C&J ENERGY SERVICES

Company	PDC Energy
Well	Challenger 5N
Field	Wattenberg
County	Weld
State	CO

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

Company PDC Energy
Well Challenger 5N
Field Wattenberg
County Weld State CO

Location: API #: 05-123-45895
1388' FNL & 2431' FWL
SE / NW
SEC 8 TWP 4N RGE 64W

Other Services

Permanent Datum
Log Measured From
Drilling Measured From
Elevation 4775'

Elevation
K.B.
D.F.
G.L. 4775'

Date	April 3, 2019
Run Number	1
Depth Driller	14,053'
Depth Logger	7000'
Bottom Logged Interval	7000'-0'
Top Log Interval	
Casing Size	
Type Fluid	Water
Max. Recorded Temp.	236°
Estimated Cement Top	
Time Well Ready	
Time Logger On Bottom	
Unit Number	
Tool Size / ID Number	Probe 2-3/4" Radii
Location	WCRs48+51,e1/2,s
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

Challenger 9 Well Pad

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

X = Challenger 5N

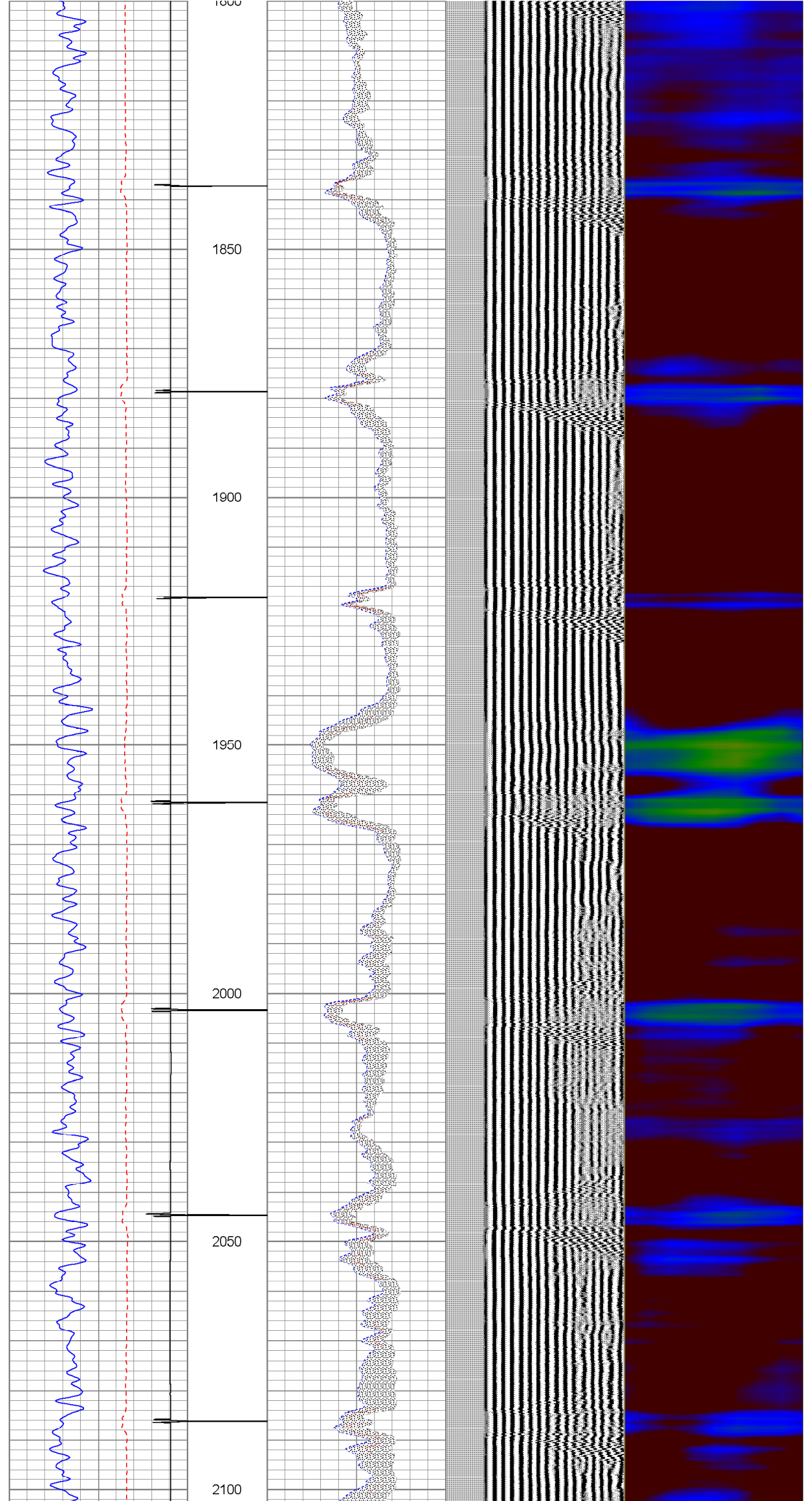
Database File: pdcc5n.db
Dataset Pathname: pass3
Presentation Format: sector2
Dataset Creation: Wed Apr 03 12:47:20 2019 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

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

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

Database File: pdcc5n.db
Dataset Pathname: pass2
Presentation Format: sector2
Dataset Creation: Wed Apr 03 12:41:26 2019 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

