

United States Department of the Interior

BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT WASHINGTON, DC 20240-0001

October 18, 2017

Darryl A. Bourgoyne President, DABLLC Dear Mr. Bourgoyne:

This letter is in response to your correspondence from July 27, 2017, to the Bureau of Safety and Environmental Enforcement (BSEE) pertaining to the information quality in the BSEE Panel Report 2015-02, "Investigation of Loss of Well Control and Fire South Timbalier Area Block 220, Well No. A-3 OCS-G 24980 23 July 2013."

In your submission you suggested that a flawed approach was used to estimate the thermal effects on equivalent downhole mud weight resulting in inaccurate conclusions drawn in the report. In support of this suggestion, you provided a paper that you had authored as your technical basis for your conclusions, "Estimation of Thermal Expansion and Compressibility Impacts on Bottom-Hole Pressure in South Timbalier 220 Well No. A-3 Immediately Prior to the Initial Loss of Well Control on July 23, 2013."

In order to address this concern, BSEE staff in the Gulf of Mexico regional offices reviewed the information you provided along with the BSEE Panel Report 2015-02. This review included regional staff members who were familiar with the incident and who were part of the BSEE Panel Investigation. The BSEE Panel Report 2015-02 is available on the BSEE website at https://www.bsee.gov/what-we-do/incident-investigations/offshore-incident-investigations/panel-investigation-reports.

The BSEE Panel Report 2015-02 concluded that the two major factors in the incident were as follows:

- The cause of the initial loss of control was the failure to maintain sufficient mud weight
 to control the well when the brine was subject to prolonged downhole heating. The
 Operator's completion engineer instructed the rig crew to lighten the brine weight during
 operations to try to reduce fluid loss. Subsequently, the completion brine lost density
 when heated which allowed downhole loss of control of the well.
- 2. The subsequent failure to control the well at the surface was attributed primarily to the rig floor crew's failure to recognize the situation in a timely manner that would have allowed control of the well using standard methods and technology.

After further research and review of the information you provided in your paper, BSEE determines that the original findings and method for estimating the fluid losses, including the

thermal effects in the BSEE Panel Report 2015-02, remain valid. BSEE will not change the conclusions in the BSEE Panel Report 2015-02 as requested based on your paper. The method detailed in your paper proposes a new way to calculate the effect of downhole heating of brine and is a change from the standard method used across the industry. There is no indication that this methodology has been peer reviewed or accepted by industry for either on- or offshore operations.

The BSEE panel carefully reviewed the potential causes of the sudden downhole loss of well control. This included review of many standard industry sources and methods for calculating the reduction in brine density when heated. The BSEE Panel Report 2015-02 referred to four separate industry and engineering sources indicating that the heating of the completion brine in this incident was sufficient to underbalance the subject well, allowing the downhole loss of well control. The Panel's conclusions were based on these standard industry methodologies of calculating this common phenomenon.

BSEE considers this letter should answer your information correction request from July 27, 2017. Should you have any further questions or concerns, please feel free to contact me at lars.herbst@bsee.gov.

Finally, you do have the right to file a Request for Reconsideration with BSEE. The right to file a Request for Reconsideration is available if there is any dissatisfaction with our decision regarding this request. The Request for Reconsideration should be addressed to Director, Bureau of Safety and Environmental Enforcement, 1849 C St. NW, MS-5438, Washington, DC 20240 and emailed to informationquality@bsee.gov within 30 days after receiving this letter.

Respectfully,

Lars Herbst

Director

Gulf of Mexico Region

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