Company	EXTRACTION OIL AND GAS
Well	UNITED B S16-20-17N
Field	WATTENBERG
County	BROOMFIELD
State	COLORADO
Country	USA

CEMENT BOND LOG

Company EXTRACTION OIL AND GAS
Well UNITED B S16-20-17N
Field WATTENBERG
County BROOMFIELD
State COLORADO Country USA

Location: API # : 05-014-20809
NENE
SEC 9 TWP 1S RGE 68W

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 5254
Log Measured From KELLY BUSHING 28'
Drilling Measured From KELLY BUSHING

Elevation
K.B. 5282
D.F.
G.L. 5254

Date	07-JAN-2022
Run Number	ONE
Depth Driller	17866
Depth Logger	8198
Bottom Logged Interval	8194
Top Log Interval	SURFACE
Open Hole Size	8 3/4"
Type Fluid	WATER
Density / Viscosity	---
Max. Recorded Temp.	242
Estimated Cement Top	244'
Time Well Ready	ROA
Time Logger on Bottom	0800
Equipment Number	803
Location	KERSEY
Recorded By	JIM McKIE
Witnessed By	KRIS PETERSON

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 1/2"	17#	SURFACE	TOTAL DEPTH
Liner				

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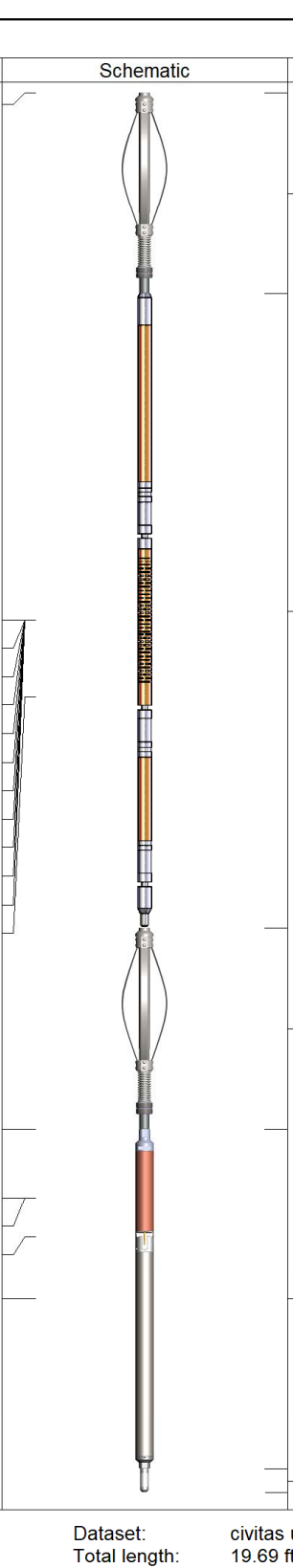
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

FINAL

LOG MEASURED FROM KB AT 28'

FLOAT TOOL FOUND @ 7236'

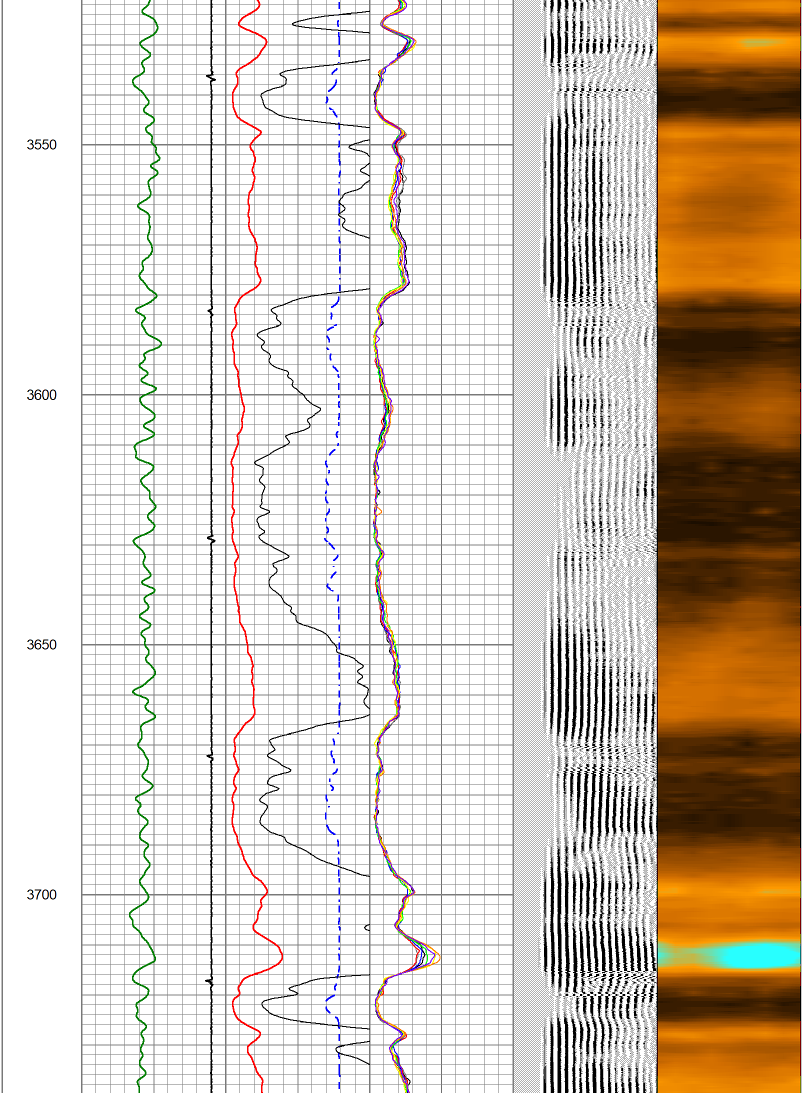
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
ErrCt	19.69					
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
WVFSYNC WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT	12.27 12.27 12.27 12.27 12.27 12.27 12.27 12.27 12.27 12.27 12.27 11.19		RBT-Probe (FW1905-055) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
GCT_HV CCL$2 CCL$1 GCT_Temp GR	5.10 4.14 4.14 3.59 2.72		GC-GCT275-0000 (FW1905-098) Probe Gamma Ray - CCL w/ Temp	4.77	2.75	55.00
			Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00

Dataset: civitas united s16-20-17n.db: field/well/run1/pass6
Total length: 19.69 ft
Total weight: 194.00 lb
O.D.: 2.75 in

MAIN LOG

Database File	civitas united s16-20-17n.db
Dataset Pathname	pass6.3
Presentation Format	sfww_cbl_oasis-sectors (2)
Dataset Creation	Sun Jan 09 11:38:14 2022
Charted by	Depth in Feet scaled 1:240

