Company CHEVRON USA
Well SKR 598-36-BV-15
Field SKINNER RIDGE
County GARFIELD State CO

HALLIBURTON

ACOUSTIC CEMENT BOND LOG

Company CHEVRON USA
Well SKR 598-36-BV-15
Field SKINNER RIDGE
County GARFIELD State CO

API No.: 05045169310000 Serv #: 7680699
Location: SURFACE HOLE
1352' FSL 493' FWL
Sec: 36 Twp: 5S Rge: 98W

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 6035'
Log Measured From KB , 25 Ft. above perm. datum
Drilling Measured From KB

Elevation
K.B. 6060'
D.F. 6059'
G.L. 6035'

Date @ Time Logged	08/OCT/2010 @ 0845	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.34 PPG
Depth - Driller	6793'	Fluid Level	FULL
Depth - Logger	6711'	Cement Top Est. Logged	LOGGED
Bottom - Logged Interval	6699'	Equipment / Location	10678538 / GJ
Top - Log Interval	200'	Recorded by	GILBERT
Max. Recorded Temp.	215	Witnessed by	DEMERS

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
ONE	26"	0'	60'	16"	36.95#	SURFACE	60'
TWO	12.25"	60'	1000'	8.625"	24#	SURFACE	1000'
THREE	7.875"	1000'	6793'	4.5"	11.6#	SURFACE	6793'

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHCIH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

1. CBL-GR-CCL RAN IN COMBINATION
2. HES CBL LOG DATED 08 OCT 2010 IS THE PRIMARY LOG FOR THIS WELL

3. ADDED 2.5' TO MAIN LOG SECTION TO CORRELATE WITH DOWN LOG SECTION
4. SHORT JOINTS LOCATED @ 4497' - 4519' & 3421' - 3443'

5. CEMENT REPORT ESTIMATED TOP OF CEMENT 800'
6. LOGGED INTERVALS PER CUSTOMER REQUEST

THANK YOU FOR USING HALLIBURTON ENERGY SERVICES GRAND JUNCTION, CO

Service Ticket No. 7680699 API No. 05045169310000 PGM Ver 09100_R_B

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

GAMMA RAY		CCL		CBL			
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	080734	Serial No.	080734	Serial No.	070571	Serial No.	
Model No.	GR-PROBE	Model No.	CCL-PROBE	Model No.	CBL-PROBE	Model No.	
Diameter	2.75"	Diameter	2.75"	Diameter	2.75"	Diameter	

LOGGING DATA

General Data

Pass	Depths		Well Head	Speed	Logging Run Comments
No.	From	To	Pressure	Ft/Min	
ONE	6711'	200'	0	50	MAIN LOG SECTION

	GAMMA RAY		CCL		AMPLITUDE		MSG	
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	200	-9	1	0	100	200	1200

DIRECTIONAL INFORMATION

Maximum Deviation	N/A	deg. @	N/A	KOP	N/A	

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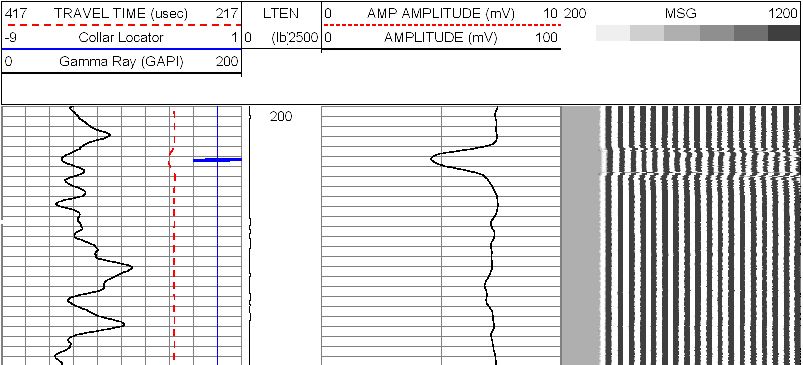
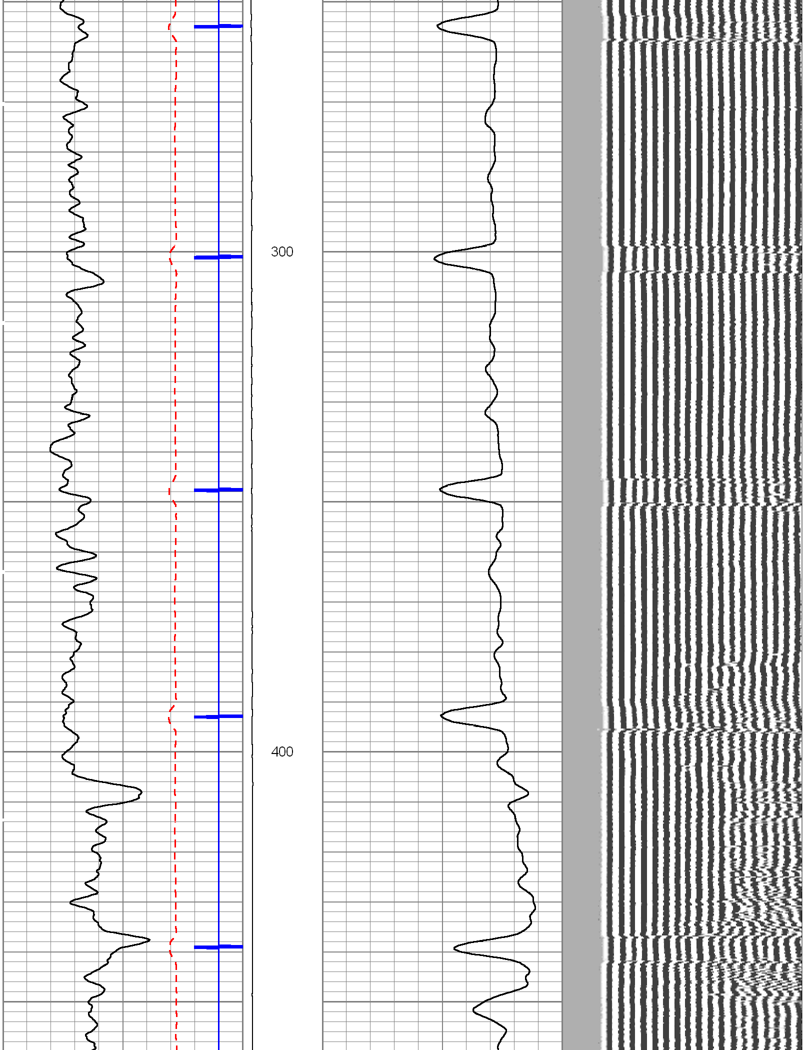
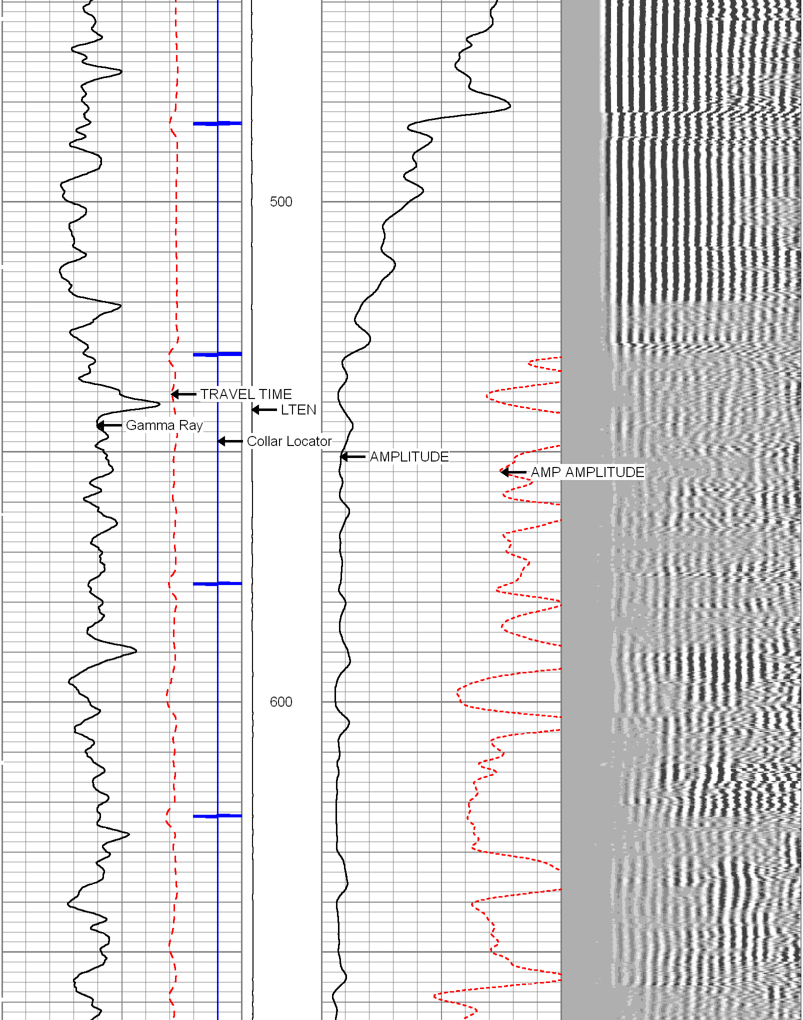
MAIN LOG SECTION

