



Verification Report

CAR639 – El Dorado Nitrogen LP Nitrous Oxide Abatement Project

Reporting Period: August 31, 2015 – April 10, 2016

Prepared for:
LSB Industries, Inc.

July 1, 2016

Ruby Canyon Engineering
743 Horizon Ct. Suite 385
Grand Junction, Colorado 81506
(970) 241-9298

Table of Contents

1.0 Introduction.....	1
1.1 Project Background & Site Description	1
1.2 Responsible Parties.....	1
1.3 Verification Team.....	1
1.4 Objectives.....	1
1.5 Scope	2
1.6 Verification Criteria.....	2
2.0 Verification Activities Summary	2
3.0 Verification Findings.....	3
3.1 Assessment of the GHG Reduction Project Operations	3
3.2 GHG Project Boundary (sources, sinks and/or reservoirs).....	4
3.3 Project Eligibility Criteria	4
3.4 Ownership of GHG Reductions.....	5
3.5 Assessment of Information System Controls	5
3.6 CEMS Installation and Certification	5
3.7 Ongoing CEMS QA/QC Program	6
3.7.1 Daily Requirements	6
3.7.2 Quarterly Requirements.....	7
3.7.3 Annual and Semi-Annual Assessments.....	7
3.7.4 Missing Data Substitution	7
3.8 Assessment of GHG Emissions Reductions Calculations	7
4.0 Verification Results	10
5.0 Conclusion.....	10

1.0 Introduction

Ruby Canyon Engineering (RCE) was contracted by ClimeCo Corporation (ClimeCo) to perform the repeat verification of the El Dorado Nitrogen LP (EDNLP) Nitrous Oxide Abatement Project (Project) for the reporting period August 31, 2015 – April 10, 2016 to the Climate Action Reserve (Reserve) Nitric Acid Production Project Protocol Version 2.1 (Protocol).

1.1 Project Background & Site Description

The Project activity consists of the installation and operation of a secondary abatement catalyst at an existing nitric acid plant in Baytown, TX. As part of the Project, a secondary catalyst was placed in the ammonia oxidation reactor (AOR), immediately downstream of the ammonia oxidation catalyst, catalytically reducing the nitrous oxide (N₂O) that would have otherwise been vented to the atmosphere. The Project is located at EDNLP's facility which is situated on a larger chemical production facility owned by Bayer's Material Science, LLC. The nitric acid from the EDNLP's facility is used on site by Bayer for the manufacture of methylene diphenyl diisocyanate. The project developer is LSB Industries, Inc. (LSB), and its wholly owned subsidiary, EDNLP, provided the Project monitoring and data gathering on behalf of LSB Industries, Inc.

1.2 Responsible Parties

LSB Industries, Inc.

16 S. Pennsylvania Ave.
Oklahoma City, OK 73107

El Dorado Nitrogen LP

8490 West Bay Road
Baytown, TX 77520

ClimeCo America Corporation

10 North Reading Avenue
Boyertown, PA 19512

1.3 Verification Team

The RCE verification team consisted of the following individuals who were selected based upon Reserve verification experience and knowledge of U.S. EPA regulations and the N₂O and nitric acid plant sector.

Lead Verifier: Zach Eyler

Team Members: Samantha Phillips, Jessica Stavole

Senior Internal Reviewer: Phillip Cunningham

1.4 Objectives

The goal of the verification activities was to ensure that the claimed GHG emission reductions were complete, consistent, accurate, transparent and permanent and that the Project was in compliance with Reserve project additionality, monitoring and reporting requirements. Furthermore, the verification activities ensure that the data provided to RCE is well documented and free of any material errors or omissions.

1.5 Scope

The scope of the verification consisted of the following independent and objective activities:

- Review the reporting period's Project Monitoring Plan,
- Review the Project boundaries,
- Review Project eligibility,
- Review the Project data acquisition and quality control procedures,
- Review the Project's baseline emissions to ensure that baseline parameter values have not changed from the previous reporting period,
- Review the Project's emission reduction calculations,
- Review Project documents and data against the Verification Criteria listed in Table 1,
- Issue requests for additional documentation, clarifications and corrective actions as necessary, and
- Issue a Verification Report, List of Findings and Verification Statement to LSB Industries, Inc. and the Reserve.

