ACR893

Tradewater – Chile 1

September 26, 2024

Tradewater LLC

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A. PROJECT OVERVIEW

A1. PROJECT TITLE

Tradewater – Chile 1 (hereinafter referred to as "Project").

A2. PROJECT TYPE

Ozone Depleting Substances

A3. NON-TECHNICAL EXECUTIVE SUMMARY OF PROJECT

The project activity is the destruction of eligible ODS refrigerant, specifically CFC-12 with trace amounts of CFC-502, for which ownership was transferred to Tradewater LLC for the purpose of destruction. The ODS was acquired from multiple sources in Chile and aggregated at one central location for ease of shipping to a destruction facility in France. The ODS is unused material stored in disposable cylinders (virgin material) in the case of the CFC-12, and from recovery containers in the case of the CFC-502. The original owners were either unable to sell or use the ODS, or the ODS is the remaining material from refrigeration technicians who are no longer utilizing the CFC-12. The Chilean government does not have a mandate to destroy this material but also has no funding mechanism to dispose of the ODS refrigerant. Tradewater's role is to provide financial and logistical support to ensure the material is destroyed following all the Montreal Protocol, Basel Convention, and ACR requirements.

Background information

Refrigerants such as CFC-12 were used for industrial refrigeration and in air conditioners for automobiles since the 1930s. CFC-12 was fully banned from production under the Montreal Protocol in 2010 because of its adverse impacts on the ozone layer. Although production was banned by the Montreal Protocol, its continued usage was not.

In Chile, ODS material has been stockpiled over the years by technicians, training centers, and private companies that collected unused material that was originally imported for use or sale, mainly to be used in air conditioning for automobiles. Due to the decreased supply and the advancement of technologies, as well as the implementation of HFC refrigerants, many cars have changed the refrigerant used in their air conditioning systems. As such, stockpiles of unsold, new CFC-12 require an end-of-life solution, one of which is destruction. However, there is currently no law, rule or regulation requiring the destruction of ODS, and no equipment or technology capable of destroying ODS consistent with the requirements of the Montreal Protocol within Chile. As a result, the ODS material in Chile is eventually released into the atmosphere as there is no alternative usage or end-of-life mechanism in-country.

Project Purpose and Objectives

The purpose of this project is to offset the emissions that would have been released by refrigerants as a result of their eventual leakage. The project achieves this by collecting end-of-life refrigerant and transporting it to a destruction facility where it is ultimately destroyed.

A4. PROJECT ACTION

Description of Prior Physical Conditions

In the business-as-usual scenario, ODS refrigerants are stockpiled and stored in various parts of the country in disposable containers that are not designed to store refrigerant for extended periods of time. Under this scenario, ODS refrigerants will leak into the atmosphere because the containers in which they are held degrade overtime or slowly leak.

Description of how the Project will Achieve GHG Reductions

This project achieves emissions reductions through the destruction of ODS refrigerant, instead of holding it in containers at risk of eventual leakage or release. This Project measures the amount of assumed emissions if the ODS were vented under business-as-usual scenario against the emissions prevented by the destruction of the same material. Destruction results in significantly lower net emissions than the business-as-usual scenario.

Description of Project Technologies, Products, Services, and Expected level of Activity.

After the ODS refrigerant stockpiles were transferred to Tradewater's ownership, the containers were counted and weighed at the REGENER facilities in Chile and then consolidated into tonners at Séché Tredi facility, located in St Vulbas, France, where the containers were destroyed. The ODS refrigerant is destroyed in a rotary kiln incinerator.

As part of the monitoring activities, the destruction facility monitors and registers the relevant parameters in their CEMS data system in real time and then records the parameters every 5 minutes. The samples were taken by trained Tredi technicians at the destruction facility and were sent to a third-party qualified laboratory for analysis.

A5. PROOF OF PROJECT ELIGIBILITY

The Project is eligible under the "Methodology for the Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emissions Reductions and Removals from the Destruction of Ozone Depleting Substances from International Sources, Version1.0". Additional eligibility requirements as noted in the ACR Standard, Version 8.0, are included below.

Table 1: Eligibility requirements from the Methodology, sections 2.2.1 and 3.

Criterion	Requirement	Proof of Project Eligibility
ODS Material	Only the destruction of eligible ODS refrigerants CFC-11, CFC-12, CFC-13, CFC-113, CFC-114 and CFC-115 are eligible under this Methodology.	The Project consists of mostly CFC-12, which is an eligible refrigerant under this Methodology.
Stockpile Limitation	Any refrigerants obtained from a government stockpile or inventory are eligible only if they are not required to be destroyed or converted.	The refrigerant in this project is not from a government stockpile.
Location	Project located outside of the United States and its territories.	The ODS is sourced in Chile. Destruction occurred at Séché Tredi, St Vulbas, France.

