NABORS
COMPLETION & PRODUCTION SERVICES CO.

RADIAL BOND LOG
GAMMA RAY C C L
V D L

Company NOBLE ENERGY INC.
Well CARGO G19-67HC
Field WATTENBERG
County WELD
State COLORADO

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Field WATTENBERG
County WELD State COLORADO

Location: API #: 05123347040000
NW NW
BHL: 1650' FNL & 535' FEL
SEC 19 TWP 4N RGE 65W

Other Services

Permanent Datum GL Elevation 4728
Log Measured From KB 16'
Drilling Measured From KB

Elevation
K.B. 4744
D.F. 4743
G.L. 4728

Date	January 21, 2013	
Run Number	One	
Depth Driller	11,629	
Depth Logger	7475	
Bottom Logged Interval	7474	
Top Log Interval	Surface	
Casing Size	7.00"	
Type Fluid	Water	
Max. Recorded Temp.	236 deg F	
Estimated Cement Top	790 est.	
Time Well Ready	Crane	
Time Logger On Bottom	PM	
Unit Number	4367	4515
Tool Size / ID Number	2.75 Probe 101020	2.75 Probe 110785
Location	45	Platteville, CO
Recorded By	K. Monaghan	
Witnessed By	B. Mansfield	

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36 lb/ft J-55	Surface	574
Prot. String				
Production String	7.00"	26 lb/ft P-110	Surface	7605
Liner	4.50"	11.6 lb/ft P-110	7451.5	11,614

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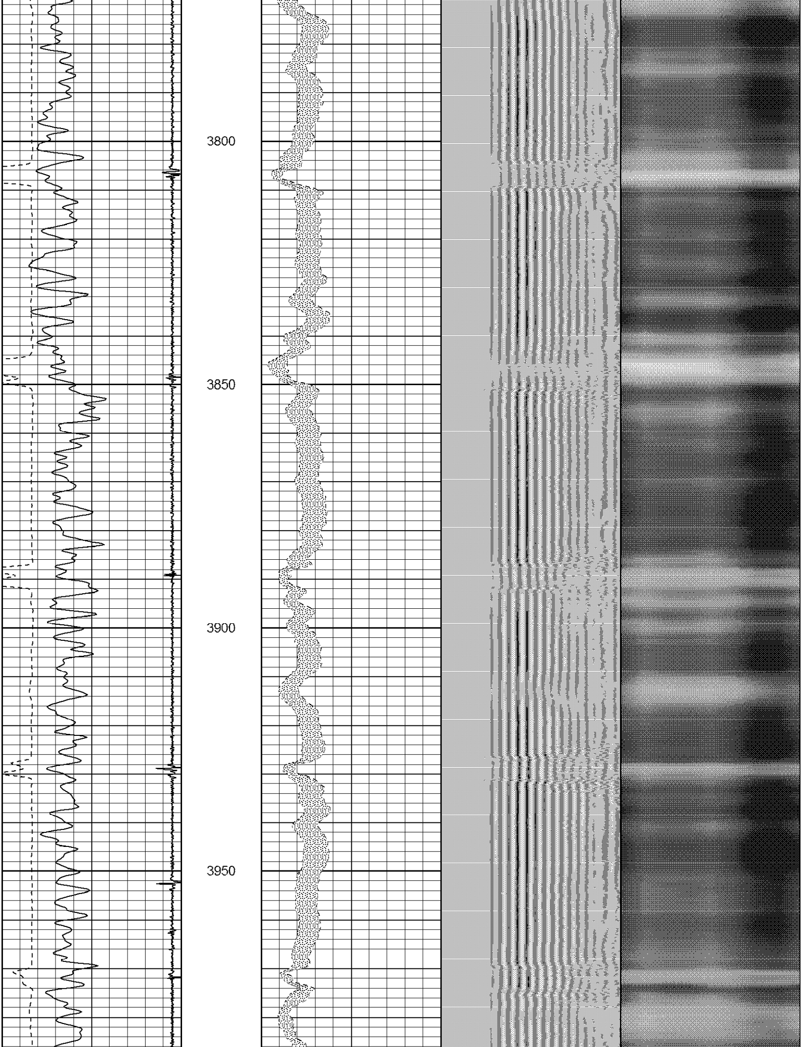
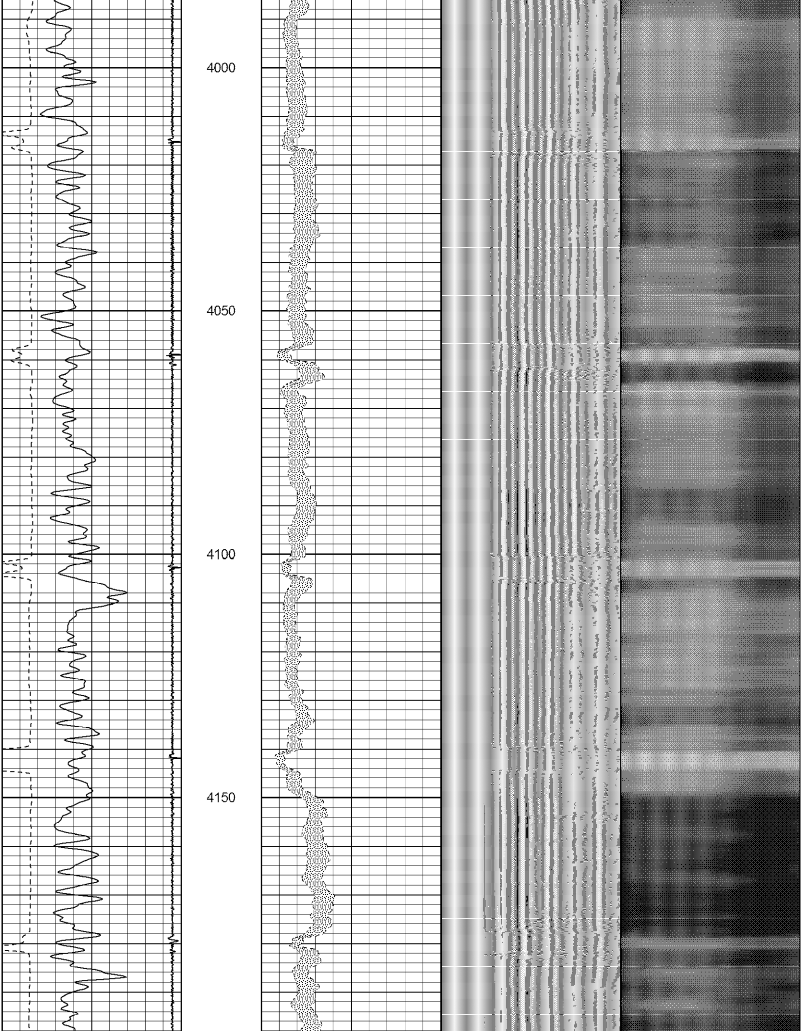
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

