# CANADIAN METHANE JOBS MARKET ANALYSIS



An inventory of technology and service providers offering the Canadian oil and gas industry tools to reduce methane

METHANE EMISSIONS LEADERSHIP ALLIANCE

TECHNOLOGY. PARTNERSHIPS. INNOVATION.

#### INTRODUCTION

# **Background**

One of the Government of Canada's global commitments to fight climate change includes reducing methane emissions from the oil and gas industry 40 to 45% below 2012 levels by 2025. Methane, the principal component of natural gas, was targeted as an important greenhouse gas for Canada to reduce as part of the Pan-Canadian Climate Framework (December 2016) and the Alberta Climate Plan (November 2015). To achieve this commitment, producers will have to deploy methane mitigation technologies across the value chain and enlist the services of local businesses to support methane reduction management activities. Methane emission reductions are achievable at low-cost, using readily available technologies to recover leaking or vented methane.

The Methane Emissions Leadership Alliance conducted a market survey in Q1 2017 to identify the current number of methane mitigation companies in

Canada and to assess the potential capacity of this industry to scale with new customer demands for emissions reduction solutions.

This report contains a review of companies with offices located in Canada and the associated number of jobs within each of those organizations related specifically to methane emissions reduction activities. The report does not include jobs from the supply chains that support the technology and service sectors analyzed. The data is broken down by methane source category in order to demonstrate which sources are currently served and to what capacity market demand can be met upon implementation of federal and provincial methane regulations. This report did not seek to quantify the total number of jobs but rather to provide a sense of the scale and opportunities for job creation in this sector. A Phase 2 report is being planned to quantify the total number of jobs.

# **About the Methane Emissions Leadership Alliance**

The Methane Emissions Leadership Alliance (MELA) members provide the data, services and technology solutions critical to methane emissions management in the Canadian oil and gas industry. The Alliance is a partner to government, industry, and other key stakeholders, focused on building a clean economy and generating new jobs.

The Alliance serves as a centralized location for technology and service providers to collaborate with industry and government on building a robust economy in a changing regulatory environment. The core objectives of the Alliance include:

- Advance and support the deployment of methane emissions reduction solutions and technologies throughout the oil and gas industry in Canada
- Promote clean, efficient, and cost effective technologies and services that reduce operating costs and minimize regulatory compliance costs for oil and gas producers
- Elevate public awareness and profile of methane emissions reduction technologies
- Educate all levels of government and industry organizations on the value, applicability, and performance results of methane emissions reduction technologies
- Foster and support relationships with mutual stakeholders and partners of methane emissions management

# **EXECUTIVE SUMMARY**



There are more than 170 Canadian companies providing methane emissions management solutions



40% of companies surveyed anticipate 100%+ growth in headcount due to methane regulations



80% of companies surveyed expect job growth in the next 12-18 months as a result of methane regulations



More than threequarters of the companies have offices in Alberta



One third of companies provide field inspection services to help their customers manage fugitive emissions



This survey does not include small businesses with no internet presence

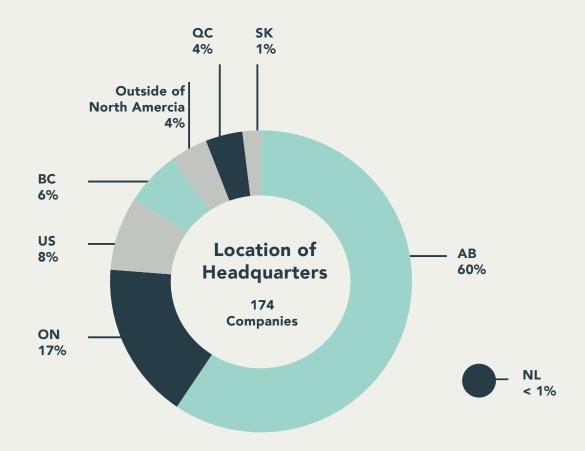
# **METHANE MITIGATION: BY THE NUMBERS**



