NABORS
COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL CEMENT BOND VDL

Company	NOBLE ENERGY INC.
Well	SLW RANCH STATE B12-65HN
Field	WATTENBERG
County	WELD
State	COLORADO

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Well SLW RANCH STATE B12-65HN
Field WATTENBERG
County WELD **State** COLORADO

Location: API #: 0512336285
BHL: 2600' FNL & 535' FEL
SW/NW
SEC 12 TWP 5N RGE 64W

Other Services

Permanent Datum	GL	Elevation 4603	Elevation
Log Measured From	KB		K.B. 4627
Drilling Measured From	KB		D.F.
			G.L. 4603

Date	MAY 13, 2013
Run Number	ONE
Depth Driller	10977
Depth Logger	6822
Bottom Logged Interval	6822
Top Log Interval	SURFACE
Open Hole Size	8-3/4
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	222°F
Estimated Cement Top	1514
Time Well Ready	PORTABLE MAST
Time Logger on Bottom	
Equipment Number	2-3/4 PROBE 101020
Location	4838
Recorded By	45
Witnessed By	GREG NOLAN
	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	629.8
Prot. String				
Production String	7	26# P-110	24	6968.7
Liner	4-1/2	11.6# P-110	6845.1	10977

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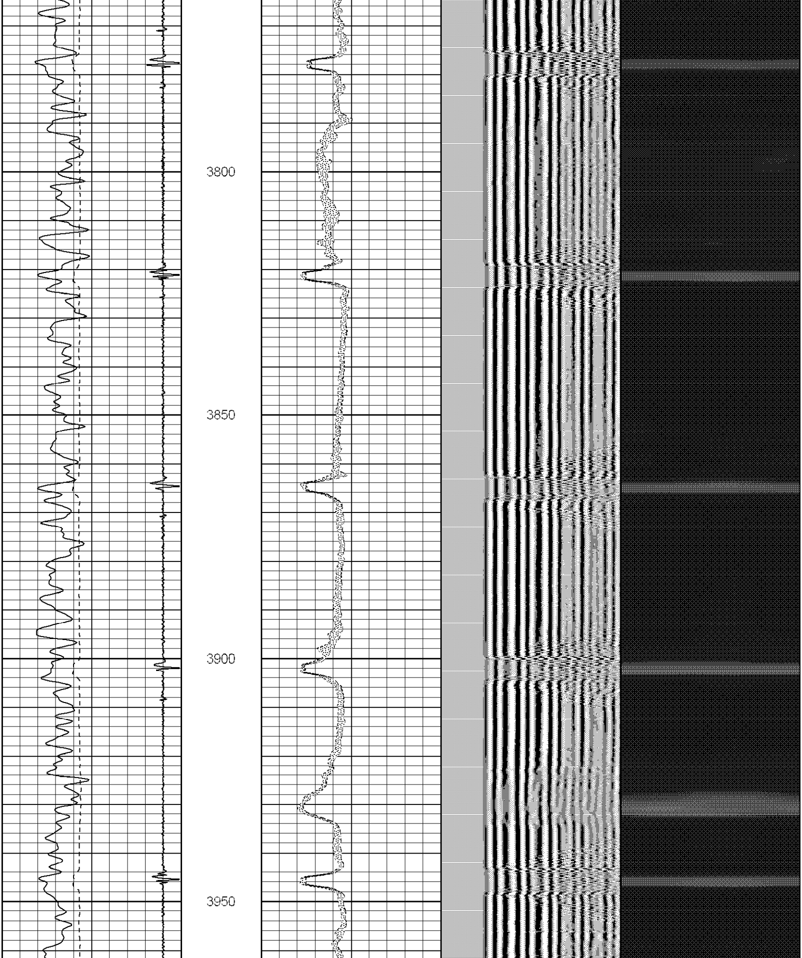
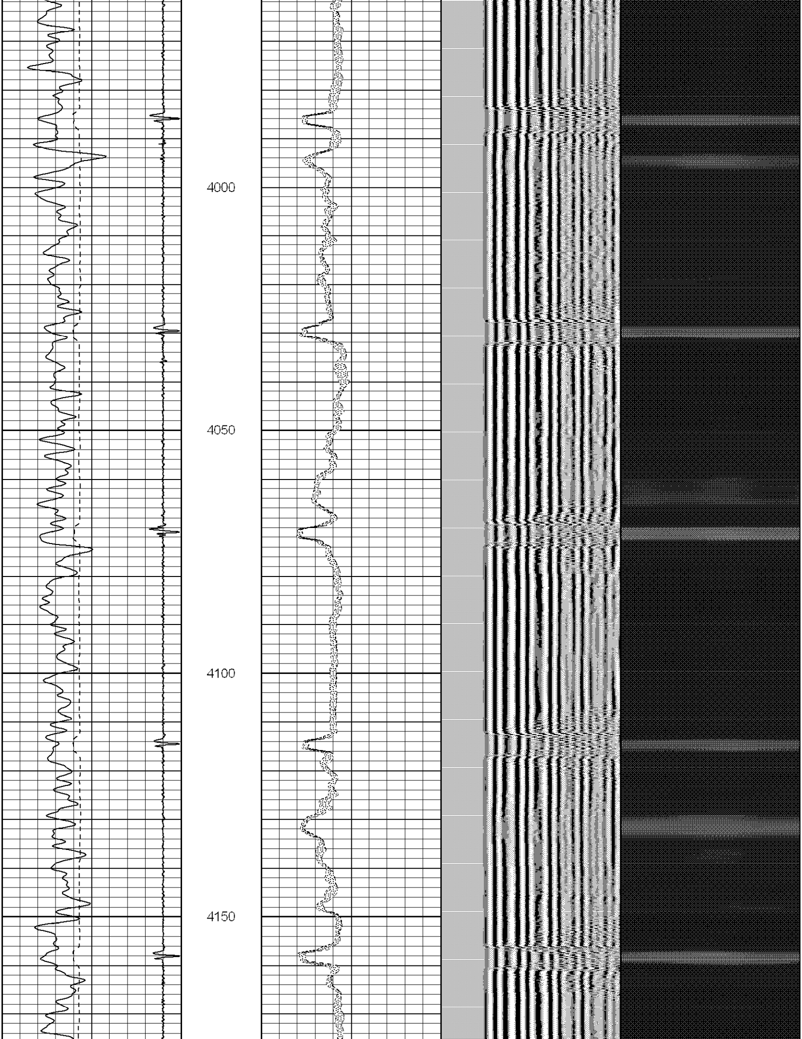
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

