Validation and Verification Report

ACR893 Tradewater – Chile 1

September 24, 2024

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Introduction

Tradewater LLC (Tradewater) contracted with TÜV SÜD America, Inc. (TÜV SÜD) to perform the validation and verification of the ACR893 Tradewater - Chile 1 (Project) for the reporting period of July 9, 2024 through July 16, 2024 and a crediting period of July 9, 2024 to July 8, 2034 under the ACR program.

This report is documentation of validation and verification activities that TÜV SÜD performed for the Project located in Saint-Vulbas, France. For the validation, TÜV SÜD reviewed the project information as described in the Project Plan "Tradewater – Chile 1" dated September 2024 [ACR893_GHGPlan_v6.2 - signed]. For the verification, TÜV SÜD ensured that the GHG assertion was materially correct, that the data provided to TÜV SÜD was well documented, and that if Tradewater made any material errors, that these errors were corrected.

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 TÜV SÜD can be documented and if errors or omissions are detected, they be corrected.

TÜV SÜD 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.

Project Background

The Project destroys R-12 that was collected from multiple commercial stockpiles in Chile and aggregated at Regener Chile. Tradewater purchased the ODS from Regener Chile and transported the ODS from Santiago, Chile to Saint-Vulbas, France for destruction. 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 Trédi Saint-Vulbas (Trédi) destruction facility, which is operated by Séché Environment. Trédi operates a rotary kiln incinerator which destroys ODS at 1,100 degrees Celsius. This process ensures a 99.99% destruction efficiency.

Responsible Parties

Project Proponent

Tradewater LLC
1550 West Carroll Avenue, Suite 213
Chicago, IL 60607

Aggregator

Comercializadora JJR Ltda (Regener Chile)
Tucapel 1480, La Pintana
Santiago, Region Metroplitana, Chile

Destruction Facility

Trédi
Rue Charles de Gaulle
0150 Saint-Vulbas, France

Tradewater is responsible for the preparation and fair presentation of the GHG statement in accordance with the criteria listed below.

Validation and Verification Team

TÜV SÜD is responsible for expressing an opinion on the GHG statement based on the verification. The TÜV SÜD verification team consisted of the following individuals who were selected based upon verification experience and knowledge of ozone depleting substance projects.

Lead Validator and Verifier: Garrett Heidrick

Team Members: Masury Lynch, Hugo Flores, and Rafael Briones

Internal Reviewer: Phil Cunningham

Validation and Verification Criteria

Validation and Verification Standards, Guidelines, and Tools

- ACR Standard, Version 8.0 (July 2023)
- 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)
- Methodology Errata and Clarifications (January 2024)
- ISO 14064-3:2019 "Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas statements"

Level of Assurance

The verification was conducted to a reasonable level of assurance.

Materiality

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

Validation and Verification Process

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

- TÜV SÜD completed a COI form on June 13, 2024 to identify any potential conflict of interest with the Project, Project Proponent, or Project Developer. The COI form was approved by ACR on June 17, 2024. TÜV SÜD submitted revisions after approval.
- TÜV SÜD and Tradewater held a validation/verification opening meeting on July 15, 2024. During the kick-off meeting TÜV SÜD reviewed the validation/verification objectives and process, reviewed the schedule, and submitted an initial document request.
- TÜV SÜD 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 reduction.
- TÜV SÜD developed a risk-based evidence-gathering and sampling plan based upon the strategic review and risk assessment. The validation/verification evidence-gathering plan and sampling plan were used throughout the process and were revised as needed based upon additional risk assessments.
- TÜV SÜD conducted a site visit to Trédi located in Saint-Vulbas, France on August 2, 2024. During the site visit TÜV SÜD observed the weighing in, mixing, and destruction processes as well as onsite GHG management systems and data gathering, monitoring, and handling practices. TÜV SÜD interviewed key personnel involved in the destruction and aggregation processes.
- TÜV SÜD met with the following personnel during the site visit:
    - Gina Sabatini-Mattei – Manager of Verification and Logistics, Tradewater
    - Ana Laura Fernandez Galera – Logistics Associate, Tradewater
    - Raoul Goldbronn – Director of Process, Trédi
    - Damien Notteau – Business Developer, Trédi
- TÜV SÜD 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.
- TÜV SÜD submitted requests for corrective actions, non-material findings, additional documentation, and clarifications as necessary to Tradewater throughout the validation/verification.
- TÜV SÜD's internal reviewer conducted a review of the validation/verification sampling, report, and statement.
- TÜV SÜD issued a final validation/verification report, verification statement, and List of Findings.

