



## Validation and Verification Report

### ACR799 Tradewater International Honduras 1.0

December 5, 2022

Ruby Canyon Environmental, Inc.  
743 Horizon Ct. Suite 385  
Grand Junction, Colorado 81506  
(970) 241-9298  
[www.rubycanyonenv.com](http://www.rubycanyonenv.com)

## TABLE OF CONTENTS

1	Introduction .....	3
1.1	Objectives.....	3
1.2	Project Background.....	3
1.3	Responsible Party.....	4
1.4	Validation and Verification Team.....	4
1.5	Validation and Verification Criteria.....	4
1.5.1	Validation and Verification Standards, Guidelines, and Tools.....	4
1.5.2	Level of Assurance .....	4
1.5.3	Materiality.....	4
2	Validation and Verification Process .....	5
3	Validation and Verification Findings .....	6
3.1	Project Boundary and Activities.....	6
3.2	GHG Sources Sinks, and Reservoirs.....	6
3.3	Eligibility .....	6
3.3.1	ACR Eligibility .....	6
3.3.2	Methodology Eligibility .....	7
3.4	Location.....	9
3.5	Additionality.....	9
3.5.1	Legal Requirement Test .....	9
3.5.2	Performance Standard Evaluation .....	9
3.6	Start Date .....	10
3.7	Reporting Period .....	10
3.8	Crediting Period .....	10
3.9	Regulatory Compliance .....	10
3.10	Permanence .....	11
3.11	Environmental and Community Impacts .....	11
3.12	Local Stakeholder Consultation .....	12
3.13	Source of ODS .....	12
3.14	Chain of Custody and Ownership Documentation .....	12
3.15	ODS Composition and Quantity Analysis .....	13
3.15.1	Scales.....	13
3.15.2	Composition Sampling .....	14
3.16	Destruction Facility Monitoring Requirements.....	15
3.17	Baseline Scenario .....	15
3.18	Data Management System and Monitoring Plan.....	15
3.19	Project Data and GHG Emissions Reduction Assertion.....	16
3.19.1	Baseline Emissions .....	16
3.19.2	Project Emissions .....	16
3.19.3	Emissions Reductions.....	16
4	Validation and Verification Results.....	16
5	Validation and Verification Conclusion.....	17
6	Appendix A—Documents Reviewed .....	18
7	Appendix B—List of Findings.....	19

# 1 INTRODUCTION

---

Tradewater International, SRL (Tradewater) contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR799 Tradewater International Honduras 1.0 project (Project) for the crediting period of September 27, 2022 through September 26, 2032 and a reporting period of September 27, 2022 to September 29, 2022 under the American Carbon Registry (ACR) program. This report is documentation of validation and verification activities that RCE performed for the Project. For the validation, RCE reviewed the project information as described in the Project Plan “Tradewater International – Honduras 1.0” dated November 7, 2022. For the verification, RCE ensured that the GHG assertion was materially correct, that the data provided to RCE was well documented, and that if Tradewater made any material errors, that these errors were corrected.

## 1.1 OBJECTIVES

The objectives of the validation are to evaluate:

- Conformance to the ACR standard and the approved ACR Methodology for The Destruction of Ozone Depleting Substances from International Sources, Version 1.0, April 2021 (Methodology);
- GHG emissions reduction project planning information and documentation in accordance with the applicable ACR-approved methodology, including the project description, baseline, eligibility criteria, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures;
- Reported GHG baseline, ex ante estimated project emissions and emissions reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

The objectives of the verification are to evaluate:

- The emissions reductions and to ensure that the assertion is materially correct;
- The data provided to RCE can be documented and if errors or omissions are detected, they be corrected.

RCE retains all data and documents for seven years after the end of the project reporting period or for the duration required by the GHG program, whichever is longer.

## 1.2 PROJECT BACKGROUND

The Project destroyed R-12 that was sourced from disposable cylinders located in Tegucigalpa, Honduras. The destroyed ODS ensures that it will no longer be used or stockpiled and ensures that the ODS cannot leak into the atmosphere. Tradewater utilized the Tredi Sech Group Saint-Vulbas (Tredi) destruction facility. Tredi operates a rotary kiln that destroys hazardous waste including refrigerant, ensuring greater than a 99.99% destruction efficiency.

## 1.3 RESPONSIBLE PARTY

### Project Proponent

Tradewater International, SRL  
Edificio TriBca, 19A, Rohrmoser, Calle 80, Ave 3  
San Jose, Costa Rica 10109  
Maria Jose Gutierrez Murray  
[mgutierrez@tradewater.us](mailto:mgutierrez@tradewater.us)

### Destruction Facility

Tredi Seche Group  
Parc Industriel de la Plaine de l'Ain BP55  
Saint Vulbas 01150 LAGNIEU France  
Raoul Goldbronn, Operations Manager  
[r.goldbronn@groupe-seche.com](mailto:r.goldbronn@groupe-seche.com)

## 1.4 VALIDATION AND VERIFICATION TEAM

Lead Validator and Verifier: Zach Eyler  
Team Members: Masury Lynch  
Internal Reviewer: Michael Cote

## 1.5 VALIDATION AND VERIFICATION CRITERIA

### 1.5.1 Validation and Verification Standards, Guidelines, and Tools

- Tradewater International - Honduras 1.0 Project Plan (November 7, 2022)
- Tradewater International Honduras 1.0 Monitoring Report
- ACR Standard, Version 7.0 (December 5020)
- ACR Validation and Verification Standard Version 1.1 (May 2018)
- The Destruction of Ozone Depleting Substances from International Sources, Version 1.0 (April 2021) (Methodology)
- ISO 14064-3:2006 "Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions"

### 1.5.2 Level of Assurance

The validation and verification were conducted to a reasonable level of assurance.