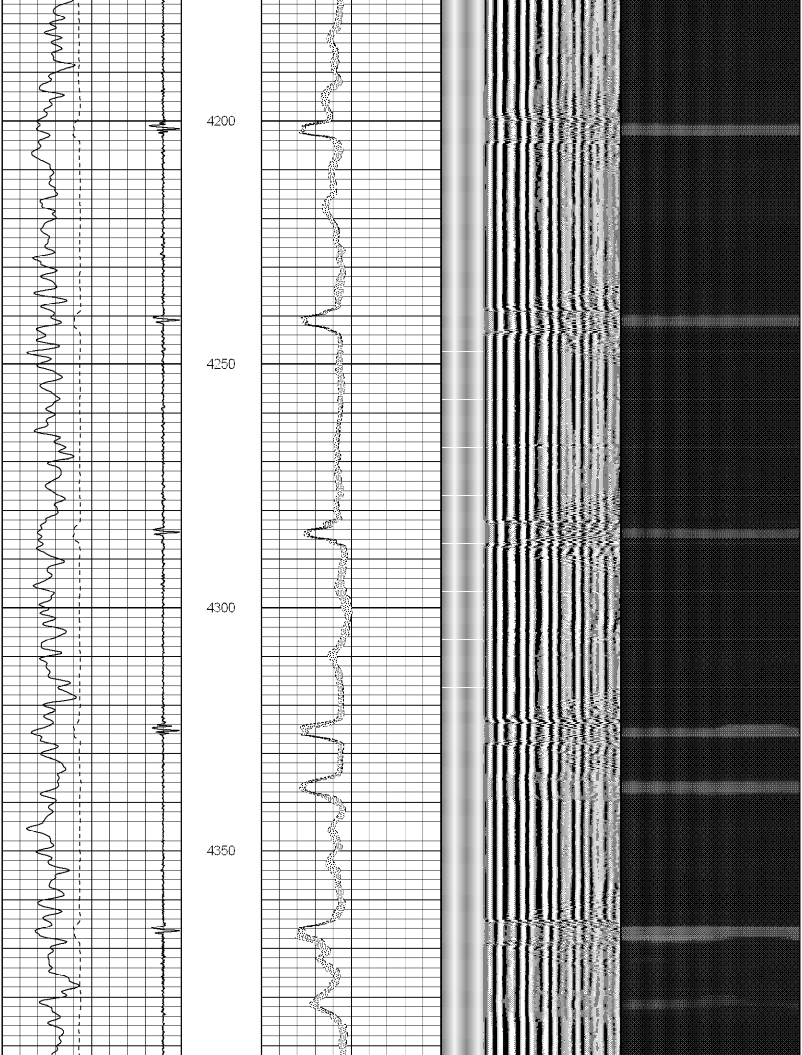
Comments

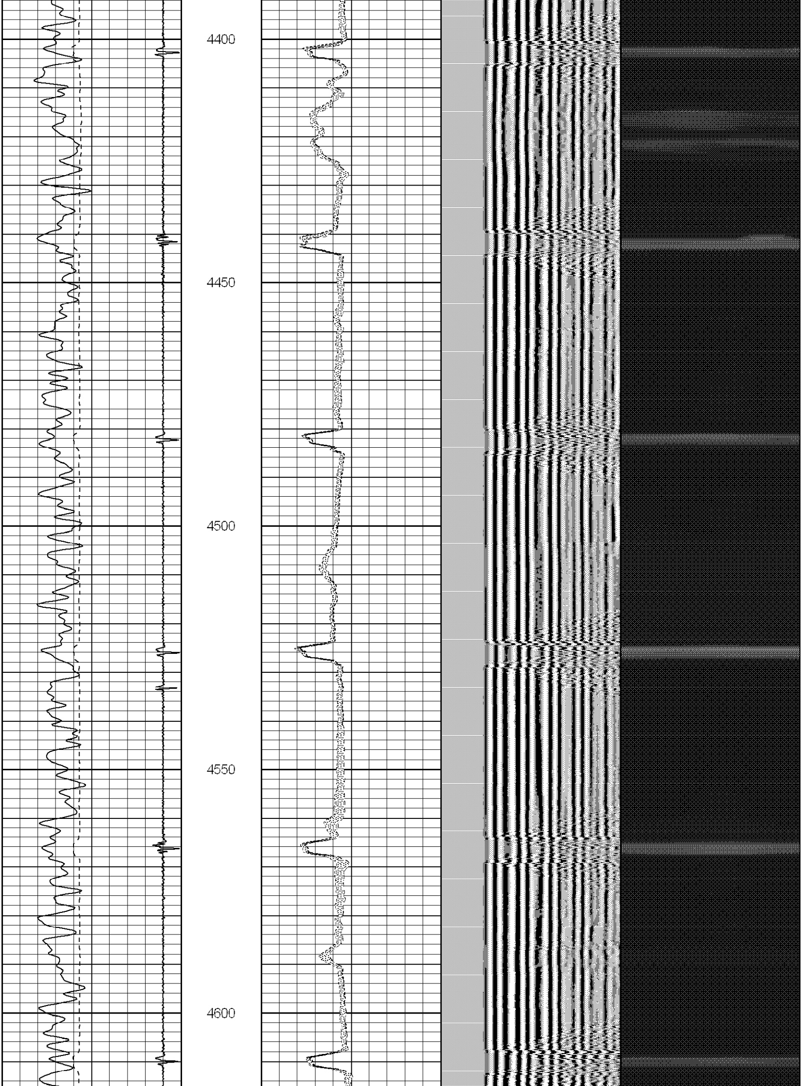
THANK YOU FOR CHOOSING NCPS!!!!
LOG NOT CORRELATED
WCR 58-1/2 & WCR 59, S.1, E INTO
SECOND WELL FROM THE SOUTH OF A 4 WELL PAD

