NABORS
COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL
CEMENT BOND SECTOR VDL

Company	NOBLE ENERGY INC.
Well	WELLS RANCH STATE AA28-69HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well WELLS RANCH STATE AA28-69HN
Field WATTENBERG
County WELD State COLORADO

Location: API #: 0512338140
BHL: 1 FSL & 535 FWL
SE/SE
SEC 21 TWP 6N RGE 63W

Other Services

Permanent Datum	GL	Elevation	4731
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4755
D.F.
G.L. 4731

Date	FEBRUARY 24, 2014		
Run Number	ONE		
Depth Driller	10958		
Depth Logger	6910		
Bottom Logged Interval	6910		
Top Log Interval	SURFACE		
Open Hole Size	8-3/4		
Type Fluid	WATER		
Density / Viscosity	N/A		
Max. Recorded Temp.	237°F		
Estimated Cement Top	740		
Time Well Ready	PORTABLE MAST		
Time Logger on Bottom	2-3/4 PROBE 101024/010		
Equipment Number	4838		
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	24	932.7
Prot. String				
Production String	7	26# P-110 IC	24	7010.8
Liner	4-1/2	11.6# P-110	6915.9	10943

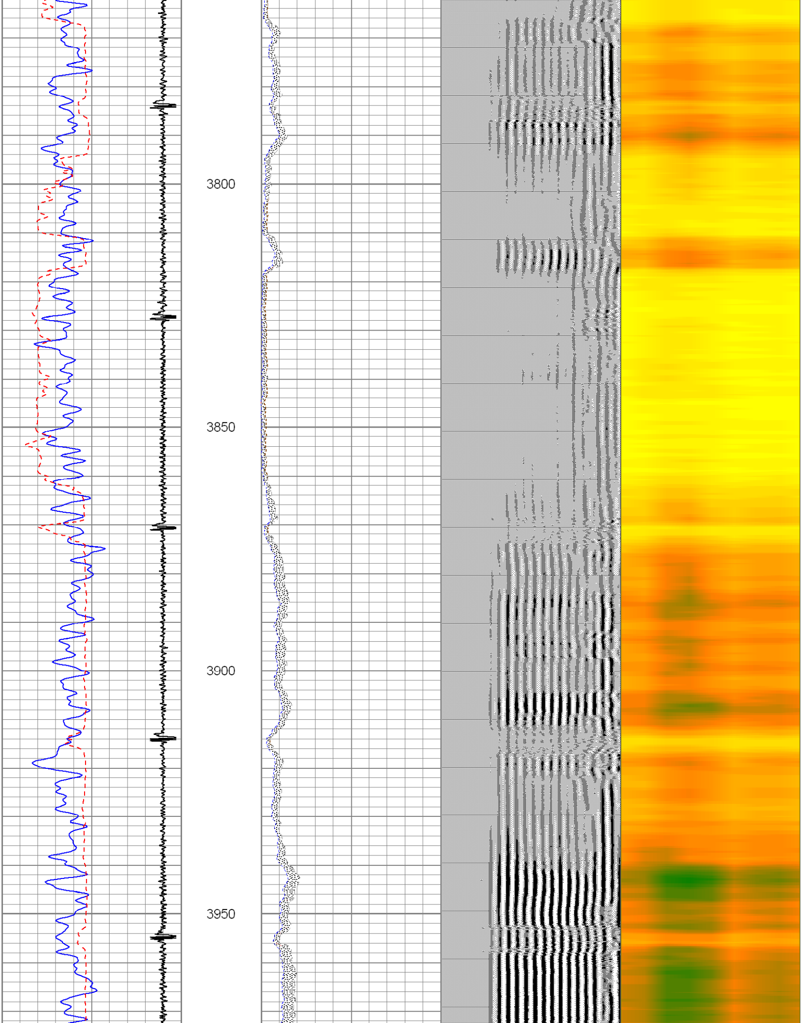
<<< Fold Here >>>

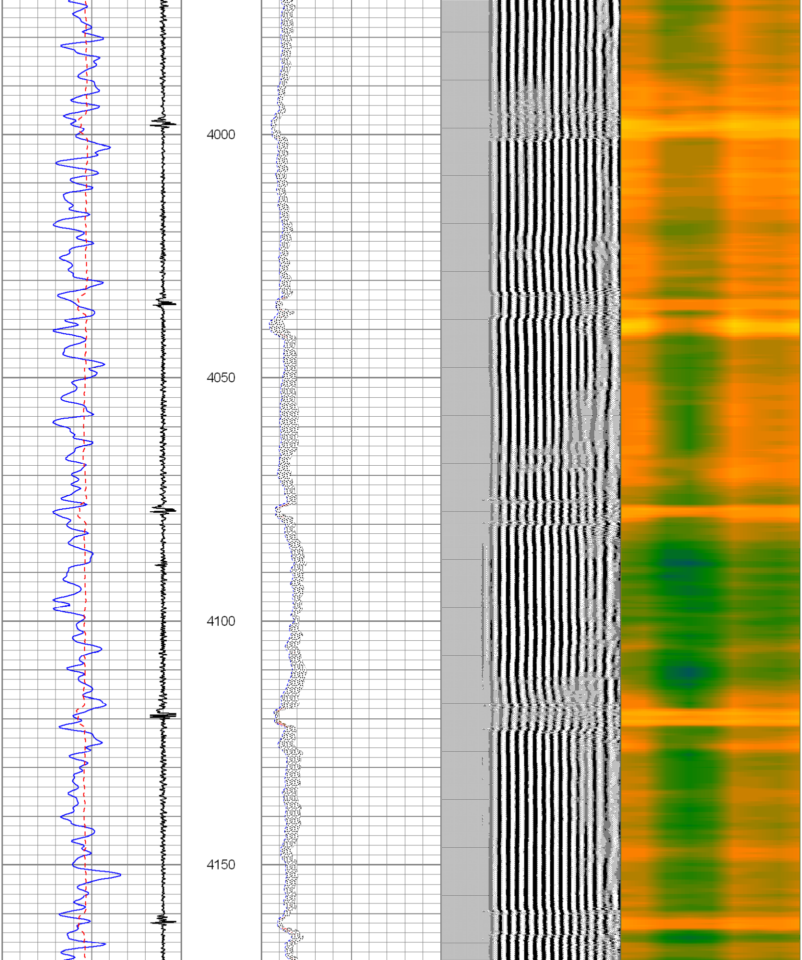
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