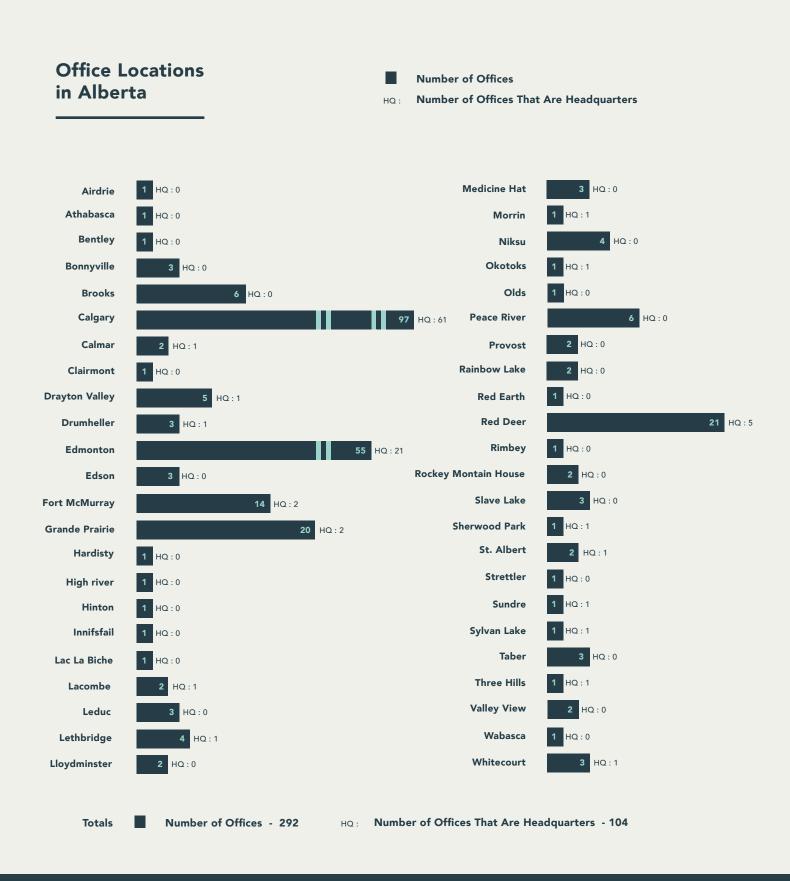
## **Geographic Reach**

More than half of the technology and service providers identified are headquartered in Alberta. A few organizations with US or international headquarters have satellite offices located in Canada that provide methane related services to the oil and gas industry. Data shows that 78% of identified companies are either headquartered or have

a satellite office in Alberta. One company interviewed explicitly mentioned that there are stronger oil and gas methane regulations in the United States and unless Canada develops comparable regulations, it may be more cost-effective to move some jobs from Canada to the U.S.



# **METHANE MITIGATION: BY THE NUMBERS**

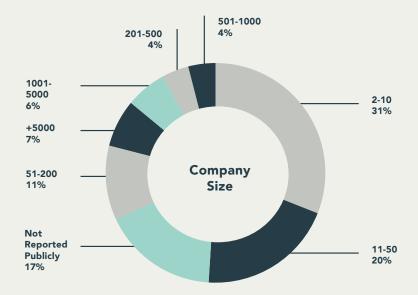


# **METHANE MITIGATION: BY THE NUMBERS**



# **Company Size**

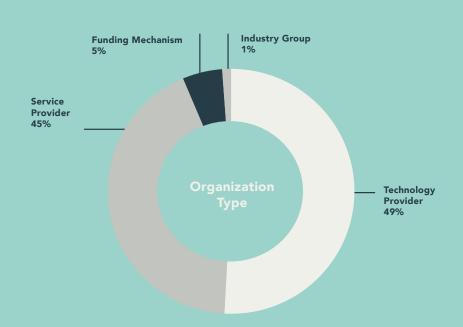
Company size is determined by publicly available data on total employees unless informed by a specific company survey response. Therefore, some figures exceed the number of jobs directly associated with methane mitigation technologies and services within the organization.





# **Company Type**

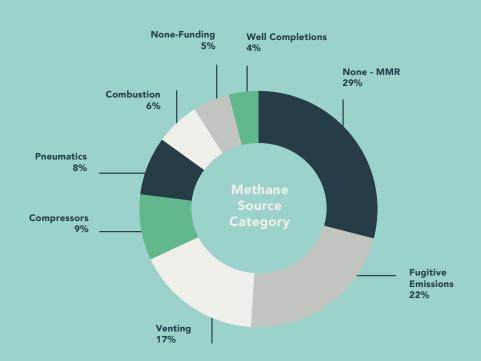
Organizations are characterized by the following categories: Technology Provider, Service Provider, Funding Mechanism, or Industry Group. This study did not include government or regulatory bodies.



