

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3925793		Quote #:		Sales Order #: 0906850233				
Customer: NOBLE ENERGY INC-EBUS					Customer Rep: Dave Nielson					
Well Name: GUTTERSEN			Well #: D09-775			API/UWI #: 05-123-48950-00				
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD			State: COLORADO			
Legal Description: SE SW-33-4N-64W-468FSL-1472FWL										
Contractor: H & P DRLG					Rig/Platform Name/Num: H & P 517					
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX41066					Srvc Supervisor: Joseph Fantasia					
Job										
Form Type				BHST		220 degF				
Job depth MD		17313ft		Job Depth TVD		6741				
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	17313	0	6814
Open Hole Section			8.5				1928	17313	1928	6814
Centralizers: 112-8" 93-8.5" = 205										

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	TUNED PRIME CEMENT SPACER	120	bbl	11.5	3.7				
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	1.6	7.63	8	1068	
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	703	sack	13.2	1.67	8.03	8	5645	
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	1164	sack	13.2	2.04	9.79	8	11396	
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	401	bbl	8.33					
Cement Left In Pipe	Amount	47 ft			Reason	Shoe Joint				
Mix Water:	pH 7	Mix Water Chloride:	0 ppm			Mix Water Temperature:	70			
Cement Temperature:	75 °F	Plug Displaced by:	8.33 lb/gal			Disp. Temperature:	70°F			
Plug Bumped?	Yes	Bump Pressure:	2559 psi			Floats Held?	Yes			
Spacer Returns:	40 bbl	Returns Density:				Returns Temperature:				
Comment										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Dwnhole Density <i>(ppg)</i>	Cmb Pump Rate <i>(bbl/min)</i>	Pump A Pressure <i>(psi)</i>	Cmb Stg Total <i>(bbl)</i>	Comments
Event	1	Depart Location	Depart from Service Center or Other Site	12/4/2020	21:00:00	USER					Crew called out at 2100 with an on location time of 0400.
Event	2	Depart from Service Center or Other Site	Call Out	12/5/2020	01:00:00	USER					Journey Mgmt. Meeting prior to leaving for location.
Event	3	Arrive At Loc	Arrive At Loc	12/5/2020	02:00:00	USER					Arrive at Location. Check in with customer.
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/5/2020	03:00:00	USER					Held Site assessment and pre rig up safety meeting with crew prior to spotting in equipment.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/5/2020	03:30:00	USER					Pre rig up safety meeting prior to rigging up equipment.
Event	6	Start Job	Start Job	12/5/2020	06:03:06	NONE	0.00	0.00	2.62	0.00	Held pre job safety meeting with Rig personnel prior to beginning job.
Event	7	Test Lines	Test Lines	12/5/2020	08:20:15	NONE	8.93	0.00	4194.01	2.38	Pressure test HES lines to 4000 psi.
Event	8	Pressure Test	Pressure Test	12/5/2020	08:26:38	USER	8.73	0.00	1384.62	3.15	Pressure test IBOP to 1500 PSI
Event	9	Drop Bottom Plug	Drop Bottom Plug	12/5/2020	08:28:20	USER	8.59	0.00	46.84	3.15	Bottom plug dropped into Casing. Customer verified.
Event	10	Pump Spacer	Pump Spacer	12/5/2020	08:31:45	USER	11.83	3.78	432.73	6.70	Pump 120 bbls Tuned Prime Spacer mixed at 11.5 PPG. 8 bbls/min @ 580 psi. Density Verified by Scale.
Event	11	Other	Analysis 1	12/5/2020	08:48:26	USER	11.20	3.71	117.58	113.11	
Event	12	Drop Bottom Plug	Drop Bottom Plug	12/5/2020	08:54:33	NONE	11.06	0.00	46.61	114.04	Bottom plug dropped into Casing. Customer verified
Event	13	Pump Cap Cement	Pump Cap Cement	12/5/2020	08:56:10	NONE	11.05	0.00	45.56	0.00	Pumped 40 bbls (140 sacks) ElastiCem mixed at 13.2 PPG. Density Verified by scale.

Event	14	Pump Lead Cement	Pump Lead Cement	12/5/2020	09:05:42	NONE	13.19	5.40	379.18	3.04	Pumped 209 BBLS (703 sacks) ElastiCem mixed at 13.2 PPG. Density verified by Scale.
Event	15	Pump Tail Cement	Pump Tail Cement	12/5/2020	09:30:54	NONE	12.94	8.49	833.36	0.14	Pumped 422 BBLS (1164 sacks) NeoCem mixed at 13.2 PPG. Density verified by Scale.
Event	16	Shutdown	Shutdown	12/5/2020	10:24:43	NONE	13.78	0.00	73.08	0.00	
Event	17	Drop Top Plug	Drop Top Plug	12/5/2020	10:33:42	NONE	7.84	0.00	48.50	0.00	Top Plug loaded into casing. Customer verified.
Event	18	Pump Displacement	Pump Displacement	12/5/2020	10:35:27	NONE	7.93	0.00	34.95	0.00	Displaced using 401 BBLS Treated Water with 10 gallons MMCR added to the first 20 BBLS. Spacer was observed back to surface at 360 BBLS into 401 BBLS of displacement. Approx 41 bbls Spacer to Surface.
Event	19	Bump Plug	Bump Plug	12/5/2020	11:26:22	NONE	8.41	4.07	2559.40	390.80	Plug landed at 2400 PSI. Pressure was brought 500 psi over to 2900 PSI and held 5 minutes.
Event	20	End Job	End Job	12/5/2020	11:33:44	NONE	8.25	0.00	10.98	0.00	Held pre rig down safety meeting with crew and Rig personnel prior to rigging down equipment.
Event	21	Depart Location	Depart Location	12/5/2020	13:00:00	USER					Held pre journey safety meeting prior to leaving location.

3.0 Attachments

3.1 Job Chart

