

HALLIBURTON

iCem[®] Service

CONOCOPHILLIPS

Date: Wednesday, September 06, 2017

State Bierstadt 4-65 35-34 1CH Surface

Job Date: Friday, August 11, 2017

Sincerely,

Bryce Hinsch

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 **State Bierstadt 4-65 35-34 1CH** cement **surface** 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 [Fort Lupton]

The Road to Excellence Starts with Safety

Sold To #: 352431		Ship To #: 3814148		Quote #: 0022334821		Sales Order #: 0904218486				
Customer: CONOCO/PHILLIPS COMPANY-EBUS				Customer Rep: Aron Negusse						
Well Name: STATE BIERSTADT 4-65 34-35			Well #: 1CH		API/UWI #: 05-005-07296-00					
Field: WILDCAT		City (SAP): AURORA		County/Parish: ARAPAHOE		State: COLORADO				
Legal Description: NE NE-35-4S-65W-1210FNL-650FEL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 448						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB41307				Srv Supervisor: Vaughn Oteri						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		2315ft		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
Open Hole Section			13.5				0	2315		
Casing		9.625	8.921	36	LTC	J-55	0	2305		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625					Top Plug	9.625	1	HES	
Float Shoe	9.625			2305		Bottom Plug	9.625	1	HES	
Float Collar	9.625			2257		SSR plug set	9.625			
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625			
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	10 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	10	8.82		3		
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	SwiftCem	SWIFTCCEM (TM) SYSTEM		438	sack	12	2.56		8	15.11
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	SwiftCem	SWIFTCCEM (TM) SYSTEM		165	sack	14.2	1.59		8	7.89
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	Displacement	Displacement		174.9	bbl	8.33			8	
Cement Left In Pipe		Amount	45 ft			Reason			Shoe Joint	
Comment 55bbl 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	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	DH Density (ppg)	Comments
Event	1	Call Out	Call Out	8/10/2017	18:00:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	8/10/2017	23:00:00	USER				Arrived on location met with company rep to discuss job process and concerns
Event	3	Other	Other	8/10/2017	23:10:10	USER				TD-2315 TP-2305 FC-2257 Mud 9.2ppg Casing 9.625 36#
Event	4	Start Job	Start Job	8/11/2017	03:40:17	COM4	1.00	0.00	-0.12	Held prejob safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	8/11/2017	03:43:17	COM4	25.00	0.00	8.38	Pressure tested pumps and lines with fresh water 4845psi
Event	6	Pump Spacer 1	Pump Spacer 1	8/11/2017	03:48:00	COM4	3.00	0.00	8.37	Mixed 50bbl of 10.0ppg Tuned spacer III at 4.0bpm 150psi
Event	7	Pump Lead Cement	Pump Lead Cement	8/11/2017	04:00:12	COM4	159.00	4.00	11.83	Mixed 438sks or 200bbl of 12.0ppg
Event	8	Pump Tail Cement	Pump Tail Cement	8/11/2017	04:30:00	COM4	225.00	5.20	13.28	Mixed 165sks or 46bbl of 14.2ppg y-1.59 g/sk7.89 Swiftcem at 8.0bpm 380psi
Event	9	Shutdown	Shutdown	8/11/2017	04:41:44	COM4	74.00	0.00	15.32	
Event	10	Drop Top Plug	Drop Top Plug	8/11/2017	04:41:52	COM4	36.00	0.00	15.79	Released plug witnessed by company rep
Event	11	Pump Displacement	Pump Displacement	8/11/2017	04:43:34	COM4	7.00	0.00	15.56	Pumped 175bbl of fresh water to displace cement

Event	12	Other	Other	8/11/2017	05:14:58	COM4	1285.00	0.00	8.36	Bumped plug 500psi over final pump pressure
Event	13	Other	Other	8/11/2017	05:20:07	COM4	1338.00	0.00	8.35	Released pressure back to pump truck to check floats 1.0bbl back
Event	14	Pressure Up Well	Pressure Up Well	8/11/2017	05:22:05	COM4	9.00	0.00	8.34	Pressure up well to 1800psi for 30min
Event	15	End Job	End Job	8/11/2017	05:57:07	COM4	7.00	0.00	8.34	55bbl of cement back to surface

3.0 Attachments

3.1 Conoco State Bierstadt 4-65 34-35 1CH Surface Job Chart