### 1.5.3 Materiality

The verification was conducted to ACR's required materiality threshold of  $\pm 5\%$  of the GHG project's emissions reductions or removal enhancements.

## 2 VALIDATION AND VERIFICATION PROCESS

---

As the first step in validation/verification activities, the Lead Validator/Verifier developed a Validation/Verification Plan to be followed throughout the validation and verification. The plan included the following activities:

- RCE completed a COI form for the validation on September 2, 2022 to identify any potential conflict of interest with the Project or Project Developer. The COI form was approved by ACR on September 6, 2022.
- RCE completed a COI form for the verification on October 6, 2022 after the end of the reporting period.
- RCE and Tradewater held a validation kick-off meeting on September 12, 2022. During the kick-off meeting RCE reviewed the validation objectives and process, reviewed the schedule, and submitted an initial document request.
- RCE and Tradewater held a verification kick-off meeting on October 12, 2022, prior to the site visit. During the kick-off meeting RCE reviewed the verification objectives and process and discussed the schedule.
- RCE performed a strategic review and risk assessment of the received data and support documents to understand the scope and areas of potential risk in the GHG emissions reductions.
- RCE developed a risk-based sampling plan based upon the strategic review and risk assessment. The validation/verification plan and sampling plan were used throughout the process and were revised as needed based upon additional risk assessments.
- RCE conducted a site visit to Tredi's facility in Saint Vulbas, France on October 12, 2022. During the site visit RCE observed the Tredi destruction process, scales, sampling process and equipment, as well as onsite GHG management systems and data gathering, monitoring, and handling practices. RCE interviewed key personnel involved in the destruction process. RCE met with the following personnel during the site visit:
  - Gina Sabatini – Manager, Tradewater
  - Raoul Goldbronn – Operations Manager, Tredi
  - Melanie Tatone – Sales Assistant, Tredi
  - Fabian Martinez – Logistics Manager, Tredi
  - Laurent Bonnamich – Environment and Regulations Manager, Tredi
- RCE performed a risk-based desktop review of the submitted validation/verification documents. The desktop review included an assessment of the GHG calculation methods and inputs, source data completeness, GHG management and monitoring systems and eligibility documentation.
- RCE submitted requests for corrective actions, non-material findings, additional documentation, and clarifications as necessary to Tradewater throughout the validation/verification.
- RCE's internal reviewer conducted a review of the validation/verification sampling, report, and statement.
- RCE issued a final validation/verification report, verification statement, and List of Findings.
- RCE held an exit meeting with Tradewater.

## 3 VALIDATION AND VERIFICATION FINDINGS

### 3.1 PROJECT BOUNDARY AND ACTIVITIES

RCE reviewed the project boundary and activities and confirmed that both were appropriately identified and described in the Project Plan. For the Project, Tradewater sourced ODS from a location in Honduras and was then shipped to Tredi's facility in Saint Vulbas, France.

The ODS was originally in disposable containers in Honduras that were collected and then shipped in bulk on pallets to the Tredi facility. The disposable containers were weighed at Tredi and then consolidated in to seven larger containers (6 1,000 liter and 1 500 liter). From these containers, samples were taken to determine ODS composition. Each container was destroyed as a separate destruction event and recorded on a separate certificate of destruction (COD).

The Project's temporal boundary is the crediting period from September 27, 2022 – September 26, 2032.

### 3.2 GHG SOURCES SINKS, AND RESERVOIRS

Table 1 shows the GHG emission sources included in the project boundary based on the Methodology. RCE confirmed that the Project Plan appropriately identifies the offset project boundary and includes all relevant SSRs.

**Table 1. GHG Emissions Sources**

Source	GHG	Description
SSR 5	CO <sub>2</sub>	Fossil fuel emissions from the vehicular transport of ODS from aggregation point to final destruction facility
SSR 6	ODS, CO <sub>2</sub> e	Emissions of ODS and substitute from use, leaks, and servicing through continued operation of equipment.
SSR 7	ODS and CO <sub>2</sub>	Emissions of ODS from incomplete destruction at destruction facility. Emissions from the oxidation of carbon contained in destroyed ODS. Fossil fuel emissions from the destruction of ODS at destruction facility. Indirect emissions from the use of grid-delivered electricity.

### 3.3 ELIGIBILITY

#### 3.3.1 ACR Eligibility

RCE confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 7.0 by reviewing the project proponent's Project Plan, Monitoring Report, and calculations as well as other supporting documentation described throughout this report (a full list of documents reviewed is in Appendix A).

- Start Date: The project start date is September 27, 2022.
- Crediting Period: The crediting period is ten years as specified by the Methodology – September 27, 2022 through September 26, 2032.
- Minimum Project Term: Projects with no risk of reversal subsequent to crediting have no required minimum project term.

