

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3684188		Quote #:		Sales Order #: 0903191927					
Customer: NOBLE ENERGY INC - EBUS				Customer Rep: LANCE							
Well Name: WELLS RANCH			Well #: BB01-675			API/UWI #: 05-123-41989-00					
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD		State: COLORADO					
Legal Description: NW NW-5-5N-62W-826FNL-517FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321							
Job BOM: 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA/HB61755					Srvc Supervisor: Joseph Scileppi						
Job											
Formation Name											
Formation Depth (MD)		Top 0		Bottom		1888					
Form Type		BHST									
Job depth MD		1884ft		Job Depth TVD		1884					
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	1884	0	1884	
Open Hole Section			13.5				0	1888	0	1888	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make			
Guide Shoe	9.625			1884	Top Plug	9.625	1	HES			
Float Shoe	9.625				Bottom Plug	9.625					
Float Collar	9.625				SSR plug set	9.625					
Insert Float	9.625				Plug Contalner	9.625	1	HES			
Stage Tool	9.625				Centralizers	9.625					
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /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						
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal		
2	SwiftCem	SWIFCEM (TM) SYSTEM	525	sack	13.5	1.74			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 ³ /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
7.65 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Oil Based Mud Displacement	Oil Based Mud Displacement	142.2	bbl	9				
Cement Left in Pipe		Amount	44 ft		Reason			Shoe Joint	
Mix Water: pH		##	Mix Water Chloride:		## ppm		Mix Water Temperature: ## °F °C		
Cement Temperature: ## °F °C		Plug Displaced by: ## lb/gal kg/m ³ XXXX			Disp. Temperature: ## °F °C				
Plug Bumped? Yes/No		Bump Pressure: ### psi MPa			Floats Held? Yes/No				
Cement Returns: ## bbl m ³		Returns Density: ## lb/gal kg/m ³			Returns Temperature: ## °F °C				
Comment GOT 37 BBLS BACK 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	3/18/2016	05:30:00	USER				CALLOUT FOR ON LOCATION AT 1200
Event	2	Crew Leave Yard	Crew Leave Yard	3/18/2016	10:30:00	USER				PRE JOURNEY JSA W/ CREW
Event	3	Arrive At Loc	Arrive At Loc	3/18/2016	12:00:00	USER				UPON ARRIVAL RIG HAD 30 JOINTS LEFT TO RUN, MET W/ COMPANY REP TO DISCUSS JOB PROCEDURE
Event	4	Rig-Up Equipment	Rig-Up Equipment	3/18/2016	14:30:00	USER				PRE RIG UP HAZARD HUNT JSA W/ CREW
Event	5	Other	Other	3/18/2016	14:35:00	USER				FIELD MIX WATER ANALYSIS: TEMP-65, PH-7, IRON-0, CHLORIDES-0
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/18/2016	15:30:00	USER				JSA W/ ALL INVOLVED PERSONNEL
Event	7	Start Job	Start Job	3/18/2016	15:51:31	COM5				
Event	8	Test Lines	Test Lines	3/18/2016	16:17:11	COM5	0.00	8.59	16.00	TESTED LINES TO 3000 PSI FOR 3 MIN, NO VISIBLE LEAKS
Event	9	Pump Spacer 1	Pump Spacer 1	3/18/2016	16:17:48	COM5	0.00	8.58	10.00	PUMPED 40 BBLS OF H2O W/ DYE AFTER FIRST 10 BBLS AT 4 BPM AND 85 PSI
Event	10	Pump Lead Cement	Pump Lead Cement	3/18/2016	16:29:32	COM5	6.00	13.68	187.00	PUMPED 525 SKS OR 162.7 BBLS OF 13.5 LEAD CMT AT 8 BPM AND 257 PSI
Event	11	Check Weight	Check weight	3/18/2016	16:31:29	COM5	6.00	13.53	167.00	WEIGHT VERIFIED BY COMPANY REP
Event	12	Check Weight	Check weight	3/18/2016	16:41:11	COM5	8.00	13.52	247.00	WEIGHT VERIFIED BY COMPANY
Event	13	Pump Tail Cement	Pump Tail Cement	3/18/2016	16:53:03	COM5	6.00	14.13	177.00	PUMPED 75 SKS OR 20.4 BBLS OF 14.2 TAIL CMT AT 6 BPM AND 177 PSI
Event	14	Shutdown	Shutdown	3/18/2016	16:57:07	COM5	0.00	8.47	24.00	
Event	15	Pump Displacement	Pump Displacement	3/18/2016	17:03:21	COM5	0.00	8.28	11.00	PUMPED 142.2 BBLS OF OIL BASED MUD AT 8 BPM AND 500 PSI, GOT 37 BBLS OF CMT TO SURFACE
Event	16	Drop Top Plug	Drop Top Plug	3/18/2016	17:03:47	COM5	3.00	8.47	31.00	PLUG PRE LOADED AND WITNESSED BY COMPANY REP

Event	17	Bump Plug	Bump Plug	3/18/2016	17:27:14	COM5	0.00	10.06	886.00	FINAL CIRCULATING PRESSURE WAS 467 PSI AND PLUG BUMPED AT 897 PSI
Event	18	Pressure Up Well	Pressure Up Well	3/18/2016	17:27:28	COM5	0.00	10.06	884.00	1000 PSI CASING TEST FOR 15 MIN
Event	19	Other	Other	3/18/2016	17:43:52	COM5	0.00	9.93	75.00	CHECKED FLOATS, THEY HELD AND GOT .5 BBL BACK TO TRUCK
Event	20	End Job	End Job	3/18/2016	17:45:02	COM5				