

LWD MEMORY LOG											
<div><div><div><div><div><div>BAKER HUGHES</div><div>a GE company</div></div><div><div><div><div></div></div><div></div></div></div></div></div></div></div>				Gamma Ray							
Scale: 1:1200 Measured Depth Depth Reference: Driller's Depth				Company: ConocoPhillips Well: Prosper_Farms_4-65_11-12_3CH Field: Arapahoe County County: Arapahoe Country: United States State: Colorado							
Status: Final Print		Surface Location: Latitude: 039° 43' 02.590" N Longitude: 104° 38' 20.730" W				Other Services: Directional					
API No: 05005073820000		SEC: 11		TWN: 4S		RGE: 6SW					
Job ID: 109660652		Permanent Datum (P.D.): Ground Level		Elevation: 5668.00 ft		Elev. KB: 5693.00 ft		N/A			
Log Measured From: Rig Floor		Above P.D. 25.00 ft		Elev. DF: 5668.00 ft		Elev. GL: 5668.00 ft					
Dates				Interval Drilled				Magnetic Field Reference			
Date From: 2019-03-07 Top: (ft) 2190.00 Date To: 2019-03-11 Bottom: (ft) 17906.00 Spud Date: 2019-03-07				Azi Reference North: True Dip Angle: (deg) 66.35 Total Magnetic Field Strength: (nT) 51606 Mag to Reference North Correction: (deg) 8.33							
Borehole Record				Casing Record							
Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)					
13.500	25.00	2190.00	9.625	36.00	25.00	2179.00					
8.500	2190.00	17906.00									
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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 (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	8.500	PDC	6.00	AutoTrak Curve	2176.00	17893.00	2190.00	17906.00	2019-03-08 00:17	2019-03-11 07:56	71.79

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Adewale Adedeji	2019-03-07	2019-03-11	Andy Lim	2019-03-07	2019-03-11			

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+ (%)
2019-03-07 20:27	1	2190.00	Oil Based Mud	9.7	16	N/A	N/A	80/20	Active Pit	45000	0.00
2019-03-08 00:00	1	2190.00	Oil Based Mud	9.7	12	N/A	N/A	80.7/19.3	Active Pit	47000	0.00
2019-03-08 12:00	1	5615.00	Oil Based Mud	9.5	13	N/A	N/A	79.5/20.5	Active Pit	46000	0.00
2019-03-09 00:00	1	7509.00	Oil Based Mud	9.3	13	N/A	N/A	79.8/20.2	Active Pit	47000	0.00
2019-03-09 12:00	1	9636.00	Oil Based Mud	9.4	14	N/A	N/A	79.5/20.5	Active Pit	49000	0.00
2019-03-10 00:00	1	12148.00	Oil Based Mud	9.5	14	N/A	N/A	79.5/20.5	Active Pit	53000	0.00
2019-03-10 12:00	1	14250.00	Oil Based Mud	9.6	18	N/A	N/A	80/20	Active Pit	47000	0.00
2019-03-11 00:00	1	16617.00	Oil Based Mud	9.7	16	N/A	N/A	79.2/20.8	Active Pit	43000	0.00

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	AutoTrak Curve Steering Unit	12252538	Near Bit Inclination	5.93	6.93	7.000	4.330
1	AutoTrak Curve Steering Unit	12252538	Near Bit VSS	5.93	6.93	7.000	4.330
1	AutoTrak Curve MWD	14270075	Gamma (single)	2.75	13.10	7.000	3.250
1	AutoTrak Curve MWD	14270075	Directional (mag)	12.27	22.62	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC SU	AutoTrak Curve SU	Auto Trak Curve Steering Unit
ATC MWD	AutoTrak Curve MWD	Auto Trak Curve MWD
ATC LCPM	AutoTrak Curve LCPM	Auto Trak Curve LCPM

Comments



- 1 BHGE LWD run 1 utilized 6.75 inch NaviGamma Services (Gamma Ray and Directional) behind a 8.5 inch bit and Rotary steerable assembly from 2190 to 17906 feet MD (2190 to 7709 feet TVD).
- 2 Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes, a GE Company (BHGE). Due to the lack of control by BHGE logging engineers, depth calibrations and measurements could not be independently verified

Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	2190.00	8.500	1	BHGE logging services began at 2190 feet MD (2190 feet TVD) per customer request.
2	17906.00	8.500	1	The interval from 17893 to 17906 feet MD (7709 feet TVD) was not logged due to sensor to bit offset at TD.

Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 10 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 3 ft Average	API
TCDM	Downhole Temperature	degF

 	Company	ConocoPhillips
	Well	Prosper_Farms_4-65_11-12_3CH
	Interval	Date From: 2019-03-07 20:29 Top: 2190.00 ft Date To: 2019-03-11 17:51 Bottom: 17906.00 ft
	Created	2019-03-11 18:07:24