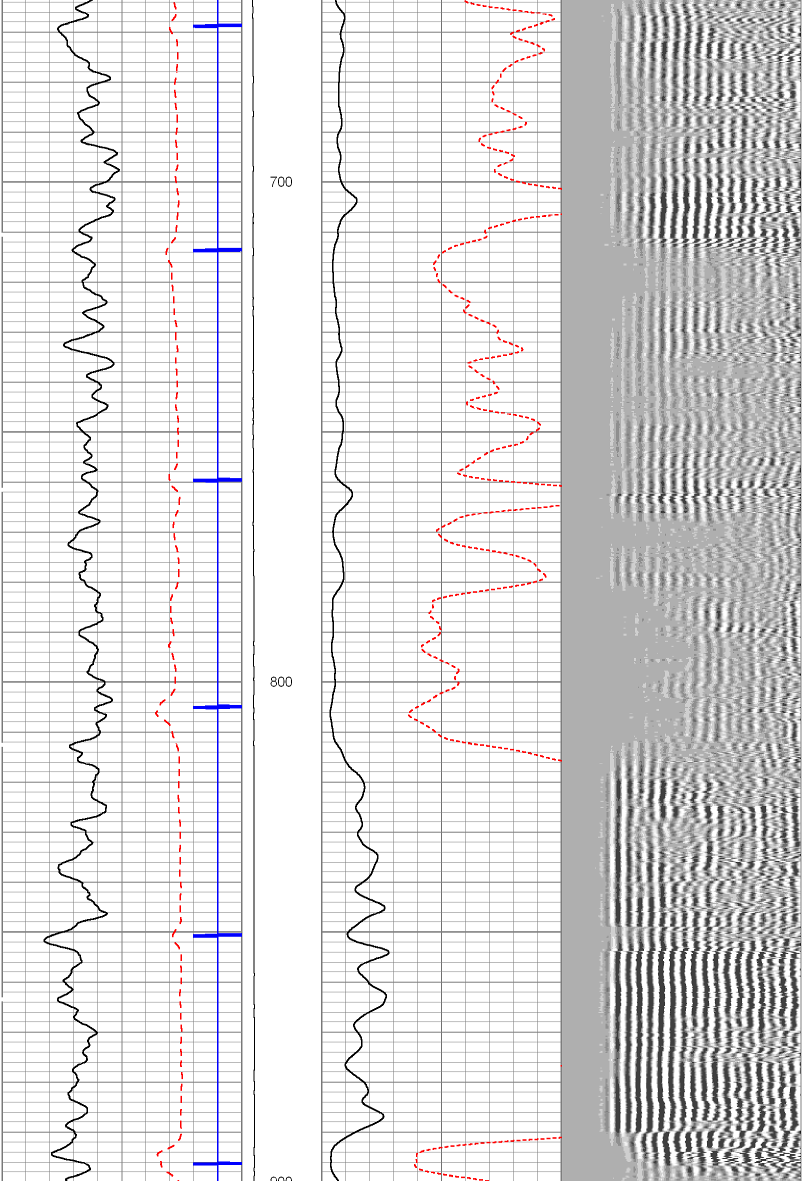
5" = 100'

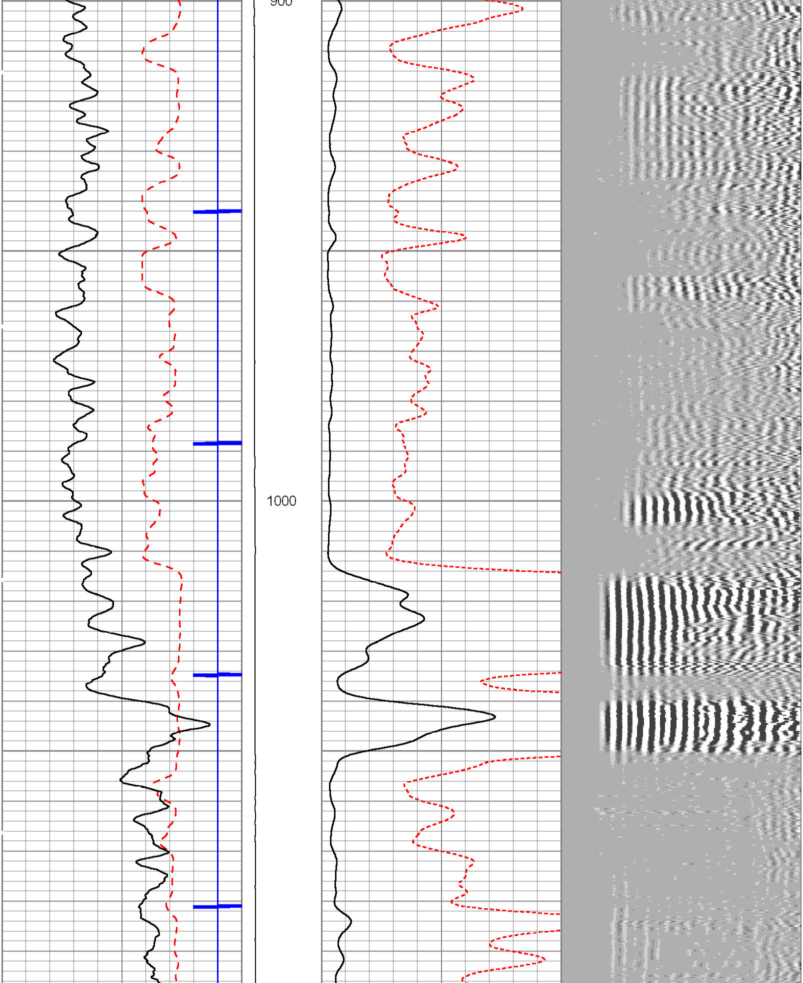
Database File:	ch_598_15_cbl.db
Dataset Pathname:	MAIN1
Presentation Format:	cbl_main
Dataset Creation:	Fri Oct 08 08:45:19 2010 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

