



**Greta Lydecker**  
Vice President

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**VIA EMAIL**

December 22, 2015

Preston Jordan, PG, CEG, and CHG  
Lawrence Berkeley National Laboratory  
1 Cyclotron Road MS74R316C  
Berkeley, CA 94720

**Re: Data Request on “Frac Packing” Wells in Kern River Field**

Dear Dr. Jordan,

This letter is in response to your request for information related to the “frac packing” techniques previously tested by Chevron in Kern River Field. Enclosed is information that Chevron previously provided to the Central Valley Regional Water Quality Control Board (RWQCB) in response to a written request for information regarding well stimulation activities and produced water since the beginning of 2005. Specifically, the following documents are enclosed:

- August 25, 2015 letter from Chevron to the RWQCB with initial information;
- September 10, 2015 letter from Chevron to the RWQCB with detailed additional information in response to a follow up request; and
- Copies of the enclosures referenced in the correspondence.

Based on your discussion on December 21, 2015 with Abby Auffant, Chevron’s Underground Injection Control / Water Regulatory Coordinator for the San Joaquin Valley Business Unit, it is my understanding that your request for this information is related to pending revisions to the Independent Scientific Assessment of Well Stimulation Treatments in California Report conducted by the California Council on Science and Technology (“CCST Study”). As Ms. Auffant explained, Chevron is in the process of preparing a table identifying the portions of the CCST Study that need to be revised based on the written confirmation received from the Division of Oil, Gas and Geothermal Resources that wells API 03045795 and API 03052152 were not hydraulically fractured as referenced in the current version of the CCST study. If information regarding the “frac packing” techniques will be included in the revised version of the CCST Study, Chevron would appreciate the opportunity to provide input on the proposed revisions before the revisions are released to the public so as to avoid any possible inaccuracies or need for further revisions.

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“Frac packing” is different than traditional hydraulic fracturing. Traditional hydraulic fracturing is used for the purpose of improving reservoir conductivity by introducing fractures into the formation far beyond the well bore. Alternatively, “frac packing” is used in an attempt to clear obstructions to flow of the reservoir fluids near the wellbore and to provide sand control. As I stated in my correspondence to Dr. Susan Hackwood, dated July 24, 2015, regarding the CCST Study, the “frac packing” techniques used about 90 percent less water per well compared to the current average for hydraulic fracturing in California.

Chevron appreciates your willingness to work collaboratively with the CCST Study authors on these important issues.

Sincerely,

A handwritten signature in cursive script that reads "Greta Lydecker".

Greta Lydecker

Enclosures

cc: Susan Hackwood, Executive Director, California Council on Science and Technology

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