NABORS
COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL CEMENT BOND SECTOR VDL

Company	NOBLE ENERGY INC.
Well	JENKINS B11-79-1HCM
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well JENKINS B11-79-1HCM
Field WATTENBERG
County WELD State COLORADO

Location: API #: 0512337194
BHL: 535' FNL & 330' FWL
NW/SW
SEC 11 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	JULY 2, 2013
Run Number	ONE
Depth Driller	14173
Depth Logger	6998
Bottom Logged Interval	6998
Top Log Interval	SURFACE
Open Hole Size	8-3/4
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	252°F
Estimated Cement Top	1112
Time Well Ready	PORTABLE MAST
Time Logger on Bottom	2-3/4 PROBE 101020
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	26	788
Prot. String	7	26# P-110	26	7121
Production String				
Liner	4.5	11.6# P-110	6968.5	14163

<<< 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 57.5 & WCR 58.5, S.3, NW.2, W INTO
CENTER WELL OF A 3 WELL PAD

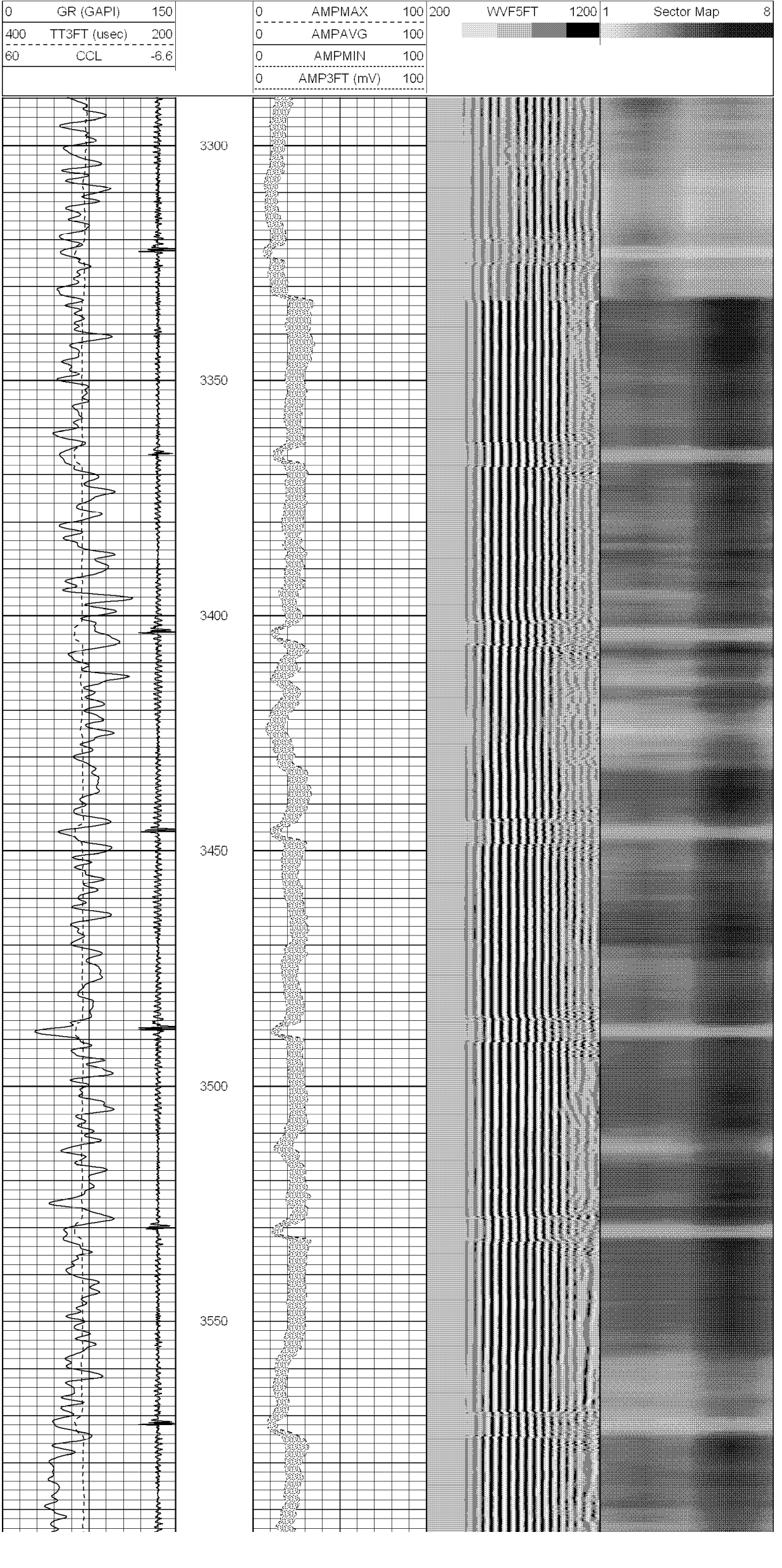
Database File:	cbl noble jenkins b11-79-1hcm.db
Dataset Pathname:	pass12
Presentation Format:	sector2
Dataset Creation:	Tue Jul 02 10:57:49 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

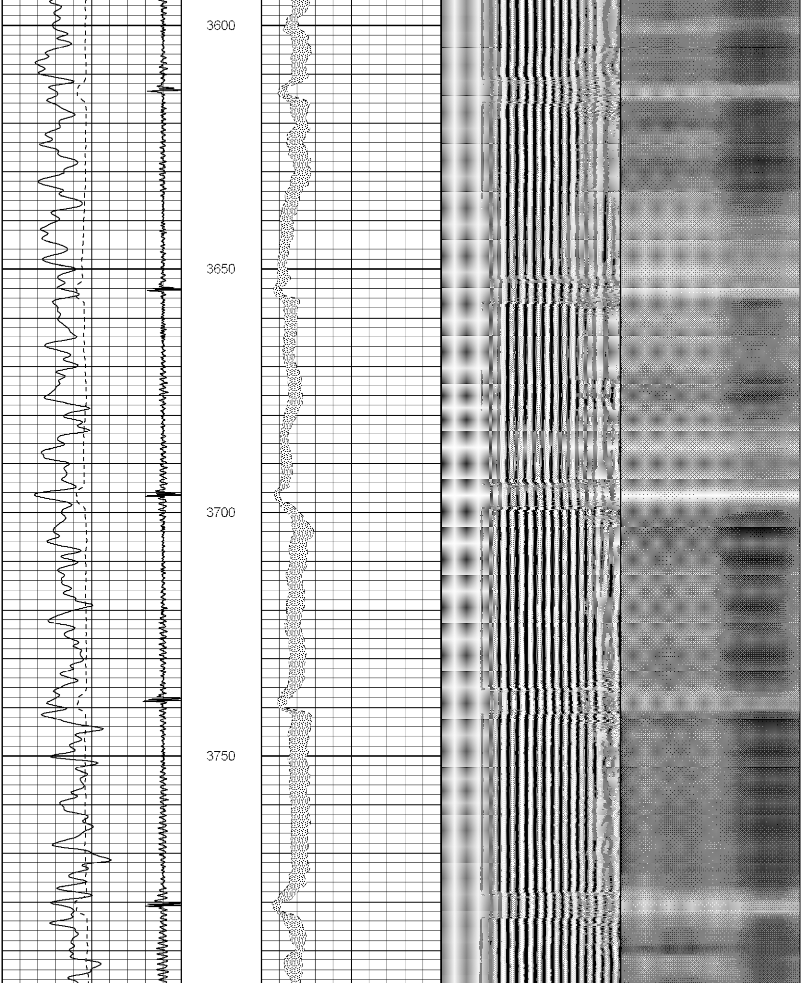
0 GR (GAPI) 150
400 TT3FT (usec) 200
60 CCL -6.6
0 AMPMAX 100
0 AMPAVG 100
0 AMPMIN 100
0 AMP3FT (mV) 100
200 WVF5FT 1200
1 Sector Map 8