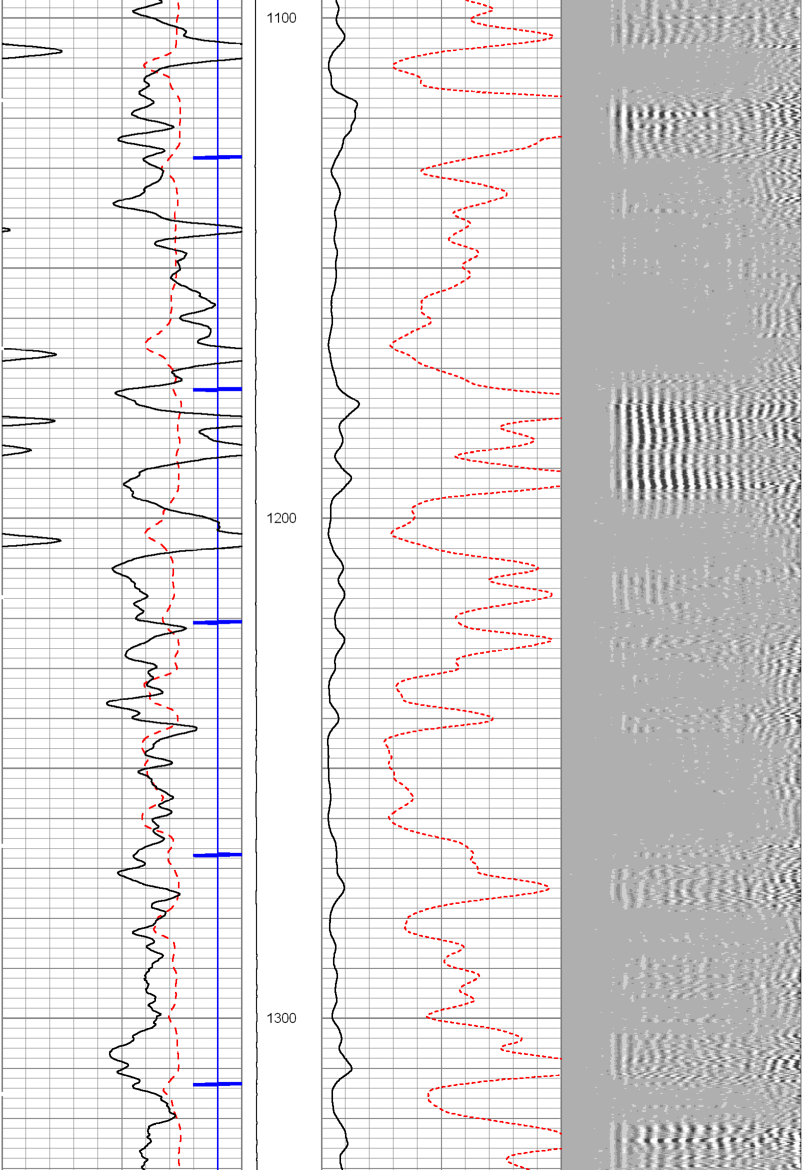


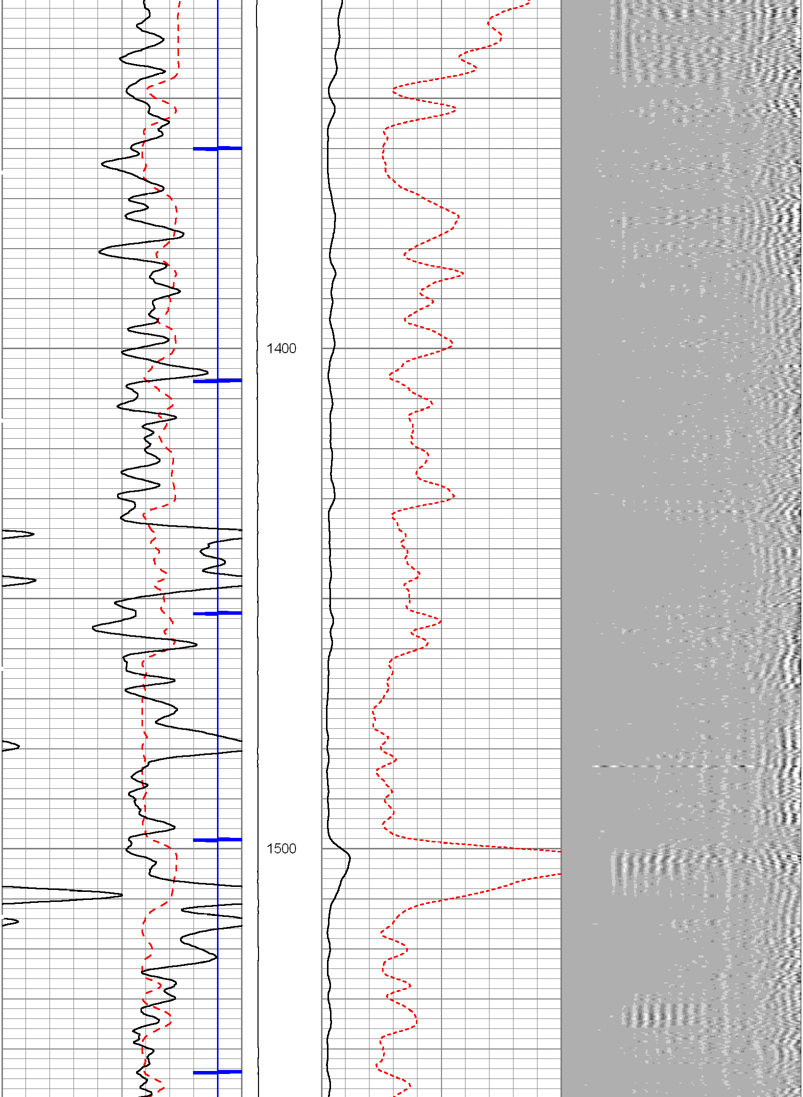


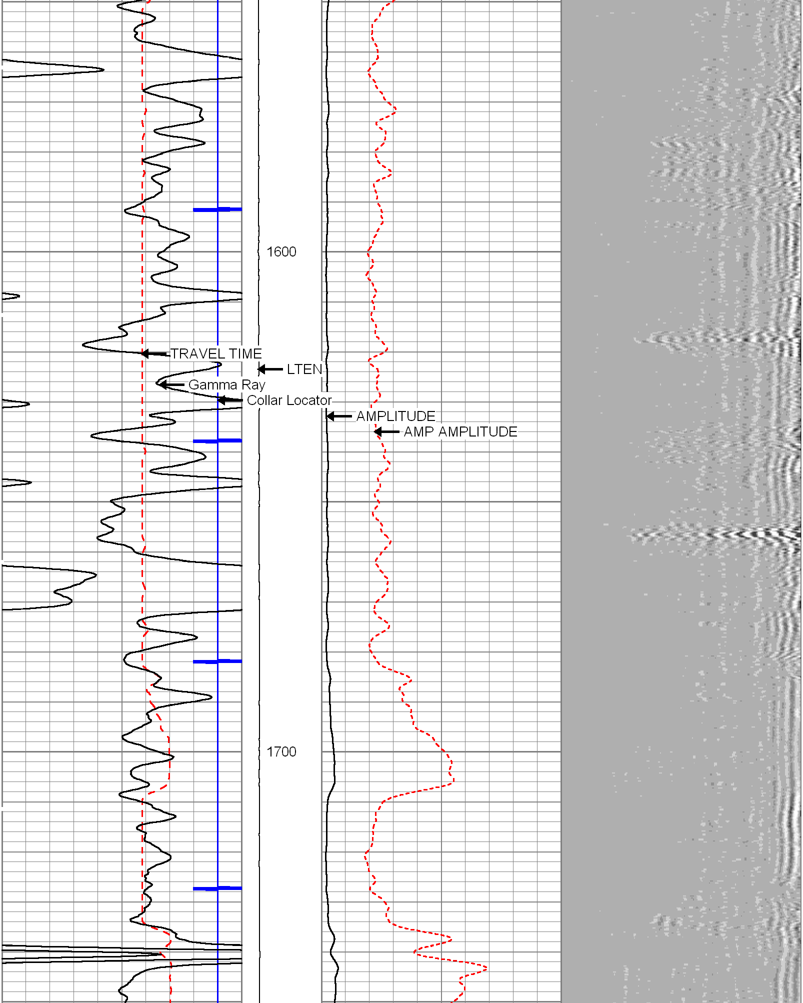


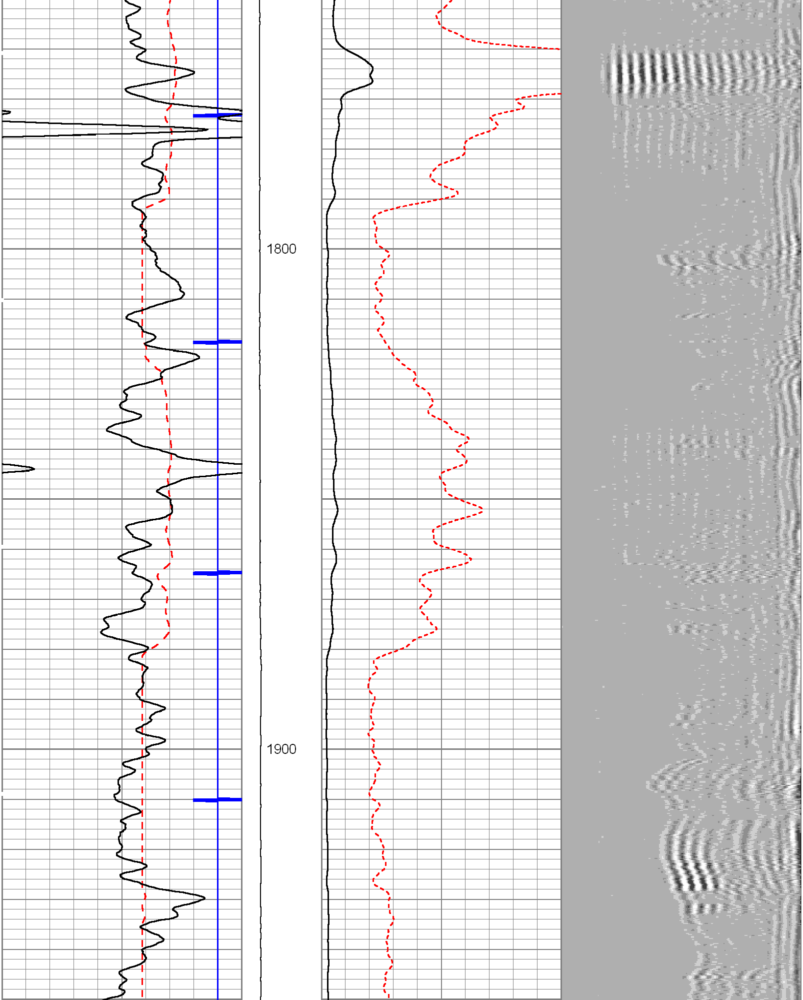


