

Company NOBLE ENERGY INC.
Well SPIKE STATE D16-99HZ
Field WATTENBERG
County WELD State COLORADO

Location: AP # : 05-123-32821
BH.L: 1480' FSL & 550' FWL
NESE

Permanent Datum G.L. Elevation 4782
Log Measured from KB
Drilling Measured from KB
D.L. 4782

Date JANUARY 31, 2019
Run Number ONE
Depth Driller 1167
Bottom Logged 725

Top Log Interval SURFACE
Open Hole Size 6-3/4
Wireline Depth (ft) N/A
Max. Recorded Temp. N/A
Estimated Cement Top ROA

Time Logger on Bottom 7:30
Equipment Number 200099
Location FORT LUPTON
Recorded By GREG NOLAN
Witnessed By CHRIS HOHNSTEIN

Run Number Bit From To Size Tubing Record From To

Casing Record
Surface String 7 9-5/8 WgtFt Top SURFACE
Prot. String 38# 681 SURFACE
Production String 41/2 11-3/4 SURFACE 64S 7188 1152

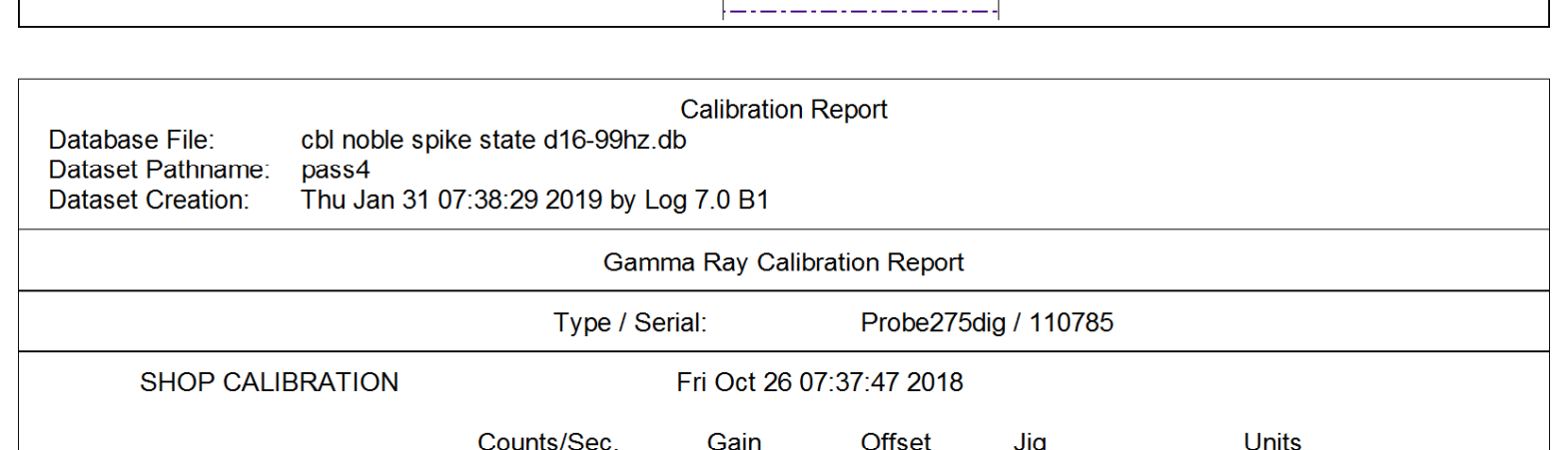
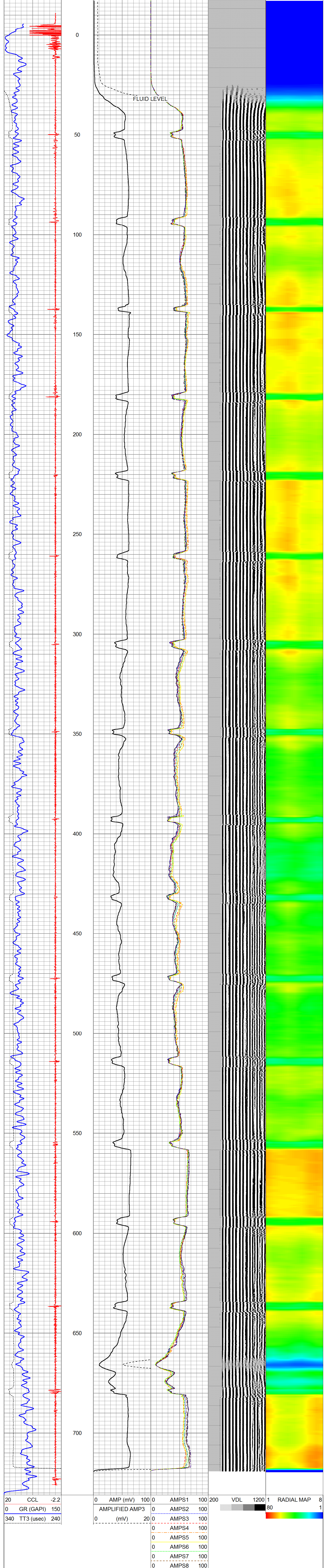
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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 JW WIRELINE CEMENT BOND LOG DATED 19-APR-2011

