

# HALLIBURTON

iCem® Service

## **BONANZA CREEK ENERGY - EBUS**

Ft. Lupton District, COLORADO

### **Whitetail 14-44-35HN Production**

Job Date: Wednesday, November 16, 2022

Sincerely,

**Meghan Van Zyl**

## 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 **Whitetail 14-44-35HN** 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 47 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**

<b>Sold To #:</b> 324725		<b>Ship To #:</b> 9145098		<b>Quote #:</b>		<b>Sales Order #:</b> 0908239414				
<b>Customer:</b> BONANZA CREEK ENERGY-EBUS					<b>Customer Rep:</b> Frank Kinney					
<b>Well Name:</b> WHITETAIL			<b>Well #:</b> 14-44-35HN			<b>API/UWI #:</b> 05-123-51724				
<b>Field:</b>		<b>City (SAP):</b> GILL		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO			
<b>Legal Description:</b>										
<b>Contractor:</b> PATTERSON-UTI ENERGY					<b>Rig/Platform Name/Num:</b> PATTERSON 345					
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> OIL										
<b>Sales Person:</b> HALAMERICA\HX41066					<b>Srv Supervisor:</b> Kyle Bath					
<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>		12273ft		<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		9.625	8.921	36			0	1646	0	0
Casing	0	5.5	4.892	17			0	12276	0	6082
Open Hole Section			8.5				1646	12286	0	6082
<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			12273		Top Plug	5.5	1	Citadel	
Float Shoe	5.5					Bottom Plug	5.5	1	Citadel	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5	215		
<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	Tuned Prime Cement Spacer	TUNED PRIME CEMENT SPACER SYS		50	bbl	11.5	3.73	23.65	6	1775

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	SBM CEM ELASTICEM™ SYS	555	sack	13	1.66	8.3	8	4606
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	IsoBond(tm)	SBM CEM FDP-C1371 SYS	550	sack	13	1.55	7.14	8	3927
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	ElastiCem	SBM CEM ELASTICEM™ SYS	860	sack	13.2	1.59	7.78	8	6690
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	284	bbl	8.33			9	11928
<b>Comment</b> 687bbbls mix water total used.									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Seq No.	Activity	Date	Time	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/min)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
1	Call Out	11/15/2022	21:30:00					CREW CALLED OUT, REQUESTED ON LOCATION @ 04:15
2	Depart Yard Safety Meeting	11/16/2022	01:15:00					PRE JOURNEY SAFETY MEETING WITH ALL HES PERSONNEL, DISCUSS ROUTE AND HAZARDS ASSOCIATED WITH THE JOURNEY
3	Crew Leave Yard	11/16/2022	01:30:00					ALL HES EMPLOYEES IN ROUTE TO LOCATION
4	Arrive at Location from Service Center	11/16/2022	03:00:00					CREW ON LOCATION, RECIEVED NUMBERS FROM CO REP, TD 12286, TP 12276, SJ 5, CSG 5.5 17#, PREV CSG 9 5/8 36# @ 1646, HOLE 8.5, MUD 9.2, TVD 6082, 315 CENTRALIZERS, WATER TEST, TEMP 55 AFTER HEATING, PH 7, CHLORIDES 0
5	Assessment Of Location Safety Meeting	11/16/2022	03:30:00					ASSESSMENT OF LOCATION SAFETY MEETING WITH ALL HES EE'S TO DISCUSS SITE SPECIFIC HAZARDS
6	Safety Meeting - Pre Rig-Up	11/16/2022	03:45:00					PRE RIG UP SAFETY MEETING WITH ALL HES EE'S TO DISCUSS HAZARDS BEFORE RIGGING UP
7	Safety Meeting - Pre Job	11/16/2022	07:00:00	-1.14	0.00	3.56	0.00	PRE JOB SAFETY MEETING WITH ALL HES EE'S, RIG HANDS AND CO REP TO DISCUSS HAZARDS DURING JOB
8	Start Job	11/16/2022	07:42:18	8.41	0.00	2.09	0.00	START RECORDING DATA
9	Drop Bottom Plug	11/16/2022	07:42:28	8.41	0.00	2.85	0.00	LAUNCH BOTTOM PLUG
10	Test Lines	11/16/2022	07:49:34	8.76	0.00	153.55	3.43	TEST LINES TO 5000 PSI

11	Pump Spacer 1	11/16/2022	07:55:53	8.61	0.00	78.42	0.00	PUMP 50 BBLS TUNED PRIME SPACER 11.5 PPG, 4 BPM 250 PSI
12	Pump Cap Cement	11/16/2022	08:08:59	12.21	5.26	264.48	0.09	MIX AND PUMP 555 SKS 164 BBLS CAP CEMENT 13 PPG, 1.66 FT3/SK, 8.3 GAL/SK, 9 BPM 900 PSI, CALCULATED TOCC SURFACE
13	Pump Lead Cement	11/16/2022	08:28:52	13.00	8.98	878.45	0.15	MIX AND PUMP 550 SKS 152 BBLS LEAD CEMENT 13 PPG, 1.55 FT3/SK, 7.14 GAL/SK, 9 BPM 1300 PSI, CALCULATED TOLC 2585
14	Pump Tail Cement	11/16/2022	08:46:37	12.86	8.94	1028.05	0.15	MIX AND PUMP 860 SKS 243.5 BBLS TAIL CEMENT 13.2 PPG, 1.59 FT3/SK, 7.78 GAL/SK, 9 BPM 1000 PSI, CALCULATED TOTC 6305
15	Shutdown	11/16/2022	09:18:04	13.69	0.00	228.54	266.72	SHUTDOWN, WASH PUMPS AND LINES TO TANK
16	Drop Top Plug	11/16/2022	09:27:09	7.35	0.00	21.22	281.57	LAUNCH TOP PLUG
17	Pump Displacement	11/16/2022	09:27:12	7.34	0.00	20.56	0.00	PUMP 284 BBLS FRESH WATER DISPLACEMENT, FIRST 20 BBLS W/MMCR, 10 BPM 3000 PSI, RECEIVED 50 BBLS TUNED PRIME SPACER AND 47 BBLS CEMENT TO SURFACE
18	Bump Plug	11/16/2022	10:04:47	7.36	0.00	2609.76	286.67	BUMP PLUG AT 2300 PSI TOOK TO 2750 PSI
19	Check Floats	11/16/2022	10:06:36	7.31	0.00	2080.16	286.67	CHECK FLOATS, TOOK 3 BBLS BACK
20	End Job	11/16/2022	10:07:31	7.17	0.00	17.61	0.00	STOP RECORDING DATA, USED 687 BBLS FRESH WATER FOR JOB
21	Safety Meeting - Pre Rig-Down	11/16/2022	10:10:00					PRE RIG DOWN SAFETY MEETING WITH ALL HES EE'S TO DISCUSS HAZARDS ASSOCIATED WITH RIGGING DOWN
22	Depart Location Safety Meeting	11/16/2022	11:45:00					PRE DEPARTURE SAFETY MEETING WITH ALL HES EE'S TO DISCUSS ROUTES AND HAZARDS ASSOCIATED WITH THE JOURNEY



23 Crew Leave Location 11/16/2022 12:15:00

THANK YOU FOR USING HALLIBURTON, KYLE BATH AND  
CREW.

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3.0 Attachments

3.1 Real Time iCem Job Chart