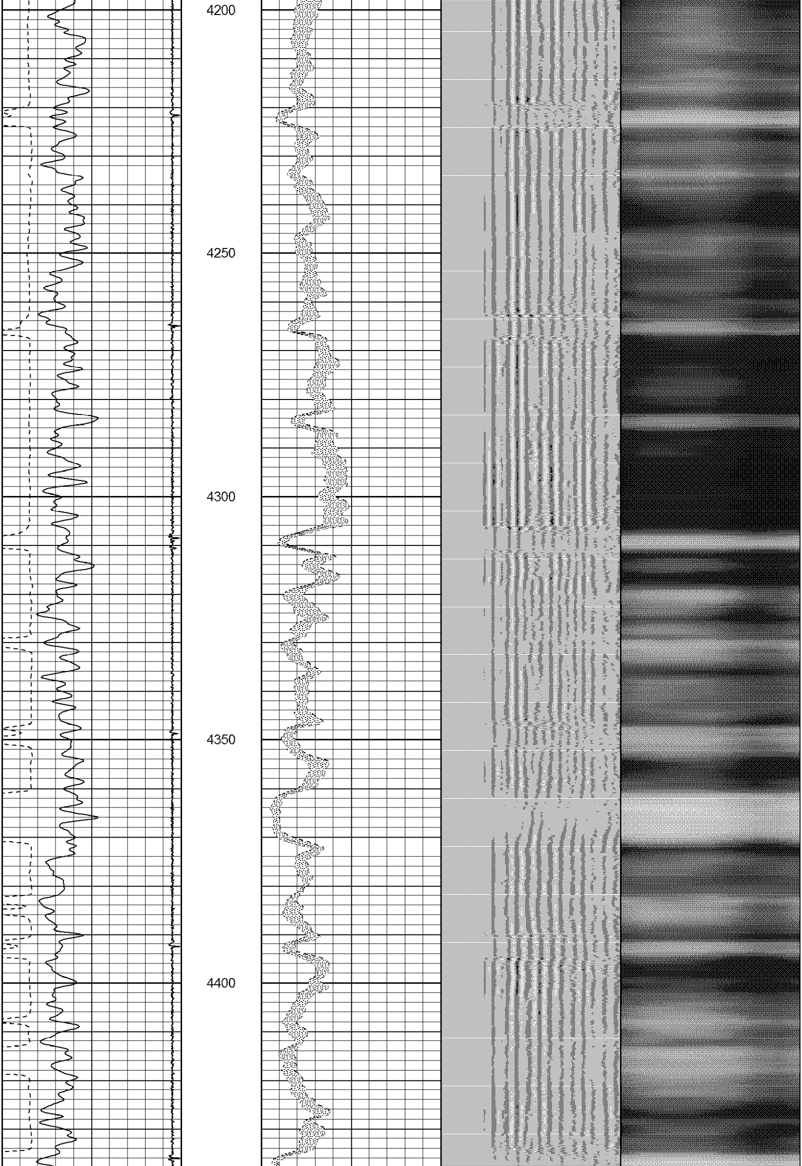
Comments

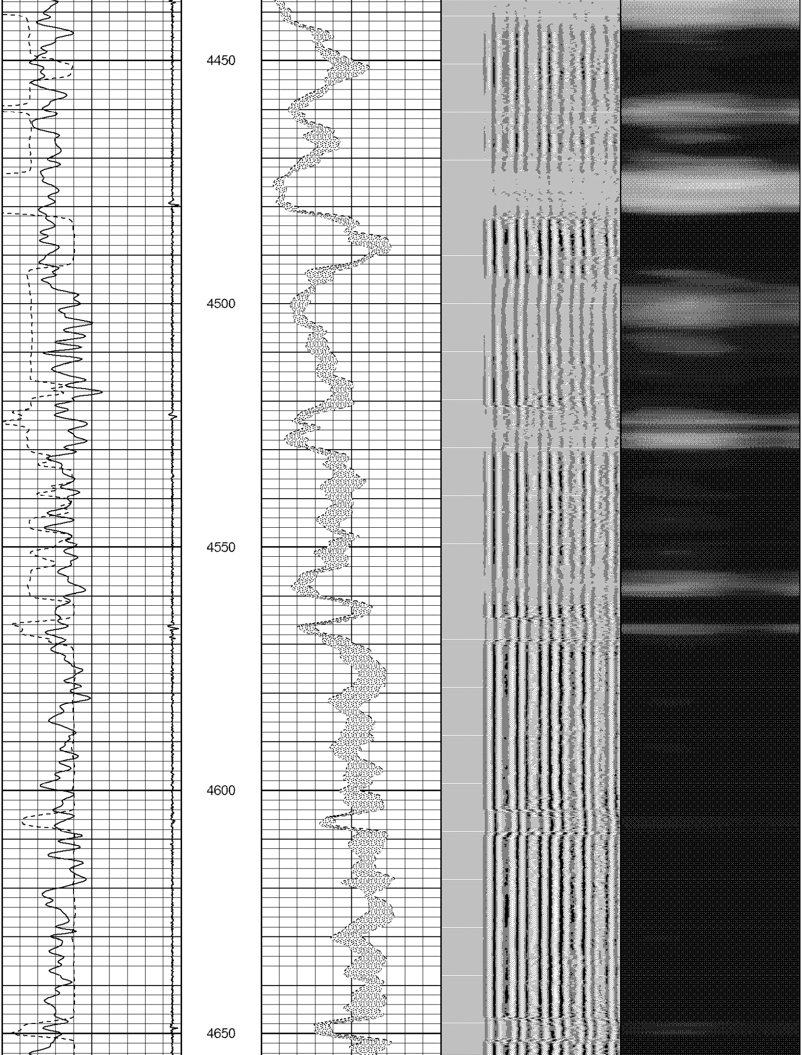
Thank You For Choosing Nabors Completion and Production Services CO!!
API# 05-123-34704-0000
Wireline Zero @ 16' KB
Directions: 44 & 37, S 2/10, E Into

