

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Interchange A S22-30-21N

Surface Casing

Job Date: Saturday, August 28, 2021

Sincerely,

Nick Roles and Crew

Legal Notice

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Table of Contents

1.0 Cementing Job Summary 4

 1.1 Executive Summary4

2.0 Real-Time Job Summary 7

 2.1 Job Event Log7

3.0 Attachments..... 9

 3.1 Job Chart9

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the Interchange A S22-30-21N surface casing. 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 33 bbl. 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

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 9008033		Quote #: 0022869512		Sales Order #: 0907349619				
Customer: EXTRACTION OIL & GAS-EBUS				Customer Rep: Larry Siegel						
Well Name: INTERCHANGE A			Well #: S22-30-21N		API/UWI #: 05-014-20852-00					
Field: WATTENBERG		City (SAP): BROOMFIELD		County/Parish: BROOMFIELD		State: COLORADO				
Legal Description: SW NW-10-1S-68W-2077FNL-938FWL										
Contractor:				Rig/Platform Name/Num: CARTEL 15						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX41066				Srvc Supervisor: Nicholas Roles						
Job										
Job depth MD		1635ft		Job Depth TVD						
Well Data										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Open Hole Section			13.5				0	1635	0	1635
Casing		9.625	8.921	36			0	1635	0	1635
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	9.625			1635		Top Plug	9.625	1	HES	
Float Collar	9.625			1593		Bottom Plug	9.625	1	HES	
						Plug Container	9.625	1	HES	

Fluid Data									
Stage #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Spacer	Water with dye	10	bbl	8.34			6	420
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Cement	SwiftCem™ Cement	575	sack	13.5	1.74	9.17	9	5273
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	123	bbl	8.34			10	5166
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		0 ppm		Mix Water Temperature:		65 °F
Plug Bumped?		Yes	Plug Displaced by:		8.33 lb/gal Fresh Water		Disp. Temperature:		65 °F
Cement Returns:		33 bbl.	Bump Pressure:		1050 psi		Floats Held?		Yes
Comment: Got 33 bbl. cement to surface.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq. No.	Activity	Date	Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
1	Call Out	8/27/2021	08:00:00					Called out by service coordinator for OL time of 1500.
2	Pre-Convoy Safety Meeting	8/27/2021	13:15:00					Discuss all hazards associated with journey, directions to destination, complete journey management if needed, and ensure all convoy is fit for duty.
3	Depart from Service Center or Other Site	8/27/2021	13:30:00					Depart from service center or other job site.
4	Arrive at Location from Service Center	8/27/2021	14:30:00					Upon arrival to location, signed in with onsite safety personnel. Met with company man and discussed job specific requirements and specifications.
5	Other	8/27/2021	16:30:00					Mix water test results- PH-7, Chlo-0, Temp-65F.
6	Pre-Rig Up Safety Meeting	8/27/2021	18:00:00					Held pre rig up JSA for hazards, hazard hunt with crew, and discussed plan for spotting equipment and rigging up lines for job. Discussed muster points and closest emergency location as well as coordinates.
7	Rig-Up Equipment	8/27/2021	18:15:00					Begin rig up with crew.
8	Rig-Up Completed	8/27/2021	18:45:00					Complete rig up for job to nearest point before red zone.
9	Safety Meeting - Pre Job	8/27/2021	23:30:00	7.99	0.00	36.00	14.60	Held job specific hazards as well as confirming job procedure with co man and rest of crew associated with job.
10	Start Job	8/27/2021	23:46:25	7.99	0.00	22.00	0.00	TD-1635' OH-13.5", TP-1635' 9.625" 36#, FC-1593

11	Test Lines	8/27/2021	23:48:19	7.97	0.00	67.00	2.00	Pumped 3bbls to fill lines, established circulation, shutdown and closed manifold, performed 500psi k/o function test, continued with 5th gear stall at 1400psi proceeded to bring pressure to 3500psi. Held good no leaks.
12	Drop Bottom Plug	8/27/2021	23:52:11	7.98	0.00	16.00	2.10	Dropped by HES supervisor, witnessed by company man.
13	Pump Spacer 1	8/27/2021	23:52:28	7.98	0.00	16.00	2.10	Pumped 10bbls fresh water with 1/3 bottle Green Dye at 6bpm 140psi.
14	Pump Cement	8/27/2021	23:55:44	7.91	0.00	59.00	10.10	Pumped 575sks or 178bbls 13.5# 1.74y 9.2g/s SwiftCem at 9bpm 310psi.
15	Check Weight	8/27/2021	23:57:52	13.05	6.40	255.00	4.90	Weight verified with pressurized mud scales.
16	Check Weight	8/27/2021	23:59:19	13.33	8.50	341.00	15.70	Weight verified with pressurized mud scales.
17	Check Weight	8/28/2021	00:01:21	13.53	8.50	333.00	32.90	Weight verified with pressurized mud scales.
18	Drop Top Plug	8/28/2021	00:20:52	0.35	0.00	3.00	199.60	Dropped by HES supervisor, witnessed by company man.
19	Pump Displacement	8/28/2021	00:20:57	0.35	0.00	2.00	199.60	Pumped 123bbls of fresh water at 8bpm.
20	Bump Plug	8/28/2021	00:36:51	8.31	0.00	962.00	121.30	Slowed down to 3bpm at 110bbls away, final circulating pressure - 520psi, Bumped at 1100psi.
21	Other	8/28/2021	00:36:56	8.31	0.00	969.00	121.30	Released pressure and got 0.5bbls back. Floats held.
22	End Job	8/28/2021	00:37:23	8.29	0.00	72.00	121.30	Got 33bbls cement to surface.
23	Pre-Rig Down Safety Meeting	8/28/2021	00:39:08	8.30	0.00	1.00	121.30	Held safety meeting with crew prior to rig down, discussed possibility of trapped pressure, swing radius, slips trips and falls, pinch points and risks associated with rig down.
24	Rig Down Lines	8/28/2021	00:50:00	7.40	0.00	-1.00	6.00	Begin rig down
25	Rig-Down Completed	8/28/2021	01:15:00					Rig down complete with no injuries, spills or damage to equipment.

3.0 Attachments

3.1 Job Chart

