

HALLIBURTON

iCem® Service

MALLARD EXPLORATION LLC

Ft. Lupton District, COLORADO

For: HANS CARY

Date: Saturday, March 06, 2021

GOLDENEYE FED 21-16-6HN

WELD, GOLDENEYE FED 21-16-6HN

MALLARD GOLDENEYE FED 21-16-6HN

Job Date: Saturday, March 06, 2021

Sincerely,

KYLE BATH

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Well Name and Number** cement **Job Type** 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 XX 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

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Customer: MALLARD EXPLORATION LLC
 Job: MALLARD GOLDENEYE FED 21-16-6HN PRODUCTION 907012314
 Case: MALLARD GOLDENEYE FED 21-16-6HN | SO#: 907012314

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/mi n)	DH Density (ppg)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	3/6/202	04:30:00	USER					CREW CALLED OUT, REQUESTED ON LOCATION 1100
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	3/6/202	08:30:00	USER					DEPART LOCATION SAFETY MEETING WITH ALL HES EE
Event	3	Crew Leave Yard	Crew Leave Yard	3/6/202	08:45:00	USER					DEPART YARD
Event	4	Arrive At Loc	Arrive At Loc	3/6/202	10:00:00	USER					ARRIVE ON LOCATION, RECEIVE NUMBERS FROM CO REP TD 17659, TP 17648.5, SJ 27.5, CSG 5.5 20#, PREV CSG 9 5/8, HOLE 8.5, MUD 9.9, TVD 6373, WATER TEST, TEMP 80, PH 7, CHLORIDES 0
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	3/6/202	10:15:00	USER					HAZARD ASSESSMENT SAFETY MEETING WITH ALL HES EE
Event	6	Safety Meeting -	Safety Meeting - Pre	3/6/202	10:30:00	USER					PRE RIG UP SAFETY

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Event	Pre Rig-Up	Rig-Up	1	0															
Event 7	Safety Meeting - PreJob	Safety Meeting - Job	3/6/2022	13:30:00	0	USER	0.00	8.02	8.00	1.70									
MEETING AND COMMENCE RIG UP																			
Event 8	Start Job	Start Job	3/6/2022	14:04:00	5	COM6	0.00	7.68	8.00	0.00									
PRE JOB SAFETY MEETING WITH RIG CREW, CO REP AND HES EE																			
Event 9	Drop Top Plug	Drop Top Plug	3/6/2022	14:04:10	6	COM6	0.00	8.03	8.00	0.00									
START RECORDING DATA																			
Event 10	Test Lines	Test Lines	3/6/2022	14:05:40	4	COM6	0.00	8.03	292.00	2.00									
TEST LINES TO 4595 PSI																			
Event 11	Pump Spacer 1	Pump Spacer 1	3/6/2022	14:08:10	7	COM6	0.00	8.03	42.00	2.00									
PUMP 50 BLS TUNED PRIME SPACER 11.5 PPG 5.5 BPM 670 PSI																			
Event 12	Pump Cement	Pump Cement	3/6/2022	14:16:50	4	COM6	5.30	11.32	501.00	43.10									
MIX AND PUMP 2875 SKS 819.3 BLS CEMENT 13.2 PPG, 1.6 FT3/SK, 7.65 GAL/SK 8.5 BPM 900 PSI, CALCULATED TOC SURFACE																			
Event 13	Check Weight	Check Weight	3/6/2022	14:24:50	8	COM6	8.50	13.21	905.00	62.20									
VERIFY WEIGHT ON PRESSURIZED SCALES																			
Event 14	Check Weight	Check Weight	3/6/2022	14:53:30	1	COM6	8.30	13.20	582.00	301.60									
VERIFY WEIGHT ON PRESSURIZED SCALES																			
Event 15	Check Weight	Check Weight	3/6/2022	15:28:40	9	COM6	8.30	13.19	713.00	596.60									
VERIFY WEIGHT ON PRESSURIZED SCALES																			

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Event 16	Shutdown	Shutdown	3/6/2022	16:03:40	COM6	0.70	13.05	48.00	869.20	SHUTDOWN WASH PUMPS AND LINES TO HIGHSIDES
Event 17	Drop Top Plug	Drop Top Plug	3/6/2022	16:12:18	COM6	0.00	8.41	17.00	21.80	LAUNCH TOP PLUG
Event 18	Pump Displacement	Pump Displacement	3/6/2022	16:12:21	COM6	0.00	8.40	17.00	0.00	PUMP 391 BLS FRESH WATER DISPLACEMENT 10 BPM 2850 PSI, RECEIVED 50 BLS TUNED SPACER AND 50 BLS CEMENT TO SURFACE
Event 19	Bump Plug	Bump Plug	3/6/2022	17:13:23	COM6	0.00	8.42	3468.00	397.20	BUMP PLUG 2620 PSI TO 3480 PSI
Event 20	Check Floats	Check Floats	3/6/2022	17:15:30	USER	0.00	8.09	22.00	397.20	CHECK FLOATS, FLOATS HELD TOOK 5 BLS BACK
Event 21	End Job	End Job	3/6/2022	17:18:13	COM6	0.00	8.37	6.00	0.00	STOP RECORDING DATA
Event 22	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	3/6/2022	17:22:00	USER	0.00	8.36	19.00	23.00	PRE RIG DOWN SAFETY MEETING WITH ALL HES EE
Event 23	Depart Location Safety Meeting	Depart Location Safety Meeting	3/6/2022	18:30:00	USER					PRE DEPARTURE SAFETY MEETING WITH ALL HES EE
Event 24	Crew Leave Location	Crew Leave Location	3/6/2022	19:00:00	USER					THANK YOU FOR USING HALLIBURTON,

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KYLE BATH AND CREW

3.0 Attachments

3.1 JOB CHART.png

