

HALLIBURTON

iCem[®] Service

NOBLE ENERGY INC-EBUS

Johnson C32-735

Production Casing

Job Date: Tuesday, October 25, 2022

Sincerely,

Nick Roles and Crew

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 Johnson C32-735 production 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 60 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 #: 345242		Ship To #: 3932199		Quote #:		Sales Order #: 0908194249				
Customer: NOBLE ENERGY INC-EBUS					Customer Rep: Charles Collver					
Well Name: JOHNSON			Well #: C32-735			API/UWI #: 05-123-49295-00				
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD			State: COLORADO			
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 517						
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX41066					Srvc Supervisor: Nicholas Roles					
Job										
Job depth MD		17262ft			Job Depth TVD		6891ft			
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	1934	0	1934
Casing	0	5.5	4.892	17			0	17262	0	6891
Open Hole Section			8.5				1933	17280	1933	6891
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5	1	Citadel	17262		Bottom Plug	5.5	4	Citadel	
Float Collar	5.5	1	Citadel	17255						

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	120	bbl	11.5	3.88	0	5	4245
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	Cap Cement	EconoCem™	140	sack	13.2	1.58	7.99	6	1118
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	Lead Cement	ElastiCem™	739	sack	13.2	1.67	8.03	8	5934
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	Tail Cement	NeoCem™	1132	sack	13.2	2.04	9.79	8	11082
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	MMCR Displacement	20	bbl	8.33	0	0	10	830
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
6	Displacement	Treated Fresh Water	380	bbl	8.33	0	0	10	15930
Cement Left In Pipe	Amount	0 ft			Reason			Wet Shoe	
Mix Water:	pH 7	Mix Water Chloride:	0 ppm		Mix Water Temperature:	65°F			
Plug Bumped?	Yes	Plug Displaced by:	8.33 lb/gal Treated Water		Disp. Temperature:	65 °F			
Cement Returns:	0 bbl.	Bump Pressure:	2415 psi		Floats Held?	Yes			
Comment: Got 60 bbl. spacer to surface. Estimated TOCap-984', TOL-1807', TOT-7188'.									

