CEMENT BOND LOG WITH GAMMA RAY

PIONEER
Pioneer Energy Services

Company	**BONANZA CREEK ENERGY**
Well	**PRONGHORN C-W-28 HNC**
Field	**WATTENBERG**
County	**WELD** State **COLORADO**

Location: API # : 05123412210000
1250' FSL 389' FWL
SEC 28 TWP 5N RGE 61W

Other Services
NONE

Permanent Datum	GL	Elevation 4597'	Elevation K.B. 4614'
Log Measured From	KB 17'		D.F. 4613'
Drilling Measured From	KB		G.L. 4597'

Company	BONANZA CREEK ENERGY		
Well	PRONGHORN C-W-28 HNC		
Field	WATTENBERG		
County	WELD		
State	COLORADO		
Date of Service	9-9-15		
Run Number	ONE		
Depth Driller or PBTD	N/A		
Depth Logger	5900'		
Bottom Log Interval	5900'		
Top Log Interval	SURFACE		
Open Hole Size	N/A		
Type Fluid	FSW		
Fluid Level	SURFACE		
Fluid Density	N/A		
Max. Recorded Temperature	N/A		
Max. Wellhead Pressure	N/A		
Wellhead Connection	N/A		
Estimated Cement Top	SEE LOG		
Unit Number	129		
Wireline Size	9/32"		
Location	FORT MORGAN		
Recorded By	C BURNS		
Witnessed By	MR. DODGE		

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9 5/8"	36#	SURFACE	760'
Production Casing	7	26#	SURFACE	6717'
Liner Record	4 1/2'	11.6#	5837'	

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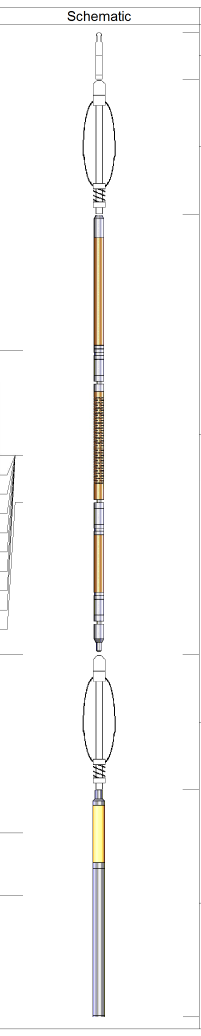
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages,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

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: C BURNS		
Operator: W DOLPH		
Operator: B GUZMAN		
Operator:		



Sensor	Offset (ft)
Temp	14.19
WVFS8	11.96
WVFS7	11.96
WVFS6	11.96
WVFS5	11.96
WVFS4	11.96
WVFS3	11.96
WVFS2	11.96
WVFS1	11.96
WVF3FT	11.96
WVF5FT	10.96
WVFCAL	7.71
CCL	3.92
GR	2.58

Description	Length (ft)	O.D. (in)	Weight (lb)
CHD-Titan 1 7/16" Titan Cable Head	1.00	1.44	2.00
CENT-Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
RBT-Probe275T (1212-58) Probe 2.75" Radii T with Integral Temperature Sub	9.39	2.75	120.00
CENT-Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
GR-PTS275Inv (125010)	4.83	2.75	

Dataset: pronghorn c-w-28 hnc.db: field/well/run1/pass3
Total length: 20.98 ft
Total weight: 152.00 lb
O.D.: 2.75 in

