PIONEER
Pioneer Energy Services

RADIAL SECTOR BOND LOG WITH GAMMA RAY

Company	KERR-MCGEE OIL & GAS ONSHORE
Well	HOWARD 30C-29HZ
Field	WATTENBERG
County	WELD
State	CO

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County	**WELD**
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API # : 05123379110000

Location:
SHL: 2287' FNL & 390' FWL
SWNW

SEC 32 TWP 1N RGE 67W

Other Services
CALIPER
JBGR

			Elevation
Permanent Datum	GL	Elevation 5031	K.B. 5056
Log Measured From	KB		D.F. 5056
Drilling Measured From	KB		G.L. 5031

Date of Service	SEPTEMBER 4, 2014
Run Number	ONE
Depth Driller or PBTD	15595
Depth Logger	7910
Bottom Log Interval	7906
Top Log Interval	SURFACE
Open Hole Size	8+3/4"
Type Fluid	WATER
Fluid Level	SURFACE
Fluid Density	8.33
Max. Recorded Temperature	240 F
Max. Wellhead Pressure	2800
Wellhead Connection	10K FLANGE
Estimated Cement Top	750
Unit Number	1
Wireline Size	9/32"
Location	FT MORGAN, CO
Recorded By	SCHUMAN
Witnessed By	MR. RICK DUNFORD

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9+5/8"	36	Surface	1001
Production Casing	7"	26	Surface	8150
Liner Record	4+1/2"	11.6	Surface	6907

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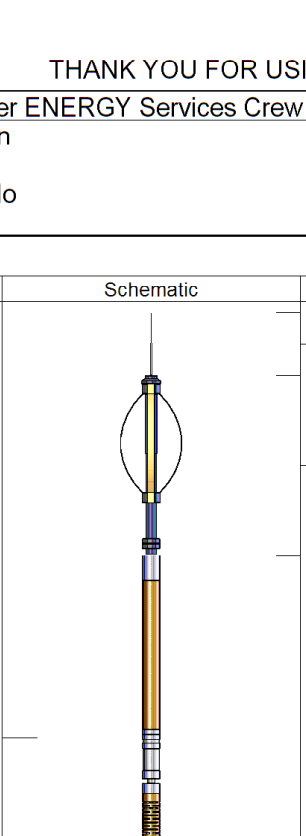
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages,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

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
SO# 2-280031

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer ENERGY Services Crew	Tool Data - Services	Serial Number
Engineer: Shaun	Sector CBL	111206
Operator: Chad	Gamma Ray	070155
Operator: Angelo		
Operator: AJ		



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		STNDRD Standard Cable Head	1.00	1.69	10.00
		PTS275	2.83	2.75	
TEMP	16.38				
WVF3FT	14.15	RBT-RBTC3 (111206) Corrosion RBLw/Temp	9.36	2.75	90.00
WVFCAL	14.15				
WVFS1	14.15				
WVFS2	14.15				
WVFS3	14.15				
WVFS4	14.15				
WVFS5	14.15				
WVFS6	14.15				
WVFS7	14.15				
WVFS8	14.15				
WVF5FT	13.15				
		PTS275	2.83	2.75	
CCL	6.37				
		GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
GR	3.63				
		2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00

Dataset: howard 30c-29hz.db: field/well/rbl/pass1
Total Length: 23.09 ft
Total Weight: 155.00 lb
O.D. 2.75 in

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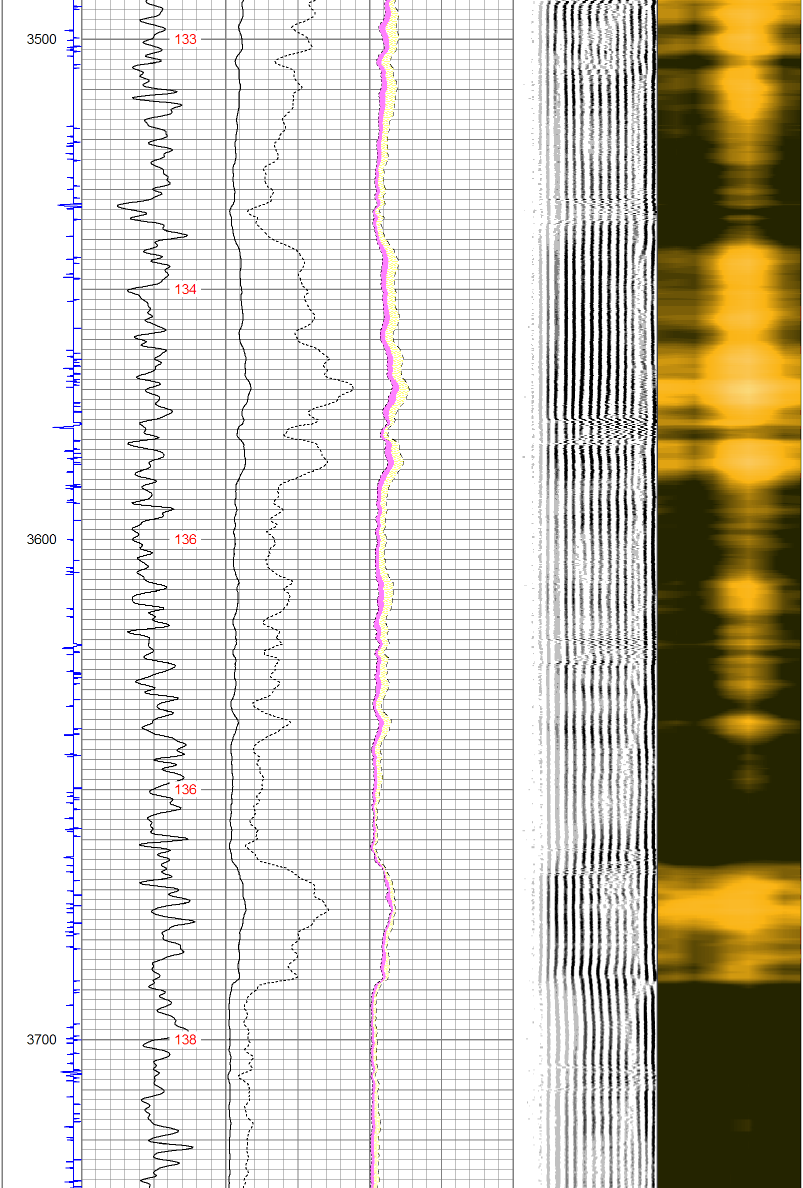
Main Pass

