ANNUAL REPORT
TO THE U.S. DISTRICT COURT
FOR THE
CORPUS CHRISTI AIR MONITORING AND SURVEILLANCE CAMERA PROJECT

Activity Summary for the period from
October 2, 2006 through October 1, 2007

On October 1, 2003, the US District Court for the Southern District of Texas issued an order to the Clerk of the Court to distribute funds in the amount of $6,700,000, plus interest accrued, to The University of Texas at Austin (University) to implement the court ordered condition of probation (COCP) project *Corpus Christi Air Monitoring and Surveillance Camera Installation and Operation* (Project). This annual report has been prepared pursuant to the requirements of the project proposal and is being submitted to the US District Court, the US Environmental Protection Agency (EPA), and the Texas Commission on Environmental Quality (TCEQ).

The COCP consists of a network of seven (7) air monitoring stations as shown in the map below with air monitoring instruments and surveillance camera equipment as shown in Table 1, page 2.

Table 1. Schedule of Air Monitoring Sites, Locations and Major Instrumentation

TCEQ CAMS NOs.	Latitude	Longitude	Description of Site Location	Monitoring Equipment				
				Auto GC	TNMHC	H2S & SO2	Met Station	Camera
634	27.798889 º North	97.433889 º West	Oak Park Recreation Center	Yes	Yes		Yes	
629	27.817500 º North	97.419722 º West	Grain Elevator @ Port of Corpus Christi		Yes	Yes	Yes	
630	27.824444 º North	97.432500 º West	J. I. Hailey Site @ Port of Corpus Christi		Yes	Yes	Yes	
635	27.811389 º North	97.465556 º West	TCEQ Monitoring Site C199 @ Dona Park		Yes	Yes	Yes	Yes
631	27.845278 º North	97.525556 º West	Port of Corpus Christi on West End of CC Inner Harbor		Yes	Yes	Yes	
632	27.827222 º North	97.528889 º West	Off Up River Road on Flint Hills Resources Easement		Yes	Yes	Yes	
633	27.908333 º North	97.542222 º West	Solar Estates Park at end of Sunshine Road	Yes	Yes	Yes	Yes	Yes

Legend

Auto GC	automated gas chromatograph
TNMHC	total non-methane hydrocarbon analyzer
H_2S	hydrogen sulfide analyzer
SO_2	sulfur dioxide analyzer
Met Station	meteorology station consisting of measurement instruments for wind speed, wind direction, ambient air temperature and relative humidity
Camera	surveillance camera

A. OPERATIONS AND MAINTENANCE OF SITES

Summary of Data Findings from Monitoring Sites

As noted in Table 1, page 2, the monitoring network provides measurements of a variety of air pollutants, including hydrocarbons, sulfur dioxide and hydrogen sulfide. Provided below are brief findings from the monitoring network. More details are available in Appendix A, pages 6 through 29.

Summary of Results of Canister Sampling

At five of the seven monitoring sites, an ambient air sample may be collected in a canister in the field for subsequent laboratory analysis if a sustained level of elevated concentrations of total nonmethane hydrocarbons has been measured. During the period from October 1, 2006 through September 30, 2007, a total of 53 canister samples were triggered in the Corpus Christi network. In seven canisters, benzene concentrations higher than the TCEQ's effects screening levels were measured. The TCEQ does not consider individual values in the range that was measured (28 – 407 ppbV) to be problems in and of themselves; rather the concern is that these elevated concentrations contribute to long-term average concentrations that may be of concern.

Trends in Hydrocarbon Concentrations in Residential Areas

The two automated gas chromatograph instruments in residential areas continued to measure annual average concentrations below the TCEQ's long-term effects screening levels. A comparison between the mean concentrations of individual hydrocarbon species from rolling annual averages fails to show any significant or practical changes in average concentrations since monitoring began.

Trends in Benzene Concentrations in Residential Areas

Because of a high level of concern with benzene, a known carcinogen, this compound is given special attention. An analysis of the benzene data coupled with the wind data allows estimation of the directions associated with the higher and lower than average concentrations. It has been shown repeatedly that at Solar Estates the principal direction for higher than average concentrations points to the refinery to the northeast, and at Oak Park two key directions emerge – one pointing to a refinery to the northwest, one pointing to a refinery to the northeast.

Case Studies in Hydrogen Sulfide Episodes

On three occasions over the October 1, 2006 – September 30, 2007 period, episodes of hydrogen sulfide concentrations above the level of the Texas 30-minute standard were monitored. One case on January 22, 2007 at Flint Hills CAMS 632 was related to a reported upset with sulfur recovery equipment at the refinery. Two other cases at the J. I. Hailey CAMS 630 site appear to have been related to operations across the ship channel near the Port of Corpus Christi loading facilities. TCEQ completed a follow up with the companies in the area to assess the causes of elevated concentrations.

B. ADVISORY BOARD

1. The Advisory Board for the Corpus Christi Air Monitoring and Surveillance Camera Project is a voluntary Board that consists of eight members. The members and their representation on the Board follow:

Ms. Gretchen Arnold	Local Air Quality Issues and Board Spokesperson
Mr. Ron Barnard	Near Non-Attainment Area Liaison - Instrumentation Local Air Quality Issues and Board Spokesperson
Dr. Eugene Billiot	Technical Support to the Board - Instrumentation
Dr. William Burgin	Local Public Health - Local Air Quality Issues
Ms. Joyce Jarmon	Community Representation
Ms. Charlotte Knesek	Community Representation
Dr. Glen Kost	Community Representation
Ms. Pat Suter	Local Advocacy Group

2. Two meetings of the Advisory Board were held during the fourth year of the Project. Both meetings were held on the campus of Texas A&M University in Corpus Christi, Texas. Highlights from these meetings follow:

a. *October 5, 2006 Meeting*

- Seven Board members and representatives from the US District Court, EPA Region 6, The University of Texas at Austin, the Texas Commission on Environmental Quality, and Air Quality Solutions, Inc. attended.
- This was the first Advisory Board Meeting for three new members recently selected to serve on the Board, Dr. William Burgin, Ms. Joyce Jarmon and Ms. Charlotte Knesek.
- The morning of October 5, 2006, Dr. David Sullivan, UT Austin's Quality Assurance Officer, made a presentation on Corpus Christi Air Monitoring and Surveillance Camera Project to a meeting of the Corpus Christi Long Term Health Group.

- Dr. David Sullivan gave a summary of the early findings resulting from the analysis of data collected at the monitoring stations.
- The Board was updated on the status of the tasks funded under TCEQ Supplemental Environmental Projects (SEPs).
- Preparation of an outline detailing the content and presentation of the annual report to the US District Court was discussed.

b. *April 3, 2007 Meeting*

- Six Board members and representatives from the US District Court, University of Texas at Austin, the Texas Commission on Environmental Quality and the Port of Corpus Christi attended.
- The Board was updated on the presentation of the Project's Annual Report to the US District Court, which occurred in December 2006. During the presentation of the Annual Report mention was made of a case from the Houston area, which may result in additional funding for another air quality project in the Houston/Corpus Christi area.
- Dr. David Sullivan gave a summary of the early findings resulting from the analysis of data collected at the monitoring stations.
- Ms. Sarah Kowalski, who is the Environmental Compliance Specialist with the Port of Corpus Christi, gave a presentation on the environmental management responsibilities in the Corpus Christi Port Area.

C. PROJECT MANAGEMENT AND PLANNING

Project Management and Planning during this period has focused on five (5) major activities.

1. **Site Operations and Maintenance and Quality Assurance**
   Routine operations, maintenance and quality assurance activities have become the norm at each site. These activities help to maintain high data capture and quality of data.

2. **Data Analysis**
   The Project now has more than two years worth of data. The focus of data analysis has been to examine the frequency, level and direction of sources when measurements exceed trigger or warning levels and to analyze data for trends and other patterns indicated in the data collected.

3. **Communication**
   Information about the status of the Project has been communicated through:
   a. Advisory Board Meetings,
   b. Project Website, which is operational with portions under development, and
   c. Quarterly Technical and Financial Reports to the Court and Advisory Board.

4. **Budget Monitoring**
   Budget monitoring during the period has focused on:
   a. Project costs for Phase II-Sites Operation and Maintenance,
   b. Administration and oversight costs incurred by the University, and

c. Financial reports included at Appendix B, pages 30 through 35.

5. **Other Contributions**

The University of Texas at Austin has been awarded funding for three (3) Supplemental Environmental Projects (SEP) from the Texas Commission on Environmental Quality since the Project began. In the fiscal year ending September 30, 2005, the first SEP project was awarded which supported the operations and maintenance of the seven (7) air monitoring stations in the Corpus Christi area for approximately one year and funded the development of a Trajectory Tool, which assists Project personnel in understanding the origination of pollutant sources. The second SEP, funded in the fiscal year ending September 30, 2005, enabled UT Austin to purchase additional canisters for the collection of air samples at the seven monitoring stations. Both of these SEP projects are completed.

