

**ALAMO AREA COUNCIL OF GOVERNMENTS
CAMS 501, 502, 503, 504, 505, 506**

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**Annual Ambient Air Quality
Monitoring Report
2013**

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This report summarizes the quality of the monitoring data from the Continuous Air Monitoring Stations (CAMS) 501, 502, 504, 503, 505 and 506, owned by Alamo Area Council of Governments (AACOG), and operated by Dios Dado Environmental, for the year of 2013 (The months of April 2013 through October 2013). The objectives of this report are to provide and assess the following:

- ◆ The actual data gathered during the monitoring period
- ◆ The quality of the monitored data
- ◆ The data validation performed
- ◆ The amount of data captured for the year of 2013
- ◆ The incidents that may have led to data loss

Assessment of the data quality indicates that the monitoring data collected during the year 2013 met all of the TCEQ regulatory guidelines. The monitoring results did suggest exceedances of the National Ambient Air Quality Standards (NAAQS) on a short-term basis.

Pollutants:

- ◆ Ozone (O₃),

Meteorology:

- ◆ Wind speed,
- ◆ Resultant wind speed,
- ◆ Resultant wind direction,
- ◆ Maximum wind gust,
- ◆ Standard deviation of horizontal wind direction,
- ◆ Outdoor temperature,
- ◆ Indoor temperature,
- ◆ Precipitation events

The data collected at the sites this Year was fully representative of ambient conditions in the area. The monitoring instruments all functioned normally except for Bulverde CAMS 503 Ozone unit which lost a mother board and will have to be replaced. We also had problems with all the instruments at CAMS 505 City of Garden Ridge. The Ozone unit started reading erratic and had to be swapped out with our spare at the end of the year to see if it cleared up the problem and it did. This unit will need to be overhauled prior to next season. The SO₂ unit had to be pulled out because this unit would not hold a calibration and also needs to be overhauled. The NO_x unit at the site made it through the end of the season but will need to be overhaul and refurbished before it is able to be used again, as well. No other major malfunctions were notated in our logs. Normal calibration and maintenance procedures, which are noted in the logs and all relevant tables, resulted in a loss of some data but not enough to fall below the 75% required. All equipment operations conformed to TCEQ criteria and passed our calibrations during the season. A data return rate of greater than 97.4% (average) was achieved on all the Ozone instruments at the sites for the entire reporting period.

AACOG equipment concerns for the 2014 ozone season are that we need to repair two Ozone units, one SO₂ unit and one NO_x unit before next Ozone season. All Ozone units will need zero air scrubbers and pumps rebuilt with new diaphragms. Our Met concerns are that we replace bearings in the wind speed and wind direction units at the Fair Oaks Ranch site CAMS 502. The Met instruments at 501 Elm Creek Elementary were replaced last year with your spares and will not need parts or replacements, they will just need to be inspected for damage and bearing problems. We also have two spare Met units in shop that belonged to CAMS 503 Bulverde and CAMS 501 Elm Creek Elementary sites, which need new bearings, so we can install them again.

DATA RETURN/COMPLETENESS REPORTS

Data Return Report

00:00 LST April 1, 2013 through 00:00 LST May 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	99.7	*	*	99.7	100.0	100.0	100.0	100.0
13	502	Fair Oaks Ranch C502	99.7	*	*	99.7	100.0	100.0	100.0	100.0
13	503	Bulverde Elementary C503	99.7	*	*	99.7	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.7	*	*	99.7	*	*	*	*
13	505	City of Garden Ridge C505	91.2	87.1	46.7	75.0	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	95.6	*	*	95.6	*	*	*	*
Region 13 Averages			97.6	87.1	46.7	89.9	66.7	66.7	66.7	66.7

* -- Parameter not monitored.

Data Return Report

00:00 LST May 1, 2013 through 00:00 LST June 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	98.4	*	*	98.4	92.5	92.5	100.0	95.0
13	502	Fair Oaks Ranch C502	99.7	*	*	99.7	100.0	100.0	100.0	100.0
13	503	Bulverde Elementary C503	99.5	*	*	99.5	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.7	*	*	99.7	*	*	*	*
13	505	City of Garden Ridge C505	94.2	97.3	96.8	96.1	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	96.8	*	*	96.8	*	*	*	*
Region 13 Averages			98.1	97.3	96.8	97.8	64.2	64.2	66.7	65.0

* -- Parameter not monitored.

Data Return Report

00:00 LST June 1, 2013 through 00:00 LST July 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	83.3	*	*	83.3	91.8	91.8	91.8	91.8
13	502	Fair Oaks Ranch C502	99.6	*	*	99.6	100.0	100.0	100.0	100.0
13	503	Bulverde Elementary C503	99.7	*	*	99.7	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.9	*	*	99.9	*	*	*	*
13	505	City of Garden Ridge C505	91.8	90.4	91.2	91.2	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	99.7	*	*	99.7	*	*	*	*
Region 13 Averages			95.7	90.4	91.2	94.5	63.9	63.9	63.9	63.9

* -- Parameter not monitored.

Data Return Report

00:00 LST July 1, 2013 through 00:00 LST August 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	98.1	*	*	98.1	98.5	98.5	98.5	98.5
13	502	Fair Oaks Ranch C502	99.6	*	*	99.6	100.0	100.0	100.0	100.0
13	503	Bulverde Elementary C503	99.6	*	*	99.6	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.6	*	*	99.6	*	*	*	*
13	505	City of Garden Ridge C505	99.6	100.0	100.0	99.9	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	99.6	*	*	99.6	*	*	*	*
Region 13 Averages			99.4	100.0	100.0	99.5	66.2	66.2	66.2	66.2

* -- Parameter not monitored.

Data Return Report

00:00 LST August 1, 2013 through 00:00 LST September 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	99.7	*	*	99.7	100.0	100.0	100.0	100.0
13	502	Fair Oaks Ranch C502	99.7	*	*	99.7	100.0	100.0	100.0	100.0
13	503	Bulverde Elementary C503	99.7	*	*	99.7	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.9	*	*	99.9	*	*	*	*
13	505	City of Garden Ridge C505	99.5	40.1	99.3	79.6	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	99.7	*	*	99.7	*	*	*	*
Region 13 Averages			99.7	40.1	99.3	92.2	66.7	66.7	66.7	66.7

* -- Parameter not monitored.

Data Return Report

00:00 LST September 1, 2013 through 00:00 LST October 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	99.9	*	*	99.9	100.0	100.0	100.0	100.0
13	502	Fair Oaks Ranch C502	99.9	*	*	99.9	100.0	100.0	100.0	100.0
13	503	Bulverde Elementary C503	96.7	*	*	96.7	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.7	*	*	99.7	*	*	*	*
13	505	City of Garden Ridge C505	92.6	0.0	100.0	64.2	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	92.6	*	*	92.6	*	*	*	*
Region 13 Averages			96.9	0.0	100.0	85.2	66.7	66.7	66.7	66.7

* -- Parameter not monitored.

Data Return Report

00:00 LST October 1, 2013 through 00:00 LST November 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	99.7	*	*	99.7	100.0	100.0	98.3	99.4
13	502	Fair Oaks Ranch C502	99.6	*	*	99.6	100.0	100.0	98.1	99.4
13	503	Bulverde Elementary C503	88.4	*	*	88.4	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.6	*	*	99.6	*	*	*	*
13	505	City of Garden Ridge C505	78.6	0.0	99.9	59.5	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	99.6	*	*	99.6	*	*	*	*
Region 13 Averages			94.3	0.0	99.9	83.2	66.7	66.7	65.5	66.3

* -- Parameter not monitored.

Data Return Report

00:00 LST April 1, 2013 through 00:00 LST November 1, 2013

Region	CAMS	Location	Pollution Data				Meteorological Data			
			O3 %	SO2 %	NO2 %	Poll %	WDR %	WSR %	Out Temp %	Met %
13	501	Elm Creek Elementary C501	97.0	*	*	97.0	97.5	97.5	98.4	97.8
13	502	Fair Oaks Ranch C502	99.7	*	*	99.7	100.0	100.0	99.7	99.9
13	503	Bulverde Elementary C503	97.6	*	*	97.6	0.0	0.0	0.0	0.0
13	504	New Braunfels Airport C504	99.7	*	*	99.7	*	*	*	*
13	505	City of Garden Ridge C505	92.5	59.3	90.7	80.8	*	*	*	*
13	506	Seguin Outdoor Learning Center C506	97.7	*	*	97.7	*	*	*	*
Region 13 Averages			97.4	59.3	90.7	91.8	65.8	65.8	66.0	65.9

* -- Parameter not monitored.

MAINTENANCE / CALIBRATION REPORTS

**AACOG Ozone and Meteorological Network, Region of San Antonio, TX
Preventative Maintenance Schedule for 2013
CAMS 501 - Elm Creek**

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Analyzer Sample Inlet Filter			28	12/24	13/28	12/27	15/24	13/28	11/26	15/30		
Ambient Sample Line			29									
Replace Met Gear					20							
Replace Modem/Fuses												
Miscellaneous*			28	3	15	17	1				4	
30 Day O3 Audit												
30 Day O3 Audit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Calibrations Run			29/5 pt	24/3pt	28/3pt	17/5pt	24/5pt	28/3pt	26/3pt	30/5pt		

***Miscellaneous**

3/28/2013- Dropped tower for inspection.
4/3/2013- Phoneline Problem
5/15/2013- Replaced glass funnel broken during storm.
5/20/2013- Replaced WS/WD sensor.
6/17/2013- Replaced O3 unit
7/1/2013- Replaced zeno power Supply
11/4/2013- Shut down sites.

