



Caerus Oil and Gas LLC
1001 Seventeenth Street
Suite 1600
Denver, CO 80202

Caerus collected a point of release (POR) sample which indicates that all analytes comply with COGCC Table 910-1 standards, except for SAR and arsenic. Background soil samples taken from the N22 well pad immediately adjacent to the K22 CDP demonstrate background arsenic concentrations above those found in the K22 CDP POR sample. Caerus requests relief of COGCC Table 910-1 standards for arsenic and SAR based on the information provided below.

FAQ 31 consideration

The POR spill assessment sample and the background sample identified an exceedance to the COGCC Table 910-1 concentration level for arsenic which is 0.39 mg/kg. The Colorado Department of Public Health and Environment (CDPHE) has prepared a risk management guidance document for evaluating arsenic concentrations in soil and has identified an average arsenic concentration within Colorado to be 11 mg/kg (CDPHE, <https://www.colorado.gov/pacific/cdphe/air-water-soil-remedial-objectives>). The study identified that if there is no reason to suspect arsenic or arsenic containing materials were used onsite, then an arsenic concentration below 11 mg/kg is not a chemical of concern. Based on process knowledge during the drilling, completion, and production process, Caerus does not use arsenic or arsenic containing materials. Caerus has analyzed produced water samples from multiple fields within the area which have not demonstrated elevated concentrations of arsenic to be found in produced water. Following the flowchart provided in the Risk management guidance, Caerus believes these elevated concentrations are due to background concentrations found in the soil. Caerus is requesting consideration for FAQ 31 and the CDPHE Risk Management Guidance for Evaluating Arsenic Concentrations in Soil as site and background soil samples have demonstrated naturally occurring arsenic in the soil above the COGCC Table 910-1 concentration levels.

FAQ 32 consideration

Based on the known volume of spilled fluid, immediate recovery of spill fluid, and shallow impacts associated with the spill, Caerus requests to utilizing the active surface of the pad for continued operations. Caerus is requesting consideration for COGCC Table 910-1 concentration levels for SAR under guidelines set forth under FAQ 32 as this is an active working location. Caerus believes the request for FAQ 32 consideration is acceptable as there are minimal potential receptors in the area and environmental impacts to these receptors are unlikely. The property is fenced with a locked gate to prevent access from the general public. The entire pad surface is contained by a perimeter berm to reduce the chance for overland flow from exiting the pad location. The nearest surface water drainage is an ephemeral drainage and is located approximately 1.15 miles downgradient to the north. In the event of a spill on the location, the drainage pathway would be to the north. Groundwater at the site is estimated to be greater than 50 feet below ground surface.

During pad reclamation and closure, Caerus will undergo a final pad review process to ensure threats to potential receptors are identified and removed or mitigated. This process includes review of historic spills and releases, sampling, and coordination with reclamation and construction staff for reclamation requirements. Based on the request for consideration for FAQ 32, Caerus will ensure all elevated concentrations of SAR will be buried below at least three feet of native soil to ensure agronomic growth.