

Air Quality Report in the Paso del Norte



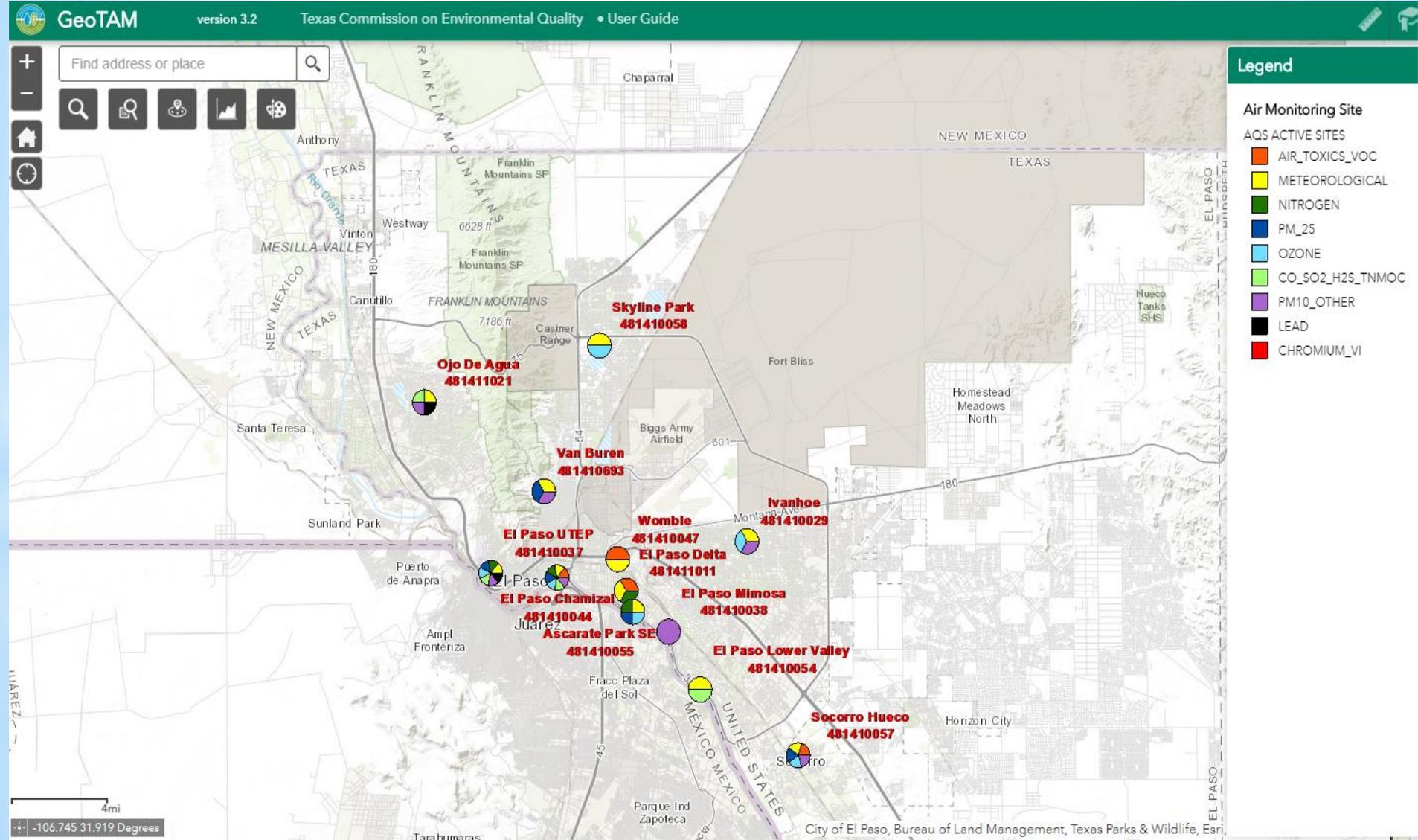
July 16, 2020

Carlos Rincon, US EPA Region 6

- * Current air monitoring networks
- * January-June 2020 data by pollutant
- * Design Values
- * Open discussion

* Overview

TCEQ current air monitoring stations



NMED current air monitoring stations



New Mexico Environment Department

NewMexico.gov

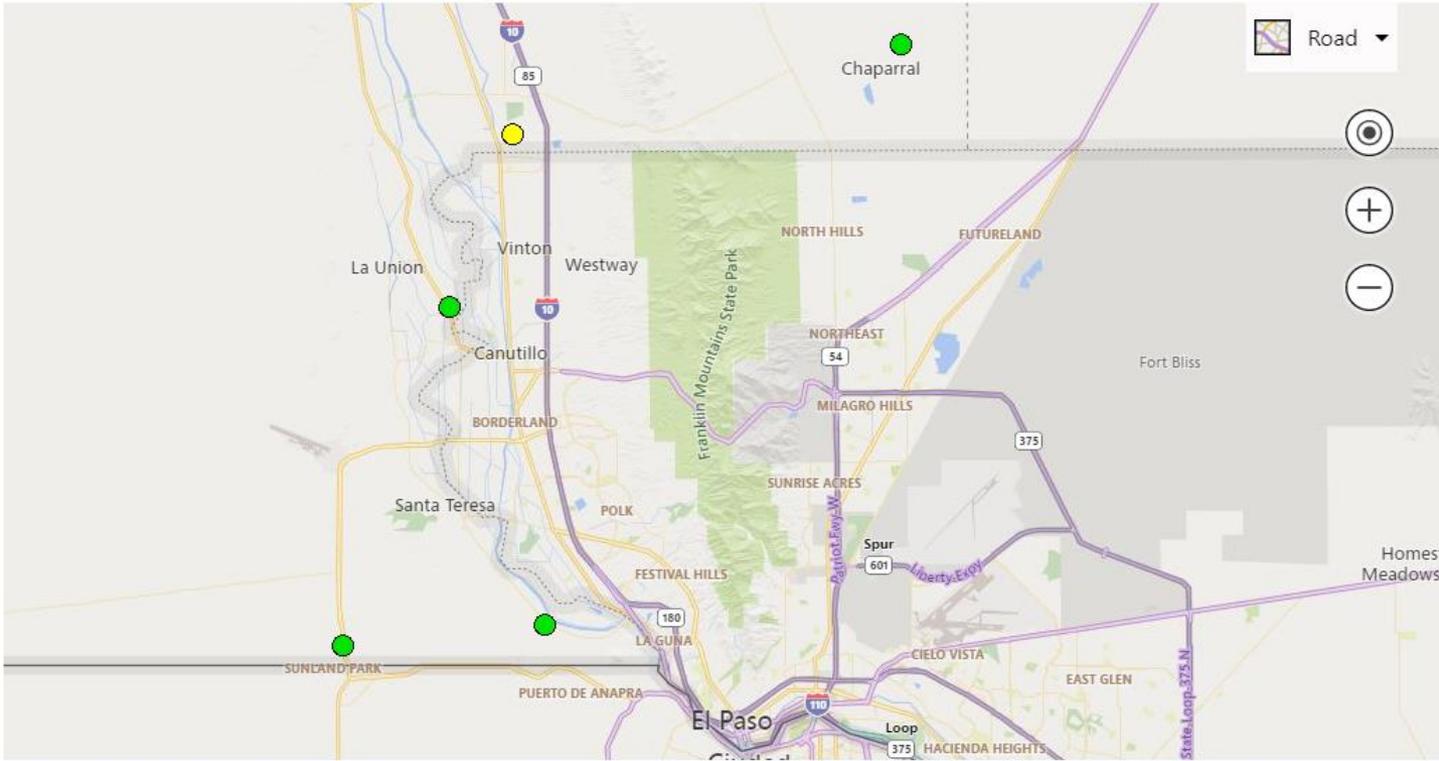
- Current Statewide Readings
- Current Air Quality
- Current Status
- Reports
- Publications
- About
- Languages
- Login

