Company	PDC Energy
Well	Thistle Down 31H - 332
Field	Wattenberg
County	Weld
State	CO

C&J ENERGY SERVICES

GAMMA RAY C.C.L. CEMENT BOND V.D.L.

Company	PDC Energy
Well	Thistle Down 31H - 332
Field	Wattenberg
County	Weld
State	CO
Location:	API #: 05-123-45259 1414' FSL & 1357' FWL NE / SW SEC 31 TWP 5N RGE 64W
Other Services	

Permanent Datum	Elevation 4803'	Elevation
Log Measured From		K.B.
Drilling Measured From		D.F.
		G.L. 4803'

Date	January 31, 2018
Run Number	1
Depth Driller	12,955'
Depth Logger	7100'
Bottom Logged Interval	7100'-0'
Top Log Interval	
Casing Size	
Type Fluid	Water
Max. Recorded Temp.	235°
Estimated Cement Top	
Time Well Ready	
Time Logger On Bottom	
Unit Number	
Tool Size / ID Number	Probe 2-3/4" Radii
Location	WCR50+49,W1/2,N
Recorded By	Meisner
Witnessed By	Gardella

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	5.5"			
Liner				

<<< 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.

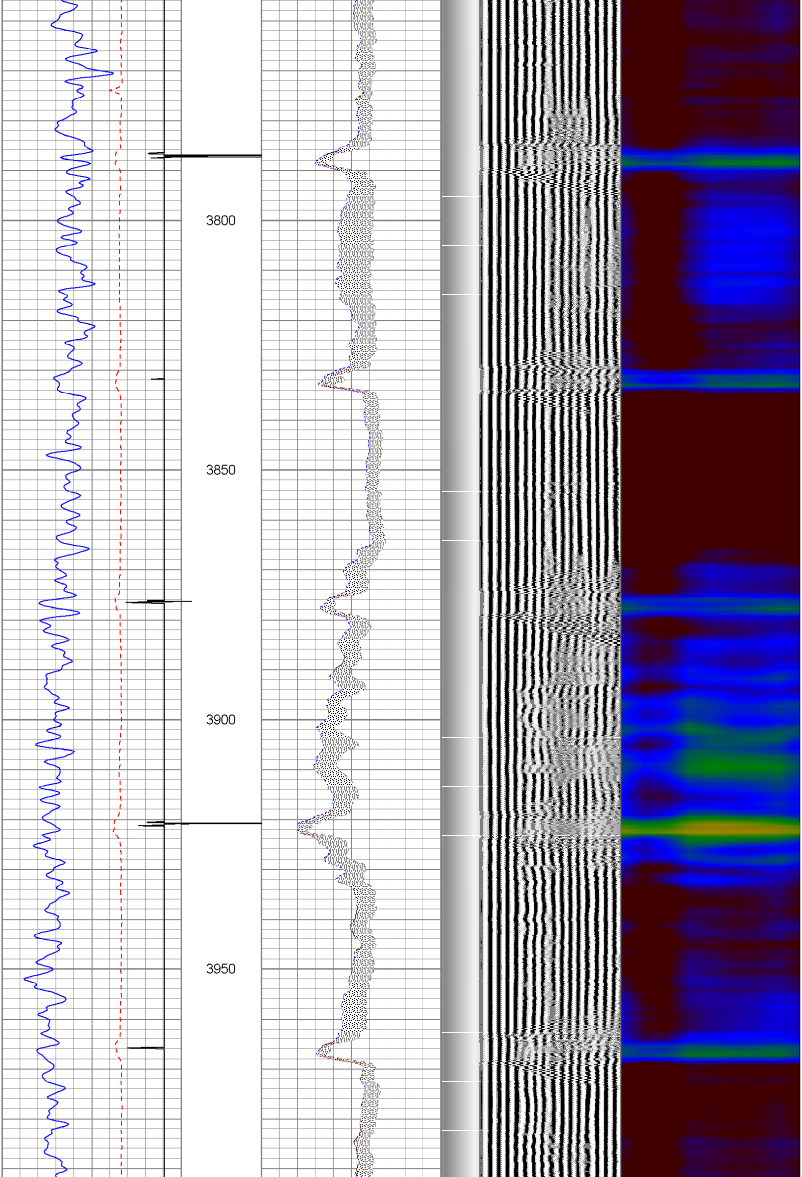
Comments

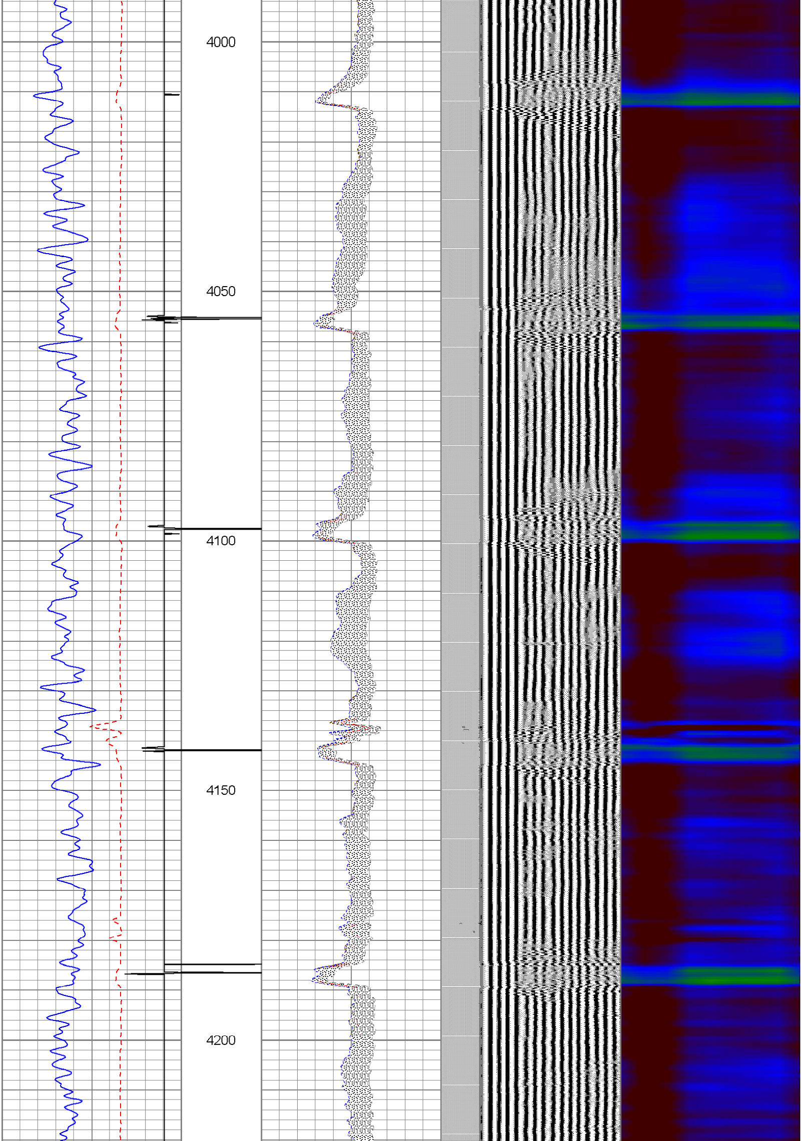
Thistle Down 10 Well Pad

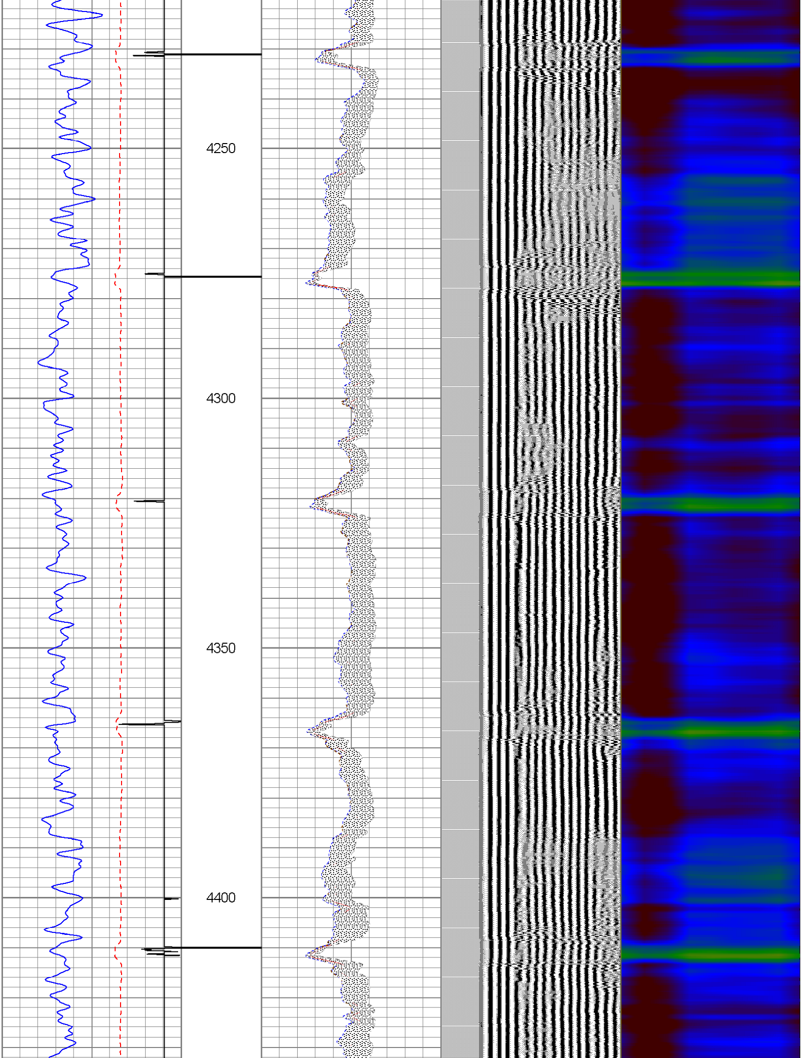
<NORTH> O O O O O O O X O O <SOUTH>

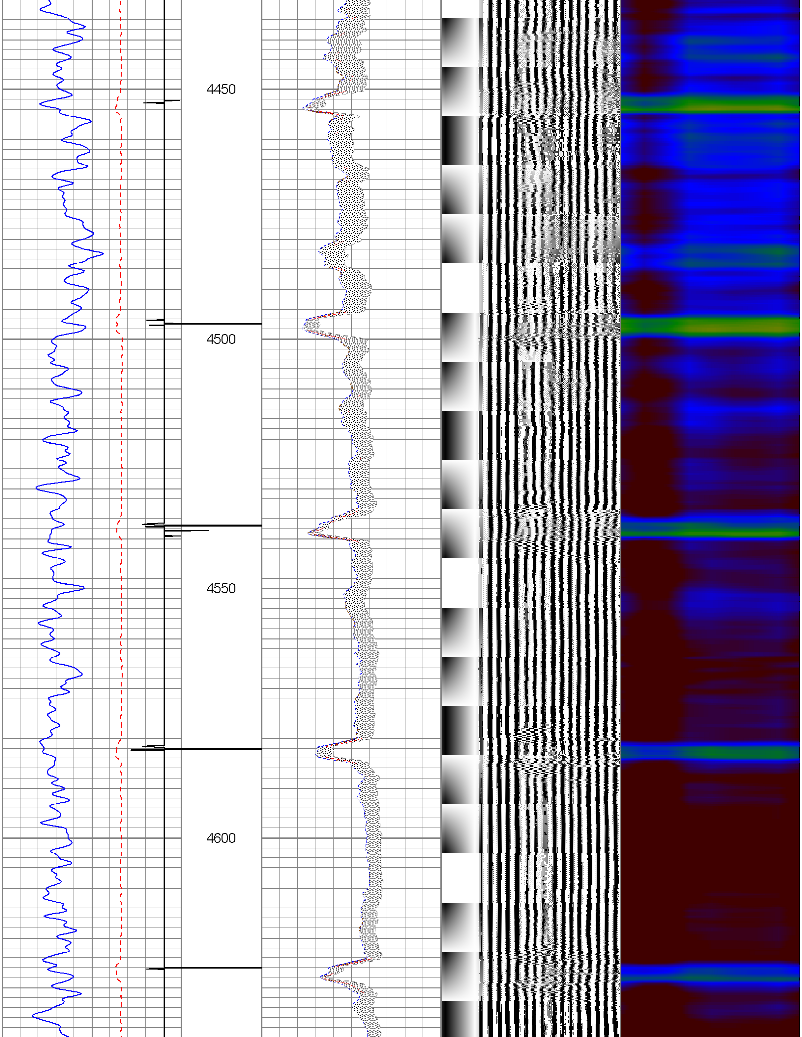
X = Thistle Down 31H - 332

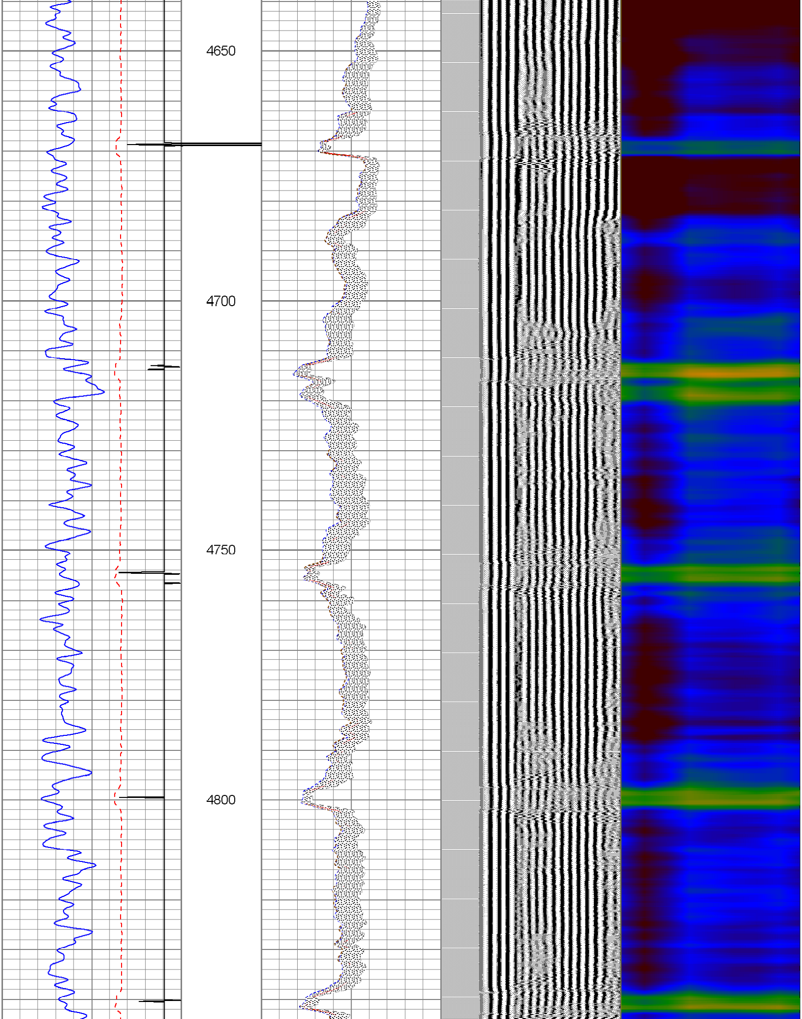
Database File:	pdct31h332.db
Dataset Pathname:	pass1
Presentation Format:	sector2
Dataset Creation:	Thu Jan 31 11:16:44 2019 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

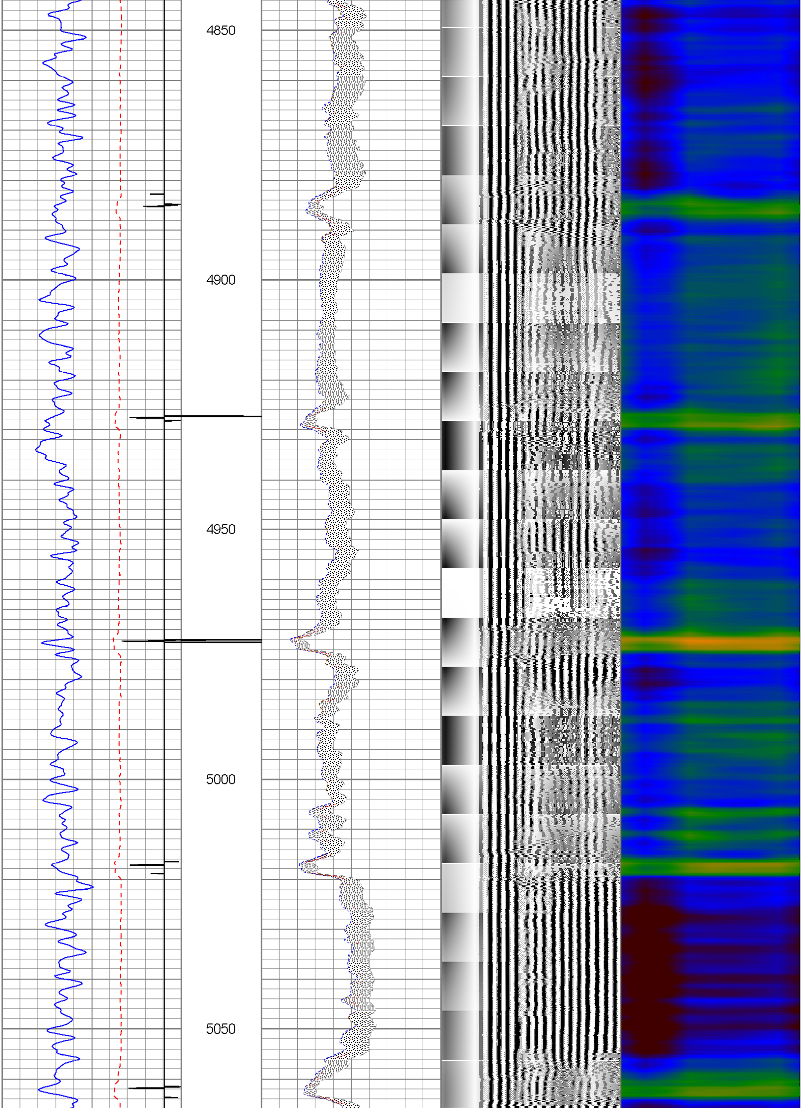

3800
3850
3900
3950

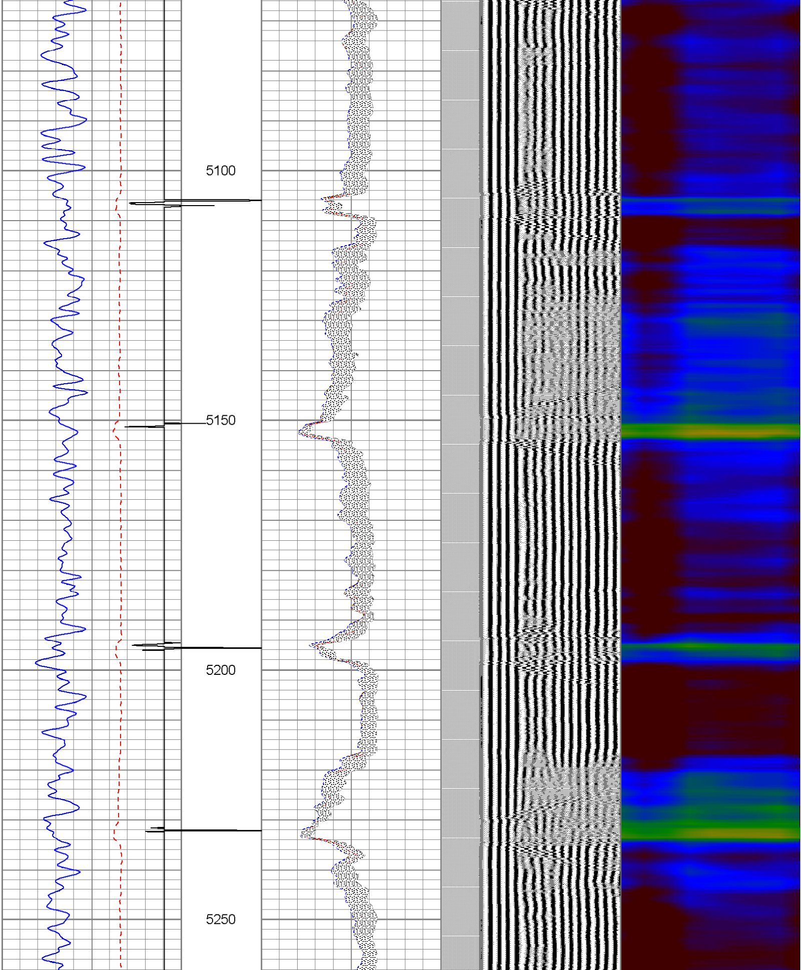

4000
4050
4100
4150
4200

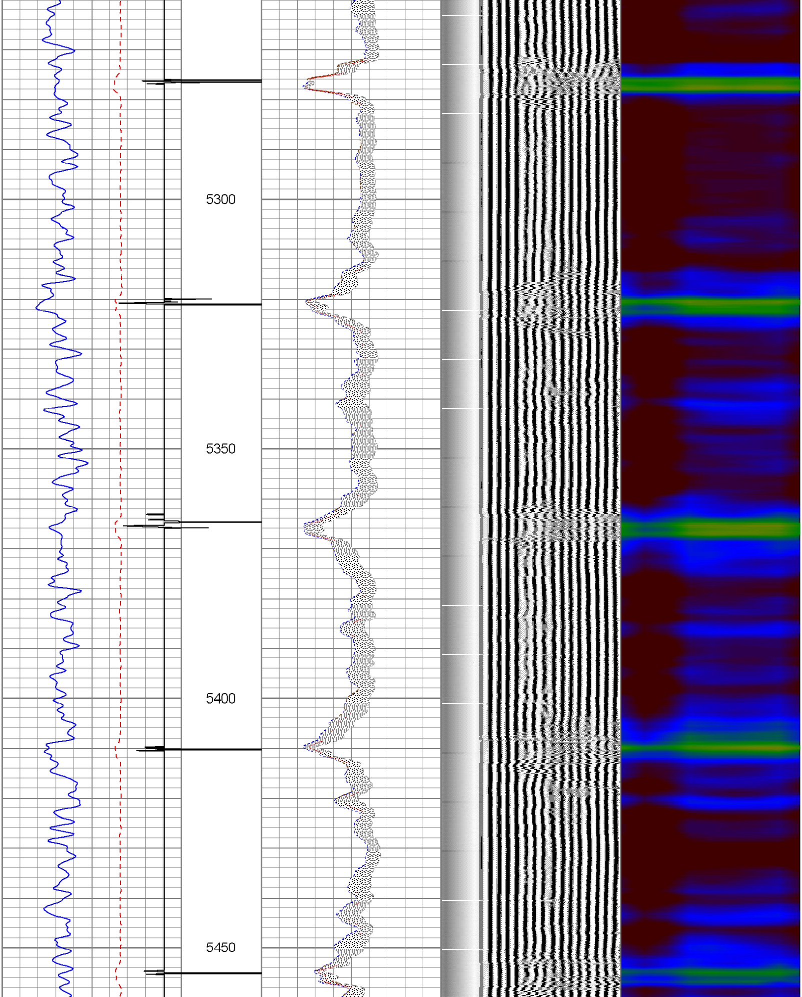

4250
4300
4350
4400