1.6 Verification Criteria

Table 1. Verification Criteria

Criteria	Details
Standard of Verification	• Reserve Nitric Acid Production Project Protocol Version 2.1 (June 21, 2016) • Reserve Verification Program Manual (December 20, 2010) • Reserve Program Manual (September 1, 2015)
Verification Process	Reserve and ISO 14064-3 Specification with guidance for the validation and verification of greenhouse gas assertions
Level of Assurance	Reasonable assurance
Materiality	99 percent materiality threshold (<1% error) because total annual ERs >100,000 tCO ₂ e

2.0 Verification Activities Summary

As the first step in verification activities, RCE developed a verification plan that was followed throughout the verification. The verification plan consisted of the following activities:

- RCE completed the Project NOVA/COI form to identify any potential conflict with the Project or LSB. The NOVA/COI form was submitted to the Reserve's website, and the COI assessment revealed no conflicts of interest and was approved by the Reserve on April 27, 2016.
- RCE held a verification kick-off meeting on May 16, 2016. During the kick-off meeting RCE reviewed the verification objectives and process, the verification schedule and requested the verification background documents.
- RCE began receiving the background verification documents by email and via Dropbox from ClimeCo on May 16, 2016.
- RCE performed a strategic review and risk assessment of the received data and support documents in order to understand the scope and areas of potential risk in the GHG emissions reductions.
- RCE developed a risk-based sampling plan based upon the strategic review and risk assessment. The sampling plan was used throughout the verification to conduct the review which included an assessment of the GHG calculation methods and inputs, source data completeness, GHG

management and monitoring systems, evidence of regulatory compliance and record retention practices.

- RCE conducted a site visit to the Project on September 30, 2015 for the verification of the previous reporting period. During the site visit, RCE inspected the CEMS equipment; observed the onsite GHG management systems and data gathering, monitoring and handling practices; and performed key personnel interviews. RCE confirmed with ClimeCo and ENDLP that no significant changes had occurred at the facility since RCE's last site visit.
- RCE conducted a detailed desktop review of submitted material including evidence of regulatory compliance, documentation of ongoing QA/QC procedures, source data and emission reduction calculations.
- RCE issued a List of Findings document that listed requests for additional documentation and requests for clarifications to ClimeCo during the verification process.
- RCE's Senior Internal Reviewer conducted a review of the verification sampling, Verification Report and Verification Statement.
- RCE issued a final Verification Report, Verification Statement and List of Findings.
- RCE held an exit meeting with the client on July 1, 2016.

3.0 Verification Findings

3.1 Assessment of the GHG Reduction Project Operations

The Project currently destroys N₂O from a nitric acid plant (NAP) via a secondary abatement catalyst located within the AOR, immediately downstream of the ammonia oxidation catalyst and upstream of the absorption tower. The N₂O emissions per unit of nitric acid production were measured during the baseline campaigns using only a primary catalyst in the ammonia oxidation process. The monitoring procedure was repeated in the project campaign after the secondary abatement catalyst was installed in July 2010. During the verification of the first reporting period of the Project, RCE confirmed that the plant did not use NSCR technology for NO_x abatement at any point within 24 months prior to the effective date of the Protocol.

The flue gas flow rates and N₂O concentrations are monitored continuously using a CEMS. The process control system monitors process temperature, pressure and ammonia-to-air ratio on a continuous basis and records the data multiple times each hour in the process data historian, meeting Protocol requirements. RCE verified that the Project Monitoring Plan and implementation upholds the monitoring criteria and monitoring frequency as specified in Table 6.1 of the Protocol. Official nitric acid production data required by the Protocol is measured and recorded on a daily basis and recorded in the operation logbook and is the same data provided for financial reporting by EDNLP's accounting department.

RCE verified that all CEMS installation and certification requirements were met and that all historical and baseline parameters were calculated and measured correctly during the first verification of the July 1, 2010 – October 15, 2010 reporting period. RCE confirmed that all historical and baseline parameter values used in the project emissions calculations for this reporting period were the same values used in the previous reporting periods. RCE reviewed calibration records and accuracy testing of the project monitoring equipment and verified the data management systems in place at the EDNLP facility.

RCE also reviewed company records of NAP operation, maintenance and downtime and verified that the CEMS monitoring reports that EDNLP provided to ClimeCo were used as the raw data for the GHG assertion. RCE determined that the methodology defined in the Monitoring Plan Version 5.0 was correctly applied and is in accordance with Section 6.4 of the Protocol.

3.2 GHG Project Boundary (sources, sinks and/or reservoirs)

According to the Protocol, N₂O is the only GHG included from the Baseline and Project activities for secondary abatement projects.

Table 2 lists the sources of GHG emissions reviewed during the verification of the Project.

