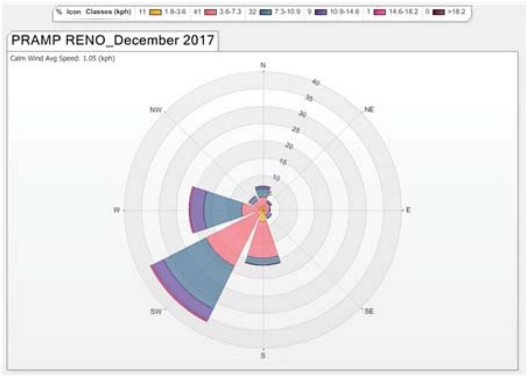
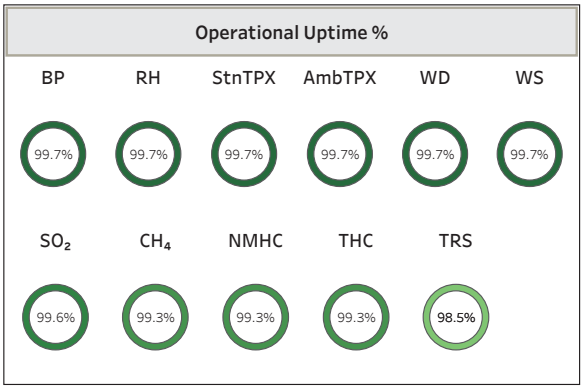
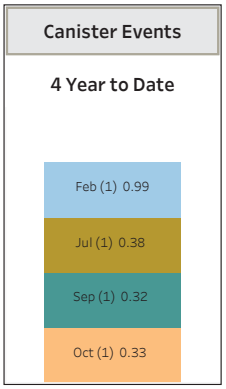
Peace River Area Monitoring Program Committee - Reno Station December 2017 Monthly Report Summary

- All data has been baseline corrected. Data may be subject to change after Level 3 data review.
- All compliance parameters were within the Alberta Ambient Air Quality Objectives (AAAQO, 2017).
- The operational times for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above 90%.

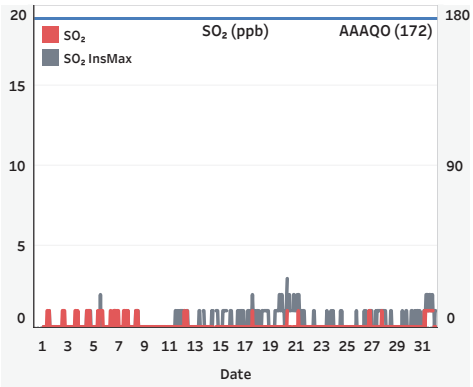
Station	Pollutant	Unit	AVG [Conc]	Uptime	Hourly Max [Conc]	Max Date	WS	WD	# Hrs >172 AAAQO	24-Hr Max [Conc]	24-Hr Avg Max Date	# Days >48 AAAQO
PRAMP - Reno	SO_2	ppb	0	99.6%	1	Dec 1 Hr7	4.4	181 (S)	0	1	Dec 31	0
	TRS	ppb	0.38	98.5%	0.69	Dec 31 Hr17	4.8	191 (S)	-	0.45	Dec 2	-
	THC	ppm	2.05	99.3%	5.11	Dec 29 Hr6	0.1	167 (SSE)	-	2.53	Dec 29	-
	CH_4	ppm	2.05	99.3%	5.11	Dec 29 Hr6	0.1	167 (SSE)	-	2.53	Dec 29	-
	NMHC	ppm	0.00	99.3%	0.03	Dec 31 Hr16	3.2	206 (SSW)	-	0.00	Dec 1	-
	WS	kph	4.4	99.7%	18.1	Dec 10 Hr8	18.1	253 (WSW)	-	11.3	Dec 15	-
	WD	degree	239 (WSW)	99.7%	-	-	-	-	-	-	-	-
	RH	%	66	99.7%	90	Dec 1 Hr13	4.5	210 (SSW)	-	78	Dec 1	-
	BP	mbar	944	99.7%	963	Dec 29 Hr9	2.3	204 (SSW)	-	960	Dec 16	-
	AmbTPX	°C	-9.5	99.7%	7.7	Dec 9 Hr13	10.8	247 (WSW)	-	4.5	Dec 9	-
	StnTPX	°C	21.7	99.7%	22.1	Dec 2 Hr18	4.0	231 (SW)	-	22.0	Dec 16	-