Additionality	Eligible offsets must be generated by projects that yield additional GHG reductions that exceed any GHG reductions otherwise required by law or regulation or any GHG reductions that would otherwise occur in a conservative business-as-usual.	There is no mandate to for the destruction of ODS CFC refrigerant the country of origin (Chile). In the absence of this project, the ODS refrigerant would have been vented or leaked into the atmosphere under business-as-usual scenarios. The project sources meet all other requirements of the Methodology.
Start date	Project start date is defined as the date on which the earliest destruction activity of a project commences, documented on a Certificate of Destruction.	The project start date and destruction commencement date are the same date as documented on the included Certificate of Destruction (7/9/2024).
Reporting Periods	Reporting period must not exceed 12 consecutive months. Project reporting period begins on the project start date.	Project reporting period begins on the project start date and does not exceed 12 months. This reporting period is 7/9/2024 -7/16/2024
Crediting periods	Project crediting period is ten years and begins on the project start date.	Project crediting period begins on the project start date and will be ten years. The crediting period is 7/9/2024 – 7/8/2034.
Regulatory Compliance	Projects must maintain material regulatory compliance. To do this, a regulatory body/bodies must deem that a project is not out of compliance at any point during a reporting period.	This project maintains regulatory compliance through the entirety of the reporting period.

Table 2: Applicability Requirements from ACR Standard version 8.0, chapter 3 (not already covered in the Methodology).

Criterion	Requirement	Proof of Project Eligibility
Minimum Project Term	The duration of the Minimum Project Term for specific project types is defined in the relevant ACR sector requirements and/or methodology. Project types with no risk of reversal after crediting have no required Minimum Project Term.	There is no risk of reversal for this project, so the minimum project term is not applicable
Real	ERTs shall only be issued for a GHG emission reduction or removal that has been verified against an approved ACR Methodology to have already occurred. ACR will not credit a projected stream of credits on an ex-ante basis.	The GHG reductions occurred after the ODS was destroyed, and prior to the verification process and credit issuance.
Emission or Removal Origin	For projects reducing or removing direct emissions, the following requirement applies: The Project Proponent shall own, have control over, or document that effective control exists over the GHG sources and/or sinks from which	Tradewater LLC (hereinafter referred to as “Tradewater”) is the project proponent and owns the ODS obtained for this project.

	the emissions reductions or removals originate.	
Offset Title	Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration, including chain of custody documentation if offsets have been sold in the past. Title to offsets shall be clear, unique, and uncontested.	Tradewater has provided documentation of undisputed title of all offsets. Title to offsets is clear, unique, and uncontested. No offsets from the Project have been sold in the past.
Additional	Every project shall use either an ACR-approved performance standard and pass a regulatory surplus test, as detailed in the Methodology, or pass a three-pronged test of additionality in which the project must: 1. Exceed regulatory/legal requirements; 2. Go beyond common practice; and 3. Overcome at least one of the three implementation barriers: institutional, financial, or technical.	The Project fulfills the performance standard set in the Methodology and passes a regulatory surplus test, ensuring that the GHG emission reductions are additional of those that would have occurred in the advance of the Project Activity and under a business-as-usual scenario.
Permanent	For projects with a risk of reversal of GHG removal enhancements, Project Proponents shall assess risk using an ACR-approved risk assessment tool.	There is no risk of reversal of GHG removal enhancements for this project type.
Net of Leakage	ACR required Project Proponents to address, account for, and mitigate certain types of leakage, according to the relevant sector requirements and methodology conditions. Project Proponents must deduct leakage that reduces the GHG emissions reduction and/or removal benefit of a project in excess of any applicable threshold specified in the methodology.	Leakage is not applicable for this project type.
Independently Validated	ACR requires third-party validation of the GHG Project Plan by an accredited, ACR approved VVB once during each Crediting Period and prior to issuance or ERTs. Validation can be conducted at the same time and by the same VVB as a full verification; however, the deadline for validation is determined by the methodology being implemented by the project start date (see above). Governing documents for validation are the ACR Standard, including sector-specific requirement	This project is validated and verified by a third-party ACR-approved VVB in accordance with the ACR Standard.

Independently Verified	Verification must be conducted by an accredited, ACR-approved VVB prior to any issuance of ERTs and at minimum specified intervals. ACR requires verifiers to provide a reasonable, not limited, level of assurance that the GHG assertion is without material discrepancy. ACR's materiality is 5%.	This project is validated and verified by a third-party ACR-approved VVB in accordance with the ACR Standard.
Community and Environmental Impacts	ACR requires that all projects develop and disclose an impact assessment to ensure compliance with environmental and community safeguards best practices. Environmental and community impacts should be net positive, and projects must "do no harm" in terms of violating local, national, or international laws or regulations. Project Proponents must identify in the GHG Project Plan community and environmental impacts of their projects(s). projects shall also disclose and describe positive contributions as aligned with applicable sustainable development goals. Projects must describe the safeguard measures in place to avoid, mitigate, or compensate for potential negative impacts, and how such measures will be monitored, managed, and enforced.	The Project maintains a net positive impact, as the quantified amount of GHG emissions has been eliminated and serves as an effort to mitigate against climate change. Upon careful examination, no negative impacts from the project have been identified. Destruction of ODS refrigerant is highly monitored by the destruction facility, and destruction occurred within all applicable regulatory limits for emissions and local environmental impact. The positive contributions aligned with applicable Sustainable Development Goals are described in the document ACR893_ SDGContributions_v1**.0** Safeguards measures in place to avoid, mitigate, or compensate for potential negative impacts are described in document ACR893_EnvironmentalAssessment_v1.

