

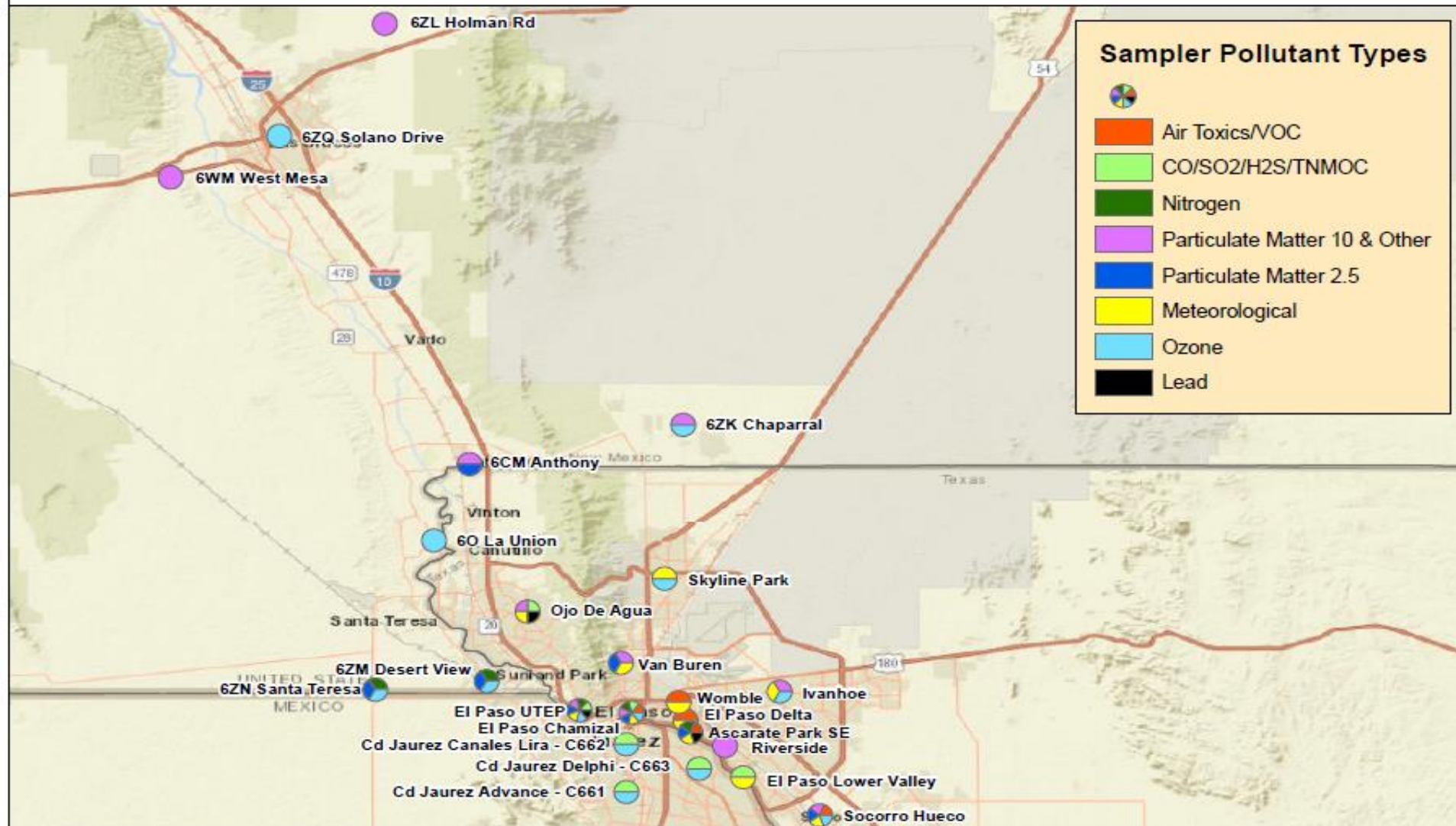
Report on Air Quality in the Paso del Norte

for the Joint Advisory Committee
on the Improvement of Air Quality in the Paso del Norte Region



February 6, 2020
Carlos Rincon
US EPA Region 6

El Paso Area Samplers



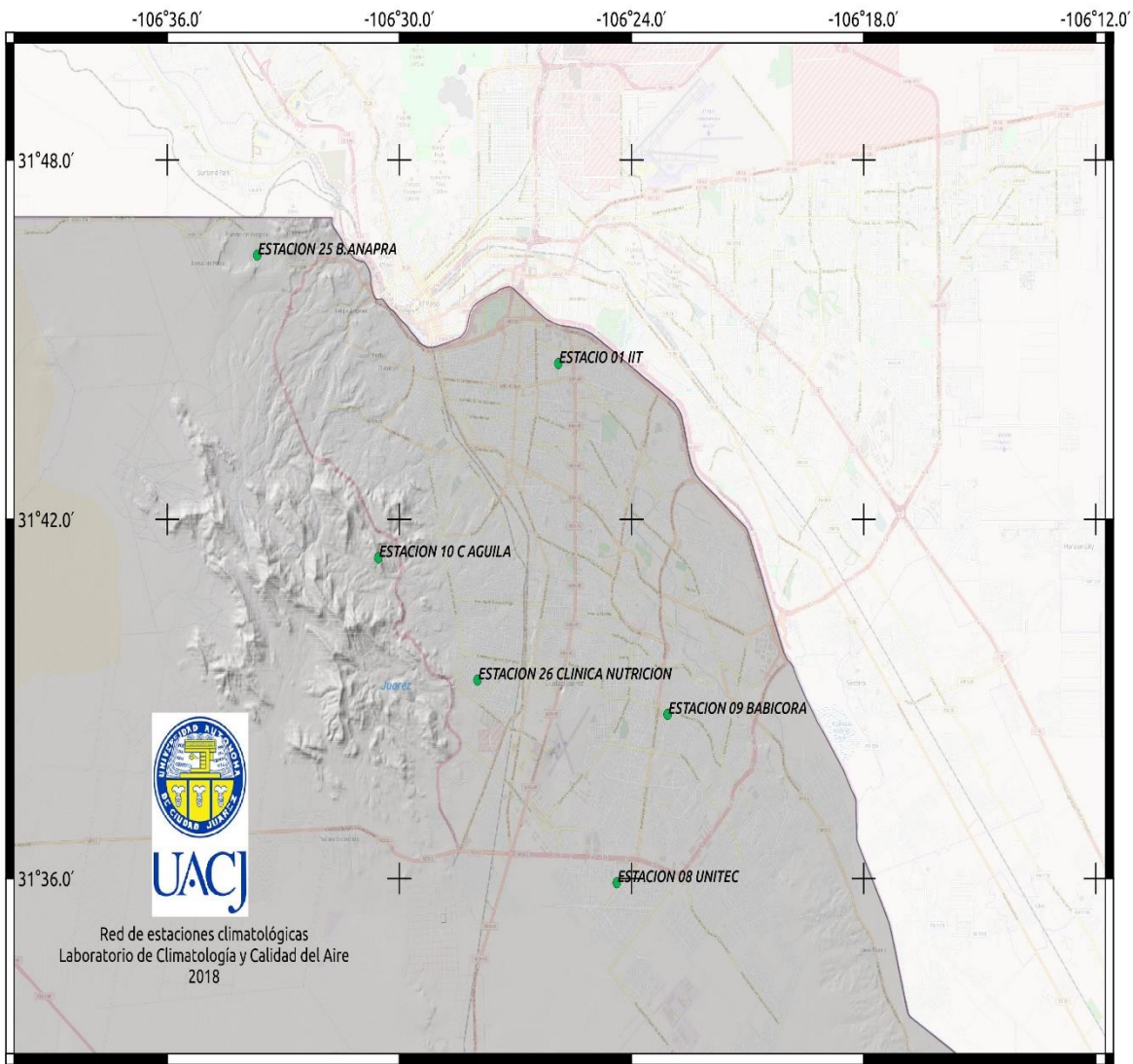
This map was generated by the Office of Compliance and Enforcement, Monitoring Division of the Texas Commission on Environmental Quality and is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location as of Wednesday, December 12, 2018 for property boundaries. For information concerning this map, contact the Monitoring Division at (512) 239-1716.



Texas Commission on Environmental Quality
Office of Compliance and Enforcement
Monitoring Division
PO Box 13087
Austin, Texas 78711-3087

