2015 Annual Air Quality Report

2015 AIR QUALITY SUMMARY

This annual report provides information on the air quality in Santa Barbara County for 2015.

In 2015, Santa Barbara County met the federal standards for all measured pollutants. The 8-hour ozone standard of 0.075 parts per million (ppm) or 75 parts per billion (ppb) was revised to 0.070 ppm (70 ppb) and the final rule became effective on December 28, 2015.

Santa Barbara County also met the California state standards for all pollutants except for the 8-hour ozone standard, the 24-hour particulate matter less than 10 microns (PM10), and the annual arithmetic mean for particulate matter less than 10 microns (PM10).

The state 8-hour ozone standard of 0.070 ppm (70 ppb) was exceeded on 2 days. The California state PM10 standard of 50 micrograms per cubic meter (µg/m3) was exceeded on 15 days.

The California state arithmetic mean PM10 standard of 20 micrograms per cubic meter (µg/m3) was exceeded at 5 of the 7 stations collecting PM10 data.

Detailed information about the ozone and particulate matter exceedances in Santa Barbara County can be found at: https://www.ourair.org/days-exceeding-ozone-and-particulate-standards-santa-barbara-county/.

National and State Ambient Air Quality Standards

The Federal Clean Air Act (CAA) (Title 1, Section 109) requires the Environmental Protection Agency (EPA) to prescribe national primary ambient air quality standards (NAAQS) for certain air pollutants where public health criteria (protecting sensitive populations such as individuals with compromised respiratory systems) have been established. These pollutant levels were chosen to protect the health of the most susceptible individuals in a population, including children, the elderly and those with chronic respiratory ailments. A secondary standard is also prescribed to protect human welfare (visibility, crop damage, building damage). These pollutants are known as criteria pollutants.

The EPA currently has NAAQS for six criteria pollutants: ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), lead (Pb), and particulate matter including (PM10) and fine particulate matter (PM2.5).

In addition to the EPA standards, the California Air Resources Board (CARB) has set air quality standards for the same criteria pollutants and four others: sulfates, hydrogen sulfide (H2S), vinyl chloride (chloroethene, C2H3Cl), and visibility reducing particles.

Table 1 list the Federal and California standards applicable in 2015.
Figure 1 shows the locations of all monitoring stations in Santa Barbara County operating in 2015.

Air Quality Monitoring Station Status for 2015

In 2015, there were 18 monitoring stations operating in Santa Barbara County, of which eight were operated by the Santa Barbara County Air Pollution Control District (APCD.) The remaining stations were operated by the CARB, and private industry. The monitoring stations are divided into two categories: State and Local Air Monitoring Stations (SLAMS) and Prevention of Significant Deterioration stations (PSD). The SLAMS stations are designed to monitor the air in the urban areas of the county while the PSD stations are required by permit conditions in several oil and gas permits to monitor for impacts to the air quality from the operation of these oil and gas facilities. Table 2 lists the monitoring stations operating in Santa Barbara County during 2015 and the pollutants and parameters measured at each station. The Ellwood Odor monitoring station was granted a variance to temporarily suspend monitoring for one year during 2015 in order to relocate the site. The PM monitoring at the Santa Barbara station was temporarily suspended during 2015 due to access safety concerns.

Criteria Pollutant Summary

The pollutant data collected in Santa Barbara County during 2015 has been summarized and can be downloaded as a PDF file at https://www.ourair.org/wp-content/uploads/2015-POLLUTANTS-FINAL.pdf and is included as Attachment A to this report. This summary contains tables of the following data:

Table A-1	The four highest 1-hour ozone concentrations measured during 2015.
Table A-2	The four highest 8-hour ozone concentrations measured during 2015.
Table A-3	The four highest 1-hour concentrations for NO2 for 2015.
Table A-4	The four highest 1-hour concentrations for SO2 for 2015.
Table A-5	The four highest 1-hour concentrations for CO for 2015.

Particulate Matter monitoring

Seven stations collected PM10 data in 2015. The seven stations used a PM10 Beta Attenuation Monitor (BAM) sampler running 24 hours a day and calculating real time hourly values for ambient PM concentrations. Four stations collected PM2.5 data using a PM2.5 BAM, collecting continuous hourly data.