**AACOG Ozone and Meteorological Network, Region of San Antonio, TX
Preventative Maintenance Schedule for 2013
CAM5 505 - City of Garden Ridge**

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Analyzer Sample Inlet Filter			28	1529	13/29	12/27	17/29	13	13/26	15		
Ambient Sample Line			28									
Replace Bearings												
Replace Modem/Fuses				15								
Miscellaneous*				3	13/15			13	1326	17	4	
30 Day O3 Audit												
			28/5pt	29/3pt	13/3pt	27/3pt	29/5pt	30/5pt	26/3pt	17/5pt		

***Miscellaneous**

4/3/2013- all units came back in k-code after power loss.
4/15/2013- Check on coms problem found breaker had tripped and all equipment had turned off.
5/13/2013- Found station zero air compressor down will have to replace.
5/15/2013- Replaced zero air compressor and set up generator curve in calibrator.
5/29/2013- Ran 3pt calibration on O3 unit. Nox in alarm cooler reading 0.7C but functioning properly.
8/13/2013- Repaired O3 unit pump diaphragm. Set up 3pt cal to run in automatic tonight.
9/13/2013- Set up 5pt cal to run this Pm Brian said unit was reading low.
10/17/2013- Set up another 5pt calibration to run this Pm.
10/18/2013- Rechecked span and zero today and perfect.
11/4/2013- Shut station down for 2013 ozone season.

OPERATOR LOGS

Operator Logs for Elm Creek Elementary C501

2013 Ozone Season

Date	Time (CST)	Operator	Visit Date	Log Entry
				03/28/2013 -- 11/04/2013 Elm Creek Elementary C501 (48_029_0501)
Thu Mar 28, 2013	16:06:57			03-28-13 Entered Station to Replaced FEP tubing Checked flows, Intensities, temperatures, perform start of year 5-Point Calibration and perform biweekly filter change. Tower was dropped and ws/wd unit bearings checked on 3/20/2013. Q-coded O3 unit and started. O3 unit calibrated with Thermo Model 165C S/N 165C-49519-275 calibrated using TCEQ primary standard S/N 582-40817-276S on 02/22/13. Placed unit back in k-code. Calibration Ok. .400= 400.23 PPB .300= 298.86 PPB .200= 200.25 PPB .090= 90.25 PPB .000= 00.23 PPb made log entry and left Area Safe And Secure. BDW
Wed Apr 03, 2013	10:36:46			04-03-13 Entered station to trouble shoot telephone line problem. Installed phone line to phone and would not ring here but when called it would ring and ring.We need to call Aacog to have phone line looked at by AT&T. Made log entry and left site safe and secure. BDW
Fri Apr 12, 2013	11:18:10			04-12-13 Entered station to check on telephone line problem that AT&T fixed yesterday. Installed new phone modem and line to system and still would not work. Decided to pull all data to be reloaded by Laura at TCEQ. Will call Aacog to have phone line looked at by AT&T again. Checked O3 unit and made bi monthley filter change. Made log entry and left site safe and secure. BDW
Sat Apr 20, 2013	04:58:35			Automatic time sync
Wed Apr 24, 2013	11:38:52			04-24-13 Entered station to perform 3-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 3-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 400.16 PPB .090= 89.71 PPB .000= 00.15 PPb Placed unit in k-code.Left Area Safe And Secure. BDW
Sat Apr 27, 2013	04:58:34			Automatic time sync
Tue Apr 30, 2013	04:58:34			Automatic time sync
Sat May 04, 2013	04:58:35			Automatic time sync
Tue May 07, 2013	04:58:34			Automatic time sync
Sat May 11, 2013	04:58:34			Automatic time sync
Mon May 13, 2013	09:58:47			13-05-12 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Found water in water trap and glass funnel broken out side will have to come back and replace glass funnel ASAP. O3 Inst running well. Made log entry left Area safe and secure. BDW

Tue May 14, 2013	04:58:34			Automatic time sync
Wed May 15, 2013	15:24:16			05-15-13 Entered station to Replace glass funnel outside replaced and left site safe and secure. BDW/JG
Sat May 18, 2013	04:58:35			Automatic time sync
Mon May 20, 2013	15:46:37			entered station and placed ws/wd in p-code to replace defective ws/wd sensors. placed instruments back in k-code when completed, bwhite
Tue May 21, 2013	04:58:34			Automatic time sync
Tue May 28, 2013	04:58:35			Automatic time sync
Tue May 28, 2013	15:57:22			5-28-13: Entered station to conduct bi-weekly maintenance. O3 to q-code. Conducted 3-pt calibration check with transfer standard sn 582-40817/267s calibration due 2-22-14. Completed with less than 1% error. 400 set = 400.0 ppb, 90 set = 90.2 ppb. zero set = 0,1 ppb. Changed filter and checked flows, temps, intensities and pressures. All ok. Placed O3 to k-code. Made log entry & left site safe and secure. KONeal
Sat Jun 01, 2013	04:58:34			Automatic time sync
Tue Jun 04, 2013	04:58:34			Automatic time sync
Sat Jun 08, 2013	04:58:35			Automatic time sync
Tue Jun 11, 2013	04:58:35			Automatic time sync
Wed Jun 12, 2013	09:23:22			06-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Jun 15, 2013	04:58:34			Automatic time sync
Mon Jun 17, 2013	15:07:16			06-17-13 Entered station to check on O3 unit found unit reading low and locked up no button function, reset unit and started to read O3 right, but decided to start over with different unit and replaced with spare and run 5-point calibration. Placed unit in P-code to run Calibration. O3 unit calibrated with Thermo Model 165C S/N 165C-45140-273 calibrated using TCEQ primary standard S/N 582-40817-276S on 02/22/13. Placed unit back in k-code. Calibration Ok. .400= 400.31 PPB .300= 300.18 PPB .200= 200.03 PPB .090= 89.83 PPB .000= 00.21 PPb made log entry and left Area Safe And Secure. BDW
Tue Jun 18, 2013	04:58:35			Automatic time sync
Sat Jun 22, 2013	04:58:34			Automatic time sync
Tue Jun 25, 2013	04:58:34			Automatic time sync
Thu Jun 27, 2013	10:16:57			06-27-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Mon Jul 01, 2013	12:35:20			07-01-13 Entered station to check on station had not been reporting since 6-28-13 checked zeno and found unit had a bad power supply replaced unit.Unit working great and collecting data. Checked on O3 unit flows, pressure and frequency all ok. Made log entry and left site safe and secure. BDW
Tue Jul 02, 2013	04:58:34			Automatic time sync

Sat Jul 06, 2013	04:58:34			Automatic time sync
Tue Jul 09, 2013	04:58:34			Automatic time sync
Sat Jul 13, 2013	04:58:34			Automatic time sync
Mon Jul 15, 2013	16:17:06			07-15-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW/BBW
Tue Jul 16, 2013	04:58:35			Automatic time sync
Sat Jul 20, 2013	04:58:34			Automatic time sync
Tue Jul 23, 2013	04:58:34			Automatic time sync
Wed Jul 24, 2013	11:35:50			07-24-13 Entered Station to perform 5-Point Calibration and perform biweekly filter change. Q-coded O3 unit and started. O3 unit calibrated with Thermo Model 165C S/N 165C-45140-273 calibrated using TCEQ primary standard S/N 582-40817-276S on 02/22/13. inspected O3 instrument and change filter.Checked flows, Intensities, temperatures, all OK Placed unit back in k-code. Calibration Ok. .400= 400.15 PPB .300= 299.50 18 PPB .200= 199.60 O3 PPB .090= 90.00 PPB .000= 00.26 PPb made log entry and left Area Safe And Secure. BDW u
Sat Jul 27, 2013	04:58:34			Automatic time sync
Tue Jul 30, 2013	04:58:34			Automatic time sync
Sat Aug 03, 2013	04:58:35			Automatic time sync
Tue Aug 06, 2013	04:58:35			Automatic time sync
Sat Aug 10, 2013	04:58:36			Automatic time sync
Tue Aug 13, 2013	09:41:12			08-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Aug 17, 2013	04:58:35			Automatic time sync
Tue Aug 20, 2013	04:58:34			Automatic time sync
Tue Aug 27, 2013	04:58:34			Automatic time sync
Wed Aug 28, 2013	13:56:20			8-28-13: Entered station to conduct bi-weekly maintenance. O3 to q-code. Conducted 3-pt calibration check with transfer standard sn 165C 74465-376 calibration due 2-22-14. Completed with less than 1% error. 400 set = 399.9 ppb, 90 set = 90.0 ppb. zero set = 0.0 ppb. Changed filter and checked flows, temps, intensities and pressures. All ok. Placed O3 to k-code. Made log entry & left site safe and secure. KONEal
Sat Aug 31, 2013	04:58:34			Automatic time sync
Tue Sep 03, 2013	04:58:34			Automatic time sync
Sat Sep 07, 2013	04:58:33			Automatic time sync
Tue Sep 10, 2013	04:58:34			Automatic time sync

