

## **I. BACKGROUND**

During the 82<sup>nd</sup> Session of the Texas Legislature (2011), the Legislature passed SB 527 to establish a regional air quality monitoring program in TCEQ Regions 3 and 4, a 49-county area encompassing the DFW Metroplex, Abilene, and Wichita Falls. The bill amended state law regarding the allocation Texas Emissions Reduction Plan (TERP) funds described in Sec. 386.051(b)(6) and Sec. 386.252(a)(5) of the Health and Safety Code to read as follows:

*[...] (5) not more than \$7 million shall be allocated in 2012 and 2013 and not more than \$3 million shall be allocated in 2014 and in subsequent years to fund a regional air monitoring program in commission Regions 3 and 4 to be implemented under the commission's oversight, including direction regarding the type, number, location, and operation of, and data validation practices for, monitors funded by the program through a regional nonprofit entity located in North Texas having representation from counties, municipalities, higher education institutions, and private sector interests across the area [...]*

Following passage of the law and investigation by the Texas Commission on Environmental Quality (TCEQ), the North Texas Commission (NTC) was selected as the only entity eligible to implement the program work according to the stipulations set forth in the law.

In 2012, NTC entered into two agreements with the TCEQ to fulfill the implementation of the Regional Air Monitoring Program; *Preliminary Direct Award Grant 582-12-21450* and *Direct Award Grant 582-12-23420*. The first agreement, *Preliminary Direct Award Grant 582-12-21450* (PDAG) and its amendment, authorized NTC to undertake two primary tasks:

- 1) Establish an automated gas chromatograph (AutoGC) air monitoring station on the campus of the University of Texas at Arlington (UTA)
- 2) Conduct a study to evaluate the already existing TCEQ Regions 3 and 4 monitoring network and make recommendations as to the location, type, and quantity of new monitors to be constructed under the SB 527 program.

Following the completion of a competitive RFP process, on March 5, 2012 NTC selected URS Corp. as its contractor to deploy, operate, maintain, and report data from the UT Arlington Campus air monitor. The UT Arlington Campus monitor completed its first valid sample on September 20, 2012. NTC finalized its recommendations for the Regional Air Monitoring Program on October 4, 2012, suggesting 21 locations for additional monitoring of volatile organic compounds. The total cost of implementing PDAG was \$327,073.40.

On August 31, 2012, NTC and TCEQ executed *Direct Award Grant 582-12-23420* (DAG). Under DAG and its amendments, the TCEQ authorized NTC to implement a regional air monitoring program in TCEQ Regions 3 and 4, as set forth by SB 527. DAG authorized the NTC to conduct four types of work:

- 1) Review and evaluate current monitoring network in TCEQ Regions 3 and 4
- 2) Deploy, operate, and report data from new air monitoring sites
- 3) Data evaluation and communication
- 4) Other activities related to the Regional Air Monitoring Program

The DAG superseded the PDAG and incorporated into itself continuation of all authorized work from the PDAG, including the continued operation of the UT Arlington Campus air monitor.

As set forth by the DAG, in August 2012 NTC initiated a RFP process to select a vendor to implement the Regional Air Monitoring Program. After evaluating the three submitted proposals, on September 24, 2012 NTC's Selection Committee found URS Corp.'s proposal to be the most qualified and most cost-effective, and URS was unanimously selected to be awarded the contract.

Following the selection of URS Corp., NTC, URS, and TCEQ created a Plan of Activities (POA) to implement the creation of the Regional Air Monitoring Program. Four key tasks were identified for the project:

- Task 1: Continued operation of Arlington UT Campus monitor
- Task 2: Deploy, operate, report data, and maintain all air monitors within the project
- Task 3: Respond to monitoring issues
- Task 4: Reporting/availability for questions

TCEQ approved the POA and issued to NTC an Approval to Commence Grant Activities on October 26, 2012. The period of authorized work under the POA initially ran through August 31, 2013, and was extended to January 31, 2014 under *Amendment No. 1 to Approval to Prepare Plan of Activities 582-12-23420-FY13-01*.

Following receipt of the Approval to Commence Grant Activities, NTC began working with URS and TCEQ to build and operate the Regional Air Monitoring Program. Under contract with NTC, over the course of 2013 URS constructed 16 air monitoring stations, bringing the total number of stations in network to 17 (including the UT Arlington Campus monitor).

During the period of work under POA FY13-01, the monitor network did not record any exceedances of either long-term or short-term AMCVs.