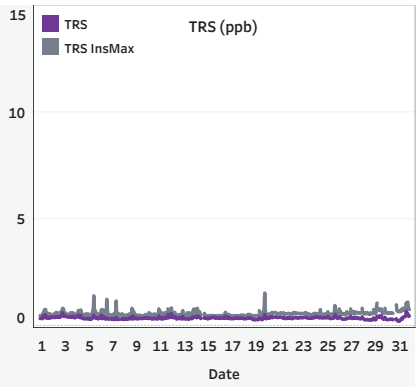


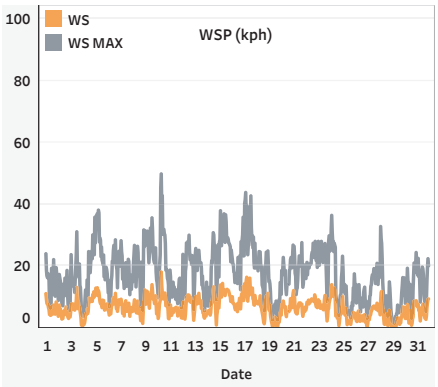


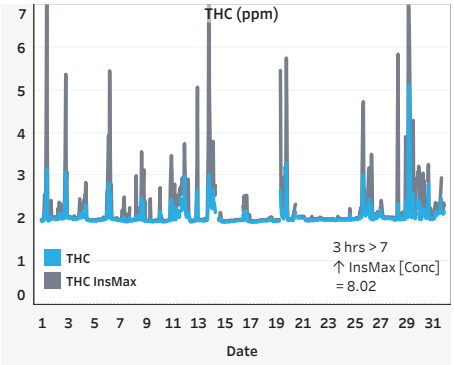


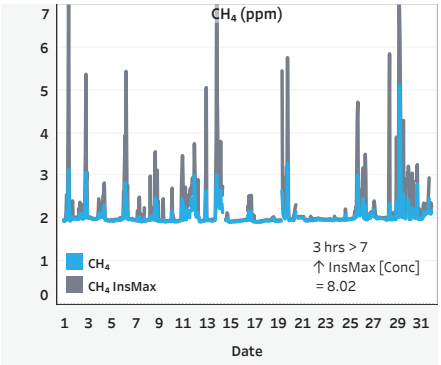
Operational Summary_All Parameters: Power failure on Dec 20 (-2 hrs). All gas analyzers were in recovery mode following the power failure (-1 hr). **TRS**: Uptime was 98.5% = 11 hrs of downtime. Due to a biased low span drift, 2 additional zero-span checks (IZS) and a repeat calibration were performed between December 29 and December 30 (-8 hrs). **THC/CH_4/NMHC**: Uptime was 99.3% = 5 hrs downtime. On Dec 30 the fuel and carrier gas cylinders were exchanged, followed by an IZS (-2 hrs).

