

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Saturday, March 24, 2018

Coyote Trails 34S-20-11C Production

Job Date: Thursday, February 22, 2018

Sincerely,

Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Coyote Trails 34S-20-11C** cement **production** 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 40 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 [Fort Lupton]

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3843099		Quote #:		Sales Order #: 0904653917					
Customer: EXTRACTION OIL & GAS				Customer Rep: Kalyn							
Well Name: COYOTE TRAILS			Well #: 34S-20-11C		API/UWI #: 05-123-45991-00						
Field: WATTENBERG		City (SAP): ERIE		County/Parish: WELD		State: COLORADO					
Legal Description: SW SE-28-1N-68W-1146FSL-2121FEL											
Contractor:				Rig/Platform Name/Num: Patterson 901							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Ryan Stevens							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		18750ft		Job Depth TVD							
Water Depth				Wk Ht Above Floor		5'					
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	New	9.625	8.921	36	BTC	J-55	0	1610			
Casing	New	5.5	4.778	20	BTC	P-110	1610	18750	8100	8122	
Open Hole Section			8.5				1780	18760	8100	8122	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe						Top Plug	5.5	1	KLX		
Float Shoe	5.5	1	KLX	18750		Bottom Plug					
Float Collar	5.5	1	KLX	18745		SSR plug set					
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers					
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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III			50	bbl	11.5	3.73	23.4	6	2100
149.34 lbm/bbl		BARITE, BULK (100003681)									
35 gal/bbl		FRESH WATER									

0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)							
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
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	ElastiCem	ELASTICEM (TM) SYSTEM	2920	sack	13.2	1.57	7.53	8	21,987
0.45 %		SCR-100 (100003749)							
7.53 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	Displacement	Displacement	416	bbl	8.34			10	17,472
Cement Left In Pipe									
Amount	0 ft				Reason			Wet Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	0 ppm			Mix Water Temperature:	55 °F		
Cement Temperature:	65 °F	Plug Displaced by:	8.34 lb/gal			Disp. Temperature:	55 °F		
Plug Bumped?	ni	Bump Pressure:	psi			Floats Held?	Yes		
Cement Returns:	40 bbl	Returns Density:	13.2 lb/gal			Returns Temperature:			
Comment pumped a 5 BBLS wet shoe.									
Did not bump plug. Had to shut down twice to fix leaks. Once durning cement and once 20 bbls into dispalcemet									
40 bbls of cemet back to surface.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/22/2018	07:15:00	USER					CREW DISCUSSED HAZARDS ALONG ROUTE.
Event	2	Call Out	Call Out	2/22/2018	17:30:00	USER					CREW CALLED OUT FOR JOB. CUSTOMER REQUESTED ON LOC. OF 23:30. CREW PICKED UP PUMP 11645460, 1 BULK TRUCK, CHEMICALS, 1 BULK TRUCK.AND CEMENT HEAD FROM FORT LUPTON YARD.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/22/2018	21:00:00	USER					CREW DISCUSSED HAZARDS ALONG ROUTE OF TRAVEL, WEATHER AND COMMUNICATION.
Event	4	Crew Leave Yard	Crew Leave Yard	2/22/2018	21:30:00	USER					START JOURNEY MANAGEMENT.
Event	5	Arrive At Loc	Arrive At Loc	2/22/2018	21:45:00	USER					MEET WITH COMPANY MAN AND DISCUSS JOB PROCEDURES.
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/22/2018	21:50:00	USER					CREW DISCUSSED HAZARDS ASSOCIATED WITH RIG UP.
Event	7	Rig-Up Equipment	Rig-Up Equipment	2/22/2018	21:55:00	USER					CREW RIGGED UP EQUIPMENT TO PERFORM JOB.
Event	8	Rig-Up Completed	Rig-Up Completed	2/22/2018	22:30:00	USER					EQUIPEMENT WAS RIGGED UP AND READY TO PERFORM JOB
Event	9	Pre-Job Safety Meeting	Pre Job Safety Meeting	2/23/2018	04:30:00	USER	0.07	-1.00	0.00	0.4	MEET WITH CO-MAN, TOOL HAND PATTERSON

											PERSONNEL AND HES PERSONNEL TO DISCUSS JOB PROCEDURES AND HAZARDS.
Event	10	Start Job	Start Job	2/23/2018	05:42:01	COM4	8.08	32.00	0.00	0.0	START RECORDING JOB DATA
Event	11	Test Lines	Test Lines	2/23/2018	05:45:29	COM4	8.94	49.00	0.00	4.9	PRESSURE TEST PUMPS AND LINES. EKO SET 500 PSI KICKED OUT @1049, FINAL TEST TO 4,716 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	2/23/2018	05:51:18	COM4	8.76	20.00	0.00	0.0	PUMP 50 BBLS OF TUNED SPACER
Event	13	Pump Cement	Pump Cement	2/23/2018	06:03:13	COM4	11.72	157.00	3.90	43.5	PUP 2920 SXS OF ELASTICEM YIELD 1.57 MIX GAL/SACK 7.53. TOTAL BBLS 816, 40 BBLS CALCUALTED TO SURFACE
Event	14	Shutdown	Shutdown	2/23/2018	07:59:56	COM4					SHUT DOWN TO DROP PLUG
Event	15	Drop Top Plug	Drop Top Plug	2/23/2018	08:02:48	COM4	13.44	30.00	0.00	847.0	DROP TOP PLUG VERIFIED BY CO-MAN
Event	16	Pump Displacement	Pump Displacement	2/23/2018	08:02:52	COM4					PUMP CALCULATED DISPALCEMENT OF 416 BBLS. ADD 5 BBLS FOR WET SHOE. PLUG DID NOT BUMP. HAD TO SHUT DOWN 20 BBLS INTO DISPLACEMENT TO FIX LEAK. FINAL CIRCULATE PRESURE @ 2813 PSI.
Event	17	Displ Reached Cmnt	Displ Reached Cmnt	2/23/2018	08:08:22	COM4					COUGHT CEMENT
Event	18	Other	Other	2/23/2018	09:01:40	COM4					PUMP 5 BBLS FOR WET SHOE
Event	19	End Job	End Job	2/23/2018	09:11:51	COM4					STOP RECORDING JOB DATA.

Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/23/2018	09:30:00	USER	CREW DISCCUSED HAZARDS ASSOCIATED WITH RIGGING DOWN EQUIPMENT
Event	21	Rig-Down Completed	Rig-Down Completed	2/23/2018	10:30:00	USER	EQUIPMENT WAS RIGGED DOWN AND READY FOR TRAVEL
Event	22	Crew Leave Location	Crew Leave Location	2/23/2018	23:30:00	USER	START JOURNEY MANGEMENT . THANKS RYAN STEVENS AND CREW.

3.0 Attachments

3.1 Extraction Coyote Trails 34S-20-11C Production Job Chart