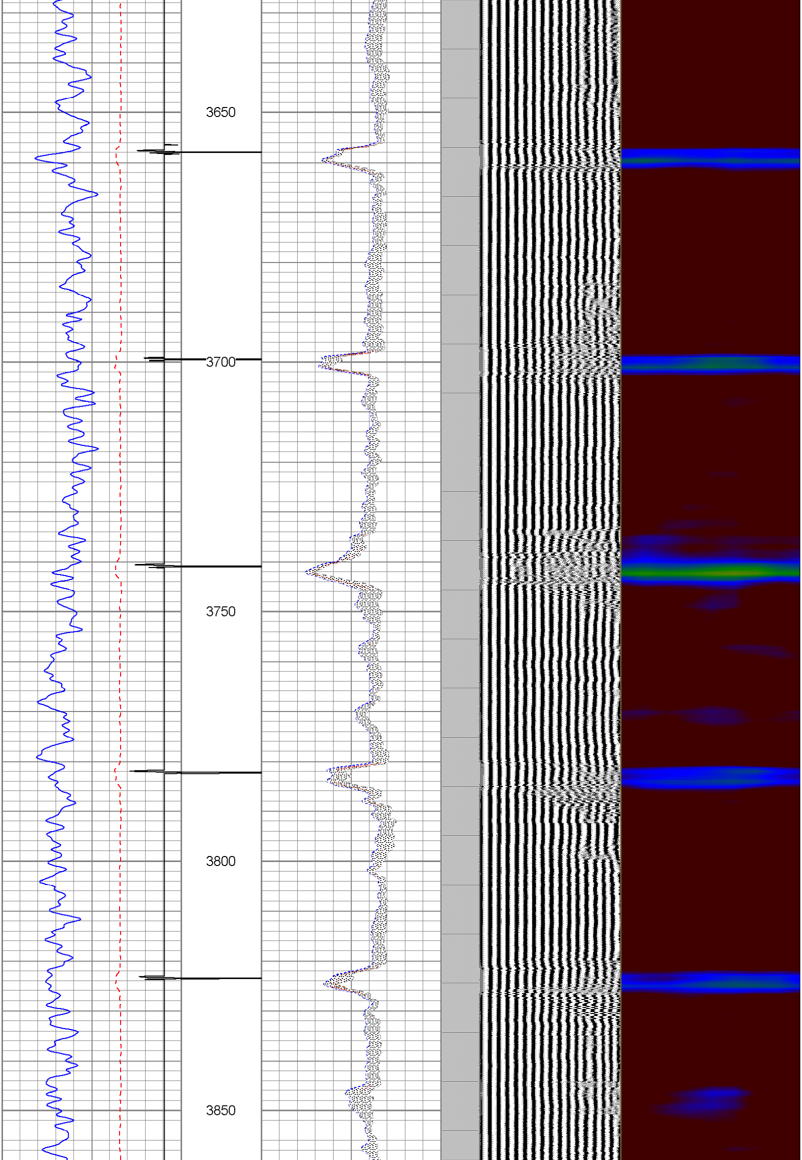
0 GR (GAPI) 110 | 5 CCL 5.5 | 0 AMPMAX 100 | 200 WVF5FT 1200 | 1 Sector Map 8
400 TT3FT (usec) 200 | 0 AMPAVG 100
-50 CCL 5 | 0 AMPMIN 100
0 AMP3FT (mV) 100

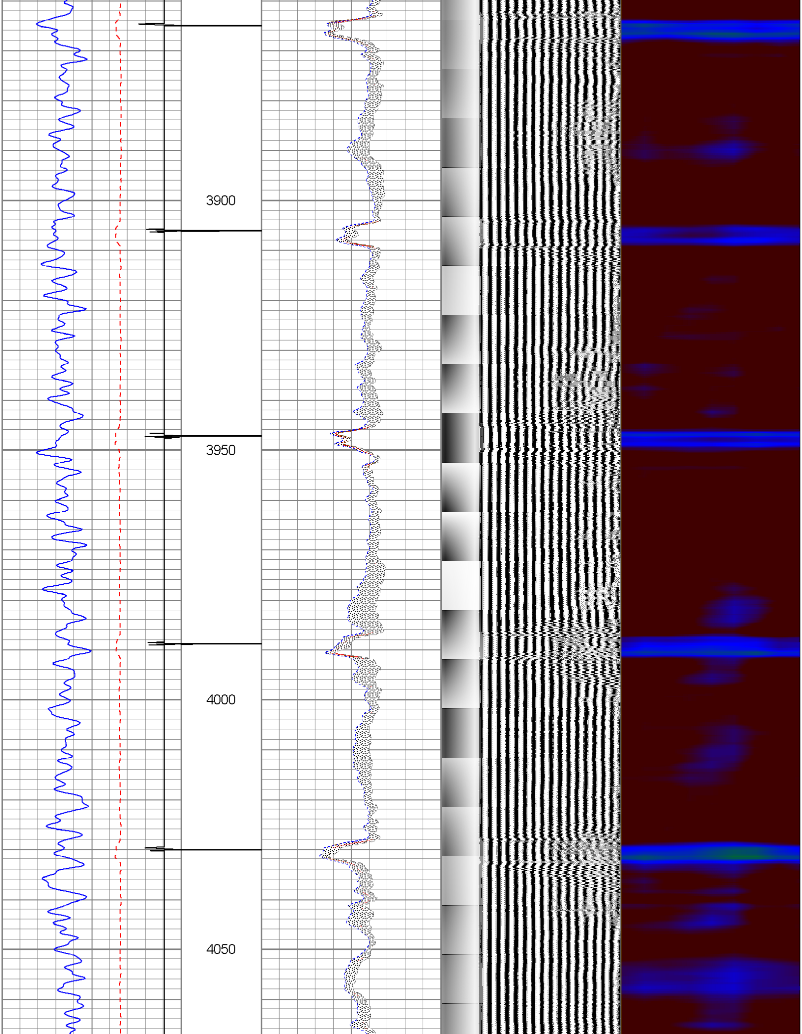


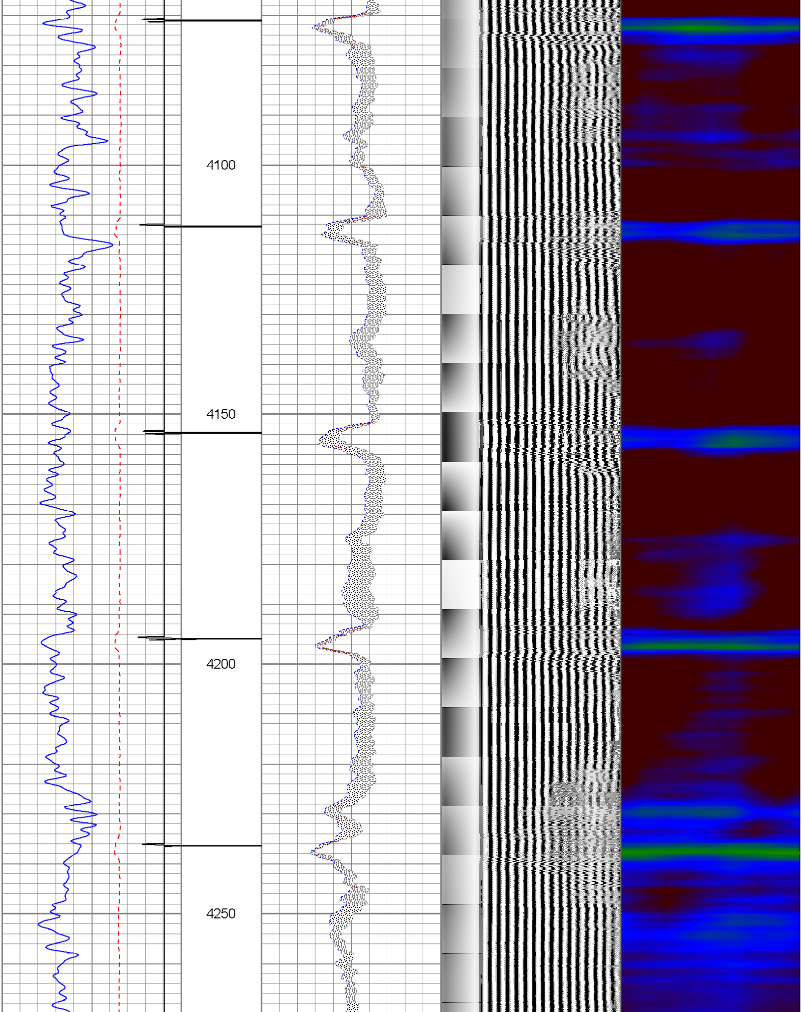
0 GR (GAPI) 110 | 5 CCL 5.5 | 0 AMPMAX 100 | 200 WVF5FT 1200 | 1 Sector Map 8
400 TT3FT (usec) 200 | 0 AMPAVG 100
-50 CCL 5 | 0 AMPMIN 100
0 AMP3FT (mV) 100

