

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 3918999		<b>Quote #:</b>		<b>Sales Order #:</b> 0906058647					
<b>Customer:</b> NOBLE ENERGY INC-EBUS						<b>Customer Rep:</b> Dave Nielson					
<b>Well Name:</b> GUTTERSEN STATE				<b>Well #:</b> DD30-785		<b>API/UWI #:</b> 05-123-48659-00					
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> KEENESBURG		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO					
<b>Legal Description:</b> SE SW-30-3N-63W-451FSL-2501FWL											
<b>Contractor:</b> H & P DRLG				<b>Rig/Platform Name/Num:</b> H & P 321							
<b>Job BOM:</b> 7523 7523											
<b>Well Type:</b> HORIZONTAL OIL											
<b>Sales Person:</b> HALAMERICA\HB31357				<b>Srv Supervisor:</b> Thomas Haas							
<b>Job</b>											
<b>Formation Name</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>				<b>Bottom</b>					
<b>Form Type</b>				<b>BHST</b>		230 degF					
<b>Job depth MD</b>		17100ft		<b>Job Depth TVD</b>		6770					
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>		4'					
<b>Perforation Depth (MD)</b>		<b>From</b>				<b>To</b>					
<b>Well Data</b>											
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>	
Casing	0	9.625	8.921	36			0	1928	0	1928	
Casing	0	5.5	4.892	17			0	17100	0	6770	
Open Hole Section			8.5				1928	17119	1928	6770	
<b>Tools and Accessories</b>											
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>		
						<b>Top Plug</b>	5.5	1	HES		
<b>Float Shoe</b>	5.5	1	HES	17100		<b>Bottom Plug</b>	5.5	2	HES		
<b>Float Collar</b>	5.5	1	HES	17052							
						<b>Plug Container</b>	5.5	1	HES		
						<b>Centralizers</b>	5.5	192	HES		
<b>Fluid Data</b>											
<b>Stage/Plug #:</b> 1											
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>			<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS			120	bbl	11.5	3.87	24.5	8	4265
1 lbm/bbl		<b>FE-2, 2000 LB BAG - (1005549)</b>									
145.09 lbm/bbl		<b>BARITE, BULK (100003681)</b>									

3.50 lbm/bbl		SEM-94P, 35 LB SACK - (1023987)							
3.50 lbm/bbl		SEM-93P, 35 LB SACK - (1023977)							
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	1.67	8.04	8	1126
0.40 %		SCR-100, 2000 LB BAG - (1005967)							
8.06 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
3	ElastiCem w/ SCBL	ELASTICEM (TM) SYSTEM	533	sack	13.2	1.67	8.04	8	4285
0.27 %		SCR-100, 2000 LB BAG - (1005967)							
8.07 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	NeoCem NT1	NeoCem TM	1102	sack	13.2	2.04	9.79	8	10788
0.08 %		FE-2, 2000 LB BAG - (1005549)							
9.69 Gal		FRESH WATER							
0.08 %		SCR-100, 2000 LB BAG - (1005967)							
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	396	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:	67 °F		
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal F.W.			Disp. Temperature:	59 °F		
Plug Bumped?	Yes	Bump Pressure:	2250 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 2250 psi, 5 min casing test at 2800 psi, floats held 5 bbl back. 10 bbl of interface 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)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	11/4/2019	01:30:00	USER					CREW CALLED OUT AT 1:30 11/4/2019, REQUESTED ON LOCATION 6:00 11/4/2019. CREW PICKED UP CEMENT, CHEMICALS (20 GAL D-AIR, 10 GAL MMCR, 3 LBS BE-3), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 11255351/10784082, BULK 660: 11532305/11633848, PUMP ELITE: 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/4/2019	04:15:00	USER					DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	11/4/2019	04:30:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	11/4/2019	05:00:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1928', CASING: 5.5" 17# @ 17100', 48' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6770', 9.4 PPG WELL FLUID, FRESH WATER DISPLACEMENT.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/4/2019	06:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	11/4/2019	06:10:00	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	11/4/2019	08:00:00	USER	8.52	0.00	-21.00	10.90	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	11/4/2019	09:10:26	COM4	8.69	0.00	-26.00	0.00	START JOB DATA RECORDING.
Event	9	Drop Bottom Plug	Drop Bottom Plug	11/4/2019	09:11:00	USER	8.63	0.40	-25.00	0.00	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT.
Event	10	Test Lines	Test Lines	11/4/2019	09:13:36	COM4	9.19	0.00	79.00	4.20	KICKOUTS SET @ 500 PSI, KICKED OUT @ 850 PSI, 5TH GEAR STALL OUT @ 1850 PSI. PRESSURE TESTED IRON TO 4700.
Event	11	Test Lines	Test Lines	11/4/2019	09:16:18	COM4	9.09	0.00	31.00	4.20	TEST I-BOP TO 2000 PSI.
Event	12	Pump Spacer 1	Pump Spacer 1	11/4/2019	09:18:54	COM4	9.08	0.00	37.00	0.00	PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, ADDED 30 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	11/4/2019	09:43:41	COM4	10.57	0.00	23.00	129.90	SHUTDOWN TO DROP BOTTOM PLUG.
Event	14	Drop Bottom Plug	Drop Bottom Plug	11/4/2019	09:43:53	COM4	10.58	0.00	18.00	129.90	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT.

