

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

**For: Extraction**

**Coyote Trails 34S-20-8C Surface**

Job Date: Wednesday, March 28, 2018

Sincerely,  
**Ryan Keeran**

## Legal Notice

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### Disclaimer:

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the Coyote Trails 34S-20-8C 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.

25 bbls of cement were circulated 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*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3843102		<b>Quote #:</b>		<b>Sales Order #:</b> 0904742537					
<b>Customer:</b> EXTRACTION OIL & GAS -				<b>Customer Rep:</b> Jose Torres							
<b>Well Name:</b> COYOTE TRAILS			<b>Well #:</b> 34S-20-8C			<b>API/UWI #:</b> 05-123-45986-00					
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> ERIE		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO					
<b>Legal Description:</b> SW SE-28-1N-68W-1147FSL-2175FEL											
<b>Contractor:</b> PATTERSON-UTI ENERGY				<b>Rig/Platform Name/Num:</b> PATTERSON 901							
<b>Job BOM:</b> 7521 7521											
<b>Well Type:</b> HORIZONTAL OIL											
<b>Sales Person:</b> HALAMERICA/HX38199				<b>Srv Supervisor:</b> Kendall Broom - H194727							
<b>Job</b>											
<b>Formation Name</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>							
<b>Form Type</b>					<b>BHST</b>						
<b>Job depth MD</b>		1630ft			<b>Job Depth TVD</b>						
<b>Water Depth</b>					<b>Wk Ht Above Floor</b>						
<b>Perforation Depth (MD)</b>		<b>From</b>		<b>To</b>							
<b>Well Data</b>											
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>	
Casing	0	9.625	8.921	36	8 RD	J-55	0	1600	0	1600	
Open Hole Section			13.5				0	1630	0	1630	
<b>Tools and Accessories</b>											
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>		
Guide Shoe	9.625					Top Plug	9.625		HES		
Float Shoe	9.625			1600		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		
<b>Fluid Data</b>											
<b>Stage/Plug #:</b> 1											
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>			<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	Red Dye Spacer	Red Dye Spacer			10	bbl	8.33				

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		550	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		120	bbl	8.33				
Cement Left In Pipe		Amount	43 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	Comb Pump Rate (bbl/min)	DH Density (ppg)	Pump Stg Tot (bbl)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	3/28/2018	11:00:00	USER					Called crew out to be on location at 1700
Event	2	Depart Shop for Location	Depart Shop for Location	3/28/2018	15:15:00	USER					Held a safety meeting before leaving for location
Event	3	Arrive At Loc	Arrive At Loc	3/28/2018	16:00:00	USER					Arrived on location and met with the company man
Event	4	Rig-up Lines	Rig-up Lines	3/28/2018	19:00:00	USER					Held a hazard hunt before spotting in trucks and rigging up
Event	5	Safety Meeting	Safety Meeting	3/28/2018	19:30:00	USER					Held a safety meeting with crew to discuss the operation and safety
Event	6	Start Job	Start Job	3/28/2018	21:23:09	COM5					Filled lines with 3 bbls water
Event	7	Test Lines	Test Lines	3/28/2018	21:25:46	COM5					Test lines to 3000 psi with a 500 psi kick out and a 5 gear stall out
Event	8	Pump Spacer 1	Pump Spacer 1	3/28/2018	21:27:28	COM5					Pumped ten bbls water spacer
Event	9	Pump Spacer 2	Pump Spacer 2	3/28/2018	21:34:25	COM5					Pumped 10 bbls water spacer with red dye
Event	10	Check Weight	Check weight	3/28/2018	21:39:21	COM5	0.00	8.27	10.20	51.00	Verified weight with pressurized scales
Event	11	Pump Cement	Pump Cement	3/28/2018	21:42:25	COM5	0.00	8.26	10.20	54.00	Pumped 170.44 bbls SwiftCem. 550 sks, 13.5#, 1.74 Yield, 9.4 gal/sks.

											Pumped at 6 bpm and 250 psi
Event	12	Shutdown	Shutdown	3/28/2018	22:15:19	COM5	0.00	15.10	187.20	53.00	Shut down and washed up head
Event	13	Drop Top Plug	Drop Top Plug	3/28/2018	22:17:47	COM5	0.00	14.07	187.20	15.00	Dropped top plug. Preloaded and witnessed by the company man
Event	14	Pump Displacement	Pump Displacement	3/28/2018	22:17:50	COM5	0.00	14.07	187.20	15.00	Pumped 120 bbls water displacement. Got 25 bbls cement back to surface
Event	15	Bump Plug	Bump Plug	3/28/2018	22:38:05	COM5	0.00	8.31	128.60	844.00	Bumped plug at 400 psi final lift pressure. Kicked out at 850 psi
Event	16	End Job	End Job	3/28/2018	22:45:00	USER	0.00	-0.12	128.60	-9.00	
Event	17	Rig Down Lines	Rig Down Lines	3/28/2018	22:55:00	USER					Held a safety meeting before rigging down lines
Event	18	Depart Location	Depart Location	3/28/2018	23:30:00	USER					Held a safety huddle before leaving location



## 3.0 Job Chart

### 3.1 Job Chart