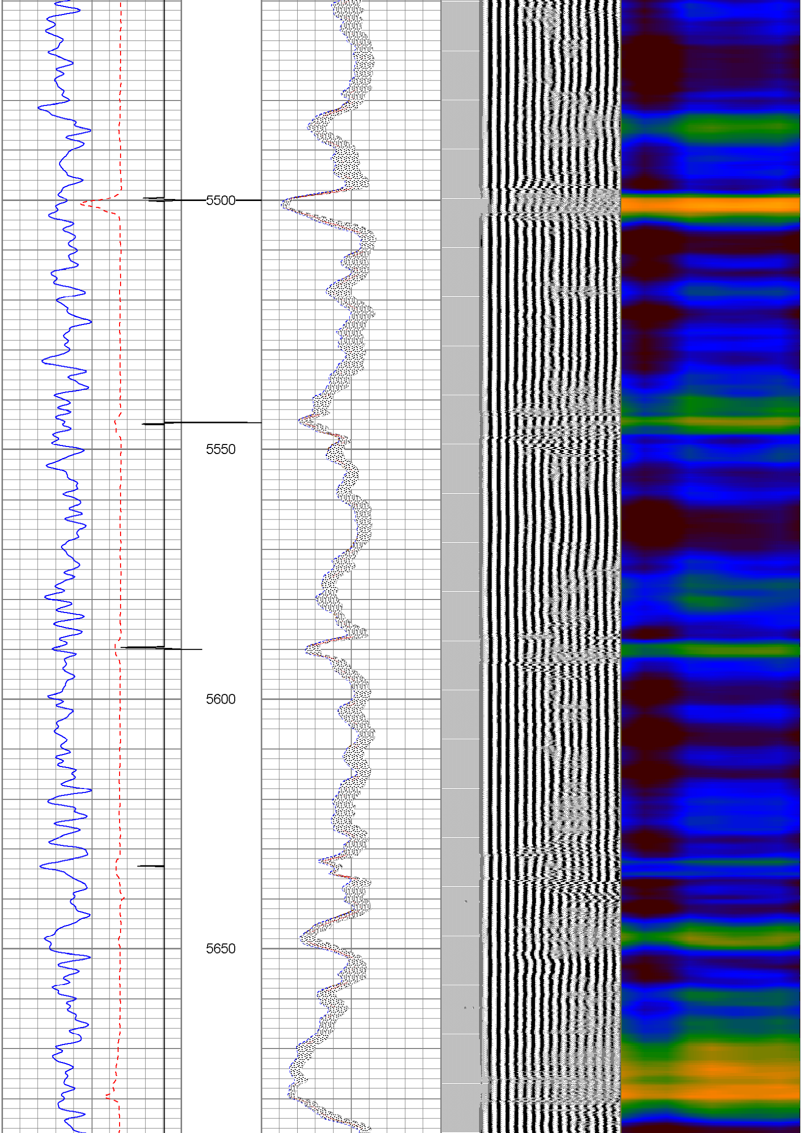

4450
4500
4550
4600

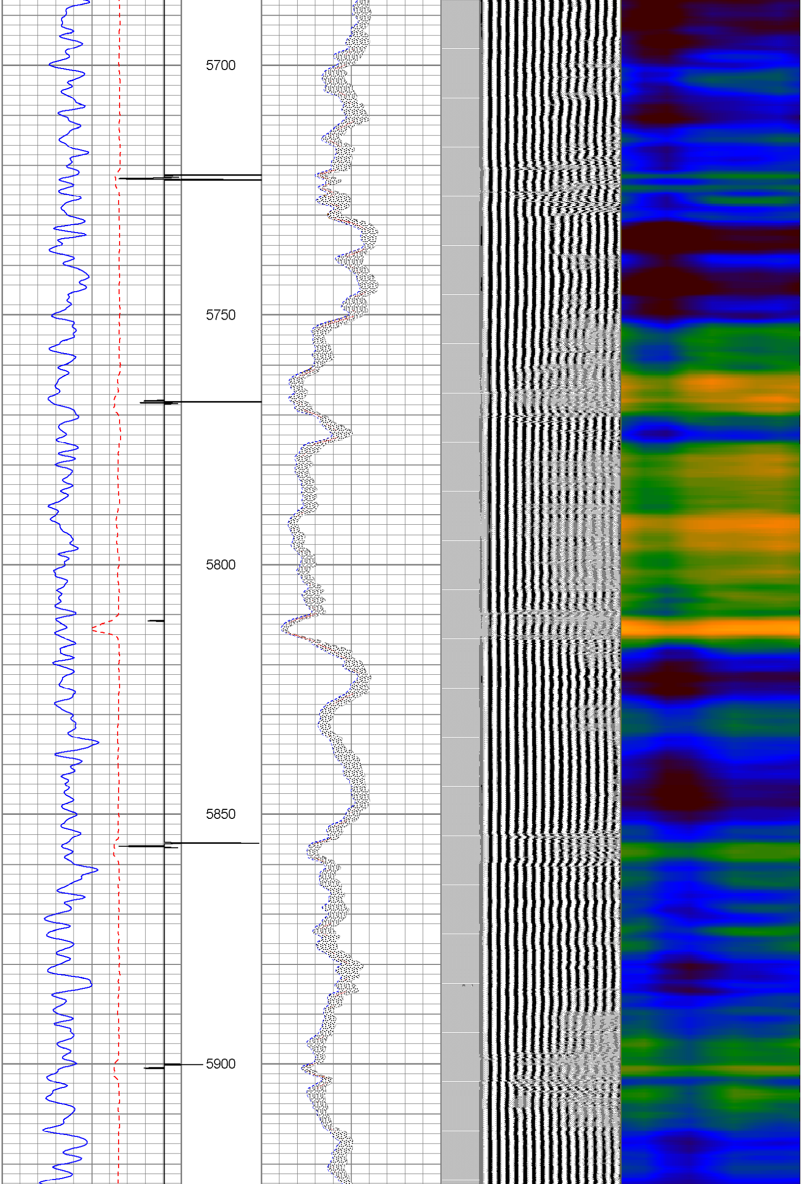

4650
4700
4750
4800

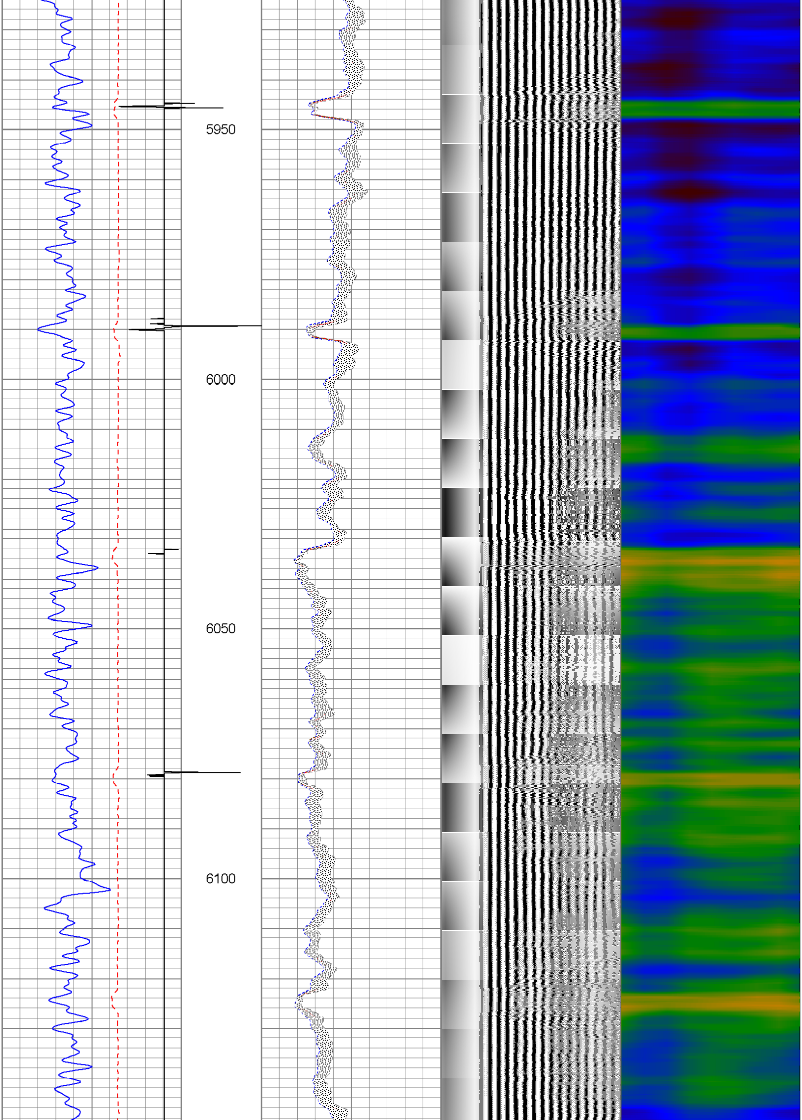

4850
4900
4950
5000
