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CEMENT BOND LOG

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

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

API No.: 05-123-38167 Serv #: 1003
Location: 1277' FNL & 265' FEL
LAT: 40.490770
LONG: -104.852250

Other Services
TEMPERATURE
CCL

Sec: 14 Twp: 6N Rge: 67W

Permanent Datum	GROUND LEVEL	Elevation 4845'	Elevation	K.B. 4869' D.F. 4868' G.L. 4845'
Log Measured From	KB , 24 Ft. above perm. datum			
Drilling Measured From	KB			
Date @ Time Logged	4 JAN 2015 @2100 HRS	Type Fluid in Hole	WATER	
Run No.	ONE	Density of Fluid	8.4 PPG	
Depth - Driller	11,478'	Fluid Level	SURFACE	
Depth - Logger	7192'	Cement Top Est. Logged	925'	
Bottom - Logged Interval	7180'	Equipment / Location	GD 114 / CASPER,WY	
Top - Log Interval	SURFACE	Recorded by	J. BAKER	
Max. Recorded Temp.	230°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	7500'
				4 1/2"	11.6#	6500'	11,740'

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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 @ 925' due to intermitent formation arrivals and temperature.
Max temp on bottom was 230°F
Kick off Point was unknow to logging crew
The temperature cooling on XY Plot was from the well being filled before performing the CBL Log.

Your crew today was B. Kennicker, M. Stewart

Thank you for using Gyrodata Logging Services, Casper, WY

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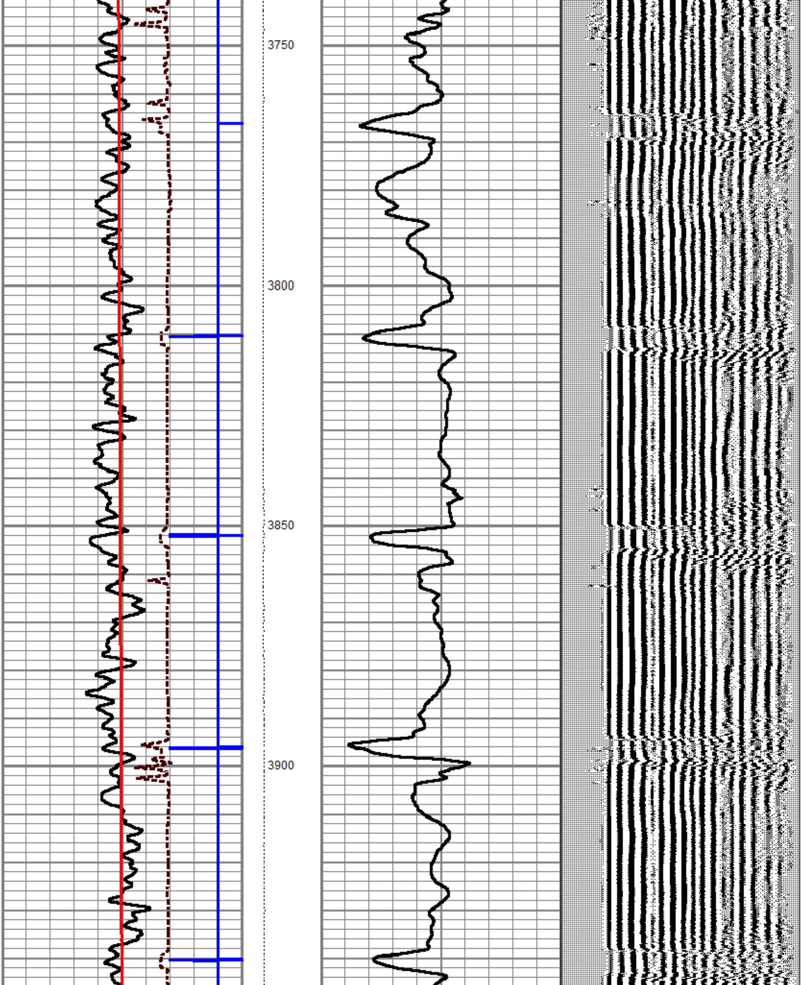
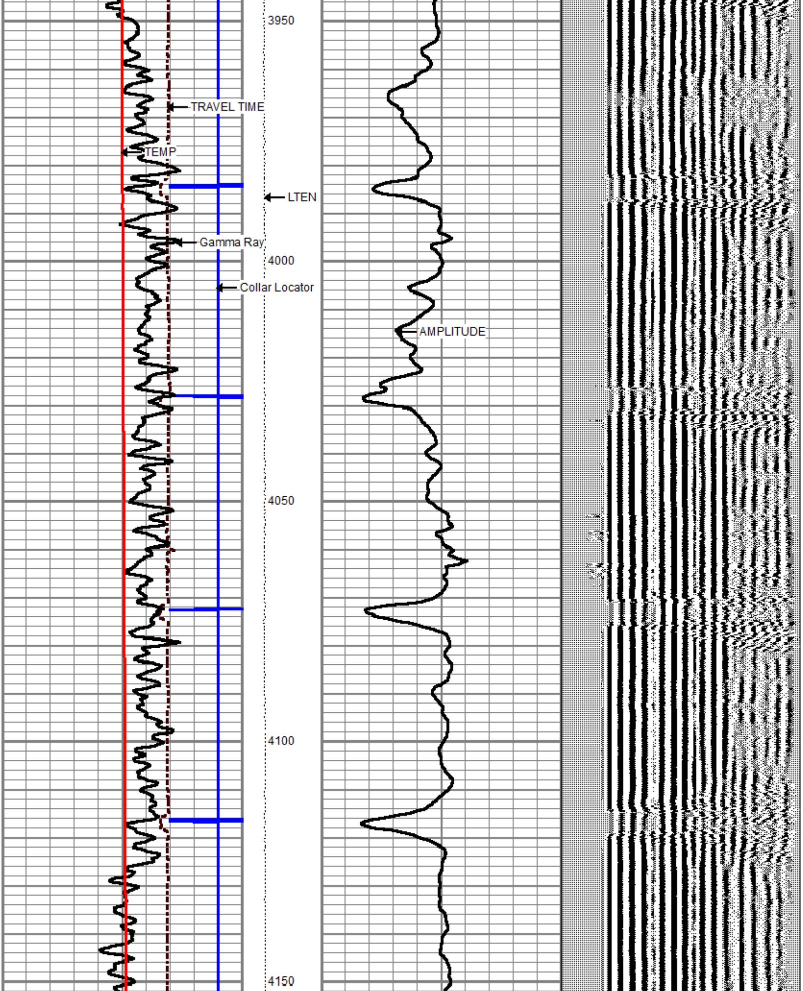
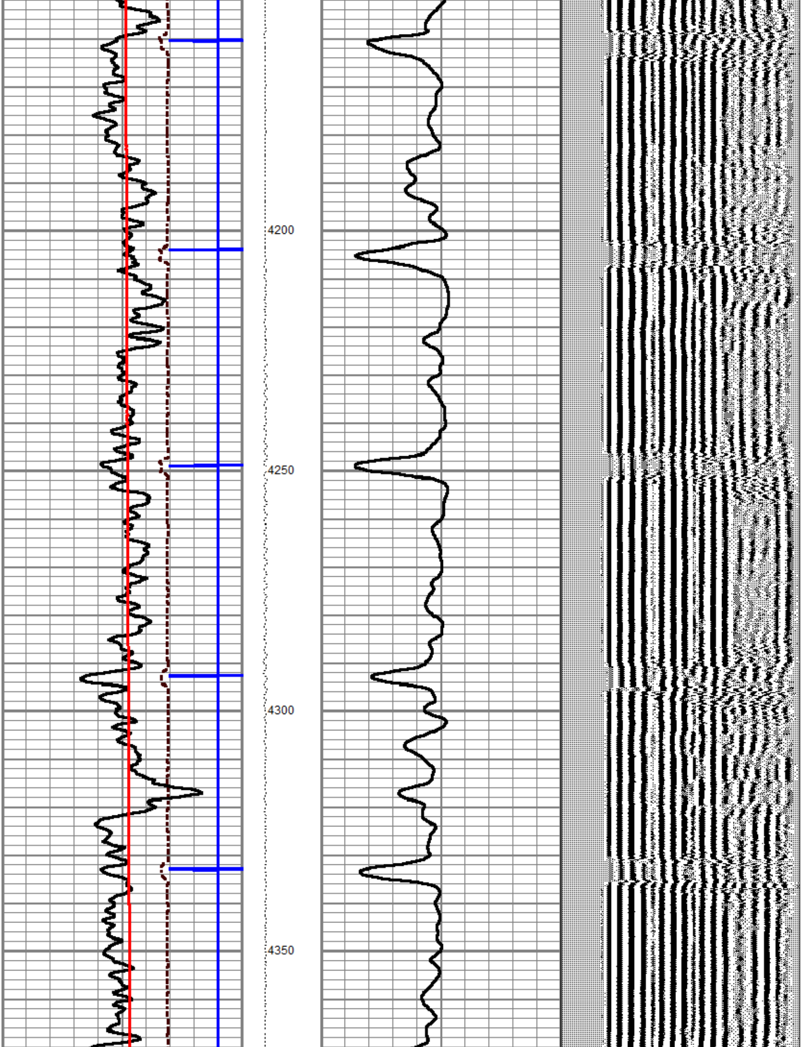
CEMENT BOND PRESENTATION

