Pioneer Energy Services

GAMMA RAY CCL CEMENT BOND VDL SECTOR MAP

Company	EnCana Oil & Gas (USA) Inc.
Well	Grant Hurt 1C-14H
Field	Wattenberg
County	Weld
State	Colorado
Country	USA

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Location: API # : 0512338091000

2449' FNL & 1579' FEL
SWNE

SEC 14 TWP 2N RGE 68W

Other Services

Permanent Datum	GL	Elevation	4888
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4918
D.F. 4918
G.L. 4888

Date	August 15, 2013		
Run Number	1		
Depth Driller	14470		
Depth Logger	7850		
Bottom Logged Interval	7850		
Top Log Interval	0		
Open Hole Size	8+3/4"		
Type Fluid	Drilling Mud		
Density / Viscosity	11.7 / 43		
Max. Recorded Temp.	210		
Estimated Cement Top	280		
Time Well Ready	2300		
Time Logger on Bottom	0035 8/16/2014		
Equipment Number	48		
Location	Fort Morgan CO		
Recorded By	Shaun Stump		
Witnessed By	Mike Quintana		

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9 5/8		0	855
Prot. String				
Production String	7"	26 lbs	0	7908
Liner				

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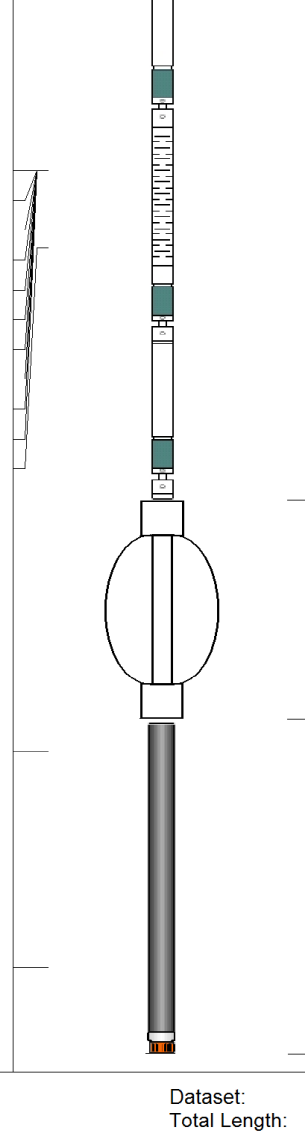
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

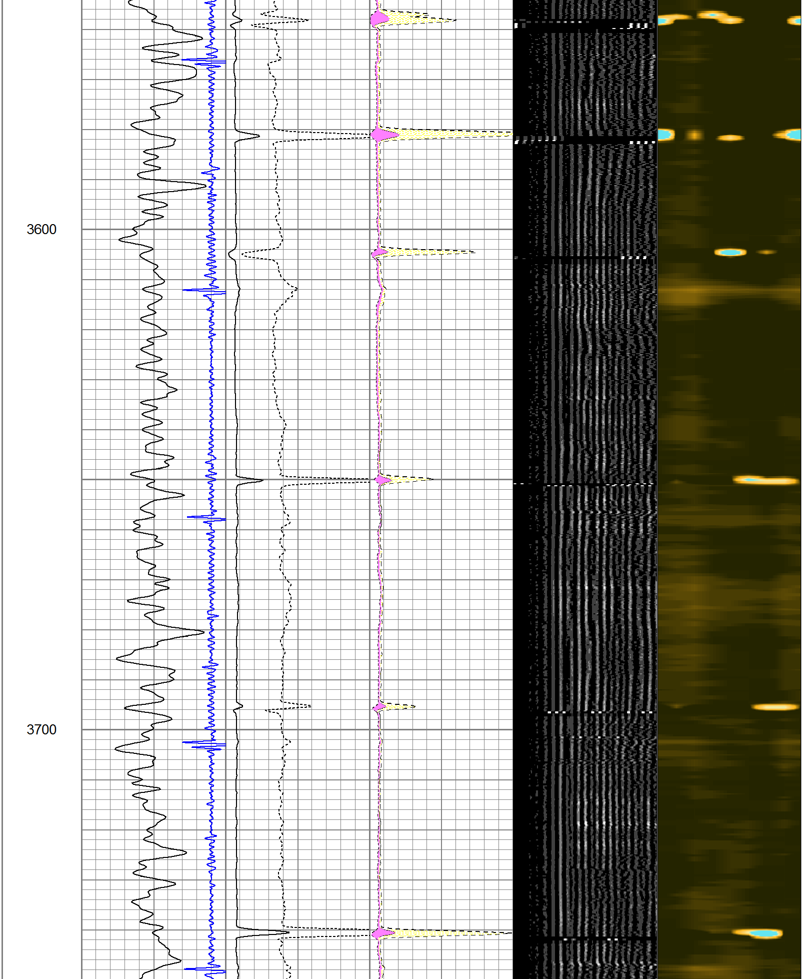
Thank You for using Pioneer Energy Services
Patterson Drilling Rig 326
Infrequent voltage spikes caused some erroneous data especially noticeable between 6700 to 7000'
At customer request, we did not relog those areas.



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT #2 -A (1)	2.83	2.75	20.00
IntTemp	14.66				
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.41 11.41 11.41 11.41 11.41 11.41 11.41 11.41 11.41 11.41 10.41	RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		CENT-A (1)	2.83	2.75	20.00
CCL	3.92				
GR	1.13	GR-probe 2.75 (111205) probe Digital CCL Gamma	4.33	2.75	100.00

Dataset: 13656.db: field/well/run1/pass2
Total Length: 18.91 ft
Total Weight: 230.00 lb
O.D.: 2.75 in

