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April 9, 2014

RE: February 2014 Ambient Air Monitoring Monthly Reports

Attached are the monthly ambient air monitoring reports for the LICA Airshed Zone's Cold Lake South, Maskwa, St. Lina, and Elk Point continuous stations. In addition, there are also summaries for the passive monitoring network and speciated VOC and PAH sampling programs.

Should you have any questions, please don't hesitate to contact me directly at (780) 266-7068.

Respectfully,

A handwritten signature in blue ink that reads "Michael Bisaga".

Michael Bisaga

Airshed Program Manager
Lakeland Industry and Community Association

cc (email): LICA Office

Lakeland Industry & Community Association

St. Lina Monitoring Site
Ambient Air Monitoring
Data Report
For
February 2014

Prepared By:



March 31, 2014

Lakeland Industry & Community Association

St. Lina

Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

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Lakeland Industry & Community Association
Box 8237
5107W – 50 Street
Bonnyville, Alberta
T9N 2J5

Monitoring Location: St. Lina
Data Period: February 2014

The monthly ambient data report:

- Prepared by Ernestine Tangang
- Reviewed by Lily Lin

Calibration Procedure

The following calibration procedure applies to all calibrations conducted at the Lakeland Industry & Community Association Air Monitoring Station.

Calibration gas concentrations are generated using a dynamic mass flow controlled calibrator. EPA Protocol one gases are diluted with zero air generated on site. The Mass Flow Controllers in the calibrator are referenced using an NIST traceable flow meter once per month. All listed flows are reported as corrected to Standard Temperature and Pressure (STP).

Generated zero gas is introduced to the analyzer first. Three concentrations of calibration gas are then generated in order to introduce points at approximately 50-80%, 25-40% & 10-20% of the analyzer's full-scale range. An auto zero and span are then performed to validate the daily zero and span values recorded to the next multi-point calibration.

All indicated concentrations are taken from the ESC data logger used to collect the data for monthly reporting.

The calibrations conducted at the LICA – St. Lina Air Monitoring Stations conform to the following Maxxam Standard Operation Procedures:

- AIR SOP-00211
- AIR SOP-00209
- AIR SOP-00213
- AIR SOP-00214
- AIR SOP-00208
- AIR SOP-00215

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6*.

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION – ST. LINA

Continuous Ambient Monitoring – February 2014

| LICA ST. LINA SITE | | | | | | MAXIMUM VALUES | | | | | | | OPERATIONAL TIME (PERCENT) | |
|---------------------------|------|-------|------|-------|--------------------|----------------|--------|------|------------------------|--------------------------------|-------------|-----|----------------------------------|--------------------|
| | | | | | | OBJECTIVES | | | | | EXCEEDENCES | | | MONTHLY AVERAGE |
| PARAMETER | 1-HR | 24-HR | 1-HR | 24-HR | MONTHLY AVERAGE | READING | DAY | HOUR | WIND SPEED (KPH) | WIND DIRECTION (DEGREES) | READING | DAY | | |
| SO2 (PPB) | 172 | 48 | 0 | 0 | 2.30 | 8 | 10, 21 | VAR | VAR | VAR | 5.0 | 12 | 100.0 | |
| H2S (PPB) | 10 | 3 | 0 | 0 | 1.87 | 4 | 16 | VAR | VAR | VAR | 2.7 | 16 | 99.7 | |
| THC (PPM) | - | - | - | - | 2.14 | 3.2 | 9 | 17 | 8.1 | 147(SE) | 2.6 | 20 | 91.5 | |
| OZONE (PPB) | 82 | - | 0 | - | 31.44 | 43 | 18 | VAR | VAR | VAR | 39.9 | 18 | 97.8 | |
| NOx (PPB) | - | - | - | - | 3.53 | 23 | 24 | 9 | 11.9 | 237(SW) | 7.0 | 24 | 100.0 | |
| NO (PPB) | - | - | - | - | 0.64 | 13.6 | 24 | 9 | 11.9 | 237(SW) | 2.9 | 24 | 100.0 | |
| NO ₂ (PPB) | 159 | - | 0 | - | 2.89 | 16.4 | 25 | 22 | 13.3 | 270(W) | 5.8 | 25 | 100.0 | |
| PM2.5 (ug/m3) | - | 30 | - | 0 | 3.26 | 19 | 24 | 9 | 11.9 | 237(SW) | 8.0 | 20 | 99.7 | |
| TEMPERATURE (DEGREE C) | - | - | - | - | -16.22 | 4 | 17 | 14 | 11.9 | 270(W) | -2.5 | 18 | 100.0 | |
| BP (MILLIBAR) | - | - | - | - | 924.23 | 950 | 5 | VAR | VAR | VAR | 946.2 | 5 | 100.0 | |
| RH (%) | - | - | - | - | 62.74 | 82 | 20 | VAR | VAR | VAR | 80.4 | 20 | 100.0 | |
| PRECIPITATION (MM) | - | - | - | - | 0.01 | 1 | 17 | 10 | 7.7 | 250(WSW) | 0.1 | VAR | 100.0 | |
| VECTOR WS (KPH) | - | - | - | - | 10.21 | 30.5 | 27 | 17 | 30.5 | 0(N) | 15.6 | 27 | 100.0 | |
| VECTOR WD (DEGREES) | - | - | - | - | 317(NW) | - | - | - | - | - | - | - | 100.0 | |

VAR-VARIOUS

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance. Any non-conformances, problems or maintenance performed are detailed at the end of each section.

AQM STATION – LICA – St. Lina

Sulphur Dioxide (PPB)

Analyzer make / model - API 100E, S/N: 468

The analyzer was working well throughout the month. The monthly calibration was performed on February 13th. The inlet filter was changed before the calibration was started. The hourly data between February 1st at hour 0 and February 16th at hour 10 were higher than @ historical data. It is likely because the sample valve was due for maintenance. The sample valve was replaced on February 16th. As the drift was •till within the acceptable limit, which was +/-3% of full scale, no data was discarded due to this event. The issue of zero drift was corrected after the sample valve replacement. Hourly maximum data collected on February 13th at hour 19 is missing due to a short power outage. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

Analyzer make / model - API 101E, S/N: 510

The monthly calibration was performed on February 16th. The inlet filter was changed before the calibration was started. The analyzer was recalibrated on February 20th due to zero drift. The analyzer was put into the Maintenance mode on February 25th at hour 14 and hour 15 for the Teom unit repair. The analyzer spanned low on February 26th. Another span check was done on February 27th, and the result improved. As a result, no further action was taken, and all data were kept. Hourly maximum data collected on February 13th at hour 19 is missing due to a short power outage. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Total Hydrocarbon (PPM)

Analyzer make / model – Thermo 51C-LT, S/N: 04366-09739

The analyzer spanned low on February 11th due to sample pump failure. The pump was rebuilt on February 13th. Data was invalidated back to the last good daily calibration result, which was February 10th. 57 hours of data were invalidated. The fittings for the regulator for span gas were changed on February 13th. A post-repair calibration was then performed. Hourly maximum data collected on February 13th at hour 19 is missing due to a short power outage. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

Analyzer make / model - API 200E, S/N: 592

The analyzer was working well throughout the month. The monthly calibration was performed on February 13th. The inlet filter was changed before the calibration was started. An as found points check was performed on February 16th in order to get a reference point for UH calibration. Hourly maximum data collected on February 13th at hour 19 is missing due to a short power outage. Data was corrected using daily zero information.

Ozone (PPB)

Analyzer make / model - Thermo 49i, S/N: 1002240371

The analyzer started showing malfunction on February 15th at hour 23. Upon arrival the trailer on February 16th, it was found that the analyzer had a sample flow alarm. Performed troubleshooting by replacing the pump. A post-repair calibration was then performed. 15 hours of data were invalidated due to this event. Hourly maximum data collected on February 13th at hour 19 is missing due to a short power outage. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Particulate Matter 2.5 (UG/M3)

Analyzer make / model –R&P Teom 1400a, S/N: 20001 replaced to Thermo Teom 1405F, S/N: 1405A207691003

Three Teom audits were performed this month. The teom 1400a was removed from the site following a removal audit on February 17th, and the 1405F Teom unit was installed. An installation audit performed on the 1405F unit was completed on February 17th. The sample filter was replaced and the sample inlet was cleaned during the installation. The sample pump replaced on February 20th and then a post-repair audit was completed. A new dryer was installed on February 26th. A leak check was performed before and after the installation. Data was corrected using Alberta air quality guideline. If the data was between 0 to –3, the data was corrected to 0. If the data was below –3, the data was invalidated. Two hourly data were invalidated as the data were below –3 ug/m3.

Temperature (Degree C)

Analyzer make / model – Met One 060

The temperature sensor was working well throughout the month.

Barometric Pressure (Millibar)

Analyzer make / model - Met One 092

The BP sensor was working well throughout the month.

Relative Humidity (%)

Analyzer make / model - Met One 083

The RH sensor was working well throughout the month.

General Monthly Summary

AQM STATION – LICA – St. Lina

Precipitation (MM)

Analyzer make / model - Met One 387

No issues were recorded this month.

Vector Wind Speed (KPH) & Vector Wind Direction (DEG)

System make / model –MetOne 50.5H Sonic, S/N: H12635

The wind system is reported as vector wind speed and vector wind direction. The last wind system calibration was performed on June 12th, 2012 by the manufacturer.

The wind system was working well throughout the month. Five hourly maximum data collected this month were discarded as the data went above the full scale: February 9th at hour 0, February 10th at hour 18, February 11th at hour 22 and February 25th at hour 3 and hour 4. Hourly maximum data collected on February 13th at hour 19 is missing due to a short power outage.

Datalogger

System make / model - ESC 8832, S/N: AO717

Software make/version - ESC v 5.51a

The station is connected to a modem to allow for daily polling of the station.

Trailer

The glass manifold was cleaned on February 16th.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

SULPHUR DIOXIDE (SO2) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|--|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2 | 2 | 2 | 2 | 2 | S | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 6 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 6 | 5 | 7 | 3.4 | 24 | |
| 2 | | 4 | 4 | 4 | 4 | S | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3.7 | 24 | |
| 3 | | 4 | 3 | 3 | S | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3.0 | 24 | |
| 4 | | 4 | 3 | S | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 5 | 3.8 | 24 | |
| 5 | | 4 | S | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 4.2 | 24 | |
| 6 | | S | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | S | 5 | 3.7 | 24 | |
| 7 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | S | 3 | 5 | 3.8 | 24 |
| 8 | | 3 | 5 | 6 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | S | 4 | 4 | 6 | 3.5 | 24 |
| 9 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | S | 0 | 0 | 0 | 4 | 3.2 | 24 | |
| 10 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | S | 7 | 8 | 8 | 8 | 6 | 8 | 2.8 | 24 |
| 11 | | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 5 | 4 | 4 | 3 | S | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 4.8 | 24 |
| 12 | | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | S | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5.0 | 24 |
| 13 | | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 4 | 5 | C | C | C | C | C | C | C | C | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 5 | 4.5 | 24 |
| 14 | | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | S | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4.7 | 24 |
| 15 | | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | S | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 4.3 | 24 |
| 16 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | C | C | C | C | C | C | C | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 3.5 | 24 |
| 17 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.9 | 24 |
| 18 | | 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 | 24 |
| 19 | | 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 | 24 |
| 20 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0.2 | 24 | |
| 21 | | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 8 | 7 | 0 | 0 | 0 | 8 | 1.2 | 24 |
| 22 | | 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 |
| 23 | | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.3 | 24 |
| 24 | | 1 | 0 | 1 | 1 | 1 | S | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.5 | 24 |
| 25 | | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 26 | | 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 | 24 |
| 27 | | 0 | 0 | S | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 |
| 28 | | 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 | 24 |
| HOURLY MAX | | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 6 | 8 | 7 | 8 | 8 | 6 | | | |
| HOURLY AVG | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.2 | 2.5 | 2.5 | 2.7 | 2.3 | 2.2 | 2.1 | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

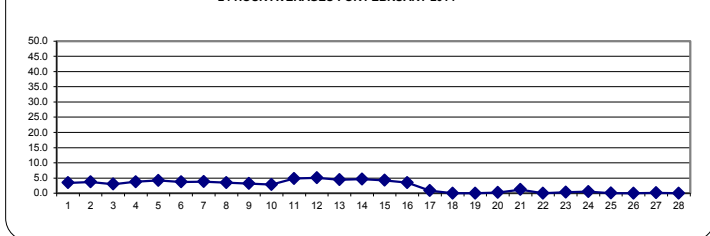
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 172 PPB | 24-HR 48 PPB

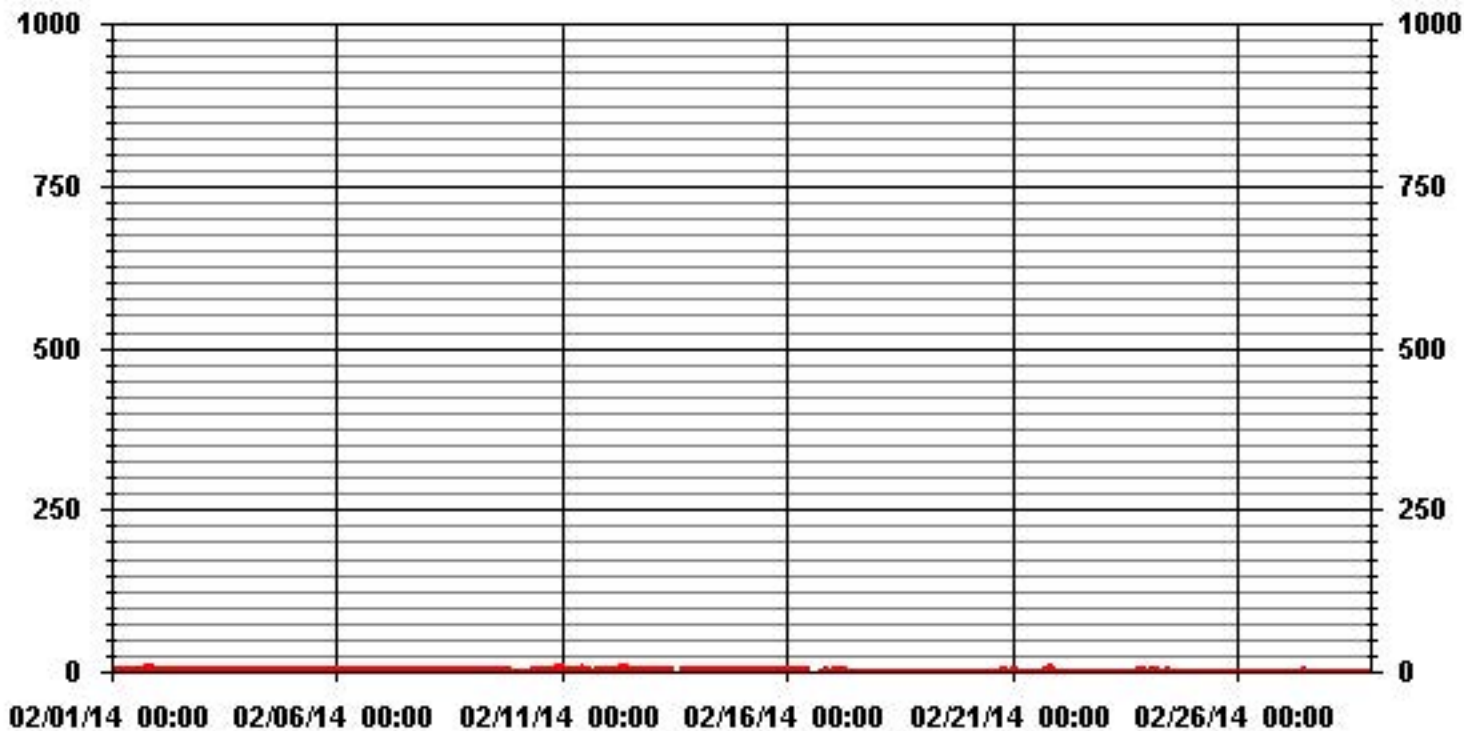
MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|-----------------------|-------------|-----------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF NON-ZERO READINGS: | 391 | | | | |
| MAXIMUM 1-HR AVERAGE: | 8 | PPB | @ HOUR(S) | VAR | ON DAY(S) |
| MAXIMUM 24-HR AVERAGE: | 5.0 | PPB | | | ON DAY(S) |
| | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 27 | HRS | OPERATIONAL TIME: | 672 | HRS |
| MONTHLY CALIBRATION TIME: | 14 | HRS | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 2.12 | | MONTHLY AVERAGE: | 2.30 | PPB |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

| 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 | 24:00 | DAILY | 24-HOUR | RDGS |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|------|
| DAY | 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 | 0:00 | MAX. | AVG. | | |
| 1 | 3 | 3 | 3 | 3 | 3 | S | 2 | 2 | 3 | 3 | 4 | 4 | 6 | 7 | 4 | 4 | 5 | 7 | 7 | 8 | 8 | 8 | 7 | 6 | 8 | 4.8 | 24 | |
| 2 | 5 | 5 | 5 | 5 | S | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 5 | 4.8 | 24 | |
| 3 | 5 | 5 | 4 | S | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 4.0 | 24 | |
| 4 | 5 | 5 | S | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 6 | 5.0 | 24 | |
| 5 | 5 | S | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 7 | 5.3 | 24 | |
| 6 | S | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | S | 6 | 4.9 | 24 | |
| 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 | 6 | 5 | 5 | 4 | 3 | 4 | 4 | S | 5 | 6 | 5.0 | 24 | |
| 8 | 4 | 8 | 7 | 6 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | S | 5 | 5 | 8 | 4.7 | 24 | |
| 9 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 5 | 5 | S | 1 | 1 | 1 | 5 | 4.3 | 24 | |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 5 | 5 | 6 | 7 | 7 | S | 9 | 10 | 10 | 7 | 10 | 4.0 | 24 | |
| 11 | 7 | 7 | 7 | 6 | 8 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | 5 | 5 | 5 | S | 5 | 5 | 5 | 5 | 5 | 8 | 6.0 | 24 | |
| 12 | 5 | 5 | 5 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | S | 6 | 6 | 5 | 5 | 6 | 6 | 7 | 6.0 | 24 | |
| 13 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 5 | 5 | C | C | C | C | C | C | C | C | C | 5 | 5 | P | 5 | 5 | 5 | 6 | 5.4 | 23 | |
| 14 | 5 | 5 | 5 | 6 | 5 | 5 | 5 | 6 | 5 | 6 | 7 | 6 | 6 | 6 | 6 | S | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 5.7 | 24 | |
| 15 | 5 | 5 | 5 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | S | 6 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 5.5 | 24 | |
| 16 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | C | C | C | C | C | C | C | 1 | 1 | 2 | 2 | 2 | 2 | 6 | 4.5 | 24 | |
| 17 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | S | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1.6 | 24 | |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0.3 | 24 | |
| 19 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | S | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.4 | 24 | |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | S | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1.0 | 24 | |
| 21 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 8 | 10 | 9 | 3 | 1 | 1 | 10 | 2.2 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.0 | 24 | |
| 23 | 1 | 1 | 0 | 0 | 0 | 0 | S | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.1 | 24 | |
| 24 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 3 | 2 | 2 | 2 | S | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1.6 | 24 | |
| 25 | 1 | 1 | 1 | 1 | S | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0.8 | 24 | |
| 26 | 1 | 1 | 1 | S | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0.5 | 24 | |
| 27 | 1 | 2 | S | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1.0 | 24 | |
| 28 | 0 | S | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0.3 | 24 | |
| HOURLY MAX | 7 | 8 | 7 | 6 | 8 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 8 | 10 | 9 | 10 | 10 | 7 | | | | |
| HOURLY AVG | 3.1 | 3.4 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 3.3 | 3.2 | 3.3 | 3.2 | 3.3 | 3.2 | 3.0 | 3.1 | 3.1 | 3.2 | 3.3 | 3.2 | 3.5 | 3.1 | 3.2 | 3.1 | | | | |

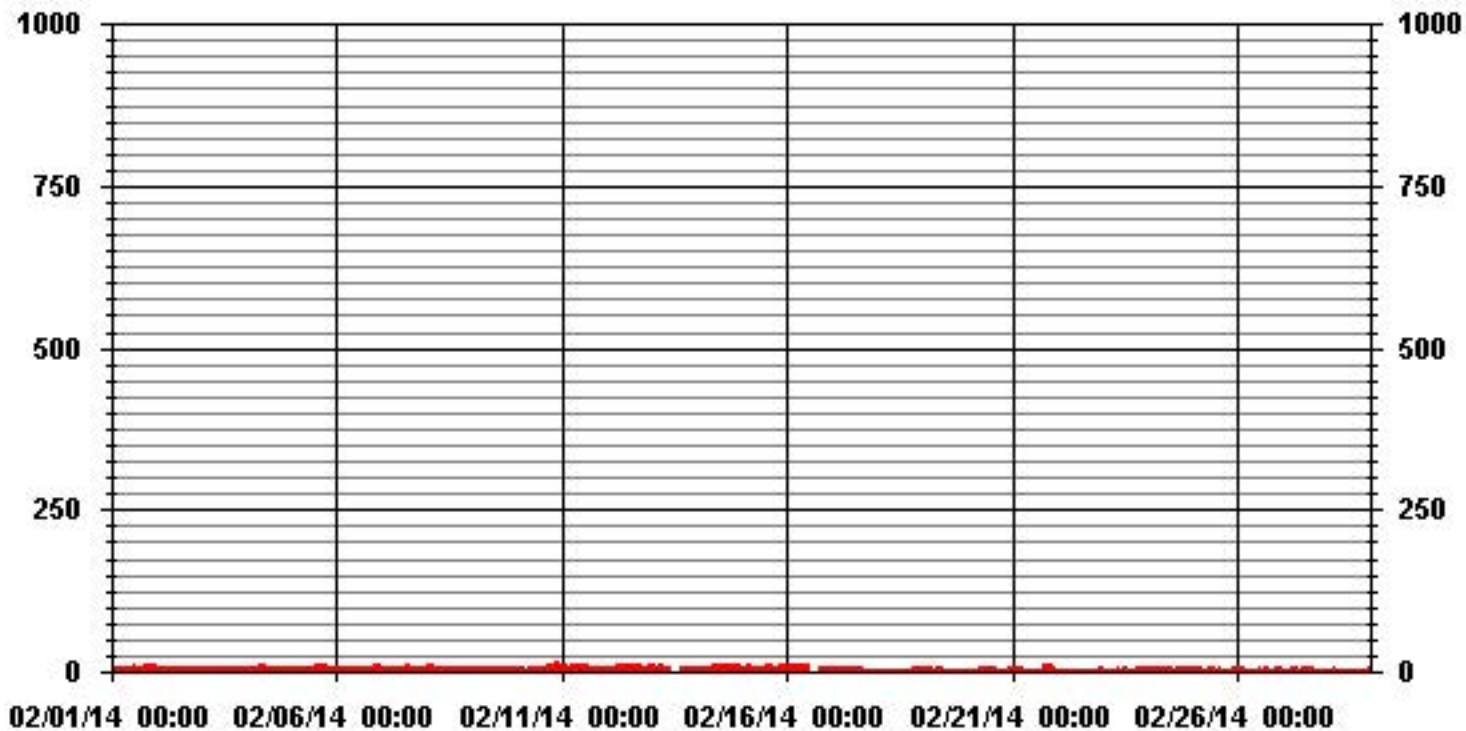
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-------------|-----------|--------|
| NUMBER OF NON-ZERO READINGS: | 509 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 10 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 10, 21 |
| | | | | VAR-VARIOUS | | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 671 | HRS | |
| MONTHLY CALIBRATION TIME: | 15 | HRS | | | | |
| STANDARD DEVIATION: | 2.42 | | | | | |

01 Hour Averages



— LICA31 SO2MAX PPB

LICA31
 SO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : SO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 20 | 10.14 | 5.54 | 2.37 | 3.64 | 6.65 | 6.33 | 2.85 | 2.69 | 6.02 | 4.91 | 6.81 | 9.03 | 7.29 | 2.53 | 8.08 | 15.05 | 100.00 |
| < 60 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 170 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.14 | 5.54 | 2.37 | 3.64 | 6.65 | 6.33 | 2.85 | 2.69 | 6.02 | 4.91 | 6.81 | 9.03 | 7.29 | 2.53 | 8.08 | 15.05 | |

Calm : .00 %

Total # Operational Hours : 631

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 20 | 64 | 35 | 15 | 23 | 42 | 40 | 18 | 17 | 38 | 31 | 43 | 57 | 46 | 16 | 51 | 95 | 631 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 64 | 35 | 15 | 23 | 42 | 40 | 18 | 17 | 38 | 31 | 43 | 57 | 46 | 16 | 51 | 95 | |

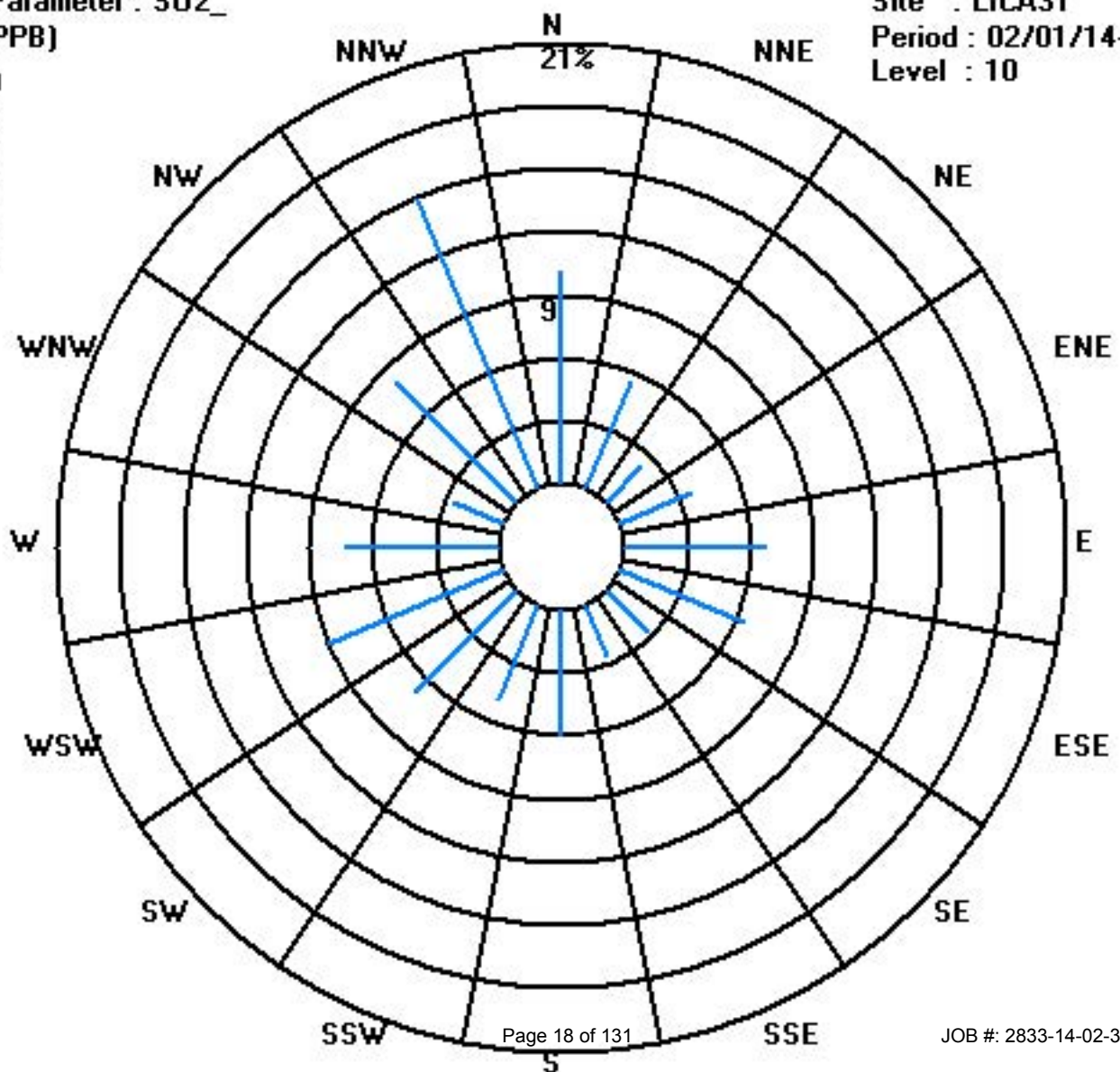
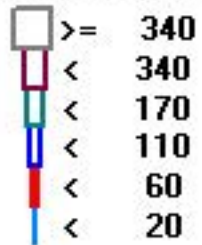
Calm : .00 %

Total # Operational Hours : 631

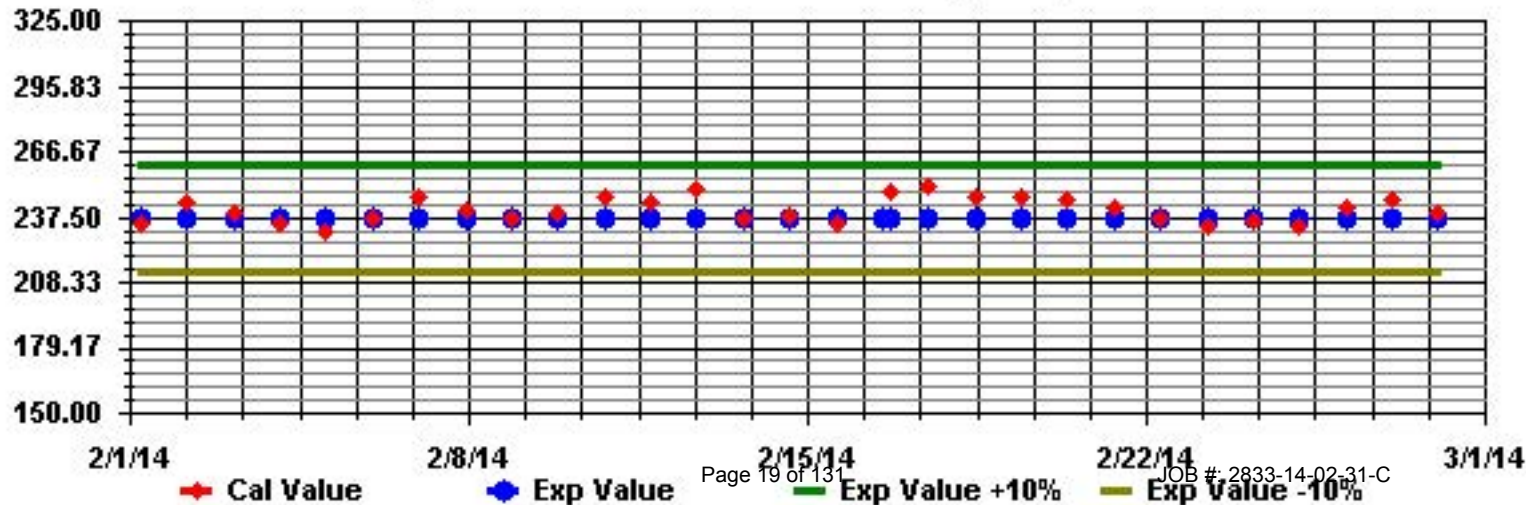
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10

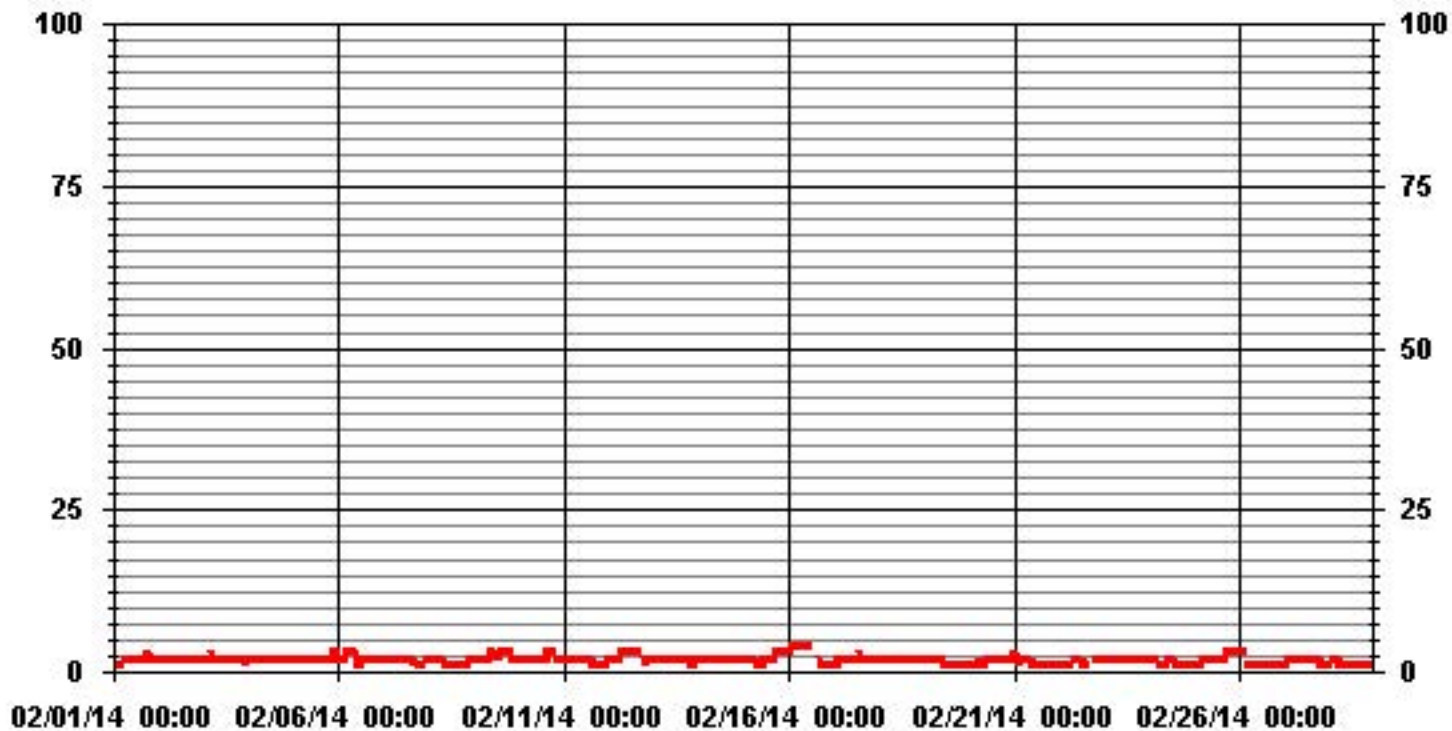


Calibration Graph for Site: LICA31 Parameter: SO2_ Sequence: SO2 Phase: SPAN



Hydrogen Sulphide

01 Hour Averages



Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

| MST | HOUR START | 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 | 0:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------|--------------|-------|----|
| | HOUR END | 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 | 0:00 | | | | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 1 | 2 | 1 | 2 | 2 | S | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | 24 |
| 2 | | 3 | 3 | 3 | 2 | S | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2.6 | 24 | |
| 3 | | 2 | 2 | 2 | S | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2.3 | 24 | |
| 4 | | 2 | 2 | S | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2.5 | 24 | |
| 5 | | 2 | S | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2.3 | 24 | |
| 6 | | S | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | S | 3 | 2.4 | 24 | |
| 7 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 3 | 2.0 | 24 | |
| 8 | | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | S | 3 | 3 | 3 | 2.1 | 24 | |
| 9 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | S | 2 | 2 | 2 | 3 | 2.9 | 24 | |
| 10 | | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | S | 2 | 2 | 3 | 2 | 3 | 2.7 | 24 | | |
| 11 | | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2.0 | 24 | |
| 12 | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2.8 | 24 | |
| 13 | | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | S | 2 | 2 | P | 2 | 2 | 2 | 2 | 2 | 3 | 2.2 | 23 | |
| 14 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | S | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 2.3 | 24 | |
| 15 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 2.4 | 24 | |
| 16 | | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | C | C | C | C | C | C | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 3.5 | 24 | |
| 17 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 2.4 | 24 | | |
| 18 | | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2.0 | 24 | |
| 19 | | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 3 | 2.0 | 24 | | |
| 20 | | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | S | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2.1 | 24 | | |
| 21 | | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1.9 | 24 | | |
| 22 | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | S | 2 | 2 | 2 | S | 2 | 2 | 2 | C | C | C | C | C | 3 | 3 | 3 | 2 | 3 | 1.8 | 24 | | |
| 23 | | 3 | 3 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2.1 | 24 | |
| 24 | | 2 | 3 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | P | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 1.9 | 23 | | |
| 25 | | 2 | 1 | 1 | 1 | S | 2 | 2 | S | S | 2 | 2 | 2 | 3 | Y | Y | Y | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 2.6 | 21 | | |
| 26 | | 4 | 4 | 4 | S | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 1.7 | 24 | | |
| 27 | | 2 | 2 | S | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 2.3 | 24 | | |
| 28 | | 1 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.5 | 24 | |
| HOURLY MAX | | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | | | | |
| HOURLY AVG | | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.4 | 2.2 | 2.3 | 2.4 | 2.2 | 2.2 | 2.2 | 2.1 | 2.3 | 2.2 | 2.1 | | | | | |

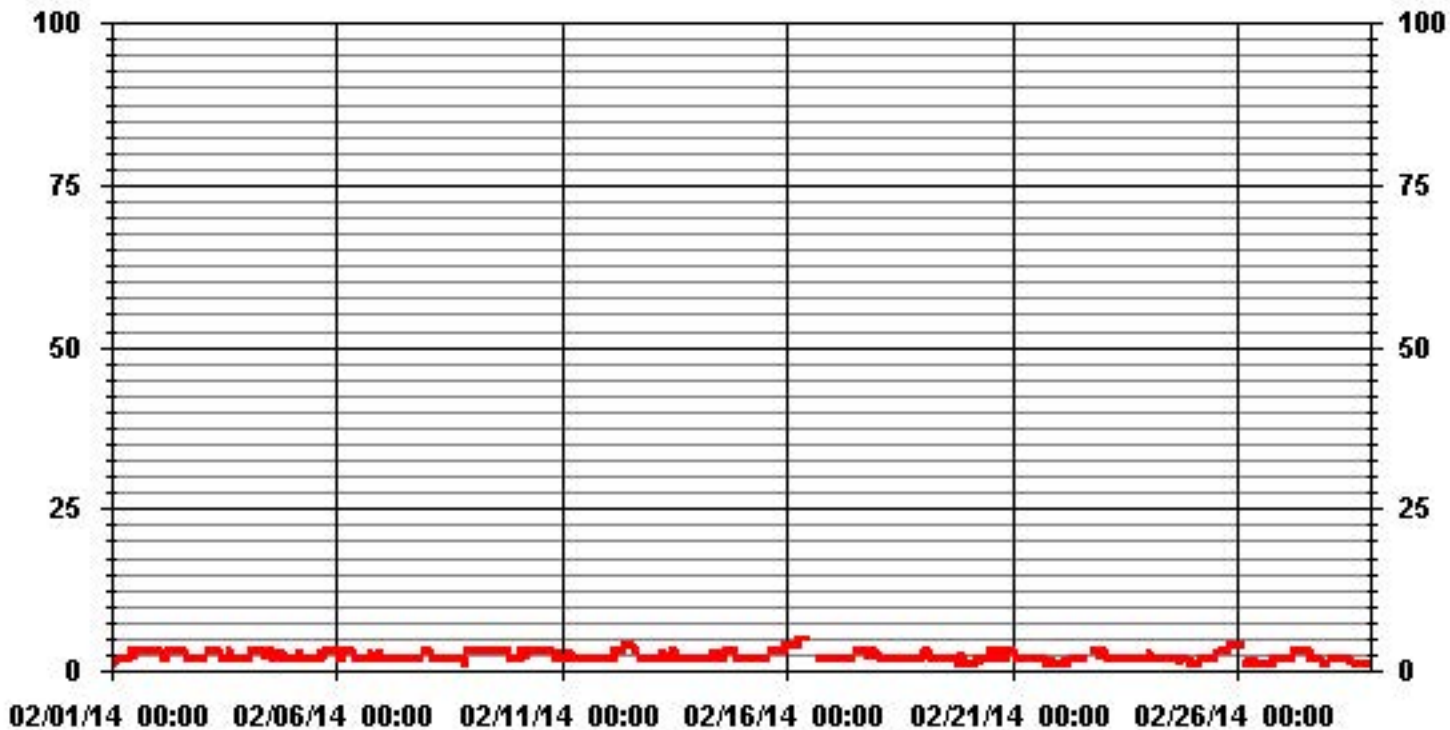
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|--------|-----|-------------------|-------------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 625 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 5 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 16 |
| | | | | VAR-VARIOUS | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 667 HRS | | |
| MONTHLY CALIBRATION TIME: | 11 HRS | | | | | |
| STANDARD DEVIATION: | 0.70 | | | | | |

01 Hour Averages



LICA31
H2S_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : H2S_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3 | 9.68 | 5.55 | 2.38 | 3.17 | 3.65 | 6.03 | 2.06 | 1.90 | 5.71 | 4.44 | 6.34 | 7.61 | 6.50 | 2.06 | 7.93 | 14.44 | 89.52 |
| < 10 | .00 | .00 | .00 | .47 | 3.01 | 1.26 | .79 | .79 | .31 | .47 | .31 | 1.42 | .79 | .47 | .15 | .15 | 10.47 |
| < 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 9.68 | 5.55 | 2.38 | 3.65 | 6.66 | 7.30 | 2.85 | 2.69 | 6.03 | 4.92 | 6.66 | 9.04 | 7.30 | 2.53 | 8.09 | 14.60 | |

Calm : .00 %

Total # Operational Hours : 630

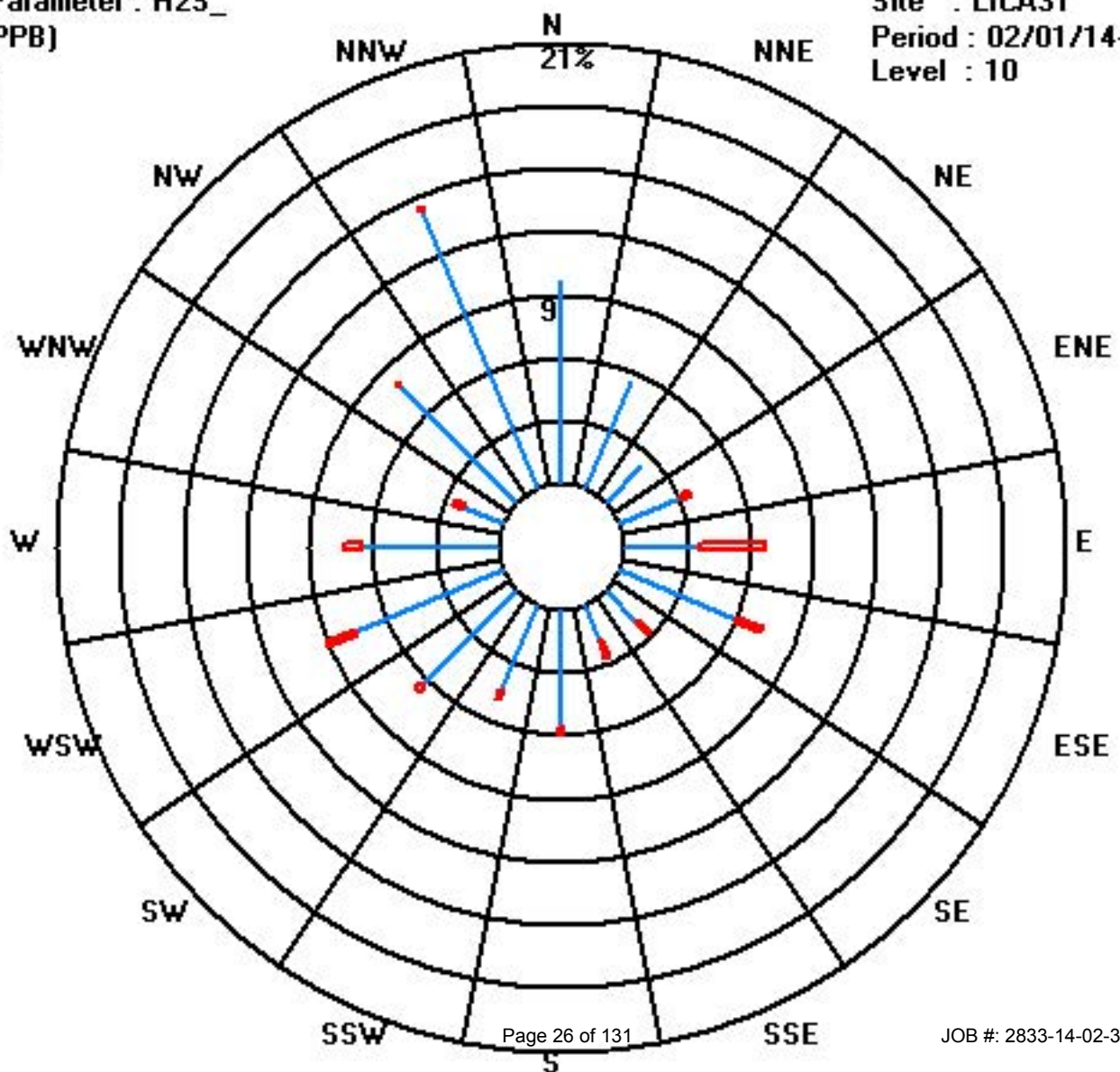
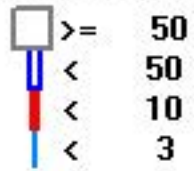
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3 | 61 | 35 | 15 | 20 | 23 | 38 | 13 | 12 | 36 | 28 | 40 | 48 | 41 | 13 | 50 | 91 | 564 |
| < 10 | | | | 3 | 19 | 8 | 5 | 5 | 2 | 3 | 2 | 9 | 5 | 3 | 1 | 1 | 66 |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 61 | 35 | 15 | 23 | 42 | 46 | 18 | 17 | 38 | 31 | 42 | 57 | 46 | 16 | 51 | 92 | |

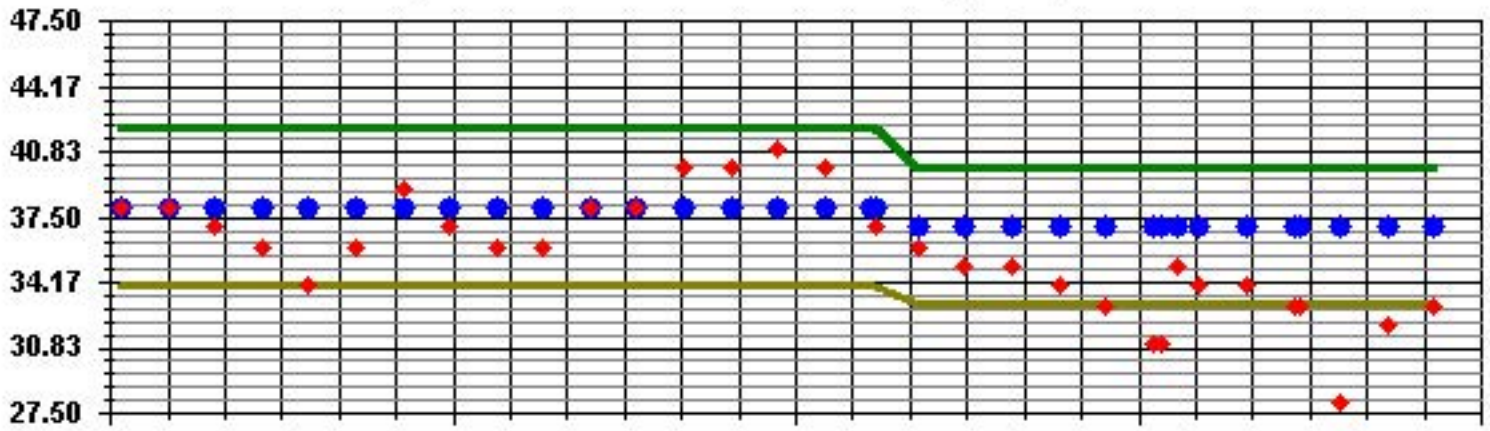
Calm : .00 %

Total # Operational Hours : 630

Class Limits (PPB)



