Casedhole Solutions

SECTOR LOG
LOGGED UNDER 2500 PSI

Company	NOBLE ENERGY INC.
Well	RILEY LD19-722
Field	WATTENBERG
County	WELD
State	COLORADO

Location: API # : 0512343479

BHL: 140' FNL & 770' FEL
SW/SE

SEC 19 TWP 9N RGE 58W

Other Services

Permanent Datum	GL	Elevation	4820
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4850
D.F.
G.L. 4820

Company NOBLE ENERGY INC.
Well RILEY LD19-722
Field WATTENBERG
County WELD
State COLORADO

Date	NOVEMBER 15, 2016
Run Number	ONE
Depth Driller	10,649.9
Depth Logger	6176
Bottom Logged Interval	6176
Top Log Interval	SURFACE
Open Hole Size	8-1/2
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	241°F
Estimated Cement Top	1410
Time Well Ready	CRANE
Time Logger on Bottom	2-3/4 PROBE
Equipment Number	922338
Location	45
Recorded By	GREG NOLAN
Witnessed By	BILL MANSFIELD

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9-5/8	36# J-55	30	1920.5
Prot. String				
Production String	5-1/2	20# P-110	30	10,649.9
Liner				

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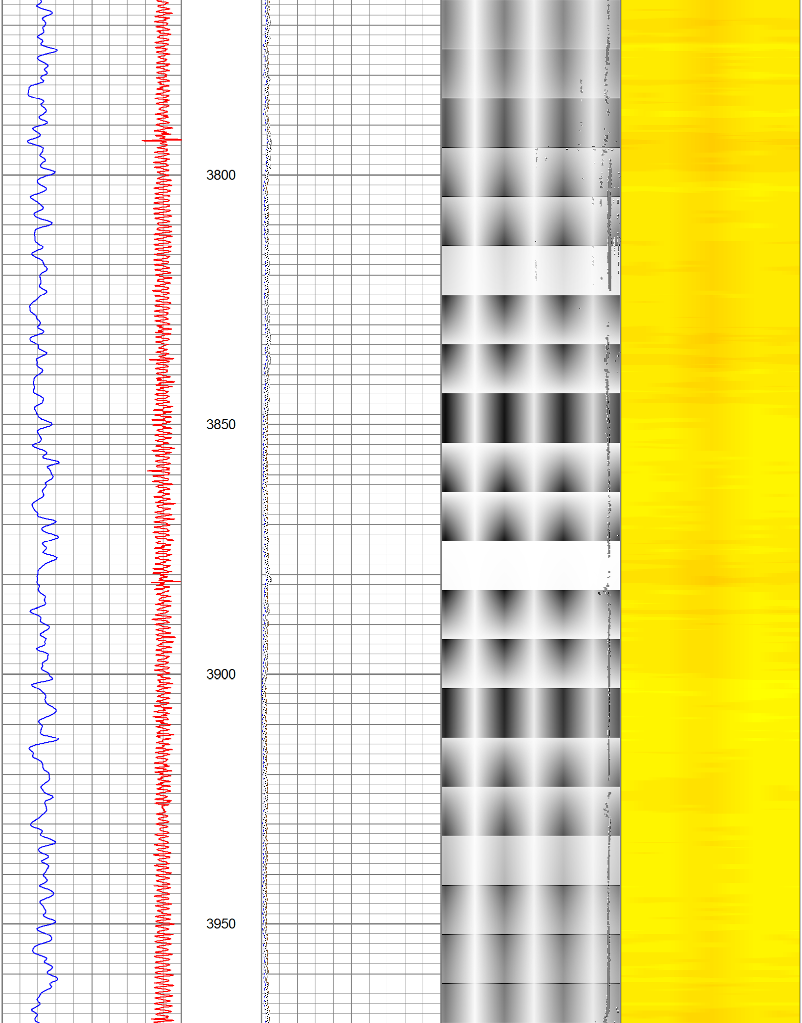
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

