

HALLIBURTON

iCem[®] Service

BILL BARRETT CORPORATION E-BILL

Date: Tuesday, December 29, 2015

Anschutz Equus Farms 4-62-9-4956C2

Production Liner

Job Date: Wednesday, December 23, 2015

Sincerely,
Lauren Roberts

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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 Equus Farms 4-62-9-4956C2** cement **Production Liner** 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.

24 bbls of cement 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]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 343492	Ship To #: 3690701	Quote #:	Sales Order #: 0903004023							
Customer: BILL BARRETT CORPORATION E-BILL		Customer Rep: CURTIS								
Well Name: ANSCHUTZ EQUUS FARMS	Well #: 4-62-9-4956C2	API/UWI #: 05-123-42156-00								
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO							
Legal Description: SW SW-9-4N-62W-1090FSL-250FWL										
Contractor: CADE DRLG		Rig/Platform Name/Num: CADE 24								
Job BOM: 7525										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srv Supervisor: Joseph Scileppi								
Job										
Formation Name										
Formation Depth (MD)	Top 0	Bottom	15974							
Form Type	BHST									
Job depth MD	15974ft	Job Depth TVD	6309							
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
Drill Pipe		4	3.34	14			0	5757	0	5757
Casing		7	6.276	26	LTC	J-55	0	6609	0	6309
Casing		4.5	4	11.6	LTC	P-110	5757	15968	5757	6309
Open Hole Section			6.125				6609	15974	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	4.5			15968	Top Plug	4.5				
Float Shoe	4.5				Bottom Plug	4.5				
Float Collar	4.5				SSR plug set	4.5				
Insert Float	4.5				Plug Container	4.5				
Stage Tool	4.5				Centralizers	4.5				
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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	30	bbl	11.5	3.86	24.8	4		
145.18 lbm/bbl		BARITE, BULK (100003681)								
36.09 gal/bbl		FRESH WATER								

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(v. 4.2.393)

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Cementing Job Summary

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	Lead Cement	EXPANDACEM (TM) SYSTEM	190	sack	13.8	1.67		6	7.73
7.73 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	Tail Cement	EXPANDACEM (TM) SYSTEM	460	sack	13.5	1.66		6	7.88
7.88 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
4	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	5	bbl	11.5	3.86	24.8	4	
36.09 gal/bbl		FRESH WATER							
145.18 lbm/bbl		BARITE, BULK (100003681)							
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
5	BE-3 Displacement	BE-3 Displacement	196	bbl	8.33				
Cement Left in Pipe		Amount	ft	Reason				Shoe Joint	
Mix Water: pH ##		Mix Water: ## ppm			Mix Water Temperature: ## °F °C				
		Chloride:							
Cement Temperature: ## °F °C		Plug Displaced by: ## lb/gal kg/m3 XXXX			Disp. Temperature: ## °F °C				
Plug Bumped? Yes/No		Bump Pressure: ##### psi MPa			Floats Held? Yes/No				
Cement Returns: ## bbl m3		Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C				
Comment GOT 24 BBLS OF CEMENT BACK TO SURFACE AND 30 BBLS OF SPACER BACK									

