

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 9036828		Quote #:		Sales Order #: 0907325609				
Customer: NOBLE ENERGY INC-EBUS						Customer Rep: Jim Turner				
Well Name: RAMPART			Well #: A33-740			API/UWI #: 05-123-50925-00				
Field: WATTENBERG		City (SAP): GILL		County/Parish: WELD			State: COLORADO			
Legal Description: SW SW-21-6N-64W-651FSL-1027FWL										
Contractor: H & P DRLG					Rig/Platform Name/Num: H & P 517					
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX41066					Srvc Supervisor: Michael Loughran					
Job										
Job depth MD		17,625'			Job Depth TVD		6,801'			
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	1942	0	1942
Casing	0	5.5	4.892	17			0	17625	0	6801
Open Hole Section			8.5				1942	17637	1942	6801
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5	1	HES	17,625		Top Plug	5.5	1	HES	
Float Collar	5.5	1	HES	17,579		Bottom Plug	5.5	2	HES	
RSI Tool	5.5	1	HES	17,487		Centralizer	8.5	173	Summit	

Fluid Data									
Stage #: 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	Spacer	Tuned Prime Cement Spacer	120	bbl	12.5	2.72	16.53	6	4,095
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	Cap Cement	ElastiCem™	140	sack	13.2	1.6	7.63	6.5	1,068
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	Lead Cement	ElastiCem™	779	sack	13.2	1.67	8.03	6.5	6,256
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	Tail Cement	NeoCem™	1139	sack	13.2	2.04	9.79	6.5	11,151
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	Treated Fresh Water	407	bbl	8.33			8	17094
Cement Left In Pipe		Amount	46 ft		Reason			Shoe Joint	
Mix Water:		pH 7.0	Mix Water Chloride:		0 ppm		Mix Water Temperature:		70 °F
Plug Bumped?		Yes	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		70 °F
Cement Returns:		0 bbl.	Bump Pressure:		2788 psi		Floats Held?		Yes

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq. No.	Activity	Date	Time	DH Density (ppg)	Comb Pump Rate (gpm)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Recirc Density (ppg)	Comments
1	Check Floats	8/19/2021	15:00:00						CREW CALLED OUT AT 10:00, REQUESTED ON LOCATION 17:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11398319, AND PUMP 11368474.
2	Pre-Convoy Safety Meeting	8/19/2021	22:15:00						CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
3	Crew Leave Yard	8/19/2021	22:30:00						STARTED JOURNEY MANAGEMENT.
4	Arrive At Loc	8/20/2021	00:13:00						END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,942', 5.5" CASING: 17 LB/FT TOTAL 17,625', 8.5" HOLE, TD 17,637', 46' SHOE TRACK, TVD- 6,801'. PUMP FRESH WATER DISPLACEMENT WITH MMCR FIRST 20 BBLS. RIG CIRCULATED 2 BOTTOMS UP. 173 CENTRALIZERS RAN FROM 4,554' TO 5,691' 1 PER 2 8.5 X 5.5 SUMMIT BOWSPRINGS. 5,778' TO 7,798' 1 PER 1 8.5 X 5.5 SUMMIT BOWSPRING. 7,842' TO 17, 580' 1 PER 2 8.0 X 5.5 SUMMIT COMPOSITES.
5	Pre-Rig Up Safety Meeting	8/20/2021	00:30:00						HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
6	Rig-Up Equipment	8/20/2021	00:35:00						CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
7	Pre-Job Safety Meeting	8/20/2021	02:15:00	0.00	0.0	46.00	2.30	8.43	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
8	Start Job	8/20/2021	02:35:05	0.00	0.0	0.00	0.00	8.43	BEGIN RECORDING DATA
9	Start Job	8/20/2021	02:41:17	0.00	0.0	-1.00	0.00	8.43	BEGIN RECORDING DATA
10	Test Lines	8/20/2021	02:55:40	0.00	0.0	15.00	0.40	12.64	TEST HES LINES TO 4800 PSI
11	Test Lines	8/20/2021	03:03:42	0.00	33.6	113.00	2.10	12.39	TEST RIG VALVE TO 1800 PSI
12	Pump Spacer 1	8/20/2021	03:14:57	0.00	0.0	62.00	1.20	13.02	120 BBLS TUNED PRIME SPACER. 12.5 PPG, 2.72 YIELD, 16.53 GAL/SACK. CALCULATED HOS @ 1,013', TOS @ SURFACE.
13	Drop Bottom Plug	8/20/2021	03:36:47	0.00	0.0	39.00	117.40	0.75	SECOND BOTTOM PLUG LOADED BY JIM TURNER.

