

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
CASING MECHANICAL INTEGRITY TEST**

Form U-7  
August 2019

Disposal:  Enhanced Recovery:  KCC District No.: \_\_\_\_\_  
 Operator License No.: \_\_\_\_\_ Name: \_\_\_\_\_  
 Address 1: \_\_\_\_\_  
 Address 2: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_  
 Contact Person: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

API No.: \_\_\_\_\_ Permit No.: \_\_\_\_\_  
 \_\_\_ - \_\_\_ - \_\_\_ - \_\_\_ Sec. \_\_\_ Twp. \_\_\_ S. R. \_\_\_  East  West  
 \_\_\_\_\_ Feet from  North /  South Line of Section  
 \_\_\_\_\_ Feet from  East /  West Line of Section  
 Lease: \_\_\_\_\_ Well No.: \_\_\_\_\_  
 County: \_\_\_\_\_

Well Construction Details:  New well  Existing well with changes to construction  Existing well with no changes to construction

Maximum Authorized Injection Pressure: \_\_\_\_\_ psi Maximum Injection Rate: \_\_\_\_\_ bbl/d

	<i>Conductor</i>	<i>Surface</i>	<i>Intermediate</i>	<i>Production</i>	<i>Liner</i>	<i>Tubing</i>
Size: _____	_____	_____	_____	_____	_____	Size: _____
Set at: _____	_____	_____	_____	_____	_____	Set at: _____
Sacks of Cement: _____	_____	_____	_____	_____	_____	Type: _____
Cement Top: _____	_____	_____	_____	_____	_____	
Cement Bottom: _____	_____	_____	_____	_____	_____	

Packer Type: \_\_\_\_\_ Set at: \_\_\_\_\_

DV Tool  Port Collar Depth of: \_\_\_\_\_ feet with \_\_\_\_\_ sacks of cement TD (and plug back): \_\_\_\_\_ feet depth

**Zone of Injection** Formation: \_\_\_\_\_ Top Feet: \_\_\_\_\_ Bottom Feet: \_\_\_\_\_ Perf. or Open Hole: \_\_\_\_\_

Is there a Chemical Sealant or a Mechanical Casing patch in the annular space?  Yes  No

**If Dual Completion** - Injection is:  Above Production  Below Production

**FIELD DATA**

GPS Location: Datum:  NAD27  NAD83  WGS84 Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Date Acquired: \_\_\_\_\_

MIT Type: \_\_\_\_\_ MIT Reason: \_\_\_\_\_

Time in Minute(s): \_\_\_\_\_

Pressures: Set up 1 \_\_\_\_\_

Set up 2 \_\_\_\_\_

Set up 3 \_\_\_\_\_

Tested:  Casing  or Casing - Tubing Annulus System Pressure during test: \_\_\_\_\_ Bbls. to load annulus: \_\_\_\_\_

Test Date: \_\_\_\_\_ Using: \_\_\_\_\_ Company's Equipment

The zone tested for this well is between \_\_\_\_\_ feet and \_\_\_\_\_ feet.

The test results were verified by operator's representative:

Name: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

<p><b>KCC Office Use Only</b></p> <p>The results were:</p> <p><input type="checkbox"/> Satisfactory</p> <p><input type="checkbox"/> Not Satisfactory</p> <p>Next MIT: _____</p>	<p>State Agent: _____ Title: _____ Witness: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Remarks: _____</p>
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Form	U7 - Casing Mechanical Integrity Test
Operator	EPOC, LLC
Well Name	ECK 'A' 2
Doc ID	1732626

Injection Zones

FormationName	Top	Bottom
MISSISSIPPIAN	2428	2438
MISSISSIPPIAN	2450	2465



# RADIAL BOND LOG WITH GAMMA RAY

MIDWEST WIRELINE

Comp. EPOC LLC  
Well Eck 'A' #2  
Field Hazlett  
Co. Butler  
State Kansas

Company **EPOC LLC**  
Well **Eck 'A' #2**  
Field **Hazlett**  
County **Butler** State **Kansas**

Location: API # : 15-015-24166-00-00  
E/2 E/2 NW/NW  
660 FNL & 1235 FWL  
SEC 32 TWP 23S RGE 5E  
Permanent Datum GL Elevation 1480  
Log Measured From KB 6 Above Perm. Datum  
Drilling Measured From KB  
Other Services  
None  
Elevation  
K.B. 1486  
D.F.  
G.L. 1480

Date of Service	9/15/2022		
Run Number	One		
Depth Driller or PBTD	2552		
Depth Logger	2541		
Bottom Log Interval	2534		
Top Log Interval	1250		
Open Hole Size	7.875		
Type Fluid	Water		
Fluid Level	Full		
Fluid Density			
Max. Recorded Temperature	102		
Max. Wellhead Pressure	00		
Wellhead Connection			
Estimated Cement Top	1410		
Unit Number	P-18		
Wireline Size	5/16		
Location	Hays		
Recorded By	T. Martin		
Witnessed By	Ray Gilbert		
Tubing Record	Size	WFt	Bottom
Surface Casing	8.625	23	00
Production Casing	5.5	15.5	00
Liner Record			TD

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

Newton, KS, ~20 E on 1st Ave to Purity Springs Rd,  
2 S, 1/8 E, S into

THANK YOU FOR USING MIDWEST WIRELINE LLC!

Your Midwest Wireline Crew	Tool Data - Services	Serial Number
Engineer: T. Martin Operator: Operator: Operator:		

Operator	Offset (ft)	Substrate	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00	
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
			PROBE-RBT-DIGITAL-RBL-D (PR-012) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00	
WVFS8	16.36						
WVFS7	16.36						
WVFS6	16.36						
WVFS5	16.36						
WVFS4	16.36						
WVFS3	16.36						
WVFS2	16.36						
WVFS1	16.36						
WVFCAL	16.36						
WVF3FT	16.36						
WVF5FT	15.36						
		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00		
CCL	8.39						
GR	7.05		GR_CCL-2 3/4" Probe (060802)	4.54	2.75	50.00	
			NEU-PRNEU (ProbeNEU1)	4.75	1.88		
NEU	1.08						

Dataset: epoc\_eck a #2.db: field/well/SCBLN/pass4.1  
 Total length: 24.83 ft  
 Total weight: 182.00 lb  
 O.D.: 2.75 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\epoc\_eck a #2.db  
 Dataset field/well/SCBLN/pass4.1/\_vars\_

## Top - Bottom

BOREID in 7.875	BOTTEMP degF 102	CASEOD in 5.5	CASETHCK in 0.275	CASEWGHT lb/ft 15.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.08
NPORSEL Limestone	NPORSHIFT 0	PERFS 0	PPT usec 0	SRFTEMP degF 85	TDEPTH ft 2541		

## Variable Description

BOREID : Borehole I.D.  
 BOTTEMP : Bottom Hole Temperature  
 CASEOD : Casing O.D.  
 CASETHCK : Casing Thickness  
 CASEWGHT : Casing Weight  
 MAXAMPL : Maximum Amplitude  
 MINAMPL : Minimum Amplitude

