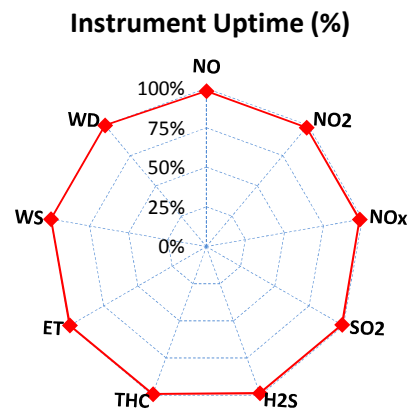
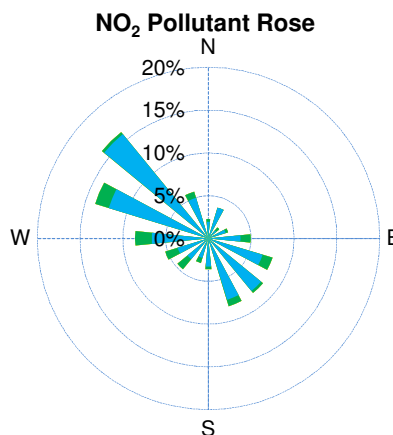
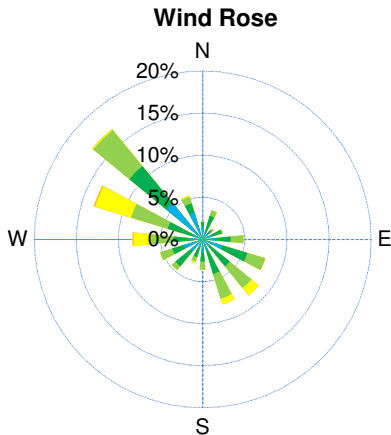
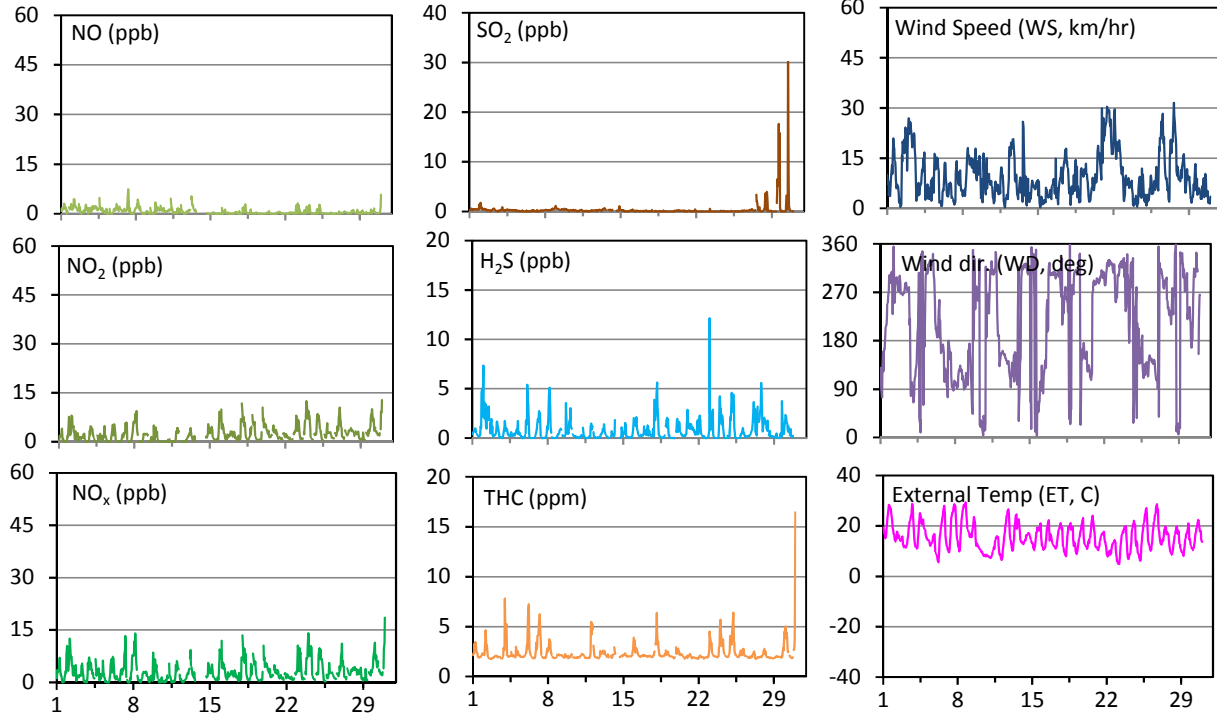


