The Road to Excellence Starts with Safety

Sold To #: 345242	**Ship To #:** 3684190	**Quote #:**	**Sales Order #:** 0903216534
Customer: NOBLE ENERGY INC - EBUS		**Customer Rep:** Derek Dupee	
Well Name: WELLS RANCH	**Well #:** AA22-631		**API/UWI #:** 05-123-41986-00
Field: WATTENBERG	**City (SAP):** KERSEY	**County/Parish:** WELD	**State:** COLORADO
Legal Description: 5-5N-62W-751FNL-519FWL			
Contractor: H & P DRLG	**Rig/Platform Name/Num:** H & P 321		
Job BOM: 392189			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB61755	**Srvc Supervisor:** Aaron Smith		

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	230 degF
Job depth MD	6801ft		**Job Depth TVD**	6648
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	1881	0	1881
Casing	0	5.5	4.778	20			0	11870	0	6648
Open Hole Section			8.5				1881	11877	1881	6648

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	5.5					**Top Plug**	5.5	1	pp
Float Shoe	5.5	1		11870		**Bottom Plug**	5.5		HES
Float Collar	5.5					**SSR plug set**	5.5		HES
Insert Float	5.5					**Plug Container**	5.5	1	HES
Stage Tool	5.5	1		6801		**Centralizers**	5.5		HES

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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75			

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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75			

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 B1	ELASTICEM (TM) SYSTEM	605	sack	13.6	1.88		5	8.57

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	Displacement	Displacement	150.36	bbl	9				

Cement Left In Pipe	**Amount**	42 ft	Reason	**Shoe Joint**

Comment

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Comments
Event	1	Rig-Down Completed	Rig-Down Completed	3/31/2016	00:10:00	USER				With no incidents.
Event	2	Depart Location Safety Meeting	Depart Location Safety Meeting	3/31/2016	00:15:00	USER				Journey management meeting held prior to departure.
Event	3	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	3/31/2016	00:20:00	USER				Journey called into dispatch.
Event	4	Call Out	Call Out	3/31/2016	08:00:00	USER				For on location @ 1300
Event	5	Depart Yard Safety Meeting	Depart Yard Safety Meeting	3/31/2016	11:30:00	USER				Journey management meeting held prior to departure.
Event	6	Depart from Service Center or Other Site	Depart from Service Center or Other Site	3/31/2016	11:45:00	USER				Journey called into dispatch
Event	7	Arrive at Location from Service Center	Arrive at Location from Service Center	3/31/2016	12:45:00	USER				With all equipment and materials, rig has about 6000' of casing left to run
Event	8	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/31/2016	17:15:00	USER				JSA to discuss the hazards of rig-up.
Event	9	Rig-Up Equipment	Rig-Up Equipment	3/31/2016	17:20:00	USER				
Event	10	Circulate Well	Circulate well	3/31/2016	17:25:00	USER				8bpm, 4 hrs, 10.2 #gal, 243 psi.
Event	11	Start Job	Start Job	3/31/2016	20:00:56	COM5				With water supplied from uprights, water tested good to mix cement, PH7, CL 32ppm, Temp 62.
Event	12	Test Lines	Test Lines	3/31/2016	21:44:22	COM5	0.00	8.53	57.00	@5000 PSI
Event	13	Pump Spacer 1	Pump Spacer 1	3/31/2016	21:59:34	COM5	1.40	8.47	10.00	40 Bbls Tuned Spacer III @ 12.5 ppg, 15 gal dual spacer b, 15 gal musol A, 30 gal de-air 3000.
Event	14	Pump Spacer 2	Pump Spacer 2	3/31/2016	22:07:46	COM5	6.50	12.56	190.00	40 Bbls tuned spacer @ 12.5 ppg, verified with pressurized scales.

Event	15	Pump Cement	Pump Cement	3/31/2016	22:15:37	COM5	0.00	13.51	1.00	605 sks (202.57 Bbls) ElastiCem, @ 13.6 ppg, verified with pressurized scales.
Event	16	Drop Top Plug	Drop Top Plug	3/31/2016	22:55:33	COM5	0.00	8.10	28.00	Pre-loaded HWE top plug in plug container, verified by customer rep. Had to take the cap off to verify plug sent.
Event	17	Pump Displacement	Pump Displacement	3/31/2016	22:55:39	COM5	0.00	8.09	27.00	150.36 Bbls fresh water. 10 Gallons MMCR in the first 20 bbls.
Event	18	Bump Plug	Bump Plug	3/31/2016	23:23:01	COM5	0.00	8.10	3688.00	2000 PSI over, final circulating pressure 1976 psi.
Event	19	Close Multiple Stage Cementer	Close Multiple Stage Cementer	3/31/2016	23:26:53	COM5	0.00	8.09	4038.00	Pressure up to 4000 psi.
Event	20	Pressure Test	Pressure Test	3/31/2016	23:35:43	USER	1.10	8.07	1447.00	Casing test @ 3000 psi for 15 min.
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/31/2016	23:50:00	USER				JSA to discuss the hazards of rig-down
Event	22	Rig-Down Equipment	Rig-Down Equipment	3/31/2016	23:52:00	USER				
Event	23	End Job	End Job	3/31/2016	23:53:26	COM5				Thanks Aaron Smith and Crew