The total cost of implementing POA FY13-01 through January 31, 2014 was \$3,489,444.94.

## II. SUMMARY OF WORK

Under the *Direct Award Grant 582-12-23420* (DAG) and its amendments, the TCEQ authorized NTC to implement a regional air monitoring program in TCEQ Regions 3 and 4, as set forth by SB 527. On February 1, 2014, NTC commenced work on *Plan of Activities 582-12-23420-FY14-02*.

Under *POA FY14-02*, TCEQ authorized NTC to conduct four tasks:

- Task 1 Operate, report data, and maintain TCEQ approved air monitors throughout Regions 3 and 4
- Task 2 Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4
- Task 3 Respond to Monitoring Issues
- Task 4 Reporting/Availability for Questions

The period of authorized work under the POA ran through August 31, 2015, with a total budget of \$4,815,216.26.

### *Monitor Locations*

NTC maintained a network of 21 air monitoring stations located in TCEQ Regions 3 and 4.

*Table II-1: List of Monitoring Stations*

Site Name	Equipment			Date Active	Site ID	County	TCEQ Region
	AutoGC	VOC Canister	Met.				
<i>Abilene N. 3rd Street</i>		X	X	12/18/2013	484411509	Taylor	3
<i>Arlington UT Campus</i>	X		X	9/20/2012	484391018	Tarrant	4
<i>Bowie Patterson Street</i>		X	X	10/01/2013	483371507	Montague	3
<i>Dallas Elm Fork</i>	X		X	11/18/2013	481131505	Dallas	4
<i>Decatur Thompson</i>	X		X	6/5/2013	484970088	Wise	4
<i>DISH Airfield</i>	X		X	5/8/2013	481211013	Wise	4
<i>Eagle Mountain Lake</i>	X			4/8/2013	484390075	Tarrant	4
<i>Everman Johnson Park</i>	X		X	5/8/2013	484391009	Tarrant	4
<i>Flower Mound Shiloh</i>	X		X	5/8/2013	481211007	Denton	4
<i>Ft. Worth Benbrook Lake</i>	X		X	10/1/2013	484391503	Tarrant	4
<i>Gainesville Doss St.</i>		X	X	10/1/2013	480971504	Cooke	4

<i>Godley FM 2331</i>		X	X	7/13/2013	482511501	Johnson	4
<i>Joe B Rushing Rd.</i>	X		X	4/1/2014	484391065	Tarrant	4
<i>Keller</i>		X		7/14/2013	484392003	Tarrant	4
<i>Kennedale Treepoint Dr.</i>	X		X	4/1/2014	484391062	Tarrant	4
<i>Lancaster Cedardale</i>	X		X	9/1/2013	481131500	Dallas	4
<i>Mansfield Flying L Ln.</i>	X		X	4/1/2014	482511063	Johnson	4
<i>Mineral Wells 23rd Street</i>		X	X	8/21/2013	483631502	Palo Pinto	4
<i>Rhome Seven Hills Rd.</i>	X		X	4/1/2014	484971064	Wise	4
<i>Weatherford Highway 180</i>		X	X	10/13/2013	483671506	Parker	4
<i>Wichita Falls MWSU</i>		X	X	12/19/2013	484851508	Wichita	3

*Implementation of Work*

*[NOTE: Complete details of NTC’s work on the POA FY14-02 is available in the Monthly Progress Reports, included in Appendix A to this report.]*

Following receipt of the Approval to Commence Grant Activities, NTC continued work URS and TCEQ on the Regional Air Monitoring Program. Below is a summary of activities in each of the four tasks described above:

**Task 1 – Operate, report data, and maintain TCEQ approved air monitors throughout Regions 3 and 4**

Throughout the period of authorized work, NTC continued to successfully operate, report data, and maintain the Regional Air Monitor Program. Day-to-day activities included:

- Monitoring equipment and procedures:* The Regional Air Monitoring Program utilizes two types of monitors; VOC canisters and automated gas chromatographs (“AutoGCs”). Canister stations measure 85 different types of VOCs and sample the air for one 24-hour period every six days. The samples are collected by a technician once every two weeks for off-site laboratory analysis. AutoGC units measure 49 different types of VOCs and take one 5-minute sample every hour, 7-days a week, 365 days a year. The samples are automatically analyzed onsite. Both types of monitors take standard meteorological measurements including wind speed, direction, and humidity, utilizing a 30’ met tower. After analysis and verification, the data generated by the monitors is made publicly available on the TCEQ’s website.

