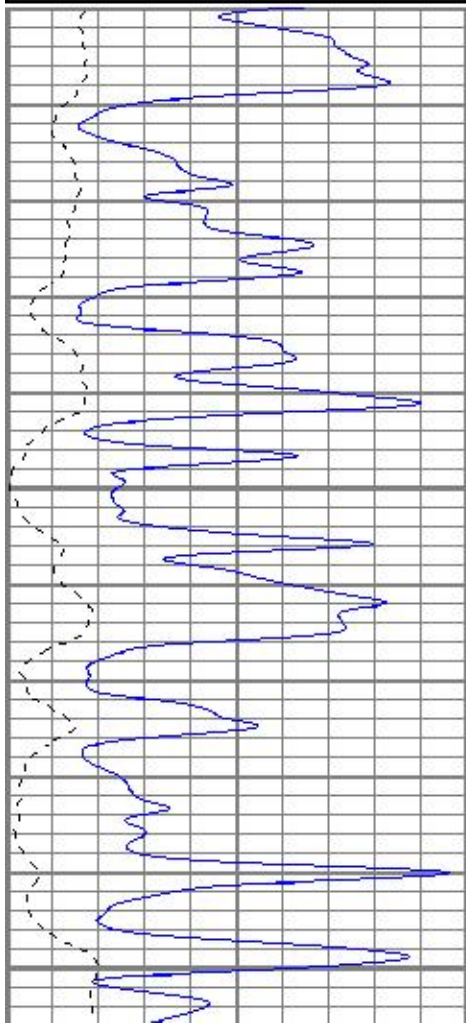


MAIN PASS

Database File bewheatland8-3oh.db
 Dataset Pathname pass2.1
 Presentation Format kdil
 Dataset Creation Sat Sep 02 15:49:29 2017
 Charted by Depth in Feet scaled 1:240

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

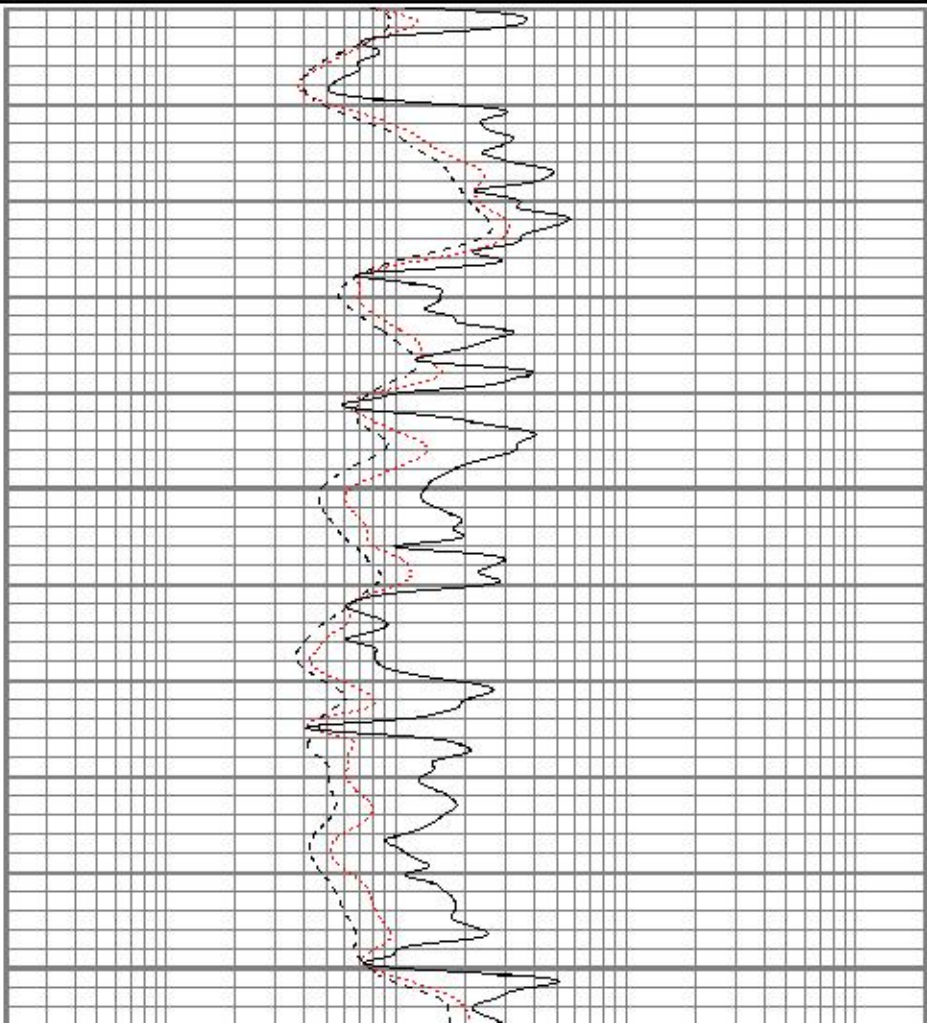
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0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000

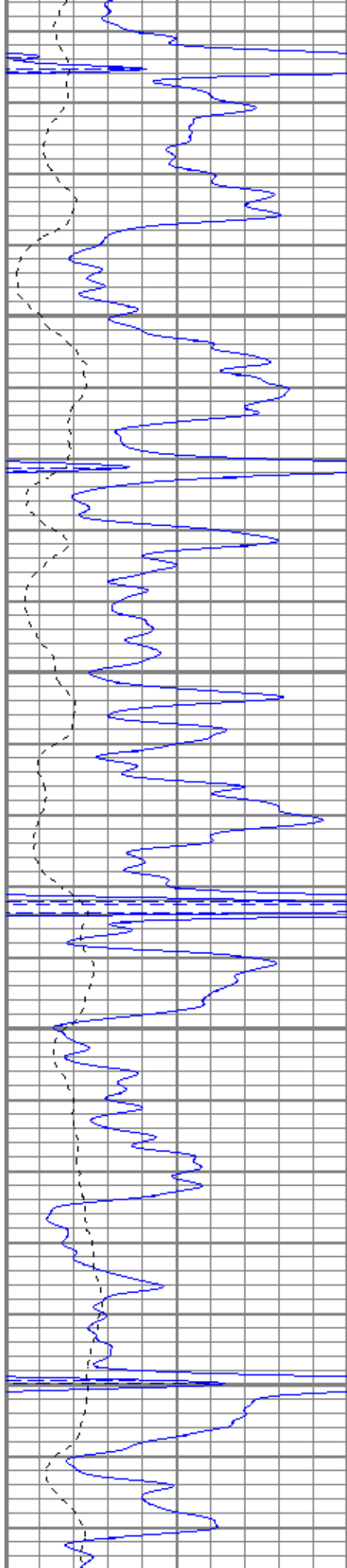


3750

3800

3850



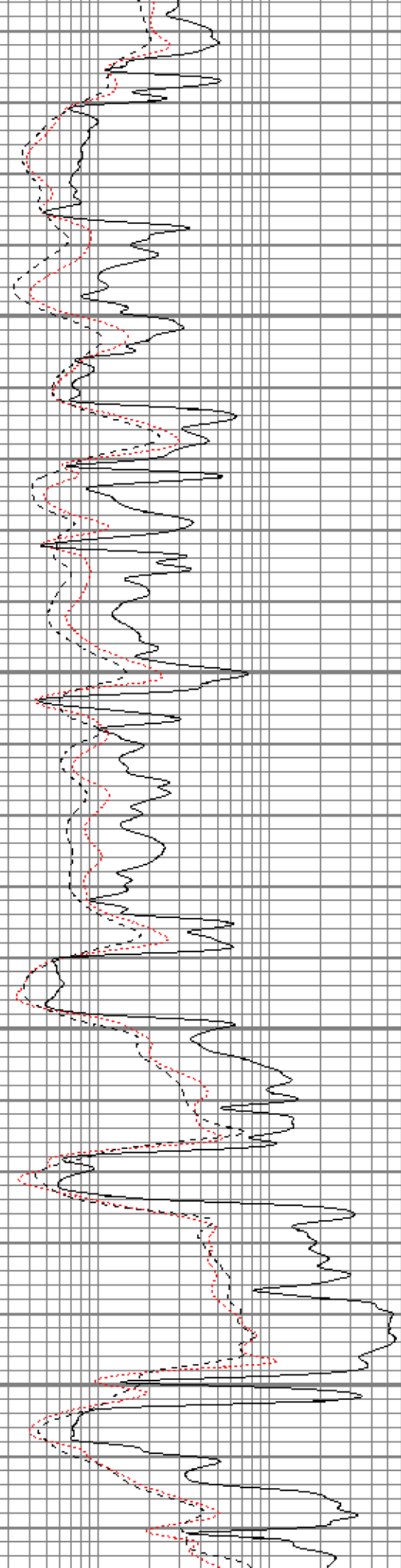


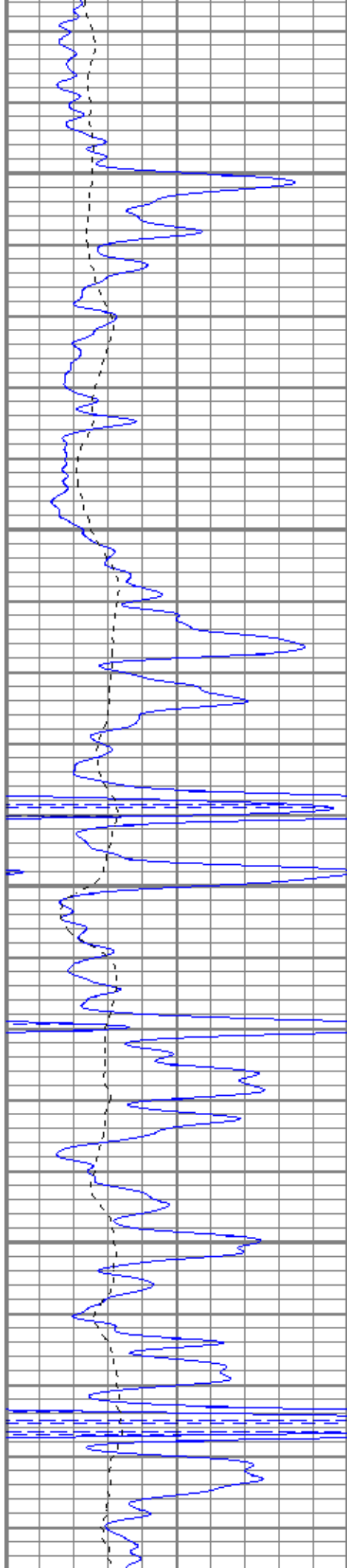
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3950

4000

4050



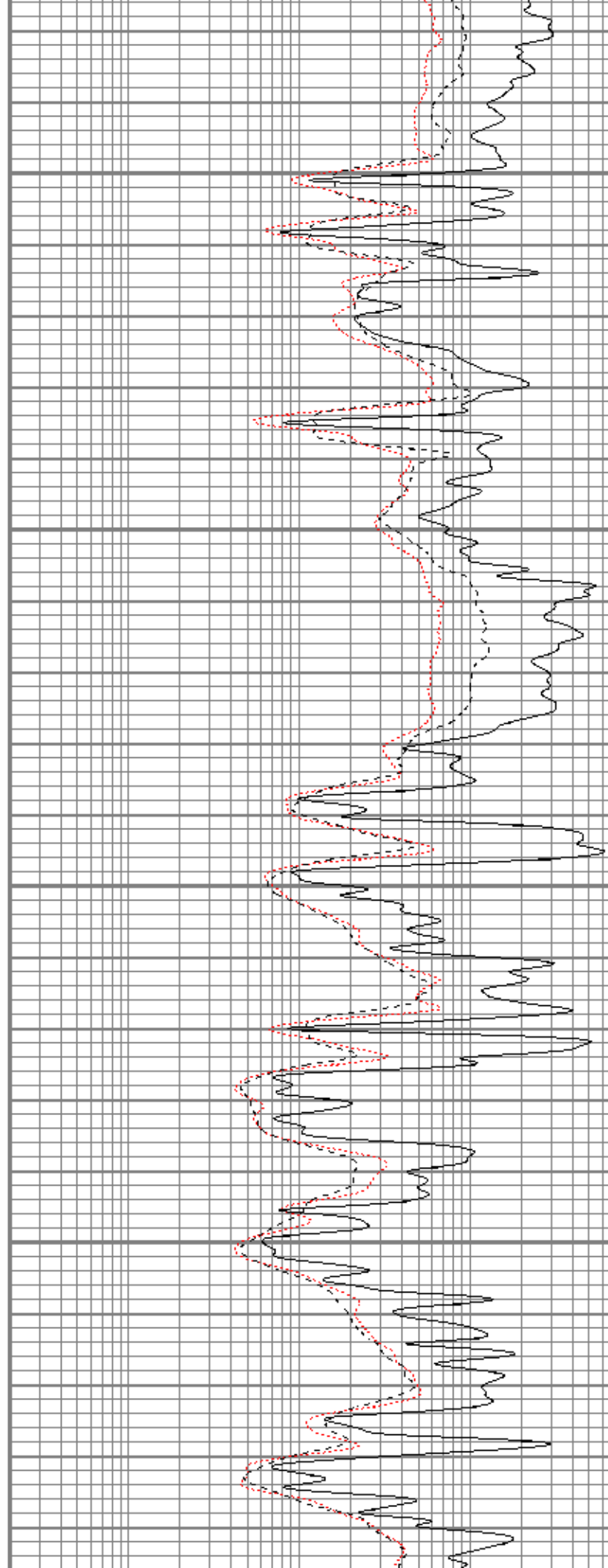


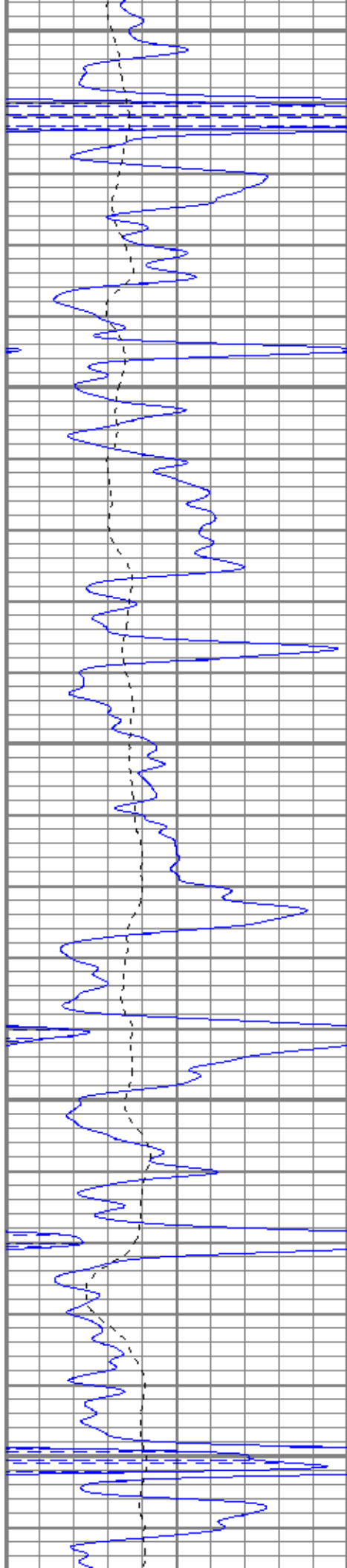
4100

4150

4200

4250





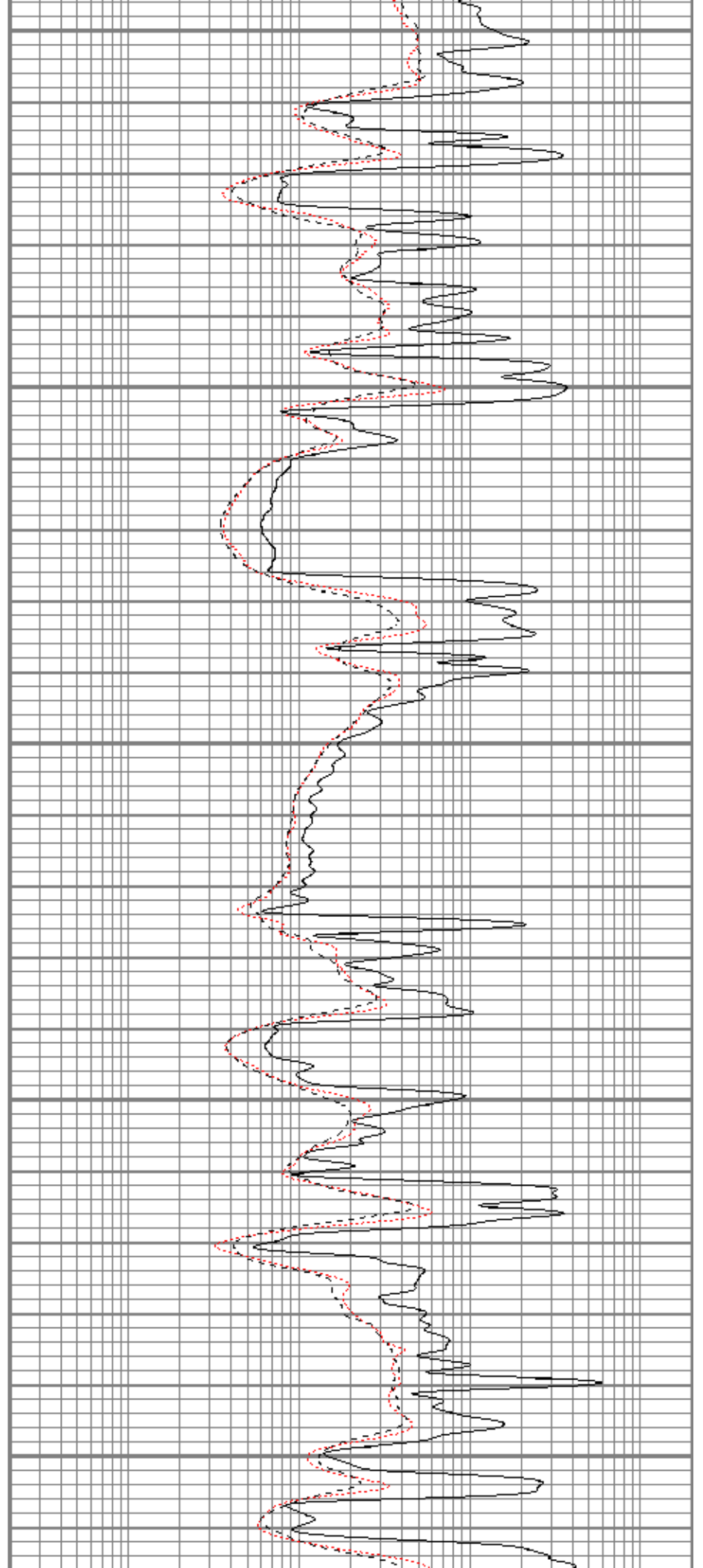
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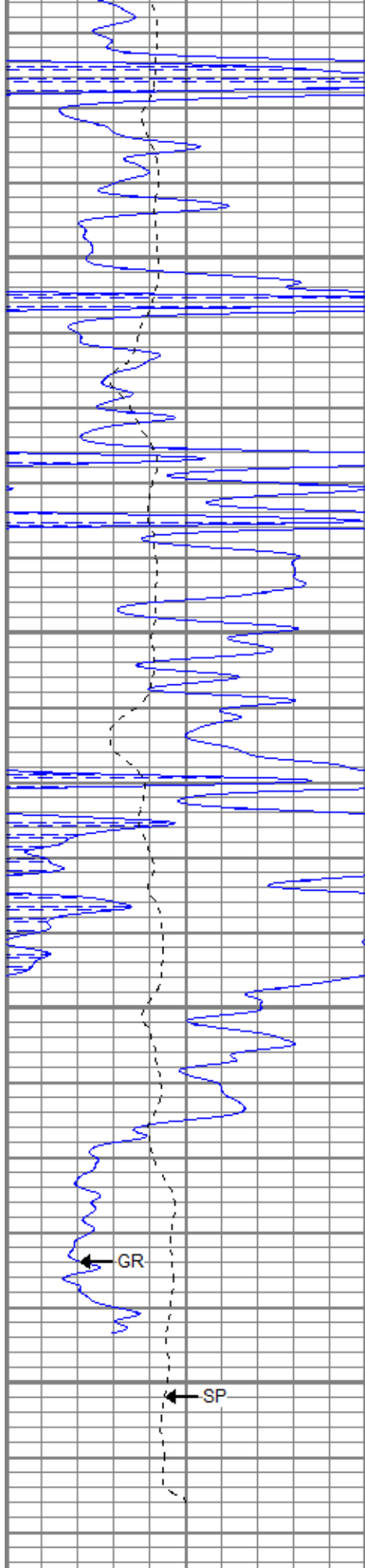
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4400

4450

4500





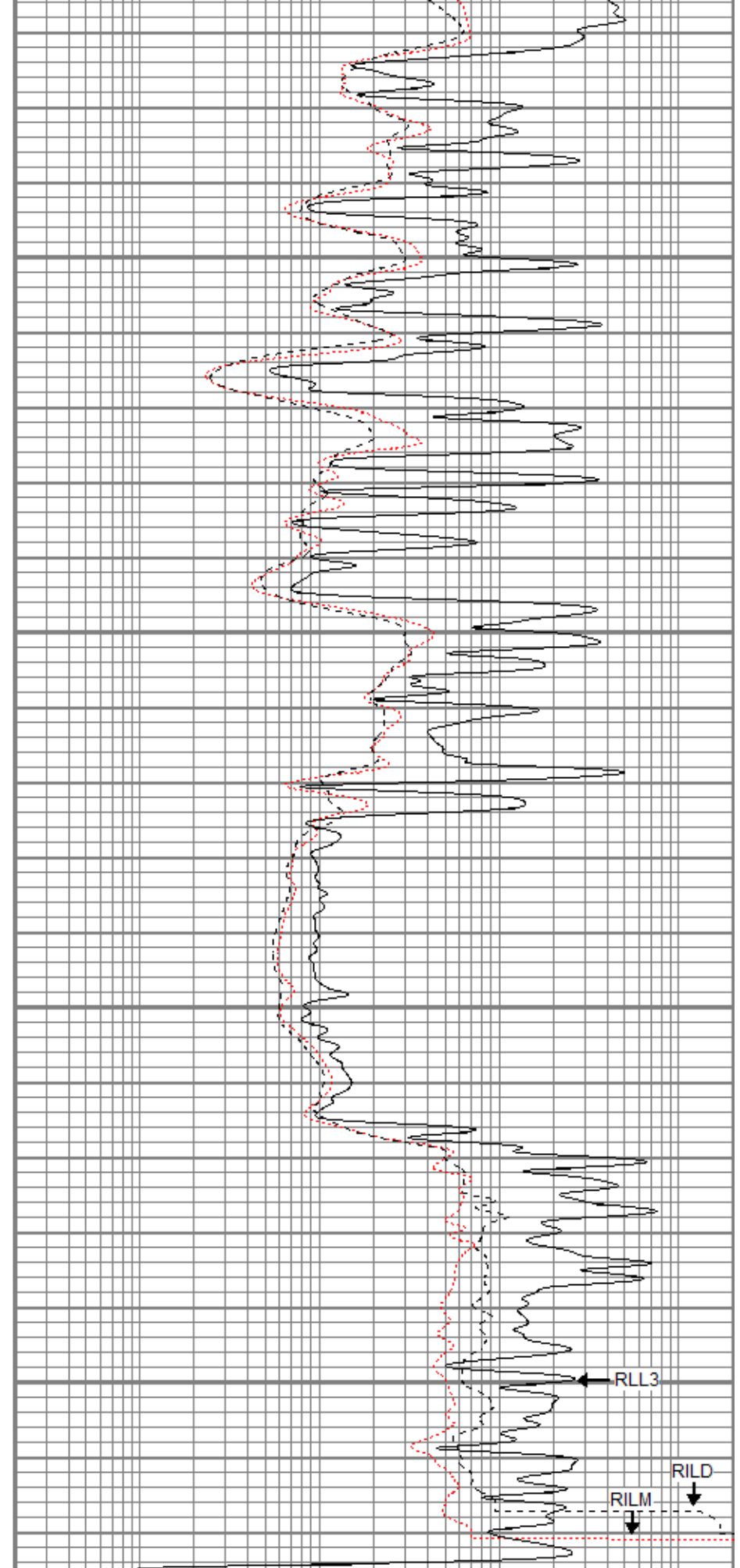
4550

4600

4650

4700

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



RLL3

RILD

RILM

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

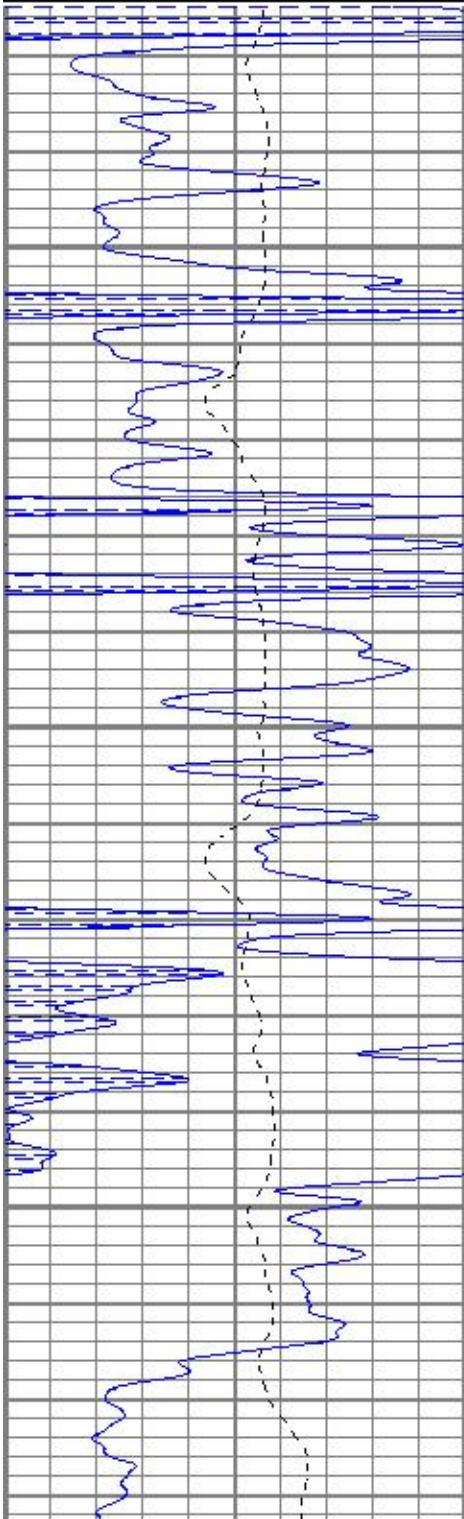


REPEAT SECTION

Database File bewheatland8-3oh.db
 Dataset Pathname pass1.1
 Presentation Format kdil
 Dataset Creation Sat Sep 02 15:51:57 2017
 Charted by Depth in Feet scaled 1:240

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

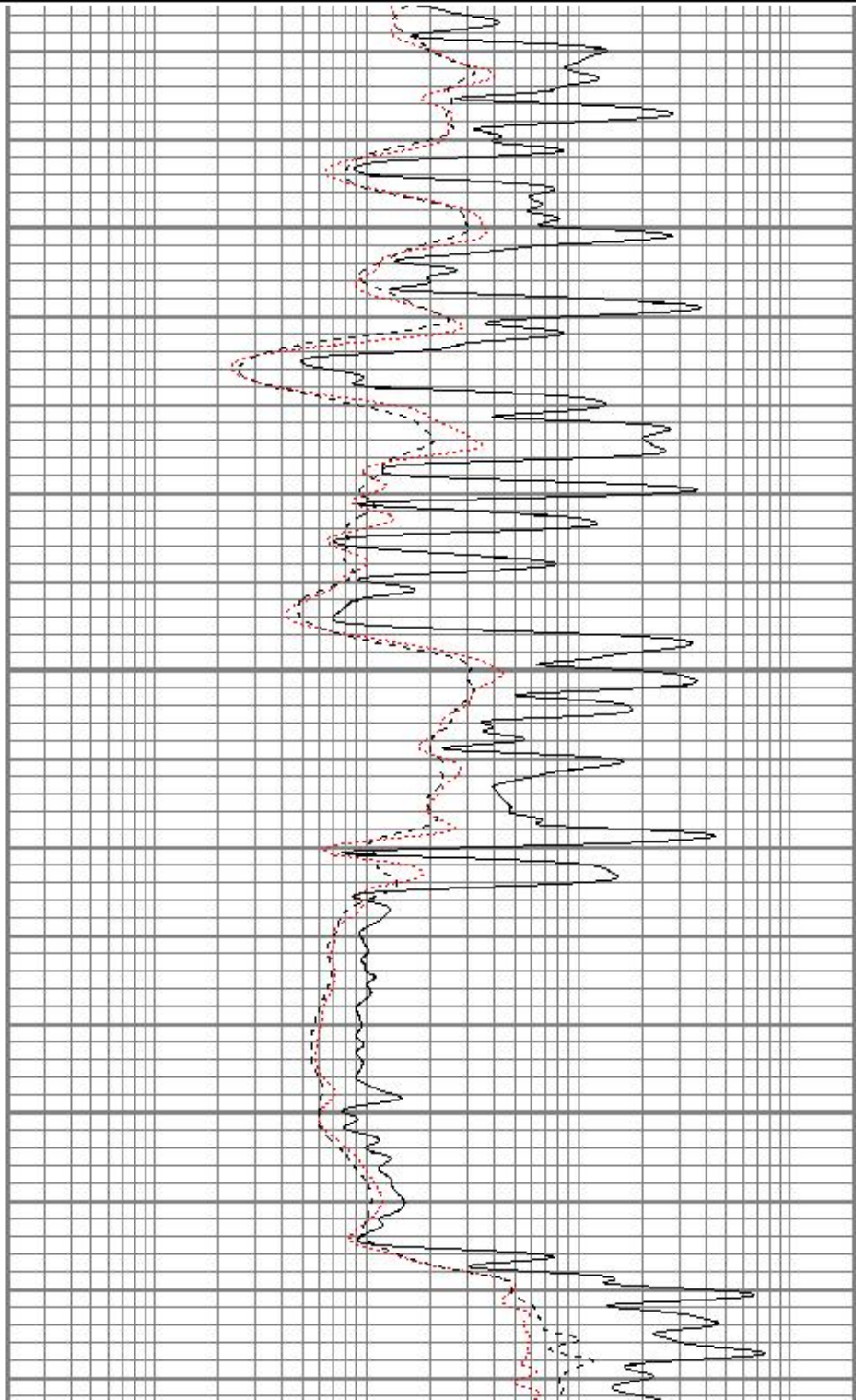
0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000

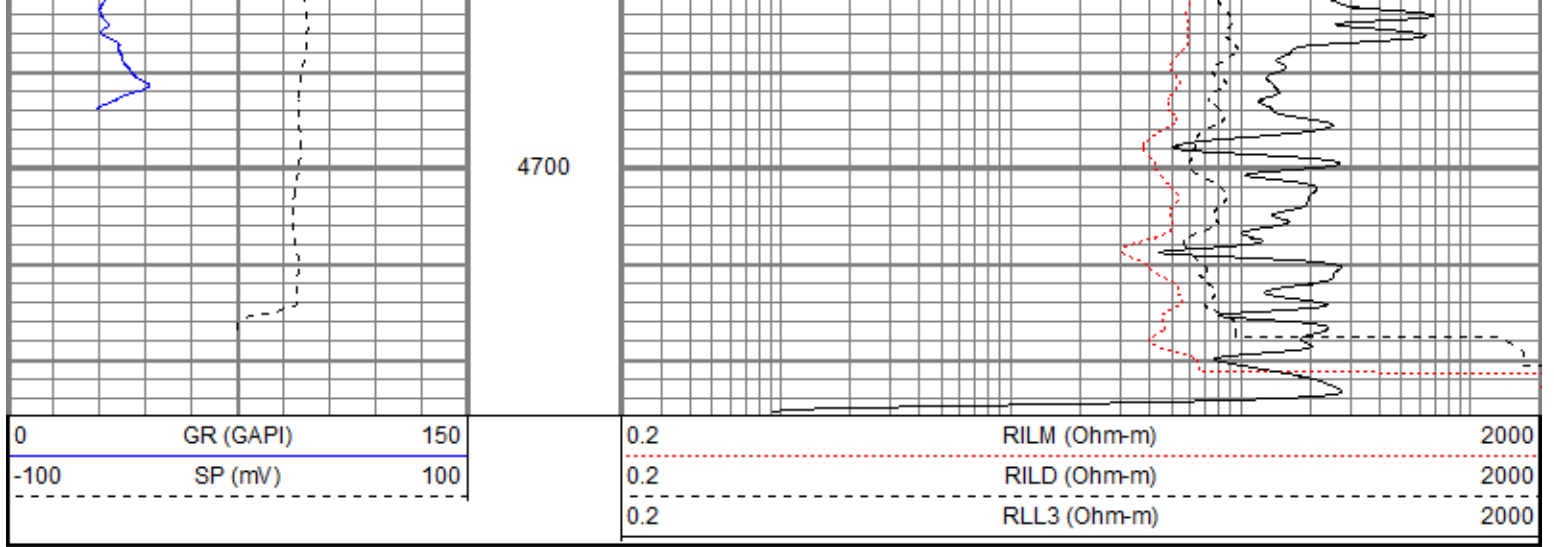


4550

4600

4650





Calibration Report

Database File bewheatland8-3oh.db
 Dataset Pathname pass2.1
 Dataset Creation Sat Sep 02 15:49:29 2017

Dual Induction Calibration Report

Serial-Model: 5375-G
 Surface Cal Performed: Tue Aug 15 10:21:23 2017
 Downhole Cal Performed: Tue Aug 15 10:22:14 2017
 After Survey Verification Performed: Tue Aug 15 10:22:14 2017

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.003	0.635	V	0.000	350.000	mmho/m	548.445	1.715
Medium	-0.001	0.717	V	0.000	400.000	mmho/m	556.583	0.684
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.003	0.635	V	0.000	350.000	mmho/m	548.268	1.663
Medium	-0.001	0.718	V	0.000	400.000	mmho/m	556.234	0.694

Downhole Calibration

Internal:	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Deep	0.131	349.928	mmho/m	0.052	350.165	mmho/m	1.001	-0.079
Medium	-0.084	400.178	mmho/m	-0.010	400.241	mmho/m	1.000	0.073
Shallow	2.425	0.005	V	500.000	2.000	Ohm-m	205.838	0.894

After Survey Verification

Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.131	349.928	mmho/m	1.001	-0.079
Medium	0.000	0.000	mmho/m	-0.084	400.178	mmho/m	1.000	0.073
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Compensated Density Calibration Report

Serial-Model: 2113TN-Aoilex
 Source / Verifier: csv n-20 /
 Master Calibration Performed: Thu Jun 09 06:25:13 2016
 Before Survey Verification Performed:

After Survey Verification Performed:

Master Calibration					
	<u>Density</u>		<u>Far Detector</u>	<u>Near Detector</u>	
Magnesium	1.750	g/cc	466.46	301.08	cps
Aluminum	2.690	g/cc	85.94	195.82	cps
	Spine Angle = 75.73		Density/Spine Ratio = 0.539		
	<u>Size</u>		<u>Reading</u>		
Small Ring	9.35	in	1.49	V	
Large Ring	14.00	in	3.25	V	

Before Survey Verification					
	<u>Target</u>		<u>Measured</u>		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc


After Survey Verification					
	<u>Target</u>		<u>Measured</u>		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc

Gamma Ray Calibration Report

Serial Number:	2213TN			
Tool Model:	Aoilex			
Performed:	Mon Feb 20 13:34:10 2017			
Calibrator Value:	1.0		GAPI	
Background Reading:	0.0		cps	
Calibrator Reading:	1.0		cps	
Sensitivity:	1.1000		GAPI/cps	

Neutron Calibration Report

Serial Number:	2301AN			
Tool Model:	Oilex			
Performed:	Tue Jun 28 09:51:54 2016			
Calibrator Value:	1		NAPI	
Calibrator Reading:	1		cps	
Sensitivity:	1		NAPI/cps	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
NEU	34.62		CHD-None	0.75	1.50	5.00
			NEU-Oilex (2301AN) Oilex 100V NEU	4.27	3.50	80.00
GR	29.60		GR-Aoilex (2213TN) Admyr GR	2.84	4.00	50.00
LSD	24.57		CDL-Aoilex (2113TN) Admyr Oilex	6.80	4.00	250.00

DCAL	24.30							
SSD	24.05							
SP	10.60							
CILD	10.60			DIL-G (5375) Gearhart		21.47	4.00	345.00
CILM	6.89							
RLL3	1.70							

Dataset: bewheatland8-3oh.db: field/well/run1/pass2.1
 Total length: 36.14 ft
 Total weight: 730.00 lb
 O.D.: 4.00 in



**RADIAL BOND LOG
WITH GAMMA RAY**

Company **RICHLAND OIL INVESTMENTS**
 Well **WHEATLAND #8-3**
 Field **N/A**
 County **GOVE** State **KANSAS**

Comp. **RICHLAND OIL INVESTMENTS**
 Well **WHEATLAND #8-3**
 Field **N/A**
 Co. **GOVE**
 State **KANSAS**

Location: **1310' FSL & 455' FEL**
SEC 8 TWP 14S RGE 32W
 Permanent Datum **GROUND LEVEL** Elevation **2963'**
 Log Measured From **KELLY BUSHING 10' Above GL**
 Drilling Measured From **KELLY BUSHING**
 Other Services **PERF**
 Elevation **K.B. 2973'**
D.F. 2972'
G.L. 2963'

Date of Service	9/14/2017			
Run Number	ONE			
Depth Driller or PBTD	4674'			
Depth Logger	4673'			
Bottom Log Interval	4671'			
Top Log Interval	00'			
Open Hole Size	7.875"			
Type Fluid	WATER			
Fluid Level	FULL			
Fluid Density	N/A			
Max. Recorded Temperature	122 DEG F			
Max. Wellhead Pressure	00 PSI			
Wellhead Connection	FLOWFREE			
Estimated Cement Top	3740'			
Unit Number	106			
Wireline Size	0.288"			
Location	HAYS			
Recorded By	T. MARTIN			
Witnessed By	PRESTON DREILING			
Tubing Record	Size	Wt/Ft	Top	Bottom
Surface Casing	8.625"	23#	00'	234'
Production Casing	5.5"	15.5#	00'	TD
Liner 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.

