Casedhole Solutions

GAMMA RAY CCL
CEMENT BOND VDL

Company NOBLE ENERGY INC
Well SPIKE STATE GWS C 24-9
Field WATTENBERG
County WELD
State

Company	**NOBLE ENERGY INC**
Well	**SPIKE STATE GWS C 24-9**
Field	**WATTENBERG**
County	**WELD** **State**

Location: API # : 05-123-15809

NE/SE

SEC 24 TWP 4N RGE 64W

Other Services

Permanent Datum	GL	Elevation	4724
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 9'
D.F.
G.L. 4724

Date	APR-28-2016		
Run Number	ONE		
Depth Driller	6939		
Depth Logger	2000		
Bottom Logged Interval	2000		
Top Log Interval	SURFACE		
Casing Size	2 7/8		
Type Fluid	WATER		
Max. Recorded Temp.	NA		
Estimated Cement Top	80'		
Time Well Ready	7:00		
Time Logger On Bottom	8:00		
Unit Number	92-3827		
Tool Size / ID Number	1 11/16 PROBE		
Location	STERLING		
Recorded By	KYLE GIRDLER		
Witnessed By	PETE BURNS		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String	2 7/8	6.5	SURFACE	6939
Production String				
Liner				

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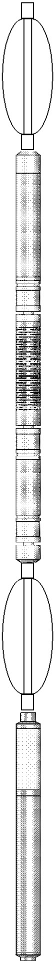
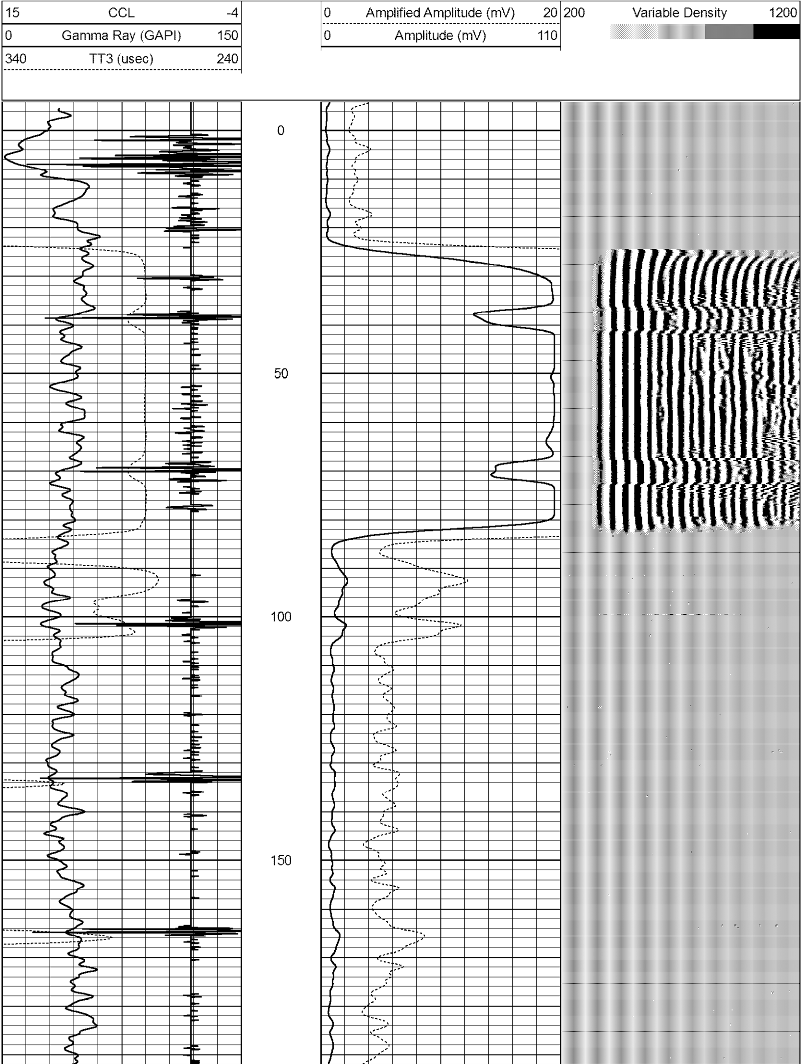
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

