CEMENT BOND LOG

Company	EXTRACTION OIL & GAS
Well	WINDSOR LV A-14H
Field	WATTENBERG
County	WELD
State	CO

Company	**EXTRACTION OIL & GAS**		
Well	**WINDSOR LV A-14H**		
Field	**WATTENBERG**		
County	**WELD**	**State**	**CO**

API No.: 05-123-39053 Serv #: 1001

Location: **1213' FNL & 265' FEL**
LAT: 40.490950
LONG: -104.852250

Sec: 14 Twp: 6N Rge: 67W

Other Services

TEMPERATURE
CCL

Permanent Datum	GROUND LEVEL	Elevation	4845'	Elevation
Log Measured From	KB , 24 Ft. above perm. datum			K.B. 4869' D.F. 4868' G.L. 4845'
Drilling Measured From	KB			

Date @ Time Logged	4 JAN 2015 @ 1200 HRS	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.4 PPG
Depth - Driller	11,642'	Fluid Level	28'
Depth - Logger	7116'	Cement Top Est. Logged	1876'
Bottom - Logged Interval	7004'	Equipment / Location	GD 114 / CASPER,WY
Top - Log Interval	SURFACE	Recorded by	J. BAKER
Max. Recorded Temp.	223°F	Witnessed by	TROY

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented				
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
				9 5/8"	36#	SURFACE	700'
				7"	26#	SURFACE	7600'
				4 1/2"	11.6#	6600'	11,838'

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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.

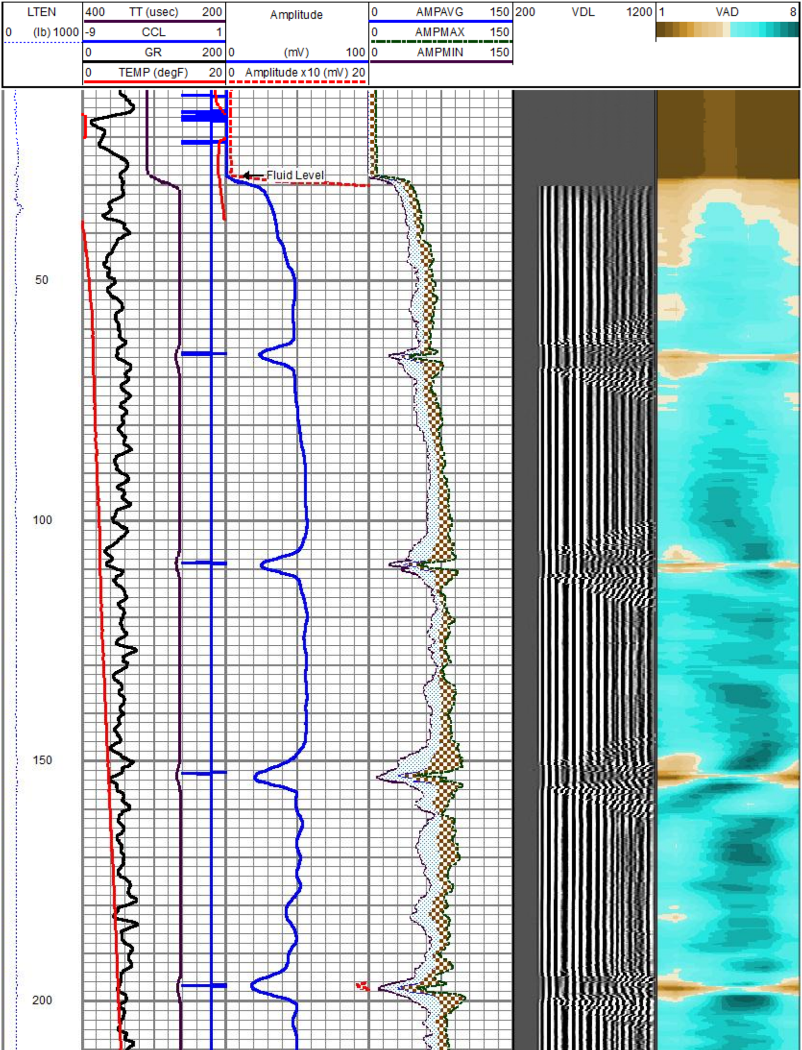
Comments

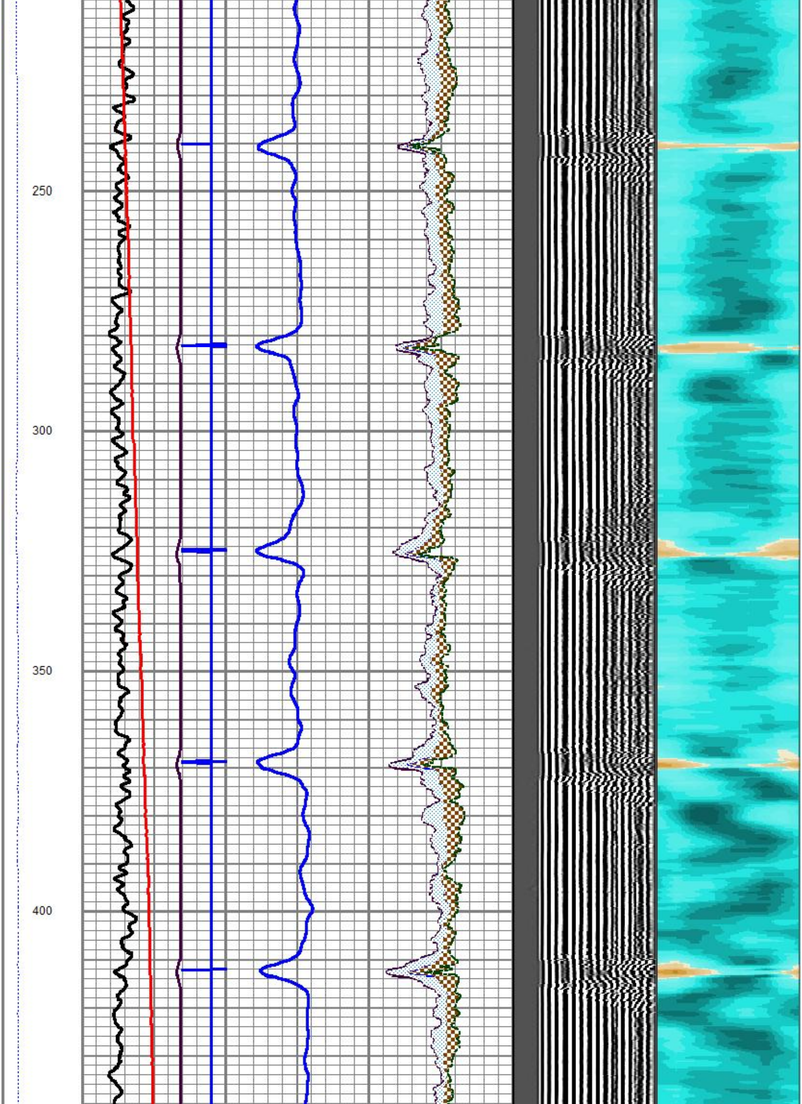
Cement Bond Log was the initial log ran on the well dated1/04/2015
Cement top was estimated at 1876'
Max temp on bottom was 223°F
Kick off Point was unknow to logging crew

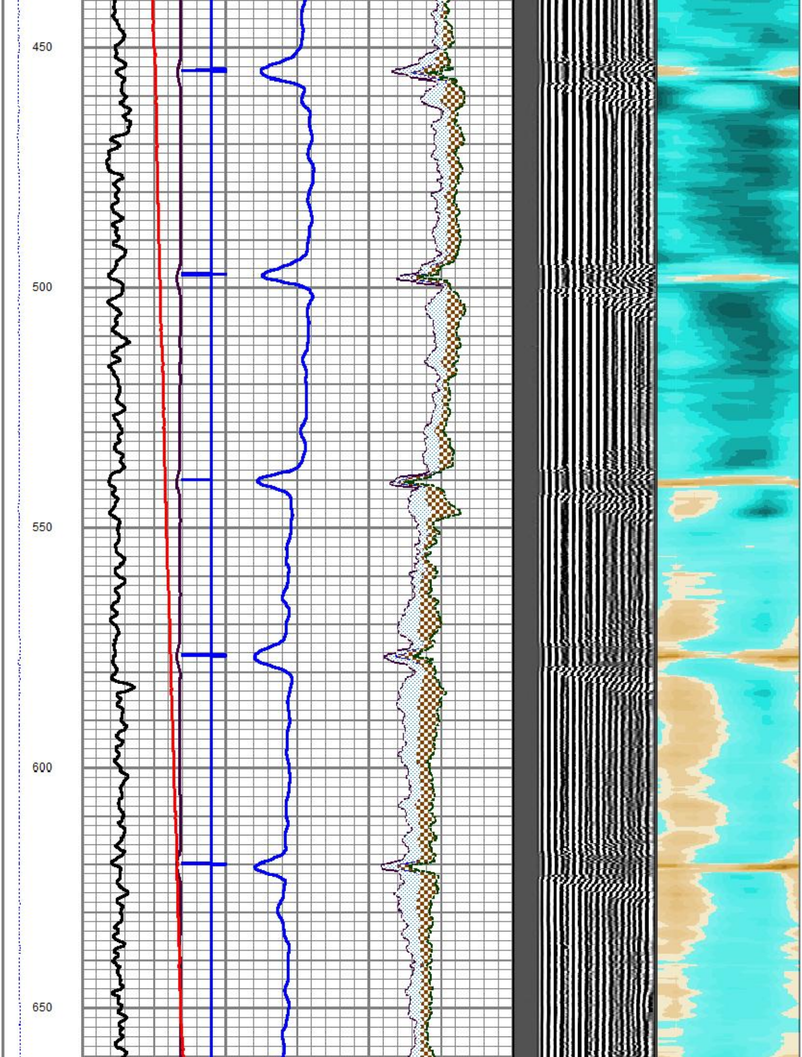
Your crew today was B. Kennicker, M. Stewart

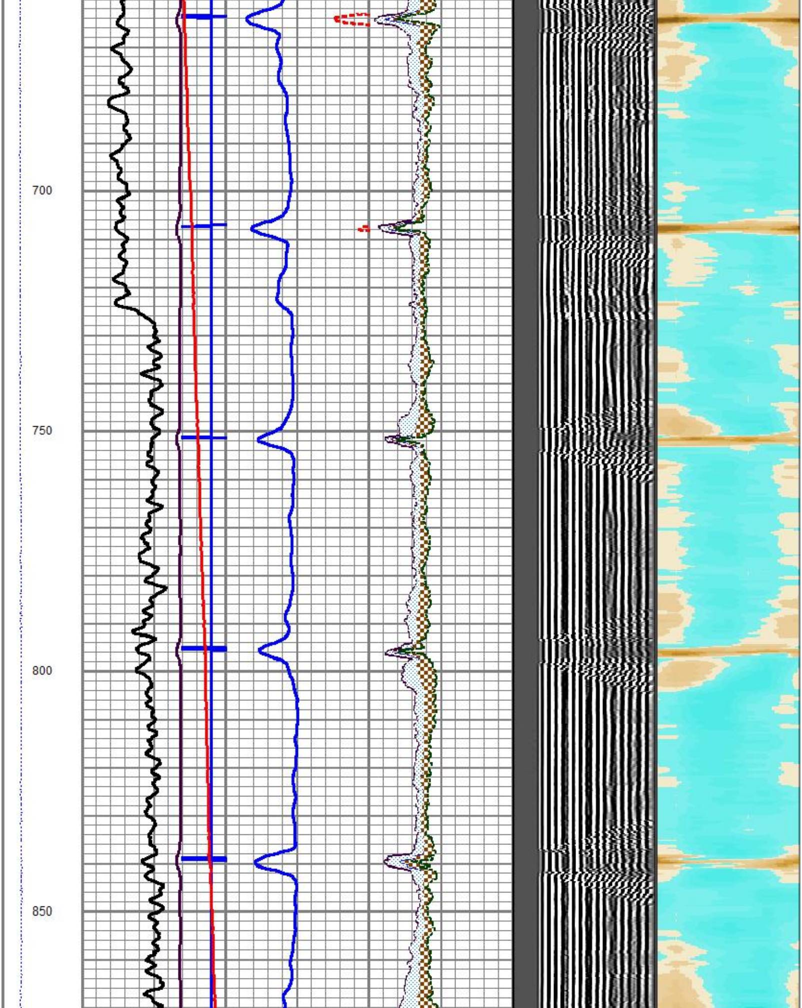
Thank you for using Gyrodata Logging Services, Casper, WY