Logged with 2800 PSI applied at wellhead

Database File: howard 30c-29hz.db
Dataset Pathname: rbl/main
Presentation Format: scbl02
Dataset Creation: Thu Sep 04 14:18:28 2014
Charted by: Depth in Feet scaled 1:240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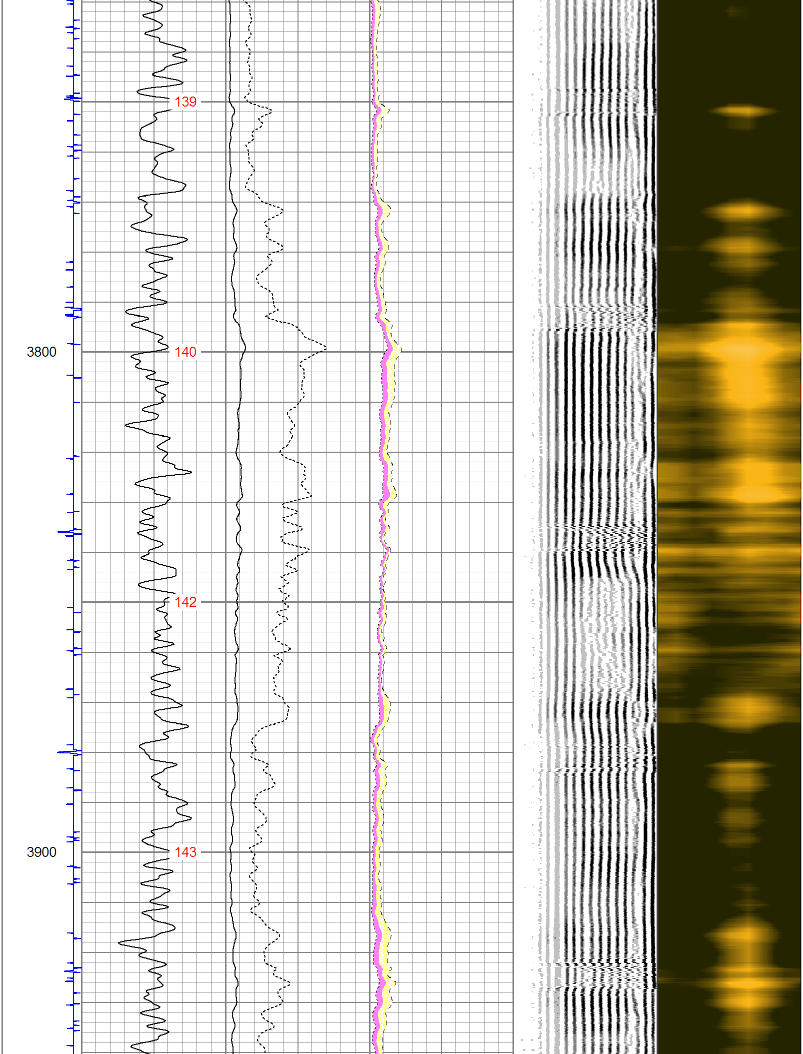
