

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 0003973767		Quote #: 0022643384		Sales Order #: 0906061812				
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: Steve Martinez						
Well Name: FARLEY			Well #: 23-2HZ			API/UWI #: 05-123-50191-00				
Field: WATTENBERG		City (SAP): PLATTEVILLE		County/Parish: WELD		State: COLORADO				
Legal Description: SW SW-23-3N-66W-656FSL-459FWL										
Contractor: AKITA DRLG				Rig/Platform Name/Num: AKITA 522						
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA/HX41066				Srv Supervisor: Michael Loughran						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type					BHST					
Job depth MD		11697ft			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	1830	0	1830
Casing		5.5	4.892	17	LTC	HCP110	0	11697	0	7157
Open Hole Section			7.875				1830	11704	1830	7157
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	3rd	
Float Shoe	5.5			11697		Bottom Plug	5.5	1	3rd	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5	1	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 Prime	TUNED PRIME CEMENT SPACER SYS	60	bbl	10.5	6.17		6		
1 lbm/bbl		FE-2, 2000 LB BAG - (1005549)								
90.94 lbm/bbl		BARITE, BULK (100003681)								

0.75 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)								
0.75 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
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	Tuned Prime (No Surfactants)	TUNED PRIME CEMENT SPACER SYS	55	bbl	10.5	6.19		6		
1 lbm/bbl		FE-2, 2000 LB BAG - (1005549)								
90.63 lbm/bbl		BARITE, BULK (100003681)								
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	Gasstop B1	GASSTOP (TM) SYSTEM	640	sack	13.2	1.56		8	7.61	
0.35 %		SCR-100, 2000 LB BAG - (1005967)								
5.23 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 (TM) SYSTEM	400	sack	13.5	1.69		8	8.08	
0.10 %		SA-1015, 50 LB SACK (102077046)								
8 Gal		FRESH WATER								
0.30 %		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			10		
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	252	bbl	8.34			10		
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe Joint		

Mix Water:	pH ##	Mix Water Chloride:	## ppm	Mix Water Temperature:	## °F °C
Cement Temperature:		Plug Displaced by:	8.33 lb/gal	Disp. Temperature:	
Plug Bumped?	Yes	Bump Pressure:	2800 psi	Floats Held?	Yes
Cement Returns:		Returns Density:		Returns Temperature:	
Comment Good returns throughout job, Plug bumped, 3 bbl wet shoe, Floats hold, 2 bbl back to pump truck. See spacer approx. 252 into displacement. Approx 20 bbl spacer to surface. Calculated TOLC 2045', TOTC 7799'					

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	10/24/2019	20:00:00	USER	Crew called out for on location time of 0230 hrs. 10/25/2019
Event	2	Crew Leave Yard	Crew Leave Yard	10/25/2019	00:30:00	USER	Crew leaves yard
Event	3	Arrive At Loc	Arrive At Loc	10/25/2019	01:20:00	USER	Arrive at location, Rig running casing, Meet with customer, TP 11697.32 17# HCP-110, TD 11704, 7.785 Hole, FC 11693.37, TVD 7157, PC 1830' 9.625 J-55 36#, WF 9.5 OBM, Top and Bottom plug provided by customer, Water 60 Deg., PH 7, Mix water Lead 4870 Tail 3232 Chlorides and sulfates less than 200 ppm
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/25/2019	01:30:00	USER	Pre rig up safety meeting
Event	5	Rig-Up Equipment	Rig-Up Equipment	10/25/2019	01:40:00	USER	Rig up all service lines and iron to buffer zone
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/25/2019	05:30:00	USER	Discuss job procedures, Discuss job hazards and hazards of Halliburton Equipment.
Event	7	Start Job	Start Job	10/25/2019	06:30:26	USER	Begin recording data
Event	8	Test Lines	Test Lines	10/25/2019	06:34:00	COM4	Test lines to 6500 psi

Event	9	Pump Spacer 1	Pump Spacer 1	10/25/2019	06:41:15	COM4	60 bbl. Tuned Prime Spacer with Surfactants, 45 gal Musol, 45 gal Dual spacer B, D-Air, 10.5 ppg, 6.17Yield, 39.6 gal/sack
Event	10	Pump Spacer 2	Pump Spacer 2	10/25/2019	06:52:53	COM4	55 bbl. Tuned Prime Spacer, 10.5 ppg, 6.17 Yield, 41.4 gal/sack
Event	11	Drop Bottom Plug	Drop Bottom Plug	10/25/2019	07:04:44	COM4	Verified by Steve
Event	12	Pump Lead Cement	Pump Lead Cement	10/25/2019	07:05:29	COM4	640 sacks GasStop Lead cement, 177.82 bbl., 13.2 ppg, 1.56 yield, 7.61 gal/sack, 1600 gal FDP-C1334-18, 4820 mix gal
Event	13	Pump Tail Cement	Pump Tail Cement	10/25/2019	07:29:57	COM4	400 sacks EconoCem Tail Cement, 13.5 ppg, 1.69 yield, 8.08 gal/sack, 3232 mix gal
Event	14	Shutdown	Shutdown	10/25/2019	07:49:00	COM4	Shutdown to wash pumps and lines
Event	15	Drop Top Plug	Drop Top Plug	10/25/2019	07:58:31	COM4	Verified by Steve
Event	16	Pump Displacement	Pump Displacement	10/25/2019	07:58:35	COM4	272 bbl. fresh water displacement. 10 gallons Micro Matrix retarder in first 20 bbl., Customer supplied Biocide throughout displace
Event	17	Bump Plug	Bump Plug	10/25/2019	08:34:33	COM4	Bump pressure 2800 psi. See spacer approx. 252 bbl. into displace. approx. 20 bbl. spacer to surface Approx. TOLC 2045', TOTC 7799'

Event	18	Other	Other	10/25/2019	08:47:44	COM4	Pressure up to 4570 psi to shift sleeve and pump 3 bbl. wet shoe.
Event	19	Other	Other	10/25/2019	08:49:32	COM4	Check floats, 2 bbl. back to pump truck, Floats hold
Event	20	End Job	End Job	10/25/2019	08:52:23	COM4	Stop recording data
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/25/2019	09:00:00	USER	JSA safe Rig-Down
Event	22	Rig-Down Equipment	Rig-Down Equipment	10/25/2019	09:10:00	USER	Rig down equipment
Event	23	Crew Leave Location	Crew Leave Location	10/25/2019	11:00:00	USER	Thanks for choosing Halliburton Energy Services!

3.0 Attachments

3.1 Job Chart



