COMPENSATED DENSITY / NEUTRON LOG

Company	RAYMOND OIL COMPANY, INC.
Well	W & H UNIT #1
Field	ALAMOTA SOUTH
County	LANE
State	KANSAS

Company RAYMOND OIL COMPANY, INC.
Well W & H UNIT #1
Field ALAMOTA SOUTH
County LANE State KANSAS

Location: API # : 15-101-22983-0000
2495' FSL & 1843' FWL
SEC 9 TWP 19S RGE 27W

Other Services
DIL/MEL

Permanent Datum GROUND LEVEL Elevation 2713
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2724
D.F. 2722
G.L. 2713

Date	1/5/17		
Run Number	ONE		
Depth Driller	4750		
Depth Logger	4760		
Bottom Logged Interval	4736		
Top Log Interval	3400		
Casing Driller	8 5/8"@263'		
Casing Logger	263		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,300 PPM	
Density / Viscosity	9.3/55		
pH / Fluid Loss	8.5/6.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50@50F		
Rmf @ Meas. Temp	1.13@50F		
Rmc @ Meas. Temp	1.80@50F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.610@123F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	3:45 A.M.		
Maximum Recorded Temperature	123F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	ROCKY MILFORD		

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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.

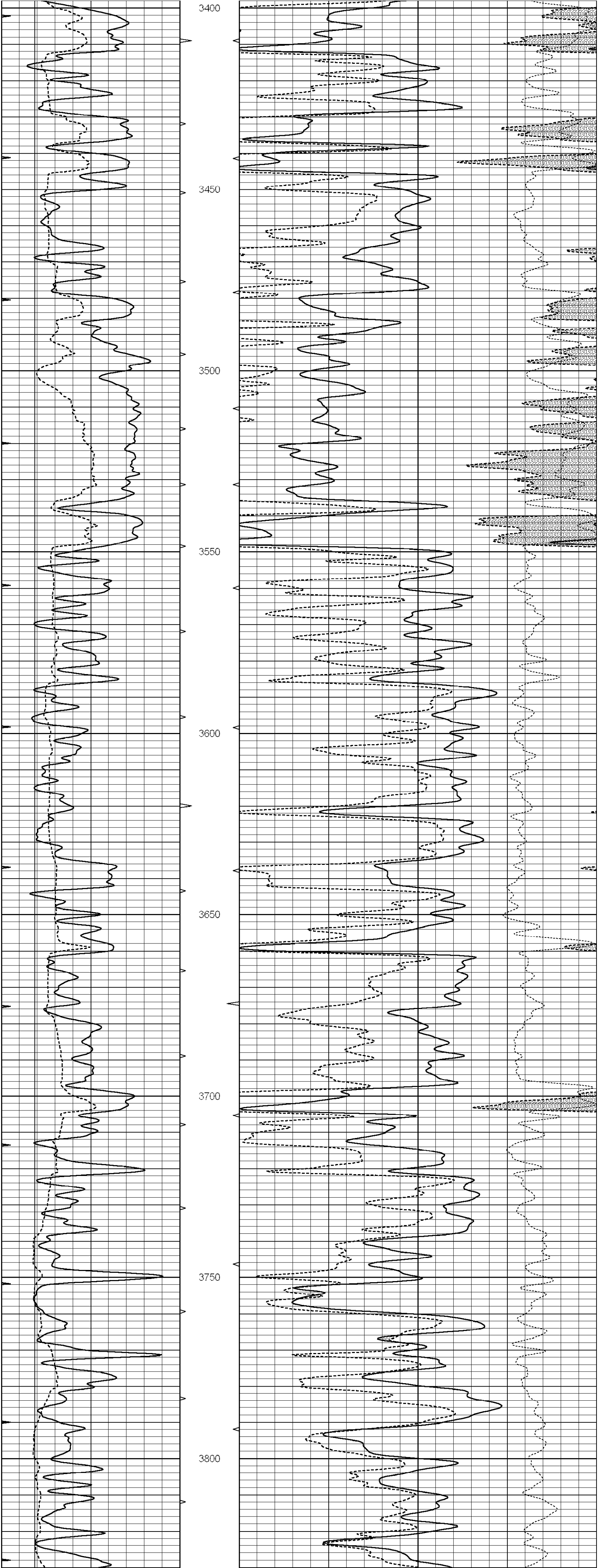
Comments

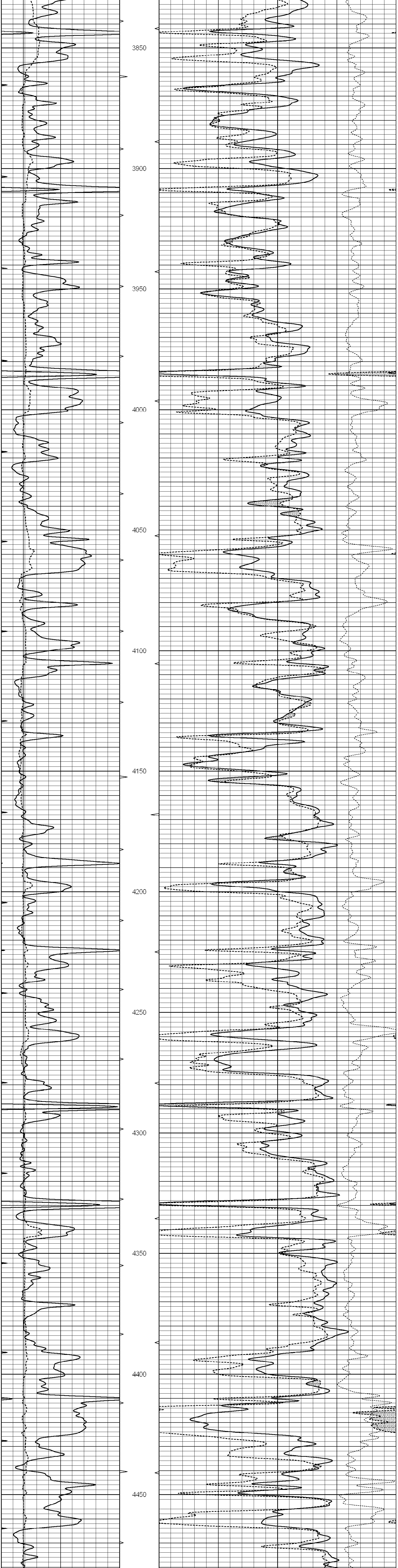
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
ALAMOTA, KS. (HWY 96 & TURKEY RED RD.) 4S. TO "RD. 110", 1/2W., S. INTO

