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CEMENT BOND LOG

Company	EXTRACTION OIL & GAS
Well	HINER 36NB-23W
Field	WATTENBERG
County	WELD State CO

Company EXTRACTION OIL & GAS
Well HINER 36NB-23W
Field WATTENBERG
County WELD State CO
API No.: 05-123-37037 Serv#: 1266 Other Services
Location: LAT 40.0449217 TEMPERATURE
LONG -104.719086 CCL
Sec: 36 Twp:6N Rge: 66W

Permanent Datum	GROUND LEVEL	Elevation	4661'	Elevation
Log Measured From	KB	, 17' Ft. above perm. datum		K.B. 4678' D.F. 4677' G.L. 4676'
Drilling Measured From	KB			

Date @ Time Logged	8-29-14 / 1630	Type Fluid in Hole	fresh water
Run No.	ONE	Density of Fluid	8.4#
Depth - Driller	11615'	Fluid Level	29'
Depth - Logger	7284'	Cement Top Est. Logged	1082'
Bottom - Logged Interval	7272'	Equipment / Location	GD 114 / CASPER WY
Top - Log Interval	SURFACE	Recorded by	M. FENN
Max. Recorded Temp.	239 DEG F	Witnessed by	B. PATCH

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	1124'
				5.5"	20#	SURFACE	11615'

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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 dated 8/9/2014
Cement top was estimated at 1082'
Max temp on bottom was239 °F

Your crew today was J.Adams, C. Byers , and B.Gurnsey.

Thank you for using Gyrodata Logging Services, Casper, WY

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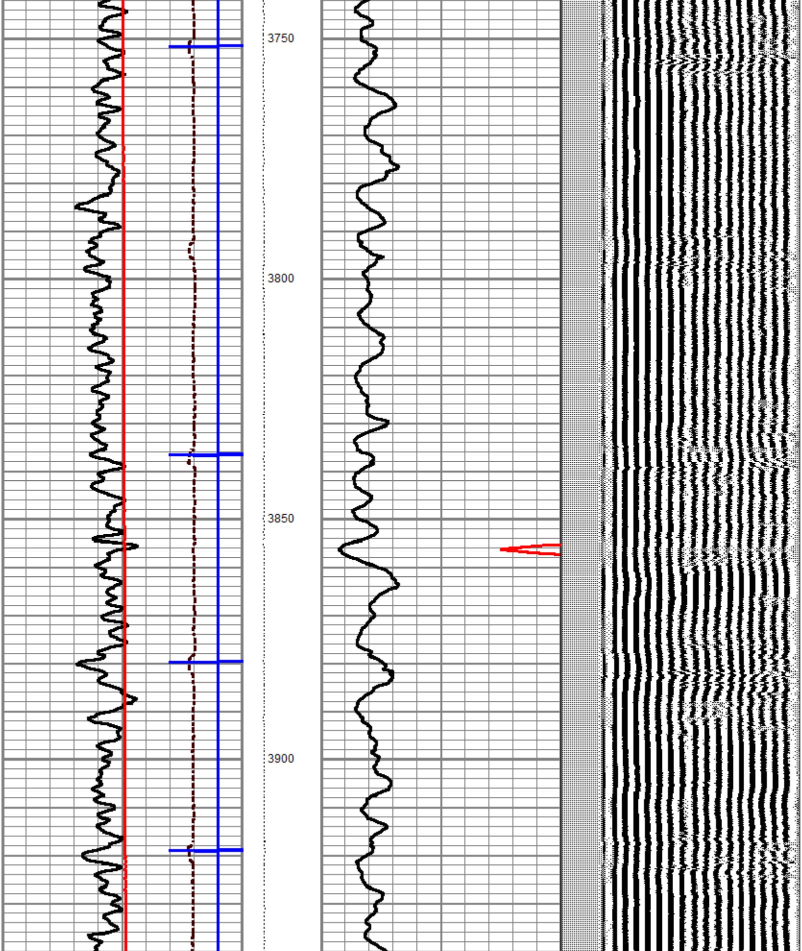
CEMENT BOND LOG PRESENTATION

