Casedhole Solutions

GAMMA RAY CCL SECTOR BOND

Company	NOBLE ENERGY INC.
Well	CANNON H 35-22
Field	WATTENBERG
County	WELD
State	COLORADO

Location: API #: 0512331866

2492' FSL & 1320' FEL NW/SE

SEC 35 TWP 3N RGE 65W

Other Services

Permanent Datum	GL	Elevation	4839
Log Measured From	KB		
Drilling Measured From	KB		

Elevation: K.B. 4852, D.F. 4851, G.L. 4839

Date	JANUARY 9, 2018
Run Number	ONE
Depth Driller	7766
Depth Logger	2445
Bottom Logged Interval	2445
Top Log Interval	SURFACE
Open Hole Size	7-7/8
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	
Time Well Ready	RANGER RIG
Time Logger on Bottom	8:00
Equipment Number	922338
Location	FORT LUPTON
Recorded By	GREG NOLAN
Witnessed By	CARL SWIFT

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8-5/8	24#	SURFACE	772
Prot. String				
Production String	4-1/2	11.6#	SURFACE	7801
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

THANK YOU FOR CHOOSING CHS!!!!!
LOG CORRELATED TO SUPERIOR WELL SERVICES GAMMA RAY CCL CEMENT BOND VDL LOG DATED 08.16.2011

Database File:	cbl noble cannon h35-22.db
Dataset Pathname:	pass3
Presentation Format:	zwag
Dataset Creation:	Tue Jan 09 08:12:04 2018 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

50 CCL -5.5 | 0 GR (GAPI) 150 | 340 TT3 (usec) 240 | 0 AMP (mV) 100 | AMPLIFIED AMP3 0 (mV) 20 | 0 AMPS1 100 | 0 AMPS2 100 | 0 AMPS3 100 | 0 AMPS4 100 | 0 AMPS5 100 | 0 AMPS6 100 | 0 AMPS7 100 | 0 AMPS8 100 | 200 VDL 1200 | 1 RADIAL MAP 8 | 80 1

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Calibration Report

Database File:	cbl noble cannon h35-22.db
Dataset Pathname:	pass3
Dataset Creation:	Tue Jan 09 08:12:04 2018 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION	Thu Oct 26 10:51:22 2017				
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.5500			GAPI/cps
PRIMARY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
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:	4.500	in
Calibration Depth:	791.175	ft

Master Calibration, performed Tue Jan 09 08:04:46 2018:

	Raw (v) Zero	Raw (v) Cal	Calibrated (mv) Zero	Calibrated (mv) Cal	Results Gain	Results Offset
3'	0.007	1.001	1.500	81.196	80.187	0.913
CAL	0.007	0.154				
5'	0.007	0.944	1.500	81.196	85.069	0.894
SUM						
S1	0.007	1.016	0.000	81.196	80.524	-0.590
S2	0.007	1.060	0.000	81.196	77.156	-0.573
S3	0.007	1.049	0.000	81.196	77.947	-0.574
S4	0.007	1.001	0.000	81.196	81.702	-0.600
S5	0.007	0.948	0.000	81.196	86.306	-0.623
S6	0.007	0.945	0.000	81.196	86.614	-0.636
S7	0.007	0.983	0.000	81.196	83.231	-0.609
S8	0.007	0.977	0.000	81.196	83.707	-0.620

Internal Reference Calibration, performed Fri Jan 13 14:30:16 2012:

	Raw (v) Zero	Raw (v) Cal	Calibrated (v) Zero	Calibrated (v) Cal	Results Gain	Results Offset
CAL	0.000	0.000	0.007	0.154	1.000	0.000

Air Zero Calibration, performed Tue Jan 09 07:52:33 2018:

	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