Compressor Seals Study – Preliminary Findings

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Agenda

» Background
» Current State
» Study Design
» Field Campaign/Observations
» Next Steps
Background

Existing studies on compressor seals venting may not:

- Reflect Albertan context
- Incorporate maintenance, mechanical and process conditions

- Accepted emission factor feeds regulator limit
- AER committed to using best available data
- Identified need to increase certainty around compressor venting
Current State - Reciprocating

![Box plot showing vent rate m³/hr/Throw for Base Case, AER Clearstone Study, Company A, and Company B.](chart.png)
Current State - Centrifugal

Accurata - 2018
Study Design

» Maintenance survey
  • Organizational maintenance culture

» Measurement plan
  • 4 measurement tools (QOGI, Calscan, Alicat, Hi Flow)

» Site-specific survey
  • In conjunction with field measurement
Field Campaign

- Measured
  - 124 reciprocating units at 71 sites
  - 11 centrifugal units at 7 sites
    - 5 dry seal, 6 wet seal

- Factors to consider in analysis
  - Difficulty following piping
  - Difficulty accessing some vents
  - Backpressure or leaks challenging the meter
  - Ambient heat interfering with electrical equipment
Next Steps

» Study completion

» Update modeling

» Assess requirements in advance of 2022 regulatory review
Questions
Thank you