- **Offset Title:** RCE confirmed that Tradewater has undisputed title to all offsets. Tradewater purchased refrigerant from the original aggregators of the ODS disposable containers. Tradewater then destroys the refrigerant at an eligible facility. All refrigerant transactions are described by Tradewater invoices and/or transfer documentation. Tradewater retains all legal claims to the environmental attributes and GHG benefits of its processes and the avoidance of future leaks into the atmosphere.
- **Additional:** RCE confirmed that the project is additional as described in Section 3.4.
- **Permanent:** In the absence of the project, the ODS would be used in cooling equipment or stored in stockpiles. In either scenario, the ODS will eventually leak into the atmosphere from the equipment, servicing the equipment, or through the degradation of the storage vessel. By destroying the refrigerant, Tradewater ensures that there will be no future leaks into the atmosphere. The Project will generate emission reductions that are permanent and have no risk of reversal.
- **Net of Leakage:** The Methodology does not specify leakage and the Project does not need to account for this.
- **Independently Validated and Verified:** RCE is a third-party validation and verification body that the project proponent has contracted to validate the project.
- **Community & Environmental Impacts:** RCE reviewed project impacts as described in section 3.6 of this report.

### 3.3.2 Methodology Eligibility

RCE reviewed the Project against the Methodology eligibility requirements and confirmed that the Project meets all requirements.

#### Eligible Destruction Facilities

The Project destruction occurred at the Tredi facility which is a facility that meets or exceeds the Montreal Protocol's TEAP standards. Specifically, RCE confirmed:

- **DRE of 99.99%**
  - Tredi has had multiple DRE tests completed at the facility over time. The specific DRE testing supplied as evidence was a test conducted by a third party (Bureau Veritas) in November 2020 using SF<sub>6</sub>. SF<sub>6</sub> is a more difficult gas to destroy versus CFCs and was determined to be acceptable. The objective of the test was to demonstrate CFC destruction effectiveness. The final calculated DRE was 99.99996%.
- **Emissions Levels**
  - The DRE test conducted on SF<sub>6</sub> demonstrated that the emission levels met all required TEAP limits as seen in Table 2.

**Table 2. Emission Results from DRE Test**

Emissions Type	Limit (Diluted/Concentrated)	Emissions Result
PCDDs/PCDFs	0.5/0.2 ng-ITEQ/m <sup>3</sup>	0.051 ng-ITEQ/m <sup>3</sup>
HCL/CL <sub>2</sub>	100 mg/NM3	0.2 mg/NM3
HF	5 mg/NM3	0.2 mg/NM3
HBr/Br <sub>2</sub>	5 mg/NM3	0.9 mg/NM3
Particulates	50 mg/NM3	7.0 mg/NM3
CO	100 mg/NM3	18.4 mg/NM3

- RCE confirmed that the Tredi facility meet all applicable monitoring and operational requirements under relevant environmental laws, as well as all applicable regulatory requirements that apply directly to ODS destruction activities during the time the ODS destruction. Please see section 3.9 for more detail.

#### Eligible ODS

RCE confirmed that the ODS was eligible including the following Methodology requirements:

- ODS destroyed under this Methodology must be from one or more of the eligible sources listed in subchapter 2.2.1 of the Methodology
  - ODS originated from small disposable containers in Honduras. The unused ODS was originally acquired in 2004 for potential use in vehicles or equipment but was never used.
  - The ODS destroyed as part of the project was CFC-12.
- Eligible ODS may not be combined within the same container.
  - Only CFC-12 was part of the Project.
- ODS produced exclusively for use as solvents or other applications not listed in subchapter 2.2.1, are not eligible.
  - RCE confirmed that the ODS was not produced for non-eligible applications.
- A single offset project may incorporate ODS obtained from one or more of the source categories listed in subchapter 2.2.1 of the Methodology.
  - The Project only source was small, disposable containers.
- Destruction activity must take place under one or more Certificates of Destruction.
  - The Project had seven destruction events, each with its own COD.
- All the following conditions must be met for multiple Certificates of Destruction to be eligible as a single project:
  - The project proponent is the same for all ODS destroyed;
    - Yes, all Tradewater
  - All ODS must be destroyed at the same eligible destruction facility; and
    - Yes, all destroyed at Tredi facility
  - The destruction activities must occur during one reporting period.
    - Yes, all included in one reporting period
- A Certificate of Destruction may be used for only one offset project.
  - Yes, a COD was issued for each of the seven destruction events
- Each Certificate of Destruction must be issued by the qualifying destruction facility and must include the following information:
  - Project Proponent
    - Yes, Tradewater is listed on each COD



- Destruction facility
  - Tredi is listed on each COD
- Certificate of Destruction ID number
  - Yes, each COD has a unique ID listed
- If applicable, serial, tracking, or ID number of all containers for which ODS destruction occurred
  - Yes, the serial number for each container is noted on each COD
- Mass and type of material destroyed from each container
  - Yes, the mass (kg) and CFC composition is noted on each COD
- Start and end destruction dates
  - Yes, the start and end dates are noted on each COD
- The ODS destroyed may originate from a single source or from numerous sources.
  - The ODS originated from one single source where the small containers were originally aggregated
- The handling, recovery, and disposal of ODS refrigerants must be performed by qualified technicians. Qualified technicians may only service refrigeration or air conditioning equipment they are certified to service if a refrigerant handling, recovery, and disposal certification program exists in the ODS source country. Technician name and certification type(s) (if applicable) must be retained as part of the documentation retention requirements of this Methodology.
  - Honduras: For just the handling of product, technicians in Honduras are not required to be licensed (no transferring of ODS occurred in Honduras).
  - France: Tredi employees are trained and have years of experience handling refrigerants and attestations regarding training was provided.