**OAKLEY, KS, S TO JAYHAWK RD, 5 E, 3/4 N, W INTO
LOG RAN WITH 00 PSI SURFACE PRESSURE APPLIED**

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: T. MARTIN Operator: Operator: Operator:		

Operator	Offset (ft)	Submergence	Description	Length (ft)	O.D. (in)	Weight (lb)
----------	-------------	-------------	-------------	-------------	-----------	-------------

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CENT-Probe Probe Centralizer	2.83	2.75	20.00
WVFS8	11.62		RBT-Probe (080554 RBL-D) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	107.00
WVFS7	11.62					
WVFS6	11.62					
WVFS5	11.62					
WVFS4	11.62					
WVFS3	11.62					
WVFS2	11.62					
WVFS1	11.62					
WVFCAL	11.62					
WVF3FT	11.62					
WVF5FT	10.62					
			CENT-Probe Probe Centralizer	2.83	2.75	20.00
CCL	3.63					
GR	2.30		GR_CCL-2 3/4" Probe (111032)	4.54	2.75	50.00

Dataset: richland_wheatland_#8-3.db: field/well/CBL/pass4.1
 Total length: 18.95 ft
 Total weight: 197.00 lb
 O.D.: 2.75 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\richland_wheatland_#8-3.db
 Dataset field/well/CBL/pass4.1/_vars_

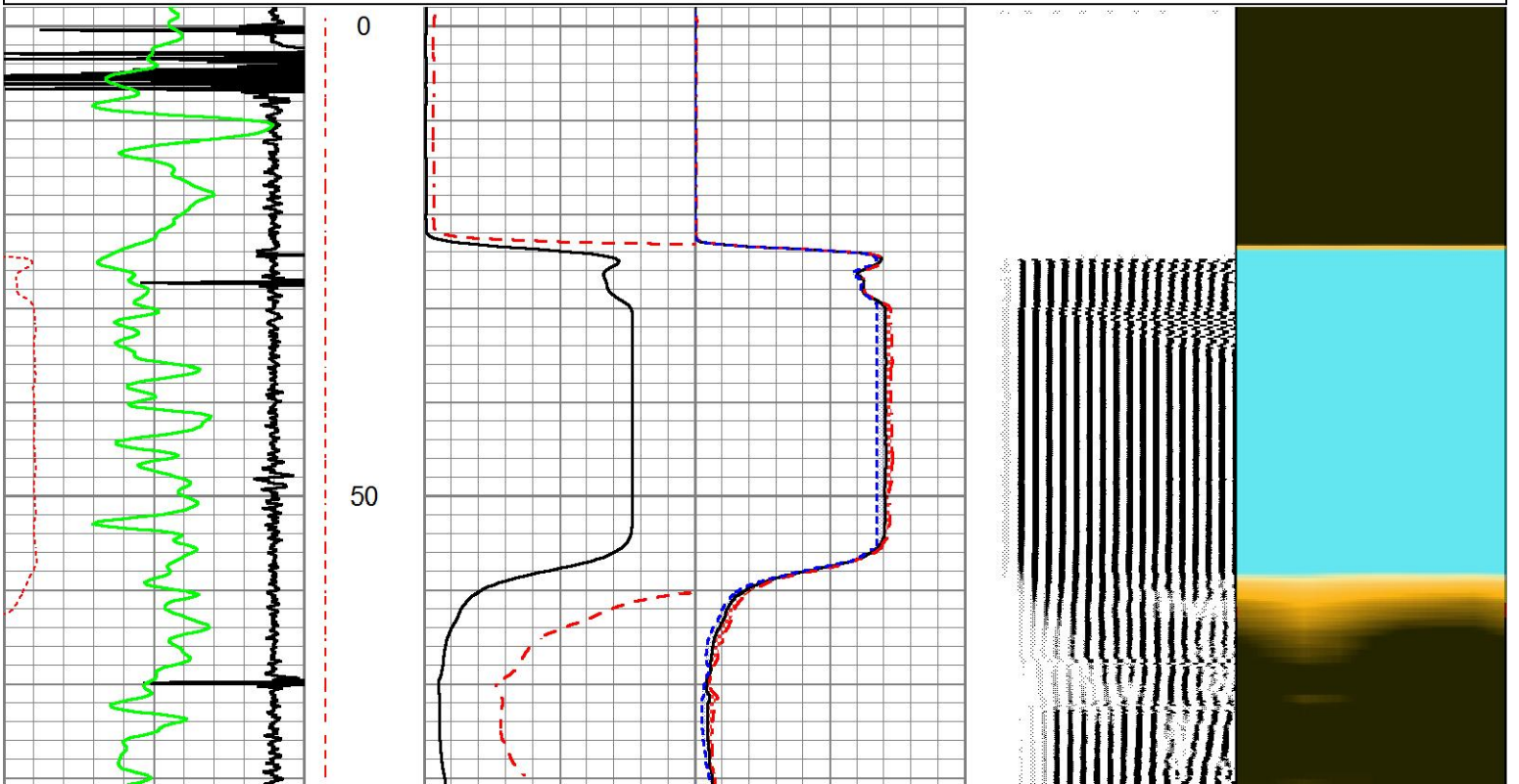
Top - Bottom

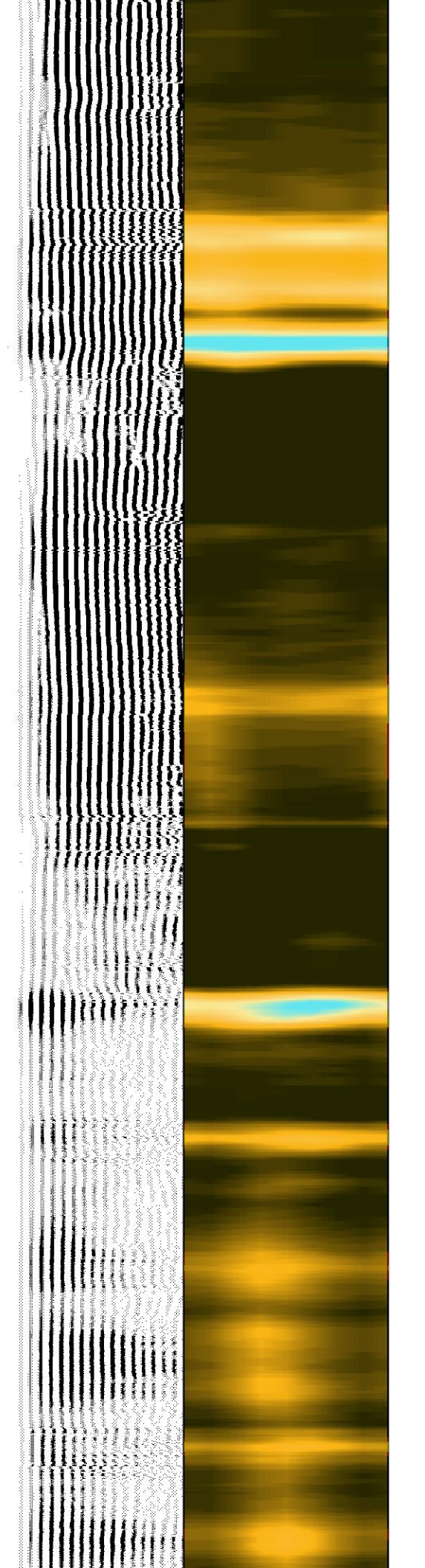
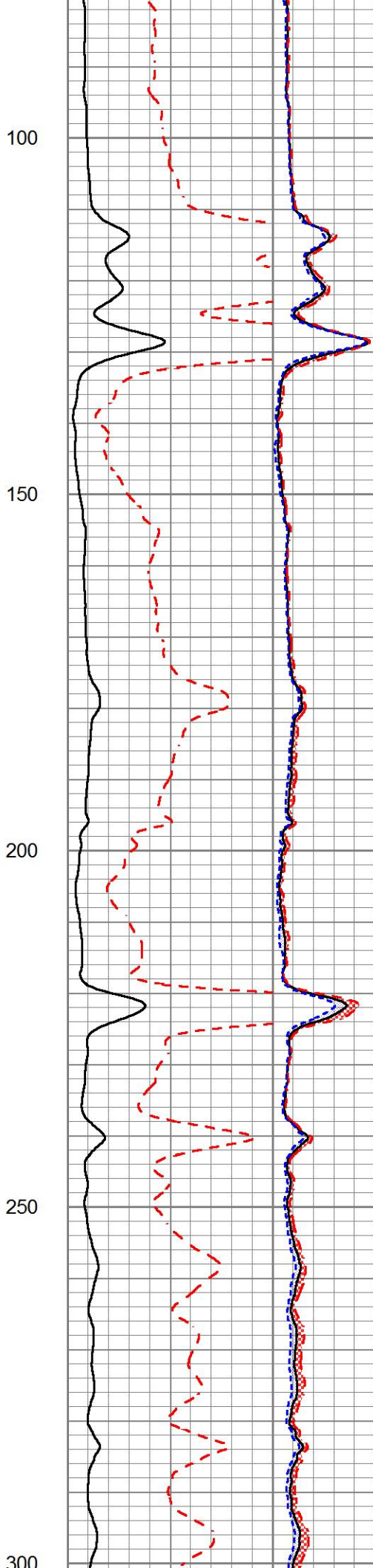
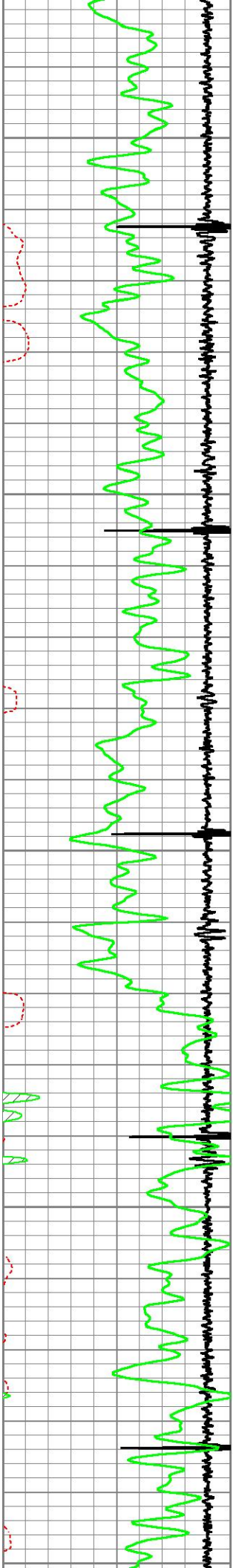
BOREID in 7.875	BOTTEMP degF 122	CASEOD in 5.5	CASETHCK in 0.275	CASEWGHT lb/ft 15.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.8
PERFS 0	PPT usec 0	SRFTEMP degF 80	TDEPTH ft 4673				

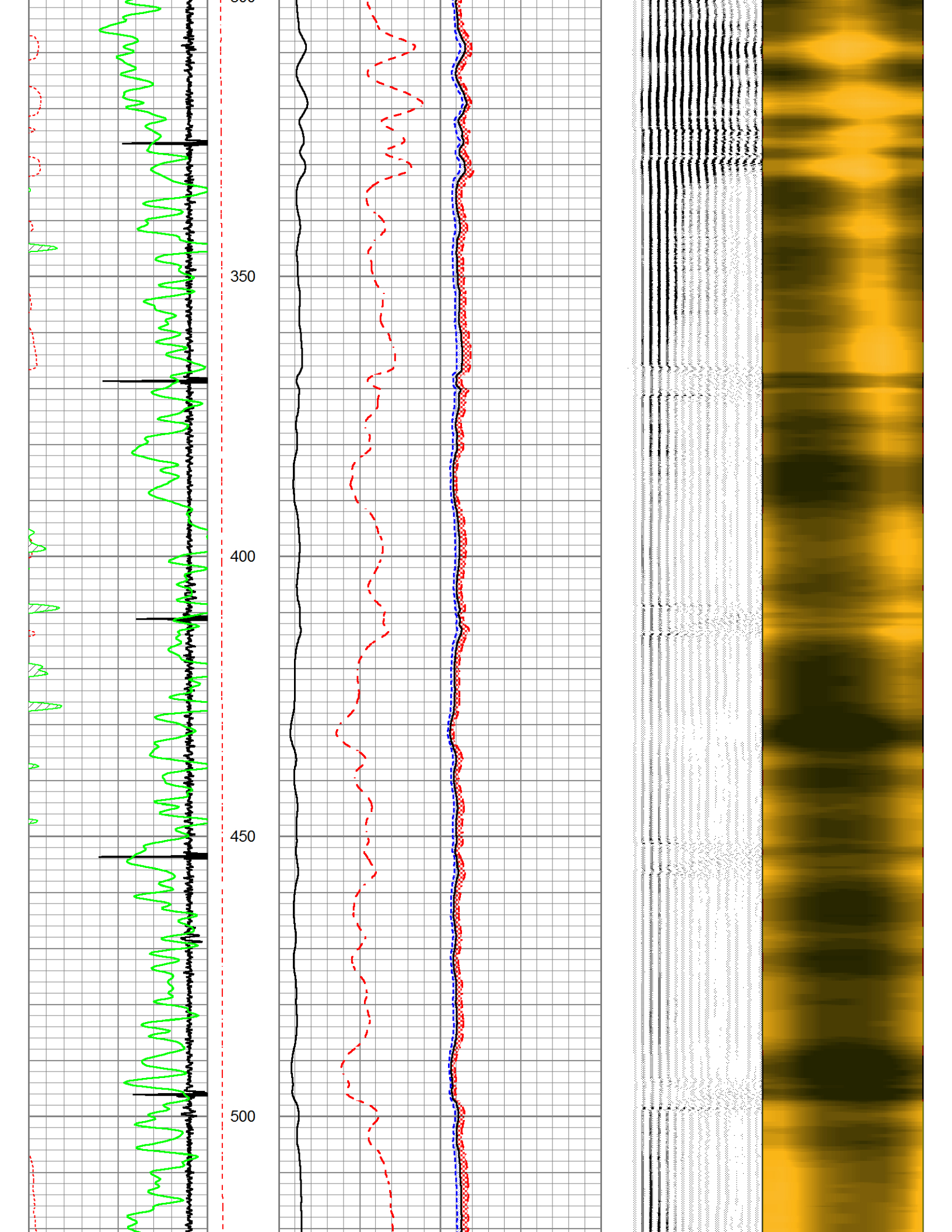


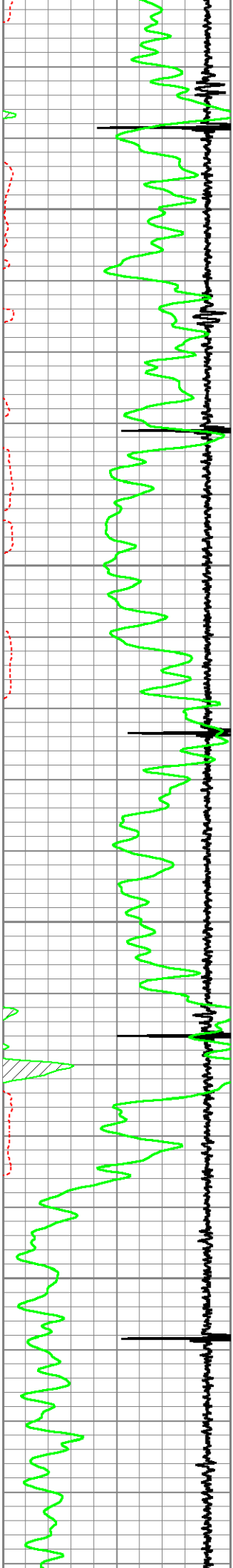
Database File richland_wheatland_#8-3.db
 Dataset Pathname CBL/pass5
 Presentation Format PINR_S~1
 Dataset Creation Thu Sep 14 11:43:59 2017
 Charted by Depth in Feet scaled 1:240

3' Travel Time 288 (usec)	Line Tension 0 (12000)	3' Amplitude (mV) 0 100	Sector Amplitude Average 0 150	200	VDL	1200	1	Sector Map	8
-9 Collar Locator		3' Amplified Amplitude X 5 0 (mV) 20	Sector Amplitude Maximum 0 150				10		60
0 Gamma Ray			Sector Amplitude Minimum 0 150						







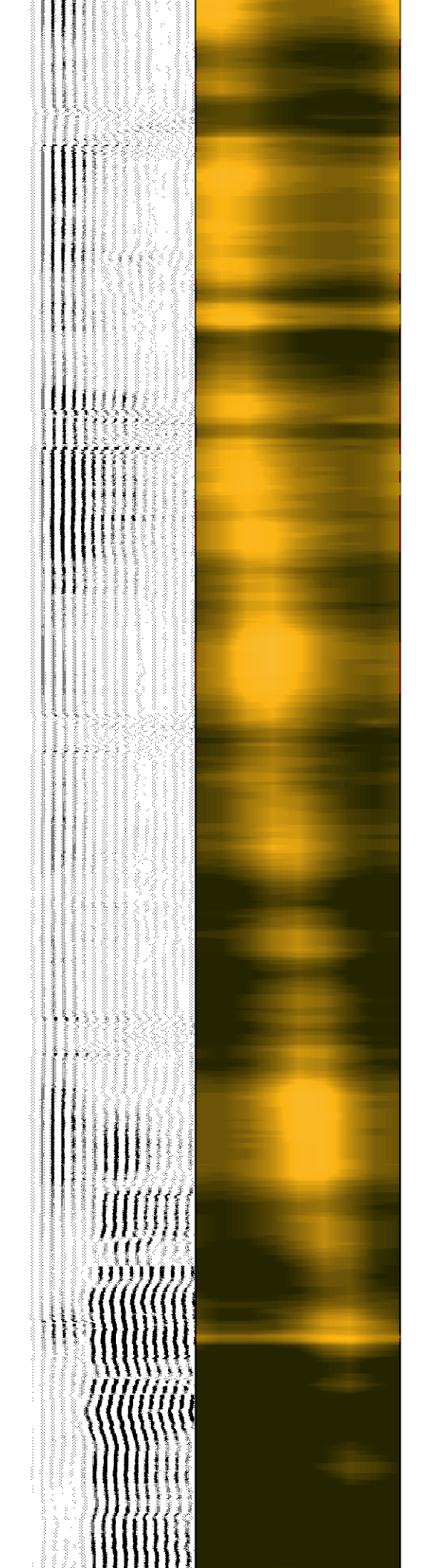
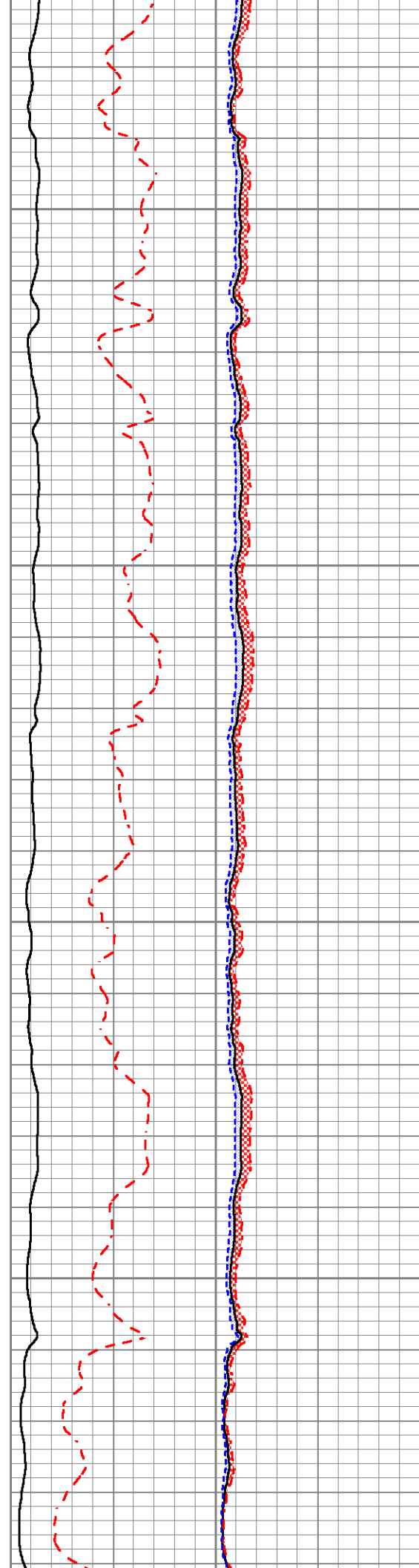


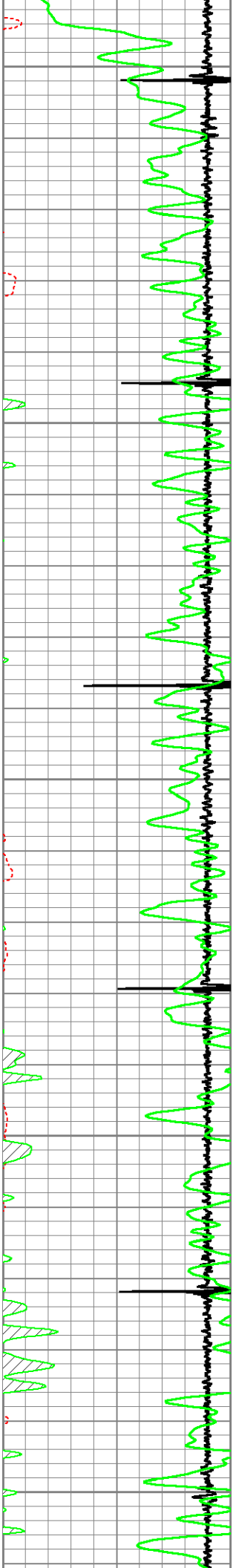
550

600

650

700





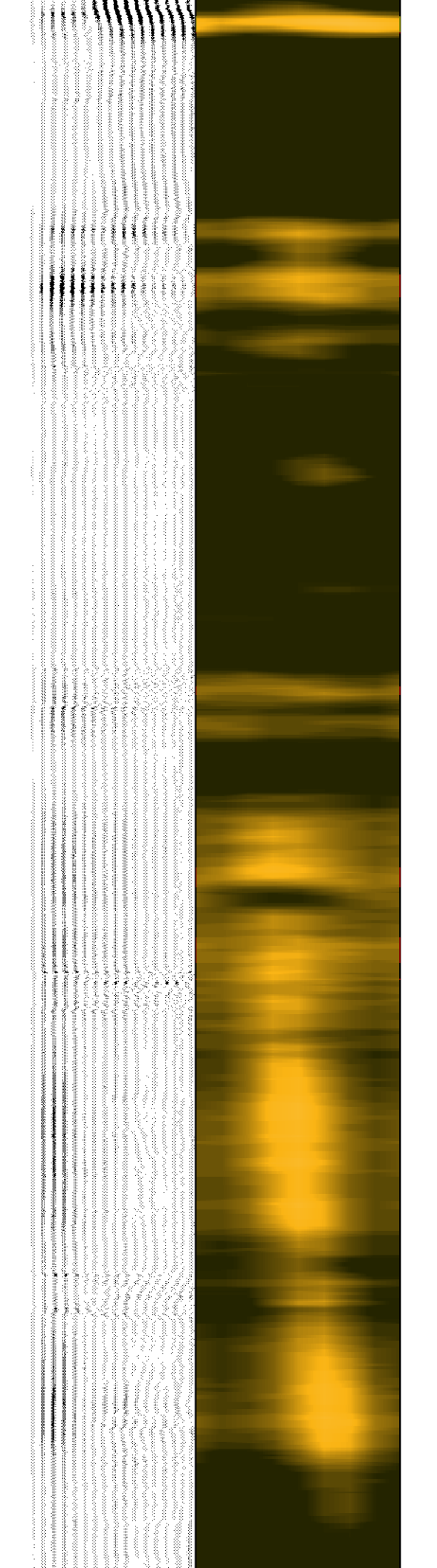
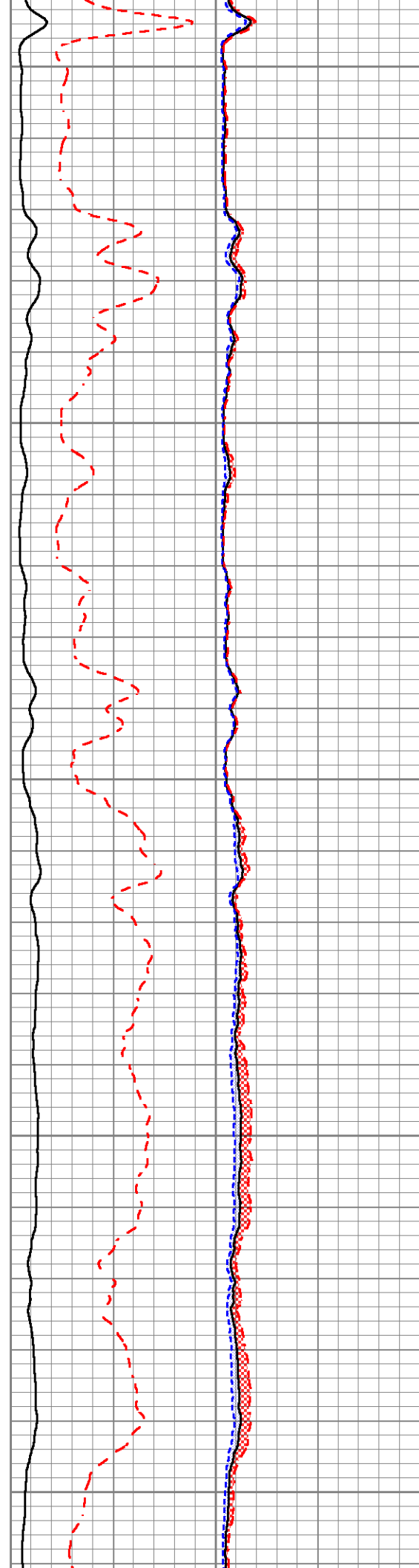
750

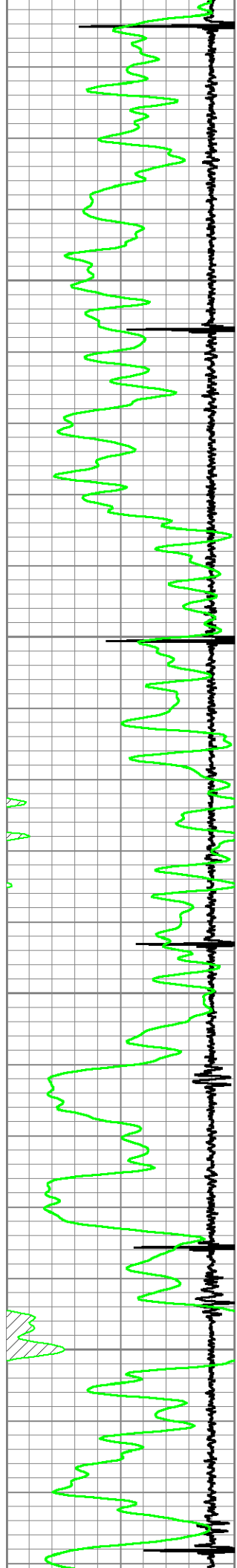
800

850

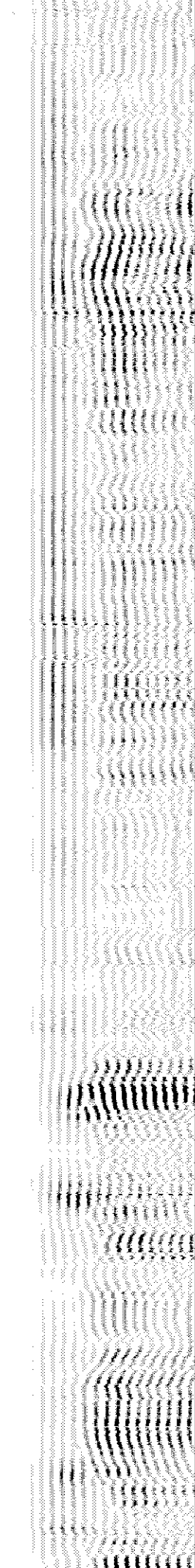
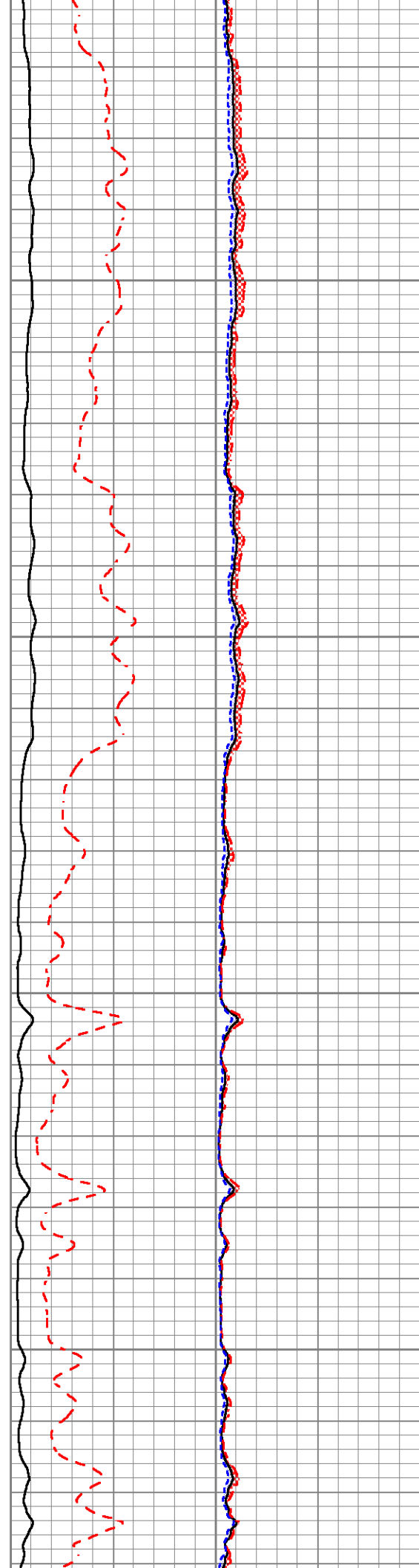
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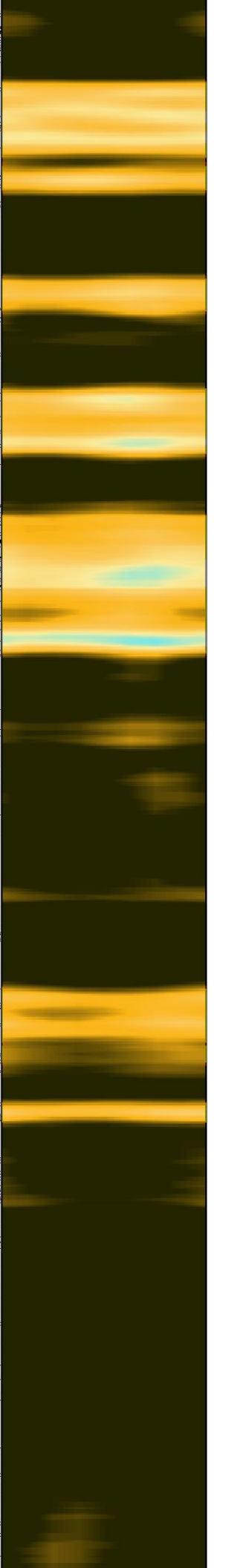
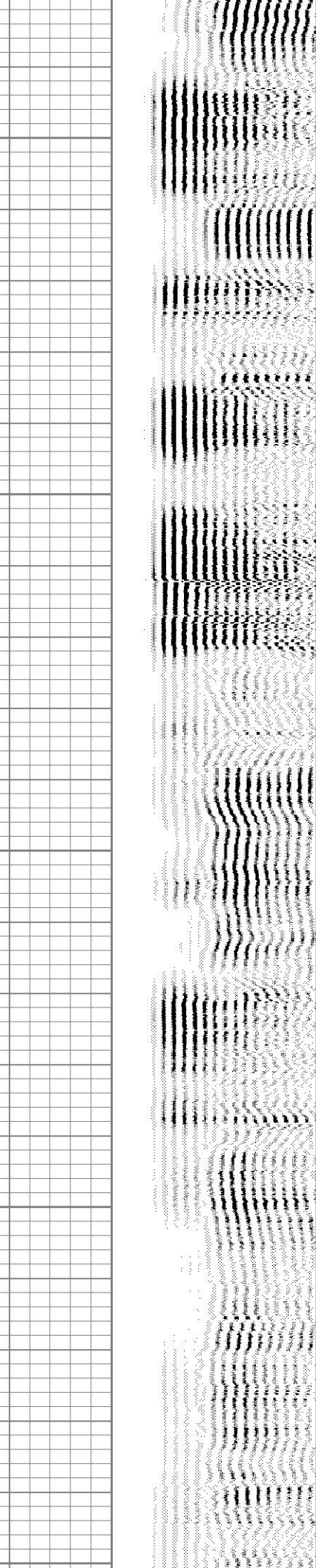
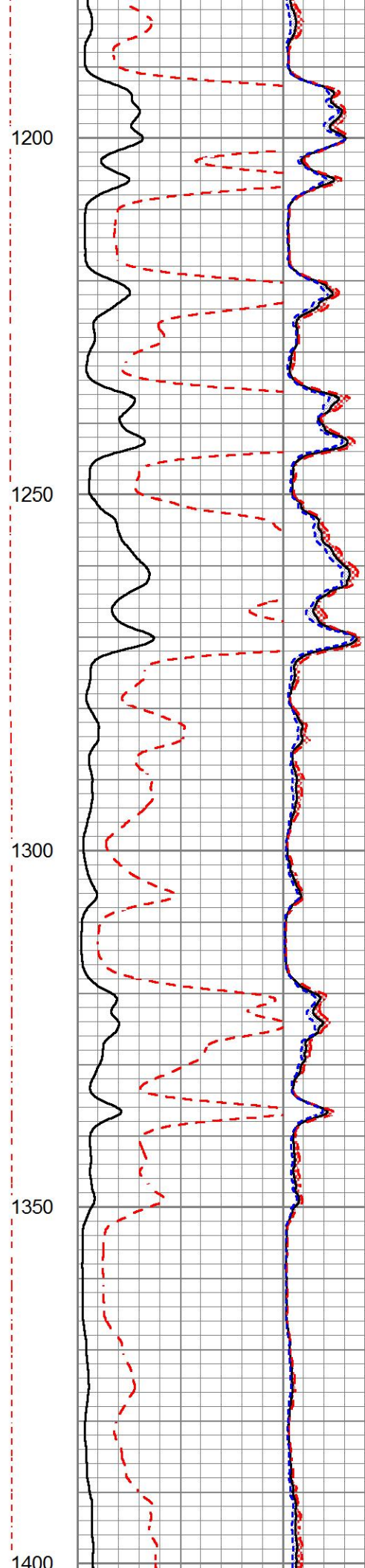
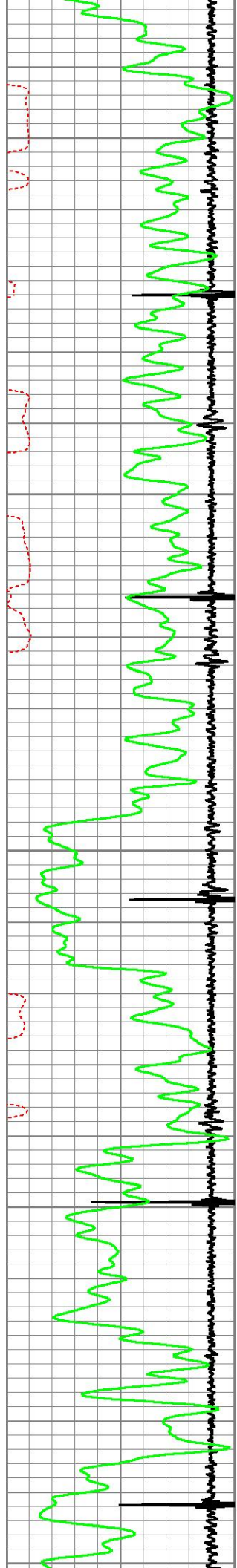
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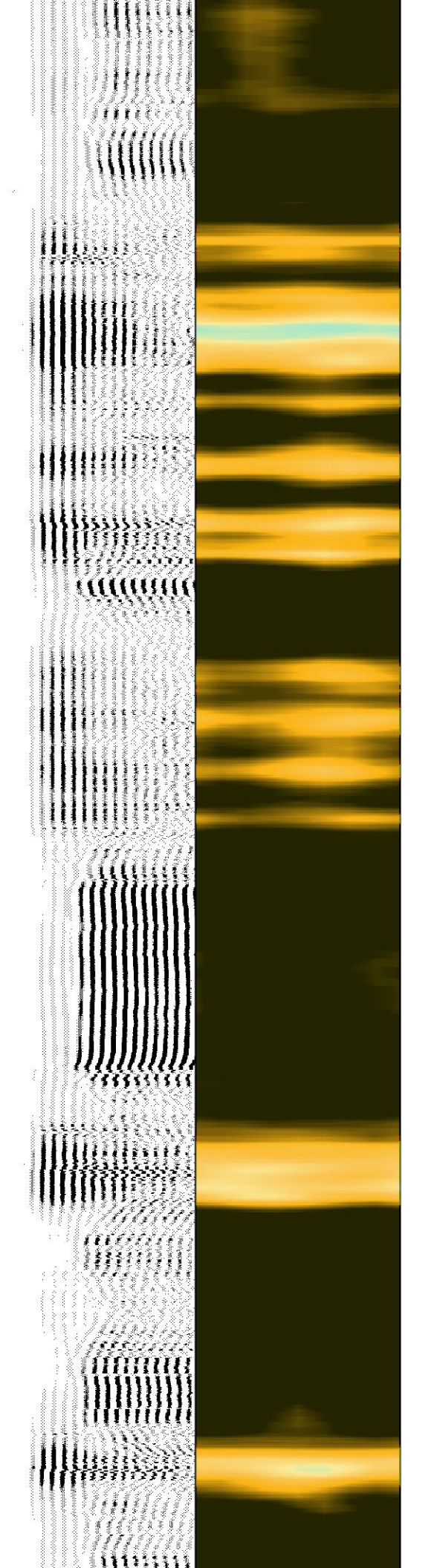
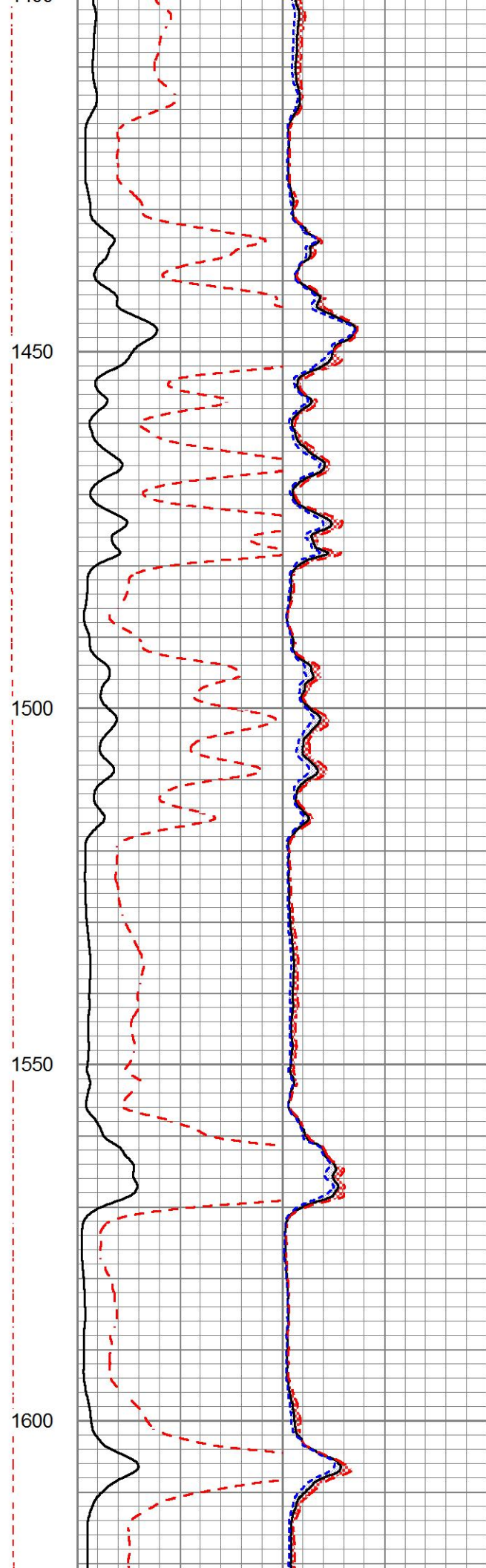
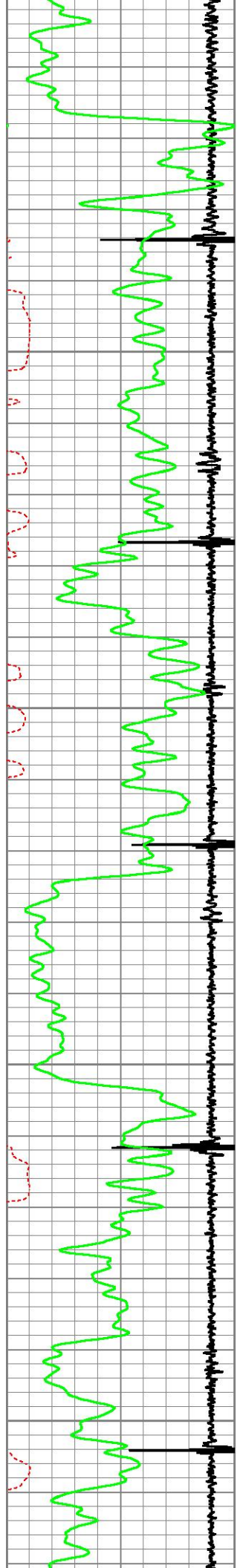