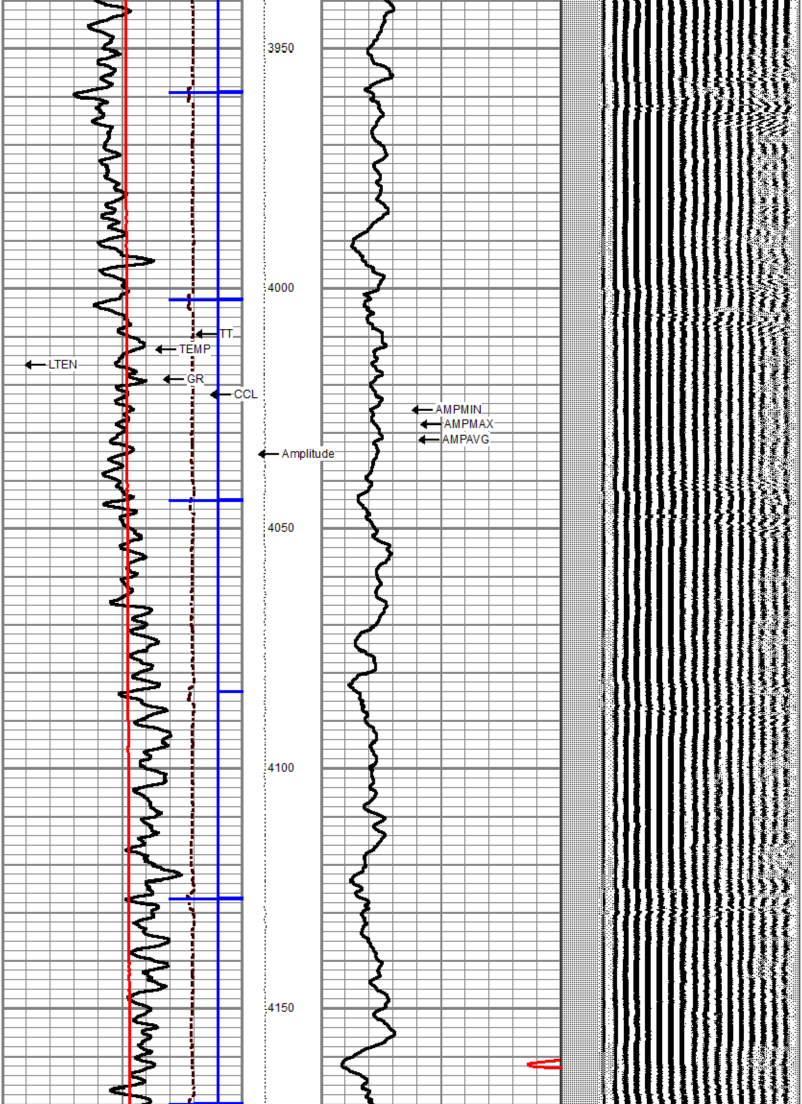
MAIN LOG SECTION 0 PSI

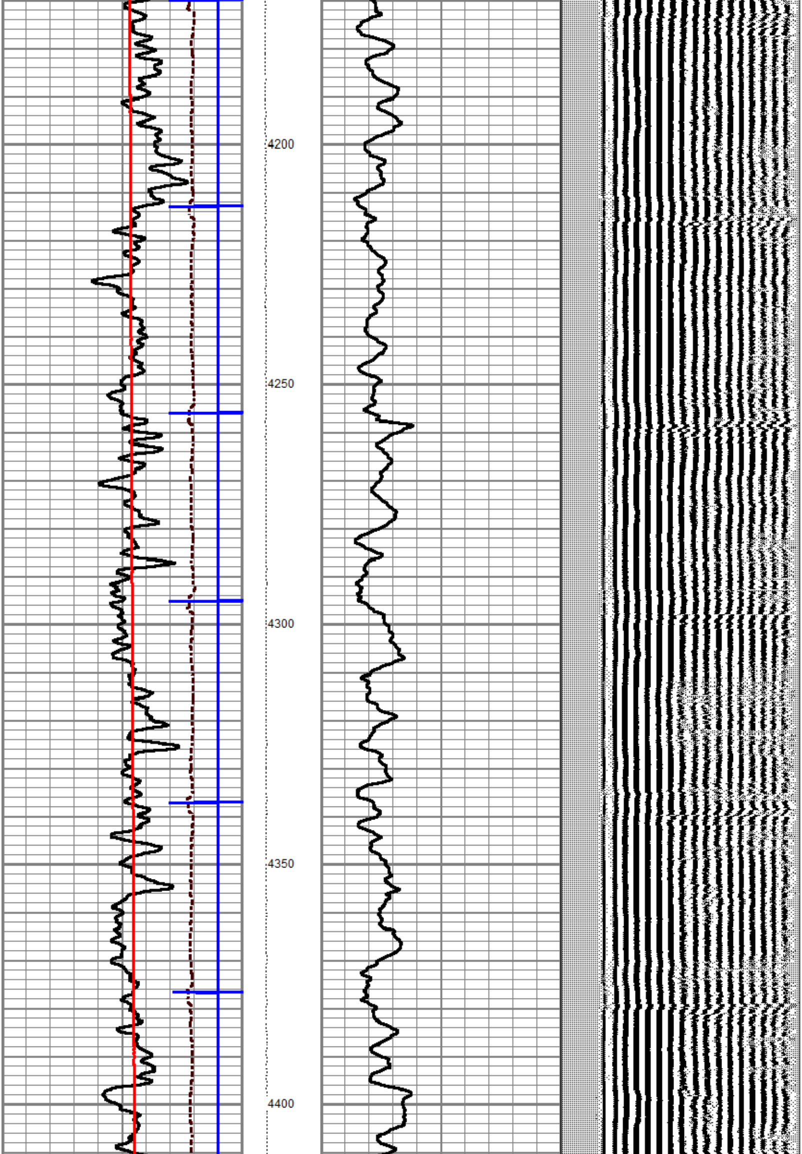
5"=100'

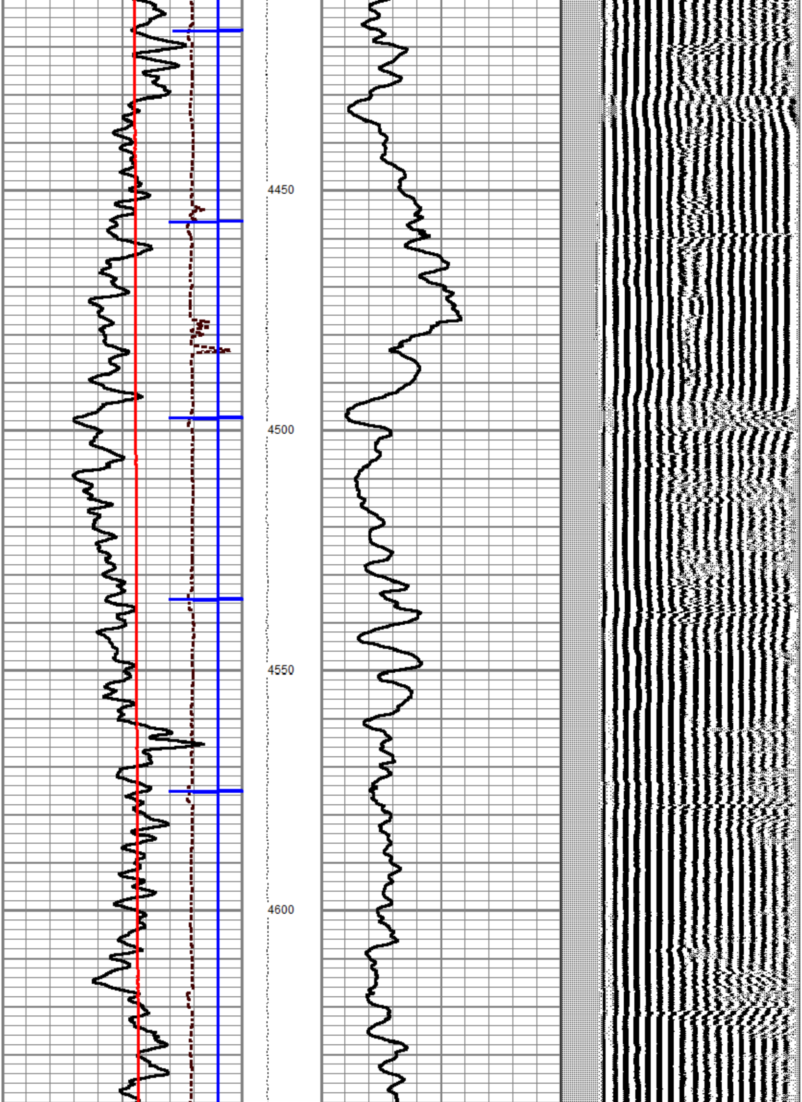
Database File	2014_extraction_hiner_36nb_23w.db
Dataset Pathname	pass1.2
Presentation Format	cbl_drs
Dataset Creation	Fri Aug 29 16:52:39 2014