-7 CCL 3
0 GR (GAPI) 150
0 AMP (mV) 100
650 TT (usec) 150
0 AMPx5 (mV) 20
0 AMPS1 100
0 AMPS2 100
0 AMPS3 100
0 AMPS4 100
0 AMPS5 100
0 AMPS6 100
0 AMPS7 100
0 AMPS8 100
200 VDL (usec) 1200
1 RADIAL MAP 8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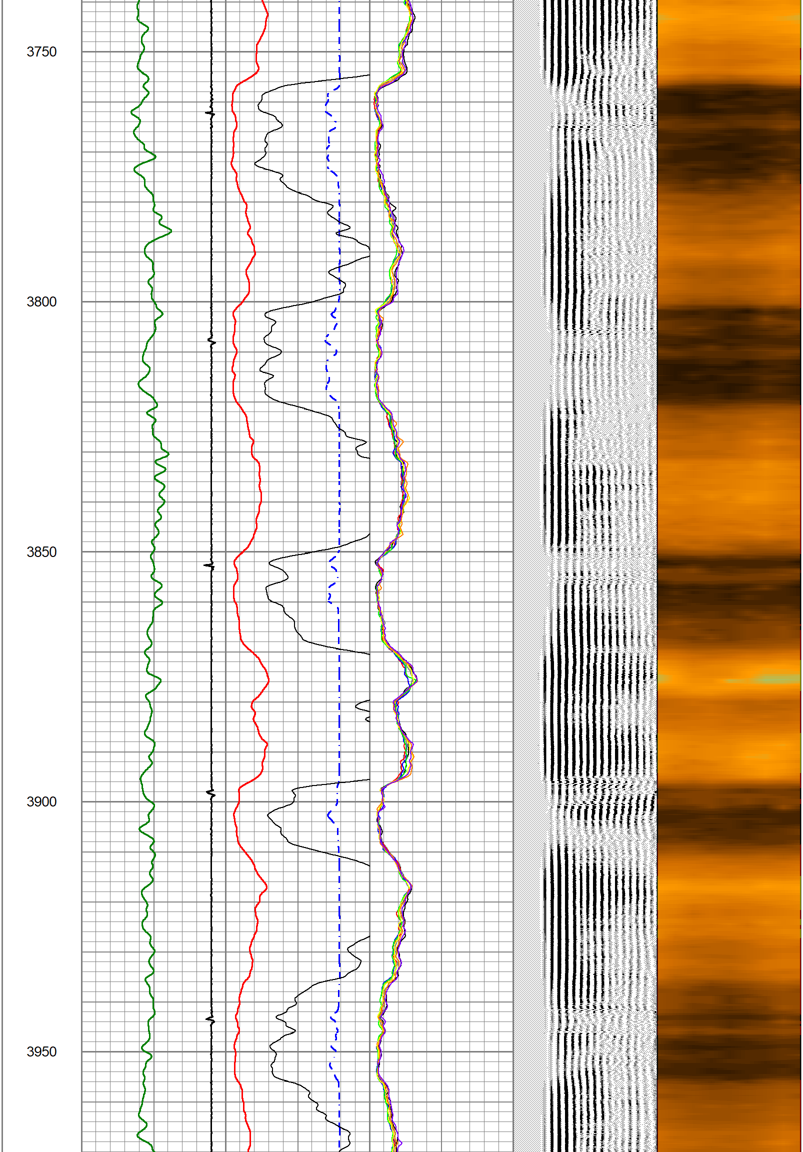
3600
3650
