

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

AGGREGATE STATE 16N-16HZ

**Majors 42**

## **Post Job Summary** **Cement Surface Casing**

Date Prepared: 2/21/2014  
Version: 1

Service Supervisor: PICKELL, CHRISTOPHER

Submitted by: PRUDHOMME, JOSHUA

**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	1,008.00	44.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,018.00	0.00

# HALLIBURTON

## ***Pumping Schedule***

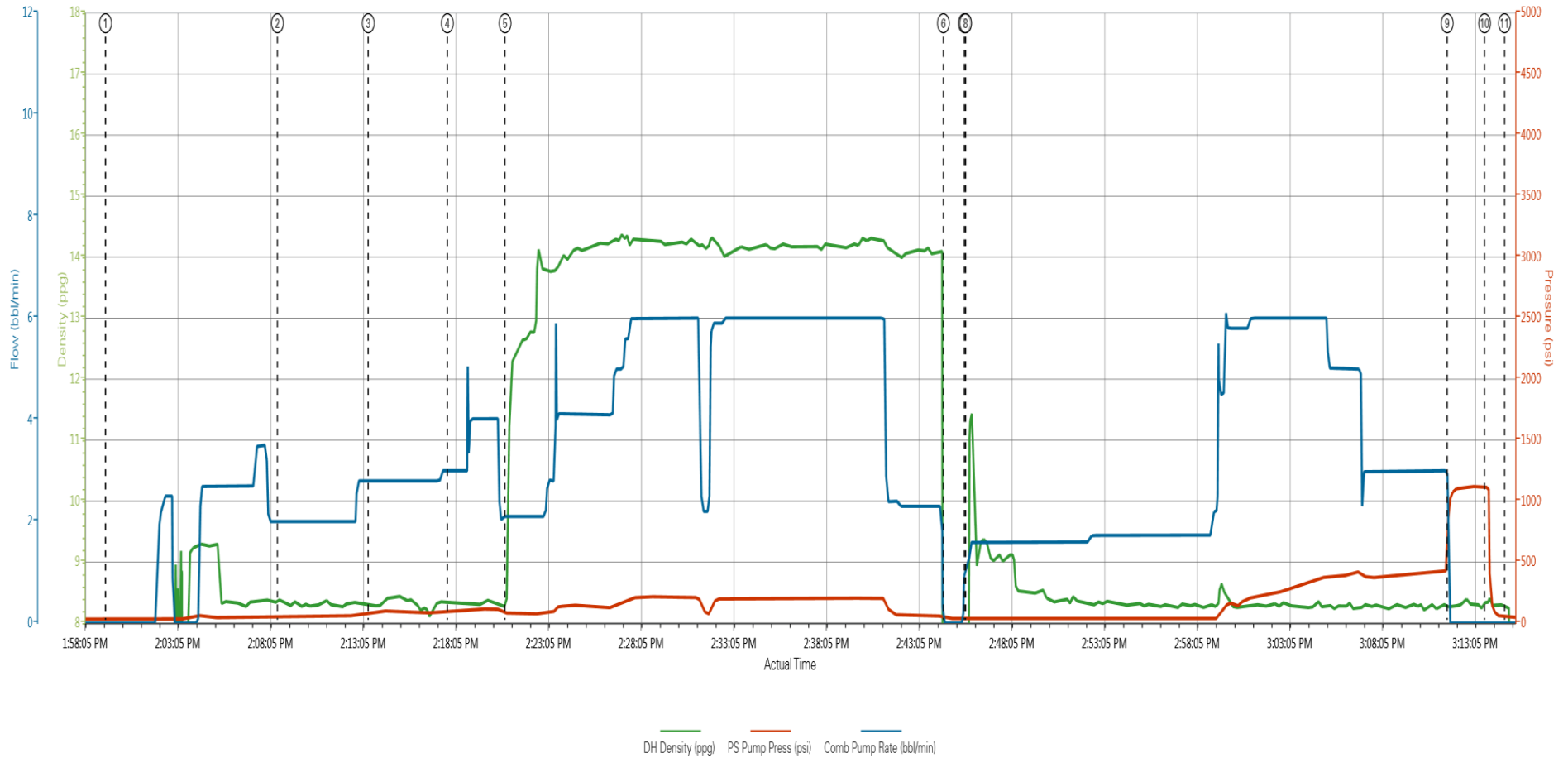
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Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	2.0	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	2.5	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	4.0	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.2	6.0	384.0 sacks	384.0 sacks

# HALLIBURTON

## Data Acquisition

AGGREGATE STATE 16N-16HZ (9 5/8" SURFACE)



① Start Job 1.42;34.0    ④ Pump Water 8.33;95.3    ⑦ Drop Top Plug 1.23;42.1.1    ⑩ Check Floats 8.31;1114.0  
 ② Pump Water 8.39;58.2    ⑤ Pump Swiftcem 14.2# 8.73;83.2.1    ⑧ Pump Displacement 0.75;43;1.1    ⑪ End Job 8.26;46.0  
 ③ Pump Mudflush 8.34;82.2.8    ⑥ Shutdown 0.09;46.0    ⑨ Bump Plug 8.26;975.0

