

# HALLIBURTON

iCem® Service

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

United States of America, COLORADO

Date: Sunday, June 23, 2019

### **Coyote Trails 33S-20-1N Production**

Job Date: Sunday, June 23, 2019

Sincerely,  
**Tyler Hill**

## Legal Notice

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*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3951535		<b>Quote #:</b>		<b>Sales Order #:</b> 0905780746					
<b>Customer:</b> EXTRACTION OIL & GAS-EBUS						<b>Customer Rep:</b> Mike Torres					
<b>Well Name:</b> COYOTE TRAILS				<b>Well #:</b> 33S-20-1N		<b>API/UWI #:</b> 05-123-49914-00					
<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-1149FSL-2301FEL											
<b>Contractor:</b> ENSIGN DRLG				<b>Rig/Platform Name/Num:</b> ENSIGN 147							
<b>Job BOM:</b> 7523 7523											
<b>Well Type:</b> HORIZONTAL OIL											
<b>Sales Person:</b> HALAMERICA\HX38199				<b>Srvc Supervisor:</b> Prince Perez							
<b>Job</b>											
<b>Formation Depth (MD)</b>		<b>Top</b> 0'		<b>Bottom</b>		17,953'					
<b>Job depth MD</b>		17,946'		<b>Job Depth TVD</b>		7,945'					
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>		5'					
<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			0	1588	0	1588	
Casing	0	5.5	4.892	17			0	17946	0	7945	
Open Hole Section			8.5				1588	17953	1588	7945	
<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>		
<b>Guide Shoe</b>	5.5	1		17,946		<b>Top Plug</b>	5.5	1			
<b>Float Shoe</b>	5.5					<b>Bottom Plug</b>	5.5	1			
<b>Float Collar</b>	5.5	1		17,940		<b>SSR plug set</b>	5.5				
<b>Insert Float</b>	5.5					<b>Plug Container</b>	5.5	1	HES		
<b>Stage Tool</b>	5.5					<b>Centralizers</b>	5.5				
<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											
<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 ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS			50	bbl	12.5	2.74	16.6	6	2,041
<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 ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
2	Cap	ELASTICEM (TM) SYSTEM			585	sack	13.2	1.6	7.75	8	4,534

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	Lead	ELASTICEM (TM) SYSTEM	615	sack	13.2	1.6	7.74	8	4,760
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	Tail	ELASTICEM (TM) SYSTEM	1,630	sack	13.2	1.57	7.66	8	1,630
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	Displacement	MMCR Displacement	20	bbl	8.33			8	
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	396.2	bbl	8.33			8	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe	
Mix Water:		pH 7	Mix Water Chloride:		<300 ppm		Mix Water Temperature:		62 °F
Cement Temperature:		## °F	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		62 °F
Plug Bumped?		Yes	Bump Pressure:		2,398 psi		Floats Held?		Yes
Cement Returns:		36 bbls	Returns Density:		## lb/gal		Returns Temperature:		## °F
Comment									
Pumped 50 bbls of FDP Spacer.									
Pumped 166.7 bbls of Cap cement.									
Pumped 175.25 bbls of Gasstop cement with 1,538 gallons of Latex.									
Pumped 455.8 bbls of Elasticem.									
Pumped 416.2 bbls of fresh water displacement with MMCR in the first 20 bbls.									
Pumped a 5 bbl wet shoe.									
3 bbls back on the floats.									

## 1.0 Real-Time Job Summary

## 1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	6/22/2019	09:30:00	USER					CREW CALLED OUT AT 09:30, REQUESTED ON LOCATION 17:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660, 10867096, 10867521, AND PUMP 11189145.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/22/2019	14:50:00	USER					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Shop	Crew Leave Shop	6/22/2019	15:00:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/22/2019	15:50:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9/58" 36 LB/FT @ 1,588', 5.5" CASING: 17 LB/FT TOTAL 17,946', 8 1/2" HOLE, TD 17,953', 6' SHOE TRAC, TVD- 7,945'. PUMP FRESH WATER DISPLACEMENT. CASING LANDED @ 18:00 6/22/2019.

Event	5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	6/22/2019	16:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/22/2019	16:10:00	USER					RIG UP BULK AND MIXING EQUIPMENT.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/22/2019	20:00:00	USER					MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Rig-Up Completed	Rig-Up Completed	6/22/2019	20:20:00	USER					
Event	9	Start Job	Start Job	6/22/2019	20:23:27	COM4					BEGIN RECORDING JOB DATA.
Event	10	Drop Bottom Plug	Drop Bottom Plug	6/22/2019	20:24:39	COM4					PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	11	Test Lines	Test Lines	6/22/2019	20:26:43	COM4					PRESSURE TESTED IRON TO 4,700 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 490 PSI, 5TH GEAR STALL OUT @ 2,030 PSI. 4,700 PRESSURE TEST KICKED OUT @ 4,500 PSI
Event	12	Check Weight	Check Weight	6/22/2019	20:28:43	COM4					
Event	13	Pump Spacer 1	Pump Spacer 1	6/22/2019	20:33:24	COM4	12.5	6.5	840	50	PUMP 50 BBLS OF FDP SPACER @ 12.5 LB/GAL, 2.74 CUFT/SK, 16.6 GALL/SK. 50 BBLS CALCULATED TO RETURN TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6.5 BBLS/MIN @ 840 PSI.