Air Quality - All Sites

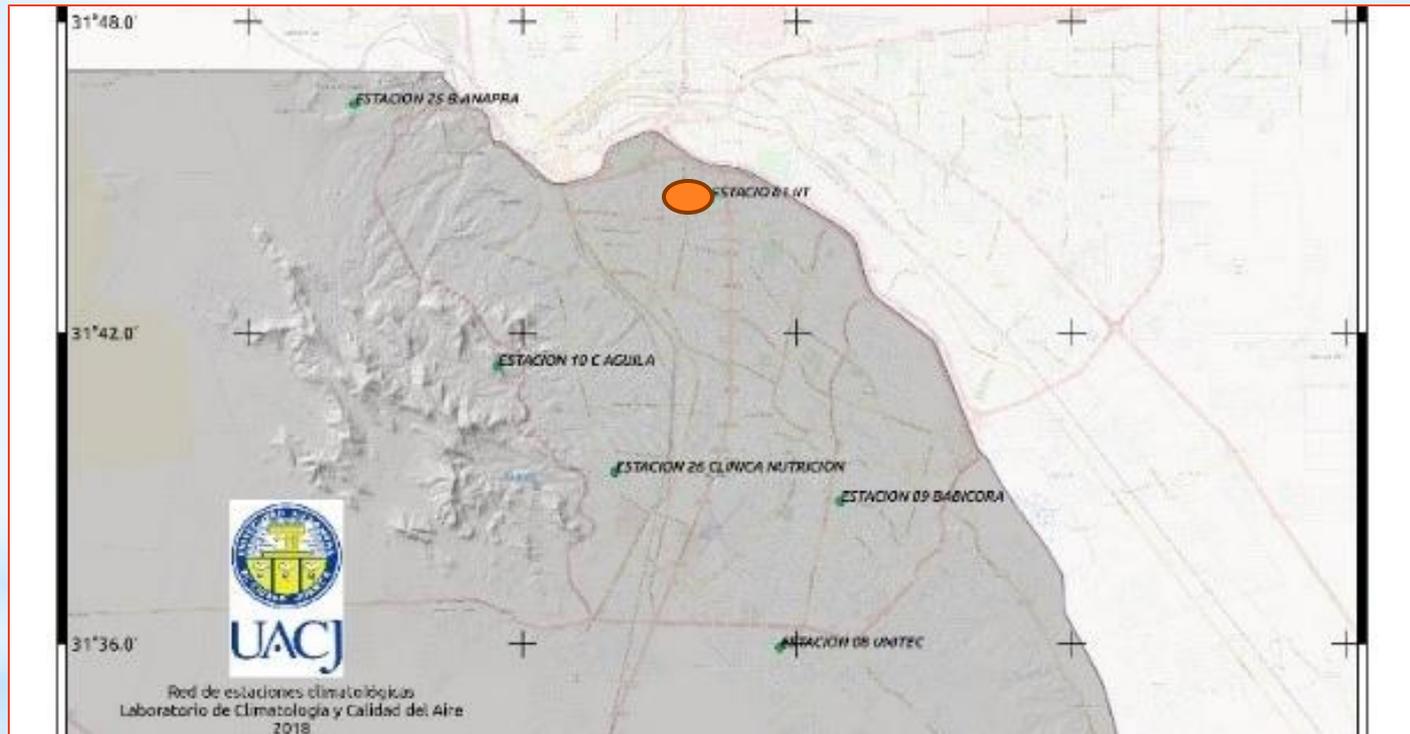


Index Legend

- Good
- Moderate
- Unhealthy For Sensitive Groups
- Unhealthy
- Very Unhealthy
- Hazardous



UACJ current air monitoring stations

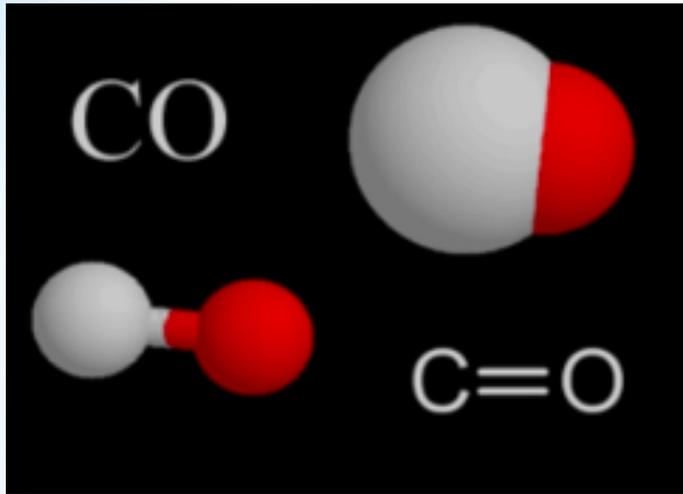


* Estación 01 IIT:
Meteorología
Ozono
Monóxido de Carbono
Dióxido de Azufre
Dióxido de nitrógeno
Material Particulado (PM10 y PM2.5)

Ciudad Juárez current air monitoring stations

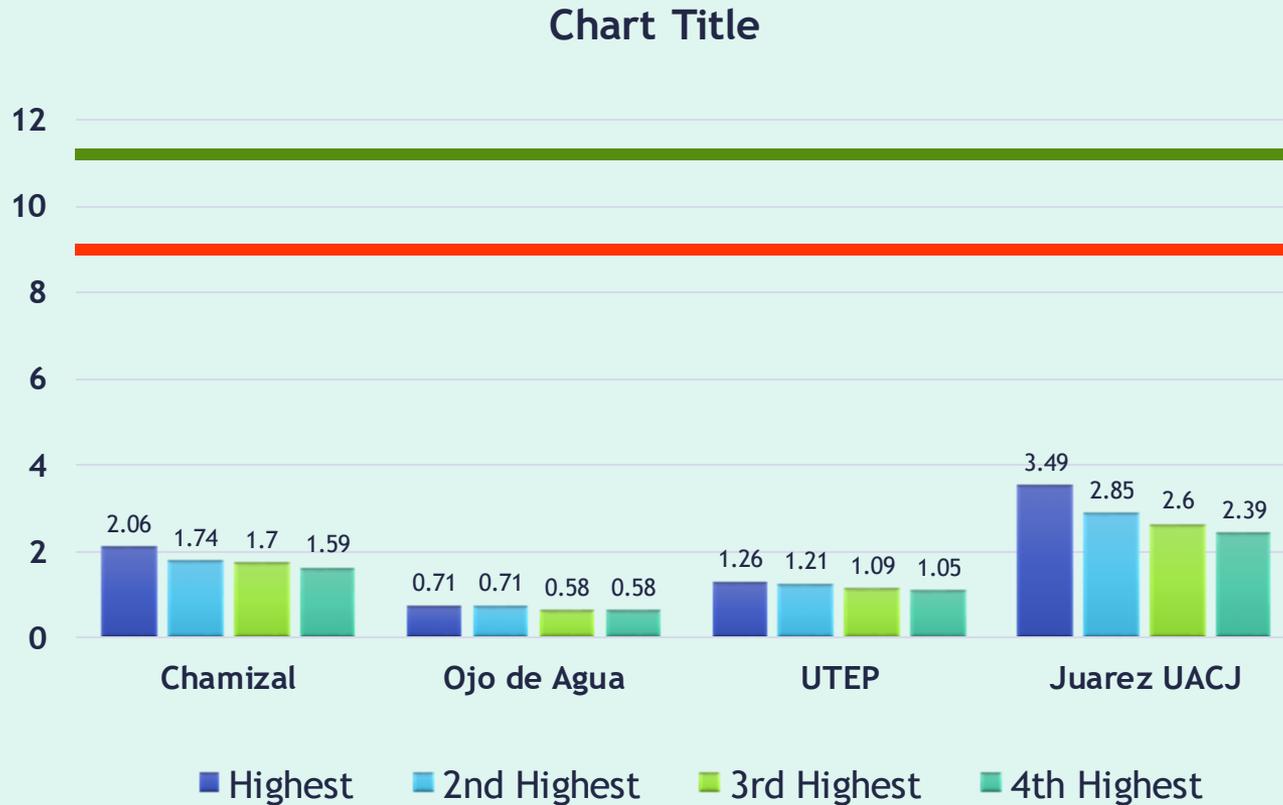


* Estaciones:
Meteorología
Ozono
Monóxido de Carbono



* Carbon monoxide (CO)
Monóxido de carbono

CO 8-Hr. Averages Four Highest Values (in ppm) at Each Monitor in El Paso January 1 - June 30, 2020



El limite máximo permisible en México para CO es de 11 ppm en promedios móviles de 8 horas

The U.S. federal standard, 9.0 ppm, is violated when more than one reading at the same monitor in one calendar year is at or above that value.