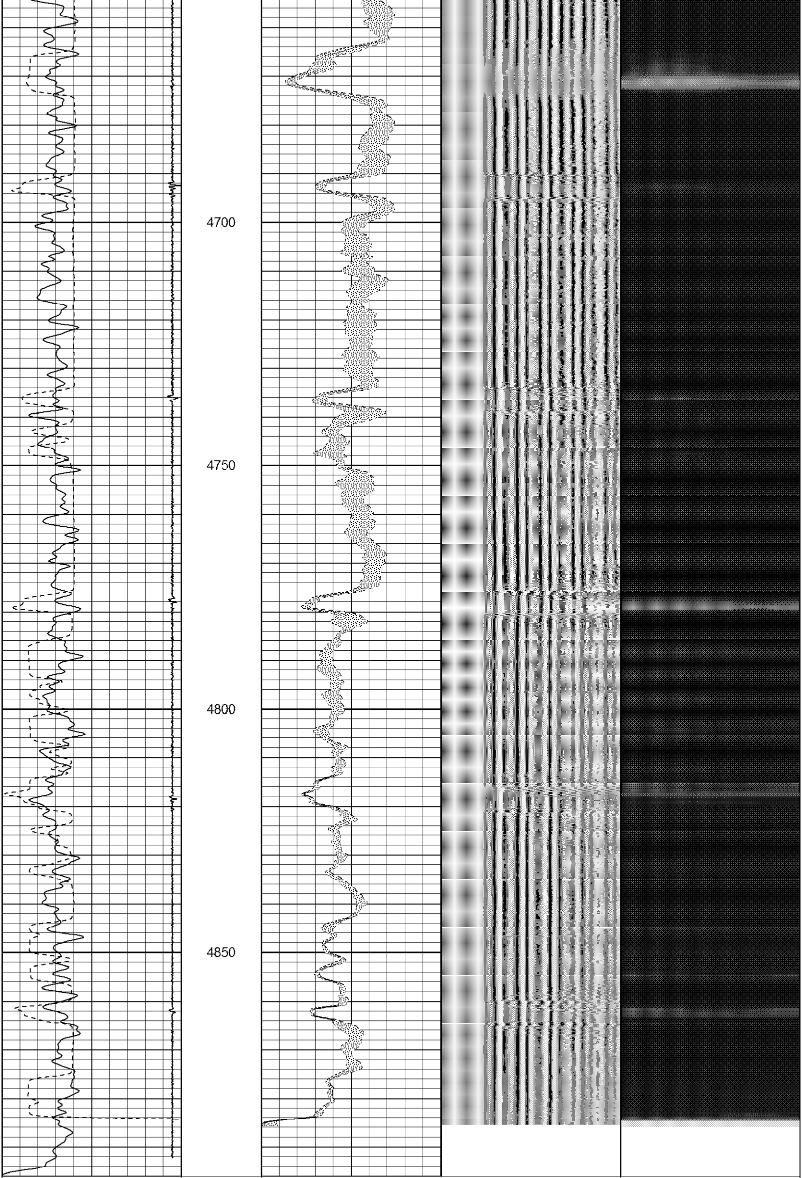
Database File: scblcargo g19-67hc.db
Dataset Pathname: pass3
Presentation Format: sector1
Dataset Creation: Mon Jan 21 15:45:33 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