Calibration Graph for Site: LICA31 Parameter: H2S_ Sequence: H2S Phase: SPAN



2/1/14

2/8/14

2/15/14

2/22/14

3/1/14

◆ Cal Value

◆ Exp Value

— Exp Value +10%

— Exp Value -10%

Total Hydrocarbons

Lakeland Industry & Community Association - St. Lina Site

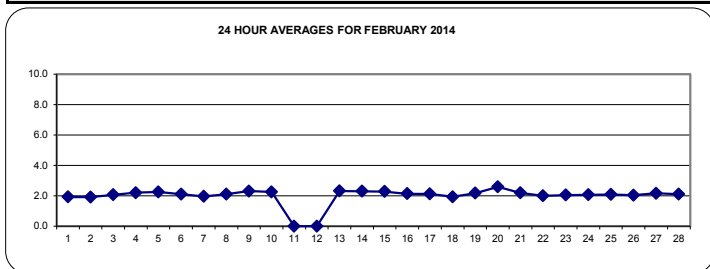
FEBRUARY 2014

TOTAL HYDROCARBONS (THC) hourly averages in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 24 |
| 2 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 24 |
| 3 | 2.0 | 2.0 | 2.0 | S | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 24 |
| 4 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.3 | 2.3 | 2.2 | 24 |
| 5 | 2.3 | S | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 24 |
| 6 | S | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | S | 2.3 | 2.1 | 24 |
| 7 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.0 | 24 |
| 8 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | S | 2.0 | 2.0 | 2.2 | 2.1 | 24 |
| 9 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.5 | 3.0 | 3.2 | 2.8 | 2.7 | S | 2.5 | 2.4 | 2.4 | 3.2 | 2.3 | 2.4 | 24 |
| 10 | 2.4 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.2 | 2.1 | 2.1 | S | X | X | X | X | X | 2.5 | 2.3 | 20 |
| 11 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 0 |
| 12 | X | X | X | X | X | X | X | S | S | X | X | X | X | S | S | X | X | X | X | X | X | X | X | X | X | X | X | 4 |
| 13 | X | X | X | X | X | X | X | X | X | C | C | C | C | C | C | C | C | C | 2.3 | 2.3 | 2.0 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 15 |
| 14 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.5 | 2.4 | 2.2 | 2.1 | 2.3 | 2.4 | 2.3 | S | 2.4 | 2.4 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.5 | 2.3 | 24 | |
| 15 | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.4 | 2.5 | 2.4 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.2 | 2.3 | 2.4 | 2.3 | 2.4 | 2.6 | 2.4 | 2.2 | 2.1 | 2.6 | 2.3 | 24 | |
| 16 | 2.1 | 2.0 | 1.9 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | S | S | 2.3 | 2.4 | 2.4 | 2.4 | 2.1 | 24 | |
| 17 | 2.4 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.5 | 2.1 | 24 |
| 18 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 2.0 | 2.0 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 1.9 | 24 |
| 19 | 2.2 | 2.2 | 2.3 | 2.6 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | S | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.4 | 2.6 | 2.6 | 2.2 | 2.4 | 24 |
| 20 | 2.5 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.4 | S | 2.3 | 2.4 | 2.6 | 2.6 | 2.8 | 2.7 | 2.6 | 2.6 | 2.6 | 2.7 | 2.9 | 2.8 | 2.8 | 2.8 | 2.9 | 2.6 | 2.4 | 24 |
| 21 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.7 | S | 2.3 | 2.1 | 2.1 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.7 | 2.2 | 2.4 | 24 |
| 22 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | S | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.4 | 24 |
| 23 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | S | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 24 |
| 24 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.2 | 2.1 | 24 |
| 25 | 2.1 | 2.1 | 2.2 | 2.1 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 24 |
| 26 | 2.0 | 2.0 | 2.0 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 24 |
| 27 | 2.2 | 2.2 | S | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.2 | 24 |
| 28 | 2.2 | S | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 24 |
| HOURLY MAX | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| HOURLY AVG | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | | | |

STATUS FLAG CODES

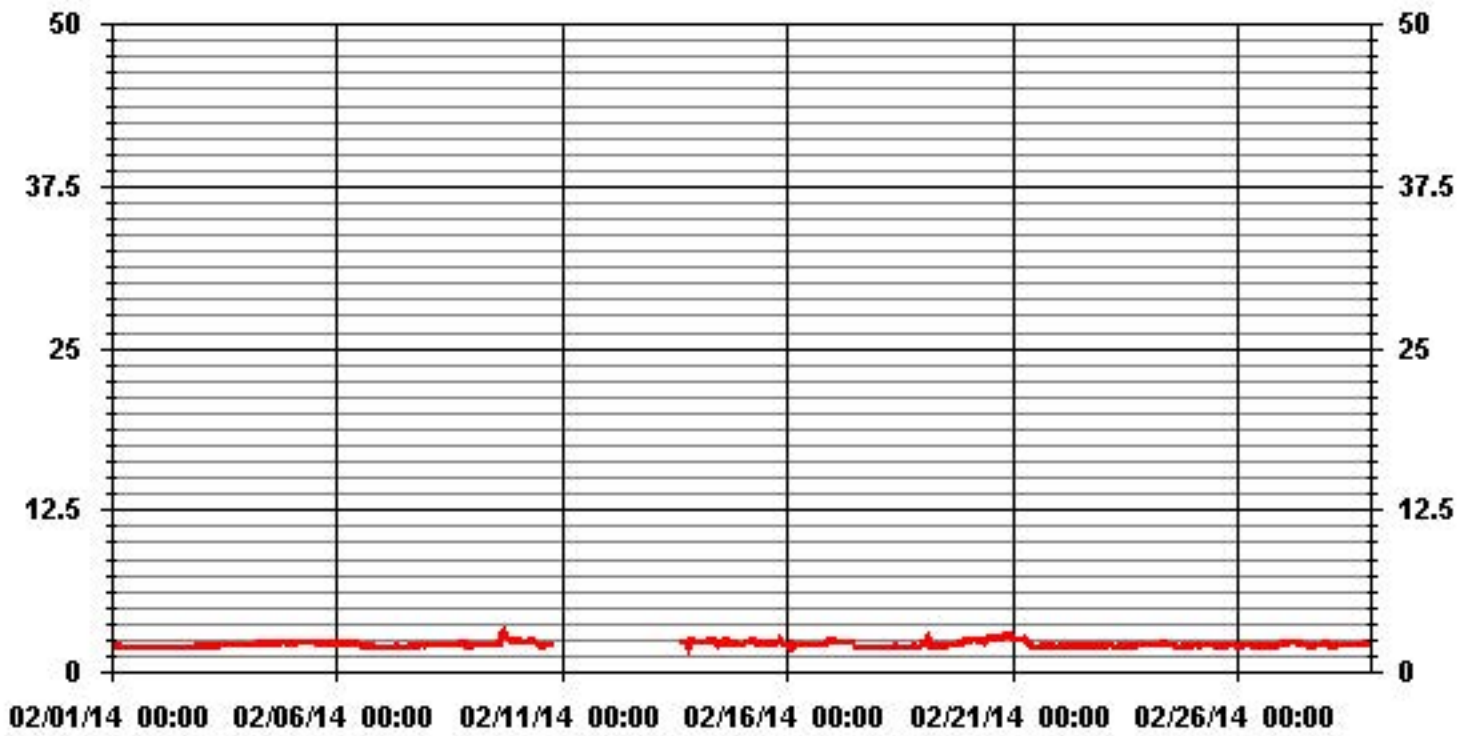
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-------------|----|
| NUMBER OF NON-ZERO READINGS: | 575 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 3.2 | PPM | @ HOUR(S) | 17 | ON DAY(S) | 9 |
| MAXIMUM 24-HR AVERAGE: | 2.6 | PPM | | | ON DAY(S) | 20 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 32 | HRS | OPERATIONAL TIME: | 615 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | AMD OPERATION UPTIME: | 91.5 | % | |
| STANDARD DEVIATION: | 0.19 | | MONTHLY AVERAGE: | 2.14 | PPM | |

01 Hour Averages



— LICA31 THC PPM

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.1 | 2.1 | 2.1 | 2 | 2 | S | 1.9 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 1.9 | 24 | | |
| 2 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.9 | 1.9 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 24 | |
| 3 | 2 | 2 | 2 | S | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | 24 | | |
| 4 | 2.2 | 2.2 | S | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 24 | |
| 5 | 2.3 | S | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.4 | 2.3 | 24 | | |
| 6 | S | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | S | 2.3 | 2.2 | 24 | | |
| 7 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | S | 2.1 | 2.2 | 2.0 | 24 | | |
| 8 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.2 | 2.1 | 2.2 | 2.2 | 24 | |
| 9 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 | 2.4 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.3 | 2.6 | 3.3 | 3.4 | 2.9 | 2.8 | S | 2.5 | 2.5 | 2.4 | 3.4 | 2.4 | 24 | | |
| 10 | 2.4 | 2.5 | 2.4 | 2.4 | 2.3 | 2.4 | 2.4 | 2.4 | 2.5 | 2.4 | 2.3 | 2.1 | 2.1 | 2.1 | 2 | 2.2 | 2.2 | 2.2 | 2.2 | S | X | X | X | X | 2.5 | 2.3 | 20 | | |
| 11 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 0 | |
| 12 | X | X | X | X | X | X | X | S | S | X | X | X | X | S | S | X | X | X | X | X | X | X | X | X | X | X | 4 | | |
| 13 | X | X | X | X | X | X | X | X | X | C | C | C | C | C | C | C | C | 2.4 | 2.5 | P | 2.5 | 2.5 | 2.5 | 2.4 | 2.5 | 2.5 | 14 | | |
| 14 | 2.4 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.2 | 2.4 | 2.5 | 2.4 | S | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.5 | 2.4 | 24 | | |
| 15 | 2.1 | 2.2 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | 2.4 | 2.3 | 2.2 | 2.3 | 2.2 | 2.2 | S | 2.3 | 2.5 | 2.4 | 2.3 | 2.5 | 2.6 | 2.6 | 2.3 | 2.2 | 2.6 | 2.4 | 24 | | |
| 16 | 2.2 | 2.1 | 1.9 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.3 | 2.1 | S | S | 2.1 | 2.1 | 2.2 | 2.3 | S | S | 2.4 | 2.4 | 2.5 | 2.5 | 2.2 | 24 | | |
| 17 | 2.5 | 2.5 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | S | 2.1 | 2 | 2 | 2 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2.5 | 2.2 | 24 | | |
| 18 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.0 | 24 | |
| 19 | 2.3 | 2.3 | 2.5 | 2.7 | 2.6 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.6 | 2.7 | 2.7 | 24 | | |
| 20 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.4 | S | 2.4 | 2.5 | 2.8 | 2.8 | 2.9 | 2.8 | 2.6 | 2.6 | 2.7 | 2.8 | 3 | 2.9 | 2.9 | 2.9 | 3 | 2.7 | 24 | | |
| 21 | 2.8 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.7 | 2.8 | S | 2.4 | 2.4 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.8 | 2.3 | 24 | | |
| 22 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.3 | 2.1 | 2 | 2 | 2.1 | 2.3 | 24 | | |
| 23 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 24 | | |
| 24 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | S | 2.1 | 2.2 | 2.3 | 2.3 | 2.2 | P | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.3 | 23 | | |
| 25 | 2.1 | 2.1 | 2.2 | 2.2 | S | 2.2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.1 | 24 | | |
| 26 | 2.1 | 2.1 | 2 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 24 | | |
| 27 | 2.2 | 2.2 | S | 2.3 | 2.3 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.4 | 2.2 | 24 | |
| 28 | 2.2 | S | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.3 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.1 | 24 | |
| HOURLY MAX | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | |
| HOURLY AVG | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | | |

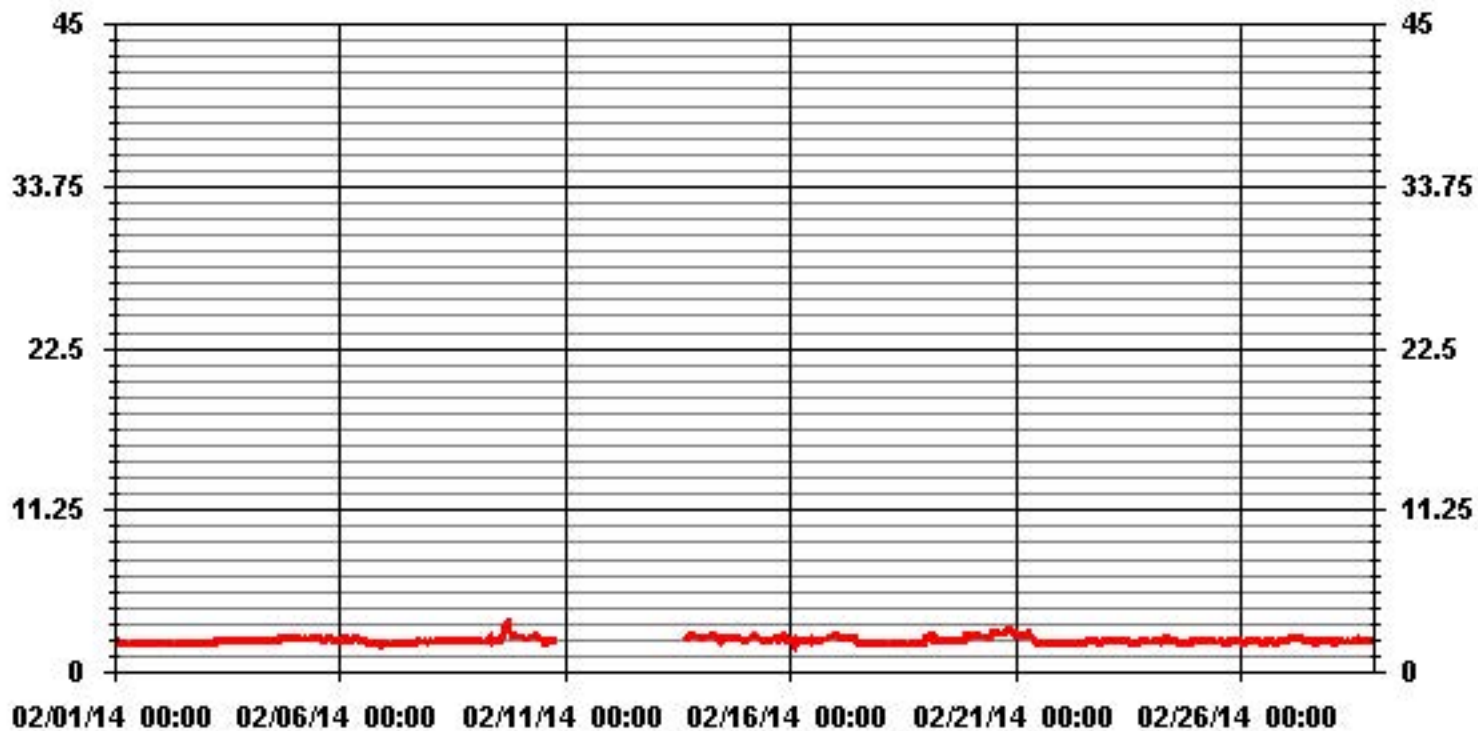
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 572 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 3.4 | PPM | @ HOUR(S) | 17 | ON DAY(S) | 9 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 33 | HRS | OPERATIONAL TIME: | 613 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | | | | |
| STANDARD DEVIATION: | 0.21 | | | | | |

01 Hour Averages



LICA31
 THC / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : THC
 Units : PPM

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|---------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3.0 | 10.43 | 5.73 | 2.60 | 3.47 | 5.39 | 5.04 | 2.08 | 2.60 | 5.73 | 5.39 | 7.47 | 9.91 | 8.00 | 2.60 | 7.65 | 15.47 | 99.65 |
| < 10.0 | .00 | .00 | .00 | .00 | .00 | .00 | .17 | .17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .34 |
| < 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.43 | 5.73 | 2.60 | 3.47 | 5.39 | 5.04 | 2.26 | 2.78 | 5.73 | 5.39 | 7.47 | 9.91 | 8.00 | 2.60 | 7.65 | 15.47 | |

Calm : .00 %

Total # Operational Hours : 575

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3.0 | 60 | 33 | 15 | 20 | 31 | 29 | 12 | 15 | 33 | 31 | 43 | 57 | 46 | 15 | 44 | 89 | 573 |
| < 10.0 | | | | | | | 1 | 1 | | | | | | | | | 2 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 60 | 33 | 15 | 20 | 31 | 29 | 13 | 16 | 33 | 31 | 43 | 57 | 46 | 15 | 44 | 89 | |

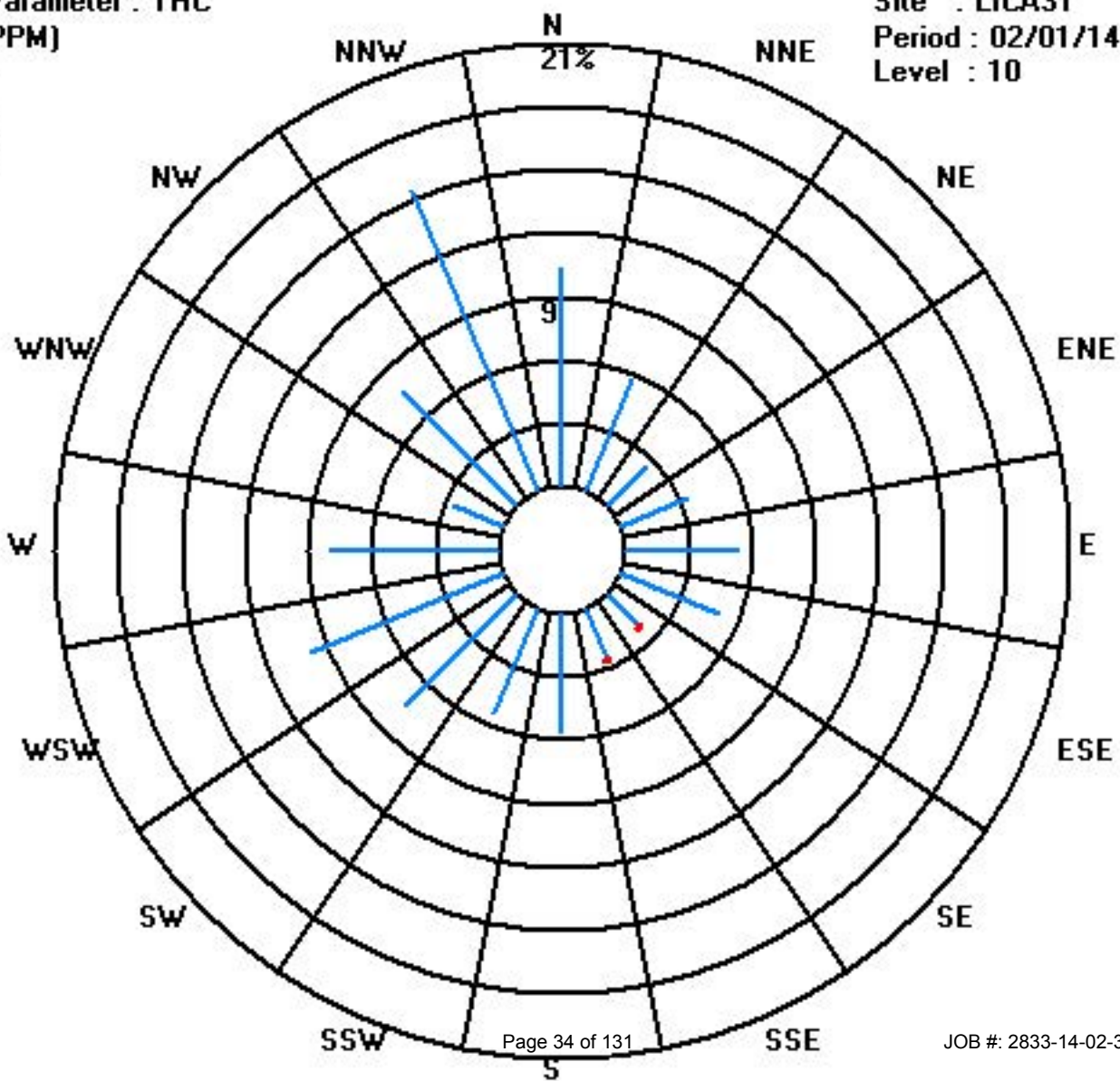
Calm : .00 %

Total # Operational Hours : 575

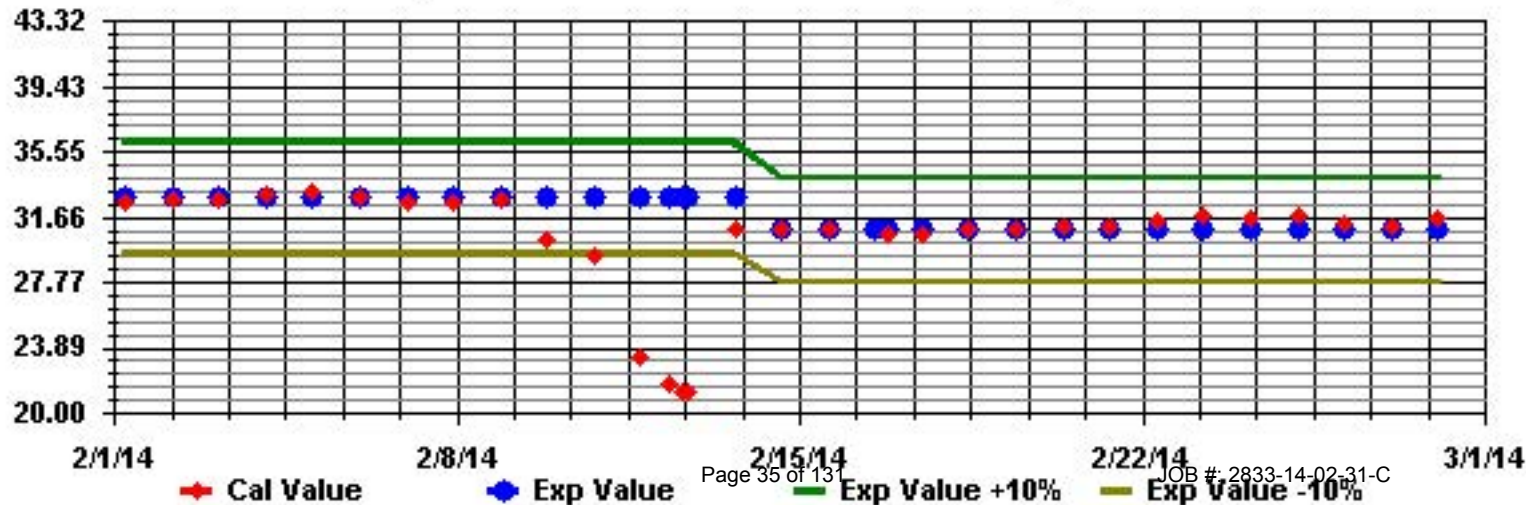
Class Limits (PPM)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA31 Parameter: THC Sequence: THC Phase: SPAN



Ozone

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

OZONE (O3) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 38 | 38 | 38 | 38 | 38 | S | 39 | 38 | 38 | 40 | 41 | 41 | 41 | 40 | 39 | 40 | 40 | 35 | 35 | 36 | 38 | 38 | 38 | 38 | 41 | 38.5 | 24 | |
| 2 | 38 | 39 | 40 | 40 | S | 39 | 39 | 39 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 40 | 40 | 39 | 39 | 38 | 38 | 39 | 40 | 39.3 | 24 | |
| 3 | 38 | 39 | 39 | S | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 38 | 37 | 37 | 36 | 34 | 35 | 39 | 38.2 | 24 | |
| 4 | 34 | 34 | S | 35 | 36 | 36 | 34 | 32 | 32 | 32 | 33 | 33 | 34 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 34 | 33 | 32 | 36 | 34.1 | 24 | |
| 5 | 33 | S | 33 | 32 | 31 | 31 | 31 | 31 | 31 | 31 | 32 | 33 | 35 | 36 | 36 | 36 | 36 | 35 | 34 | 34 | 33 | 33 | 33 | 33 | 36 | 33.2 | 24 | |
| 6 | S | 30 | 28 | 27 | 26 | 27 | 27 | 24 | 24 | 25 | 28 | 31 | 31 | 32 | 33 | 33 | 33 | 33 | 32 | 32 | 33 | 35 | 36 | S | 36 | 30.0 | 24 | |
| 7 | 36 | 36 | 35 | 35 | 34 | 34 | 34 | 33 | 33 | 33 | 35 | 36 | 35 | 37 | 37 | 37 | 37 | 36 | 35 | 35 | 33 | 32 | S | 33 | 37 | 34.8 | 24 | |
| 8 | 32 | 31 | 30 | 31 | 37 | 37 | 37 | 36 | 34 | 33 | 33 | 34 | 34 | 34 | 35 | 37 | 38 | 36 | 33 | 32 | 31 | S | 33 | 33 | 38 | 34.0 | 24 | |
| 9 | 32 | 31 | 32 | 32 | 31 | 31 | 30 | 30 | 28 | 30 | 30 | 33 | 35 | 35 | 35 | 31 | 27 | 24 | 29 | 29 | S | 28 | 29 | 29 | 35 | 30.5 | 24 | |
| 10 | 29 | 29 | 29 | 29 | 29 | 29 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 28 | 26 | 25 | 23 | S | 22 | 19 | 22 | 21 | 29 | 26.7 | 24 | |
| 11 | 21 | 19 | 20 | 19 | 20 | 20 | 22 | 21 | 23 | 25 | 26 | 27 | 28 | 29 | 29 | 30 | 31 | 32 | S | 34 | 34 | 34 | 32 | 32 | 34 | 26.4 | 24 | |
| 12 | 34 | 33 | 31 | 27 | 27 | 25 | 26 | 27 | 27 | 26 | 26 | 27 | 28 | 30 | 31 | 32 | S | 31 | 31 | 30 | 32 | 34 | 34 | 34 | 34 | 29.6 | 24 | |
| 13 | 33 | 32 | 31 | 31 | 31 | 30 | 29 | 29 | 29 | 30 | 29 | 30 | 30 | 30 | 30 | S | 28 | 28 | 27 | 27 | 27 | 28 | 28 | 33 | 29.4 | 24 | | |
| 14 | 28 | 28 | 27 | 27 | 26 | 25 | 25 | 24 | 23 | 24 | 24 | 26 | 26 | 27 | 27 | S | 27 | 26 | 26 | 27 | 26 | 26 | 26 | 29 | 29 | 26.1 | 24 | |
| 15 | 30 | 28 | 28 | 27 | 28 | 29 | 29 | 29 | 30 | 31 | 32 | 32 | 33 | S | 33 | 33 | 32 | 32 | 32 | 30 | 31 | 33 | X | 33 | 30.5 | 23 | | |
| 16 | X | X | X | X | X | X | X | X | X | X | X | X | X | C | C | C | C | C | 34 | 33 | 32 | 32 | 30 | 28 | 34 | 31.5 | 10 | |
| 17 | 23 | 20 | 21 | 23 | 23 | 24 | 24 | 25 | 26 | 27 | 29 | 29 | S | 38 | 41 | 39 | 39 | 41 | 41 | 41 | 39 | 39 | 38 | 39 | 41 | 31.7 | 24 | |
| 18 | 39 | 39 | 40 | 40 | 39 | 39 | 39 | 39 | 39 | 40 | 40 | S | 41 | 42 | 43 | 43 | 43 | 43 | 42 | 38 | 35 | 37 | 39 | 38 | 43 | 39.9 | 24 | |
| 19 | 34 | 34 | 29 | 27 | 31 | 30 | 29 | 29 | 30 | 30 | S | 32 | 33 | 34 | 34 | 35 | 35 | 34 | 33 | 32 | 32 | 31 | 29 | 35 | 31.7 | 24 | | |
| 20 | 30 | 32 | 31 | 31 | 30 | 30 | 29 | 28 | 29 | S | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 27 | 28 | 28 | 32 | 29.6 | 24 | |
| 21 | 29 | 30 | 30 | 29 | 29 | 29 | 27 | 24 | S | 27 | 28 | 28 | 28 | 28 | 24 | 23 | 21 | 19 | 20 | 21 | 21 | 24 | 24 | 23 | 30 | 25.5 | 24 | |
| 22 | 23 | 23 | 24 | 24 | 25 | 25 | 24 | S | 27 | 32 | 32 | 31 | 32 | 35 | 33 | 32 | 31 | 30 | 29 | 29 | 28 | 26 | 23 | 20 | 35 | 27.7 | 24 | |
| 23 | 19 | 19 | 19 | 18 | 19 | 19 | S | 19 | 20 | 20 | 21 | 23 | 23 | 25 | 26 | 25 | 26 | 25 | 23 | 21 | 19 | 19 | 21 | 26 | 21.5 | 24 | | |
| 24 | 20 | 20 | 19 | 19 | 20 | S | 15 | 13 | 15 | 17 | 20 | 23 | 25 | 27 | 28 | 32 | 37 | 34 | 33 | 33 | 33 | 32 | 31 | 29 | 37 | 25.0 | 24 | |
| 25 | 28 | 28 | 26 | 26 | S | 27 | 30 | 28 | 27 | 27 | 28 | 30 | 31 | 34 | 37 | 36 | 35 | 33 | 31 | 29 | 26 | 23 | 22 | 26 | 37 | 29.0 | 24 | |
| 26 | 29 | 31 | 32 | S | 36 | 37 | 37 | 35 | 36 | 37 | 39 | 41 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 41 | 40 | 40 | 39 | 39 | 42 | 38.4 | 24 | |
| 27 | 38 | 37 | S | 36 | 35 | 35 | 34 | 33 | 34 | 35 | 36 | 36 | 37 | 38 | 37 | 38 | 37 | 36 | 40 | 39 | 40 | 39 | 38 | 37 | 40 | 36.7 | 24 | |
| 28 | 36 | S | 33 | 32 | 32 | 31 | 30 | 31 | 31 | 32 | 33 | 32 | 32 | 32 | 31 | 31 | 30 | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 36 | 30.7 | 24 | |
| HOURLY MAX | 39 | 39 | 40 | 40 | 39 | 39 | 39 | 39 | 40 | 40 | 41 | 41 | 42 | 42 | 43 | 43 | 43 | 43 | 43 | 42 | 41 | 40 | 40 | 39 | 39 | | | |
| HOURLY AVG | 30.9 | 30.4 | 29.8 | 29.4 | 30.1 | 30.3 | 30.3 | 29.4 | 29.7 | 30.4 | 31.2 | 31.7 | 32.7 | 33.7 | 33.9 | 34.0 | 33.8 | 32.8 | 32.6 | 32.5 | 31.5 | 31.2 | 31.0 | 30.8 | | | | |

STATUS FLAG CODES

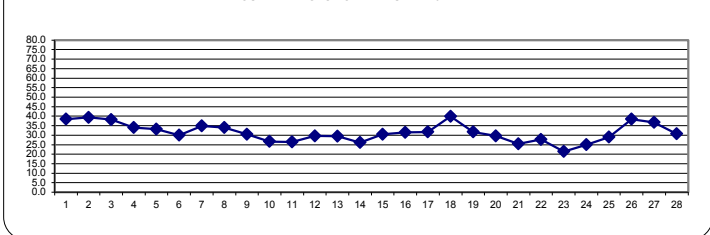
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 1-HR 82 PPB

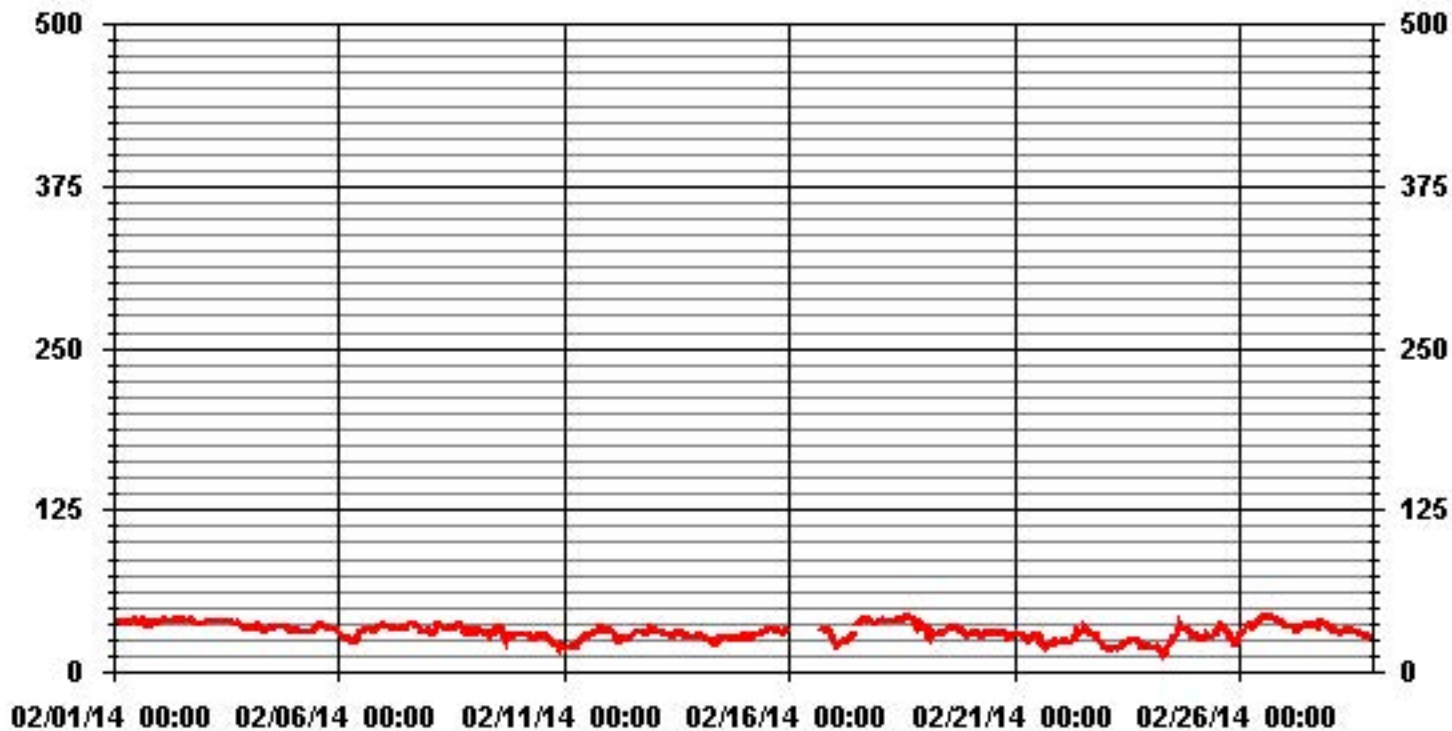
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|-------------|-----------|----|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 625 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 43 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 18 |
| MAXIMUM 24-HR AVERAGE: | 39.9 | PPB | | | ON DAY(S) | 18 |
| | | | | VAR-VARIOUS | | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 657 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | AMD OPERATION UPTIME: | 97.8 | % | |
| STANDARD DEVIATION: | 5.76 | | MONTHLY AVERAGE: | 31.44 | PPB | |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

OZONE MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | 39 | 39 | 39 | 39 | 38 | S | 39 | 39 | 39 | 41 | 41 | 42 | 42 | 41 | 39 | 41 | 41 | 37 | 36 | 37 | 38 | 39 | 38 | 39 | 42 | 39.3 | 24 | |
| 2 | 39 | 40 | 40 | 40 | S | 39 | 39 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 39 | 40 | 39.7 | 24 | |
| 3 | 39 | 40 | 39 | S | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 40 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 38 | 37 | 37 | 35 | 35 | 40 | 38.5 | 24 | |
| 4 | 35 | 35 | S | 36 | 36 | 36 | 36 | 33 | 32 | 32 | 33 | 34 | 35 | 35 | 35 | 35 | 36 | 35 | 35 | 35 | 36 | 35 | 33 | 33 | 36 | 34.6 | 24 | |
| 5 | 34 | S | 34 | 33 | 32 | 32 | 31 | 32 | 32 | 32 | 33 | 34 | 35 | 36 | 37 | 37 | 36 | 35 | 35 | 34 | 34 | 34 | 34 | 34 | 37 | 33.9 | 24 | |
| 6 | S | 30 | 29 | 27 | 27 | 28 | 28 | 26 | 25 | 26 | 30 | 31 | 32 | 33 | 34 | 33 | 33 | 33 | 33 | 33 | 34 | 35 | 37 | S | 37 | 30.8 | 24 | |
| 7 | 37 | 36 | 36 | 36 | 36 | 35 | 35 | 34 | 36 | 34 | 37 | 37 | 36 | 38 | 38 | 38 | 38 | 36 | 36 | 36 | 36 | 34 | S | 33 | 38 | 36.0 | 24 | |
| 8 | 33 | 33 | 31 | 37 | 38 | 38 | 37 | 37 | 35 | 34 | 33 | 35 | 35 | 35 | 37 | 38 | 38 | 38 | 34 | 33 | 32 | S | 35 | 33 | 38 | 35.2 | 24 | |
| 9 | 32 | 32 | 33 | 33 | 32 | 31 | 31 | 30 | 29 | 31 | 32 | 35 | 36 | 36 | 35 | 33 | 31 | 28 | 30 | S | 30 | S | 29 | 29 | 29 | 36 | 31.6 | 24 |
| 10 | 29 | 29 | 29 | 29 | 29 | 30 | 29 | 28 | 28 | 28 | 28 | 29 | 29 | 30 | 30 | 30 | 27 | 25 | 24 | S | 25 | 20 | 23 | 23 | 30 | 27.4 | 24 | |
| 11 | 22 | 21 | 21 | 20 | 20 | 21 | 27 | 22 | 24 | 26 | 27 | 27 | 29 | 30 | 31 | 31 | 32 | 33 | S | 34 | 34 | 34 | 34 | 33 | 34 | 27.5 | 24 | |
| 12 | 34 | 34 | 33 | 31 | 28 | 27 | 27 | 28 | 28 | 26 | 27 | 29 | 31 | 31 | 31 | 32 | 32 | S | 32 | 32 | 31 | 34 | 34 | 34 | 34 | 30.5 | 24 | |
| 13 | 34 | 33 | 32 | 32 | 32 | 30 | 30 | 29 | 30 | 30 | 30 | 30 | 31 | 31 | 31 | 31 | S | 29 | 29 | P | 27 | 28 | 29 | 28 | 34 | 30.3 | 23 | |
| 14 | 28 | 28 | 28 | 27 | 27 | 26 | 25 | 25 | 25 | 25 | 26 | 26 | 27 | 27 | 28 | S | 28 | 27 | 27 | 27 | 26 | 26 | 28 | 30 | 30 | 26.8 | 24 | |
| 15 | 30 | 29 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 31 | 32 | 32 | 33 | 33 | S | 33 | 35 | 34 | 33 | 33 | 31 | 32 | 34 | X | 35 | 31.2 | 23 | |
| 16 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | C | C | C | C | C | 35 | 34 | 33 | 32 | 31 | 30 | 35 | 32.5 | 10 |
| 17 | 26 | 22 | 23 | 24 | 24 | 25 | 25 | 26 | 27 | 28 | 30 | 30 | S | 40 | 43 | 43 | 40 | 42 | 42 | 41 | 40 | 40 | 39 | 39 | 43 | 33.0 | 24 | |
| 18 | 40 | 40 | 40 | 40 | 39 | 40 | 40 | 39 | 39 | 40 | 41 | S | 42 | 43 | 43 | 43 | 44 | 43 | 43 | 43 | 42 | 36 | 39 | 39 | 44 | 40.6 | 24 | |
| 19 | 36 | 35 | 33 | 30 | 32 | 31 | 30 | 30 | 30 | 31 | S | 32 | 34 | 35 | 35 | 35 | 35 | 35 | 34 | 33 | 32 | 32 | 32 | 29 | 36 | 32.7 | 24 | |
| 20 | 32 | 32 | 32 | 31 | 31 | 30 | 30 | 29 | 29 | S | 30 | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 28 | 28 | 28 | 28 | 32 | 30.2 | 24 | |
| 21 | 30 | 31 | 30 | 30 | 29 | 29 | 29 | 28 | S | 28 | 29 | 29 | 29 | 30 | 26 | 25 | 22 | 20 | 21 | 21 | 23 | 24 | 24 | 24 | 31 | 26.6 | 24 | |
| 22 | 24 | 24 | 24 | 25 | 25 | 25 | 25 | S | 31 | 34 | 33 | 32 | 34 | 36 | 35 | 33 | 32 | 30 | 30 | 29 | 29 | 28 | 25 | 21 | 36 | 28.9 | 24 | |
| 23 | 20 | 19 | 19 | 19 | 21 | 20 | S | 20 | 20 | 20 | 23 | 24 | 24 | 27 | 27 | 25 | 25 | 27 | 26 | 25 | 22 | 20 | 21 | 21 | 27 | 22.4 | 24 | |
| 24 | 21 | 20 | 20 | 20 | 20 | S | 18 | 15 | 16 | 18 | 22 | 24 | P | 28 | 29 | 29 | 35 | 34 | 34 | 34 | 33 | 34 | 30 | 39 | 26.5 | 23 | | |
| 25 | 28 | 28 | 27 | 27 | S | 30 | 30 | 30 | 28 | 28 | 29 | 30 | 33 | 36 | 38 | 38 | 36 | 35 | 32 | 30 | 27 | 25 | 24 | 28 | 38 | 30.3 | 24 | |
| 26 | 30 | 32 | 33 | S | 36 | 37 | 37 | 36 | 37 | 38 | 40 | 43 | 43 | 42 | 43 | 43 | 42 | 42 | 42 | 42 | 40 | 40 | 40 | 39 | 43 | 39.0 | 24 | |
| 27 | 39 | 39 | S | 36 | 36 | 35 | 34 | 34 | 35 | 35 | 37 | 36 | 38 | 38 | 38 | 39 | 39 | 41 | 41 | 40 | 40 | 40 | 38 | 38 | 41 | 37.7 | 24 | |
| 28 | 37 | S | 34 | 33 | 32 | 32 | 30 | 31 | 33 | 33 | 33 | 33 | 32 | 32 | 32 | 31 | 31 | 30 | 30 | 30 | 29 | 28 | 28 | 27 | 37 | 31.3 | 24 | |
| HOURLY MAX | 40 | 40 | 40 | 40 | 39 | 40 | 40 | 40 | 40 | 41 | 41 | 43 | 43 | 43 | 43 | 43 | 44 | 43 | 43 | 42 | 40 | 40 | 40 | 39 | | | | |
| HOURLY AVG | 31.8 | 31.2 | 30.7 | 30.5 | 30.7 | 31.0 | 31.2 | 30.3 | 30.7 | 31.2 | 32.1 | 32.4 | 33.9 | 34.6 | 34.8 | 35.2 | 34.7 | 33.8 | 33.5 | 33.6 | 32.4 | 32.0 | 32.0 | 31.4 | | | | |

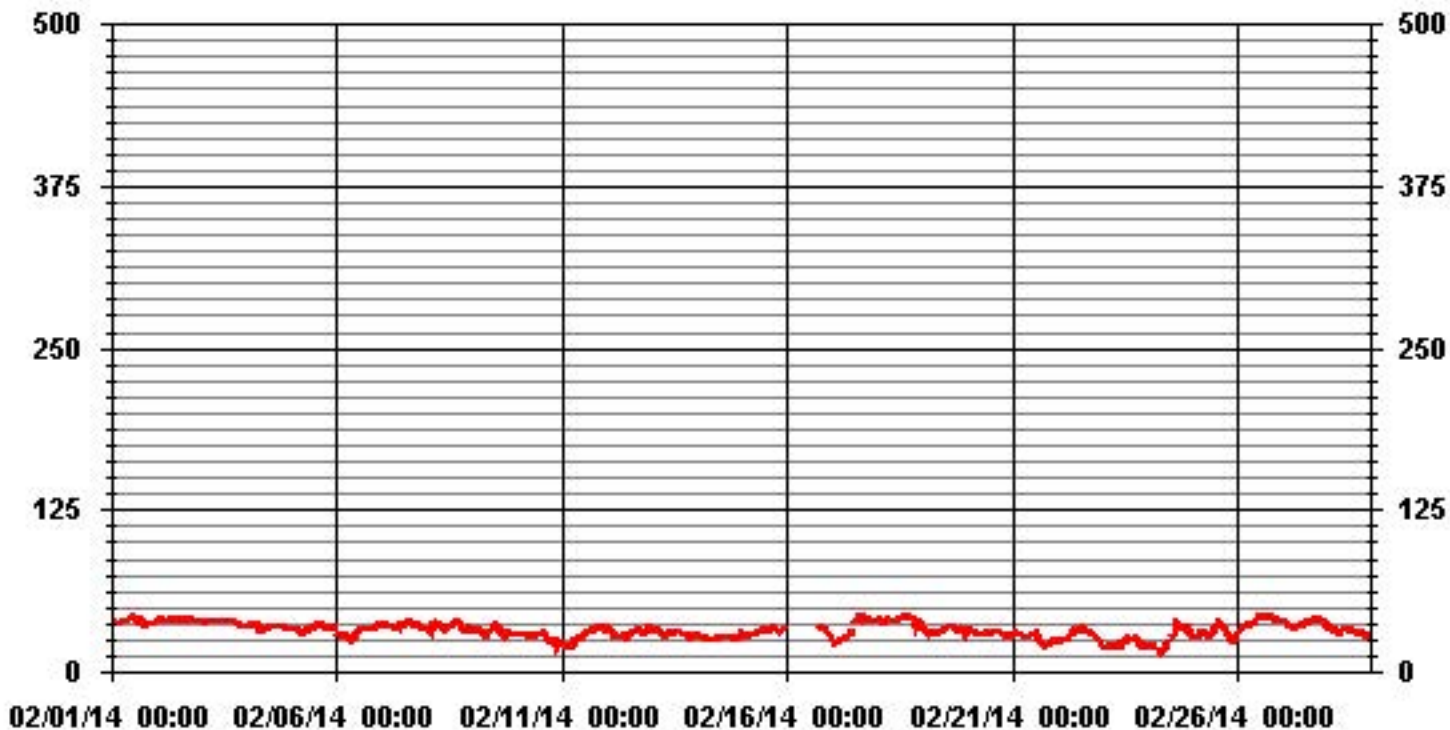
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 623 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 44 | PPB | @ HOUR(S) | 16 | ON DAY(S) | 18 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 655 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | | | | |
| STANDARD DEVIATION: | 5.66 | | | | | |

01 Hour Averages



LICA31
O3_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : O3_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 10.24 | 5.60 | 2.40 | 3.52 | 4.96 | 7.36 | 2.88 | 2.72 | 6.08 | 4.96 | 6.88 | 9.12 | 7.36 | 2.56 | 8.16 | 15.20 | 100.00 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.24 | 5.60 | 2.40 | 3.52 | 4.96 | 7.36 | 2.88 | 2.72 | 6.08 | 4.96 | 6.88 | 9.12 | 7.36 | 2.56 | 8.16 | 15.20 | |

Calm : .00 %

Total # Operational Hours : 625

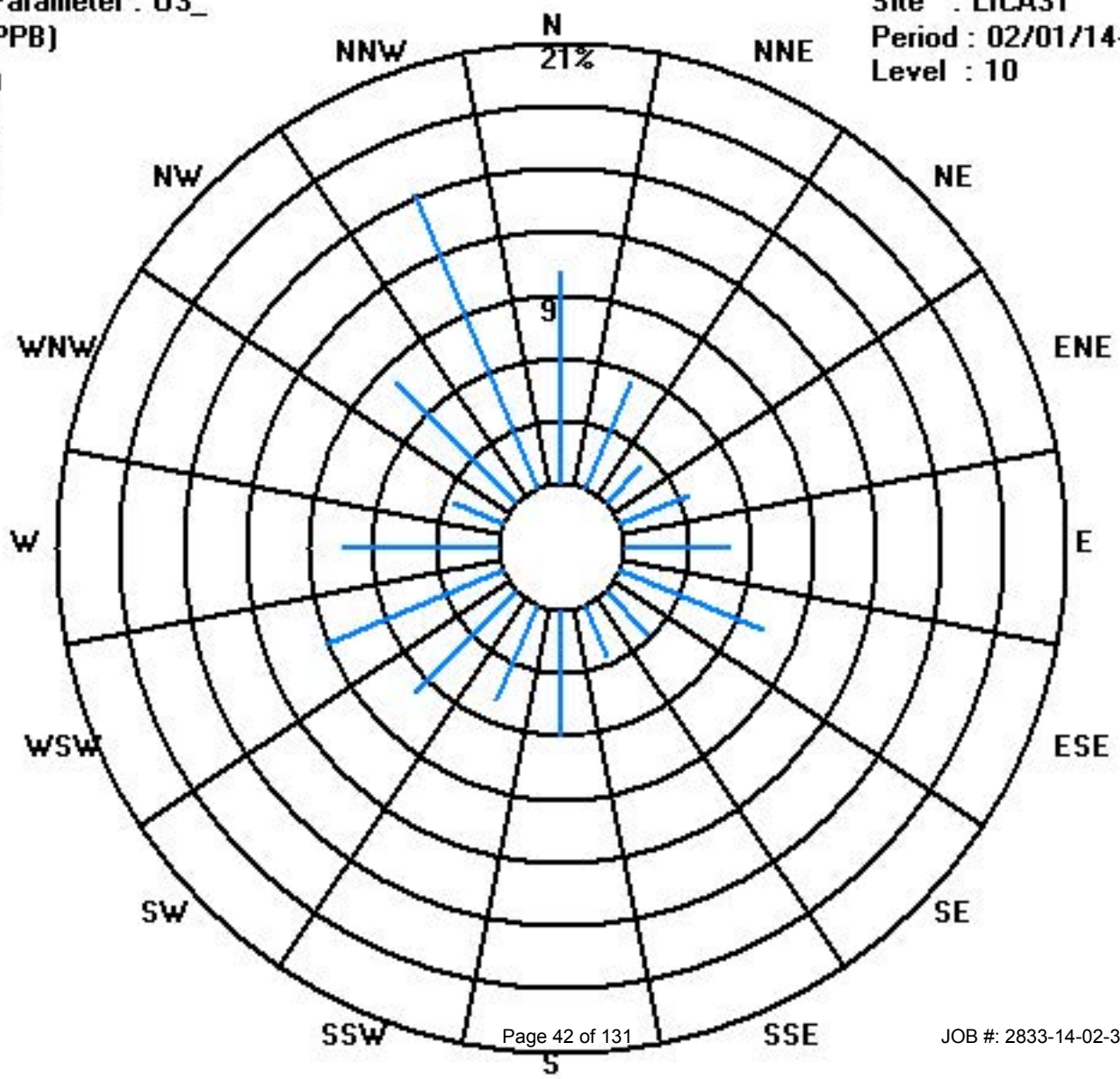
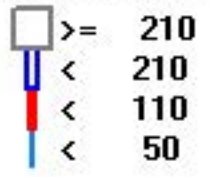
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 64 | 35 | 15 | 22 | 31 | 46 | 18 | 17 | 38 | 31 | 43 | 57 | 46 | 16 | 51 | 95 | 625 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 64 | 35 | 15 | 22 | 31 | 46 | 18 | 17 | 38 | 31 | 43 | 57 | 46 | 16 | 51 | 95 | |

