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July 24, 2015

Susan Hackwood
Executive Director
California Council on Science and Technology
1130 K Street, Suite 280
Sacramento, CA 95814

Re: Clarification of Erroneous Information Contained in the Independent Scientific Assessment of Well Stimulation Treatments in California

Dear Ms. Hackwood,

I write in regard to the Independent Scientific Assessment of Well Stimulation Treatments in California Report conducted by the California Council on Science and Technology (“CCST Study”) regarding the purported use of hydraulic fracturing in the Kern River Oil Field. In particular, I would like to bring to your attention some significant inaccuracies within the CCST Study as it relates to Chevron’s operations in the Kern River Oil Field. Chevron is requesting corrections be made to the CCST Study to provide the public with accurate information.

The CCST study mistakenly identifies the Kern River Oil Field as a location where fracking occurs. (Volume II, Chapter 2, page 115). Although the referenced text does not specifically identify Chevron with respect to the stated hydraulic fracturing activity, it is raised in connection with the reuse of produced water by the Cawelo Water District, and Chevron is the only Kern River operator that provides water for reuse to Cawelo. In fact, Chevron does not use hydraulic fracturing in the Kern River Oil Field.

The CCST study states: “Although hydraulic fracturing was reported as recently as 2014 in the Kern River, only three hydraulic fracturing operations have been reported since 2012.” The report misidentifies one Chevron Kern River well as having been hydraulically fractured, and then extrapolates this error based on the percentage of well files reviewed to conclude, incorrectly, that the “record suggests two hydraulic fracturing operations per year occur in the Kern River field on average.” (Volume III, Chapter 5, pg 300). From this faulty premise, the Study suggests that chemicals associated with hydraulic fracturing could be included in the treated produced water that Chevron provides to the Cawelo Water District for beneficial reuse by local farmers.

This suggestion is unfounded. As previously stated, Chevron does not use hydraulic fracturing in the Kern River Oil Field. Chevron tested sand control and productivity techniques, including one known as “frac packing”, on about 300 wells at the Kern River Oil Field between 1995-2003 and 2006-2007. During that time, Chevron operated an average of over 8,000 wells in the Kern River Oil Field. These techniques were used in less than 4 percent of the wells operated by Chevron at Kern River Oil Field during those time periods. The techniques used about 90

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percent less water per well compared to the current average for hydraulic fracturing in California. These techniques were determined in testing not to be effective and were discontinued in 2007.

With regard to the specific well identified in the CCST Study as the basis for the conclusions reached, Chevron has reviewed its files including the information submitted to the California Division of Oil, Gas and Geothermal Resources and verified that this well was not hydraulically fractured. The Report's suggestion that the treated produced water Chevron provides to the Cawelo Water District may have chemicals related to hydraulic fracturing is not accurate.

The availability of a reliable water source is important for local farmers and the public debate regarding the beneficial reuse of produced water should be based on accurate information. Chevron would appreciate the opportunity to meet with you and the primary authors to discuss these and other issues to correct the CCST Study and clarify these issues for the public and the Governor's Interagency Working Group. We look forward to working collaboratively with CCST on this important issue.

Sincerely,

A handwritten signature in cursive script, appearing to read "Greta Lydecker".

Greta Lydecker

cc: John Laird, California Secretary for Natural Resources, Natural Resources Agency

David Bunn, Conservation Director, Department of Conservation

Steve Bohlen, State Oil and Gas Supervisor, Division of Oil, Gas and Geothermal Resources

Jonathan Bishop, Chief Deputy Director, State Water Resources Control Board

Clay Rodgers, Assistant Executive Director, Central Valley Regional Water Quality Control Board