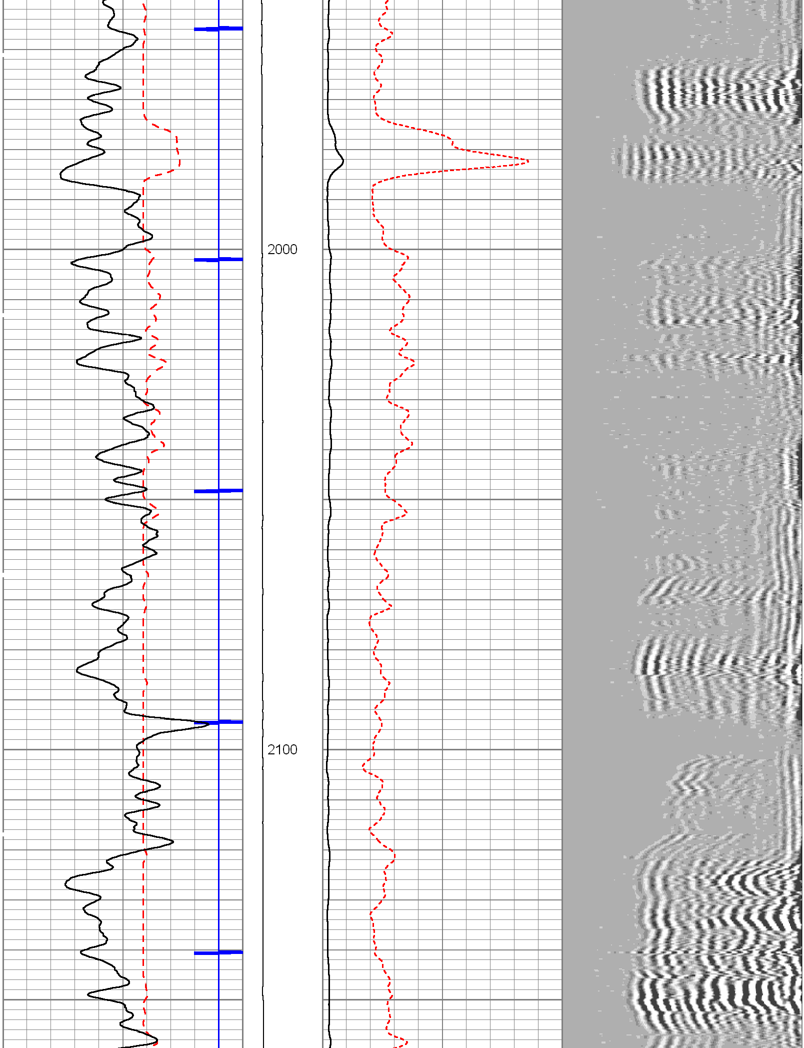


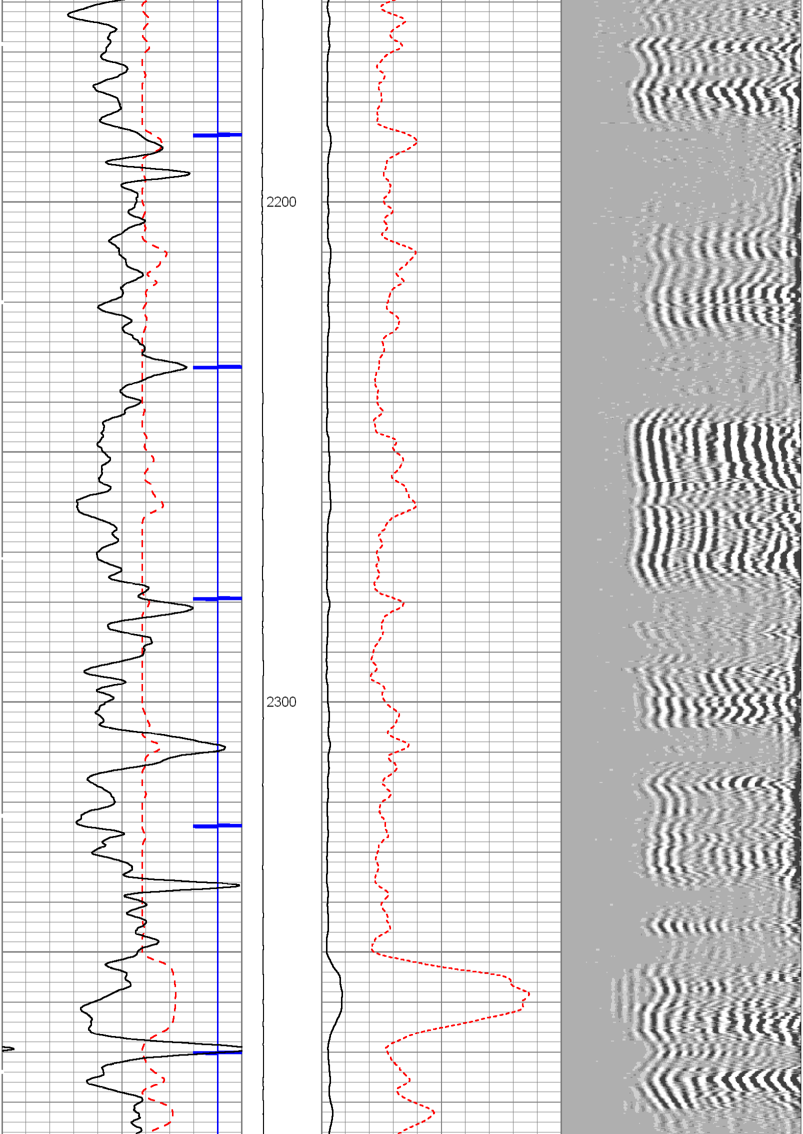


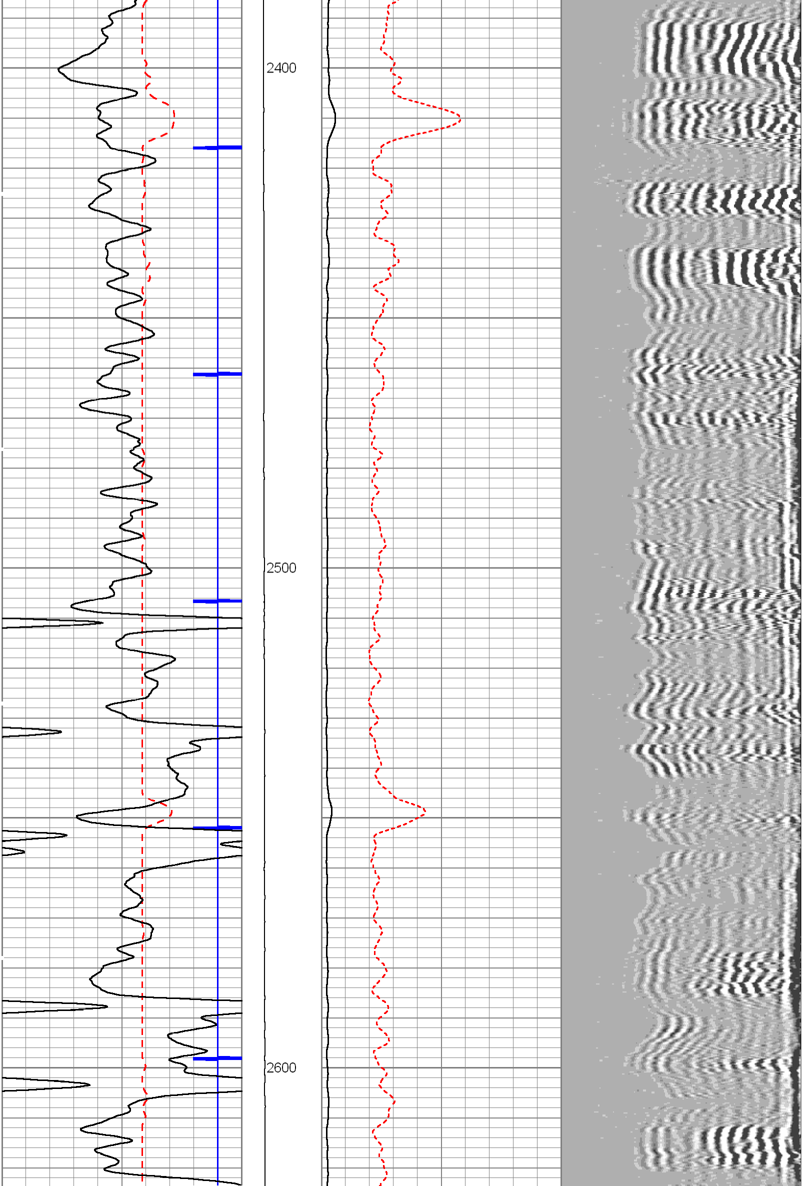


