

**ANADARKO PETROLEUM CORP - EBUS  
DO NOT MAIL - PO BOX 4995  
THE WOODLANDS, Texas**

AGGREGATE STATE 15N-16HZ

**Majors 42**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 3/20/2014  
Version: 1

Service Supervisor: VIGIL, NICHOLAS

Submitted by: TRIER, DEREK

**HALLIBURTON**

# HALLIBURTON

## Wellbore Geometry

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Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Casing	9 5/8" Surface Casing	9.63	8.921	36.00	0.00	1,034.00	45.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,034.00	0.00

# HALLIBURTON

## ***Pumping Schedule***

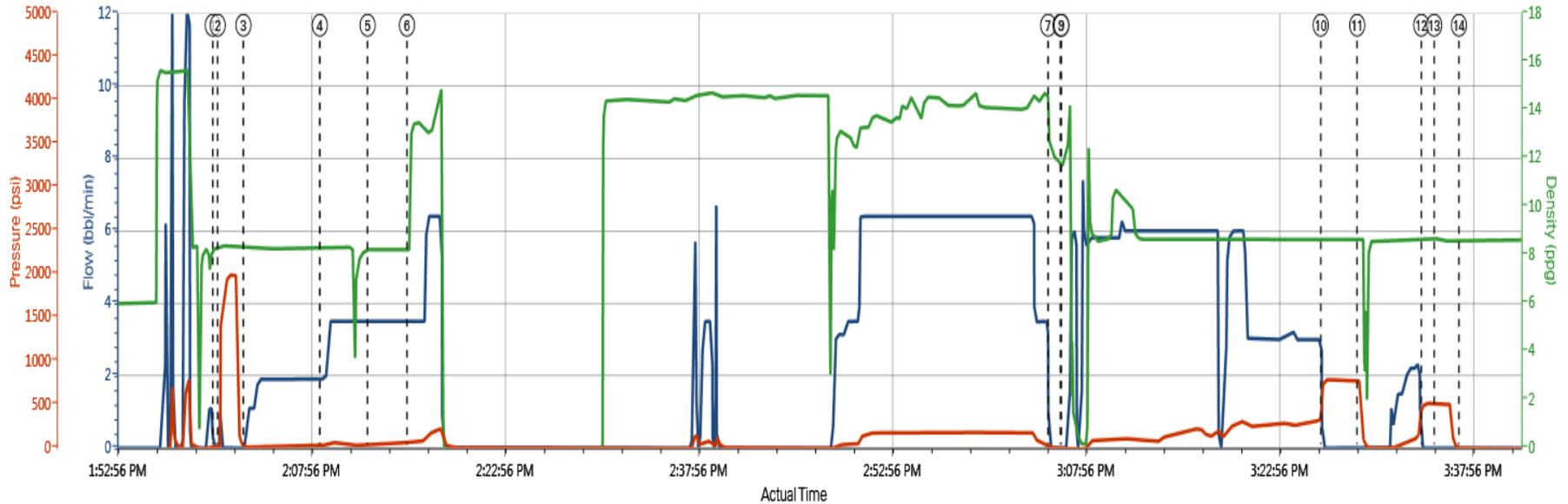
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<b>Stage /Plug #</b>	<b>Fluid #</b>	<b>Fluid Type</b>	<b>Fluid Name</b>	<b>Surface Density lbm/gal</b>	<b>Avg Rate bbl/min</b>	<b>Surface Volume</b>	<b>Downhole Volume</b>
1	1	Spacer	Fresh Water Spacer	8.33	2.00	10.0 bbl	10.0bbl
1	2	Spacer	Mud Flush	8.40	3.50	12.0 bbl	12.0bbl
1	1	Spacer	Fresh Water Spacer	8.33	3.50	10.0 bbl	10.0bbl
1	3	Cement Slurry	SwiftCem B2	14.20	6.00	386.0 sacks	386.0 sacks

# HALLIBURTON

## Data Acquisition

### Anadarko Aggregate State 15N-16HZ



Comb Pump Rate (bbl/min)    DH Density (ppg)    PS Pump Press (psi)

- ① Start Job 0;8.27;13    ④ Mud Flush 1.9;8.31;34    ⑦ Shutdown 0;12.31;10    ⑩ Bump Plug 0;8.6;744    ⑬ Shut in Well 0;8.69;509
- ② Test Lines 0.9;8.32;1382    ⑤ Water Spacer 3.5;8.22;58    ⑧ Drop Top Plug 0;11.7;9    ⑫ Check Floats 0;8.62;779    ⑭ End Job 0;8.61;6
- ③ Water Spacer 0;8.28;8    ⑥ 14.2 ppg SwiftCem 3.5;8.37;64    ⑨ Pump Displacement 0;11.65;9    ⑪ Pressure Up Well 0;8.65;503