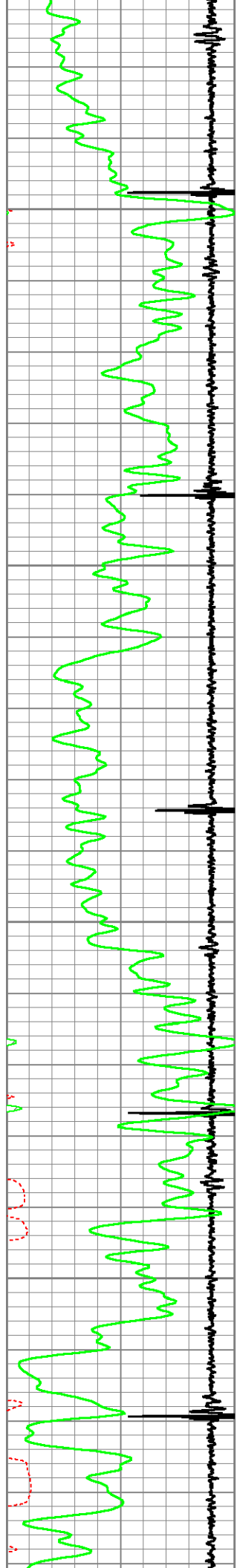


1000
1050
1100
1150







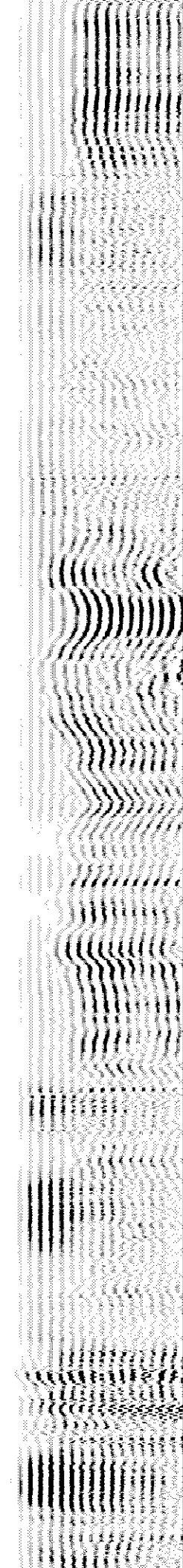
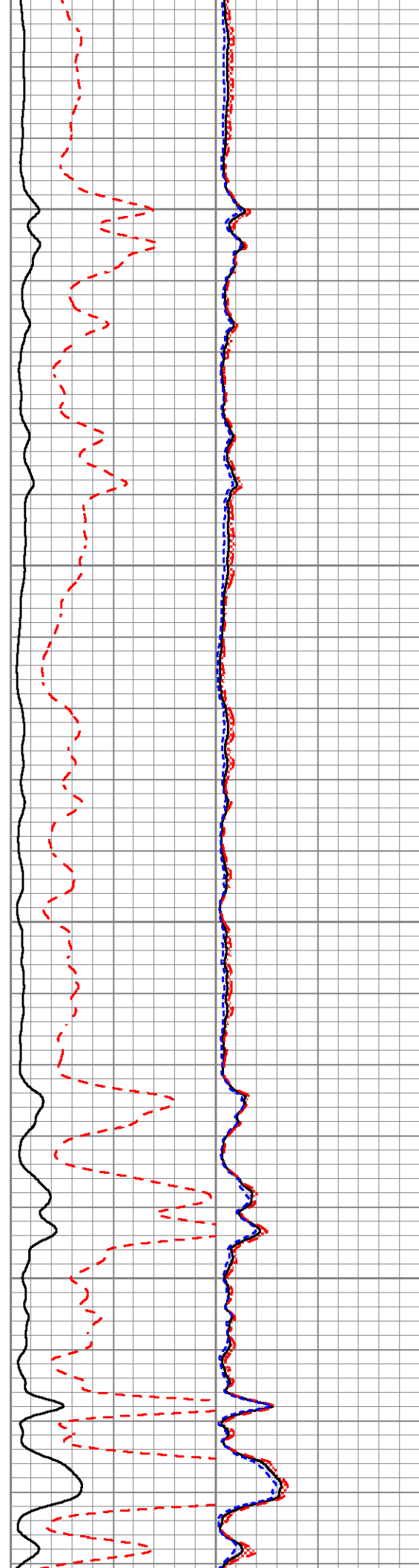


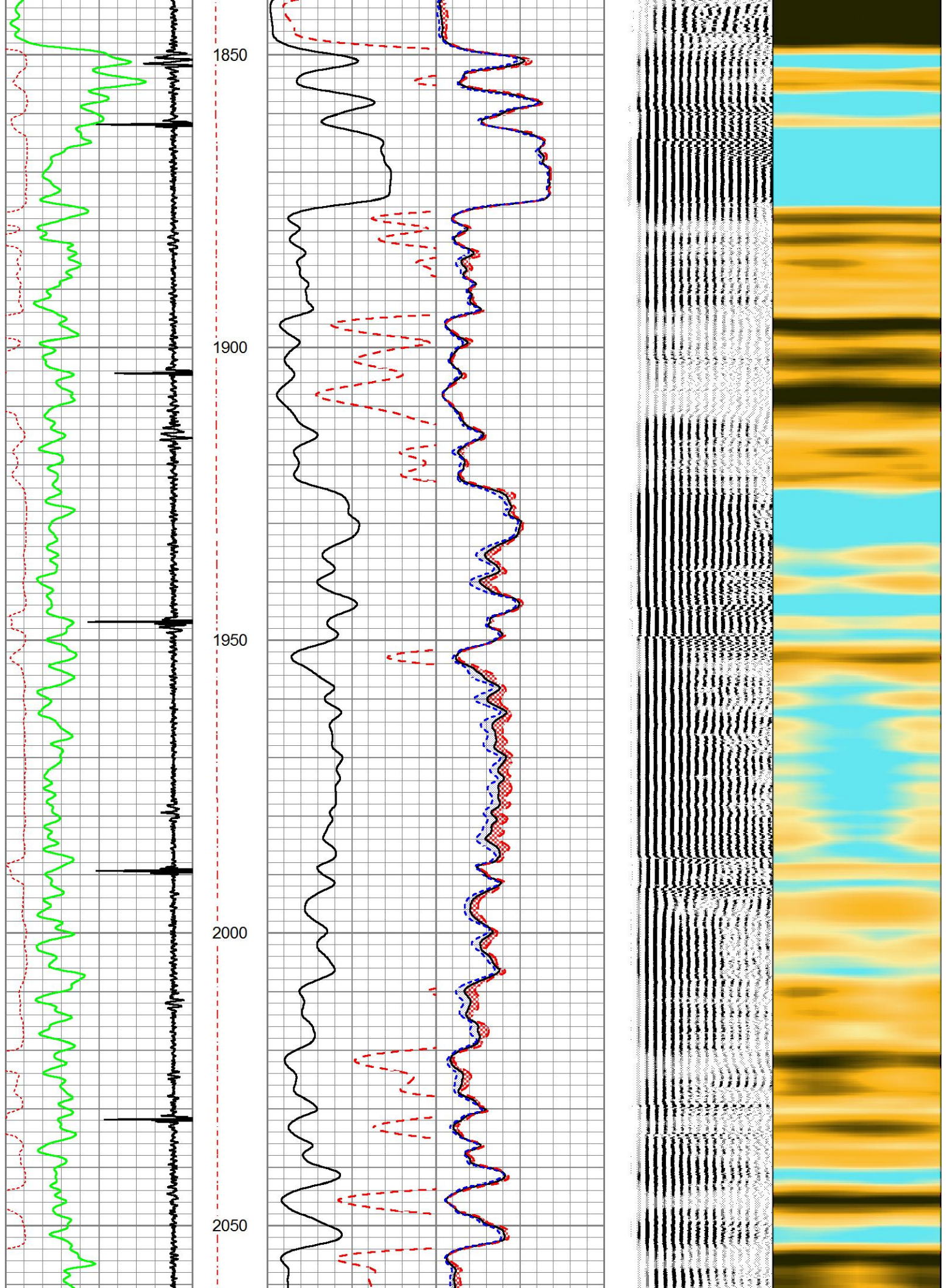
1650

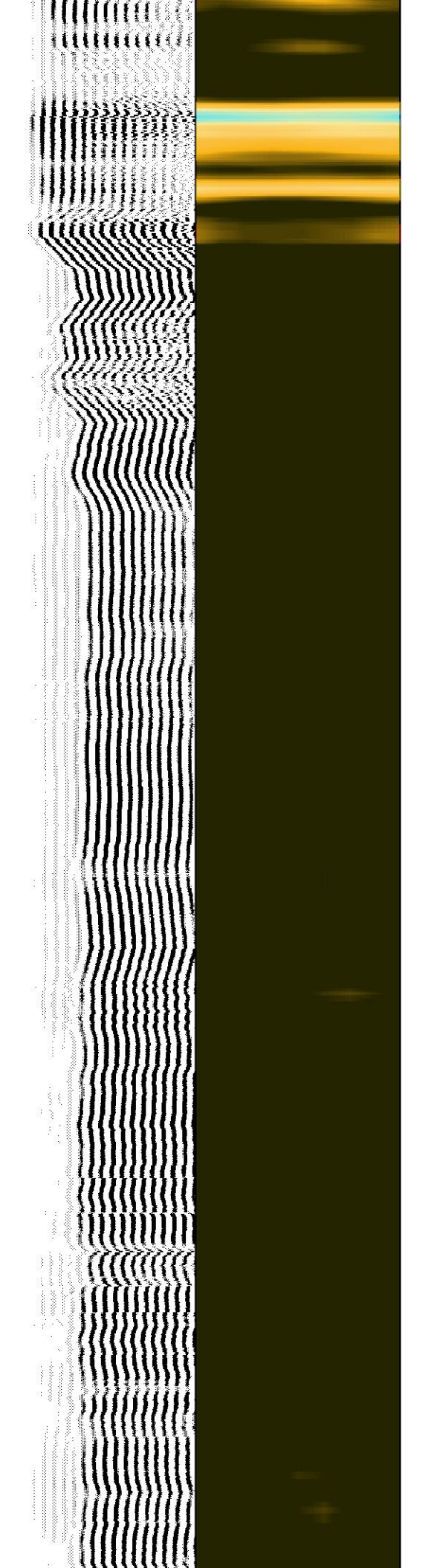
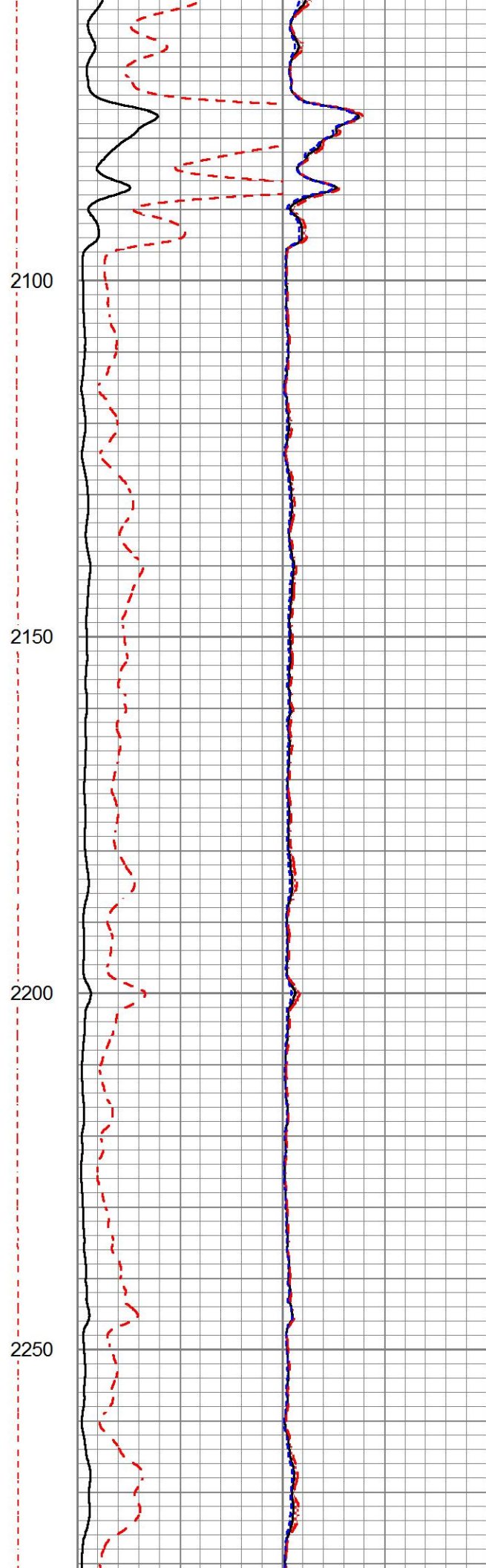
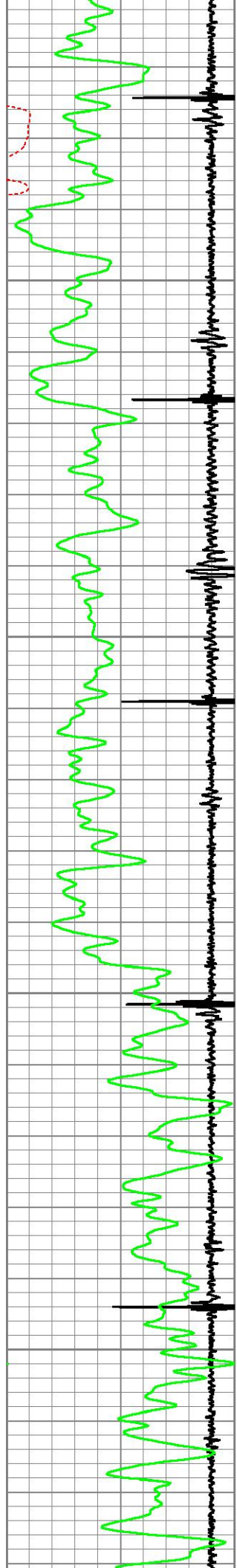
1700

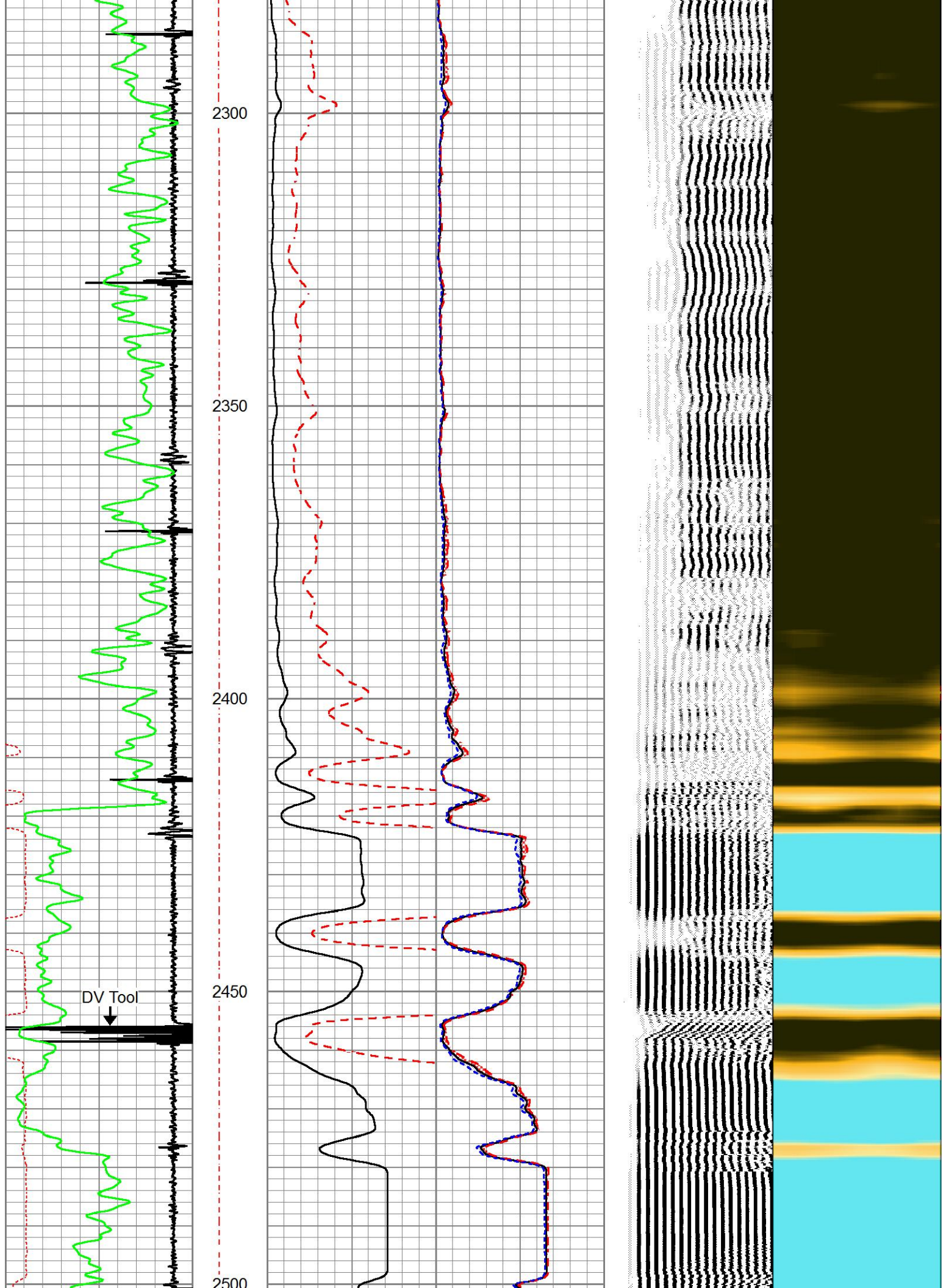
1750

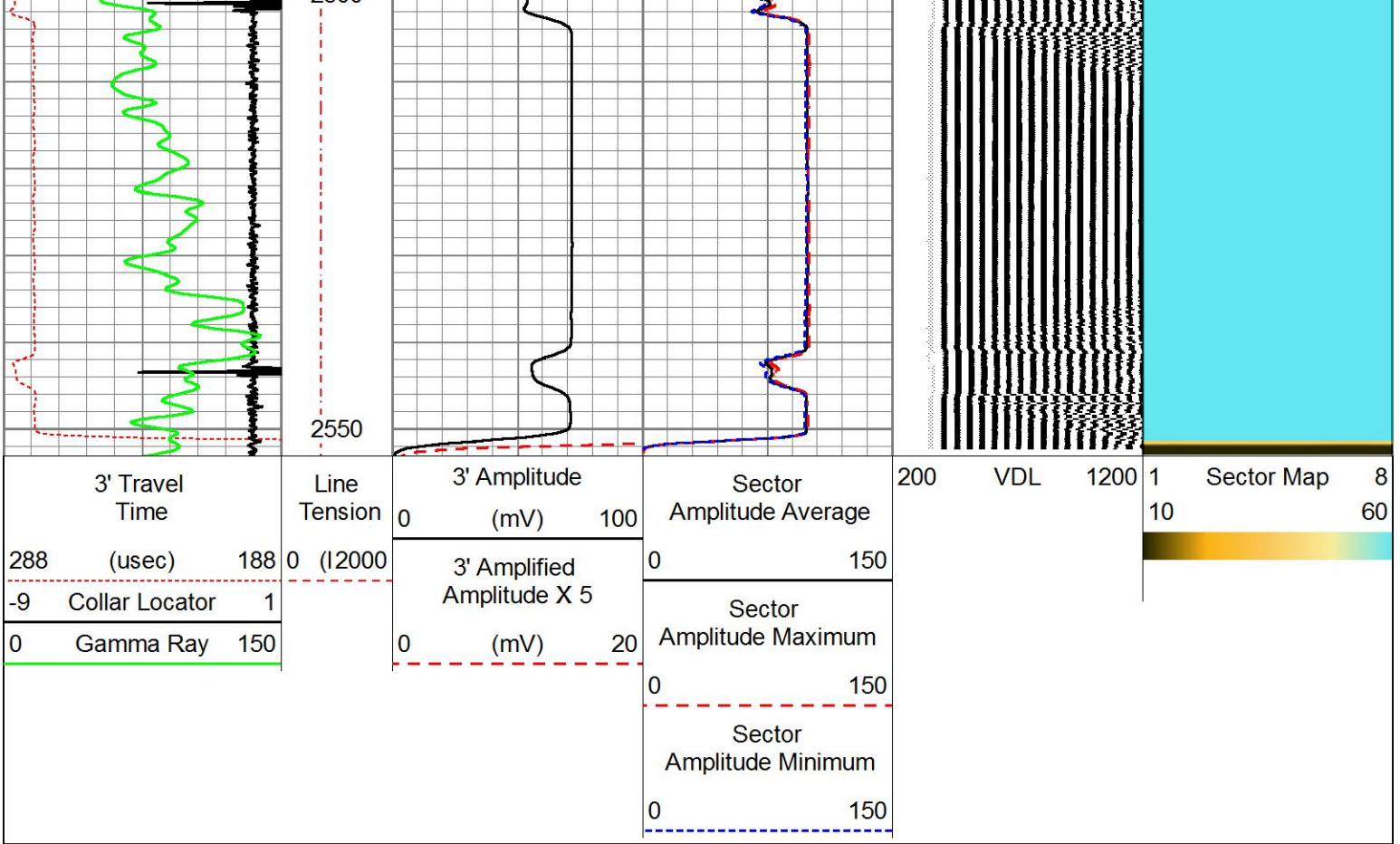
1800







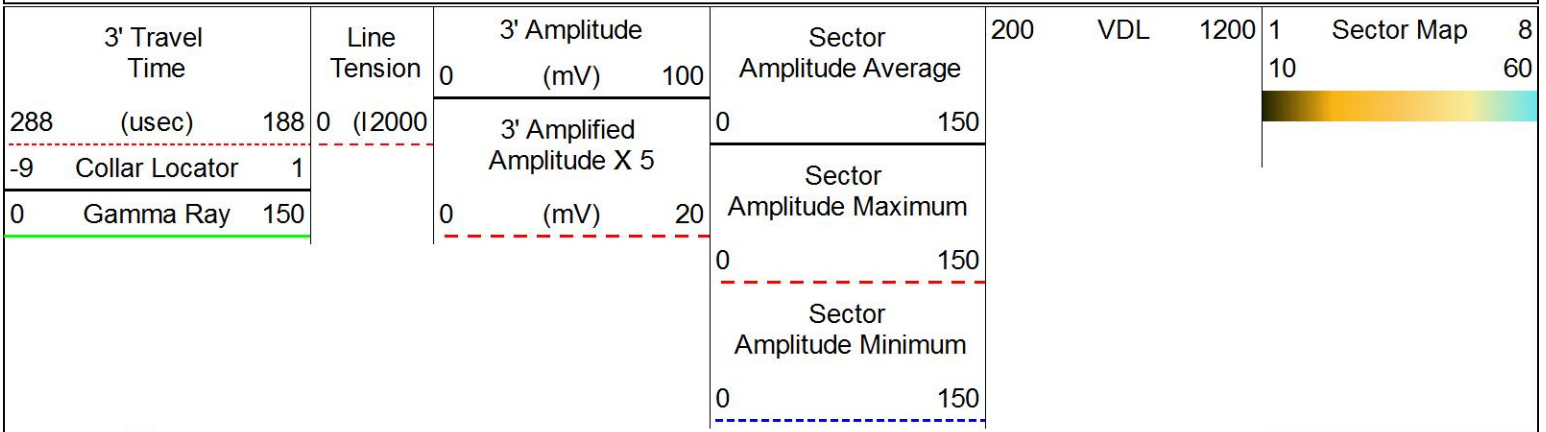


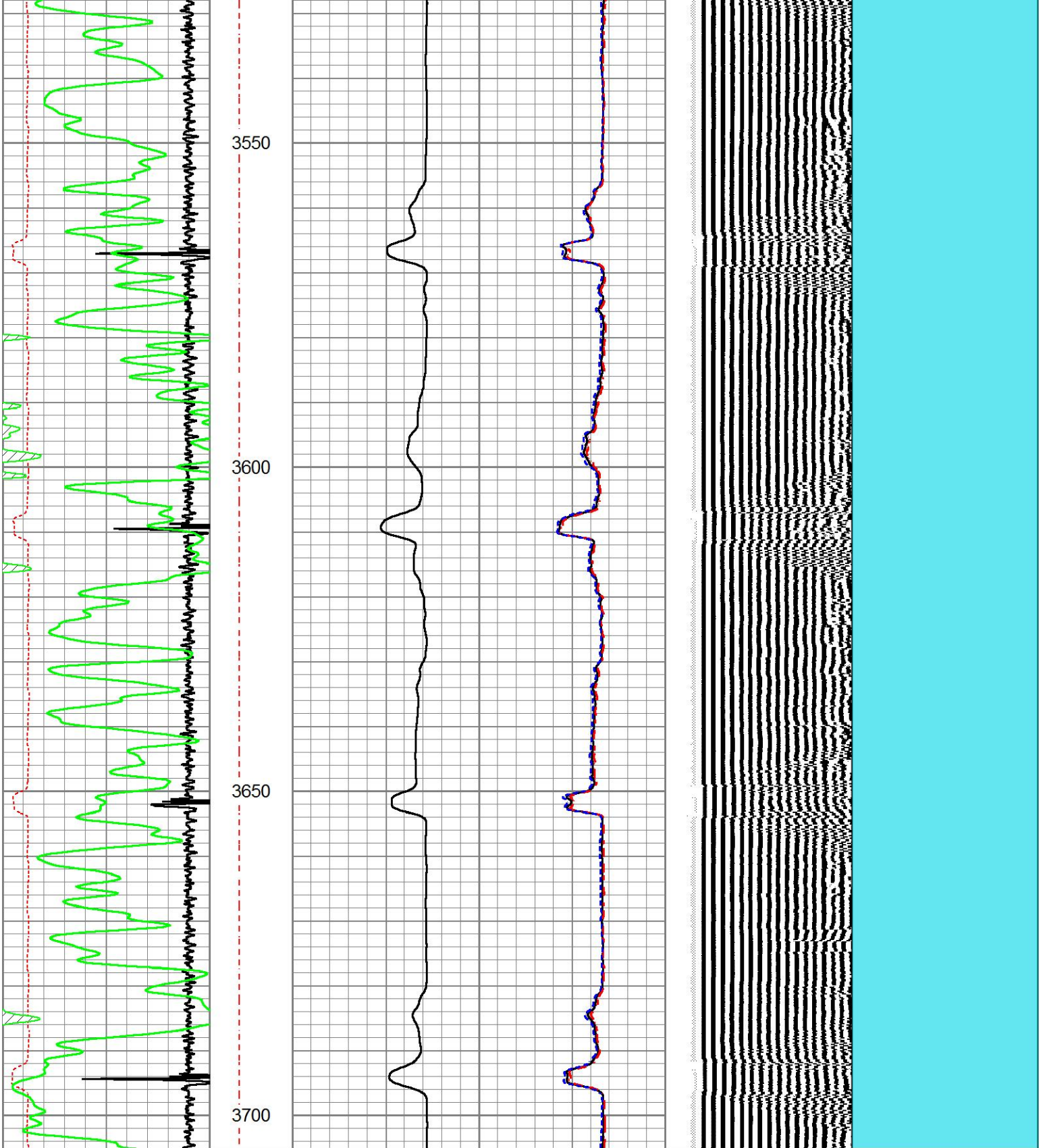


FREE PIPE SECTION

ZERO PSI APPLIED AT SURFACE

Database File richland_wheatland_#8-3.db
 Dataset Pathname CBL/pass2
 Presentation Format PINR_S~1
 Dataset Creation Thu Sep 14 11:09:50 2017
 Charted by Depth in Feet scaled 1:240



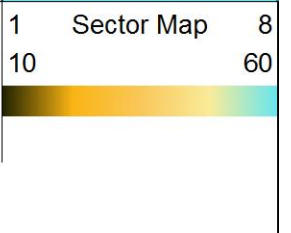


3' Travel Time		Line Tension
288 (usec)	188	0 (I2000)
-9 Collar Locator	1	
0 Gamma Ray	150	

