

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

Date: Monday, July 14, 2014

ANADARKO BAREFOOT 33N-25HZ SURFACE

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Sincerely,
Joseph Fantasia

Table of Contents

1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.3	Planned Pumping Schedule	7
1.4	Job Overview	7
1.5	Job Event Log	9
2.0	Custom Graphs	11
2.1	Custom Graph	11
3.0	Appendix	12

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Barefoot 33N-25HZ** 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
On Location	6/7/2014	18:00:00	MT
Job Started	6/8/2014	00:30:59	MT
Job Completed	6/8/2014	02:30:00	MT
Departed Location	6/8/2014	03:00:00	MT

1.2 Cementing Job Summary

The Road to Excellence Starts with Safety					
Sold To #: 300466		Ship To #: 3467411		Primary Sales Order #: 0901408818	
Customer: ANADARKO PETROLEUM CORP - EBUS			Job Purpose: 7521 CMT SURFACE CASING BOM		
Well Name: BAREFOOT			Well #: 33N-25 HZ		API/UWI #: 05-123-39230-00
Field: WATTENBERG		City: LONGMONT		Country/Parish: WELD	State/Prov: COLORADO
Legal Description:					
Rig Name & Number / Phone Number: Majors 29 / 307-660-1292					Location: LAND
myCem id# :		Job Criticality Status: GREEN		iFacts Request id #:	
Contacts					
Type	Name		Email		Phone
Service Coordinator	Ryan Wyckoff		Ryan.Wyckoff@halliburton.com		+17205386044
Company Man					
Account Rep	Jon Gregory		Jon.Gregory@Halliburton.com		+19702104722
PPE, Safety Huddles, JSA's, HOC & Near Miss Reporting, BBP Observations					
Distance/Mileage(1 way)		30 mile		Distance/Mileage(1 way) Mtls: 30 mile	
Srvcs:					
				Rqstd Job Start Date/Time:	06/05/2014
HSE Information					
H2S Present:		Unknown		CO2 Present:	Unknown
Drive Safely. Lights On for Safety. Wear Seat Belts. Observe all HES / Customer Safety Policies.					
Directions:					
CR 28 and CR 13. North .4 Miles, West .1 Mile into					
Instruction					
Job Info / Well Data					
Job Depth (MD) ft	Job Depth (TVD) ft	Well Fluid Type	Well Fluid Weight lbm/gal	Displacement Fluid	Displ Fluid Weight lbm/gal
1734	1734	Water Based Mud	9	Displacement	8.33
BHST degF	BHCT degF	Log Temp degF		Time Since Circ Stopped HH:MM:SS	

Job Tubulars/Tools											
Description	Size in	Weight lbm/ft	ID in	Thread	Grade	Top MD ft	Btm MD ft	Top TVD ft	Btm TVD ft	Shoe Jnt ft	% Excess
13.5" Open Hole			13.5			0	1734	0	1734		15
9.625" Surface Casing	9.625	36	8.921		J-55	0	1734	0	1734	40	
Mud conditioning plan											
The condition of the drilling fluid is one of the most important variables in achieving a cement barrier. Prior to cementing, circulate the mud at the planned highest displacement rate for the cement job for at least 2 bottoms-up until the well is clean, mud is free of gas and pump pressures have stabilized.											
Materials											
Stage/Plug #: 1											
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft ³ /sack	Water Req Gal/sack	Rate bbl/min	Total Mix Fluid Gal/sack	Surface Batch Mixing Time	
	Mud Flush III (Powder)		12	bbl	8.4						
Facts Test id #											
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft ³ /sack	Water Req Gal/sack	Rate bbl/min	Total Mix Fluid Gal/sack	Surface Batch Mixing Time hr	
	Lead Cement	SWIFTCEM (TM) SYSTEM	645	sack	14.2	1.54	7.64	6	7.64		
Facts Test id #											
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft ³ /sack	Water Req Gal/sack	Rate bbl/min	Total Mix Fluid Gal/sack	Surface Batch Mixing Time	
	Displacement		130.0	bbl	8.33						
Facts Test id #											

Caution: Displacement quantities and densities are estimates ONLY! Do not use them for the actual job.

