BRAYA Renewable Fuels (Newfoundland) LP

# BRAYA Renewable Fuels (Newfoundland) LP Facility

Final Verification Report

September 10, 2025

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# Appendices

# 1 Introduction

This document provides details of the independent verification of the BRAYA Renewable Fuels (Newfoundland) LP annual greenhouse gas emissions report per the Newfoundland Management of Greenhouse Gas Reporting Regulations.

Through the course of the verification, Braya has made revisions to the GHG statement. This Verification Report and Opinion pertains to the revised statement submitted by Braya Renewable Fuels titled “NL GHG Reporting Form - Braya (Reporting Year 2024) YTD working copy Final Rev 6.0 AUG2525”.

This document contains the following six sections:

1. **Introduction:** This section defines the parties associated with this verification, a description of the facility and the verification parameters. A list of the Responsible Party’s documents reviewed through the course of the verification is also provided in this section.
2. **Verification Schedule:** This section lists important verification activities and dates.
3. **Verification Procedures:** This section describes the approach for the verification procedures used to test the data included in the emissions report.
4. **Verification Findings:** This section includes a discussion of the results of the evidence gathering activities. If applicable, the qualitative and quantitative discrepancies identified through the course of the verification are provided in this section.
5. **Emission Report Verification Opinion:** The Verification Opinion provides a summary of the verification and the declarations of the Lead Verifier and the Independent Peer Reviewer.
6. **Appendix – Conflict of Interest Report and Verification Plan:** The Conflict of Interest Report summarizes the assessment of threats to independence completed prior to beginning work. The final Verification Plan is a separate document that was developed at the outset of the verification. The Verification Plan includes a description of the final verification strategy, verification procedures and sampling that was applied to the verification. The final Verification Plan is appended to this report.

This document is intended for the Responsible Party and the intended user as defined in section 1.1 below. The sole intention of this document is to describe the results of the verification process used to verify the GHG Statement made by the Responsible Party named in this document and is not intended to provide assurance of any kind for any purpose other than for reporting under the GHG program as defined in the scope and criteria in section 1.2 of this document.

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## 1.1 Parties Associated with the Verification

ISO 14064-3 defines the following parties associated with the verification:

**Responsible Party:** person or persons responsible for the provision of the GHG Statement and supporting GHG information. The Responsible Party for this verification is BRAYA Renewable Fuels (Newfoundland) LP.

**Intended User:** individual or organization identified by those reporting GHG-related information as being the one who relies on that information to make decisions. The Intended User for this verification is the Department of Environment and Climate Change.

**Verifier:** competent and independent person, or persons, with responsibility for performing and reporting on the verification process. The Verifier for this verification is Brightspot Climate Inc. The members of the verification team are listed in Section 1.3 – Verification Team.

## 1.2 Verification Parameters

A summary of the verification parameters is provided in Table 1 below.

*Table 1: Verification Objectives, Criteria and Scope*

| | |
|---|---|
| Level of Assurance | Reasonable |
| Materiality | Quantitative materiality threshold is 5% total error for emissions. |
| Verification Objectives | • Issue a verification statement on whether the GHG assertion is accurate and conforms with the criteria as listed below; and<br>• Issue a verification report that provides details of the verification activities. |
| Criteria | • Management of Greenhouse Gas Act<br>• Management of Greenhouse Gas Regulations NLR 116/18<br>• Management of Greenhouse Gas Reporting Regulations NLR 14/17<br>• Opted-in Facilities Regulations NLR118/18<br>• Guidance Document for Reporting Greenhouse Gas Emissions for Large Industry in Newfoundland and Labrador, March 2017 |

| | | |
|---|---|---|
| Scope | Facility Name: | BRAYA Renewable Fuels (Newfoundland) LP |
| | Facility Address: | 1 Refinery Road, Come By Chance, NL<br>A0B 1N0 |
| | Organizational Boundary: | Operational Control |
| | Geographic Boundary: | Newfoundland |
| | Physical Operations: | Renewable Fuel Production |
| | Emission Sources: | General Stationary Combustion<br>Flare Pilot<br>Fugitives<br>Industrial Process Emissions<br>Mobile equipment<br>Petrochemical – Flaring |
| | IPCC GHGs Emitted: | Carbon Dioxide ($CO_2$)<br>Methane ($CH_4$)<br>Nitrous Oxide ($N_2O$) |
| | Reporting Period: | January 1, 2024 – December 31, 2024 |
| Facility Description | The Facility is a renewable fuel refinery, designed to process 18,000bpd of renewable feedstock, such as soybean oil and tallow, to produce renewable diesel. Construction began in 2021 to convert the former Come by Chance oil refinery into the renewable refinery. The first renewable feedstock was processed on February 15th, 2025. All fuel used on site in 2024 was purchased. | |
| Reporting Period | January 1, 2024 - December 31, 2024 | |
| Verification Report Date | September 10, 2025 | |

## 1.3 Verification Team

*Table 2: Verification Body and Verification Team Members*

| | |
|---|---|
| Verification Body | Brightspot Climate Inc. |
| Business Address | 1940-1055 W Hastings St<br>Vancouver, British Columbia V6E 2E9 |
| Accreditation | Brightspot Climate Inc. is accredited by the Standards Council of Canada (SCC), Accreditation #07010. |
| Lead Verifier | Aaron Schroeder, P.Eng.<br>(604) 353-0264<br>aaron.schroeder@brightspot.co<br><br>Greenhouse Gas Verification – ISO 14064-3, Canadian Standards Association, Dec. 15, 2011<br><br>Aaron Schroeder has been analyzing, auditing, and advising on greenhouse gas emissions and climate policies in North America for more than 15 years. His professional experience includes providing consulting and verification services under regulatory and voluntary programs; instructing greenhouse gas quantification, reporting, and verification at the University of Toronto's School of Environment and School of Continuing Studies (2015–2023); and serving on the ISO TC7/SC 207 leadership team responsible for a suite of climate mitigation and adaptation standards.<br><br>Aaron leads Brightspot as its Chief Executive Officer and is a Professional Engineer, registered in Saskatchewan, Alberta, and British Columbia. His technical expertise includes greenhouse gas methodologies across the energy sector, renewable fuels, mining, carbon capture and storage, agriculture (cattle, land use and agricultural fertilizers), and waste. |

| | | |
|---|---|---|
| Peer Reviewer | Lorena Ellsworth, P.Eng.<br>(780) 267-0909<br>lorena.ellsworth@brightspot.co<br><br>Greenhouse Gas Validation and Verification, ISO 14064-3, University of Toronto, Apr. 7, 2022<br><br>Lorena Ellsworth is a Professional Engineer and Senior Manager at Brightspot Climate. Since joining Brightspot in 2021, Lorena has worked on greenhouse gas verifications as a lead and associate verifier in various sectors including petroleum extraction and processing, renewable energy, industrial processes, electricity generation, manufacturing, and agriculture. This work has included emission reduction (offset) projects and annual compliance reports under multiple jurisdictions and regulations. She also has experience consulting on emissions quantification projects and regulatory support. Prior to Brightspot, Lorena developed an extensive understanding of the upstream oil and gas industry in Western Canada. She supervised rigs as a drilling and completions engineer, and managed various projects in production optimization, pipeline planning, and facility construction. Working with an environmental consulting firm led to an interest in using her experience to collaborate with industry stakeholders on emission control and reduction. | |
| Verification Team Members | Role: | Associate Verifier |
| | Name: | Mark Lee |
| | Years experience: | 2 |
| | Verifier training: | Greenhouse Gas Validation and Verification, ISO 14064-3, University of Toronto, Apr 22, 2024 |
| | Role: | Associate Verifier |
| | Name: | Sylvie Cox |
| | Years experience: | 1 |
| | Verifier training: | Verifier-in-training |
| | Role: | Associate Verifier |
| | Name: | Sarah Rab |
| | Years experience: | 1 |
| | Verifier training: | Verifier-in-training |

| | | |
|---|---|---|
| | Role: | Technical Expert |
| | Name: | Deepika Mahadevan, P.Eng. |
| | Years experience: | 13 |
| | Verifier training: | Greenhouse Gas Verification – ISO 14064-3, Canadian Standards Association, Dec. 15, 2012 |