Wed Sep 11, 2013	10:56:18			09-11-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Sep 21, 2013	04:58:34			Automatic time sync
Tue Sep 24, 2013	04:58:35			Automatic time sync
Thu Sep 26, 2013	12:55:40			Entered station temp 80.1 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 165 45140-273 calibration due date 02/25/14. 400 set= 399.4 ppb, 90 set= 90.2 ppb 0 set= 0.7 ppb. Placed O3 in in k code, Replaced all particulate filters, checked instrument flows, frequencies, temps, pressures, and voltages on unit OK, Made log entries and left site safe and secure. jmccraw
Sat Sep 28, 2013	04:58:35			Automatic time sync
Tue Oct 01, 2013	04:58:34			Automatic time sync
Sat Oct 05, 2013	04:58:33			Automatic time sync
Tue Oct 08, 2013	04:58:34			Automatic time sync
Tue Oct 15, 2013	04:58:35			Automatic time sync
Tue Oct 15, 2013	10:38:09			10-15-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Tue Oct 22, 2013	04:58:34			Automatic time sync
Sat Oct 26, 2013	04:58:34			Automatic time sync
Tue Oct 29, 2013	04:58:35			Automatic time sync
Wed Oct 30, 2013	15:04:00			10-30-13 Entered Station to perform 5-Point Calibration and perform biweekly filter change. Q-coded O3 unit and started. O3 unit calibrated with Thermo Model 165C S/N 165C-45140-273 calibrated using TCEQ primary standard S/N 582-40817-276S on 02/22/13. inspected O3 instrument and change filter.Checked flows, Intensities, temperatures, all OK Placed unit back in k-code. Calibration Ok. .400= 399.61 PPB .300= 300.51 18 PPB .200= 200.56 03 PPB .090= 90.76 PPB .000= 00.13 PPb made log entry and left Area Safe And Secure. BDW
Mon Nov 04, 2013	11:35:23			11-4-13: Entered station to shut down equipment for the season. Checked flows, pressures, intensities, and temps. All ok. Made log entry; disconnected power to instruments and left site safe and secure. KONEAL

Operator Logs for Fair Oaks Ranch C502

2013 Ozone Season

Date	Time (CST)	Operator	Visit Date	Log Entry
				03/23/2013 -- 11/05/2013 Fair Oaks Ranch C502 (48_029_0502)
Sat Mar 23, 2013	04:13:31			Automatic time sync
Tue Mar 26, 2013	04:13:30			Automatic time sync
Fri Mar 29, 2013	13:09:51			03-29-13 Entered Station to Replaced FEP tubing Checked flows, Intensities, temperatures, perform start of year 5-Point Calibration and perform biweekly filter change. Tower was dropped and ws/wd unit bearings checked on 3/18/2013. Q-coded O3 unit and started. O3 unit calibrated with Thermo Model 165C S/N 165C-49519-275 calibrated using TCEQ primary standard S/N 582-40817-276S on 02/22/13. Placed unit back in k-code. Calibration Ok. .400= 400.68 PPB .300= 299.38 PPB .200= 199.68 PPB .090= 90.68 PPB .000= 00.05 PPb made log entry and left Area Safe And Secure. BDW
Tue Apr 02, 2013	04:13:31			Automatic time sync
Sat Apr 06, 2013	04:13:31			Automatic time sync
Tue Apr 09, 2013	04:13:30			Automatic time sync
Sat Apr 13, 2013	04:13:31			Automatic time sync
Tue Apr 16, 2013	04:13:31			Automatic time sync
Tue Apr 16, 2013	09:14:49			04-16-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Tue Apr 23, 2013	04:13:31			Automatic time sync
Wed Apr 24, 2013	19:50:30			4-24-13 Entered station to perform 3-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 3-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 400.236 PPB .090= 90.35 PPB .000= 00.16 PPb Placed unit in k-code.Left Area Safe And Secure. BDW
Sat Apr 27, 2013	04:13:30			Automatic time sync
Tue Apr 30, 2013	04:13:31			Automatic time sync
Sat May 04, 2013	04:13:30			Automatic time sync
Tue May 07, 2013	04:13:31			Automatic time sync
Sat May 11, 2013	04:13:32			Automatic time sync
Mon May 13, 2013	11:04:02			05-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Tue May 14, 2013	04:13:31			Automatic time sync

Tue May 21, 2013	04:13:30			Automatic time sync
Sat May 25, 2013	04:13:31			Automatic time sync
Tue May 28, 2013	04:13:30			Automatic time sync
Tue May 28, 2013	16:37:15			Entered station temp 74 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 16545140-273 calibration date 02/25/13. 400 set= 399.4 ppb, 90 set= 89.6ppb 0 set= 0.5ppb. Replaced particulate filter, checked O3 instrument flows, frequencies, temps, pressures, and voltages correct. Emptied and cleaned precip unit, it was full of debris. Made log entries and left site safe and secure. jmcclaw
Sat Jun 01, 2013	04:13:30			Automatic time sync
Tue Jun 04, 2013	04:13:30			Automatic time sync
Sat Jun 08, 2013	04:13:31			Automatic time sync
Tue Jun 11, 2013	04:13:31			Automatic time sync
Wed Jun 12, 2013	10:28:21			06-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Jun 15, 2013	04:13:30			Automatic time sync
Sat Jun 22, 2013	04:13:31			Automatic time sync
Tue Jun 25, 2013	04:13:30			Automatic time sync
Wed Jun 26, 2013	16:09:49			06-26-13 Entered station to perform 3-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 3-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 400.16 PPB .090= 90.05 PPB .000= 00.33 PPb Placed unit in k-code.Left Area Safe And Secure. BDW
Sat Jun 29, 2013	04:13:31			Automatic time sync
Tue Jul 02, 2013	04:13:30			Automatic time sync
Sat Jul 06, 2013	04:13:31			Automatic time sync
Tue Jul 09, 2013	04:13:31			Automatic time sync
Fri Jul 12, 2013	17:10:33			07-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Jul 13, 2013	04:13:30			Automatic time sync
Sat Jul 20, 2013	04:13:31			Automatic time sync
Tue Jul 23, 2013	04:13:30			Automatic time sync

Thu Jul 25, 2013	11:40:04			07-25-13 Entered station to perform 5-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 3-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 399.58 PPB .300= 299.73 PPB .200= 199.13 PPB .090= 90.58 PPB .000= 00.10 PPb made log entry and left Area Safe And Secure. BDW
Sat Jul 27, 2013	04:13:30			Automatic time sync
Tue Jul 30, 2013	04:13:30			Automatic time sync
Tue Aug 06, 2013	04:13:31			Automatic time sync
Sat Aug 10, 2013	04:13:30			Automatic time sync
Mon Aug 12, 2013	18:23:57			08-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Aug 17, 2013	04:13:30			Automatic time sync
Tue Aug 20, 2013	04:13:30			Automatic time sync
Sat Aug 24, 2013	04:13:30			Automatic time sync
Tue Aug 27, 2013	04:13:31			Automatic time sync
Thu Aug 29, 2013	15:43:00			Entered station temp 76F. Placed O3 unit in q-code to conduct 3-pt. calibration checks. transfers standard sn 16545140-213 cal due date 2-25-14. 400 set= 400.4 ppb, 90 set= 89.8 ppb 0 set= 0.6 ppb. Performed bi-weekly maintenance items, replaced particulate filter, checked O3 instrument parameters correct.Cleaned and checked the precipitation unit, made log entries and left site safe and secure. jmccraw
Sat Aug 31, 2013	04:13:31			Automatic time sync
Tue Sep 03, 2013	04:13:30			Automatic time sync
Sat Sep 07, 2013	04:13:31			Automatic time sync
Tue Sep 10, 2013	04:13:31			Automatic time sync
Wed Sep 11, 2013	12:07:48			09-11-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Tue Sep 17, 2013	04:13:32			Automatic time sync
Sat Sep 21, 2013	04:13:30			Automatic time sync
Thu Sep 26, 2013	15:15:36			Fair Oaks. Entered station temp 75.5 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 165 45140-273 calibration due date 02/25/14. 400 set= 401.0 ppb, 90 set= 89.7 ppb 0 set= 0.6 ppb. Placed O3 in in k code, Replaced particulate filter, checked instrument flows, frequencies, temps, pressures, and voltages on unit OK, Made log entries and left site safe and secure. jmccraw
Sat Sep 28, 2013	04:13:31			Automatic time sync
Tue Oct 01, 2013	04:13:30			Automatic time sync

Tue Oct 08, 2013	04:13:31			Automatic time sync
Sat Oct 12, 2013	04:13:32			Automatic time sync
Sat Oct 19, 2013	04:13:31			Automatic time sync
Tue Oct 22, 2013	04:13:30			Automatic time sync
Tue Oct 22, 2013	09:35:05			10-21-13 Entered station to perform bi-weekly maintenance on 10/17 couldn't get laptop to work made log entry today. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Oct 26, 2013	04:13:30			Automatic time sync
Tue Oct 29, 2013	04:13:30			Automatic time sync
Tue Oct 29, 2013	16:36:36			10-29-13 Entered station to perform 5-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 5-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter. Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 399.658 PPB .300= 299.75 PPB .200= 199.65 PPB .090= 90.18 PPB .000= 00.26 PPb made log entry and left Area Safe And Secure. BDW
Tue Nov 05, 2013	04:13:30			Automatic time sync
Tue Nov 05, 2013	17:56:08			11-5-13 Entered station to perform shut down of equipment for 2013 ozone season. Made log entry and took inventory of site. BDW