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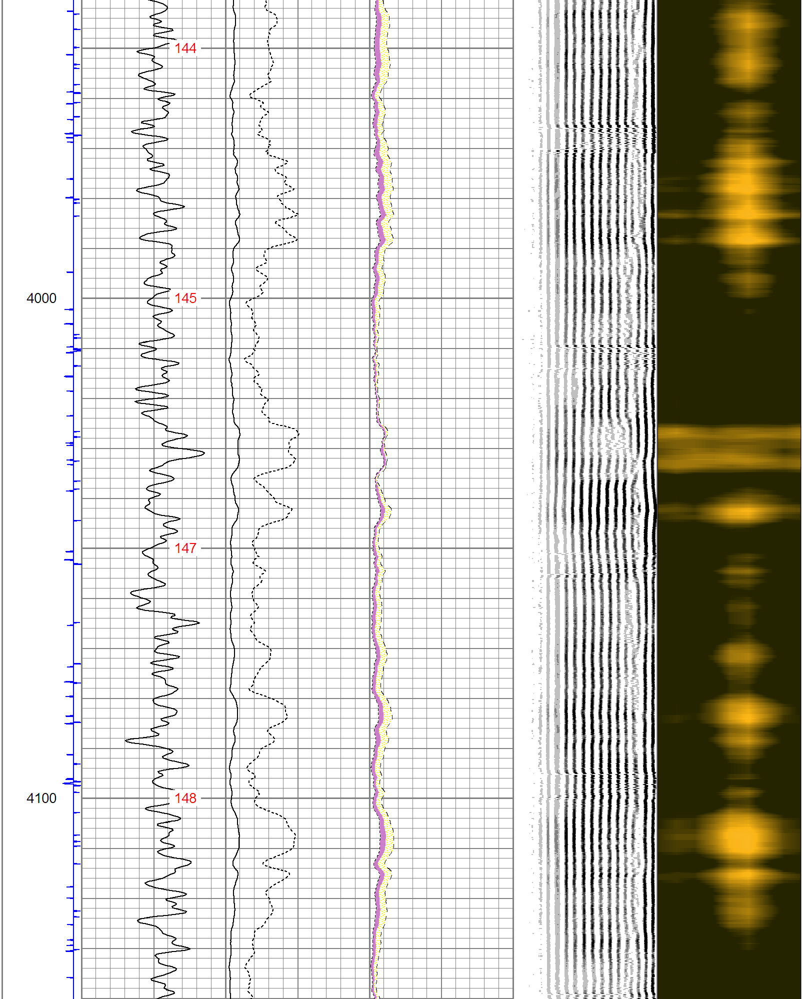
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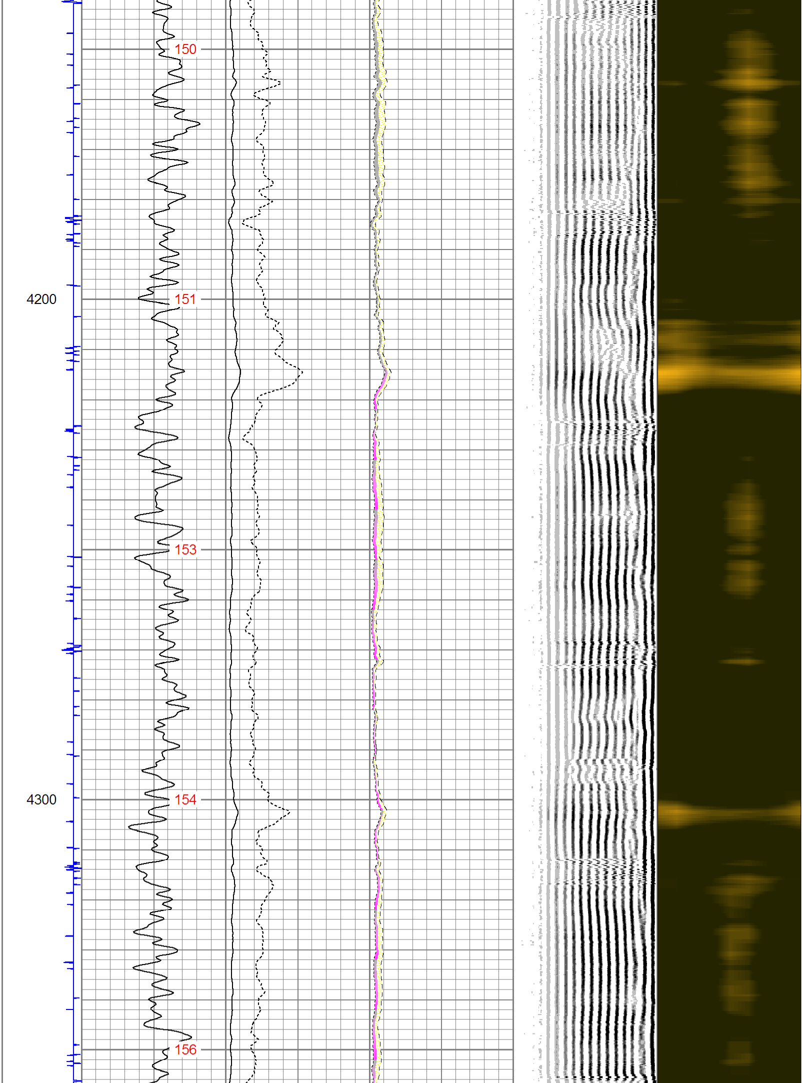
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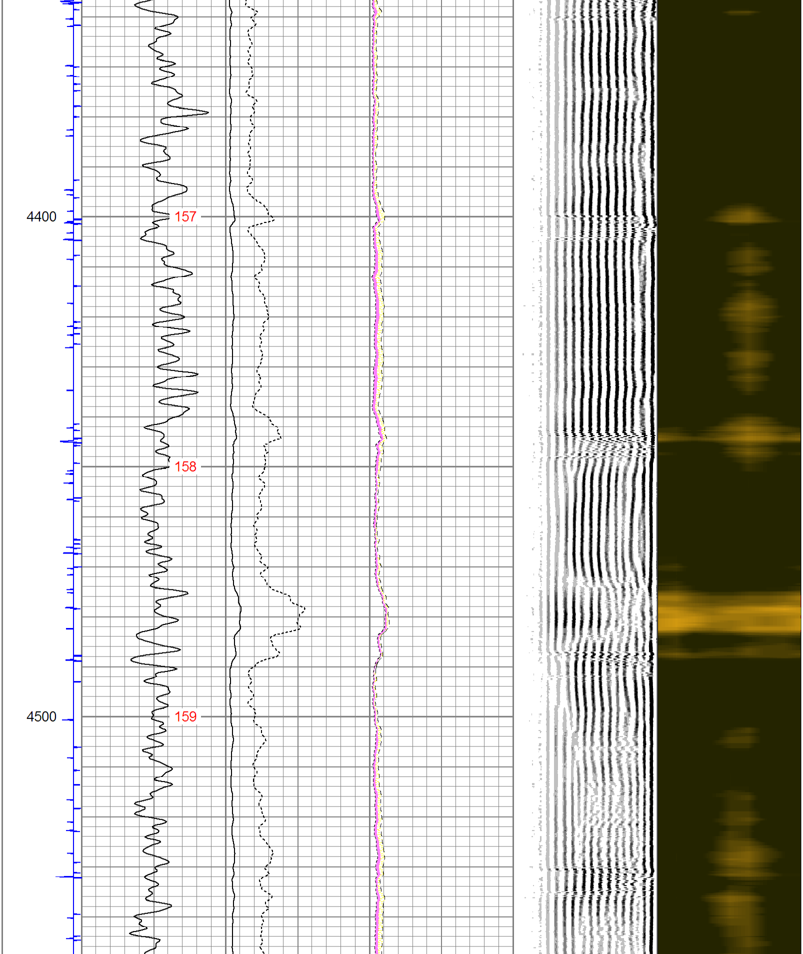
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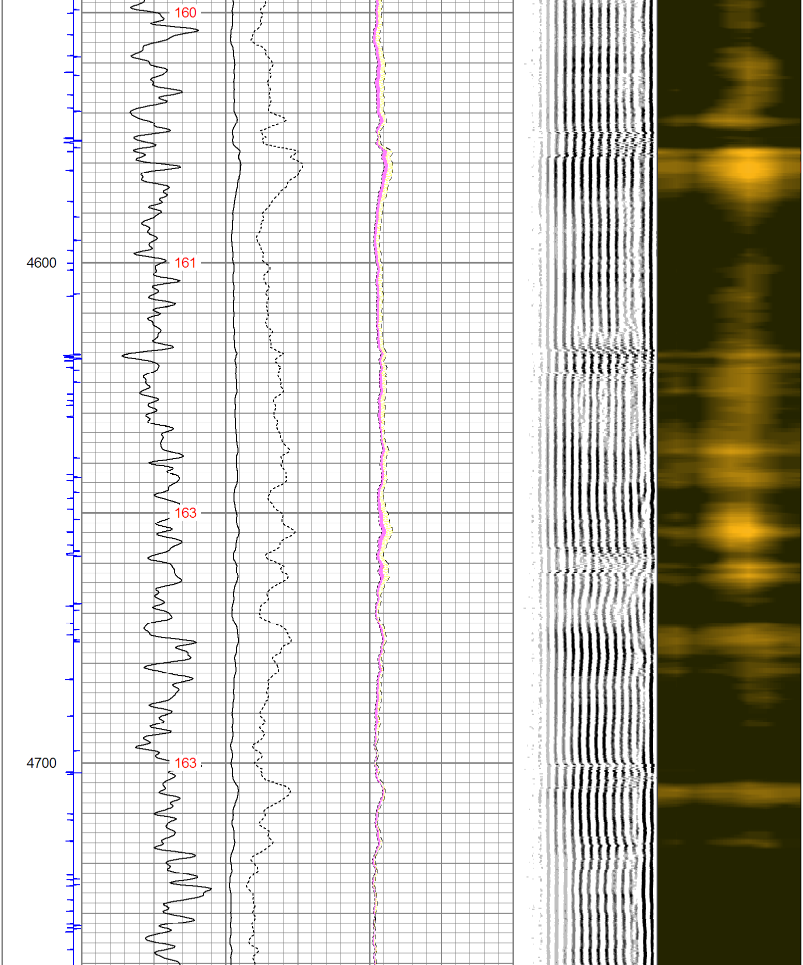
