

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Tuesday, December 04, 2018

Duck Club 12W-20-6N Surface

Job Date: Thursday, November 08, 2018

Sincerely,
Tyler Hill

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 **Duck Club 12W-20-6N** cement **Surface** 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 43 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 Ft. Lupton

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3894457		Quote #:		Sales Order #: 0905257351					
Customer: EXTRACTION OIL & GAS -				Customer Rep: CHAD KELLY							
Well Name: DUCK CLUB			Well #: 12W-20-6n		API/UWI #: 05-001-10164-00						
Field: WATTENBERG		City (SAP): BARR LAKE		County/Parish: ADAMS		State: COLORADO					
Legal Description: NW SW-12-1S-66W-2408FSL-686FWL											
Contractor:				Rig/Platform Name/Num: Cartel 88							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srv Supervisor: James Leist							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1573 ft		Job Depth TVD							
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	8 RD	J-55	0	1573	0	1573	
Open Hole Section			13.5				0	1575	0	1575	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			1573		Top Plug	9.625	1	HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625		HES		
Stage Tool	9.625					Centralizers	9.625		HES		
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	Red Dye Spacer	Red Dye Spacer			10	bbl	8.33			4	

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	SwiftCem	SWIFTCEM (TM) SYSTEM	525	sack	13.5	1.74		7.5	9.2	
9.20 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	Fresh Water	Fresh Water	118.2	bbl	8.33					
Cement Left In Pipe		Amount	43 ft		Reason			Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride:		0 ppm		Mix Water Temperature:		52°F °C	
Cement Temperature:		## °F °C		Plug Displaced by:		8.33 lb/gal kg/m3		Disp. Temperature: ## °F °C		
Plug Bumped?		Yes		Bump Pressure:		520 psi MPa		Floats Held? Yes		
Cement Returns:		43 bbl m3		Returns Density:		## lb/gal kg/m3		Returns Temperature: ## °F °C		
Comment										

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)	Comments
Event	1	Call Out	Call Out	11/7/2018	15:00:00	USER				
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/7/2018	17:00:00	USER				JOURNEY MANAGEMENT COMPLETE, AS WELL AS JSA
Event	3	Crew Leave Yard	Crew Leave Yard	11/7/2018	17:30:00	USER				
Event	4	Arrive At Loc	Arrive At Loc	11/7/2018	18:00:00	USER				JOURNEY MANAGEMENT CLOSED OUT. RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/7/2018	18:30:00	USER				
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/7/2018	19:00:00	USER				JSA COMPLETE
Event	7	Rig-Up Equipment	Rig-Up Equipment	11/7/2018	19:10:53	USER	8.47	8.40	218.00	RIGGED UP TO 1 UPRIGHT WATER TANK, 2 660 BULK TRUCKS AND 1 RED TIGER
Event	8	Other	Other	11/7/2018	19:35:00	USER	8.40	0.00	-7.00	WATER TEST: PH-7, CL-0, TEMP-53 WELL INFO: 9 5/8 36# J-55 CASING SET @ 1573.58, TD-1575, S.J.- 44.53, HOLE-13.5, MUD#-9.0
Event	9	Other	Other	11/7/2018	19:37:00	USER	8.40	0.00	-8.00	MUD SCALES CHECKED WITH WATER PRIOR TO JOB.
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/7/2018	19:40:00	USER	8.35	0.00	-11.00	JSA COMPLETE
Event	11	Start Job	Start Job	11/7/2018	19:42:00	COM5	8.51	1.10	0.00	

Event	12	Test Lines	Test Lines	11/7/2018	19:46:14	USER	8.58	0.00	3247.00	3242 PSI
Event	13	Pump Spacer 1	Pump Spacer 1	11/7/2018	19:48:26	USER	8.47	0.00	-2.00	FRESH WATER LAST 10 BBLS WAS WITH RED DYE
Event	14	Pump Cement	Pump Cement	11/7/2018	19:57:59	USER	13.67	4.00	90.00	525 SKS SWIFTCM, 13.5 PPG, 1.74 FT3/SK, 9.2 GAL/SK
Event	15	Shutdown	Shutdown	11/7/2018	20:23:01	USER	0.43	0.00	11.00	TO WASH UP ON TOP OF PLUG AND DROP TOP PLUG
Event	16	Drop Top Plug	Drop Top Plug	11/7/2018	20:25:07	USER	0.33	0.00	-17.00	AWAY USING POSITIVE DISPLACEMENT MANIFOLD
Event	17	Pump Displacement	Pump Displacement	11/7/2018	20:26:00	USER	8.38	7.70	53.00	FRESH WATER
Event	18	Slow Rate	Slow Rate	11/7/2018	20:42:58	USER	8.06	3.00	482.00	TO BUMP PLUG
Event	19	Bump Plug	Bump Plug	11/7/2018	20:45:27	USER	8.07	3.00	491.00	PLUG BUMPED ON CALCULATED
Event	20	Check Floats	Check Floats	11/7/2018	20:50:17	USER	8.07	0.00	1193.00	FLOATS HELD 1 BBL BACK TO TRUCK
Event	21	End Job	End Job	11/7/2018	20:52:20	COM5	8.00	0.00	-7.00	GOOD RETURNS THROUGH OUT JOB, NO PIPE MOVEMENT, 43 BBLS OF CEMENT TO SURFACE
Event	22	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	11/7/2018	21:00:00	USER				
Event	23	Crew Leave Location	Crew Leave Location	11/7/2018	22:00:00	USER				THANK YOU FOR USING HALLIBURTON CEMENT, JAMES LEIST AND CREW.

3.0 Attachments

3.1 Duck Club 12W-20-6N Surface.png

