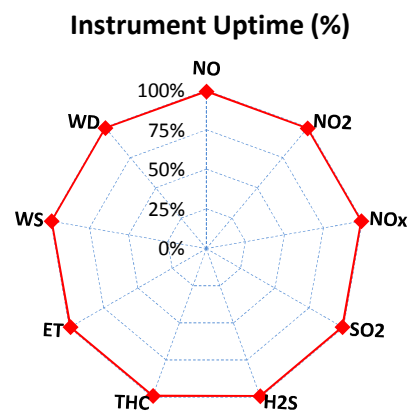
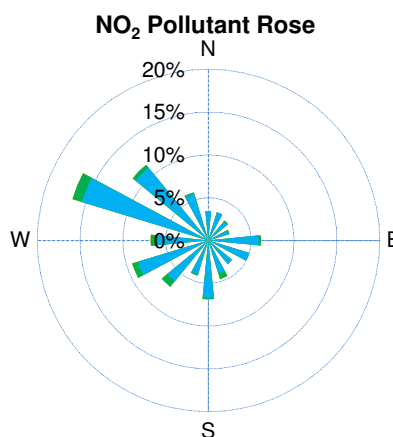
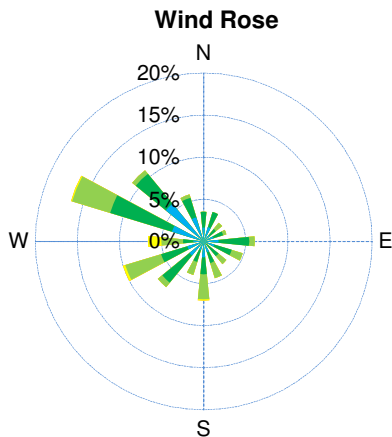
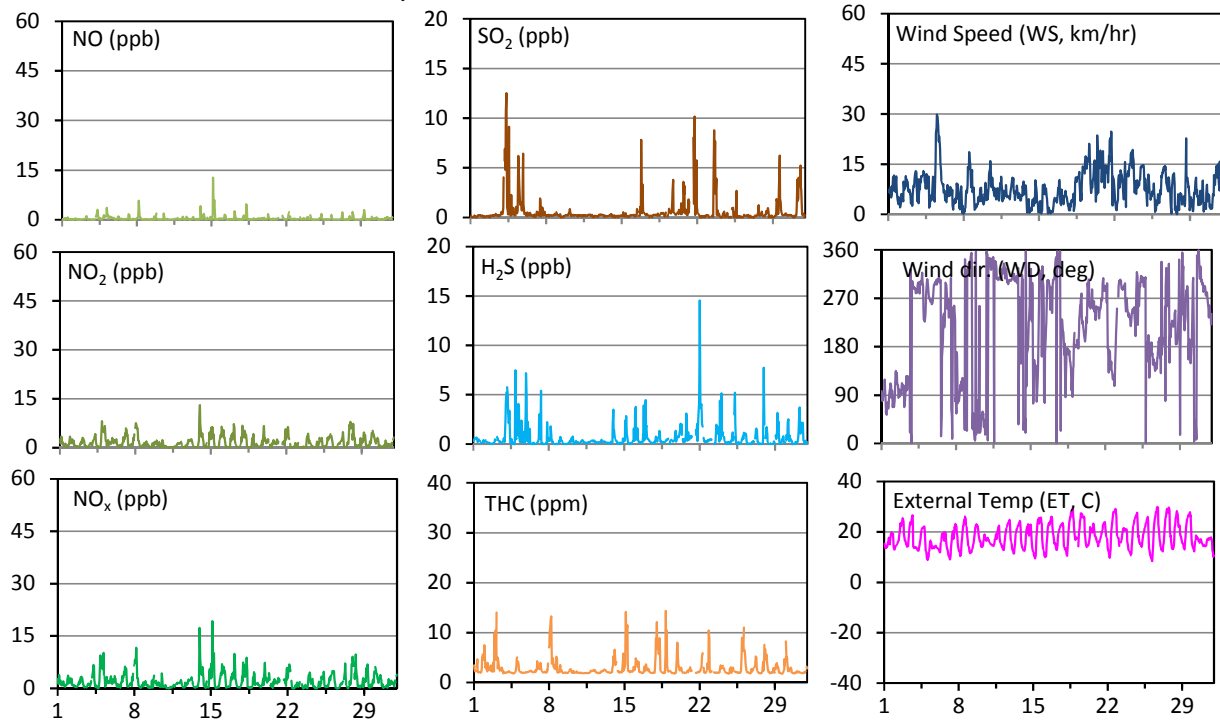


Husky Energy East Station - July 2016 Summary Report

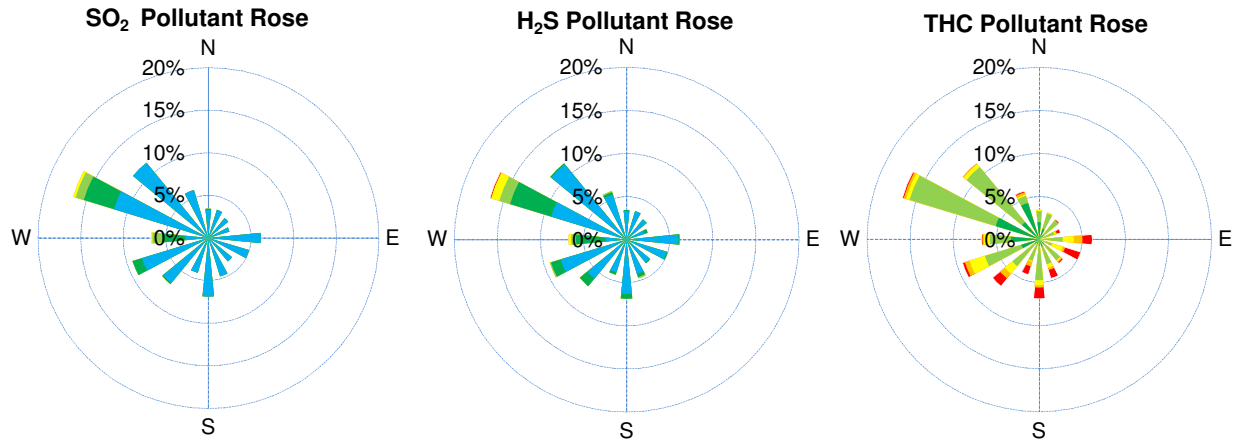
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Uptime	Maximum		SAAQS Standards	Exceed Days	Maximum		SAAQS Standards	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	99.3%	1.5	Jul-15	-	-	12.7	Jul-15 04:00	-	-
NO ₂	ppb	1.6	99.3%	2.5	Jul-27	106	0	13.1	Jul-14 00:00	159	0
NO _x	ppb	2.0	99.3%	3.8	Jul-15	-	-	19.3	Jul-15 04:00	-	-
SO ₂	ppb	0.6	99.3%	7.7	Jun-10	48	0	12.5	Jul-04 08:00	172	0
H ₂ S	ppb	0.7	99.3%	2	Jul-4	3.6	0	14.6	Jul-22 01:00	11.0	1
THC	ppm	2.9	99.1%	5.2	Jul-18	-	-	14.3	Jul-18 21:00	-	-

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 < 10.8	C ≥ 10.8
THC	ppm	0 ≤ C < 1	1 ≤ C < 2	2 ≤ C < 3	3 ≤ C < 4	4 ≤ C < 5	C ≥ 5

Husky Energy East Station - July 2016 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. Refer to the Exceedance Summary table for details.

*All compliance parameters are above 90% operational. Operational issues for the month of July include intermittent power disruptions affecting all analyzers. 4-6 hours are flagged as "power failure" for all parameters intermittently throughout the month.

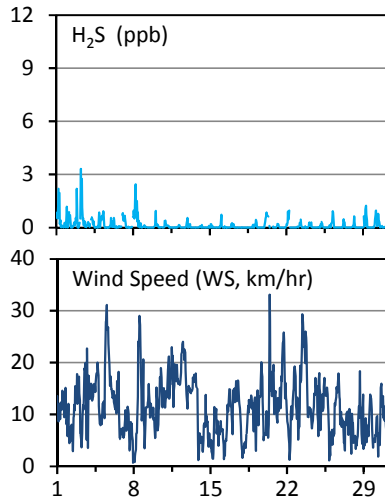
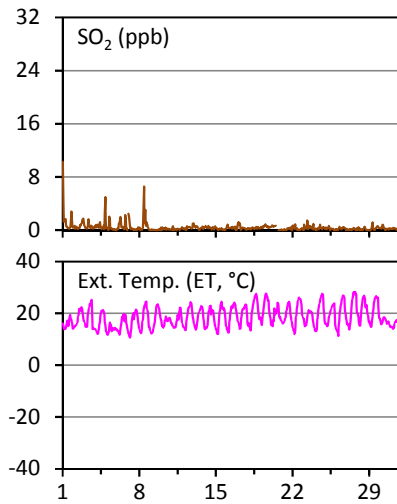
Exceedance Summary

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
H2S	14.6	Jul-22 01:00	5.7	293	13.5	0.6	14.6	3.0	2.2

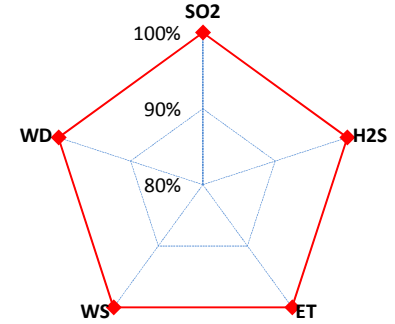
Husky Energy West Station - July 2016 Summary Report

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%	1.4	Jul-1	48 / 48	0 / 0	10.3	Jul-01 01:00	172 / 172	0 / 0
H ₂ S	ppb	0.2	100.0%	0.6	Jul-8	3 / 3.6	0 / 0	3.0	Jul-03 06:00	10 / 11.0	0 / 0

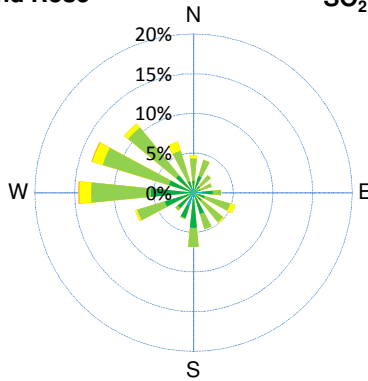
AAAQO: Alberta Ambient Air Quality Objectives; SAAQS: Saskatchewan Ambient Air Quality Standards.



