

HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS-EBUS

For: Hans Cary

Date: Saturday, July 06, 2019

Coyote Trails 33W-15-9C

Job Date: Saturday, July 06, 2019

Sincerely,

Nick Cummins & Crew

Legal Notice

Disclaimer:

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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 33W-15-9C** cement **5 ½" 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 35 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 #: 3912709		Quote #:		Sales Order #: 0905819735					
Customer: EXTRACTION OIL & GAS-EBUS						Customer Rep: Hans Cary					
Well Name: COYOTE TRAILS				Well #: 33W-15-9C		API/UWI #: 05-123-48253-00					
Field: WATTENBERG		City (SAP): ERIE		County/Parish: WELD		State: COLORADO					
Legal Description: SW SE-28-1N-68W-1150FSL-2355FEL											
Contractor: ENSIGN DRLG				Rig/Platform Name/Num: ENSIGN 147							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Nicholas Cummins							
Job											
Formation Name											
Formation Depth (MD)		Top	1659ft		Bottom	16387ft					
Form Type						BHST					
Job depth MD		16363ft		Job Depth TVD		7811ft					
Water Depth						Wk Ht Above Floor		3ft			
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			0	1659	0	1659	
Casing	0	5.5	4.892	17			0	16363	0	7811	
Open Hole Section			8.5				1659	16387	1659	7821	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5	1		16363		Top Plug	5.5	1			
Float Shoe	5.5					Bottom Plug	5.5	1			
Float Collar	5.5	1		16358		SSR plug set	5.5				
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers	5.5				
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	FDP-C1337-18	SBM FDP-C1337-18 CEMENT SPACER SYS			50	bbl	12.5	2.74	16.6	6	1710
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	585	sack	13.2	1.6	7.75	8	4534
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	GasStop	ELASTICEM (TM) SYSTEM	615	sack	13.2	1.6	7.71	8	4742
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
4	13.2# ElastiCem	ELASTICEM (TM) SYSTEM	1420	sack	13.2	1.57	7.66	8	10877
7.66 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
5	MMCR Displacement	MMCR Displacement	20	bbl	8.33			8	
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
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
6	Displacement	Displacement	360	bbl	8.33			8	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe	
Mix Water:		pH 7	Mix Water Chloride:		<400 ppm		Mix Water Temperature:		62 °F
Cement Temperature:		NA	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		62 °F
Plug Bumped?		Yes	Bump Pressure:		2700 psi		Floats Held?		Yes
Cement Returns:		35 bbl	Returns Density:		13.2 lb/gal		Returns Temperature:		NA

Comment

50 bbls Spacer

167 bbls Cap cement

175 bbls Latex cement

397 bbls Tail cement

380 bbls displacement first 20 bbls MMCR

Plug bumped

Disc Burst 3,380 psi

Floats held

Estimated 50 bbls of spacer to surface

Estimated 35 bbls of cap cement to surface

Estimated top of Latex Cement 3,790'

Estimated top of Tail Cement 8,709'

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	7/6/2019	03:00:00	USER					The crew was called out on 7/6/19 at 0300. The customer requested HES on location at 0900 on 7/6/19.
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	7/6/2019	08:00:00	USER					The crew held a pre journey safety meeting discussing the route and potential hazards while driving The supervisor called in a journey. The crew departed service center.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	7/6/2019	08:30:00	USER					The crew arrived on location safely. The rig was still running casing. The supervisor met with the Company man and received numbers. TD 16,387', TP 16,363' 5 1/2" 17# P-110, FC 16,358', PC 1,659' 9 5/8" 36# J-55, TVD 7,811', OH 8 1/2", Mud 10.5 ppg.
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	7/6/2019	08:35:00	USER					Crew discussed all potential hazards on location.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/6/2019	09:00:00	USER					Crew held a safety meeting discussing the rig up procedure. Also all potential hazards associated with rigging up all HES equipment and lines.