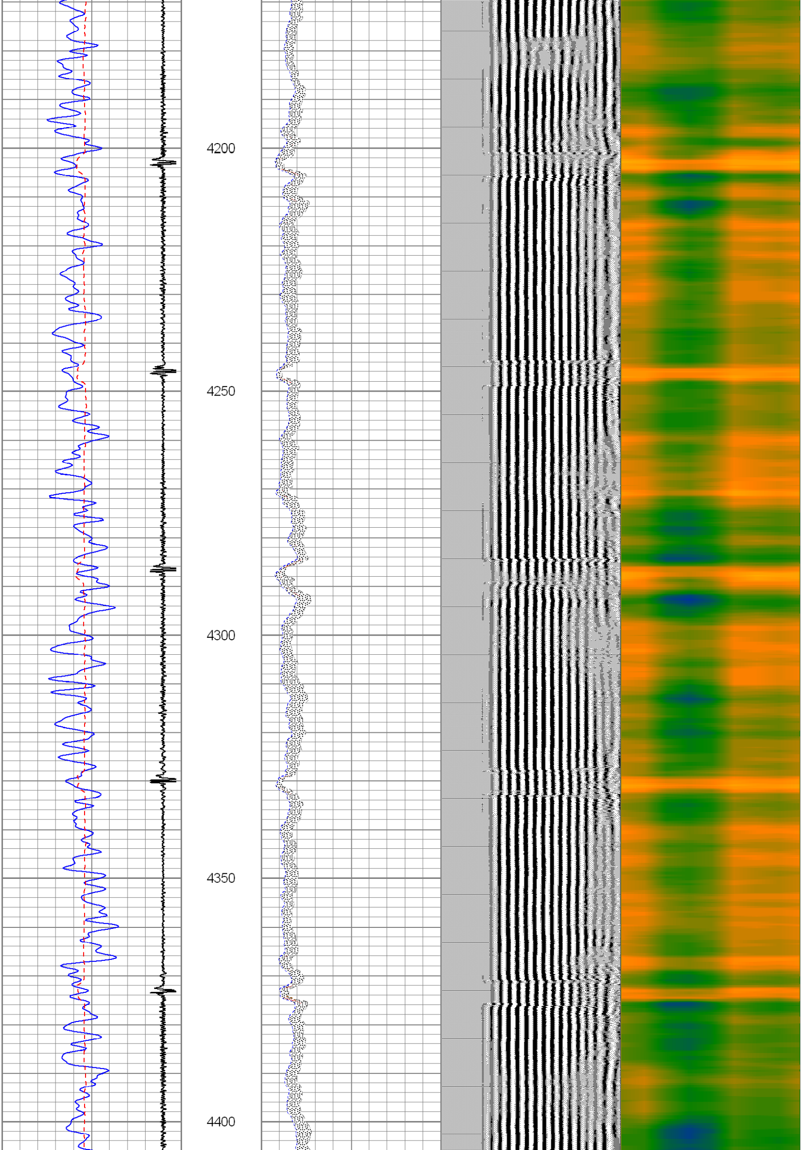
Comments

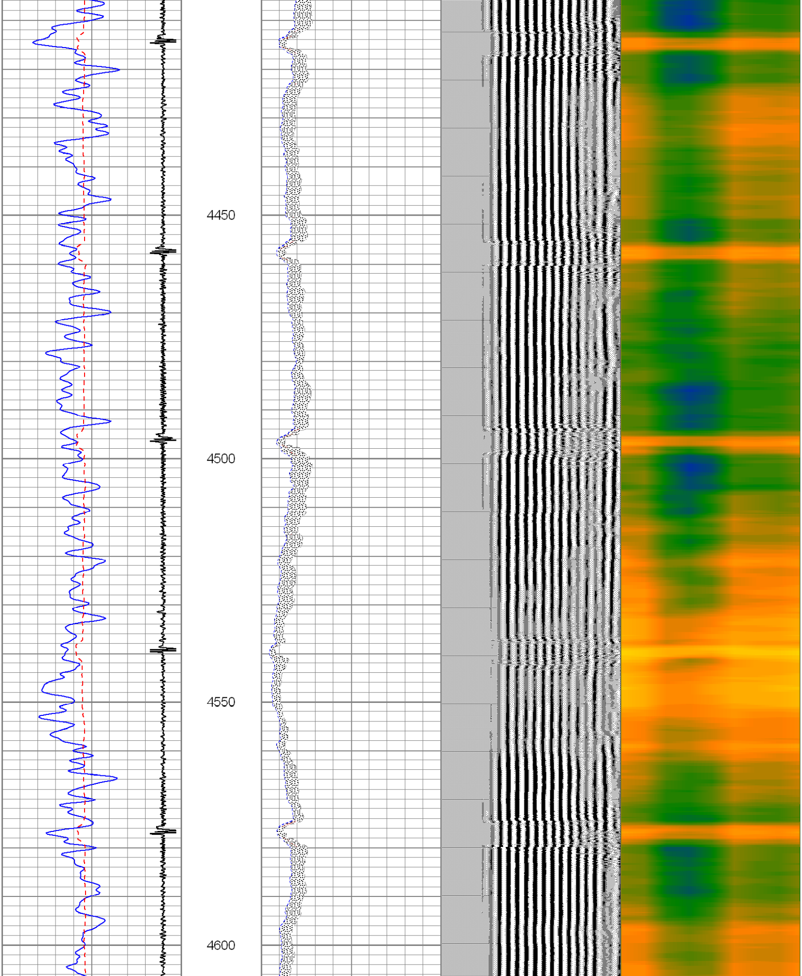
THANK YOU FOR CHOOSING NCPS!!!!
LOG NOT CORRELATED
WCR 67 & WCR 68, E.2, S.4, W.25 INTO
SOUTHERNMOST WELL OF A 6 WELL PAD