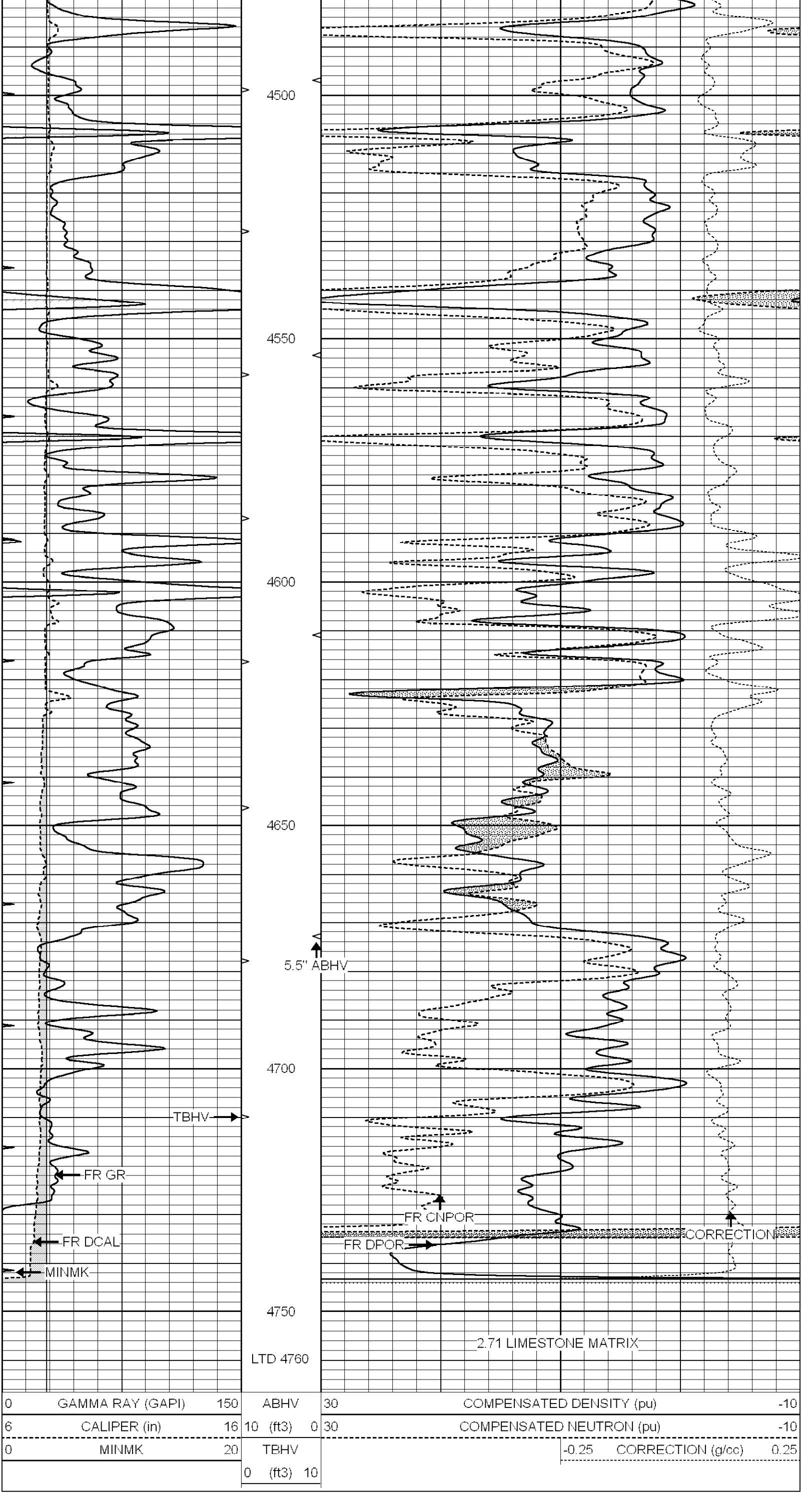
MAIN SECTION

Database File:	1340ddn.db
Dataset Pathname:	pass3.4
Presentation Format:	den_neu
Dataset Creation:	Thu Jan 05 05:17:46 2017 by Calc SOC 120430
Charted by:	Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 150
6 CALIPER (in) 16
0 MINMK 20
ABHV
10 (ft3) 0
TBHV
0 (ft3) 10
30 COMPENSATED DENSITY (pu) -10
30 COMPENSATED NEUTRON (pu) -10
-0.25 CORRECTION (g/cc) 0.25

