

**HALLIBURTON**

**Cementing Job Summary**

*The Road to Excellence Starts with Safety*

Sold To #: 345242		Ship To #: 3684190		Quote #:		Sales Order #: 0903173723					
Customer: NOBLE ENERGY INC - EBUS				Customer Rep: J.W.							
Well Name: WELLS RANCH STATE			Well #: BB01-690			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: 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB61755					Srcv Supervisor: Joseph Scileppi						
Job											
Formation Name											
Formation Depth (MD)		Top 0			Bottom		1926				
Form Type											
BHST											
Job depth MD		1916ft			Job Depth TVD		1916				
Water Depth											
Wk Ht Above Floor											
Perforation Depth (MD)		From			To						
<b>Well Data</b>											
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	1916	0	1916
Open Hole Section				13.5				0	1926	0	1926
<b>Tools and Accessories</b>											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			1916		Top Plug	9.625	1	HES		
Float Shoe	9.625					Bottom Plug	9.625				
Float Collar	9.625			1871.3		SSR plug set	9.625				
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625				
<b>Fluid Data</b>											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water W/ Red Dye	Fresh Water W/ Red Dye			40	bbl	8.33			4	
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem	SWIFTCEM (TM) SYSTEM			550	sack	13.5	1.74	9.2	7	9.2
9.20 Gal		FRESH WATER									

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Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	SwiftCem	SWIFTCEM (TM) SYSTEM	75	sack	14.2	1.53	7.65	7.5	7.65
7.65 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Oil Based Mud Displacement	Oil Based Mud Displacement	145	bbl	9			8	
<b>Cement Left In Pipe</b>		<b>Amount</b>	<b>Reason</b>		<b>Shoe Joint</b>				
Mix Water:pH 7		Mix Water:## 0	Chloride:		Mix Water Temperature:## °F 53				
Cement Temperature:## °F 45		Plug Displaced by:## lb/gal kg/m3 XXXX			Disp. Temperature:## °F °C				
Plug Bumped?Yes		Bump Pressure:#### psi 1300			Floats Held?Yes				
Cement Returns:## bbl m3		Returns Density:## lb/gal kg/m3			Returns Temperature:## °F °C				
<b>Comment</b> GOT 40 BBLS OF CMT TO SURFACE									

## 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	Call Out	Call Out	3/11/2016	13:30:00	USER				CALLOUT FOR ON LOCATION AT 18:30
Event	2	Crew Leave Yard	Crew Leave Yard	3/11/2016	16:30:00	USER				PRE JOURNEY JSA W/ CREW
Event	3	Arrive At Loc	Arrive At Loc	3/11/2016	18:00:00	USER				UPON ARRIVAL RIG HAD 25 JOINTS LEFT TO RUN, MET W/ COMPANY REP TO DISCUSS JOB PROCEDURE
Event	4	Rig-Up Equipment	Rig-Up Equipment	3/11/2016	20:30:00	USER				PRE RIG UP HAZARD HUNT JSA W/ CREW
Event	5	Other	Other	3/11/2016	20:35:00	USER				FIELD MIX WATER ANALYSIS: PH-7, TEMP 53, CHLORIDES-0, IRON-0
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/11/2016	22:00:00	USER				JSA W/ ALL INVOLVED PERSONNEL
Event	7	Start Job	Start Job	3/11/2016	22:15:26	COM5				
Event	8	Test Lines	Test Lines	3/11/2016	22:25:45	COM5	0.00	8.38	2900.00	TESTED LINES TO 3000 PSI FOR 5 MIN, NO VISIBLE LEAKS
Event	9	Pump Spacer 1	Pump Spacer 1	3/11/2016	22:30:18	COM5	0.00	8.31	24.00	PUMPED 40 BBLS H2O W/ DYE AFTER FIRST TEN BBLS AT 4 BPM AND 105 PSI
Event	10	Pump Lead Cement	Pump Lead Cement	3/11/2016	22:40:58	COM5	6.10	13.95	236.00	PUMPED 550 SKS OR 170.4 BBLS OF 13.5 CMT AT 7 BPM AND 266 PSI
Event	11	Check Weight	Check weight	3/11/2016	22:42:11	COM5	6.10	13.49	246.00	WEIGHT VERIFIED BY MUD SCALES
Event	12	Check Weight	Check weight	3/11/2016	22:44:16	COM5	7.10	13.36	257.00	WEIGHT VERIFIED BY MUD SCALES
Event	13	Check Weight	Check weight	3/11/2016	23:00:01	COM5	7.50	13.52	296.00	WEIGHT VERIFIED BY MUD SCALES
Event	14	Pump Tail Cement	Pump Tail Cement	3/11/2016	23:06:35	COM5	6.00	13.50	208.00	PUMPED 75 SKS OR 20.4 BBLS OF 14.2 CMT AT 7.5 BPM AND 305 PSI
Event	15	Shutdown	Shutdown	3/11/2016	23:11:05	COM5	0.00	14.42	89.00	
Event	16	Pump Displacement	Pump Displacement	3/11/2016	23:26:15	COM5	0.00	8.06	8.00	PUMPED 145 BBLS OF OIL BASED MUD AT 8 BPM AND 560 PSI, GOT 40 BBLS OF CMT BACK TO SURFACE

Event	17	Drop Top Plug	Drop Top Plug	3/11/2016	23:26:30	COM5	2.60	8.01	41.00	PLUG PRE LOADED AND WITNESSED BY COMPANY REP
Event	18	Bump Plug	Bump Plug	3/11/2016	23:47:45	COM5	0.00	9.88	1377.00	FINAL CIRCULATING PRESSURE WAS 514 PSI AND PLUG BUMPED AT 1300 PSI
Event	19	Pressure Up Well	Pressure Up Well	3/11/2016	23:50:25	COM5	0.00	9.85	1521.00	1500 PSI CASING TEST FOR 15 MIN
Event	20	Other	Other	3/12/2016	00:06:42	COM5	0.00	10.21	1427.00	CHECKED FLOATS, THEY HELD AND GOT 1 BBL BACK TO TRUCK
Event	21	End Job	End Job	3/12/2016	00:08:48	COM5				