Wednesday, December 12, 2018

Red de Estaciones Climatológicas de UACJ

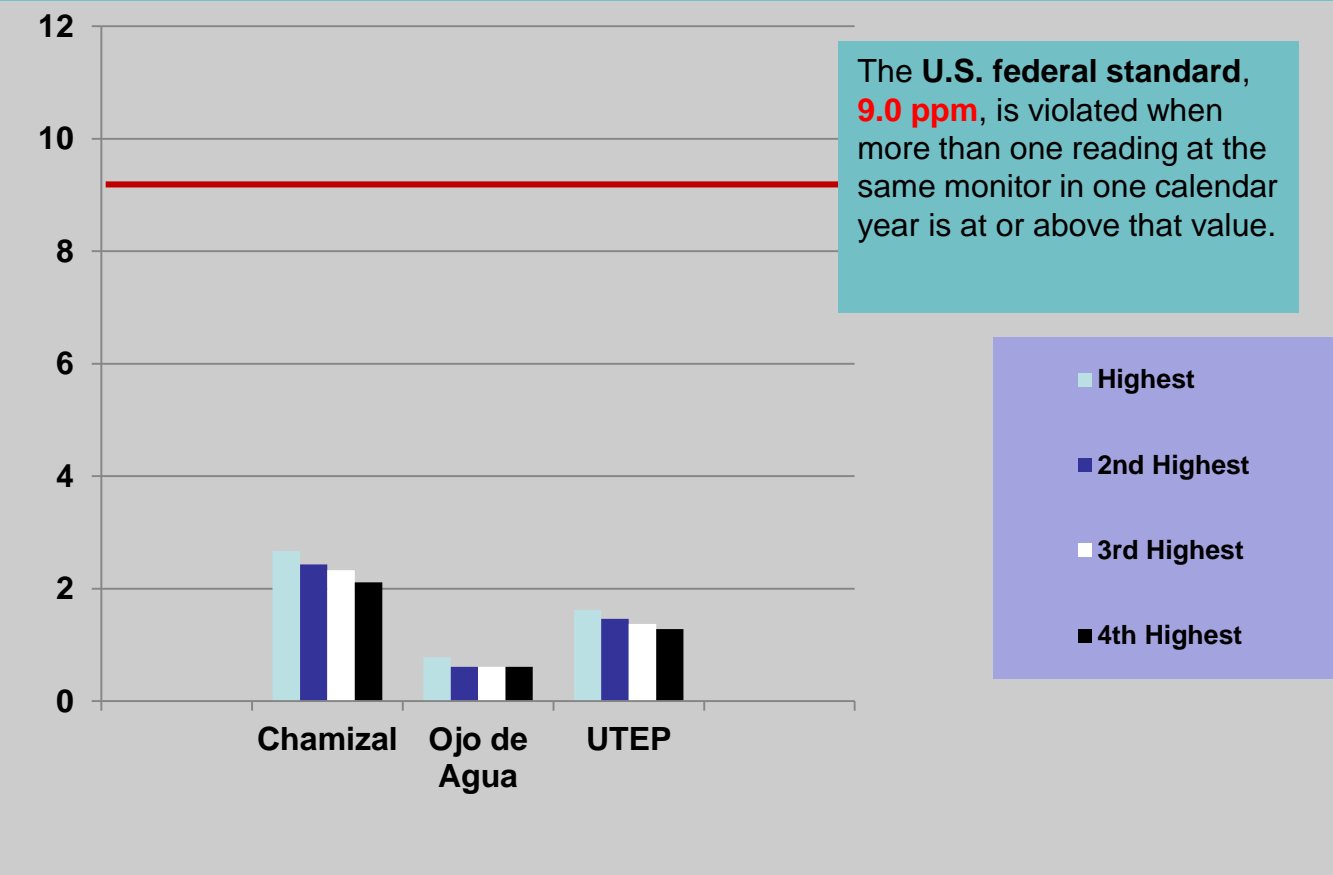


Estación 01 IIT:
Meteorología
Ozono
Monóxido de Carbono
Dióxido de Azufre
Dióxido de nitrógeno
Material Particulado (PM₁₀ y PM_{2.5})

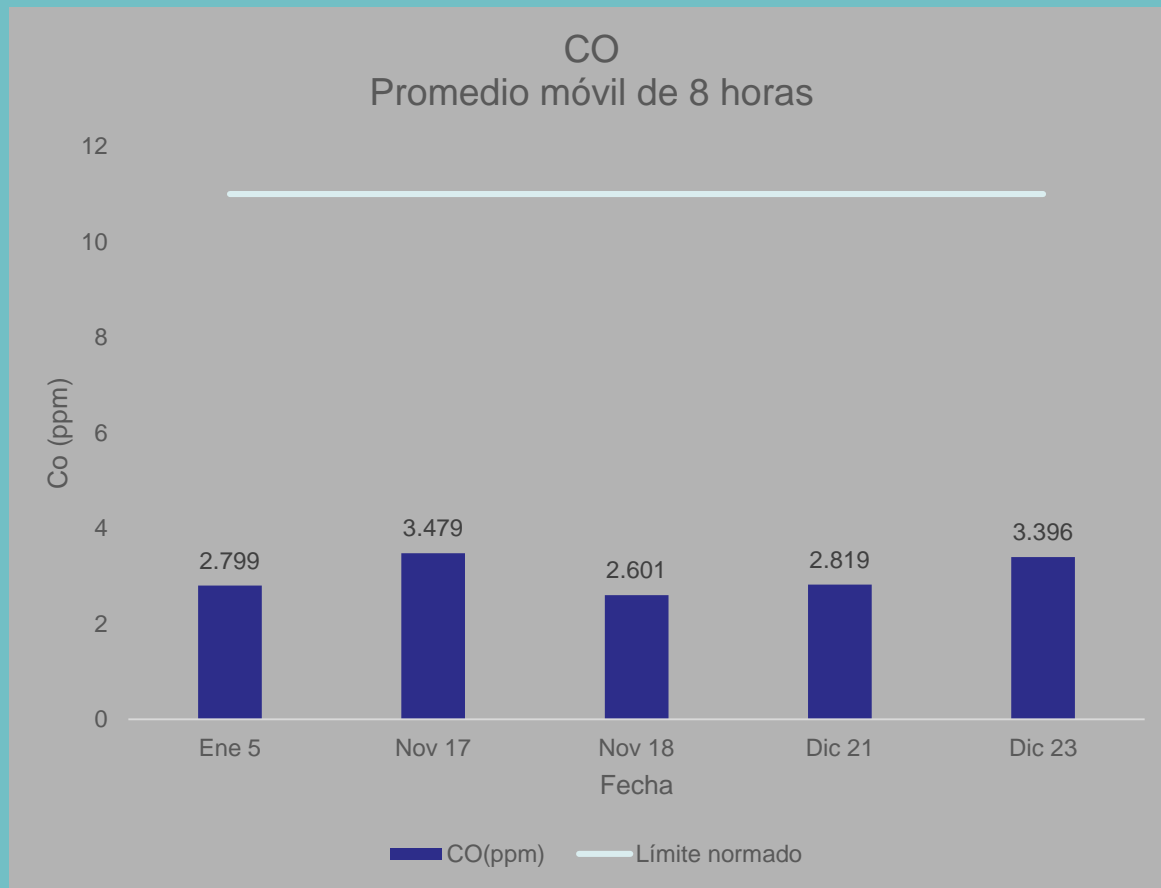
Station 01 IIT:
Meteorology
Ozone
Carbon Monoxide
Sulfur Dioxide
Nitrogen Dioxide
Particulate Matter (PM₁₀ & PM_{2.5})

Carbon Monoxide

Carbon Monoxide 8-Hr. Averages Four Highest Values (in ppm) at Each Monitor in El Paso January – December 31, 2019



Monóxido de carbono | Promedios móviles de 8 horas en Ciudad Juárez | Quintos máximos (enero – diciembre 2019)

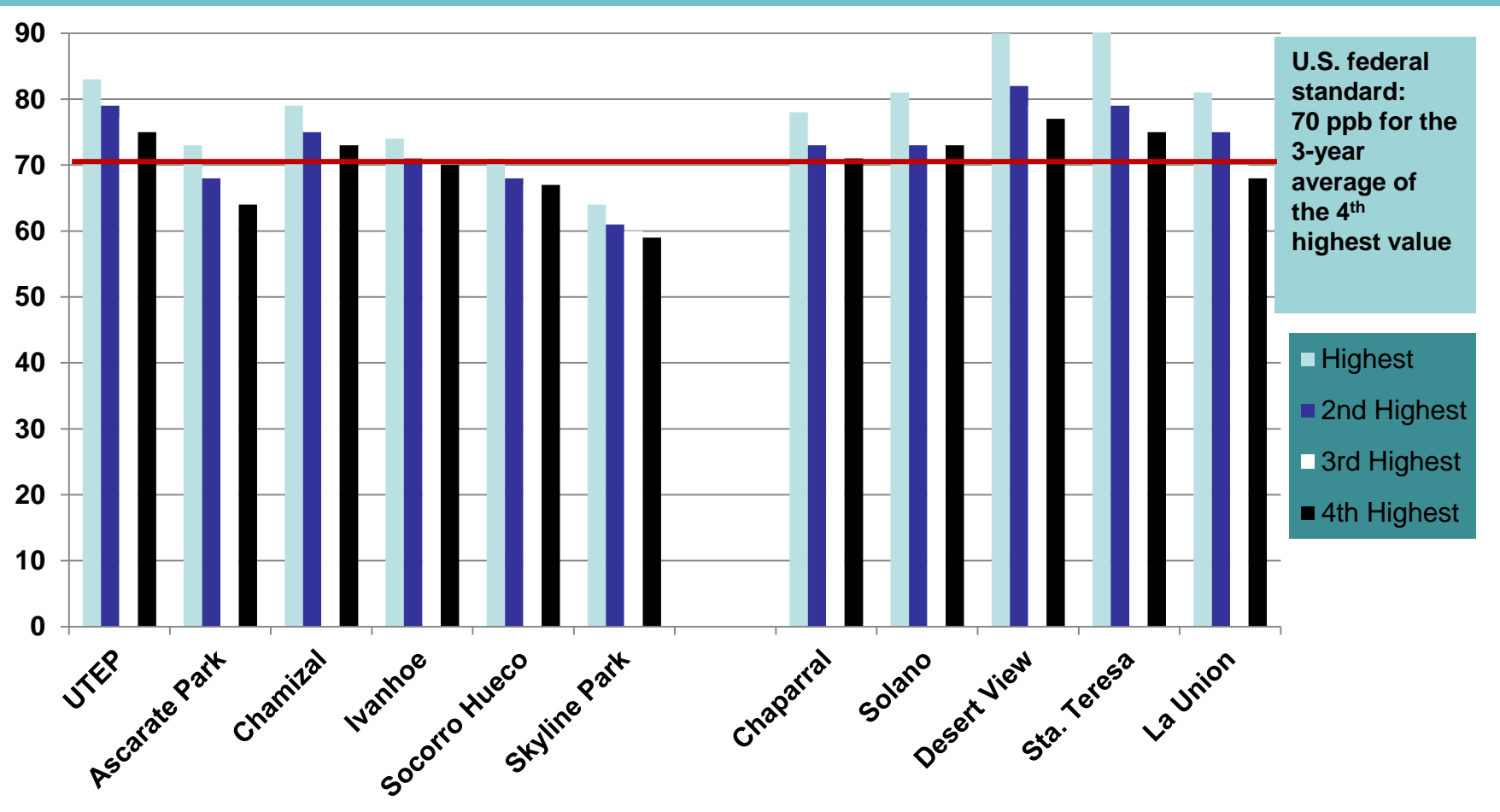


El límite máximo permisible en México para CO es de 11 ppm en promedios móviles de 8 horas.