MINATTN : Minimum Attenuation  
 NPORSEL : Neutron Porosity Curve Select  
 NPORSHIFT : NPORSHIFT  
 PERFS : Perforation Flag  
 PPT : Predicted Pipe Time  
 SRFTEMP : Surface Temperature  
 TDEPTH : Total Depth

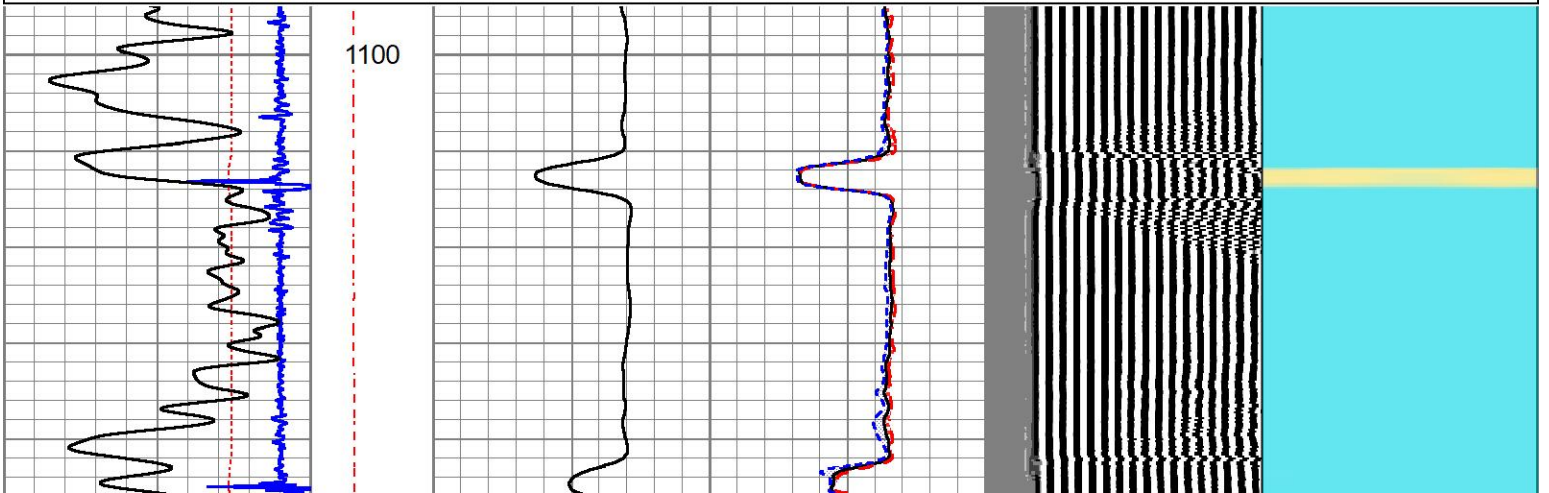


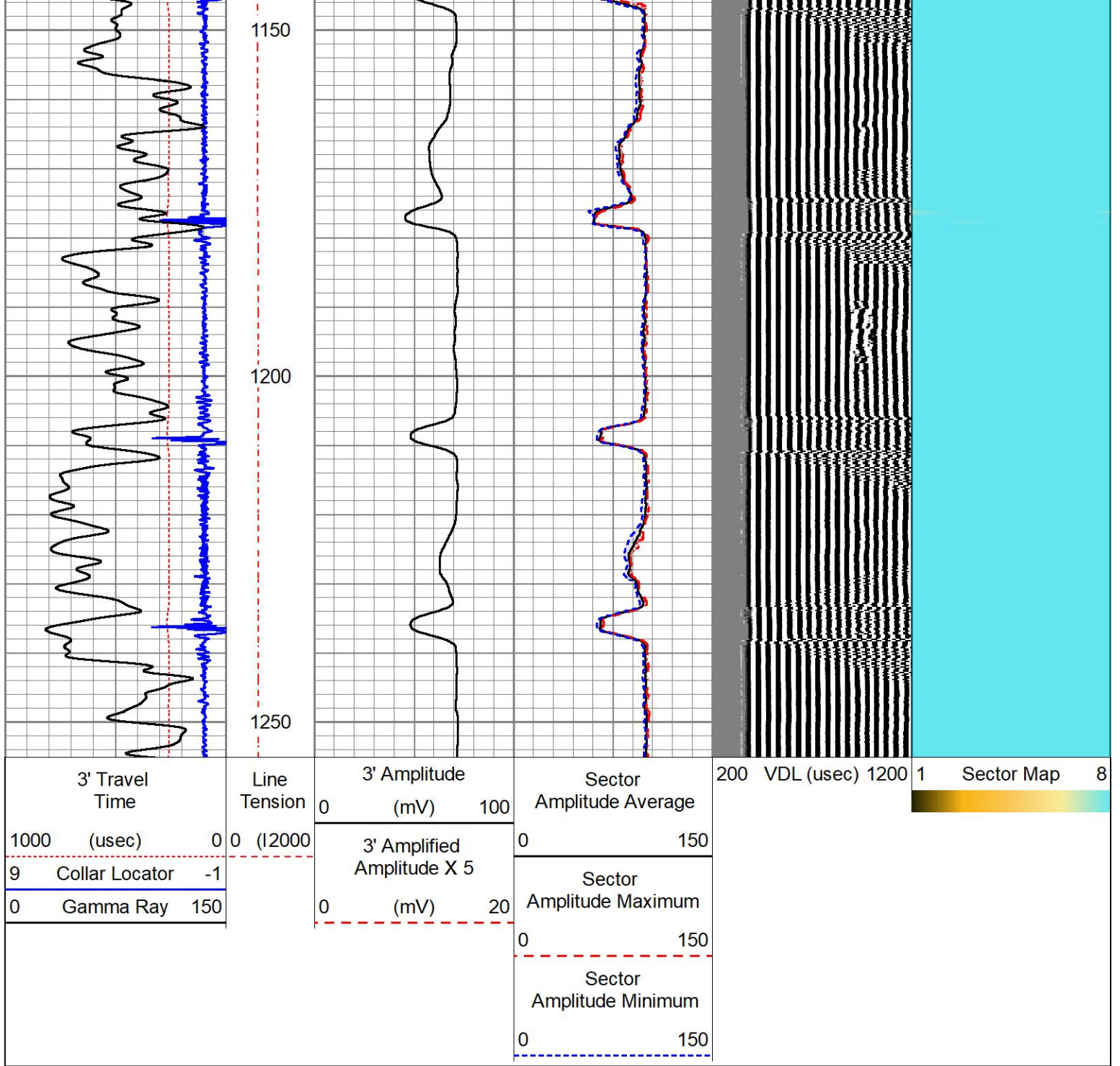
## FREE PIPE SECTION

ZERO PSI APPLIED AT SURFACE

Database File epoc\_eck a #2.db  
 Dataset Pathname SCBLN/pass2  
 Presentation Format PINR\_S~1  
 Dataset Creation Thu Sep 15 12:07:31 2022  
 Charted by Depth in Feet scaled 1:240

