J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company	NOBLE ENERGY INC.
Well	KOHLHOFF USX AB 17-04P
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well KOHLHOFF USX AB 17-04P
Field WATTENBERG
County WELD State COLORADO
Location: API # : 05-123-31184-00
737' FNL & 688' FWL
NW NW
SEC. 17 TWP. 7N RGE. 64W
SEC TWP RGE
Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 4916
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4929
D.F. 4929
G.L. 4916

Date	11-AUGUST-2010
Run Number	ONE
Depth Driller	7390
Depth Logger	7328
Bottom Logged Interval	7321
Top Log Interval	1130
Open Hole Size	7 7/8
Type Fluid	WATER
Density / Viscosity	--
Max. Recorded Temp.	240
Estimated Cement Top	1260
Time Well Ready	--
Time Logger on Bottom	--
Equipment Number	2405/WHITE
Location	BRIGHTON
Recorded By	HAYES
Witnessed By	MR. MITCH TRIMBLE

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	24 #	SURFACE	857
Prot. String				
Production String	4.5	11.6 #	SURFACE	7381
Liner				

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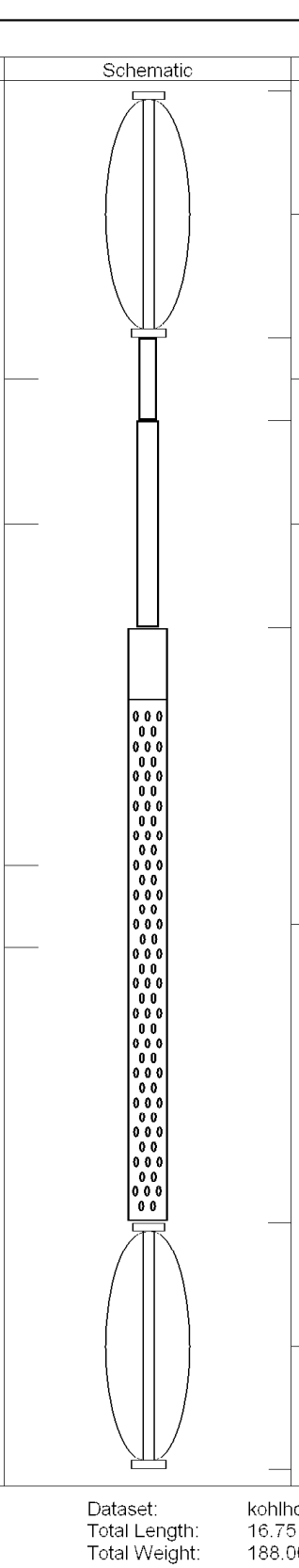
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

