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AMBIENT AIR MONITORING MONTHLY DATA REPORT
PEACE RIVER AREA MONITORING PROGRAM COMMITTEE
THREE CREEKS 986B STATION

JOB #: 8449-2017-01-67-C

January 2017

Prepared for:

PEACE RIVER AREA MONITORING PROGRAM COMMITTEE
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Attention: KARLA REESOR

DATE: **February 22, 2017**

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SUMMARY

In January 2017, Maxxam Analytics was contracted to manage the ambient air quality monitoring and maintenance activities at the Three Creeks 986b Station, near Peace River Oil Sands Area 2, Alberta. The monitoring station provides continuous meteorological measurements and air quality data for compliance parameters, as requested by the PRAMP Committee.

All data collected this month was compliant with the requirements outlined in the Air Monitoring Directive (Alberta Environment and Parks, 2016).

The operational time for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above the 90% requirement.

- **Power Failure:** Four hours of downtime were recorded for all parameters on January 5 due to a power failure. One more hour of downtime was incurred for SO₂, TRS and Station temperature, and two more hours for THC/CH₄/NMHC, as the equipments were recovering from the power failure.
- **THC/CH₄/NMHC:** Eleven hours of downtime were recorded between January 9 and January 10 as gas pressures were dropping. The fuel and span gas cylinders were replaced on January 10, during the monthly calibration.

The summary of results is presented on the following pages.

Any deviations or modifications made to the sampling or analytical methods are outlined in Section 1.0, Discussion. On this basis, Maxxam Analytics is issuing this completed report to Peace River Area Monitoring Program Committee, Three Creeks 986b Station.

Should you have any questions concerning the results or if we can be of further assistance, please contact us at 403-219-3677 or toll-free at 1-800-386-7247.

Monthly Continuous Data Summary

Peace River Area Monitoring Program Committee						MAXIMUM VALUES							OPERATIONAL TIME (%)
Three Creeks 986b Station						1-HOUR					24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDANCES		MONTHLY AVERAGE	READING	DAY	HOUR	WIND SPEED (kph)	WIND DIRECTION (sector)	READING	DAY	
	1-hr	24-hr	1-hr	24-hr									
SO ₂ (ppb)	172	48	0	0	0.2	1.5	24	16	6.1	SSW	0.5	VAR	99.3
TRS (ppb)	-	-	-	-	0.3	0.6	VAR	VAR	VAR	VAR	0.5	4	99.3
THC (ppm)	-	-	-	-	1.99	2.28	8	7	2.1	ESE	2.10	24	97.7
CH ₄ (ppm)	-	-	-	-	1.99	2.28	8	7	2.1	ESE	2.10	24	97.7
NMHC (ppm)	-	-	-	-	0.00	0.00	ALL	ALL	VAR	VAR	0.00	ALL	97.7
RELATIVE HUMIDITY (%)	-	-	-	-	75	96	19, 20	VAR, VAR	VAR VAR	VAR VAR	91	19	99.5
BAROMETRIC PRESSURE (inHg)	-	-	-	-	27.76	28.36	7, 7	10, 11	8.2 8.4	N N	28.30	7	99.5
AMBIENT TEMPERATURE (°C)	-	-	-	-	-9.1	8.6	18	14	6	SW	4.8	28	99.5
STATION TEMPERATURE (°C)	-	-	-	-	21.6	23.1	16	7	12.9	SSW	22.1	14	99.5
VECTOR WS (kph)	-	-	-	-	2.3	26.3	11	9	-	NW	15.4	30	99.5
VECTOR WD (deg)	-	-	-	-	237 (SW)	-	-	-	-	-	-	-	99.5

VAR-VARIOUS

**SOUR GAS PROCESSING INDUSTRY
MONTHLY REPORT SUMMARY**

Three Creeks 986b Station

Plant Name / Location

Peace River Area Monitoring Program Committee

Company

Licence Number	Report Date	
	YEAR	MONTH
N/A	2017	January

CONTINUOUS AMBIENT MONITORING								
			ONE - HOUR AVERAGE		24 - HOUR AVERAGE			
PARAMETER	STN No.	% TIME OPERATIONAL	MAXIMUM VALUES		NO. READINGS > REGULATION	MAXIMUM VALUES		NO. READINGS > REGULATION
SO ₂	1	99.3	0.0015	ppm	0	0.0005	ppm	0
TRS	1	99.3	0.0006	ppm	-	0.0005	ppm	-
THC	1	97.7	2.28	ppm	-	2.10	ppm	-
CH ₄	1	97.7	2.28	ppm	-	2.10	ppm	-
NMHC	1	97.7	0.00	ppm	-	0.00	ppm	-
RH	1	99.5	96	%	-	91	%	-
BP	1	99.5	28.36	inHg	-	28.30	inHg	-
Ambient TPX	1	99.5	8.6	°C	-	4.8	°C	-
Station TPX	1	99.5	23.1	°C	-	22.1	°C	-
Wind Speed	1	99.5	26.3	kph	-	15.4	kph	-
Wind Direction	1	99.5	-		-	-		-

SIGNATURE OF COMPANY REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

Exceedance Summary Report

SO₂ 1-Hour Exceedances

Measured concentrations of sulphur dioxide were below the 1-hour AAAQO of 172 ppb.

SO₂ 24-Hour Exceedances

Measured concentrations of sulphur dioxide were below the 24-hour AAAQO of 48.0 ppb.

In accordance with EPEA and the Substance Release Regulation.

In accordance with A Guide to Release Reporting and the Alberta Ambient Air Quality Objectives and Guidelines Summary.

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1.0 Discussion

This monthly report consists of continuous monitoring results for the following parameters: Sulphur Dioxide (SO₂), Total Reduced Sulphur (TRS), Total Hydrocarbon (THC), Methane (CH₄), Non-Methane Hydrocarbon (NMHC), Relative Humidity (RH), Barometric Pressure (BP), Ambient Temperature (AmbTPX), Station Temperature (StnTPX), Wind Speed (WS) and Wind Direction (WD).

Sample filters for all continuous air monitors are changed before the calibration begins. The sample manifold is cleaned during the site visit each month.

Control checks, consisting of a zero and span, are conducted daily on all continuous air monitors. In place of the air sample, zero air (from scrubbed air or gas cylinders) is used for zero checks, and a known concentration of the pollutant being analyzed is used for span checks. These checks are controlled by automatic timers and valves. The total zero span cycle is completed within an hour, the commencement of the zero span cycle is at the beginning of the hour.

Multipoint calibrations are done a minimum of once a month for each continuous air monitor. An additional calibration is required under the following conditions: 1) within three days after the initial start-up and stabilization of a newly installed instrument, 2) prior to shut-down or moving of an instrument which has been working to specification, and 3) when major repair has been done on the instrument.

Time during the first multi-point calibration is not considered downtime (Data is flagged as C). If more than one calibration is performed during the month, the time during the additional calibration is considered as downtime (Data is flagged as C1).

Only one zero/span check is run per day. Time during the zero/span check is not considered as downtime (Data is flagged as S). If an extra zero/span check is performed, the time during the additional check is considered as downtime (Data is flagged as S1).

The AMD requires each instrument and accompanying data recording system to be operational 90% of the time, at a minimum, for each monthly monitoring period.

All sampling, analysis, and QA/QC for this project was performed by Maxxam Analytics and complies with the Alberta Air Monitoring Directive.

Data contained in this monthly report has undergone the verification and validation based on the requirements of the AMD Chapter 6: Ambient Data Quality (August 3, 2016). The descriptions of the data verification and validation process can be found in Section 5 of this report. Instantaneous data, where applicable, is provided for reference purposes and has not undergone zero correction.

Hourly/minute data have been reviewed based on daily zero/span results and multi-point calibration results. Data may be considered invalid if a zero-corrected span check in excess of +/- 10% of the span concentration (established by the previous multi-point calibration) is encountered and/or significant differences in the calibration factor occurs (greater than 10%).

SULPHUR DIOXIDE (SO₂)

- The routine monthly calibration was performed on January 10.
- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure. Data collected at hour 13:00 was invalidated as the analyzer was recovering from the power failure.

TOTAL REDUCED SULPHUR (TRS)

- The routine monthly calibration was performed on January 10. Adjustments may appear larger in the maximum instantaneous data collected following the calibration; this is because baseline zero correction was not applied to instantaneous data.
- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure. Data collected at hour 13:00 was invalidated as the analyzer was recovering from the power failure.

TOTAL HYDROCARBONS (THC), METHANE (CH₄) and NON-METHANE HYDROCARBONS (NMHC)

- Recorded concentrations started showing a gradual decline from the late hours of January 9. This prompted an immediate site visit as it was suspected that gas pressures were dropping. The fuel and span gas cylinders were replaced and the routine monthly calibration was completed on January 10. Eleven hours of downtime were recorded due to this event.
- A drift was observed in span concentrations after the monthly calibration as a new span gas of different concentration was installed.
- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure. Data collected at hours 13:00 and 14:00 were invalidated as the analyzer was recovering from the power failure.
- The canister sampler is programmed to draw in a whole air sample when the 5-minute average concentration of NMHC is above 0.30 ppm. A representative sample of ambient air is collected over a one-hour period when the canister event is triggered. No canister event was recorded this month.

WIND SPEED (WS) and WIND DIRECTION (WD)

- The wind system was working well throughout the month. Wind data is reported as vector wind speed and vector wind direction. Wind direction is defined as the direction from which the wind is blowing from and is measured in degrees from true north.
- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure.

RELATIVE HUMIDITY (RH)

- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure.

BAROMETRIC PRESSURE (BP)

- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure.

AMBIENT TEMPERATURE (AmbTPX)

- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure.

STATION TEMPERATURE (StnTPX)

- Four hours of downtime were recorded from hour 09:00 to hour 12:00 on January 5, due to a power failure. Data collected at hour 13:00 was invalidated as the temperature sensor was recovering from the power failure.

2.0 Project Personnel

Karla Reesor was the contact for Peace River Area Monitoring Program Committee and the Maxxam field technician was Raja Ashraf.

3.0 Plant Monthly Required AMD Summary

All data collected this month was compliant with the requirements outlined in the Air Monitoring Directive (Alberta Environment and Parks, 2016).

The operational time for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above the 90% requirement.

4.0 Calculations and Results

All calculations and reporting of results follow the methods described in the AMD, 2016.

5.0 Methods and Procedures

The following methods and procedures were used to complete the monitoring program:

Maxxam AIR SOP-00001 - Methane, Non-Methane Hydrocarbon Analyzer Monitoring
Maxxam AIR SOP-00208: RM Young Wind Monitor Calibration
Maxxam AIR SOP-00209: Ambient Sulphur Monitoring

There were no deviations from the prescribed methods.

The following instruments were used to perform the test program:

Sulphur Dioxide - Thermo 43C UV Fluorescent Analyzer
Total Reduced Sulphur - Thermo 43i UV Fluorescent Analyzer
Methane, Non-Methane Hydrocarbon - Thermo 55i FID Analyzer
Wind System - RM Young Unit
Relative Humidity - Campbell Scientific Unit
Barometric Pressure - Met One Unit
Ambient Temperature - Campbell Scientific Unit
Datalogger - ESC 8832

The following steps were used to complete the data verification and validation process:

Level 0 Preliminary Verification

Level 0 data are raw data obtained directly from the data acquisition system (DAS). Under the step of Level 0, these data undergo a certain amount of manual or automated screening and flagging. It included a) identification of periods of missing data; b) verification of time stamps against reference time; c) verification that instrument diagnostics/datalogger flags indicate normal operation; d) comparison of data to upper and lower limits; e) rate of change flagging indicating that data changed too rapidly or not at all; and f) verification that zero, span and multipoint performance checks are within specifications. This level of verification is performed on a daily basis.

Level 1 Primary Validation

Validation actions under the step of Level 1 include a) review of all screening flags assigned during preliminary verification; b) review of all supporting site information and documentation; c) review of operational acceptance limits for each parameter/analyzer; d) review of daily zero/span and monthly calibration results for all gaseous parameters; and e) application of any necessary adjustments to data (e.g. baseline adjustments, below zero adjustments). This level of validation is performed on a monthly basis.

Level 2 Final Validation

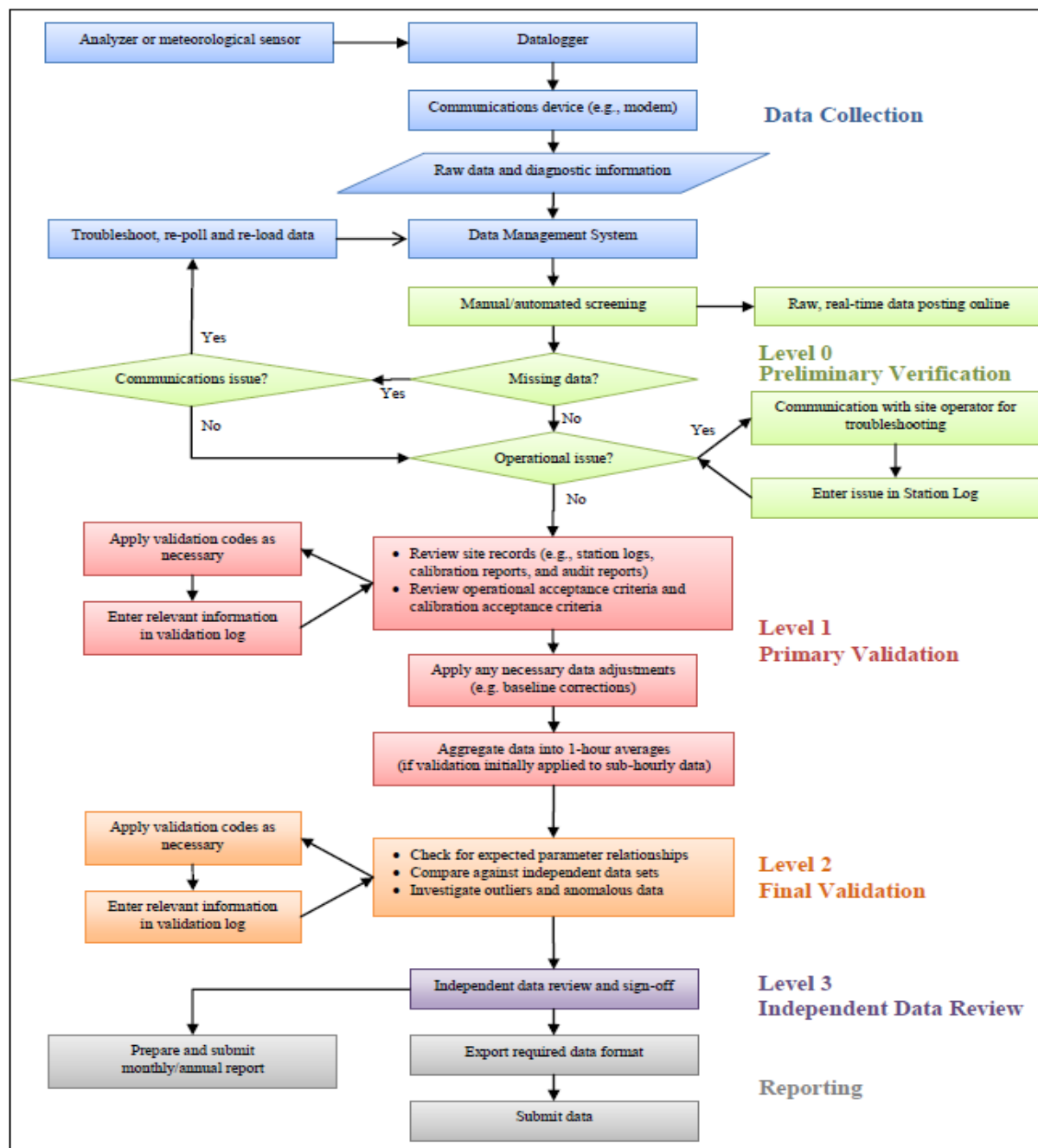
The purpose of Level 2 validation is to verify that there are no inconsistencies among related data, or among regional data measured at nearby sites.

Level 3 Independent Data Review

Level 3 validation is the last step of data review, and it is completed by an individual that is independent of both field operations and primary data validation. A final independent QA review and endorsement is performed during this step before data is submitted to Alberta Environment.

Post-Final Validation

The Post-Final Validation step serves to re-evaluate the data that errors or omissions are discovered and/or suspected after the initial submittal of data. Any data issues or patterns which were not clear on a monthly basis are highlighted during this step. This validation is performed on an annual basis.



Source: Air Monitoring Directive (Aug 3, 2016), Chapter 6, Ambient Data Quality; Figure 1 Data Collection and Management Process Flow Chart

APPENDIX I
CONTINUOUS MONITORING DATA RESULTS

SULPHUR DIOXIDE

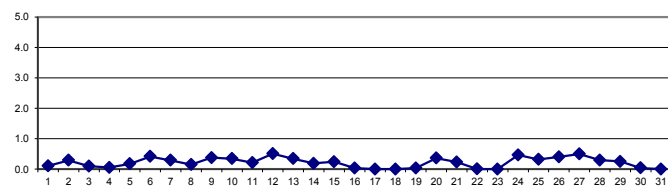
SULPHUR DIOXIDE Hourly Averages (SO₂ ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.2	0.2	0.0	0.1	S	0.1	0.3	0.1	0.3	0.2	0.1	0.3	0.2	0.0	0.3	0.1	24
2	0.2	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.4	S	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.4	0.3	24
3	0.2	0.0	0.2	0.2	0.0	0.1	0.0	0.2	0.1	0.2	0.0	0.0	0.5	S	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.5	0.1	24
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	S	0.2	0.1	0.1	0.2	0.0	0.0	0.2	0.1	0.2	0.0	0.0	0.0	0.2	0.1	24
5	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	P	P	P	P	R	0.5	0.2	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.1	0.0	0.5	0.2	19
6	0.4	0.5	0.2	0.2	0.2	0.4	0.3	0.4	0.3	0.5	S	0.4	0.7	0.5	0.7	0.4	0.5	0.5	0.4	0.4	0.6	0.4	0.4	0.3	0.2	0.7	0.4	24
7	0.3	0.4	0.4	0.3	0.2	0.4	0.4	0.4	0.4	S	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.4	0.3	24
8	0.1	0.1	0.1	0.2	0.1	0.1	0.4	0.2	S	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.4	0.2	0.2	0.1	0.4	0.2	24
9	0.3	0.2	0.3	0.5	0.7	0.6	0.5	S	0.5	0.4	0.3	0.5	0.4	0.4	0.3	0.2	0.3	0.1	0.4	0.4	0.4	0.4	0.3	0.3	0.1	0.7	0.4	24
10	0.4	0.4	0.7	0.4	0.5	0.3	S	0.4	0.4	0.5	C	C	C	C	C	0.4	0.2	0.2	0.2	0.3	0.4	0.1	0.1	0.3	0.1	0.7	0.3	24
11	0.4	0.3	0.2	0.1	0.3	S	0.3	0.2	0.2	0.2	0.0	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.3	0.4	0.3	0.4	0.0	0.4	0.2	24
12	0.2	0.4	0.5	0.3	S	0.3	0.5	0.6	0.3	0.5	0.5	0.5	0.6	0.6	0.7	0.5	0.7	0.6	0.6	0.6	0.7	0.5	0.5	0.5	0.2	0.7	0.5	24
13	0.6	0.5	0.5	S	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.5	0.3	0.3	0.5	0.4	0.1	0.3	0.3	0.2	0.2	0.1	0.2	0.0	0.0	0.6	0.3	24
14	0.0	0.1	S	0.3	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.0	0.3	0.2	24
15	0.4	S	0.2	0.0	0.2	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.1	0.4	0.4	0.2	0.1	0.1	0.1	0.0	0.4	0.2	24
16	S	0.2	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.2	0.0	24
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	24
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	24
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.2	0.3	0.1	0.0	0.3	0.0	24
20	0.3	0.3	0.3	0.5	0.5	0.4	0.4	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.3	0.4	S	0.3	0.3	0.4	0.2	0.2	0.5	0.4	24
21	0.2	0.1	0.3	0.3	0.3	0.4	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.3	0.2	0.1	S	0.2	0.1	0.1	0.0	0.0	0.0	0.4	0.2	24
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	24
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
24	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.3	0.3	1.0	0.8	1.0	1.2	S	1.5	1.0	0.7	0.5	0.4	0.4	0.3	0.5	0.0	1.5	0.5	24
25	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.4	0.4	0.7	S	0.6	0.4	0.1	0.2	0.1	0.3	0.6	0.8	1.0	0.0	1.0	0.3	24
26	0.8	1.1	0.9	0.8	0.6	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	S	0.2	0.3	0.0	0.2	0.5	0.4	0.6	0.4	0.3	0.4	0.0	1.1	0.4	24
27	0.6	0.7	0.2	0.4	0.3	0.4	0.7	0.6	0.5	0.5	0.7	0.7	S	0.4	0.3	0.5	0.5	0.6	0.5	0.3	0.4	0.5	0.5	0.7	0.2	0.7	0.5	24
28	0.6	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.4	0.5	S	0.3	0.1	0.2	0.3	0.2	0.4	0.3	0.3	0.2	0.1	0.4	0.2	0.1	0.6	0.3	24
29	0.2	0.3	0.2	0.1	0.2	0.3	0.4	0.2	0.2	0.2	S	0.2	0.3	0.4	0.2	0.3	0.5	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.5	0.3	24
30	0.3	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	24
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
HOURLY MAX	0.8	1.1	0.9	0.8	0.7	0.6	0.7	0.6	0.5	0.5	0.7	1.0	0.8	1.0	1.2	0.6	1.5	1.0	0.7	0.6	0.7	0.6	0.8	1.0				
HOURLY AVG	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

24 HR AVERAGES January 2017



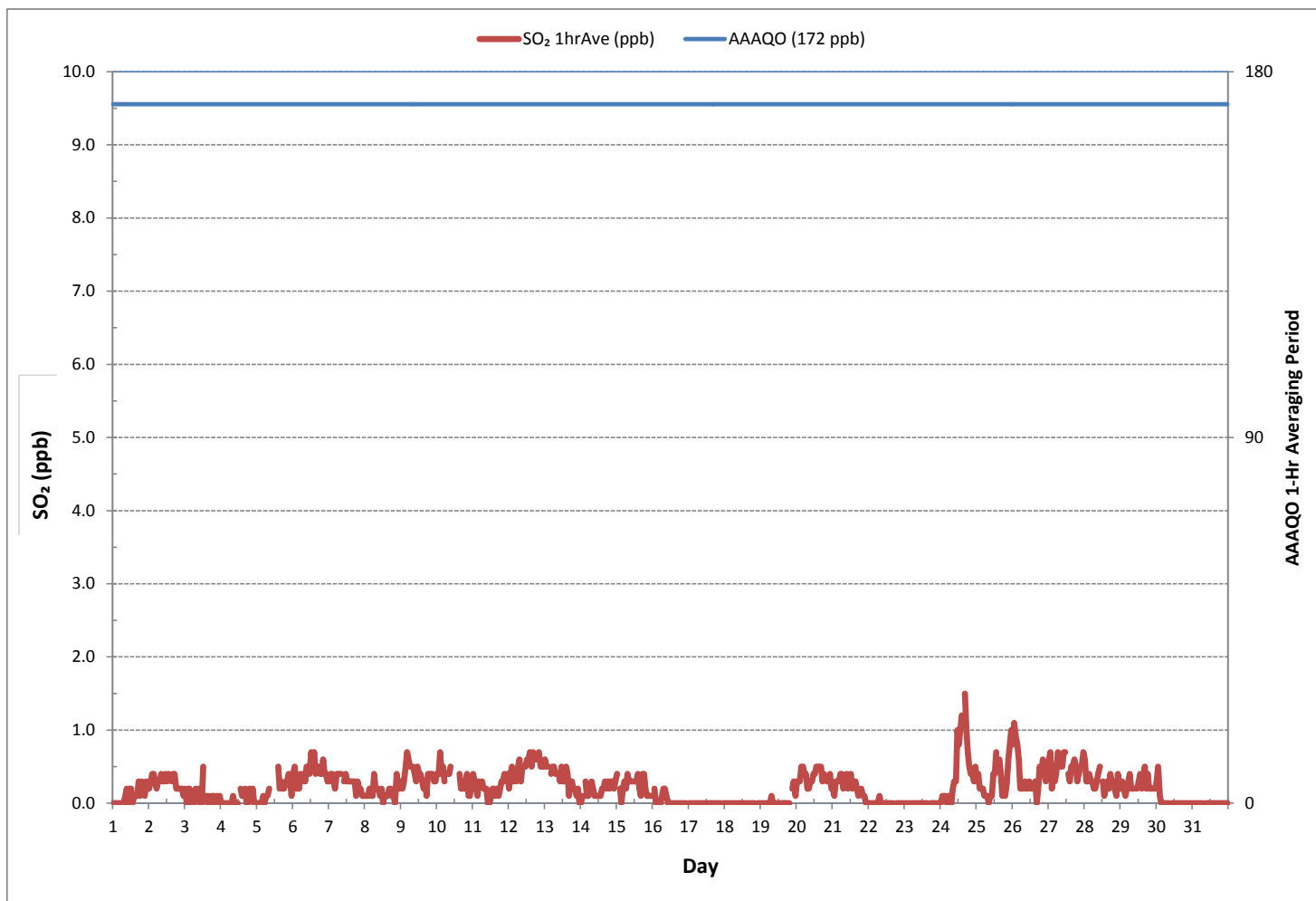
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 172 ppb 24-HR 48 ppb

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDANCES:	0				
NUMBER OF 24-HR EXCEEDANCES:	0				
NUMBER OF NON-ZERO READINGS:	480				
MINIMUM 1-HR AVERAGE:	0.0	ppb @ HOUR(S)	VAR	ON DAY(S)	VAR
MAXIMUM 1-HR AVERAGE:	1.5	ppb @ HOUR(S)	16	ON DAY(S)	24
MAXIMUM 24-HR AVERAGE:	0.5	ppb		ON DAY(S)	VAR
				VAR-VARIOUS	
IZS CALIBRATION TIME:	31	hrs	OPERATIONAL TIME:	739	hrs
MONTHLY CALIBRATION TIME:	5	hrs	AMD OPERATION UPTIME:	99.3	%
STANDARD DEVIATION:	0.2		MONTHLY AVERAGE:	0.2	ppb

SULPHUR DIOXIDE Hourly Averages (SO₂ ppb)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

SULPHUR DIOXIDE Instantaneous Maximum (SO₂ ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	1.0	1.0	1.0	1.0	1.6	1.0	1.0	2.1	1.6	1.0	1.6	1.1	1.6	1.0	1.1	S	1.6	1.0	1.0	1.6	1.1	1.0	1.6	1.1	1.0	1.0	2.1	1.2	24
2	1.6	1.0	1.1	1.0	1.1	1.0	1.0	1.0	1.0	1.6	1.0	1.0	1.1	1.0	S	1.0	2.0	1.6	1.0	1.0	1.6	1.1	1.0	1.0	1.0	1.0	2.0	1.2	24
3	1.0	1.0	2.0	1.0	1.0	1.6	1.0	1.6	1.6	1.6	1.1	1.6	2.0	S	2.0	1.0	1.6	1.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.0	2.0	1.4	24
4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.0	1.1	1.6	1.6	S	2.1	2.6	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	2.6	1.7	24
5	1.6	1.6	1.1	1.6	1.6	1.1	1.1	1.5	1.6	P	P	P	P	R	1.6	1.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	1.1	1.6	1.5	19	
6	2.1	2.0	1.1	1.1	1.6	1.6	1.6	1.1	1.1	1.6	S	1.6	1.6	1.1	2.0	1.5	1.6	1.1	1.1	1.6	1.6	1.6	1.6	1.6	1.1	2.1	1.5	24	
7	1.0	1.6	1.6	1.1	1.6	1.0	1.6	1.6	1.0	S	1.6	1.1	1.1	1.1	1.6	1.1	1.6	1.6	1.1	1.6	1.6	1.0	1.1	1.6	1.0	1.6	1.3	24	
8	1.0	1.6	1.6	1.1	1.0	1.1	1.6	1.1	S	1.1	1.1	1.6	1.1	1.6	1.1	1.1	1.6	1.6	1.1	1.6	1.0	1.6	1.6	1.6	1.0	1.6	1.3	24	
9	1.6	1.6	1.1	1.6	1.6	2.6	1.1	S	1.6	2.1	1.6	1.6	1.6	2.1	1.6	1.1	1.0	1.0	1.1	1.1	1.6	1.0	1.0	1.6	1.0	2.6	1.5	24	
10	1.1	1.6	1.6	1.0	1.6	1.1	S	1.6	1.6	1.6	C	C	C	C	C	1.0	1.0	1.0	1.1	1.0	1.1	1.0	1.0	1.0	1.0	1.6	1.2	24	
11	1.1	1.0	1.1	1.1	1.6	S	1.6	1.1	1.0	1.0	1.0	0.6	0.6	1.0	1.1	1.1	0.6	1.0	0.6	1.6	1.0	0.6	1.0	0.6	1.0	0.6	1.6	1.0	24
12	1.0	1.0	1.0	1.0	S	1.0	1.1	1.6	1.0	1.1	1.6	1.1	1.1	1.1	1.6	1.0	1.6	1.6	1.6	1.6	1.6	1.1	1.0	1.1	1.0	1.0	1.6	1.2	24
13	1.1	1.0	1.1	S	2.1	1.6	1.6	1.1	1.1	1.6	1.1	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.1	1.1	1.1	1.1	1.1	1.0	2.1	1.2	24	
14	0.6	1.1	S	1.1	1.1	1.0	1.0	1.6	1.1	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.6	0.6	1.6	1.2	24	
15	1.6	S	1.6	0.6	1.6	1.1	1.6	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	1.6	1.6	1.6	1.6	1.1	1.1	1.1	1.1	0.6	2.1	1.4	24	
16	S	1.6	1.1	1.6	1.6	1.6	2.1	1.6	1.1	1.1	1.1	1.6	1.1	1.6	1.6	1.6	1.6	1.1	1.6	1.1	1.1	1.6	1.6	S	1.1	2.1	1.4	24	
17	1.1	1.6	1.6	1.1	1.6	1.6	2.1	1.6	1.6	1.5	1.6	1.1	1.6	2.1	1.6	1.6	1.6	1.6	1.6	1.6	2.1	1.6	S	1.6	1.1	2.1	1.6	24	
18	2.1	1.6	1.6	1.6	1.6	2.1	2.1	2.0	1.6	1.6	1.1	1.6	1.1	1.6	1.6	1.6	1.6	2.0	1.6	2.1	1.6	S	1.6	1.6	1.1	2.1	1.7	24	
19	1.6	1.1	1.6	2.1	1.6	2.1	1.1	1.6	1.6	1.6	1.6	1.1	1.6	1.6	1.6	1.1	1.1	1.1	1.6	1.6	S	1.6	1.6	1.6	1.1	2.1	1.5	24	
20	1.6	1.6	1.6	2.6	1.6	1.6	1.6	1.6	1.6	2.0	1.6	1.6	1.6	2.6	2.0	2.0	1.6	1.6	1.6	S	1.6	1.6	1.6	1.6	1.6	2.6	1.7	24	
21	1.6	1.1	1.6	1.6	1.6	1.6	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.0	S	1.1	1.1	1.6	1.6	1.0	1.0	2.1	1.5	24		
22	1.6	1.5	1.0	1.6	1.6	1.1	1.0	1.6	1.0	1.1	1.1	1.1	1.6	1.6	1.6	1.5	1.6	S	1.6	1.6	1.1	1.6	1.6	1.6	1.0	1.6	1.4	24	
23	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	1.6	1.1	1.6	1.6	1.6	1.1	2.1	S	1.1	1.6	1.1	1.6	1.1	1.6	1.6	1.6	1.1	2.1	1.5	24	
24	1.6	1.6	1.1	1.6	1.6	1.6	1.6	1.6	1.1	1.6	2.1	2.6	2.1	2.6	2.6	S	3.6	2.6	2.1	2.1	2.1	2.1	1.6	2.1	1.1	3.6	2.0	24	
25	1.6	1.6	1.6	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.6	2.1	S	2.1	1.6	1.6	1.6	2.1	1.6	2.6	2.1	2.6	1.6	2.6	1.9	24	
26	2.6	2.6	2.6	2.6	2.1	2.1	1.6	2.1	1.6	1.6	1.6	2.1	2.1	S	1.6	2.1	1.6	1.6	2.1	1.6	2.1	1.6	1.6	1.6	1.6	2.6	1.9	24	
27	1.6	2.1	1.1	1.6	2.1	1.6	2.1	1.6	2.1	1.6	1.6	1.6	S	1.6	1.6	1.6	2.1	2.1	1.6	2.1	1.6	1.6	2.1	2.6	1.1	2.6	1.8	24	
28	2.1	1.6	1.6	1.6	2.1	1.6	1.6	1.6	2.1	1.6	2.1	S	1.6	1.6	1.6	2.1	1.6	2.1	1.6	1.6	1.6	2.1	1.6	2.1	1.6	2.1	1.8	24	
29	1.6	2.1	2.1	1.6	1.6	2.1	2.1	2.1	1.6	1.6	S	2.1	1.6	1.6	1.6	2.1	2.1	1.6	1.6	2.1	1.6	1.6	1.6	2.1	1.6	2.1	1.8	24	
30	2.1	2.1	1.6	2.1	1.6	2.1	1.6	1.6	1.6	S	1.6	1.6	2.1	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	1.1	1.6	1.1	2.1	1.7	24	
31	1.6	1.6	1.6	1.6	1.6	1.1	1.6	1.6	S	1.6	2.1	1.6	1.6	2.1	2.1	1.6	1.6	1.6	1.6	2.1	1.6	1.6	1.1	1.6	1.1	2.1	1.6	24	
HOURLY MAX	2.6	2.6	2.6	2.6	2.1	2.6	2.1	2.1	2.1	2.1	2.1	2.6	2.6	2.6	2.6	2.1	3.6	2.6	2.1	2.1	2.1	2.6	2.1	2.6					
HOURLY AVG	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.5	1.5	1.6	1.5	1.5	1.4	1.6					