- *Oversight of contract management and execution:* NTC hired URS Corp. to undertake the operation and maintenance of the Regional Air Monitoring Program. Specific contract management and execution tasks included:
  - Conference call with URS and its subcontractors every two weeks, as well as direct communication with key personnel from URS and its subcontractors on an as-needed basis.
  - Issuance of Work Orders, Amendments, and Notices to Proceed, including consideration for out-of-scope work (such as installation of new driveways), repairs to non-monitoring equipment (such as fences), and purchase of new replacement equipment (such as meteorological gear).
  - Site inspections of individual monitoring stations.
  - Review and approval of QAPP.
  - Investigation of issues related to monitor location and siting, such as property taxes.
  - On October 20, 2014, URS Corp. merged with AECOM, and changed its official name to “AECOM.” (For convenience and clarity, throughout the rest of the document we shall continue to refer to AECOM as “URS Corp.” or simply “URS”).
- *Liaising with community stakeholders about project and its findings.* Specific activities included:
  - On June 16, 2014, NTC gave a presentation on the Regional Air Monitoring Program to the North Central Texas Council of Governments (NCTCOG) Air Quality Technical Committee Meeting. As a result of the meeting, NTC responded to some questions from the public about readings at various monitors, including the UT Arlington Campus and Mansfield stations.
  - Throughout the period of authorized work, NTC has provided information about the project and its findings with various groups, including Metroplex Mayors Association, NTC Executive Committee, NTC Board of Directors, and others.
- *Managing billing, invoices, and other accounting needs.* Specific activities included:
  - In November 2014, NTC underwent its annual financial, conducted by Weaver & Tidwell LLP. The report found that the NTC complied in all material aspects with the types of compliance requirements described in the Uniform Grant Management Standards issued by the Governor’s Office of Budget and Planning.
  - Updating equipment inventory logs.

- Facilitate communication between NTC, URS Corp., and TCEQ. Specific activities included:
  - Every two weeks conference call with all parties to discuss program.

### **Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4**

At the start of work on POA 2, TCEQ instructed NTC to takeover operations for four already existing AutoGC sites that had been operated by The University of Texas at Arlington. Throughout February and March of 2014, NTC worked with URS to transfer to the Regional Air Monitoring Program the operations, data collection, and maintenance of these four monitors. NTC assumed full control of the monitors at midnight of April 1, 2014. Specific work on this task included:

- Managing transfer of sites from UTA to NTC, including transition of utility accounts and equipment.
- Review and approve new site access agreements.
- Oversight of URS Corp. work on site improvements, equipment procurement, and inventory.
- Coordination of work with URS Corp., Orsat, and UTA.
- Site visits to new sites in order to assess their location, quality, and condition.
- Verifying equipment inventory at sites with UTA staff.

In July 2015, the landowner of the Weatherford Hwy. 180 site informed NTC that they had sold their land to Parker County. NTC began investigation into how the change in ownership would impact access and use of the site for monitoring activities in coming years. At time of writing, this investigation is still ongoing.

### **Task 3 – Respond to Monitoring Issues**

On infrequent occasion, certain critical issues relating to the monitoring network arise, such as high readings, extreme weather events, or unscheduled maintenance. All AutoGC monitors within the system are equipped with an alert system that notifies operators of “trigger” readings above certain thresholds. Results from VOC canisters are reviewed monthly. Monitoring issues of note include:

- On January 17, 2014, the Bowie Patterson St. monitor registered 6.44 ppbV benzene reading, along with elevated levels of pentane and isopentane, but no other abnormally high readings. After extensive investigation, URS determined that the reading was valid. URS theorizes that the reading was due to a single isolated event, such as a car idling near the station for an extended period of time.

- On February 19, 2014, the Mansfield Flying L Lane monitor registered “medium triggers” for both Benzene and 1-Pentene. After investigation by URS and Orsat, it was determined that these readings were invalid to equipment failure.
- On July 23, 2014, the Decatur Thompson monitor registered high readings of numerous parameters, including benzene (1.627 ppbV). URS determined that the readings were valid, and noted that the site has a history of seeing temporarily elevated readings of benzene and other compounds. Various hypotheses for the cause of the readings included unusual weather patterns and the presence of oil and gas activity in the vicinity.
- In November 2014, URS discovered that the canister samples collected from 3/18/14 through 9/20/14, were biased low by 30-40%. The issue stemmed from using different gases (helium and ultra high purity air) in the sample matrix and instrument calibration matrix. URS worked with its subcontractor GD Air to resolve the issue, and recoveries returned to the acceptable range.
- NTC worked with URS, Orsat, and TCEQ to resolve various site access issues, including:
  - Gate access issues at Eagle Mountain Lake
  - Repaving access roads at Eagle Mountain Lake and DISH Airfield
  - Contingency planning for flooding at Elm Fork

**Task 4 – Reporting/Availability for Questions**

Throughout POA 2, NTC has submitted regular progress reports detailing all work conducted (available in full as Appendix A), and has been available for questions from TCEQ.