<u>Eligibility of destruction facility</u>

Tredi, located in Saint-Vulbas, France, is the destruction facility used for this project. In order to manage hazardous wastes, France requires the following permits and documentation:

- An annual report to the EU on GHG Emissions.
- Permit from the Office of Planning, Urban Planning and Classified Facilities which grants authorization to operate as a hazardous waste incineration and treatment facility.
- Complementary provisions allowing for the storage of pressurized gases, the types of gases permitted on site, and the security and safety measures in place when utilizing the incinerator are also required for the nature of business at Tredi.

These permits are issued by Tredi's local *Prefet.* Legislation around environmental code and principles can be found in France's *Charter for the Environment* ('the Charter'). Enforcement of regulations and policies from

the Charter is conducted by the relevant General Directorate. In the case of Tredi, this Directorate is the Auvergne-Rhone-Alpes Regional Directorate for the Environment, Planning, and Housing.

Inspections occur on a yearly basis. At the time of the project and to date, Tredi is compliant with the relevant environmental laws and all applicable regulatory requirements, as evidenced by their continued permitted operation and lack of actionable findings from the most recent inspection.

In addition to France's operation and permitting requirements, the facility is eligible under the Methodology. Although not an RCRA facility, Tredi exceeds the TEAP requirements referenced in the Methodology.

TEAP criteria includes the following:

- DRE of 99.99% or greater.
- Emissions limitations as described in the chart below.
- Technical capability through demonstrated destruction of a refractory chlorinated organic compound or ODS itself, at a rate no lower than 1.0 kg/hr.

Table 3: TEAP Criteria

Performance Qualification	Units	Diluted Sources	Concentrated Sources (ODS)
DRE	%	95	99.99
PCDDs/PCDFs	ng-ITEQ/NM^3	0.5	0.2
HCl/CL_2	mg/NM^3	100	100
HF	mg/NM^3	5	5
HBr/Br_2	mg/NM^3	5	5
Particulates	mg/NM^3	50	50
CO	mg/NM^3	100	100

As described in the DRE Report conducted by a third-party Bureau Veritas, the DRE results for Tredi are 99.994% efficiency. Therefore, the facility exceeds the TEAP requirements.

The emissions results from testing, taking the highest value during the reading, are as follows:

Table 4: Tredi emissions testing results

Emissions type	Limit (Diluted/Concentrated)	Emissions Result
PCDDs/PCDFs	0.5/0.2 ng-ITEQ/NM^3	0.00149 ng-ITEQ/NM^3
HCl/CL_2	100 mg/NM^3	0.02 mg/NM^3
HF	5 mg/NM^3	0 mg/NM^3
HBr/Br_2	5 mg/NM^3	1.1 mg/NM^3
Particulates	50 mg/NM^3	2.0 mg/NM^3
CO	100 mg/NM^3	36.4 mg/NM^3

As demonstrated above, Tredi exceeds the TEAP requirements on all emissions.

Finally, through destruction testing of SF_6, a chemical with a higher thermal stability than R-12 (and therefore, more difficult to destroy as it can tolerate a higher temperature), a flow rate of 91 kg/h was achieved. Therefore, Tredi meets all of the TEAP requirements.

A6. PROJECT LOCATION

The project location is in Chile, in that all ODS material will be collected and/or acquired in Chile. The company REGENER was the source of aggregation activities. REGENER is located at Tucapel, 1480, 8840167 La Pintana, Region Metropolitana, Chile. The GPS coordinates for REGENER are:

Latitude: -33.58664

Longitude: -70.65972

All collected ODS refrigerant was consolidated into tonners and destroyed at Tredi Séché, located at Rue Charles de Gaulle. 0150 Saint-Vulbas, France. The GPS coordinates for Tredi are:

Latitude: 45.83921

Longitude: 5.27329

A7. PARTIES

Table 3. Parties involved in the Project.

Entity	Name	Role/Title	Contact Info	Responsibility
Tradewater LLC	Timothy H. Brown	Chief Executive Officer	1550 W. Carroll, Suite 213 Chicago, IL 60607 +1 312 273 5122	Project Proponent
Tradewater LLC	Gabe Plotkin	Chief Operating Officer	1550 W. Carroll Suite 213 Chicago, IL 60607	Project Proponent
Tradewater LLC	María Gutiérrez Murray	Senior Director of International Projects	1550 W. Carroll, Suite 213 Chicago, IL 60607 Mob. +1 3122735122	Project Proponent
Comercializadora JJR Ltda (Regener)	Jose Luis Rojas	General Manager	Tucapel 1480, La Pintana, Santiago, Region Metroplitana, Chile	Aggregator; Exporter
Tredi Séché	Raoul Goldbronn	Operations Manager	TREDI SA Parc Industriel de la Plaine de l'Ain BP55 Saint Vulbas 0115 LAGNIEU	Destruction Facility

			France Mob. +33 625 59 60 58	

Tradewater LLC- Project Proponent

Tradewater LLC has operated since 2016 and is a mission-driven company. Tradewater's subsidiary, Tradewater International SRL, operates around the world in support of Tradewater LLC's project efforts. Any mention of Tradewater International is interchangeable with Tradewater LLC.

Tradewater's aim is to collect and destroy greenhouse gases found around the world while creating economic opportunity.

Séché Tredi – Destruction facility

Tredi is a subsidiary of Séché Environnement, a family owned and independent company, with a presence in 15 countries. Tredi has been working in waste management for over 35 years, and has managed domestic, industrial, and hazardous waste. The destruction facility is located in Saint-Vulbas, Ain and utilizes a rotary kiln incineration process for the destruction of waste.

