

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 3968281		<b>Quote #:</b>		<b>Sales Order #:</b> 0906115069					
<b>Customer:</b> NOBLE ENERGY INC-EBUS				<b>Customer Rep:</b> Charles Cullver							
<b>Well Name:</b> WELLS RANCH STATE			<b>Well #:</b> AA32-770		<b>API/UWI #:</b> 05-123-50176-00						
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> GILL		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO					
<b>Legal Description:</b> 5-5N-63W-300FNL-775FWL											
<b>Contractor:</b> H & P DRLG				<b>Rig/Platform Name/Num:</b> H & P 517							
<b>Job BOM:</b> 7523 7523											
<b>Well Type:</b> HORIZONTAL OIL											
<b>Sales Person:</b> HALAMERICA\HB31357				<b>Srv Supervisor:</b> Adam Covington							
<b>Job</b>											
<b>Formation Name</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>							
<b>Form Type</b>				<b>BHST</b>							
<b>Job depth MD</b>		16857ft		<b>Job Depth TVD</b>							
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>							
<b>Perforation Depth (MD)</b>		<b>From</b>		<b>To</b>							
<b>Well Data</b>											
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>	
Casing		9.625	8.921	36			0	1949	0	1949	
Casing		5.5	4.892	17			0	16857	0	0	
Open Hole Section			8.5				1949	16870	0	6880	
<b>Tools and Accessories</b>											
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>		
Guide Shoe	5.5			16857		Top Plug	5.5	1	HES		
Float Shoe	5.5					Bottom Plug	5.5	2	HES		
Float Collar	5.5					SSR plug set	5.5		HES		
Insert Float	5.5					Plug Container	5.5		HES		
Stage Tool	5.5					Centralizers	5.5		HES		
<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>			<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS			120	bbl	11.5	3.87		4	

iCem® Service  
(v. 5.0.161.0)

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Job Called In	Call Out	11/18/2019	17:30:00	USER	ALL HES CREW MEMBERS WERE CALLED OUT FOR AN ON LOCATION TIME OF 2330.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	11/18/2019	20:15:00	USER	MET WITH ALL HES CREW MEMBERS AND DISCUSSED DIRECTIONS, DRIVING CONDITIONS AND SPEED LIMITS.
Event	3	Depart Shop for Location	Depart Shop for Location	11/18/2019	20:30:00	USER	ALL CREW MEMBERS LEFT FOR LOCATION.
Event	4	Arrive At Loc	Arrive At Loc	11/18/2019	23:30:00	USER	ALL CREW MEMBERS ARRIVED TO LOCATION SAFELY. PERFORMED A HAZARD HUNT AND GOT NUMBERS FROM CO. MAN. OH-8.5" TD-16870' TP-16857' 5.5" 17#, FC-16809, PC-1949' 9 5/8" 36#, TVD-6880' MUD-9.7#, WATER-- 60 DEGREES, CHLORIDES-0, PH-7.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/19/2019	02:00:00	USER	MET WITH HES CREW MEMBERS DISCUSSED SWINGS, TEAM LIFTS AND PINCH POINTS.
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/19/2019	07:15:00	USER	MET WITH ALL HES AND RIG CREW MEMBERS AND DISCUSSED PRESSURES, JOB PROCEDURES AND SAFETY PROCESSES.

Event	7	Drop Bottom Plug	Drop Bottom Plug	11/19/2019	07:51:08	COM5	CO. MAN DROPPED HALLIBURTON 5.5" BOTTOM PLUG. ADAM COVINGTON AND NICK ROLES WITNESSED.
Event	8	Start Job	Start Job	11/19/2019	08:02:14	COM5	FILLED LINES WITH 3 BBLS OF FRESH WATER. 3 BPM, 150 PSI.
Event	9	Test Lines	Test Lines	11/19/2019	08:04:07	COM5	PERFORMED A 4500 PSI KICKOUT TEST (302 PSI) 5TH GEAR STALL (1783 PSI), THEN TOOK TO 4500 PSI. BLED OFF. RIG CLOSED THEIR LINES AND WE TESTED TO 2500 PSI UNTIL CO. MAN WAS HAPPY WITH IT AND BLED IT OFF.
Event	10	Pump Spacer 1	Pump Spacer 1	11/19/2019	08:14:07	COM5	PUMPED 120 BBLS OF 11.5#, 3.87y, 24.5wr PRIME TUNED SPACER AT 4 BPM, 500 PSI. USED 30 GALLONS OF D-AIR.
Event	11	Check Weight	Check Weight	11/19/2019	08:22:10	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP SPACER. SPACER WEIGHED UP AT 11.5#.
Event	12	Drop Bottom Plug	Drop Bottom Plug	11/19/2019	08:42:26	COM5	SHUTDOWN AND CO. MAN DROPPED HALLIBURTON 5.5" BOTTOM PLUG. ADAM COVINGTON WITNESSED.
Event	13	Pump Lead Cement	Pump Cap Cement	11/19/2019	08:43:39	COM5	PUMEPD 42 BBLS (140 SKS) OF 13.2#, 1.67y, 8.03wr ELASTICEM LEAD CEMENT AT 8 BPM, 49 PSI TO START. FULL RETURNS. MIX GALLONS-- CALCULATED 1124 GALLONS, ACTUAL-980 GALLONS.

