



RADIAL BOND LOG
VDL/SECTOR MAP
GAMMA RAY
CCL LOG

Pioneer Energy Services

Company PDC ENERGY INC
Well BECKER RANCH #5M-203
Field WATTENBERG
County WELD State COLORADO

Location: API # : 05-123-40109
SHL: 820' FNL & 2525' FEL
BHL: 500' FSL & 2504' FEL
NWNE
SEC 5 TWP 3N RGE 64W
Permanent Datum Ground Level Elevation 4782'
Log Measured From K.B. 13' A.G.L.
Drilling Measured From K.B.
Other Services
Elevation
K.B. 4795'
D.F.
G.L. 4782'

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Date 14-MARCH-2015

Run Number ONE
Depth Driller N/A
Depth Logger 6935'
Bottom Logged Interval 6935'
Top Log Interval 5900'
Open Hole Size N/A
Type Fluid WATER
Density / Viscosity N/A
Max. Recorded Temp. N/A
Estimated Cement Top 6175'
Time Well Ready 11:30
Time Logger on Bottom 12:00
Equipment Number 75
Location FT. MORGAN
Recorded By REESE
Witnessed By

Borehole Record
Run Number Bit From To Size Weight From To

Casing Record
Surface String 9-5/8" 36# Top SURFACE Bottom 875'
Prot. String
Production String 7" 26# SURFACE 7279'
Liner

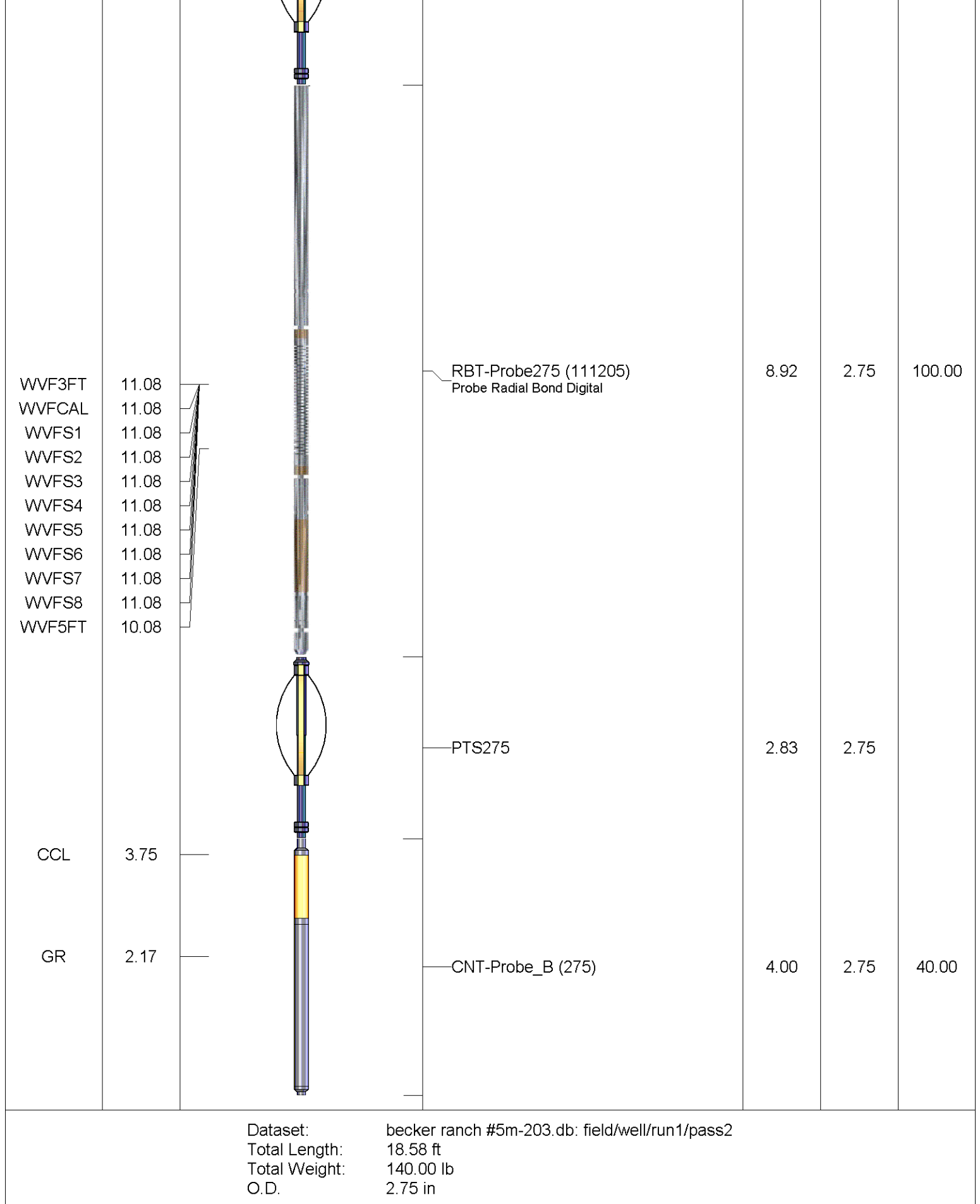
Size Wgt/Ft Top Bottom
9-5/8" 36# SURFACE 875'
7" 26# SURFACE 7279'

