

Oil & Gas Subcommittee
23 June 2020
Webinar Meeting

SUMMARY

The Global Methane Initiative (GMI) Oil & Gas Subcommittee held a webinar meeting. “Seeing Methane, the Invisible Problem... Who is Using Which Number?” on 23 June 2020. The webinar was co-chaired by Mr. James Diamond of Environment and Climate Change Canada (ECCC). The purpose of the webinar was to (1) share and discuss working examples of methane detection methods, and (2) provide GMI Secretariat and Subcommittee news. There were approximately 90 participants in the webinar representing a range of countries and organizations. A list of participants is provided in Annex I.

The webinar presentation is available on the [GMI website](#).

Introductions and Welcoming Remarks

The GMI Oil & Gas Subcommittee Co-Chair, Mr. James Diamond, Environment and Climate Change Canada (Canada) provided welcoming remarks, gave an overview of the GMI O&G Webinar series, and reviewed the agenda for the meeting.

Technical Presentation: GHGSat Inc.

Mr. Stéphane Germain, Chief Executive Officer, GHGSat presented information on the satellite system that GHGSat uses to monitor methane emissions from industrial facilities around the world. He discussed the importance of filling the global data gap through measurement and presented a range of satellite images showing emission measurements taken at various facilities. Mr. Germain also discussed how GHGSat’s time-averaging algorithms to detect and quantify leaks could be used to support government regulation. He concluded his presentation by sharing next steps for GHGSat, including increasing capacity, launching a new satellite, and expanding analytics.

Technical Presentation: The Sniffers

Mr. Bart Wauterickx, Chief Executive Officer, The Sniffers, presented information on the Leak Detection and Repair (LDAR) campaigns that The Sniffers are implementing to detect and reduce fugitive emissions in oil and gas facilities. He outlined critical success factors for sustained methane reduction and gave a detailed summary of the methane reduction results for a variety of the organization’s campaigns. Mr. Wauterickx concluded his presentation by sharing the long-term impacts of methane reduction.

Technical Presentation: Energy & Emissions Research Lab

Dr. Matthew Johnson, Research Professor, Mechanical & Aerospace Engineering Energy & Emissions Research Lab (EERL), Carleton University, presented information on the research performed at EERL to quantify methane at different scales. He summarized the need in the oil and gas sector for methane emission information and discussed the top-down aggregation and bottom-up analysis approach employed by his team. He outlined the detection methods used in the study, including an aerial survey, field measurement, Light Detection and Ranging (LiDAR) measurement, wind sensors, and tracer releases. He ended his presentation by sharing the conclusions

drawn through his research.

Facilitated Discussion

Mr. Diamond opened the floor for discussion by asking Mr. Wauterickx to react to Mr. Johnson's presentation, which suggested that on-the-ground programs can often miss significant emissions sources. Mr. Wauterickx responded by explaining the significant variability in detection methods and emphasized the need for very precise measurements that can be achieved through ground methods. Mr. Germain added that different technologies have different applications; he stressed the importance of layering different technologies at different frequencies to attain the firm's goals.

Participants inquired about the difference between the Bridger technology and the aviation technology used in his study. Dr. Johnson explained that the aviation equipment flies circles over a set of facilities in order to detect emissions. He stated that the Bridger technology flies over a single facility to detect leaks and noted that the two technologies are very complementary.

Participants inquired about the precision of GHGSat's technology and how the satellite results compare to fly-over methods. Noting that the new satellite can detect approximately hundreds of thousands of tons of emissions per year in ideal conditions, Mr. Germain commented that the satellite technology has limitations in the larger emission ranges. He added that the aerial technology will be able to detect tens of thousands of tons of methane.

Mr. Diamond thanked the speakers for participating in the webinar and then introduced Ms. Monica Shimamura, Director of the GMI Secretariat (United States).

Presentation: GMI Secretariat News and Updates

Ms. Shimamura gave a brief overview of the newly formed Executive Task Force to facilitate decision-making and gather recommendations for the GMI Steering Committee and outlined GMI's priorities for 2020. Ms. Shimamura reported that the Global Methane Challenge is ongoing and encouraged participants to submit their methane mitigation stories.

