HALLIBURTON

CEMENT BOND LOG

Company CARRIZO
Well NELSON 2-17-9-60
Field WILDCAT
County WELD State CO

Company CARRIZO
Well NELSON 2-17-9-60
Field WILDCAT
County WELD State CO

API No.: 05-123-36868 Serv #: 900440200
Location: SHL 268' FSL 1616' FWL

Sec: 17 Twp: 9N Rge: 60W

Other Services

N/A

Permanent Datum GL Elevation 4992'
Log Measured From KB , 17 Ft. above perm. datum
Drilling Measured From KB

Elevation
K.B. 5009'
D.F. 5008'
G.L. 4992'

Date @ Time Logged	15-MAY-2013	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.33
Depth - Driller	10819	Fluid Level	SURFACE
Depth - Logger	5862	Cement Top Est. Logged	1430
Bottom - Logged Interval	5850	Equipment / Location	11874896 / BRIGHTON
Top - Log Interval	278	Recorded by	JOSHUA MCDANIEL
Max. Recorded Temp.	121	Witnessed by	KIRK WILLIAMS

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
SURF	12.25	0	1400	9.625	36	O	1400
ONE	8.75	0	6621	7	23	0	6621
LINER	6.25	5666	10819	4.5	11.6	5666	10819

<<< Fold Here >>>

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 WHICH 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

FIRST LOG IN THE WELL

TOL @ 5666'

ESTIMATED TOP OF CEMENT @ 1430'

TENSION VARIANCE FROM PACKOFF

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES!

HALLIBURTON

MAIN PASS 1000 PSI

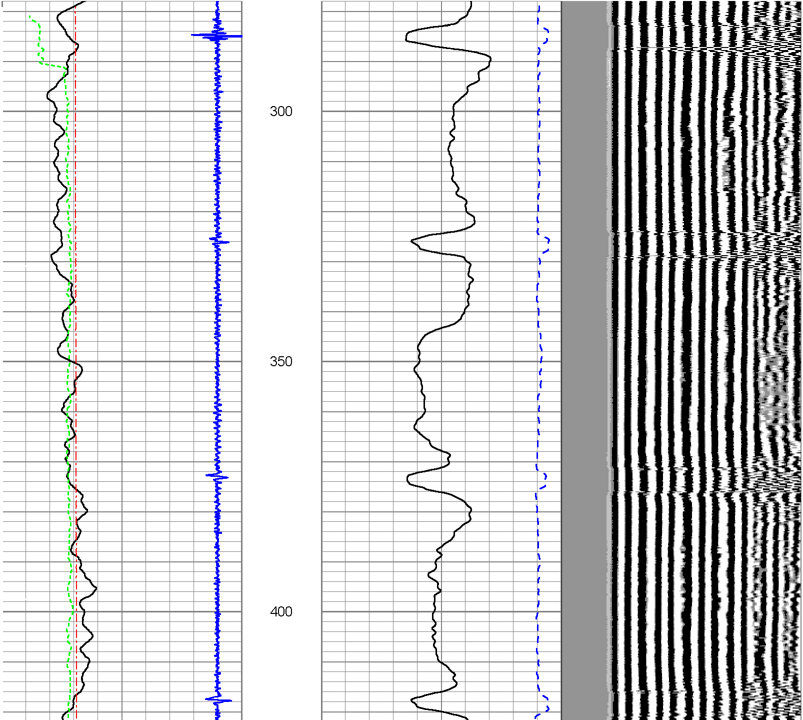
SCALE: 5"=100'

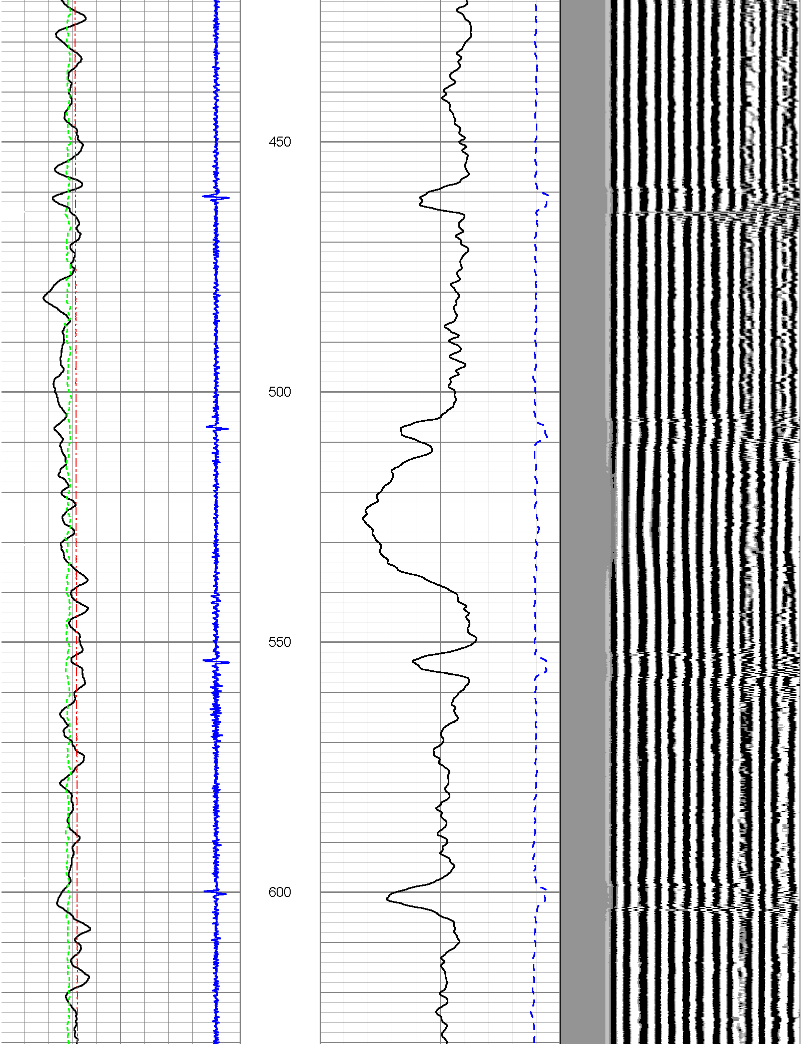
Database File:	nelson2-17-9-60.db
Dataset Pathname:	pass6
Presentation Format:	1cbl
Dataset Creation:	Wed May 15 08:51:29 2013 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

