Project Profile

Project Name:	Surface Casing Vent Flow (SCVF) Pressure Relief Device Study
Project Number:	ER-Meth-2027-01
Proponent:	Strategic Projects Inc.
Funding Envelope:	Environmental Research--Methane
Timeframe:	May 11, 2026, to March 31, 2027

Project objectives

The objectives of this project are to:

1. To assess the effectiveness of burst plate installations in reducing surface casing vent flow (SCVF) occurrences.
2. Generate practical guidance on the design, installation, maintenance, monitoring, and risk management of burst plates, enhancing confidence among regulators and industry in this mitigation approach.
3. Support ongoing policy development related to emissions quantification, management, and reduction.

The project is recommended and overseen by the BC Oil and Gas Methane Emissions Research Collaborative (BC MERC).

Project description

This project will evaluate burst plate installations as a methane mitigation strategy of Surface Casing Vent Flow (SCVF), with emphasis on piping orientation, device geometry, installation practices and risk management. The project will provide guidance on burst plate design, installation, maintenance, monitoring and best practices for burst plates

The project will consist of a field design phase followed by a field deployment and monitoring phase before the analysis and report writing.

Field Design—select and evaluate a representative sample of 30-40 wells for the study. Screening data will be utilized to select candidate wells demonstrating variability in formation leak-off pressures and stabilized SCVF pressures. The list of wells to sample will be finalized using a transparent selection methodology that ensures geographic dispersion and pressure regime representation. A geographic scatter plot and pressure distribution plot will be produced early in the project to confirm representativeness of the final sample. This phase of the project will include the following:

- Review of current burst plate practices, including but not limited to setpoint variance based on ambient temperature.
- Review of alternative technologies.
- Review of known failures and risks.
- Well-by-well configuration review and burst plate design confirmation to identify the field deployment (list of wells to study).
- Development of monitoring and data integrity protocols.

Field Deployment and Monitoring—execution of the field monitoring plan followed by the synthesis and interpretation of the results before drafting the final report and presentation(s) on findings.

Project deliverables

The deliverables from this project include the following:

1. Final report containing:
    - Existing design, installation, and maintenance practices for burst plates used to manage SCVF.
    - Burst plate installation risks.
    - Burst plate design and installation configurations for field deployment.
    - Field deployment results.
    - Recommendations addressing design criteria, commissioning requirements, inspection frequency, monitoring requirements, risk mitigation strategies and applicability limits.
2. Presentation on findings and implications to the BC MERC.