

ANADARKO PETROLEUM CORP - EBUS

Howard 1C-28HZ

**Major 42**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 7/3/2013  
Version: 1

Service Supervisor: MCBRIDE, NATHAN

Submitted by: LANSDALE, JUSTIN

## ***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	42.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,017.00	0.00

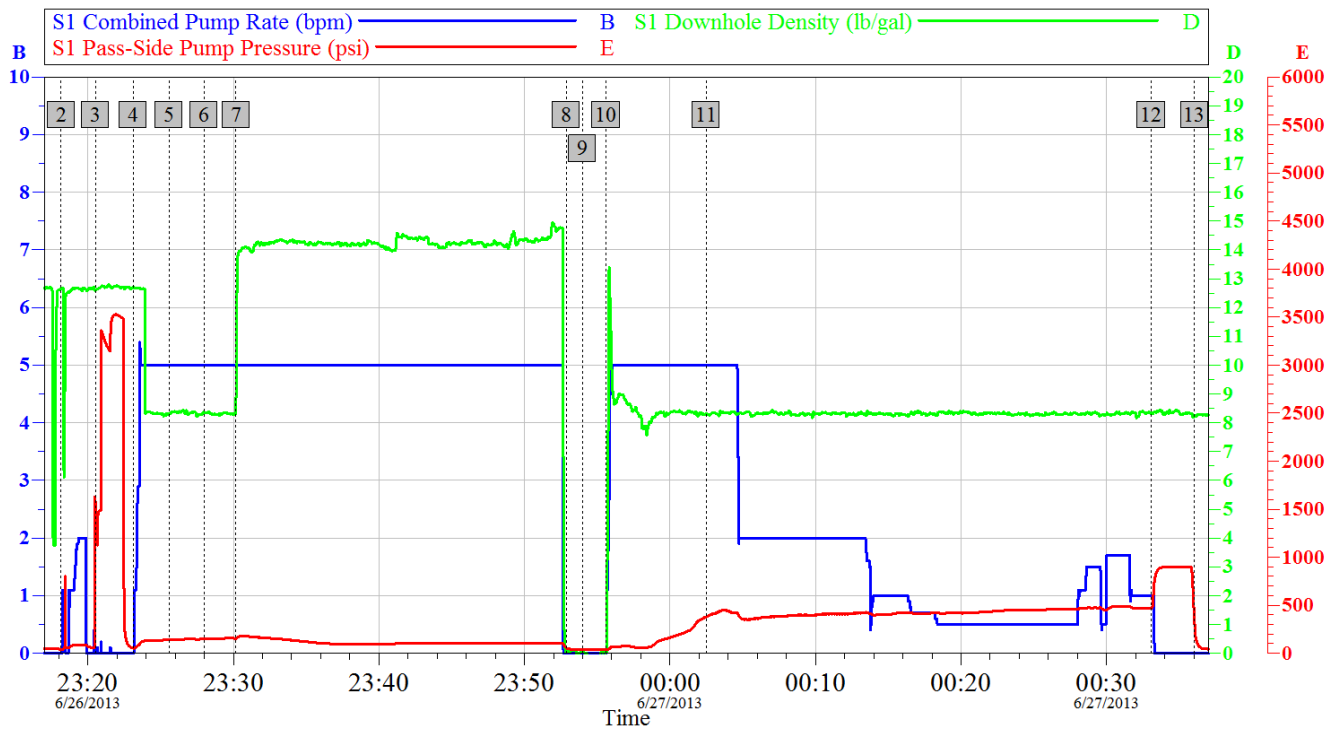
# HALLIBURTON

## ***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	5.00	10.0 bbl	10.0 bbl
1	2	Spacer	MudFlush	8.40	5.00	12.0 bbl	12.0 bbl
1	3	Spacer	Fresh Water Spacer	8.33	5.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	SwiftCem B2	14.20	5.00	380.0 sacks	104.2 bbl

## Data Acquisition



### Global Event Log

2	Fill Lines	6/26/2013 23:18:10	3	Test Lines	6/26/2013 23:20:31	4	Fresh Water Ahead	6/26/2013 23:23:07
5	Mud Flush	6/26/2013 23:25:34	6	Fresh Water	6/26/2013 23:27:59	7	Pump Cement	6/26/2013 23:30:10
8	Shut Down	6/26/2013 23:52:52	9	Drop Plug	6/26/2013 23:53:59	10	Pump Displacement	6/26/2013 23:55:36
11	Other	6/27/2013 00:02:30	12	Bump Plug	6/27/2013 00:33:03	13	Check Floats	6/27/2013 00:36:02

