Company	Noble Energy INC.
Well	WELLS RANCH USX AE 19-09P
Field	Wattenberg
County	Weld
State	Colorado

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company Noble Energy INC.
Well WELLS RANCH USX AE 19-09P
Field Wattenberg
County Weld State Colorado

Location: API #: 051233048600
2044' FSL & 592' FEL
NE SE
SEC 19 TWP 6N RGE 62W

Other Services

			Elevation
Permanent Datum	GL	Elevation 4788	K.B. 4801
Log Measured From	KB 13'		D.F. 4800
Drilling Measured From	KB		G.L. 4788

Date	May 6, 2010
Run Number	One
Depth Driller	6895
Depth Logger	6817
Bottom Logged Interval	6816
Top Log Interval	1100
Casing Size	4 1/2"
Type Fluid	Water
Density / Viscosity	Not Recorded
Max. Recorded Temp.	224 deg F
Estimated Cement Top	2017
Time Well Ready	Mast Truck
Time Logger on Bottom	AM
Equipment Number	T5 (3344) 1 11/16 Tool 1 RED
Location	Platteville, CO
Recorded By	K. Monaghan
Witnessed By	E. Zwaagstra

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"	32 lb/ft J-55	Surface	551.7
Prot. String				
Production String	4 1/2"	11.6 lb/ft M-80	Surface	6882.0
Liner				

<<< Fold Here >>>

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 Superior Well Services!!!
API# 05-123-30486-00
Correlated to Phoenix Survey Inc's
Compensated Density / Compensated Neutron / Gamma Ray Microlog
DatedA: April 27, 2010
Directions:
67 & 68, E 2/10, S 1.75, E2.75, N 1.0, E 1/2, NE INTO

Database File:	cblwells ranch usx af19-09p.db
Dataset Pathname:	pass3
Presentation Format:	nuexcbl
Dataset Creation:	Thu May 06 10:15:53 2010 by Log Std Casedhole 09061
Charted by:	Depth in Feet scaled 1:240

