

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3924577		Quote #:		Sales Order #: 0906786528				
Customer: NOBLE ENERGY INC-EBUS				Customer Rep: John Drahota						
Well Name: BECKER			Well #: D17-735			API/UWI #: 05-123-48856-00				
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD		State: COLORADO				
Legal Description: NW SE-5-3N-64W-1816FSL-1359FEL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 517						
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX41066				Srv Supervisor: Thomas Haas						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST		220 degF				
Job depth MD		15014ft		Job Depth TVD		6859				
Water Depth				Wk Ht Above Floor		6'				
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	1932	0	1932
Casing	0	5.5	4.892	17			0	15014	0	6859
Open Hole Section			8.5				1932	15028	1932	6859
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5	1	HES	15014		Top Plug	5.5	1	HES	
Float Collar	5.5	1	HES	14966		Bottom Plug	5.5	2	HES	
RSI Tool	5.5	1	HES	14870						

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	Tuned Prime	TUNED PRIME CEMENT SPACER	120	bbl	11.5	3.87	24.46	8	4259
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	1.6	7.63	8	1068
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	751	sack	13.2	1.67	8.03	8	6031
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	868	sack	13.2	2.04	9.79	8	8498
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	0	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:		73 °F
Cement Temperature:		N/A	Plug Displaced by:		8.4lb/gal Treated Water		Disp. Temperature:		71 °F
Plug Bumped?		Yes	Bump Pressure:		2300 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 2300 psi, held 5 min casing at 2600 psi, released pressure to the truck, floats held, 4 bbl back. Interface returned to surface 277 bb into displacement, turned to good spacer 320 bbl into displacement, 70 bbl back total.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	10/30/2020	12:00:00	USER					CREW CALLED OUT AT 12:00 10/30/2020, REQUESTED ON LOCATION 18:00 10/30/2020. CREW PICKED UP CEMENT, CHEMICALS (50 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, FROM FORT LUPTON, CO. BULK 660: 111273333/10784082, PUMP ELITE: 12644845/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/30/2020	14:30:00	USER					DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	10/30/2020	15:00:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	10/30/2020	15:30:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1932', CASING: 5.5" 17# @ 15014', 48' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6852', 9.7 PPG WELL FLUID, PACKER FLUID DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/30/2020	18:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.

Event	6	Rig-Up Equipment	Rig-Up Equipment	10/30/2020	18:10:00	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	10/30/2020	19:00:00	USER	8.30	8.39	0.00	0.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	10/30/2020	20:18:10	COM8	19.30	4.67	0.00	0.00	START JOB DATA RECORDING.
Event	9	Test Lines	Test Lines	10/30/2020	20:20:52	COM8	130.30	8.43	0.00	3.50	KICKOUTS SET @ 500 PSI, KICKED OUT @ 1100 PSI, 5TH GEAR STALL OUT @ 2800 PSI. PRESSURE TESTED IRON TO 4800.
Event	10	Test Lines	Test I-Bop	10/30/2020	20:22:46	COM8	97.30	8.42	0.00	3.50	TESTED I BOP TO 1600 PSI.
Event	11	Drop Bottom Plug	Drop Bottom Plug	10/30/2020	20:25:47	COM8	48.30	8.44	0.00	4.40	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	12	Pump Spacer 1	Pump Spacer 1	10/30/2020	20:26:14	COM8	37.30	8.45	0.00	0.00	PUMP 120 BBLS OF TUNED PRIME SPACER @ 11.5 LB/GAL, ADDED 30 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	10/30/2020	20:43:32	COM8	120.30	11.37	0.00	128.20	SHUTDOWN TO DROP 2ND BOTTOM PLUG.
Event	14	Drop Bottom Plug	Drop Bottom Plug	10/30/2020	20:43:47	COM8	78.30	11.24	0.00	128.20	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	15	Pump Cement	Pump Cap Cement	10/30/2020	20:48:29	COM8	64.30	11.21	0.00	0.00	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.60 YIELD, 7.63 GAL/SK, 39.9 BBLS, CALCULATED TOC @ 1018', DENSITY VERIFIED BY PRESSURIZED MUD SCALES. ADDED 10 GAL OF D-AIR.

Event	16	Pump Lead Cement	Pump Lead Cement	10/30/2020	20:53:29	COM8	732.30	13.17	9.00	38.00	PUMP 751 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.67 YIELD, 8.03 GAL/SK, 223.4 BBLS, CALCULATED TOT @ 1851', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	10/30/2020	21:22:27	COM8	695.30	13.24	9.00	0.10	PUMP 868 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.79 GAL/SK, 315.4 BBLS, CALCULATED TOT @ 7311', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Shutdown	Shutdown	10/30/2020	22:00:30	COM8	159.30	13.07	0.00	339.20	SHUTDOWN TO CLEAN PUMPS/LINES AND DROP TOP PLUG.
Event	19	Drop Top Plug	Drop Top Plug	10/30/2020	22:08:50	COM8	47.30	8.40	0.00	0.00	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	20	Pump Displacement	Pump Displacement	10/30/2020	22:08:53	COM8	47.30	8.40	0.00	0.00	BEGIN CALCULATED DISPLACEMENT 347 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, LAST 40 BBL WITH FRESH WATER. ADDED 10 GAL OF D-AIR.
Event	21	Bump Plug	Bump Plug	10/30/2020	22:52:28	COM8	2706.30	8.50	0.00	355.40	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 2300 PSI. INTERFACE TO SURFACE AT 277 BBL INTO DISPLACEMENT, GOOD SPACER 320 BBL INTO DISPLACEMENT, 70 BBL BACK TOTAL.
Event	22	Other	Casing Test	10/30/2020	22:52:55	USER	2687.30	8.49	0.00	355.40	5 MIN CASING TEST AT 2600 PSI.

Event	23	Check Floats	Check Floats	10/30/2020	22:56:51	USER	2340.30	8.47	0.00	355.40	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, 4 BBL TO THE TRUCK.
Event	24	End Job	End Job	10/30/2020	22:58:32	COM8	1.30	8.42	0.00	0.00	END JOB DATA RECORDING.
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/30/2020	23:00:00	USER	3.30	8.41	0.00	0.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	26	Rig-Down Completed	Rig-Down Completed	10/31/2020	00:00:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/31/2020	00:15:00	USER					DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	28	Crew Leave Location	Crew Leave Location	10/31/2020	00:30:00	USER					THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Job Chart