## 1.4 Documents Reviewed

The following is a non-exhaustive list of the documents reviewed through the course of the verification.

| Document File Name | Description |
|---|---|
| NL GHG Reporting Form - Braya (Reporting Year 2024) YTD working copy Final Rev 6.0 AUG2525 | Emissions Report |
| 2024 GHG emissions calculations working copy YTD working copy Rev 6.0 AUG2525 | Calculation spreadsheet |
| Copy of RDU Environmental Reporting working copy rev 3 19FX002 JUL2825 | RDU Calculation Report |
| Mmyy Monthly Yield.xlsx (12) | Monthly Yield Reports |
| ULSD<br>- 02-Aug-2023<br>- 12-May-2023<br>- 23-Jan-2023<br>- 29-Nov-2023<br>Quarterly ULSD importation sulfur and density data | Diesel analysis reports |
| OnSite Diesel Delivery Ticket Recap YTD 2024 | Diesel volume Summary |
| Diesel tickets (multiple files) | Supporting documentation for diesel distributed to on-site locations |
| North Atlantic Petroleum Propane Consumption 2024 | Propane summary |
| Propane tickets (multiple files) | Supporting documentation for propane distributed to on-site locations |
| Copy of FuelConsumption-Report-DEC 2024 (after correction) | Butane Meter Data |
| Butane and Fuel Gas Network Diagram | Process Diagrams |
| Multiple PDF's | Butane Certificates of Analysis |

# 2 Verification Schedule

The verification was completed according to the schedule established between the Responsible Party and the Verifier.

The verification reached important milestones on the following dates:

| | |
|---|---|
| Verification Kickoff Meeting: | 2025-02-27 |
| Draft Verification Plan: | 2025-05-01 |
| Site Visit: | 2025-05-09 |
| Draft Verification Report: | 2025-08-18 |
| Final Verification Report: | 2025-09-10 |

# 3 Verification Procedures

This verification was designed and completed according to the requirements of the ISO 14064-3:2019 Standard.

The following verification activities (assessments/tests/reviews/evaluations) were conducted through the course of this verification. The specific verification activities that were conducted are detailed in the Verification Plan, which is appended to this report. They are also listed with the verification findings throughout the next section of this report.

- Observations: the site visit included a tour of the Facility to observe equipment, emission sources, and data collection. The Responsible Party provided a demonstration of the software systems used for collecting and storing the data that is used in the GHG quantification, as well as a demonstration of how this data is exported and transferred into the calculation.
- Review of documentation: documentation supporting the activity data was reviewed, including review of any manual transcription that was applied between documents and the emission calculation;
- Recalculation: the emissions quantities were recalculated using original data sources and by applying the quantification methodologies stated in the Guidance Document for Reporting Greenhouse Gas Emissions for Large Industry in Newfoundland and Labrador;
- Inquiry: interviews were conducted with operations personnel and environmental reporting personnel;
- Analytical procedures: activity data were reviewed for abnormal values and missing data, and a year-over-year comparison of reported emissions was performed.

## 3.1 Description of Verification Procedures

The verification strategy applied a largely substantive approach. The verification procedures, which are detailed later in this section, were designed to test the activity data directly, wherever practical. By applying this approach, the verification did not rely heavily on the Responsible Party's controls, but rather relied on the substantive evidence collected from verification procedures that reviewed measured data and data directly from invoices, for example. Regarding the scale and complexity of the verification procedures, the verification risk assessment was leveraged to design verification activities appropriate to address the inherent, controls and detection risk evaluated in relation to each activity data and boundary condition. In most cases, these verification procedures involved review of documentation, recalculation or analytical procedures designed to produce verification evidence to support the accuracy, completeness and consistency of the information. All activity data and boundary conditions were evaluated through the verification risk assessment and verification activities were designed and completed commensurate with the verification risk assessed.

In a similar way, the data integrity, quantification methodologies and quantification itself were assessed through the verification risk assessment. Verification procedures were designed and completed to address each of these key areas.

Verification evidence was developed from each of these verification activities, which was used to establish a verification conclusion regarding the GHG information systems, the Responsible Party's controls and ultimately, the GHG Statement.

The verification was conducted according to the ISO 14064-3:2019 standard, which establishes the phases of a greenhouse gas verification as described in this section. The relevant sections from the ISO standard are noted below.

**Agreement (ISO Sections 5.1-5.2)**

The verification level of assurance, objectives, criteria, scope and materiality was affirmed in the contract for services and re-affirmed during a verification kickoff meeting.

A conflict of interest review was conducted prior to beginning work and monitored throughout the verification.

Internally, Brightspot Climate began documenting the verification upon contract signing. All documentation related to the verification will be maintained for a period of seven years following the date of the Verification Opinion.

**Approach (ISO Sections 6.1.1-6.1.3)**

Brightspot Climate conducted an initial review of the Facility's greenhouse gas information, primarily by reviewing the data and draft GHG Reporting Form. Brightspot Climate prepared a verification risk assessment based on this information, evaluating:

a) the inherent risks of discrepancies for each variable used to calculate each emission source and the general greenhouse gas reporting system;
b) the risk that the Responsible Party's controls are insufficient to detect and prevent each inherent risk from causing a discrepancy in the GHG Statement; and
c) the potential magnitude of each inherent and control risk described above resulting from the contribution of the associated emission source or production type.

This information was used to develop an appropriate verification procedure for each identified risk. Each procedure was designed to reduce the probability that the verification would not detect a discrepancy that has not been corrected by the Responsible Party's controls. The tolerable error for each emission source is stated in the verification risk assessment.

Generally, a substantive approach was applied to the verification. Therefore, the verification procedures relied more heavily on data analysis than on controls testing.

**Verification Plan (ISO Section 6.1.5)**

Brightspot Climate developed a Verification Plan that documents the level of assurance, verification objective, verification criteria, verification scope, and materiality. Additionally, the Verification Plan provides a general description of the Facility and explains the Facility's control environment.

**Assessment (ISO Section 6.1.6)**

The verification procedures consist primarily of tests, analysis and review focused on the following six critical areas:

a) The completeness and relevance of emission sources and production types included in the GHG Statement;

b) The consistency of the emission sources, production types and quantification methodologies between the baseline GHG Statement and the current GHG Statement;

c) The accuracy and level of transparency of measured and estimated data sources, data integrity of electronic and manual data transfers and transcription between data systems and the GHG calculation;

d) The accuracy of the GHG emission calculations;

e) The completeness, accuracy and transparency of information presented in the GHG Reporting Form, including the implementation of stated methodologies and emission factors in the quantification of emissions; and

f) The accuracy of transcription of final calculated values into the GHG Statement.

The principles defined in the preceding six areas are defined in ISO 14064-1:2018 (accuracy, completeness, consistency, relevance and transparency).

### Site Visit (ISO Section 6.1.4)

A site visit was conducted as part of this verification on May 9, 2025.

Deepika Mahadevan of Brightspot Climate attended a site visit of the BRAYA Renewable Fuels (Newfoundland) LP Facility, where completeness of data sources, accuracy of measurement, and data system integrity was tested through interviews with environmental personnel. The site visit included a closing meeting to review outstanding action items and to provide Facility personnel with an overview of the verifier's observations.

The following Responsible Party personnel were interviewed regarding various aspects of the Facility:

- Julia Peddle, Environmental Lead, BRAYA
- Amanda Burt, Environmental Specialist, BRAYA
- Harpreet Matta, Planning & Scheduling Lead, BRAYA
- Bobbie Deir, Planning & Scheduling Lead, BRAYA
- Jaydip Bhadaliya, Tech. services manager, BRAYA
- Garnet Edinger, Process Engineer/tech, BRAYA

### Verification Procedures (ISO Section 6.2)

The remainder of the verification procedures were conducted through a desk review following receipt of the draft GHG Statement. The desk review included an independent recalculation of the emissions, as well as a review of supporting documentation.

Through the course of the assessment phase of the verification, Brightspot Climate issued questions and requests for additional documentation and data. These requests were consolidated in a simple electronic tracking system to maintain a common record of communication.

The Responsible Party had the opportunity to address any issues that were raised through the course of the verification before they were documented as discrepancies in the Verification Report.

