

# HALLIBURTON

iCem<sup>®</sup> Service

**HIGHPOINT RESOURCES CORP - EBUS**

**Anschutz Equus Farms Fed 5-61-34-5764B Production**

Sincerely,  
**Meghan Jacobs**

## Legal Notice

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **AEFF 5-61-34-5764B** 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.

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 Fort Lupton**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 343492		<b>Ship To #:</b> 3912004		<b>Quote #:</b>		<b>Sales Order #:</b> 0905632126				
<b>Customer:</b> HIGHPOINT RESOURCES CORP-EBUS					<b>Customer Rep:</b> Goose Hunter					
<b>Well Name:</b> ANSCHUTZ EQUUS FARMS FED			<b>Well #:</b> 5-61-34-5764B			<b>API/UWI #:</b> 05-123-48186-00				
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> ROGGEN		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO			
<b>Legal Description:</b> NE SE-34-5N-61W-1685FSL-255FEL										
<b>Contractor:</b> CADE DRLG					<b>Rig/Platform Name/Num:</b> CADE 24					
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\H181357					<b>Srv Supervisor:</b> Kamereon White					
<b>Job</b>										
<b>Formation Name</b>										
<b>Formation Depth (MD)</b>		<b>Top</b>			<b>Bottom</b>					
<b>Form Type</b>					<b>BHST</b>					
<b>Job depth MD</b>		16009ft			<b>Job Depth TVD</b>					
<b>Water Depth</b>					<b>Wk Ht Above Floor</b>			10'		
<b>Perforation Depth (MD)</b>		<b>From</b>			<b>To</b>					
<b>Well Data</b>										
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing		7	6.366	23			0	6414	0	5926
Casing		4.5	4	11.6	8 RD		0	16065	0	0
Open Hole Section			6.125				6414	16069	0	0
<b>Tools and Accessories</b>										
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	
						<b>Top Plug</b>	4.5	1	WTHR	
<b>Float Shoe</b>	4.5	1		16065						
<b>Float Collar</b>	4.5	1		16009						
						<b>Centralizers</b>	4.5	121	Stickman	
<b>Fluid Data</b>										
<b>Stage/Plug #:</b> 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	FDP-C1337-18	SBM FDP-C1337-18 CEMENT SPACER SYS	20	bbl	12	3.15	19.6	6	
2	NeoCem	NeoCem TM	510	sack	13.2	2.04		8	9.74
3	Fresh Water		248	bbl	8.33			8	
<b>Cement Left In Pipe</b>									
<b>Amount</b>		56 ft			<b>Reason</b>			<b>Shoe Joint</b>	
Mix Water: pH 7		Mix Water Chloride: < 400 ppm			Mix Water Temperature: 46,49 °F				
		Plug Displaced by: 8.33 lb/gal							
Plug Bumped? Yes		Bump Pressure: 1700 psi			Floats Held? Yes				
Cement Returns: 0 bbl		Returns Density: 8.8 lb/gal							
<b>Comment</b>									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