5050

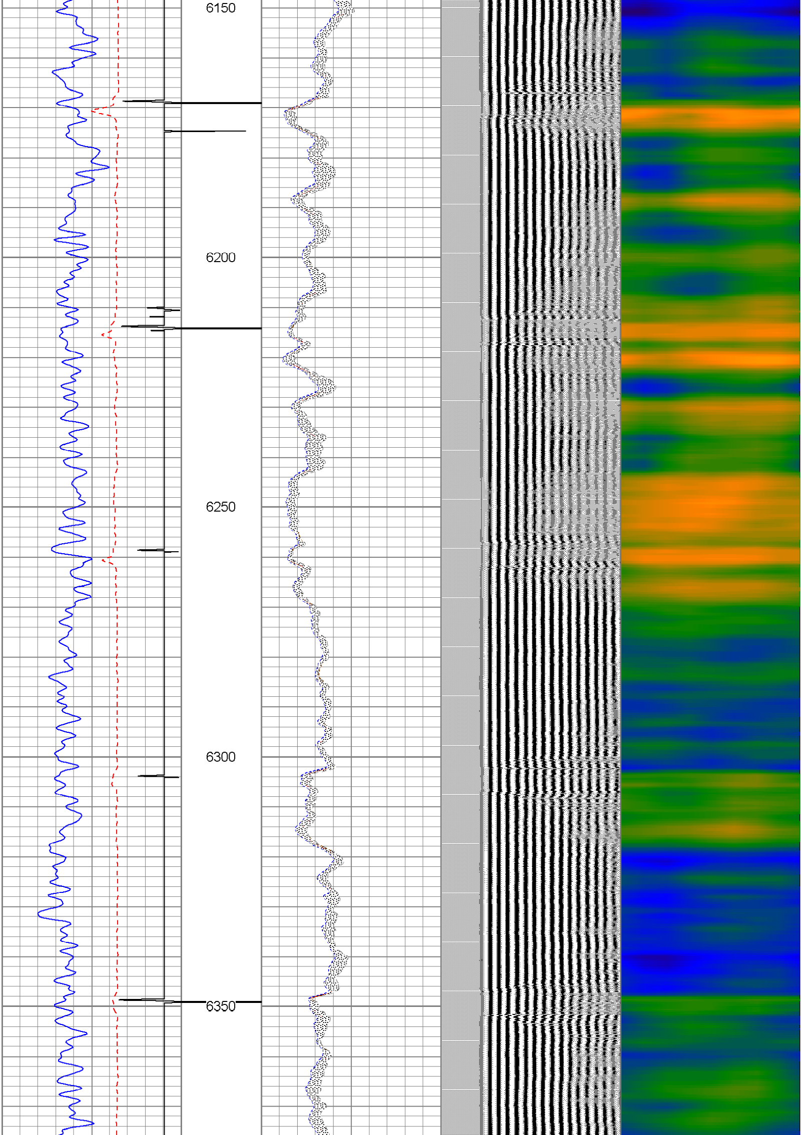

5100
5150
5200
5250

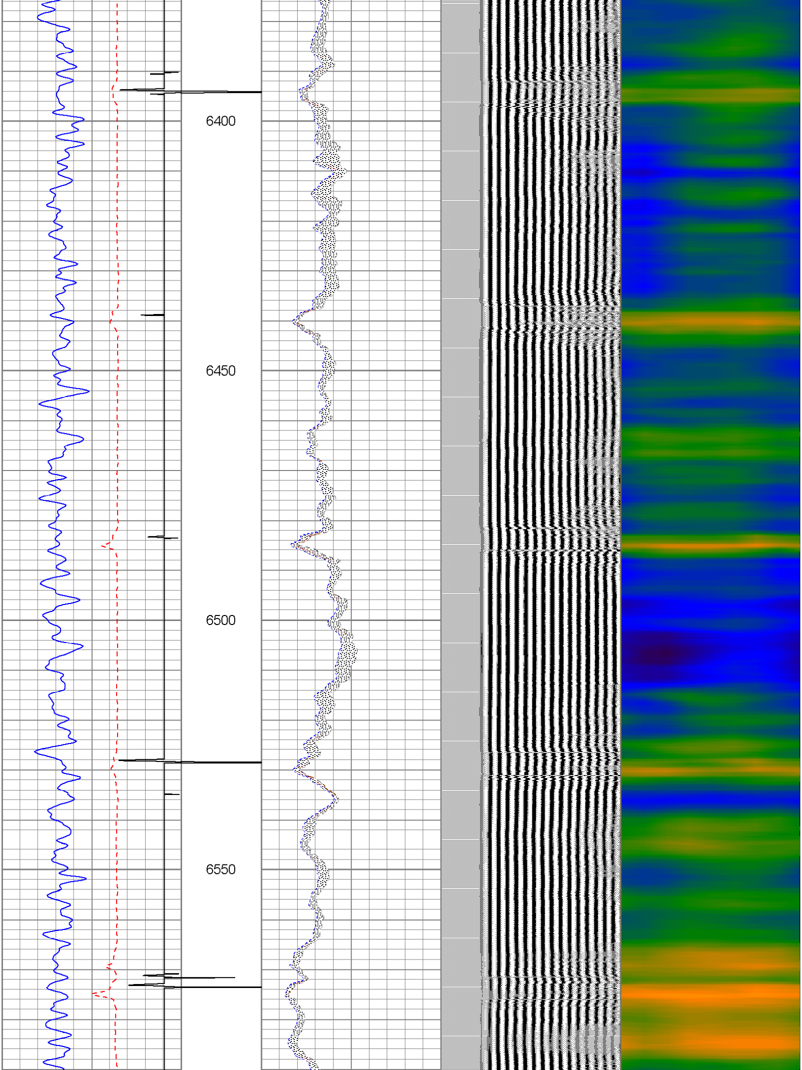

5300
5350
5400
5450

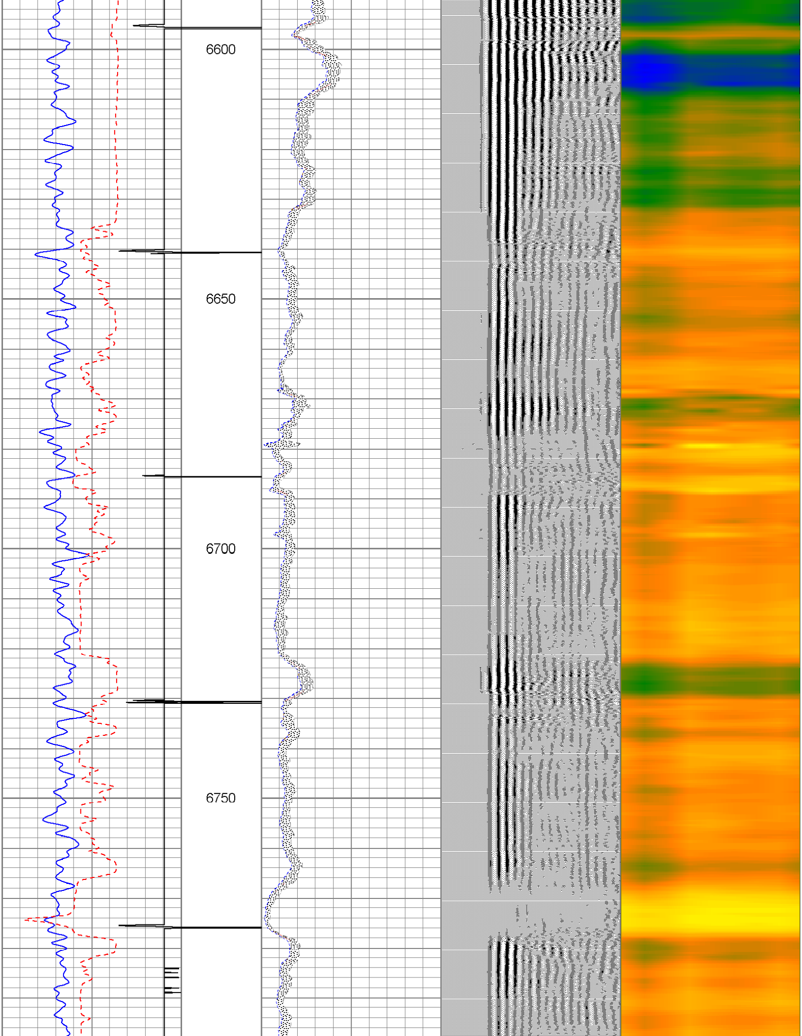

5500
5550
5600
5650