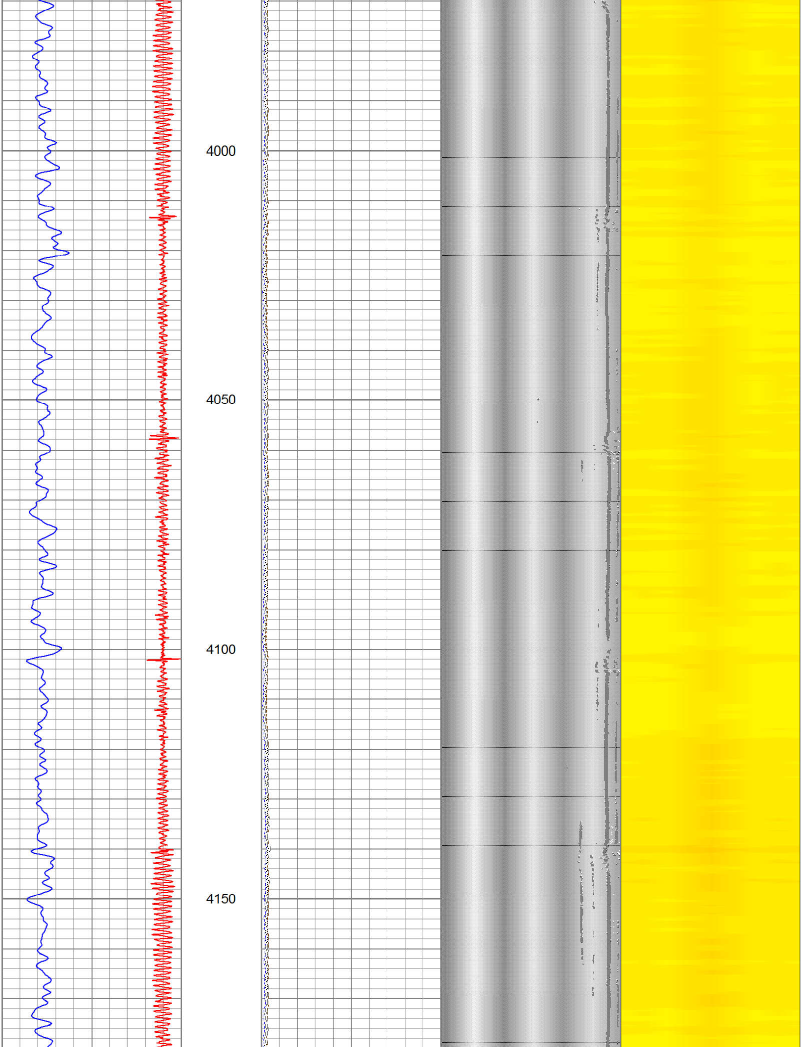
Comments

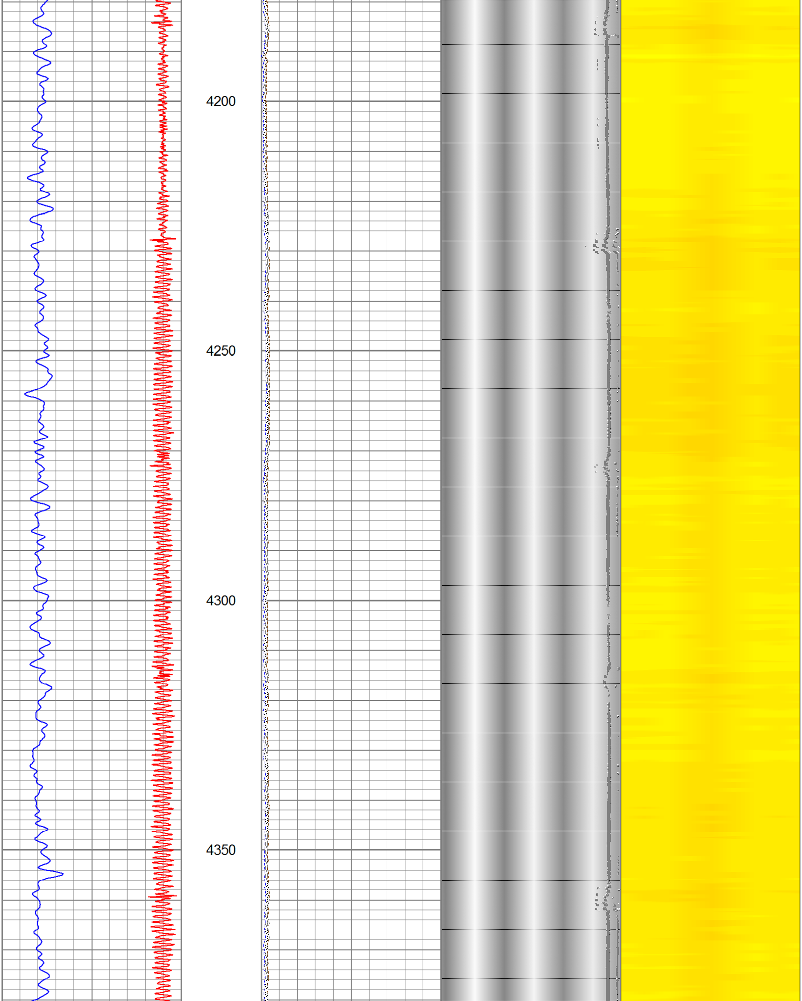
THANK YOU FOR CHOOSING CHS!!!!
LOG NOT CORRELATED
2ND WELL FROM THE EAST OF A 5 WELL PAD
W< O O O X O>E