Husky Energy East Station - June 2017 Summary Report

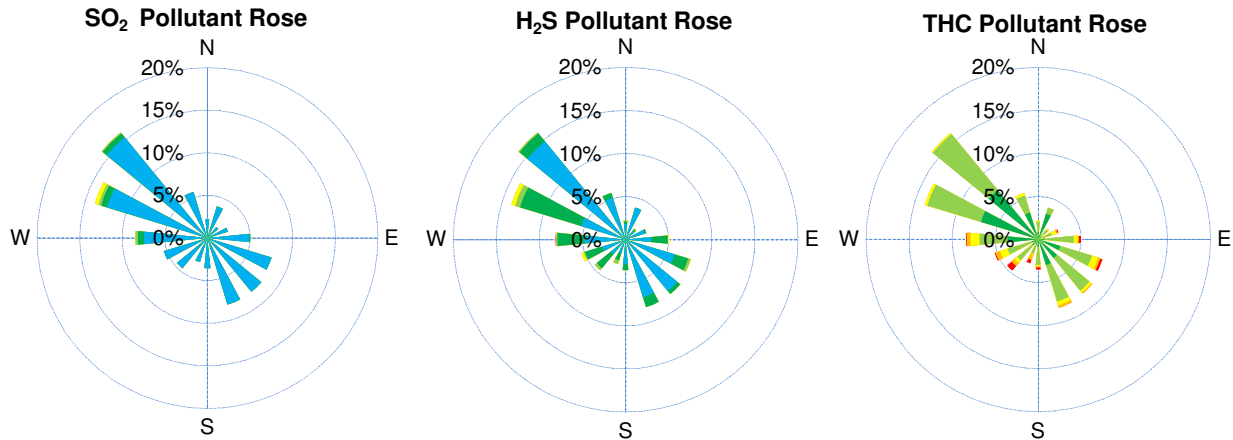
Pollutants		Month Records		24-Hour Records				1-Hour Records			
				Maximum		SAAQS Standards	Exceed Days	Maximum		SAAQS Standards	Exceed Hours
				Conc.	Time			Conc.	Time		
Name	Conc. Unit	Avg. Conc.	Uptime								
NO	ppb	0.7	98.2%	1.7	Jun-2	-	-	7.5	Jun-07 07:00	-	-
NO ₂	ppb	2.4	98.2%	5.1	Jun-30	106	0	12.8	Jul-01 00:00	159	0
NO _x	ppb	3.1	98.2%	5.9	Jun-30	-	-	18.6	Jul-01 00:00	-	-
SO ₂	ppb	0.4	99.0%	0.6	Jun-27	48	0	30.1	Jun-30 13:00	172	0
H ₂ S	ppb	0.8	98.7%	3.9	May-22	3.6	0	12.2	Jun-23 01:00	11.0	1
THC	ppm	2.4	99.3%	3.5	Jun-30	-	-	16.4	Jul-01 00:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



Parameters	Unit	Color Code for Wind Spd & Pollutant Conc. Class					
Wind Speed	km/hr	1 ≤ WS < 5	5 ≤ WS < 10	10 ≤ WS < 20	20 ≤ WS < 30	30 ≤ WS < 40	WS ≥ 40
SO ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212
H ₂ S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 11	C ≥ 11
THC	ppm	0 ≤ C < 1	1 ≤ C < 2	2 ≤ C < 3	3 ≤ C < 4	4 ≤ C < 5	C ≥ 5

Husky Energy East Station - June 2017 Summary Report



Monthly Update

*Air monitoring data has been slope, intercept, and baseline corrected. Data may change after validation process.

*All compliance parameters were within the Saskatchewan Ambient Air Quality Standards, with the exception of one 1-hour H₂S exceedance event. Refer to the exceedance summary table for details.

*All compliance parameters are above 90% operational. Operational issues include data flagged as "maintenance" for SO₂, H₂S, and THC on June 13, as data was affected when the NO_x analyzer was replaced. The NO_x analyzer was flagged as maintenance overnight June 13-14 while the new instrument stabilized. A power disruption occurred at the station on June 30, affecting all parameters. SO₂ and H₂S analyzers were slower to recover following the power disruption, resulting in additional data being invalidated.

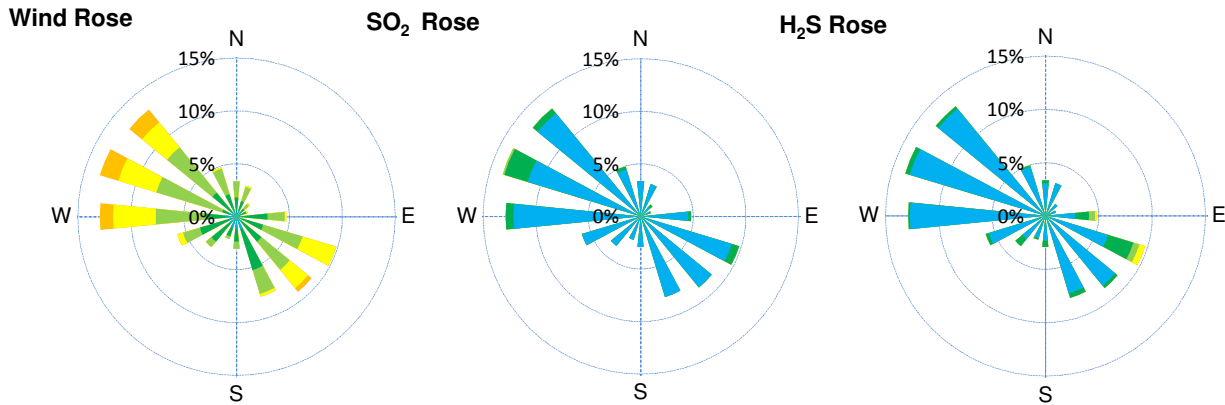
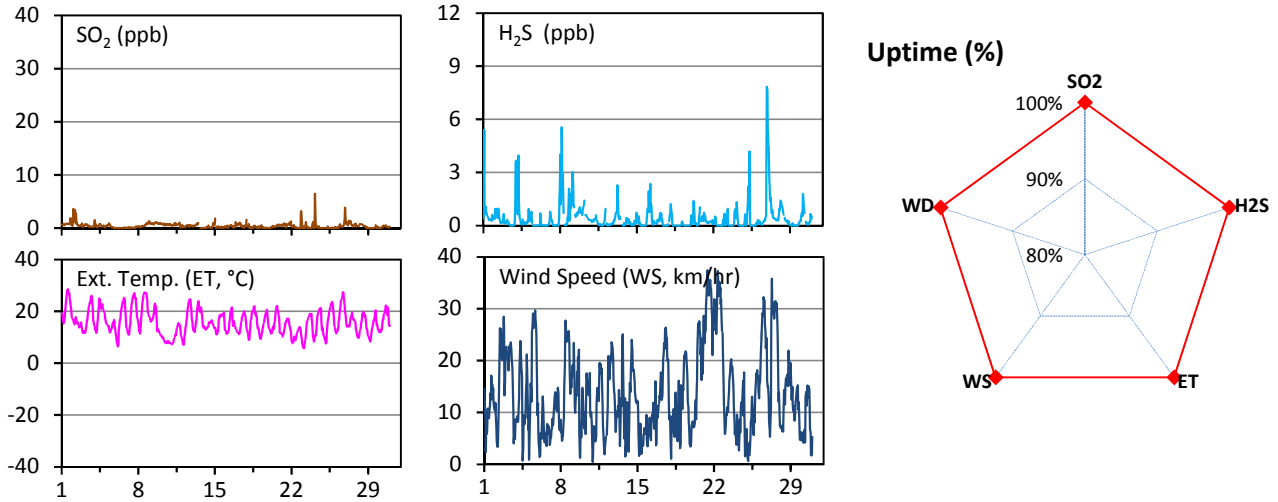
Exceedance Summary