- TÜV SÜD held an exit meeting with Tradewater.

Validation and Verification Findings

Project Boundary and Activities

TÜV SÜD reviewed the project boundary and activities and confirmed that both were appropriately identified and described in the Project Plan. For the Project, Regener Chile collected ODS from multiple commercial entities located near Santiago, Chile. The ODS was consolidated and stored in Regener's warehouse until Tradewater purchased the ODS and began the destruction process. The Project destroyed the R-12 at Trédi's facility in Saint-Vulbas, France.

All cylinders that were collected and aggregated at Regener Chile were shipped to Trédi where Trédi staff downloaded the cylinders into five bulking tanks. Once each bulking tank was full, a sample was pulled and sent to Bureau Veritas for analysis. Once analyzed, the destruction process began.

The Project's temporal boundary is the reporting period from July 9, 2024 – July 16, 2024.

GHG Sources Sinks, and Reservoirs

Table 1 shows the GHG emission sources included in the project boundary based on the Methodology. TÜV SÜD 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_2	Fossil fuel emissions from the vehicular transport of ODS from aggregation point to final destruction facility.
SSR 6	CO_2e	Emissions of ODS from use, leaks, and servicing through continued operation of equipment. Emissions of substitute from use, leaks, and servicing through continued operation of equipment.
SSR 7	ODS and CO_2	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.

Eligibility

ACR Eligibility

TÜV SÜD confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 8.0 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 July 9, 2024.
- Crediting Period: The crediting period is ten years as specified by the Methodology, July 9, 2024 – July 8, 2034.
- Minimum Project Term: Projects with no risk of reversal subsequent to crediting have no required minimum project term.
- Offset Title: TÜV SÜD confirmed that the project proponent has undisputed title to all offsets. The project proponent purchased refrigerant from Regener Chile's stockpiles and then destroyed the refrigerant at an eligible facility. All refrigerant transactions are described by Tradewater's Transfer of Ownership 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: TÜV SÜD confirmed that the project is additional as described under "Additionality."
- Permanent: In the absence of the project, the ODS would have been stored in stockpiles. The ODS will eventually leak into the atmosphere from 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 specifies that leakage does not need to be considered as it is unlikely that any emissions would occur outside the project boundary.
- Independently Validated and Verified: TÜV SÜD is a third-party validation and verification body that the project proponent has contracted to validate the project.
- Environmental and Social Impacts: TÜV SÜD reviewed project impacts as described below and in the *Environmental and Social Impact Assessment Report* and *Sustainable Development Goals* (*SDG) Contributions Report* uploaded to ACR.

Methodology Eligibility

TÜV SÜD reviewed the Project against the ACR Methodology eligibility requirements and confirmed the following:

- The Project collected ODS in Chile.
- The destruction facility is located at Rue Charles de Gaulle, 0150 Saint-Vulbas, France. GPS coordinates 45.83921, 5.27329.
- Trédi meets the requirements of the Montreal Protocol TEAP standards with an ODS destruction efficiency of 99.99%.
- The refrigerant meets the definition of eligible refrigerant sources, which must originate from equipment, systems, or other supplies outside of the United States.
- The destroyed ODS are eligible species; CFC-11, CFC-12, CFC-13, CFC-113, CFC-114, or CFC-115.

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.

Regulatory Additionality Test

No existing laws or regulations mandate the Project activity. During 2024, there were no requirements to destroy refrigerants in Chile. TÜV SÜD reviewed Chile's law Nº 20096-2006, which states the ODS can be recycled or treated as options, however it does not stipulate or require destruction. The Project passes the regulatory additionality test.

Practiced-Based Performance Standard Test

Per the Methodology, in the Business as Usual (BAU) scenario, the ODS would be used to recharge equipment and be released to the atmosphere due to equipment leaks or the refrigerant would be stored in containers for possible future use. Either way, the refrigerant would eventually leak into the atmosphere. By destroying the gas, Tradewater is going beyond the BAU scenario. The Project passes the performance standard test.

Permanence

The emissions reductions from the destruction of ODS can be deemed as permanent because they are destroyed at a facility with a 99.99% destruction efficiency.