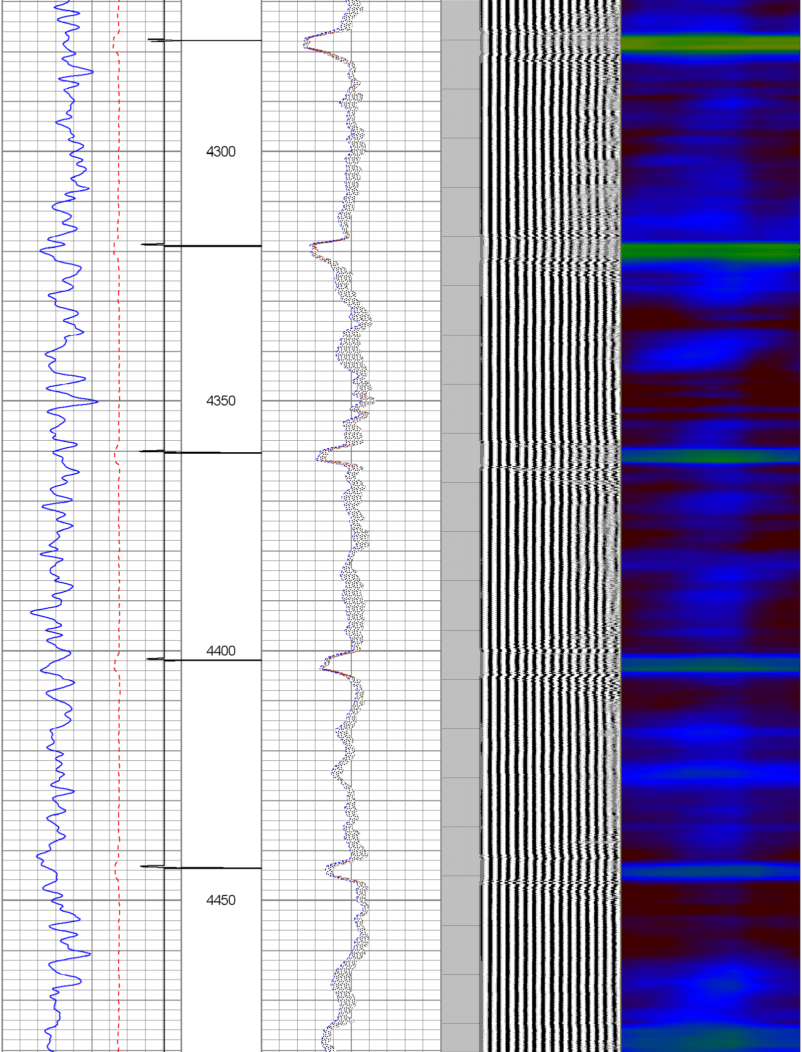
Database File: pdcc5n.db
Dataset Pathname: pass1
Presentation Format: sector2
Dataset Creation: Wed Apr 03 11:56:43 2019 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

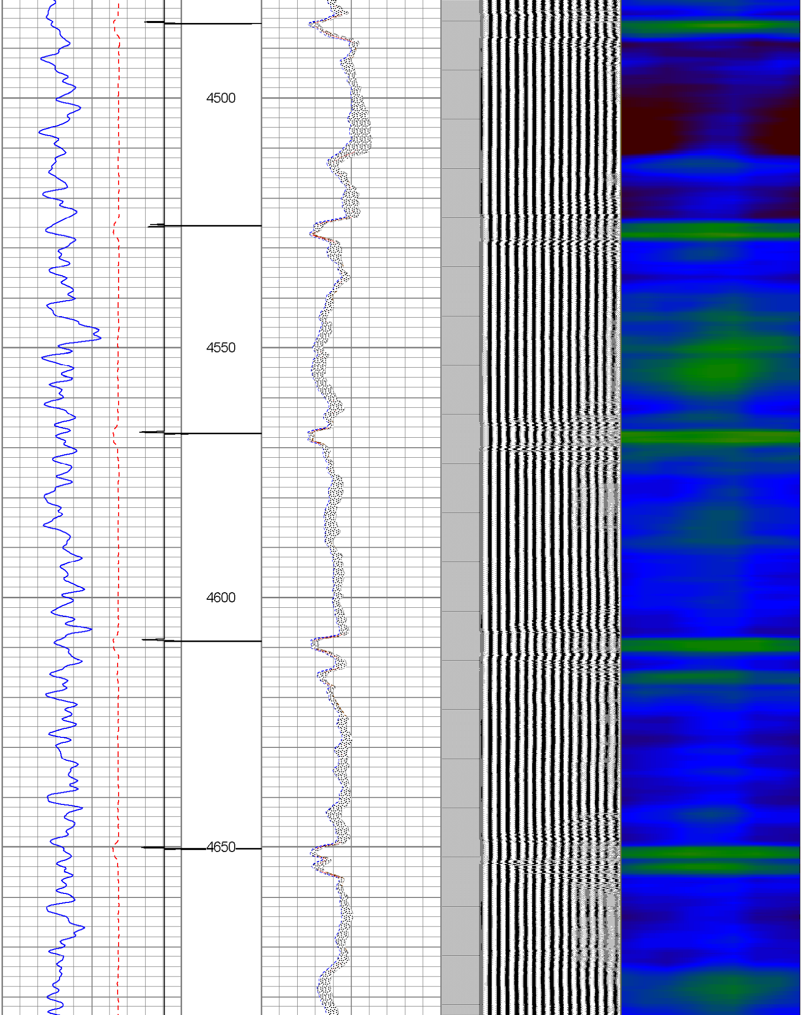
0 GR (GAPI) 110 | 5 CCL 5.5 | 0 AMPMAX 100 | 200 WVF5FT 1200 | 1 Sector Map 8
400 TT3FT (usec) 200 | 0 AMPAVG 100
-50 CCL 5 | 0 AMPMIN 100
0 AMP3FT (mV) 100