Charted by	Depth in Feet scaled 1:240

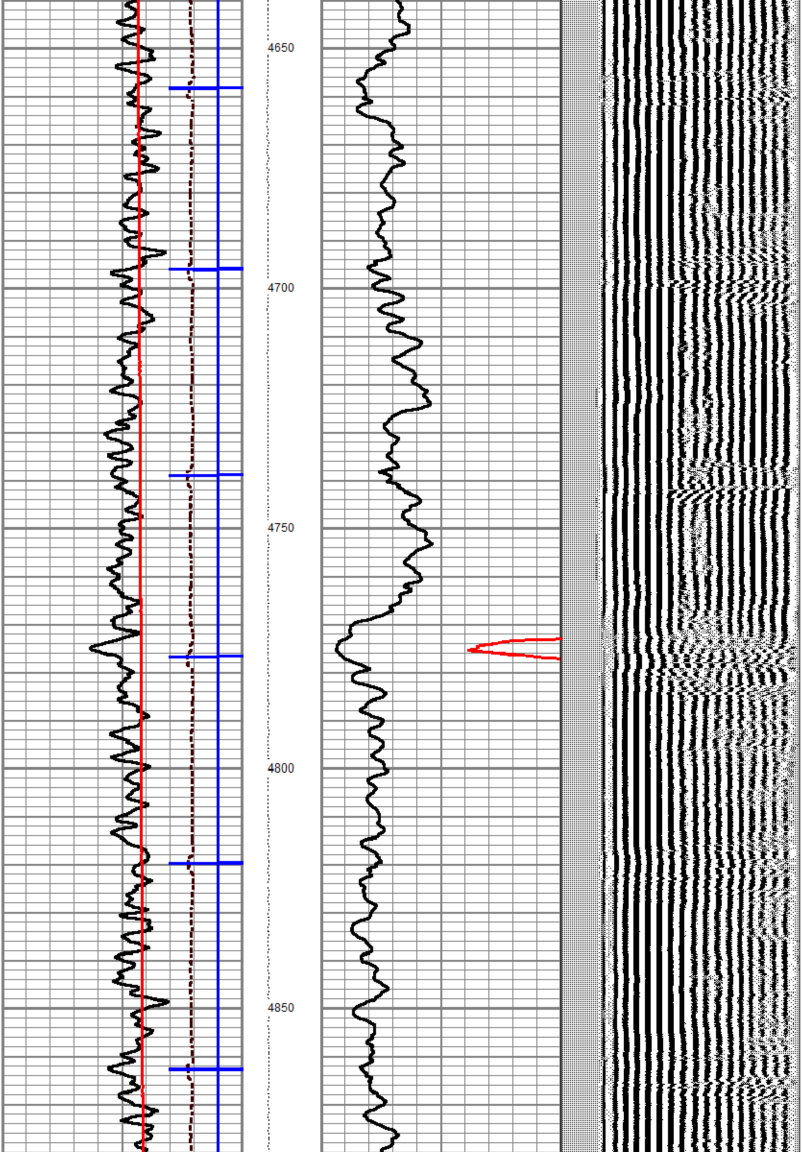
400	TRAVEL TIME (usec)	200		LTEN		0	AMP AMPLITUDE x 10 (mV)	10	200	VDL	1200
9	Collar Locator	-1	0	(lb)	2000	0	AMPLITUDE (mV)	100			
0	Gamma Ray	200									
0	TEMP (degF)	300									

