

# HALLIBURTON

iCem® Service

## EXTRACTION OIL & GAS-EBUS

United States of America, COLORADO

**For: Larry Siegel**

Date: Tuesday, February 12, 2019

WELD

Extraction Coyote Trails 33S-20-6N

Job Date: Tuesday, February 12, 2019

so# 0905478536

Sincerely,

**Prince A. Perez**

## Legal Notice

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### Disclaimer:

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*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3843208		<b>Quote #:</b>		<b>Sales Order #:</b> 0905478536					
<b>Customer:</b> EXTRACTION OIL & GAS-EBUS						<b>Customer Rep:</b> Haans					
<b>Well Name:</b> COYOTE TRAILS				<b>Well #:</b> 33S-20-6N		<b>API/UWI #:</b> 05-123-45996-00					
<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-2211FEL											
<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>Srv Supervisor:</b> Prince Perez							
<b>Job</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>	0'		<b>Bottom</b>		17,961'				
<b>Job depth MD</b>		17,950'			<b>Job Depth TVD</b>		7,920'				
					<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	1601	0	1601	
Casing	0	5.5	4.892	17			0	17950	0	7920	
Open Hole Section			8.5				1601	17961	1601	7920	
<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	5.5			17,950		Top Plug	5.5	1			
Float Shoe	5.5					Bottom Plug	5.5	1			
Float Collar	5.5			17,945							
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers	5.5	220			
<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 ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	SPACER	ECOSPACER			50	bbl	12.5	2.73	16.6	6	1,707
0 gal/bbl		<b>FRESH WATER</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 ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
2	Cap	ELASTICEM (TM) SYSTEM			584	sack	13.2	1.57	7.66	8	4,473

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	1.56	7.61	8	4,680
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	1,701	sack	13.2	1.57	7.66	8	13,030
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	bbl	8.33			8	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe	
Mix Water:		pH 7	Mix Water Chloride:		1,075 ppm		Mix Water Temperature:		74 °F
Cement Temperature:		## °F	Plug Displaced by:		8.34 lb/gal		Disp. Temperature:		74 °F
Plug Bumped?		Yes	Bump Pressure:		1,618 psi		Floats Held?		Yes
Cement Returns:		0 bbl	Returns Density:		10.3 lb/gal		Returns Temperature:		## °F °C
<b>Comment</b> <p>Pumped 50 bbls of Ecospacer with 10 gallons of D Air.</p> <p>Pumped 163.3 bbls of Cap Elasticem.</p> <p>Pumped 170.87 bbls of Lead Elasticem with 1,538 gallons of Latex.</p> <p>Pumped 475.63 bbls of Tail Elasticem.</p> <p>Pumped 416 bbls of freshwater displacement with MMCR in the first 20 bbls.</p> <p>Pumped a 5 bbl wet shoe.</p> <p>No spacer to surface.</p> <p>2 bbls back on the floats.</p>									

## 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	2/11/2019	20:00:00	USER					CREW CALLED OUT AT 20:00, REQUESTED ON LOCATION 01:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660, 11566182, AND PUMP 11826999.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/11/2019	22:50:00	USER					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Shop	Crew Leave Shop	2/11/2019	23:00:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	2/12/2019	00:00:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9/58" 36 LB/FT @ 1,601', 5.5" CASING: 17 LB/FT TOTAL 17,950', 8 1/2" HOLE, TD 17,961', 5' SHOE TRAC, TVD- 7,920'. PUMP FRESH WATER DISPLACEMENT. CASING LANDED @ 06:00 2/12/2019.

Event	5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	2/12/2019	00:10:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	2/12/2019	00:20:00	USER					RIG UP BULK AND MIXING EQUIPMENT.
Event	7	Rig-Up Completed	Rig-Up Completed	2/12/2019	03:00:00	USER					
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/12/2019	08:00:00	USER					MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	9	Start Job	Start Job	2/12/2019	11:40:12	COM4					BEGIN RECORDING JOB DATA.
Event	10	Drop Bottom Plug	Drop Bottom Plug	2/12/2019	11:41:12	USER					PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	11	Test Lines	Test Lines	2/12/2019	11:46:26	COM4			4690.00		PRESSURE TESTED IRON TO 4,700 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 500 PSI, 5TH GEAR STALL OUT @ 1,350 PSI. 4,700 PRESSURE TEST KICKED OUT @ 4,600 PSI
Event	12	Pump Spacer	Pump Spacer	2/12/2019	11:50:26	USER	12.5	5	650	50	PUMP 50 BBLS OF ECOSPACER @ 12.5 LB/GAL, 2.73 CUFT/SK, 16.6 GALL/SK. 10 GALS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 5 BBLS/MIN @ 650 PSI.