3' Amplitude (mV)		3' Amplified Amplitude X 5 (mV)
0	100	0
		20

Sector Amplitude Average	
0	150
Sector Amplitude Maximum	
0	150

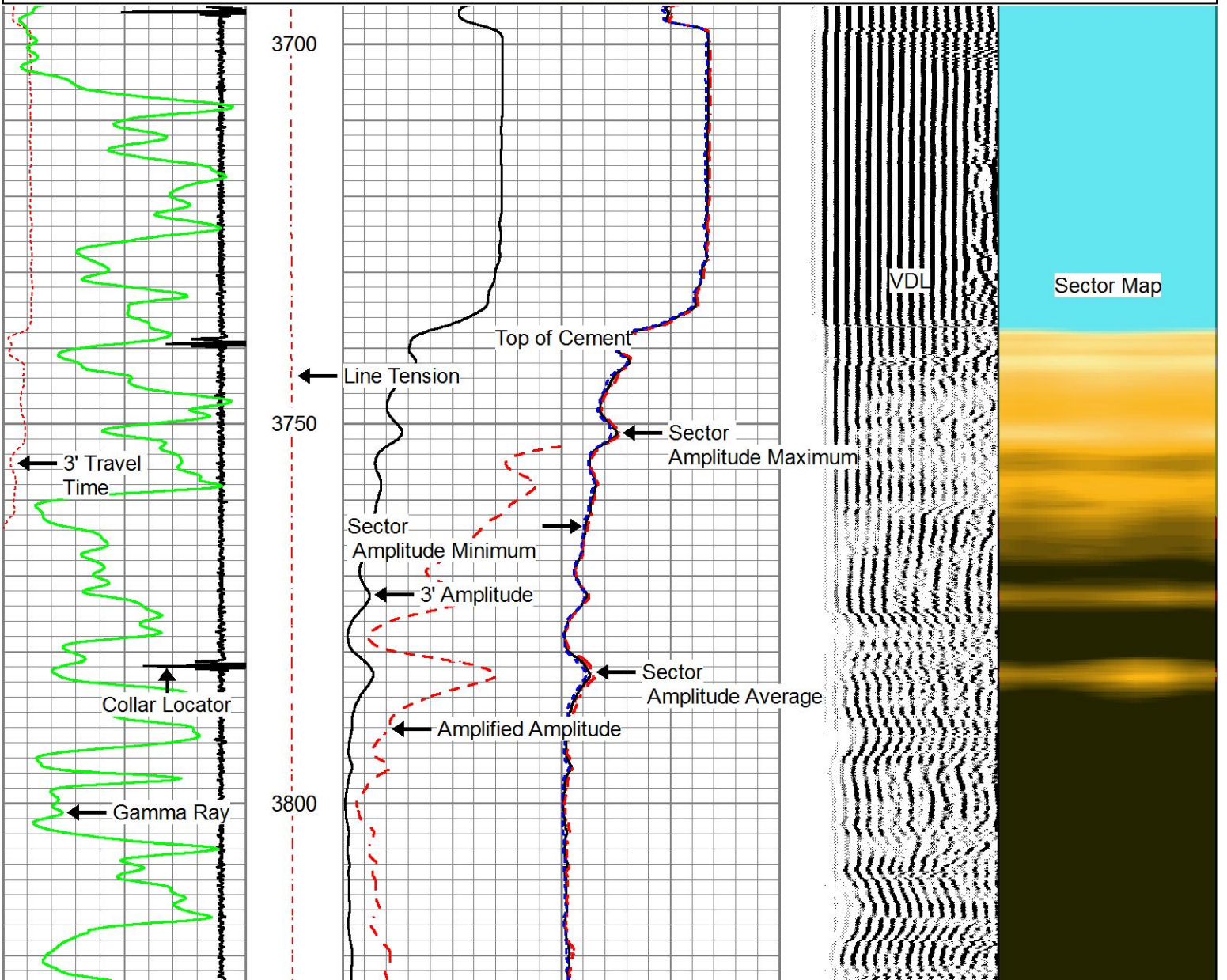
Sector Amplitude Minimum	
0	150

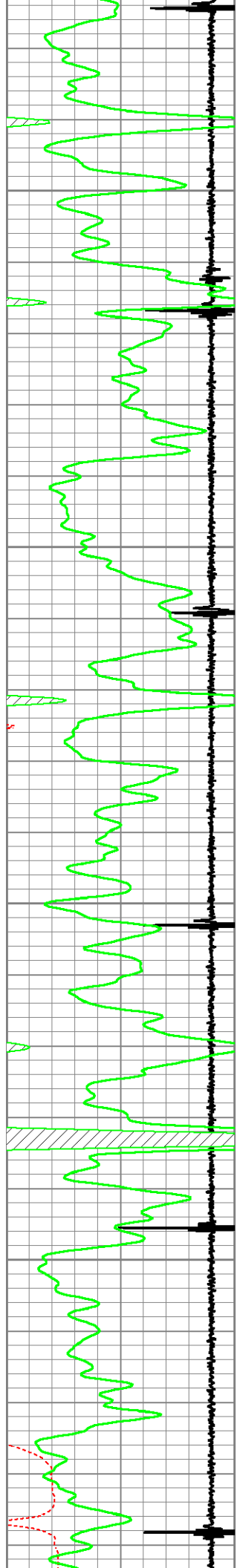


200		VDL	1200	1	Sector Map	8
				10		60

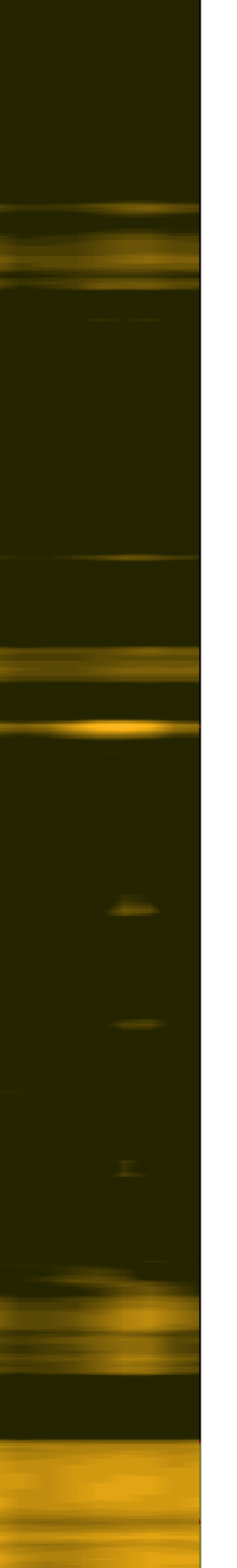
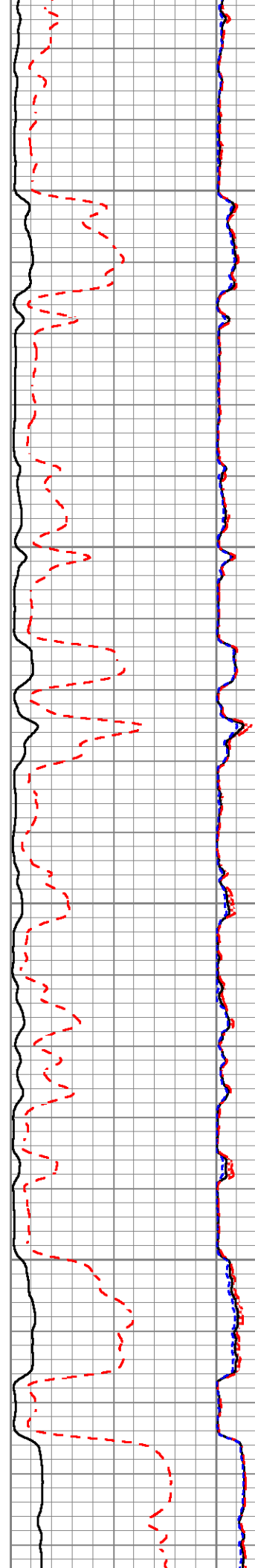
Database File richland_wheatland_#8-3.db
 Dataset Pathname CBL/pass4.1
 Presentation Format PINR_S~1
 Dataset Creation Thu Sep 14 11:38:57 2017
 Charted by Depth in Feet scaled 1:240

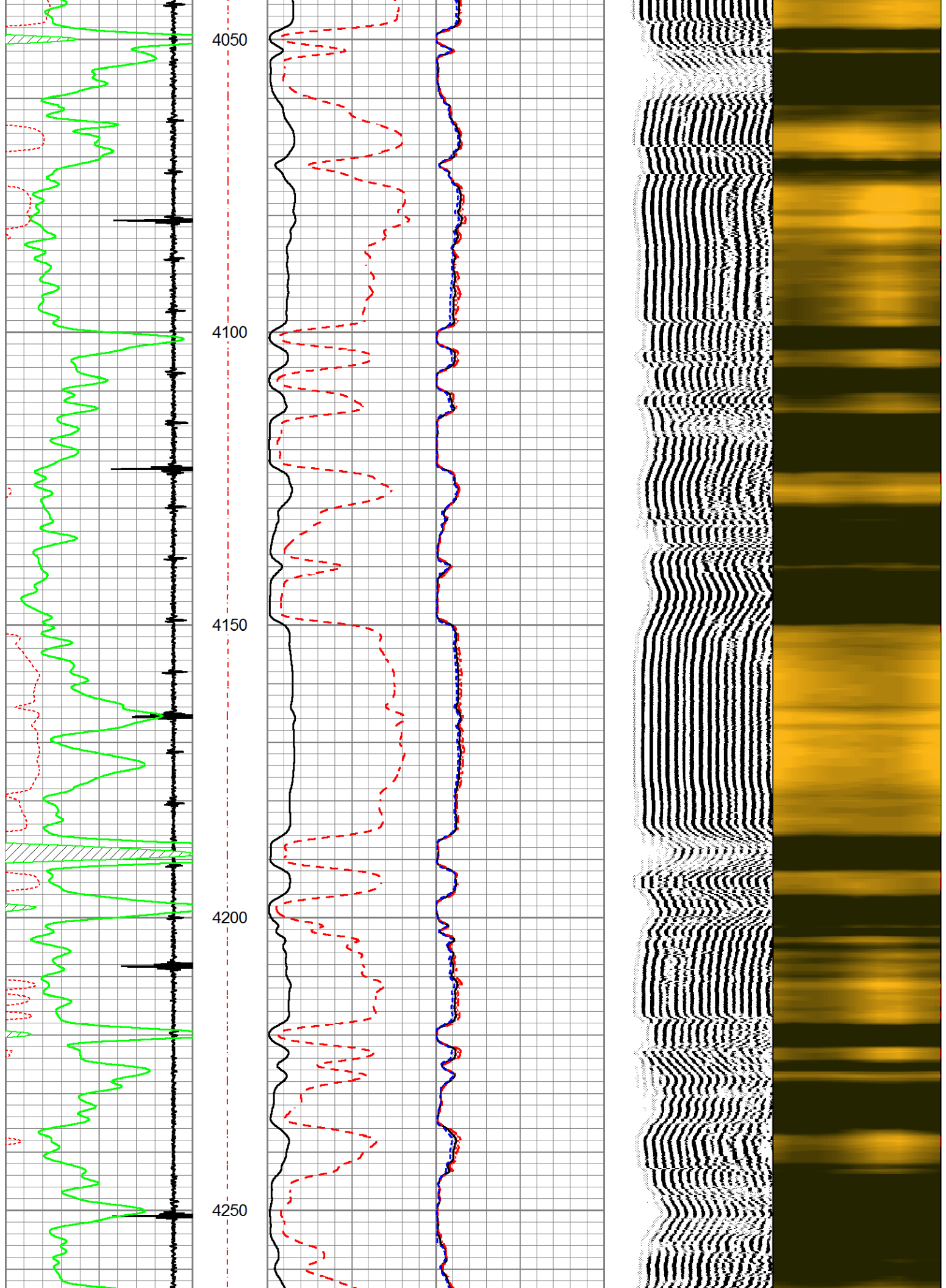
3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200	VDL	1200	1	Sector Map	8
288 (usec) 188	0 (12000)	0 100	0 150				10		60
-9 Collar Locator 1		3' Amplified Amplitude X 5	Sector Amplitude Maximum						
0 Gamma Ray 150		0 (mV) 20	0 150						
			Sector Amplitude Minimum						
			0 150						

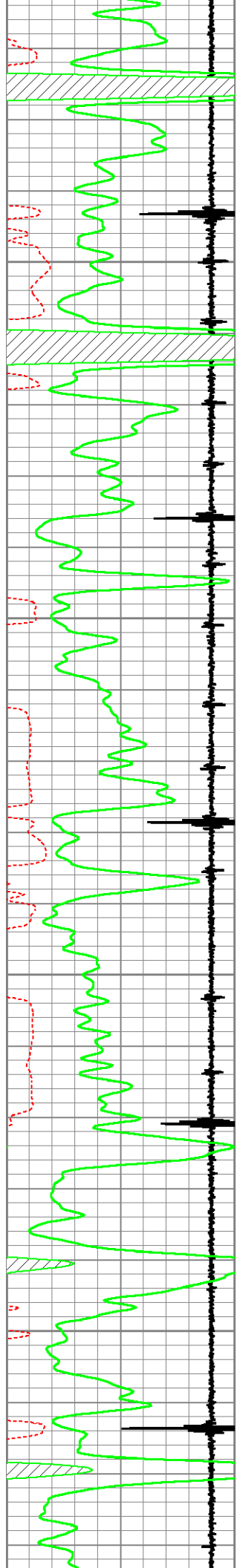




3850
3900
3950
4000





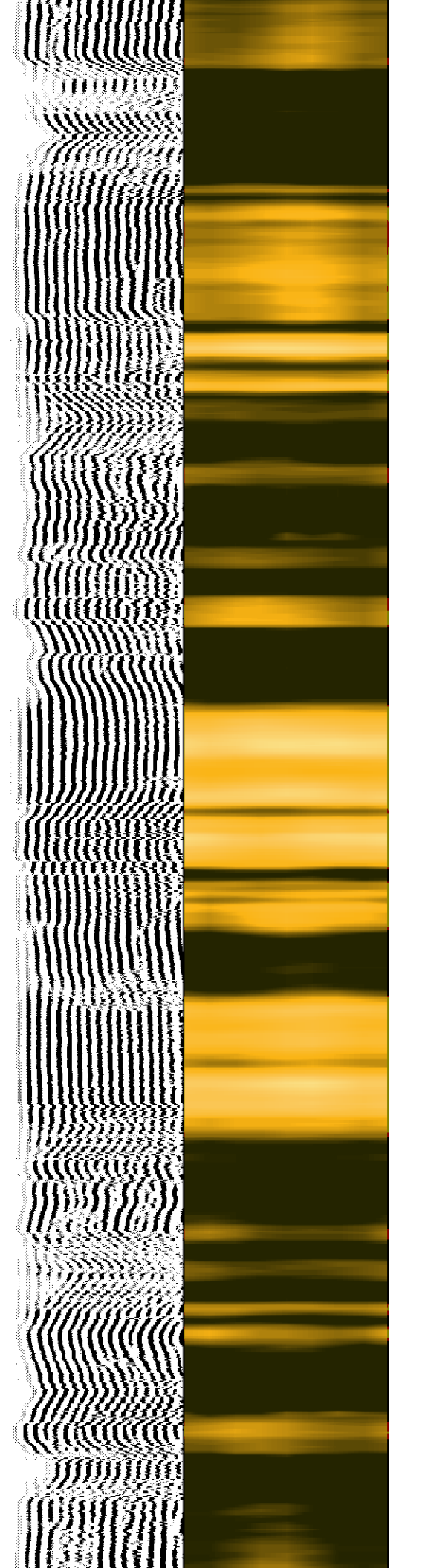
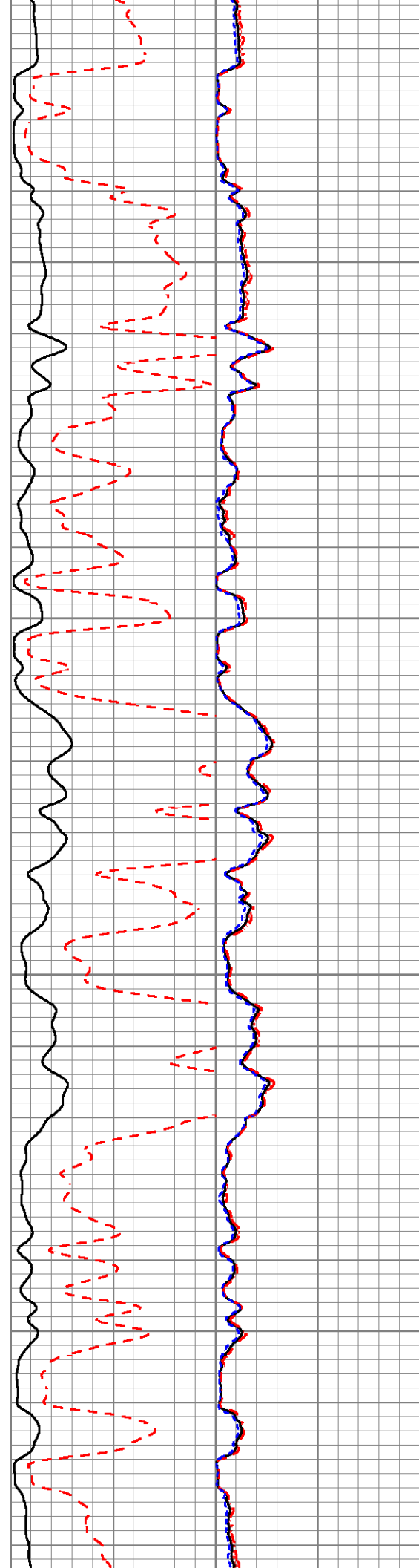


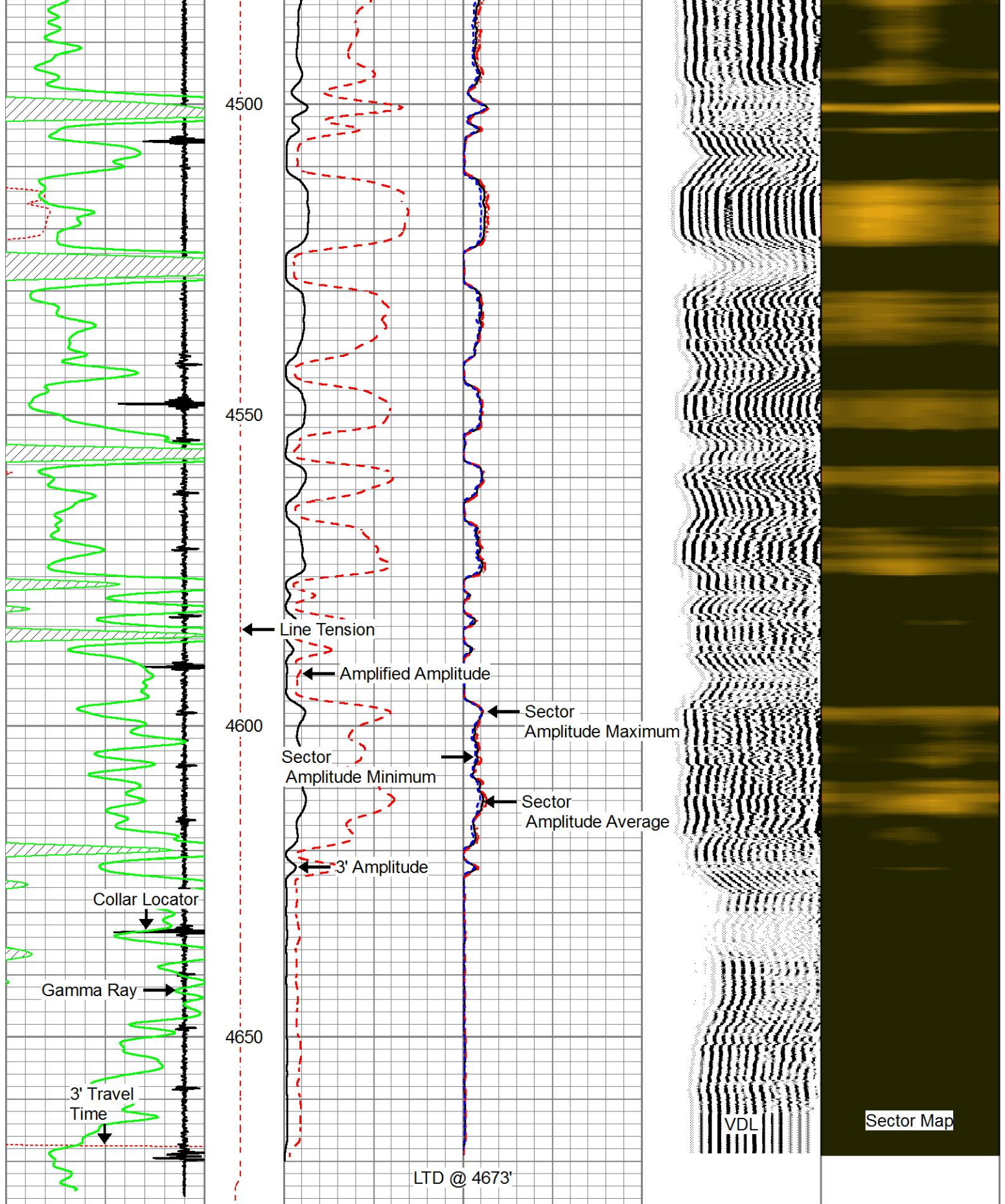
4300

4350

4400

4450





3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200	VDL	1200	1	Sector Map	8
288 (usec) 188	0 (12000)	0 100	0 150				10		60
-9 Collar Locator 1		3' Amplitude X 5 (mV)	Sector Amplitude Maximum						
0 Gamma Ray 150		0 20	0 150						

0	150
Sector Amplitude Minimum	
0	150

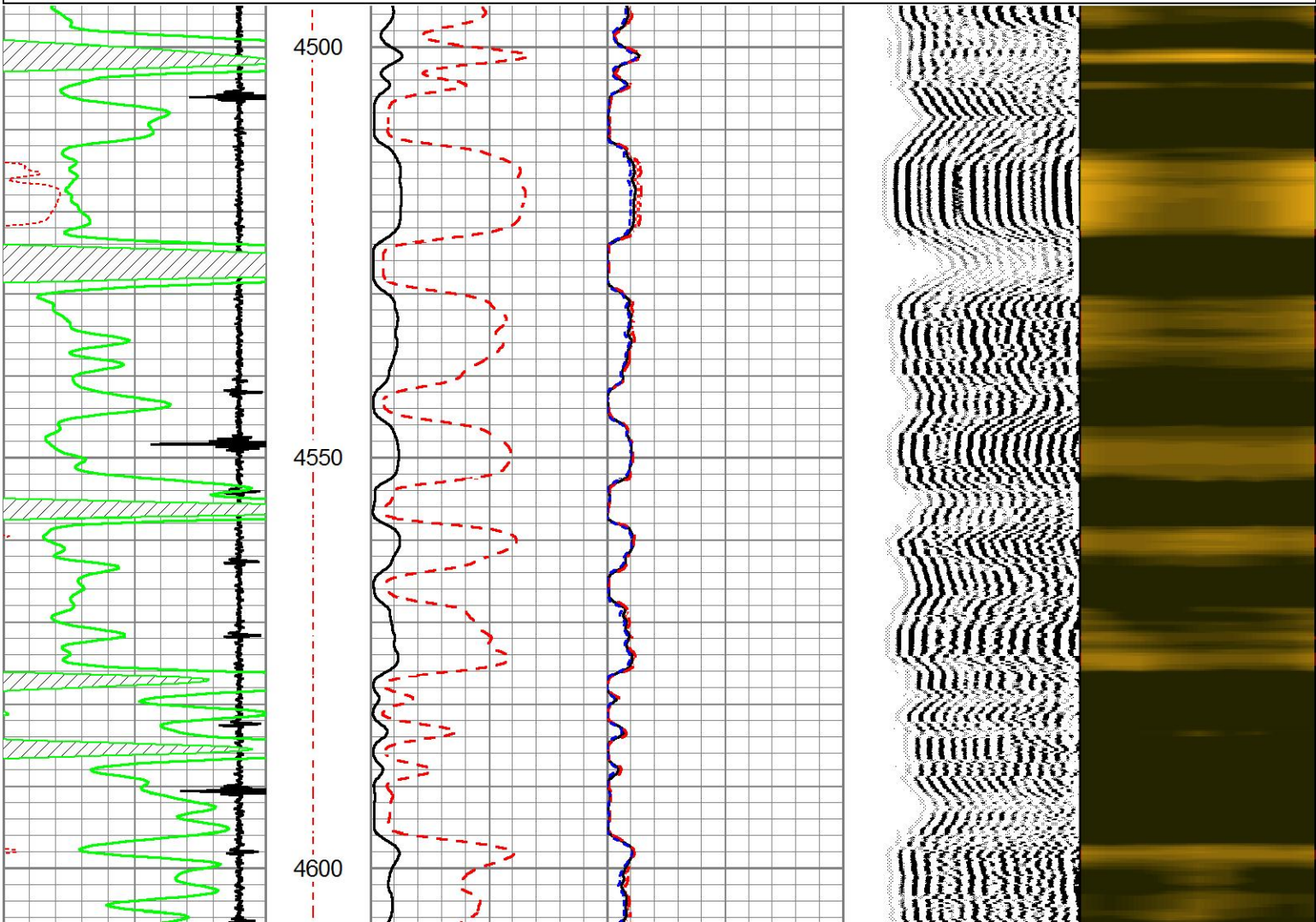


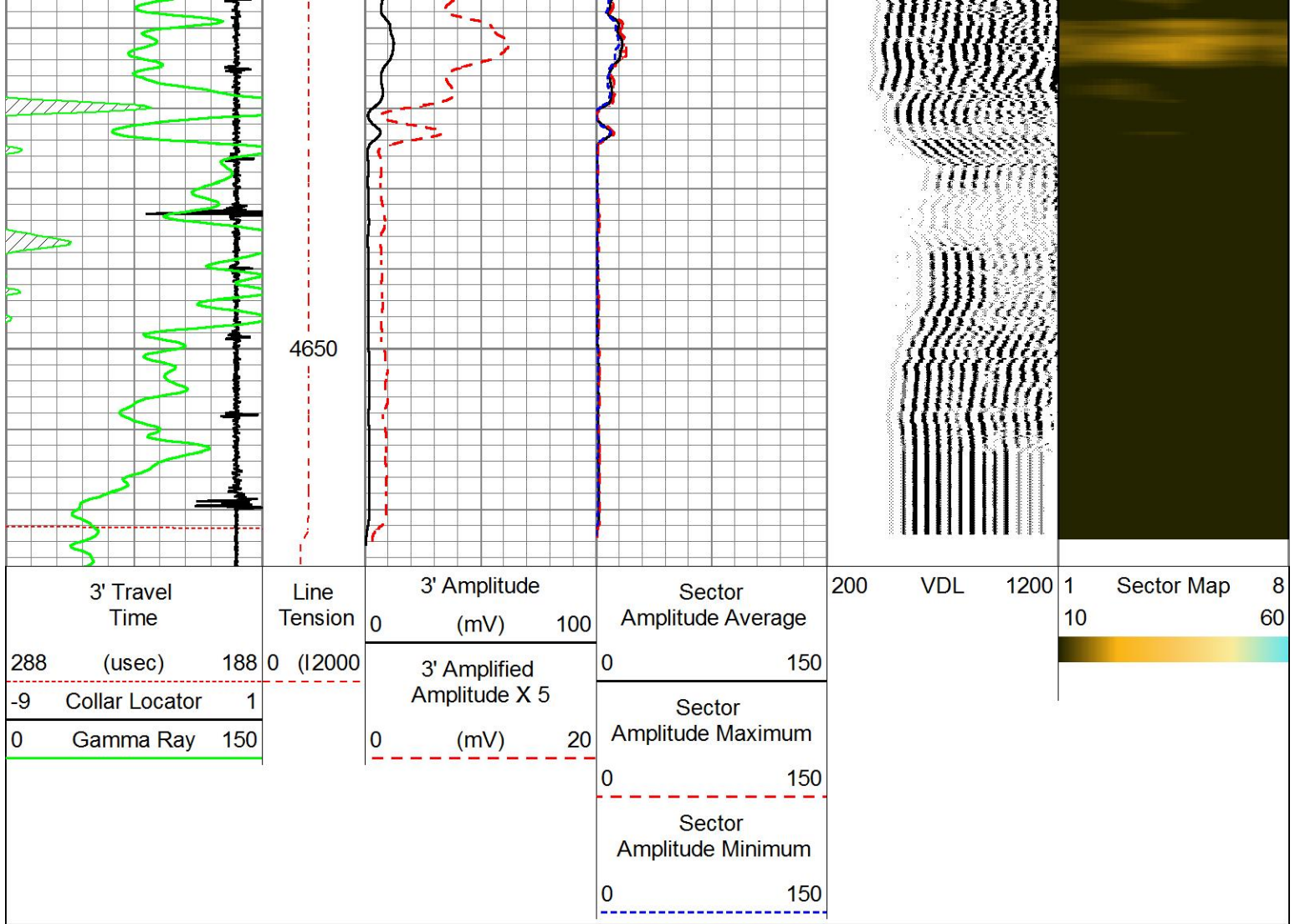
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	richland_wheatland_#8-3.db
Dataset Pathname	CBL/pass3
Presentation Format	PINR_S~1
Dataset Creation	Thu Sep 14 11:15:33 2017
Charted by	Depth in Feet scaled 1:240

3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200	VDL	1200	1	Sector Map	8
288 (usec)	0 (12000)	0 100	0 150				10	8	60
-9 Collar Locator		3' Amplified Amplitude X 5	Sector Amplitude Maximum						
0 Gamma Ray		0 20	0 150						
			Sector Amplitude Minimum						
			0 150						





Calibration Report

Database File richland_wheatland_#8-3.db
 Dataset Pathname CBL/pass4.1
 Dataset Creation Thu Sep 14 11:38:57 2017

Gamma Ray Calibration Report

Serial Number: 111032
 Tool Model: 2 3/4" Probe
 Performed: Tue Sep 05 13:35:03 2017
 Calibrator Value: 1.0
 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps
 Sensitivity: 1.0010 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 080554 RBL-D
 Tool Model: Probe
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 3559.237 ft

Master Calibration, performed Thu Sep 14 11:09:20 2017:

Raw (v)

Calibrated (mv)

Results

	Zero	Cal	Zero	Cal	Gain	Offset
CAL	-0.001	2.322				
T1R1						
T1R2						
T2R1						
T2R2						
T1R3						
T2R3						
S1	-0.014	2.213	0.000	100.000	44.895	0.643
S2	0.004	2.254	0.000	100.000	44.443	-0.161
S3	0.005	2.311	0.000	100.000	43.364	-0.234
S4	0.006	2.369	0.000	100.000	42.318	-0.266
S5	0.001	2.425	0.000	100.000	41.258	-0.038
S6	0.003	2.466	0.000	100.000	40.602	-0.117
S7	0.008	2.426	0.000	100.000	41.347	-0.314
S8	0.005	2.278	0.000	100.000	43.987	-0.222

Internal Reference Calibration, performed Sat Jun 14 10:55:06 2008:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.001	2.322	1.000	0.000

Air Zero Calibration, performed Thu Sep 14 10:55:10 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
T1R1						
T1R2						
T2R1						
T2R2						
T1R3						
T2R3						
S1	0.000		0.000			0.000
S2	0.000		0.000			0.000
S3	0.000		0.000			0.000
S4	0.000		0.000			0.000
S5	0.000		0.000			0.000
S6	0.000		0.000			0.000
S7	0.000		0.000			0.000
S8	0.000		0.000			0.000



Company RICHLAND OIL INVESTMENTS
 Well WHEATLAND #8-3
 Field N/A
 County GOVE
 State KANSAS



**MICRO
RESISTIVITY
LOG**

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove
 State Kansas

Company Bickle Energies, LLC
 Well Wheatland #8-3
 Field N/A
 County Gove State Kansas

Location: API #: 15 063 22314
 1310' FSL & 455' FEL
 SEC 8 TWP 14S RGE 32W
 Permanent Datum Ground Level Elevation 2963'
 Log Measured From KB 10' AGL
 Drilling Measured From KB
 Other Services
 BCS
 DIL
 CDNL
 Elevation
 K.B. 2973'
 D.F. 2972'
 G.L. 2963'

Date	09-02-17
Run Number	Two
Depth Driller	4725'
Depth Logger	4726'
Bottom Logged Interval	4705'
Top Log Interval	3750'
Casing Driller	8 5/8" @ 234'
Casing Logger	234'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.2/56
PH / Fluid Loss	10/8.8
Source of Sample	Pit
Rm @ Meas. Temp	0.50@86degf
Rmf @ Meas. Temp	0.40@86degf
Rmc @ Meas. Temp	0.64@86degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	0.35@122degf
Time Circulation Stopped	11:00 a.m
Time Logger on Bottom	4:30 p.m
Maximum Recorded Temperature	122degf
Equipment Number	T729
Location	Hays, KS
Recorded By	Casey Patterson
Witnessed By	Mr. Keith Reavis

<<< 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

South out of Oakley on Hwy. 83 20 mi to Jayhawk Rd.,
 Then 4 mi. East to 14 Rd., Then North 1/2 mi. West into Location

Thanks for using Gemini Wireline LLC
 785-625-1182

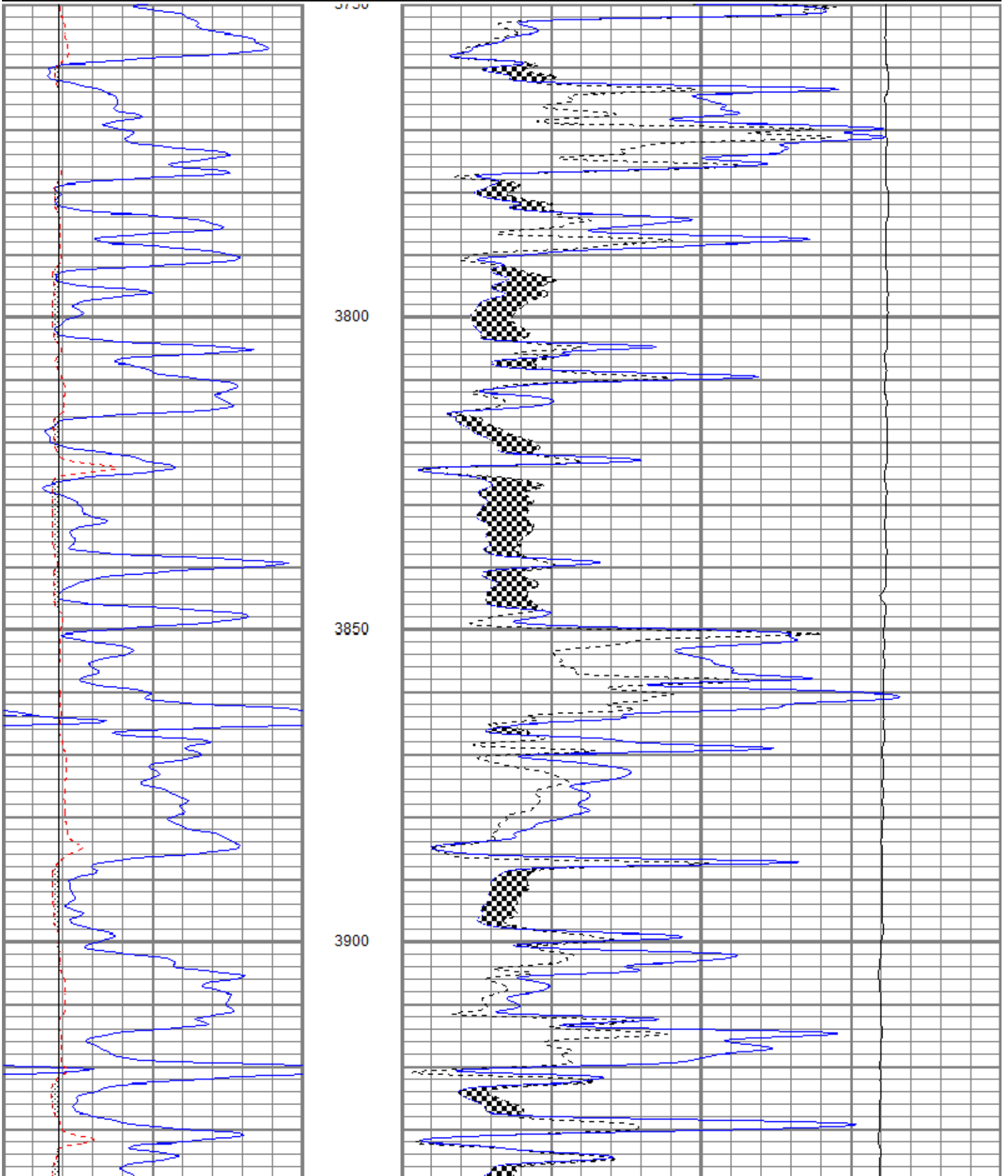


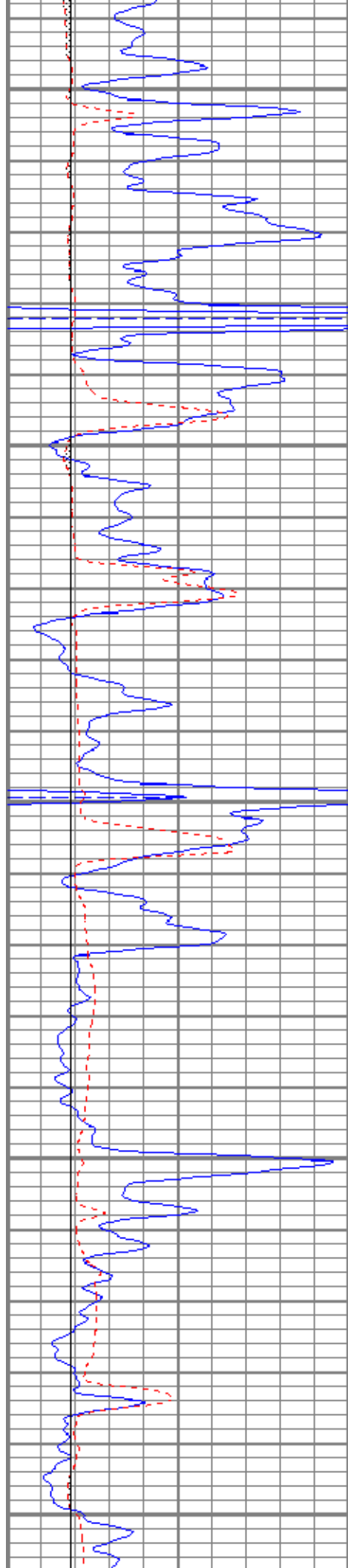
MAIN PASS

Database File bewheatland8-3oh.db
 Dataset Pathname pass8.1
 Presentation Format kml
 Dataset Creation Sat Sep 02 18:12:05 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16