*Table II-2: Timeline of Events for POA 582-12-23420-FY14-02*

<b>Date</b>	<b>Description</b>
<i>Jan. 8, 2014</i>	TCEQ issues <i>Approval to Prepare Plan of Activities</i> to NTC
<i>Jan. 28, 2014</i>	NTC submits <i>POA 2</i> for approval to TCEQ
<i>Jan. 29, 2014</i>	TCEQ issues <i>Approval to Commence Grant Activities</i> to NTC
<i>Feb. 1, 2014</i>	NTC commences work on <i>POA 2</i>
<i>Feb. 4, 2014</i>	NTC issues <i>Work Authorization No. 2</i> to URS Corp., requesting URS Corp. to prepare a <i>Work Plan</i>
<i>Feb. 24, 2014</i>	URS submits <i>Plan of Activities – Implementation of SB527 Monitoring Program</i> to NTC for approval
<i>Feb. 25, 2014</i>	NTC issues <i>Notice to Proceed</i> to URS Corp.
<i>March 7, 2014</i>	TCEQ issues letter to UTA, informing them of impending transfer of Kennedale Treepoint Dr., Mansfield Flying L Ln., Rhome Seven Hills Rd., and Fort Worth Joe B. Rushing Rd. monitoring stations to NTC’s control

<i>March 13, 2014</i>	NTC executes <i>Contract Amendment Number 2</i> , authorizing transfer of UTA sites to NTC
<i>March 17, 2014</i>	NTC commences work to transfer UTA sites
<i>April 1, 2014</i>	NTC officially assumes full responsibility for UTA sites
<i>July 22, 2014</i>	NTC executes <i>Contract Amendment Number 3</i> , reducing Maximum Authorized Reimbursement for DAG to \$11,172,925.60.
<i>Oct. 20, 2014</i>	URS Corp. merges with AECOM.
<i>Oct. 24, 2014</i>	NTC issues <i>Addendum #1 to Feb. 25, 2014 Notice to Proceed</i> to URS Corp., allowing the purchase of replacement meteorological gear for certain monitoring stations
<i>Oct. 30, 2014</i>	NTC submits QAPP to TCEQ
<i>April 6, 2015</i>	NTC executes <i>Contract Amendment Number 4</i> , renewing contract through August 31, 2017, and amending an agreement between TCEQ and NTC regarding ownership of meteorological gear related to the four UTA monitoring stations.
<i>June 10, 2015</i>	NTC executes <i>Contract Amendment Number 5</i> , increasing Maximum Authorized Reimbursement for DAG to \$14,172,925.60
<i>June 20, 2015</i>	Governor signs HB 1, authorizing \$3,000,000 annual appropriation to the Regional Air Monitoring Program for FY 2016 and 2017.
<i>Aug. 31, 2015</i>	NTC completes work on POA2, submits <i>Final Report</i> to TCEQ.

### *POA 2 Budget Evaluation*

The maximum possible amount of funds available for implementation of POA 2 was \$6,477,960. NTC budgeted \$4,815,216.26 to fully implement the project. The actual expense for implementing POA 2 through August 31, 2015 was \$4,175,667.92.

### **III. KEY FINDINGS**

URS has provided a summary report of the Regional Air Monitoring Program, included as Appendix B of this document. In general, they find the network to be high-functioning, and capable of yielding high-quality data:

*Throughout the NTC network, canister and AutoGC concentrations correlated well between the two sampling methods. Furthermore, compound concentrations across the network were generally homogenous. (URS, pp. ES-1)*

They do note “slight seasonal trends” that show relatively higher compound concentrations during winter months (URS, pp. ES-1).