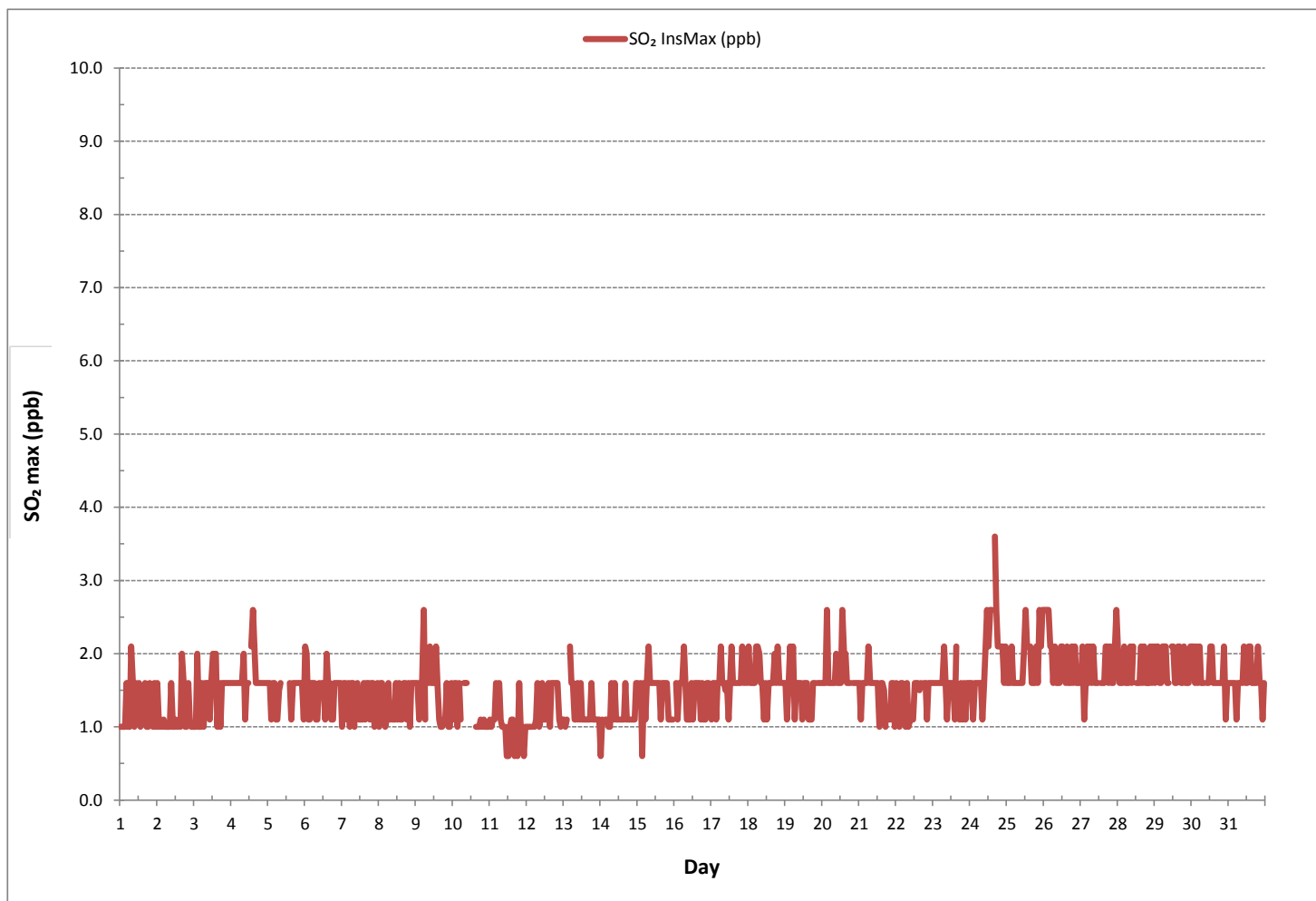
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	703
MAXIMUM INSTANTANEOUS VALUE:	3.6 ppb @ HOUR(S) 16 ON DAY(S) 24
	VAR-VARIOUS
IZS CALIBRATION TIME:	31 hrs
MONTHLY CALIBRATION TIME:	5 hrs
STANDARD DEVIATION:	0.4
OPERATIONAL TIME:	739 hrs

SULPHUR DIOXIDE Instantaneous Maximum (SO₂ ppb)

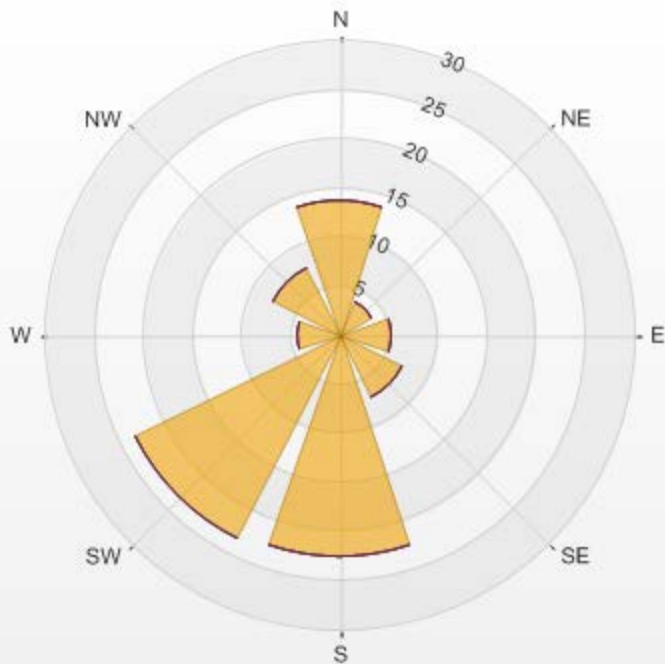


Wind: THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-SO2[ppb] Monthly: 01/2017 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 12.52% Valid Data: 94.74% Calm Avg: 0.19 [ppb]

Direction	0-3	3-10	10-85	85-170	>170.0	Total
N	13.66	0	0	0	0	13.66
NE	3.7	0	0	0	0	3.7
E	5.26	0	0	0	0	5.26
SE	7.11	0	0	0	0	7.11
S	22.62	0	0	0	0	22.62
SW	23.19	0	0	0	0	23.19
W	4.41	0	0	0	0	4.41
NW	7.54	0	0	0	0	7.54
Summary	87.49	0	0	0	0	87.49

%	Icon	Classes (ppb)
87		0-3
0		3-10
0		10-85
0		85-170
0		>170.0

THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-SO2[ppb] 01/01/2017 00:00 - 31/01/2017 23:00
Calm: 12.52% Calm Poll Avg: 0.19[ppb]



SO2[ppb] Calibration: THREE CREEKS #986 TRAILER Monthly: 2017/01 Type: Span



■ Span Meas
 — Span Ref
 — Span Low
 — Span High

TOTAL REDUCED SULPHUR

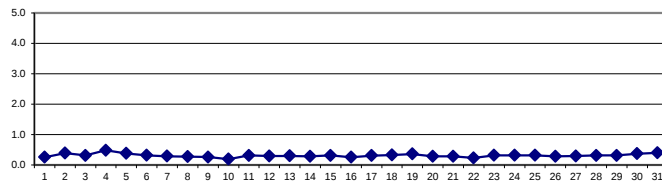
TOTAL REDUCED SULPHUR Hourly Averages (TRS ppb)

START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.3	0.3	24	
2	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.5	S	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.4	24
3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.2	0.5	0.3	24	
4	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	S	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.6	0.5	24	
5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	P	P	P	P	R	0.4	0.3	0.3	0.2	0.3	0.3	0.5	0.3	0.3	0.4	0.2	0.5	0.4	19	
6	0.5	0.6	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	S	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.6	0.3	24	
7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.3	24	
8	0.2	0.3	0.2	0.2	0.4	0.5	0.5	0.5	S	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.1	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.5	0.3	24
9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	24	
10	0.3	0.3	0.2	0.3	0.3	0.2	S	0.2	0.1	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.4	0.3	0.3	0.3	0.3	0.2	0.0	0.4	0.2	24	
11	0.3	0.3	0.3	0.3	0.4	S	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.4	0.3	24	
12	0.4	0.4	0.4	0.3	S	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	24	
13	0.3	0.3	0.3	S	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	24	
14	0.3	0.3	S	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.2	0.3	0.3	0.2	0.2	0.4	0.3	24	
15	0.3	S	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.4	0.3	24	
16	S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	S	0.1	0.3	0.3	24	
17	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	S	0.4	0.2	0.4	0.3	24	
18	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	S	0.5	0.4	0.2	0.5	0.3	24	
19	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	S	0.5	0.6	0.6	0.3	0.6	0.4	24	
20	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	S	0.3	0.2	0.3	0.3	0.2	0.4	0.3	24	
21	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.3	24	
22	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	S	0.3	0.2	0.2	0.2	0.3	0.6	0.1	0.6	0.2	24	
23	0.4	0.2	0.2	0.5	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.5	0.3	24	
24	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	S	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	24
25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.3	24	
26	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	24	
27	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	S	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	24	
28	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	24	
29	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	S	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	24	
30	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.4	S	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	24	
31	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	S	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	24	
HOURLY MAX	0.5	0.6	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.6					
HOURLY AVG	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

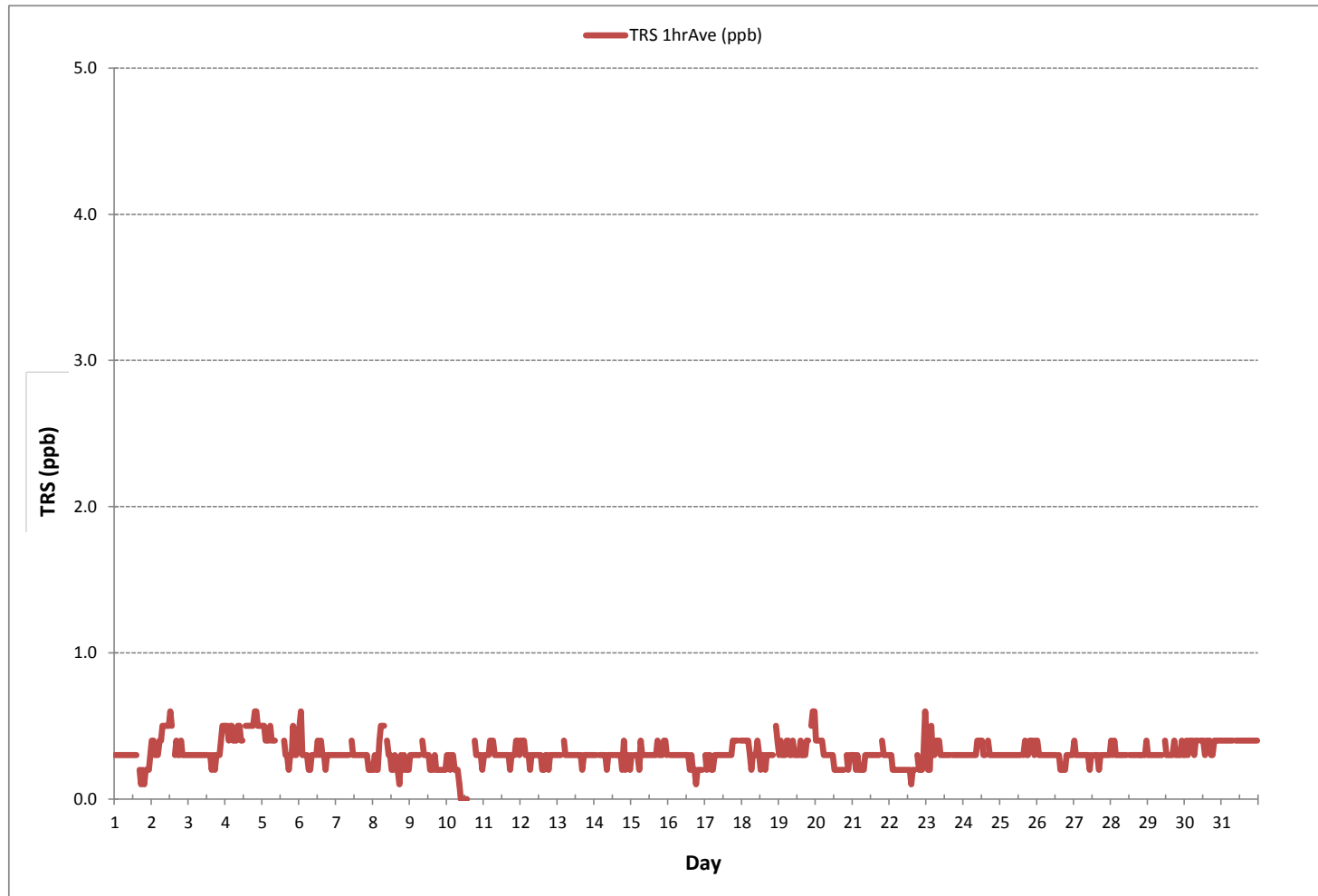
24 HR AVERAGES January 2017



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	699				
MINIMUM 1-HR AVERAGE:	0.0	ppb	@ HOUR(S)	VAR	ON DAY(S) 10
MAXIMUM 1-HR AVERAGE:	0.6	ppb	@ HOUR(S)	VAR	ON DAY(S) VAR
MAXIMUM 24-HR AVERAGE:	0.5	ppb			ON DAY(S) 4
					VAR-VARIOUS
IZS CALIBRATION TIME:	31	hrs	OPERATIONAL TIME:	739	hrs
MONTHLY CALIBRATION TIME:	4	hrs	AMD OPERATION UPTIME:	99.3	%
STANDARD DEVIATION:	0.1		MONTHLY AVERAGE:	0.3	ppb

TOTAL REDUCED SULPHUR Hourly Averages (TRS ppb)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

TOTAL REDUCED SULPHUR Instantaneous Maximum (TRS ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MIN.	DAILY MAX.	24-HR AVG.	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59					
DAY																													
1	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.6	S	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.8	0.5	24
2	0.7	0.7	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.6	S	0.6	1.0	1.0	0.4	0.6	0.5	0.5	0.4	0.4	0.4	0.4	1.0	0.6	24
3	0.4	0.4	0.4	0.5	0.4	0.4	0.6	0.5	0.4	0.6	0.5	0.4	0.5	S	0.4	0.4	0.5	0.5	0.3	0.4	0.4	0.6	1.0	0.5	0.3	1.0	0.5	24	
4	0.6	0.6	0.7	0.5	0.6	0.9	0.6	0.8	0.5	0.6	0.5	0.5	S	0.6	0.6	0.8	1.1	1.0	0.6	0.6	0.7	0.6	0.5	0.5	0.5	1.1	0.7	24	
5	0.6	0.6	0.5	0.5	0.5	0.7	0.7	0.6	0.6	P	P	P	P	R	0.6	0.5	0.6	0.6	0.6	0.5	0.7	0.5	0.5	0.8	0.5	0.8	0.6	19	
6	0.8	1.0	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	S	0.5	0.7	0.6	0.7	0.6	0.5	0.8	0.5	0.5	0.5	0.5	0.4	0.4	0.4	1.0	0.6	24	
7	0.4	0.4	0.5	0.4	0.5	0.4	0.6	0.6	0.5	S	0.6	0.4	0.4	0.3	0.4	0.4	0.4	0.9	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.9	0.5	24	
8	0.4	0.4	0.5	0.4	0.5	0.6	0.9	0.7	S	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.9	0.4	24	
9	0.4	0.4	0.4	0.5	0.4	0.5	0.5	S	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.7	0.3	0.4	0.3	0.4	0.4	0.3	0.7	0.4	24	
10	0.3	0.4	0.4	0.5	0.5	0.4	S	0.6	0.4	0.3	0.3	0.3	0.4	C	C	C	C	C	1.0	0.8	0.8	0.7	0.8	0.7	0.3	1.0	0.5	24	
11	0.8	0.7	0.8	0.8	0.8	S	0.8	0.8	0.8	0.7	0.6	0.7	0.8	0.8	0.7	0.6	1.3	0.7	0.8	0.7	0.8	0.8	0.9	0.8	0.6	1.3	0.8	24	
12	0.8	0.9	0.9	0.7	S	0.7	1.0	0.8	0.7	0.7	0.7	0.6	0.8	0.8	0.6	0.8	0.9	1.0	0.7	0.7	0.7	0.8	0.7	0.6	0.6	1.0	0.8	24	
13	0.7	0.8	0.8	S	0.9	0.6	1.0	1.0	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.6	0.9	0.8	0.7	0.7	0.9	0.8	0.7	0.6	1.0	0.8	24	
14	0.8	0.8	S	0.8	0.8	0.7	0.8	1.0	0.9	0.7	0.8	0.9	0.8	0.8	0.8	0.9	1.1	0.9	0.9	0.9	0.8	0.8	0.9	0.7	0.7	1.1	0.8	24	
15	0.8	S	0.9	0.8	0.8	0.7	1.2	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.7	1.2	0.8	24	
16	S	0.8	0.7	0.8	0.8	0.8	1.0	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8	1.1	1.5	1.2	1.1	0.8	0.9	0.8	0.9	S	0.7	1.5	0.9	24	
17	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	1.0	S	0.9	0.8	1.0	0.9	24
18	1.1	1.0	1.0	0.9	0.9	1.0	1.2	1.4	1.3	1.0	1.0	1.0	1.0	1.0	1.1	0.9	1.0	1.5	0.9	1.0	1.1	S	1.2	1.0	0.9	1.5	1.1	24	
19	0.9	1.0	0.9	0.9	0.9	1.4	1.2	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9	S	1.1	1.4	1.2	0.8	1.4	1.0	24	
20	0.9	0.9	1.0	1.0	1.3	1.1	1.0	1.1	1.0	1.0	0.9	1.1	1.0	0.9	0.8	0.8	0.9	1.0	1.1	S	0.9	0.9	0.9	1.0	0.8	1.3	1.0	24	
21	0.9	0.9	0.9	1.0	0.9	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.9	0.9	1.2	S	0.9	0.8	0.9	0.8	1.0	0.8	1.2	0.9	24	
22	0.8	0.8	0.9	0.8	0.8	0.9	0.9	1.1	1.4	0.8	0.8	0.9	0.8	0.9	0.8	0.7	0.8	S	1.2	0.9	0.9	0.8	0.9	1.3	0.7	1.4	0.9	24	
23	1.3	0.9	0.9	1.2	0.9	0.9	1.0	1.1	1.1	0.9	0.9	0.9	0.9	1.0	1.1	0.9	S	1.2	1.4	0.8	0.8	0.9	0.8	0.8	0.8	1.4	1.0	24	
24	0.8	0.9	0.9	0.8	0.9	0.9	0.9	1.1	0.9	1.0	1.0	0.9	0.9	0.9	0.9	S	1.3	1.3	1.2	0.9	1.0	0.9	0.9	0.9	0.8	1.3	1.0	24	
25	0.9	0.9	0.8	1.0	0.9	0.9	0.9	1.1	0.9	0.8	0.8	0.9	0.8	0.9	S	0.9	1.4	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.8	1.4	0.9	24	
26	0.9	0.9	0.8	0.9	0.8	1.0	0.9	0.9	0.9	0.8	0.9	0.8	0.9	S	1.0	0.8	0.9	1.1	1.3	0.9	0.8	0.9	1.0	0.9	0.8	1.3	0.9	24	
27	1.0	1.0	1.0	0.9	0.9	1.0	0.9	1.1	0.9	0.9	0.8	0.9	S	0.9	0.8	0.9	1.0	1.6	1.1	0.9	0.9	0.9	1.0	1.0	0.8	1.6	1.0	24	
28	1.0	1.0	1.0	0.9	0.9	0.9	1.0	0.9	0.9	0.9	1.0	S	0.9	1.0	0.9	0.9	0.9	1.1	1.2	0.9	0.9	1.0	0.9	1.1	0.9	1.2	1.0	24	
29	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	0.9	S	1.0	1.1	1.0	1.0	0.9	1.3	1.5	1.0	1.0	1.1	1.0	1.0	1.0	0.9	1.5	1.0	24	
30	0.9	1.2	1.0	0.9	1.0	0.9	1.1	0.9	1.0	S	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	1.2	0.9	24	
31	0.8	0.8	0.8	1.1	0.9	0.8	0.9	0.9	S	1.0	0.9	0.9	0.8	0.9	0.9	0.9	0.9	1.4	0.9	0.9	0.9	0.9	1.0	1.0	0.8	1.4	0.9	24	
HOURLY MAX	1.3	1.2	1.0	1.2	1.3	1.4	1.2	1.4	1.4	1.0	1.1	1.1	1.1	1.0	1.1	1.1	1.5	1.6	1.4	1.0	1.1	1.1	1.4	1.3					
HOURLY AVG	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.9	1.0	0.9	0.7	0.8	0.8	0.8	0.8					

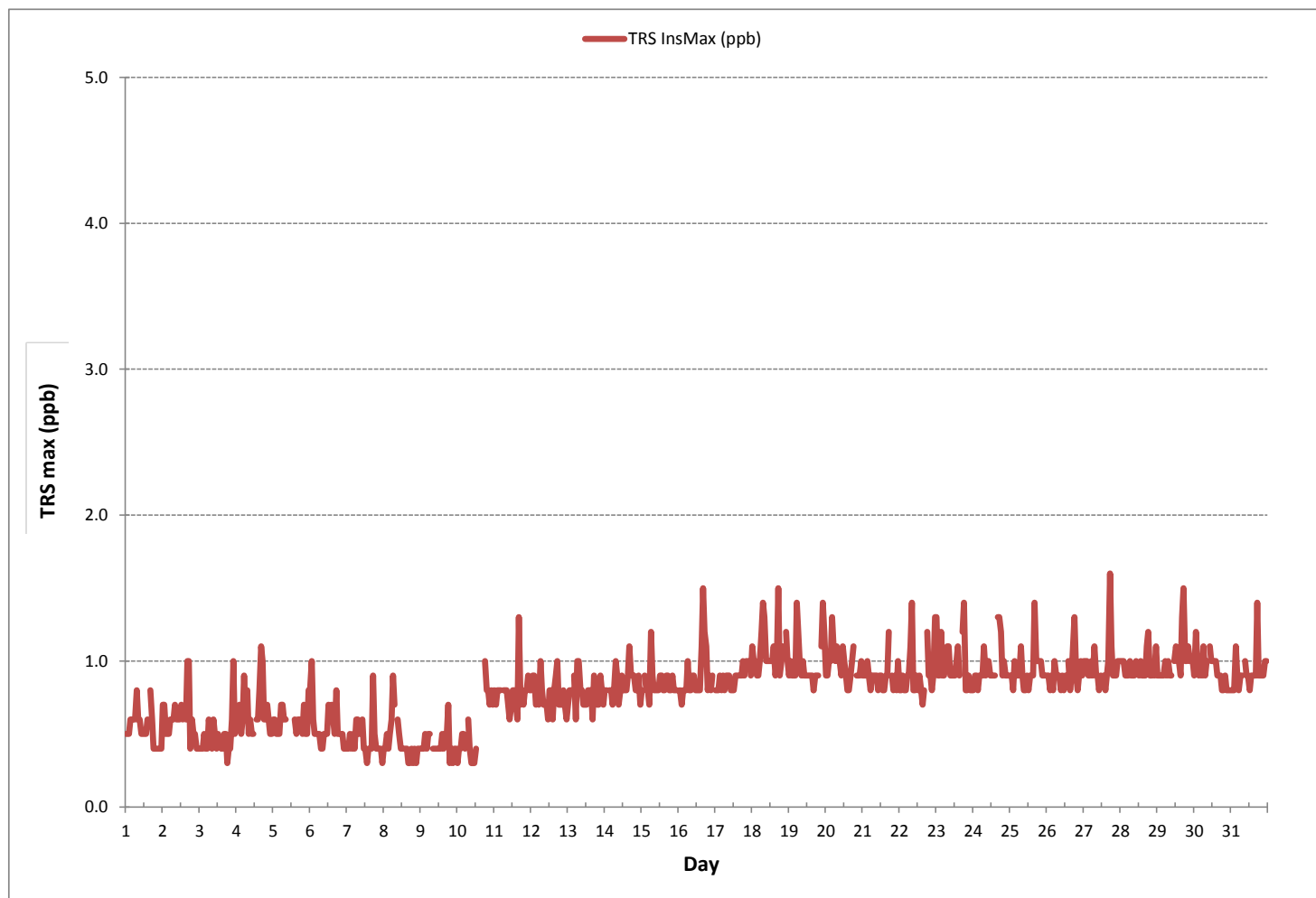
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	703
MAXIMUM INSTANTANEOUS VALUE:	1.6 ppb @ HOUR(S) 17 ON DAY(S) 27
	VAR-VARIOUS
IZS CALIBRATION TIME:	31 hrs
MONTHLY CALIBRATION TIME:	5 hrs
STANDARD DEVIATION:	0.2
OPERATIONAL TIME:	739 hrs

TOTAL REDUCED SULPHUR Instantaneous Maximum (TRS ppb)



Wind: THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-TRS[ppb] Monthly: 01/2017 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 12.52% Valid Data: 94.74% Calm Avg: 0.34 [ppb]

Direction	0-1	1-3	3-10	>10.0	Total
N	13.66	0	0	0	13.66
NE	3.7	0	0	0	3.7
E	5.26	0	0	0	5.26
SE	7.11	0	0	0	7.11
S	22.9	0	0	0	22.9
SW	22.76	0	0	0	22.76
W	4.55	0	0	0	4.55
NW	7.54	0	0	0	7.54
Summary	87.48	0	0	0	87.48

% Icon Classes (ppb)

87



0-1

0



1-3

0



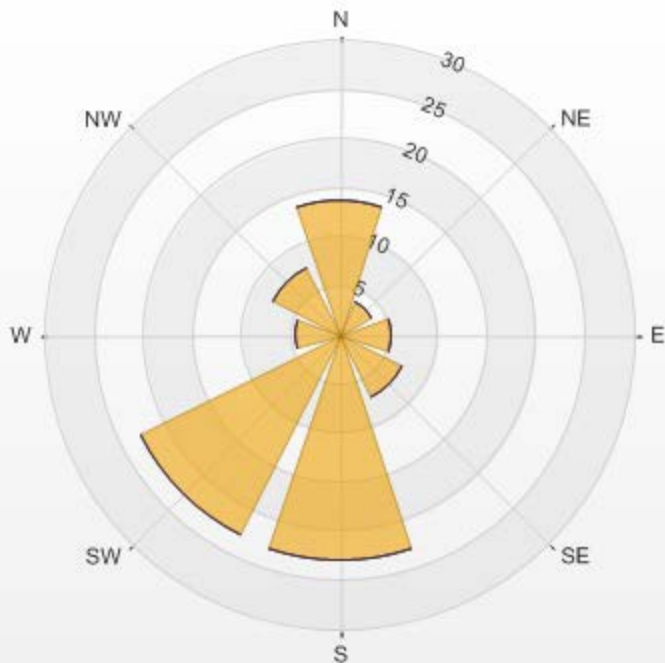
3-10

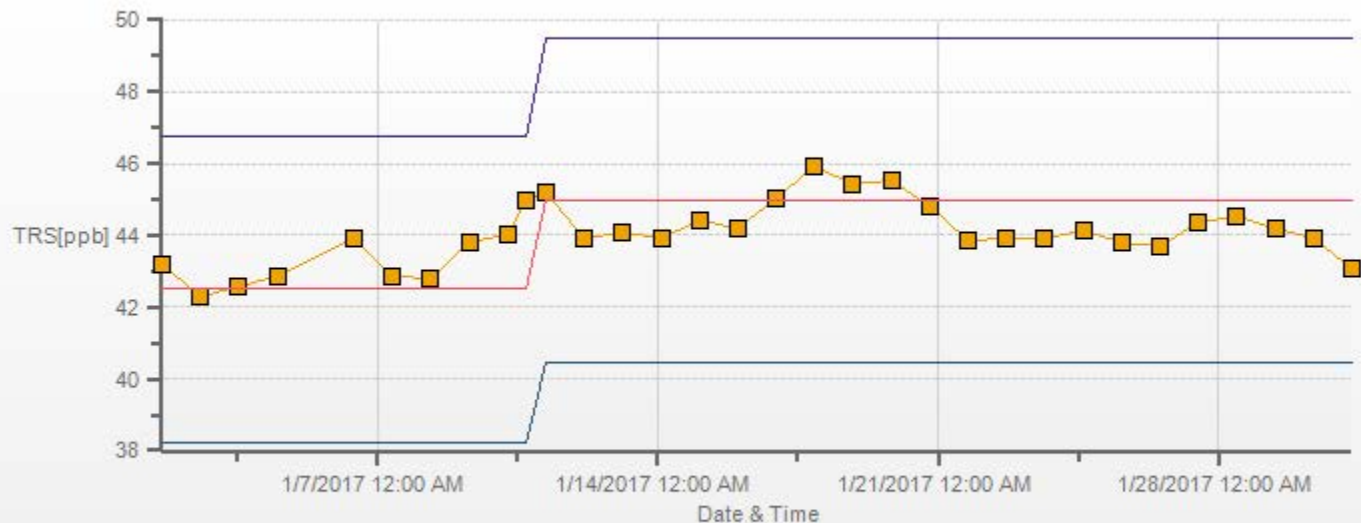
0



>10.0

THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-TRS[ppb] 01/01/2017 00:00 - 31/01/2017 23:00
Calm: 12.52% Calm Poll Avg: 0.34[ppb]





