

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3912352		Quote #:		Sales Order #: 0905710497				
Customer: NOBLE ENERGY INC-EBUS						Customer Rep: Jim Turner				
Well Name: WELLS RANCH STATE				Well #: AA36-622		API/UWI #: 05-123-48188-00				
Field: WATTENBERG		City (SAP): GILL		County/Parish: WELD		State: COLORADO				
Legal Description: NW SW-32-6N-62W-2009FSL-817FWL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321						
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB31357				Srv Supervisor: Thomas Haas						
Job										
Formation Name										
Formation Depth (MD)		Top				Bottom				
Form Type				BHST		230 degF				
Job depth MD		16982ft		Job Depth TVD		6542				
Water Depth				Wk Ht Above Floor		4				
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			0	1922	0	1922
Casing	0	5.5	4.892	17			0	16982	0	6542
Open Hole Section			8.5				1922	6901	1922	6542
Open Hole Section			8.5				6901	17000	0	6542
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
						Top Plug	5.5	1	HES	
Float Shoe	5.5	1	HES	16982		Bottom Plug	5.5	2	HES	
Float Collar	5.5	1	HES	16935						
						Plug Container	5.5	1	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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	120	bbl	11.5	3.79	23.5	6	4183	
0.60 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)								

iCem® Service
(v. 5.1.101.0)
Printed: Monday, June 03, 2019

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	5/23/2019	11:00:00	USER	CREW CALLED OUT AT 11:00 5/23/2019, REQUESTED ON LOCATION 17:00 5/23/2019. CREW PICKED UP CEMENT, CHEMICALS (70 GAL MUSOL A, 70 GAL DUAL SPACER B, 10 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 11071503/12649238, BULK 660: 11138996/11633848, PUMP ELITE 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/23/2019	15:15:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	5/23/2019	15:30:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	5/23/2019	17:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1922', CASING: 5.5" 17# @ 16982', 47' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6542', 9.5 PPG WELL FLUID, FRESH WATER DISPLACEMENT.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/23/2019	17:10:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	5/23/2019	17:20:00	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	5/23/2019	20:30:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	5/23/2019	20:59:31	COM4	START JOB DATA RECORDING.
Event	9	Drop Bottom Plug	Drop Bottom Plug	5/23/2019	21:00:45	USER	BOTTOM PLUG WAS LOADED DIRECTLY INTO LANDING JOINT BY COMPANY MAN.
Event	10	Test Lines	Test Lines	5/23/2019	21:02:37	COM4	PRESSURE TESTED IRON TO 4500I. KICKOUTS SET @ 500 PSI, KICKED OUT @ 800 PSI, 5TH GEAR STALL OUT @ 1900 PSI.
Event	11	Test Lines	Test Lines	5/23/2019	21:08:21	USER	TESTED IBOP TO 2150 PSI.
Event	12	Pump Spacer 1	Pump Spacer 1	5/23/2019	21:12:22	COM4	PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, ADDED 70 GAL MUSOL A, 70 GAL DUAL SPACER B, 10 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	5/23/2019	21:36:02	COM4	SHUTDOWN TO DROP BOTTOM PLUG.

Event	14	Drop Bottom Plug	Drop Bottom Plug	5/23/2019	21:36:16	COM4	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT BY COMPANY MAN.
Event	15	Pump Cap Cement	Pump Cap Cement	5/23/2019	21:39:16	COM4	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.04 GAL/SK, 41.9 BBLS, CALCULATED TOC @ 2453', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Pump Lead Cement	Pump Lead Cement	5/23/2019	21:44:58	COM4	PUMP 467 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.06 GAL/SK, 139.7 BBLS, CALCULATED TOL @ 3480', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	5/23/2019	22:02:36	COM4	PUMP 1132 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.75 GAL/SK, 411.3 BBLS, CALCULATED TOT @ 6901', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Shutdown	Shutdown	5/23/2019	22:57:02	COM4	SHUTDOWN TO CLEAN PUMPS/LINES AND DROP TOP PLUG.
Event	19	Drop Top Plug	Drop Top Plug	5/23/2019	23:08:56	COM4	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT BY COMPANY MAN.
Event	20	Pump Displacement	Pump Displacement	5/23/2019	23:08:59	COM4	BEGIN CALCULATED DISPLACEMENT 393 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, 15 GAL BIOCIDES THROUGHOUT THE REST.

Event	21	Bump Plug	Bump Plug	5/24/2019	00:00:07	USER	PLUG BUMPED AT CALCULATED DISPLACEMENT. FINAL CIRCULATING PRESSURE OF 1850 PSI. TRACES OF SPACER TO SURFACE. RIG COULD NOT LAND CASING AFTER RECIPRICATIONG, AND ROTATING. HALLIBURTON SUGGESTED HOLDING 8 HRS BEFORE RIGING DOWN.
Event	22	Other	Casing Test	5/24/2019	00:01:05	USER	10 MIN CASING TEST AT 2500 PSI.
Event	23	Check Floats	Check Floats	5/24/2019	00:25:20	USER	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 4.5 BBL BACK.
Event	24	End Job	End Job	5/24/2019	00:32:07	COM4	END JOB DATA RECORDING.
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/24/2019	00:40:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	26	Rig-Down Completed	Rig-Down Completed	5/24/2019	01:30:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/24/2019	01:45:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	28	Crew Leave Location	Crew Leave Location	5/24/2019	02:00:00	USER	THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Job Chart

