

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

AD FED DOUBLE CLUTCH 20W-25-7 SURFACE

Sincerely,

Meghan Jacobs

Legal Notice

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Table of Contents

1.0	Cementing Job Summary	4
1.1	Executive Summary	4
2.0	Real-Time Job Summary	7
2.1	Job Event Log	7
3.0	Attachments.....	9
3.1	Case 1-Custom Results.png.....	9
4.0	Custom Graphs.....	10
4.1	Custom Graph.....	10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **AD FED Double Clutch 20W-25-7** 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 23 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 #: 3809255		Quote #:		Sales Order #: 0905632527					
Customer: EXTRACTION OIL & GAS -					Customer Rep: JUSTIN HUMPHRIES						
Well Name: AD FED DOUBLE CLUTCH			Well #: 20W-25-7			API/UWI #: 05-123-45036-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD			State: COLORADO				
Legal Description: NW SW-21-5N-65W-2092FSL-369FWL											
Contractor:					Rig/Platform Name/Num: Cartel 15						
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199					Srv Supervisor: Jerald Watson						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type					BHST						
Job depth MD		1569ft			Job Depth TVD		1569				
Water Depth					Wk Ht Above Floor		0				
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					1569			
Casing		9.625	8.921	36				1569			
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	1	HES	1569		Bottom Plug	9.625		HES		
Float Collar	9.625	1	HES	1529		SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625	4	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			4	

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	SwiftCem	SWIFTCEM (TM) SYSTEM	515	sack	13.5	1.74		8	9.2	
9.20 Gal		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	Fresh Water	Fresh Water	118	bbl	8.33			8		
Cement Left In Pipe		Amount	40 ft		Reason			Shoe Joint		