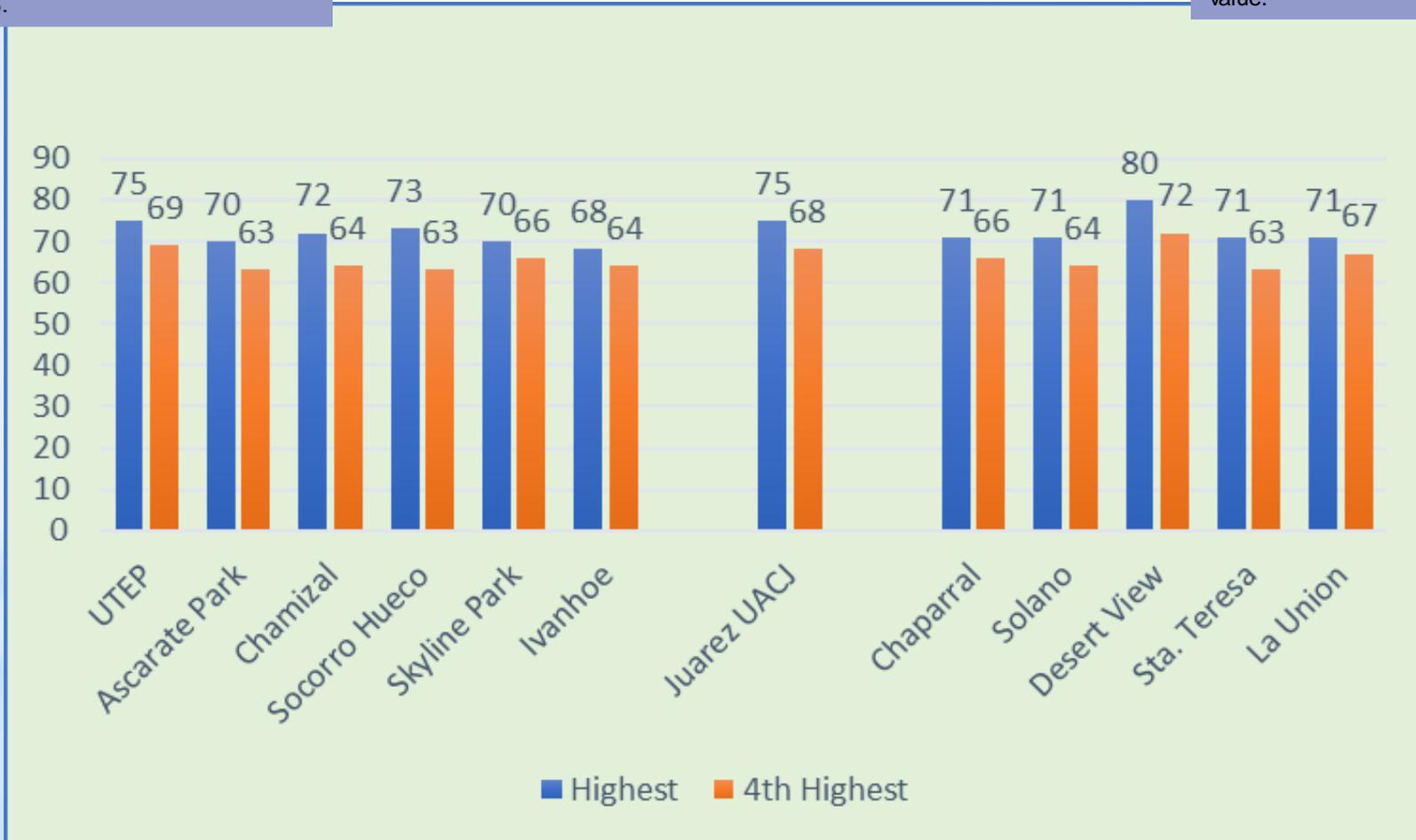
* Ozone (O₃)
Ozono

Ozone 8-Hr. Averages (in ppb)
 Four Highest Values at Monitors in El Paso (Jan. 1 - Jun. 30, 2020)
 Doña Ana County (April - June, 2020) Preliminary Data

El límite máximo permisible en México para O₃ es de 70 ppb ppm en promedios móviles de 8 horas.

Promedio móvil de 8 horas en Ciudad Juárez

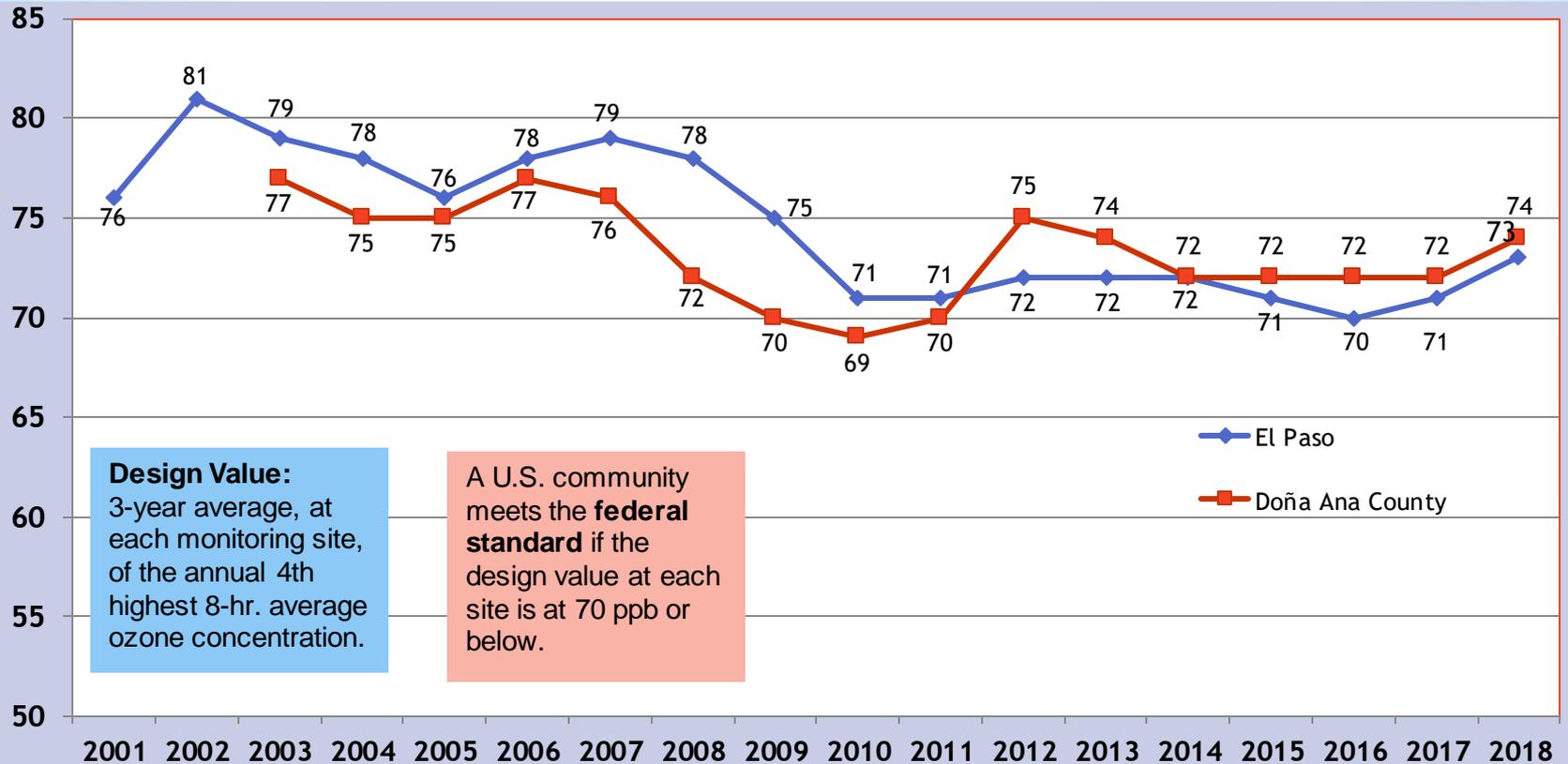
U.S. federal standard: 70 ppb for the 3-year average of the 4th highest value.



Ozone 8-Hr. Design Values

El Paso and Doña Ana County only

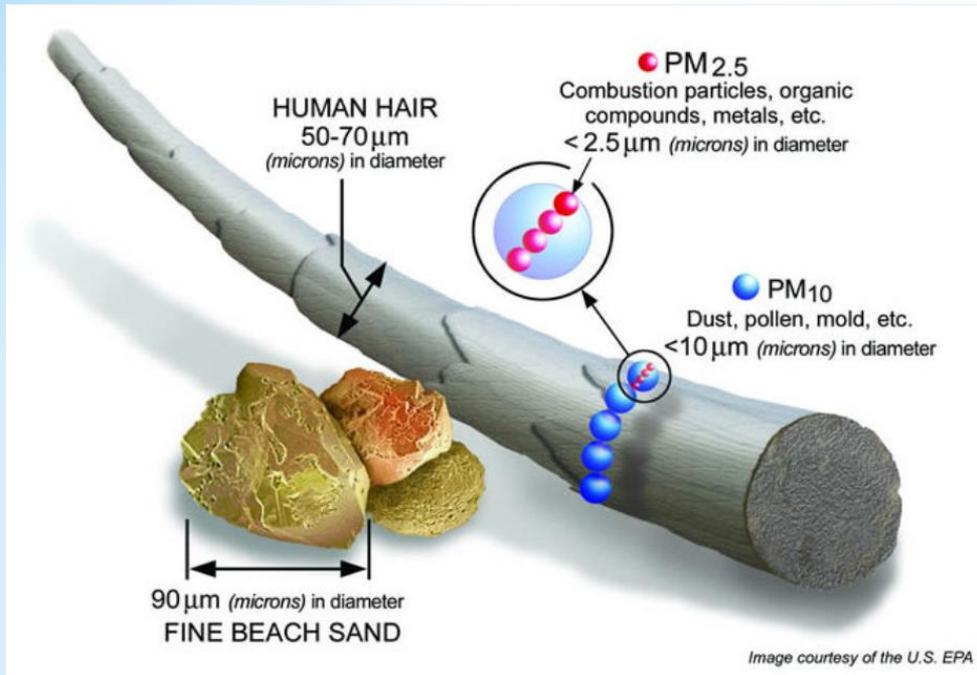
(highest value of all sites in each area, 2001 - 2018)



Design Value:
3-year average, at each monitoring site, of the annual 4th highest 8-hr. average ozone concentration.

A U.S. community meets the **federal standard** if the design value at each site is at 70 ppb or below.

