

Sold To #: 300466		Ship To #: 3765249		Quote #: 0022323509		Sales Order #: 0904133016				
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: Josh Johnson						
Well Name: BABCOCK		Well #: 32N-33HZ		API/UWI #: 05-123-43811-00						
Field: WATTENBERG		City (SAP): FIRESTONE		County/Parish: WELD		State: COLORADO				
Legal Description: SE NW-4-2N-67W-2138FNL-1950FWL										
Contractor: Precision				Rig/Platform Name/Num: Precision 464						
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066				Srcv Supervisor: Nathaniel Moore						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		12378ft		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	1853	0	1854
Casing		5.5	4.892	17	LTC	HCP110	0	12368	0	7240
Open Hole Section			7.875				1853	12378	1853	7240
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5		HES	
Float Shoe	5.5			12368		Bottom Plug	5.5		HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		HES	
Stage Tool	5.5					Centralizers	5.5		HES	
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Tuned Spacer III	Tuned Spacer III	60	bbl	10.5	6.43				
0.70 gal/bbl		MUSOL A, 330 GAL TOTE -- (790828)								
86.45 lbm/bbl		BARITE, BULK (100003681)								
37.58 gal/bbl		FRESH WATER								
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								

0.25 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	ElastiCem – Cap Cement	ELASTICEM™ SYSTEM	150	sack	13.2	1.57		6	7.53
7.52 Gal		FRESH WATER							
0.90 %		SCR-100 (100003749)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	ElastiCem	ELASTICEM™ SYSTEM	390	sack	13.2	1.57		6	7.54
0.10 %		SUPER CBL, 50 LB PAIL (100003668)							
0.35 %		SCR-100 (100003749)							
7.54 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	EconoCem	ECONOCEM™ SYSTEM	700	sack	13.5	1.68		6	7.98
8 Gal		FRESH WATER							
0.40 %		HR-5, 50 LB SK (100005050)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
5	Biocide Water and MMCR	Biocide Water and MMCR	20	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
6	Biocide Water	Biocide Water	272	bbl	8.34				
Cement Left In Pipe		Amount	93 ft		Reason			Shoe Joint	

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	6/30/2017	12:00:00	USER				OL time 1800. Verify equipment and materials
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/30/2017	17:00:00	USER				Sign in with customer. Spot in and rig up equipment. TD 12378' 7.875" hole. TP 12368' 5.5" 20# P-110. FC 12276'. TVD 7243'. Surface 1854' 9.625" 36#. MW 9.4 ppg. Water tested P 7 Chlorides <100 Sulfates <200 Temp 60 deg.
Event	3	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/30/2017	22:20:00	USER	29.00	8.50	0.00	Discuss job procedure with HES and rig crew
Event	4	Start Job	Start Job	6/30/2017	22:50:22	COM1	29.00	8.50	0.00	Fill lines 3 bbl water
Event	5	Test Lines	Test Lines	6/30/2017	22:55:53	COM1	4792.00	8.63	0.00	500 psi kickout test and 5000 psi pressure test
Event	6	Pump Spacer 1	Pump Spacer 1	6/30/2017	22:58:44	COM1	37.00	8.53	0.00	60 bbl tuned spacer 10.5 ppg 6.43 ft3/sk 41.3 gal/sk with surfactants
Event	7	Drop Bottom Plug	Drop Bottom Plug	6/30/2017	23:13:37	COM1	30.00	10.36	0.00	Drop bottom plug
Event	8	Pump Lead Cement	Pump Lead Cement	6/30/2017	23:15:59	COM1	166.00	10.25	6.90	150 sks/42 bbl ElastiCem lead without CBL 13.2 ppg 1.57 ft3/sk 7.53 gal/sk. Approx top 1124'.
Event	9	Pump Lead Cement	Pump Lead Cement	6/30/2017	23:21:58	COM1	602.00	13.27	7.60	390sks/109 bbl ElastiCem with CBL 13.2 ppg 1.57 ft3/sk 7.54 gal/sk. Approx top 2077'.

Event	10	Pump Tail Cement	Pump Tail Cement	6/30/2017	23:36:30	COM1	649.00	13.46	7.60	700 sks/209 bbl EconoCem Tail 13.5 ppg 1.68 t3/sk 7.98 gal/sk Approx top 5604'.
Event	11	Check Weight	Check weight	6/30/2017	23:37:17	COM1	748.00	13.58	7.60	13.5 ppg
Event	12	Shutdown	Shutdown	7/1/2017	00:05:41	COM1	150.00	13.38	0.00	Wash pumps and lines to tank. Blow down with rig air.
Event	13	Drop Top Plug	Drop Top Plug	7/1/2017	00:13:10	COM1	37.00	8.05	0.00	Witnessed by company rep
Event	14	Pump Displacement	Pump Displacement	7/1/2017	00:14:24	COM1	26.00	8.05	0.00	272 bbl water displacement with MMCR in first 20 bbl and biocide throughout.
Event	15	Other	Spacer to surface	7/1/2017	00:46:21	COM1	2194.00	8.30	3.00	260 bbl into displacement. 10 bbl back.
Event	16	Bump Plug	Bump Plug	7/1/2017	00:49:27	COM1	2461.00	8.30	0.00	2300 psi final circulating pressure. Pressured up to 2700 psi for 1 minute.
Event	17	Pressure Up Well	Pressure Up Well	7/1/2017	00:50:01	COM1	2464.00	8.30	0.00	3000 psi casing pressure test for 15 minutes.
Event	18	Other	Check floats.	7/1/2017	01:05:35	COM1	93.00	8.24	0.00	3 bbl back. Floats held
Event	19	End Job	End Job	7/1/2017	01:07:33	COM1	30.00	8.27	0.00	
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/1/2017	01:10:00	USER	48.00	8.26	0.00	
Event	21	Depart Location Safety Meeting	Depart Location Safety Meeting	7/1/2017	02:00:00	USER				
Event	22	Check Weight	Check Weight	7/1/2017	23:18:00	USER				13.2 ppg

3.0 Attachments

3.1 Anadarko Babcock 32N-33HZ Production