Comercializadora JJR Ltda (Regener) – Aggregator and Exporter

Regener has been in the HVAC business since 2017, primarily managing end-of-life for equipment containing refrigerant and reclaiming and reselling the refrigerant into the market when possible. Regener was the aggregation point for all refrigerant included in this project and served as the exporter under the Basel process.

A8. AGGREGATION AND PROGRAMMATIC DEVELOPMENT APPROACH

Not applicable.

B. METHODOLOGY

B1. APPROVED METHODOLOGY

The Project uses the Methodology for Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emissions Reductions and Removal from the Destruction of Ozone Depleting Substances from International Sources Version 1.0 (hereinafter referred to as "Methodology").

B2. METHODOLOGY JUSTIFICATION

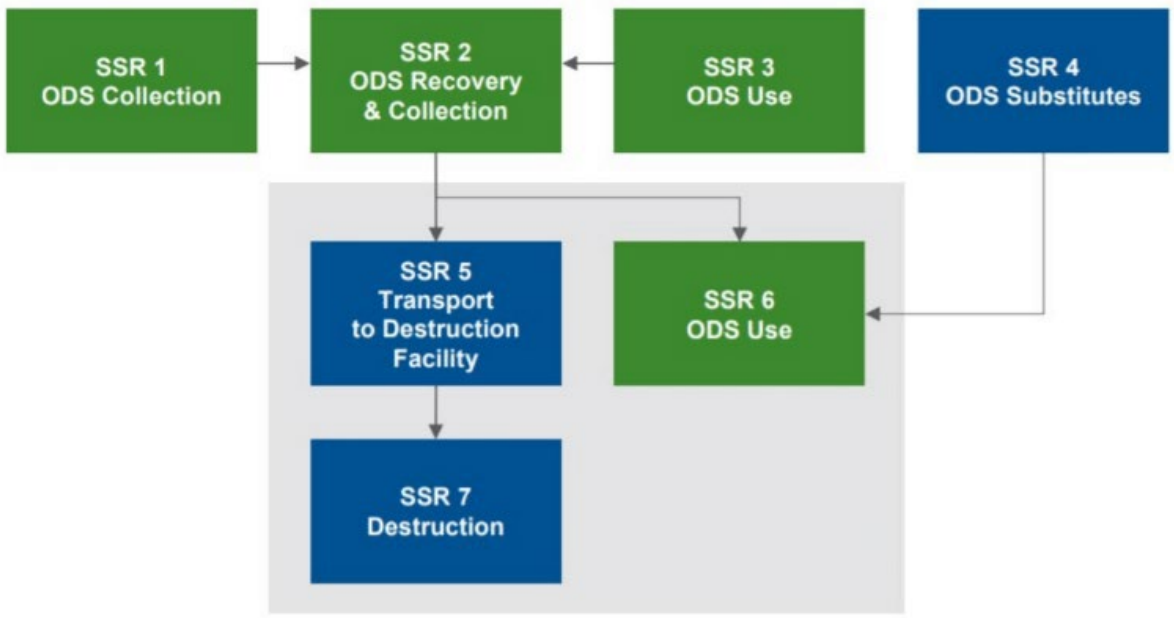
The project involves the destruction of ODS refrigerant CFC-12. Chile, as the origin country, does not have a law requiring destruction of refrigerants under the Montreal Protocol. Because these refrigerants have been

phased out worldwide and there are less impactful substitutes, their destruction will not trigger any additional CFC refrigerant production. Additionally, the material has been kept by the stakeholders for up to 15 years and they have not been able to manage the material as it is no longer of use in the technicians' work.

B3. PROJECT BOUNDARIES

The geographic boundary of the Project is the Tredi Séché, located at Rue Charles de Gaulle, 01150 Saint Vulbas, France. The reporting period is 7/9/2024 – 7/16/2024 and the crediting period is 7/9/2024 – 7/8/2034.

Additional SSRs within the project boundaries are ODS and Transport to Destruction Facility.



B4. IDENTIFICATION OF GHG SOURCES, SINKS, AND RESERVOIRS

Table 4. Greenhouse Gases and Sources (source: Methodology)

GHG Source	Source Description	Gas	Quantification Method
SSR 5. Transport to Destruction Facility	Fossil fuel emissions from the vehicular transport of ODS from aggregation point to final destruction facility	CO_2	$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF})$
SSR 6. ODS Use	Emissions of ODS from use, leaks, and servicing through	ODS	$\boldsymbol{BE_{refr}} = \sum_{i} (\boldsymbol{Q_{ref,i}} \times \boldsymbol{ER_{refr,i}} \times \boldsymbol{GWP_i})$

	continued operation of equipment.		
SSR 6. ODS Use	Emissions of substitute from use, leaks, and servicing through continued operation of equipment.	CO_2e	$\boldsymbol{Sub_{refr}} = \sum i(\boldsymbol{Q_{ref,i}} \times \boldsymbol{SEi})$
SSR 7. Destruction	Emissions of ODS from incomplete destruction at destruction facility.	ODS	$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF})$
SSR 7. Destruction	Emissions from the oxidation of carbon contained in destroyed ODS.	CO_2	$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF})$
SSR 7. Destruction	Fossil fuel emissions from the destruction of ODS at destruction facility.	CO_2	$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF})$
SSR 7. Destruction	Indirect emissions from the use of grid-delivered electricity.	CO_2	$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF})$

