

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

MT FED Glenfair 8W-20-17 Surface

Sincerely,
Meghan Jacobs

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Mt FED Glenfair 8W-20-17** 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 14 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 #: 369404		Ship To #: 3691143		Quote #:		Sales Order #: 0905491469					
Customer: EXTRACTION OIL & GAS -					Customer Rep: Mike Torres						
Well Name: MT FED GLENFAIR			Well #: 8W-20-17			API/UWI #: 05-123-42183-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD			State: COLORADO				
Legal Description: NE NW-9-5N-65W-1084FNL-1754FWL											
Contractor:					Rig/Platform Name/Num: Cartel 41						
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199					Srv Supervisor: Kendall Broom - H194727						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type					BHST						
Job depth MD		1584ft			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	8 RD	J-55	0	1582	0	0	
Open Hole Section			13.5				0	1584	0	0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			1582		Top Plug	9.625	1	HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625		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	Red Dye Spacer	Red Dye Spacer			10	bbl	8.33				

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	SWIFTCEM (TM) SYSTEM	500	sack	13.5	1.74		5	9.2
3	Fresh Water	Fresh Water	119	bbl	8.33				
Cement Left In Pipe									
Amount		41 ft			Reason			Shoe Joint	
Mix Water: pH 7		Mix Water Chloride: 0 ppm			Mix Water Temperature: 71°F °C				
Plug Bumped? Yes					Floats Held? Yes				
Cement Returns: 14 bbl m3									
Comment									

