PIONEER
Pioneer Energy Services

RADIAL CEMENT BONG LOG WITH GAMMA RAY/CCL/VDL AND CEMENT MAP

Company	ANADARKO PETROLEUM CORPORATION
Well	BUTTERBALL-3N-15HZ
Field	WATTENBERG
County	WELD
State	CO

Company ANADARKO PETROLEUM CORPORATION
Well BUTTERBALL-3N-15HZ
Field WATTENBERG
County WELD State CO

Location: API # : 05-123-37906
SEC 10 TWP 2N RGE 67W

Other Services

Permanent Datum	GROUD LEVEL	Elevation	Elevation
Log Measured From	KELLY BUSHING		K.B. 4951
Drilling Measured From	KB=16		D.F. 4951
			G.L. 4935

Date	8 DEC 13
Run Number	THREE
Depth Driller	16476'
Depth Logger	7615'
Bottom Logged Interval	7613'
Top Log Interval	SURFACE
Open Hole Size	8.75"
Type Fluid	WATER
Density / Viscosity	8.34
Max. Recorded Temp.	220 DEG. FHT.
Estimated Cement Top	36'
Time Well Ready	15:20
Time Logger on Bottom	15:40
Equipment Number	59
Location	FT. MORGAN
Recorded By	A BELGUM
Witnessed By	KENT EVERS

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36	SURFACE	1028'
Prot. String	7	26	SURFACE	7681'
Production String	4.5"	11.6	6811'	16461'
Liner				

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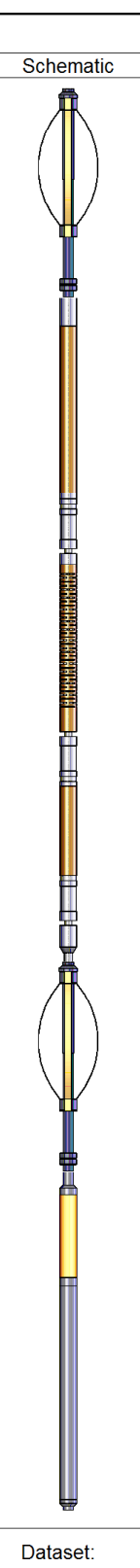
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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
LOG CORRELATED TO CALIPER LOG



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		PTS275	2.83	2.75	
WVF3FT	11.71	RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
WVFCAL	11.71				
WVFS1	11.71				
WVFS2	11.71				
WVFS3	11.71				
WVFS4	11.71				
WVFS5	11.71				
WVFS6	11.71				
WVFS7	11.71				
WVFS8	11.71				
WVF5FT	10.63				
		PTS275	2.83	2.75	
CCL	3.63				
GR	2.30	GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00

Dataset: butterball_3n-15hz.db: field/well/run3/pass5
Total Length: 19.13 ft
Total Weight: 190.00 lb
O.D. 2.75 in

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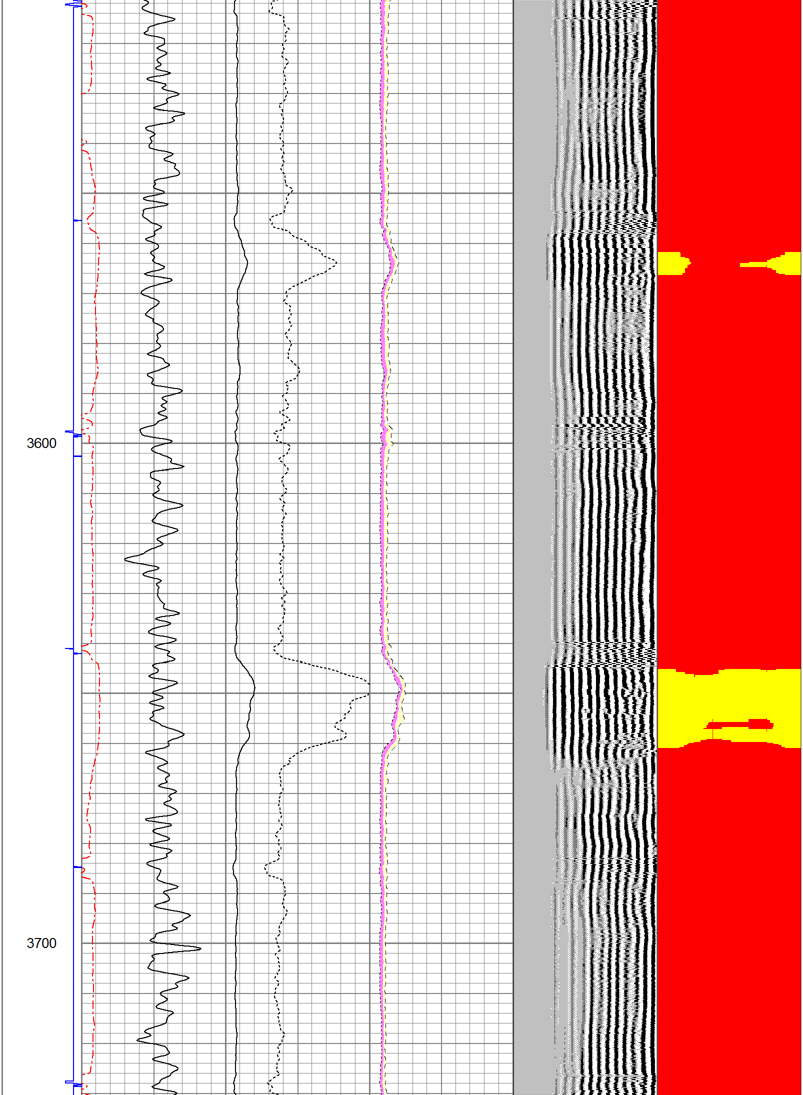
MAIN PASS