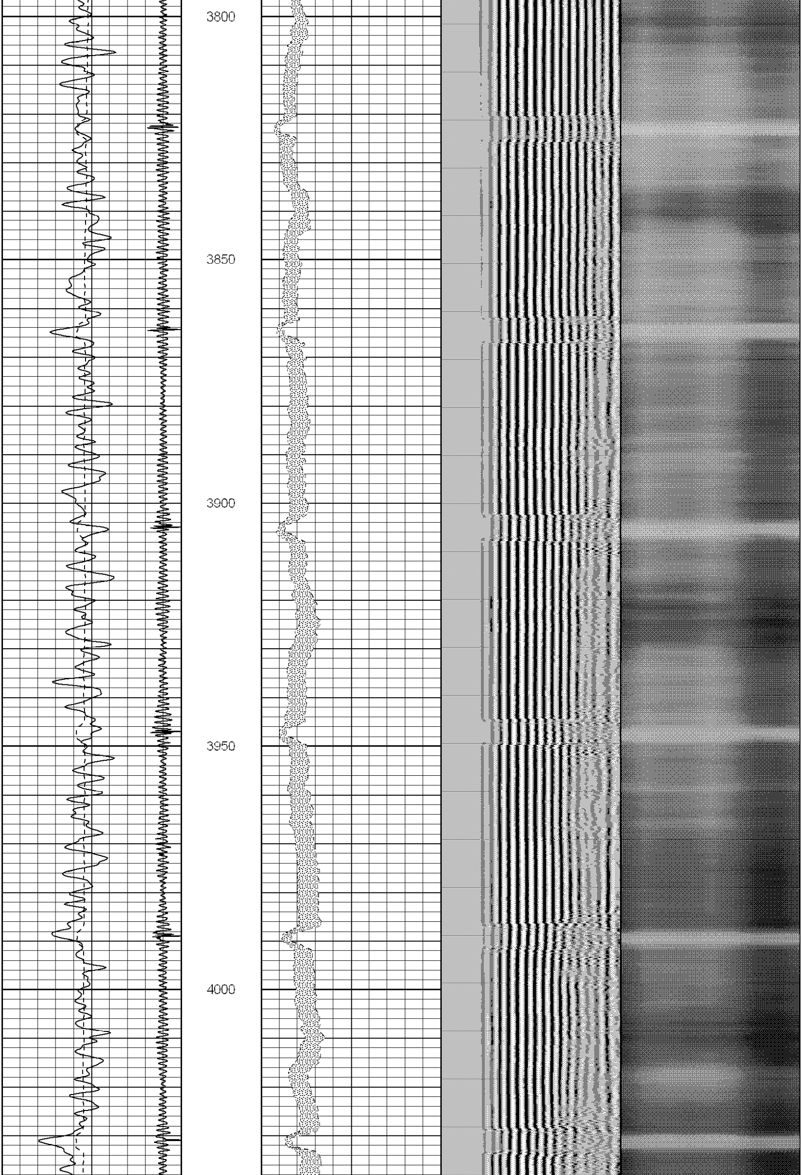
0 GR (GAPI) 150
400 TT3FT (usec) 200
60 CCL -6.6
0 AMPMAX 100
0 AMPAVG 100
0 AMPMIN 100
0 AMP3FT (mV) 100
200 WVF5FT 1200
1 Sector Map 8

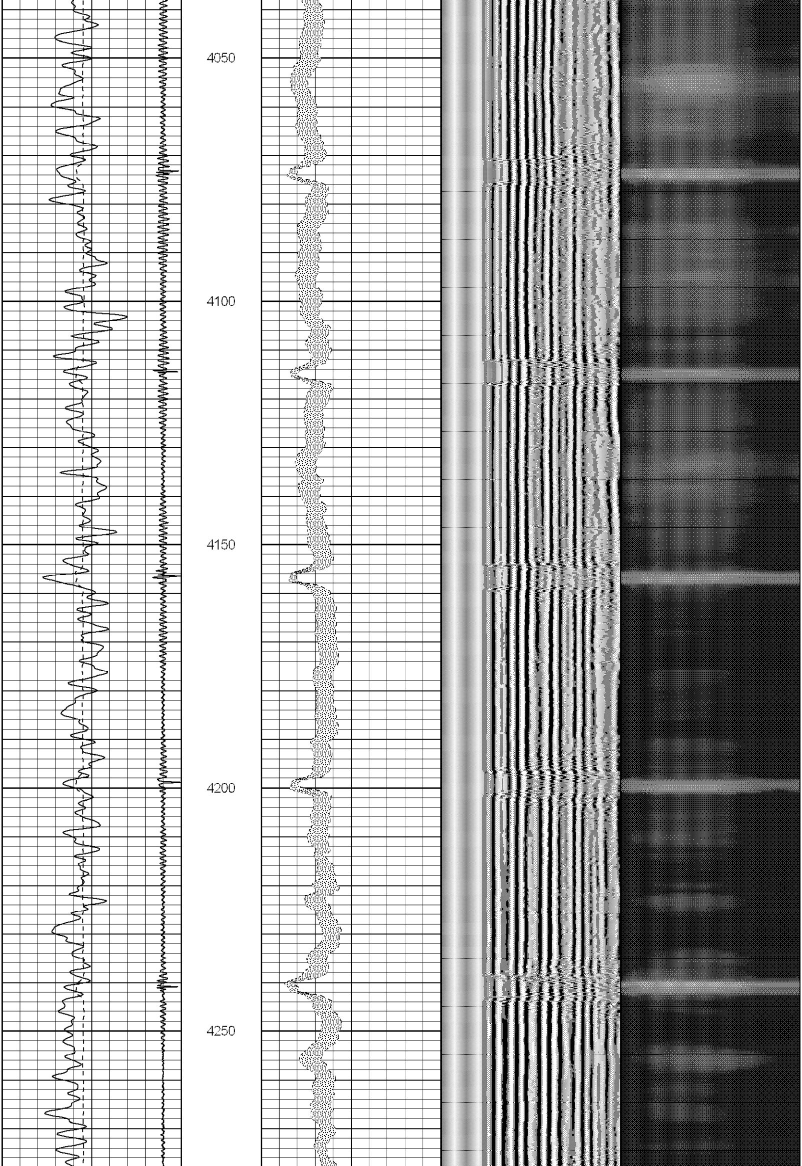
Database File:	cbl noble jenkins b11-79-1hcm.db
Dataset Pathname:	pass11
Presentation Format:	sector2
Dataset Creation:	Tue Jul 02 10:34:23 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