Database File: 13656.db
Dataset Pathname: pass3
Presentation Format: scbl02
Dataset Creation: Sat Aug 16 00:52:35 2014 by Log 0
Charted by: Depth in Feet scaled 1:240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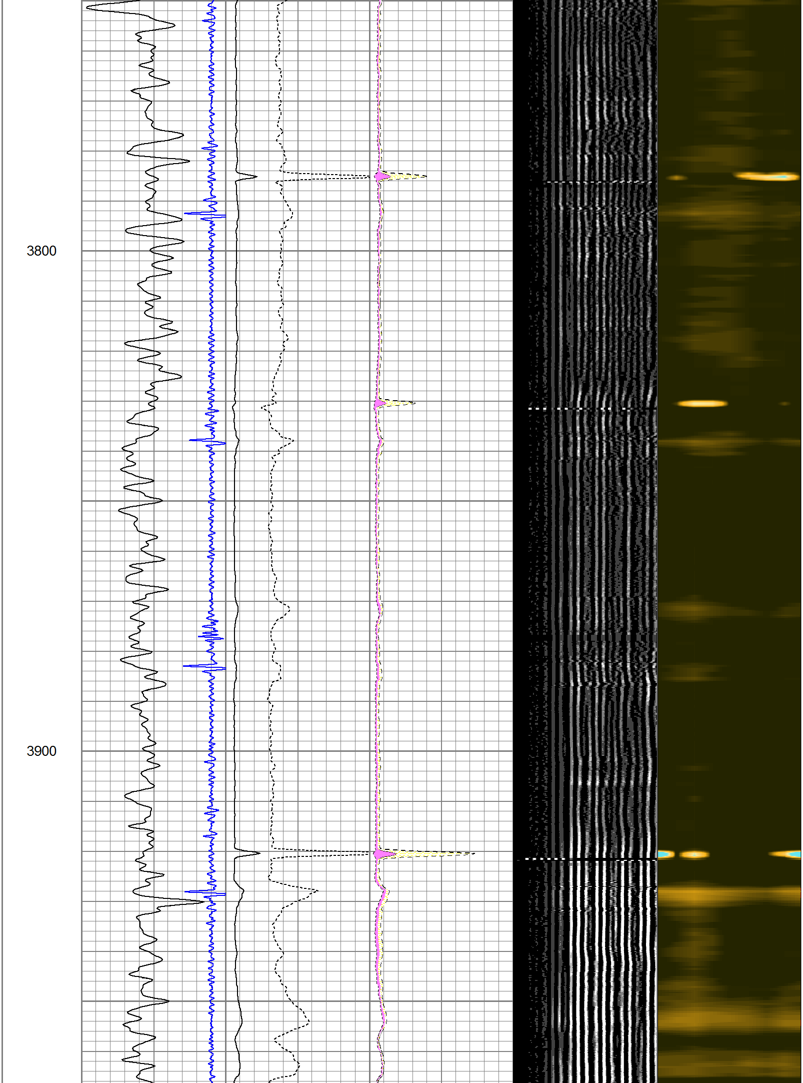
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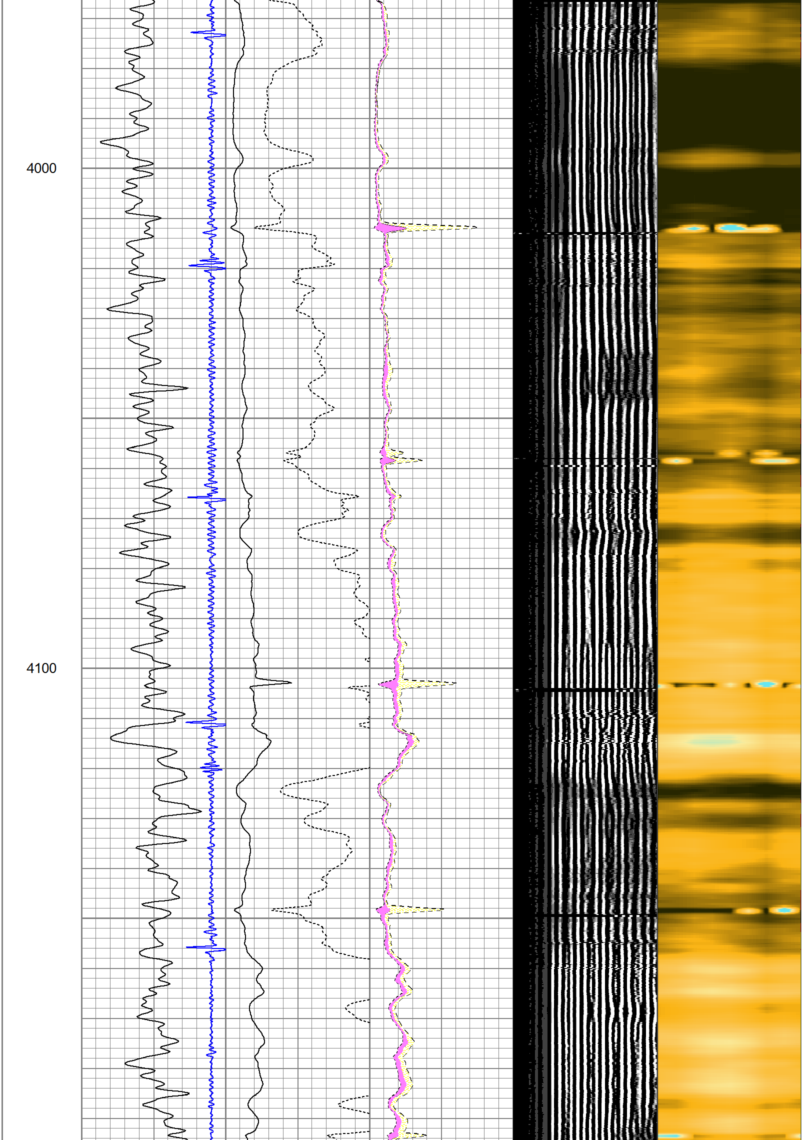