3700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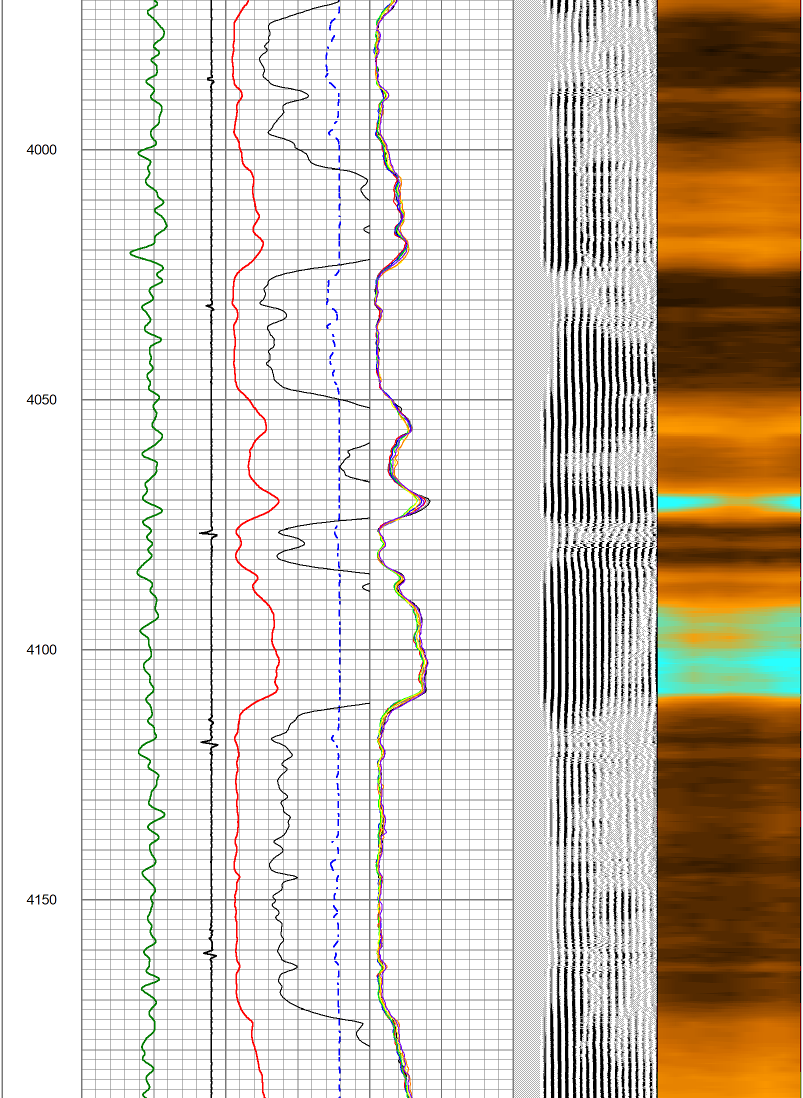
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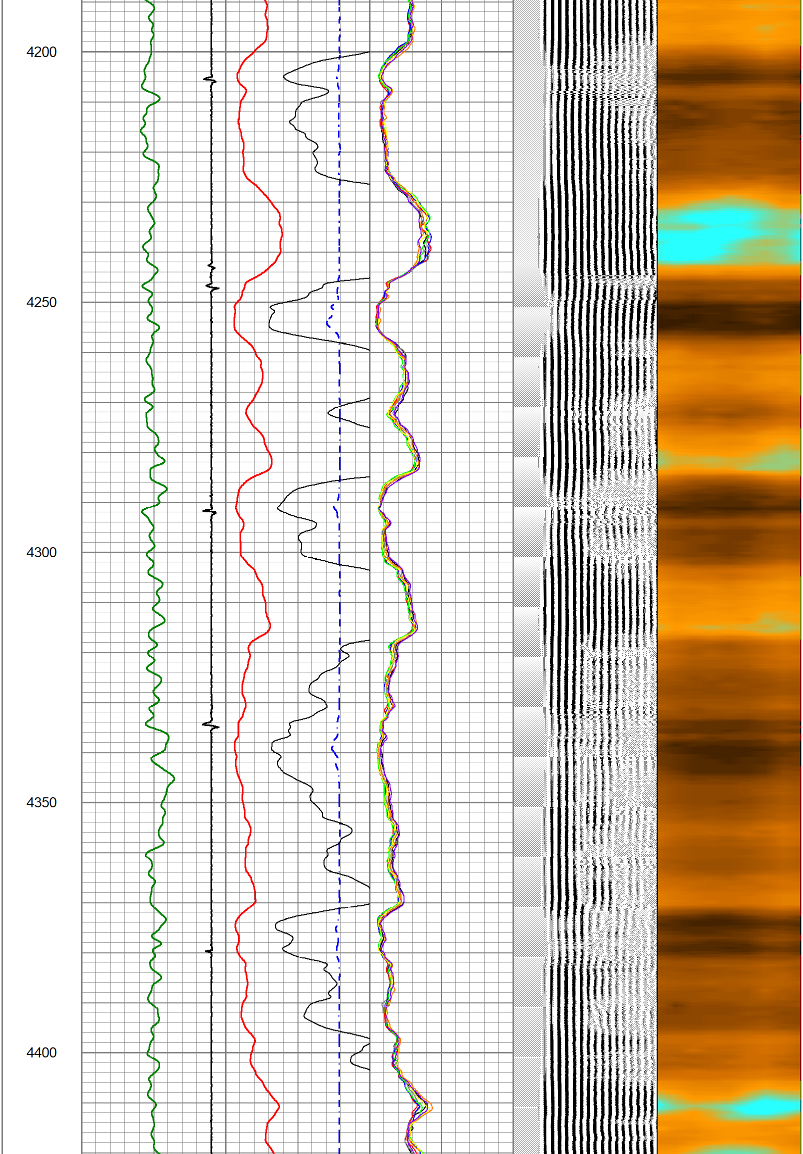
4100
4150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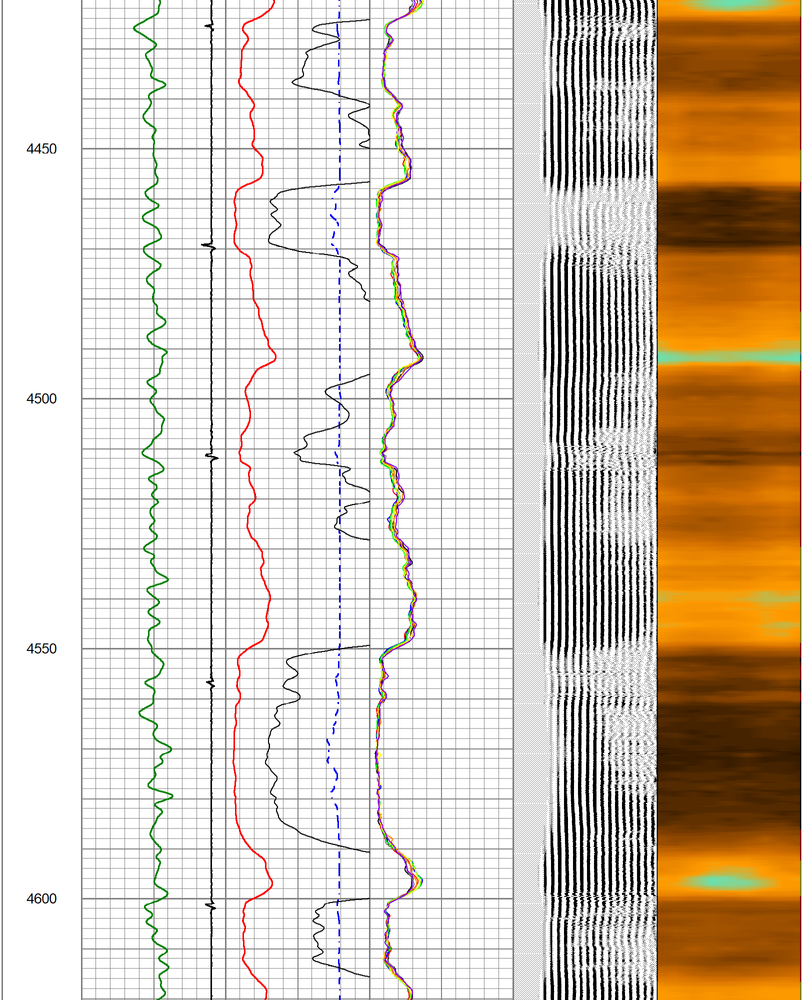
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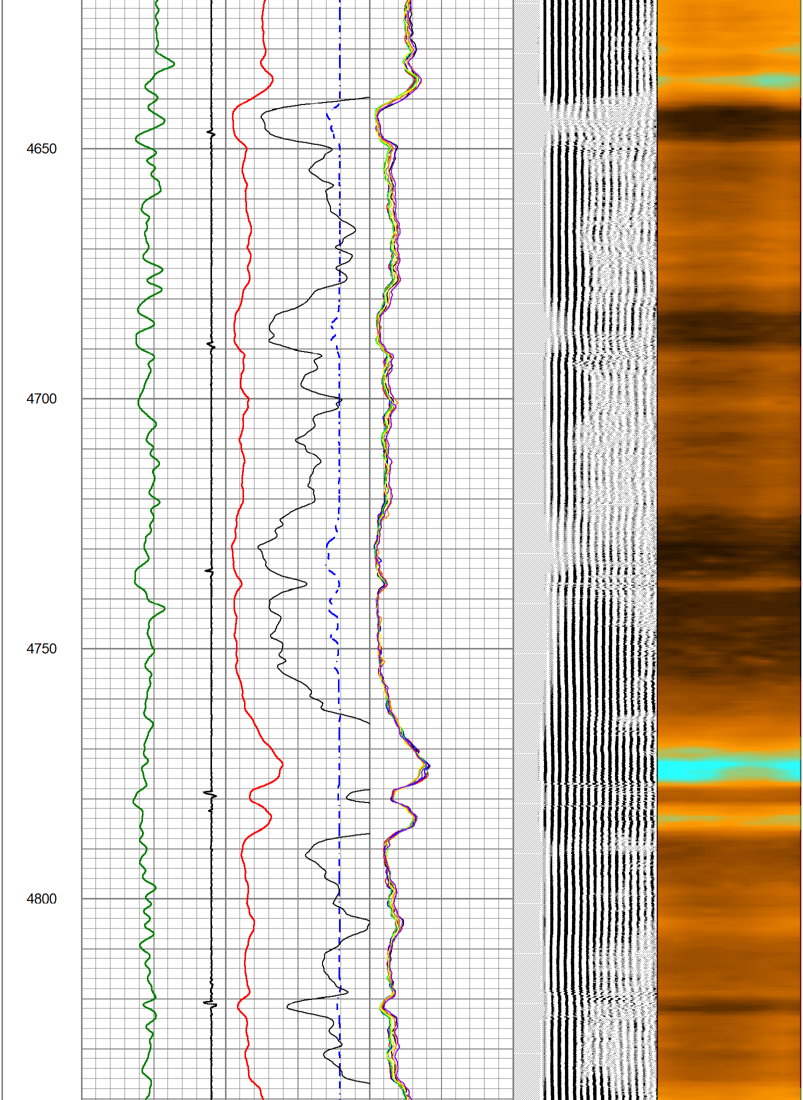