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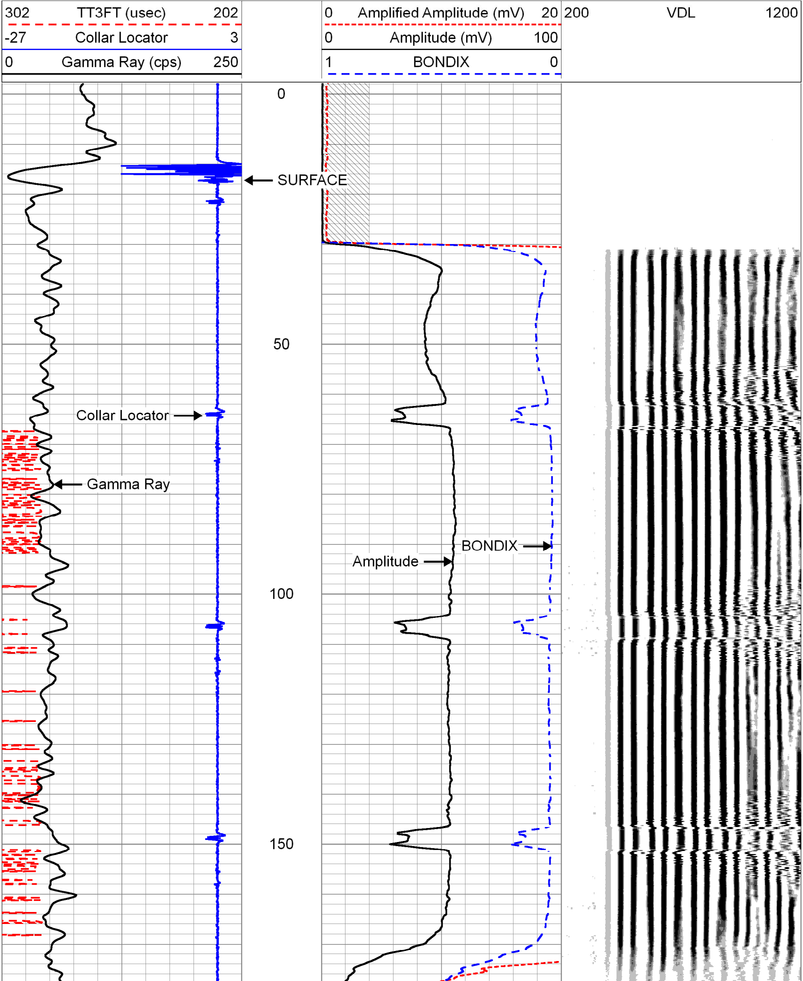