Calm : .00 %

Total # Operational Hours : 625

Class Limits (PPB)

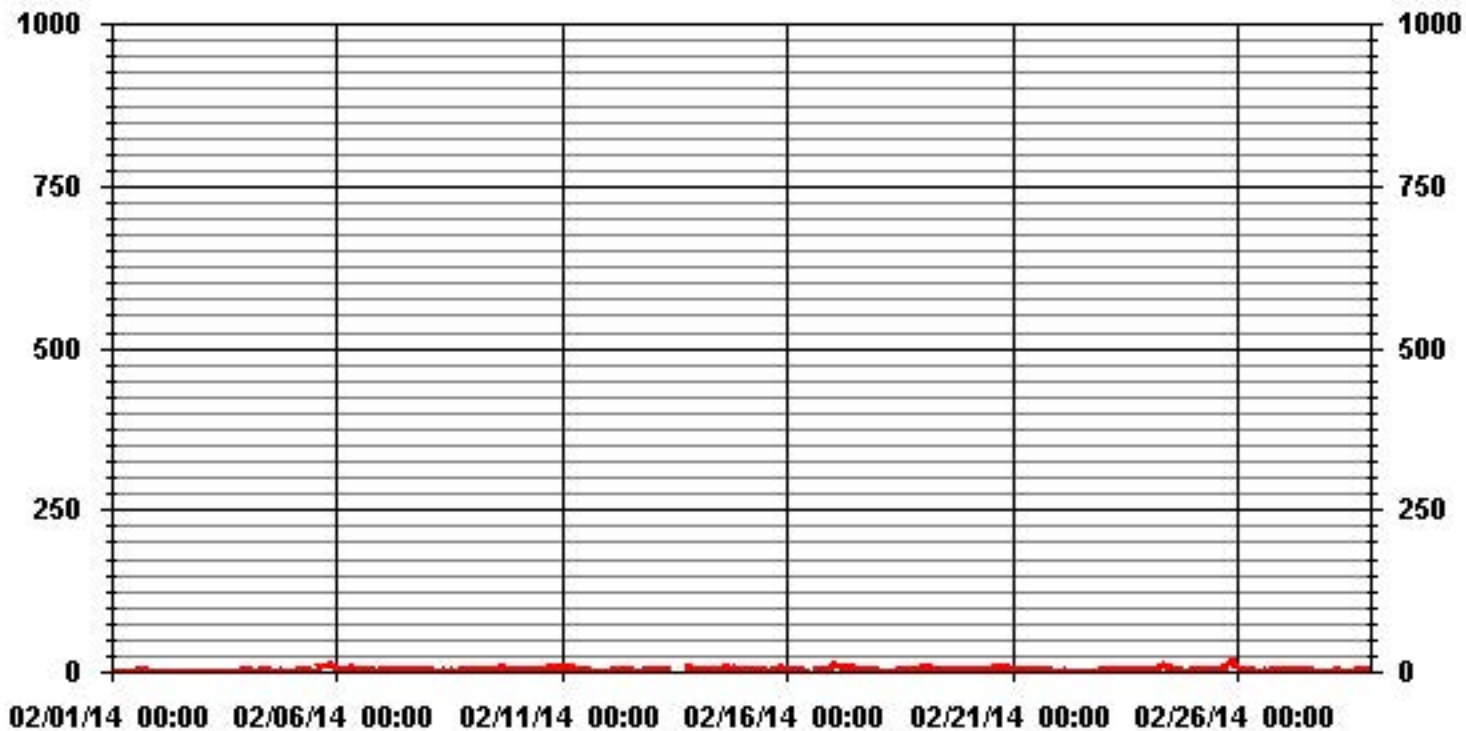


Calibration Graph for Site: LICA31 Parameter: 03_ Sequence: 03 Phase: SPAN



Nitrogen Dioxide

01 Hour Averages



— LICA31 NO2_ PPB

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.6 | 0.8 | 0.6 | 0.9 | 0.5 | S | 0.9 | 1.4 | 1.2 | 1.5 | 2 | 1.5 | 1.9 | 3.3 | 3.7 | 4.1 | 5 | 7.2 | 6.8 | 4.7 | 3.1 | 2 | 1.6 | 1.2 | 7.2 | 2.5 | 24 | |
| 2 | 1.2 | 1.4 | 1.3 | 1.3 | S | 0.6 | 1 | 1 | 0.9 | 1.2 | 1.2 | 1.2 | 1 | 0.9 | 0.9 | 1.2 | 1 | 1.8 | 2.1 | 2.1 | 2.1 | 4.5 | 1.4 | 1.5 | 4.5 | 1.4 | 24 | |
| 3 | 1.2 | 0.9 | 1 | S | 0.6 | 1.1 | 1 | 1.1 | 1 | 1 | 1.1 | 1.1 | 1.2 | 1.3 | 1.2 | 1.3 | 1.5 | 1.2 | 1.5 | 1.7 | 1.9 | 2.3 | 2.4 | 2.5 | 2.5 | 1.4 | 24 | |
| 4 | 2.6 | 2.4 | S | 1.6 | 2 | 1.7 | 2.5 | 3 | 3 | 3 | 2.7 | 2.1 | 2.5 | 2.1 | 2 | 1.7 | 2.7 | 2.1 | 1.7 | 1.6 | 1.7 | 2.1 | 2.1 | 1.7 | 3 | 2.2 | 24 | |
| 5 | 1.8 | S | 1.8 | 2.6 | 2.8 | 2.6 | 4.2 | 3.2 | 2.9 | 3.1 | 2.1 | 1.9 | 2.3 | 1.9 | S | X | 7.9 | 18.4 | 8.6 | 9.2 | 9.2 | 9.5 | 9.2 | 9 | 18.4 | 5.4 | 23 | |
| 6 | S | 4.5 | 5.6 | 6.5 | 6.5 | 6.2 | 6 | 17.2 | 7.9 | 7.7 | 7.4 | 6.3 | 5.9 | 5.3 | 4.9 | 13.5 | 5.4 | 5.3 | 5.4 | 5.5 | 4.3 | 3.5 | 3.2 | S | 17.2 | 6.5 | 24 | |
| 7 | 2.5 | 2.8 | 2.8 | 2.9 | 3 | 3.4 | 3.3 | 3.6 | 3.3 | 3.6 | 3.2 | 3.9 | 3.6 | 2.9 | 3 | 2.9 | 3.8 | 5.6 | 3.9 | 3.7 | 4.8 | 5.4 | S | 4 | 5.6 | 3.6 | 24 | |
| 8 | 4 | 4.7 | 4.8 | 4.1 | 1.8 | 1.2 | 1.3 | 1.5 | 2.3 | 2.3 | 2 | 1.7 | 1.5 | 1.9 | 1.7 | 1.7 | 2.2 | 2.6 | 3 | 3.3 | 3.3 | S | 4.9 | 2.6 | 4.9 | 2.6 | 24 | |
| 9 | 3.5 | 3.7 | 3.2 | 2.7 | 3.2 | 3.3 | 3.5 | 4.3 | 6.3 | 4.4 | 3.3 | 2.7 | 2.3 | 1.9 | 2.7 | 5.7 | 11.2 | 12.2 | 7.1 | 6.5 | S | 6 | 5.5 | 4.7 | 12.2 | 4.8 | 24 | |
| 10 | 4.3 | 4.9 | 4.8 | 4.2 | 3.9 | 3.8 | 5.3 | 5.7 | 4.8 | 4.5 | 12 | 4.8 | 3.8 | 4 | 5.1 | 6 | 7.1 | 7.6 | 8.4 | S | 10.6 | 11.3 | 10.8 | 9.1 | 12 | 6.4 | 24 | |
| 11 | 9.6 | 10.2 | 8.8 | 8.7 | 8.2 | 7.7 | 6.9 | 6.8 | 16.6 | 4.2 | 3.7 | 3.2 | 3.3 | 2.8 | 2.5 | 2.3 | 2.2 | 2.1 | S | 1 | 1 | 1.5 | 2.8 | 2.6 | 16.6 | 5.2 | 24 | |
| 12 | 1.4 | 1.5 | 2.9 | 7.8 | 5.6 | 5.9 | 4.7 | 4.1 | 3.8 | 4 | 4 | 3.1 | 2.2 | 1.9 | 1.8 | 1.8 | 2.1 | S | 3.2 | 3.5 | 4.4 | 3.8 | 2.7 | 2.6 | 7.8 | 3.4 | 24 | |
| 13 | 2.9 | 3.2 | 3.7 | 3.4 | 4.8 | 4.8 | 5.3 | 5 | 4.7 | C | C | C | C | C | C | C | C | C | C | C | P | 8.2 | 8 | 6.6 | 6.8 | 8.2 | 5.2 | 23 |
| 14 | 6.7 | 6 | 6.5 | 6.5 | 6.4 | 7 | 6.9 | 8.6 | S | 6.7 | 7.4 | 5 | 5.5 | 5.6 | 6.2 | S | 7.6 | 7.8 | 7.3 | 6.3 | 7.2 | 7.1 | 6.3 | 4.8 | 8.6 | 6.6 | 24 | |
| 15 | 4.3 | 4.3 | 5 | 5 | 4.6 | 4.4 | 4.8 | 4.1 | 3.8 | 4 | 3.6 | 3.4 | 4.1 | 4.5 | S | 5.2 | 6.4 | 7.1 | 6 | 6.5 | 7.7 | 6.9 | 5.2 | 4.3 | 7.7 | 5.0 | 24 | |
| 16 | 4.1 | 4.1 | 3.5 | 3.3 | 3.2 | 3.2 | 3.1 | 2.9 | 3.2 | 2.6 | 2.1 | C | C | C | C | C | 3.1 | 2.7 | 2.6 | 3.5 | S | 4.4 | 4.9 | 7.1 | 7.1 | 3.5 | 24 | |
| 17 | 10.2 | 12.4 | 12.1 | 10.5 | 9.8 | 9 | 10.8 | 7.7 | 7.6 | 7.7 | 9.1 | 8.6 | S | 6 | 3.5 | 8.4 | 5.8 | 3.9 | 3.2 | 3.4 | 3.6 | 3.9 | 3.4 | 3 | 12.4 | 7.1 | 24 | |
| 18 | 2.7 | 2.2 | 1.2 | 1 | 1 | 0.9 | 0.9 | 1 | 2.1 | 1.6 | 1.4 | S | 26.8 | 27.7 | 4.7 | 2.7 | 3 | 3.3 | 3.4 | 8 | 8.9 | 8.9 | 4.8 | 5.1 | 27.7 | 5.4 | 24 | |
| 19 | 7 | 6.7 | 11.5 | 12.2 | 7.1 | 3.6 | 3.4 | 4 | 3.3 | 2.8 | S | 2.6 | 2.7 | 2.6 | 2.8 | 3.2 | 2.9 | 2.9 | 3.6 | 4.2 | 4.6 | 3.8 | 5.2 | 5.4 | 12.2 | 4.7 | 24 | |
| 20 | 5 | 3.4 | 3.4 | 3.5 | 3.7 | 4.3 | 4.2 | 5.4 | 5 | S | 3.4 | 3.3 | 4.1 | 6.1 | 6.4 | 7 | 6.7 | 6.7 | 6.4 | 6.8 | 7.8 | 7.5 | 6.9 | 6.8 | 7.8 | 5.4 | 24 | |
| 21 | 6.2 | 4.9 | 4.6 | 5 | 4.6 | 4.5 | 6.5 | 7.2 | S | 5.6 | 5.8 | 3.8 | 2 | 19.2 | 3.2 | 12.6 | 5.4 | 6 | 6.1 | 5.3 | 5.2 | 3.3 | 2.1 | 2 | 19.2 | 5.7 | 24 | |
| 22 | 1.8 | 2 | 2 | 1.9 | 2.4 | 2.2 | 2.5 | S | 1.1 | 1.1 | 1 | 1.1 | 11.1 | 2.1 | 1.1 | 1 | 1.2 | 1.7 | 1.9 | 1.5 | 1.5 | 1.2 | 1.6 | 2.5 | 11.1 | 2.1 | 24 | |
| 23 | 2.5 | 2.8 | 2.6 | 3.1 | 3.9 | 3.3 | S | 2.2 | 1.9 | 1.7 | 2 | 1.9 | 2.1 | 2.1 | 2.2 | 2.1 | 2.5 | 2.7 | 2.7 | 3.9 | 4.5 | 4.9 | 6.6 | 3.2 | 6.6 | 2.9 | 24 | |
| 24 | 3.6 | 3.7 | 3.8 | 4.1 | 3.6 | S | 22.6 | 10.2 | 10.9 | 10.9 | 9.1 | 8.7 | P | 6.7 | 7.3 | 6.5 | 2.7 | 3 | 3.4 | 4 | 2.6 | 2.1 | 3 | 4.4 | 22.6 | 6.2 | 23 | |
| 25 | 5.1 | 5.2 | 6.6 | 6.3 | S | 5.7 | 2.5 | 15.9 | 5.1 | 11.7 | 12 | 13.6 | 3.1 | 2.4 | 2.8 | 4.6 | 5.7 | 7.7 | 10.5 | 17.6 | 15 | 16.5 | 18.3 | 16.3 | 18.3 | 9.1 | 24 | |
| 26 | 11.1 | 9.1 | 7.4 | S | 3.2 | 3.1 | 3.1 | 3.1 | 2.3 | 3.1 | 3.6 | 2 | 3.3 | 14.2 | 1.9 | 2.3 | 2.1 | 2.1 | 2.5 | 2.5 | 2.8 | 2.4 | 3.5 | 3.3 | 14.2 | 4.1 | 24 | |
| 27 | 3.6 | 3.8 | S | 4.5 | 4.8 | 5.1 | 5.5 | 5.7 | 5.2 | 4.8 | 5.2 | 5.8 | 5.6 | 4.1 | 3.3 | 2.6 | 4.7 | 6 | 2.7 | 1.8 | 1.7 | 2 | 1.4 | 1.6 | 6 | 4.0 | 24 | |
| 28 | 1.3 | S | 2.1 | 3 | 2.9 | 3.1 | 3.1 | 2.6 | 1.8 | 1.6 | 1.8 | 1.4 | 1.4 | 2.1 | 1.9 | 2.2 | 2.3 | 2.1 | 2.9 | 2.2 | 2.6 | 2.5 | 2.6 | 2.7 | 3.1 | 2.3 | 24 | |
| HOURLY MAX | 11 | 12 | 12 | 12 | 10 | 9 | 23 | 17 | 17 | 12 | 12 | 14 | 27 | 28 | 7 | 14 | 11 | 18 | 11 | 18 | 15 | 17 | 18 | 16 | | | | |
| HOURLY AVG | 4.1 | 4.3 | 4.4 | 4.5 | 4.0 | 3.9 | 4.7 | 5.1 | 4.3 | 4.1 | 4.3 | 3.8 | 4.3 | 5.2 | 3.2 | 4.2 | 4.2 | 5.1 | 4.5 | 4.7 | 5.0 | 5.1 | 4.8 | 4.5 | | | | |

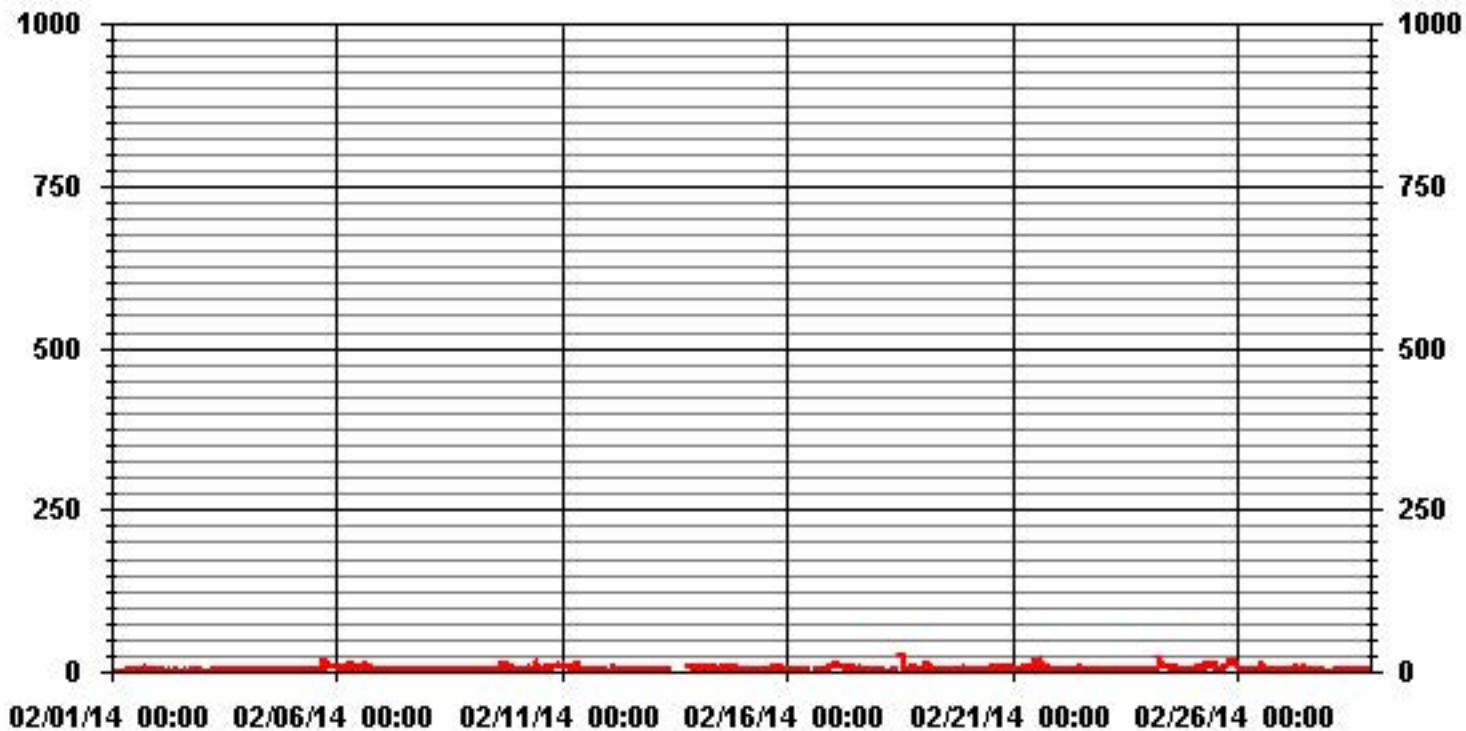
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 624 |
| MAXIMUM INSTANTANEOUS VALUE: | 27.7 PPB @ HOUR(S) 13 ON DAY(S) 18 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 31 HRS |
| MONTHLY CALIBRATION TIME: | 14 HRS |
| OPERATIONAL TIME: | 669 HRS |
| STANDARD DEVIATION: | 3.39 |

01 Hour Averages



— LICA31 NO2MAX PPB

LICA31
 NO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50.0 | 10.19 | 5.57 | 2.38 | 3.66 | 6.52 | 6.21 | 2.86 | 2.86 | 6.05 | 4.93 | 6.68 | 9.07 | 7.32 | 2.54 | 7.96 | 15.12 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.19 | 5.57 | 2.38 | 3.66 | 6.52 | 6.21 | 2.86 | 2.86 | 6.05 | 4.93 | 6.68 | 9.07 | 7.32 | 2.54 | 7.96 | 15.12 | |

Calm : .00 %

Total # Operational Hours : 628

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50.0 | 64 | 35 | 15 | 23 | 41 | 39 | 18 | 18 | 38 | 31 | 42 | 57 | 46 | 16 | 50 | 95 | 628 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 64 | 35 | 15 | 23 | 41 | 39 | 18 | 18 | 38 | 31 | 42 | 57 | 46 | 16 | 50 | 95 | |

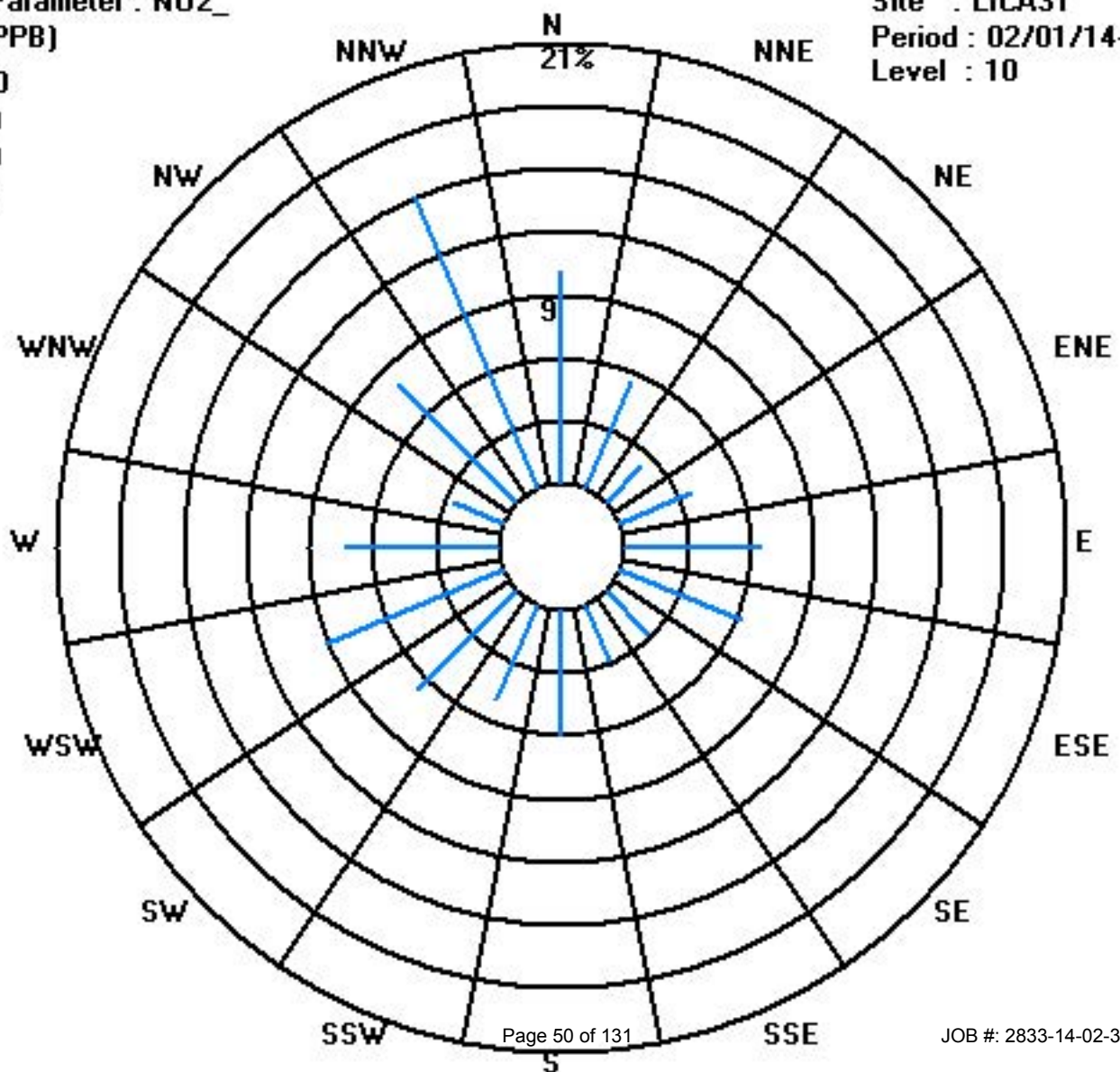
Calm : .00 %

Total # Operational Hours : 628

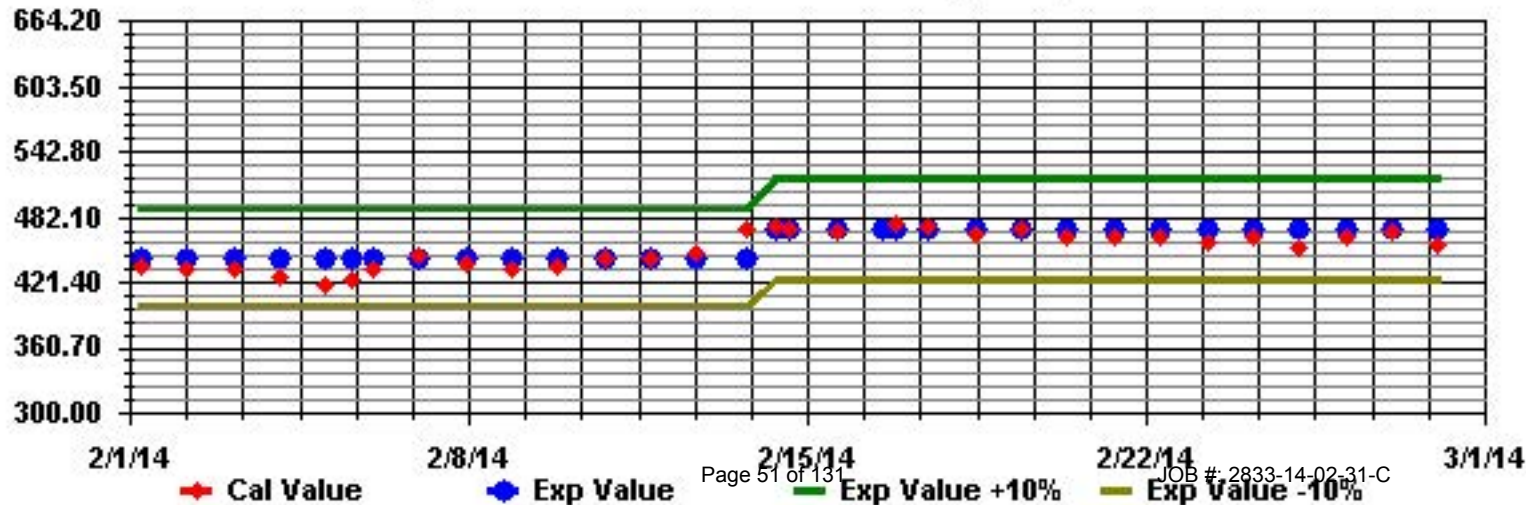
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA31 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

NITRIC OXIDE (NO) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.4 | 0.7 | 0.5 | 0.6 | 1 | S | 0.2 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.4 | 1 | 0.4 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | |
| 2 | 0 | 0 | 0 | 0 | S | 0.6 | 0 | 0 | 0.2 | 0.3 | 0.6 | 0.3 | 0.4 | 0.3 | 0.1 | 0 | 0.4 | 0.1 | 0.3 | 0.5 | 0.4 | 0.5 | 0.7 | 0.3 | 0.7 | 0.3 | 24 | |
| 3 | 0.3 | 0.4 | 0.2 | S | 1 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 | 0.5 | 0.2 | 0.4 | 0.4 | 0.3 | 0 | 0.2 | 0.1 | 0.3 | 0.1 | 0.4 | 0.4 | 0.5 | 0.6 | 1 | 0.4 | 24 | |
| 4 | 0.5 | 0 | S | 0.5 | 0.1 | 0.2 | 0.4 | 0.1 | 0.1 | 0.6 | 0.3 | 0.8 | 0.5 | 0.1 | 0.4 | 0.2 | 0.2 | 0 | 0.3 | 0.4 | 0.3 | 0 | 0 | 0.2 | 0.8 | 0.3 | 24 | |
| 5 | 0.2 | S | 0.4 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1.6 | 0.7 | 0.7 | 0.8 | 0.5 | 0.8 | 0.8 | 0.8 | 0.6 | 1.6 | 0.4 | 24 | |
| 6 | S | 1.9 | 1.7 | 1.5 | 1.6 | 1.4 | 1.4 | 1.7 | 2.3 | 4 | 4.8 | 4 | 3.9 | 3.8 | 2.7 | 3.3 | 2.1 | 1.2 | 1.2 | 1.3 | 1.5 | 1.3 | 1.4 | S | 4.8 | 2.3 | 24 | |
| 7 | 0.7 | 0.2 | 0.2 | 0.4 | 0 | 0.2 | 0.2 | 0 | 0 | 0.1 | 0.2 | 0.7 | 0.5 | 0.2 | 0.6 | 0.3 | 0.1 | 0.2 | 0.4 | 0 | 0.4 | 0.1 | S | 0.2 | 0.7 | 0.3 | 24 | |
| 8 | 0.5 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0.1 | 0.1 | 0 | 0.1 | 0 | 0 | 0 | 0 | S | 1.1 | 0.7 | 1.1 | 0.1 | 24 | |
| 9 | 0.5 | 0.3 | 0.6 | 0.4 | 0.2 | 0.2 | 0.4 | 0.5 | 0.8 | 1.3 | 0.9 | 1.2 | 0.8 | 0.7 | 0.6 | 1.3 | 1.6 | 0.8 | 0.4 | 0 | S | 0 | 0 | 0 | 1.6 | 0.6 | 24 | |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 1.4 | 1.4 | 1.2 | 1.2 | 1.1 | 1.1 | 0.3 | 0 | 0 | S | 0.8 | 0.2 | 0.4 | 0.5 | 1.4 | 0.4 | 24 | |
| 11 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.9 | 1.1 | 1.3 | 1.2 | 0.8 | 0.2 | 0 | 0 | 0 | S | 2.3 | 1.7 | 1.7 | 1.4 | 1.7 | 2.3 | 0.6 | 24 | |
| 12 | 1.5 | 1.3 | 1.5 | 1.3 | 1.5 | 1.5 | 1.4 | 1.2 | 1.7 | 2 | 2.8 | 2.5 | 2.2 | 2.2 | 1.7 | 1.4 | 1.5 | S | 0.9 | 0.4 | 0.4 | 0.3 | 0 | 0 | 2.8 | 1.4 | 24 | |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | C | C | C | C | C | C | C | C | C | C | C | C | C | 0 | 0 | 0.1 | 0.0 | 24 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 3.3 | 3.2 | 1.4 | 1.7 | 2.3 | 1.8 | S | 2.8 | 1 | 0.7 | 0.6 | 0.2 | 0.5 | 0.4 | 0.2 | 3.3 | 0.9 | 24 | |
| 15 | 0 | 0 | 0 | 0.3 | 0 | 0.2 | 0.4 | 0.1 | 0.5 | 0.9 | 1.3 | 1.5 | 1.3 | 1.3 | S | 2.3 | 1.6 | 0.8 | 0.6 | 1 | 0.7 | 0.9 | 0.5 | 0.7 | 2.3 | 0.7 | 24 | |
| 16 | 0.8 | 0.8 | 0.4 | 0.7 | 0.4 | 0.4 | 0.3 | 0.1 | 0.1 | 0.5 | 0.6 | C | C | C | C | 0.7 | 0.6 | 0.2 | 0.3 | S | S | 0.8 | 0.6 | 0.7 | 0.8 | 0.5 | 24 | |
| 17 | 0.9 | 1.1 | 0.8 | 1 | 0.8 | 0.6 | 0.7 | 0.9 | 1.7 | 3.1 | 3.6 | 4.6 | S | 3.8 | 1.4 | 1.1 | 1.2 | 0.3 | 0 | 0.2 | 0.1 | 0 | 0.1 | 0.4 | 4.6 | 1.2 | 24 | |
| 18 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.2 | 0.2 | 0.6 | 0.7 | S | 1.3 | 0.7 | 0.4 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0.2 | 24 | |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | S | 1.8 | 1.2 | 0.4 | 0.5 | 0.3 | 0.7 | 0 | 0 | 0 | 0.3 | 0.2 | 0.3 | 0.2 | 1.8 | 0.3 | 24 | |
| 20 | 0 | 0.2 | 0.1 | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.5 | S | 2 | 1.5 | 2 | 2.4 | 2.2 | 1.9 | 0.9 | 0.3 | 0.3 | 0.4 | 0.7 | 0.5 | 0.2 | 0.5 | 2.4 | 0.8 | 24 | |
| 21 | 0.3 | 0.3 | 0.6 | 0.5 | 0.2 | 0.5 | 0.6 | 0.2 | S | 3 | 1.9 | 1.9 | 0.3 | 0.6 | 1.5 | 1.7 | 0.8 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.7 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0.9 | 0 | 0.2 | 0.1 | 0.5 | 0.2 | 0 | 0.1 | 0.2 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0 | 0.9 | 0.1 | 24 | |
| 23 | 0 | 0.1 | 0 | 0.2 | 0.1 | 0.1 | S | 0.3 | 0.1 | 0.5 | 0.5 | 0.6 | 0.8 | 0.1 | 0.1 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0.2 | 24 | |
| 24 | 0 | 0 | 0 | 0 | 0 | S | 2.4 | 1.5 | 8.4 | 13.6 | 11.5 | 10 | 8.5 | 5.1 | 4.2 | 2.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13.6 | 2.9 | 24 | |
| 25 | 0 | 0 | 0 | 0 | S | 1.5 | 0.5 | 1 | 1.6 | 2.9 | 3 | 2.4 | 1.8 | 1 | 0.8 | 1.7 | 1.3 | 1 | 0.4 | 0.8 | 0.5 | 1.1 | 1 | 0.8 | 3 | 1.1 | 24 | |
| 26 | 0.6 | 0.8 | 0.3 | S | 1.5 | 0.7 | 0.5 | 0.4 | 0.7 | 1.1 | 0.9 | 0.6 | 0.5 | 0.6 | 0.6 | 0.2 | 0.3 | 0 | 0 | 0 | 0 | 0.1 | 0 | 1.5 | 0.5 | 24 | | |
| 27 | 0 | 0 | S | 0.4 | 0 | 0.1 | 0 | 0.1 | 0.3 | 0.8 | 1.4 | 1.4 | 1.2 | 0.5 | 0.6 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0.3 | 24 | |
| 28 | 0 | S | 0.8 | 0.4 | 0.2 | 0.3 | 0.1 | 0.1 | 0.3 | 0.6 | 0.2 | 0.3 | 0.4 | 0.3 | 0.2 | 0.1 | 0 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0.2 | 24 | |
| HOURLY MAX | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 8 | 14 | 12 | 10 | 9 | 5 | 4 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | | | | |
| HOURLY AVG | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.8 | 1.5 | 1.7 | 1.6 | 1.3 | 1.1 | 1.0 | 0.9 | 0.7 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | | | | |

STATUS FLAG CODES

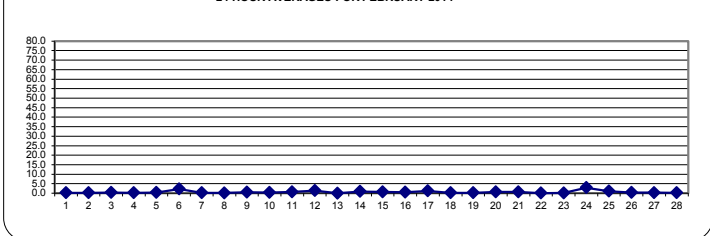
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 1-HR NA PPB

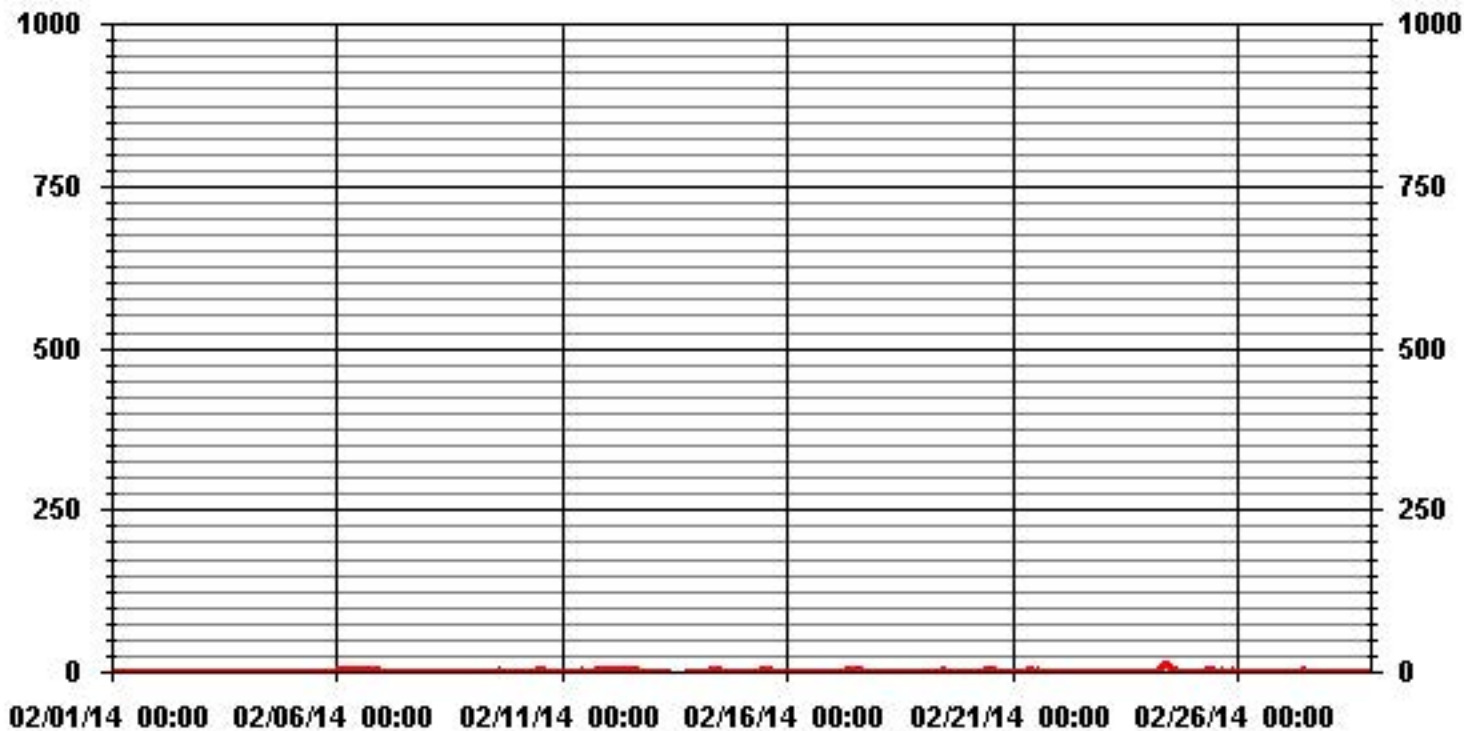
MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|-----------------------|-------|--------------|
| NUMBER OF 1-HR EXCEEDENCES: | NA | | | | |
| NUMBER OF NON-ZERO READINGS: | 420 | | | | |
| MAXIMUM 1-HR AVERAGE: | 13.6 | PPB | @ HOUR(S) | 9 | ON DAY(S) 24 |
| MAXIMUM 24-HR AVERAGE: | 2.9 | PPB | | | ON DAY(S) 24 |
| | | | | | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 672 | HRS |
| MONTHLY CALIBRATION TIME: | 13 | HRS | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 1.19 | | MONTHLY AVERAGE: | 0.64 | PPB |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

NITRIC OXIDE MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | 1.2 | 1.6 | 1.3 | 1.3 | 1.9 | S | 1.4 | 0.7 | 1.2 | 0.7 | 1.2 | 1 | 1.2 | 1.5 | 2.3 | 1.4 | 0.8 | 1 | 1.4 | 1 | 0.7 | 0.4 | 0.3 | 0.6 | 2.3 | 1.1 | 24 | |
| 2 | 0.6 | 0.4 | 0.2 | 0.5 | S | 1.5 | 0.8 | 0.7 | 1.1 | 1 | 2.5 | 1.1 | 1.6 | 1.3 | 0.9 | 0.9 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 2.3 | 1.4 | 1.4 | 2.5 | 1.1 | 24 | |
| 3 | 1.2 | 1.8 | 1.3 | S | 2.1 | 1.4 | 1.3 | 1.3 | 1 | 1.1 | 1.4 | 1.1 | 1.2 | 1.2 | 1.6 | 0.8 | 1.2 | 1 | 1.8 | 0.7 | 1.4 | 1 | 1.2 | 1.5 | 2.1 | 1.3 | 24 | |
| 4 | 1.2 | 0.9 | S | 1.9 | 0.9 | 0.9 | 1.3 | 0.9 | 0.7 | 1.9 | 1 | 1.8 | 1.8 | 1.1 | 1.3 | 0.9 | 1.7 | 0.9 | 1.3 | 1.1 | 1.2 | 0.8 | 0.6 | 1.2 | 1.9 | 1.2 | 24 | |
| 5 | 1.1 | S | 1.7 | 1 | 0.9 | 0.4 | 2.2 | 0.9 | 0.4 | 0.9 | 0.9 | 0.7 | 1 | 0.4 | S | X | 1.9 | 5.9 | 1.8 | 1.2 | 1.6 | 1.6 | 1.6 | 1.4 | 5.9 | 1.4 | 23 | |
| 6 | S | 2.7 | 2.5 | 2.2 | 2.5 | 2.3 | 2.2 | 9.9 | 3.9 | 5.8 | 6 | 4.9 | 5.4 | 4.6 | 3.9 | 29.1 | 3 | 2.5 | 2.2 | 1.9 | 2.3 | 2 | 2.3 | S | 29.1 | 4.7 | 24 | |
| 7 | 2.2 | 1.3 | 1.1 | 1.3 | 0.8 | 1.1 | 1 | 0.7 | 0.8 | 0.8 | 1 | 2.4 | 2.2 | 1 | 1.7 | 1 | 0.9 | 1 | 1.2 | 0.7 | 1.3 | 1.2 | S | 1.5 | 2.4 | 1.2 | 24 | |
| 8 | 1.3 | 1 | 1 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.7 | 1 | 1 | 0.9 | 0.6 | 0.7 | 1.3 | 0.6 | 1.5 | 0.1 | 0.7 | 0.7 | 0.2 | S | 2.2 | 1.7 | 2.2 | 0.9 | 24 | |
| 9 | 1.2 | 1.1 | 1.4 | 1.2 | 1 | 0.9 | 1.4 | 1.3 | 1.6 | 2.4 | 1.6 | 2.4 | 1.8 | 1.6 | 1.3 | 2.2 | 2.7 | 2.2 | 1 | 0.7 | S | 1 | 0.7 | 0.4 | 2.7 | 1.4 | 24 | |
| 10 | 0.5 | 0.5 | 0.9 | 0.7 | 0.6 | 0.2 | 1 | 3 | 1.2 | 1.5 | 15.2 | 2.6 | 2.2 | 2 | 2.5 | 1.9 | 1.3 | 0.9 | 0.1 | S | 2.1 | 1.1 | 1.3 | 1.3 | 15.2 | 1.9 | 24 | |
| 11 | 1.1 | 0.8 | 1 | 0.6 | 0.6 | 0.1 | 0.6 | 1.1 | 9.7 | 2.2 | 2.2 | 2.5 | 2.5 | 1.9 | 1.7 | 0.9 | 0.6 | 0 | S | 3.2 | 2.6 | 2.6 | 2.2 | 2.3 | 9.7 | 1.9 | 24 | |
| 12 | 2.5 | 2.3 | 2.5 | 2.1 | 2.4 | 2.5 | 2.2 | 1.9 | 2.5 | 3 | 3.6 | 3.3 | 3.2 | 3.3 | 2.8 | 2.4 | 2.4 | S | 2.1 | 1.3 | 1.5 | 1.1 | 1 | 0.8 | 3.6 | 2.3 | 24 | |
| 13 | 0.9 | 0.9 | 0.6 | 0.4 | 0.6 | 0.6 | 0.6 | 0.6 | 1.1 | C | C | C | C | C | C | C | C | C | C | P | 0.4 | 0.5 | 0.4 | 0.3 | 1.1 | 0.6 | 23 | |
| 14 | 0.4 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0 | S | 5.1 | 5.6 | 2.5 | 2.6 | 3.1 | 3 | S | 4.6 | 1.9 | 1.6 | 1.4 | 1.2 | 1.7 | 1.8 | 1.1 | 5.6 | 1.7 | 24 | |
| 15 | 0.3 | 0.8 | 0.8 | 1.3 | 0.9 | 1 | 1.4 | 1.3 | 1.4 | 1.7 | 2.1 | 2.7 | 2.2 | 2 | S | 3.8 | 2.5 | 1.8 | 1.7 | 1.7 | 1.8 | 1.5 | 1.5 | 1.5 | 3.8 | 1.6 | 24 | |
| 16 | 1.9 | 1.9 | 1.2 | 1.4 | 1.4 | 1.4 | 1.3 | 0.8 | 1.2 | 1.3 | 1.5 | C | C | C | C | 2.5 | 1.4 | 1.2 | 1.2 | S | S | 1.6 | 1.4 | 2.1 | 2.5 | 1.5 | 24 | |
| 17 | 2 | 1.9 | 1.7 | 2 | 1.6 | 1.9 | 1.9 | 2 | 3.2 | 4.2 | 5 | 6 | S | 7.4 | 3.1 | 16.3 | 2.2 | 1.9 | 1.3 | 1.1 | 1 | 0.8 | 1.3 | 1.2 | 16.3 | 3.1 | 24 | |
| 18 | 1.1 | 1 | 0.8 | 0.8 | 0.6 | 0.7 | 1.3 | 1.3 | 1.5 | 1.5 | 1.5 | S | 6.1 | 3.9 | 2.6 | 1.2 | 1.2 | 1.8 | 0.8 | 0.8 | 0.3 | 0.2 | 0.5 | 0.6 | 6.1 | 1.4 | 24 | |
| 19 | 0.8 | 0.9 | 0.7 | 0.5 | 0.5 | 0.6 | 0.4 | 0.3 | 0.7 | 0.9 | S | 3 | 2 | 1.3 | 1.4 | 1.5 | 1.5 | 0.8 | 0.6 | 0.8 | 1.1 | 0.9 | 1.3 | 1.2 | 3 | 1.0 | 24 | |
| 20 | 0.9 | 1.1 | 0.8 | 1 | 1 | 1.1 | 1 | 1.8 | 1.6 | S | 3.5 | 2.7 | 2.9 | 3.3 | 3.3 | 3.3 | 1.7 | 1.2 | 1.4 | 1.5 | 1.5 | 1.5 | 1.2 | 1.4 | 3.5 | 1.8 | 24 | |
| 21 | 1 | 1.1 | 1.4 | 1.5 | 0.9 | 1.2 | 1.2 | 1.4 | S | 4.1 | 4.1 | 2.9 | 1.7 | 8.4 | 2.7 | 25.9 | 1.9 | 1.5 | 1 | 0.8 | 0.8 | 0.7 | 0.6 | 0.8 | 25.9 | 2.9 | 24 | |
| 22 | 0.3 | 0.7 | 0.9 | 0.6 | 0.4 | 0.8 | 0.9 | S | 2.1 | 0.8 | 1.1 | 1.1 | 15.1 | 2.3 | 0.7 | 0.9 | 1.1 | 0.7 | 0.9 | 0.9 | 1 | 0.7 | 1.1 | 1 | 15.1 | 1.6 | 24 | |
| 23 | 0.8 | 0.8 | 0.9 | 1.1 | 0.9 | 0.9 | S | 1.6 | 1 | 1.3 | 1.5 | 1.5 | 2 | 1.2 | 0.9 | 1.2 | 0.7 | 0.4 | 0.6 | 1.2 | 0.4 | 0.1 | 1 | 0.5 | 2 | 1.0 | 24 | |
| 24 | 0.3 | 0.5 | 0.7 | 0.3 | 0.6 | S | 60.9 | 4.3 | 55.7 | 15 | 13.1 | 11.1 | P | 7.6 | 5.3 | 4.3 | 0.5 | 0.1 | 0.9 | 0.3 | 0.4 | 0.4 | 0.4 | 0.9 | 60.9 | 8.3 | 23 | |
| 25 | 0.6 | 0.9 | 0.9 | 0.7 | S | 3 | 1.4 | 10.3 | 3.3 | 14.8 | 28.7 | 20.6 | 3.2 | 1.7 | 2 | 2.8 | 2.2 | 2 | 1.4 | 9.2 | 1.5 | 2 | 2 | 1.5 | 28.7 | 5.1 | 24 | |
| 26 | 1.7 | 1.5 | 1.3 | S | 2.8 | 2 | 1.4 | 1.6 | 1.7 | 2 | 1.5 | 1.6 | 3 | 12 | 1.3 | 1 | 1 | 0.8 | 1.1 | 0.9 | 0.7 | 0.8 | 0.8 | 0.7 | 12 | 1.9 | 24 | |
| 27 | 0.6 | 0.9 | S | 1.4 | 0.5 | 1.3 | 0.6 | 0.8 | 1.1 | 1.9 | 1.9 | 2.2 | 2.2 | 1.4 | 1.9 | 1.1 | 0.9 | 1.1 | 0.5 | 0.8 | 0.7 | 0.4 | 0.4 | 1 | 2.2 | 1.1 | 24 | |
| 28 | 0.9 | S | 1.8 | 1.3 | 0.8 | 1.5 | 0.6 | 0.9 | 1.5 | 1.5 | 1.5 | 1.3 | 1.1 | 1 | 1.1 | 0.8 | 0.9 | 1.1 | 1.2 | 0.9 | 0.8 | 0.9 | 0.9 | 0.8 | 1.8 | 1.1 | 24 | |
| HOURLY MAX | 3 | 3 | 3 | 2 | 3 | 3 | 61 | 10 | 56 | 15 | 29 | 21 | 15 | 12 | 5 | 29 | 5 | 6 | 2 | 9 | 3 | 3 | 2 | 2 | | | | |
| HOURLY AVG | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 3.4 | 1.9 | 3.9 | 3.0 | 4.2 | 3.4 | 2.9 | 3.0 | 2.1 | 4.3 | 1.6 | 1.3 | 1.2 | 1.4 | 1.1 | 1.1 | 1.2 | 1.1 | | | | |