Database File: cbl noble spike state d16-99hz.db
Dataset Pathname: pass4
Presentation Format: zwag
Dataset Creation: Thu Jan 31 07:38:29 2019 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240



Database File: cbl noble spike state d16-99hz.db
Dataset Pathname: pass4
Dataset Creation: Thu Jan 31 07:38:29 2019 by Log 7.0 B1

Calibration Report

Gamma Ray Calibration Report
Type / Serial: Probe275dig / 110785

SHOP CALIBRATION						Fri Oct 26 07:37:47 2018	
Background	Counts/Sec.	Gain	Offset	Jig	Units		
Calibrator	0.0	0.6800			cps		
	1.0				cps		
					GAPI/cps		

PRIMARY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0			0.0	cps	
Difference					GAPI	

BEFORE SURVEY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0			0.0	cps	
Difference					GAPI	

AFTER SURVEY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0			0.0	cps	
Difference					GAPI	

Segmented Cement Bond Log Calibration Report

Serial Number: 101020
Tool Model: Probe
Calibration Casing Diameter: 7.000 in
Calibration Depth: 136.667 ft

Master Calibration, performed Thu Jan 31 07:34:00 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.511	1.500	62.165	40.346	1.196
CAL	0.007	0.577			40.432	-0.305
5'	0.008	1.581	1.500	62.165	39.922	-0.308
SUM					40.706	-0.287
S1	0.008	1.486	0.000	62.165	41.286	-0.307
S2	0.008	1.545	0.000	62.165	41.558	-0.317
S3	0.008	1.565	0.000	62.165	42.642	-0.326
S4	0.007	1.534	0.000	62.165	42.978	-0.327
S5	0.007	1.513	0.000	62.165		
S6	0.008	1.504	0.000	62.165		
S7	0.008	1.465	0.000	62.165		
S8	0.008	1.454	0.000	62.165		

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

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.577	1.000	0.000

Air Zero Calibration, performed Thu Jan 31 07:31:11 2019:

	Raw (v)		Calibrated (v)		Results	
	Zero	Zero	Zero	Zero	Gain	Offset
3'	0.000	0.000	0.000	0.000		0.000
5'	0.000	0.000	0.000	0.000		0.000
SUM						0.000
S1	0.000	0.000	0.000	0.000		0.000
S2	0.000	0.000	0.000	0.000		0.000
S3	0.000	0.000	0.000	0.000		0.000
S4	0.000	0.000	0.000	0.000		0.000
S5	0.000	0.000	0.000	0.000		0.000
S6	0.000	0.000	0.000	0.000		0.000
S7	0.000	0.000	0.000	0.000		0.000
S8	0.000	0.000	0.000	0.000		0.000