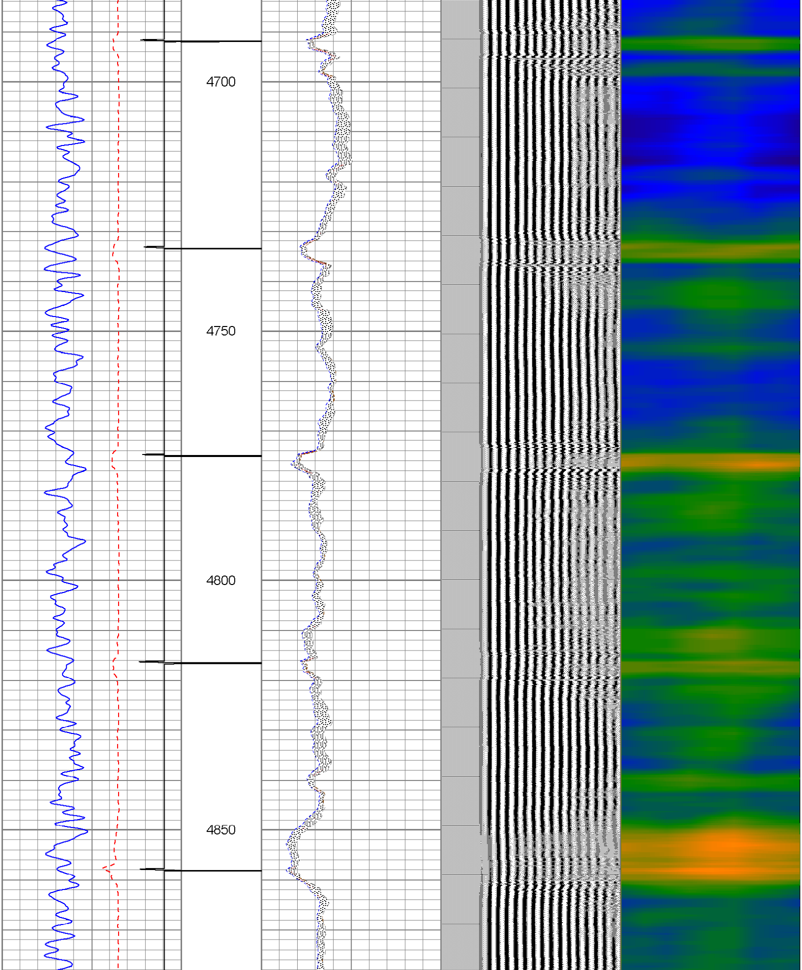

3650
3700
3750
3800
3850

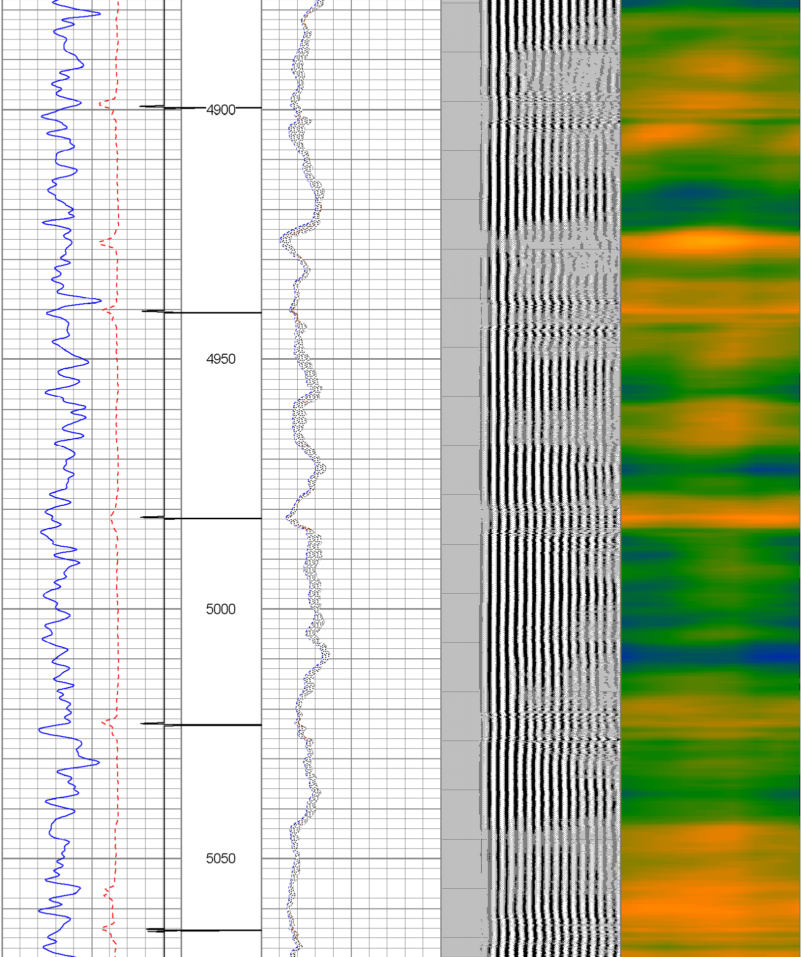

3900
3950
4000
4050

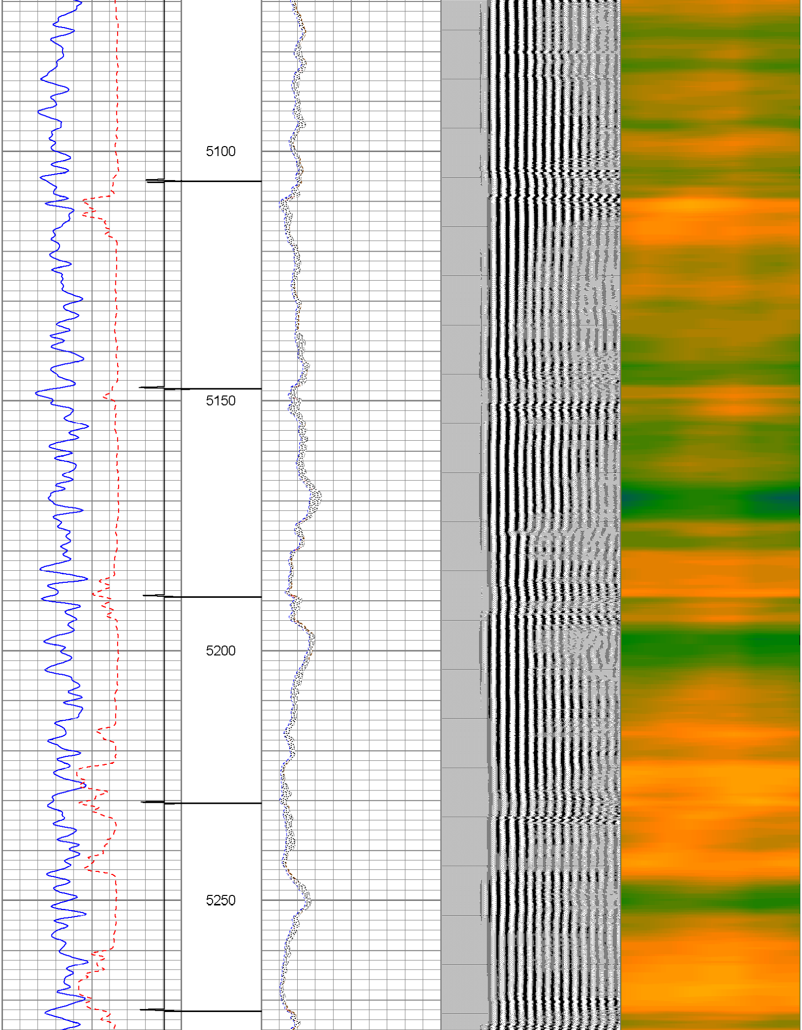

4100
4150