0	MN 2" (Ohm-m)	20
0	MI 1" (Ohm-m)	20
10000	LTEN (lb)	0





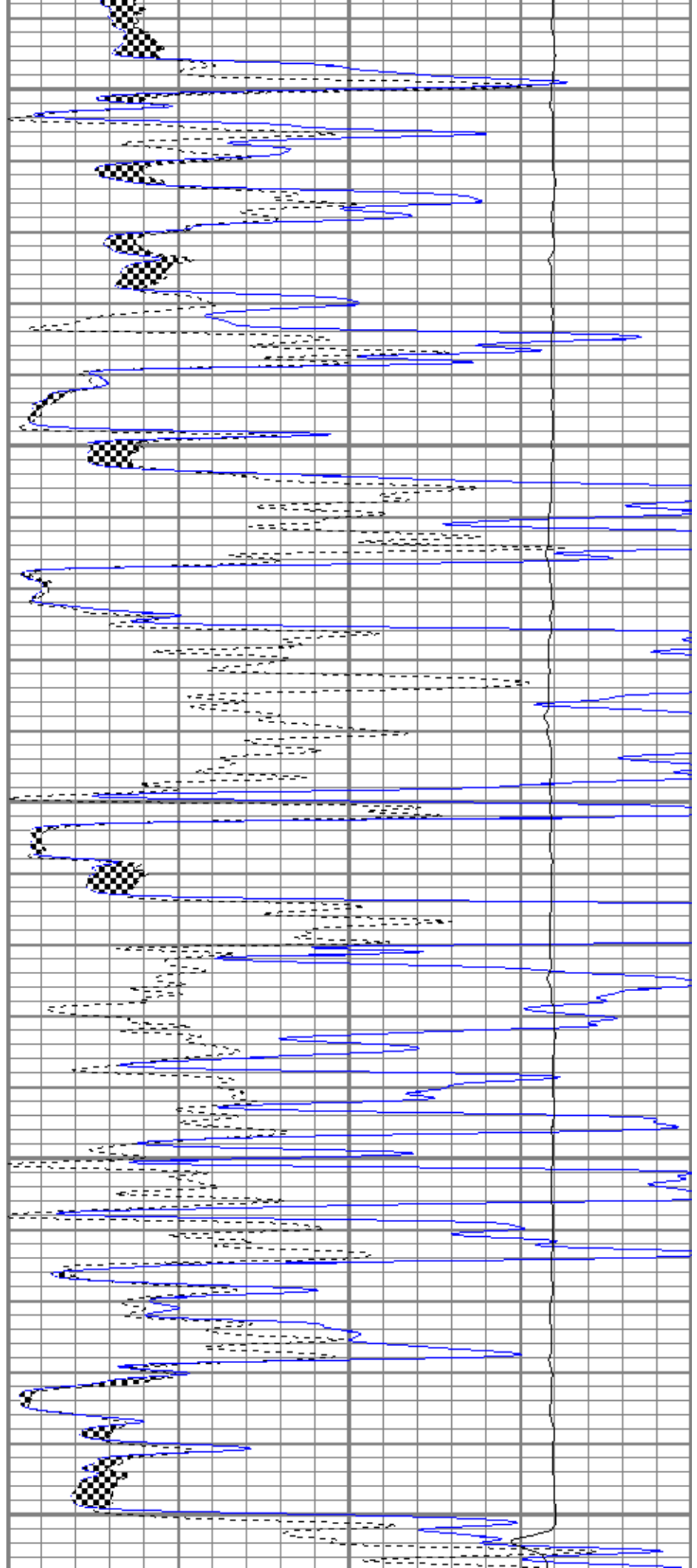
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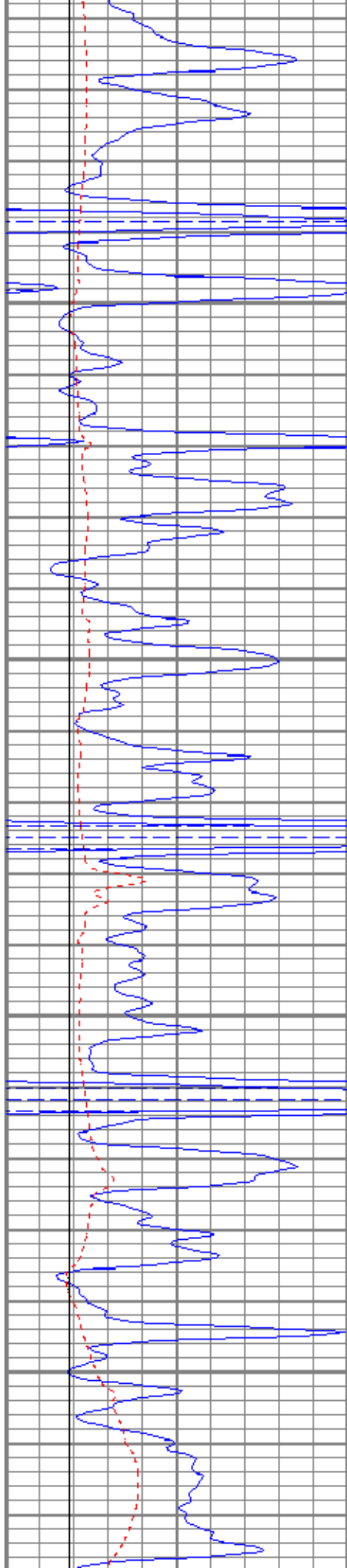
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4050

4100

4150



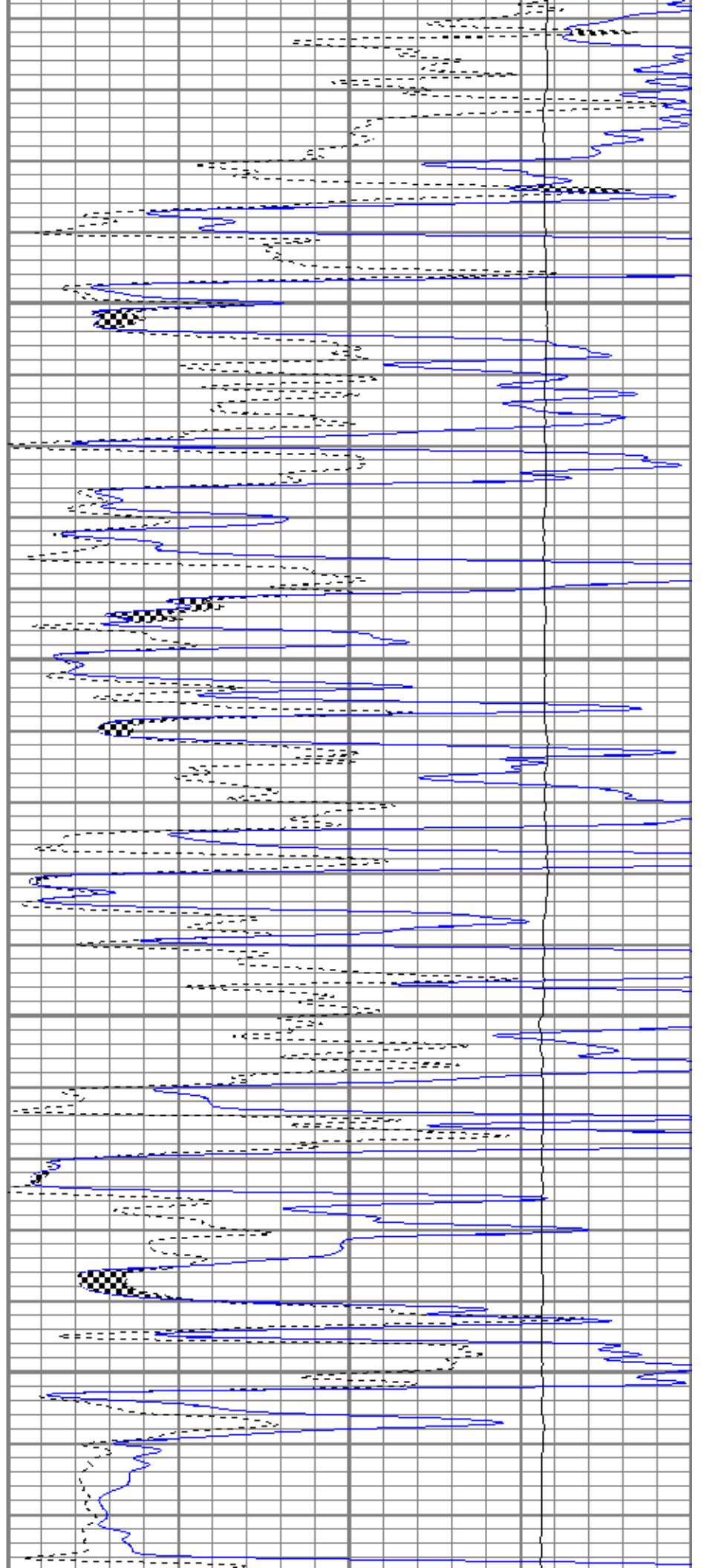


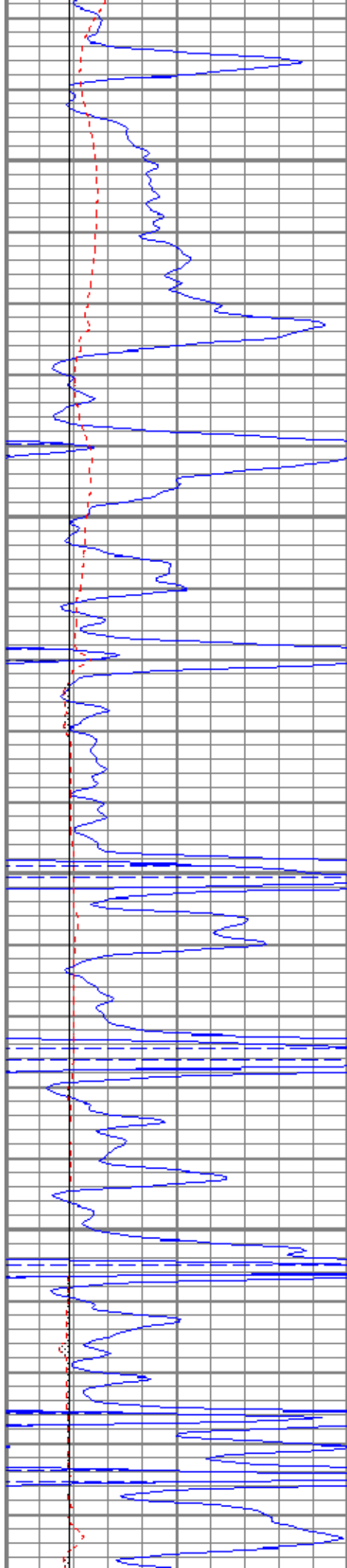
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4250

4300

4350



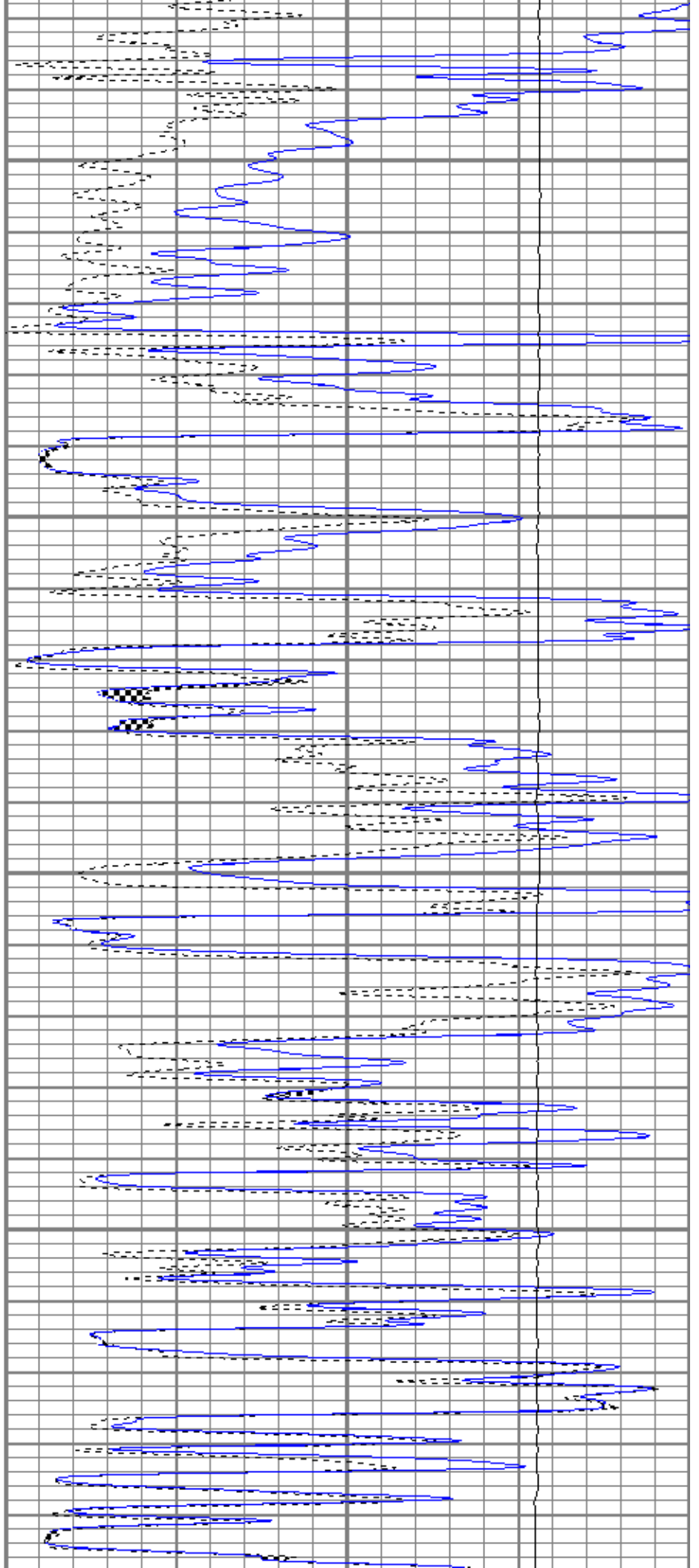


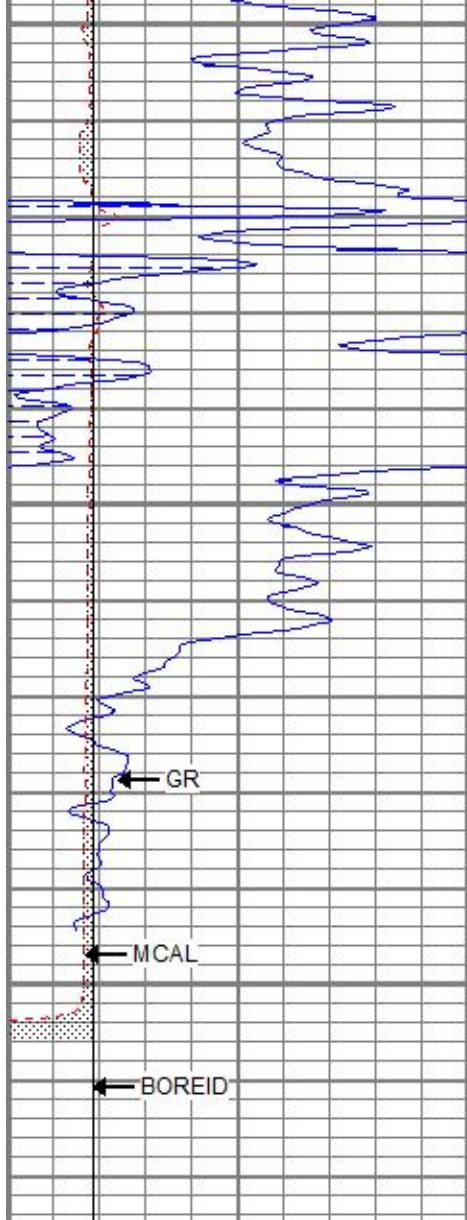
4400

4450

4500

4550





4600

4650

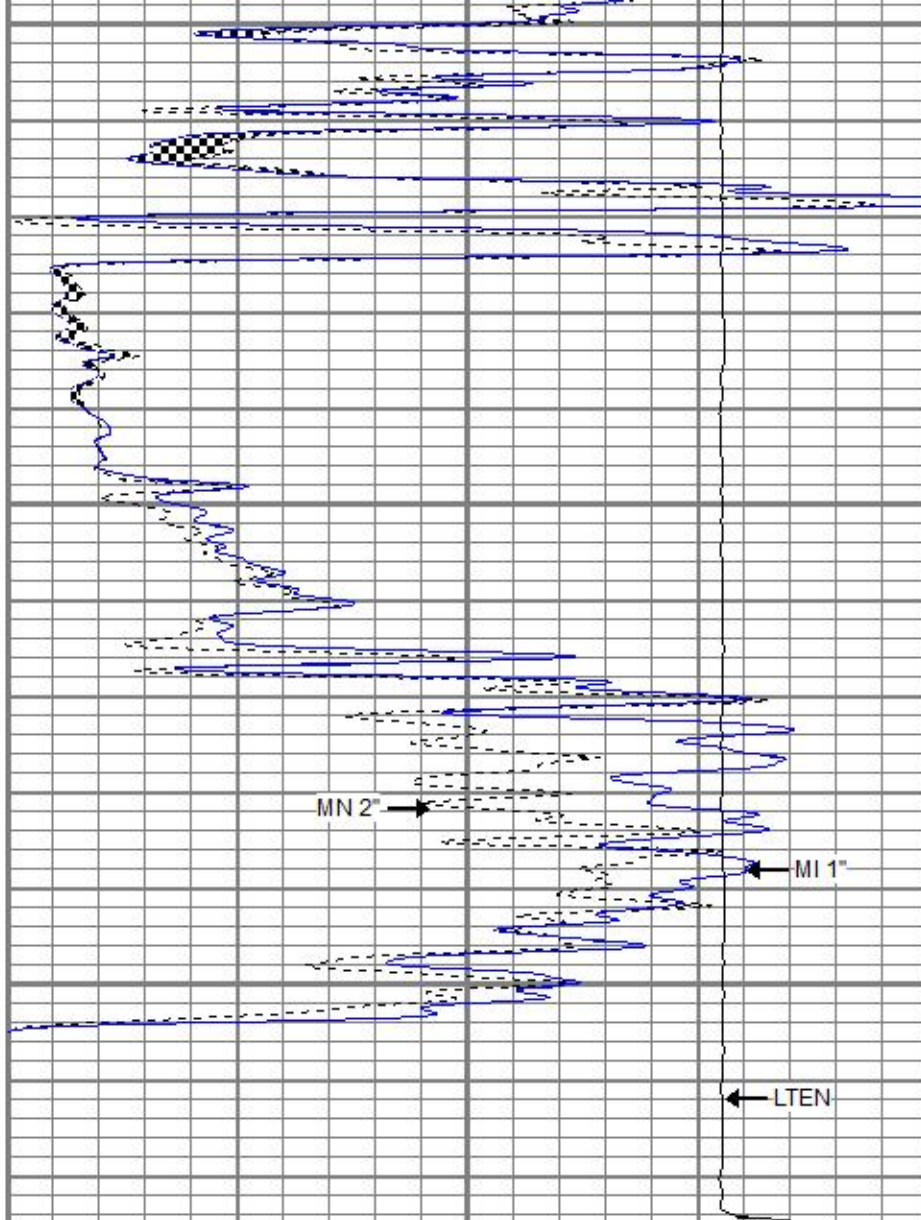
4700

← GR

← MCAL

← BOREID

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16



MN 2" →

← MI 1"

← LTEN

0	MN 2" (Ohm-m)	20
0	MI 1" (Ohm-m)	20
10000	LTEN (lb)	0

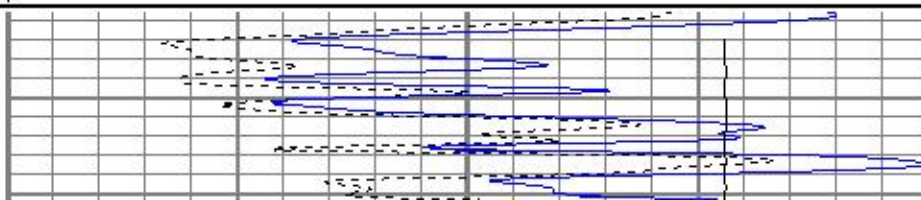


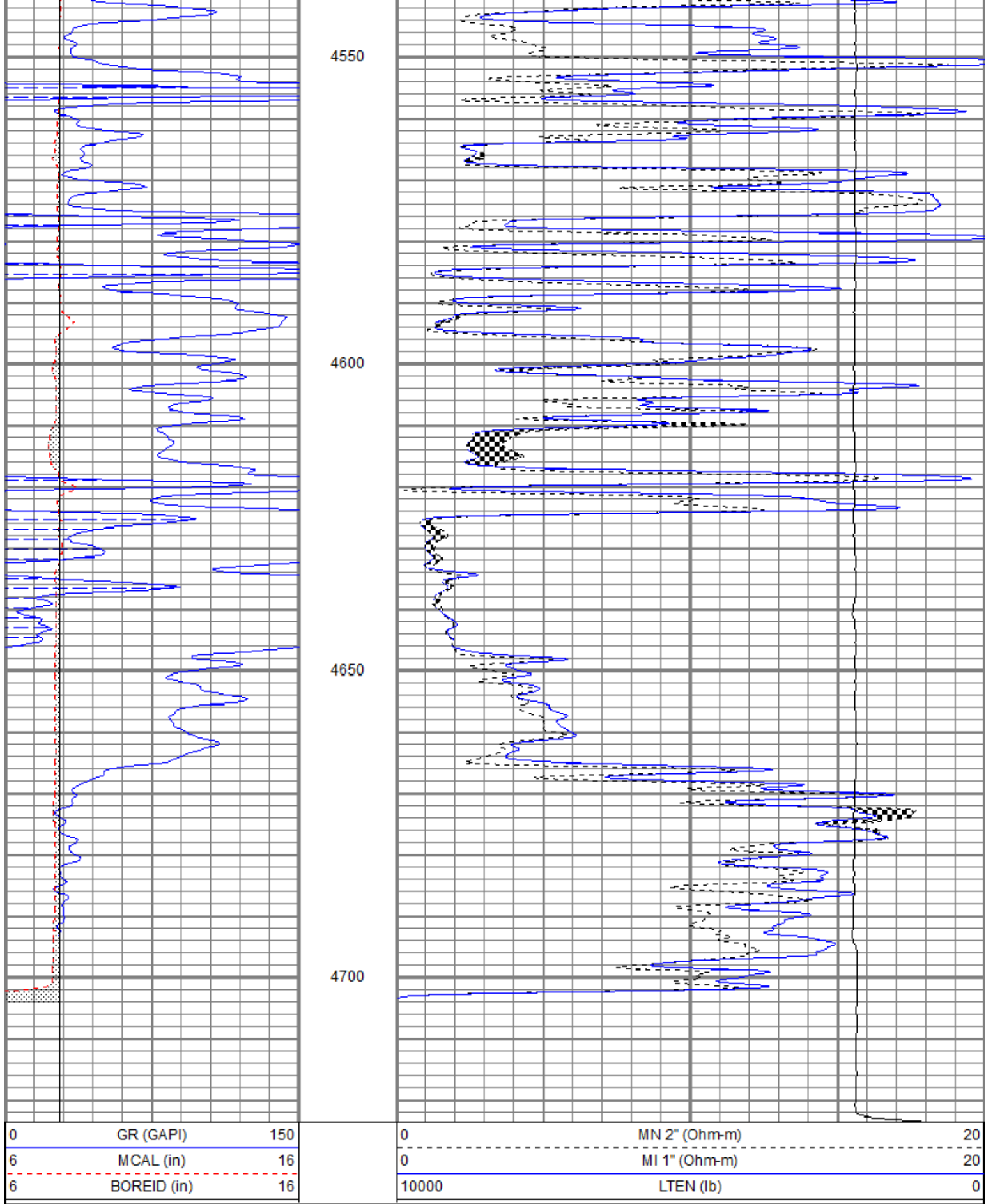
REPEAT SECTION

Database File bewheatland8-3oh.db
 Dataset Pathname pass7.1
 Presentation Format kml
 Dataset Creation Sat Sep 02 17:33:47 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16

0	MN 2" (Ohm-m)	20
0	MI 1" (Ohm-m)	20
10000	LTEN (lb)	0





Calibration Report

Database File bewheatland8-3oh.db
 Dataset Pathname pass8.1
 Dataset Creation Sat Sep 02 18:12:05 2017

Microlog Calibration Report

Serial-Model:
Performed:

1600-Pengo
Sat Sep 02 16:31:50 2017

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Normal	-0.0024	0.5832	V	0.0000	10.0000	Ohm-m	17.0626	0.0407
Inverse	-0.0014	0.7570	V	0.0000	8.2000	Ohm-m	10.8127	0.0150
Caliper	1.0301	2.2816	V	6.5000	10.0000	in	2.7968	3.6190

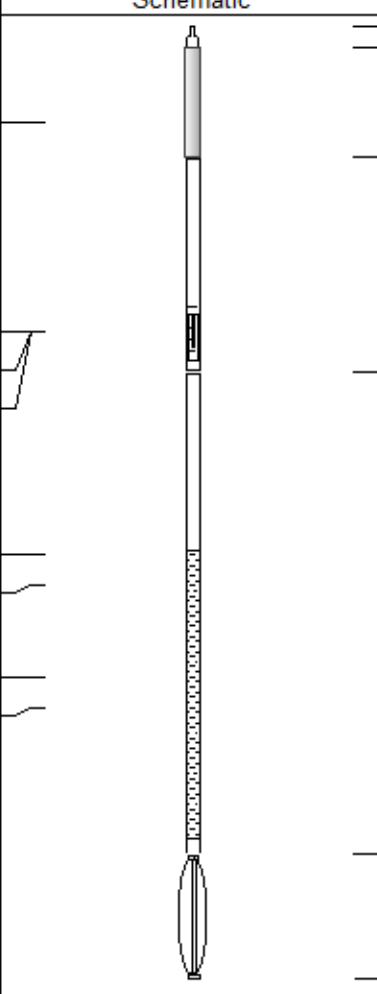
Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Aug 03 06:10:54 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.8000 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-None	0.75	1.50	5.00
GR	27.88		GR-OH (2001) 2001	3.56	3.25	40.00
			ML-Pengo (1600)	6.97	3.50	100.00
MCAL	21.05					
MI	21.05					
MN	21.05					
WVF4	13.79					
WVF3	12.79			SLT-G (372) Sonic	15.71	3.50
WVF2	9.79					
WVF1	8.79					
			CENT-OHshort Open Hole short centralizer	4.04	3.50	50.00

Dataset: bewheatland8-3oh.db: field/well/run1/pass8.1
 Total length: 31.03 ft
 Total weight: 445.00 lb
 O.D.: 3.50 in



"THE NEXT GENERATION OF ENERGY"

Scale 1:240 Imperial

Well Name: Wheatland #8-3
 Surface Location: Sec. 8 - T14S - R31W
 Bottom Location:
 API: 15-063-22314-0000
 License Number: 34917
 Spud Date: 8/23/2017 Time: 9:30 AM
 Region: Gove
 Drilling Completed: 9/2/2017 Time: 10:15 AM
 Surface Coordinates: 1310' FSL & 455' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2963.00ft
 K.B. Elevation: 2973.00ft
 Logged Interval: 3800.00ft To: 4725.00ft
 Total Depth: 4725.00ft
 Formation: Mississippian
 Drilling Fluid Type: Chemical/Fresh Water Gel

OPERATOR

Company: Bickle Energies, LLC
 Address: P.O. Box 816
 Hays, KS 67601
 Contact Geologist: Matt Bickle
 Contact Phone Nbr: 785-639-1681
 Well Name: Wheatland #8-3
 Location: Sec. 8 - T14S - R31W
 API: 15-063-22314-0000
 Pool:
 State: Kansas Field: n/a
 Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 1310' FSL
 E/W Co-ord: 455' FEL

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc.
 Address: 3420 22nd Street
 Great Bend, KS 67530
 Phone Nbr: 620-617-4091
 Logged By: KLG #136 Name: Keith Reavis

CONTRACTOR

Contractor: Southwind Drilling, Inc.
 Rig #: 8
 Rig Type: mud rotary
 Spud Date: 8/23/2017 Time: 9:30 AM
 TD Date: 9/2/2017 Time: 10:15 AM
 Rig Release: Time:

ELEVATIONS

NOTES

After analysis of drill stem tests and electrical logs, it was determined that the Wheatland #8-3 would prove non-commercial. Bickle Energies elected to turn operations at casing point over to Richland Oil Investments. Richland set and cemented 5 1/2" production casing to further test the Johnson and Lansing through perforations and stimulation.

A Bloodhound gas detection system operated by Bluestem Labs was employed during the drilling of this well. ROP and gas data were imported into this log. Gamma ray and caliper curves from the electrical log suite were also imported into this log.

Respectfully submitted,
 Keith Reavis

daily drilling report

DATE	7:00 AM DEPTH	REMARKS
08/27/2017	3684	Geologist Keith Reavis on location, begin 10 ft wet and dry samples at 3800 ft, drilling ahead, Topeka, Heebner, Toronto, run wiper trip @ 4002 ft drill ahead, Lansing
08/28/2017	4110	shows and gas kicks in Lansing A thru F warrant test, TOH for DST #1, conduct and complete DST #1, successful test, TIH w/bit, resume drilling
08/29/2017	4212	show in G zone warrants test, TOH for DST #2, conduct and complete DST #2, successful test, TIH w/bit, resume drilling
08/30/2017	4310	drilling ahead, I, J, Stark, K, Hushpuckney, L, show in lower L porosity warrants test, TOH with bit, conduct & complete DST #4 (K & L), successful test, TIH hole w/bit
08/31/2017	4427	resume drilling, BKC, Marmaton, Cherokee, Johnson
09/01/2017	4621	drill up Johnson, show warrants test, short trip, ctch, TIH w/tools, conduct DST #4, successful test, back in hole with tools, straddle DST #5 to isolate upper Johnson porosity, successful test, TIH w/bit
09/02/2017	4682 @ 0630	finsish TIH w/bit, resume drilling, Morrow, Mississippian, rathole to TD, TD @ 4725 @ 1015 hrs, TOH w/bit, rig up Gemini Wireline, conduct and complete logging operations, geologist off location @ 1900 hrs

well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Wheatland 8-3					Bickle - Flatlander 8-2				Bickle - Cliffhanger 8-1			
1310' FSL & 455' FEL					2438' PNL & 1250' FEL				990' FSL & 1980' FWL			
Sec 8-T14S-R31W					Sec 8-T14S-R31W				Sec 8-T14S-R31W			
2973 KB					2946 KB		Structural Relationship		2884 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Topeka	3816	-843	3816	-843	3791	-845	2	2	3729	-845	2	2
Heebner	3981	-1008	3981	-1008	3954	-1008	0	0	3895	-1011	3	3
Toronto	3998	-1025	3998	-1025	3969	-1023	-2	-2	3913	-1029	4	4
Lansing	4019	-1046	4023	-1050	3996	-1050	4	0	3934	-1050	4	0
Muncie Creek	4186	-1213	4186	-1213	4154	-1208	-5	-5	4088	-1204	-9	-9
Stark	4273	-1300	4274	-1301	4244	-1298	-2	-3	4177	-1293	-7	-8
Base KC	4352	-1379	4352	-1379	4324	-1378	-1	-1	4255	-1371	-8	-8
Marmaton	4427	-1454	4426	-1453	4396	-1450	-4	-3	4331	-1447	-7	-6
Pawnee	4472	-1499	4472	-1499	4439	-1493	-6	-6	4375	-1491	-8	-8
Pt. Scott	4512	-1539	4511	-1538	4479	-1533	-6	-5	4417	-1533	-6	-5
Cherokee	4522	-1549	4523	-1550	4491	-1545	-4	-5	4428	-1544	-5	-6
Johnson Zn	4594	-1621	4595	-1622	4564	-1618	-3	-4	4504	-1620	-1	-2
Morrow	4619	-1646	4618	-1645	4592	-1646	0	1	4526	-1642	-4	-3
Mississippian	4667	-1694	4668	-1695	4638	-1692	-2	-3	4581	-1697	3	2
Total Depth	4725	-1752	4726	-1753	4691	-1745	-7	-8	4640	-1756	4	3

Drill Stem Test #1

	DRILL STEM TEST REPORT	
	Bickle Energies	8/14S/31W Gove, KS



TESTING, INC.

P.O. Box 816
Hays, KS.
67601
ATTN: Matt Bickle/Keith Re

Wheatland #8-3

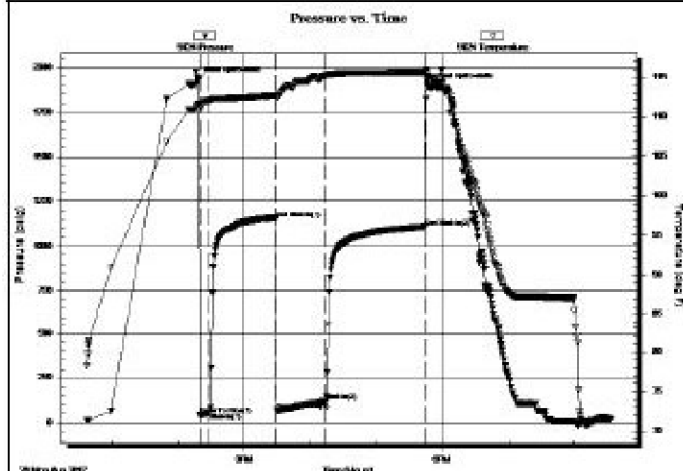
Job Ticket: 63593 DST#: 1
Test Start: 2017.08.28 @ 12:37:00

GENERAL INFORMATION:

Formation: **Lansing - A-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:19:30
Time Test Ended: 20:33:20
Test Type: Conventional Bottom Hole (Initial)
Tester: Jimmy Ricketts
Unit No: 80
Interval: **4010.00 ft (KB) To 4110.00 ft (KB) (TVD)**
Reference Elevations: 2973.00 ft (KB)
Total Depth: 4110.00 ft (KB) (TVD) 2962.00 ft (CF)
Hole Diameter: 7.88 inches-hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: **9124** Inside
Press@RunDepth: 122.48 psig @ 4011.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.08.28 End Date: 2017.08.28 Last Calib.: 2017.08.28
Start Time: 12:37:05 End Time: 20:33:20 Time On Btm: 2017.08.28 @ 14:18:00
Time Off Btm: 2017.08.28 @ 17:49:30

TEST COMMENT: IF - Weak blow building to 6 inches initial flow period.
FF - Weak blow building to strong blow 25 minutes into final flow period.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1930.67	111.53	Initial Hydro-static
2	45.29	111.17	Open To Flow(1)
11	56.78	112.02	Shut-In(1)
71	1154.13	112.62	End Shut-In(1)
72	68.41	112.44	Open To Flow(2)
117	122.48	115.19	Shut-In(2)
207	1108.45	115.57	End Shut-In(2)
212	1891.21	114.95	Final Hydro-static

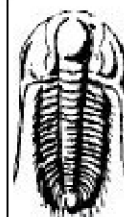
Recovery

Length (ft)	Description	Volume (bb)
125.00	Oil & water cut mud 16%O 6%W & 78%M	1.75
40.00	Heavy oil cut mud 34%O & 66%M	0.56
55.00	Clean oil 100%O	0.77
95.00	Gas in pipe 100%G	1.33

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/D)

Drill Stem Test #2



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies
P.O. Box 816
Hays, KS.
67601
ATTN: Matt Bickle/Keith Re

8/14S/31W Gove, KS
Wheatland #8-3
Job Ticket: 63594 DST#: 2
Test Start: 2017.08.29 @ 10:07:00

GENERAL INFORMATION:

Formation: **Lansing G-H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:18:20
Time Test Ended: 18:50:30
Test Type: Conventional Bottom Hole (Initial)
Tester: Jimmy Ricketts
Unit No: 80

Interval: 4134.00 ft (KB) To 4214.00 ft (KB) (TVD)
 Total Depth: 4214.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches - hole Condition: Fair

Reference Elevations: 2973.00 ft (KB)
 2962.00 ft (CF)
 KB to GR/CF: 11.00 ft

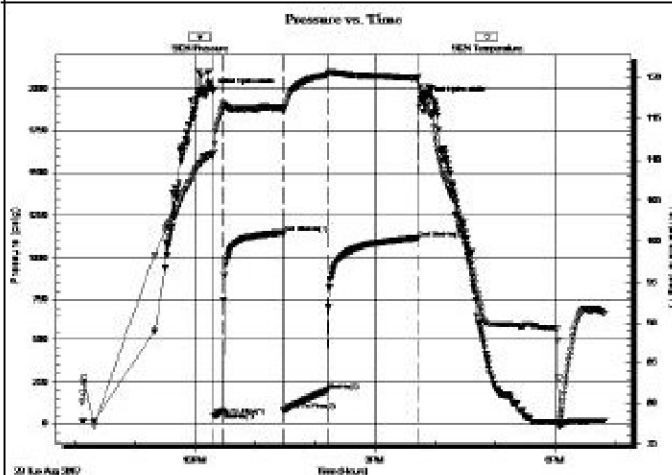
Serial #: 9124

Inside

Press@RunDepth: 200.63 psig @ 4135.00 ft (KB)
 Start Date: 2017.08.29 End Date: 2017.08.29
 Start Time: 10:07:05 End Time: 18:50:30

Capacity: 8000.00 psig
 Last Calib.: 1899.12.30
 Time On Btm: 2017.08.29 @ 12:17:20
 Time Off Btm: 2017.08.29 @ 15:48:09

TEST COMMENT: IF - Weak blow building to 9 inches during initial flow period.
 FF - Weak blow building to strong blow 20 minutes into final flow period.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.61	110.63	Initial Hydro-static
1	50.35	110.84	Open To Flw(1)
11	74.54	116.37	Shut-In(1)
71	1144.93	116.35	End Shut-In(1)
72	83.50	116.00	Open To Flw(2)
116	200.63	120.41	Shut-In(2)
206	1112.30	119.94	End Shut-In(2)
211	1930.79	117.29	Final Hydro-static

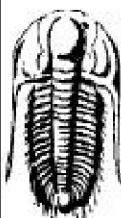
Recovery

Length (ft)	Description	Volume (bbl)
320.00	Tr oil & mud cut water Tr O 85%W & 15% M	4.49
50.00	O & heavy W cut M 9%O 44%W & 47% M	0.70
10.00	Clean oil 100%O	0.14
60.00	Gas in pipe 100%G	0.84

Gas Rates

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

Drill Stem Test #3



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies
 P.O. Box 816
 Hays, KS.
 67601
 ATTN: Matt Bickle/Keith Re

8/14S/31W Gove, KS
Wheatland #8-3
 Job Ticket: 64251 **DST#: 3**
 Test Start: 2017.08.30 @ 14:28:24

GENERAL INFORMATION:

Formation: K-L
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:37:54
 Time Test Ended: 22:30:54

Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79

Interval: 4272.00 ft (KB) To 4356.00 ft (KB) (TVD)
 Total Depth: 4356.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches - hole Condition: Good

Reference Elevations: 2973.00 ft (KB)
 2962.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8166

