

# HALLIBURTON

iCem<sup>®</sup> Service

## Post Job Report

**ANADARKO PETROLEUM CORP - EBUS**

**For: BOB BALKENBUSH**

Date: Wednesday, May 14, 2014

**NRC 26N-5HZ**

Sincerely,

**AARON SMITH**

## Table of Contents

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1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.3	Planned Pumping Schedule	6
1.4	Job Event Log	7
2.0	Custom Graphs	9

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2.1	Custom Graph	9
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**1.1 Executive Summary**

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Halliburton appreciates the opportunity to perform the cementing services on the **NRC 26N-5HZ** 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>Requested Time On Location</b>	4/28	1300	MST
<b>Called Out</b>	4/28	0900	MST
<b>On Location</b>	4/28	1200	MST
<b>Job Started</b>	4/28	1418	MST
<b>Job Completed</b>	4/28	1548	MST
<b>Departed Location</b>	4/28	1630	MST

**1.2 Cementing Job Summary**

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3367972		<b>Quote #:</b>		<b>Sales Order #:</b> 0901301445	
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> BOB BALKENBUSH			
<b>Well Name:</b> NRC			<b>Well #:</b> 26N-5 HZ			<b>API/UWI #:</b> 05-123-39157-00	
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> ION		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO	
<b>Legal Description:</b> NE NE-8-1N-67W-500FNL-1230FEL							
<b>Contractor:</b>				<b>Rig/Platform Name/Num:</b> Majors 29			
<b>Job BOM:</b> 7521							
<b>Well Type:</b> HORIZONTAL GAS							
<b>Sales Person:</b> HALAMERICA\HB47901				<b>Srvc Supervisor:</b> Aaron Smith			

**Job**

<b>Formation Name</b>			
<b>Formation Depth (MD)</b>	<b>Top</b>		<b>Bottom</b>
<b>Form Type</b>			BHST
<b>Job depth MD</b>	1352	<b>Job Depth TVD</b>	1352
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	5
<b>Perforation Depth (MD)</b>		<b>To</b>	

**Well Data**

	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing		9.625	8.921	36		J-55	0	1322	0	1322
Open Hole Section			13.5				0	1352	0	1352

**Tools and Accessories**

<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>
Guide Shoe	9.625			1322		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
	9.625					Centralizers	9.625		HES

**Miscellaneous Materials**

<b>Gelling Agt</b>	<b>Conc</b>	<b>Surfactant</b>	<b>Conc</b>	<b>Acid Type</b>	<b>Qty</b>
<b>Treatment Fld</b>	<b>Conc</b>		<b>Conc</b>	<b>Sand Type</b>	

**Fluid Data**

<b>Stage/Plug #:</b> 1
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Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Mud Flush III (Powder)	Mud Flush III	12	bbl	8.4				
2	Lead Cement	SWIFTCEM (TM) SYSTEM	510	sack	14.2	1.54		6	7.64
3	Displacement	Displacement	99	bbl	8.33				
		Amount	40 ft						
<b>Comment</b> 19 BBLS CEMENT TO SURFACE									

**1.4 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	Water Spacer	8.34	3.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	4.00	12.0 bbl	12.0 bbl
1	3	Spacer	Water Spacer	8.34	3.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	SwiftCem	14.20	5.50	510.0 sacks	510.0 sacks

**1.5 Job Event Log**

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	DH Density (ppg)	Comment
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	4/28/2014	12:00:00	USER				WITH ALL EQUIPMENT AND MATERIALS, REQUESTED ON LOCATION TIME 1300. RIG STILL RUNNING CASING.
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/28/2014	12:15:00	USER				HAZARD HUNT AND WATER TEST PERFORMED.
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/28/2014	12:45:00	USER				
Event	4	Rig-Up Equipment	Rig-Up Equipment	4/28/2014	13:05:00	USER				HAD TO WAIT ON CONTAINMENT TO ARRIVE ON LOCATION.
Event	5	Rig-Up Completed	Rig-Up Completed	4/28/2014	13:20:00	USER				
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/28/2014	14:00:00	USER	0.00	0.00	8.21	WITH CUSTOMER REP AND RIG CREW, TO DISCUSS JOB SAFETY, AND PUMP SCHEDULE.
Event	7	Start Job	Start Job	4/28/2014	14:18:52	COM7	0.00	-1.00	-0.12	
Event	8	Test Lines	Test Lines	4/28/2014	14:24:56	COM7	0.00	1.00	8.37	@3500 PSI,
Event	9	Pump Spacer 1	Pump Spacer 1	4/28/2014	14:28:44	COM7	0.00	-3.00	8.38	10 BBLS FRESH WATER WITH NO ADDITIVES
Event	10	Pump Spacer 2	Pump Spacer 2	4/28/2014	14:32:30	COM7	4.90	73.00	8.34	12 BBLS MUD FLUSH
Event	11	Pump Spacer 1	Pump Spacer 1	4/28/2014	14:34:56	COM7	5.00	61.00	8.25	10 BBLS FRESH WATER WITH NO ADDITIVES
Event	12	Pump Cement	Pump Cement	4/28/2014	14:37:12	COM7	0.00	28.00	8.30	140 BBLS, 510 SKS SWIFTCEM, @ 14.2 PPG, 1.54 YIELD, 7.64 GAL/SK
Event	13	Shutdown	Shutdown	4/28/2014	15:09:02	COM7	0.50	21.00	14.26	
Event	14	Drop Top Plug	Drop Top Plug	4/28/2014	15:10:09	COM7	0.00	-6.00	0.90	PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER, VERIFIED BY CUSTOMER REP.
Event	15	Pump Displacement	Pump Displacement	4/28/2014	15:10:18	COM7	0.00	-6.00	0.81	99 BBLS FRESH WATER
Event	16	Other	Spacer Returns To Surface	4/28/2014	15:24:43	COM7	5.00	247.00	9.12	@48 BBLS DISPLACEMENT, 32 BBLS TO THE PIT

Event	17	Other	Cement Returns To Surface	4/28/2014	15:30:12	COM7	2.00	387.00	9.20	@80 BBLS DISPLACEMENT, 19 BBLS TO THE PIT
Event	18	Bump Plug	Bump Plug	4/28/2014	15:40:45	COM7	0.00	1462.00	9.17	FINAL CIRCULATING PRESSURE 457, 1497 BUMP PRESSURE
Event	19	Check Floats	Check Floats	4/28/2014	15:45:45	USER	0.00	658.00	9.23	FLOATS GOOD 1 BBL BACK.
Event	20	End Job	End Job	4/28/2014	15:47:46	COM7	0.00	4.00	9.13	THANKS AARON
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/28/2014	15:55:00	USER	2.00	5.00	9.18	WITH HES CREW
Event	22	Rig-Down Equipment	Rig-Down Equipment	4/28/2014	15:58:00	USER				
Event	23	Rig-Down Completed	Rig-Down Completed	4/28/2014	16:10:00	USER				
Event	24	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	4/28/2014	16:30:00	USER				JOURNEY MANAGEMENT MEETING PRIOR TO DEPARTURE

2.0 Custom Graphs

2.1 Custom Graph



