

HALLIBURTON

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CIVITAS RESOURCES-EBUS

Ft. Lupton District, CO

For: Civitas Resources

Date: Thursday, July 25, 2024

JESSER EAST 03E-20-02 – 5.5in Production Casing

Job Date: Sunday, July 14, 2024

Sincerely,

William Mix & Juan H. Martinez

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Jesser East 3E-20-02 5.5 CMT Production**. 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.

This space is provided to enter in a brief summary of the job. Below are some important items to discuss:

- **Quality of circulation – Prejob 100% , While pumping Cement 100%, While Pumping Displacement 100%**
- **Final Circulating Pressure 2280PSI and Pump Rate 4BPM**
- **Returns to Surface 63BBLs CMT**
- **Any deviation from plan NO**
- **Abnormalities on job chart NO**

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 Rockies Cement Team

1.2 Job Overview

Job Details	
API #:	
City, County:	Bethoud, WELD
SO#:	909454637

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time On Location:	7/13/24	2100
Called Out Time:	7/13/24	1500
Arrived On Location:	7/13/24	2000
Job Started:	7/14/24	0251
Job Completed:	7/14/24	0616
Departed Location:	7/14/24	0830

	Description	Units	Value
1	Surface temperature at the time of the job	degree F	65
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	OBM
3	Mud density	ppg	9
4	Casing set depth (shoe)	ft	19,217
5	TVD	ft	7262
6	Float collar depth	ft	19212
7	Length of rate hole	ft	35
8	Previous casing shoe depth	ft	1678
9	Pre-job mud circulation time	hh:mm	2:00
10	Pre-job mud circulation rate	bpm	10

11	Pre-job mud circulation volume	bbls	600
12	Mud circulation pressure at start of cement	psi	250
13	Annual flow before the start of job	Y/N	Y
14	Pipe movement during cement job	Y/N	N
15	Calculated displacement	bbls	426
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	100
18	Fluid returns to surface	Spacer/Cement, bbls	63BBLs CMT
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	2280PSI 4BPM
20	Number of Centralizers	-	
21	Number of bottom plugs	-	1
22	Number of trucks used preparing/during job	-	11
23	Add hours? If Yes, put #	Y/N and hours	N
24	NPT? If Yes, put #	Y/N and hours	N

1.3 Water Field Test

	Recorded Value	Unit	Acceptable Limit	Potential Problems if Values Exceed the Limit
pH	7		6.0 - 8.0	Chemicals in water can cause severe retardation
Temperature	65	F	60 - 80 F	Can can pre-mature setting of cement
Chlorides	1000	ppm	3000 ppm	Can shorten thickening time

1.4 Actual Pump Schedule

Stage 1

	Density (ppg)	Volume (bbls)	Yield (ft3/sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid	11.5	120	2.99	18.86		4249
Cap Cement	13	126	1.65	8.07	430	3470
Lead Cement	13	261	1.58	7.43	930	6909
Tail Cement	13.2	461	1.56	7.54	1660	12516
Top Plug	1					
Displacement Fluid	8.33	426				

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/13/2024	06:00:00	USER	Pre-Rig Down Safety Meeting
Event	2	Rig-Down Equipment	Rig-Down Equipment	7/13/2024	06:20:00	USER	Rig-Down Equipment
Event	3	Depart Location Safety Meeting	Depart Location Safety Meeting	7/13/2024	07:00:00	USER	Depart Location Safety Meeting, Verify all equipment has been thoroughly pre-tripped. All safety and quality issues should be resolved before proceeding.
Event	4	Crew Leave Location	Crew Leave Location	7/13/2024	07:30:00	USER	Crew leave loaction
Event	5	Call Out	Call Out	7/13/2024	15:00:00	USER	Call out
Event	6	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/13/2024	18:00:00	USER	Pre-Convoy Safety Meeting
Event	7	Crew Leave Yard	Crew Leave Yard	7/13/2024	18:05:00	USER	Crew Leave Yard
Event	8	Arrive at Location from Service Center	Arrive at Location from Service Center	7/13/2024	20:00:00	USER	Arrive at Location from Service Center