## **METHANE SOURCE CATEGORY**

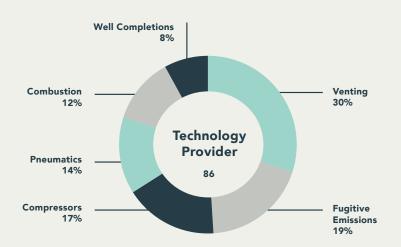
#### **Overview**

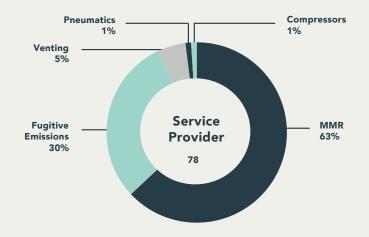
Canadian methane mitigation companies are evaluated by the methane source category to which their technology or service applies. These emissions source categories are informed by Canadian Federal and Alberta regulatory developments. They include: Combustion, Compressors, Fugitive Emissions, Pneumatics, Venting, Well Completions, Funding, Measurement, Monitoring and Reporting (MMR).



#### **Providers**

The following two charts demonstrate the breakdown of methane source categories by the two largest Organization Types: Technology and Service. Companies designated as MMR (Measurement, Monitoring and Reporting) are classified as a Service Provider and represent the highest percentage of organizations in this offering category due to the diversity in services covered. The 23 fugitive emissions service providers largely conduct leak detection and repair services. This segment is expected to grow under the likely three times per year federal leak detection requirements.





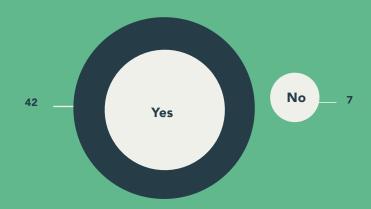
# A CLOSER LOOK: METHANE MITIGATION SURVEY RESULTS

# About the Survey

With the upcoming release of draft Federal and Provincial methane emissions reduction regulations, the Methane Emissions Leadership Alliance surveyed 174 companies identified as being directly involved in methane emissions management in the Canadian oil and gas industry. Each company was asked 5 questions to help determine an accurate employee count and the job growth potential for this sector as a result of new methane rules. At the time of publication, 49 organizations had provided a response. Only raw data was used below. No assumptions or extrapolations were made.

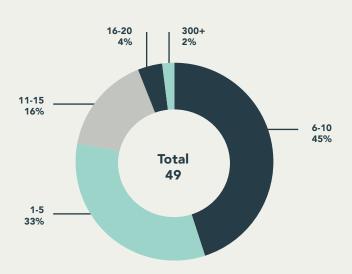
#### **QUESTION 1**

Do you engage with government and/or regulators on methane regulations in Canada?



#### **QUESTION 2**

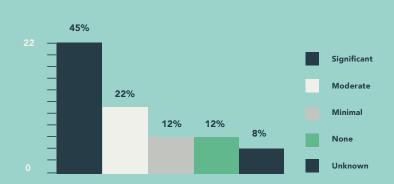
How many employees are directly related to methane?



# A CLOSER LOOK: METHANE MITIGATION SURVEY RESULTS

#### **QUESTION 3**

How would you estimate your potential business growth as a result of the regulations?



#### **QUESTION 4**

How many people will you hire in the next 12-18 months as a result of the new regulations?

0	<b>*</b> † * † * †	12%
1-5	<b>፟</b> ቀ ተ ቀ ተ ቀ ተ ቀ ተ ቀ ተ ቀ ተ ቀ ተ ቀ ተ ቀ ተ ቀ ተ	47%
6-10	<b>፟</b> • • • •	8%
11-15	<b>ቅ 🕆 ቅ ተ</b>	8%
16-20	<b>ቁ ቁ ቁ ቁ</b>	10%
21-30		0%
31-40	*	2%
41-50	<b>*</b> •	4%
Unknown	<b>፟</b> ቀተቀተ	8%

#### **QUESTION 5**

How will your organization grow, as a percentage of existing headcount as a result of the proposed methane regulations?



#### COMPANIES

3PAnalysis and Consulting Able Seal and Design Inc

ACCURATA Inc.

**ACS (Applied Compression Systems)** 

Industry Alliance) Advanced Coil Tubing Inc.

**Aeryon Labs** 

**AET Group Inc.** 

**AirDar Technology** 

AIRTEK SYSTEMS Inc. Alberta Innovates Energy

and Environmental Solutions

**Alberta Welltest Incinerators** 

Amberg Corp.