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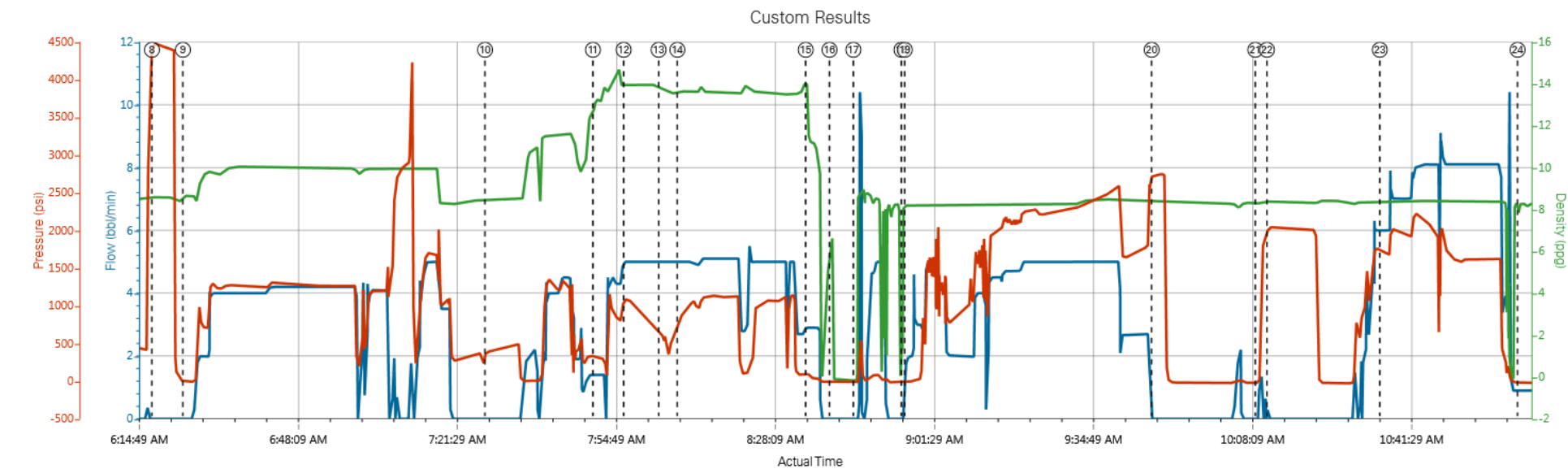
(v. 4.2.393)

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	12/22/2015	19:00:00	USER				CALLOUT FOR ON LOCATION AT 0100
Event	2	Crew Leave Yard	Crew Leave Yard	12/22/2015	23:00:00	USER				PRE JOURNEY JSA W/ CREW
Event	3	Arrive At Loc	Arrive At Loc	12/23/2015	01:00:00	USER				UPON ARRIVAL RIG JUST STARTED RUNNING DRILLPIPE, MET W/ COMPANY REP AND TOOL HAND TO DISCUSS JOB PROCEDURE
Event	4	Rig-Up Equipment	Rig-Up Equipment	12/23/2015	03:00:00	USER				HAZARD HUNT JSA W/ CREW
Event	5	Other	Other	12/23/2015	03:05:00	USER				FIELD MIX WATER ANALYSIS: TEMP-62, PH-7, CHLORIDES-0, RIG CIRCULATED ONE BOTTOMS UP BEFORE JOB
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/23/2015	05:30:00	USER				JSA W/ ALL INVOLVED PERSONNEL
Event	7	Start Job	Start Job	12/23/2015	06:11:36	COM5	0.00	8.41	64.00	
Event	8	Test Lines	Test Lines	12/23/2015	06:17:59	COM5	0.00	8.58	4487.00	TESTED LINES TO 4500 PSI FOR 5 MIN, NO VISIBLE LEAKS
Event	9	Other	Other	12/23/2015	06:24:28	COM5	0.00	8.64	-4.00	PUMPED BALL DOWN W/ 196 BBLS OF 9.3 MUD AT 4 BPM AND 1242 PSI, BALL SEATED AT 153 BBLS AWAY AND 1800 PSI, BLEW BALL SEAT AT 4280 PSI
Event	10	Pump Spacer 1	Pump Spacer 1	12/23/2015	07:27:47	COM5	0.00	8.45	390.00	PUMPED 30 BBLS OF 11.5 TUNED SPACER AT 4 BPM AND 1232 PSI
Event	11	Pump Lead Cement	Pump Lead Cement	12/23/2015	07:50:25	COM5	1.40	13.45	328.00	PUMPED 190 SKS OR 56.5 BBLS OF 13.8 LEAD CEMENT AT 5 BPM AND 984 PSI
Event	12	Check Weight	Check weight	12/23/2015	07:56:51	COM5	5.00	13.95	1078.00	WEIGHT VERIFIED BY MUD SCALES
Event	13	Pump Tail Cement	Pump Tail Cement	12/23/2015	08:04:11	COM5	5.00	13.78	600.00	PUMPED 460 SKS OR 136 BBLS OF 13.5 TAIL CMT AT 5 BPM AND 1104 PSI
Event	14	Check Weight	Check weight	12/23/2015	08:08:06	COM5	5.00	13.64	783.00	WEIGHT VERIFIED BY MUD SCALES
Event	15	Pump Spacer 1	Pump Spacer 1	12/23/2015	08:35:00	COM5	2.90	12.60	105.00	PUMPED 5 BBLS OF 11.5 TUNED SPACER AT 3 BPM AND 675 PSI