During the 2005/2006 fiscal year, the third SEP award was authorized and was ongoing during the 2006/2007 fiscal year. This SEP enhanced the existing Trajectory Tool by developing three computer tools, which will assist in estimating a likely path of air contaminants prior to the contaminants reaching any of the seven established air monitoring stations. A second task authorized under this SEP allowed for additional canister analysis at each of the seven air monitoring stations. The final task under the SEP award funded the purchase and installation of hardware and software to minimize data loss associated with power loss and the installation of a wind direction filter at the Flint Hills Site.

The Trajectory Tool enhancements and the installation of the hardware and software and the wind direction filter were completed during this reporting period.

APPENDIX A

Data Analysis for Corpus Christi Annual Report
October 2006 – September 2007

The University of Texas at Austin
Center for Energy & Environmental Resources
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This technical report describes results of monitoring and analysis of data under the Corpus Christi Air Quality Project for the period from October 1, 2006 through September 30, 2007. The monitoring network is described in Table 1 below and shown in Figure 1, page 8. Figure 2, page 8, and Figure 3, page 9, show some of the pollution sources within the area covered by the monitoring network. A number of additional smaller sources are in the area and are known to affect the measurements taken by the monitors.

This report contains the following elements:

- an update on canister sampling and analysis of results;
- a summary of hourly speciated hydrocarbon concentrations measured by automated gas chromatographs (auto-GCs) compared with health effects screening levels;
- a summary of benzene data measured in residential areas;
- a summary of three case studies of hydrocarbon and hydrogen sulfide (H_2S) events.

Table 1. Schedule of Air Monitoring Sites, Locations and Major Instrumentation

TCEQ CAMS#	Description of Site Location	Monitoring Equipment				
		Auto GC	TNMHC (T) / Canister (C)	H_2S & SO_2	Met Station	Camera
634	Oak Park Recreation Center (**OAK**)	Yes	T		Yes	
629	Grain Elevator @ Port of Corpus Christi (**CCG**)		T&C	Yes	Yes	
630	J. I. Hailey Site @ Port of Corpus Christi (**JIH**)		T&C	Yes	Yes	
635	TCEQ Monitoring Site C199 @ Dona Park (**DPK**)		T&C	Yes	Yes	Yes
631	Port of Corpus Christi on West End of CC Inner Harbor (**WEH**)		T&C	Yes	Yes	
632	Off Up River Road on Flint Hills Resources Easement (**FHR**)		T&C	Yes	Yes	
633	Solar Estates Park at end of Sunshine Road (**SOE**)	Yes	T	Yes	Yes	Yes

Legend

Auto GC	automated gas chromatograph
TNMHC	total non-methane hydrocarbon analyzer (all except 634 & 633 also have canister hydrocarbon samplers)
H_2S	hydrogen sulfide analyzer
SO_2	sulfur dioxide analyzer
Met Station	meteorology station consisting of measurement instruments for wind speed, wind direction, ambient air temperature and relative humidity
Camera	surveillance camera

Figure 1. Corpus Christi Monitoring Sites

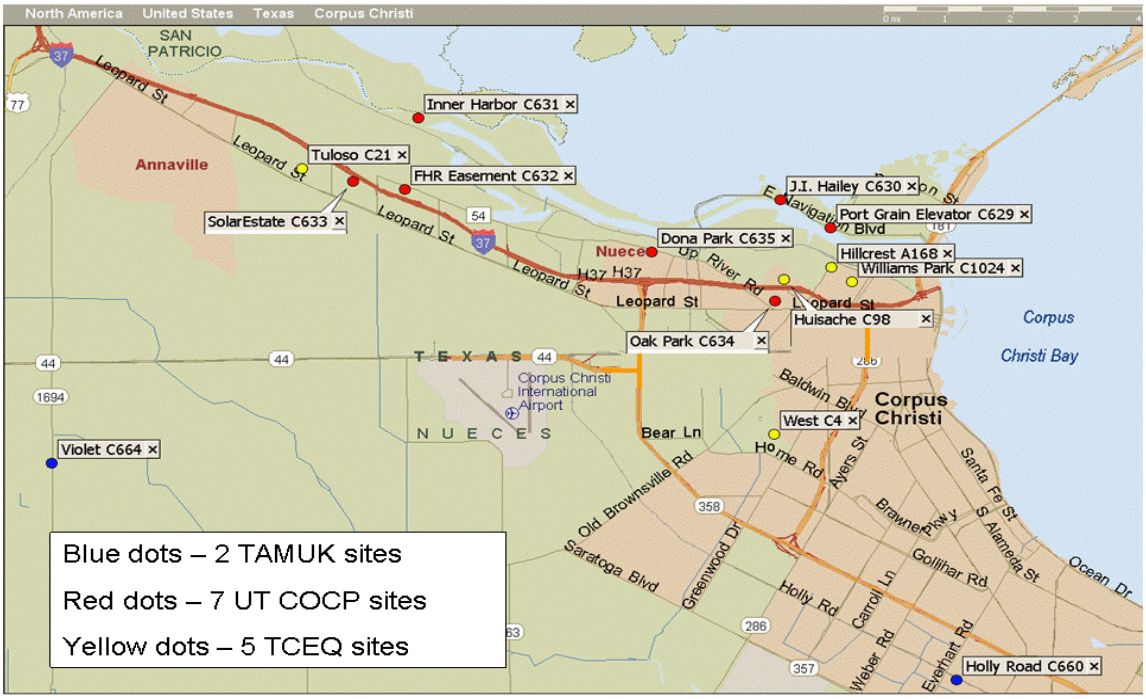


Figure 2. Major Industrial Facilities in the Corpus Christi Area

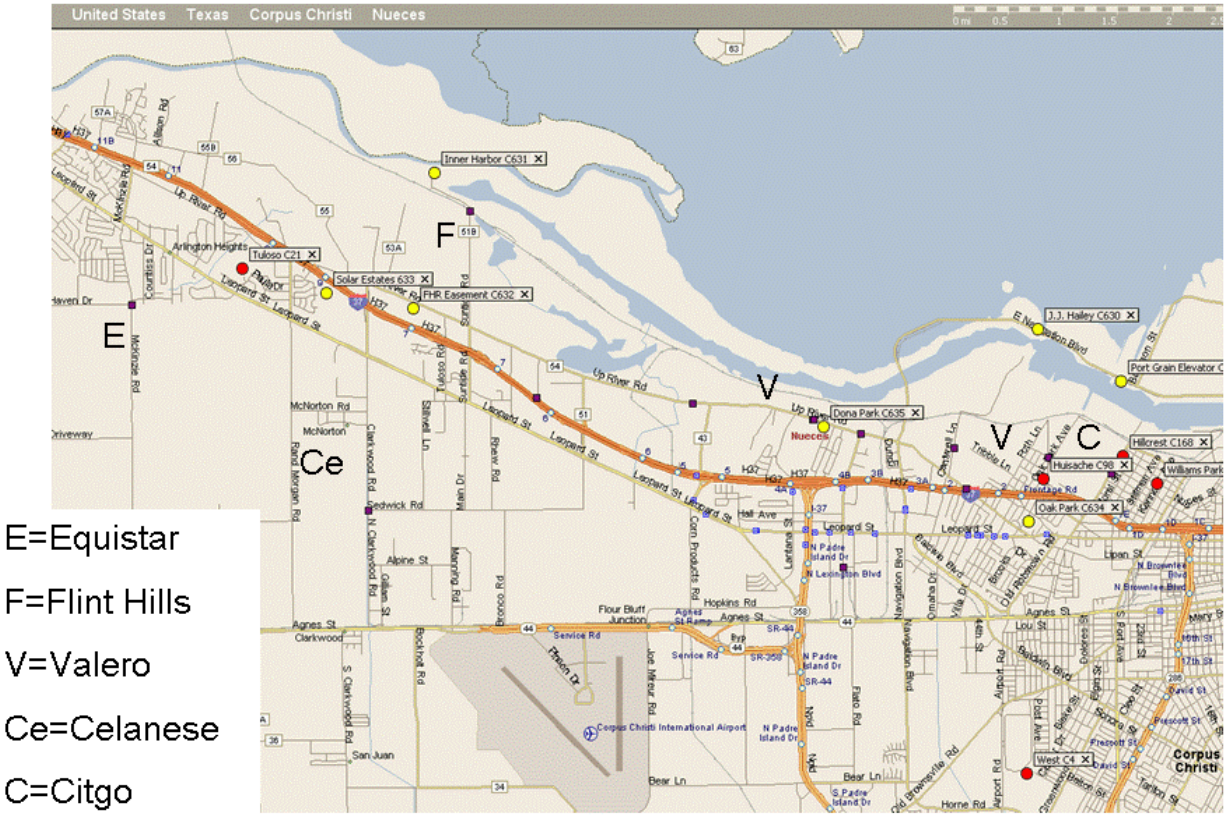
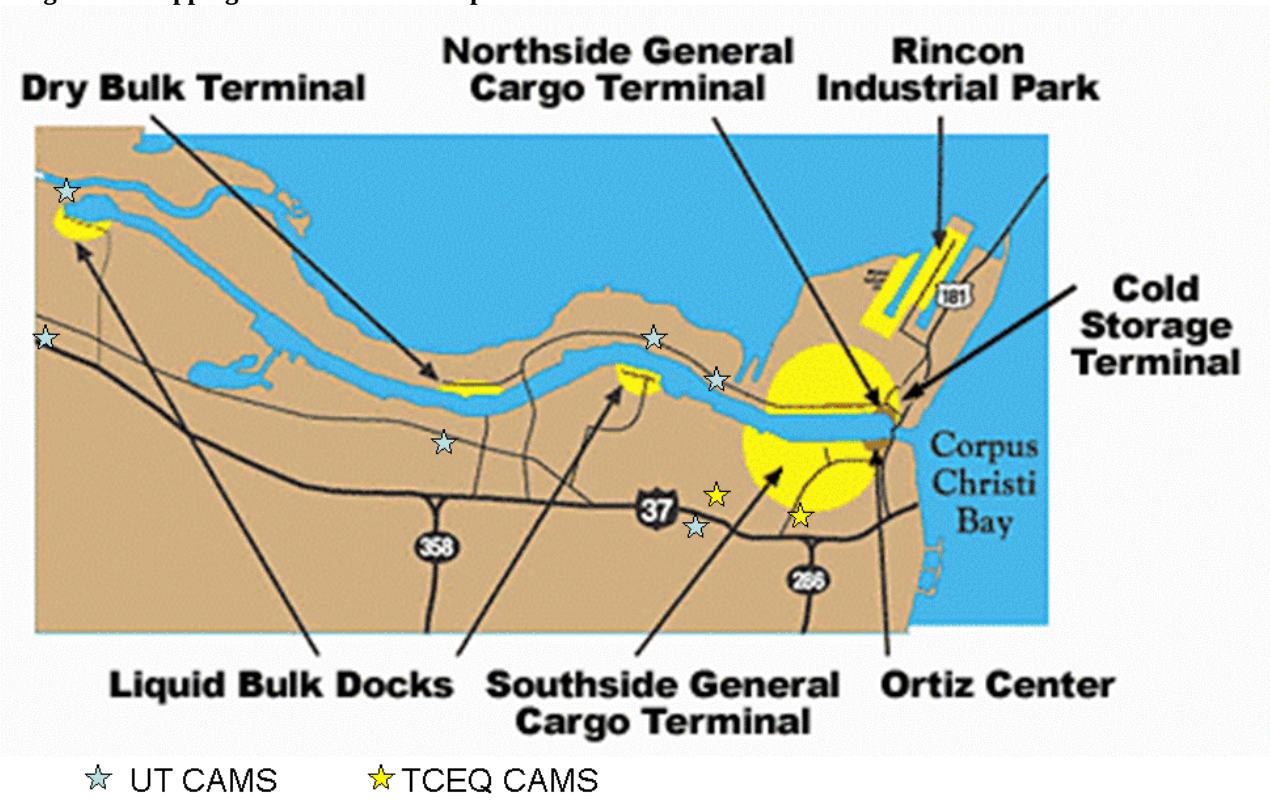