Operator Logs for Bulverde Elementary C503

2013 Ozone Season

Date	Time (CST)	Operator	Visit Date	Log Entry
				03/28/2013 -- 11/04/2013 Bulverde Elementary C503 (48_091_0503)
Thu Mar 28, 2013	17:28:33			This station does not have met gear installed yet so all parameters in p-code. Entered station to conduct season start-up 5-pt calibration. performed instrument checks: Flows, intensities & Temps all ok. Placed unit in q-code. Commenced 5-pt calibration with Transfer standard sn 165-45140-273 cal date 2-25-13, verified by TCEQ primary std. 582-40817/276S, cal date 4-20-2012. Calibration complete: 400 set = 403 ppb, 300 set = 302 ppb, 200 set= 201 ppb, 90 set = 90.5 ppb. zero set = 0.6 ppb. Changed particulate filter, placed unit back in k-code. All tubing was installed and unit turned on to warm up yesterday. Insulated the tubing today. Made log entry and left station safe and secure. jmcrow
Wed Apr 03, 2013	12:22:14			Automatic time sync
Sat Apr 06, 2013	04:13:08			Automatic time sync
Tue Apr 09, 2013	04:13:07			Automatic time sync
Sat Apr 13, 2013	04:13:09			Automatic time sync
Mon Apr 15, 2013	09:34:58			04-15-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Tue Apr 16, 2013	04:13:07			Automatic time sync
Sat Apr 20, 2013	04:13:08			Automatic time sync
Tue Apr 23, 2013	04:13:08			Automatic time sync
Thu Apr 25, 2013	10:29:54			04-25-13 Entered station to perform 3-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 3-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 400.85 PPB .090= 89.98 PPB .000= 00.10 PPb Placed unit in k-code.Left Area Safe And Secure. BDW
Sat Apr 27, 2013	04:13:08			Automatic time sync
Tue Apr 30, 2013	04:13:08			Automatic time sync
Sat May 04, 2013	04:13:08			Automatic time sync
Tue May 07, 2013	04:13:09			Automatic time sync
Sat May 11, 2013	04:13:08			Automatic time sync
Mon May 13, 2013	11:40:26			05-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW

Tue May 14, 2013	04:13:07			Automatic time sync
Sat May 18, 2013	04:13:07			Automatic time sync
Tue May 21, 2013	04:13:08			Automatic time sync
Sat May 25, 2013	04:13:08			Automatic time sync
Tue May 28, 2013	04:13:08			Automatic time sync
Wed May 29, 2013	13:13:04			Entered station temp 78 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 16545140-273 calibration date 02/25/13. 400 set= 402.0 ppb, 90 set= 90.2 ppb 0 set= 1.1 ppb. Replaced particulate filter, checked O3 instrument flows, frequencies, temps, pressures, and voltages correct. Made log entries and left site safe and secure. jmcraw
Sat Jun 01, 2013	04:13:07			Automatic time sync
Tue Jun 04, 2013	04:13:07			Automatic time sync
Sat Jun 08, 2013	04:13:07			Automatic time sync
Wed Jun 12, 2013	11:04:19			06-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Jun 15, 2013	04:13:08			Automatic time sync
Tue Jun 18, 2013	04:13:08			Automatic time sync
Sat Jun 22, 2013	04:13:07			Automatic time sync
Tue Jun 25, 2013	04:13:08			Automatic time sync
Wed Jun 26, 2013	13:49:46			6-26-13 Entered station to perform 3-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 3-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok made log entry. .400= 400.20 PPB .090= 89.68 PPB .000= 00.10 PPb Placed unit in k-code.Left Area Safe And Secure. BDW
Sat Jun 29, 2013	04:13:08			Automatic time sync
Tue Jul 02, 2013	04:13:08			Automatic time sync
Sat Jul 06, 2013	04:13:07			Automatic time sync
Tue Jul 09, 2013	04:13:09			Automatic time sync
Sat Jul 13, 2013	04:13:09			Automatic time sync
Mon Jul 15, 2013	14:44:39			7-15-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Tue Jul 16, 2013	04:13:09			Automatic time sync
Sat Jul 20, 2013	04:13:09			Automatic time sync
Tue Jul 23, 2013	04:13:07			Automatic time sync
Fri Jul 26, 2013	11:37:40			7-26-13 Entered station to perform 5-point calibration and inspect O3 instrument and change filter. Q-coded O3 unit and started. Performed 5-Point Calibration with Thermo Model 165C S/N

				165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok. .400= 400.15PPB .300= 299.98 PPB .200= 199.61 PPB .090= 90.00 PPB .000= 00.11 PPb made log entry and left Area Safe And Secure. BDW
Sat Jul 27, 2013	04:13:09			Automatic time sync
Tue Jul 30, 2013	04:13:08			Automatic time sync
Sat Aug 03, 2013	04:13:09			Automatic time sync
Tue Aug 06, 2013	04:13:07			Automatic time sync
Sat Aug 10, 2013	04:13:07			Automatic time sync
Tue Aug 13, 2013	04:13:07			Automatic time sync
Tue Aug 13, 2013	15:06:43			08-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Aug 17, 2013	04:13:08			Automatic time sync
Tue Aug 20, 2013	04:13:08			Automatic time sync
Sat Aug 24, 2013	04:13:08			Automatic time sync
Thu Aug 29, 2013	17:24:09			Entered station temp 80F. Placed O3 unit in q-code to conduct 3-pt. calibration checks. transfers standard sn 16545140-213 cal due date 2-25-14. 400 set= 401.2 ppb, 90 set= 90.6 ppb 0 set= 0.9 ppb.Performed bi-weekly maintenance items, replaced particulate filter, checked O3 instrument parameters correct. made log entries and left site safe and secure. jmccraw
Sat Aug 31, 2013	04:13:07			Automatic time sync
Tue Sep 03, 2013	04:13:08			Automatic time sync
Sat Sep 07, 2013	04:13:08			Automatic time sync
Tue Sep 10, 2013	04:13:08			Automatic time sync
Fri Sep 13, 2013	09:20:45			09-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Sep 14, 2013	04:13:08			Automatic time sync
Tue Sep 17, 2013	04:13:08			Automatic time sync
Tue Sep 24, 2013	04:13:08			Automatic time sync
Tue Sep 24, 2013	16:54:22			entered station to conduct 3-pt cal on site, found instrument pump out,placed o3 to p-code. installed o3 unit sn49c-75376-379 and removed unit sn49c-774531-376. warmed up unit and transfer standard sn165-45140-273 cal due date 2-25-14. checked instrument parameters and analog outputs ok, conducted manual 5-pt calibration. O3 to q code. 400= 400.1; 300= 302.0; 200= 200.6; 90= 88.2; zero= -0.8. completed 5pt check <1% error. placed o3 unit in k-code. left site safe and secure jmccraw
Sat Sep 28, 2013	04:13:08			Automatic time sync
Tue Oct 01, 2013	04:13:07			Automatic time sync

Sat Oct 05, 2013	04:13:07			Automatic time sync
Tue Oct 08, 2013	04:13:08			Automatic time sync
Sat Oct 12, 2013	04:13:09			Automatic time sync
Tue Oct 15, 2013	13:04:41			10-15-13 Entered station to check on Brian L. Pma flag and perform bi-weekly maintenance. Found O3 Instrument locked up but functioning properly. Just Turned off to reset and started right up. O3 instrument reading properly Will keep an eye on unit. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Thu Oct 17, 2013	13:53:28			entered station to investigate unit lock up and replace unit with DDE spare unit, found front panel reading normal and called TCEQ to discuss with Bryan, he indicated the data was normal and the unit had corrected itself. we agreed not to replace the unit at this time. left site safe and secure. jmccraw
Sat Oct 19, 2013	04:13:08			Automatic time sync
Tue Oct 22, 2013	04:13:08			Automatic time sync
Sat Oct 26, 2013	04:13:07			Automatic time sync
Mon Oct 28, 2013	15:54:36			10-28-13 Entered station to perform 5-point calibration and inspect O3 instrument and change filter. Changed out O3 unit due to Inst malfunctioning changed out warmed up and Q-coded O3 unit and started. Performed 5-Point Calibration with Thermo Model 165C S/N 165C45140-273 calibrated using TCEQ primary standard S/N 582-40817-276s on 02/25/13.inspect O3 instrument and change filter.Checked Flows ok, intensities ok, temps ok Calibration Ok. .400= 399.45PPB .300= 300.37 PPB .200= 200.27 PPB .090= 89.82 PPB .000= 00.05 PPb made log entry and left Area Safe And Secure. BDW
Tue Oct 29, 2013	04:13:08			Automatic time sync
Sat Nov 02, 2013	04:13:08			Automatic time sync
Mon Nov 04, 2013	15:13:17			Entered station to shut down equipment for end of the 2013 ozone season. this station instrument removed for repair. Made log entry, waited for upload and turn equipment off. Left site safe and secure. jmccraw

