

Project Profile

Project Name:	BC Natural Gas Atlas
Project Number:	CC-2016-04
Proponent:	Geoscience BC / University of Victoria (School of Earth and Ocean Sciences)
Funding Envelope:	Collaboration and Communication
Timeframe:	November 1, 2015 to April 30, 2018

Project objectives

The objective of the project is to:

1. Create a comprehensive, public facing atlas of natural gas molecular and isotope compositional data for northeastern British Columbia —by integrating and grading available existing analyses with additional analyses focused on geographic areas and formations.

Project approach

The project involves a two-stage approach for database structure and maintenance:

Phase One will:

- Catalogue and grade existing gas molecular and stable isotope ratio data in the public domain using a coding protocol to QA/QC data.
- Develop sampling and analytical protocols to be used for gas collection and measurement in the study.
- Develop a database and publicly facing web-based GIS interface to disseminate gas composition information using stratigraphic information and other interpretative and visualization tools.

Phase Two will:

- Document sample and knowledge gaps in the database.
- Undertake a sampling and gas geochemical analysis program to obtain key data to infill data gaps.
- Create a comprehensive atlas of results which can be organized by various parameters: geologic (producing pool, formation, size, etc.), geographic (location) and geochemical (source rock age/type/maturity, commingling, stratification, zonations, production history, etc.).

Project deliverables

The deliverables from this project include the following:

- Searchable database of gas compositions for the subsurface in NEBC—including analyses of reservoir gas, mud gas data, production gas and changes to produced gas composition over time, surface casing vent flow data and headspace gas from drill cuttings.
- Web-based, public facing information tool that organizes and displays natural gas geochemical data by geographic area and formation.