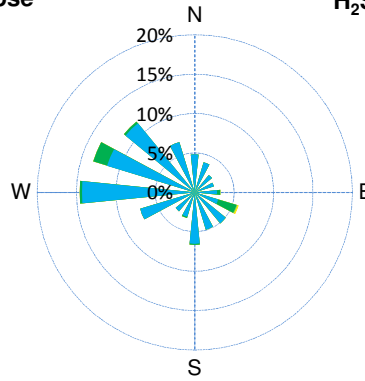
Uptime (%)



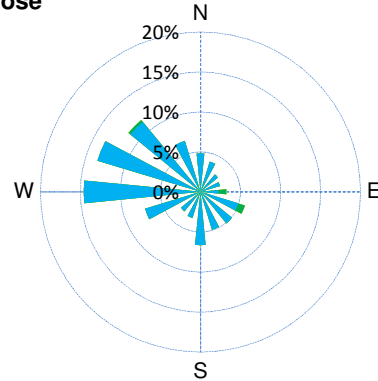
Wind Rose



SO₂ Rose



H₂S Rose



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 < 10.8	C ≥ 10.8

Monthly Update

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

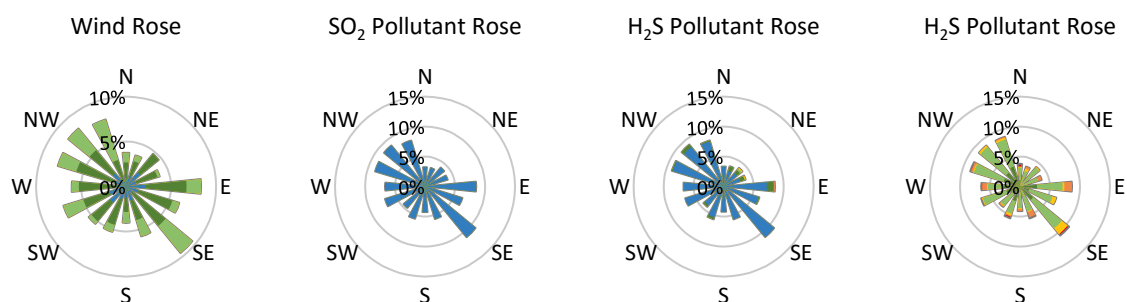
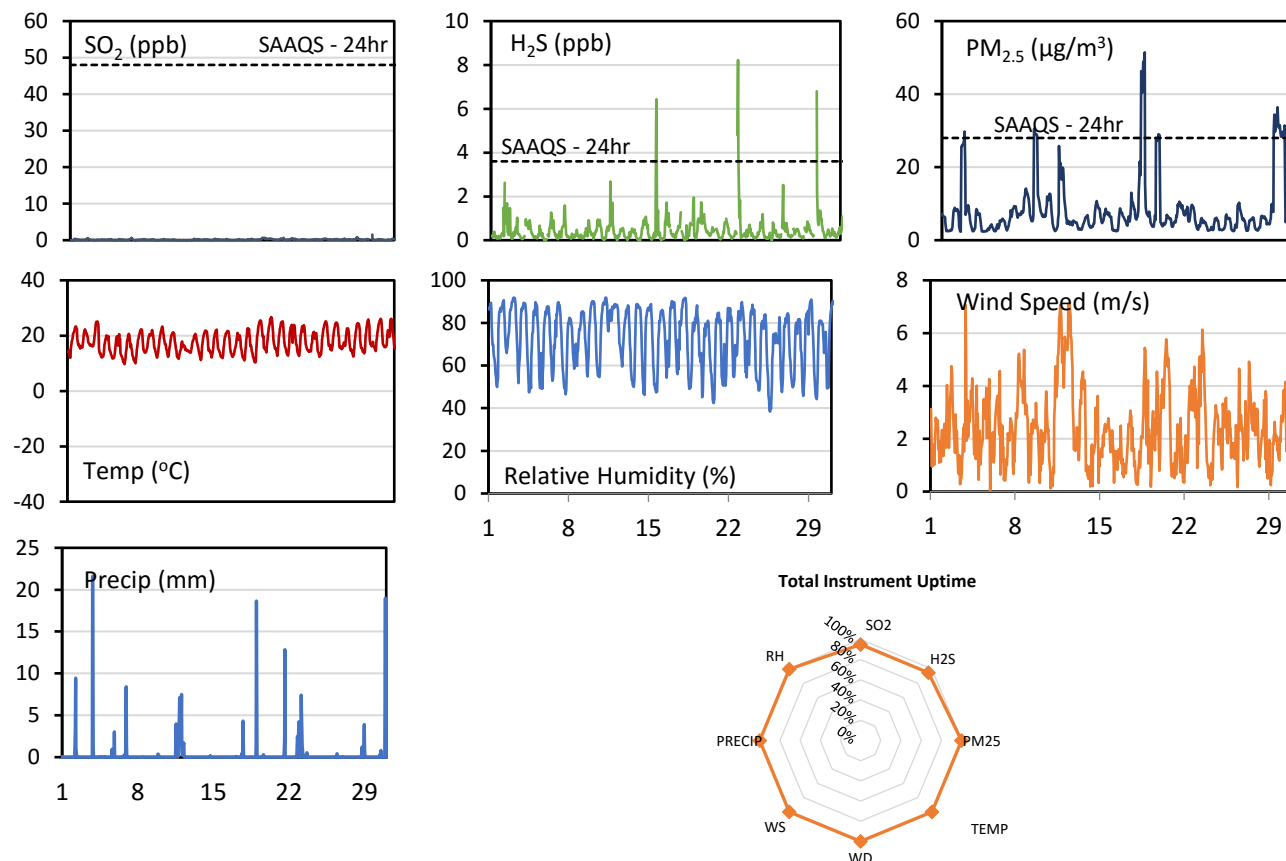
*All compliance parameters were within the Alberta Ambient Air Quality Objectives and the Saskatchewan Ambient Air Quality Standards

*All compliance parameters are above 90% operational. There are no operational issues to report.