Operator Logs for New Braunfels Airport C504 2013 Ozone Season

Date	Time (CST)	Operator	Visit Date	Log Entry
				03/28/2013 -- 11/05/2013 New Braunfels Airport C504 (48_187_0504)
Thu Mar 28, 2013	17:17:34			3-28-13: Entered station to conduct season startup 5 pt calibrations. O3 to q-code. Conducted 5-pt calibration check with 582-40817/267S. Completed with less than 1% error. 400 set = 400.1 ppb, 300 set = 299.7 ppb, 200 set = 199.7 ppb, 90 set = 89.8 ppb. zero set = 0.0 ppb. Changed particulate filter. Checked temps, pressures, flows & intensities, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Fri Apr 05, 2013	09:54:30			Automatic time sync
Sat Apr 06, 2013	05:13:47			Automatic time sync
Tue Apr 16, 2013	14:21:46			4-16-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Fri Apr 26, 2013	13:05:36			4-26-13: Entered station to conduct bi-monthly maintenance and 3-pt calibration. Changed filter and Checked Flows, intensities & Temps all ok. Placed unit in q-code. Commenced 3-pt calibration with Transfer standard sn 582-40817/276S, cal date due 2-22-14. Calibration complete: 400 set = 400.1 ppb, 90 set = 89.8 ppb. zero set = 000.0 ppb. Unit passed with less than 1% error. Changed particulate filter, placed unit back in k-code. Made log entry and left station safe and secure. KONEal
Tue Apr 30, 2013	05:13:37			Automatic time sync
Tue May 07, 2013	05:13:38			Automatic time sync
Mon May 13, 2013	16:14:15			05-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat May 18, 2013	05:13:38			Automatic time sync
Tue May 21, 2013	05:13:37			Automatic time sync
Tue May 28, 2013	05:13:36			Automatic time sync
Wed May 29, 2013	15:47:54			5-29-13: Entered station to conduct bi-monthly maintenance and 3-pt calibration. Changed filter and Checked Flows, intensities, pressures & Temps all ok. Placed unit in q-code. Commenced 3-pt calibration with Transfer standard sn 582-40817/276S, cal date due 2-22-14. Calibration complete: 400 set = 400.1 ppb, 90 set = 0.0 ppb. zero set = 000.0 ppb. Unit passed with less than 1% error. Changed particulate filter, placed unit back in k-code. Made log entry and left station safe and secure. KONEal
Thu May 30, 2013	10:10:40			placed o3 unit back to k-code for service performed yesterday. jmcraw

Tue Jun 04, 2013	05:13:38			Automatic time sync
Tue Jun 11, 2013	05:13:37			Automatic time sync
Wed Jun 12, 2013	14:01:24			06-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps, frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Jun 15, 2013	05:13:37			Automatic time sync
Tue Jun 18, 2013	05:13:37			Automatic time sync
Sat Jun 22, 2013	05:13:37			Automatic time sync
Thu Jun 27, 2013	11:07:26			Entered station temp 80.1 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 165c74465-376 calibration date 02/22/13. 400 set= 400.1 ppb, 90 set= 88.6 ppb 0 set= 0.1 ppb. Replaced all particulate filter, checked instrument flows, frequencies, temps, pressures, and voltages on unit OK. Made log entries and left site safe and secure. jmccraw
Tue Jul 09, 2013	05:13:38			Automatic time sync
Fri Jul 12, 2013	17:45:04			7-12-13: Entered station to conduct bi-monthly maintenance. Internal temp. 87°F. Changed filter and Checked Flows, intensities, pressures & Temps all ok. Made log entry and left station safe and secure. KONEal r11. Calibration complete: 400 set = 400 ppb, 300 set = 300.7 ppb, 200 set= 200.2 ppb, 90 set = 89.5 ppb. zero set = 000.2 ppb. Changed particulate filter, placed unit back in k-code. All tubing was replaced and unit turned on to warm up last week. Made log entry and left station safe and secure. KONEal
Tue Jul 23, 2013	05:13:37			Automatic time sync
Wed Jul 24, 2013	15:00:33			7-24-13: Entered station to conduct bi-monthly maintenance and 5pt Calibration on O3 instrument. Placed O3 to q-code. Conducted 5-pt calibration check with 165C-74465-376. Completed with less than 1% error. 400 set = 400.1 ppb, 300 set = 300.1 ppb, 200 set = 200.1 ppb, 90 set = 90.0 ppb. zero set = 0.0 ppb. Changed particulate filter. Checked temps, pressures, flows & frequencies, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Sat Jul 27, 2013	05:13:37			Automatic time sync
Tue Jul 30, 2013	05:13:36			Automatic time sync
Sat Aug 03, 2013	05:13:38			Automatic time sync
Tue Aug 13, 2013	05:13:38			Automatic time sync
Tue Aug 13, 2013	09:31:22			Entered station to conduct bi-weekly maintenace. Changed particulate filter and checked insrument operations normal. left site safe and secure. jmccraw
Sat Aug 17, 2013	05:13:36			Automatic time sync
Sat Aug 24, 2013	05:13:37			Automatic time sync
Tue Aug 27, 2013	05:13:36			Automatic time sync
Tue Aug 27, 2013	11:09:50			u
Tue Aug 27, 2013	11:11:30			8-27-13: Entered station to conduct bi-monthly maintenance and 3-pt calibration. Changed filter and Checked Flows, intensities, pressures & Temps all ok. Placed unit in q-code. Commenced 3-pt calibration

				with Transfer standard sn 165C74465-376, cal date due 2-22-14. Calibration complete: 400 set = 399.7 ppb, 90 set = 89.9 ppb. zero set = 0.0 ppb. Unit passed with less than 1% error. Changed particulate filter, placed unit back in k-code. Made log entry and left station safe and secure. KONEal
Tue Sep 10, 2013	04:13:36			Automatic time sync
Thu Sep 12, 2013	09:47:29			Entered station to conduct bi-weekly maintenace. Changed particulate filter and checked insrument operations normal. left site safe and secure. jmcclaw
Sat Sep 14, 2013	04:13:37			Automatic time sync
Tue Sep 17, 2013	04:13:36			Automatic time sync
Sat Sep 28, 2013	04:13:38			Automatic time sync
Sat Sep 28, 2013	15:30:55			9-28-13: Entered station to conduct bi-monthly maintenance and 3-pt Calibration. O3 to q-code. Conducted 3-pt calibration with transfer standard 582-40817/267S using Thermo Model 165 ModC. Completed with less than 1% error. 400 set = 400.1 ppb, 90set = 90.0 ppb. zero set = 0.0 ppb. Changed particulate filter. Checked temps, pressures, flows & intensities, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Tue Oct 01, 2013	04:13:37			Automatic time sync
Tue Oct 15, 2013	04:13:37			Automatic time sync
Tue Oct 15, 2013	11:05:03			10-15-13: Entered station to conduct bi-monthly maintenance. Changed filter and checked equipment, all looks good. Made log entry and left site safe and secure. KONEal
Sat Oct 26, 2013	04:13:37			Automatic time sync
Wed Oct 30, 2013	13:46:03			10-30-13: Entered station to conduct bi-monthly maintenance and 5pt Calibration. O3 to q-code. Conducted 5-pt calibration with transfer standard 582-40817/267S using Thermo Model 165C74465-376. Completed with less than 1% error. 400 set = 399.9 ppb, 300 set = 300.0 ppb, 200 set = 199.9 ppb, 90set = 89.6 ppb. zero set = 0.0 ppb. Changed particulate filter. Checked temps, pressures, flows & frequencies, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Tue Nov 05, 2013	15:44:41			Entered station to shut down equipment for end of the 2013 ozone season. Made log entry, waited for upload and turn equipment off. Left site safe and secure. jmcclaw

Operator Logs for City of Garden Ridge C505

2013 Ozone Season

Date	Time (CST)	Operator	Visit Date	Log Entry
				03/28/2013 – 11/05/2013 City of Garden Ridge C505 (48_091_0505)
Thu Mar 28, 2013	12:39:18			Entered station and installed repaired NOx and SO2 units, replaced tubing and filters, Performed calibration checks and set units to k-code. adjusted O3 calibration curve in calibrator. Set up 5-pt calibrations to run. left site safe and secure. jmccraw
Mon Apr 01, 2013	09:06:46			Automatic time sync
Tue Apr 02, 2013	04:13:07			Automatic time sync
Wed Apr 03, 2013	10:09:45			entered station to check why units in p-code, reset of zeno shows that they were saved to eprom that way, placed all units in k-code and reflashed eprom, so loss of power results in all units coming back in k-code instead of p-code. Alarm on NOx unit, found cooler high temp alarm, unit placed in p-code. checked span levels of SO2 unit and adjusted, set up 5-pt cal to run. left site safe and secure. jmccraw
Sat Apr 06, 2013	04:13:08			Automatic time sync
Tue Apr 09, 2013	04:13:07			Automatic time sync
Mon Apr 15, 2013	10:37:59			4-15-13 Entered station to perform bi-weekly maintenance and check on comms problem over weekend found electrical breaker had tripped and turned off all equipment, reset breaker and all equipment started up. . Changed particulate filters and checked O3 flows, temps,frequencies, pressures. All OK. installed Nox unit last friday and will let warm up a few days before calibration. Made log entry left Area safe and secure. BDW
Tue Apr 16, 2013	04:13:08			Automatic time sync
Tue Apr 16, 2013	16:04:06			Entered station and conducted all biweekly activity, changed filters and checked instruments all normal, started making adjustments to NOx unit after warm up all parameters normal, cooler replaced and operating normally. This site is under a water tower and the water tower is getting cleaned and painted. this may cause some erroneous readings durring slack periods or high worker activity in the area, sand blasting and spray painting just north of site. Set up 5-pt cal to run on NOx. left site safe and secure. jmccraw
Sat Apr 20, 2013	04:13:08			Automatic time sync
Tue Apr 23, 2013	04:13:08			Automatic time sync
Sat Apr 27, 2013	04:13:08			Automatic time sync