### Evaluation and Opinion (ISO Sections 6.3.1-6.3.2)

Following the completion of all verification procedures and consideration of all information received from the Responsible Party, the verifier was tasked with concluding whether the GHG Statement is without material discrepancy and whether the verification reviewed sufficient and appropriate evidence to support a reasonable level of assurance.

If any outstanding discrepancies remained, their materiality would have been calculated according to regulatory guidance. In such circumstances, qualitative discrepancies would be evaluated based on the potential impact on the GHG Statement and the potential impact on the Intended User's ability to use the reported information.

### Independent Review (ISO Section 8)

The Independent Reviewer conducted a complete review of the verification. The independent review process examined:

a) The completeness of the verification risk assessment;

b) The appropriateness of the verification procedures considering the inherent and control risks identified in the verification risk assessment;
c) The appropriateness of any sampling conducted in each of the verification procedures;
d) The completeness of each verification procedure, including the verifier's documentation of work completed;
e) Closure of any issues raised by the verifier through the course of the verification;
f) The sufficiency and appropriateness of all evidence reviewed through the verification to support a reasonable level of assurance; and
g) A review of the final Verification Opinion.

**Verification Report (ISO Section 6.3.3)**

The Verification Report includes a Verification Opinion and a report on the findings of the verification.

# 4 Verification Findings

The evidence-gathering activities completed during the course of the verification and the corresponding findings of each activity are described in the following table.

*Table 3: Verification Evidence Gathering Activities and Findings*

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| **BOUNDARY CONDITIONS** | | |
| Emission sources in facility boundary | Substantive test: Discuss emission sources during site visit. | Emission sources were discussed during the site visit and were reviewed in the documentation. All emission sources were found to be included in the GHG Statement.<br>**No discrepancies detected.** |
| Production sources in facility boundary | Substantive test: Observe production sources during site visit. | Production sources were observed during the site visit. The Facility is a former refinery that ceased production in March 2020. Previously, the Facility produced gasoline, propane, jet fuel and marine fuel, processing approximately 130,000 bbl/day of crude oil.<br>The plant was in idle mode until 2023. Operations began at the start of 2024. First time production of renewable diesel and renewable naphtha began in February 2024.<br>**No discrepancies detected.** |
| Emission sources categorization | Substantive test: Categorize each emission source based on compliance with the GHG Program policy. Cross reference categorization with Responsible Party's categorization. | The categorization of emission sources was found to conform to the requirements stated in the relevant criteria.<br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| Reporting period | Substantive test: Filter all data to exclude data from outside the reporting period. | The emissions report (NL GHG Reporting Form) covers the reporting period of January 1, 2024 to December 31, 2024. All activity data were confirmed to apply to this period.<br>**No discrepancies detected.** |
| **METHODOLOGIES** | | |
| Emission quantification methodologies | Substantive test: Compare Responsible Party's quantification against the GHG Program policy. | Quantification methodologies from the Guidance Document have been used for the applicable emission source categories.<br>**No discrepancies detected.** |
| Emission and production quantification methodologies | Substantive test: Recalculate emissions and production using the methodology from the GHG Program policy. | The independent recalculation of emissions and production reasonably matched the emissions calculated by the Responsible Party.<br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| **ACTIVITY DATA** | | |
| Onsite transportation:<br>- Diesel volume | Substantive test: Confirm transcription of device specifications from supporting documentation into the data management system.<br><br>Substantive test: Trace quantities from original invoices and record values in the verification recalculation. | Diesel is used on-site for boom cranes, trucks, and vac trucks to steam out equipment.<br><br>Diesel volumes for onsite transportation are tracked in the same system as for diesel used in stationary combustion equipment, where a physical ticket is generated upon delivery of throughout the site.<br><br>The categorization of diesel for use in onsite transportation is done based on the delivery location and comment on the physical ticket.<br><br>A sample of tickets was reviewed for transcription to the tracking spreadsheet and for categorization.<br><br>Missing data procedures were applied for three months of the year where no information on diesel use was available. These procedures were evaluated by the verification team and found to be in accordance with the regulation.<br><br>**No discrepancies detected.** |
| | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | Diesel usage was tested for fluctuations or anomalous values against other relevant data. Diesel use in mobile combustion was found to be stable throughout the year.<br><br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| Flare stacks:<br>- Butane Volume<br>- Off-Gas Volume | Controls test: Confirm meter maintenance and calibration has been completed by reviewing documentation. | Inspections are done monthly for the flare meter on site. This meter has not been calibrated as it has passed inspections. The methodology document notes that manufacturer's recommendations should be followed for calibration frequency. These recommendations were reviewed by the verification team and it was confirmed that all meters on-site had been calibrated within the necessary frequency.<br>**No discrepancies detected.** |
| | Substantive test: Observe meter correction to STP conditions. | The Responsible Party is performing a calculation to correct off gas to standard temperature and pressure, this was recalculated by the verification team.<br>Butane is in liquid state at the facility so a STP adjustment is not necessary.<br>**No discrepancies detected.** |
| | Substantive test: Review metering diagrams or similar evidence to confirm sample point appropriately represents the stream. | The flare meter measures the total flare volume. From this volume, engineering estimates are used to allocate the amount of butane versus off-gas within the flare volume. This estimate is based off the percent of gas that is biogenic. The percent of biogenic gas is estimated using the ratio of renewable off-gas produced to the amount of butane combusted. The verification team reviewed the engineering estimate and confirmed it was reasonable.<br>Both flared off-gas and butane were recalculated using separate gas analyses.<br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| Flare stacks:<br>- Butane Volume<br>- Off-Gas Volume | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | Butane and off-gas to flare were found to reasonably trend with other relevant components such as production and fuel use. Flaring increased in October due to a plant shut down which resulted in increased flare.<br>**No discrepancies detected.** |
| Flare pilot: Propane volume | Substantive test: Trace activity data from its original source to the GHG quantification. | Propane volumes used in flare pilot are tracked in the same manner as for diesel fuel. A sample of tickets was reviewed for transcription to the tracking spreadsheet. Emissions from propane volumes used as pilot gas are reported under flare.<br>**No discrepancies detected.** |
| Combustion equipment:<br>- Butane volume<br>- Off Gas Volume | Substantive test: Trace activity data from its original source to the GHG quantification. | Butane is purchased and stored in a holding tank at the Facility. Total butane volumes are metered.<br>Butane is also used as a feedstock for the steam methane reforming (SMR) plant. The volume of butane being sent to SMR is metered and then subtracted from the total volume of butane combusted in stationary equipment.<br>**No discrepancies detected**<br>Off-gas used for stationary fuel combustion is estimated by subtracting the off-gas to flare volume from the total produced off-gas meter. This estimation was reviewed by the verification team and confirmed to be accurate.<br>**No discrepancies detected** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| Combustion equipment:<br>- Butane volume<br>- Off Gas Volume | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | Analytical tests were performed on butane volumes to test for fluctuations. No anomalous values were identified, and butane volumes were found to trend with other relevant parameters such as production.<br>**No discrepancies detected**<br>Analytical tests were performed on combusted off-gas volumes. Off-gas was found to follow an opposing trend to butane, as when high volumes of off-gas was available, lower volumes butane was combusted. Both butane and off-gas were found to drop in October due to an outage at the facility.<br>**No discrepancies detected** |
| Combustion equipment:<br>- Butane volume<br>- Off Gas Volume | Controls test: Confirm meter maintenance and calibration has been completed by reviewing documentation. | The methodology document notes that manufacturer's recommendations should be followed for calibration frequency. These recommendations were reviewed by the verification team and it was confirmed that all butane meters on-site had been calibrated within the necessary frequency. The off-gas meters on-site were installed in 2023, therefore had not reached the calibration frequency recommendation.<br>**No discrepancies detected.** |
| | Substantive test: Review metering diagrams or similar evidence to confirm sample point appropriately represents the stream. | Metering diagrams were reviewed to confirm the butane and off gas metering points are accurate. This was also confirmed on the site visit.<br>**No discrepancies detected** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| | Substantive test: Observe meter correction to STP conditions | As butane is a liquid, STP corrections are not relevant.<br>**No discrepancies detected**<br>Off-gas volumes are being corrected to 60F and 14.7 psi. This equates to 15.5C and 101.325 kPa. As standard temperature and pressure conditions are 15C and 101.32 kPa, this results in an immaterial discrepancy.<br>The verification has re-assess the calculation of the STP correction and compared it against RP's newly updated quantification sheet. Total discrepancy amount has been adjusted.<br>**No discrepancies detected.** |
| Combustion equipment: (third-party lab analysis)<br>- Butane composition | Substantive test: Review the completeness of gas composition data. | Certificates of Analysis were provided for every shipment of butane in 2024. The Responsible Party is including a Certificate of Analysis from 2023 in the average calculation, as there was leftover fuel from that shipment combusted in early 2024. The verification team confirmed this was reasonable. Composition testing for every delivery was confirmed to be in alignment with frequency requirements of the regulation.<br>**No discrepancies detected.** |
| | Substantive test: Analyze gas compositions for significant fluctuations or abnormal concentrations. | All shipments were analyzed and compared for abnormalities. All shipments were within the expected range.<br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| | Substantive test: Review quantification and documentation to confirm that gas composition data has been appropriately applied to each relevant emission source. | As butane is a fuel listed in table 5-1a in the Guidance Document for Reporting Greenhouse Gas Emissions for Large Industry in Newfoundland and Labrador, the Responsible Party has chosen to use a calculated HHV value and default emission factors for the calculation of butane emissions. The verification team confirmed that this is reasonable and meets the requirements set out in the Guidance Document.<br><br>**For Hydrogen production emission calculation, the verification team initially has assessed the small difference in calculation of carbon content as an immaterial discrepancy. However, upon re-assessment of the calculation methodology, the verification has concluded that the result reasonably matches with minimal differences in total assertion.**<br><br>**No discrepancies detected.** |
| Off-Gas composition analysis:<br><br>- Combustion equipment<br>- Flare Stacks | Substantive test: Review quantification and documentation to confirm that gas composition data has been appropriately applied to each relevant emission source. | Quarterly off-gas compositions were applied to both off-gas to flare and off-gas used for SFC. Site documentation was reviewed and it was confirmed that the off-gas composition had been properly applied.<br><br>**No discrepancies detected.** |
| | Substantive test: Analyze gas compositions for significant fluctuations or abnormal concentrations. | Off-gas compositions were analyzed for fluctuations or anomalous values. All quarterly samples were found to have similar compositions.<br><br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| | Substantive test: Review the completeness of gas composition data. | Off-gas was sampled quarterly in 2024. The Regulation mandates that weekly samples are taken. The Responsible Party does not meet this sampling frequency, however, the regulation allows for the use of reasonable missing data procedures for the missing samples. The verification team confirmed that the missing data procedures used were reasonable.<br><br>**No discrepancies detected.** |
| Combustion equipment:<br>- Propane volume<br>- Diesel volume | Substantive test: Trace quantities from original invoices and record values in the verification recalculation. | Diesel is used for both stationary fuel combustion and mobile equipment. Diesel is loaded on-site and trucked out to various site locations; upon delivery at each location, a physical ticket is generated indicating the location, the date, the volume and its intended use. These tickets are numbered, and data is manually entered into a spreadsheet, and the diesel is split into either mobile or stationary combustion. Physical tickets are then sent to the St. John's office for storage.<br><br>A sample of tickets was reviewed for transcription to the tracking spreadsheet.<br><br>Propane is used in various equipment, such as in the fabrication shop on-site, as well as for the flare pilot. Flare pilot is tracked and reported separately under flaring.<br><br>Volumes are tracked in the same manner as for diesel fuel. A sample of tickets was reviewed for transcription to the tracking spreadsheet.<br><br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| Combustion equipment:<br>- Propane volume<br>- Diesel volume | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | Diesel and propane consumption were analyzed and compared to other fuel use on site, as well as year over year.<br>Propane use dropped significantly in the summer months; the Responsible Party confirmed this was due to on-site heaters not being used at that time.<br>Diesel is normally delivered via fuel delivery truck. The fuel delivery truck was out of service from June to September. The Responsible Party utilized missing data procedures to estimate the diesel used during these months. The verification team assessed these procedures to be reasonable and in alignment with the regulation.<br>**No discrepancies detected.** |
| Production<br>- Renewable Naphtha Volume<br>- Renewable Diesel Volume | Substantive test: Trace activity data from its original source to the GHG quantification. | Renewable naphtha and renewable diesel volumes were traced back to delivery slips. Total renewable diesel and naphtha volumes were recalculated for the year.<br>**No discrepancies detected.** |
| | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | Production volumes were found to reasonably trend with other relevant data such as fuel use and flaring. Production volumes dropped in October due to a shut down at the plant.<br>**No discrepancies detected.** |
| Emission factors, conversion factors and other referenced factors | Substantive test: Validate that correct emissions factors have been used and transcribed correctly to the GHG calculator. | All referenced emission factors were reviewed and were found to be appropriate and accurately transcribed from the Guidance Document.<br>**No discrepancies detected.** |

