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August 28, 2019

Mr. Peter Campbell Environmental Program Specialist Alaska Department of Environmental Conservation 43335 Kalifornsky Beach Road, Suite 11 Soldotna, Alaska 99669

Re: 2019 Additional Beach Assessment and Permeable Reactive Barrier Pilot Study Work Plan Trading Bay Production Facility, Cook Inlet, Alaska Response to ADEC Comments letter dated September 16, 2019

Mr. Campbell,

Chevron Environmental Management Company (CEMC) submitted to Alaska Department of Environmental Conservation (ADEC) the 2019 Additional Beach Assessment and Permeable Reactive Barrier Pilot Study Work Plan (Work Plan), dated August 27, 2019, for the Trading Bay Production Facility (TBPF). The Work Plan was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of CEMC. CEMC appreciates your expedited review and thanks you for providing comments in your letter dated September 16, 2019. CEMC has reviewed your letter and provides the following in response to your comments:

- Following completion of the 2019 field activities, including Compliance Order by Consent (COBC) monitoring and sampling, CEMC will be evaluating and proposing modifications to the compliance monitoring program at the TBPF. The new plan will be submitted to ADEC for approval and implementation beginning in 2020. The monitoring program modifications will address monitoring of dissolved groundwater impacts that have migrated offshore toward the mud flats.
- 2. Per your request, CEMC will plan to collect pore water samples at approximately 18 inches below ground surface at the same locations of the planned direct-push groundwater sampling. Attempts will be made to sample pore water as far east as possible. However, during the May 2019 assessment activities, it was observed that when the tide recedes, pockets of saltwater remained on the intertidal flats which prevented collection of representative pore water samples.
- 3. CEMC will collect the requested additional delineation samples that were annotated as A-1 through A-7 on Figure 1 of the September 16, 2019, comment letter. Per your concerns, CEMC will prioritize evaluating the eastern extent of dissolved impacts in groundwater.
- 4. The objectives of this Work Plan include further defining the extent of dissolved impacts to groundwater that have migrated offshore. The planned permeable reactive barrier is intended to evaluate use of this technology for implementability and effectiveness (in combination with the bluff-top recovery well system installed in 2018) in mitigating the potential for migration of dissolved phase impacts offshore and provide for natural attenuation of the residual dissolved impacts. CEMC understands ADEC concerns regarding the

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dissolved phase plume. After the completion of the 2019 field activities, a remedial alternative analysis and recommendation(s) for addressing dissolved and separate-phase impacts at the TBPF will be developed.

As indicated, CEMC understands your concerns with respect to meeting the long-term remedial goals at the TBPF. We maintain that the proposed actions documented in Work Plan will further our understanding and ability to develop viable and effective alternatives for remediation of dissolved phase and separate-phase hydrocarbon impacts at the site.

Implementation of the Work Plan, inclusive of the modifications noted above, is currently scheduled to commence in late September 2019. Should you have any additional comments or questions regarding the proposed activities, please do not hesitate to contact me by phone at 832-854-5630 or via e-mail at kegan.boyer@chevron.com.

Sincerely,

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Kegan W. Boyer, P.G. Environmental Project Manager

cc: Craig Wilson, Stantec