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***Comments on Low Carbon Fuel Standard Public Workshop to Discuss Potential Regulation Revisions
(October 14 & 15, 2020)***

California Air Resources Board
Low Carbon Fuel Standard Program
1001 I Street
Sacramento, CA 95814

November 5, 2020

Via electronic submittal to: https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=lcfs-wkshp-oct20-ws&comm_period=1

RE: Water-Jet Oil Production Technology

Thank you for the opportunity to comment on this important rulemaking. Sentinel Peak Resources California LLC (“Sentinel Peak”) is an independent oil and gas producer with 100% of our operations located within the state of California. Sentinel Peak, in partnership with California Jet Oil LLC (“CJO”), is pursuing the development of a new and innovative technology to produce the oil California needs while helping the state achieve its ambitious climate goals. We would like to thank CARB for the opportunity for CJO to present its new technology to the LCFS stakeholder community this past October.

CJO’s Water-Jet Oil Production Technology provides the potential for California to reduce the carbon intensity of the oil produced and consumed in the state by replacing higher carbon intensity crudes (including foreign imports). Achieving this goal is what the LCFS Innovative Crude provisions are focused on—applying new technology to lower the carbon intensity of crude oil production. The Water-Jet Oil Production Technology that was presented at the recent LCFS workshop is precisely the type of technology being targeted for advancement. Producing crude without thermal resources, while using an ever-increasing green grid is a win-win for the LCFS. The technology exceeds all thresholds to be considered as an innovative crude production method under the Low Carbon Fuel Standard—reducing the use of natural gas during production of crude for California consumption. Including this technology

as an eligible option under the Innovative Crude provisions in the upcoming rulemaking is critically important to the ability to successfully implement this technology.

Besides reducing air emissions, Water-Jet Oil Production Technology provides a number of other benefits to California:

- Non-fracking: Water-Jet Oil Production Technology does not fracture the rock formation to produce oil.
- Ground water protection: Water-Jet Oil Production Technology does not inject any water into the surrounding rock formation and all water used in the process is re-used and recycled.
- Reduced surface impacts: Water-Jet Oil Production Technology accelerates the recovery of oil, significantly reducing the well life-cycle from decades to days, allowing the surface to be restored quickly.
- Reduced crude imports: California currently imports 75% of its oil to meet its needs, much of it coming from overseas via oil tanker. Water-Jet Oil Production Technology could help California reduce its reliance on imported crude by replacing high carbon intensity imported crudes with low carbon intensity water-jet oil.
- Increased economic activity: California is currently exporting over \$20 billion a year to out-of-state oil suppliers to purchase oil to meet the state's needs. Water-Jet Oil Production Technology provides an alternative to importing foreign crude, while creating jobs and economic prosperity for Californians.

LCFS incentives are critical to the development and adoption of Water-Jet Oil Production Technology, as current market conditions are not anticipated to support economic application of the technology for the foreseeable future, thus continuing reliance on existing thermal extraction operations and the importing of higher intensity foreign crudes. We ask the Air Resources Board to prioritize the addition of Water-Jet Oil Production Technology as an eligible innovative crude production method to further California's air emissions goals while reducing our reliance on foreign imports and generating prosperous economic activity here in our state.

Thank you for continuing the dialogue with us. We look forward to working with CARB staff, LCFS stakeholders to answer questions and see this opportunity become a reality. Please let me know if you have any further questions.

Sincerely,



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