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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

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			PTS275	2.83	2.75	



MAIN PASS
ZERO PSI APPLIED AT SURFACE

Database File:

becker ranch #5m-203.db

Dataset Pathname:

pass6

Presentation Format:

scbl02

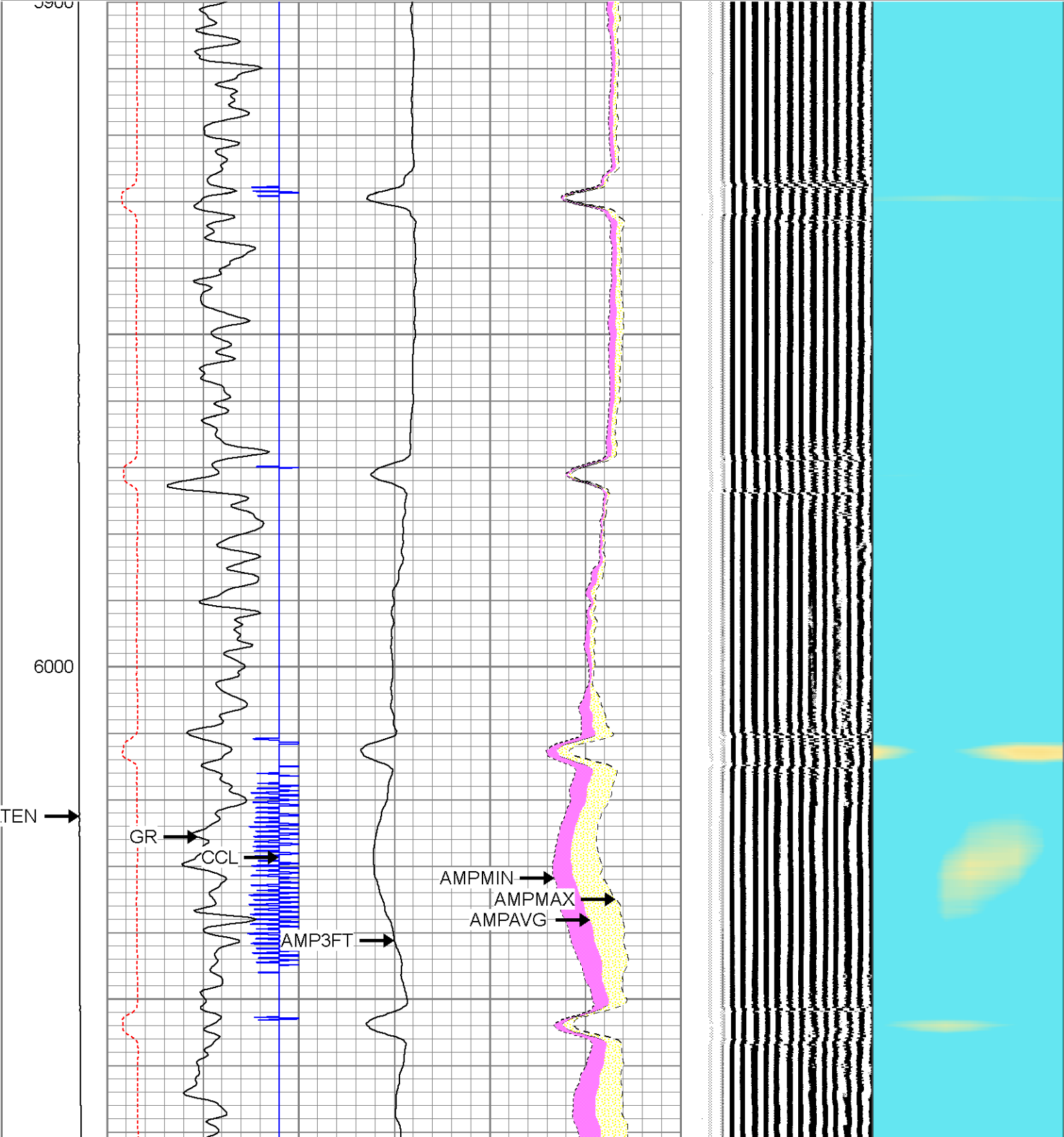
Dataset Creation:

