



Pioneer Energy Services

Sector Bond / Gamma Ray
CCL Log

15-169-20355-00-00

Company BOP West
Well Harbin No. 3
Field Hunter North
County Saline State Kansas

Location

2160' FNL & 330' FEL

Other Services

Perf @ 2666-78

Sec: 7 Twp: 16 S Rge: 1 W

Elevation

K.B. 1320
D.F. 1319
G.L. 1311

Run Number	One	
Date Survey	10/21/2014	
Date Cementing	10/11/2014	
Type Cementing Operation	Primary	
Depth Driller	2765	
Depth Logger	2747	
Logged Interval	2747 to 1800	
Casing Driller	5.5" @ T.D.	@
Float Collar -- D.V. Tool	////	////
Squeeze Depth	////	
Amount & Type Cement	////	
Amount & Type Admix	////	
Type Fluid In Hole	Water	
Fluid Level	1050'	
Salinity PPM CL	////	
Weight lb/gal -- Vis.	////	////
Approx. Logged Cement Top	2045	
Calculated Cement Top	////	
Max. Hole Temperature	100	
Tool No.	RBT 4-4	
Spacing Recorded	3-5	
Equipment -- Location	12 A Drilling Hays	
Recorded By	Mr. Gary Reed	
Witnessed By		