B5. BASELINE SCENARIO

The baseline scenario selected for the project related to ODS refrigerant, in which the following emissions rates are assumed under business-as-usual:

Table 5. Parameters for ODS Refrigerants (source: Methodology)

ODS	100 year global warming potential (MT CO_2E/MT ODS)	10-year cumulative emission rate (%/10 years)	Substitute Emissions (MT CO_2E/MT ODS)
CFC-11	4,663	89	201
CFC-12	10,239	95	812
CFC-13	13,893	61	7,569
CFC-113	5,824	89	219
CFC-114	8,592	78	660
CFC-115	7,665	61	1,868

In this Project, the CFC-12 material was originally stored in various locations in Chile and because of the lack of destruction capacity in the country, it was exported to France. The material was transferred to Tradewater and finally destroyed at Séché Tredi, in France. The movement of the material was performed following the Basel Convention requirements and both Chile and France's local regulations. There is no mandate in Chile to destroy the ODS refrigerant.

All ODS sat in deteriorating cylinders with no alternative use. Without particular intended or viable use, these cylinders would remain in storage, where they risk leaking or being released into the atmosphere.

B6. WITH-PROJECT SCENARIO

The project scenario is the destruction of CFC-12 which otherwise would remain in storage indefinitely until a management option could be found and financed. As the ban on production and import of these refrigerants diminished the equipment and vehicles that use them in the country, the ODS material found would remain in stockpiles if it is not given a proper final disposal.

The project abides with all applicable rules and regulations, as there is no mandate to destroy ODS in the source country. The ODS refrigerant was collected in Chile from technicians who cannot use them anymore as the material is phased out and replaced by other technologies. The refrigerant was also collected from unsold material that private entities imported for sales purposes. Therefore, the material has been kept in storage for up to 15 years. All the activities related to ODS are to be performed by individuals or legal businesses authorized and supervised by the Ministry of Health and therefore all Tradewater partners are authorized under Chile's legislation.

For the destruction in France, the ODS is handled according to the French Environment Code, specifically EC 1005-2009. Transport operations for hazardous waste comply with the Environment Code requirements relating to the collection, transport, trading, and brokerage of waste, as well as with ADR and IMDG regulations. Once at Tredi, the ODS is destroyed in compliance with the applicable laws and regulations. This includes environmental and health and safety regulations.

B7. GHG EMISSION REDUCTIONS AND REMOVALS

Through this project, greenhouse gas reductions are achieved by preventing the inevitable release of the refrigerant ODS into the atmosphere – either through leakage from degrading systems and storage, or from accidental venting during the movement of the cylinders. The reductions are calculated by baseline emissions minus the project emissions.

B8. PERMANENCE

There is no risk of reversal for this project offsets.

C. ADDITIONALITY

C1. BASELINE

For this project, additionality has been demonstrated according to the corresponding ACR Standard and Methodology by an approved Performance Standard test and an approved Regulatory Surplus Test, as detailed in sections C2 and C3.

C2. PERFORMANCE STANDARD

ODS refrigerant that are no longer produced, imported, and used are stored in containers indefinitely until an end-of-life solution is implemented. As a result of the introduction of newer technologies that use improved ODS, the material in question has been in possession by owners of refrigerant stores and refrigerant technicians who stopped using and selling the material. All ODS sources for this project came from Chile and were destroyed in a destruction facility that meets the Montreal Protocol's TEAP standards provided in the *Report of the Task Force on Destruction Technologies.*

The GWPs of CFC-12 are above in table 5. The GHG emissions generated by the project are significantly less than the business-as-usual scenario for all refrigerant types, and the emissions reductions are greater than those in the baseline scenario.

The CFC ODS sourced for this project, along with the project activities, meet the eligibility requirements:

- This material would eventually be vented into the atmosphere in the business-as-usual scenario.
- The material was destroyed via an eligible destruction facility.
- Origin and Chain of Custody for this material is outlined in the supporting documents.
- Tradewater has monitored the applicable SSRs within the project boundary.
- The emissions have been quantified and align with Chapter 5 of the Methodology, as indicated in section E and as shown in the Project Assertion Spreadsheet.

C3. REGULATORY SURPLUS TEST

In order to pass the regulatory surplus test, a project must not be mandated by existing laws, regulations, statutes, legal rulings, or other regulatory frameworks in effect as of the start date of the project that directly or indirectly affected the credited offsets.

There is no mandate to destroy in the source country. Chile has no law, statute, or other regulatory framework mandating the destruction of ODS. The law N° 20096-2006 about Control Mechanisms applicable to ODS states that Ozone Depleting Substances can be recycled or treated as options for their management. Specifically, Article 14 mentions the Health Ministry is responsible for the "ruling applicable to the generation, storage, transportation, treatment or recycling" of ODS. In summary, there is no mandate to destroy ODS in Chile because other ways of management are specified and regulated in its legislation.

With respect to the permissibility of the storage, reuse, recycle and potential reclamation in Chile:

- In 2004, the Health Ministry published the Reglamento Sanitario Sobre el Manejo de Residuos Peligrosos, which is a regulation concerning the handling of hazardous wastes.

- This regulation codifies ODS as Class II.27. According to Article 52 in this regulation, ODS waste can be reused under the approval of the Health Ministry if the reuse does not harm the public or the environment.