The particulate data collected in Santa Barbara County during 2015 has been summarized and can be downloaded as a PDF file at https://www.ourair.org/wp-content/uploads/2015-PM-DATA.pdf and is included as Attachment B to this report. This summary contains tables of the data listed below.

Table B-1	The two highest 24-hour PM10 (Local Temperature and Pressure) concentrations measured during 2015 and the annual 24- hour average.
Table B-2	The two highest 24-hour PM10 (Standard Temperature and Pressure) concentrations measured during 2015 and the annual 24-hour average.
Table B-3	The two highest 24-hour PM2.5 concentrations measured during 2015 and the annual 24- hour average.

Table 3 provides a summary of particulate monitoring by type and location.
This includes:

- PM10 for continuous sampling to State standards
- PM10 for continuous sampling to Federal standards
- PM2.5 for continuous sampling to State and Federal standards

There were no stations in 2015 with measurements over the federal 24-hour PM10 standard of 150 µg/m3. There were 4 stations that measured a particulate level over the state 24-hour California PM10 standard of 50 µg/m3 during the year. The highest 24 hour value for 2015 (134 µg/m3) was recorded at the El Capitan station. There were also 5 stations that measured a particulate level over the California state annual arithmetic mean standard of 20 µg/m3 for the year. The highest annual arithmetic mean was at the Santa Maria station with a value of 24 µg/m3.

New in 2015

EPA changes to the NAAQS:

On October 1, 2015, the U.S. Environmental Protection Agency (EPA) announced a new eight-hour standard of 70 ppb for ground-level ozone, one of the principal components of smog. Read more about the new standard at https://www.epa.gov/ozone-pollution. The final rule took effect on December 28, 2015.

Monitoring station changes in 2015:

The Lompoc PM2.5 monitor was equipped with the correct firmware, accessories, and operational settings to qualify as a Federal Equivalent Method (FEM) for PM 2.5 on January 1, 2015.

The Total Hydrocarbon (THC) monitor was shut down at the El Capitan monitoring station on March 5, 2015. Data were submitted to the Air Quality System (AQS) database through December 31, 2014.