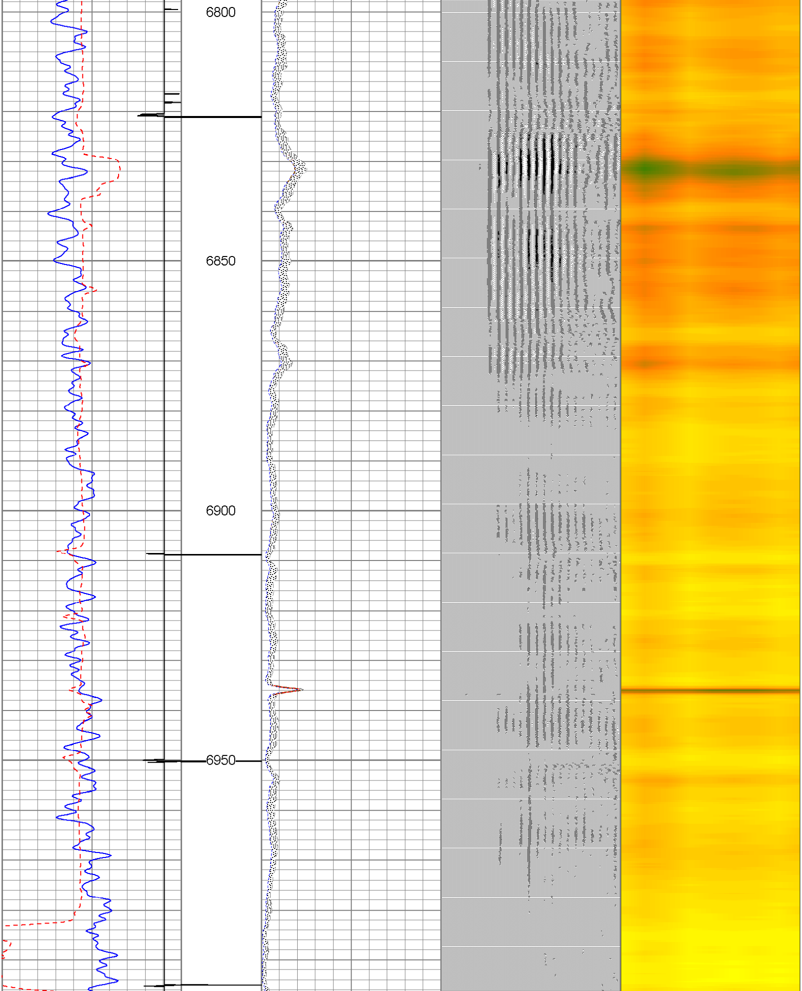

5700
5750
5800
5850
5900

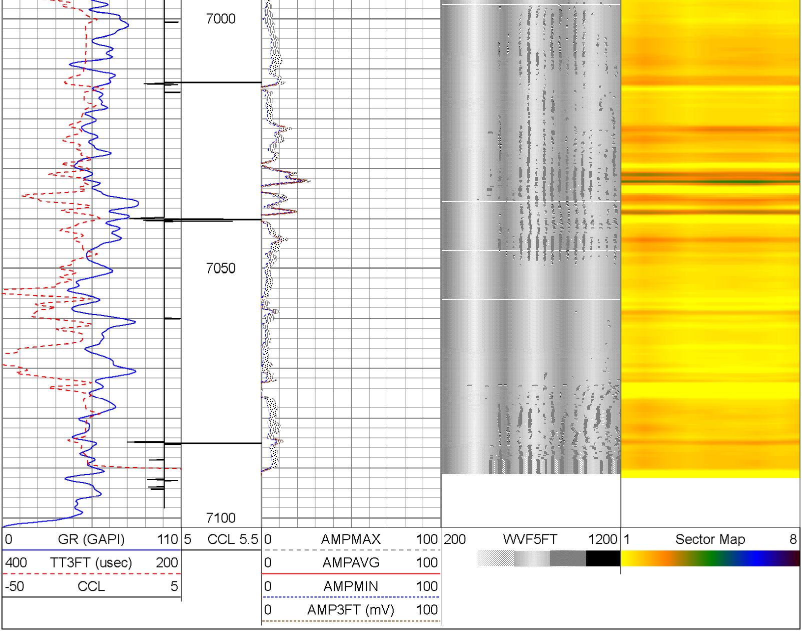

5950
6000
6050
6100


6150
6200
6250
6300
6350


6400
6450
6500
6550


6600
6650
6700
6750


6800
6850
6900
6950


7000
7050
7100
0 GR (GAPI) 110
400 TT3FT (usec) 200
-50 CCL 5
5 CCL 5.5
0 AMPMAX 100
0 AMPAVG 100
0 AMPMIN 100
0 AMP3FT (mV) 100
200 WVF5FT 1200
1 Sector Map 8