

HALLIBURTON

iCem[®] Service

VERDAD GROUP LLC-EBUS

KBL 1930-011H

Production Casing

Job Date: Monday, August 09, 2021

Sincerely,

Nick Roles and Crew

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the KBL 1930-11H 5.5" 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 40 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

The Road to Excellence Starts with Safety

Sold To #: 380688		Ship To #: 9032723		Quote #:		Sales Order #: 0907313702				
Customer: VERDAD RESOURCES LLC-EBUS					Customer Rep: Steve Wilson					
Well Name: KBL			Well #: 1930-11H			API/UWI #: 05-123-50883-00				
Field: WATTENBERG		City (SAP): KEENESBURG		County/Parish: WELD			State: COLORADO			
Legal Description: NW SE-19-2N-63W-1806FSL-2051FEL										
Contractor: PRECISION DRLG					Rig/Platform Name/Num: PRECISION 464					
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX41066					Srvc Supervisor: Nicholas Roles					
Job										
Job depth MD		14414ft			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
Casing		9.625	8.921	36			0	1802	0	1802
Casing		5.5	4.892	17			0	14414	0	6646
Open Hole Section			8.5				1807	14431	1807	6646
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5		HES	14414		Top Plug	5.5	1	HES	
Float Collar	5.5		HES	14348		Bottom Plug	5.5	1	HES	
						Plug Container	5.5	1	HES	
						Centralizers	5.5		HES	

Fluid Data									
Stage #: 1									
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
1	Spacer	TUNED PRIME SPACER	100	bbl	11.5	3.71		8	
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	Lead Cement	ELASTICEM™ SYSTEM	1152	sack	13.2	1.6		9	7.66
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	Tail Cement	NeoCem™	866	sack	13.2	2.02		9	9.71
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	Displacement	MMCR Water	40	bbl	8.34			10	
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	Displacement	Biocide Water	292	bbl	8.34			10	
Cement Left In Pipe		Amount	115 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		>3000 ppm		Mix Water Temperature:		70°F
Cement Temperature:			Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		70 °F
Plug Bumped?		Yes	Bump Pressure:		3100 psi		Floats Held?		Yes
Cement Returns:		40 bbl	Returns Density:				Returns Temperature:		
Comment Got 40bbls cement to surface. Estimated TOT-6791'									

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	8/8/2021	12:00:00					Called out by service coordinator for OL time of 1800.
2	Pre-Convoy Safety Meeting	8/8/2021	16:15:00					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	8/8/2021	16:30:00					Depart from service center or other job site.
4	Arrive at Location from Service Center	8/8/2021	17:00:00					Upon arrival to location, signed in with onsite safety personnel. Met with company man and discussed job specific requirements and specifications.
5	Pre-Rig Up Safety Meeting	8/8/2021	17:05:00					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.
6	Rig-Up Equipment	8/8/2021	17:15:00					Begin rig up with crew.
7	Rig-Up Completed	8/8/2021	18:00:00					Complete rig up for job to nearest point before red zone.
8	Other	8/8/2021	18:30:00					Mix water test results- PH-7, Chlo-0, Temp-65F.
9	Safety Meeting - Pre Job	8/8/2021	20:00:00	7.97	6.80	139.00	2.10	Held job specific hazards as well as confirming job procedure with co man and rest of crew associated with job.
10	Start Job	8/8/2021	21:11:05	7.99	0.00	37.00	12.90	TD-14431', TP-14414' 5.5" 17#, FC-14299.62', TVD-6736', OH-8.5", SURF-1807' 9.625" 36#, MUD-9.4#

11	Test Lines	8/8/2021	21:24:27	8.35	0.00	11.00	3.10	Pumped 3bbls fresh water to fill lines, closed manifold and performed 500psi k/o function test, proceeded to perform 5th gear stall at 1452psi, continued to bring pressure up to 4500psi. Pressure stabilized and held with no leaks
12	Pump Spacer 1	8/8/2021	21:27:56	8.37	0.00	15.00	0.00	Pumped 100bbls 11.5# 3.71y 23.58g/s Tuned Prime 20g D-Air at 8bpm 225psi.
13	Check Weight	8/8/2021	21:30:32	11.56	6.10	220.00	11.80	Weight verified with pressurized mud scales.
14	Drop Bottom Plug	8/8/2021	21:42:12	18.38	0.00	1.00	86.60	Dropped by HES supervisor, witnessed by company man.
15	Pump Lead Cement	8/8/2021	21:42:15	18.38	0.00	1.00	0.00	Pumped 1152sks or 328bbls 13.2# 1.6y 7.66g/s ElastiCem w/ CBL at 9bpm 420psi.
16	Check Weight	8/8/2021	21:59:43	13.10	9.00	446.00	142.80	Weight verified with pressurized mud scales.
17	Pump Tail Cement	8/8/2021	22:23:21	13.18	9.00	566.00	355.40	Pumped 866sks or 311.5bbls 13.2# 2.03y 9.71g/s NeoCem at 9bpm 575psi.
18	Check Weight	8/8/2021	22:27:51	13.23	9.00	621.00	40.70	Weight verified with pressurized mud scales.
19	Shutdown	8/8/2021	22:59:48	13.37	0.00	112.00	314.80	Pumped 5bbls fresh water to clean through pumps and lines.
20	Drop Top Plug	8/8/2021	23:08:14	8.46	0.00	1.00	12.80	Dropped by HES supervisor, witnessed by company man.
21	Pump Displacement	8/8/2021	23:08:17	8.46	0.00	1.00	0.00	Pumped 332bbls fresh water with 20g MMCR in first 40bbls, 3lbs BE-3 and 5gal MCMX throughout.
22	Bump Plug	8/8/2021	23:50:21	8.49	0.00	3140.00	336.40	Slowed down to 4bpm at 330bbls away, final circulating pressure-2500psi, bump pressure-3100psi.
23	Other	8/8/2021	23:55:07	8.48	0.00	3239.00	336.40	Released pressure and got 4bbls back to pump. Floats held.
24	End Job	8/8/2021	23:56:16	8.44	0.00	21.00	336.40	Got 40bbls cement to surface. Estimated TOT-6791'

25	Pre-Rig Down Safety Meeting	8/9/2021	00:00:00	8.47	0.00	2.00	8.90	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.
26	Rig Down Lines	8/9/2021	00:15:00	0.41	0.00	-1.00	26.30	Begin rig down
27	Pre-Convoy Safety Meeting	8/9/2021	00:45:00					Held safety meeting with convoy, discussed trip hazards, directions and all crew fit for duty prior to departure.
28	Rig-Down Completed	8/9/2021	00:45:00					Rig down complete with no injuries, spills or damage to equipment.
29	Depart Location for Service Center or Other Site	8/9/2021	01:00:00					Depart location, if applicable journey will be submitted.

3.0 Attachments

3.1 Job Chart