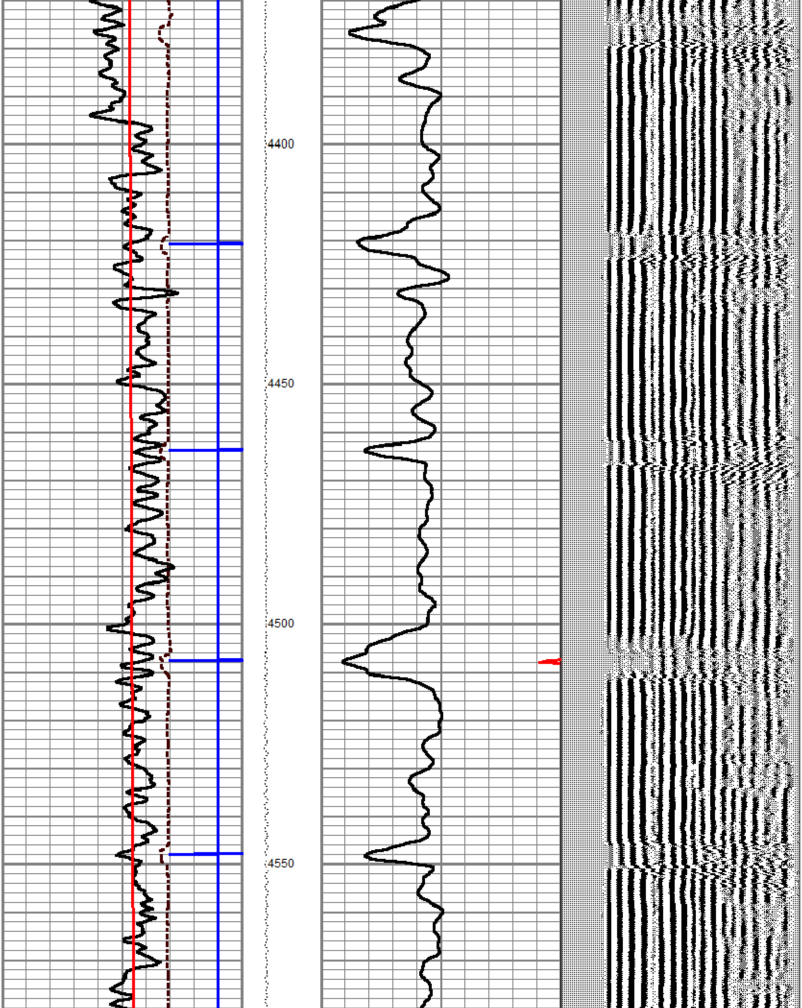
MAIN LOG SECTION / 0 PSI
5" = 100'

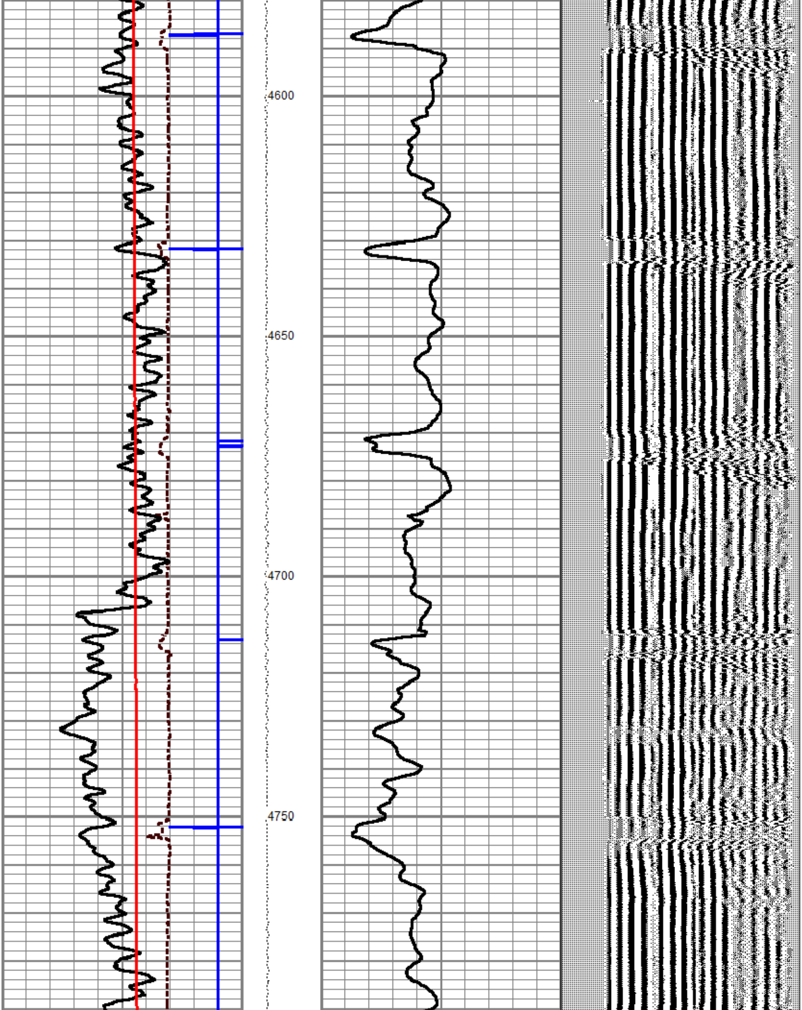
Database File	f:\well database\extraction\2015_extraction_windsor_lv_c_14_h\warrior\2015_extraction_windsor_lv_c_14_h.db
Dataset Pathname	pass1.1
Presentation Format	cbl_drs
Dataset Creation	Sun Jan 04 23:45:57 2015
Charted by	Depth in Feet scaled 1:240