4200
4250

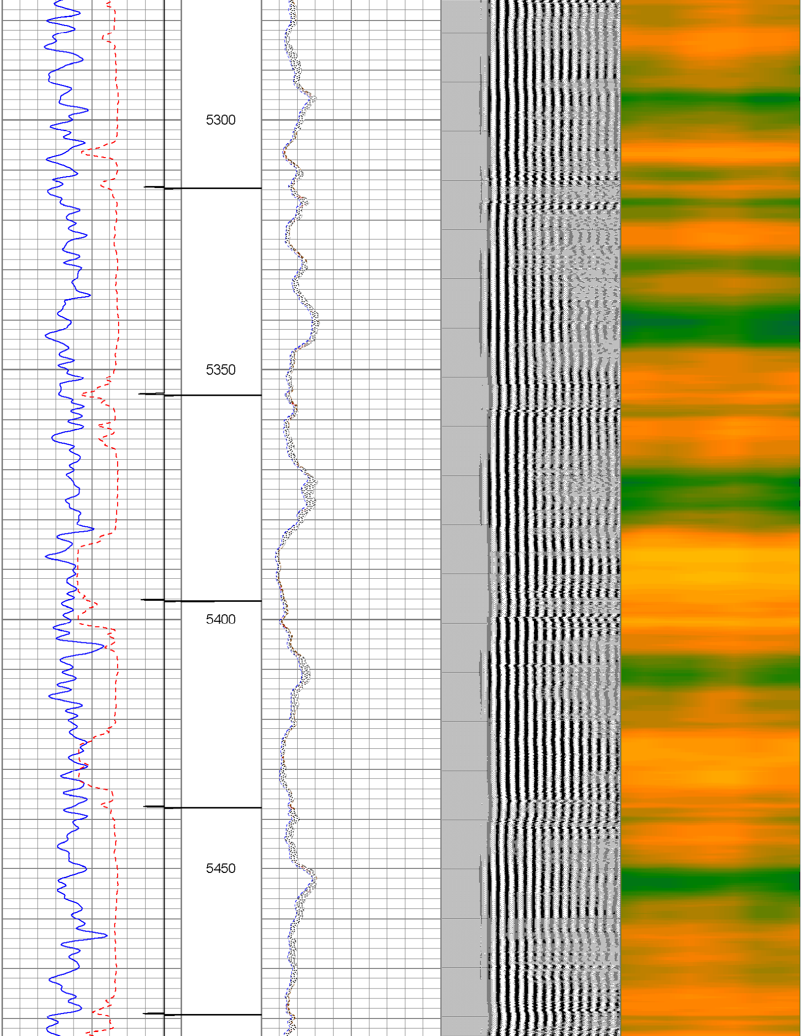

4300
4350
4400
4450

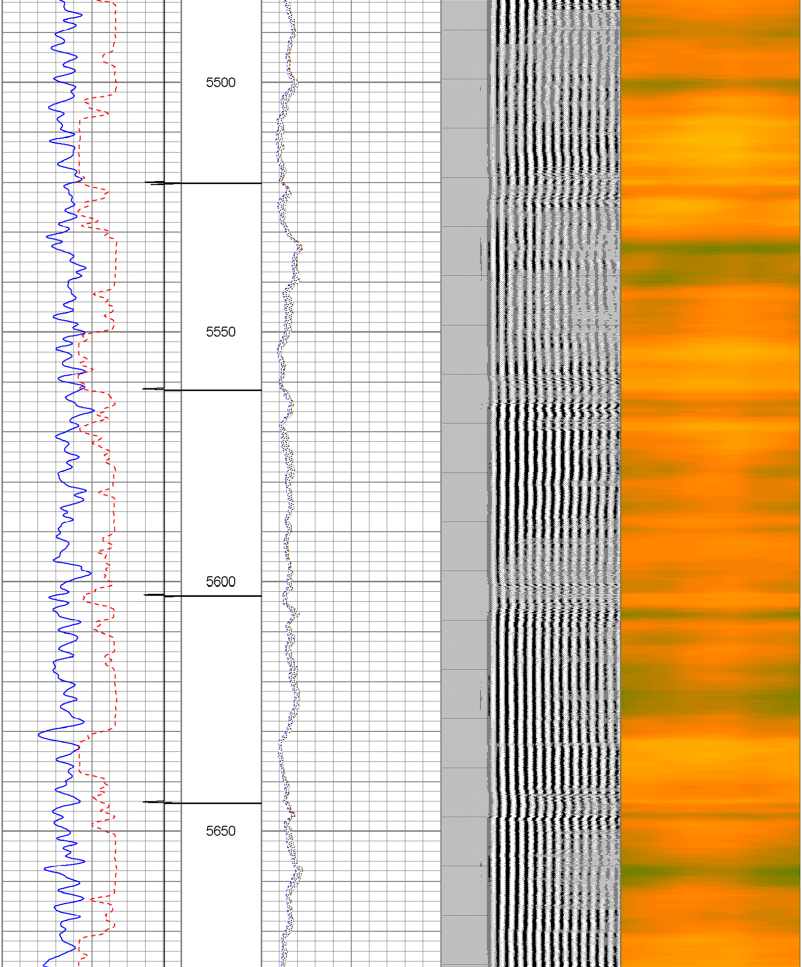

4500
4550
4600
4650

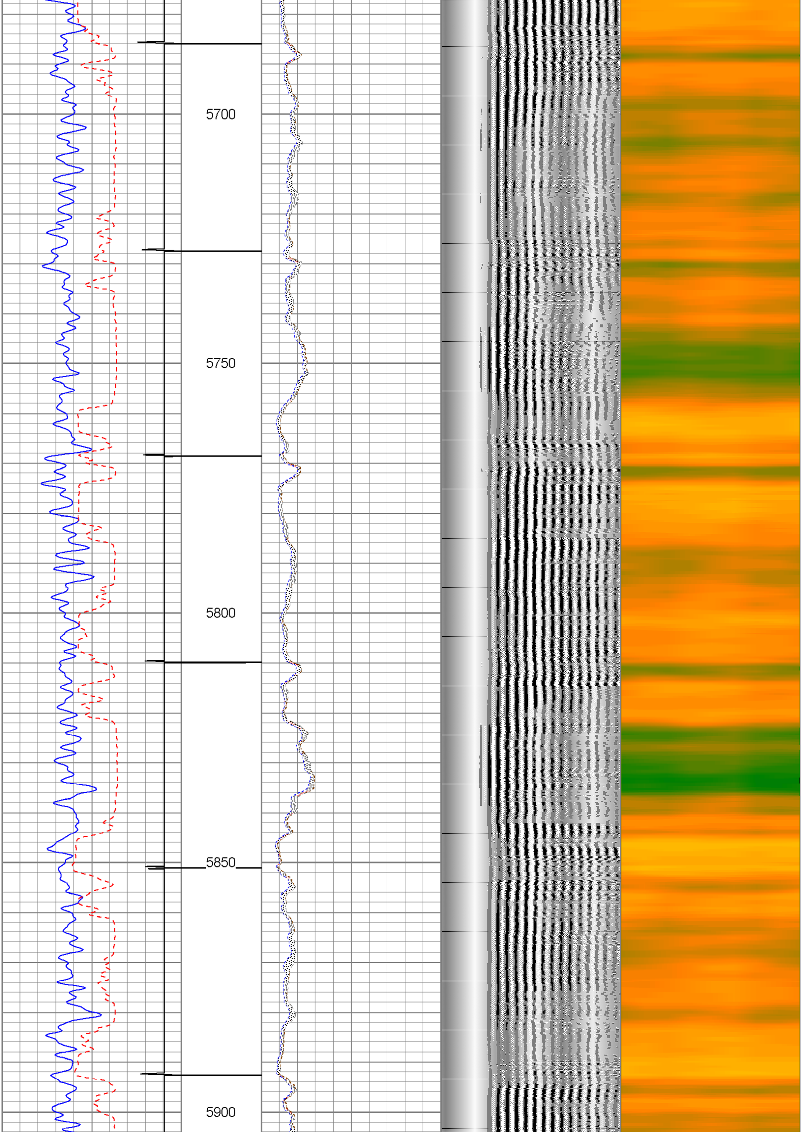

4700