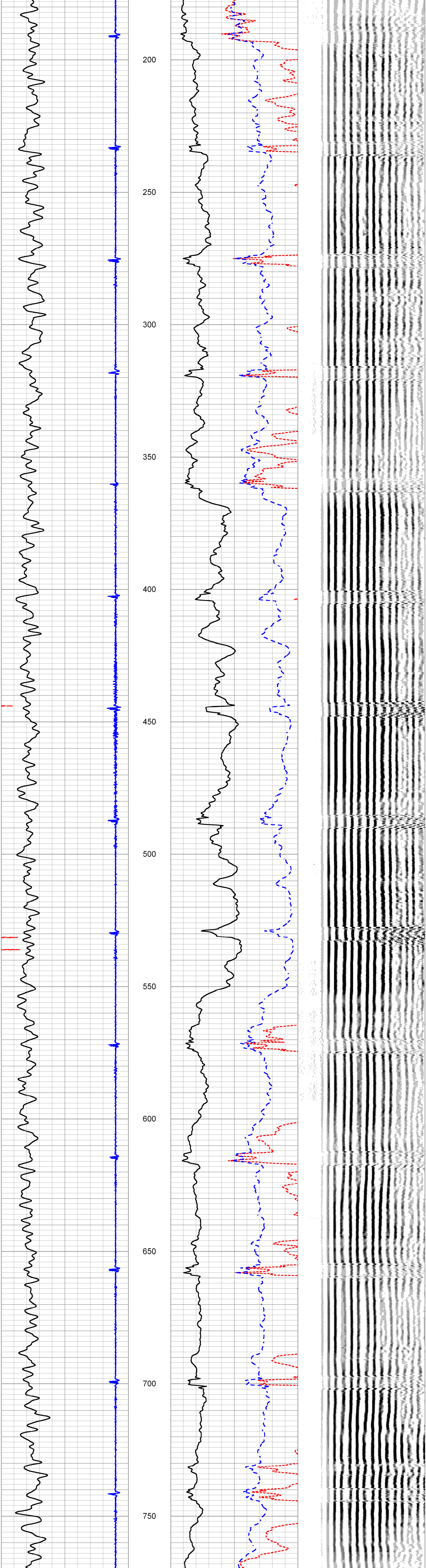
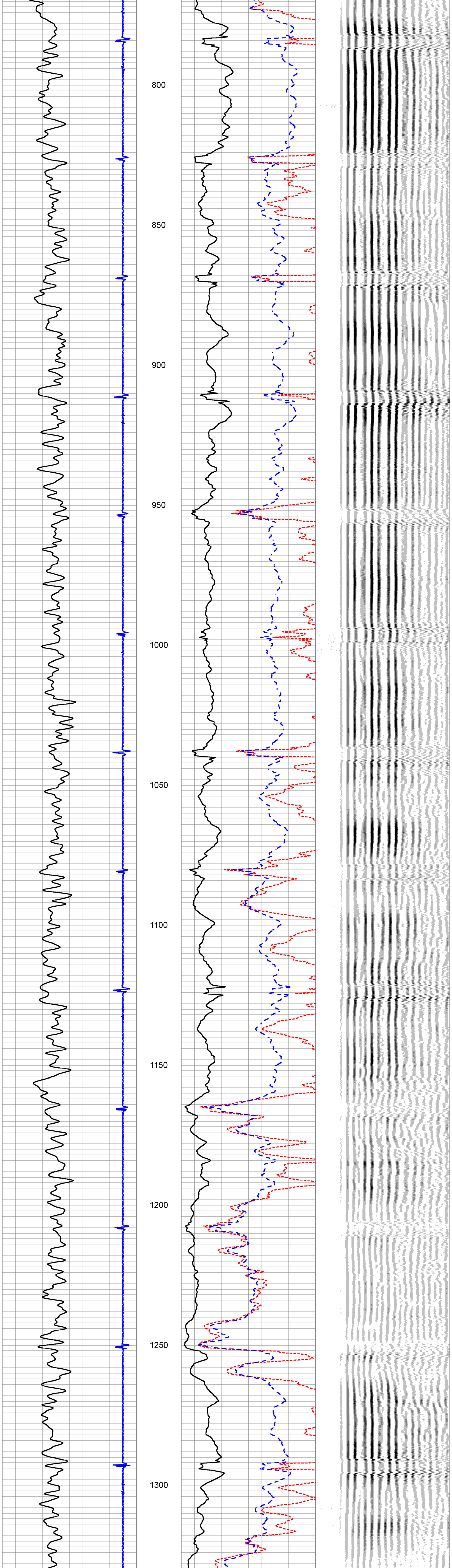
MAIN LOG