Figure 3. Shipping Facilities in the Corpus Christi Area



Glossary

Glossary of terms

- **Pollutant concentrations** – Concentrations of most gaseous pollutants are expressed in units denoting their "mixing ratio" in air; i.e., the ratio of the number molecules of the pollutant to the total number of molecules per unit volume of air. Because concentrations for all gases other than molecular oxygen, nitrogen, and argon are very low, the mixing ratios are usually scaled to express a concentration in terms of "parts per million" (ppm) or "parts per billion" (ppb). Sometimes the units are explicitly expressed as ppm-volume (ppmV) or ppb-volume (ppbV) where 1 ppmV indicates that one molecule in one million molecules of ambient air is the compound of interest and 1 ppbV indicates that one molecule in one billion molecules of ambient air is the compound of interest. In general, air pollution standards and health effects screening levels are expressed in ppmV or ppbV units. Because hydrocarbon species may have a chemical reactivity related to the number of carbon atoms in the molecule, mixing ratios for these species are often expressed in ppb-carbon (ppbV times the number of carbon atoms in the molecule), to reflect the ratio of carbon atoms in that species to the total number of molecules in the volume. This is relevant to our measurement of auto-GC species and TNMHC, which are reported in ppbC units. For the purpose of relating hydrocarbons to health effects, this report notes hydrocarbon concentrations in converted ppbV units. However, because TNMHC is a composite of all species with different numbers of carbons, it cannot be converted to ppbV. Pollutant concentration measurements are time-stamped based on the start time of the sample, in Central Standard Time (CST), with sample duration noted.

- **Auto-GC** - The automated gas chromatograph collects a sample for 40 minutes, and then automatically analyzes it for some 47 hydrocarbon species. These include benzene and 1,3-butadiene, which are air toxics, various butene species that have relatively low odor thresholds, and a range of gasoline and vehicle exhaust components. Auto-GCs operate at Solar Estates CAMS 633 and Oak Park CAMS 634.

- **Total non-methane hydrocarbons** (TNMHC) – TNMHC represent a large fraction of the total volatile organic compounds released into the air by human and natural processes. TNMHC is an unspeciated total of all hydrocarbons, and individual species must be resolved by other means, such as with canisters or auto-GCs. However, the time resolution of the TNMHC instrument is much shorter than the auto-GC, and results are available much faster than with canisters. TNMHC analyzers operate at all seven UT/CEER sites.

- **Canister** – Stainless steel canisters are filled with air samples when an independent sensor detects that elevated (see below) levels of hydrocarbons (TNMHC) are present. Samples are taken for various lengths of time (generally 20 minutes) to try to capture the chemical make-up of the air. In most cases, the first time on any day that the monitored TNMHC concentration exceeds 2000 ppbC at a site for a continuous period of 15 minutes or more, the system will trigger and a sample will be collected. Samples are sent to UT Austin and are analyzed in a lab to resolve some 50 – 55 hydrocarbon species. Canister samplers have operated at all seven UT/CEER sites, but since early 2006 have operated only at five (CAMS No.629, No.630, No.631, No.632, and No.635).

- **Effects Screening Levels (ESLs) –** From the TCEQ Web site: **"**Effects Screening Levels are used to evaluate the potential for effects to occur as a result of exposure to concentrations of constituents in the air. ESLs are based on data concerning health effects, the potential for odors to be a nuisance, effects on vegetation, and corrosive effects. They are not ambient air standards. If predicted or measured airborne levels of a constituent do not exceed the screening level, adverse health or welfare effects are not expected. **If ambient levels of constituents in air exceed the screening levels, it does not necessarily indicate a problem but rather triggers a review in more depth**." (Emphasis added.) (Accessed October, 2007) http://www.tceq.state.tx.us/implementation/tox/esl/ESLMain.html

- **Elevated Concentrations –** In the event that measured pollutant concentrations are above a set threshold they are referred to as "elevated concentrations." These thresholds are summarized by pollutant as follows:
    - For H_2S or SO_2, any measured concentration greater than the level of the state residential standards, which are 80 ppb for H_2S and 400 ppb for SO_2, is considered "elevated." Note that the concentrations need not persist long enough to constitute an exceedance of the standard to be so regarded. In addition, any closely spaced values that are statistically significantly (at 0.01 level) greater than the long-run average concentration for a period of one hour or more will be considered "elevated" because of their unusual appearance, as opposed to possible health consequence. The rationale for doing so is that unusually high concentrations at a monitor may suggest the existence of unmonitored concentrations closer to the source area that are potentially above the state's standards.

- For TNMHC, any measured concentration greater then the canister triggering threshold of 2000 ppbC is considered "elevated." Note that the concentrations need not persist long enough to trigger a canister (900 seconds).
- For benzene and other air toxics in canister samples or auto-GC measurements, any concentration above the short-term ESL is considered "elevated." Note that 20-minute canister samples and 40-minute auto-GC measurements are both compared with the one-hour ESL.
- Some hydrocarbon species measured in canister samples or by the auto-GC generally appear in the air in very low concentrations close to the method detection level. Similar to the case above with H_2S and SO_2, any values that are statistically significantly (at 0.01 level) greater than the long-run average concentration will be considered "elevated" because of their unusual appearance, as opposed to possible health consequence. The rationale for doing so is that unusually high concentrations at a monitor may suggest an unusual emission event in the area upwind of the monitoring site.

Results of Canister Sampling

At five of the seven monitoring sites, a 20-minute canister sample may be taken in the field for subsequent laboratory analysis if a sustained series (ten 90-second samples) of elevated concentrations of total nonmethane hydrocarbons have been monitored. During the period from October 1, 2006 through September 30, 2007, a total of 53 canister samples were triggered in the Corpus Christi network. In seven canisters, benzene concentrations higher than the TCEQ's effects screening levels were measured. The TCEQ does not consider individual values in the range that was measured (28 – 407 ppbV) to be problems in and of themselves; rather the concern is that these elevated concentrations contribute to long-term average concentrations that may be of concern.

Table 2 below shows the frequency of canister samples by site.