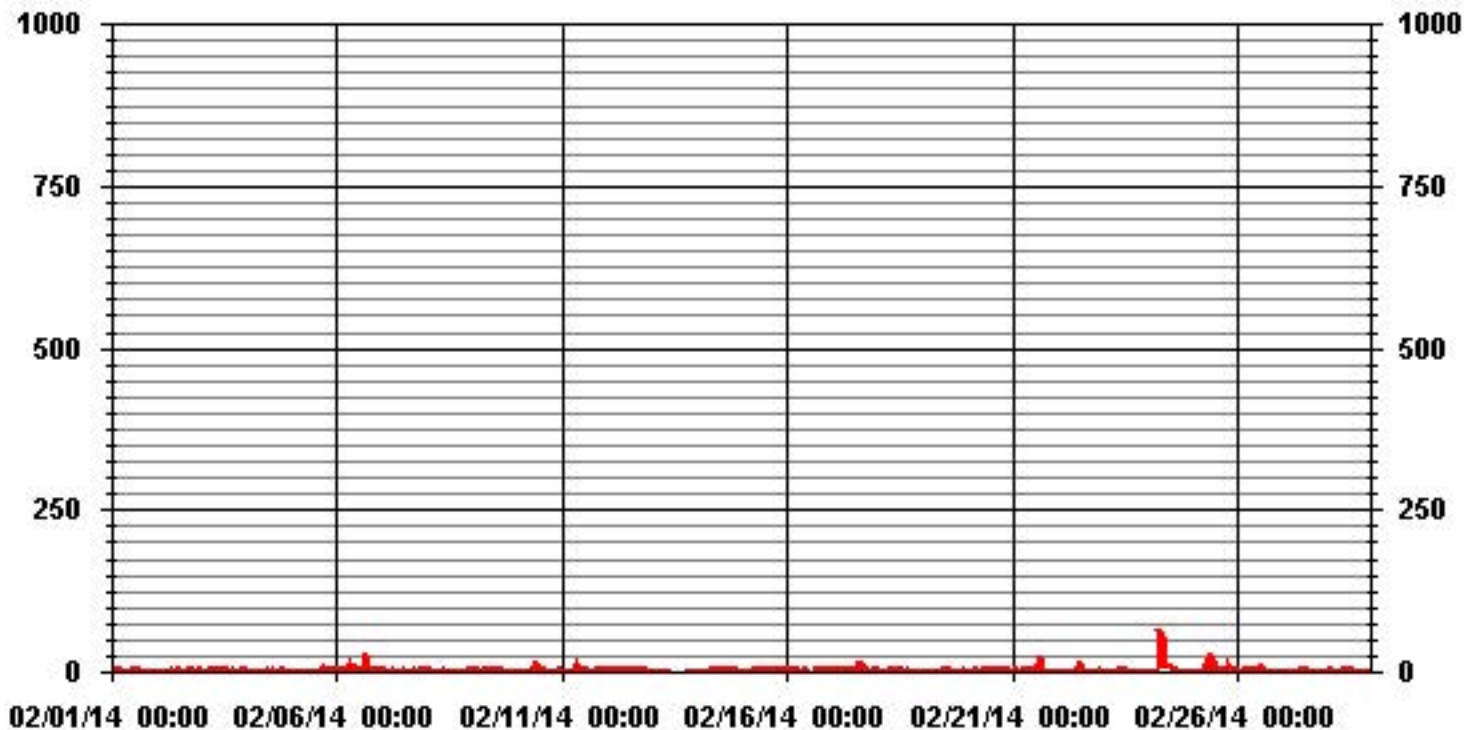
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 617 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 60.9 | PPB | @ HOUR(S) | 6 | ON DAY(S) | 24 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 669 | HRS | |
| MONTHLY CALIBRATION TIME: | 14 | HRS | | | | |
| STANDARD DEVIATION: | 4.20 | | | | | |

01 Hour Averages



LICA31
 NO_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NO_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 10.19 | 5.57 | 2.38 | 3.66 | 6.52 | 6.21 | 2.86 | 2.86 | 6.05 | 4.93 | 6.68 | 9.07 | 7.32 | 2.54 | 7.96 | 15.12 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.19 | 5.57 | 2.38 | 3.66 | 6.52 | 6.21 | 2.86 | 2.86 | 6.05 | 4.93 | 6.68 | 9.07 | 7.32 | 2.54 | 7.96 | 15.12 | |

Calm : .00 %

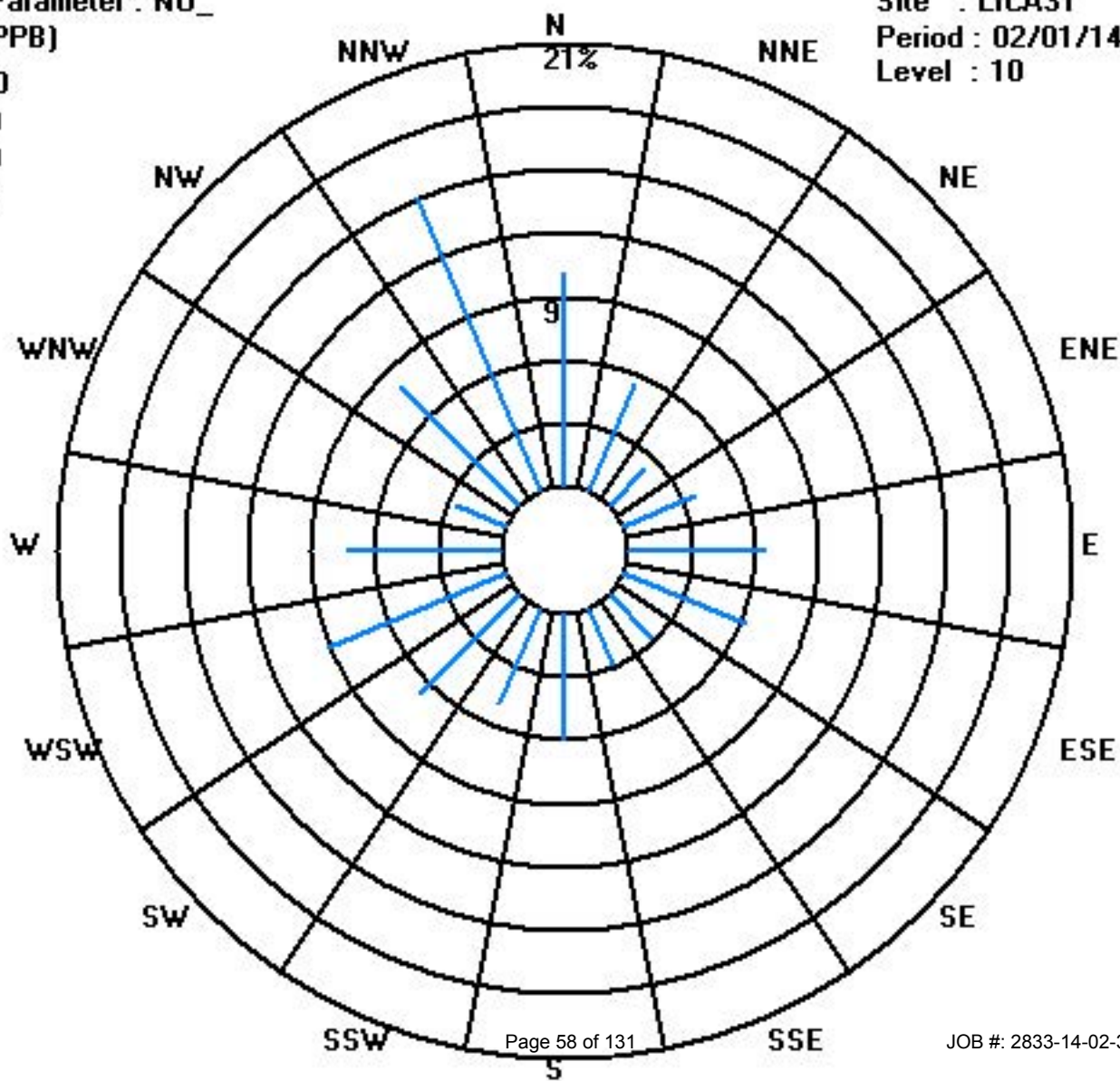
Total # Operational Hours : 628

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 64 | 35 | 15 | 23 | 41 | 39 | 18 | 18 | 38 | 31 | 42 | 57 | 46 | 16 | 50 | 95 | 628 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 64 | 35 | 15 | 23 | 41 | 39 | 18 | 18 | 38 | 31 | 42 | 57 | 46 | 16 | 50 | 95 | |

Calm : .00 %

Total # Operational Hours : 628



Oxides of Nitrogen

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

OXIDES OF NITROGEN (NOx) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.4 | 0.7 | 0.6 | 0.8 | 1 | S | 0.3 | 0.2 | 0.3 | 0.2 | 0.6 | 0.3 | 0.2 | 2.1 | 3.6 | 2.3 | 1.4 | 5.6 | 5.5 | 3 | 1.4 | 0.5 | 0.2 | 0.1 | 5.6 | 1.4 | 24 | |
| 2 | 0 | 0 | 0 | 0.2 | S | 0.6 | 0.2 | 0 | 0.2 | 0.5 | 0.7 | 0.6 | 0.5 | 0.5 | 0.2 | 0.1 | 0.7 | 0.8 | 1.1 | 1.2 | 1 | 1.4 | 1.1 | 0.8 | 1.4 | 0.5 | 24 | |
| 3 | 0.9 | 0.5 | 0.3 | S | 1 | 0.6 | 0.6 | 0.7 | 0.5 | 0.4 | 0.8 | 0.4 | 0.7 | 0.8 | 0.7 | 0.4 | 0.7 | 0.3 | 0.8 | 0.9 | 1.6 | 1.8 | 2 | 2 | 2 | 0.8 | 24 | |
| 4 | 2.1 | 1.6 | S | 1.3 | 1 | 1.1 | 1.9 | 2 | 2 | 2.3 | 1.8 | 1.9 | 1.7 | 1.3 | 1.3 | 1 | 1.1 | 1.1 | 1.3 | 1.4 | 1.1 | 1.4 | 0.9 | 1.2 | 2.3 | 1.5 | 24 | |
| 5 | 1 | S | 1.2 | 1.5 | 1.6 | 1.5 | 2.4 | 1.6 | 1.4 | 1.4 | 1.3 | 0.9 | 0.8 | 0.5 | S | 8.8 | 8.6 | 10 | 9.6 | 9.9 | 10.1 | 10.3 | 10.1 | 9.6 | 10.3 | 4.7 | 24 | |
| 6 | S | 4.4 | 5.9 | 6.6 | 6.6 | 6 | 5.8 | 7.8 | 8.5 | 10.2 | 10.1 | 8.2 | 8 | 7.5 | 6.1 | 7.5 | 6 | 5.1 | 4.9 | 5 | 4.3 | 3.5 | 3 | S | 10.2 | 6.4 | 24 | |
| 7 | 2.7 | 2.7 | 2.6 | 2.9 | 2.5 | 2.9 | 3 | 2.8 | 2.7 | 3.2 | 2.9 | 3.3 | 2.9 | 2.7 | 3.1 | 2.9 | 3 | 3.8 | 3.6 | 2.9 | 4.3 | 4.5 | S | 3.4 | 4.5 | 3.1 | 24 | |
| 8 | 3.9 | 3.7 | 3.6 | 3.2 | 0.7 | 0.4 | 0.3 | 0.6 | 0.8 | 1.3 | 1.2 | 0.9 | 0.8 | 1.1 | 1.2 | 0.8 | 1.2 | 0.6 | 2 | 2.1 | 2.1 | S | 2.8 | 2 | 3.9 | 1.6 | 24 | |
| 9 | 2.3 | 2.9 | 2.6 | 2.2 | 2.4 | 2.5 | 2.8 | 3.2 | 4.8 | 4 | 3 | 2.7 | 2.1 | 1.8 | 2.1 | 5.2 | 9.5 | 10.5 | 5.7 | 5 | S | 4.9 | 4.1 | 3.2 | 10.5 | 3.9 | 24 | |
| 10 | 3.3 | 3.5 | 3.1 | 3.2 | 2.7 | 2.5 | 3.6 | 3.5 | 4 | 4 | 4.8 | 4.6 | 4.4 | 4.5 | 4.7 | 5.6 | 6.2 | 6.4 | 6.9 | S | 8.1 | 10.6 | 8 | 8.1 | 10.6 | 5.1 | 24 | |
| 11 | 8 | 8.4 | 7.4 | 7.5 | 6.6 | 5.8 | 5.2 | 5.2 | 5 | 3.9 | 3.6 | 3.5 | 3.1 | 2.6 | 1.7 | 1.1 | 1 | 0 | S | 2.5 | 2.1 | 2.4 | 2.4 | 2.6 | 8.4 | 4.0 | 24 | |
| 12 | 2.1 | 1.9 | 3 | 6.1 | 6 | 6.3 | 5.1 | 4.7 | 4.7 | 5.2 | 5.8 | 4.8 | 3.8 | 3.4 | 2.7 | 2.5 | 2.4 | S | 2.6 | 2.8 | 3.4 | 2.6 | 1.8 | 1.6 | 6.3 | 3.7 | 24 | |
| 13 | 1.9 | 2.2 | 2.7 | 2.5 | 2.9 | 3.9 | 3.9 | 3.9 | 3.9 | 4.2 | C | C | C | C | C | C | C | C | C | C | 6 | 6 | 5.9 | 5 | 4.6 | 6 | 4.0 | 24 |
| 14 | 4.3 | 3.8 | 4.3 | 4.4 | 4.4 | 4.8 | 4.7 | 5.1 | S | 8 | 7.8 | 4.4 | 5.2 | 6.1 | 6.1 | S | 9.2 | 7.6 | 6.9 | 5.9 | 6 | 6.2 | 5.4 | 3.4 | 9.2 | 5.6 | 24 | |
| 15 | 2.8 | 3.3 | 3.8 | 4.2 | 3.7 | 3.8 | 4 | 3.4 | 3.4 | 3.6 | 3.7 | 4 | 4.2 | 4.8 | S | 6.1 | 6.8 | 6.5 | 5.5 | 5.8 | 6.9 | 6.6 | 4.3 | 3.6 | 6.9 | 4.6 | 24 | |
| 16 | 3.8 | 3.7 | 3 | 3.1 | 2.6 | 2.3 | 2.2 | 2 | 2.2 | 2.3 | 1.8 | C | C | C | C | C | 2.4 | 2.1 | 2.2 | 2.6 | S | S | 4.2 | 4.5 | 5.7 | 2.9 | 24 | |
| 17 | 9 | 11.9 | 11.2 | 10.2 | 9.3 | 8.4 | 8.8 | 7.7 | 8.5 | 9.9 | 11.1 | 11.9 | S | 8 | 3.2 | 4.1 | 5.3 | 3 | 2.1 | 2.3 | 2.6 | 2.7 | 2.6 | 2.5 | 11.9 | 6.8 | 24 | |
| 18 | 1.5 | 1.2 | 0.2 | 0 | 0 | 0.3 | 0.2 | 0.7 | 1 | 1 | S | 3.5 | 2.7 | 2.1 | 1.4 | 1.4 | 1.9 | 1.9 | 5.2 | 7.5 | 5.1 | 3.9 | 4 | 7.5 | 2.0 | 2.0 | 24 | |
| 19 | 5.8 | 5.8 | 8.2 | 9.5 | 4.5 | 2.5 | 2 | 2.7 | 1.9 | 2.1 | S | 3.5 | 3 | 2.1 | 2.5 | 2.4 | 2.7 | 2.3 | 2.7 | 3.3 | 3.9 | 3.1 | 3.7 | 4.9 | 9.5 | 3.7 | 24 | |
| 20 | 3.5 | 2.6 | 2.9 | 2.7 | 3.1 | 3.6 | 3.8 | 4.9 | 4.6 | S | 4.3 | 3.9 | 5 | 7.3 | 7.4 | 7.6 | 6.6 | 5.9 | 5.5 | 6 | 7.5 | 6.6 | 6.1 | 6.2 | 7.6 | 5.1 | 24 | |
| 21 | 5.3 | 4.4 | 4.3 | 4.3 | 3.8 | 3.7 | 4.6 | 6.2 | S | 7.1 | 5.5 | 4.9 | 1.4 | 2 | 3.8 | 4.9 | 5 | 5.5 | 4.7 | 4.4 | 4.3 | 2.3 | 0.9 | 1.2 | 7.1 | 4.1 | 24 | |
| 22 | 0.8 | 1.2 | 0.8 | 0.8 | 1.2 | 1.5 | 1.2 | S | 1.3 | 0 | 0.3 | 0.2 | 1.1 | 0.6 | 0.1 | 0.2 | 0.4 | 0.3 | 0.7 | 0.7 | 0.7 | 0 | 0.6 | 1.5 | 1.5 | 0.7 | 24 | |
| 23 | 1.6 | 2 | 1.9 | 2.2 | 2.4 | 2.2 | S | 1.6 | 1.2 | 1.5 | 1.6 | 1.6 | 2 | 1.2 | 1.3 | 1.6 | 1.3 | 1.2 | 1.6 | 2.4 | 2.8 | 3.2 | 3.5 | 1.8 | 3.5 | 1.9 | 24 | |
| 24 | 1.9 | 2 | 2.4 | 2.4 | 2.4 | S | 7.7 | 9.8 | 17.8 | 23 | 19.4 | 17.4 | 15.6 | 10.5 | 9.8 | 6.2 | 1.4 | 1.3 | 2 | 1.9 | 0.7 | 1.2 | 2.7 | 2.7 | 23 | 7.0 | 24 | |
| 25 | 3.8 | 3.9 | 4.9 | 4.7 | S | 5 | 2.2 | 4.1 | 5.1 | 5.8 | 5.7 | 5 | 3.8 | 2.5 | 2.5 | 5.3 | 5.7 | 7.3 | 8.8 | 11.6 | 14 | 15.9 | 17.4 | 13.8 | 17.4 | 6.9 | 24 | |
| 26 | 10.1 | 8.5 | 6.7 | S | 3.6 | 2.7 | 2 | 2.4 | 2.2 | 3 | 3 | 1.5 | 1.4 | 1.5 | 1.6 | 1.4 | 1.2 | 1.2 | 1.2 | 1.6 | 1.7 | 1.4 | 2.5 | 2.5 | 10.1 | 2.8 | 24 | |
| 27 | 2.6 | 2.6 | S | 3.5 | 3.3 | 4 | 4.2 | 4.4 | 4.5 | 4.6 | 5.4 | 6.1 | 5.3 | 3.6 | 2.5 | 1.8 | 2.3 | 3.3 | 1 | 0.7 | 0.3 | 0.5 | 0.1 | 0.4 | 6.1 | 2.9 | 24 | |
| 28 | 0 | S | 2 | 2.5 | 2.1 | 2.2 | 2.3 | 1.5 | 1.2 | 1.2 | 0.8 | 0.5 | 0.8 | 1.2 | 1 | 1.1 | 1 | 1.1 | 1.6 | 1.1 | 1.5 | 1.2 | 1.3 | 1.6 | 2.5 | 1.3 | 24 | |
| HOURLY MAX | 10 | 12 | 11 | 10 | 9 | 8 | 9 | 10 | 18 | 23 | 19 | 17 | 16 | 11 | 10 | 9 | 10 | 11 | 10 | 12 | 14 | 16 | 17 | 14 | | | | |
| HOURLY AVG | 3.2 | 3.4 | 3.4 | 3.6 | 3.1 | 3.1 | 3.2 | 3.4 | 3.6 | 4.2 | 4.2 | 3.9 | 3.3 | 3.2 | 3.0 | 3.3 | 3.5 | 3.6 | 3.6 | 3.7 | 4.1 | 4.1 | 3.7 | 3.5 | | | | |

STATUS FLAG CODES

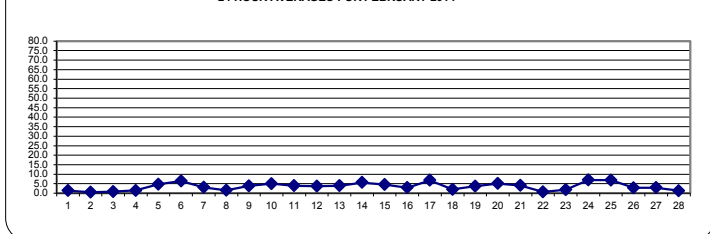
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 1-HR NA PPB

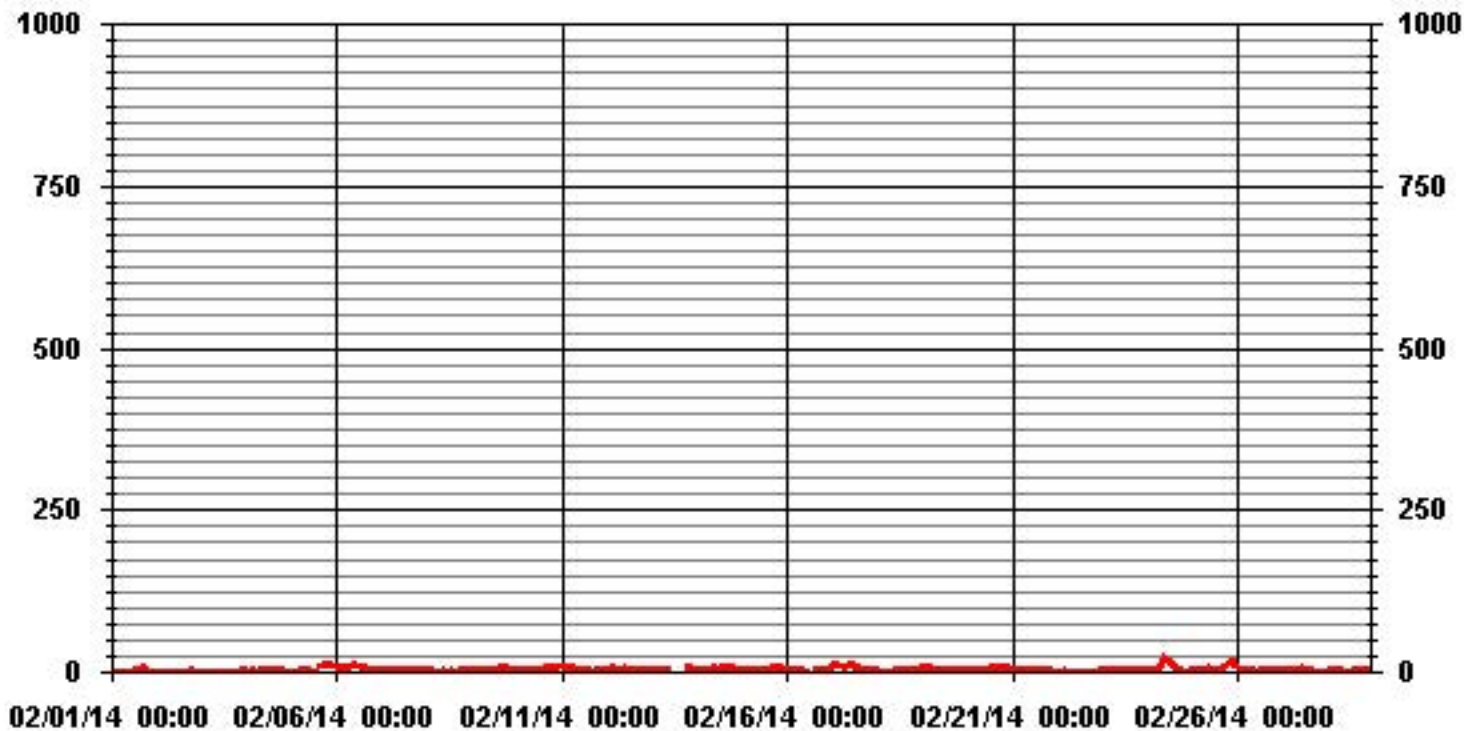
MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|-----------------------|-------|--------------|
| NUMBER OF 1-HR EXCEEDENCES: | NA | | | | |
| NUMBER OF NON-ZERO READINGS: | 617 | | | | |
| MAXIMUM 1-HR AVERAGE: | 23 | PPB | @ HOUR(S) | 9 | ON DAY(S) 24 |
| MAXIMUM 24-HR AVERAGE: | 7.0 | PPB | | | ON DAY(S) 24 |
| | | | | | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 672 | HRS |
| MONTHLY CALIBRATION TIME: | 13 | HRS | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 3.03 | | MONTHLY AVERAGE: | 3.53 | PPB |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



— LICA31 NOX_ PPB

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | 1.1 | 1.5 | 1.5 | 1.8 | 1.9 | S | 1.2 | 1 | 1.5 | 1.2 | 2.1 | 1.3 | 2 | 4.2 | 4.9 | 4.8 | 4.6 | 6.6 | 7.1 | 4.3 | 2.7 | 1.5 | 1.1 | 0.9 | 7.1 | 2.6 | 24 | |
| 2 | 0.6 | 0.7 | 0.8 | 0.9 | S | 1.1 | 1.2 | 0.9 | 0.9 | 1.6 | 2.7 | 1.5 | 1.6 | 1.5 | 1.4 | 1.1 | 1.5 | 1.9 | 2.1 | 2.8 | 2.4 | 6 | 1.8 | 2 | 6 | 1.7 | 24 | |
| 3 | 1.7 | 1.8 | 1.6 | S | 1.9 | 1.4 | 1.5 | 1.8 | 1.4 | 1.2 | 1.8 | 1.2 | 1.5 | 1.7 | 2.1 | 1.3 | 1.9 | 1.7 | 1.8 | 1.7 | 2.7 | 2.6 | 3 | 2.9 | 3 | 1.8 | 24 | |
| 4 | 3.3 | 2.5 | S | 2 | 1.7 | 1.8 | 3 | 3.3 | 3 | 4.1 | 2.8 | 3.3 | 3.6 | 2.4 | 2.2 | 1.9 | 3.8 | 2.2 | 2.1 | 2.2 | 2.1 | 2.4 | 1.6 | 1.9 | 4.1 | 2.6 | 24 | |
| 5 | 1.7 | S | 2 | 2.3 | 2.6 | 2.2 | 6.3 | 3.6 | 2.8 | 3.4 | 2 | 2 | 2.3 | 1.5 | S | X | 9.6 | 20.6 | 10.6 | 10.9 | 11 | 11 | 10.7 | 10.8 | 20.6 | 6.2 | 23 | |
| 6 | S | 5.7 | 7.2 | 7.4 | 7.4 | 7 | 7.1 | 24.3 | 10.1 | 11.8 | 11.8 | 9.8 | 9.5 | 8.9 | 7 | 37.4 | 7.1 | 6.1 | 5.8 | 6.3 | 5.4 | 4.3 | 4.3 | S | 37.4 | 9.6 | 24 | |
| 7 | 3.9 | 3.7 | 3.3 | 4 | 3.2 | 3.9 | 4.3 | 3.9 | 3.6 | 4.3 | 4.1 | 5.9 | 5.6 | 3.3 | 4 | 3.8 | 3.8 | 6.6 | 4.3 | 3.9 | 5.2 | 6 | S | 4.6 | 6.6 | 4.3 | 24 | |
| 8 | 4.6 | 5 | 4.5 | 4.1 | 1.8 | 1.1 | 1.2 | 1.5 | 2 | 2.2 | 2.2 | 1.7 | 1.6 | 2.1 | 2.4 | 1.5 | 3.3 | 1.7 | 3.2 | 3 | 2.8 | S | 6.1 | 3.4 | 6.1 | 2.7 | 24 | |
| 9 | 4.1 | 4.3 | 3.5 | 2.8 | 3.7 | 3.7 | 3.7 | 4.6 | 6.3 | 5.2 | 3.9 | 3.7 | 3 | 2.5 | 3.3 | 7.1 | 13.1 | 13.4 | 6.8 | 6.3 | S | 6.2 | 5.5 | 4.5 | 13.4 | 5.3 | 24 | |
| 10 | 4.1 | 4.5 | 4.4 | 4.1 | 3.7 | 3.5 | 6.1 | 8.4 | 5.4 | 5.3 | 22.2 | 6.8 | 5.2 | 5.4 | 7.3 | 6.7 | 7 | 7.5 | 8.1 | S | 11 | 11.7 | 11.4 | 9.8 | 22.2 | 7.4 | 24 | |
| 11 | 9.4 | 9.8 | 8.5 | 8.2 | 8.2 | 7 | 6.7 | 6.9 | 21.3 | 4.9 | 4.6 | 4.4 | 4.4 | 3.9 | 3.3 | 2.3 | 2.4 | 0.8 | S | 3.3 | 3.1 | 3.5 | 3.9 | 4.1 | 21.3 | 5.9 | 24 | |
| 12 | 3 | 2.9 | 4.3 | 8.8 | 7.2 | 7.5 | 6.3 | 5.4 | 5.5 | 6.3 | 6.7 | 5.9 | 4.9 | 4.3 | 3.5 | 3.4 | 3.3 | S | 3.3 | 3.6 | 4.6 | 3.5 | 2.8 | 2.5 | 8.8 | 4.8 | 24 | |
| 13 | 3 | 3.3 | 3.9 | 3.1 | 4.1 | 4.7 | 5 | 4.8 | 5 | C | C | C | C | C | C | C | C | C | C | C | P | 7.5 | 7.5 | 6.1 | 5.4 | 7.5 | 4.9 | 23 |
| 14 | 5.3 | 4.8 | 5.4 | 5.2 | 5.4 | 5.8 | 5.6 | 6.9 | S | 10.7 | 11.4 | 5.3 | 6.3 | 7.2 | 7.4 | S | 10.4 | 8.6 | 8.1 | 6.7 | 7.2 | 7.4 | 6.8 | 4.3 | 11.4 | 6.9 | 24 | |
| 15 | 3.7 | 4.4 | 4.8 | 5.2 | 5 | 4.5 | 4.9 | 4.7 | 4.4 | 4.6 | 5 | 5.4 | 5.4 | 5.8 | S | 7.3 | 8.2 | 7.6 | 6.6 | 7.1 | 8 | 7.8 | 5.8 | 4.6 | 8.2 | 5.7 | 24 | |
| 16 | 4.7 | 4.7 | 4.2 | 4.2 | 3.6 | 3.1 | 3.2 | 3 | 3.5 | 3.3 | 3 | C | C | C | C | 5.1 | 3.4 | 2.9 | 3.7 | S | S | 4.8 | 5.6 | 8.6 | 8.6 | 4.1 | 24 | |
| 17 | 11.2 | 13.8 | 12.8 | 11.6 | 10.5 | 9.3 | 11.8 | 8.7 | 9.6 | 11.1 | 12.9 | 13.2 | S | 12.7 | 6.2 | 22.7 | 7.4 | 4.9 | 3.5 | 3.8 | 3.5 | 3.8 | 3.6 | 3.6 | 22.7 | 9.2 | 24 | |
| 18 | 2.6 | 2 | 0.8 | 0.9 | 0.7 | 0.9 | 1.2 | 1.2 | 2.9 | 2 | 2 | S | 29.4 | 30.2 | 5.9 | 2.8 | 3.7 | 4.8 | 3.2 | 7.8 | 8.7 | 8.3 | 4.9 | 4.8 | 30.2 | 5.7 | 24 | |
| 19 | 7.3 | 7.1 | 11.4 | 11.6 | 7 | 3.8 | 3.3 | 3.9 | 3.1 | 2.9 | S | 4.9 | 4.1 | 3 | 3.4 | 3.5 | 3.8 | 3.3 | 3.6 | 4.4 | 4.9 | 4.1 | 5.7 | 5.7 | 11.6 | 5.0 | 24 | |
| 20 | 4.7 | 3.5 | 3.9 | 3.7 | 3.9 | 4.3 | 4.6 | 6.3 | 5.7 | S | 5.5 | 5.1 | 6.4 | 8.7 | 8.4 | 9.1 | 7.5 | 7.2 | 6.7 | 7.2 | 8.3 | 7.8 | 7.4 | 7.4 | 9.1 | 6.2 | 24 | |
| 21 | 6.6 | 5.2 | 5.2 | 5.8 | 4.5 | 4.8 | 6.2 | 7.1 | S | 9.2 | 9.6 | 6.2 | 3.3 | 27.1 | 5.4 | 36.7 | 6.3 | 6.9 | 5.8 | 5.5 | 5.1 | 3.6 | 1.4 | 1.9 | 36.7 | 7.8 | 24 | |
| 22 | 1.6 | 2 | 1.9 | 1.9 | 2.1 | 2.3 | 2.6 | S | 2.7 | 0.9 | 1.3 | 1.4 | 25.9 | 4 | 1 | 1.1 | 1.2 | 1.2 | 1.4 | 1.4 | 0.9 | 1.4 | 2.6 | 25.9 | 2.8 | 24 | | |
| 23 | 2.6 | 2.8 | 2.8 | 3.1 | 3.3 | 3.6 | S | 3.3 | 2 | 2.3 | 2.3 | 2.3 | 3 | 2.5 | 2.1 | 2.5 | 2.3 | 2.3 | 2.6 | 3.6 | 3.7 | 4.5 | 5.7 | 2.8 | 5.7 | 3.0 | 24 | |
| 24 | 2.8 | 3.3 | 3.7 | 3.3 | 3.4 | S | 83 | 13.4 | 64.1 | 25.2 | 21.8 | 19.1 | P | 13.5 | 11.6 | 9.6 | 2.1 | 2.1 | 3.4 | 3 | 2.2 | 1.6 | 2.2 | 3.9 | 83 | 13.6 | 23 | |
| 25 | 4.6 | 5.1 | 6.1 | 6 | S | 8.2 | 3.1 | 21.4 | 7.4 | 24.2 | 37.5 | 28.9 | 4.9 | 3.4 | 4.3 | 7.1 | 6.8 | 8.8 | 11 | 22.4 | 15.2 | 17.3 | 19.4 | 17.2 | 37.5 | 12.6 | 24 | |
| 26 | 12.2 | 10.2 | 7.9 | S | 4.9 | 3.4 | 3.1 | 3.4 | 3 | 4.1 | 4.5 | 2.7 | 6 | 22.1 | 2.5 | 3 | 2.6 | 2.2 | 2.2 | 2.7 | 2.6 | 2.5 | 3.5 | 3.3 | 22.1 | 5.0 | 24 | |
| 27 | 3.5 | 3.8 | S | 4.5 | 4 | 5.6 | 5 | 5.6 | 5.1 | 5.8 | 6.4 | 6.8 | 6.7 | 4.8 | 4.2 | 3.2 | 4.8 | 6.2 | 2.2 | 1.5 | 1 | 1.7 | 1.1 | 1.4 | 6.8 | 4.1 | 24 | |
| 28 | 1 | S | 2.8 | 3.5 | 2.8 | 3.6 | 3.1 | 2.8 | 2.3 | 2.3 | 2.2 | 1.5 | 1.7 | 2.5 | 2.2 | 2 | 2 | 2.4 | 3.1 | 2.2 | 2.8 | 2.1 | 2.3 | 2.5 | 3.6 | 2.4 | 24 | |
| HOURLY MAX | 12 | 14 | 13 | 12 | 11 | 9 | 83 | 24 | 64 | 25 | 38 | 29 | 29 | 30 | 12 | 37 | 13 | 21 | 11 | 22 | 15 | 17 | 19 | 17 | | | | |
| HOURLY AVG | 4.3 | 4.6 | 4.6 | 4.6 | 4.2 | 4.2 | 7.2 | 6.0 | 7.1 | 6.2 | 7.4 | 6.0 | 6.2 | 7.3 | 4.4 | 7.5 | 5.0 | 5.4 | 4.7 | 5.1 | 5.2 | 5.3 | 5.0 | 4.7 | | | | |

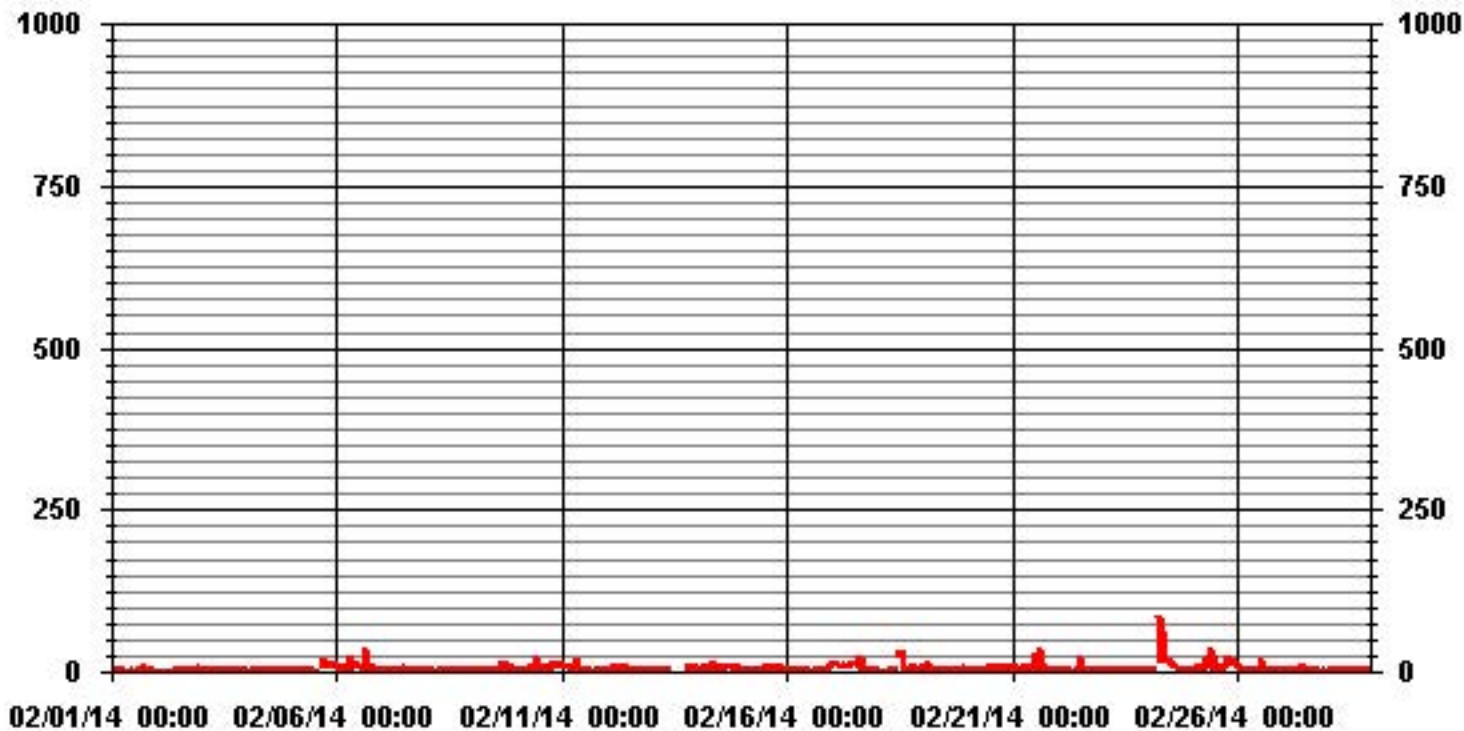
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 624 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 83 | PPB | @ HOUR(S) | 6 | ON DAY(S) | 24 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 669 | HRS | |
| MONTHLY CALIBRATION TIME: | 14 | HRS | | | | |
| STANDARD DEVIATION: | 6.22 | | | | | |

01 Hour Averages



LICA31
NOX_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : NOX_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 10.19 | 5.57 | 2.38 | 3.66 | 6.52 | 6.21 | 2.86 | 2.86 | 6.05 | 4.93 | 6.68 | 9.07 | 7.32 | 2.54 | 7.96 | 15.12 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.19 | 5.57 | 2.38 | 3.66 | 6.52 | 6.21 | 2.86 | 2.86 | 6.05 | 4.93 | 6.68 | 9.07 | 7.32 | 2.54 | 7.96 | 15.12 | |

Calm : .00 %

Total # Operational Hours : 628

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 64 | 35 | 15 | 23 | 41 | 39 | 18 | 18 | 38 | 31 | 42 | 57 | 46 | 16 | 50 | 95 | 628 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 64 | 35 | 15 | 23 | 41 | 39 | 18 | 18 | 38 | 31 | 42 | 57 | 46 | 16 | 50 | 95 | |

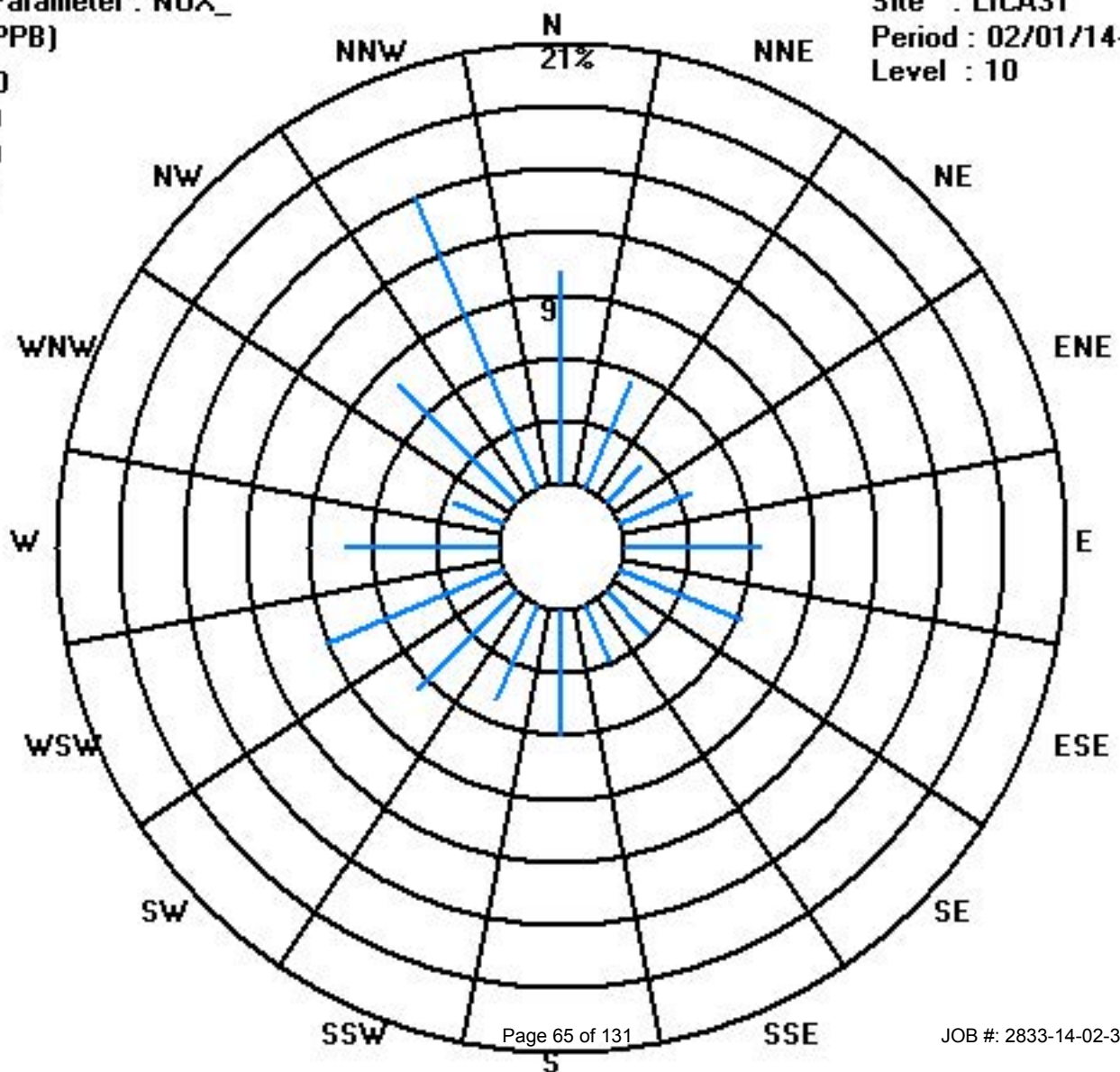
Calm : .00 %

Total # Operational Hours : 628

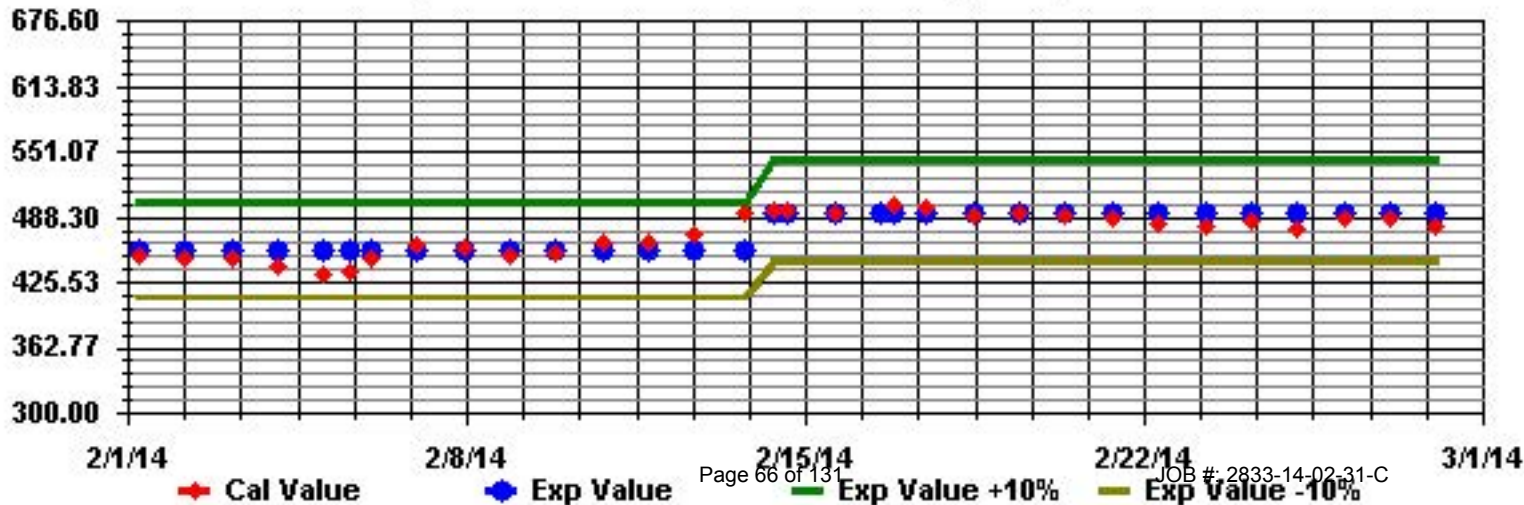
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA31 Parameter: NOX_ Sequence: NO2 Phase: SPAN