LOGGED WITH 2800 PSI APPLIED AT SURFACE

Database File: butterball_3n-15hz.db
Dataset Pathname: run3/pass5
Presentation Format: scbl02
Dataset Creation: Sun Dec 08 15:31:22 2013 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240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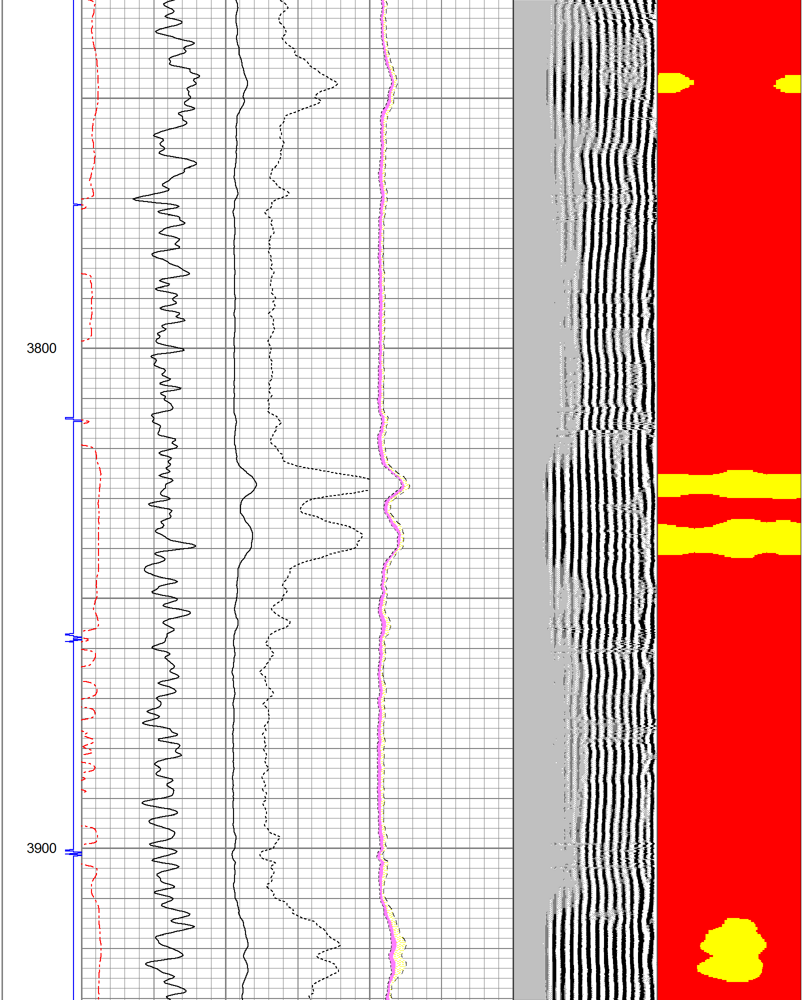
