

HALLIBURTON

iCem® Service

CRESTONE PEAK RESOURCES

Ft. Lupton District, COLORADO

Sky Ranch 4-65 10-9-8-7 3AH Surface

Job Date: Saturday, September 23, 2023

Sincerely,
Rafael Giorgana

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Sky Ranch 4-65 10-9-8-7 3AH Surface**. 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 60 BBLS Cement 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 Rockies Cement Team

1.2 Job Overview

Job Details	
API #:	05-005-07541
City, County:	WATKINS
SO#:	0908868623

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time On Location:	09/22/2023	22:30
Called Out Time:	09/22/2023	16:30
Arrived On Location:	09/22/2023	22:00
Job Started:	09/23/2023	02:02
Job Completed:	09/23/2023	04:00
Departed Location:	09/23/2023	05:00

	Description	Units	Value
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1	Surface temperature at the time of the job	degree F	55
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	WBM
3	Mud density	ppg	8.9
4	Casing set depth (shoe)	ft	3,277
5	TVD	ft	3,277
6	Float collar depth	ft	3,236
7	Length of rate hole	ft	10
8	Previous casing shoe depth	ft	80
9	Pre-job mud circulation time	hh:mm	22:30
10	Pre-job mud circulation rate	bpm	2.5
11	Pre-job mud circulation volume	bbls	525
12	Mud circulation pressure at start of cement	psi	250
13	Annual flow before the start of job	Y/N	YES
14	Pipe movement during cement job	Y/N	NO
15	Calculated displacement	bbls	250.1
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	100

18	Fluid returns to surface	Spacer/Cement, bbls	60 BBLS OF CEMENT
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	1,100
20	Number of Centralizers	-	26
21	Number of bottom plugs	-	0
22	Number of trucks used preparing/during job	-	4
23	Add hours? If Yes, put #	Y/N and hours	0
24	NPT? If Yes, put #	Y/N and hours	YES 3 HRS

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	55	F	60 - 80 F	Can can pre-mature setting of cement
Chlorides	290	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	8.33	20	N/A	N/A	N/A	840
Cap Cement						
Lead Cement	13.5	392.9	1.39	7.34	1,587	11,650
Tail Cement						
Top Plug						

Displacement Fluid	8.33	N/A	N/A	N/A	N/A	10,504
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Stage 2

	Density (ppg)	Volume (bbls)	Yield (ft ³ /sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid						
Cap Cement						
Lead Cement						
Tail Cement						
Top Plug						
Displacement Fluid						

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq No.	Activity	Date	Time	Comments
1	Call Out	9/22/2023	16:30:53	CIVITAS RESOURCES SKY RANCH 4-65 10-9 #8-7 3AH 9 5/8" SURFACE CASING JOB - On location 09/22/23 @ 22:30 PM
2	Safety Meeting - Service Center or other Site	9/22/2023	18:45:54	Review Journey Management And Route With Crew Members
3	Depart from Service Center or Other Site	9/22/2023	20:00:55	Depart From Yard
4	Arrive At Loc	9/22/2023	22:00:56	Talk To Company Man () : TD = 3,287', TP = 3,277', ST = 41', OH = 13.5", CSG = 9 5/8" 36#, Previous Casing 26" Set @ 80', WF = WBM @ 8.9#, Test Water = pH - 7, Chlorides - < 290 ppm, 55 F. When Got To Location We Checked The Cement And Realized We Were Short On Cement Made Phone Calls And Got It To Location ASAP. We Had A Total Of 3 Hours NPT.
5	Safety Meeting - Assessment of Location	9/22/2023	22:10:57	Spot Equipment
6	Safety Meeting - Pre Rig-Up	9/22/2023	22:20:01	Review JSA With Crew Members
7	Rig-Up Equipment	9/22/2023	22:30:02	Rig Up Iron And Hoses Needed For Job
8	Rig-Up Equipment	9/22/2023	22:30:03	Rig Up Plug Container And Rig Floor To Circulate With Rig Pumps. Rig Circulated From 22:30 PM To 1:50 AM At 105 GPM (2.5 BPM) With 250 psi, Good Returns.

9	Rig-Up Completed	9/22/20 23	23:00:0 2	Rigged Up All Iron And Hoses Needed For CMT Job With No Issues Or Incidents.
10	Safety Meeting - Pre Job	9/23/20 23	01:30:0 7	Review Job Procedure And JSA With Rig Hands, Co. Man, And HES Members
11	Start Job	9/23/20 23	02:02:4 2	Start Job
12	Test Lines	9/23/20 23	02:04:1 8	Performed A 500 Kickout Test On Both Pumps The Tested Lines To 3000 psi, Good Test
13	Pump Spacer 1	9/23/20 23	02:10:4 8	Pumped 20 bbls Of Fresh Water With Green Dye At 3 BPM With 200 psi, Good Returns
14	Pump Cement	9/23/20 23	02:24:2 1	Pump Cement 392.9 bbls 8 BPM With 730 psi, 1,587 Sacks With A Yield Of 1.39 And A Water Requirement Of 7.34 Gal/Sck (TOTAL MIX WATER IS 11,650 GALS) HOC=4,040 ft TOC= 0ft.
15	Drop Top Plug	9/23/20 23	03:16:5 3	Drop Top Plug
16	Pump Displacement	9/23/20 23	03:17:4 1	Pumped Displacement Total Of 250.5 bbls Of Fresh Water
17	Pump Displacement	9/23/20 23	03:33:1 3	100 BBLs Gone Into Displacement 8.5 BPM With 800 psi, Good Returns
18	Cement Returns to Surface	9/23/20 23	03:43:0 0	We got A Total Of 60 BBLs Of Good Cement Returns To Surface.
19	Pump Displacement	9/23/20 23	03:45:5 8	200 BBLs Gone Into Displacement 8 BPM With 1,070 psi, Good Returns
20	Bump Plug	9/23/20 23	03:55:4 0	Bumped Plug With Calculated Displacement And Put 500 psi Over Final Circulating Pressure, Pressure Climbed From 1,100 To 1,600 psi.
21	Bleed Casing	9/23/20 23	03:57:0 8	Bled Pressure Back To Zero And Got 1.5 bbls Back

22	Check Floats	9/23/20 23	03:58:0 8	Floats Held Good.
23	End Job	9/23/20 23	03:58:5 4	End Job.
24	Safety Meeting - Pre Rig-Down	9/23/20 23	04:10:0 9	Review JSA With HES Crew Members
25	Rig-Down Equipment	9/23/20 23	04:20:1 3	Rig Down Iron, Plug Container, And Hoses Used On Job
26	Rig-Down Completed	9/23/20 23	04:50:1 5	All Equipment Rigged Down With No Issues Or Incidents
27	Safety Meeting - Departing Location	9/23/20 23	04:55:1 5	Review Journey Management And Route With Crew Members
28	Depart Location	9/23/20 23	05:00:1 6	Depart location

3.0 Attachments

3.1 Real Time Job Chart