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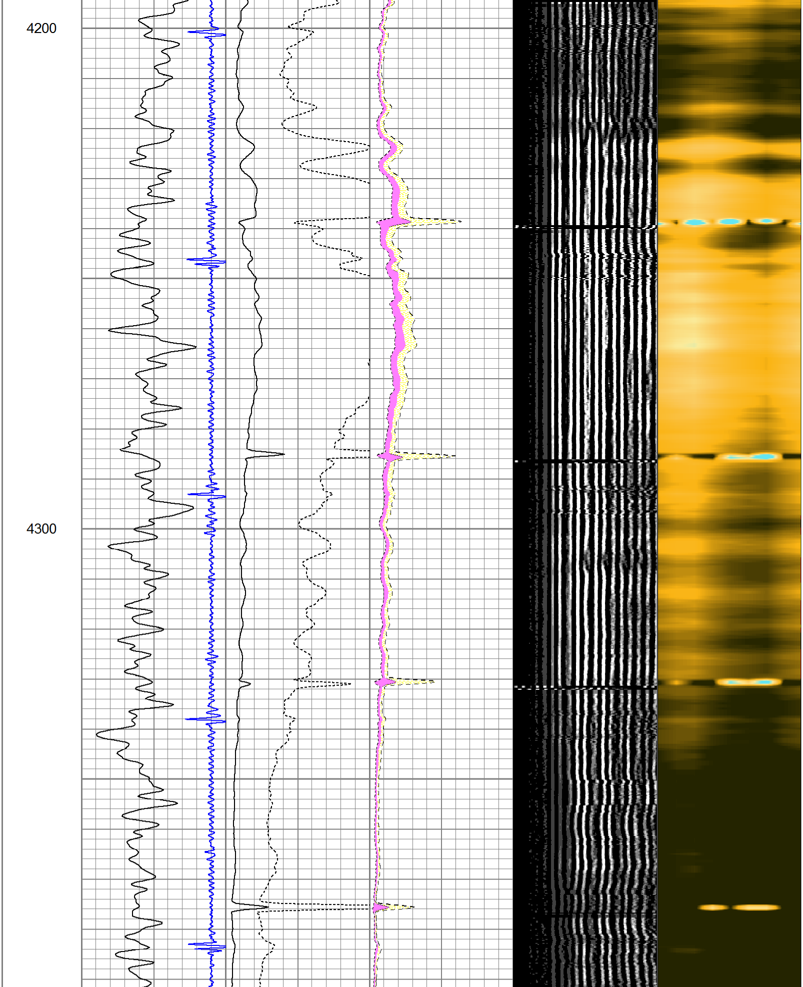
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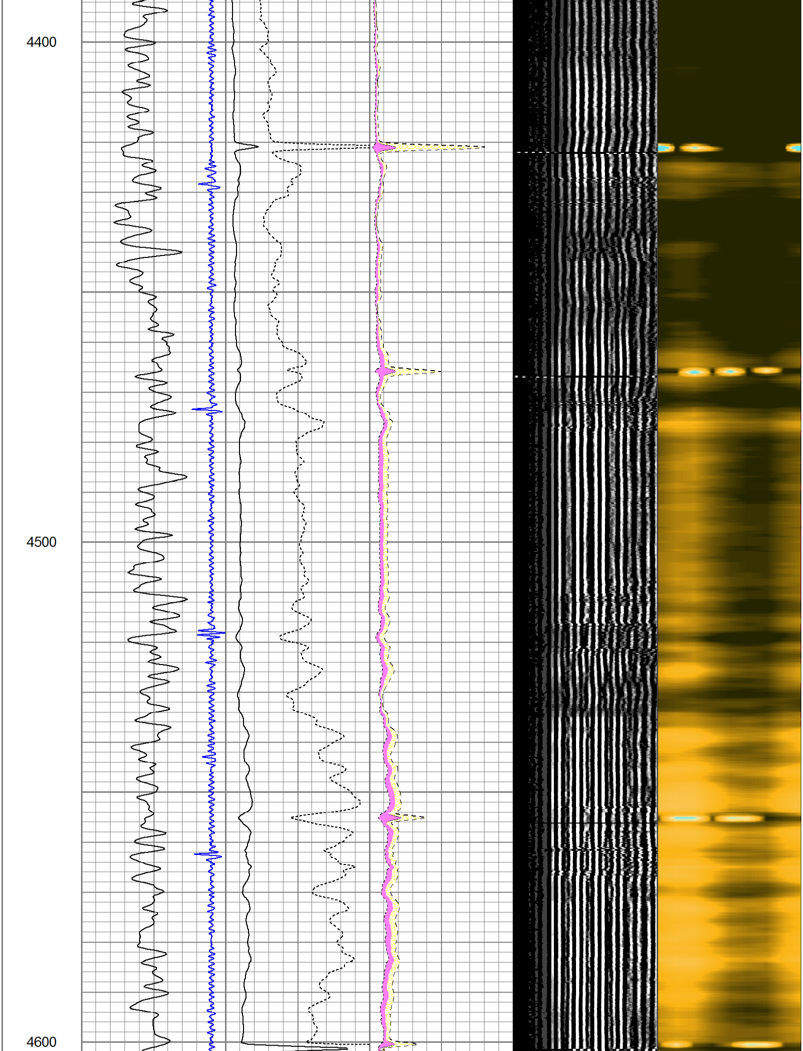
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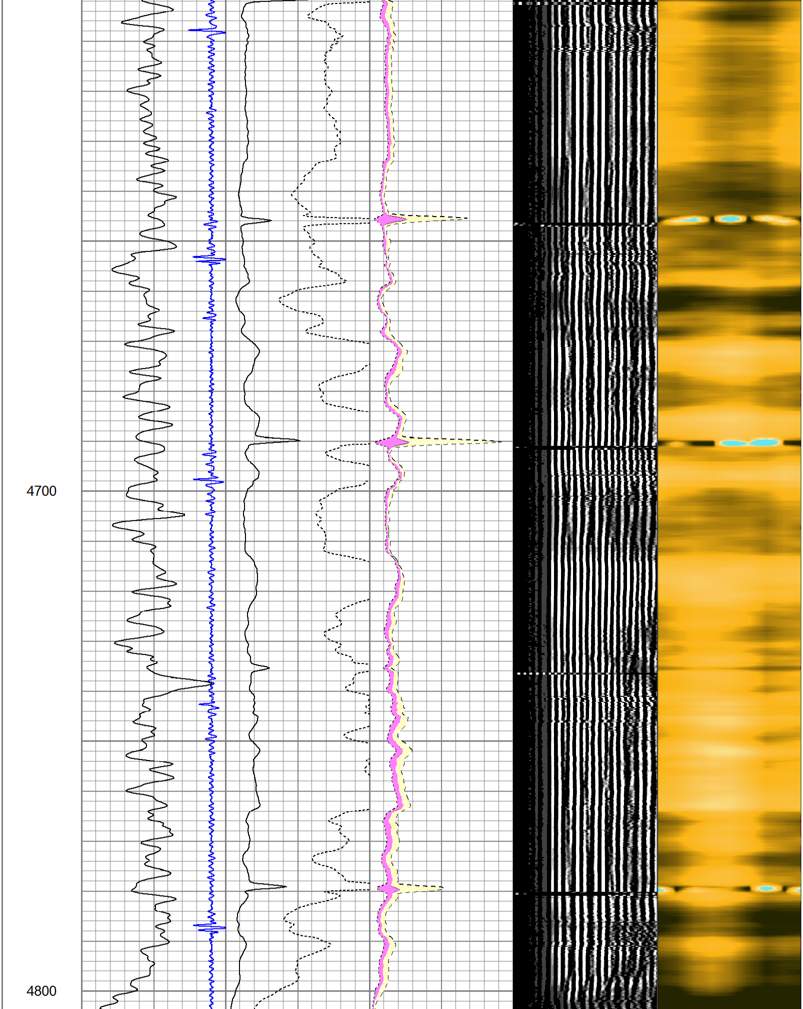