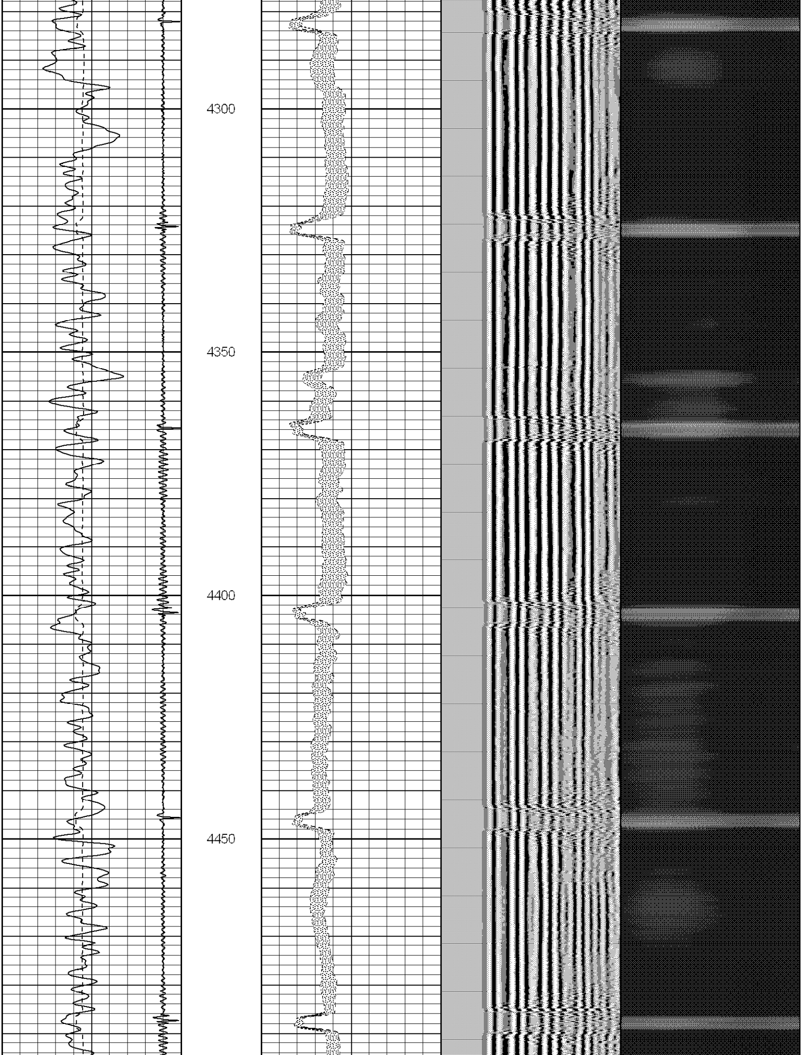
0 GR (GAPI) 150
400 TT3FT (usec) 200
60 CCL -6.6
0 AMPMAX 100
0 AMPAVG 100
0 AMPMIN 100
0 AMP3FT (mV) 100
200 WVF5FT 1200
1 Sector Map 8