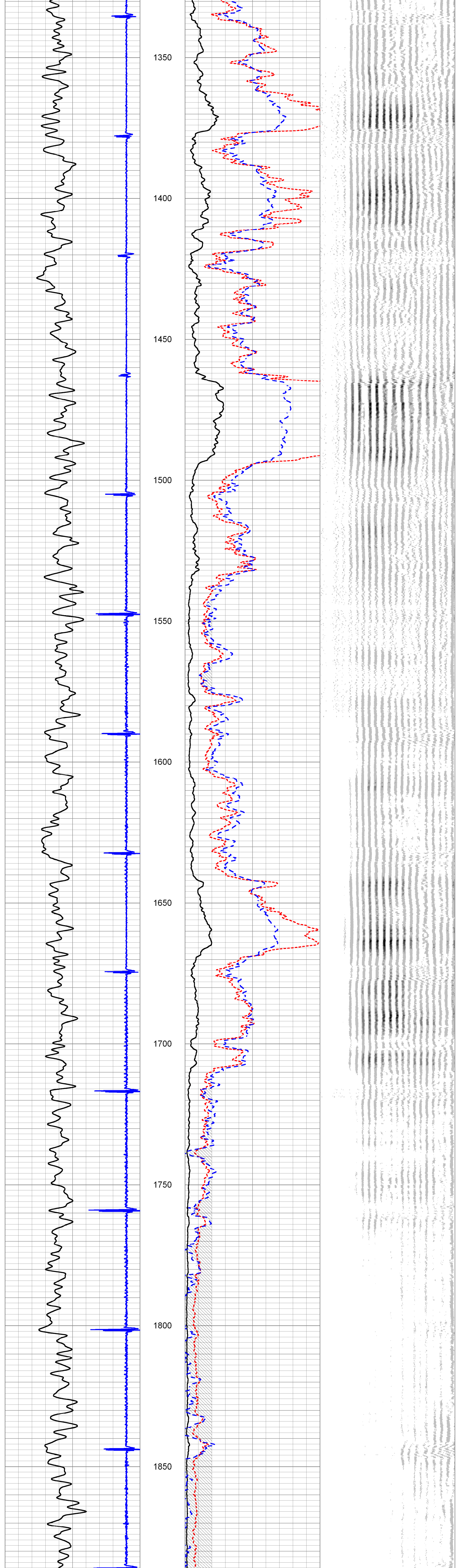
ZERO PSI APPLIED AT SURFACE

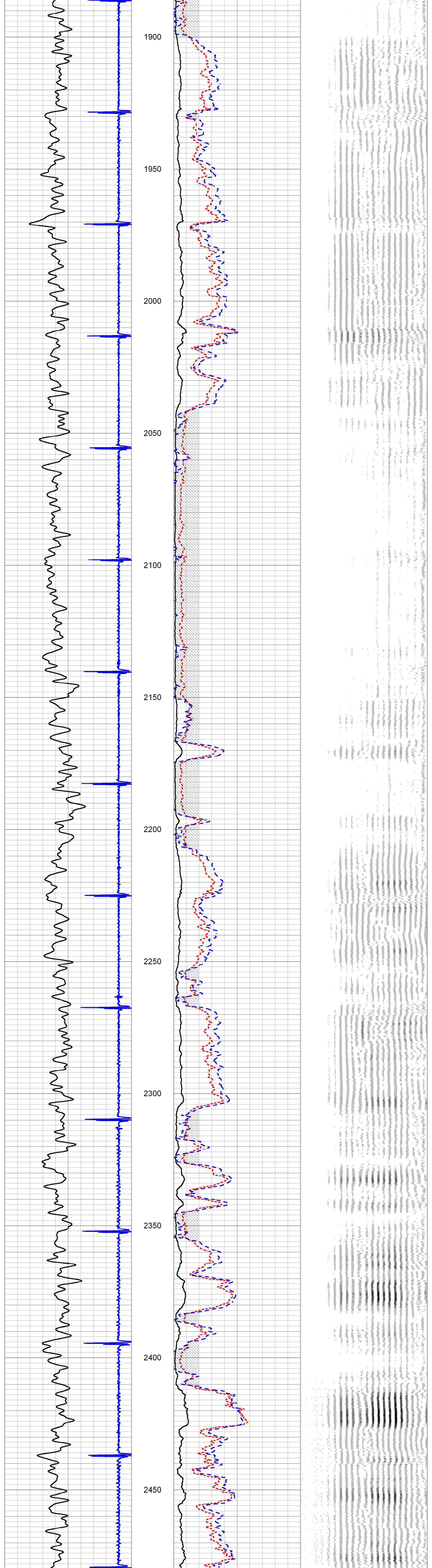
Database File	pronghorn c-w-28 hnc.db
Dataset Pathname	pass3
Presentation Format	cbl
Dataset Creation	Wed Sep 09 11:42:36 2015
Charted by	Depth in Feet scaled 1:240

