PIONEER

Pioneer Energy Services

SECTOR LOG
GAMMA RAY C.C.L.
CEMENT BOND V.D.L.

Company ANANDARKO PETROLEUM CORPORATION
Well HARRIS FEDERAL 36N-E18HZ
Field Wattenberg
County Weld
State Colorado

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Well	HARRIS FEDERAL 36N-E18HZ
Field	Wattenberg
County	Weld
State	Colorado

Location: API # : 05.123.37762

SHL: 712' FSL & 1803' FEL
SW SE

SEC 19 TWP 3N RGE 66W

Other Services
56 Arm
Caliper

Permanent Datum	GL	Elevation	4832
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B.
D.F.
G.L. 4832

Date	23-NOV-2013		
Run Number	ONE		
Depth Driller	NA		
Depth Logger	7027		
Bottom Logged Interval	7025		
Top Log Interval	Surface		
Open Hole Size	8.75"		
Type Fluid	Water		
Density / Viscosity	8.33 ppg		
Max. Recorded Temp.	231 F		
Estimated Cement Top	40		
Time Well Ready	ON ARRIVAL		
Time Logger on Bottom	1530		
Equipment Number	75		
Location	FORT MORGAN		
Recorded By	LEROY HOBBS		
Witnessed By	MR. SONNY SEGURA		

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	4.5"	11.6#		

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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 USING PIONEER WIRELINE.

S.O. # 2-206008

Database File:	c:\users\sdizmang\desktop\0512337762.db
Dataset Pathname:	pass1
Presentation Format:	scbl02
Dataset Creation:	Sat Nov 23 15:11:28 2013 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

Calibration Report

Database File: C:\Users\sdizmang\Desktop\0512337762.db
Dataset Pathname: pass1
Dataset Creation: Sat Nov 23 15:11:28 2013 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number:	111211	
Tool Model:	Probe	
Performed:	Sat Nov 16 08:23:39 2013	
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:	7.000	in
Calibration Depth:	829.750	ft

Master Calibration, performed Sat Nov 23 14:26:58 2013:

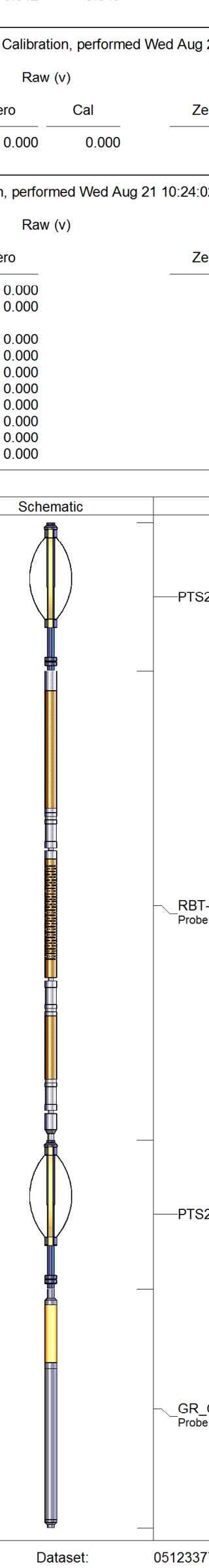
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.013	2.074	1.500	62.165	29.435	1.131
CAL	0.012	0.592				
5'	0.012	0.410	1.500	62.165	152.758	-0.400
SUM						
S1	0.013	0.358	0.000	95.000	275.162	-3.456
S2	0.012	0.382	0.000	95.000	256.845	-3.164
S3	0.012	0.402	0.000	95.000	243.482	-2.999
S4	0.012	0.409	0.000	95.000	239.267	-2.938
S5	0.012	0.397	0.000	95.000	246.473	-2.961
S6	0.012	0.376	0.000	95.000	261.260	-3.221
S7	0.012	0.361	0.000	95.000	272.550	-3.354
S8	0.012	0.349	0.000	95.000	282.216	-3.421

Internal Reference Calibration, performed Wed Aug 21 11:08:58 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.012	0.592	1.000	0.000

Air Zero Calibration, performed Wed Aug 21 10:24:02 2013:

	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

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			PTS275	2.83	2.75	
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 10.63		RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
			PTS275	2.83	2.75	
CCL GR	3.63 0.90		GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00

Dataset: 0512337762.db: field/well/run1/pass1
Total Length: 19.13 ft
Total Weight: 190.00 lb
O.D. 2.75 in