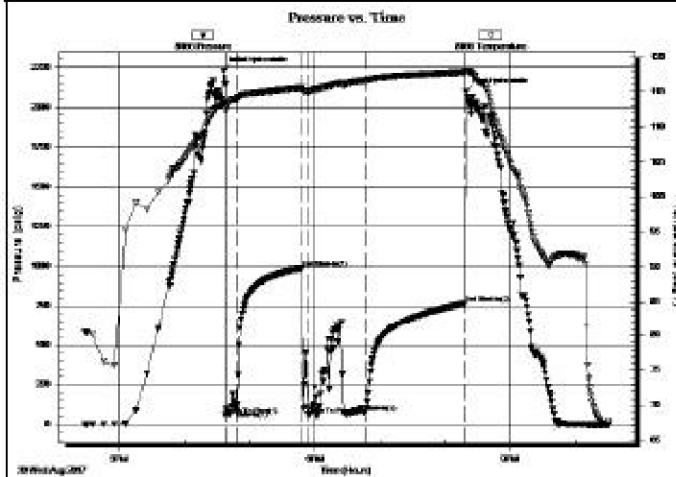
Outside

Press@RunDepth: 76.37 psig @ 4273.00 ft (KB)
 Start Date: 2017.08.30 End Date: 2017.08.30
 Start Time: 14:28:29 End Time: 22:30:53

Capacity: 8000.00 psig
 Last Calib.: 2017.08.30
 Time On Btm: 2017.08.30 @ 16:36:24
 Time Off Btm: 2017.08.30 @ 20:19:24

TEST COMMENT: IF: 1/4 blow built to 3.
 IS: No return

IS: No return.
 FF: Surface blow built to 5.
 FS: No return.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2230.61	113.30	Initial Hydro-static
2	58.33	112.34	Open To Flw(1)
12	88.08	114.03	Shut-In(1)
72	991.97	115.58	End Shut-In(1)
77	59.85	114.88	Open To Flw(2)
130	76.37	116.63	Shut-In(2)
222	769.28	117.84	End Shut-In(2)
223	2095.64	118.11	Final Hydro-static

Recovery

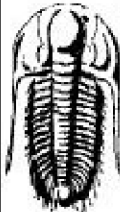
Length (ft)	Description	Volume (bb)
62.00	gocm5%g 10%o 85% m	0.87
67.00	ocm30%o 70% m	0.94

* Recovery from multiple tests

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/D)

Drill Stem Test #4



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bicke Energies
 P.O. Box 816
 Hays, KS, 67801
 ATTN: Matt Bicke/Keith Re

8/14S/31W Gove, KS
Wheatland #8-3
 Job Ticket: 64252 **DST#:4**
 Test Start: 2017.09.01 @ 07:14:29

GENERAL INFORMATION:

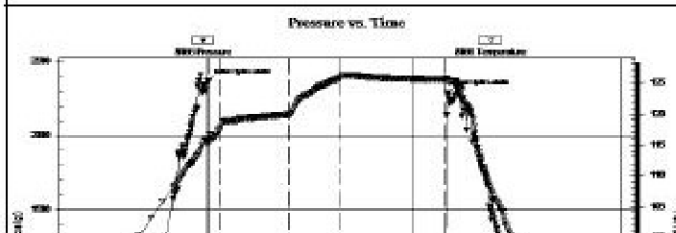
Formation: **Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:01:59
 Time Test Ended: 14:48:29
 Interval: **4573.00 ft (KB) To 4621.00 ft (KB) (TVD)**
 Total Depth: 4621.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2973.00 ft (KB)
 2962.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8166

Outside

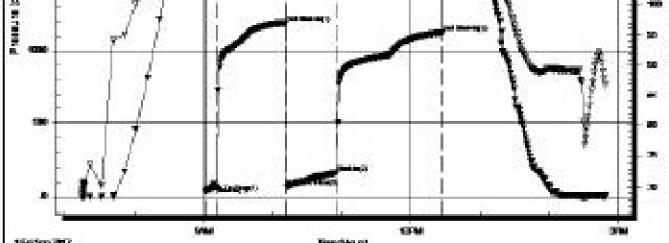
Press@RunDepth: 162.69 psig @ 4574.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.09.01 End Date: 2017.09.01 Last Calib.: 2017.09.01
 Start Time: 07:14:34 End Time: 14:48:28 Time On Btm: 2017.09.01 @ 09:00:59
 Time Off Btm: 2017.09.01 @ 12:28:59

TEST COMMENT: IF: 1/4 blow built to 7.
 IS: No return.
 FF: BOB in 19 min.
 FS: No return.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2363.97	115.76	Initial Hydro-static
1	32.47	115.18	Open To Flw(1)
11	66.65	117.46	Shut-In(1)
70	1187.92	119.88	End Shut-In(1)
71	66.34	119.53	Open To Flw(2)



115	162.69	125.73	Open To Flow(2)
207	1123.94	125.66	End Shut-In(2)
208	2285.59	125.54	Final Hydro-static

Recovery


Length (ft)	Description	Volume (bbl)
126.00	mcw 70%w 30%w	1.77
204.00	gocw m 10%g 30%o 30%w 30%w	2.86

* Recovery from multiple tests

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------

Drill Stem Test #5 (straddle)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bicke Energies
 P.O. Box 816
 Hays, KS.
 67601
 ATTN: Matt Bicke/Keith Re

8/14S/31W Gove, KS

Wheatland #8-3

Job Ticket: 64253 **DST#: 5**

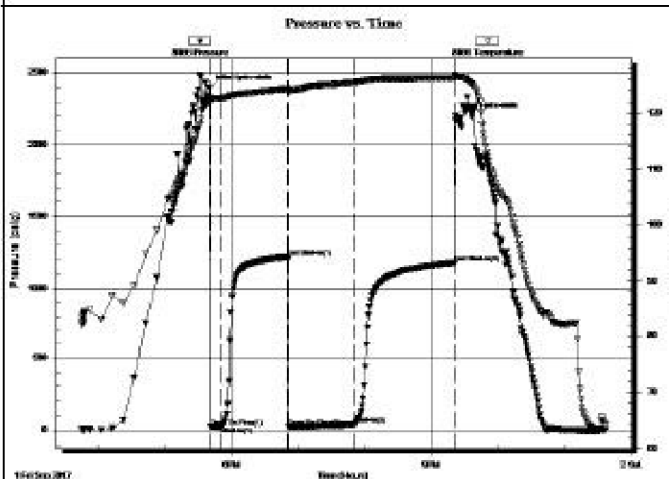
Test Start: 2017.09.01 @ 15:45:36

GENERAL INFORMATION:

Formation: **Upper Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:41:06
 Time Test Ended: 23:37:06
 Interval: **4572.00 ft (KB) To 4605.00 ft (KB) (TVD)**
 Total Depth: 4621.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2973.00 ft (KB)
 2962.00 ft (CF)
 KB to GR/CF: 11.00 ft.

Serial #: 8166 Outside
 Press@RunDepth: 39.78 psig @ 4573.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.09.01 End Date: 2017.09.01 Last Calib.: 2017.09.01
 Start Time: 15:45:41 End Time: 23:37:05 Time On Btm: 2017.09.01 @ 17:40:36
 Time Off Btm: 2017.09.01 @ 21:22:06

TEST COMMENT: IF: 1/4 bblw built to 2.
 IS: No return.
 FF: Surface bblw built to 7.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2394.86	122.78	Initial Hydro-static
1	22.92	122.11	Open To Flow(1)
11	25.83	122.66	Shut-In(1)
70	1217.38	124.24	End Shut-In(1)
71	23.36	123.93	Open To Flow(2)
130	39.78	125.44	Shut-In(2)
221	1177.44	126.26	End Shut-In(2)
222	2200.23	126.43	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
20.00	oem 10% o 90% m	0.28
53.00	oil 100% o	0.74

Circle (Inches)	Pressure (psig)	Gas Rate (Mcfd)

* Recovery from multiple tests

ROCK TYPES

Cht	Lmst fw7>	Carbon Sh	Ss
sdymst	shale, grn	shale, red	Siltst
Lmst fw<7	shale, gry	Shcol	

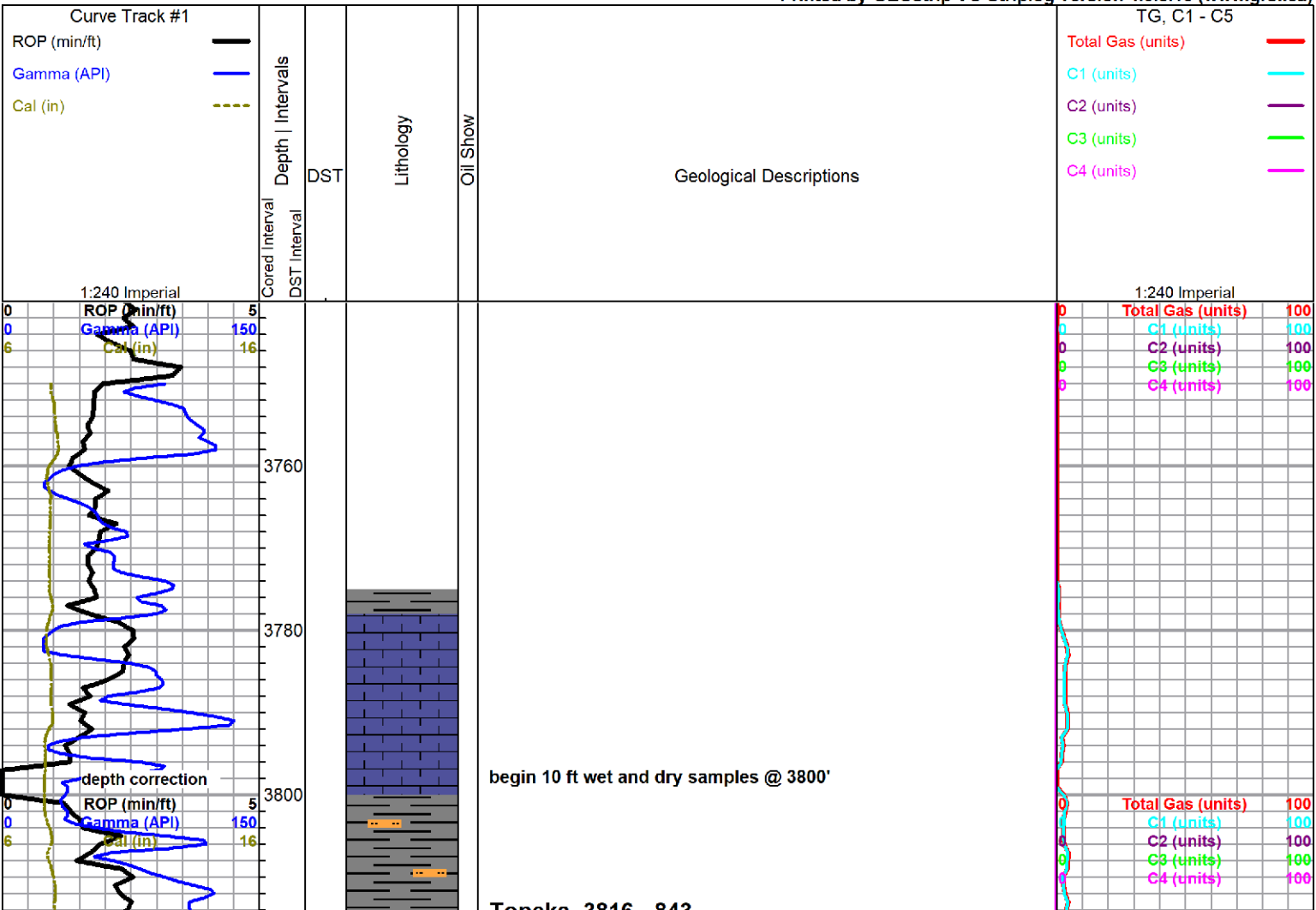
ACCESSORIES

MINERAL	FOSSIL	STRINGER	TEXTURE
- Argillaceous	∩ Bioclastic or Fragmental	••• Sandstone	C Chalky
▲ Chert, dark	F Fossils < 20%	••• Siltstone	L Lithogr
•• Silty	∅ Oolite	— Shale	
△ Chert White	∅ Pellets	— red shale	
	∅ Oomoldic		

OTHER SYMBOLS

Oil Show	DST
● Good Show	■ DST Int
● Fair Show	■ DST alt
● Poor Show	■ Core
○ Spotted or Trace	tail pipe
○ Questionable Stn	
■ Dead Oil Stn	
■ Fluorescence	
* Gas	

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)



begin 10 ft wet and dry samples @ 3800'

Topok 2816 842

Topeka 3816 -843

limestone, tan to cream, microcrystalline, fossiliferous to bioclastic to oolitic, some sub-sucrosic, poor overall visible porosity, with limestone, gray, argillaceous to sandy, dense, no shows

as above, more dense fossiliferous

shale, black carbonaceous

limestone, tan to light gray, bioclastic, grainy, with chert, boney white to gray, fossiliferous, abundant chalk, no shows

limestone, tan to light gray, bioclastic to fossiliferous, grainy, with chert, light gray, fossiliferous, abundant chalk, no shows

limestone, light gray to cream and tan, microcrystalline, fossiliferous to bioclastic, grainy, poor visible porosity, some chalk and tan chert, no shows

as above

as above with gray limestone, some mottled, bioclastic to fine oolitic and pelletal, no shows

Hebner 3980 -1008

shale, black carbonaceous

lighter test

Toronto 3998 -1025

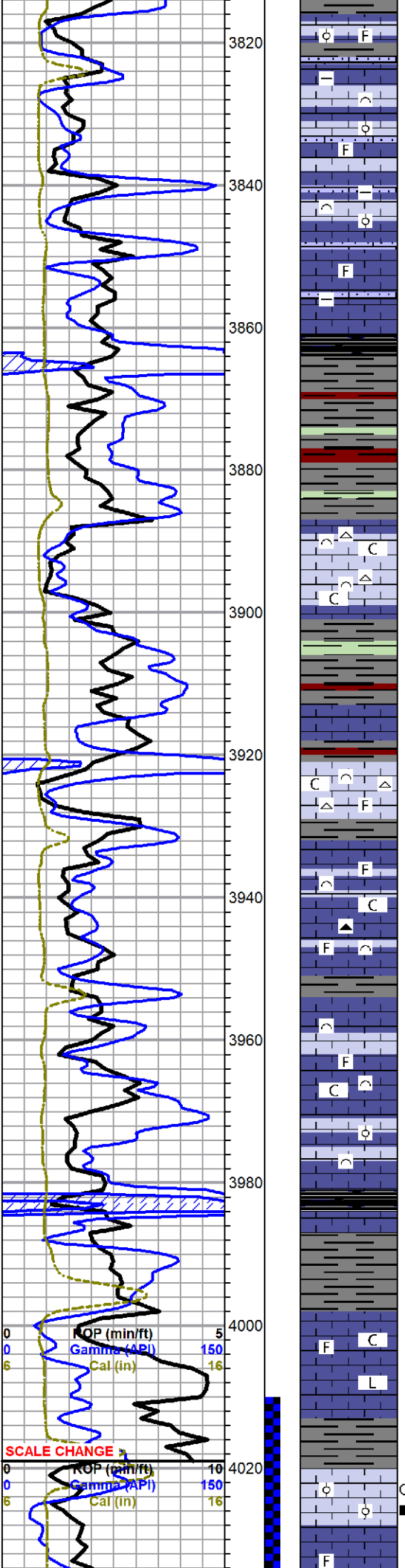
limestone, white to light gray, mostly cryptocrystalline, lithographic to fossiliferous, chalky to dense, abundant chalk, no shows

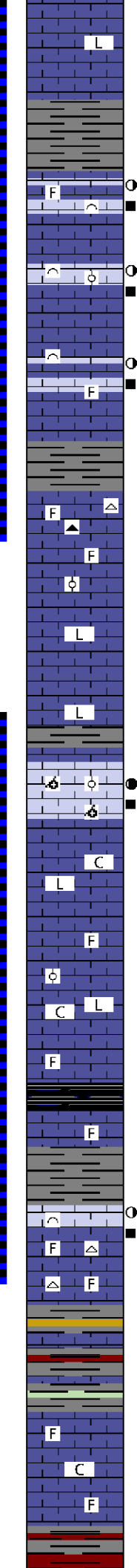
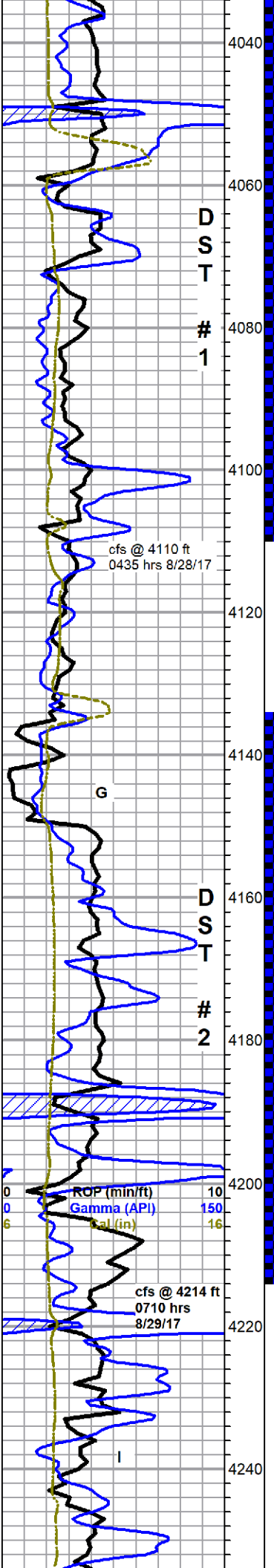
wiper trip @ 4002 ft.

Total Gas (units)	100
C1 (units)	100
C2 (units)	100
C3 (units)	100
C4 (units)	100

Lansing 4019 -1046

limestone, white to light gray, oolitic, sucrosic crystalline in-fill, some small vugs, light brown inter-oolite staining, trace heavy free oil on break, fleeting odor, good fluorescence, excellent cut





limestone, light gray to cream, mostly cryptocrystalline, fossiliferous to lithographic, dense

limestone, white to light gray, cryptocrystalline, fossiliferous to bioclastic, some interclast vugs, some spongy with fair framework, light staining, slight show free oil on break, no odor, good fluorescence, good cut with halo

limestone, white to light gray, cryptocrystalline, oolitic to bioclastic, some interclast vugs, poor overall visible porosity, light staining, slight show free oil on break, no odor, fair fluorescence, good cut, milky streaming, with halo

limestone, white to light gray, cryptocrystalline, fossiliferous to bioclastic, some interclast vugs, poor overall visible porosity, light staining, slight show free oil on break, no odor, fair to good fluorescence, good to light streaming cut with halo

4110 30 min sample, light gray limestone, fossiliferous with flood chert, variable gray and white, fossiliferous, sharp, fresh, no shows

limestone, light gray to cream, microcrystalline, fossiliferous, trace oolitic, chalky in part, trace light stain, no show free oil, no odor

grades to limestone, light gray to cream, cryptocrystalline, mostly lithographic, dense, some chalk, no shows

limestone, gray to light gray and cream, oomoldic and oolitic, good oomold porosity and some good inter-oolite porosity, spotty to fair staining, fair show oil on break, streaming sheen in tray, strong odor, good fluorescence, good to excellent cut

limestone, mixed, gray to cream and white, crypto-microcrystalline, lithographic, fossiliferous and some flattened oolitic, moderate chalk, no shows

a.a.

Muncie Creek 4186 -1213

shale, black carbonaceous

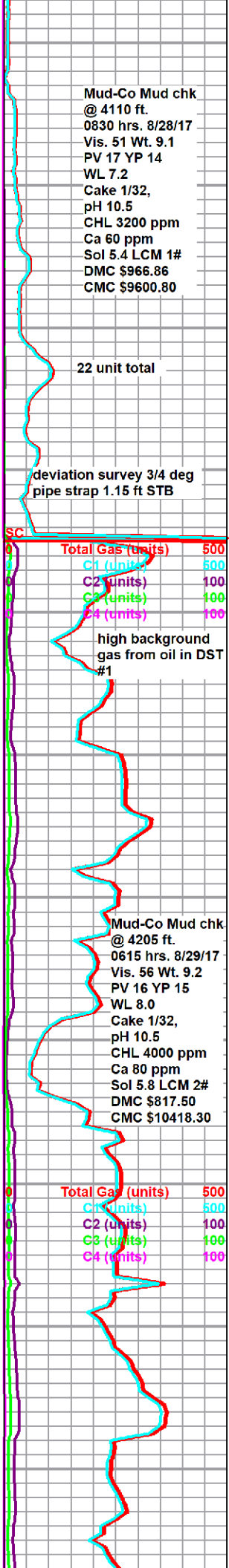
limestone, brown, cryptocrystalline, fossiliferous, dense, no show

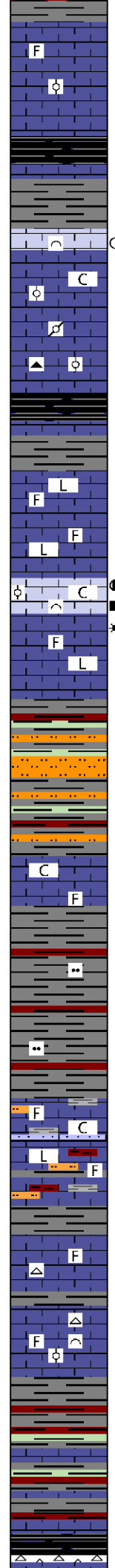
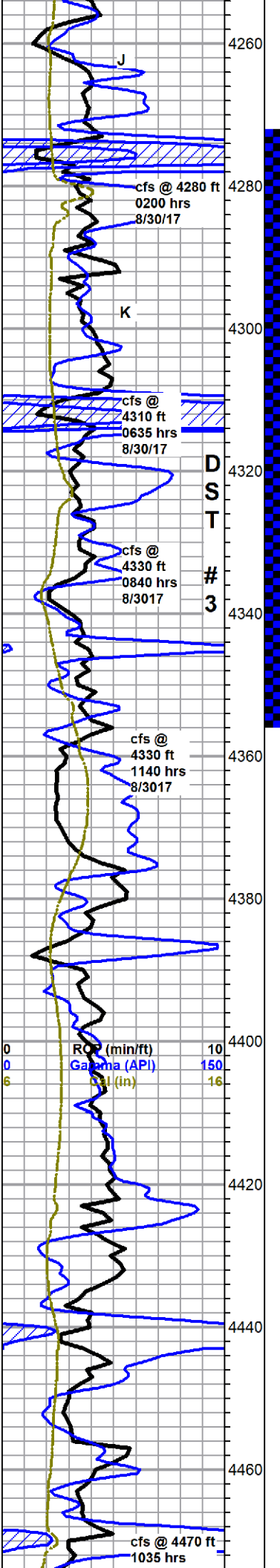
limestone, light gray, oolitic to bioclastic, some interclast pin-point porosity, light brown stain, slight show free oil on break, fleeting odor, good fluorescence, good slow milky streaming cut with halo - grades to cream to light gray fossiliferous limestone, with gray to white fossiliferous cherts

shales, mixed, with limestone, brown to gray, cryptocrystalline, dense lithographic to slightly fossiliferous, no shows

limestone, light gray to cream and white, micro-cryptocrystalline, fossiliferous, chalky, poor visible porosity, with some lithographic, abundant chalk, no shows

flood gray, brown and red shales





still carrying mostly shales with some limestone, light gray to cream, cryptocrystalline, fossiliferous to oolitic, dense, some pyritic, poor visible porosity, no shows

Stark Shale 4273 -1300

shale, black carbonaceous, (in 60 sample) abundant brown limestone, cryptocrystalline, lithographic, some slightly fossiliferous with fractures, dense, no shows

limestone, gray, microcrystalline, sucrosic, arenaceous, bioclastic, some pinpoint porosity, light brown stain, slight sheen of oil on break, faint odor, good fluorescence, poor cut, good streaming cut on break only

grades to limestone, mottled gray, pelletal to oolitic, chalky, with gray chert at base of bench, poor visible porosity, no shows

Hushpuckney

shale, black carbonaceous

limestone, gray, crypto-microcrystalline, lithographic to fossiliferous, some secondary calcite crystals, no shows

limestone, light gray, grainy bioclastic and oolitic, chalky in part, some visible interclast pin-point porosity, light stain, slight show oil on rock surface, fair show gassy oil on break, fleeting odor, excellent fluorescence, good slow streaming cut

Base KC 4352 -1379

shale, gray and red, maroon, green, with abundant gray siltstone, some salt and pepper

limestone, light gray, crypto-microcrystalline, fossiliferous, dense, abundant chalk, no shows

shale, gray fissile and gray silty shale, some red

4420 to 30 samples, mixed shale, with influx limestone (appx 50/50), light gray to blue gray and white, mostly cryptocrystalline, fossiliferous to lithographic, abundant chalk, some blue gray calcareous siltstone to silty limestone, no shows

Marmaton 4427 -1454

4440 sample - flood limestone, cream to light gray, cryptocrystalline, lithographic to fossiliferous, chalky, with limestone, brown, cryptocrystalline, dense fossiliferous, no shows

4450 - limestone, cream to light gray, cryptocrystalline, chalky, fossiliferous to lithographic, poor visible porosity, with chert, frosted gray, fossiliferous

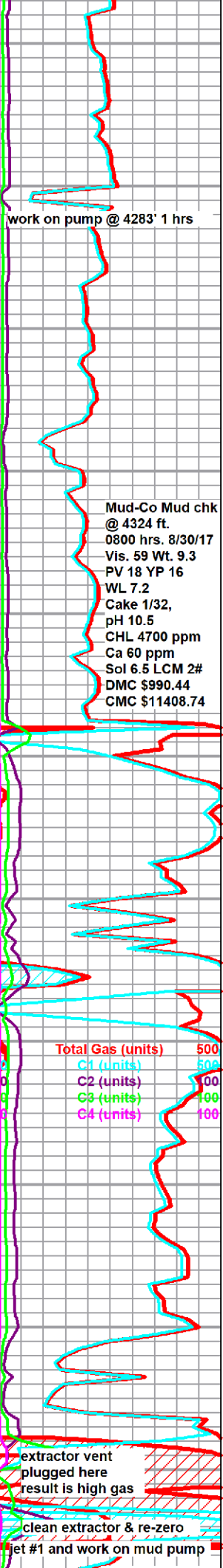
4460 a.a., influx shale with some bioclastic and oolitic limestone

4470 sample - flood shale, gray, red, some green

cfs samples, almost all shale a.a.

Pawnee 4472 -1499

limestone, cream micro-crystalline, chalky, fossiliferous, grainy



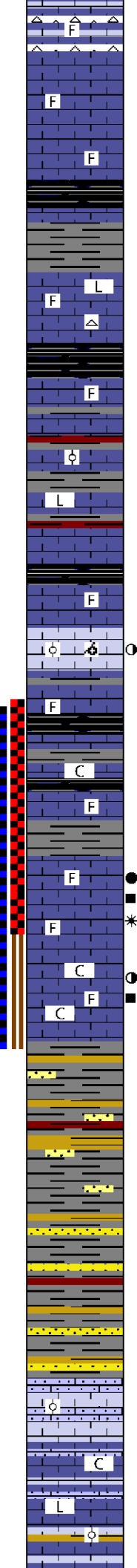
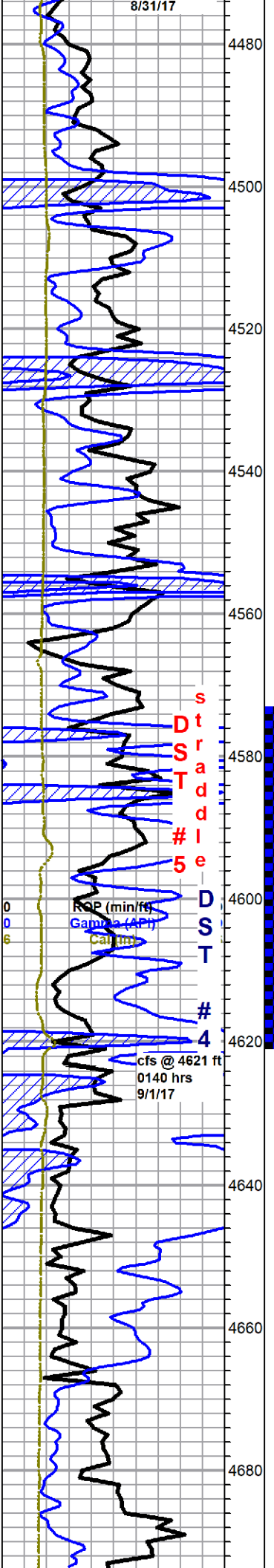
work on pump @ 4283' 1 hrs

Mud-Co Mud chk @ 4324 ft. 0800 hrs. 8/30/17
 Vis. 59 Wt. 9.3
 PV 18 YP 16
 WL 7.2
 Cake 1/32, pH 10.5
 CHL 4700 ppm
 Ca 60 ppm
 Sol 6.5 LCM 2#
 DMC \$990.44
 CMC \$11408.74

Total Gas (units) 500
 C1 (units) 500
 C2 (units) 100
 C3 (units) 100
 C4 (units) 100

extractor vent plugged here result is high gas

clean extractor & re-zero jet #1 and work on mud pump



limestone, cream to gray and tan, mixed fossiliferous, dense to chalky, soft, with appx 50% chert, frosted gray, fossiliferous, sharp, fresh, no shows - shales clean up in samples

limestone, cream to light gray and white, cryptocrystalline, fossiliferous to lithographic, chalky to dense, some dark gray cryptocrystalline, trace chert, poor visible porosity, no shows

4510 sample flood shale

Fort Scott 4512 --1539
limestone, cream to light gray and white, cryptocrystalline, fossiliferous to lithographic, chalky to dense, some dark gray cryptocrystalline, trace chert, poor visible porosity, no shows

Cherokee 4522 -1549
mostly mixed shales (sluff?), some limestone, variable, chalky fossiliferous to oolitic and lithographic, no shows noted

a.a

limestone, light gray, fine oolitic to sub-oolitic, recrystallized, small specimens, small solution vugs and inter-oolite porosity, light spotty stain, slight to fair show oil on break, fleeting odor, good fluorescence, slow milky streaming cut

limestone, gray, cryptocrystalline, dense, sub-lithographic to fossiliferous, no shows

abundant black carbonaceous shales

4600 sample, a.a. with chalky fossiliferous limestones, abundant chalk, no shows

Johnson Zone 4594 -1621
limestone, gray, cryptocrystalline, recrystallized fossiliferous, crystal lined vuggy porosity, good stain, good show gassy free oil, strong odor, faint spotty fluorescence, bright milky streaming cut

limestone, gray to cream, cryto-microcrystalline, grainy, fossiliferous, chalky, poor overall visible porosity, few small vugs, no visible stain in wet samples, fair show oil on break, fair odor, poor fluorescence, good cut with halo, abundant chalk

Morrow 4619 -1646
shale, olive yellow, gray, mottled gray, lavender/brown, with sandstone, quartz to green, very fine grain, silty, rounded to sub-angular, fair sorted, well cemented, barren

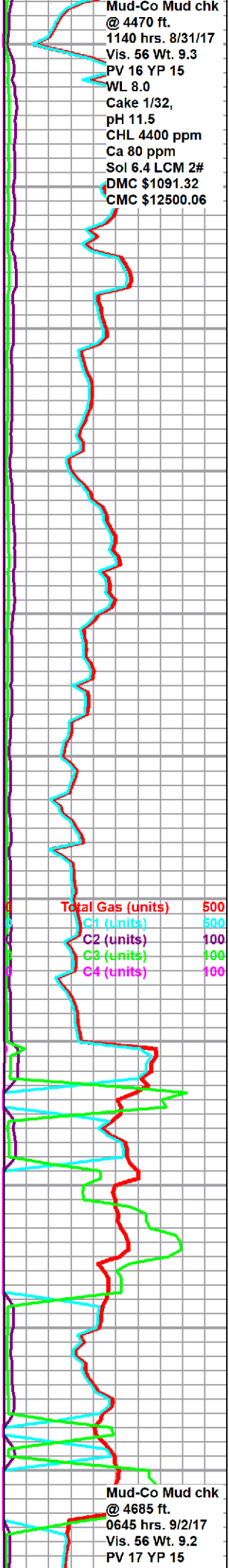
shale a.a. with: sandstone, green a.a. with gray quartz, very fine grain, silty, sub-round to sub-angular, poor visible porosity, well to fair cement, no shows

4670 sample, flood sandstone, gray to tan, very fine grain, argillaceous, clayey, silty, rounded, fair sorting, poor porosity, fair to poorly cemented, siliceous, no shows, with shale a.a.