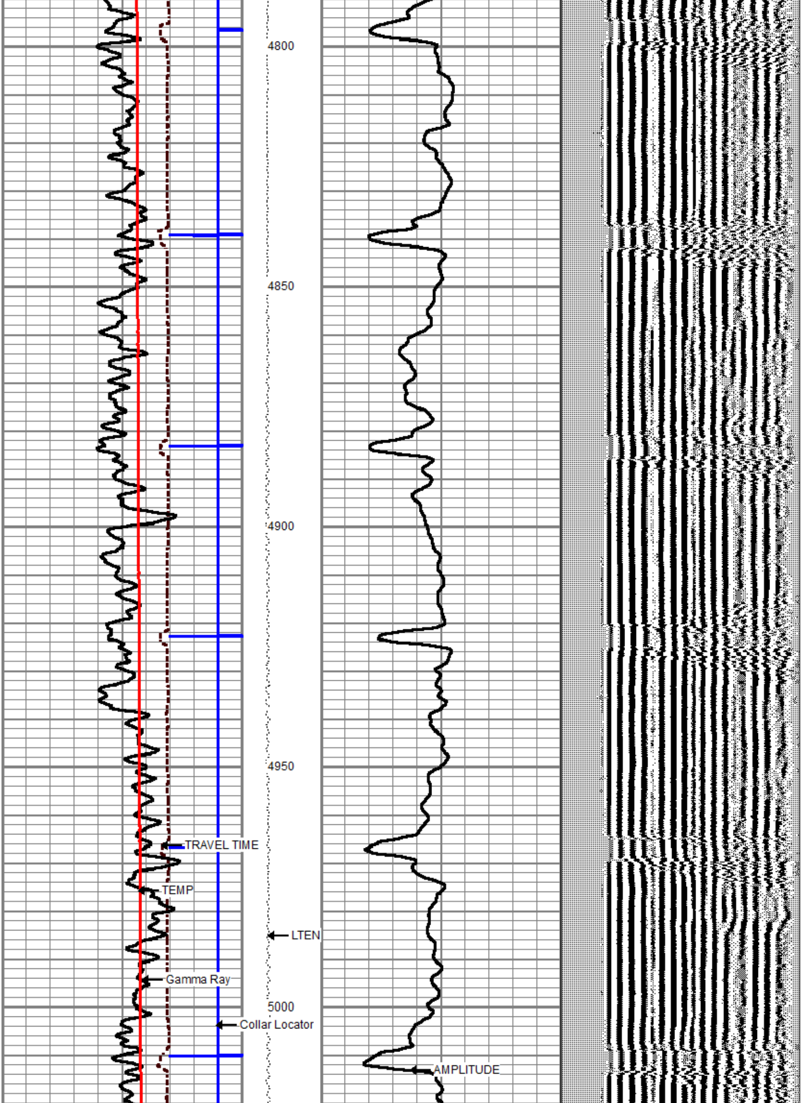


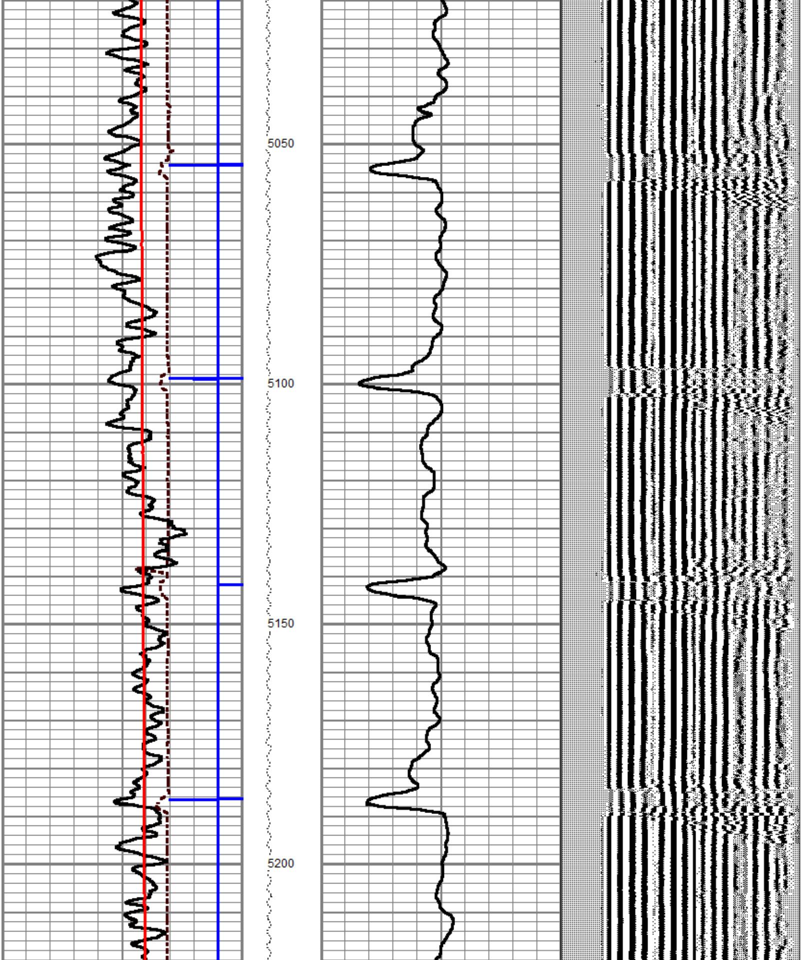


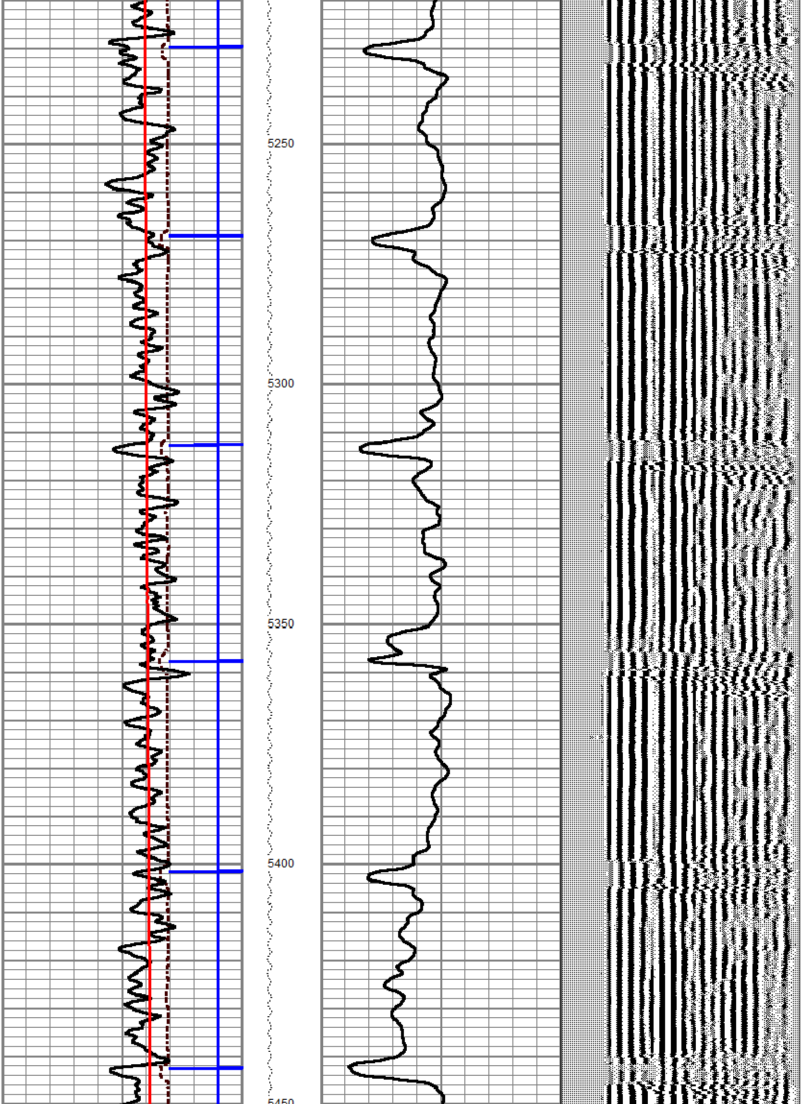


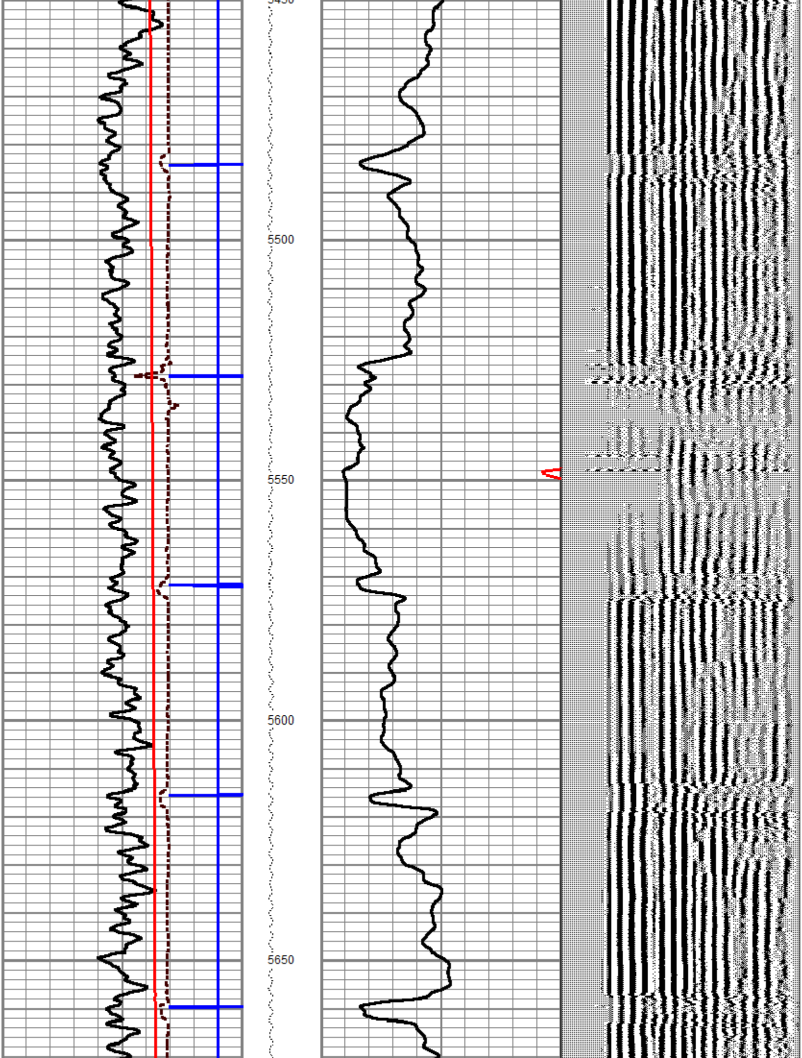