Span Meas Span Ref Span Low Span High

TOTAL HYDROCARBON

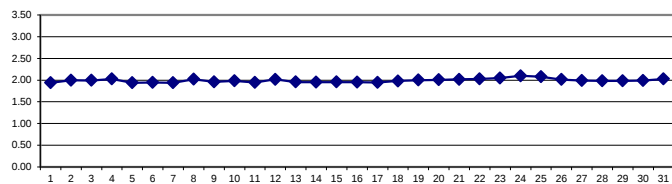
TOTAL HYDROCARBONS Hourly Averages (THC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	1.94	1.93	1.94	1.94	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.94	1.93	1.94	1.95	1.98	1.93	1.98	1.94	24	
2	2.05	2.03	2.01	2.02	2.03	2.04	2.01	2.02	2.01	2.01	1.99	1.99	1.98	1.97	S	1.95	1.95	1.94	1.94	1.96	2.02	2.02	2.01	1.98	1.94	2.05	2.00	24	
3	1.97	1.99	1.96	1.97	1.97	1.97	1.97	1.99	1.98	1.98	1.99	1.98	1.98	S	1.99	1.99	1.99	2.02	2.01	2.01	2.01	2.03	2.04	2.04	1.96	2.04	1.99	24	
4	2.04	2.05	2.04	2.04	2.05	2.05	2.06	2.06	2.06	2.04	2.01	2.00	S	2.01	2.02	2.02	2.03	2.02	2.02	2.02	2.01	1.99	1.98	1.96	1.96	2.06	2.03	24	
5	1.95	1.96	1.95	1.97	1.96	1.95	1.93	1.93	1.94	P	P	P	P	R	R	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.97	1.94	18	
6	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.95	1.95	S	1.95	1.96	1.96	1.96	1.95	1.95	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.93	1.96	1.95	24	
7	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	S	1.95	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.94	1.93	1.93	1.94	1.93	1.93	1.95	1.94	24	
8	1.93	1.94	1.94	1.96	2.04	2.16	2.23	2.28	S	2.24	2.14	2.10	1.99	1.94	1.93	1.93	1.94	1.94	1.95	1.95	1.97	1.98	1.96	1.96	1.93	2.28	2.02	24	
9	1.96	1.98	1.98	1.99	1.99	1.98	1.98	S	2.01	1.98	1.98	1.97	1.95	1.94	1.93	1.92	1.92	1.93	1.93	1.94	1.96	1.95	1.94	X	1.92	2.01	1.96	23	
10	X	X	X	X	X	X	X	X	X	Y	C	C	C	C	C	1.98	1.99	2.00	2.00	1.99	1.98	1.98	1.97	1.97	1.97	2.00	1.98	14	
11	1.96	1.96	1.95	1.94	1.93	S	1.91	1.91	1.90	1.91	1.91	1.91	1.92	1.93	1.94	1.94	1.95	1.95	1.96	1.96	1.97	1.97	1.98	2.01	1.90	2.01	1.94	24	
12	2.08	2.14	2.20	2.07	S	2.01	2.00	2.00	2.00	2.00	1.98	1.97	1.98	1.98	2.00	2.00	2.00	2.01	2.01	2.02	2.00	1.98	1.97	1.96	1.96	2.20	2.02	24	
13	1.95	1.95	1.95	S	1.96	1.96	1.95	1.96	1.95	1.95	1.95	1.95	1.95	1.96	1.96	1.95	1.96	1.96	1.95	1.96	1.96	1.96	1.96	1.95	1.95	1.96	1.95	24	
14	1.95	1.94	S	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.96	1.96	1.95	1.95	1.96	1.95	1.94	1.95	1.96	1.96	1.96	1.96	1.94	1.96	1.95	24	
15	1.94	S	1.95	1.95	1.95	1.94	1.95	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.95	1.95	1.95	1.96	1.97	1.97	1.96	1.96	1.97	1.97	1.94	1.97	1.95	24	
16	S	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.96	1.95	1.96	1.96	1.95	1.94	1.93	1.94	1.95	1.94	1.92	1.93	1.95	1.95	1.94	S	1.92	1.97	1.95	24	
17	1.94	1.94	1.93	1.95	1.95	1.94	1.93	1.93	1.94	1.94	1.93	1.94	1.93	1.92	1.92	1.93	1.93	1.93	1.98	1.99	1.97	1.98	S	1.97	1.92	1.99	1.94	24	
18	1.96	1.97	1.97	1.98	1.97	1.98	2.00	1.99	2.00	2.01	2.03	1.97	1.93	1.93	1.93	1.94	1.94	1.94	1.97	2.00	2.04	S	2.04	2.02	1.93	2.04	1.98	24	
19	1.98	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.00	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	S	2.01	2.02	2.03	1.98	2.03	2.00	24	
20	2.00	2.01	2.02	2.04	2.04	2.02	2.01	2.02	2.01	2.00	2.00	2.00	1.99	1.98	1.98	1.99	2.00	2.01	2.04	S	2.01	2.00	2.00	2.00	1.98	2.04	2.01	24	
21	2.01	2.01	2.01	2.02	2.03	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	S	2.01	2.02	2.02	2.02	2.02	2.01	2.03	2.02	24	
22	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.03	2.03	2.03	S	2.03	2.03	2.03	2.03	2.03	2.04	2.02	2.04	2.02	24	
23	2.04	2.03	2.03	2.04	2.04	2.03	2.04	2.04	2.03	2.04	2.05	2.06	2.07	2.07	2.06	2.04	S	2.04	2.05	2.06	2.06	2.05	2.05	2.05	2.03	2.07	2.05	24	
24	2.06	2.06	2.06	2.07	2.07	2.07	2.07	2.08	2.09	2.09	2.11	2.12	2.13	2.12	2.11	S	2.08	2.11	2.14	2.14	2.13	2.11	2.10	2.11	2.06	2.14	2.10	24	
25	2.10	2.11	2.10	2.09	2.05	2.04	2.05	2.06	2.07	2.08	2.09	2.09	2.08	2.06	S	2.06	2.08	2.09	2.10	2.09	2.08	2.07	2.07	2.08	2.04	2.11	2.08	24	
26	2.07	2.05	2.04	2.03	2.02	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.00	S	2.00	2.00	2.01	2.01	2.01	2.01	2.00	1.98	1.98	1.99	1.98	2.07	2.01	24	
27	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.00	2.00	2.00	S	1.98	1.99	1.98	1.97	1.98	1.98	1.98	1.99	1.99	1.98	1.99	1.97	2.01	1.99	24
28	1.99	1.99	1.99	1.99	1.98	1.99	1.99	1.98	1.98	1.99	1.99	S	1.97	1.98	1.98	1.98	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.99	1.98	24	
29	1.98	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	S	1.98	1.98	1.97	1.98	1.99	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.99	1.98	24	
30	1.98	1.99	1.98	1.98	1.98	1.99	1.99	1.98	1.99	S	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.98	2.00	1.99	24	
31	2.01	2.01	2.01	2.01	2.02	2.02	2.02	2.02	S	2.03	2.03	2.03	2.03	2.03	2.02	2.02	2.02	2.03	2.03	2.03	2.04	2.04	2.04	2.04	2.01	2.04	2.03	24	
HOURLY MAX	2.10	2.14	2.20	2.09	2.07	2.16	2.23	2.28	2.09	2.24	2.14	2.12	2.13	2.12	2.11	2.06	2.08	2.11	2.14	2.14	2.13	2.11	2.10	2.11					
HOURLY AVG	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	1.99	2.00	2.00	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

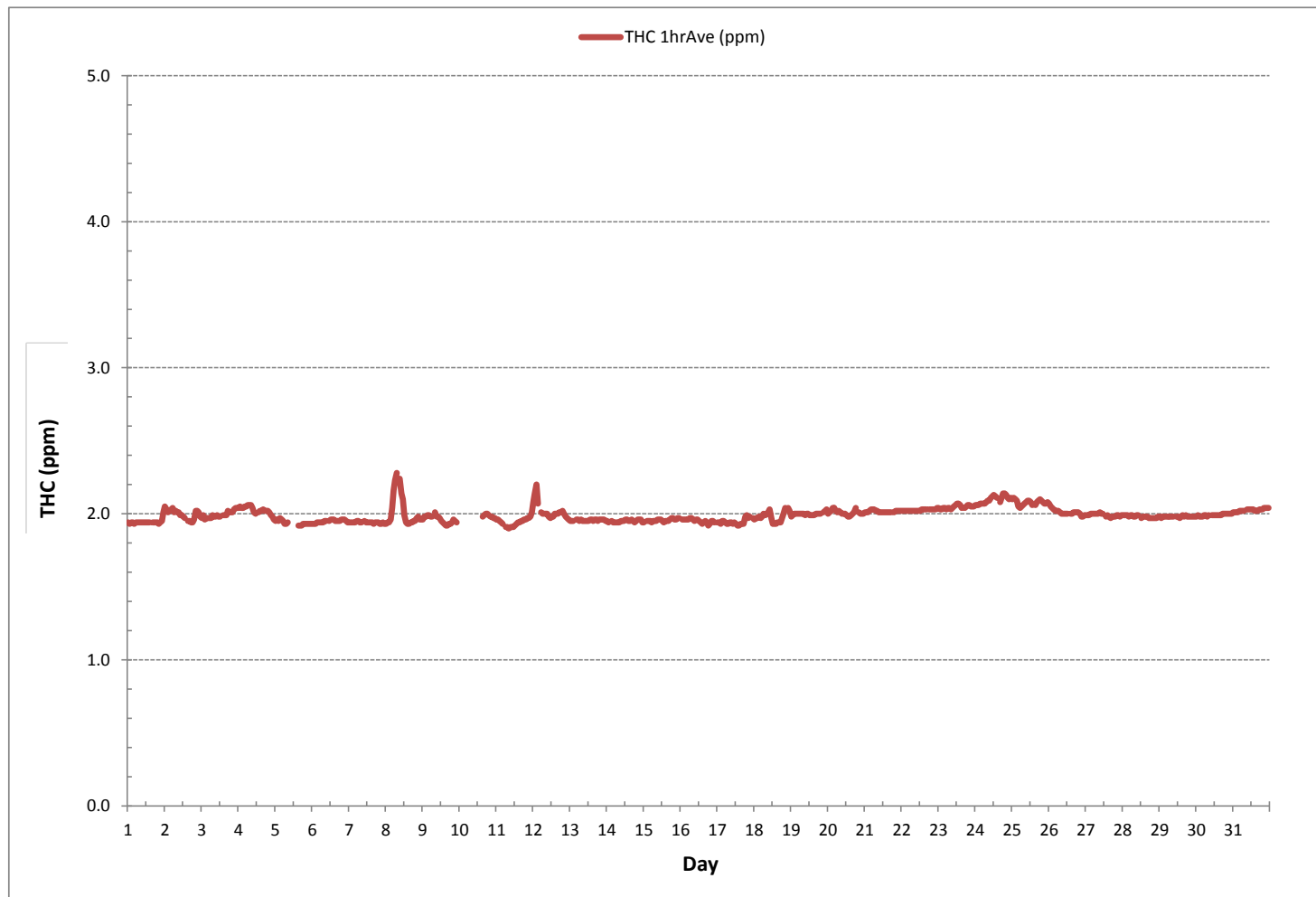
24 HR AVERAGES January 2017



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	692			
MINIMUM 1-HR AVERAGE:	1.90	ppm @ HOUR(S)	8	ON DAY(S) 11
MAXIMUM 1-HR AVERAGE:	2.28	ppm @ HOUR(S)	7	ON DAY(S) 8
MAXIMUM 24-HR AVERAGE:	2.10	ppm		ON DAY(S) 24
				VAR-VARIOUS
IZS CALIBRATION TIME:	30	hrs	OPERATIONAL TIME:	727 hrs
MONTHLY CALIBRATION TIME:	5	hrs	AMD OPERATION UPTIME:	97.7 %
STANDARD DEVIATION:	0.05		MONTHLY AVERAGE:	1.99 ppm

TOTAL HYDROCARBONS Hourly Averages (THC ppm)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE
Three Creeks 986b Station - January 2017

TOTAL HYDROCARBONS Instantaneous Maximum (THC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	1.93	1.94	1.94	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	\$	1.94	1.94	1.95	1.94	1.96	1.94	1.96	2.08	1.93	2.08	1.95	24
2	2.09	2.05	2.02	2.05	2.04	2.07	2.03	2.04	2.03	2.03	2.00	1.99	1.99	1.98	\$	1.95	1.95	1.94	1.94	2.01	2.05	2.03	2.03	1.99	1.94	2.09	2.01	24
3	1.99	2.03	2.01	1.99	1.98	1.97	1.99	1.99	1.99	1.99	2.00	1.99	2.00	\$	2.00	2.00	2.00	2.03	2.03	2.01	2.02	2.05	2.05	2.05	1.97	2.05	2.01	24
4	2.05	2.06	2.05	2.05	2.06	2.08	2.07	2.08	2.08	2.06	2.03	2.01	\$	2.02	2.03	2.03	2.04	2.03	2.04	2.03	2.02	2.02	1.99	1.98	1.98	2.08	2.04	24
5	1.97	1.99	1.95	1.99	1.99	1.95	1.94	1.93	1.94	P	P	P	P	R	R	1.92	1.94	1.93	1.94	1.94	1.94	1.93	1.94	1.93	1.92	1.99	1.95	18
6	1.94	1.94	1.93	1.94	1.94	1.96	1.94	1.95	1.95	1.96	\$	1.96	1.97	1.96	1.98	1.95	1.98	1.95	1.96	1.96	1.97	1.97	1.97	1.95	1.93	1.98	1.96	24
7	1.94	1.94	1.97	1.96	1.95	1.96	1.95	1.96	1.94	\$	1.96	1.94	1.95	1.95	1.96	1.94	1.95	1.94	1.95	1.95	1.94	1.95	1.97	1.95	1.94	1.97	1.95	24
8	1.93	1.95	1.94	1.97	2.10	2.22	2.26	2.33	\$	2.26	2.20	2.12	2.07	1.96	1.95	1.95	1.95	1.95	1.96	1.96	1.97	2.00	1.96	1.98	1.93	2.33	2.04	24
9	2.00	2.00	1.99	1.99	2.00	1.98	1.98	\$	2.05	1.99	2.00	1.99	1.96	1.95	1.94	1.95	1.92	1.94	1.94	1.94	1.96	1.96	1.94	X	1.92	2.05	1.97	23
10	X	X	X	X	X	X	X	X	X	Y	C	C	C	C	C	1.98	1.99	1.99	1.99	1.99	1.99	1.98	1.98	1.97	1.97	1.99	1.98	14
11	1.98	1.96	1.97	1.95	1.95	\$	1.91	1.93	1.90	1.91	1.91	1.92	1.94	1.96	1.94	1.96	1.94	1.95	1.97	1.97	1.98	1.98	1.99	2.04	1.90	2.04	1.95	24
12	2.14	2.27	2.28	2.12	\$	2.04	2.02	2.01	2.02	2.01	1.99	1.97	2.00	1.99	2.02	2.00	2.02	2.01	2.04	2.02	2.03	1.97	1.97	1.96	1.96	2.28	2.04	24
13	1.96	1.97	1.96	\$	1.96	1.99	1.95	1.98	1.97	1.95	1.97	1.96	1.97	1.96	1.98	1.97	1.97	1.98	1.96	1.97	1.97	1.97	1.97	1.96	1.95	1.99	1.97	24
14	1.96	1.96	\$	1.95	1.95	1.94	1.94	1.94	1.96	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.95	1.96	1.97	1.97	1.96	1.94	1.97	1.96	24
15	1.95	\$	1.95	1.96	1.97	1.94	1.95	1.96	1.96	1.96	1.96	1.97	1.96	1.94	1.96	1.96	1.96	1.97	1.98	1.98	1.96	1.97	1.97	1.97	1.94	1.98	1.96	24
16	\$	1.96	1.97	1.97	1.96	1.97	1.98	1.98	1.98	1.95	1.97	1.97	1.96	1.95	1.93	1.95	1.96	1.96	1.92	1.93	1.95	1.96	1.94	\$	1.92	1.98	1.96	24
17	1.95	1.94	1.94	1.96	1.96	1.94	1.94	1.94	1.95	1.95	1.93	1.95	1.94	1.92	1.93	1.93	1.94	1.95	2.02	2.00	1.99	1.99	\$	1.99	1.92	2.02	1.95	24
18	1.97	2.02	1.99	1.99	1.97	2.00	2.00	2.01	2.01	2.03	2.06	1.99	1.94	1.93	1.93	1.94	1.94	1.94	1.98	2.03	2.09	\$	2.06	2.04	1.93	2.09	1.99	24
19	1.99	2.00	2.01	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.00	2.00	2.00	2.00	\$	2.02	2.03	2.08	1.99	2.08	2.01	24
20	2.03	2.02	2.03	2.04	2.04	2.03	2.01	2.02	2.02	2.01	2.00	2.00	2.00	1.99	1.99	2.01	2.00	2.01	2.10	\$	2.02	2.00	2.01	2.01	1.99	2.10	2.02	24
21	2.02	2.02	2.02	2.03	2.04	2.04	2.03	2.02	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.01	2.02	2.02	\$	2.02	2.02	2.02	2.02	2.02	2.01	2.04	2.02	24
22	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.03	2.03	2.03	2.03	2.03	\$	2.04	2.03	2.03	2.04	2.04	2.04	2.02	2.04	2.03	24
23	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.06	2.07	2.07	2.07	2.06	2.05	\$	2.05	2.06	2.06	2.06	2.06	2.05	2.06	2.04	2.07	2.05	24
24	2.06	2.06	2.17	2.07	2.07	2.07	2.16	2.08	2.09	2.09	2.11	2.13	2.14	2.11	2.10	\$	2.09	2.13	2.14	2.14	2.18	2.12	2.10	2.11	2.06	2.18	2.11	24
25	2.10	2.11	2.11	2.09	2.08	2.05	2.06	2.06	2.08	2.08	2.09	2.09	2.10	2.07	\$	2.07	2.09	2.09	2.10	2.09	2.09	2.08	2.07	2.09	2.05	2.11	2.08	24
26	2.09	2.06	2.05	2.04	2.03	2.02	2.02	2.02	2.01	2.01	1.99	1.99	2.00	\$	2.01	2.01	2.01	2.01	2.02	2.01	2.00	1.99	1.99	1.99	1.99	2.09	2.02	24
27	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.01	2.00	2.00	\$	1.99	2.00	1.98	1.97	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.97	2.01	1.99	24
28	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	\$	1.97	1.98	1.97	1.99	1.97	1.97	1.97	1.97	1.98	1.98	1.97	1.98	1.97	2.00	1.98	24
29	1.98	1.97	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	\$	1.98	1.99	1.97	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.97	1.99	1.99	24
30	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	\$	1.99	1.99	1.99	2.00	1.99	1.99	2.00	2.00	2.01	2.01	2.01	2.01	2.01	1.99	2.01	2.00	24
31	2.01	2.01	2.01	2.02	2.02	2.05	2.02	2.02	\$	2.03	2.03	2.03	2.05	2.06	2.03	2.02	2.03	2.11	2.03	2.03	2.04	2.04	2.05	2.06	2.01	2.11	2.03	24
HOURLY MAX	2.14	2.27	2.28	2.12	2.10	2.22	2.26	2.33	2.09	2.26	2.20	2.13	2.14	2.11	2.10	2.07	2.09	2.13	2.14	2.14	2.18	2.12	2.10	2.11				
HOURLY AVG	2.00	2.01	2.01	2.00	2.00	2.01	2.00	2.01	2.00	2.01	2.01	2.00	2.00	1.99	1.99	1.98	1.99	1.99	2.00	2.00	2.01	2.00	2.00	2.01				

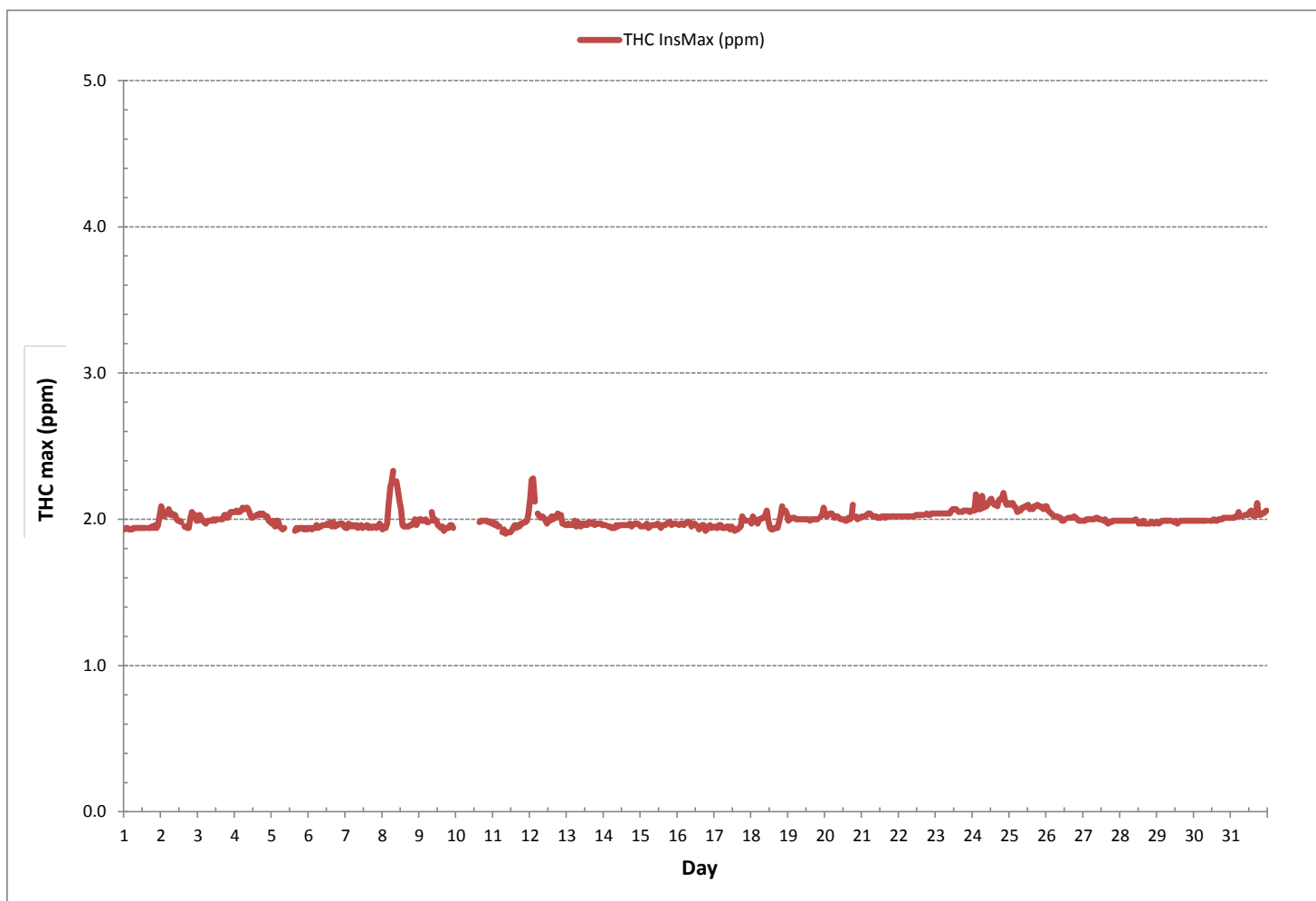
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	692				
MAXIMUM INSTANTANEOUS VALUE:	2.33	ppm	@ HOUR(S)	7	ON DAY(S) 8
				VAR-VARIOUS	
IZS CALIBRATION TIME:	30	hrs	OPERATIONAL TIME:	727	hrs
MONTHLY CALIBRATION TIME:	5	hrs			
STANDARD DEVIATION:	0.05				

TOTAL HYDROCARBONS Instantaneous Maximum (THC ppm)

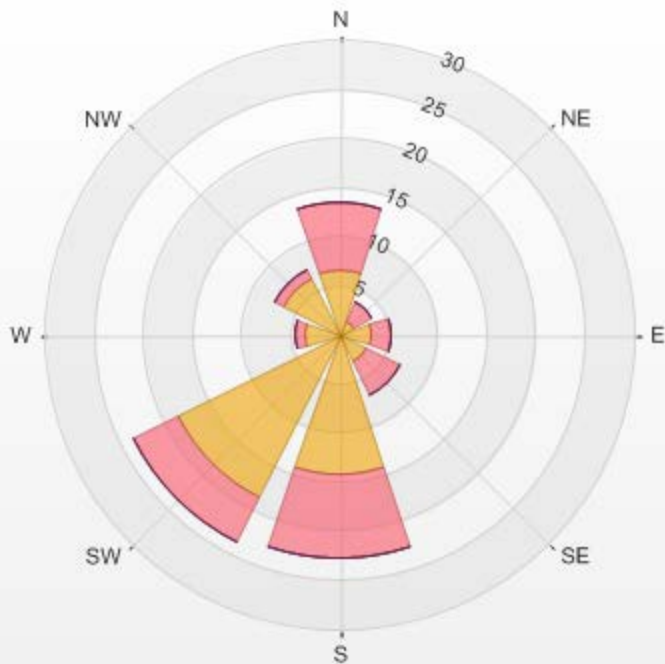


Wind: THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-THC[ppm] Monthly: 01/2017 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 12.43% Valid Data: 93.26% Calm Avg: 1.99 [ppm]

Direction	0-2	2-3	3-5	5-10	>10.0	Total
N	6.65	6.79	0	0	0	13.44
NE	1.59	2.17	0	0	0	3.76
E	3.32	1.88	0	0	0	5.2
SE	3.03	3.9	0	0	0	6.93
S	14.31	8.53	0	0	0	22.84
SW	18.5	5.06	0	0	0	23.56
W	3.61	0.87	0	0	0	4.48
NW	6.36	1.01	0	0	0	7.37
Summary	57.37	30.21	0	0	0	87.58

%	Icon	Classes (ppm)
57		0-2
30		2-3
0		3-5
0		5-10
0		>10.0

THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-THC[ppm] 01/01/2017 00:00 - 31/01/2017 23:00 Calm: 12.43% Calm Poll Avg: 1.99[ppm]



THC[ppm] Calibration: THREE CREEKS #986 TRAILER Monthly: 2017/01 Type: Span



■ Span Meas
 — Span Ref
 — Span Low
 — Span High

METHANE

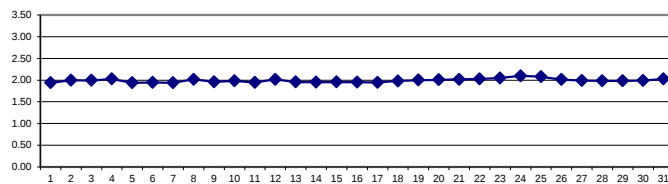
METHANE Hourly Averages (CH₄ ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	1.94	1.93	1.93	1.94	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	S	1.94	1.94	1.94	1.94	1.93	1.94	1.95	1.98	1.93	1.98	1.94	24
2	2.05	2.03	2.01	2.02	2.03	2.04	2.01	2.02	2.01	2.01	1.99	1.99	1.98	1.97	S	1.95	1.95	1.94	1.94	1.96	2.02	2.02	2.01	1.98	1.94	2.05	2.00	24
3	1.97	1.99	1.96	1.97	1.97	1.97	1.97	1.99	1.98	1.98	1.99	1.98	1.98	S	1.99	1.99	1.99	2.02	2.01	2.01	2.03	2.04	2.04	1.96	2.04	1.99	24	
4	2.04	2.05	2.04	2.04	2.05	2.05	2.06	2.06	2.06	2.04	2.01	2.00	S	2.01	2.02	2.02	2.03	2.02	2.02	2.02	2.01	1.99	1.98	1.96	1.96	2.06	2.03	24
5	1.95	1.96	1.95	1.97	1.96	1.94	1.93	1.93	1.94	P	P	P	P	R	R	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.97	1.94	18
6	1.93	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.95	1.95	S	1.95	1.96	1.96	1.96	1.95	1.95	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.93	1.96	1.95	24
7	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	S	1.95	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.94	1.93	1.93	1.94	1.93	1.93	1.95	1.94	24
8	1.93	1.94	1.94	1.96	2.04	2.16	2.23	2.28	S	2.24	2.14	2.10	1.99	1.94	1.93	1.93	1.94	1.94	1.95	1.95	1.97	1.97	1.96	1.96	1.93	2.28	2.02	24
9	1.96	1.98	1.98	1.99	1.98	1.98	1.98	S	2.01	1.98	1.98	1.97	1.95	1.94	1.93	1.92	1.92	1.93	1.93	1.94	1.96	1.95	1.94	X	1.92	2.01	1.96	23
10	X	X	X	X	X	X	X	X	X	Y	C	C	C	C	C	1.98	1.99	2.00	2.00	1.99	1.98	1.98	1.97	1.97	1.97	2.00	1.98	14
11	1.96	1.96	1.95	1.94	1.93	S	1.91	1.91	1.90	1.91	1.91	1.91	1.92	1.93	1.94	1.94	1.95	1.95	1.96	1.96	1.97	1.97	1.98	2.01	1.90	2.01	1.94	24
12	2.08	2.14	2.20	2.07	S	2.01	2.00	2.00	2.00	2.00	1.98	1.97	1.98	1.98	2.00	2.00	2.00	2.01	2.01	2.02	2.00	1.98	1.97	1.96	1.96	2.20	2.02	24
13	1.95	1.95	1.95	S	1.96	1.96	1.95	1.96	1.95	1.95	1.95	1.95	1.95	1.96	1.96	1.95	1.96	1.96	1.95	1.96	1.96	1.96	1.96	1.95	1.95	1.96	1.95	24
14	1.95	1.94	S	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.96	1.96	1.95	1.95	1.96	1.95	1.94	1.95	1.96	1.96	1.96	1.94	1.94	1.96	1.95	24
15	1.94	S	1.95	1.95	1.95	1.94	1.95	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.95	1.95	1.95	1.96	1.97	1.97	1.96	1.96	1.97	1.97	1.94	1.97	1.95	24
16	S	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.96	1.95	1.96	1.96	1.95	1.94	1.93	1.94	1.95	1.94	1.92	1.93	1.95	1.95	1.94	S	1.92	1.97	1.95	24
17	1.94	1.94	1.93	1.95	1.95	1.94	1.93	1.93	1.94	1.94	1.93	1.94	1.93	1.92	1.92	1.93	1.93	1.93	1.98	1.99	1.97	1.98	S	1.97	1.92	1.99	1.94	24
18	1.96	1.97	1.97	1.98	1.97	1.98	2.00	1.99	2.00	2.01	2.03	1.97	1.93	1.93	1.93	1.94	1.94	1.94	1.97	2.00	2.04	S	2.04	2.02	1.93	2.04	1.98	24
19	1.98	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.00	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	S	2.01	2.02	2.03	1.98	2.03	2.00	24
20	2.00	2.01	2.02	2.04	2.04	2.02	2.01	2.02	2.01	2.00	2.00	2.00	1.99	1.98	1.98	1.99	2.00	2.01	2.04	S	2.01	2.00	2.00	2.00	1.98	2.04	2.01	24
21	2.01	2.01	2.01	2.02	2.03	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	S	2.01	2.02	2.02	2.02	2.02	2.01	2.03	2.02	24
22	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.03	2.03	2.03	S	2.03	2.03	2.03	2.03	2.03	2.04	2.02	2.04	2.02	24
23	2.04	2.03	2.03	2.04	2.04	2.03	2.04	2.04	2.03	2.04	2.05	2.06	2.07	2.07	2.06	2.04	S	2.04	2.05	2.06	2.06	2.05	2.05	2.05	2.03	2.07	2.05	24
24	2.06	2.06	2.06	2.07	2.07	2.07	2.07	2.08	2.09	2.09	2.11	2.12	2.13	2.12	2.11	S	2.08	2.11	2.14	2.14	2.13	2.11	2.10	2.11	2.06	2.14	2.10	24
25	2.09	2.11	2.10	2.09	2.05	2.04	2.05	2.06	2.07	2.08	2.09	2.09	2.08	2.06	S	2.06	2.08	2.09	2.10	2.09	2.08	2.07	2.07	2.08	2.04	2.11	2.08	24
26	2.07	2.05	2.04	2.03	2.02	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.00	S	2.00	2.00	2.01	2.01	2.01	2.01	2.00	1.98	1.98	1.99	1.98	2.07	2.01	24
27	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.00	2.00	S	1.98	1.99	1.98	1.97	1.98	1.98	1.98	1.99	1.99	1.98	1.99	1.97	2.01	1.99	24
28	1.99	1.99	1.99	1.99	1.98	1.99	1.99	1.98	1.98	1.99	1.99	S	1.97	1.98	1.98	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.99	1.98	24
29	1.98	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	S	1.98	1.98	1.97	1.98	1.99	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.99	1.98	24
30	1.98	1.99	1.98	1.98	1.98	1.99	1.99	1.98	1.99	S	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.98	2.00	1.99	24
31	2.01	2.01	2.01	2.01	2.02	2.02	2.02	2.02	S	2.03	2.03	2.03	2.03	2.03	2.02	2.02	2.02	2.03	2.02	2.03	2.04	2.04	2.04	2.04	2.01	2.04	2.02	24
HOURLY MAX	2.09	2.14	2.20	2.09	2.07	2.16	2.23	2.28	2.09	2.24	2.14	2.12	2.13	2.12	2.11	2.06	2.08	2.11	2.14	2.14	2.13	2.11	2.10	2.11				
HOURLY AVG	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	1.99	2.00	2.00	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

