

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3805890	Quote #:	Sales Order #: 0905195093
Customer: NOBLE ENERGY INC-EBUS		Customer Rep: Jim Turner	
Well Name: WELLS RANCH STATE		Well #: BB09-617	API/UWI #: 05-123-44948-00
Field: WATTENBERG	City (SAP): GILL	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-11-5N-63W-925FSL-235FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 321	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB70026		Srvc Supervisor: Adam Covington	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST 230 degF
Job depth MD	16982ft 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	0	9.625	8.921	36			0	1948	0	0
Casing	0	5.5	4.778	20			0	17000	0	0
Open Hole Section			8.5				1948	5915	0	0
Open Hole Section			8.5				5915	17000	0	5915

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			17000	Top Plug	5.5	1	HES
Float Shoe	5.5				Bottom Plug	5.5	2	HES
Float Collar	5.5				SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5		HES
Stage Tool	5.5				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	11.5 lb/gal Tuned Spacer III w/ Chems	Tuned Spacer III	120	bbl	11.5	3.78	23.5	4		

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	ElastiCem	ELASTICEM (TM) SYSTEM	140	sack	13.2	1.38		8	8.04	
8.04 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	
3	ElastiCem w/ SCBL	ELASTICEM (TM) SYSTEM	442	sack	13.2	1.68		8	8.06	
8.06 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	NeoCem NT1	NeoCem TM	420.4	bbl	13.2	2.04		8	9.75	
9.75 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	
5	Displacement	Displacement	376	bbl	8.33			10		
Cement Left In Pipe		Amount	47 ft		Reason			Shoe Joint		
Comment TD-17000', TP-16981' FC-16935', SURFACE-1948' MUD 9.7#. TVD-5915'. WATER-68 DEGREES, CHLORIDES-0, SULFATES-0. NO CEMENT OR SPACER TO SURFACE. 4 BBLs BACK TO TRUCK WHEN WE BLEED PRESSURE BACK.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	10/12/2018	15:30:00	USER				CALLED OUT BY SERVICE COORDINATOR FOR O/L AT 2200
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/12/2018	20:00:00	USER				HELD MEETING WITH ALL HES EMPLOYEES IN CONVOY TO DISCUSS DIRECTIONS AND HAZARDS ASSOCIATED WITH DRIVING, ALL FIT TO DRIVE.
Event	3	Depart Shop for Location	Depart Shop for Location	10/12/2018	20:15:00	USER				HELD MEETING WITH ALL PERSONNEL IN CONVOY TO DISCUSS DIRECTIONS AND HAZARDS ASSOCIATED WITH DRIVING, ALL FIT TO DRIVE.
Event	4	Arrive At Loc	Arrive At Loc	10/12/2018	21:45:00	USER				UPON ARRIVAL MET WITH COMPANY MAN TO DISCUSS JOB DETAILS AND CALCULATIONS, PERFORMED HAZARD HUNT AND SITE ASSESSMENT.
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	10/12/2018	21:55:00	USER				DISCUSSED RIGGING UP HAZARDS AND PROCEDURE ACCORDING TO HMS.
Event	6	Safety Meeting - Pre Job	Safety Meeting - Pre Job	10/13/2018	00:45:00	USER				HELD SAFETY MEETING WITH ALL JOB ASSOCIATED PERSONNEL TO DISCUSS JOB PROCEDURE, HAZARDS AND STOP WORK AUTHORITY. Water test- PH-6, Chlor-0, Temp-65. Cement temp-70.
Event	7	Start Job	Start Job	10/13/2018	01:22:24	COM4				FILLED LINES WITH 3 BBLs OF FRESH WATER, AT 2 BPM, 131 PSI.
Event	8	Drop Bottom Plug	Drop Bottom Plug	10/13/2018	01:25:00	COM4				COMPANY MAN DROPPED HALLIBURTON 5.5" BOTTOM PLUG. ADAM COVINGTON WITNESSED.
Event	9	Test Lines	Test Lines	10/13/2018	01:26:35	COM4	4855.00	8.54		PRESSURE TESTED OUR LINES TO 4500 PSI. HELD FOR A COUPLE MINUTES. BLED PRESSURE OFF TO TRUCK. THEN PUMPED AN EXTRA BBL AND PRESSURED TESTED AGAINST THE RIGS LINES. HELD FOR ABOUT A MINUTE AND BLED OFF. ALL THIS AFTER PERFORMING A 500 PSI KICKOUT TEST AND A 5TH GEAR STALL.
Event	10	Pump Spacer 1	Pump Spacer 1	10/13/2018	01:38:55	COM4	285.00	11.53	3.40	PUMPED 120 BBLs OF 11.5#, 3.78y, 23.5wr TUNED SPACER III AT 3 BPM, 170 PSI.
Event	11	Drop Top Plug	Drop Top Plug	10/13/2018	02:13:41	COM4				COMPANY MAN DROPPED HALLIBURTON 5.5" (2ND) BOTTOM