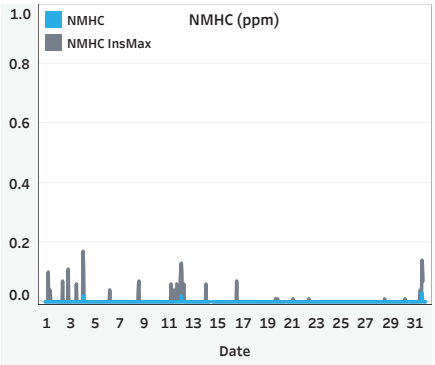








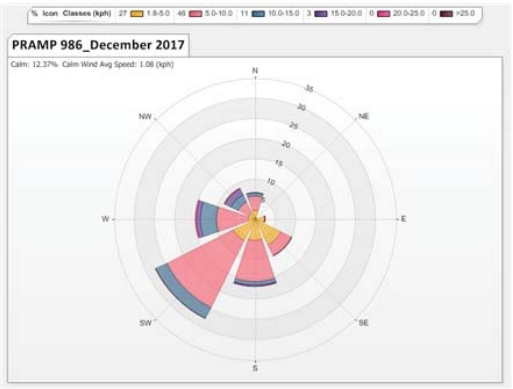


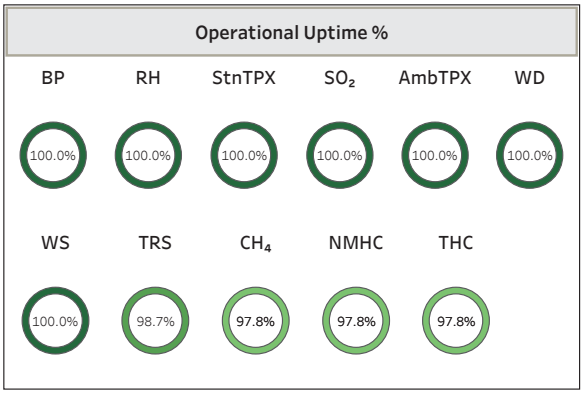


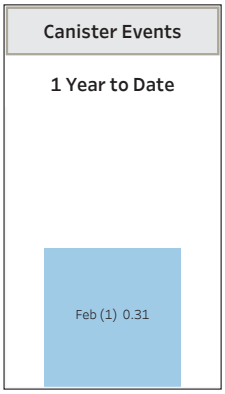
Peace River Area Monitoring Program Committee - 986b Station December 2017 Monthly Report Summary

- All data has been baseline corrected. Data may be subject to change after Level 3 data review.
- All compliance parameters were within the Alberta Ambient Air Quality Objectives (AAAQO, 2017).
- The operational times for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above 90%.

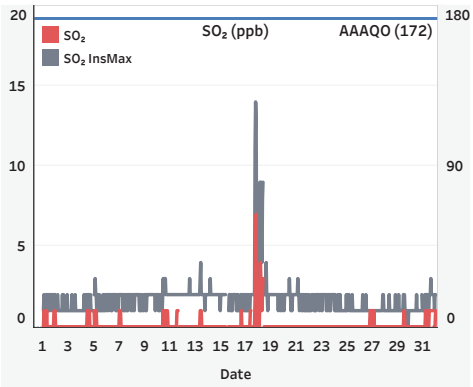
Station	Pollutant	Unit	AVG [Conc]	Uptime	Hourly Max [Conc]	Max Date	WS	WD	# Hrs >172 AAAQO	24-Hr Max [Conc]	24-Hr Avg Max Date	# Days >48 AAAQO
PRAMP - 986b	SO_2	ppb	0	100.0%	7	Dec 17 Hr19	8.2	279 (W)	0	1	Dec 17	0
	TRS	ppb	0.28	98.7%	0.93	Dec 17 Hr19	8.2	279 (W)	-	0.41	Dec 29	-
	THC	ppm	2.16	97.8%	3.59	Dec 29 Hr17	0.7	83 (E)	-	2.72	Dec 29	-
	CH_4	ppm	2.16	97.8%	3.59	Dec 29 Hr17	0.7	83 (E)	-	2.71	Dec 29	-
	NMHC	ppm	0.00	97.8%	0.09	Dec 26 Hr11	0.1	327 (NW)	-	0.01	Dec 26	-
	WS	kph	3.5	100.0%	24.9	Dec 10 Hr9	24.9	285 (WNW)	-	10.7	Dec 5	-
	WD	degree	239 (WSW)	100.0%	-	-	-	-	-	-	-	-
	RH	%	70	100.0%	99	Dec 1 Hr19	4.4	204 (SSW)	-	91	Dec 2	-
	BP	mbar	947	100.0%	971	Dec 29 Hr6	2.2	113 (ESE)	-	968	Dec 29	-
	AmbTPX	°C	-10.2	100.0%	6.7	Dec 10 Hr13	13.5	279 (W)	-	4.5	Dec 9	-
	StnTPX	°C	23.1	100.0%	24.4	Dec 14 Hr17	6.6	223 (SW)	-	23.9	Dec 26	-