**AMEC Americas Limited** 

AMEC Earth and Environmental ARCADIS Canada Inc.

Atlantis Labs

**ATZ Applied Technologies** 

BalanceCO2 Ltd.

**Bechthold & Becker** 

Beta Machinery Black Gold Rush Industries Blair Air System

BlueSource

**BOREAL** 

**Brahma Compression** 

BrezaWorks & Consulting Inc.

Brightspot Climate Bruin Pumps

CALSCAN Solutions

**Cameron Instruments** 

Canadian Pump and Packing Co

CanDyne Inc CAP-OP

Cenco wireline Inc.

**Central Inc** 

**C-FER Technologies Inc.** 

CH2M HILL Canada Limited ClearSky Engineering Inc. Clearstone Engineering

ClydeUnion Pumps

CMC Research Institutes

**Colfax Fluid Handling** 

ComEnCo Systems Inc Compass Oil and Gas Solutions Ltd

Conestoga-Rovers & Associates (GHD

**Consultants Enviroconseil** 

**COSIA (Canada's Oil Sands Innovation** 

Alliance)

DARKAI Valve Deloitte and Touche LLP Delphi Group

EagleBurgmann Canada

Ecometrica (Canada) Limited

**ENERFLEX** 

**Energy Profiles Limited** 

Enviro Trace Ltd

Enviro-access Inc.

**Envirosoft** 

**Envirotech Engineering** 

Envision Manufacturing and Supply Ltd.

Ernst & Young LLP

**Evergreen Energy Technologies Inc.** 

**Extreme Telematics Corp. (ETC)** 

First Environment, Inc. FLIR

FMC Technologies

Forum Energy Technologies Freudenberg Oil & Gas

Gas Recon Inc.

GASPRO Compression Corp. GE (General Electric) General Magnetic

**GHGSat** 

Global Energy Services (2011)

Green Sky Sustainability Consulting Inc.

Greenpath Energy
Hallite Seals Ltd
HC Piper Manufacturing Inc
Heat Seeking Thermal Imaging LTD

**Hi-Tech Seals** 

**HSE Integrated** 

Industrial Skyworks

Infratech Corporation

Insight Emissions Management Inc

Internat Energy Solutions Canada Inc.

InterPraxis Consulting

IRIS (Infrared Imaging Solutions)
John Crane Canada Inc

K.C. Seals Inc.

**Keystone Environmental** 

**Kinetica Ventures** 

KPMG Performance Registrar Inc. Kuzuka Ltd.

LCO Technologies

Levelton Consultants Ltd. (WSP)

MCI Solar MFG LTD

MNP LLP

**Modern West Advisory** 

Morrison Hershfield Ltd.

New Paradigm Engineering Ltd

North Shore Environmental Consultant

**Opgal** 

**OptaSense** 

Pace Technologies

**Parker** 

Pason Systems Inc.

Power Diagnostic Technologies Ltd. PricewaterhouseCoopers LLP

Process Ecology

PTAC (Petroleum Technology Alliance

Canada)

Pure Technologies Ltd.

Quest Gasket & Supply Inco

R.J.A. Contracting Ltd.

Raise Production Inc.

**Rapid Rod Service** 

**Raymond Chabot Grant Thornton LLP** 

REM Technology (Reciprocating Equip-

ment Management)
RME geomatics

Robco Inc.

Roska DBO Inc

SafeSeal Valve Systems Corp.

SafetyScan
SAGE Energy Corp

**SAI** Global

Saskatchewan Research Council (SRC)

**SNC-Lavalin** 

Solar West SPARTAN Controls

Stantec Consulting Ltd.

Stimline **StreamFlo** 

Sustainable Development Technology

Synodon Inc

Tanknology Canada Inc.

**Target Emissions Services** 

Tarpon

**Tec Edmonton** 

**TETRA TECH** 

T-RAM Canada Inc.

Triangle Fluid Controls Ltd.

TRIDO Industries Tundra Process Solutions
TüV Rheinland Energie und Umwelt

**Unified Valve Group LTD** VaporTech

Vapure Engineering Ltd. Williams Engineering Canada Inc. Winterhawk Well Abandonment

Wise Intervention Services Inc.

Yokogawa Canada

ZEECO

For more information on the Methane Emissions Leadership Alliance, please visit us at www.methanealliance.ca