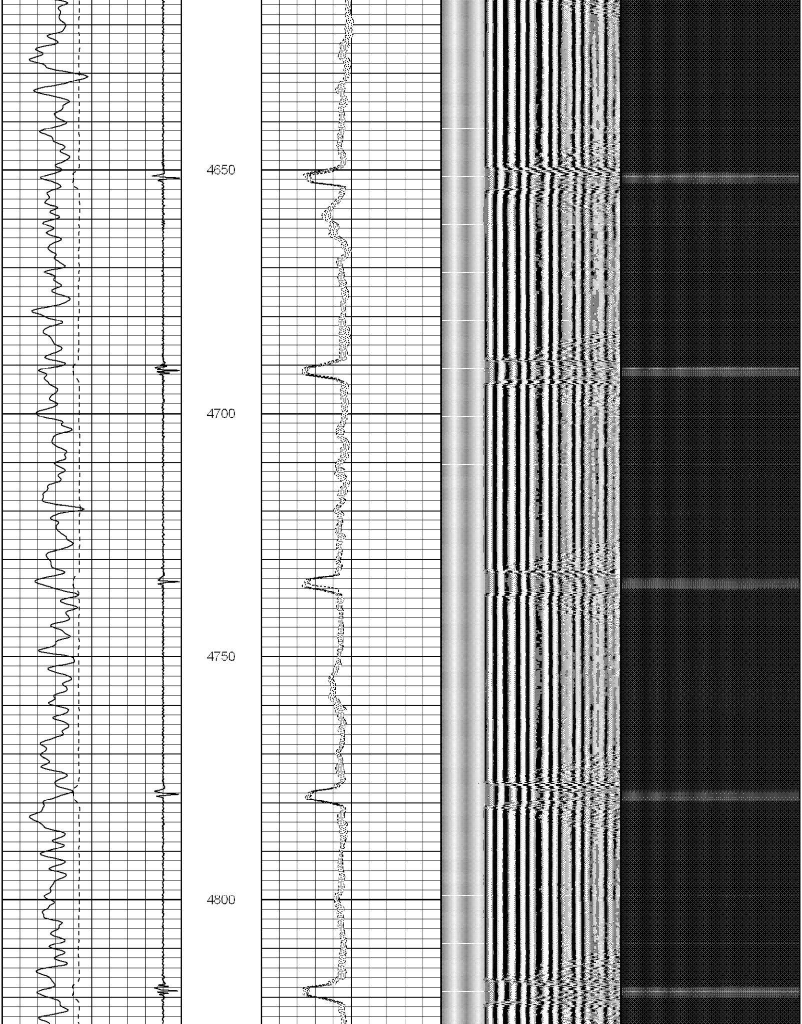
Database File:	cbl noble slw ranch state b12-65hn.db
Dataset Pathname:	pass5
Presentation Format:	sector2
Dataset Creation:	Mon May 13 10:17:43 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