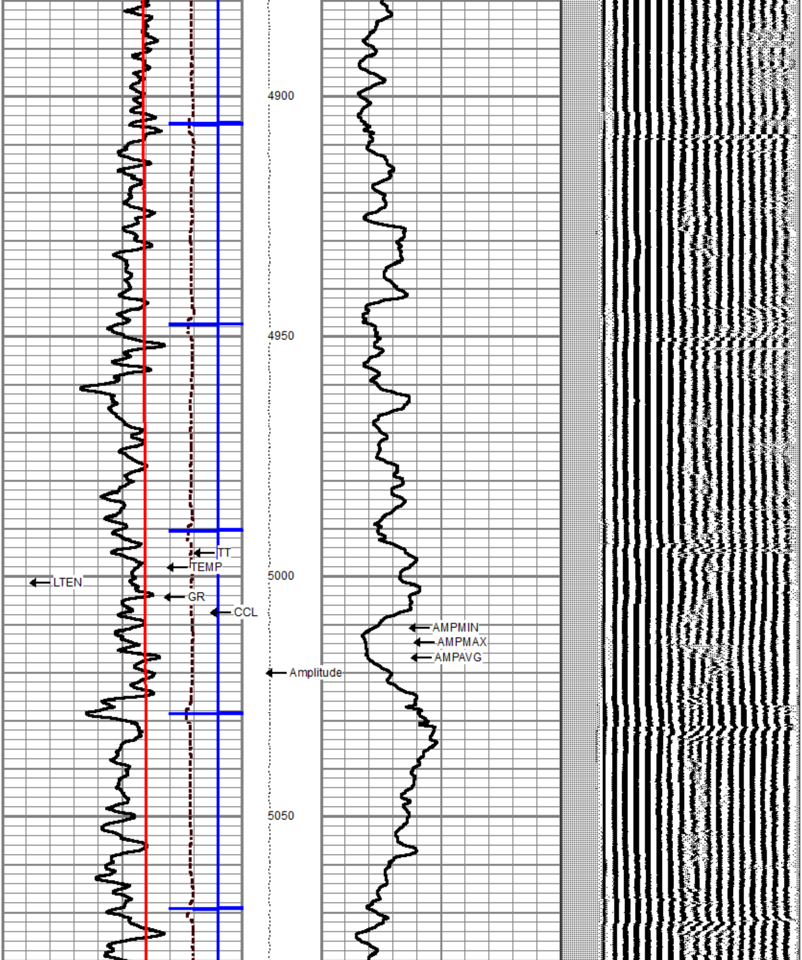


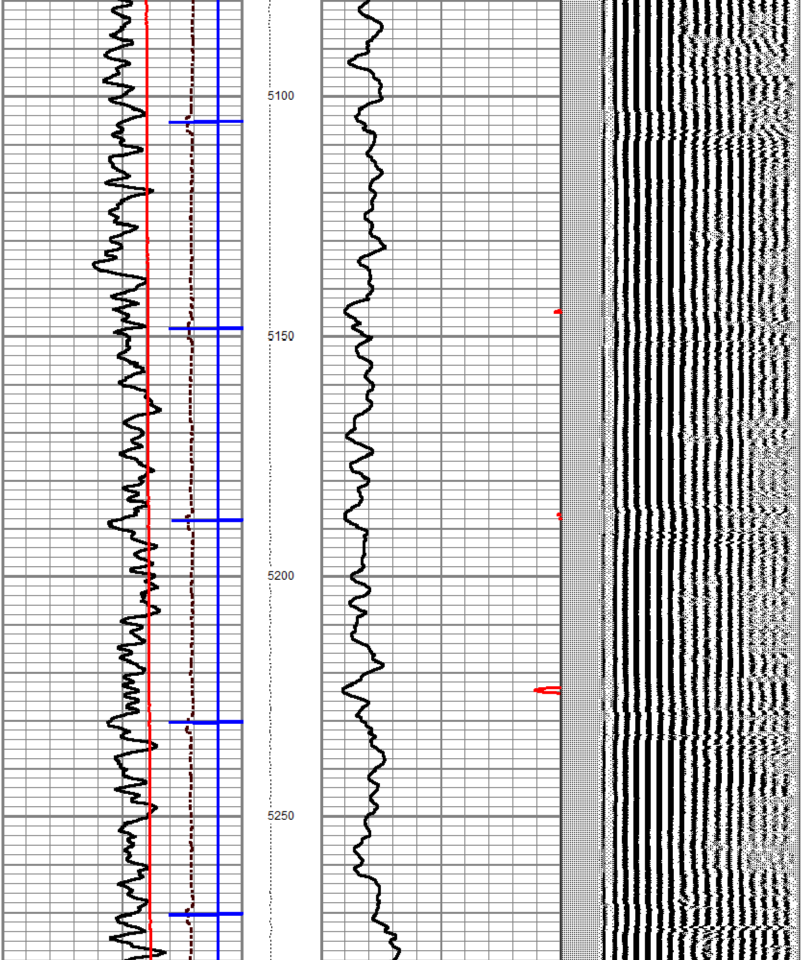


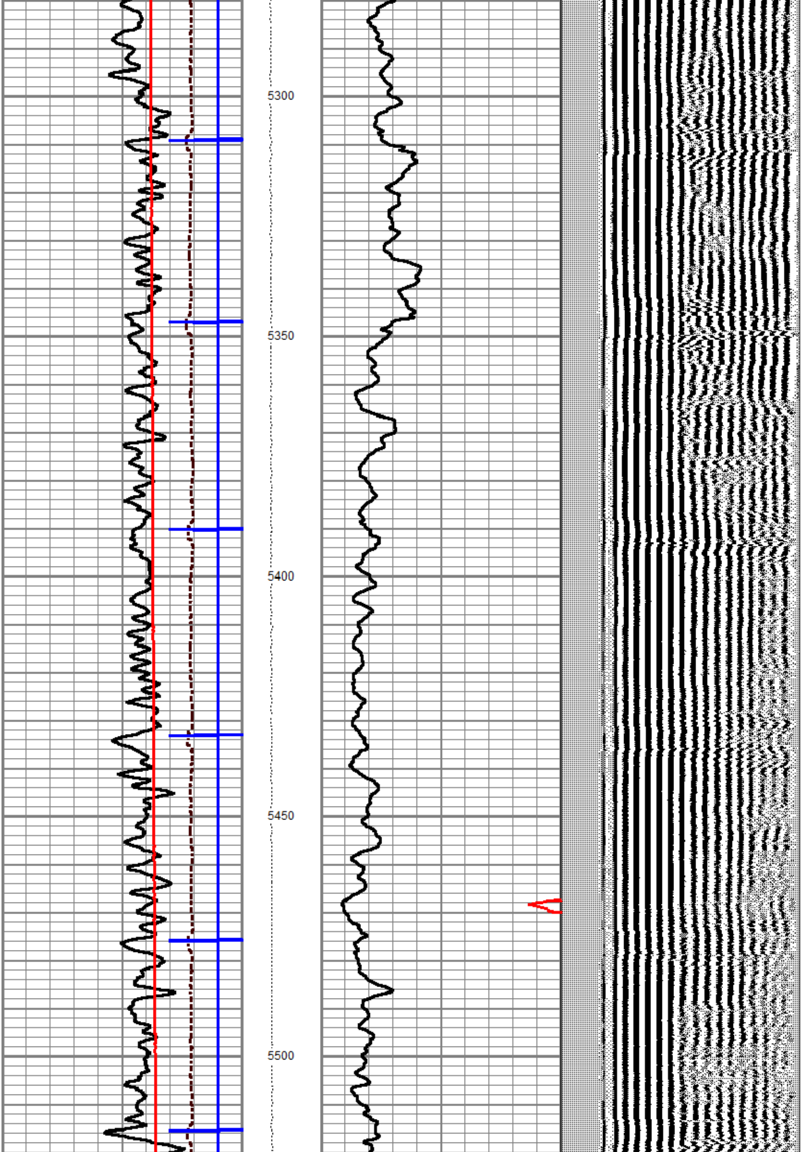


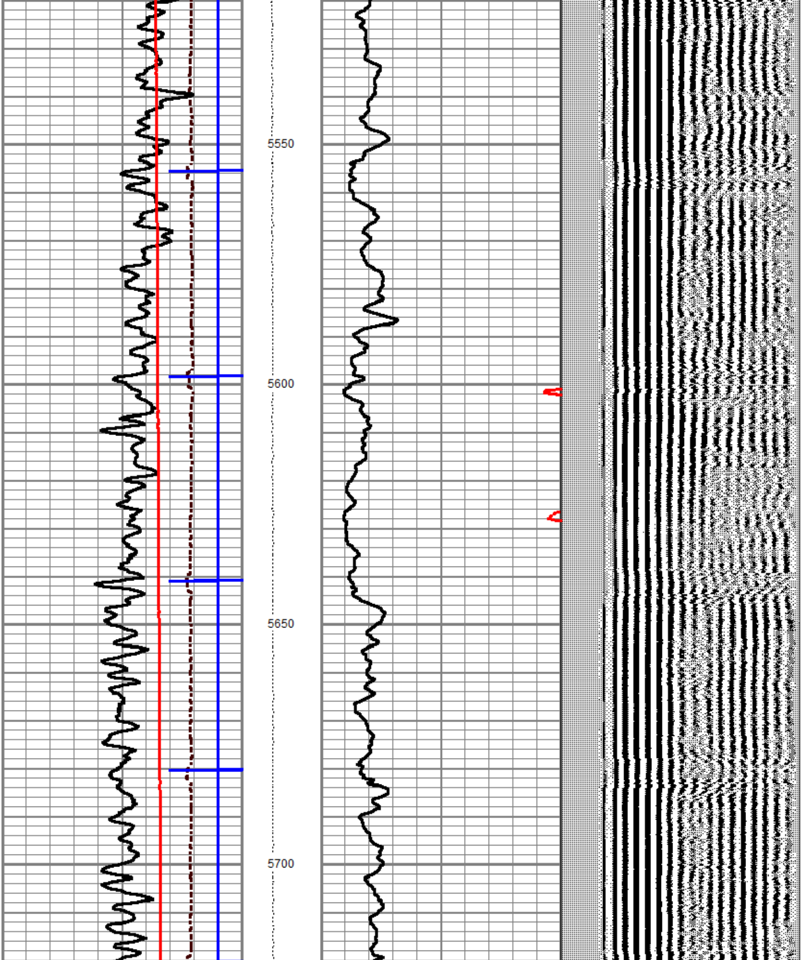


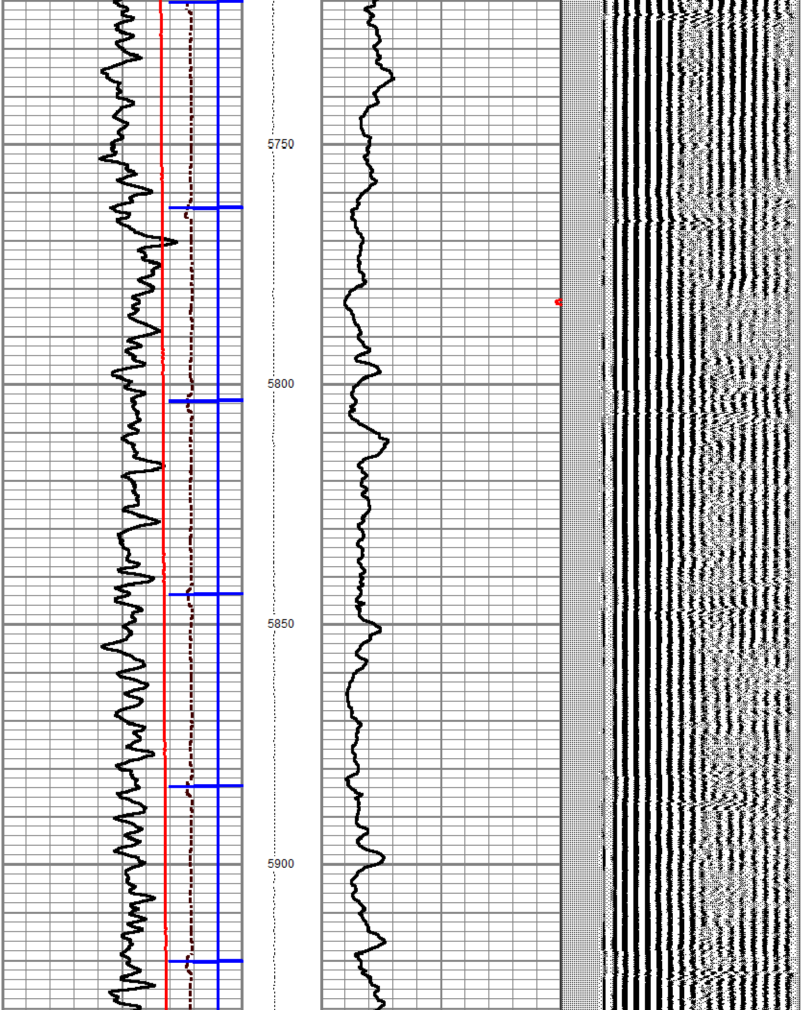


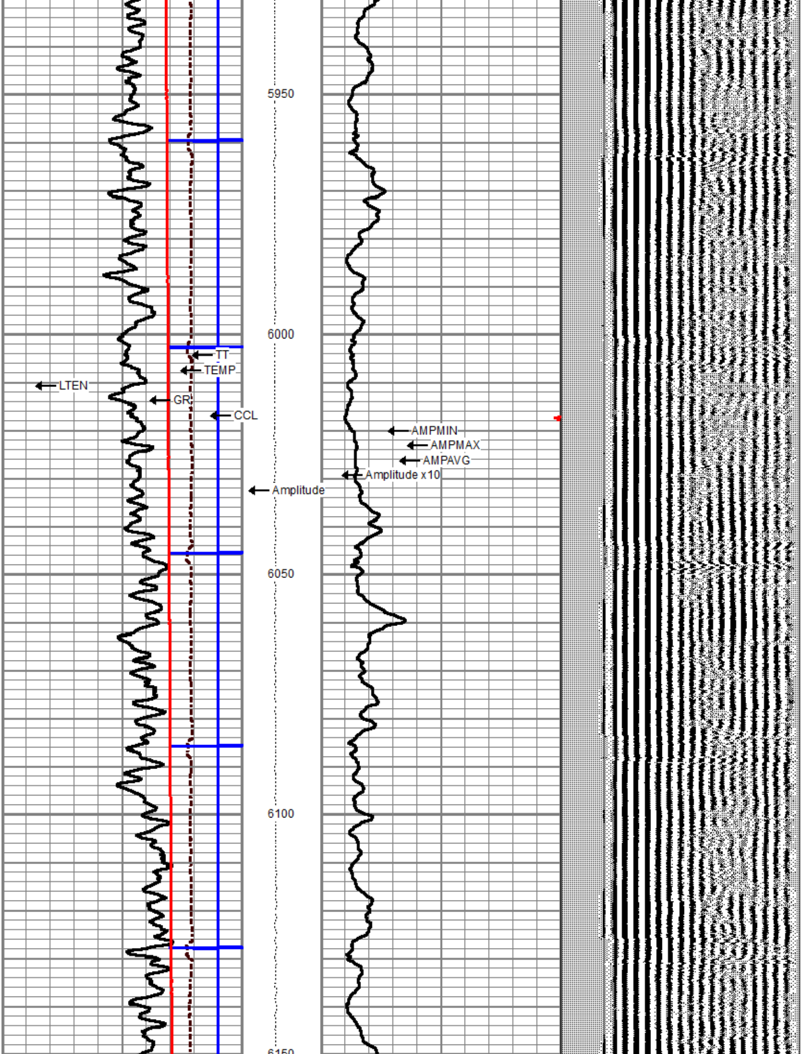


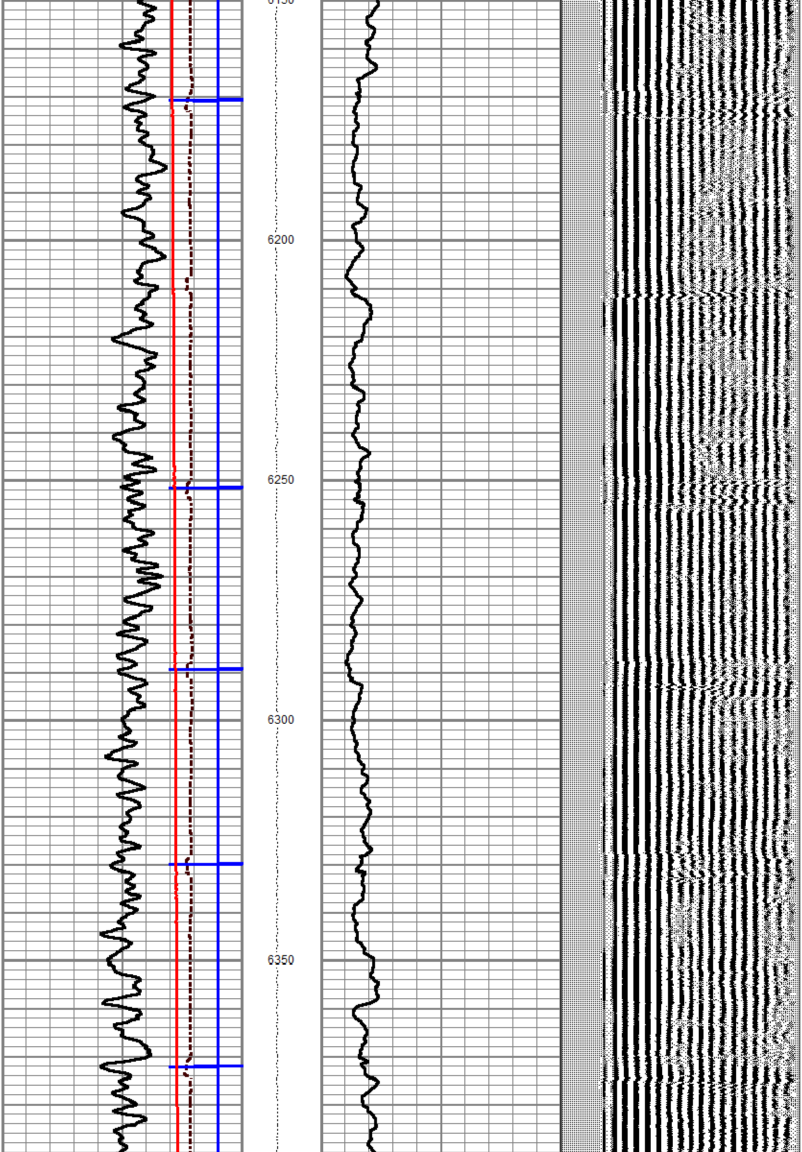