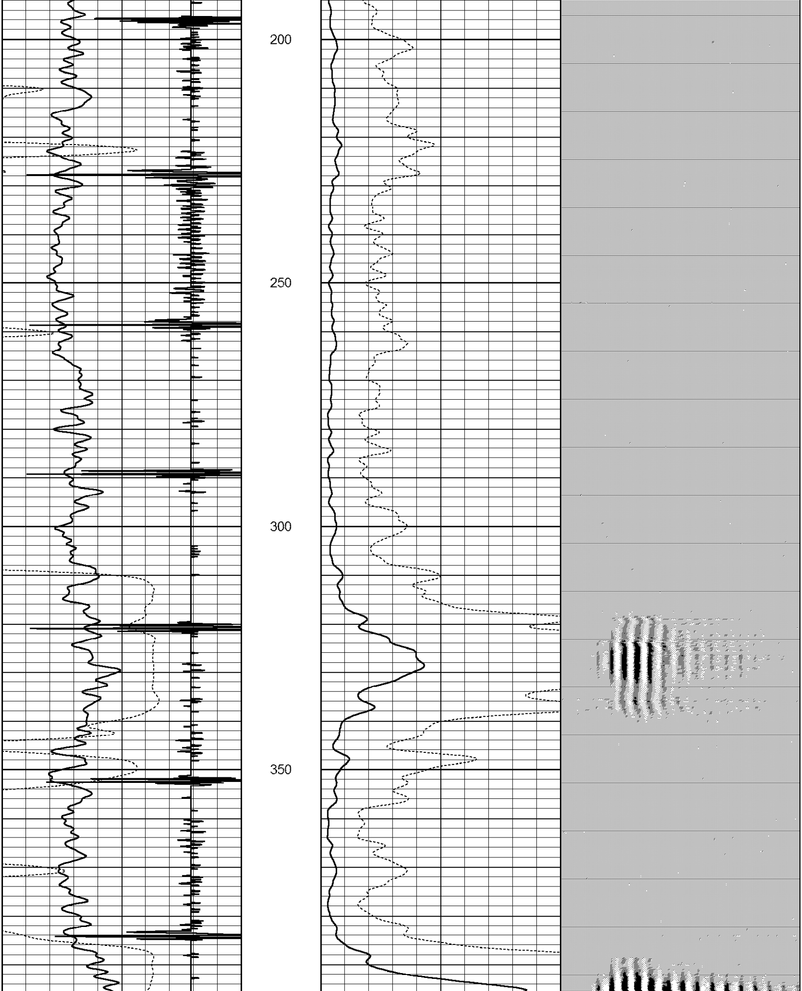
Comments

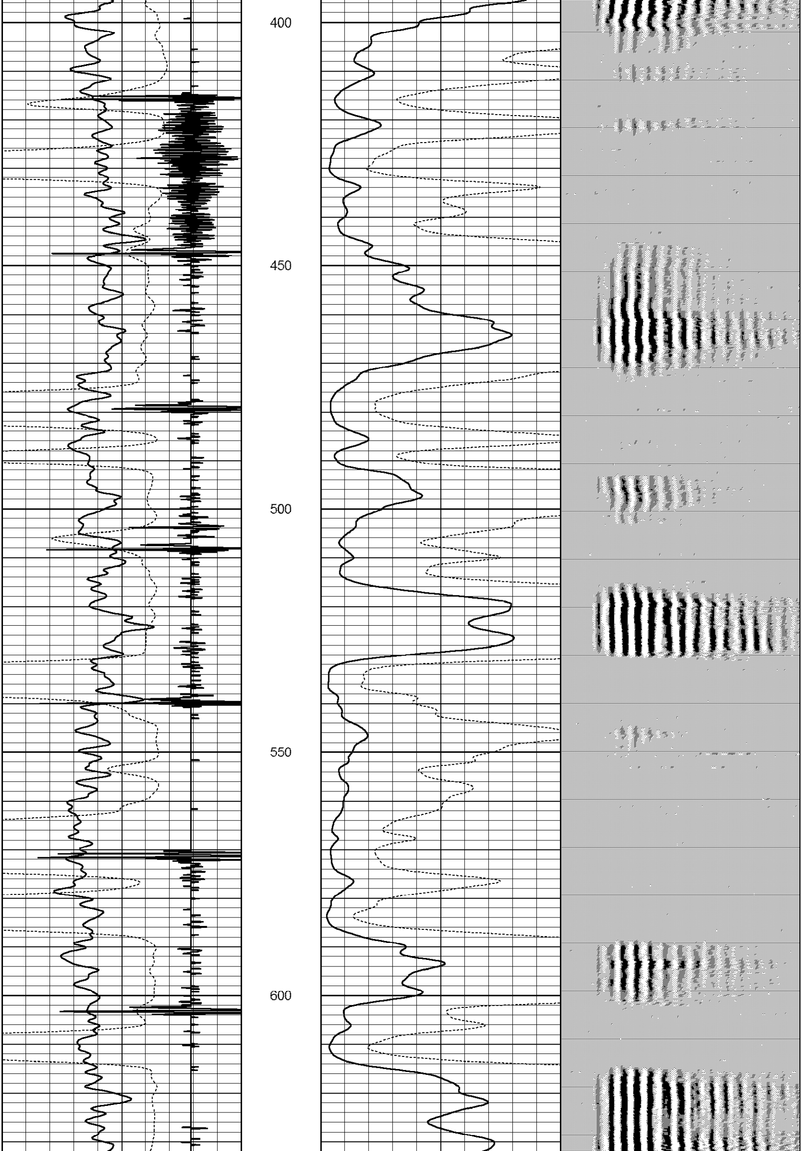
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1 PROBE	3.13	2.00	8.00
WVF3	12.59		CBL-Probe (FW1406-029) 1-11/16	8.60	1.69	41.00
WVF5	11.59					
