

HALLIBURTON

iCem[®] Service

CIVITAS RESOURCES-EBUS

Ft. Lupton District, CO

For: JOSH JOHNSON

Date: Sunday, May 19, 2024

KING 3-65 28-29 2AH

Case 1

Job Date: Sunday, May 19, 2024

Sincerely,

BRANDON BEUTLER

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **KING 3-65 28-29 2AH 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.

- Quality of circulation – Prejob 100% While pumping Cement 100%, While Pumping Displacement 100%
- Final Circulating Pressure and Pump Rate 2700 PSI @ 4 BPM
- Returns to Surface 67 BBLS OF 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 #:	05-001-10565-00
City, County:	AURORA, ADAMS
SO#:	0909342348

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time On Location:	5/18/2024	18:30
Called Out Time:	5/18/2024	10:00
Arrived On Location:	5/18/2024	17:30
Job Started:	5/18/2024	22:05
Job Completed:	5/19/2024	01:45
Departed Location:	5/19/2024	03:40

	Description	Units	Value
1	Surface temperature at the time of the job	degree F	60
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	OBM
3	Mud density	ppg	9.5
4	Casing set depth (shoe)	ft	18339
5	TVD	ft	7956
6	Float collar depth	ft	18334
7	Length of rate hole	ft	6
8	Previous casing shoe depth	ft	3334
9	Pre-job mud circulation time	hh:mm	02:00
10	Pre-job mud circulation rate	bpm	10

11	Pre-job mud circulation volume	bbls	1200
12	Mud circulation pressure at start of cement	psi	1100
13	Annual flow before the start of job	Y/N	YES
14	Pipe movement during cement job	Y/N	NO
15	Calculated displacement	bbls	407
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	100
18	Fluid returns to surface	Spacer/Cement, bbls	120 SPACER 67 CMT
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	2700 @ 4
20	Number of Centralizers	-	285
21	Number of bottom plugs	-	1
22	Number of trucks used preparing/during job	-	4
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	62	F	60 - 80 F	Can can pre-mature setting of cement
Chlorides	<120	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	2.57	16.21	262.17	4249
Cap Cement	13	205.71	1.65	8.07	700	5649
Lead Cement	13	189.94	1.58	7.42	675	5008
Tail Cement	13.2	425.02	1.57	7.54	1520	11460
Top Plug	1					
Displacement Fluid	8.33	407				8140

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq No.	Activity	Graph Label	Date	Time	Comments
1	Call Out	Call Out	5/18/2024	10:00:00	CIVITAS RESOURCES 5.5" KING 3-65 28-29 2AH PRODUCTION CASING JOB - On location 5/18/24 @ 18:30 PM
2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	5/18/2024	15:00:00	Review Journey Management And Route With Crew Members
3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	5/18/2024	15:30:00	Depart From Yard
4	Arrive At Loc	Arrive At Loc	5/18/2024	17:00:00	Talk To Company Man (JOSH JONSON): TD = 18345', TP = 18339', ST = 5', OH = 8.5", CSG = 5.5" 20#, Previous Casing 9 5/8" 36# Set @ 3334', WF = OBM @ 9.5#, Test Water = pH – 7, Chlorides - < 290 ppm, 55 F.
5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	5/18/2024	17:10:00	Spot Equipment
6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/18/2024	17:20:00	Review JSA With Crew Members
7	Rig-Up Equipment	Rig-Up Equipment	5/18/2024	17:30:00	Rigged Up All Iron And Hoses Needed For CMT Job With No Issues Or Incidents.
8	Rig-Up Completed	Rig-Up Completed	5/18/2024	18:50:00	Rigged Up All Iron And Hoses Needed For CMT Job With No Issues Or Incidents.