The maximum allowable limit in Mexico for CO is 11 ppm in 8-hour rolling average.

Ozone

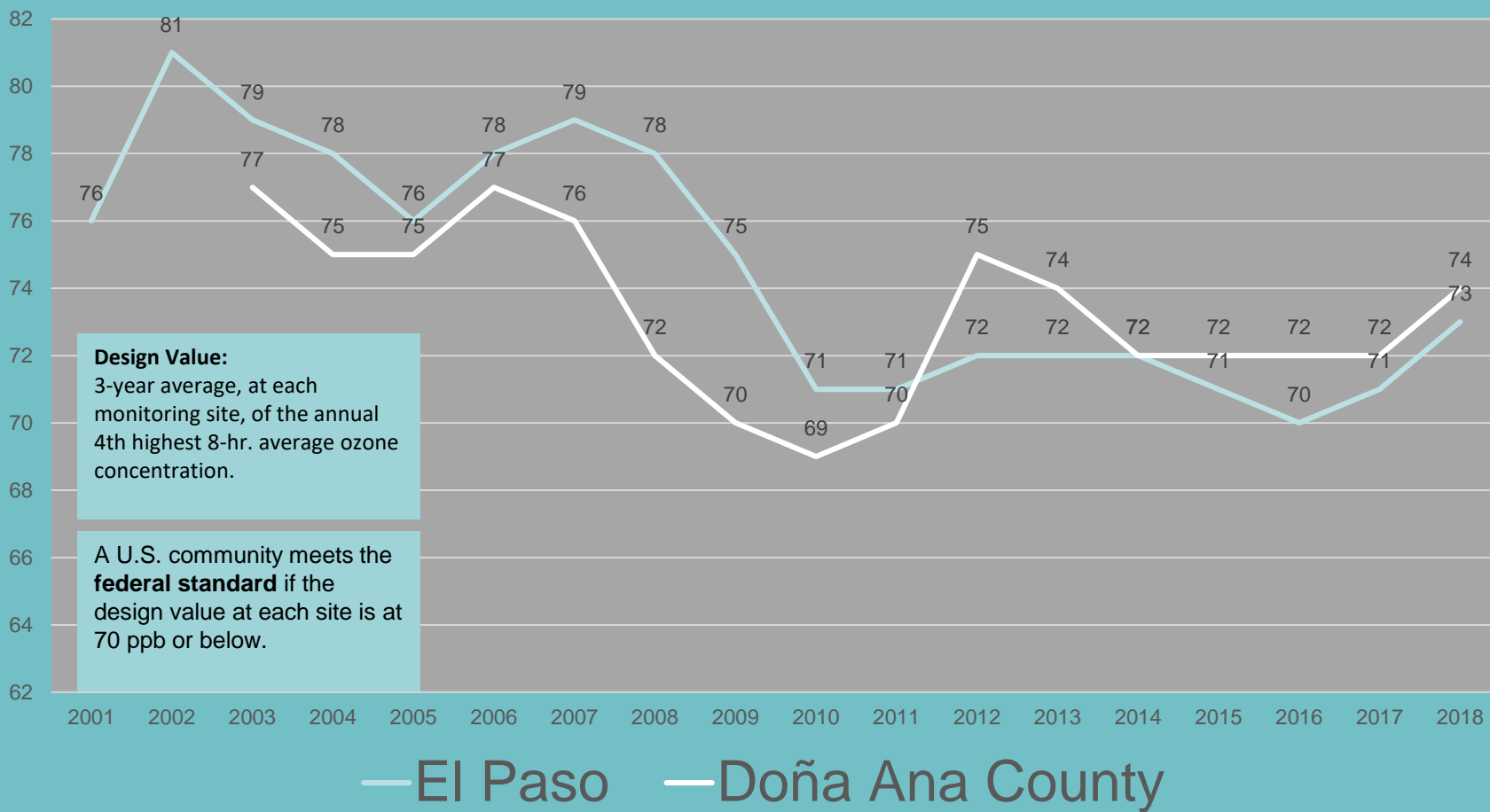
Ozone 8-Hr. Averages (in ppb) Four Highest Values at Monitors in El Paso and Doña Ana County. (January - December 31, 2019)



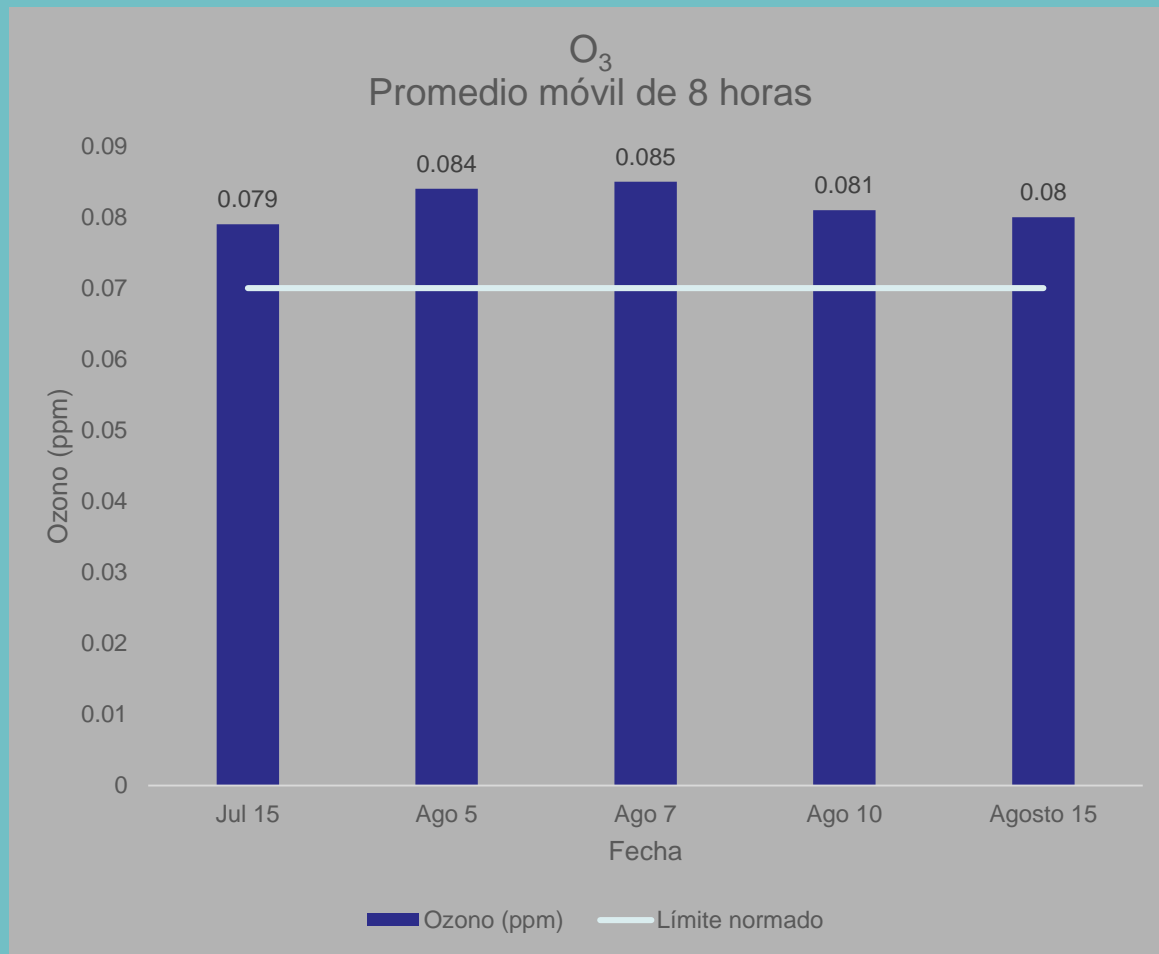
Ozone 8-Hr. Design Values

El Paso and Doña Ana County

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



Ozono
Promedio móvil de 8 horas en Ciudad Juárez
5 valores máximos
(enero - diciembre 2019)

