

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3919214		Quote #:		Sales Order #: 0905976369				
Customer: NOBLE ENERGY INC-EBUS				Customer Rep: Jim Turner						
Well Name: GUTTERSEN			Well #: D25-762		API/UWI #: 05-123-48631-00					
Field: WATTENBERG		City (SAP): KEENESBURG		County/Parish: WELD		State: COLORADO				
Legal Description: SE NW-25-3N-64W-1401FNL-1956FWL										
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		17636ft		Job Depth TVD		6687				
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			0	1926	0	1926
Casing	0	5.5	4.892	17			0	17636	0	6687
Open Hole Section			8.5				1926	17654	1926	6687
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	17636		Bottom Plug	5.5	2	HES	
Float Collar	5.5	1	HES	17588						
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 Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	120	bbl	11.5	3.84	24.3	6	4265	
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	ELASTICEM (TM) SYSTEM	140	sack	13.2	1.68	8.03	8	1124	
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 w/ SCBL	ELASTICEM (TM) SYSTEM	464	sack	13.2	1.67	8.04	8	3730	
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	NeoCem NT1	NeoCem TM	1216	sack	13.2	2.04	9.79	8	11905	
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	Displacement	Displacement	20	bbl	8.33					
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	Displacement	Displacement	388	bbl	8.33					
Cement Left In Pipe		Amount	48 ft		Reason			Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride:			<300 ppm		Mix Water Temperature:		65 °F
Cement Temperature:		N/A	Plug Displaced by:			8.33 lb/gal F.W.		Disp. Temperature:		65 °F
Plug Bumped?		Yes	Bump Pressure:			1870 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 1870 psi, 5 min casing test at 2400 psi, floats held, 4.5 bbl back. 14 bbl of spacer to surface.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	9/17/2019	11:00:00	USER				CREW CALLED OUT AT 11:00 9/17/2019, REQUESTED ON LOCATION 16:00 9/17/2019. CREW PICKED UP CEMENT, CHEMICALS (70 GAL DUAL SPACER B, 70 GAL MUSOL-A, 40 GAL D-AIR, 10 GAL MMCR, 6 LBS BE-3), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 11027125/10866799, BULK 660: 11027117/10867098, PUMP ELITE 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/17/2019	13:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	9/17/2019	14:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	9/17/2019	15:00:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1926', CASING: 5.5" 17# @ 17636', 48' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6687', 9.5 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	9/17/2019	15:10:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	9/17/2019	15:20:00	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	9/17/2019	17:00:00	USER				MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	9/17/2019	21:11:50	COM4	8.52	0.00	-3.00	START JOB DATA RECORDING.
Event	9	Drop Bottom Plug	Drop Bottom Plug	9/17/2019	21:12:07	USER	8.53	0.00	-1.00	PLUG LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.

Event	10	Test Lines	Test Lines	9/17/2019	21:15:50	COM4	8.15	0.00	52.00	KICKOUTS SET @ 500 PSI, KICKED OUT @ 551PSI, 5TH GEAR STALL OUT @ 2100 PSI. PRESSURE TESTED IRON TO 4800, KICKED OUT @ 4700.
Event	11	Pump Spacer 1	Pump Spacer 1	9/17/2019	21:22:55	COM4	8.18	0.00	45.00	PUMP 120 BBLs OF TUNED SPACER @ 11.5 LB/GAL, ADDED 25 GAL D-AIR, 70 GAL DUAL SPACER B, 70 GAL MUSOL, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Shutdown	Shutdown	9/17/2019	21:45:36	COM4	11.43	0.00	41.00	SHUTDOWN TO DROP BOTTOM PLUG.
Event	13	Drop Bottom Plug	Drop Bottom Plug	9/17/2019	21:48:00	COM4	11.43	0.00	41.00	BOTTOM PLUG LOADED INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	14	Pump Cement	Pump Cap Cement	9/17/2019	21:48:04	COM4	11.43	0.00	41.00	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.03 GAL/SK, 41.9 BBLs, CALCULATED TOC @ 2426', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Pump Lead Cement	Pump Lead Cement	9/17/2019	21:54:04	COM4	13.32	8.30	578.00	PUMP 464 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.04 GAL/SK, 138 BBLs, CALCULATED TOL @ 3453', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Pump Tail Cement	Pump Tail Cement	9/17/2019	22:11:20	COM4	13.15	8.50	556.00	PUMP 1216 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.79 GAL/SK, 441.8 BBLs, CALCULATED TOT @ 6835', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Shutdown	Shutdown	9/17/2019	23:09:48	COM4	13.38	0.20	216.00	SHUTDOWN TO DROP TOP PLUG, WASH PUMPS/LINES.
Event	18	Drop Top Plug	Drop Top Plug	9/17/2019	23:19:48	COM4	7.66	0.00	4.00	TOP PLUG WAS LOADED INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	19	Pump Displacement	Pump Displacement	9/17/2019	23:19:50	COM4	7.82	0.00	4.00	BEGIN CALCULATED DISPLACEMENT 408 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, 20 GAL BIOCID TROUGH OUT THE REST.
Event	20	Bump Plug	Bump Plug	9/18/2019	00:07:12	COM4	8.37	0.00	2369.00	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 1870 PSI. 14 BBL OF SPACER TO SURFACE.
Event	21	Other	Casing Test	9/18/2019	00:07:34	USER	8.36	0.00	2419.00	5 MIN CASING TEST AT 2400 PSI.
Event	22	Check Floats	Check Floats	9/18/2019	00:11:58	USER	8.36	0.00	2502.00	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 4.5 BBL BACK.
Event	23	End Job	End Job	9/18/2019	00:15:18	COM4	8.29	0.00	5.00	END JOB DATA RECORDING

Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	9/18/2019	00:20:00	USER	8.20	0.00	5.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Completed	Rig-Down Completed	9/18/2019	01:00:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/18/2019	01:20:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	9/18/2019	01:30:00	USER				THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Guttersen D25-762 Production – Job Chart