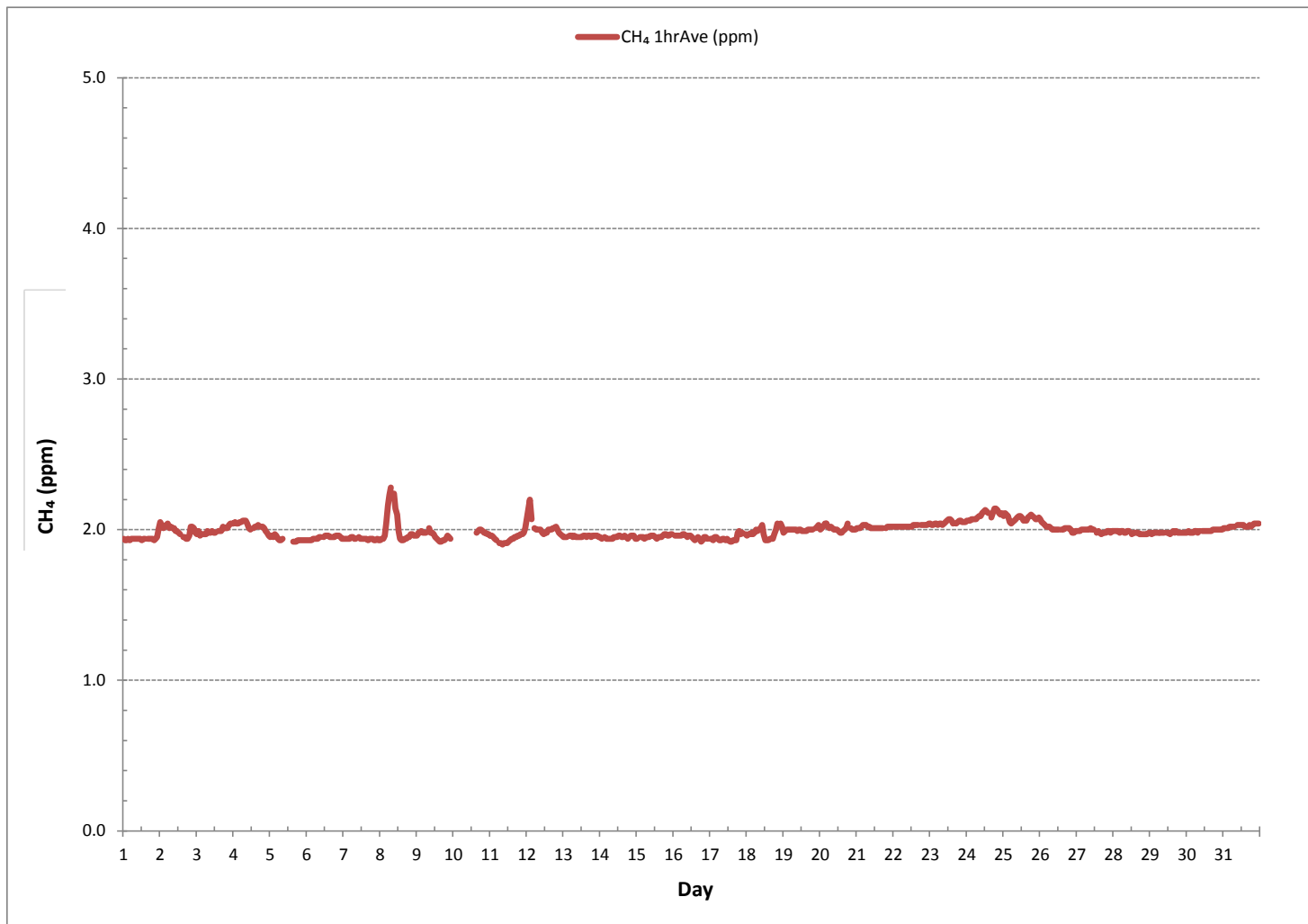
24 HR AVERAGES January 2017



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	692			
MINIMUM 1-HR AVERAGE:	1.90	ppm	@ HOUR(S)	8
MAXIMUM 1-HR AVERAGE:	2.28	ppm	@ HOUR(S)	7
MAXIMUM 24-HR AVERAGE:	2.10	ppm		
			ON DAY(S)	11
			ON DAY(S)	8
			ON DAY(S)	24
			VAR-VARIOUS	
IZS CALIBRATION TIME:	30	hrs	OPERATIONAL TIME:	727
MONTHLY CALIBRATION TIME:	5	hrs	AMD OPERATION UPTIME:	97.7
STANDARD DEVIATION:	0.05		MONTHLY AVERAGE:	1.99
				ppm

METHANE Hourly Averages (CH₄ ppm)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

METHANE MAX Instantaneous Maximum (CH₄ ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MIN.	DAILY MAX.	24-HR AVG.	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59				
DAY																												
1	1.95	1.95	1.95	1.95	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	S	1.95	1.95	1.96	1.96	1.98	1.96	1.97	2.09	1.94	2.09	1.96	24
2	2.06	2.06	2.03	2.06	2.04	2.08	2.04	2.04	2.04	2.04	2.01	2.00	1.99	1.98	S	1.96	1.96	1.95	1.95	2.01	2.05	2.04	2.04	2.01	1.95	2.08	2.02	24
3	1.99	2.04	2.02	1.99	1.98	1.98	1.99	2.01	1.99	2.00	2.01	1.99	2.00	S	2.00	2.00	2.01	2.04	2.03	2.02	2.03	2.05	2.06	2.05	1.98	2.06	2.01	24
4	2.06	2.06	2.05	2.06	2.06	2.07	2.08	2.08	2.09	2.06	2.04	2.01	S	2.03	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.03	2.00	1.98	1.98	2.09	2.04	24
5	1.98	2.00	1.96	1.99	2.00	1.96	1.95	1.94	1.95	P	P	P	P	R	R	1.94	1.95	1.94	1.95	1.95	1.96	1.94	1.95	1.94	1.94	2.00	1.96	18
6	1.95	1.95	1.95	1.96	1.95	1.97	1.95	1.96	1.96	1.98	S	1.97	1.98	1.97	1.99	1.97	1.99	1.97	1.97	1.97	1.98	1.98	1.98	1.96	1.95	1.99	1.97	24
7	1.95	1.96	1.99	1.97	1.96	1.97	1.96	1.97	1.95	S	1.97	1.95	1.97	1.96	1.97	1.95	1.96	1.95	1.96	1.97	1.95	1.97	1.98	1.96	1.95	1.99	1.96	24
8	1.94	1.96	1.95	1.98	2.11	2.23	2.27	2.33	S	2.28	2.21	2.14	2.08	1.98	1.96	1.97	1.96	1.97	1.97	1.97	1.98	2.01	1.98	2.00	1.94	2.33	2.05	24
9	2.01	2.01	2.01	2.01	2.01	1.99	1.99	S	2.05	2.00	2.02	2.00	1.97	1.97	1.95	1.96	1.93	1.96	1.95	1.95	1.97	1.98	1.96	X	1.93	2.05	1.98	23
10	X	X	X	X	X	X	X	X	X	Y	C	C	C	C	C	1.99	2.00	2.01	2.01	2.00	2.01	1.99	1.99	1.98	1.98	2.01	2.00	14
11	2.00	1.97	1.98	1.96	1.97	S	1.93	1.94	1.91	1.92	1.91	1.92	1.94	1.95	1.97	1.95	1.97	1.97	1.99	1.98	1.99	1.99	2.00	2.05	1.91	2.05	1.96	24
12	2.15	2.29	2.29	2.13	S	2.05	2.03	2.02	2.03	2.02	2.00	1.98	2.01	2.00	2.03	2.01	2.03	2.02	2.04	2.03	2.04	1.99	1.98	1.97	1.97	2.29	2.05	24
13	1.97	1.98	1.97	S	1.97	2.00	1.96	1.99	1.98	1.96	1.98	1.96	1.98	1.97	1.98	1.97	1.98	1.98	1.96	1.98	1.97	1.97	1.98	1.97	1.96	2.00	1.97	24
14	1.96	1.96	S	1.96	1.96	1.95	1.95	1.95	1.96	1.95	1.96	1.96	1.97	1.97	1.96	1.97	1.97	1.97	1.96	1.96	1.98	1.98	1.98	1.96	1.95	1.98	1.96	24
15	1.95	S	1.96	1.96	1.97	1.95	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.96	1.97	1.96	1.96	1.97	1.99	1.99	1.97	1.98	1.98	1.98	1.95	1.99	1.97	24
16	S	1.97	1.98	1.97	1.97	1.97	1.99	1.99	1.98	1.96	1.98	1.98	1.96	1.96	1.95	1.96	1.96	1.96	1.94	1.94	1.96	1.96	1.96	S	1.94	1.99	1.97	24
17	1.95	1.95	1.95	1.96	1.96	1.95	1.95	1.94	1.95	1.95	1.94	1.95	1.94	1.93	1.94	1.95	1.95	1.95	2.02	2.00	2.00	1.99	S	2.01	1.93	2.02	1.96	24
18	1.98	2.03	2.00	2.00	1.99	2.01	2.01	2.02	2.02	2.03	2.07	2.00	1.95	1.94	1.95	1.95	1.95	1.95	1.99	2.04	2.10	S	2.07	2.04	1.94	2.10	2.00	24
19	2.00	2.01	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.01	2.00	2.01	2.00	2.00	2.01	2.01	2.01	2.01	S	2.02	2.03	2.09	2.00	2.09	2.01	24
20	2.04	2.02	2.04	2.05	2.05	2.04	2.02	2.03	2.03	2.01	2.01	2.01	2.00	2.00	1.99	2.01	2.01	2.02	2.11	S	2.03	2.01	2.01	2.02	1.99	2.11	2.02	24
21	2.03	2.03	2.02	2.04	2.05	2.05	2.04	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	S	2.02	2.03	2.03	2.03	2.03	2.02	2.05	2.03	24
22	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.04	2.04	2.04	2.04	2.04	S	2.05	2.04	2.04	2.04	2.05	2.05	2.03	2.05	2.04	24
23	2.05	2.04	2.04	2.05	2.05	2.04	2.05	2.05	2.05	2.05	2.07	2.07	2.08	2.08	2.07	2.06	S	2.06	2.07	2.07	2.07	2.06	2.06	2.06	2.04	2.08	2.06	24
24	2.06	2.07	2.07	2.08	2.07	2.08	2.17	2.09	2.10	2.10	2.13	2.13	2.15	2.13	2.12	S	2.09	2.14	2.14	2.15	2.16	2.13	2.12	2.12	2.06	2.17	2.11	24
25	2.11	2.12	2.13	2.11	2.09	2.05	2.06	2.07	2.08	2.09	2.10	2.10	2.10	2.07	S	2.07	2.09	2.10	2.10	2.10	2.09	2.08	2.08	2.10	2.05	2.13	2.09	24
26	2.10	2.07	2.05	2.04	2.04	2.03	2.03	2.02	2.02	2.02	2.01	2.01	2.01	S	2.02	2.02	2.02	2.02	2.02	2.02	2.01	1.99	2.00	2.00	1.99	2.10	2.02	24
27	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.01	2.00	S	1.99	2.01	1.99	1.98	1.99	1.99	2.00	2.00	2.00	2.00	2.00	1.98	2.02	2.00	24
28	2.00	2.00	2.00	2.00	1.99	1.99	2.00	2.00	2.00	2.00	2.01	S	1.98	1.99	1.98	1.99	1.99	1.98	1.98	1.98	1.99	1.99	1.98	1.99	1.98	2.01	1.99	24
29	1.99	1.98	1.99	1.99	2.00	1.99	1.99	1.99	1.99	2.00	S	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.98	2.00	1.99	24
30	1.99	2.00	1.99	1.99	2.00	2.00	1.99	2.00	2.00	S	2.01	2.00	2.00	2.01	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	1.99	2.01	2.00	24
31	2.02	2.02	2.02	2.02	2.03	2.05	2.03	2.03	S	2.04	2.04	2.04	2.06	2.07	2.03	2.03	2.03	2.13	2.03	2.04	2.05	2.05	2.06	2.06	2.02	2.13	2.04	24
HOURLY MAX	2.15	2.29	2.29	2.13	2.11	2.23	2.27	2.33	2.10	2.28	2.21	2.14	2.15	2.13	2.12	2.07	2.09	2.14	2.14	2.15	2.16	2.13	2.12	2.12				
HOURLY AVG	2.01	2.02	2.02	2.01	2.01	2.02	2.01	2.02	2.00	2.02	2.02	2.01	2.00	2.00	2.00	1.99	1.99	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.02			

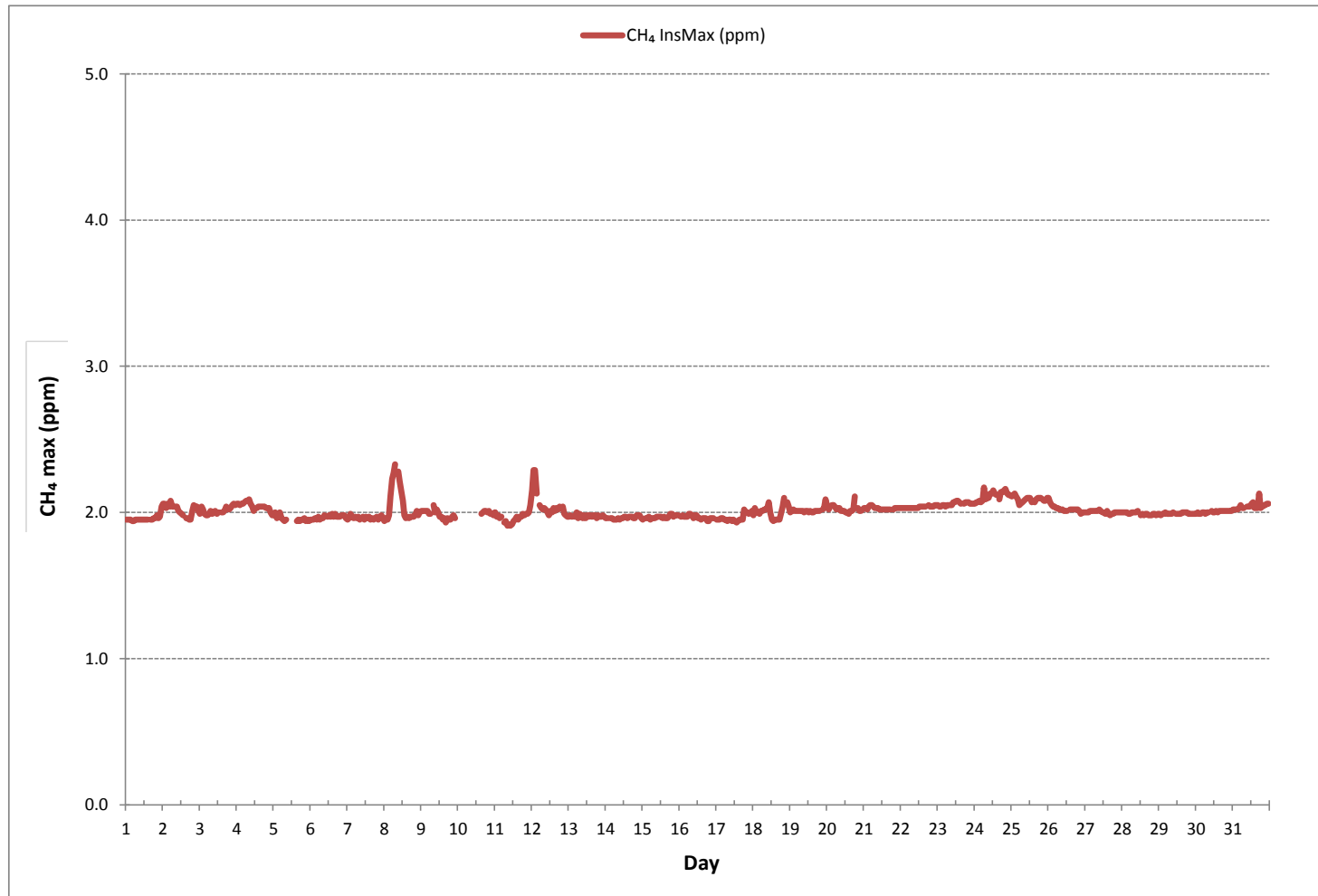
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	692				
MAXIMUM INSTANTANEOUS VALUE:	2.33	ppm	@ HOUR(S)	7	ON DAY(S) 8
				VAR-VARIOUS	
IZS CALIBRATION TIME:	30	hrs	OPERATIONAL TIME:	727	hrs
MONTHLY CALIBRATION TIME:	5	hrs			
STANDARD DEVIATION:	0.05				

METHANE MAX Instantaneous Maximum (CH₄ ppm)

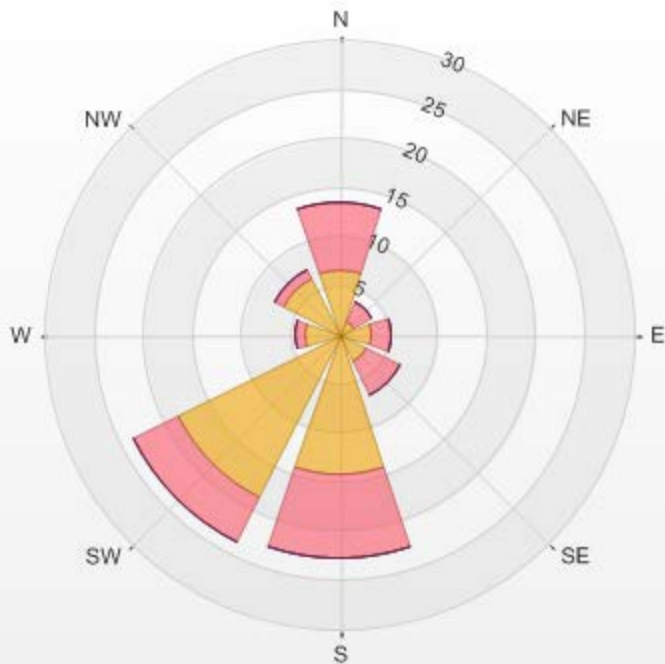


Wind: THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-CH4[ppm] Monthly: 01/2017 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 12.43% Valid Data: 93.26% Calm Avg: 1.99 [ppm]

Direction	0-2	2-3	3-5	5-10	>10.0	Total
N	6.65	6.79	0	0	0	13.44
NE	1.59	2.17	0	0	0	3.76
E	3.32	1.88	0	0	0	5.2
SE	3.03	3.9	0	0	0	6.93
S	14.31	8.53	0	0	0	22.84
SW	18.5	5.06	0	0	0	23.56
W	3.61	0.87	0	0	0	4.48
NW	6.36	1.01	0	0	0	7.37
Summary	57.37	30.21	0	0	0	87.58

%	Icon	Classes (ppm)
57		0-2
30		2-3
0		3-5
0		5-10
0		>10.0

THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-CH4[ppm] 01/01/2017 00:00 - 31/01/2017 23:00 Calm: 12.43% Calm Poll Avg: 1.99[ppm]





■ Span Meas
 — Span Ref
 — Span Low
 — Span High

NON-METHANE HYDROCARBON



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

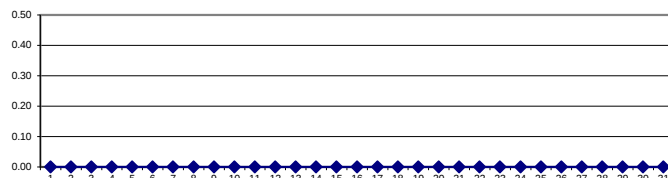
NON-METHANE HYDROCARBONS Hourly Averages (NMHC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	P	P	P	P	R	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	0.00	0.00	0.00	23	
10	X	X	X	X	X	X	X	X	X	Y	C	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14
11	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
12	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
13	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
14	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
15	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
16	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	24
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	24
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	24
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
26	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
HOURLY MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HOURLY AVG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

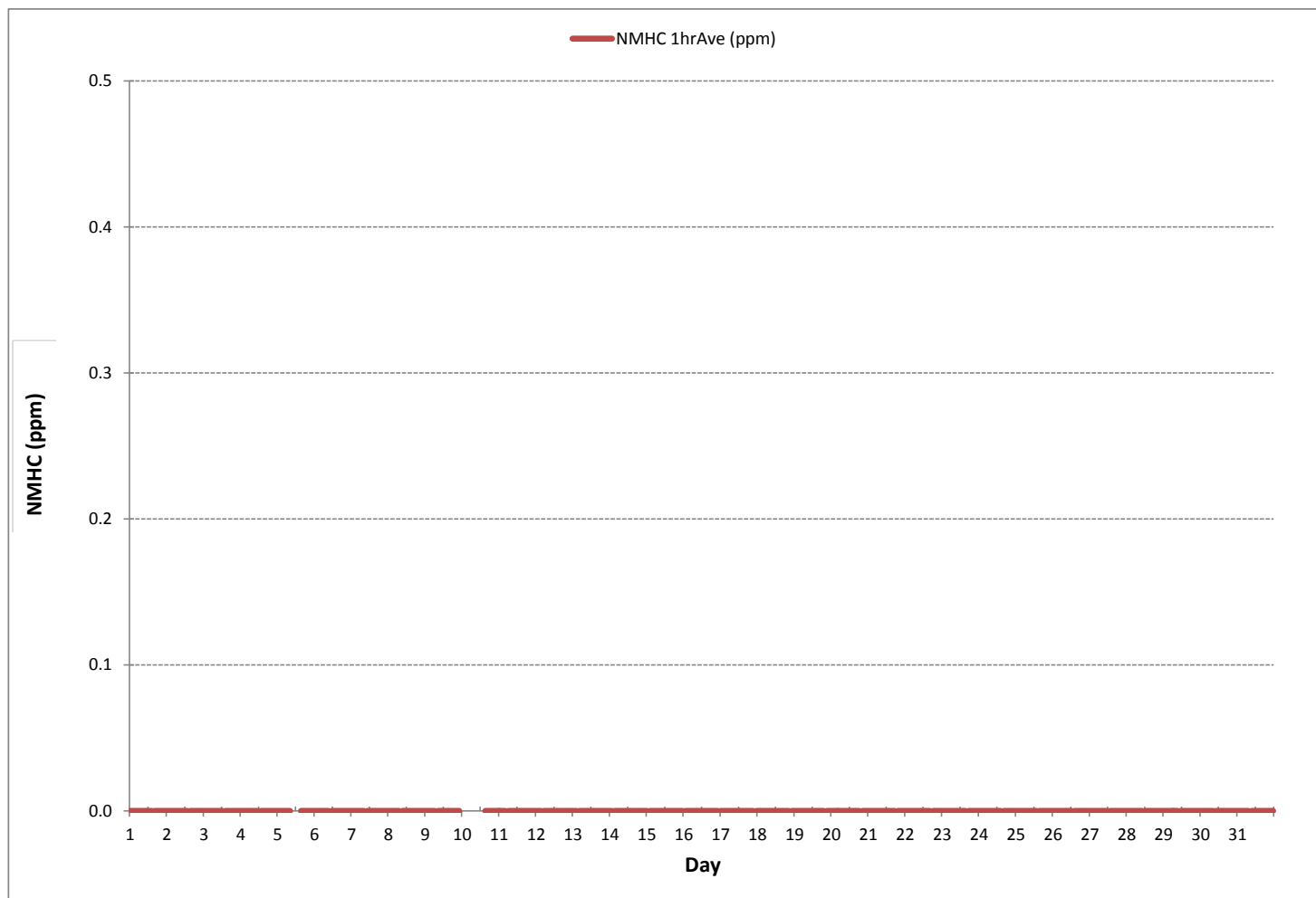
24 HR AVERAGES January 2017



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	0				
MINIMUM 1-HR AVERAGE:	0.00	ppm	@ HOUR(S)	ALL	ON DAY(S)
MAXIMUM 1-HR AVERAGE:	0.00	ppm	@ HOUR(S)	ALL	ON DAY(S)
MAXIMUM 24-HR AVERAGE:	0.00	ppm			ON DAY(S)
					VAR-VARIOUS
IZS CALIBRATION TIME:	30	hrs	OPERATIONAL TIME:	727	hrs
MONTHLY CALIBRATION TIME:	5	hrs	AMD OPERATION UPTIME:	97.7	%
STANDARD DEVIATION:	0.00		MONTHLY AVERAGE:	0.00	ppm

NON-METHANE HYDROCARBONS Hourly Averages (NMHC ppm)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

NON-METHANE HYDROCARBONS Instantaneous Maximum (NMHC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MIN.	DAILY MAX.	24-HR AVG.	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59					
DAY																													
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24	
2	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	24
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	24
4	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.00	S	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	24
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	P	P	P	P	R	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
7	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	24
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	24
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	0.00	0.00	0.00	0.00	23
10	X	X	X	X	X	X	X	X	X	Y	C	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14
11	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
12	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
13	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
14	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
15	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
16	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	24
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.01	0.00	0.00	24
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.01	0.00	0.00	24
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	24
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
24	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.11	0.01	0.00	24
25	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	S	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	24
26	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	24
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	24
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	24
31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
HOURLY MAX	0.06	0.01	0.11	0.01	0.01	0.03	0.00	0.01	0.00	0.01	0.01	0.00	0.02	0.01	0.01	0.01	0.02	0.00	0.00	0.01	0.06	0.00	0.01	0.01					
HOURLY AVG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					

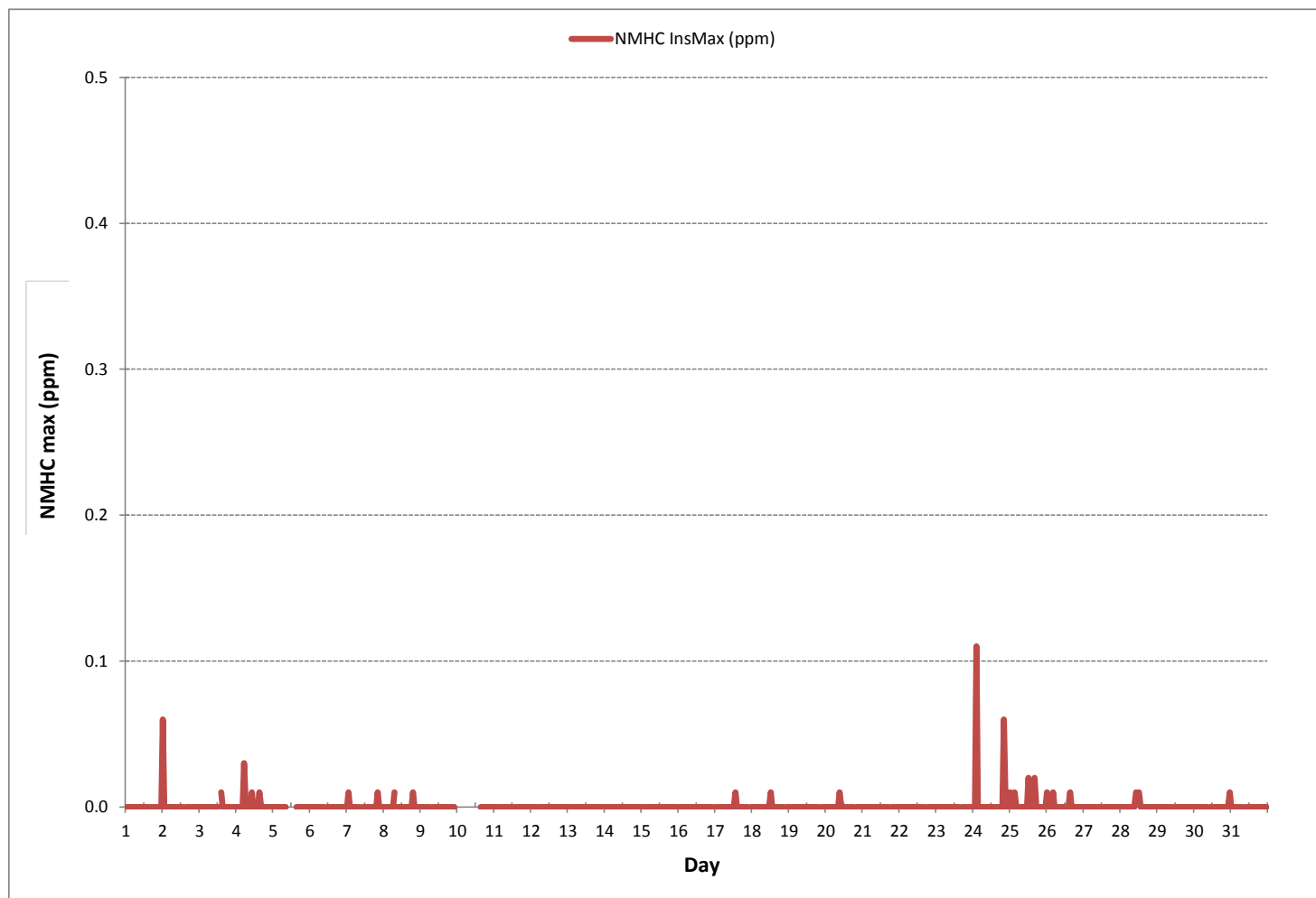
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	25
MAXIMUM INSTANTANEOUS VALUE:	0.11 ppm @ HOUR(S) 2 ON DAY(S) 24
	VAR-VARIOUS
IZS CALIBRATION TIME:	30 hrs
MONTHLY CALIBRATION TIME:	5 hrs
STANDARD DEVIATION:	0.01
OPERATIONAL TIME:	727 hrs

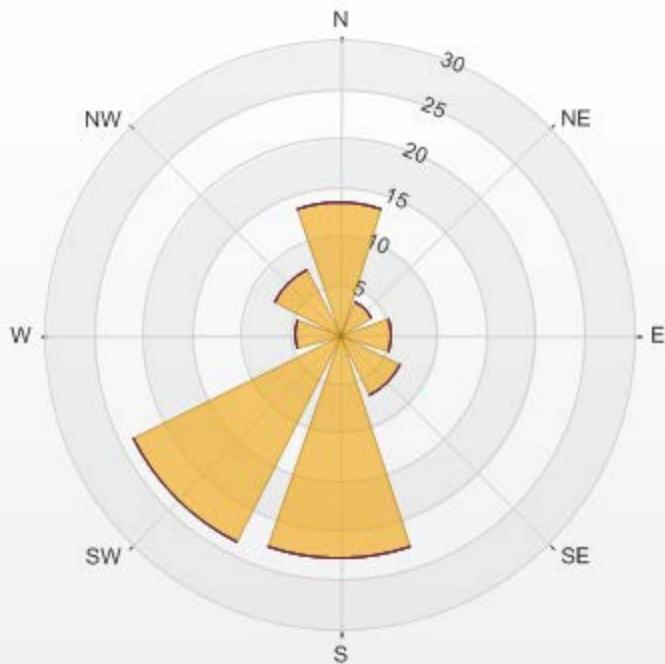
NON-METHANE HYDROCARBONS Instantaneous Maximum (NMHC ppm)

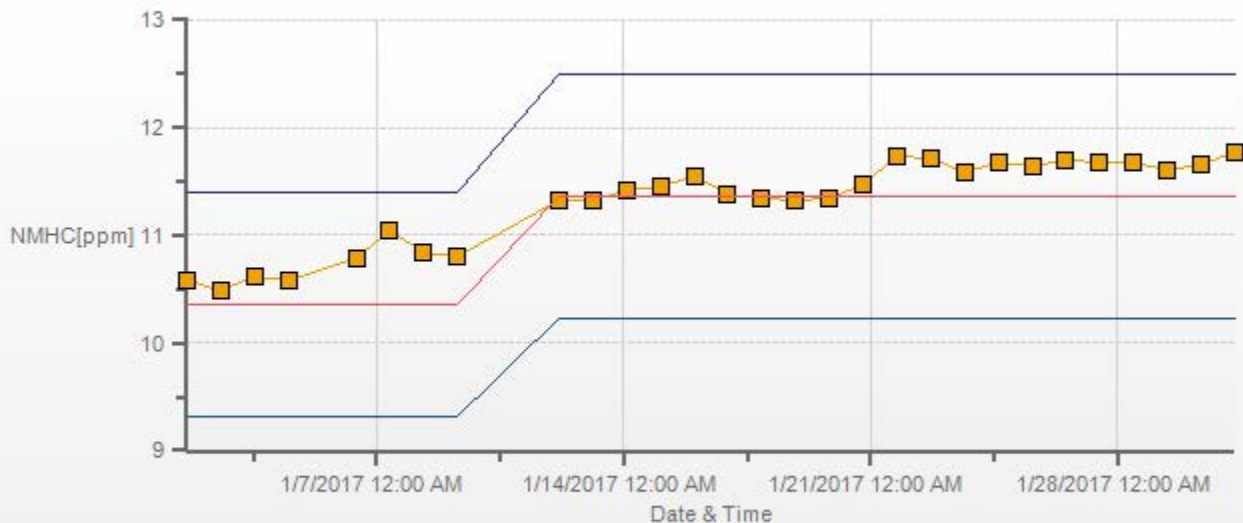


Wind: THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-NMHC[ppm] Monthly: 01/2017 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 12.43% Valid Data: 93.26% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	13.44	0	0	0	0	13.44
NE	3.76	0	0	0	0	3.76
E	5.2	0	0	0	0	5.2
SE	6.94	0	0	0	0	6.94
S	22.83	0	0	0	0	22.83
SW	23.55	0	0	0	0	23.55
W	4.48	0	0	0	0	4.48
NW	7.37	0	0	0	0	7.37
Summary	87.57	0	0	0	0	87.57