2.0 Real-Time Job Summary

2.1 Job Event Log

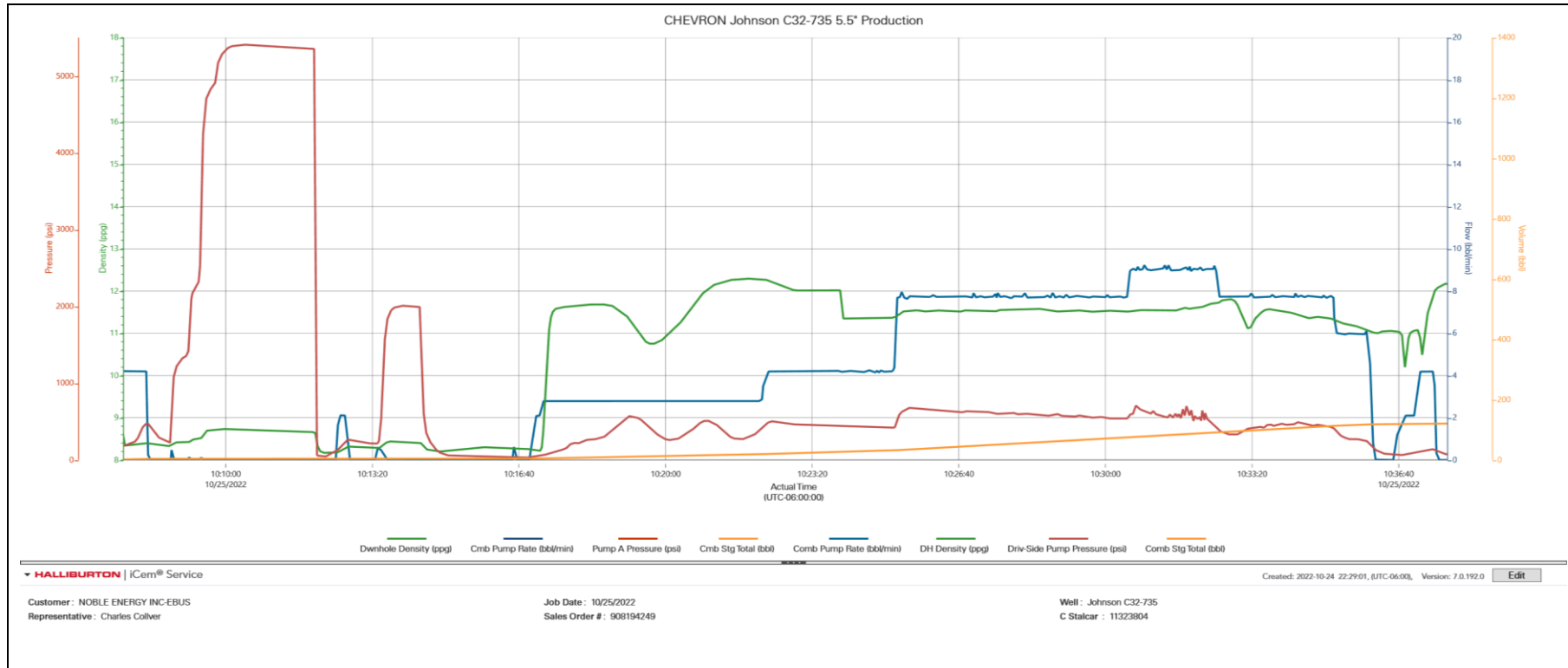
Seq. No.	Activity	Date	Time	Comments
1	Call Out	10/24/2022	20:00:00	Called out by service coordinator for OL time of 0200.
2	Pre-Convoy Safety Meeting	10/24/2022	22:45:00	Discuss all hazards associated with journey, directions to destination, complete journey management if needed, and ensure all convoy is fit for duty.
3	Depart from Service Center or Other Site	10/24/2022	23:00:00	Depart from service center or other job site.
4	Arrive at Location from Service Center	10/25/2022	00:00:00	Upon arrival to location, signed in with onsite safety personnel. Met with company man and discussed job specific requirements and specifications.
5	Other	10/25/2022	00:15:00	Mix water test results- PH-7, Chlo-0, Temp-65F.
6	Pre-Rig Up Safety Meeting	10/25/2022	00:15:00	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	10/25/2022	00:30:00	Begin rig up with crew.
8	Rig-Up Completed	10/25/2022	02:00:00	Complete rig up for job to nearest point before red zone.
9	Safety Meeting - Pre Job	10/25/2022	04:00:00	Held job specific hazards as well as confirming job procedure with co man and rest of crew associated with job.
10	Pressure Test	10/25/2022	04:50:00	Pumped 5bbls fresh water to fill lines, closed 2" lo torc, performed 500psi k/o function test, followed with 5th gear stall at 1290psi, perform 6500psi test online. Held pressure, no leaks. Bled off pressure, pumped 1bbl to ensure lines still full and closed valve. Proceeded to bring pressure to 2000psi on Kelly line, pressure stabilized and held with no leaks.
11	Start Job	10/25/2022	04:59:00	TD-17280', TP-17261.7' 5.5" 17#, FC-17254.7', TVD-6891', SURF-1933' 9.625" 36#, OH-8.5" MUD-10#