20	CCL	-1
30	Gamma Ray (GAPI)	130
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30
0	Amplitude (mV)	100

200 Variable Density 1200

20	CCL	-1
30	Gamma Ray (GAPI)	130
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30
0	Amplitude (mV)	100

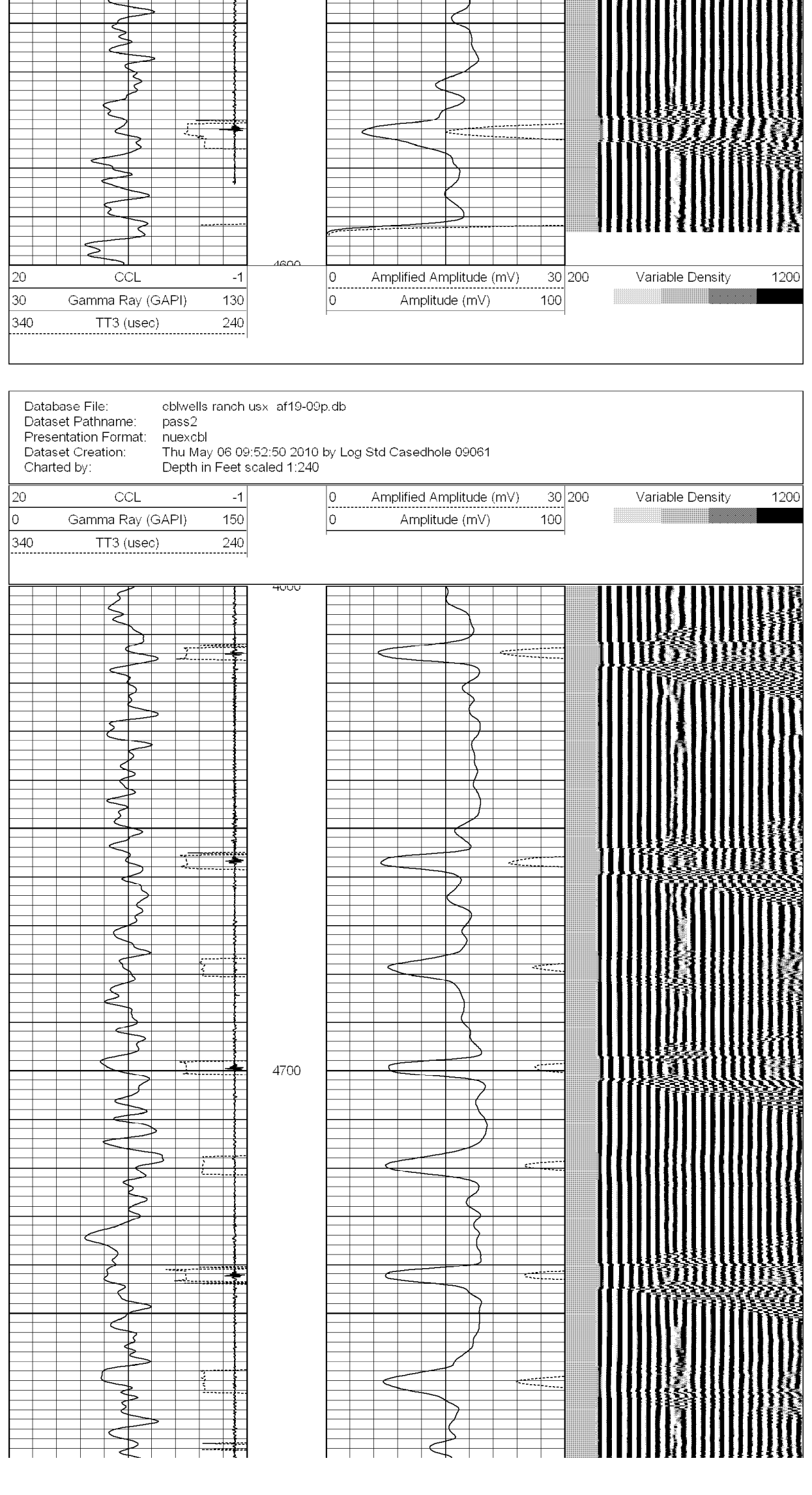
200 Variable Density 1200

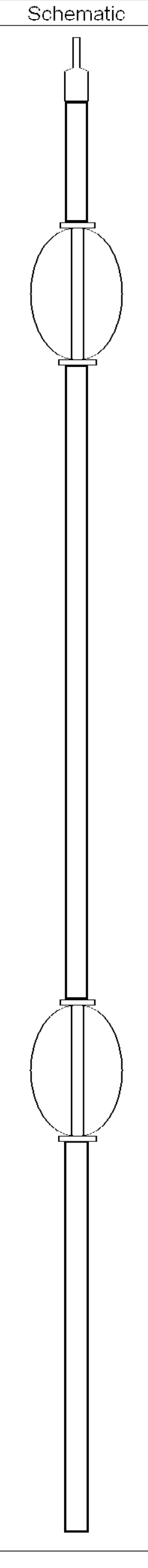
Database File:	cblwells ranch usx af19-09p.db
Dataset Pathname:	pass2
Presentation Format:	nuexcbl
Dataset Creation:	Thu May 06 09:52:50 2010 by Log Std Casedhole 09061
Charted by:	Depth in Feet scaled 1:240

20	CCL	-1
0	Gamma Ray (GAPI)	150
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30
0	Amplitude (mV)	100

200 Variable Density 1200



Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-STNDRD (1) Standard Cable Head	1.00	1.69	5.00
CCL	21.05		CCL-T1-11/16 (1-11/16T) Titan 1-11/16 collar locator	1.83	1.69	20.00
			CENT-App2nd (1-11/16T) Another 1-11/16 Applied centralizer	2.17	1.69	10.00
WVF3	12.48		CBL-TEKCO-1x2 (TEKCO-01) TEKCO Cement Bond 1x2	9.68	1.69	40.00
WVF5	11.50					
			CENT-App2nd (1-11/16T) Another 1-11/16 Applied centralizer	2.17	1.69	10.00
GR	2.63		GR-temp/tit (tit/temp) Titan 1 11/16 Gamma Ray with temp probe	5.96	1.69	20.00

Dataset:	cblwells ranch usx af19-09p.db: field/well/run1/pass3
Total Length:	22.80 ft
Total Weight:	105.00 lb
O.D.	1.69 in

Calibration Report

Database File:	cblwells ranch usx af19-09p.db
Dataset Pathname:	pass3
Dataset Creation:	Thu May 06 10:15:53 2010 by Log Std Casedhole 09061

Gamma Ray Calibration Report

Serial Number:	tit/temp	
Tool Model:	temp/tit	
Performed:	Wed Dec 16 07:15:29 2009	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	TEKCO-01		
Tool Model:	TEKCO-1x2		
Performed:	Wed Apr 07 08:35:58 2010		
Depth:	2528.43	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	-0.0115723	-0.0117432	V
Reading in Free Pipe:	2.4999	2.5	V
Gain:	32.3301	32.3266	
Offset:	0.374132	0.379616	