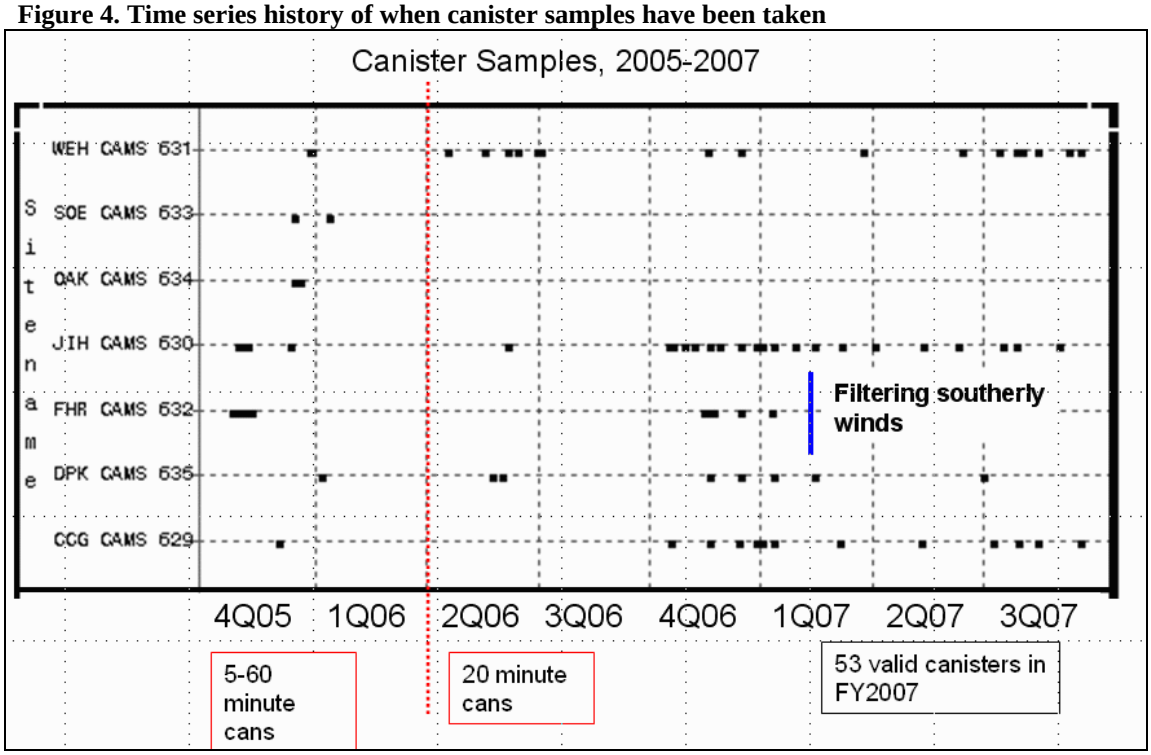
Table 2. Number of canister samples 10/1/06-9/30/07 by site

Site name	Total FY2007
CCG CAMS 629	13
DPK CAMS 635	5
FHR CAMS 632	5
JIH CAMS 630	20
WEH CAMS 631	10
Grand Total	53

The graph below in Figure 4, page 12, shows the distribution of samples over time. The graph is annotated to reflect the phases of canister sampling in the project. Since April 2006, the current 20-minute canister pattern has been followed, whereas a variety of sampling durations were used earlier. In January 2007, a software patch was added to the sampling algorithm at the FHR CAMS 632 site to allow triggering only when winds are from the northern half of the compass. The reason for this is that two relatively small emission sources to the south of the site had caused numerous triggers and the resulting canister data were no longer providing new information. No new cans triggered at FHR

until the month of October 2007. Results from these canisters will be provided in the next quarterly report.

Figure 4. Time series history of when canister samples have been taken



The patterns of hydrocarbons in each canister varies. This variation is caused in part by the uncertainties inherent in field sampling and laboratory analyses. Any individual sample estimate for a chemical species has roughly a 15 – 25 percent uncertainty band around the reported value. However, when samples are added together to get a total mass, the result is more accurate, as has been shown in comparisons between canister summations and the independent TNMHC instruments.

Typically, the major components of canisters are represented by simple, low-molecular weight hydrocarbon species in the alkanes class. The most common species in terms of concentration are shown in Table 3 below.

Table 3. Statistics on the most common species in 53 canister samples, ordered by mean concentration

Species	Max ppbC	Min ppbC	Mean ppbC
SumPol	46,835.18	723.58	4,245.45
Isopentane C_5H_{12}	4,547.51	8.94	537.31
Propane C_3H_8	12,446.80	7.23	525.33
Butane C_4H_{10}	11,009.00	7.20	504.70
Pentane C_5H_{12}	5,306.56	4.51	454.98
Isobutane C_4H_{10}	3,723.39	11.61	280.62

"SumPol" is the total sum of all species that have been identified. The means, maxima, and minima shown in the table above are from the sample of 53 canisters. The five species listed range from three carbon species (propane) to five carbons (pentanes). In general, the

species above are related to gasoline production and head space vapor and may also be related to other fuels. In some samples, both methane from the TNMHC analyzer and ethane in the canister sample were elevated along with propane and butanes, likely signaling a natural gas source. A number of samples were taken that had most of the sample mass distributed in higher molecular weight species (five to seven carbons), indicating it was some refined product.

Table 4 below summarizes the contents of the seven canister samples with elevated benzene sampled from October 1, 2006 – September 30, 2007. Employing the revised UT CEER surface wind trajectory tool, maps showing the likely path for air coming into the monitor during sampling are shown in Figures 5 – 11, pages 14 - 20. The TCEQ has used these trajectories to investigate possible upwind sources.

Table 4. Summary of seven canister samples with elevated benzene in FY 2007

Site name	Date-time CST	Benzene ppbV	Wind direction	Wind mph	TNMHC ppbC	SumPol ppbC
CCG CAMS 629	5/10/07 4:48	196	253	8	8,160	6,114
CCG CAMS 629	7/7/07 23:34	29	163	7	12,088	10,352
JIH CAMS 630	12/12/06 18:16	133	292	6	7,467	4,699
JIH CAMS 630	1/27/07 18:41	393	269	4	23,282	15,556
JIH CAMS 630	3/6/07 4:02	407	277	4	5,493	4,900
WEH CAMS 631	9/8/07 23:37	31	149	4	4,437	3,947
WEH CAMS 631	9/19/07 0:34	54	133	10	5,568	7,063

Figure 5. Back trajectory (30 minutes) CCG CAMS 629, 5/10/07 4:48 CST

Figure 6. Back trajectory (30 minutes) CCG CAMS 629, 7/7/07 23:34 CST

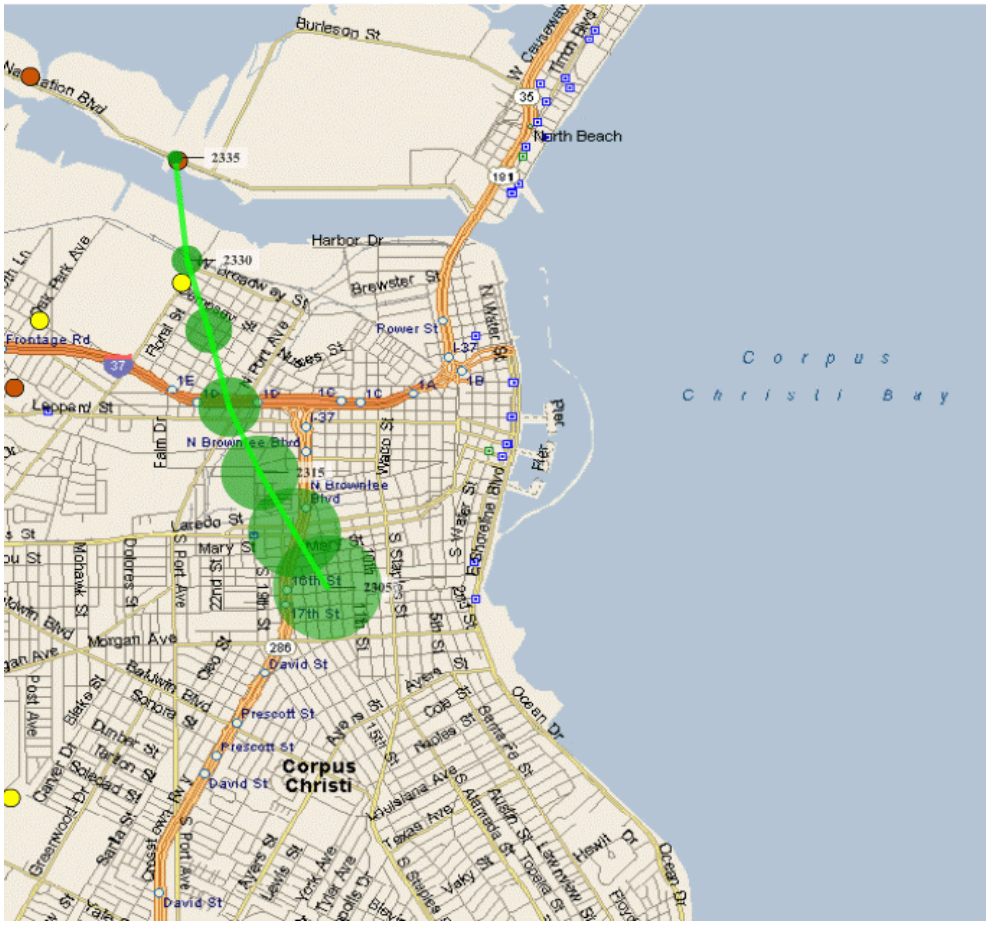


Figure 7. Back trajectory (60 minutes) JIH CAMS 630, 12/12/06 18:16 CST

Figure 8. Back trajectory (60 minutes) JIH CAMS 630, 1/27/07 18:40 CST

Figure 9. Back trajectory (60 minutes) JIH CAMS 630, 3/6/07 4:02 CST

Figure 10. Back trajectory (30 minutes) WEH CAMS 631, 9/8/07 23:37 CST

Figure 11. Back trajectory (30 minutes) WEH CAMS 631, 9/19/07 0:34 CST

Trends in Hydrocarbon Concentrations in Residential Areas

The two automated gas chromatograph instruments in residential areas (Solar Estates and Oak Park) continued to measure annual averages below the TCEQ's long-term effects screening levels. A comparison between the mean concentrations of individual hydrocarbon species from rolling annual average fails to show any significant or practical changes in average concentrations since monitoring began.