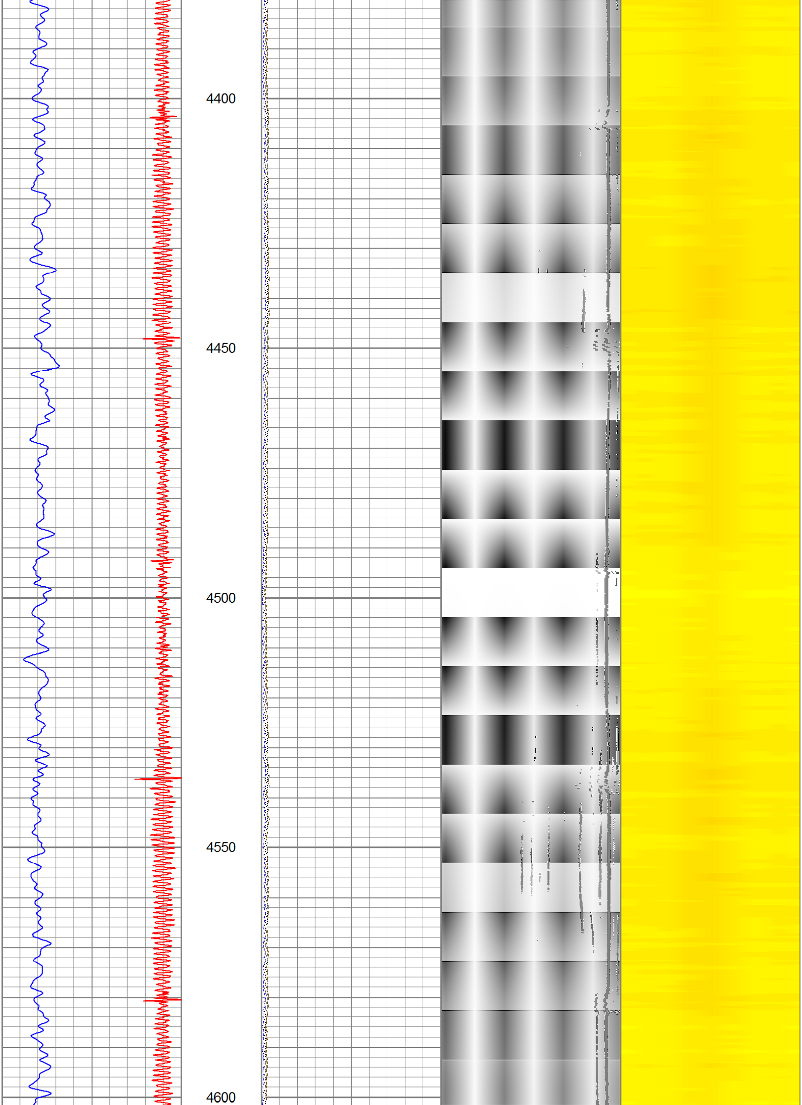
Database File:	cbl noble riley ld19-722.db
Dataset Pathname:	pass4
Presentation Format:	sector2
Dataset Creation:	Tue Nov 15 11:15:17 2016 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