WYAMZ Kindersley Station - July 2016 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%	0.3	Jul-19	48	0	1.5	Jul-28 23:00	172	0
H ₂ S	ppb	0.5	95%	1.2	Jul-22	3.6	0	8.2	Jul-22 05:00	11	0
PM _{2.5}	µg/m ³	8.0	100%	29.0	Jul-29	28	1	51.4	Jul-18 02:00	-	-

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

WYAMZ Kindersley Station - July 2016 Summary Report

Monthly Update

- Achieved >99% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans

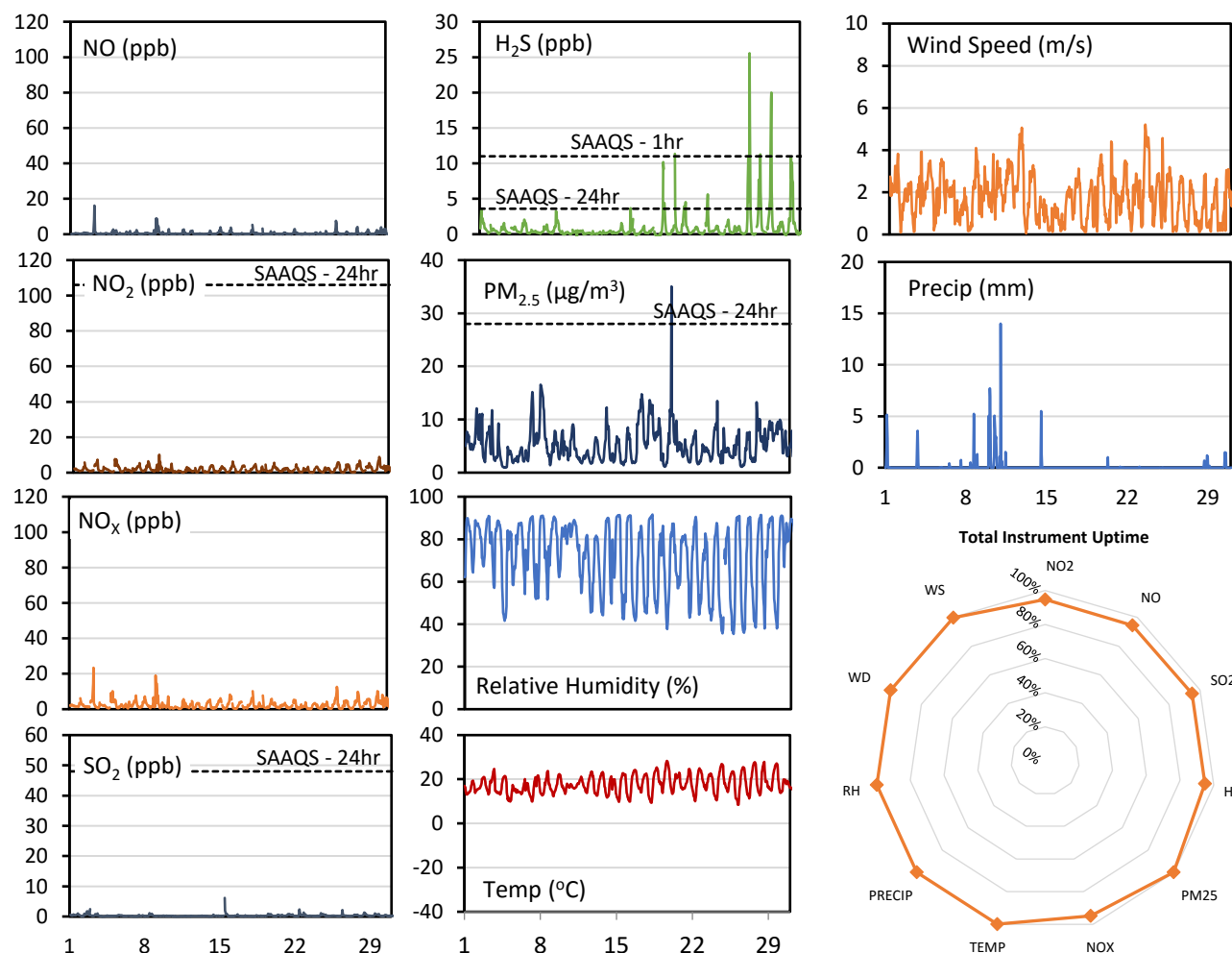
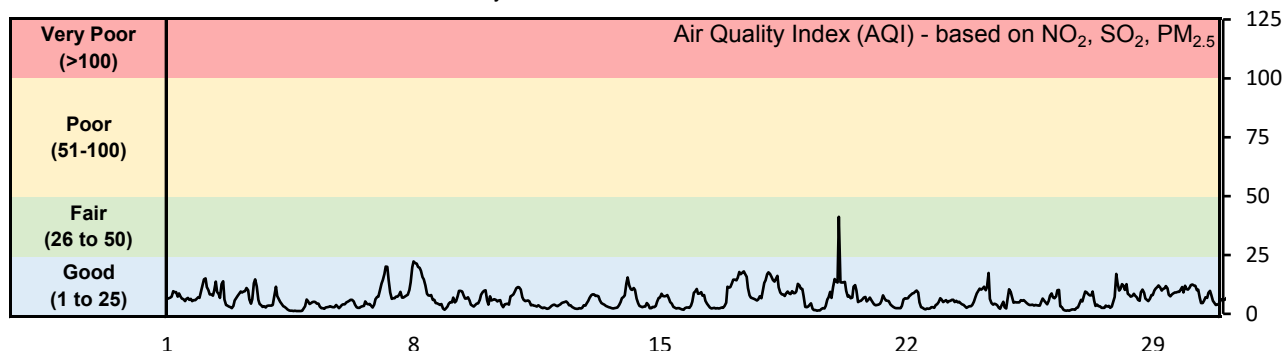
Exceedance Summary (24- Hour Average - Exceedances Highlighted)