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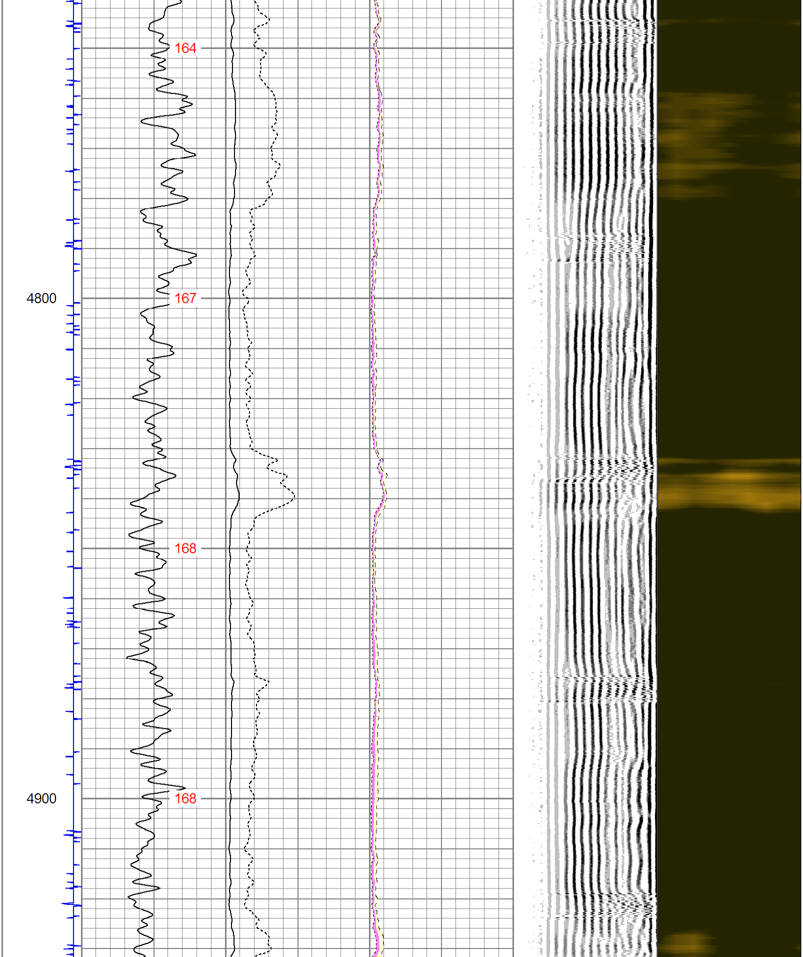
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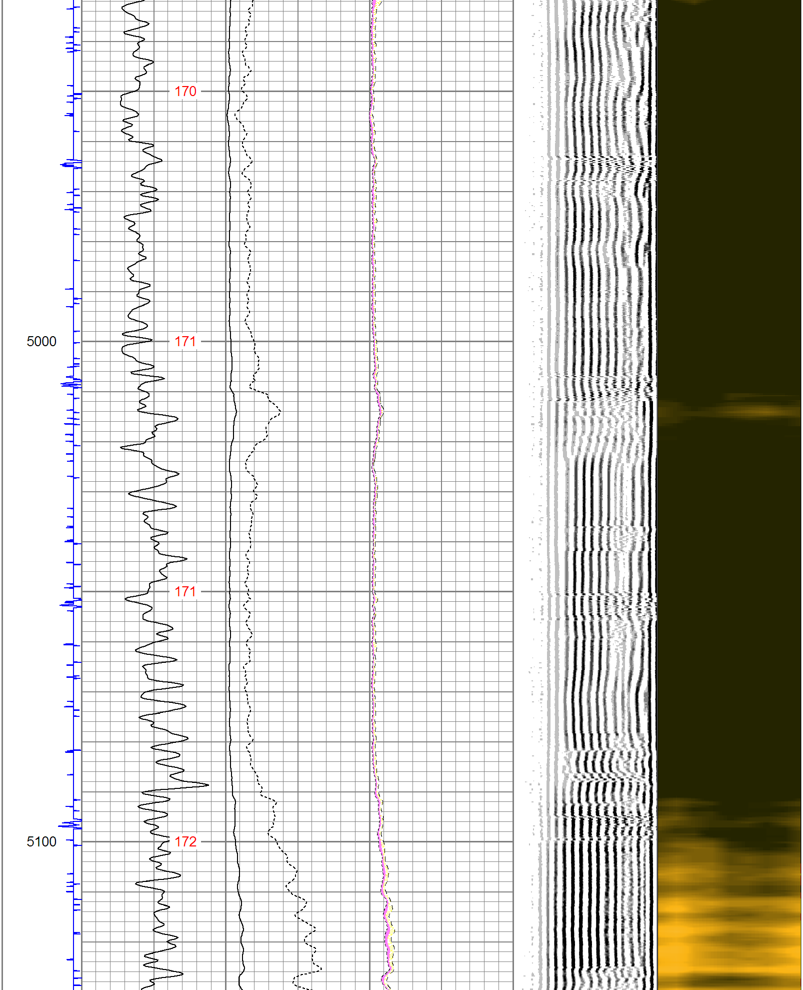
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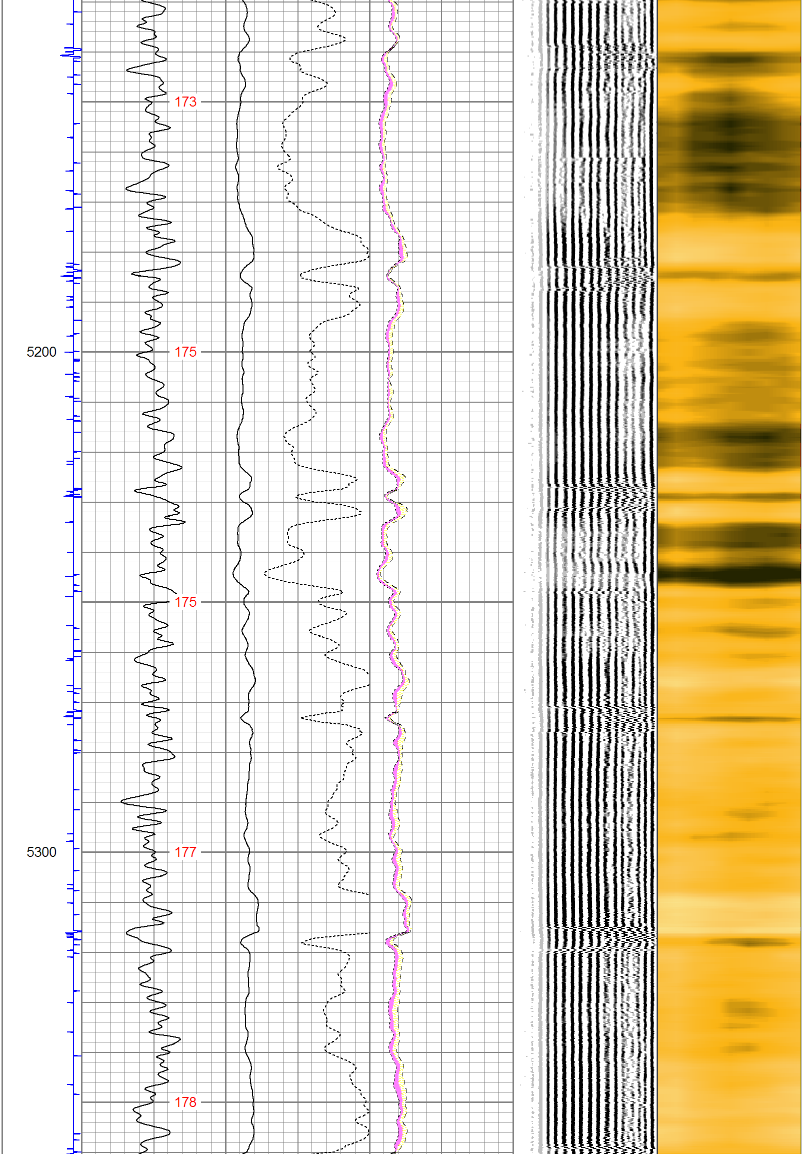
