

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Wednesday, May 16, 2018

Berthoud Farms 8E-10-1N Production

Job Date: Wednesday, May 09, 2018

Sincerely,
Tyler Hill

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Berthoud Farms 8E-10-1N** cement **Production** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 55 bbls of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Ft. Lupton

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3839595		Quote #:		Sales Order #: 0904842870				
Customer: EXTRACTION OIL & GAS				Customer Rep: Larry Seigal						
Well Name: BERTHOUD FARMS			Well #: 8E-10-1N		API/UWI #: 05-123-45898-00					
Field: WATTENBERG		City (SAP): MEAD		County/Parish: WELD		State: COLORADO				
Legal Description: NE SE-7-4N-68W-1544FSL-858FEL										
Contractor:				Rig/Platform Name/Num: Patterson 901						
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Kendall Broom - H194727						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		11178ft		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		J-55	0	1550		
Casing	0	5.5	4.778	20	BTC	P-110	0	11178		5923
Open Hole Section			7 7/8				1550	11178		5923
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5		HES	
Float Shoe	5.5					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					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	Tuned Spacer III	50	bbl	11.5	3.73		6		
149.34 lbm/bbl		BARITE, BULK (100003681)								
35 gal/bbl		FRESH WATER								

0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)							
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
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	ElastiCem	ELASTICEM (TM) SYSTEM	1520	sack	13.2	1.57		8	7.53
0.45 %		SCR-100 (100003749)							
7.53 Gal		FRESH WATER							
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	Displacement	Displacement	247	bbl	8.33				
Cement Left In Pipe		Amount	5 ft		Reason			Shoe Joint	
Comment Got 55 bbls cement back to surface . floats held and got 4.5 bbl back on the truck. Blew the plug and pumped a 5 bbl wet shoe.									

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)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	5/9/2018	06:00:00	USER				Called crew out to be on location at 10:00
Event	2	Depart Location	Depart Location	5/9/2018	09:30:00	USER				Held a safety huddle before leaving for new location
Event	3	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	5/9/2018	10:30:00	USER				Arrived on location met with the company man
Event	4	Rig-up Lines	Rig-up Lines	5/9/2018	10:40:00	USER				Held a hazard hunt before spotting in trucks
Event	5	Start Job	Start Job	5/9/2018	13:38:55	COM5	0.00	8.29	11.00	Filled lines with 3 bbls water
Event	6	Test Lines	Test Lines	5/9/2018	13:44:24	COM5	0.00	8.14	4983.00	Test lines to 5000psi, with a 500 psi kick out. 5th gear stall out. and walked it up to 5060 psi.
Event	7	Pump Spacer 1	Pump Spacer 1	5/9/2018	13:47:00	COM5	0.00	8.02	22.00	Pumped 50 bbls Tuned Spacer. 11.5#, 3.73 yield, 23.4 gal/sks. Add dual spacer and Musol and D-Air on the fly
Event	8	Shutdown	Shutdown	5/9/2018	14:14:08	COM5	0.00	11.82	86.00	Shut down and weighed up Lead cement
Event	9	Pump Lead Cement	Pump Lead Cement	5/9/2018	14:18:21	COM5	2.00	11.29	58.00	Pumped 425 bbls. Elasticem 1520 sks, 13.2#, 1.57 yield, 7.53gal/sks. pumped 8 bpm and 800 psi.
Event	10	Shutdown	Shutdown	5/9/2018	15:13:48	COM5	0.00	11.94	49.00	Washed cement head
Event	11	Drop Top Plug	Drop Top Plug	5/9/2018	15:17:14	COM5	0.00	14.63	17.00	Dropped top plug. Loaded and witnessed by KLX Rep

Event	12	Pump Displacement	Pump Displacement	5/9/2018	15:17:18	COM5	0.00	14.60	17.00	Pumped 247 bbls water displacement. Got all spacer and 55 bbls cement back to surface. Pumped 8 bpm and 2800 psi.
Event	13	Bump Plug	Bump Plug	5/9/2018	15:53:52	COM5	0.00	7.93	57.00	Bumped plug 2540 psi. Burst plug at 3630 psi and pumped a 5 bbls wet shoe
Event	14	End Job	End Job	5/9/2018	15:55:12	COM5	0.00	7.94	42.00	
Event	15	Rig Down Lines	Rig Down Lines	5/9/2018	16:15:00	USER	4.00	0.81	53.00	Held a safety meeting before rigging down lines
Event	16	Depart Location for Shop	Depart Location for Shop	5/9/2018	17:30:00	USER				Held a safety huddle before leaving location

3.0 Attachments

3.1 Berthoud Farms 8E-10-1N Production.png