Table 1

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Figure 1

2015 Santa Barbara County Air Quality Monitoring Stations

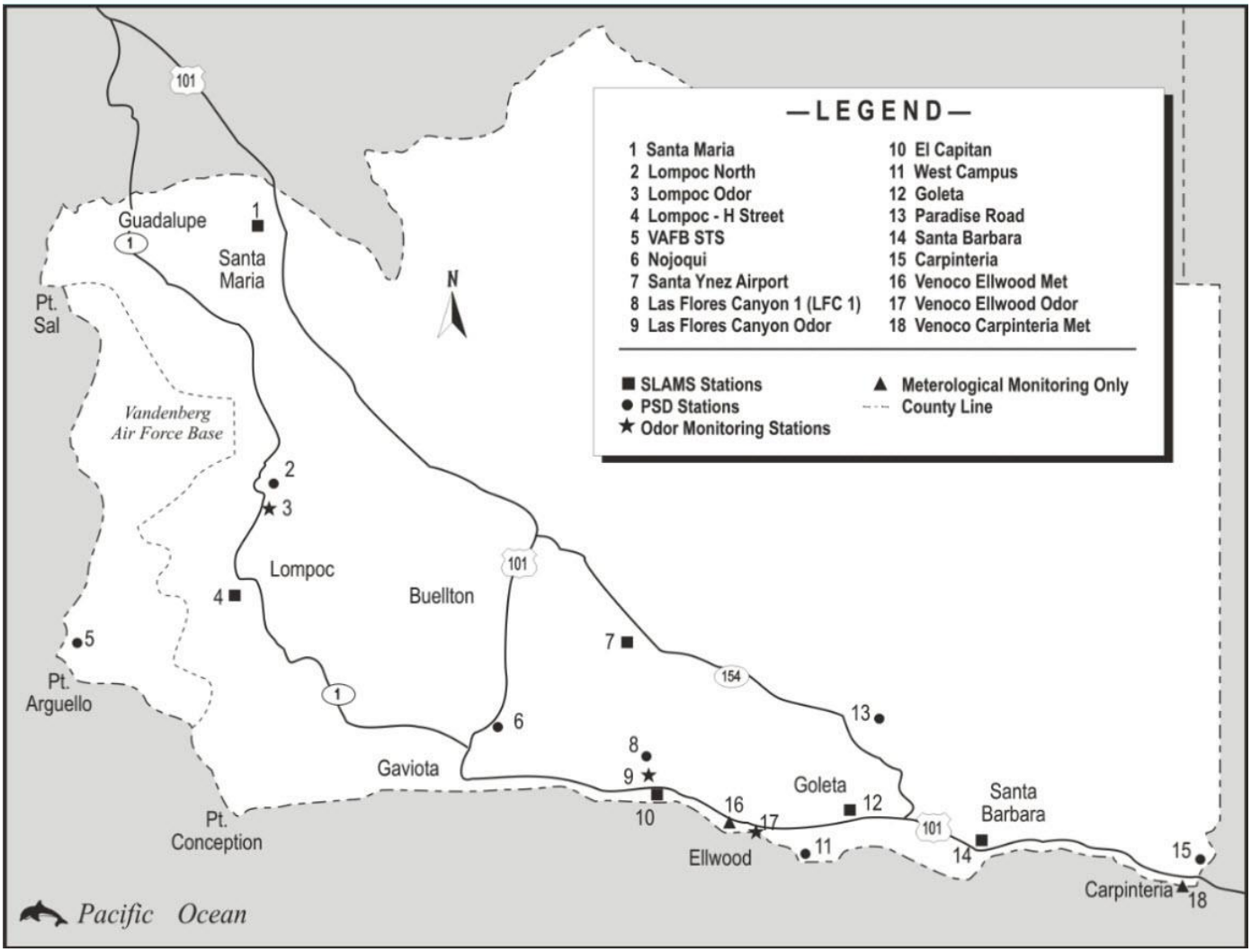

Table 2

Santa Barbara County
Air Pollution Control District

TABLE 3. MONITORING STATION PARAMETER LIST - 2015														
STATION	**O3**	**NO**	**NOx**	**NO2**	**SO2**	**CO**	**THC**	**H2S**	**WS**	**WD**	**ATM**	**TRS**	**PM10 BAM**	**PM2.5 BAM**
PSD														
Carpinteria	■	■	■	■					■	■	■			
Carpinteria Met									■	■	■			
Nojoqui	■	■	■	■					■	■	■			
Lompoc North	■	■	■	■	■		■		■	■	■			
Paradise Road	■	■	■	■					■	■	■			
Lompoc Odor								■	■	■	■	■		
Vandenberg South Base	■	■	■	■	■	■	■		■	■	■		■	
Las Flores Canyon 1	■	■	■	■	■	■	■		■	■	■		■	
Las Flores Canyon Odor								■	■	■	■			
Venoco West Campus					■		■	■	■	■		■		
Venoco Ellwood Odor*								■	■	■	■	■		
Venoco Met									■	■	■			
SLAMS														
Lompoc H Street	■	■	■	■	■	■			■	■	■		■	■
El Capitan	■	■	■	■	■				■	■	■		■	
Santa Ynez	■													
Goleta	■	■	■	■		■			■	■	■		■	■
Santa Maria	■	■	■	■		■			■	■	■		■	■
Santa Barbara**	■	■	■	■		■			■	■	■		■	■

THC	Total Hydrocarbons	TRS	Total Reduced Sulfur
WS	Wind Speed	ATM	Ambient Temperature
WD	Wind Direction	BAM	Beta Attenuation Monitor