Furthermore, they find “short term and long term compound concentrations across the network were well below the associated levels of concern” and conclude that “compound concentrations are acceptable throughout the NTC network and not a threat to human health”



(URS, pp. ES-1). Below are two summary tables of compound concentrations measured against short-term and long-term AMCVs for seven key compounds studied by the network:

*Table III-1: Summary of Compound Concentrations vs. Short-Term AMCVs*

<b>Compound</b>	<b>Highest AutoGC 1-hr Concentration (ppbV)</b>	<b>Highest Canister 24-hr Concentration (ppbV)<sup>1</sup></b>	<b>Short-term AMCV (ppbV)</b>
<i>Ethane</i>	1,054.4	87.3	--
<i>Propane</i>	414.9	30.6	--
<i>Pentane</i>	122.2	57.9	68,000
<i>Benzene</i>	3.5	6.44	180
<i>Toluene</i>	169.8	2.47	4,000
<i>Methylbenzene</i>	1.6	0.48	20,000
<i>M&amp;p-xylene</i>	7.3	0.9	1,700

<sup>1</sup> Short-term data but not directly comparable to the 1-hr AMCVs

*Table III-2: Summary of Compound Concentrations vs. Long-Term AMCVs*

<b>Compound</b>	<b>Average Canister 24-hr Concentration (ppbV)</b>	<b>Long-term AMCV (ppbV)</b>
<i>Ethane</i>	9.13	--
<i>Propane</i>	3.99	--
<i>Pentane</i>	0.82	8,000
<i>Benzene</i>	0.15	1.4
<i>Toluene</i>	0.15	1,100
<i>Methylbenzene</i>	0.03	450
<i>M&amp;p-xylene</i>	0.07	140

Please see Appendix B for complete findings from the URS report, including monthly summary reports through May 2015 (latest available validated data).

#### **IV. CONCLUSION**

As detailed above, the North Texas Commission successfully implemented all aspects of the Regional Air Monitoring Program, as specified in POA 2. We look forward to continuing implementation of the project under POA FY16/FY17-03.

**APPENDIX A:**  
**MONTHLY PROGRESS REPORTS**

## **MONTHLY PROGRESS REPORT, #1**

**February 2014**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since receiving the Approval to Commence Grant Activities on January 29, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor URS Corp. have continued to operate, report data, and maintain the 17 air monitors that compose the NTC Regional Air Monitoring Program. NTC Staff work on this task has included:

- *Oversight of contract management and execution, including issuing new Work Order and Notice to Proceed to URS Corp.*
- *Liaising with community stakeholders about project and its findings*
- *Managing billing, invoices, and other accounting needs*
- *Facilitate communication between NTC, URS Corp., and TCEQ*

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC and its vendor URS Corp. have worked to transfer 4 already existing AutoGC sites into the NTC Regional Air Monitoring Program. These sites are currently operated by the University of Texas at Arlington. NTC Staff work on this task has included:

- *Managing transfer of sites from UTA to NTC, including transition of utility accounts and equipment*
- *Review and approve new site access agreements*
- *Oversight of URS Corp. work on site improvements, equipment procurement, and inventory*

- *Coordination of work with URS Corp., Orsat, and UTA*
- *Site visits to new sites in order to assess their location, quality, and condition*

**Task 3 – Respond to Monitoring Issues:**

- On February 19, 2014 at 02:00 CST, the Mansfield Flying L Lane AutoGC registered a “medium trigger” for Benzene with a reading of 125.63 ppbV (short-term health AMCV=180 ppbV). NTC Principal Investigator alerted Orsat monitoring team of the issue. Orsat determined that the reading was invalid due to equipment failure.
- On February 19, 2014 at 12:00 CST, the Mansfield Flying L Lane AutoGC registered a “medium trigger” for 1-Pentene with a reading of 147.79 ppbV (short-term health AMCV=2600 ppbV). NTC Principal Investigator alerted Orsat monitoring team of the issue. Orsat determined that the reading was invalid due to equipment failure.
- The following sites were offline for small periods of time the week of February 25 in order to update their calibration verification standards: Everman Johnson Park, Eagle Mountain Lake, Flower Mound Shiloh, Decatur Thompson, and Godley FM 2331.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.
- NTC Principal Investigator has created the first monthly progress report

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project. Specific item of note for the month of March 2014 is continuing work to prepare for the transfer of UTA AutoGC sites to NTC ownership, effective on April 1, 2014.