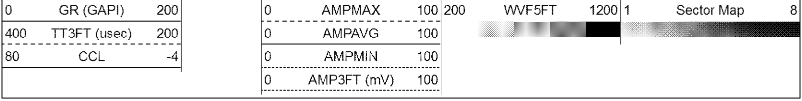




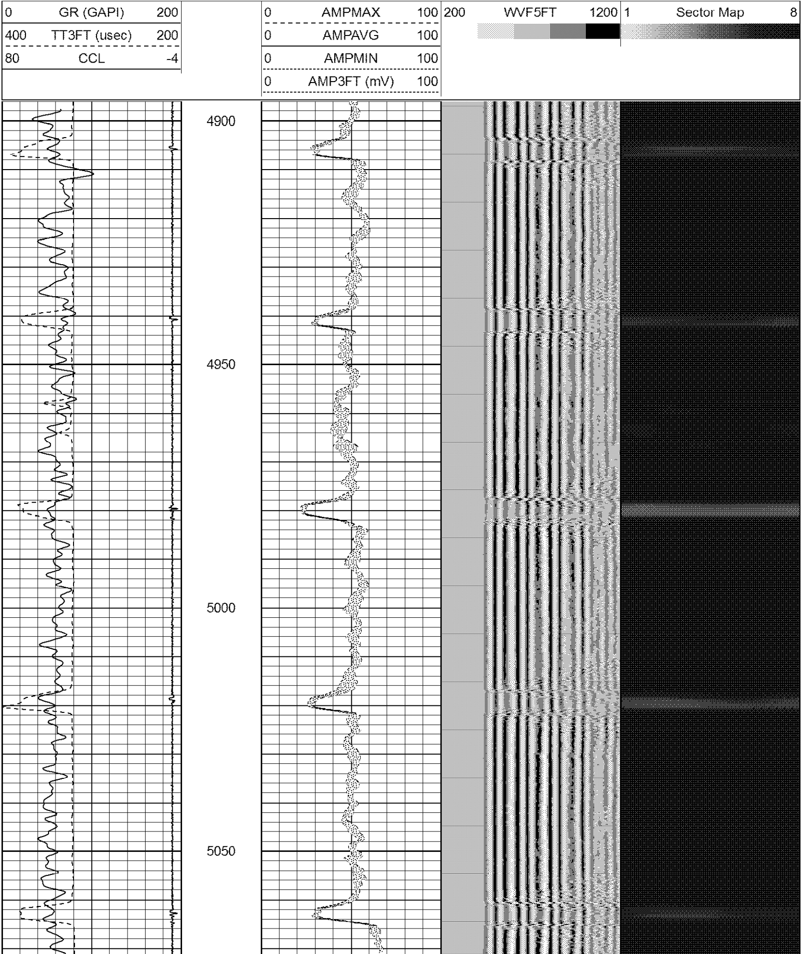


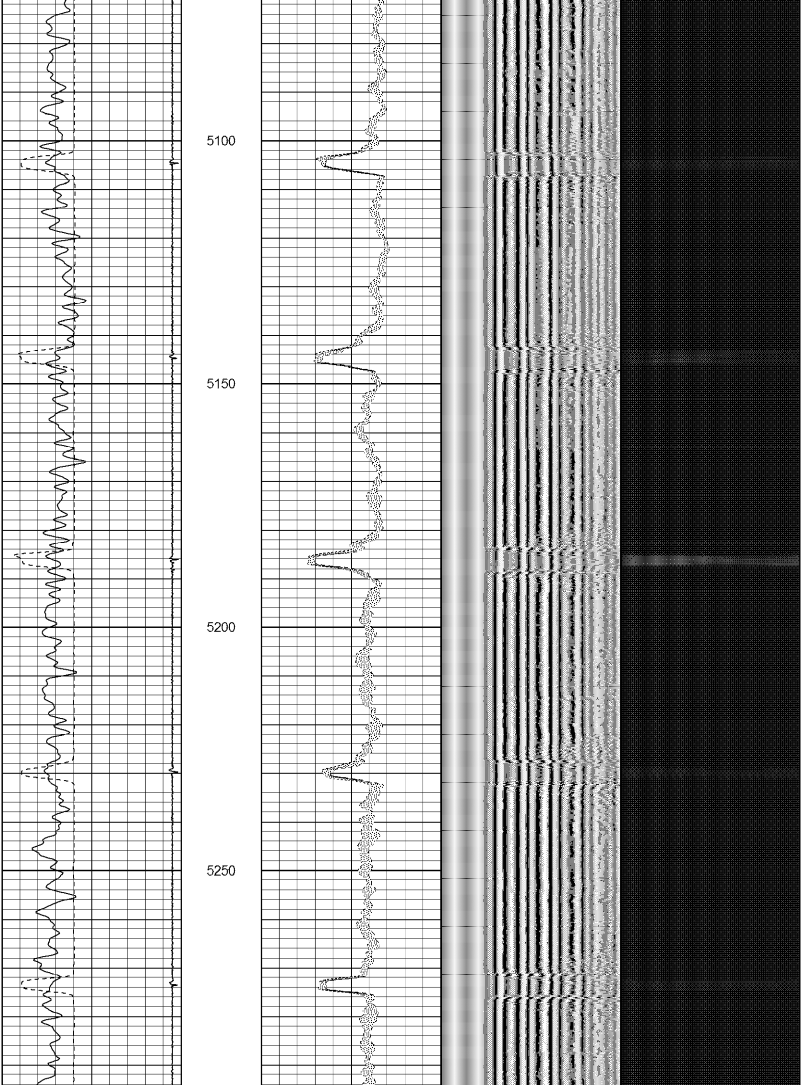


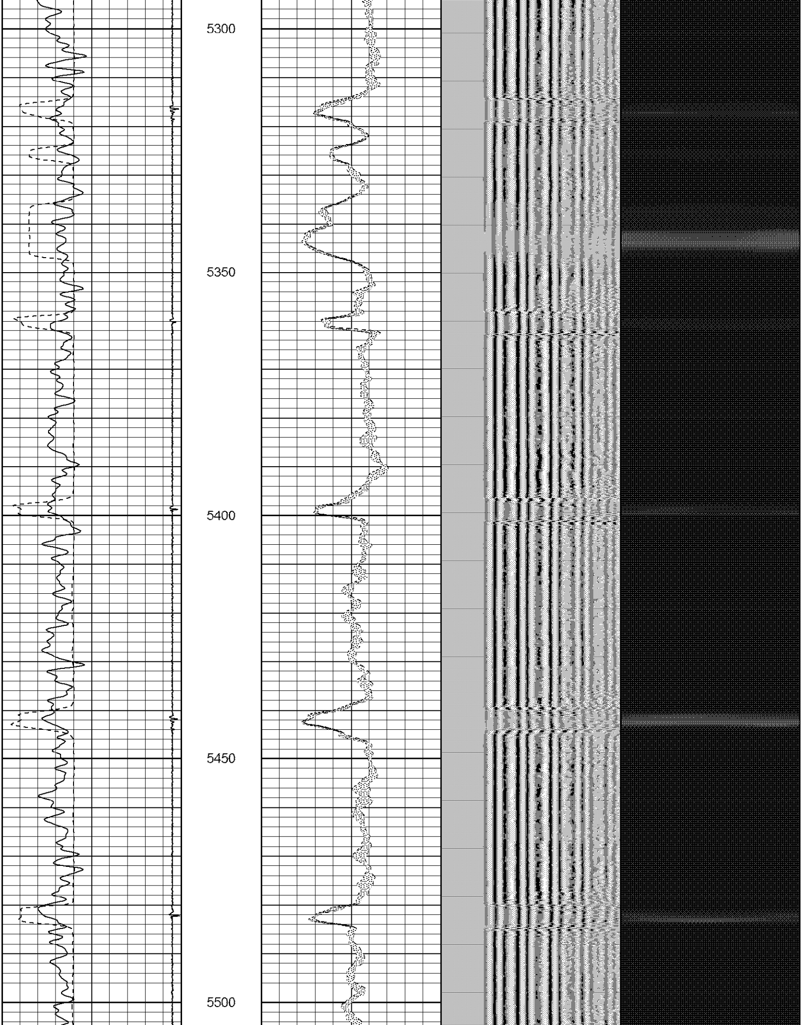


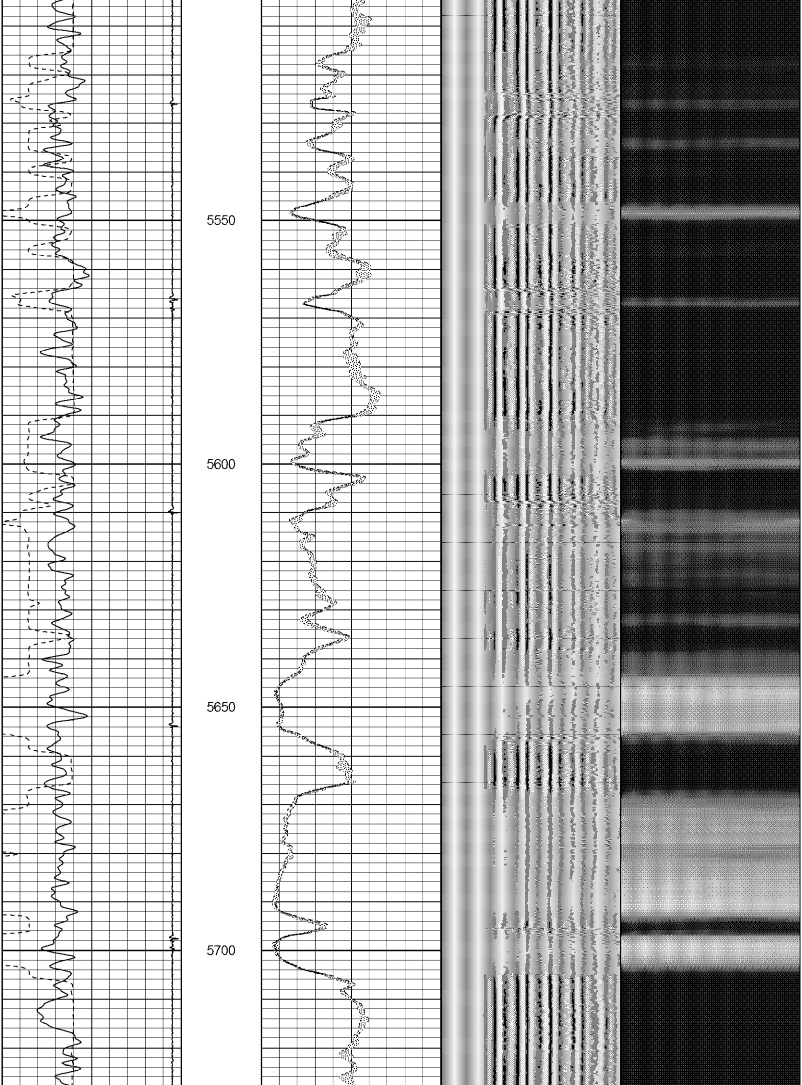