Environmental and Social Impacts

The Project Plan, *SDG Contributions Report*, and *Environmental and Social Impacts Assessment Report* include 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 and *SDG Contributions Report* identify contributions as aligned with relevant SDGs including:

<u>Direct Positive Impact to SDG Targets</u>

- SDG 9.4 Industry Innovation and Infrastructure: As ODS refrigerants are either destroyed or utilized, innovation is required to replace the refrigerants with less harmful, yet equally as effective, alternatives to meet the needs of cooling, refrigeration, and climate-controlled transport throughout the world.
- SDG 12.4 Responsible Consumption and Production: The Project supports the collection and destruction of one of the most powerful greenhouse gases in the world, paving the way to the development and use of safer and more environmentally friendly alternatives.
- SDG 13.2 Climate Action: The phase-out to date of most ODS has not only led to the regeneration of the ozone layer but also to significant reductions in greenhouse gas emissions (GHG), as most ODS are also powerful GHGs.

<u>Indirect Positive Impact to SDG Targets</u>

- SDG 3.9 Good Health: Ozone layer depletion allows more UV radiation to reach the earth's surface, a contributing factor to melanoma skin cancer. Increases in UV radiation also cause other health concerns, including eye damage (e.g. cataracts), suppression of the immune system and premature skin aging. The destruction of ODS before it leaks contributes to reducing the number of deaths and illnesses from a thinning ozone layer.

- SDG 14.1 Life Below Water: The destruction of ODS protects the bodies of water and its species as the thinning of the ozone layer increases the UVB radiation, which can have negative impacts on survival rate, early developmental stages, and population numbers in different marine species.
- SDG 15.1 Life on Land: As Ozone Depleting Substances are potent greenhouse gases, their destruction contributes to climate change mitigation efforts as it avoids these gases to leak to the atmosphere, and as they prevent the thinning of the ozone layer it also protects the terrestrial biosphere and its capacity as carbon sink.

Furthermore, the *Environmental and Social Impact Assessment Report* identifies any positive or negative environmental or social impacts, including positive impacts for:

- Biodiversity Conservation and Sustainable Management of Living Natural Resources
    - Terrestrial and Marine Biodiversity and Ecosystems: UV rays from a deteriorating ozone layer have a negative effect on aquatic ecosystems, specifically phytoplankton, and other fauna's reproduction. By destroying ODS, the Project positively effects aquatic biodiversity by preventing ODS from entering the atmosphere and allowing the ozone layer to heal, reducing UV rays.
- Resource Efficiency and Pollution Prevention
    - Pollutant Emissions to Air: By destroying the ODS, the negative impacts to the ozone layer and atmosphere are eliminated.
    - Generation of Waste and Release of Hazardous Materials: ODS are considered hazardous waste. By destroying them, the project guarantees that the hazardous waste is disposed of safely and in accordance with the Montreal Protocol.

The validation team confirmed that the project activity will not promote significant negative environmental impacts.

Local Stakeholder Consultation

The Project had a 30-day public comment period where the Project Listing Form and project information were made available. No comments were received.

Point of Origin Determination

TÜV SÜD verified seven points of origin and one collection and aggregation facility. The collection and aggregation facility was Regener Chile located at Tucapel 1480, La Pintana, Santiago, Region Metroplitana, Chile.

The seven points of origin were as follows:

1. Fabian Iturra Corvalan: Pedro Fontova 4299, Comuna de Conchali, Santiago de Chile
2. Camilo Castillo: University of Santiago, Chile
3. Francisco Ponce: Lingue 645, Comuna de Rio de Janeiro, San Bernardo, Chile
4. INRA: Camino el Villorrio 20, Comuna Calera de Tango, Contado, Chile
5. Jorge Vasquez: Dr. Israel Roizblatt 54 Opto 11, Region de Valparaiso, Valparasio, Chile
6. Jose Luis Rojas: Tucapel 1480, La Pintana, Chile
7. Freddy Rebolledo: Las Carmelas 2067, La Florida, Santiago, Chile

Chain of Custody

TÜV SÜD verified the Chain of Custody (CoC) for the shipment from Regener Chile's warehouse to Trédi's destruction facility during the desktop review and site visit. Regener Chile shipped one container full of cylinders to Trédi. TÜV SÜD reviewed all bills of lading from Regener Chile to the port in Santiago, Chile; from the port in Santiago, Chile to the port in Le Havre, France; and from the port in Le Havre, France to Trédi's facility in Saint-Vulbas, France.