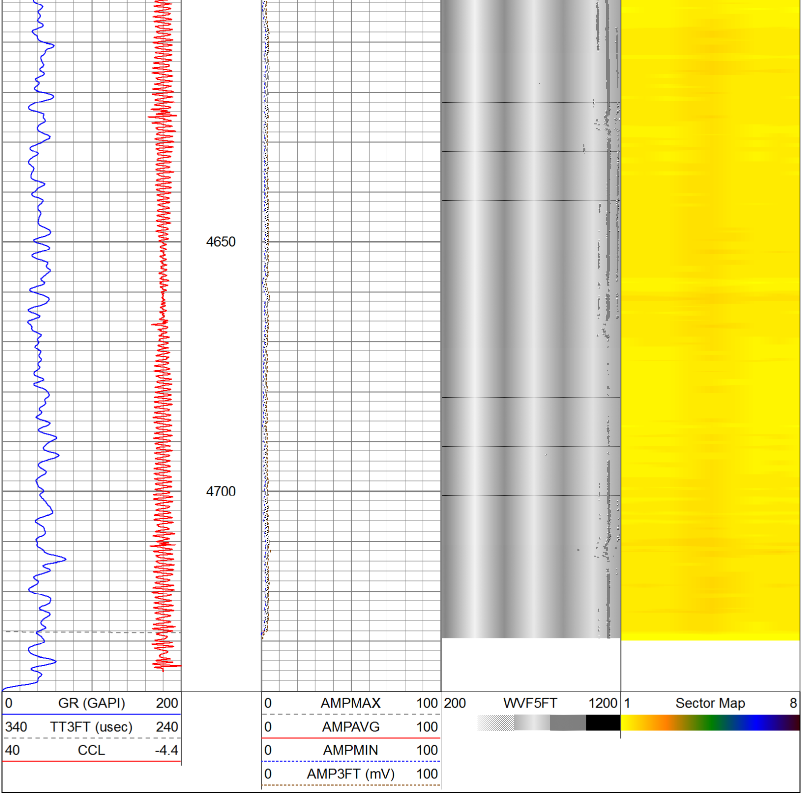
0	GR (GAPI)	200	0	AMPMAX	100	200	WVF5FT	1200	1	Sector Map	8
340	TT3FT (usec)	240	0	AMPAVG	100						
40	CCL	-4.4	0	AMPMIN	100						
			0	AMP3FT (mV)	100						