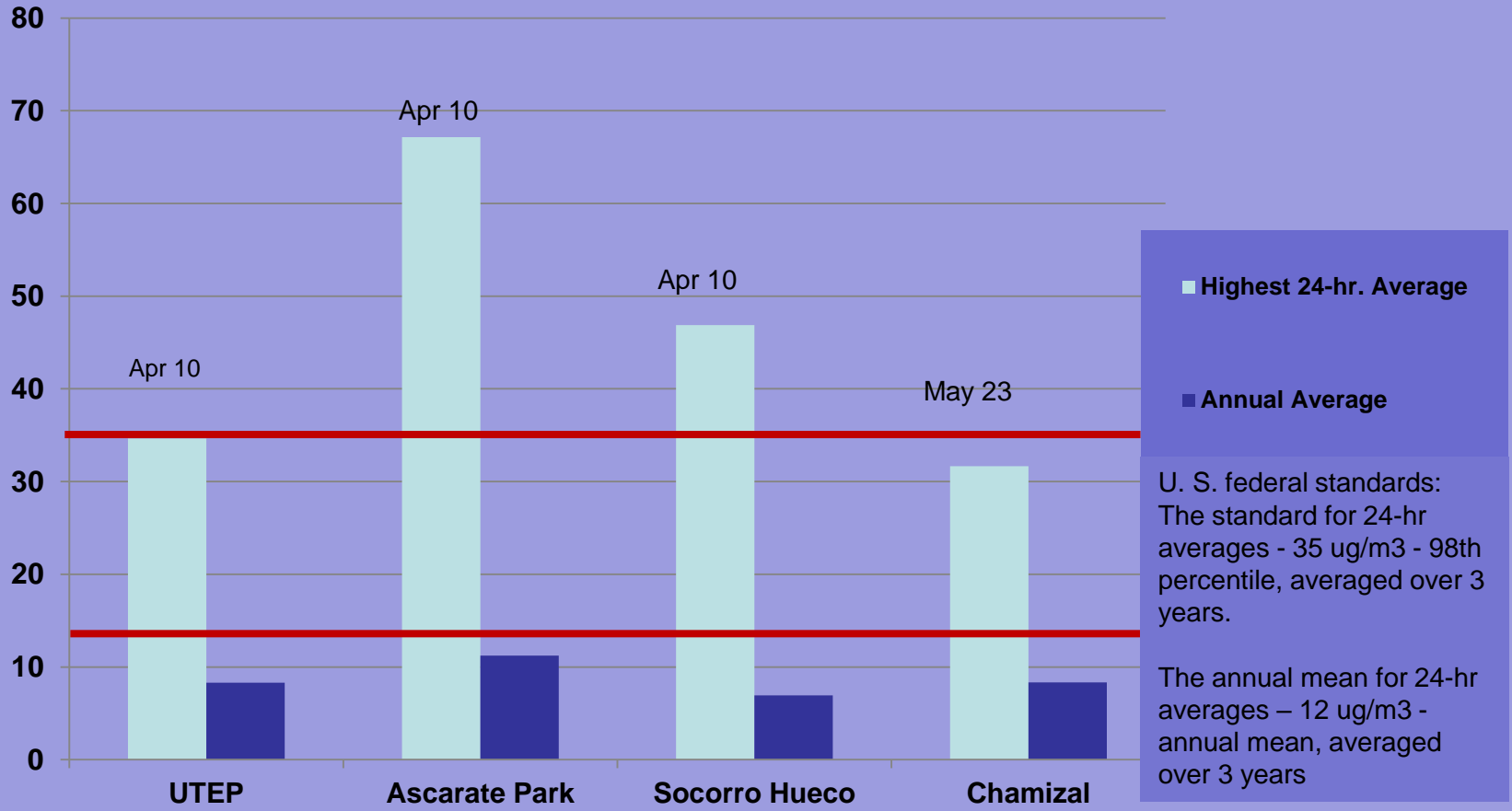


El límite máximo permisible en México para O₃ es de 0.07 ppm en promedios móviles de 8 horas.

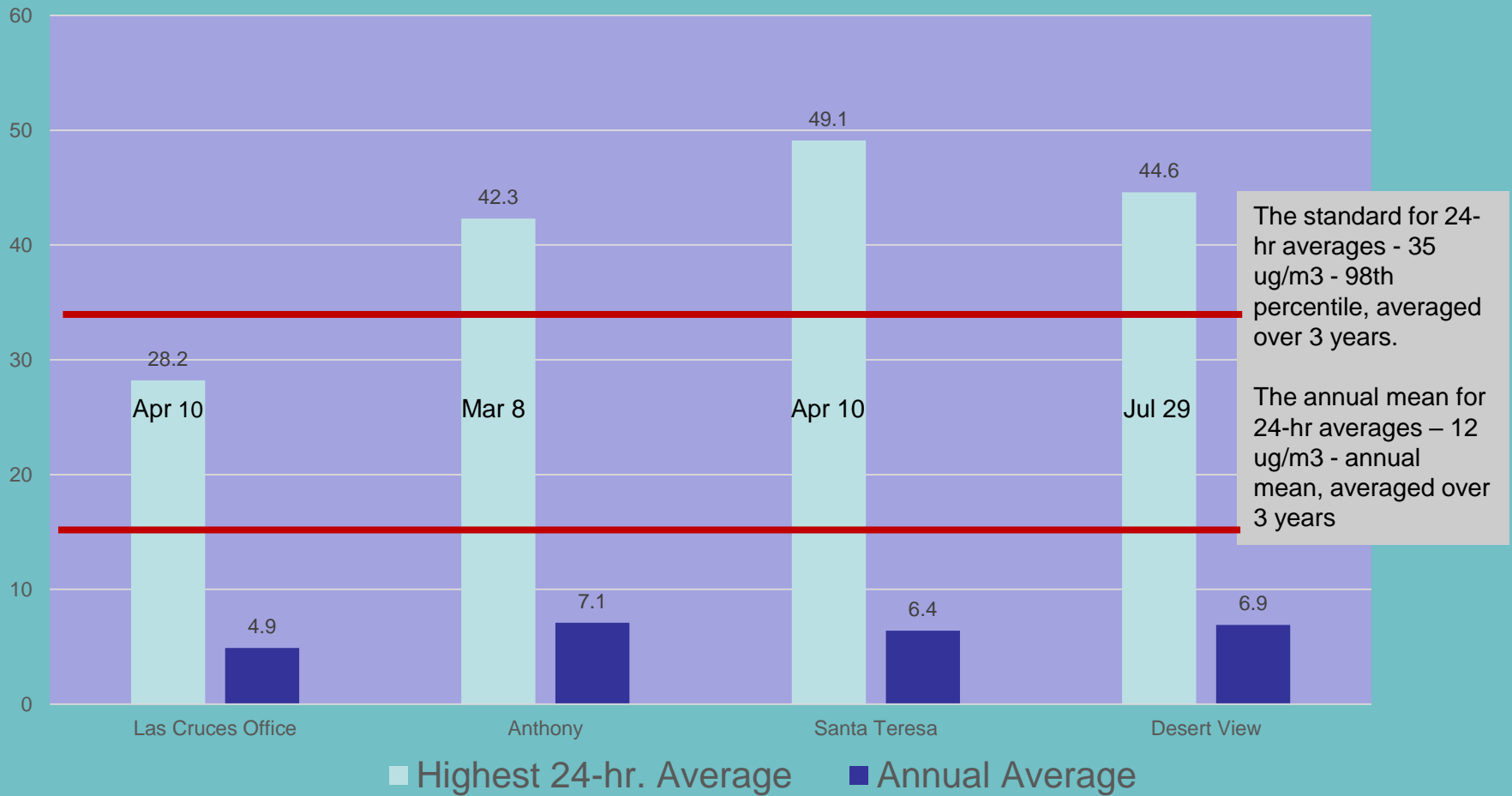
The maximum allowable limit in Mexico for O₃ is 0.07 ppm in 8-hour rolling averages.

Particulate Matter (PM)

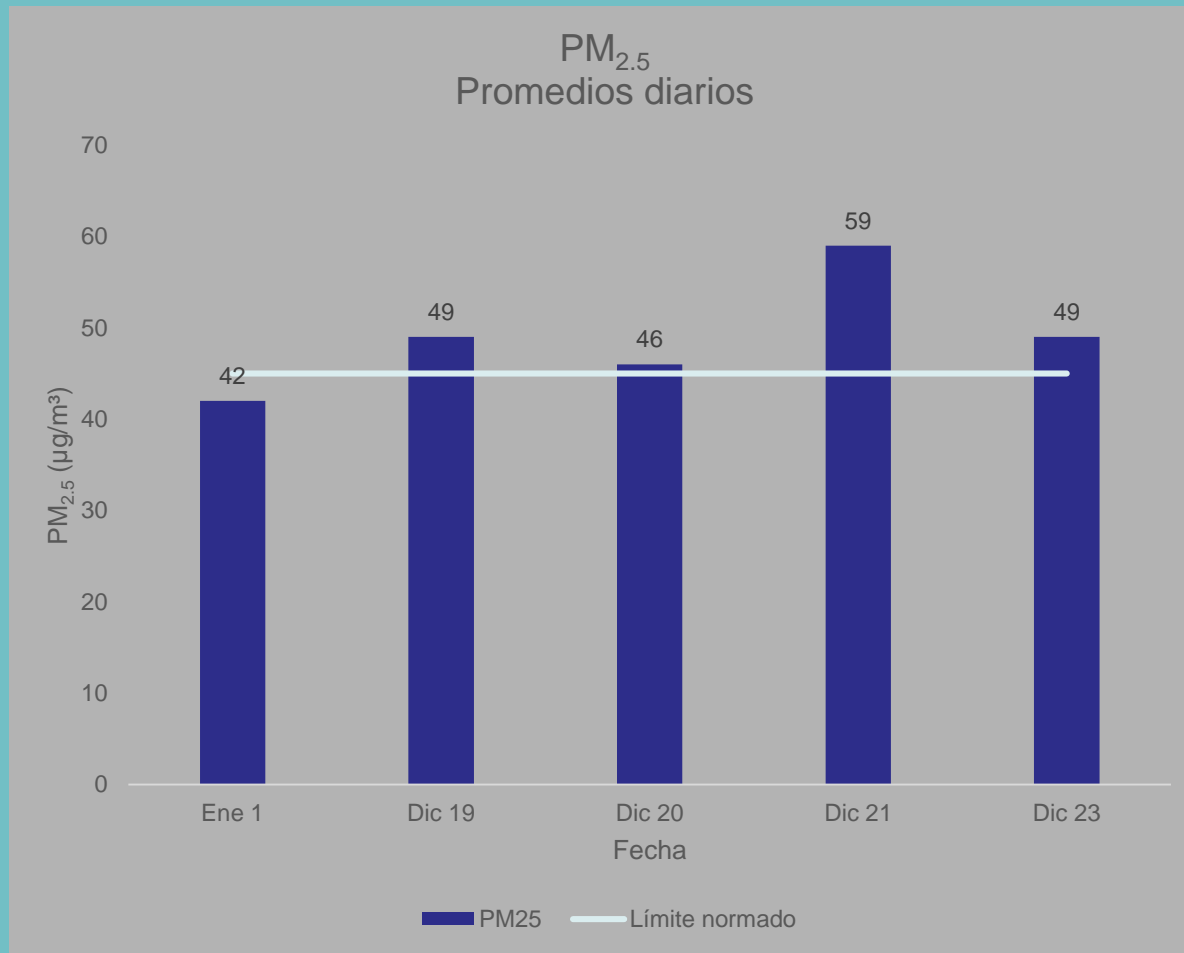
PM_{2.5}
Highest 24-Hr. Average and Annual Average
Four Monitors in El Paso (in $\mu\text{g}/\text{m}^3$)
January – December 31, 2019