4750
4800
4850

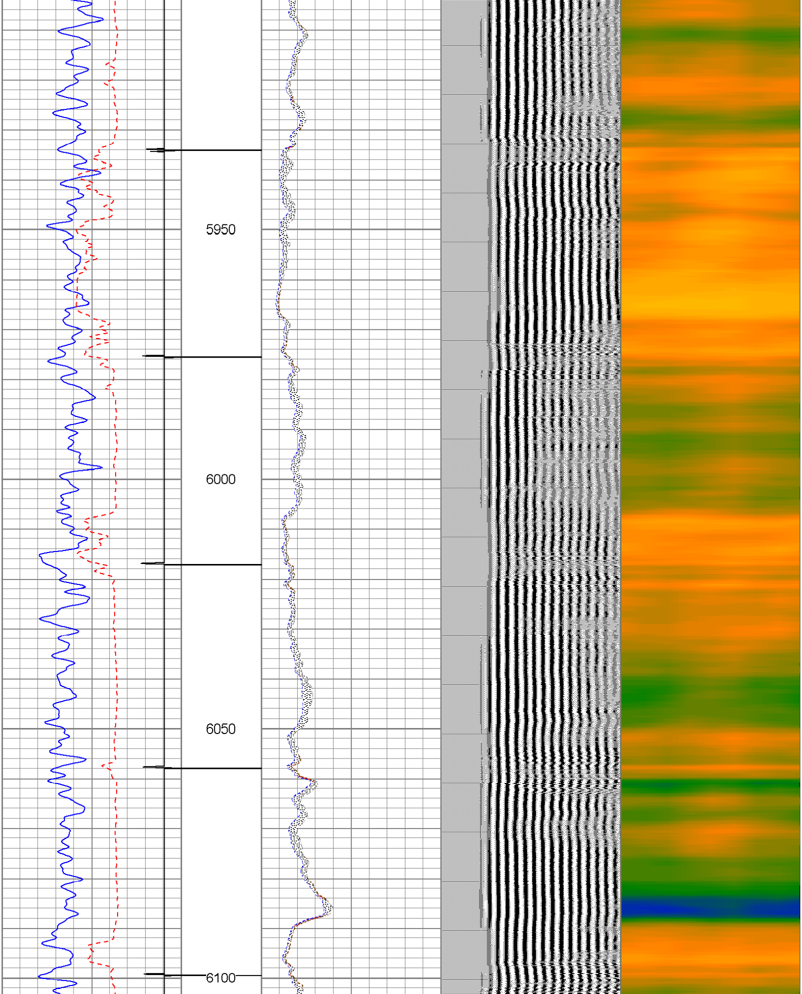

4900
4950
5000
5050

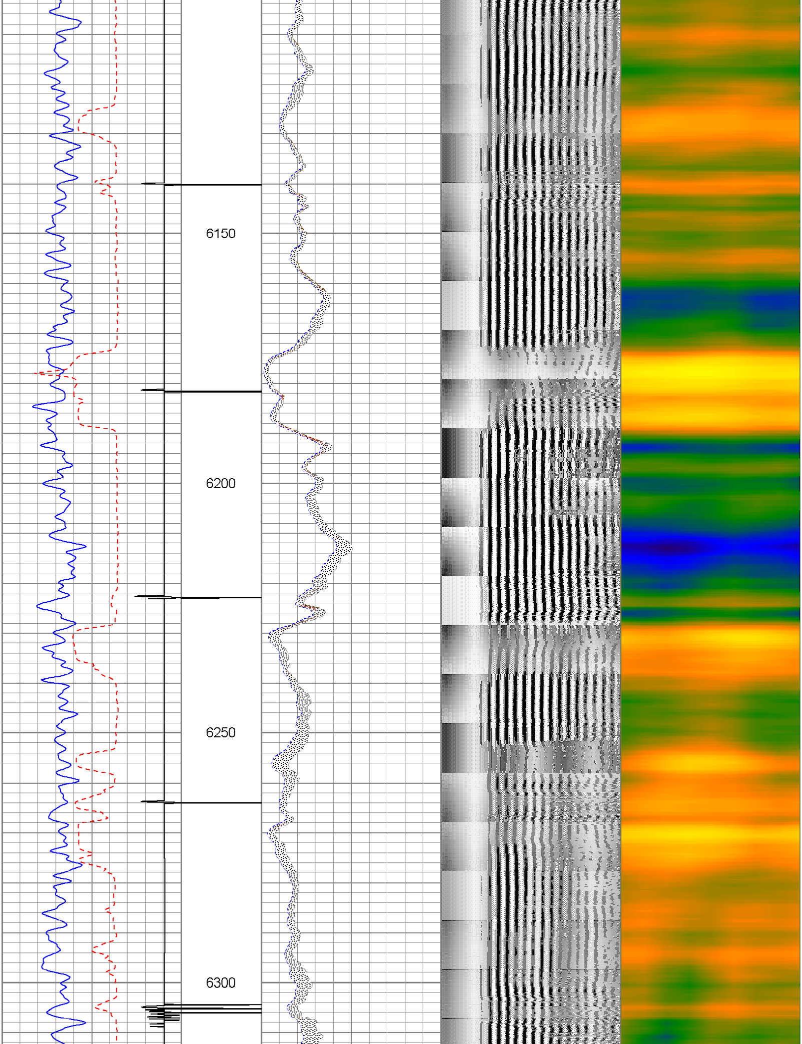

5100
5150
5200
5250

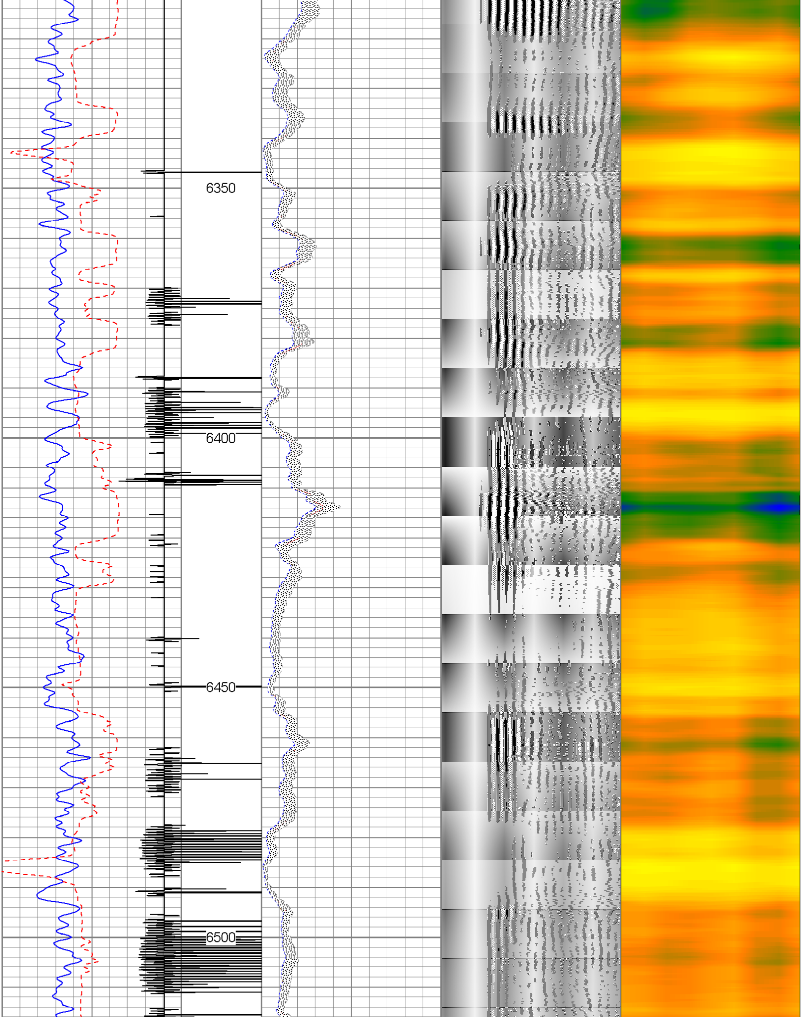