Mon Apr 29, 2013	17:29:38			4-29-13: Entered station to conduct bi-monthly maintenance and manual 3-pt calibration on O3 unit Put O3 unit in Q-code. Checked Flows, intensities & Temps all ok. Placed unit in q-code. Commenced 3-pt calibration with Transfer standard sn 582-40817/267S, cal date due 2-22-14. Calibration complete: 400 set = 400.2 ppb, 90 set = 90.05 ppb. zero set = 0.02 ppb. Unit passed with less than 1% error. Changed all particulate filters, placed O3 unit back in k-code. Made log entry and left station safe and secure. KONEal u
Tue Apr 30, 2013	04:13:08			Automatic time sync
Sat May 04, 2013	04:13:08			Automatic time sync
Tue May 07, 2013	04:13:10			Automatic time sync
Sat May 11, 2013	04:13:08			Automatic time sync
Mon May 13, 2013	15:13:14			Entered station and conducted all biweekly activity, changed filters and checked instruments all normal. placed O3 unit to q-code to check the instrument operation with transfer standard 165-45140-273 cal due date 2-25-14. start ambient level at 74 ppb. sandblasting of water tower under shroud in progress at site. 400 = 401.5; 90 = 90.3; 0 = 0.3. Instrument response is almost perfect so the calibration system is the problem at this site. Ambient 72 ppb at finish of cal check. placed calibration system to level 66 and found that station air compressor was broken. we can not perform any more tests without station compressor. placed unit back to k-code and disabled automatic calibration system. left site safe and secure. jmccraw
Tue May 14, 2013	04:13:08			Automatic time sync
Wed May 15, 2013	15:55:17			Entered station to replace the air compressor. Testing calibration system, placing O3 in Q-code for testing. generated a new o3 generator curve in calibrator, set up 5-pt cal on O3 to clear LIM flags, left site safe and secure. jmccraw/koneal
Sat May 18, 2013	04:13:09			Automatic time sync
Tue May 21, 2013	04:13:08			Automatic time sync
Sat May 25, 2013	04:13:07			Automatic time sync
Tue May 28, 2013	04:13:08			Automatic time sync
Wed May 29, 2013	15:48:50			Entered station temp 80 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 16545140-273 calibration date 02/25/13. 400 set= 401.4 ppb, 90 set= 89.7 ppb 0 set= -0.1 ppb. Replaced all particulate filters, checked instrument flows, frequencies, temps, pressures, and voltages on all units and found the NOx unit in alarm for its cooler again reading 0.7 'C limit is -1.0 'C. unit is functioninmg properly will keep it under survelence. Made log entries and left site safe and secure. jmccraw
Tue Jun 04, 2013	04:13:08			Automatic time sync
Sat Jun 08, 2013	04:13:08			Automatic time sync
Wed Jun 12, 2013	11:50:55			06-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Sat Jun 15, 2013	04:13:09			Automatic time sync

Tue Jun 18, 2013	04:13:09			Automatic time sync
Sat Jun 22, 2013	04:13:08			Automatic time sync
Tue Jun 25, 2013	04:13:07			Automatic time sync
Thu Jun 27, 2013	15:47:44			Entered station temp 80.1 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 165c74465-376 calibration date 02/22/13. 400 set= 400.1 ppb, 90 set= 88.6 ppb 0 set= 0.1 ppb.Placed O3 in in k code, placed so2 unit in q-code checked levels ok, found broken vent line from calibrator and repaired. placed so2 unit in k-code, placed NOx unit in q-code to check levels ok, and placed unit back in k-code. Set up 5-pt calcs on NOx and SO2 units. Replaced all particulate filters, checked instrument flows, frequencies, temps, pressures, and voltages on all units OK, except cooler alarm on NOx unit, temp barely above alarm limit, the unit is working. Made log entries and left site safe and secure. jmcrcraw
Sat Jun 29, 2013	04:13:08			Automatic time sync
Sat Jul 06, 2013	04:13:08			Automatic time sync
Tue Jul 09, 2013	04:13:08			Automatic time sync
Sat Jul 13, 2013	04:13:08			Automatic time sync
Tue Jul 16, 2013	04:13:08			Automatic time sync
Wed Jul 17, 2013	10:58:33			7-17-13: Entered station to conduct bi-monthly maintenance Checked Flows,intensities & Temps all ok. Changed all particulate filters. Made log entry and left station safe and secure. KONEal
Sat Jul 20, 2013	04:13:09			Automatic time sync
Tue Jul 23, 2013	04:13:08			Automatic time sync
Mon Jul 29, 2013	10:02:21			Entered station to conduct bi-weekly checks & maintenance. Changed particulate filters. Checked instrument Parameters, normal, except for alarm on NOx cooler. (reading 0.5 C alarm set point is - 1.0 c). set up automatic 5-pt calibration of O3 unit. Left site safe and secure. jmcrcraw
Tue Jul 30, 2013	04:13:09			Automatic time sync
Sat Aug 03, 2013	04:13:07			Automatic time sync
Tue Aug 06, 2013	04:13:08			Automatic time sync
Sat Aug 10, 2013	04:13:08			Automatic time sync
Tue Aug 13, 2013	04:13:08			Automatic time sync
Tue Aug 13, 2013	12:45:25			Entered station to conduct bi-weekly maintenace. Changed all particulate filter and checked insrument operations, found alarm on ozone unit, low flow at .39 lpm, low set .4 lpm, placed unit in p-code and changed pump diaphragm. operations returned to normal. checked upper span point correct. set up auto 3-pt to run. found alarm on SO2 unit, low lamp voltage, placed unit in p-code until repairs can be made. left site safe and secure. jmcrcraw

Tue Aug 13, 2013	15:57:47			entered station to work on SO2 unit. adjusted lamp voltage up to high end of frequency range, adjusted pmt voltage to give correct span value. tested unit working but response time is very slow. unit operates correctly but slowly, call to factory suggests we change parts. will leave unit off line until client can make a decision. jmccraw
Sat Aug 17, 2013	04:13:08			Automatic time sync
Tue Aug 20, 2013	04:13:07			Automatic time sync
Sat Aug 24, 2013	04:13:09			Automatic time sync
Tue Aug 27, 2013	04:13:08			Automatic time sync
Fri Aug 30, 2013	15:00:40			Entered station temp 80F. Placed O3 unit in q-code to conduct 3-pt. calibration checks. transfer standard sn 16545140-213 cal due date 2-25-14. 400 set= 400.6 ppb, 90 set= 90.6 ppb 0 set= 0.7 ppb. Placed NOx unit in q code and checked levels. Set up 5-pt cal to run. Performed bi-weekly maintenance items, replaced particulate filters, checked O3 and NOx instrument parameters correct. made log entries and left site safe and secure. jmccraw
Fri Aug 30, 2013	15:05:37			removed SO2 unit to shop for repair. jmccraw
Sat Aug 31, 2013	04:13:08			Automatic time sync
Tue Sep 03, 2013	04:13:08			Automatic time sync
Sat Sep 07, 2013	04:13:08			Automatic time sync
Tue Sep 10, 2013	04:13:09			Automatic time sync
Fri Sep 13, 2013	10:23:39			09-13-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Fri Sep 13, 2013	17:49:34			09-13-13 Entered station again to look over O3 Unit Brian said it was reading high. Found slight flow leak during leak check. Tighten all fittings and rechecked flow and was good. Ran span and zero levels and set up a 5-pt cal to run this PM. Made log entry and left site safe and secure. BDW
Sat Sep 14, 2013	04:13:07			Automatic time sync
Tue Sep 17, 2013	04:13:08			Automatic time sync
Sat Sep 21, 2013	04:13:07			Automatic time sync
Tue Sep 24, 2013	04:13:10			Automatic time sync
Thu Sep 26, 2013	16:56:18			Entered station and set up manual 3 point span check, checked all instrument parameters, SO2 removed, NOx cooler in alarm at -0.1C still working, changed filters and left site safe and secure. jmccraw
Sat Sep 28, 2013	04:13:08			Automatic time sync
Tue Oct 01, 2013	04:13:08			Automatic time sync
Sat Oct 05, 2013	04:13:08			Automatic time sync
Tue Oct 08, 2013	04:13:08			Automatic time sync
Sat Oct 12, 2013	04:13:08			Automatic time sync
Tue Oct 15, 2013	04:13:07			Automatic time sync