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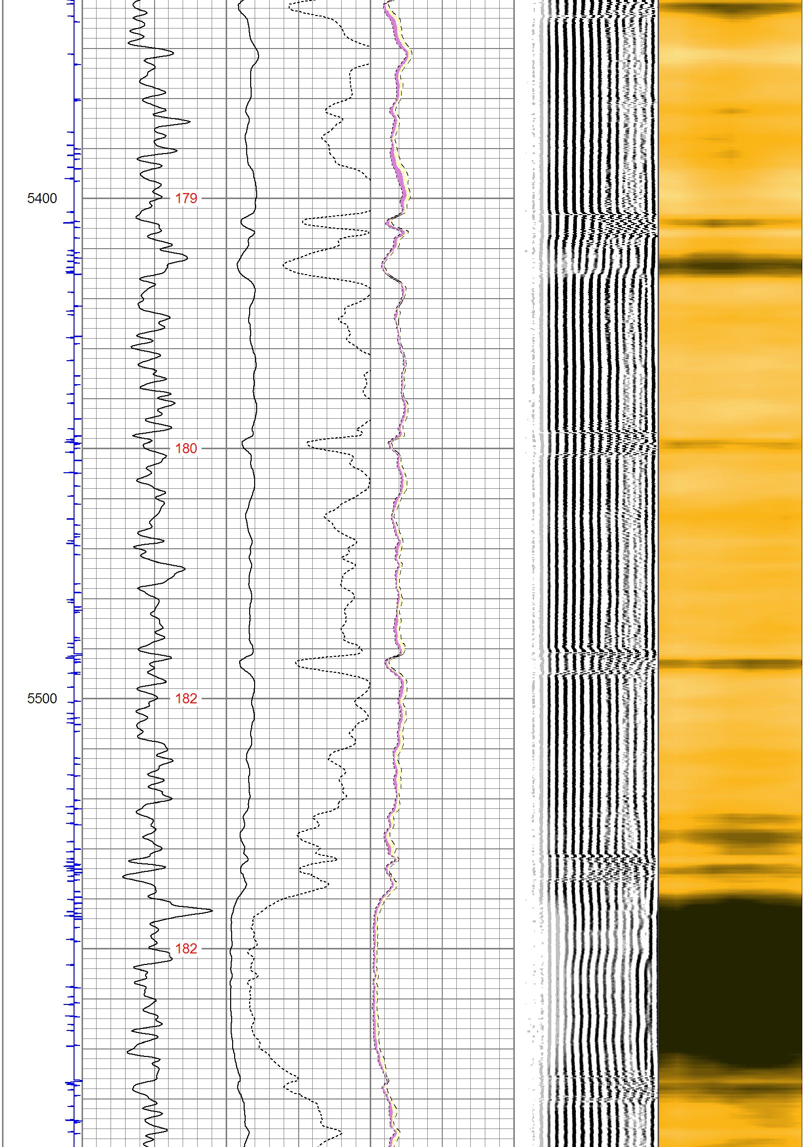
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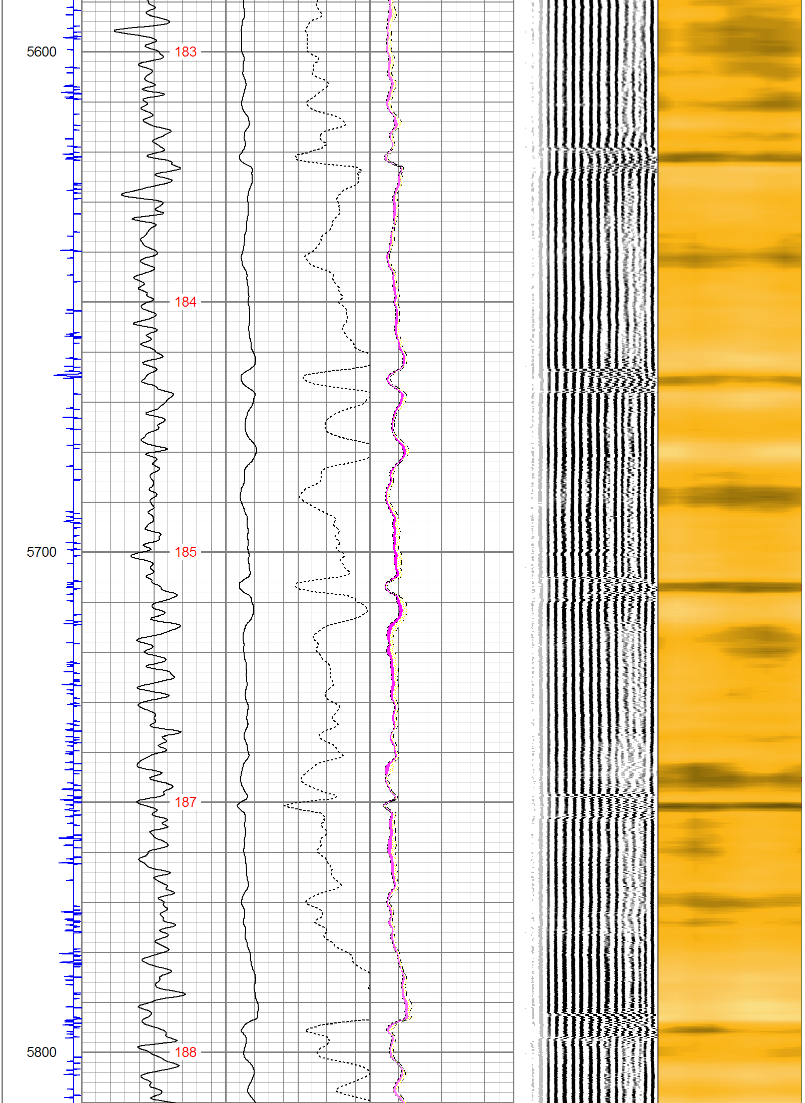
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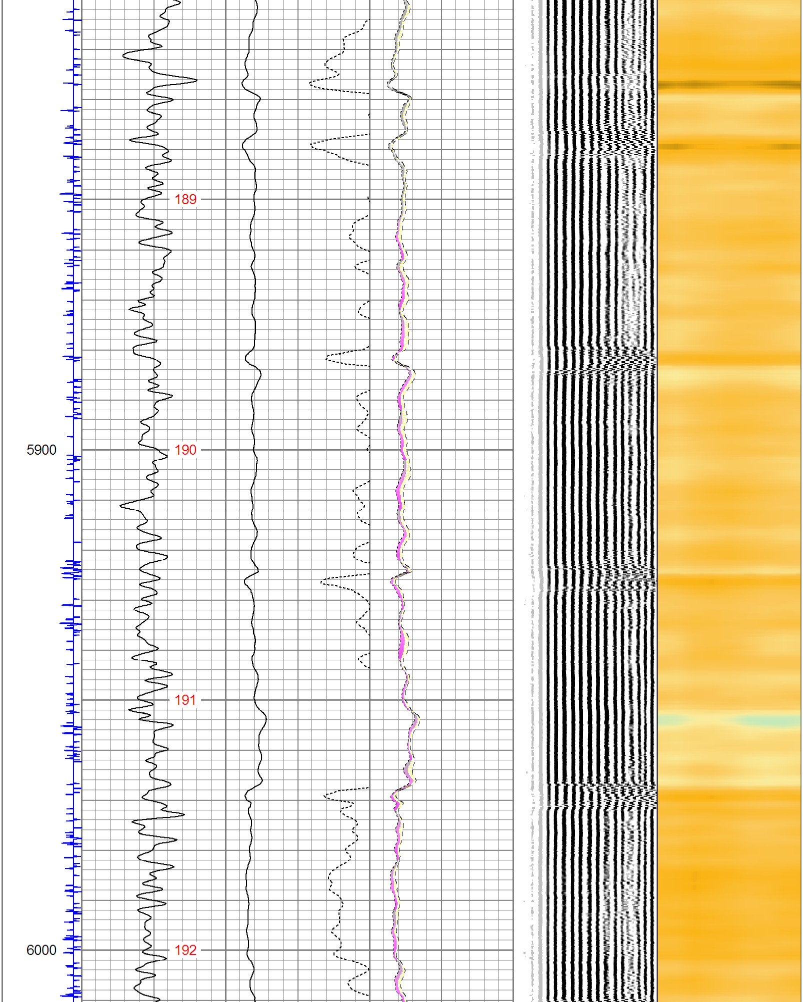
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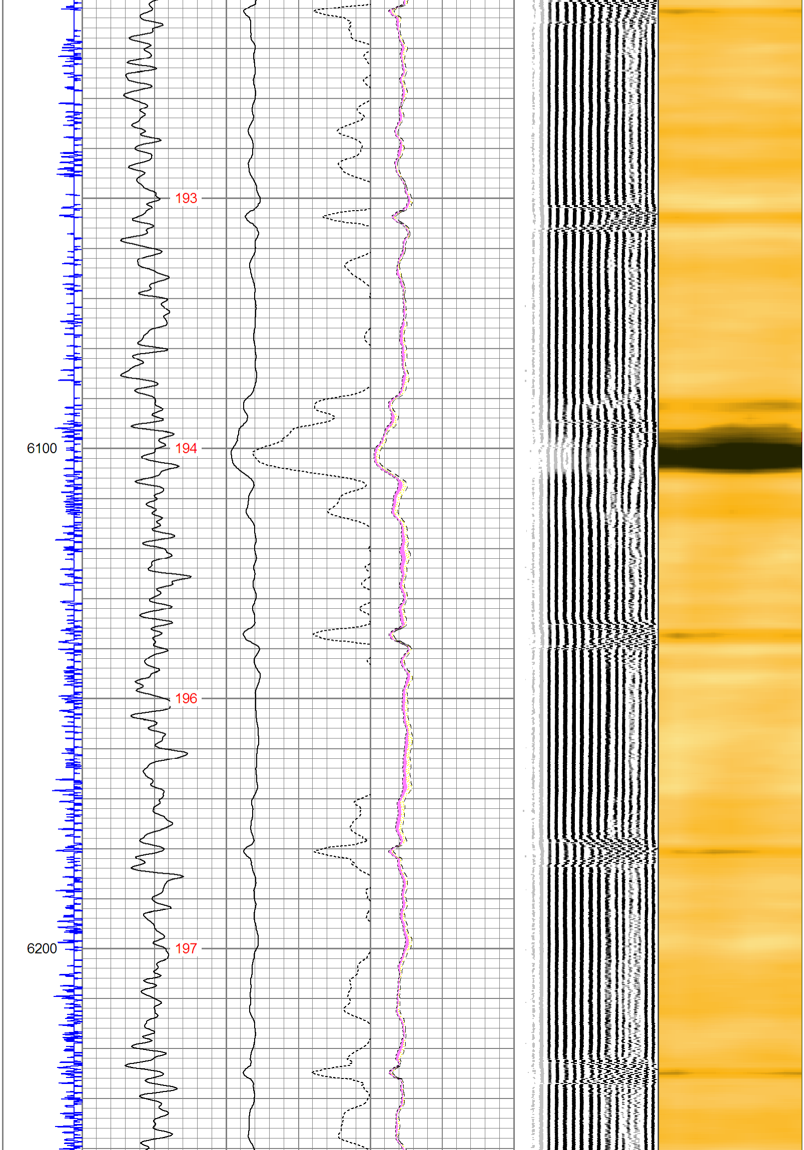