3' Travel Time 1000 (usec)	Line Tension 0 (12000)	3' Amplitude (mV) 0 100	Sector Amplitude Average 0 150	200 VDL (usec) 1200	1	Sector Map	8
9 Collar Locator -1		3' Amplified Amplitude X 5 0 (mV) 20	Sector Amplitude Maximum 0 150				
0 Gamma Ray 150			Sector Amplitude Minimum 0 150				





3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200 VDL (usec) 1200	1 Sector Map 8
1000 (usec)	0 0 (12000)	0 100	0 150		
9 Collar Locator -1		3' Amplified Amplitude X 5	Sector Amplitude Maximum		
0 Gamma Ray 150		0 20	0 150		
			Sector Amplitude Minimum		
			0 150		



# MAIN LOG

ZERO PSI APPLIED AT SURFACE

Database File epoc\_eck a #2.db  
 Dataset Pathname SCBLN/pass4.1  
 Presentation Format pinr\_scb1  
 Dataset Creation Thu Sep 15 12:45:34 2022  
 Charted by Depth in Feet scaled 1:240

3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200 VDL (usec) 1200	1 Sector Map 8
1000 (usec)	0 0 (12000)	0 100	0 150		
9 Collar Locator -1		3' Amplified Amplitude X 5	Sector Amplitude Maximum		
0 Gamma Ray 150		0 20	0 150		
			Sector Amplitude Minimum		
			0 150		

