

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 3752112		<b>Quote #:</b>		<b>Sales Order #:</b> 0903621707				
<b>Customer:</b> NOBLE ENERGY INC - EBUS				<b>Customer Rep:</b> Justin Fields						
<b>Well Name:</b> RILEY			<b>Well #:</b> LD19-738		<b>API/UWI #:</b> 05-123-43481-00					
<b>Field:</b> WILDCAT		<b>City (SAP):</b> RAYMER		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> SW SE-19-9N-58W-380FSL-1532FEL										
<b>Contractor:</b> H & P DRLG				<b>Rig/Platform Name/Num:</b> H & P 524						
<b>Job BOM:</b> 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HB61755				<b>Srv Supervisor:</b> Vaughn Oteri						
<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>		230 degF				
<b>Job depth MD</b>		10938ft		<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	1945	0	1945
Casing		5.5	4.778	20			0	10938	0	5889
Open Hole Section			8.5				1945	10950	0	5889
<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>	
<b>Guide Shoe</b>	5.5					<b>Top Plug</b>	5.5	1	HES	
<b>Float Shoe</b>	5.5			10938		<b>Bottom Plug</b>	5.5	1	HES	
<b>Float Collar</b>	5.5			10891		<b>SSR plug set</b>	5.5			
<b>Insert Float</b>	5.5					<b>Plug Container</b>	5.5			
<b>Stage Tool</b>	5.5					<b>Centralizers</b>	5.5			
<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 ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
1	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.78		5		

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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.79		5	
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 Lead w/o CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		5	7.53
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	ElastiCem Lead W/ CBL	ELASTICEM (TM) SYSTEM	480	sack	13.2	1.6		5	7.68
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	EconoCem Tail	ECONOCEM (TM) SYSTEM	675	sack	13.5	1.68		5	7.99
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
6	Displacement	Displacement	240	bbl	8.33				
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint	
Comment 20bbl of spacer back to surface									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	10/26/2016	20:00:00	USER	Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	10/26/2016	00:45:00	USER	Requested on location at 0200 Arrived on location at 0045 met with company rep to discuss job process and concerns advised they would be on bottom around 0300
Event	3	Other	Other	10/26/2016	00:46:00	USER	TD-10950 TP10938 FC-10891 SURF-1945 MUD-9.1 Casing 5.5 20# OH-8.5
Event	4	Start Job	Start Job	10/26/2016	04:48:26	COM4	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	10/26/2016	04:53:45	COM4	Pressure tested pumps and lines with fresh water 4680psi
Event	6	Drop Bottom Plug	Drop Bottom Plug	10/26/2016	04:55:59	COM4	Released bottom plug witnessed by company rep
Event	7	Pump Spacer 1	Pump Spacer 1	10/26/2016	04:58:10	COM4	Mixed 40bbl of 11.5ppg Tuned spacer III with surfactants at 6.0bpm 440psi - Mixed 40bbl of 11.5ppg Tuned spacer III w/o surfactants at 6.0bpm 440psi
Event	8	Drop Bottom Plug	Drop Bottom Plug	10/26/2016	05:18:42	COM4	Shut down so that rig could sting out of casing and released plug witnessed by company rep
Event	9	Pump Lead Cement	Pump Lead Cement	10/26/2016	05:21:27	COM4	Mixed 630sks or 179bbl of 13.2ppg Y-1.6 G/sk7.68 ElastiCem at 3.5bpm 600psi
Event	10	Other	Other	10/26/2016	05:28:26	USER	Slowed rate due to poor bulk discharge
Event	11	Check Weight	Check weight	10/26/2016	05:35:55	COM4	Confirm weight on scales
Event	12	Other	Other	10/26/2016	05:38:50	USER	Slowed rate due to poor bulk discharge
Event	13	Other	Other	10/26/2016	05:43:15	USER	Slowed rate due to poor bulk discharge
Event	14	Other	Other	10/26/2016	05:46:36	USER	Slowed rate due to poor bulk discharge
Event	15	Other	Other	10/26/2016	05:49:39	USER	Slowed rate due to poor bulk discharge
Event	16	Other	Other	10/26/2016	05:57:27	USER	Slowed rate due to poor bulk discharge
Event	17	Pump Tail Cement	Pump Tail Cement	10/26/2016	06:04:56	COM4	Mixed 675sks or 202bbl of 13.5ppg Y-1.68 G/sk-7.99 EconoCem at 4.0bpm 331psi
Event	18	Other	Other	10/26/2016	06:06:32	USER	Slowed rate due to poor bulk discharge
Event	19	Other	Other	10/26/2016	06:09:10	USER	Slowed rate due to poor bulk discharge

Event	20	Shutdown	Shutdown	10/26/2016	06:57:25	COM4	Shut down so that rig could sting out of casing and blow back with air
Event	21	Clean Lines	Clean Lines	10/26/2016	06:57:30	COM4	Washed pumps and lines with fresh water
Event	22	Drop Top Plug	Drop Top Plug	10/26/2016	06:57:34	COM4	Released plug witnessed by company rep
Event	23	Pump Displacement	Pump Displacement	10/26/2016	07:09:45	COM4	Pumped 240bbl of fresh water to displace cement
Event	24	Bump Plug	Bump Plug	10/26/2016	07:37:08	COM4	Bumped plug 500psi over final pump pressure
Event	25	Check Floats	Check Floats	10/26/2016	07:42:47	USER	Released pressure back to pump truck to check floats 3.5bbl back floats held good
Event	26	End Job	End Job	10/26/2016	07:45:26	COM4	20bbl of spacer back to surface