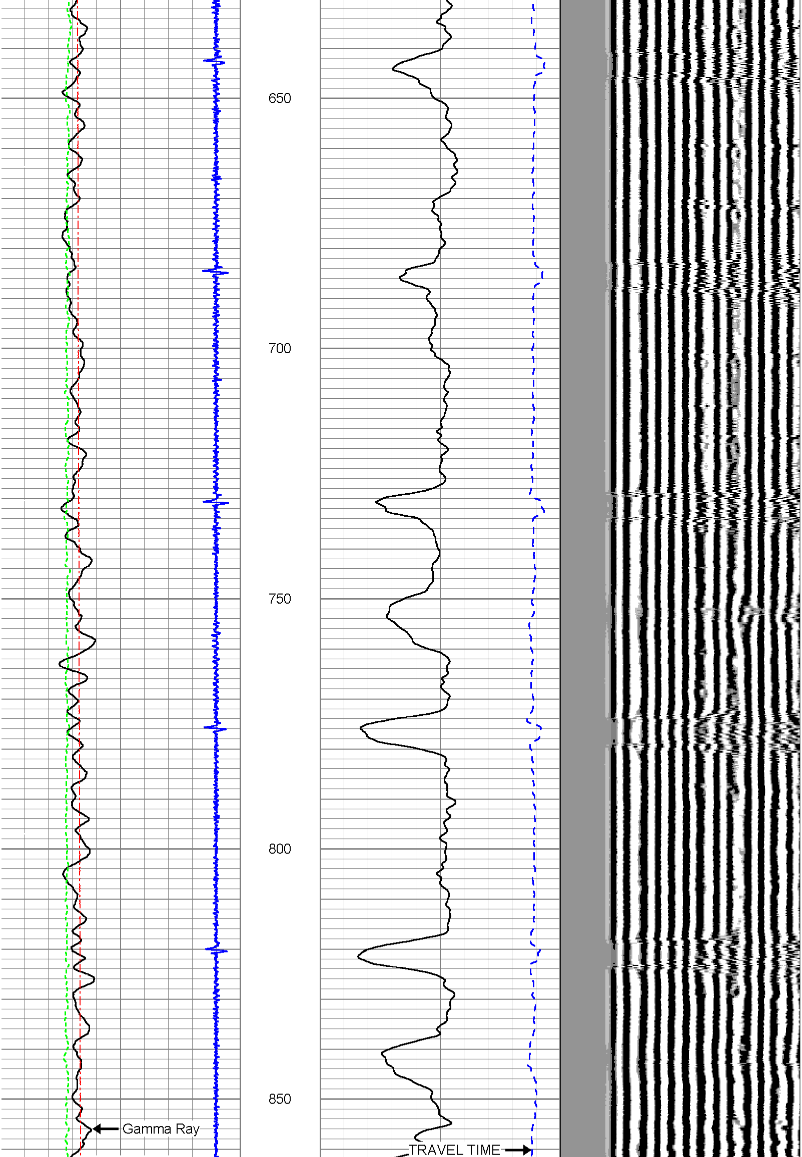
9 Collar Locator -1
0 Gamma Ray (GAPI) 150
0 LTEN (lb) 2500
0 TEMP (degF) 200

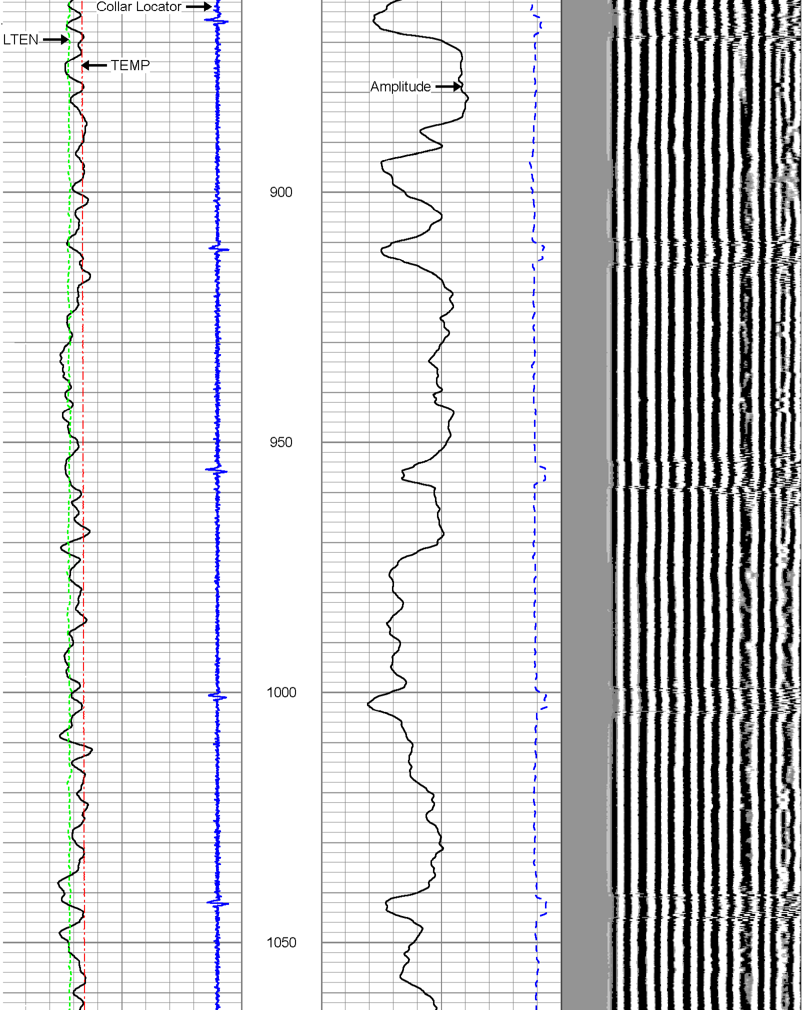
0 Amplified Amplitude (mV) 10
0 Amplitude (mV) 100
180 TRAVEL TIME (usec) 280