Particulate Matter 2.5

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

PARTICULATE MATTER 2.5 (LESS THAN 2.5 MICRONS) (PM2.5) hourly averages in ug/m3

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | X | 1 | 0 | 3 | 0.7 | 23 | | |
| 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 0.5 | 24 | | |
| 3 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 3 | 0.8 | 24 | | |
| 4 | 2 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 2 | 0 | 2 | 1.0 | 24 | | |
| 5 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | | |
| 6 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 4 | 7 | 10 | 7 | 8 | 6 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 10 | 3.8 | 24 | | |
| 7 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 5 | 5 | 5 | 4 | 3 | 3 | 4 | 5 | 5 | 4 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 5 | 3.5 | 24 | |
| 8 | 2 | 3 | 4 | 4 | 2 | 1 | 1 | 2 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 1 | 2 | 3 | 1 | 4 | 1.8 | 24 | | |
| 9 | 1 | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 3 | 1.5 | 24 | | |
| 10 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 5 | 4 | 7 | 10 | 7 | 5 | 10 | 3.1 | 24 | | |
| 11 | 5 | 5 | 5 | 5 | 5 | 5 | 9 | 5 | 5 | 5 | 4 | 4 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 9 | 3.3 | 24 | | |
| 12 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 4 | 6 | 4 | 4 | 6 | 5 | 3 | 4 | 3 | 3 | 1 | 2 | 6 | 2.3 | 24 | | |
| 13 | 1 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 4 | 5 | 4 | 7 | 4 | 3 | 8 | 5 | 6 | 5 | 0 | 1 | 3 | 3 | 1 | 4 | 8 | 3.1 | 24 | | |
| 14 | 3 | 3 | 2 | 4 | 4 | 5 | 5 | 7 | 4 | 6 | 9 | 8 | 7 | 7 | 9 | 7 | 8 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 9 | 5.9 | 24 | | |
| 15 | 8 | 5 | 5 | 9 | 5 | 6 | 6 | 6 | 7 | 6 | 4 | 6 | 4 | 5 | 5 | 4 | 7 | 7 | 4 | 4 | 4 | 3 | 4 | 3 | 9 | 5.3 | 24 | | |
| 16 | 2 | 1 | 2 | 2 | 1 | 4 | 2 | 2 | 3 | 4 | 5 | 5 | 7 | 4 | 5 | 6 | 5 | 6 | 6 | 6 | 8 | 7 | 7 | 9 | 9 | 4.5 | 24 | | |
| 17 | 9 | 10 | 9 | 8 | 6 | 4 | 6 | 5 | 5 | 3 | C | C | C | C | C | 7 | 4 | 4 | 3 | 5 | 5 | 8 | 5 | 3 | 10 | 5.7 | 24 | | |
| 18 | 3 | 3 | 0 | 2 | 0 | 2 | 0 | 3 | 1 | 5 | 4 | 1 | 4 | 3 | 0 | 1 | 0 | 10 | 0 | 7 | 4 | 3 | 0 | 4 | 10 | 2.5 | 24 | | |
| 19 | 7 | 2 | 6 | 10 | 8 | 6 | 7 | 6 | 2 | 6 | 5 | 8 | 5 | 10 | 7 | 2 | 3 | 5 | 8 | 5 | 3 | 4 | 4 | 8 | 10 | 5.7 | 24 | | |
| 20 | 5 | 4 | 7 | 8 | 5 | 7 | 8 | 8 | 8 | C | C | C | 6 | 12 | 5 | 11 | 8 | 11 | 10 | 12 | 6 | 10 | 8 | 12 | 8.0 | 24 | | | |
| 21 | 11 | 5 | 6 | 9 | 6 | 8 | 10 | 6 | 5 | 4 | 2 | 4 | 5 | 3 | 2 | 8 | 7 | 4 | 5 | 4 | 5 | 4 | 2 | 4 | 11 | 5.4 | 24 | | |
| 22 | 4 | 2 | 4 | 2 | 5 | 10 | 4 | 3 | 3 | 2 | 4 | 0 | 2 | 0 | 3 | 11 | 1 | 0 | 2 | 0 | 0 | 5 | 4 | 1 | 11 | 3.0 | 24 | | |
| 23 | 0 | 5 | 5 | 1 | 2 | 4 | 4 | 4 | 0 | 3 | 3 | 2 | 1 | 3 | 3 | 7 | 0 | 2 | 2 | 5 | 4 | 4 | 4 | 5 | 7 | 3.0 | 24 | | |
| 24 | 7 | 8 | 8 | 7 | 5 | 4 | 4 | 10 | 10 | 19 | 16 | 9 | 16 | 5 | 9 | 6 | 2 | 4 | 3 | 4 | 1 | 3 | 4 | 4 | 19 | 7.0 | 24 | | |
| 25 | 6 | 4 | 4 | 3 | 2 | 3 | 0 | 1 | 3 | 5 | 6 | 4 | 3 | C | C | 0 | X | 5 | 0 | 1 | 0 | 0 | 0 | 1 | 6 | 2.4 | 23 | | |
| 26 | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 5 | 0.9 | 24 | | |
| 27 | 4 | 6 | 8 | 4 | 1 | 2 | 4 | 9 | 2 | 6 | 8 | 13 | 10 | 0 | 3 | 3 | 6 | 5 | 3 | 1 | 3 | 5 | 0 | 5 | 13 | 4.6 | 24 | | |
| 28 | 2 | 1 | 4 | 2 | 0 | 5 | 2 | 3 | 0 | 5 | 4 | 6 | 1 | 5 | 5 | 0 | 3 | 3 | 3 | 4 | 6 | 0 | 0 | 4 | 6 | 2.8 | 24 | | |
| HOURLY MAX | 11 | 10 | 9 | 10 | 8 | 10 | 10 | 10 | 10 | 19 | 16 | 13 | 16 | 10 | 12 | 11 | 11 | 10 | 11 | 10 | 12 | 10 | 10 | 9 | | | | | |
| HOURLY AVG | 3.3 | 2.7 | 3.3 | 3.3 | 2.5 | 3.1 | 2.9 | 3.4 | 3.0 | 4.2 | 4.0 | 3.7 | 3.5 | 3.0 | 3.6 | 3.5 | 3.4 | 3.7 | 2.8 | 3.2 | 3.3 | 3.3 | 2.7 | 3.2 | | | | | |

STATUS FLAG CODES

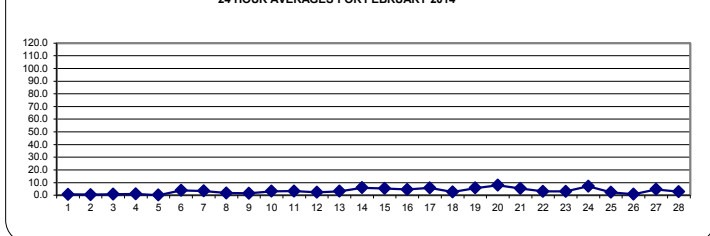
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 24-HR 30 ug/m3

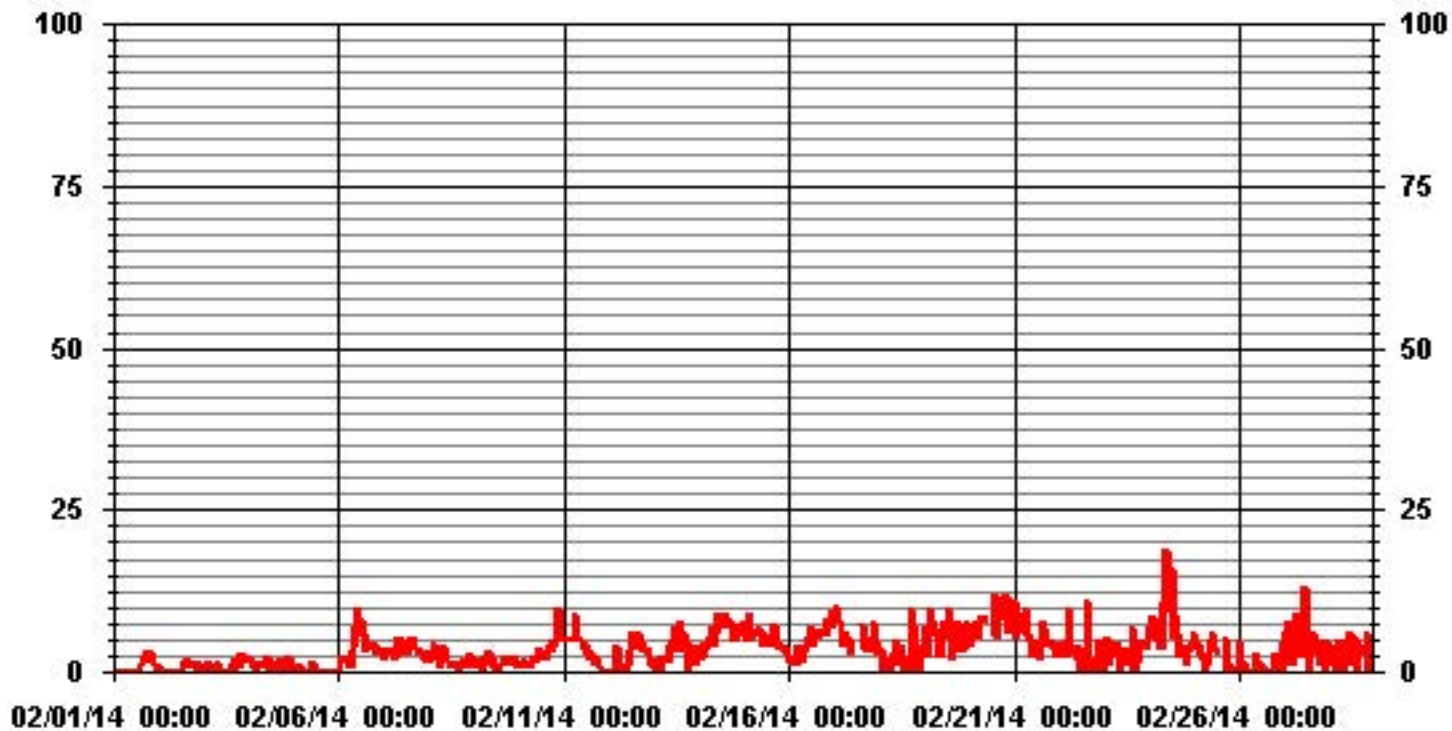
MONTHLY SUMMARY

| | | | | | |
|------------------------------|-----------|-----------------------|------------|-------------|----|
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF NON-ZERO READINGS: | 531 | | | | |
| MAXIMUM 1-HR AVERAGE: | 19 ug/m3 | @ HOUR(S) | 9 | ON DAY(S) | 24 |
| MAXIMUM 24-HR AVERAGE: | 8.0 ug/m3 | | | ON DAY(S) | 20 |
| | | | | VAR-VARIOUS | |
| MONTHLY CALIBRATION TIME: | 10 HRS | OPERATIONAL TIME: | 670 HRS | | |
| | | AMD OPERATION UPTIME: | 99.7 % | | |
| STANDARD DEVIATION: | 2.88 | MONTHLY AVERAGE: | 3.26 ug/m3 | | |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



LICA31
 PM2 / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : PM2
 Units : UG/M3

Wind Parameter : WDR
 Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 30 | 10.45 | 5.30 | 2.57 | 4.24 | 6.81 | 6.66 | 2.87 | 2.72 | 6.06 | 4.69 | 6.51 | 8.33 | 7.12 | 2.57 | 7.87 | 15.15 | 100.00 |
| < 60 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 80 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 120 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 240 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 240 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.45 | 5.30 | 2.57 | 4.24 | 6.81 | 6.66 | 2.87 | 2.72 | 6.06 | 4.69 | 6.51 | 8.33 | 7.12 | 2.57 | 7.87 | 15.15 | |

Calm : .00 %

Total # Operational Hours : 660

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 30 | 69 | 35 | 17 | 28 | 45 | 44 | 19 | 18 | 40 | 31 | 43 | 55 | 47 | 17 | 52 | 100 | 660 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 80 | | | | | | | | | | | | | | | | | |
| < 120 | | | | | | | | | | | | | | | | | |
| < 240 | | | | | | | | | | | | | | | | | |
| >= 240 | | | | | | | | | | | | | | | | | |
| Totals | 69 | 35 | 17 | 28 | 45 | 44 | 19 | 18 | 40 | 31 | 43 | 55 | 47 | 17 | 52 | 100 | |

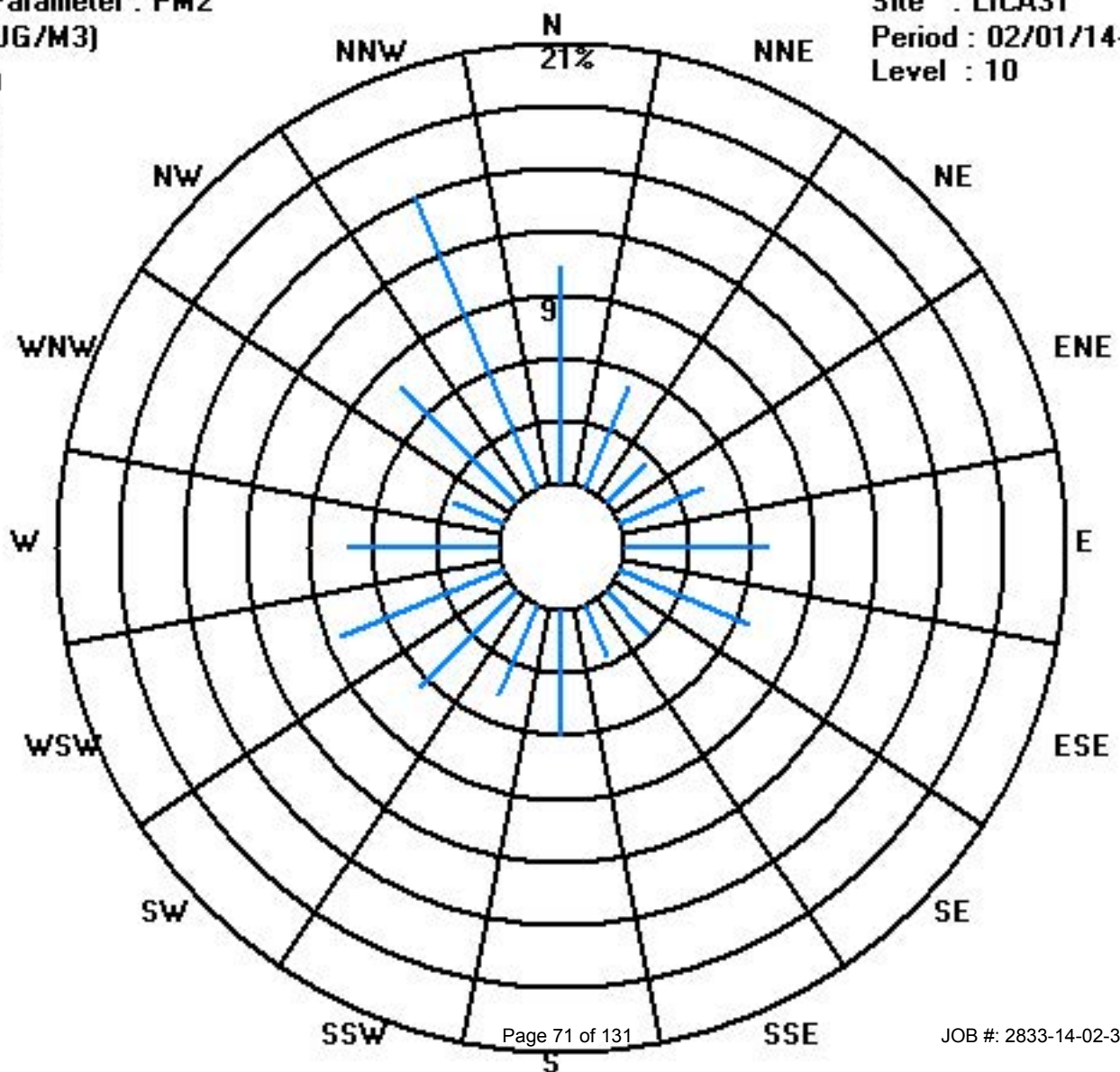
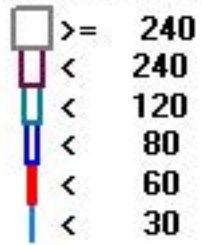
Calm : .00 %

Total # Operational Hours : 660

Class Limits (UG/M3)

Period : 02/01/14-02/28/14

Level : 10



Temperature

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

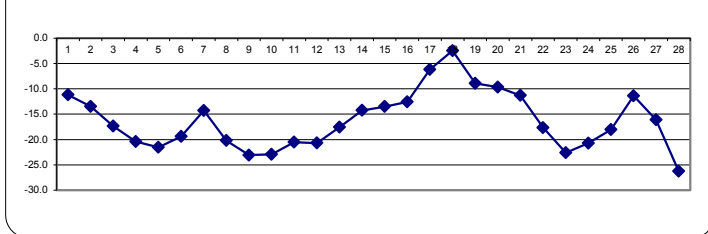
AMBIENT TEMPERATURE (TPX) hourly averages in Degrees Celsius

| 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 MAX. | 24-HOUR AVG. | RDGS |
|------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|------|
| DAY | DAY | 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 | 0:00 | | | |
| 1 | 1 | -13.8 | -13.8 | -14 | -13.8 | -13.6 | -13.4 | -13.3 | -13.2 | -12.7 | -11.2 | -10.1 | -9.2 | -8.6 | -8.7 | -8.6 | -7.7 | -9.2 | -10.2 | -10.7 | -11 | -10.9 | -10.3 | -10 | -10.8 | -7.7 | -11.2 | 24 |
| 2 | 2 | -11.7 | -12.6 | -13 | -13.3 | -13.3 | -13.8 | -13.7 | -13.8 | -13.6 | -13 | -12.4 | -11.3 | -10.9 | -10.7 | -11 | -11.9 | -14 | -15.3 | -15.7 | -15.7 | -15.6 | -16 | -15.7 | -15.4 | -10.7 | -13.5 | 24 |
| 3 | 3 | -15.1 | -15 | -15.4 | -15.7 | -16.3 | -16.8 | -17.2 | -18 | -18.7 | -17.2 | -15.5 | -15 | -16.2 | -16.4 | -16.5 | -16.8 | -17.1 | -17.6 | -18.3 | -18.9 | -19.6 | -20.2 | -20.9 | -21.7 | -15 | -17.3 | 24 |
| 4 | 4 | -21.7 | -21.4 | -21.2 | -21.1 | -21.3 | -22.2 | -22.8 | -22.3 | -21.7 | -20.8 | -19.7 | -18.6 | -17.7 | -17.2 | -17 | -16.5 | -16.7 | -19.6 | -20.3 | -20.7 | -21 | -21.6 | -22.8 | -23.8 | -16.5 | -20.4 | 24 |
| 5 | 5 | -24.1 | -23.9 | -23.6 | -24.2 | -24.8 | -24.7 | -24.8 | -24.9 | -24.4 | -21.2 | -19.2 | -18.7 | -16.6 | -15.2 | -14.6 | -15 | -16.5 | -20.7 | -21.9 | -22.3 | -23.1 | -23.7 | -24.3 | -24.7 | -14.6 | -21.5 | 24 |
| 6 | 6 | -24.8 | -24.9 | -25.3 | -25.2 | -25.4 | -25.5 | -25.3 | -26.1 | -25 | -22.3 | -19.2 | -16.8 | -15.1 | -14 | -13.7 | -13.1 | -13.6 | -15.1 | -16.2 | -16.8 | -15.8 | -15.2 | -15.6 | -15.6 | -13.1 | -19.4 | 24 |
| 7 | 7 | -16.2 | -16.6 | -16.8 | -16.1 | -16.4 | -16.7 | -16.4 | -16 | -15.9 | -14.7 | -12.3 | -10.9 | -8.4 | -7.4 | -8.5 | -11.1 | -12.7 | -13.4 | -14.1 | -14.1 | -15 | -16.7 | -18.1 | -18.7 | -7.4 | -14.3 | 24 |
| 8 | 8 | -18.4 | -18.8 | -19.8 | -19.9 | -20.3 | -20.8 | -21.1 | -22.4 | -23.2 | -20.9 | -18.3 | -17 | -16.3 | -15.6 | -16.3 | -16.6 | -18.1 | -21.4 | -22.5 | -23 | -23 | -23.2 | -23.8 | -23.8 | -15.6 | -20.2 | 24 |
| 9 | 9 | -24.5 | -25.3 | -25.2 | -24.9 | -24.5 | -24.9 | -25.7 | -26.2 | -26.1 | -24.2 | -21.6 | -20.3 | -18.4 | -17.7 | -17.6 | -18.5 | -20.3 | -22.2 | -23.1 | -23.7 | -24.1 | -24.5 | -24.9 | -25.3 | -17.6 | -23.1 | 24 |
| 10 | 10 | -25.6 | -25.9 | -25.9 | -26 | -26.3 | -26.9 | -27.2 | -27.5 | -26.7 | -26 | -22.5 | -18.6 | -17.5 | -16.2 | -16.3 | -18.1 | -20.8 | -22.9 | -22.8 | -22.6 | -22.4 | -22.1 | -22 | -21.7 | -16.2 | -22.9 | 24 |
| 11 | 11 | -21.8 | -21.5 | -21.7 | -22.5 | -22.7 | -22.8 | -22.3 | -23 | -22.7 | -20.8 | -18.2 | -18 | -16.6 | -17.1 | -17.4 | -17.9 | -18.6 | -19.7 | -20.5 | -21.3 | -21.3 | -21.5 | -21.4 | -21.3 | -16.6 | -20.5 | 24 |
| 12 | 12 | -21.4 | -21.8 | -21.7 | -21.5 | -21.5 | -21.2 | -21 | -20.6 | -20.2 | -20.6 | -20.8 | -21.4 | -20.6 | -20.3 | -19.7 | -19.5 | -19.7 | -20.5 | -20.9 | -20.9 | -20.7 | -20.1 | -20 | -20.1 | -19.5 | -20.7 | 24 |
| 13 | 13 | -20.3 | -20.7 | -21.3 | -21.5 | -21.1 | -20.7 | -20.1 | -19.7 | -19.4 | -18 | -17.1 | -15.6 | -14.5 | -14.4 | -14.2 | -13.5 | -14.2 | -16 | -16.3 | -16.6 | -16.6 | -16.8 | -16.9 | -16.9 | -13.5 | -17.6 | 24 |
| 14 | 14 | -16.7 | -16.2 | -15.9 | -16.4 | -16.9 | -17.2 | -17 | -16.2 | -15.8 | -10.8 | -9.9 | -11.5 | -11 | -11.3 | -11.9 | -9.9 | -11.3 | -13.6 | -14.3 | -15 | -15.1 | -15.7 | -16.2 | -16.1 | -9.9 | -14.2 | 24 |
| 15 | 15 | -15.9 | -15.9 | -15.9 | -15 | -14.5 | -14.7 | -15.6 | -16.5 | -15.6 | -13.5 | -12 | -10.6 | -9 | -8.2 | -8 | -9.2 | -10.5 | -12.4 | -13.4 | -14.2 | -15 | -15.9 | -16.3 | -16.2 | -8 | -13.5 | 24 |
| 16 | 16 | -16.2 | -16.4 | -16.3 | -15.6 | -14.9 | -14.2 | -13.5 | -13.1 | -12.9 | -13.2 | -13.3 | -13.1 | -12.3 | -11.1 | -10.3 | -10 | -10.2 | -10.7 | -10.9 | -10.4 | -10 | -9.9 | -11.6 | -12.1 | -9.9 | -12.6 | 24 |
| 17 | 17 | -12.4 | -12.1 | -11.7 | -11.4 | -11.5 | -12.4 | -11.7 | -12.4 | -10.8 | -9.1 | -7.8 | -5.5 | -1.5 | 3 | 4.2 | 1.6 | 0.2 | -1.2 | -2.5 | -3.4 | -4.6 | -5.3 | -5.5 | -4.9 | 4.2 | -6.2 | 24 |
| 18 | 18 | -3.3 | -3.6 | -3.4 | -3.8 | -4.3 | -4.6 | -5.2 | -5.7 | -4.1 | -2.2 | -0.3 | 1.9 | 1.7 | 2.2 | 2.4 | 2.2 | 1.7 | -1 | -2.9 | -4.2 | -5.5 | -5.6 | -5.2 | -6.7 | 2.4 | -2.5 | 24 |
| 19 | 19 | -7.6 | -7.5 | -9.7 | -10.9 | -11.4 | -11.3 | -11.4 | -11.5 | -11.3 | -10.8 | -10.1 | -8.6 | -6.2 | -5.6 | -5.3 | -5.9 | -6.5 | -7.9 | -8.6 | -8.9 | -9.1 | -9.2 | -9 | -9.6 | -5.3 | -8.9 | 24 |
| 20 | 20 | -10.2 | -10.2 | -10.3 | -10.4 | -10.1 | -9.7 | -9.1 | -9 | -8.9 | -8.7 | -8.5 | -8.2 | -8.3 | -8.7 | -8.3 | -8.8 | -9.7 | -10.4 | -10.6 | -10.7 | -10.7 | -10.8 | -10.8 | -10.7 | -8.2 | -9.7 | 24 |
| 21 | 21 | -10.8 | -11.1 | -11.1 | -10.9 | -11 | -11.6 | -11.7 | -11.8 | -11.1 | -9.9 | -8.8 | -5.8 | -6.3 | -6.2 | -8.2 | -9.4 | -11.3 | -12.9 | -13.9 | -14.2 | -14.8 | -15.6 | -16.2 | -16.9 | -5.8 | -11.3 | 24 |
| 22 | 22 | -17.2 | -17.4 | -18.6 | -19.7 | -19.7 | -19.5 | -19.5 | -19.2 | -18.7 | -18.1 | -16.3 | -14.6 | -11.9 | -11.1 | -12.3 | -13.4 | -14.8 | -17.4 | -19 | -19 | -19.9 | -21.5 | -21.7 | -23.1 | -11.1 | -17.7 | 24 |
| 23 | 23 | -23.9 | -24.5 | -24.3 | -25.6 | -26.2 | -26.9 | -27.9 | -27.6 | -24.9 | -22.3 | -18.8 | -16.8 | -16.3 | -16.2 | -16.2 | -15.6 | -16.8 | -20.2 | -23.1 | -24 | -25.1 | -26.4 | -26.5 | -26.2 | -15.6 | -22.6 | 24 |
| 24 | 24 | -26.4 | -27.2 | -28 | -28.9 | -27.8 | -28.1 | -29.3 | -28.8 | -26.3 | -23.6 | -19.4 | -16.5 | -14.5 | -13 | -11.9 | -10.9 | -11.4 | -14.2 | -16.2 | -16.8 | -17.9 | -18.8 | -20.2 | -21.3 | -10.9 | -20.7 | 24 |
| 25 | 25 | -21.9 | -22.2 | -22.5 | -22.8 | -23.4 | -23.3 | -24.2 | -24.4 | -21.3 | -18.8 | -16.2 | -14.3 | -13.6 | -12.5 | -11.2 | -11.2 | -12 | -13.9 | -15.6 | -17.1 | -18.2 | -19.3 | -18 | -14.9 | -11.2 | -18.0 | 24 |
| 26 | 26 | -14 | -13.5 | -13.8 | -14.4 | -14.5 | -15.2 | -15.5 | -16.2 | -12.1 | -9.3 | -7.1 | -5.7 | -3.9 | -3.4 | -6.1 | -6.5 | -8.5 | -10.4 | -12.8 | -13.3 | -13.5 | -13.9 | -14.7 | -15.3 | -3.4 | -11.4 | 24 |
| 27 | 27 | -16.1 | -17.1 | -17.5 | -17.4 | -17.6 | -17.7 | -18.2 | -18.2 | -17.4 | -16.3 | -14.1 | -11.4 | -9.8 | -9.2 | -9.3 | -9.4 | -11.3 | -14 | -17.1 | -18.5 | -20 | -21.4 | -22.9 | -24.5 | -9.2 | -16.1 | 24 |
| 28 | 28 | -25.3 | -26.1 | -26.9 | -27.6 | -28.2 | -28.9 | -29 | -28.8 | -26.5 | -25 | -23.7 | -22.8 | -22.3 | -21.8 | -21.9 | -22.6 | -23.4 | -25.2 | -27.4 | -28.2 | -28.8 | -29.4 | -29.8 | -30.1 | -21.8 | -26.2 | 24 |
| HOURLY MAX | | -3.3 | -3.6 | -3.4 | -3.8 | -4.3 | -4.6 | -5.2 | -5.7 | -4.1 | -2.2 | -0.3 | 1.9 | 1.7 | 3 | 4.2 | 2.2 | 1.7 | -1 | -2.5 | -3.4 | -4.6 | -5.3 | -5.2 | -4.9 | | | |
| HOURLY AVG | | -17.8 | -18.0 | -18.2 | -18.4 | -18.6 | -18.8 | -18.9 | -19.0 | -18.1 | -16.5 | -14.8 | -13.4 | -12.2 | -11.6 | -11.6 | -12.0 | -13.1 | -15.0 | -16.1 | -16.6 | -17.0 | -17.5 | -17.9 | -18.2 | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

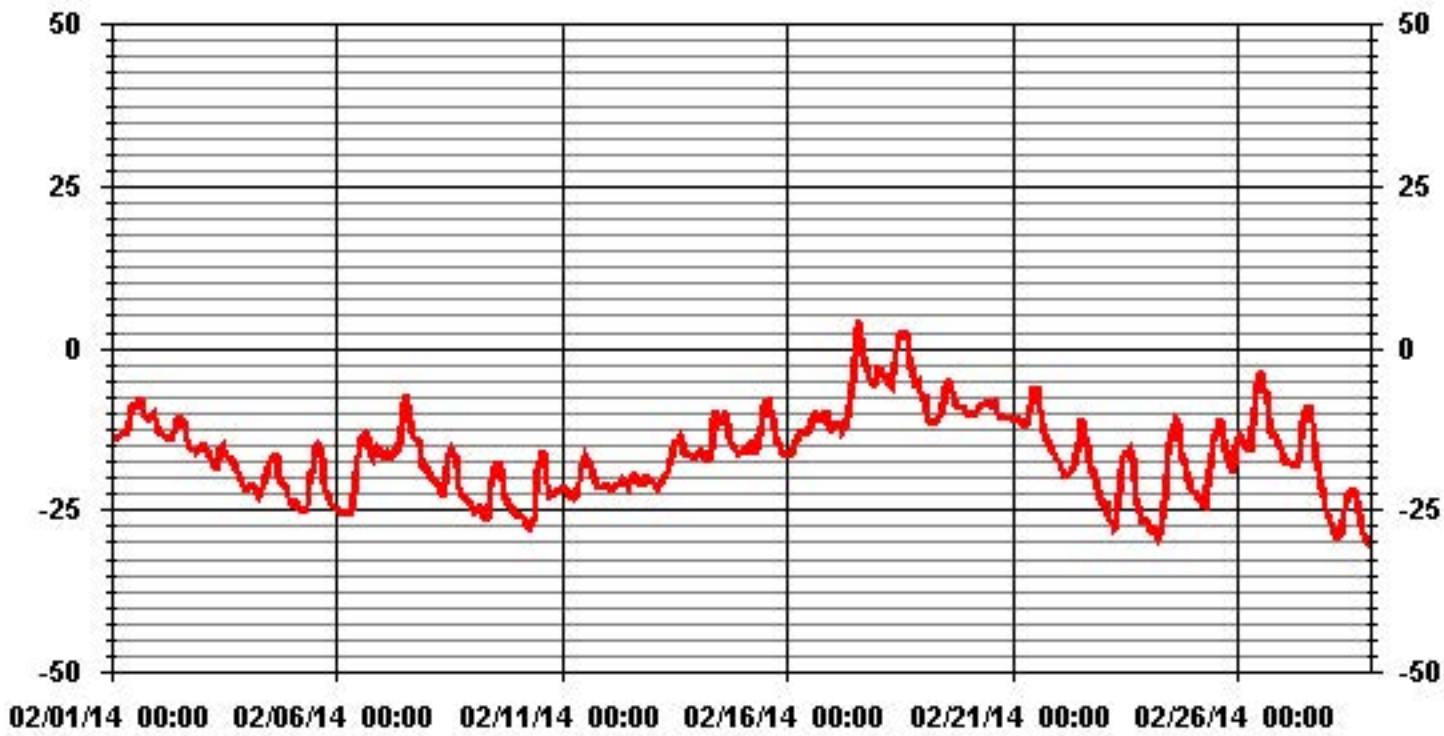
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | |
|------------------------|----------|-----------------------|----|-------------|-----|
| MINIMUM 1-HR AVERAGE: | -30.1 °C | @ HOUR(S) | 23 | ON DAY(S) | 28 |
| MAXIMUM 1-HR AVERAGE: | 4 °C | @ HOUR(S) | 14 | ON DAY(S) | 17 |
| MAXIMUM 24-HR AVERAGE: | -2.5 °C | | | ON DAY(S) | 18 |
| | | | | VAR-VARIOUS | |
| | | OPERATIONAL TIME: | | 672 | HRS |
| | | AMD OPERATION UPTIME: | | 100.0 | % |
| STANDARD DEVIATION: | 6.43 | MONTHLY AVERAGE: | | -16.22 | °C |

01 Hour Averages



— LICA31 TPX DGC

Barometric Pressure

Lakeland Industry & Community Association - St. Lina Site

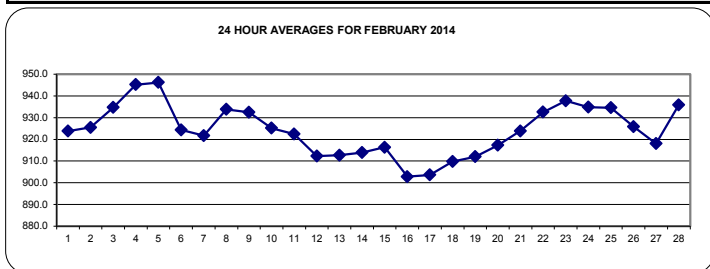
FEBRUARY 2014

BAROMETRIC PRESSURE (BP) hourly averages in millibar

| 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 MAX. | 24-HOUR AVG. | RDGS | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY 1 | 926 | 926 | 926 | 926 | 926 | 926 | 925 | 925 | 925 | 925 | 924 | 924 | 924 | 923 | 922 | 922 | 922 | 922 | 921 | 921 | 922 | 922 | 922 | 923 | 926 | 923.8 | 24 | |
| 2 | 923 | 924 | 924 | 924 | 924 | 925 | 925 | 924 | 924 | 924 | 924 | 924 | 924 | 924 | 925 | 926 | 927 | 927 | 927 | 928 | 928 | 928 | 929 | 929 | 929 | 929 | 925.5 | 24 |
| 3 | 929 | 929 | 930 | 931 | 931 | 932 | 932 | 933 | 933 | 934 | 934 | 935 | 935 | 935 | 936 | 936 | 936 | 937 | 937 | 938 | 939 | 940 | 940 | 941 | 941 | 941 | 934.7 | 24 |
| 4 | 941 | 941 | 942 | 942 | 943 | 943 | 943 | 944 | 944 | 945 | 945 | 946 | 946 | 946 | 946 | 946 | 946 | 947 | 947 | 947 | 948 | 948 | 948 | 949 | 949 | 949 | 945.1 | 24 |
| 5 | 949 | 949 | 950 | 950 | 950 | 950 | 949 | 949 | 949 | 949 | 949 | 948 | 948 | 947 | 946 | 945 | 945 | 944 | 943 | 942 | 941 | 940 | 939 | 937 | 950 | 946.2 | 24 | |
| 6 | 936 | 935 | 934 | 933 | 932 | 931 | 929 | 928 | 927 | 925 | 924 | 923 | 922 | 921 | 920 | 919 | 919 | 918 | 918 | 918 | 918 | 918 | 918 | 918 | 918 | 936 | 924.3 | 24 |
| 7 | 918 | 918 | 918 | 918 | 919 | 919 | 919 | 919 | 920 | 920 | 921 | 921 | 922 | 922 | 922 | 923 | 923 | 924 | 924 | 925 | 925 | 926 | 927 | 927 | 927 | 927 | 921.7 | 24 |
| 8 | 928 | 929 | 929 | 930 | 931 | 931 | 932 | 933 | 933 | 934 | 935 | 935 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 936 | 933.8 | 24 |
| 9 | 935 | 935 | 935 | 934 | 934 | 933 | 933 | 933 | 933 | 933 | 933 | 933 | 933 | 932 | 932 | 932 | 932 | 931 | 931 | 931 | 931 | 930 | 930 | 930 | 930 | 935 | 932.4 | 24 |
| 10 | 930 | 929 | 929 | 929 | 929 | 928 | 928 | 928 | 927 | 927 | 927 | 927 | 926 | 926 | 925 | 924 | 923 | 922 | 921 | 921 | 920 | 919 | 919 | 919 | 919 | 930 | 925.1 | 24 |
| 11 | 919 | 919 | 919 | 919 | 920 | 920 | 920 | 921 | 922 | 922 | 923 | 923 | 924 | 924 | 924 | 925 | 925 | 925 | 925 | 925 | 925 | 925 | 924 | 923 | 925 | 925 | 922.5 | 24 |
| 12 | 922 | 921 | 920 | 918 | 916 | 914 | 912 | 910 | 909 | 908 | 908 | 908 | 908 | 908 | 909 | 910 | 910 | 911 | 911 | 911 | 912 | 912 | 912 | 912 | 912 | 922 | 912.2 | 24 |
| 13 | 912 | 911 | 911 | 911 | 910 | 910 | 910 | 909 | 910 | 910 | 911 | 911 | 912 | 912 | 913 | 914 | 914 | 915 | 916 | 916 | 916 | 916 | 917 | 917 | 917 | 917 | 912.7 | 24 |
| 14 | 916 | 916 | 915 | 915 | 915 | 915 | 915 | 915 | 915 | 915 | 914 | 915 | 914 | 913 | 912 | 912 | 912 | 912 | 912 | 912 | 912 | 913 | 914 | 914 | 915 | 916 | 913.9 | 24 |
| 15 | 916 | 916 | 916 | 917 | 917 | 918 | 918 | 918 | 918 | 919 | 919 | 919 | 919 | 919 | 918 | 918 | 917 | 916 | 915 | 914 | 913 | 912 | 911 | 909 | 919 | 916.3 | 24 | |
| 16 | 908 | 906 | 905 | 904 | 902 | 901 | 901 | 900 | 900 | 900 | 900 | 900 | 900 | 901 | 902 | 902 | 903 | 904 | 904 | 904 | 905 | 905 | 905 | 905 | 905 | 908 | 902.8 | 24 |
| 17 | 905 | 904 | 904 | 904 | 903 | 903 | 902 | 902 | 902 | 902 | 902 | 903 | 903 | 904 | 904 | 904 | 904 | 904 | 904 | 905 | 904 | 905 | 905 | 905 | 905 | 905 | 903.6 | 24 |
| 18 | 906 | 907 | 908 | 908 | 908 | 909 | 910 | 910 | 911 | 911 | 911 | 912 | 912 | 912 | 912 | 912 | 911 | 911 | 911 | 911 | 909 | 908 | 907 | 907 | 912 | 909.8 | 24 | |
| 19 | 907 | 907 | 906 | 906 | 906 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 914 | 915 | 916 | 916 | 916 | 917 | 917 | 918 | 918 | 918 | 918 | 918 | 912.0 | 24 |
| 20 | 918 | 918 | 918 | 918 | 918 | 918 | 917 | 917 | 917 | 917 | 917 | 917 | 917 | 917 | 916 | 916 | 917 | 917 | 917 | 917 | 917 | 918 | 918 | 918 | 918 | 918 | 917.3 | 24 |
| 21 | 918 | 918 | 919 | 919 | 920 | 920 | 921 | 921 | 922 | 923 | 923 | 924 | 925 | 925 | 926 | 926 | 926 | 927 | 927 | 928 | 928 | 928 | 929 | 929 | 929 | 929 | 923.8 | 24 |
| 22 | 929 | 929 | 930 | 930 | 930 | 931 | 931 | 931 | 931 | 932 | 932 | 932 | 932 | 933 | 933 | 933 | 933 | 934 | 934 | 935 | 935 | 936 | 936 | 937 | 937 | 937 | 932.5 | 24 |
| 23 | 937 | 937 | 938 | 938 | 938 | 939 | 939 | 939 | 939 | 939 | 939 | 939 | 939 | 939 | 938 | 938 | 937 | 937 | 937 | 937 | 936 | 936 | 936 | 936 | 936 | 939 | 937.7 | 24 |
| 24 | 936 | 936 | 935 | 935 | 935 | 934 | 934 | 934 | 934 | 934 | 933 | 934 | 934 | 933 | 934 | 934 | 934 | 934 | 935 | 935 | 936 | 937 | 938 | 938 | 938 | 938 | 934.8 | 24 |
| 25 | 939 | 939 | 940 | 940 | 940 | 940 | 939 | 939 | 939 | 938 | 938 | 937 | 936 | 935 | 934 | 933 | 932 | 930 | 929 | 928 | 927 | 926 | 926 | 925 | 940 | 934.5 | 24 | |
| 26 | 925 | 925 | 925 | 925 | 925 | 926 | 926 | 926 | 927 | 927 | 928 | 929 | 929 | 928 | 927 | 927 | 926 | 925 | 925 | 924 | 923 | 923 | 922 | 929 | 925.8 | 24 | | |
| 27 | 921 | 920 | 919 | 918 | 917 | 916 | 914 | 914 | 914 | 913 | 913 | 913 | 913 | 914 | 915 | 916 | 918 | 919 | 921 | 922 | 924 | 926 | 927 | 928 | 928 | 918.1 | 24 | |
| 28 | 929 | 930 | 931 | 931 | 932 | 932 | 933 | 934 | 934 | 934 | 935 | 935 | 936 | 936 | 937 | 937 | 938 | 939 | 940 | 940 | 941 | 941 | 942 | 942 | 942 | 942 | 935.8 | 24 |
| HOURLY MAX | 949 | 949 | 950 | 950 | 950 | 950 | 949 | 949 | 949 | 949 | 949 | 948 | 948 | 947 | 946 | 946 | 946 | 947 | 947 | 947 | 947 | 948 | 948 | 948 | 949 | | | |
| HOURLY AVG | 924.2 | 924.1 | 924.1 | 924.0 | 924.0 | 923.9 | 923.7 | 923.7 | 923.8 | 923.9 | 924.1 | 924.2 | 924.4 | 924.2 | 924.1 | 924.3 | 924.4 | 924.5 | 924.4 | 924.6 | 924.6 | 924.8 | 924.8 | 924.8 | 924.8 | | | |

STATUS FLAG CODES

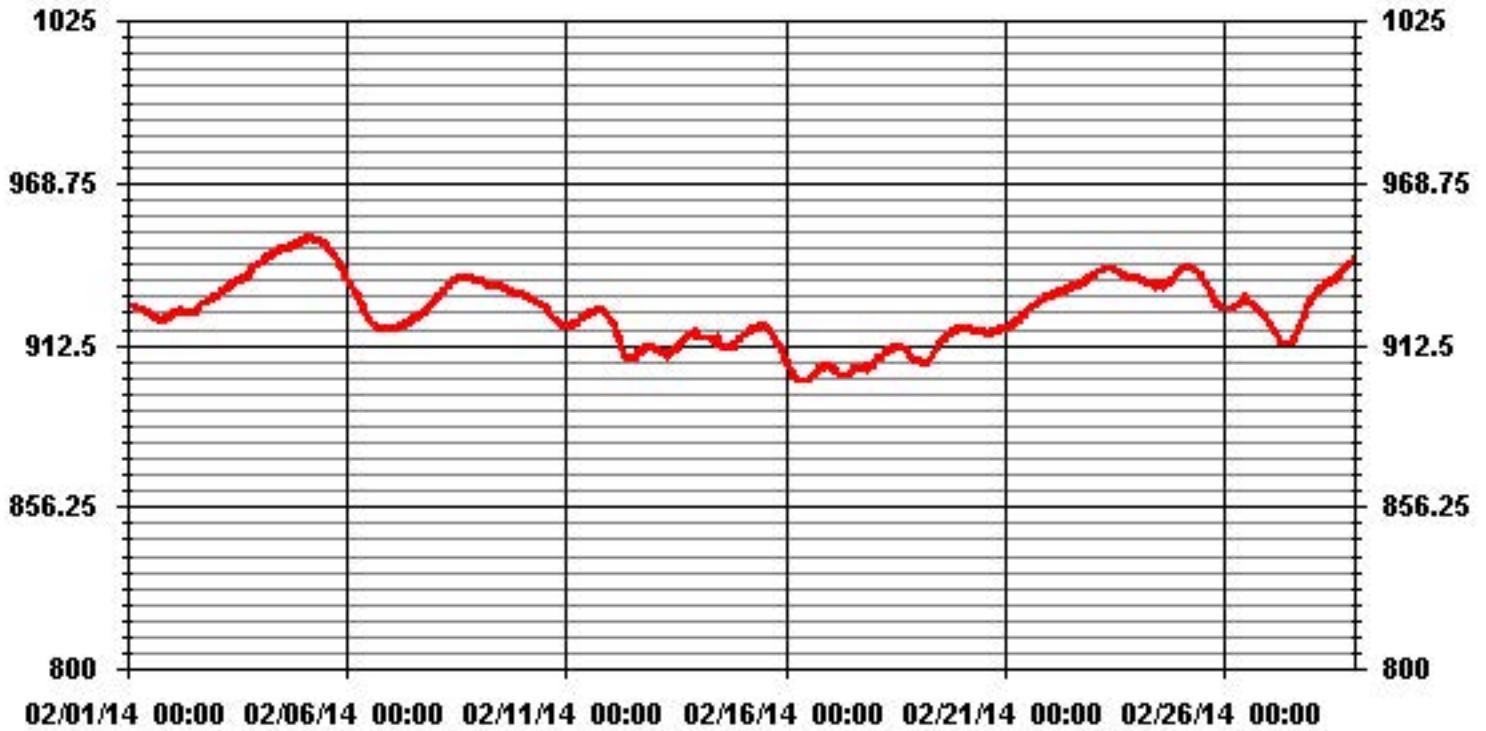
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | |
|------------------------|----------|-----------|-----------------------|-------------|-----|
| MAXIMUM 1-HR AVERAGE: | 950 MB | @ HOUR(S) | VAR | ON DAY(S) | 5 |
| MAXIMUM 24-HR AVERAGE: | 946.2 MB | | | ON DAY(S) | 5 |
| | | | | VAR-VARIOUS | |
| | | | OPERATIONAL TIME: | 672 | HRS |
| | | | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 11.72 | | MONTHLY AVERAGE: | 924.23 | MB |

01 Hour Averages



Relative Humidity

Lakeland Industry & Community Association - St. Lina Site

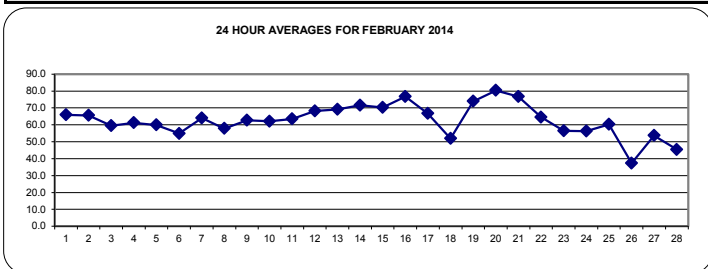
FEBRUARY 2014

RELATIVE HUMIDITY (RH) hourly averages in %

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 67 | 67 | 69 | 69 | 70 | 71 | 71 | 71 | 70 | 65 | 61 | 57 | 55 | 56 | 56 | 55 | 61 | 65 | 66 | 69 | 77 | 79 | 70 | 67 | 79 | 66.0 | 24 | |
| 2 | 67 | 66 | 67 | 69 | 67 | 66 | 67 | 68 | 68 | 66 | 65 | 64 | 62 | 64 | 64 | 66 | 66 | 65 | 64 | 63 | 62 | 64 | 66 | 68 | 69 | 65.6 | 24 | |
| 3 | 70 | 66 | 67 | 66 | 64 | 64 | 63 | 63 | 64 | 59 | 52 | 50 | 53 | 54 | 54 | 55 | 50 | 52 | 64 | 61 | 59 | 59 | 59 | 60 | 70 | 59.5 | 24 | |
| 4 | 61 | 63 | 65 | 66 | 64 | 67 | 67 | 66 | 65 | 62 | 59 | 57 | 55 | 54 | 54 | 51 | 51 | 59 | 63 | 63 | 62 | 64 | 65 | 66 | 67 | 61.2 | 24 | |
| 5 | 68 | 67 | 66 | 67 | 68 | 68 | 68 | 68 | 66 | 56 | 52 | 52 | 48 | 44 | 43 | 44 | 47 | 58 | 61 | 63 | 64 | 65 | 67 | 68 | 68 | 59.9 | 24 | |
| 6 | 67 | 67 | 68 | 68 | 68 | 67 | 67 | 67 | 63 | 58 | 55 | 48 | 44 | 41 | 41 | 41 | 41 | 44 | 48 | 50 | 47 | 47 | 53 | 58 | 68 | 54.9 | 24 | |
| 7 | 60 | 62 | 62 | 62 | 62 | 64 | 65 | 66 | 67 | 62 | 60 | 51 | 47 | 50 | 60 | 65 | 70 | 74 | 74 | 72 | 70 | 71 | 72 | 74 | 74 | 64.0 | 24 | |
| 8 | 71 | 70 | 69 | 69 | 67 | 65 | 65 | 64 | 63 | 54 | 45 | 41 | 40 | 39 | 42 | 43 | 46 | 55 | 59 | 61 | 63 | 64 | 66 | 67 | 71 | 57.8 | 24 | |
| 9 | 68 | 71 | 70 | 70 | 68 | 68 | 68 | 68 | 64 | 60 | 56 | 55 | 49 | 49 | 51 | 51 | 55 | 61 | 65 | 67 | 68 | 68 | 68 | 68 | 71 | 62.8 | 24 | |
| 10 | 67 | 67 | 67 | 67 | 66 | 65 | 65 | 65 | 64 | 64 | 65 | 58 | 54 | 49 | 47 | 50 | 56 | 62 | 63 | 64 | 65 | 65 | 67 | 67 | 67 | 62.0 | 24 | |
| 11 | 67 | 67 | 67 | 69 | 70 | 69 | 70 | 69 | 68 | 64 | 56 | 56 | 51 | 52 | 53 | 54 | 56 | 60 | 64 | 67 | 69 | 70 | 68 | 68 | 70 | 63.5 | 24 | |
| 12 | 66 | 66 | 65 | 66 | 67 | 68 | 69 | 69 | 69 | 69 | 68 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 68.2 | 24 | |
| 13 | 70 | 70 | 70 | 70 | 69 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 66 | 67 | 70 | 71 | 70 | 68 | 69 | 69 | 69 | 71 | 69.2 | 24 | |
| 14 | 69 | 71 | 73 | 73 | 74 | 75 | 75 | 74 | 74 | 67 | 64 | 71 | 70 | 67 | 70 | 63 | 65 | 71 | 73 | 74 | 74 | 76 | 77 | 76 | 77 | 71.5 | 24 | |
| 15 | 75 | 75 | 75 | 76 | 76 | 76 | 75 | 75 | 74 | 71 | 64 | 59 | 56 | 57 | 58 | 61 | 65 | 70 | 73 | 74 | 76 | 76 | 75 | 75 | 76 | 70.3 | 24 | |
| 16 | 75 | 75 | 75 | 75 | 76 | 76 | 77 | 77 | 77 | 77 | 76 | 75 | 76 | 75 | 76 | 76 | 77 | 77 | 78 | 79 | 79 | 79 | 79 | 79 | 79 | 76.7 | 24 | |
| 17 | 79 | 79 | 78 | 78 | 77 | 78 | 76 | 76 | 76 | 72 | 70 | 65 | 51 | 41 | 42 | 48 | 50 | 58 | 64 | 67 | 70 | 70 | 69 | 68 | 79 | 66.8 | 24 | |
| 18 | 64 | 64 | 62 | 62 | 64 | 64 | 63 | 61 | 53 | 47 | 41 | 37 | 36 | 35 | 36 | 38 | 39 | 45 | 50 | 54 | 59 | 59 | 55 | 58 | 64 | 51.9 | 24 | |
| 19 | 61 | 63 | 70 | 74 | 78 | 80 | 80 | 80 | 79 | 79 | 78 | 75 | 67 | 65 | 65 | 67 | 70 | 75 | 77 | 77 | 78 | 79 | 78 | 79 | 80 | 73.9 | 24 | |
| 20 | 81 | 81 | 80 | 80 | 81 | 81 | 82 | 82 | 82 | 81 | 81 | 80 | 79 | 79 | 79 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 82 | 80.4 | 24 |
| 21 | 80 | 80 | 80 | 80 | 80 | 80 | 79 | 79 | 79 | 79 | 79 | 78 | 77 | 74 | 74 | 73 | 74 | 74 | 75 | 75 | 74 | 72 | 72 | 74 | 80 | 76.7 | 24 | |
| 22 | 73 | 73 | 72 | 73 | 72 | 71 | 71 | 71 | 70 | 68 | 63 | 60 | 54 | 50 | 49 | 50 | 54 | 62 | 68 | 66 | 67 | 67 | 62 | 63 | 73 | 64.5 | 24 | |
| 23 | 65 | 67 | 67 | 69 | 69 | 68 | 67 | 66 | 61 | 55 | 46 | 39 | 37 | 38 | 38 | 37 | 39 | 47 | 56 | 58 | 63 | 67 | 69 | 67 | 69 | 56.5 | 24 | |
| 24 | 67 | 67 | 67 | 66 | 66 | 65 | 65 | 63 | 58 | 56 | 52 | 44 | 41 | 39 | 37 | 37 | 41 | 49 | 56 | 59 | 59 | 62 | 66 | 70 | 70 | 56.3 | 24 | |
| 25 | 71 | 72 | 72 | 73 | 73 | 72 | 70 | 68 | 63 | 56 | 51 | 47 | 46 | 46 | 46 | 47 | 48 | 53 | 58 | 61 | 64 | 68 | 66 | 55 | 73 | 60.3 | 24 | |
| 26 | 52 | 51 | 51 | 52 | 52 | 55 | 58 | 58 | 46 | 42 | 33 | 21 | 15 | 17 | 21 | 19 | 24 | 26 | 27 | 28 | 32 | 33 | 39 | 42 | 58 | 37.3 | 24 | |
| 27 | 43 | 51 | 58 | 63 | 65 | 65 | 66 | 66 | 64 | 60 | 55 | 48 | 47 | 44 | 40 | 44 | 45 | 48 | 51 | 51 | 52 | 54 | 53 | 55 | 66 | 53.7 | 24 | |
| 28 | 55 | 56 | 59 | 61 | 62 | 64 | 63 | 61 | 50 | 46 | 40 | 37 | 35 | 32 | 30 | 30 | 30 | 33 | 37 | 39 | 41 | 42 | 43 | 44 | 64 | 45.4 | 24 | |
| HOURLY MAX | 81 | 81 | 80 | 80 | 81 | 81 | 82 | 82 | 82 | 81 | 81 | 80 | 79 | 79 | 79 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | | | |
| HOURLY AVG | 67.1 | 67.6 | 68.3 | 69.0 | 69.1 | 69.4 | 69.4 | 69.0 | 66.7 | 63.2 | 59.2 | 56.1 | 53.0 | 51.5 | 51.9 | 52.6 | 54.6 | 59.2 | 62.7 | 63.7 | 64.8 | 65.6 | 65.8 | 66.2 | | | | |