◆ El Paso
■ Doña Ana County

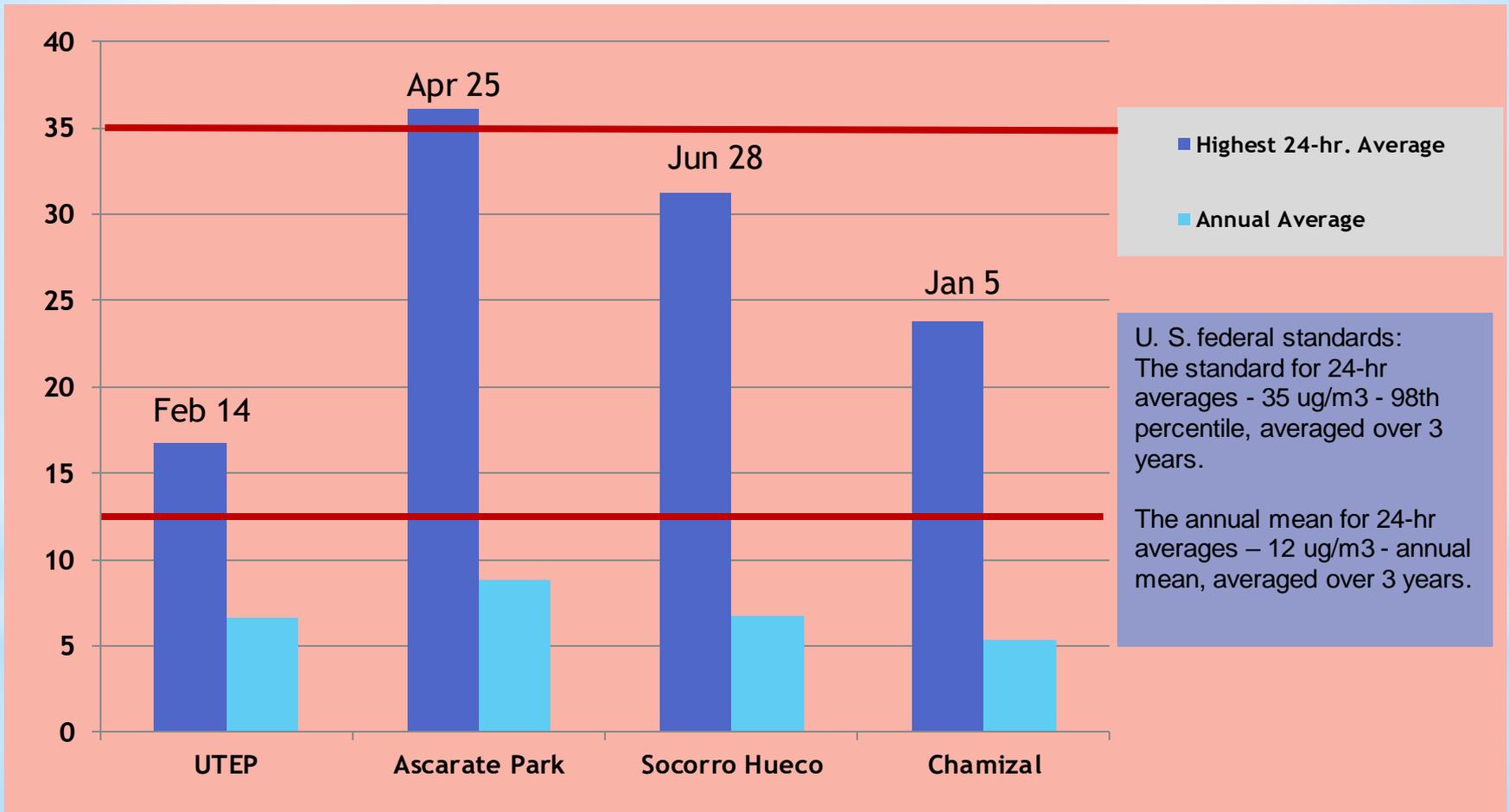


* PM 2.5

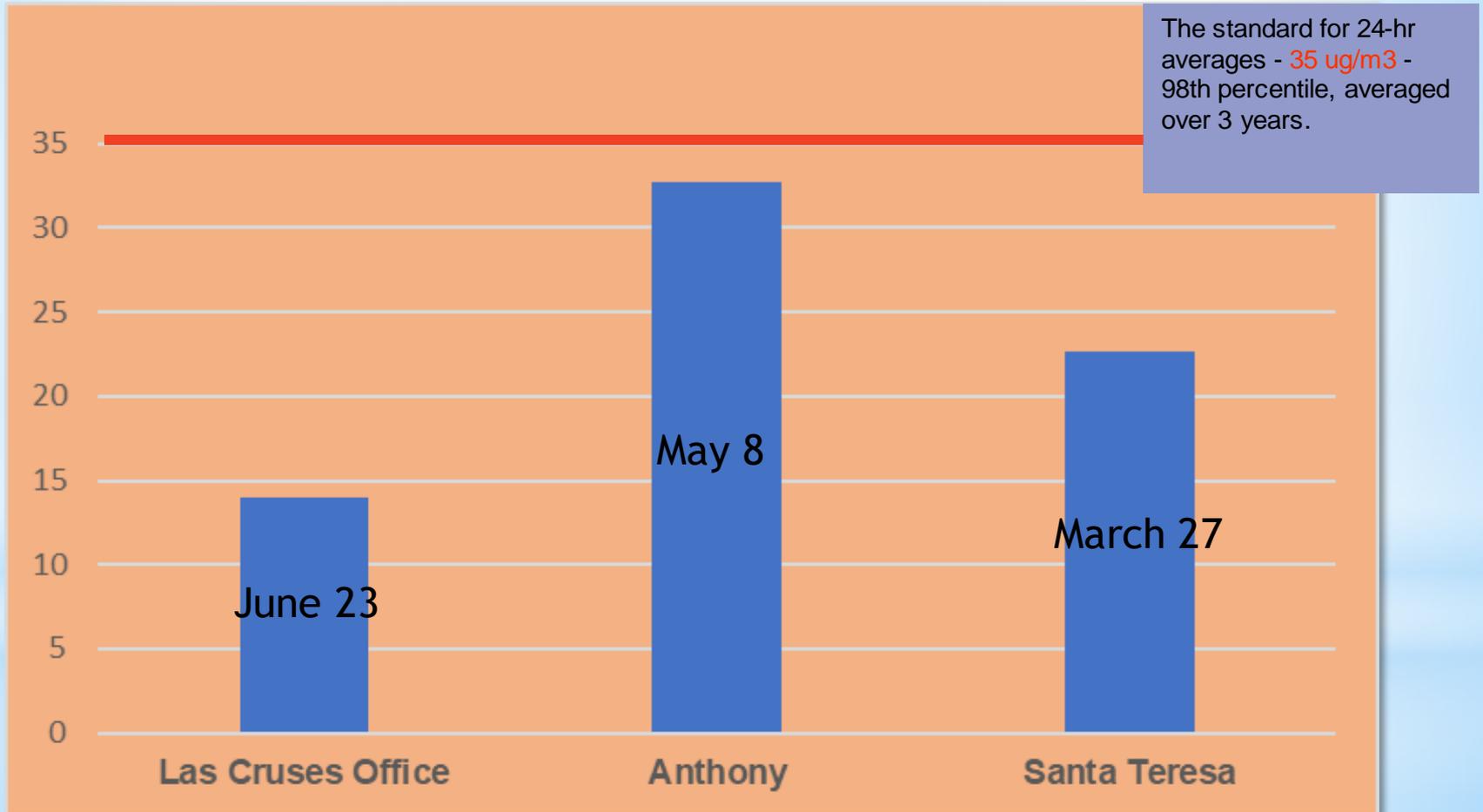
* PM 10

* Particulate Matter (pm)
material particulado

PM_{2.5}
Highest 24-Hr. Average and Annual Average
Four Monitors in El Paso (in $\mu\text{g}/\text{m}^3$)
January 1 - June 30, 2020



