

LWD Composite Log



Azimuthal Gamma Ray  
Gamma Ray  
Natural Formation Evaluation

Scale:

1:1200 MD

Company: Noble Energy

Well: Shadow A26-646

Field: Weld County (Noble NAD 83 Grid)

Depth Reference:

Driller's Depth

County:

Weld County

State:

Colorado

Status:

Final Print

Surface Location:

Latitude:

Longitude:

Directional  
Rotary Steerable  
VSS

Other Services:

API No: 05-123-42882-00

Job ID: 7952654

SEC: 30

TWN: 6N

RGE: 63W

Permanent Datum (P.D.): Ground Level

Elevation:

4643.00 ft

KB:

N/A

Log Measured From: Rig Floor

Above P.D.

30.00 ft

DF:

4673.00 ft

GL:

4643.00 ft

Dates

Interval Logged

Magnetic Field Reference

Date From: 2016-05-13

Top: (ft)

1916.00

Azi Reference North:

Grid

Dip Angle: (deg)

67.13

Date To: 2016-05-16

Bottom: (ft)

17659.00

Total Magnetic Field Strength: (nT)

52541

Spud Date: 2016-05-12

Mag to Reference North Correction: (deg)

7.48 E

Borehole Record

Casing Record

Hole Size (in)

From (ft)

To (ft)

Size (in)

Weight (lb/ft)

From (ft)

To (ft)

8.500

1927.00

17659.00

9.625

36.00

0.00

1918.00

Mud Record

Deviation Record

Type

From (ft)

To (ft)

Hole Size (in)

Interval (ft)

Inc | Az (Start)

Inc | Az (End)

Oil Based Mud

1927.00

17659.00

8.500

15732.00

1.14 | 358.44

90.12 | 268.80

Acquisition System

Software Version

Other

Baker Hughes Cadence

G3.2

Rig:

H&P 321

Prior Studio

3.2.7268.7

Contractor:

Helmerich & Payne Drilling Co

District:

RMD

Unit:

D&E

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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
1	2	8.500	PDC	2.00	AutoTrak Curve	1916.00	17659.00	1927.00	17659.00	2016-05-13 19:58	2016-05-17 04:39	69.55

Crew

Name		Arrive Wellsite	Depart Wellsite	Name		Arrive Wellsite	Depart Wellsite	Name		Arrive Wellsite	Depart Wellsite
Alex Osborne		2016-05-12	2016-05-16	Matthew Delmore		2016-05-12	2016-05-17	Michael Gurnsey		2016-05-12	2016-05-13
William Drake		2016-05-12	2016-05-17	Chad Hough		2016-05-14	2016-05-17	David Browning		2016-05-16	2016-05-17
Hans Cary		2016-05-16	2016-05-17								

Mud Properties Record

Date / Time		Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2016-05-13 13:45		1	1927.00	Oil Based Mud	9.5	13	N/A	16.4	64.8/25.0	Active Pit	43000	0.00
2016-05-14 02:30		1	3750.00	Oil Based Mud	9.1	13	N/A	16.0	65.5/26.0	Active Pit	46000	0.00
2016-05-14 13:30		1	6438.00	Oil Based Mud	9.2	11	N/A	16.8	67.0/24.0	Active Pit	44000	0.00
2016-05-15 02:30		1	9103.31	Oil Based Mud	9.3	11	N/A	16.6	66.0/24.0	Active Pit	44000	0.00
2016-05-15 13:40		1	11275.00	Oil Based Mud	9.5	13	N/A	17.2	64.5/24.0	Active Pit	41000	0.00
2016-05-16 02:35		1	13940.00	Oil Based Mud	9.5	12	N/A	17.4	66.0/22.0	Active Pit	40000	0.00
2016-05-16 13:45		1	15711.00	Oil Based Mud	9.7	13	N/A	17.8	66.0/20.5	Active Pit	39000	0.00
2016-05-17 02:45		1	17560.00	Oil Based Mud	9.7	13	N/A	18.0	63.0/23.5	Active Pit	39000	0.00

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	ATC_SU	11813726	Near Bit Inclination	5.93	6.55	7.000	4.330
1	ATC_SU	11813726	Near Bit VSS	5.93	6.55	7.000	4.330
1	ATC_MWD	12706130	Gamma (single)	2.76	12.72	7.000	3.250
1	ATC_MWD	12706130	Directional (mag)	12.28	22.24	7.000	3.250

Comments


- 1

Baker Hughes Run 1 utilized a 6.75 inch AutoTrak Curve Rotary Steerable assembly tool behind a 8.50 inch bit from 1927 ft MD to 17659 ft MD (1926.85 ft TVD to 6714.55 ft TVD).
- 2

Depth Measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to a lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified
- 3

Small gaps in gamma are due to tool power cycling off during downlink, and not recording gamma ray data

Remarks				
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	1921.00	8.500	1	The interval from 1916 ft MD to 1927 ft MD ( 1915.85 ft TVD to 1926.85 ft TVD) has no surface data due to the Gamma Ray sensor to bit offset
2	17653.00	8.500	1	The interval from 17647 ft MD to 17659 ft MD (6714.58 ft TVD to 6714.55 ft TVD) has no Gamma data due to sensor to bit offset



Company

Well

Interval

Created

Noble Energy

Shadow A26-646

Date From: 2016-05-13 13:58

Date To: 2016-05-16 22:39

2016-05-17 19:50

Top: 1916.00

Bottom: 17659.00