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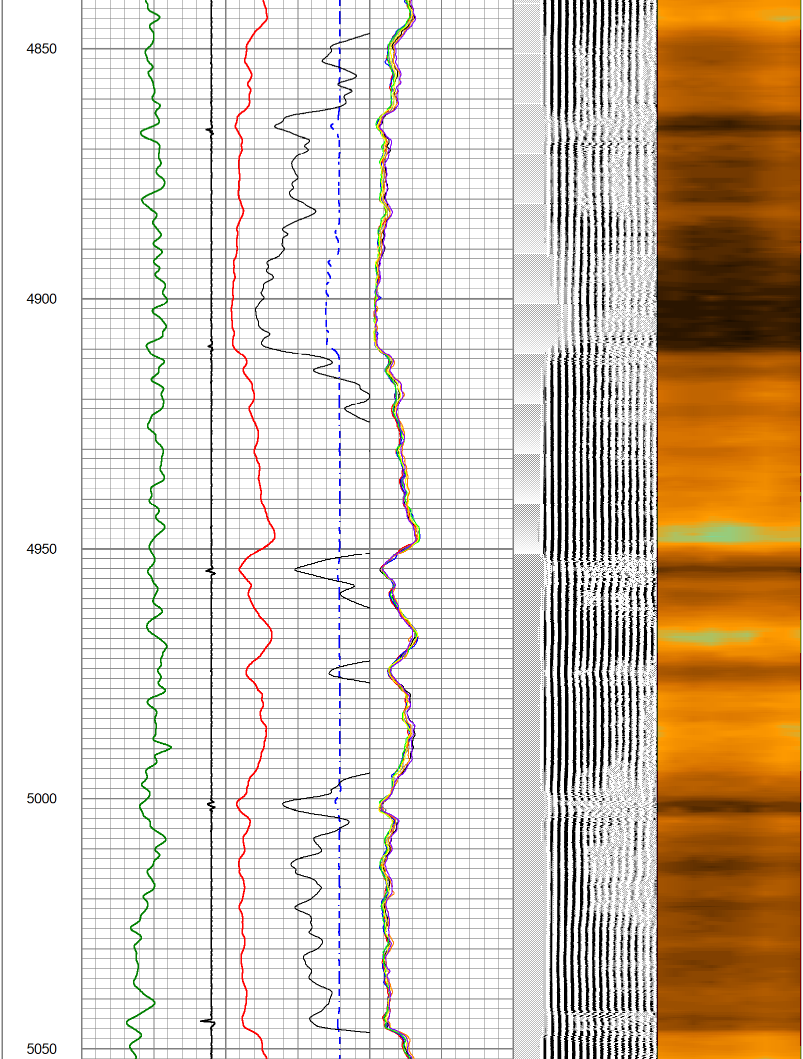
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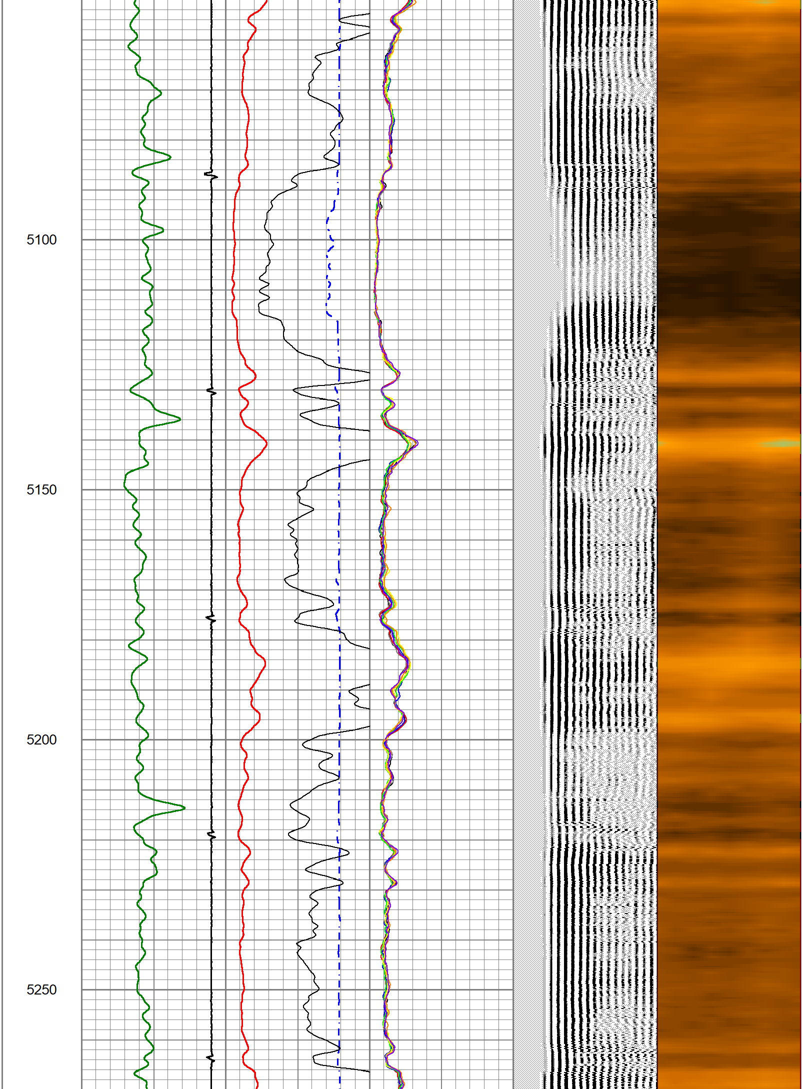
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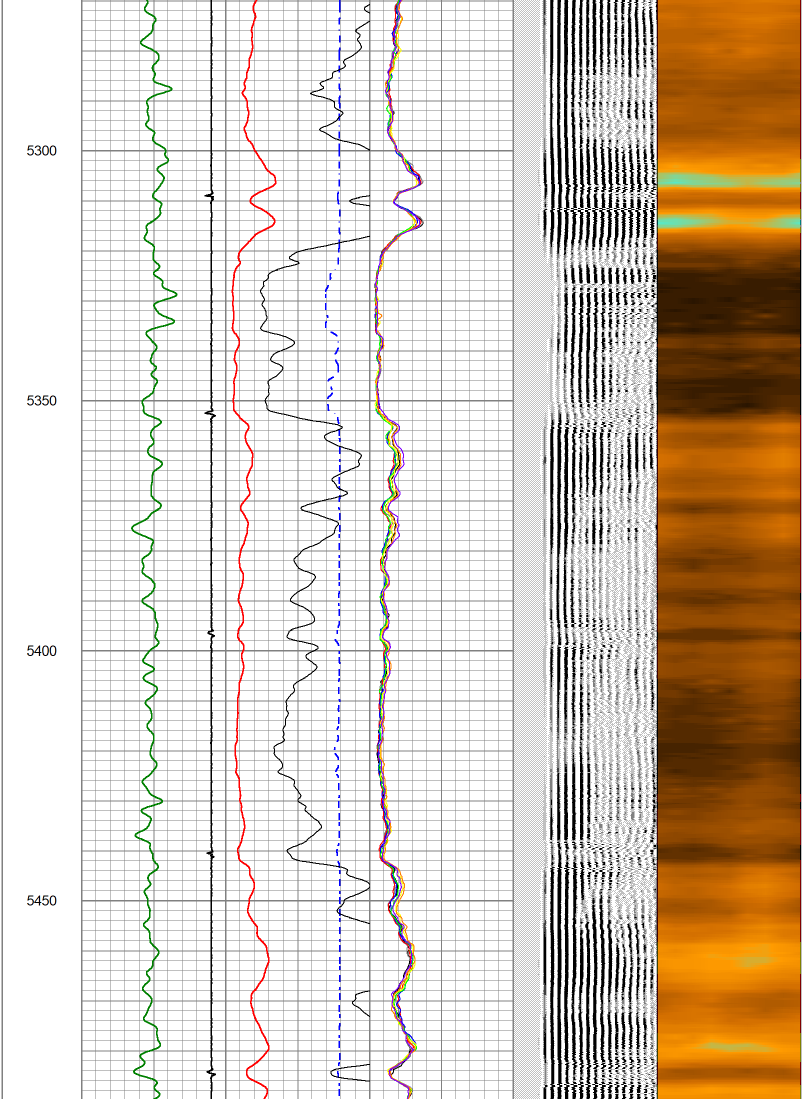
