



Project Data Report

US Nitric Acid Production Protocol v3.0

CAR 639 LSB-Baytown – RP27

Project Site

Baytown, TX Facility

1120 FM 565, Baytown, TX 77520

Prepared for:

Agri-Waste Technology
501 N Salem St Ste 203, Apex, NC 27502

Account Holder	LSB Industries, Inc.
Project ID and Name	CAR639 El Dorado Nitrogen, LP - Nitrous Oxide Abatement Project
Cooperative/Aggregate ID (if applicable)	N/A
Current Reporting Period Dates	10/04/2024 – 06/23/2025
Protocol Version	Nitric Acid Production V3.0
Claimed CRTs by Vintage	2024-RP27 ---- 93,084 Credits 2025-RP27 ---- 287,229 Credits
Date Submitted	08/27/2025

Prepared by:

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Foreword

The contents of this report have been prepared for review by the verification body listed on the cover page in compliance with the Climate Action Reserve (The Reserve) project documentation requirements detailed in section 3.3.10 of the Reserve Program Manual v9.2. for verification purposes. Information in this report is not to be shared with any outside party until after the conclusion of the verification process, at which point this document will be made publicly available by The Reserve. Any questions should be directed to the ClimeCo representative designated on the cover page.

Project Description

The project includes a N₂O abatement catalyst (secondary catalyst) installed in 2010 below the ammonia oxidation gauzes (primary catalyst) and an EnviNOx reactor with a N₂O abatement catalyst (tertiary catalyst) installed upstream of the stack in 2024 that provides additional abatement beyond the secondary catalyst.

Project Developer and Participants

Current Project Participants include the Offset Project Owner, Covestro, and the facility operator, LSB Industries. ClimeCo LLC serves as the technical consultant for the offset project.

Covestro serves as the owner of the Baytown facility and all equipment contained within.. LSB Industries operates the Baytown facility. ClimeCo is responsible for calculating and reporting the emissions reductions and ensuring the project adheres to CAR's U.S. Nitric Acid Production Protocol.

Technical Consultant(s): ClimeCo LLC

Other Parties with Material Interest (entity name and role):

Entity Signing Attestation of Title: LSB Industries, Inc.

Additional Information:

Protocol Eligibility Requirements

Eligibility Rules for CAR639 are found in section 3.1 through 3.5 in the US Nitric Acid Production Protocol v3.0. Project compliance with the requirements are summarized in the table below.



	Rule	Requirement	Data
a	Location	U.S. and its tribal lands and territories	The project is located in Baytown, Texas, USA.
b	Project Start Date	No more than 12 months prior to project submission	The project was submitted on 04/21/2010, project start date was 07/01/2010.
c	Project Crediting Period	Emission reductions may only be reported during the crediting period; the crediting period may be renewed one time	The emissions reductions claimed within the current reporting period (RP27, 10/04/24 - 06/23/2024) have been achieved during the project's second crediting period (07/01/2020 - 06/30/2030).
d	Additionality	Meet performance standards, exceed regulatory requirements	There are currently no regulatory requirements for the abatement of N₂O resultant from the nitric acid production process. The technology installed within the scope of the project meets and exceeds industry standard practices. Performance Standard Test: Combined Secondary & Tertiary N₂O Abatement catalyst, including catalytic decomposition or NSCR. Legal Standard Test: We have confirmed that there are currently no laws requiring the abatement of N₂O at the plant. In addition, LSB monitors any change in regulations that may affect eligibility. Agri-Waste Technology reviewed LSB's renewed Title V Permit which expires on November 8, 2028. ClimeCo has accurately completed the Attestation of Voluntary Implementation form and uploaded it to the Reserve.
e	Regulatory Compliance	Compliance with all applicable laws	A survey of all regulatory violations incurred by the Site within the reporting period dates has been conducted as part of verification activity and submitted for the verifier's review. There are no regulatory violations for this reporting period that have been caused by project activity.

GHG Assessment Boundary

SSR	Source Description	Gas	Baseline (B) or Project (P)
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1 – Nitric Acid Production	Nitric acid process unit (burner inlet to stack)	N ₂ O from reaction byproduct	B, P
4 - Ammonia Used to Operate SCR De-NOX Unit (included if ammonia is an input to the N ₂ O destruction facility)	GHG emissions from production of ammonia used in tertiary abatement for N ₂ O destruction	CO ₂ , CH ₄ , N ₂ O	B, P
5 - Hydrocarbon Input	Hydrocarbon used as reducing agent and/or reheating the tail gas	CO ₂ , CH ₄	P
7 - External Energy to Reheat Tail Gas	May be used to reheat the tail gas before entering the tertiary catalyst or NSCR	CO ₂ , CH ₄ , N ₂ O	P

Quantifying GHG Emission Reductions Methodologies

This section discusses the quantification methodologies used in calculating the Emission Reduction (ER) for CAR639 RP27. The quantification of ERs has been performed in accordance with section 5 of the Nitric Acid Production Protocol v3.0. Quantification Approach #1 for combined secondary and tertiary abatement projects is followed.