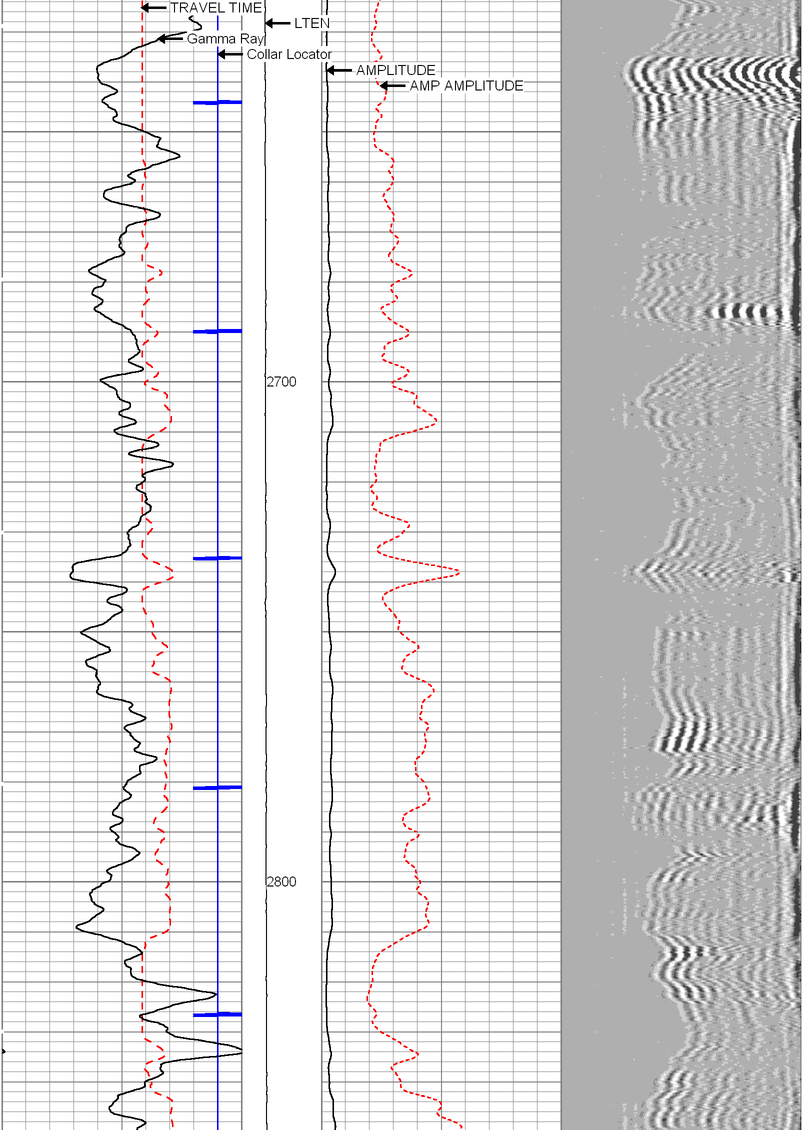


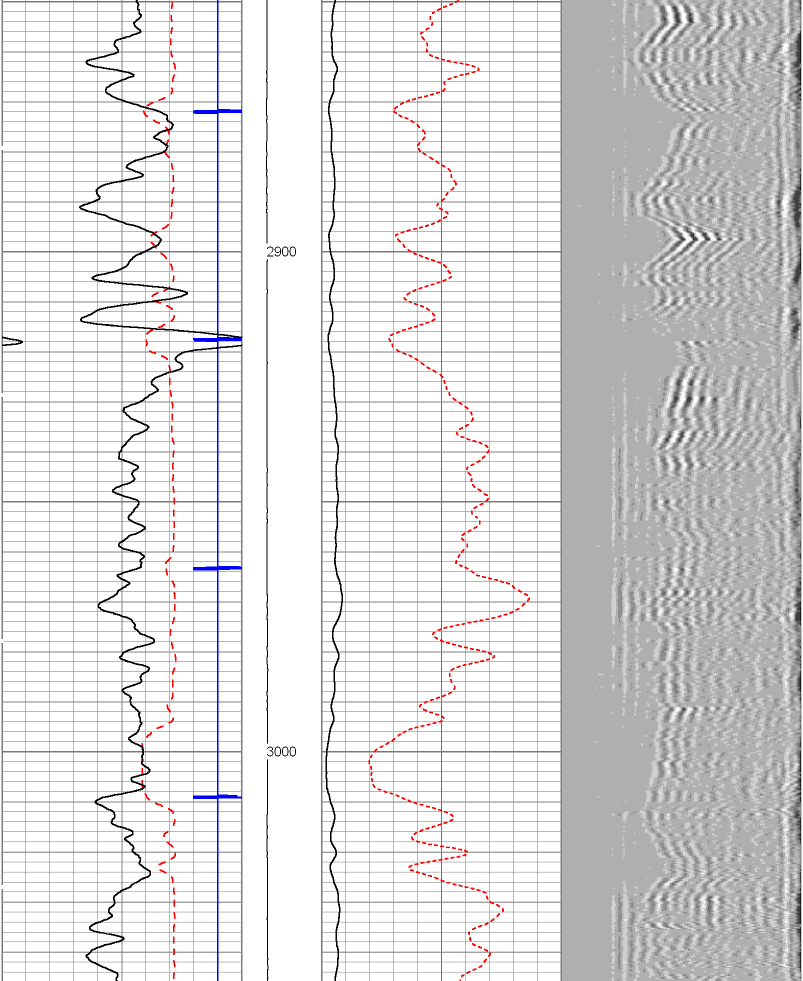


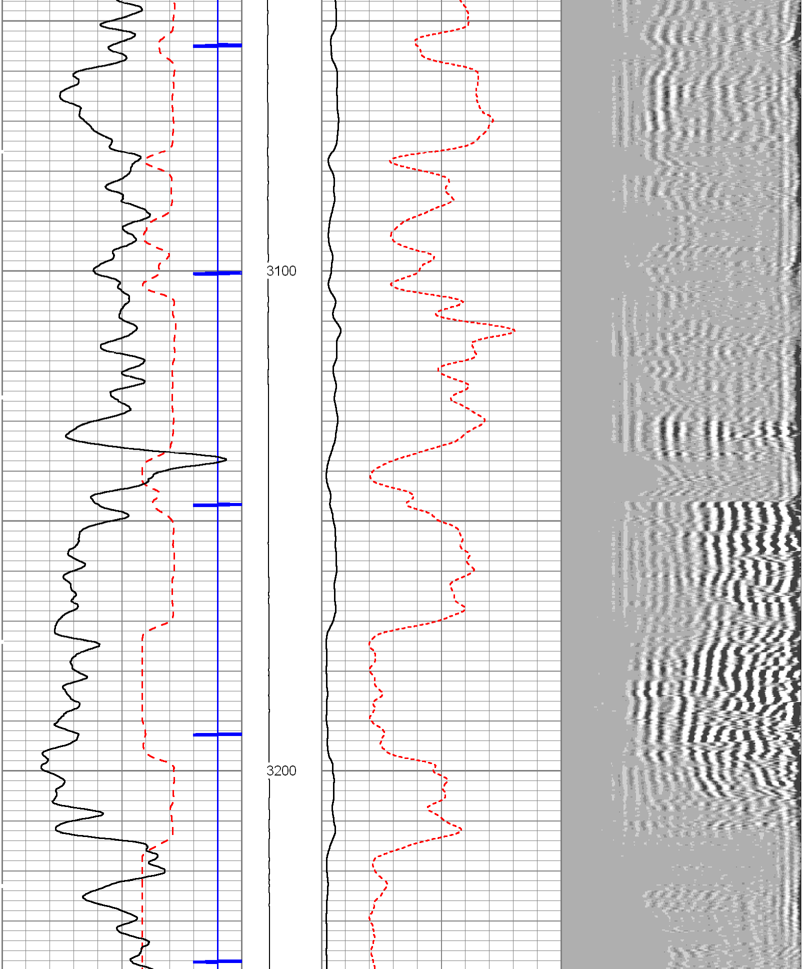


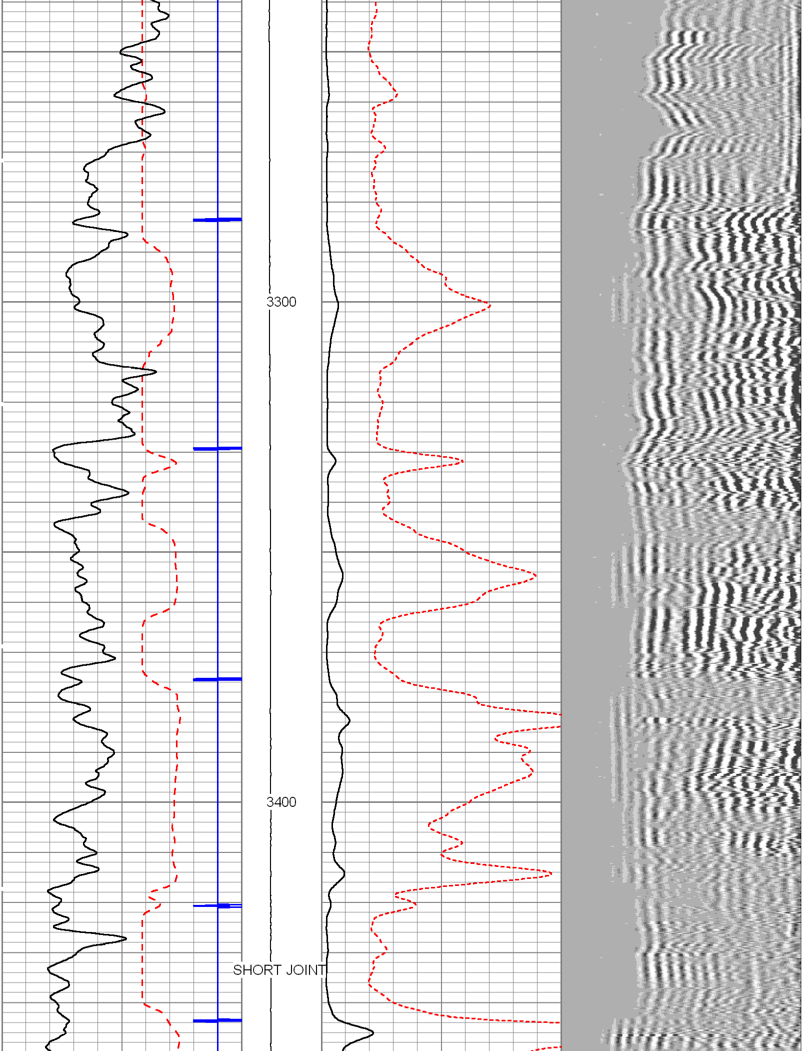