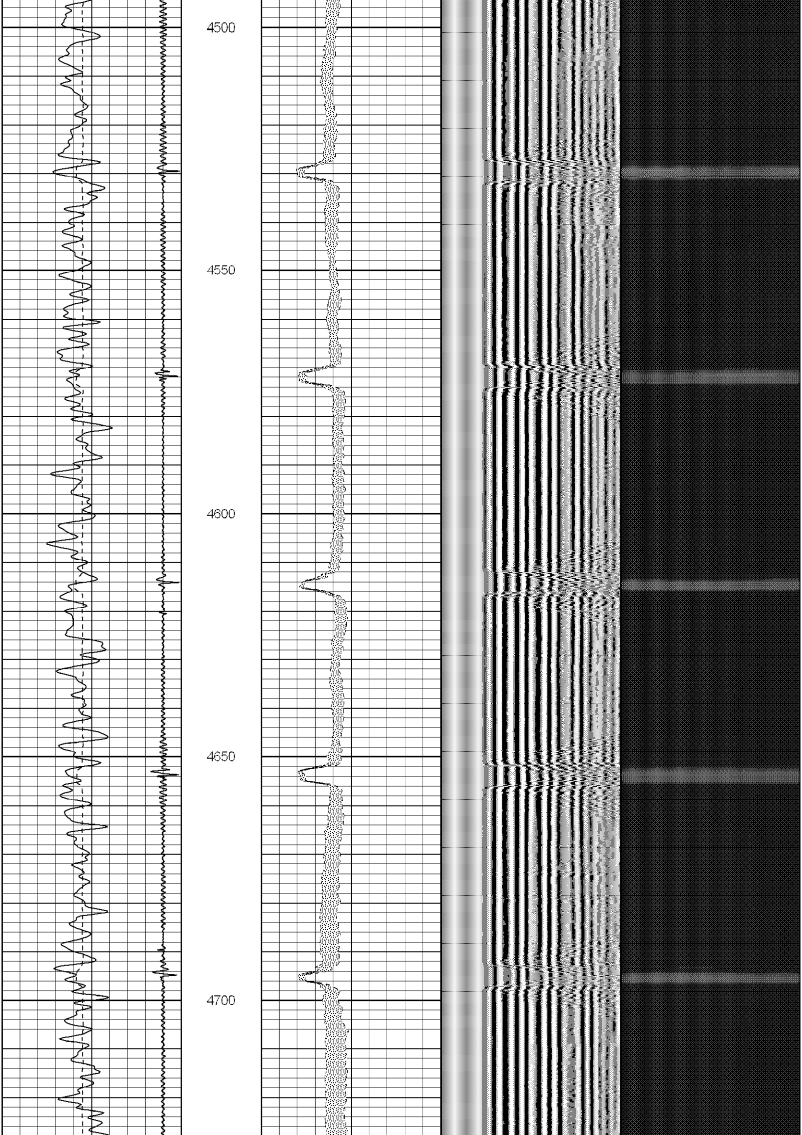


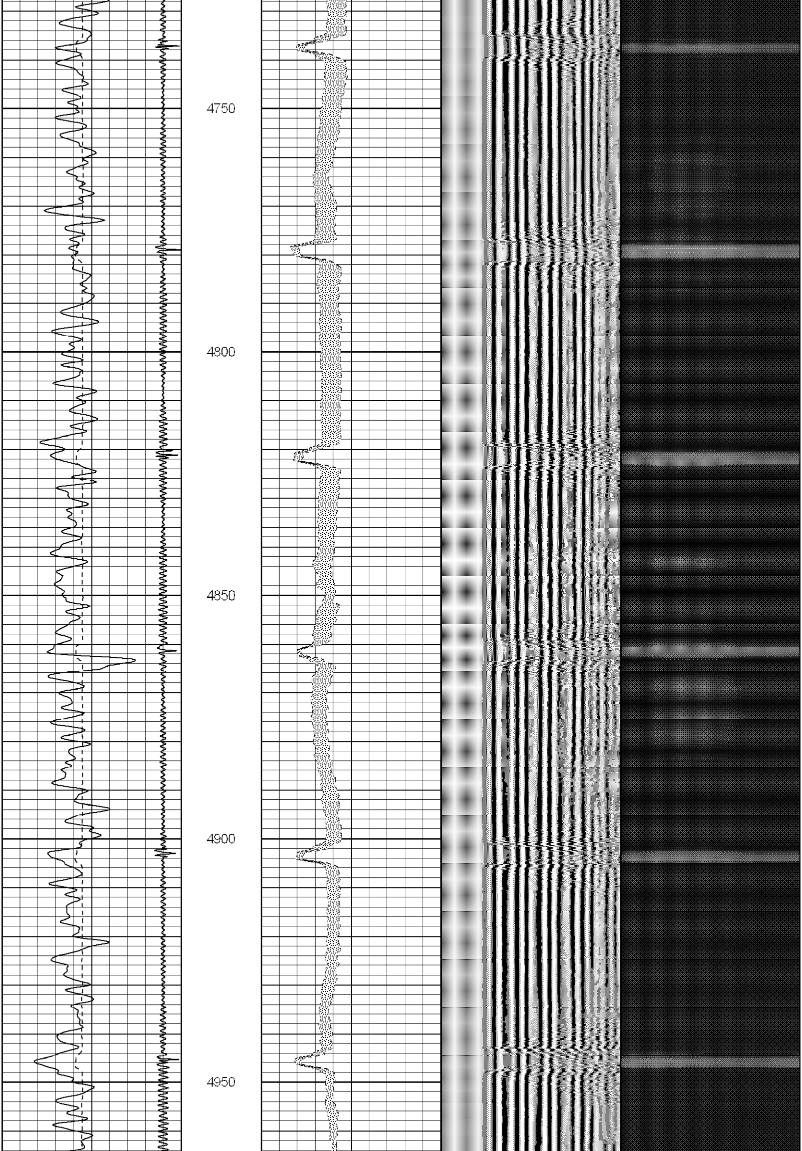


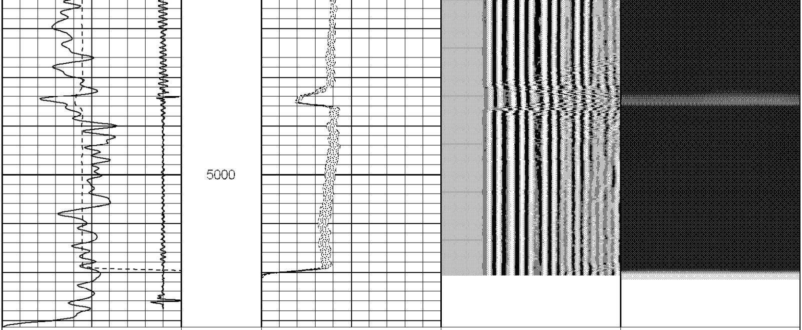








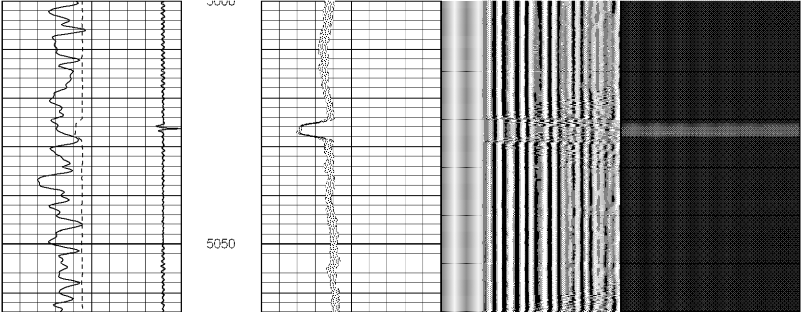


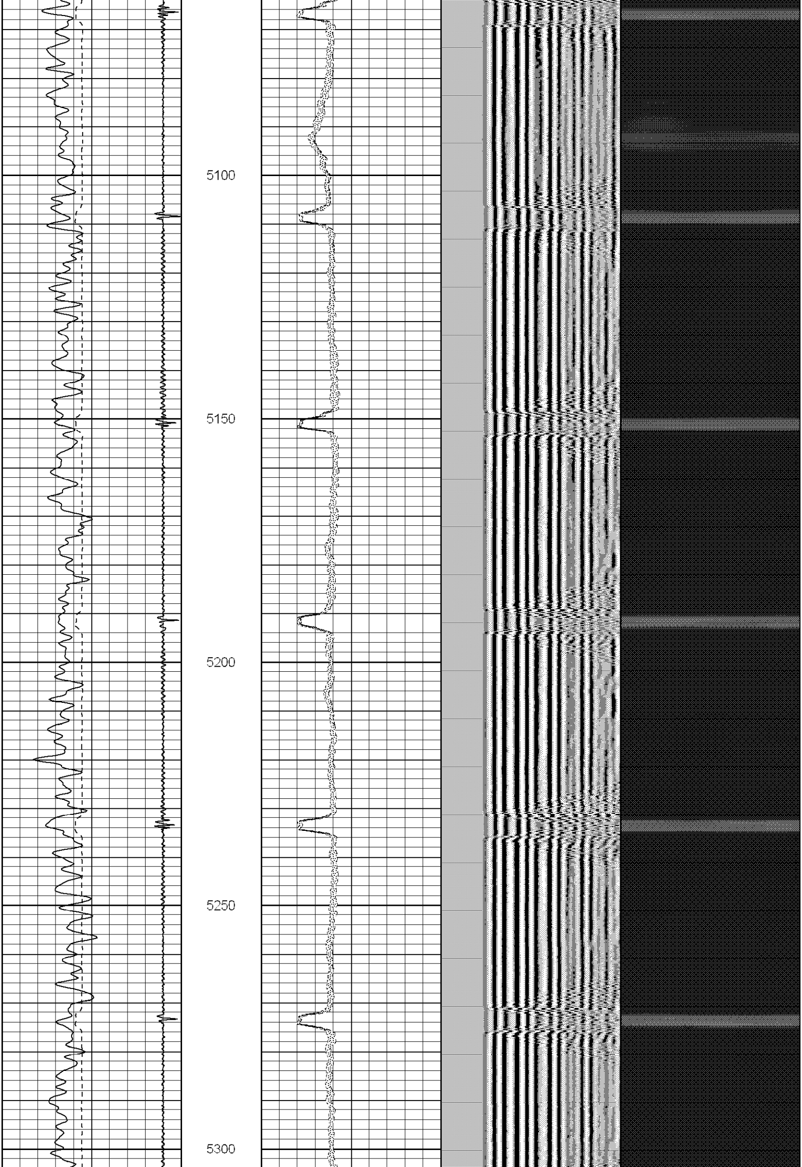