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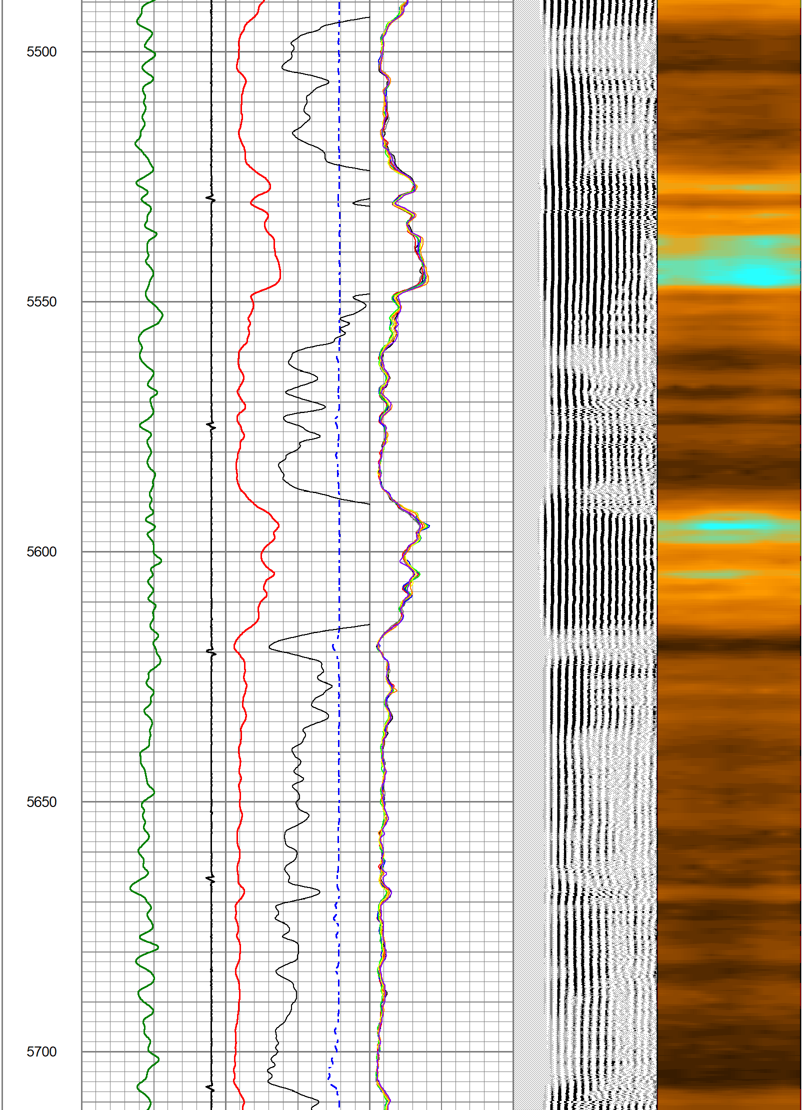
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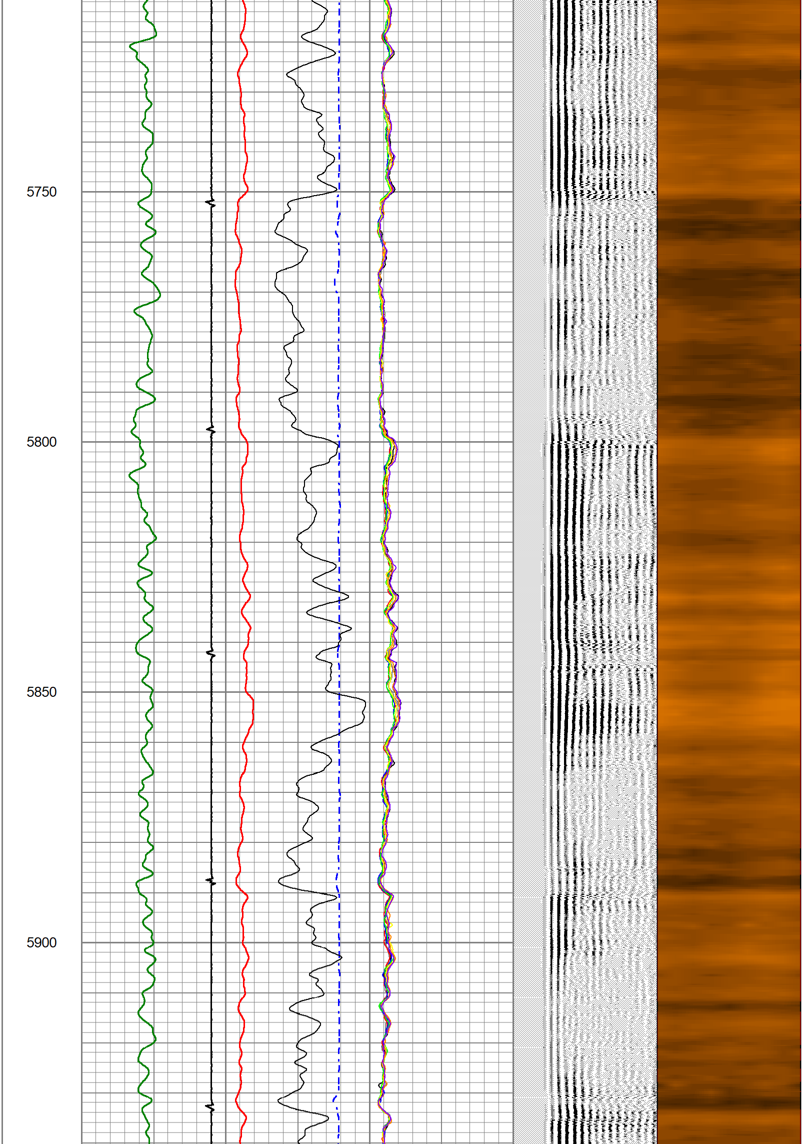
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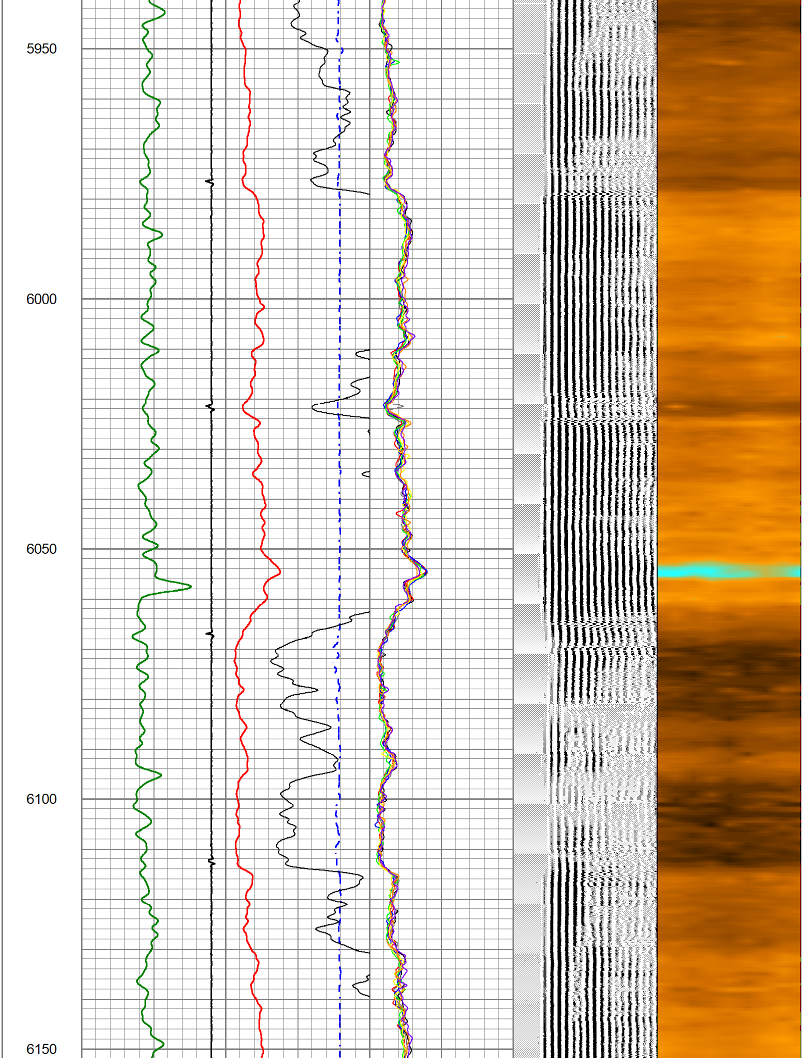
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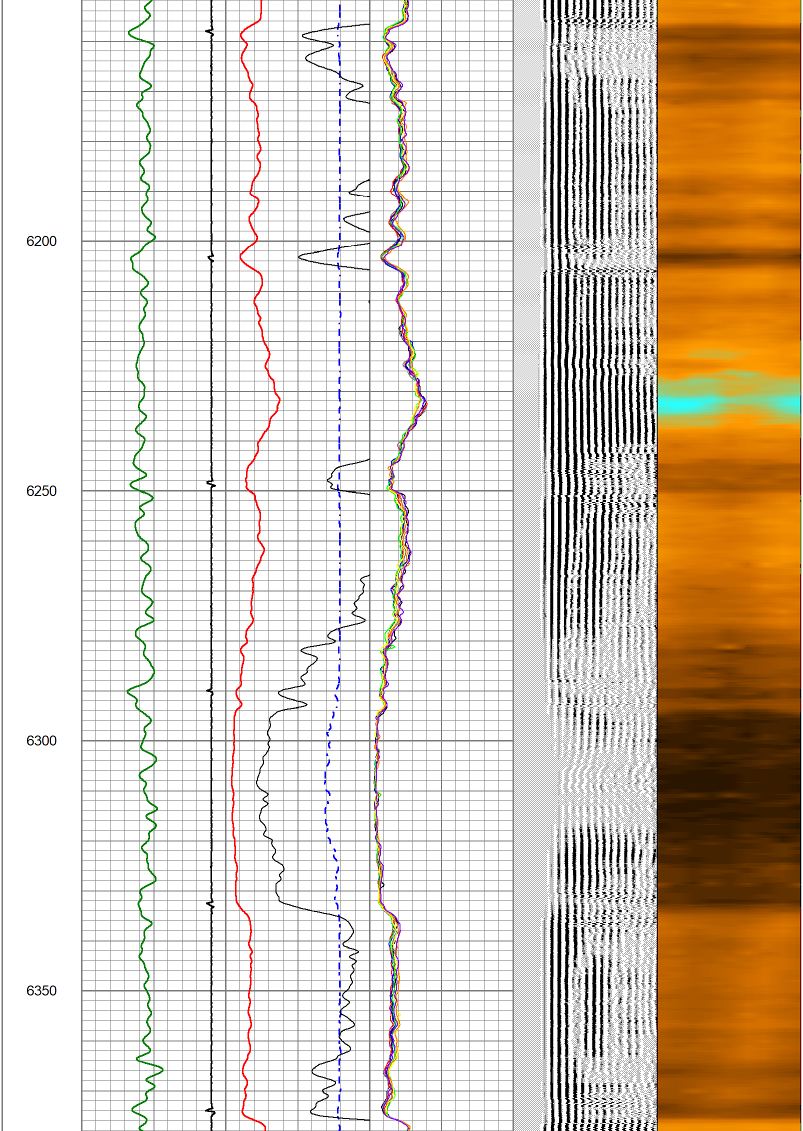