Event	9	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/13/2024	20:30:00	USER	Pre-Rig Up Safety Meeting, Be aware of your surroundings, Use two spotters one in front and one in back of vehicle, Utilize hearing protection, Have good communication and make sure Line of Fire is clear before swinging hammer Identify points where hand/finger can get crushed
Event	10	Rig-Up Equipment	Rig-Up Equipment	7/13/2024	20:35:00	USER	Rig Up equipment as far as possible, Rig running casing
Event	11	Safety Meeting - Pre Job	Safety Meeting - Pre Job	7/14/2024	01:30:00	USER	Safety Meeting-Pre job, Eyes on task Use impact gloves Have good communication to identify pinch points between steel hoses, iron and drill pipe and while making up the hammer unions.

Identify points were
 hand/finger can get
 crushed

Event	12	Start Job	Start Job	7/14/2024	02:51:24	NONE	Start of job. Begin Recording.
Event	13	Drop Bottom Plug	Drop Bottom Plug	7/14/2024	02:51:35	NONE	Dropped bottom plug with Josh and driller.
Event	14	Test Lines	Test Lines	7/14/2024	02:56:47	NONE	Pressure tested HES lines to 6500PSI.
Event	15	Pump Spacer 1	Pump Spacer 1	7/14/2024	03:01:53	NONE	Pumped 120BBLs of 11.5 Tuned Prime Spacer. Pumped at a rate of 6BPM with a pressure of 250PSI.
Event	16	Pump Cap Cement	Pump Cap Cement	7/14/2024	03:20:00	USER	Pumped 430s/ 126.361BBLs of 13PPG Elasticem Cap cement. Pumped at a rate of 8.2BPM with a pressure of 470PSI. Pre job calculated 63.3BBLs of Cap cement to surface.
Event	17	Pump Lead Cement	Pump Lead Cement	7/14/2024	03:38:52	NONE	Pumped 930s / 261.7BBLs of 13PPG Isobond lead cement. Pumped at a rate of 8.2BPM with a pressure of 530PSI.

							PRe job calculated TOL cement was at 1,498.692FT.
Event	18	Pump Tail Cement	Pump Tail Cement	7/14/2024	04:12:17	NONE	Pumped 1660s / 461.207BBLs of 13.2PPG Elasticem Tail cement. Pumped at a rate of 8.2BPM with a pressure of 500PSI. Pre job calculated TOT cement was at 7,912.907ft.
Event	19	Shutdown	Shutdown	7/14/2024	05:16:15	NONE	Shutdown to wash pumps and lines. Washed up with 20BBLs of fresh water.
Event	20	Clean Lines	Clean Lines	7/14/2024	05:19:15	NONE	Washed up with 20BBLs of fresh water.
Event	21	Shutdown	Shutdown	7/14/2024	05:26:40	NONE	Shutdown to Load plug.
Event	22	Drop Top Plug	Drop Top Plug	7/14/2024	05:26:44	NONE	Dropped Top plug with Josh and Manny.
Event	23	Pump Displacement	Pump Displacement	7/14/2024	05:26:47	NONE	Pumped 426BBLs of fresh water displacement. 10G MMRC in first 20BBLs. Biocide throughout.
Event	24	Bump Plug	Bump Plug	7/14/2024	06:14:03	NONE	BUMP PLUG. FCP - 2280PSI. BMP -

2800PSI. Calculated
63BBLs of cement to
surface.

Event	25	End Job	End Job	7/14/2024	06:16:06	NONE
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END JOB. 4.5BBLs
from floats. Floats
held.

3.0 Attachments

3.1 Civitas - Jesser East 3E-20-02 – 5.5in Production Casing – Job Summary

