

# Continued Development of Numerical Simulation of a Sour Gas Flare

Allan Chambers, Alberta Research Council  
GL 907751

This project will continue development of the sour flare combustion model and improve the numerical simulation tool for sour gas flares that has been developed. The project will work on further improvements in:

- expanded hydrocarbon reaction model to include hydrocarbons larger than ethane that may be present in flared gas
- incorporate improved sulfur reaction model, particularly reactions involving COS and CS<sub>2</sub>
- use the improved model to study an expanded parameter matrix that covers a wider range of flare conditions representative of flare conditions used in Alberta.

## CAPP Policy Alignment Statement

The availability of a simulation tool for sour gas flares will lead to a better understanding of how sour gas flares operate, how sulphur compounds are distributed in the flare plume, and what sulfur compounds are locally dispersed into the environment.

## Progress Report