Under Quantification Approach #1, baseline emissions are determined by assuming N₂O emissions would occur at the plant's historical emission factor in the absence of any abatement. Because the gas stream cannot be sampled between the primary and secondary catalysts, a baseline emission factor must be determined prior to installation of the secondary catalyst in order to estimate baseline emissions. Emissions are then calculated using the equations and methodologies outlined in the Protocol.

Five consecutive campaigns of historical data were used to calculate HNO₃max, the historical maximum annual average total output of 100% concentration nitric acid. Five values, each representing average HNO₃ production levels during a historical campaign period, were calculated to determine the greatest historical annual nitric acid production at the process unit where the project is located.



Under Quantification Approach #1 for for a combined secondary and tertiary abatement project, project emissions are determined by directly measuring the N₂O emissions downstream of the tertiary abatement unit. Since emissions measured at this point reflect the actual amount of N₂O released after abatement, they provide the basis for quantifying emission reductions. Project emissions are then calculated using the equations and methodologies specified in the Protocol, with appropriate adjustments for data quality, calibration, and monitoring completeness.

Quantifying Baseline Emissions

Allowable Operating Conditions:

Oxidation temperature range: 920°C – 840°C

Oxidation pressure range: 3.03 Bar – 4.86 Bar

Maximum ammonia-to-air ratio input into the AOR: 10.4%

☒ Option (c): Specified range of temperature and pressure found in the operating manual²⁰ for the existing equipment, and maximum ammonia-to-air ratio as specified by the ammonia oxidation catalyst manufacturer or the operating manual for the NAP equipment if guidance from the ammonia oxidation catalyst manufacturer is not available.

Vintage: 2024	Vintage: 2025
HNO ₃ ,MAX, scaled: 54,913 tHNO ₃	HNO ₃ ,MAX, scaled: 169,445 tHNO ₃
Baseline Emissions: 96,123 tCO ₂ e	Baseline Emissions: 296,608 tCO ₂ e

Quantifying Project Emissions

Vintage: 2024	Vintage: 2025
Emissions from the N ₂ O in the tail gas during the reporting period: 2,382 tCO ₂	Emissions from the N ₂ O in the tail gas during the reporting period: 7,349 tCO ₂
Emissions from the ammonia input used to operate the tertiary catalyst facility during the reporting period: 345 tCO ₂	Emissions from the ammonia input used to operate the tertiary catalyst facility during the reporting period: 1,066 tCO ₂
Emissions from the use of hydrocarbons as a reducing agent or to reheat tail gas during the reporting period: 312 tCO ₂	Emissions from the use of hydrocarbons as a reducing agent or to reheat tail gas during the reporting period: 963 tCO ₂



Emissions from the external energy used to reheat the tail gas during the reporting period: 0 tCO ₂	Emissions from the external energy used to reheat the tail gas during the reporting period: 0 tCO ₂
Project Emissions: 3,039 tCO ₂ e	Project Emissions: 9,379 tCO ₂ e

Quantifying Project Emissions

Vintage: 2024	Vintage: 2025
Baseline Emissions: 96,123 tCO ₂ e	Baseline Emissions: 296,608 tCO ₂ e
Project Emissions: 3,039 tCO ₂ e	Project Emissions: 9,379 tCO ₂ e
Total GHG Emission Reductions/Removals: 93,084 tCO ₂ e	Total GHG Emission Reductions/Removals: 287,229 tCO ₂ e

Environmental and Social Impacts

The Project's Environmental and Social Impacts are discussed in detail in the Environmental and Social Safeguards Assessment Form submitted to the Registry pursuant to CAR Program Manual Requirement 3.3.10.3.

Variance Request

Date of Variance Request: N/A

Protocol Section and Rule/Requirement: N/A

Description of how the project did not meet the above requirements: N/A

Date Reserve Issued Determination: N/A

Variance Conditions: N/A

Project Documentation

Document	File Name
Project Diagram	LSB Baytown CAR639 Diagram_Hybrid.pdf
Attestation of Title	EDN-CAR639-Attestation-Title-RP27_Signed



Attestation of Voluntary Implementation	EDN-CAR639-Attestation-Voluntary-Implementation-RP27_Signed.pdf
Attestation of Regulatory Compliance	EDN-CAR639-Attestation-Regulatory-Compliance-RP27_Signed.pdf
Project Contributions to the U.N. Sustainable Development Goals Report Tool (if applicable)	CAR639 Social Environmental Safeguards Assessment-RP27.pdf
Project Data Report (this document)	RP27 CAR639 Project Data Report.pdf
Variance Request (if applicable)	

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