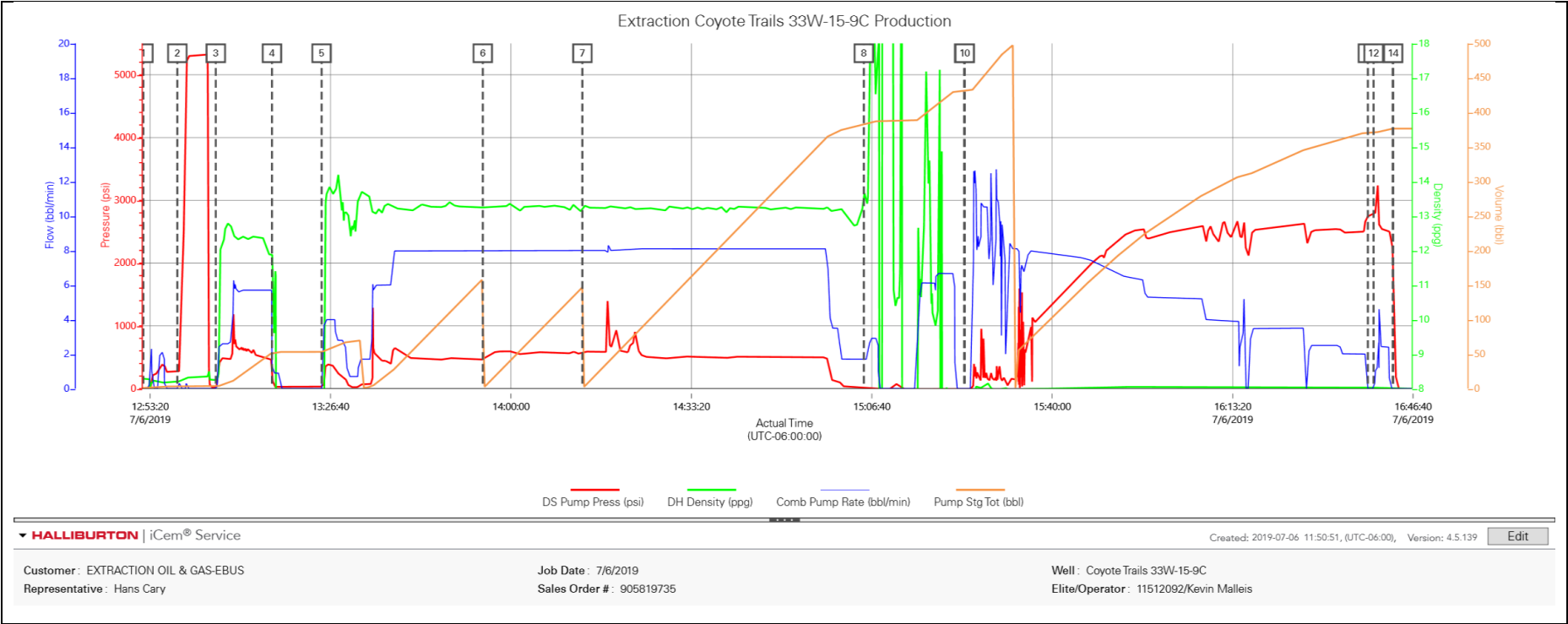
Event	6	Rig-Up Equipment	Rig-Up Equipment	7/6/2019	09:10:00	USER					The crew rigged up all HES equipment and lines.
Event	7	Rig-Up Completed	Rig-Up Completed	7/6/2019	12:30:00	USER					Rig up completed, no one got hurt.
Event	8	Safety Meeting - Pre Job	Safety Meeting - Pre Job	7/6/2019	12:35:00	USER					The crew and all personal involved with cement job discussed all potential hazards associated with job. Followed by the job procedure to ensure everyone understood the plan of action
Event	9	Start Job	Start Job	7/6/2019	12:52:06	COM1	-15.00	8.31	0.00	0.00	Started recording data from Elite 11512092.
Event	10	Test Lines	Test Lines	7/6/2019	12:58:22	COM1	275.00	8.21	0.00	3.10	Pressured tested all HES lines to 4,700 psi. The pressure test passed.
Event	11	Pump Spacer 1	Pump Spacer 1	7/6/2019	13:05:28	USER	29.00	8.25	0.00	3.10	Pumped 50 bbls of spacer a 6 bpm. 12.5 ppg 2.74 yield 16.6 gal/sk. Verified density using pressurized scales.
Event	12	Shutdown	Shutdown	7/6/2019	13:15:51	COM1	283.00	11.89	1.30	51.90	Shutdown to fix sample catcher.
Event	13	Pump Cap Cement	Pump Cap Cement	7/6/2019	13:25:01	COM1	32.00	0.26	0.00	53.10	Pumped 167 bbls (585sks) of Cap Cement at 8 bpm, pressure was at 630 psi. 13.2 ppg 1.6 yield 7.75 gal/sk. Verified density using pressurized scales.
Event	14	Pump Lead Cement	Pump Lead Cement	7/6/2019	13:54:48	COM1	465.00	13.25	8.00	158.90	Pumped 175 bbls (615 sks) of Lead cement with latex at 8 bpm, pressure was at 630 psi. 13.2 ppg 1.6 yield 7.71 gal/sk. Verified density using pressurized scales.