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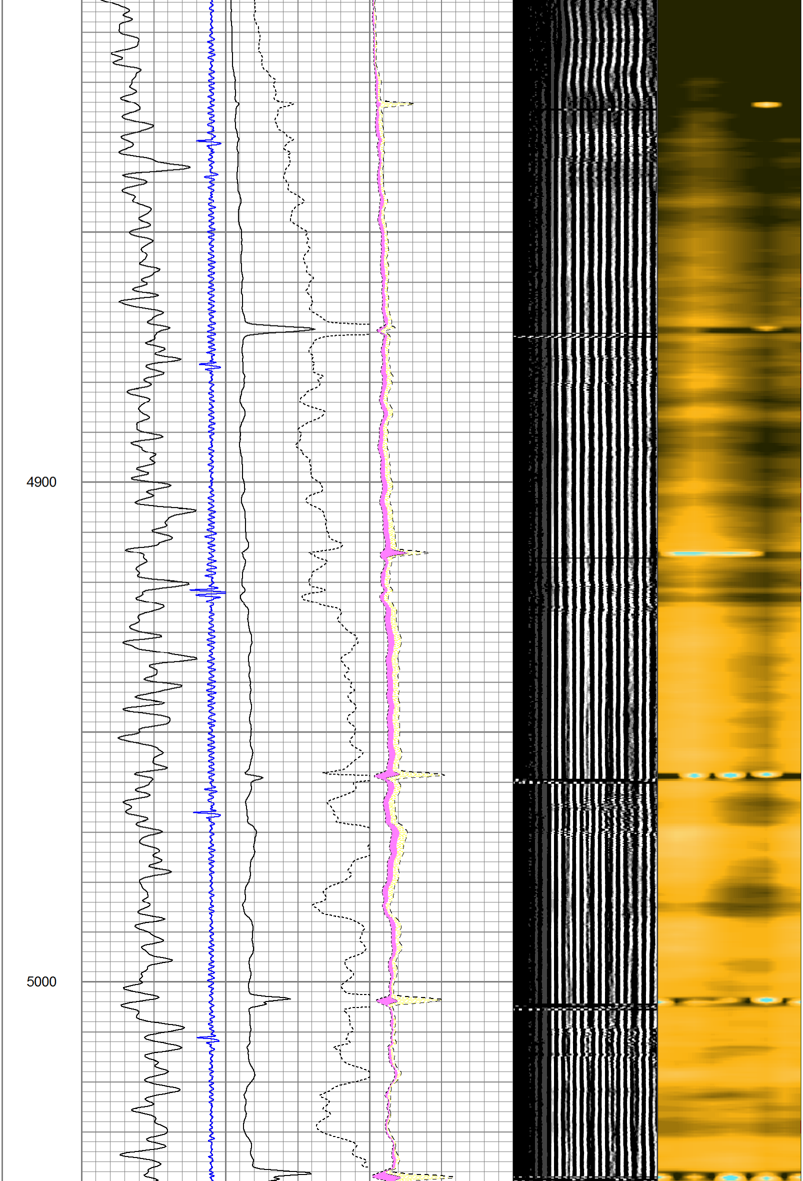
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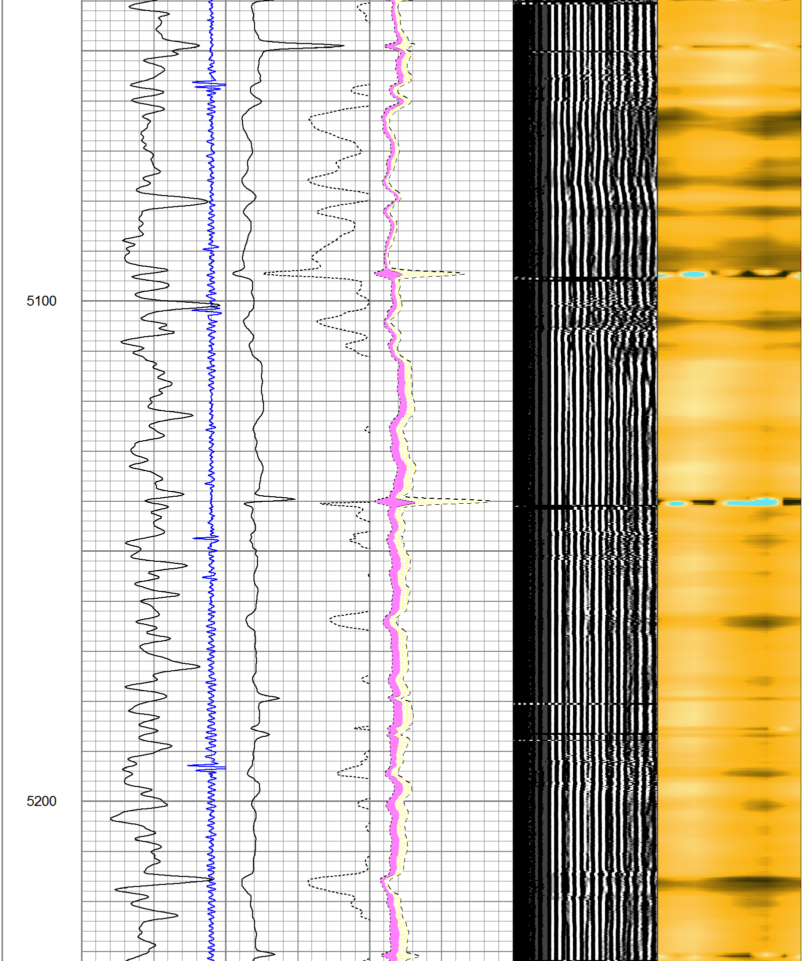
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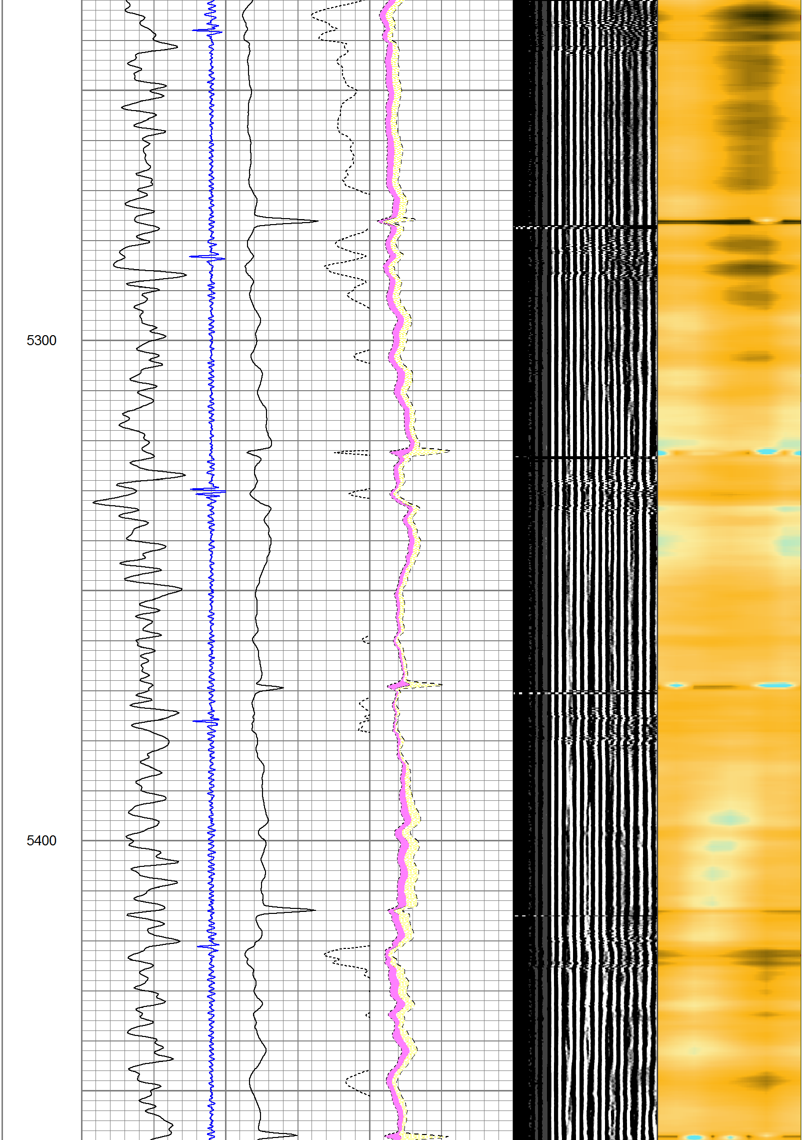
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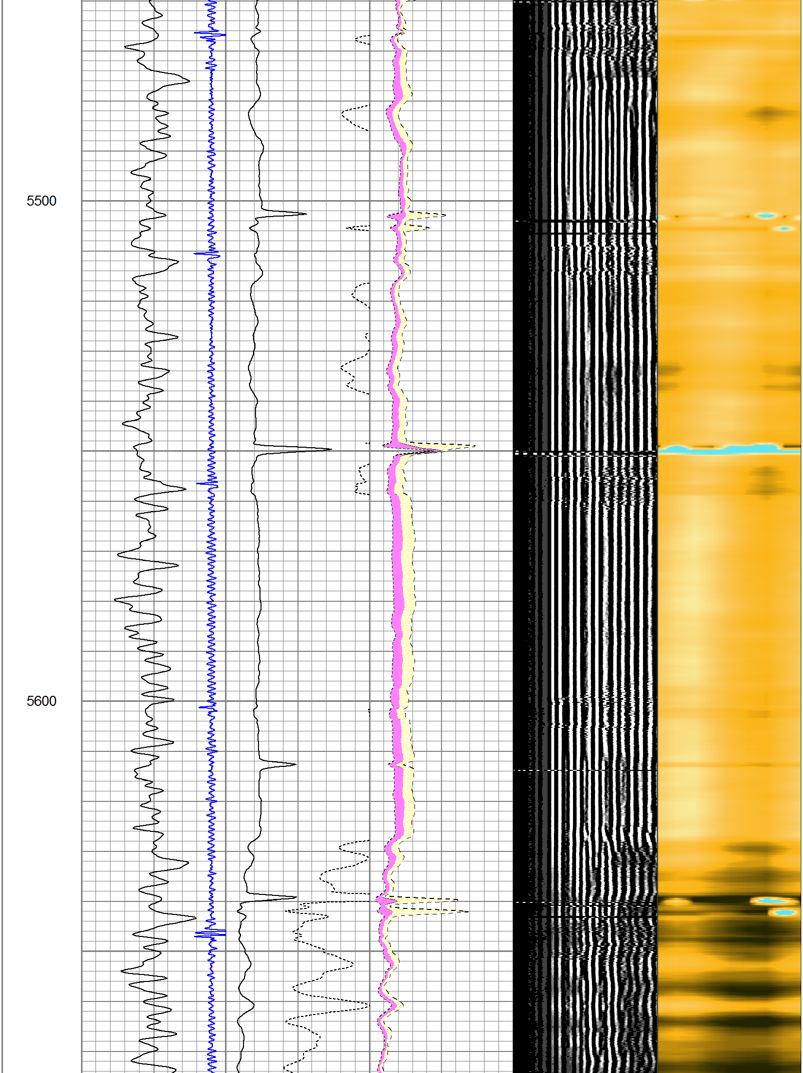