### 3.4 LOCATION

The Project ODS was sourced from outside the U.S. The original location of the ODS was at Servicios y Repuestos Europeos S.A. de C.V. (SYRE). SYRE is located at 3QMW+Q57, Calle Golan, Tegucigalpa, Honduras.

### 3.5 ADDITIONALITY

The Project meets the requirements for the demonstration of additionality specified by the ACR Standard by exceeding the approved performance standard defined in the Methodology and demonstrating surplus to regulations.

#### 3.5.1 Legal Requirement Test

There is no law, regulation, or legally binding mandate requiring the destruction of ODS in Honduras. Honduras does have the Executive Agreement 006-2012, General Regulation on the Use of Ozone Depleting Substance that regulates certain aspects of ODS. The regulation allows the recycling, destruction and export of ODS. The Project passes the legal requirement test.

#### 3.5.2 Performance Standard Evaluation

The Project meets the project definition and other eligibility requirements in the Methodology and therefore passes the performance standard.

### 3.6 START DATE

The Project's start date is September 27, 2022 which is the date when the first destruction event initiated. RCE confirmed this with a review of Tredi's continuous emissions monitoring system (CEMS) data and also confirmed that it matches the COD.

### 3.7 REPORTING PERIOD

The Project's reporting period is from September 27, 2022 through September 29, 2022. RCE confirmed that all requirements of the Methodology for multiple destruction events (7) in one reporting period were met. RCE also confirmed that the reporting period begins on the start date.

### 3.8 CREDITING PERIOD

The Project's crediting period was confirmed as September 27, 2022 through September 26, 2032.

### 3.9 REGULATORY COMPLIANCE

RCE confirmed regulatory compliance for the Project including the collection, recovery, storage, transportation, and destruction of the ODS, including disposal of the post-destruction waste products that are directly applicable to the destruction activities.

#### Collection/Recovery/Storage

There were no applicable regulations for the storage of the ODS material at the facility in Honduras.

#### Transportation

RCE confirmed that all applicable regulations and procedures were followed for the transport of the ODS from its source to the Tredi facility. A summary of the transport process and application requirements is noted below.

From the source location the ODS was transported to Cortes Port, Honduras by the transport company Transportes Ebenezer. This was coordinated by Honduras Environmental Services who also prepared a Stuffing Report to ensure that the container fulfilled all the national and international requirements. This was required as the material was considered hazardous. In addition, the ODS was sent with a Multimodal Dangerous Goods form from Honduras to its final destination in France since it is classified as hazardous waste. The ODS was received in Le Havre Port, France by the company Transports Olivier Leloup. They transported the ODS to the Tredi facility.

Since the ODS is considered hazardous waste it is subject to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel). To be exported according to Basel, Tradewater received an Export Authorization from the Honduras authorities. Tradewater, via Tredi, received permission to import the ODS into France as required under French law. Permission was granted by the European Commission on Climate Action. It was necessary for Tredi to act as a surrogate for Tradewater because Tredi is a registered entity with permission to handle and destroy dangerous goods.

Additional requirements for Basel were followed including requesting the authorization of the Honduras State Secretary in the Natural Resources and Environment Department. The Honduras State Department then requested the authorization to the other countries that are part of the transportation route, which are the United States and France.

### Destruction

RCE confirmed that the Tredi facility was in compliance during the Project's reporting period. RCE discussed compliance with Tredi personnel and confirmed that there are compliance inspections conducted annually by the French authorities. The CY2022 inspection occurred on June 14, 2022 and a letter was issued on June 28, 2022 documenting the inspection.

For Tredi's permit and inspection there are three 3 levels of findings:

1. With Administrative Follow-up: This is the highest level in which an identified non-compliance leads to a proposal for action and change. The facility may be required to temporarily suspend operations depending on the infraction.
2. Subject to Administrative Follow-up: For these items, further information is required of the facility before the Directorate can determine whether the identified issue is one of non-compliance requiring action or correction. In these cases, the facility is responsible for providing additional information or further response explaining how they are in compliance and to provide this information within the timeframe indicated by the inspector.
3. Without Administrative Follow-up: No action is required.

The inspection contained 6 findings and 15 observations. None of the findings were classified as "With Administrative Follow-Up" (non-compliance). Three of the findings were "Without Administrative Follow-Up" and the other three were designated as "Subject to Administrative Follow-up."

Tredi's deadline to address the three "Subject to Administrative Follow-Up" findings was September 28, 2022 and RCE confirmed that Tredi met this deadline through a written response dated September 14, 2022. Based on Tredi's response letter, RCE confirmed that all of the issues identified as "Subject to Administrative Follow-Up" were either not related to the Project or are not instances of non-compliance. RCE confirmed the authorities will not necessarily respond with a letter to close the findings and usually will discuss them as the following year's inspection. As of the conclusion of this engagement no letter has been received to date.

## **3.10 PERMANENCE**

The emissions reductions from the destruction of ODS can be deemed as permanent because they are destroyed at or greater than 99.99% efficiency.

