

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

Highway 160 16C-2HZ

Majors 29

Post Job Summary **Cement Surface Casing**

Date Prepared: 10/26/2013
Version: 1

Service Supervisor: FANTASIA, JOSEPH

Submitted by: TRIER, DEREK

HALLIBURTON

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Wellbore Geometry

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	1,239.00	42.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,242.00	0.00

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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	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	465.0 sacks	465.0 sacks

Fluids Pumped

Stage/Plug # 1 Fluid 1: Fresh Water Spacer
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 8.33 lbm/gal
Fluid Volume: 10.00 bbl
Pump Rate: 5.00 bbl/min

Stage/Plug # 1 Fluid 2: MudFlush
DUMMY MUD / FLUSH / SPACER SBC MATERIAL
10 lbm/Mgal Mud Flush III
10 lbm/bbl Mud Flush III

Fluid Density: 8.40 lbm/gal
Fluid Volume: 12.00 bbl
Pump Rate: 5.00 bbl/min

Stage/Plug # 1 Fluid 3: Fresh Water Spacer
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 8.33 lbm/gal
Fluid Volume: 10.00 bbl
Pump Rate: 5.00 bbl/min

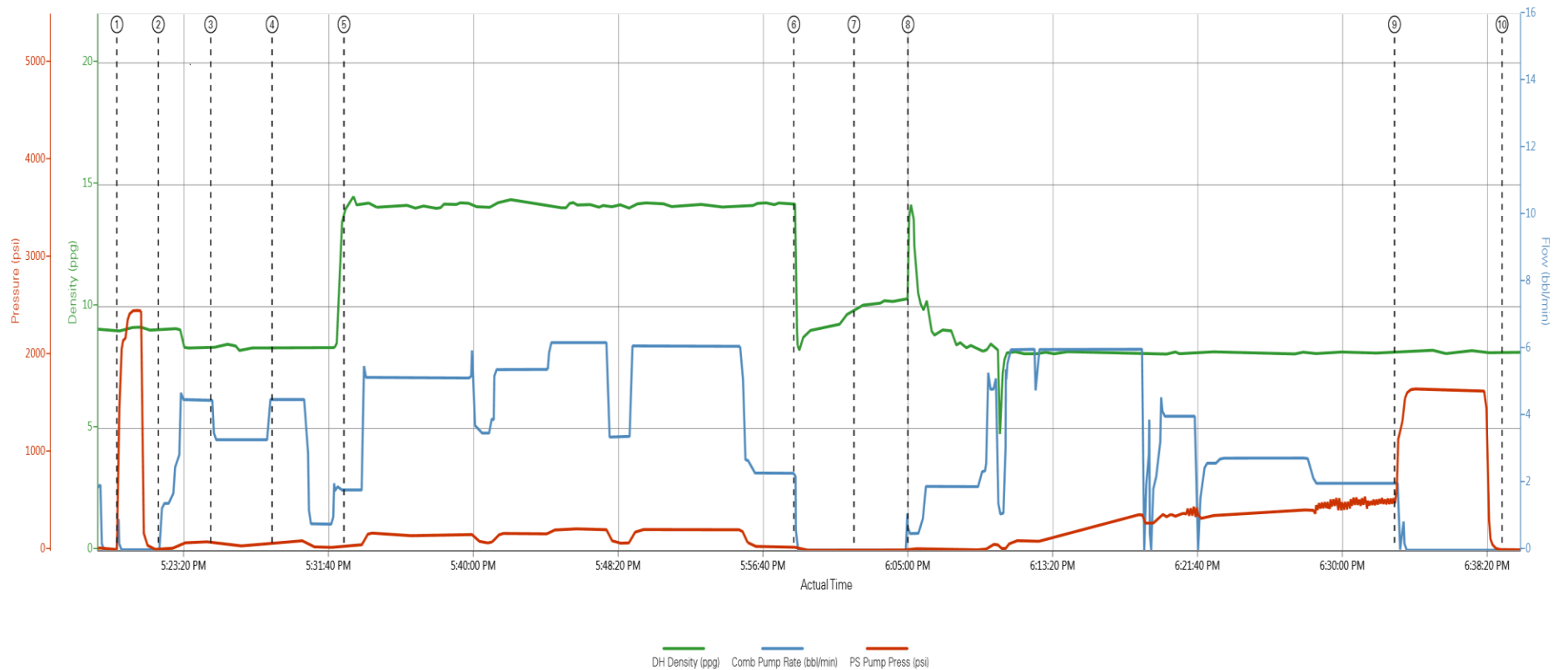
Stage/Plug # 1 Fluid 4: SwiftCem B2
SWIFTCEM (TM) SYSTEM

Fluid Weight: 14.20 lbm/gal
Slurry Yield: 1.54 ft³/sack
Total Mixing Fluid: 7.66 Gal
Surface Volume: 465.0 sacks
Sacks: 465.0 sacks

HALLIBURTON

Data Acquisition

ANADARKO HIGHWAY 160 16C-2HZ SURFACE



① Test Lines
② Pump Spacer 1
③ Pump Spacer 2
④ Pump Spacer 1
⑤ Pump Cement

⑥ Shutdown
⑦ Drop Top Plug
⑧ Pump Displacement
⑨ Bump Plug
⑩ Check Floats

⑪ End Job
⑫ End Job

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Created: 2013-10-24 16:15:45, Version: 1.4.96

Edit

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
10/24/2013 15:30		Arrive at Location from Service Center							ARRIVE AT LOCATION. RIG ON BOTTOM WAITING.
10/24/2013 15:45		Assessment Of Location Safety Meeting							PERFORM SITE ASSESSMENT AND HAZARD HUNT WITH CREW PRIOR TO SPOTTING EQUIPMENT AND RIGGING UP.
10/24/2013 16:00		Start Job							PERFORM PRE-JOB SAFETY MEETING WITH ALL PRESENT PERSONNEL PRIOR TO JOB
10/24/2013 17:19		Test Lines							PRESSURE TEST LINES TO 2500 PSI.
10/24/2013 17:21		Pump Spacer 1	5	10				88.0	PUMP 10 BBLS WATER
10/24/2013 17:24		Pump Spacer 2	5	12				80.0	PUMP 12 BBLS MUDFLUSH
10/24/2013 17:28		Pump Spacer 1	5	10				70.0	PUMP 10 BBLS WATER
10/24/2013 17:32		Pump Cement	5	127				51.0	465 SKS SWIFTCEN MIXED AT 14.2 PPG USING RIG WATER. (1.54 YIELD / 7.66 GAL-SACK)
10/24/2013 17:58		Shutdown							
10/24/2013 18:01		Drop Top Plug							PLUG DROPPED DURING SHUTDOWN.
10/24/2013 18:05		Pump Displacement	6	93				54.0	GOOD RETURNS THROUGHOUT. CEMENT TO SURFACE AT 68 BBLS OUT OF 93 BBLS TOTAL DISPLACEMENT. APPROX 25 BBLS CEMENT TO SURFACE.
10/24/2013 18:33		Bump Plug	3					467.0	PLUG LANDED AT 467 PSI. PRESSURE BROUGHT TO 1600 PSI AND HELD 5 MIN.
10/24/2013 18:39		Check Floats							FLOATS HELD
10/24/2013 19:00		End Job							PERFORM PRE RIG DOWN SAFETY MEETING

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3167884	Quote #:	Sales Order #: 900844630
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Case, Randy	
Well Name: Highway 160	Well #: 16C-2HZ	API/UWI #:	
Field: WATTEBERG	City (SAP): FORT LUPTON	County/Parish: Weld	State: Colorado
Contractor: Majors		Rig/Platform Name/Num: Major 29	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FLING, MATTHEW		Srvc Supervisor: FANTASIA, JOSEPH	MBU ID Emp #: 485445

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CORONADO, EDI	4.0	123456	FANTASIA, JOSEPH Brandon	4.0	485445	HINKLE, BRADLEY Dean	4.0	512123
TORREY, SPENCER Kenneth	4.0	549837						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11106651	10 mile	11360865C	10 mile	11542778	10 mile	11764054C	10 mile

Job

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To	Called Out	Date	Time	Time Zone
				BHST	1239. ft	1239. ft						24 - Oct - 2013	12:00	MST
											On Location	24 - Oct - 2013	15:30	MST
											Job Started	24 - Oct - 2013	17:00	MST
											Job Completed	24 - Oct - 2013	19:00	MST
											Departed Loc	24 - Oct - 2013	19:30	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				.	1242.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1239.		

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

1	Fresh Water Spacer		10.00	bbl	8.33			5.0	
2	MudFlush		12.00	bbl	8.4			5.0	
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			5.0	
4	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	465.0	sacks	14.2	1.54	7.66	5.0	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		25		Actual Displacement 93	
Frac Gradient		15 Min		Spacers		32		Load and Breakdown	
Total Job									
Rates									
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 # 4 @	
The Information Stated Herein Is Correct				Customer Representative Signature					