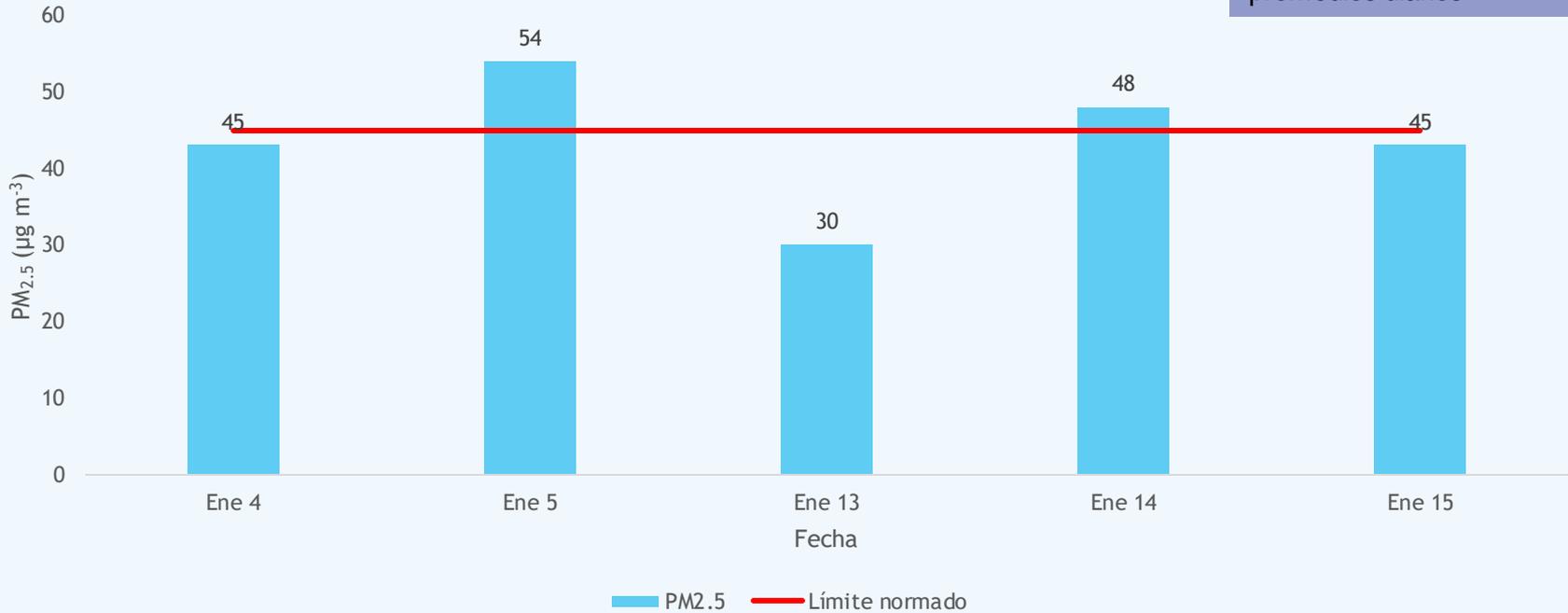
PM_{2.5}
Highest 24-Hr. Average (µg/m³)
Doña Ana County
March - June 2020 (preliminary data)



PM_{2.5}
Promedios diarios en Ciudad Juárez
5 valores máximos
(enero- junio 2020)

PM_{2.5}
Promedios diarios

El límite máximo PM_{2.5} permisible en México es de 45 $\mu\text{g m}^{-3}$ en promedios diarios



PM_{2.5}
Compliance with U.S. Federal Standards
El Paso and Doña Ana Counties

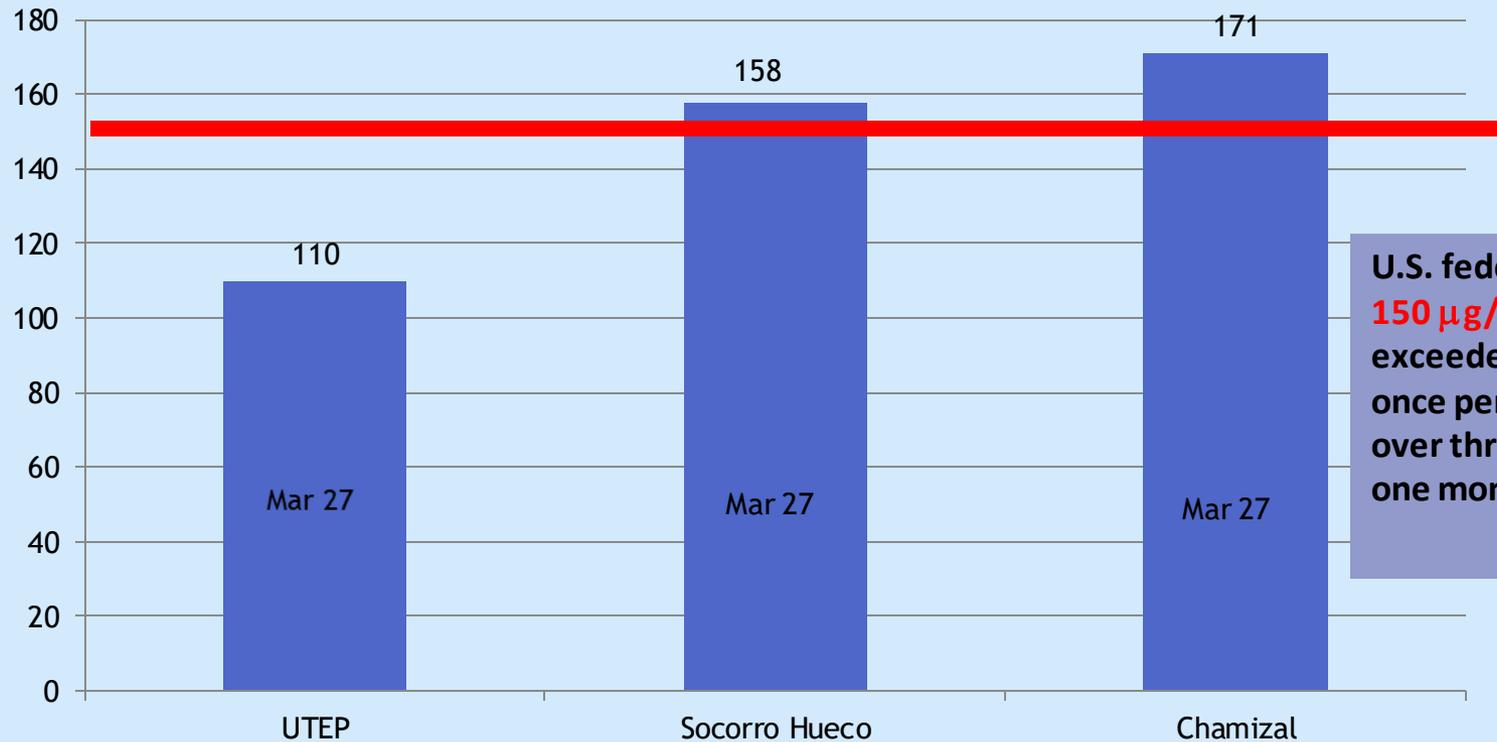
Annual Design Value

U.S. Standard	12 µg/m ³
2018 Design Value for Chamizal	9.1 µg/m ³
2018 Design Value for Anthony	8.3 µg/m ³

24-Hour Design Value

U.S. Standard	35 µg/m ³
2018 Design Value for Chamizal	24 µg/m ³
2018 Design Value for Anthony	27 µg/m ³

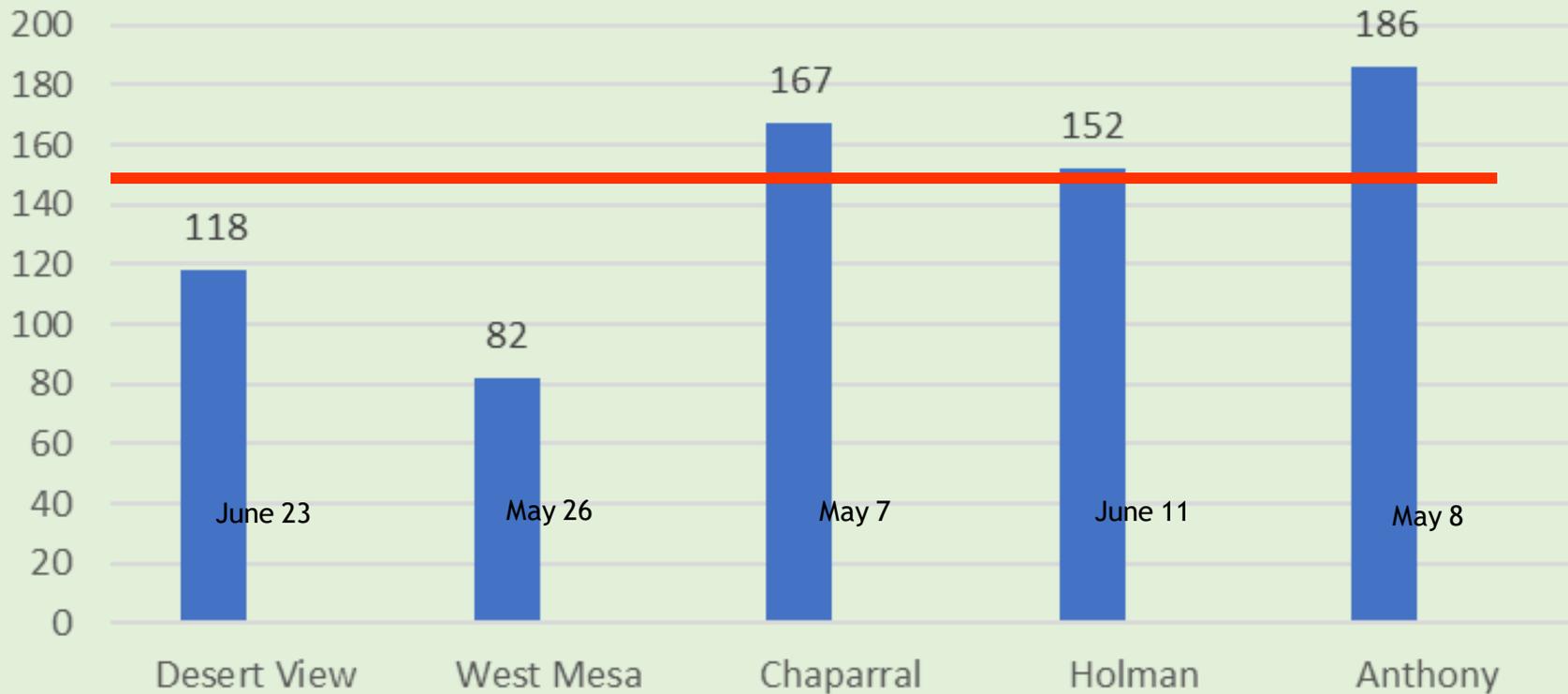
PM₁₀
Highest 24-Hour Averages (in $\mu\text{g}/\text{m}^3$)
Three Monitors in El Paso
January 1 - June 30, 2020



U.S. federal standard:
150 $\mu\text{g}/\text{m}^3$, not to be
exceeded more than
once per year on average
over three years at any
one monitor.