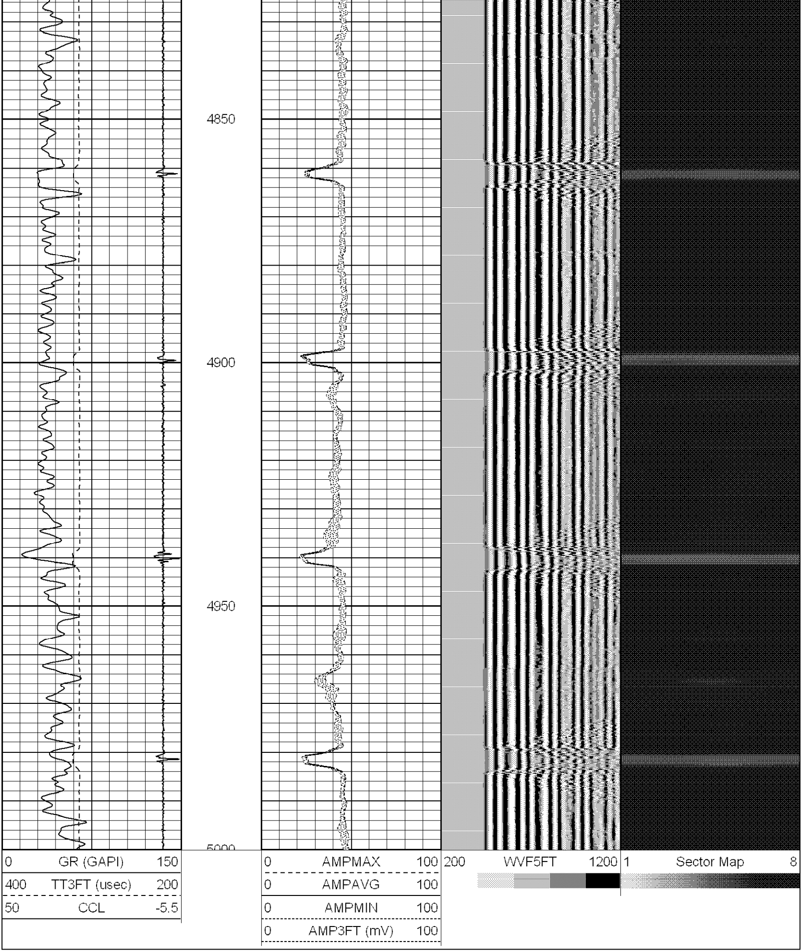












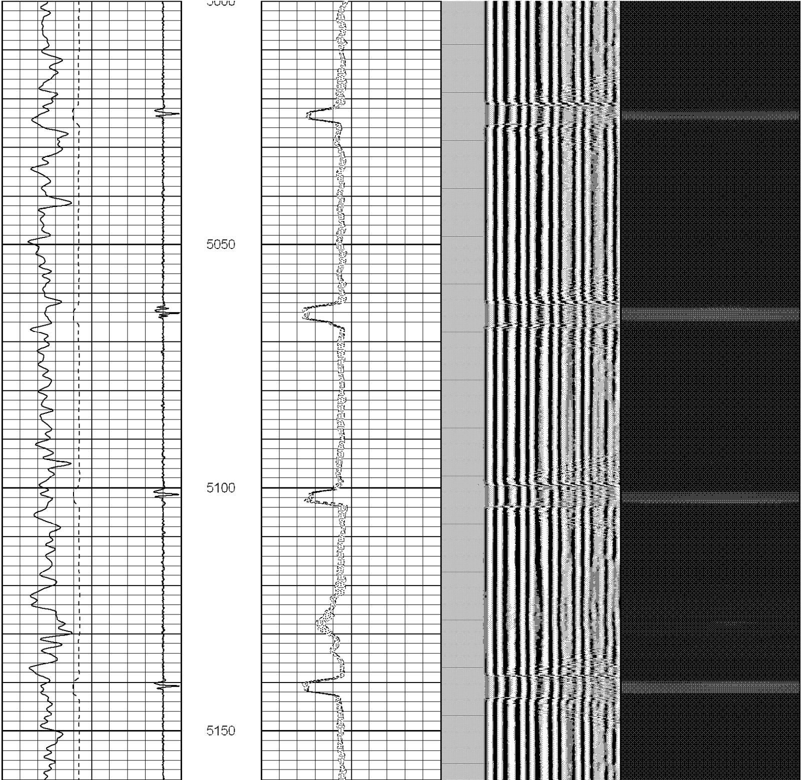
Database File:	cbl noble slw ranch state b12-65hn.db
Dataset Pathname:	pass4
Presentation Format:	sector2
Dataset Creation:	Mon May 13 10:00:25 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

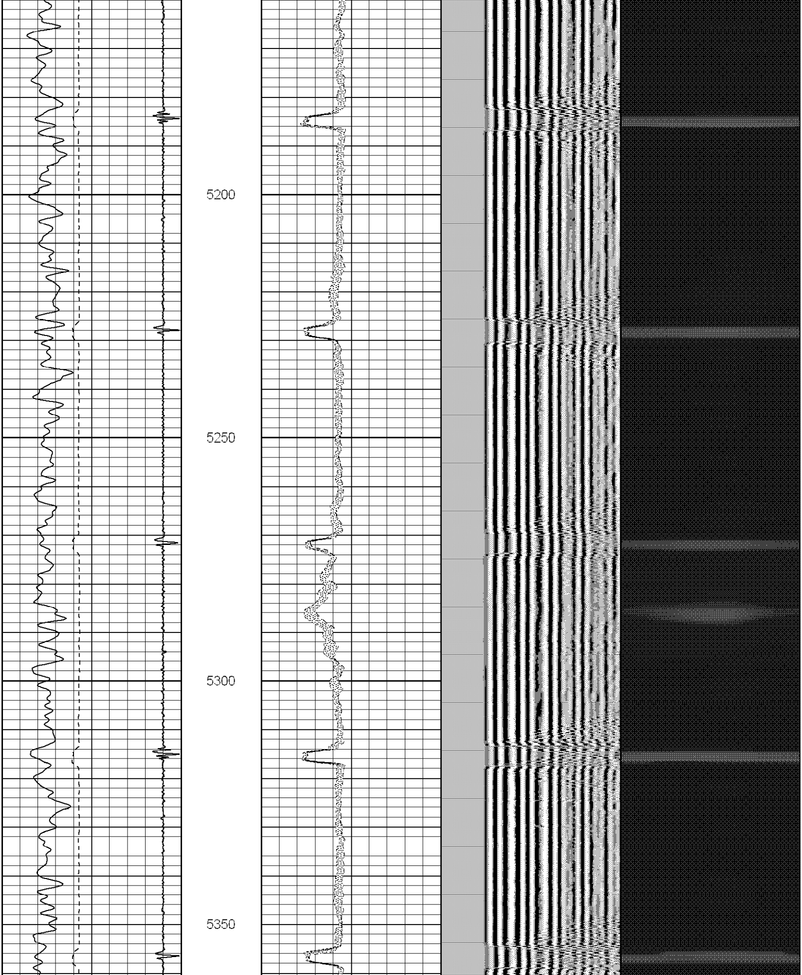
0 GR (GAPI) 200
400 TT3FT (usec) 200
50 CCL -5.5