PM_{2.5}
Highest 24-Hr. Average and Annual Average (µg/m³)
Doña Ana County
January – December 31, 2019



PM_{2.5}
Promedio móvil de 24 horas en Ciudad Juárez
Quintos máximos
(enero - diciembre 2019)



El límite máximo permisible en México para PM_{2.5} es de 45 µg m⁻³ en promedios diarios.

The maximum allowable limit in Mexico for PM_{2.5} is 45 µg m⁻³ in daily averages.

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

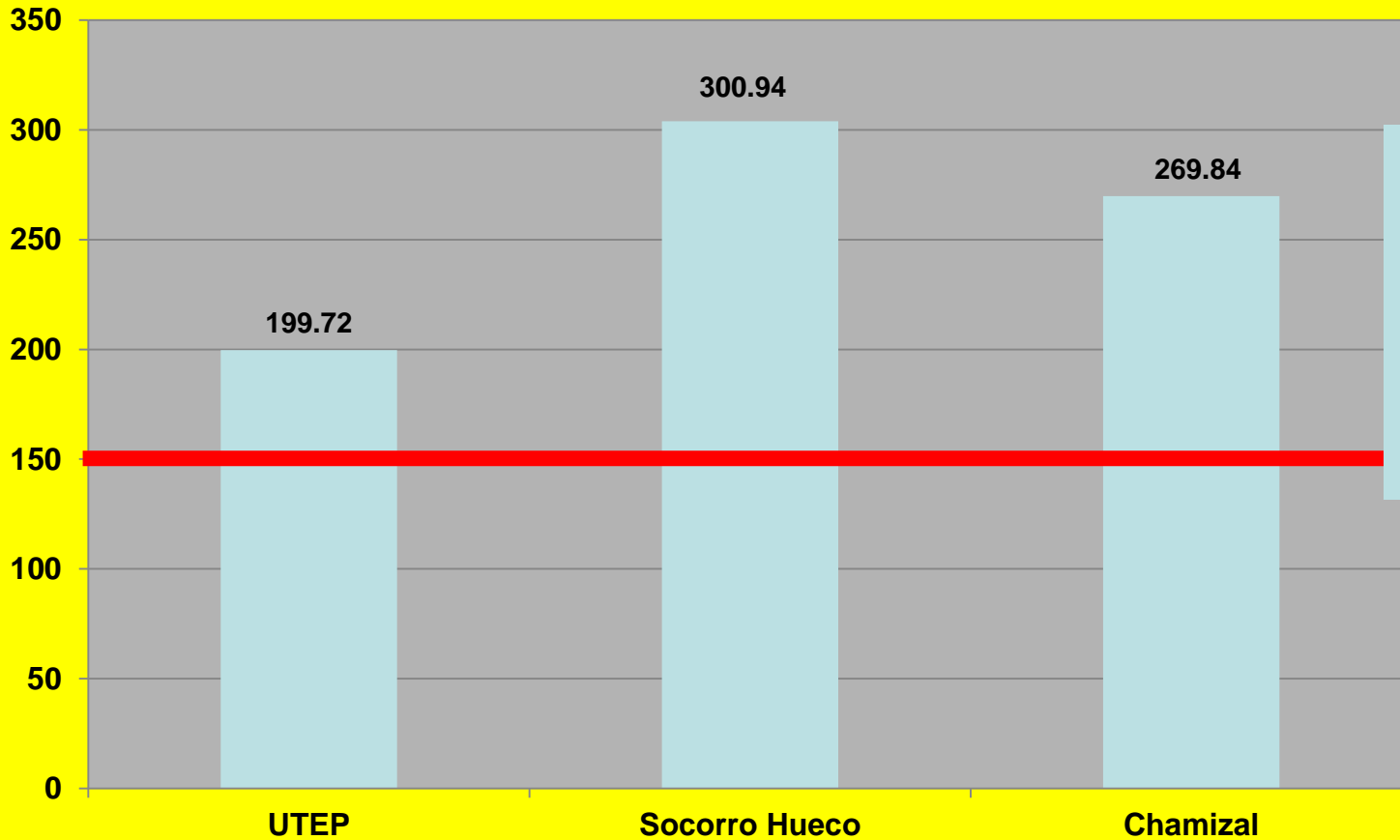
Annual Design Value

U.S. Standard	12 µg/m³
2018 Design Value for Chamizal	9.1 µg/m³
2017 Design Value for Anthony	7.6 µg/m³

24-Hour Design Value

U.S. Standard	35 µg/m³
2018 Design Value for Chamizal	24 µg/m³
2017 Design Value for Anthony	25 µg/m³

PM₁₀
Highest 24-Hour Averages (in $\mu\text{g}/\text{m}^3$)
Three Monitors in El Paso
January – December 31, 2019



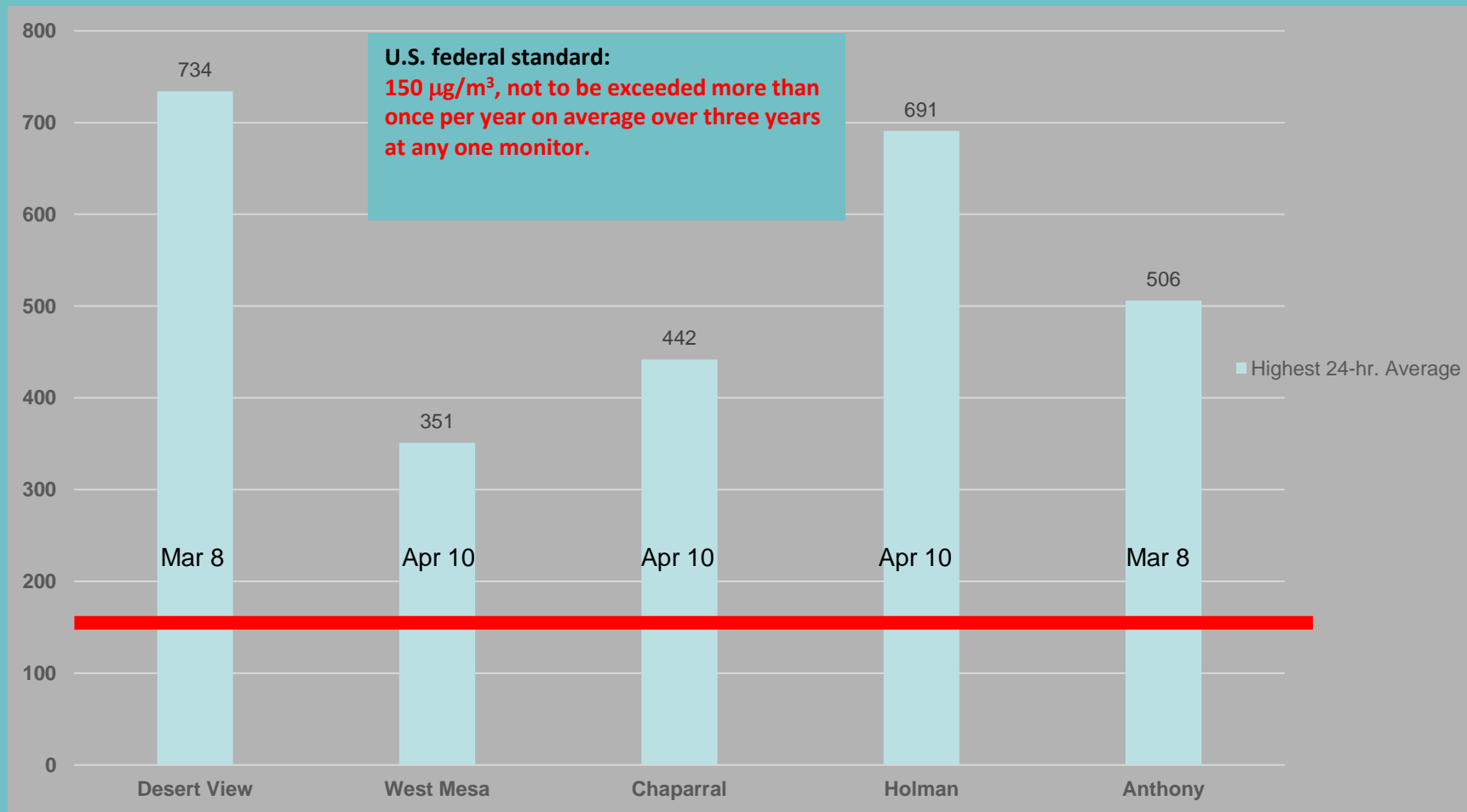
U.S. federal standard:
150 $\mu\text{g}/\text{m}^3$, not to be exceeded more than once per year on average over three years at any one monitor.