Exceedance Day	SO ₂ ppb	PM _{2.5} µg/m ³	H ₂ S ppb	Temp °C	WD deg	WS m/s
Jul-29	0.1	29.0	0.7	20.2	204.2	1.5

WYAMZ Maidstone Station - July 2016 Summary Report

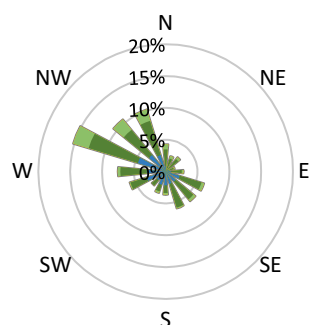
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.6	95%	1.8	Jul-09	-	-	16.2	Jul-03 07:00	-	-
NO ₂	ppb	1.8	95%	3.8	Jul-30	106	0	10.1	Jul-09 04:00	159	0
NO _x	ppb	2.4	95%	5.0	Jul-30	-	-	23.4	Jul-03 07:00	-	-
SO ₂	ppb	0.3	95%	0.7	Jul-02	48	0	6.1	Jul-15 11:00	172	0
H ₂ S	ppb	0.9	95%	3.5	Jul-26	3.6	0	25.5	Jul-26 07:00	11	6
PM _{2.5}	µg/m ³	5.2	100%	9.3	Jul-18	28	0	35.0	Jul-20 02:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards

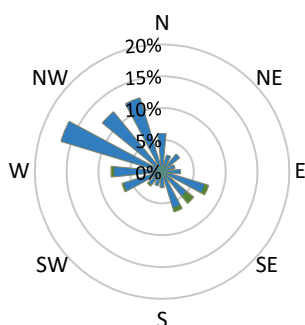


WYAMZ Maidstone Station - July 2016 Summary Report

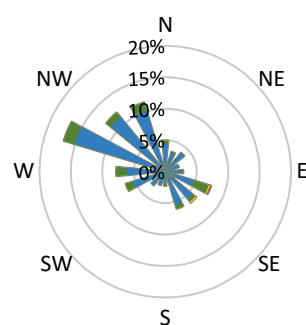
Wind Rose



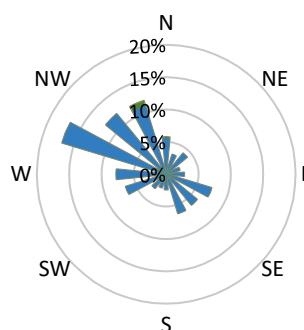
SO₂ Pollutant Rose



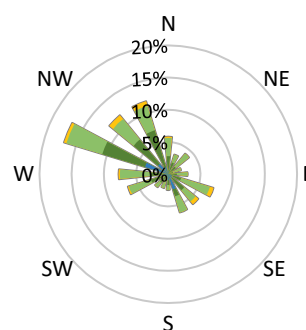
H₂S Pollutant Rose



NO₂ Pollutant Rose



PM_{2.5} Pollutant Rose



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class					
Wind Speed	m/s	$0.3 \leq WS < 1.4$	$1.4 \leq WS < 3.1$	$3.1 \leq WS < 7.8$	$7.8 \leq WS < 10.8$	$10.8 \leq WS < 13.6$	$WS \geq 13.6$
SO ₂	ppb	$0 \leq C < 1$	$1 \leq C < 5$	$5 \leq C < 10$	$10 \leq C < 57$	$57 \leq C < 172$	$C \geq 172$
NO ₂	ppb	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$
H ₂ S	ppb	$0 \leq C < 1$	$1 \leq C < 3.6$	$3.6 \leq C < 5$	$5 \leq C < 8$	$8 \leq C < 10.8$	$C \geq 10.8$
PM _{2.5}	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$

Monthly Update

- Achieved >99% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- All compliance parameters are above 90% data validity

