PIONEER
Pioneer Energy Services

Radial Sector bond log with gamma ray

Company	Encana Oil and Gas
Well	Murata 1-19J
Field	Wattenberg
County	Weld
State	Colorado

Company Encana Oil and Gas
Well Murata 1-19J
Field Wattenberg
County Weld State Colorado

Location: API # : 05123116440000
SHL: 1400' FNL X 1320' FWL
SEC 19 TWP 2n RGE 66w

Other Services: None

Permanent Datum	GL	Elevation	4858'
Log Measured From	KB		
Drilling Measured From	KB 10'		

Elevation: K.B. 4868' D.F. 4865' G.L. 4858'

Date	12-March-2015
Run Number	One
Depth Driller	8012'
Depth Logger	1522'
Bottom Logged Interval	1510'
Top Log Interval	Surface
Open Hole Size	7.875".
Type Fluid	Fresh Water
Density / Viscosity	8.34 LB/G
Max. Recorded Temp.	200 Deg. F.
Estimated Cement Top	440'
Time Well Ready	ROA
Time Logger on Bottom	7:45
Equipment Number	1
Location	Fort Morgan
Recorded By	Randy Azevedo
Witnessed By	Carl Reyes

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8-5/8"	24#	Surface	555'
Prot. String				
Production String	4.5"	11.6#	Surface	8012'
Liner				

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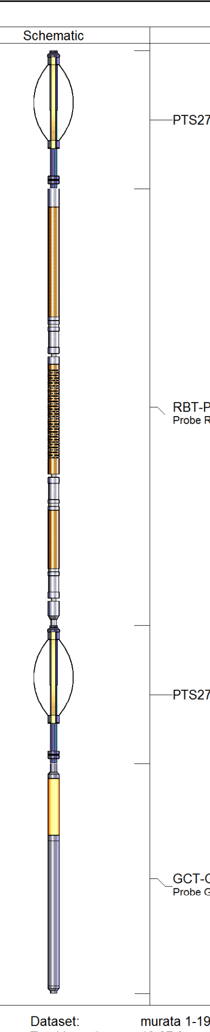
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

Log ran as per customer request.
Depth reference to kelly bushing 10'
Log ran from 1500' to fluid level at 80'
Log ran with 0 PSI surface induced pressure

Thank you for choosing pioneer energy services
SO # 2-310051



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		PTS275	2.83	2.75	
WVF3FT	11.86	RBT-Probe (4.5040904) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
WVFCAL	11.86				
WVFS1	11.86				
WVFS2	11.86				
WVFS3	11.86				
WVFS4	11.86				
WVFS5	11.86				
WVFS6	11.86				
WVFS7	11.86				
WVFS8	11.86				
WVF5FT	10.78				
		PTS275	2.83	2.75	
CCL	3.84				
TEMP	3.14				
GR	2.30	GCT-GRCCLTEMP (130608) Probe GCT	4.69	2.75	100.00

Dataset: murata 1-19j rbl.db: field/well/run1/pass4
Total Length: 19.27 ft
Total Weight: 190.00 lb
O.D.: 2.75 in