Sat Mar 14 12:34:56 2015 by Log 7.0 B1

Charted by:

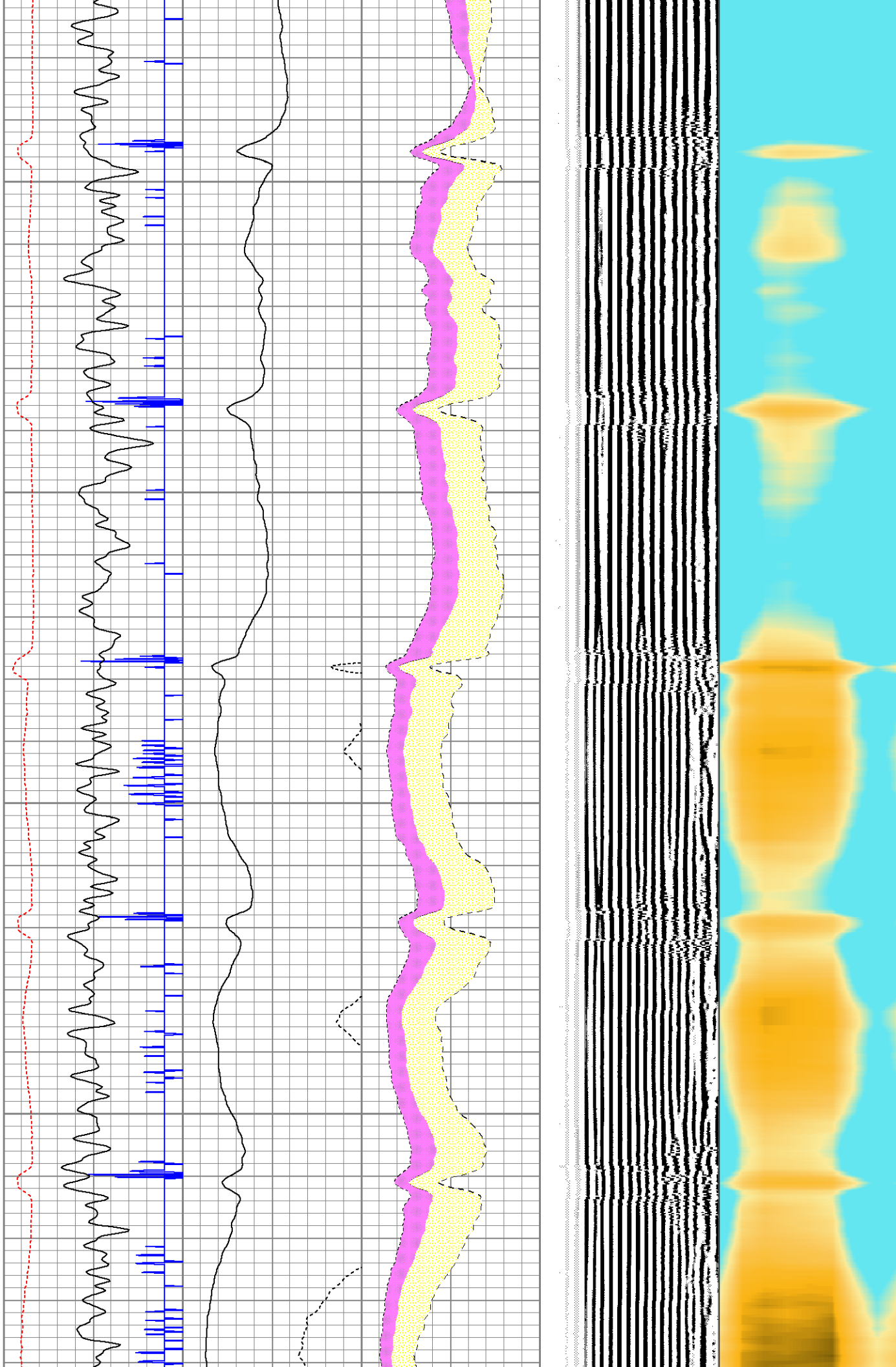
Depth in Feet scaled 1:240

Tension	-9	CCL	1	3' Amplitude	0	AMPAVG	150	200	VDL	1200	1	SECTOR MAP	8
0 (lb)	1600	Gamma Ray	0	(mV)	100	0	AMPMAX	150			10		60
	0	(GAPI)	200	0	AMPx5 (mV)	20	0	AMPMIN	150				
		TT3FT											
	310	(usec)	210										