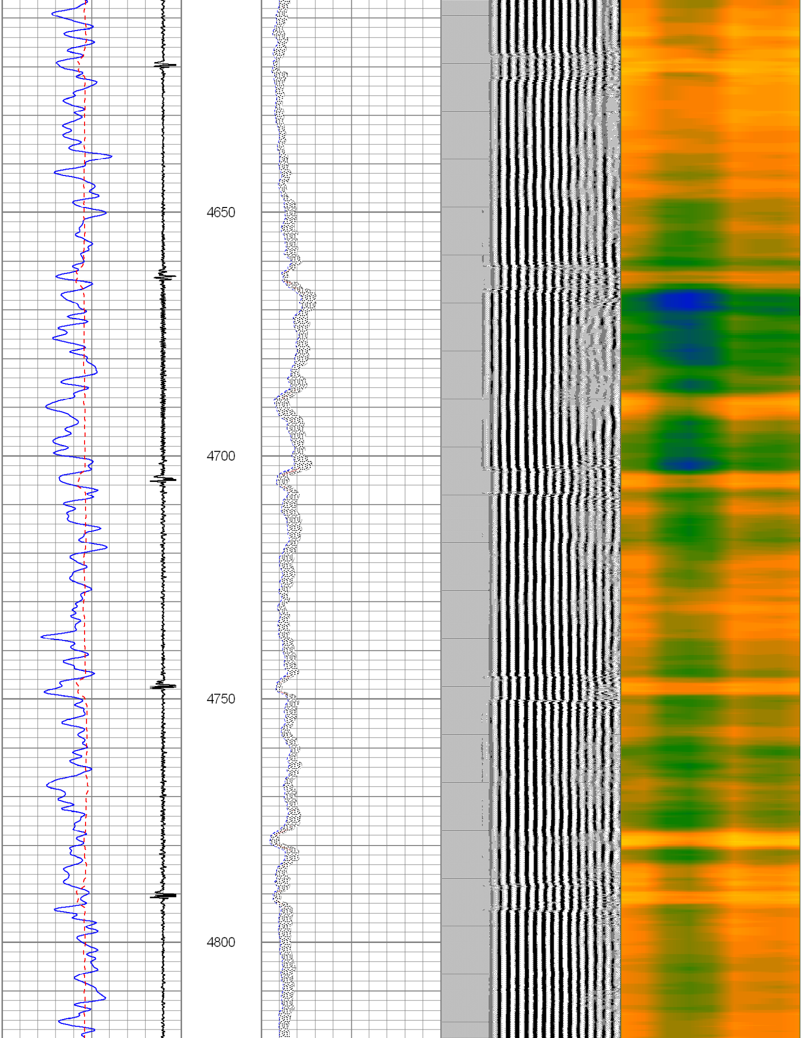
Database File: cbl wells ranch state aa28-69hn.db
Dataset Pathname: pass3
Presentation Format: sector2
Dataset Creation: Mon Feb 24 14:03:34 2014 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