9	Rig-Up Completed	Rig-Up Plug Container	5/18/2024	20:00:00	Rig Up Plug Container And Rig Floor To Circulate With Rig Pumps. Rig Circulated From 20:00 To 22:00 At 420 GPM (10 BPM) With 1100 psi, Good Returns.
10	Safety Meeting - Pre Job	Safety Meeting - Pre Job	5/18/2024	21:45:00	Review Job Procedure And JSA With Rig Hands, Co. Man, And HES Members
11	Start Job	Start Job	5/18/2024	22:05:39	START RECORDING DATA
12	Drop Bottom Plug	Drop Bottom Plug	5/18/2024	22:08:07	VERIFIED PLUGS WITH COMPANY REP
13	Pressure Test	Pressure Test	5/18/2024	22:08:41	TEST LINES TO 6700 PSI
14	Pump Spacer 1	Pump Spacer 1	5/18/2024	22:16:06	PUMPED TUNED PRIME @ 11.5 PPG 120 BBLS 2.57 YEILD 16.21 WR 262.17 SKS 4249 MIX GALLONS PUMPED AT 6 BPM WITH 350 PSI
15	Pump Cap Cement	Pump Cap Cement	5/18/2024	22:36:00	PUMPED ELASTICEM 13 PPG 205.71 BBLS 1.65 YEILD 8.07 WR 700 SKS 5649 MIX GALLONS PUMPED AT 8BBLS AVG WITH 430 PSI
16	Check Weight	Check Weight	5/18/2024	22:40:54	VERIFIED WITH PRESSURIZED SCALES
17	Pump Lead Cement	Pump Lead Cement	5/18/2024	23:01:00	PUMPED ISOBOND CMT 13 PPG 189.94 BBLS 1.58 YIELD 7.42 WR 675 SKS 5008 MIX GALLONS PUMPED @ 8BPM WITH 700 PSI TOP OF CMT SET @ 3278"
18	Check Weight	Check Weight	5/18/2024	23:14:46	VERIFIED WITH PRESSURIZED SCALES
19	Pump Tail Cement	Pump Tail Cement	5/18/2024	23:32:49	PUMPED ELASTICEM 13.2 PPG 425.02 BBLS 1.57 YIELD 7.54 WR 1520 SKS 11460 MIX GALLONS PUMPED @ 8BPM WITH 650 PSI TOP OF CMT SET @ 7924"
20	Check Weight	Check Weight	5/18/2024	23:48:43	VERIFIED WITH PRESSURIZED SCALES
21	Check Weight	Check Weight	5/19/2024	00:02:43	VERIFIED WITH PRESSURIZED SCALES
22	Shutdown	Shutdown	5/19/2024	00:37:14	
23	Clean Lines	Clean Lines	5/19/2024	00:37:24	WASHED PUMPS & LINES

24	Drop Top Plug	Drop Top Plug	5/19/2024	00:49:49	VERIFIED PLUGS WITH COMPANY REP
25	Pump Displacement	Pump Displacement	5/19/2024	00:50:16	PUMPED 407 BBLS OF DISPLACEMENT AT 10BPM AVG
26	Bump Plug	Bump Plug	5/19/2024	01:41:13	BUMPED PLUG @ 4BPM FINAL CIRCULATING 2700 BROUGHT UP TO 3200 PSI
27	Bleed Casing	Bleed Casing	5/19/2024	01:42:00	Bled Pressure Back To Zero And Got 4.5bbls Back
28	Check Floats	Check Floats	5/19/2024	01:43:00	Floats Held Good.
29	End Job	End Job	5/19/2024	01:45:51	STOPED RECORDING ALL DATA
30	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/19/2024	02:00:00	Review JSA With HES Crew Members
31	Rig-Down Equipment	Rig-Down Equipment	5/19/2024	02:10:00	Rig Down Iron, Plug Container, And Hoses Used On Job
32	Rig-Down Completed	Rig-Down Completed	5/19/2024	03:00:00	All Equipment Rigged Down With No Issues Or Incidents
33	Safety Meeting - Departing Location	Safety Meeting - Departing Location	5/19/2024	03:30:00	Review Journey Management And Route With Crew Members
34	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	5/19/2024	03:40:00	Depart location

3.0 Attachments

3.1 Real Time Job Chart