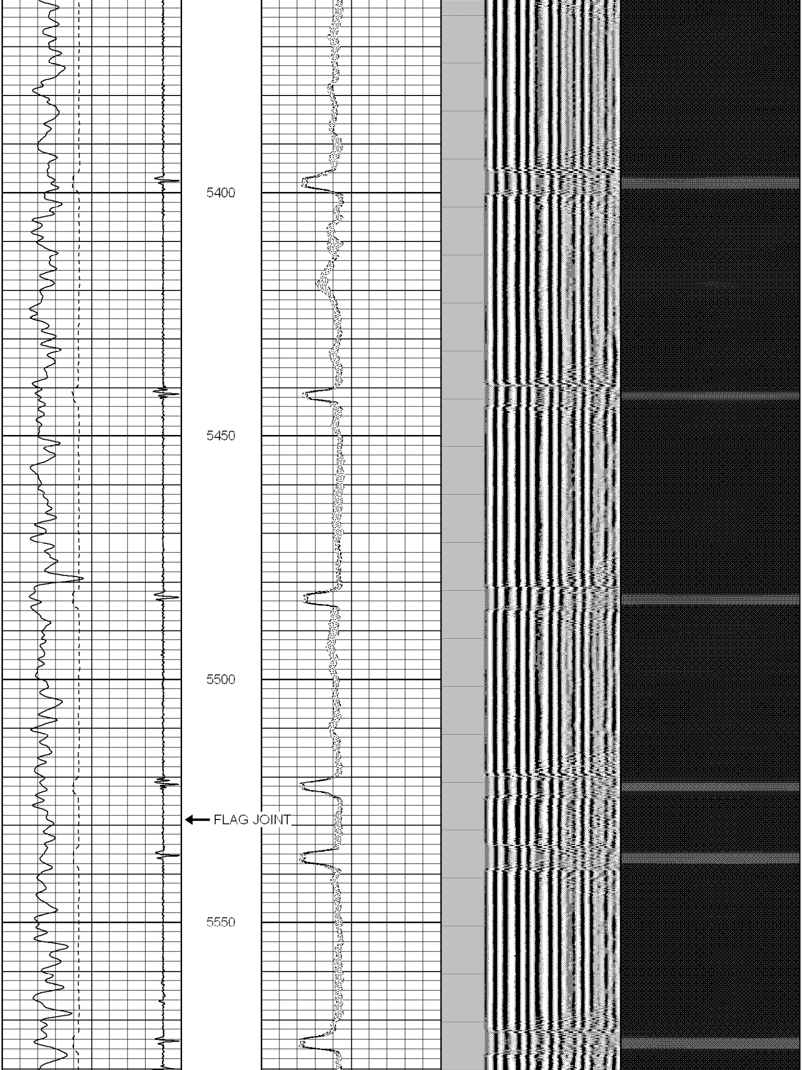
0 AMPMAX 100
0 AMPAVG 100
0 AMPMIN 100
0 AMP3FT (mV) 100