ODS Composition and Quantity Analysis

Scales

TÜV SÜD confirmed that Trédi used calibrated scales to measure the pre- and post-destruction weights of the bulking tanks. TÜV SÜD verified that all scales were calibrated quarterly according to the Methodology requirements.

Composition Sampling

TÜV SÜD 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 Tradewater. A third party, Trédi, was used for all sampling.

TÜV SÜD also confirmed that the Bureau Veritas laboratory used for composition and concentration analysis is a certified ISO IEC 17025 laboratory.

For sampling, TÜV SÜD confirmed the following:

- The samples must be taken while ODS is in the possession of the company that will destroy the ODS
    - TÜV SÜD confirmed that the samples were taken at the Trédi facility.
- Samples must be taken by a technician unaffiliated with the project proponent
    - TÜV SÜD confirmed that the samples were taken by Jerome Legin, a Trédi employee.
- Samples must be taken with a clean, fully evacuated sample bottle that meets applicable Department of Transportation requirements with a minimum capacity of one pound
    - TÜV SÜD confirmed through the ODS SOPs and sample tickets provided by Trédi.
- Each sample must be taken in liquid state
    - TÜV SÜD confirmed through the ODS SOPs and sample tickets provided by Trédi.
- A minimum sample size of one pound must be drawn for each sample
    - TÜV SÜD confirmed through the ODS Sampling Report signed by Jerome Legin of Trédi.
- 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
    - TÜV SÜD confirmed through the ODS Sampling Report signed by Jerome Legin of Trédi.

- 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
    - TÜV SÜD confirmed through the Chain of Custody form.

Refrigerant Analysis Reports

TÜV SÜD reviewed the Refrigerant Analysis Reports provided by Bureau Veritas for the destruction event. TÜV SÜD confirmed that the analysis demonstrates that the ODS met all the requirements as outlined in Appendix C of the Methodology. The analysis provided:

- Identification of the refrigerant
- Purity of the ODS mixture by weight
- Moisture level in mg/kg, which is functionally equivalent to parts per million, demonstrating a moisture content of less than 75 percent of the saturation point of the ODS species with the lowest saturation point that is at least 10 percent of the mixture by mass
    - Two samples failed the 75 percent test, see "Deviations."
- Analysis of high boiling residue (HBR) indicating less than 10 percent by mass
- Analysis of other ODS

Destruction Facility Requirements

TÜV SÜD confirmed that the Trédi destruction facility meets the TEAP requirements in the Methodology. TÜV SÜD reviewed the most recent DRE test from June 2024, which states the Destruction Removal Efficiency (DRE) of the system using SF_6 as the testing material is 99.99% removal efficiency. SF_6 is more difficult to destroy than the eligible ODS species, which ensures that all ODS species are being destroyed at an efficiency of 99.99% or greater.

Monitoring Parameters

Trédi provided an excel file download of the real-time monitoring parameters data for the reporting period as defined in Section 6.1 of the Methodology. The lead verifier also reviewed the data with Trédi personnel during the site visit. The CEMS parameters are monitored continuously, recorded every 15 minutes, and downloaded to excel on an as-needed basis. The following information was tracked during the destruction event:

- Date and time
- ODS feed rate (lbs/hr)
- Rotary kiln incinerator temperature (°C)
- Rotary kiln incinerator pressure (bar)
- CO flow rate (ppm)
- pH of effluent

TÜV SÜD confirmed that the rotary kiln incinerator unit operated within the parameters recorded during DRE testing or the parameters specified within their hazardous waste permit, and if the rotary kiln incinerator unit fell outside of these parameters, that the proper Startups, Shutdowns, or Malfunctions Plans (SSMPs) were used. There were no instances of shutdowns due to permit limit exceedances.

Certificate of Destruction

TÜV SÜD confirmed that the Certificates of Destruction contained Methodology required parameters.

- Project Proponent or Project Developer
- Destruction facility
- Certificate of Destruction ID number
- Serial, tracking, or ID number of all containers for which ODS destruction occurred
- Weight and type of material destroyed from each container
- Destruction Start Date
- Destruction End Date

Baseline Scenario

The baseline determines the emissions that would occur in the absence of the Project. 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 stored in collection tanks causing CO_2e emissions to be released. Instead, the ODS are purchased from stockpiles, aggregated, and destroyed, thus avoiding those emissions. The Methodology establishes the baseline scenario as the continued use or storage for future use of ODS. TÜV SÜD confirmed that the Project Plan appropriately identifies the baseline scenario.