Mississippian 4667 -1694
limestone, light gray to white, flattened to microoolitic and bioclastic, sandy, chalky in part, poor visible porosity, no shows

a.a., decrease in sandy limestone, influx gray cryptocrystalline lithographic, no shows

limestone a.a. influx olive shale, abundant chalk



S
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5

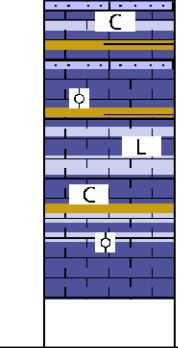
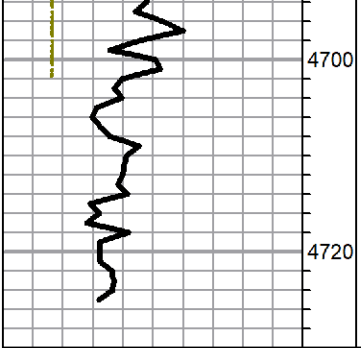
D
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4

cfs @ 4621 ft
0140 hrs
9/1/17

Total Gas (units) 500
C1 (units) 500
C2 (units) 100
C3 (units) 100
C4 (units) 100

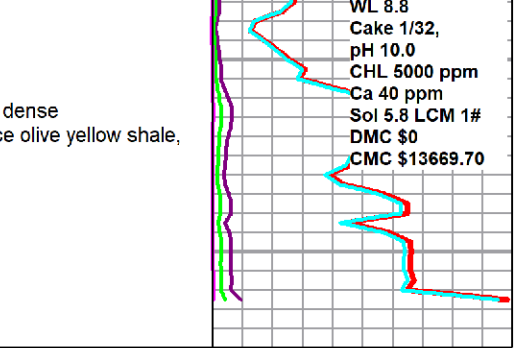
Mud-Co Mud chk
@ 4685 ft.
0645 hrs. 9/2/17
Vis. 56 Wt. 9.2
PV 17 YP 15



limestones a.a., mixed olive shale, abundant chalk

limestone, mixed gray, flattened chalky oolitic and dense
cryptocrystalline lithographic, abundant chalk, trace olive yellow shale,
no shows

Rotary TD 4725 ft. @ 1015 hrs 9/2/17
Gemini Log TD 4726 ft.
Complete logging operations 1815 hrs 9/2/17



WL 8.8
Cake 1/32,
pH 10.0
CHL 5000 ppm
Ca 40 ppm
Sol 5.8 LCM 1#
DMC \$0
CMC \$13669.70



DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816
Hays, KS 67601

ATTN: Keith Reavis

Wheatland #8-3

8-14S-31W Gove,KS

Start Date: 2017.08.28 @ 12:37:00

End Date: 2017.08.28 @ 20:33:20

Job Ticket #: 63593 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.05 @ 08:32:18

Bickle Energies
8-14S-31W Gove,KS
Wheatland #8-3
DST # 1
LKC A-F
2017.08.28



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63593

DST#: 1

ATTN: Keith Reavis

Test Start: 2017.08.28 @ 12:37:00

GENERAL INFORMATION:

Formation: **LKC A-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:19:30

Time Test Ended: 20:33:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 79

Interval: 4010.00 ft (KB) To 4110.00 ft (KB) (TVD)

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4110.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9124

Inside

Press@RunDepth: 122.48 psig @ 4011.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.28

End Date:

2017.08.28

Last Calib.:

2017.08.28

Start Time: 12:37:05

End Time:

20:33:20

Time On Btm:

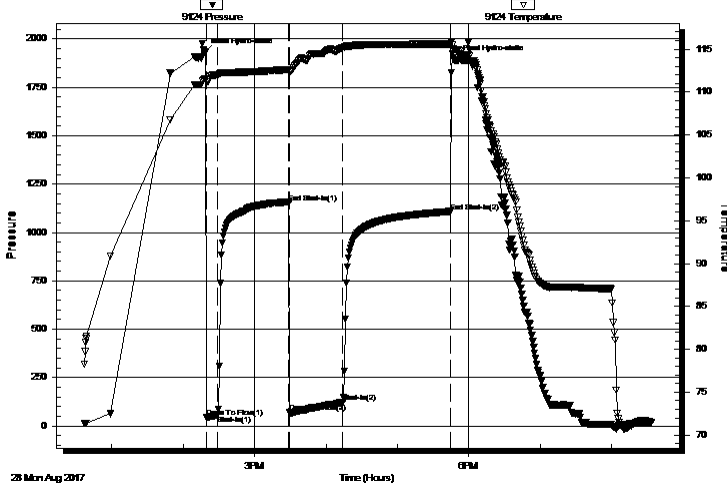
2017.08.28 @ 14:18:00

Time Off Btm:

2017.08.28 @ 17:49:30

TEST COMMENT: IF - Weak blow building to 6"
FF - BOB in 25 minutes

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1930.67	111.53	Initial Hydro-static
2	45.29	111.17	Open To Flow (1)
11	56.78	112.02	Shut-In(1)
71	1154.13	112.62	End Shut-In(1)
72	68.41	112.44	Open To Flow (2)
117	122.48	115.19	Shut-In(2)
207	1108.45	115.57	End Shut-In(2)
212	1891.21	114.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Oil & water cut mud 16%O 6%W & 78%M	1.75
40.00	Heavy oil cut mud 34%O & 66%M	0.56
55.00	Clean oil 100%O	0.77
0.00	95' GIP 100%G	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63593

DST#: 1

ATTN: Keith Reavis

Test Start: 2017.08.28 @ 12:37:00

Tool Information

Drill Pipe:	Length: 4006.00 ft	Diameter: 3.80 inches	Volume: 56.19 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 56.19 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	4010.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	128.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3983.00	
Shut In Tool	5.00			3988.00	
Hydraulic tool	5.00			3993.00	
Jars	5.00			3998.00	
Safety Joint	3.00			4001.00	
Packer	4.00			4005.00	28.00 Bottom Of Top Packer
Packer	5.00			4010.00	
Stubb	1.00			4011.00	
Recorder	0.00	8679	Outside	4011.00	
Recorder	0.00	9124	Inside	4011.00	
Perforations	29.00			4040.00	
Change Over Sub	0.50			4040.50	
Blank Spacing	63.50			4104.00	
Change Over Sub	1.00			4105.00	
Bullnose	5.00			4110.00	100.00 Bottom Packers & Anchor

Total Tool Length: 128.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63593

DST#: 1

ATTN: Keith Reavis

Test Start: 2017.08.28 @ 12:37:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34.7 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	Oil & water cut mud 16%O 6%W & 78%M	1.753
40.00	Heavy oil cut mud 34%O & 66%M	0.561
55.00	Clean oil 100%O	0.772
0.00	95' GIP 100%G	0.000

Total Length: 220.00 ft

Total Volume: 3.086 bbl

Num Fluid Samples: 0

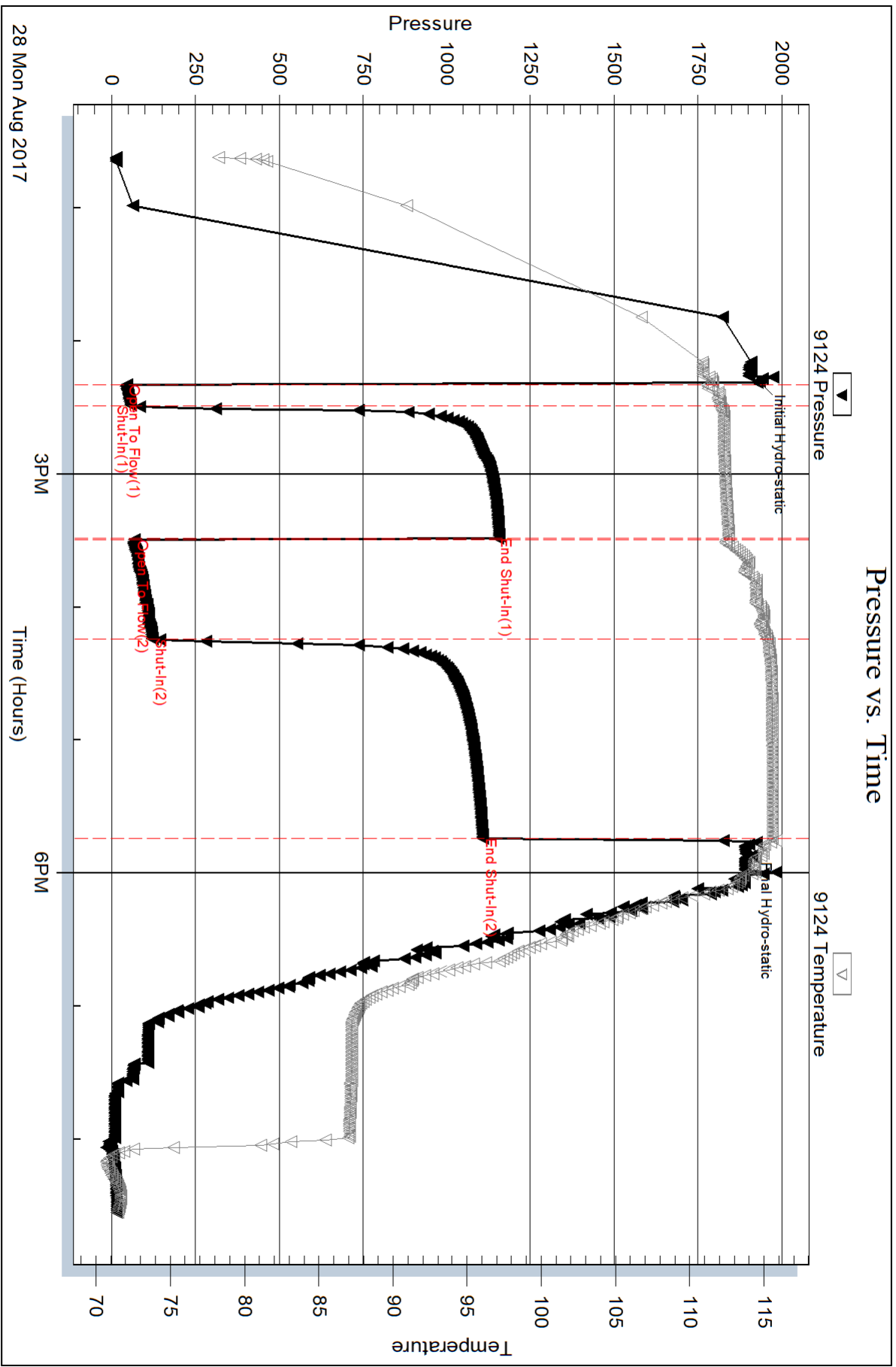
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

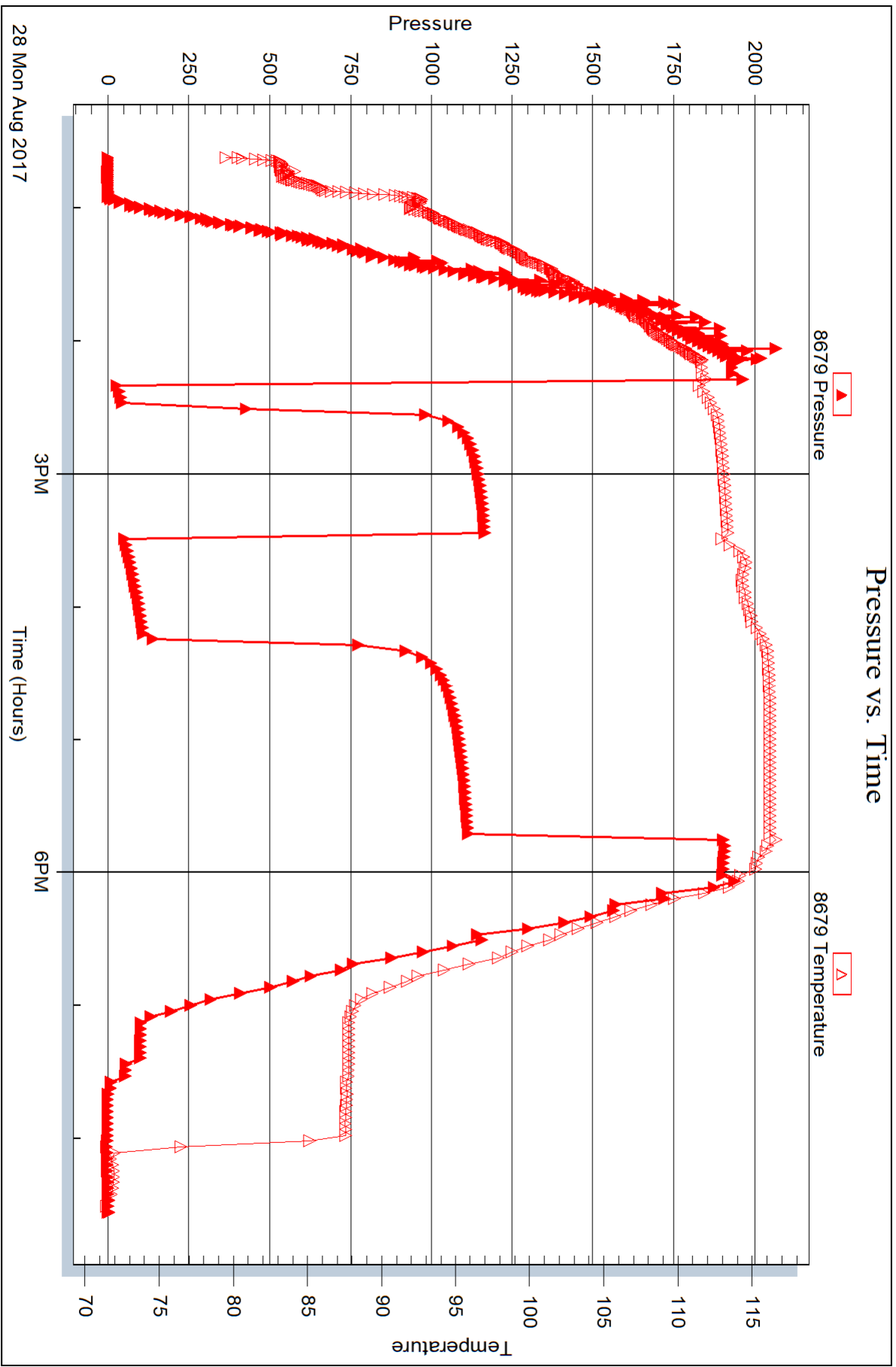


Serial #: 8679

Outside Bickle Energies

Wheatland #8-3

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816
Hays, KS 67601

ATTN: Keith Reavis

Wheatland #8-3

8-14S-31W Gove,KS

Start Date: 2017.08.29 @ 10:07:00

End Date: 2017.08.29 @ 18:50:30

Job Ticket #: 63594 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.05 @ 08:31:35

Bickle Energies
8-14S-31W Gove,KS
Wheatland #8-3
DST # 2
LKC G-H
2017.08.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63594

DST#: 2

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

GENERAL INFORMATION:

Formation: **LKC G-H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:18:20

Time Test Ended: 18:50:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 80

Interval: 4134.00 ft (KB) To 4214.00 ft (KB) (TVD)

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4214.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9124

Inside

Press@RunDepth: 200.63 psig @ 4135.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.29

End Date:

2017.08.29

Last Calib.:

2017.08.29

Start Time: 10:07:05

End Time:

18:50:30

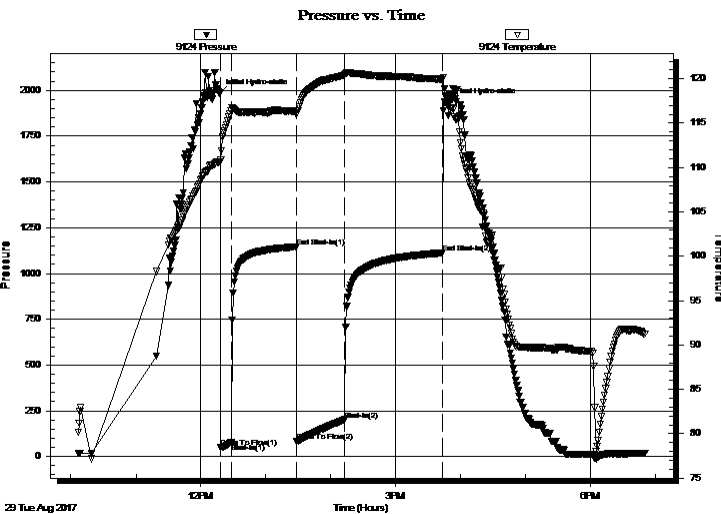
Time On Btm:

2017.08.29 @ 12:17:20

Time Off Btm:

2017.08.29 @ 15:48:09

TEST COMMENT: IF - Weak blow building to 9"
FF - BOB in 20 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.61	110.63	Initial Hydro-static
1	50.35	110.84	Open To Flow (1)
11	74.54	116.37	Shut-In(1)
71	1144.93	116.35	End Shut-In(1)
72	83.50	116.00	Open To Flow (2)
116	200.63	120.41	Shut-In(2)
206	1112.30	119.94	End Shut-In(2)
211	1930.79	117.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
320.00	Tr oil & mud cut w water TrO 85%W & 15%	4.49
50.00	O & heavy W cut M 9%O 44%W & 47%	0.70
10.00	Clean oil 100%O	0.14
0.00	60' GIP 100%G	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63594

DST#: 2

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

Tool Information

Drill Pipe:	Length: 4132.00 ft	Diameter: 3.80 inches	Volume: 57.96 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 59000.00 lb
			<u>Total Volume: 57.96 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4134.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4107.00	
Shut In Tool	5.00			4112.00	
Hydraulic tool	5.00			4117.00	
Jars	5.00			4122.00	
Safety Joint	3.00			4125.00	
Packer	4.00			4129.00	28.00 Bottom Of Top Packer
Packer	5.00			4134.00	
Stubb	1.00			4135.00	
Recorder	0.00	8679	Outside	4135.00	
Recorder	0.00	9124	Inside	4135.00	
Perforations	9.00			4144.00	
Change Over Sub	0.50			4144.50	
Blank Spacing	63.50			4208.00	
Change Over Sub	1.00			4209.00	
Bullnose	5.00			4214.00	80.00 Bottom Packers & Anchor

Total Tool Length: 108.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63594

DST#: 2

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

35000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
320.00	Tr oil & mud cut w ater TrO 85%W & 15%	4.489
50.00	O & heavy W cut M 9%O 44%W & 47%M	0.701
10.00	Clean oil 100%O	0.140
0.00	60' GIP 100%G	0.000

Total Length: 380.00 ft

Total Volume: 5.330 bbl

Num Fluid Samples: 0

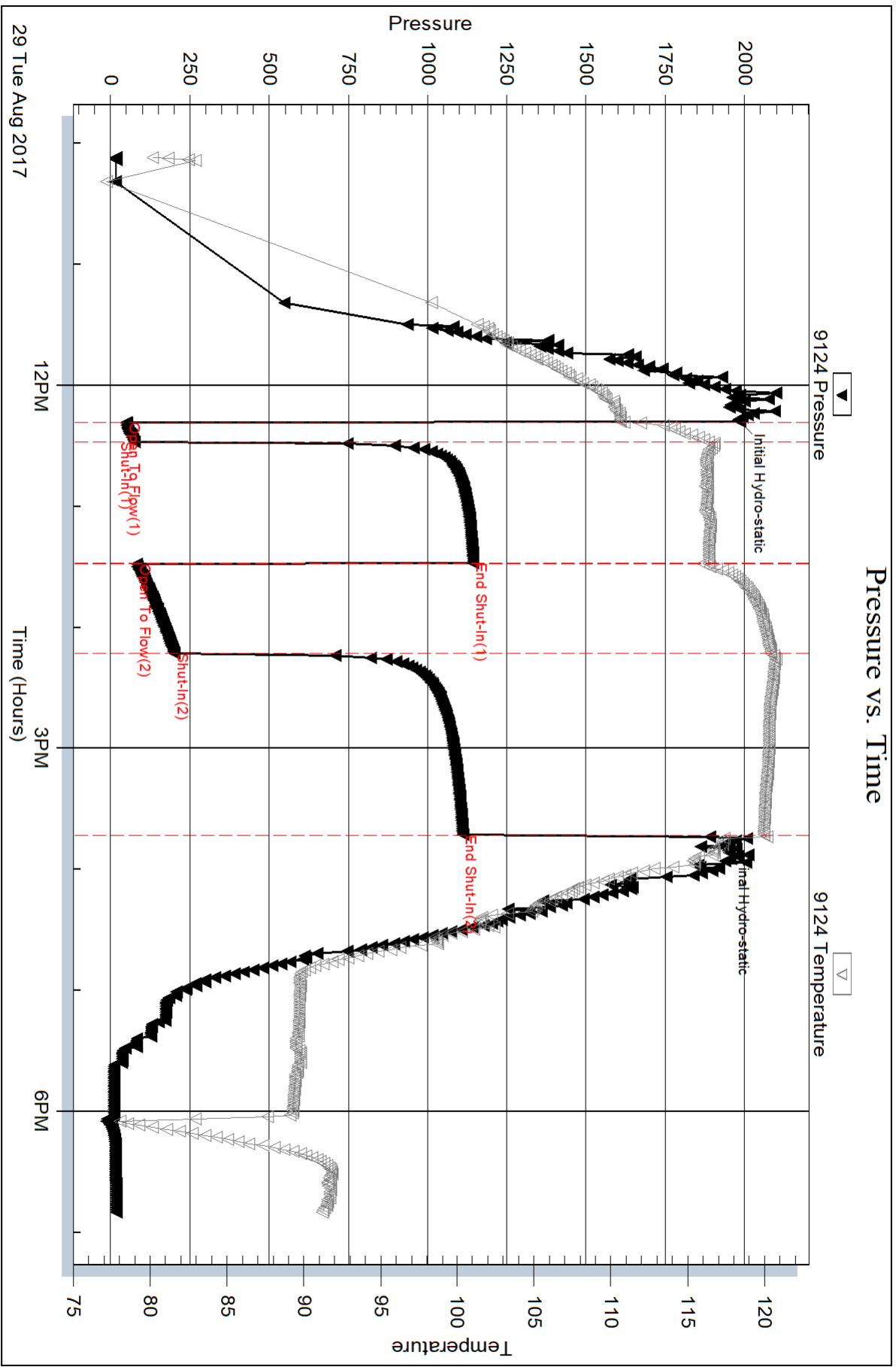
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

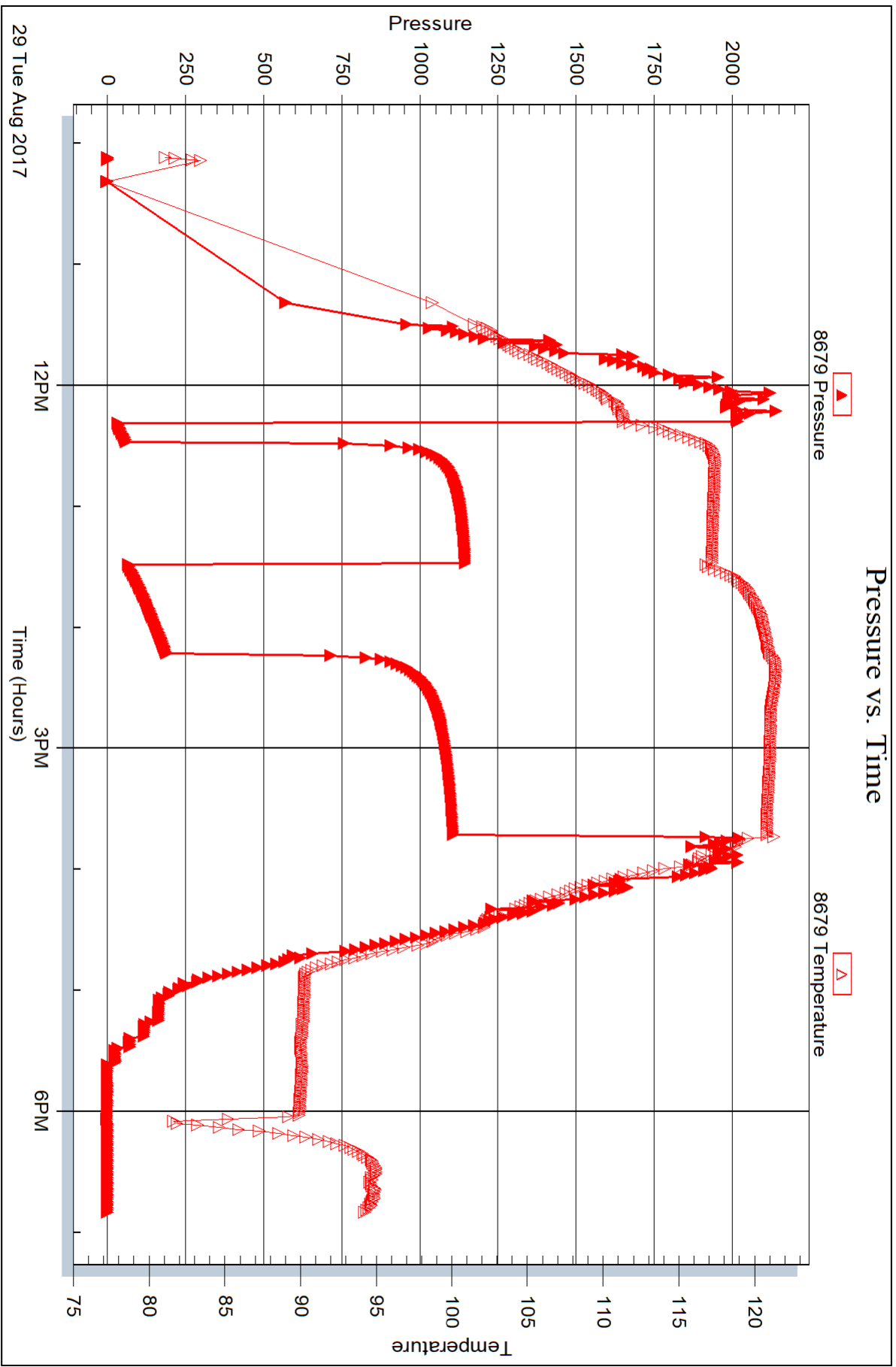


Serial #: 8679

Outside Bickle Energies

Wheatland #8-3

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63594

Printed: 2017.09.05 @ 08:31:36



DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816
Hays, KS 67601

ATTN: Keith Reavis

Wheatland #8-3

8-14S-31W Gove,KS

Start Date: 2017.08.30 @ 14:28:24

End Date: 2017.08.30 @ 22:30:54

Job Ticket #: 64251 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.05 @ 08:31:02

Bickle Energies
8-14S-31W Gove,KS
Wheatland #8-3
DST # 3
LKC K-L
2017.08.30



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64251

DST#: 3

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:54

Time Test Ended: 22:30:54

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4272.00 ft (KB) To 4356.00 ft (KB) (TVD)

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4356.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8166 Outside

Press@RunDepth: 76.37 psig @ 4273.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.30

End Date:

2017.08.30

Last Calib.:

2017.08.30

Start Time:

14:28:29

End Time:

22:30:53

Time On Btm:

2017.08.30 @ 16:36:24

Time Off Btm:

2017.08.30 @ 20:19:24

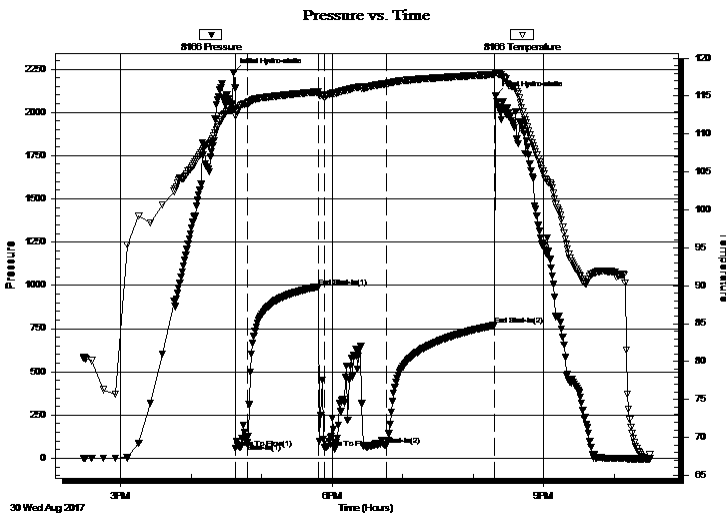
TEST COMMENT: IF: 1/4" blow built to 3"

IS: No return.

FF: Surface blow built to 5"

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2230.61	113.30	Initial Hydro-static
2	58.33	112.34	Open To Flow (1)
12	88.08	114.03	Shut-In(1)
72	991.97	115.56	End Shut-In(1)
77	59.85	114.88	Open To Flow (2)
130	76.37	116.63	Shut-In(2)
222	769.28	117.84	End Shut-In(2)
223	2095.64	118.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 5%g 10%o 85%m	0.87
67.00	ocm 30%o 70%m	0.94

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64251

DST#: 3

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

Tool Information

Drill Pipe:	Length: 4261.00 ft	Diameter: 3.80 inches	Volume: 59.77 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 59.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4272.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	111.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			4246.00	
Shut In Tool	5.00			4251.00	
Hydraulic tool	5.00			4256.00	
Jars	5.00			4261.00	
Safety Joint	2.00			4263.00	
Packer	5.00			4268.00	27.00 Bottom Of Top Packer
Packer	4.00			4272.00	
Stubb	1.00			4273.00	
Recorder	0.00	8875	Inside	4273.00	
Recorder	0.00	8166	Outside	4273.00	
Perforations	12.00			4285.00	
Change Over Sub	1.00			4286.00	
Drill Pipe	64.00			4350.00	
Change Over Sub	1.00			4351.00	
Bullnose	5.00			4356.00	84.00 Bottom Packers & Anchor

Total Tool Length: 111.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64251

DST#: 3

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gocm 5%g 10%o 85%m	0.870
67.00	ocm 30%o 70%m	0.940

Total Length: 129.00 ft

Total Volume: 1.810 bbl

Num Fluid Samples: 0

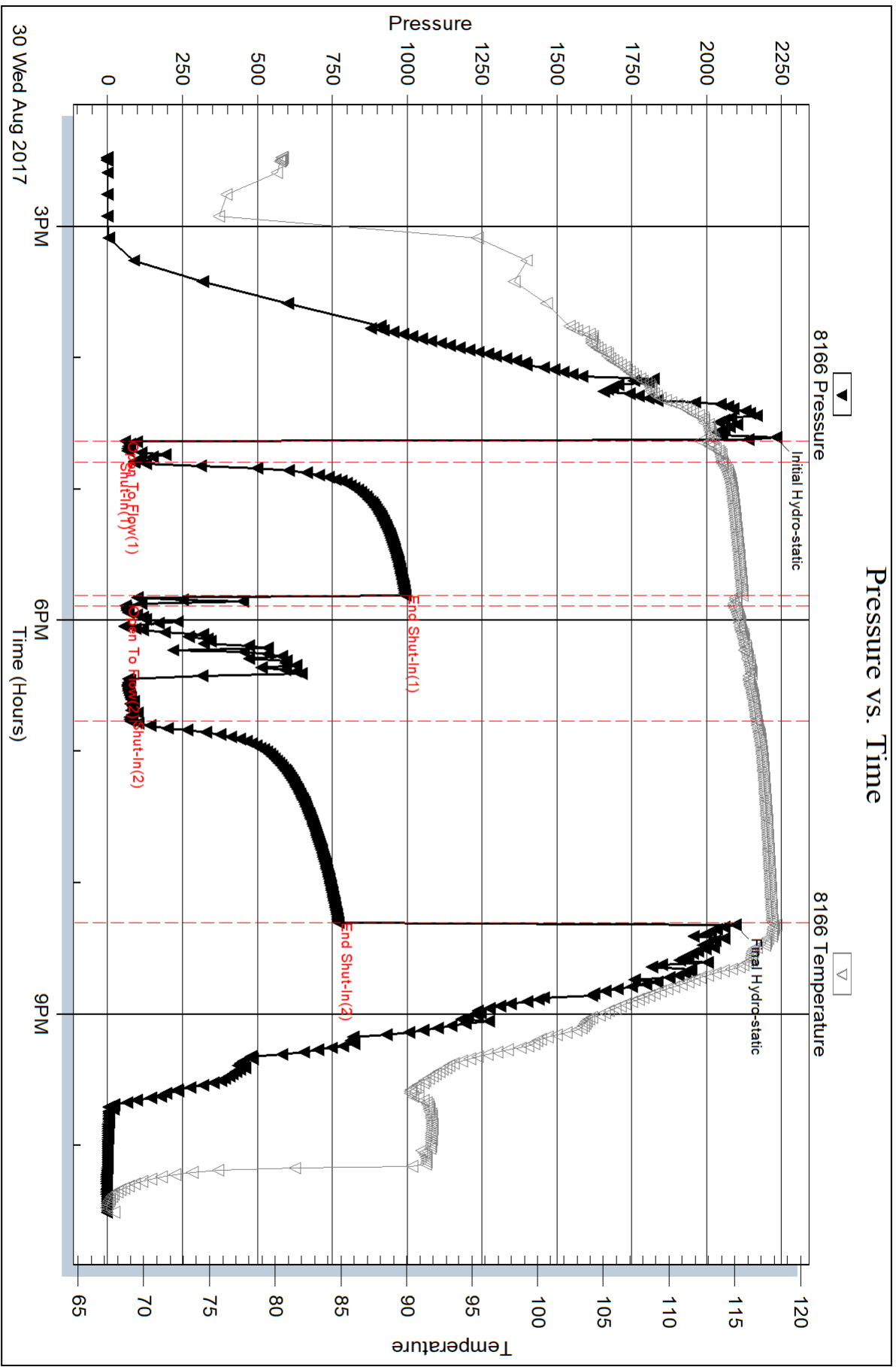
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



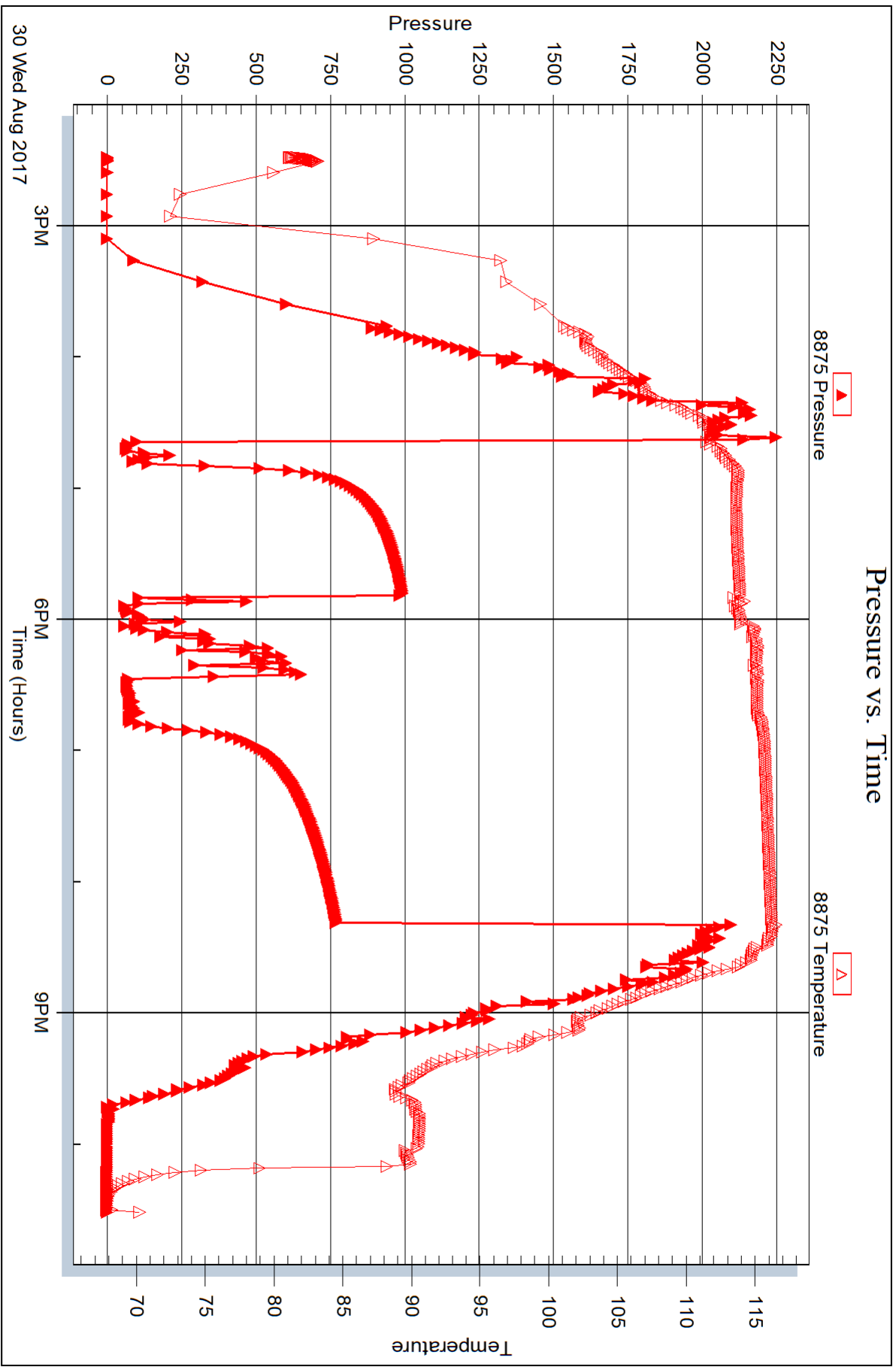
Serial #: 8875

Inside

Bicycle Energies

Wheatland #8-3

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816
Hays, KS 67601

ATTN: Keith Reavis

Wheatland #8-3

8-14S-31W Gove,KS

Start Date: 2017.09.01 @ 07:14:29

End Date: 2017.09.01 @ 14:48:29

Job Ticket #: 64252 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.05 @ 08:29:41

Bickle Energies
8-14S-31W Gove,KS
Wheatland #8-3
DST # 4
Johnson
2017.09.01



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

ATTN: Keith Reavis

Job Ticket: 64252

DST#: 4

Test Start: 2017.09.01 @ 07:14:29

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:01:59

Time Test Ended: 14:48:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4573.00 ft (KB) To 4621.00 ft (KB) (TVD)

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4621.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8166 Outside

Press@RunDepth: 162.69 psig @ 4574.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.09.01

End Date: 2017.09.01

Last Calib.: 2017.09.01

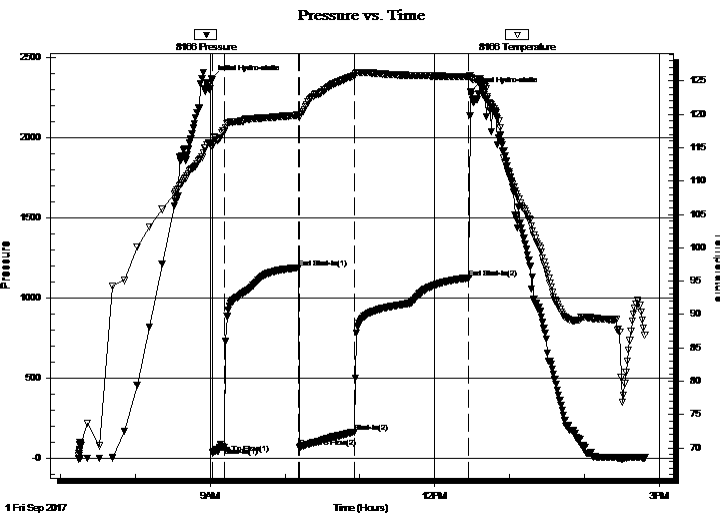
Start Time: 07:14:34

End Time: 14:48:28

Time On Btm: 2017.09.01 @ 09:00:59

Time Off Btm: 2017.09.01 @ 12:28:59

TEST COMMENT: IF: 1/4" blow built to 7"
IS: No return.
FF: BOB in 19 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2363.97	115.76	Initial Hydro-static
1	32.47	115.18	Open To Flow (1)
11	66.65	117.46	Shut-In(1)
70	1187.92	119.88	End Shut-In(1)
71	66.34	119.53	Open To Flow (2)
115	162.69	125.73	Shut-In(2)
207	1123.94	125.66	End Shut-In(2)
208	2285.59	125.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 70%w 30%m	1.77
204.00	gocw m 10%g 30%o 30%w 30%m	2.86

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64252

DST#: 4

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 07:14:29

Tool Information

Drill Pipe:	Length: 4576.00 ft	Diameter: 3.80 inches	Volume: 64.19 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 64.19 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	4573.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	48.00 ft				
Tool Length:	75.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4547.00	
Shut In Tool	5.00			4552.00	
Hydraulic tool	5.00			4557.00	
Jars	5.00			4562.00	
Safety Joint	2.00			4564.00	
Packer	5.00			4569.00	27.00 Bottom Of Top Packer
Packer	4.00			4573.00	
Stubb	1.00			4574.00	
Recorder	0.00	8875	Inside	4574.00	
Recorder	0.00	8166	Outside	4574.00	
Perforations	8.00			4582.00	
Change Over Sub	1.00			4583.00	
Drill Pipe	32.00			4615.00	
Change Over Sub	1.00			4616.00	
Bullnose	5.00			4621.00	48.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64252

DST#: 4

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 07:14:29

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

59000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
126.00	mcw 70%w 30%m	1.767
204.00	gocw m 10%g 30%o 30%w 30%m	2.862