Table 5 below shows the series of annual averages for compounds measured by the auto-GC at Solar Estates and reported to the Long-Term Health Work Group. These annual averages are calculated by first taking the quarterly averages, then averaging together four consecutive quarters comprising a year. The table shows the column for the rolling year ending date. Table 6, page 22, contains the same information for Oak Park. The table allows comparison of the pairs of rolling years with the same ending date (e.g., 9/30/2006 compared to 9/30/2007), as is illustrated in both Table 5 below and Table 6, page 22. There is no significant change among columns in either table.

Table 5. Solar Estates Auto-GC Rolling Averages (ppbV units)

Solar Estates Auto-GC Rolling Averages ppbV units

Very little change

Solar Estates - CAMS 633 - Rolling 12 Month Summaries

Chemical	TCEQ ESL Annual ppb-V	*Mean 12 Month Values (ppb-V) for Qtr Ending: 3/31/2006	6/30/2006	9/30/2006	12/31/2006	3/31/2007	6/30/2007	9/30/2007
Ethane	1000	9.27	8.7	8.76	8.14	8.31	8.56	8.44
Ethylene	105	0.43	0.4	0.42	0.42	0.47	0.52	0.52
Propane	1000	6.12	5.65	5.59	5.19	5.23	5.30	5.22
Propylene	---	0.3	0.44	0.46	0.30	0.29	0.35	0.42
n_Butane	800	3.14	2.89	2.87	2.75	2.78	2.84	2.81
Isobutane	203	2.43	2.3	2.29	2.17	1.95	1.93	1.92
_13_Butadiene	5	0.08	0.09	0.08	0.09	0.09	0.09	0.08
_1_Butene	7	0.05	0.05	0.05	0.05	0.06	0.06	0.06
c_2_Butene	60	0.07	0.06	0.07	0.08	0.08	0.08	0.07
t_2_Butene	60	0.15	0.14	0.17	0.19	0.17	0.16	0.11
n_Pentane	120	1.44	1.19	1.12	1.08	1.07	1.09	1.11
Isopentane	120	2.64	2.08	1.9	1.77	1.69	1.74	1.77
_1_Pentene	3	0.02	0.02	0.02	0.03	0.03	0.03	0.04
c_2_Pentene	3	0.01	0.01	0.02	0.02	0.02	0.03	0.03
t_2_Pentene	3	0.04	0.03	0.04	0.05	0.05	0.05	0.06
Benzene	1	0.33	0.32	0.33	0.36	0.38	0.39	0.37
Cyclohexane	42	0.26	0.24	0.26	0.26	0.27	0.29	0.28
n_Hexane	50	0.44	0.42	0.42	0.42	0.43	0.43	0.42
Toluene	50	0.39	0.38	0.39	0.38	0.42	0.44	0.43
p_Xylene_m_Xylene	48	0.34	0.33	0.32	0.30	0.34	0.35	0.34
o_Xylene	85	0.07	0.06	0.06	0.06	0.07	0.07	0.07
EthylBenzene	46	0.06	0.05	0.05	0.05	0.05	0.06	0.06
Cumene	10	0.01	0.01	0.01	0.01	0.03	0.03	0.03
_124_Trimethylbenzene	25	0.07	0.06	0.06	0.06	0.06	0.07	0.07

Table 6. Oak Park Auto-GC Rolling Averages (ppbV units)

Oak Park Auto-GC Rolling Averages ppbV units

Very little change

Oak Park - CAMS 634 - Rolling 12 Month Summaries

Chemical	TCEQ ESL Annual ppb-V	*Mean 12 Month Values (ppb-V) for Qtr Ending: 3/31/2006	6/30/2006	9/30/2006	12/31/2006	3/31/2007	6/30/2007	9/30/2007
Ethane	1000	8.24	8.36	8.46	7.72	8.12	8.35	8.51
Ethylene	105	1.01	1.04	1.02	0.95	0.95	0.95	0.99
Propane	1000	6.73	6.77	6.85	5.95	6.18	6.23	6.10
Propylene	---	0.95	0.99	1.09	0.99	0.95	0.92	0.83
n_Butane	800	3.7	3.69	3.7	3.42	3.51	3.59	3.62
Isobutane	203	2.68	2.74	2.74	2.53	2.49	2.49	2.54
_13_Butadiene	5	0.04	0.04	0.05	0.05	0.06	0.07	0.08
_1_Butene	7	0.14	0.15	0.16	0.15	0.15	0.15	0.14
c_2_Butene	60	0.12	0.12	0.13	0.13	0.13	0.13	0.13
t_2_Butene	60	0.16	0.17	0.18	0.20	0.21	0.21	0.20
n_Pentane	120	1.91	1.89	1.84	1.56	1.71	1.77	1.98
Isopentane	120	2.94	2.87	2.83	2.48	2.61	2.71	2.98
_1_Pentene	3	0.05	0.05	0.05	0.06	0.06	0.06	0.07
c_2_Pentene	3	0.04	0.05	0.05	0.05	0.06	0.06	0.06
t_2_Pentene	3	0.09	0.09	0.1	0.10	0.11	0.12	0.12
Benzene	1	0.66	0.69	0.74	0.70	0.75	0.75	0.73
Cyclohexane	42	0.26	0.27	0.27	0.23	0.22	0.22	0.22
n_Hexane	50	0.62	0.62	0.62	0.58	0.59	0.59	0.60
Toluene	50	0.71	0.73	0.75	0.64	0.74	0.74	0.78
p_Xylene_m_Xylene	48	0.24	0.25	0.26	0.24	0.24	0.23	0.22
o_Xylene	85	0.09	0.1	0.1	0.09	0.09	0.08	0.08
EthylBenzene	46	0.06	0.07	0.07	0.07	0.07	0.07	0.07
Cumene	10	0.03	0.04	0.04	0.03	0.03	0.03	0.03
_124_Trimethylbenzene	25	0.09	0.09	0.09	0.09	0.09	0.08	0.08

Tables 7 and 8, pages 23 through 25, are summaries of the year October 1, 2006 – September 30, 2007 counting exceedances of the short-term ESL, and listing the mean value, the peak 24-hour average, and the single maximum one-hour value measured. The method of calculating the annual means differs between the pair of Tables 5 and 6, pages 21 and 22, and Tables 7 and 8[1], found on pages 23 through 25, so minor differences appear for some compounds.

[1] The TCEQ Website (shown in Tables 7 and 8) calculates averages by averaging all hours together in one step. Tables 5 and 6 show results from first averaging all hourly data within a quarter, then averaging four quarters.