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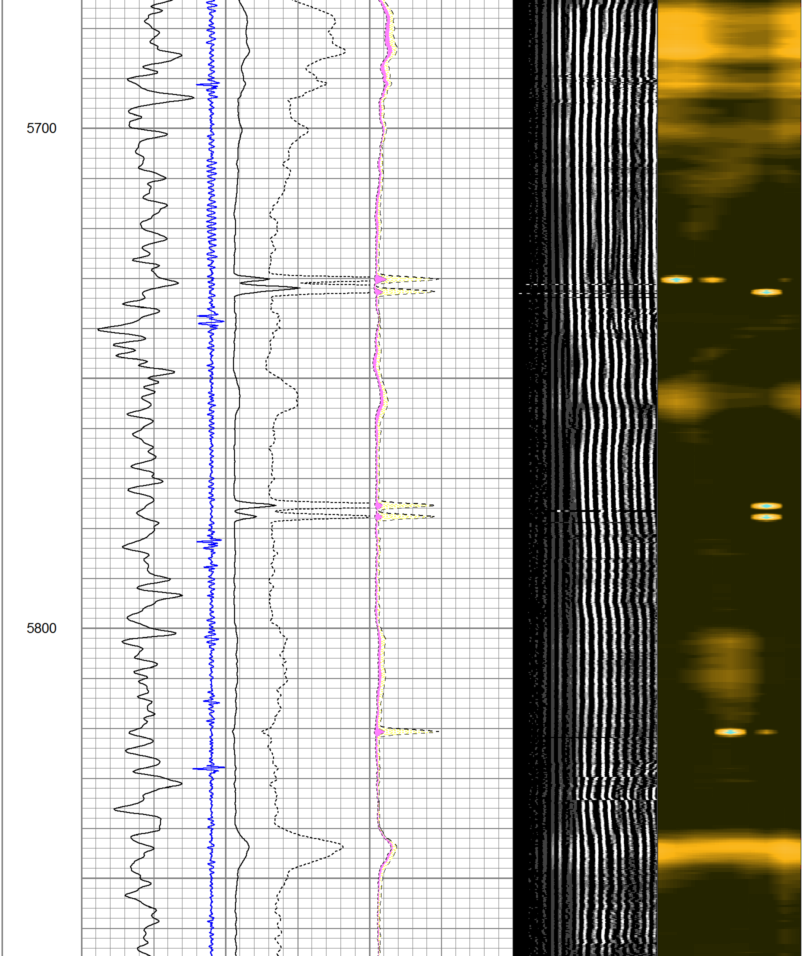
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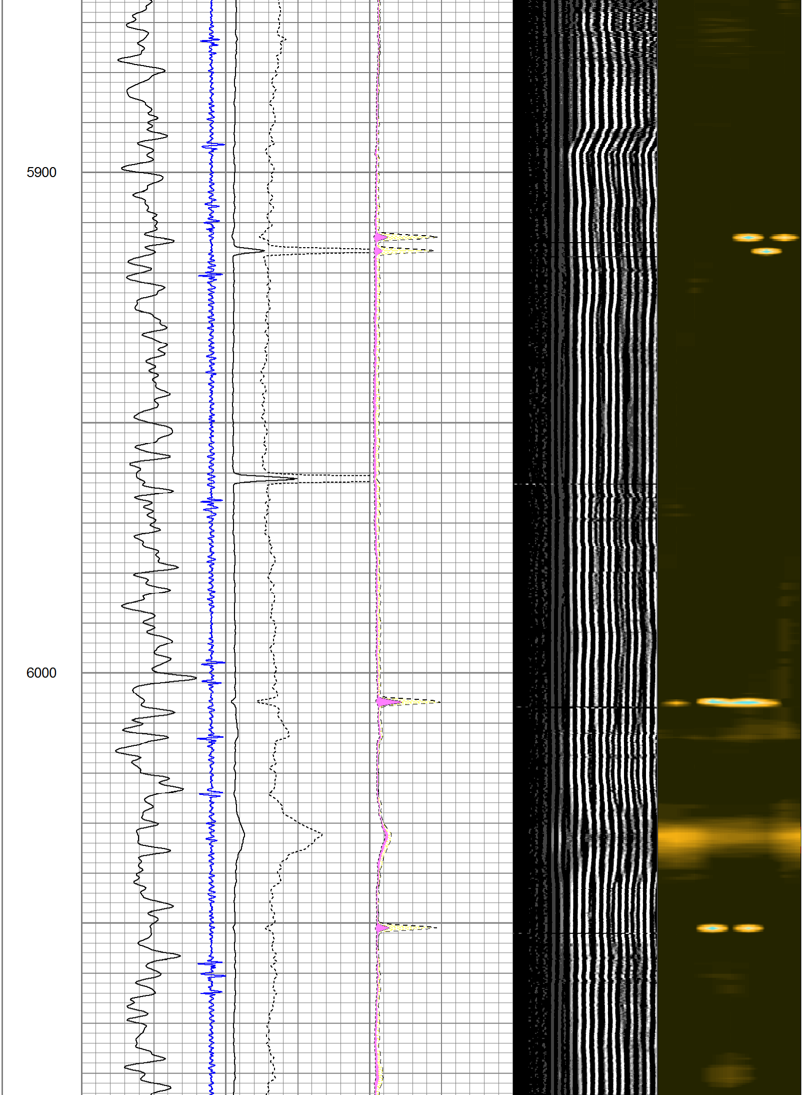
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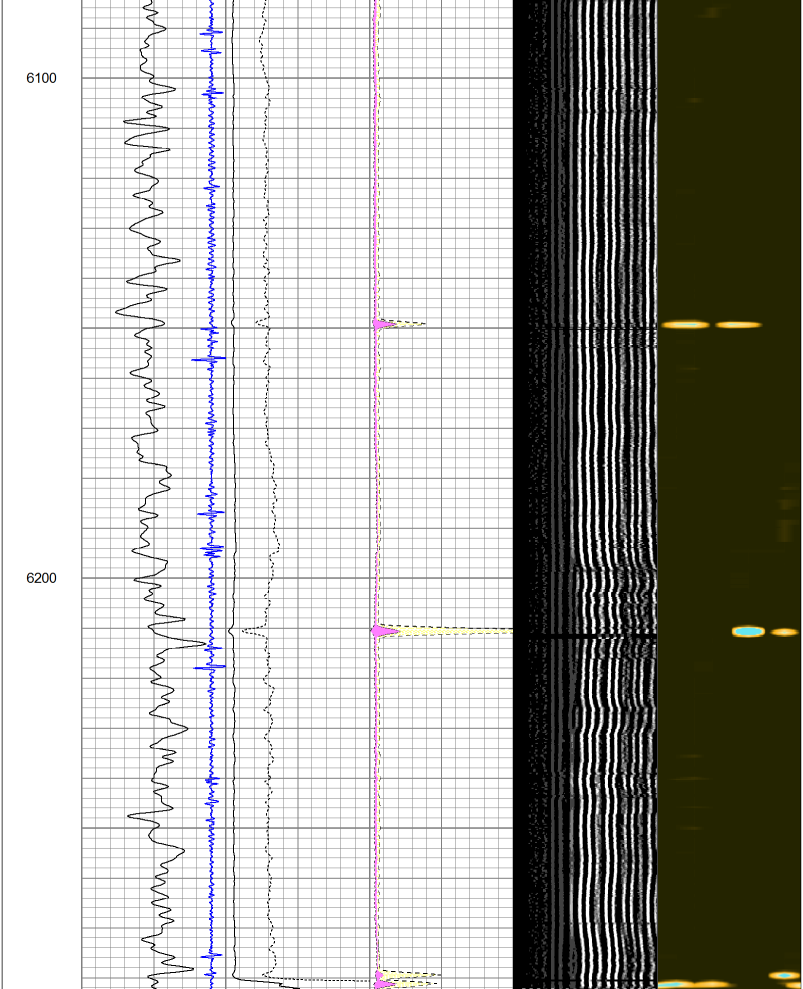