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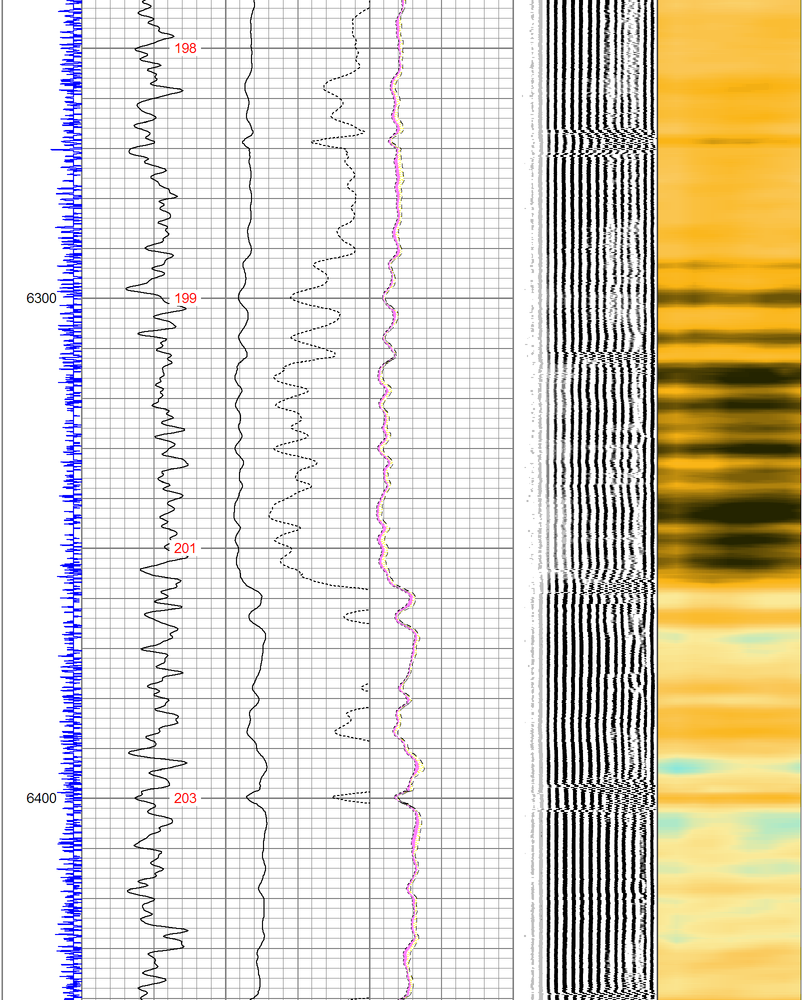
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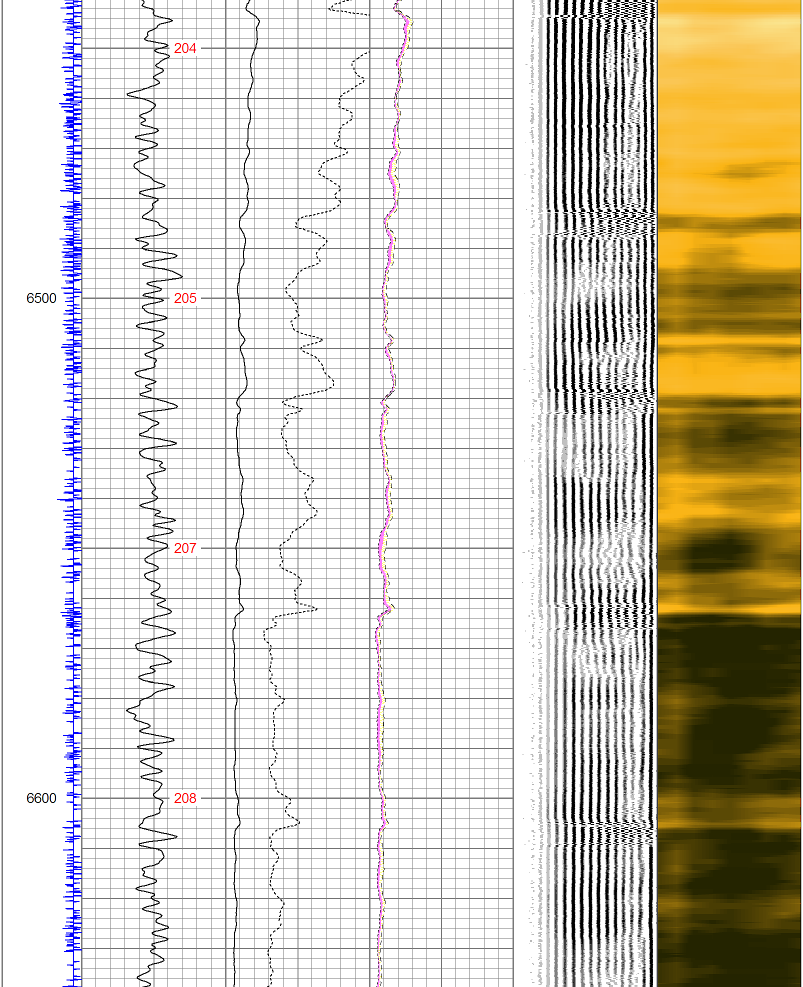
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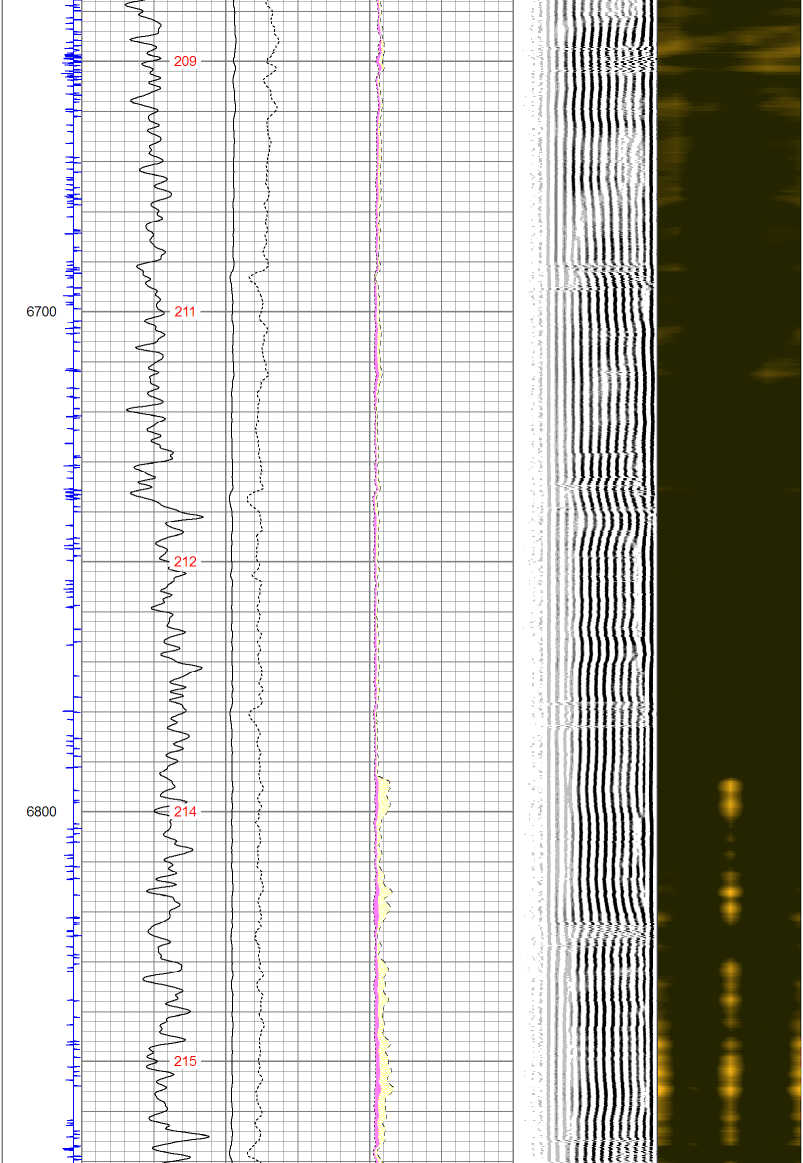
