

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3630438		Quote #:		Sales Order #: 0903470075				
Customer: NOBLE ENERGY INC - EBUS				Customer Rep: Charles Collver						
Well Name: REAGAN			Well #: LD06-685		API/UWI #: 05-123-40818-00					
Field: WILDCAT		City (SAP): RAYMER		County/Parish: WELD		State: COLORADO				
Legal Description: NE NE-5-9N-58W-660FNL-330FEL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 517						
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB61755				Srv Supervisor: Vaughn Oteri						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST		230 degF				
Job depth MD		16320ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor						
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		9.625	8.921	36			0	1932	0	1932
Casing		5.5	4.778	20			0	16310	0	5117
Open Hole Section			8.5				1932	16320	1932	5117
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	HES	
Float Shoe	5.5			16310		Bottom Plug	5.5	2	HES	
Float Collar	5.5			16264		SSR plug set	5.5			
Insert Float	5.5					Plug Container	5.5			
Stage Tool	5.5					Centralizers	5.5			
Fluid Data										
Stage/Plug #: 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	11 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11	4.72		6		

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 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11	4.72		6	
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/o CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		8	7.53
7.53 Gal		FRESH WATER							
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 W/ CBL	ELASTICEM (TM) SYSTEM	486	sack	13.2	1.6		8	7.69
7.69 Gal		FRESH WATER							
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	ECONOCEM (TM) SYSTEM	1428	sack	13.5	1.68		8	7.98
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	359	bbl	8.33			10	
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment No 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	8/17/2016	21:30:00	USER	Call out from Arc Hub
Event	2	Arrive At Loc	Arrive At Loc	8/18/2016	02:00:00	USER	Requested on location @0330 Arrived on location @0200 Met with company rep to discuss job process and concerns advised that we were early they still had 2000 feet of pipe to run in
Event	3	Other	Other	8/18/2016	02:10:20	USER	TD-16320 TP-16310 FC-16264 OH-8.5 Casing - 5.5 20# Surf set at 1932 mud 9.8ppg
Event	4	Start Job	Start Job	8/18/2016	07:39:00	COM4	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	8/18/2016	07:41:35	COM4	Pressure tested pumps and lines with fresh water 4690psi
Event	6	Test Lines	Test Lines	8/18/2016	07:45:20	COM4	Pressure tested to the rigs IBOP 3320psi
Event	7	Drop Bottom Plug	Drop Bottom Plug	8/18/2016	07:46:00	USER	Released plug witnessed by company rep
Event	8	Check Weight	Check weight	8/18/2016	07:51:26	COM4	Confirm weight of 11.0ppg on scales
Event	9	Pump Spacer 1	Pump Spacer 1	8/18/2016	07:59:25	COM4	Mixed 40bbl of 11.0ppg tuned spacer with surfactants, Mixed 40bbl of 11.0ppg Tuned spacer III with out surfactants at 6.0bpm 500psi
Event	10	Drop Bottom Plug	Drop Bottom Plug	8/18/2016	08:19:00	USER	Released plug witnessed by company rep
Event	11	Pump Cement	Pump Cement	8/18/2016	08:23:00	USER	Mixed 150sk or 42bbl of 13.2ppg y-1.57 g/sk-7.53 Elasticem w/oCBL at 8.0bpm 542psi

Event	12	Pump Cement	Pump Cement	8/18/2016	08:35:00	USER	Mixed 486sk or 138bbl of 13.2ppg y-1.6 g/sk7.69 Elasticem with CBL at 8.0bpm 542psi
Event	13	Pump Cement	Pump Cement	8/18/2016	08:53:00	USER	Mixed 1428sk or 427bbl of 13.5bbl y-1.68 g/sk7.98 of Econocem at 8.0bpm 499psi
Event	14	Shutdown	Slowed rate	8/18/2016	09:25:00	USER	Slowed rate due to Water screens Plugged up with salamanders
Event	15	Other	Slowed rate	8/18/2016	09:35:00	USER	Slowed rate due to Water screens Plugged up with salamanders
Event	16	Shutdown	Shutdown	8/18/2016	09:54:00	USER	Shut down so that rig can blow lines clean
Event	17	Clean Lines	Clean Lines	8/18/2016	09:54:01	USER	Washed pumps and lines with fresh water
Event	18	Drop Top Plug	Drop Top Plug	8/18/2016	09:55:00	USER	Released plug witnessed by company rep
Event	19	Bump Plug	Bump Plug	8/18/2016	10:48:00	USER	Bumped plug 500psi over final pump pressure
Event	20	Other	Other	8/18/2016	10:53:00	USER	Released pressure back to pump truck to check floats 4.5bbl back floats held good
Event	21	End Job	End Job	8/18/2016	10:55:00	USER	No spacer back to surface
Event	22	Pump Displacement	Pump Displacement	8/18/2016	11:25:13	USER	Pumped 359bbl of fresh water to displace cement