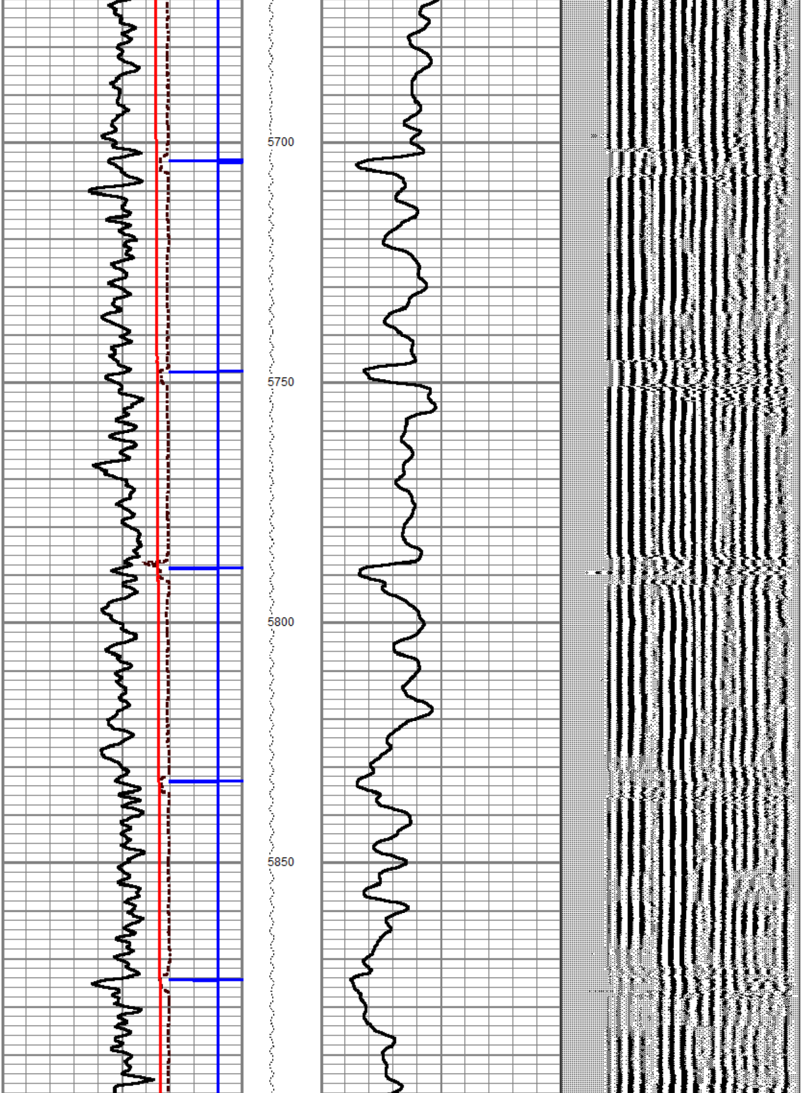


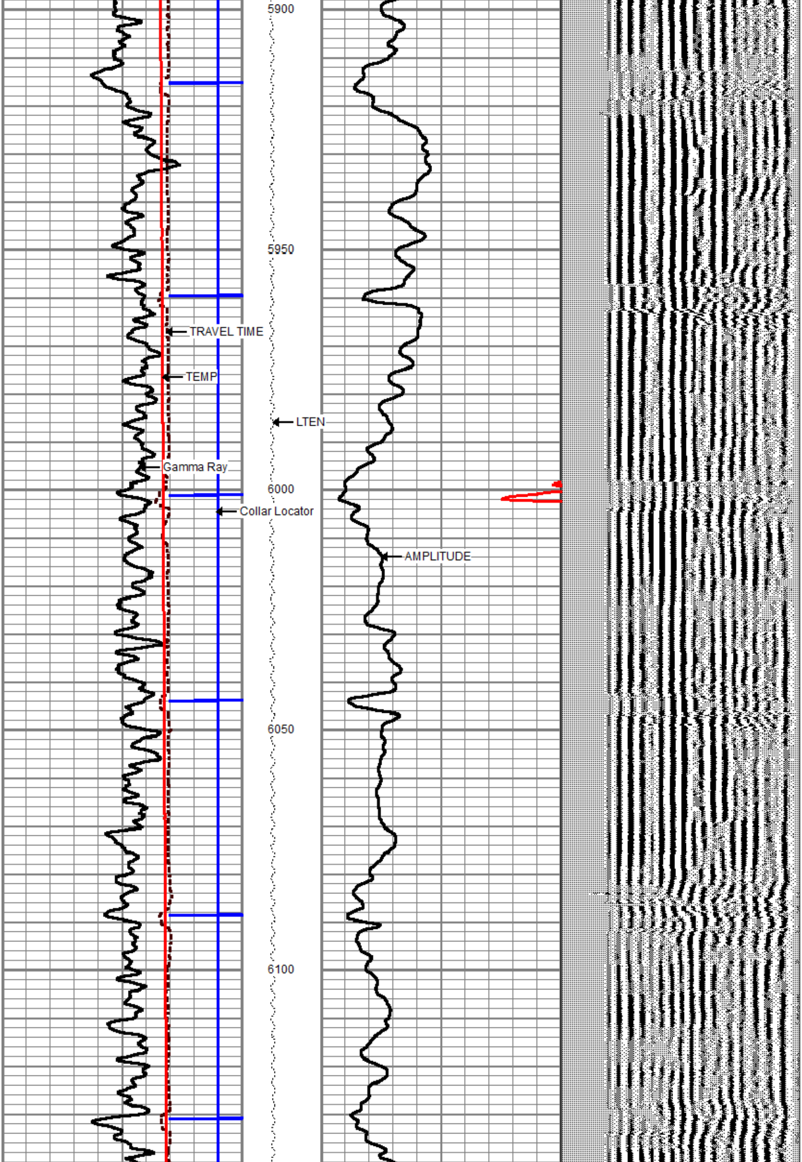


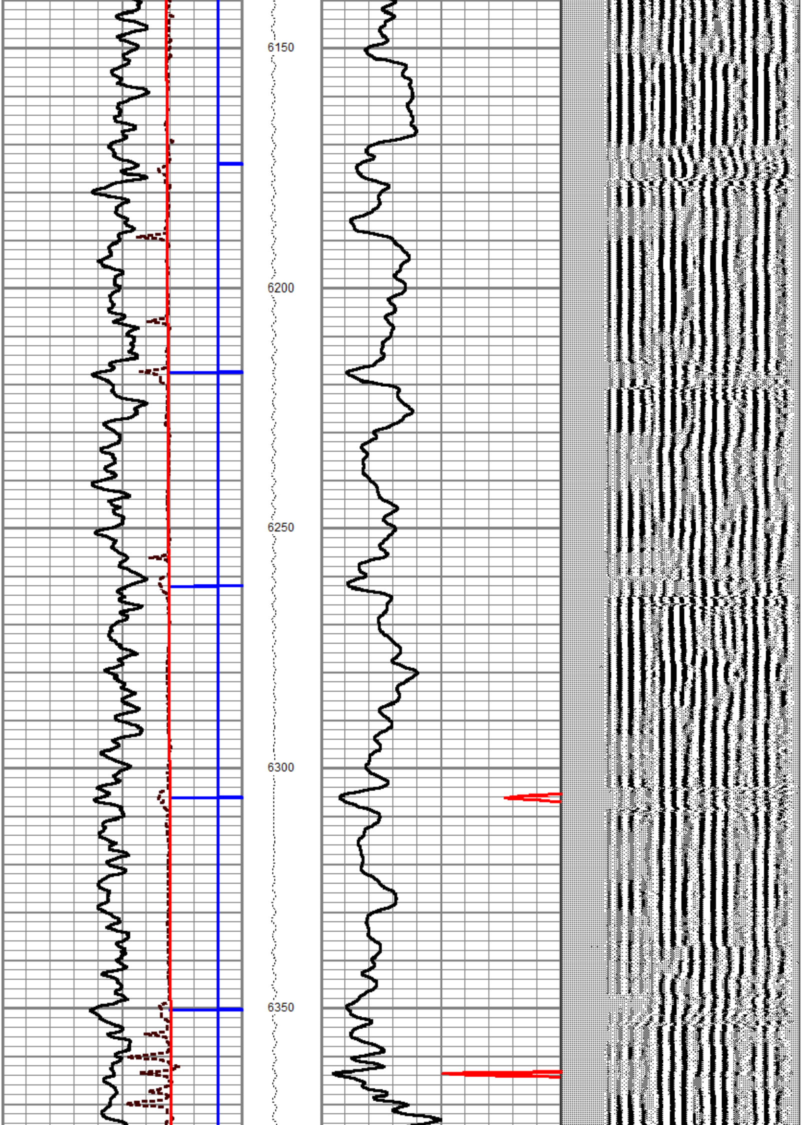