## **MONTHLY PROGRESS REPORT, #2**

**March 2014**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous month's progress report on March 7, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor URS Corp. have continued to operate, report data, and maintain the 17 air monitors that compose the NTC Regional Air Monitoring Program. NTC Staff work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
- *Managing billing, invoices, and other accounting needs*
- *Facilitate communication between NTC, URS Corp., and TCEQ*

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC and its vendor URS Corp. have successfully transferred 4 already existing AutoGC sites into the NTC Regional Air Monitoring Program. These sites were previously operated by the University of Texas at Arlington, but officially became a part of the North Texas Air Monitoring Program effective midnight on April 1, 2014. NTC Staff work on this task has included:

- *Managing transfer of sites from UTA to NTC, including transition of utility accounts and equipment*
- *Review and approve new site access agreements*
- *Oversight of URS Corp. work on site improvements, equipment procurement, and inventory*
- *Coordination of work with URS Corp., Orsat, and UTA*

- *Site visits to new sites in order to assess their location, quality, and condition*
- *Verifying equipment inventory at sites with UTA staff*

**Task 3 – Respond to Monitoring Issues:**

- In the January monthly NTC Summary Report issued by URS, the Bowie Patterson St. VOC canister had an average benzene concentration of 1.5 ppbV (long-term health AMCV=1.4 ppbV). NTC Principal Investigator alerted URS and TCEQ of the issue. URS reviewed the data and discovered that the monthly average was high because of the January 17 sample, which read 6.44 ppbV benzene. The sample also showed elevated levels of pentane and isopentane, but no other abnormally high concentrations. URS found no unusual diagnostic readings at the time (sample flow, vacuum, and lab QC data), suggesting that the reading was accurate. Theories for the high sample include:
  - The sample was actually of air from inside the shelter instead of ambient air outside the shelter, possibly due to the sample line being loose or disconnected.
  - The monitoring station is located near a dumpster and also a radio tower. The trash truck or support vehicles for the radio tower could have been idling for an extended period of time near the monitor while it was sampling.

URS is still investigating the matter. It has taken a sample of the air inside the shelter and will analyze it to see if there is a similar profile.

- On March 26, NTC Principal Investigator was informed that the owners of the land upon which the Eagle Mountain Lake monitor is located had a complaint that one of the access gates was being left unlocked. NTC Principal Investigator worked with TCEQ, the land owner, URS, and Orsat to resolve the issue. Contractors have been instructed to lock the access gate at all times.

- The following sites were offline for small periods of time during March in order to update their calibration verification standards: UT Arlington, Godley FM 2331, Benbrook Lake, DISH Airfield, Dallas Elm Fork.
- During the week of March 24, Eagle Mountain Lake and Everman Johnson Park were offline for a small period of time for preventative maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.
- NTC Principal Investigator has created the first monthly progress report

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project. Specific item of note for the month of April 2014 is finalizing site access issues with the City of Fort Worth for the Joe B. Rushing Rd. monitor and continuing ensure that the former UTA monitoring stations are integrated into the NTC network.

## **PROGRESS REPORT, #3**

**April through October 2014**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on April 4, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors**

**throughout Regions 3 and 4:** NTC and its vendor URS Corp. have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program, including the 4 air monitor stations transferred to the NTC from the University of Texas at Arlington during March 2014. NTC Staff work on this task has included:

- *Oversight of contract management and execution*
  - During June 2014, NTC worked with URS Corp. to install a driveway at the Wichita Falls MWSU site.
  - NTC Principal Investigator has approved the October 2014 QAPP.
  - During the month of October, the NTC Principal Investigator and other NTC staff visited each of the 21 monitoring stations for an annual review of the network. All were found to be in satisfactory condition.
- *Liaising with community stakeholders about project and its findings*
  - On June 16, 2014, NTC Principal Investigator gave a presentation on the North Texas Air Monitoring Network to the North Central Texas Council of Governments (NCTCOG) Air Quality Technical Committee Meeting. As a result of the meeting, the Principal Investigator responded to some questions from the public about readings at



various monitors, including the UT Arlington Campus and Mansfield stations.

- *Managing billing, invoices, and other accounting needs*
- *Facilitate communication between NTC, URS Corp., and TCEQ*

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- Bowie Patterson St.: URS determined that the elevated benzene reading on January 17, 2014 of 6.44 ppbV was a valid sample. URS was unable to determine the emissions source.
- Decatur Thompson: On July 23<sup>rd</sup>, the Decatur Thompson monitor reported a high reading of numerous parameters, including benzene (1.627 ppbV). URS Corp. determined that the readings were valid, and noted that the site has a history of seeing temporary elevated readings of benzene and other parameters. Various hypotheses for the cause of the readings included unusual weather patterns and the presence of oil and gas activity in the vicinity.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- On October 15, NTC Principal Investigator and other NTC staff visited Austin for a meeting with TCEQ Project Manager.
- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project. As of October 31, 2014, Robert Kent, the NTC Principal Investigator, will no longer be a full-time employee of the NTC. He will continue his role as Principal Investigator on the project as a consultant until a full-time replacement is hired.

