

HALLIBURTON

iCem® Service

Post Job Report

ANADARKO PETROLEUM CORP - EBUS

For:

Date: Thursday, June 19, 2014

NRC 29N-32HZ Surface

Case 1

Sincerely,

Derek Trier

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **NRC 29N-32HZ** 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
Requested Time On Location	5/4		MST
Called Out	5/4		
On Location	5/4		
Job Started	5/4	0630	
Job Completed	5/4	0738	
Departed Location	5/4	0830	

Cementing Job Summary

Sold To #: 300466		Ship To #: 3471373		Quote #:		Sales Order #: 0901317333				
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep:						
Well Name: NRC		Well #: 29N-32HZ		API/UWI #: 05-123-39293-00						
Field: WATTENBERG		City (SAP): ION		County/Parish: WELD		State: COLORADO				
Legal Description: NE NW-8-1N-67W-612FNL-2035FWL										
Contractor:				Rig/Platform Name/Num: Majors 42						
Job BOM: 7521										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HB47901				Srv Supervisor: Wesley Whipple						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		820ft		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
Open Hole Section			13.5				0	1224		0
Casing		9.625	8.921	36		J-55	0	1234		0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1234		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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Mud Flush III (Powder)	Mud Flush III	0	bbl	8.4					
42 gal/bbl		FRESH WATER								

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Cementing Job Summary

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
2	Lead Cement	SWIFCEM (TM) SYSTEM		sack	14.2	1.54		6	7.64
7.64 Gal		FRESH WATER							
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	42 ft		Reason		Shoe Joint		
Comment 20bbls of Cement Returns to surface									

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Cement Left In Pipe		Amount	42 ft		Reason		Shoe Joint		
Comment 20bbbls of Cement Returns to surface									

Planned Pumping Schedule

Stage / Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water	8.33	6.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush III	8.40	6.00	12.0 bbl	12.0 bbl
1	3	Spacer	Fresh Water	8.33	6.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	Lead Cement	12.70	6.00	440.0 sacks	440.0 sacks

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	Actual mud Plastic Viscosity (PV)	cP	
5	Actual mud Yield Point (YP)	lb _f /100ft ²	
6	Actual mud 30 min Gel Strength	lb _f /100ft ²	
7	Time circulated before job	HH:MM	
8	Mud volume circulated	Bbls	
9	Rate at which well was circulated	Bpm	
10	Pipe movement during hole circulation	Y/N	N
11	Rig pressure while circulating	Psi	
12	Time from end mud circulation to start of job	HH:MM	
13	Pipe movement during cementing	Y/N	N
14	Calculated displacement	Bbls	
15	Job displaced by	Rig/HES	HES
16	Annular flow before job	Y/N	N
17	Annular flow after job	Y/N	N
18	Length of rat hole	Ft	
19	Units of gas detected while circulating	Units	
20	Was lost circulation experienced at any time?	Y/N	N

1.4 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)	Comment
Event	1	Start Job	Start Job	5/4/2014	06:30:40	COM5	8.15	0.00	13.1	115.00	
Event	2	Test Lines	Test Lines	5/4/2014	06:31:36	COM5	8.35	0.00	13.5	135.00	
Event	3	Pump Spacer 1	Pump Spacer 1	5/4/2014	06:34:37	COM5	8.28	0.00	0.0	119.00	
Event	4	Pump Spacer 2	Pump Spacer 2	5/4/2014	06:39:59	COM5	8.30	2.50	9.9	168.00	
Event	5	Pump Spacer 1	Pump Spacer 1	5/4/2014	06:43:27	COM5	8.37	5.00	12.0	225.00	
Event	6	Pump Cement	Pump Cement	5/4/2014	06:45:28	COM5	8.29	5.00	10.1	248.00	
Event	7	Drop Top Plug	Drop Top Plug	5/4/2014	07:12:49	COM5	13.74	0.00	128.0	114.00	
Event	8	Pump Displacement	Pump Displacement	5/4/2014	07:12:52	COM5	13.76	0.00	128.0	114.00	
Event	9	Bump Plug	Bump Plug	5/4/2014	07:35:20	COM5	8.34	0.00	90.2	1048.00	
Event	10	Other	Other	5/4/2014	07:37:12	COM5	8.41	0.00	90.2	1080.00	
Event	11	End Job	End Job	5/4/2014	07:38:20	COM5	8.37	0.00	90.2	120.00	

2.0 Custom Graphs