Event	14	Pump Cap Cement	Pump Cap Cement	6/22/2019	20:42:54	COM4	13.2	8	1200	166.7	PUMPED 585 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.6 FT3/SK, 7.75 GAL/SK. 166.7 BBLS. HOC CALCULATED @ 2,479.6'. CALCULATED 54.3 BBLS TO RETURN TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 1,200 PSI
Event	15	Check Weight	Check Weight	6/22/2019	20:45:44	COM4	13.22				
Event	16	Check Weight	Check Weight	6/22/2019	20:57:07	COM4	13.19				
Event	17	Pump Lead Cement	Pump Lead Cement	6/22/2019	21:07:34	COM4	13.42	8.20	546.00	175.25	PUMPED 615 SKS OF GASSTOP ELASTICEM @ 13.2 LB/GAL, 1.6 FT3/SK, 7.74 GAL/SK. 175.25 BBLS. 1,538 GALLONS OF FDP LATEX. HOC CALCULATED @ 4,295.3', TOL CALCULATED @ 2,479.6'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 570 PSI
Event	18	Pump Tail Cement	Pump Tail Cement	6/22/2019	21:34:55	COM4	13.32	8.00	1023.00	455.78	PUMP 1,630 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.66 GAL/SK, 455.78 BBLS. HOT CALCULATED @ 11,171.1', TOT CALCULATED @ 6,774.9'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 750 PSI.
Event	19	Check Weight	Check Weight	6/22/2019	21:35:18	COM4	13.32				
Event	20	Check Weight	Check Weight	6/22/2019	21:53:11	COM4	13.26				



Event	21	Check Weight	Check Weight	6/22/2019	21:57:42	COM4	13.27					
Event	22	Check Weight	Check Weight	6/22/2019	22:09:37	COM4	13.21					
Event	23	Shutdown	Shutdown	6/22/2019	22:33:19	COM4						SHUTDOWN TO WASH LINES.
Event	24	Drop Top Plug	Drop Top Plug	6/22/2019	22:45:26	COM4						PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	25	Pump Displacement	Pump Displacement	6/22/2019	22:45:29	COM4	8.33	8.5	2700	416.2		BEGIN CALCULATED DISPLACEMENT OF 416.2 BBLS WITH FRESH WATER. MMCR IN THE FIRST 20 BBLS. PUMP RATE 8.5 BPM @ 2,700 PSI. CAUGHT CEMENT @ 60 BBLS INTO DISPLACEMENT. SPACER TO SURFACE @ 350 BBLS INTO DISPLACEMENT. 50 BBLS OF TUNED SPACER TO SURFACE. CEMENT TO SURFACE @380 BBLS INTO DISPLACEMENT. 36 BBLS OF CEMENT TO SURFACE. SLOW RATE TO 3 BPM @ 390 BBLS INTO DISPLACEMENT.
Event	26	Bump Plug	Bump Plug	6/22/2019	23:45:50	COM4			2898.00			PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,398 PSI PRESSURED 500 PSI OVER BUMP.
Event	27	Shift Tool - Lower	Shift Tool - Lower	6/22/2019	23:48:16	USER			3318.00			SHEARED @ 3,318 PSI FOLLOWED BY A 5 BBL WET SHOE.
Event	28	Check Floats	Check Floats	6/22/2019	23:50:43	USER						RELEASED PRESSURE, FLOATS HELD, 3 BBLS BACK.

Event	29	End Job	End Job	6/22/2019	23:51:54	COM4	STOP RECORDING JOB DATA.
Event	30	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	6/23/2019	00:00:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	31	Rig-Down Equipment	Rig-Down Equipment	6/23/2019	00:10:00	USER	RIG DOWN BULK AND MIXING EQUIPMENT.
Event	32	Rig-Down Completed	Rig-Down Completed	6/23/2019	02:50:00	USER	
Event	33	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/23/2019	03:00:00	USER	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	34	Crew Leave Location	Crew Leave Location	6/23/2019	03:10:00	USER	THANK YOU FOR USING HALLIBURTON – PRINCE PEREZ AND CREW.

2.0 Attachments

2.1 Extraction Coyote Trails 33S-20-1N-Custom Results (1).png