			1 PROBE	3.13	2.00	8.00
CCL	4.08					
			GR-CCL/GR (FW1406-009) 1-11/16	5.21	1.69	
GR	0.57					

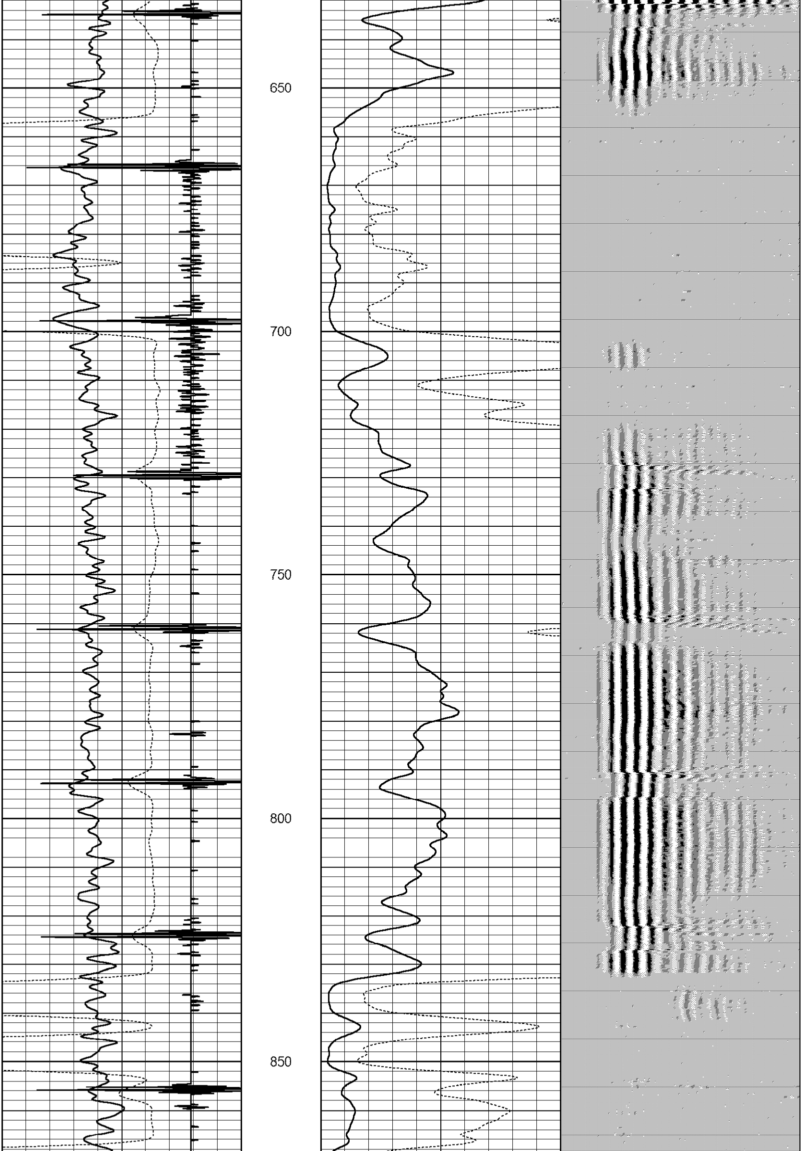
Dataset: spike state c24-9 cbl.db: field/well/run1/pass3
Total Length: 20.07 ft
Total Weight: 57.00 lb
O.D. 2.00 in