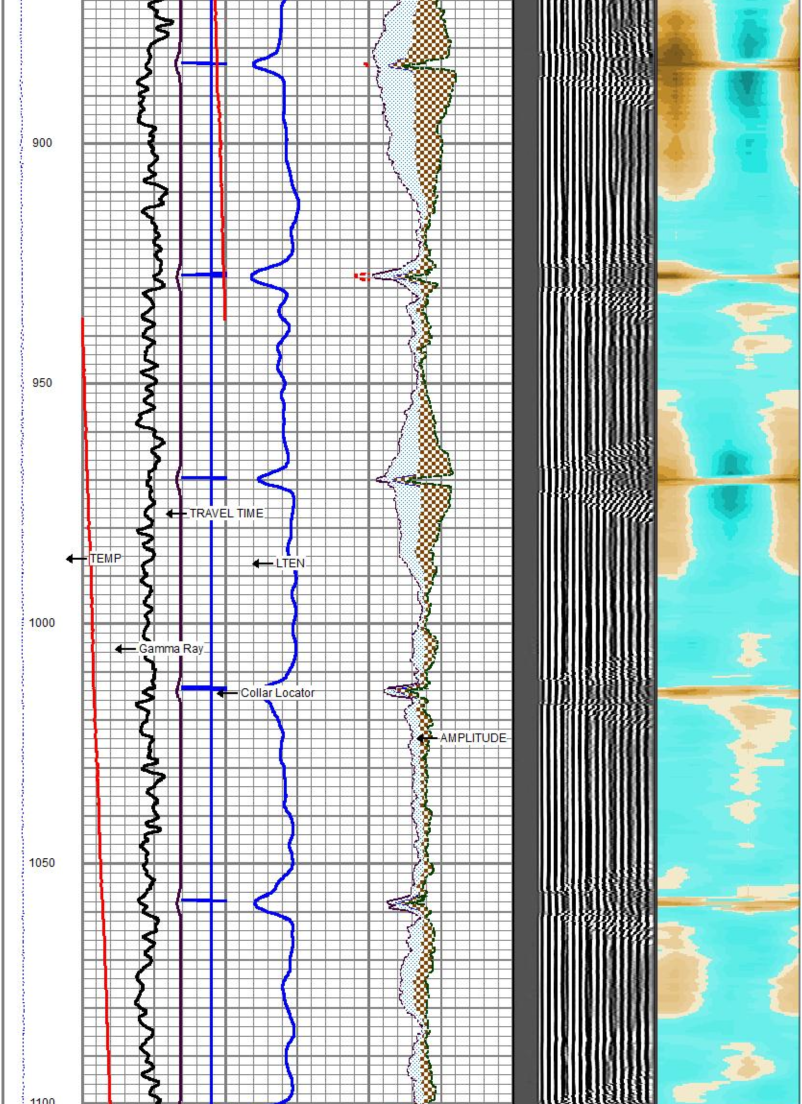
Database File	f:\well database\extraction\2015_extraction_windsor_lv_a_14_h\warrior\2015_extraction_windsor_lv_a_14_h.db
Dataset Pathname	pass10.4
Presentation Format	scbl
Dataset Creation	Wed Jan 07 14:29:31 2015
Charted by	Depth in Feet scaled 1:240

