

BAKER HUGHES				LWD MEMORY LOG			
Gamma Ray							
Scale:		Company: Noble Energy					
1:240 MD		Well: Riley LD19-745					
Depth Reference:		Field: Weld County					
Driller's Depth		County: Weld		State: Colorado			
Status:		Surface Location:		Other Services:			
Final Print		Latitude:		Directional			
API No: 0512343518		Longitude:					
Job ID: 8132080		UTM:		N/A			
		SEC: 19		TWN: 9N		RGE: 58W	
Permanent Datum (P.D.): Mean Sea Level		Elevation:		0.00 ft		KB: N/A	
Log Measured From: Rig Floor		Above P.D.		4850.00 ft		DF: 4850.00 ft	
						GL: 4820.00 ft	
Dates				Magnetic Field Reference			
Interval Logged							
Date From: 2016-11-03		Top: (ft) 1917.00		Azi Reference North:		Grid	
Date To: 2016-11-03		Bottom: (ft) 10872.00		Total Magnetic Field Strength: (mT)		Dip Angle: (deg)	
Spud Date: 2016-10-30				Mag to Reference North Correction: (deg)		6.67 E	
Borehole Record				Casing Record			
Hole Size (in)		From (ft)		To (ft)		Size (in)	
13.500		0.00		1928.00		9.625	
8.500		1928.00		10872.00		30.00	
						0.00	
						1918.00	
Mud Record				Deviation Record			
Type		From (ft)		To (ft)		Hole Size (in)	
Water Based Mud		1928.00		5398.46		8.500	
Oil Based Mud		5398.46		10872.00		8943.00	
						0.87 153.59	
						90.49 0.06	
Acquisition System				Software Version		Other	
Baker Hughes Cadence		RT4.0		Rig: H&P 524		Contractor: Helmerich & Payne Drilling Co	
PlotStudio		4.0.7570.8		District: RMD		Unit: D&E	

2	ATC_SU	13993180	Near Bit VSS	5.93	6.76	7.000	4.330
2	ATC_MWD	12271999	Gamma (single)	2.79	12.93	7.000	3.250
2	ATC_MWD	12271999	Directional (mag)	12.27	22.41	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

Comments


- 1
- Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
- 2
- Baker Hughes LWD Run 1 and Run 2 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1928 to 10872 feet MD (1927 to 5881 feet TVD).

Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	10872.00	8.500	2	The interval 10872 to 10859 feet MD (5889 to 5888 feet TVD) was not logged due to sensor to bit offset at well TD.

Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent 0.5 ft Average	API
GRIM	Gamma Ray Data Point Indicator	unitless
GRTM	Gamma Time Since Drilled	min
TCDM	Downhole Temperature	degF



Company

Well

Interval

Created

Noble Energy

Riley LD19-745

Date From: 2016-11-03 10:22:03

Date To: 2016-11-03 02:26:40

2016-11-03 13:57

Top: 1917.00

Bottom: 10872.00