5300
5350
5400
5450

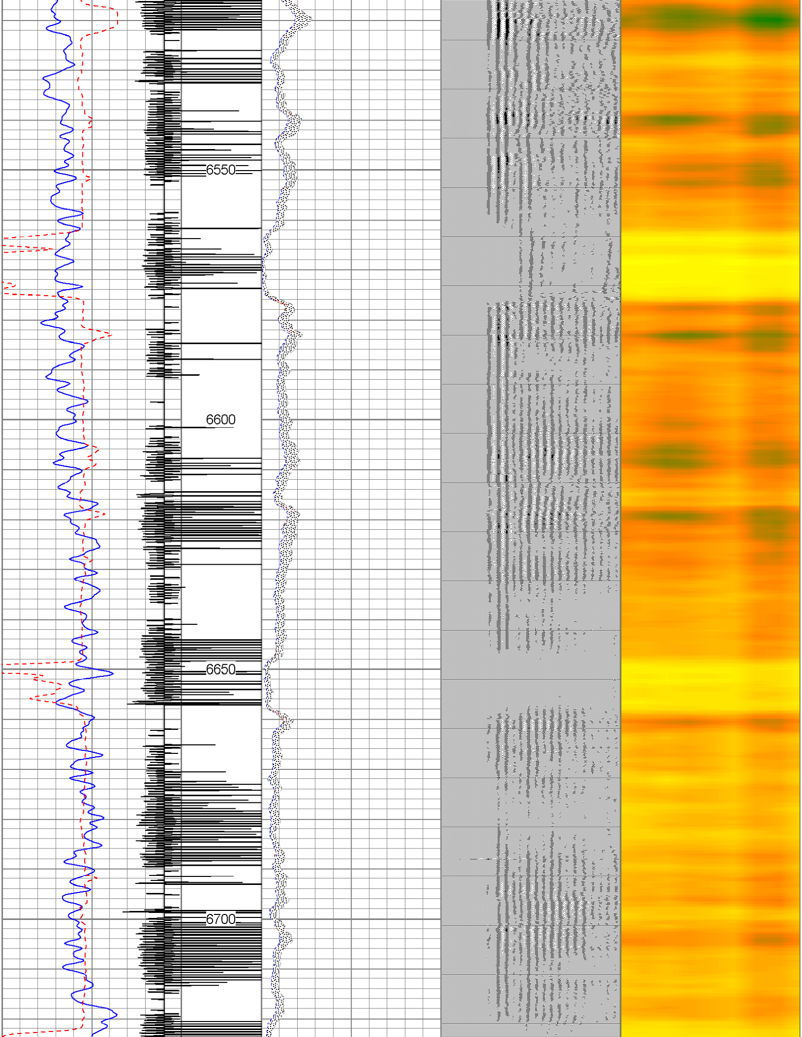

5500
5550
5600
5650

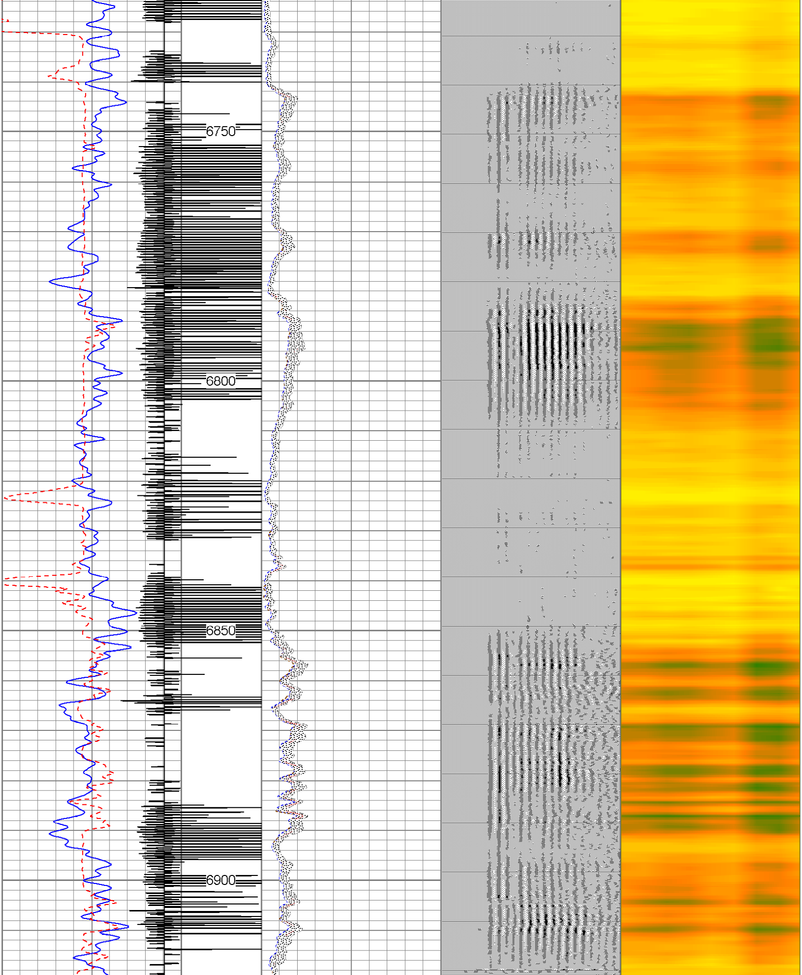

5700
5750
5800
5850
5900

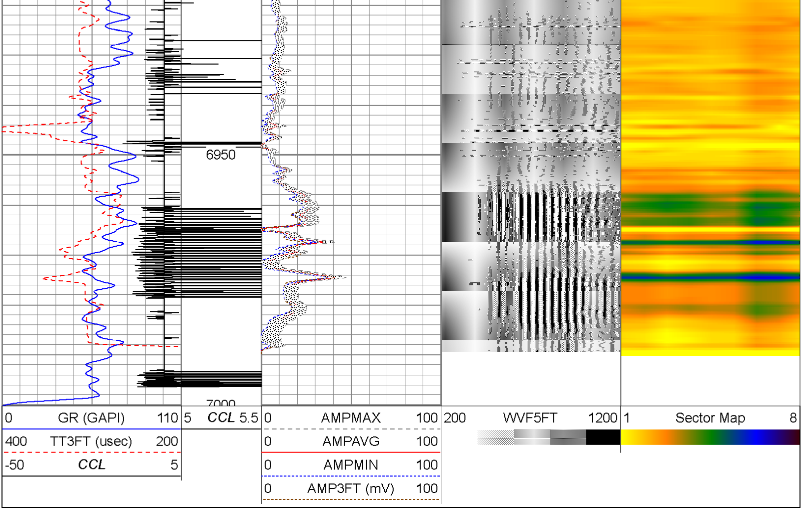

5950
6000
6050
6100


6150
6200
6250
6300


6350
6400
6450
6500


6550
6600
6650
6700


6750
6800
6850
6900


6950
7000
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