

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Thursday, March 01, 2018

Milkshake 31W-20-17N Surface

Job Date: Saturday, February 03, 2018

Sincerely,

Bryce Hinsch

Legal Notice

Warning Disclaimer

Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

Limitations of Liability

Except as expressly set forth herein, there are no representations or warranties by Halliburton, express or implied, including implied warranties of merchantability and/or fitness for a particular purpose. In no event will Halliburton or its suppliers be liable for consequential, incidental, special, punitive or exemplary damages (including, without limitation, loss of data, profits, use of hardware, or software). Customer accepts full responsibility for any investment made based on results from the Software. Any interpretations, analyses or modeling of any data, including, but not limited to Customer data, and any recommendation or decisions based upon such interpretations, analyses or modeling are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional may differ. Accordingly, Halliburton cannot and does not warrant the accuracy, correctness or completeness of any such interpretation, recommendation, modeling or other products of the Software Product. As such, any interpretation, recommendation or modeling resulting from the Software for the purpose of any drilling, well treatment, production or financial decision will be at the sole risk of Customer. Under no circumstances will Halliburton or its suppliers be liable for any damages.

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.....	10
3.1	Extraction Milkshake 31W-20-17N Surface Job Chart.....	10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Milkshake 31W-20-17N** 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 24 bbls of cement were brought 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 #: 3847516	Quote #:	Sales Order #: 0904621360
Customer: EXTRACTION OIL & GAS -		Customer Rep: Jose Torres	
Well Name: MILKSHAKE	Well #: 31W-20-17N	API/UWI #: 05-123-46056-00	
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-32-6N-67W-1023FSL-225FWL			
Contractor: Cartell 41		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	1560ft		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	1560	0	0
Open Hole Section			13.5				0	1560	0	0

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			1560	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			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	525	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	43 ft		Reason			Shoe Joint		
Comment 24 bbls of cement back to surface. 1 bbl back to the trucks, floats held.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Combined Pump Total (bbl)	Comments
Event	1	Call Out	Call Out	2/2/2018	18:00:00	USER					CALLED OUT BY SERVICE COORDINATOR FOR O/L AT 00:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/2/2018	22:00:00	USER					HELD MEETING WITH ALL PERSONNEL IN CONVOY TO DISCUSS DIRECTIONS AND HAZARDS ASSOCIATED WITH DRIVING, ALL FIT TO DRIVE.
Event	3	Depart Shop for Location	Depart Shop for Location	2/2/2018	22:10:00	USER					JOURNEY MANAGEMENT PRIOR TO DEPARTURE
Event	4	Arrive At Loc	Arrive At Loc	2/2/2018	23:00:00	USER					UPON ARRIVAL MET WITH COMPANY MAN TO DISCUSS JOB DETAILS AND CALCULATIONS, PERFORMED HAZARD HUNT AND SITE ASSESSMENT. Water test- PH-6, Chlor-0, Temp-48
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/3/2018	18:00:00	USER					DISCUSSED RIGGING UP HAZARDS AND PROCEDURE ACCORDING TO HMS.
Event	6	Rig-Up Equipment	Rig-Up Equipment	2/3/2018	18:10:00	USER					RIGGED UP ALL IRON, WATER LINES AND BULK HOSES.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/3/2018	18:50:00	USER					HELD SAFETY MEETING WITH ALL JOB ASSOCIATED PERSONNEL TO DISCUSS JOB PROCEDURE, HAZARDS AND STOP WORK