Total Length: 330.00 ft Total Volume: 4.629 bbl

Num Fluid Samples: 0

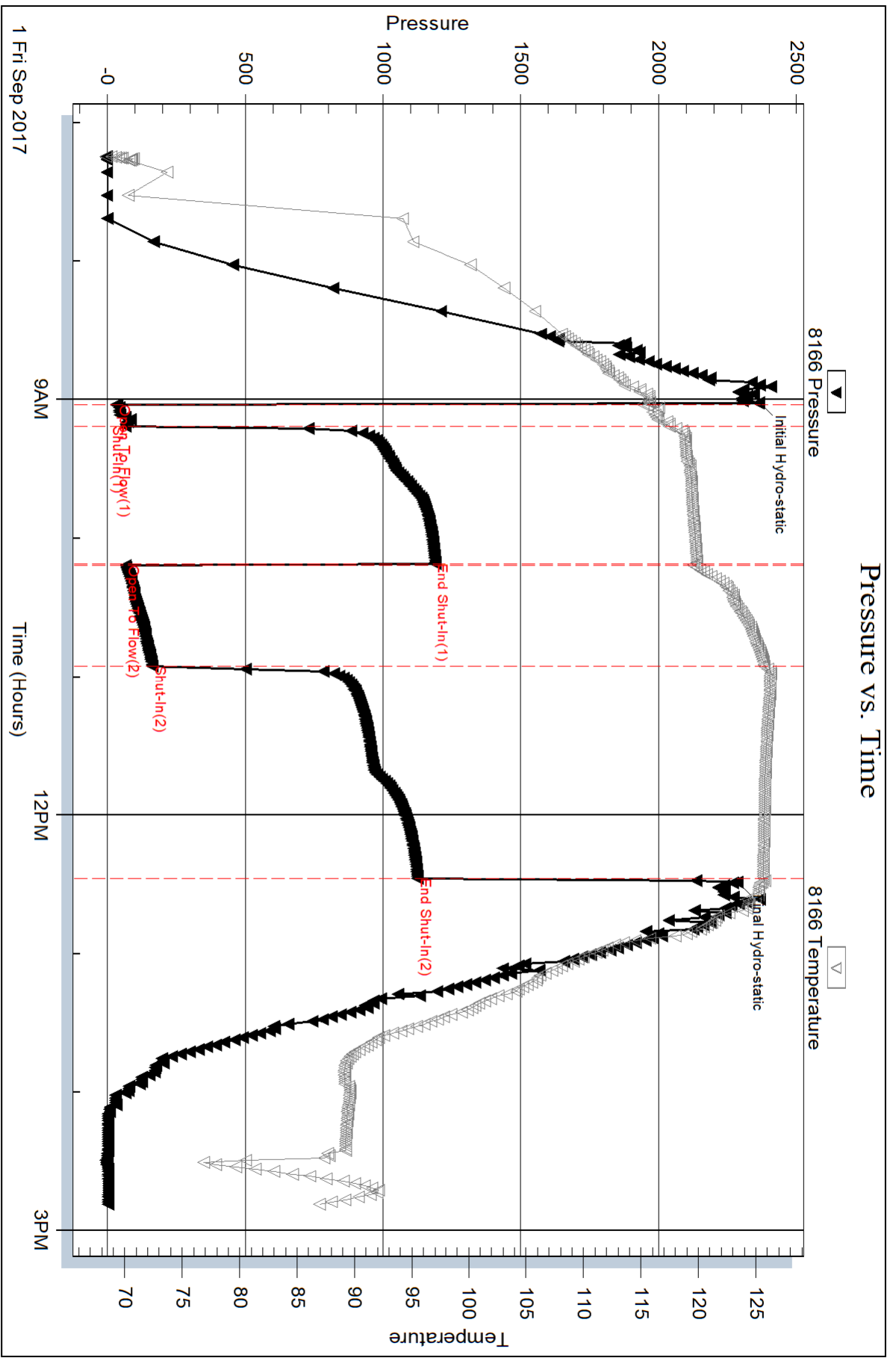
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .11@87=59000



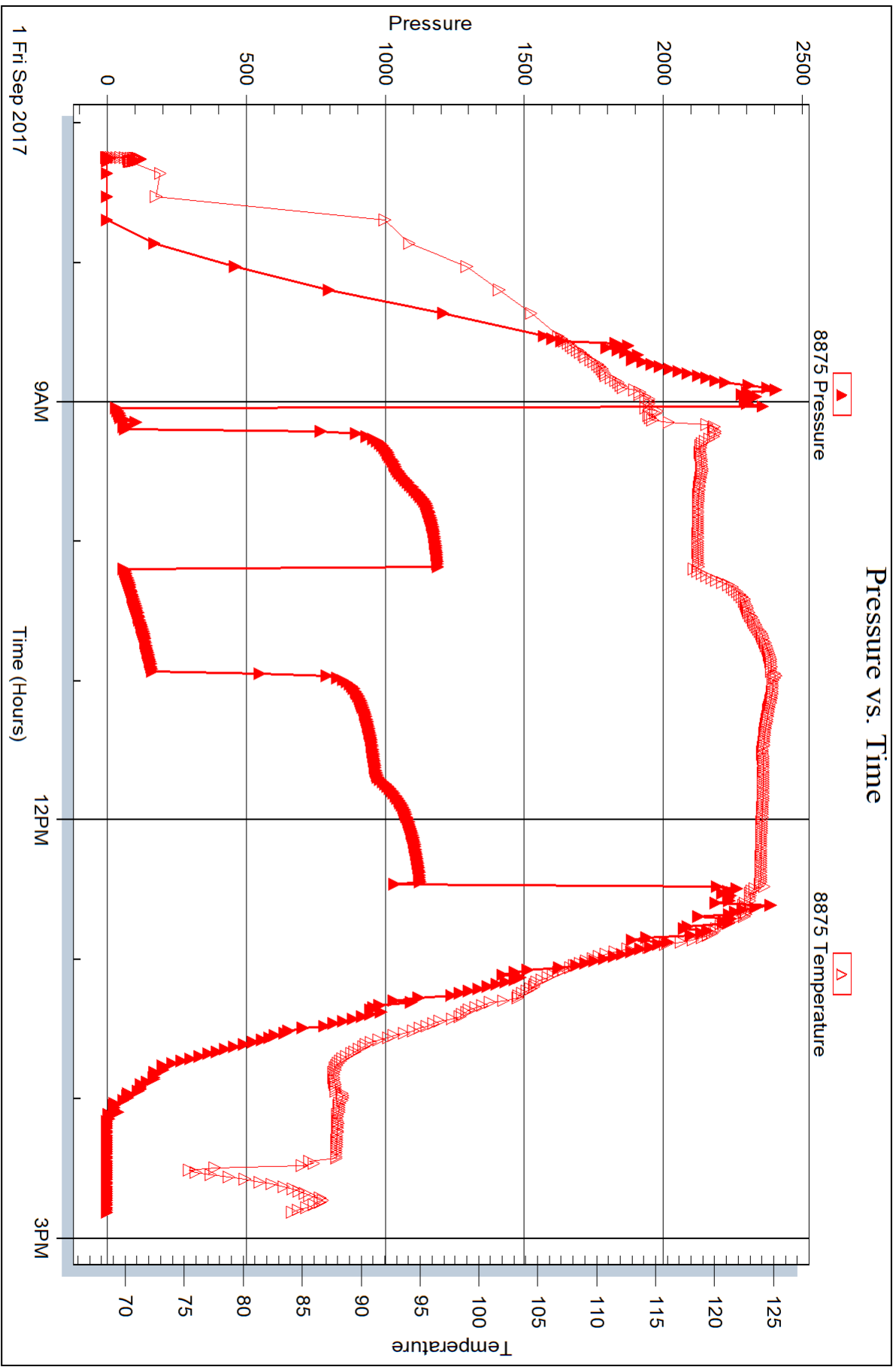
Serial #: 8875

Inside

Bickle Energies

Wheatland #8-3

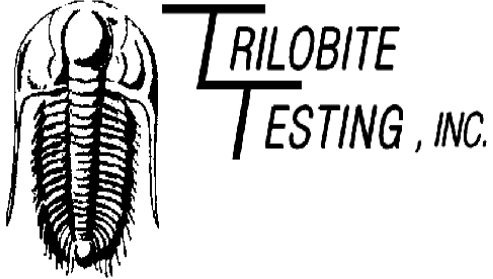
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 64252

Printed: 2017.09.05 @ 08:29:42



DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816
Hays, KS 67601

ATTN: Keith Reavis

Wheatland #8-3

8-14S-31W Gove,KS

Start Date: 2017.09.01 @ 15:45:36

End Date: 2017.09.01 @ 23:37:06

Job Ticket #: 64253 DST #: 5

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.05 @ 08:29:05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64253

DST#: 5

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 15:45:36

GENERAL INFORMATION:

Formation: **Upper Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:41:06

Time Test Ended: 23:37:06

Test Type: Conventional Straddle (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4572.00 ft (KB) To 4605.00 ft (KB) (TVD)

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4621.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8166 Outside

Press@RunDepth: 39.78 psig @ 4573.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.09.01 End Date: 2017.09.01

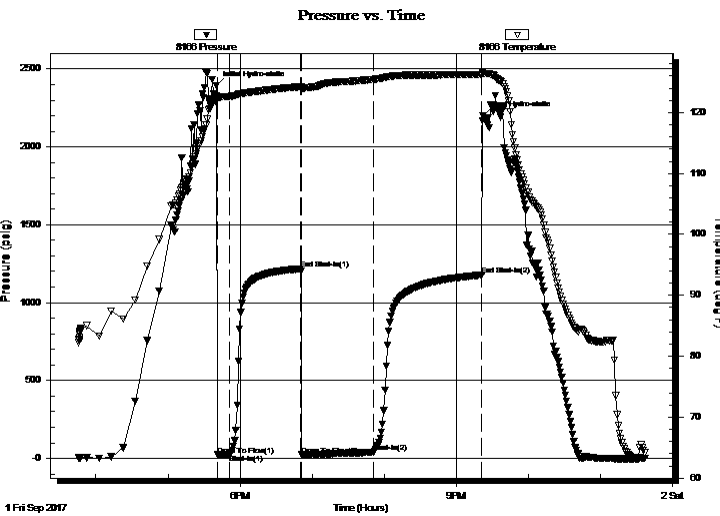
Last Calib.: 2017.09.01

Start Time: 15:45:41 End Time: 23:37:05

Time On Btm: 2017.09.01 @ 17:40:36

Time Off Btm: 2017.09.01 @ 21:22:06

TEST COMMENT: IF: 1/4" blow built to 2"
IS: No return.
FF: Surface blow built to 7"
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2394.86	122.78	Initial Hydro-static
1	22.92	122.11	Open To Flow (1)
11	25.83	122.66	Shut-In(1)
70	1217.38	124.24	End Shut-In(1)
71	23.36	123.93	Open To Flow (2)
130	39.78	125.44	Shut-In(2)
221	1177.44	126.26	End Shut-In(2)
222	2200.23	126.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	ocm 10%o 90%m	0.28
53.00	oil 100%o	0.74

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64253

DST#: 5

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 15:45:36

Tool Information

Drill Pipe:	Length: 4580.00 ft	Diameter: 3.80 inches	Volume: 64.25 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 64.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4572.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	4621.00 ft			
Interval between Packers:	49.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			4551.00	
Shut In Tool	5.00			4556.00	
Hydraulic tool	5.00			4561.00	
Safety Joint	2.00			4563.00	
Packer	5.00			4568.00	22.00 Bottom Of Top Packer
Packer	4.00			4572.00	
Stubb	1.00			4573.00	
Recorder	0.00	8875	Inside	4573.00	
Recorder	0.00	8166	Outside	4573.00	
Perforations	27.00			4600.00	
Blank Off Sub	1.00			4601.00	
Packer - Shale	4.00			4605.00	
Stubb	1.00			4606.00	
Perforations	10.00			4616.00	
Recorder	0.00	8650	Below	4616.00	
Bullnose	5.00			4621.00	49.00 Bottom Packers & Anchor
Total Tool Length:	71.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

8-14S-31W Gove, KS

PO Box 816
Hays, KS 67601

Wheatland #8-3

Job Ticket: 64253

DST#: 5

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 15:45:36

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	ocm 10%o 90%m	0.281
53.00	oil 100%o	0.743

Total Length: 73.00 ft Total Volume: 1.024 bbl

Num Fluid Samples: 0

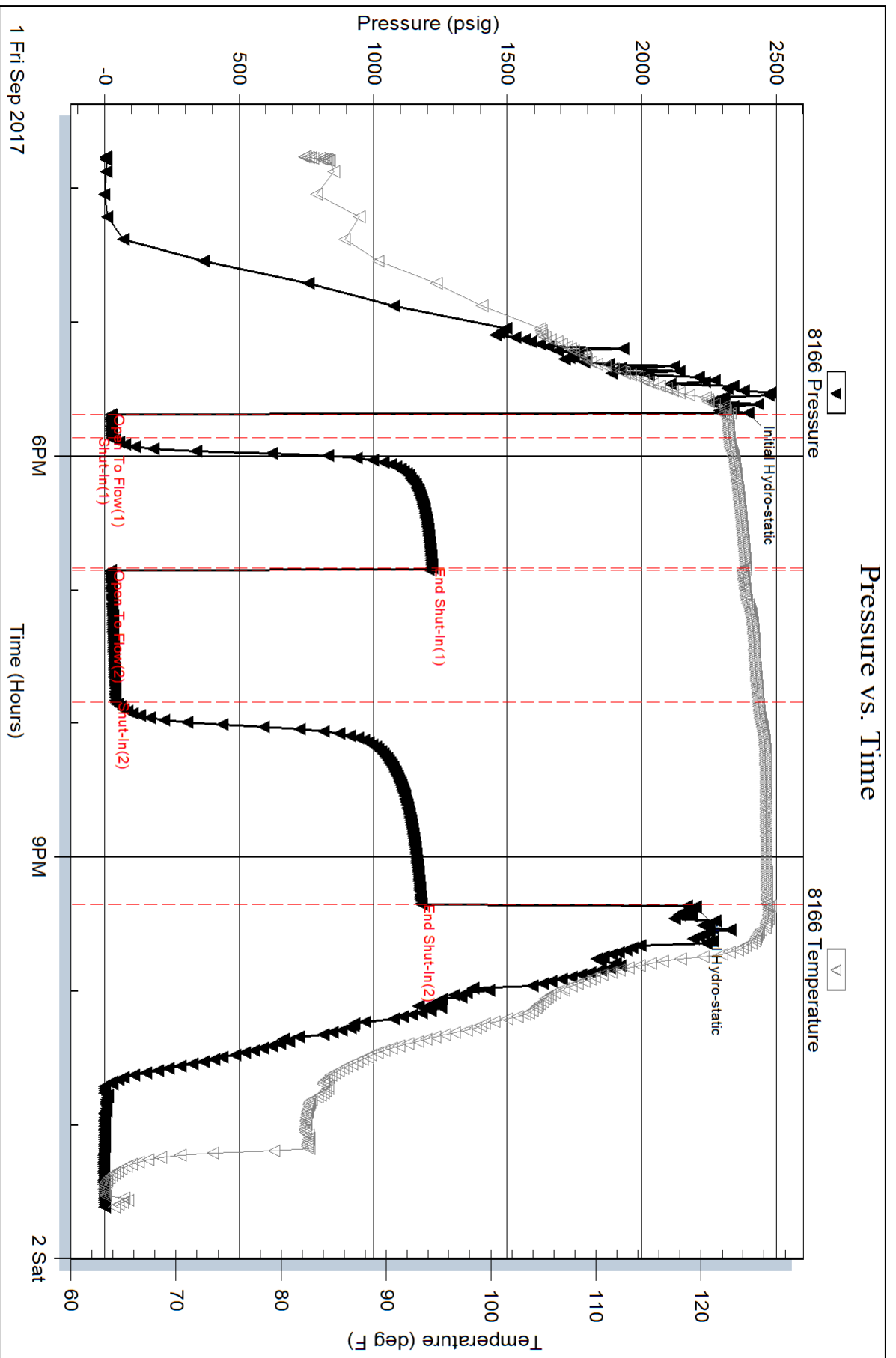
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 29@70=28



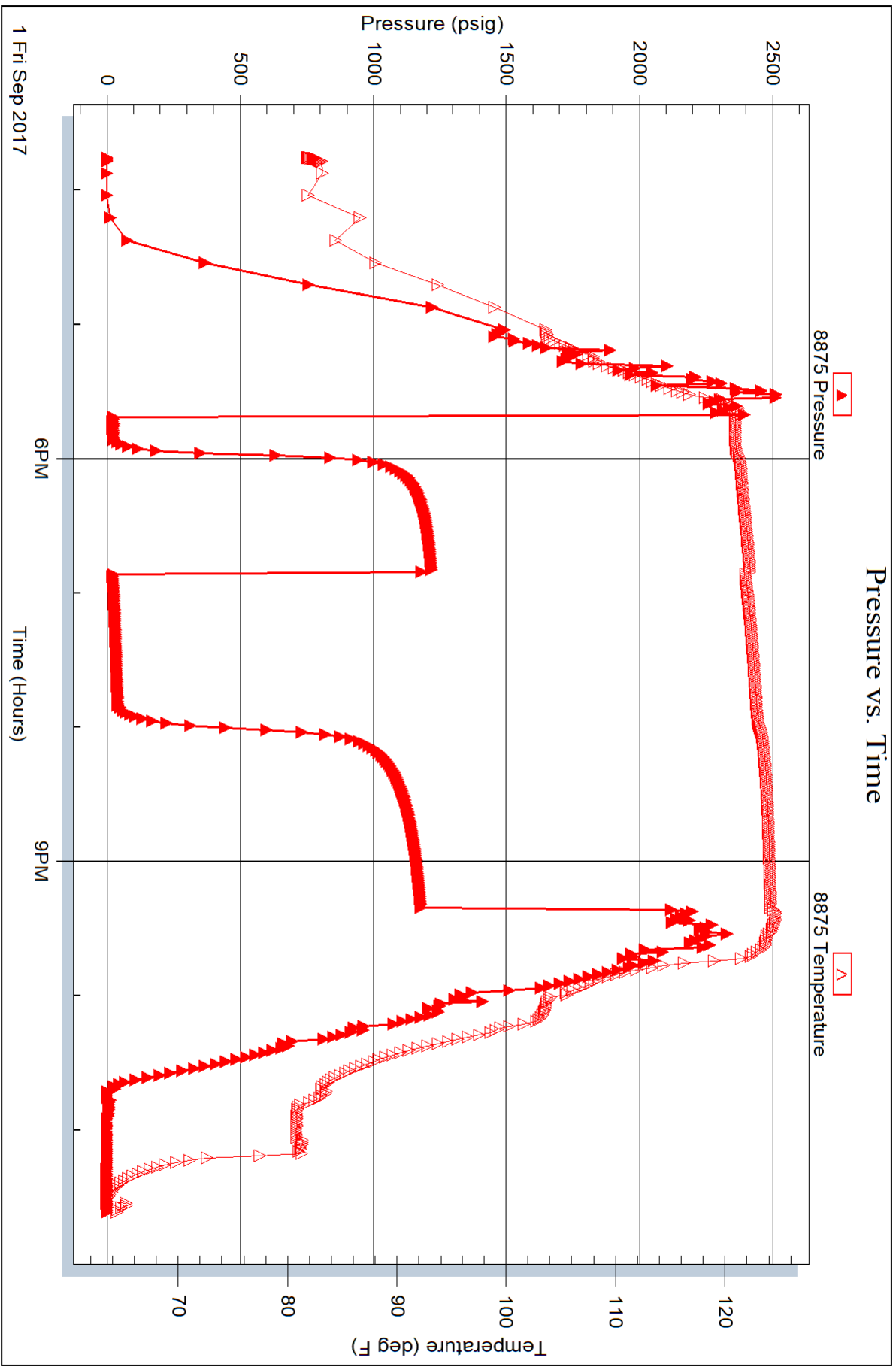
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Inside

Bickle Energies

Wheatland #8-3

DST Test Number: 5

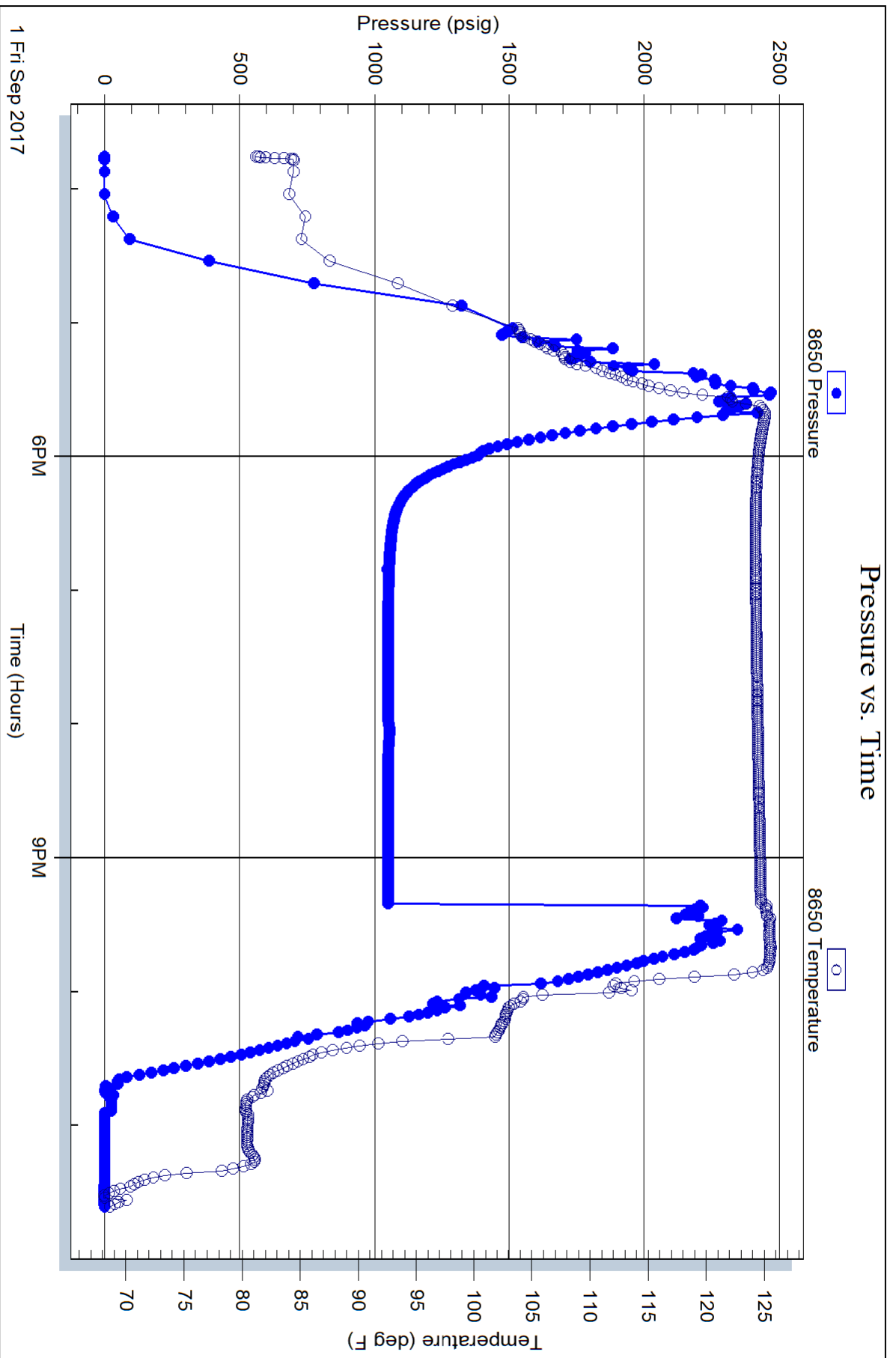


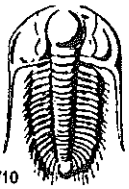
Serial #: 8650

Below (Stratfield)Energies

Wheatland #8-3

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63593

Well Name & No. Wheatland ~~Energy~~ #8-3 Test No. 1 Date 8-28-17
 Company Bickle Energies, LLC Elevation 2973 KB 2962 GL
 Address P.O. Box 816 Hays, KS 67601
 Co. Rep / Geo. Matt Bickle / Keith Reavis Rig Southwind Drilling #8
 Location: Sec. 8 Twp. 14 S Rge. 31 W Co. Cove State KS

Interval Tested 4010 - 4110 Zone Tested Lansing A-F
 Anchor Length 100' Drill Pipe Run 4006 Mud Wt. 9.1
 Top Packer Depth 4005 Drill Collars Run 0 Vis SI
 Bottom Packer Depth 4010 Wt. Pipe Run 0 WL 7.2
 Total Depth 4110 Chlorides 3200 ppm System LCM
 Blow Description IF-Weak blow building to 6 inch FFP
FF-Weak blow building to strong blow 25 mins into FFP

Rec	Feet of	%gas	%oil	%water	%mud
125	Oil + water cut mud	16	6	78	
40	Heavy Oil cut mud	34		66	
55	Clean Oil	100			
95	GFP	100			

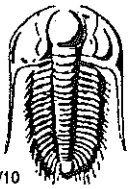
Rec Total 220 BHT 116 Gravity 34.7 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>1931</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1150</u>
(B) First Initial Flow <u>45</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1237</u>
(C) First Final Flow <u>57</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1419</u>
(D) Initial Shut-In <u>1154</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1744</u>
(E) Second Initial Flow <u>68</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2030</u>
(F) Second Final Flow <u>122</u>	<input checked="" type="checkbox"/> Mileage <u>64rt 48 RT 572</u>	Comments
(G) Final Shut-In <u>1108</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1891</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>10</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1523</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1523</u>	

Approved By _____ Our Representative Jimmy Bickle

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.

5369



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63594

Well Name & No. Wheatland #8-3 Test No. 2 Date 8-29-17
 Company Bickle Energies, LLC. Elevation 2973 KB 2962 GL
 Address P.O. Box 816 Hays, KS. 67601
 Co. Rep / Geo. Matt Bickle / Keith Reavis Rig Southwind Drilling #8
 Location: Sec. 8 Twp. 14S Rge. 31 W Co. Gove State KS

Interval Tested 4134-4214 Zone Tested Lansing G-H
 Anchor Length 80' Drill Pipe Run 4132 Mud Wt. 9.2
 Top Packer Depth 4129 Drill Collars Run 0 Vis 56
 Bottom Packer Depth 4134 Wt. Pipe Run 0 WL 8.0
 Total Depth 4214 Chlorides 4000 ppm System LCM
 Blow Description IF-weak blow building to 9 inches IFP
FF-weak blow building to Strong blow 20 mins. into FFP

Rec	Feet of	%gas	TR	%oil	%water	%mud
320	Trace oil + mud cutwater			85	15	
50	Oil + heavy water cut mud	9		44	47	
10	Clean oil	100				
60	Gas in pipe	100				

Rec Total 380 BHT 120 Gravity 38.2 API RW .164 @ 84 °F Chlorides 35,000 ppm

(A) Initial Hydrostatic <u>1981</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0940</u>
(B) First Initial Flow <u>50</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1007</u>
(C) First Final Flow <u>75</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1218</u>
(D) Initial Shut-In <u>1145</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1343</u>
(E) Second Initial Flow <u>84</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1800</u>
(F) Second Final Flow <u>201</u>	<input checked="" type="checkbox"/> Mileage <u>48 RT 64</u>	Comments
(G) Final Shut-In <u>1112</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1931</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>10</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1523</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1523</u>	

Approved By _____ Our Representative Jimmy Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64251**

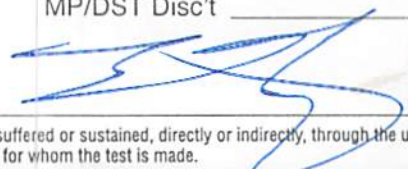
Well Name & No. Wheatland 8-3 Test No. 3 Date 8-30-17
 Company Bickte Energies Elevation 2973 KB 2962 GL
 Address _____
 Co. Rep / Geo. Matt Bickte - Keith Reguis Rig Southwind #8
 Location: Sec. 3 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4272 4356 Zone Tested K-L
 Anchor Length 84 Drill Pipe Run 4261 Mud Wt. 9.3
 Top Packer Depth 4267 Drill Collars Run — Vis 59
 Bottom Packer Depth 4272 Wt. Pipe Run — WL 7.2
 Total Depth 4356 Chlorides 4700 ppm System LCM 2
 Blow Description IF: 1/4 blow built to 3.
IS: No return.
FF: Surface blow built to 5.
FS: No return

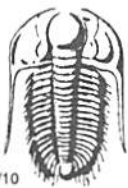
Rec	Feet of	%gas	%oil	%water	%mud
<u>67</u>	<u>ocm</u>	<u>30</u>		<u>70</u>	
<u>62</u>	<u>9ocm</u>	<u>5</u>	<u>10</u>	<u>85</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 129 BHT 117 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2230</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:30</u>
(B) First Initial Flow <u>58</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>14:28</u>
(C) First Final Flow <u>88</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:38</u>
(D) Initial Shut-In <u>991</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>20:08</u>
(E) Second Initial Flow <u>59</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>22:32</u>
(F) Second Final Flow <u>76</u>	<input checked="" type="checkbox"/> Mileage <u>70-64rt 48</u>	Comments _____
(G) Final Shut-In <u>769</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2095</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>10</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>45 60</u>	<input type="checkbox"/> Extra Recorder	Total <u>1523</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1523</u>	

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64252**

Well Name & No. Wheatland 8-3 Test No. 4 Date 9-1-17
 Company Bickle Energics Elevation 2973 KB 2962 GL
 Address _____
 Co. Rep / Geo. Matt Bickle - Keith Reavis Rig Southwind #8
 Location: Sec. 3 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4573 4621 Zone Tested Johnson
 Anchor Length 48 Drill Pipe Run 4576 Mud Wt. 9.3
 Top Packer Depth 4568 Drill Collars Run — Vis 56
 Bottom Packer Depth 4573 Wt. Pipe Run — WL 8.0
 Total Depth 4621 Chlorides 4400 ppm System LCM 2
 Blow Description IF: 1/4 blow built to 7.
IS: NO return.
FF: BOB in 19 min.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>204</u>	<u>gobwm</u>	<u>10</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>126</u>	<u>mcw</u>		<u>70</u>	<u>30</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 330 BHT 125 Gravity — API RW .4 @ 87° F Chlorides 59,000 ppm
 (A) Initial Hydrostatic 2363 Test 1150 T-On Location 6:15
 (B) First Initial Flow 32 Jars 250 T-Started 7:14
 (C) First Final Flow 66 Safety Joint 75 T-Open 9:02
 (D) Initial Shut-In 1187 Circ Sub NIL T-Pulled 12:27
 (E) Second Initial Flow 66 Hourly Standby _____ T-Out 14:50
 (F) Second Final Flow 162 Mileage 70 - 48 Comments _____
 (G) Final Shut-In 1123 Sampler _____
 (H) Final Hydrostatic 2285 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1523

Initial Open 10
 Initial Shut-In 40
 Final Flow 45
 Final Shut-In 90

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1523
 MP/DST Disc't _____

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64253**

Well Name & No. Wbestland 8-3 Test No. 5 Date 9-1-17
 Company Bickle Energies Elevation 2973 KB 2962 GL
 Address _____
 Co. Rep / Geo. Matt Bickle-Keith Reavis Rig Southwind #8
 Location: Sec. 3 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4572 4605 Zone Tested upper Johnson
 Anchor Length 33 Drill Pipe Run 4580 Mud Wt. 9.3
 Top Packer Depth 4572 Drill Collars Run — Vis 56
 Bottom Packer Depth 4605 Wt. Pipe Run — WL 8.0
 Total Depth 4621 Chlorides 4400 ppm System LCM 2
 Blow Description IF: 1/4 blow built to 2,
IS: No return.
FF: surface blow built to 7,
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>53</u>	<u>oil</u>		<u>100</u>		
<u>20</u>	<u>ocm</u>		<u>10</u>		<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 73 BHT 126 Gravity 28 API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2394 Test 1150
 (B) First Initial Flow 22 Jars 250
 (C) First Final Flow 25 Safety Joint 75
 (D) Initial Shut-In 1217 Circ Sub N/C
 (E) Second Initial Flow 23 Hourly Standby _____
 (F) Second Final Flow 39 Mileage _____
 (G) Final Shut-In 1177 Sampler _____
 (H) Final Hydrostatic 2200 Straddle 600
 Shale Packer 250
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 10
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 2325

T-On Location 6:15
 T-Started 15:45
 T-Open 17:40
 T-Pulled 21:20
 T-Out 23:38

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 2325.00
 MP/DST Disc't _____

Approved By [Signature] Our Representative [Signature]

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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

No. 299

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

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

Date	9-3-17	Sec.	8	Twp.	14	Range	31	County	Gove	State	Ks	On Location		Finish	9:00AM
------	--------	------	---	------	----	-------	----	--------	------	-------	----	-------------	--	--------	--------

Lease Wheatland Well No. 8-3 Location Oakley - 20 S to Jayhawk Rd, 4E to

Contractor Southwind #8 Owner Dead End, IN, w/3
To Quality Oilwell Cementing, Inc.

Type Job Bottom Stage You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 7 7/8" T.D. 4725' Charge To Richland oil investments

Csg. 5 1/2" 15.500 new Depth 4722.22' Street

Tbg. Size Depth City State

Tool DV Tool Depth 2457' #54 The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 42.20' Shoe Joint 42.20' Cement Amount Ordered 175 Com 10% Salt 5% Gilsomite

Meas Line Displace 111 1/4 BLS 500 gal mud Clear 48 20 BLS KCL

52 3/4 water EQUIPMENT 58 1/2 mud Common 175

Pumptrk 20 No. Cementer Travis Poz. Mix

Bulktrk 9 No. Driver Tony Gel KCL 2 gal

Bulktrk pu. No. Driver Rick Calcium

JOB SERVICES & REMARKS

Remarks: Hulls

Rat Hole Salt 15

Mouse Hole Flowseal

Centralizers 2, 4, 6, 8, 10, 12, 14, 16, 20, 52 Kol-Seal 875 #

Baskets 5, 21, 58 Mud CLR 48 500 gal

DN or Port Collar 2457' - # ~~50~~ 54 CFL-117 or CD110 CAF 38

Pipe on bottom break Circulation Sand

Pump 500 gal mud Clear 48 pump 20 BLS Handling 198

KCL, mix 175 sx Cement Shut down Mileage

FLOAT EQUIPMENT

wash pump + lines Released plug + Guide Shoe

Displace w/ H2O + mud. 111 1/4 BLS Total Centralizer 10

Released + held Drop dart open tool Baskets 3

w/ 1200 # PSI AFU Inserts

Break Circulation Float Shoe 1

Lift pressure 900 # Latch Down

Land plug to 1700 # 40 Recip. Scratcher's

DV Tool w/ plug Pumptrk Charge prod string Bottom Stage

Mileage 25 Tax

Signature [Signature] Discount

Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 300

Date	9-3-17	Sec.	8	Twp.	14	Range	31	County	Gove	State	Ks	On Location		Finish	12:30 PM
------	--------	------	---	------	----	-------	----	--------	------	-------	----	-------------	--	--------	----------

Lease Wheatland Well No. 8-3 Owner IN w/s
Location Oakley 205 to Jayhawk Rd, 4E to D.E.

Contractor Southwind #8
Type Job Top stage
Hole Size 7 7/8" T.D. 4725' Charge To Richland oil investments
Csg. 5 1/2" 15.50# New Depth 4722.22' Street _____
Tbg. Size _____ Depth _____ City _____ State _____

Tool DU Tool Depth 2457' #54 The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. _____ Shoe Joint _____ Cement Amount Ordered 400 QMDC 80/20 1/4# Flt seal

Meas Line _____ Displace 58 1/2 BLS 500 gal mud Clear 48
Common 400 80/20 QMDC

EQUIPMENT
Pumptrk 20 No. _____ Cementer Traavis Poz. Mix _____
Bulktrk 19 No. _____ Driver David Gel. _____
Bulktrk pu. No. _____ Driver Rick Calcium _____

JOB SERVICES & REMARKS
Remarks: _____ Hulls _____
Rat Hole 30 SX Flowseal 100 #
Mouse Hole 15 SX Kol-Seal _____
Centralizers _____ Mud CLR 48 _____
Baskets _____ CFL-117 or CD110 CAF 38 _____
ON or Port Collar 2457' #54 Sand _____

pipe on bottom break Circulation Handling 400
pump 500 gal mud Clear 48 Mileage _____
plug Rathole w/ 30 SX plug mousehole

w/ 15 SX Cement top Stage w/ 355 Guide Shoe _____
SX Cement. ~~Runs~~ Shut down wash pump Centralizer _____
+ lines Displaced plug w/ 58 1/2 BLS Baskets _____
H2O Released + held AFU Inserts _____

Lift pressure 800 # Float Shoe _____
Land plug to 1600 # Latch Down _____

Cement did Circulate Pumptrk Charge prod string Top Stage
Mileage 25

Signature [Signature] Tax _____
Discount _____
Total Charge _____

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

785-483-2025
5-324-1041

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

No. 370

Sec.	Twp.	Range	County	State	On Location	Finish
8-23-17	8	14	31	Gove	Ks	2:55pm

Location *Daxley 20 S Jayhawk Rd 4E 1/2 W 13 ntc*

Case <i>Wiltonland</i>	Well No. <i>8-3</i>	Owner
Contractor <i>Sullivan</i>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <i>Surface</i>		Charge To <i>Bickle Engrs</i>
Hole Size <i>12 1/4</i>	T.D. <i>224</i>	Street
Csg. <i>8 5/8</i>	Depth <i>223</i>	City
Tbg. Size	Depth	State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor
Cement Left in Csg. <i>10</i>	Shoe Joint	Cement Amount Ordered <i>170 80/20 3/11 2/65L</i>
Meas Line	Displace <i>13 1/2 B/L</i>	

EQUIPMENT

Pumptrk <i>20</i>	No.	Cementer	Common <i>102</i>
		Helper <i>Long</i>	Poz. Mix <i>68</i>
Bulktrk	No.	Driver	Gel. <i>3</i>
Bulktrk <i>9</i>	No.	Driver <i>Jordan</i>	Calcium <i>7</i>

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Part Collar	CFL-117 or CD110 CAF 38
<i>8 5/8 in. down ES-Cement</i>	Sand
<i>All Wags Displace</i>	Handling <i>150</i>
<i>Cement Circulated!</i>	Mileage

FLOAT EQUIPMENT

Guide Shoe <i>8 7/8 Surge</i>
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge <i>Surface</i>
Mileage <i>25</i>

Tax
Discount
Total Charge

X Signature *[Signature]*