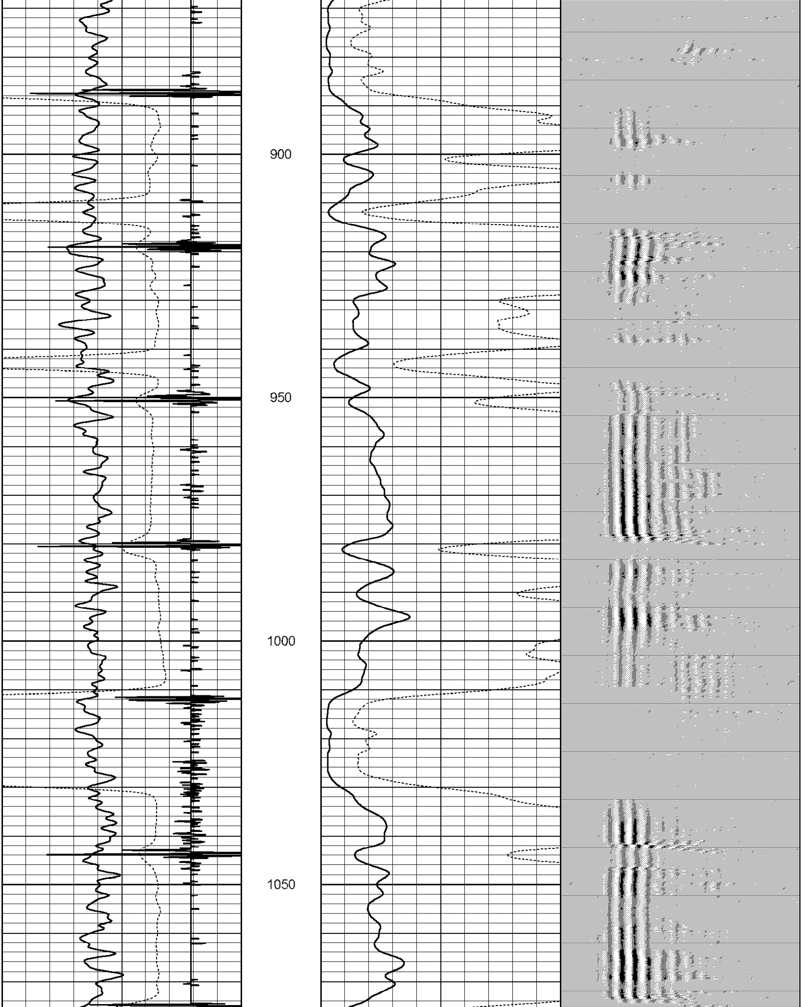
Database File:	spike state c24-9 cbl.db
Dataset Pathname:	pass3
Presentation Format:	nuexcbl
Dataset Creation:	Thu Apr 28 07:55:21 2016 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