## **3.11 ENVIRONMENTAL AND COMMUNITY IMPACTS**

The Project Plan includes a comprehensive summary of the Project activity's net positive environmental impacts. Destroying ODS avoids the future leakage of the ODS into the atmosphere. There are no negative

community or environmental impacts for the Project. The Project Plan also identifies contributions as aligned with relevant sustainable development goals (SDGs) including:

- SDG 8: The Project contributes to the local economic development in Honduras by financing local partners to handle the ODS material that has been identified and collected, as well as partners who transport the ODS material within Honduras, creating job opportunities at the local level.
- SDG 12: The Project supports the collection and destruction of a high GWP gas, assisting in the development and use of safer and more environmentally friendly alternatives.
- SDG 13: The Project reduces GHG emissions based on destroying high GWP refrigerant gases.

RCE confirmed that the Project is not expected to promote significant negative environmental impacts.

### 3.12 LOCAL STAKEHOLDER CONSULTATION

The Methodology does not require public consultation from stakeholders, but Tradewater did complete stakeholder engagement as part of the Project activities. This engagement included with technicians in Honduras, HVAC companies and Honduras regulators.

### 3.13 SOURCE OF ODS

RCE confirmed that the source of all Project ODS met all Methodology requirements including:

- Owner of the ODS prior to acquisition by the project proponent
  - Ecológica S.A. de C.V – located at Lomas del Mayab, edificio Casa Noble, II Nivel, distrito Central, Tegucigalpa, Honduras
- Physical address of the ODS prior to acquisition by the project proponent and facility name (if applicable)
  - SYRE - located at 3QMW+Q57, Calle Golan, Tegucigalpa, Honduras
- If sourced from equipment or refrigeration system: identification of any refrigeration or air conditioning equipment or system by serial number
  - N/A
- If sourced from other supplies: an affidavit, certification, or attestation by the prior owner asserting the date the owner transferred title of the ODS to the project proponent, whether the prior owner is a manufacturer of refrigerant, importer of refrigerant, or wholesale distributor of refrigerant
  - Transfer documentation provided from original owner Ecologica to Tradewater.
- Serial or ID number of any containers used for storage and transport.
  - Yes, all containers had ID numbers as noted in the Way Bill Honduras document (H0210707001-H02107015, H02107017-H02107491, H02101-102)

RCE also confirmed that the Project did not destroy ODS sourced from government stockpiles or inventories.

### 3.14 CHAIN OF CUSTODY AND OWNERSHIP DOCUMENTATION

RCE confirm that Tradewater collected and maintained documentation on the chain of custody of the ODS from the original source at SYRE to the Tredi destruction facility. Bills of lading, manifests, packing

documentation and other documentation was provided confirming the transport process as outlined in section 3.9 of this report.

In addition, the Project provided the names, addresses, and contact information of all entities buying and selling the Project ODS, including the mass of ODS at the transaction.

- Seller: Ecologica S.A. - Bodega SYRE, Colonia el Prado, Tegucigalpa, Honduras
- Buyer: Tradewater – Edificio TriBca, 19A, Rohrmoser, Calle 80, Ave 3 San Jose, Costa Rica 10109
- Mass: 6,509.49 kg

RCE confirmed that ownership of the ODS and all rights associated with it was transferred from Ecologica to Tradewater with a Transfer of Ownership document.

RCE also verified the chain of custody documentation for the ODS samples taken for the Project and shipped from the Tredi facility to the Bureau Veritas Commodities Antwerp N.V. (Bureau Veritas) laboratory located at Romeynsweel 14, 2030 Antwerp, Belgium. All documentation met Methodology requirements and matched all relevant dates and information found in corresponding documentation.

### 3.15 ODS COMPOSITION AND QUANTITY ANALYSIS

#### 3.15.1 Scales

RCE confirmed that Tredi used a calibrated scale to measure the pre- and post-destruction weights for the destruction events. The containers were weighed on a Precia Molen Service scale, model - X201-As. RCE viewed the scale during the site visit. RCE verified that:

- A single scale was used for both the full and empty weights
  - Yes, the same scale was used
- The full mass must be measured no more than 48 hours prior to commencement of destruction per the destruction system monitoring data
  - Yes, confirmed for each destruction event
- The empty mass must be measured no more than 48 hours after the conclusion of destruction per the destruction system monitoring data
  - Yes, confirmed for each destruction event
- Each single compartment, cylinder, drum, or any other eligible ODS container that has been identified and destined for destruction must be weighed separately, sampled separately, and treated as a separate destruction event
  - Yes, each was weighed separately and identified as a separate destruction event
- Recovery, collection, and aggregation activities may occur until the container has been identified and destined for destruction. After the ODS container has been identified and destined for destruction, ODS must not be added or removed, except for the purpose of sampling and analysis.
  - Yes, once all material was consolidated into the seven containers at Tredi no other material was added or removed.
- RCE confirmed that the containers were not permanently affixed to a detachable trailer
  - RCE confirmed that each container was weighed on an individual scale
  - RCE confirmed that each was placed on the scale motionless for at least 3 minutes

The scale used for the Project was not inspected and calibrated quarterly per the Methodology requirements. French law only requires annual calibration, which the facility met. The scale was calibrated

on June 27, 2022 and was found to be in good condition. Tradewater requested a methodology deviation from ACR for this situation and was approved on November 9, 2022.