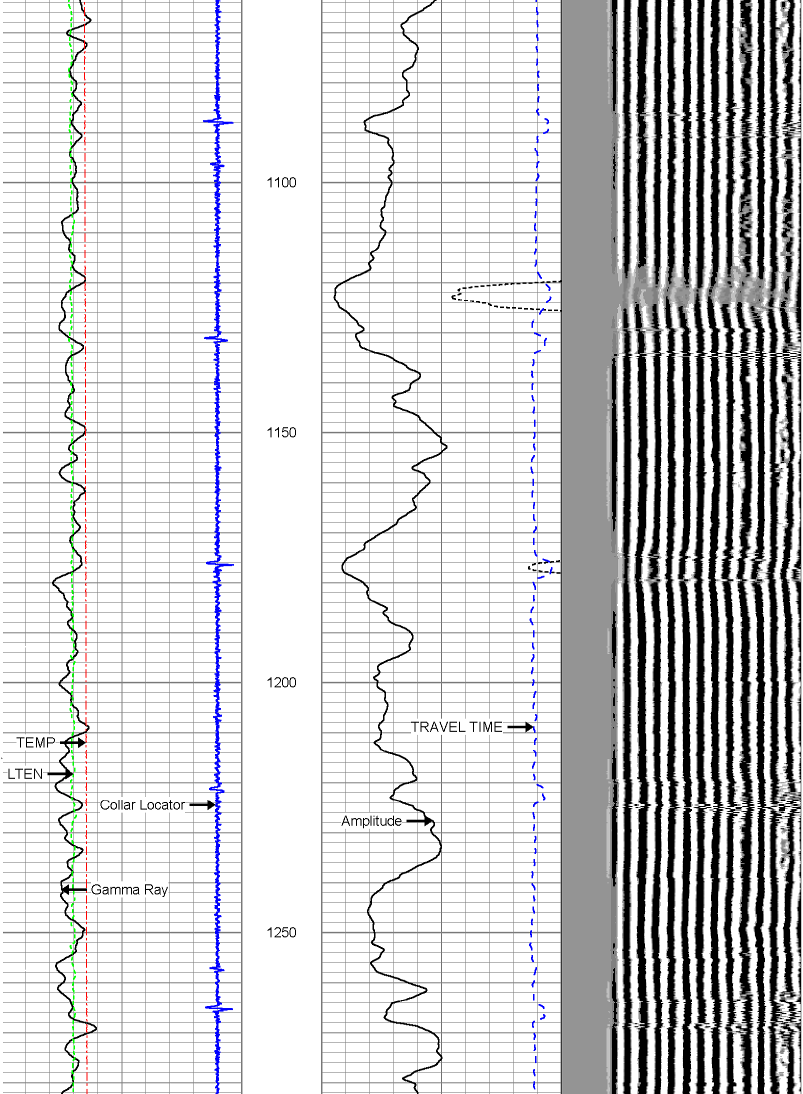
200 MSG 1200

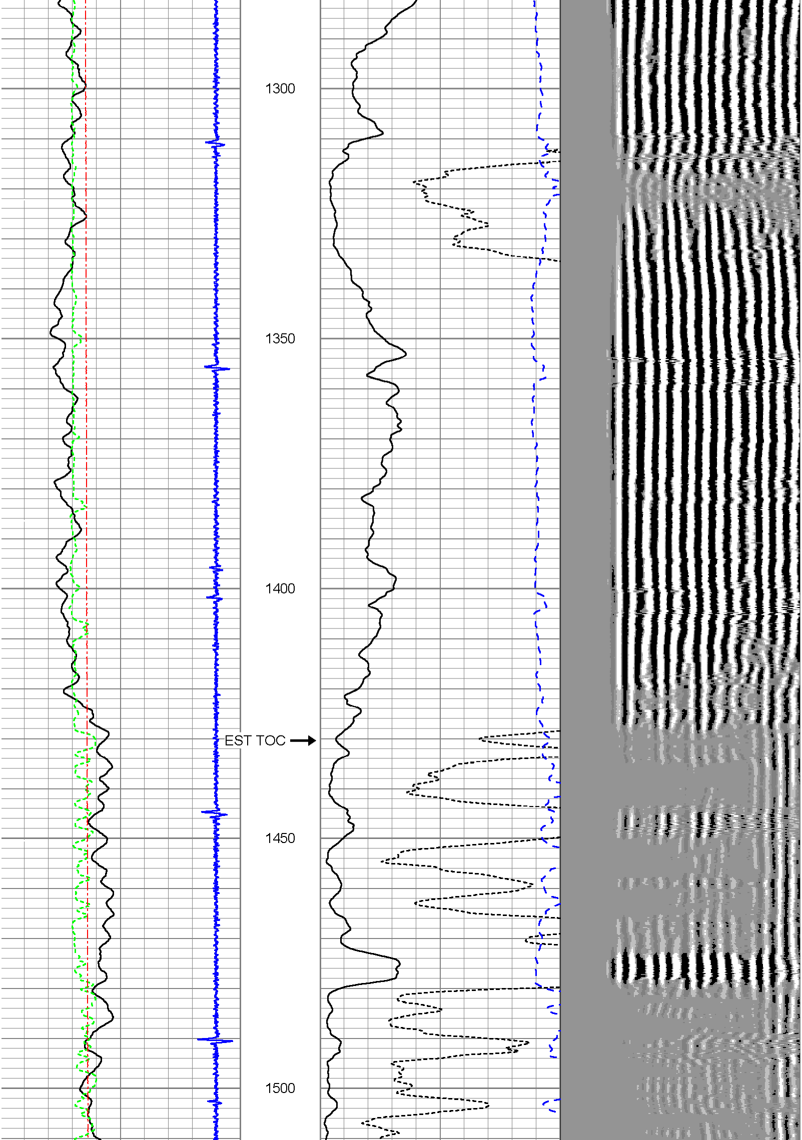


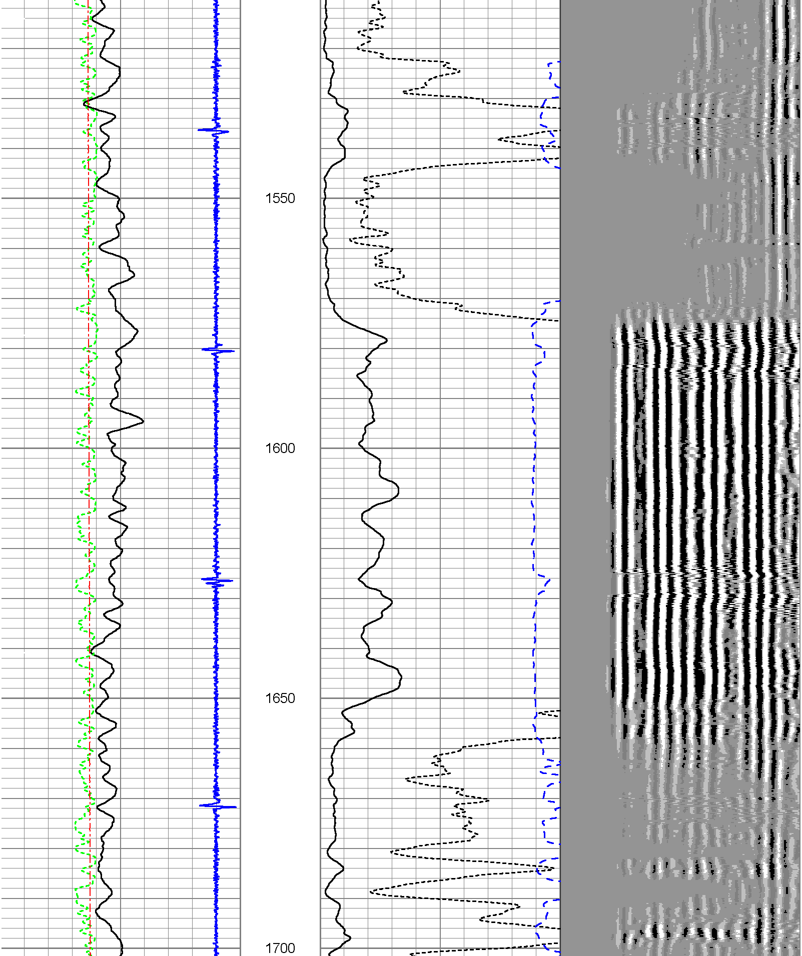


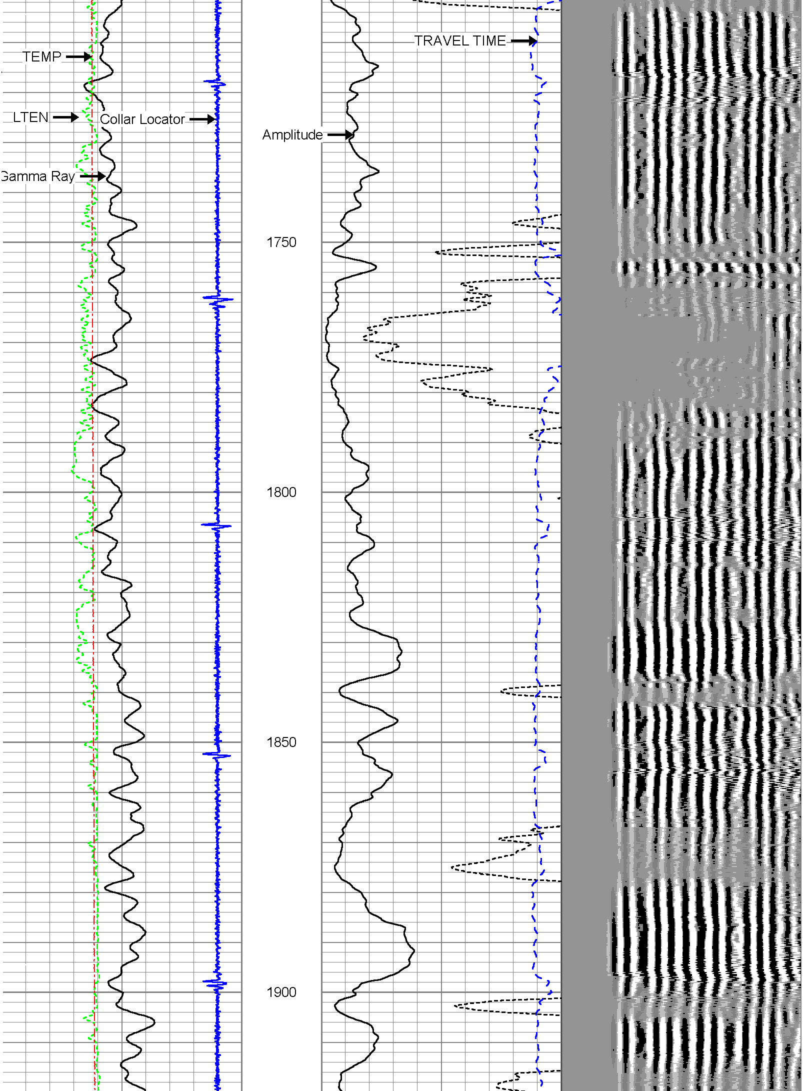


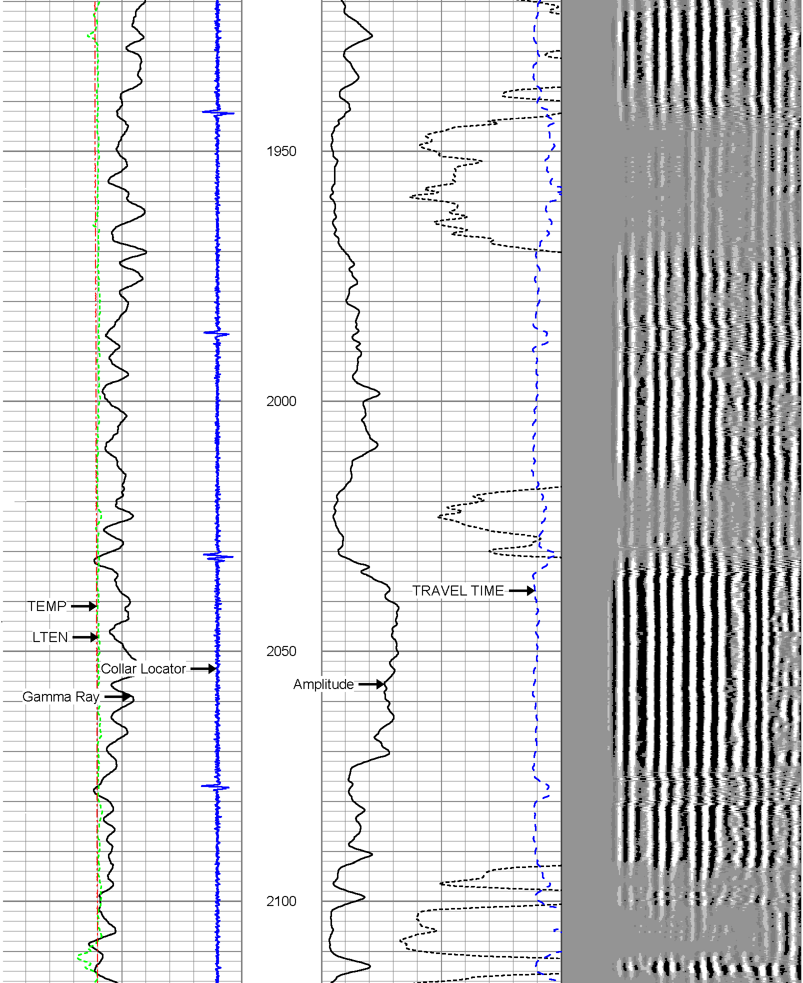


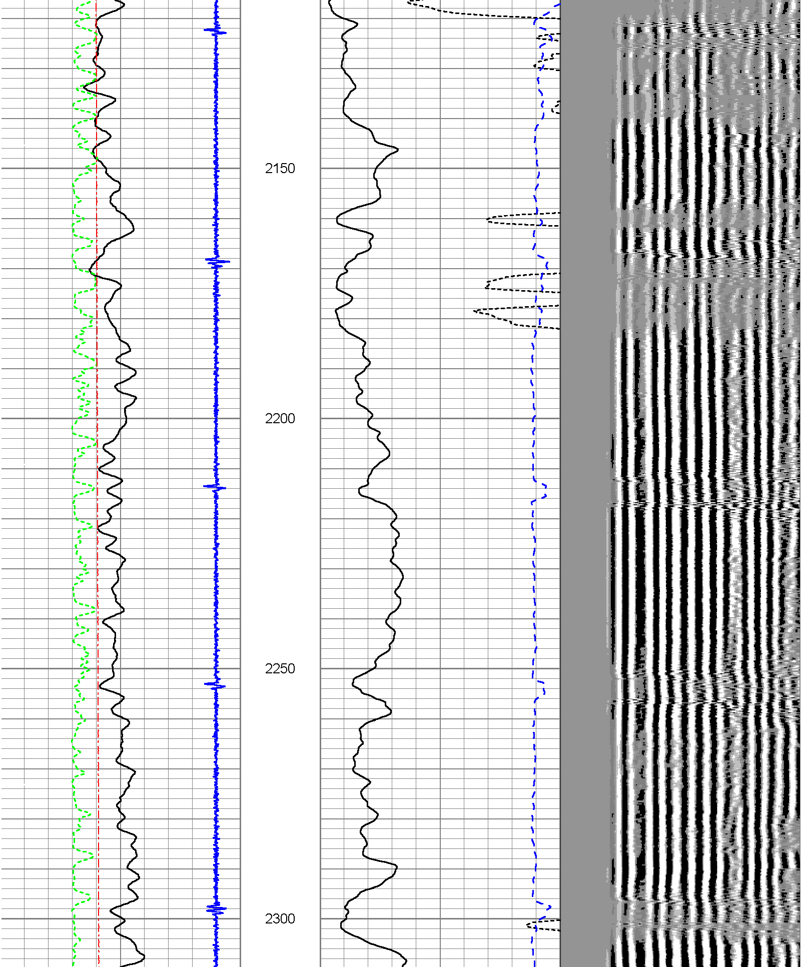


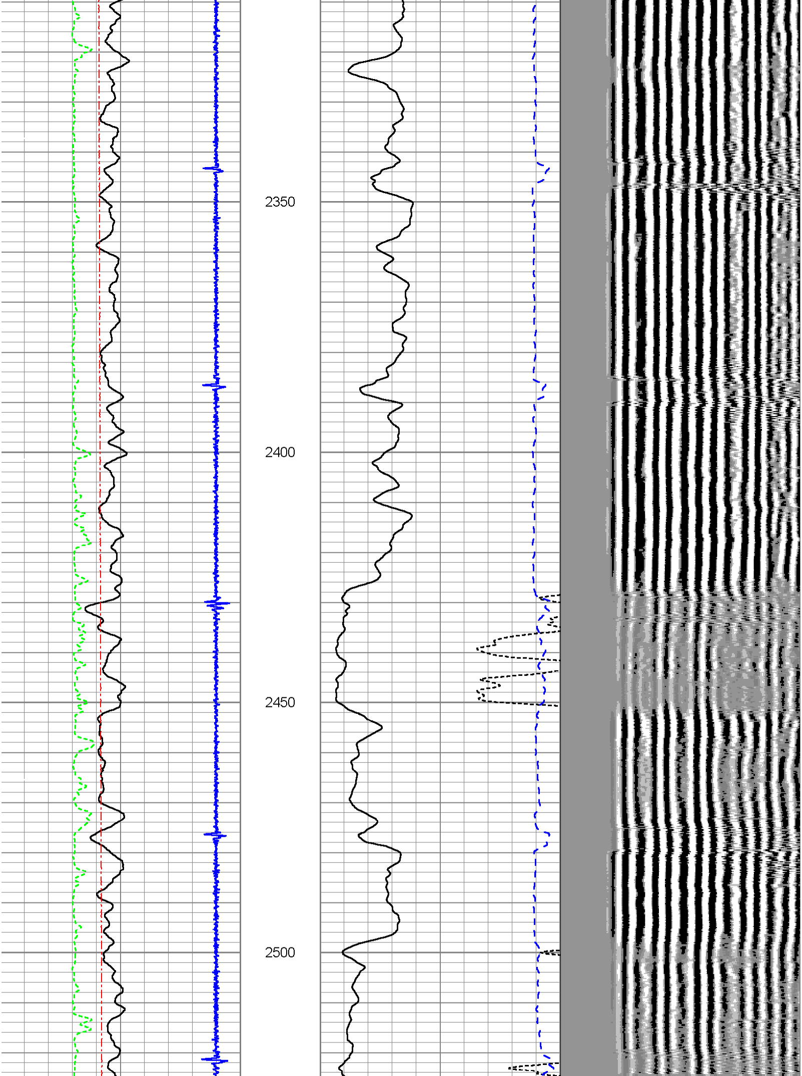


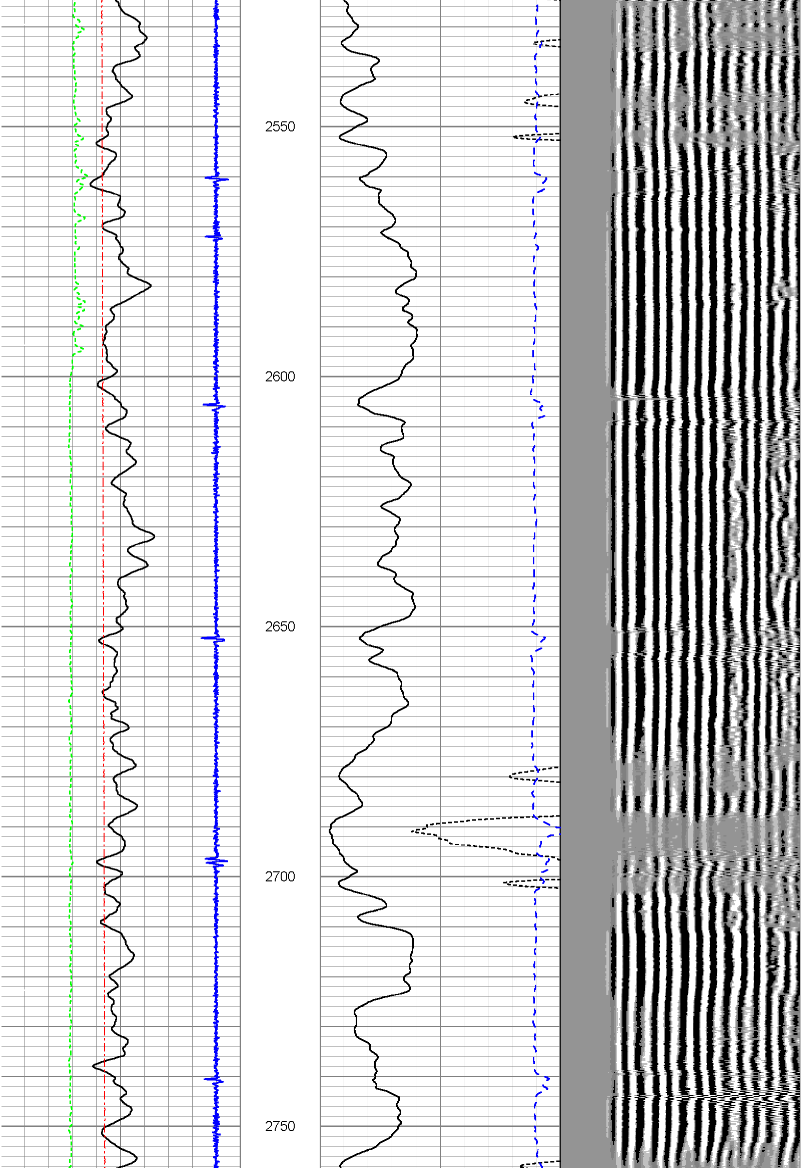


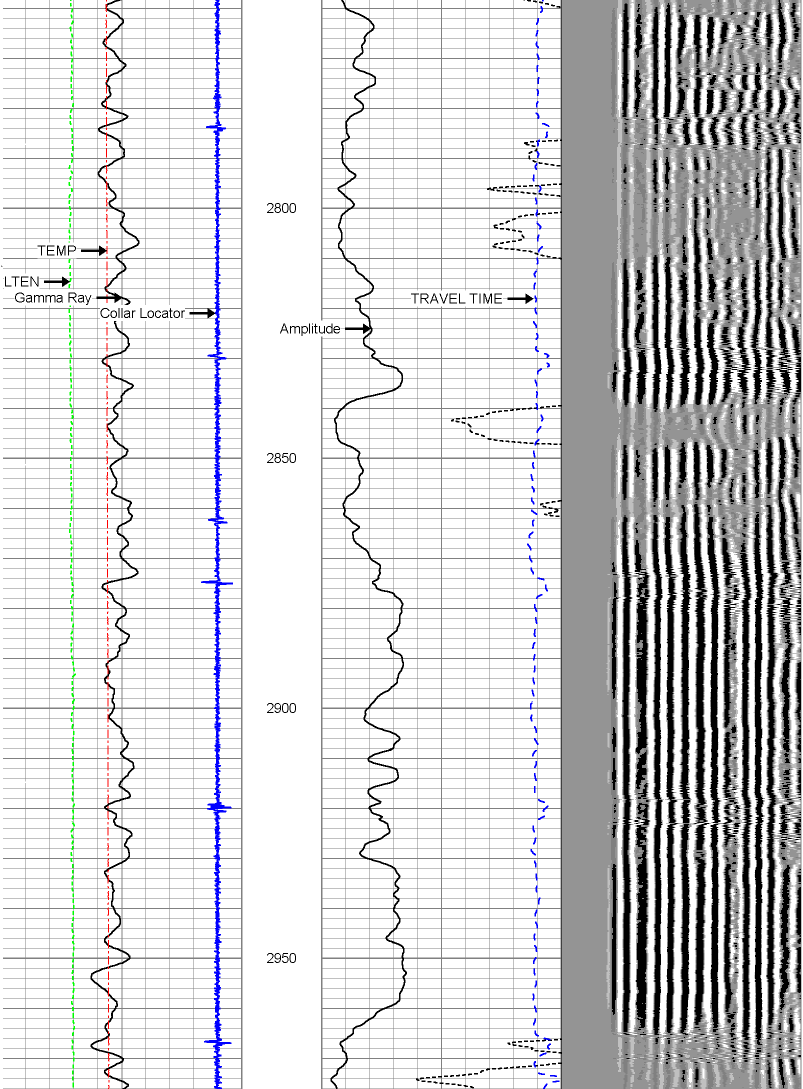


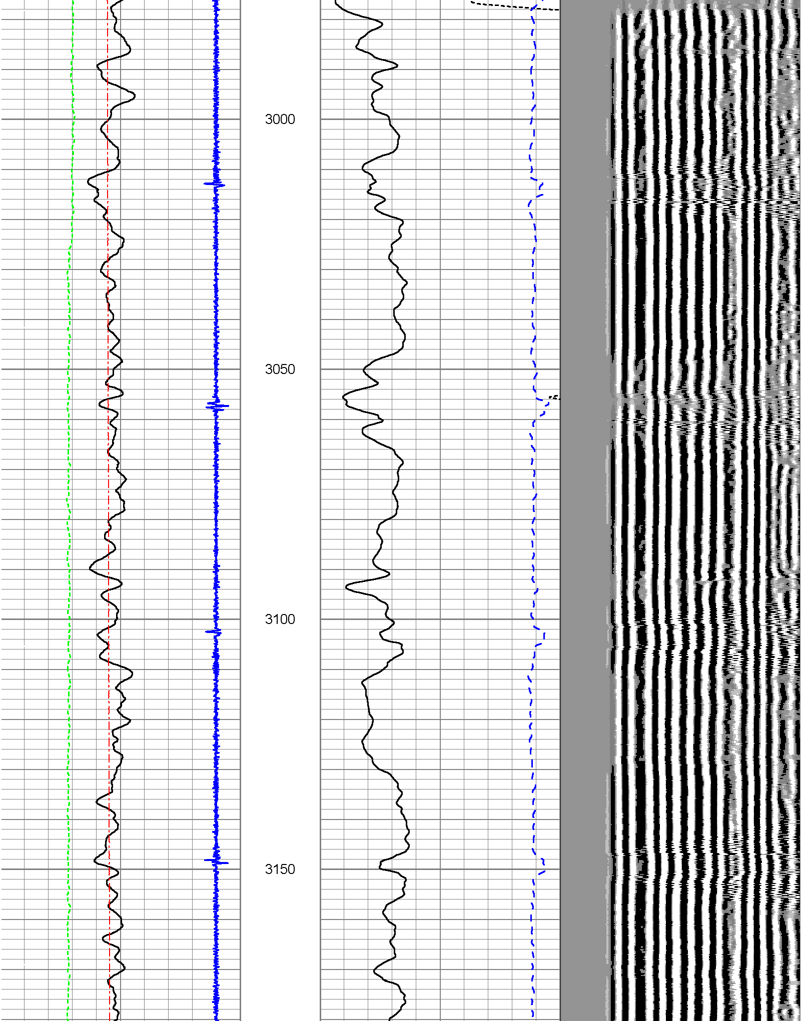


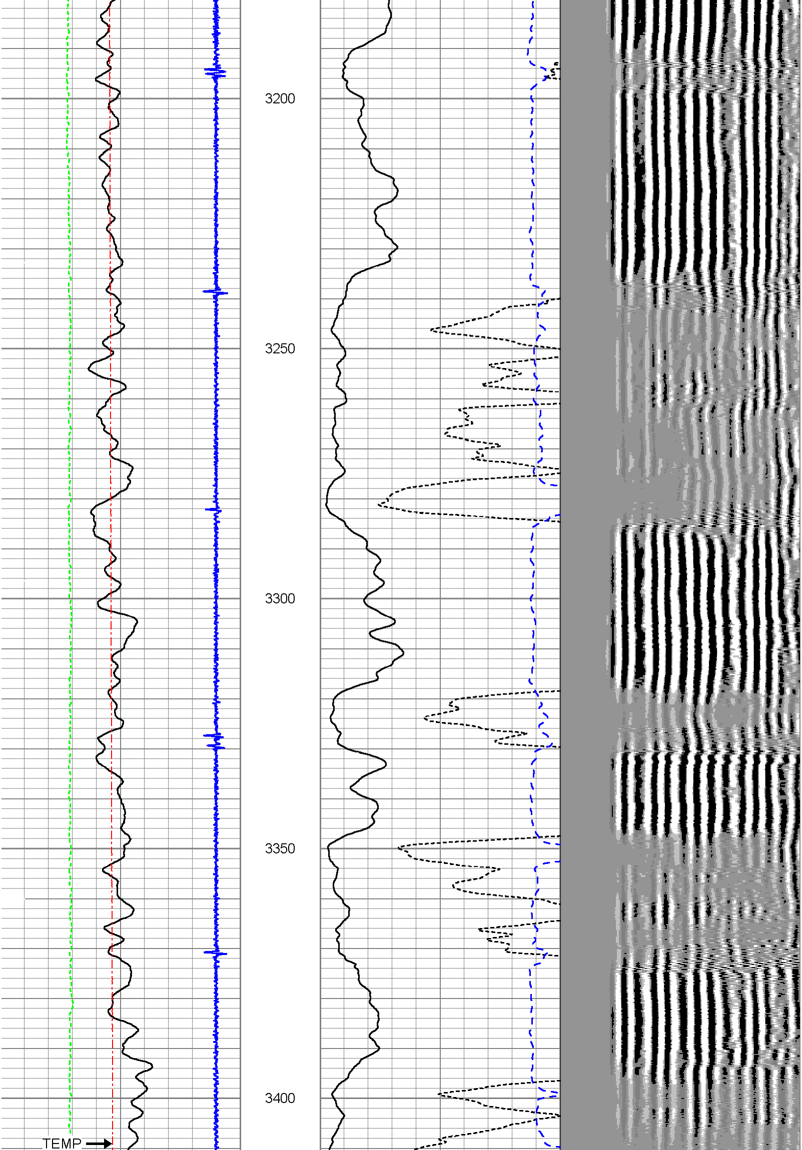


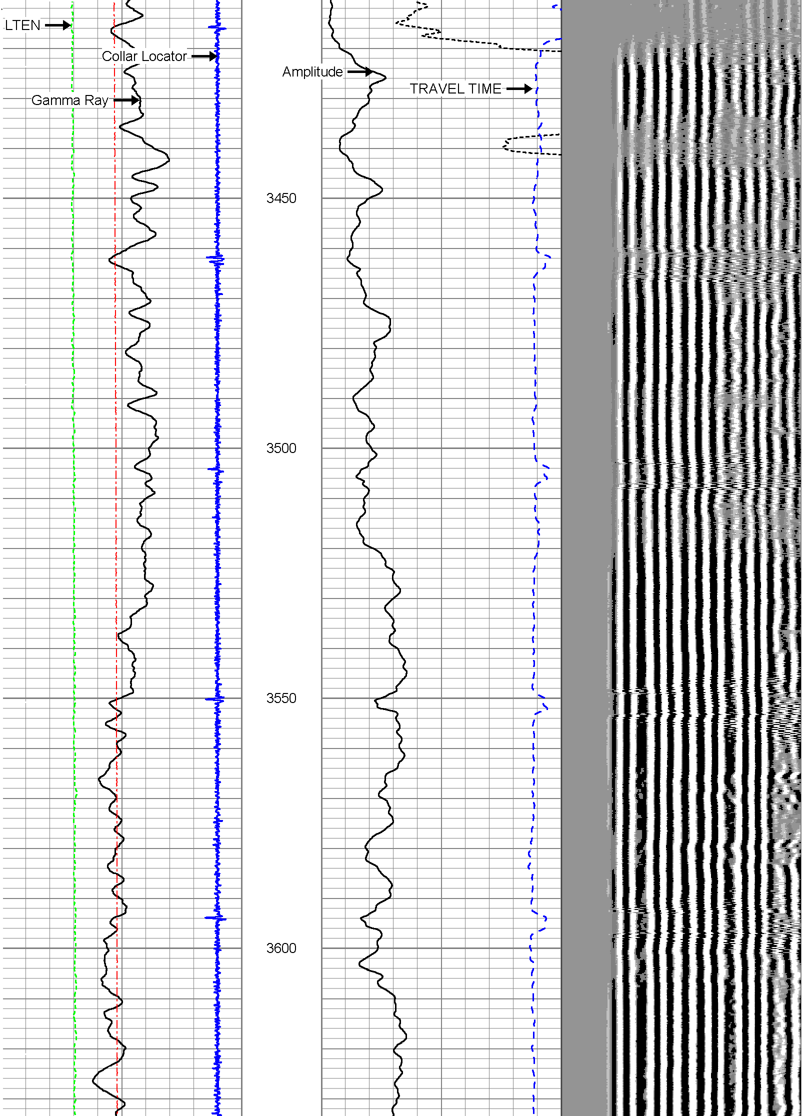


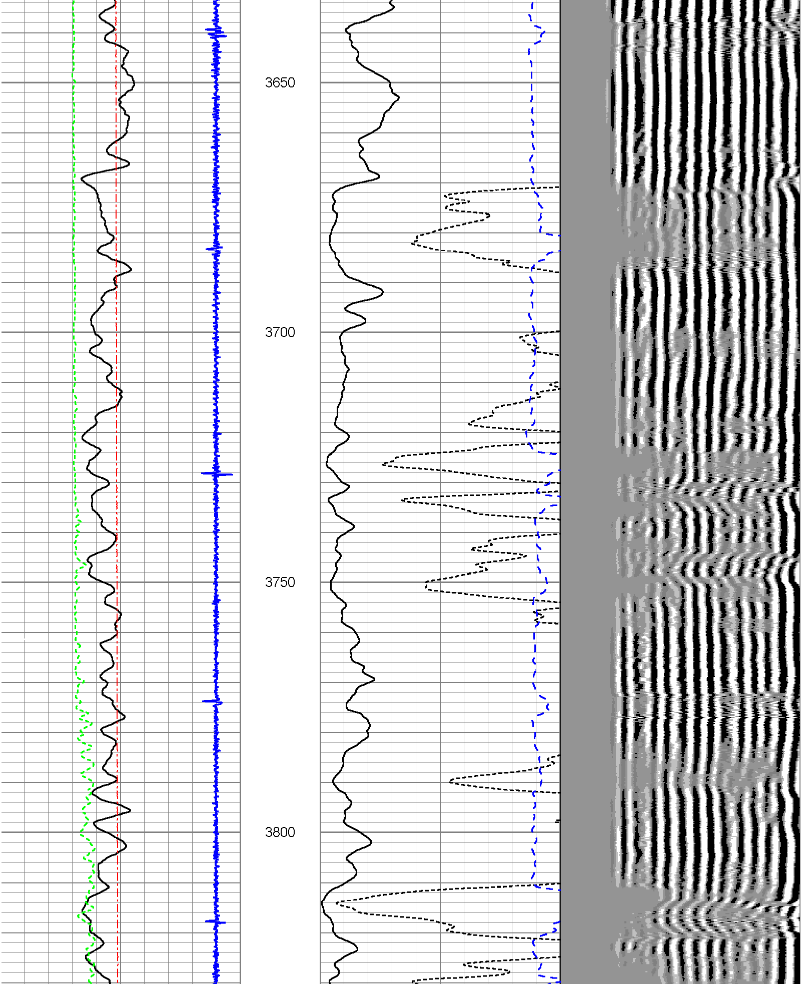