PLUG. ADAM COVINGTON WITNESSED.

Event	12	Pump Lead Cement	Pump Lead Cement	10/13/2018	02:17:30	COM4	633.00	13.38	8.10	PUMPED 42 BBLS (140 SKS) OF 13.2#, 1.68y, 8.04wr, CAP CEMENT. 8 BPM, 190 PSI.
Event	13	Pump Lead Cement	Pump Lead Cement	10/13/2018	02:24:04	COM4	582.00	13.56	8.00	PUMPED 132 BBLS (442 SKS) OF 13.2#, 1.68y, 8.06wr 2ND LEAD. 8 BPM, 252 PSI.
Event	14	Shutdown	Shutdown	10/13/2018	02:46:08	USER	143.00	13.01	0.00	HAD TO SHUTDOWN DUE TO MIXING ISSUES.
Event	15	Pump Tail Cement	Pump Tail Cement	10/13/2018	02:51:16	COM4	462.00	13.29	6.10	PUMPED 420 BBLS (1157 SKS) OF 13.2#, 2.04y, 9.75wr TAIL CEMENT AT 8 BPM, 462 PSI.
Event	16	Shutdown	Shutdown	10/13/2018	03:44:48	COM4				SHUTDOWN TO BLOW LINES DOWN AND TO WASH UP PUMP.
Event	17	Drop Top Plug	Drop Top Plug	10/13/2018	03:57:57	COM4				CO. MAN DROPPED 5.5" HALLIBURTON TOP PLUG. ADAM COVINGTON WITNESSED.
Event	18	Pump Displacement	Pump Displacement	10/13/2018	03:58:01	COM4	457.00	7.95	10.00	PUMPED 376 BBLS OF WATER DISPLACEMENT. FIRST 20 HAD 10 GALLONS DISPERSED THROUGH THE FIRST 20 BBLS . THEN WE ADDED ADICIDE UNTIL THE BOTTLE WAS GONE. STARTED AT 10 BPM, 430 PSI.
Event	19	Bump Plug	Bump Plug	10/13/2018	04:42:28	COM4	1936.00	7.97	2.90	BUMPED PLUG. FCP-2100 PSI. BUMP-2400 PSI. HELD FOR 5 MINS AS PER CO. MAN.
Event	20	Check Floats	Check Floats	10/13/2018	04:46:55	USER				CHECKED FLOATS. GOT 4 BBLS BACK TO THE TRUCK. INDICATING THAT THE FLOATS HELD.
Event	21	End Job	End Job	10/13/2018	04:50:01	COM4				TD-17000', TP-16981' FC-16935', SURFACE-1948' MUD 9.7#. TVD-5915'. WATER-68 DEGREES, CHLORIDES-0, SULFATES-0. NO CEMENT OR SPACER TO SURFACE. 4 BBLS BACK TO TRUCK WHEN WE BLED PRESSUE BACK.
Event	22	Safety Meeting - Pre Rig-Down	Pre-Rig Down Safety Meeting	10/13/2018	05:00:00	USER				DISCUSSED RIGGING DOWN HAZARDS AND PROCEDURE ACCORDING TO HMS.
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/13/2018	06:50:00	USER				HELD MEETING WITH ALL HES EMPLOYESS IN CONVOY TO DISCUSS DIRECTIONS AND HAZARDS ASSOCIATED WITH DRIVING, ALL FIT TO DRIVE.
Event	24	Depart Location	Depart Location	10/13/2018	07:00:00	USER				PRE JOURNEY MANAGEMENT PRIOR TO DEPARTURE.

3.0 Attachments

3.1 Wells Ranch State BB09-617-Custom Results.png