* = Venoco Ellwood Odor station temporarily shut down for a portion of 2015

** = Santa Barbara station Particulate (PM10 and PM2.5) temporarily shut down for a portion of 2015

Attachment A

Santa Barbara County
Air Pollution Control District

2015 SANTA BARBARA COUNTY POLLUTANT SUMMARY

Table A-1

FOUR HIGHEST 1-HOUR O3 CONCENTATIONS FOR 2015 (PPB) State Standard = 0.09 ppm (95 ppb)												
O3 1-HOUR												
STATION	**1st**	**Date**	**Time**	**2nd**	**Date**	**Time**	**3rd**	**Date**	**Time**	**4th**	**Date**	**Time**
CARPINTERIA	84	9/10/2015	16:00	71	9/24/2015	14:00	67	9/19/2015	12:00	66	3/14/2015	13:00
LAS FLORES CANYON	80	10/12/2015	15:00	79	9/20/2015	12:00	77	4/17/2015	22:00	74	4/29/2015	12:00
PARADISE	79	9/21/2015	16:00	71	9/10/2015	14:00	70	6/7/2015	14:00	70	8/25/2015	16:00
SANTA BARBARA	78	9/10/2015	15:00	74	4/18/2015	14:00	72	9/20/2015	13:00	69	10/12/2015	14:00
GOLETA	75	9/20/2015	13:00	75	10/12/2015	14:00	72	9/24/2015	13:00	71	9/10/2015	14:00
EL CAPITAN	74	10/12/2015	14:00	69	2/14/2015	15:00	69	4/16/2015	15:00	68	4/17/2015	20:00
SANTA YNEZ	71	4/17/2015	14:00	71	4/18/2015	15:00	71	6/8/2015	12:00	70	4/16/2015	15:00
NOJOQUI	70	4/30/2015	13:00	68	9/19/2015	13:00	67	4/17/2015	16:00	67	9/20/2015	12:00
VAFB SOUTH BASE	69	9/20/2015	21:00	67	4/16/2015	14:00	67	9/19/2015	18:00	64	10/8/2015	12:00
LOMPOC NORTH	67	4/17/2015	15:00	66	2/5/2015	14:00	66	9/20/2015	21:00	65	10/8/2015	13:00
LOMPOC H STREET	63	4/16/2015	14:00	62	10/8/2015	13:00	61	4/17/2015	13:00	58	3/14/2015	13:00
SANTA MARIA	66	9/19/2015	11:00	59	4/17/2015	12:00	58	9/20/2015	10:00	57	4/16/2015	16:00

Table A-2

FOUR HIGHEST 8-HOUR O3 CONCENTATIONS FOR 2015 (PPB) Federal Standard = 0.08 ppm (75 ppb), State Standard = 0.070 ppm (70 ppb)												
O3 8-HOUR												
STATION	**1st**	**Date**	**Time**	**2nd**	**Date**	**Time**	**3rd**	**Date**	**Time**	**4th**	**Date**	**Time**
LAS FLORES CANYON	71	10/12/2015	10:00	70	4/17/2015	15:00	68	4/29/2015	11:00	67	9/10/2015	11:00
SANTA YNEZ	67	4/17/2015	10:00	63	4/16/2015	10:00	63	5/1/2015	10:00	62	6/8/2015	10:00
EL CAPITAN	65	4/17/2015	15:00	62	4/16/2015	10:00	62	10/12/2015	10:00	57	4/15/2015	10:00
PARADISE	64	6/25/2015	10:00	64	6/26/2015	10:00	64	9/21/2015	10:00	63	8/17/2015	9:00
LOMPOC NORTH	64	4/17/2015	9:00	62	9/19/2015	10:00	61	4/16/2015	11:00	59	9/20/2015	17:00
CARPINTERIA	63	9/10/2015	10:00	61	9/19/2015	9:00	60	4/16/2015	10:00	60	9/20/2015	8:00
SANTA BARBARA	63	4/17/2015	10:00	61	4/15/2015	10:00	61	4/16/2015	10:00	61	4/18/2015	9:00
GOLETA	62	9/20/2015	8:00	61	4/15/2015	10:00	61	4/16/2015	11:00	61	9/10/2015	11:00
NOJOQUI	61	4/17/2015	10:00	61	9/19/2015	9:00	60	4/16/2015	10:00	60	10/12/2015	10:00
VAFB SOUTH BASE	61	4/16/2015	13:00	60	9/20/2015	15:00	58	4/17/2015	6:00	56	9/19/2015	16:00
LOMPOC H STREET	60	4/16/2015	10:00	59	4/17/2015	10:00	54	9/20/2015	9:00	53	3/14/2015	9:00
SANTA MARIA	55	4/16/2015	10:00	55	4/17/2015	9:00	53	4/14/2015	13:00	53	9/20/2015	9:00