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

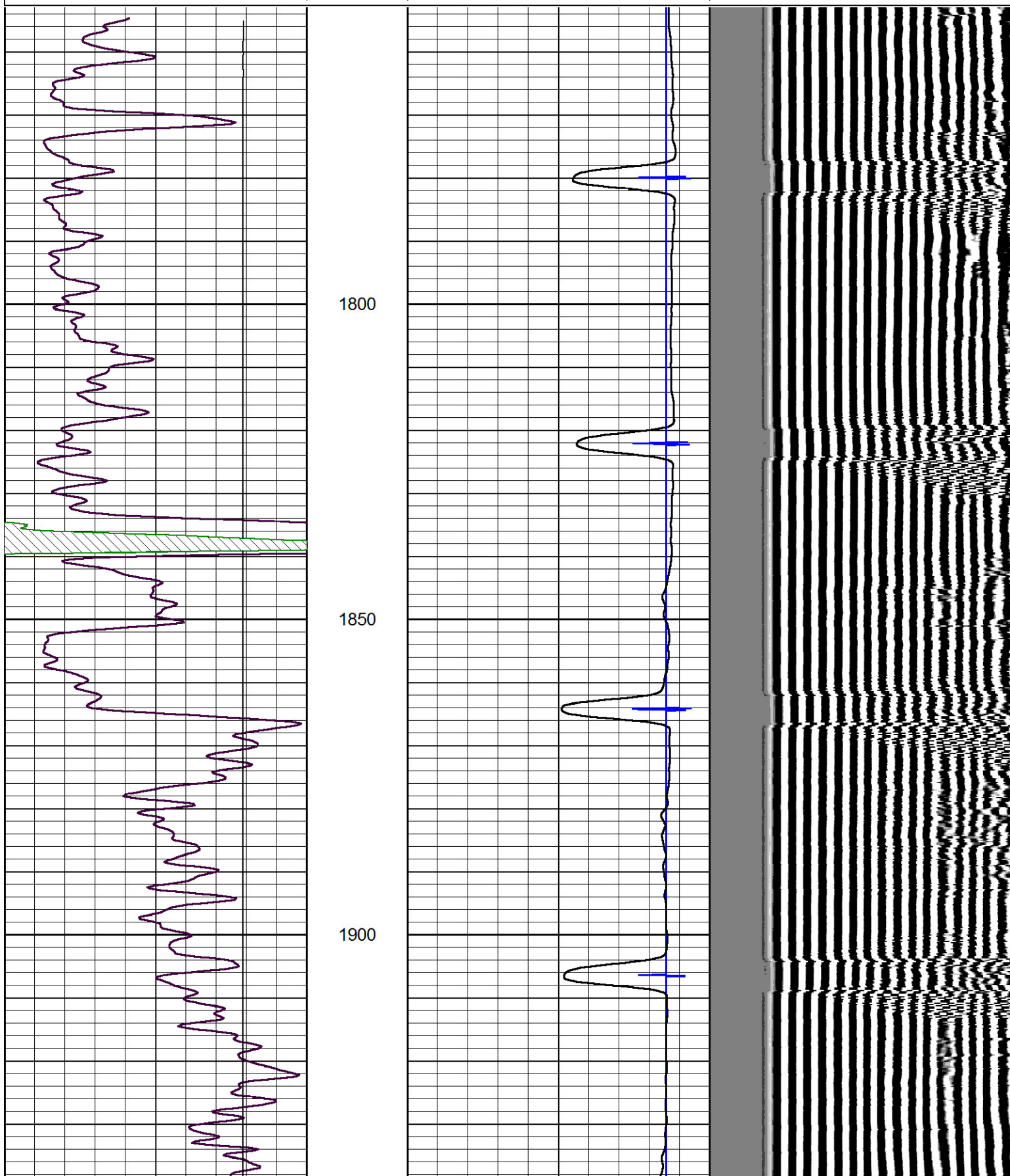
Comments

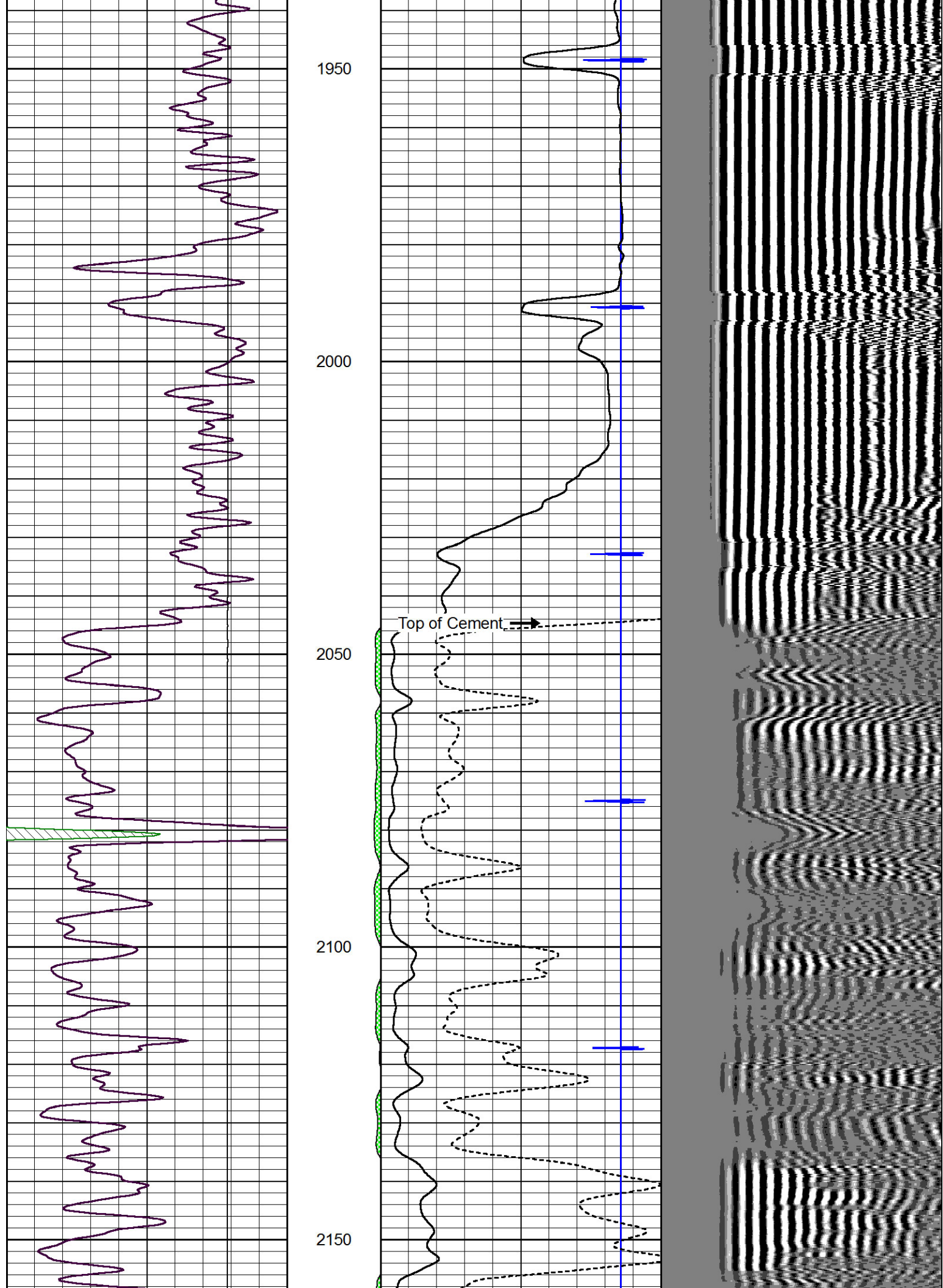
Thank you for using Pioneer Energy Services
785.625.3858