0 Gamma Ray 150

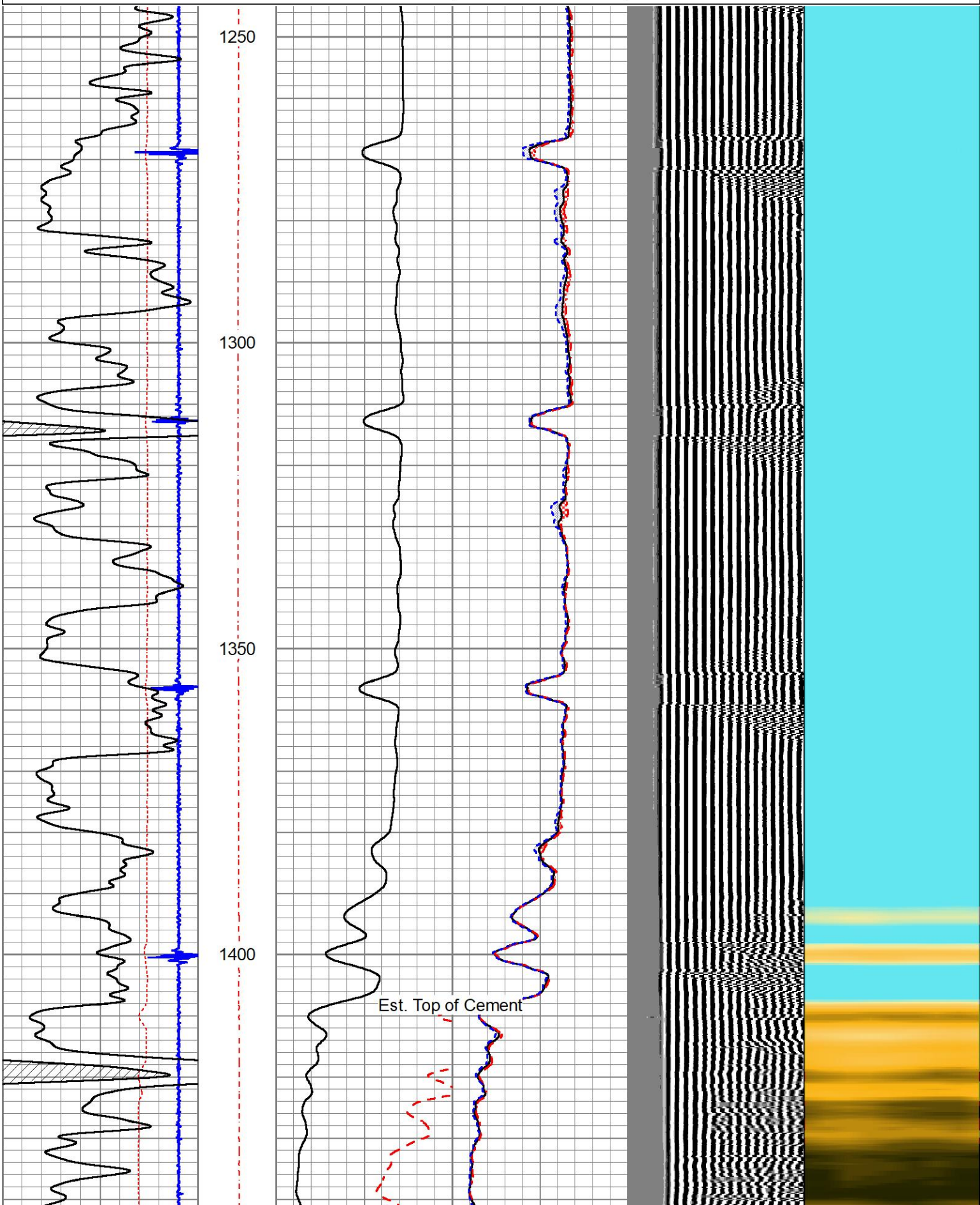
0 (mV) 20

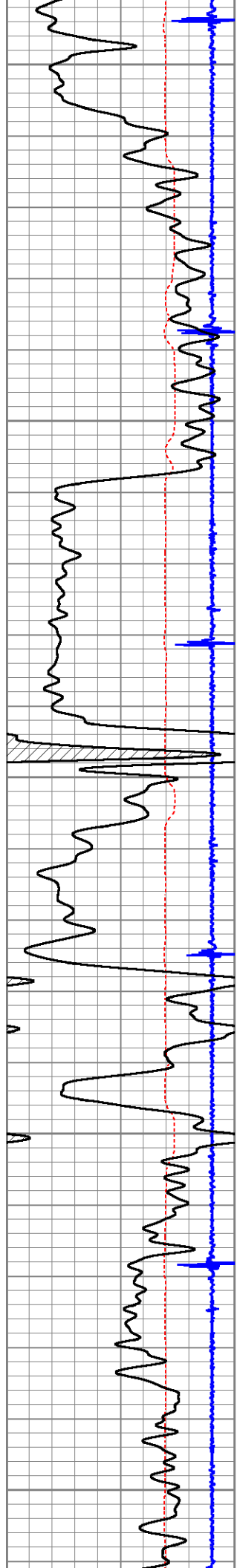
Amplitude Maximum 0 150

Amplitude Minimum 0 150

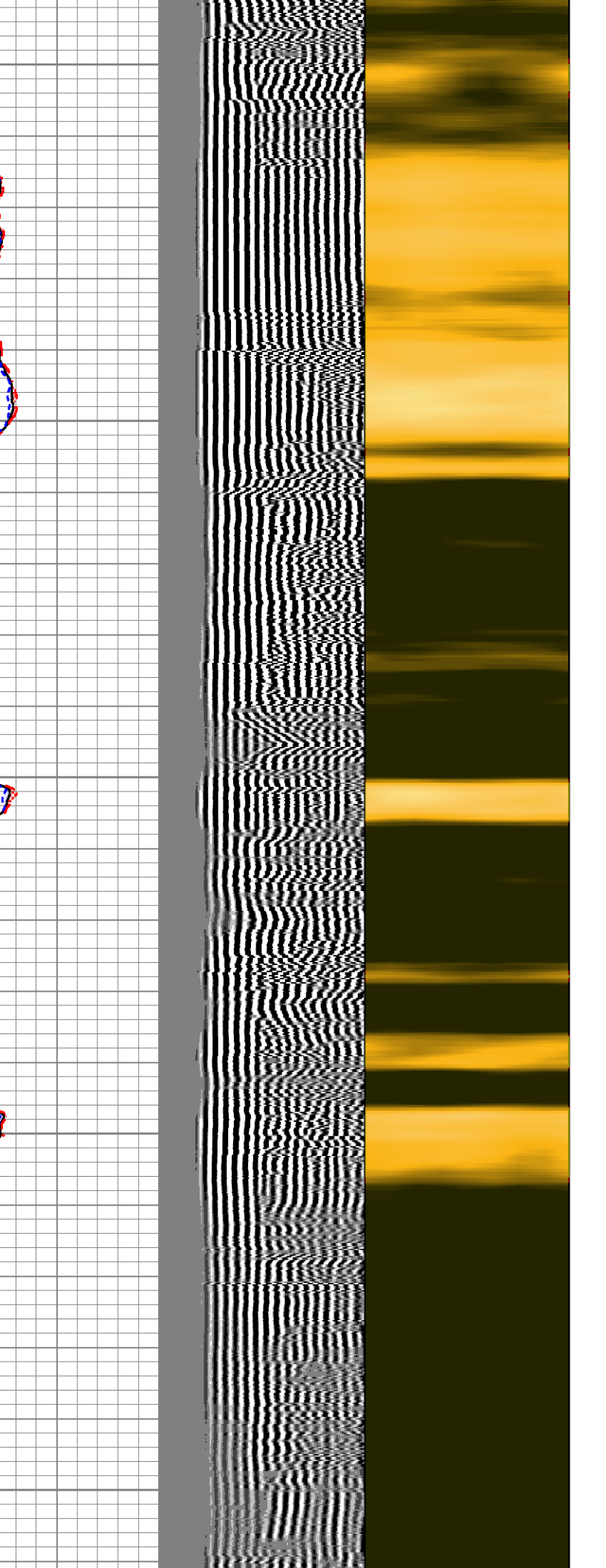
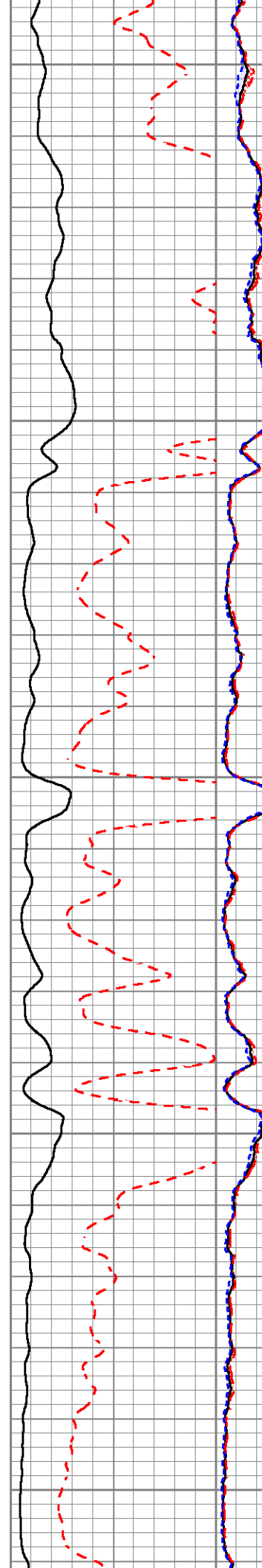
Sector Amplitude Minimum