Table A-3

FOUR HIGHEST 1-HOUR NO2 CONCENTATIONS FOR 2015 (PPB) Federal Standard = 0.100 ppm (100 ppb), State Standard = 0.18 ppm (180 ppb)												
NO2												
STATION	**1st**	**Date**	**Time**	**2nd**	**Date**	**Time**	**3rd**	**Date**	**Time**	**4th**	**Date**	**Time**
SANTA MARIA	46	12/24/2015	7:00	38	11/30/2015	18:00	37	2/13/2015	19:00	37	12/19/2015	18:00
SANTA BARBARA	43	1/8/2015	17:00	43	12/7/2015	17:00	40	12/2/2015	17:00	40	12/1/2015	17:00
GOLETA	34	12/7/2015	18:00	31	3/16/2015	8:00	29	11/18/2015	19:00	28	1/5/2015	17:00
EL CAPITAN	31	7/15/2015	21:00	25	10/9/2015	6:00	22	1/7/2015	20:00	22	7/16/2015	0:00
LOMPOC H STREET	28	1/9/2015	7:00	26	11/16/2015	6:00	26	11/30/2015	20:00	26	12/1/2015	20:00
CARPINTERIA	25	1/8/2015	17:00	20	11/23/2015	16:00	15	1/17/2015	16:00	14	4/28/2015	18:00
NOJOQUI	18	7/1/2015	4:00	14	1/8/2015	16:00	14	1/10/2015	10:00	14	6/29/2015	16:00
LAS FLORES CANYON	11	11/14/2015	16:00	11	11/23/2015	13:00	10	1/10/2015	16:00	8	3/27/2015	8:00
VAFB SOUTH BASE	8	1/10/2015	11:00	7	1/8/2015	16:00	7	1/26/2015	19:00	7	2/24/2015	10:00
PARADISE	8	11/23/2015	14:00	5	11/14/2015	13:00	4	1/9/2015	13:00	4	1/10/2015	20:00
LOMPOC NORTH	7	1/10/2015	11:00	6	4/30/2015	6:00	6	11/5/2015	22:00	6	11/13/2015	7:00

Table A-4

FOUR HIGHEST 1-HOUR SO2 CONCENTATIONS FOR 2015 (PPB) Federal Standard = 0.075 ppm (75 ppb), State Standard = 0.25 ppm (250 ppb)												
SO2												
STATION	**1st**	**Date**	**Time**	**2nd**	**Date**	**Time**	**3rd**	**Date**	**Time**	**4th**	**Date**	**Time**
LAS FLORES CANYON	25	3/21/2015	0:00	22	4/16/2015	4:00	8	3/20/2015	23:00	5	6/18/2015	19:00
VAFB SOUTH BASE	3	4/17/2015	11:00	3	6/11/2015	9:00	3	8/7/2015	2:00	3	8/8/2015	2:00
EL CAPITAN	2	7/26/2015	2:00	2	7/29/2015	2:00	2	8/1/2015	2:00	2	8/16/2015	2:00
LOMPOC H STREET	2	2/9/2015	4:00	2	2/11/2015	2:00	2	4/17/2015	12:00	2	5/12/2015	20:00
WEST CAMPUS	2	11/13/2015	20:00	1	4/30/2015	9:00	1	5/19/2015	10:00	1	5/20/2015	10:00
LOMPOC NORTH	1	12/9/2015	2:00	0	1/1/2015	0:00	0	1/2/2015	0:00	0	1/3/2015	0:00

Table A-5

FOUR HIGHEST 1-HOUR CO CONCENTATIONS FOR 2015 (PPM) Federal Standard = 35 ppm, State Standard = 20 ppm												
CO												
STATION	**1st**	**Date**	**Time**	**2nd**	**Date**	**Time**	**3rd**	**Date**	**Time**	**4th**	**Date**	**Time**
SANTA MARIA	2.9	5/22/2015	19:00	1.2	10/30/2015	7:00	1.1	1/26/2015	10:00	1.1	12/4/2015	8:00
SANTA BARBARA	2.1	1/5/2015	8:00	1.8	1/6/2015	8:00	1.8	1/7/2015	8:00	1.7	11/23/2015	18:00
LOMPOC H STREET	1.6	12/20/2015	23:00	1.0	1/2/2015	22:00	1.0	10/30/2015	7:00	1.0	11/10/2015	7:00
GOLETA	0.9	1/6/2015	8:00	0.9	1/14/2015	16:00	0.8	12/17/2015	8:00	0.7	1/5/2015	8:00
VAFB SOUTH BASE	0.4	1/10/2015	11:00	0.4	2/4/2015	12:00	0.4	2/5/2015	9:00	0.4	2/6/2015	9:00
LAS FLORES CANYON	0.4	1/9/2015	12:00	0.4	1/10/2015	9:00	0.4	1/20/2015	12:00	0.4	2/4/2015	13:00