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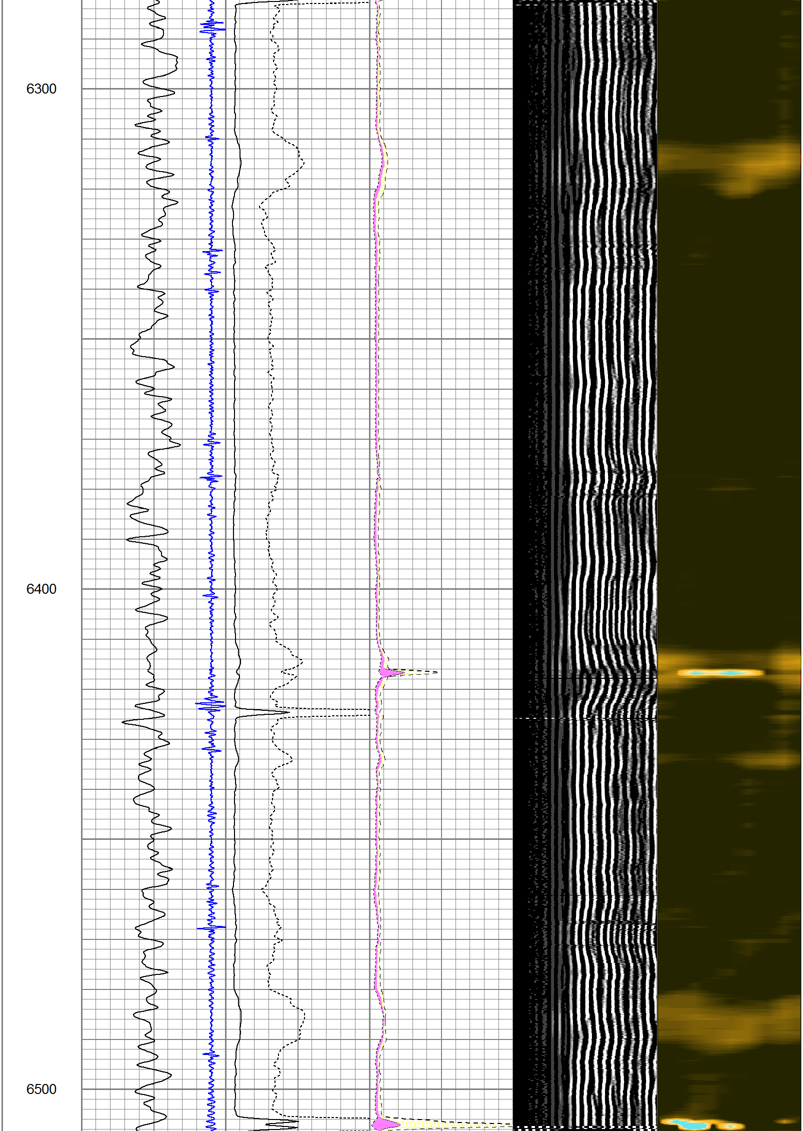
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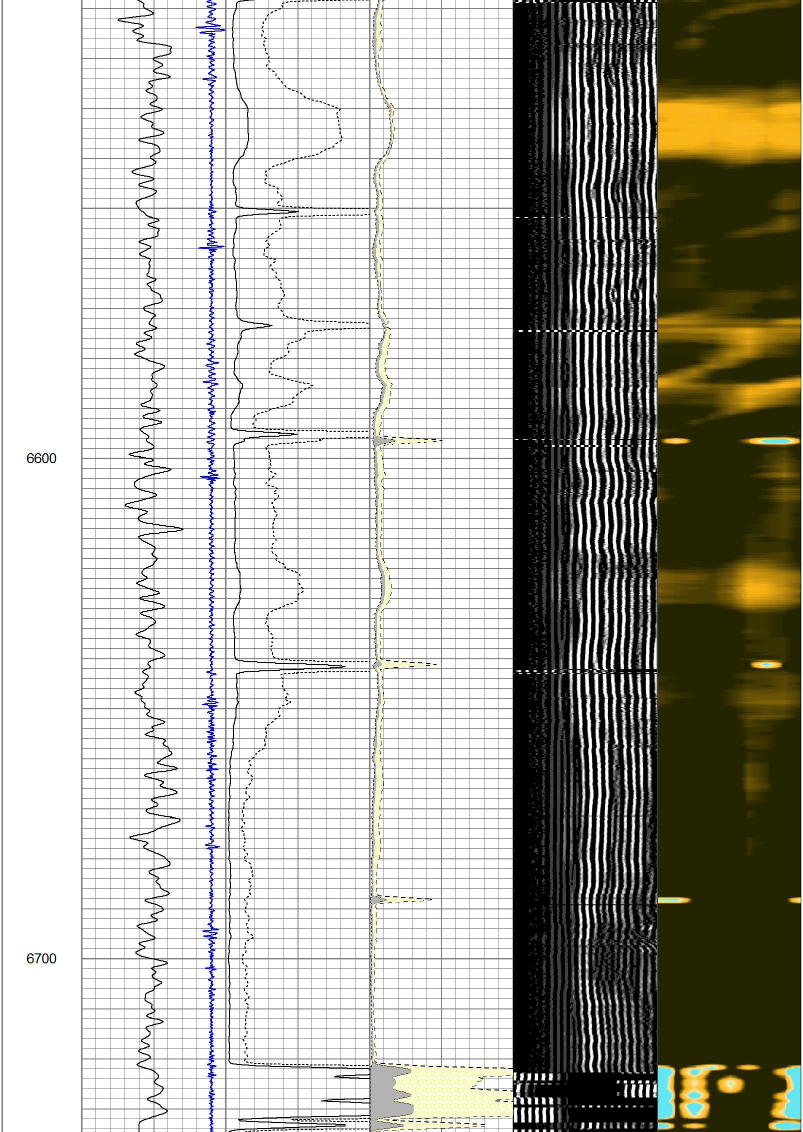
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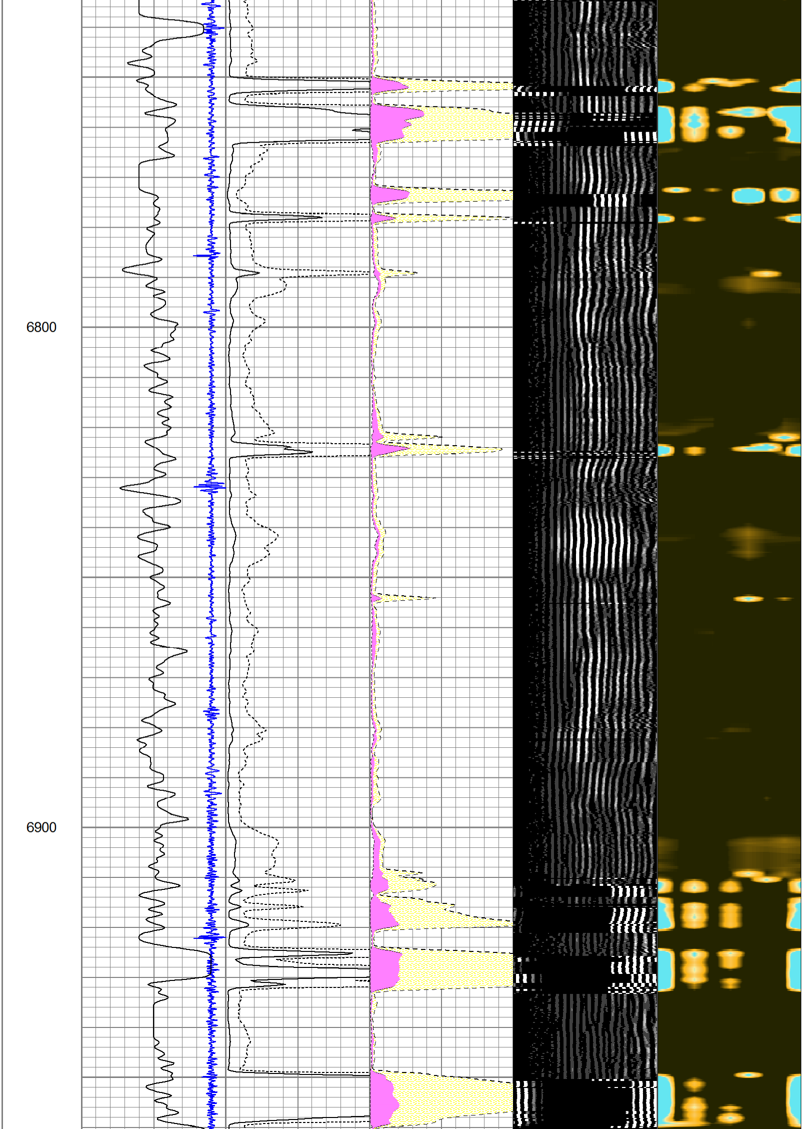
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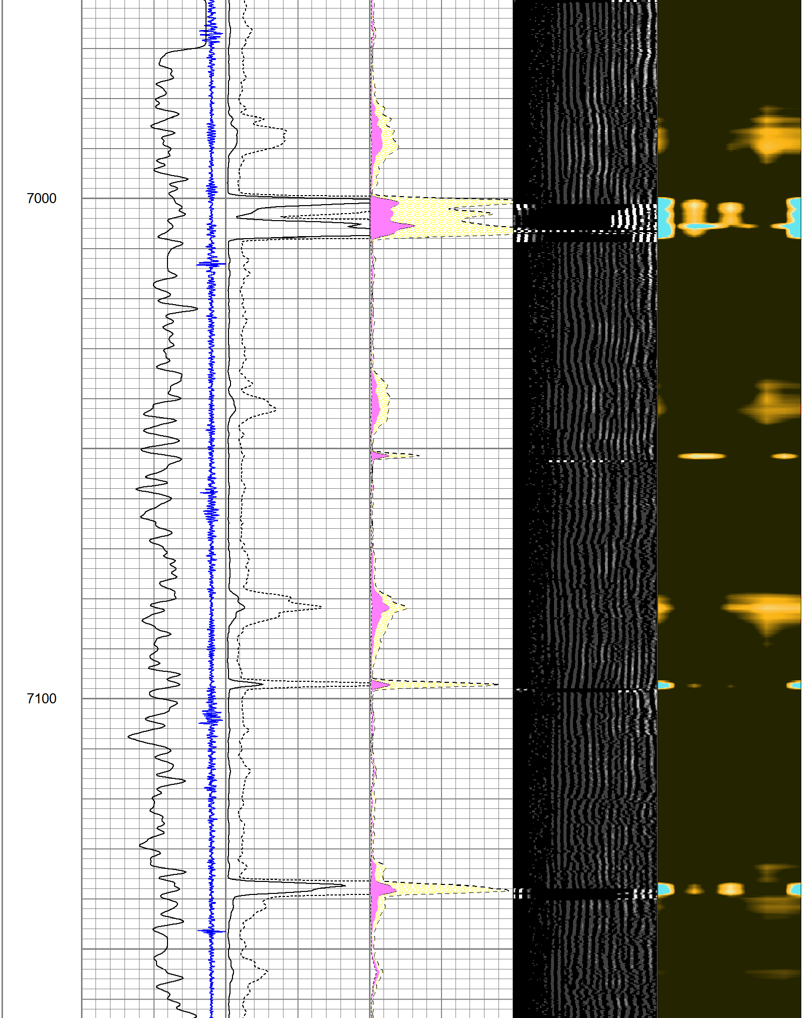