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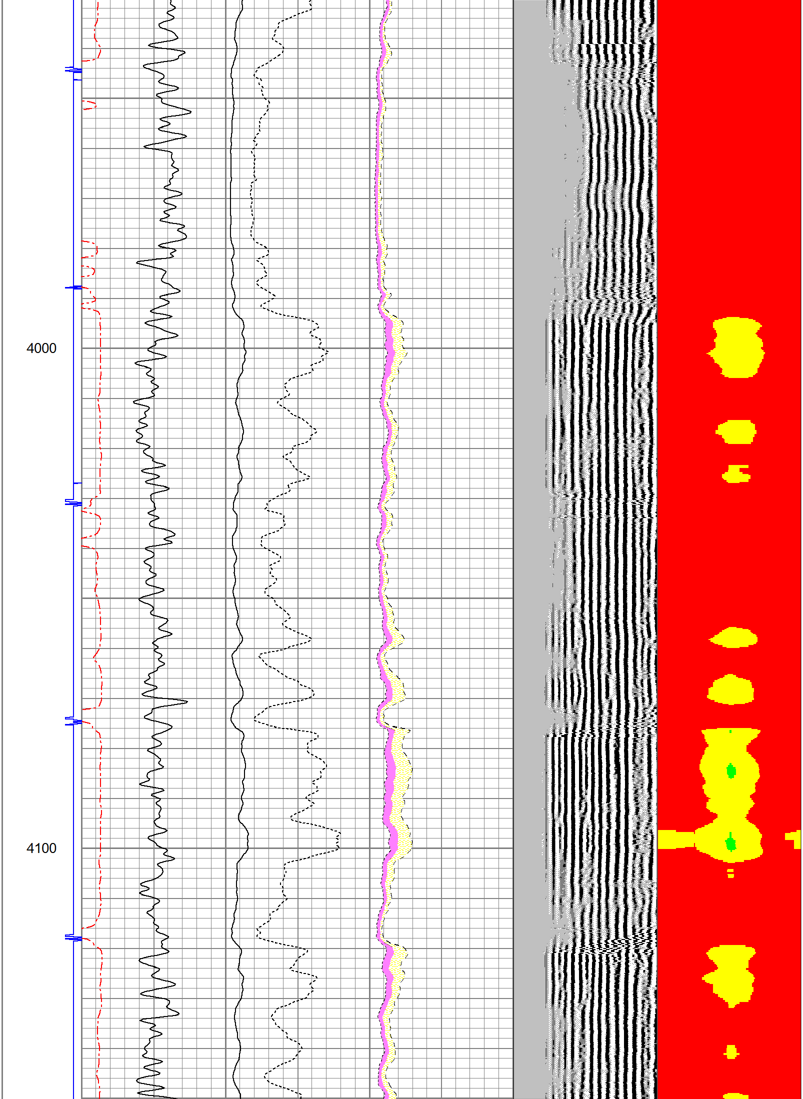
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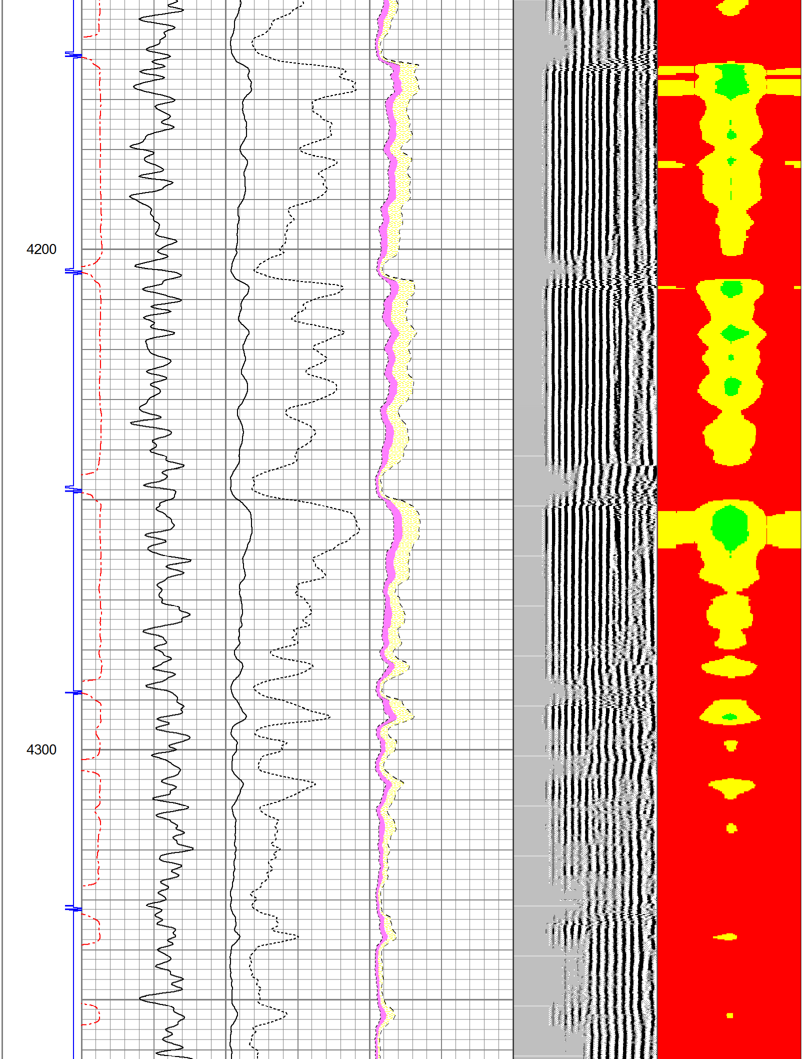
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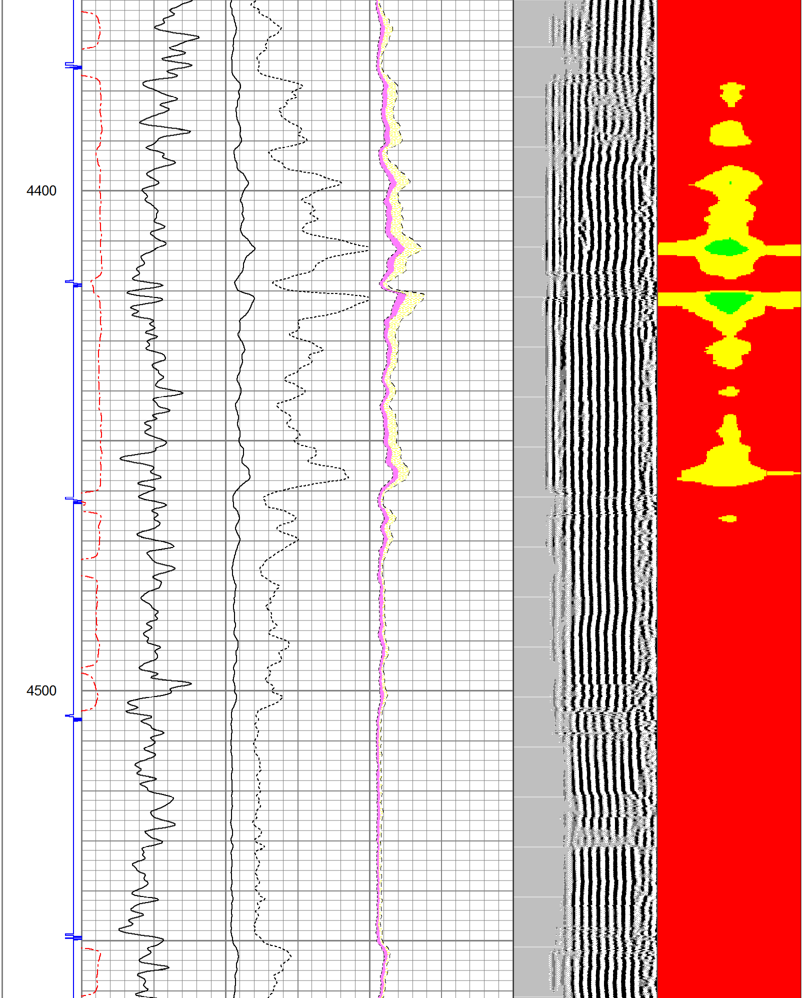
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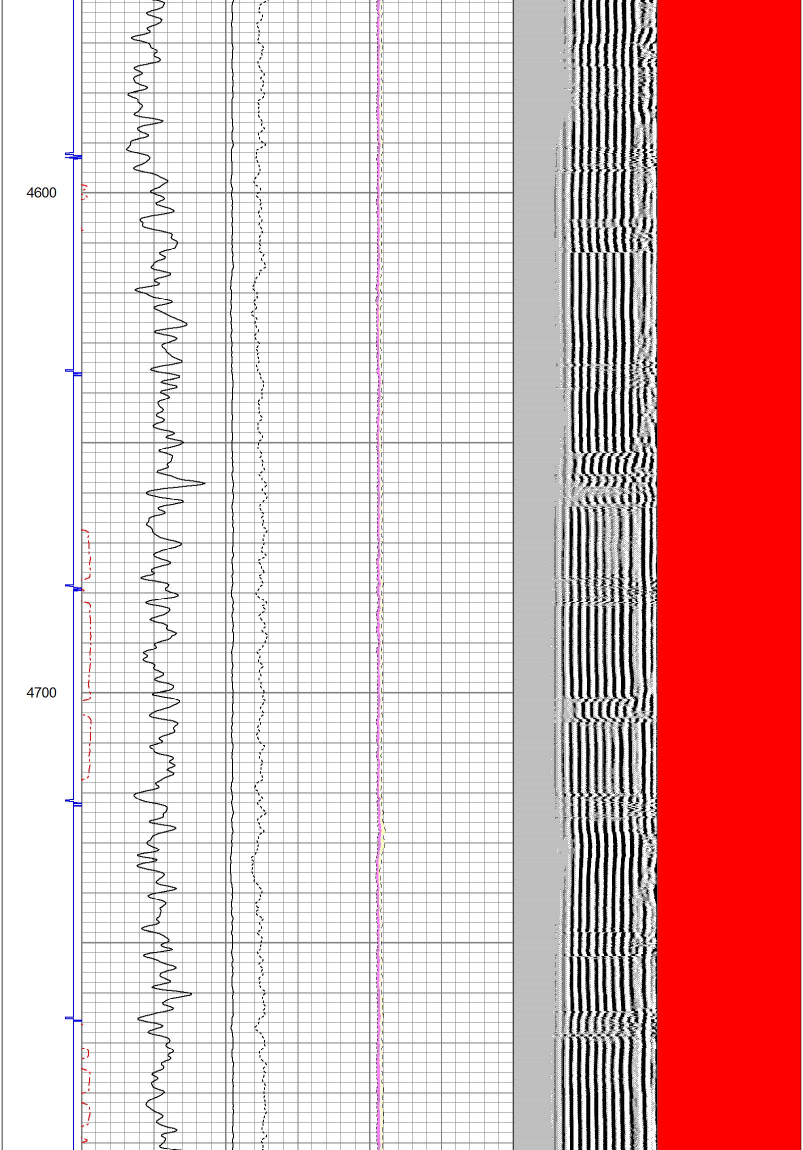