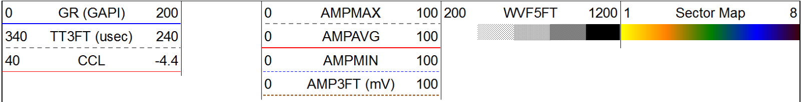


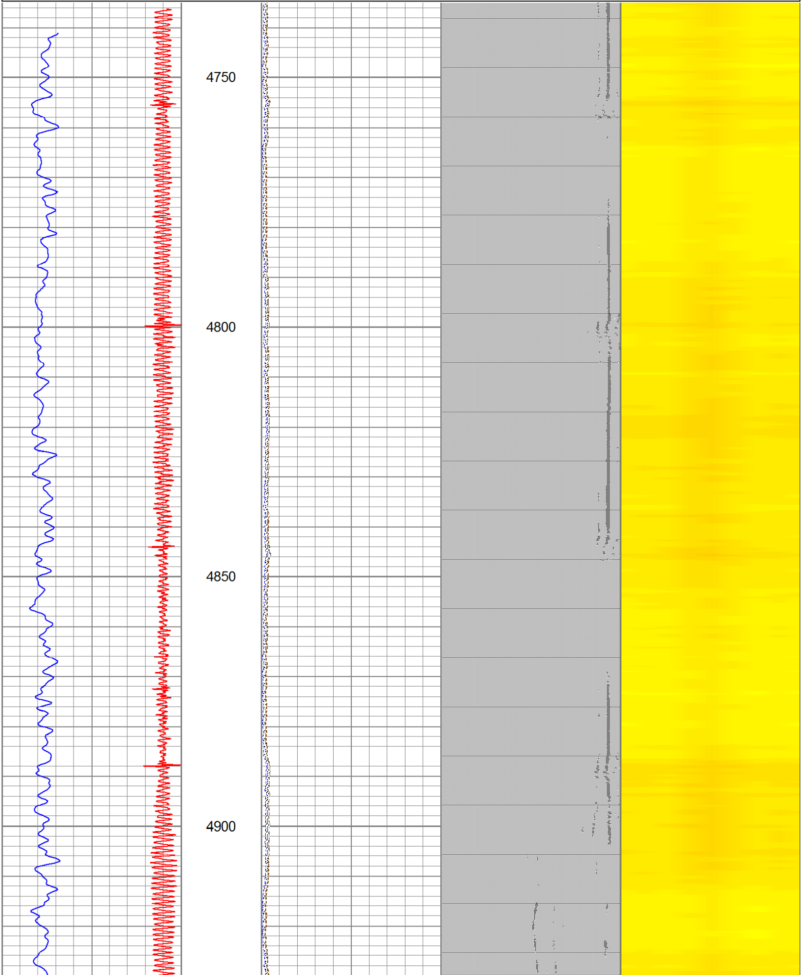


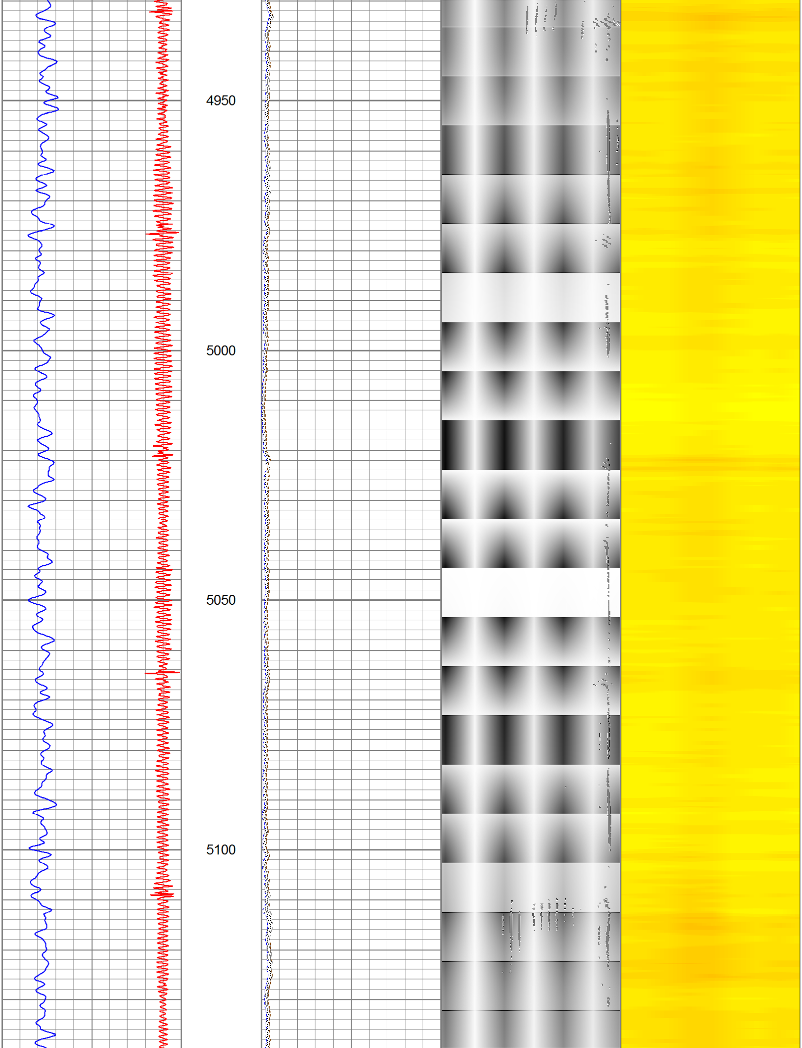


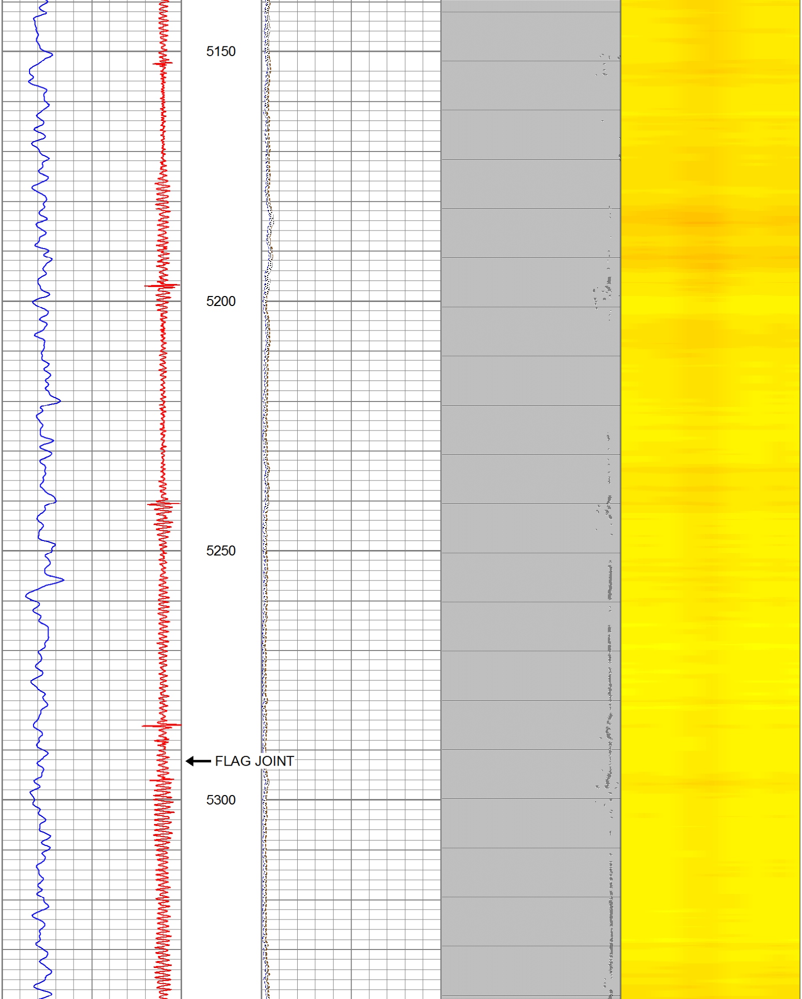


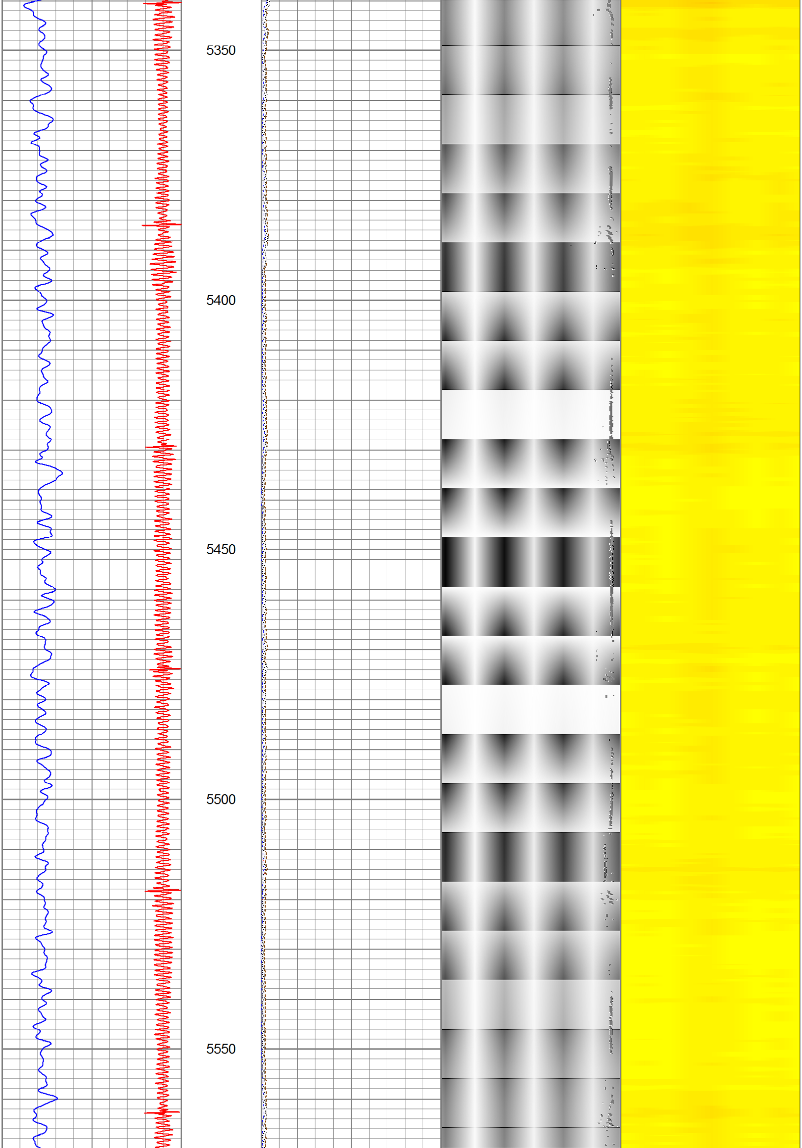
Database File: cbl noble riley ld19-722.db
Dataset Pathname: pass3
Presentation Format: sector2
Dataset Creation: Tue Nov 15 11:00:16 2016 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