1-hour Exceedance Information			Summary of Other Parameters During Exceedance						
Pollutant	Conc. ppb	Exceedance Time mmm-dd hh:mm	WS km/hr	WD deg	ET C	SO ₂ ppb	H ₂ S ppb	NO ₂ ppb	THC ppm
H ₂ S	12.2	Jun-23 01:00	3.5	277	5.9	0.0	12.2	8.1	4.5

Husky Energy West Station - June 2017 Summary Report

Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Uptime	Maximum		AAAQO / SAAQS	Exceed Days	Maximum		AAAQO / SAAQS	Exceed Hours
				Conc.	Time			Conc.	Time		
SO ₂	ppb	0.4	100.0%	1.2	Jun-2	48 / 48	0 / 0	6.4	Jun-24 04:00	172 / 172	0 / 0
H ₂ S	ppb	0.4	100.0%	1.3	Jun-26	3 / 3.6	0 / 0	8.0	Jun-26 22:00	10 / 11.0	0 / 0

AAAQO: Alberta Ambient Air Quality Objectives; SAAQS: Saskatchewan Ambient Air Quality Standards.



Parameters	Unit	Color Code for Wind Spd & Pollutant Conc. Class					
Wind Speed	km/hr	1 ≤ WS < 5	5 ≤ WS < 10	10 ≤ WS < 20	20 ≤ WS < 30	30 ≤ WS < 40	WS ≥ 40
SO ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
H ₂ S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 11	C ≥ 11

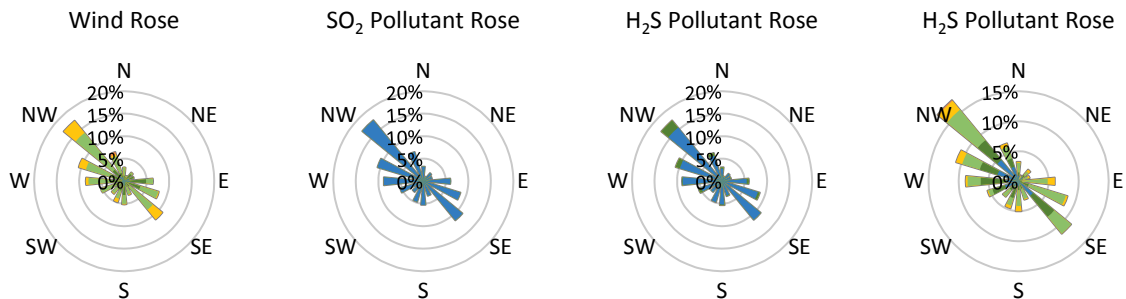
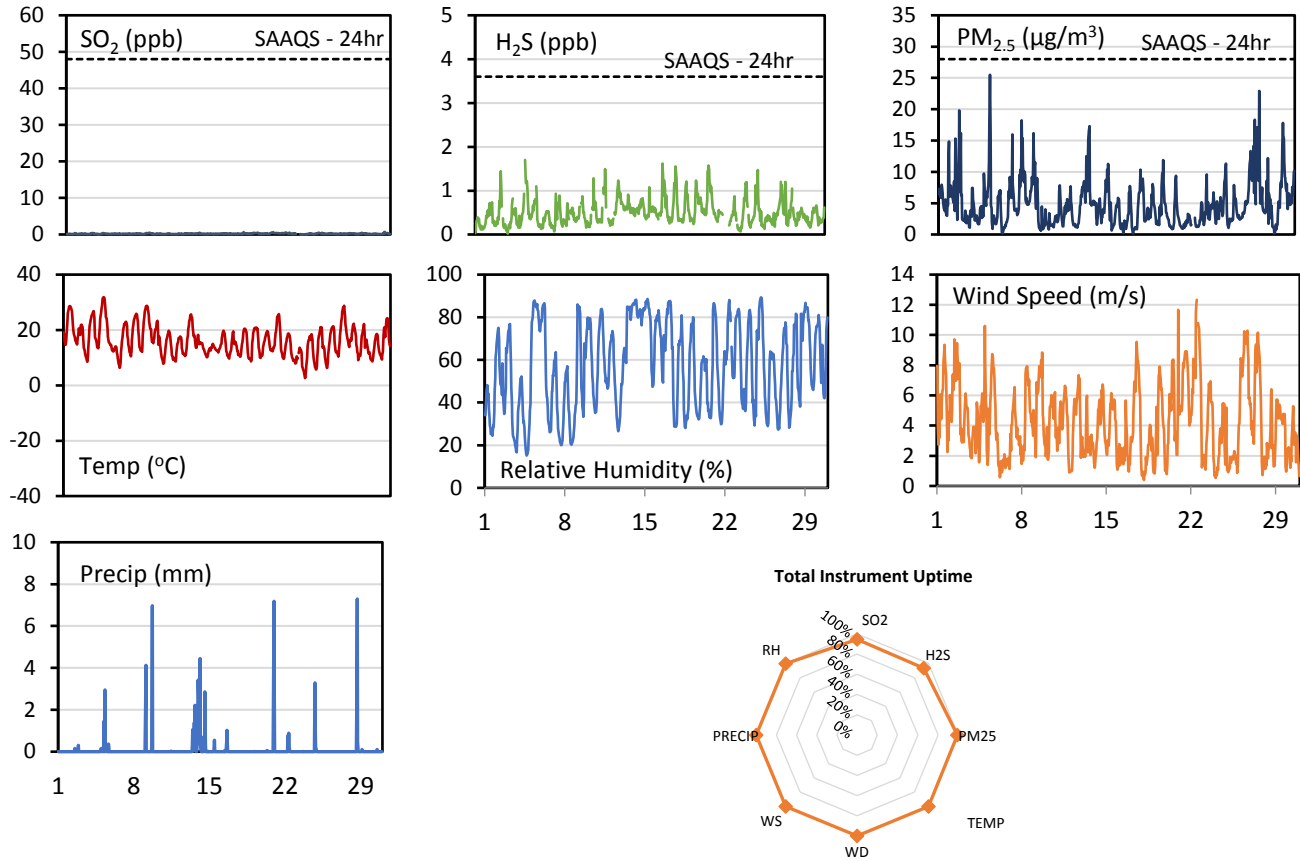
Monthly Update

