

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

3D 15C-21HZ

Major 41

Post Job Summary **Cement Surface Casing**

Date Prepared: 10/31/2013
Version: 1

Service Supervisor: VIGIL, NICHOLAS

Submitted by: TRIER, DEREK

HALLIBURTON

HALLIBURTON

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	1,010.00	40.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,030.00	0.00

HALLIBURTON

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	2.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	2.50	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	4.00	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	6.00	393.0 sacks	393.0 sacks

Fluids Pumped

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

Fluid Density: 8.33 lbm/gal
Pump Rate: 2.00 bbl/min

Stage/Plug # 1 Fluid 2: Mud Flush
DUMMY MUD / FLUSH / SPACER SBC MATERIAL
3.5 lbm/bbl Mud Flush III
42 gal/bbl Mud Flush III

Fluid Density: 8.40 lbm/gal
Fluid Volume: 12.00 bbl
Pump Rate: 2.50 bbl/min

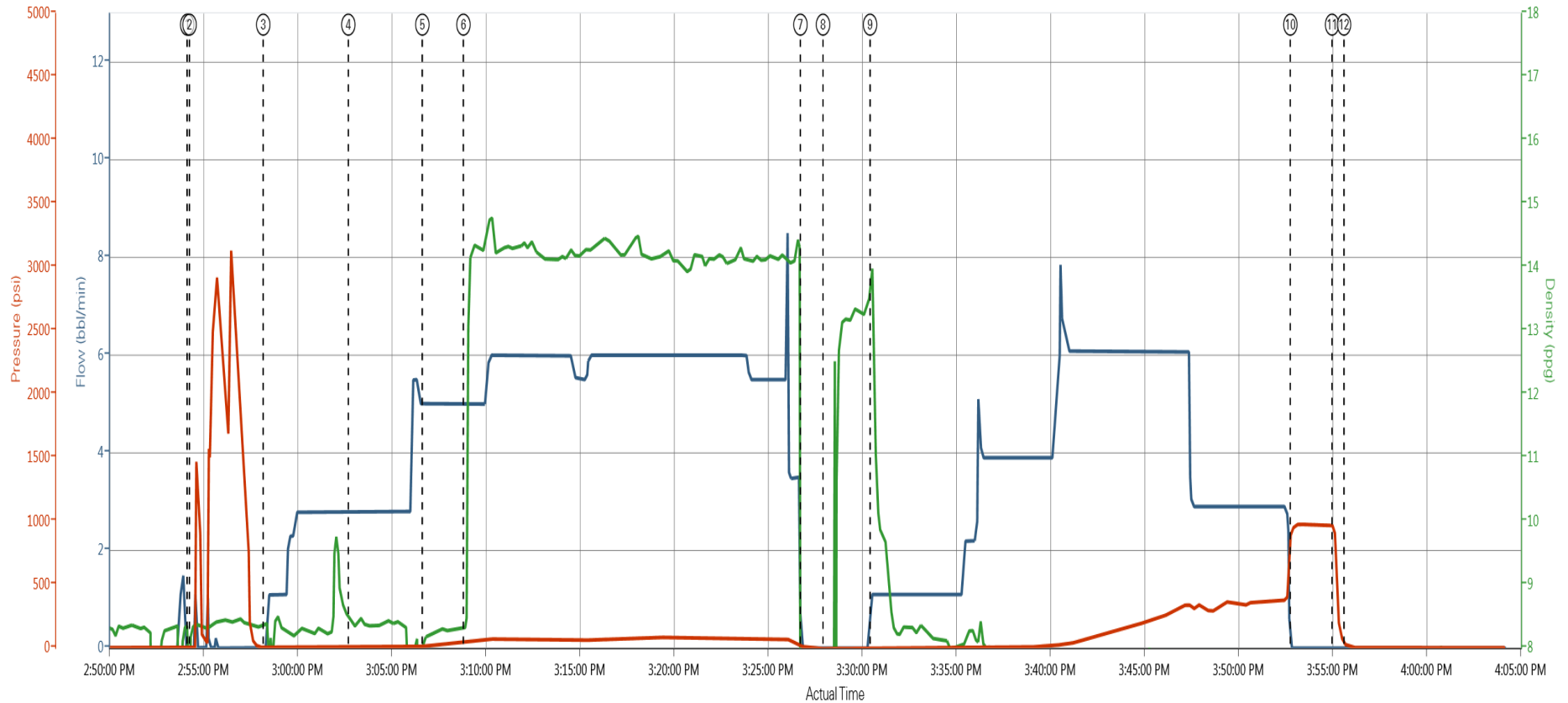
Stage/Plug # 1 Fluid 3: SwiftCem B2
SWIFTCEM (TM) SYSTEM

Fluid Weight: 14.20 lbm/gal
Slurry Yield: 1.53 ft³/sack
Total Mixing Fluid: 7.63 Gal
Surface Volume: 393.0 sacks
Sacks: 393.0 sacks

HALLIBURTON

Data Acquisition

Anadarko 3D 15C-21HZ



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

① Start Job 0;6.29;4 ② Test Lines 0;8.34;4 ③ Pump Spacer 1 0;8.37;5 ④ Pump Spacer 2 2;8.46;19 ⑤ Pump Spacer 1 5;8.24;15 ⑥ Pump Cement 5;8.33;43 ⑦ Shutdown 0;-0.02;11 ⑧ Drop Top Plug 0;-0.15;-4 ⑨ Pump Displacement 1.1;14;5 ⑩ Bump Plug 0;7.94;942 ⑪ Other 0;7.94;950 ⑫ End Job 0;-0.47;22

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Edit

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
10/27/2013 05:26		Shutdown							
10/27/2013 12:30		Arrive At Loc							On location time was 1300, Rig had about 5 joints of casing left to run
10/27/2013 12:35		Assessment Of Location Safety Meeting							Hazard hunt, Water test, When we arrived on location I noticed there was no spill containment on location, I called Rain for Rent to get one out here ASAP,
10/27/2013 12:40		Rig-Up Equipment							We rigged up what we could with out having the containment on site.
10/27/2013 13:30		Rig-Up Completed							
10/27/2013 13:30		Wait on HES or HES Sub-Contractor Equipment - End							I called Rain for Rent @ 12:46 p.m.
10/27/2013 14:00		Wait on HES or HES Sub-Contractor Equipment - End							We got spill containment set up and finished rigging up
10/27/2013 14:40		Pre-Job Safety Meeting							Held safety meeting with all personell on location
10/27/2013 14:54		Start Job							
10/27/2013 14:54		Test Lines						3000.0	Pressure tested lines to 3000 psi
10/27/2013 14:58		Pump Spacer 1	2.0	10.0				20.0	Water Spcaer
10/27/2013 15:02		Pump Spacer 2	2.5	12.0				20.0	Mud Flush
10/27/2013 15:06		Pump Spacer 1	4.0	10.0				40.0	Water Spcaer
10/27/2013 15:08		Pump Cement	6.0	107.1				75.0	14.2 ppg SwiftCem (393 sks), weight was verified by scale
10/27/2013 15:28		Drop Top Plug							Plug was pre loaded
10/27/2013 15:30		Pump Displacement	6.0	82.0				200	Displaced using frsh water
10/27/2013 15:52		Bump Plug	3.0	82.0				450.0	Bumped plug 500 psi over final lift bringing our final pressure to 950 psi
10/27/2013 15:55		End Job							Rig down saftey meeting
10/27/2013 15:55		Check Floats							Floats held
10/27/2013 16:00		Rig-Down Equipment							Wash up pump and rig down
10/27/2013 16:30		Rig-Down Completed							



Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3182342	Quote #:	Sales Order #: 900848544
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Strong, Brett	
Well Name: 3D		Well #: 15C-21HZ	API/UWI #: 05-123-38101
Field: WATTENBURG	City (SAP): FORT LUPTON	County/Parish: Weld	State: Colorado
Lat: N 40.13 deg. OR N 40 deg. 7 min. 48.738 secs.		Long: W 104.776 deg. OR W -105 deg. 13 min. 25.23 secs.	
Contractor:		Rig/Platform Name/Num: Major 41	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FLING, MATTHEW		Srvc Supervisor: VIGIL, NICHOLAS	MBU ID Emp #: 443481

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
HARRAH, THADDEUS Gregory	0.0	552592	ROMERO, JOSEPH M	0.0	512137	VIGIL, NICHOLAS Joseph	0.0	443481

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10866493C	10 mile	11398490	10 mile	11645065	10 mile	12010168	10 mile

Job						Job Times			
Formation Name							Date	Time	Time Zone
Formation Depth (MD)	Top			Bottom		Called Out	27 - Oct - 2013	09:00	MST
Form Type			BHST			On Location	27 - Oct - 2013	12:30	MST
Job depth MD	1033. ft		Job Depth TVD	1033. ft		Job Started	27 - Oct - 2013	14:58	MST
Water Depth			Wk Ht Above Floor			Job Completed	27 - Oct - 2013	15:55	MST
Perforation Depth (MD)	From			To		Departed Loc	27 - Oct - 2013	17:30	MST

Well Data

<i>Description</i>	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				.	1030.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1010.		

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		10.0	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		10.0	bbl	8.33			4.0	
3	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	393.0	sacks	14.2	1.53	7.63	6.0	7.63
7.63 Gal		FRESH WATER							
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	40 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					