2.0 Real-Time Job Summary

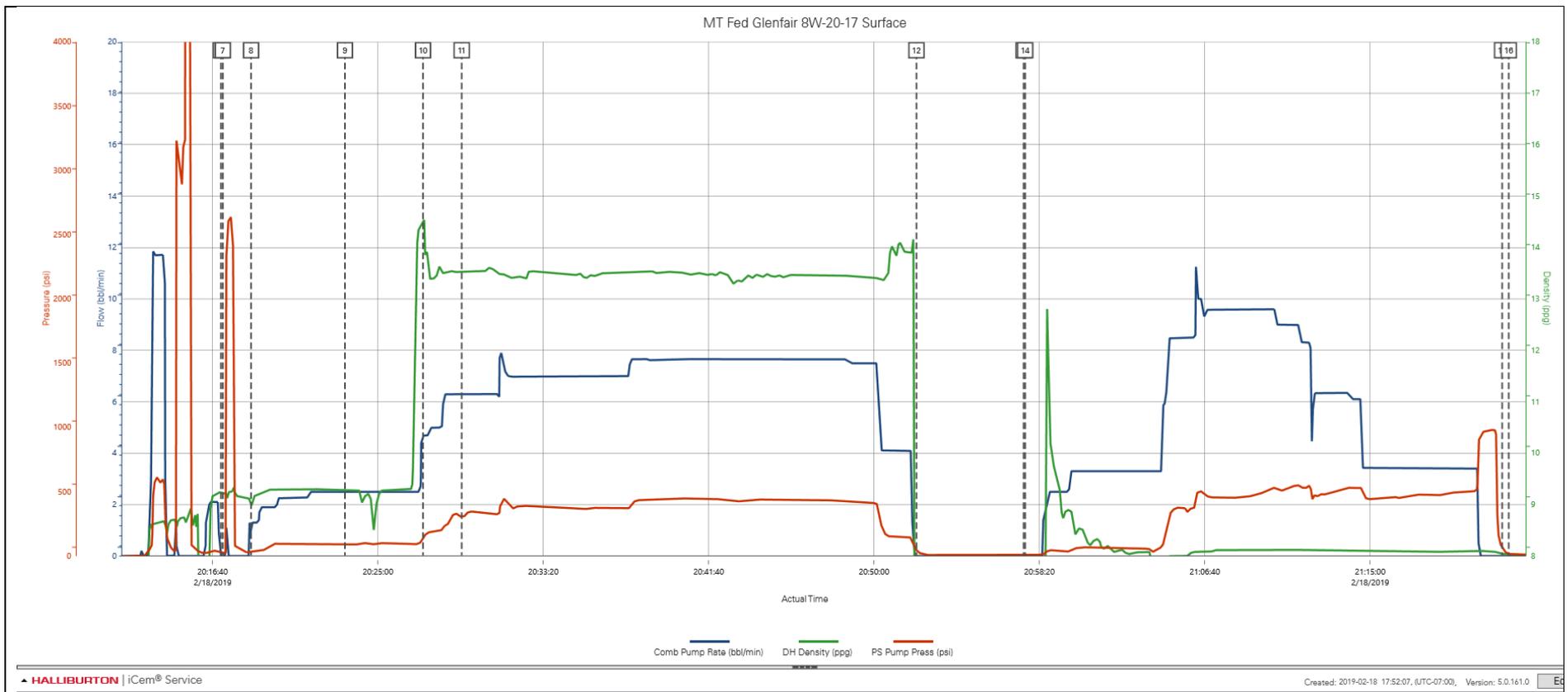
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	PS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	2/18/2019	12:00:00	USER				Called out the crew to be on location by 1800
Event	2	Depart Shop for Location	Depart shop forLocation	2/18/2019	16:00:00	USER				Held a safety huddle before leaving for location
Event	3	Arrive At Loc	Arrive At Loc	2/18/2019	17:00:00	USER				Held a Hazard Hunt before spotting in the trucks
Event	4	Rig-up Lines	Rig-up Lines	2/18/2019	18:00:00	USER				Held a safety meeting before rigging up lines
Event	5	Safety Meeting	Safety Meeting	2/18/2019	18:30:00	USER	0.00	0.00	-134.00	Held a safety meeting with the rig crew to discuss the operation and safety.
Event	6	Start Job	Start Job	2/18/2019	20:17:05	COM5	0.00	9.24	31.00	Filled lines with 1 bbl water
Event	7	Test Lines	Test Lines	2/18/2019	20:17:11	COM5	0.00	9.23	26.00	Test lines to 2000 psi and released quickly because of the cold temps.
Event	8	Pump Spacer 1	Pump Spacer 1	2/18/2019	20:18:36	COM5	1.30	8.97	29.00	Pumped 10 bbls water spacer
Event	9	Pump Spacer 2	Pump Spacer 2	2/18/2019	20:23:20	COM5	2.50	9.28	91.00	Pumped 10 bbls water spacer with Red Dye
Event	10	Pump Cement	Pump Cement	2/18/2019	20:27:16	COM5	4.70	14.47	143.00	Pumped 154 bbls Swiftcem. 500 sks, 13.5#, 1.74 yield, 9.2 gal/sks. Pumped at 8 bpm and 370 psi.
Event	11	Check Weight	Check Weight	2/18/2019	20:29:13	COM5	6.30	13.54	313.00	Verified weight with the pressurized scale.
Event	12	Shutdown	Shutdown	2/18/2019	20:52:08	COM5	0.00	0.54	47.00	Shut down and washed up the cement head
Event	13	Drop Top Plug	Drop Top Plug	2/18/2019	20:57:32	COM5	0.00	0.08	10.00	Dropped the plug and witnessed by the company man
Event	14	Pump Displacement	Pump Displacement	2/18/2019	20:57:37	COM5	0.00	0.08	10.00	Pumped 119 bbls water displacement. Got 14 bbls cement back to surface
Event	15	Bump Plug	Bump Plug	2/18/2019	21:21:39	COM5	0.00	8.04	63.00	Bumped the plug at 540 psi and kicked out at 1000 psi.
Event	16	End Job	End Job	2/18/2019	21:21:59	COM5	0.00	8.04	18.00	
Event	17	Rig Down Lines	Rig Down Lines	2/18/2019	21:30:00	USER	5.00	7.57	83.00	Held a safety meeting before rigging down lines

Event	18	Depart Location	Depart Location	2/18/2019	22:00:00	USER	Held a safety huddle before leaving location
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3.0 Attachments

3.1 Mt FED Glenfair 8W-20-17 Surface – Job Chart with Events



3.2 Mt FED Glenfair 8W-20-17 Surface – Job Chart without Events