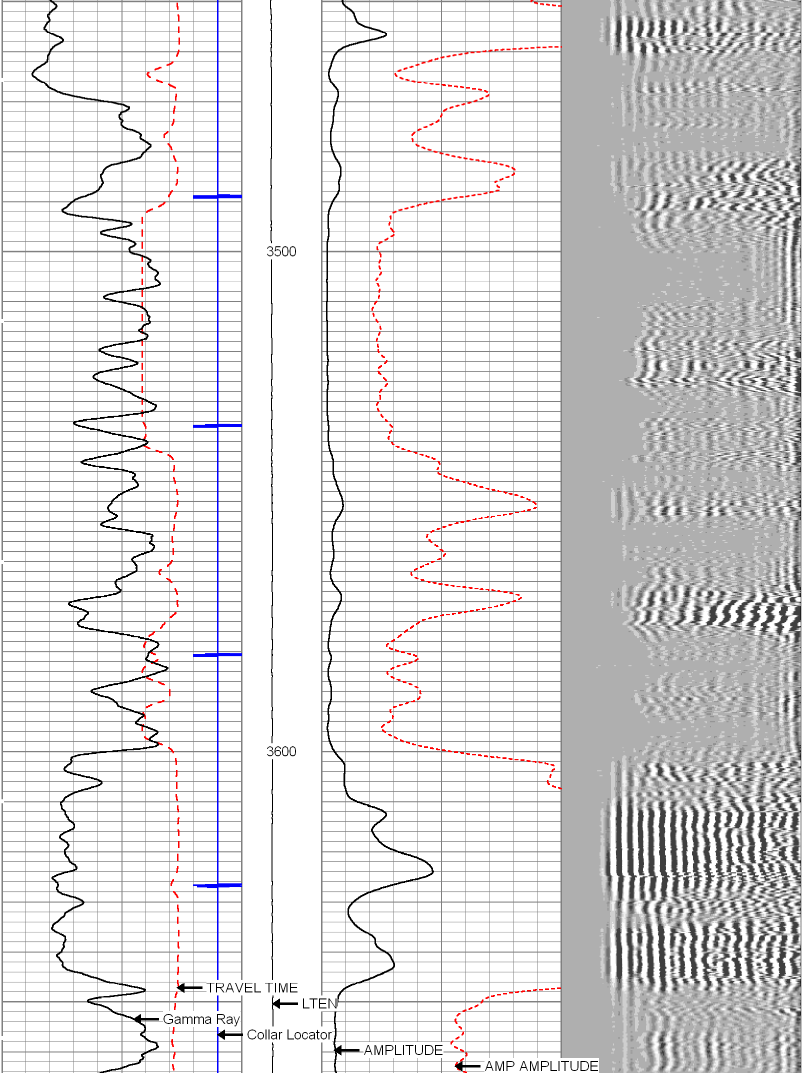


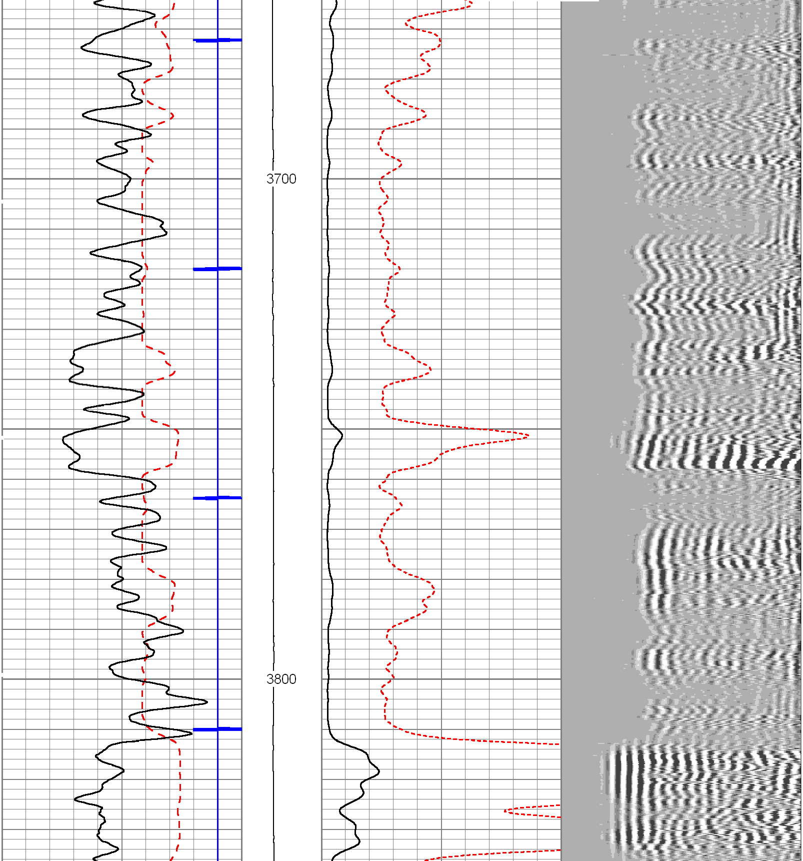












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MAIN