Table 2. Project GHG Sources, Sinks and Reservoirs

Activity	GHG Sources, Sinks & Reservoirs
Baseline	• N₂O vented to the atmosphere.
Project	• N₂O vented to the atmosphere

3.3 Project Eligibility Criteria

The Protocol specifies five eligibility rules that GHG Project developers must meet in order to register reductions with the Reserve. Below is a summary of the Reserve eligibility rules and the Project's compliance to each requirement.

- **Eligibility Rule I: Location**

The Project is a U.S. based project located at a nitric acid production facility in Baytown, TX, USA and therefore meets this eligibility requirement.

- **Eligibility Rule II: Project Start Date**

During the first verification, RCE reviewed documentation that showed that the plant operations completed a campaign on June 26, 2010 and that the secondary abatement catalyst was installed and the primary catalyst gauze replaced before the start of the next campaign. Records showed the commencement of nitric acid production for the first reporting period campaign on July 1, 2010. RCE confirmed that the project start date was July 1, 2010.

- **Eligibility Rule III: Project Crediting Period**

The crediting period for the Project is ten years. RCE confirmed the crediting period as July 1, 2010 – June 30, 2020.

- **Eligibility IV: Additionality**

Legal Requirement Test

RCE reviewed EDNLP's most recent Title V permit and confirmed that EDNLP does not have a PSD permit for greenhouse gases. In addition, EDNLP provided evidence that they receive regular updates regarding U.S. EPA and State of Texas rules regarding possible GHG emission standards. RCE also verified that LSB accurately completed the Attestation of Voluntary Implementation form and uploaded it to the Reserve.

Performance Standard

RCE verified that the Project satisfies the Performance Standard by installing a new secondary N₂O abatement catalyst. During the first verification, RCE reviewed evidence of the purchase and installation of the catalyst.

- **Eligibility V: Regulatory Compliance**

RCE verified that the Project was in material compliance with all applicable laws throughout the reporting period. RCE reviewed the U.S. EPA Enforcement and Compliance History Online (ECHO) report as well as the TCEQ Central Registry database and confirmed that they did not note any violations or enforcement actions related to the reporting period. RCE also verified that the Attestation of Regulatory Compliance was correctly completed and uploaded to the Reserve.

3.4 Ownership of GHG Reductions

RCE reviewed evidence that EDNLP is a wholly owned subsidiary of the project developer, LSB Industries, Inc. and is the operator of the project. RCE also reviewed a confirmation of assignment letter dated December 14, 2010 signed by both EDNLP and LSB Industries, Inc. confirming that EDNLP has assigned LSB Industries Inc. the emission reduction rights for the project. ClimeCo only serves as a technical consultant for the Project. ClimeCo stated that there have been no changes from the previous reporting period. RCE verified that the Attestation of Title was correctly completed and uploaded to the Reserve.

3.5 Assessment of Information System Controls

RCE's site visit during the previous reporting period included a review of management systems, onsite procedures, and interviews with key Project personnel. The onsite review included confirming that the Project monitoring was done through direct measurements from a CEMS for both gas flow rates and N₂O concentration. The Project uses a Kurz thermal resistance mass flow meter (model 155-A) to measure gas flows and a Temet Gasmet Fourier transform infrared analyzer (Model FXS-02445) to measure N₂O concentration. RCE inspected the locations of the sample probes within the stack during a previous site visit and no changes to the equipment locations were noted.

The baseline campaign used a CALCMET™ MS Windows-based data acquisition and handling system (DAHS) coupled with a Koyo D4-450 PLC. The automated software received signals and analogs from analyzers in the stack, and information was recorded, stored, and backed up on EDNLP computer servers located at the facility.

The Project proponent upgraded the DAHS when the Project secondary catalyst was installed. The CALCMET™ MS Windows based analyzer control system is now coupled with an Analog to Digital Module (ADM) computer that is used for CEMS data generation. The record keeping and reporting of the data are processed by the Vivicom Continuous Environmental Monitoring System (VCEMS) computer which monitors the CEMS status. A Modbus Interface (MBIF) is used for data feeds from the distributive control system and fed to the VCEMS program. During the previous verification site visit, RCE verified that the VCEMS software is used to generate reports in the required formats and provides those reports to plant management and the company server used to back-up the plant data.

Each weekday the status of the CEMS is checked by the Process Manager via the VCEMS display, and any necessary corrective action is taken as appropriate and documented in the Process Manager's "Environmental Log".