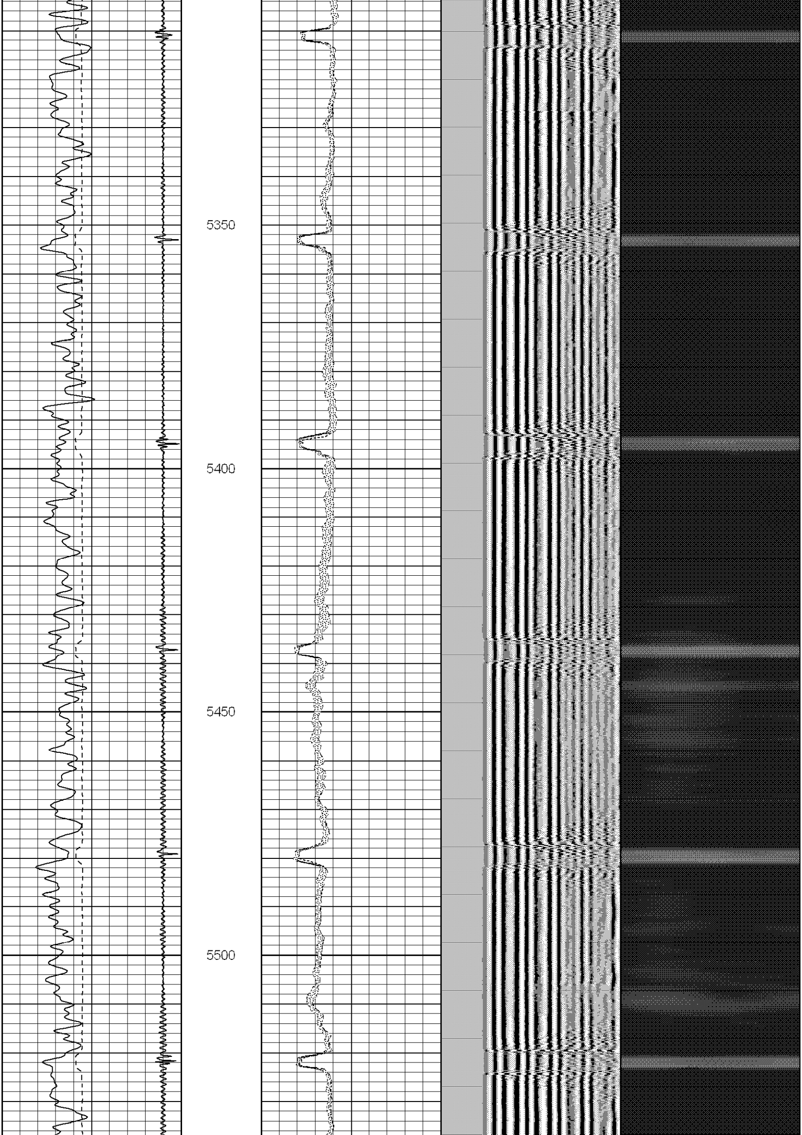
0 GR (GAPI) 150	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100		
60 CCL -6.6	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