Packaged Materials

SAP #	Material	Qty	UOM	Comments
	FRESH WATER	5431.8	Gal	

1.3 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 Spacer	8.33	3.0	10.0 bbl	10.0 bbl
1	1	Spacer	Mud Flush	8.50	3.5	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	5.5	372.0 sacks	372.0 sacks

1.4 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	130
12	Job displaced by	Rig/HES	HES
13	Annular before job)?	Y/N	Y
14	Annular flow after job	Y/N	Y
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

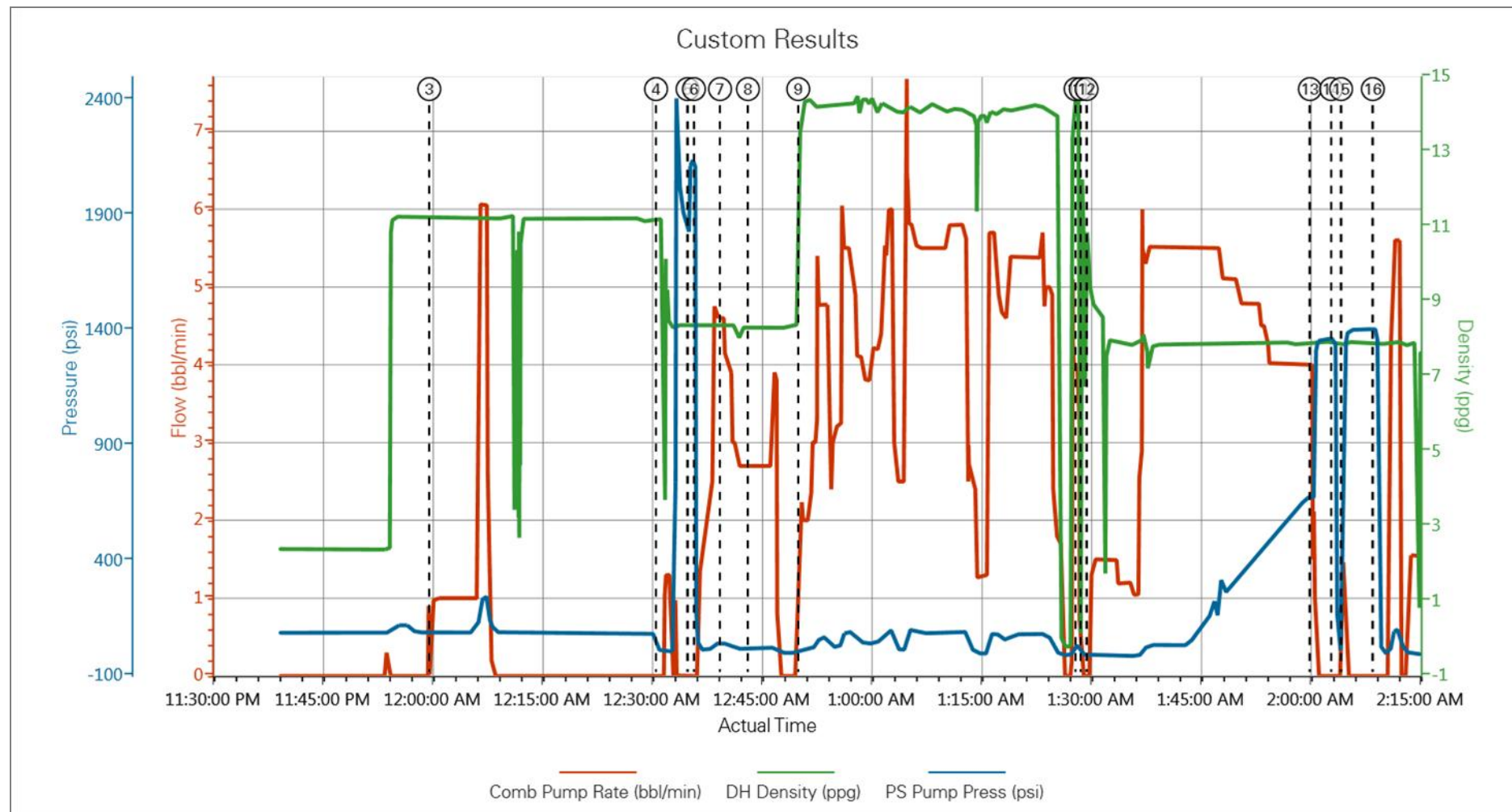
1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Comment
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	6/7/2014	18:00:00	USER				ARRIVE AT LOCATION. PERFORM SITE ASSESSMENT.
Event	2	Other	Other	6/7/2014	20:45:00	USER				WEIGHT SLIPS INACCURATE. TRUCKS SENT BACK TO REWEIGH.
Event	3	Other	Other	6/8/2014	00:00:00	USER	1.00	11.24	90.00	TRUCKS ARRIVE BACK ON LOCATION. DOWN 3 HRS
Event	4	Start Job	Start Job	6/8/2014	00:30:59	COM4	0.00	11.26	7.00	PERFORM PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONELL.
Event	5	Test Lines	Test Lines	6/8/2014	00:35:18	COM4	0.00	8.37	2152.00	PRESSURE TEST LINES TO 2500 PSI
Event	6	Pump Spacer 1	Pump Spacer 1	6/8/2014	00:36:10	COM4	0.00	8.35	44.00	PUMP 10 BBLS WATER
Event	7	Pump Spacer 2	Pump Spacer 2	6/8/2014	00:39:44	COM4	4.60	8.35	43.00	PUMP 12 BBLS MUD FLUSH