6100

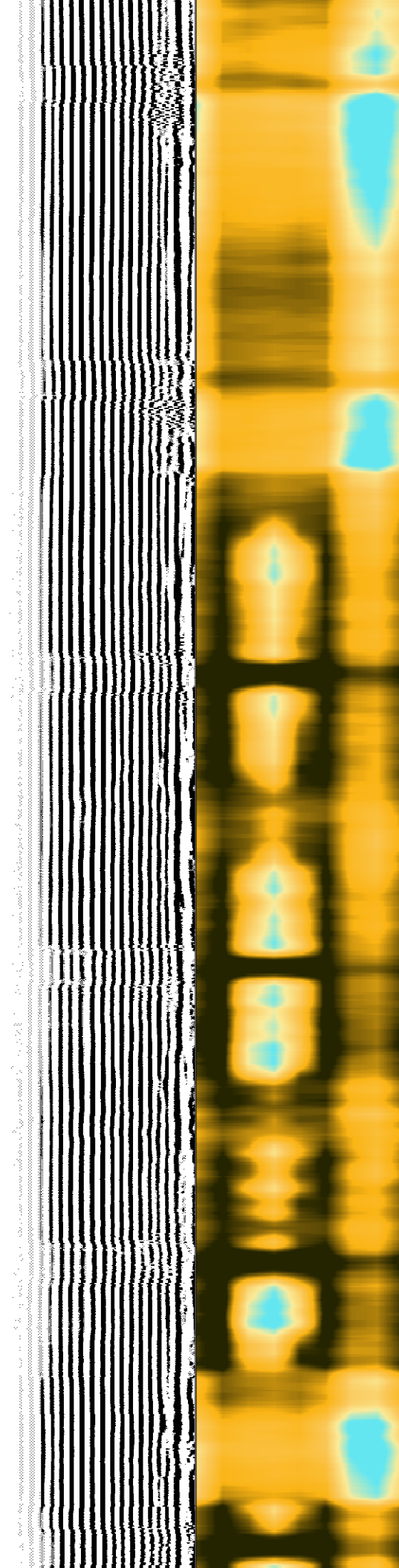
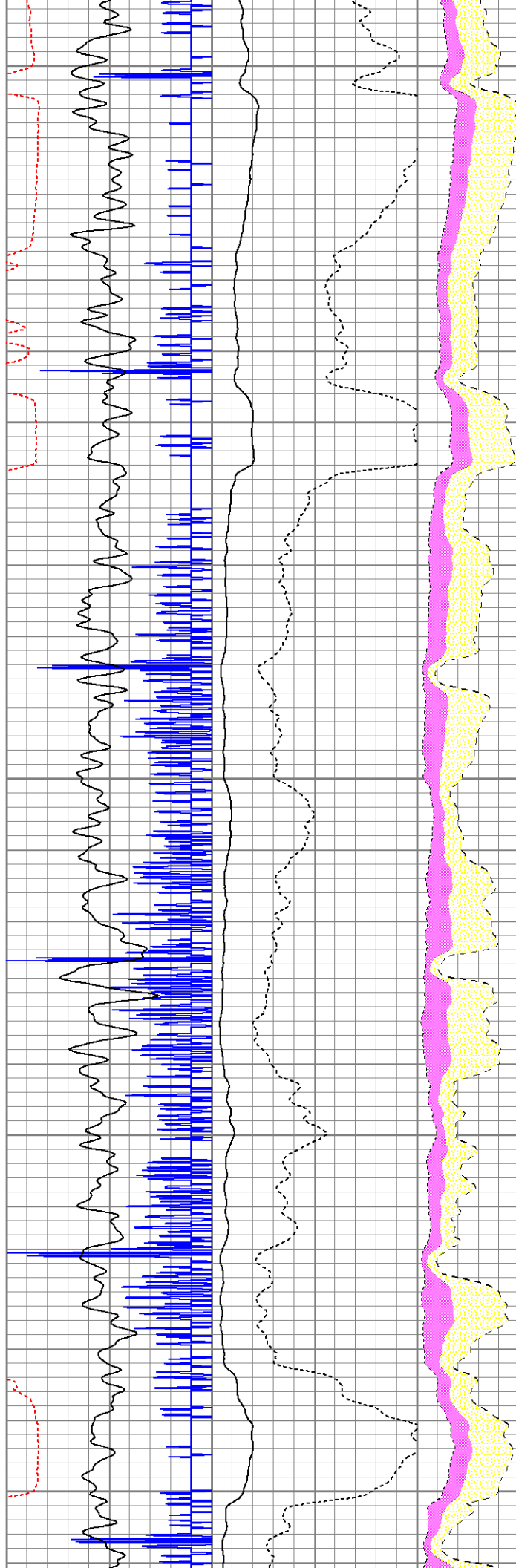
6200