| Source or Risk Area | Activity to Mitigate Risk | Findings |
|---|---|---|
| **QUANTIFICATION** | | |
| Emission quantification | Substantive test: Recalculate emissions and production using original data. | The independent recalculation of emissions reasonably matched the emissions calculated by the Responsible Party.<br>**No discrepancies detected.** |
| **DATA INTEGRITY** | | |
| Activity data and emission factor data integrity | Substantive test: Perform an independent recalculation using the original source data to confirm that data integrity has been maintained from the source to the GHG assertion. | The independent recalculation of emissions reasonably matched the emissions calculated by the Responsible Party, indicating data integrity has been maintained.<br>**No discrepancies detected.** |
| All inventory emission and reporting quantities | Substantive test: Review transcription of all values in the Newfoundland Reporting Form. | The transcription of all values was reviewed in the NL GHG Reporting Form.<br>**No discrepancies detected.** |

### 4.1 Summary of Errors, Omissions or Misrepresentations

*Table 4: Summary of Errors, Omissions or Misrepresentations*

| Identified Error, Omission or Misrepresentation | Material/Immaterial |
|---|---|
| Off-gas volumes are being corrected to 60F and 14.7 psi. This equates to 15.5C and 101.325 kPa. As standard temperature and pressure conditions are 15C and 101.32 kPa, this results in an immaterial discrepancy.<br><br>The verification has re-assess the calculation of the STP correction and compared it against RP's newly updated quantification sheet. The verification has concluded that the result reasonably matches with minimal differences in total assertion. | **No discrepancies detected.** |
| For Hydrogen production emission calculation, the verification team initially has assessed the small difference in calculation of carbon content as an immaterial discrepancy. However, upon re-assessment of the calculation methodology, the verification has concluded that the result reasonably matches with minimal differences in total assertion. | **No discrepancies detected.** |
| **Total percent discrepancy** | **0%** |

# 5 Verification Opinion

The Verification Opinion on the following pages provides a summary of the verification and the declarations of the Lead Verifier and the Independent Peer Reviewer.

# Verification Opinion

Office of Climate Change
Department of Environment and Climate Change
P.O. Box 8700
St. John's, NL A1B 4J6

## Introduction

BRAYA Renewable Fuels (Newfoundland) LP (the "Responsible Party") engaged Brightspot Climate Inc. (Brightspot Climate) to review their greenhouse gas (GHG) inventory for the 2024 reporting year.

The Responsible Party's "GHG Statement" is comprised of the "NL GHG Reporting Form - Braya (Reporting Year 2024) YTD working copy Final Rev 6.0 AUG2525" spreadsheet and supporting documentation.

The GHG Statement covers the reporting period January 1, 2024 – December 31, 2024 and states a total GHG emissions inventory of 337,611 tonnes $CO_2e$ without biomass and 473,069 tonnes $CO_2e$ including biomass. The GHG Statement is based on historical GHG information.

The Responsible Party is responsible for the preparation and fair presentation of the GHG Statement in accordance with the criteria. Our responsibility as the verifier is to express an opinion on the GHG Statement based on the verification.

## Scope

We completed our review in accordance with the ISO 14064 Part 3: *Greenhouse Gases: Specification with Guidance for the Verification and Validation of Greenhouse Gas Statements* (ISO, 2019) and the Government of Newfoundland and Labrador's Management of Greenhouse Gas Act and Regulations. As such, we planned and performed our work in order to provide positive, but not absolute assurance with respect to the GHG Statement.