Event	13	Pump Cap Cement	Pump Cap Cement	2/12/2019	12:01:38	COM4	13.2	8	1000	163.3	PUMPED 584 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.66 GAL/SK. 163.3 BBLS. HOC CALCULATED @ 2,104.4'. 66 BBLS OF CEMENT CALCULATED TO RETURN TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 1,000 PSI
Event	14	Pump Lead Cement	Pump Lead Cement	2/12/2019	12:23:36	COM4	13.14	8.00	426.00	170.87	PUMPED 615 SKS OF GASSTOP @ 13.2 LB/GAL, 1.57 FT3/SK, 7.61 GAL/SK. 170.87 BBLS, WITH 1,538 GALLONS OF FDP LATEX. HOL CALCULATED @ 4,188', TOL CALCULATED @ 2,104.4'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 500 PSI
Event	15	Pump Tail Cement	Pump Tail Cement	2/12/2019	12:52:06	COM4	13.2	8.00	172.00	475.63	PUMP 1,701 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.66 GAL/SK, 475.63 BBLS. HOT CALCULATED @ 11,657.6', TOT CALCULATED @ 6,292.4'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 500 PSI.
Event	16	Shutdown	Shutdown	2/12/2019	13:55:43	USER					SHUTDOWN TO WASH LINES.
Event	17	Drop Top Plug	Drop Top Plug	2/12/2019	14:08:31	COM4					PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.

Event	18	Pump Displacement	Pump Displacement	2/12/2019	14:08:34	COM4	8.34	8	2580	416.32	BEGIN CALCULATED DISPLACEMENT OF 416.32 BBLs WITH FRESH WATER. MMCR IN THE FIRST 20. PUMP RATE 8 BPM @ 2,580 PSI. CAUGHT CEMENT @ 40 BBLs INTO DISPLACEMENT. STARTED LOSING RETRUNS @ 150 BBLs INTO DISPLACEMENT. <b>NO SPACER TO SURFACE</b> . SLOW RATE TO 5 BPM @ 350 BBLs INTO DISPLACEMENT.
Event	19	Bump Plug	Bump Plug	2/12/2019	15:05:22	COM4			2118.00		PLUG BUMPED AT CALCULATED DISPLACEMENT. 1,618 PSI PRESSURED 500 PSI OVER BUMP.
Event	20	Shift Tool - Lower	Shift Tool - Lower	2/12/2019	15:07:35	USER			2968.00		SHEARED @ 2,968 PSI FOLLOWED BY A 5 BBL WET SHOE.
Event	21	Check Floats	Check Floats	2/12/2019	15:09:21	USER					RELEASED PRESSURE, FLOATS HELD, 2 BBLs BACK.
Event	22	End Job	End Job	2/12/2019	15:10:51	COM4					STOP RECORDING JOB DATA.
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	2/12/2019	15:20:00	USER					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	24	Rig-Down Equipment	Rig-Down Equipment	2/12/2019	15:30:00	USER					RIG DOWN BULK AND MIXING EQUIPMENT.
Event	25	Rig-Down Completed	Rig-Down Completed	2/12/2019	17:40:00	USER					

Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/12/2019	17:50:00	USER	CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	2/12/2019	18:00:00	USER	THANK YOU FOR USING HALLIBURTON – PRINCE PEREZ AND CREW.