Table 7. AutoGC Summary Statistics Solar Estates October 1, 2006- September 30, 2007

Species	Num Ambient Samples	Mean	Peak 1-Hour Value	Peak 24-Hour Value	Num > 1-Hr	Num Over Odor	Over Annual
1-Butene ppb-v	7026	0.06	4.63	0.48	0	0	No
1-Pentene ppb-v	7025	0.04	6.25	1.92	0	0	No
1,2,3-Trimethylbenzene ppb-v	6768	0.03	8.88	1.98	0		No
1,2,4-Trimethylbenzene ppb-v	6768	0.07	3.73	0.97	0		No
1,3-Butadiene ppb-v	7026	0.08	25.28	1.86	0		No
1,3,5-Trimethylbenzene ppb-v	6121	0.04	39.43	3.48	0		No
2-Methylheptane ppb-v	6803	0.06	4.07	0.41	0		No
2-Methylhexane ppb-v	6802	0.10	5.73	2.71	0		No
2,2-Dimethylbutane ppb-v	7025	0.09	4.12	1.16	0		No
2,2,4-Trimethylpentane ppb-v	6803	0.12	16.30	1.45	0		No
2,3-Dimethylpentane ppb-v	6803	0.03	2.27	0.37	0		No
2,3,4-Trimethylpentane ppb-v	6803	0.02	0.61	0.10	0		No
2,4-Dimethylpentane ppb-v	6802	0.01	1.18	0.19	0		No
3-Methylheptane ppb-v	6803	0.06	3.68	2.37	0		No
3-Methylhexane ppb-v	6802	0.11	7.37	0.88	0		No
Acetylene ppb-v	6742	0.30	21.27	4.19	0		No
Benzene ppb-v	6801	0.39	11.66	2.50	0		No
c-2-Butene ppb-v	7025	0.07	7.10	0.63	0	0	No
c-2-Pentene ppb-v	7023	0.03	1.43	0.20	0	0	No
Cyclohexane ppb-v	6796	0.29	12.69	1.78	0	0	No
Cyclopentane ppb-v	7026	0.12	5.99	0.62	0		No
Ethane ppb-v	7026	8.60	170.06	33.77	0		
Ethyl Benzene ppb-v	6803	0.06	2.78	0.34	0	0	No
Ethylene ppb-v	7026	0.53	9.02	3.44	0		
Isobutane ppb-v	7026	1.96	44.58	8.85	0	0	No
Isopentane ppb-v	7026	1.81	61.20	9.98	0		No
Isopropyl Benzene - Cumene ppb-v	6768	0.03	88.69	4.03	0	0	No
Methylcyclohexane ppb-v	6803	0.35	17.81	2.60	0		No
Methylcyclopentane ppb-v	6802	0.24	15.48	1.62	0		No
n-Butane ppb-v	7026	2.89	80.81	17.83	0		No
n-Decane ppb-v	6768	0.05	6.75	1.14	0		No
n-Heptane ppb-v	6803	0.20	19.12	1.42	0		No
n-Hexane ppb-v	6802	0.43	47.34	2.59	0		No
n-Nonane ppb-v	6767	0.07	2.93	0.42	0		No
n-Octane ppb-v	6803	0.12	7.20	0.83	0		No
n-Pentane ppb-v	7026	1.13	100.90	6.33	0		No
n-Propylbenzene ppb-v	6768	0.02	2.14	0.50	0		No
o-Xylene ppb-v	6768	0.07	20.05	0.96	0	0	No
p-Xylene + m-Xylene ppb-v	6804	0.35	27.48	4.35	0	0	No

Propane ppb-v	7026	5.33	122.36	18.87	0		No
Propylene ppb-v	7001	0.42	51.49	35.42	0		
Styrene ppb-v	6166	0.03	5.49	4.73	0	0	No
t-2-Butene ppb-v	7026	0.12	4.07	0.82	0	0	No
t-2-Pentene ppb-v	7026	0.06	3.22	0.41	0	0	No
TNMHC ppb-c	4463	133.9	12835.	882.51			
Toluene ppb-v	6802	0.44	136.32	6.96	0		No

Table 8. AutoGC Summary Statistics Oak Park October 1, 2006 to Sept 30, 2007

Species	Num Ambient Samples	Mean	Peak 1-Hour Value	Peak 24-Hour Value	Num > 1-Hr	Num Over Odor	Over Annual
1-Butene ppb-v	7659	0.14	15.36	2.26	0	0	No
1-Pentene ppb-v	7658	0.07	2.77	0.33	0	0	No
1,2,3-Trimethylbenzene ppb-v	7657	0.03	0.74	0.17	0		No
1,2,4-Trimethylbenzene ppb-v	7657	0.08	8.20	0.54	0		No
1,3-Butadiene ppb-v	7659	0.08	11.16	1.01	0		No
1,3,5-Trimethylbenzene ppb-v	7657	0.03	0.82	0.23	0		No
2-Methylheptane ppb-v	7657	0.06	4.14	0.59	0		No
2-Methylhexane ppb-v	7658	0.13	22.17	1.25	0		No
2,2-Dimethylbutane ppb-v	7658	0.23	44.26	4.16	0		No
2,2,4-Trimethylpentane ppb-v	7657	0.23	8.64	2.61	0		No
2,3-Dimethylpentane ppb-v	7658	0.06	10.77	0.61	0		No
2,3,4-Trimethylpentane ppb-v	7658	0.07	4.62	1.00	0		No
2,4-Dimethylpentane ppb-v	7658	0.04	6.33	0.37	0		No
3-Methylheptane ppb-v	7658	0.05	2.62	0.47	0		No
3-Methylhexane ppb-v	7658	0.16	28.45	1.59	0		No
Acetylene ppb-v	7659	0.51	8.63	2.07	0		No
Benzene ppb-v	7658	0.73	120.16	8.95	4		No
c-2-Butene ppb-v	7659	0.13	4.84	1.01	0	0	No
c-2-Pentene ppb-v	7658	0.06	7.72	0.74	0	0	No
Cyclohexane ppb-v	7658	0.22	9.29	1.65	0	0	No
Cyclopentane ppb-v	7659	0.20	21.28	1.85	0		No
Ethane ppb-v	7659	8.54	380.08	51.40	0		
Ethyl Benzene ppb-v	7658	0.07	2.24	0.53	0	0	No
Ethylene ppb-v	7591	0.99	61.38	5.23	0		
Isobutane ppb-v	7591	2.55	300.95	20.44	0	0	No
Isopentane ppb-v	7657	3.06	682.38	42.37	0		No
Isopropyl Benzene - Cumene ppb-v	7658	0.03	2.88	0.46	0	0	No
Methylcyclohexane ppb-v	7658	0.21	12.59	1.91	0		No
Methylcyclopentane ppb-v	7658	0.26	22.21	2.18	0		No
n-Butane ppb-v	7659	3.71	563.08	35.04	0		No
n-Heptane ppb-v	7658	0.21	16.82	2.22	0		No

n-Hexane ppb-v	7658	0.62	122.55	6.93	0		No
n-Nonane ppb-v	7658	0.04	4.83	0.37	0		No
n-Octane ppb-v	7658	0.09	5.02	0.89	0		No
n-Pentane ppb-v	7658	2.04	501.38	29.97	0		No
n-Propylbenzene ppb-v	7658	0.02	8.47	0.42	0		No
o-Xylene ppb-v	7658	0.08	2.76	0.60	0	0	No
p-Xylene + m-Xylene ppb-v	7657	0.22	8.58	1.77	0	0	No
Propane ppb-v	7591	6.15	303.60	36.81	0		No
Propylene ppb-v	7591	0.83	76.97	6.23	0		
Styrene ppb-v	7658	0.01	0.68	0.27	0	0	No
t-2-Butene ppb-v	7659	0.20	6.60	1.47	0	0	No
t-2-Pentene ppb-v	7659	0.12	21.95	2.04	0	0	No
TNMHC ppb-c	5104	169.9	11362.	834.29			
Toluene ppb-v	7658	0.78	66.44	6.99	0		No

TCEQ Web site notes:

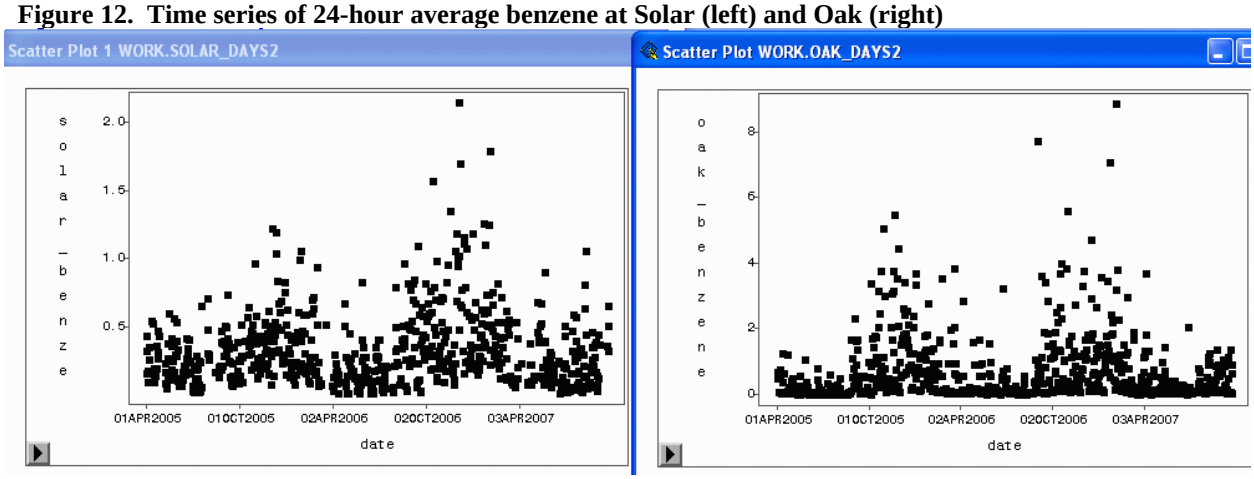
- Only data with a sample date/time that is greater than or equal to the starting date/time and less than the ending date/time is included in the report.
- The starting time is set to midnight of the first day and the ending time is set to midnight of the last day.
- "Total Samples Possible" is calculated from the total number of hours between the starting date/time and the ending date/time and may not represent the actual time the instrument was operational.
- The "Num Ambient Samples" column includes all ambient samples, including those that are not flagged as validated.
- The "Mean" is calculated as a weighted average of daily averages and takes into account the number of samples flagged ambient for each day.
- The "Over Annual" column is an indication of whether or not the calculated mean is over the established annual effect screening level and may not correspond to an actual annual exceedance.
- The “Num > 1hr” column shows the number of hours during which the measured concentration for a species was higher than the short-term effects screening level.