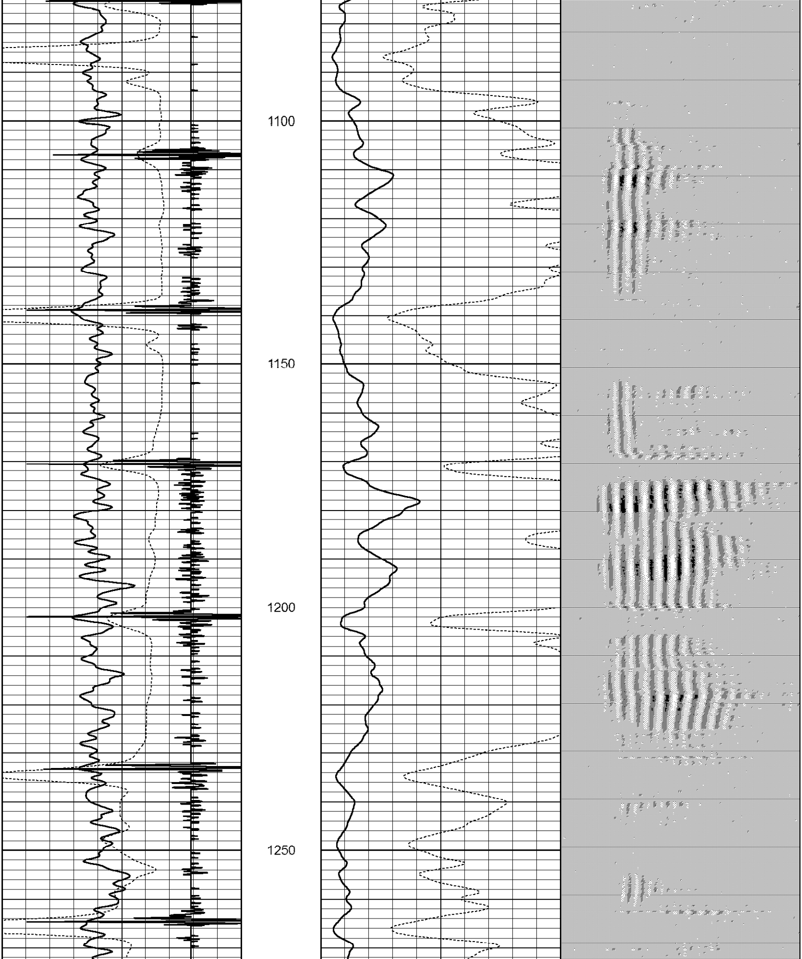


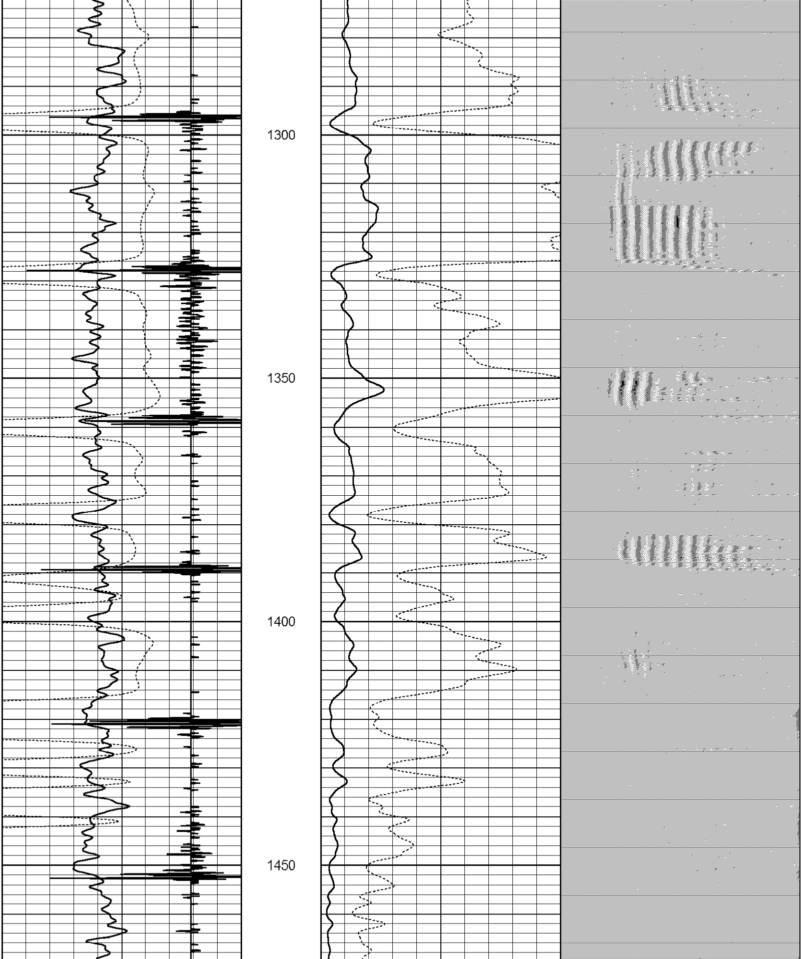


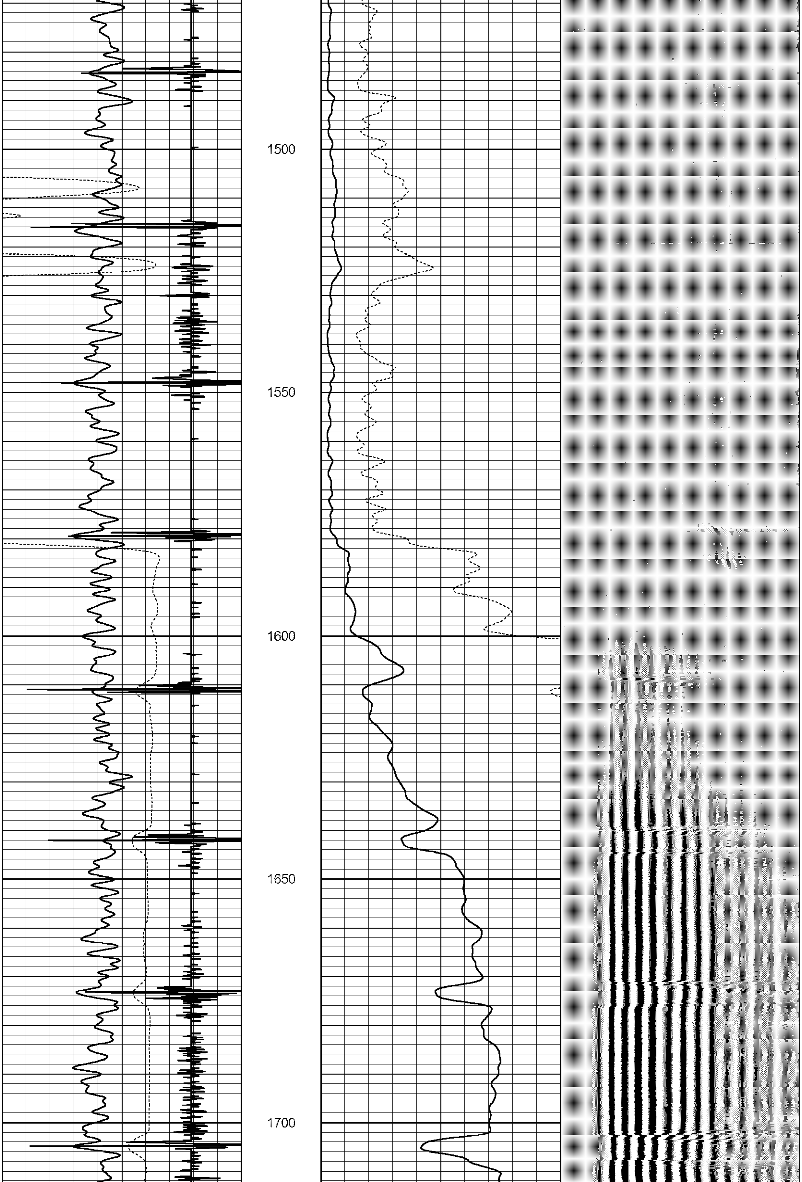


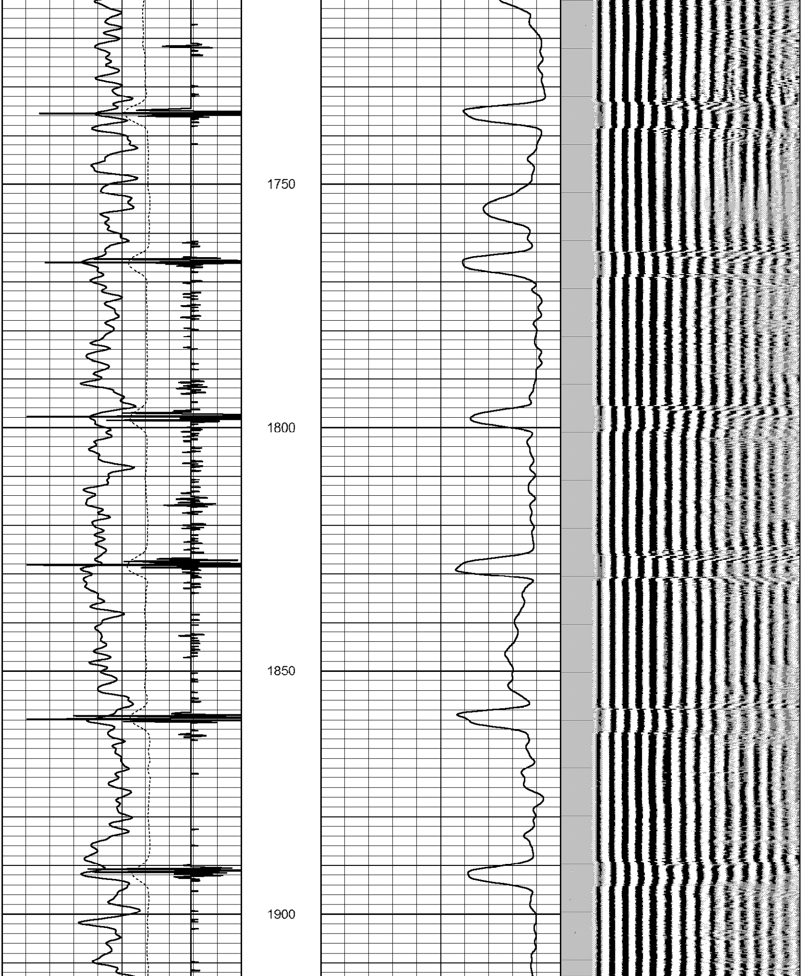


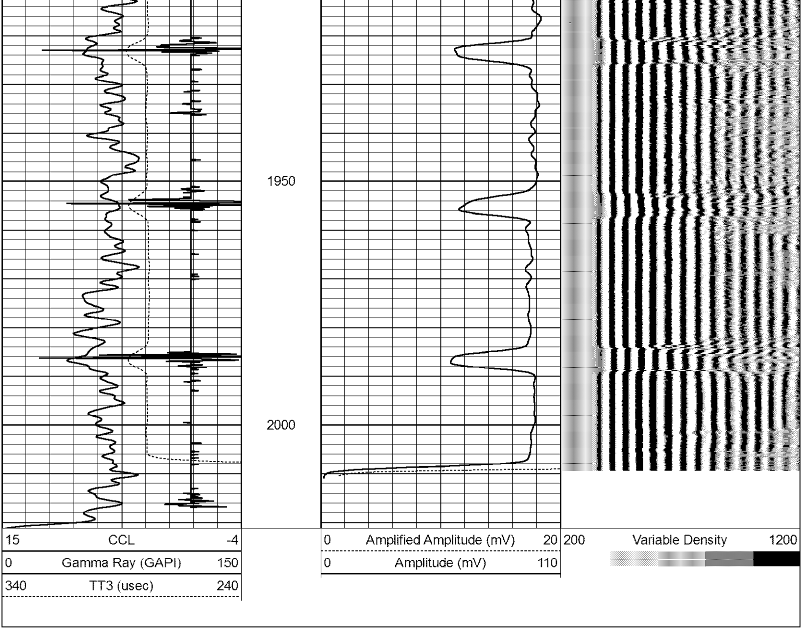












Calibration Report

Database File: spike state c24-9 cbl.db
Dataset Pathname: pass3
Dataset Creation: Thu Apr 28 07:55:21 2016 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: CCL/GR / FW1406-009

SHOP CALIBRATION Thu Jun 11 13:08:30 2015

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.7000			GAPI/cps

PRIMARY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

BEFORE SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number:	FW1406-029	
Tool Model:	Probe	
Performed:	Thu Apr 28 07:39:52 2016	
Depth:	92.575	ft
Casing Diameter:	2.875	in

	3' Spacing	5' Spacing	
Signal Zero:	1.5	0	mV
Calibrated Amplitude:	106.451	106.451	mV
Reading at Signal Zero:	0.00144043	0.0013916	V
Reading in Free Pipe:	2.47754	1.38323	V
Gain:	42.3856	77.0359	
Offset:	1.43895	-0.107203	