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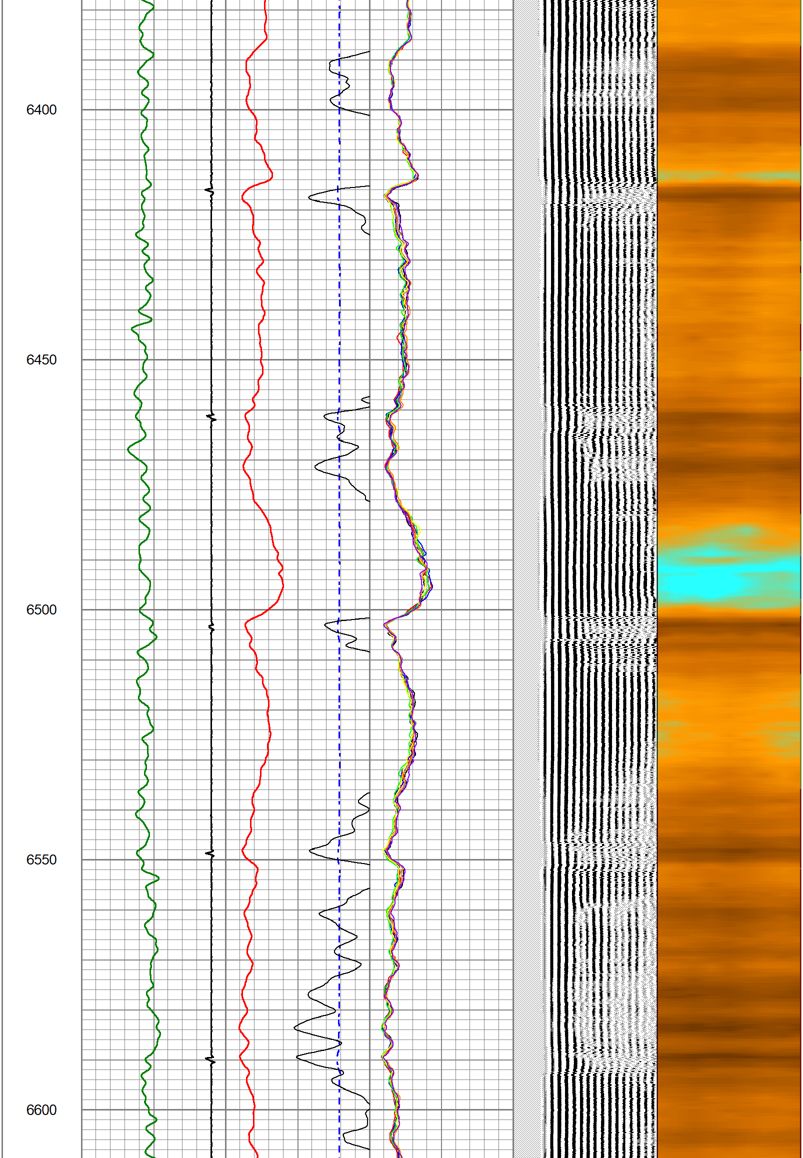
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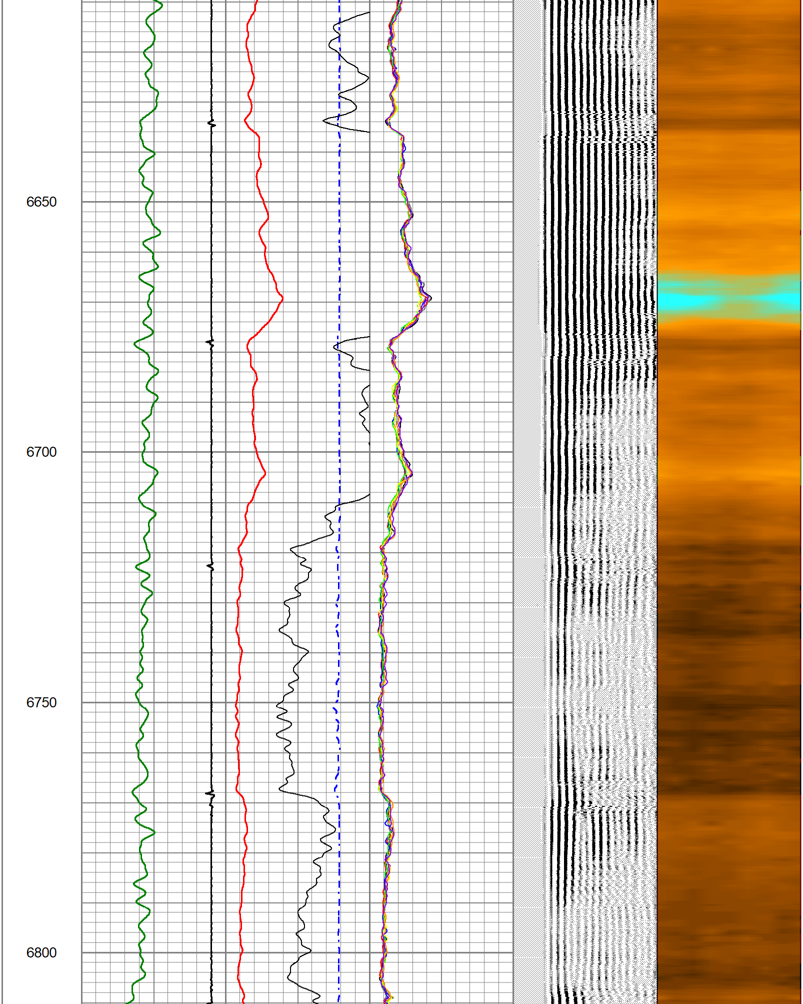
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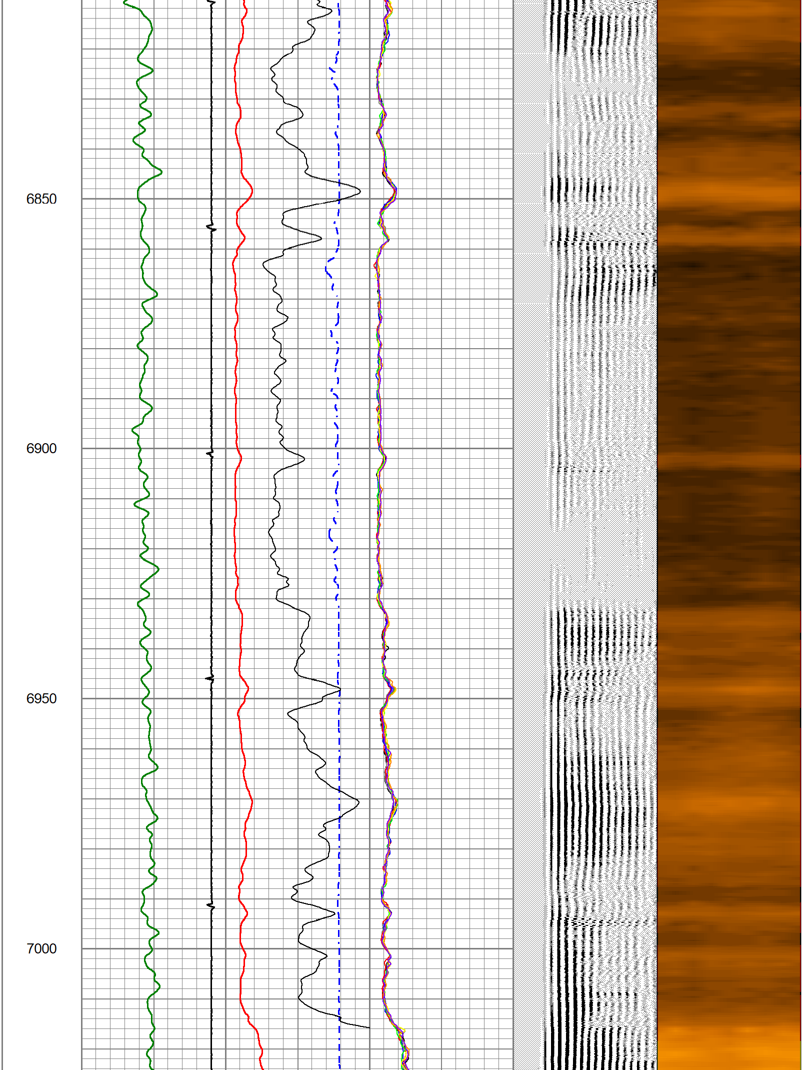
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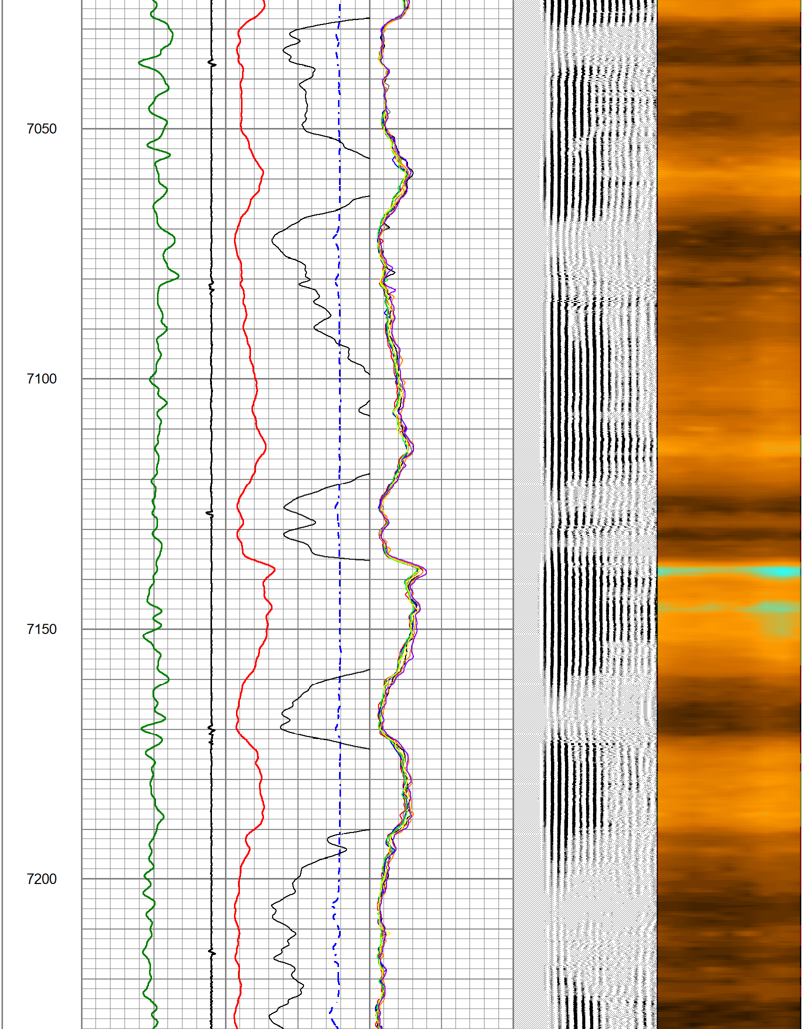