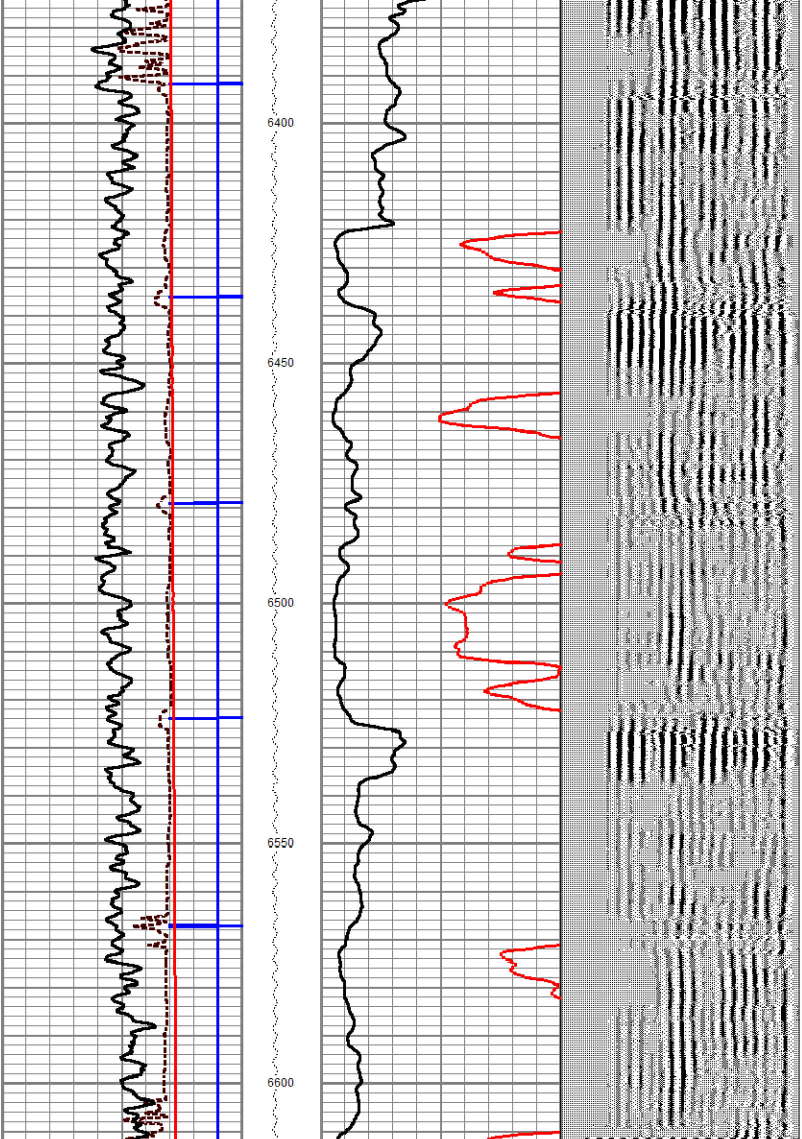


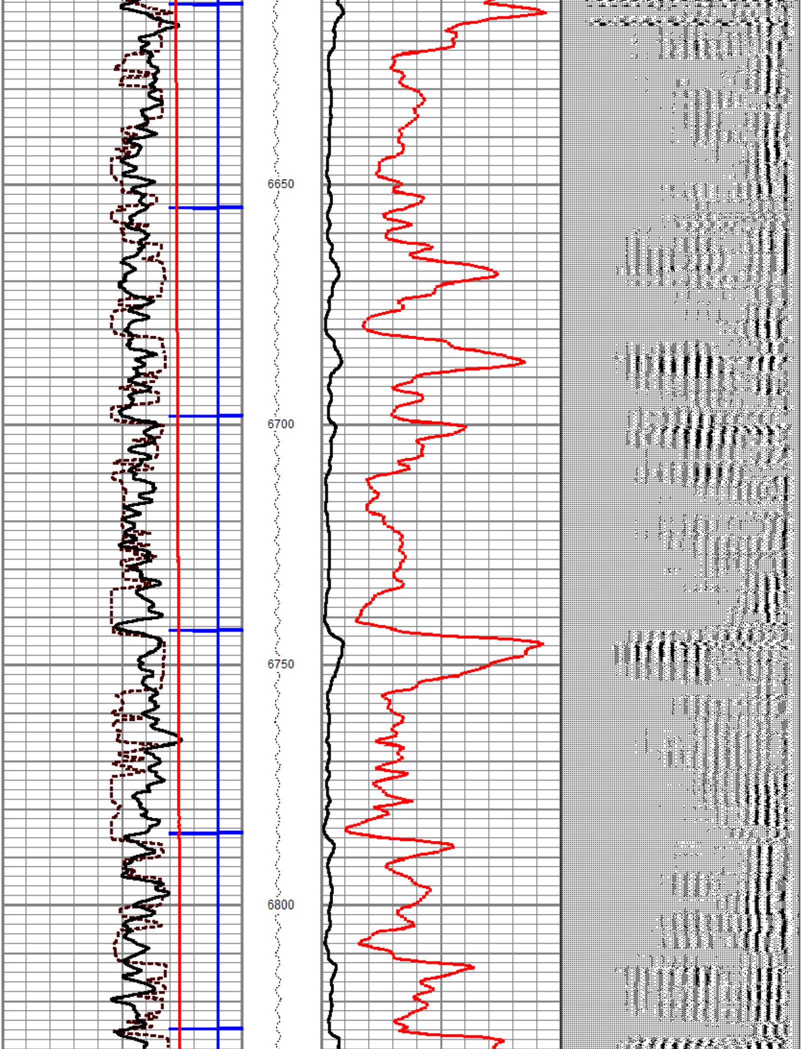


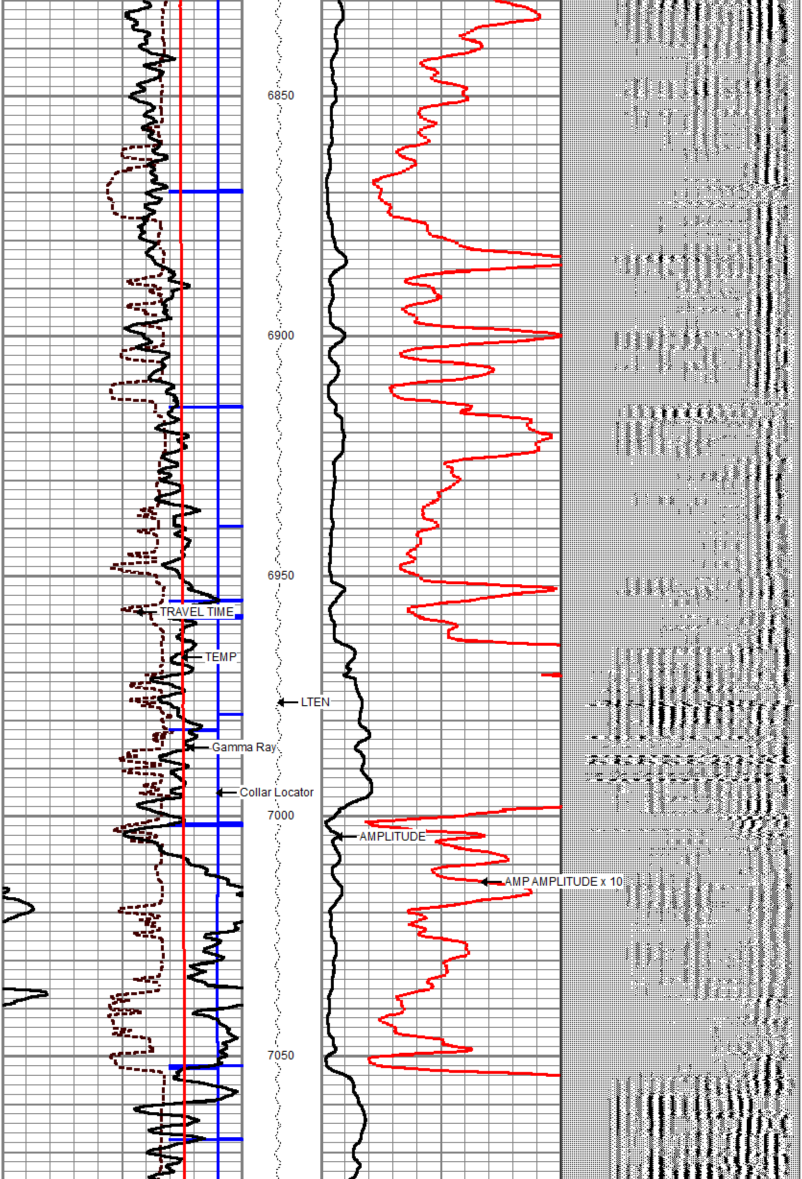


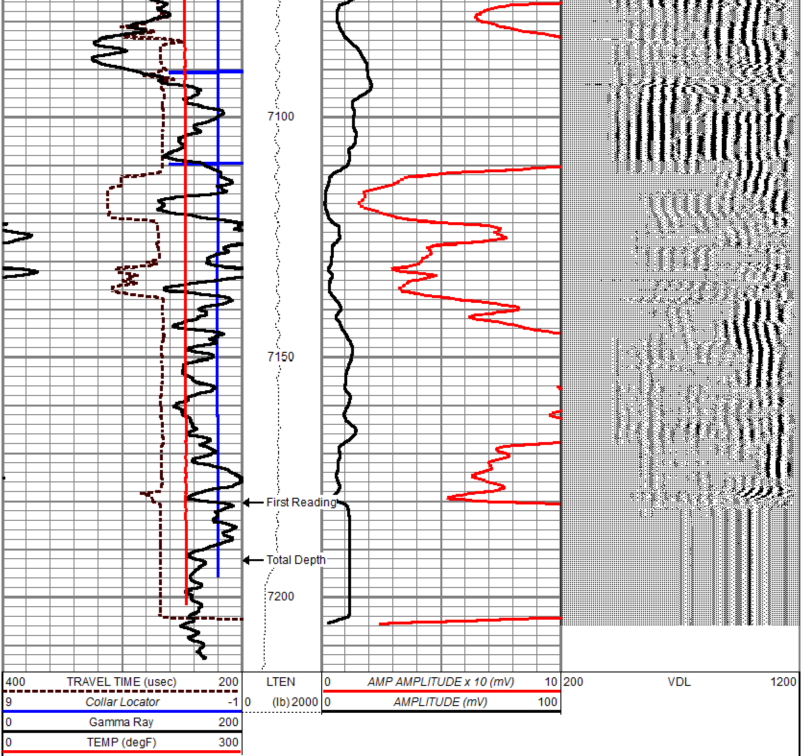