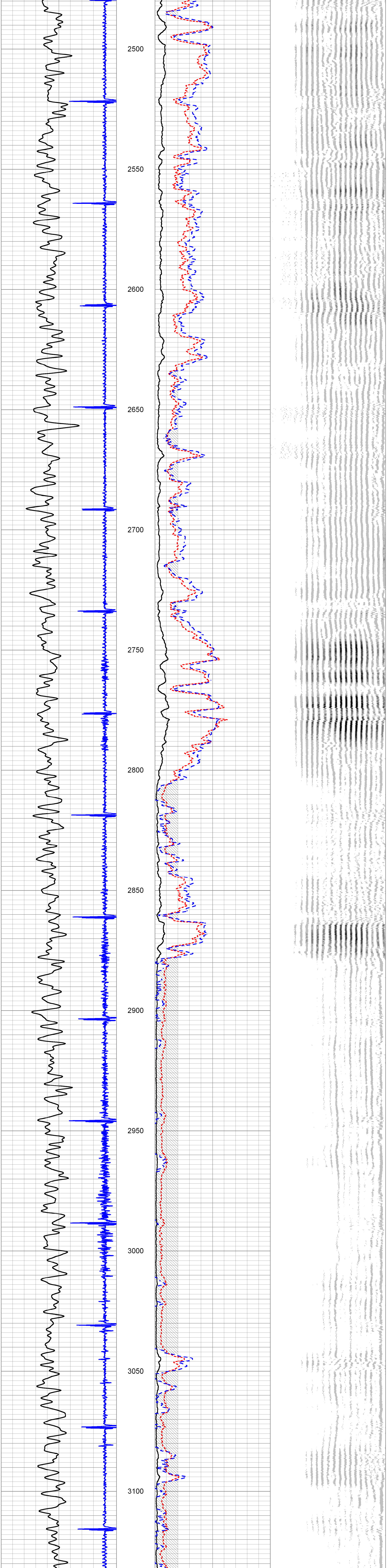


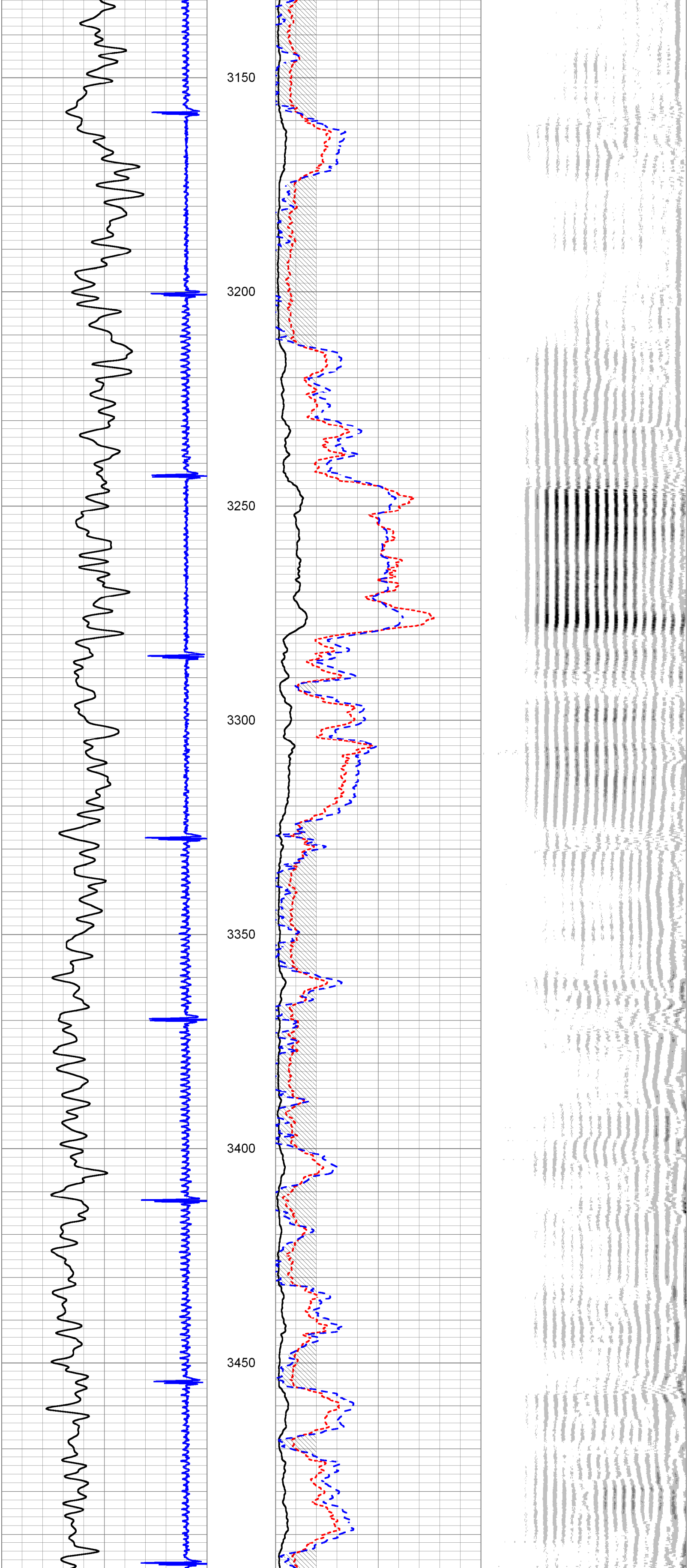


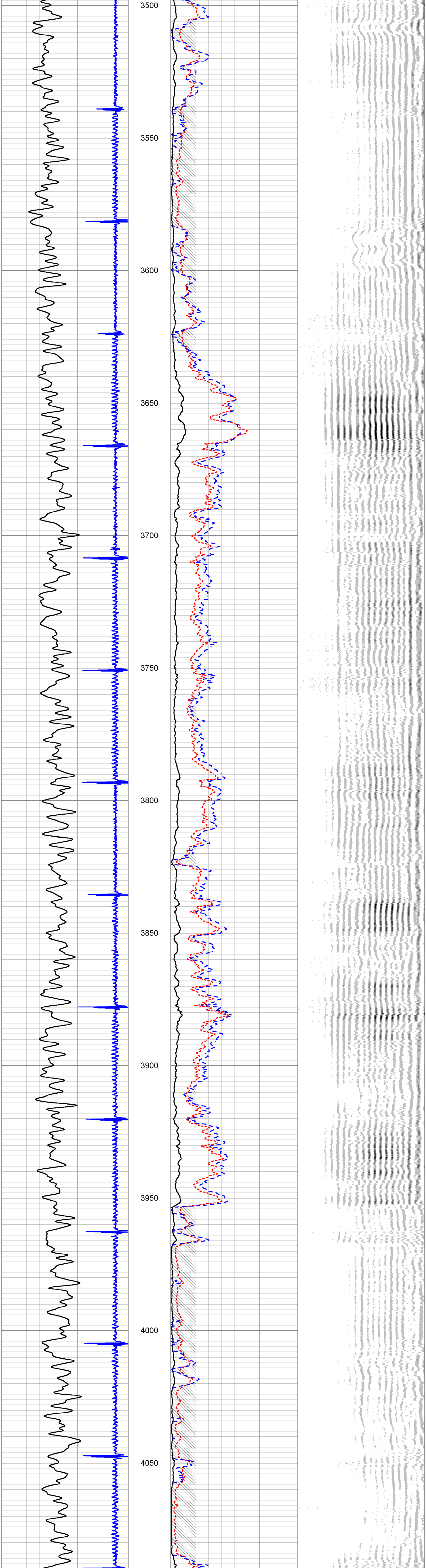


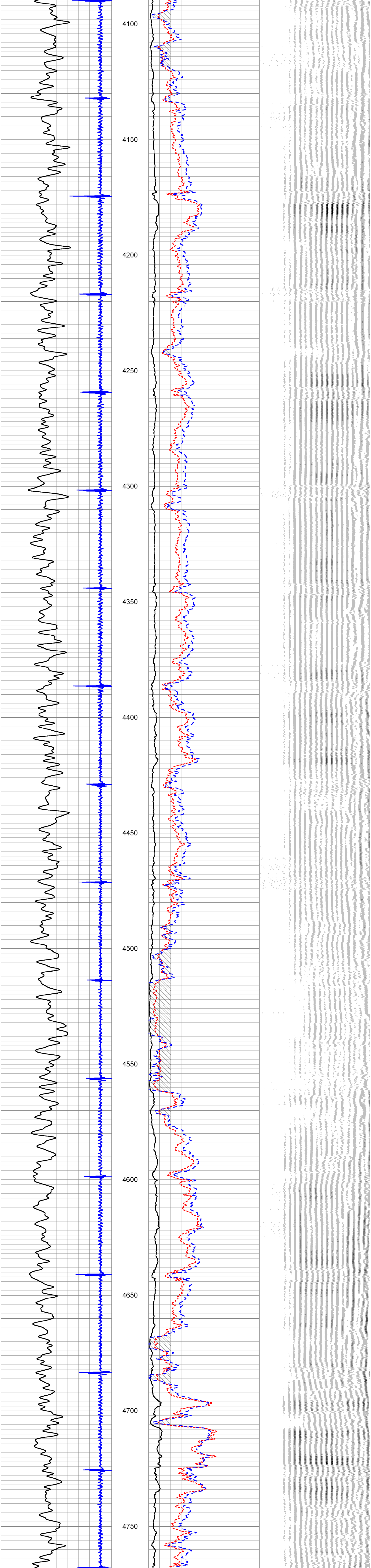


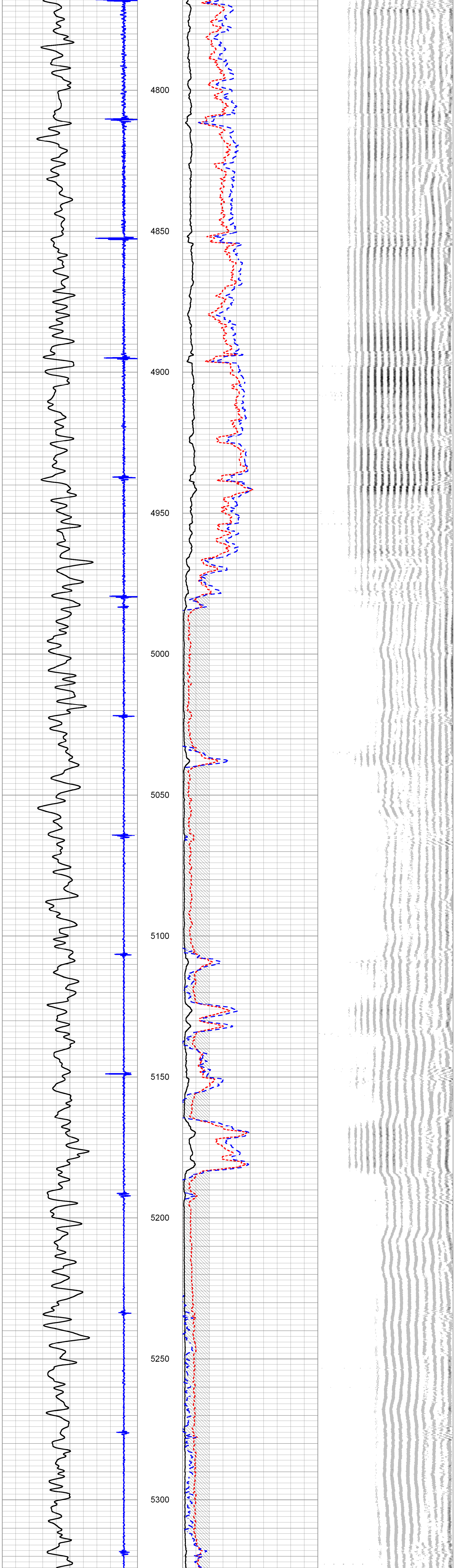


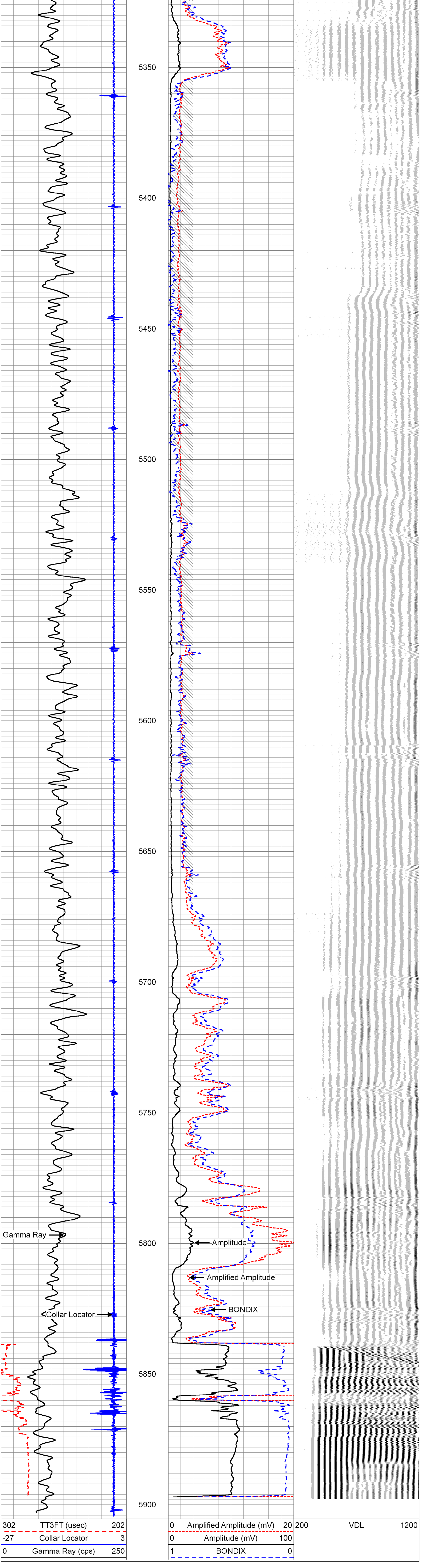








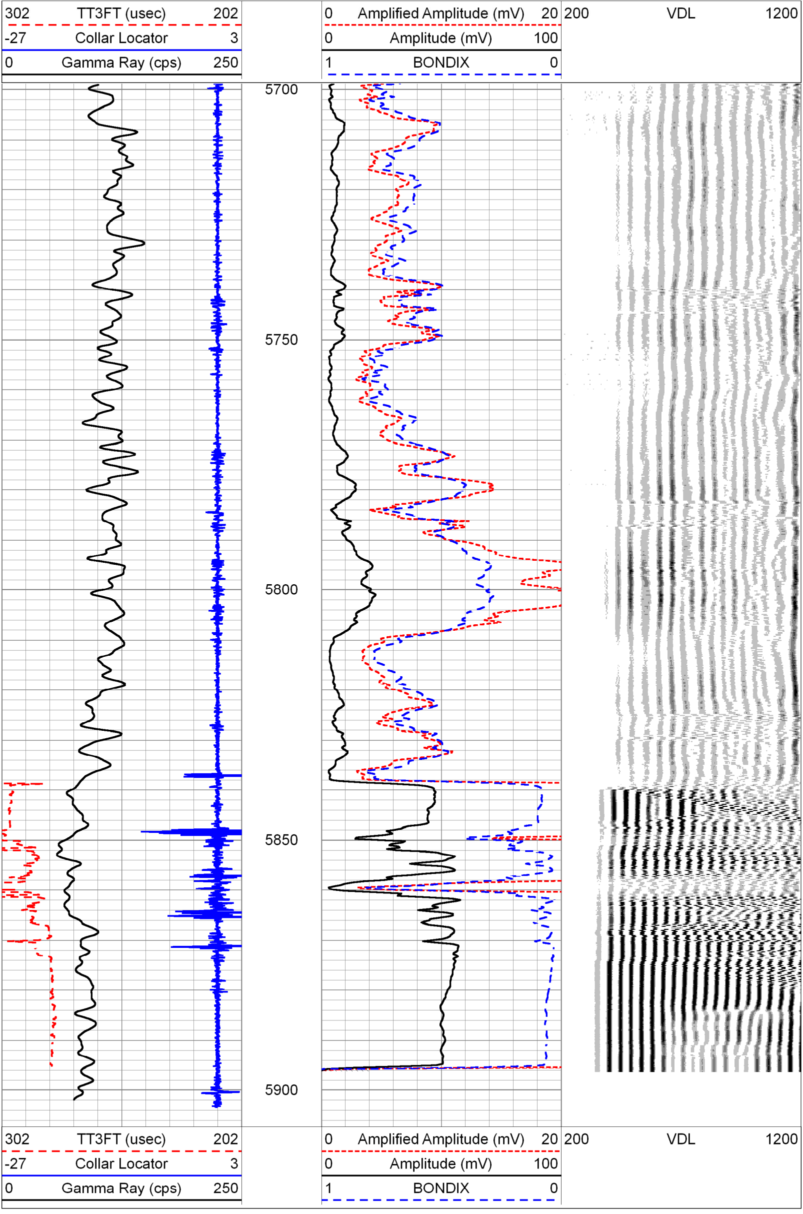




REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	pronghorn c-w-28 hnc.db
Dataset Pathname	pass2