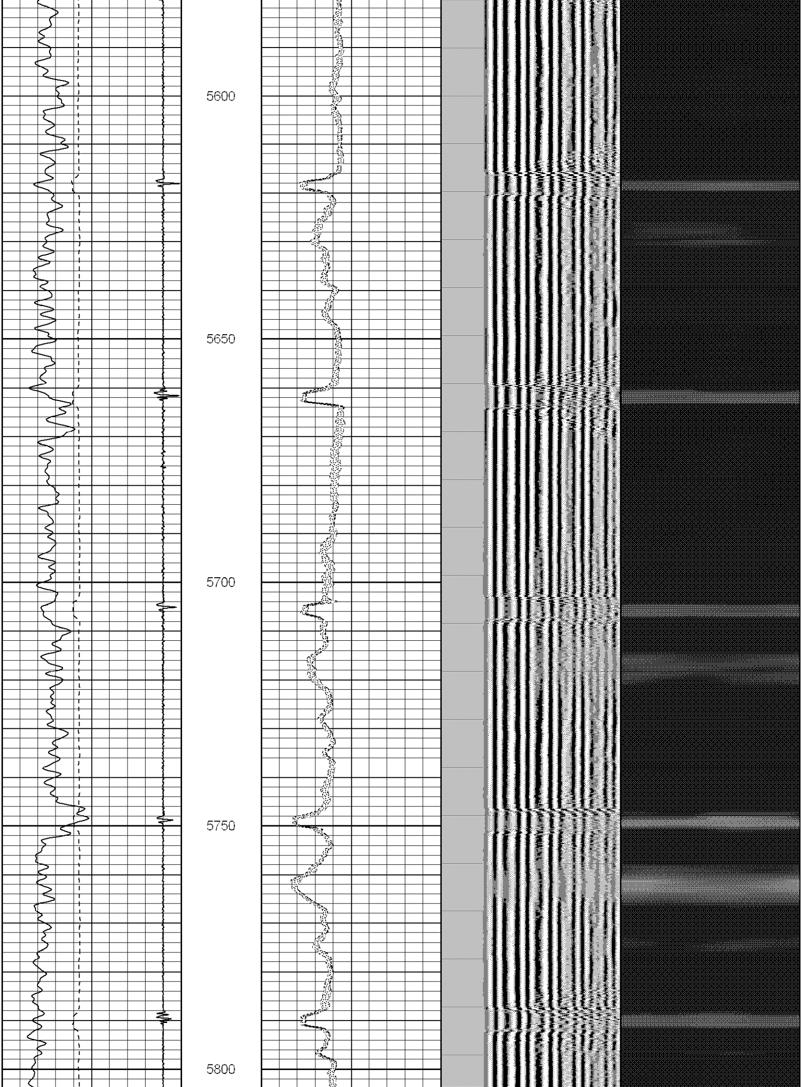
200 WVF5FT 1200

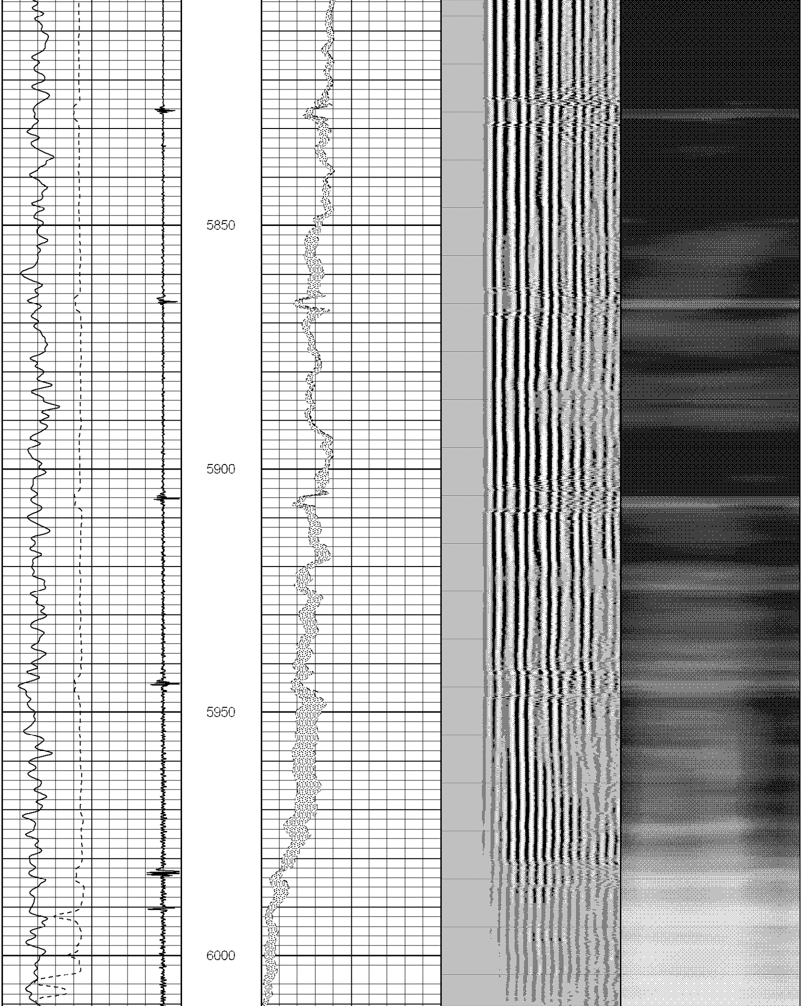
1 Sector Map 8

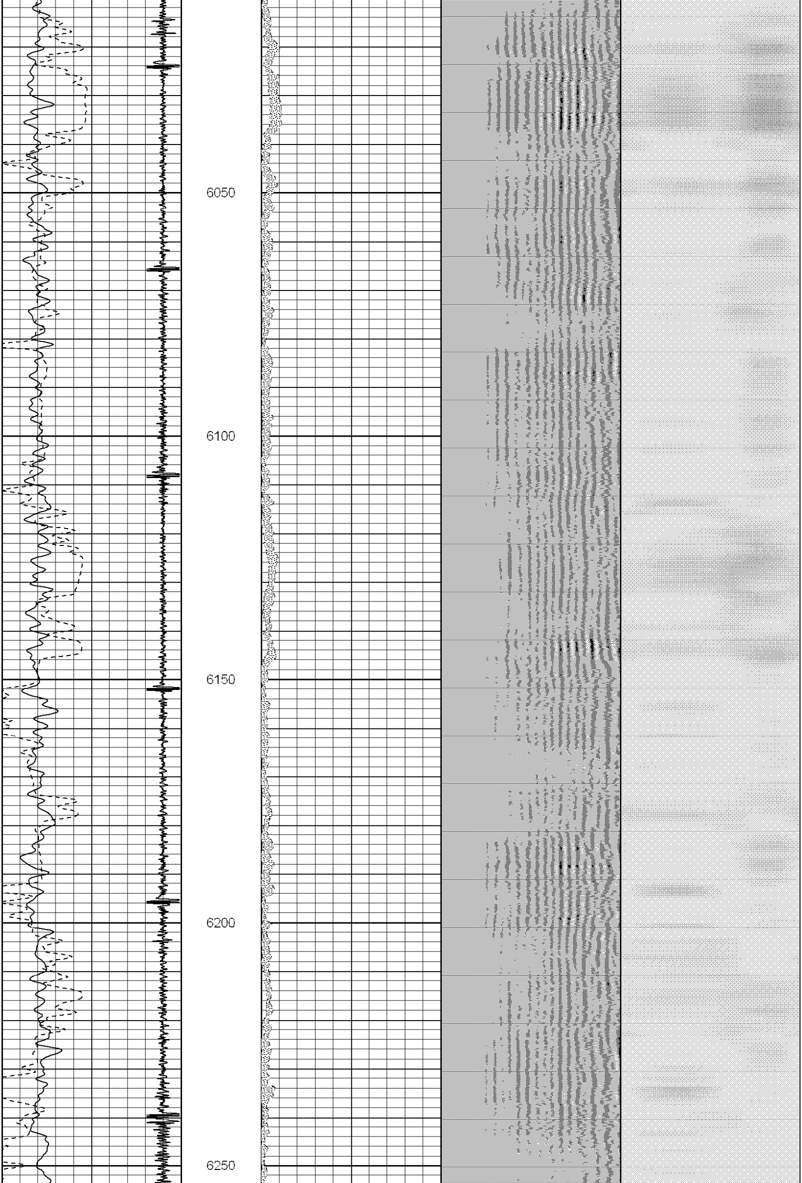


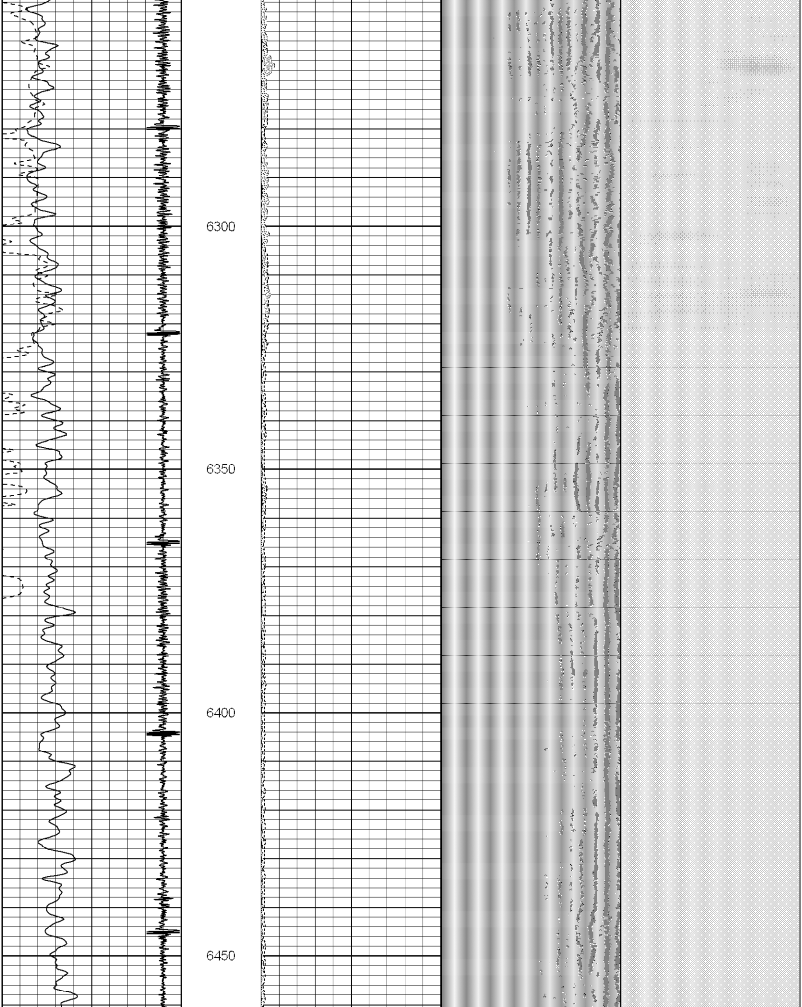


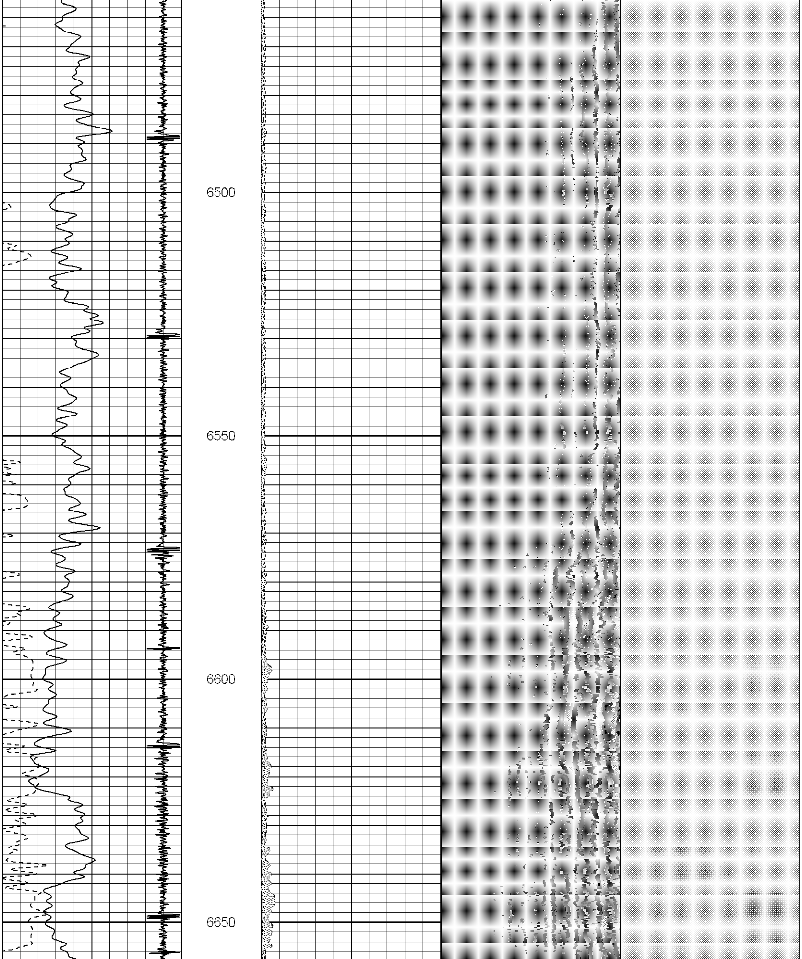


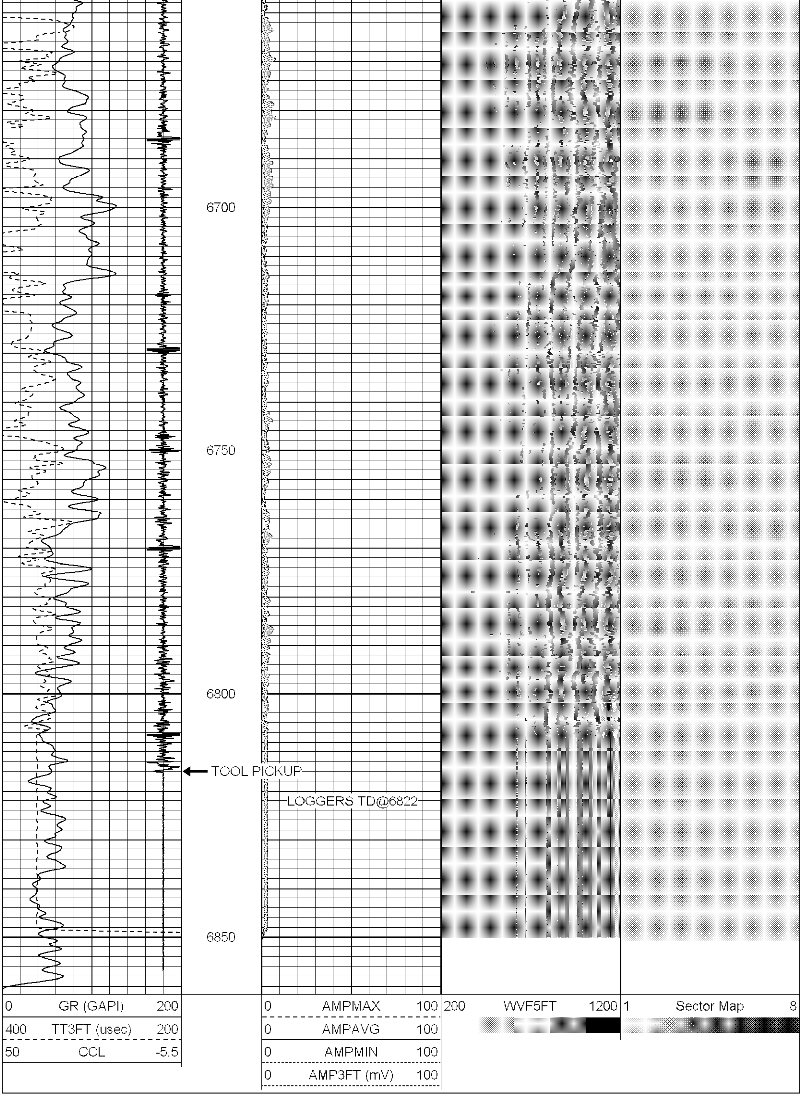












Calibration Report

Database File:	cbl noble slw ranch state b12-65hn.db
Dataset Pathname:	pass4
Dataset Creation:	Mon May 13 10:00:25 2013 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION Tue Apr 30 07:49:20 2013