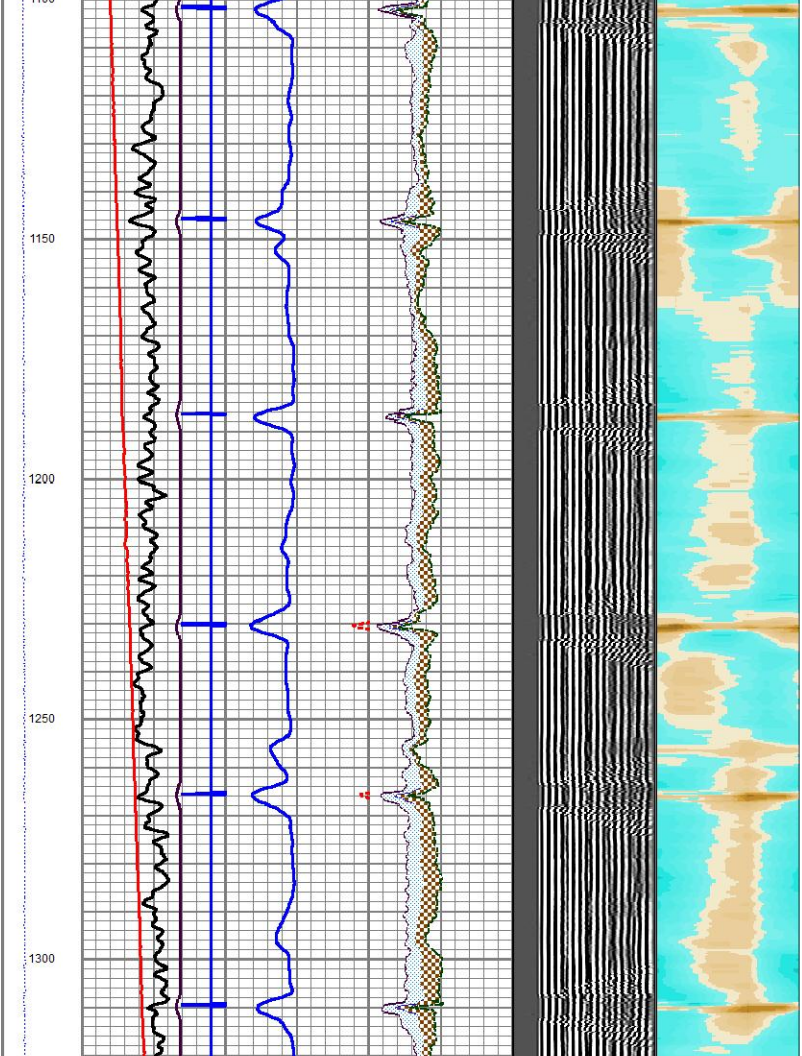


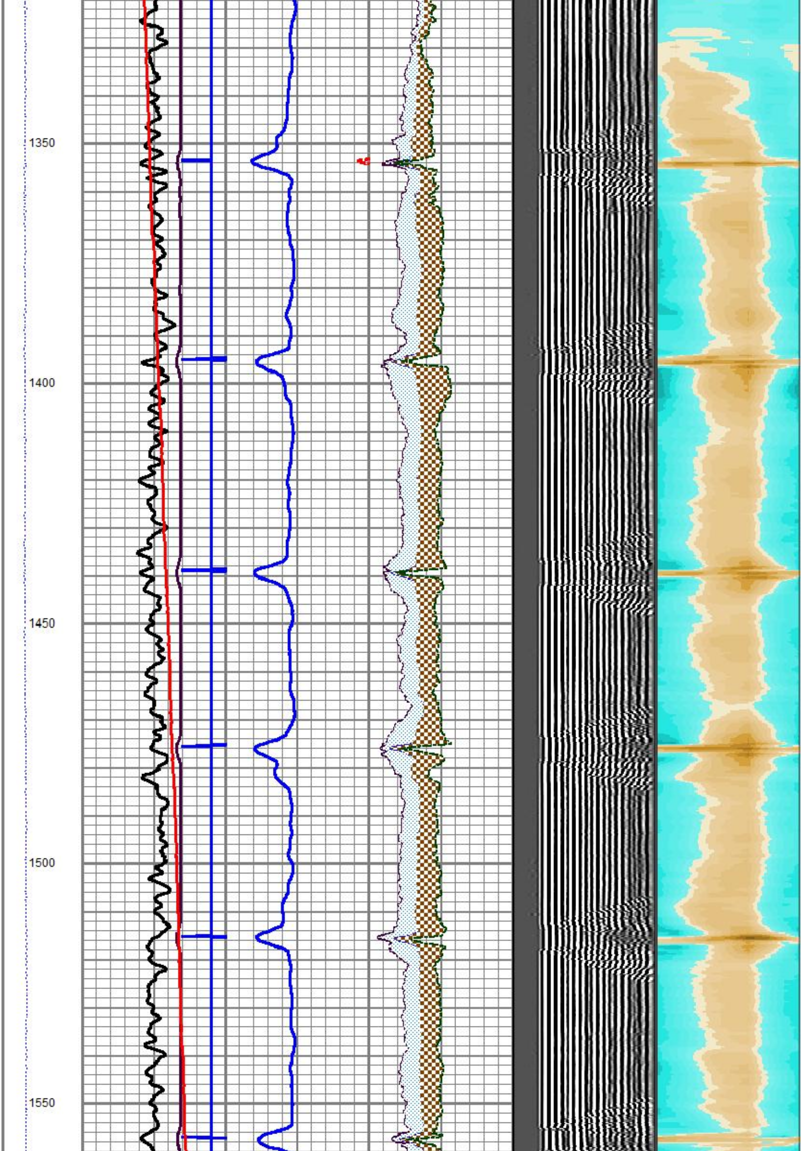


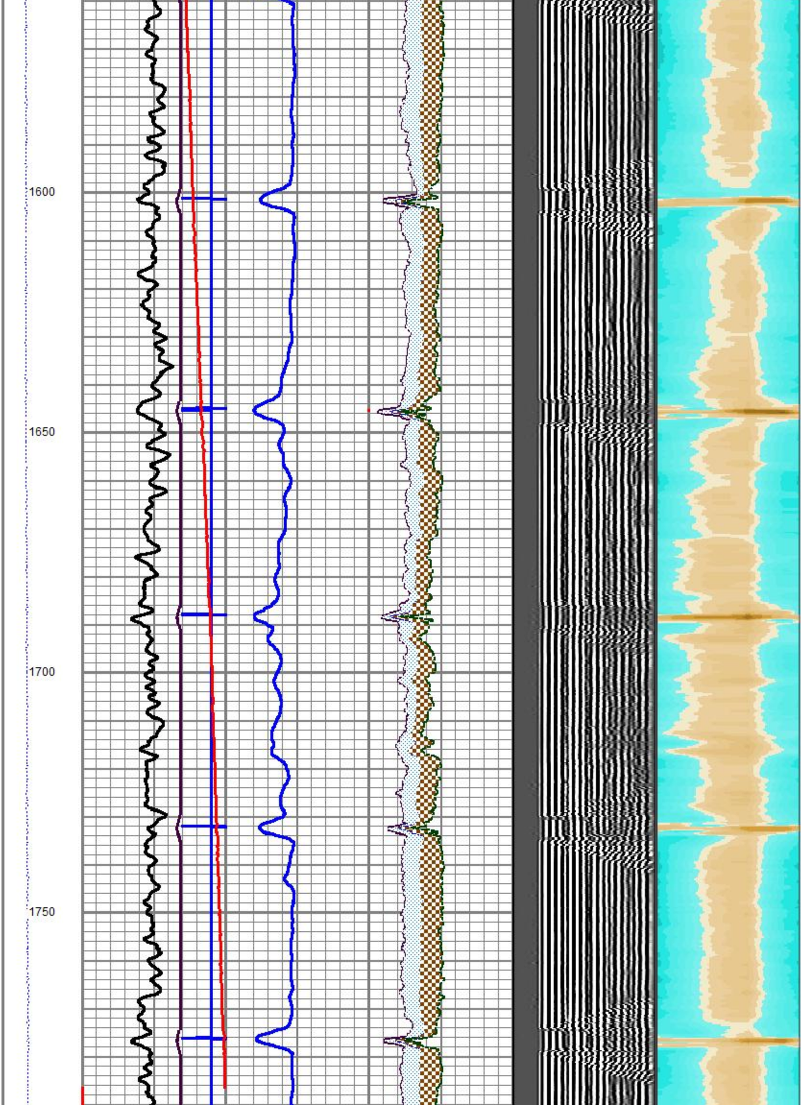


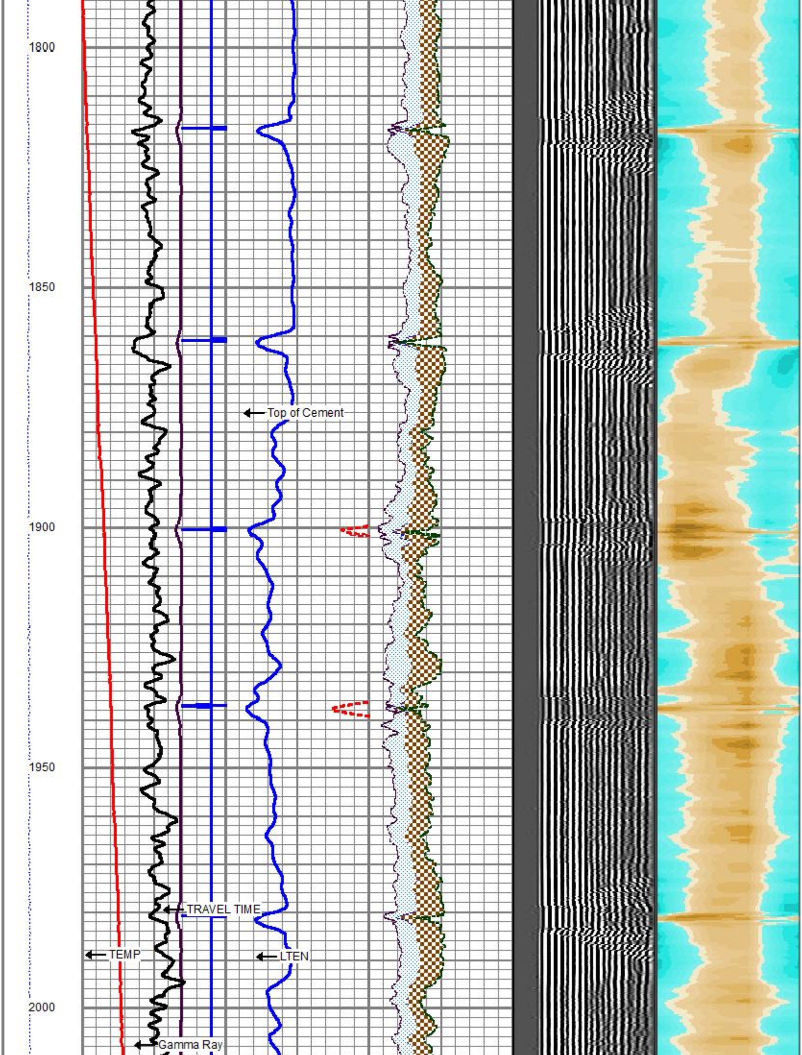


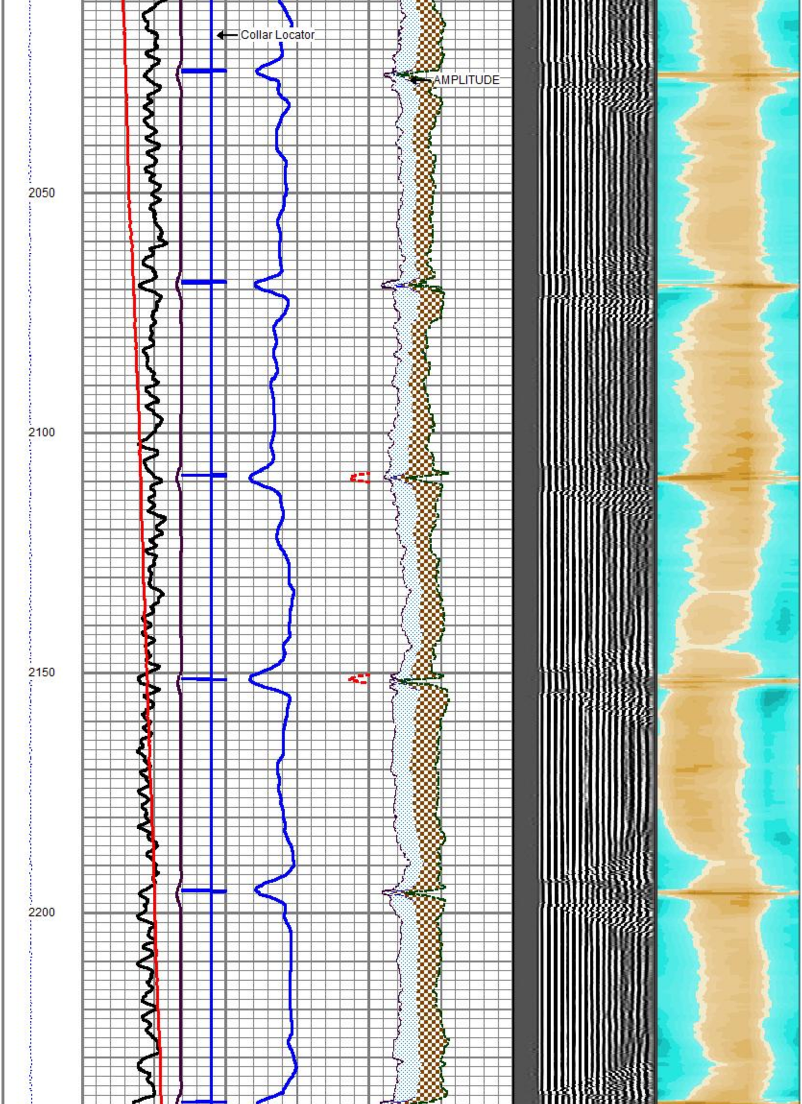


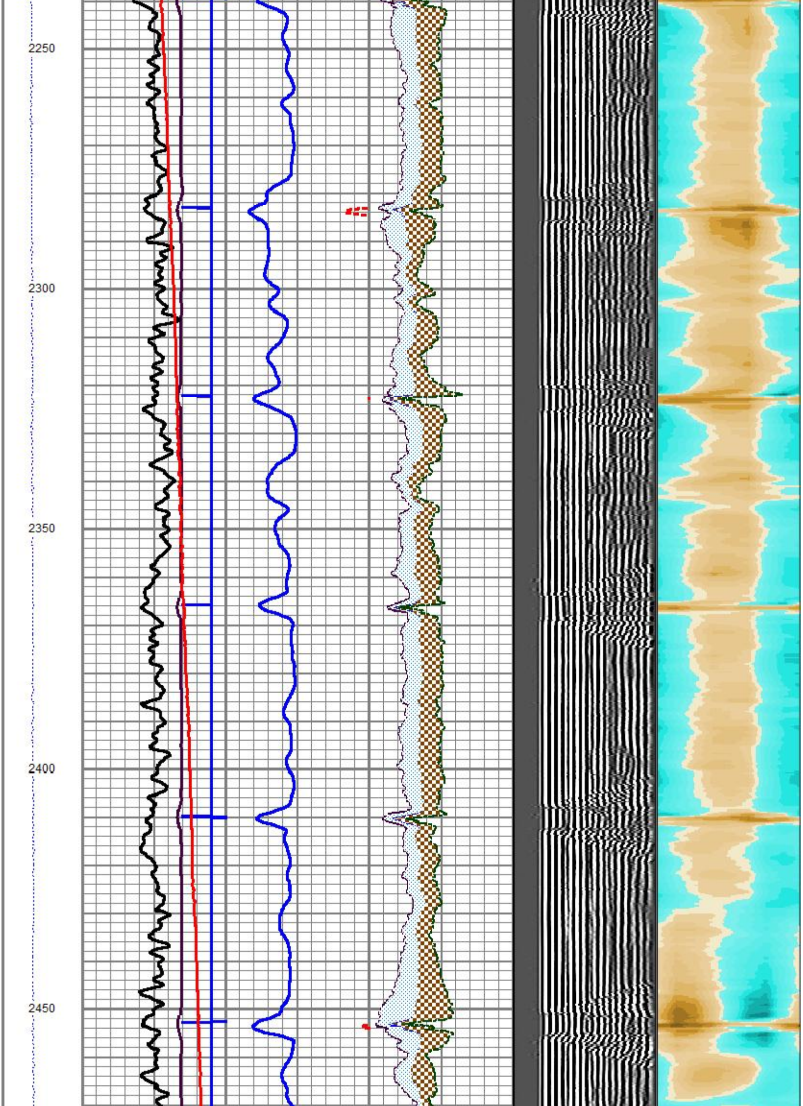


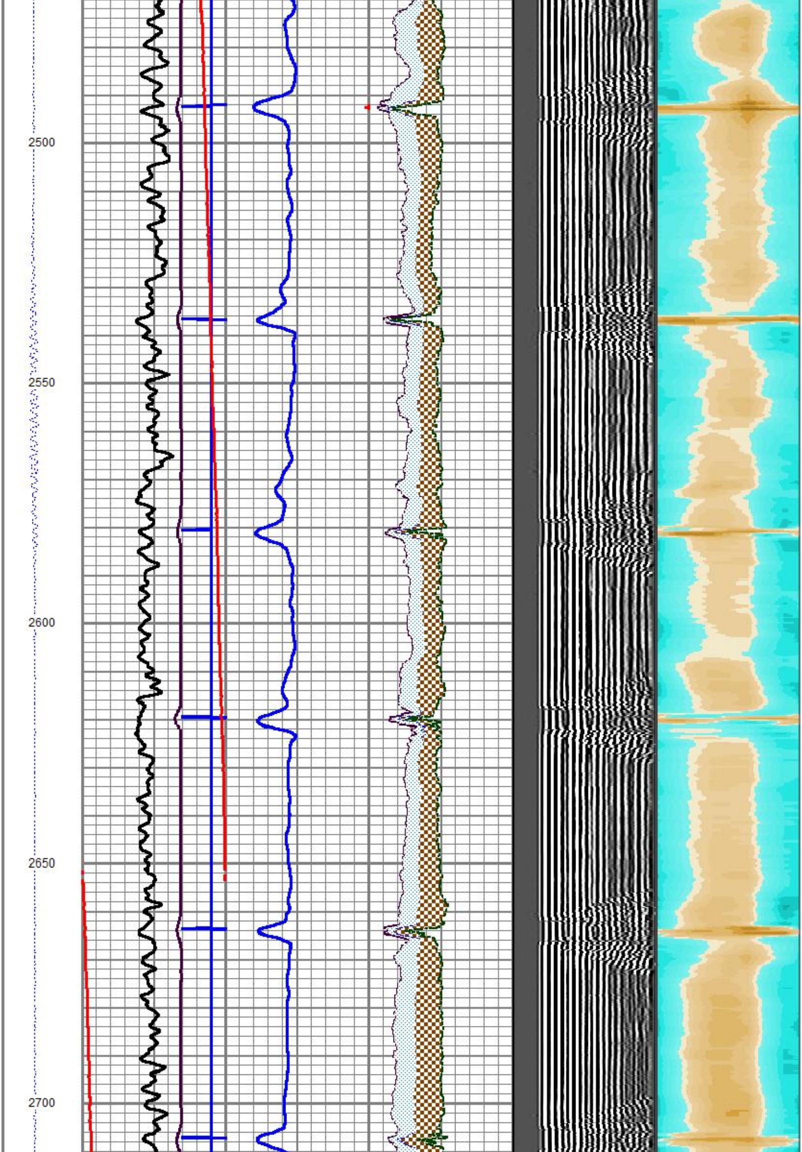


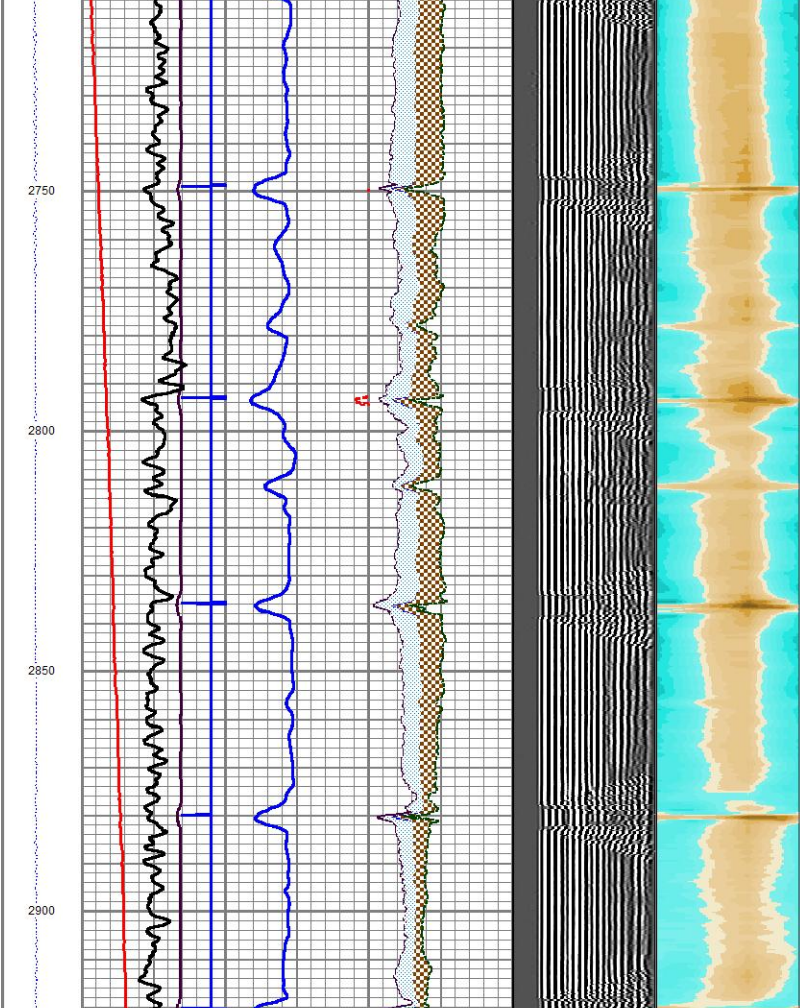


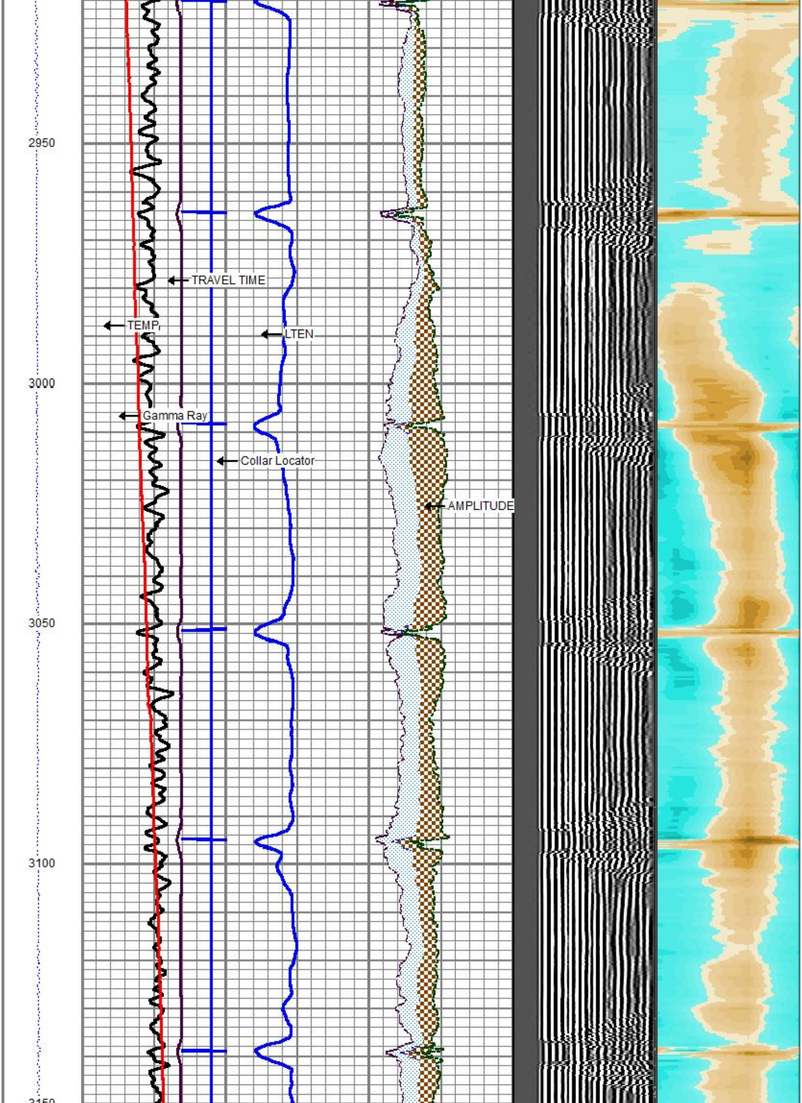


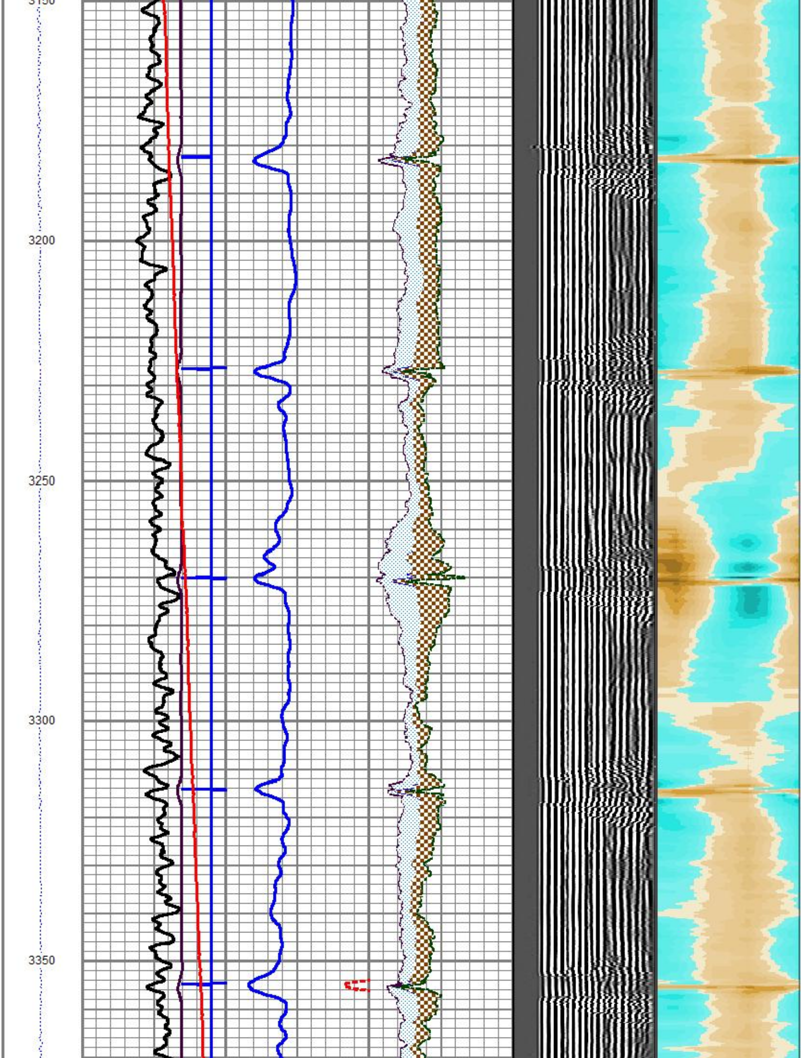


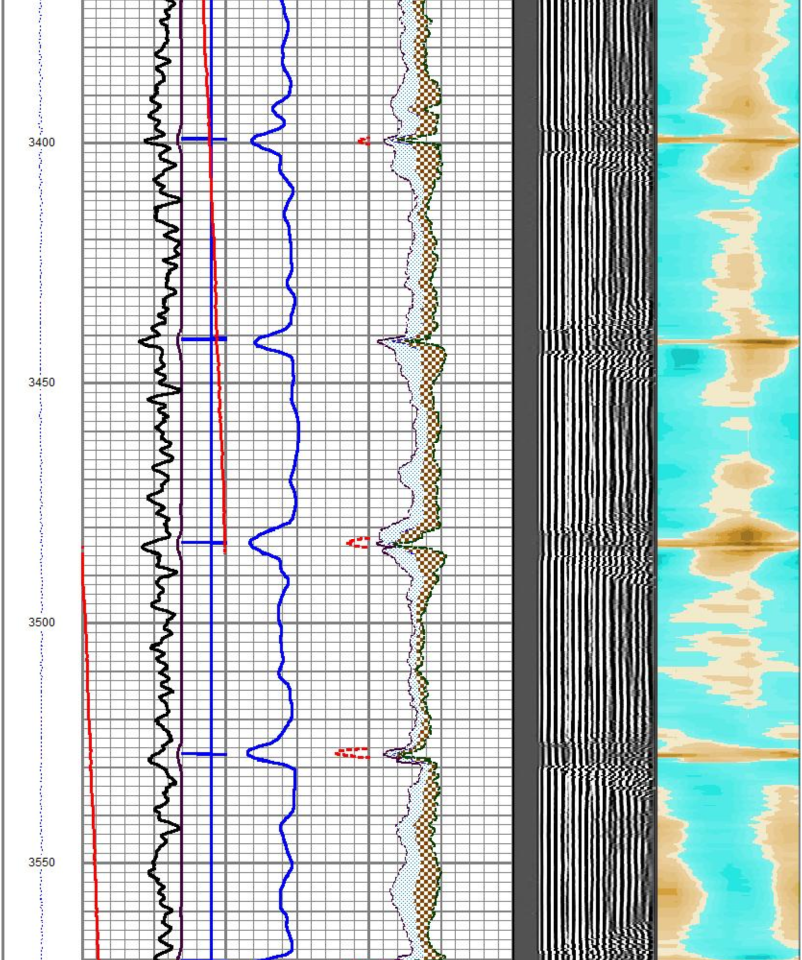


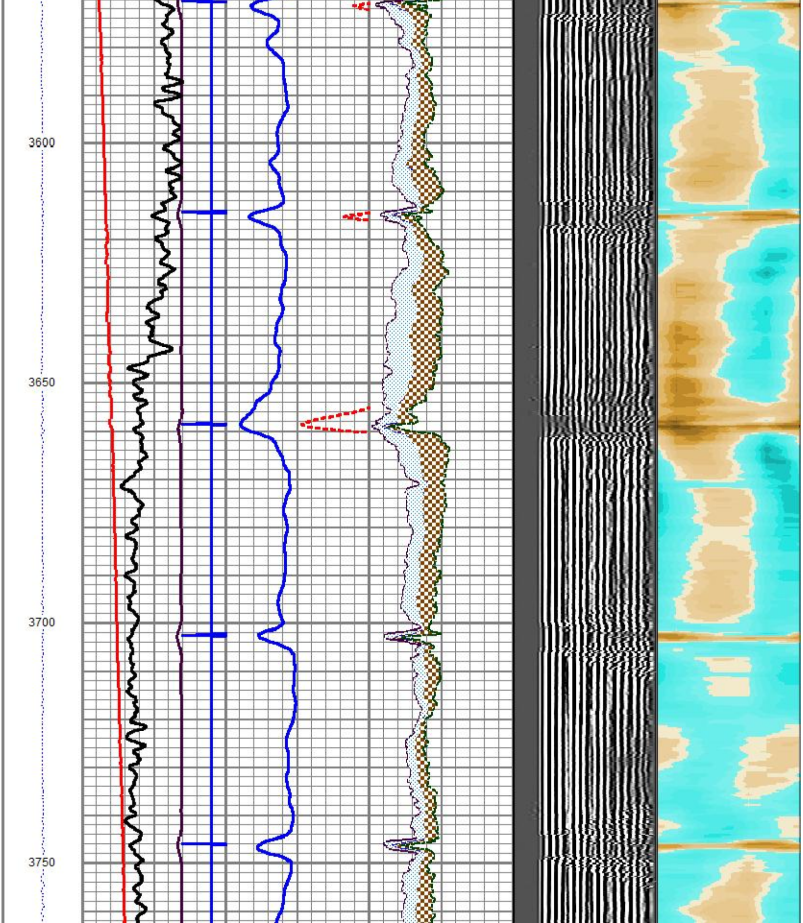


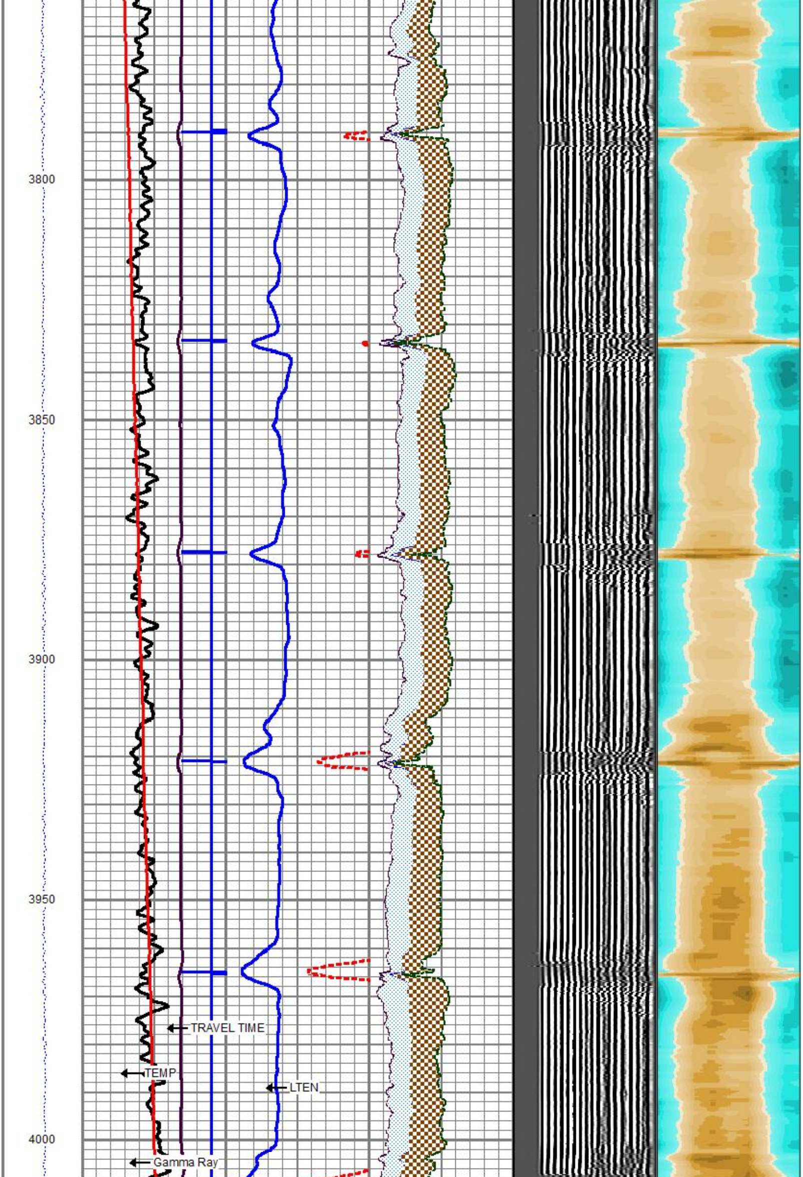


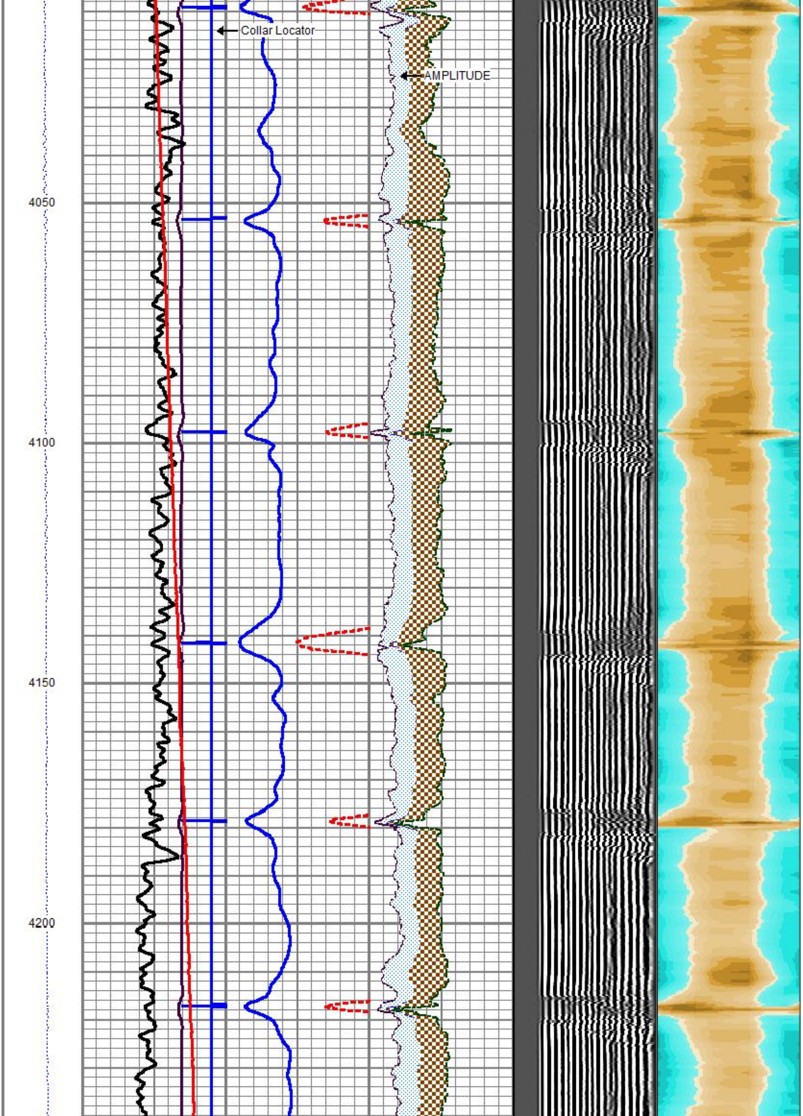


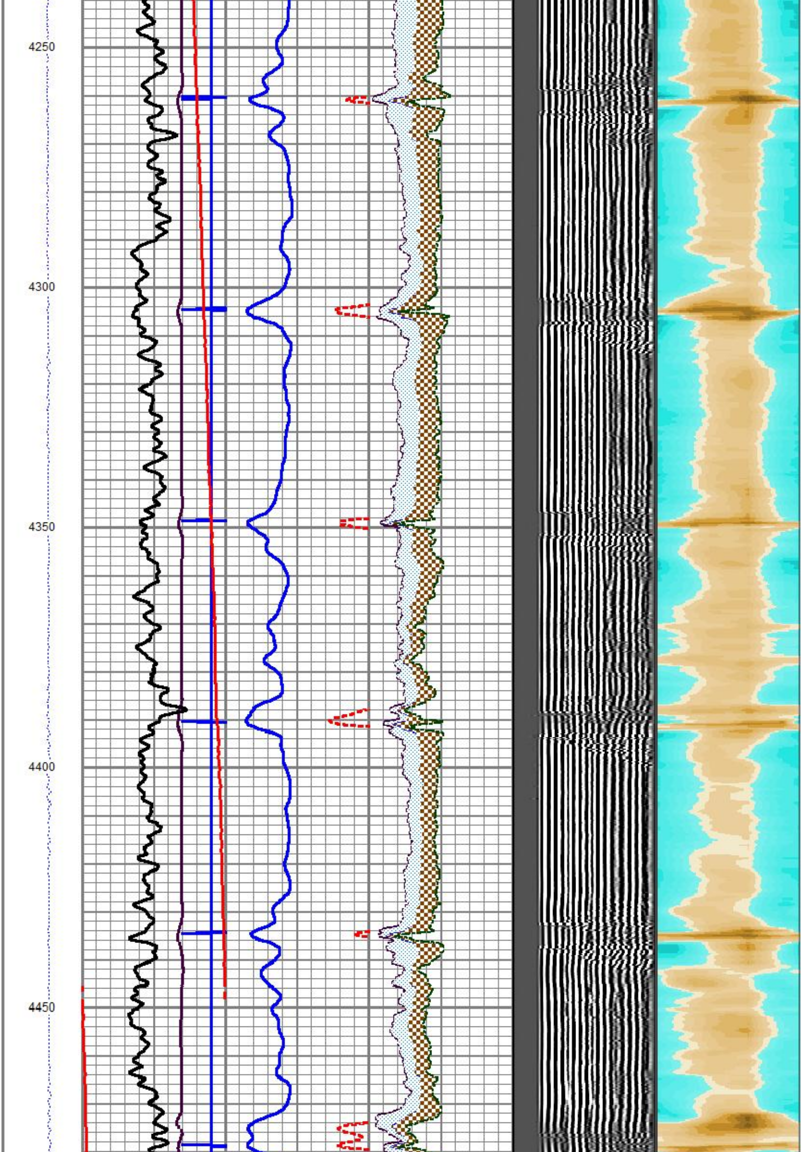


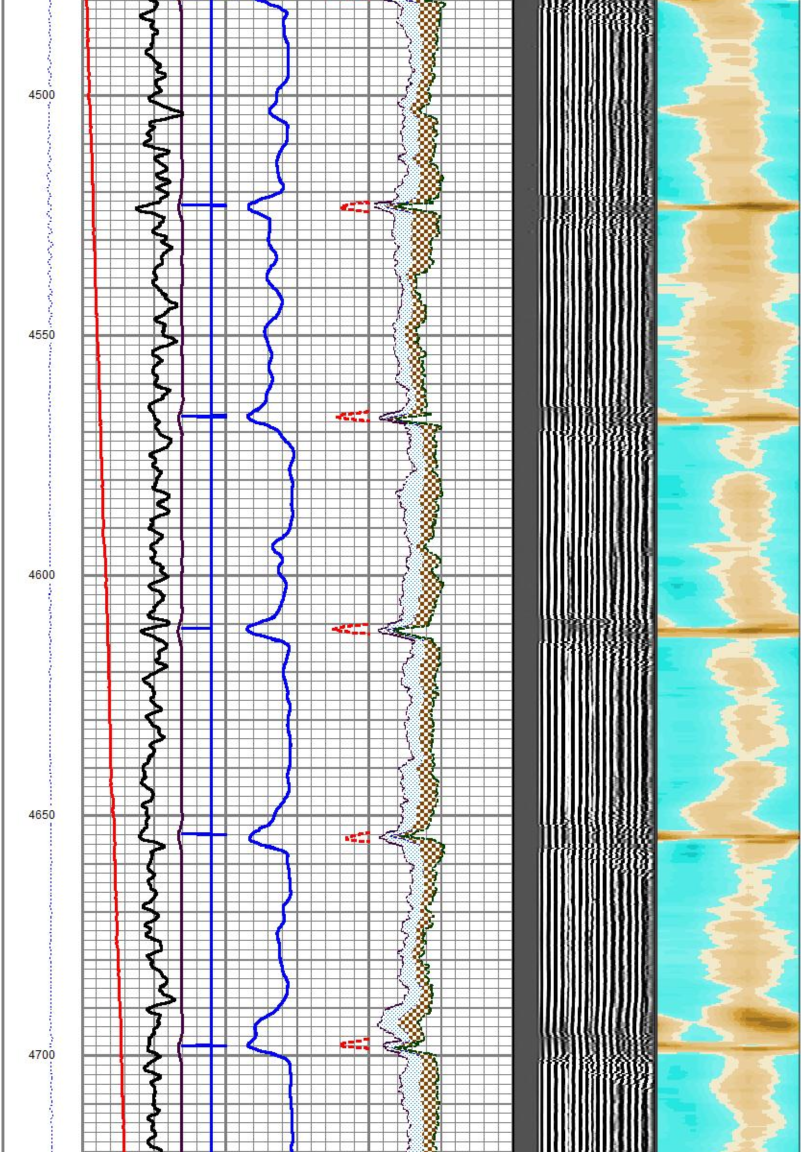


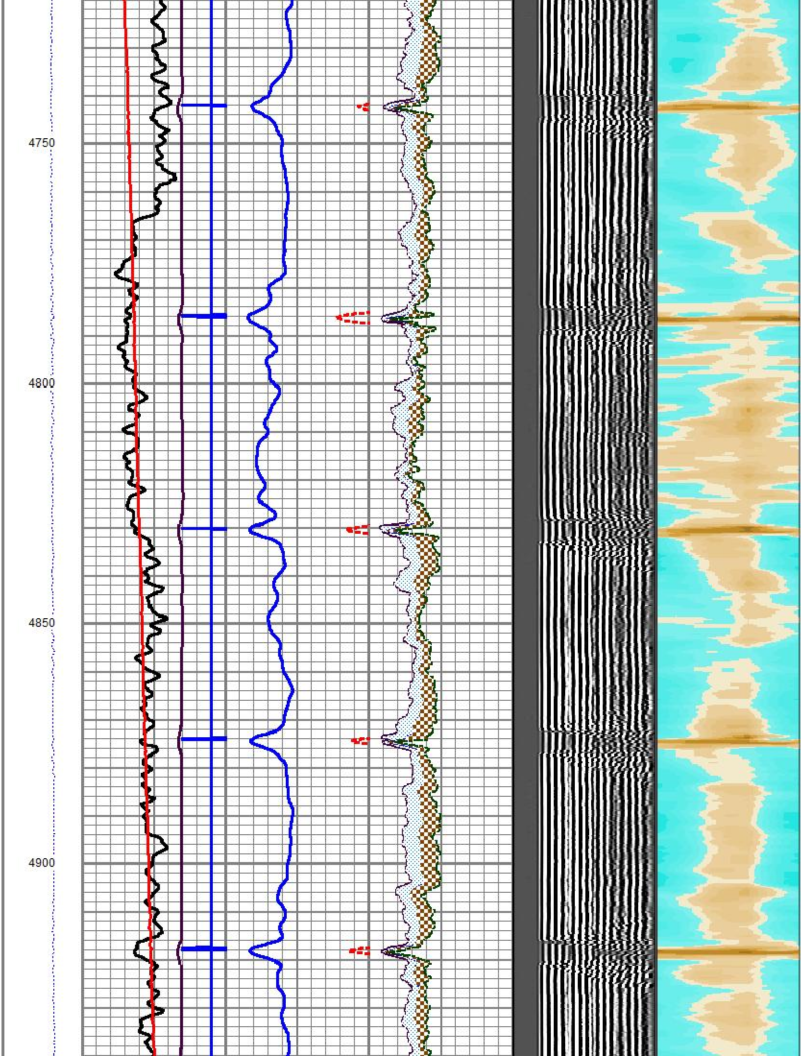


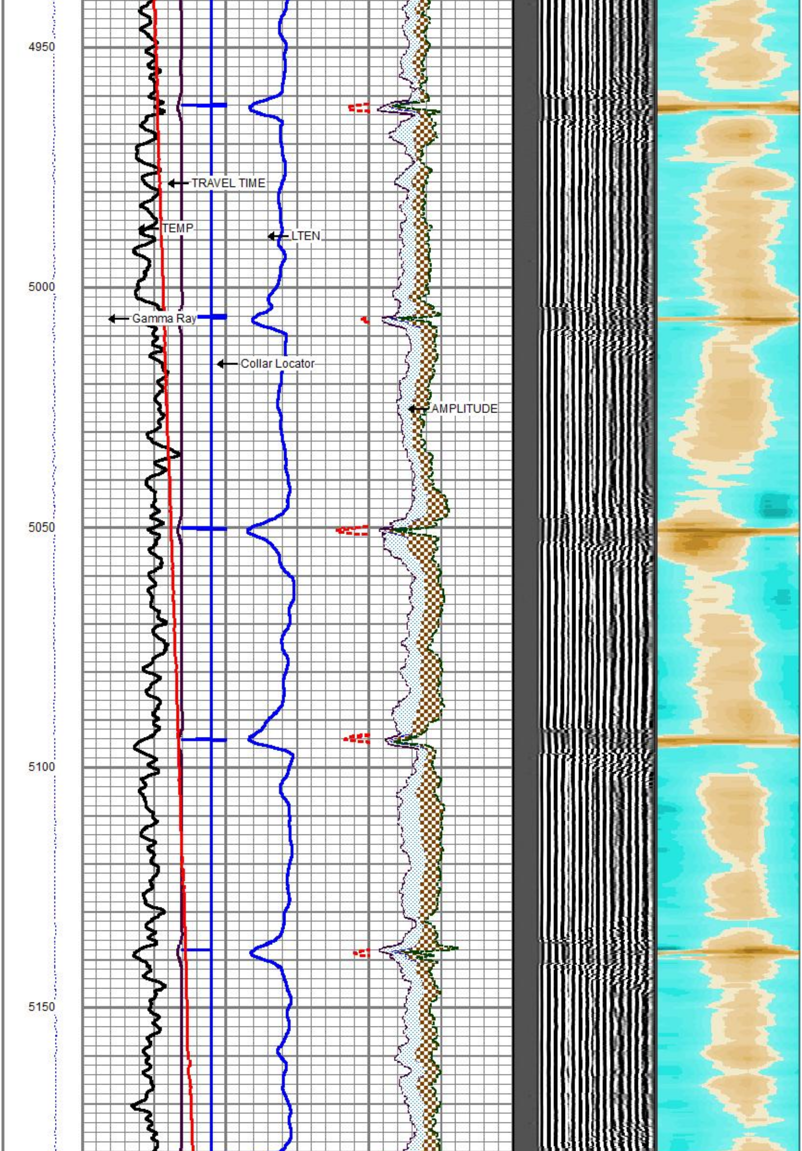


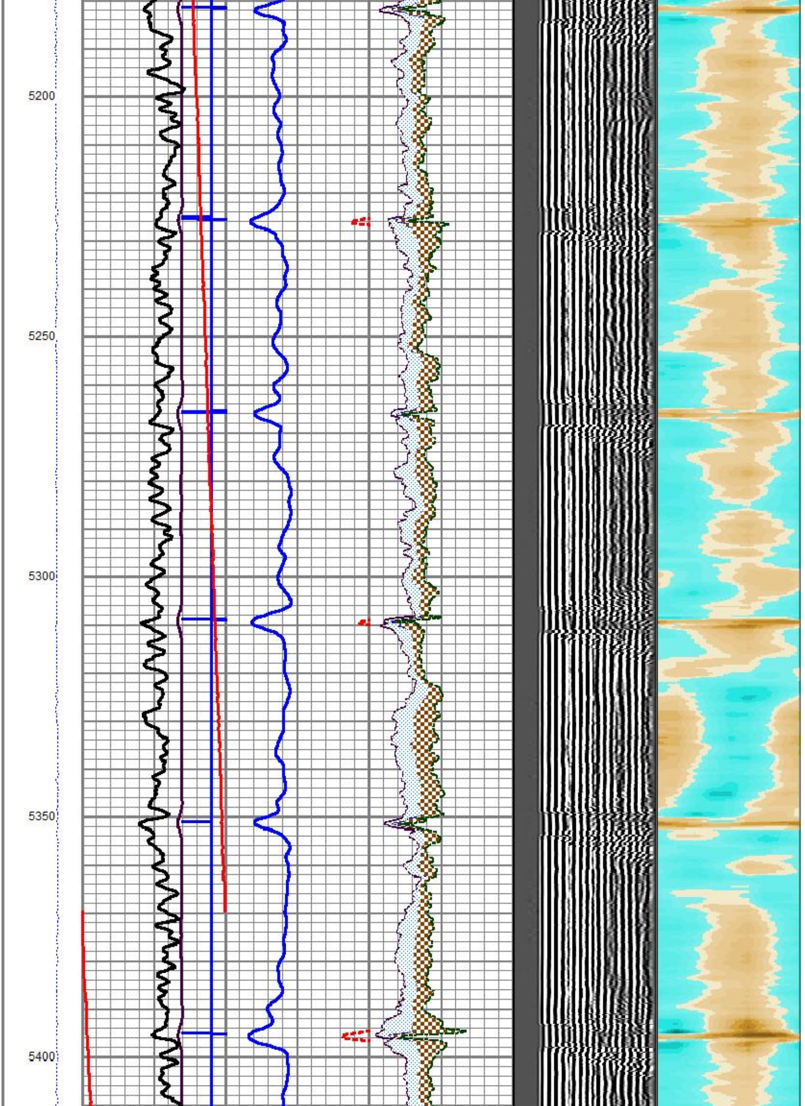