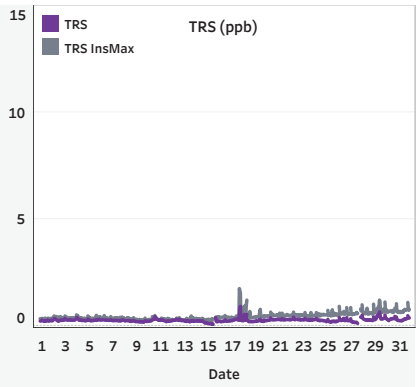


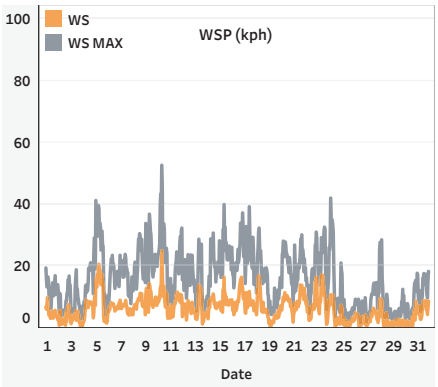


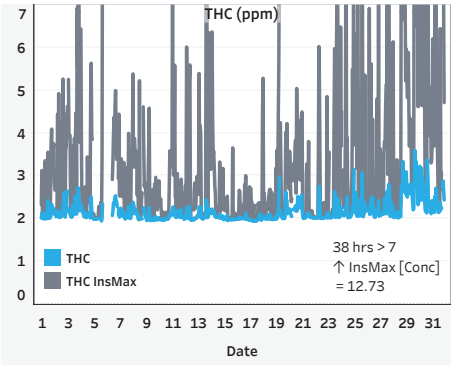


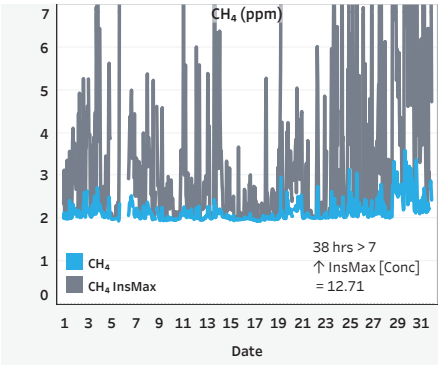
Operational Summary_TRS: Uptime was 98.7% = 10 hrs downtime. To asses a low span drift on Dec 26, a repeat span verification (IZS) was performed (- 1hr). Extreme cold temperatures impacted the exhaust tube. To correct the drift a repeat calibration was completed on Dec 27 (-5 hrs). 2 additional IZS were performed on Dec 30 to assess another bias low span drift (-4 hrs). **THC/CH_4/NMHC**: Uptime was 97.8% = 16 hrs downtime. Between Dec 5 and 6, the fuel gas had diminished and was replaced, followed by an IZS (-16 hrs).