Presentation Format	cbl
Dataset Creation	Wed Sep 09 11:37:43 2015
Charted by	Depth in Feet scaled 1:240



Calibration Report

Database File	pronghorn c-w-28 hnc.db
Dataset Pathname	pass1
Dataset Creation	Wed Sep 09 11:20:13 2015

Gamma Ray Calibration Report

Serial Number:	125010	
Tool Model:	PTS275Inv	
Performed:	Wed Sep 09 10:42:38 2015	
Calibrator Value:	1.0	cps
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	cps/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	1212-58	
Tool Model:	Probe275T	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	137.225	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.029	1.506	1.000	62.165	41.409	-0.205
CAL	0.021	0.371				
5'	0.014	1.552	1.000	62.165	39.755	0.454
SUM						
S1	0.024	1.558	0.000	100.000	65.162	-1.546
S2	0.029	1.579	0.000	100.000	64.503	-1.847
S3	0.033	1.514	0.000	100.000	67.510	-2.226
S4	0.034	1.477	0.000	100.000	69.311	-2.379
S5	0.030	1.474	0.000	100.000	69.282	-2.088
S6	0.028	1.465	0.000	100.000	69.588	-1.952
S7	0.023	1.441	0.000	100.000	70.534	-1.610
S8	0.023	1.509	0.000	100.000	67.311	-1.582

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Company	BONANZA CREEK ENERGY		
Well	PRONGHORN C-W-28 HNC		
Field	PRONGHORN D-28 PAD		
County	WELD		
State	COLORADO	Country	USA