

# R2 Reasonable Potential Tool Parameter Report

**PR0024163 - 001 : Color [PT-CO units]**

Evaluated from 07/29/2017 to 07/29/2022

## **FACILITY INFORMATION:**

**PRASA HATILLO WTP**

**STATE ROAD 2, KM 88.9**

**HATILLO, PR**

**WQS Import File: PR2022Standards-RPTool\_from\_for\_binder.xlsx**

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## **SUMMARY STATISTICS:**

**Number of Samples: 56**

**Min: 5 col unit (pc)**

**Mean: col unit (pc)**

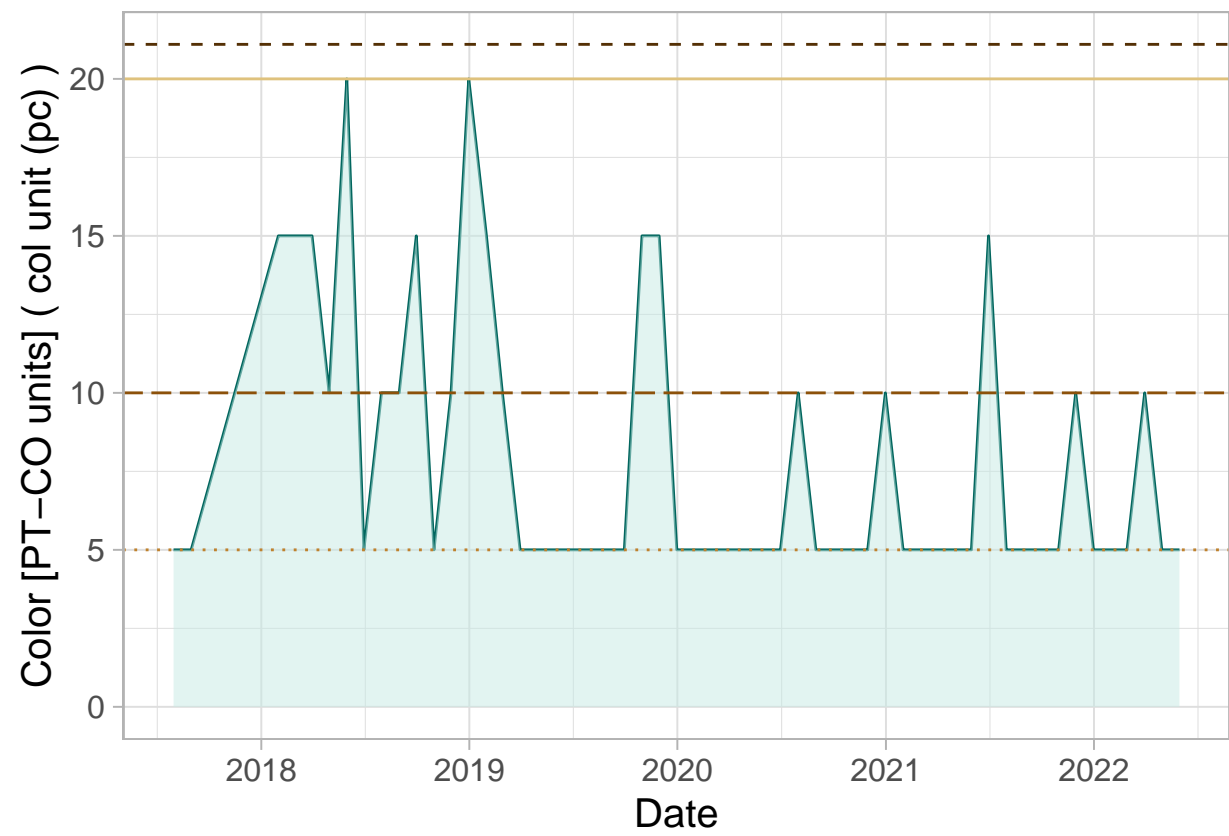
**WQS - SB: 5 col unit (pc)**

**Max: 20 col unit (pc)**

**WQS - SD: 10 col unit (pc)**

**RWC: 21.1 col unit (pc)**

TIME SERIES



—Max: 20 col unit (pc)

...WQS - SB: 5 col unit (pc)

- - WQS - SD: 10 col unit (pc)

-RWC: 21.1 col unit (pc)

## RECEIVING WATER CONCENTRATION CALCULATIONS

*assuming a 95% confidence level and a 95% probability basis  
calculations from 1991 Technical Support Document pgs 51-55*

$$\text{Number of samples} = n$$

$$\text{Maximum effluent concentration} = \text{max}$$

$$\text{Dilution Ratio} = DR$$

$$\text{Coefficient of Variation (CV)} = S_n/\mu \text{ or } 0.6 \text{ when } n \leq 10$$

$$Z - \text{statistic} = Z_x$$

$$RPM = \frac{\exp(Z_{95} \ln(1 + CV^2)^{0.5} - 0.5 \ln(1 + CV^2))}{\exp(Z_x \ln(1 + CV^2)^{0.5} - 0.5 \ln(1 + CV^2))}$$

$$RWC = \text{maximum effluent concentration} * RPM * \text{Dilution Ratio}$$

$$n = 56$$

$$\text{max} = 20$$

$$DR = 1$$

$$CV = 0.58$$

$$Z_{95} = 1.645$$

$$Z_x = 1.545$$

$$\begin{aligned} RPM &= \frac{\exp(1.645 \ln(1 + 0.58^2)^{0.5} - 0.5 \ln(1 + 0.58^2))}{\exp(1.545 \ln(1 + 0.58^2)^{0.5} - 0.5 \ln(1 + 0.58^2))} \\ &= 1.06 \end{aligned}$$

$$\begin{aligned} RWC &= 20 * 1.06 * 1 \\ &= 21.1 \end{aligned}$$

# DATA TABLE

NPDES ID	Outfall	Parameter	Monitoring Period	Value	Unit	NODI Code
PR0024163	001	Color [PT-CO units]	2017-07-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2017-08-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-01-31	15	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-02-28	15	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-03-31	15	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-04-30	10	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-05-31	20	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-05-31	20	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-06-30	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-07-31	10	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-08-31	10	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-09-30	15	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-10-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-11-30	10	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2018-12-31	20	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-01-31	15	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-02-28	10	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-03-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-04-30	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-05-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-06-30	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2019-07-31	5	col unit (pc)	
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PR0024163	001	Color [PT-CO units]	2020-02-29	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2020-03-31	5	col unit (pc)	
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PR0024163	001	Color [PT-CO units]	2020-12-31	10	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-01-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-02-28	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-03-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-04-30	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-05-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-06-30	15	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-07-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-08-31	5	col unit (pc)	
PR0024163	001	Color [PT-CO units]	2021-09-30	5	col unit (pc)	
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