

# HALLIBURTON

iCem<sup>®</sup> Service

**ANADARKO PETROLEUM CORPORATION**

**For:**

Date: Thursday, July 17, 2014

**SMALL EYED 35C-35HZ**

Case 1

Sincerely,

**Brandon Nielson**

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**1.1 Executive Summary**

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Halliburton appreciates the opportunity to perform the cementing services on the **Small Eyed 35C-35HZ** 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**

	<b>Date</b>	<b>Time</b>	<b>Time Zone</b>
<b>Called Out</b>	5/22/2014	07:00:00	MT
<b>On Location</b>	5/22/2014	11:40:00	MT
<b>Job Started</b>	5/22/2014	13:20:00	MT
<b>Job Completed</b>	End Job	5/22/2014	MT

## 1.2 Cementing Job Summary

Sold To #: 300466		Ship To #: 3473175		Quote #:		Sales Order #: 0901361792					
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep: BOB							
Well Name: SMALL EYED			Well #: 35C-35HZ			API/UWI #: 05-123-39349-00					
Field: WATTENBERG		City (SAP): IONE		County/Parish: WELD		State: COLORADO					
Legal Description: SE SW-23-2N-67W-1020FSL-1895FWL											
Contractor:					Rig/Platform Name/Num: Majors 29						
Job BOM: 7521											
Well Type: HORIZONTAL GAS											
Sales Person: HALAMERICA\HB47901					Srvc Supervisor: Brandon Nielson						
<b>Job</b>											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type											
BHST											
Job depth MD		1321ft			Job Depth TVD						
Water Depth											
Wk Ht Above Floor											
Perforation Depth (MD)		From			To						
<b>Well Data</b>											
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	1311		0	
Casing		9.625	8.921	36		J-55	0	1321		0	
<b>Tools and Accessories</b>											
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make			
Guide Shoe	9.625	1		1321	Top Plug	9.625	1	HES			
Float Shoe	9.625	1			Bottom Plug	9.625	1	HES			
Float Collar	9.625	1			SSR plug set	9.625	1	HES			
Insert Float	9.625	1			Plug Container	9.625	1	HES			
Stage Tool	9.625	1			Centralizers	9.625	1	HES			
<b>Miscellaneous Materials</b>											
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty	Conc
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size	Qty
<b>Fluid Data</b>											
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	Fresh Water Spacer	Fresh Water Spacer			10	bbl	8.33				
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	SWIFTCEM (TM) SYSTEM			494	sack	14.2	1.537		6	7.63

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Displacement	Displacement	98.3	bbbl	8.33				
<b>Cement Left In Pipe</b>		<b>Amount</b> 42 ft	<b>Reason</b>			Shoe Joint			
<b>Comment</b>									

## 1.3 Planned Pumping Schedule

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Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	1.7	10.0 bbl	10.0 bbl
1	1	Spacer	Mud Flush	8.40	2.0	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	3.0	10.0 bbl	10.0 bbl
1	2	Cement Slurry	SwiftCem B2	14.2	5.0	494.0 sacks	494.0 sacks



## 1.4 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DS Pump Total (bbl)	Comb Pump Rate (bbl/min)	Cement Density (ppg)	Comb Pump Total (bbl)	Comment
Event	1	Call Out	Call Out	5/22/2014	07:00:00	USER						
Event	2	Crew Leave Yard	Crew Leave Yard	5/22/2014	11:00:00	USER						
Event	3	Arrive At Loc	Arrive At Loc	5/22/2014	11:40:00	USER						RIG HAD 6 JOINTS LEFT TO RUN UPON ARRIVAL.
Event	4	Rig-up Lines	Rig-up Lines	5/22/2014	12:00:00	USER						
Event	5	Rig-Up Completed	Rig-Up Completed	5/22/2014	13:00:00	USER						
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/22/2014	13:05:00	USER						JSA WITH ALL INVOLVE PERSONS
Event	7	Start Job	Start Job	5/22/2014	13:20:00	USER						
Event	8	Test Lines	Test Lines	5/22/2014	13:23:00	USER						TESTED LINES TO 3000 PSI NO VISIBLE LEAKS
Event	9	Pump Spacer 1	Pump Spacer 1	5/22/2014	13:26:00	USER						10 BBL FRESH WATER PUMPED AT 2.5 BPM AND 20 PSI
Event	10	Pump Spacer 2	Pump Spacer 2	5/22/2014	13:30:00	USER						12 BBL MUD FLUSH PUMPED AT 2.5 BPM AND 22 PSI
Event	11	Pump Spacer	Pump Spacer	5/22/2014	13:35:00	USER						10 BBL FRESH WATER PUMPED AT 4 BPM AND 44 PSI
Event	12	Pump Cement	Pump Cement	5/22/2014	13:38:00	USER						494 SKS OR 135.5 BBL SWIFTCEM MIXED @ 14.2 PPG WITH FRESH WATER. PUMPED AT 4.4 BPM AND 85 PSI
Event	13	Shutdown	Shutdown	5/22/2014	14:08:00	USER						
Event	14	Drop Top Plug	Drop Top Plug	5/22/2014	14:10:00	USER						PLUG PRE LOADED WITNESSED BY COMPANY REP.
Event	15	Pump Displacement	Pump Displacement	5/22/2014	14:10:30	USER						98.3 BBL FRESH WATER. CEMENT RETURNED TO SURFACE 91 BBL INTO

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							LEAVING US WITH 7 BBL BACK
Event	16	Bump Plug	Bump Plug	5/22/2014	14:51:00	USER	PLUG BUMPED AT 491 PSI
Event	17	Check Floats	Check Floats	5/22/2014	14:56:00	USER	CHECKED FLOATS AT 1515 PSI .5 BBL BACK TO THE TRUCK. FLOATS HELD.
Event	18	End Job	End Job	5/22/2014	14:57:00	USER	

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2.0 Custom Graphs  
3.0 Appendix

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Insert Planned Pump Schedule from Proposal or actual Job Procedure built for job