Attachment B

Santa Barbara County
Air Pollution Control District

Table B-1

PARTICULATE MATTER SUMMARIES FOR 2015					
Particulate: PM10 Units: ug/m3					
PM10 FEM BAMS CA Local Conditions					
California Annual Arithmetic Mean Standard: 20ug/m3State 24-Hour Standard: 50 ug/m3 State 24-Hour Standard: 50 ug/m3					
STATION	**Annual 24-Hour Arithmetic Mean**	**24-Hour High**	**Date**	**24-Hour 2nd High**	**Date**
SANTA MARIA	24	66	4/1/2015	59	9/9/2015
EL CAPITAN	24	134	8/29/2015	57	10/10/2015
VAFB	24	61	4/14/2015	60	4/17/2015
SANTA BARBARA*	23	48	4/30/2015	43	4/15/2015
LOMPOC H STREET	22	53	4/30/2015	44	9/10/2015
GOLETA	17	41	4/1/2015	40	4/30/2015
LAS FLORES CANYON	18	41	8/17/2015	38	4/17/2015

Table B-2

Particulate: PM10 Units: ug/m3					
PM10 FEM BAMS Standard Conditions					
Federal 24 Hour Standard: 150 ug/m3					
STATION	**Annual 24-Hour Arithmetic Mean**	**24-Hour High**	**Date**	**24-Hour 2nd High**	**Date**
SANTA MARIA	22	64	4/1/2015	59	9/9/2015
EL CAPITAN	22	135	8/29/2015	56	10/10/2015
VAFB	22	58	4/17/2015	57	4/14/2015
SANTA BARBARA*	21	47	4/30/2015	42	4/15/2015
LOMPOC H STREET	19	50	4/30/2015	42	9/10/2015
GOLETA	16	40	4/1/2015	38	4/17/2015
LAS FLORES CANYON	16	39	8/16/2015	39	8/17/2015

Table B-3

Particulate: PM2.5 Units: ug/m3					
PM2.5 BAMS FEM Local Conditions					
California Annual Arithmetic Mean Standard: 12ug/m3					
Federal Annual Arithmetic Mean Standard: 12 ug/m3 Federal 24-Hour Standard: 35 ug/m3					
STATION	**Annual 24-Hour Arithmetic Mean**	**24-Hour High**	**Date**	**24-Hour 2nd High**	**Date**
SANTA BARBARA*	9.4	21	8/25/2015	20	8/21/2015
GOLETA	8.2	23	2/4/2015	20	8/25/2015
SANTA MARIA	7.7	19	4/30/2015	19	8/25/2015
LOMPOC H STREET	7.0	21	2/20/2015	17	8/25/2015

* = Data from the Santa Barbara station is based on only 5708 hours sampled in the year.

Table 3

Santa Barbara County
Air Pollution Control District

2015 SANTA BARBARA COUNTY PARTICULATE MATTER SAMPLING PROGRAM

Sampler	PM 10		PM 2.5
Parameter	PM10	PM10	PM2.5
AQS Code	85101	81102	88101
Units	ug/m3 LC	ug/m3 STD	ug/m3 LC
Sampler type	Automated	Automated	Automated
Method	FEM	FEM	FEM
Schedule	Continuous	Continuous	Continuous
Site			
EL CAPITAN	■	■	
LAS FLORES CANYON	■	■	
VAFB SOUTH BASE	■	■	
GOLETA	■	■	■
LOMPOC H STREET	■	■	■
SANTA BARBARA	■	■	■
SANTA MARIA	■	■	■

FEM = Federal Equivalent Method

LC = Local Conditions

STD = Standard Conditions