THREE CREEKS #986 TRAILER Poll.: THREE CREEKS #986 TRAILER-NMHC[ppm] 01/01/2017 00:00 - 31/01/2017 23:00 Calm: 12.43% Calm Poll Avg: 0.00[ppm]





Span Meas Span Ref Span Low Span High

WIND SPEED

WIND SPEED Hourly Averages (WS kph)

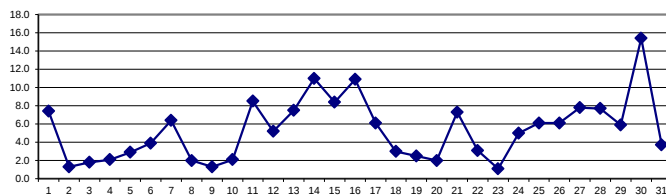
HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	10.0	15.5	16.8	16.2	16.4	13.2	11.2	13.1	10.9	8.7	9.0	15.4	14.8	10.5	6.1	4.3	2.0	0.9	1.2	1.2	2.0	4.0	1.5	0.9	0.9	16.8	7.4	24
2	3.7	1.7	1.5	0.8	0.5	0.8	1.4	0.4	0.3	0.9	1.8	1.0	1.2	1.0	0.6	1.8	0.1	1.4	1.6	1.3	5.5	4.4	1.3	4.0	0.1	5.5	1.3	24
3	1.7	1.4	3.0	2.7	3.0	2.2	1.5	1.8	2.6	1.7	0.7	1.7	1.9	2.4	1.7	1.9	1.2	2.5	2.6	4.0	3.8	2.5	4.1	2.5	0.7	4.1	1.8	24
4	2.4	4.0	3.9	1.5	3.6	3.9	4.9	5.6	3.0	2.2	3.9	4.8	4.3	3.7	3.4	1.5	2.1	1.0	0.2	0.2	0.2	1.7	2.9	2.4	0.2	5.6	2.1	24
5	0.1	1.1	2.8	4.0	3.2	3.3	3.4	3.8	4.0	P	P	P	P	7.5	5.5	5.6	6.7	5.3	5.3	3.8	4.9	6.0	6.8	6.7	0.1	7.5	2.9	20
6	6.0	6.5	5.9	4.0	3.7	2.6	3.4	3.2	3.3	5.1	4.8	4.4	6.4	6.1	5.7	8.2	8.4	6.0	3.6	4.0	4.6	4.4	5.9	7.3	2.6	8.4	3.9	24
7	8.6	8.0	7.1	8.6	7.1	5.5	6.8	8.4	9.3	8.7	8.2	8.4	8.8	8.8	7.3	7.0	7.2	5.3	4.9	4.6	3.5	1.7	0.3	0.3	0.3	9.3	6.4	24
8	0.6	1.2	1.7	0.7	2.3	2.3	2.0	2.1	3.4	4.1	4.7	1.4	2.9	5.3	5.2	4.7	2.8	1.6	2.9	3.7	2.4	0.9	2.2	1.6	0.6	5.3	2.0	24
9	1.3	2.7	2.0	2.9	1.9	0.5	1.7	1.4	1.8	0.5	0.7	3.3	5.5	2.4	1.5	1.1	0.6	1.0	1.5	2.7	1.9	3.4	4.2	5.8	0.5	5.8	1.3	24
10	11.1	6.7	1.5	7.5	8.5	8.9	9.4	7.4	4.3	1.1	2.6	1.8	4.1	6.0	5.6	5.4	4.9	3.8	4.2	4.3	4.9	6.2	5.5	5.0	1.1	11.1	2.1	24
11	6.3	6.4	6.1	6.9	7.1	15.4	19.2	17.7	26.1	26.3	24.9	23.8	18.3	19.5	14.6	12.1	6.0	3.4	0.7	0.6	3.3	1.2	1.5	3.0	0.6	26.3	8.5	24
12	3.7	4.1	6.5	6.0	7.5	6.1	7.5	7.6	5.6	10.0	9.9	8.9	8.3	9.4	9.3	8.8	6.4	5.6	5.1	5.0	4.6	3.7	3.3	4.7	3.3	10.0	5.2	24
13	4.4	5.8	7.2	8.1	7.3	7.5	6.0	8.0	6.5	8.6	8.7	9.2	8.8	8.3	8.3	7.4	7.2	6.8	7.5	11.0	8.8	6.7	9.2	8.7	4.4	11.0	7.5	24
14	7.3	7.0	10.0	8.6	9.2	13.2	14.8	15.1	12.4	9.5	10.1	11.6	10.0	14.8	15.8	11.7	15.2	11.0	7.8	13.5	12.2	8.9	10.2	12.0	7.0	15.8	11.0	24
15	16.1	13.7	10.6	9.4	8.8	9.6	7.9	7.2	8.0	9.5	7.0	8.3	7.9	10.1	8.5	12.4	11.1	8.0	7.3	7.4	7.4	8.9	8.1	6.4	6.4	16.1	8.4	24
16	8.2	11.3	13.3	11.7	11.6	9.0	10.7	12.9	14.3	14.0	14.3	13.4	14.7	13.7	12.7	10.6	6.5	11.6	11.2	10.5	9.0	6.4	7.0	5.9	5.9	14.7	10.9	24
17	6.9	6.8	6.7	9.5	7.5	7.3	7.5	7.0	7.7	6.9	6.4	7.6	5.5	5.3	5.9	6.0	6.6	8.5	6.7	7.1	7.6	7.0	2.0	4.6	2.0	9.5	6.1	24
18	3.9	4.0	4.3	3.9	5.0	4.0	4.2	3.9	5.4	5.1	6.2	8.0	6.9	10.1	6.0	5.3	3.2	4.7	4.4	4.4	3.7	2.5	3.9	6.1	2.5	10.1	3.0	24
19	6.1	8.2	6.2	5.2	5.2	3.4	3.7	3.7	3.9	4.5	4.1	5.2	3.8	1.6	2.2	5.8	2.8	0.3	4.2	2.1	1.8	3.5	0.5	1.8	0.3	8.2	2.5	24
20	5.8	6.6	5.8	5.5	4.2	4.9	5.0	3.2	3.9	6.4	3.0	4.6	6.6	5.1	4.3	4.2	4.5	0.4	4.4	8.1	7.3	8.1	8.6	9.0	0.4	9.0	2.0	24
21	9.9	9.2	8.5	9.6	8.6	10.1	8.8	8.5	9.3	9.1	7.3	7.5	7.6	7.6	7.1	6.9	6.1	6.6	5.1	5.9	4.1	4.5	3.7	3.6	3.6	10.1	7.3	24
22	3.6	2.9	3.0	2.6	2.3	2.7	2.4	2.7	2.4	2.4	2.3	4.0	4.2	4.4	5.4	4.3	4.6	3.8	4.4	4.7	5.0	4.9	4.4	3.8	2.3	5.4	3.1	24
23	2.7	3.4	2.9	2.8	2.6	3.9	4.0	2.0	1.4	1.3	2.0	1.2	0.5	1.0	1.1	2.4	2.2	2.0	4.2	1.6	2.6	3.9	3.8	3.8	0.5	4.2	1.1	24
24	4.6	4.8	4.2	3.6	3.1	4.2	4.3	5.4	5.3	4.4	7.2	9.1	7.9	8.9	8.0	6.6	6.1	5.7	4.5	3.3	3.3	2.9	6.1	5.2	2.9	9.1	5.0	24
25	5.1	4.0	2.4	5.3	5.9	8.7	7.4	6.9	4.0	6.9	10.0	7.2	10.0	10.4	9.3	8.3	8.6	7.4	6.0	5.1	4.5	5.3	4.5	5.6	2.4	10.4	6.1	24
26	2.4	4.9	4.7	5.1	6.8	5.5	5.5	4.5	5.6	4.5	6.9	9.3	11.0	9.3	7.4	6.3	6.2	6.1	5.1	5.2	7.2	9.2	9.3	13.1	2.4	13.1	6.1	24
27	15.1	12.1	4.6	5.8	7.0	5.4	7.0	5.3	6.0	5.7	12.8	10.5	10.3	12.1	10.6	9.6	8.4	8.1	8.7	6.4	8.1	6.8	8.5	7.8	4.6	15.1	7.8	24
28	7.9	7.8	6.6	3.6	5.1	8.5	11.1	7.9	7.6	8.0	8.9	9.0	7.5	9.3	9.3	9.4	11.6	10.4	11.7	10.1	5.7	5.5	6.5	6.2	3.6	11.7	7.7	24
29	6.8	7.3	8.1	6.8	8.0	9.4	6.2	7.3	6.9	7.7	6.1	4.6	5.0	6.3	7.6	6.4	6.4	5.2	5.0	3.3	2.7	5.9	5.3	3.3	2.7	9.4	5.9	24
30	4.2	4.7	13.1	14.1	15.9	17.9	19.4	16.4	16.7	17.9	18.2	21.8	24.0	22.3	25.9	21.9	22.5	18.3	16.0	12.3	12.5	11.4	13.3	12.5	4.2	25.9	15.4	24
31	9.0	7.8	7.9	5.6	5.9	1.2	1.8	3.7	2.4	1.8	5.1	7.2	5.2	10.2	10.1	8.8	4.6	1.4	0.4	0.7	2.4	1.5	3.4	0.6	0.4	10.2	3.7	24
HOURLY MAX	16.1	15.5	16.8	16.2	16.4	17.9	19.4	17.7	26.1	26.3	24.9	23.8	24.0	22.3	25.9	21.9	22.5	18.3	16.0	13.5	12.5	11.4	13.3	13.1				
HOURLY AVG	1.7	2.0	1.9	1.8	1.9	2.5	2.6	2.3	2.5	2.7	3.2	3.5	3.6	3.7	3.5	3.2	2.8	2.3	2.0	1.9	2.0	1.9	1.7	1.5				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

LAST CALIBRATION: May 3, 2016
DECLINATION : MAGNETIC DECLINATION 15 DEGREE EAST

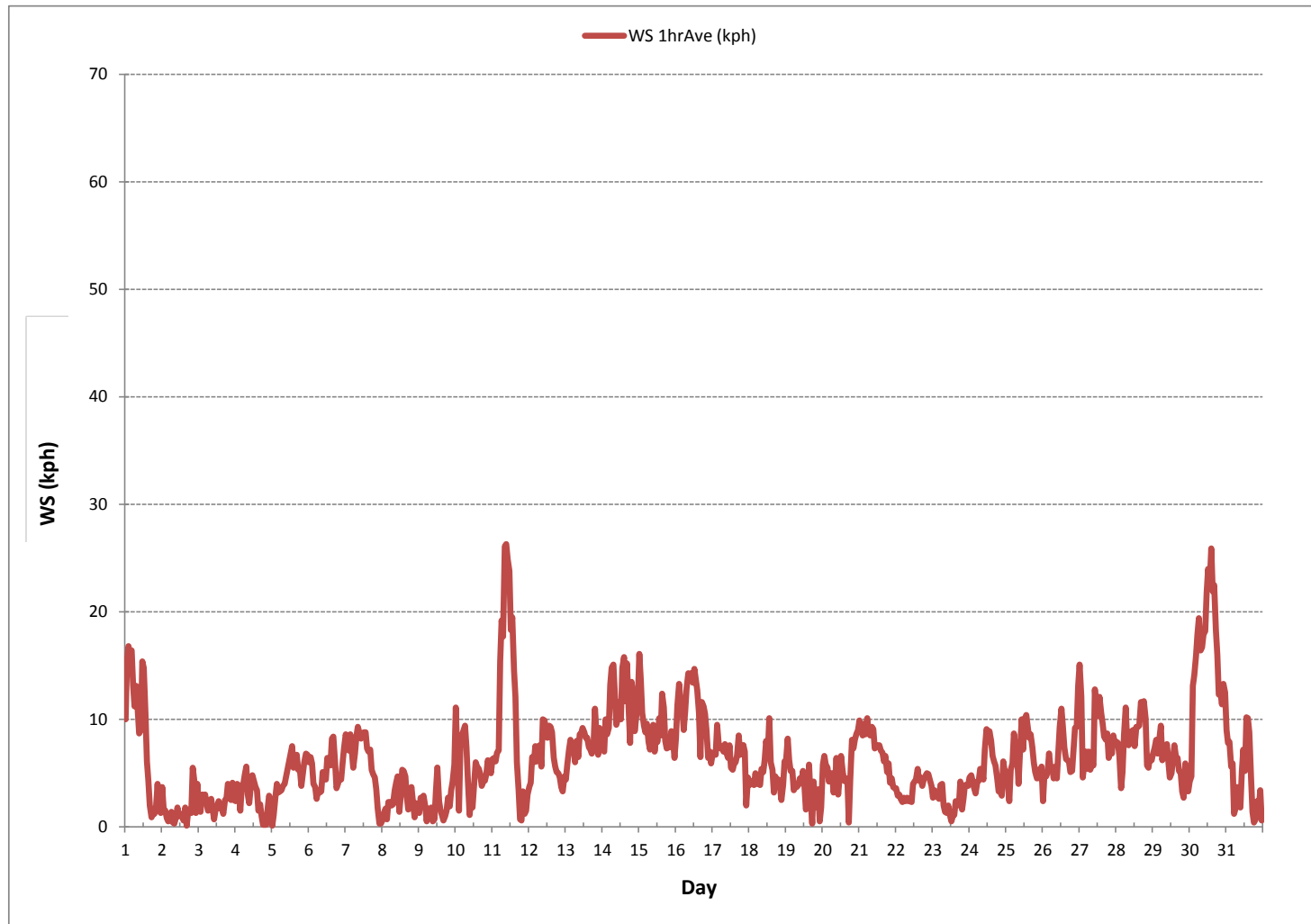
24 HR AVERAGES January 2017



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	740				
MINIMUM 1-HR AVERAGE:	0.1 kph	@ HOUR(S)	16 , 0	ON DAY(S)	2 , 5
MAXIMUM 1-HR AVERAGE:	26.3 kph	@ HOUR(S)	9	ON DAY(S)	11
MAXIMUM 24-HR AVERAGE:	15.4 kph			ON DAY(S)	30
				VAR-VARIOUS	
MONTHLY CALIBRATION TIME:	0 hrs	OPERATIONAL TIME:	740 hrs		
		AMD OPERATION UPTIME:	99.5 %		
STANDARD DEVIATION:	4.3	MONTHLY AVERAGE:	2.3 kph		

WIND SPEED Hourly Averages (WS kph)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

WIND SPEED Instantaneous Maximum (WS kph)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	20.2	28.1	33.6	31.6	37.1	37.8	24.0	26.6	38.7	18.6	16.6	26.4	27.7	23.8	17.5	15.2	6.9	5.5	3.9	4.7	6.0	8.8	6.7	4.4	3.9	38.7	19.6	24
2	9.2	6.3	6.6	4.1	2.8	4.9	6.7	3.2	6.4	4.0	6.1	4.6	3.6	3.4	5.6	6.4	3.6	6.3	4.5	3.9	9.0	9.7	3.4	6.2	2.8	9.7	5.4	24
3	4.7	3.8	5.4	5.5	5.0	4.3	4.3	6.2	6.2	5.9	3.4	5.1	6.6	5.9	7.5	5.2	5.4	9.1	7.3	8.3	9.8	9.2	8.3	7.3	3.4	9.8	6.2	24
4	6.8	8.0	6.6	5.4	7.6	6.3	7.6	9.6	11.5	8.3	8.8	9.8	13.5	13.2	10.2	6.6	6.2	4.5	2.6	2.5	2.3	4.6	7.1	8.8	2.3	13.5	7.4	24
5	2.5	3.8	4.7	6.9	6.9	7.4	9.2	9.7	10.5	P	P	P	P	P	17.1	14.7	16.5	12.4	13.8	12.1	13.5	21.0	25.6	18.9	2.5	25.6	12.0	19
6	19.5	21.2	20.2	14.8	14.1	10.0	10.4	11.8	13.9	14.9	13.7	13.8	17.8	16.1	15.2	18.5	19.0	17.2	12.2	11.4	13.1	16.0	13.5	22.2	10.0	22.2	15.4	24
7	21.4	21.3	18.2	22.9	17.8	18.7	19.9	24.5	22.5	23.8	22.3	21.8	23.6	22.8	18.2	18.3	16.4	12.0	12.3	13.0	9.3	5.9	3.7	4.2	3.7	24.5	17.3	24
8	3.2	4.6	4.1	4.1	5.5	7.3	6.7	5.1	8.7	6.3	7.7	5.3	9.3	13.2	13.0	15.1	12.0	6.9	9.6	11.0	7.8	7.6	4.0	5.0	3.2	15.1	7.6	24
9	4.4	7.9	8.5	6.4	7.3	3.6	5.7	6.0	7.1	3.7	3.9	8.6	10.4	8.5	7.1	4.6	5.3	3.8	5.0	6.8	9.0	8.0	8.7	9.2	3.6	10.4	6.6	24
10	18.0	17.8	9.9	23.6	22.0	26.9	28.5	25.7	12.6	7.2	5.2	8.4	11.6	15.1	20.2	17.6	15.4	12.3	11.7	12.3	10.5	13.0	11.4	15.8	5.2	28.5	15.5	24
11	22.6	20.4	17.8	18.2	21.3	35.3	39.0	37.2	48.6	47.3	55.8	62.1	52.8	52.8	37.3	30.0	20.4	12.1	4.8	3.3	9.2	8.1	5.0	8.4	3.3	62.1	27.9	24
12	7.4	8.4	10.9	11.4	12.7	10.9	12.4	11.2	12.8	15.4	23.3	18.5	17.2	21.7	24.6	21.5	20.1	18.0	15.1	12.5	8.2	8.2	7.9	10.7	7.4	24.6	14.2	24
13	7.9	10.2	13.6	17.4	14.0	16.0	14.1	11.8	16.8	19.5	16.5	23.9	23.5	22.0	20.5	22.8	18.5	17.9	15.9	20.1	19.6	24.5	19.8	21.3	7.9	24.5	17.8	24
14	22.7	34.4	29.7	27.0	32.9	39.2	40.8	38.3	36.0	37.3	35.0	32.6	32.9	40.8	48.5	36.5	49.9	33.1	20.3	30.2	35.5	35.3	36.2	36.4	20.3	49.9	35.1	24
15	41.7	39.4	34.6	31.5	26.2	31.4	34.7	19.6	19.6	22.3	26.9	22.3	21.1	29.1	30.9	34.0	29.4	22.3	19.0	21.1	21.6	20.7	15.2	21.7	15.2	41.7	26.5	24
16	32.2	36.3	31.1	24.5	23.6	24.3	27.6	35.0	31.3	31.9	30.5	31.8	37.4	32.9	23.4	24.7	20.0	25.7	25.8	22.5	20.2	16.1	17.7	12.2	12.2	37.4	26.6	24
17	12.7	16.6	18.1	21.8	17.8	23.3	16.7	15.2	18.8	18.8	18.1	13.1	13.4	15.0	12.1	16.8	13.5	14.2	11.7	13.1	12.6	12.9	7.4	11.1	7.4	23.3	15.2	24
18	10.1	9.4	9.9	14.1	10.3	11.1	9.8	11.2	9.6	9.6	11.8	14.0	19.1	22.1	17.6	14.9	9.4	9.7	10.2	8.8	9.0	14.3	10.1	14.2	8.8	22.1	12.1	24
19	19.5	20.3	15.2	12.6	11.8	8.5	8.5	16.0	13.0	8.8	10.5	16.5	14.8	6.3	6.7	12.2	7.0	4.1	11.0	9.0	9.5	9.3	3.3	5.3	3.3	20.3	10.8	24
20	13.4	13.7	8.7	11.7	11.2	11.3	12.0	12.1	10.4	13.1	8.9	9.8	14.8	15.0	15.1	13.1	9.8	3.2	15.3	18.9	20.8	19.5	22.9	22.4	3.2	22.9	13.6	24
21	28.5	27.4	22.3	24.6	25.5	28.5	26.7	23.6	23.4	26.4	21.0	17.2	19.6	21.7	18.2	18.7	15.0	17.5	13.1	13.3	13.7	11.9	11.6	9.9	9.9	28.5	20.0	24
22	9.1	8.4	8.3	7.5	7.0	7.6	6.4	7.8	6.0	6.2	6.7	9.7	10.7	10.0	13.7	12.2	11.7	10.7	12.8	12.0	12.4	12.3	12.9	10.9	6.0	13.7	9.7	24
23	10.9	11.4	10.3	6.9	7.5	9.4	8.6	7.0	7.2	4.8	6.2	4.6	3.8	3.6	3.7	6.9	6.9	7.8	7.3	4.9	8.7	7.4	8.3	9.7	3.6	11.4	7.2	24
24	8.0	8.8	6.4	6.2	6.5	8.8	9.6	10.7	9.7	8.3	14.7	19.4	20.2	20.4	19.7	16.7	14.2	12.0	10.9	7.8	7.3	5.7	10.4	10.3	5.7	20.4	11.4	24
25	8.8	11.4	10.0	8.4	11.0	14.4	15.3	12.1	9.5	13.5	18.5	19.1	20.6	25.6	21.9	21.5	20.9	18.4	15.0	11.4	9.9	15.0	14.2	12.7	8.4	25.6	15.0	24
26	12.0	16.3	14.4	18.6	15.4	12.1	13.9	14.1	16.6	11.2	18.5	26.8	27.4	25.2	21.6	22.0	15.4	11.3	13.0	14.6	21.9	24.0	26.8	30.9	11.2	30.9	18.5	24
27	36.1	32.8	23.3	12.4	18.7	15.4	17.7	13.5	21.6	23.9	37.9	33.1	31.7	36.3	33.1	27.4	23.9	20.5	21.6	18.5	21.2	24.6	26.0	19.9	12.4	37.9	24.6	24
28	14.9	17.7	17.7	14.7	18.0	30.2	30.4	24.2	25.8	20.3	25.6	33.9	30.0	27.3	28.6	37.2	38.3	36.7	40.4	31.9	17.0	15.5	20.4	15.9	14.7	40.4	25.5	24
29	16.5	15.3	20.1	12.1	17.1	21.5	15.8	19.7	22.4	23.2	22.8	15.7	15.3	15.6	16.7	21.3	17.8	15.2	13.9	12.0	7.3	8.9	10.7	8.7	7.3	23.2	16.1	24
30	11.5	17.8	38.1	34.5	28.4	35.3	43.8	36.6	32.0	38.3	36.3	43.8	44.5	43.8	54.4	44.1	47.9	48.7	39.1	36.9	38.1	31.7	32.7	38.3	11.5	54.4	37.4	24
31	25.7	23.4	22.4	16.2	21.7	7.4	6.1	7.8	5.8	6.5	11.4	13.1	11.3	22.6	23.6	21.8	14.2	6.3	3.7	4.0	8.8	8.0	11.0	6.6	3.7	25.7	12.9	24
HOURLY MAX	41.7	39.4	38.1	34.5	37.1	39.2	43.8	38.3	48.6	47.3	55.8	62.1	52.8	52.8	54.4	44.1	49.9	48.7	40.4	36.9	38.1	35.3	36.2	38.3				
HOURLY AVG	15.6	16.9	16.2	15.4	15.6	17.1	17.2	16.6	17.3	16.6	18.2	19.5	20.2	21.1	20.1	19.3	17.1	14.7	13.6	13.3	13.6	14.1	13.6	14.2				

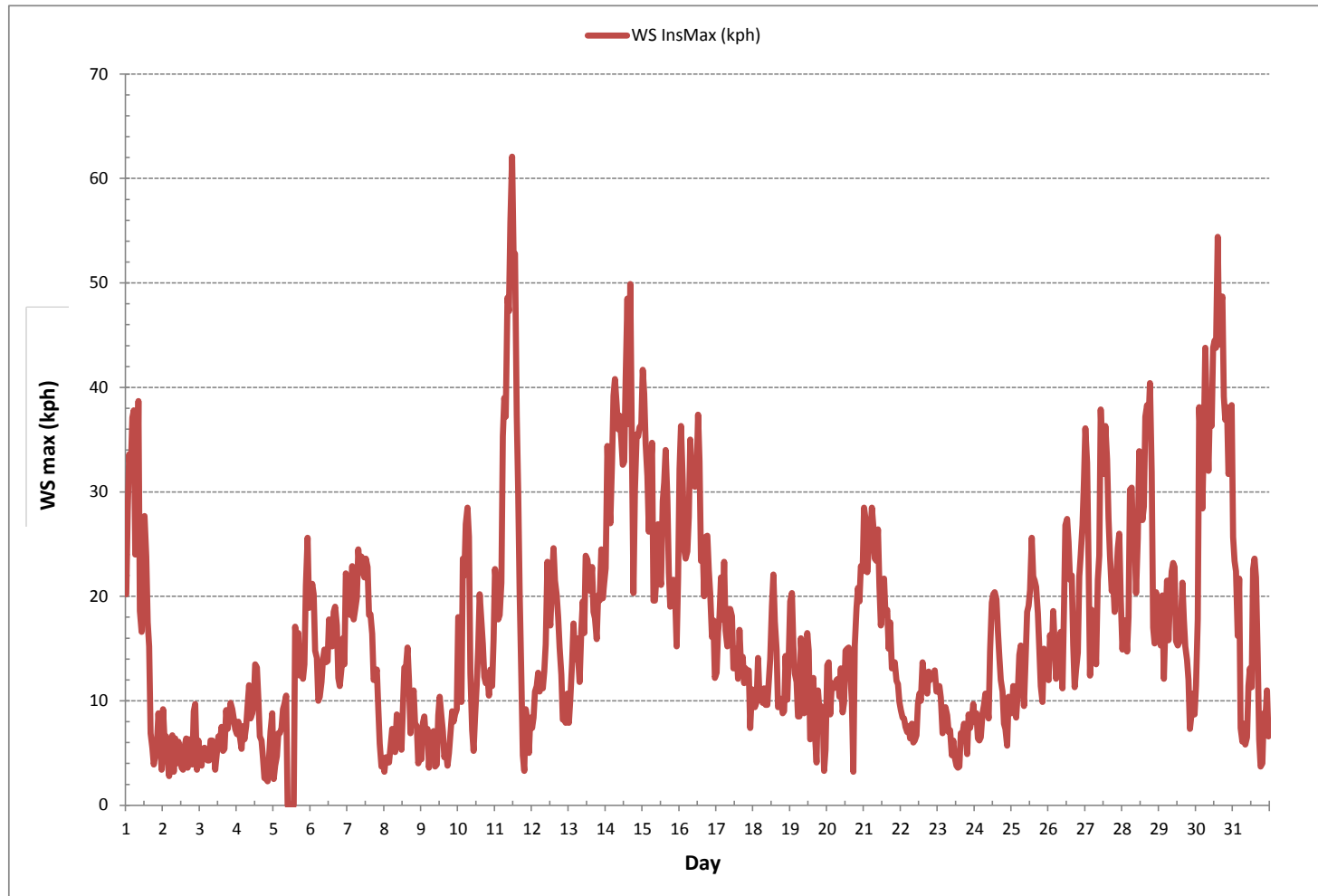
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS VALUE:	62.1	kph	@ HOUR(S)	11	ON DAY(S)	11
					VAR-VARIOUS	
OPERATIONAL TIME:					739	hrs

WIND SPEED Instantaneous Maximum (WS kph)

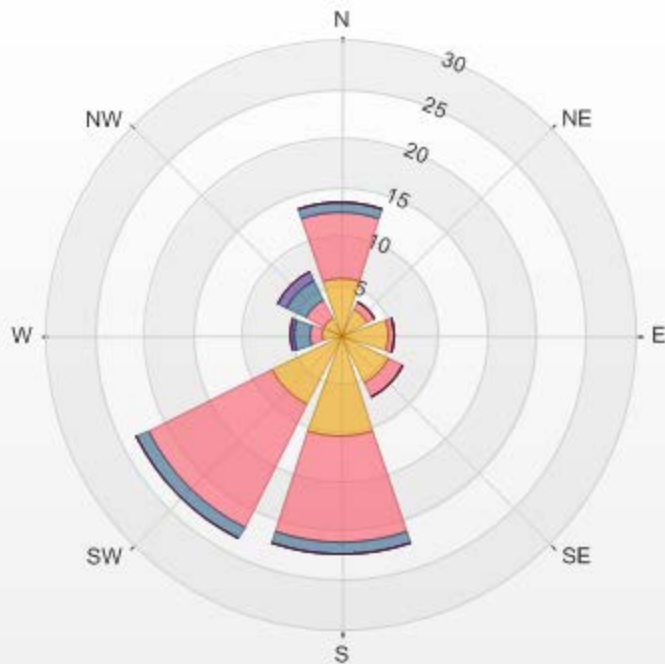


Wind: THREE CREEKS #986 TRAILER Monitor: WSP [kph] Monthly: 01/2017 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 12.16% Valid Data: 99.73%

Direction	1.8-6.0	6.0-12.0	12.0-20.0	20.0-29.0	29.0-39.0	>39.0	Total
N	5.81	6.62	1.08	0	0	0	13.51
NE	2.97	0.81	0	0	0	0	3.78
E	4.86	0.54	0	0	0	0	5.4
SE	5.54	1.62	0	0	0	0	7.16
S	10.41	10.68	1.22	0	0	0	22.31
SW	7.84	14.05	1.35	0	0	0	23.24
W	1.89	1.35	1.62	0.27	0	0	5.13
NW	2.03	1.89	2.3	1.08	0	0	7.3
Summary	41.35	37.56	7.57	1.35	0	0	87.83

%	Icon	Classes (kph)	41	38	8	1	0	0
			1.8-6.0	6.0-12.0	12.0-20.0	20.0-29.0	29.0-39.0	>39.0

THREE CREEKS #986 TRAILER 01/01/2017 00:00 - 31/01/2017 23:00 Calm: 12.16% Calm Wind Avg Speed: 1.09(kph)



WIND DIRECTION



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 986b Station - January 2017