Trends in Benzene Concentrations in Residential Areas

Because of a high level of concern with benzene, a known carcinogen, this compound is given special attention. An analysis of the benzene data coupled with the wind data allows estimation of the directions associated with the higher and lower than average concentrations. It has been shown repeatedly that at Solar Estates the principal direction for higher than average concentrations points to the refinery to the northeast, and at Oak Park two key directions emerge – one pointing to a refinery to the northwest, one pointing to a refinery to the northeast.

Figure 12 below shows a time series of data from April 2005 through September 30, 2007 for the daily average benzene concentration. On the left are the data from Solar Estates. Note that the y-axis scale runs from 0 – 2 ppbV. On the right are the data from Oak Park. Here the scale is from 0 – 8 ppbV. Although the average concentration at Solar is about 0.35 ppbV compared to about 0.7 ppbV at Oak Park, the range of variability is about four times greater. In both graphs, one can note the rise in the monthly highest values in the winter months. As has been noted in past repots, these two sites are south of the industrial and shipping areas, and also south of the interstate highway, and more affected by pollution under the north winds which are more frequent in the winter months.

Figure 12. Time series of 24-hour average benzene at Solar (left) and Oak (right)



In an effort to see if any changes are noticeable in terms of the source affecting the monitors, benzene mean concentration by wind direction graphs appear in Figure 13, page 27, for Solar Estates and Figure 14, page 27, for Oak Park. In each, there is one graph for the period October 1, 2005 – September 30, 2006 on the left, and one graph of the period from October 1, 2006 – September 30, 2007 on the right. In Figure 13, page 27, there is a small increase in the mean benzene concentration under winds from the northeast, from 0.9 ppbV to 1.2 ppbV. This will be studied in more detail in the next quarterly report.

In Figure 14, page 27, there appears to be a more noteworthy drop in mean concentrations to the northwest in FY 2007. The peak mean drops from 3.6 ppbV to 1.6 ppbV. In order

to test the hypothesis that a change in wind speeds[2] could have had an effect, the benzene concentrations have been statistically adjusted to normalize for wind speed, and alternative direction graphs appear in Figure 15, page 27.

Figure 13. Solar Estates mean benzene ppbV by wind direction angle of arrival by FY

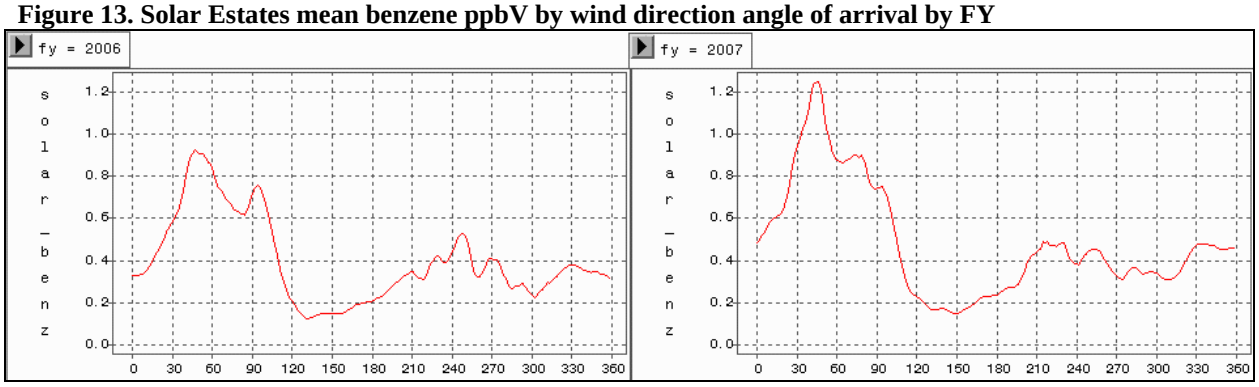


Figure 14. Oak Park mean benzene ppbV by wind direction angle of arrival by FY

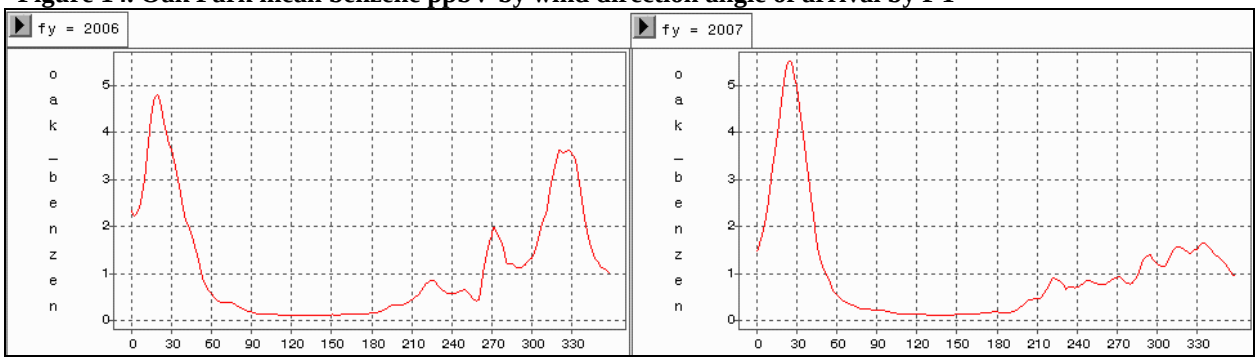
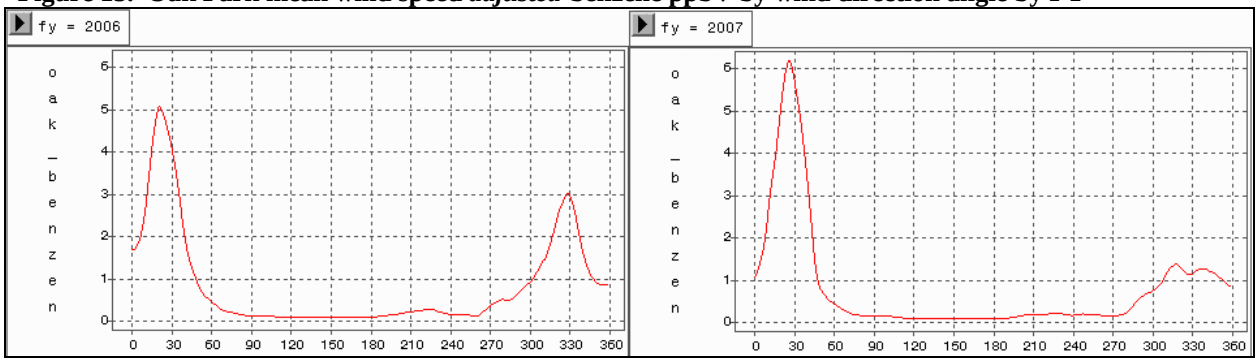


Figure 15. Oak Park mean wind speed *adjusted*-benzene ppbV by wind direction angle by FY



With the wind-speed adjusted benzene in Figure 15 above some of the higher concentrations associated with light westerly winds have been muted. The change from FY 2006 to FY 2007 is slightly smaller, but still may be significant. There may be a slight increase in the north-east peak that counters the reduction to the northwest so the annual average remains static. A more detailed study of potential changes will be conducted for the next quarterly report.

[2] Gas-phase pollutant concentrations tend to be inversely related to wind speed.

Case Studies in Hydrogen Sulfide Episodes

On three occasions over the October 1, 2006 – September 30, 2007 period, episodes of hydrogen sulfide concentrations above the level of the Texas 30-minute standard were monitored. The State has a separate standard for H_2S concentration contributions in residential versus nonresidential areas: 80 ppb averaged over 30-minutes in residential areas, and 120 ppb averaged over 30 minutes in industrial areas. However, any 30-minute value averaging over 80 ppb will show up as an exceedance on the TCEQ's internal Web page. One case on January 22, 2007 at Flint Hills CAMS 632 was related to a reported upset with sulfur recovery equipment at the refinery. Two other cases at the J. I. Hailey CAMS 630 site appear to have been related to operations across the ship channel near the Port of Corpus Christi loading facilities.

FHR January 22, 2007 Case

On January 22, 2007, elevated readings of H_2S (30 minute average of 80 ppb) were measured at the FHR C632 site. Both the site operator and the operator of a nearby business noticed a strong odor consistent with sulfuric compounds.