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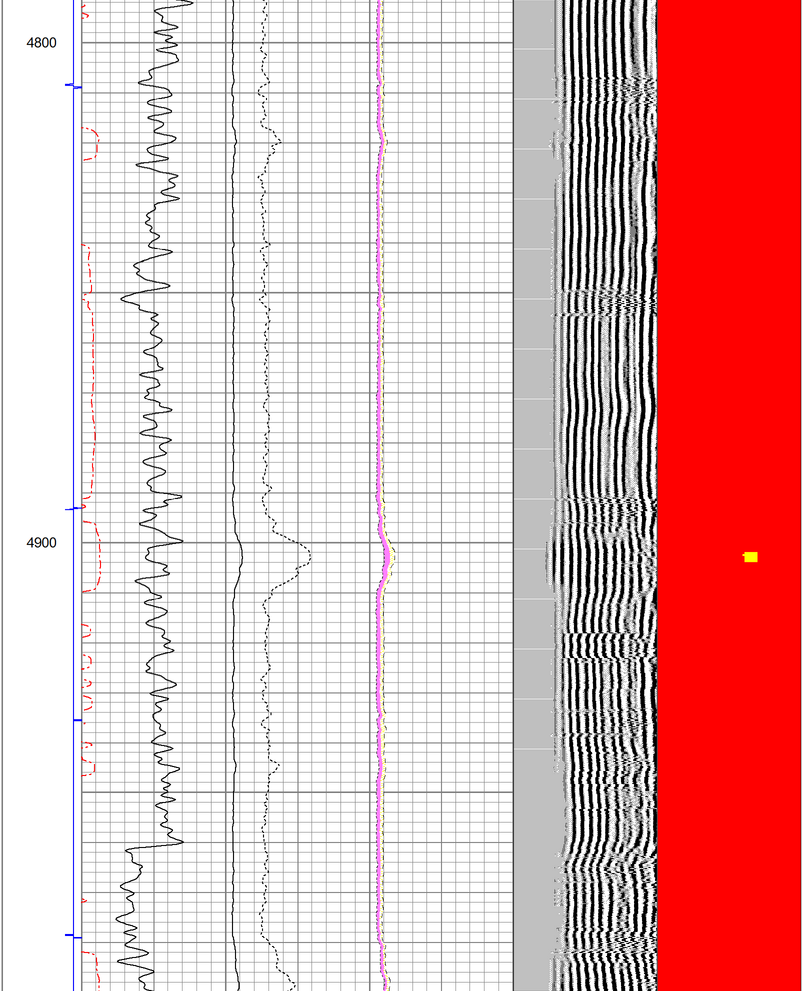
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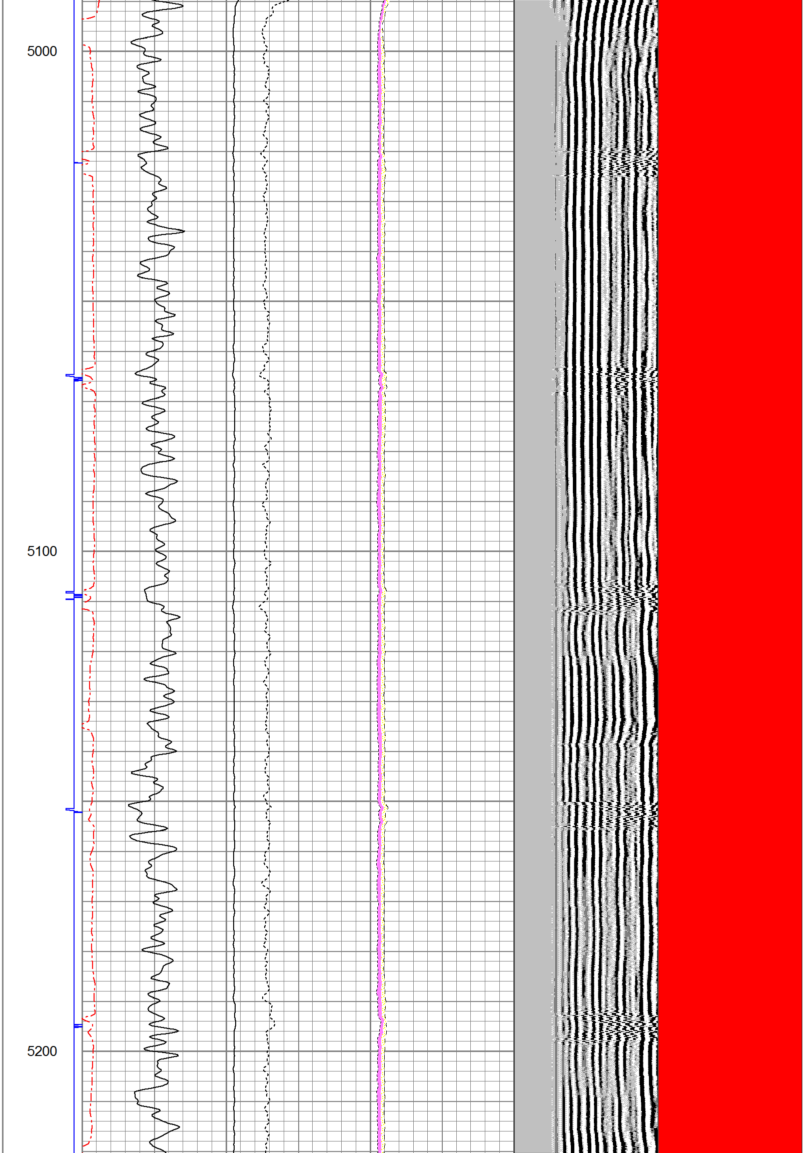
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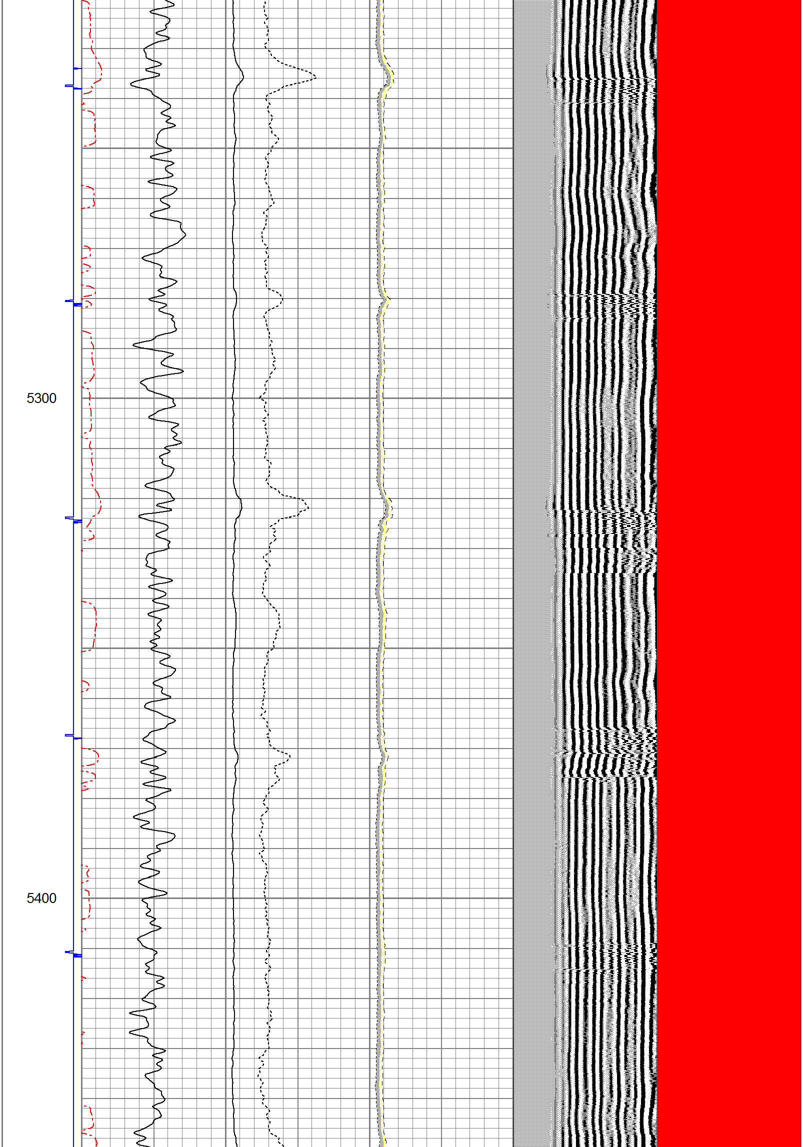