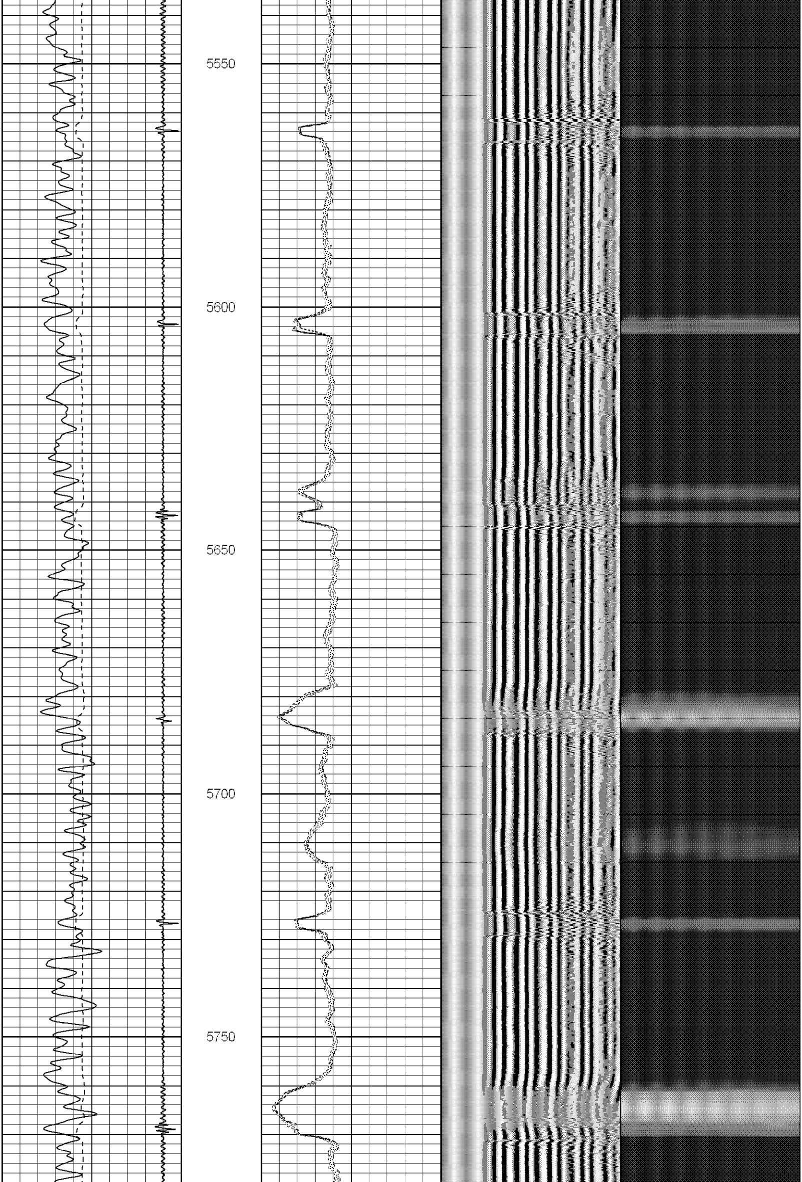
Database File: cbl noble jenkins b11-79-1hcm.db
Dataset Pathname: pass10
Presentation Format: sector2
Dataset Creation: Tue Jul 02 10:22:50 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

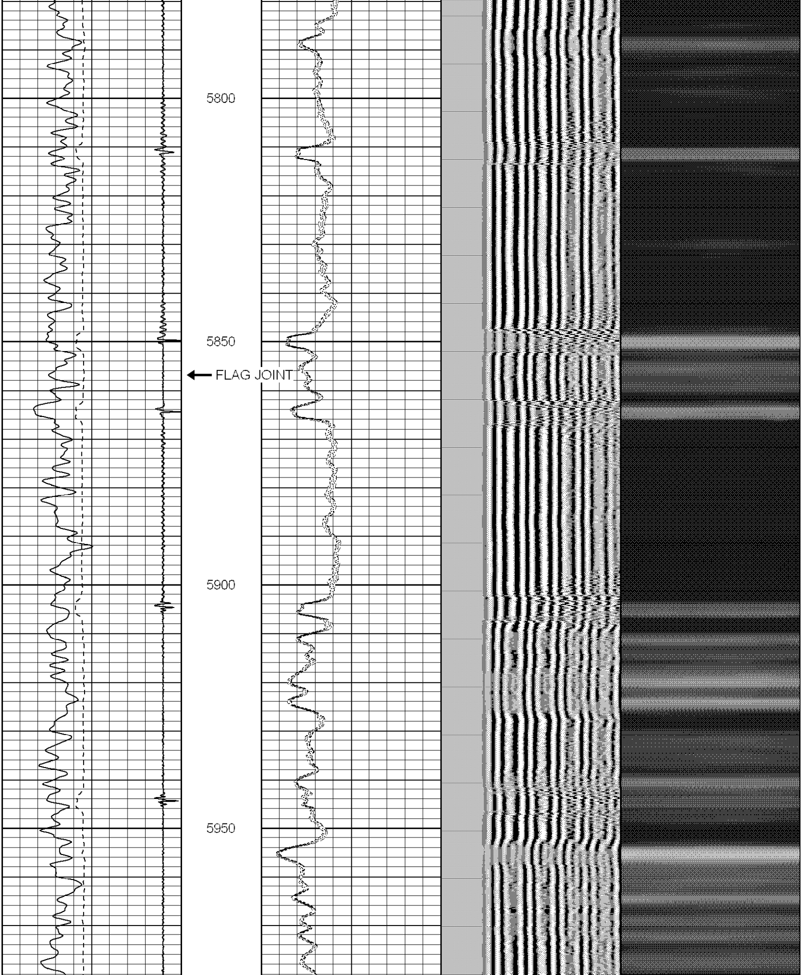
0 GR (GAPI) 200	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100		
60 CCL -6.6	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