WIND DIRECTION Hourly Averages (WD)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR AVG	24-HR
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	QUADRANT	RDGS.
DAY																										
1	WNW	NW	NW	NW	NW	NW	NW	NW	NNW	NW	WNW	WNW	NW	NNW	NNW	NNE	NW	SSE	SE	SE	SE	SSE	ENE	E	NW	24
2	ESE	E	ESE	ESE	ENE	NW	ESE	ESE	NNW	SE	ESE	SE	SSE	SSE	SW	WNW	NNE	SSE	SE	ESE	SE	ESE	SE	SE	SE	24
3	ESE	ESE	SSE	SE	SE	SSE	SE	SE	SE	SSE	SSW	SSE	WSW	W	WSW	SSW	S	SSW	SSW	S	SSW	SSW	S	SSW	S	24
4	S	S	S	SSW	SSE	SSE	SE	SSE	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	WNW	W	SW	WNW	WNW	N	S	24
5	N	NW	WNW	WNW	NNW	NNW	N	NNW	NNW	P	P	P	P	NE	ENE	ENE	NE	ENE	ENE	ENE	E	E	ESE	E	NE	20
6	E	E	E	ESE	ESE	ESE	ESE	E	E	ESE	E	E	NE	ENE	NE	NE	NE	NE	NNE	N	N	NNE	NNW	NNW	ENE	24
7	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	N	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	N	SSE	NNW	24
8	SSE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SSE	S	S	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	S	SSE	S	24
9	SSW	SSW	SW	SSW	SW	WNW	SSW	SSW	W	SW	SW	WNW	NW	WNW	W	SSW	SSW	S	SSE	S	SSW	S	S	SSE	SSW	24
10	SSE	S	WNW	N	NNW	NNW	NNW	NNW	NW	W	S	SSW	WSW	WSW	SW	SW	SW	SSW	SSW	SSW	SSW	S	S	SSW	SW	24
11	SW	SW	SW	WSW	WSW	W	WNW	WNW	WNW	NW	NW	NNW	N	N	N	N	N	ENE	ESE	ESE	ESE	ESE	E	NW	24	
12	ESE	ESE	ESE	ESE	SE	ESE	SE	ESE	ESE	SE	SSE	S	S	SSW	SSW	SSW	SW	SW	SSW	S	S	S	S	SSW	SSE	24
13	SSE	S	S	S	S	SSW	S	SSE	S	SSW	S	SSW	SSW	SW	SSW	SW	SSW	SSW	SSW	S	SSE	SSE	S	SSW	S	24
14	SSW	SW	SW	SSW	SW	WSW	WSW	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	WSW	SW	SSW	SSW	SSW	SW	SW	WSW	SW	24
15	W	W	WSW	WSW	WSW	WSW	S	SSW	WSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SSW	SSW	SSW	SSW	S	SSW	SW	24
16	SW	SW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	24
17	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSE	S	SSW	SSW	SSW	SSW	S	SSE	SSE	SSE	SE	E	ESE	S	24
18	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SSE	S	SSW	SW	SSW	SSW	SE	ESE	ESE	E	NNE	NNW	NNW	SE	24
19	NNW	NNW	N	NNW	NNW	NNW	NNW	N	N	NW	NNW	N	NE	NNE	NNW	WNW	WNW	SW	ESE	ESE	SW	SSW	SSW	SSE	NNW	24
20	SSW	SSW	S	S	SSW	SSW	SSW	SSW	S	S	SSE	S	SSW	SSW	SSW	SSW	S	NE	NNW	NNW	NNW	NNW	N	N	SW	24
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNW	N	N	N	24
22	N	N	N	N	N	N	N	N	N	N	NE	NE	NE	NE	NE	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	E	NE	24
23	E	E	E	NE	NE	NE	NE	ENE	E	E	ESE	ESE	ENE	NW	NW	NW	SE	SSE	S	W	SSW	S	S	S	ESE	24
24	S	S	S	S	S	S	S	S	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	S	ESE	SE	SSE	SE	SE	S	24
25	SE	SE	SE	SE	SSE	SSE	S	S	S	SSE	S	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	S	24
26	SSW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SSW	SW	WSW	WSW	WSW	SW	SSW	SSW	S	S	SSW	WSW	WSW	W	W	SW	24
27	W	W	SW	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SSW	WSW	24
28	SSW	SSW	S	SSW	WSW	WSW	WSW	SW	SW	SSW	SSW	SW	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	SW	SW	SW	SSW	SW	24
29	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SW	S	S	SSW	SW	SSW	24
30	WSW	W	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NW	24
31	N	N	N	N	N	NNW	W	WNW	W	W	WNW	NNW	W	WNW	NNW	NW	NNW	WNW	SW	SSW	SW	WSW	WNW	W	NW	24

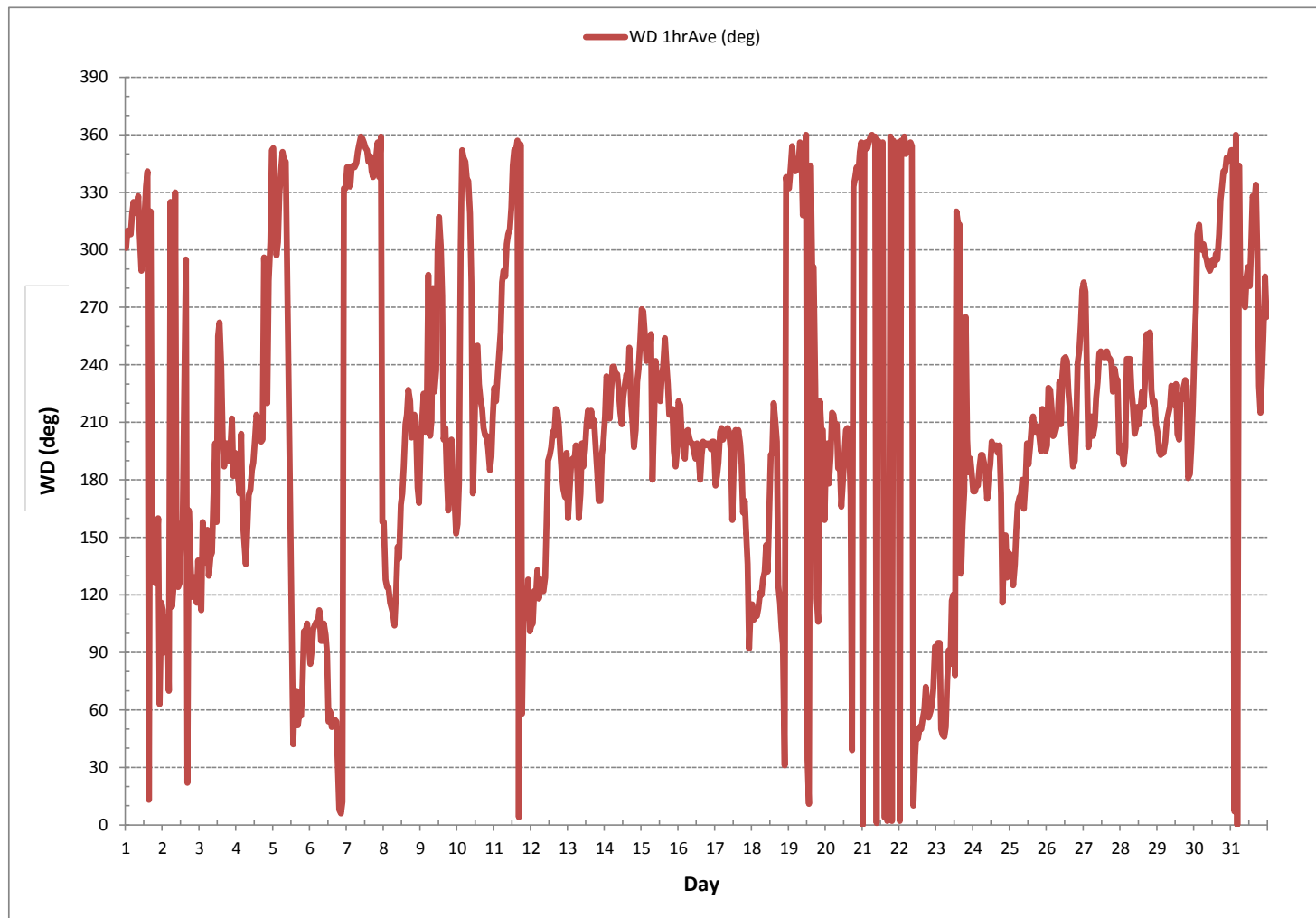
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

LAST CALIBRATION:	May 3, 2016
DECLINATION :	MAGNETIC DECLINATION 15 DEGREE EAST

MONTHLY CALIBRATION TIME:	0	hrs	OPERATIONAL TIME:	740	hrs
STANDARD DEVIATION:	86		AMD OPERATION UPTIME:	99.5	%
			MONTHLY AVERAGE:	237 (SW)	

WIND DIRECTION Hourly Averages (WD)



RELATIVE HUMIDITY

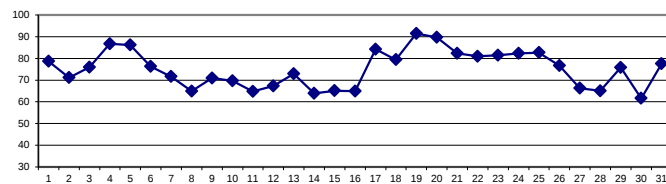
RELATIVE HUMIDITY Hourly Averages (RH %)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	83	79	79	82	80	79	84	83	78	81	79	79	79	72	74	79	80	80	77	76	76	77	76	75	72	84	79	24
2	74	77	77	77	73	69	69	67	69	68	71	73	71	71	72	77	70	68	66	67	71	71	70	70	66	77	71	24
3	70	67	70	68	68	70	68	72	75	76	76	75	76	78	78	78	80	82	82	83	83	82	83	83	67	83	76	24
4	84	84	84	84	83	81	84	86	86	86	86	86	84	83	85	85	87	88	89	92	93	93	94	94	81	94	87	24
5	93	92	92	92	92	91	91	91	91	P	P	P	P	80	79	79	82	83	83	83	82	83	83	82	79	93	86	20
6	81	81	80	79	79	78	77	77	76	75	74	74	74	74	75	75	75	74	75	76	76	76	75	75	74	81	76	24
7	74	73	73	74	73	73	74	74	74	74	73	72	71	70	70	70	72	72	71	70	70	68	64	64	64	74	72	24
8	62	61	60	59	59	59	60	61	61	61	66	65	66	64	64	67	69	71	71	73	73	70	67	68	59	73	65	24
9	73	74	73	73	73	73	73	73	74	73	73	72	74	73	69	68	66	65	63	67	70	71	70	70	63	74	71	24
10	72	74	75	73	73	71	70	68	67	62	61	65	68	64	65	67	68	69	70	71	73	74	75	77	61	77	70	24
11	77	77	76	75	74	69	67	69	68	68	68	69	67	53	50	48	50	56	62	62	64	63	60	62	48	77	65	24
12	62	62	63	64	65	65	67	68	68	70	72	68	63	62	62	65	66	68	69	71	72	72	75	76	62	76	67	24
13	74	76	76	73	75	76	75	78	80	77	73	71	66	65	66	67	71	72	72	71	73	77	73	73	65	80	73	24
14	71	68	67	69	65	61	60	61	62	63	63	63	62	61	60	59	56	60	65	69	71	67	65	64	56	71	64	24
15	63	63	63	64	66	67	66	70	72	70	67	62	59	58	57	57	59	61	65	68	67	70	75	74	57	75	65	24
16	70	64	66	65	68	67	64	61	60	60	61	61	58	58	61	63	65	62	60	62	62	66	82	93	58	93	65	24
17	94	94	93	87	88	89	88	88	86	82	81	85	79	71	73	73	76	79	83	82	83	85	89	93	71	94	84	24
18	93	92	93	89	88	88	89	87	89	87	82	72	61	54	50	53	59	74	77	82	81	86	86	94	50	94	79	24
19	96	96	95	94	93	92	91	90	90	90	90	90	89	87	86	84	84	87	92	96	96	96	96	95	84	96	91	24
20	96	96	95	95	95	95	94	94	93	93	92	88	81	76	74	75	81	89	93	94	93	92	90	89	74	96	90	24
21	88	87	87	86	86	85	84	83	83	82	82	81	81	80	79	77	78	79	79	80	81	82	82	82	77	88	82	24
22	81	81	81	81	81	81	80	81	81	81	81	81	81	81	80	80	81	81	81	82	82	81	81	80	80	82	81	24
23	81	82	82	82	82	81	81	81	80	80	80	78	77	78	78	79	79	83	85	85	85	85	85	85	77	85	81	24
24	85	85	86	86	86	86	86	85	85	83	84	81	76	72	71	74	78	83	84	83	84	83	84	86	71	86	82	24
25	84	83	81	82	85	87	86	86	86	86	85	83	80	76	72	73	77	80	82	85	86	85	86	87	72	87	83	24
26	89	87	86	86	86	87	87	88	84	85	78	72	68	67	64	66	72	78	79	75	68	64	64	61	61	89	77	24
27	59	57	63	76	76	74	73	74	71	68	62	59	59	59	61	61	62	64	65	68	68	68	69	75	57	76	66	24
28	77	77	77	80	72	71	67	67	67	69	66	61	59	54	51	52	50	55	58	61	64	67	68	72	50	80	65	24
29	72	74	76	79	79	78	79	79	78	76	73	70	67	69	71	68	70	74	77	77	83	85	83	81	67	85	76	24
30	73	66	60	57	56	55	52	47	43	44	43	44	45	49	56	73	73	84	82	81	76	75	76	68	43	84	62	24
31	72	74	76	76	77	81	83	84	85	85	82	79	79	77	71	71	70	72	76	77	76	76	80	82	70	85	78	24
HOURLY MAX	96	96	95	95	95	95	94	94	93	93	92	90	89	87	86	85	87	89	93	96	96	96	96	95				
HOURLY AVG	78	78	78	78	77	77	76	77	76	75	74	73	71	69	69	70	71	74	75	76	77	77	78	78				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

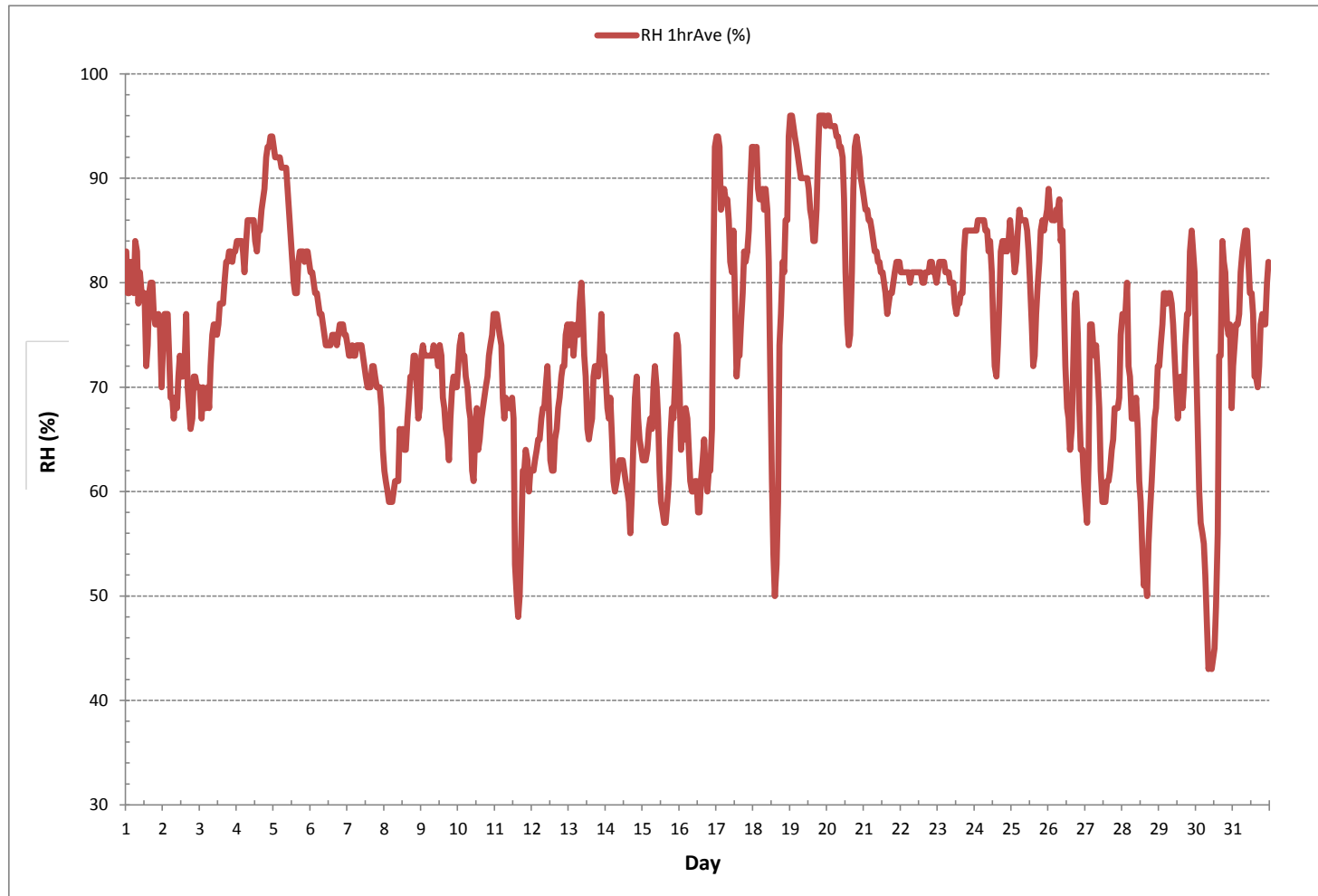
24 HR AVERAGES January 2017



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	43	%	@ HOUR(S)	8 , 10	ON DAY(S)	30 , 30
MAXIMUM 1-HR AVERAGE:	96	%	@ HOUR(S)	VAR , VAR	ON DAY(S)	19 , 20
MAXIMUM 24-HR AVERAGE:	91	%			ON DAY(S)	19
					VAR-VARIOUS	
OPERATIONAL TIME:					740	hrs
AMD OPERATION UPTIME:					99.5	%
STANDARD DEVIATION:	10		MONTHLY AVERAGE:		75	%

RELATIVE HUMIDITY Hourly Averages (RH %)



BAROMETRIC PRESSURE



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE
Three Creeks 986b Station - January 2017

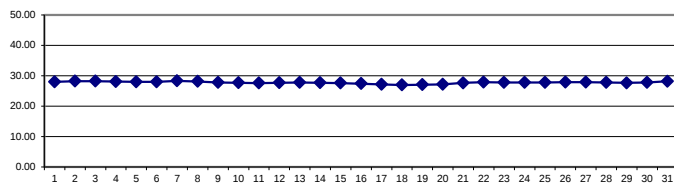
BAROMETRIC PRESSURE Hourly Averages (BP inHg)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	27.90	27.91	27.93	27.94	27.95	27.97	27.98	27.99	27.99	27.99	28.00	28.01	28.01	28.01	28.01	28.01	28.01	28.02	28.02	28.02	28.03	28.03	28.04	28.05	27.90	28.05	27.99	24	
2	28.07	28.09	28.10	28.12	28.14	28.18	28.21	28.24	28.25	28.26	28.27	28.27	28.26	28.26	28.26	28.26	28.26	28.28	28.30	28.30	28.30	28.29	28.27	28.28	28.27	28.07	28.30	28.23	24
3	28.26	28.27	28.27	28.28	28.27	28.26	28.27	28.26	28.24	28.24	28.25	28.25	28.25	28.25	28.24	28.24	28.24	28.24	28.23	28.22	28.21	28.20	28.19	28.17	28.17	28.17	28.28	28.24	24
4	28.17	28.16	28.16	28.15	28.14	28.14	28.13	28.11	28.10	28.10	28.10	28.09	28.07	28.06	28.05	28.04	28.04	28.03	28.03	28.02	28.02	28.01	28.00	28.00	28.00	28.00	28.17	28.08	24
5	27.99	27.98	27.98	27.98	27.97	27.96	27.96	27.96	27.96	P	P	P	P	28.00	28.00	28.00	28.00	28.00	27.99	27.98	27.97	27.96	27.95	27.95	27.95	28.00	27.98	20	
6	27.94	27.93	27.92	27.93	27.92	27.92	27.92	27.93	27.94	27.95	27.95	27.96	27.97	27.97	27.98	28.00	28.00	28.02	28.04	28.06	28.08	28.10	28.11	28.14	28.17	27.92	28.17	27.99	24
7	28.19	28.21	28.24	28.26	28.28	28.29	28.30	28.32	28.32	28.34	28.36	28.36	28.35	28.34	28.33	28.33	28.32	28.32	28.31	28.31	28.30	28.30	28.30	28.31	28.19	28.36	28.30	24	
8	28.32	28.32	28.33	28.33	28.32	28.30	28.27	28.24	28.24	28.23	28.19	28.15	28.12	28.08	28.07	28.07	28.05	28.02	28.01	28.01	28.00	27.99	27.97	27.95	27.95	28.33	28.15	24	
9	27.90	27.88	27.87	27.86	27.84	27.82	27.80	27.79	27.78	27.78	27.77	27.77	27.76	27.75	27.75	27.75	27.76	27.77	27.77	27.76	27.71	27.68	27.66	27.65	27.65	27.90	27.78	24	
10	27.60	27.56	27.57	27.61	27.69	27.74	27.79	27.82	27.84	27.87	27.88	27.84	27.80	27.77	27.75	27.73	27.71	27.69	27.67	27.65	27.62	27.59	27.55	27.51	27.51	27.88	27.70	24	
11	27.47	27.43	27.41	27.39	27.38	27.38	27.38	27.38	27.40	27.43	27.45	27.50	27.56	27.63	27.69	27.75	27.80	27.83	27.86	27.88	27.89	27.90	27.90	27.90	27.90	27.38	27.90	27.59	24
12	27.90	27.88	27.87	27.84	27.81	27.77	27.74	27.72	27.72	27.69	27.66	27.63	27.62	27.58	27.58	27.59	27.60	27.62	27.63	27.66	27.67	27.68	27.70	27.72	27.58	27.90	27.70	24	
13	27.73	27.75	27.75	27.75	27.76	27.77	27.78	27.79	27.79	27.81	27.82	27.83	27.83	27.83	27.83	27.84	27.85	27.85	27.84	27.82	27.80	27.79	27.79	27.77	27.73	27.85	27.80	24	
14	27.76	27.76	27.76	27.74	27.73	27.70	27.69	27.67	27.68	27.70	27.70	27.68	27.67	27.65	27.63	27.64	27.65	27.66	27.63	27.59	27.57	27.57	27.56	27.56	27.56	27.76	27.66	24	
15	27.56	27.56	27.56	27.58	27.57	27.57	27.58	27.58	27.58	27.59	27.60	27.60	27.60	27.59	27.60	27.60	27.62	27.63	27.63	27.63	27.63	27.63	27.63	27.62	27.56	27.63	27.60	24	
16	27.61	27.60	27.59	27.57	27.55	27.51	27.49	27.47	27.45	27.45	27.45	27.43	27.41	27.40	27.37	27.35	27.33	27.30	27.27	27.24	27.20	27.17	27.17	27.15	27.15	27.61	27.40	24	
17	27.13	27.12	27.12	27.13	27.14	27.14	27.14	27.14	27.14	27.14	27.15	27.16	27.15	27.16	27.15	27.14	27.14	27.15	27.13	27.11	27.10	27.10	27.07	27.05	27.05	27.16	27.13	24	
18	27.04	27.03	27.03	27.01	26.99	26.98	26.98	26.97	26.98	26.99	26.98	26.98	26.98	26.99	26.98	26.99	26.99	26.99	26.99	27.01	27.02	27.03	27.06	26.97	27.06	27.00	24		
19	27.07	27.09	27.10	27.11	27.12	27.12	27.11	27.12	27.11	27.13	27.14	27.12	27.10	27.09	27.08	27.09	27.10	27.11	27.10	27.09	27.10	27.10	27.09	27.09	27.07	27.14	27.10	24	
20	27.10	27.11	27.12	27.12	27.12	27.12	27.12	27.13	27.13	27.14	27.16	27.16	27.16	27.16	27.17	27.18	27.19	27.21	27.23	27.26	27.28	27.29	27.31	27.34	27.10	27.34	27.18	24	
21	27.36	27.38	27.40	27.43	27.46	27.48	27.51	27.54	27.57	27.60	27.62	27.65	27.66	27.68	27.70	27.72	27.75	27.77	27.78	27.80	27.81	27.83	27.84	27.85	27.36	27.85	27.63	24	
22	27.85	27.86	27.87	27.88	27.89	27.88	27.88	27.88	27.88	27.88	27.87	27.87	27.86	27.85	27.83	27.82	27.82	27.82	27.81	27.81	27.80	27.80	27.80	27.80	27.80	27.80	27.89	27.85	24
23	27.79	27.78	27.78	27.78	27.78	27.77	27.77	27.77	27.78	27.78	27.78	27.78	27.77	27.76	27.75	27.75	27.75	27.75	27.74	27.74	27.74	27.74	27.73	27.73	27.73	27.73	27.79	27.76	24
24	27.73	27.72	27.72	27.71	27.72	27.73	27.73	27.73	27.73	27.74	27.75	27.74	27.75	27.75	27.75	27.75	27.76	27.77	27.78	27.78	27.78	27.79	27.79	27.79	27.71	27.79	27.75	24	
25	27.78	27.78	27.79	27.79	27.79	27.78	27.77	27.78	27.78	27.78	27.78	27.79	27.79	27.78	27.78	27.79	27.79	27.80	27.81	27.81	27.81	27.81	27.82	27.83	27.77	27.83	27.79	24	
26	27.83	27.84	27.85	27.86	27.87	27.88	27.88	27.88	27.88	27.90	27.90	27.90	27.89	27.89	27.89	27.88	27.88	27.88	27.87	27.86	27.86	27.87	27.89	27.90	27.83	27.90	27.88	24	
27	27.93	27.93	27.94	27.95	27.95	27.96	27.95	27.93	27.91	27.90	27.88	27.87	27.87	27.87	27.87	27.88	27.89	27.90	27.90	27.91	27.91	27.90	27.90	27.91	27.87	27.96	27.91	24	
28	27.91	27.90	27.88	27.88	27.86	27.85	27.83	27.82	27.80	27.80	27.78	27.79	27.77	27.77	27.77	27.77	27.76	27.78	27.78	27.77	27.78	27.78	27.77	27.78	27.76	27.91	27.81	24	
29	27.77	27.76	27.75	27.74	27.73	27.71	27.70	27.69	27.68	27.67	27.67	27.68	27.65	27.63	27.61	27.60	27.58	27.57	27.57	27.57	27.56	27.57	27.58	27.59	27.56	27.77	27.65	24	
30	27.61	27.63	27.66	27.69	27.71	27.73	27.74	27.75	27.78	27.80	27.81	27.81	27.83	27.84	27.86	27.87	27.89	27.92	27.94	27.96	27.97	27.99	28.01	28.04	27.61	28.04	27.83	24	
31	28.06	28.08	28.09	28.11	28.13	28.14	28.14	28.15	28.15	28.16	28.17	28.18	28.18	28.18	28.18	28.19	28.19	28.20	28.20	28.21	28.21	28.22	28.23	28.24	28.06	28.24	28.17	24	
HOURLY MAX	28.32	28.32	28.33	28.33	28.32	28.30	28.30	28.32	28.32	28.34	28.36	28.36	28.35	28.34	28.33	28.33	28.32	28.32	28.31	28.31	28.30	28.30	28.30	28.31					
HOURLY AVG	27.75	27.75	27.76	27.76	27.76	27.76	27.76	27.76	27.76	27.76	27.76	27.76	27.75	27.76	27.76	27.76	27.76	27.77	27.77	27.77	27.77	27.77	27.76	27.76	27.77				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

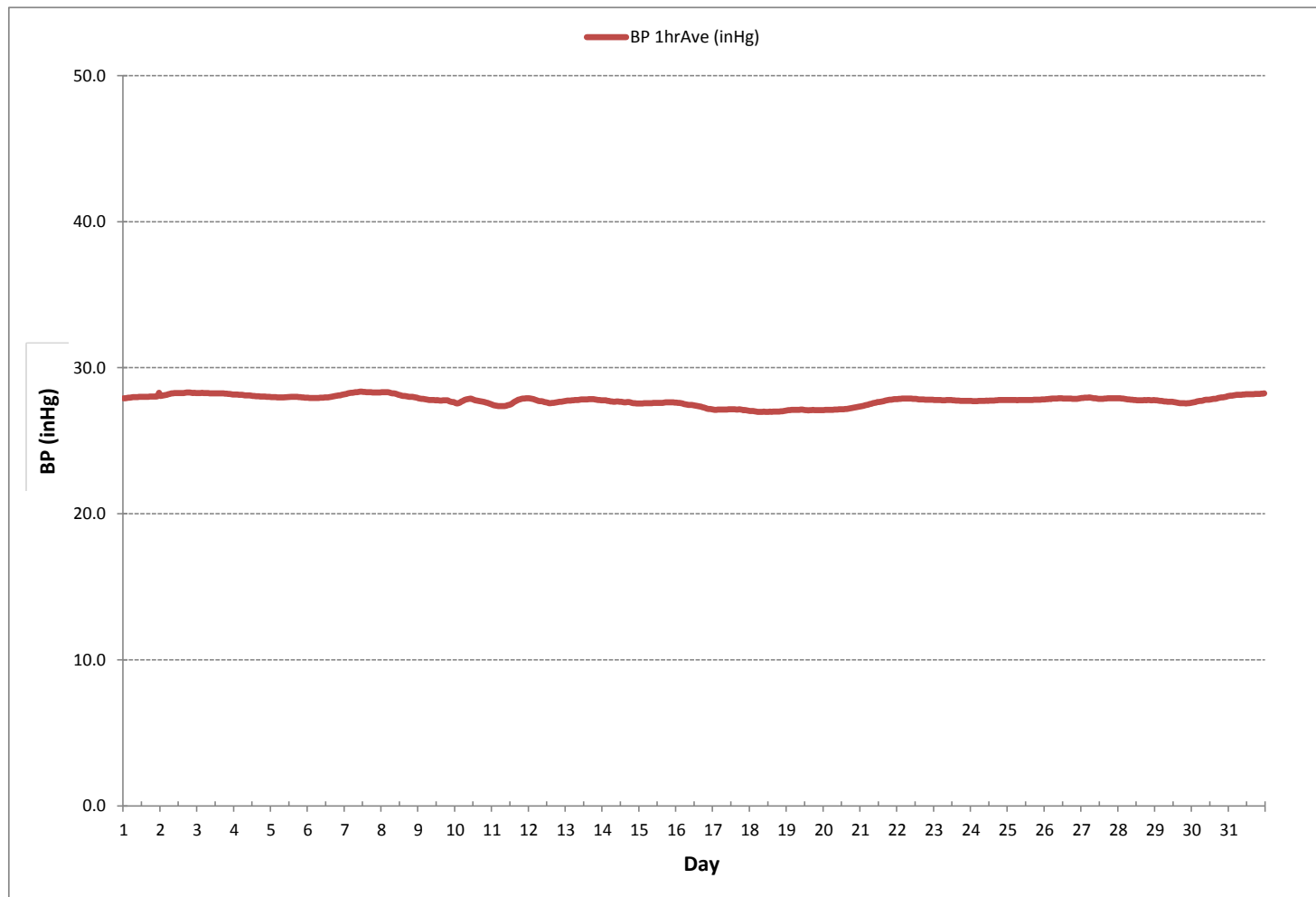
24 HR AVERAGES January 2017



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	26.97	inHg	@ HOUR(S)	7	ON DAY(S)	18
MAXIMUM 1-HR AVERAGE:	28.36	inHg	@ HOUR(S)	10 , 11	ON DAY(S)	7 , 7
MAXIMUM 24-HR AVERAGE:	28.30	inHg			ON DAY(S)	7
					VAR-VARIOUS	
					OPERATIONAL TIME:	740 hrs
					AMD OPERATION UPTIME:	99.5 %
STANDARD DEVIATION:	0.34				MONTHLY AVERAGE:	27.76 inHg

BAROMETRIC PRESSURE Hourly Averages (BP inHg)