0 150

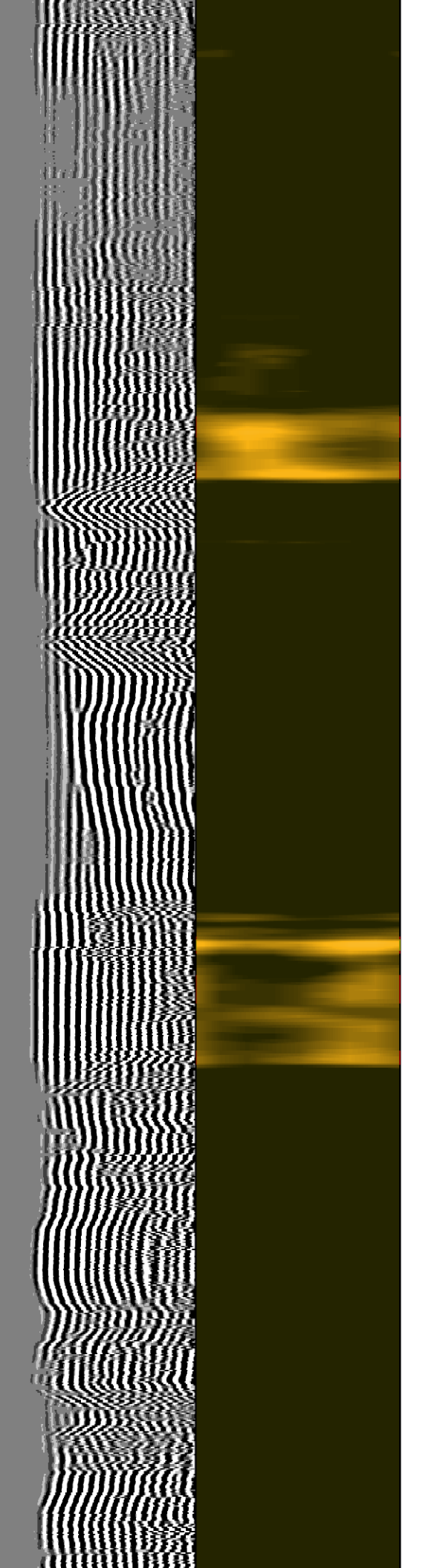
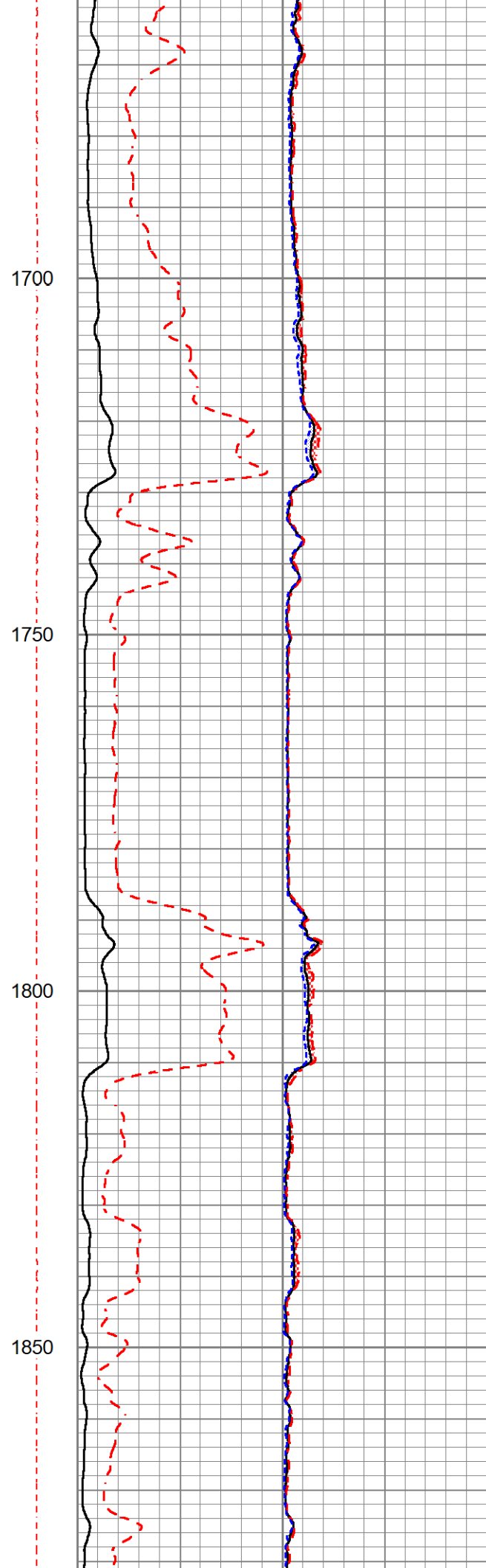
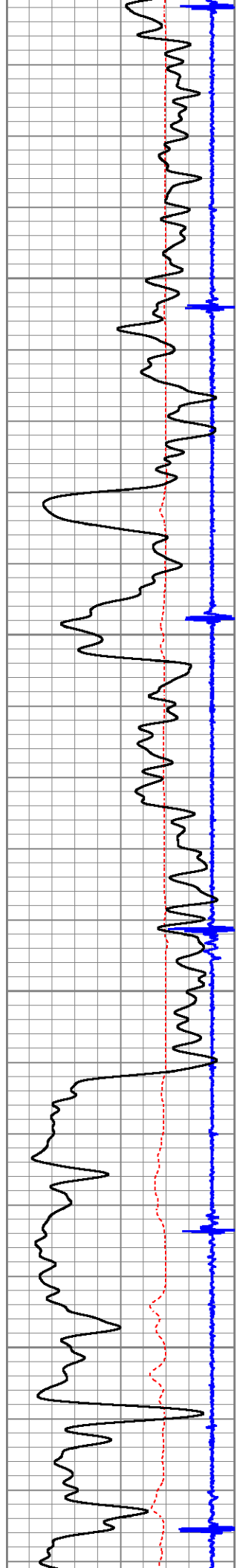