LOG SECTION

5" = 100'

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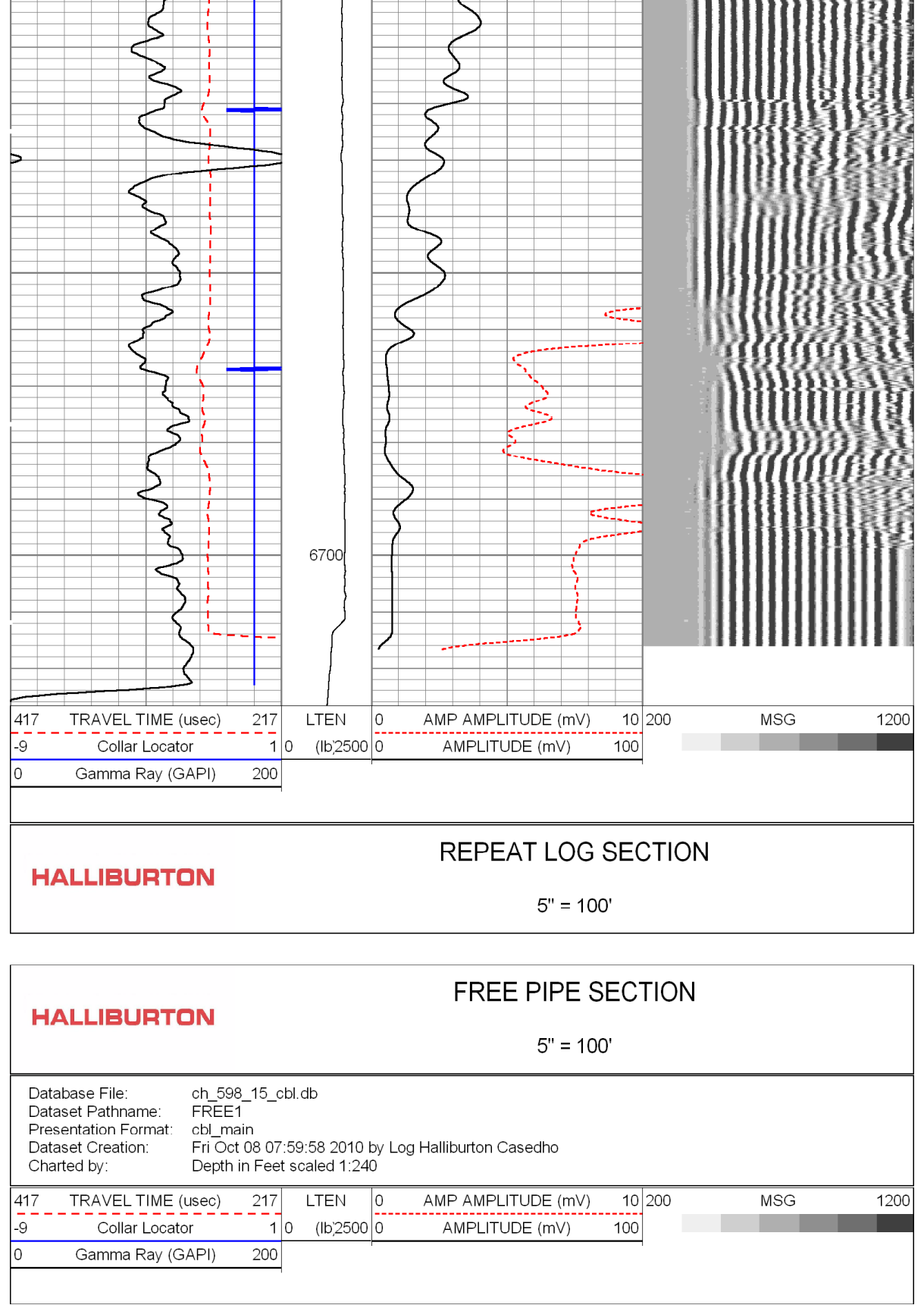
REPEAT LOG SECTION