AMBIENT TEMPERATURE

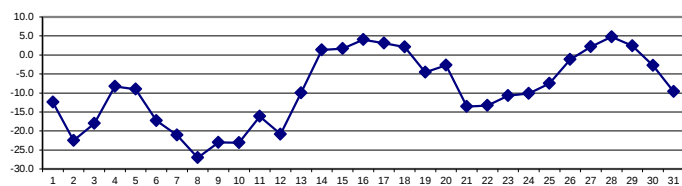
AMBIENT TEMPERATURE Hourly Averages (AmbTPX °C)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	-9.3	-8.6	-8.7	-9.0	-9.0	-9.1	-9.3	-9.5	-9.7	-10.4	-10.6	-10.1	-10.2	-10.4	-10.5	-11.6	-13.5	-15.7	-17.6	-18.1	-19.0	-18.8	-19.5	-19.8	-19.8	-8.6	-12.4	24
2	-21.4	-19.2	-17.5	-18.1	-20.5	-24.7	-25.1	-25.9	-25.5	-25.3	-23.0	-19.8	-18.8	-17.9	-18.3	-17.9	-22.9	-26.5	-27.2	-27.3	-24.9	-23.6	-24.1	-24.0	-27.3	-17.5	-22.5	24
3	-24.5	-26.0	-25.1	-26.1	-26.1	-24.3	-25.7	-23.1	-19.7	-18.6	-17.5	-16.5	-15.2	-14.9	-14.2	-13.8	-13.7	-13.7	-13.2	-12.7	-12.4	-12.3	-11.8	-11.3	-26.1	-11.3	-18.0	24
4	-10.8	-10.4	-10.0	-10.2	-12.3	-14.2	-13.0	-10.5	-9.8	-9.4	-8.6	-8.0	-7.0	-6.4	-6.5	-6.2	-6.4	-6.3	-6.2	-5.9	-5.5	-5.4	-5.1	-4.7	-14.2	-4.7	-8.3	24
5	-4.9	-5.2	-5.4	-6.1	-6.2	-6.2	-6.1	-6.2	-6.5	P	P	P	P	-8.5	-8.7	-9.0	-9.8	-10.8	-12.0	-13.4	-14.5	-13.5	-13.9	-14.5	-14.5	-4.9	-9.0	20
6	-14.7	-15.2	-15.6	-16.1	-16.2	-16.6	-17.4	-17.6	-18.6	-18.6	-18.1	-17.2	-17.3	-17.2	-16.8	-16.9	-17.6	-17.7	-17.5	-17.3	-17.4	-17.7	-19.2	-19.9	-19.9	-14.7	-17.3	24
7	-20.4	-20.3	-20.4	-20.9	-21.3	-21.7	-20.7	-19.8	-19.7	-19.8	-19.6	-19.2	-19.1	-19.3	-19.4	-19.7	-20.3	-20.6	-20.9	-21.1	-21.3	-23.4	-26.6	-29.4	-29.4	-19.1	-21.0	24
8	-31.6	-33.2	-33.9	-34.3	-34.7	-34.7	-33.8	-32.2	-32.2	-31.3	-27.0	-25.4	-22.5	-19.7	-19.1	-19.5	-19.7	-20.0	-20.8	-21.9	-22.3	-24.6	-27.1	-26.8	-34.7	-19.1	-27.0	24
9	-22.8	-20.7	-20.4	-20.1	-20.1	-20.0	-19.8	-19.6	-19.9	-20.7	-20.6	-20.3	-21.1	-21.6	-23.8	-25.7	-28.1	-29.8	-31.3	-28.5	-24.4	-23.9	-24.2	-24.7	-31.3	-19.6	-23.0	24
10	-22.2	-21.0	-19.8	-20.7	-21.6	-22.1	-24.1	-25.7	-27.4	-30.3	-31.4	-27.5	-23.0	-21.8	-22.0	-22.5	-23.1	-23.9	-23.9	-23.0	-21.3	-20.6	-18.9	-16.8	-31.4	-16.8	-23.1	24
11	-15.3	-14.3	-13.4	-11.7	-10.7	-8.2	-7.5	-7.8	-7.2	-7.2	-7.5	-7.7	-9.8	-12.3	-14.2	-16.1	-18.1	-20.7	-24.0	-27.9	-29.9	-30.7	-32.9	-32.6	-32.9	-7.2	-16.2	24
12	-31.9	-31.8	-31.2	-29.8	-28.2	-27.8	-26.2	-25.2	-25.1	-24.4	-20.0	-15.2	-13.9	-13.5	-13.7	-14.7	-15.2	-16.3	-16.7	-17.3	-15.4	-15.1	-16.5	-15.0	-31.9	-13.5	-20.8	24
13	-16.1	-17.4	-15.8	-14.4	-15.3	-13.5	-13.2	-16.0	-15.2	-11.3	-10.1	-8.8	-6.6	-6.0	-5.7	-5.7	-6.6	-6.4	-6.1	-5.6	-6.4	-7.6	-5.1	-4.8	-17.4	-4.8	-10.0	24
14	-3.5	-1.8	-1.0	-1.2	-0.2	1.0	1.0	1.1	1.3	1.5	1.5	1.6	2.0	2.5	3.0	3.5	4.3	3.4	1.7	1.2	1.4	2.0	2.4	2.9	-3.5	4.3	1.3	24
15	2.9	2.7	2.6	2.2	1.6	1.4	1.8	0.5	0.0	0.4	1.1	2.3	3.1	3.5	3.7	3.8	3.2	2.5	1.4	0.4	0.5	-0.1	-1.2	-1.0	-1.2	3.8	1.6	24
16	0.2	1.8	1.5	1.8	1.4	1.7	2.7	3.6	4.3	4.1	3.9	4.4	6.3	6.5	6.0	5.6	5.0	5.7	6.3	5.8	5.8	5.0	3.6	3.0	0.2	6.5	4.0	24
17	2.9	2.6	2.7	3.1	2.7	2.2	2.2	1.8	2.3	3.2	3.4	2.7	4.2	5.6	5.2	5.0	4.1	3.7	3.0	3.0	2.9	2.2	0.5	0.5	5.6	3.1	24	
18	0.6	0.2	0.1	1.1	1.6	1.6	1.9	2.2	1.9	2.4	3.2	5.2	7.5	8.1	8.6	7.6	5.7	1.4	0.6	-1.5	-2.0	-3.6	-2.4	-1.7	-3.6	8.6	2.1	24
19	-1.4	-3.1	-4.0	-4.8	-5.7	-6.5	-7.3	-7.8	-7.4	-7.7	-7.9	-7.5	-6.6	-5.0	-3.6	-4.7	-5.0	-4.7	-3.1	-0.5	-0.3	-1.1	-1.6	-2.7	-7.9	-0.3	-4.6	24
20	-2.0	-1.4	-3.2	-3.6	-2.9	-2.6	-2.5	-2.4	-4.4	-3.3	-2.8	-0.4	2.2	3.2	3.1	2.0	-0.5	-3.8	-4.7	-5.2	-5.7	-6.7	-8.0	-8.8	-8.8	3.2	-2.7	24
21	-9.4	-10.4	-10.7	-11.1	-11.5	-12.1	-12.6	-13.1	-13.7	-14.0	-14.2	-14.1	-14.2	-14.0	-14.1	-14.3	-14.5	-14.9	-15.0	-15.2	-15.3	-15.5	-15.5	-15.5	-15.5	-9.4	-13.5	24
22	-15.4	-15.3	-15.3	-15.2	-15.1	-15.1	-15.1	-14.9	-14.7	-14.2	-13.4	-12.5	-12.0	-11.5	-11.4	-11.5	-11.8	-11.8	-11.8	-12.1	-12.2	-12.3	-12.4	-12.3	-15.4	-11.4	-13.3	24
23	-12.0	-11.8	-11.5	-11.7	-11.9	-12.3	-12.5	-12.5	-12.3	-12.2	-11.7	-10.9	-10.3	-10.0	-9.3	-9.4	-9.1	-9.7	-9.9	-9.9	-9.4	-8.9	-8.7	-8.6	-12.5	-8.6	-10.7	24
24	-8.5	-8.3	-8.3	-8.7	-9.1	-10.1	-11.3	-12.7	-13.6	-14.0	-11.2	-8.8	-7.4	-6.8	-6.2	-6.5	-7.2	-8.8	-10.1	-13.3	-13.3	-13.7	-13.1	-11.5	-14.0	-6.2	-10.1	24
25	-12.7	-13.7	-14.8	-14.7	-12.5	-10.0	-9.6	-10.0	-10.1	-9.8	-8.0	-5.9	-4.4	-2.8	-2.2	-2.5	-3.5	-4.2	-4.7	-5.2	-5.2	-4.3	-4.5	-5.0	-14.8	-2.2	-7.5	24
26	-5.7	-3.9	-4.1	-4.0	-4.2	-4.9	-4.8	-4.9	-3.3	-4.1	-1.3	0.4	1.4	1.9	2.7	2.0	0.6	-1.0	-1.0	0.1	1.8	2.6	2.3	2.6	-5.7	2.7	-1.2	24
27	2.7	2.8	0.7	-2.7	-2.0	-1.3	-0.4	-0.1	0.5	0.9	2.7	3.6	3.8	4.3	4.4	4.9	4.7	4.3	4.0	3.3	3.4	3.1	3.0	1.6	-2.7	4.9	2.2	24
28	1.2	1.3	1.3	0.7	3.0	3.3	4.5	4.5	4.6	4.2	4.8	5.8	6.3	7.6	8.2	7.7	7.8	7.1	6.6	5.9	5.2	4.6	4.3	3.5	0.7	8.2	4.8	24
29	3.5	3.0	2.6	2.0	2.0	2.4	2.0	2.0	2.2	2.6	3.2	4.0	4.7	4.3	3.9	4.2	3.6	2.7	1.9	1.6	0.3	-0.7	-0.3	-0.6	-0.7	4.7	2.4	24
30	0.5	0.7	0.8	0.4	0.1	-0.3	-0.6	-1.4	-2.0	-2.6	-2.2	-1.8	-1.6	-1.8	-2.3	-3.4	-3.4	-4.5	-5.5	-6.0	-6.5	-6.9	-7.9	-8.9	-8.9	0.8	-2.8	24
31	-9.6	-10.2	-10.0	-10.0	-10.2	-10.8	-10.9	-10.6	-10.6	-10.5	-9.8	-9.6	-9.0	-8.6	-7.9	-7.7	-7.9	-8.3	-8.7	-8.5	-8.4	-9.0	-10.4	-13.2	-13.2	-7.7	-9.6	24
HOURLY MAX	3.5	3.0	2.7	3.1	3.0	3.3	4.5	4.5	4.6	4.2	4.8	5.8	7.5	8.1	8.6	7.7	7.8	7.1	6.6	5.9	5.8	5.0	4.3	3.5				
HOURLY AVG	-10.1	-9.9	-9.9	-10.1	-10.2	-10.2	-10.1	-10.1	-10.0	-10.0	-9.1	-7.9	-7.0	-6.5	-6.5	-6.9	-7.7	-8.7	-9.2	-9.6	-9.4	-9.7	-10.1	-10.3				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

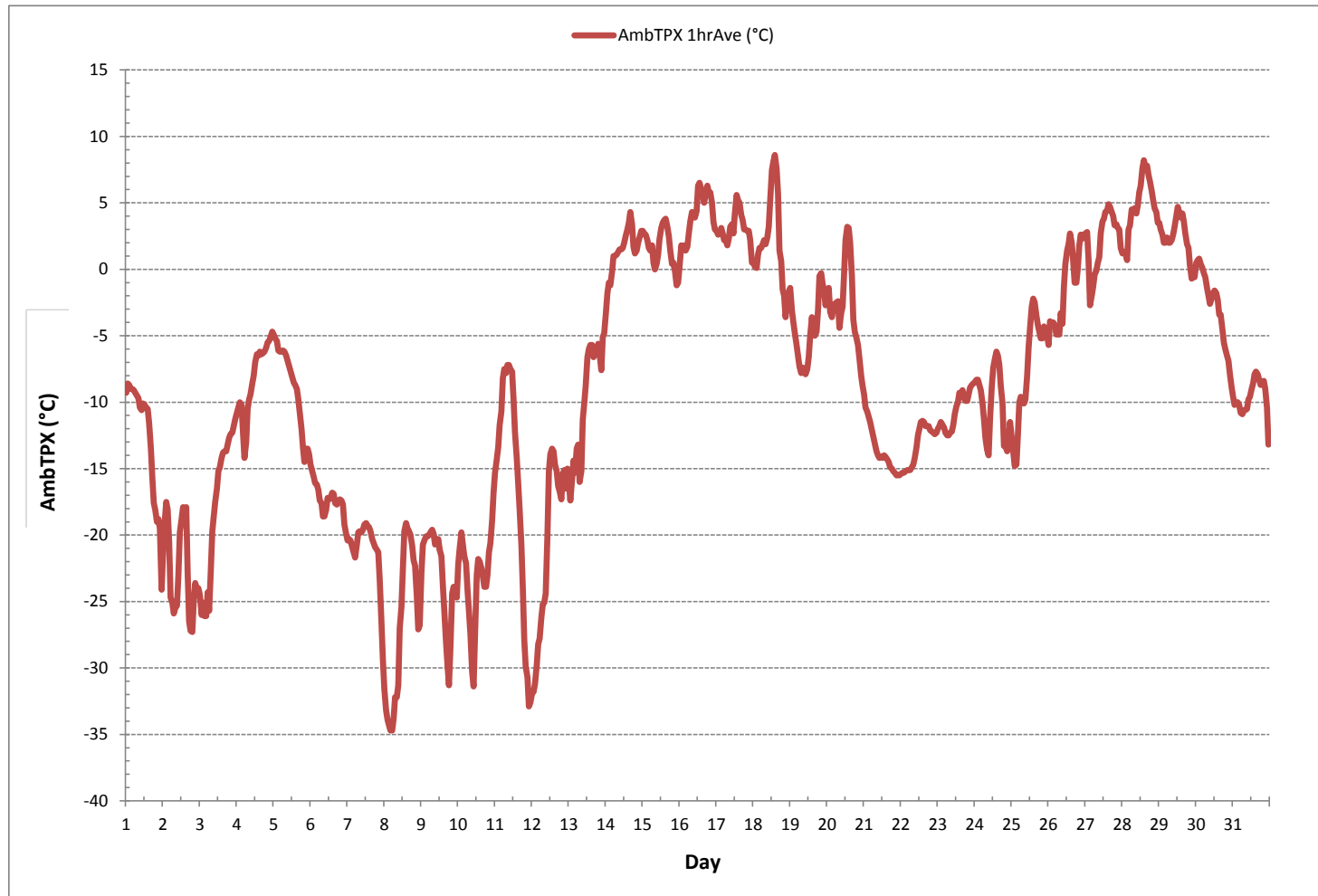
24 HR AVERAGES January 2017



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-34.7 °C	@ HOUR(S)	4 , 5	ON DAY(S)	8 , 8
MAXIMUM 1-HR AVERAGE:	8.6 °C	@ HOUR(S)	14	ON DAY(S)	18
MAXIMUM 24-HR AVERAGE:	4.8 °C			ON DAY(S)	28
				VAR-VARIOUS	
OPERATIONAL TIME:				740	hrs
AMD OPERATION UPTIME:				99.5	%
STANDARD DEVIATION:	10.0	MONTHLY AVERAGE:		-9.1	°C

AMBIENT TEMPERATURE Hourly Averages (AmbTPX °C)



STATION TEMPERATURE

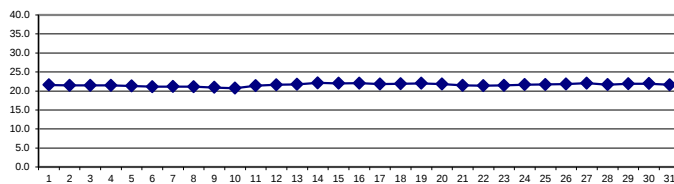
STATION TEMPERATURE Hourly Averages (StnTPX °C)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	21.5	21.6	21.7	21.7	21.7	21.7	21.6	21.7	21.7	21.5	21.7	21.6	21.6	21.7	21.6	21.6	21.4	21.6	21.5	21.4	21.5	21.4	21.5	21.5	21.4	21.4	21.7	21.6	24
2	21.4	21.4	21.5	21.5	21.4	21.4	21.4	21.5	21.4	21.6	21.4	21.5	21.5	21.5	21.5	21.6	21.5	21.5	21.4	21.4	21.5	21.5	21.5	21.5	21.4	21.6	21.5	24	
3	21.4	21.5	21.5	21.4	21.4	21.5	21.5	21.6	21.4	21.5	21.4	21.4	21.5	21.4	21.4	21.4	21.4	21.4	21.5	21.5	21.5	21.5	21.5	21.4	21.4	21.6	21.5	24	
4	21.6	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.4	21.6	21.5	21.4	21.6	21.4	21.4	21.1	21.6	21.1	21.7	21.4	21.2	21.2	21.5	21.6	21.1	21.7	21.5	24	
5	21.4	21.3	21.3	21.2	21.8	21.5	21.2	21.7	21.4	P	P	P	P	R	21.3	21.5	21.1	21.0	21.1	21.2	21.2	21.2	21.3	21.2	21.0	21.8	21.3	20	
6	21.1	21.1	21.1	21.2	21.1	21.2	21.1	21.2	21.2	21.2	21.2	21.1	21.2	21.1	21.0	21.0	21.0	21.0	21.1	21.1	21.2	21.0	21.2	21.1	21.0	21.2	21.1	24	
7	21.1	21.1	21.1	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.1	21.1	21.2	21.2	21.2	21.1	21.1	21.2	21.1	21.2	21.1	21.2	21.2	21.2	21.1	21.2	21.2	24	
8	21.1	21.1	21.0	21.1	21.0	21.1	21.0	21.1	21.1	21.2	21.1	21.2	21.2	21.2	21.1	21.0	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.0	21.2	21.1	24	
9	21.1	21.1	21.2	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.2	21.1	21.1	18.2	20.2	20.7	20.8	21.0	20.9	18.2	21.2	20.9	24	
10	21.0	21.0	21.1	21.1	21.1	21.1	21.1	21.1	21.1	20.4	19.9	20.1	19.8	20.4	19.5	19.9	20.0	20.1	21.0	21.2	21.2	21.3	21.3	21.4	19.5	21.4	20.7	24	
11	21.1	21.1	21.1	21.1	21.2	21.3	21.6	21.6	20.9	19.9	21.2	21.6	21.6	21.7	21.6	21.6	21.6	21.6	21.5	21.6	21.5	21.5	21.5	21.5	19.9	21.7	21.4	24	
12	21.5	21.5	21.5	21.5	21.5	21.6	21.5	21.5	21.5	21.6	21.6	21.7	21.8	21.7	21.8	21.7	21.6	21.6	21.7	21.6	21.6	21.7	21.6	21.7	21.5	21.8	21.6	24	
13	21.6	21.5	21.6	21.7	21.6	21.7	21.7	21.6	21.7	21.6	21.9	21.9	21.8	21.9	21.6	21.9	21.7	21.8	21.8	21.9	21.9	21.8	21.9	22.0	21.5	22.0	21.8	24	
14	21.9	21.7	22.0	21.7	21.6	21.7	21.7	21.8	21.9	22.1	22.4	22.5	22.8	22.3	21.7	22.7	23.0	21.1	22.3	22.6	22.8	23.0	22.1	21.2	21.1	23.0	22.1	24	
15	22.1	22.4	22.7	22.9	21.5	21.6	22.1	22.3	22.4	22.4	22.6	22.2	20.5	21.2	22.1	20.5	21.9	22.7	22.8	20.9	22.0	22.2	22.2	22.2	20.5	22.9	22.0	24	
16	22.4	22.4	22.5	22.6	22.6	22.8	23.0	23.1	21.1	21.4	22.5	22.9	22.3	20.9	20.4	22.2	22.7	21.0	20.4	21.9	22.9	21.0	21.1	22.9	20.4	23.1	22.0	24	
17	21.6	20.9	22.4	22.9	21.2	21.6	22.5	22.9	22.5	20.8	22.2	22.8	21.5	20.5	22.2	21.7	20.6	22.2	22.3	20.6	22.2	22.5	20.5	21.9	20.5	22.9	21.8	24	
18	22.5	22.8	22.9	21.5	21.7	22.6	22.6	20.9	22.2	22.8	21.6	20.8	20.9	20.8	20.8	20.8	20.9	20.6	22.1	22.7	22.9	22.9	22.8	22.6	20.6	22.9	21.9	24	
19	22.6	22.6	22.5	22.5	22.3	22.1	21.9	21.7	22.0	21.9	21.6	21.9	22.0	21.7	21.6	21.6	21.6	21.7	21.6	21.7	21.9	22.2	22.3	22.4	21.6	22.6	22.0	24	
20	22.3	22.4	22.3	22.1	22.0	21.8	21.8	21.6	21.5	21.9	21.8	22.1	22.7	21.4	20.4	20.2	21.3	22.2	22.2	22.1	22.0	21.7	21.4	21.6	20.2	22.7	21.8	24	
21	21.5	21.5	21.5	21.5	21.5	21.4	21.5	21.4	21.4	21.4	21.4	21.4	21.5	21.5	21.4	21.4	21.4	21.4	21.4	21.5	21.4	21.4	21.3	21.4	21.3	21.5	21.4	24	
22	21.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.5	21.4	21.4	21.5	21.4	21.4	21.2	21.3	21.3	21.2	21.4	21.3	21.3	21.3	21.4	21.3	21.2	21.5	21.4	24	
23	21.3	21.4	21.5	21.5	21.3	21.3	21.5	21.5	21.4	21.4	21.6	21.5	21.4	21.4	21.5	21.5	21.5	21.4	21.5	21.4	21.6	21.6	21.5	21.5	21.3	21.6	21.5	24	
24	21.7	21.7	21.6	21.6	21.7	21.8	21.5	21.7	21.6	21.6	21.7	21.8	21.5	21.8	21.5	21.5	21.4	21.6	21.6	21.7	21.5	21.7	21.6	21.6	21.4	21.8	21.6	24	
25	21.6	21.6	21.7	21.6	21.5	21.6	21.7	21.6	21.6	21.6	21.6	21.8	21.7	21.6	21.6	21.9	22.2	22.2	22.1	21.8	21.5	21.3	21.8	21.4	21.6	21.3	22.2	21.7	24
26	21.6	21.5	21.5	21.7	21.6	21.4	21.8	21.4	21.4	21.7	21.4	21.7	22.1	22.5	20.6	20.8	22.3	22.7	22.7	22.8	21.1	21.8	22.2	22.2	20.6	22.8	21.8	24	
27	22.3	22.3	22.5	22.5	22.4	22.3	22.2	22.2	22.3	22.4	22.5	22.2	20.5	22.0	22.3	20.5	22.0	21.9	20.9	22.3	22.7	21.1	21.8	22.4	20.5	22.7	22.0	24	
28	22.6	22.7	22.9	22.2	21.0	22.2	22.6	22.2	20.7	22.3	22.6	20.7	20.8	22.2	20.7	20.6	20.8	20.9	20.4	21.8	22.4	20.5	21.8	22.8	20.4	22.9	21.7	24	
29	21.4	21.1	22.4	22.9	22.4	20.9	22.3	22.7	22.9	20.9	22.2	22.4	20.6	20.9	22.6	20.6	21.1	22.4	22.0	21.0	22.1	22.4	22.6	22.7	20.6	22.9	21.9	24	
30	22.7	22.7	22.6	22.4	22.2	22.0	21.7	21.5	22.0	21.6	21.9	21.8	21.8	22.1	21.8	21.9	21.9	21.9	21.7	21.6	21.8	21.6	21.6	21.6	21.5	22.7	21.9	24	
31	21.5	21.8	21.7	21.6	21.8	21.6	21.7	21.6	21.7	21.6	21.6	21.5	21.5	21.7	21.5	21.5	21.6	21.6	21.6	21.6	21.6	21.6	21.7	21.6	21.5	21.8	21.6	24	
HOURLY MAX	22.7	22.8	22.9	22.9	22.6	22.8	23.0	23.1	22.9	22.8	22.6	22.9	22.8	22.5	22.6	22.7	23.0	22.7	22.8	22.8	22.9	23.0	22.8	22.9					
HOURLY AVG	21.7	21.7	21.8	21.8	21.6	21.6	21.7	21.7	21.6	21.5	21.7	21.6	21.4	21.5	21.4	21.3	21.5	21.5	21.5	21.5	21.7	21.6	21.6	21.7					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

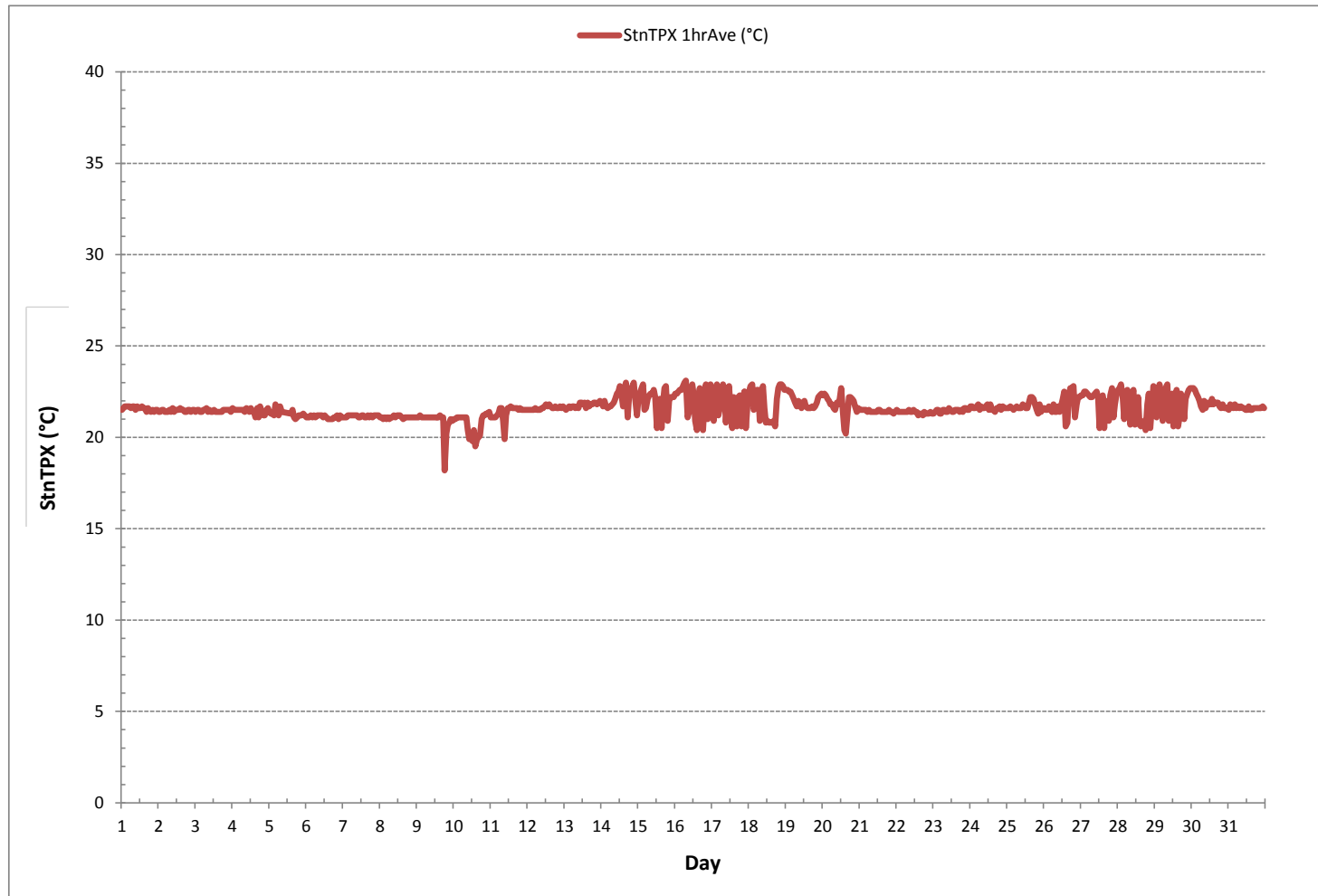
24 HR AVERAGES January 2017



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	18.2	°C	@ HOUR(S)	18	ON DAY(S)	9
MAXIMUM 1-HR AVERAGE:	23.1	°C	@ HOUR(S)	7	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	22.1	°C			ON DAY(S)	14
					VAR-VARIOUS	
					OPERATIONAL TIME:	740 hrs
					AMD OPERATION UPTIME:	99.5 %
STANDARD DEVIATION:	0.6				MONTHLY AVERAGE:	21.6 °C

STATION TEMPERATURE Hourly Averages (StnTPX °C)



APPENDIX II
EQUIPMENT CALIBRATION RESULTS

SULPHUR DIOXIDE



Thermo 43C Sulphur Dioxide Analyzer Calibration

Date:	January 10, 2017	Barometric Pressure:	27.86 inHg
Company/Airshed:	PRAMP	Station Temperature °C:	20
Location/Station Name:	986b	Weather Conditions:	Sunny
Parameter:	Sulphur Dioxide	Calibration Purpose:	routine monthly
Start Time 24 hr. (mst):	10:28	Performed By/Reviewer:	Raja Abid Trina Whitsitt
End Time 24 hr. (mst):	14:32	Cal Gas Expiry Date:	May 23, 2019
Calibration Method:	Gas Dilution	Converter Model & s/n (if applicable):	n/a

Analyzer:			
ID# or Serial Number:	43C-62339-335	Range ppb:	500
Last Calibration Date:	December 7, 2016	As Found C.F.:	1.019
Previous C.F.:	1.000	New C.F.:	0.999

Calibrator:		Standard Calibration Points for Ranges	
Flow Meter ID's:	n/a		
Make & Model:	API 700	Point	ppb
Serial #:	830	High	380
Cal Gas Cylinder I.D. #:	LL 119513	Mid	180
Cal Gas Conc. (ppm):	50.6	Low	90

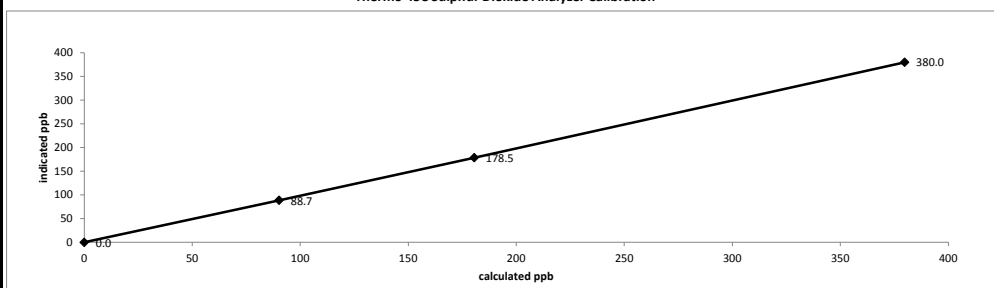
ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated Concentration:	Indicated Concentration:	Correction Factors (C.F.):
Point	Diluent	Cal Gas	Total	(ppb)	(ppb)	
as found zero	5998	0.00	5998	0.0	-0.5	n/a
as found high	5951	45.00	5996	379.8	372.0	1.019
adjusted zero	5998	0.00	5998	0.0	0.0	n/a
adjusted high	5951	45.00	5996	379.8	380.0	0.999
mid	5977	21.40	5998	180.5	178.5	1.011
low	5989	10.70	6000	90.2	88.7	1.017
calibrator zero	5998	0.00	5998	0.0	0.0	n/a
Average C.F. =						1.009

Linear Regression/Calibration Results:

Correlation Coefficient =	1.000	LIMITS
Slope =	0.998	> or = 0.995
b (Intercept as % of full scale) =	0.22%	.95-1.05
% change in C.F. from last cal =	-1.95%	± 3% F.S.
		± 10%

Thermo 43C Sulphur Dioxide Analyzer Calibration



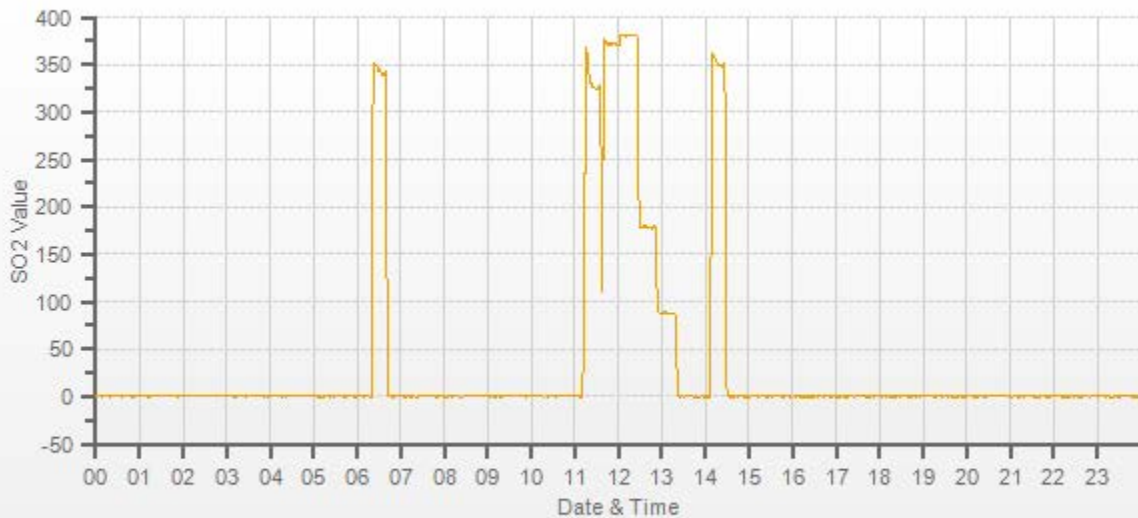
As found:	As left:
BKG: 64.9	BKG: 66.3
COEF: 0.891	COEF: 0.907
PMT: -654	PMT: -654
LAMP: 836	LAMP: 837
BATTERY: 3.2	BATTERY: 3.3
INTERNAL: 27.3	INTERNAL: 27.8
CHAMBER: 45.3	CHAMBER: 45.3
PRESSURE: 521.8	PRESSURE: 521.7
FLOW: 0.647	FLOW: 0.639
INTENSITY: 38100	INTENSITY: 38444
CONVERTER: n/a	CONVERTER: n/a
CONVERTER SET: n/a	CONVERTER SET: n/a
Expected Value: 331.5	Expected Value: 349.4

Comments:

The analyzer sample inlet filter was changed.

The analyzer cooling fan filter(s) were cleaned.

As-found high restarted at 11:39 after repurging the regulator.