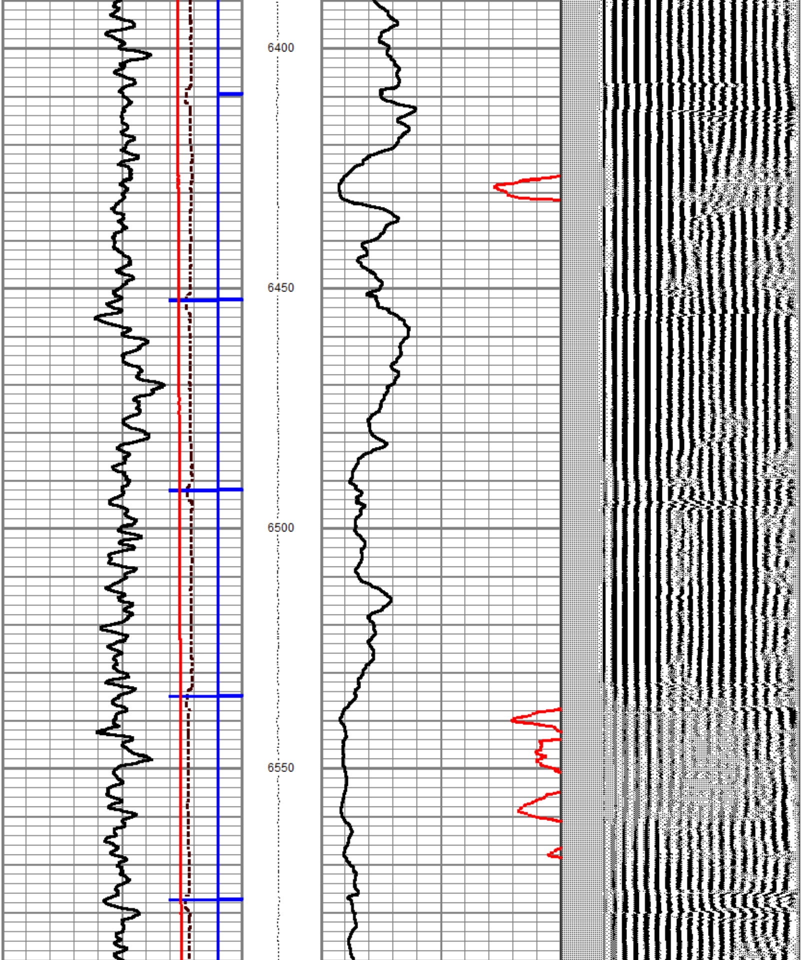


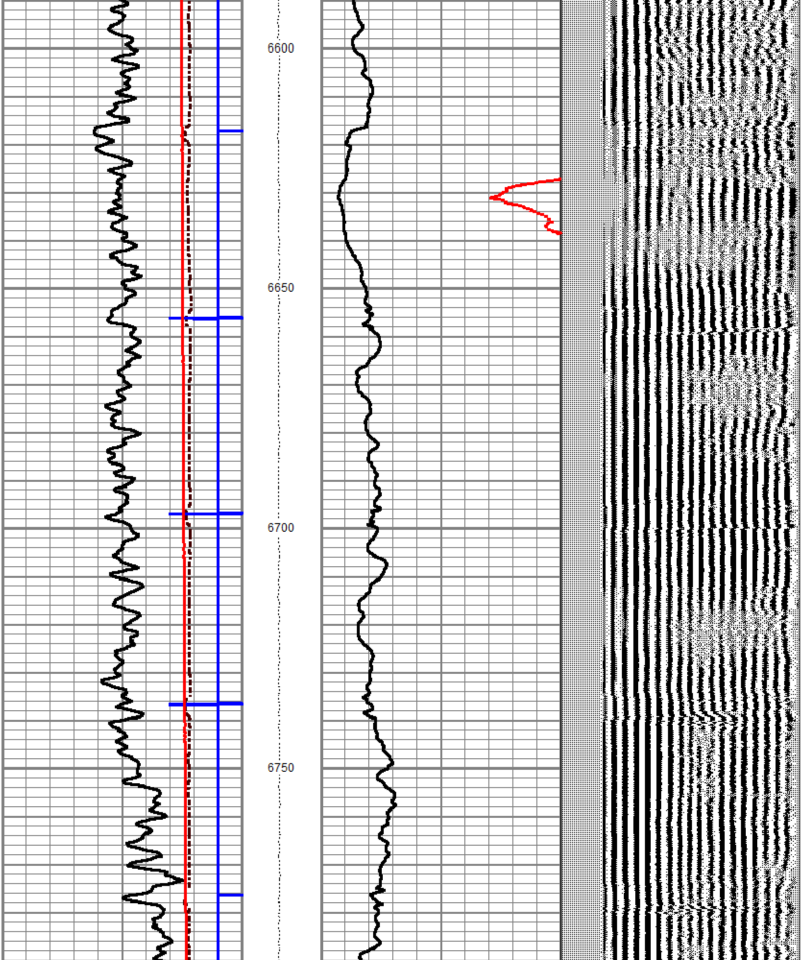


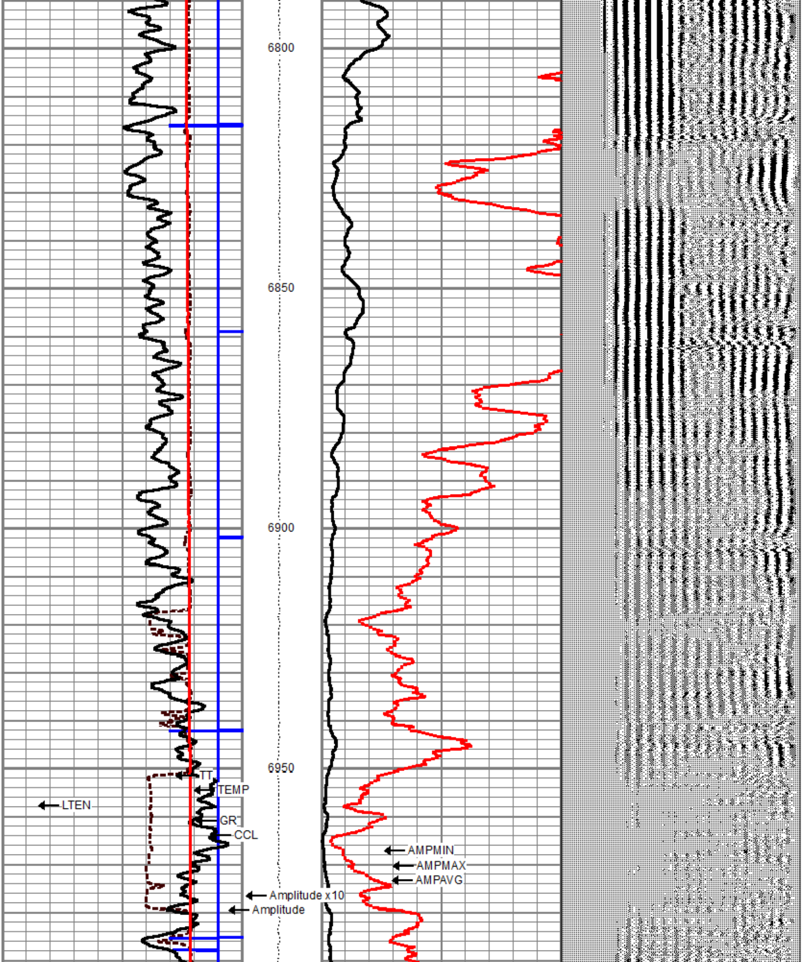


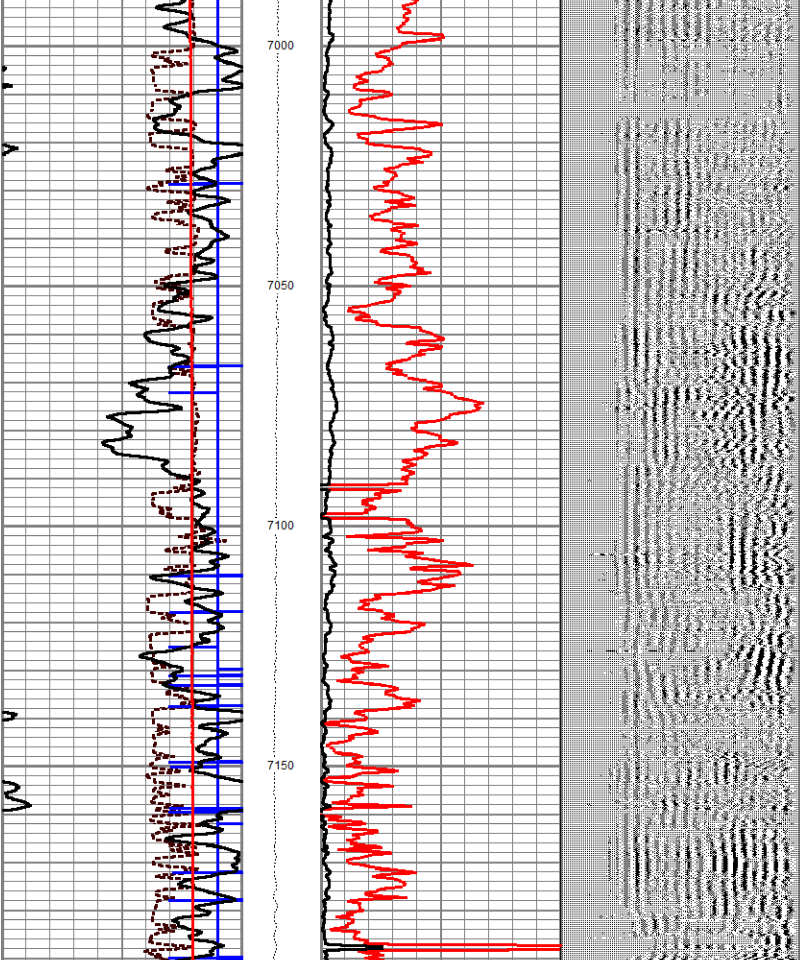


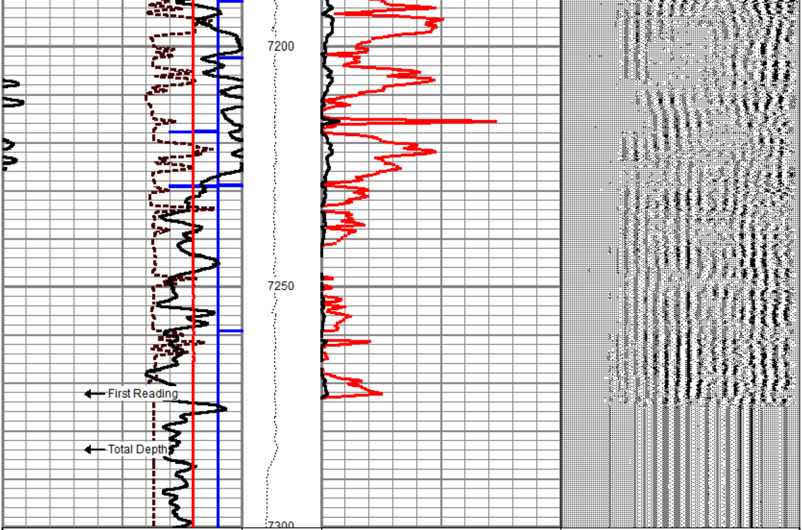












400	TRAVEL TIME (usec)	200	LTEN	0	AMP AMPLITUDE x 10 (mV)	10	200	VDL	1200
