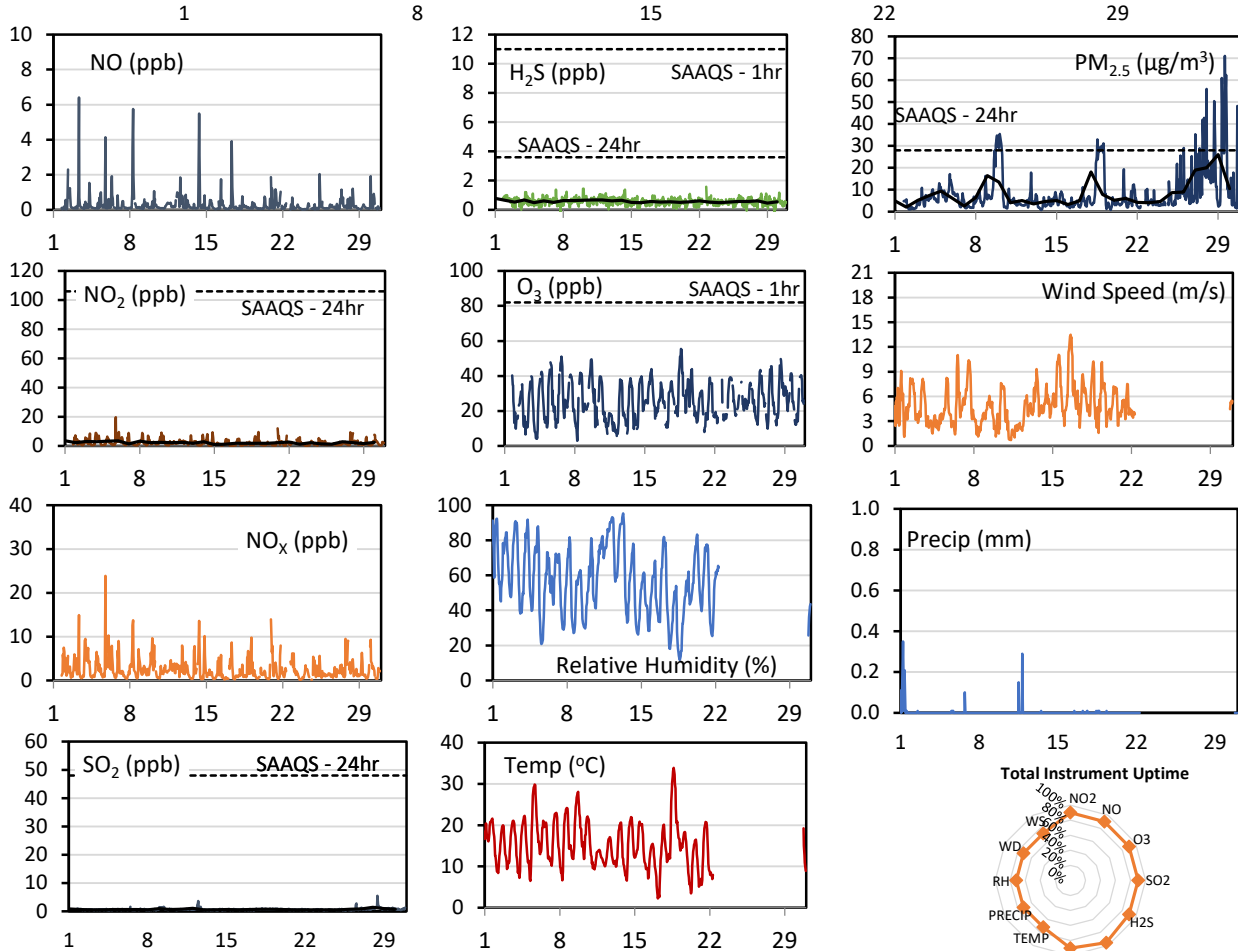
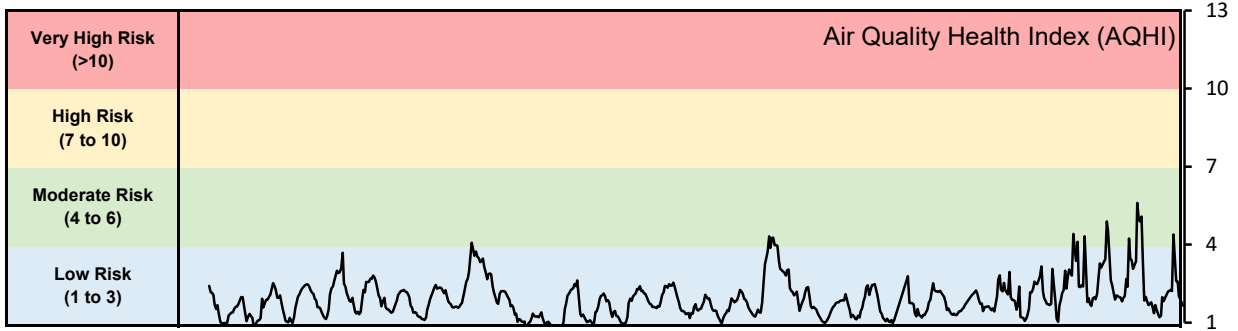