STATUS FLAG CODES

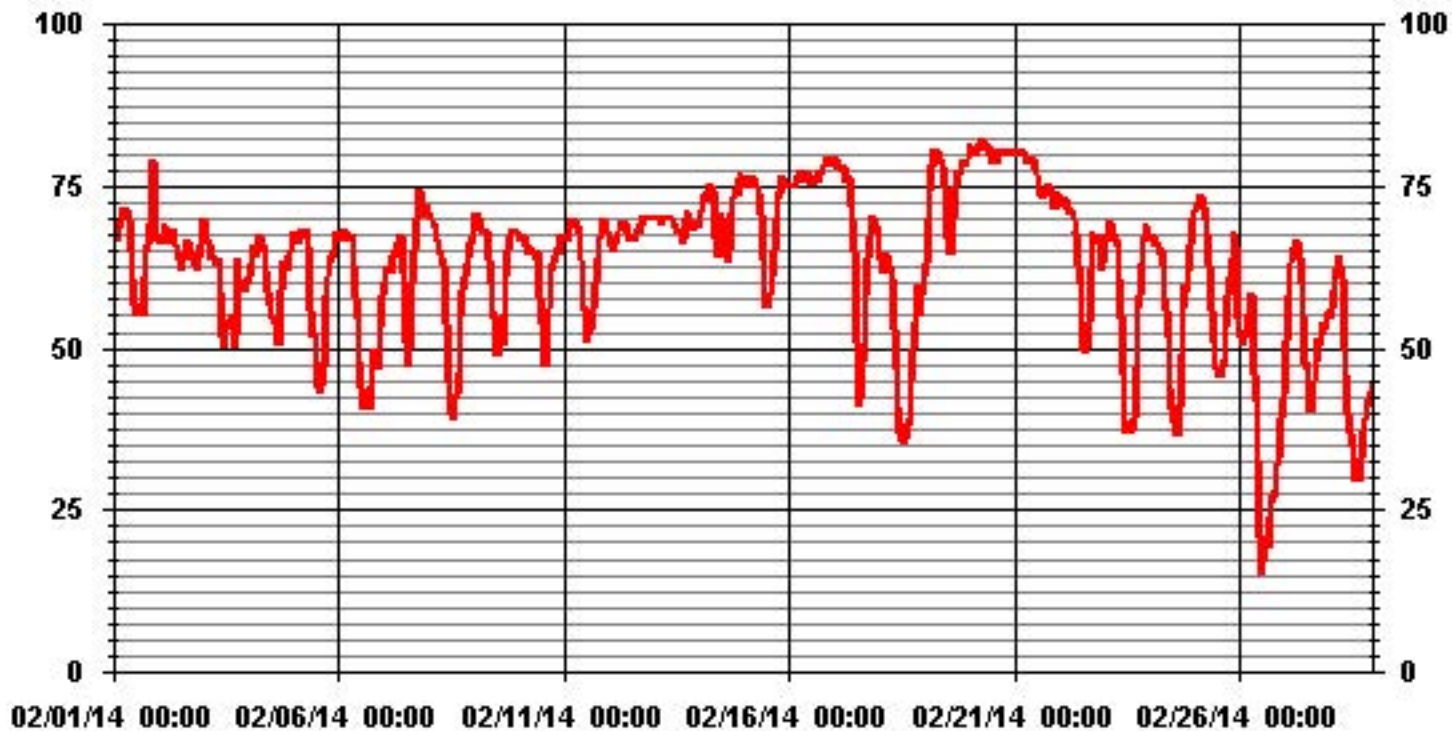
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------|-------|---|-----------|-----------------------|-------------|-----|
| MAXIMUM 1-HR AVERAGE: | 82 | % | @ HOUR(S) | VAR | ON DAY(S) | 20 |
| MAXIMUM 24-HR AVERAGE: | 80.4 | % | | | ON DAY(S) | 20 |
| | | | | | VAR-VARIOUS | |
| | | | | OPERATIONAL TIME: | 672 | HRS |
| | | | | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 12.23 | | | MONTHLY AVERAGE: | 62.74 | % |

01 Hour Averages



Precipitation

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

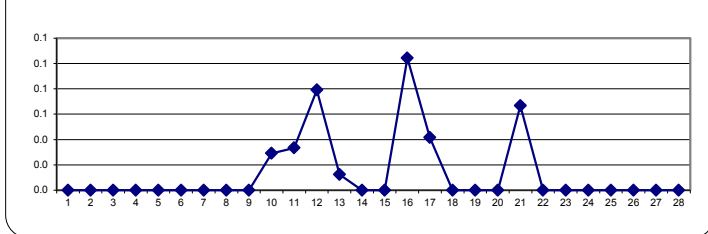
PRECIPITATION hourly averages in millimeter

| 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 | 0:00 | DAILY MAX. | 24-HOUR AVG. | RDGS | |
|------------|----|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------|--------------|------|----|
| DAY | 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 | 0.0 | 24 | |
| | 2 | 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 | |
| | 3 | 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 | |
| | 4 | 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 | |
| | 5 | 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 | |
| | 6 | 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 | |
| | 7 | 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 | |
| | 8 | 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 | |
| | 9 | 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 | |
| | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.6 | 0.6 | 0.0 | 24 |
| | 11 | 0.2 | 0.1 | 0.3 | 0 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.0 | 24 |
| | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0.2 | 0.4 | 0.2 | 0.6 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.1 | 24 |
| | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| | 14 | 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 |
| | 15 | 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 |
| | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0.1 | 0.8 | 0.8 | 0.2 | 0 | 0.2 | 0.2 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0.1 | 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 | 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 | 24 |
| | 19 | 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 |
| | 20 | 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 |
| | 21 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0.1 | 0.2 | 0.2 | 0.6 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.1 | 24 |
| | 22 | 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 |
| | 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 | 24 |
| | 24 | 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 |
| | 25 | 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 |
| | 26 | 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 |
| | 27 | 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 |
| | 28 | 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 | | 0.2 | 0.1 | 0.3 | 0 | 0.1 | 0.2 | 0.1 | 0 | 0.1 | 0.8 | 1 | 0.6 | 0.2 | 0.6 | 0.2 | 0.1 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0.1 | 0.6 | | | | |
| HOURLY AVG | | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

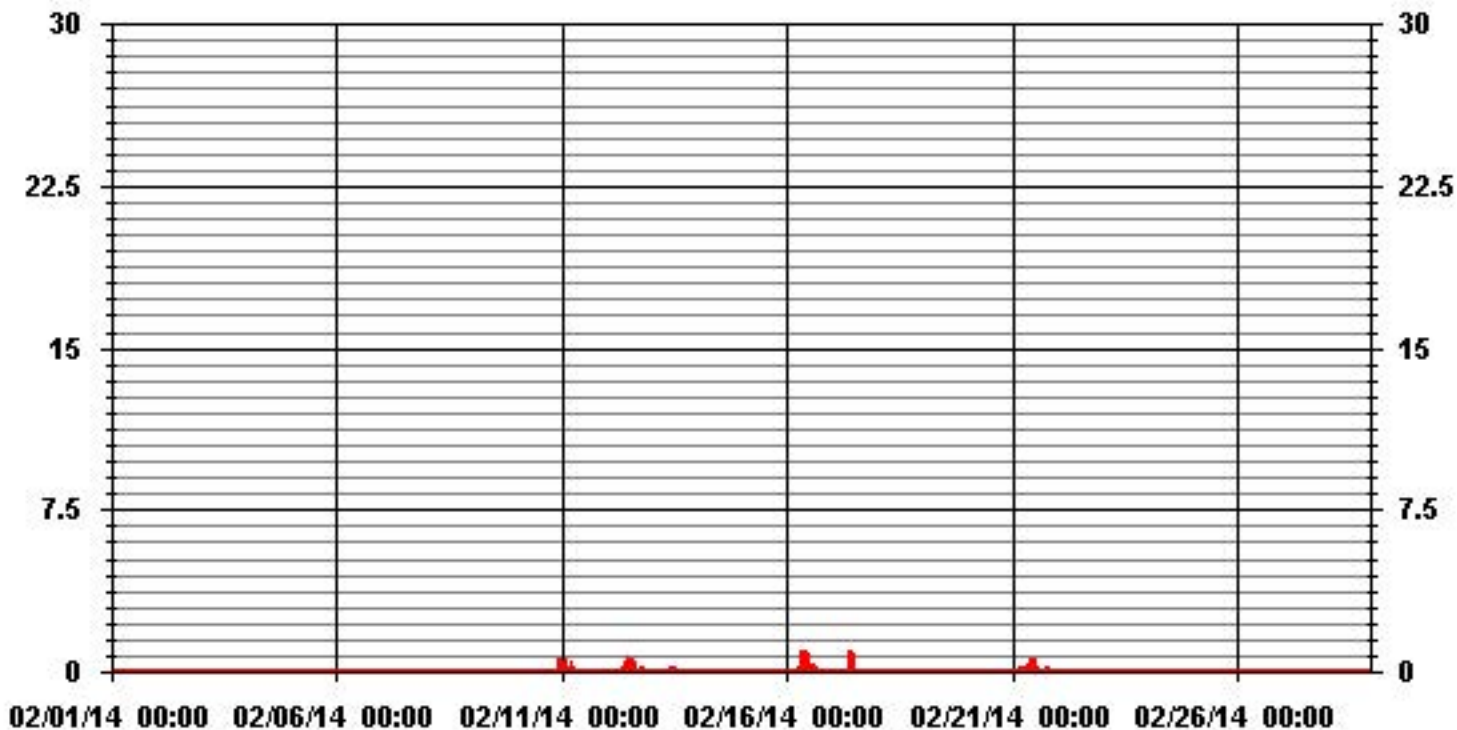
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | | |
|------------------------|------|----|-----------|----|-----------------------|---------|
| MAXIMUM 1-HR AVERAGE: | 1 | MM | @ HOUR(S) | 10 | ON DAY(S) | 17 |
| MAXIMUM 24-HR AVERAGE: | 0.1 | MM | | | ON DAY(S) | VAR |
| | | | | | VAR-VARIOUS | |
| | | | | | OPERATIONAL TIME: | 672 HRS |
| | | | | | AMD OPERATION UPTIME: | 100.0 % |
| STANDARD DEVIATION: | 0.08 | | | | MONTHLY AVERAGE: | 0.01 MM |

01 Hour Averages



— LICA31 PRECIP MM

Vector Wind Speed

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

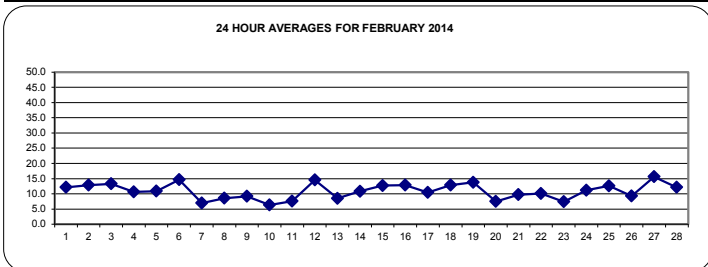
WIND SPEED (WS) hourly averages in km/hr

| 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 MAX. | 24-HOUR AVG. | RDGS | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|-------------|--------------|------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 9.2 | 7.4 | 5.2 | 5.8 | 5.7 | 7.6 | 6.5 | 6.1 | 6.4 | 9.4 | 15.1 | 17.8 | 19.2 | 22.9 | 18.9 | 18.8 | 17.5 | 14.3 | 12 | 9.7 | 11.2 | 10.9 | 16.1 | 17.1 | 22.9 | 12.1 | 24 | |
| 2 | 15.9 | 17.1 | 17.1 | 13.1 | 14.8 | 16.8 | 15.2 | 15.5 | 14.2 | 15.1 | 16.9 | 15.4 | 16.9 | 14.1 | 16.8 | 14.9 | 14.5 | 9.1 | 4.7 | 5 | 1.8 | 6 | 8.7 | 8.9 | 17.1 | 12.9 | 24 | |
| 3 | 9.1 | 13.2 | 14.9 | 15 | 14 | 12.4 | 14.6 | 13.1 | 12.5 | 12.1 | 15.1 | 16 | 15.9 | 14.4 | 14.8 | 13.8 | 13.4 | 13.6 | 14.9 | 11.2 | 13.8 | 11.9 | 11.3 | 8.1 | 16.0 | 13.3 | 24 | |
| 4 | 10.1 | 10.2 | 8.6 | 11 | 11.7 | 9.5 | 10.5 | 7.1 | 10.2 | 11.7 | 12.3 | 12.7 | 12.3 | 11.5 | 11.2 | 11 | 9.9 | 10.6 | 11.5 | 11.4 | 10.7 | 10.3 | 10.2 | 9.7 | 12.7 | 10.7 | 24 | |
| 5 | 9 | 10.6 | 9.8 | 8.8 | 8.5 | 7.2 | 8.1 | 8.7 | 12 | 9.1 | 10.7 | 10.1 | 11 | 11.6 | 9.8 | 9.9 | 8.7 | 14.4 | 17.4 | 18.3 | 14.4 | 10.7 | 10.8 | 11.9 | 18.3 | 10.9 | 24 | |
| 6 | 14.1 | 13.1 | 14.5 | 13.3 | 13.3 | 15.1 | 15.7 | 13.6 | 14.2 | 15.7 | 16 | 20.4 | 15.9 | 18.7 | 21 | 16.9 | 14.9 | 13.6 | 10.8 | 10.7 | 12.1 | 14.9 | 12.1 | 10.9 | 21.0 | 14.6 | 24 | |
| 7 | 11 | 8.9 | 8.1 | 7.9 | 4.2 | 5.7 | 6.9 | 6.7 | 5.5 | 3.9 | 0.7 | 2.4 | 3.1 | 4.4 | 5.7 | 7.1 | 7.2 | 6.8 | 6.7 | 7.8 | 13.1 | 13.6 | 10.7 | 9 | 13.6 | 7.0 | 24 | |
| 8 | 6.1 | 5.9 | 8.3 | 6.8 | 10.4 | 10.5 | 8.2 | 10.4 | 12 | 9 | 7.7 | 7.4 | 7.8 | 7.9 | 10.8 | 9 | 8.9 | 8.5 | 9 | 9.5 | 9.9 | 9.3 | 5.8 | 6 | 12.0 | 8.5 | 24 | |
| 9 | 4.4 | 8.5 | 9.1 | 9.4 | 10 | 10 | 6.6 | 9.5 | 8.7 | 8.1 | 6.8 | 8.5 | 8.9 | 7.5 | 9.5 | 8.3 | 7.1 | 8.1 | 10 | 11.2 | 12.8 | 12.5 | 12.3 | 12 | 12.8 | 9.2 | 24 | |
| 10 | 11.2 | 8.7 | 11.3 | 9.8 | 7.6 | 6.1 | 7.1 | 7.6 | 7.8 | 10 | 5.5 | 4.2 | 4.5 | 3.4 | 2.3 | 4.1 | 5.4 | 4.9 | 3.5 | 4.1 | 5.2 | 6 | 7.1 | 4.8 | 11.3 | 6.3 | 24 | |
| 11 | 6.1 | 6.6 | 7.9 | 8.4 | 8.3 | 9.7 | 7.1 | 8.8 | 10.2 | 7.7 | 7.1 | 9.4 | 10.1 | 10 | 9.6 | 10.4 | 7.9 | 6.5 | 4.7 | 3.8 | 2.9 | 2.8 | 7.9 | 7.4 | 10.4 | 7.6 | 24 | |
| 12 | 8.7 | 10.6 | 12.8 | 13.7 | 16.5 | 20.1 | 18.7 | 22.2 | 21.4 | 16.7 | 16.6 | 18 | 16.8 | 16.1 | 15.6 | 14.5 | 12.7 | 10 | 11.3 | 11.3 | 8.9 | 9.5 | 14.3 | 12.8 | 22.2 | 14.6 | 24 | |
| 13 | 12.9 | 11.2 | 10.4 | 9 | 9.9 | 11.2 | 9.3 | 9.2 | 9.8 | 9 | 10.2 | 10 | 10.9 | 10.1 | 7.9 | 6.2 | 3.4 | 3.8 | 6.2 | 7.3 | 4.3 | 7.5 | 7.8 | 6.9 | 12.9 | 8.5 | 24 | |
| 14 | 8.3 | 10.7 | 14 | 13.9 | 11.8 | 7.4 | 5.5 | 5.6 | 1.9 | 4.4 | 8.6 | 10.4 | 12.3 | 14.7 | 14.8 | 14.8 | 12.5 | 13.4 | 12.5 | 13.4 | 13.2 | 10.8 | 11.9 | 12.9 | 14.8 | 10.8 | 24 | |
| 15 | 8.8 | 9.7 | 10.4 | 9.1 | 10.6 | 12 | 12.8 | 12.3 | 11.7 | 14.9 | 16 | 17.1 | 15.5 | 12.8 | 10.5 | 10.7 | 9.8 | 11.5 | 13.5 | 12.2 | 12.8 | 15 | 15.9 | 19.1 | 19.1 | 12.7 | 24 | |
| 16 | 19.7 | 21.9 | 22.3 | 19.8 | 20 | 17.8 | 15.6 | 15.7 | 13.1 | 13.3 | 11.8 | 10.9 | 5.6 | 2.4 | 4.4 | 0.3 | 8.7 | 9.8 | 12.8 | 13.6 | 12.7 | 11 | 11.1 | 13.4 | 22.3 | 12.8 | 24 | |
| 17 | 12.2 | 11.9 | 12.9 | 10 | 10.4 | 9.5 | 10.4 | 9 | 8.4 | 8.1 | 7.7 | 9.7 | 10.2 | 12.3 | 11.9 | 9.3 | 13 | 13.1 | 8.6 | 8.1 | 9.5 | 11.4 | 11.4 | 12.1 | 13.1 | 10.5 | 24 | |
| 18 | 12 | 10.9 | 14.3 | 14.2 | 11.3 | 13.9 | 17.6 | 14.9 | 15.4 | 17.5 | 13.2 | 14.7 | 15.4 | 15.2 | 16.5 | 18.2 | 11.4 | 7.5 | 8.4 | 8 | 7.7 | 9 | 9.9 | 12.3 | 18.2 | 12.9 | 24 | |
| 19 | 15.3 | 14.9 | 15.3 | 18.3 | 16.7 | 16.2 | 15.7 | 17 | 17.7 | 18.5 | 17 | 16.9 | 12.5 | 10 | 11 | 11.2 | 12.2 | 12.4 | 11.4 | 7.5 | 9.1 | 10.4 | 11.4 | 11.7 | 18.5 | 13.8 | 24 | |
| 20 | 10.4 | 13.2 | 11.8 | 7 | 6.6 | 5.4 | 5.4 | 6.6 | 6.6 | 6.1 | 5.2 | 6.8 | 9.3 | 8.9 | 8.1 | 8.2 | 8.6 | 7.8 | 7.2 | 6.7 | 6.4 | 5.6 | 6.7 | 6.3 | 13.2 | 7.5 | 24 | |
| 21 | 6.5 | 4.8 | 3.8 | 0.9 | 3.7 | 5.7 | 6.4 | 7.5 | 9.4 | 9.5 | 9.5 | 6.7 | 9.1 | 11.3 | 11.8 | 13.5 | 14.9 | 15.8 | 14.3 | 13.3 | 14.1 | 16.3 | 13.7 | 11.2 | 16.3 | 9.7 | 24 | |
| 22 | 10.2 | 10.6 | 10.8 | 10.7 | 9.5 | 6.9 | 6.2 | 6 | 8.6 | 10 | 8.5 | 8.6 | 9.4 | 10.4 | 11.9 | 12.7 | 9.9 | 10.1 | 9.4 | 12.7 | 12.1 | 11 | 13 | 12.7 | 13.0 | 10.1 | 24 | |
| 23 | 9.7 | 9.2 | 8 | 6.6 | 7.3 | 7.6 | 7 | 6.9 | 9.7 | 8.7 | 7.8 | 7.8 | 7.7 | 8.9 | 8.2 | 4.6 | 5.3 | 2.9 | 4.6 | 5.4 | 6.4 | 7.6 | 10 | 10.3 | 10.3 | 7.4 | 24 | |
| 24 | 10.6 | 9.1 | 9.4 | 9.8 | 12 | 10.9 | 10.3 | 11.4 | 11.4 | 11.9 | 12.1 | 13.1 | 12.4 | 13 | 10.8 | 9.1 | 14.4 | 10.8 | 9.9 | 10.6 | 13.3 | 12.8 | 10.4 | 8.9 | 14.4 | 11.2 | 24 | |
| 25 | 8.2 | 8.6 | 7 | 20.2 | 5.6 | 3.6 | 8.1 | 10.4 | 9.6 | 8.5 | 8.3 | 11.2 | 15 | 19.1 | 19.4 | 20.9 | 17.2 | 17 | 16.4 | 15 | 12.8 | 12.8 | 13.3 | 14.7 | 20.9 | 12.6 | 24 | |
| 26 | 15.7 | 14.3 | 14.7 | 14.5 | 14.3 | 13.4 | 11.1 | 9.2 | 8.3 | 8.4 | 5.8 | 4.5 | 1.4 | 3.7 | 7.3 | 4.4 | 6.3 | 6.1 | 6.8 | 8.6 | 10.6 | 10.8 | 11.8 | 11.7 | 15.7 | 9.3 | 24 | |
| 27 | 12.1 | 12.9 | 12.5 | 10.3 | 9.4 | 10.8 | 10.8 | 6.1 | 8.8 | 9.3 | 9.7 | 12.2 | 16.6 | 19.4 | 23.7 | 24.1 | 25 | 30.5 | 20.8 | 22.5 | 21.4 | 19.4 | 16.2 | 10.5 | 30.5 | 15.6 | 24 | |
| 28 | 12.9 | 12.6 | 11 | 12.3 | 11.7 | 10 | 11 | 9.9 | 9.1 | 13.6 | 15.7 | 15.1 | 15.5 | 15.5 | 14.9 | 14.1 | 12.4 | 11.2 | 10.3 | 9.9 | 11 | 11.2 | 11 | 9 | 15.7 | 12.1 | 24 | |
| HOURLY MAX | 19.7 | 21.9 | 22.3 | 20.2 | 20.0 | 20.1 | 18.7 | 22.2 | 21.4 | 18.5 | 17.0 | 20.4 | 19.2 | 22.9 | 23.7 | 24.1 | 25.0 | 30.5 | 20.8 | 22.5 | 21.4 | 19.4 | 16.2 | 19.1 | | | | |
| HOURLY AVG | 10.7 | 11.0 | 11.3 | 11.1 | 10.6 | 10.5 | 10.3 | 10.3 | 10.5 | 10.7 | 10.6 | 11.4 | 11.5 | 11.8 | 12.1 | 11.5 | 11.2 | 10.9 | 10.3 | 10.3 | 10.5 | 10.8 | 11.2 | 10.8 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

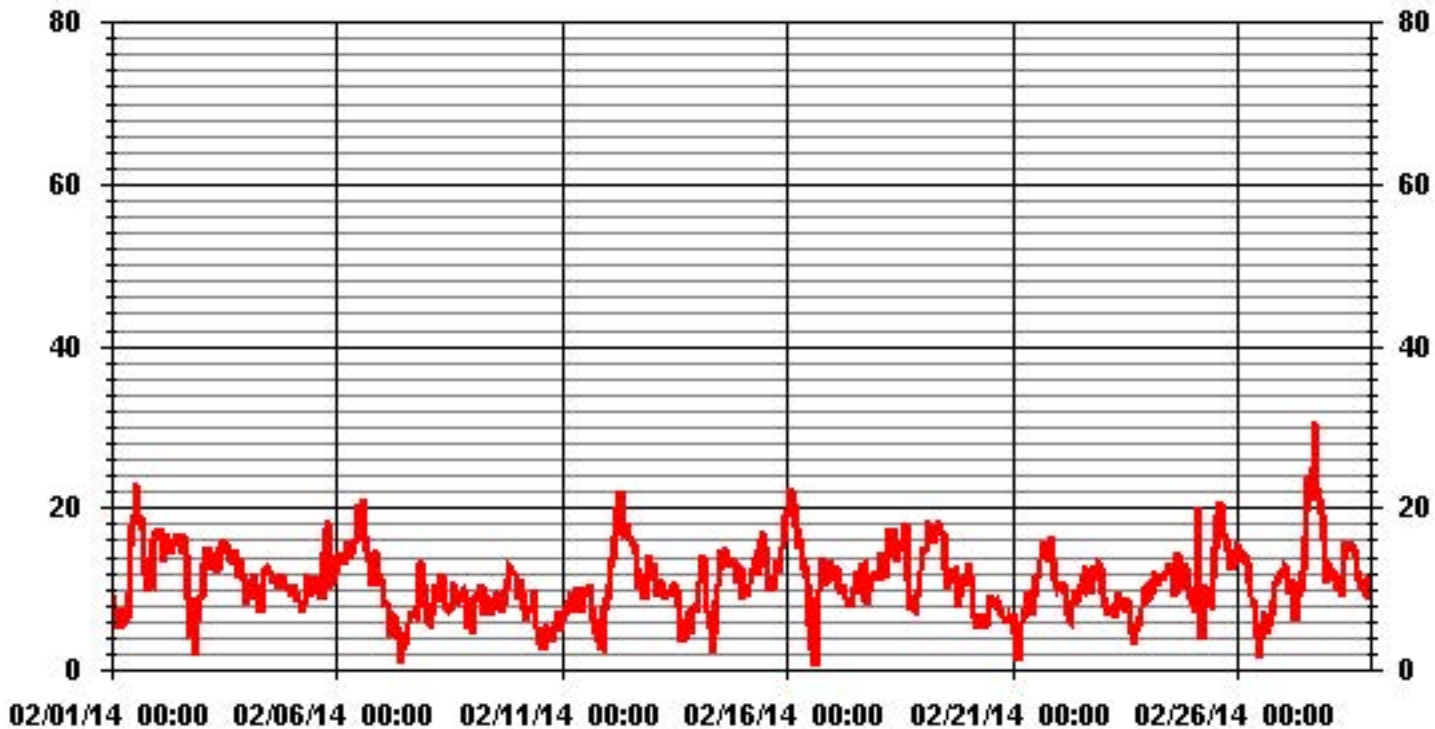
| | |
|-------------------|-------------------------------------|
| LAST CALIBRATION: | June 12, 2012 |
| DECLINATION: | MAGNETIC DECLINATION 19 DEGREE EAST |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|-------|-------------|----|
| NUMBER OF NON-ZERO READINGS: | 696 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 30.5 | KPH | @ HOUR(S) | 17 | ON DAY(S) | 27 |
| MAXIMUM 24-HR AVERAGE: | 15.6 | KPH | | | ON DAY(S) | 27 |
| | | | | | VAR-VARIOUS | |
| MONTHLY CALIBRATION TIME: | 0 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| STANDARD DEVIATION: | 4.76 | | AMD OPERATION UPTIME: | 100.0 | % | |
| | | | MONTHLY AVERAGE: | 10.21 | KPH | |

01 Hour Averages



— LICA31 WSP KPH

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

| 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 | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|------|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS |
| 1 | 22.8 | 23 | 15.4 | 21.5 | 15.8 | 18.7 | 14.5 | 13.6 | 12.5 | 20.4 | 26.3 | 33.3 | 43.6 | 44.3 | 30.3 | 48 | 33.1 | 22.4 | 24.4 | 23.9 | 27.2 | 24.8 | 42.3 | 39.7 | 48 | 26.7 | 24 |
| 2 | 35.3 | 38.8 | 39.5 | 33.6 | 40.3 | 41 | 36.2 | 36 | 32.1 | 31.4 | 41.9 | 39.5 | 37.1 | 30.7 | 42.7 | 39.9 | 33.6 | 22.4 | 29.4 | 12.8 | 18 | 13.2 | 13.8 | 16.7 | 43 | 31.5 | 24 |
| 3 | 21.7 | 35.7 | 34.7 | 34.4 | 33.8 | 29.6 | 40.3 | 31.4 | 30.1 | 31.4 | 35.3 | 33.1 | 35.5 | 31.6 | 34.4 | 31.4 | 32 | 34.9 | 33.6 | 27.2 | 35.7 | 30.1 | 30.5 | 20.4 | 40 | 32.0 | 24 |
| 4 | 21.1 | 25.2 | 19.5 | 28.1 | 31.6 | 27.7 | 25.2 | 21.7 | 25.5 | 36.6 | 25.9 | 25.9 | 23.7 | 21.9 | 21.9 | 22.4 | 20 | 21.9 | 21.7 | 23.7 | 24.6 | 22.8 | 22.2 | 21.1 | 37 | 24.2 | 24 |
| 5 | 18.7 | 24.1 | 20.6 | 19.6 | 17.8 | 12.3 | 16.7 | 17.1 | 24.4 | 19.4 | 22.2 | 20.4 | 23 | 25.4 | 22.2 | 22.6 | 16.9 | 27.5 | 31.4 | 32.3 | 30.1 | 18.9 | 20.2 | 21.1 | 32 | 21.9 | 24 |
| 6 | 23.7 | 23.3 | 26.5 | 23 | 21.5 | 24.4 | 24.6 | 17.6 | 18.2 | 20.9 | 29 | 32.5 | 25.2 | 31.6 | 32.9 | 25.7 | 24.8 | 22.6 | 16.9 | 18 | 21.5 | 30.5 | 28.8 | 25.9 | 33 | 24.6 | 24 |
| 7 | 22.6 | 22.2 | 17.1 | 17.8 | 14.9 | 13.8 | 16 | 17.2 | 15.6 | 13.8 | 9.5 | 12.5 | 13.6 | 15.6 | 17.6 | 18.2 | 16.9 | 17.6 | 17.4 | 20.4 | 28.1 | 29.6 | 22.6 | 17.1 | 30 | 17.8 | 24 |
| 8 | 13.2 | 20.6 | 24.6 | 17.1 | 20.9 | 20.6 | 20.5 | 27.9 | 24.6 | 21.3 | 19.1 | 18.9 | 23.9 | 20.9 | 21.5 | 19.8 | 18 | 16.9 | 18.9 | 15.6 | 18.7 | 62.3 | 26.5 | 19.6 | 62 | 22.2 | 24 |
| 9 | X | 15 | 15.4 | 22.6 | 17.1 | 16.9 | 15.4 | 16.5 | 22.4 | 19.6 | 16.9 | 24.4 | 24.4 | 21.1 | 20.9 | 16.3 | 16.7 | 19.1 | 19.6 | 23.3 | 24.1 | 22.4 | 22.8 | 24.8 | 25 | 19.9 | 23 |
| 10 | 22 | 20.2 | 20.7 | 16.9 | 17.2 | 12.1 | 15.2 | 15.6 | 13 | 16.1 | 26.3 | 10.8 | 11.4 | 13 | 23.3 | 17.8 | 29.2 | 54.8 | X | 83 | 52 | 69.9 | 55.5 | 42.5 | 83 | 28.6 | 23 |
| 11 | 23.5 | 27.4 | 18.9 | 20.9 | 18 | 21.5 | 18.9 | 16.7 | 19.6 | 16.7 | 17.6 | 20 | 24.3 | 21.8 | 21.9 | 22.4 | 17.4 | 19.8 | 36.6 | 64.9 | 80.6 | 67.9 | X | 14.1 | 81 | 27.5 | 23 |
| 12 | 17.4 | 20.9 | 24.1 | 25.2 | 30.1 | 36.2 | 37.3 | 40.1 | 45.2 | 36.9 | 40.8 | 37.7 | 41.7 | 35.5 | 33.2 | 31.2 | 32.3 | 25 | 24.3 | 23 | 20.2 | 25.7 | 29.6 | 28.8 | 45 | 30.9 | 24 |
| 13 | 27.6 | 25 | 24.4 | 18 | 25 | 21.8 | 22.4 | 22.4 | 20.5 | 22.6 | 21.7 | 20.5 | 23.3 | 21.9 | 20.9 | 19.1 | 17.1 | 57.5 | 27.5 | P | 40.8 | 16.5 | 21.9 | 16.7 | 58 | 24.1 | 23 |
| 14 | 20.4 | 23.5 | 24.6 | 23.5 | 19.8 | 13.1 | 13.6 | 14.7 | 18.2 | 14.9 | 20.2 | 19.8 | 27.6 | 33.1 | 31.8 | 33.1 | 34.7 | 30.3 | 25.5 | 28.3 | 29 | 21.7 | 24.4 | 29.9 | 35 | 24.0 | 24 |
| 15 | 20.9 | 19.8 | 19.8 | 22.8 | 28.7 | 27.4 | 28.3 | 24.8 | 29.2 | 30.7 | 32 | 34.2 | 33.4 | 28.5 | 23.7 | 22.6 | 19.8 | 25.4 | 26.5 | 23.3 | 21.7 | 32.5 | 32.1 | 34.4 | 34 | 26.8 | 24 |
| 16 | 37.5 | 44.1 | 45.6 | 42.3 | 46.5 | 44.3 | 35.1 | 36.2 | 29.8 | 34.9 | 23 | 22.8 | 14.5 | 16.9 | 18.4 | 12.8 | 14 | 18.9 | 16.9 | 18.2 | 20 | 16.5 | 18.9 | 25 | 47 | 27.2 | 24 |
| 17 | 21.5 | 23 | 22.6 | 16.9 | 13.9 | 14.5 | 14.7 | 12.8 | 17.3 | 13.4 | 11.2 | 13.2 | 16.9 | 21 | 26.7 | 24.3 | 23.9 | 20.7 | 17.8 | 12.5 | 13.6 | 18.2 | 16.9 | 18.2 | 27 | 17.7 | 24 |
| 18 | 39.4 | 19.1 | 27.6 | 26.5 | 29.6 | 27.2 | 33.1 | 27.2 | 39.7 | 28.5 | 22.6 | 25.7 | 25.7 | 25.9 | 42.9 | 36.4 | 23.5 | 12.6 | 20 | 17.3 | 18 | 18.7 | 16.1 | 17.3 | 43 | 25.9 | 24 |
| 19 | 24.6 | 23 | 29 | 35.7 | 33.1 | 34.2 | 29 | 34.2 | 36.4 | 36.2 | 36.6 | 33.6 | 22.8 | 23.2 | 20.4 | 21.5 | 21.3 | 23.7 | 19.8 | 14 | 15.8 | 18.2 | 25.2 | 28.5 | 37 | 26.7 | 24 |
| 20 | 24.3 | 29.8 | 24.1 | 18.4 | 16.2 | 17.1 | 13.6 | 18 | 18.4 | 14.5 | 11.4 | 15.6 | 18.4 | 18 | 18.4 | 16.9 | 17.6 | 15.6 | 14.5 | 14.5 | 13 | 11 | 14.9 | 13.8 | 30 | 17.0 | 24 |
| 21 | 15.6 | 13.4 | 13 | 12.1 | 12.1 | 12.5 | 15.6 | 18.7 | 21.7 | 22.4 | 22.6 | 21.1 | 23.9 | 30.3 | 28.1 | 29.8 | 28.5 | 32.7 | 31.2 | 32.7 | 40.3 | 35.6 | 35.3 | 25.9 | 40 | 24.0 | 24 |
| 22 | 23.3 | 26.1 | 22.2 | 23.9 | 21.9 | 16.9 | 17.8 | 31.2 | 24.4 | 23.3 | 23 | 19.1 | 24 | 23.7 | 26.8 | 29.4 | 23.9 | 25 | 25 | 29.6 | 29.9 | 25 | 32.5 | 34.9 | 35 | 25.1 | 24 |
| 23 | 21.5 | 25.5 | 22.6 | 19.1 | 19.8 | 18.9 | 14.7 | 13 | 18.2 | 17.6 | 22.4 | 21.3 | 19.1 | 19.1 | 18 | 17.1 | 23 | 25.7 | 79.5 | 13.2 | 13.6 | 11 | 18.2 | 18 | 80 | 21.3 | 24 |
| 24 | 20 | 16.7 | 14.7 | 13.6 | 20.4 | 13.4 | 13.4 | 15.2 | 14.3 | 16.9 | 16 | 17.6 | P | 22.2 | 18 | 30.5 | 29.6 | 26.8 | 20.9 | 23.7 | 24.6 | 23.5 | 17.6 | 15.8 | 31 | 19.4 | 23 |
| 25 | 14.5 | 16.7 | 10.6 | X | X | 59.7 | 9.5 | 13 | 13.2 | 15.6 | 16.5 | 18 | 25 | 29.6 | 31.4 | 33.1 | 28.5 | 22.6 | 22.4 | 20.4 | 17.6 | 17.6 | 26.3 | 24.8 | 60 | 22.1 | 22 |
| 26 | 33.6 | 28.3 | 31.8 | 29.6 | 27.8 | 25.9 | 26.5 | 17.8 | 20.2 | 16.3 | 16.9 | 15.2 | 14.5 | 10.3 | 17.6 | 15.2 | 19.7 | 16.7 | 14.8 | 14.3 | 18.2 | 22.4 | 26.3 | 24.8 | 34 | 21.0 | 24 |
| 27 | 24.8 | 25.7 | 24.1 | 21.5 | 21.1 | 20.6 | 20.4 | 17.1 | 18.4 | 16 | 19.8 | 27.4 | 37.3 | 47.1 | 56.3 | 69.9 | 62.9 | 73.8 | 57 | 56.5 | 54.6 | 49.5 | 45.6 | 30.5 | 74 | 37.4 | 24 |
| 28 | 33.1 | 27.4 | 22.8 | 25.9 | 25.5 | 20.2 | 27.4 | 21.3 | 19.3 | 34 | 34 | 40.4 | 36.4 | 37.5 | 36 | 34.7 | 30.3 | 29.2 | 25.7 | 21.3 | 26.3 | 22.6 | 21.7 | 26.3 | 40 | 28.3 | 24 |
| HOURLY MAX | 39 | 44 | 46 | 42 | 47 | 60 | 40 | 40 | 45 | 37 | 42 | 40 | 44 | 47 | 56 | 70 | 63 | 74 | 80 | 83 | 81 | 70 | 56 | 43 | | | |
| HOURLY AVG | 23.9 | 24.4 | 23.4 | 23.4 | 23.7 | 23.7 | 22.0 | 21.8 | 22.9 | 22.9 | 23.6 | 24.1 | 25.6 | 25.8 | 27.1 | 27.2 | 25.3 | 27.2 | 26.6 | 26.2 | 27.8 | 27.8 | 26.2 | 24.2 | | | |

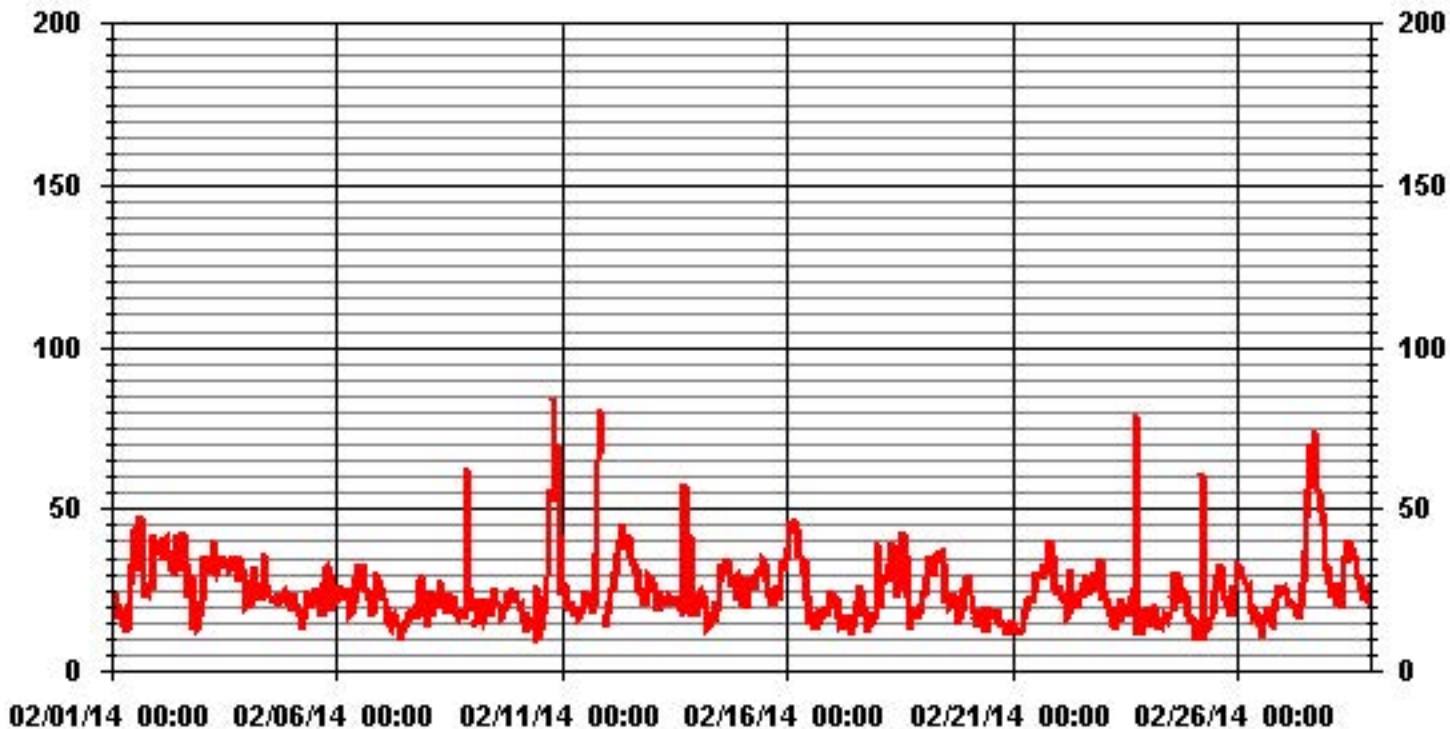
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|----|-----|-----------|----|-------------|-----|
| MAXIMUM INSTANTANEOUS VALUE: | 83 | KPH | @ HOUR(S) | 19 | ON DAY(S) | 10 |
| | | | | | VAR-VARIOUS | |
| OPERATIONAL TIME: | | | | | 665 | HRS |

01 Hour Averages



LICA31
WSP / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : WSP
Units : KPH

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | .44 | .89 | .44 | .44 | .89 | .59 | .59 | .29 | .44 | .29 | .89 | .74 | .00 | .44 | 1.04 | 1.04 | 9.52 |
| < 12.0 | 6.99 | 2.82 | 1.93 | 1.63 | 1.48 | 4.46 | 1.48 | 2.23 | 4.16 | 3.12 | 4.16 | 2.97 | 2.97 | 1.48 | 4.46 | 7.44 | 53.86 |
| < 20.0 | 2.38 | 1.04 | .14 | 2.08 | 3.86 | 1.33 | .59 | .00 | 1.48 | 1.19 | 1.63 | 4.61 | 4.16 | .59 | 2.38 | 6.10 | 33.63 |
| < 29.0 | .14 | .44 | .00 | .00 | .44 | .44 | .14 | .00 | .00 | .00 | .00 | .59 | .00 | .00 | .00 | .29 | 2.52 |
| < 39.0 | .14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .14 |
| >= 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 10.11 | 5.20 | 2.52 | 4.16 | 6.69 | 6.84 | 2.82 | 2.52 | 6.10 | 4.61 | 6.69 | 8.92 | 7.14 | 2.52 | 7.88 | 14.88 | |

Calm : .29 %

Total # Operational Hours : 672

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | 3 | 6 | 3 | 3 | 6 | 4 | 4 | 2 | 3 | 2 | 6 | 5 | | 3 | 7 | 7 | 64 |
| < 12.0 | 47 | 19 | 13 | 11 | 10 | 30 | 10 | 15 | 28 | 21 | 28 | 20 | 20 | 10 | 30 | 50 | 362 |
| < 20.0 | 16 | 7 | 1 | 14 | 26 | 9 | 4 | | 10 | 8 | 11 | 31 | 28 | 4 | 16 | 41 | 226 |
| < 29.0 | 1 | 3 | | | 3 | 3 | 1 | | | | | 4 | | | | 2 | 17 |
| < 39.0 | 1 | | | | | | | | | | | | | | | | 1 |
| >= 39.0 | | | | | | | | | | | | | | | | | |
| Totals | 68 | 35 | 17 | 28 | 45 | 46 | 19 | 17 | 41 | 31 | 45 | 60 | 48 | 17 | 53 | 100 | |