Event	8	Pump Spacer 1	Pump Spacer 1	6/8/2014	00:43:33	COM4	2.70	8.39	18.00	PUMP 10 BBLS WATER
Event	9	Pump Cement	Pump Cement	6/8/2014	00:50:26	COM4	2.00	14.09	24.00	PUMP 176 BBLS (645 SKS) SWIFTCM MIXED AT 14.2 PPG USING SUPPLIED WATER. DENSITY VERIFIED BY SCALE.
Event	10	Shutdown	Shutdown	6/8/2014	01:28:20	COM4	0.70	1.73	27.00	
Event	11	Drop Top Plug	Drop Top Plug	6/8/2014	01:29:02	COM4	0.00	10.76	-9.00	TOP PLUG PRELOADED
Event	12	Pump Displacement	Pump Displacement	6/8/2014	01:29:50	COM4	0.00	9.32	-12.00	GOOD RETURNS THROUGHOUT. CEMENT TO SURFACE AT APPROX 125 BBLS OUT OF 130 BBLS TOTAL DISPLACEMENT. APPROX 5 BBLS CEMENT TO SURFACE.
Event	13	Bump Plug	Bump Plug	6/8/2014	02:00:22	COM4	2.10	7.86	697.00	PLUG LANDED AT 685 PSI. PRESSURE BROUGHT TO

										1300 PSI AND HELD 3 MIN.
Event	14	Check Floats	Check Floats	6/8/2014	02:03:16	USER	0.00	7.92	1364.00	FLOATS HELD 2 BBLS BACK,
Event	15	Pressure Up	Pressure Up	6/8/2014	02:04:37	USER	0.00	7.88	1293.00	PRESSURE UP TO 1300 PSI AND HOLD 3 MIN.
Event	16	Check Floats	Check Floats	6/8/2014	02:08:58	USER	0.00	7.88	1404.00	FLOATS HELD.
Event	17	Rig Down Lines	Rig Down Lines	6/8/2014	02:30:00	USER				SAFETY MEETING PRIOR TO RIGGING DOWN LINES.
Event	18	Depart Location	Depart Location	6/8/2014	03:00:00	USER				JOURNEY MANAGEMENT AND LEAVE LOCATION

2.0 Custom Graphs

2.1 Custom Graph



3.0 Appendix

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