## GPAZ Pense Station - September 2021 Summary Report

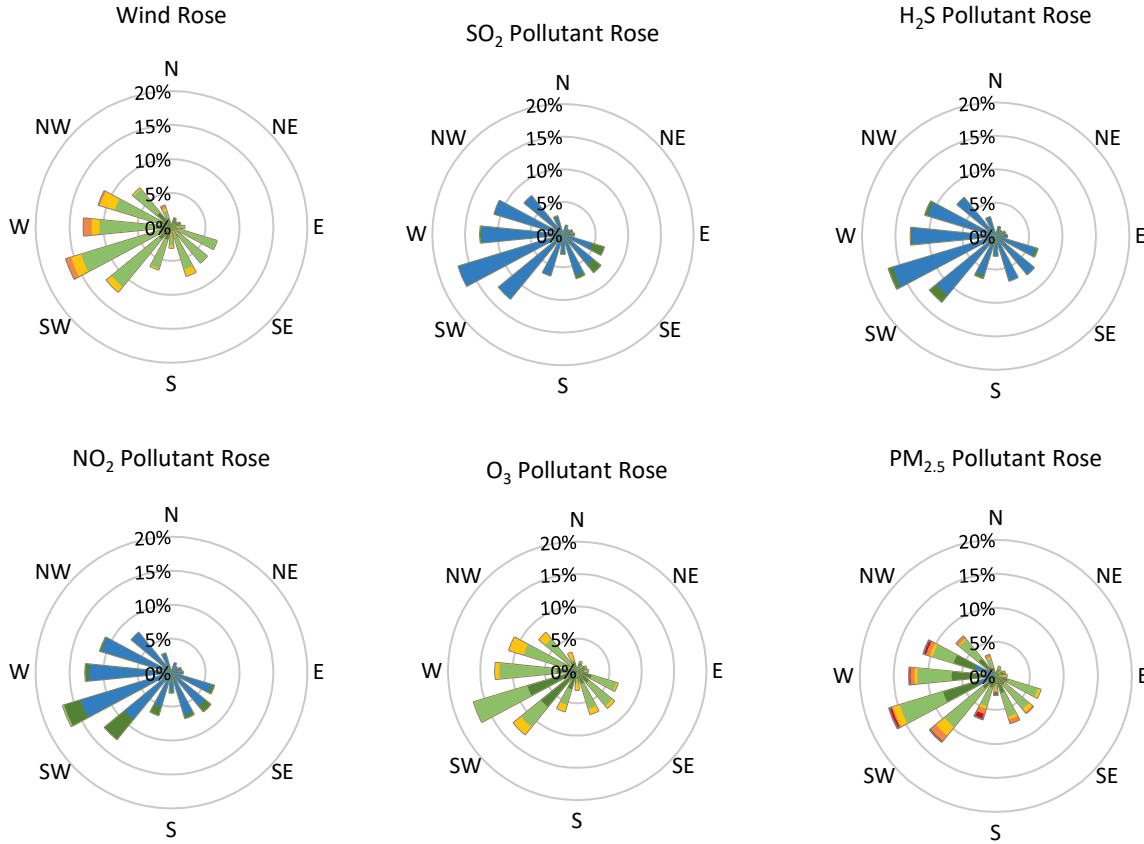
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.3	90%	0.7	Sep-08	-	-	6.4	Sep-03 08:00	-	-
NO <sub>2</sub>	ppb	2.2	90%	3.6	Sep-01	106	0	19.7	Sep-05 18:00	159	0
NO <sub>x</sub>	ppb	2.5	90%	4.0	Sep-08	-	-	23.9	Sep-05 18:00	-	-
SO <sub>2</sub>	ppb	0.7	90%	1.4	Sep-28	48	0	5.5	Sep-28 10:00	172	0
H <sub>2</sub> S	ppb	0.6	90%	0.8	Sep-01	3.6	0	1.6	Sep-22 17:00	11	0
O <sub>3</sub>	ppb	25.7	90%	34.7	Sep-18	-	-	55.4	Sep-18 15:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	8.4	96%	26.0	Sep-29	28	0	71.1	Sep-29 14:00	-	-

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 - September 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	13.6 ≤ WS < 17.2	WS ≥ 17.2
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	

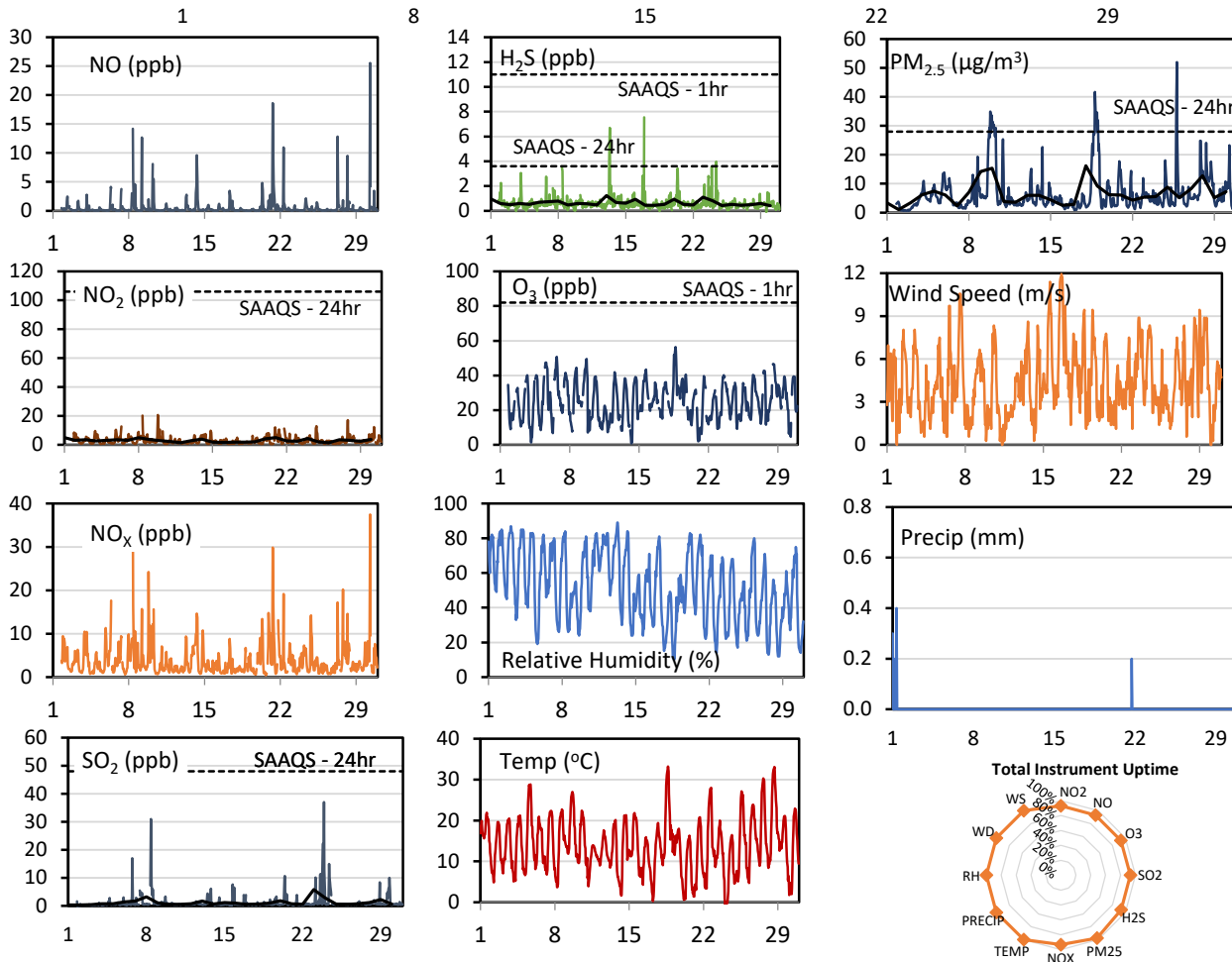
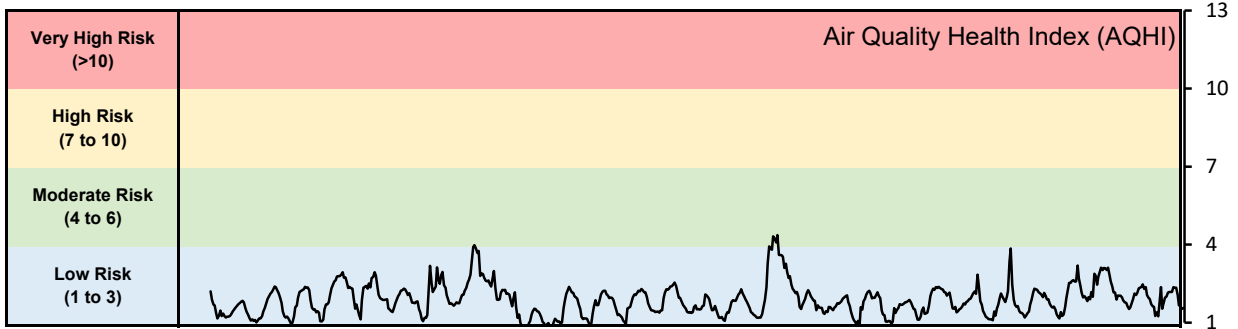
**Monthly Update**

- Achieved > 90% of scheduled uptime for all parameters except weather (72%)
- Downtime of <10% due to routine daily internal zeroes and spans,
- A new logger was installed and an error caused the weather data to not be logged initially

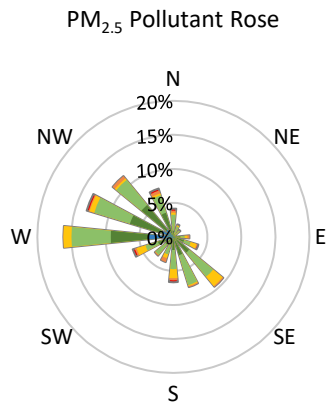
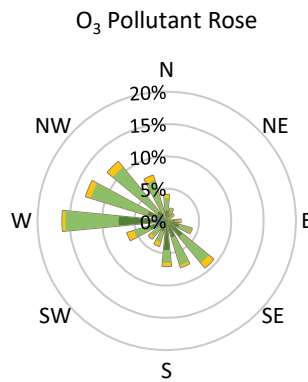
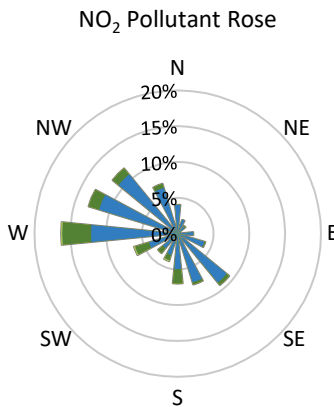
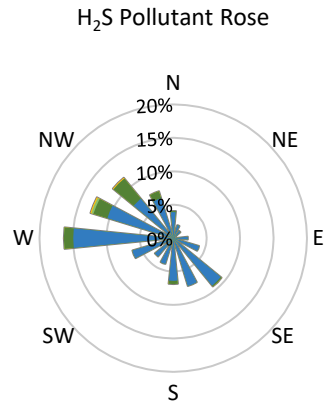
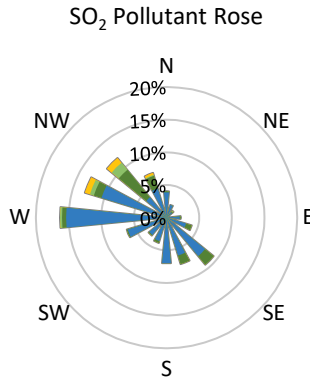
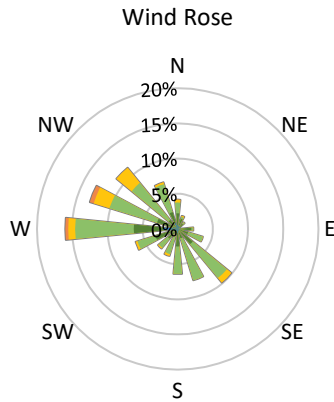
## GPAZ Regina Station - September 2021 Summary Report

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	0.6	93%	2.3	Sep-21	-	-	25.5	Sep-30 07:00	-	-
NO <sub>2</sub>	ppb	2.9	93%	4.9	Sep-08	106	0	20.6	Sep-09 20:00	159	0
NO <sub>x</sub>	ppb	3.8	93%	7.5	Sep-21	-	-	37.5	Sep-30 07:00	-	-
SO <sub>2</sub>	ppb	1.2	93%	5.8	Sep-23	48	0	37.0	Sep-23 22:00	172	0
H <sub>2</sub> S	ppb	0.6	93%	1.2	Sep-13	3.6	0	7.5	Sep-16 22:00	11	0
O <sub>3</sub>	ppb	25.2	93%	32.8	Sep-18	-	-	56.3	Sep-18 16:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	6.6	97%	16.2	Sep-18	28	0	52.0	Sep-25 19:00	-	-

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



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	

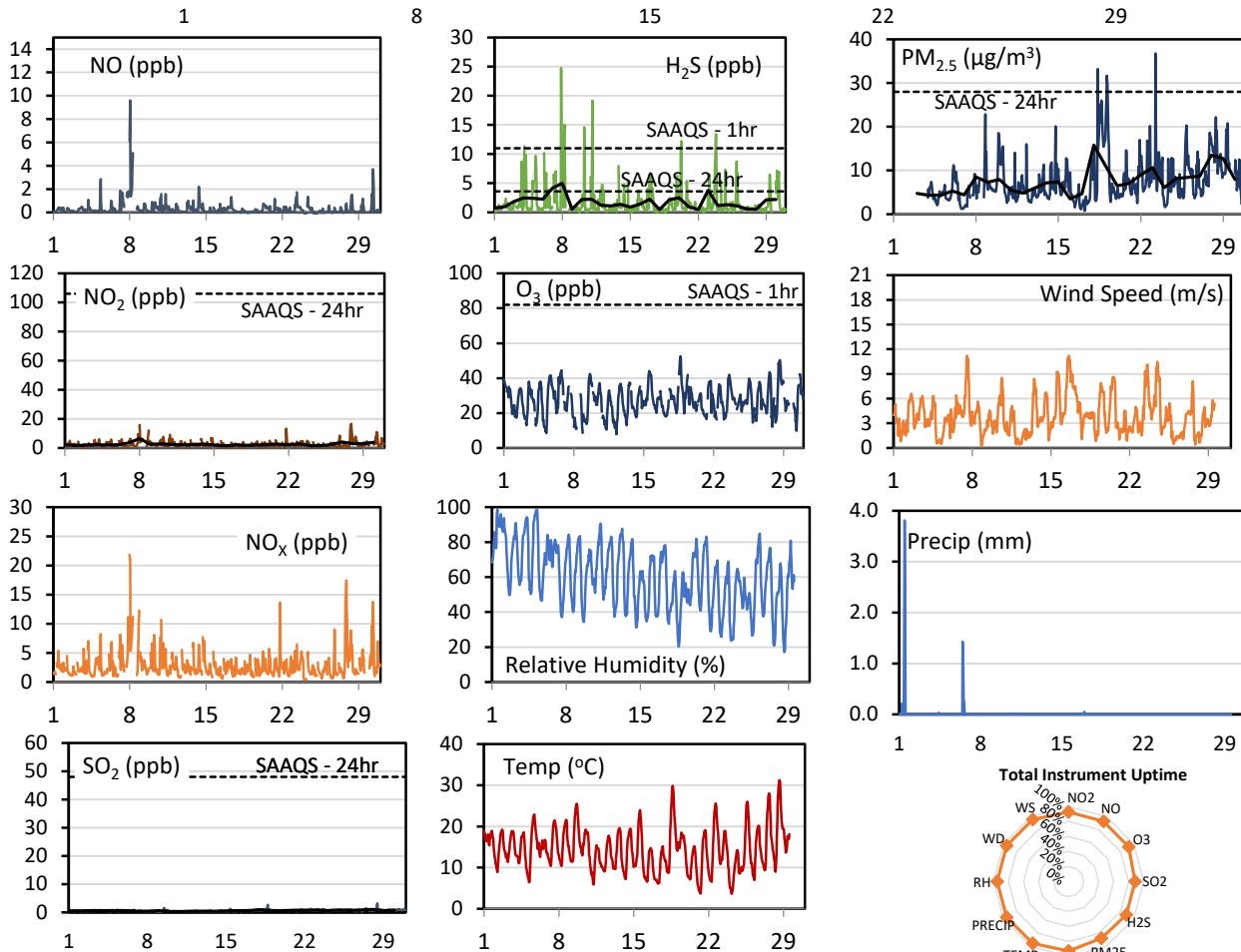
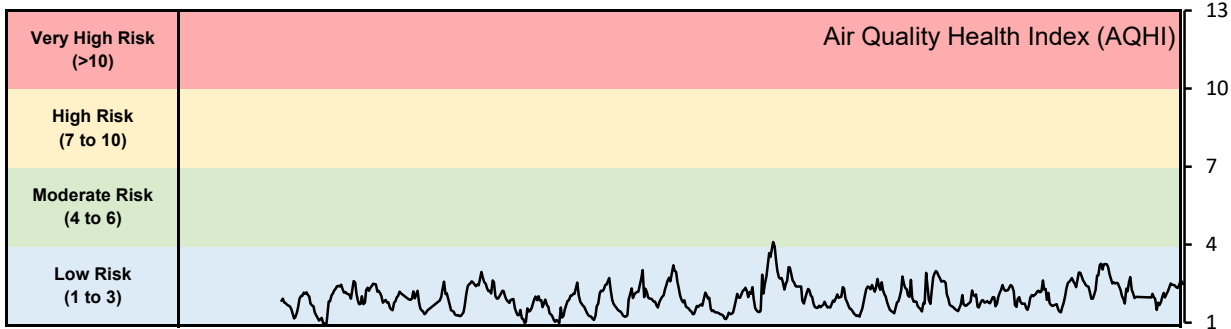
**Monthly Update**

- Achieved > 93% of scheduled uptime for all parameters except weather ( 0%)
- Downtime of <7% due to routine daily internal zeroes and spans, HVAC failure caused instruments to overheat causing invalid data, the issue was fixed and is now working properly
- Weather data was taken from the Regina RCS station operated by ECCC - MSC while the sensor was being calibrated

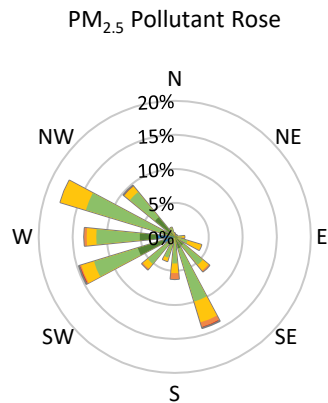
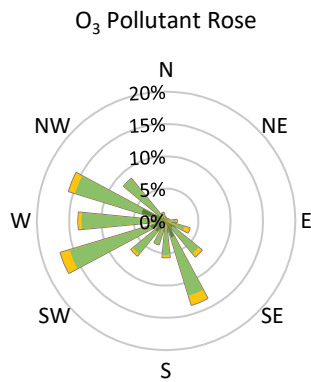
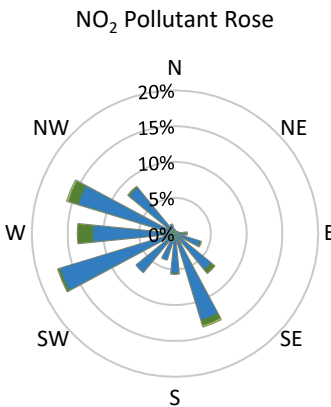
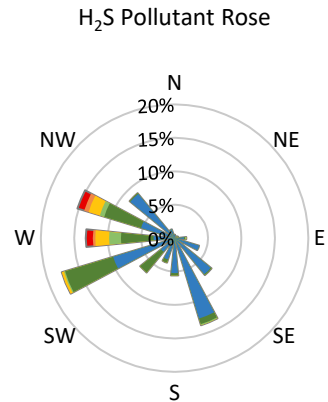
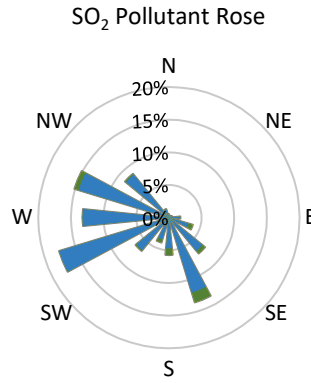
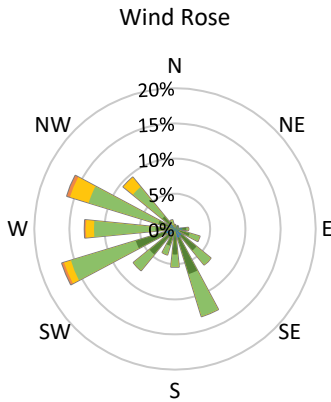
## GPAZ Yorkton Station - September 2021 Summary Report

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	0.3	93%	2.2	Sep-08	-	-	9.6	Sep-08 01:00	-	-
NO <sub>2</sub>	ppb	2.5	93%	6.5	Sep-08	106	0	16.7	Sep-27 21:00	159	0
NO <sub>x</sub>	ppb	2.8	93%	8.7	Sep-08	-	-	21.8	Sep-08 00:00	-	-
SO <sub>2</sub>	ppb	0.6	88%	1.1	Sep-28	48	0	3.2	Sep-28 11:00	172	0
H <sub>2</sub> S	ppb	1.7	88%	5.0	Sep-08	3.6	3	24.8	Sep-07 21:00	11	11
O <sub>3</sub>	ppb	27.2	93%	34.1	Sep-28	-	-	52.5	Sep-18 16:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	7.6	87%	15.8	Sep-18	28	0	36.8	Sep-23 06:00	-	-

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



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 > 88% of scheduled uptime for all parameters
- Downtime of <12% due to routine daily internal zeroes and spans, and quarterly calibration, and logger switch
- The Sharp tape ran out and was replaced on Sept 03, 2021, an error caused the new logger to not log weather initially

**GPAZ Yorkton Station - September 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
Sep-04 02:00	1.7	3.5	0.2	0.7	21.3	3.7	11.3	6.2	12.9	281.1	3.0
Sep-07 21:00	2.2	9.6	1.6	0.2	18.6	11.1	24.8	9.2	15.3	279.8	3.4
Sep-08 03:00	1.5	4.5	1.4	0.5	15.7	5.9	13.1	5.9	11.7	285.1	3.4
Sep-08 04:00	1.4	5.3	1.7	0.3	13.5	7.0	13.0	6.1	11.2	285.7	3.3
Sep-08 05:00	1.3	6.3	2.0	0.2	10.8	8.3	15.0	5.0	10.6	276.1	2.9
Sep-10 06:00	2.6	7.6	0.5	0.2	24.6	8.0	14.6	15.1	14.9	279.8	3.4
Sep-11 02:00	1.5	6.1	0.6	0.5	13.3	6.7	19.2	6.3	9.0	279.9	3.2
Sep-20 05:00	1.8	4.9	0.3	0.7	22.7	5.2	11.2	4.5	7.8	283.3	4.4
Sep-20 06:00	1.7	4.5	0.7	0.7	21.1	5.2	12.2	4.2	7.2	285.8	4.9
Sep-23 19:00	2.6	4.2	0.2	0.9	32.8	4.5	12.8	11.4	12.4	287.7	5.4
Sep-23 20:00	2.5	4.2	0.2	0.8	30.2	4.4	13.4	13.0	10.4	277.9	4.8

**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
Sep-07	1.9	3.6	1.0	0.4	26.2	4.6	4.2	4.4	15.9	287.6	6.0
Sep-08	1.8	6.5	2.2	0.4	16.7	8.7	5.0	8.5	15.9	270.9	3.3
Sep-23	2.2	2.9	0.4	0.8	28.9	3.3	3.8	10.6	13.5	275.2	5.7