The evidence-gathering activities that were performed through the course of the verification were developed based on the results of a risk assessment that was completed during the verification planning stage. These evidence-gathering activities are described in the Verification Plan.

An In-person site visit of the BRAYA Renewable Fuels (Newfoundland) LP facility was conducted as part of this verification on May 9, 2025.

## Conflict of Interest Review

A conflict of interest review was completed prior to commencing the Verification. Brightspot Climate has implemented processes to monitor for conflict of interest through the duration of the verification to ensure impartiality is maintained. The Conflict of Interest Report is included in the verification report.

## Conclusion and Verification Opinion

We believe our work provides a reasonable basis for my conclusion.

The unresolved immaterial discrepancies remain in the GHG Statement, which is described below:

1. Off-gas volumes are being corrected to 60F and 14.7 psi. This equates to 15.5C and 101.325 kPa. As standard temperature and pressure conditions are 15C and 101.32 kPa, this was originally stated as an immaterial discrepancy. The Responsible party has amended the data to adjust for the STP. The verification has re-assess the calculation of the STP correction and compared it against RP's newly updated quantification sheet. The verification has concluded that the result reasonably matches with minimal differences in total assertion.

2. For Hydrogen production emission calculation, the verification team initially has assessed the small difference in calculation of carbon content as an immaterial discrepancy. However, upon re-assessment of the calculation methodology, the verification has concluded that the result reasonably matches with minimal differences in total assertion.

Based on the verification activities and findings, it is the opinion of the verifier that the GHG Statement meets the criteria under the Management of Greenhouse Gas Reporting Regulations.

Sufficient and appropriate evidence was collected through the verification procedures to reach the verification conclusion at a reasonable level of assurance.

The data and GHG information provided by the Responsible Party is sufficient to support the GHG Statement.

Based on our review, it is my opinion at a reasonable level of assurance that the GHG Statement is materially correct and presented fairly in accordance with the relevant criteria. The Verification Opinion is positive.

Sincerely,

**Lead Verifier Signature**

September 15, 2025

**Date**

# Lead Verifier Declaration

In signing this declaration, I certify that:

- Brightspot Climate Inc. is an accredited verification body,
- The evidence obtained during the verification is sufficient and appropriate to support the Verification Opinion,
- The Verification Opinion is true, accurate and complete, and
- The verification work documented in the Verification Opinion was conducted in accordance with the Management of Greenhouse Gas Reporting Regulations.

| | |
|---|---|
| **Name and Title:** | Aaron Schroeder, P.Eng.<br>Chief Executive Officer, Brightspot Climate |
| **Signature:** |  |
| **Date:** | September 10, 2025 |

# Independent Peer Reviewer Declaration

In signing this form, I certify that I was not involved in the verification documented in the Verification Opinion, other than providing an independent peer review, and that the verification used to produce the Verification Opinion was appropriate.

| | |
|---|---|
| **Name and Title:** | Lorena Ellsworth, P.Eng. |
| **Signature:** |  |
| **Date:** | August 26, 2025 |

# Appendix A

Conflict of Interest Report

# Conflict of Interest Report

## Assessment of Threats to Independence

The assessment of threats to independence considered Brightspot Climate's financial interests and work history. Brightspot Climate has not performed any consulting services for BRAYA Renewable Fuels (Newfoundland) LP and has no prior relationship to performing this verification.

A conflict of interest review was conducted prior to beginning work and was monitored throughout the verification. The conflict of interest review evaluated the prior work history, relationships and financial interests of all management and staff involved in the verification.

No threats to independence were identified through this assessment.

## Mitigation Procedures

No conflicts of interest or threats to independence were identified; therefore, no mitigation procedures were required.

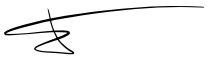
## Implementation of Procedures

N/A

## Affirmation

In signing this document, I certify, on behalf of the Verification Body that:

- I am an authorized officer of the Verification Body and have personally examined and am familiar with the information submitted in this Conflict of Interest Report.
- Based upon reasonable investigation, including my inquiry of those individuals responsible for completing the assessment and implementing the procedures, I hereby warrant that the Verification Body avoided any actual or potential conflict of interest with the operator of the reporting industrial facility.

| | |
|---|---|
| **Verification Body – Signatory Name and Title:** | Julie Tartt, C.Dir.<br>Chief Operating Officer, Brightspot Climate |
| **Signature:** |  |
| **Date:** | September 10, 2205 |

# Appendix B

Final Verification Plan

# Verification Plan

## BRAYA Renewable Fuels (Newfoundland) LP

## BRAYA Renewable Fuels (Newfoundland) LP Facility

Initial Issue Date: May 1, 2025

## Terminology

ISO 14064-1 defines the following terms used in the context of a greenhouse gas (GHG) verification:

> **GHG statement***:* factual and objective declaration that provides the subject matter for the verification.
>
> **Facility:** single installation, set of installations or production processes (stationary or mobile), which can be defined within a single geographical boundary, organizational unit, or production process.

The GHG statement subject of this verification is for the facility officially known as "BRAYA Renewable Fuels (Newfoundland) LP Facility", which will be referred to throughout this document as "the Facility". Note that the definition of a Facility is also defined under the *Technology Innovation and Emission Reduction* regulation.

ISO 14064-1 defines the following parties associated with the verification:

> **Responsible Party:** person or persons responsible for the provision of the GHG statement and supporting GHG information.
>
> The Responsible Party for this verification is BRAYA Renewable Fuels (Newfoundland) LP, which will be referred to throughout this document as "the Responsible Party".
>
> **Intended User:** individual or organization identified by those reporting GHG-related information as being the one who relies on that information to make decisions.
>
> The Intended User for this verification is Alberta Environment and Protected Areas (EPA).
>
> **Verifier:** competent and impartial person, or persons, with the responsibility of performing and reporting on a verification.
>
> The Verifier for this verification is Brightspot Climate Inc. (Brightspot Climate). The members of the verification team are provided in Section 2 of this document.

## Version History

This Verification Plan was initially issued on the date shown on the cover page. The Verification Plan may be revised through the course of the verification as new information becomes available. If revisions to the plan are made, the following table will provide a summary of changes and re-issue dates.

*Table 1: Verification Plan Version History*

| Version Date Issued | Description of Changes and Reason for Change |
|---|---|
| May 1, 2025 | Initial Verification Plan issued prior to site visit. |
| July 29, 2025 | Updates to Plan for Final Verification Report |

# Introduction

This document serves to communicate information between the parties associated with the independent verification of the Facility's annual compliance report.

This document contains six sections:

1. The Introduction, which defines the principles by which this verification will be conducted. This section also includes the preliminary GHG statement and the results of the Contribution Analysis.
2. The Verification, which defines the verification parameters and the GHG inventory principles that will be tested by the verification. This section also provides information regarding the verification team and site visit.
3. The Responsible Party Data Management and Controls, which describes the data management system and control environment implemented by the Responsible Party.
4. Previous GHG statements, which describes any modifications to the operations and boundaries of the facility the Responsible Party has made since the previous verification.
5. The Verification Risk Assessment and Verification Procedures, which describes the risks of potential errors, omissions, or misrepresentations to the overall GHG statement and the verification procedures that have been developed to reduce the overall verification risk.
6. The Sampling Plan, which lists the verification procedures that could apply sampling of the Facility data, along with the sampling size, the sampling methodology and justification.

## GHG Quantification Principles

ISO 14064-1 defines five principles that are fundamental to the fair accounting and reporting of GHG information. The verification procedures will test that these principles have been upheld through the Responsible Party's inventory, accounting, and reporting processes.

Sections 4.2–4.6 of ISO 14064-1 define these principles as follows:

**Accuracy***:* reduce bias and uncertainty as far as practical

**Completeness:** include all relevant emission sources

**Consistency:** enable meaningful comparisons of reported emissions (from year to year or between facilities or between companies)

**Relevance:** select GHG sources, sinks and reservoirs, data and quantification methodologies appropriate to the needs of the intended user

**Transparency:** disclose sufficient and appropriate GHG information to facilitate verification and to allow intended users to make decisions with relative confidence

## Contribution Analysis

The GHG statement includes the emission sources detailed in the following table. The verification team considered the relative contribution of each emission source within the verification risk assessment.