3.6 CEMS Installation and Certification

The Protocol states that project developers must follow the following CEMS installation and certification requirements:

- 40 CFR Part 60, Sec. 60.13
- 40 CFR Part 60, Appendix B, Performance Specification 2
- 40 CFR Part 75, Appendix A, Sec. 6

The EDNLP CEMS was installed several years prior to the project start date. The Kurz flow meter was installed in 1999 and the Temet N₂O analyzer was installed in 2003 for NO_x compliance reasons. At the time, the CEMS installation met the requirements of 40 CFR Part 60, Appendix F.

RCE verified that the Project met all CEMS installation and certification requirements during the first verification. During those verification activities, RCE discovered that a variance and clarifications to the Protocol were necessary to address many of the CEMS installation and certification issues. As a result,

RCE verified the CEMS installation and certification against the Protocol, the Variance Determination dated June 15, 2010 and the Errata and Clarifications to Nitric Acid Production Project Protocol, version 1.0 dated March 17, 2011.

RCE verified that the following requirements were met for installation and certification of the CEMS

7-day Calibration Error Test

ClimeCo submitted the calibration drift summary for September 15-21, 2009. This was before the baseline sampling period began. The drift never exceeded 5 percent and is in compliance with 40 CFR Part 75.

Linearity Check

The project was granted a variance from Reserve on June 15, 2010 that allowed the April 2010 Linearity Check to take the place of the Check required for the initial certification. The analyzer met the linearity check requirement of <5.0% error.

RATA and bias tests

ClimeCo provided the results of the RATA that was conducted on September 22, 2009. The analyzer failed to meet the bias test requirement; however, the bias adjustment factor (BAF) was applied correctly to the N₂O concentration in the stack gas (NC_{SG}).

Cycle Time Test

ClimeCo provided the document EDN Cylinder Gas Audit and a memo to demonstrate that the analyzer meets the 40 CFR Part 60.13 (e) 2 requirement that the CEMS complete a minimum of one cycle of operation for each 15 minute period.

DAHS Verification

RCE reviewed documentation and examples from the DAHS that demonstrated that all emission calculations are performed correctly and that missing data substitution methods are applied properly.

3.7 Ongoing CEMS QA/QC Program

During the first verification, RCE confirmed that the ongoing CEMS QA/QC requirements were met during the baseline reporting period. RCE confirmed that all QA/QC requirements were completed during this reporting period as described in the Protocol.

3.7.1 Daily Requirements

The Process Manager of EDNLP demonstrated the capabilities of the DAHS and how daily checks were performed for calibration error and adjustments, data validation, quality assurance and data recording for the analyzer and flow meter. The DAHS records Project data necessary to demonstrate operation within the allowable operating conditions (AOCs). RCE confirmed the Project met all Protocol daily requirements using DAHS including:

- Calibration error test for N₂O analyzer
- Calibration adjustments for N₂O analyzer
- Data validation
- Quality assurance
- Data recording

3.7.2 Quarterly Requirements

RCE verified that the following quarterly assessments were performed according to the Protocol.

Calibration Error Test and Adjustments:

EDNLP performs calibration error checks daily. RCE reviewed copies of the calibration check reports for the entire reporting period. There was one instance where the daily calibration check on the flow meter and N₂O analyzer appeared to fail. The software malfunctioned causing the appearance of a fail. The corrupted software was identified and repaired. Data substitution was used during this time period and the DAHS followed the procedures as discussed in section 3.7.4 of the report. All other daily calibration checks during the reporting period were within the +/- 3% threshold.

Leak Check:

The EDNLP Project utilizes a thermal mass flow meter, thus this quarterly assessment is not required.

Flow-to-Load or Heat Rate Evaluations:

The Project does not produce electrical output or thermal output and is exempted from the flow-to-load ratio test requirements.

Linearity Checks

EDNLP provided linearity checks for all quarters (August 2015, November 2015 and February 2016) for which there is no RATA. The 2016 RATA had not been completed by the end of the reporting period. The linearity checks were all conducted by Technical Automation Services Co. The analyzer was tested with three sample gases, and the results for all three tests were within the allowable 5 percent threshold for each reference cylinder concentration.

3.7.3 Annual and Semi-Annual Assessments

RCE verified that the results of the May 21, 2015 RATA conducted by Golden Specialty, Inc. showed the relative accuracy to be less than 7.5%, and therefore only annual RATAs are required. Since the requirement has been met until May 2016, no additional RATAs were needed for this reporting period.