											AUTHORITY.
Event	8	Start Job	Start Job	2/3/2018	19:07:14	COM4	-5.00	8.81	0.00	0.0	FILL LINES WITH 3 BBLS OF FRESH WATER. 3 BPM 45 BPM.
Event	9	Test Lines	Test Lines	2/3/2018	19:10:39	COM4	6.00	8.75	0.00	2.1	PRESSURE TESTED LINES TO 3500 PSI. AFTER PERFORMING A 500 PSI KICK OUT TEST, AND A 5TH GEAR STALL. HELD FOR 2 MINUTES. 1 PSI EVERY 2.5-3 SECONDS.
Event	10	Pump Spacer 1	Pump Spacer 1	2/3/2018	19:15:36	COM4	8.00	8.72	0.90	2.2	PUMPED 10 BBLS OF FRESH WATER SPACER. 3 BPM 30 PSI.
Event	11	Pump Spacer 2	Pump Spacer 2	2/3/2018	19:19:02	COM4	31.00	8.72	2.80	11.5	PUMPED 10 BBLS OF DYED SPACER, 3 BPM, 40 PSI.
Event	12	Pump Cement	Pump Cement	2/3/2018	19:24:15	COM4	33.00	8.50	2.70	25.8	PUMPED 163 BBLS (525 SKS) 13.5#, 1.74 y, 9.2 wr. AT 8 BPM 250 PSI. HAD FULL RETURNS THE ENTIRE TIME.
Event	13	Check Weight	Check weight	2/3/2018	19:30:21	COM4	240.00	13.65	7.70	64.8	CHECKED CEMENT WITH PRESSURIZED MUD SCALES.
Event	14	Check Weight	Check weight	2/3/2018	19:35:26	COM4	234.00	13.49	7.70	104.0	CHECKED CEMENT WITH PRESSURIZED MUD SCALES.
Event	15	Check Weight	Check weight	2/3/2018	19:37:47	COM4	235.00	13.45	7.70	122.2	CHECKED CEMENT WITH PRESSURIZED MUD SCALES.
Event	16	Shutdown	Shutdown	2/3/2018	19:53:24	COM4	-7.00	22.40	0.00	186.4	SHUTDOWN TO DROP PLUG.
Event	17	Drop Top Plug	Drop Top Plug	2/3/2018	19:54:26	COM4	-8.00	21.93	0.00	186.4	DROPPED HALLIBUTON 9 5/8 SURFACE TOP PLUG. CO MAN WITNESSED. DROPPED BY ADAM COVINGTON

Event	18	Pump Displacement	Pump Displacement	2/3/2018	19:55:13	COM4	18.00	12.27	2.70	187.4	PUMPED 117 BBLS OF FRESH WATER DISPLACEMENT. 8 BPM 250 PSI. HAD FULL RETURNS, WE GOT 24 BBLS OF CEMENT BACK TO SURFACE.
Event	19	Bump Plug	Bump Plug	2/3/2018	20:16:44	COM4	1038.00	7.83	0.00	306.8	BUMPED HALLIBURTON 9 5/8" TOP PLUG AT 3 BPM. FCP WAS 450 PSI, BUMP PRESSURE TO 1025 PSI. HELD FOR A MINUTE.
Event	20	Check Floats	Check Floats	2/3/2018	20:17:14	USER	1055.00	7.83	0.00	306.8	CHECKED FLOATS. WE GOT 1 BBL BACK TO THE TRUCK.
Event	21	End Job	End Job	2/3/2018	20:25:10	COM4	-1.00	8.49	0.00	323.6	24 BBLS OF CEMENT BACK TO SURFACE.
Event	22	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/3/2018	20:30:00	USER					DISCUSSED RIGGING DOWN HAZARDS AND PROCEDURE ACCORDING TO HMS.
Event	23	Depart Location Safety Meeting	Depart Location Safety Meeting	2/3/2018	21:50:00	USER					HELD MEETING WITH ALL HES EMPLOYESS IN CONVOY TO DISCUSS DIRECTIONS AND HAZARDS ASSOCIATED WITH DRIVING, ALL FIT TO DRIVE.
Event	24	Depart Location for Shop	Depart Location for Shop	2/3/2018	22:00:00	USER					PRE JOURNEY MANAGEMENT PRIOR TO DEPARTURE.

3.0 Attachments

3.1 Extraction Milkshake 31W-20-17N Surface Job Chart

