

# STATE OF ALASKA

SEAN PARNELL, GOVERNOR

## ALASKA OIL AND GAS CONSERVATION COMMISSION

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### ADMINISTRATIVE APPROVAL ENHANCED RECOVERY INJECTION ORDER 5.001

Randall Kanady  
Drilling and Wells  
ConocoPhillips Alaska, Inc.  
P.O. Box 100360  
Anchorage, AK 99510-0360

RE: Docket # ERIO-12-001, Prudhoe Bay Unit, Ignik Sikumi No. 1 Well (PTD 211-027),  
"Upper C Sands" of Saganivirktok Formation

Dear Mr. Kanady:

By email sent January 24, 2012, ConocoPhillips Alaska, Inc. (CPAI) requests the Alaska Oil and Gas Conservation Commission (AOGCC) administratively amend the fluids authorized for injection under Enhanced Recovery Injection Order 5 (ERIO 5) to include two gas tracers to help evaluate the effectiveness of the pilot project authorized under ERIO 5. AOGCC hereby **GRANTS** CPAI's request.

ERIO 5 was issued on January 18, 2012, and authorizes CPAI to conduct a pilot injection project to evaluate the potential of injecting a carbon dioxide/nitrogen (CO<sub>2</sub>/N<sub>2</sub>) gas mixture to recover methane gas from a hydrate accumulation. While the use of tracers was discussed during preliminary meetings about the scope of this pilot project they were inadvertently left out of the formal application for the project and subsequently not included as an authorized fluid under Rule 4 of ERIO 5.

The specific tracers that CPAI requests authorization to inject as a part of this pilot project are sulfur hexafluoride (SF<sub>6</sub>) and 1,2-dichlorotetrafluoroethane (R-114). According to CPAI's request these substances were selected "...because they will be trapped in secondary hydrate formation, so their concentrations will help us manage our mass-balance calculations." CPAI proposes to inject 10 pounds of SF<sub>6</sub> during the first half of the injection project and 10 pounds of R-114 during the second half of the injection project. The total mass of the CO<sub>2</sub>/N<sub>2</sub> mixture to be injected is 20 tons, so the 20 total pounds of tracers injected would fall in the hundreds of parts per million range and thus would not be expected to pose any compatibility concerns. Adding these tracers to the CO<sub>2</sub>/N<sub>2</sub> injection stream should allow the effectiveness of the project to be more easily evaluated.

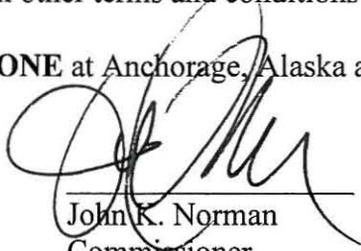
Per Rule 11 of ERIO 5, the AOGCC hereby amends Rule 4 of ERIO 5 to read as follows:

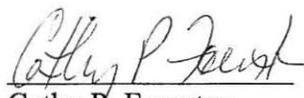
**RULE 4: Authorized Injection Fluid for Enhanced Recovery**

The pilot project involves injecting no more than 20 tons of mixed CO<sub>2</sub> / N<sub>2</sub>, and no more than 10 pounds each of the tracer elements sulfur hexafluoride (SF<sub>6</sub>) and 1,2-dichlorotetrafluoroethane (R-114), into the hydrate saturated Sagavanirktok "Upper C Sands" to validate laboratory experimental results supporting CO<sub>2</sub> / CH<sub>4</sub> (Methane) exchange. The injected CO<sub>2</sub> / N<sub>2</sub> mixture in a gas state will exchange with the methane and remain sequestered in the pre-existing hydrate lattice.

All other terms and conditions of ERIO 5 remain unchanged and in full force and effect.

DONE at Anchorage, Alaska and dated February 1, 2012.

  
John K. Norman  
Commissioner

  
Cathy P. Foerster  
Commissioner



**RECONSIDERATION AND APPEAL NOTICE**

As provided in AS 31.05.080(a), within 20 days after written notice of the entry of this order or decision, or such further time as the AOGCC grants for good cause shown, a person affected by it may file with the AOGCC an application for reconsideration of the matter determined by it. If the notice was mailed, then the period of time shall be 23 days. An application for reconsideration must set out the respect in which the order or decision is believed to be erroneous.

The AOGCC shall grant or refuse the application for reconsideration in whole or in part within 10 days after it is filed. Failure to act on it within 10-days is a denial of reconsideration. If the AOGCC denies reconsideration, upon denial, this order or decision and the denial of reconsideration are FINAL and may be appealed to superior court. The appeal MUST be filed within 33 days after the date on which the AOGCC mails, OR 30 days if the AOGCC otherwise distributes, the order or decision denying reconsideration, UNLESS the denial is by inaction, in which case the appeal MUST be filed within 40 days after the date on which the application for reconsideration was filed.

If the AOGCC grants an application for reconsideration, this order or decision does not become final. Rather, the order or decision on reconsideration will be the FINAL order or decision of the AOGCC, and it may be appealed to superior court. That appeal MUST be filed within 33 days after the date on which the AOGCC mails, OR 30 days if the AOGCC otherwise distributes, the order or decision on reconsideration. As provided in AS 31.05.080(b), "[t]he questions reviewed on appeal are limited to the questions presented to the AOGCC by the application for reconsideration."

In computing a period of time above, the date of the event or default after which the designated period begins to run is not included in the period; the last day of the period is included, unless it falls on a weekend or state holiday, in which event the period runs until 5:00 p.m. on the next day that does not fall on a weekend or state holiday.