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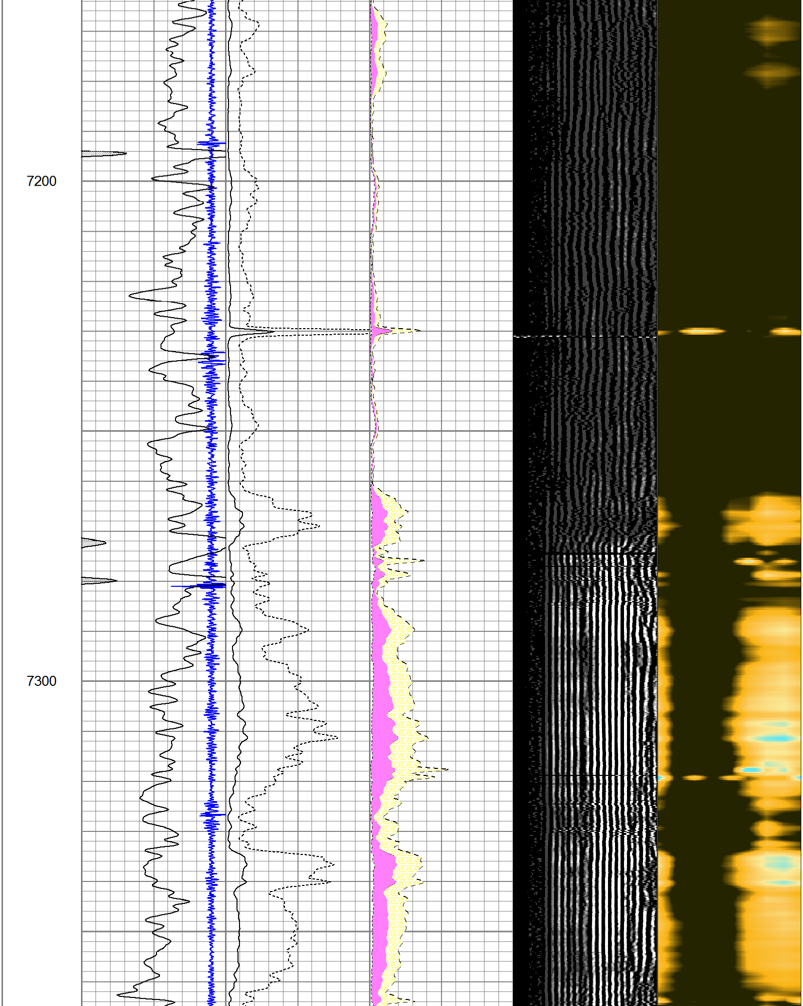
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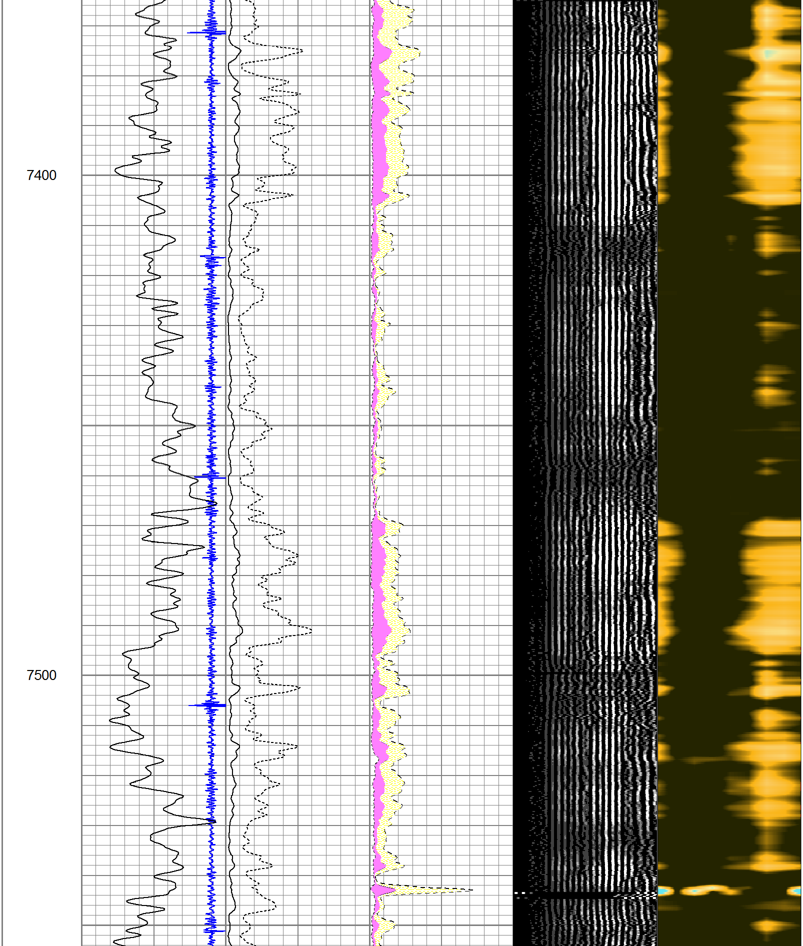
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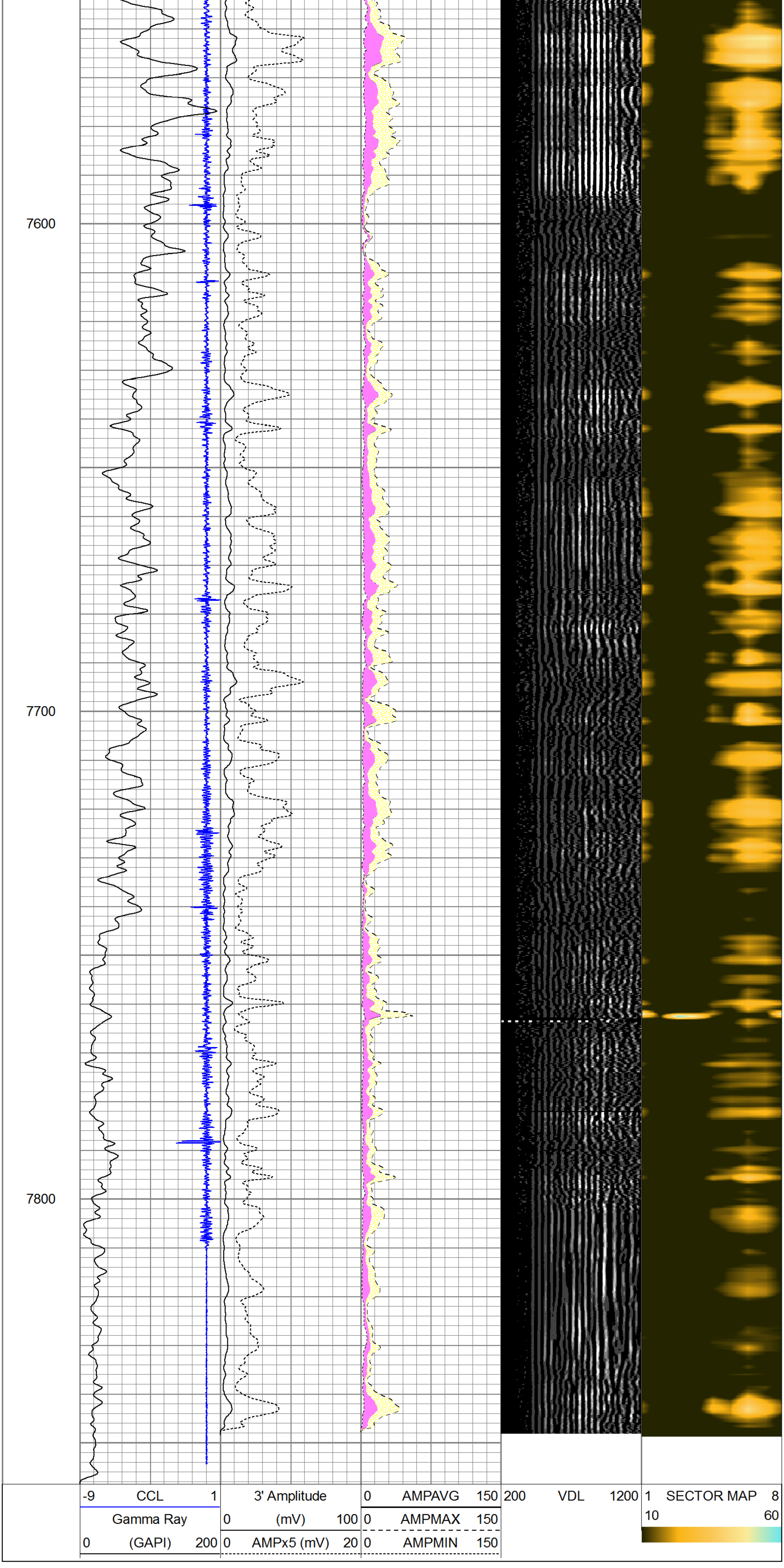