9	Collar Locator	-1	0 (lb) 2000	0	AMPLITUDE (mV)	100			
0	Gamma Ray	200							
0	TEMP (degF)	300							

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CEMENT BOND LOG PRESENTATION

MAIN LOG SECTION 0 PSI

5"=100'

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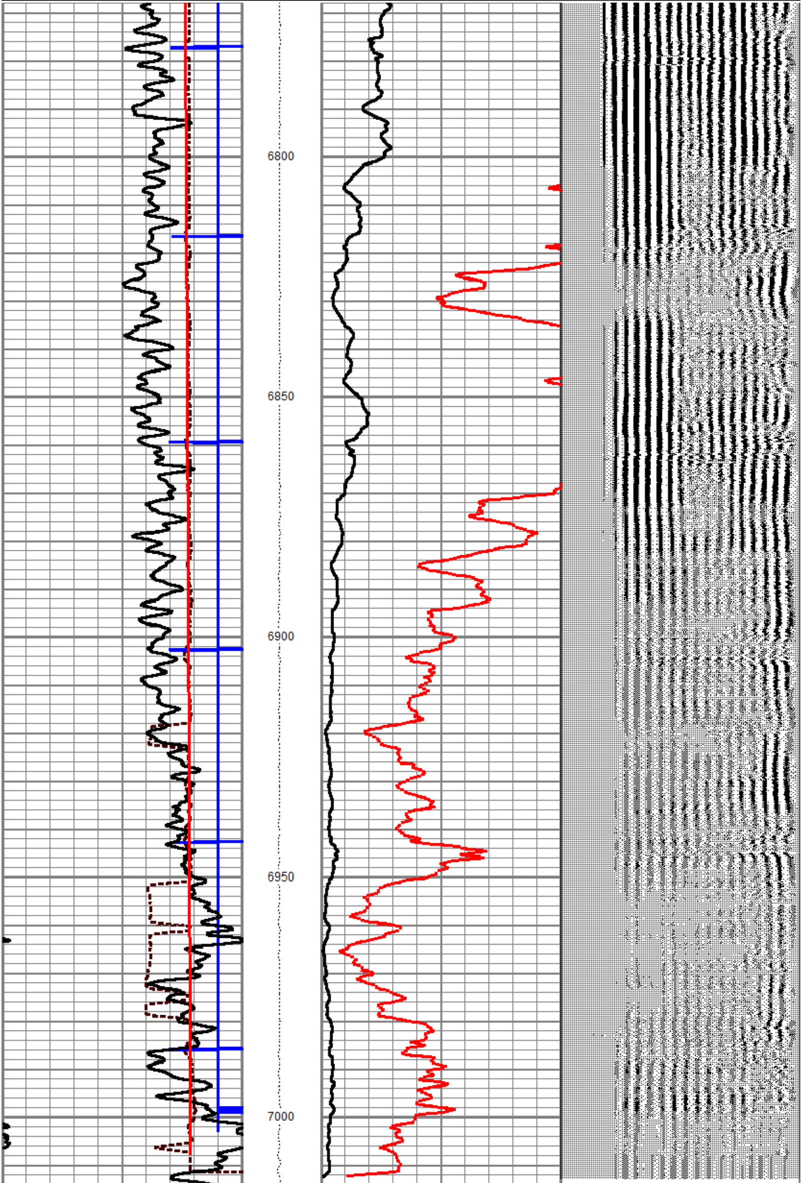
CEMENT BOND LOG PRESANTATION

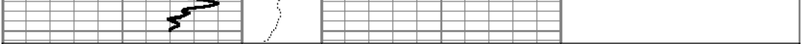
REPEAT LOG SECTION/ 0PSI

5"=100'

Database File	2014_extraction_hiner_36nb_23w.db
Dataset Pathname	pass1.1
Presentation Format	cbl_drs
Dataset Creation	Fri Aug 29 16:40:41 2014
Charted by	Depth in Feet scaled 1:240