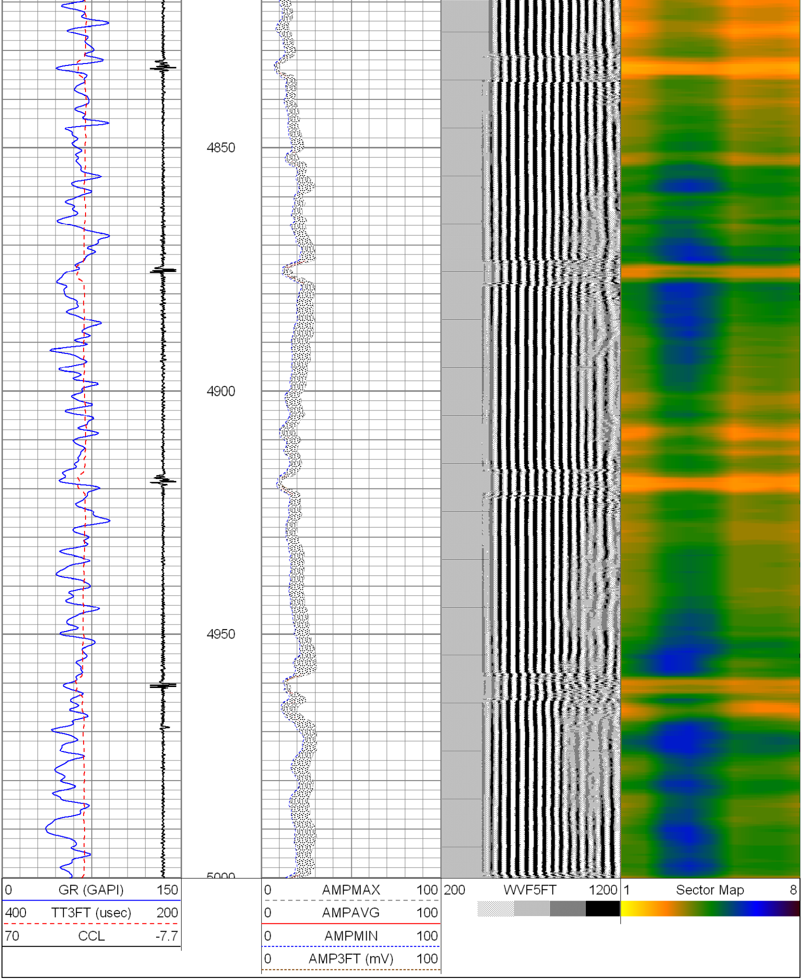




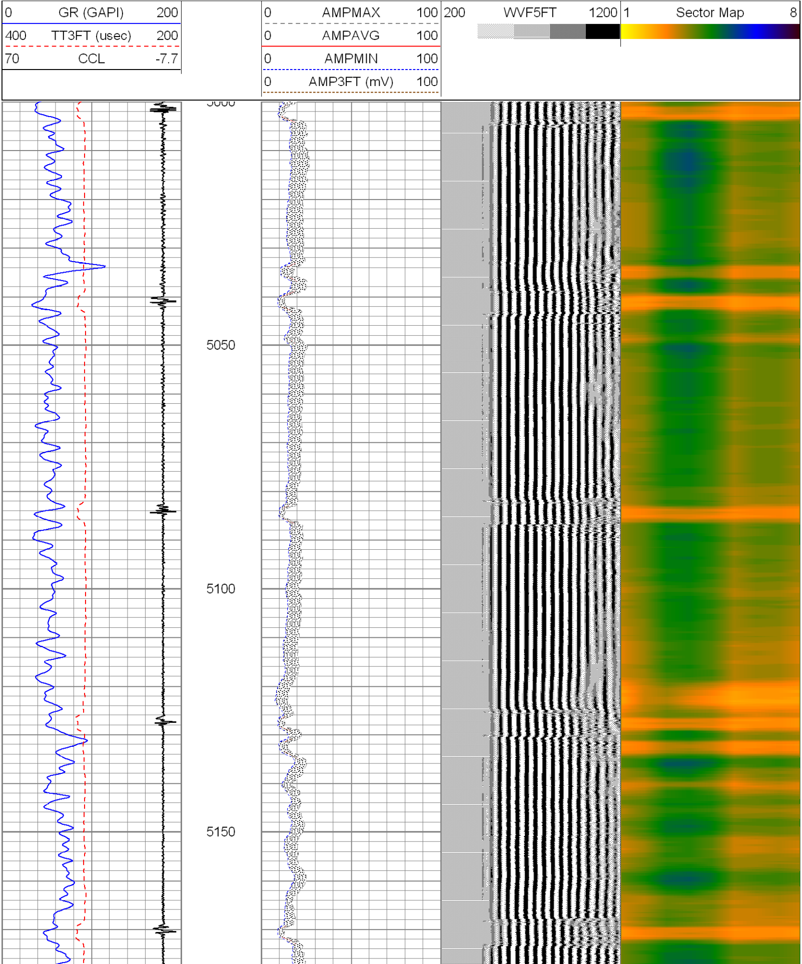


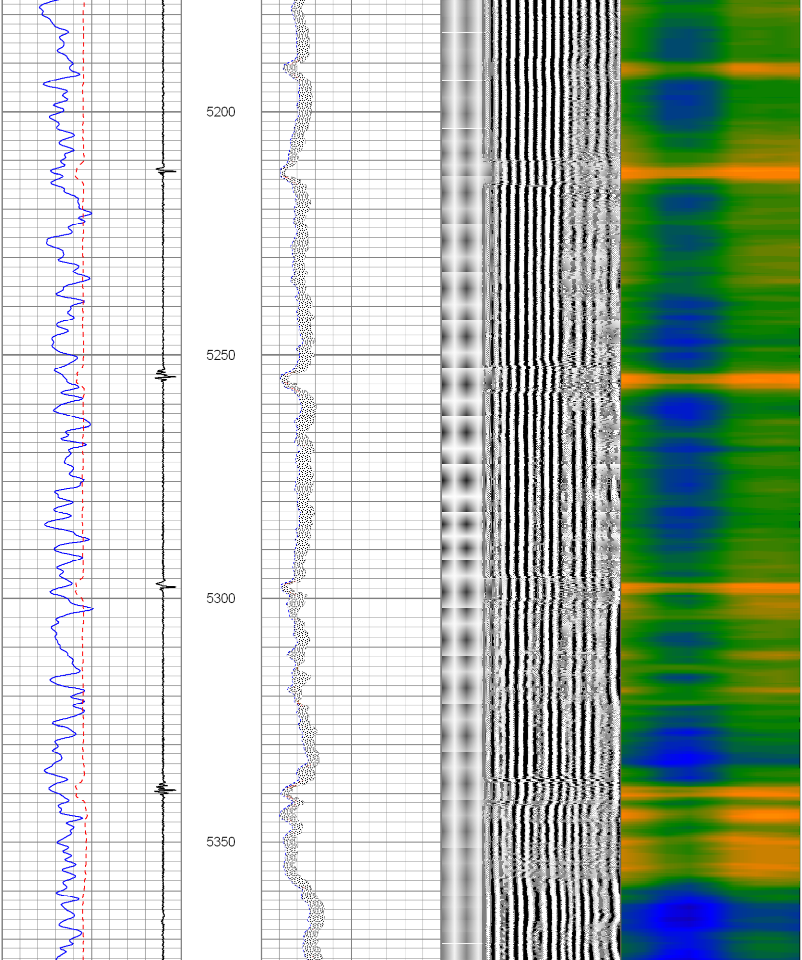


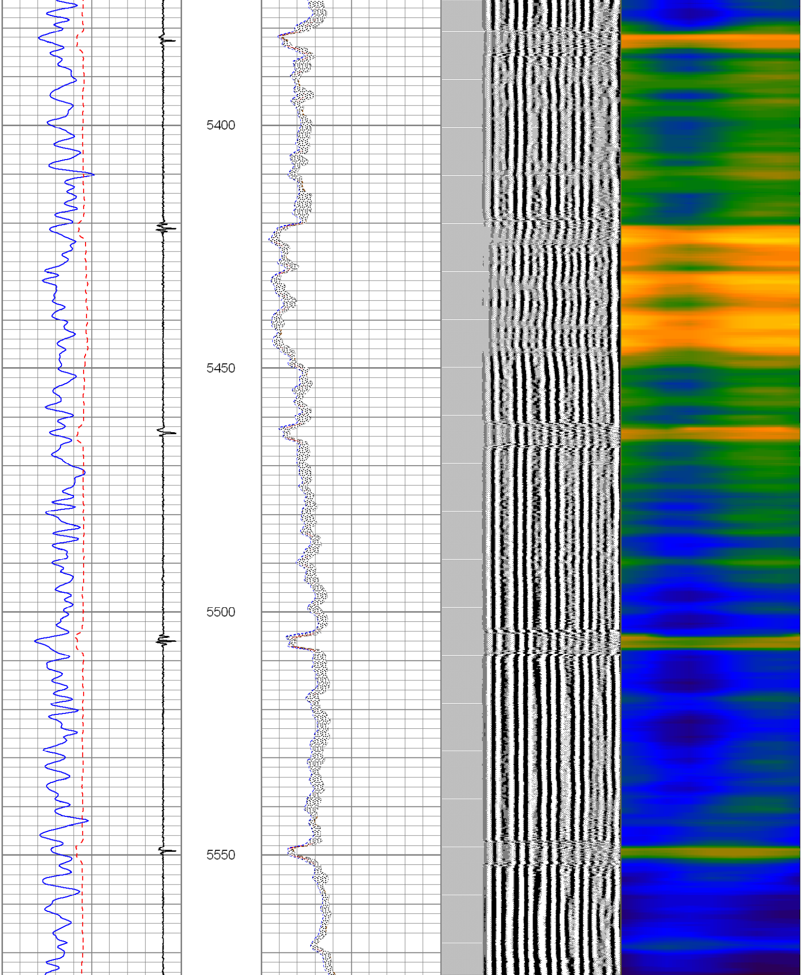