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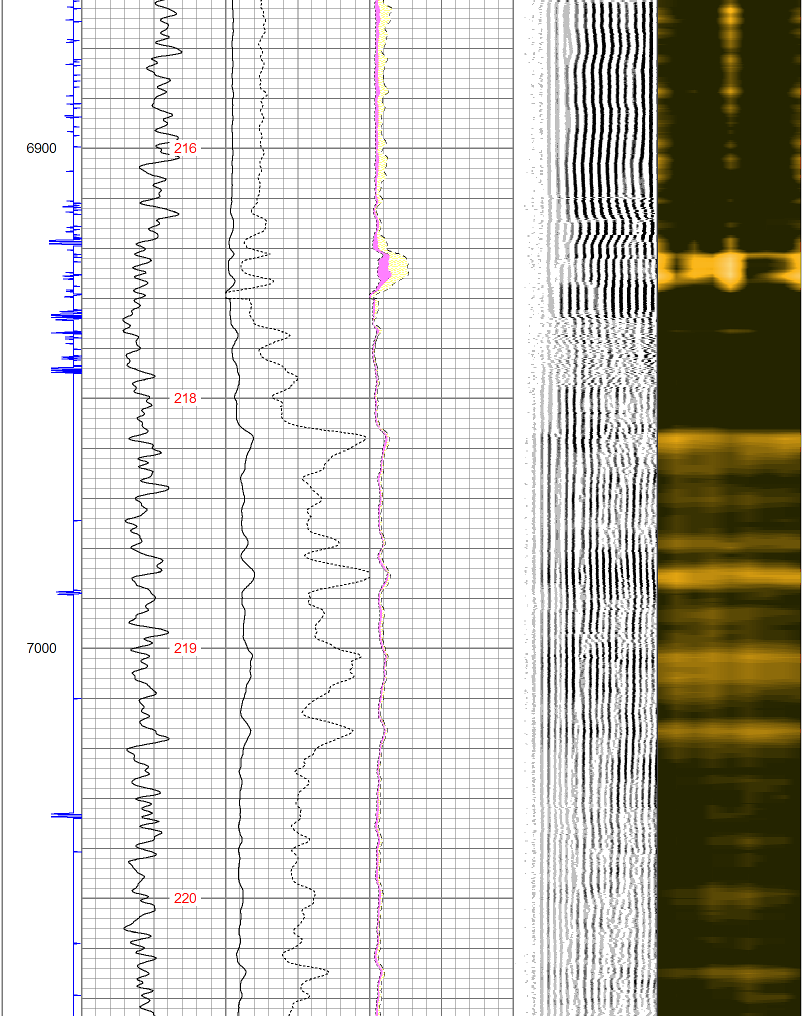
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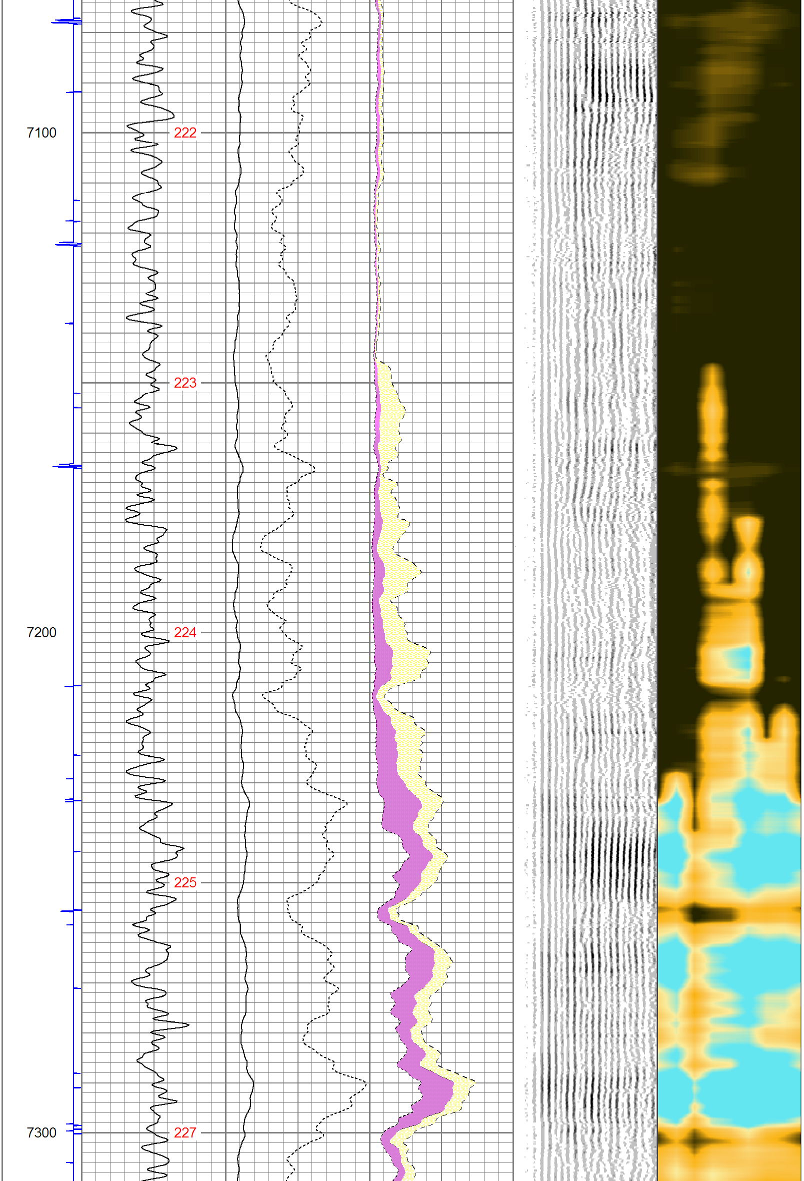
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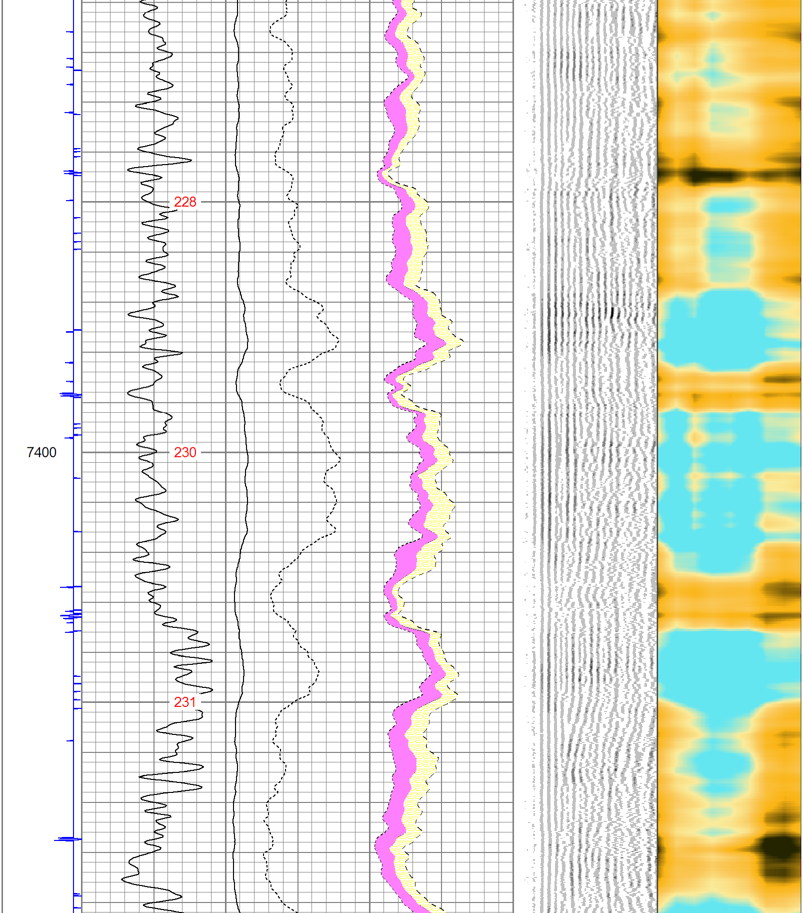
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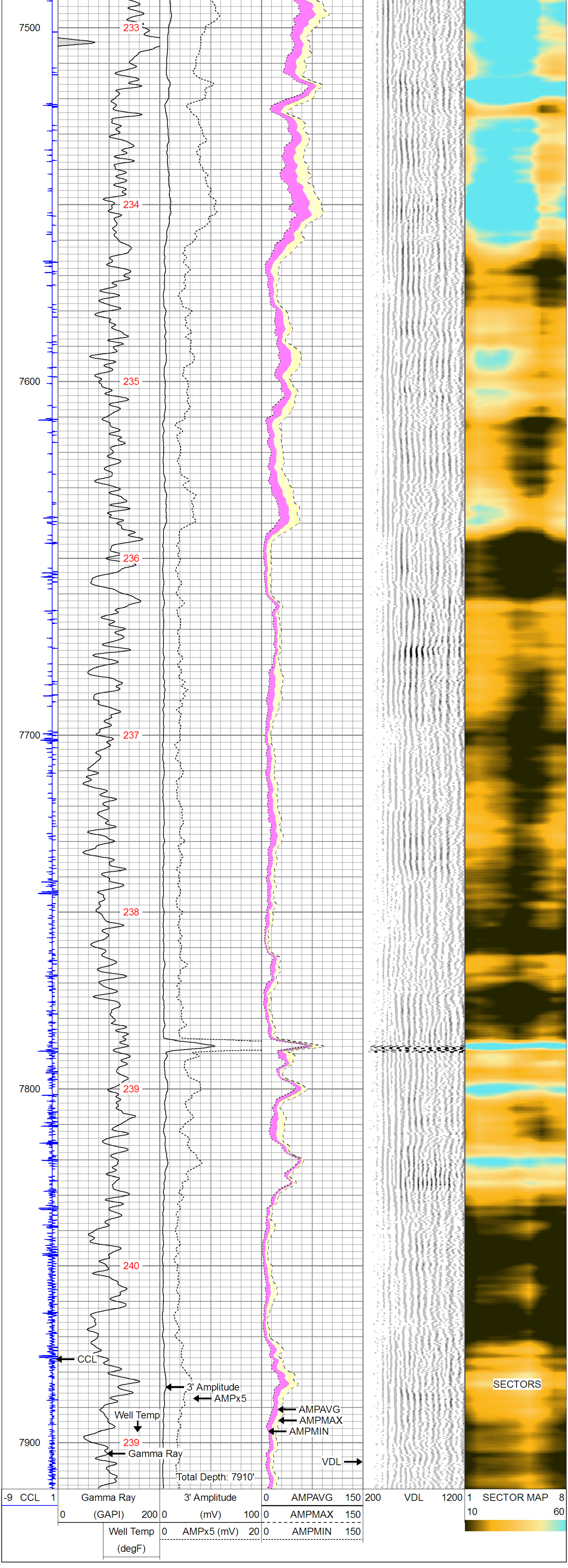