14	Pump Cap Cement	8/20/2021	03:43:06	0.00	0.0	40.00	0.00	13.38	PUMP 140 SACKS ELASTICEM CAP CEMENT. 39.89 BBLS, 13.2 PPG, 1.6 YIELD, 7.63 GAL/SACK. CALCULATED HOC @ 833', TOC CALCULATED @ 1,013'.
15	Pump Lead Cement	8/20/2021	03:47:33	0.00	365.4	960.00	30.10	13.02	PUMP 779 SACKS ELASTICEM LEAD CEMENT, 231.70 BBLS, 13.2 PPG, 1.67 YIELD, 8.03 GAL/SACK. CALCULATED HOL 5,662', CALCULATED TOL @ 1,846'.
16	Pump Tail Cement	8/20/2021	04:19:55	0.00	268.8	771.00	269.20	13.33	PUMP 1139 SACKS NEOCEM TAIL CEMENT. 413.83 BBLS., 13.2 PPG, 2.04 YIELD, 9.79 GAL/SACK. CALCULATED HOT @ 10,117'. CALCULATED TOT @ 7,508'.
17	Shutdown	8/20/2021	05:22:51	0.00	0.0	563.00	402.20	0.57	SHUTDOWN TO WASH PUMPS AND LINES.
18	Clean Lines	8/20/2021	05:27:31	0.00	0.0	83.00	0.00	-0.05	WASHED PUMPS AND LINES PRIOR TO DROPPING PLUG.
19	Drop Top Plug	8/20/2021	05:38:33	0.00	0.0	29.00	0.00	8.31	TOP PLUG LOADED BY JIM TURNER.
20	Pump Displacement	8/20/2021	05:41:21	0.00	159.6	1690.00	1.90	8.31	407.8 BBLS FRESH WATER DISPLACEMENT. FIRST 20 BBLS HAS 10 GALLONS MICRO MATRIX RETARDER. TREATED WATER THROUGHOUT REST OF DISPLACEMENT. SPACER RETURNS TO SURFACE @ 368 BBLS INTO DISPLACEMENT. TOTAL OF 39 BBLS TO SURFACE.
21	Bump Plug	8/20/2021	06:45:32	0.00	0.0	3273.00	399.70	8.32	BUMP PLUG AT CALCULATED DISPLACEMENT 2,788 PSI TOOK 500 PSI OVER BUMP.
22	Check Floats	8/20/2021	06:49:55	0.00	0.0	3371.00	0.00	8.32	RELEASED PRESSURE BACK TO PUMP CHECKING FLOATS, FLOATS HELD WITH 4.5 BBLS BACK.
23	End Job	8/20/2021	06:56:42						STOP RECORDING JOB DATA.
24	Pre-Rig Down Safety Meeting	8/20/2021	07:00:00						DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
25	Rig-Down Equipment	8/20/2021	07:10:00						RIG DOWN BULK AND MIXING EQUIPMENT
26	Rig-Down Completed	8/20/2021	08:00:00						ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
27	Crew Leave Location	8/20/2021	08:30:00						THANK YOU FOR USING HALLIBURTON – MIKE LOUGHRAN AND CREW.

3.0 Attachments

3.1 Job Chart