— SO2[ppb]

TOTAL REDUCED SULPHUR



Thermo 43i Total Reduced Sulphur Analyzer Calibration

Date:	January 10, 2017	Barometric Pressure:	27.86 inHg
Company/Airshed:	PRAMP	Station Temperature °C:	20
Location/Station Name:	986b	Weather Conditions:	Sunny
Parameter:	Total Reduced Sulphur	Calibration Purpose:	routine monthly
Start Time 24 hr. (mst):	13:50	Performed By/Reviewer:	Raja Abid Trina Whitsitt
End Time 24 hr. (mst):	17:56	Cal Gas Expiry Date:	December 1, 2018
Calibration Method:	Gas Dilution	Converter Model & s/n (if applicable):	CD NOVA CDN 101 s/n 516

Analyzer:		Range ppb:	100
ID# or Serial Number:	1314057760	As Found C.F.:	1.001
Last Calibration Date:	December 7, 2017	New C.F.:	1.000
Previous C.F.:	1.000		

Calibrator:		Standard Calibration Points for Ranges	SO ₂ Scrubber Check (10 mins.)
Flow Meter ID's:	n/a		Start/End Time 24 hr.: 14:38-14:48
Make & Model:	EnviroNics 6100		Target Concentration (ppb): 380
Serial #:	5212		Result (ppb): 0.1
Cal Gas Cylinder I.D. #:	BLM 002197		Zero Corrected Result (ppb): 0
Cal Gas Conc. (ppm):	10.3		

Point	ppb
High	78
Mid	38
Low	19

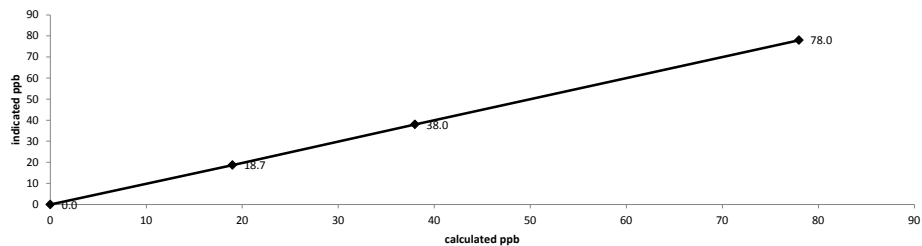
ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated Concentration:	Indicated Concentration:	Correction Factors (C.F.):
Point	Diluent	Cal Gas	Total	(ppb)	(ppb)	
as found zero	7494	0.00	7494	0.0	-0.3	n/a
as found high	7442	56.77	7499	78.0	77.6	1.001
adjusted zero	7494	0.00	7494	0.0	0.0	n/a
adjusted high	7442	56.77	7499	78.0	78.0	1.000
mid	7468	27.64	7496	38.0	38.0	1.000
low	7483	13.81	7497	19.0	18.7	1.015
calibrator zero	7494	0.00	7494	0.0	0.0	n/a
				Average C.F. =		1.005

Linear Regression/Calibration Results:

Correlation Coefficient =	1.000	LIMITS
Slope =	0.998	> or = 0.995
b (Intercept as % of full scale) =	0.11%	.95-1.05
% change in C.F. from last cal =	-0.10%	± 3% F.S.
		± 10%

Thermo 43i Total Reduced Sulphur Analyzer Calibration

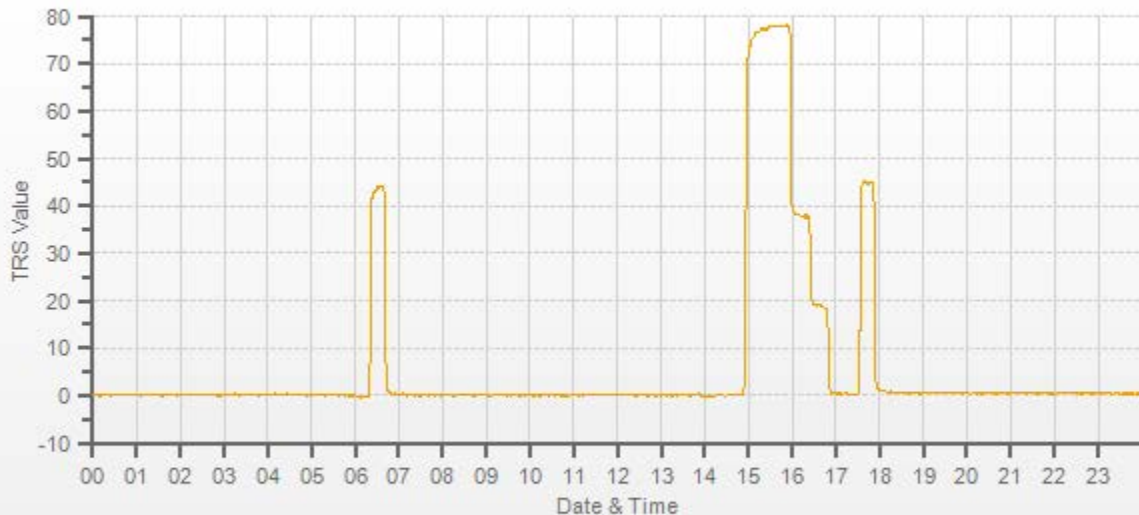


As found:	As left:
BKG: 11.4	BKG: 11.0
COEF: 0.999	COEF: 0.997
PMT: -609.8	PMT: -609.8
FLASH: 927	FLASH: 928
INTERNAL: 29.9	INTERNAL: 31.1
CHAMBER: 45.3	CHAMBER: 44.8
PERM OVEN GAS: 45.00	PERM OVEN GAS: 45.00
PERM OVEN HEATER: 44.46	PERM OVEN HEATER: 44.46
PRESSURE: 661.7	PRESSURE: 659.9
SAMPLE FLOW: 0.420	SAMPLE FLOW: 0.419
LAMP INTENSITY: 86	LAMP INTENSITY: 86
CONVERTER: 820	CONVERTER: 820
CONVERTER SET: 820	CONVERTER SET: 820
Expected Value: 42.5	Expected Value: 45.0

Comments:

The analyzer sample inlet filter was changed.

The analyzer cooling fan filter(s) were cleaned.



— TRS[ppb]

TOTAL HYDROCARBON



Thermo 55i Methane/Non-Methane Analyzer Calibration

remove

Date:	January 10, 2017	Barometric Pressure:	27.86 inHg
Company/Airshed:	PRAMP	Station Temperature °C:	20
Location/Station Name:	986b	Weather Conditions:	Sunny
Parameter:	CH ₄ / NMHC / THC	Calibration Purpose:	routine monthly
Start/End Time 24 hr. (mst):	10:28-14:33	Performed By/Reviewer:	Raja Abid Trina Whitsitt
Calibration Method:	Gas Dilution	Cal Gas Expiry Date:	January 9, 2021

Analyzer:		Correction Factors:			
ID# or Serial Number:	1022143392	Previous C.F.:	As Found C.F.:	New C.F.:	
Measured Flow:	1048	CH ₄ =	1.000	1.026	1.000
Last Calibration Date:	December 7, 2016	NMHC =	1.000	0.975	0.999
Range ppm:	20 CH ₄ /20 NMHC/40 THC	THC =	1.000	1.001	1.000

Calibrator:		Standard Calibration Points for Analyzer Range of 20/20/40 ppm			
Flow Meter ID's:	n/a				
Make & Model:	Enviroics 6100				
Serial #:	5212				
Cal Gas Cylinder I.D. #:	LL 19638				
CH4 Cylinder Conc.=	880.0	304.0	=C3H8 Cylinder Conc.		
CH4 as C3H8=	836.0	1716.0	=total CH4 equivalent		

ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated CH ₄ (ppm)	Calculated NMHC (ppm)	Calculated THC (ppm)	Indicated CH ₄ (ppm)	Indicated NMHC (ppm)	Indicated THC (ppm)	Correction Factors:		
Point	Diluent	Cal Gas	Total Flow	CH ₄ (ppm)	NMHC (ppm)	THC (ppm)	CH ₄ (ppm)	NMHC (ppm)	THC (ppm)	CH ₄	NMHC	THC
as found zero	2997	0.00	2997	0.00	0.00	0.00	0.00	0.00	0.00	n/a	n/a	n/a
as found high	2947	49.96	2997	14.67	13.94	28.61	14.30	14.29	28.58	1.026	0.975	1.001
adjusted zero	2997	0.00	2997	0.00	0.00	0.00	0.00	0.00	0.00	n/a	n/a	n/a
adjusted high	2947	49.96	2997	14.67	13.94	28.61	14.67	13.95	28.61	1.000	0.999	1.000
mid	2972	24.95	2997	7.33	6.96	14.29	7.35	6.97	14.34	0.997	0.999	0.996
low	2986	11.97	2998	3.51	3.34	6.85	3.52	3.35	6.85	0.998	0.996	1.000
calibrator zero	2997	0.00	2997	0.00	0.00	0.00	0.00	0.00	0.00	n/a	n/a	n/a

Average C.F. =

0.998 0.998 0.999

Linear Regression/Calibration Results:

	CH ₄	NMHC	THC	LIMITS
Correlation Coefficient =	1.000	1.000	1.000	> or = 0.995
Slope =	1.000	1.001	1.000	.95-1.05
b (Intercept as % of full scale) =	0.04%	0.02%	0.02%	± 3% F.S.
% change in C.F. from last cal =	-2.59%	2.48%	-0.09%	± 10%

As found:		As left:	
Interface Board Voltages:	Bias Supply: -310.5	Calibration History cnt'd:	NM Peak Area: n/a
Temperatures:	Detector Oven: 175.0	Crucial Settings:	Methane Start: n/a
	Filter: 175.0		Methane End: n/a
	Column Oven: 75.0		Backflush: n/a
	Internal: 32.2		NMHC Start: n/a
Cylinder Pressures/reg.:	Carrier: 800 50		NMHC End: n/a
	Fuel: 1600 50	Run History>1:	Date: 10Jan17
	Span Gas: 1800 28		Time: 11:27
	Zero Air Generator: 45		CH ₄ PK HT: 0
Internal Pressures:	Carrier: 31.3		CH ₄ RT: 8.0
	Fuel: 40.5		CH ₄ Baseline: 1585
	Air: 32.3		CH ₄ LOD: 18
FID Status:	Status: LIT		CH ₄ SD: 6
	Counts: 23138		CH ₄ CONC: 0.00
	Flame: 319.6		NM PK HT: 0
	Det Base: 175.1		NM Peak Area: 0
Flame and Power Stats:	Last Power On: 05Jan2017@13:21		NM CONC: 0
	Flameouts: 3		NM Base Start: 1598
	Det Oven at Start: 32.8		NM Base End: 1592
	Col Oven at Start: 29.9		NM LOD: 12
Calibration History:	Time: n/a		NM Start IDX: 26
	Type: n/a		NM End IDX: 48
	Status: n/a		NM Max Slope: 3.9e-01
	Check/Adjust: n/a		NM Min Slope: -5.2e-01
	CH ₄ Span Conc: n/a		NM PT Count: 0
	CH ₄ SP Ratio: n/a	Expected Values:	Previous CH ₄ : 9.198
	CH ₄ RT: n/a		Previous NMHC: 11.36
	CH ₄ PK IDX: n/a		Previous THC: 20.56
	CH ₄ PK HT: n/a		New CH ₄ : 9.32
	NM Span Conc: n/a		New NMHC: 11.32
	NM SP Ratio: n/a		New THC: 20.64

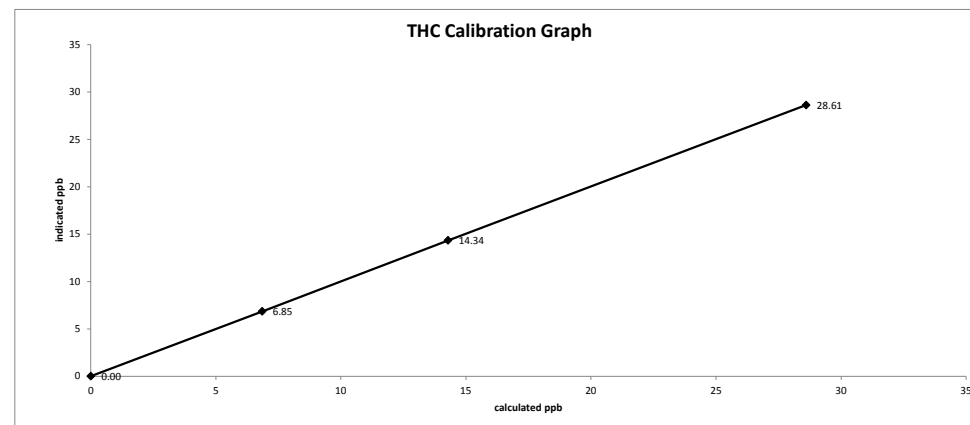
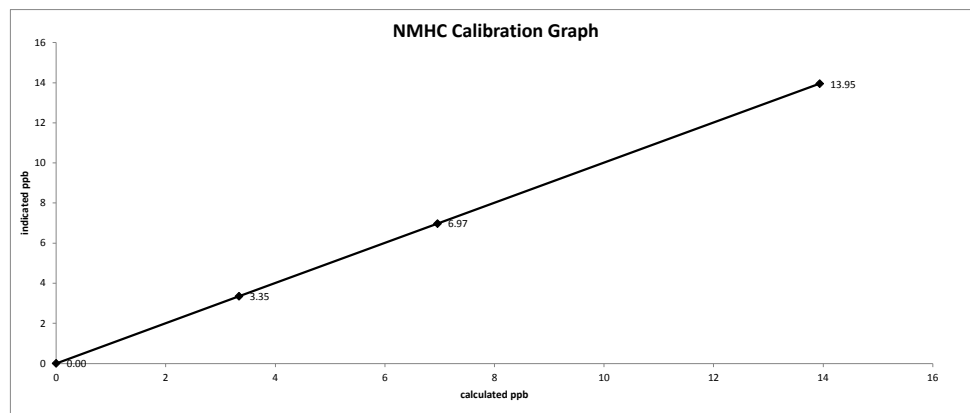
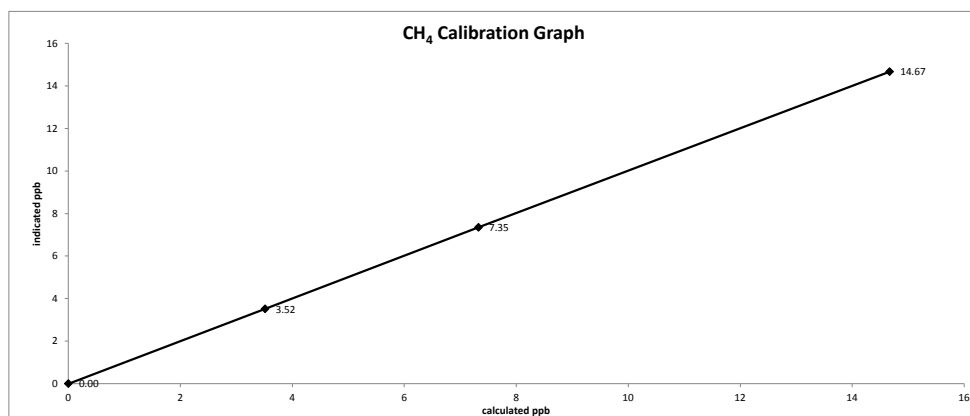
Comments:
The analyzer sample inlet filter was changed.

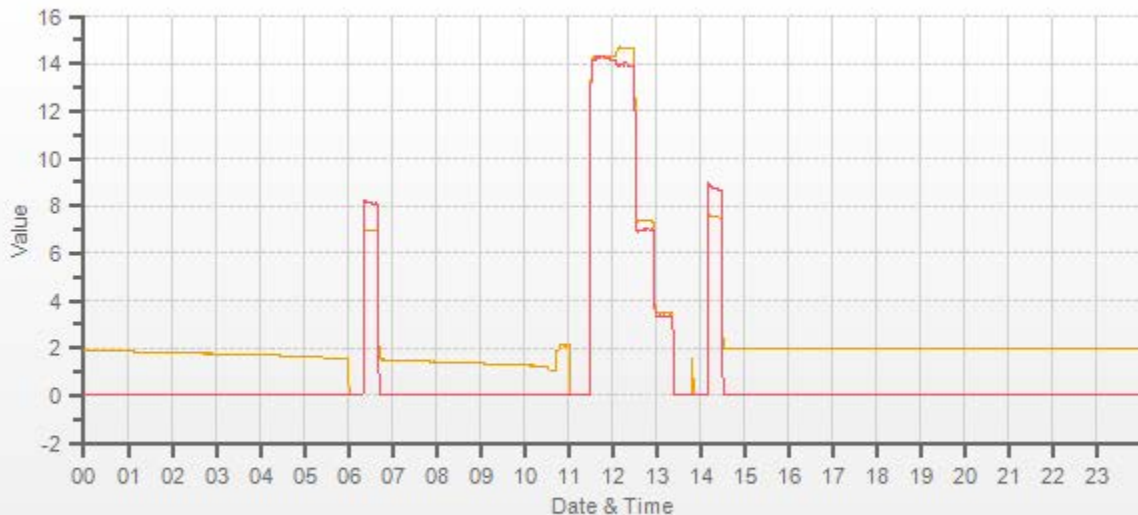
A new hydrogen cylinder was installed.
A new span gas cylinder was installed.

No zero adjustment was required/made. As found zero values were copied to adjusted zero values for linearity calculation purposes.

Date: January 10, 2017
Company/Airshed: PRAMP
Location/Station Name: 986b

Start/End Time 24 hr. (mst): 10:28-14:33
Calibration Purpose: routine monthly
Calibration Method: Gas Dilution





CH4[ppm] NMHC[ppm]

WIND SYSTEM



Meteorological Sensor Audit

Station Information

Company:	Three Creeks	Performed By:	Chris Wesson
Location:	Three Creeks 986B	Reason:	Audit
Audit Date:	03-May-16	Start Time (mst):	08:33
Previous Audit Date:	NA	End Time (mst):	08:55

Wind Speed

Sensor make:	RM Young	Sensor height:	15
Sensor model:	5103VK	Serial Number:	43711
Calibrator:	RM Young	Variable speed motor:	CA 03309
Voltage range:	0-1	Output signal range:	0-200 kph

Wind Speed Audit Data

RPM	Wind Speed Actual	Indicated WS - CW	Indicated WS-CCW	Correction Factor
0	0.0	0.04	0.06	-
1000	17.6	17.76	17.67	0.99
2000	35.28	35.32	35.39	1.00
3000	52.92	52.98	53	1.00
4000	70.56	70.65	70.67	1.00
5000	88.2	88.32	88.34	1.00
6000	105.84	106	106	1.00
7000	123.48	123.6	123.6	1.00
8000	141.12	141.3	141.3	1.00
9000	158.76	158.9	159	1.00
10000	176.4	176.6	176.6	1.00
Average Correction Factor:				1.00

Wind Direction

Sensor make:	RM Young	Sensor height:	15
Sensor model:	5103VK	Serial Number:	43711
Calibrator:	RM Young	Variable speed motor:	NA
Voltage range:	0-1	Output signal range:	0-360 Deg

Wind Direction Audit Data

Wind Direction	Indicated	Correction Factor
0	0.1	NA
45	45.0	1.00
90	90.4	1.00
135	135.1	1.00
180	180.4	1.00
225	225.0	1.00
270	270.8	1.00
315	316.1	1.00
360	360.0	1.00
		NA
Average Correction Factor:		1.00

Remarks: The wind system was audited at Maxxam shop

Audit Performed by: Chris Wesson

CALIBRATORS

Company: Maxxam **Operator:** Mike

Calibrator:		Flow Measurement Device:	
Make/Model	<u>API 700</u>	Make/Model	<u>Bios Defender 530+</u>
Serial Number	<u>830</u>	Serial Number	<u>Hi148944 Lo 152019</u>
Last Verification Date	<u>January 19, 2016</u>	Temperature (°C)	<u>24.6</u>
SO ₂ Cylinder Conc.	<u>50.5</u>	Barometric Pressure	<u>701.4mmHg</u>
SO ₂ Cylinder S/N	<u>EY0000769</u>		
Expiry Date	<u>December 8, 2019</u>		

Flow Measurements

Pt. No. 1 78.0 **Pt. No. 2** 37.7 **Pt. No. 3** 18.6

Calibrator Flow (sccm)	Calculated Concentration (ppm)	Indicated Concentration (ppm)	% Difference	
			vs Audit Gas	% Diff. Limit
4978	0.0000	0.0000		
4974	0.7920	0.7912	0%	± 10%
4978	0.3825	0.3825	0%	± 10%
4975	0.1900	0.1908	0%	± 10%
Absolute Average Percent Difference			0%	± 10%

LINEAR REGRESSION ANALYSIS

$y=mx+b$ (where x =calculated concentration, y =indicated concentration)

SO₂	LIMITS
Correlation= 1.0000	≥ 0.995
m (Slope)= 0.9986	0.90-1.10
b (Intercept % of FS)= 0.0477	± 3% F.S.

AENV Standards		SO₂ Analyzer	
Audit Calibrator		Make/Model	<u>Themro 43i</u>
Make/Model	<u>R&R MFC 201</u>	Serial/AMU Number	<u>1623</u>
Serial/AMU Number	<u>1690</u>	Last Calibration Date	<u>January 31, 2017</u>
SO ₂		Full Scale (ppm)	<u>1.0</u>
SRM Gas Cylinder No.	<u>CAL016625</u>	Expiry Date	<u>January 5, 2019</u>
Cylinder Conc. (ppm)	<u>98.07</u>		

COMMENTS: Analyzer verified prior to audit

Auditor: Shea Beaton Date: February 14, 2017

Operator Signature: [Signature] Location: McIntyre Center Edmonton

Company Maxxam		Operator: Mike	
Calibrator:		Flow Measurement Device:	
Make/Model	EnviroNics 6100	Make/Model	Bios Defender 530
Serial Number	5212	Serial Number	Hi148944 Lo 152019
Last Verification Date	February 3, 2016	Temperature (°C)	24.6
NO Cylinder S/N	EY0000597	Barometric Pressure	701.4mmHg
NO [PPM]	49.0	NOx [PPM]	49.0
Expiry Date	December 8, 2019		

Dilution Flow (sccm)			
Pt. #1	4919	Pt. #2	4934
Pt. #3	4960		
Gas Flow (sccm)			
Pt. #1	79.2	Pt. #2	38.3
Pt. #3	19.1		

Calibrator Flow (sccm)		Calculated Conc.(ppm)		Indicated Conc.(ppm)			% Difference vs Audit Gas	
Dilution	Gas	NO	NOx	NO	NO ₂	NOx	NO	NOx
4987	0.0	0.0000	0.0000	0.0000	0.0002	0.0002	Limit ± 10%	
4998	79.2	0.7765	0.7765	0.7801	-0.0003	0.7798	0%	0%
4977	38.3	0.3775	0.3775	0.3790	0.0000	0.3790	0%	0%
4979	19.1	0.1880	0.1880	0.1888	-0.0001	0.1887	0%	0%
Absolute Average Percent Difference							0%	0%

LINEAR REGRESSION ANALYSIS $y=mx+b$ (where x=calculated concentration, y=indicated concentration)

NO	LIMITS	NOx
Correlation= 1.0000	≥ 0.990	Correlation= 1.0000
m (Slope)= 1.0046	0.90-1.10	m (Slope)= 1.0041
b (Intercept % of FS)= -0.0080	± 3% F.S.	b (Intercept % of FS)= 0.0057

Flow	O ₂ Conc	NO Decrease	NO	NO ₂	NOx	% Diff. Vs Audit gas	
4998	0.000	0.0000	0.7799	-0.0008	0.7790	NO ₂	% Diff. Limit
4998	0.500	0.4949	0.2850	0.4909	0.7776	-1%	± 10%
4998	0.275	0.2765	0.5034	0.2742	0.7776	-1%	± 10%
4998	0.100	0.1003	0.6796	0.0989	0.7786	-1%	± 10%
Absolute Average Percent Difference						1%	± 10%

LINEAR REGRESSION ANALYSIS $y=mx+b$ (where x=calculated concentration, y=indicated concentration)

NO₂	LIMITS	
Correlation= 1.0000	≥ 0.995	
m (Slope)= 0.9936	0.90-1.10	
b (Intercept % of FS)= -0.0733	± 3% F.S.	

AENV Standards		NO_x Analyzer	
Audit Calibrator			
Make/Model	Thermo 146i	Make/Model	Thermo 42i
Serial/AMU Number	1809	Serial/AMU Number	1868
SRM Gas Cylinder No.	CAL018140	Last Calibration Date	February 13, 2017
Cylinder Conc. (ppm)	48.79	Full Scale (ppm)	1.0
		Cylinder Gas Expiry Date	March 28, 2019

COMMENTS: Gas has ~50ppm SO₂

Auditor: Shea Beaton
Operator Signature: [Signature]

Date: February 14, 2017
Location: McIntyre Center Edmonton

CALIBRATION GASES



Calibration Gas Audit

Single Component Cylinder Gas

File No. 2016-086CGA

Company: Maxxam Operator's Name: Chris Wesson
Cylinder #: LL119513 Concentration PPM: 50.6 Tolerance(%) 1 Certified By: Praxair

Reference Calibrator and Gas:

Make/Model: Teco 146i
Serial Number: AMU 1809
Last Verification Date: June 17, 2016
Gas Type: SO2 Conc. 98.07
Cylinder Number: CAL016625

Flow Measurement Device:

Make/Model: Bios DC2
Serial Number: AMU 1659
Temp. °C: 23.0 C
B.P. 700 mmhg

Reference Analyzer:

Make/Model: Teco 43C Serial/AMU Number: 1623
Instrument Settings: Zero: 8.7 Span: 1.027 Range: 1.0
Last Calibration: Date: June 17/16 C.F. 1.000 Done By: Al Clark

Calibrator Flows (sccm)		Indicated Concentration (PPM)	Gas Flow/ Dilution Flow	Concentration Factor	Cylinder Concentration
Dilution	Gas				
5000	0.0	0.000			
4976	82.3	0.828	0.01654	60.462	50.1
4985	40.8	0.411	0.00818	122.181	50.2
4965	20.2	0.203	0.00407	245.792	49.9
Average Cylinder Concentration:					50.1

Previous Stated Concentration PPM: 50.6

Percent variance from Stated: 1.1

Meets Manufacturer Tolerance. Use manufacturers stated concentration ☐ COMMENTS: _____
 < =5% Outside Manufacturer Tolerance. Use manufacturers concentration ☒ _____
 > 5% Outside Manufacturer Tolerance. **DO NOT USE** this cylinder ☐ _____

Auditor: Al Clark
Operator Signature: [Signature]

Date: June 17, 2016
Location: McIntyre Center Edmonton



Calibration Gas Audit

Single Component Cylinder Gas

File No. 2015-112CGA

Company: Maxxam Operator's Name: Chris Wesson
Cylinder #: BLM002197 Concentration PPM: 10.3 Tolerance(%): 2 Certified By: Air Liquide

Reference Calibrator and Gas:

Make/Model: R&R MFC 201
Serial Number: AMU 1690
Last Verification Date: February 2, 2016
Gas Type: H2S Conc. 20.43
Cylinder Number: CAL015584

Flow Measurement Device:

Make/Model: Bios DC-2
Serial Number: Bios D
Temp. °C: 24.5
B.P. 702mmHg

Reference Analyzer:

Make/Model: Thermo 450i Serial/AMU Number: 1980
Instrument Settings: Zero: 15.3 Span: 1.126 Range: 0.1
Last Calibration: Date: 1-Feb-16 C.F. 1.000 Done By: SB

Calibrator Flows (sccm)		Indicated Concentration (PPM)	Gas Flow/ Dilution Flow	Concentration Factor	Cylinder Concentration
Dilution	Gas				
5017	0.0	0.000	0.00751	133.140	10.4
5054	37.96	0.078	0.00751	133.140	10.4
5055	17.78	0.037	0.00352	284.308	10.4
5029	9.07	0.019	0.00180	554.465	10.3
Average Cylinder Concentration:					10.3

Previous Stated Concentration PPM: 10.3

Percent variance from Stated: 0.5

Meets Manufacturer Tolerance. Use manufacturers stated concentration ☒ COMMENTS: _____
<=5% Outside Manufacturer Tolerance. Use manufacturers concentration ☐ _____
> 5% Outside Manufacturer Tolerance. **DO NOT USE** this cylinder ☐ _____

Auditor: Shea Beaton
Operator Signature: [Signature]

Date: February 2, 2016
Location: McIntyre Center Edmonton



Calibration Gas Audit

CH₄ / C₃H₈ Cylinder Gas

File No. 2013-298CGA

Company: Maxxam Operators name: Theo
Cylinder #: LL19638 Conc CH₄ (PPM) 880/304 Tolerance (%) 2 Certified By: Praxair

Reference Calibrator and Gas:

Make/Model R&R MFC 201
Serial Number AMU 1690
Last Verification Date October 17, 2013
Gas Type CH₄ Conc. 999.2
Cylinder Number D751932
Gas Type C₃H₈ Conc. 246.5
Cylinder Number XF0037998

Flow Measurement Device:

Make/Model Bios DC2
Serial Number AMU 1659
Temp. °C 21.0 C
B.P. 706 mmhg

Reference Analyzer:

Make/Model Teco 55C Serial/AMU Number: 1625
Instrument Settings Zero: N/A Span: N/A Range: 20
Last Calibration: Date: Oct 17/13 C.F. 1.000 Done By: Al Clark

Calibrator Flows (scm)		Indicated Conc. (ppm)		Gas Flow/ Dilution Flow	Concentration Factor	Cylinder Concentration	
Dilution	Gas	CH ₄	C ₃ H ₈			CH ₄	C ₃ H ₈
3500	0.0	0.04	0.00				
3505	51.9	13.16	12.58	0.01481	67.534	889	309
3487	22.2	5.64	5.43	0.00637	167.072	886	310
3458	10.8	2.80	2.73	0.00312	320.185	897	318
Average Cylinder Concentration:						890	312

CH₄
Previous Stated Concentration PPM: 880
Percent variance from Stated: 1.2

C₃H₈
304
2.7

Cylinder gas tolerances based on CH₄ only

Meets Manufacturer Tolerance. Use manufacturers stated concentration ☒ COMMENTS: _____
< =5% Outside Manufacturer Tolerance, Use manufacturers concentration ☐
> 5% Outside Manufacturer Tolerance, **DO NOT USE** this cylinder ☐

Auditor: Al Clark Date: October 17, 2013
Operator Signature: [Signature] Location: McIntyre Center Edmonton

APPENDIX III
REPORT CERTIFICATION FORM

Report Certification Form

Alberta Airshed (if applicable)	EPA Approval or Code of Practice Registration # (if applicable)
NO	NA
Company Name (if applicable)	Industrial Operation Name (if applicable)
Peace River Area Monitoring Program Committee	Three Creeks 986b Station
Name of the Representative of the Person Responsible (Last, First, Middle)	Position / Title of the Representative of the Person Responsible
Wunmi Adekanmbi	Project Manager, Customer Service, Air Services
Is an External Party Certifying the Report? (If 'Yes', fill in the fields below for the external person.)	
☐ Yes ☒ No	
Name of External Person Certifying the Report (Last, First, Middle)	Position / Title of External Person Certifying the Report
NA	NA
Company Name for the External Person Certifying the Report	Identification of Qualifications / Professional Designations of the External Person Certifying the Report
NA	NA

I certify that I have reviewed and verified the submitted report. I also certify that the report presented with this certification form is complete, accurate and representative of the monitoring results and timeframe.

Signature of the Representative of the Person
Responsible / External Person Certifying the Report

22-02-2017

Report Issued Date (dd-mm-yyyy)

APPENDIX IV
DATA VALIDATION CERTIFICATION FORM

Validation Certificate Form

Client: <u>Peace River Area Monitoring Program Committee</u> Site: <u>Three Creeks 986b Station</u>	Project #: <u>8449-2017-01-67-C</u> Contact: <u>Mike Bisaga</u>
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Level 0 Preliminary Verification	 	Date <u>16-Feb-17</u>
Level 1 Primary Validation	 	Date <u>16-Feb-17</u>
Level 2 Final Validation	 	Date <u>22-Feb-17</u>
Level 3 Independent Data Review	 	Date <u>23-Feb-17</u>
Post-Final Validation	<u>NA</u> 	Date <u>NA</u>

Notes	
	The Post-Final Validation step serves to re-evaluate the data that errors or omissions are discovered and/or suspected after the initial submittal of data. This validation is performed on an annual basis.