Tue Oct 15, 2013	15:38:44			Entered station to conduct bi-weekly maintenace. Changed particulate filter and checked insrument operations found low flow alarms on O3 unit placed unit in p-code and fixed problem no adjustments made to ozone unit. left site safe and secure. jmcrcraw
Thu Oct 17, 2013	11:27:04			entered station to check O3 unit calibration, and operation, placed O3 unit in checked the 400 point with station calibrator @ 397, and with transfer standard sn165-45140-273 @ 398 the unit is operating correctly, flows are better after inlet valve was cleaned on 10-15-13. set up 5-pt cal to run. left site safe and secure. jmcrcraw
Fri Oct 18, 2013	15:01:34			10-18-13: Entered station & placed O3 unit in P code to check 400 point with Transfer standard 582-40817/267-S. Trans. Standard cal expires 2/22/14. Checked 400 point @ 402. Put unit back to k-code and left site safe and secure. koneal
Sat Oct 19, 2013	04:13:06			Automatic time sync
Tue Oct 22, 2013	04:13:07			Automatic time sync
Tue Oct 22, 2013	16:31:26			10-22-13: Entered station to place O3 unit back in K-code from p-code. Made log entry and left station safe and secure. KONEal
Sat Oct 26, 2013	04:13:07			Automatic time sync
Tue Oct 29, 2013	04:13:08			Automatic time sync
Tue Oct 29, 2013	11:36:20			entered station and moved ac vents away from unit and disconnected the autocalibration valve to ozone unit, to run the unit staight from outside to prevent any flow blockages, all other conditions are normal and the unit is operating properly. left site safe and secure. jmcrcraw/bwhite.
Sat Nov 02, 2013	04:13:09			Automatic time sync
Mon Nov 04, 2013	16:12:07			entered station and installed 49c DDE spare sn0326802161. installed unit in the place of the SO2 unit that was removed for repair. Same range and outputs to determine if the O3 unit fluctuations are due to instrument or station variables by co-locating the equipment just removed from Bulverde. unit and site shut downs delayed. for this site. jmcrcraw
Mon Nov 04, 2013	16:20:27			shut gas cylinder valves, shut off zero air unit, de-energized the 5008 multigas cal unit, de-energized NOx unit, and left both Ozone units running with the O3 parameters in q code, marked all others to p-code.jmcrcraw
Tue Nov 05, 2013	04:13:18			Automatic time sync

Operator Logs for Seguin Outdoor Learning Center C506

2013 Ozone Season

Date	Time (CST)	Operator	Visit Date	Log Entry
				03/28/2013 -- 11/05/2013 Seguin Outdoor Learning Center C506 (48_187_0506)
Thu Mar 28, 2013	13:39:30			3-28-13: Entered station to conduct season startup 5 pt calibrations. O3 to q-code. Conducted 5-pt calibration check with 582-40817/267S. Completed with less than 1% error. 400 set = 399.6 ppb, 300 set = 301.2 ppb, 200 set = 199.9 ppb, 90 set = 89.9 ppb. zero set = 0.1 ppb. Changed particulate filter. Checked temps, pressures, flows & intensities, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Thu Mar 28, 2013	13:39:30			3-28-13: Entered station to conduct season startup 5 pt calibrations. O3 to q-code. Conducted 5-pt calibration check with 582-40817/267S. Completed with less than 1% error. 400 set = 399.6 ppb, 300 set = 301.2 ppb, 200 set = 199.9 ppb, 90 set = 89.9 ppb. zero set = 0.1 ppb. Changed particulate filter. Checked temps, pressures, flows & intensities, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Thu Apr 11, 2013	18:15:25			Entered station to conduct bi-weekly maintenace. Changed particulate filters and checked insruments operations normal. uploaded the data output files to send to Laura, the phone line to the site is still down. left site safe and secure. jmccraw
Thu Apr 11, 2013	18:15:25			Entered station to conduct bi-weekly maintenace. Changed particulate filters and checked insruments operations normal. uploaded the data output files to send to Laura, the phone line to the site is still down. left site safe and secure. jmccraw
Wed Apr 24, 2013	18:34:35			4-24-13: Entered station to conduct bi-weekly maintenance. O3 to q-code. Conducted 3-pt calibration check with transfer standard sn 165-45140-273 calibration due 2-22-14. Completed with less than 1% error. 400 set = 400.0 ppb, 90 set = 90.1 ppb. zero set = 0.1 ppb. Changed filter and checked flows, temps, intensities and pressures. All ok. Placed O3 to k-code. Uploaded data output files to send to Laura as phone line was down. Made log entry & left site safe and secure. KONEal u
Wed May 29, 2013	13:00:02			5-29-13: Entered station to conduct bi-weekly maintenance. O3 to q-code. Conducted 3-pt calibration check with transfer standard sn 165-45140-273 calibration due 2-22-14. Completed with less than 1% error. 400 set = 400.5 ppb, 90 set = 90.5 ppb. zero set = 0.1 ppb. Changed filter and checked flows, temps, intensities and pressures. All ok. Placed O3 to k-code. Made log entry & left site safe and secure. KONEal
Wed Jun 12, 2013	14:45:19			06-12-13 Entered station to perform bi-weekly maintenance. Changed particulate filter and checked flows, temps,frequencies, pressures. All OK. Made log entry left Area safe and secure. BDW
Wed Jun 26, 2013	14:52:13			Entered station temp 81.8 F. Placed O3 unit in q-code to conduct 3-pt. calibration checks with transfer standard sn # 165c74465-376 calibration date 02/22/13. 400 set= 402.3 ppb, 90 set= 90.8 ppb 0 set= -0.1 ppb.

				Replaced all particulate filter, checked instrument flows, frequencies, temps, pressures, and voltages on unit OK, except for alarm on channel b flow that is known bad flow sensor. Made log entries and left site safe and secure. jmcrcraw
Fri Jul 12, 2013	16:27:06			5-29-13: Entered station to conduct bi-monthly maintenance and 3-pt calibration. Changed filter and Checked Flows, intensities, pressures & Temps all ok. Placed unit in q-code. Commenced 3-pt calibration with Transfer standard sn 582-40817/276S, cal date due 2-22-14. Calibration complete: 400 set = 400.1 ppb, 90 set = 0.0 ppb. zero set = 000.0 ppb. Unit passed with less than 1% error. Changed particulate filter, placed unit back in k-code. Made log entry and left station safe and secure. KONEal
Fri Jul 12, 2013	16:29:02			u a u Disregard previous entry. Correct entry as follows: 7-12-13: Entered station to conduct bi-monthly maintenance. Changed filter and Checked Flows, intensities, pressures & Temps all ok. Made log entry and left station safe and secure. KONEal
Wed Jul 24, 2013	19:03:50			x
Wed Jul 24, 2013	19:04:27			7-24-13: Entered station to conduct bi-monthly maintenance and 5pt Calibration on O3 instrument. Placed O3 to q-code. Conducted 5-pt calibration check with 165C-74465-376. Completed with less than 1% error. 400 set = 400.0 ppb, 300 set = 299.9 ppb, 200 set = 199.9 ppb, 90 set = 90.1 ppb. zero set = 0.0 ppb. Changed particulate filter. Checked temps, pressures, flows & intensities, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Tue Aug 13, 2013	10:14:54			Entered station to conduct bi-weekly maintenace. Changed particulate filter and checked insrument operations normal. left site safe and secure. jmcrcraw
Tue Aug 27, 2013	14:16:58			8-27-13: Entered station to conduct bi-weekly maintenance. Placed O3 to q-code. Conducted 3-pt calibration check with transfer standard sn 165C 74465-376 calibration due 2-22-14. Completed with less than 1% error. 400 set = 400.5 ppb, 90 set = 90.1 ppb. zero set = 0.0 ppb. Changed filter and checked flows, temps, intensities and pressures. All ok. Placed O3 back to k-code. Made log entry & left site safe and secure. KONEal
Thu Sep 12, 2013	10:19:47			Entered station to conduct bi-weekly maintenace. Changed particulate filter and checked insrument operations normal. left site safe and secure. jmcrcraw
Mon Sep 16, 2013	14:12:18			entered station and found pump on O3 unit locked up. replaced the pump and checked calibration with transfer standard. sn165-45140-273 cal due 2-25-14.400 set= 402.6 ppb, 90 set= 90.8 ppb 0 set= 0.9 ppb. checked O3 instrument parameters correct. made log entries and left site safe and secure. jmcrcraw
Tue Oct 15, 2013	10:09:00			10-15-13: Entered station to conduct bi-monthly maintenance. Changed filter and checked equipment, all looks good. Made log entry and left site safe and secure. KONEal
Wed Oct 30, 2013	18:52:18			10-30-13: Entered station to conduct bi-monthly maintenance and 5pt Calibration. O3 to q-code. Conducted 5-pt calibration with transfer standard 582-40817/267S using Thermo Model 165C74465-376. Completed with less than 1% error. 400 set = 399.9 ppb, 300 set = 299.7 ppb, 200 set = 200.0 ppb, 90set = 90.0 ppb. zero set = 0.0 ppb. Changed

				particulate filter. Checked temps, pressures, flows & intensities, all ok. Put O3 unit back to k-code. Made log entry and left site safe and secure. KONEal
Tue Nov 05, 2013	14:56:39			Entered station to shut down equipment for end of the 2013 ozone season. Made log entry, waited for upload and turn equipment off. Left site safe and secure. jmccraw

EQUIPMENT INVENTORY

Monitoring Site Equipment Inventory List

AACOG monitoring contracts contain the following stipulation:

OWNERSHIP OF PROJECT EQUIPMENT

(The ozone and meteorological network maintenance and operations contractor) will maintain an “as built” Monitoring Site Equipment Inventory List for delivery to AACOG that includes serial numbers and specific details to each item owned by AACOG at that site, as necessary to record any changes in equipment at each site.

The following list was confirmed by Dios Dado Environmental Ltd. on November 2, 2013.