There was no bias adjustment factor (BAF) for flow or N₂O from the May 2015 RATA. The DAHS automatically applies the BAF, and RCE sampled data reports to confirm that the DAHS did not apply the BAF for the reporting period.

3.7.4 Missing Data Substitution

Missing data substitution methods were applied to the project reporting period data during times when the flow meter was not operating properly. The DAHS automatically performs data substitution. RCE reviewed evidence that the DAHS correctly applied missing data substitution methods during the reporting period according to 40 CFR Part 75, Section 75.33 missing data procedures.

3.8 Assessment of GHG Emissions Reductions Calculations

The emission reduction calculations assessment included a review of the historical, baseline, and Project assumptions, data inputs, data management and accuracy of calculations. During the first verification, RCE assessed the information generated from the Historical and Baseline campaigns. RCE first evaluated the completeness and validity of the original data and how the data is transferred from EDNLP's CEMS information control systems to ClimeCo's GHG calculation database.

The Protocol requires a variety of manipulations to the data as part of the quantification of GHG emission reductions. ClimeCo conducted the data management in an MS Access database file using

various queries of the raw data and provided the data to RCE in an MS Excel spreadsheet for the historical, baseline and Project campaign periods. RCE reviewed the data handling process during previous verifications and confirmed that there were no changes in the process during this reporting period. RCE reviewed the queries/formulas and data outputs for compliance with the Protocol.

Both the Kurz flow meter and Temet N₂O analyzer are used for other environmental compliance reasons and air emissions calculations. Because of this, the flow meter data is adjusted to 1 atm and 25°C, and the N₂O analyzer data is adjusted and recorded to 1 atm and 20°C. RCE verified that all data is re-adjusted and normalized to 0°C in the calculation database/spreadsheet.

Historical Campaigns

RCE reviewed historical data during the first verification when ClimeCo provided data from five previous campaigns dating from April 28, 2006 to February 17, 2009. RCE assessed the raw data and statistical adjustments from the Historical campaigns that were used to calculate two variables: HNO_{3MAX} and CL_{CAP}. To confirm that HNO_{3max} was calculated correctly, RCE recalculated the value by determining an average HNO₃ production number in metric tons per day for each of the five historical campaigns and selecting the highest of the average values as the HNO_{3max}. RCE verified the values of each parameter from the historical data.

- HNO_{3MAX} = 49.19 metric tons HNO₃/hr
- CL_{CAP} = 210,633 metric tons HNO₃.

During a previous reporting period, EDNLP and ClimeCo made the decision to optimize the operating parameters for the Project. This was classified as an “upgrade,” and thus the Project needed to revise its previously defined AOCs. The new AOC ranges and values were determined by operating manuals for the existing equipment and by guidance from the ammonia oxidation catalyst manufacturer. The AOCs were revised according to the Protocol steps outlined in Section 5.1.2 for an “upgrade” at the facility as well as additional Reserve guidance. All previous AOCs were revised, including:

- Oxidation Temperature (minimum and maximum)
 - o Minimum: 1544 °F (840 °C)
 - o Maximum: 1688 °F (920 °C)
- Oxidation Pressure (minimum and maximum)
 - o Minimum: 44 psig (3.03 bar)
 - o Maximum: 70.6 psig (4.86 bar)
- Ammonia-to-Air Ratio (maximum only)
 - o 10.4%

Baseline Campaign

RCE reviewed baseline data during the first verification when ClimeCo provided data from the Baseline campaign conducted immediately prior to the installation of the secondary catalyst from November 3, 2009 to June 27, 2010. However, the Baseline campaign exceeded the CL_{CAP} at 9:00am on May 22, 2010. As a result, ClimeCo used only data prior to that point to determine the Baseline calculation parameters. RCE verified that the raw data from the Baseline campaign was correctly adjusted in accordance with the Protocol and used to determine the Baseline Emission Factor. RCE verified the assumptions and variables used for Equations 5.4 and 5.5 in the Protocol. The results are as follows:

- N₂O_{conc,BL} = 2,136 mgN₂O/m³
- F_{BL} = 165,227 m³/hr
- HNO_{3,BL} = 186,595 metric tons HNO₃

During the site visit on June 9-10, 2010, RCE compared the hourly data from the EDNLP CEMS data (for selected days) to the hourly gas flow volumes and N₂O concentrations recorded in ClimeCo's calculation database/spreadsheet. No material errors in the raw data or data transfers to the calculation database/spreadsheet were identified.