*Table 3: Results of Contribution Analysis*

| **EMISSIONS** | | | |
|---|---|---|---|
| **Category** | **Emission Source** | **Emissions ($tCO_2e$)** | **Contribution (%)** |
| Stationary fuel combustion | Combustion equipment | 156,099 | 33% |
| Flaring | Flare stacks | 7,794 | 2% |
| On-site transportation | Onsite transportation | 422 | 0.1% |
| Hydrogen Production | Hydrogen Production | 173,296 | 37% |
| Offgas to SFC (Biomass) | Offgas combustion | 95,826 | 8% |
| Offgas to flare (Biomass) | Offgas flare | 39,632 | 20% |
| **Total Emissions (without Biomass)** | | 337,611 | 100% |
| **Total Emissions (with Biomass)** | | 473,069 | 100% |

*Note: Contribution against total emissions with biomass

# Verification

## Verification Principles

ISO 14064-3 defines five fundamental principles to conducting a greenhouse gas verification, namely impartiality, evidence-based approach, fair presentation, documentation, and conservativeness.

Brightspot Climate has implemented processes, including mandatory training for all verification team members, to ensure the application of these principles for this verification.

Regarding the principle of independence, Brightspot Climate assessed threats to independence prior to initiating this verification. No real or perceived threats to independence were identified. Brightspot Climate will continue to monitor for threats to independence throughout the course of this verification. A final "Conflict of Interest Checklist" will be appended to the Verification Statement.

## Verification Parameters

The verification will be conducted according to the parameters defined in the following table:

*Table 4: Verification Parameters*

| | | |
|---|---|---|
| **Level of Assurance** | Reasonable assurance | |
| **Objectives** | • issue a verification statement on whether the GHG statement is accurate and conforms with the criteria as listed below; and<br>• issue a verification report that provides details of the verification activities. | |
| **Criteria** | • Management of Greenhouse Gas Act<br>• Management of Greenhouse Gas Regulations NLR 116/18<br>• Management of Greenhouse Gas Reporting Regulations NLR 14/17<br>• Opted-in Facilities Regulations NLR118/18<br>• Guidance Document for Reporting Greenhouse Gas Emissions for Large Industry in Newfoundland and Labrador, March 2017 | |
| **Scope** | Organizational Boundary: | Operational Control |
| | Geographic Boundary: | Facility at 1 Refinery Road, Come By Chance, NL |
| | Physical Operations: | Production of renewable fuels |
| | Emission Sources: | Combustion equipment<br>Combustion equipment (non-Petrinex fuel)<br>Flare pilot<br>Flare stacks<br>Onsite transportation<br>Fugitives<br>Industrial Process Emissions |

| | | |
|---|---|---|
| | IPCC GHGs Emitted: | Carbon Dioxide ($CO_2$)<br>Methane ($CH_4$)<br>Nitrous Oxide ($N_2O$) |
| | Reporting Period: | 2024-01-01 to 2024-12-31 |
| **Materiality** | Quantitative materiality threshold is 5% total error calculated in accordance with the Standard for Validation, Verification and Audit. | |
| **Preliminary Verification Schedule*** | Receipt of draft GHG Statement | 2025-03-28 |
| | Site visit | 2025-05-09 |
| | Draft Verification Report | 2025-05-22 |
| | Final Verification Report | 2025-05-31 |

* The Preliminary Verification Schedule shown above was established at the outset of the verification for planning purposes. The actual dates when these milestones will occur during the verification may differ depending on progress of the verification. The actual dates will be documented in Section 2.2 of the Verification Report.

## Verification Team

The verification team will be led by the Lead Verifier. Associate verifiers will work under the direction of the Lead Verifier.

*Table 5: Verification Team and Qualifications*

| | | |
|---|---|---|
| **Lead Verifier** | Name: | Aaron Schroeder, P.Eng. |
| | Years verification experience: | 16 |
| | Education: | B.Sc. Electrical Engineering, University of Saskatchewan, Canada, 2003 |
| | Verifier training: | Greenhouse Gas Verification – ISO 14064-3, Canadian Standards Association, Dec. 15, 2011; AEPA GHG Verifier Training-Modules 1, 2, 3, 6 and 7, Jan. 1, 2023 |
| **Associate Verifier** | Name: | Sylvie Cox |
| | Years verification experience: | 1 |
| | Education: | B.Sc. Environmental Science and Chemistry, University of British Columbia, Canada, 2025 |
| | Verifier training: | Verifier-in-training |

| | | |
|---|---|---|
| **Associate Verifier** | Name: | Mark Lee |
| | Years verification experience: | 1 |
| | Education: | B.A. Economics, Simon Fraser University, Canada, 2014 |
| | Verifier training: | Greenhouse Gas Validation and Verification, ISO 14064-3, University of Toronto, Apr. 22, 2024 |
| **Associate Verifier** | Name: | Sarah Rab |
| | Years verification experience: | 1 |
| | Education: | B.Sc. Environmental Science, University of Waterloo, Canada, Dec 2025 |
| | Verifier training: | Verifier-in-training |
| **Technical Expert** | Name: | Deepika Mahadevan, P.Eng. |
| | Years verification experience: | 13 |
| | Education: | B.Sc. Chemical Engineering, University of Toronto, Canada |
| | Verifier training: | Greenhouse Gas Verification – ISO 14064-3, Canadian Standards Association, Dec. 15, 2012; AEPA GHG Verifier Training-Modules 1, 2, 3, 6 and 7, Jul. 10, 2023 |

Additional information regarding the qualifications of the verification team will be provided in a Statement of Qualifications, which will be appended to the Statement of Verification.

## Site Visit

A hazard assessment will be completed prior to commencing the site visit. Personnel conducting site visits are required to wear personal protective equipment including steel-toed boots, Nomex coveralls, hard hat, safety glasses with side shields and gloves.

All Verifier personnel attending site visits hold valid safety certificates, as required by the Responsible Party.

# Responsible Party Data Management and Controls

## Data Management Systems

Amanda Burt has the primary responsibility for collecting GHG information, quantifying the emissions inventory, and completing required documentation.

The Responsible Party uses Excel files to manage GHG information and quantify the emissions inventory.

The diagram below, illustrates the data measurement/estimation source, and the data path for all GHG information used by the Responsible Party to produce the GHG inventory.


Activity Data/ GHG Information
Data Storage Location
Butane Composition
Off-Gas Composition
Off-Gas Volume
SFC: Butane Volume
Flare volume
-Off-Gas
-Butane
Production volume
Diesel and Propane Volumes
Emissions factors, Conversion factors
Third-Party Sampling
Third-Party Sampling
Continuous Metering
Continuous Metering
Continuous Metering
Shipment Tracking
Supplier Records/ Invoices
Manual Data Tracking
Third Party Database
Central Database
OnSite Delivery Ticket Recap Sheet
Reference values
Electronic Transfer
Electronic Transfer
Electronic Transfer
Manual Transcription
GHG Calculator

## Control Environment

The Responsible Party describes the processes, procedures and systems that have been designed and implemented within their quality assurance/quality control framework. The accuracy and completeness of the documentation of the Responsible Party's controls will be reviewed through the course of the verification.

The following processes, procedures and systems have been employed by the Responsible Party:

- Quantification is based on direct metering, engineering estimates and measurement.
- Meters are maintained according to a preventative maintenance program that includes meter validation and calibration (if necessary).
- Data is transferred electronically between systems to reduce transcription errors.
- Gas composition is analyzed by a third-party laboratory.
- The Responsible Party has implemented a quality management system that includes review by subject matter experts and a continuous improvement process.
- All quantification data is stored in a manner that restricts access to the appropriate personnel.
- The Responsible Party has an automated data backup system that ensures a redundant and secure copy of GHG information is maintained.
- The Responsible Party has implemented a record retention system that meets the requirements of the Regulation.

# Previous GHG Statements

Brightspot has previously verified GHG statements for the Facility for the following reporting periods:

- 2023-01-01 to 2023-12-31
- 2022-01-01 to 2022-12-31
- 2021-01-01 to 2021-12-31

## Findings from Previous Verifications

The following discrepancies were described in the previous verification for this Facility. These discrepancies will be reviewed through the course of this verification to determine if the underlying issues have been addressed.

