

*The Road to Excellence Starts with Safety*

Sold To #: 345242		Ship To #: 3919020		Quote #:		Sales Order #: 0906609771					
Customer: NOBLE ENERGY INC-EBUS				Customer Rep: Jim Turner							
Well Name: GUTTERSEN			Well #: YY06-766			API/UWI #: 05-123-48643-00					
Field: WATTENBERG		City (SAP): ROGGEN		County/Parish: WELD		State: COLORADO					
Legal Description: SESW-30-3N-63W-600FSL-2577FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 517							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX41066				Srvc Supervisor: Michael Loughran							
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type				BHST		220 degF					
Job depth MD		17342.7ft		Job Depth TVD		6718					
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			0	1933	0	1933	
Casing		5.5	4.892	17			0	17342.7	0	6718	
Open Hole Section			8.5				1933	17354	1933	6718	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Float Shoe	5.5			17342.7		Top Plug	5.5	1	HES		
Float Collar	5.5			17294.7		Bottom Plug	5.5	2	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 Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS			120	bbl	11.5	3.87		8	
1 lbm/bbl		FE-2, 2000 LB BAG - (1005549)									
4 lbm/bbl		SEM-94P, 35 LB SACK - (1023987)									
4 lbm/bbl		SEM-93P, 35 LB SACK - (1023977)									
145.0780 lbm/bbl		BARITE, BULK (100003681)									
0.333330 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)									

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	1.65		8	8.4
0.38 %		SCR-100, 1200 LB BAG - (1126328)							
8.40 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	480	sack	13.2	1.67		8	8.03
0.30 %		SCR-100, 1200 LB BAG - (1126328)							
8.03 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	1164	sack	13.2	2.04		8	9.79
0.07 %		SCR-100, 1200 LB BAG - (1126328)							
0.07 %		FE-2, 2000 LB BAG - (1005549)							
9.79 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
5	Displacement	Displacement	421	bbl	8.33			10	
Cement Left In Pipe		Amount	48 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		Less 200 ppm		Mix Water Temperature:		75 °F
Cement Temperature:			Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		
Plug Bumped?		Yes	Bump Pressure:		2080 psi		Floats Held?		Yes
Cement Returns:			Returns Density:				Returns Temperature:		
Comment Spacer/OBM interface to surface. 5 bbls back to pump truck									

## 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	7/20/2020	06:30:00	USER					CREW CALLED OUT AT 0630, REQUESTED ON LOCATION 1230.
Event	2	Crew Leave Yard	Crew Leave Yard	7/20/2020	10:00:00	USER					CREW LEAVES YARD
Event	3	Arrive At Loc	Arrive At Loc	7/20/2020	11:30:00	USER					MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1933', 5.5" CASING: 17 LB/FT TOTAL 17,342.7', 8.5" HOLE, TD 17,354', 48' SHOE TRAC, TVD- 6,718'. PUMP TREATED WATER DISPLACEMENT WITH MMCR FIRST 20 BBLS.
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/20/2020	12:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/20/2020	15:36:00	USER	8.35	0.00	19.00	0.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	6	Start Job	Start Job	7/20/2020	15:47:53	COM6	8.35	0.00	18.00	0.00	BEGIN RECORDING DATA

Event	7	Test Lines	Test Lines	7/20/2020	15:50:15	COM6	7.91	0.00	74.00	2.50	TEST LINES TO 4500 PSI/TEST IBOP TO 1500 PSI
Event	8	Drop Plug	Drop Plug	7/20/2020	15:56:50	COM6	8.01	0.00	47.00	3.40	BOTTOM PLUG VERIFIED BY DAVE
Event	9	Pump Spacer 1	Pump Spacer 1	7/20/2020	15:57:19	COM6	7.98	0.90	53.00	3.60	PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, 3.87 FT3/SK, 24.42 GAL/SK. USED 40 GALLONS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBL
Event	10	Shutdown	Shutdown	7/20/2020	16:12:39	COM6	11.81	0.00	117.00	123.30	SHUTDOWN TO DROP 2ND BOTTOM PLUG
Event	11	Drop Plug	Drop Plug	7/20/2020	16:15:57	COM6	11.83	0.00	59.00	123.30	BOTTOM PLUG VERIFIED BY DAVE
Event	12	Pump Cap Cement	Pump Cap Cement	7/20/2020	16:16:18	COM6	11.83	0.00	60.00	123.30	PUMPED CAP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.65 FT3/SK, 8.38 GAL/SK. 41.14 BBLS, HOCAP CALCULATED @ 1,008.33', TOCAP CALCULATED @ 2,496.41. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8.5 BBLS/MIN

Event	13	Pump Lead Cement	Pump Lead Cement	7/20/2020	16:22:00	COM6	13.22	8.70	660.00	46.30	PUMPED 480 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.67 FT3/SK, 8.03 GAL/SK. 142.76 BBLS, HOL CALCULATED @ 3,499.02', TOL CALCULATED @ 3,504.44'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8.5 BBLS/MIN
Event	14	Pump Tail Cement	Pump Tail Cement	7/20/2020	16:40:22	COM6	13.13	8.70	562.00	0.10	PUMP 1164 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 FT3/SK, 9.79 GAL/SK, 422.91 BBLS. HOT CALCULATED @ 10,338.24', TOT CALCULATED @ 7004.46'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN
Event	15	Shutdown	Shutdown	7/20/2020	17:35:45	COM6	12.83	0.00	217.00	450.70	SHUTDOWN TO WASH PUMPS AND LINES WITH FRESH WATER
Event	16	Drop Top Plug	Drop Top Plug	7/20/2020	17:46:47	COM6	8.34	6.10	191.00	16.50	TOP PLUG VERIFIED BY DAVE
Event	17	Pump Displacement	Pump Displacement	7/20/2020	17:50:01	COM6	8.40	0.00	46.00	0.00	401.2 BBL CHEMICAL TREATED DISPLACEMENT. 10 GALLONS MICRO MATRIX RETARDER IN FIRST 20 BBLS

Event	18	Bump Plug	Bump Plug	7/20/2020	18:34:46	COM6	8.57	0.00	2661.00	405.10	FINAL CIRCULATING PRESSURE 2080 PSI@4BPM. BUMP PRESSURE 2670 PSI. SPACER / OBM INTERFACE TO SURFACE.
Event	19	Other	Other	7/20/2020	18:39:31	COM6	8.59	0.00	2757.00	405.10	RELEASE PRESSURE TO CHECK FLOATS, FLOATS HOLD. 5 BBL BACK TO PUMP TRUCK
Event	20	End Job	End Job	7/20/2020	18:42:35	COM6	8.56	0.00	21.00	0.00	STOP RECORDING DATA
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/20/2020	18:45:00	USER					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	22	Rig-Down Equipment	Rig-Down Equipment	7/20/2020	18:50:00	USER					RIG DOWN BULK AND MIXING EQUIPMENT
Event	23	Rig-Up Equipment	Rig-Up Equipment	7/20/2020	21:00:00	USER					CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	24	Rig-Down Completed	Rig-Down Completed	7/20/2020	21:57:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	25	Crew Leave Location	Crew Leave Location	7/20/2020	22:00:00	USER					THANK YOU FOR USING HALLIBURTON – MIKE LOUGHRAN AND CREW.

3.0 Attachments

3.1 Job Chart

