

AQRP Monthly Technical Report

PROJECT TITLE	Texarkana Intensive Campaign	PROJECT #	24-007
PROJECT PARTICIPANTS	University of Houston, Baylor University, Aerodyne Research	DATE SUBMITTED	02/11/2025
REPORTING PERIOD	From: 01/01/2025 To: 01/31/2025	REPORT #	5

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task for reporting period

- Finished instrument installation.
- Installed new calibration system and zero air system.
- Ran initial multipoint calibrations and created a new data acquisition program to log instrument data.
- Confirmed RV park access and three adjacent pads in Texarkana
- Hotels at per diem room rates were booked

Preliminary Analysis

None

Data Collected

None

Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

The intended calibration system was not performing as desired when initially installed. After troubleshooting it was determined that it would be more efficient to swap an alternate system into the truck.

The NO_x instrument was found to have a leak due to chafing on internal tubing. The section was replaced and protected from future rubbing. The instrument also had a low conversion efficiency for NO₂. After replacement lamps did not restore the desired conversion efficiency the entire photolysis cell was replaced which restored the performance of the instrument.

Goals and Anticipated Issues for the Succeeding Reporting Period

- Complete preparations for deployment.
- Drive MAQL 3 to Waco to install Baylor's University AMS.
- Drive to Texarkana to begin measurements.

Detailed Analysis of the Progress of the Task Order to Date

None

Do you have any publications related to this project currently under development? If so, please provide a working title, and the journals you plan to submit to.

Yes No

Do you have any publications related to this project currently under review by a journal? If so, what is the working title and the journal name? Have you sent a copy of the article to your AQRP Project Manager and your TCEQ Liaison?

Yes No

Do you have any bibliographic publications (ie: publications that cite the project) related to this project that have been published? If so, please list the reference information. List all items for the lifetime of the project.

Yes No

Do you have any presentations related to this project currently under development? If so, please provide working title, and the conference you plan to present it (this does not include presentations for the AQRP Workshop).

Yes No

Do you have any presentations related to this project that have been published? If so, please list reference information. List all items for the lifetime of the project.

Yes No

Have any personnel changes occurred that were not listed in the original proposal? If so, please include a detailed description of the personnel change(s) below.

Yes No

Are any delays expected in the progress of the research? If so, please include a detailed description of the potential delay below.

Yes No

Describe any possible concerns/issues (technical or non-technical) that AQRP should be made aware of.

N/A

**Are you anticipating using all the available funds allocated to this project by the end date?
If not, why and approximately what is the amount to be returned?**

Yes **No**

Submitted to AQRP by
James Flynn