1. During the virtual site visit, it was discovered that the measured volumes of butane used to purge the flare system were not accurate. The Responsible Party therefore elected to quantify all butane consumption under the "General Stationary Combustion" category. The verification team confirmed that this results in greater emissions than if the butane purge was quantified under the flaring category because the flare system has a lower combustion efficiency than the boilers.

   Data was not available to accurately quantify the magnitude of the discrepancy. The verification team evaluated the materiality of this discrepancy by estimating the maximum possible magnitude of the discrepancy. The verification team's estimate assumes 100% of the butane was used to purge the flare system. The maximum possible overstatement was estimated as 1.22% of total emissions, which is well below the 5% materiality threshold. Therefore, the verification team concluded that the discrepancy is immaterial.

   Based on observations during the site visit, the overstatement is likely much lower as only a small volume of butane is actually used to purge the flare system. Compared to the previous reporting period, the verification team estimates the overstatement is likely approximately 0.3% of total emissions; however, this is only an estimate based on available data and this estimate should not be used for any purpose other than evaluating the materiality of this discrepancy.

   This issue was assessed as an immaterial quantitative discrepancy with an approximate materiality of 0.3% of the TRE.

2. During the virtual site visit, it was identified that a portion of propane volumes are consumed by mobile equipment. The Responsible Party did not categorize any emissions from propane as mobile combustion emissions. The verification team identified that this does not present a quantitative impact on the final GHG assertion, however the mis-categorization of propane emissions from mobile equipment constitutes a qualitative discrepancy

## Changes to Operations and Boundaries

The Facility is a former refinery that ceased production in March 2020. Previously, the Facility produced gasoline, propane, jet fuel and marine fuel, processing approximately 130,000 bbl/day of crude oil. The plant was in Idle mode until 2023. Operations began at the start of 2024. First time production of renewable diesel and renewable naphtha began in February 2024.

# Verification Risk Assessment and Verification Procedures

Verification risk is defined as the risk of an incorrect verification conclusion. It can be calculated as the product of

- the Facility's inherent risks;
- the Responsible Party's control risks; and
- the detection risks associated with the verifier's verification procedures.

$$\textit{Inherent Risk} \times \textit{Control Risk} \times \textit{Detection Risk} = \textit{Verification Risk}$$

The verifier cannot affect the inherent risk or the control risk. Therefore, to reduce the overall verification risk and reach the agreed level of assurance (defined in the verification scope), the verifier must design verification procedures that reduce the detection risk.

Each inherent and control risk was provided with a risk score (high/medium/low). The risk analysis of inherent and control risks considers both the magnitude of the activity data or inventory component on the overall GHG statement as well as the probability that the risk will result in a discrepancy, as assessed by the verifier.

The Verification Risk Assessment Summary on the following pages describes the following information:

Source or Risk Area: The emission source, boundary, eligibility requirement, data component or reporting activity being evaluated.

Attributes: The verification attribute associated with a risk identified for a particular source or risk area (occurrence, completeness, accuracy, classification, transparency, consistency).

Inherent Risk: The verifier's evaluation of inherent risk level (high/medium/low). Inherent risk is the risk that a GHG statement may be misstated because of intrinsic challenges in the subject matter.[1]

Control Risk: The verifier's evaluation of control risk level, if any controls are applicable. Control risk is the risk that a misstatement has occurred and has not been detected and corrected by the facility's internal controls.[1]

Detection Risk: The detection risk of the verification procedure that the verifier intends to complete.

Evidence-Gathering Activity: Procedures designed by the verifier to mitigate the identified risk to bring the overall risk to an acceptable level.

Important note: The verification strategy for this verification is to use substantive tests instead of control tests wherever possible. Substantive tests are designed to focus on directly testing activity data or inventory components and their associated inherent risks. Control tests are designed to focus on testing the Responsible Party's controls and if the test is successful, relying on the Responsible Party's control. Therefore, control tests indirectly test activity data or inventory components. Each verification procedure listed in the following table denotes if the procedure is a substantive or control test.

[1] Standard for Validation, Verification and Audit.

*Table 7: Verification Risk Assessment Summary*

| Source or Risk Area | Attributes | Inherent Risk | Control Risk | Detection Risk | Evidence-Gathering Activity |
|---|---|---|---|---|---|
| **BOUNDARY CONDITIONS** | | | | | |
| Emission sources in facility boundary | Completeness, Occurrence | Medium | Low | Low | Substantive test: Discuss emission sources during site visit. |
| Production sources in facility boundary | Completeness, Occurrence | Medium | Low | Low | Substantive test: Observe production sources during site visit. |
| Emission sources categorization | Classification | Low | Low | Low | Substantive test: Categorize each emission source based on compliance with the GHG Program policy. Cross reference categorization with Responsible Party's categorization. |
| Reporting period | Cut-off | Low | Low | Low | Substantive test: Filter all data to exclude data from outside the reporting period. |
| **METHODOLOGIES AND EQUATIONS** | | | | | |
| Emission and production quantification methodologies | Consistency | Low | Low | Low | Substantive test: Compare Responsible Party's quantification against the GHG Program policy. |
| Emission and production quantification methodologies | Occurrence | Medium | Low | Low | Substantive test: Recalculate emissions and production using the methodology from the GHG Program policy. |
| **ACTIVITY DATA** | | | | | |
| On-site transportation | Accuracy, Completeness | Low | High | Low | Substantive test: Confirm transcription of device specifications from supporting documentation into the data management system. |

| | | | | | |
|---|---|---|---|---|---|
| - Diesel Volume | Accuracy, Completeness | Medium | High | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. |
| | Accuracy, Completeness | Medium | High | Medium | Substantive test: Trace quantities from original invoices and record values in the verification recalculation. |
| Flare stacks:<br>Butane Volume<br>Off-Gas Volume | Accuracy, Completeness | Medium | High | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. |
| | Accuracy, Completeness | Medium | Low | Low | Controls test: Confirm meter maintenance and calibration has been completed by reviewing documentation.<br>Substantive test: Review metering diagrams or similar evidence to confirm sample point appropriately represents the stream.<br>Substantive test: Observe meter correction to STP conditions. |
| Propane volume:<br>Flare pilot | Accuracy, Completeness | Medium | High | Low | Substantive test: Trace activity data from its original source to the GHG quantification. |
| Combustion Equipment:<br>- Butane Volume<br>- Off Gas Volume | Accuracy, Completeness | Medium | High | Low | Substantive test: Trace activity data from its original source to the GHG quantification. |
| Combustion Equipment:<br>- Butane Volume<br>- Off Gas Volume | Accuracy, Completeness | High | Low | Low | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. |
| | Accuracy, Completeness | Medium | Low | Low | Controls test: Confirm meter maintenance and calibration has been completed by reviewing documentation.<br>Substantive test: Review metering diagrams or similar evidence to confirm sample point appropriately represents the stream.<br>Substantive test: Observe meter correction to STP conditions. |

| | | | | | |
|---|---|---|---|---|---|
| Butane composition analysis:<br>Combustion equipment | Accuracy, Completeness | High | Low | Low | Substantive test: Review quantification and documentation to confirm that gas composition data has been appropriately applied to each relevant emission source. |
| | Accuracy, Completeness | High | Low | Medium | Substantive test: Analyze gas compositions for significant fluctuations or abnormal concentrations. |
| | Occurrence | High | High | Low | Substantive test: Review the completeness of gas composition data. |
| Off-Gas composition analysis:<br>Combustion equipment | Accuracy, Completeness | High | Low | Low | Substantive test: Review quantification and documentation to confirm that gas composition data has been appropriately applied to each relevant emission source. |
| | Accuracy, Completeness | High | Low | Medium | Substantive test: Analyze gas compositions for significant fluctuations or abnormal concentrations. |
| | Occurrence | High | High | Low | Substantive test: Review the completeness of gas composition data. |
| Combustion Equipment (Liquid fuels):<br>- Propane Volume<br>- Diesel Volume | Accuracy, Completeness | Medium | High | Low | Substantive test: Trace quantities from original invoices and record values in the verification recalculation. |
| | Accuracy, Completeness | Medium | High | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. |
| Production<br>- Renewable Naphtha Volume<br>- Renewable Diesel Volume | Accuracy, Completeness | Medium | High | Low | Substantive test: Trace activity data from its original source to the GHG quantification. |
| | Accuracy, Completeness | Medium | High | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. |
| Emission factors, conversion factors and other referenced factors | Accuracy, Completeness | Low | Low | Low | Substantive test: Validate that correct emissions factors have been used and transcribed correctly to the GHG calculator. |

| | | | | | |
|---|---|---|---|---|---|
| **QUANTIFICATION** | | | | | |
| Emission and production quantification: | Accuracy | Medium | Low | Low | Substantive test: Recalculate emissions and production using original data. |
| **DATA INTEGRITY** | | | | | |
| Activity data and emission factor data integrity | Accuracy | Medium | Low | Low | Substantive test: Perform an independent recalculation using the original source data to confirm that data integrity has been maintained from the source to the GHG assertion. |
| All inventory emission, production and reporting quantities | Accuracy, Completeness | Medium | Low | Low | Substantive test: Confirm correct transcription of values in the Newfoundland Reporting form. |

# Sampling Plan

The verification procedures that could apply sampling of the Facility data are listed in the following table.

