

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

United States of America, COLORADO

For: HANS / DANNY

Date: Tuesday, November 13, 2018

DUCK CLUB 12W-20-9N

WELD, DUCK CLUB 12W-20-9N

Case 1

Job Date: Tuesday, November 13, 2018

Sincerely,

VITALI NEVERDASOV

Legal Notice

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 cement 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 46 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 #: 369404		Ship To #: 3894490		Quote #:		Sales Order #: 0905255114				
Customer: EXTRACTION OIL & GAS				Customer Rep: DANNY / HANS						
Well Name: DUCK CLUB			Well #: 12W-20-9N		API/UWI #: 05-001-10164-00					
Field: WATTENBERG		City (SAP): BARR LAKE		County/Parish: ADAMS		State: COLORADO				
Legal Description: NW SW-12-1S-66W-2380FSL-684FWL										
Contractor:				Rig/Platform Name/Num: Patterson 901						
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Vitali Neverdasov						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		17577ft		Job Depth TVD		7375				
Water Depth				Wk Ht Above Floor						
Perforation Depth (MD)		From		To						
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	0	9.625	8.921	36		J-55	0	1678	0	1678
Casing	0	5.5	4.778	20	BTC	P-110	0	17577	0	7375
Open Hole Section			8.5				1634	17598	1678	7375
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	KLX	
Float Shoe	5.5	1	N/A	17577		Bottom Plug	5.5			
Float Collar	5.5	1	N/A	17574		SSR plug set	5.5			
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5			
Fluid Data										
Stage/Plug #: 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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.91		4		
142.47 lbm/bbl		BARITE, BULK (100003681)								
34.70 gal/bbl		FRESH WATER								

0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
0.50 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)							
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	ElastiCem	ELASTICEM (TM) SYSTEM	2770	sack	13.2	1.57		8	7.53
0.45 %		SCR-100 (100003749)							
7.53 Gal		FRESH WATER							
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	Displacement	Displacement	388	bbl	8.33			8	
Cement Left In Pipe		Amount	3 ft		Reason			Shoe Joint	
Comment : 46 BBLs OF CEMENT BACK TO SURFACE.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Shutdown	Shutdown	11/6/2018	08:57:00	USER					Finished pumping cement. Wash pumps and lines.
Event	2	Call Out	Call Out	11/12/2018	19:30:00	USER					For Location @ 01:30
Event	3	Depart Yard Safety Meeting	Depart Yard Safety Meeting	11/12/2018	23:20:00	USER					Journey management meeting held prior to departure
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	11/12/2018	23:35:00	USER					Called Journey
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	11/13/2018	00:05:00	USER					12 MILES. Discussed numbers and job procedures with Customer. Rig is running casing.
Event	6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	11/13/2018	00:15:00	USER					JSA to discuss the hazards of rig-up
Event	7	Rig-Up Equipment	Rig-Up Equipment	11/13/2018	00:35:00	USER					Rig-up all surface lines and equipmnet up to the Buffer zone
Event	8	Casing on Bottom	Casing on Bottom	11/13/2018	04:35:00	USER					CASING LANDED
Event	9	Circulate Well	Circulate Well	11/13/2018	04:45:00	USER					RIG UP FLOOR FOR RIG TO CIRCULATE THRU CEMENT HEAD.
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/13/2018	05:40:00	USER	0.00	0.00	-98.00	0.00	With all essential personnel, to discuss the hazards of pumping the job, and pump schedule.

Event	11	Test Lines	Test Lines	11/13/2018	06:32:18	USER	8.48	0.00	40.00	4.50	Load line with 2 bbls of water. Test lines @ 4712 psi
Event	12	Start Job	Start Job	11/13/2018	06:42:49	COM4	8.44	0.00	-55.00	0.00	
Event	13	Pump Spacer	Pump Spacer	11/13/2018	06:47:00	USER	8.36	0.00	-54.00	0.00	BATCH/ WEIGHT/ PUMP 50 BBLS OF SPACER WITH SURFACTANS @ 11.5 PPG
Event	14	Pump Tail Cement	Pump PRIMARY CEMENT	11/13/2018	07:01:00	USER	11.78	3.90	57.00	51.10	BATCH/ WEIGHT/ PUMP 2770 SKS (774.5 BBLS) OF ELASTICEM @ 13.2 PPG.
Event	15	Drop Top Plug	Drop Top Plug	11/13/2018	09:07:00	USER	7.62	3.90	-124.00	822.50	LOAD AND DROP PLUG
Event	16	Pump Displacement - Start	Pump Displacement - Start	11/13/2018	09:12:00	USER	10.09	0.00	-140.00	840.90	390 bbls fresh water. Firs 20 bbls with MMCR
Event	17	Bump Plug	Bump Plug	11/13/2018	10:01:00	USER	8.32	4.20	2604.00	400.10	@500 psi over final circulating pressure of 2470 psi
Event	18	Pump Water	Pump Water	11/13/2018	10:03:00	USER	8.33	0.00	3129.00	404.40	PRESSURE UP to 4022 PSI / BURST DISC AND PUMP 5 BBLS WET SHOE.
Event	19	Check Floats	Check Floats	11/13/2018	10:05:00	USER	8.32	4.90	2606.00	408.70	Floats held. 3 bbls back
Event	20	End Job	End Job	11/13/2018	10:08:18	COM4	8.23	0.00	-72.00	0.00	
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/13/2018	10:15:00	USER	8.21	0.00	-72.00	0.00	JSA to discuss the hazards of rig-down

3.0 Attachments

3.1 Case 1-Custom Results.png