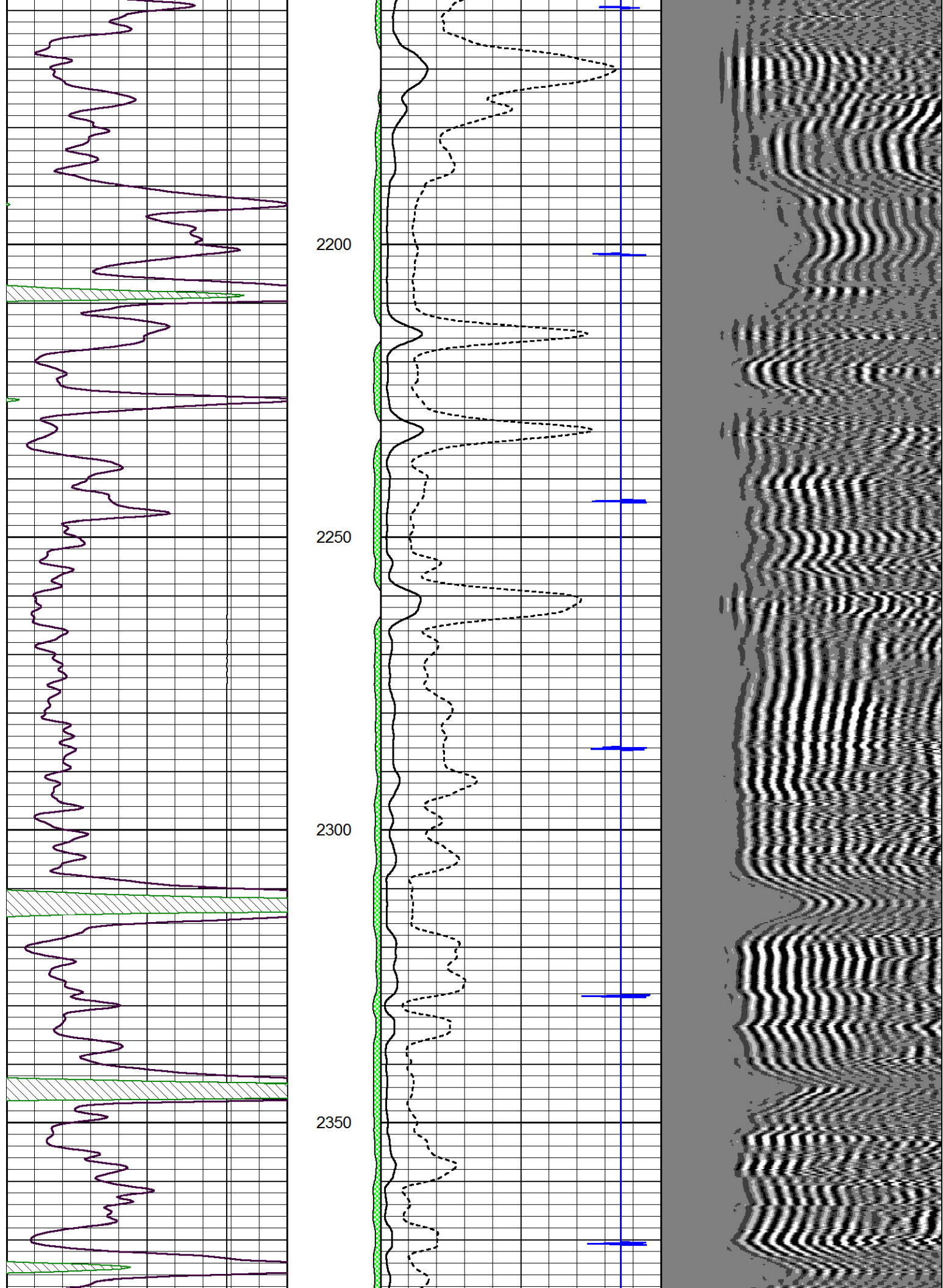
Gypsum Ks.
2 W to Whitmore Rd,
2 1/2 S W into