PM10
Highest 24-Hour Averages (in $\mu\text{g}/\text{m}^3$)
Five Monitors in New Mexico
April - June, 2020

U.S. federal standard:
150 $\mu\text{g}/\text{m}^3$, not to be exceeded
more than once per year on
average over three years at any
one monitor.



* PM₁₀
 Compliance with U.S. Federal Standard
 for 24-Hour Design Value
 El Paso and Doña Ana Counties
 2016 - 2018

U.S. Standard

150 μg/m³

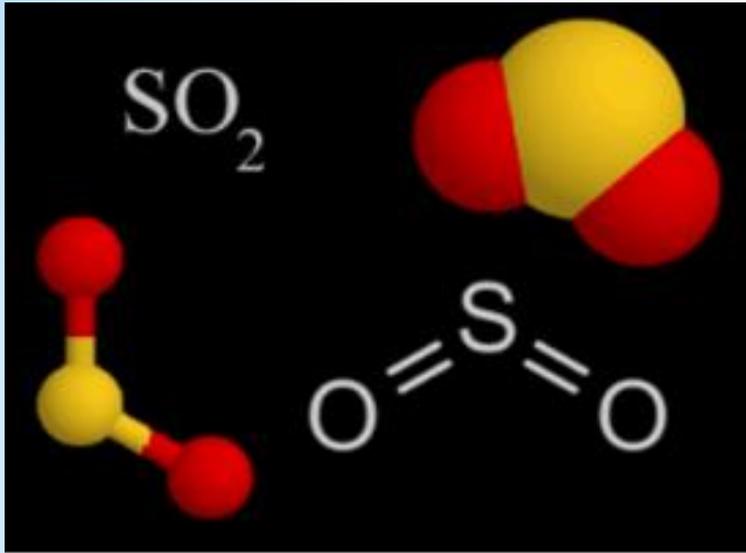
Violation at any one monitor:

- **If the average annual # of estimated exceedances over three years is >1**

Socorro Hueco	2018	4.4	<u>estimated</u> exceedances
	2017	2	"
	2016	0	"
Desert View	2018	5	<u>estimated</u> exceedances
	2017	1	"
	2016	8	"

Cumplimiento con los límites de exposición crónica
Media aritmética anual en Ciudad Juárez

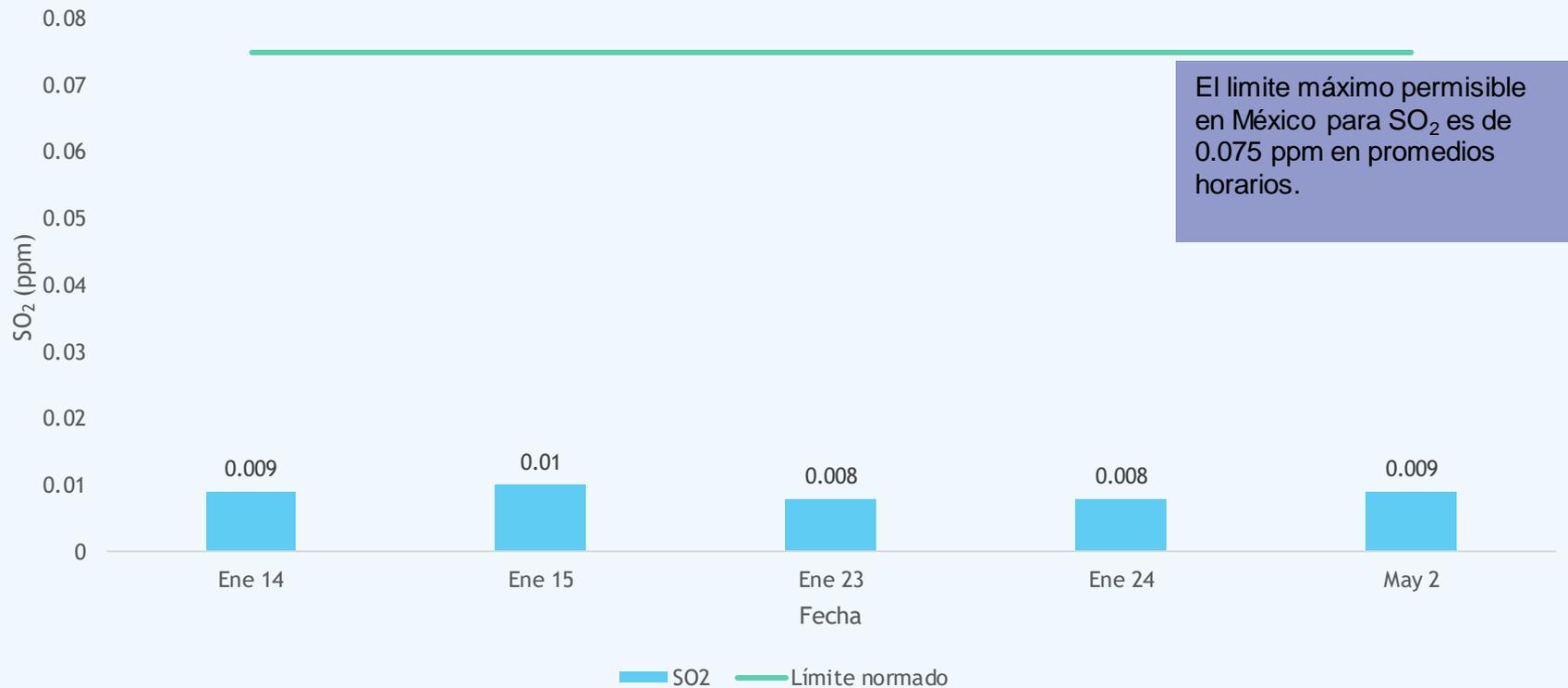
Parámetro	Límite de exposición crónica	Promedio anual (hasta el momento)
PM _{2.5}	12 µg m ⁻³	21.67 µg m ⁻³
PM ₁₀	40 µg m ⁻³	76.31 µg m ⁻³



* Dióxido de azufre
Sulfur Dioxide SO₂

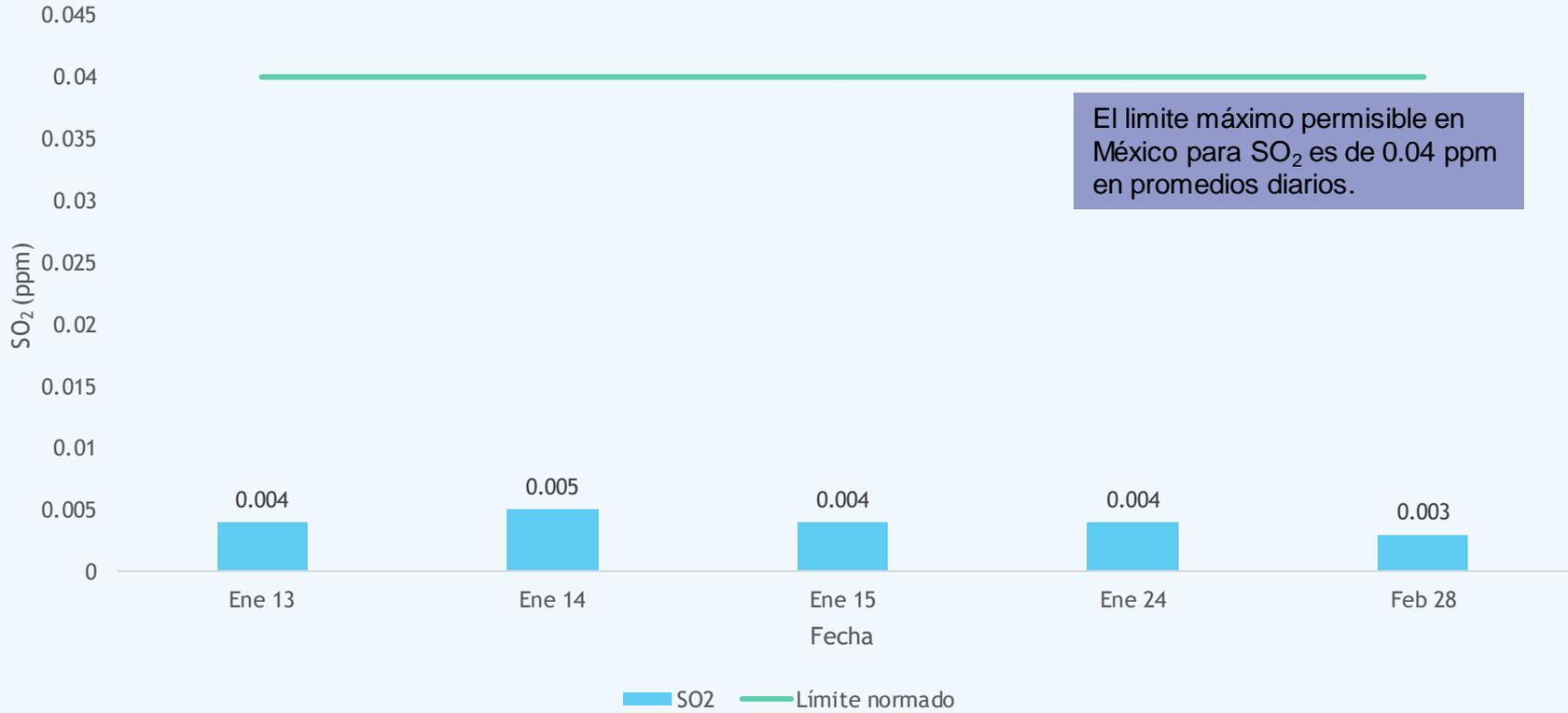
Dióxido de azufre
Promedios horarios en Ciudad Juárez
5 valores máximos
(enero- junio 2020)