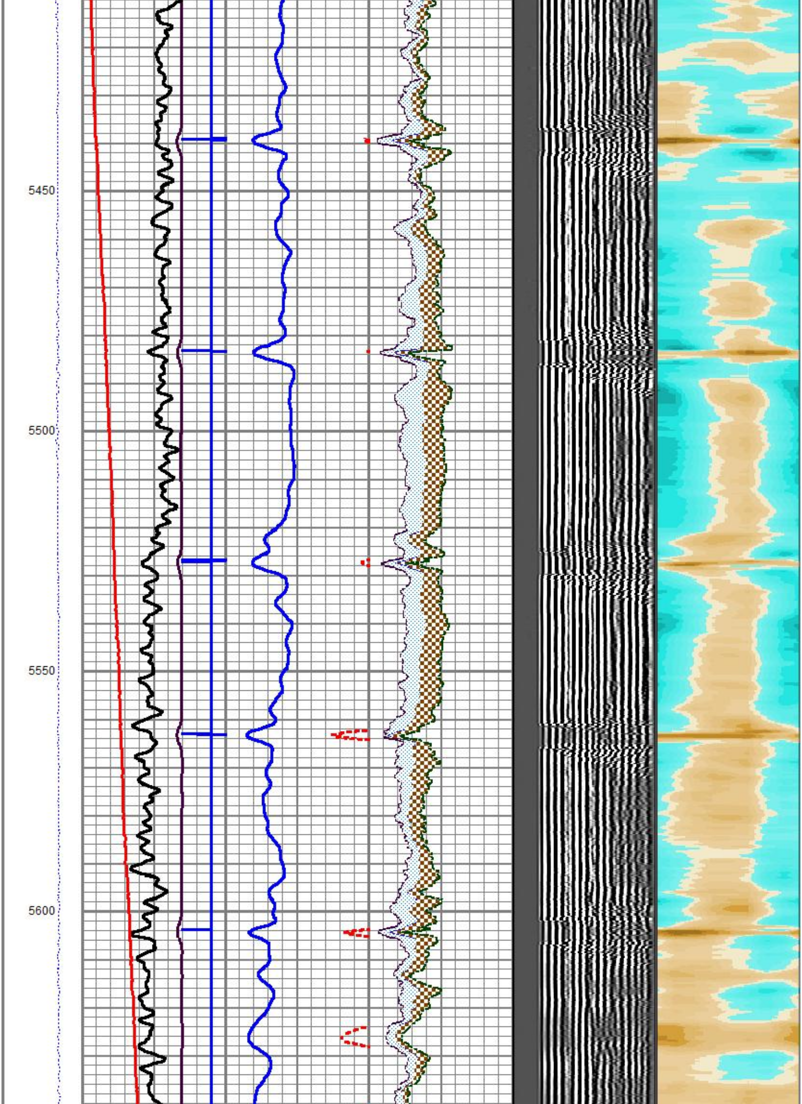


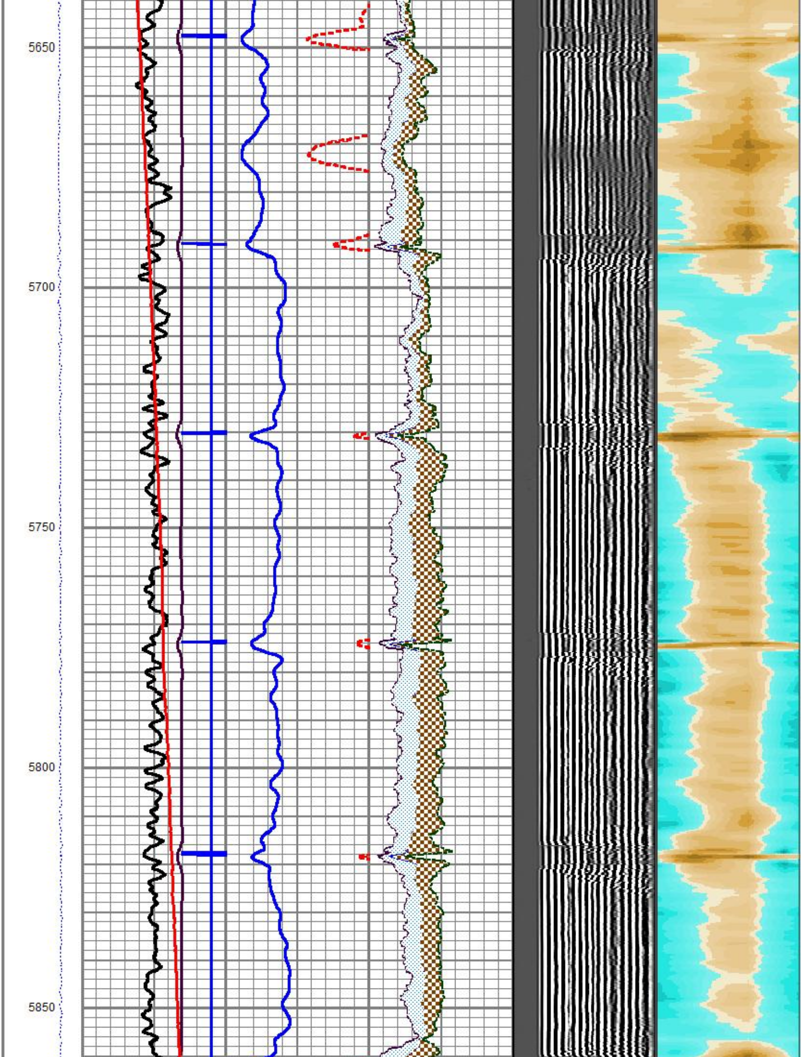


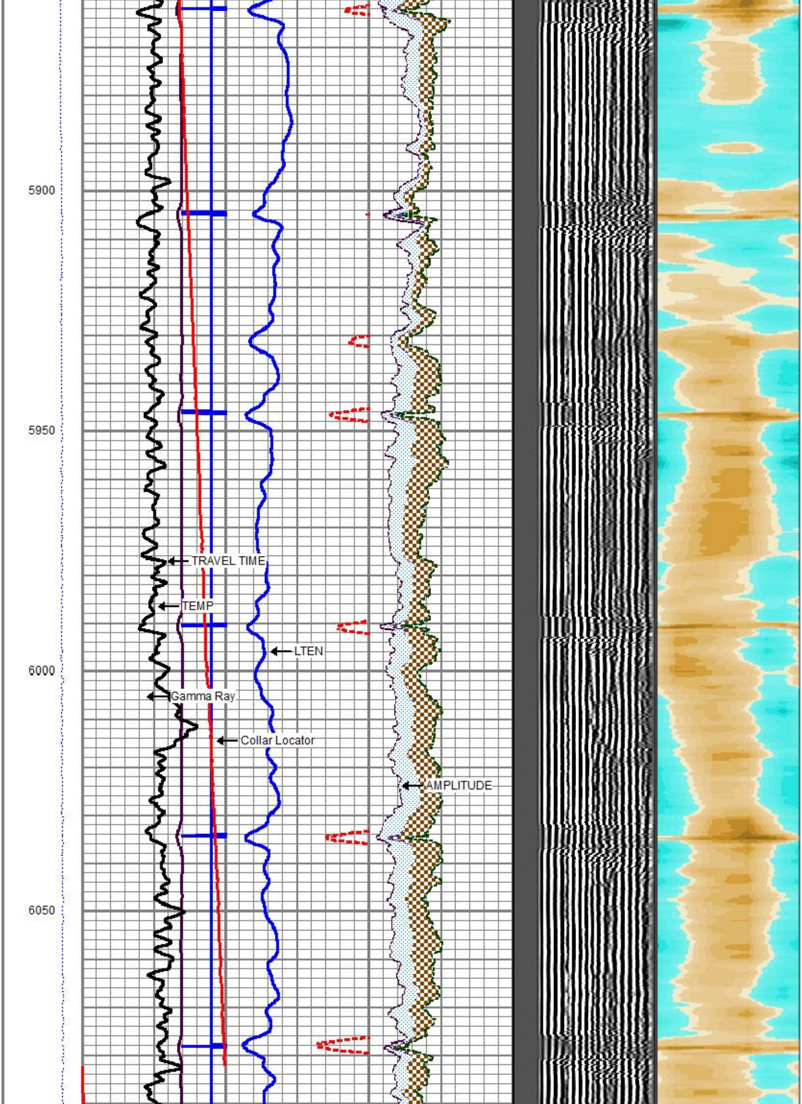


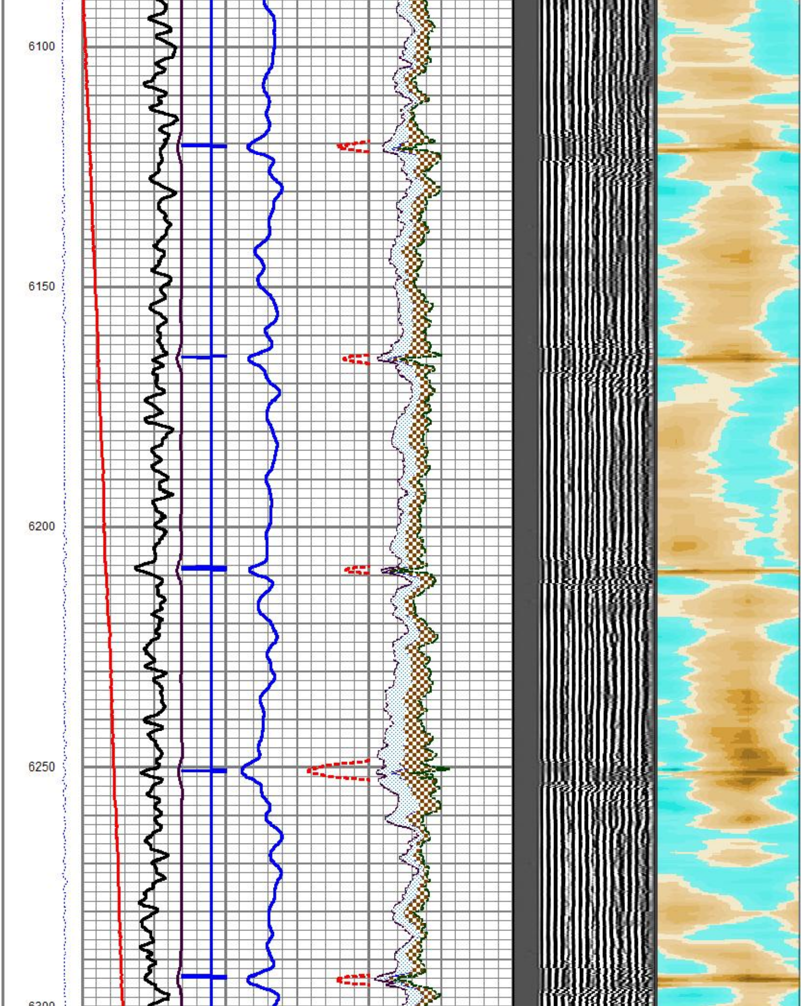


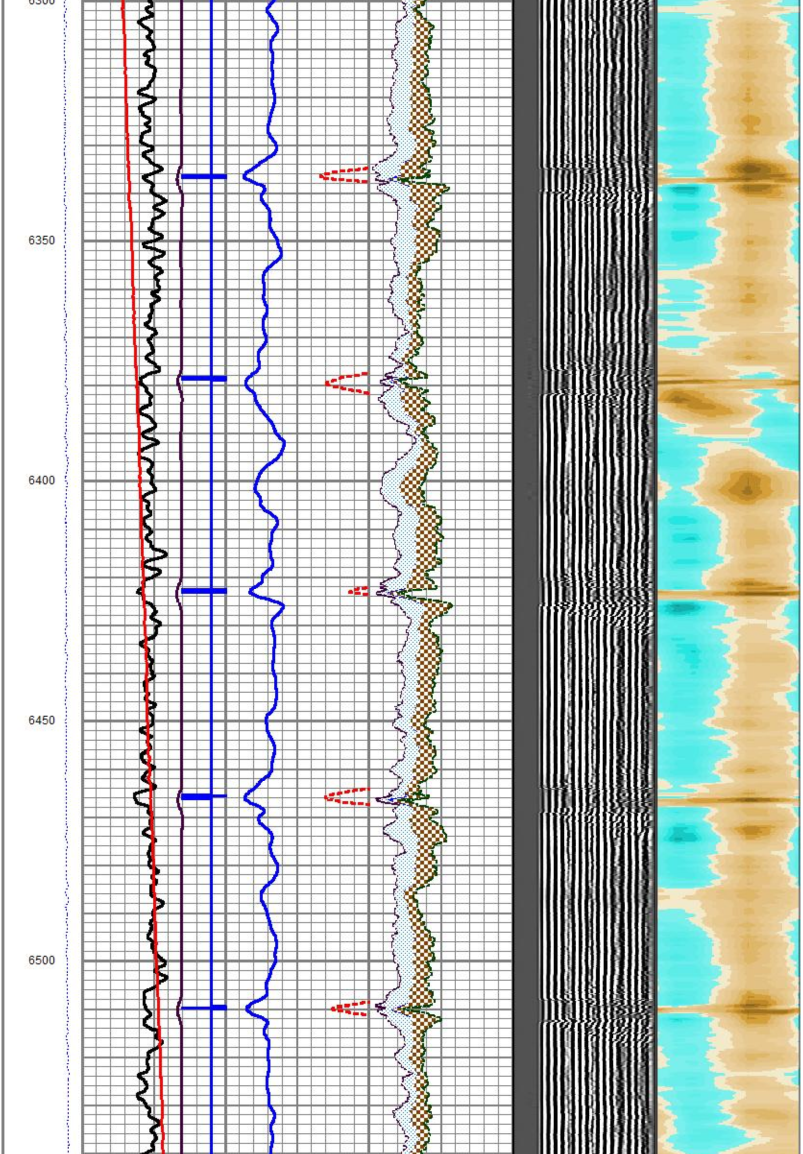


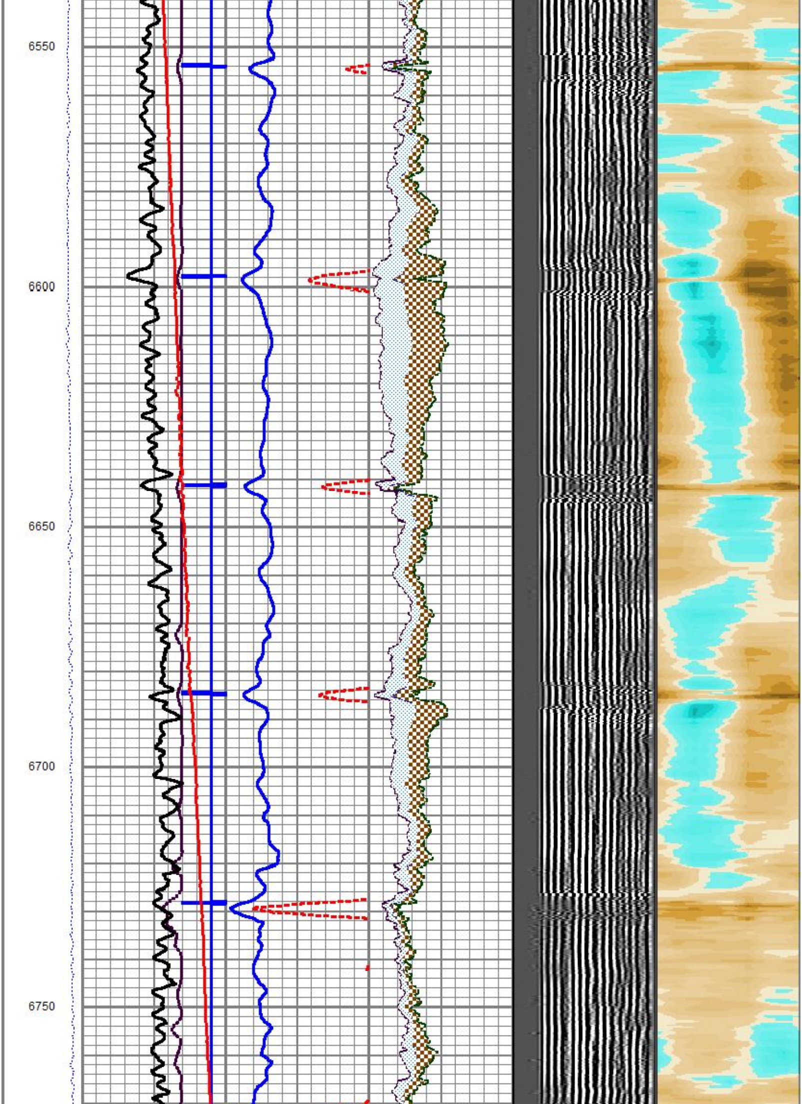


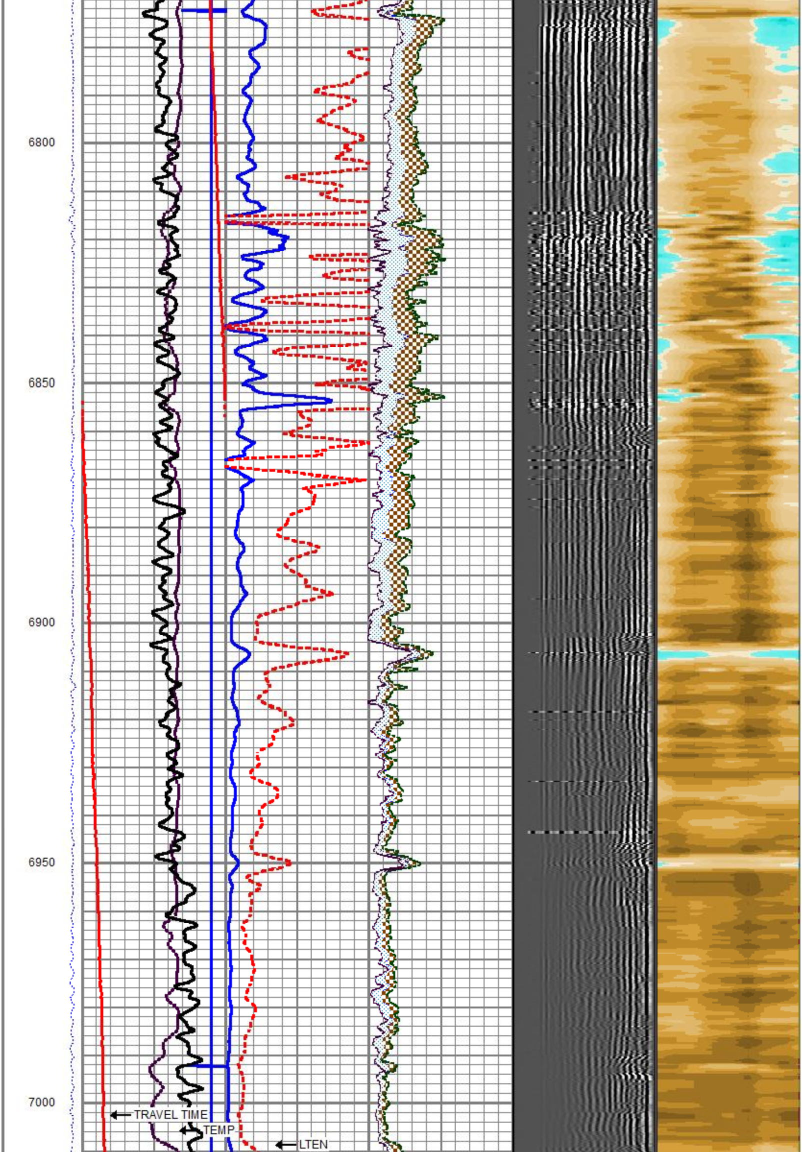


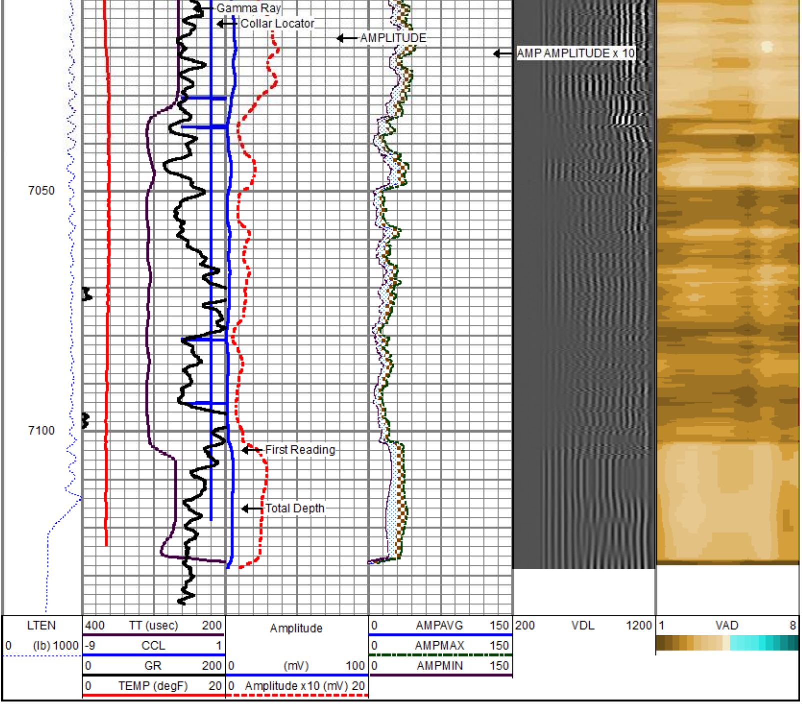












CEMENT BOND PRESENTATION

REPEAT LOG SECTION / 0 PSI

5" = 100'

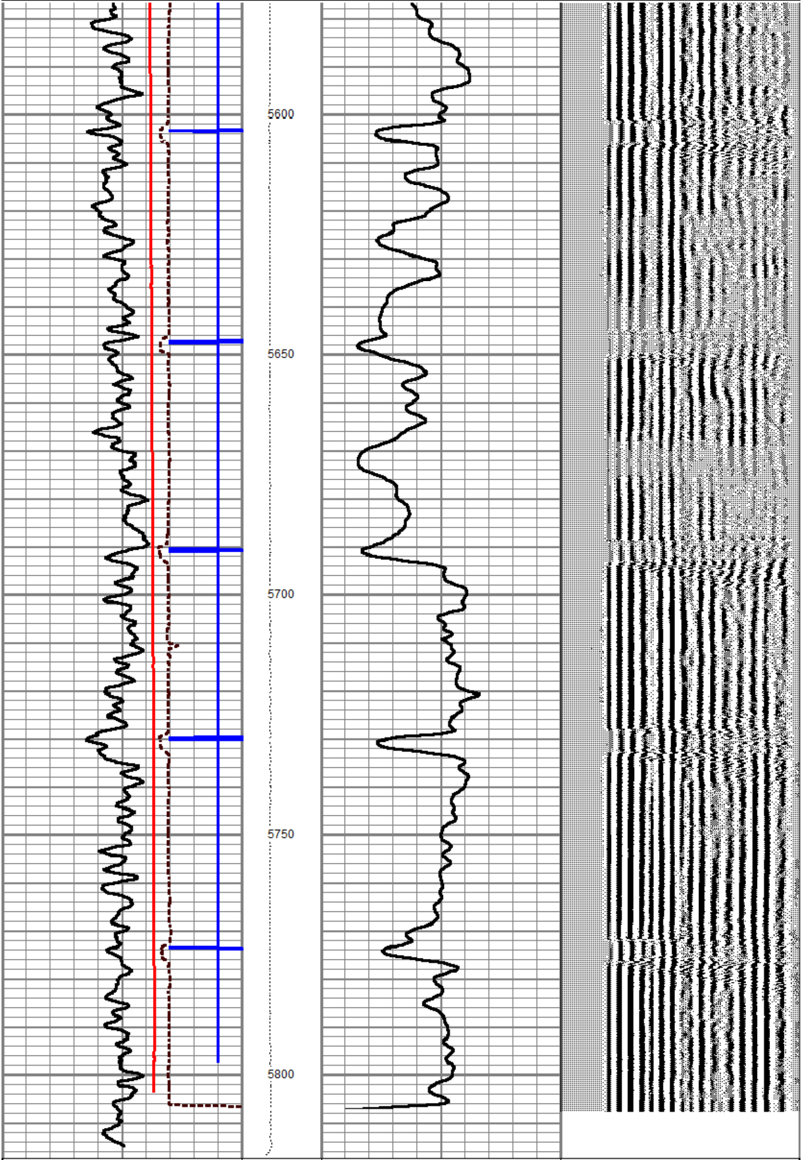
Database File	f:\well database\extraction\2015_extraction_windsor_lv_a_14_h\warrior\2015_extraction_windsor_lv_a_14_h.db
Dataset Pathname	pass5
Presentation Format	cbl_drs
Dataset Creation	Sun Jan 04 13:10:26 2015
Charted by	Depth in Feet scaled 1:240

400 TRAVEL TIME (usec) 200
9 Collar Locator -1
0 Gamma Ray 200
0 TEMP (degF) 300

LTEN
0 (lb) 2000

0 AMP AMPLITUDE x 10 (mV) 10