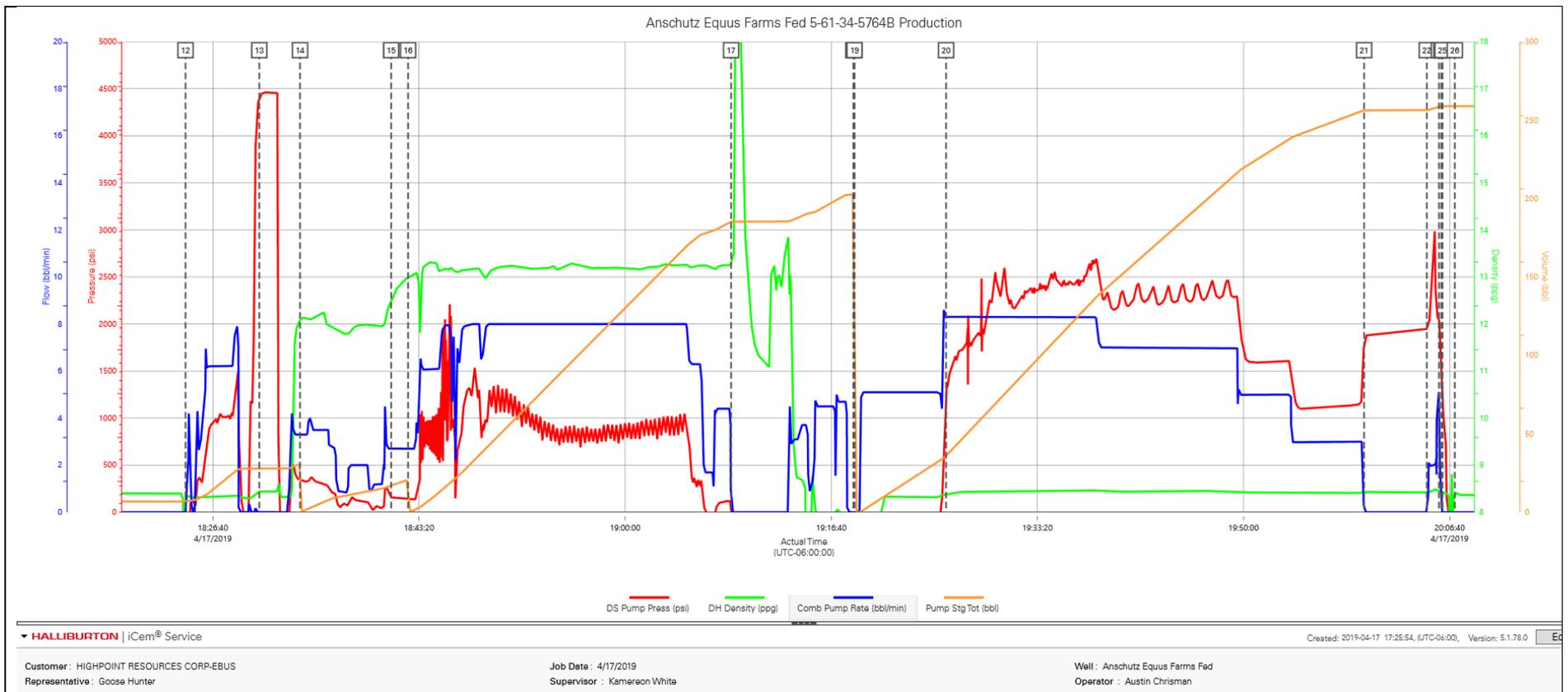
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	4/17/2019	11:00:00	USER				Crew called out and was requested to be on location @ 1630.
Event	2	Casing on Bottom	Casing on Bottom	4/17/2019	13:00:00	USER				Casing on Bottom with the landing joint. The rig circulated 4215 strokes @ 335 gm 1620 psi.
Event	3	Depart Yard Safety Meeting	Depart Yard Safety Meeting	4/17/2019	14:15:00	USER				Crew discussed the route of travel.
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	4/17/2019	14:30:00	USER				Crew left the yard.
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	4/17/2019	16:30:00	USER				Crew arrived on location early and the rig was done running casing.
Event	6	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	4/17/2019	16:40:00	USER				Spotting in trucks and supervisor met with the customer and got the well information. TD-16,069' TP-16,065.38' SJ-56.38' FC-16,009' Cas-4.5" 11.6# HCP110 PC-7" 23# Set @ 6414' Mud Weight-8.8 ppg WBM, Wet Shoe- 1 Bbls TVD-5926' OH-6-1/8."
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/17/2019	16:50:00	USER				Discussed rig up procedure and signed the JSA.
Event	8	Rig-Up Equipment	Rig-Up Equipment	4/17/2019	17:00:00	USER				Rigged up all HES equipment and lines.
Event	9	Rig-Up Completed	Rig-Up Completed	4/17/2019	17:30:00	USER	-21.00	0.00	0.00	All HES equipment and lines rigged up safely.
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/17/2019	18:00:00	USER	-141.00	8.39	0.00	Discussed the job procedure and pressures with all personnel involved with the cement job.
Event	11	Check Weight	Check Weight	4/17/2019	18:11:54	COM4	-142.00	8.40	0.00	Checked the weight of the spacer with the pressurized mud scales, scaled @ 12.0 ppg.
Event	12	Other	Other	4/17/2019	18:24:27	COM4	-144.00	7.76	0.00	Fill the lines with 20 bbls of water ahead as per customer request 6 bpm 650 psi.