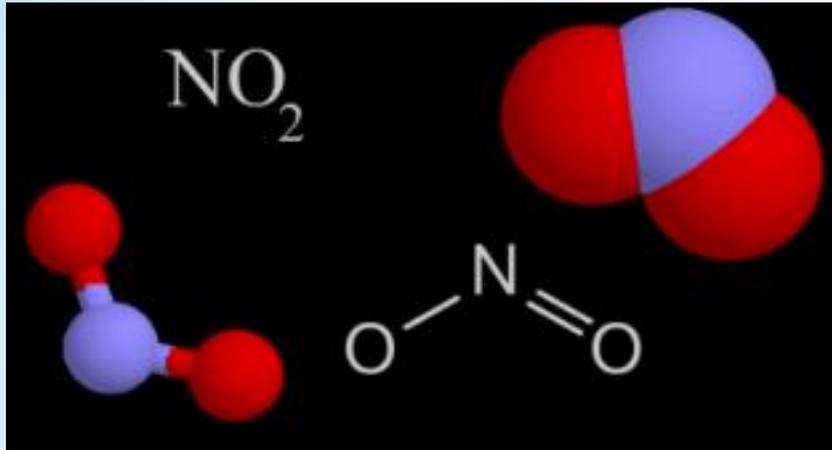
SO₂
Promedios horarios



Dióxido de azufre
Promedios diarios en Ciudad Juárez
5 valores máximos
(enero- junio 2020)

SO₂
Promedios diarios

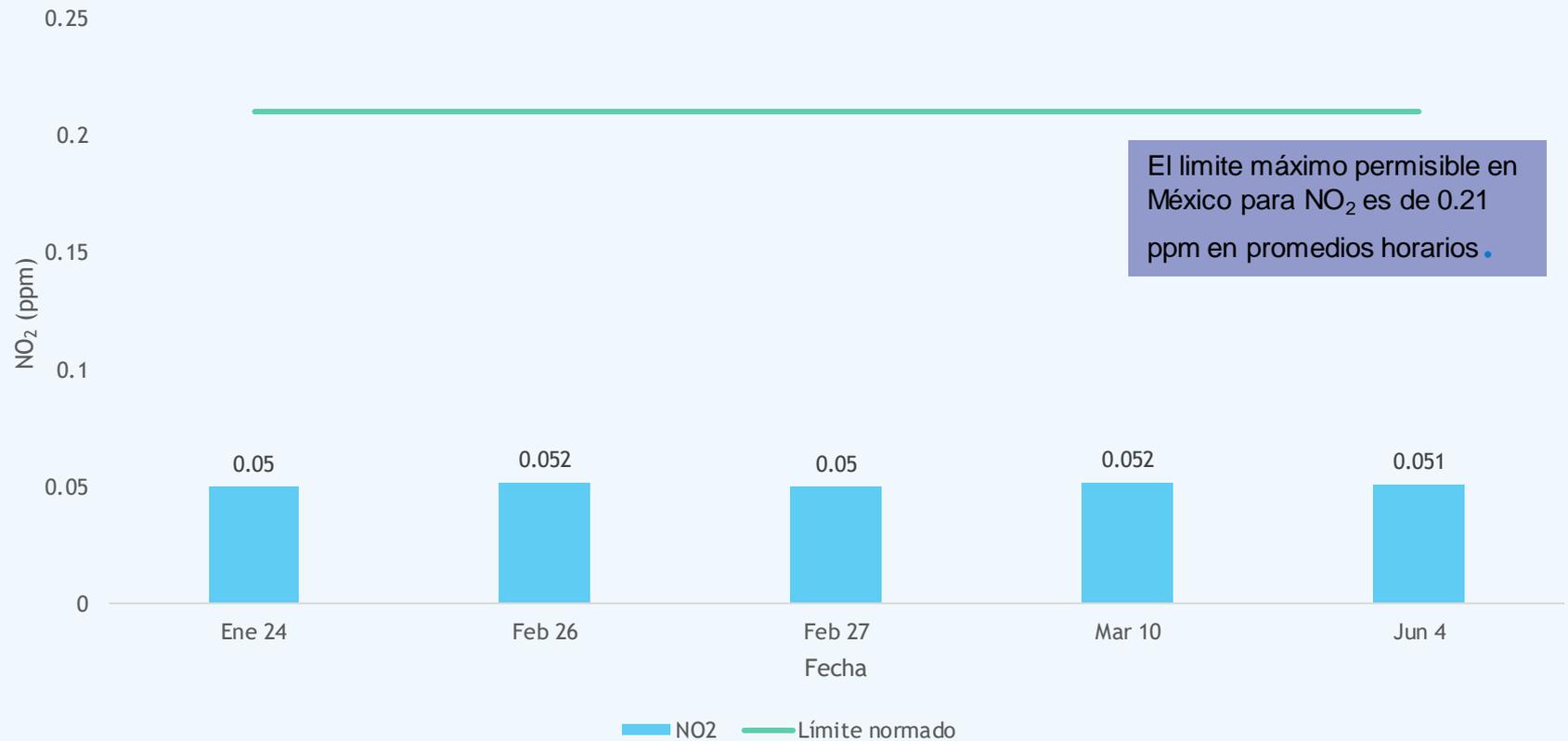




* Dióxido de nitrógeno
Nitrogen Dioxide NO₂

Dióxido de nitrógeno Promedios horarios en Ciudad Juárez 5 valores máximos (enero- junio 2020)