The sample size, the sampling methodology, and their respective justifications are also described in the following table.

*Table 8: Sampling Plan*

| Source or Risk Area | Detection Risk Design | Evidence-Gathering Activity | Sample Size | Sampling Methodology and Justification |
|---|---|---|---|---|
| **BOUNDARY CONDITIONS** | | | | |
| Emission sources categorization | Low | Substantive test: Categorize each emission source based on compliance with the GHG Program policy. Cross reference categorization with Responsible Party's categorization. | All values. | Review of full dataset has lower detection risk than sampling. |
| Emission sources in facility boundary | Low | Substantive test: Discuss emission sources during site visit. | All emission sources at the facility | Review of full dataset has lower detection risk than sampling.. |
| Production sources in facility boundary | Low | Substantive test: Observe production sources during site visit. | All production sources at the facility | Review of full dataset has lower detection risk than sampling.. |
| Reporting period | Low | Substantive test: Filter all data to exclude data from outside the reporting period. | All values. | Review of full dataset has lower detection risk than sampling. |
| **METHODOLOGIES AND EQUATIONS** | | | | |
| Emission and production quantification methodologies | Low | Substantive test: Compare Responsible Party's quantification against the GHG Program policy. | Documentation review of all methodologies applied by the Responsible Party. | Review of all methodologies has lower detection risk than sampling. |
| Emission and production quantification methodologies | Low | Substantive test: Recalculate emissions and production using the methodology from the GHG Program policy. | All values. | Review of full dataset has lower detection risk than sampling. |

| **ACTIVITY DATA** | | | | |
|---|---|---|---|---|
| On-site transportation<br>- Diesel Volume | Low | Substantive test: Trace quantities from original invoices and record values in the verification recalculation. | 155 invoices | 85% Confidence |
| | Low | Substantive test: Confirm transcription of device specifications from supporting documentation into the data management system. | All values | Review of full dataset has lower detection risk than sampling |
| | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | All values | Review of full dataset has lower detection risk than sampling |
| Flare stacks:<br>- Off gas volume<br>- Butane Volume | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | All values | Review of full dataset has lower detection risk than sampling |
| | Low | Controls test: Confirm meter maintenance and calibration has been completed by reviewing documentation.<br>Substantive test: Review metering diagrams or similar evidence to confirm sample point appropriately represents the stream.<br>Substantive test: Observe meter correction to STP conditions. | All meters<br>All diagrams<br>All meter corrections | Review of all meter documentation has lower detection risk than sampling<br>Review of full dataset has lower detection risk than sampling<br>Review of full dataset has lower detection risk than sampling |
| Propane volume:<br>Flare pilot | Low | Substantive test: Trace activity data from its original source to the GHG quantification. | All values | Review of full dataset has lower detection risk than sampling |
| Combustion Equipment:<br>- Butane Volume | Low | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | All Values | Review of full dataset has lower detection risk than sampling |

| | | | | |
|---|---|---|---|---|
| - Off -gas volume | Low | Controls test: Confirm meter maintenance and calibration has been completed by reviewing documentation. | All meters | Review of all meter documentation has lower detection risk than sampling |
| | | Substantive test: Review metering diagrams or similar evidence to confirm sample point appropriately represents the stream. | All diagrams | Review of full dataset has lower detection risk than sampling |
| | | Substantive test: Observe meter correction to STP conditions. | All meter corrections | Review of full dataset has lower detection risk than sampling |
| | | Substantive test: Trace activity data from its original source to the GHG quantification. | All Values | Review of full dataset has lower detection risk than sampling |
| Butane composition analysis:<br>Combustion equipment | Low | Substantive test: Review quantification and documentation to confirm that gas composition data has been appropriately applied to each relevant emission source. | All values | Review of full dataset has lower detection risk than sampling |
| | Medium | Substantive test: Analyze gas compositions for significant fluctuations or abnormal concentrations. | All values | Review of full dataset has lower detection risk than sampling |
| | Low | Substantive test: Review the completeness of gas composition data. | All values | Review of full dataset has lower detection risk than sampling |
| Off-gas composition analysis:<br>- Combustion equipment<br>- Flare stacks | Low | Substantive test: Review quantification and documentation to confirm that gas composition data has been appropriately applied to each relevant emission source. | All values | Review of full dataset has lower detection risk than sampling |
| | Medium | Substantive test: Analyze gas compositions for significant fluctuations or abnormal concentrations. | All values | Review of full dataset has lower detection risk than sampling |
| | Low | Substantive test: Review the completeness of gas composition data. | All values | Review of full dataset has lower detection risk than sampling |

| | | | | |
|---|---|---|---|---|
| Combustion Equipment (Liquid fuels):<br>- Propane Volume<br>- Diesel Volume | Low | Substantive test: Trace quantities from original invoices and record values in the verification recalculation. | 235 invoices | 85% Confidence level |
| | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | All Values | Review of full dataset has lower detection risk than sampling |
| Production<br>- Renewable Naphtha Volume<br>- Renewable Diesel Volume | Low | Substantive test: Trace activity data from its original source to the GHG quantification. | All values | Review of full dataset has lower detection risk than sampling |
| | Medium | Substantive test: Conduct analytical testing on this activity data to identify fluctuations or relationships that are inconsistent with other relevant information. | All values | Review of full dataset has lower detection risk than sampling |
| Emission factors, conversion factors and other referenced factors | Low | Substantive test: Validate that correct emissions factors have been used and transcribed correctly to the GHG calculator | All values | Review of full dataset has lower detection risk than sampling |
| **QUANTIFICATION** | | | | |
| Emission and production quantification | Low | Substantive test: Recalculate emissions and production using original data. | All values. | A full recalculation has the lowest possible detection risk for this activity. |
| **DATA INTEGRITY** | | | | |
| Activity data and emission factor data integrity | Low | Substantive test: Perform an independent recalculation using the original source data to confirm that data integrity has been maintained from the source to the GHG assertion. | All values. | A full recalculation has the lowest possible detection risk for this activity. |
| All inventory emission, production and reporting quantities | Low | Substantive test: Confirm correct transcription of values in the Newfoundland Reporting Form. | All values. | A review of all values is required by the Regulation. |

# Appendix C

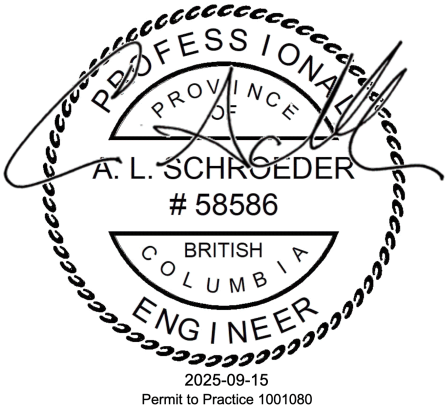
Supporting Information

## Accreditation

Brightspot Climate Inc. is an accredited verification body by the Standards Council of Canada[1].

This verification was completed in conformance with the requirements of the ISO 14064-3:2019, ISO 14065:2013 and ISO 14066:2011 standards.

## Authentication




[1] The SCC Accreditation Symbol is an official symbol of the Standards Council of Canada, used under license.