- Tradewater retains a permit confirming the activities that Regener can do, which is to recycle and reuse refrigerants. By implication, this means that Chile permits the continued recycle/reuse of refrigerants in the country.

The Project also meets regulatory compliance:

- Collection and/or Recovery: The source of refrigerant is evaluated on eligibility as prescribed by the Methodology and confirmed through research on applicable laws and certifications in Chile as the source country. Any necessary certifications or permits are collected.
- Transport: Transportation laws in the source country are researched and ground transport eligible for transporting the material are utilized. For shipment between countries to the destination country, the Basel Convention rules are followed, and can be demonstrated through the required paperwork and permissions. Delivery to the eligible destruction facility is through similarly licensed and eligible hazardous waste carriers in the destination country, according to local laws. Regular review of certificates for operations are reviewed to ensure compliance.
- Destruction: After an eligible destruction facility has been identified, compliance is maintained through the review of public inspection records, through communication with the facility's compliance personnel, and contact with authorities wherever possible.

The source of the material, Regener, maintains an operational permit in which they are permitted to the "reception, storage, dismantling, of refrigeration and air-conditioning equipment and marketing parts and components from the activity; dismantling; recycling and recovery of refrigerant gases." Specifically (and relevant to the Project), they are permitted to perform these activities with R-12 refrigerant (and others). Further, Decree 148, Article 18 states that "The recycling of hazardous wastes shall be authorized by the Health Authority when this does not pose a risk to public health or the environment." The wastes encompassed in this decree are "organohalogens" for which all CFCs are a part. CFCs can hence be recycled when authorized, as is the case for Regener.

Therefore, the destruction of the material in the Project meets regulatory surplus as defined by the Methodology.

C4. COMMON PRACTICE TEST

N/A

C5. IMPLEMENTATION BARRIERS TEST

N/A

D. GHG MONITORING PLAN

D1. MONITORED DATA AND PARAMETERS

Parameters in this section, other than the Legal Requirement Test, only include the measured monitoring parameters, tagged as "Measured" within the ACR ODS Methodology table 6.4.

Data or Parameter Monitored	Regulatory Surplus test
Unit of Measurement	N/A
Description	Emissions reductions achieved through this project and methodology must not be required by any existing law or regulation.
Data Source	Ministry of Health
Measurement Methodology	N/A
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Review of existing laws around ODS refrigerant management
QA/QC Procedure	Regular review of current laws and regulations surrounding ODS refrigerants, particularly CFCs.
Notes	

Data or Parameter Monitored	Mass of ODS mixture in each container
Unit of Measurement	Kilograms
Description	The total quantity of ODS refrigerant in a container.
Data Source	Manual weight tickets taken pre and post destruction for each individual container
Measurement Methodology	Section 5.1 of Methodology
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Gross weight of cylinders using a calibrated scale, taken before and after destruction.
QA/QC Procedure	Scale calibrations, CEMs data confirms destruction parameters throughout process.
Notes	

Data or Parameter Monitored	Concentration of ODS mixture in each container
Unit of Measurement	Percent
Description	The distribution of ODS refrigerant in each container (along with any other contaminants, moisture, or HBR)
Data Source	Sample data via lab analysis provided by an ISO 17025 certified third-party laboratory.
Measurement Methodology	Appendix B of the Methodology

Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Lab Analysis Report
QA/QC Procedure	Composition and concentration are analyzed at an ISO 17025-certified laboratory that is not affiliated with the project proponent using the AHRI 700 Standard
Notes	

Data or Parameter Monitored	$Q_{refr,i}$
Unit of Measurement	MT
Description	The total weight of ODS refrigerant sent for destruction (baseline).
Data Source	Weight tickets taken both pre- and post-destruction coupled with lab analysis
Measurement Methodology	Section 5.1 of Methodology
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Gross weight of cylinders using a calibrated scale, taken before and after destruction
QA/QC Procedure	Scale calibrations; CEMs data confirms destruction; lab analysis confirms mass percentage and identification of ODS refrigerant
Notes	

Data or Parameter Monitored	Q_{ODS}
Unit of Measurement	MT
Description	The total quantity of ODS refrigerant (including HBR, moisture, etc.) transported to the destruction facility.
Data Source	Weight tickets taken both pre- and post-destruction coupled with lab analysis and quantifications
Measurement Methodology	Section 5.2 of Methodology
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Net weight of cylinders using calibrated scale; lab analysis
QA/QC Procedure	Scale calibrations; CEMs data confirms destruction; lab analysis confirms mass percentage and identification of ODS refrigerant
Notes	

E. GHG QUANTIFICATION

E1. BASELINE SCENARIO

The baseline emissions are approximately 44,120 mtCO_2eq. For details, please see Project Assertion - ACR 893 Chile 1_V5 in the MR.

$$\boldsymbol{BE_{refr}} = \sum_{i} (\boldsymbol{Q_{ref,i}} \times \boldsymbol{ER_{refr,i}} \times \boldsymbol{GWP_i})$$

here		Units
$\boldsymbol{BE_{refr}}$	Total quantity of refrigerant project baseline emissions during the reporting period	MT CO_2e
$\boldsymbol{Q_{ref,i}}$	Total quantity of refrigerant ODS sent for destruction by the offset project	MT ODS
$\boldsymbol{ER_{refr,i}}$	10-year cumulative emission rate of refrigerant ODS	%
$\boldsymbol{GWP_i}$	Global warming potential of ODS	MT CO_2e / MT ODS

E2. AFOLU PROJECT INVENTORY

N/A

E3. WITH-PROJECT SCENARIO

The project emissions are approximately 3,717 mtCO_2eq. For details, please see Project Assertion - ACR 893 Chile 1_V5 in the MR.

