

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Monday, January 14, 2019

MT FED Maplewood 8W-20-10 Surface

Job Date: Wednesday, December 26, 2018

Sincerely,
Tyler Hill

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 **MT FED Maplewood 8W-20-10** 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 30 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 Ft. Lupton

The Road to Excellence Starts with Safety

Sold To #: 369404	Ship To #: 3691213	Quote #:	Sales Order #: 0905369742
Customer: EXTRACTION OIL & GAS -		Customer Rep: Chad Kelly	
Well Name: MT FED MAPLEWOOD		Well #: 8W-20-10	API/UWI #: 05-123-42180-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE NW-9-5N-65W-972FNL-1753FWL			
Contractor:		Rig/Platform Name/Num: Cartel 41	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Adam Covington	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1553ft		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	1553	0	0
Open Hole Section			13.5				0	1553	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1553	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625			1508	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	30	bbl	8.33			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	SWIFTCEM (TM) SYSTEM	575	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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
3	Fresh Water	Fresh Water	117	bbl	8.33			8		
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint		
Comment TD-1553' OH-13.5", TP-1553', FLOAT COLLAR-1508' WATER—44 DEGRESS, CHLORIDES-0, PH-7, SULFATES-0. 30 BBLS OF CEMENT TO SURFACE. BUMPED PLUG AT 4 BPM. FCP-530 PSI. TOOK TO 1297 PSI.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	12/26/2018	04:00:00	USER				CREW CALLED OUT BY COORDINATOR FOR AN ON LOCATION TIME OF 0830
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	12/26/2018	06:20:00	USER				MET WITH CREW DISCUSSED DIRECTIONS, SPEED LIMITS AND FOLLOWING DISTANCES.
Event	3	Depart Shop for Location	Depart Shop for Location	12/26/2018	06:30:00	USER				DEPARTED YARD AND CALLED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	12/26/2018	07:30:00	USER				ARRIVED AT LOCATION. GOT NUMBERS FROM COMPANY MAN AND PERFORMED A HAZARD HUNT. TD-1553' OH-13.5", TP-1553', FLOAT COLLAR-1508'
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/26/2018	07:40:00	USER				MET WITH CREW AND DISCUSSED SWINGS, TEAM LIFTS AND PROPER PPE.
Event	6	Safety Meeting - Pre Job	Safety Meeting - Pre Job	12/26/2018	09:30:00	USER	14.00	0.00	0.00	MET WITH HES AND RIG CREW MEMBERS TO DISCUSS JOB PROCEDURE, SAFETY PROCESSES AND PRESSURES.
Event	7	Start Job	Start Job	12/26/2018	09:57:44	COM4	15.00	8.36	0.00	FILLED LINES WITH 3 BBLS OF FRESH WATER. 2 BPM, 35 PSI. FULL RETURNS.
Event	8	Test Lines	Test Lines	12/26/2018	10:01:03	COM4	22.00	8.56	0.00	PRESSURE TESTED. 500

				8						KICKOUT THEN A 5TH GEAR STALL OUT. TOOK UP TO 3000 PSI. HELD FOR A MINUTE. BLEED OFF. NO LEAKS.
Event	9	Pump Spacer 1	Pump Spacer 1	12/26/2018	10:03:13	COM4	22.00	8.53	0.00	PUMPED 20 BBLS OF FRESH WATER SPACER AT 3 BPM, 22 PSI TO START. FULL RETURNS.
Event	10	Pump Spacer 2	Pump Spacer 2	12/26/2018	10:11:44	COM4	60.00	8.52	2.80	PUMPED 10 BBLS OF DYE WATER SPACER AT 3 BPM, 60 PSI. FULL RETURNS.
Event	11	Pump Cement	Pump Cement	12/26/2018	10:15:46	COM4	48.00	8.40	0.00	PUMPED 178 BBLS (575 SKS) AT 13.5#, 1.74y, 9.2wr. CEMENT AT 8 BPM, 250 PSI. FULL RETURNS.
Event	12	Check Weight	Check Weight	12/26/2018	10:23:40	COM4	238.00	13.50	7.80	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.5#.
Event	13	Check Weight	Check Weight	12/26/2018	10:34:14	COM4	150.00	13.45	6.00	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.5#
Event	14	Check Weight	Check Weight	12/26/2018	10:36:24	COM4	158.00	13.57	6.10	USED PRESSURIZED MUD SCALES TO WEIGH UP CEMENT. CEMENT WEIGHED UP AT 13.5#.
Event	15	Shutdown	Shutdown	12/26/2018	10:46:27	COM4	17.00	12.04	0.00	SHUTDOWN TO DROP AND WASH UP ON TOP OF PLUG.
Event	16	Drop Top Plug	Drop Top Plug	12/26/2018	10:48:04	COM4	13.00	12.16	0.00	ADAM COVINGTON DROPPED HALLIBURTON 9 5/8" TOP PLUG. CO. MAN WITNESSED.
Event	17	Pump Displacement	Pump Displacement	12/26/2018	10:48:07	COM4	13.00	12.18	0.00	PUMPED 117 BBLS OF FRESH WATER

										DISPLACEMENT AT 8 BPM, 250 PSI. FULL RETURNS.
Event	18	Bump Plug	Bump Plug	12/26/2018	11:07:01	COM4	978.00	7.67	2.70	BUMPED PLUG AT 4 BPM. FCP-530 PSI. TOOK TO 1297 PSI. HELD FOR A MINUTE AS PER CO. MAN.
Event	19	Other	Other	12/26/2018	11:08:43	COM4	1298.00	7.70	0.00	bled pressure back to the truck. GOT 1 BBL back when flow stopped. INDICATING that the floats held.
Event	20	End Job	End Job	12/26/2018	11:09:49	COM4	24.00	7.42	0.00	30 BBLS OF CEMENT BACK TO SURFACE.
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/26/2018	11:25:00	USER				MET WITH HES CREW MEMEBERS. DISCUSSED BLOW DOWN PROCEDURE, TEAM LIFTS AND PROPER PPE.
Event	22	Depart Location Safety Meeting	Depart Location Safety Meeting	12/26/2018	12:20:00	USER				MET WITH CREW. DISCUSSED DIRECTIONS, SPEED LIMITS AND ROAD CONDITIONS.
Event	23	Depart Location	Depart Location	12/26/2018	12:30:00	USER				JOB SAFELY COMPLETED BY ADAM COVINGTON AND CREW. THANKS FOR CHOOSING HALLIBURTON.

3.0 Attachments

3.1 MT FED Maplewood 8W-20-10 Surface.png