### 3.15.2 Composition Sampling

RCE confirmed the procedures for the sampling of the non-mixed ODS for the destruction events met the requirements of the Methodology by reviewing the documentation provided by Tredi. RCE also discussed these procedures with Tredi personnel during the site visit to ensure that employees conducting sampling activities are knowledgeable of the proper procedures.

RCE also confirmed that the Bureau Veritas laboratory in Belgium used for composition and concentration analysis is a laboratory accredited to ISO/IEC 17025.

For sampling, RCE confirmed the following:

- The samples must be taken while ODS is in the possession of the company that will destroy the ODS
  - RCE confirmed that the samples were taken at the Tredi facility.
- Samples must be taken by a technician unaffiliated with the project proponent
  - RCE confirmed that the samples were taken by Tredi personnel.
- Samples must be taken with a clean, fully evacuated sample bottle that meets applicable U.S. Department of Transportation requirements with a minimum capacity of one pound
  - RCE confirmed through discussions with Tredi personnel and by reviewing the Standard Operating Procedures document.
- Each sample must be taken in liquid state
  - RCE confirmed through discussions with Tredi personnel and by reviewing the Standard Operating Procedures document.
- A minimum sample size of one pound must be drawn for each sample
  - RCE confirmed through discussions with Tredi personnel and sampling documentation provided.
- Each sample must be individually labeled and tracked according to the container from which it was taken, and the following information recorded: time and date of sample, name of project proponent, name of technician taking sample, employer of technician taking sample, volume of container from which sample was extracted, and the ambient air temperature at time of sampling
  - RCE confirmed through discussions with Tredi personnel and sampling documentation provided.
- Chain of custody for each sample from the point of sampling to the laboratory must be documented by paper bills of lading or electronic, third-party tracking that includes proof of delivery
  - RCE confirmed through documentation provided by Tredi as well as the Primo Sol Group Lancut shipper.

### Laboratory Analysis Reports

RCE reviewed the lab analysis reports provided by Bureau Veritas for the destruction events. RCE confirmed that the analysis demonstrates that the ODS met all the requirements as outlined in the Methodology. The analysis provided:

- Identification of the ODS
- Purity of the ODS mixture by mass using gas chromatography

- Moisture level in parts per million demonstrating a moisture content of less than 75 percent of the saturation point of the major ODS species
- Analysis of high boiling residue (HBR) indicating less than 10 percent by mass
- Analysis of other ODS

### 3.16 DESTRUCTION FACILITY MONITORING REQUIREMENTS

RCE confirmed that the Tredi destruction followed all Methodology monitoring requirements. Tredi provided an Excel file downloads of the real-time monitoring parameters data for the reporting period. In addition, Tredi provided other source documentation regarding the Project destruction events to confirm proper operation and time and dates. The CEMS parameters are monitored continuously with two separate computer systems/ software programs. A summarized file with all monitoring parameters was with the combined data was provided for all destruction events. The following information was tracked during the destruction events:

- Feed rate (lbs/hr)
  - There are two feed lines that can be used for ODS (GAZ1 and MCS). Both were used during the Project.
- Operating temperature and pressure
  - Tredi tracks temperatures (°C)
  - Tredi tracks pressure (mbar)
- Effluent discharges
  - Water discharge is tracked (m<sup>3</sup>/h)
  - Water pH is tracked
- Emissions of CO
  - CO emissions are monitored in mg/Nm<sup>3</sup>
- Destruction End Date

### 3.17 BASELINE SCENARIO

The project activity is the destruction of ODS to avoid future leakage into the atmosphere. GHG emissions are avoided because in the baseline scenario, the ODS would have been used to charge or recharge refrigeration or air conditioning equipment or stored in collection tanks causing emissions to be released. The Methodology establishes the baseline emission rates for refrigerants and RCE confirmed that the Project Plan appropriately identifies the baseline scenario.

### 3.18 DATA MANAGEMENT SYSTEM AND MONITORING PLAN

RCE reviewed Tradewater and Tredi's processes for data collection and management and determined that they were sufficient to meet all ACR and Methodology requirements. RCE gained an understanding of the controls put in place to account for the ODS received, sampled, and destroyed through interviews with key personnel, the site visit to Tredi's destruction facility, and the review of all documentation provided by Tradewater.

RCE confirmed that Tradewater's Project Plan includes a Monitoring Plan that identifies all Methodology required data and parameters that must be monitored. The Monitoring Plan includes all relevant data parameters and appropriately identifies units of measurements, data sources, methodologies, uncertainty, monitoring frequency and procedures, and QA/QC procedures. After discussions with

Tradewater and reviews of project documents, RCE determined that the Monitoring Plan accurately reflects how Project data is monitored and recorded. Tradewater implemented the monitoring plan as stated in the Project Plan during Project activities.

### 3.19 PROJECT DATA AND GHG EMISSIONS REDUCTION ASSERTION

RCE reviewed the Project Plan, Project data, and calculations to ensure that appropriate equations were used in calculating baseline emissions, project emissions, and emissions reductions.