Total Project Emissions

$$\boldsymbol{PE_t} = \boldsymbol{Sub_{refr}} + \boldsymbol{Tr\&Dest}$$

Where		Units
$\boldsymbol{PE_T}$	Total quantity of project emissions during the reporting period	MT CO_2e
$\boldsymbol{Sub_{refr}}$	Total GHG emissions from substitute refrigerant	MT CO_2e
$\boldsymbol{Tr\&Dest}$	Total GHG emissions from transportation and destruction of ODS	MT CO_2e

Project Emissions from the Use of Non-ODS Refrigerants

$$Sub_{refr} = \sum_{i}(Q_{ref,i} \times SE_i)$$

Where		Units
Sub_{refr}	Total quantity of refrigerant substitute emissions	MT CO_2e
$Q_{ref,i}$	Total quantity of refrigerant i sent for destruction	MT ODS
SE_i	Emission factor for substitute(s) for refrigerant i, per Table 3	MT CO_2e/ MT ODS destroyed

Project emissions from Transportation and Destruction using the Default Emissions Factors

$$Tr\&Dest = (Q_{ODS} \times EF)$$

Where		Units
$Tr\&Dest$	Total GHG emissions from ODS transportation and destruction, as calculated using default emissions factors.	MT CO_2e
Q_{ODS}	Total quantity of ODS sent for destruction in project.	MT ODS
EF	Default emission factor for transportation and destruction of ODS (7.5)	MT CO_2e/ MT ODS

E4. LEAKAGE

As defined by the ACR Standard V 8.0, leakage is a term that refers to secondary effects where the GHG emissions reductions of a project may be negated by shifts in market activity or shifts in materials, infrastructure, or physical assets associated with the project. Projects involving the destruction of CFC refrigerant would not encourage the increase of CFC production. Therefore, for this Methodology, leakage is not applicable.

E5. UNCERTAINTY

Calculating uncertainty is not applicable because the methodology as written does not require statistical sampling, nor is it a requirement within the quantifications.

E6. QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

Description of GHG management system

The destruction facility, Tredi Séché Group has a document retention requirement of a minimum of five years, up to lifetime of facility. All documents are stored electronically and backed up.

The project proponent, Tradewater LLC, has a document retention policy of 15 years. Documents are stored in a third-party cloud system that is backed up on a regular basis, with hard copies saved on-site

wherever possible. All documents relevant to the project that are obtained from the destruction facility are subject to Tradewater's document retention policy.

Continuous Emissions Monitoring System (CEMS) data from the destruction process is uploaded onto Tredi's database. Data for each reporting period is exported by a Tredi employee to an Excel file for Project Proponent and a VVB to evaluate. Personnel on-site monitors all incineration activities to prevent errors, exceedances, or other anomalous incidents in the project. If an exceedance or issue is triggered, the system automatically shuts down. A report is also automatically generated and sent to the prefet regulatory body for notice and evaluation.

Calibration procedures and frequency of calibration.

The scales used to determine the mass of ODS is calibrated periodically by a third party, with a requirement by the French government for annual recalibrations. If the schedule calibration does not fall within the quarter of the destruction event, Tradewater requests an additional calibration to comply with the protocol. The latest calibration was performed on 7/5/2024.

Internal audit and quality assurance/quality control procedures.

Tredi Séché Group undergoes annual procedure reviews and required reading. Qualified technicians are constantly monitoring the emissions levels during destruction events. The destruction facility is regulated by both the European Environment Agency and the French Ministry of the Ecological Transition. Tradewater LLC reviews all paperwork to ensure that it satisfies protocol requirements.

E7. GHG EMISSION REDUCTIONS AND REMOVALS

The emission reductions are 40,402 mtCO_2eq. The project emissions are quantified using the below equation indicated in the Methodology. For details, please see Project Assertion - ACR 893 Chile 1_V5 in the MR.

$$\boldsymbol{ER_t = BE_t - PE_t}$$

Where		Units
$\boldsymbol{ER_t}$	Total quantity of GHG emission reduction the reporting period	MT CO_2e
$\boldsymbol{BE_t}$	Total quantity of project baseline emissions during the reporting period	MT CO_2e
$\boldsymbol{PE_t}$	Total quantity of project emissions during the reporting period	MT CO_2e

E8. *EX ANTE* CARBON CREDIT PROJECTION

Ex-ante estimation methods are not applicable to this methodology, as the emissions reductions for the 10-year crediting period are determined in the first reporting period.

E9. *EX ANTE* ESTIMATION METHODS

Ex-ante estimation methods are not applicable to this methodology, as the emissions reductions for the 10-year crediting period are determined in the first reporting period.