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							





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									

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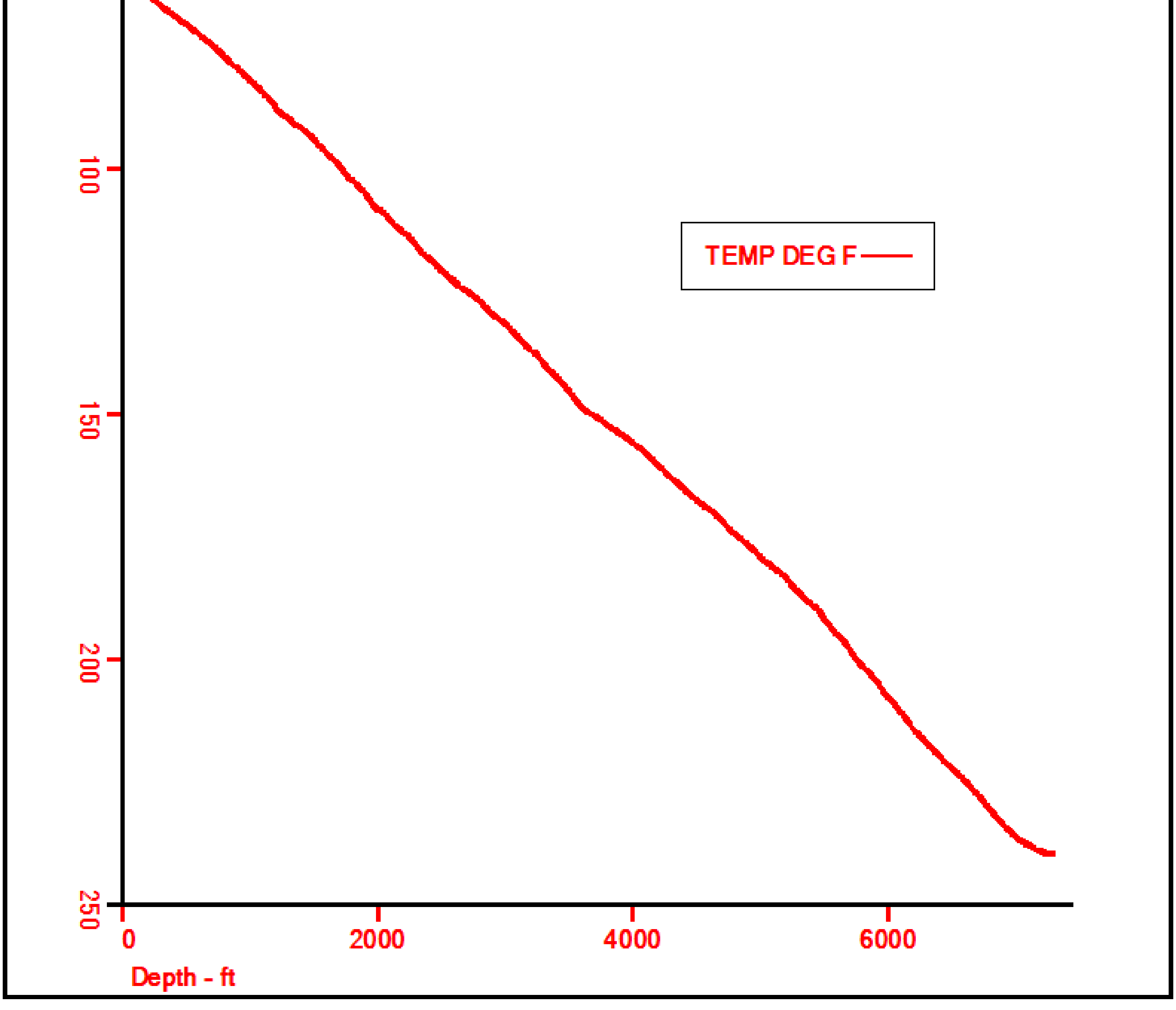
CEMENT BOND LOG PRESANTATION

REPEAT LOG SECTION/ 0PSI
5"=100'



Log Variables

Database C:\ProgramData\Warrior\Data\2014_extraction_hiner_36nb_23w.db
Dataset field/well/run1/pass1.2

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	11.5	0	1	0.8	0	5.5	0	0

BOTTEMP degF	BOREID in
100	7.875

Calibration Report

Database File 2014_extraction_hiner_36nb_23w.db
Dataset Pathname pass1.2
Dataset Creation Fri Aug 29 16:52:39 2014

Gamma Ray Calibration Report

Serial Number: 234GR4-IPCD9-01
Tool Model: GR-Tek-Co
Performed: Thu Mar 13 23:43:39 2014

Calibrator Value: 120.0

Background Reading: 104.4 cps
Calibrator Reading: 258.9 cps

Sensitivity: 0.8769 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 234RIBT-ISF06-04
Tool Model: 275 H/T RIB with I/E Temp

Calibration Casing Diameter: 5.500 in
Calibration Depth: 327.283 ft

Master Calibration, performed Fri Aug 29 16:04:34 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	1.019	1.000	71.921	69.582	1.000
CAL	0.000	0.796				
5'	0.000	1.244	1.000	71.921	56.989	1.000
SUM						
S1	0.000	0.991	0.000	100.000	100.872	0.000
S2	0.000	1.141	0.000	100.000	87.670	0.000
S3	0.000	1.352	0.000	100.000	73.952	0.000
S4	0.000	1.551	0.000	100.000	64.456	0.000
S5	0.000	1.356	0.000	100.000	73.758	0.000
S6	0.000	1.149	0.000	100.000	87.010	0.000
S7	0.000	0.973	0.000	100.000	102.730	0.000
S8	0.000	0.969	0.000	100.000	103.205	0.000

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.796	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

	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

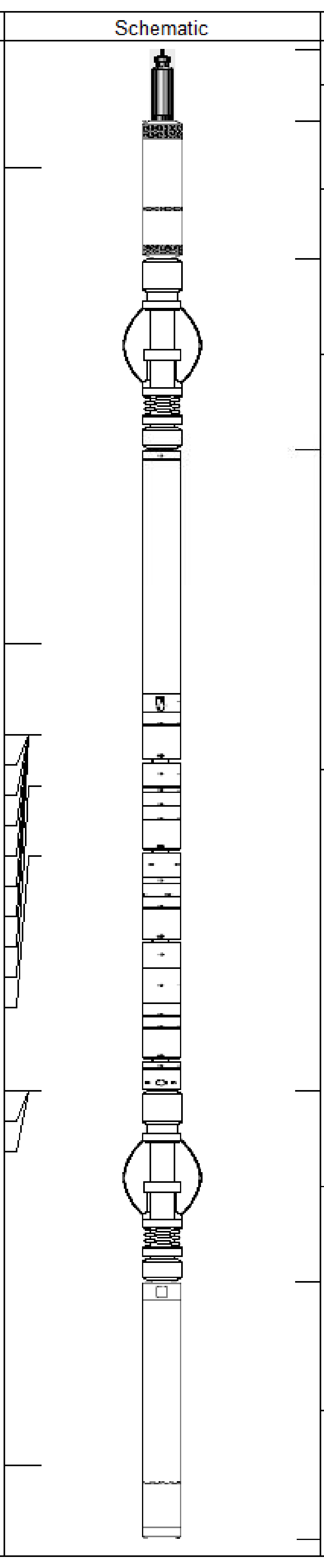
Serial Number: 234RIBT-ISF06-04
Tool Model: 275 H/T RIB with I/E Temp
Performed: Thu Aug 28 17:56:06 2014

	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
WVF3FT	10.73
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-1PSN7-002) 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-ISF06-04) Tekco 2.75" 450 Deg. F RIB with I/E Temp	9.13	2.75	102.00
2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
GR-GR-Tek-Co (234GR4-IPCD9-01) Tekco 2 3/4" 400 Deg. F Logging Gamma Ray	3.67	2.75	40.00

Dataset: 2014_extraction_hiner_36nb_23w.db: field/well/run1/pass1.2
Total length: 21.25 ft
Total weight: 215.60 lb
O.D.: 2.75 in

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Company	EXTRACTION OIL & GAS
Well	HINER 36NB-23W
Field	WATTENBERG
County	WELD
State	CO
Country	USA