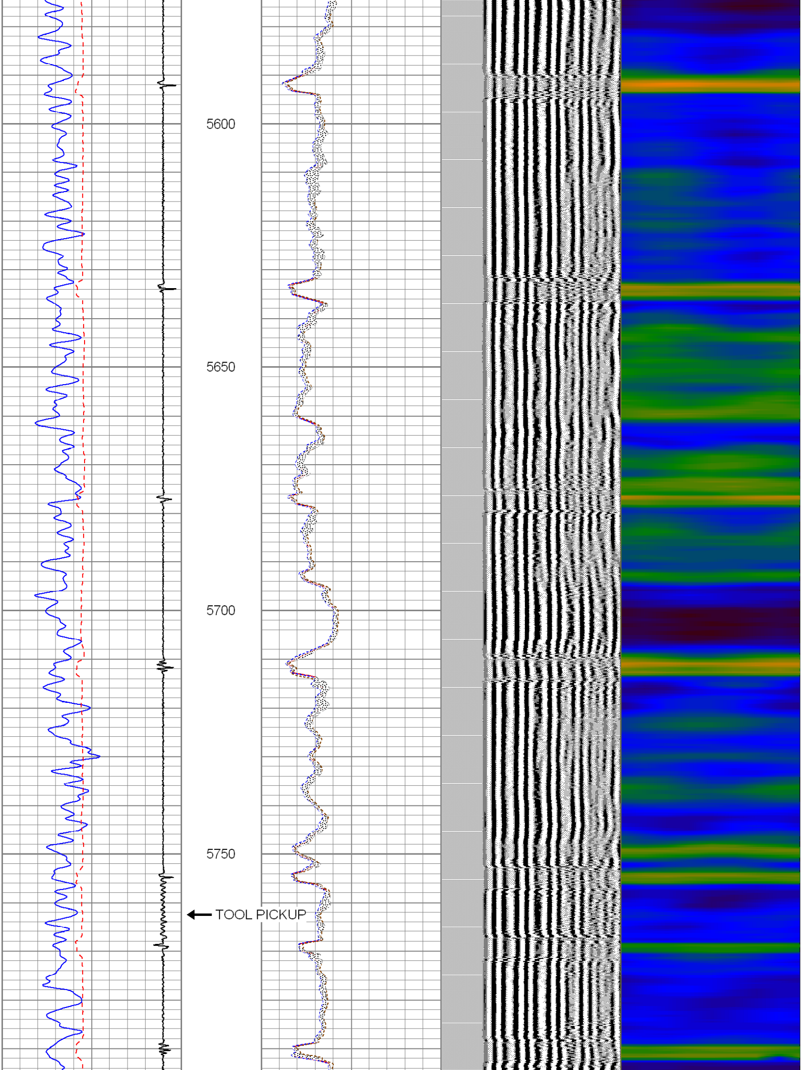


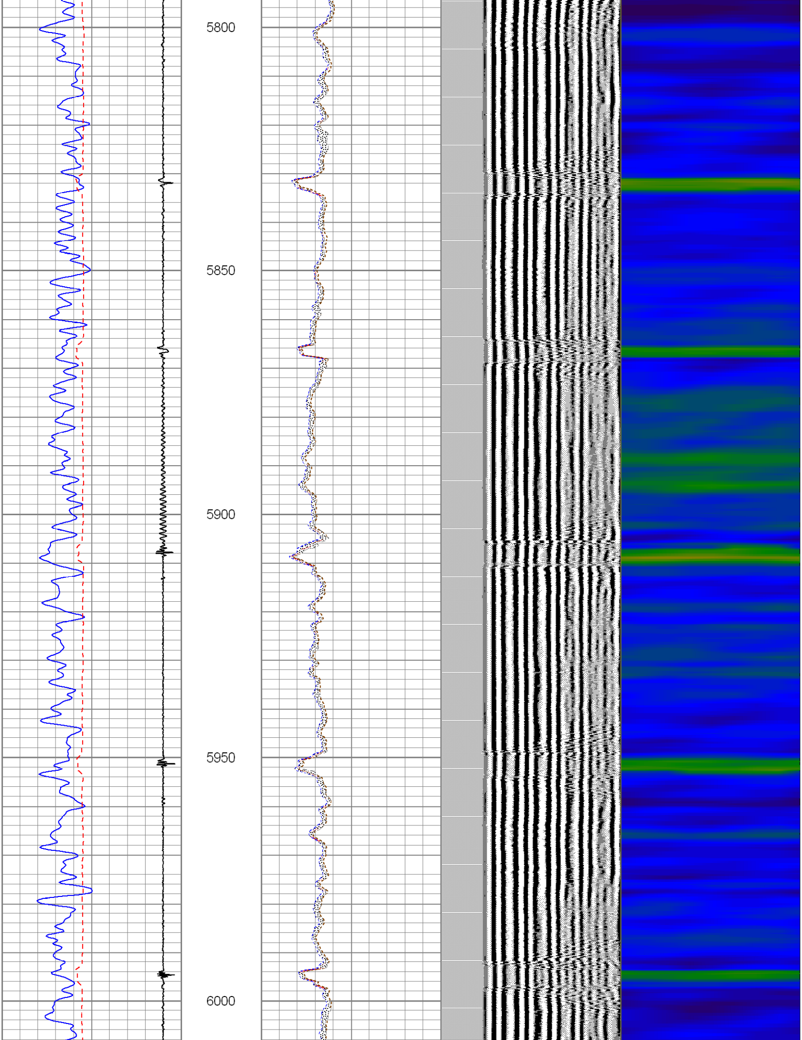
Database File:	cbl wells ranch state aa28-69hn.db
Dataset Pathname:	pass2
Presentation Format:	sector2
Dataset Creation:	Mon Feb 24 13:46:23 2014 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