PM10

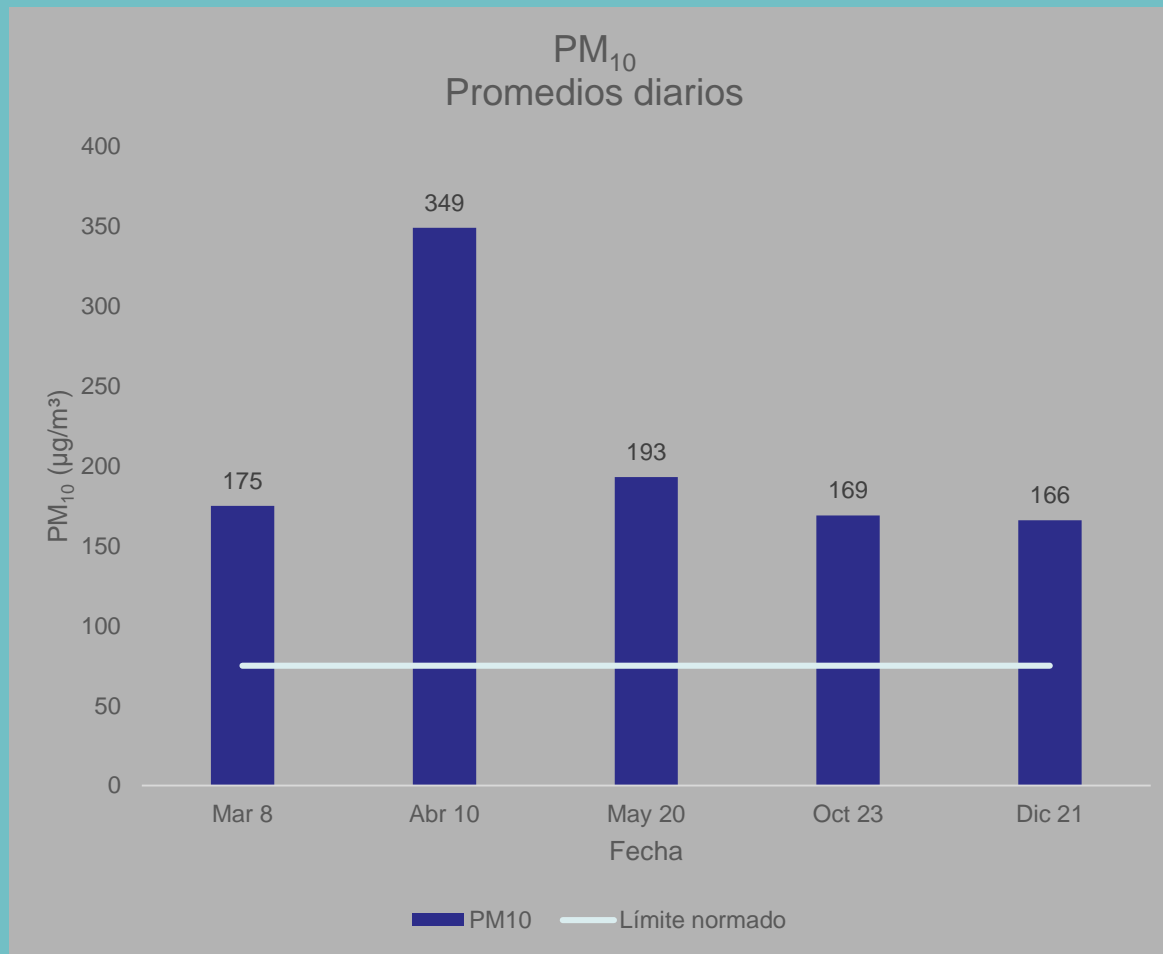
Highest 24-Hour Averages (in $\mu\text{g}/\text{m}^3$)

Five Monitors in New Mexico

January - December 31, 2019



PM₁₀
Promedios de 24 horas en Ciudad Juárez
Quintos máximos
(enero - diciembre 2019)



El límite máximo permisible en México para PM₁₀ es de 75 µg m⁻³ en promedios diarios.

The maximum allowable limit in Mexico for PM₁₀ is 75 µg m⁻³ in daily averages.

PM₁₀

Compliance with U.S. Federal Standard for 24-Hour Design Value

El Paso and Doña Ana Counties
2016 - 2018

U.S. Standard

150 $\mu\text{g}/\text{m}^3$

Violation at any one monitor:

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

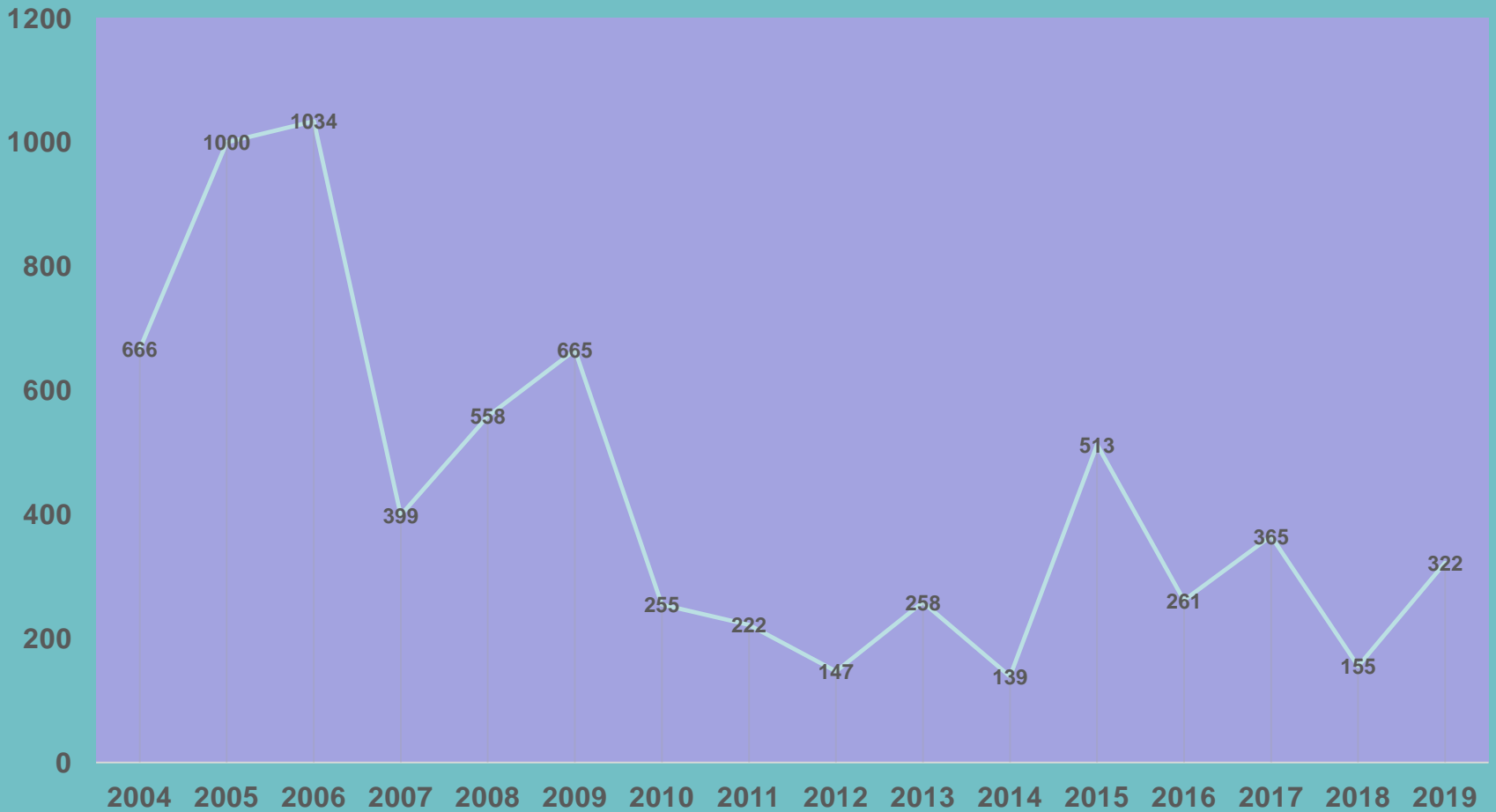
Socorro Hueco	2018	4.4	<u>estimated</u> exceedances
	2017	2	"
	2016	0	"
Desert View	2018	4	<u>estimated</u> exceedances
	2017	8	"
	2016	8	"