Data Management System and Monitoring Plan

TÜV SÜD reviewed Trédi and Tradewater's processes for data collection and management and determined that they were sufficient to meet all ACR and Methodology requirements. The validation/verification team gained an understanding of the controls put in place to account for the ODS received, mixing and sampling, and destruction through interviews with key personnel, the site visit, and the review of all documentation provided by Tradewater. Trédi monitors the amount of ODS that are purchased, bulked for destruction, and sampled. Trédi also monitors the weight of ODS sent for destruction and the destruction process. Trédi's scales are calibrated quarterly. This activity is completed by Precia Molen Service. The ODS sent for destruction are analyzed by Bureau Veritas.

Tradewater's Project Plan includes a Monitoring Plan that identifies all monitored data and parameters. TÜV SÜD confirmed that the monitoring parameters and approaches conform to the methods required by the Methodology. The 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, TÜV SÜD determined that the Monitoring Plan accurately reflects how Project data is monitored and recorded. There is one deviation relevant to the Project activity against the requirements of the Methodology ("Deviations"). Tradewater implemented the monitoring plan as stated in the Project Plan during Project activities.

Project Data and GHG Emissions Reduction Assertion

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

Baseline Emissions

Baseline emissions include the emissions that would have occurred had the ODS been stored and leaked. TÜV SÜD used the total amount of ODS destroyed as found on the CODs provided by Trédi and then removed the amount of high boiling residue (HBR) and moisture determined by the lab analysis provided by Bureau Veritas. The remaining weight was multiplied by the percent composition of eligible refrigerants in the material destroyed.

The weight of eligible materials was then converted from pounds to metric tons to calculate Q_{refri} for each eligible refrigerant. Q_{refri} 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.

Project Emissions

TÜV SÜD calculated project emissions for the destruction events. TÜV SÜD calculated the project emissions from substitute refrigerants by multiplying the quantities of eligible ODS by the appropriate refrigerant substitute emission factors. TÜV SÜD 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. TÜV SÜD 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.

Emissions Reductions

TÜV SÜD verified that Tradewater calculated emissions reductions according to relevant Methodology equations and that the methods are included in the Project Plan.

TÜV SÜD 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. TÜV SÜD's calculated ERTs are shown in Table 2.

Table 2. TÜV SÜD-calculated ERTs (MT CO_2e)

Reporting Period	TÜV SÜD ERTs	Tradewater ERTs	Percent Difference
July 9, 2024 – July 16, 2024	40,403	40,402	0.00%

Deviation

The Project applied for one deviation related to moisture saturation requirements in Appendix B. Two samples diverged from the methodology requirements when their analyses returned a moisture saturation greater than 75% of the saturation point of the major ODS species in the samples. Tradewater applied a conservative calculation by removing the moisture content from the pre-destruction net weight, which reduces the total eligible weight for destruction.

ACR accepted this deviation on June 3, 2024.

Validation and Verification Results

TÜV SÜD developed one List of Findings for the validation and verification, notifying Tradewater of corrective action requests (CARs), non-material findings (NMFs), 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.

Validation and Verification Opinion

TÜV SÜD conducted a risk-based validation and verification of the Tradewater – Chile 1 Project according to the requirements found in ISO 14064-3:2019, 14065:2020, and 17029:2019. 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 "Validation and Verification Criteria." The objective of this verification was to ensure that the GHG statement is materially correct and conforms to all relevant criteria. The GHG statement is the responsibility of Tradewater.

A summary of the GHG statement is as follows:

- GHG-related activity: Ozone depleting substances destruction in Saint-Vulbas, France
- GHG statement: July 9, 2024 – July 16, 2024
- Criteria:
    - ACR Standard, Version 8.0 (July 2023)
    - 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)
    - Methodology Errata and Clarifications (January 2024)

The data and information supporting the GHG statement were historical in nature.

Based upon TÜV SÜD's review, the GHG statement meets all requirements except for the Methodology requirement for moisture saturation (Appendix B I.D.iii). The missed requirement is allowable via a deviation from ACR (see "Deviation").

TÜV SÜD has ensured Tradewater's effective use of controls related to the GHG statement. TÜV SÜD concludes that there is sufficient and appropriate evidence to support Tradewater's GHG statement and is issuing a Positive Opinion.