- *Air monitoring data has been slope, intercept, and baseline corrected. Data may change after validation process.
- *All compliance parameters were within the Alberta Ambient Air Quality Objectives and the Saskatchewan Ambient Air Quality Standards
- *All compliance parameters are above 90% operational. There are no operational issues to report.

WYAMZ Kindersley Station - June 2017 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		
SO ₂	ppb	0.2	95%	0.4	Jun-20	48	0	0.7	Jun-30 11:00	172	0
H ₂ S	ppb	0.5	93%	0.8	Jun-13	3.6	0	1.7	Jun-05 07:00	11	0
PM _{2.5}	µg/m ³	4.8	99%	10.7	Jun-27	28	0	25.5	Jun-05 08:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



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 ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
H ₂ S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8
PM _{2.5}	µg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30

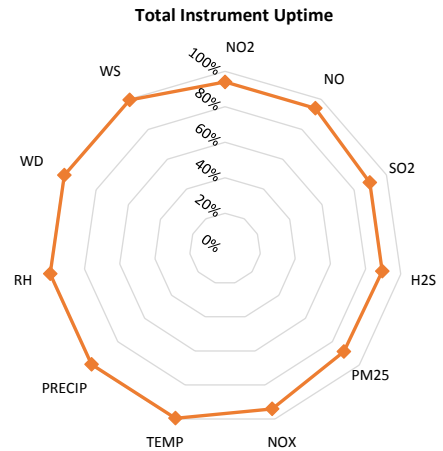
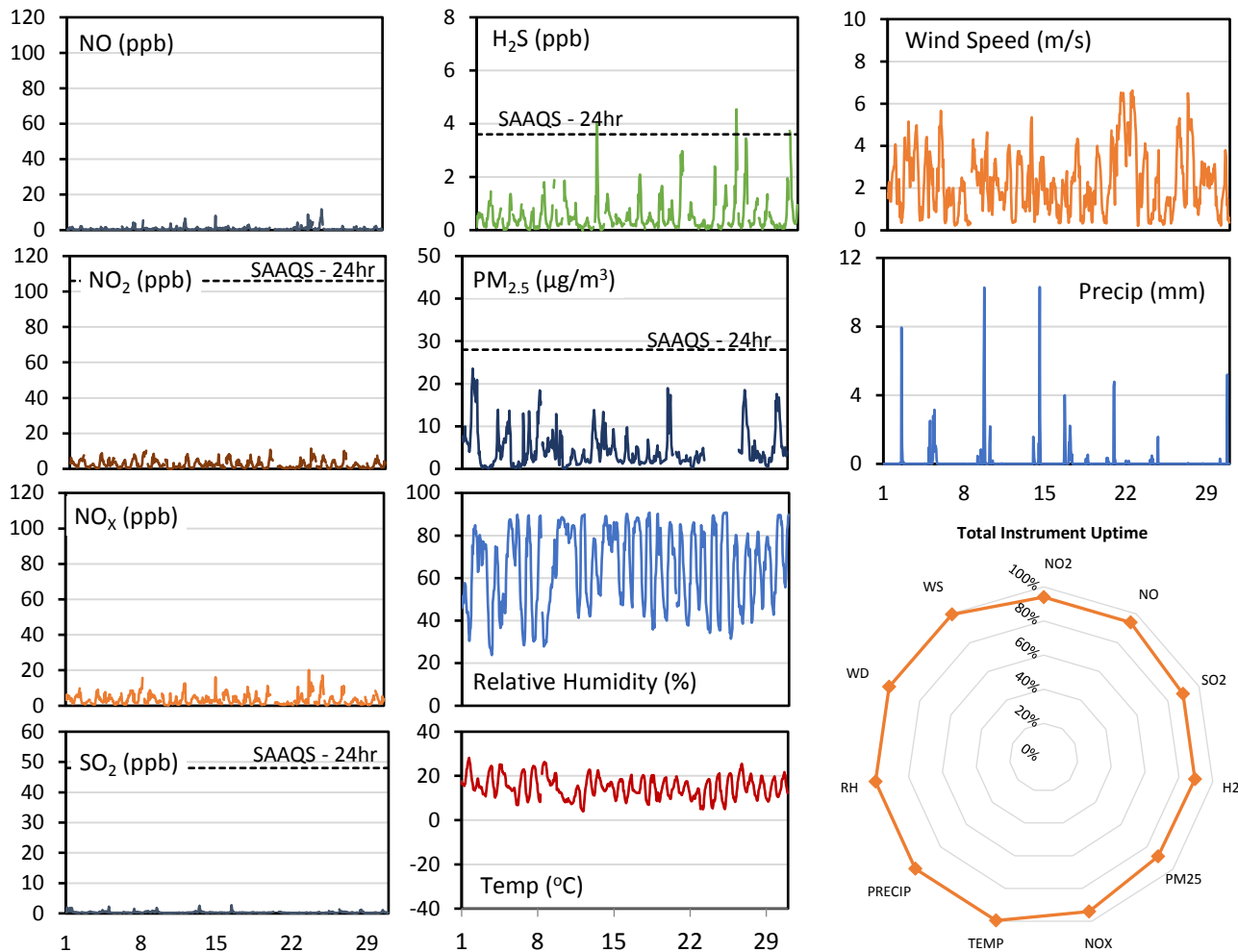
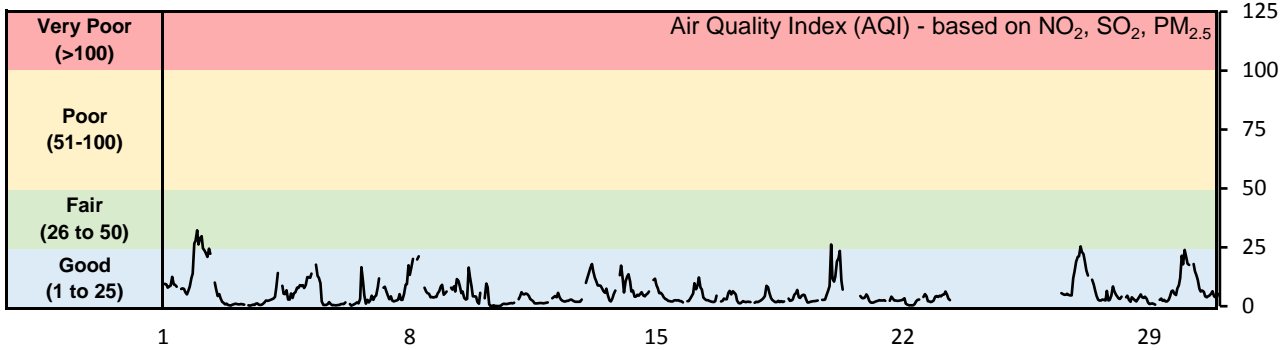
Monthly Update

- Achieved >97% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Calibration performed June 22

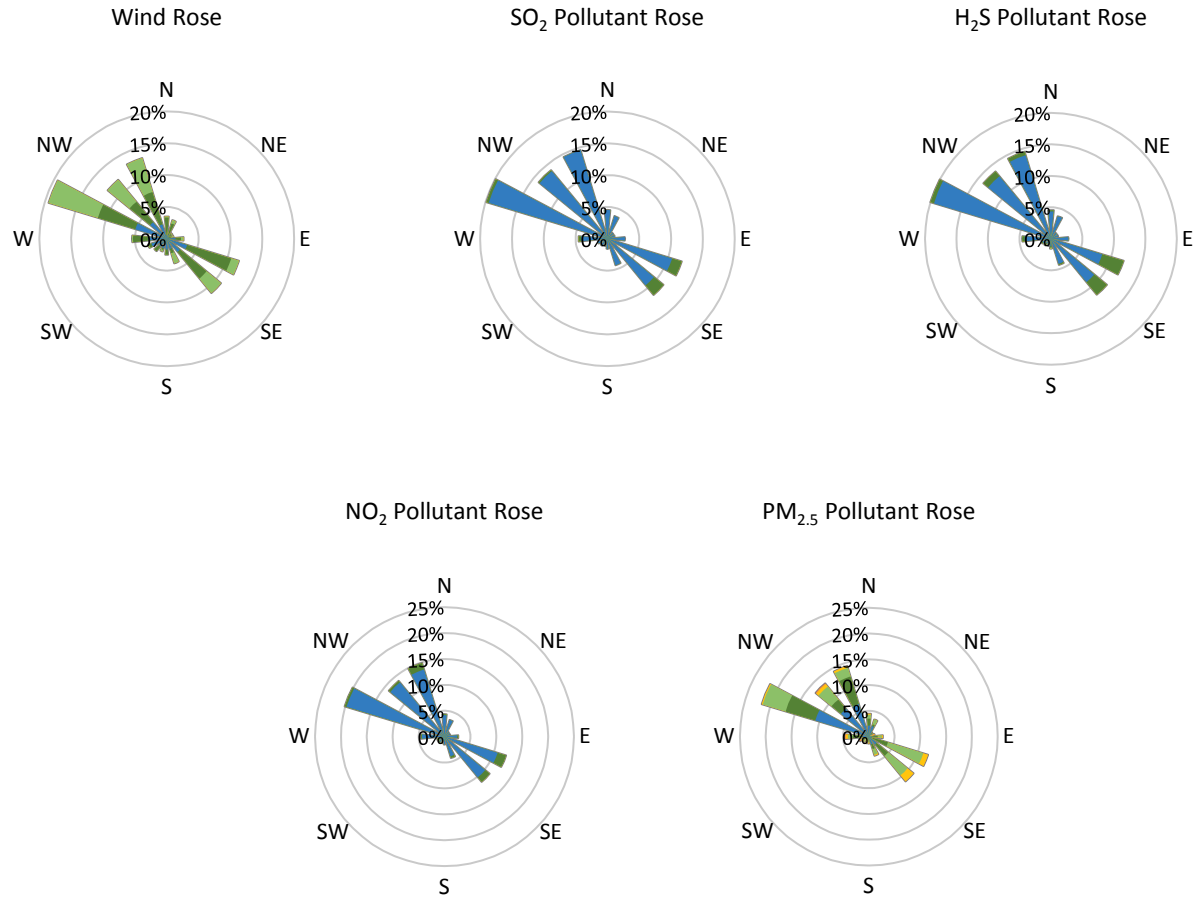
WYAMZ Maidstone Station - June 2017 Summary Report

