

HALLIBURTON

iCem[®] Service

BILL BARRETT CORPORATION-EBUS

Date: Wednesday, March 07, 2018

Anschutz-Williams 5-61-27-4841B Production Liner

Job Date: Monday, January 08, 2018

Sincerely,
Tyler Hill

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Anschutz Williams 5-61-27-4841B** cement **production liner** 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 20bbls of cement returns 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



Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 343492	Ship To #: 3833782	Quote #:	Sales Order #: 0904553777							
Customer: BILL BARRETT CORPORATION E-BILL		Customer Rep: Curtis C.								
Well Name: ANSCHUTZ-WILLIAMS	Well #: 5-61-27-4841B	API/UWI #: 05-123-45706-00								
Field: WATTENBERG	City (SAP): ROGGEN	County/Parish: WELD	State: COLORADO							
Legal Description: NW SW-27-5N-61W-2348FSL-270FWL										
Contractor: Cade		Rig/Platform Name/Num: Cade 24								
Job BOM: 7525 7525										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Ryan Stevens								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	16191ft	Job Depth TVD	6,030							
Water Depth		Wk Ht Above Floor	5							
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
Drill Pipe		4	2.567				0	5619	0	0
Casing	New	7	6.366	26	LTC	J-55	0	6428	0	5975
Open Hole Section			6.125				5566	16212	0	6030
Casing	New	4.5	4	11.6	LTC	P-110	5566	16191	0	6030
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	4.5		Weath	16191		Top Plug	4.5	1	Weath	
Float Shoe	4.5	1	Weath	16191		Bottom Plug				
Float Collar	4.5	1	Weath	16139	Wet shoe sub	SSR plug set				
Insert Float	4.5					Plug Container				
Stage Tool	4.5					Centralizers				
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 Spacer	Fresh Water	20	bbl	8.33	8.33		6		
FRESH WATER										

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
2	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	20	bbl	11.5	3.86	24.8	5	
145.18 lbm/bbl		BARITE, BULK (100003681)							
36 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
3	NeoCem Lead	NeoCem TM	550	sack	13.2	2.04	9.74	5	5,357
9.74 Gal/sx		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	Liner Displacement	Liner Displacement	164	bbl	8.33				1,470
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	Drill Pipe Displacement	Drill Pipe Displacement	35	bbl	8.33				
Cement Left In Pipe	Amount	0 fl			Reason			Wet Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	200 ppm		Mix Water Temperature:		62F °		
Cement Temperature:		Plug Displaced by:	8.34 lb/gal		Disp. Temperature:		62 °F		
Plug Bumped?	Yes	Bump Pressure:	psi		Floats Held?		Yes		
Cement Returns:	20 bbl	Returns Density:	13.2 lb/gal		Returns Temperature:				
Comment 20 BBLS OF CEMENT BACK TO SURFACE									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	1/8/2018	12:00:00	USER					CREW CALLED OUT FOR JOB. PICKED UP PUMP 11645460, CHEMICALS AND BULK TRUCKS FROM FORT LUPTON YARD.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/8/2018	15:15:00	USER					DISCUSS HAZARDS ALONG ROUTE
Event	3	Crew Leave Yard	Crew Leave Yard	1/8/2018	15:33:00	USER					START JOURNEY MANAGEMENT
Event	4	Arrive At Loc	Arrive At Loc	1/8/2018	16:45:00	USER					MEET WITH CO MAN AND DISCUSS JOB PROCEDURES AND SAFETY HAZARDS. TD @16,195, EOC @16,191 FC@16,139 HWDP@ 5919
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/8/2018	17:00:00	USER					CREW DISCUSSED HAZARDS ASSOCIATED WITH RIG UP
Event	6	Rig-Up Equipment	Rig-Up Equipment	1/8/2018	17:05:00	USER					CREW RIGGED UP PUMP AND BULK EQUIPMENT TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/8/2018	18:30:00	USER	0.04	-1.00	0.00	0.1	MEET WITH RIG CREW AND CO-MAN TO DISCUSS JOB PROCEDURES AND SAFETY HAZARDS ASSOCIATED WITH PUMPING THE JOB.
Event	8	Start Job	Start Job	1/8/2018	18:56:44	COM4	8.49	11.00	0.00	14.9	START REORDING JOB DATA
Event	9	Test Lines	Test Lines	1/8/2018	18:59:59	COM4	8.61	5330.00	0.00	18.5	PRESSURE TEST PUPS AND LINES. EKO SET @ 500 KICKED OUT @ 1073 5TH GEAR STALL @ 2103, LINES