4.5" Main Pass

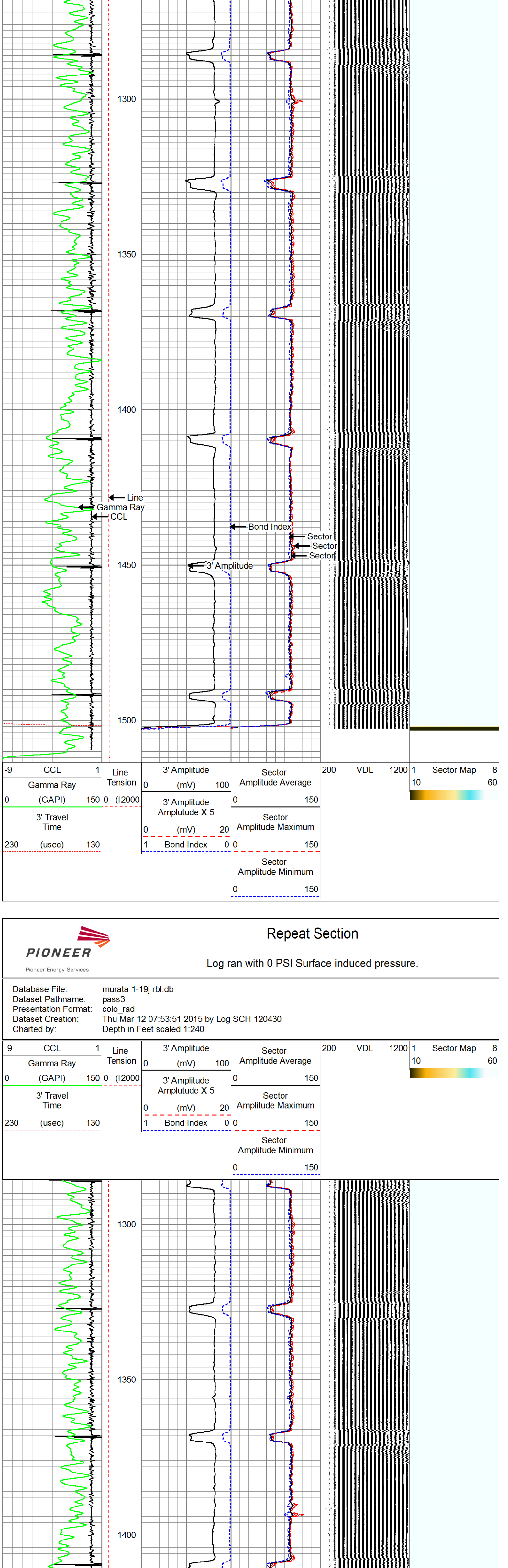
Log ran with 0 PSI surface induced pressure

Database File: murata 1-19j rbl.db
Dataset Pathname: pass4
Presentation Format: colo_rad
Dataset Creation: Thu Mar 12 07:58:48 2015 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

Repeat Section

Log ran with 0 PSI Surface induced pressure.

Database File: murata 1-19j rbl.db
Dataset Pathname: pass3
Presentation Format: colo_rad
Dataset Creation: Thu Mar 12 07:53:51 2015 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240



Calibration Report

Database File: murata 1-19j rbl.db
Dataset Pathname: pass4
Dataset Creation: Thu Mar 12 06:58:48 2015 by Log SCH 120430

Gamma Ray Calibration Report

Serial Number:	130608	
Tool Model:	GRCCLTEMP	
Performed:	Wed Mar 11 16:19:32 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Temperature Calibration Report

Serial Number: 130608
Tool Model: GRCCLTEMP
Performed: Wed Mar 11 16:20:14 2015

	Reference	Reading
Low Reference:	100.00 degF	6509.65degF
High Reference:	350.00 degF	27350.70degF

Gain: 0.01
Offset: 21.91
Delta Spacing 1

Segmented Cement Bond Log Calibration Report

Serial Number:	4.5040904	
Tool Model:	Probe	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	1230.458	ft

Master Calibration, performed Thu Mar 12 06:49:56 2015:

	Raw (v) Zero	Raw (v) Cal	Calibrated (mv) Zero	Calibrated (mv) Cal	Results Gain	Results Offset
3'	0.013	0.997	1.000	81.196	81.526	-0.066
CAL	0.013	1.613				
5'	0.018	0.931	1.000	81.196	87.872	-0.570
SUM						
S1	0.037	0.933	0.000	100.000	111.664	-4.156
S2	0.014	1.022	0.000	100.000	99.231	-1.411
S3	0.013	1.106	0.000	100.000	91.537	-1.211
S4	0.013	1.146	0.000	100.000	88.250	-1.144
S5	0.010	1.111	0.000	100.000	90.828	-0.906
S6	0.013	1.019	0.000	100.000	99.397	-1.309
S7	0.012	0.935	0.000	100.000	108.368	-1.291
S8	0.013	0.890	0.000	100.000	114.055	-1.499

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v) Zero	Raw (v) Cal	Calibrated (v) Zero	Calibrated (v) Cal	Results Gain	Results Offset
CAL	0.000	0.000	0.013	1.613	1.000	0.000

Air Zero Calibration, performed Wed Mar 11 16:57:12 2015:

	Raw (v) Zero	Calibrated (v) Zero	Results 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

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