Event	14	Check Weight	Check Weight	11/19/2019	08:58:06	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13#
Event	15	Pump Lead Cement	Pump Lead Cement	11/19/2019	09:00:35	USER	PUMPED 137 BBLS (461 SKS) OF 13.2#, 1.67y, 8.04wr ELASTICEM LEAD CEMENT AT 8 BPM, 789 PSI. FULL RETURNS. --MIX GALLONS CALCULATED 3,706, ACTUAL 3500 GALLONS.
Event	16	Check Weight	Check Weight	11/19/2019	09:02:13	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13#.
Event	17	Pump Tail Cement	Pump Tail Cement	11/19/2019	09:15:56	COM5	PUMPED 410 BBLS (1129 SKS) OF 13.2#, 2.04y, 9.79wr NEOCEM TAIL CEMENT AT 8 BPM, 860 PSI. --MIX GALLONS CALCULATED 11,052G, ACTUAL 10313 GALLONS
Event	18	Check Weight	Check Weight	11/19/2019	09:23:29	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.1#
Event	19	Check Weight	Check Weight	11/19/2019	09:25:43	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.1#
Event	20	Check Weight	Check Weight	11/19/2019	09:32:47	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.2#.

Event	21	Check Weight	Check Weight	11/19/2019	09:46:07	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.2#
Event	22	Check Weight	Check Weight	11/19/2019	10:00:42	COM5	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.2#
Event	23	Shutdown	Shutdown	11/19/2019	10:19:39	COM5	SHUTDOWN TO BLOW LINES DOWN, WASH UP PUMPS AND LINES AND GET READY TO DROP PLUG.
Event	24	Drop Top Plug	Drop Top Plug	11/19/2019	10:30:10	COM5	CO. MAN DROPPED HALLIBURTON 5.5" TOP PLUG. ADAM COVINGTON WITNESSED.
Event	25	Pump Displacement	Pump Displacement	11/19/2019	10:30:14	COM5	PUMPED 390 BBLS OF FRESH WATER DISPLACEMENT WITH THE FIRST 20 BBLS HAD 10 GALLONS OF MMCR DISPERSED THROUGH. FROM 30 BBLS TO 300 BBLS AWAY HAD 3 LBS OF BE-3 ADDED. STARTED AT 10 BPM (530 PSI) TO CATCH CEMENT. CAUGHT CEMENT AT 26 BBLS AWAY AND SLOWED DOWN TO 6 BPM AS PER CO. MAN. SLOWLY STARTED TO WALK RATE UP AS CO. MAN WAS CONCERNED ABOUT PRESSURE.
Event	26	Bump Plug	Bump Plug	11/19/2019	11:33:22	COM5	SLOWED RATE 30 BBLS FROM BUMPING. FCP-2274 PSI TOOK UP TO 2800 PSI. HELD FOR 5 MINUTES AS PER CO. MAN

Event	27	Other	Other	11/19/2019	11:39:08	COM5	bled pressure back to the truck. we had 5 bbls back to the truck when flow stopped, indicating that the floats held.
Event	28	End Job	End Job	11/19/2019	11:41:36	COM5	6 bbls of spacer back to surface. TOCC-2421' TOLC-3451' TOTC-6808'
Event	29	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/19/2019	11:51:00	USER	MET WITH ALL HES CREW MEMBERS. DISCUSSED SWINGS, OVER HEAD LOADS AND RED ZONE HAZARDS.
Event	30	Depart Location Safety Meeting	Depart Location Safety Meeting	11/19/2019	13:00:00	USER	MET WITH HES CREW MEMBERS DISCUSSED SPEED LIMITS, DIRECTIONS AND HOURS OF SERVICE.
Event	31	Depart Location	Depart Location	11/19/2019	13:15:00	USER	JOB WAS COMPLETED SAFELY BY ADAM COVINGTON AND CREW. THANK YOU FOR CHOOSING HALLIBURTON.

## 3.0 Attachments

### 3.1 Job Chart