Calibration Report

Database File: howard 30c-29hz.db
Dataset Pathname: rbl/pass1
Dataset Creation: Thu Sep 04 11:04:08 2014 by Log SCH 120126

Gamma Ray Calibration Report

Type / Serial: Probe / 070155

SHOP CALIBRATION Sat Aug 30 06:36:10 2014

	Counts/Sec.	Gain	Offset	Jig	Units
Background	35.0				cps
Calibrator	160.0				cps
		1.0000			GAPI/cps

PRIMARY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

BEFORE SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number: C3-111206
Tool Model: Probe

Calibration Casing Diameter: 7.000 in
Calibration Depth: 0.000 ft

Master Calibration, performed Mon Sep 01 04:51:19 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.768	-0.020	62.165	75.000	-0.300
CAL	0.000	0.754				
5'	0.000	0.679	-0.020	62.165	91.642	-0.020
SUM						
S1	0.000	0.753	0.000	100.000	132.724	0.000
S2	0.000	0.768	0.000	100.000	130.263	0.000
S3	0.000	0.767	0.000	100.000	130.417	0.000
S4	0.000	0.756	0.000	100.000	132.274	0.000
S5	0.000	0.745	0.000	100.000	134.273	0.000
S6	0.000	0.732	0.000	100.000	136.581	0.000
S7	0.000	0.734	0.000	100.000	136.277	0.000
S8	0.000	0.721	0.000	100.000	138.770	0.000

Internal Reference Calibration, performed Fri Aug 22 11:58:10 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.754	1.000	0.000

Air Zero Calibration, performed Sat Aug 30 06:29:19 2014:

	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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State	CO