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	0.7	94%	2.4	Jun-25	-	-	11.8	Jun-25 05:00	-	-
NO ₂	ppb	2.5	94%	4.4	Jun-08	106	0	11.4	Jun-23 22:00	159	0
NO _x	ppb	3.3	94%	5.3	Jun-25	-	-	20.1	Jun-23 22:00	-	-
SO ₂	ppb	0.3	90%	0.8	Jun-01	48	0	2.7	Jun-16 10:00	172	0
H ₂ S	ppb	0.5	89%	1.5	Jun-20	3.6	0	4.5	Jun-25 06:00	11	0
PM _{2.5}	µg/m ³	4.5	88%	9.3	Jun-02	28	0	23.6	Jun-01 23:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Maidstone Station - June 2017 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 ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212
H ₂ S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8
PM _{2.5}	µg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30

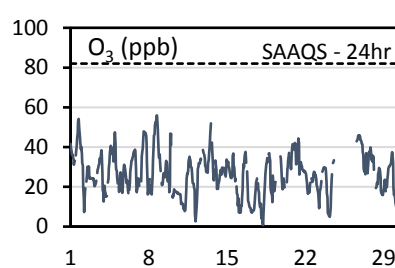
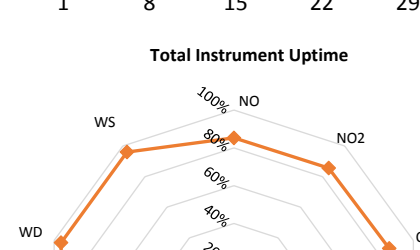
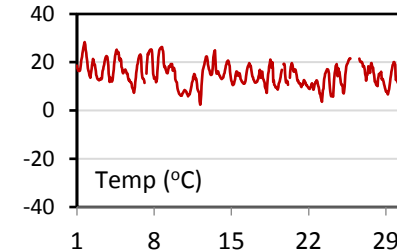
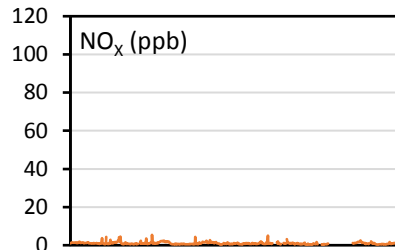
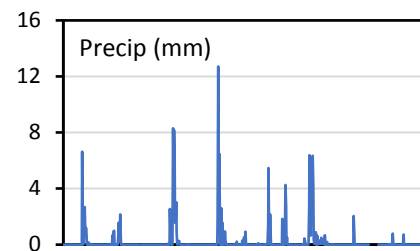
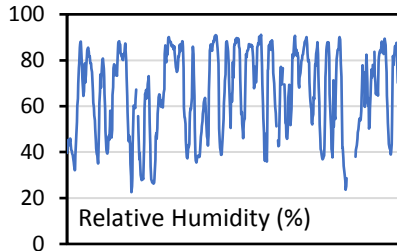
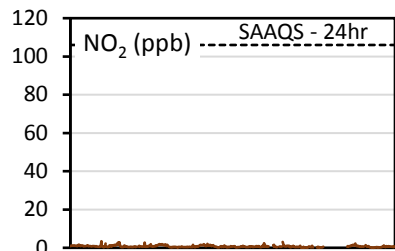
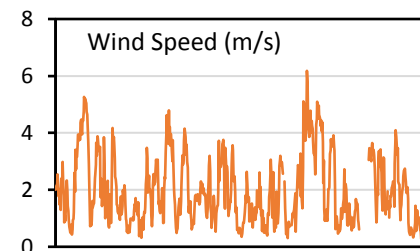
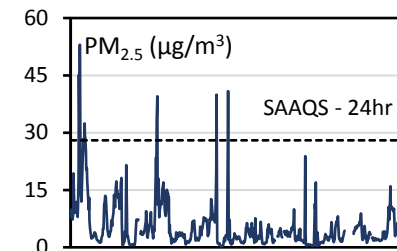
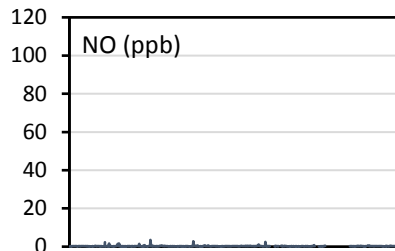
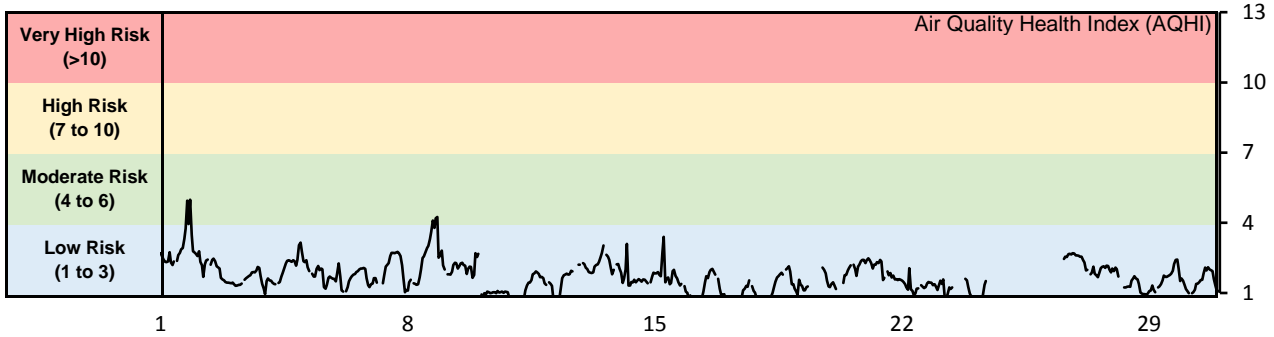
Monthly Update