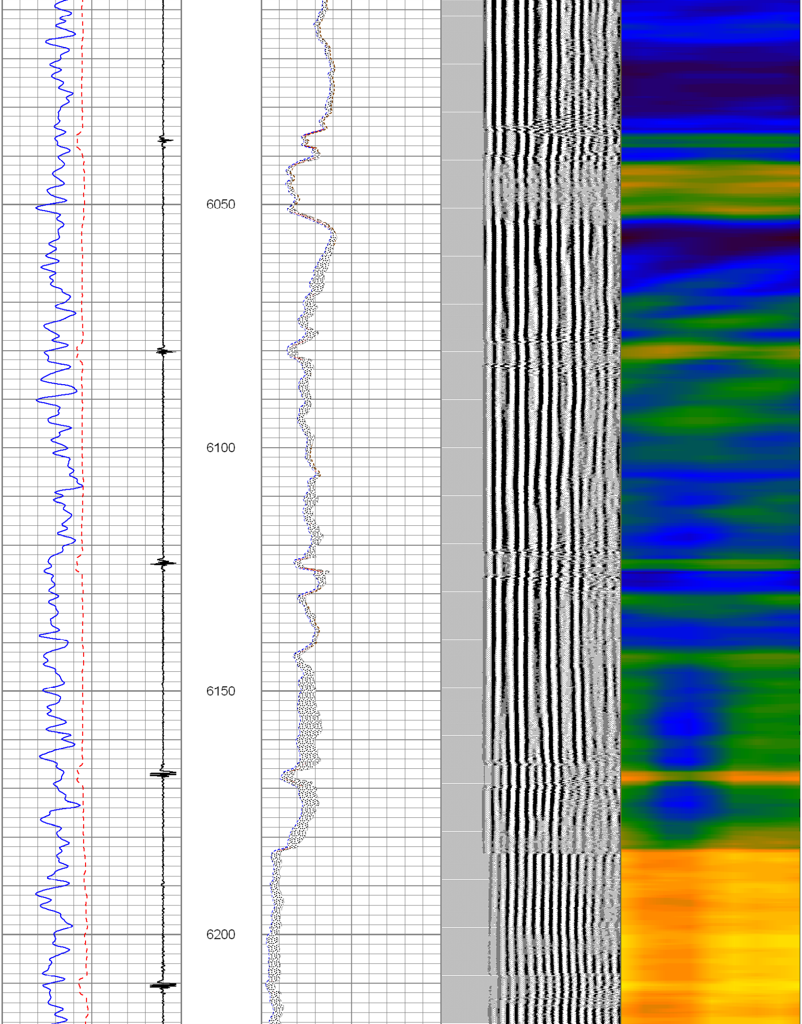


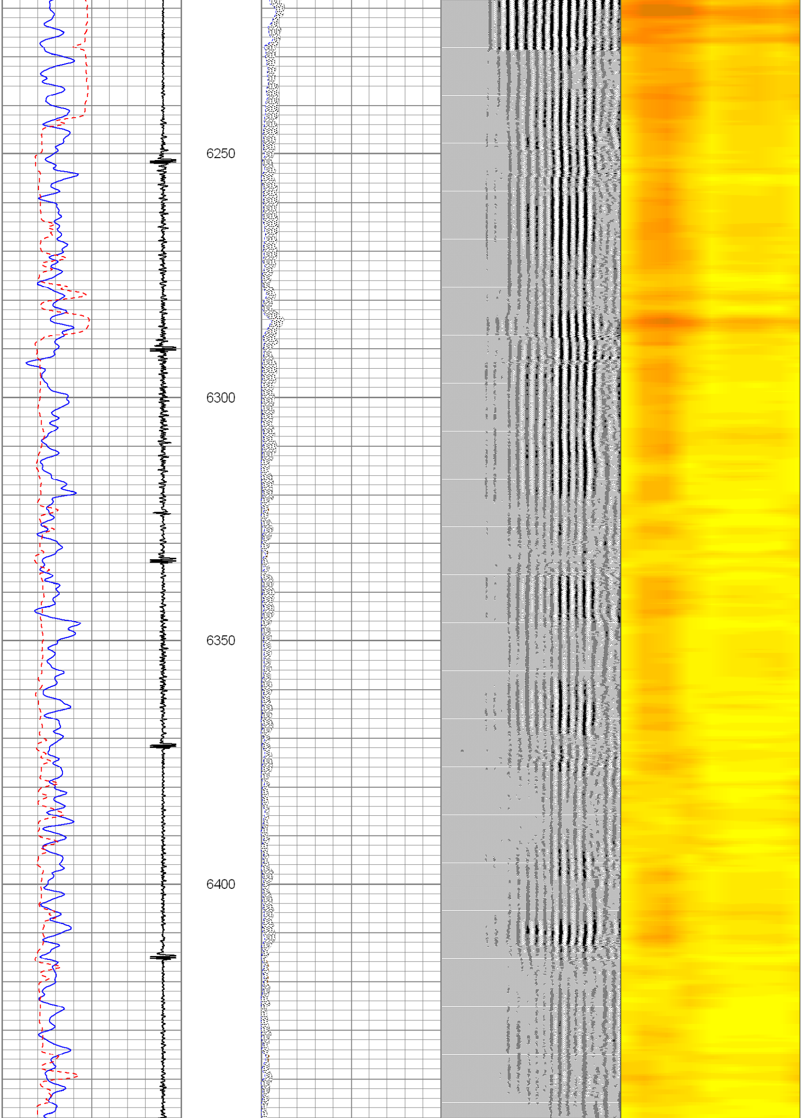


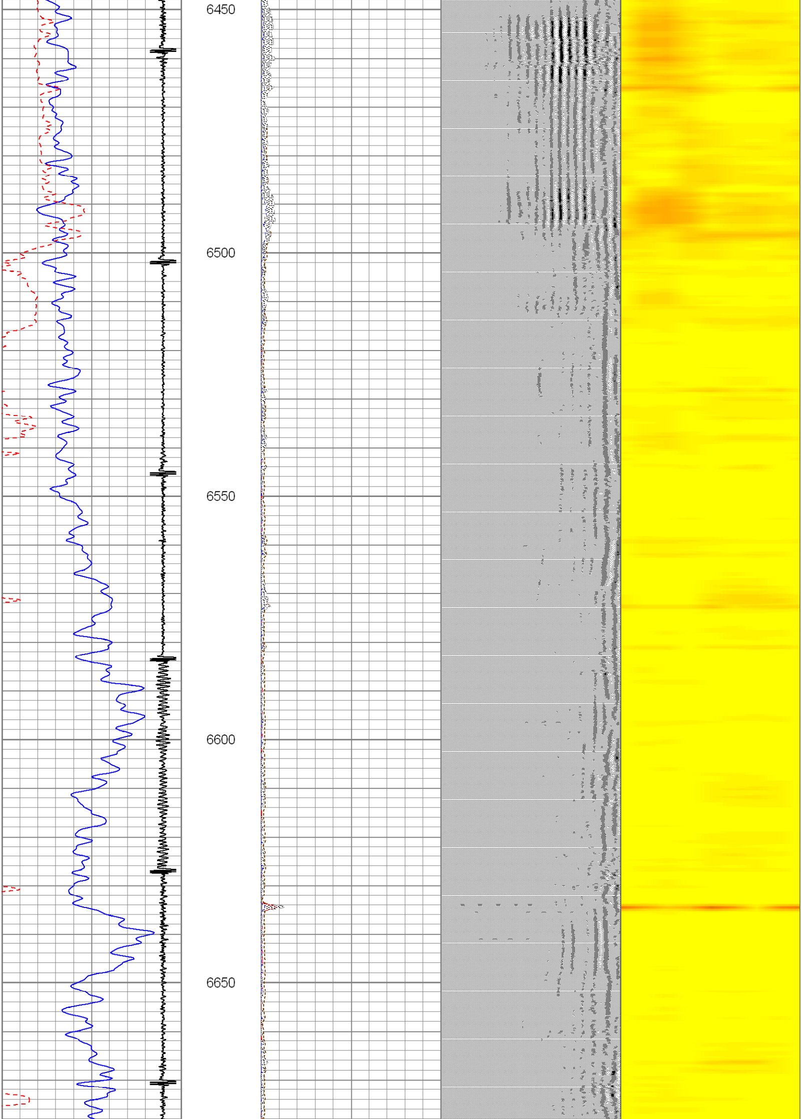


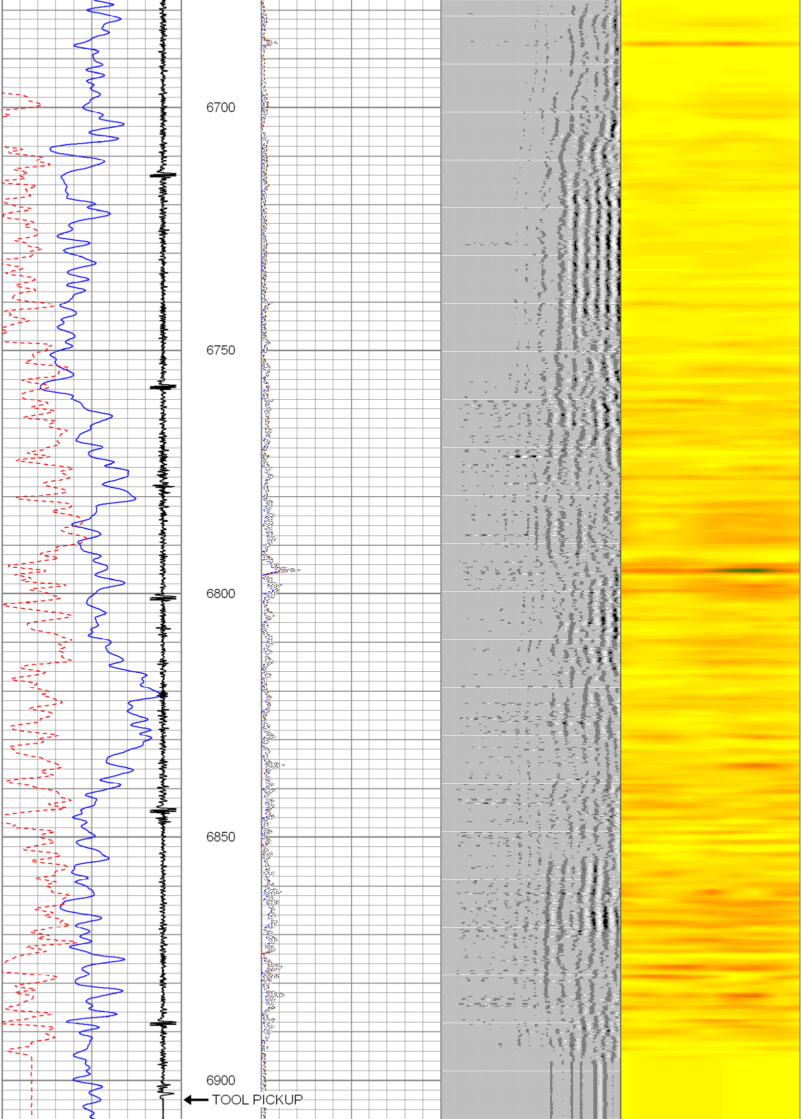


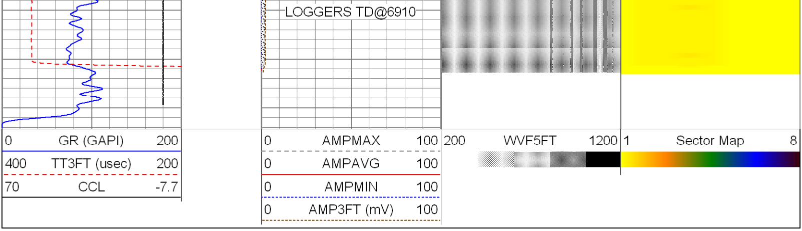












Calibration Report

Database File: cbl wells ranch state aa28-69hn.db
Dataset Pathname: pass2
Dataset Creation: Mon Feb 24 13:46:23 2014 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION Mon Feb 24 09:03:36 2014

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.6000			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: 101024
Tool Model: Probe

Calibration Casing Diameter: 7.000 in
Calibration Depth: 651.883 ft

Master Calibration, performed Mon Feb 24 13:29:47 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.514	1.500	62.165	40.266	1.191
CAL	0.008	1.755				
5'	0.008	1.867	1.500	62.165	32.624	1.248
SUM						
S1	0.007	1.276	0.000	62.165	49.000	-0.367
S2	0.008	1.389	0.000	62.165	45.018	-0.345
S3	0.008	1.558	0.000	62.165	40.086	-0.306
S4	0.008	1.667	0.000	62.165	37.458	-0.285
S5	0.008	1.640	0.000	62.165	38.082	-0.291
S6	0.008	1.617	0.000	62.165	38.621	-0.291
S7	0.008	1.475	0.000	62.165	42.371	-0.327

S8	0.008	1.352	0.000	62.165	46.234	-0.349

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	0.008	1.755	1.000	0.000

Air Zero Calibration, performed Mon Feb 24 13:25:55 2014:

	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