▼ HALLIBURTON | iCem® Service

Created: 2014-02-08 12:59:36, Version: 3.0.121

Edit

Customer: ANADARKO PETROLEUM CORP - EBUS

Job Date: 2/8/2014 1:10:07 PM

Well: Aggregate State 15N-16HZ

Representative: Nicholas Vigil

Sales Order #: 901105005

Job Type: 9 5/8 Surface

# HALLIBURTON

## Service Supervisor Reports

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
02/08/2014 10:45		Arrive At Loc					
02/08/2014 10:55		Assessment Of Location Safety Meeting					Hazard hunt, Rig up safety meeting, Water test
02/08/2014 11:05		Rig-Up Equipment					We rigged up what we could without getting in the way of the rig operations
02/08/2014 1:09		Rig-Up Completed					Rig had to circulate for a while still
02/08/2014 20:20		Pre-Job Safety Meeting					Held safety meeting with all personnel on location
02/08/2014 20:42		Start Job					
02/08/2014 20:43		Test Lines					Pressure tested lines to 3000 psi
02/08/2014 20:47		Pump Spacer 1	2	10		22.0	Water Spacer
02/08/2014 20:53		Pump Spacer 2	3.5	12		30.0	Mud Flush
02/08/2014 21:01		Pump Spacer 1	3.5	10		30.0	Water Spacer
02/08/2014 21:04		Pump Cement	6.0	102.0		152.0	14.2 ppg SwiftCem (386 sks), weight was verified by scale
02/08/2014 21:25		Shutdown					
02/08/2014 21:27		Drop Top Plug					Plug was pre loaded
02/08/2014 21:27		Pump Displacement	6			120.0	Displaced using fresh water
02/08/2014 21:45		Bump Plug	2	76.7		142.0	Bumped plug 500 psi over final lift bringing our pressure up to 800 psi
02/08/2014 21:49		Check Floats					Floats held
02/08/2014 21:50		End Job					Rig down safety meeting
02/08/2014 22:00		Rig-Down Equipment					
02/08/2014 22:45		Rig-Down Completed					

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3205509		<b>Quote #:</b>		<b>Sales Order #:</b> 901105005					
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> Porter, Bob							
<b>Well Name:</b> AGGREGATE STATE		<b>Well #:</b> 15N-16HZ		<b>API/UWI #:</b> 05-123-38329							
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> IONE		<b>County/Parish:</b> Weld		<b>State:</b> Colorado					
<b>Lat:</b> N 40.152 deg. OR N 40 deg. 9 min. 7.2 secs.				<b>Long:</b> W 104.776 deg. OR W -105 deg. 13 min. 26.4 secs.							
<b>Contractor:</b> Majors		<b>Rig/Platform Name/Num:</b> Majors 42									
<b>Job Purpose:</b> Cement Surface Casing											
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Surface Casing							
<b>Sales Person:</b> GREGORY, JON		<b>Srvc Supervisor:</b>			<b>MBU ID Emp #:</b>						
<b>Job Personnel</b>											
<b>HES Emp Name</b>		<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>		<b>Exp Hrs</b>	<b>Emp #</b>				
<b>Equipment</b>											
<b>HES Unit #</b>	<i>Distance-1 way</i>	<b>HES Unit #</b>	<i>Distance-1 way</i>	<b>HES Unit #</b>	<i>Distance-1 way</i>	<b>HES Unit #</b>	<i>Distance-1 way</i>				
<b>Job</b>				<b>Job Times</b>							
<b>Formation Name</b>						<b>Date</b>	<b>Time</b>	<b>Time Zone</b>			
<b>Formation Depth (MD)</b>		<b>Top</b>	<b>Bottom</b>			<b>Called Out</b>					
<b>Form Type</b>		<b>BHST</b>				<b>On Location</b>					
<b>Job depth MD</b>		1034. ft	<b>Job Depth TVD</b>	1034. ft	<b>Job Started</b>						
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>		<b>Job Completed</b>							
<b>Perforation Depth (MD)</b>		<i>From</i>	<i>To</i>	<b>Departed Loc</b>							
<b>Well Data</b>											
<i>Description</i>	<b>New / Used</b>	<b>Max pressure psig</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>
13 1/2" Open Hole Section				13.5				.	1034.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1034.		
<b>Sales/Rental/3<sup>rd</sup> Party (HES)</b>											
<b>Description</b>						<b>Qty</b>	<b>Qty uom</b>	<b>Depth</b>	<b>Supplier</b>		
CMT CASING EQUIPMENT BOM						1	JOB				
MILEAGE FOR CEMENTING CREW,ZI						20	MI				
ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON						20	MI				
KIT,HALL WELD-A						1	EA				
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375						9	EA				
BASKET - CEMENT - 9-5/8 CSG X 12-1/4						1	EA				
PLUG,CMTG, TOP,9 5/8,HWE,8.16 MIN/9.06 MA						1	EA				
<b>Description</b>						<b>Qty</b>	<b>Qty uom</b>	<b>Depth</b>	<b>Supplier</b>		
COLLAR-STOP-9 5/8"-FRICTION-HINGED						2	EA				
<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Fresh Water Spacer		10.0	bbl	8.33			2.0		
2	Mud Flush		12.0	bbl	8.4			3.5		
3.5 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)								
42 gal/bbl		MUD FLUSH III - SBM (528788)								
1	Fresh Water Spacer		10.0	bbl	8.33			3.5		
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	386.0	sacks	14.2	1.54	7.66	6.0	7.66	
7.66 Gal		FRESH WATER								
Calculated Values		Pressures		Volumes						
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad		
Top Of Cement		5 Min		Cement Returns		Actual Displacement 76.7		Treatment		
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job		
Rates										
Circulating		Mixing		Displacement		6.0		Avg. Job		
Cement Left In Pipe		Amount 45 ft		Reason		Shoe Joint				
Frac Ring # 1 @		ID	Frac ring # 2 @		ID	Frac Ring # 3 @		ID	Frac Ring # 4 @	
The Information Stated Herein Is Correct				Customer Representative Signature						

