

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

United States of America, COLORADO

MICKEY 5

WELD, MICKEY 5

Case 1

Sincerely,

Derek Trier

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Mickey 5** 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 #: 3766617		Quote #:		Sales Order #: 0903664340				
Customer: EXTRACTION OIL & GAS -				Customer Rep: SEAN MCINTYRE						
Well Name: MICKEY		Well #: 5		API/UWI #: 05-123-43855-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO				
Legal Description: SW NE-5-6N-67W-2420FNL-1828FEL										
Contractor:				Rig/Platform Name/Num: Spud Rig						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srcv 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	0	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		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	0	bbl	8.33				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment									

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)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	11/20/2016	17:00:00	USER					REQUESTED ON LOCATION TIME 21:00
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	11/20/2016	19:00:00	USER					WITH HES, 1 F-450, 1 ELITE CEMENTING UNIT, 2 660 BULK TRUCKS
Event	3	Arrive At Loc	Arrive At Loc	11/20/2016	20:10:00	USER					RIG PULLING DRILL PIPE UPON HES ARRIVAL
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/20/2016	21:30:00	USER					WITH HES, DISCUSSED JOB PROCEDURE WITH COMPANY REP, TESTED WATER (CHLOR 0, PH 7.5, TEMP 55 f), SDS OFFERED FOR ALL HES MATERIALS
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/20/2016	22:00:00	USER					WITH HES
Event	6	Rig-Up Equipment	Rig-Up Equipment	11/20/2016	23:00:00	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	11/20/2016	04:40:00	USER					WITH HES, EXTRACTION, AND RIG CREW
Event	8	Start Job	Start Job	11/20/2016	04:45:00	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	Fill Lines	11/20/2016	04:47:52	USER	24.85	8.33	2.14	3.00	FRESH WATER
Event	10	Test Lines	Test Lines	11/20/2016	05:01:59	USER	3707.42	8.33	0.00	3.00	LOW TEST AT 1400 PSI,

											HIGH TEST AT 3709 PSI, PRESSURE HOLDING
Event	11	Pump Spacer	Pump Fresh Water Spacer	11/20/2016	05:09:11	USER	140.00	8.33	3.50	20.00	RED DYE ADDED, RETURNS AT 1 BBL AWAY
Event	12	Pump Cement	Pump Cement	11/20/2016	05:15:00	USER	160.00	13.50	6.00	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	11/20/2016	05:45:17	USER	-17.33	13.50	2.55	163.00	
Event	14	Drop Top Plug	Drop Top Plug	11/20/2016	05:46:57	USER					PLUG LAUNCHED
Event	15	Pump Displacement	Pump Displacement	11/20/2016	05:48:56	USER	724.00	8.33	8.00	107.00	FRESH WATER, 116.9 BBL DISPLACEMENT
Event	16	Slow Rate	Slow Rate	11/20/2016	06:05:06	USER	452.00	8.35	3.00	10.00	SLOWED AT 107 BBL AWAY
Event	17	Bump Plug	Bump Plug	11/20/2016	06:08:00	USER	508.00	8.35	3.04	116.9	PLUG BUMPED AT CALCULATED DISPLACEMENT
Event	18	Check Floats	Check Floats	11/20/2016	06:10:19	USER	1090.81	8.34	0.00	116.9	FLOATS HOLDING, 1 BBL RETURNED TO THE TRUCK
Event	19	End Job	End Job	11/20/2016	06:12:00	USER					GOOD CIRCULATIION, 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 LOACATION
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/20/2016	06:15:00	USER					WITH HES

Event	21	Rig Down Lines	Rig Down Lines	11/20/2016	06:20:00	USER	
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/20/2016	06:45:00	USER	WITH HES
Event	23	Crew Leave Location	Crew Leave Location	11/20/2016	07:00:00	USER	THANKS FOR USING HALLIBURTON, JOHN KEANE AND CREW

3.0 Custom Graphs

3.1 Custom Graph