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CEMENT BOND PRESENTATION

MAIN LOG SECTION / 0 PSI

5" = 100'

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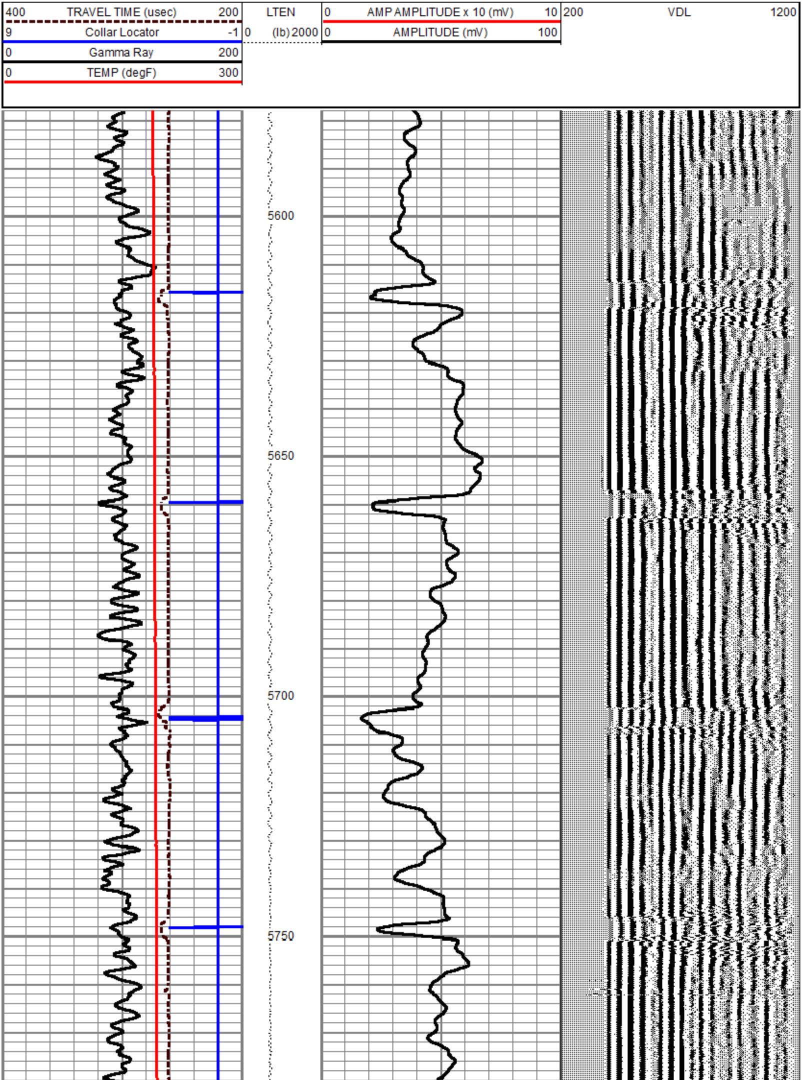
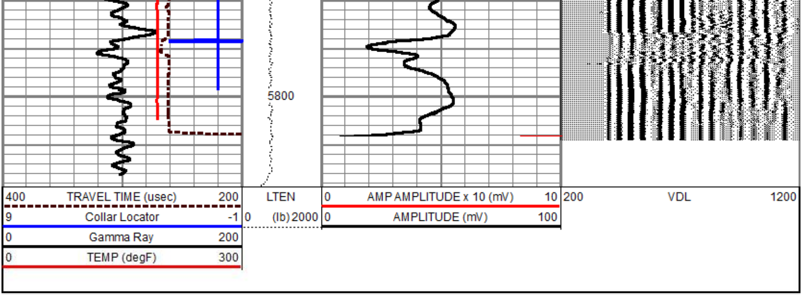
CEMENT BOND PRESENTATION