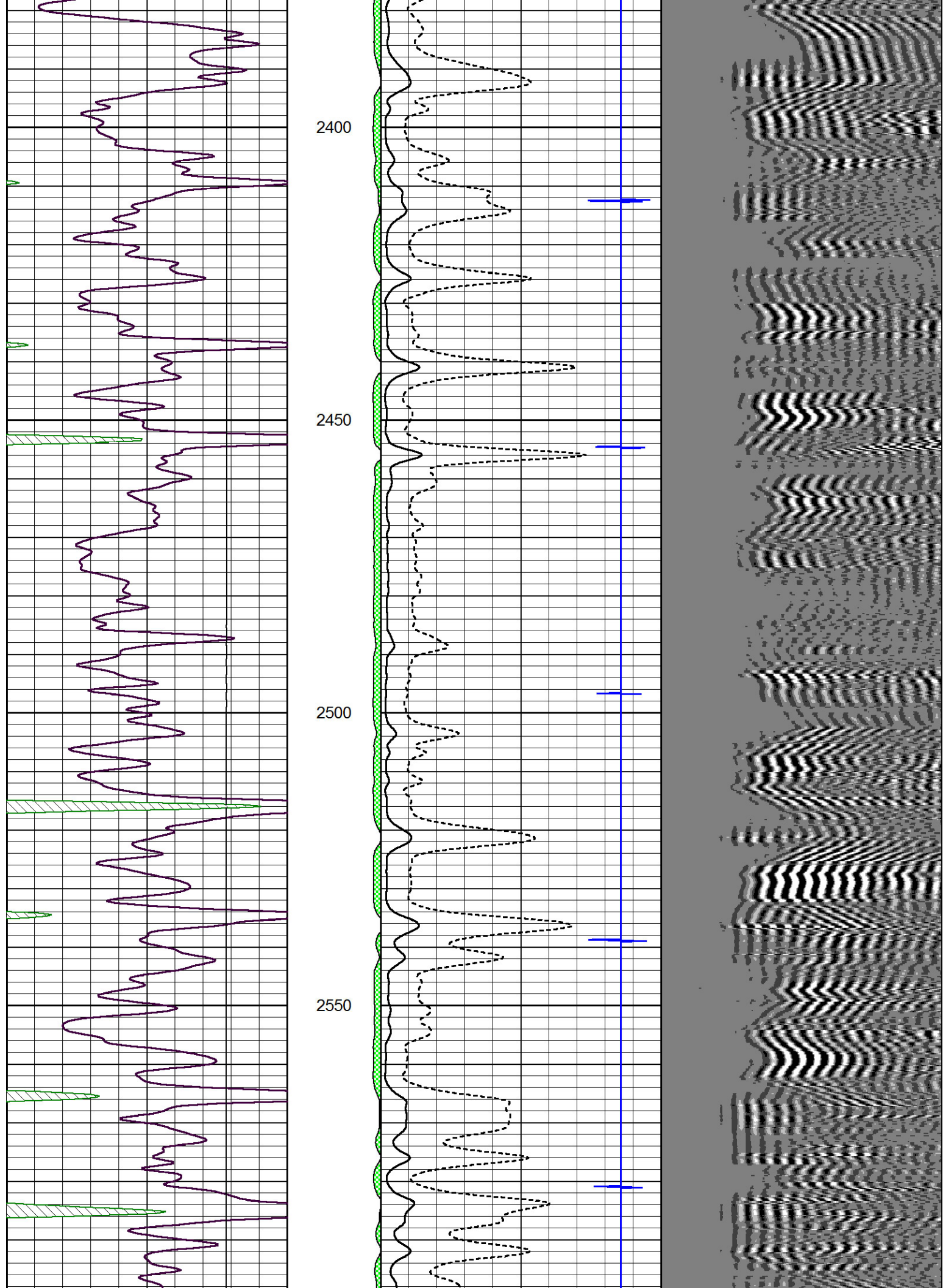
Database File: bop-west-harbin_3.db
 Dataset Pathname: grcbl/pass2
 Presentation Format: cbldr
 Dataset Creation: Tue Oct 21 08:56:54 2014 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