## 2.0 Attachments

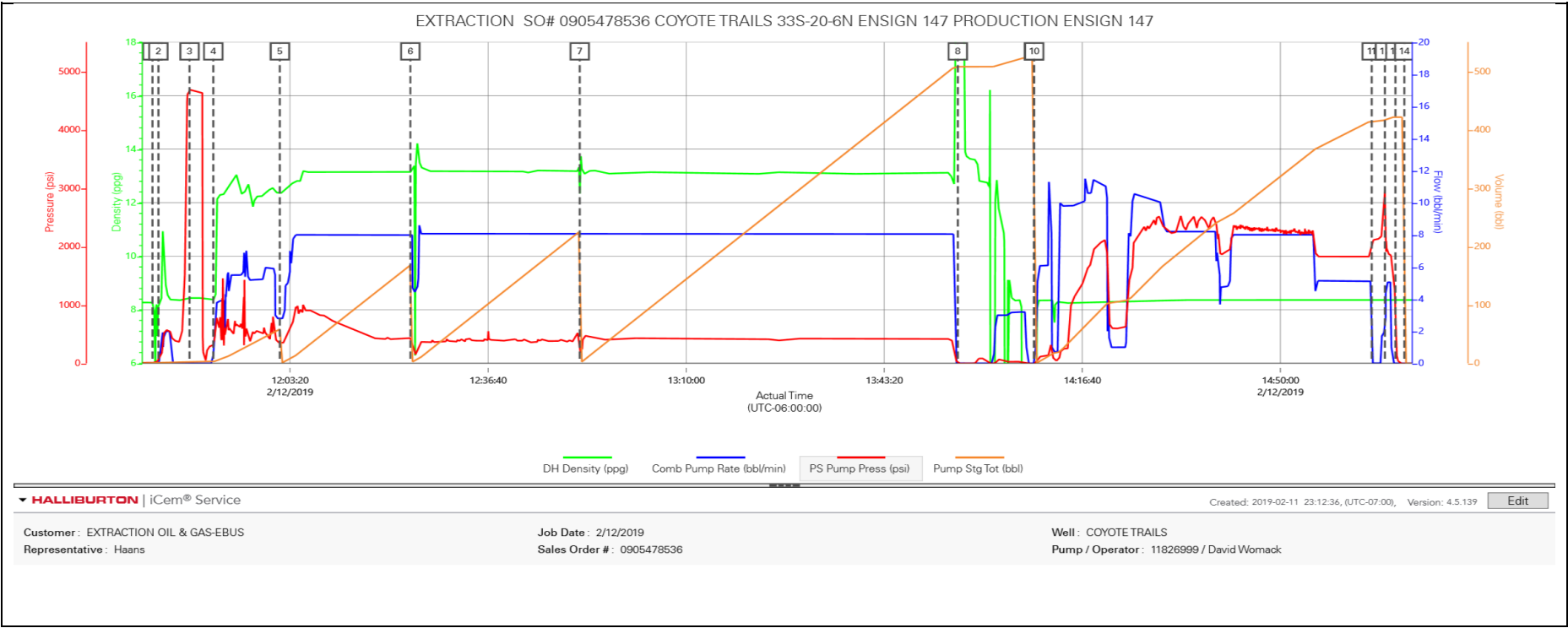
### 2.1 Extraction Coyote Trails 33S-20-6N-Custom Results.png

Description	Actual Time (UTC-06:00:00)	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)
1 Start Job	11:40:12	8.27	0.00	13.00	0.00
2 Drop Bottom Plug	11:41:12	8.16	0.00	87.00	0.00
3 Test Lines	11:46:26	8.44	0.00	4690.00	3.00
4 Pump Cap Cement	12:01:38	12.37	2.80	353.00	58.50
5 Pump Lead Cement	12:23:36	13.14	8.00	426.00	168.10
6 Pump Tail Cement	12:52:06	12.23	8.00	172.00	225.90
7 Drop Top Plug	14:08:31	0.06	0.00	-16.00	524.50
8 Pump Displacement	14:08:34	0.06	0.00	-16.00	0.00
9 Bump Plug	15:05:22	8.37	0.00	2118.00	415.30
10 Shift Tool - Lower	15:07:35	8.39	1.90	2968.00	416.50
11 Check Floats	15:09:21	8.36	0.00	368.00	421.50
12 End Job	15:10:51	8.35	0.00	-6.00	0.00

HALLIBURTON | iCem® Service
 Created: 2019-02-11 23:12:36, (UTC-07:00), Version: 4.5.139
Edit

Customer: EXTRACTION OIL & GAS-EBUS
 Job Date: 2/12/2019
 Well: COYOTE TRAILS

2.2 Extraction Coyote Trails 33S-20-6N-Custom Results (3).png



2.3 Extraction Coyote Trails 33S-20-6N-Custom Results (2).png

