

AQRP Monthly Technical Report

PROJECT TITLE	Identifying and Apportioning Ozone Producing Volatile Organic Compounds in Central Texas	PROJECT #	17-053
PROJECT PARTICIPANTS	Aerodyne Research, Inc.	DATE SUBMITTED	5/8/2017
REPORTING PERIOD	From: April 1, 2017 To: April 30, 2017	REPORT #	4

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

Calendar:

The field project commences today.

The three trucks are at UTSA

The tower is at UTSA

The ethane instrument is going to be integrated into the southern site today.

We will likely deploy with the following breakdown between mobile labs.

AML

iodide CIMS

QCL: C1-C3 alkane,

CO/N₂O/H₂O, HCHO

LTOF AMS w/CPC; SMPS; OPC?

ECHAMP & Alkyl-nitrates

Licor; FID; NO, CAPS NO₂, O₃; SO₂

minAML

GC-EI-TOF

PTR-TOF

The GC-EI-TOF has come online with a sample loop front end. The two-stage sorbent front end has been tested.

We have secured a radiometric measurement that will produce calibrated $j(\text{NO}_2)$.

Preliminary Analysis

Two time bases have been established for in-field and final data. One is a 1 minute reporting vector and the other is average value between the start and stop sample time for the gas chromatogram.

The solar elevation angle has been computed and put on the one minute time base as a 'pilot' vector.

Data Collected

none

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

Project is underway, during transit an electrical wire came loose. Matt May at UTSA facilities was able to repair.

Amy Leithead will be unable to join the project in person

Goals and Anticipated Issues for the Succeeding Reporting Period

At the last report, we planned to have sites selected and logistics worked out, but the change to avoid RV sites is challenging and on-going. Instrument integration schedules are emerging.

There will be many more call and email updates. The next report is due when the project will be commencing.

Detailed Analysis of the Progress of the Task Order to Date

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 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, all presentations are internal or amongst performers

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

Submitted to AQRP by Scott Herndon and Tara Yacovitch

Principal Investigators