TESTED TO 5246

Event	10	Pump Spacer 1	Pump Spacer 1	1/8/2018	19:06:27	COM4	8.41	157.00	0.00	18.5	PUMP 20 BBLS OF FRESH WATER SPACER
Event	11	Pump Spacer 2	Pump Spacer 2	1/8/2018	19:11:22	COM4	8.55	1358.00	4.80	21.1	PUMP 20 BBLS OF TUNED SPACER @ 11.5 PPG DENSITY VERIFIED WITH PRESSURIZED MUD SCALES
Event	12	Pump Cement	Pump Cement	1/8/2018	19:14:41	COM4	12.40	1169.00	4.90	0.0	PUMP 550 SXS OF NEOCEM @ 13.2 PPG YIELD 2.04 MIX WATER @ 9.74. CALCULATED 19 BBLS BACK TO SURFACE
Event	13	Shutdown	Shutdown	1/8/2018	19:56:14	COM4	12.83	90.00	0.00	196.8	WASH PUMPS AND LINES
Event	14	Drop Top Plug	Drop Dart	1/8/2018	20:05:21	COM4	7.66	34.00	0.00	215.6	DROP DART
Event	15	Pump Displacement	Pump Displacement	1/8/2018	20:07:29	COM4	7.66	77.00	4.10	6.5	PUMP CALCULATED DISPLACEMENT WITH FRESHWATER FIRST 20 BBLS WITH MMCR AND 199 BBLS WITH BE-3. PICKED UP DART @ 35 BBLS AWAY
Event	16	Other	PICK UP PLUG	1/8/2018	20:14:42	USER	7.71	1316.00	3.20	36.7	PICKED UP PLUG @ 35 BBLS INTO DISPLACEMENT
Event	17	Bump Plug	Bump Plug	1/8/2018	20:44:22	COM4	7.71	2224.00	0.00	201.7	BUMPED PLUG @ 196.5 PER THE DISPLACEMENT TANKS.
Event	18	Other	Burst Plug	1/8/2018	20:48:43	COM4	7.70	2418.00	0.00	201.8	BURST PLUG AND PUMP 5 BBLS FOR A WET SHOE.
Event	19	Check Floats	Check Floats	1/8/2018	20:51:11	USER	7.71	1720.00	2.90	207.6	FLOATS HELD .75 BBLS BACK
Event	20	Set Packer	Set Packer	1/8/2018	20:57:29	COM4	7.61	13.00	0.00	207.8	RIG SET PACKER
Event	21	Pressure Up Well	Test Packer	1/8/2018	21:03:02	COM4					TEST BACK SIDE (RIG HAD VALVES CLOSED)
Event	22	Pressure Up Well	Test Packer	1/8/2018	21:15:15	COM4	7.76	2176.00	0.00	209.3	TEST BACK SIDE @ 2000 PSI FOR 5 MINS.

Event	23	Pump Displacement	Pump Displacement	1/8/2018	21:24:19	COM4						STING OUT AND ROLE 7 INCH 150 BBLS 20 BBLS OF CEMENT BACK TO SURFACE
Event	24	End Job	End Job	1/8/2018	21:52:16	COM4						STOP RECORDING JOB DATA
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/8/2018	22:00:00	USER	7.77	327.00	9.90	212.5		DISCUSSE HAZARDS ASSCIOATED WITH RIG DOWN
Event	26	Rig-Down Completed	Rig-Down Completed	1/8/2018	22:52:47	USER						CREW HAD EVERYTHING RIGED DOWN AND EQUIPENT WAS READY FOR TRAVEL.
Event	27	Crew Leave Location	Crew Leave Location	1/8/2018	23:30:00	USER						THANKS RYAN SYEVENS AND CREW

2.2 Bill Barrett Anschutz-Williams 5-61-27-4841B.png