RCE verified that the EDNLP's Baseline campaign operated inside the established AOCs approximately 91 percent of the time, thus exceeding the 50 percent requirement in the Protocol.

RCE also verified that the statistical comparison of allowable and baseline operating conditions was performed according to the Protocol and that all parameters fall within the 95% confidence interval.

RCE confirmed that values for each baseline parameter used in calculations for this reporting period were the same values verified during the previous verifications.

Project Campaign

RCE confirmed the emission reductions for this reporting period. RCE verified that the raw data from the Project campaign was correctly adjusted in accordance with the Protocol and used to determine the campaign-specific project emissions. RCE verified the assumptions and variables used for Equation 5.7 in the Protocol. The results are as follows:

- OH = 5,244.83 hours
- N₂O_{conc,n} = 375.00 mgN₂O/m³
- F_n = 176,230.95 m³/hr
- N₂O_n = 346.61 tN₂O

RCE verified that the EDNLP's Project campaign operated inside the established AOCs over 99% of the time, thus exceeding the 50% requirement in the Protocol. RCE confirmed that the operating conditions during the Project campaign are representative of AOC by verifying that the mean values for oxidation temperature, oxidation pressure and ammonia-to-air ratio are within the corresponding ranges defined for the AOC. RCE also confirmed that the statistical comparison of allowable and project operating conditions was performed according to the Protocol and that all parameters fall within the 95% confidence interval.

RCE reviewed the variable HNO_{3,RP,scaled} and confirmed that the lesser of HNO_{3,MAX,scaled} and HNO_{3,RP} was used. RCE also confirmed the correct calculation of HNO_{3,New}. The results are as follows:

- EF_{BL} = 0.0074622 tN₂O/t NHO₃
- HNO_{3,MAXScaled} = 258,015.07 tHNO₃
- HNO_{3,RP} = 277,791.24 tHNO₃
- HNO_{3,RP,scaled} = 258,015.07 tHNO₃
- EF_{New} = 0.0032 tN₂O/tHNO₃
- HNO_{3,New} = 19,776.17 tHNO₃

While the Emissions Reductions found in section 5.0 were verified and found to be correct, the EFs and factors above are summary data only, with significant figures rounded for summary purposes in this report.

RCE determined that the emission reduction calculations followed the Protocol requirements and found no material misstatements in the Project GHG reductions calculations and results. RCE also confirmed that Project GHG emission reduction calculations were correct for the entire campaign.

4.0 Verification Results

ClimeCo, EDNLP and LSB Industries, Inc. provided sufficient evidence and documentation of their emission reduction estimates, data collection procedures, monitoring and quality control procedures. The verification process focused on verifying the historical emissions, baseline campaign emissions, project emission reductions and the source data used by ClimeCo to quantify the emission reductions are in accordance with the Protocol.

During the verification process, RCE made requests for corrective actions, additional documentation and clarifications to complete the verification. The details of RCE's findings are documented in the RCE List of Findings provided to the Reserve and LSB. During final review, RCE identified no material misstatements in the data or emissions calculations.

5.0 Conclusion

RCE conducted a risk-based analysis of the El Dorado Nitrogen LP Nitrous Oxide Abatement Project GHG assertion including a strategic review of the Project data and evidence. Based upon the processes and procedures and the evidence collected, RCE concludes that the GHG assertion is a fair representation of the Project emission reductions resulting from the destruction of N₂O during the reporting period August 31, 2015 – April 10, 2016 and can be considered:

- In conformance with the Reserve Nitric Acid Production Project Protocol Version 2.1 and ISO 14064-3 standards,
- Without material discrepancy, and
- Verified to a reasonable level of assurance.

The verified emission reductions are listed in **Table 4**.

Table 3. Emissions Verified for August 31, 2015 – April 10, 2016

Campaign Baseline Emissions CO ₂ e (mt)	Campaign Project Emissions CO ₂ e (mt)
616,481.68	107,450.27

Note: Due to rounding, individual values might not equal totals and values are not representative of raw data used in the emission reductions calculation.

Table 4. Emission Reductions Verified for August 31, 2015 – April 10, 2016 by Vintage

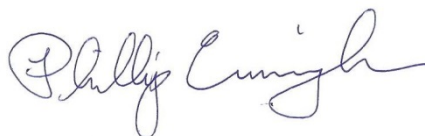
Emissions Verified	Emission Reductions CO ₂ e (mt)
2015	274,259
2016	234,772

Lead Verifier Signature



Zach Eyler

Senior Internal Reviewer Signature



Phillip Cunningham