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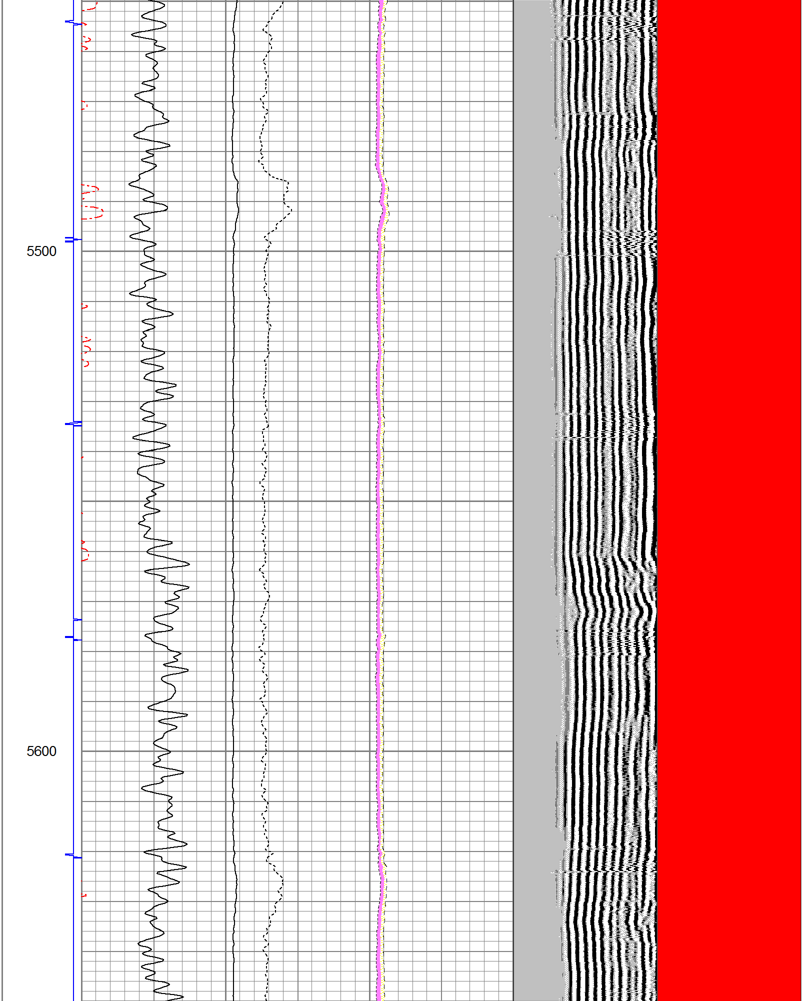
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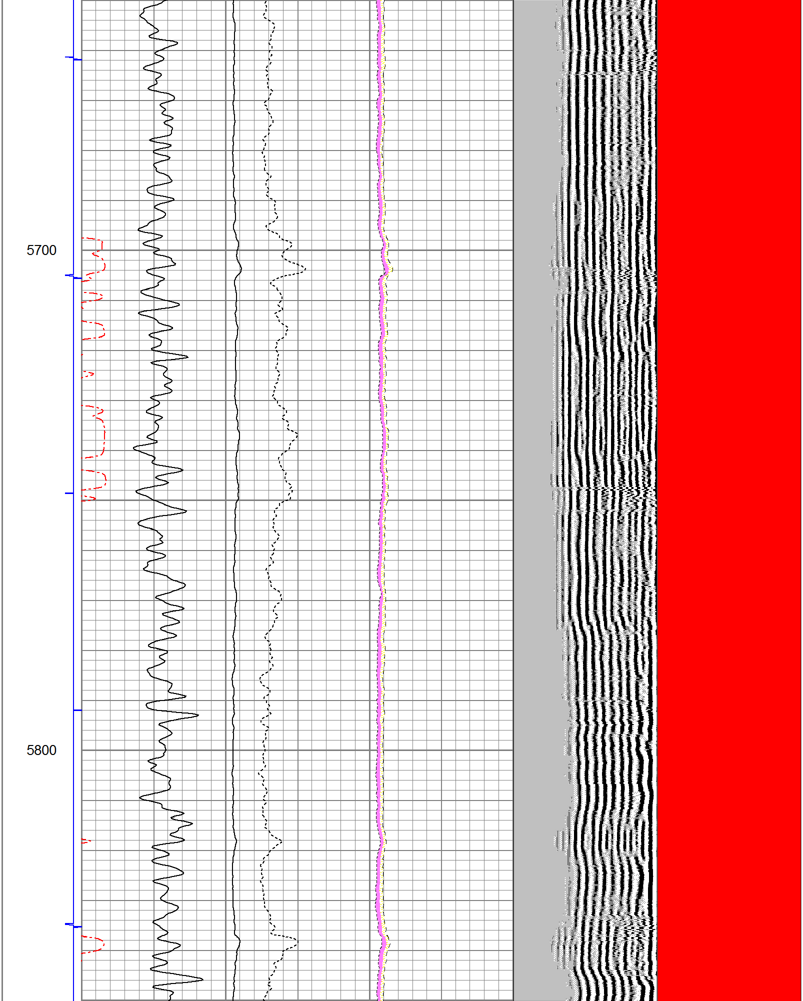
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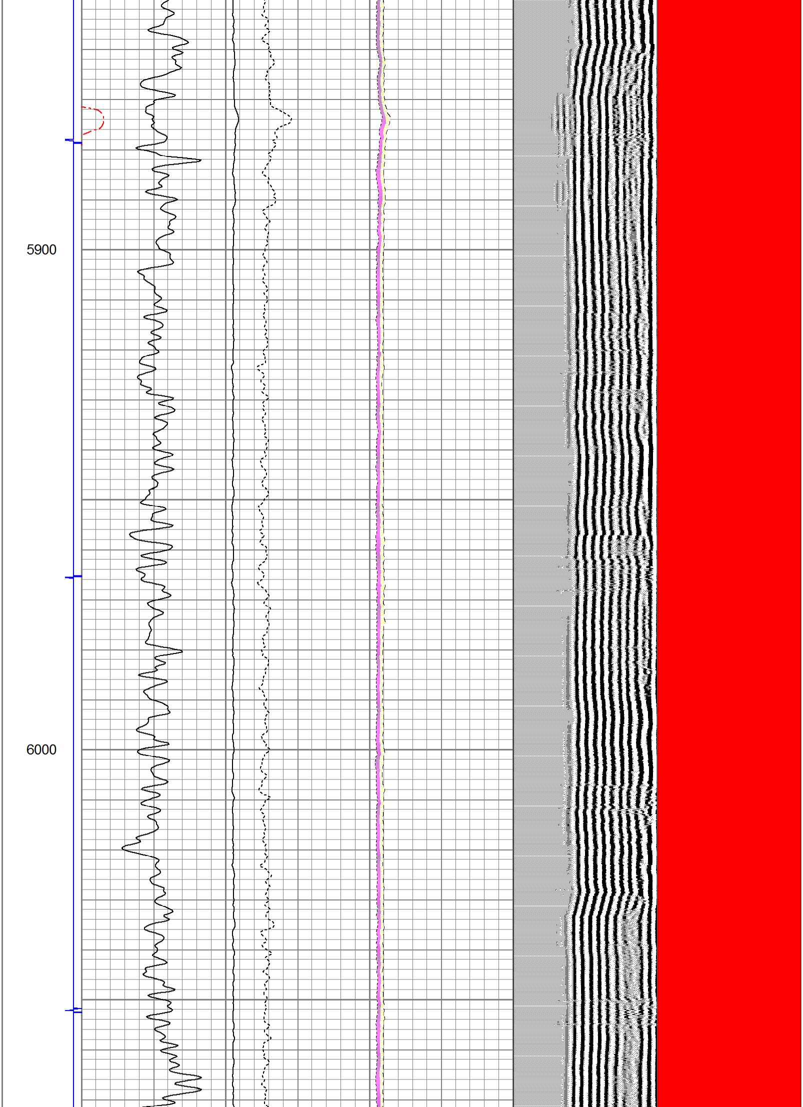
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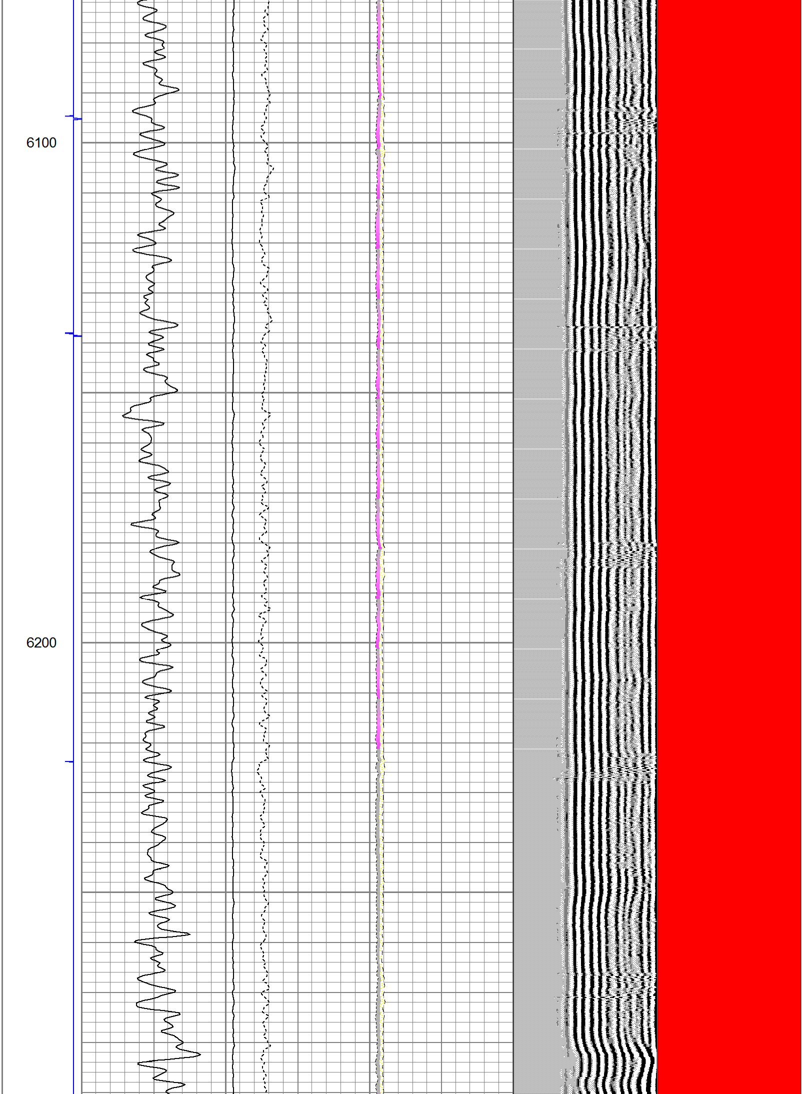