#### 3.19.1 Baseline Emissions

Baseline emissions include the emissions that would have occurred had the ODS been used in existing equipment or stored indefinitely. RCE used the total amount of ODS destroyed as found on the CODs provided by Tredi and then removed the amount of high boiling residue (HBR) and moisture determined by the Bureau Veritas lab analyses. Once this weight was removed, the remaining weight was multiplied by the percent compositions of eligible refrigerant in the material destroyed as documented on the lab analyses. The weight of eligible material was then converted from kg to metric tons to calculate  $Q_{refr,i}$  for each eligible refrigerant.  $Q_{refr,i}$  was then multiplied by the appropriate 10-year cumulative emission rate and GWPs for each refrigerant to determine  $BE_{refr,i}$ . Due to rounding, some values might not equate to the final values claimed by Tradewater.

#### 3.19.2 Project Emissions

RCE calculated project emissions for the destruction events. RCE calculated the project emissions from substitute refrigerants by multiplying the quantities of eligible ODS by the appropriate refrigerant substitute emission factors. RCE calculated the project emissions from transportation and destruction by multiplying the total weight of all ODS destroyed in the CODs by the appropriate default emission factor. RCE then added these values together to determine total project emissions. Due to rounding, some values might not equate to the final values claimed by Tradewater.

#### 3.19.3 Emissions Reductions

RCE verified that Tradewater calculated emissions reductions according to relevant Methodology equations and that the methods are included in the Project Plan and Monitoring Report. RCE calculated emissions reductions for the reporting period according to the equations defined in the Methodology and the Project Plan and found the assertion to be free of material misstatement.

## 4 VALIDATION AND VERIFICATION RESULTS

---

RCE developed one List of Findings for both the validation and verification notifying Tradewater of corrective action requests (CARs), non-material findings (NMs), additional documentation requests (ADRs), and clarification requests (CRs). Tradewater appropriately responded to all items in the List of Findings. The List of Findings is provided as Appendix B.



## 5 VALIDATION AND VERIFICATION CONCLUSION

RCE conducted a risk-based validation and verification of the Tradewater International Honduras 1.0 project that included a strategic review of the project data, documentation, and emission reduction calculations. The objective of the validation activities was to assess the project design, baseline scenario, and monitoring plan and to ensure compliance of the Project Plan to the assessment criteria defined in Section 1.5.1. The objective of the verification activities was to conduct an independent assessment of the project reporting period and ex-post GHG emission reductions resulting from the Project.

Based on the review and the historical evidence collected, RCE concludes to a reasonable level of assurance that the GHG assertion is free of material misstatement. The emission reductions resulting from the ODS destruction for the reporting period September 27, 2022 to September 29, 2022 can be considered in conformance with the:

- ACR Standard, Version 7.0 (December 5020)
- ACR Validation and Verification Standard Version 1.1 (May 2018)
- The Destruction of Ozone Depleting Substances from International Sources, Version 1.0 (April 2021)
- ISO 14064-3:2006 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”

Table 3 provides a summary of the emissions reductions.

**Table 3. Emissions Reductions**

Vintage	Baseline Emissions (MTCO <sub>2</sub> e)	Project Emissions (MTCO <sub>2</sub> e)	Emissions Reductions (MTCO <sub>2</sub> e)
2022	66,301	4,440	61,861

**Lead Validator and Verifier**



**Zach Eyler**

**Internal Reviewer**



**Michael Cote**

## 6 APPENDIX A—DOCUMENTS REVIEWED

---

1. ACR Deviation Approval
2. ACR Deviation Request
3. Basel import and export documents
4. Bureau Veritas ISO 17025 certification
5. Bureau Veritas service offering
6. CEMs data
7. Chain of Custody manifest
8. CODs (7)
9. DRE Report - HCH
10. DRE Report - PCB
11. DRE Report - SF6
12. ER Assertion spreadsheet
13. France land transport documents
14. GHG Project Plan, multiple versions
15. Honduras land transport documents
16. Inspection report
17. Lab analyses
18. Marine transport documents
19. Moisture saturation chart
20. Monitoring report, multiple versions
21. Raw data extraction from CEMS systems
22. Sampling certificates
23. Scale calibration
24. Summary of Tredi Compliance inspection
25. Transfer of Ownership documents
26. Tredi CFC Destruction SOP
27. Tredi GHG Report to EU
28. Tredi operating permit
29. Tredi response letter
30. Tredi training attestations
31. Weight tickets (pre/post)

## 7 APPENDIX B—LIST OF FINDINGS

---

Includes Corrective Action Requests (CAR), Non-Material Findings (NMs), Additional Documentation Requests (ADR), and Clarification Requests (CR), as relevant.