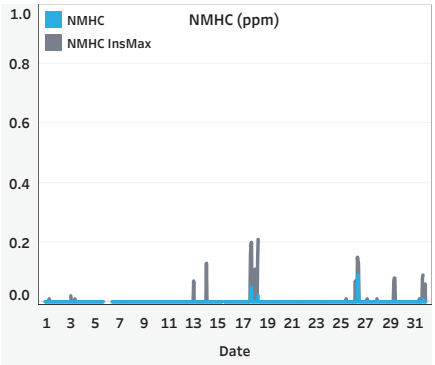








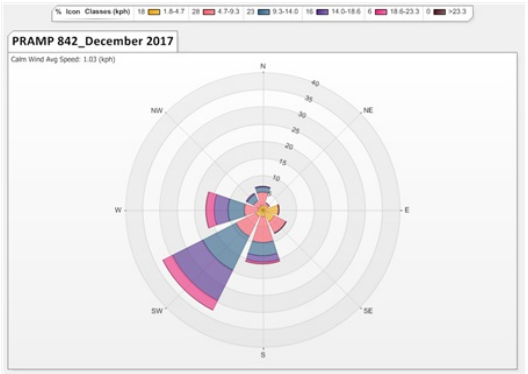


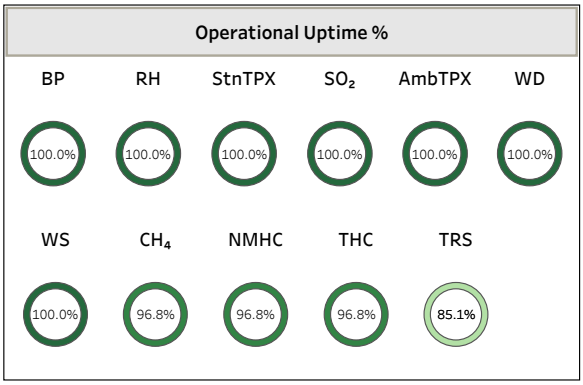


Peace River Area Monitoring Program Committee - 842b Station December 2017 Monthly Report Summary

• All data has been baseline corrected. Data may be subject to change after Level 3 data review. • All compliance parameters were within the Alberta Ambient Air Quality Objectives (AAAQO, 2017). • Excluding TRS (85.1%, AEP # 333776) the operational times for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above 90%.

Station	Pollutant	Unit	AVG [Conc]	Uptime	Hourly Max [Conc]	Max Date	WS	WD	# Hrs >172 AAAQO	24-Hr Max [Conc]	24-Hr Avg Max Date	# Days >48 AAAQO
PRAMP - 842b	SO_2	ppb	0	100.0%	2	Dec 31 Hr14	11.2	210 (SSW)	0	1	Dec 31	0
	TRS	ppb	0.17	85.1%	0.29	Dec 31 Hr20	6.9	190 (S)	-	0.22	Dec 2	-
	THC	ppm	2.03	96.8%	4.83	Dec 26 Hr3	4.5	85 (E)	-	2.57	Dec 26	-
	CH_4	ppm	2.03	96.8%	4.83	Dec 26 Hr3	4.5	85 (E)	-	2.57	Dec 26	-
	NMHC	ppm	0.00	96.8%	0.00	Dec 1 Hr0	10.4	228 (SW)	-	0.00	Dec 1	-
	WS	kph	6.1	100.0%	23.2	Dec 10 Hr8	23.2	254 (WSW)	-	16.4	Dec 15	-
	WD	degree	231 (SW)	100.0%	-	-	-	-	-	-	-	-
	RH	%	73	100.0%	96	Dec 1 Hr16	9.2	240 (WSW)	-	92	Dec 2	-
	BP	mbar	948	100.0%	970	Dec 29 Hr8	2.6	91 (E)	-	967	Dec 29	-
	AmbTPX	°C	-10.0	100.0%	5.5	Dec 9 Hr14	18.9	236 (SW)	-	4.4	Dec 9	-
	StnTPX	°C	21.3	100.0%	24.1	Dec 7 Hr10	16.8	211 (SSW)	-	22.7	Dec 1	-





Operational Summary_SO_2: To address a PMT temperature alarm, the resident analyzer (API 100A, s/n: 838) was removed and replaced (Thermo 43i, s/n: 835033373). TRS: Uptime was 85.1% = 111 hrs downtime, AEP # 333776. The analyzer spanned outside acceptance limits on Dec 26. Repeat span verifications (IZS) confirmed the drift. Extreme cold temperatures impacted the exhaust tube and scrubber material. As-found response check failed on Dec 29 resulting in data rejection back to Dec 25, hr 2. Post-repair calibration and scrubber renewal on Dec 29 restored the analyzer. THC/CH_4/NMHC: Uptime was 96.8% = 24 hrs downtime. Low fuel gas pressure on Dec 5 yielded anomalous data. The cylinder was replaced followed by an IZS (-22 hrs). The zero air generator was replaced on Dec 7 (-1 hr). Data on Dec 28, hr 19 was lost due to station activities (-1 hr).