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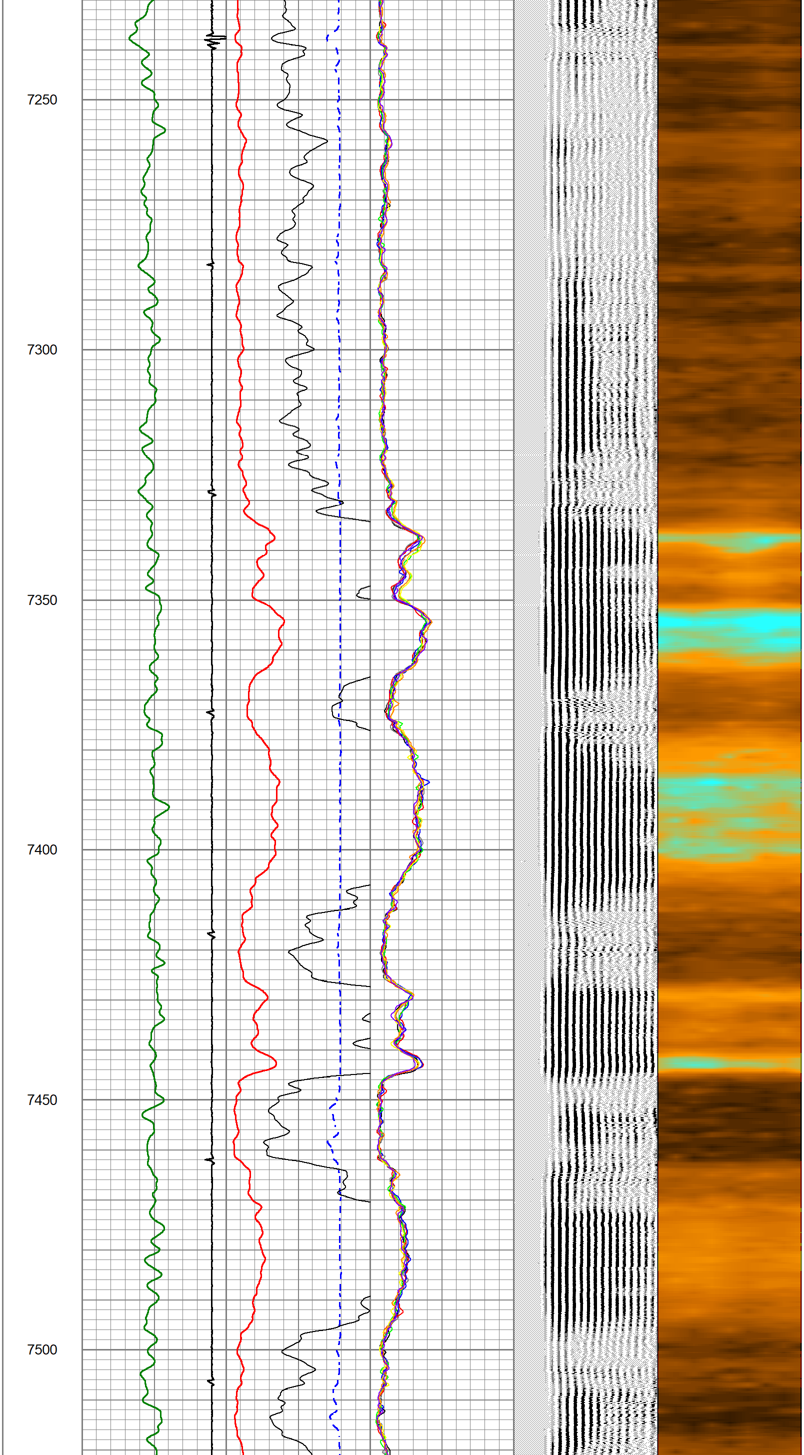
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7300
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7400
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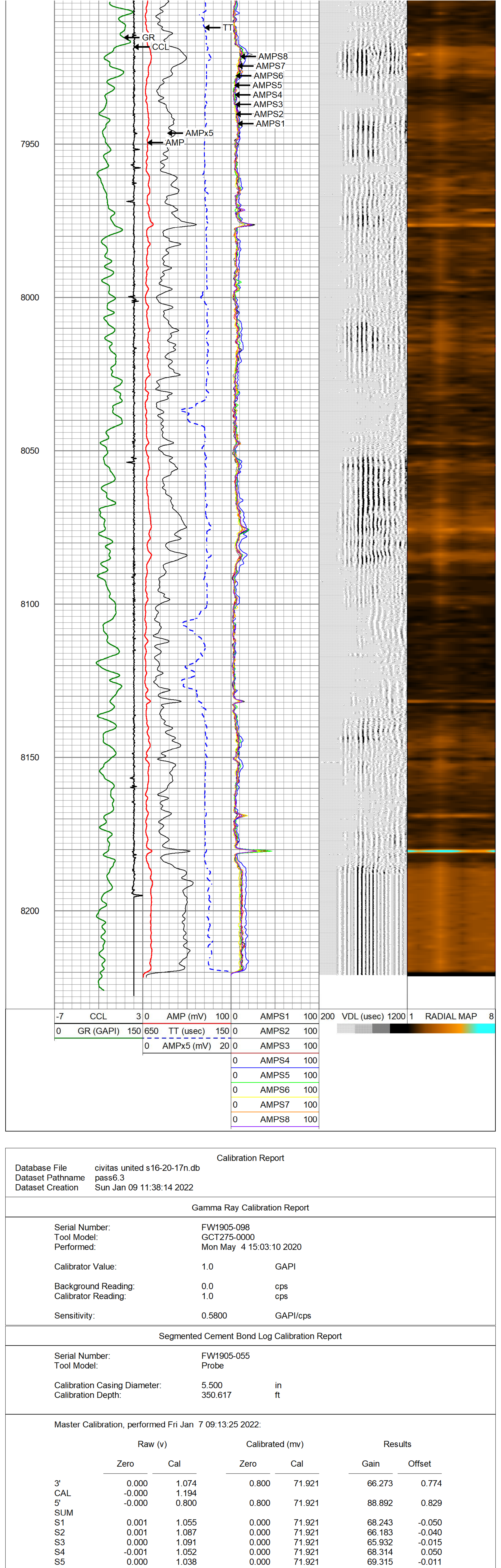
7500