Presentation: GMI Oil & Gas Subcommittee News and Updates

Mr. Diamond announced the availability of two new resources, GMI's "[Identifying and Evaluating Opportunities for Greenhouse Gas Mitigation & Operational Efficiency Improvement at Oil & Gas Facilities](#)" and United Nations Economic Commission for Europe's (UNECE) "[Best Practices for Effective Methane Management in the Oil and Gas Sector](#)". Both resources are available on the GMI website.

Wrap Up

Mr. Diamond emphasized that the Oil & Gas Subcommittee welcomes feedback and topic suggestions for future webinars. He thanked the presenters and webinar participants. He confirmed that the presentations would soon be available on the GMI website.

ANNEX I

Participants

Dave Anderson, Score Diagnostics Limited
Naif Zayed Alsalem
Malcolm Argyle, Sander Geophysics
Jennifer Baillie
Gulvira Bakytzyzy,
Zubin Bamji, World Bank
Marci Baranski
Akbar Bari
Brigid Bedard-Hinz, Energy and Emissions Research Lab
Stephen Beynon, FLIR
Younus Burhan, Tetra Tech, Inc.
Felipe Cardoso, University of Texas at Arlington
Jeff Coburn, RTI International
Bradley Conrad
Jim Cormack, EnerNext Advisors
Roxana Craciun
Mark DeFigueiredo, U.S. Environmental Protection Agency
Antonio Delre
James Diamond, Environment and Climate Change Canada
Simon DuBois
Adam Eisele, U.S. Environmental Protection Agency
Tania Fernandez
Jamie Figler, Tetra Tech, Inc.
Richelle Foster, Canadian Natural Resources Ltd.
Sylvain Gatti, TELOPS
Constance Gauthier-Leith
Stephane Germain, GHGSat
Vanhaecke Gwenny
Yaomin Jin
Jonas Johannisson, Ulm University
Matthew Johnson, Energy and Emissions Research Lab
Chelsea Kealey, Environment and Climate Change Canada
Jung Seon Kim
Robert Kleinberg, Colombia University
Matt Kolesar, Exxon Mobile
Pawel Lichtarski, Konica Minolta
Maesen Lode
Katlyn Mackay
Ellen McCole
Cathy McGirl, Tetra Tech, Inc.
Sarah Menassian, U.S. Environmental Protection Agency
Lutz Meyerinck
Steve Michener, Tetra Tech, Inc.
Ryo Minegishi
Kevin Moen
Denise Mulholland, U.S. Environmental Protection Agency
Raghav Muralidharan
Bonafide Nwafor, The Sniffers
Jim Ollen
Pierre Paffenhoff
Daniel Palmer

Sachhin Patra, EKI Energy Services Limited
Marycarmen Perales
Drew Pomerantz, Schlumberger
Ludger Radermacher
Atiq Rahman
Cynthia Randles, Exxon Mobile
Geoff Renberg, ONEOK Partners
Cooper Robinson, Cap Op Energy
Volha Roshchanka, U.S. Environmental Protection Agency
Mark Savage, JCRA
Axel Scheuer
Julia Schmitt
Monica Shimamura, U.S. Environmental Protection Agency
Mike Shura, SCAN-UPU/S/U
Ian Spence
Brian Spiegelmann
Jennifer Stewart
Debreuckere Sven
Alex Szekeres
Erin Tullos
David Tyner, Energy and Emissions Research Lab
Marco Van Veen
Brian Van Vliet, Spartan Controls
Bart Wauterickx, The Sniffers
Melissa Weitz, U.S. Environmental Protection Agency
Joseph Essandoh-Yeddu, Energy Commission

Additional Participants Identified by Phone Number, First Name, or Email Address

+1 403-669-4414
+1 519-465-4293
+1 587-432-2588
+1 559-385-9900
Angelo
Azeem
Brody
BS
Charlotte
Grace
Monica
MZ
ron@sensorbv.nl
sbsingh@petronetlng.com
Stefan
Suresh