C&J ENERGY SERVICES

RADIAL BOND LOG
GAMMA RAY -C.C.L.
CEMENT BOND -V.D.L.

Company	ANADARKO PETROLEUM CORP.
Well	LUHMAN UPRR 32-13 1
Field	WATTENBERG
County	WELD
State	COLORADO

Company ANADARKO PETROLEUM CORP.
Well LUHMAN UPRR 32-13 1
Field WATTENBERG
County WELD **State** COLORADO

Location: API #: 05-123-12856
SW/NE
SEC 13 TWP 3N RGE 66W

Other Services

Permanent Datum	G.L.	Elevation 5025	Elevation
Log Measured From	K.B.		K.B. 5036
Drilling Measured From	K.B.		D.F. 5035
			G.L. 5025

Date	JAN.-31-2020
Run Number	ONE
Depth Driller	7548
Depth Logger	548
Bottom Logged Interval	547
Top Log Interval	-0-
Casing Size	4 1/2
Type Fluid	WATER
Max. Recorded Temp.	
Estimated Cement Top	
Time Well Ready	
Time Logger On Bottom	
Unit Number	200128
Tool Size / ID Number	2.75 PROBE
Location	FT.LUPTON
Recorded By	R. GARDNER
Witnessed By	NICK LANG

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String				
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

Calibration Report

Database File: luhman uprr.db
Dataset Pathname: pass3
Dataset Creation: Fri Jan 31 10:27:24 2020 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION Thu Oct 17 07:40:29 2019

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.1000			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: 101024
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 150.783 ft

Master Calibration, performed Fri Jan 31 10:17:50 2020:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.458	0.800	81.196	32.711	0.789
CAL	0.000	0.002				
5'	0.000	2.464	0.800	81.196	32.627	0.791
SUM						
S1	0.001	2.070	0.000	81.196	39.244	-0.022
S2	0.000	2.052	0.000	81.196	39.581	-0.010
S3	0.001	2.093	0.000	81.196	38.813	-0.024
S4	0.000	2.125	0.000	81.196	38.223	-0.008
S5	0.000	2.115	0.000	81.196	38.391	-0.006
S6	0.001	2.070	0.000	81.196	39.243	-0.020
S7	0.000	2.055	0.000	81.196	39.521	-0.009
S8	0.001	2.046	0.000	81.196	39.694	-0.021

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

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.002	1.000	0.000

Air Zero Calibration, performed Fri Aug 02 12:48:57 2019:

	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

Database File: luhman uprr.db
Dataset Pathname: pass3
Presentation Format: zwag
Dataset Creation: Fri Jan 31 10:27:24 2020 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

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

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		0 AMPS4 100		
		0 AMPS5 100		
		0 AMPS6 100		
		0 AMPS7 100		
		0 AMPS8 100		