5" = 100'

Database File: ch_598_15_cbl.db
Dataset Pathname: REPEAT1
Presentation Format: cbl_main
Dataset Creation: Fri Oct 08 08:37:08 2010 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240



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REPEAT LOG SECTION

5" = 100'

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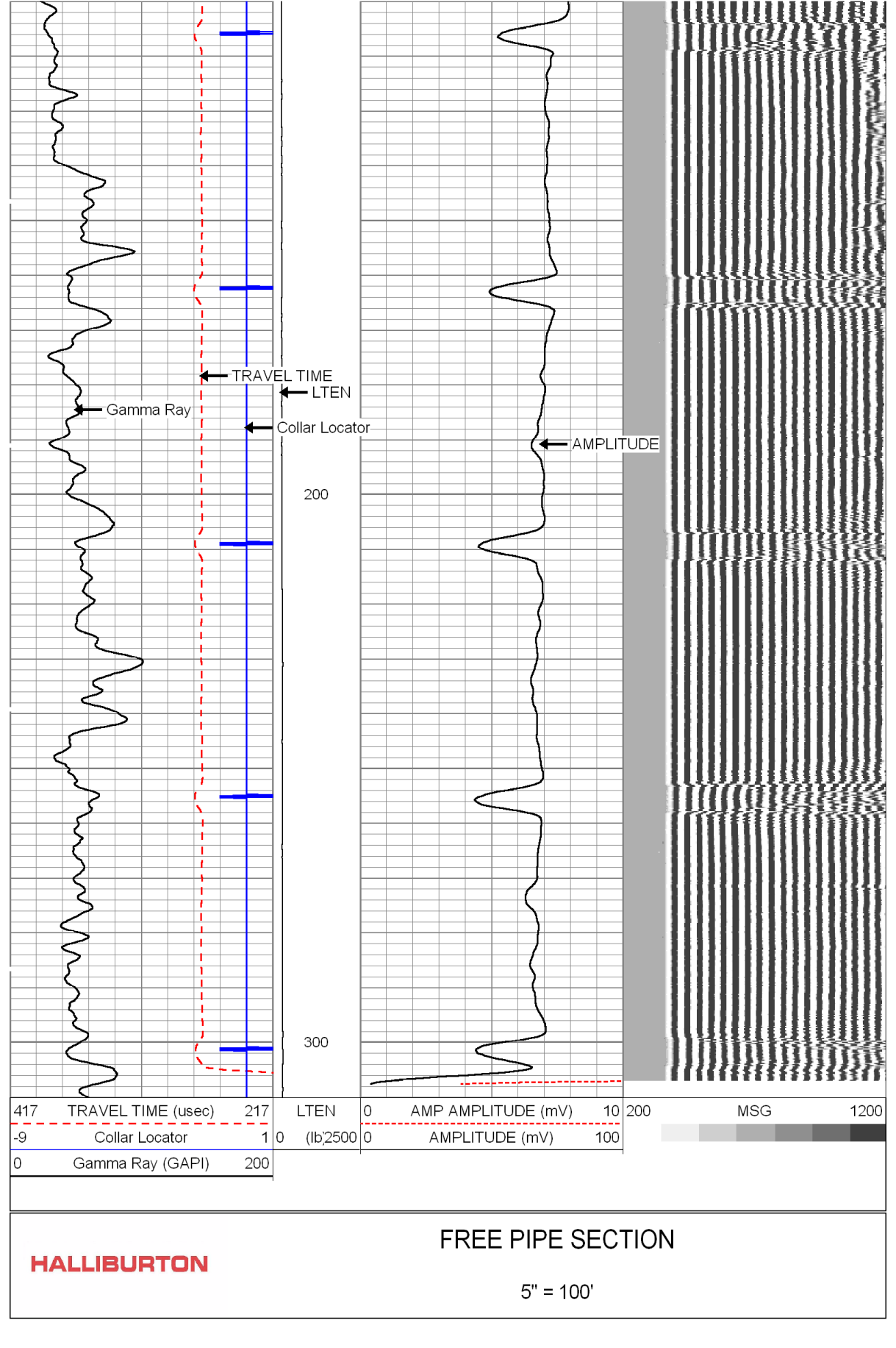
FREE PIPE SECTION

5" = 100'

Database File: ch_598_15_cbl.db
Dataset Pathname: FREE1
Presentation Format: cbl_main
Dataset Creation: Fri Oct 08 07:59:58 2010 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240



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FREE PIPE SECTION

5" = 100'

Calibration Report

Database File: ch_598_15_cbl.db
Dataset Pathname: MAIN1
Dataset Creation: Fri Oct 08 08:45:19 2010 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: 080703
Tool Model: 1.375TEMP
Performed: Tue Sep 21 01:32:30 2010

	Reference		Reading	
Low Reference:	0.00	degF	0.00	cps
High Reference:	1.00	degF	10.00	cps

Gain: 0.10
Offset: 0.00
Delta Spacing 1

Gamma Ray Calibration Report

Type / Serial: Probe / 080734

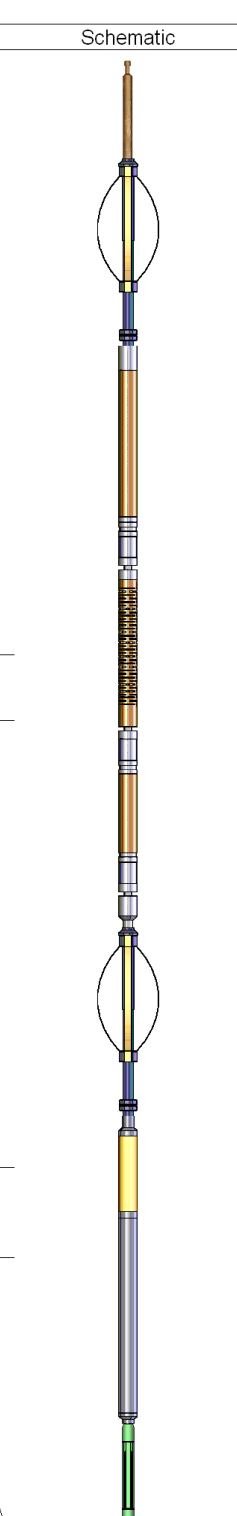
	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Fri Oct 08 07:44:53 2010				
Background	47.5				cps
Calibrator	246.0				cps
		1.2952			GAPI/cps
PRIMARY VERIFICATION	Fri Oct 08 07:47:38 2010				
Background	60.1				cps
Calibrator	310.2				cps
Difference				250.1	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 070571
Tool Model: Probe
Performed: Fri Oct 08 07:58:29 2010

Depth: 123.868 ft
Casing Diameter: 4.5 in

	3' Spacing	5' Spacing	
Signal Zero:	2	2	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	-0.00690918	-0.00722656	V
Reading in Free Pipe:	1.09634	0.892432	V
Gain:	71.7846	88.0291	
Offset:	2.49597	2.63615	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
			CENT-Probe (PTS_MONO) Probe 2 3/4 Centralizer	2.88	2.75	35.00
WVF3 WVF5	13.32 12.32		CBL-Probe (070571) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
			CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
CCL GR	5.46 4.08		GR-Probe (080734) Probe 2.75" 4 Channel Pulse	4.71	2.75	30.00
TEMP LLMTEN	0.08 0.00		TEMP-1.375TEMP (080703) Temperature Tool	1.54	1.38	30.00

Dataset:	ch_598_15_cbl.db: field/well/run1/MAIN1
Total Length:	22.43 ft
Total Weight:	191.00 lb
O.D.	2.75 in

Company	CHEVRON USA		
Well	SKR 598-36-BV-15		
Field	SKINNER RIDGE		
County	GARFIELD	State	CO

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ACOUSTIC CEMENT BOND LOG