2.0 Real-Time Job Summary

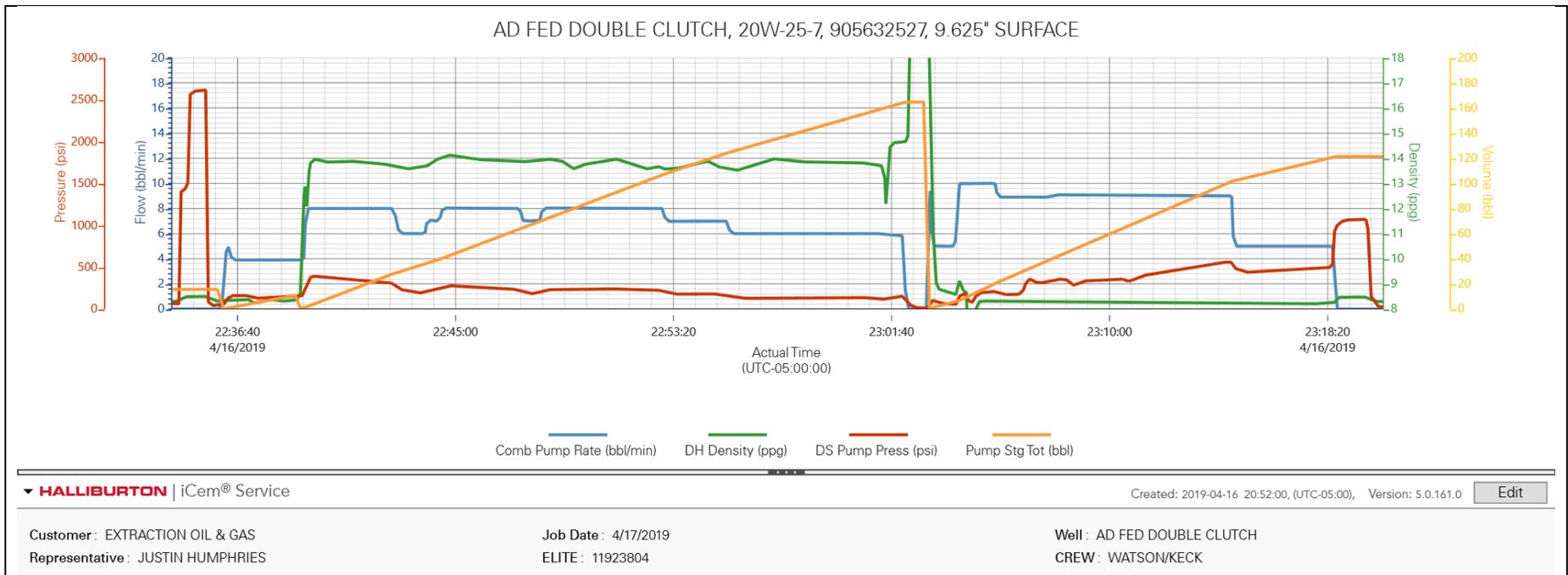
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	4/16/2019	01:00:00	USER					STAGED ON LOCATION FOR JOB, 0/L1900, BULK ARRIVED 1800.
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/16/2019	18:00:00	USER					TEST WATER, CHECK MATERIALS, GET NUMBERS FROM THE COMPANY MAN AND TALK ABOUT SPOTTING EQUIPMENT.
Event	3	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	4/16/2019	18:15:00	USER					DISCUSS HAZARDS ASSOCIATED WITH TASK
Event	4	Rig-Up Equipment	Rig-Up Equipment	4/16/2019	18:30:00	USER					RIG UP ALL EQUIPMENT
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/16/2019	22:00:00	USER	0.30	0.00	-6.00	10.80	DISCUSS HAZARDS ASSOCIATED WITH THE JOB WITH EVERYONE INVOLVED WITH THE JOB AS WELL AS WHAT NEEDS TO BE DONE IN CASE OF EMERGENCY OR IF WE NEED TO EVACUATE LOCATION.
Event	6	Test Lines	Test Lines	4/16/2019	22:34:24	COM4	0.00	8.30	55.00	15.70	TEST LINES TO 2000 PSI
Event	7	Pump Spacer 1	Pump Spacer 1	4/16/2019	22:36:01	COM4	0.00	8.31	41.00	15.70	10 DYED H2O, 4 BPM, 129 PSI, 8.33 PPG
Event	8	Pump Cement	Pump Cement	4/16/2019	22:38:58	COM4	3.90	8.37	154.00	0.00	160 CEMENT, 8 BPM, 397 PSI, 515 SKS, 13.5 PPG, 1.74 YIELD, 9.2 PPG
Event	9	Drop Top Plug	Drop Top Plug	4/16/2019	23:02:16	COM4	0.00	14.70	92.00	164.70	HES PLUG

Event	10	Pump Displacement	Pump Displacement	4/16/2019	23:02:59	COM4	0.00	23.75	7.00	164.70	118 H2O, 10 BPM, 188 PSI, 8.33 PPG, 25 BBL CEMENT TO SURFACE
Event	11	Bump Plug	Bump Plug	4/16/2019	23:18:46	COM4	0.00	8.46	1021.00	121.30	BUMP AT 470 PSI, TOOK TO 1070 PSI
Event	12	Check Floats	Check Floats	4/16/2019	23:19:50	USER	0.00	8.47	1071.00	121.30	1 BBL BACK
Event	13	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	4/16/2019	23:30:00	USER					DISCUSS HAZARDS INVOLVED AND IF ANYTHING IS STAYING ON LOCATION
Event	14	Rig-Down Equipment	Rig-Down Equipment	4/16/2019	23:45:00	USER					RIG DOWN ALL EQUIPMENT
Event	15	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/17/2019	00:15:00	USER					CHECK WITH EVERYONE TO SEE IF THEY ARE FIT TO DRIVE AND LEGAL TO DRIVE AND SEE WHAT THEIR PLANS ARE AS WELL AS DISCUSS ANY OTHER JOB THAT MAY NEED TO BE COVERED AFTER LEAVING LOCATION.
Event	16	Crew Leave Location	Crew Leave Location	4/17/2019	00:30:00	USER					EVERYONE LEAVES LOCATION

3.0 Attachments

3.1 Case 1-Custom Results.png



4.0 Custom Graphs

4.1 Custom Graph