REPEAT LOG SECTION / 0 PSI

5" = 100'

Database File	f:\well database\extraction\2015_extraction_windsor_lv_c_14_h\warrior\2015_extraction_windsor_lv_c_14_h.db
Dataset Pathname	pass3
Presentation Format	cbl_drs
Dataset Creation	Sun Jan 04 21:18:08 2015
Charted by	Depth in Feet scaled 1:240





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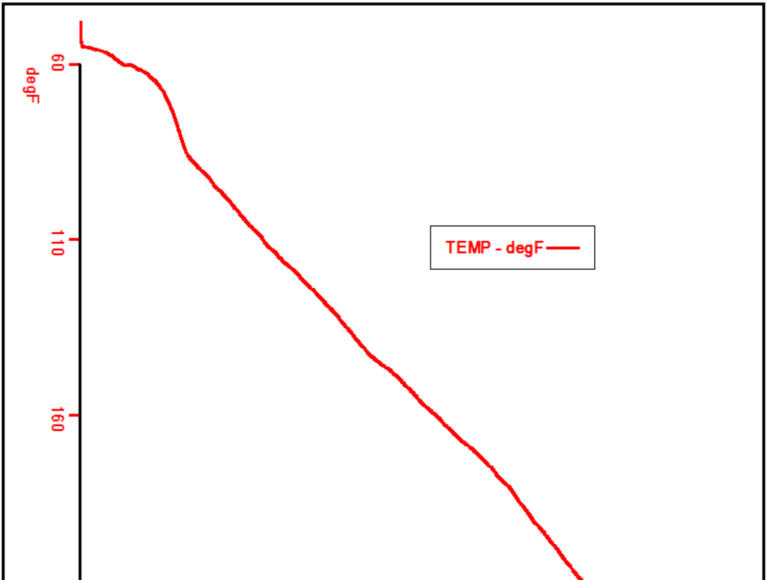
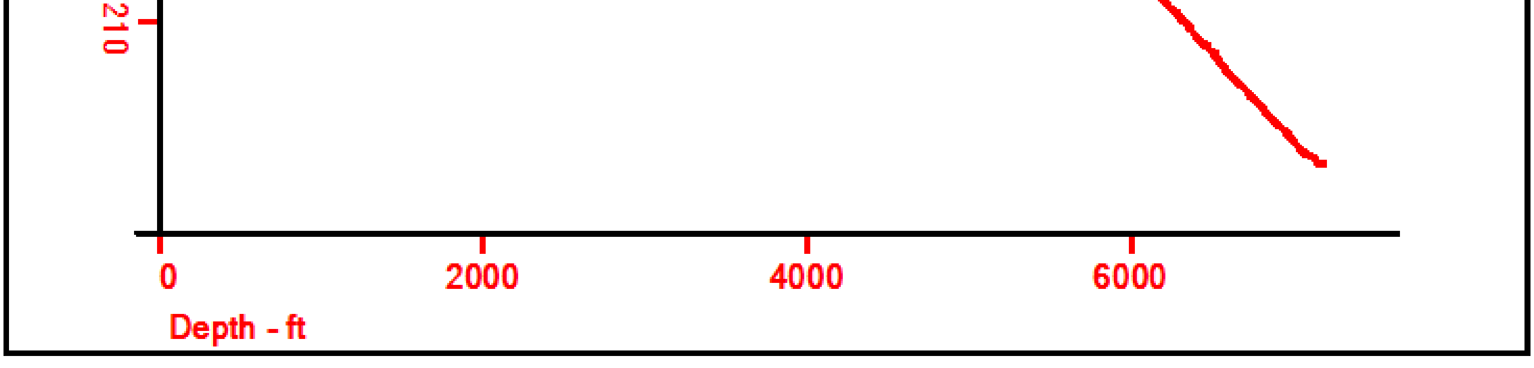
CEMENT BOND PRESENTATION

REPEAT LOG SECTION / 0 PSI
5" = 100'





Log Variables

Database F:\Well Database\Extraction\2015_extraction_windsor_lv_c_14_h\WARRIOR\2015_extraction_windsor_lv_c_14
Dataset field/well/run1/pass1.1

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_c_14_h\WARRIOR\2015_extraction_windsor_lv_c_14_h.db
Dataset Pathname	pass1.1
Dataset Creation	Sun Jan 04 23:45:57 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:	629.283	ft

Master Calibration, performed Sun Jan 04 23:45:52 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.006	0.364	1.000	62.165	165.041	2.023
CAL	0.000	0.305				
5'	-0.163	0.907	1.000	62.165	57.136	10.322
SUM						
S1	-0.005	0.430	0.000	100.000	229.935	1.119
S2	0.000	0.411	0.000	100.000	243.373	-0.006
S3	0.000	0.337	0.000	100.000	296.817	-0.006
S4	-0.025	0.396	0.000	100.000	237.588	5.831
S5	-0.128	0.374	0.000	100.000	199.171	25.413
S6	-0.053	0.366	0.000	100.000	238.582	12.565
S7	-0.129	0.446	0.000	100.000	173.731	22.494
S8	-0.029	0.366	0.000	100.000	253.360	7.295

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	0.305	1.000	0.000

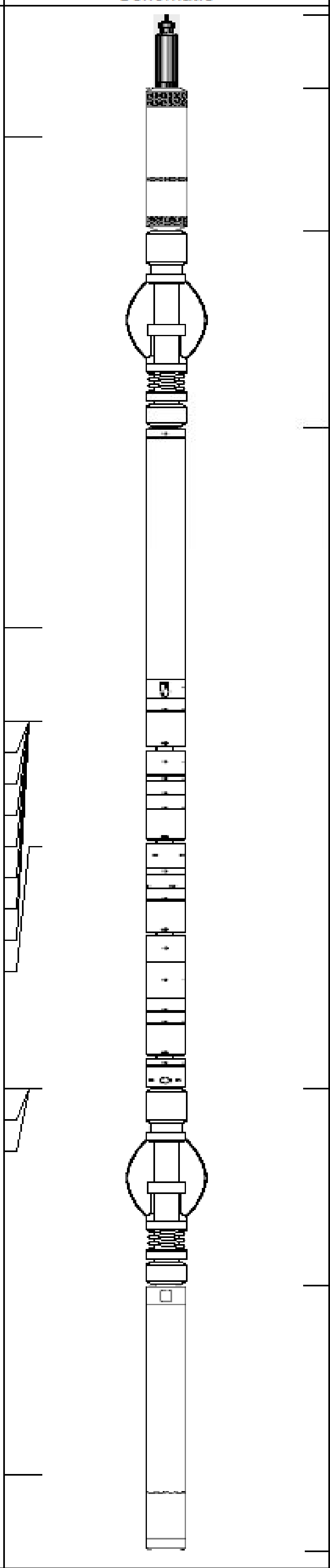
Air Zero Calibration, performed Thu Dec 25 19:19:50 2014:

	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			

Schematic



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

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_c_14_h.db: field/well/run1/pass1.1
Total length:	21.25 ft
Total weight:	215.60 lb
O.D.:	2.75 in

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