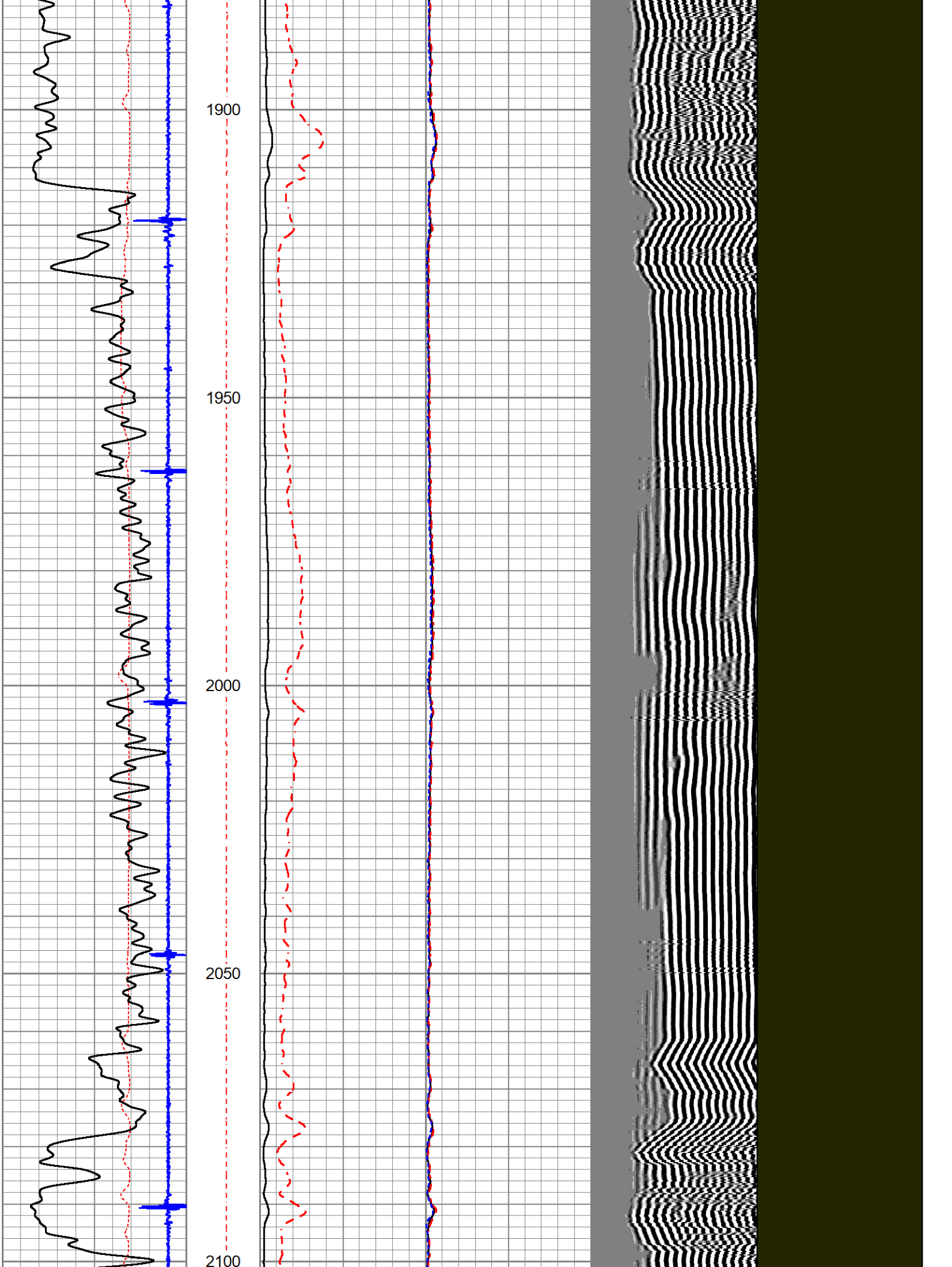


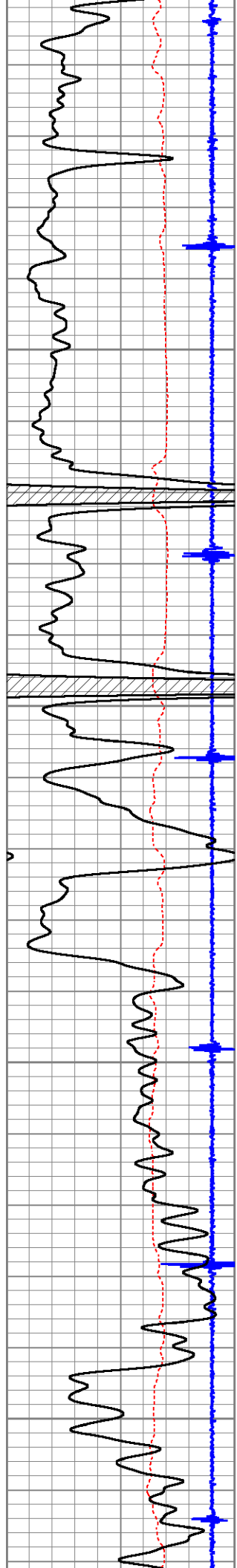
1450  
1500  
1550  
1600  
1650









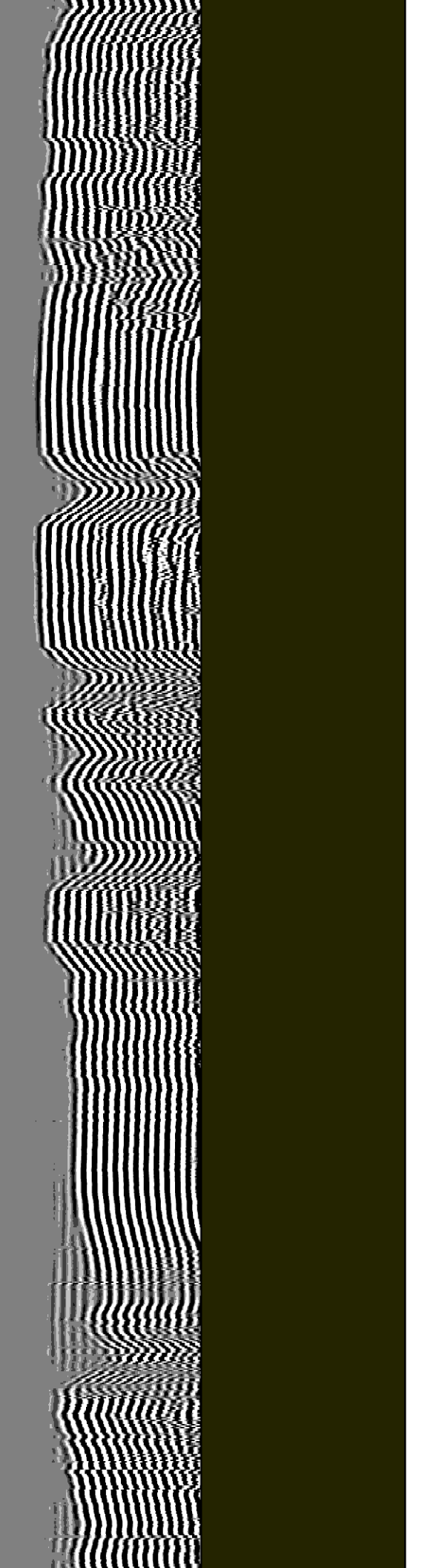
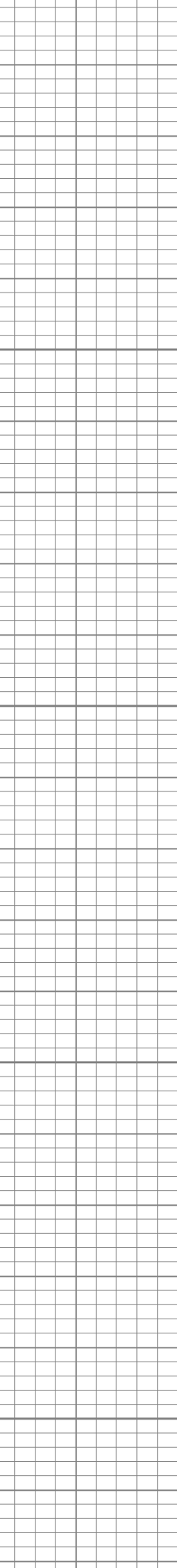
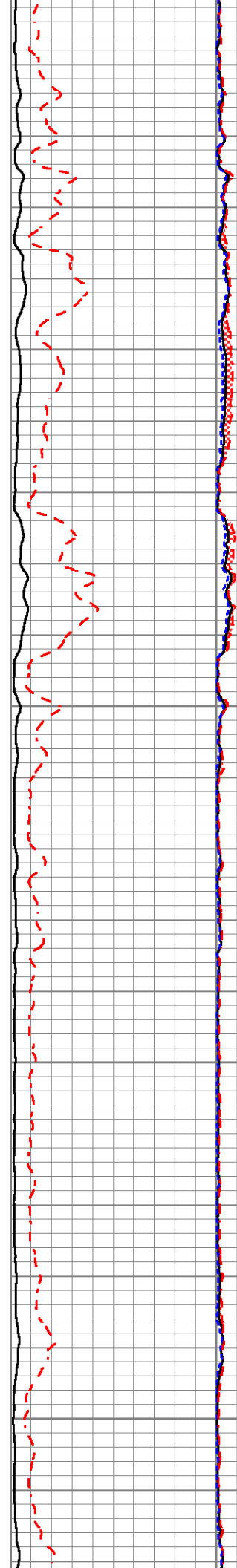