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
02/05/2014 08:00		Call Out						CREW CALLED AT 0800 TO BE ON LOCATION AT 1100. CREW WAS CHRISTOPHER PICKELL, WILLIAM JEWELL, ROY NESBITT
02/05/2014 12:00		Depart from Service Center or Other Site						SAFETY MEETING HELD FOR JOURNEY TO LOCATION. LEFT THE YARD FOR MAJOR 42
02/05/2014 12:30		Arrive At Loc						ARRIVE AT LOCATION AT 1230. RIG WAITING FOR US. CUSTOMER HAD REQUESTED US ON LOCATION AT 0800 BUT CAMP WAS SHUTDOWN
02/05/2014 12:40		Rig-Up Equipment						HAZARD HUNT PERFORMED. RIG UP PLANNED AND EXECUTED
02/05/2014 13:45		Pre-Job Safety Meeting						SAFETY MEETING HELD WITH RIG CREW TO DISCUSS JOB SAFETY AND PROCEDURE
02/05/2014 13:59		Start Job						QUICK LATCH PLUG CONTAINER USED ON THE JOB. PRESSURE TEST WAS NOT DONE DUE TO SUBZERO TEMPERATURES. RIG HEATER WAS USED ON PUMP TRUCK
02/05/2014 14:08		Pump Spacer 1	2	10			50.0	PUMP WATER
02/05/2014 14:13		Pump Spacer 2	2.5	12			75.0	PUMP MUDFLUSH
02/05/2014 14:17		Pump Spacer 1	4	10			100.0	PUMP WATER
02/05/2014 14:20		Pump Cement	6	105			175.0	PUMP SWIFTCEM CEMENT 384 SKS 14.2 PPG 1.54 CUFT/SK 7.67 GAL/SK
02/05/2014 14:44		Shutdown						WASH PUMPS AND LINES ON TOP OF THE PLUG
02/05/2014 14:45		Drop Top Plug						PLUG PRELOADED. WITNESSED BY COMPANY MAN
02/05/2014 14:45		Pump Displacement	6	74.5			450.0	PUMP DISPLACEMENT USING WATER
02/05/2014 15:10		Cement Returns to Surface						CEMENT TO SURFACE WITH 58 BBL OF DISPLACEMENT AWAY
02/05/2014 15:11		Bump Plug	3				450.0	CALCULATED PRESSURE TO LAND WAS 294. PLUG LANDED WITH 450 PSI GOING 500 PSI OVER
02/05/2014 15:13		Check Floats					1114.0	PRESSURE WAS HELD FOR 2 MINUTES THEN RELEASED. FLOATS HELD. 1 BBL BACK TO TANKS
02/05/2014 15:14		End Job						16 BBL OF CEMENT BACK TO SURFACE
02/05/2014 15:15		Pre-Rig Down Safety Meeting						SAFETY MEETING HELD FOR RIG DOWN
02/05/2014 15:20		Rig-Down Equipment						BLOW DOWN PUMP TRUCK AND IRON. RIG DOWN ALL EQUIPMENT
02/05/2014 16:30		Depart Location for Service Center or Other Site						LEAVE LOCATION TO THE YARD

## The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3205519	Quote #:	Sales Order #: 901096758
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Porter, Bob	
Well Name: AGGREGATE STATE		Well #: 16N-16HZ	API/UWI #: 05-123-38330
Field: WATTENBERG	City (SAP): IONE	County/Parish: Weld	State: Colorado
Lat: N 40.152 deg. OR N 40 deg. 9 min. 6.948 secs.		Long: W 104.776 deg. OR W -105 deg. 13 min. 26.299 secs.	
Contractor: Majors		Rig/Platform Name/Num: Majors 42	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: GREGORY, JON		Srvc Supervisor: PICKELL, CHRISTOPHER	MBU ID Emp #: 396838

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
JEWELL, WILLIAM Uris	0.0	503358	NESBITT, ROY Iverson	0.0	537416	PICKELL, CHRISTOPHER Lee	0.0	396838
WILEY, JAMES A	0.0	440080						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10857012C	11 mile	11605597	11 mile	11812069C	11 mile	5707C	11 mile

## Job

## Job Times

Formation Name				Date	Time	Time Zone
Formation Depth (MD)	Top	Bottom		Called Out	05 - Feb - 2014	08:00 MST
Form Type	BHST			On Location	05 - Feb - 2014	12:30 MST
Job depth MD	1018. ft	Job Depth TVD	1018. ft	Job Started	05 - Feb - 2014	13:59 MST
Water Depth		Wk Ht Above Floor	5. ft	Job Completed	05 - Feb - 2014	15:14 MST
Perforation Depth (MD)	From	To		Departed Loc	05 - Feb - 2014	17:00 MST

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
13 1/2" Open Hole Section				13.5				.	1018.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1008.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
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		
Description	Qty	Qty uom	Depth	Supplier
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		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	2	EA		

Fluid Data									
Stage/Plug #: 1									
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		10.00	bbl	8.33			2.0	
2	Mud Flush		12.00	bbl	8.4			2.5	
3.5 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)							
42 gal/bbl		MUD FLUSH III - SBM (528788)							
1	Fresh Water Spacer		10.00	bbl	8.33			4.0	
3	SwiftCem B2	SWIFTCEN (TM) SYSTEM (452990)	384.0	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		16.5		Actual Displacement 74.5	
Frac Gradient		15 Min		Spacers		32.0		Load and Breakdown	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount 44 ft		Reason		Shoe Joint			
Frac Ring # 1 @		ID		Frac ring # 2 @		ID		Frac Ring # 4 @	
The Information Stated Herein Is Correct				Customer Representative Signature					