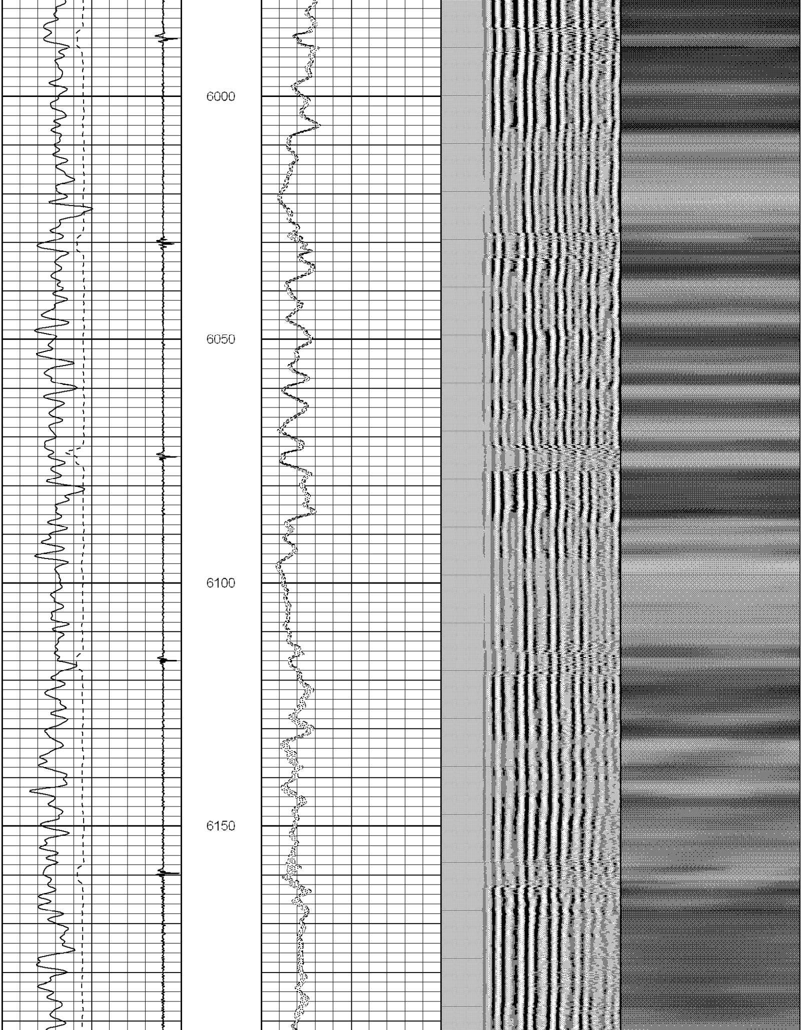


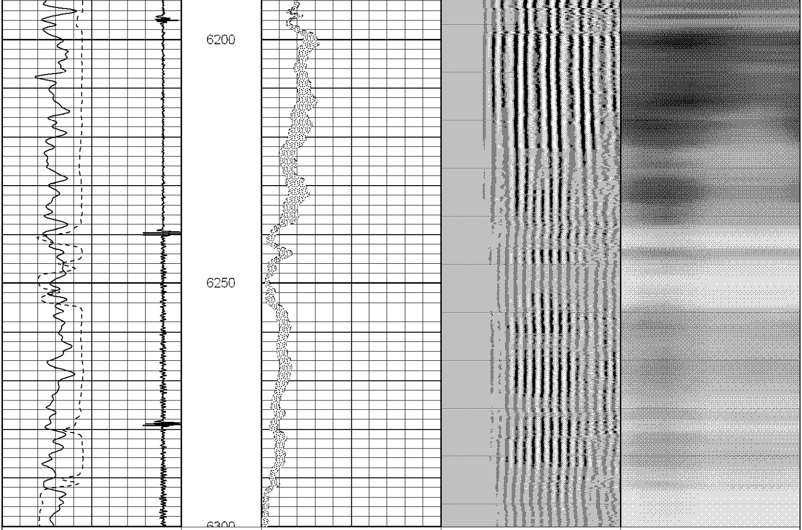








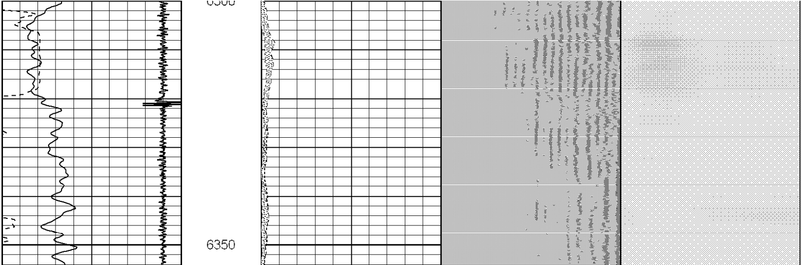


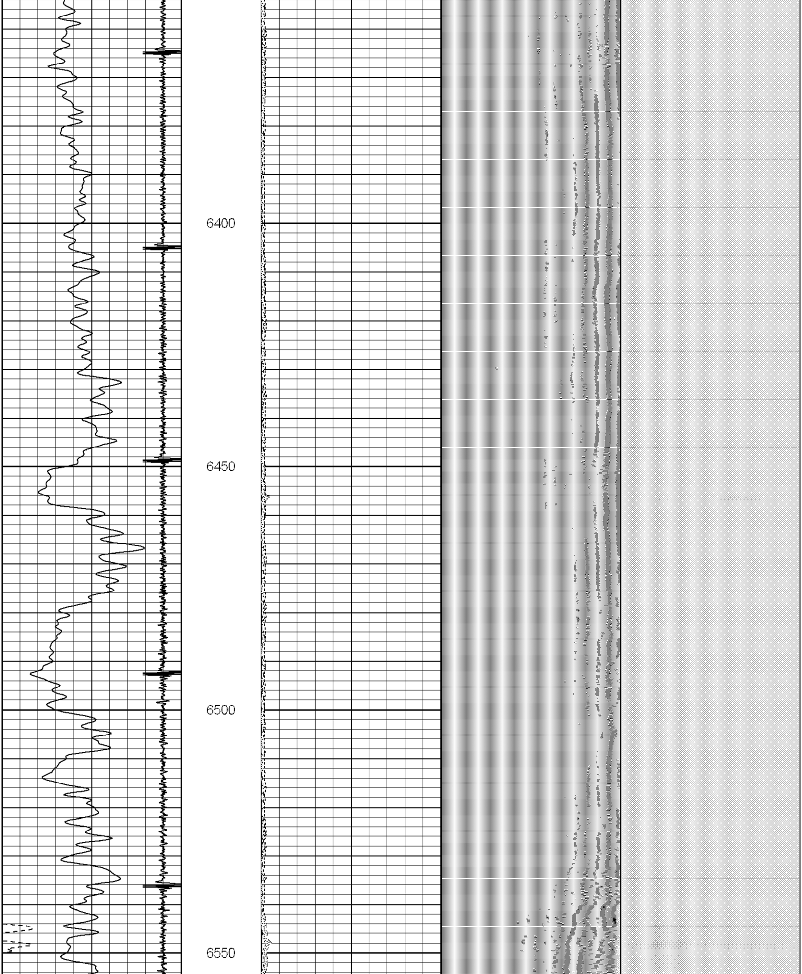


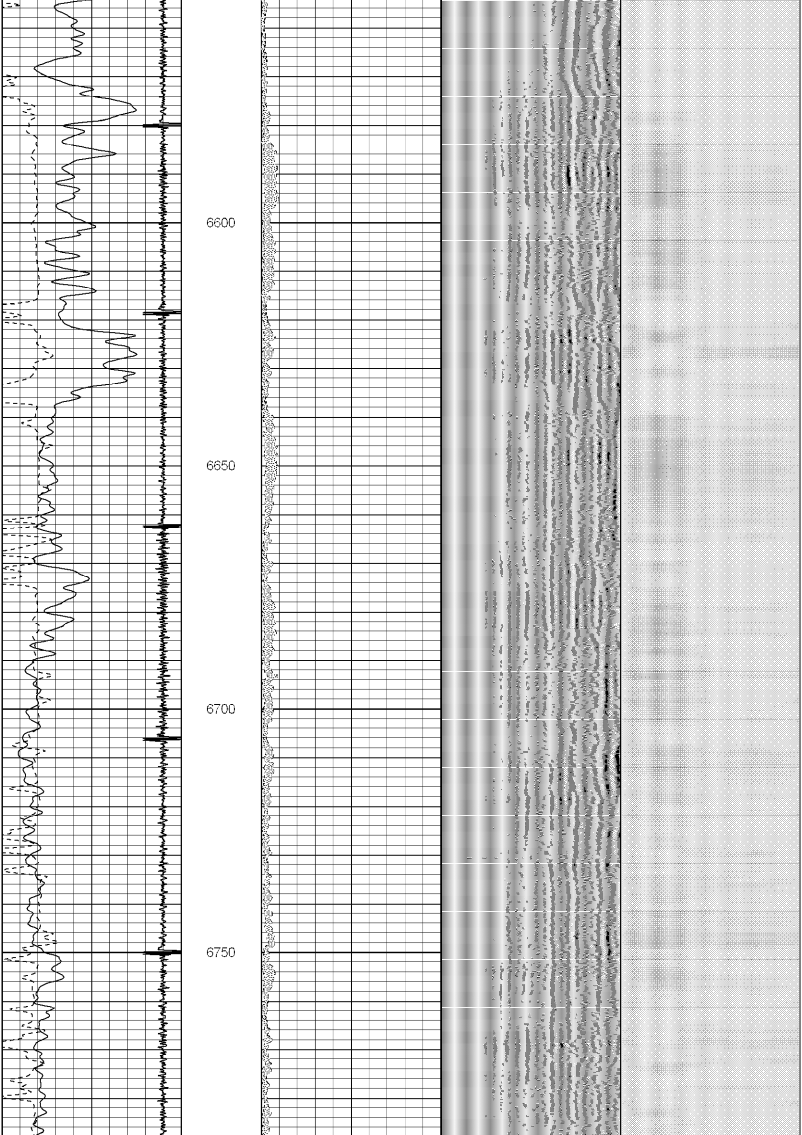
0	GR (GAPI)	200	0	AMPMAX	100	200	WVF5FT	1200	1	Sector Map	8
400	TT3FT (usec)	200	0	AMPAVG	100						
60	CCL	-6.6	0	AMPMIN	100						
			0	AMP3FT (mV)	100						

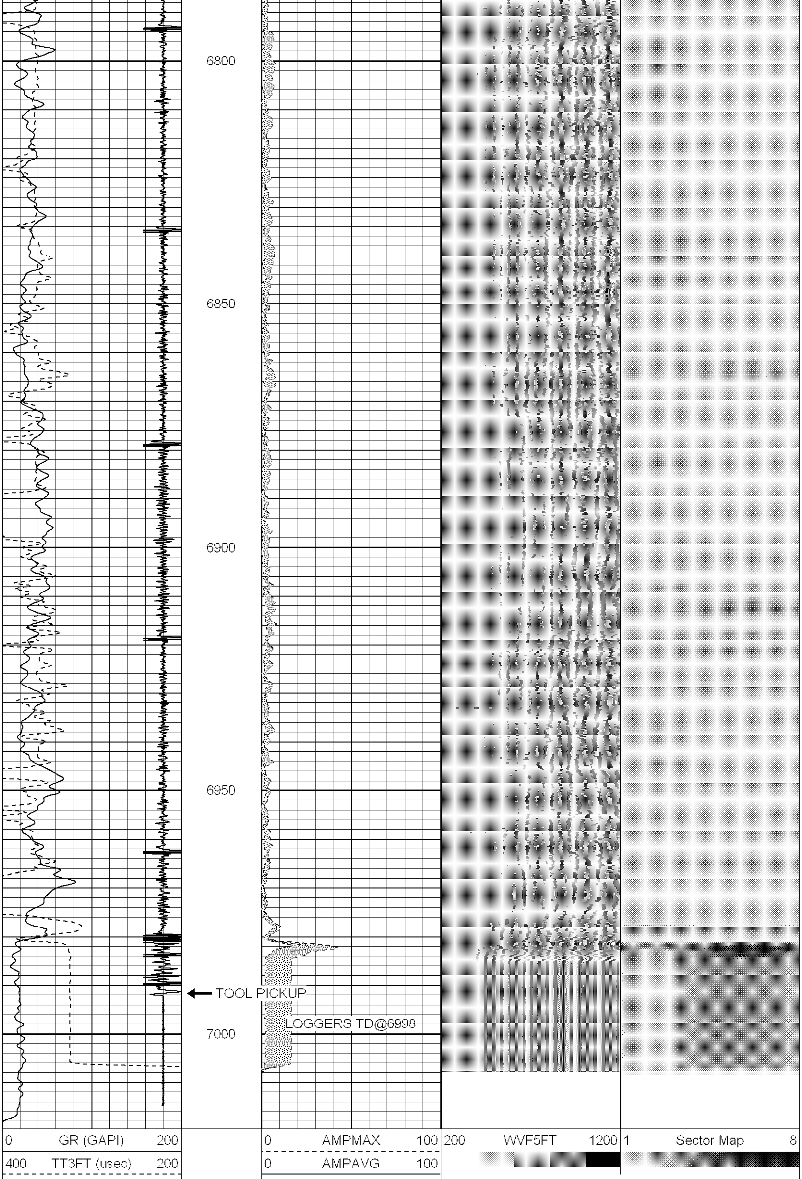
Database File:	cbl noble jenkins b11-79-1hcm.db
Dataset Pathname:	pass9
Presentation Format:	sector2
Dataset Creation:	Tue Jul 02 10:09:13 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

0	GR (GAPI)	200	0	AMPMAX	100	200	WVF5FT	1200	1	Sector Map	8
400	TT3FT (usec)	200	0	AMPAVG	100						
60	CCL	-6.6	0	AMPMIN	100						
			0	AMP3FT (mV)	100						









60	CCL	-6.6	0	AMPMIN	100
			0	AMP3FT (mV)	100

Calibration Report

Database File: cbl noble jenkins b11-79-1hcm.db
Dataset Pathname: pass9
Dataset Creation: Tue Jul 02 10:09:13 2013 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION Tue Jul 02 09:26:30 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.3000			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: 838.208 ft

Master Calibration, performed Tue Jul 02 09:31:38 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.022	1.500	62.165	59.800	1.044
CAL	0.007	1.177				
5'	0.008	1.110	1.500	62.165	55.051	1.081
SUM						
S1	0.007	1.120	0.000	62.165	55.868	-0.415
S2	0.008	1.125	0.000	62.165	55.641	-0.432
S3	0.007	1.078	0.000	62.165	58.085	-0.432
S4	0.008	0.976	0.000	62.165	64.204	-0.488
S5	0.008	0.882	0.000	62.165	71.120	-0.535
S6	0.008	0.873	0.000	62.165	71.824	-0.544
S7	0.008	0.980	0.000	62.165	63.907	-0.494
S8	0.007	1.090	0.000	62.165	57.424	-0.429

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	0.007	1.177	1.000	0.000

Air Zero Calibration, performed Tue Jul 02 09:24:21 2013:

	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