

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3918999	Quote #:	Sales Order #: 0906058647
Customer: NOBLE ENERGY INC-EBUS		Customer Rep: Dave Nielson	
Well Name: GUTTERSEN STATE		Well #: DD30-785	API/UWI #: 05-123-48659-00
Field: WATTENBERG	City (SAP): KEENESBURG	County/Parish: WELD	State: COLORADO
Legal Description: SE SW-30-3N-63W-451FSL-2501FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 321	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB31357		Srvc Supervisor: Thomas Haas	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST 230 degF
Job depth MD	17100ft		Job Depth TVD 6770
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	1928	0	1928
Casing	0	5.5	4.892	17			0	17100	0	6770
Open Hole Section			8.5				1928	17119	1928	6770

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	17100	Bottom Plug	5.5	2	HES
Float Collar	5.5	1	HES	17052				
					Plug Container	5.5	1	HES
					Centralizers	5.5	192	HES

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 Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	120	bbl	11.5	3.87	24.5	8	4265
	1 lbm/bbl	FE-2, 2000 LB BAG - (1005549)							
	145.09 lbm/bbl	BARITE, BULK (100003681)							

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 ft ³ /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 ft ³ /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 ft ³ /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 ft ³ /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 <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	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, RECEIVED 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