Event	16	Shutdown	Shutdown	12/23/2015	08:40:00	USER				
Event	17	Clean Lines	Clean Lines	12/23/2015	08:45:00	USER				WASHED PUMPS AND LINES
Event	18	Drop Top Plug	Drop Top Plug	12/23/2015	08:55:46	COM5	1.90	8.22	10.00	
Event	19	Pump Displacement	Pump Displacement	12/23/2015	08:55:04	COM5	0.00	8.18	-19.00	PUMPED 196 BBLS OF FRESH WATER, PICKED UP WIPER PLUG AT 39.5 BBLS AWAY AND 1350 PSI, DISPLACED AT 5 BPM AND 2263 PSI
Event	20	Bump Plug	Bump Plug	12/23/2015	09:47:31	COM5	0.00	8.44	2730.00	BUMPED PLUG AT 1810 AND FINAL PRESSURE WAS 2750
Event	21	Other	Other	12/23/2015	10:09:14	COM5	0.00	8.29	-24.00	CHECKED FLOATS AND GOT 2 BBLS BACK TO TRUCK, FLOATS HELD
Event	22	Pressure Up Well	Pressure Up Well	12/23/2015	10:11:40	COM5	0.00	8.37	2044.00	2000 PSI BACKSIDE TEST FOR 10 MIN
Event	23	Clean Hole	Clean Hole	12/23/2015	10:35:20	COM5	6.00	8.37	1703.00	CIRCULATED 7" AT 8 BPM AND 2100 PSI, GOT 24 BBLS OF CMT BACK TO SURFACE, PUMPED 226 BBLS OF FRESH WATER TO CLEAN HOLE
Event	24	End Job	End Job	12/23/2015	11:04:12	COM5				



① Call Out n/a;n/a;n/a	④ Rig-Up Equipment n/a;n/a;n/a	⑦ Start Job 0;8.41;64	⑩ Pump Spacer 1 0;8.45;390	⑬ Pump Tail Cement 5;13.78;600	⑯ Shutdown 0;6.59;-12	⑳ Drop Top Plug 1.9;8.22;10	22 Pressure Up Well 0;8.37;2044
② Crew Leave Yard n/a;n/a;n/a	⑤ Other n/a;n/a;n/a	⑧ Test Lines 0;8.58;4487	⑪ Pump Lead Cement 1.4;13.45;328	⑭ Check weight 5;13.64;783	⑰ Clean Lines 0;-0.17;-14	20 Bump Plug 0;8.44;2730	23 Clean Hole 6;8.37;1703
③ Arrive At Loc n/a;n/a;n/a	⑥ Pre-Job Safety Meeting 0;0;64	⑨ Other 0;8.64;-4	⑫ Check weight 5;13.95;1078	⑮ Pump Spacer 1 2.9;12.6;105	⑱ Pump Displacement 0;8.18;-19	21 Other 0;8.29;-24	24 End Job 0.9;8.26;-22

Custom Results

