VEHICLE-BASED FUGITIVE EMISSION DETECTION AND ATTRIBUTION WITHIN ALBERTA ENERGY DEVELOPMENTS

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We have conducted extensive gas emission research within several of Canada's major energy developments. Our award-winning technical approach allows us to detect very small fugitive or vented emissions from a fast-moving vehicle, and to geochemically differentiate the emissions from competing sources (Risk et al. 2015). We can screen up to 400 wellpads per day whereas an infrared camera operator can only scan ~20. To date, most of our work has been conducted in BC and SK. In these provinces we can readily take on short-term (days) projects in most developments without the need for pre-screening, because extensive campaigns have taught us the various characteristic geochemistries and opportunities for use. In this project, we wish to adapt our approach for key developments in AB, and to develop best practice recommendations for its use. This research

will allow us to make the technology available for cost-effective short-term projects in AB.

Policy Issues

Methane Emissions

Knowledge Gap

Methane emissions abatement options are highly source and process specific in nature, making it difficult to offer generic solutions for the affected industry. In order to address methane emissions more urgently, the oil and gas sector requires better and more innovative solutions as it continues to explore options and take action to reduce methane emissions in a technically achievable and economically sustainable manner.