Event	15	Pump Cap Cement	Pump Cap Cement	11/4/2019	09:47:42	COM4	10.52	0.00	15.00	129.90	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.67 YIELD, 8.04 GAL/SK, 41.6 BBLS, CALCULATED TOC @ 2381', DENSITY VERIFIED BY PRESSURIZED MUD SCALES. ADDED 10 GAL OF D-AIR.
Event	16	Pump Lead Cement	Pump Lead Cement	11/4/2019	09:55:30	COM4	13.39	8.00	476.00	0.10	PUMP 533 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.04 GAL/SK, 158.5 BBLS, CALCULATED TOL @ 3401', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	11/4/2019	10:15:29	COM4	13.18	8.40	475.00	167.80	PUMP 1102 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.79 GAL/SK, 400.4 BBLS, CALCULATED TOT @ 7286, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Other	Mixing System	11/4/2019	10:25:22	USER	13.11	8.30	608.00	81.70	CEMENT HEAD ON MIXING SYSTEM BECAME STUCK, SLOWED RATE AND WAS ABLE TO FREE IT.
Event	19	Shutdown	Shutdown	11/4/2019	11:09:41	USER	13.37	0.00	120.00	414.50	SHUTDOWN TO CLEAN PUMPS/LINES AND DROP TOP PLUG.
Event	20	Drop Top Plug	Drop Top Plug	11/4/2019	11:18:52	COM4	4.98	0.00	-26.00	426.60	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT.
Event	21	Pump Displacement	Pump Displacement	11/4/2019	11:18:57	COM4	4.73	0.00	-26.00	0.00	BEGIN CALCULATED DISPLACEMENT 396 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, 3 LBS OF BE-3 THROUGH OUT THE REST.

Event	22	Bump Plug	Bump Plug	11/4/2019	12:09:40	COM4	8.21	0.00	2783.00	398.20	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 2250 PSI.
Event	23	Other	Casing Test	11/4/2019	12:10:02	USER	8.21	0.00	2789.00	398.20	5 MIN CASING TEST AT 2800 PSI.
Event	24	Other	Check Floats	11/4/2019	12:14:37	USER	8.18	0.00	2869.00	398.20	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 5 BBL BACK.
Event	25	End Job	End Job	11/4/2019	12:16:47	COM4	8.15	0.00	-20.00	0.00	END JOB DATA RECORDING.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/4/2019	12:20:00	USER	8.14	9.20	153.00	6.80	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	27	Rig-Down Completed	Rig-Down Completed	11/4/2019	13:00:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/4/2019	13:20:00	USER					DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	29	Crew Leave Location	Crew Leave Location	11/4/2019	13:30:00	USER					THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

## 3.0 Attachments

### 3.1 Noble Production-Custom Results.png