- Achieved >90% of scheduled uptime for all parameters except H₂S (89%) and PM_{2.5} (88%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Particulate downtime due to operational issues
- Calibration performed June 20

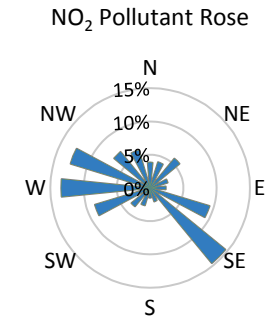
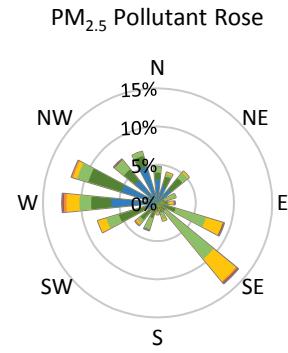
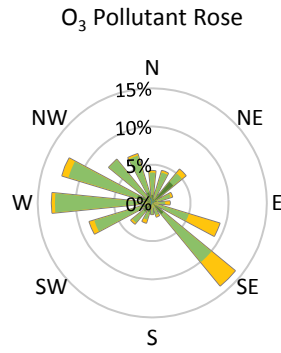
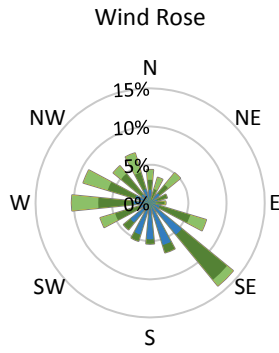
WYAMZ Meadow Lake Station - June 2017 Summary Report

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	85%	0.4	Jun-18	-	-	3.5	Jun-08 10:00	-	-
NO ₂	ppb	0.7	86%	1.6	Jun-09	106	0	3.4	Jun-03 21:00	159	0
NO _x	ppb	1.0	85%	1.9	Jun-09	-	-	5.4	Jun-08 10:00	-	-
O ₃	ppb	26.6	87%	44.3	Jun-26	-	-	56.0	Jun-08 17:00	82	0
PM _{2.5}	µg/m ³	5.4	96%	16.0	Jun-02	28	0	53.0	Jun-01 20:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Meadow Lake Station - June 2017 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	
O ₃	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
PM _{2.5}	µg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

