

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3904823	Quote #: 0022543604	Sales Order #: 0905469611
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: Carlton Cooley	
Well Name: REESE		Well #: 21-7HZ	API/UWI #: 05-123-47868-00
Field: WATTENBERG	City (SAP): FIRESTONE	County/Parish: WELD	State: COLORADO
Legal Description: SW NW-21-2N-67W-2065FNL-382FWL			
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 464	
Job BOM: 7523 7523			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Thomas Haas	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	15883ft	Job Depth TVD	7568
Water Depth		Wk Ht Above Floor	5
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	0	9.625	8.921	36		J-55	0	1875	0	1875
Casing	0	5.5	4.892	17	LTC	HCP110	0	15883	0	7568
Open Hole Section			7.875				1875	15889	1875	7568

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	5.5	1	W.F.
Float Shoe	5.5	1	W.F.	15883	Bottom Plug	5.5	1	W.F.
Wet Shoe Sub	5.5	1	W.F.	15869	SSR plug set			
Insert Float					Plug Container	5.5	1	HES
Stage Tool					Centralizers			

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	80	bbl	10.5	6.18	39.7	6	3176	
0.75 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.25 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)								
89.91 lbm/bbl		BARITE, BULK (100003681)								

0.75 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)							
37.58 gal/bbl		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
2	Gasstop B1	GASSTOP (TM) SYSTEM	640	sack	13.2	1.56	7.61	8	4870
0.90 %		SCR-100 (100003749)							
5.01 Gal		FRESH WATER							
0.10 Gal		D-AIR 3000L, TOTETANK (101396181)							
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	EconoCem	ECONOCEM (TM) SYSTEM	860	sack	13.5	1.68	7.99	8	6871
0.10 %		SA-1015, 50 LB SACK (102077046)							
7.99 Gal		FRESH WATER							
0.33 %		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
4	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
5	Biocide Water	Biocide Water	348	bbl	8.34				
Cement Left In Pipe	Amount	N/A			Reason Wet Shoe			Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride: <300 ppm			Mix Water Temperature:			64 °F	
Cement Temperature:	N/A	Plug Displaced by: 8.33 lb/gal F.W.			Disp. Temperature:			48 °F	
Plug Bumped?	Yes	Bump Pressure: 2100 psi			Floats Held?			Yes	
Cement Returns:	N/A	Returns Density: N/A			Returns Temperature:			N/A	
Comment Plug bumped at calculated displacement, final circulating pressure of 2100 psi, 10 min casing test at 3200 psi, wet shoe sub shifted at 5100 psi, 3 bbl wet shoe, floats held, 2 bbl back, nothing returned to surface.									

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	2/8/2019	14:00:00	USER	CREW CALLED OUT AT 14:00 2/8/2019, REQUESTED ON LOCATION 19:30 2/8/2019. CREW PICKED UP CEMENT, CHEMICALS (60 GAL MUSOL A, 60 GAL DUAL SPACER B, 84 GAL D-AIR, 10 GAL MMCR, 1600 GAL FDP LATEX), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 11688508/10784082, AIR 660: 11688524/10867521; CHEMICAL TRUCK: 12498388/12051659, PUMP ELITE; 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/8/2019	19:15:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	2/8/2019	19:30:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	2/8/2019	20:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1875', CASING: 5.5" 17# @ 15883', 14' SHOE JOINT, 7.875" OPEN HOLE, TVD @ 7568', 9.4 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/8/2019	20:05:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	2/8/2019	20:10:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/9/2019	00:30:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	2/9/2019	01:11:58	COM4	START JOB DATA RECORDING.

Event	9	Test Lines	Test Lines	2/9/2019	01:13:41	COM4	PRESSURE TESTED IRON TO 6500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 800 PSI, 5TH GEAR STALL OUT @ 1900 PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	2/9/2019	01:20:57	COM4	PUMP 80 BBLS OF TUNED SPACER @ 10.5 LB/GAL, ADDED 60 GAL MUSOL A, 60 GAL DUAL SPACER B, 20 GAL D-AIR, .8 GAL BIOCID, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Drop Bottom Plug	Drop Bottom Plug	2/9/2019	01:31:50	COM4	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	12	Pump Lead Cement	Pump Lead Cement	2/9/2019	01:43:21	COM4	PUMP 640 SKS OF GASSTOP @ 13.2 LB/GAL, 1.56 YIELD, 7.71 GAL/SK, 177.8 BBLS, CALCULATED TOL @ 1827', MIX WATER MIXED WITH 1600 GAL OF LATEX AND 15 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Tail Cement	Pump Tail Cement	2/9/2019	02:07:05	COM4	PUMP 860 sks or 257.3 bbls OF ECONOCEM @ 13.5 LB/GAL, 1.68 YIELD, 7.98 GAL/SK, 257.3 BBLS, CALCULATED TOT @ 7556', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Shutdown	Shutdown	2/9/2019	02:35:33	USER	SHUTDOWN DUE TO BULK DELIVERY ISSUE.
Event	15	Shutdown	Shutdown	2/9/2019	02:51:28	COM4	SHUTDOWN TO CLEAN PUMPS/LINES AND DROP TOP PLUG.
Event	16	Drop Top Plug	Drop Top Plug	2/9/2019	03:01:23	COM4	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	17	Pump Displacement	Pump Displacement	2/9/2019	03:01:44	COM4	BEGIN CALCULATED DISPLACEMENT OF 368 BBLS WITH FRESH WATER. MMCR AND BIOCID ADDED TO 1ST 20 BBLS. BIOCID ADDED THROUGH REST OF DISPLACEMENT.
Event	18	Bump Plug	Bump Plug	2/9/2019	03:52:58	COM4	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 2100 PSI. NOTHING RETURNED TO SURFACE.
Event	19	Other	Casing Test	2/9/2019	03:54:15	USER	10 MIN CASING TEST AT 3200 PSI.

Event	20	Other	Shift Tool	2/9/2019	04:03:51	USER	PRESSURE UP TO SHIFT WET SHOE SLEEVE, TOOL SHIFTED AT 5100 PSI.
Event	21	Other	Wet Shoe	2/9/2019	04:04:59	USER	PUMP 3BBL WET SHOE.
Event	22	Check Floats	Check Floats	2/9/2019	04:05:54	USER	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 2 BBL BACK.
Event	23	End Job	End Job	2/9/2019	04:07:03	COM4	END JOB DATA RECORDING.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/9/2019	04:10:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Completed	Rig-Down Completed	2/9/2019	05:00:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/9/2019	05:15:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	2/9/2019	05:30:00	USER	THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Job Chart