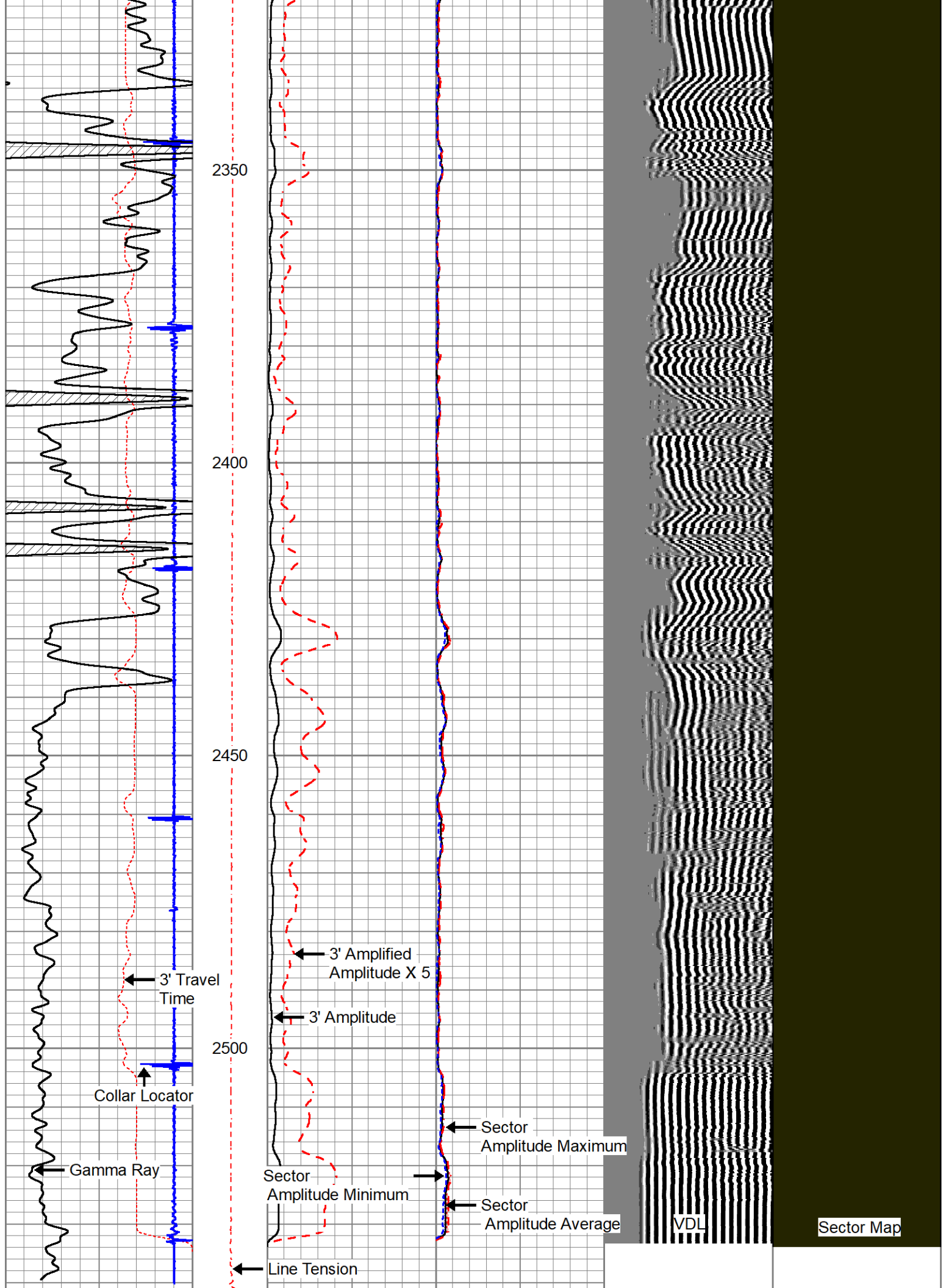
2150

2200

2250

2300





3' Travel Time		Line Tension	3' Amplitude		Sector Amplitude Average	200 VDL (usec) 1200	1	Sector Map	8		
1000 (usec)	0		0 (mV)	100						0	150
9 Collar Locator	-1		3' Amplified Amplitude X 5							Sector Amplitude Maximum	
0 Gamma Ray	150		0 (mV)	20							0
				Sector Amplitude Minimum	0	150					