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

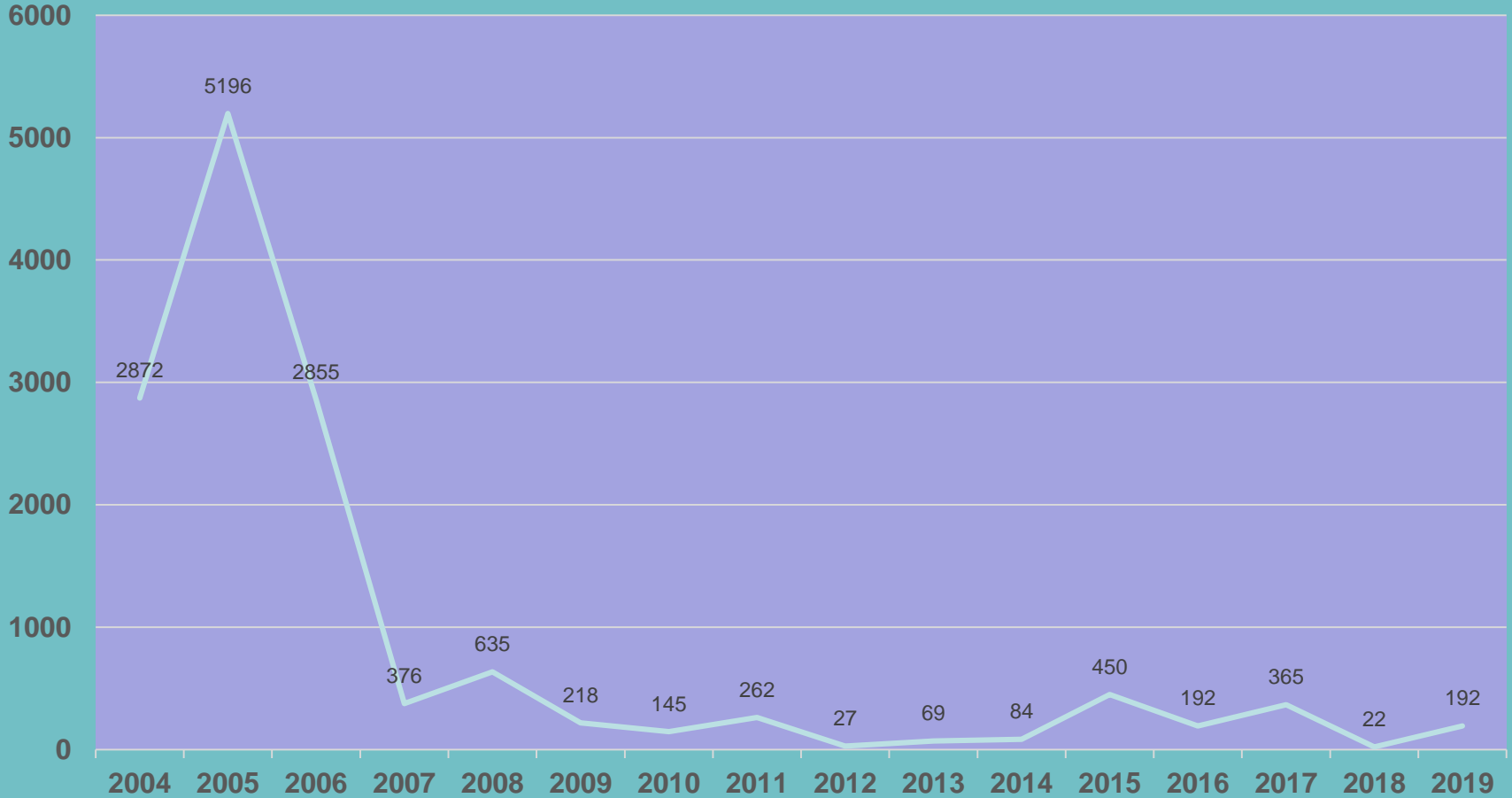
Parámetro	Límite de exposición crónica	Promedio anual
PM _{2.5}	12 $\mu\text{g m}^{-3}$	10.9 $\mu\text{g m}^{-3}$
PM ₁₀	40 $\mu\text{g m}^{-3}$	48.2 $\mu\text{g m}^{-3}$

Hydrogen Sulfide

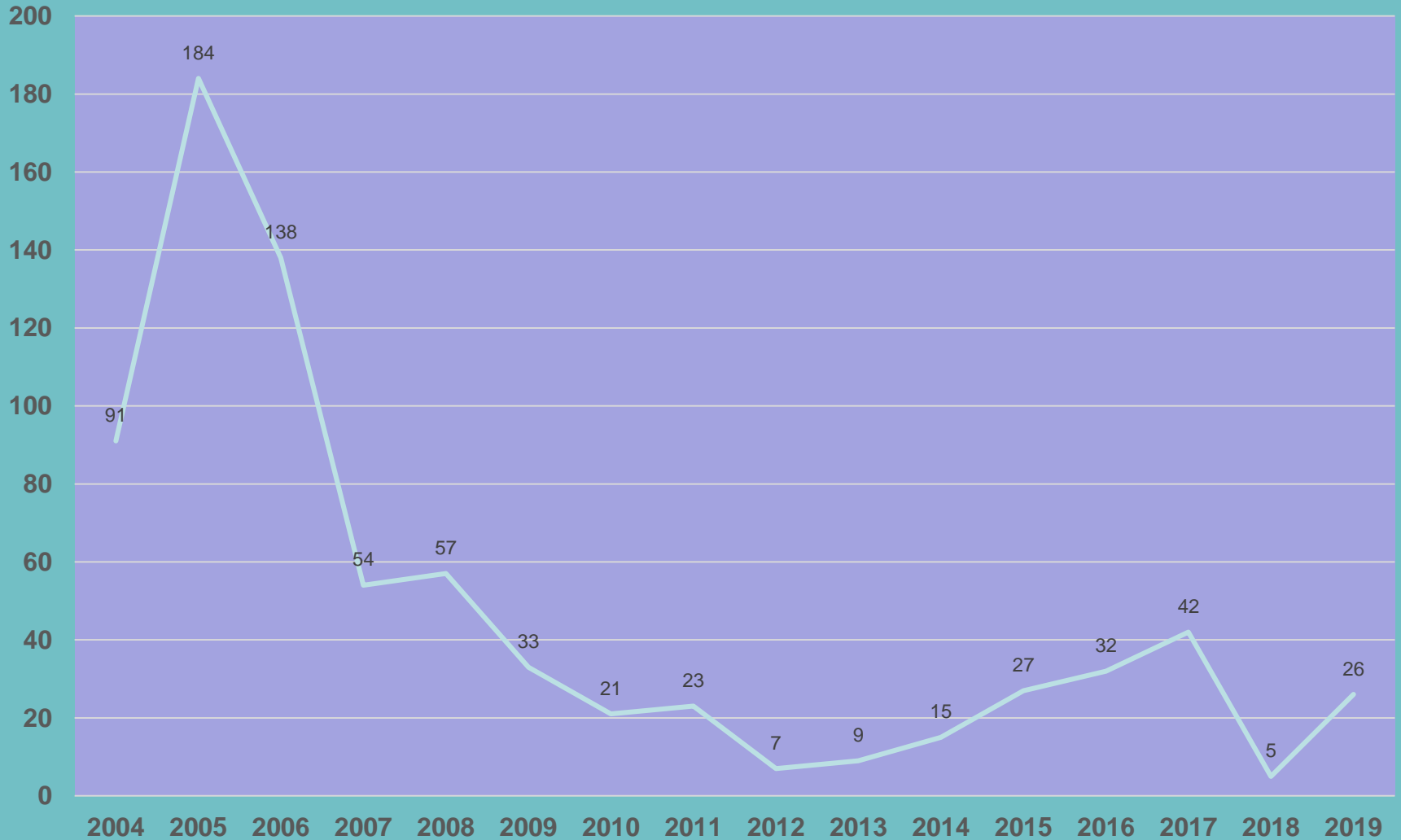
**Hydrogen Sulfide – 30-Minute Averages
Highest Value (in ppb) Each Year
at “Lower Valley” Monitor
(2004-2019)**



**Hydrogen Sulfide – 30-Minute Averages
Number of Exceedances (in ppb) Each Year
at “Lower Valley” Monitor
(2004-2019)**

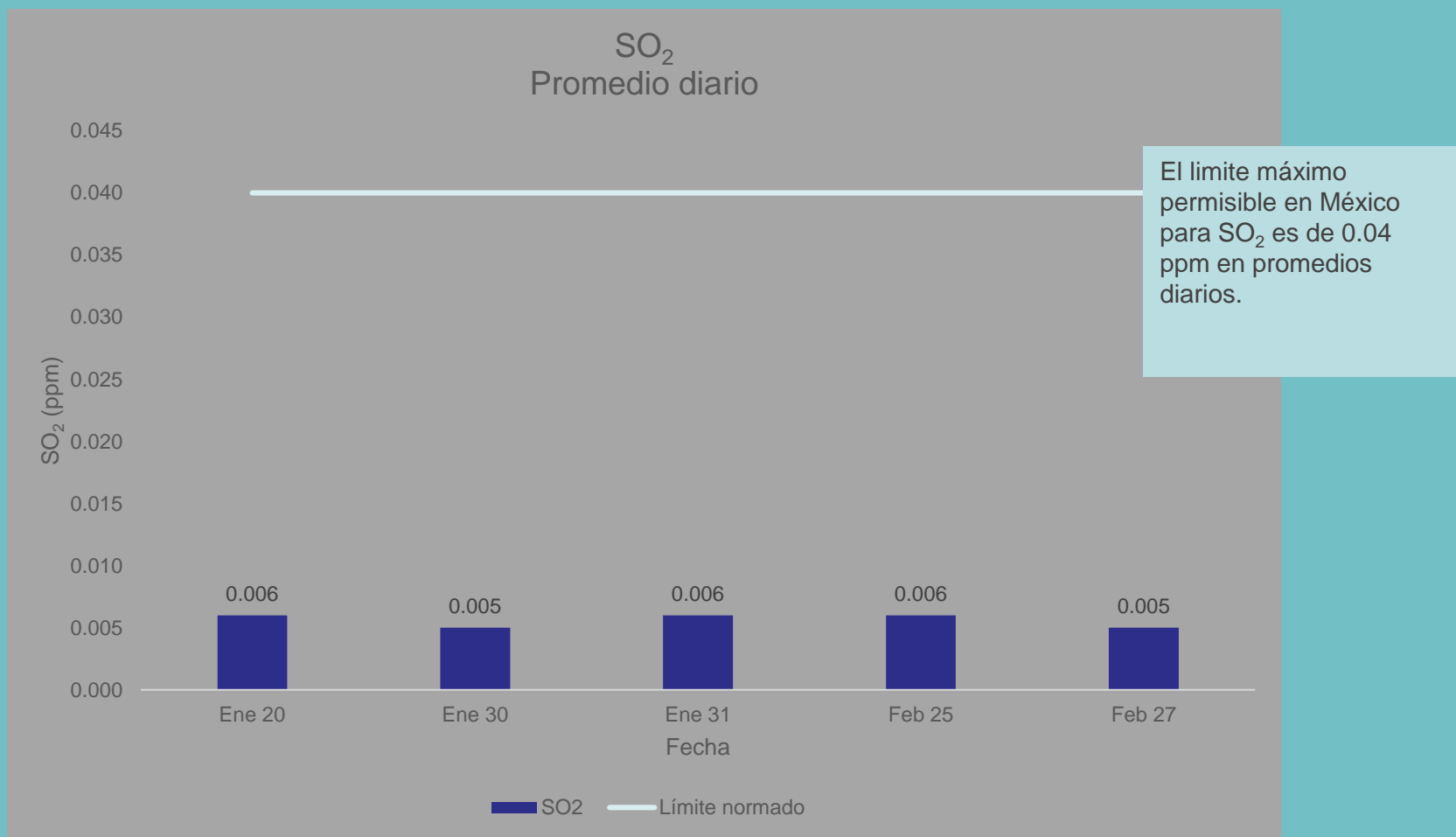


Hydrogen Sulfide Number of Days with 30-Minute Exceedances at “Lower Valley” Monitor, 2004-2019