-7 CCL 3	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200
0 GR (GAPI) 150	650 TT (usec) 150	0 AMPS2 100	1 RADIAL MAP 8
	0 AMPx5 (mV) 20	0 AMPS3 100	
		0 AMPS4 100	
		0 AMPS5 100	
		0 AMPS6 100	
		0 AMPS7 100	
		0 AMPS8 100	

REPEAT SECTION

Database File civitas united s16-20-17n.db
Dataset Pathname pass5.1
Presentation Format sfww_cbl_oasis-sectors (2)
Dataset Creation Sat Jan 08 11:15:54 2022
Charted by Depth in Feet scaled 1:240

-7 CCL 3	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200
0 GR (GAPI) 150	650 TT (usec) 150	0 AMPS2 100	1 RADIAL MAP 8
	0 AMPx5 (mV) 20	0 AMPS3 100	
		0 AMPS4 100	
		0 AMPS5 100	
		0 AMPS6 100	
		0 AMPS7 100	
		0 AMPS8 100	



-7 CCL 3	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200
0 GR (GAPI) 150	650 TT (usec) 150	0 AMPS2 100	1 RADIAL MAP 8
	0 AMPx5 (mV) 20	0 AMPS3 100	
		0 AMPS4 100	
		0 AMPS5 100	
		0 AMPS6 100	
		0 AMPS7 100	
		0 AMPS8 100	

Calibration Report

Database File civitas united s16-20-17n.db
Dataset Pathname pass6.3
Dataset Creation Sun Jan 09 11:38:14 2022

Gamma Ray Calibration Report

Serial Number:	FW1905-098	
Tool Model:	GCT275-0000	
Performed:	Mon May 4 15:03:10 2020	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5800	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1905-055	
Tool Model:	Probe	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	350.617	ft

Master Calibration, performed Fri Jan 7 09:13:25 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	1.074	0.800	71.921	66.273	0.774
CAL	-0.000	1.194				
5'	-0.000	0.800	0.800	71.921	88.892	0.829
SUM						
S1	0.001	1.055	0.000	71.921	68.243	-0.050
S2	0.001	1.087	0.000	71.921	66.183	-0.040
S3	0.000	1.091	0.000	71.921	65.932	-0.015
S4	-0.001	1.052	0.000	71.921	68.314	0.050
S5	0.000	1.038	0.000	71.921	69.315	-0.011
S6	0.001	1.006	0.000	71.921	71.543	-0.081
S7	0.000	1.002	0.000	71.921	71.822	-0.033
S8	0.000	1.058	0.000	71.921	68.026	-0.031

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.000	1.194	1.000	0.000

Air Zero Calibration, performed Tue Sep 21 12:19:14 2021:

	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:\ProgramData\Warrior\Data\civitas united s16-20-17n.db
Dataset field/well/run1/pass6.3/_vars_

Top - Bottom

BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft
7.875	100	5.5	0.304	17	71.9	1	0.8

PERFS	PPT usec	SRFTEMP degF	TDEPTH ft
No	0	0	0

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude
MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Company	EXTRACTION OIL AND GAS		
Well	UNITED B S16-20-17N		
Field	WATTENBERG		
County	BROOMFIELD		
State	COLORADO	Country	USA