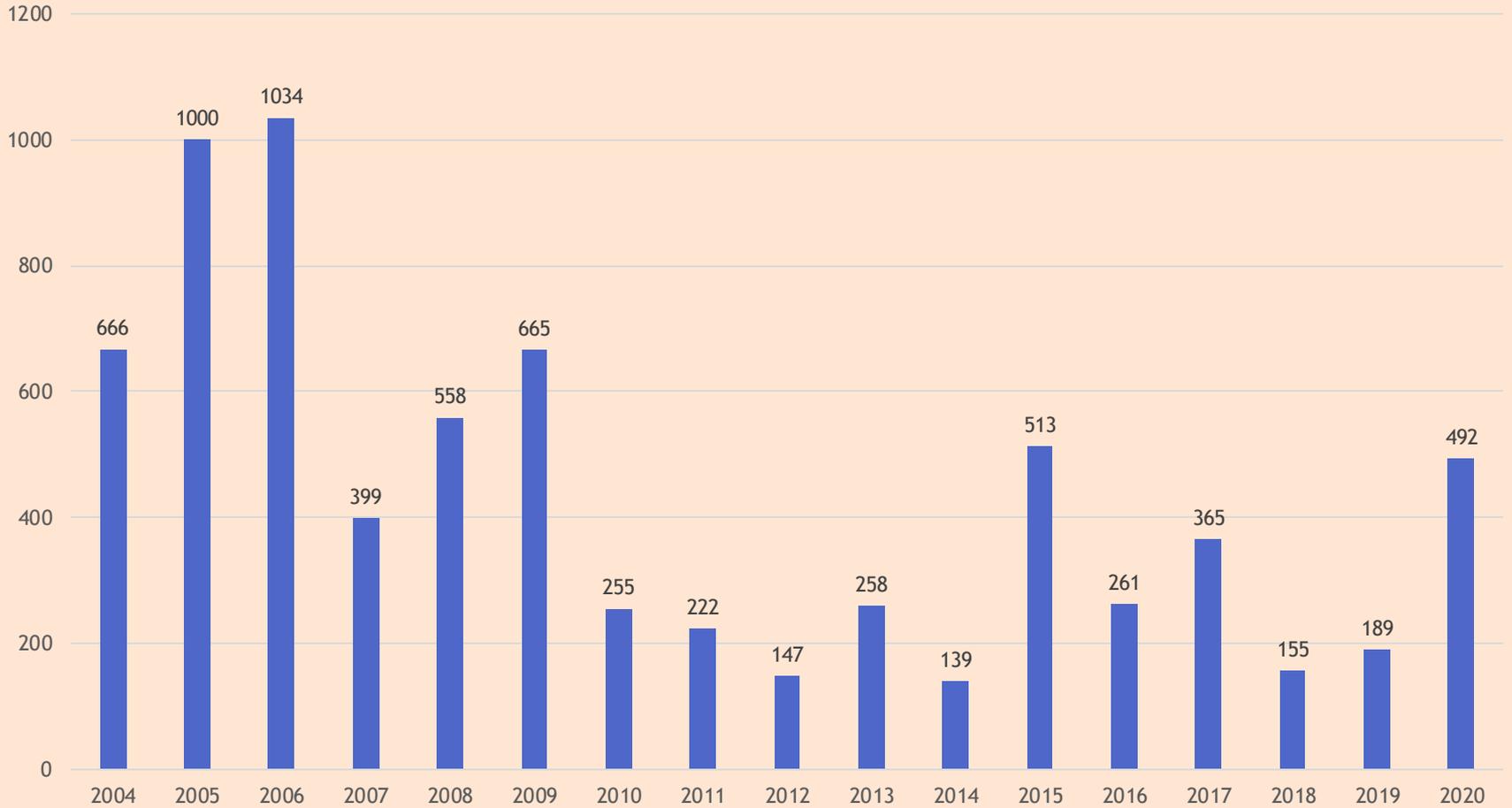
NO₂ Promedios horarios



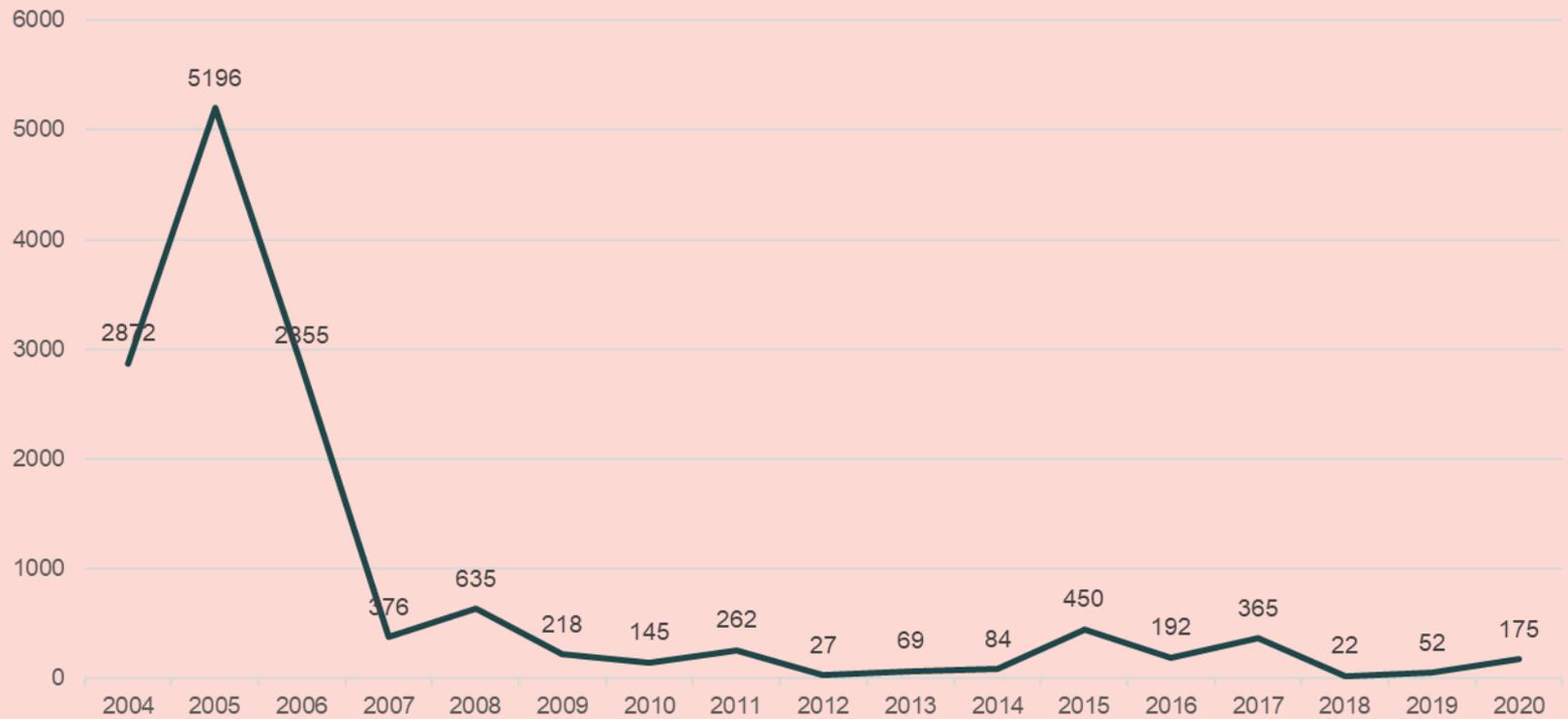


* Hydrogen Sulfide (H_2S)
Sulfuro de hidrógeno

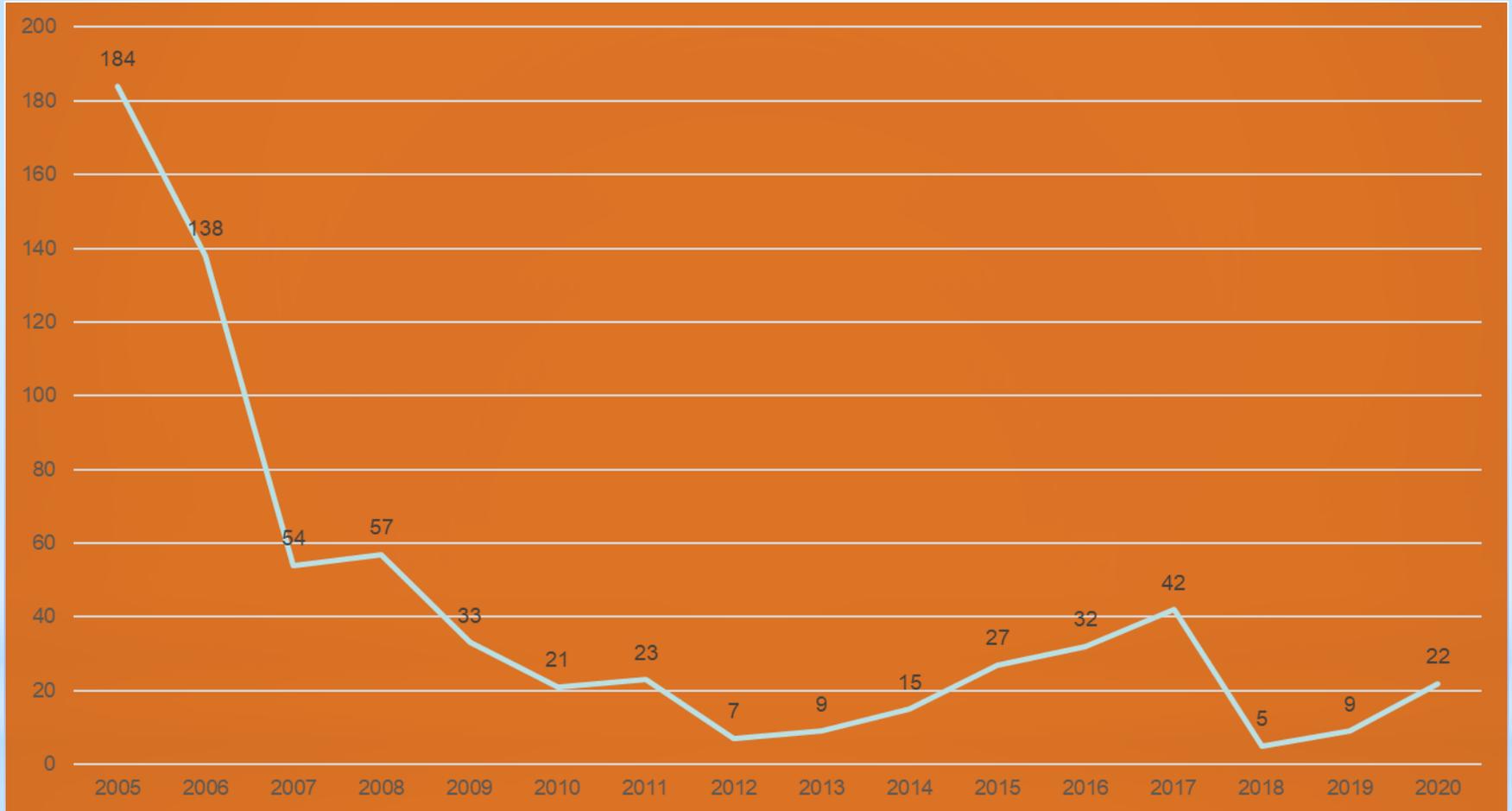
Hydrogen Sulfide - 30-Minute Averages
Highest Value (in ppb) Each Year
at "Lower Valley" Monitor
(2004-2020)



Hydrogen Sulfide - 30-Minute Averages
Number of Exceedances (in ppb) Each Year
at "Lower Valley" Monitor
(2004-2020)



Hydrogen Sulfide Number of Days with 30-Minute Exceedances at “Lower Valley” Monitor, (2004-2020)



NMED

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* Questions?
Preguntas?



*Thank you!
Gracias!