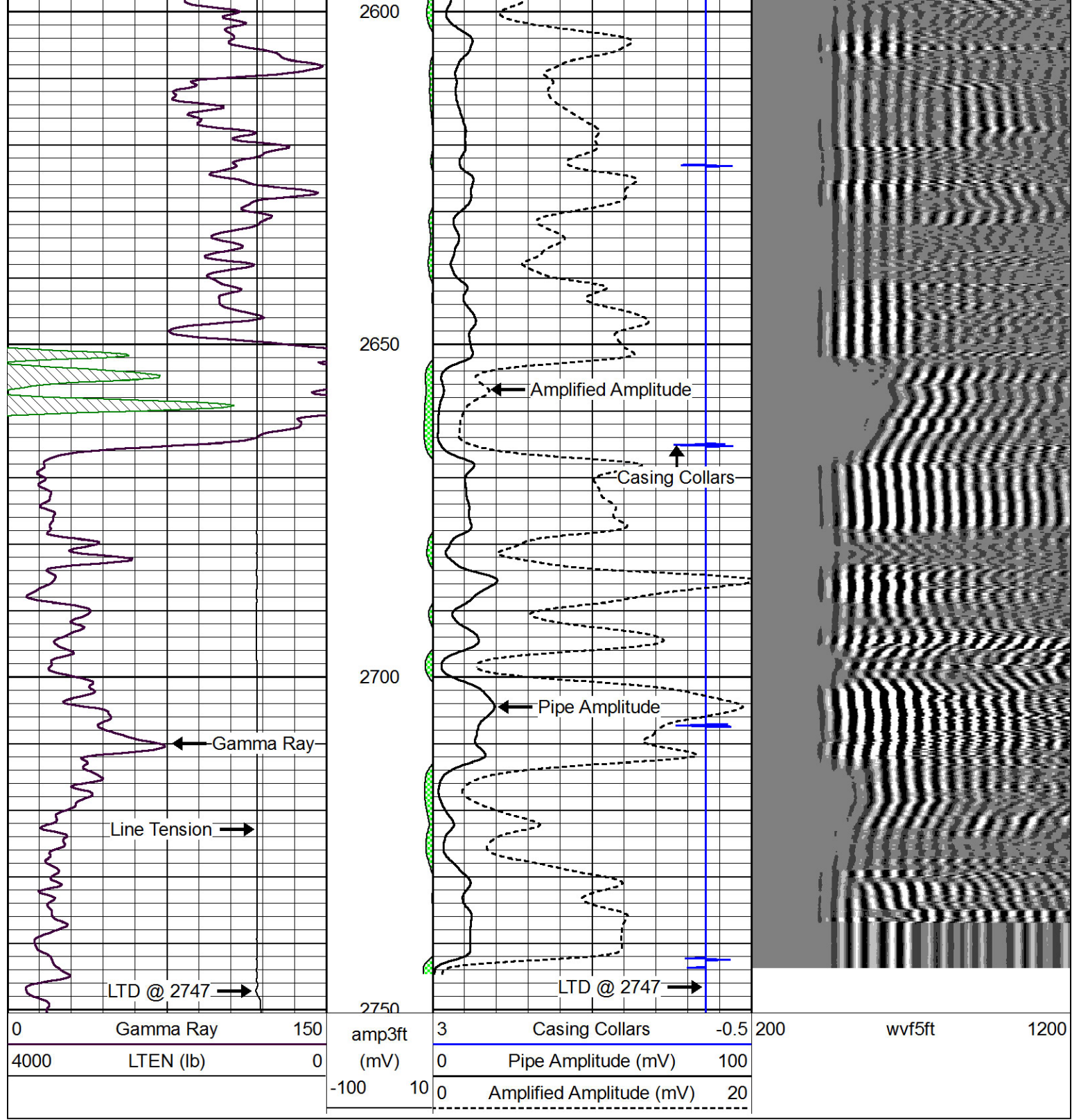
0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100	10	0	Amplified Amplitude (mV)	20		











Repeat Section

Database File: bop-west-harbin_3.db
 Dataset Pathname: grcbl/pass 1.1
 Presentation Format: cbldr
 Dataset Creation: Tue Oct 21 09:11:26 2014 by Calc 7.0 B1
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	0	Pipe Amplitude (mV)	100			
			-100	10	0	Amplified Amplitude (mV)	20	

4000 LTEN (lb) 0

(mV) 0 Pipe Amplitude (mV) 100
-100 10 0 Amplified Amplitude (mV) 20