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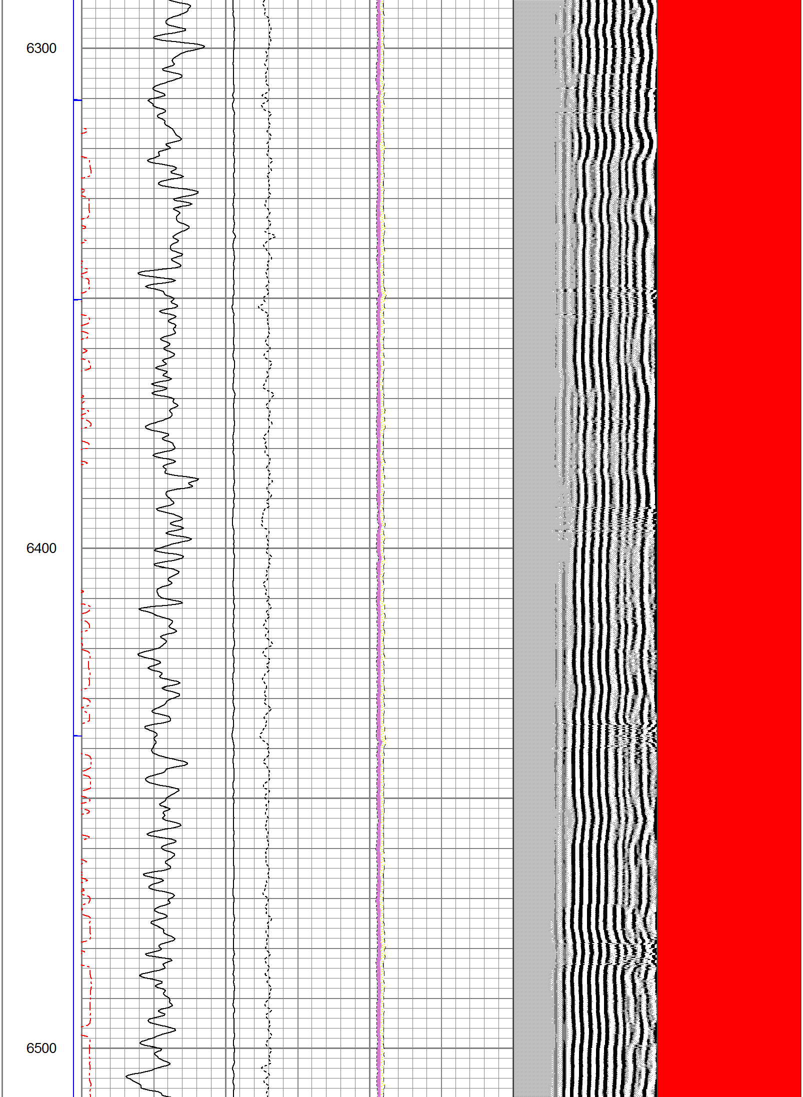
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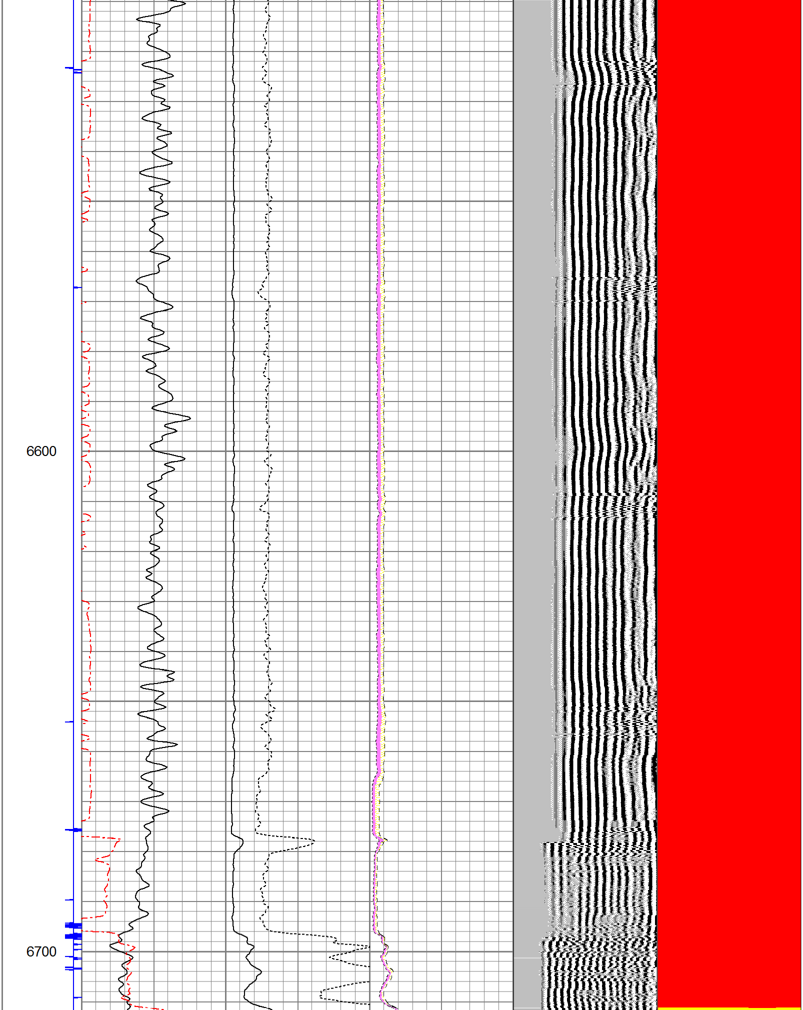
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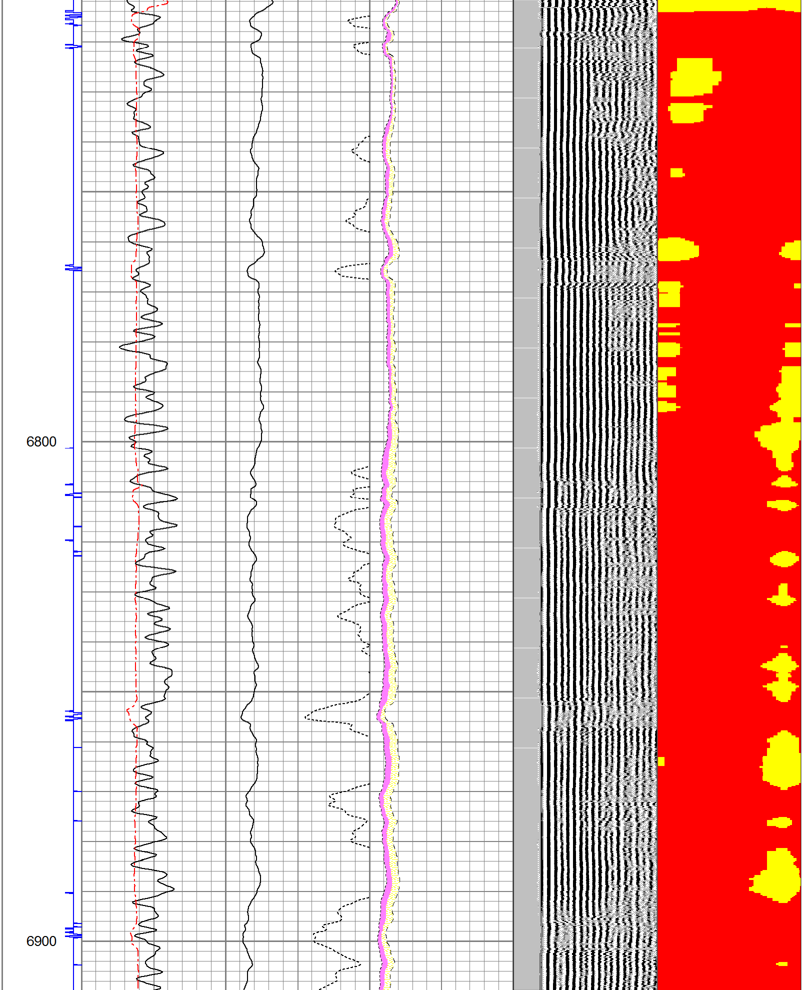