Although only FHR C632 measured concentrations that were noted on the TCEQ's internal Web site, both FHR and Solar Estates C633 had daily peak readings for both H_2S and TNMHC relatively close in time, so a hypothesis would be that the same source had affected both sites. By "peak" in this case it is meant that concentration measurements rose to a sharp local maximum and then declined. Concentrations for both parameters were much higher at FHR, supporting a second hypothesis that the source was closer to FHR than Solar. The West End Harbor (WEH) C631 site had much lower readings of both H_2S and TNMHC that morning, and an additional hypothesis fitting the data is that WEH was an upwind site and the source was somewhere between the monitoring sites. A summary of the 5-min. peak measurements appears in Table 9 below.

Table 9. Jan. 27, 2007 local maxima concentration timing

FHR "peaks"	1/22 5:00 CST	
	H_2S	168 ppb
	TNMHC	13,000 ppbC
Solar Estates "peaks"	1/22 2:05 CST	
	H_2S	7.8 ppb
	TNMHC	722 ppbC
West End Harbor (no "peak" per se)		
	H_2S	0.7 ppb
	TNMHC	436 ppbC

The surface trajectory analysis showed air passed over the refinery north of both FHR and Solar Estates under fairly strong winds.

The TCEQ emission events records show that the refinery north of FHR C632 reported excess emissions from a sulfur recovery unit over the period from January 21st – 23rd. The TCEQ Regional Office used the data discussed above to quality-assure the emissions reported by the refinery. The particular "emission event" tracking number is 86263.

JIH May 3, 2007 Case

On May 3, 2007, the JIH site measured 30-minute concentrations of H_2S that were greater than the State's standard for one source's contribution to downwind concentrations in a residential area. The peak 30-min. concentration on May 3 was 113 ppb, with a shorter term 5-minute maximum concentration of 461 ppb at 2:05 p.m. CST. Coincident with the peak short term H_2S concentrations, TNMHC also had a sudden short term spike above 50 parts per million. These short term elevated concentrations were measured in the midst of a longer 6-hour period from 10:20 a.m. to 4:20 p.m. CST during which the SO_2 monitor measured below-the-standard but statistically-significantly elevated concentrations. During this period, SO_2 levels varied between 0 and 77 ppb, as the wind shifted from southwest to southeast.

JIH July 27, 2007 Case

On July 27, 2007, an event similar to May 3, 2007 occurred, with the elevated H_2S and TNMHC persisting over a longer time period. TNMHC and H_2S concentrations rose coincidentally from near 0 for the five-minute average starting at 19:05 CST to the top of the full scale range of 500 ppb for H_2S and to level that was cropped at 10,000 ppbC for TNMHC during the subsequent five minute average. A canister triggered at 19:44 CST. The canister contained a mix of propane, butane isomers, pentane isomers, and other alkanes suggesting this may have been gasoline or similar fuel product. H_2S and TNMHC concentrations dropped below levels of concern around 8:40 CST on July 28. The first five-minute time step in the back-trajectory shows the estimated centerline of the air parcel path passed over the docking facility and refinery to the south.

The TCEQ completed a follow up with the companies in the area to assess the causes of elevated concentrations.

APPENDIX B

Financial Reports

ANNUAL REPORT
TO THE U.S. DISTRICT COURT
FOR THE
CORPUS CHRISTI AIR MONITORING AND SURVEILLANCE CAMERA PROJECT

Financial Summary

A. PROJECT EXPENDITURES

First Year Paid Expenditures	(10/2/03 - 9/30/04)	$ 663,448.81
Second Year Paid Expenditures	(10/1/04 - 9/30/05)	$ 1,291,272.21
Third Year Paid Expenditures	(10/1/05 - 9/30/06)	$ 461,868.36
Current year Paid Expenditures	(10/1/06 – 9/30/07)	$ 688,645.02
Current Year Encumbrances*	(10/1/06 - 9/30/07)	$ 93,779.63

Total Project Expenditures (including Current Year Encumbrances)	(10/2/03 - 9/30/07)	$3,199,014.03

***** Summary of Expenditures found in *Exhibit A*, page 29.

B COCP FUNDS REMAINING

Initial deposit on 10/2/03	$ 6,761,718.02
Less expenditures through 9/30/07	($3,105,234.40)
Less encumbrances through 9/30/07*	($ 93,779.63)
Plus interest earned as of 9/30/07	$ 533,138.93
Total	$4,095,842.92

COCP FUNDS REMAINING AS OF 9/30/07 **$4,095,842.92**

* Some expenses incurred during Year 4 of the Project have not been billed by University vendors or subcontractors and/or approved for payment so those charges were not posted to the general ledger as of 9/30/07. Those encumbered charges are estimated to be $93,779.63.

EXHIBIT A

Corpus Christi Air Monitoring and Surveillance Camera Installation and Operation Project

Expenditure Summary for the Project Period 10/2/03 through 9/30/07

DESCRIPTION	**Budget Allocation through Year 4**	**Prior Year paid Expenditures**	**Current Year paid Expenditures**	***TOTAL EXPENDITURES**	***BALANCE AVAILABLE**
SALARIES & WAGES	376,780.63	(163,377.69)	(174,277.21)	(337,654.90)	*39,125.73*
CEER ADMIN SALARIES	35,242.37	(19,482.91)	(15,625.85)	(35,108.76)	133.61
FRINGE BENEFITS	86,767.00	(35,231.92)	(38,775.55)	(74,007.47)	*12,759.53*
Canister Anal. and Other	133,974.00	(25,810.00)	(4,500.00)	(30,310.00)	103,664.00
Supplies and Utilities	140,644.00	(55,075.47)	(70,080.42)	(125,155.89)	*15,488.11*
SUBCONTRACT	2,279,715.00	(1,808,717.09)	(314,796.10)	(2,123,513.19)	*156,201.81*
TRAVEL	4,300.00	(1,520.16)	(3,157.23)	(4,677.39)	(377.39)
EQUIPMENT	0.00	0.00	0.00	0.00	0.00
TOTAL DIRECT COSTS	3,057,423.00	(2,109,215.24)	(621,212.36)	(2,730,427.60)	326,995.40
INDIRECT COSTS **/15% TDC**	458,614.00	(307,374.14))	(67,432.66)	(374,806.80)	*83,807.20*
TOTAL EXPENDITURES	**$3,516,037.00**	**($2,416,589.38)**	**($688,645.02)**	**($3,105,234.40)**	**$410,802.60**

* Some expenses incurred during Year 4 of the Project have not been billed by University vendors or subcontractors and/or approved for payment so those charges were not posted to the general ledger as of 9/30/07. Those encumbered charges are estimated to be $93,779.63. When received and approved, those charges will be paid from the available balance.

CORPUS CHRISTI AIR MONITORING AND SURVEILLANCE CAMERA PROJECT

University of Texas at Austin
Annual Audit Report Results

Period: October 1, 2006 - September 30, 2007

The University's Annual Reports and Audit Statements are made available for public review at the following website:.

http://www.sao.state.tx.us/reports/ Select the Statewide Reports link.

http://www.sao.state.tx.us/reports/main/06-325.pdf Federal Portion

Attached is a copy of The University of Texas at Austin's Certification Statement for the Office of Management and Budget (OMB) Circular A-133 Audit conducted during the 2005/2006 fiscal year. The OMB Circular A-133 Audit for the 2006/2007 fiscal year is currently being conducted. The results of the 2006/2007 Audit will be made available at the above website. It is anticipated the audit results will be posted in late Spring 2006.

SUBRECIPIENT AUDIT FORM
(including financial reports and internal controls)
FOR FISCAL YEAR ENDING AUGUST 31, 2006

SUBRECIPIENT'S LEGAL ENTITY NAME AND ADDRESS

The University of Texas at Austin
Office of the Controller
The University of Texas at Austin
P.O. Box 7159
Austin, TX 78713-7159

☒ Our audit report for the subject fiscal year has been completed. A reportable condition at The University of Texas at Austin was noted.

Attached is a listing of the finding and current course of action by the University to address the noted concern for the Research and Development Cluster. Additional findings related to Federal financial aid were also noted during the audit. A complete listing of the non-Research and Development related findings is available in the Federal portion of the report; a link is provided below.

A complete copy of the State of Texas Federal Portion of the Statewide Single Audit Report For the Fiscal Year Ended August 31, 2006 (Report Number 07-316) can be viewed at

http://www.sao.state.tx.us/reports/main/07-316.pdf Federal Portion

Or at http://www.sao.state.tx.us/reports/; select the Statewide Reports link.

Authorizing Signature: _____ **Date:** 3/16/07

Fred Friedrich
Associate Vice President and Controller

Research and Development Cluster

Reference No. 07-69
Matching
Prior Audit Issues – 06-63, 05-57, 04-53, 03-09, and 02-48)
Reportable Condition Control

The University continues to develop its capability to track and enforce matching requirements specified in award documents. However, the audit did note during the initial population of matching data fields, an erroneous default was used which overstated mandatory commitments. However, this default did not affect the University's compliance with matching requirements. The University has made annual improvements to this process in identifying and reporting cost-sharing. The following were completed initiatives undertaken by the University for fiscal year 2006:

1) automation initiative completed July 2006
2) addition of fields incorporated into the Research Management System to allow for the categorization of cost share items

Future projects will include development of reports to assist with identification of year-to-date or project-to-date information on matching.