Calibration Report

Database File: 13656.db
Dataset Pathname: pass2
Dataset Creation: Sat Aug 16 00:35:51 2014 by Log 0

Gamma Ray Calibration Report

Serial Number: 111205
Tool Model: probe 2.75
Performed: Mon Jun 09 17:25:42 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: Base
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 141.154 ft

Master Calibration, performed Fri Aug 15 20:05:51 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.861	0.000	62.200	68.765	-0.142
CAL	0.012	1.010				
5'	0.012	0.934	0.000	62.200	69.986	-0.412
SUM						
S1	0.005	0.969	0.000	100.000	77.899	-0.839
S2	0.012	0.953	0.000	100.000	75.330	-0.963
S3	0.012	0.843	0.000	100.000	75.316	-0.950
S4	0.012	0.764	0.000	100.000	73.695	-0.990
S5	0.012	0.747	0.000	100.000	75.110	-0.998
S6	0.012	0.760	0.000	100.000	74.923	-0.792
S7	0.012	0.821	0.000	100.000	74.231	-0.858
S8	0.012	0.887	0.000	100.000	77.498	-0.569

Internal Reference Calibration, performed Tue Nov 21 12:42:07 2006:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.012	1.010	1.000	0.000

Air Zero Calibration, performed Thu Apr 24 09:23:40 2008:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Log Variables

Database:C:\Warrior\Data\13656.db
Dataset: field/well/run1/pass2

Top - Bottom

PPT	CASEWGHT	MAXAMPL	MINAMPL	MINATTN	SRFTEMP	CASEOD	PERFS
usec	lb/ft	mV	mV	db/ft	degF	in	
0	26	0	1.5	0.08	0	7	0

TDEPTH	BOTTEMP	BOREID
ft	degF	in
0	210	7.875