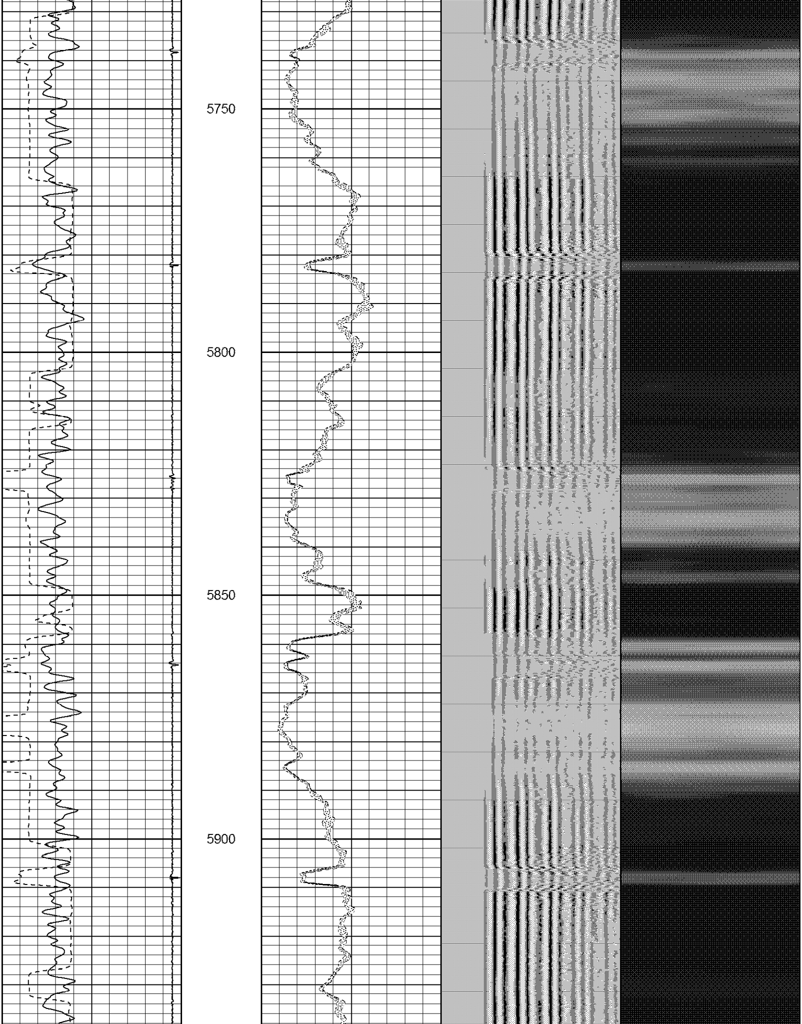
Database File: scblcargo g19-67hc.db
Dataset Pathname: pass2
Presentation Format: sector1
Dataset Creation: Mon Jan 21 15:20:22 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