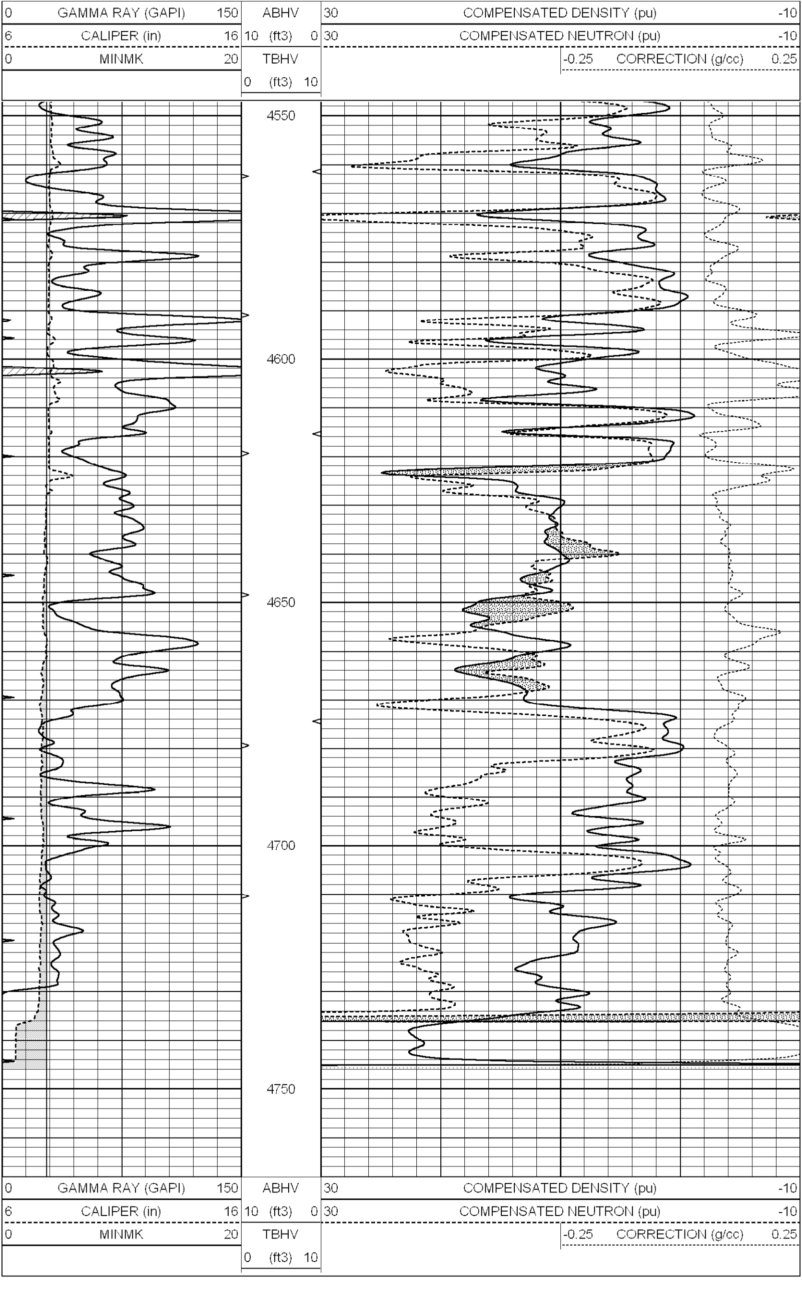






REPEAT SECTION

Database File:	1340ddn.db
Dataset Pathname:	pass2.4
Presentation Format:	den_neu
Dataset Creation:	Thu Jan 05 04:22:25 2017 by Calc SOC 120430
Charted by:	Depth in Feet scaled 1:240



Calibration Report

Database File:	1340ddn.db
Dataset Pathname:	pass3.4
Dataset Creation:	Thu Jan 05 05:17:46 2017 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Wed Dec 14 12:18:49 2016
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	625.000	-10.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-54.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report
Serial: 004N Model: PRB

Master Calibration

Performed Fri May 30 11:01:00 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1378.8	10804.6	3492.0	12453.4	cps
Window 2	1262.4	9313.5	3076.7	10594.7	cps
Window 3	1077.6	5668.7	2076.0	6314.8	cps
Window 4	306.4	313.0	306.4	315.6	cps
Long Space	0.0	8051.0	1814.3	9332.3	cps
Short Space	1.9	1706.1	1146.0	1707.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	

Rib Angle : 45.0
Spine Angle : 75.0
Rib Slope : 1.002
Spine Slope : 3.745
Density/Spine Ratio : 0.571
Spine Intercept : -18.9

Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number:	070808
Tool Model:	Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070558	
Tool Model:	OPEN_GR	
Performed:	Mon Aug 22 01:00:15 2016	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps