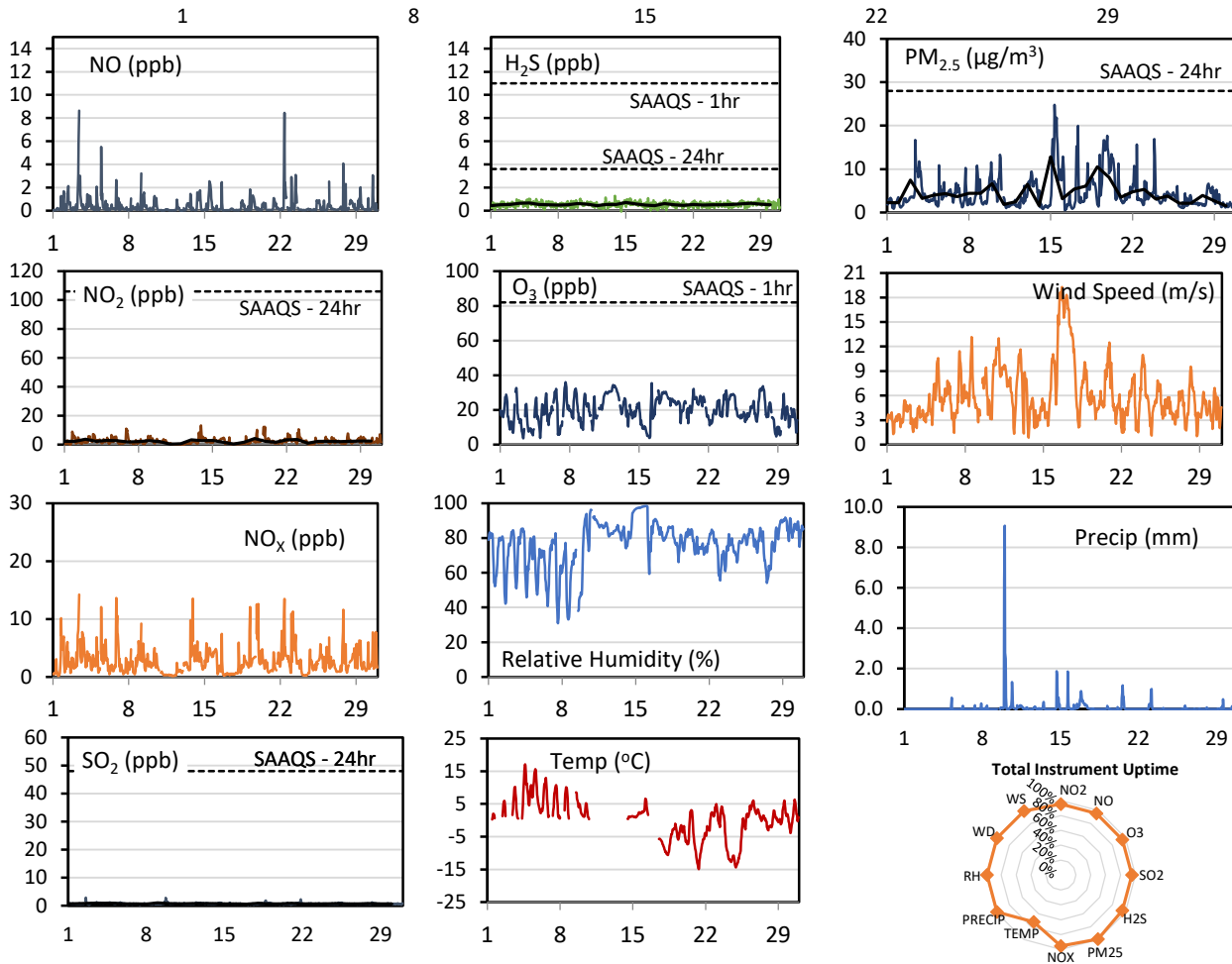
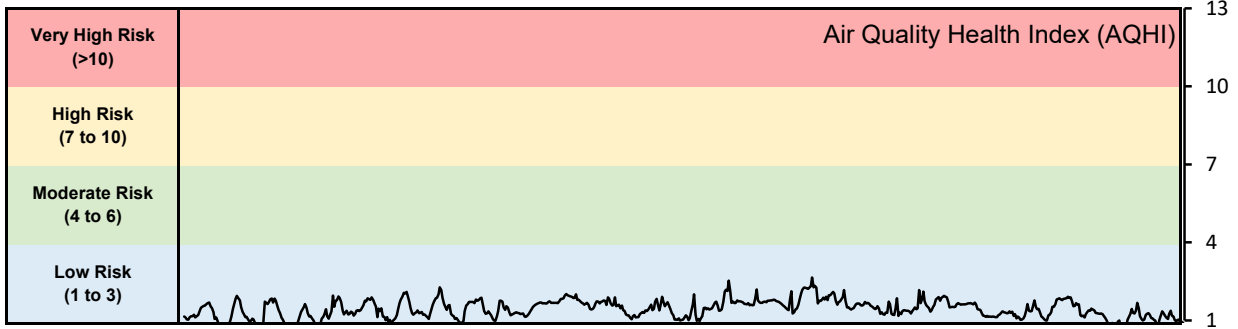


## GPAZ Pense Station - November 2021 Summary Report

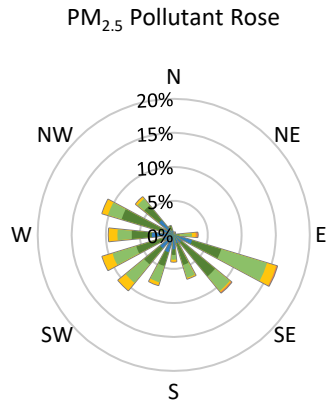
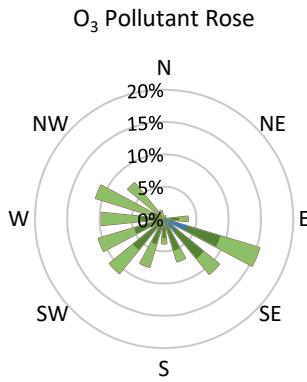
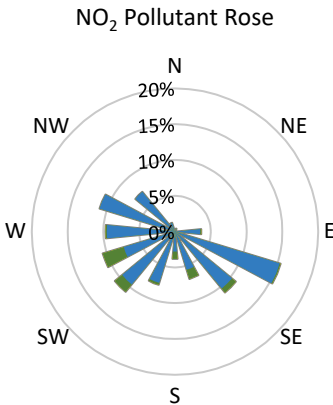
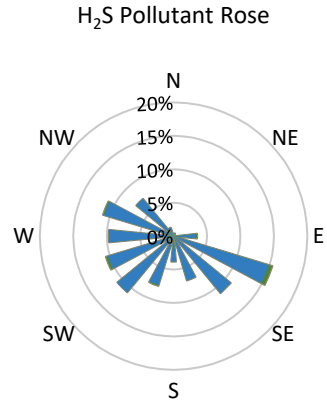
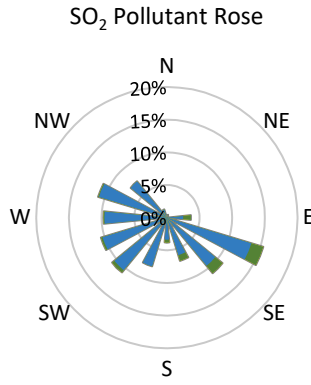
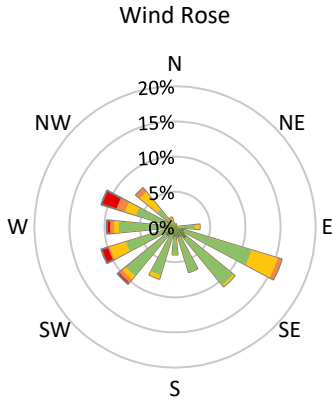
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	95%	1.3	Nov-03	-	-	8.6	Nov-03 10:00	-	-
NO <sub>2</sub>	ppb	2.3	95%	4.2	Nov-19	106	0	13.3	Nov-13 22:00	159	0
NO <sub>x</sub>	ppb	2.7	95%	5.0	Nov-03	-	-	14.2	Nov-03 10:00	-	-
SO <sub>2</sub>	ppb	0.7	95%	1.0	Nov-09	48	0	2.9	Nov-02 14:00	172	0
H <sub>2</sub> S	ppb	0.5	95%	0.7	Nov-15	3.6	0	1.3	Nov-13 21:00	11	0
O <sub>3</sub>	ppb	20.0	95%	31.6	Nov-12	-	-	36.0	Nov-07 14:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	4.5	100%	12.8	Nov-15	28	0	24.8	Nov-15 08:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



\* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S

**GPAZ Pense Station - November 2021 Summary Report**



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
		0.3 ≤ WS < 1.4	1.4 ≤ WS < 3.1	3.1 ≤ WS < 7.8	7.8 ≤ WS < 10.8	10.8 ≤ WS < 13.6	WS ≥ 13.6	
SO <sub>2</sub>	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172	
NO <sub>2</sub>	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
H <sub>2</sub> S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8	
O <sub>3</sub>	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
PM <sub>2.5</sub>	µg/m <sup>3</sup>	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

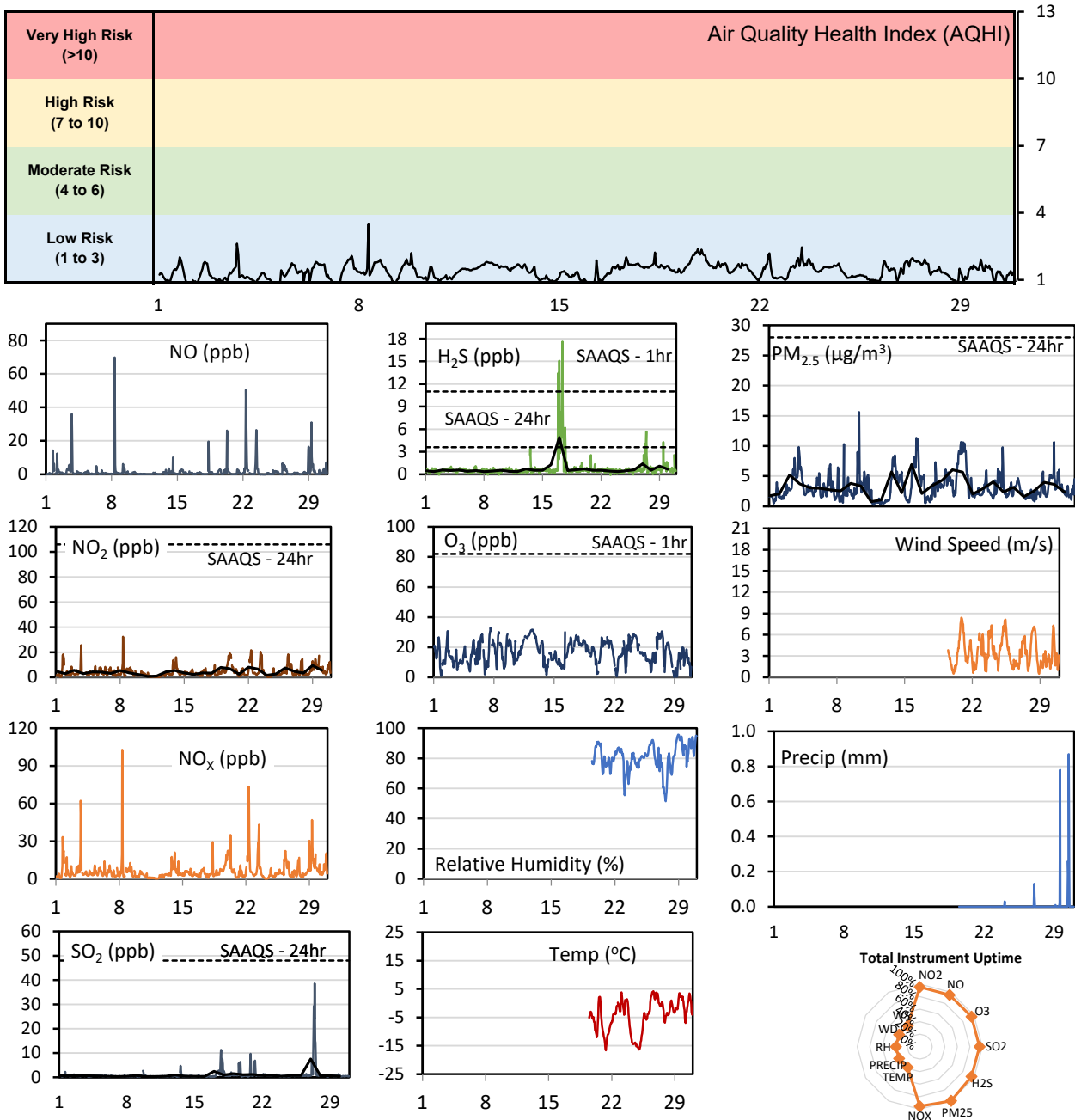
**Monthly Update**

- Achieved > 95% of scheduled uptime for all parameters, except Temperature (72.9%)
- Downtime of <95% due to routine daily internal zeroes and spans, logger did not log negative values properly

## GPAZ Regina Station - November 2021 Summary Report

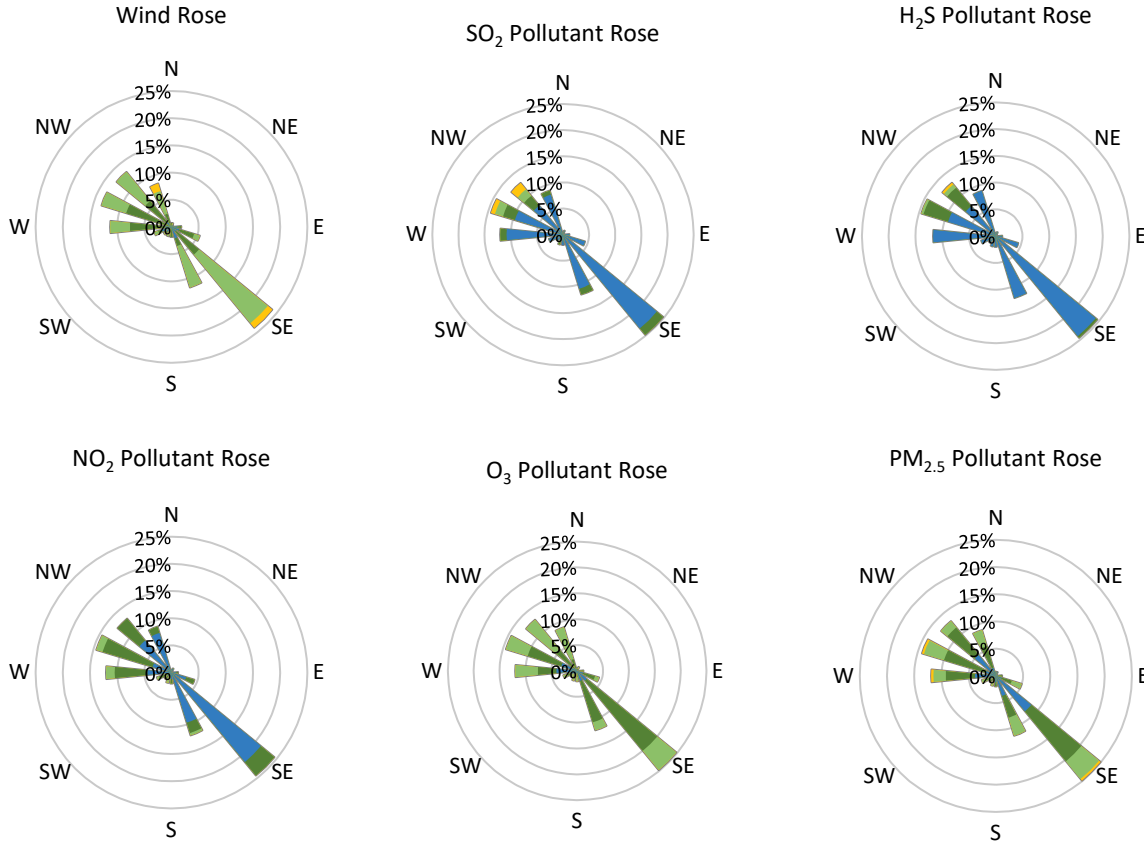
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	1.5	95%	6.6	Nov-22	-	-	69.9	Nov-08 08:00	-	-
NO <sub>2</sub>	ppb	4.3	95%	9.4	Nov-29	106	0	32.3	Nov-08 08:00	159	0
NO <sub>x</sub>	ppb	6.2	95%	15.3	Nov-22	-	-	102.8	Nov-08 08:00	-	-
SO <sub>2</sub>	ppb	0.9	95%	7.6	Nov-27	48	0	38.6	Nov-27 10:00	172	0
H <sub>2</sub> S	ppb	0.7	95%	4.9	Nov-17	3.6	1	17.6	Nov-17 09:00	11	4
O <sub>3</sub>	ppb	16.7	95%	28.9	Nov-12	-	-	33.0	Nov-07 15:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	3.3	100%	6.9	Nov-15	28	0	15.6	Nov-09 20:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



\* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S

**GPAZ Regina Station - November 2021 Summary Report**



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
		0.3 ≤ WS < 1.4	1.4 ≤ WS < 3.1	3.1 ≤ WS < 7.8	7.8 ≤ WS < 10.8	10.8 ≤ WS < 13.6	WS ≥ 13.6	
SO <sub>2</sub>	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172	
NO <sub>2</sub>	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
H <sub>2</sub> S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8	
O <sub>3</sub>	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
PM <sub>2.5</sub>	µg/m <sup>3</sup>	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

**Monthly Update**

- Achieved > 95% of scheduled uptime for all parameters except weather ( 38%)
- Downtime of <5% due to routine daily internal zeroes and spans,
- Weather data was taken from the Regina RCS station operated by ECCC - MSC while the sensor was being calibrated

**GPAZ Regina Station - November 2021 Summary Report**

**Exceedance Summary (1- Hour Average - Exceedances Highlighted)**

Exceedance Time	AQHI	NO <sub>2</sub>	NO	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>x</sub>	H <sub>2</sub> S	PM <sub>2.5</sub>	Temp	WD	WS
	-	ppb	ppb	ppb	ppb	ppb	ppb	µg/m <sup>3</sup>	°C	deg	m/s
Nov-16 21:00	1.6	4.2	0.4	0.5	22.1	4.9	13.5	1.8	-	-	-
Nov-17 00:00	1.6	2.9	0.2	0.5	24.6	3.4	15.1	1.8	-	-	-
Nov-17 01:00	1.7	4.1	0.4	0.3	22.4	4.9	11.9	3.6	-	-	-
Nov-17 09:00	1.9	4.7	1.3	1.6	23.2	6.3	17.6	5.6	-	-	-

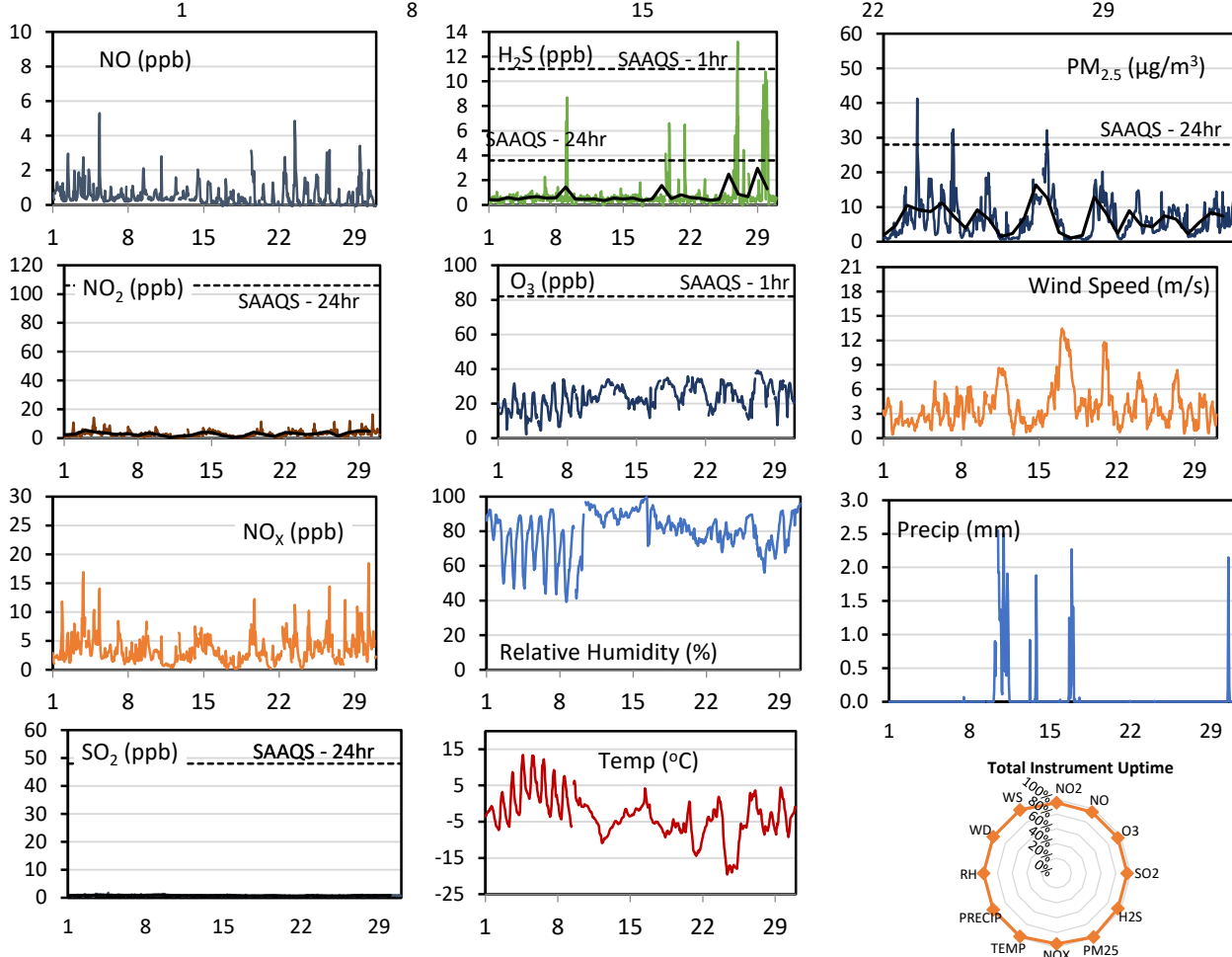
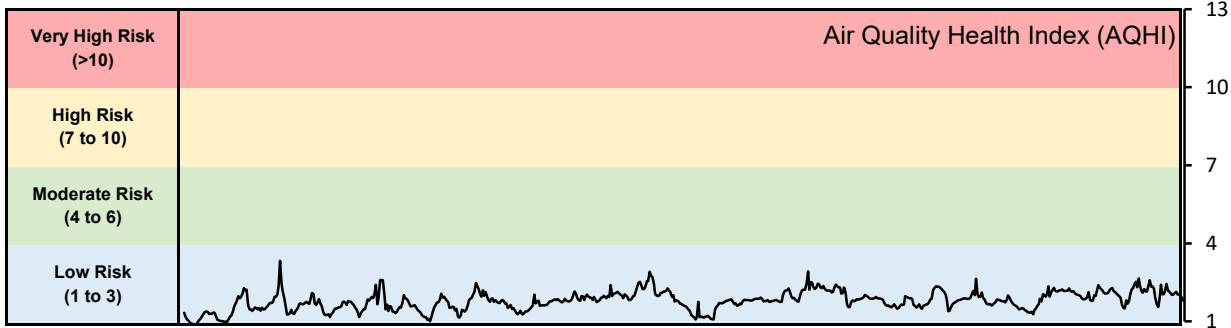
**Exceedance Summary (24- Hour Average - Exceedances Highlighted)**

Exceedance Time	AQHI	NO <sub>2</sub>	NO	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>x</sub>	H <sub>2</sub> S	PM <sub>2.5</sub>	Temp	WD	WS
	-	ppb	ppb	ppb	ppb	ppb	ppb	µg/m <sup>3</sup>	°C	deg	m/s
Nov-17	1.6	3.5	0.5	2.5	22.9	4.2	4.9	3.4	-	-	-

## GPAZ Yorkton Station - November 2021 Summary Report

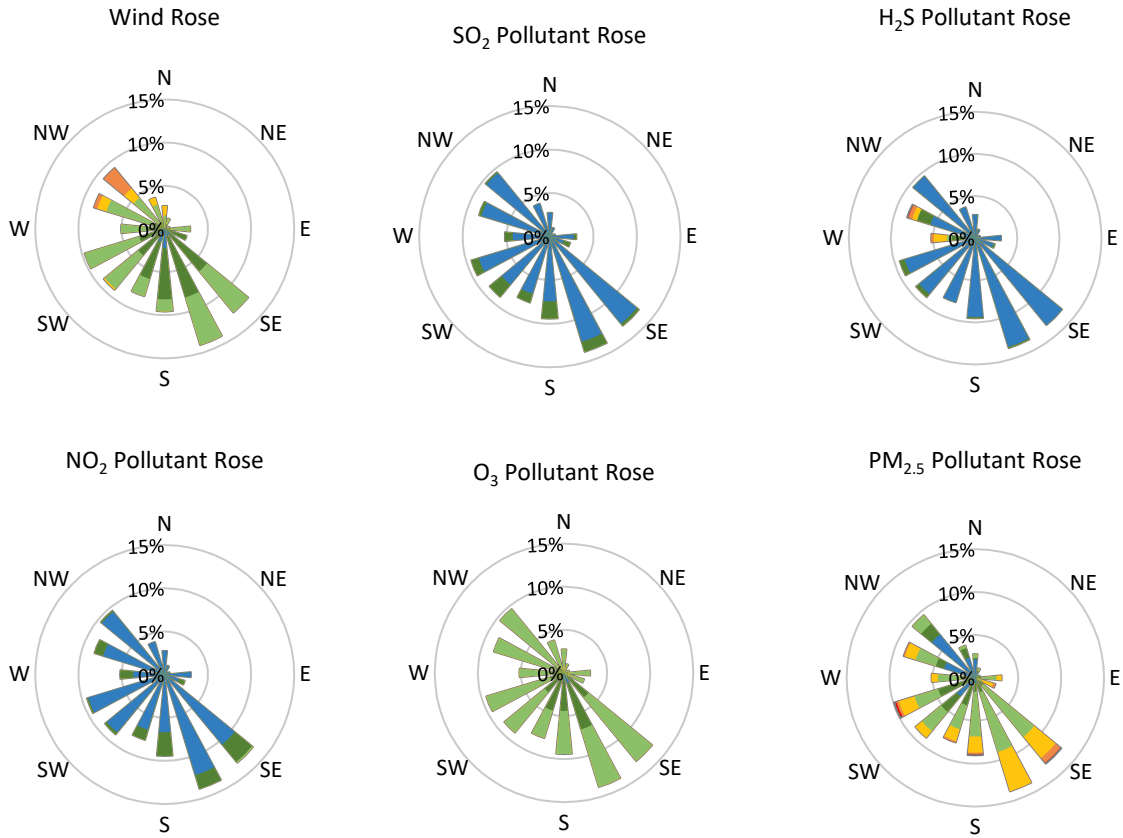
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.5	95%	1.0	Nov-03	-	-	5.3	Nov-05 08:00	-	-
NO <sub>2</sub>	ppb	2.9	95%	5.4	Nov-03	106	0	16.4	Nov-30 07:00	159	0
NO <sub>x</sub>	ppb	3.4	95%	6.4	Nov-03	-	-	18.5	Nov-30 07:00	-	-
SO <sub>2</sub>	ppb	0.8	95%	1.0	Nov-09	48	0	1.8	Nov-04 15:00	172	0
H <sub>2</sub> S	ppb	0.8	95%	3.0	Nov-29	3.6	0	13.2	Nov-26 22:00	11	1
O <sub>3</sub>	ppb	23.8	95%	36.3	Nov-27	-	-	39.0	Nov-27 06:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	6.5	100%	16.4	Nov-14	28	0	41.3	Nov-03 21:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



\* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S

**GPAZ Yorkton Station - November 2021 Summary Report**



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class					
Wind Speed	m/s	0.3 ≤ WS < 1.4	1.4 ≤ WS < 3.1	3.1 ≤ WS < 7.8	7.8 ≤ WS < 10.8	10.8 ≤ WS < 13.6	WS ≥ 13.6
SO <sub>2</sub>	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
NO <sub>2</sub>	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212
H <sub>2</sub> S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8
O <sub>3</sub>	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82
PM <sub>2.5</sub>	µg/m <sup>3</sup>	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30

**Monthly Update**

- Achieved > 95% of scheduled uptime for all parameters
- Downtime of <5% due to routine daily internal zeroes and spans

**Exceedance Summary (1- Hour Average - Exceedances Highlighted)**

Exceedance Time	AQHI	NO <sub>2</sub>	NO	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>x</sub>	H <sub>2</sub> S	PM <sub>2.5</sub>	Temp	WD	WS
	-	ppb	ppb	ppb	ppb	ppb	ppb	µg/m <sup>3</sup>	°C	deg	m/s
Nov-26 22:00	2.3	6.0	0.1	0.8	25.8	6.1	13.2	10.7	2.8	282.2	3.0