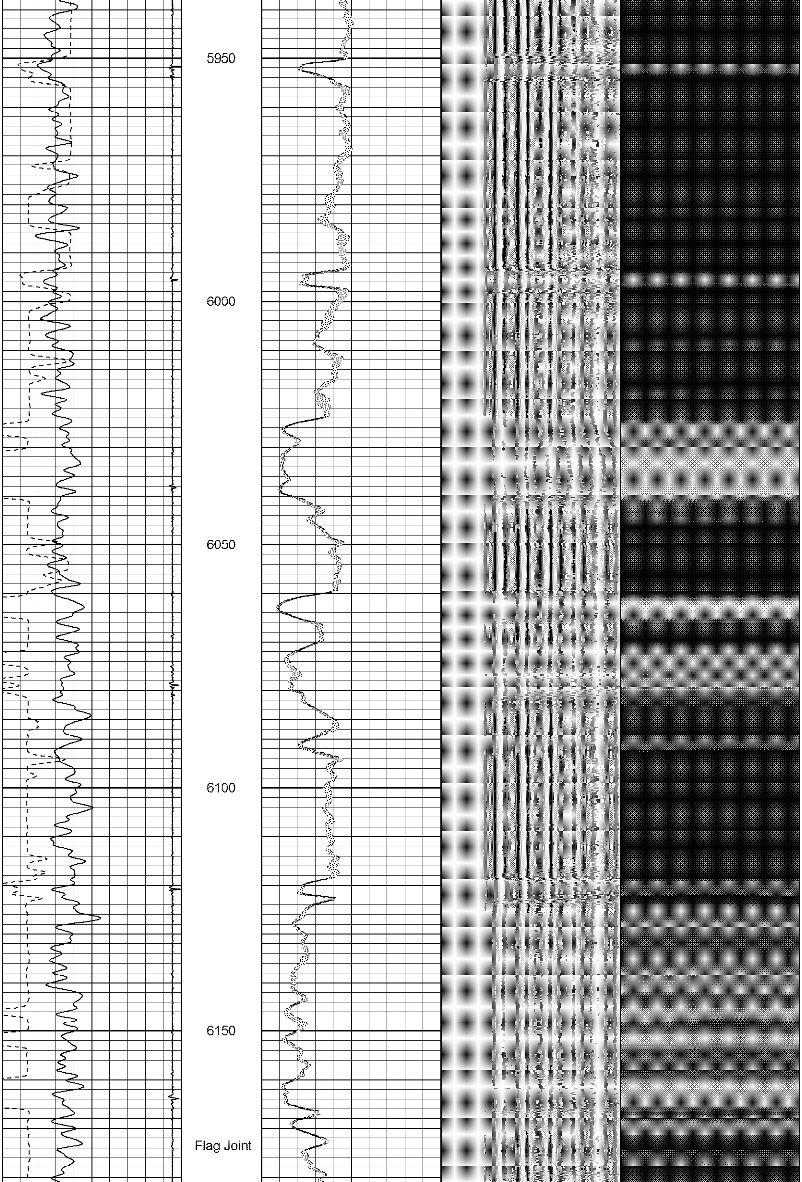


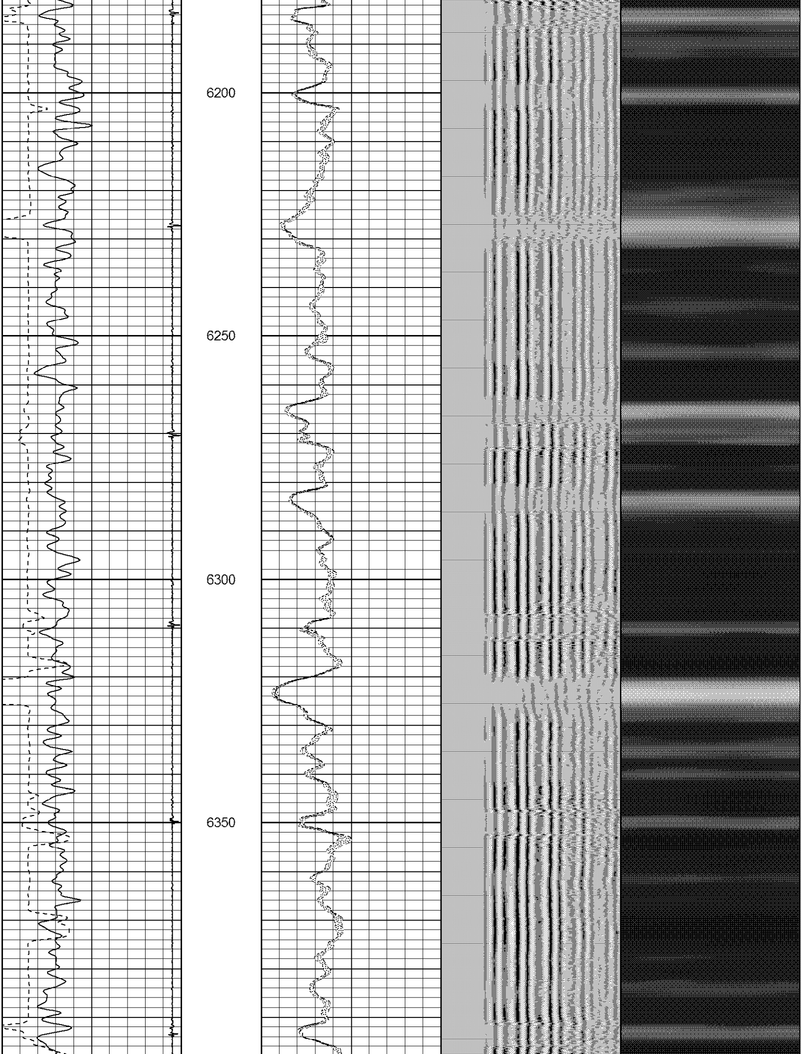


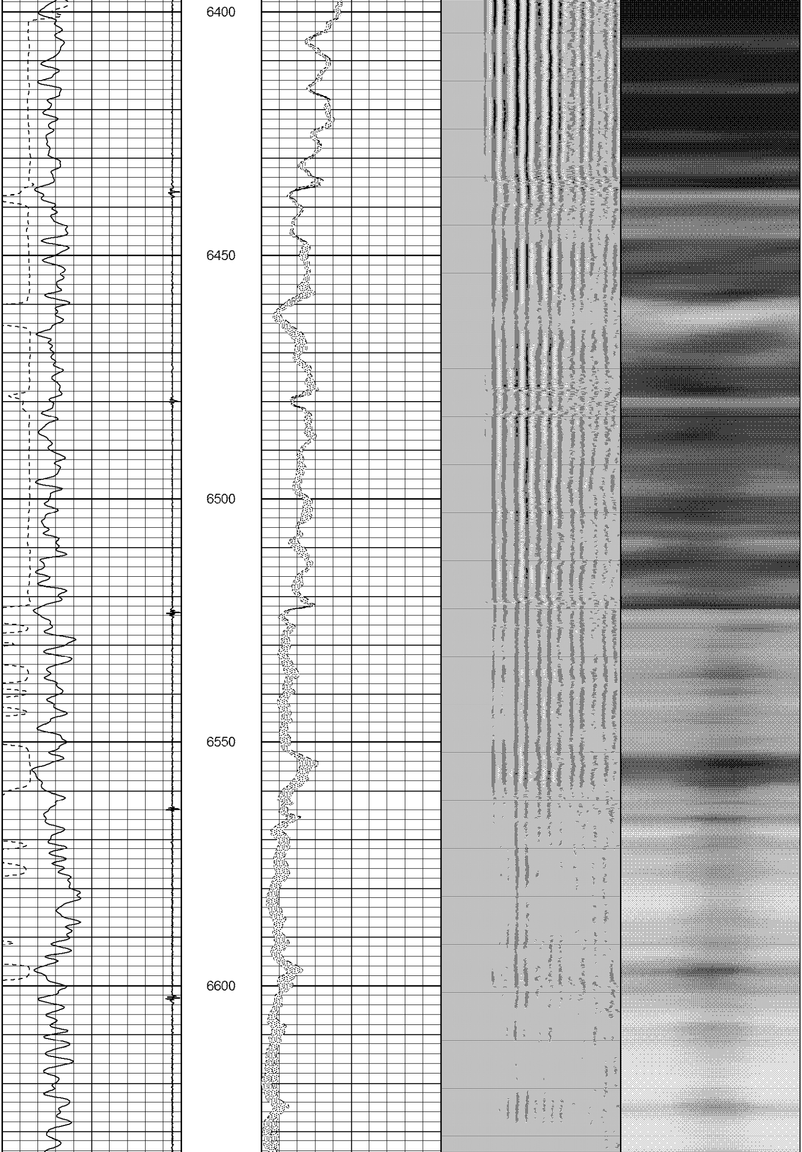


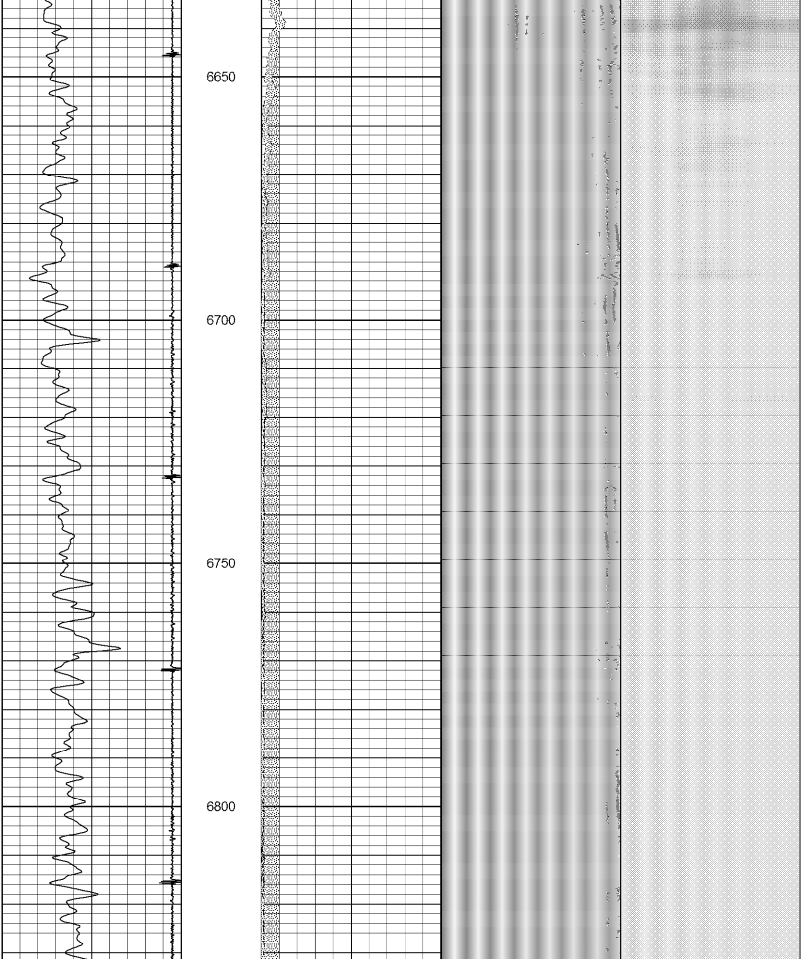


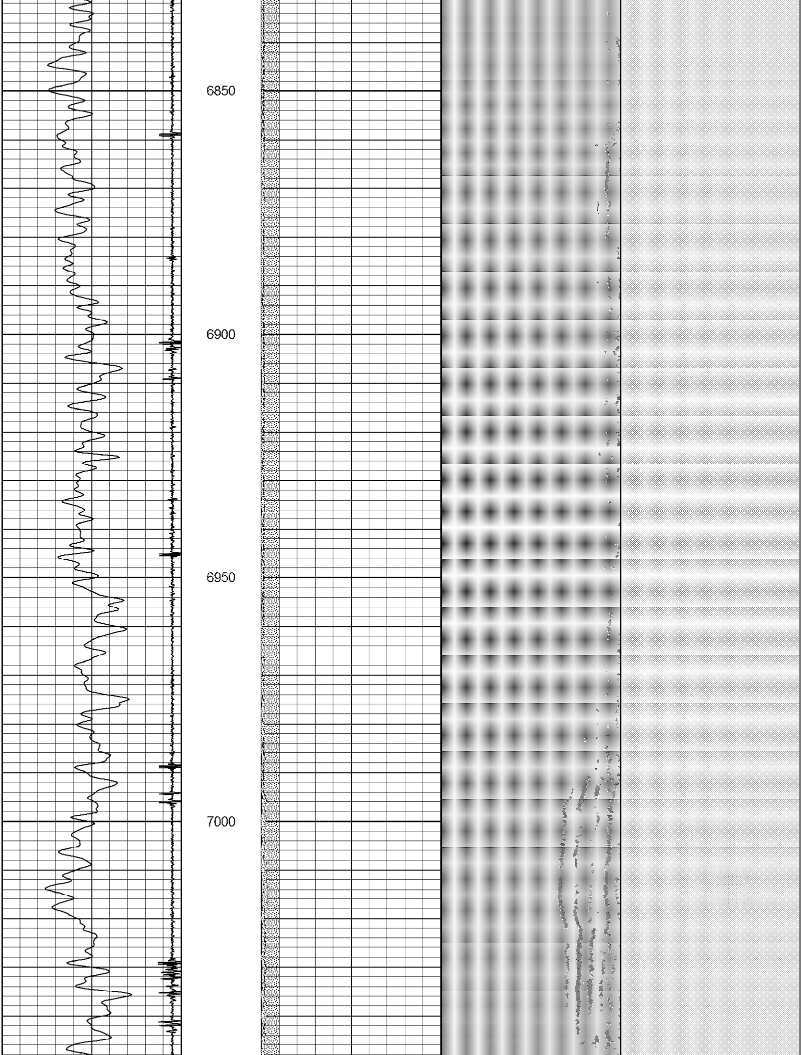


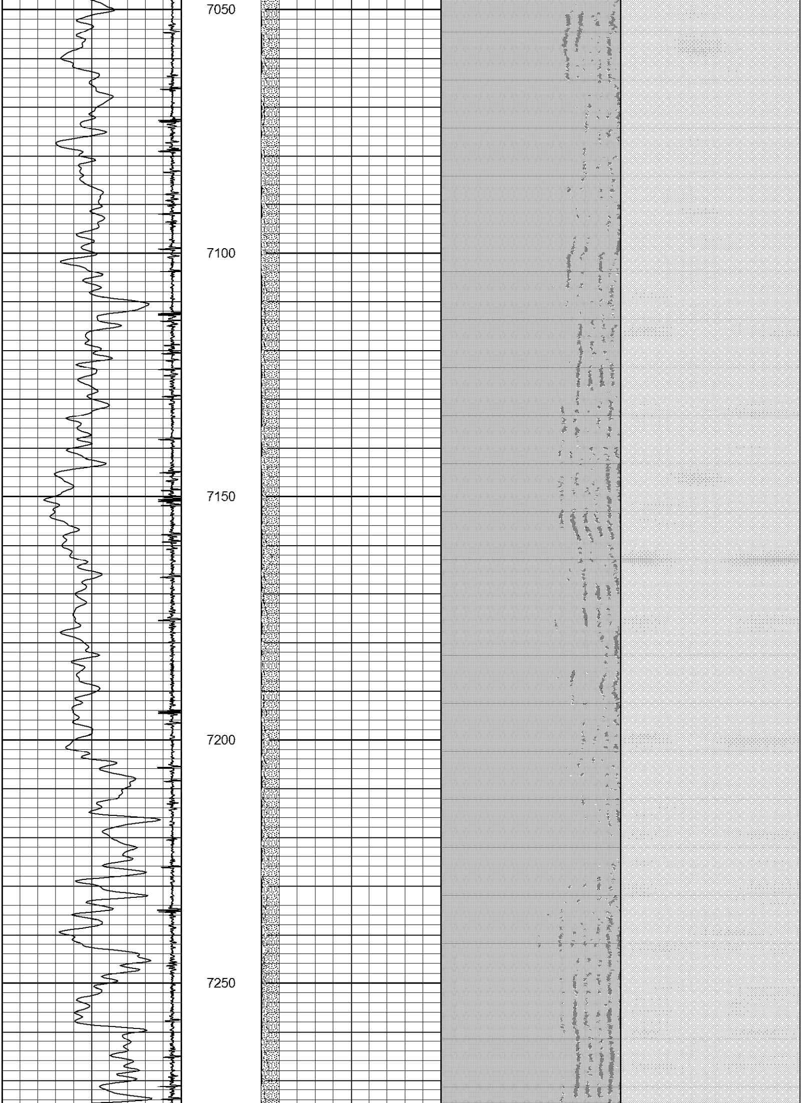


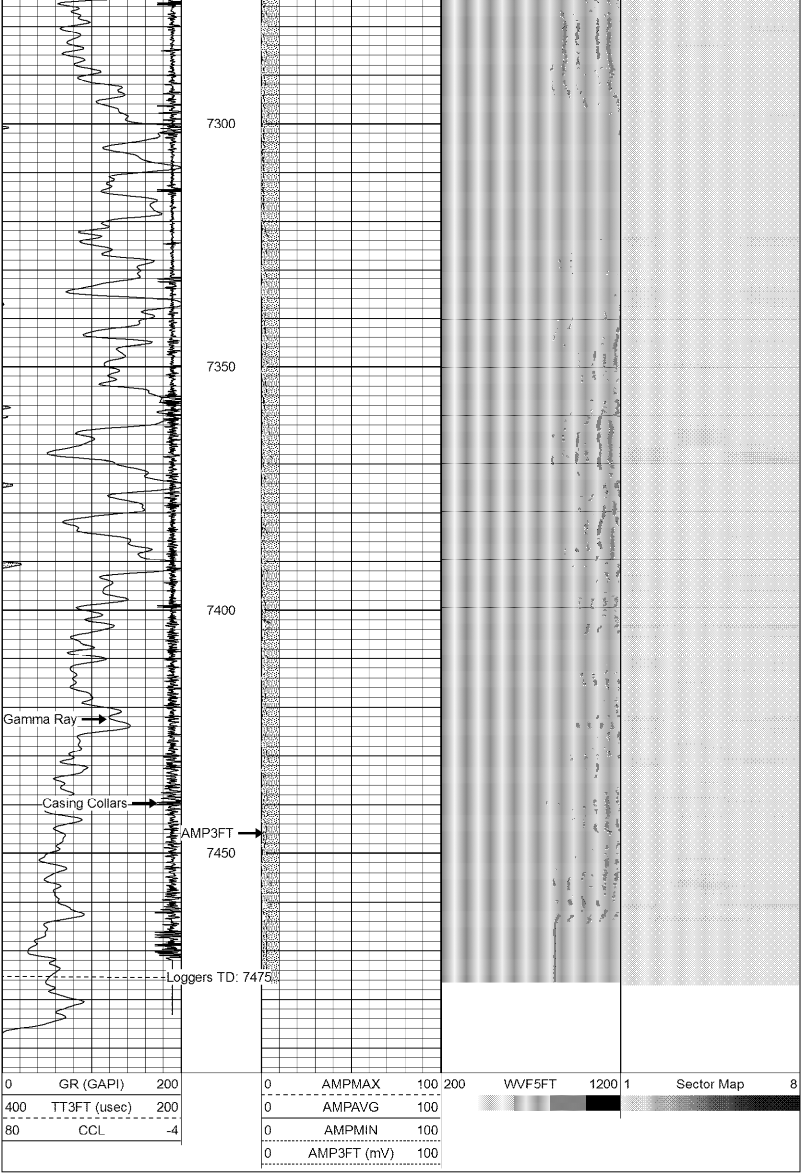












Calibration Report

Database File: scblcargo g19-67hc.db
Dataset Pathname: pass3
Dataset Creation: Mon Jan 21 15:45:33 2013 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION

Mon Jan 21 15:15:56 2013

	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: 101020
Tool Model: Probe

Calibration Casing Diameter: 7.000 in
Calibration Depth: 625.500 ft

Master Calibration, performed Mon Jan 21 15:00:11 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.012	0.996	0.900	62.165	60.775	1.613
CAL	-0.012	1.440				
5'	-0.012	1.175	0.900	62.165	51.610	1.512
SUM						
S1	-0.012	1.111	0.000	62.165	55.364	0.662
S2	-0.012	1.100	0.000	62.165	55.903	0.661
S3	-0.012	1.053	0.000	62.165	58.380	0.703
S4	-0.012	0.955	0.000	62.165	64.278	0.758
S5	-0.012	0.850	0.000	62.165	72.149	0.863

S6	-0.012	0.833	0.000	62.165	73.561	0.870
S7	-0.012	0.946	0.000	62.165	64.911	0.770
S8	-0.012	1.079	0.000	62.165	56.969	0.686

Internal Reference Calibration, performed Mon Jan 21 14:59:13 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.012	1.440	1.000	0.000

Air Zero Calibration, performed Mon Jan 21 14:54:05 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