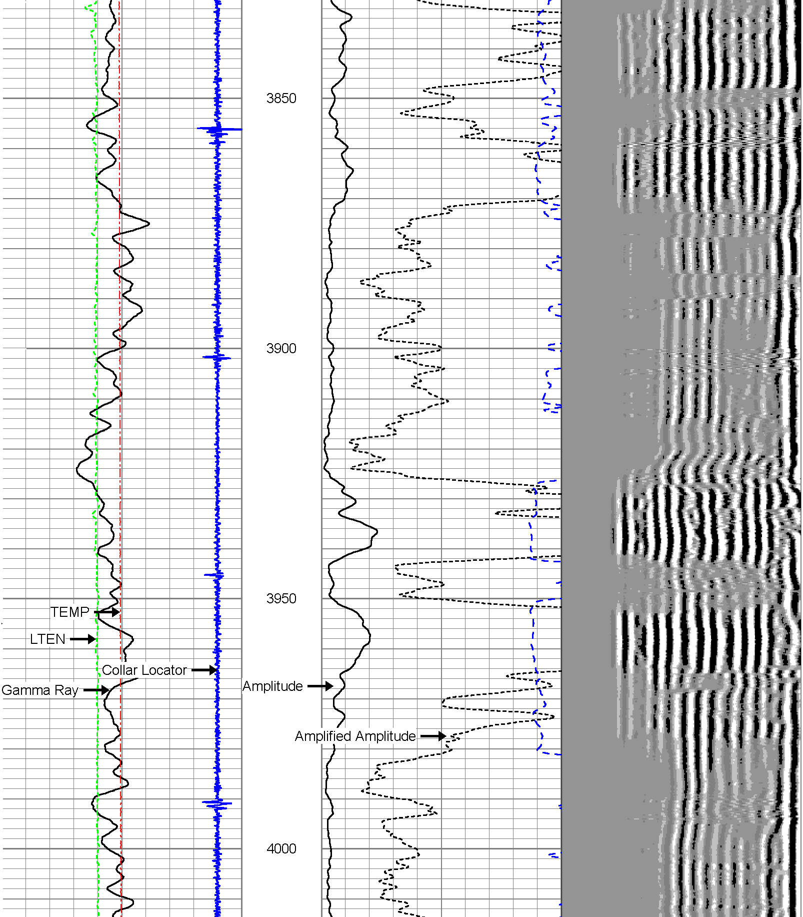












HALLIBURTON

MAIN PASS 1000 PSI

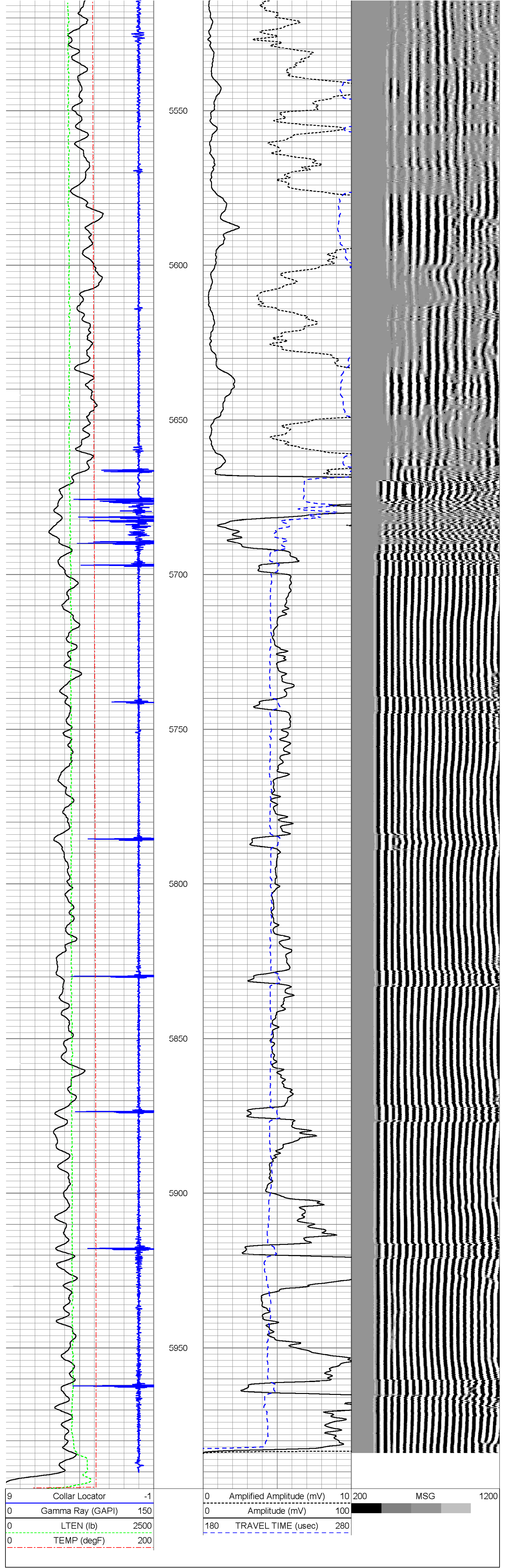
SCALE: 5"=100'

HALLIBURTON

CORRELATION PASS

SCALE: 5"=100'

Database File: nelson2-17-9-60.db
Dataset Pathname: pass4
Presentation Format: 1cbl
Dataset Creation: Wed May 15 08:41:02 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240



HALLIBURTON

CORRELATION PASS

SCALE: 5"=100'

Log Variables

Database:C:\Warrior\Data\nelson2-17-9-60.db
Dataset: field/well/run1/pass6

Top - Bottom