Corrective Action Request, Non-Material Finding, Additional Documentation Request, or Clarification Request ID#	Finding	Section of Methodology	Client Response	RCE response	Client Response	Additional RCE response	Open or Closed
CAR 1	Please correct the GHG Plan for the following: -Discuss how the Project meets eligibility requirements found in section 2.1 of the Methodology. See CAR 2 below. -Discuss applicable environmental laws, testing, etc. in more detail and how regulatory compliance (collection/recovery, transport, destruction) will be confirmed in the future. (2.1 II/3.7). Detail on regulations for Tredi facility is not clear. -Discuss all eligibility requirements of 2.2 -Provide an address for the original source of ODS in Honduras. (6.1 II B) -Provide complete information for sections 6.1, 6.2 and 6.3 of the Methodology and how the Project meets these requirements.	2.1, 2.2, 3.7, 6.1, 6.2, 6.3	The GHG Plan has been updated, specifically under sections A3 (Table 1 and body), A4, D1, and F1.	The GHG Plan has been updated appropriately: -Information added for 2.1 in A3 -Information on permits/regulatory compliance added to A3 -All eligibility requirements have been added to section A3 -Full address added to A4 -Information added to D1 for section 6.1., 6.2, 6.3. -SDGs updated in F1			Closed
CAR 2	Related to the Tredi destruction facility, information and evidence related to compliance with section 2.1 of the methodology should be clearly summarized and demonstrated in the GHG Project Plan and associated documents. -Specifically describe how Tredi meets the TEAP requirements including DRE testing and emission levels consistent with TEAP guidelines (Table 2-1 of TEAP report).  -If the SF6 testing is used to demonstrate TEAP compliance, please clarify the following: a) who completed this test? Tredi or 3rd party? b) reasoning as to why SF6 is most relevant to CFCs  -From the current documentation provided, it is unclear how the following requirement from section 2.1.I.B has been met: "Compliance can be demonstrated through the existence of appropriate permits or other regulatory documentation issued by a party to the Montreal Protocol documenting compliance with DRE and facility operational requirements." It seems that Tredi's permit does not have the necessary information and the other documentation is not from regulatory agency or party to Montreal Protocol.	2.1	The GHG Plan now addresses the TEAP requirements under section A3.	The GHG Plan has been updated with much greater detail on how the Tredi facility meets the TEAP requirements. Regarding the SF6 test: -Bureau Veritas completed the test -SF6 has a higher thermal stability than R12 (and therefore, more difficult to destroy as it can tolerate a higher temperature)  The additional clarifications demonstrate that the Tredi facility meets the requirements for demonstrating compliance with TEAP.			Closed
CAR 3	The provided CODs note 100% R12 which does not match the lab analyses.	2.2 VIII	Corrected CODs provided.	Revised CODs note correct R12 %.			Closed
CAR 4	The scale was not inspected quarterly and was not calibrated quarterly.	2.2 VIII	Seeking deviation from ACR.	Deviation received from ACR on 11/9/2022.			Closed
CAR 5	The provided CODs do not have the correct start date and end date for each destruction based on the provided CEMS.	2.2 VIII	The corrected CODs have been added to the folder.	Revised CODs have the correct destruction dates.			Closed
NM 1	The ER calculation has the following errors: -Destruction #6 does not have the correct weight or moisture.	5	This has been corrected.	Revised ER calculation is correct.			Closed
ADR 1	Please provide evidence on the qualifications of technicians handling the ODS.	2.2 (x)	Attestations of training have been previously provided, and a translation into English has been added to the folder. Unlike the US, there is no EPA 608 or equivalent certification required for handling ODS.	Documentation for Tredi has been provided, but what about technicians in Honduras (SYRE and ECO-LOGICA) ?	Technicians in Honduras are not required to be licensed for handling refrigerant as product (as no transferring of material or recovery was performed). As the refrigerant is categorized as waste upon transport, Servicios Ambientales de Honduras was hired to do the handling and packing. Servicios Ambientales De Honduras maintains a license for handling waste, which has been added to the folder.	Documentation and response acceptable.	Closed
ADR 2	Please provide the moisture saturation point for each sample.	Appendix B	Documentation provided.	Documentation acceptable.			Closed
ADR 3	For clarity, please provide a summary of the inspection report findings, their nature (violation, warning, administrative, etc.), their relevance to the Project, and Tredi's response.	3.7	The summary has been added to the folder.	This summary was very helpful, documentation accepted.			Closed
ADR 4	Please provide photos of the bottles used for taking samples.	Appendix B	Photos provided.	Documentation acceptable.			Closed
ADR 5	Documentation provided on sampling does not demonstrate: "Samples must be taken with a clean, fully evacuated sample bottle...". Please provide confirmation that this procedure was followed.	Appendix B (I.C.iii)	An SOP detailing these requirements was provided to Tredi for training prior to commencement of the project. A copy has been added to the folder.	SOP for Tredi provided and notes the full procedures for sampling, documentation accepted.			Closed
ADR 6	Please provide a copy of the destruction sheet for the Project as documented by the destruction operators/technicians.	6.1	Copy provided.	Documentation acceptable.			Closed

ADR 7	Please provide the "raw" data download of CEMS data relevant to the Project.	6.1	Raw data provided.	Documentation acceptable.			Closed
ADR 8	Please provide an updated ISO 17025 certification for BV - the file in SP will not open.	Appendix B	This document has been re-added to the folder.	Documentation acceptable.			Closed
CR 1	Please clarify whether this is the full address for the ODS source: SYRE - located at El Pradro Neighbourhood, Tegucigalpa, Honduras.	6.1	The address has been updated to include the Plus Code, an alpha numeric code used for addresses that do not have a formal street address and is based on GPS coordinates. Functionally, the address originally provided is what is used in Honduras.	Clarification accepted - additional detail added to GHG Plan.			Closed
CR 2	Lab samples for containers 3-4 are noted as 222591 and not 222565, please clarify.	Appendix B	These were noted as typos during the site visit.	Response acceptable.			Closed
CR 3	The Project Plan claims SDG1 for the Project, but it does not seem to directly align with the objectives on reducing poverty. Has the Project reviewed SDG 8?	8	This has been updated to reference SDG 8.	Response acceptable.			Closed