

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3697168		Quote #:		Sales Order #: 0903246118				
Customer: NOBLE ENERGY INC - EBUS				Customer Rep:						
Well Name: WELLS RANCH		Well #: AA22-612		API/UWI #: 05-123-42264-00						
Field: WATTENBERG		City (SAP): GILL		County/Parish: WELD		State: COLORADO				
Legal Description: SW SW-22-6N-63W-933FSL-77FWL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321						
Job BOM: 392189										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB61755				Srv Supervisor: Joseph Fantasia						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST		230 degF				
Job depth MD		6763ft		Job Depth TVD						
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	1907	0	1907
Casing	0	5.5	4.778	20			0	11800		
Open Hole Section			8.5				1907	11828		
Tools and Accessories										
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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75		5		
0.40 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								
0.40 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
203.65 lbm/bbl		BARITE, BULK (100003681)								
34.60 gal/bbl		FRESH WATER								
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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.79		5		
34.60 gal/bbl		FRESH WATER								
201.20 lbm/bbl		BARITE, BULK (100003681)								

last updated on 4/18/2016 11:28:06 AM

Page 1 of 3

iCem® Service

(v. 4.2.393)

Created: Monday, April 18, 2016

HALLIBURTON

Cementing Job Summary

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
3	ElastiCem B1	ELASTICEM (TM) SYSTEM	596	sack	13.6	1.88		8	8.57
0.45 %		HR-5, 50 LB SK (100005050)							
8.57 Gal		FRESH WATER							
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
4	Displacement	Water	148	bbl	8.33			9	
Fluid Data									
Cement Left in Pipe	Amount	42 ft	Reason				Shoe Joint		
Comment APPROX 5 BBLs TUNED SPACER TO SURFACE.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	4/18/2016	07:00:00	USER				CALL OUT AT 0200. REQUESTED ON LOCATION AT 0800. ARRIVE AT LOCATION 0700. HELD SITE ASSESSMENT AND PRE RIG UP SAFETY MEETING PRIOR TO RIGGING UP EQUIPMENT. RIG ON BOTTOM.
Event	2	Other	Other	4/18/2016	08:42:03	USER				WATER TEST - PH 7... CHLORIDES 0 ... TEMP 55...
Event	3	Other	Other	4/18/2016	08:42:47	USER				8.5" OH DRILLED DEPTH 11828. 5.5" 20# CASING DEPTH 11800 ... 9.625" 36 # SURFACE CASING SET AT 1907'. DV TOOL AT 6763.38'.
Event	4	Start Job	Start Job	4/18/2016	08:45:00	COM6				HELD PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONNEL PRIOR TO STARTING JOB.
Event	5	Test Lines	Test Lines	4/18/2016	08:47:57	COM6	0.00	8.65	64.00	PRESSURE TEST LINES TO 4800 PSI
Event	6	Pump Spacer 1	Pump Spacer 1	4/18/2016	08:54:21	COM6	0.00	8.57	34.00	PUMP 40 BBLS TUNED SPACER MIXED AT 12.5 PPG. 16 GALLONS MUSOL A AND DUAL SPACER B ADDED TO MIX WATER. 10 GALLONS D-AIR ADDED TO CONTROL AIR ENTRAINMENT. DENSITY VERIFIED BY SCALE.
Event	7	Pump Spacer 2	Pump Spacer 2	4/18/2016	09:06:40	USER	2.40	12.34	80.00	PUMP 40 BBLS TUNED SPACER MIXED AT 12.5 PPG. DENSITY VERIFIED BY SCALE.
Event	8	Pump Cement	Pump Cement	4/18/2016	09:19:27	COM6	5.90	13.48	254.00	PUMP 199 BBLS (596 SKS) ELASTICEM MIXED AT 13.6 PPG. DENSITY VERIFIED BY SCALE.
Event	9	Shutdown	Shutdown	4/18/2016	09:48:58	COM6	0.00	13.28	63.00	
Event	10	Clean Lines	Clean Lines	4/18/2016	09:52:37	COM6	0.00	17.20	32.00	CLEAN LINES TO WASH UP TANK.
Event	11	Drop Top Plug	Drop Top Plug	4/18/2016	09:54:52	COM6	0.00	8.33	34.00	3RD PARTY TOP PLUG PRELOADED AND DROPPED DURING SHUTDOWN. CUSTOMER WITNESSED.
Event	12	Pump Displacement	Pump Displacement	4/18/2016	09:55:22	COM6	1.10	7.78	45.00	DISPLACE USING 148 BBLS WATER. 5 GALLONS MMCR ADDED TO FIRST 10 BBLS. GOOD RETURNS THROUGHOUT. APPROX 5 BBLS TUNED SPACER TO SURFACE.

Event	13	Bump Plug	Bump Plug	4/18/2016	10:13:04	COM6	6.20	8.08	1997.00	PLUG LANDED AT 1997 PSI. PRESSURE BROUGHT TO 4040 PSI AND HELD 5 MIN.
Event	14	Check Floats	Check Floats	4/18/2016	10:18:39	USER	0.00	8.04	4140.00	FLOATS HELD. 2 BBLS BACK TO TRUCK.
Event	15	End Job	End Job	4/18/2016	10:33:48	USER				HELD PRE RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN EQUIPMENT.
Event	16	Depart Location	Depart Location	4/18/2016	11:30:00	USER				JOURNEY MGMNT PRIOR TO LEAVING LOCATION,