TÜV SÜD confirms that the GHG statement has been prepared:

- Without material discrepancy,
- In accordance with all applicable criteria, except for those listed above, and
- Verified to a reasonable level of assurance.

Table 3 provides a summary of the emissions reductions.

Table 3. Emissions Reductions (MT CO_2e)

Vintage	Baseline Emissions	Project Emissions	Emissions Reductions
2023	44,120	3,717	40,402

Note: Totals may not sum due to rounding

Lead Validator and Verifier

Heidrick, Garrett

Digitally signed by: Heidrick, Garrett
DN: CN = Heidrick, Garrett
Date: 2024.09.26 11:25:19 -07'00'

Garrett Heidrick

Internal Reviewer

Cunningham, Phillip

Digitally signed by: Cunningham, Phillip
DN: CN = Cunningham, Phillip
Date: 2024.09.26 11:26:58 -07'00'

Phil Cunningham

Appendix A—Documents Reviewed

1. Chain of Custody documentation
2. CEMS data report
3. Environmental reports for Trédi
4. Compliance documents and/or statements for applicable facilities
5. GHG assertion spreadsheet
6. All relevant permits
7. Weight tickets
8. Refrigerant analyses
9. SOPs
10. Scale calibrations
11. Trédi DRE testing
12. Tradewater regulatory compliance attestation
13. Tradewater Project Plan
14. Tradewater Monitoring Report
15. Tradewater Listing Form
16. Certificates of Destruction
17. Destruction process overview
18. All applicable hazardous waste permits
19. SSMPs
20. Ownership of environmental benefits
21. Deviation request
22. Training documents
23. Truck permits
24. Bureau Veritas ISO accreditation

Appendix B—List of Findings

Includes Corrective Action Requests (CAR), Additional Documentation Requests (ADR), and Clarification Requests (CR)

#	Finding and Date	Section of Methodology/ Program Document	Project Developer Response and Date	TUV SUD response and Date	Additional Project Developer Response and Date	Open or Closed
CAR 1	7/22/2024: I see that these items are in your SOPs, but there is no evidence that it is actually occurring: 1) all samples taken with a clean a fully evacuated sample bottle. 2) sample taken in liquid state.	Methodology Appendix B I.C.iii - iv	Reviewed on site	8/2/2024: Reviewed on site. Tredi showed bottom half of sample weight ticket that shows the checklist of how to prepare the sample bottle. These steps include cleaning, vacuuming, and taken in a liquid state.		Closed
CAR 2	7/23/2024: In the GHGPP: 1) Please add Regener Chile as a party since they are the source of aggregation in Chile. 2) Please update Table 5 to the most recent GWPs. 3) Sections E1, E3, and E7. Emissions will need to be adjusted based on response from CR10.	GHGPP Instructions	1) This has been added. 2.) Table has been updated. 3.)This has been adjusted.	8/16/2024: Updated.		Closed
CAR 3	7/23/2024: In the Monitoring Report: 1) Sections VI.1, VI.2, VI.4 and Vintage Table will need to be adjusted based on response from CR10.	Monitoring Report Instructions	Table has been updated.	8/16/2024: Updated.		Closed
ADR 1	7/18/2024: Can Annex 6 of the Tredi Permit be provided?	Methodology 3.7	Reviewed on site	8/2/2024: Reviewed on site. Annex 6 is confidential, but it shows that Tredi has the right to destroy R-12 among most HFC/HCFC/Halons/etc.		Closed