12	Drop Bottom Plug	10/25/2022	05:05:00	Dropped by HES supervisor, witnessed by company man.
13	Pump Spacer 1	10/25/2022	05:07:00	Pumped 120bbls Tuned Prime 11.5# 3.88y 24.45g/s with 20g D-Air at 8bpm 340psi
14	Drop Bottom Plug	10/25/2022	05:14:00	Dropped by HES supervisor, witnessed by company man.
15	Pump Cap Cement	10/25/2022	05:15:00	Pumped 140sks or 39.4bbls Elasticem w/o CBL 13.2# 1.58y 7.99g/s at 9bpm 580psi.
16	Other	10/25/2022	05:30:02	Could not initially connect to pump tuck to transmit data. reconnected at end of spacer.
17	Drop Bottom Plug	10/25/2022	05:36:26	Dropped by HES supervisor, witnessed by company man.
18	Pump Cap Cement	10/25/2022	05:36:29	Pumped 140sks or 39.4bbls Elasticem w/o CBL 13.2# 1.58y 7.99g/s at 9bpm 580psi.
19	Check Weight	10/25/2022	05:42:45	Weight verified with pressurized mud scales.
20	Pump Lead Cement	10/25/2022	05:43:30	Pumped 739sks or 220bbls Elasticem w/CBL 13.2# 1.67y 8.03g/s at 9bpm 612psi.
21	Check Weight	10/25/2022	05:49:03	Weight verified with pressurized mud scales.
22	Pump Tail Cement	10/25/2022	06:23:05	Pumped 1132sks or 411bbls 13.2# 2.04y 9.79g/s Neocem at 9bpm 900psi.
23	Check Weight	10/25/2022	06:29:03	Weight verified with pressurized mud scales.
24	Check Weight	10/25/2022	06:30:29	Weight verified with pressurized mud scales.
25	Check Weight	10/25/2022	06:52:52	Weight verified with pressurized mud scales.
26	Check Weight	10/25/2022	06:55:57	Weight verified with pressurized mud scales.
27	Shutdown	10/25/2022	07:22:56	Shutdown, washed up through pumps and down wash up line to pits until clean water was seen. Pumped total of 20bbls to clean truck and lines. Pumped 4bbls green dye/MMCR water to establish MMCR at CRT.
28	Pump Displacement	10/25/2022	07:23:11	Pumped 400bbls fresh water with 10g MMCR in remaining 17bbls (20bbls total), 10gal MCMX and 20gal Bellacide throughout.
29	Drop Top Plug	10/25/2022	07:31:12	Dropped 1500psi top plug by HES supervisor, witnessed by company Man. Pumped 3bbls MMCR water, Shutdown.
30	Drop Top Plug	10/25/2022	07:33:23	Dropped 3000psi top plug by HES supervisor, witnessed by company Man.

31	Bump Plug	10/25/2022	08:23:21	Slowed down to 2bpm at 380bbbls away, final circulating pressure- 2415psi, Bump pressure-2900psi. Held for 5min casing test.
32	Standby - Other - see comments	10/25/2022	08:24:42	After bump plug, pressure fell off slowly from 2900psi to 2600psi. Continued to wait the 5min.
33	Other	10/25/2022	08:30:21	Released pressure and got 4.5bbbls fresh water to truck, floats held.
34	Other	10/25/2022	08:34:35	Pumped 4.5bbbls back into well.
35	Other	10/25/2022	08:39:42	Pumped 3bbbls to bump top plug.
36	Bump Plug	10/25/2022	08:42:56	Bumped 3000psi top plug, final circulating pressure-2600psi, bump pressure-3100psi. Held pressure for 5min casing test.
37	Other	10/25/2022	08:49:41	Released pressure and got 5.5bbbls fresh water to truck, floats held. Held for additional 30min float check.
38	End Job	10/25/2022	09:23:50	
39	Pre-Rig Down Safety Meeting	10/25/2022	09:25:00	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.
40	Rig Down Lines	10/25/2022	09:30:00	Begin rig down
41	Rig-Down Completed	10/25/2022	09:56:32	Rig down complete with no injuries, spills or damage to equipment.
42	Pre-Convoy Safety Meeting	10/25/2022	09:58:31	Held safety meeting with convoy, discussed trip hazards, directions and all crew fit for duty prior to departure.
43	Depart Location for Service Center or Other Site	10/25/2022	09:59:39	Depart location, if applicable journey will be submitted.

3.0 Attachments

3.1 Job Chart 1 – Pressure Test & Spacer



3.2 Job Chart 2 – Cement & Displacement

