

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

Date: Monday, May 13, 2014

Reynolds Cattle 3N-19HZ Surface

Sincerely,
Derek Trier

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Reynolds Cattle 3N-19HZ cement Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Brighton]

Job Times

	Date	Time	Time Zone
Job Started	5/13/14	1022	MT
Job Completed	5/13/14	1149	MT
Departed Location	5/13/14	1300	MT

1.2 Cementing Job Summary

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3367829	Quote #:	Sales Order #: 0901268611							
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep:								
Well Name: REYNOLDS CATTLE	Well #: 3N-19 HZ	API/UWI #: 05-123-39131-00								
Field: WATTENBERG	City (SAP): MEA	County/Parish: WELD	State: COLORADO							
Legal Description: NE NE-23-3N-68W-710FNL-155FEL										
Contractor: Bob Balkenbush		Rig/Platform Name/Num: Majors 29								
Job BOM: 7521										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HB47901		Srcv Supervisor: Wesley Whipple								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	1343ft	Job Depth TVD								
Water Depth		Wk Ht Above Floor								
Perforation Depth (MD)	From	To								
Well Data										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36		J-55	0	850		
Open Hole Section			13.5				0	850		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	9.625			850	Top Plug	9.625		HES		
Float Shoe	9.625				Bottom Plug	9.625		HES		
Float Collar	9.625				SSR plug set	9.625		HES		
Insert Float	9.625				Plug Container	9.625		HES		
Stage Tool	9.625				Centralizers	9.625		HES		
Miscellaneous Materials										
Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc				
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty				
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Mud Flush III (Powder)	Mud Flush III	0	bbl	8.4					
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	

last updated on 4/13/2014 12:19:41 PM

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Cementing Job Summary

2	Lead Cement	SWIFCEM (TM) SYSTEM	508	sack	14.2	1.54		6	7.64
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft³/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	0	bbl	8.33				
Cement Left in Pipe		Amount	Reason						
		42 ft	Shoe Joint						
Comment									

1.3 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	WBM
3	Actual mud density	lb/gal	
4	Time circulated before job	HH:MM	
5	Mud volume circulated	Bbls	
6	Rate at which well was circulated	Bpm	
7	Pipe movement during hole circulation	Y/N	N
8	Rig pressure while circulating	Psi	
9	Time from end mud circulation to start of job	HH:MM	
10	Pipe movement during cementing	Y/N	N
11	Calculated displacement	Bbls	
12	Job displaced by	Rig/HES	HES
13	Annular before job ?	Y/N	N
14	Annular flow after job	Y/N	N
15	Length of rat hole	Ft	
16	Units of gas detected while circulating	Units	
17	Was lost circulation experienced at any time ?	Y/N	N

1.4 Job Event Log

ANADARKO PETROLEUM CORP - EBUS
 Anadarko Reynolds Cattle 3N-19HZ
 Case 1

3.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)
Event	1	Start Job	Start Job	4/13/2014	10:22:26	COM5	8.31	0.00	8.0	147.00
Event	2	Test Lines	Test Lines	4/13/2014	10:25:03	COM5	8.28	0.00	9.9	160.00
Event	3	Pump Spacer 1	Pump Spacer 1	4/13/2014	10:29:08	COM5	8.33	0.00	9.9	6.00
Event	4	Pump Spacer 2	Pump Spacer 2	4/13/2014	10:33:53	COM5	8.25	2.80	10.7	32.00
Event	5	Pump Spacer 1	Pump Spacer 1	4/13/2014	10:38:12	COM5	8.32	2.80	11.9	32.00
Event	6	Pump Lead Cement	Pump Lead Cement	4/13/2014	10:41:52	COM5	8.25	2.80	10.1	36.00
Event	7	Shutdown	Shutdown	4/13/2014	11:13:32	COM5	0.69	0.00	143.8	14.00
Event	8	Drop Top Plug	Drop Top Plug	4/13/2014	11:13:57	COM5	0.48	0.00	143.8	-6.00
Event	9	Pump Displacement	Pump Displacement	4/13/2014	11:17:29	COM5	0.40	0.00	0.0	-9.00
Event	10	Bump Plug	Bump Plug	4/13/2014	11:42:35	COM5	8.94	0.00	99.6	945.00
Event	11	End Job	End Job	4/13/2014	11:49:54	COM5	8.89	0.00	99.8	0.00

2.0 Appendix