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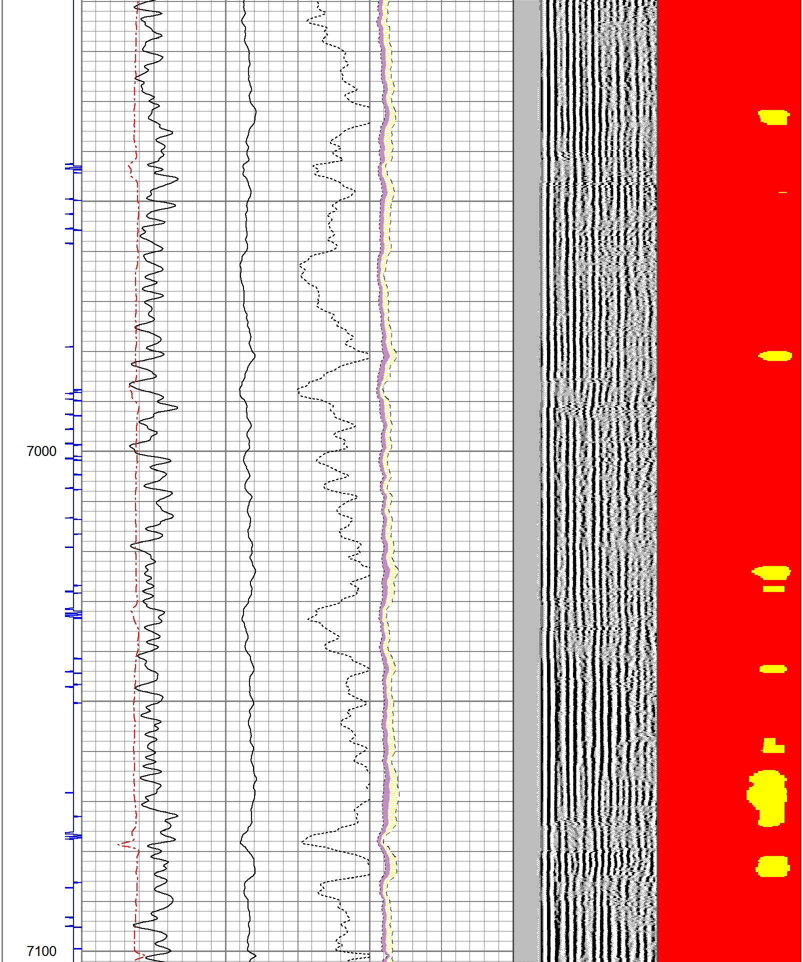
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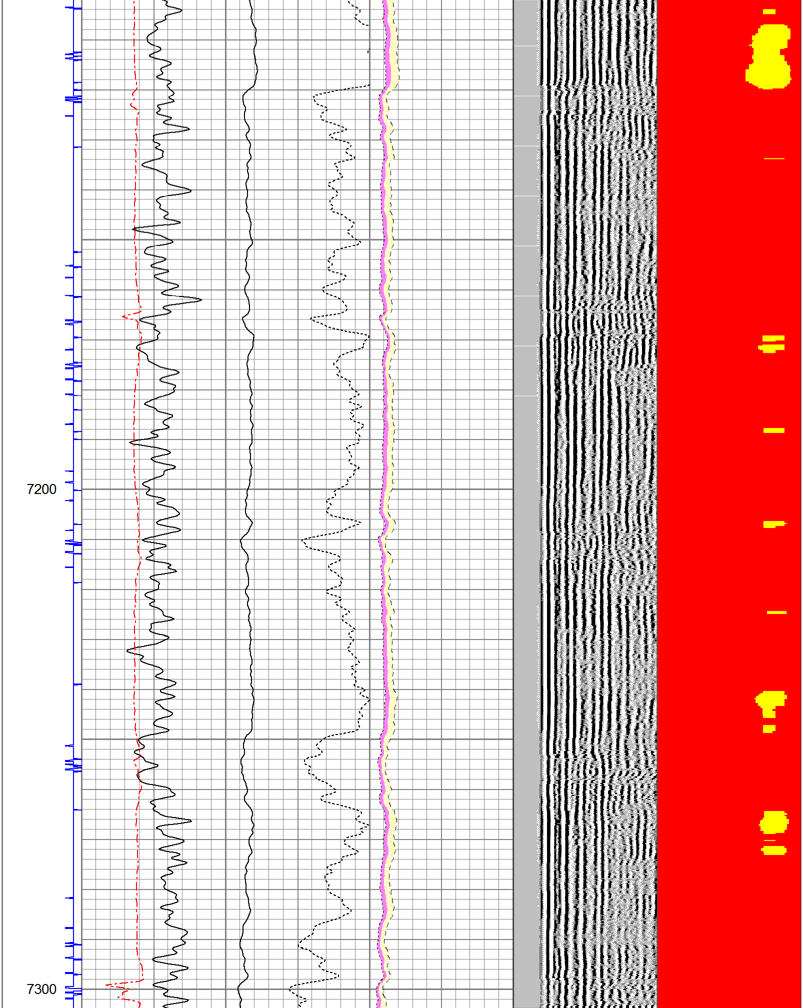
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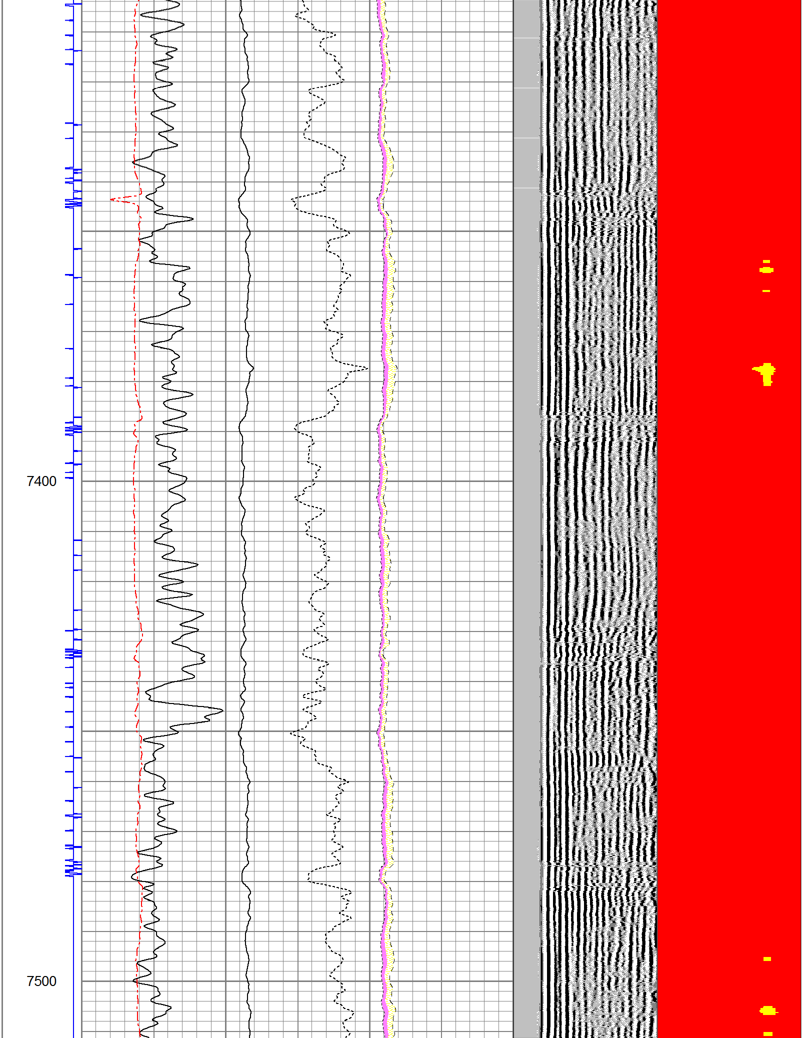
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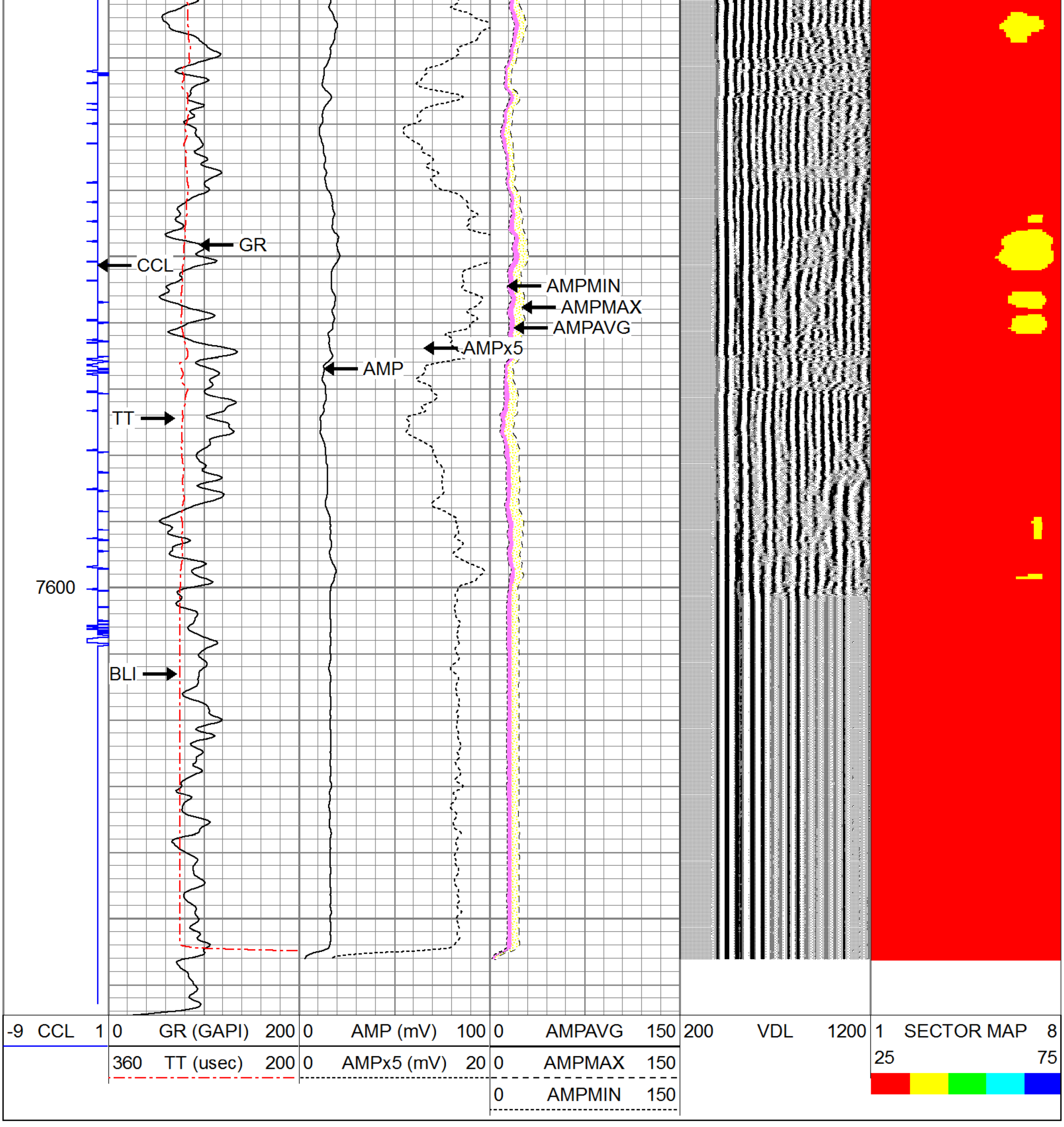