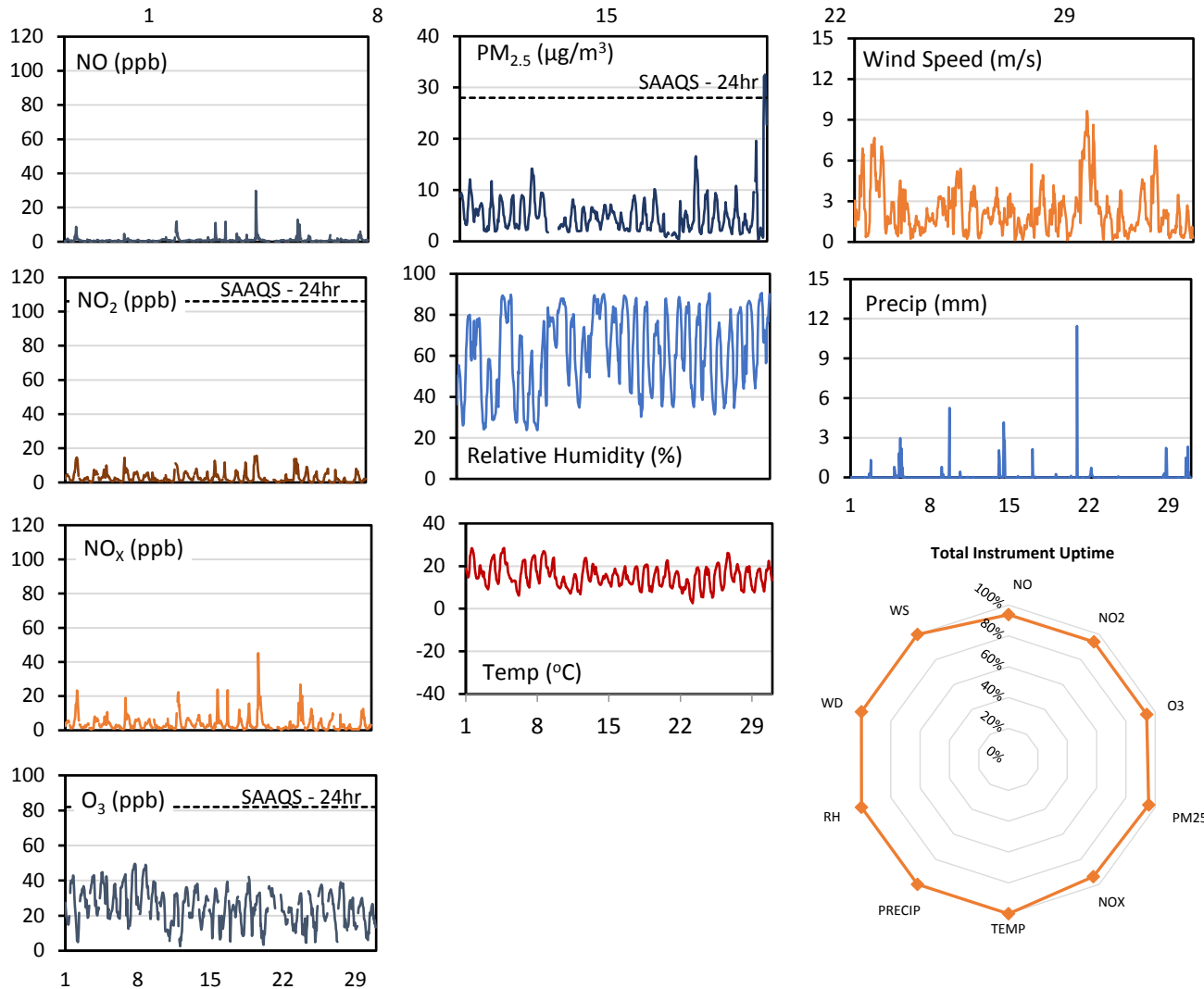
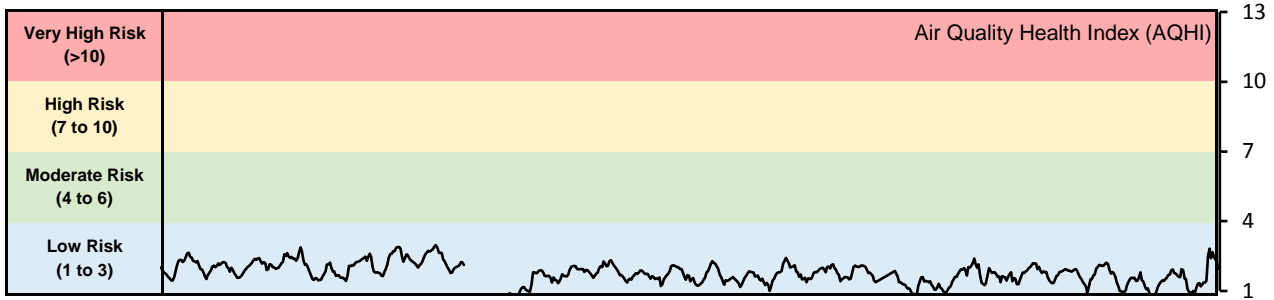
Monthly Update

- Achieved 85-96% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Downtime due to operational issues
- Calibration performed June 19

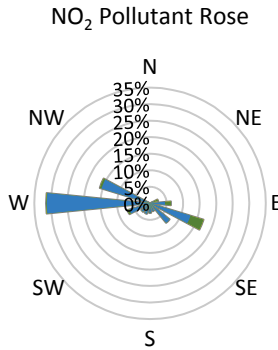
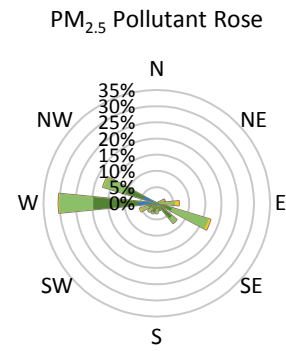
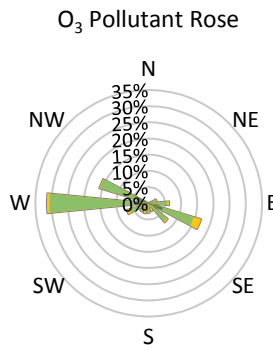
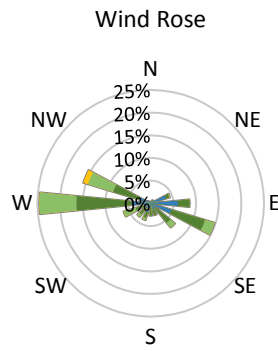
WYAMZ Unity Station - June 2017 Summary Report

Pollutants		Month Records		24-Hour Records				1-Hour Records			
				Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	1.0	94%	3.0	Jun-19	-	-	29.8	Jun-19 22:00	-	-
NO ₂	ppb	2.8	94%	5.3	Jun-20	106	0	15.7	Jun-20 03:00	159	0
NO _x	ppb	3.8	94%	7.1	Jun-19	-	-	45.2	Jun-19 22:00	-	-
O ₃	ppb	25.1	94%	36.3	Jun-08	-	-	49.6	Jun-07 17:00	82	0
PM _{2.5}	µg/m ³	5.1	96%	11.0	Jun-30	28	0	32.5	Jun-30 19:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Unity Station - June 2017 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	
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	
O ₃	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
PM _{2.5}	µg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

Monthly Update

- Achieved 95-100% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Calibration performed June 21