0 AMPLITUDE (mV) 100

200 VDL 1200



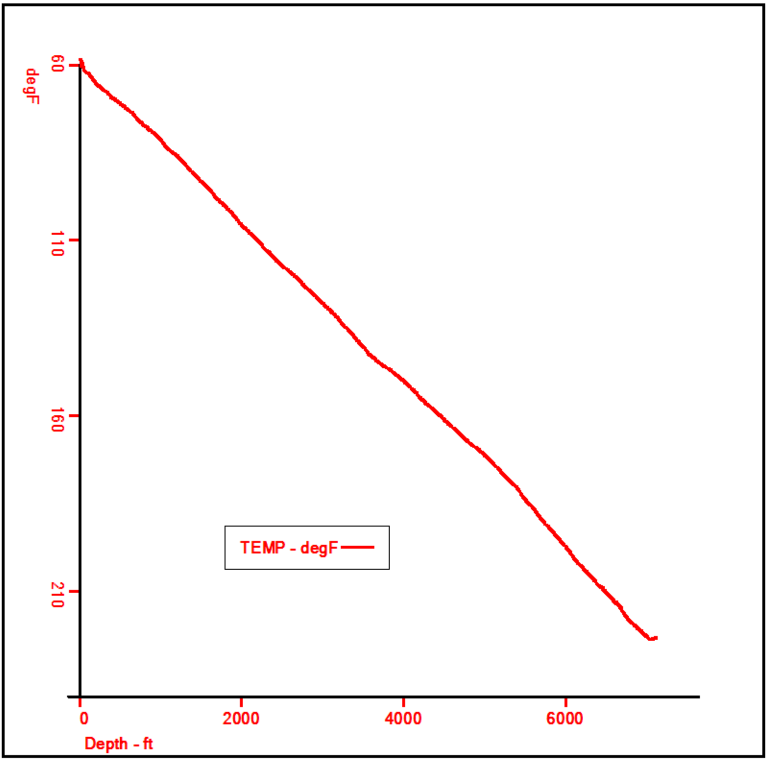
400 TRAVEL TIME (usec) 200	LTEN	0 AMP AMPLITUDE x 10 (mV) 10	200 VDL 1200
9 Collar Locator -1	0 (lb) 2000	0 AMPLITUDE (mV) 100	
0 Gamma Ray 200			
0 TEMP (degF) 300			

gyrodata

CEMENT BOND PRESENTATION

REPEAT LOG SECTION / 0 PSI

5" = 100'



Log Variables

Database F:\Well Database\Extraction\2015_extraction_windsor_lv_a_14_h\WARRIOR\2015_extraction_windsor_lv_a_14

Dataset field/well/run1/pass10.2

Top - Bottom

BHTEMP_Src	PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	CASEOD in	PERFS	TDEPTH ft
1	0	26	62	1	0.8	0	7	0	0

BOTTEMP degF	BOREID in
250	7.875

Calibration Report

Database File	F:\Well Database\Extraction\2015_extraction_windsor_lv_a_14_h\WARRIOR\2015_extraction_windsor_lv_a_14_h.db
Dataset Pathname	pass10.2