Calm : .29 %

Total # Operational Hours : 672

Vector Wind Direction

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

WIND DIRECTION (WD) hourly averages in degrees

| 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 | 24-HOUR | | |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|----------|-------|
| DAY | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | QUADRANT | RDGS. |
| 1 | 345 | 350 | 308 | 304 | 292 | 290 | 273 | 261 | 246 | 262 | 257 | 259 | 262 | 254 | 252 | 271 | 271 | 267 | 274 | 291 | 310 | 318 | 344 | 333 | 350 | | N | 24 | |
| 2 | 337 | 334 | 329 | 330 | 320 | 326 | 315 | 320 | 315 | 312 | 313 | 322 | 326 | 334 | 341 | 3 | 17 | 25 | 319 | 303 | 331 | 258 | 268 | 258 | 341 | | NNW | 24 | |
| 3 | 287 | 330 | 335 | 338 | 345 | 337 | 337 | 332 | 328 | 323 | 327 | 329 | 338 | 329 | 334 | 330 | 332 | 334 | 344 | 359 | 13 | 14 | 7 | 342 | 359 | | N | 24 | |
| 4 | 337 | 344 | 331 | 343 | 353 | 355 | 347 | 336 | 340 | 343 | 338 | 335 | 328 | 324 | 320 | 302 | 324 | 336 | 324 | 332 | 338 | 14 | 15 | 4 | 355 | | N | 24 | |
| 5 | 348 | 340 | 347 | 336 | 337 | 313 | 333 | 321 | 308 | 293 | 286 | 302 | 308 | 304 | 304 | 301 | 277 | 252 | 263 | 270 | 265 | 263 | 276 | 263 | 348 | | NNW | 24 | |
| 6 | 259 | 261 | 261 | 263 | 255 | 257 | 257 | 236 | 233 | 234 | 249 | 252 | 243 | 248 | 251 | 245 | 249 | 263 | 268 | 270 | 290 | 326 | 359 | 5 | 359 | | N | 24 | |
| 7 | 5 | 351 | 328 | 8 | 322 | 330 | 357 | 6 | 14 | 29 | 7 | 256 | 337 | 343 | 359 | 40 | 12 | 351 | 340 | 12 | 62 | 64 | 61 | 59 | 359 | | N | 24 | |
| 8 | 47 | 12 | 2 | 22 | 35 | 39 | 31 | 11 | 26 | 12 | 357 | 349 | 342 | 330 | 324 | 330 | 324 | 324 | 326 | 327 | 346 | 3 | 24 | 48 | 357 | | N | 24 | |
| 9 | 146 | 176 | 188 | 189 | 172 | 172 | 157 | 173 | 190 | 198 | 208 | 197 | 208 | 179 | 149 | 118 | 138 | 147 | 158 | 171 | 174 | 179 | 178 | 193 | 208 | | SSW | 24 | |
| 10 | 195 | 209 | 208 | 209 | 208 | 220 | 210 | 222 | 231 | 236 | 233 | 228 | 224 | 237 | 256 | 100 | 111 | 103 | 144 | 77 | 87 | 71 | 71 | 24 | 256 | | WSW | 24 | |
| 11 | 22 | 349 | 359 | 353 | 327 | 353 | 10 | 319 | 323 | 329 | 325 | 319 | 334 | 326 | 327 | 320 | 319 | 341 | 344 | 303 | 330 | 55 | 163 | 129 | 359 | | N | 24 | |
| 12 | 139 | 131 | 135 | 120 | 117 | 116 | 115 | 117 | 116 | 95 | 85 | 85 | 78 | 76 | 79 | 90 | 93 | 91 | 95 | 102 | 121 | 172 | 177 | 176 | 177 | | S | 24 | |
| 13 | 179 | 169 | 154 | 132 | 105 | 116 | 105 | 98 | 96 | 101 | 104 | 103 | 103 | 107 | 103 | 102 | 94 | 96 | 109 | 160 | 165 | 213 | 180 | 209 | 213 | | SSW | 24 | |
| 14 | 196 | 197 | 214 | 222 | 231 | 247 | 244 | 254 | 219 | 62 | 82 | 76 | 88 | 89 | 85 | 86 | 84 | 81 | 93 | 101 | 108 | 104 | 100 | 96 | 254 | | WSW | 24 | |
| 15 | 99 | 111 | 123 | 176 | 164 | 184 | 189 | 176 | 186 | 203 | 197 | 194 | 200 | 191 | 187 | 157 | 149 | 152 | 145 | 128 | 134 | 109 | 104 | 97 | 203 | | SSW | 24 | |
| 16 | 91 | 86 | 87 | 91 | 90 | 92 | 93 | 84 | 82 | 81 | 64 | 66 | 51 | 57 | 358 | 168 | 256 | 247 | 258 | 257 | 255 | 248 | 215 | 227 | 358 | | N | 24 | |
| 17 | 221 | 219 | 225 | 235 | 232 | 225 | 242 | 213 | 220 | 227 | 250 | 236 | 232 | 256 | 270 | 263 | 254 | 257 | 260 | 251 | 231 | 236 | 239 | 262 | 270 | | W | 24 | |
| 18 | 276 | 274 | 281 | 275 | 269 | 274 | 267 | 271 | 266 | 265 | 260 | 263 | 241 | 245 | 250 | 260 | 253 | 222 | 199 | 186 | 182 | 171 | 146 | 112 | 281 | | W | 24 | |
| 19 | 111 | 103 | 79 | 76 | 76 | 73 | 70 | 75 | 74 | 76 | 74 | 70 | 75 | 75 | 73 | 76 | 94 | 97 | 96 | 107 | 114 | 131 | 156 | 176 | 176 | | S | 24 | |
| 20 | 180 | 192 | 210 | 207 | 205 | 178 | 189 | 176 | 188 | 179 | 187 | 113 | 107 | 119 | 118 | 121 | 119 | 124 | 118 | 121 | 116 | 117 | 108 | 102 | 210 | | SSW | 24 | |
| 21 | 90 | 109 | 97 | 2 | 316 | 326 | 19 | 46 | 53 | 57 | 56 | 26 | 8 | 357 | 333 | 332 | 325 | 329 | 334 | 342 | 357 | 1 | 3 | 356 | 357 | | N | 24 | |
| 22 | 354 | 358 | 347 | 351 | 9 | 20 | 17 | 354 | 340 | 328 | 341 | 331 | 346 | 332 | 329 | 337 | 345 | 358 | 5 | 349 | 359 | 13 | 8 | 9 | 359 | | N | 24 | |
| 23 | 11 | 356 | 359 | 337 | 323 | 325 | 310 | 301 | 319 | 320 | 349 | 354 | 324 | 328 | 324 | 314 | 336 | 55 | 198 | 209 | 236 | 225 | 266 | 267 | 359 | | N | 24 | |
| 24 | 269 | 260 | 253 | 247 | 264 | 242 | 242 | 240 | 250 | 237 | 237 | 231 | 243 | 239 | 243 | 292 | 341 | 336 | 335 | 2 | 31 | 35 | 38 | 36 | 341 | | NNW | 24 | |
| 25 | 34 | 30 | 50 | 144 | 134 | 219 | 235 | 233 | 230 | 228 | 222 | 230 | 232 | 237 | 245 | 247 | 242 | 240 | 245 | 242 | 241 | 241 | 270 | 284 | 284 | | WNW | 24 | |
| 26 | 286 | 300 | 325 | 334 | 337 | 341 | 350 | 321 | 359 | 36 | 32 | 80 | 126 | 236 | 120 | 154 | 188 | 152 | 150 | 143 | 140 | 167 | 190 | 189 | 359 | | N | 24 | |
| 27 | 199 | 203 | 214 | 185 | 173 | 199 | 214 | 195 | 214 | 222 | 267 | 311 | 326 | 339 | 335 | 343 | 0 | 0 | 15 | 16 | 13 | 15 | 8 | 13 | 343 | | NNW | 24 | |
| 28 | 6 | 359 | 343 | 343 | 338 | 335 | 350 | 345 | 327 | 330 | 347 | 3 | 7 | 5 | 14 | 12 | 9 | 1 | 359 | 353 | 355 | 8 | 20 | 23 | 359 | | N | 24 | |

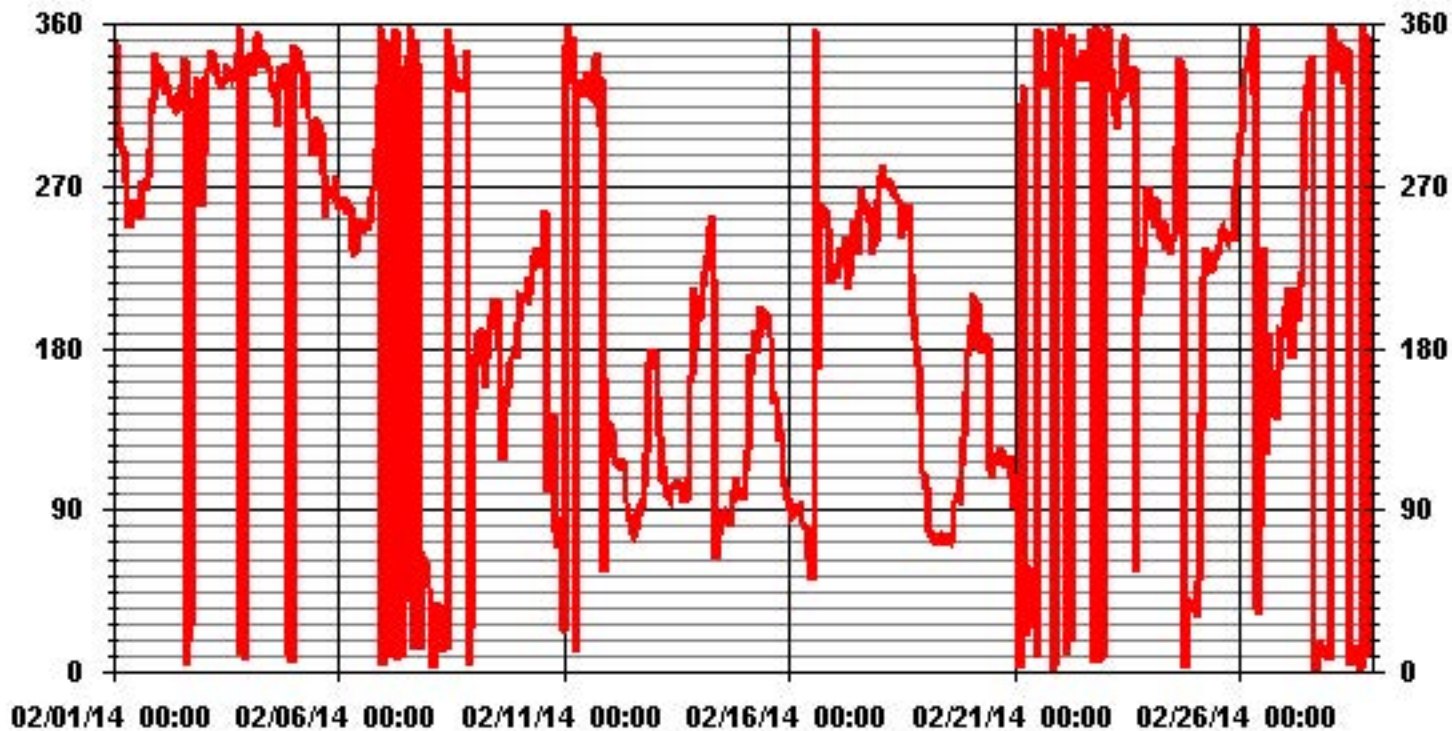
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|-------------------------------------|
| LAST CALIBRATION: | June 12, 2012 |
| DECLINATION : | MAGNETIC DECLINATION 19 DEGREE EAST |

| | | | |
|---------------------------|--------|-----------------------|---------|
| MONTHLY CALIBRATION TIME: | 0 HRS | OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 115.46 | AMD OPERATION UPTIME: | 100.0 % |
| | | MONTHLY AVERAGE: | 317 DEG |

01 Hour Averages



Standard Deviation Wind Direction

Lakeland Industry & Community Association - St. Lina Site

FEBRUARY 2014

STANDARD DEVIATION WIND DIRECTION (STDWD) hourly averages in degrees

| 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 |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HOUR START | HOUR END | 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 | 0:00 |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 15 | 17 | 19 | 17 | 17 | 14 | 10 | 6 | 8 | 8 | 9 | 10 | 10 | 9 | 9 | 11 | 9 | 8 | 10 | 14 | 13 | 15 | 15 | 14 |
| 2 | | 15 | 15 | 14 | 15 | 16 | 14 | 14 | 16 | 15 | 16 | 16 | 15 | 16 | 15 | 15 | 14 | 16 | 15 | 13 | 23 | 25 | 6 | 6 | 5 |
| 3 | | 13 | 15 | 14 | 14 | 14 | 14 | 13 | 14 | 13 | 14 | 15 | 15 | 15 | 15 | 14 | 15 | 13 | 15 | 15 | 15 | 15 | 15 | 15 | 13 |
| 4 | | 12 | 12 | 13 | 12 | 14 | 15 | 13 | 19 | 14 | 15 | 14 | 13 | 13 | 13 | 13 | 16 | 14 | 11 | 11 | 12 | 11 | 12 | 15 | 13 |
| 5 | | 11 | 9 | 11 | 10 | 9 | 10 | 10 | 10 | 11 | 13 | 14 | 16 | 17 | 18 | 20 | 20 | 15 | 6 | 7 | 8 | 6 | 6 | 7 | 5 |
| 6 | | 4 | 5 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 4 | 6 | 8 | 9 | 8 | 6 | 7 | 7 | 6 | 5 | 6 | 10 | 11 | 16 | 11 |
| 7 | | 12 | 18 | 13 | 14 | 18 | 12 | 13 | 17 | 13 | 11 | 71 | 21 | 30 | 31 | 25 | 14 | 13 | 13 | 13 | 14 | 11 | 10 | 10 | 9 |
| 8 | | 10 | 17 | 15 | 14 | 11 | 11 | 15 | 14 | 10 | 17 | 18 | 22 | 24 | 21 | 13 | 15 | 12 | 10 | 9 | 9 | 9 | 26 | 12 | 11 |
| 9 | | 46 | 7 | 4 | 5 | 5 | 6 | 8 | 6 | 9 | 13 | 12 | 16 | 16 | 22 | 18 | 14 | 13 | 10 | 9 | 9 | 8 | 8 | 8 | 10 |
| 10 | | 9 | 11 | 10 | 10 | 11 | 8 | 9 | 9 | 7 | 7 | 13 | 11 | 13 | 22 | 48 | 45 | 23 | 23 | 62 | 35 | 26 | 18 | 15 | 20 |
| 11 | | 15 | 17 | 17 | 12 | 12 | 13 | 15 | 10 | 10 | 12 | 14 | 14 | 16 | 18 | 17 | 16 | 15 | 15 | 21 | 24 | 47 | 24 | 41 | 10 |
| 12 | | 9 | 12 | 12 | 11 | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 11 | 12 | 11 | 12 | 9 | 10 | 13 | 16 | 12 | 12 |
| 13 | | 12 | 13 | 13 | 14 | 13 | 11 | 12 | 12 | 13 | 13 | 12 | 14 | 13 | 12 | 15 | 21 | 26 | 25 | 20 | 14 | 29 | 12 | 18 | 25 |
| 14 | | 14 | 12 | 9 | 7 | 6 | 9 | 16 | 24 | 49 | 17 | 14 | 14 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9 | 10 | 8 | 8 | 10 |
| 15 | | 12 | 12 | 11 | 16 | 14 | 18 | 11 | 10 | 11 | 12 | 13 | 12 | 13 | 13 | 12 | 12 | 13 | 12 | 10 | 10 | 9 | 9 | 9 | 9 |
| 16 | | 10 | 10 | 10 | 10 | 11 | 13 | 13 | 11 | 11 | 11 | 17 | 10 | 19 | 35 | 48 | 44 | 8 | 8 | 4 | 4 | 5 | 6 | 6 | 6 |
| 17 | | 6 | 6 | 6 | 8 | 7 | 12 | 10 | 4 | 8 | 10 | 6 | 6 | 6 | 10 | 13 | 18 | 9 | 7 | 7 | 6 | 6 | 6 | 8 | 6 |
| 18 | | 12 | 8 | 10 | 9 | 11 | 9 | 7 | 8 | 8 | 8 | 10 | 11 | 9 | 11 | 11 | 9 | 9 | 8 | 7 | 7 | 7 | 6 | 8 | 5 |
| 19 | | 6 | 7 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | 10 | 10 | 9 | 11 | 12 | 11 | 10 | 10 | 8 | 7 | 9 | 6 | 8 | 11 | 10 |
| 20 | | 11 | 11 | 11 | 14 | 14 | 15 | 13 | 19 | 16 | 21 | 19 | 17 | 15 | 18 | 20 | 16 | 13 | 14 | 15 | 16 | 15 | 13 | 14 | 15 |
| 21 | | 17 | 16 | 17 | 22 | 13 | 10 | 13 | 13 | 11 | 14 | 15 | 17 | 16 | 17 | 16 | 14 | 13 | 14 | 12 | 13 | 14 | 17 | 15 | 13 |
| 22 | | 16 | 13 | 11 | 15 | 13 | 13 | 16 | 17 | 16 | 17 | 19 | 22 | 23 | 18 | 16 | 14 | 17 | 14 | 12 | 17 | 14 | 14 | 17 | 14 |
| 23 | | 14 | 13 | 13 | 15 | 13 | 11 | 11 | 9 | 11 | 14 | 20 | 22 | 21 | 20 | 15 | 36 | 24 | 26 | 20 | 6 | 13 | 5 | 6 | 5 |
| 24 | | 4 | 7 | 4 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 9 | 10 | 13 | 17 | 14 | 12 | 10 | 12 | 9 | 8 | 8 | 7 |
| 25 | | 5 | 5 | 5 | 57 | 13 | 18 | 4 | 2 | 4 | 9 | 9 | 9 | 7 | 7 | 8 | 8 | 7 | 4 | 4 | 4 | 3 | 4 | 5 | 7 |
| 26 | | 10 | 11 | 11 | 11 | 10 | 10 | 11 | 11 | 12 | 13 | 28 | 27 | 52 | 34 | 24 | 24 | 20 | 15 | 12 | 10 | 10 | 9 | 8 | 8 |
| 27 | | 8 | 9 | 10 | 9 | 11 | 10 | 9 | 18 | 10 | 11 | 13 | 17 | 13 | 14 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 16 | 15 | 14 |
| 28 | | 16 | 14 | 13 | 11 | 11 | 10 | 14 | 15 | 13 | 13 | 16 | 18 | 18 | 18 | 19 | 17 | 16 | 18 | 12 | 15 | 12 | 13 | 9 | 12 |

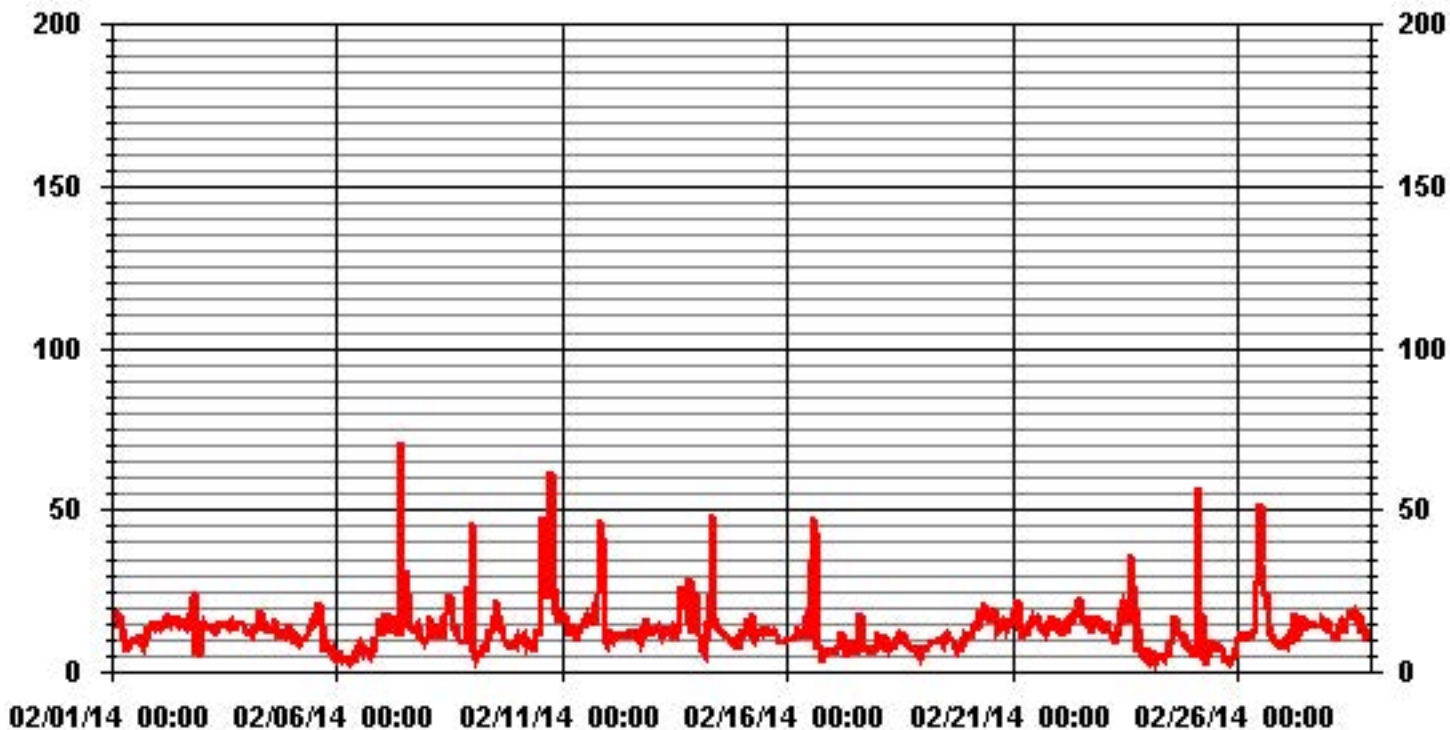
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

LAST CALIBRATION: June 12, 2012

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 672 HRS

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|---|
| Calibration Date | February 13, 2014 | Previous Calibration | January 20, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | ST. LINA | | |
| Start Time (MST) | 13:10 | End Time (MST) | 16:45 |
| Reason: | Post Repair | | |
| Barometric Pressure | na | atm | Station Temperature na Deg C |
| Cal Gas | 49.7 ppm | Gas Cyl. # | BAL3165 Cal Gas Expiry date December 29, 2016 |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output NA Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 468 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|--------------|----------------|-------------------|------------|--|
| Concentration Range | 0 - 1000 ppb | | | | |
| Sample Flow / Box Temp | 530 ccm | 30.2 Deg C | 533 ccm | 31.6 Deg C | |
| HVPS / Lamp Setting | 560 | 1836.6(100.2%) | 560 | 1834(100%) | |
| PMT / RxCell Temp | 7.8 Deg C | 50 Deg C | 7.8 Deg C | 50 Deg C | |
| Converter / IZS Temp | NA Deg C | 40 Deg C | NA Deg C | 40.0 Deg C | |
| Offset / Slope | 130.4 | 0.013 | 149.8 | 1.015 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 5000 | 0 | 0 | 0 | 0.0000 |
| 5000 | 0 | 0 | 0 | 0.0000 |
| 4996 | 79.8 | 781 | 781 | 1.0000 |
| 4996 | 79.8 | 781 | 781 | 1.0000 |
| 4996 | 39.9 | 394 | 393 | 1.0017 |
| 4996 | 19.9 | 198 | 197 | 1.0029 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 1.0008 |
| New Correction Factor | | | | 1.0000 |

IZS alibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|------------------------|-------|
| Auto Zero | 0.0 | Auto Zero | 0.0 |
| Auto Span | 236.8 | Auto Span | 236.8 |
| Sample Lines Connected | | Sample Lines Connected | NO |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 0.9980 |
| Current Correction Factor Before Span Adjust: | 1.0000 |
| Percent Change: | -0.2% |

Notes:

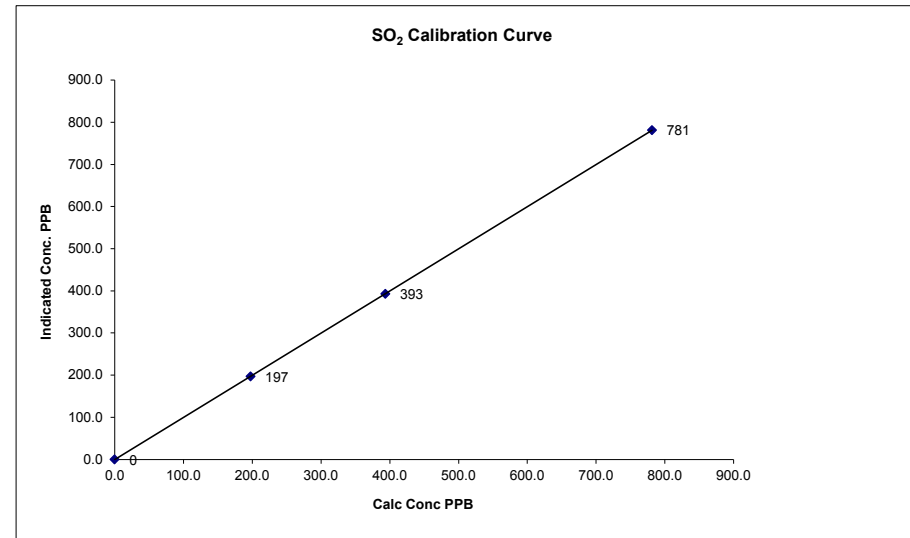
Change sample filter.
After as found point, change datalogger NO/NO2/NOX channels Low Input back to zero.

Calibration Performed by: Limin Li

SO2 Calibration Curve

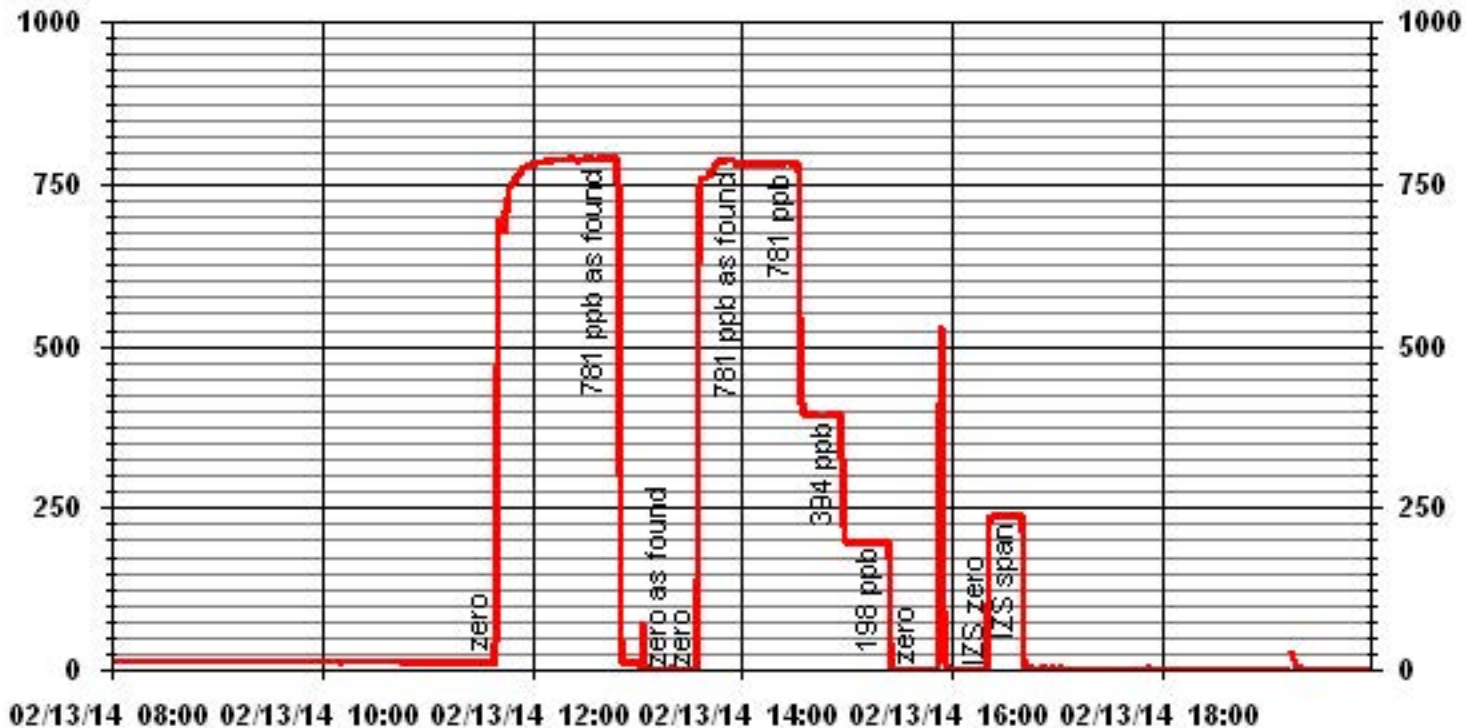
| | |
|------------------|---|
| Calibration Date | February 13, 2014 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | ST. LINA |
| Start Time (MST) | 13:10 |
| End Time (MST) | 16:45 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) |
|----------------------|------------------------|-------------------|-----------------------------------|
| 0 | 0 | n/a | 0.999999 |
| 198 | 197 | 1.0029 | 0.999666 |
| 394 | 393 | 1.0017 | -0.290560 |
| 781 | 781 | 1.0000 | |



Notes:

01 Minute Averages



SO2 Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|-------------------|
| Calibration Date | February 16, 2014 | Previous Calibration | February 13, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | ST. LINA | | |
| Start Time (MST) | 14:50 | End Time (MST) | 18:00 |
| Reason: | Post Repair | | |
| Barometric Pressure | na atm | Station Temperature | na Deg C |
| Cal Gas | 49.7 ppm | Gas Cyl. # | BAL3165 |
| DAS Output Voltage | 0 - 1 Volts | Cal Gas Expiry date | December 29, 2016 |
| | | Chart Rec. Output | NA Volts |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 468 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | API700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | API700 | S/N : | 831 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|--------------|----------------|-------------------|----------------|--|
| Concentration Range | 0 - 1000 ppb | | | | |
| Sample Flow / Box Temp | 530 ccm | 30.6 Deg C | 558 ccm | 30.3 Deg C | |
| HVPS / Lamp Setting | 560 | 1837.5(100.2%) | 560 | 1837.5(100.2%) | |
| PMT / RxCell Temp | 7.8 Deg C | 50 Deg C | 7.8 Deg C | 50 Deg C | |
| Converter / IZS Temp | NA Deg C | 40 Deg C | NA Deg C | 40.0 Deg C | |
| Offset / Slope | 149.8 | 1.015 | 141 | 1.009 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 0 | 0.0000 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| 4996 | 80.0 | 783 | 786 | 0.9966 |
| 4996 | 80.0 | 783 | 786 | 0.9966 |
| 4996 | 40.0 | 395 | 396 | 0.9969 |
| 4996 | 20.0 | 198 | 199 | 0.9983 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9967 |
| New Correction Factor | | | | 0.9966 |

IZS alibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|------------------------|-------|
| Auto Zero | 0.0 | Auto Zero | 0.0 |
| Auto Span | 236.8 | Auto Span | 236.8 |
| Sample Lines Connected | | Sample Lines Connected | NO |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 0.9966 |
| Percent Change: | 0.3% |

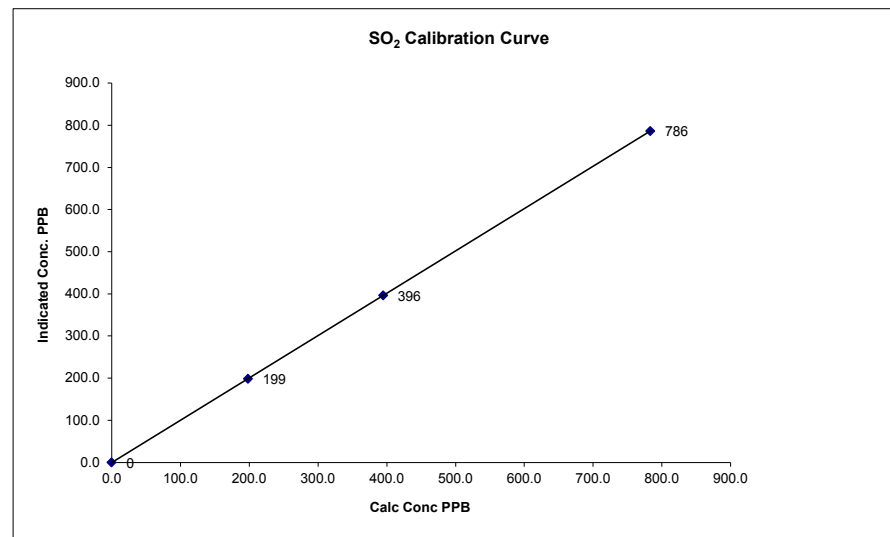
Notes: **After as found point, change sample valve.**

Calibration Performed by: Limin Li

SO2 Calibration Curve

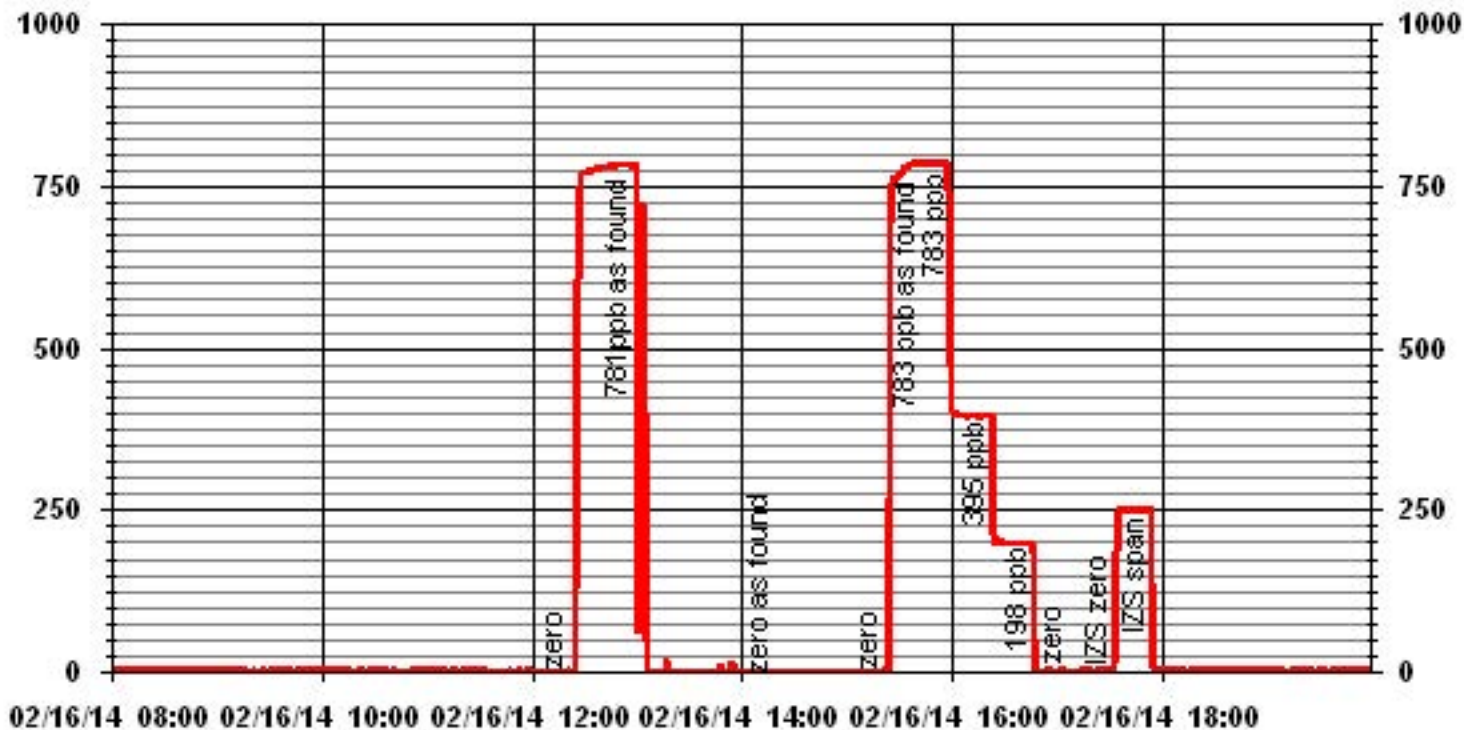
| | |
|------------------|---|
| Calibration Date | February 16, 2014 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | ST. LINA |
| Start Time (MST) | 14:50 |
| End Time (MST) | 18:00 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 0 | n/a | | 1.000000 |
| 198 | 199 | 0.9983 | | 1.003589 |
| 395 | 396 | 0.9969 | | -0.164163 |
| 783 | 786 | 0.9966 | | |



Notes:

01 Minute Averages



Hydrogen Sulphide

H2S Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 16, 2014 | Previous Calibration | January 1, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | ST.LINA | | |
| Start Time (MST) | 12:00 | End Time (MST) | 16:10 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | na | inHG | Station Temperature |
| Cal Gas | 10.1 | ppm | Gas Cyl. # BLM5049 |
| DAS Output Voltage | 0 - 1 | Volts | Cal Gas Expiry date |
| | | | December 25, 2015 |
| | | | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 510 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|----------------------|------------------------|--|
| Concentration Range | 0 - 100 | | |
| Sample Flow / Box Temp | 534 ccm 33.7 Deg C | 535 ccm 34.6 Deg C | |
| HVPS / Lamp Setting | 542 1511.1(98.6%) | 542 111.6(98.6%) | |
| PMT / RxCell Temp | 8.4 Deg C 50 Deg C | 8.4 Deg C 50 Deg C | |
| Converter / IZS Temp | 315.1 Deg C 45 Deg C | 315.1 Deg C 45.0 Deg C | |
| Offset / Slope | 119.1 1.038 | 125.9 1.043 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 4 | 0.0000 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| 4996 | 40.0 | 80 | 92 | 0.8758 |
| 4996 | 40.0 | 80 | 80 | 1.0003 |
| 4996 | 20.0 | 40 | 40 | 0.9968 |
| 4996 | 11.0 | 22 | 22 | 0.9906 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9991 |
| New Correction Factor | | | | 1.0003 |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 37.9 | 36.6 |
| Sample Lines Connected | | YES |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 0.9980 |
| Current Correction Factor Before Span Adjust: | 0.8758 |
| Percent Change: | 14.0% |

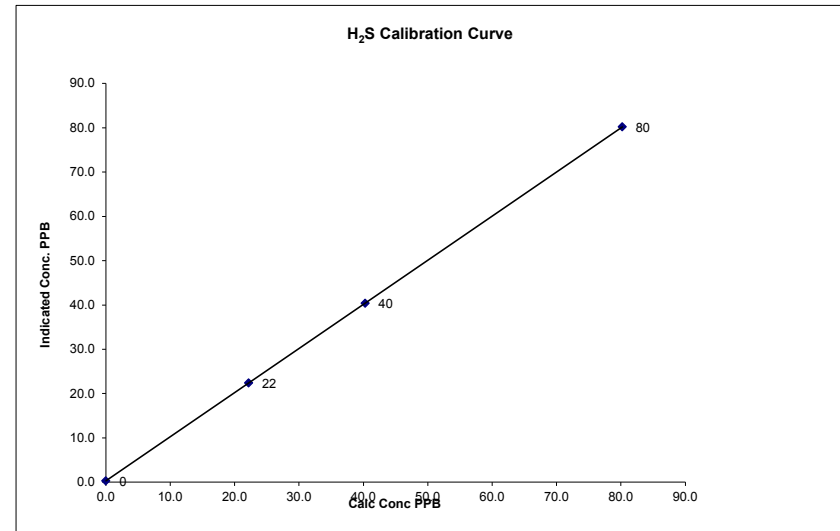
Notes:

Calibration Performed by: Limin Li

H₂S Calibration Curve

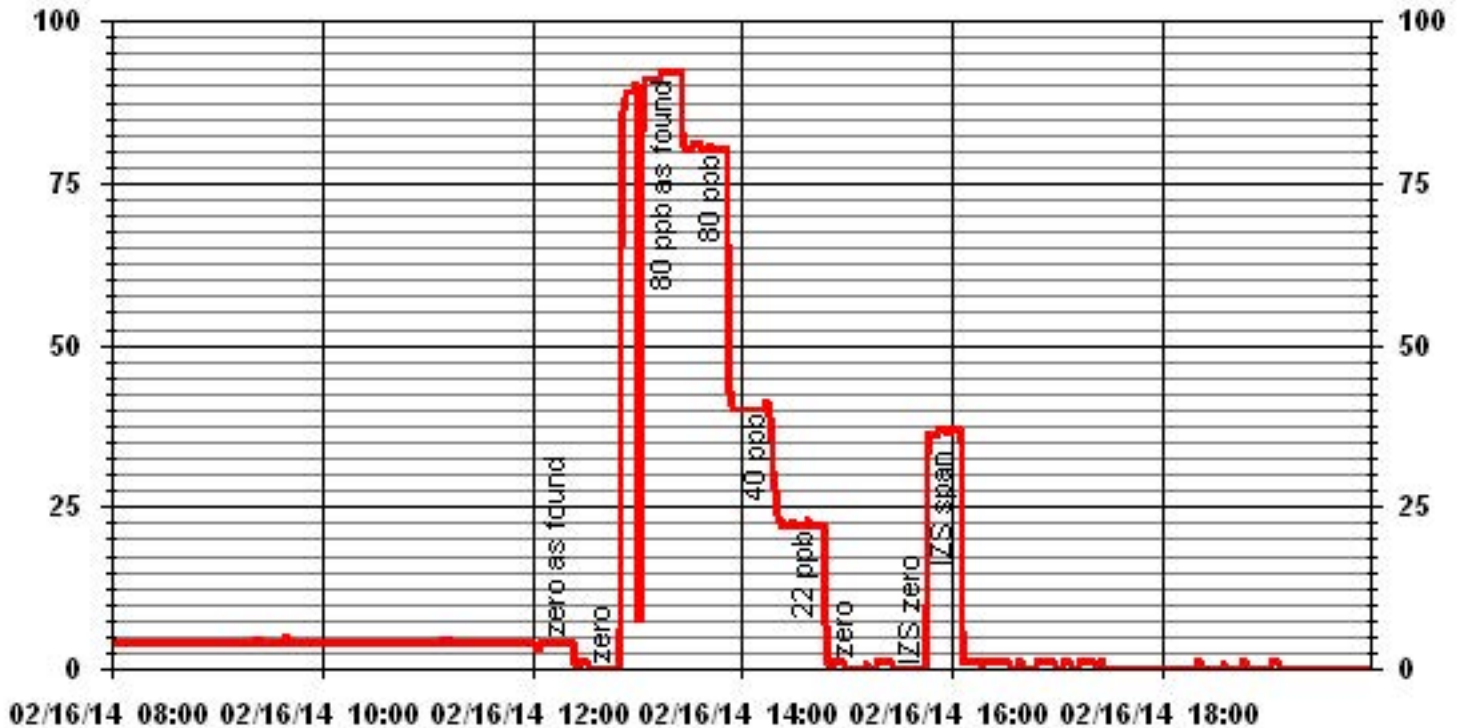
| | |
|------------------|---|
| Calibration Date | February 16, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION |
| Plant / Location | ST.LINA |
| Start Time (MST) | 12:00 |
| End Time (MST) | 16:10 |

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | (≥ 0.995) | 1.000000 |
|------------------|--------------------|-------------------|-------------------------|----------------|----------|
| ppb | ppb | | Slope | (0.85 to 1.15) | 0.995968 |
| 0 | 0 | | Intercept | (± 3% F.S.) | 0.298210 |
| 22 | 22 | 0.9906 | | | |
| 40 | 40 | 0.9968 | | | |
| 80 | 80 | 1.0003 | | | |



Notes:

01 Minute Averages



**H2S Calibration Report
Station Information**

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 22, 2014 | Previous Calibration | January 20, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | ST.LINA | | |
| Start Time (MST) | 15:05 | End Time (MST) | 18:12 |
| Reason: | 3-Point calibration | | |
| Barometric Pressure | na | inHG | Station Temperature |
| Cal Gas | 10.1 ppm | Gas Cyl. # | BLM05049 |
| DAS Output Voltage | 0 - 1 Volts | Chart Rec. Output | NA Volts |
| | | Cal Gas Expiry date | December 25, 2015 |

Equipment Information

| | | | | | |
|------------------------------|----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 510 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | Envionics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N: | NA | | |
| Flow Meter: | Envionics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|--------------------|----------------------|--|
| Concentration Range | 0 - 100 ppb | | |
| Sample Flow / Box Temp | 554 ccm 32.8 Deg C | 554 ccm 32.8 Deg C | |
| HVPS / Lamp Setting | 542 1509 (98.5%) | 542 1509 (98.5%) | |
| PMT / RxCell Temp | 8.4 Deg C 50 Deg C | 8.4 Deg C 50 Deg C | |
| Converter / IZS Temp | 315 Deg C 45 Deg C | 315 Deg C 45.0 Deg C | |
| Offset / Slope | 119.1 1.138 | 125.9 1.043 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4995 | 0 | 0 | -3 | 0.0000 |
| 4995 | 0 | 0 | 0 | 1.0000 |
| 4959 | 39.6 | 80 | 74 | 1.0813 |
| 4959 | 39.6 | 80 | 80 | 1.0000 |
| 4959 | 19.5 | 40 | 39 | 1.0144 |
| 4985 | 10.9 | 22 | 22 | 1.0000 |
| 4959 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | |
| New Correction Factor | | | | |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 37.0 | 35.0 |
| Sample Lines Connected | | YES |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 0.9966 |
| Current Correction Factor Before Span Adjust: | 1.0535 |
| Percent Change: | -5.4% |

Notes:

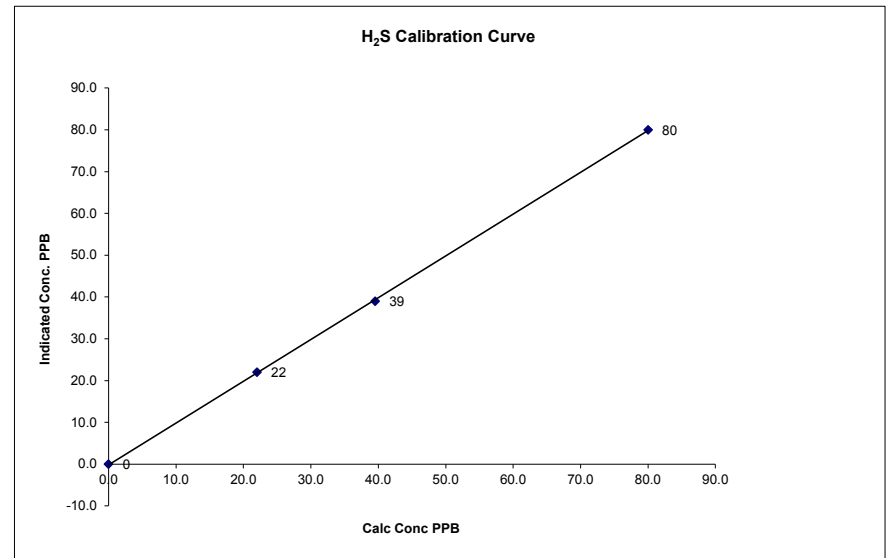
Change Sample filter.