PPT usec	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF
287	62	0	0.8	7	0	10819	120

BITSIZE in
7.875

Calibration Report

Database File: nelson2-17-9-60.db
Dataset Pathname: pass6
Dataset Creation: Wed May 15 08:51:29 2013 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: Tit1.3_02
Tool Model: Titan
Performed: Sun Jan 20 14:20:13 2013

	Reference	Reading
Low Reference:	61.00 degF	558.10 cps
High Reference:	120.00 degF	1975.90cps

Gain: 0.04
Offset: 37.78
Delta Spacing 2

Gamma Ray Calibration Report

Type / Serial: Probe / 275

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Mon May 06 10:26:52 2013				
Background	86.2				cps
Calibrator	355.8				cps
		0.8941			GAPI/cps
PRIMARY VERIFICATION	Mon May 06 10:31:47 2013				
Background	76.8				cps
Calibrator	314.2				cps
Difference				237.3	GAPI
BEFORE SURVEY VERIFICATION	Tue May 07 14:40:37 2013				
Background	80.4				cps
Calibrator	315.0				cps
Difference				234.6	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 275
Tool Model: Probe
Performed: Wed May 15 08:06:59 2013

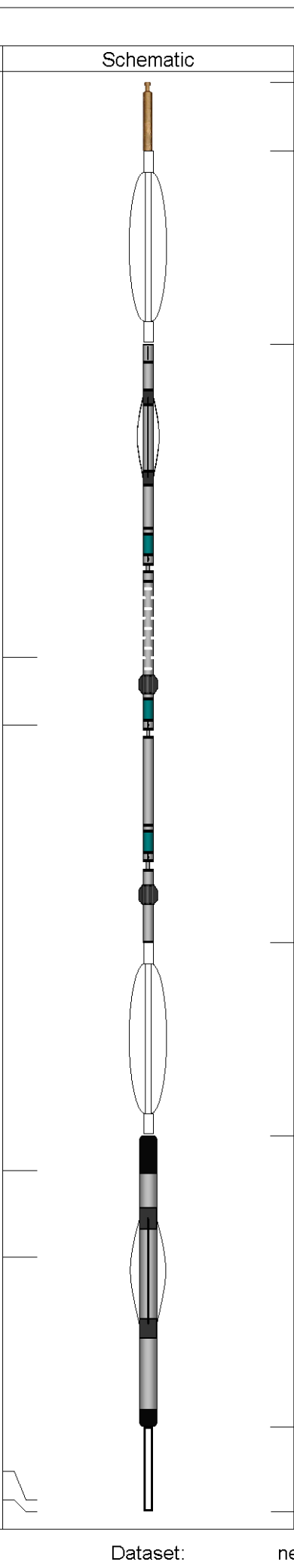
Depth: 359.638 ft