Dataset Creation	Sun Jan 04 15:55:05 2015

Gamma Ray Calibration Report

Serial Number:	234GR-IPCD9-02
Tool Model:	GR-Tek-Co
Performed:	Tue Feb 25 16:32:03 2014

Calibrator Value: 120.0

Background Reading: 100.8 cps
Calibrator Reading: 244.7 cps

Sensitivity: 0.8337 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 234RIBT-IPPO2-02 FIELD
Tool Model: 275 H/T RIB with I/E Temp

Calibration Casing Diameter: 7.000 in
Calibration Depth: 1350.383 ft

Master Calibration, performed Sun Jan 04 15:55:00 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.004	0.416	1.000	62.165	145.337	1.653
CAL	0.000	0.304				
5'	-0.109	0.617	1.000	62.165	84.213	10.198
SUM						
S1	-0.003	0.411	0.000	100.000	241.666	0.760
S2	0.000	0.409	0.000	100.000	244.354	-0.004
S3	-0.017	0.360	0.000	100.000	264.672	4.608
S4	-0.038	0.359	0.000	100.000	251.886	9.634
S5	-0.041	0.361	0.000	100.000	248.728	10.158
S6	-0.006	0.376	0.000	100.000	261.875	1.531
S7	-0.013	0.395	0.000	100.000	245.421	3.104
S8	0.000	0.399	0.000	100.000	250.816	-0.003

Internal Reference Calibration, performed Thu Dec 25 20:11:00 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.304	1.000	0.000

Air Zero Calibration, performed Thu Dec 25 19:19:50 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

Temperature Calibration Report

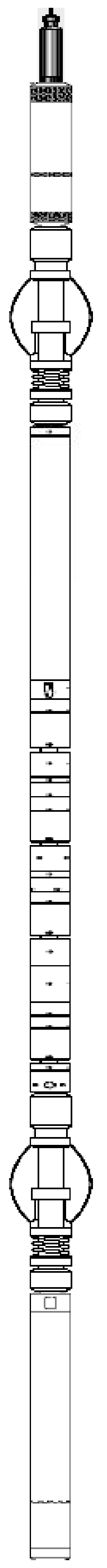
Serial Number: 234RIBT-IPPO2-02 FIELD
Tool Model: 275 H/T RIB with I/E Temp
Performed: Tue Nov 25 12:50:38 2014

	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec

Gain: 0.33
Offset: 0.00
Delta Spacing 1

Sensor	Offset (ft)
CCL	19.56
TEMP	12.77
WVFS8	11.48
WVFS7	11.48
WVFS6	11.48
WVFS5	11.48
WVFS4	11.48
WVFS3	11.48
WVFS2	11.48
WVFS1	11.48
WVF5FT	9.73
WVFSYNC	6.40
WVFTEMP	6.40
WVFCAL	6.40
GR	1.04

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb)
TitanConeType2 Cable Head 1 7/16 Cone Type II	1.03	1.44	3.60
CCL-275tekco (234CCL-IS2T1-08) 2 3/4" 450 Deg. "F" TekCo CCL Earth Mag	1.96	2.75	20.00
2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
275 H/T RIB with I/E Temp (234RIBT-IPPO2-029.13_D) Tekco 2.75" 450 Deg. F RIB with I/E Temp		2.75	102.00
2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
GR-GR-Tek-Co (234GR-IPCD9-02) Tekco 2 3/4" 400 Deg. F Logging Gamma Ray	3.67	2.75	40.00

Dataset: 2015_extraction_windsor_lv_a_14_h.db: field/well/run1/pass10.2
Total length: 21.25 ft
Total weight: 215.60 lb
O.D.: 2.75 in

gyrodata

Company	EXTRACTION OIL & GAS
Well	WINDSOR LV A-14H
Field	WATTENBERG
County	WELD
State	CO
Country	USA