Event	15	Pump Tail Cement	Pump Tail Cement	7/6/2019	14:13:12	COM1	537.00	13.27	8.00	0.10	Pumped 397 bbls (1420 sks) of Tail cement at 8 bpm, pressure was at 480 psi. 13.2 ppg 1.6 yield 7.66 gal/sk. Verified density using pressurized scales.
Event	16	Shutdown	Shutdown	7/6/2019	15:05:12	COM1	20.00	13.65	1.70	381.60	Shutdown and blew air from rig floor to wash up tank. The washed pumps and lines from Elite to wash up tank.
Event	17	Pump Displacement	Pump Displacement	7/6/2019	15:23:44	COM1	-12.00	-0.12	0.00	431.60	Pumped the calculated displacement of 380 bbls with MMCR in the first 20 bbls.
Event	18	Drop Top Plug	Drop Top Plug	7/6/2019	15:23:51	COM1	-12.00	-0.12	0.00	431.60	Company man verified plug left container.
Event	19	Bump Plug	Bump Plug	7/6/2019	16:38:19	COM1	2746.00	8.02	0.00	370.80	We bumped the plug, final circulating pressure was 2,700 psi. We brought pressure up to 2,738 psi and shutdown.
Event	20	Other	Burst Disc	7/6/2019	16:39:23	COM1	2768.00	8.02	0.00	370.80	We pressured up to 3,380 psi at 1.2 bpm to burst the disc. The proceeded to pump a 5 bbl wet shoe at 2.5 bpm.
Event	21	Other	Check Floats	7/6/2019	16:42:55	COM1	2205.00	8.00	0.00	376.50	Released pressure back to truck to check floats. The floats held, 3 bbls back to the truck.
Event	22	End Job	End Job	7/6/2019	16:43:00	USER	2040.00	8.00	0.00	376.50	Cement job complete. Estimated top 50 bbls of spacer to surface. Estimated 35 bbls of Cap cement to surface. Estimated top of

											latex cement 3,790'. Estimated top of Tail cement 8,079'.
Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/6/2019	16:45:00	USER	-18.00	7.98	0.00	376.50	Crew held a safety meeting discussing the rig down procedure. Also all potential hazards associated with rigging down all HES equipment and lines.
Event	24	Rig-Down Equipment	Rig-Down Equipment	7/6/2019	17:20:00	USER	-11.00	-0.09	0.00	469.00	The crew rigged down all HES equipment and lines.
Event	25	Rig-Down Completed	Rig-Down Completed	7/6/2019	18:53:00	USER					Rig down completed no one got hurt.
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/6/2019	19:30:00	USER					The crew held a pre journey safety meeting discussing the route and potential hazards while driving The supervisor called in a journey.
Event	27	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	7/6/2019	19:35:00	USER					Nick Cummins and crew would like to thank you for your business, and choosing Halliburton Cement! Please feel free to call if you have any questions.

3.0 Attachments

3.1 Coyote Trails 33W-15-9C-Custom Results.png



3.2 Coyote Trails 33W-15-9C-Custom Results (1).png

