

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

United States of America, COLORADO

MICKEY 4

Surface

Weld County

Sincerely,

Derek Trier

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Table of Contents

1.0 Cementing Job Summary 4

 1.1 Executive Summary4

2.0 Real-Time Job Summary 7

 2.1 Job Event Log7

3.0 Custom Graphs..... 9

 3.1 Custom Graph.....9

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Mickey 4** 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, 25bbl of Cement 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]

Sold To #: 369404		Ship To #: 3766637		Quote #:		Sales Order #: 0903663850				
Customer: EXTRACTION OIL & GAS -				Customer Rep: SEAN MCINTYRE						
Well Name: MICKEY		Well #: 4		API/UWI #: 05-123-43851-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO				
Legal Description: SW NE-5-6N-67W-2419FNL-1813FEL										
Contractor:				Rig/Platform Name/Num: Spud Rig						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: John Keane						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1588ft		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		9.625	8.921	36			0	1588	0	1588
Open Hole Section			13.5				0	1588	0	1588
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1588		Top Plug	9.625		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		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 Data										
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	SWIFTCM (TM) SYSTEM	525	sack	13.5	1.74		5	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	116.8	bbl	8.33				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment : 25 bbl cmt to surface									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	DS Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	11/18/2016	15:30:00	USER					REQUESTED ON LOCATION TIME 18:30
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	11/19/2016	19:30:00	USER					WITH HES, 1 F-450, 1 ELITE CEMENTING UNIT, 2 660 BULK TRUCKS
Event	3	Arrive At Loc	Arrive At Loc	11/19/2016	21:00:00	USER					RIG RUNNING CASING UPON HES, ARRIVAL
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/19/2016	21:30:00	USER					WITH HES, DISCUSSED JOB PROCEDURE WITH COMPANY REP, TESTED WATER (CHLOR 0 , PH 7.5, TEMP 83 F), SDS OFFERED FOR ALL HES MATERIALS
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/19/2016	21:45:00	USER					WITH HES
Event	6	Rig-Up Equipment	Rig-Up Equipment	11/19/2016	21:50:00	USER					1 LINE RAN TO THE FLOOR, 1 9.625 IN QUICK-LATCH PLUG CONTAINER
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/19/2016	04:10:00	USER					WITH HES, EXTRACTION, AND RIG CREW
Event	8	Start Job	Start Job	11/19/2016	04:18:29	USER					TP 1555 FT, CSG 9.625 IN 36 LB/FT J-55, HOLE 13.5 IN, SHOE 43 FT, MWT 9.0 LB/GAL WBM, RIG CIRCULATING 12 BBL/MIN, 600 PSI
Event	9	Prime Pumps	Prime Pumps	11/19/2016	04:21:37	USER	8.32	8.33	2.00	4.00	FRESH WATER
Event	10	Test Lines	Test Lines	11/19/2016	04:25:35	USER	2775.80	8.33	0.00	4.00	LOW TEST AT 1400 PSI, HIGH TEST AT 2775 PSI, PRESSURE HOLDING
Event	11	Pump Spacer	Pump Fresh Water Spacer	11/19/2016	04:29:45	USER	20.00	8.33	2.00	20.00	RED DYE ADDED, RETURNS AT 1 BBL AWAY
Event	12	Pump Cement	Pump Cement	11/19/2016	04:42:04	USER	100.00	13.50	5.50	163.00	MIXED AT 13.5 LB/GAL, 525 SKS, 1.74 FT3/SK, 9.2 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES

Event	13	Shutdown	Shutdown	11/19/2016	04:44:46	USER	-56.37	11.61	0.00	8.04	SHUTDOWN TO FIX MIXING PROBLEM
Event	14	Resume Pumping	Resume Pumping	11/19/2016	04:49:28	USER	-8.56	13.50	2.50	10.69	RESUMED PUMPING CEMENT AT DESIRED DENSITY AND RATE
Event	15	Shutdown	Shutdown	11/19/2016	05:26:18	USER	-70.43	13.99	1.96	163.00	
Event	16	Drop Top Plug	Drop Top Plug	11/19/2016	05:31:37	USER	-88.25	15.84	0.00	0.00	PLUG LAUNCHED
Event	17	Pump Displacement	Pump Displacement	11/19/2016	05:37:03	USER	400.00	8.33	8.00	107.00	FRESH WATER, 116.8 BBL DISPLACEMENT
Event	18	Slow Rate	Slow Rate	11/19/2016	05:54:04	USER	361.76	8.33	3.17	10.00	SLOWED AT 107 BBL AWAY
Event	19	Bump Plug	Bump Plug	11/19/2016	05:56:22	USER	410.00	8.34	0.00	117.00	PLUG BUMPED AT CALCULATED DISPLACEMENT
Event	20	Check Floats	Check Floats	11/19/2016	05:59:04	USER	1052.71	8.30	0.00	117.00	FLOATS HOLDING, 1 BBL RETURNED TO THE TRUCK
Event	21	End Job	End Job	11/19/2016	06:04:17	USER					GOOD CIRCULATION, PIPE WAS STATIC, 25 BBL CEMENT CIRCULATED TO SURFACE, 2 ADD HOURS, RIG DID NOT USE SUGAR, 1 9.625 IN QUICK-LATCH PLUG CONTAINER LEFT ON LOCATION
Event	22	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/19/2016	06:10:00	USER					WITH HES
Event	23	Rig Down Lines	Rig Down Lines	11/19/2016	06:15:00	USER					
Event	24	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/19/2016	07:00:00	USER					WITH HES
Event	25	Crew Leave Location	Crew Leave Location	11/19/2016	07:10:00	USER					THANKS FOR USING HALLIBURTON, JOHN KEANE AND CREW

3.0 Custom Graphs

3.1 Custom Graph