Casing Diameter: 7 in

	3' Spacing	5' Spacing	
Signal Zero:	0.15	0.15	mV
Calibrated Amplitude:	62	62	mV
Reading at Signal Zero:	0.00217285	0.00192871	V
Reading in Free Pipe:	0.372827	0.349097	V
Gain:	166.867	178.156	
Offset:	-0.212577	-0.193611	

Sensor Report

Database File: nelson2-17-9-60.db
Dataset Pathname: pass6
Dataset Creation: Wed May 15 08:51:29 2013 by Log Halliburton Casedho

Sensor Name	Offset (ft)
WVF3	12.72
WVF5	11.72
CCL	5.08
GR	3.79
TEMP	0.17
Ex1	0
FrameCnt	0
ErrCnt	0
LLMTEN	0
Telemetry	0

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1_CABLEHEAD 1"OD CABLE HEAD	1.02	1.44	3.00
			CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
WVF3 WVF5	12.72 11.72		CBL-Probe (275) 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	5.08 3.79		GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
TEMP LLMTEN	0.17 0.00		TEMP-Titan (Tit1.3_02) Titan Temp 1.3875	1.25	1.39	10.00

Dataset: nelson2-17-9-60.db: field/well/run1/pass6
Total Length: 21.29 ft
Total Weight: 173.00 lb
O.D. 2.75 in

Company CARRIZO
Well NELSON 2-17-9-60
Field WILDCAT
County WELD
State CO

HALLIBURTON

CEMENT BOND
LOG