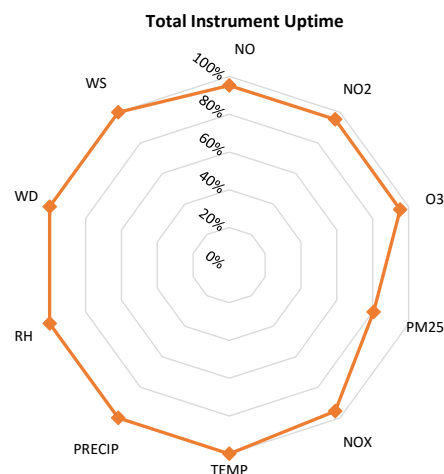
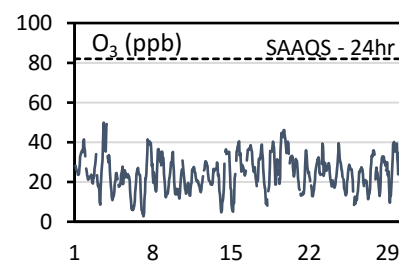
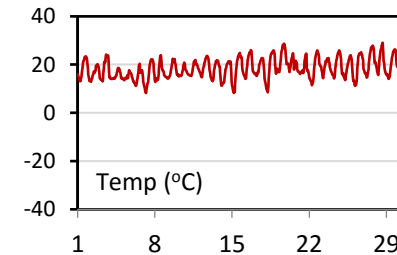
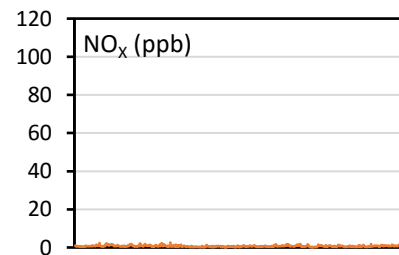
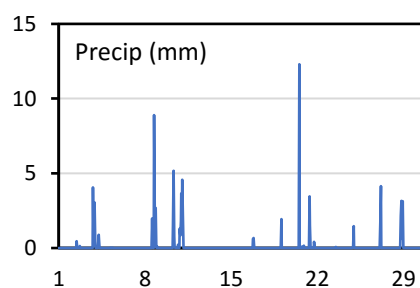
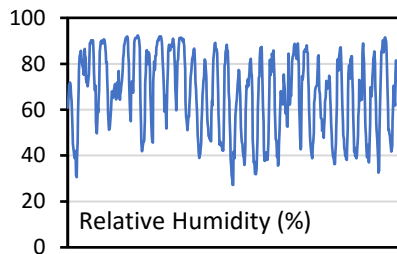
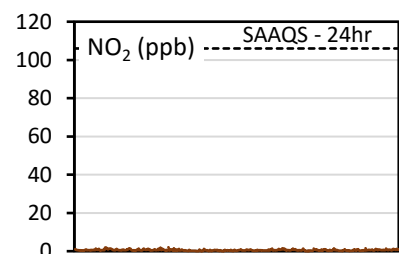
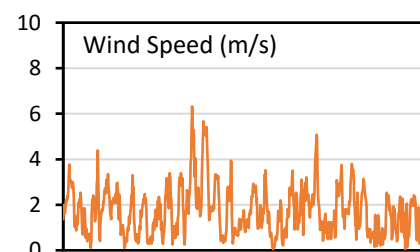
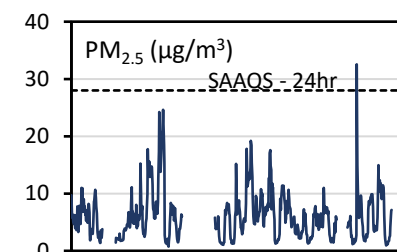
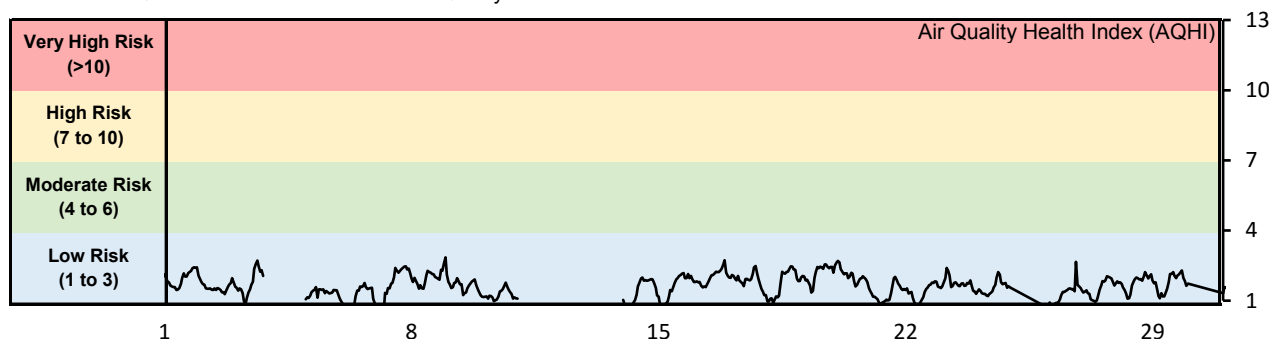
Exceedance Summary (1- Hour Average - Exceedances Highlighted)

Exceedance Time	AQI -	NO ₂ ppb	NO ppb	SO ₂ ppb	PM _{2.5} $\mu\text{g}/\text{m}^3$	NO _x ppb	H ₂ S ppb	Temp °C	WD deg	WS m/s
Jul-19 07:00	4.5	4.5	3.2	0.1	3.6	7.7	11.3	15.3	144.8	0.9
Jul-26 07:00	10.1	5.0	7.6	0.2	8.1	12.6	25.5	10.2	124.3	0.5
Jul-26 08:00	10.2	4.3	6.2	0.3	8.2	10.5	16.1	14.7	109.6	1.1
Jul-27 07:00	9.6	2.9	1.6	0.2	7.6	4.5	11.3	12.4	138.0	0.7
Jul-28 07:00	8.5	5.9	3.5	0.3	6.8	9.4	19.1	13.8	132.8	0.2
Jul-28 08:00	7.9	3.7	4.1	0.4	6.4	7.8	20.0	17.0	102.4	0.3