ADR 2	7/22/2024: What are the permit limits for feed rate, CO emissions, effluent discharge, and effluent pH?	Methodology 6.1 VI	Limits are outlined in the document "Tredi Permit EN" and are as follows: feed rate: 300 kg/h; CO: 50mg/m3 average daily; effluent discharge: 2,000 m3/d over 24 hrs; effluent pH: between 5.5 and 8.5 (or 9.5 if alkaline neutralization is used).	8/16/2024: What happens when pH goes above 9.5? From 7/15/2024 11:40 - 7/15/2024 13:10, the pH is above 9.5.	The pH measurement in the CEMS data is showing the pH reading in an internal channel of the destruction unit, not the actual effluent that is emitted as discharge. This measurement informs treatment needs prior to discharge.	Closed
ADR 3	7/22/2024: Please provide the right to export from Chile and the right to import from France.	Methodology 6.1 VIII	Reviewed on site	8/2/2024: Imports and exports follow the Basel Convention. So there are no rights for import or export.		Closed
ADR 4	7/22/2024: In the Sample Transport CoC folder, which document shows proof of delivery? Was that provided?	Methodology Appendix B I.C.vi.g	Reviewed on site	8/1/2024: Already in folder, just labeled differently. CMR document.		Closed
ADR 5	7/23/2024: Please provide proof that Bureau Veritas using AHRI 700 Standards.	Methodology Appendix B I.D	Email has been added to the folder.	8/16/2024: BV provided attestation via email stating that they use AHRI 700 standards.		Closed
ADR 6	8/16/2024: Please provide evidence that the scales are calibrated to 5% or better accuracy.	Metholody 6.2 1.B	The accuracy is about 0.1% Email from Raoul Goldbronn is included in the folder.	8/26/2024: Closed.		Closed
CR 1	7/18/2024: Are there any laws regarding the handling of ODS in Chile? Do they have a similar 608 certification like the US?	Methodology 3.7	8/1/2024: There are no certifications in Chile.			Closed
CR 2	7/18/2024: Were there any exceedances or violations at the destruction facility?	Methodology 3.7	Reviewed on site	8/1/2024: CEMS/Management system is directly linked to regulatory body. If there is an exceedance it is reported immediately and they shut down. Tredi confirmed on site that there has never been a shut down to permit exceedances.		Closed
CR 3	7/18/2024: Does France have any similar violation reporting systems like ECHO? Can the facility provide documentation, or is that the inspection report?	Methodology 3.7	Yes, France's reporting system can be accessed at: https://www.georisques.gouv.fr/risques/installations/donnees?page=1. All included inspection letters in the data room are sourced from this website.	8/16/2024: Closed.		Closed

CR 4	7/19/2024: Do the transportation companies have hazardous material licenses for moving refrigerant? Are they needed?	Methodology 3.7	All transport companies included are either eligible for or licensed in the movement of hazardous waste. Licenses and/or eligibility are a requirement of the Basel process before shipping may begin. The licenses for Chile transport and France transport have been added to the folder. Please note that the maritime line selected (Hapag Lloyd) does not have a formal license but is eligible under Basel to transport hazardous waste. You can read more on their website: https://www.hapag-lloyd.com/en/services-information/cargo-fleet/dg/safety-first.html	8/16/2024: Reviewed letters. Closed.		Closed
CR 5	7/22/2024: What's MCS in the CEMS? Column C.	N/A	Reviewed on site	8/2/2024: MCS is the feed line.		Closed
CR 6	7/22/2024: I can't tell, are the scales inspected and calibrated quarterly? Also where can I see that the scale is accurate within 5%?	Methodology 6.2	Reviewed on site	8/1/2023: Calibrated annually (required by law), calibrated during destruction events (requested by Tradewater).		Closed
CR 7	7/22/2024: In the "Final Weighing Record" why do 57833 and 873249 have extra sampling that occurred on 5/22/2024?	N/A	Reviewed on site	8/1/2024: Tested twice for moisture failing the first test. Requested deviation, which was accepted, so the second test is not needed.		Closed
CR 8	7/22/2024: What is the volume of the B1000 cylinders?	N/A	8/1/2024: 930 liters			Closed
CR 9	7/22/2024: Is mg/kg for moisture saturation functionally equivalent to ppm?	N/A	8/1/2024: Yes it is the same.			Closed
CR 10	7/22/2024: Destruction 9003304's sample shows R-12 and R-502. Why does Tradewater's calculation have R-115?	Methodology Appendix B I.D.ii	We had hypothesized that as R-502 is made up of R-22 and R-115, that by taking the lowest percentage possible of the R-115 constituent within the R-502 (therefore most conservative) we could qualify for ERTs from the R-115 portion. However, we have since removed this and will report only those constituents explicitly stated on the lab analyses.	8/16/2024: Removed. No difference in ERs.		Closed

CR 11	7/22/2024: Is the University of Santiago, Chile a government source?	N/A	It is a state institution. There is no mandate to destroy refrigerant in Chile, nor was destruction a condition for sale of material to Tradewater.	8/16/2024: Closed.		Closed
CR 12	7/23/2024: What is the address for Jorge Vasquez PoO? I cannot read the Jorge address.	Methodology 6.1 II.B	8/1/2024: See quantification sheet.			Closed
CR 13	7/23/2024: What are the RUN numbers in the attestations?	N/A	8/1/2024: Chilean ID numbers, like drivers license IDs.			Closed