Event	13	Test Lines	Test Lines	4/17/2019	18:30:25	COM4	4410.00	8.44	0.00	Tested the lines to 500 psi and to 4500 psi and held for 2 min no leaks.
Event	14	Pump Spacer 1	Pump Spacer 1	4/17/2019	18:33:43	COM4	347.00	12.09	3.30	Pumped 20 bbls of spacer @ 12.0 ppg 3.15 yield 19.6 gal/sk 6 bpm 740 psi.
Event	15	Check Weight	Check Weight	4/17/2019	18:41:05	COM4	154.00	12.50	2.70	Checked the weight of Cement with the pressurized mud scales, scaled @ 13.2 ppg.
Event	16	Pump Lead Cement	Pump Lead Cement	4/17/2019	18:42:27	COM4	139.00	12.98	2.70	Pumped 185 bbls of Cement @ 13.2 ppg 2.04 yield 9.74 8 bpm 1200 psi.
Event	17	Shutdown	Shutdown	4/17/2019	19:08:34	COM4	3.00	13.26	0.00	Shutdown to wash pumps and lines up to the wash up tank, and to send air back through the standpipe to the wash up tank.
Event	18	Drop Top Plug	Drop Top Plug	4/17/2019	19:18:27	COM4	-137.00	0.21	0.00	The customer and Halliburton re witnessed the Top plug being loaded and dropped.
Event	19	Pump Displacement	Pump Displacement	4/17/2019	19:18:33	COM4	-140.00	2.02	0.00	Pumped calculated displacement of 248 bbls of water with the first 20 bbls with MMCR and BE3 and then we used anhib II with Oxygen and left the last 30 bbls fresh water .
Event	20	Displ Reached Cement	Displ Reached Cement	4/17/2019	19:25:57	COM4	1150.00	8.39	8.30	@ 30 bbls away we caught the plug, Picked our rate up to 8 bpm.
Event	21	Bump Plug	Bump Plug	4/17/2019	19:59:45	COM4	1767.00	8.44	0.00	Bumped the plug on calculated displacement, the final circulating psi was 1700 psi and shutdown the pump. We waited 5 min for a casing test and gained 500 psi.
Event	22	Other	Other	4/17/2019	20:04:49	COM4	1947.00	8.42	0.00	Pressured up @ 2 bpm to shift the wet shoe sub , it shifted @ 3100 psi.
Event	23	Other	Other	4/17/2019	20:05:48	COM4	2050.00	8.45	5.10	Pumped a 1 bbl wet shoe @ 5 bpm and shutdown.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/17/2019	20:06:00	USER	1483.00	8.42	0.00	Crew held a safety meeting discussing the rig down and flush stack procedure. Also all potential hazards associated with rigging down all HES equipment and lines.
Event	25	Other	Other	4/17/2019	20:06:05	COM4	1250.00	8.41	0.00	Checked the floats and the floats held, we got 0.5 bbls back.
Event	26	End Job	End Job	4/17/2019	20:07:05	COM4	-140.00	8.43	0.00	Cement job complete, <b>calculated tops TOC-5053</b> TOS-4038' TOW-3023'. No cement or spacer back to surface.

Event	27	Rig Down Lines	Rig Down Lines	4/17/2019	20:15:00	USER	-143.00	8.35	0.00	The crew rigged down all HES equipment and lines.
Event	28	Rig-Down Completed	Rig-Down Completed	4/17/2019	20:40:00	USER				Rig down completed no one got hurt.
Event	29	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/17/2019	20:50:00	USER				The crew held a pre journey safety meeting discussing the route and potential hazards while driving.
Event	30	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	4/17/2019	21:00:00	USER				Kamereon White and crew would like to thank you for your business and choosing Halliburton Cement. If you have any questions please give us a call.

3.0 Attachments

3.1 Anschutz Equus Farms Fed 5-61-34-5764B Production – Job Chart with Events



### 3.2 Anschutz Equus Farms Fed 5-61-34-5764B Production – Job Chart without Events