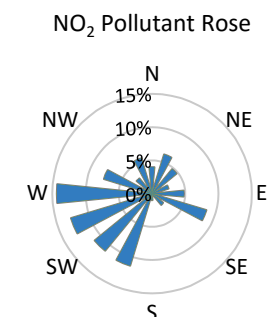
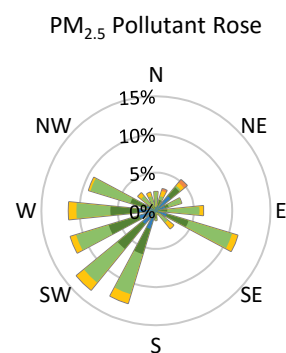
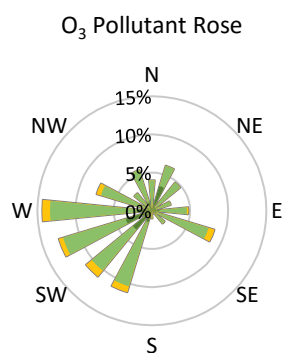
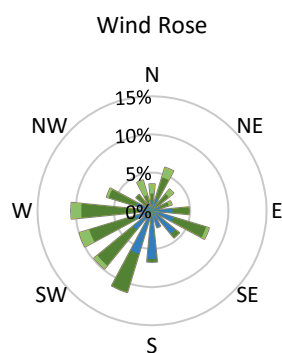
WYAMZ Meadow Lake Station - July 2016 Summary Report

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	0.1	95%	0.3	Jul-06	-	-	1.1	Jul-03 07:00	-	-
NO ₂	ppb	0.6	96%	1.0	Jul-04	106	0	2.1	Jul-09 17:00	159	0
NO _x	ppb	0.7	96%	1.2	Jul-04	-	-	2.6	Jul-09 17:00	-	-
O ₃	ppb	24.5	95%	34.7	Jul-19	-	-	49.9	Jul-03 15:00	82	0
PM _{2.5}	µg/m ³	6.1	81%	11.0	Jul-08	28	0	32.6	Jul-26 20:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Meadow Lake Station - July 2016 Summary Report



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class					
Wind Speed	m/s	$0.3 \leq WS < 1.4$	$1.4 \leq WS < 3.1$	$3.1 \leq WS < 7.8$	$7.8 \leq WS < 10.8$	$10.8 \leq WS < 13.6$	$WS \geq 13.6$
O ₃	ppb	$0 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 40$	$40 \leq C < 60$	$60 \leq C < 82$	$C \geq 82$
NO ₂	ppb	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$
PM _{2.5}	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$