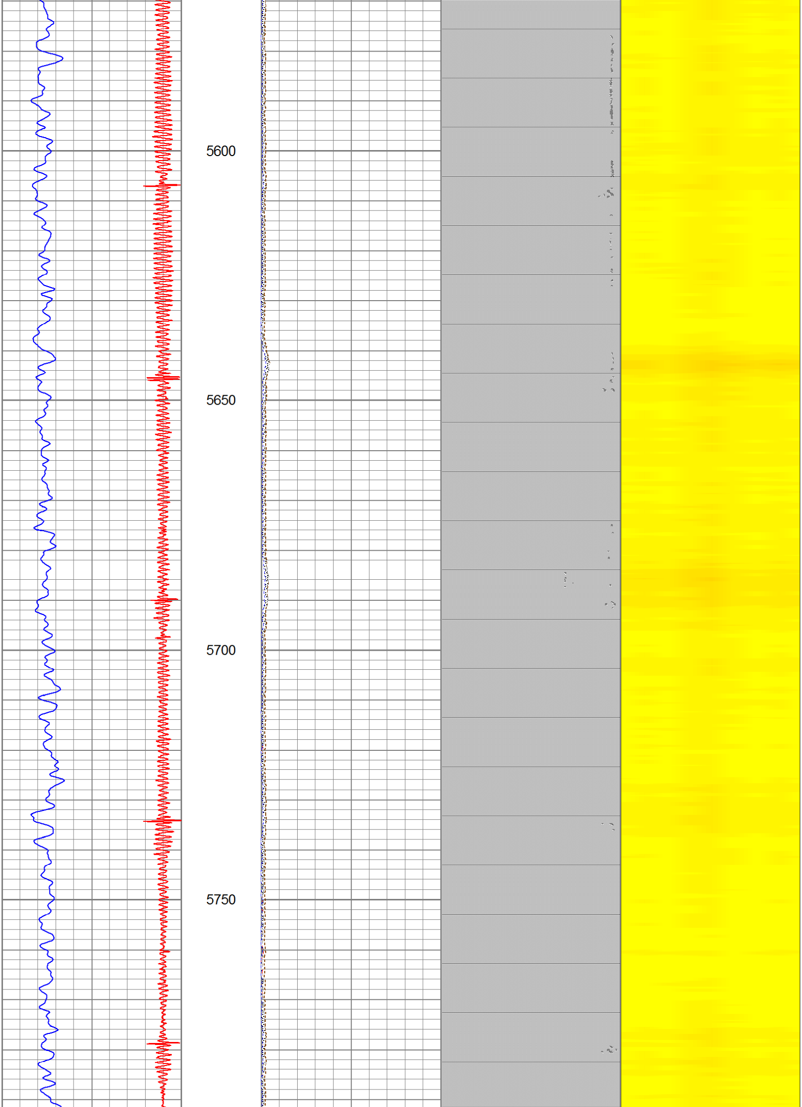


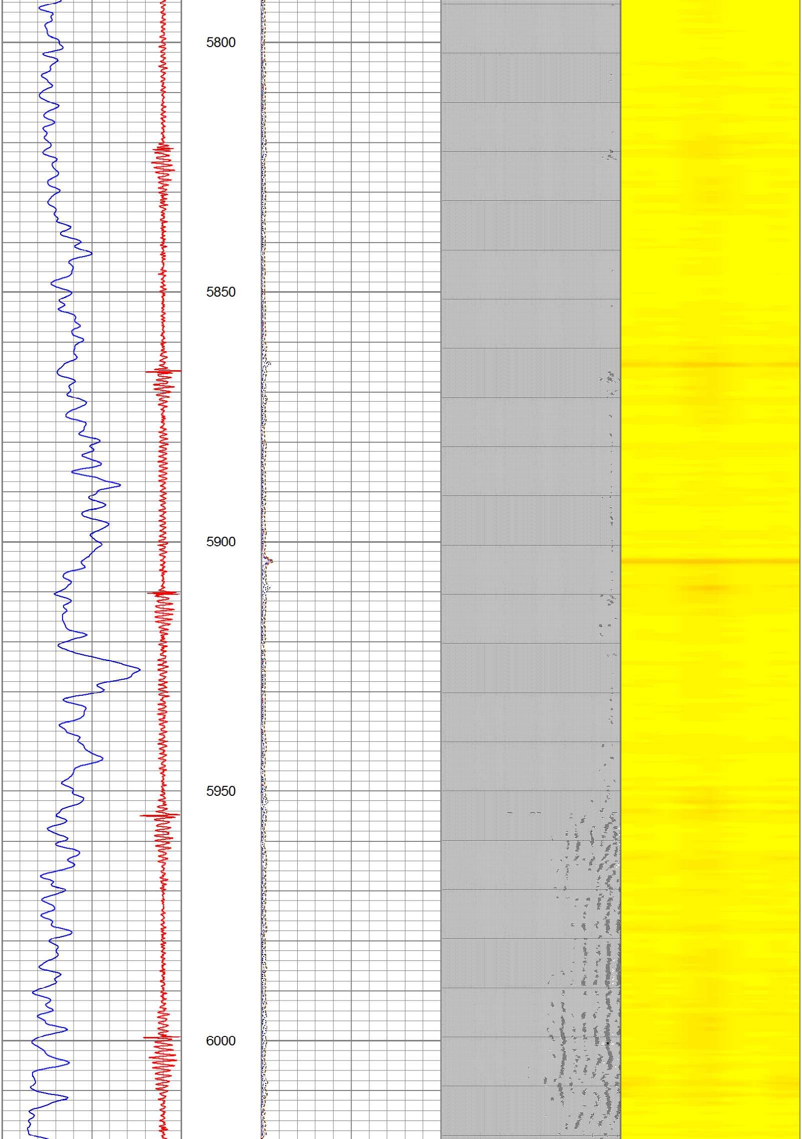


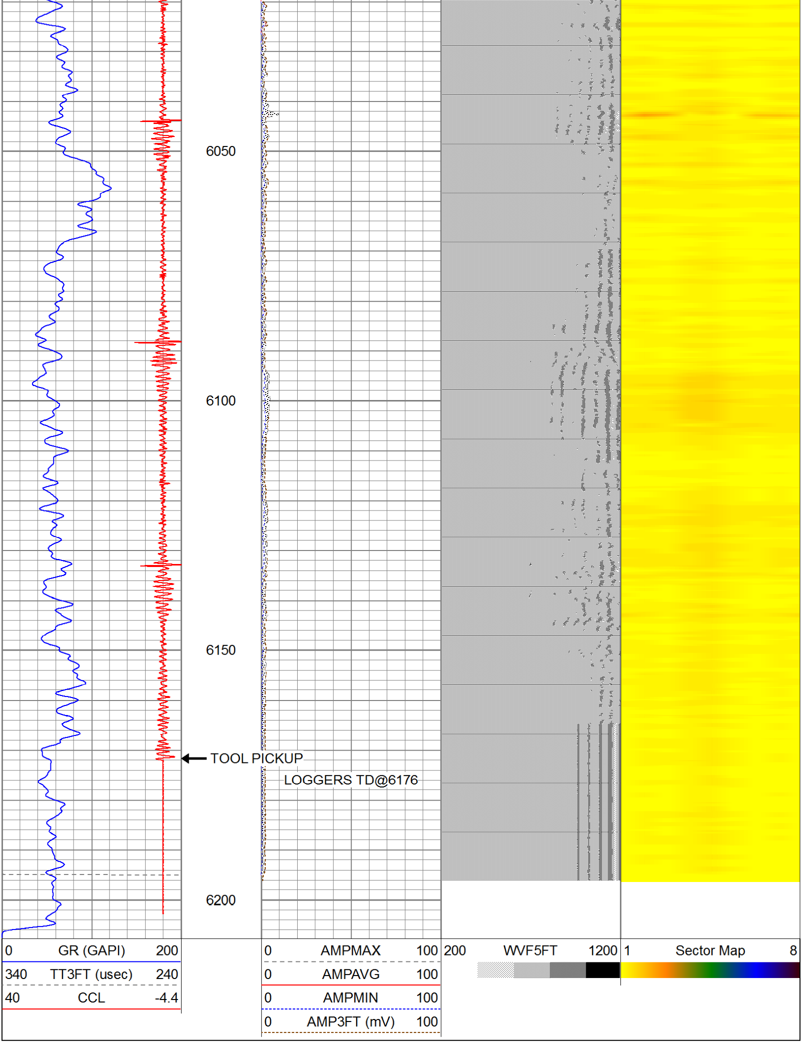












Calibration Report

Database File:	cbl noble riley ld19-722.db
Dataset Pathname:	pass3
Dataset Creation:	Tue Nov 15 11:00:16 2016 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION Tue Nov 15 08:29:22 2016

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.4000			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

Segmented Cement Bond Log Calibration Report

Serial Number:	101020	
Tool Model:	Probe	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	826.483	ft

Master Calibration, performed Tue Nov 15 10:37:19 2016:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	0.999	1.500	71.921	71.033	0.955
CAL	0.008	1.029				
5'	0.008	1.164	1.500	71.921	60.905	1.021
SUM						
S1	0.008	0.821	0.000	71.196	87.514	-0.671
S2	0.008	0.872	0.000	71.196	82.335	-0.638
S3	0.008	0.985	0.000	71.196	72.876	-0.560
S4	0.008	1.079	0.000	71.196	66.418	-0.502
S5	0.008	1.107	0.000	71.196	64.768	-0.508
S6	0.008	1.118	0.000	71.196	64.113	-0.483
S7	0.008	1.008	0.000	71.196	71.195	-0.551
S8	0.008	0.900	0.000	71.196	79.737	-0.599

Internal Reference Calibration, performed Fri Jan 13 14:30:16 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.008	1.029	1.000	0.000

Air Zero Calibration, performed Tue Nov 15 08:01:16 2016:

	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