F. ENVIRONMENTAL AND SOCIAL IMPACTS

F1. ENVIRONMENTAL AND SOCIAL IMPACT SUMMARY

Tradewater is unaware of any potential negative environmental or socio-economic impacts from this Project. Chile is part of the 1993 Montreal Protocol and has been engaged in efforts to eliminate substances that affect the ozone layer in recent years. Since there is currently no financial and logistical infrastructure to responsibly manage and destroy ODS in Chile, the Tradewater project creates a solution to this problem.

The net positive impacts from the project include the reduction of inevitable emissions of stockpiled CFC refrigerants via leaks, testing, accidental venting, or container degradation. This destruction will not trigger any additional production due to the complete phase-out of CFCs worldwide. The project further encourages innovation and development of more sustainable refrigeration and cooling technologies, as well as encouraging the entire sector to develop technologies that are more responsible and aligned with climate goals. Finally, the emissions reductions resulting from this project help to achieve climate goals by eliminating additional contributors to climate change and global warming.

More information can be found in Appendix A of the GHG Plan (File name: ACR893_EnvironmentalAssessment_v1)

F2. SUSTAINABLE DEVELOPMENT GOALS

Direct positive impact: The Project has direct positive impact to United Nations sustainable development goals (SDG) 9 (Industry innovation and infrastructure), 12 (Responsible Consumption and Production), and 13 (Climate Action).

- **SDG 9.4** *By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.*
  This project works in support of the Montreal Protocol, which promotes sustainable industrialization by upgrading industries through the transfer of clean and environmentally sound technologies that allow for the phase-out of ODS and higher-GHG fuels while increasing resource-use efficiency. Innovation is required to replace refrigerants with less harmful, yet equally as effective, alternative to meet the needs of cooling, refrigeration, and climate-controlled transport throughout the world.
- **SDG 12.4** B*y 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human*

health and the environment.
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** *Integrate climate change measures into national policies, strategies, and planning.*
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. Tradewater has the objective to prevent the release of ODS gases into the atmosphere. By identifying, collecting, managing, and destroying refrigerant gases in an appropriate manner, Tradewater aims to prevent ozone depletion, negative environmental impacts, and climate change.

Indirect Positive Impact: The Project has indirect positive impact to United Nations sustainable development goals (SDG) 3 (Good health), 14 (Life Below Water), and 15 (Life on land).

- **SDG 3.9** *By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.*
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** *By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.*
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 in survival rate, early developmental stages, and population numbers in different marine species.
- **SDG 15.1** *By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.*
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.

More information can be found in Appendix B of the GHG Plan (File name: ACR893_SDGContributions_v1.0)

F3. STAKEHOLDER COMMENTS AND CONSULTATION

As per ACR Standard version 8.0, the project was subjected to a 30-day public comment period. No comments were received by any stakeholders or by ACR.

G. OWNERSHIP AND TITLE

G1. PROOF OF TITLE

Tradewater LLC is the Project Proponent. Tradewater LLC possesses the title and rights to all refrigerants destroyed under this Project, which is demonstrated by the transfer of ownership documentation, Consolidation Report, and other similar documentation. As such, the rights and title to all carbon offset credits created by this Project belong to Tradewater LLC.

G2. CHAIN OF CUSTODY

The offsets have not been bought or sold previously, and the project does not have a forward option contract.

G3. PRIOR APPLICATION

The project has not applied to any other Voluntary Carbon program.

H. PROJECT TIMELINE

H1. START DATE

The Project start date is 7/9/2024, the date on which the earliest destruction activity of the project commenced. The Project start date determination is consistent with the ACR Standard and Methodology.

H2. PROJECT TIMELINE

Relevant Project Activities	Timeline
Project Listed/Initiation of Project Activities	6/9/2023
Project Term	N/A
Crediting Period	7/9/2024 – 7/8/2034
Reporting Period	7/9/2024 – 7/16/2024
Frequency of Monitoring, Reporting, and Verification	Once per reporting period

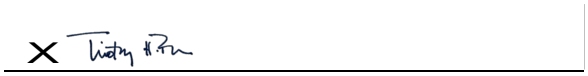
Appendices

List all appendices referenced throughout the GHG Project Plan in the table below, omitting and providing additional rows as needed. Appendices not provided under separate cover must be included within this document. For submission of the final versions of appendices provided under separate cover, provide exact filenames including the correct version and/or date. Where relevant to the project, the appendices marked with an asterisk (*) must be submitted on the ACR Registry, denoted as a GHG Project Plan document type, and maintained as public. All appendices are subject to validation.

Appendix	**Document Title**	**Provided under separate cover? (Yes/No)**	**Filename** *if provided under separate cover*
A	Environmental and Social Impact Assessment*	Yes	ACR893_EnvironmentalAssessment_v1
B	SDG Contributions Report*	Yes	ACR893_SDGContributions_v1.0

Attestations

The Project Proponent hereby represents and warrants to the American Carbon Registry, its affiliates and supporting organizations, and any assignee of substantially all of the assets comprising the ACR, that all information contained herein and in all appendices is true, correct, and complete to the best of their knowledge, information, and belief and they further agree to notify ACR promptly in the event that the Project Proponent becomes aware that any representation or warranty set forth above or in any appendix submitted under separate cover was not true when made.

Project Proponent Signature:	
Project Proponent Representative Signature:	
Name:	Timothy H. Brown
Title:	Chief Executive Officer
Organization:	Tradewater, LLC
Date:	09/26/2024

ACR893_GHGPlan_v6.2

Final Audit Report 2024-09-26

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