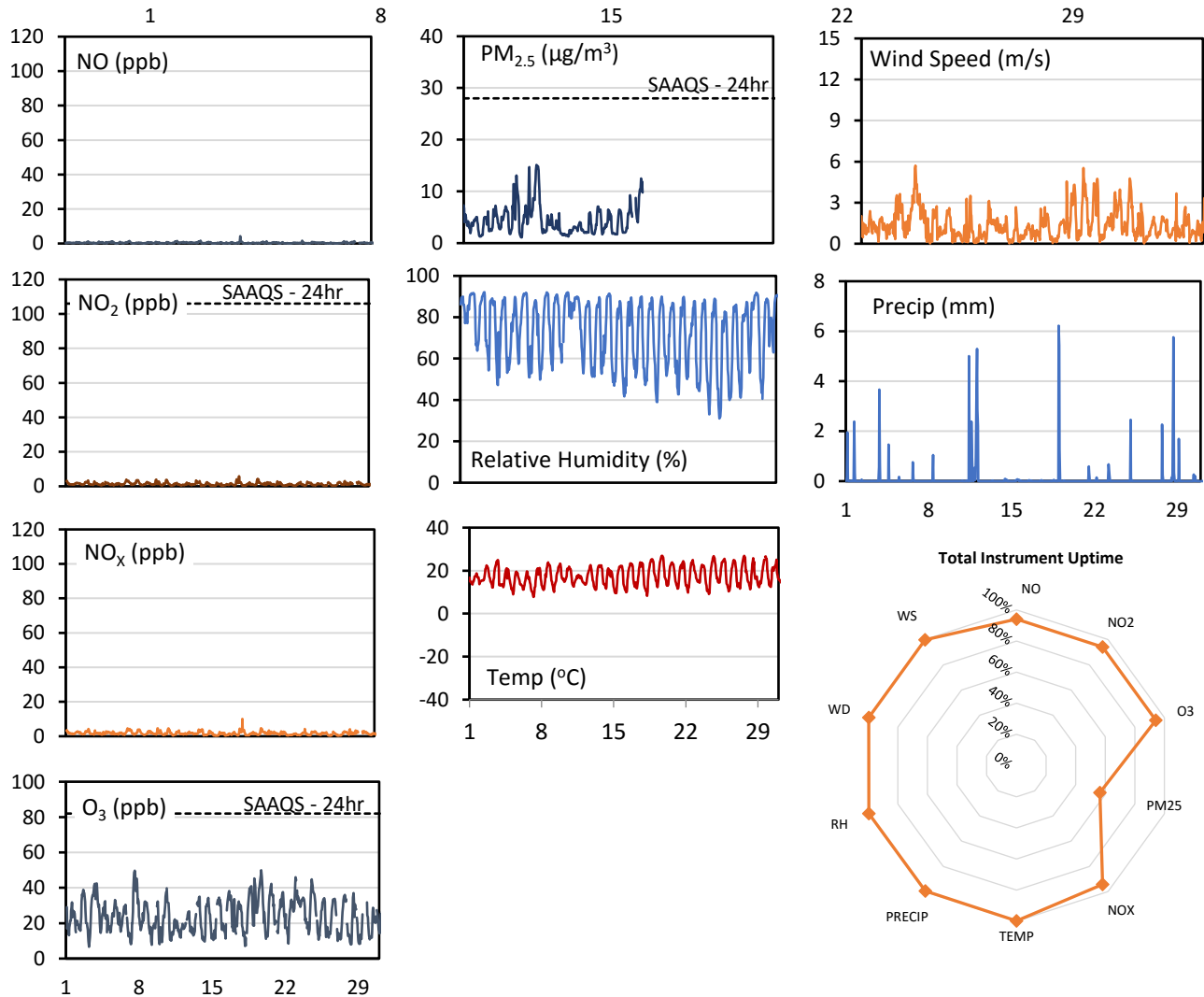
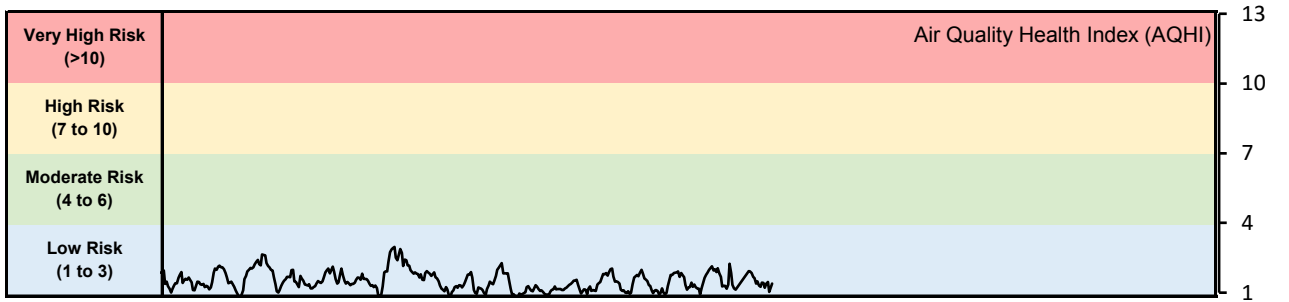
Monthly Update

- Achieved >99% of scheduled uptime for all parameters except PM_{2.5} (80%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans

WYAMZ Unity Station - July 2016 Summary Report

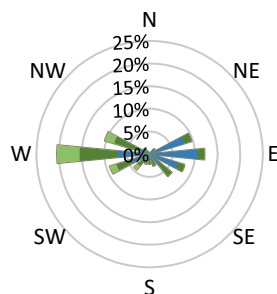
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	94%	0.6	Jul-29	-	-	4.2	Jul-18 04:00	-	-
NO ₂	ppb	1.3	94%	2.0	Jul-07	106	0	5.8	Jul-18 04:00	159	0
NO _x	ppb	1.7	94%	2.5	Jul-07	-	-	10.1	Jul-18 04:00	-	-
O ₃	ppb	23.9	94%	36.3	Jul-19	-	-	50.0	Jul-19 17:00	82	0
PM _{2.5}	µg/m ³	4.5	56%	10.6	Jul-18	28	0	15.1	Jul-08 01:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards

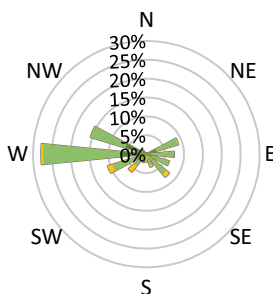


WYAMZ Unity Station - July 2016 Summary Report

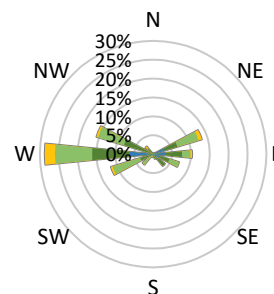
Wind Rose



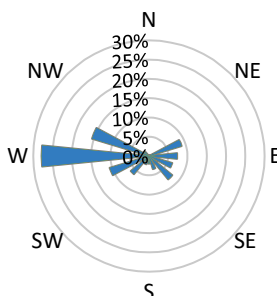
O₃ Pollutant Rose



PM_{2.5} Pollutant Rose



NO₂ Pollutant Rose



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
Wind Speed	m/s	$0.3 \leq WS < 1.4$	$1.4 \leq WS < 3.1$	$3.1 \leq WS < 7.8$	$7.8 \leq WS < 10.8$	$10.8 \leq WS < 13.6$	$WS \geq 13.6$	
O ₃	ppb	$0 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 40$	$40 \leq C < 60$	$60 \leq C < 82$	$C \geq 82$	
NO ₂	ppb	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$	
PM _{2.5}	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

Monthly Update

- Achieved >98% of scheduled uptime for all parameters except PM_{2.5} (56%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Data loss for PM_{2.5} due to unscheduled maintenance