6300

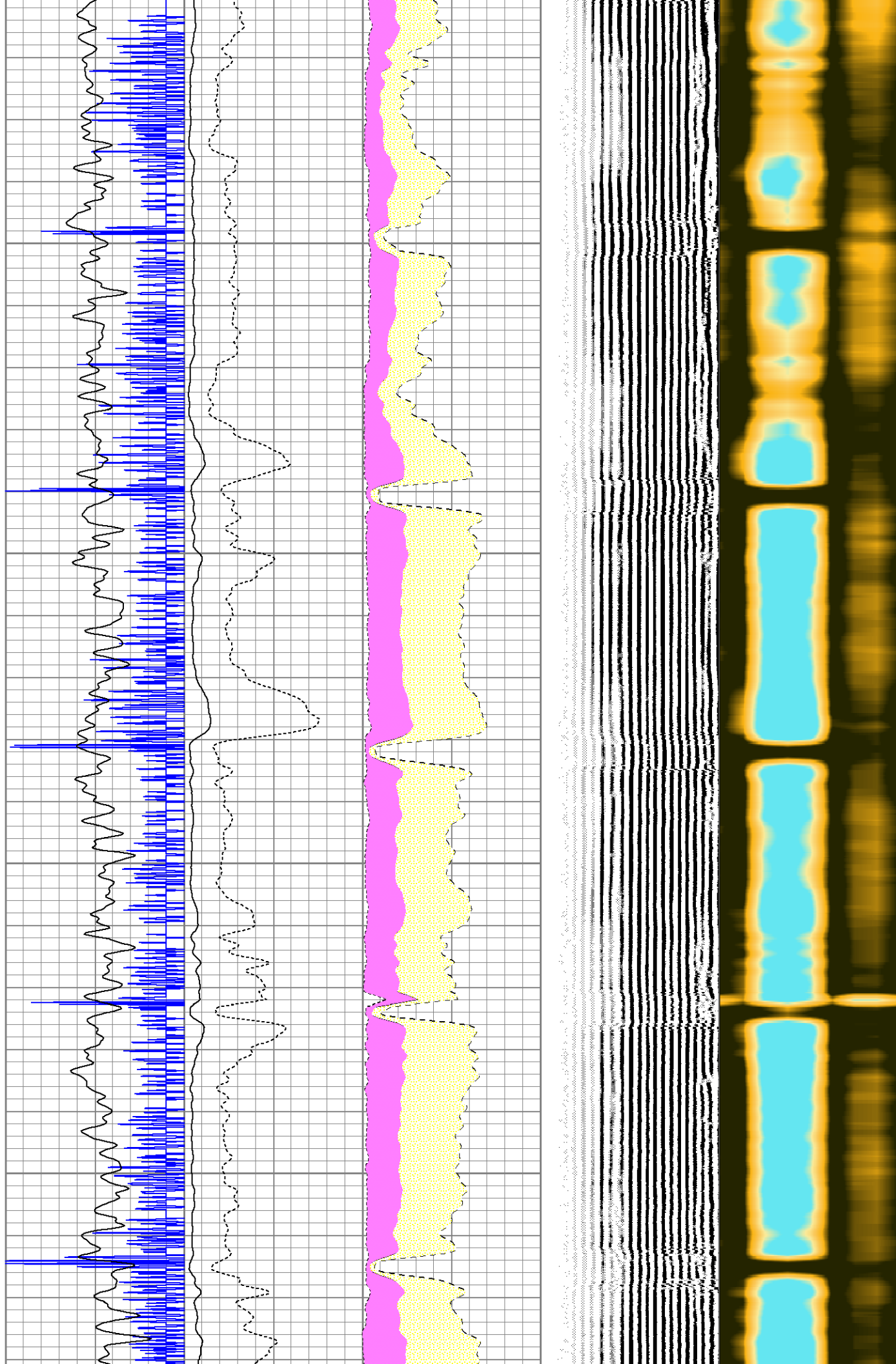
6400

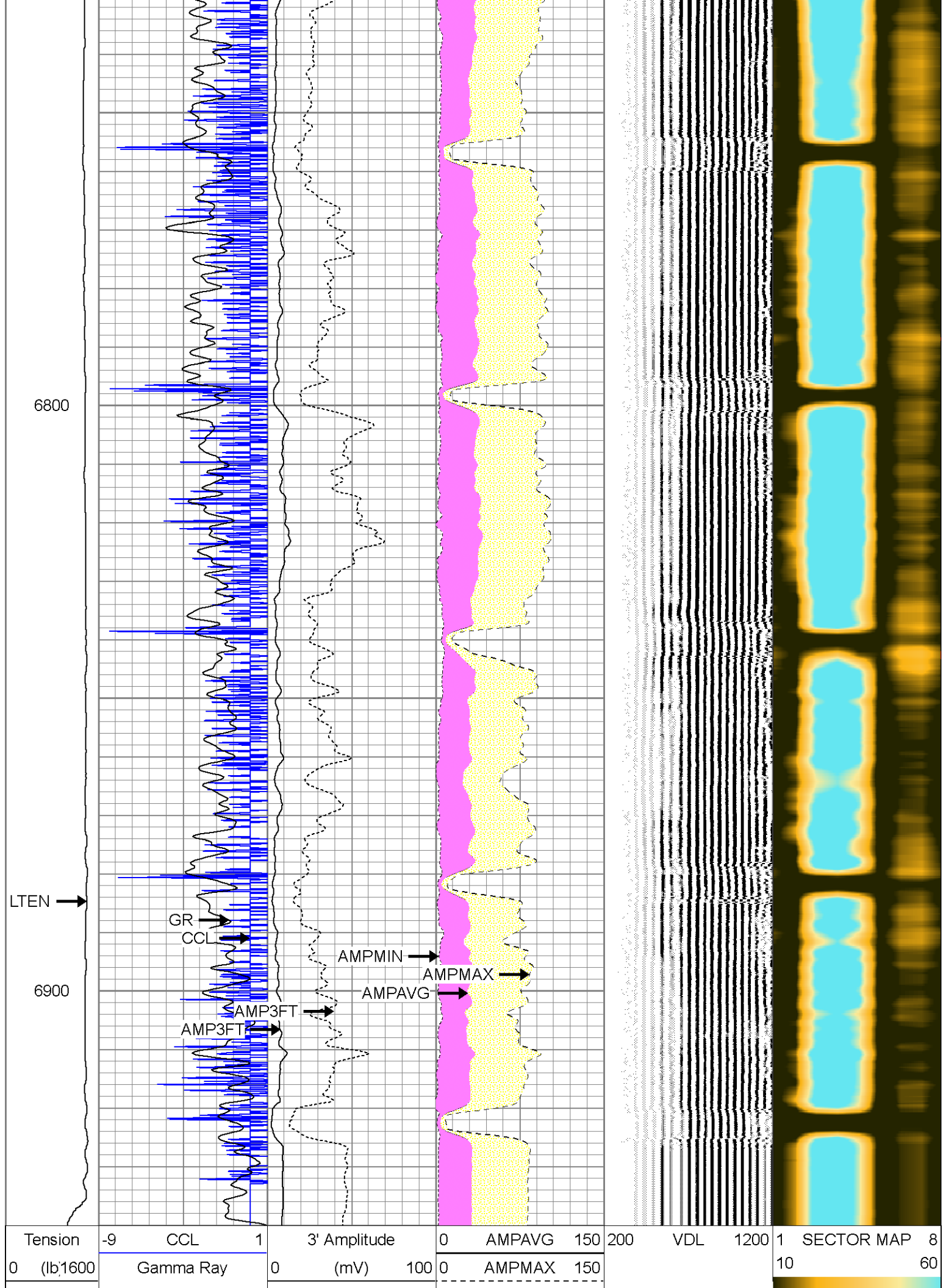
6500



6600

6700






0	(GAPI)	200	0	AMPx5 (mV)	20	0	AMPMIN	150
TT3FT								
310	(usec)	210						



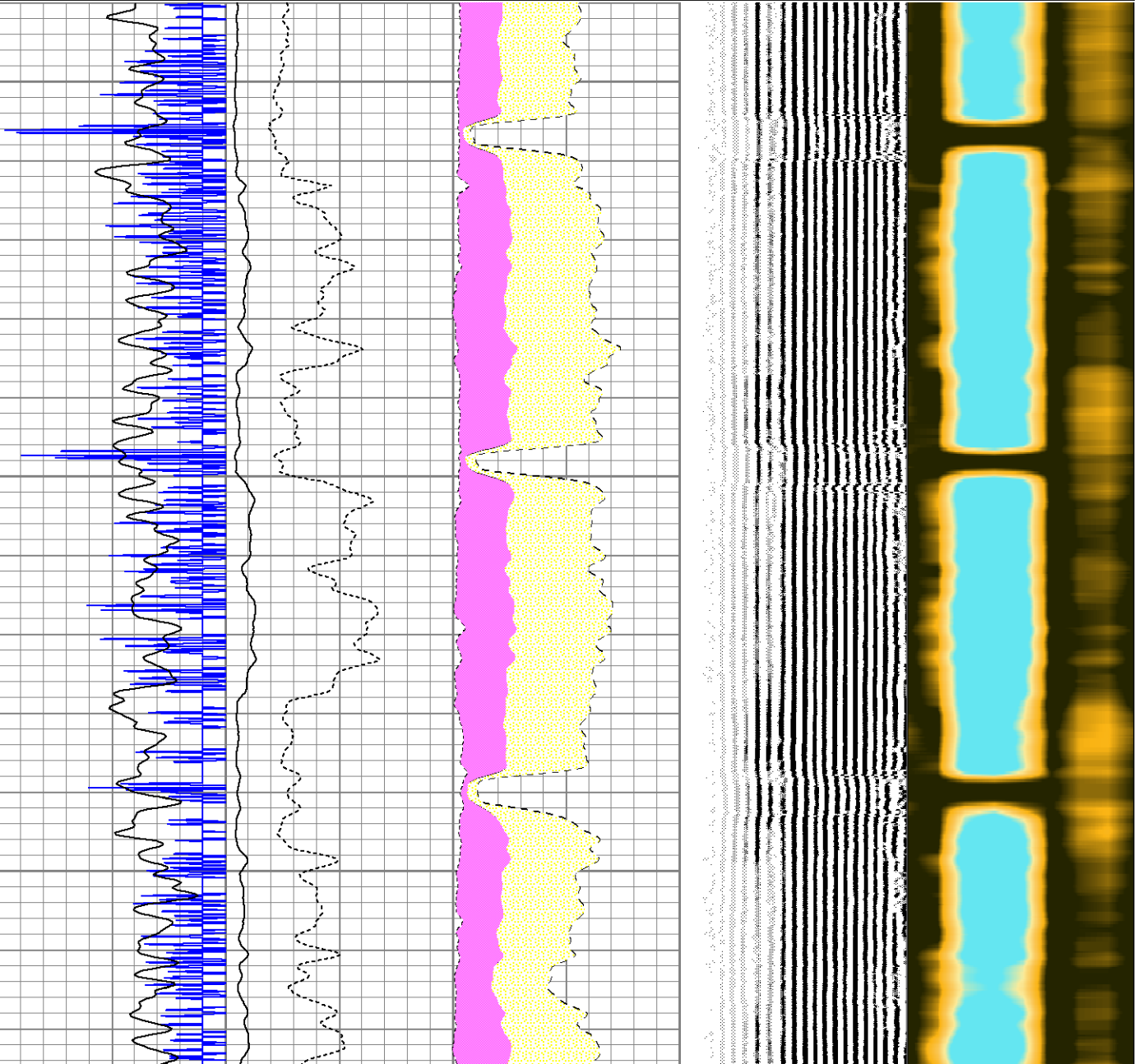
REPEAT PASS
ZERO PSI APPLIED AT SURFACE

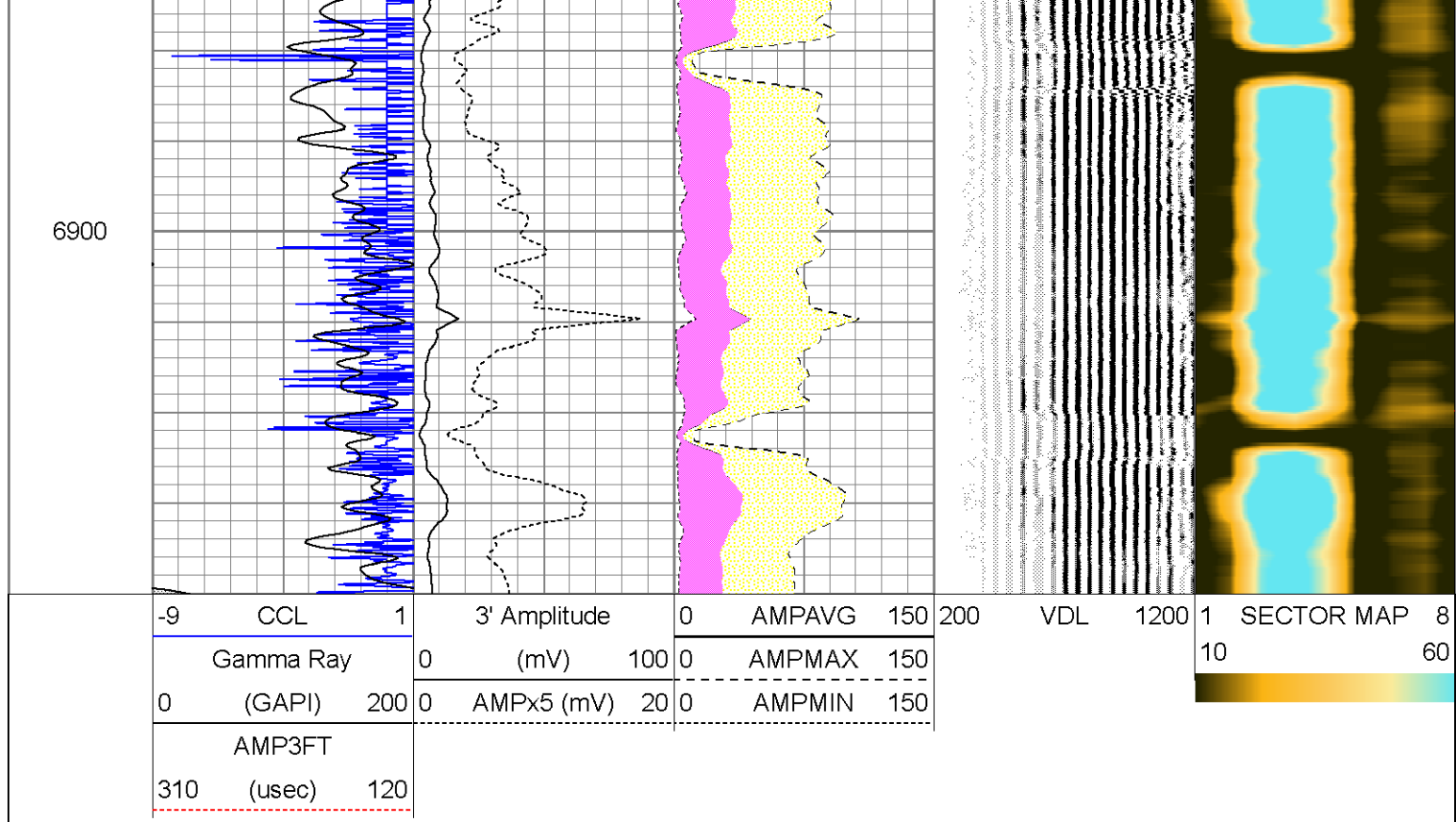
Database File: becker ranch #5m-203.db
 Dataset Pathname: pass4
 Presentation Format: scbl02
 Dataset Creation: Sat Mar 14 12:30:31 2015 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

