



February 17, 2010

Colorado Oil & Gas Conservation Commission
Attn: Carol Harmon
Hearings Manager
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

Re: Order No. 1C-6, Request to proceed with Phase Two of the Plan contingent upon Petroglyph receiving all necessary permits from the appropriate state or federal agencies.

Dear Carol:

The Colorado Oil & Gas Conservation Commission issued Order No. 1C-6 effective January 15, 2008. Since that time Petroglyph Energy, Inc. (Petroglyph) has worked cooperatively with COGCC staff and other entities as necessary to comply with the Order and expeditiously implement the Plan described therein. By this letter, Petroglyph officially requests that Phase One of the Plan be deemed complete and it be allowed to proceed with Phase Two activities, contingent upon Petroglyph receiving all necessary permits from the appropriate state or federal agencies.

Phase One of the Plan contained four primary activities. Each activity will be described below with a summary of its current status. Additional details and supporting data have been provided in Petroglyph's monthly reports to the COGCC.

1. Methane removal system – *"This program entails the drilling, completion, testing and operation of a monitor well; three or four methane removal wells; and approximately eight wells designed to create a hydraulic barrier to methane migration in the shallow aquifer." "The withdrawal and injection of water from the shallow aquifer will be initiated, and the system will be tested and evaluated, along with an associated methane stripping system."*

The methane removal wells and surrounding injection wells were drilled in the spring of 2008. The methane removal wells were passively vented while waiting on the installation of associated methane stripping equipment and approval to begin operation of the system. Domestic water wells in the area that had previously vented free methane saw an immediate and drastic decline in gas flow which had essentially ceased by the summer of 2008. Surface equipment was installed during the summer of 2008 and approval to fully activate the system was received in December 2008. The Phase One methane removal system has been fully operational for approximately 12 months. The system has functioned as designed with no incidents or negative effects on surrounding domestic water wells.

PETROGLYPH ENERGY, INC.

2. Aquifer data acquisition and characterization – *“Data acquired by the installation and operation of these wells will be utilized to refine the characterization of the shallow aquifer that has been impacted by gas migration, including a simulation model.”*

Consultants for Petroglyph developed an initial simulation model of the shallow aquifer during the fall of 2007 which facilitated development of the Methane Investigation Monitoring and Mitigation Plan dated December 7, 2007, and is incorporated by reference into Order No. 1C-6. Data collected through the remediation system operation has been used to refine the aquifer characterization. The simulation model has been calibrated to the observable data from the last two years. A key prediction of the model is that without initiation of the hydraulic barrier, methane in the shallow aquifer will tend to migrate over time to the northeast away from the removal wells.

The simulation model has been unable to successfully model a scenario where methane migrated from the coal seams in the Vermejo Formation up into the shallow aquifers without water in the shallow aquifers draining downward into the Vermejo Formation. Nor has it yet been able to identify a conduit responsible for methane gas migration. However, forcing a given amount of methane into the shallow aquifer cells in the model did cause the simulation model to be calibrated to observable data.

3. Baseline data monitoring – *“Activities during this phase will also include monitoring of surrounding domestic water wells (including, but not limited to, initial testing within one mile of the outer edge of the hydraulic barrier for dissolved methane), as well as baseline monitoring of gas seeps along the outcrop of the Vermejo coal formation and seeps located elsewhere in the area of investigation, ...”*

Extensive monitoring of surrounding domestic water wells and gas seeps as been performed on a regular basis and reported in Petroglyph’s monthly report to the COGCC. This monitoring has included down-hole pressure and fluid level monitoring of both domestic wells and Petroglyph production wells; gas flow monitoring in domestic wells; measurement of methane levels near numerous domestic wellheads in the area; and ground surveys using a hand held methane detector at seeps and locations where methane has previously been detected or at locations where a property owner requests such a survey. In general methane gas flow from domestic water wells and seeps have significantly decreased or in many cases ceased over time. Exceptions to this general observation typically involve domestic wells near the coal outcrop that are themselves drilled into the coals or seeps from abandoned mines. Baseline monitoring will continue during Phase Two.

4. Proposals for mitigating impacts outside the hydraulic barrier – *“...and the development of proposals for mitigating impacts to all aquifers, wells, and seeps outside the hydraulic barrier.”*

Most methane impacted aquifers, wells and seeps outside the hydraulic barrier have also improved over time. Site specific mitigation efforts have included helping a number of homeowners install both properly vented cisterns and/or well vents. Petroglyph has drilled monitoring wells near two seeps and will continue to investigate these areas outside the hydraulic

barrier. We will work with COGCC staff during Phase Two to identify additional testing or mitigation proposals as needed.

* * * * *

Petroglyph is currently unaware of any Phase One activity that would likely be deemed incomplete. However, should the Commission determine any Phase One activity, unrelated to the methane removal system, requires additional work before being deemed complete, Petroglyph would request approval to proceed with Phase Two activities in parallel while those activities are being completed. In Order No. 1C-6 the Commission found that *"time is of the essence in implementing a program of activities to address and remediate the short and long term impacts to public health, safety and welfare"*. The public health and safety benefits associated with initiation of the hydraulic barrier, especially containment of modeled gas migration in the Poison Canyon aquifer, and full operation of the methane removal system should not be delayed.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul R. Powell", is positioned above the printed name.

Paul R. Powell
Executive Vice President, COO
Petroglyph Energy, Inc.