Inventory List for CAMS 501 – Elm Creek Elementary School

1. Thermo Environmental Ozone Monitor	P/N-M-49c S/N-49c-75373-379
2. Coastal Environmental Zeno-3200 Data Logger	P/N-S-1034 S/N-2240
3. US Robotics 56K Modem-Sportster	P/N-USR5686E S/N-1MCW23CM9249
4. APC Smart-UPS-BX1000	P/N-BACK-UPS-1000 S/N-QB0432330374
5. R.M. Young Wind Monitor	P/N-05305 VP SN-88656
6. R.M. Young Platinum Temp Probe	P/N-41342 VF
7. R.M. Young Multiplate Radiation Shield	P/N-41002 P
8. R.M. Young Tipping Bucket Rain Gauge	P/N-52203
9. Climatronics Corp. 33'	P/N-C33-GO-H1
10. Climatronics Corp. 33' Grounding Kit	P/N-100924-G1-45
11. Cole-Parmer Inline 47-mm Filter Holder	P/N-U-06621-40
12. Activated Charcoal Scrubber	N/A
13. PS-Surge 6-Outlet Surge Protector	N/A
14. Coastal Environmental Serial Cable	N/A
15. Aluminum Zeno Mount	N/A

Inventory List for CAMS 502 – City of Fair Oaks Ranch

1. Thermo Environmental Ozone Monitor	P/N-M-49c S/N-49c-0415506572
2. Coastal Environmental Zeno-3200 Data Logger	P/N-S-1034 S/N-2790
3. US Robotics 56K Modem-Sportster	P/N-USR5686E S/N-1MCWX29LY612
4. APC Smart-UPS	P/N-BACK-UPS-APC –CS-350 S/N-481118P15539
5. R.M. Young Wind Monitor	P/N-05305 VP
6. R.M. Young Platinum Temp Probe	P/N-41342 VF
7. R.M. Young Multiplate Radiation Shield	P/N-41002 P
8. R.M. Young Tipping Bucket Rain Gauge	P/N-52203
9. Climatronics Corp. 33'	P/N-C33-GO-H1
10. Climatronics Corp. 33' Grounding Kit	P/N-100924-G1-45
11. Cole-Parmer Inline 47-mm Filter Holder	P/N-U-06621-40
12. Activated Charcoal Scrubber	N/A
13. PS-Surge 6-Outlet Surge Protector	N/A
14. Coastal Environmental Serial Cable	N/A
15. Aluminum Zeno Mount	N/A

Inventory List for CAMS 503 – Bulverde Elementary School

1. Thermo Environmental Ozone Monitor	P/N-M-49c S/N-49c-74531-376 In Shop for Repair
2. Coastal Environmental Zeno-3200 Data Logger	P/N-S-1034 S/N-2244
3. Enfora GSM-1208	P/N-GSM-1208 S/N-1208360700305
4. APC Smart-UPS	P/N-BACK-UPS-600 S/N-FB9650305722
5. R.M. Young Wind Monitor *	P/N-05305 VP* In Shop
6. R.M. Young Platinum Temp Probe *	P/N-41342 VF* In Shop
7. R.M. Young Multiplate Radiation Shield *	P/N-41002 P* In Shop
8. R.M. Young Tipping Bucket Rain Gauge *	P/N-52203* In Shop
9. Climatronics Corp. 33' *	P/N-C33-GO-H1* In Shop
10. Climatronics Corp. 33' Grounding Kit *	P/N-100924-G1-45* In Shop
11. Cole-Parmer Inline 47-mm Filter Holder	P/N-U-06621-40
12. Activated Charcoal Scrubber	N/A
13. PS-Surge 6-Outlet Surge Protector	N/A
14. Coastal Environmental Serial Cable	N/A
15. Aluminum Zeno Mount	N/A

* Indicates stored in Dios Dado warehouse until further notice.

**Inventory List for CAMS 504 –
National Weather Service Station – New Braunfels**

1. Thermo Environmental Ozone Monitor	P/N-M-49c S/N-49c-75375-379
2. Coastal Environmental Zeno-3200 Data Logger	P/N-S-1034T S/N-2242
3. US Robotics 56K Modem-Sportster V.92	P/N-64-005686-05 S/N-1MCW23CM9193
4. APC Smart-UPS	P/N-BK500MC S/N-PB9937112604
5. Cole-Parmer Inline 47-mm Filter Holder	P/N-U-06621-40 S/N-N/A
6. Activated Charcoal Scrubber	N/A
7. PS-Surge 6-Outlet Surge Protector	N/A
8. Modem Serial Cable	N/A
9. Aluminum Zeno Mount	N/A

Inventory List for CAMS 505 – City of Garden Ridge

1. Thermo Environmental Ozone Monitor	P/N-M-49c S/N-49c75374-379 At station Needs Repair
2. Coastal Environmental Zeno-3200 Data Logger	P/N-S-1034T S/N-2241
3. Thermo Environmental NO, NO ₂ , NO _x Analyzer	P/N-42c NO, NO ₂ , NO _x Analyzer S/N-42c-67914-359 At station Needs Repair
4. Thermo Environmental SO ₂ Analyzer	P/N-43c SO ₂ Analyzer S/N-0328002389 In Shop for Repair
5. Dasibi Multi Gas Calibrator	Model-5008 S/N-717
6. Dasibi Zero Air Unit	Model-5011 S/N-607
7. 120V Oilless Air Compressor	Model-LA 5721 Date 0513 S/N-V8021636
8. Gas Bottle Regulator	Model-51-15C P/N-45100016 S/N-542529
9. Glass Water Trap	N/A
10. Enfora GSM-1208	P/N-GSM-1208 S/N-1208180500035
11. APC Smart-UPS	P/N-BACK-UPS-600 S/N-FB-9650305717
12. Cole-Parmer Inline 47-mm Filter Holder-3 <i>each</i>	P/N-U-06621-40 S/N-N/A
13. Activated Charcoal Scrubber	N/A
14. Power Strip	N/A
15. Modem Serial Cable	N/A
16. Aluminum Zeno Mount	N/A

Inventory List for CAMS 506 – Seguin Outdoor Learning Center

1. Thermo Environmental Ozone Monitor	P/N-M-49c 03 S/N-49c-0415506573
2. Coastal Environmental Zeno-3200 Data Logger	P/N-S-1034T S/N-2243
3. US Robotics 56K Modem-Sportster	P/N-64-005686-05 S/N-2ABLX67F0864
4. APC Smart-UPS	P/N-BK400 S/N-PB-9712905043
5. Cole-Parmer Inline 47-mm Filter Holder	P/N-U-06621-40 S/N-N/A
6. Activated Charcoal Scrubber	N/A
7. PS-Surge 6-Outlet Surge Protector	N/A
8. Modem Serial Cable	N/A
9. Aluminum Zeno Mount	N/A

Equipment in need of repair located at CAMS Stations:

CAMS 505 – Thermo Environmental Ozone Monitor (P/N-M-49c S/N: 49c75374-379)

CAMS 505 – Thermo Environmental NO, NO₂, NO_x, Analyzer 42C NO, NO₂, NO_x
Analyzer (S/N-42c-67914-359)

Equipment in need of repair located at:

Dios Dado Environmental Ltd.
9330 Corporate Dr., Ste 301
Selma, Texas 78154

Thermo 49C O₃ Monitor (S/N-75376-379)

Thermo 49C O₃ Monitor (S/N-74531-376)

Thermo Environmental 43C SO₂ Analyzer (S/N-0328002389)

Wind Monitor-AQ P/N- 05305VP (1 ea)

Note: Thermo "Scrubber Assembly (49c)": Thermo part number: PN 14697.

ACOG Ozone and Meteorological Monitoring Locations

Site Name (CAMS Number)	Location	AACOG equipment at that location	Contact
Elm Creek Elementary School (C501)	11535 Pearsall Road, Atascosa, TX, 78002-5150 Lat: +29.276667°, Long: -98.724444°	Ozone monitor, Zeno data logger, meteorological equipment & tower, UPS	Eduardo Garcia, Maintenance Operations, (210) 622-4370
City of Fair Oaks Ranch (C502)	7286 Dietz Elkhorn Road, TX., 78015-4707 Lat: +29.730000°; Long: -98.625556°	Ozone monitor, Zeno data logger, meteorological equipment & tower, UPS	Roy W. Thomas, City Administrator, (210) 698-0900
Bulverde Elementary School (C503)	1715 E. Ammann Road, Bulverde, Tx. 78163-2034 Lat: +29.760833°; Long: -98.462778°	Ozone monitor, Zeno data logger, meteorological equipment & tower, UPS	Guillermo Nieri, Director of Maintenance Operations, Comal ISD: (830) 221-2075
National Weather Service Station / New Braunfels Airport (C504)	2090 Airport Road, New Braunfels, Tx., 78130 Lat: +29.704167°; Long: -98.028889°	Ozone monitor, Zeno data logger, UPS	Joe Arellano, Jr., Meteorologist in Charge, (830) 629-0130 x222, email: Joe.Arellano@noaa.gov
City of Garden Ridge (C505)	21340 FM 3009, near Garden Ridge, Tx., 78266 (City of Garden Ridge's Water System property) Lat: +29.639167°; Long: -98.298611°	Ozone monitor, Zeno data logger, UPS	Mayor Jay Feibelman, (210) 651-6632; Scott Wood, 651-6831 (Jeanette)
Seguin Outdoor Learning Center (C506)	1865 East Highway 90, Seguin, Tx., 78155 Lat: +29.588611°; Long: -97.932222°	Ozone monitor, Zeno data logger, UPS	Pat Bowen , Executive Director, SOLC, (830) 379-7652