## **PROGRESS REPORT, #4**

**November 2014**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on October 30, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor URS Corp. have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
  - URS Corp. made repairs to the gate at Benbrook monitor
  - URS Corp. made repairs to the fence at Lancaster monitor
  - URS Corp. purchased replacement meteorological gear for four UTA monitors
  - NTC has coordinated with TCEQ and City of Abilene regarding a property tax assessment of the equipment installed at the Abilene monitor. As of December 5, the issue still unresolved; however, TCEQ is leaning toward paying the tax. We anticipate the issue to be resolved in the next 7-14 days.
- *Liaising with community stakeholders about project and its findings*
  - URS Corp. informed NTC that a lawn maintenance crew had damaged the landscaping outside the Lancaster monitor. NTC Principal Investigator communicated with Lancaster Parks & Recreation Dept. to alert them of the issue. The issue now resolved.

- *Managing billing, invoices, and other accounting needs*
- *Facilitate communication between NTC, URS Corp., and TCEQ*

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- URS informed NTC and TCEQ that the canister samples collected from 3/18/14 through 9/20/14, were biased low by 30-40%. The issue stemmed from using different gases (helium and ultra high purity air) in the sample matrix and instrument calibration matrix. The issue began with the 3/18/14 sample. The Q2 and Q3 performance evaluation (PE) samples indicated that the recoveries for compounds were low. After the Q3 PE sample on 8/27/14, URS investigated and discovered the helium/UHP issue. Since this discovery, URS has instructed GD Air to use the same gas for the sample and calibration matrices. Since making this change, the recoveries have returned to the acceptable range.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project.

## **PROGRESS REPORT, #5**

**December 2014**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on December 5, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor URS Corp. have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
  - URS Corp. has performed its quarterly audit of the air monitoring network. Results will be available in the January 2015 progress report.
- *Liaising with community stakeholders about project and its findings*
  - NTC reviewed the August and September 2014 Summary Reports provided by URS. No levels were found to be above any AMCVs.
- *Managing billing, invoices, and other accounting needs*
  - NTC underwent its annual financial audit. Results will be available in the January 2015 progress report.
  - NTC has reviewed and paid the November 2014 invoice to URS.
- *Facilitate communication between NTC, URS Corp., and TCEQ*
  - NTC participated in the usual twice-monthly conference call.

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- TCEQ alerted URS and NTC that meteorological data has not been validated for the four UTA sites from March 25-31, 2014.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project.

## **PROGRESS REPORT, #6**

**January 2015**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on January 14, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor AECOM (formerly URS Corp.) have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program.

Work on this task has included:

- *Oversight of contract management and execution*
  - During the January 15 conference call, NTC's vendor URS Corp. alerted NTC that they had merged with the firm AECOM, and will hereafter no longer go by URS Corp., and instead will go by AECOM.
- *Liaising with community stakeholders about project and its findings*
  - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
  - NTC is awaiting results from its annual financial audit. Results should be available in the February 2015 progress report.
  - NTC has reviewed and paid the December 2014 invoice to AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
  - NTC participated in the usual twice-monthly conference call.

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- AECOM has performed its quarterly audit of the air monitoring network. Overall, results from the audit were deemed acceptable by AECOM, NTC, and TCEQ. As in previous audit reports, the network still suffers from readings being outside the audit objective of +/- 30% for seven of the 48 compounds. However, as noted in the report, these results are comparable historically to other AutoGC sites in Texas and is not considered a significant issue.
- NTC reviewed the October 2014 Summary Reports provided by AECOM. No levels were found to be above any AMCVs.
- TCEQ approved CAMS and AutoGC Validator standard operating procedures.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project.

## **PROGRESS REPORT, #7**

**February 2015**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on February 12, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
  - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
  - NTC received the results from its annual financial audit report from Weaver & Tidwell LLP. The report found that the NTC complied in all material aspects with the types of compliance requirements described in the Uniform Grant Management Standards issued by the Governor's Office of Budget and Planning.
  - NTC has reviewed and paid the January 2014 invoice to AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
  - NTC participated in the usual twice-monthly conference call.



**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- NTC reviewed the November 2014 Summary Reports provided by AECOM. No levels were found to be above any AMCVs.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project.