-9	CCL	1	3 Amplitude	0	AMPAVG	150	200	VDL	1200	1	SECTOR MAP	8	
Gamma Ray			(mV)	100	0	AMPMAX	150						
0	(GAPI)	200	0	AMPx5 (mV)	20	0	AMPMIN						150
AMP3FT													
310	(usec)	120											



6800





Calibration Report						
Database File:	becker ranch #5m-203.db					
Dataset Pathname:	pass3					
Dataset Creation:	Sat Mar 14 11:30:24 2015 by Log 7.0 B1					
Gamma Ray Calibration Report						
Serial Number:	275					
Tool Model:	Probe_B					
Performed:	Sun Feb 22 16:18:08 2015					
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:	111205					
Tool Model:	Probe275					
Calibration Casing Diameter:	7.000	in				
Calibration Depth:	417.289	ft				
Master Calibration, performed Sat Mar 14 11:04:35 2015:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.013	0.763	1.000	62.000	81.345	-0.061
CAL	0.013	1.178				
5'	0.013	0.787	1.000	62.000	78.752	-0.010
SUM						
S1	0.014	0.699	0.000	100.000	145.856	-1.975

S2	0.013	0.733	0.000	100.000	138.798	-1.793
S3	0.013	0.783	0.000	100.000	129.968	-1.725
S4	0.013	0.817	0.000	100.000	124.355	-1.630
S5	0.013	0.795	0.000	100.000	127.832	-1.654
S6	0.014	0.759	0.000	100.000	134.168	-1.818
S7	0.013	0.717	0.000	100.000	142.151	-1.865
S8	0.014	0.693	0.000	100.000	147.235	-1.991

Internal Reference Calibration, performed Tue Dec 30 08:21:56 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.013	1.178	1.000	0.000

Air Zero Calibration, performed Sat Mar 14 12:03:36 2015:

	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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