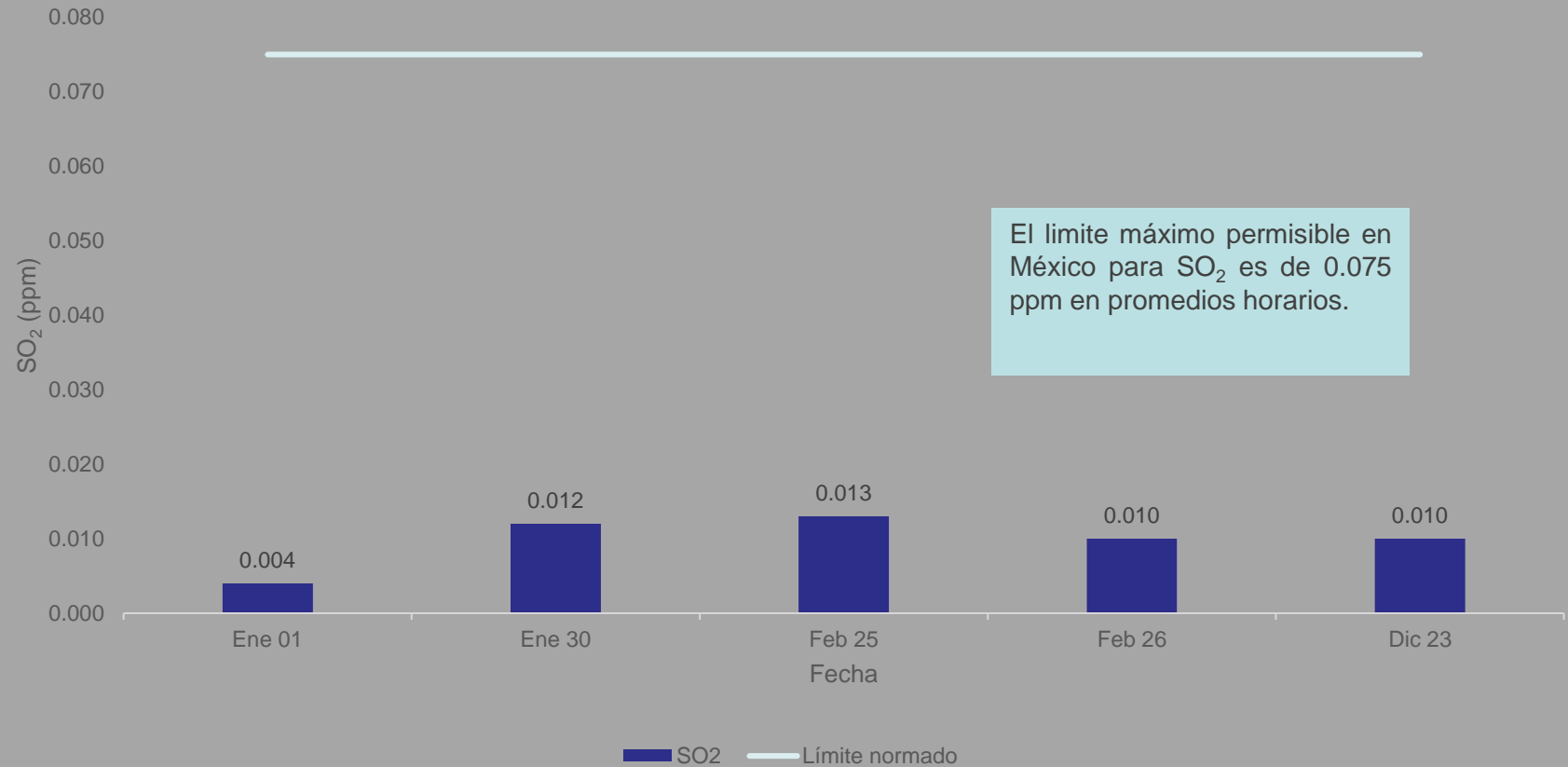
Dióxido de azufre (SO_2)

Dióxido de azufre | Promedios diarios | Quintos máximos (2019)



Dióxido de azufre | Promedios horarios | Quintos máximos (2019)

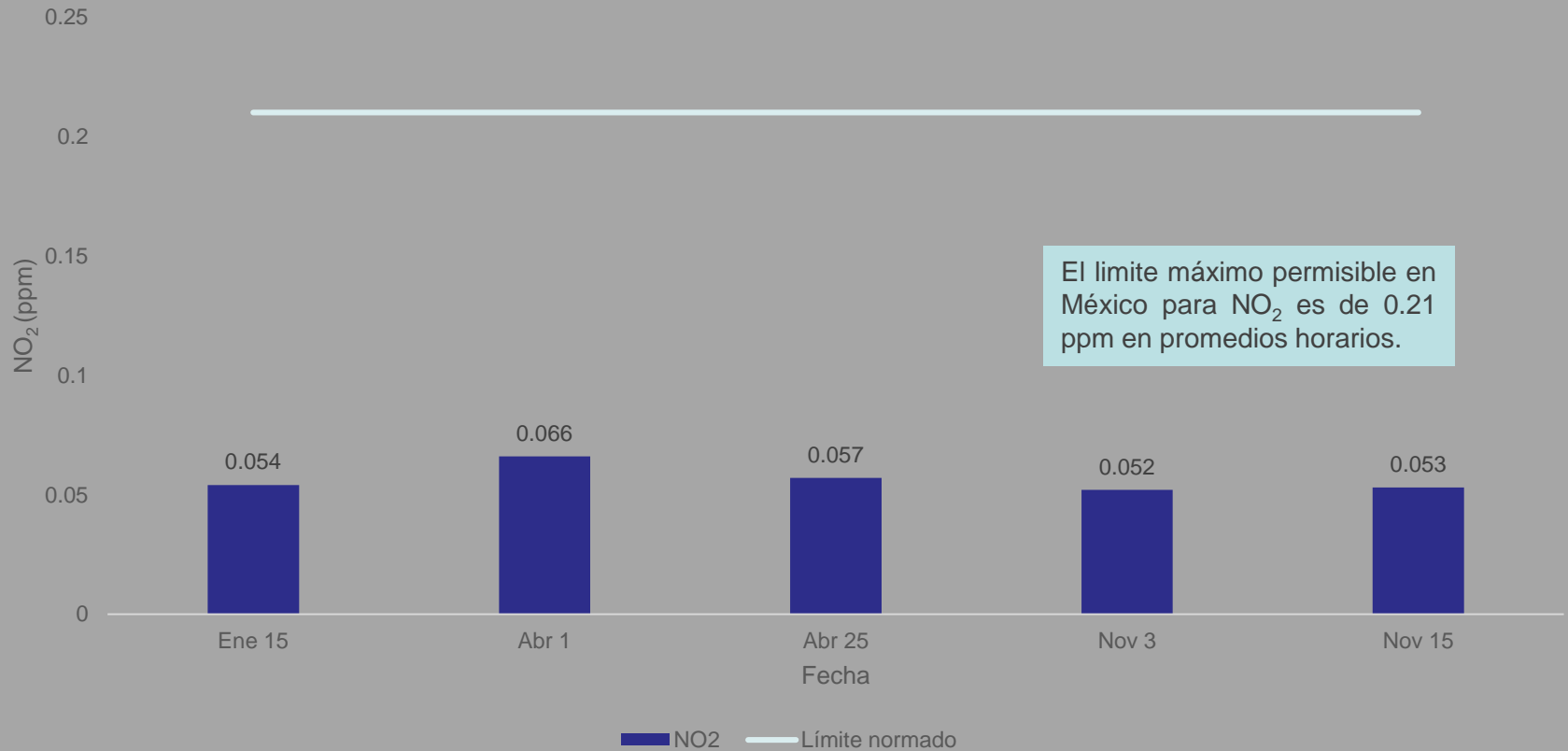
SO₂
Promedio horario



Dióxido de nitrógeno (NO_2)

Dióxido de nitrógeno | Promedios horarios | Quintos máximos (2019)

NO₂
Promedio horario



¡Gracias!


Thanks!


¿Preguntas?

Any questions?

Nos pueden contactar en:

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 fvazquez@uacj.mx

 frida.toquinto@uacj.mx



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CENTRO DE CIENCIAS ATMOSFÉRICAS
Y TECNOLOGÍAS VERDES

Any questions?