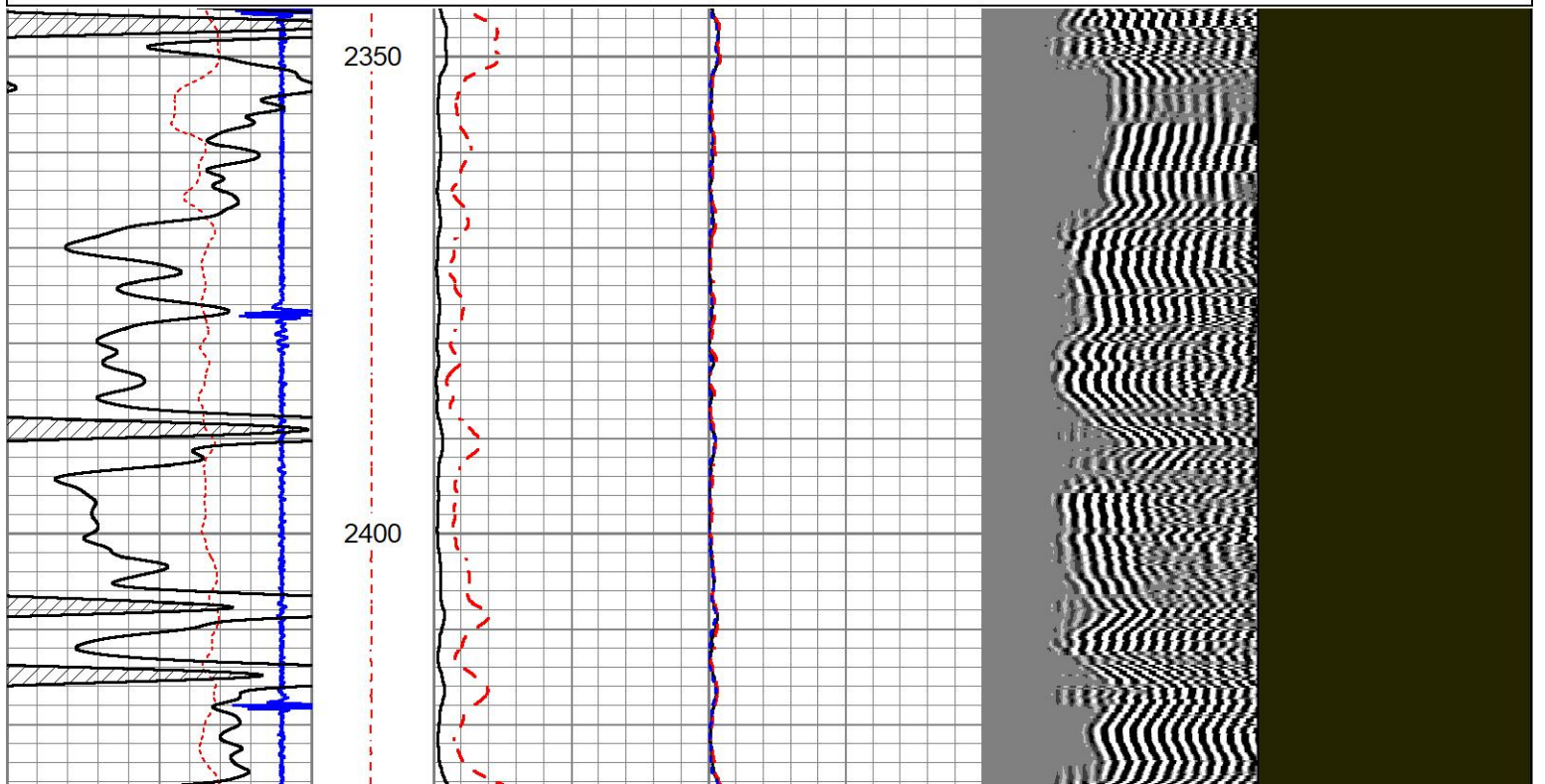


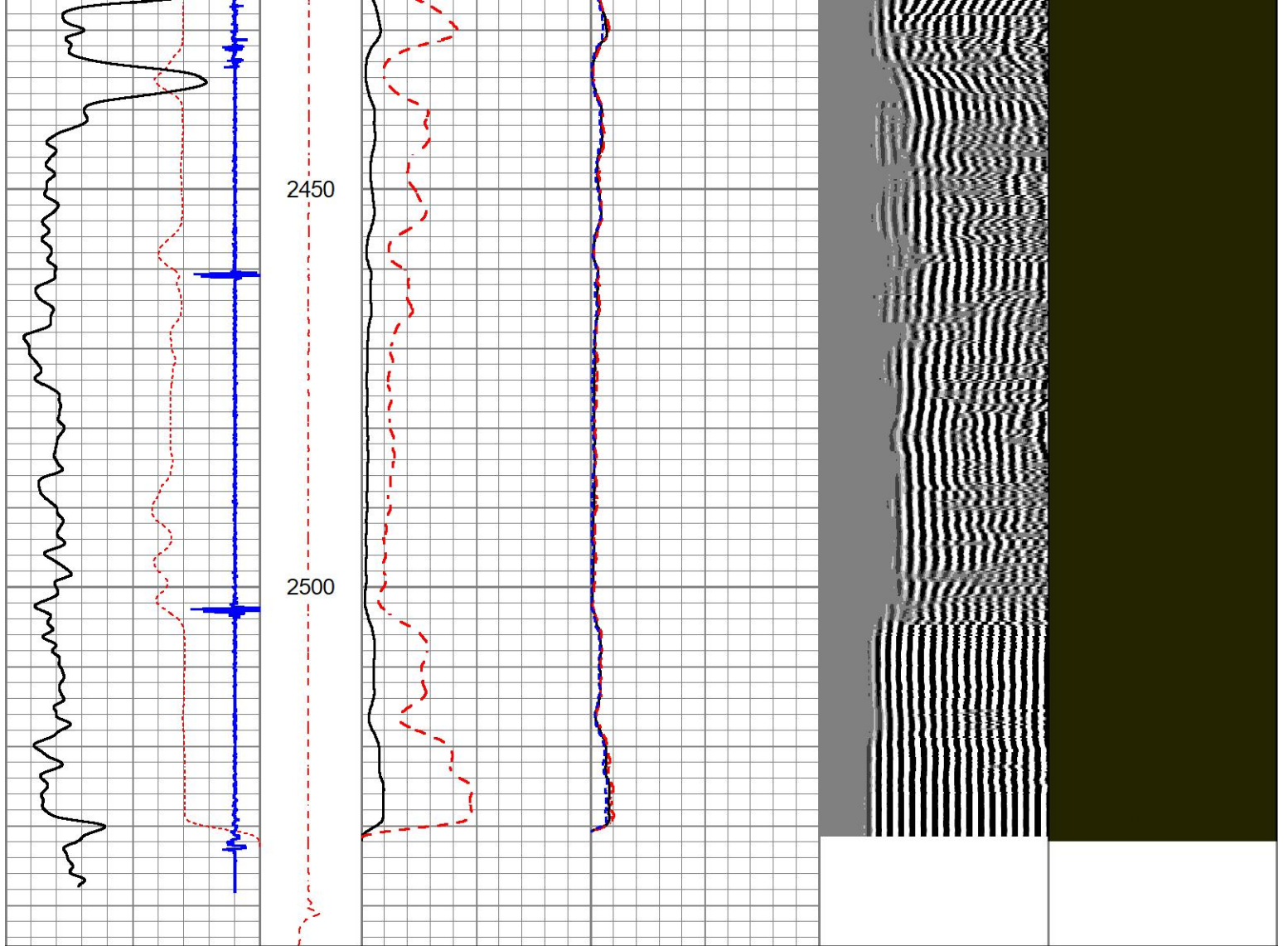
# REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File: epoc\_eck a #2.db  
 Dataset Pathname: SCBLN/pass3  
 Presentation Format: PINR\_S~1  
 Dataset Creation: Thu Sep 15 12:13:34 2022  
 Charted by: Depth in Feet scaled 1:240

3' Travel Time		Line Tension	3' Amplitude		Sector Amplitude Average	200 VDL (usec) 1200	1	Sector Map	8		
1000 (usec)	0		0 (mV)	100						0	150
9 Collar Locator	-1		3' Amplified Amplitude X 5							Sector Amplitude Maximum	
0 Gamma Ray	150		0 (mV)	20							0
				Sector Amplitude Minimum	0	150					





3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200 VDL (usec) 1200	1 Sector Map 8
1000 (usec)	0 0 (12000)	0 100	0 150		
9 Collar Locator -1		3' Amplified Amplitude X 5 (mV)	Sector Amplitude Maximum		
0 Gamma Ray 150		0 20	0 150		
			Sector Amplitude Minimum		
			0 150		

### Calibration Report

Database File epoc\_eck a #2.db  
 Dataset Pathname SCBLN/pass4.1  
 Dataset Creation Thu Sep 15 12:45:34 2022

### Neutron Calibration Report

Serial Number: ProbeNEU1  
 Tool Model: PRNEU  
 Performed: (Not Performed)

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

## Gamma Ray Calibration Report

Serial Number: 060802  
 Tool Model: 2 3/4" Probe  
 Performed: Mon May 16 14:57:00 2022

Calibrator Value: 1.0

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.3000 /cps

## Segmented Cement Bond Log Calibration Report

Serial Number: PR-012  
 Tool Model: RBL-D

Calibration Casing Diameter: 5.500 in  
 Calibration Depth: 1080.829 ft

Master Calibration, performed Thu Sep 15 10:01:53 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.009	2.098	0.710	71.921	33.806	1.003
CAL	-0.013	2.499				
5'	-0.008	1.850	0.710	71.921	38.318	1.018
SUM						
S1	-0.002	1.913	0.000	100.000	52.224	0.090
S2	0.007	1.993	0.000	100.000	50.362	-0.348
S3	0.005	2.084	0.000	100.000	48.113	-0.245
S4	0.003	2.139	0.000	100.000	46.828	-0.145
S5	0.001	2.147	0.000	100.000	46.600	-0.028
S6	-0.002	2.113	0.000	100.000	47.283	0.094
S7	-0.004	2.035	0.000	100.000	49.031	0.208
S8	-0.007	1.892	0.000	100.000	52.666	0.359

Air Zero Calibration, performed Thu Sep 15 12:00:41 2022:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.034		0.000		-0.042	
5'	0.036		0.000		-0.044	
SUM						
S1	0.028		0.000		-0.029	
S2	0.025		0.000		-0.018	
S3	0.029		0.000		-0.024	
S4	0.037		0.000		-0.034	
S5	0.046		0.000		-0.045	
S6	0.050		0.000		-0.052	
S7	0.045		0.000		-0.049	
S8	0.032		0.000		-0.039	



Company EPOC LLC  
 Well Eck 'A' #2  
 Field Hazlett



County  
State

Butler  
Kansas