LOG CORRELATED TO CD, CN, ML LOG
DATED 17-JULY-2010

LOG SPLIT FOR CORRELATION PURPOSES

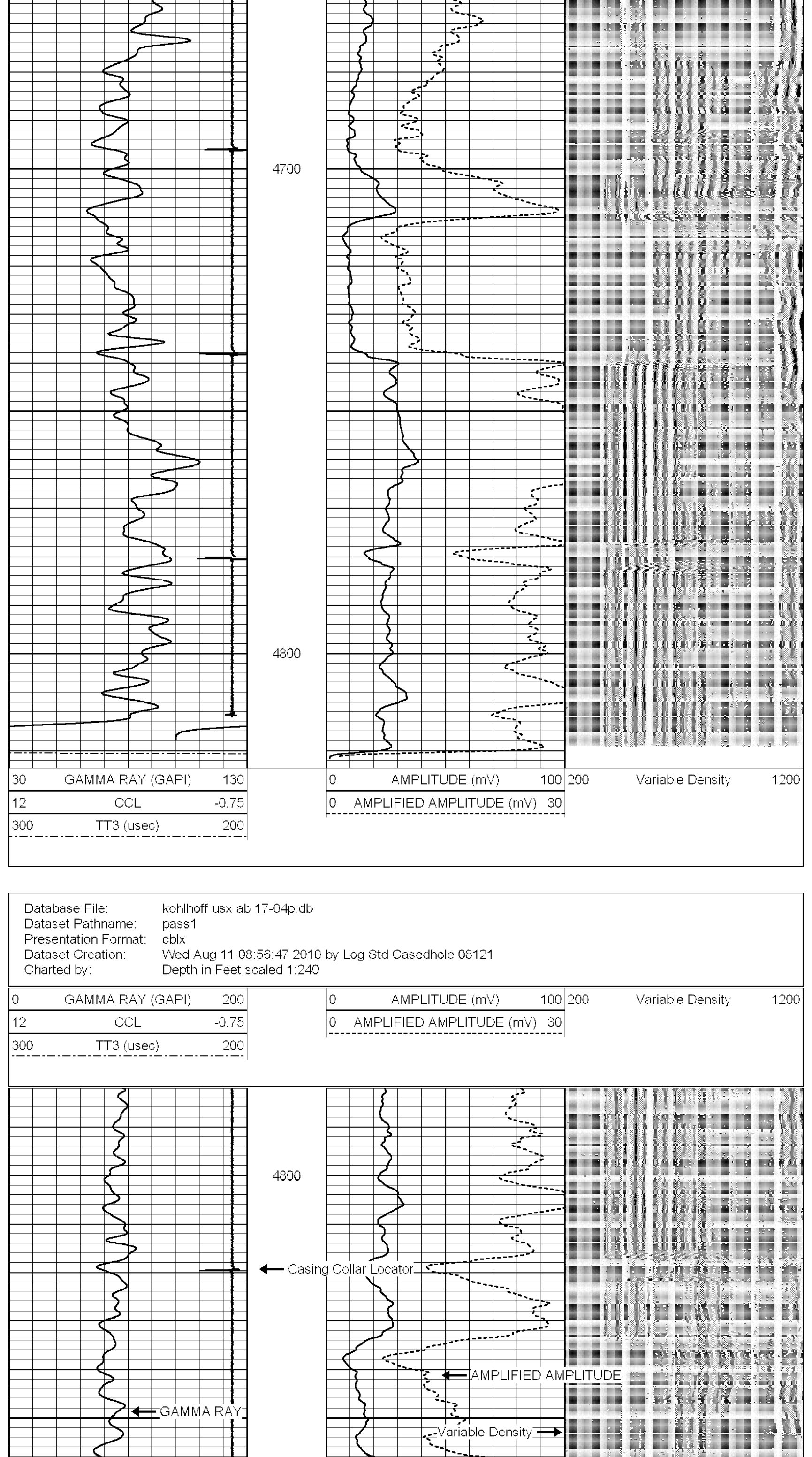


Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT-A (1)	3.00	1.69	10.00
CCL	13.25	CCL-GR_1_3/8 (001) 1 3/8 titan ccl	1.00	1.38	11.00
GR	11.49	GR-s_t001 (t001)	2.52	1.69	30.00
WVF5	7.34	CBL-3_5 (001)	7.23	2.44	127.00
WVF3	6.34				
		CENT-B (2)	3.00	1.69	10.00

Dataset: kohlhoff usx ab 17-04p.db: field/well/run1/pass2
Total Length: 16.75 ft
Total Weight: 188.00 lb
O.D. 2.44 in

Database File: kohlhoff usx ab 17-04p.db
Dataset Pathname: pass2
Presentation Format: cblx
Dataset Creation: Wed Aug 11 09:38:41 2010 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

30 GAMMA RAY (GAPI) 130
12 CCL -0.75
300 TT3 (usec) 200
0 AMPLITUDE (mV) 100
0 AMPLIFIED AMPLITUDE (mV) 30
200 Variable Density 1200



Database File:	kohlhoff usx ab 17-04p.db
Dataset Pathname:	pass1
Presentation Format:	cblx
Dataset Creation:	Wed Aug 11 08:56:47 2010 by Log Std Casedhole 08121
Charted by:	Depth in Feet scaled 1:240

Calibration Report

Database File:	kohlhoff usx ab 17-04p.db
Dataset Pathname:	pass2
Dataset Creation:	Wed Aug 11 09:38:41 2010 by Log Std Casedhole 08121

Cement Bond Log Calibration Report

Serial Number:	001		
Tool Model:	3_5		
Performed:	Wed Aug 11 08:39:40 2010		
Depth:	1211.48	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	3	3	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.05	0	V
Reading in Free Pipe:	2.5	2.5	V
Gain:	31.9168	31.2784	
Offset:	1.40416	3	

Gamma Ray Calibration Report

Serial Number:	t001	
Tool Model:	s_t001	
Performed:	Sun Jun 13 13:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps