

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3787020	Quote #: 0022315848	Sales Order #: 0904103137							
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: James Atkins								
Well Name: BUTTERBALL	Well #: 25C-34HZ	API/UWI #: 05-123-44409-00								
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO							
Legal Description: NE NW-10-2N-87W-819FNL-2235FWL										
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS X22								
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41086		Srvc Supervisor: Vaughn Oteri								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	16106ft	Job Depth TVD								
Water Depth	Wk Ht Above Floor									
Perforation Depth (MD)	From	To								
Well Data										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36		J-55	0	1854	0	1854
Casing		5.5	4.892	17	LTC	HCP110	0	16093	0	7426
Open Hole Section			7.875				1854	16106	1854	7426
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5				Top Plug	5.5	1	Weatherford		
Float Shoe	5.5			16093	Bottom Plug	5.5	1	Weatherford		
Float Collar	5.5			16091	SSR plug set	5.5				
Insert Float	5.5				Plug Container	5.5	1	HES		
Stage Tool	5.5				Centralizers	5.5				
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Tuned Spacer III	Tuned Spacer III	60	bbl	10.5	6.43		5.0		
Stage/Plug #: 2										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	ElastiCem - Cap Cement	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		6	7.53	

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Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal								
3	ElastiCem	ELASTICEM (TM) SYSTEM	390	sack	13.2	1.57		8	7.54								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal								
4	EconoCem	ECONOCEM (TM) SYSTEM	1090	sack	13.5	1.68		8	7.98								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal								
5	Biocide Water and MMCR	Biocide Water and MMCR	20	bbl	8.34												
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal								
6	Biocide Water	Biocide Water	353	bbl	8.34												
<table border="1"> <thead> <tr> <th>Cement Left In Pipe</th> <th>Amount</th> <th>Reason</th> <th>Shoe Joint</th> </tr> </thead> <tbody> <tr> <td></td> <td>5 ft</td> <td></td> <td></td> </tr> </tbody> </table>										Cement Left In Pipe	Amount	Reason	Shoe Joint		5 ft		
Cement Left In Pipe	Amount	Reason	Shoe Joint														
	5 ft																
Comment-4bbl of Spacer back to surface HOTC-10554.58 TOTC5538.42 HOLC775.01 Inside surface casing TOLC-1077.99																	

2.0 Real-Time Job Summary

2.1 Job Event Log

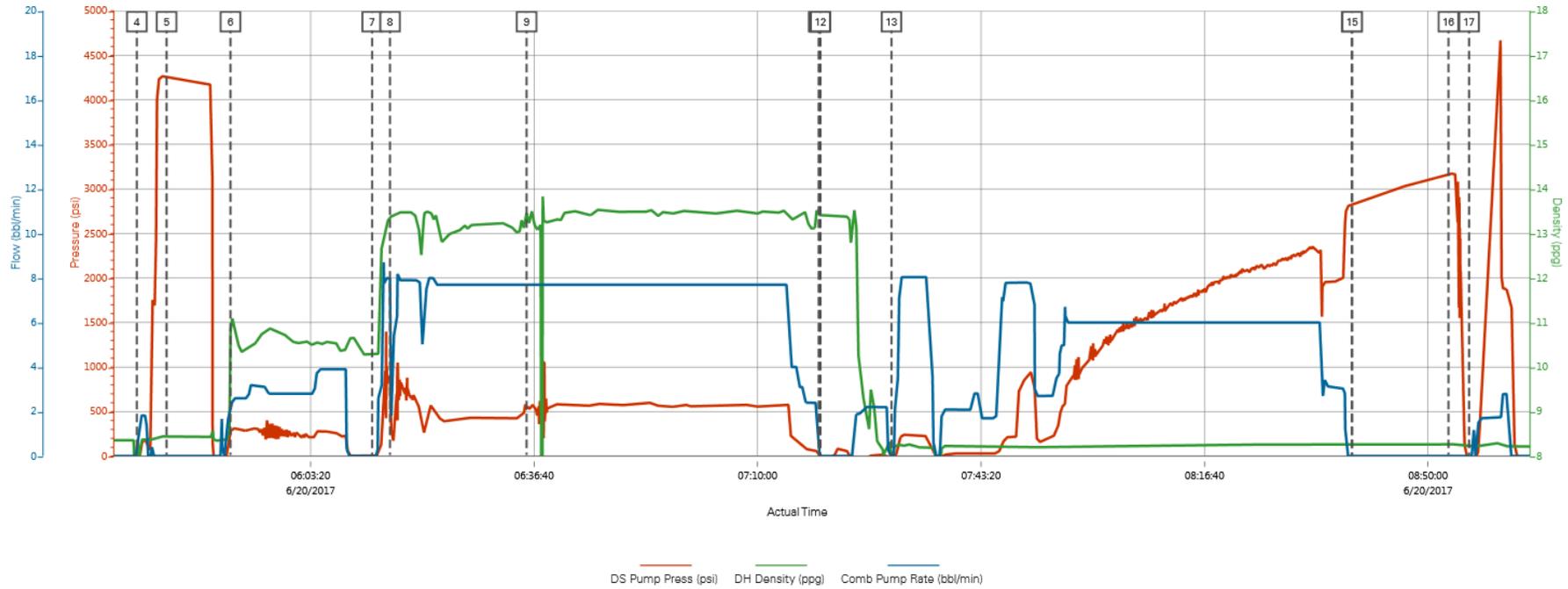
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	6/19/2017	04:40:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	6/19/2017	10:00:00	USER				Requested on location 1030 on 06-19-2017 Arrived on location on 06-19-2017 @1000 met with company rep to discuss job process and concerns, Advised by company rep that casing was going down slow
Event	3	Other	Other	6/19/2017	10:10:10	USER				TD-16106 TP-16093 FC-16091 Surf-1853 Mud-9.0ppg Casing 5.5 17# OH-7.7/8
Event	4	Start Job	Start Job	6/20/2017	05:37:25	COM4	-82.00	8.27	0.00	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	6/20/2017	05:41:52	COM4	4255.00	8.44	0.00	Pressure tested pumps and lines with fresh water 4391psi pressure held good and no leaks found
Event	6	Pump Spacer 1	Pump Spacer 1	6/20/2017	05:51:23	COM4	289.00	10.78	2.20	Mixed 60bbl of 10.5ppg Tuned spacer III at 3.0bpm 300psi
Event	7	Drop Bottom Plug	Drop Bottom Plug	6/20/2017	06:12:31	COM4	1.00	10.28	0.00	Released plug witnessed by company rep
Event	8	Pump Lead Cement	Pump Lead Cement	6/20/2017	06:15:10	COM4	888.00	13.40	8.00	Mixed 540sks or 150bbl of 13.2ppg Y-1.57 G/sk-7.53 Elasticem at 8.0bpm 480psi
Event	9	Pump Tail Cement	Pump Tail Cement	6/20/2017	06:35:33	COM4	564.00	13.49	7.70	Mixed 1090sks or 326bbl of 13.5ppg Y1.68 G/sk-7.98 Econocem at 8.0bpm 620psi
Event	10	Shutdown	Shutdown	6/20/2017	07:19:07	COM4	8.00	13.40	0.00	
Event	11	Clean Lines	Clean Lines	6/20/2017	07:19:16	COM4	-3.00	13.41	0.00	Washed pumps and lines with fresh water
Event	12	Drop Top Plug	Drop Top Plug	6/20/2017	07:19:23	COM4	-7.00	13.43	0.00	Released plug witnessed by company rep
Event	13	Pump Displacement	Pump Displacement	6/20/2017	07:29:58	COM4	-20.00	7.92	0.00	Pumped 373bbl of fresh water treated with Bio-cide (Had issues pulling water due to trash getting stuck in screens)
Event	14	Bump Plug	Bump Plug	6/20/2017	08:38:37	COM4	2828.00	8.26	0.00	Bumped plug 500psi over final pump pressure
Event	15	Pressure Up Well	Pressure Up Well	6/20/2017	08:38:41	COM4	2832.00	8.26	0.00	Pressure up well to 3000psi for 15min

Event	16	Other	Other	6/20/2017	08:53:02	COM4	3163.00	8.26	0.00	Released pressure back to pump truck to check floats, floats held good 4.5bbl back
Event	17	Pressure Up Well	Pressure Up Well	6/20/2017	08:56:07	COM4	-21.00	8.22	0.00	Pressure up well to blow disc in plug 4687psi and pumped 3bbl for wet shoe
Event	18	End Job	End Job	6/20/2017	09:11:11	COM4	-22.00	8.22	0.00	4bbl of Spacer back to surface HOTC-10554.58 TOTC5538.42 HOLC775.01 Inside surface casing TOLC-1077.99

3.0 Attachments

3.1 Custom Results – Job Chart with Events

Custom Results



3.2 Custom Results – Job Chart without Events

Custom Results

