Alt-FEMP Executive Summary

Company	Program start	Program end	# of sites
Whitecap Resources Inc.	March 3, 2022	December 31, 2023	1

Once an alternative fugitive emissions management program is approved, AER staff draft this executive summary. This is a summary only, published to help interested stakeholders understand what has been approved. These summaries are found on our website, www.aer.ca > Protecting What Matters > Holding Industry Accountable > Industry Performance > Methane Performance > Alternative Fugitive Emission Management Program Approvals. For additional information on these approvals, contact methane.reduction@aer.ca.

Summary

Whitecap Resources Inc. will implement an alternative fugitive emission management program (alt-FEMP) near the Everdell area of Alberta using the Kuva Systems daylight continuous monitoring system. Continuous measurement systems have significant potential to accurately characterize emissions patterns at each facility and respond immediately to leaks, reducing time-integrated fugitive emissions to near zero.

The proposed alt-FEMP pilot will cover one Whitecap site in the Everdell region already regulated under section 8 of *Directive 060*. Three image-based fixed sensors will be deployed at the main processing area of the facility for sufficient coverage. Any areas that have been deemed not fully covered will be inspected annually using conventional optical gas imaging (OGI). The sensors measure continuously for CH_4 and VOC emissions during the daylight hours and if environmental conditions permit. For this pilot, once a confirmed detection event has alerted an operator, close-range follow-up inspections to analyze and classify the detection is completed and the leak is repaired as per *Directive 060* requirements.

To ensure that the pilot is a success, a yearly OGI camera survey will be conducted to validate system results.

The supporting modelling that was conducted demonstrated three things to note: emissions were typically 10 minutes long and would have a higher likelihood of detection if they were persistent emissions; the minimum detection limit was 6 SLPM (12 SCFH or ~0.24 kg/h); emissions were detected from a distance of 12–24 m.