Calibration Report

Database File: butterball_3n-15hz.db
Dataset Pathname: run3/pass5
Dataset Creation: Sun Dec 08 15:31:22 2013 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number:	111211	
Tool Model:	Probe	
Performed:	Fri Nov 08 12:58:35 2013	
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:	7.000	in
Calibration Depth:	320.508	ft

Master Calibration, performed Sun Dec 08 15:45:53 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.014	0.611	2.000	62.000	95.957	3.352
CAL	1.000	1.036				
5'	0.164	0.729	2.000	62.000	106.213	-15.459
SUM						
S1	-0.068	0.589	0.000	95.000	144.607	9.769
S2	-0.077	0.633	0.000	95.000	133.946	10.254
S3	-0.042	0.667	0.000	95.000	133.923	5.621
S4	-0.030	0.687	0.000	95.000	132.608	3.954
S5	-0.043	0.664	0.000	95.000	134.259	5.803
S6	-0.047	0.627	0.000	95.000	141.072	6.576
S7	-0.030	0.599	0.000	95.000	151.153	4.504
S8	-0.077	0.570	0.000	95.000	146.715	11.339

Internal Reference Calibration, performed Wed Aug 21 11:08:58 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.000	0.970	1.000	0.000

Air Zero Calibration, performed Sat Nov 09 07:23:33 2013:

	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

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Well	BUTTERBALL3N-15HZ
Field	WATTENBERG
County	WELD
State	CO