	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:	7.000	in
Calibration Depth:	358.067	ft

Master Calibration, performed Mon May 13 09:41:52 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.011	1.500	62.165	60.450	1.037
CAL	0.008	1.264				
5'	0.008	1.146	1.500	62.165	53.284	1.090
SUM						
S1	0.008	1.144	0.000	62.165	54.688	-0.411
S2	0.008	1.116	0.000	62.165	56.105	-0.432
S3	0.007	1.024	0.000	62.165	61.136	-0.458
S4	0.007	0.938	0.000	62.165	66.779	-0.498
S5	0.007	0.869	0.000	62.165	72.175	-0.540
S6	0.007	0.876	0.000	62.165	71.541	-0.536
S7	0.008	0.978	0.000	62.165	64.043	-0.493
S8	0.008	1.097	0.000	62.165	57.044	-0.435

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	1.264	1.000	0.000

Air Zero Calibration, performed Mon May 13 09:42:14 2013:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.008	0.000	-0.000
5'	0.008	0.000	-0.000
SUM			
S1	0.008	0.000	-0.000
S2	0.008	0.000	0.000
S3	0.008	0.000	-0.000
S4	0.008	0.000	-0.000
S5	0.007	0.000	-0.000
S6	0.007	0.000	0.000
S7	0.008	0.000	0.000
S8	0.008	0.000	0.000