Customer: Anadarko  
Well Description: Howard 1C-28HZ

Job Date: 26-Jun-2013  
Job Type: Surface

Sales Order #: 900543537  
Supervisor: McBride

OptiCem v6.4.10  
27-Jun-13 01:16

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
06/26/2013 22:00		Arrive at Location from Service Center					All Equipment and Materials on Location
06/26/2013 22:05		Assessment Of Location Safety Meeting					Review 3rd party activities, overhead lines and hazard hunt
06/26/2013 22:10		Pre-Rig Up Safety Meeting					Review JSA and Spotting Equipment
06/26/2013 22:15		Rig-Up Equipment					
06/26/2013 22:16		Casing on Bottom					
06/26/2013 22:17		Circulate Well					
06/26/2013 23:00		Rig-Up Completed					
06/26/2013 23:05		Pre-Job Safety Meeting					
06/26/2013 23:17		Start Job					
06/26/2013 23:18		Pump Water	2	2		50.0	Fill Lines
06/26/2013 23:20		Test Lines				3280.0	
06/26/2013 23:23		Pump Water	5	10		220.0	Fresh Water
06/26/2013 23:25		Pump Spacer	5	12		150.0	Mud Flush
06/26/2013 23:28		Pump Water	5	10		156.0	Fresh Water
06/26/2013 23:30		Pump Lead Cement	5	104.2		163.0	380sks @ 14.2ppg, 1.54yield, 7.67gal/sk
06/26/2013 23:53		Shutdown					
06/26/2013 23:53		Spacer Returns to Surface					Mudflush to surface @ plug drop. Obvious channeling. Mud had a Visc of 80
06/26/2013 23:54		Drop Top Plug					
06/26/2013 23:55		Pump Displacement	3	74.6		480.0	Fresh Water
06/27/2013 00:02		Comment					Lost Circulation at 33bbls displaced. Well pressured up to 420 indicating bridge in annulus.
06/27/2013 00:33		Bump Plug				905.0	500psi Over
06/27/2013 00:36		Check Floats					Floats Good
06/27/2013 00:40		Wait on Orders - Start Time					Customer calling in for further instruction on how to procede.
06/27/2013 04:15		Comment					Customer opted to run 1" down the annulus. 1" ran to depth of 90ft. HES recommended trying to circulate with mud to clean annulus ahead of top job to reduce risk of channelling. +-
06/27/2013 04:40		Comment					Pumped water to begin circulation. Circulation established on North East corner of casing after pumping 1 bbl.
06/27/2013 04:57		Pump Cement	1	35		34.0	170sks Pumped down hole. 20sks additional pumped off to pit.
06/27/2013 05:45		End Job					Thanks McBride and Crew

## The Road to Excellence Starts with Safety

The Road to Excellence Starts With Safety								
Sold To #: 300466		Ship To #: 3005058		Quote #:		Sales Order #: 900543537		
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep: PORTER, BOB				
Well Name: Howard			Well #: 1C-28HZ			API/UWI #: 05-123-36933		
Field: WATTEBERG		City (SAP): DACONO		County/Parish: Weld			State: Colorado	
Lat: N 40.029 deg. OR N 40 deg. 1 min. 42.802 secs.				Long: W 104.89 deg. OR W -105 deg. 6 min. 35.892 secs.				
Job Purpose: Cement Surface Casing								
Well Type: Development Well				Job Type: Cement Surface Casing				
Sales Person: PLIENESS, RYAN				Srvc Supervisor: MCBRIDE, NATHAN			MBU ID Emp #: 313810	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHISLUM, DENNIS	9.0	512130	MARKOVICH, STEVEN Michael	9.0	502964	MCBRIDE, NATHAN Charles	9.0	313810

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11362287C	20 mile						

## Job

## Job Times

Formation Name				Date	Time	Time Zone
Formation Depth (MD)	Top	Bottom		Called Out	26 - Jun - 2013	19:00 MST
Form Type	BHST			On Location	26 - Jun - 2013	21:30 MST
Job depth MD	1017. ft	Job Depth TVD	1017. ft	Job Started	26 - Jun - 2013	23:17 MST
Water Depth		Wk Ht Above Floor	5. ft	Job Completed	27 - Jun - 2013	05:45 MST
Perforation Depth (MD)	From	To		Departed Loc	27 - Jun - 2013	06:30 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				.	1017.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1008.		

## Fluid Data

## Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
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1	Fresh Water Spacer		10.00	bbl	8.33				
2	MudFlush		12.00	bbl	8.4				
10 lbm/Mgal		MUD FLUSH III - SBM (528788)							
10 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)							
3	Fresh Water Spacer		10.00	bbl	8.33				
4	SwiftCem B2	SWIFTCEN (TM) SYSTEM (452990)	380.0	sacks	14.2	1.54	7.67		7.67
7.67 Gal		FRESH WATER							
<b>Rates</b>									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	42 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					