## **PROGRESS REPORT, #8**

**March 2015**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on February 12, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
  - NTC has begun work on FY16/17 budget.
  - There are a number of sites for which NTC has been paying the electric and internet utility bills. NTC is working with AECOM to transfer the billing responsibility for these sites to AECOM.
- *Liaising with community stakeholders about project and its findings*
  - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
  - NTC has reviewed and paid the February 2014 invoice to AECOM.
  - AECOM and Orsat have updated the equipment inventory logs, including spare parts.
  - NTC is working with AECOM to update state vehicle registration for equipment trailers with wheels.
- *Facilitate communication between NTC, AECOM, and TCEQ*

- NTC participated in the usual twice-monthly conference call.

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- The road to the Eagle Mountain Lake site is in need of significant repairs due to a pothole. NTC is working with TCEQ and the landowner to resolve this issue.
- A landowner adjacent to the DISH Airfield site has alerted Orsat that they have been using his private roadway to access the monitoring site. NTC and Orsat are working with the landowner to reach an accommodation that would allow our vehicles to access the site.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project.

## **PROGRESS REPORT, #9**

**April, May, June 2015**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on April 9, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
  - NTC has begun work on FY16/17 budget.
  - NTC has successfully transferred all payment of electric and internet bills to AECOM.
  - AECOM completed its quarterly audit of the network. No significant issues of concern were identified.
- *Liaising with community stakeholders about project and its findings*
  - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
  - NTC has reviewed and paid the March, April, May, and June 2014 invoices to AECOM.
  - In accordance with instruction from TCEQ, NTC has decided to not renew the registration on the equipment trailers with wheels. This action will be deferred until such time that we decide to move them to a new location.
- *Facilitate communication between NTC, AECOM, and TCEQ*

- NTC participated in the usual twice-monthly conference call.

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** NTC has not decommissioned or relocated any air monitoring stations since the previous progress report.

**Task 3 – Respond to Monitoring Issues:**

- Repairs to the Eagle Mountain Lake road have been completed.
- Repairs to the DISH road have been completed.
- The area around the Elm Fork monitor flooded in the first week of June, but the monitor was not impacted.
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.

**Planned future activities:** NTC Staff will continue work on all four tasks associated with this project. Upon receiving the Approval to Prepare Plan of Activities, NTC Staff will begin work on preparing a new Plan of Activities to cover work beginning on September 1, 2015. NTC Principal Investigator is also commencing work on the Final Report for the current POA.

## **PROGRESS REPORT, #10**

**July and August 2015**

**Project Title:** Continued Implementation of SB527 Monitoring Program

**Project No.:** 582-12-23420-FY14-02

**Summary of recent activity:** Since submitting the previous progress report on July 2, 2014, the North Texas Commission has performed the following activities:

**Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4:** NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
  - NTC has completed work on FY16/17 budget.
  - NTC has completed work on POA 3.
- *Liaising with community stakeholders about project and its findings*
  - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
  - NTC has reviewed and paid the July and August 2015 invoices to AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
  - NTC participated in the usual twice-monthly conference call.

**Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:** In July, the landowner of the Weatherford Hwy. 180 site informed NTC that they had sold their land to Parker County. NTC began investigation into how the change in

ownership would impact access and use of the site for monitoring activities in coming years. Specific work has included:

- *Liaising with original realtor who brokered NTC's lease for the Weatherford site*
- *Contacting officials within Parker County requesting more information*
- *Sending summary of NTC monitoring program to Parker County Commissioners Court*

As of August 31, 2015, the issue remains unresolved. The latest update from Parker County is that the county acquired the land for a future highway expansion project; however, the highway in question is still unfunded, and thus, there is only a minor risk that we will need to relocate the Weatherford monitoring station in the coming months or years.

**Task 3 – Respond to Monitoring Issues:**

- ORSAT repaired the air conditioning unit at Arlington UT Campus station
- Various monitors have undergone routine maintenance.
- There were no other incidences since the last report.

**Task 4– Reporting/Availability for Questions:**

- NTC Principal Investigator has been available for questions from TCEQ Project Manager.
- NTC Principal Investigator prepared and submitted a Final Report detailing the background, summary of work, and key findings from implementing the Regional Air Monitoring Program under POA 2.

**Planned future activities:** As this is the final Progress Report for POA 2, there are no future activities planned under this POA. However, TCEQ has issued a Notice to Commence Grant Activities in response to POA 3 submitted by NTC. Thus, NTC will continue all four tasks for the Regional Air Monitoring Program under POA 3, starting September 1, 2015.