PIONEER
Pioneer Energy Services

GAMMA RAY CCL CEMENT BOND VDL SECTOR MAP

Company	EnCana Oil & Gas (USA) Inc.
Well	Billings 2C-18H
Field	Wattenberg
County	Weld
State	Colorado
Country	USA

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API # : 05123365300000

Location: 1256' FNL & 230' FWL
NWNW
SEC 18 TWP 3N RGE 68W

Other Services
None

Permanent Datum	GL	Elevation	5197
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 5229
D.F. 5228
G.L. 5197

Date	February 18, 2014
Run Number	1
Depth Driller	14195
Depth Logger	7458
Bottom Logged Interval	7456
Top Log Interval	0
Open Hole Size	8-3/4"
Type Fluid	Drilling Mud
Density / Viscosity	10.95 / 46
Max. Recorded Temp.	NA
Estimated Cement Top	150
Time Well Ready	0640
Time Logger on Bottom	0730
Equipment Number	49
Location	Brighton, CO
Recorded By	Matt Gill
Witnessed By	Robert Escojeda

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	7"	26 lbs	0	7506'
Liner				

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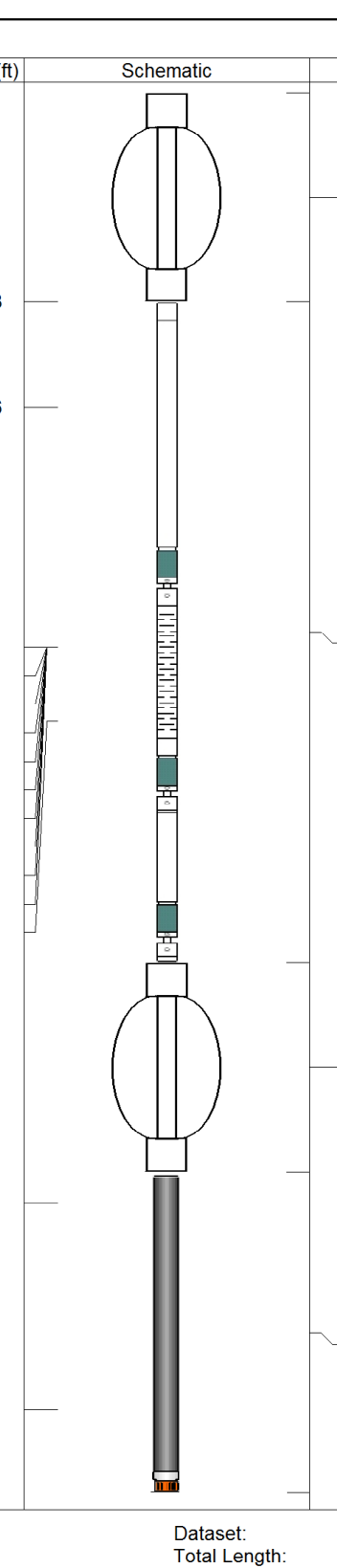
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

Thank You for using Pioneer Energy Services
Pattersen Drilling Rig 326



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT #2 -A (1)	2.83	2.75	20.00
HEADVOLT	16.08				
IntTemp	14.66				
WVF3FT	11.41	RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
WVFCAL	11.41				
WVFS1	11.41				
WVFS2	11.41				
WVFS3	11.41				
WVFS4	11.41				
WVFS5	11.41				
WVFS6	11.41				
WVFS7	11.41				
WVFS8	11.41				
WVF5FT	10.41				
		CENT-A (1)	2.83	2.75	20.00
CCL	3.92				
		GR-probe 2.75 (111205) proble Digital CCL Gamma	4.33	2.75	100.00
GR	1.13				

Dataset:	13466.db: field/well/run1/pass2
Total Length:	18.91 ft
Total Weight:	230.00 lb
O.D.	2.75 in

Database File:	13466.db
Dataset Pathname:	pass2.1
Presentation Format:	scbl02
Dataset Creation:	Tue Feb 18 09:31:38 2014 by Calc 0
Charted by:	Depth in Feet scaled 1:240

Calibration Report

Database File: 13466.db
Dataset Pathname: pass2.1
Dataset Creation: Tue Feb 18 09:31:38 2014 by Calc 0

Gamma Ray Calibration Report

Serial Number:	111205	
Tool Model:	probe 2.75	
Performed:	Tue Feb 18 08:13:29 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps

Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	Base	
Tool Model:	Probe	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	115.403	ft

Master Calibration, performed Tue Feb 18 08:12:59 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.924	0.000	62.200	65.890	-0.778
CAL	0.012	1.008				
5'	0.012	0.970	0.000	62.200	64.944	-0.787
SUM						
S1	0.012	1.028	0.000	100.000	75.984	-0.516
S2	0.012	0.941	0.000	100.000	73.201	-0.452
S3	0.012	0.845	0.000	100.000	77.258	-0.514
S4	0.012	0.807	0.000	100.000	83.974	-0.600
S5	0.012	0.822	0.000	100.000	86.277	-0.640
S6	0.012	0.879	0.000	100.000	88.111	-0.655
S7	0.012	0.989	0.000	100.000	85.776	-0.494
S8	0.012	1.030	0.000	100.000	79.181	-0.530

Internal Reference Calibration, performed Tue Nov 21 12:42:07 2006:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.998	1.000	0.000

Air Zero Calibration, performed Thu Apr 24 09:23:40 2008:

	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