Calibration Performed by: Kevin Hope

H₂S Calibration Curve

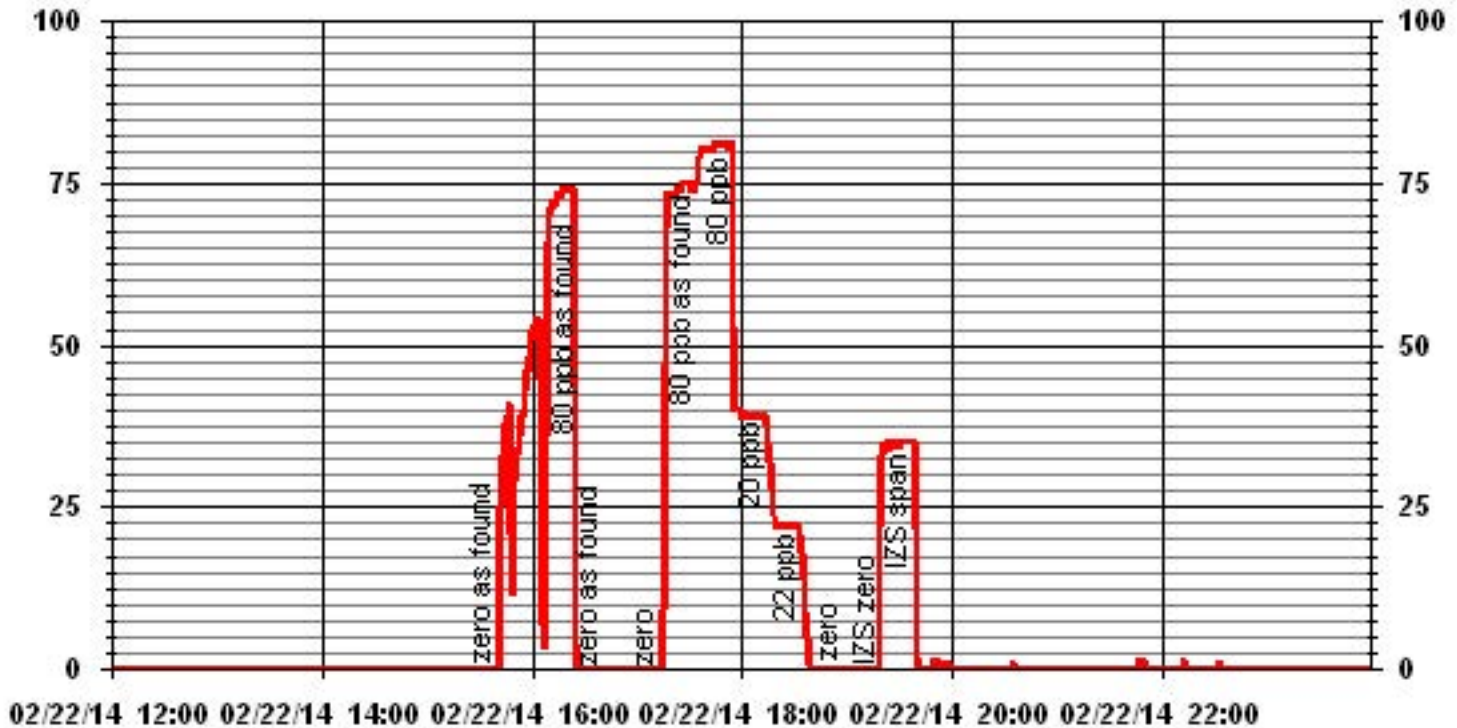
| | |
|------------------|---|
| Calibration Date | February 22, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION |
| Plant / Location | ST.LINA |
| Start Time (MST) | 15:05 |
| End Time (MST) | 18:12 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999936 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|-----------|
| 0 | 0 | NA | Intercept | (± 3% F.S.) | -0.127025 |
| 22 | 22 | 1.0016 | | | |
| 40 | 39 | 1.0144 | | | |
| 80 | 80 | 1.0002 | | | |



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

| Station Information | | | |
|------------------------|---|----------------------|---------------------------------------|
| Calibration Date: | February 13, 2014 | Previous Calibration | January 21, 2014 |
| Company: | Lakeland Industry & Community Association | | |
| Plant / Location: | ST. LINA | | |
| Start Time (MST) | 13:20 | End Time (MST) | 16:45 |
| Reason: | Post Repair | | |
| Barometric Pressure: | na inHG | Station Temperature: | na Deg C |
| Calibrator: | API 700 | S/N: | 831 |
| Cal Gas Concentration: | CH4 609 PPM | C3H8 201 PPM | |
| | TOTAL CH4 1161.8 PPM | Gas Cyl. # LL36542 | Cal Gas Expiry Date: November 7, 2021 |
| DAS make & Model: | ESC 8832 | S/N : | AO 717 |
| Chart Recorder: | NA | S/N: | NA |
| Output Voltage Range: | 0 - 10 VDC | Chart Speed: | NA mm/hr |

Analyzer Information

| | | | | | |
|--------------|---------------|-------|-----------|--------|------------------|
| Make / Model | Thermo 51C-LT | S/N : | 043669739 | Method | Flame Ionization |
|--------------|---------------|-------|-----------|--------|------------------|

Analyzer Settings

| | Before Calibration | | After Calibration | |
|---------------------|--------------------|-----|-------------------|-----|
| Concentration Range | 0 - 50 | ppm | 0 - 50 | ppm |
| Sample Pressure | na | psi | na | psi |
| Hydrogen Pressure | na | psi | na | psi |
| Air Pressure | na | psi | na | psi |

Calibration Data

| Dilution Flow | Source Gas Flow | Calculated Concentration | Indicated Concentration | Correction Factor |
|------------------------|-----------------|--------------------------|-------------------------|-------------------|
| 2001 | 0.0 | 0.0 | 0.0 | 0.0000 |
| 2001 | 0.0 | 0.0 | 0.0 | 0.0000 |
| 2001 | 65.0 | 36.6 | 36.5 | 1.0014 |
| 2001 | 65.0 | 36.6 | 36.5 | 1.0014 |
| 1999 | 33.0 | 18.9 | 18.4 | 1.0254 |
| 1999 | 15.0 | 8.7 | 8.3 | 1.0425 |
| 2001 | 0.0 | 0.0 | -0.2 | 0.0000 |
| New Correction Factor: | | | | 1.0014 |

Percent Change

| | |
|---|--------|
| Previous Calibration Correction Factor: | 0.9980 |
| Current Correction Factor Before Span Adjust: | 1.0014 |
| Percent Change: | -0.3% |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 32.9 | 32.9 |
| Sample Lines Connected | not | |

| | | | |
|--------------------|----------|----------|----------|
| Cylinder Pressures | | | |
| Span | 1900 psi | Hydrogen | 1300 psi |
| | | Zero Air | 35 psi |

Notes:

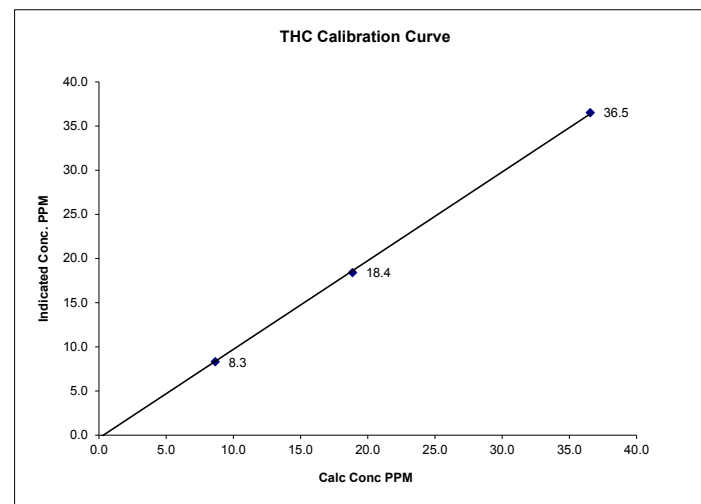
After as found point, rebuilt internal pump.
Change span gas.

Calibration Performed by: Limin Li

THC Calibration Curve

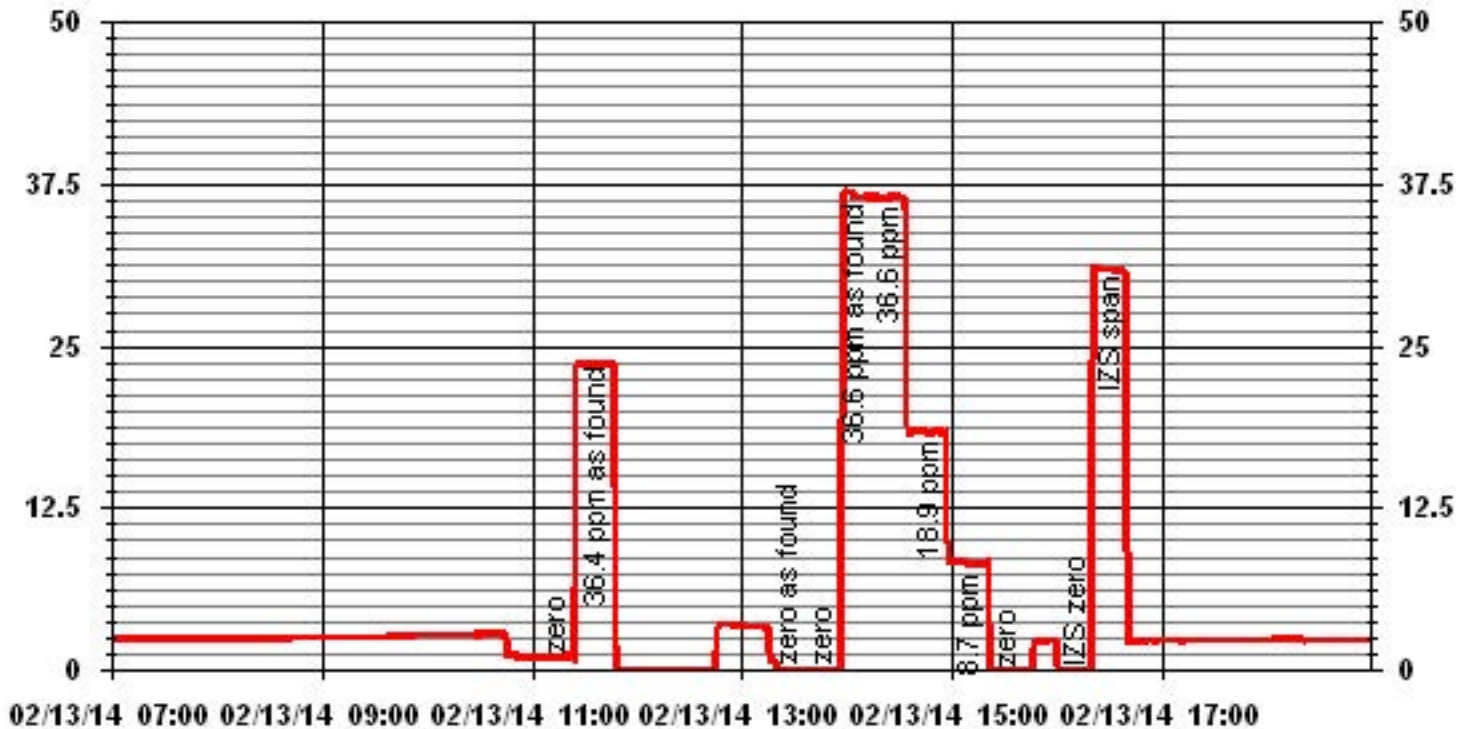
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 13, 2014 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | ST. LINA | | |
| Start Time (MST) | 13:20 | End Time (MST) | 16:45 |

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999885 |
|------------------|--------------------|-------------------|-------------------------|----------------|----------|
| ppm | ppm | | Slope | (0.85 to 1.15) | 1.004413 |
| 0.0 | -0.2 | 0.0000 | Intercept | (± 3% F.S.) | -0.33575 |
| 8.7 | 8.3 | 1.0425 | | | |
| 18.9 | 18.4 | 1.0254 | | | |
| 36.6 | 36.5 | 1.0014 | | | |



Notes:

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|-------------------|----------------------|------------------|
| Calibration Date | February 13, 2014 | Previous Calibration | January 21, 2014 |
| Company | LICA | Plant/Location | St. Lina |
| Start Time (MST) | 10:30 | End Time (MST) | 12:30 |
| Reason: | As Found | | |
| Barometric Pressure | na atm | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | 29-Dec-16 |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 592 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|------------|--|-------------------|------------|--|--|
| Concentration Range | 0-1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 475 ccm | 314 Deg C | | 475 ccm | 314 Deg C | | |
| Ozone Flow / Vacuum | 73 ccm | 10.0 "Hg-A | | 73 ccm | 10.0 "Hg-A | | |
| HVPS / A ZERO | 650 Volts | 19.7 MV | | 650 Volts | 19.7 MV | | |
| Rx/ Temp / PMT Temp | 50.0 Deg C | 6.9 Deg C | | 50.0 Deg C | 6.9 Deg C | | |
| Box Temp / IZS Temp | 30.5 Deg C | 40.2 Deg C | | 30.5 Deg C | 40.2 Deg C | | |
| Offset | 14.4 NOx | 2.8 NO | | 14.4 NOx | 2.8 NO | | |
| Slope | 1.041 NOx | 1.040 NO | | 1.041 NOx | 1.040 NO | | |
| NO2 COEF / Conv Efficiency | N/A NO2 | na | | N/A NO2 | na | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 5000 | 0.0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 |
| 5000 | 80.0 | 0 | 772 | 770 | 0 | 737 | 739 | na | 1.0456 | 1.0406 |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|----|-----|-------------------------|----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| | | | | | | | | | | |

| | | | | | | |
|---------------|-----|----|--|-------------|------------|------|
| Linearity OK? | Yes | No | Sum of Least Squares Correction Factors: | NOx= 1.0456 | NO= 1.0406 | NO2= |
| | | | Average Converter Efficiency= | | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|--------------------|-------------------------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | 483 NOx | 468 NO2 | | 483 NOx | 468 NO2 | | |
| | Sample Lines Connected: | | | NO | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 0.998 | 1.000 | 1.001 |
| Current Correction Factor Before Span Adjust | 1.046 | 1.041 | |
| Percent Change | -4.6% | -3.9% | |

Notes

Change sample filter.

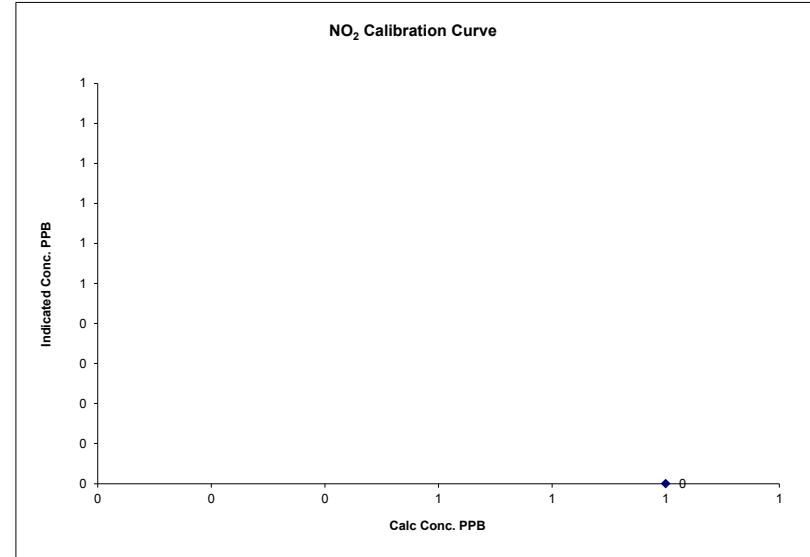
After as found point, change datalogger NO/NO2/NOX channels Low Input back to 0V.

Calibration Performed by: Limin Li

NO2 Calibration Curve

| | |
|------------------|-------------------|
| Calibration Date | February 13, 2014 |
| Company | LICA |
| Plant / Location | St. Lina |
| Start Time (MST) | 10:30 |
| End Time (MST) | 12:30 |

| | | | |
|----------------------|------------------------|-------------------|-----------------------------------|
| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) |
| na | | | Slope (0.85 to 1.15) |
| | | | Intercept (± 3% F.S.) |



Notes:

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|-------------------|----------------------|------------------|
| Calibration Date | February 13, 2014 | Previous Calibration | January 21, 2014 |
| Company | LICA | Plant/Location | St. Lina |
| Start Time (MST) | 13:10 | End Time (MST) | 18:46 |
| Reason: | Post Repair | | |
| Barometric Pressure | na atm | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | 29-Dec-16 |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|------------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 592 | Method: | Chemiluminescent |
| Calibrator Make / Model: | Enviro-nics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | Enviro-nics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|------------|--|-------------------|------------|--|--|
| Concentration Range | 0-1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 475 ccm | 314 Deg C | | 476 ccm | 314 Deg C | | |
| Ozone Flow / Vacuum | 73 ccm | 10.0 °Hg-A | | 73 ccm | 9.9 °Hg-A | | |
| HVPS / A ZERO | 650 Volts | 19.7 MV | | 650 Volts | 21.6 MV | | |
| Rx/ Temp / PMT Temp | 50.0 Deg C | 6.9 Deg C | | 50.0 Deg C | 6.9 Deg C | | |
| Box Temp / IZS Temp | 30.5 Deg C | 40.2 Deg C | | 30.4 Deg C | 40.1 Deg C | | |
| Offset | 14.4 NOx | 2.8 NO | | -1.2 NOx | -2.0 NO | | |
| Slope | 1.041 NOx | 1.040 NO | | 1.074 NOx | 1.070 NO | | |
| NO2 COEF / Conv Efficiency | N/A NO2 | na | | N/A NO2 | na | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|--------|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 5000 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5000 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 770 | 769 | na | 1.0000 | 1.0000 |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 770 | 769 | na | 1.0000 | 1.0000 |
| 5000 | 39.9 | 0 | 388 | 387 | 0 | 388 | 388 | na | 1.0000 | 0.9975 |
| 5000 | 19.9 | 0 | 195 | 194 | 0 | 194 | 195 | na | 1.0033 | 0.9961 |
| 5000 | 0.0 | 0 | 0 | 0 | 0 | 0 | na | 0.0000 | 0.0000 | |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 771 | 775 | -4 | 0 | 0.00% |
| 4996 | 79.8 | 500 | 770 | 0.0 | 527 | 771 | 244 | 527 | 1.0000 | 100.00% |
| 4996 | 79.8 | 500 | 770 | 0.0 | 527 | 771 | 244 | 527 | 1.0000 | 100.00% |
| 4996 | 79.8 | 230 | 770 | 0.0 | 248 | 773 | 523 | 250 | 0.9920 | 100.79% |
| 4996 | 79.8 | 100 | 770 | 0.0 | 100 | 774 | 671 | 103 | 0.9709 | 102.88% |

| | | | | | |
|-----------|----------------------|----|---------------------------------------|------------|-------------|
| Linearity | Sum of Least Squares | | NOx= 1.000 | NO= 0.999 | NO2= 0.998 |
| OK? | Yes | No | Correction Factors: NOx= 1.0000 | NO= 1.0000 | NO2= 1.0000 |
| | | | Average Converter Efficiency= 101.23% | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|--------------------|-------------------------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | 483 NOx | 468 NO2 | | 494 NOx | 471 NO2 | | |
| | Sample Lines Connected: | | | NO | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 0.998 | 1.000 | 1.001 |
| Current Correction Factor Before Span Adjust | 1.000 | 1.000 | 1.000 |
| Percent Change | -0.2% | 0.0% | 0.1% |

Notes

Change sample filter.

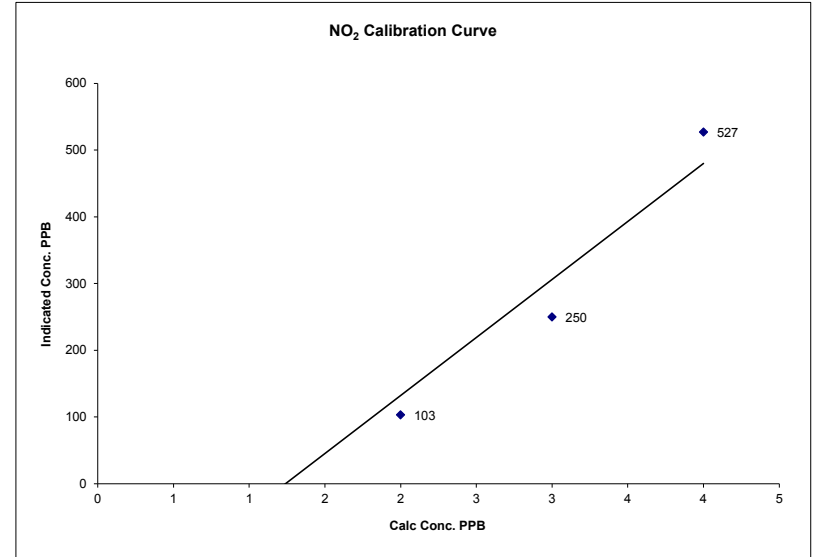
After as found point, change datalogger NO/NO2/NOX channels Low Input back to 0V.

Calibration Performed by: Limin Li

NO2 Calibration Curve

| | | | |
|------------------|-------------------|------------------|-------|
| Calibration Date | February 13, 2014 | Company | LICA |
| Plant / Location | St. Lina | Start Time (MST) | 13:10 |
| End Time (MST) | 18:46 | | |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 1.000000 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|----------|
| na | -4 | 0.0000 | Intercept | (± 3% F.S.) | -0.25058 |
| 104 | 103 | 1.0097 | | | |
| 252 | 250 | 1.0080 | | | |
| 531 | 527 | 1.0076 | | | |

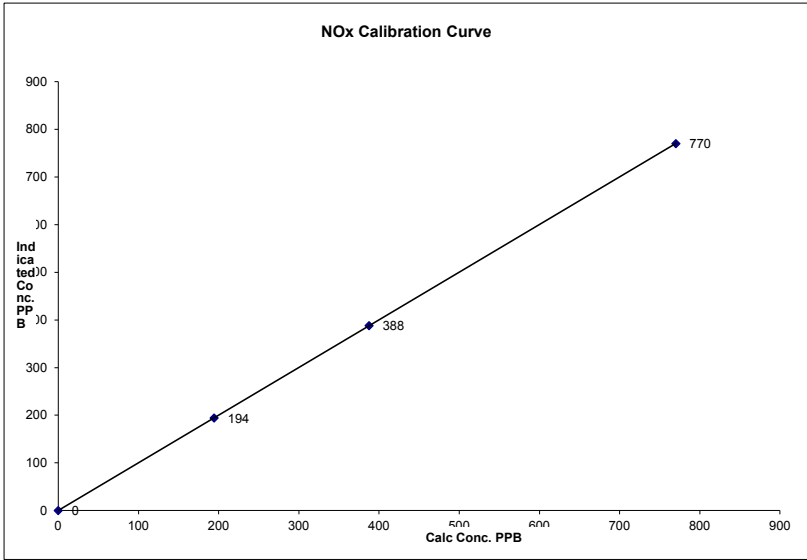


Notes:

NOx Calibration Curve

| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 13, 2014 | |
| Company | LICA | |
| Plant / Location | St. Lina | |
| Start Time (MST) | 13:10 | End Time (MST) 18:46 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999999 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 0.999826 |
| 195 | 194 | 1.0033 | Intercept (± 3% F.S.) | -0.14750 |
| 388 | 388 | 1.0000 | | |
| 770 | 770 | 1.0000 | | |

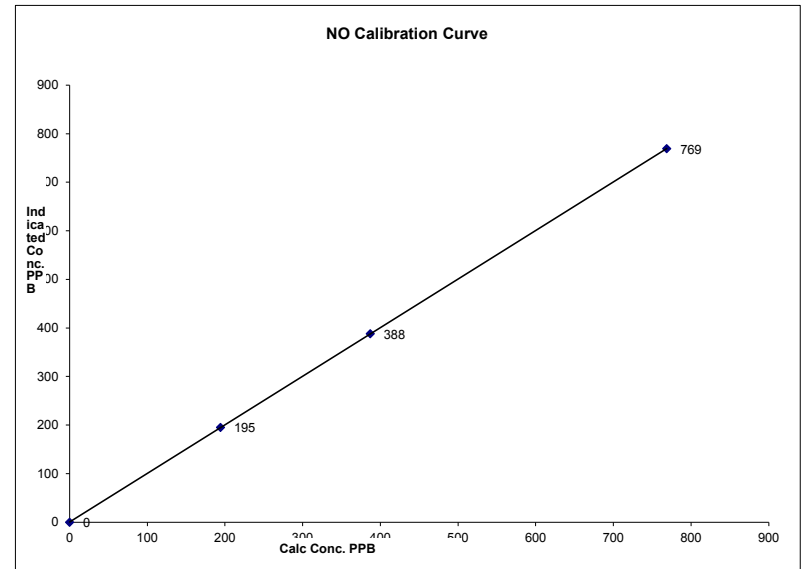


Notes:

NO Calibration Curve

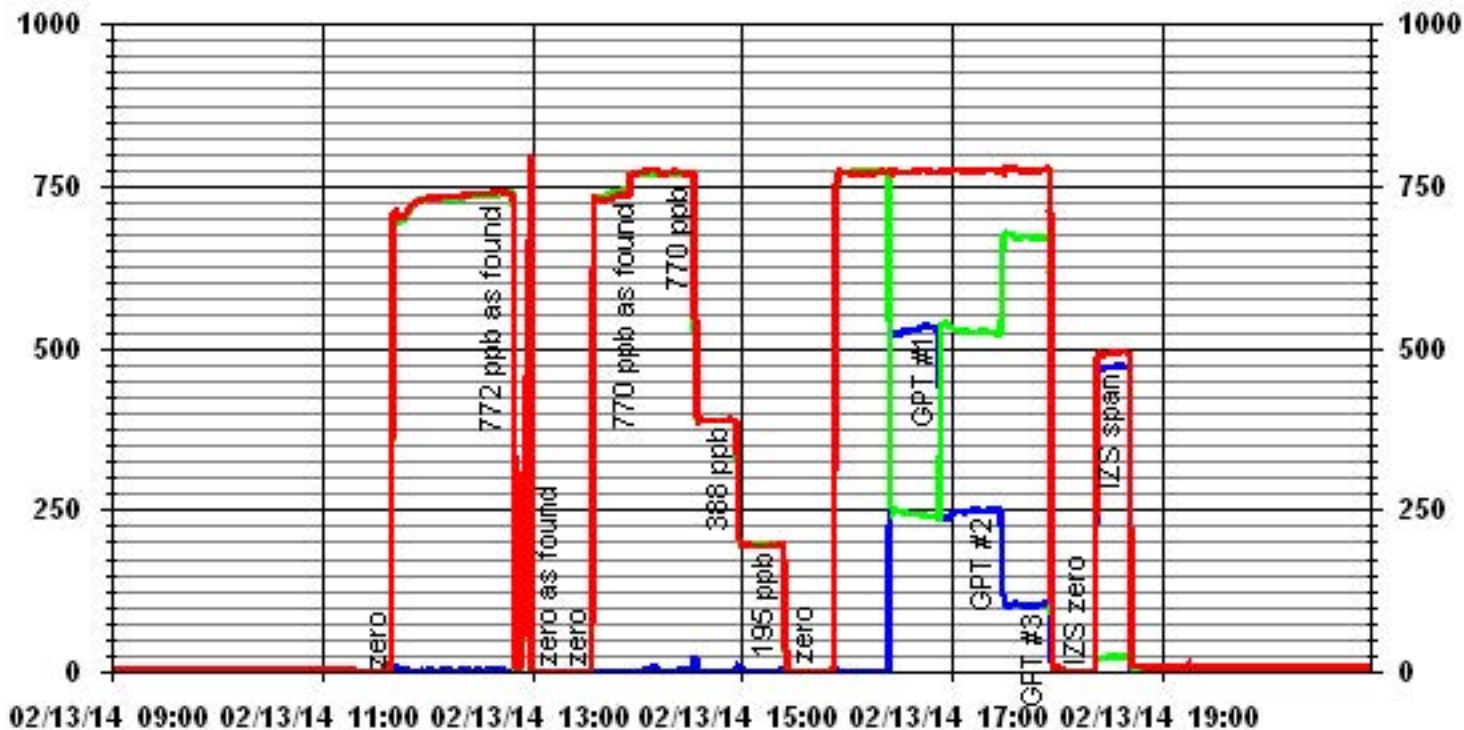
| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 13, 2014 | |
| Company | LICA | |
| Plant / Location | St. Lina | |
| Start Time (MST) | 13:10 | End Time (MST) 18:46 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999998 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 1.000092 |
| 194 | 195 | 0.9961 | Intercept (± 3% F.S.) | 0.45307 |
| 387 | 388 | 0.9975 | | |
| 769 | 769 | 1.0000 | | |



Notes:

01 Minute Averages



NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|-------------------|----------------------|-------------------|
| Calibration Date | February 16, 2014 | Previous Calibration | February 13, 2014 |
| Company | LICA | Plant/Location | St. Lina |
| Start Time (MST) | 12:00 | End Time (MST) | 14:30 |
| Reason: | GPT | | |
| Barometric Pressure | na atm | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | 29-Dec-16 |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 592 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|----------------------------|------------|------------|-------------------|-------|-------|
| Concentration Range | 0-1000 | | ppb | | |
| Sample Flow/Conv. Temp | 475 ccm | 316 Deg C | 476 ccm | 316 | Deg C |
| Ozone Flow / Vacuum | 72 ccm | 9.7 "Hg-A | 72 ccm | 9.7 | "Hg-A |
| HVPS / A ZERO | 650 Volts | 20.4 MV | 650 Volts | 21.3 | MV |
| Rx/ Temp / PMT Temp | 50.0 Deg C | 6.9 Deg C | 50.0 Deg C | 6.9 | Deg C |
| Box Temp / IZS Temp | 28.7 Deg C | 40.2 Deg C | 28.7 Deg C | 40.1 | Deg C |
| Offset | -1.2 NOx | -2.0 NO | -1.2 NOx | -2.0 | NO |
| Slope | 1.074 NOx | 1.070 NO | 1.074 NOx | 1.070 | NO |
| NO2 COEF / Conv Efficiency | N/A NO2 | na | N/A NO2 | na | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 5000 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 761 | 765 | 0 | 1.0123 | 1.0050 |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 761 | 765 | -4 | 0 | 0.00% |
| 4996 | 79.8 | 380 | 770 | 0.0 | 409 | 762 | 352 | 409 | 1.0000 | 100.00% |
| 4996 | 79.8 | 190 | 770 | 0.0 | 206 | 763 | 555 | 207 | 0.9952 | 100.48% |
| 4996 | 79.8 | 100 | 770 | 0.0 | 101 | 765 | 660 | 105 | 0.9619 | 103.81% |

| | | | | | | |
|---------------|-----|----|--|---------------------------------------|------------|------------|
| Linearity OK? | Yes | No | Sum of Least Squares Correction Factors: | NOx= 1.0123 | NO= 1.0050 | NO2= 0.997 |
| | | | | Average Converter Efficiency= 101.43% | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|-------------------------|---------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | 494 NOx | 471 NO2 | | 494 NOx | 471 NO2 | | |
| Sample Lines Connected: | | | | NO | | | |

Percent Change

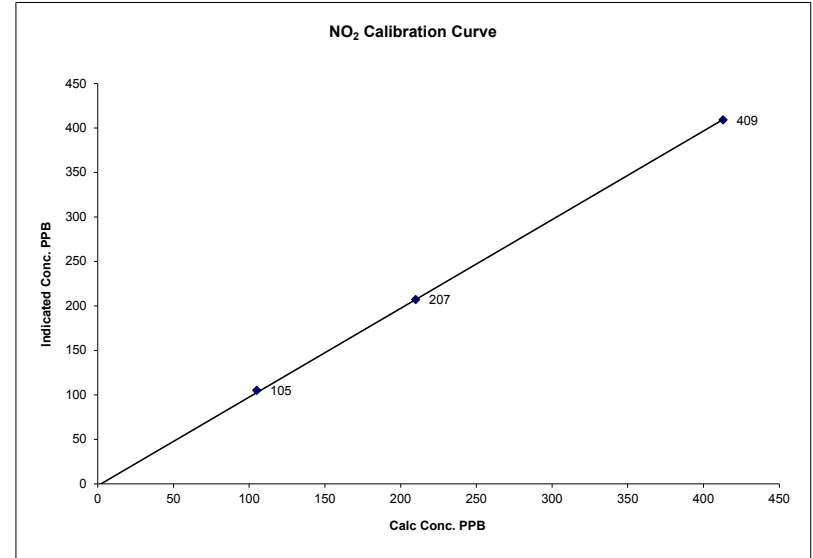
| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.000 | 1.000 | 1.000 |
| Current Correction Factor Before Span Adjust | 1.012 | 1.005 | 1.000 |
| Percent Change | -1.2% | -0.5% | 0.0% |

Notes: **O3 range is 500, Nox range is 1000, points and % of full scale do not match,**
 must do separate gpt on Nox analyzer to get NO drop that matches the range of the O3 analyzer,
 then proceed with O3 cal, gpt points 10 minutes
 Calibration Performed by: Limin Li

NO2 Calibration Curve

| | | | |
|------------------|-------------------|------------------|-------|
| Calibration Date | February 16, 2014 | Company | LICA |
| Plant / Location | St. Lina | Start Time (MST) | 12:00 |
| End Time (MST) | 14:30 | | |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999893 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|----------|
| 0 | -4 | 0.0000 | Intercept | (± 3% F.S.) | -2.20321 |
| 105 | 105 | 1.0000 | | | |
| 210 | 207 | 1.0145 | | | |
| 413 | 409 | 1.0098 | | | |

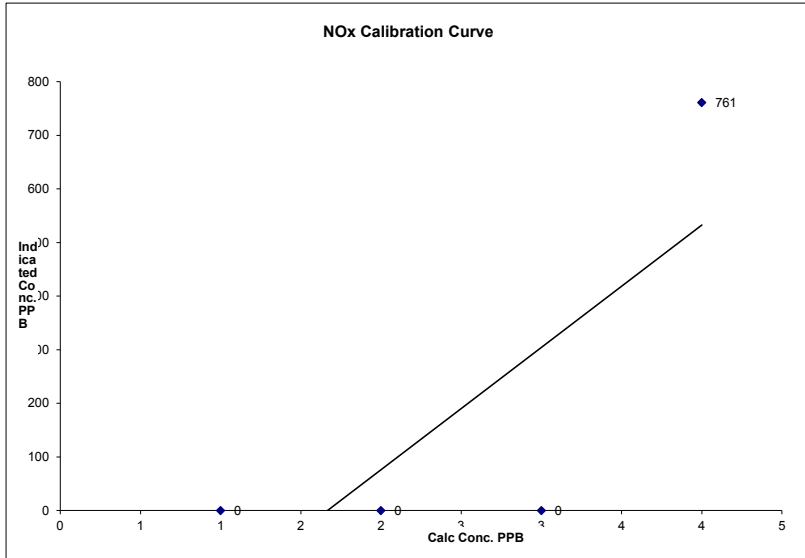


Notes:

NOx Calibration Curve

| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 16, 2014 | |
| Company | LICA | |
| Plant / Location | St. Lina | |
| Start Time (MST) | 12:00 | End Time (MST) 14:30 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) ($\pm 3\%$ F.S.) |
|----------------------|------------------------|-------------------|---|---|
| 0 | 0 | 0.0000 | Intercept | |
| 770 | 761 | 1.0123 | | |

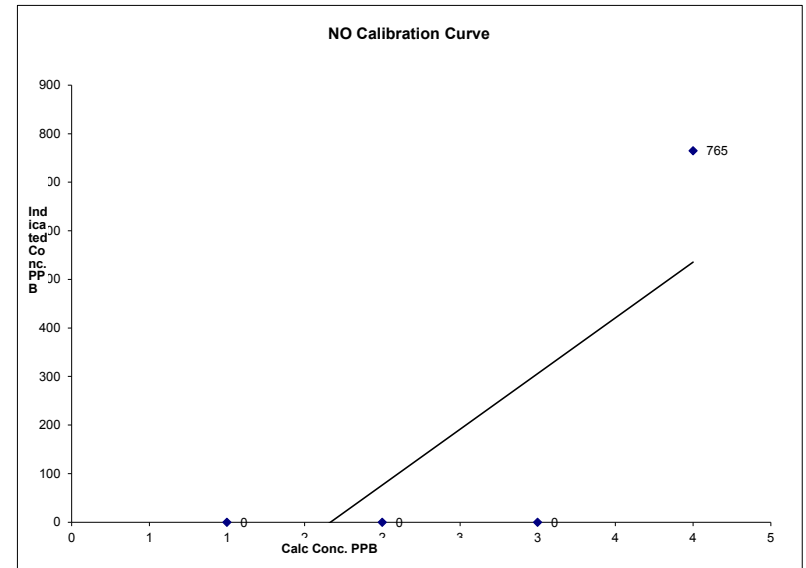


Notes:

NO Calibration Curve

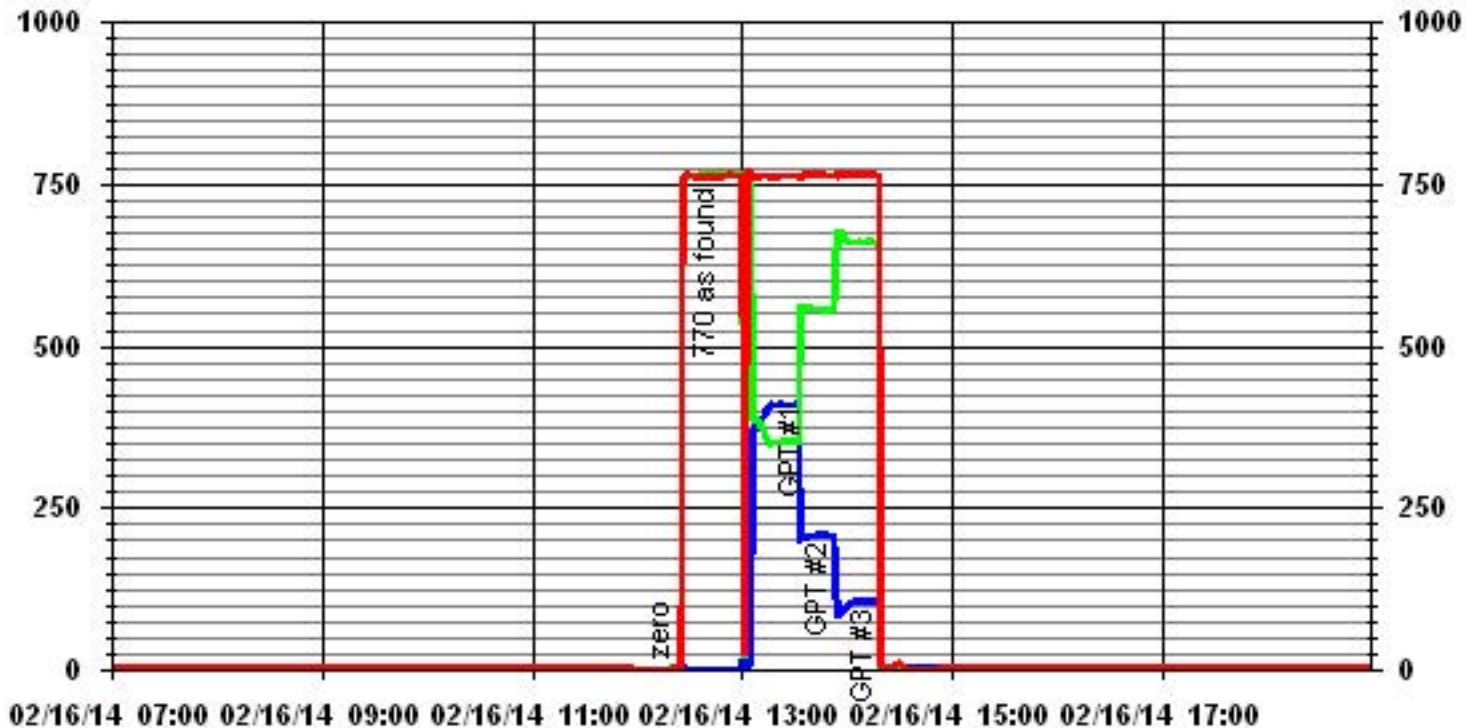
| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 16, 2014 | |
| Company | LICA | |
| Plant / Location | St. Lina | |
| Start Time (MST) | 12:00 | End Time (MST) 14:30 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) ($\pm 3\%$ F.S.) |
|----------------------|------------------------|-------------------|---|---|
| 0 | 0 | 0.0000 | Intercept | |
| 769 | 765 | 1.0050 | | |



Notes:

01 Minute Averages



— LICA31 NOX_ PPB

— LICA31 NO_ PPB

— LICA31 NO2_ PPB

Ozone

O₃ Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|------------------|
| Calibration Date | February 16, 2014 | Previous Calibration | January 22, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | St. Lina | | |
| Start Time (MST) | 14:20 | End Time (MST) | 18:00 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | na atm | Station Temperature | na Deg C |
| DAS Output Voltage | 0-10 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|----------------|-------|------------|---------|-------------|
| Analyzer Make / Model: | Thermo 49i | S/N : | 1002240371 | Method: | Photometric |
| Calibrator Make / Model: | Enviroics 6100 | S/N : | 4760 | Method: | GPT |
| DAS Make / Model: | ESC 8832 | S/N : | AO 717 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|--------------------------------|------------|------------|------------|-------------------|--|--|--|
| Concentration Range | 0-500 ppb | | | | | | |
| Cell A Flow / Cell B Flow | 0 LPM | 0 LPM | 721 LPM | 716 LPM | | | |
| O ₃ Set Level | 668 mmHg | | | 660 mmHg | | | |
| Bench Lamp | 53.6 Deg C | | | 53.6 Deg C | | | |
| O ₃ Lamp / Box Temp | 67.7 Deg | 26.8 Deg C | 67.8 Deg C | 27.9 Deg C | | | |
| Offset / Slope | 0 | 0.978 | 0 | 0.959 | | | |

Calibration Data

| Dilution Flow Rate | Ozone Set Point | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|-----------------|--------------------------|-----------------------|-------------------|
| 5000 | 0 | 0 | 0 | N/A |
| | No Zero Adj | | | |
| 5000 | 380 | 413 | 420 | 0.9833 |
| 5000 | 380 | 413 | 413 | 1.0000 |
| 5000 | 190 | 210 | 208 | 1.0096 |
| 5000 | 100 | 105 | 106.6 | 0.9850 |
| 5000 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | 1.0011 |
| New Correction Factor | | | | 1.0000 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|--|-----|-------------------|--|
| Auto Zero | 0.0 | 0.0 | |
| Auto Span | 326 | 326 | |
| Sample Lines Connected | | Yes | |
| Previous Calibration Correction Factor: | | 1.0000 | |
| Current Correctio Factor Before Span Adjust: | | 0.9833 | |
| Percent Change: | | 1.7% | |

Note:

N/A : Not Applicable

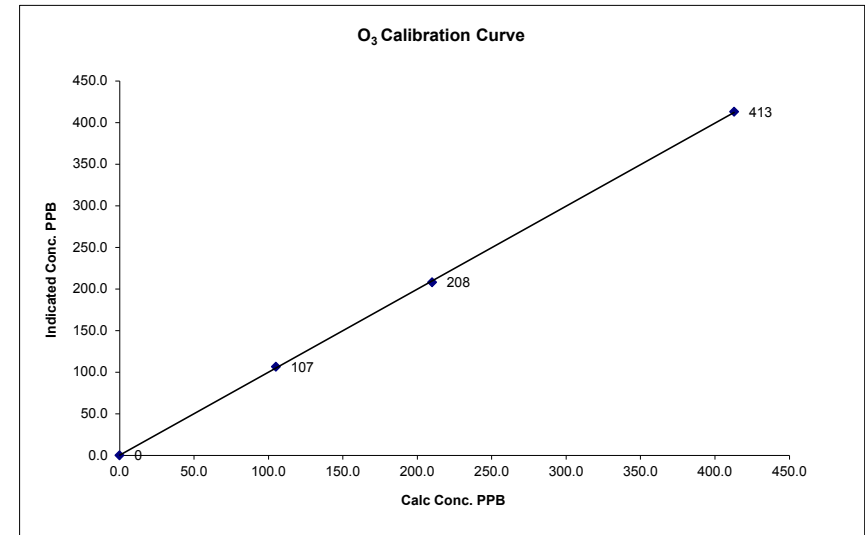
Change sample filter.
When be trailer, find sample flow alarm. Pump no longer works. Change a new pump.

Calibration Performed by: Limin Li

O₃ Calibration Curve

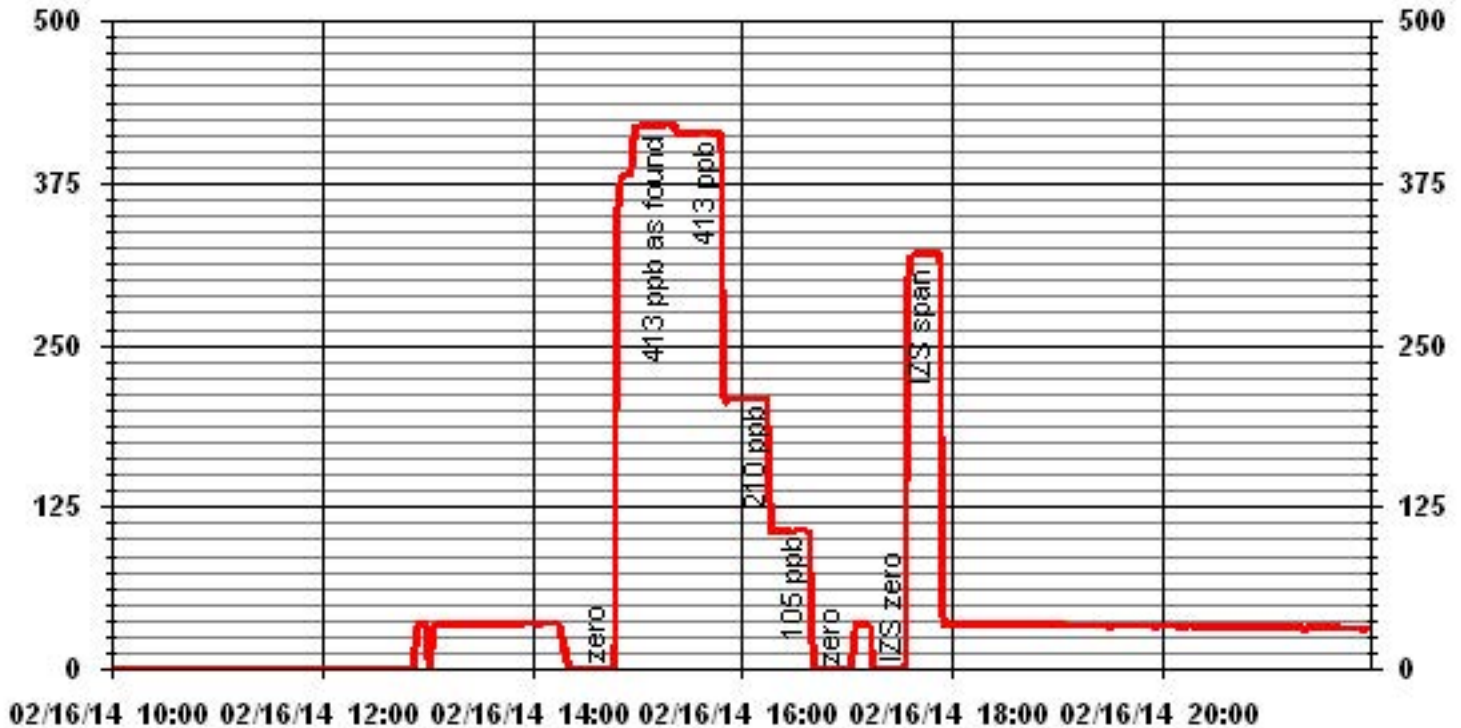
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 16, 2014 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | St. Lina | | |
| Start Time (MST) | 14:20 | End Time (MST) | 18:00 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | N/A | Slope (0.85 to 1.15) | 0.999933 |
| 105 | 107 | 0.9850 | Intercept (± 3% F.S.) | 0.998077 |
| 210 | 208 | 1.0096 | | 0.249947 |
| 413 | 413 | 1.0000 | | |



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM® Calibration

| | | | |
|---------------|------------------------|----------------|---------------------------------|
| | <u>Station</u> | | <u>Transfer Standard</u> |
| Date: | February 17, 2014 | Make/Model: | Streamline FTS |
| Station Name: | LICA St.Lina (CASA#31) | Serial Number: | Hi 091001,Lo 091099 |
| Location: | St. Lina Station | Cell s/n: | na |
| Operator: | Maxxam Analytics | Thermometer: | Station Temp. & pres. Sensor |

| | | | |
|------------------|-----------------------|-----------------------|---|
| | <u>Sampler</u> | | <u>Set-up and current Sampler readings</u> |
| Make/Model | R&P Teom 1400a | F-Main Set Pt (l/min) | 3.00 |
| Unit # | 20001 | F-Aux Set Pt (l/min) | 13.67 |
| Control unit s/n | 140AB228720001 | Filter Load (%) | 33% |
| Transducer s/n | 1200C153540001 | K _o Factor | 15003 |
| Parameter | PM2.5 | Temp (°C) | -6.3 |
| | | Press (ATM) | 0.902 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as **BOLD** in Brackets

Calibration

| | | | | |
|------------------------------------|-----------------|--|---|-------------------------------|
| Zero flow | | | | |
| | Pump Off | | Pump On (Time to reach set points) | |
| F-Main (l/min) | 0.06 | | (45-60 Sec) | 40 |
| F-Aux (l/min) | 0.13 | | (45-60 Sec) | 55 |
| Temperature/Pressure | | | | |
| Measured Temp (± 1 °C) | -7.2 | Δ °C | -0.9 | |
| Measured Press (± 1.5% ATM) | 0.901 | Δ % ATM | -0.1% | |
| Flow Audit | | | | |
| Indicated Main/Aux Flow (l/min) | 2.98 | / | 13.61 | Δ % from Set-pt |
| | | | | (± 2%) |
| Total Flow = Main + Aux (l/min) | 16.59 | | | 0.7% / 0.4% |
| | | | | (± 2%) |
| Measured Total Flow (l/min) | 17.12 | | | 0.5% |
| | | | | (± 1.0 l/min. (5.65%)) |
| Measured Main Flow (l/min) | 3.050 | | | -3.1% |
| | | | | (± 0.2 l/min. (6.25%)) |
| Leak Check | | | | |
| Main (< 0.15 l/min) | 0.06 | Actual leakage = Pump On - Pump Off | | 0.00 |
| Aux (< 0.15 l/min) | 0.15 | | | 0.02 |
| K_o Factor | | | | |
| Measured | na | | | |
| K _o Difference (± 2.5%) | na | | | |

Start Time: 10:30 Finish Time: 11:15
 Sample Inlet Cleaned: no Sample Inlet Connected: no
 Comments: Remove Calibration

Calibrator/s: Limin Li

TEOM0 1405F Audit

| | | | |
|---------------|---------------------------|----------------|---------------------------------------|
| | <u>Station</u> | | <u>Audit Transfer Standard</u> |
| Date: | February 20, 2014 | Make/Model: | Streamline FTS |
| Station Name: | Lica St. Lina (CASA # 31) | Serial Number: | Hi 091001,Lo 091099 |
| Location: | St. Lina Station | Cell s/n: | na |
| Operator: | LICA | Thermometer s/ | Station Temp. Sensor |

| | | | |
|---------------|--------------------------------|-----------------------|---|
| | <u>Sampler</u> | | <u>Set-up and current Sampler readings</u> |
| Make/Model | Thermo Scientific Series 1405F | F-Main Set Pt (l/min) | 3.00 |
| Unit # | NA | F-Aux Set Pt (l/min) | 13.67 |
| Unit s/n | 1405A207691003 | Filter Load (%) | 19.0% |
| Firmware Ver. | 1.55 | K _o Factor | 15634.0 |
| Parameter | PM 2.5 (with FDMS) | Temp (°C) | -8.5 |
| | | Press (ATM) | 0.913 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as **BOLD** in Brackets

Audit

| | | | |
|---|--------------------|-------------------------------------|--------|
| Status | | | |
| Noise <0.10ug | na | Warnings | None |
| Pump Vacuum <0.4atm | 0.43 | Pump Gauge (inHg) | -14 |
| Temperature/Pressure | | | |
| Measured Temp (± 2 °C) | -7.60 | D °C | -0.9 |
| Measured Press (± 0.01atm) | 0.914 | DATM | -0.001 |
| Flow Audit | | | |
| Indicated Main Flow (l/min) | 3.00 | Main Flow Drift (±10.0%) | -3.33% |
| Measured Main Flow (l/min) | 2.90 | Flow Adjusted to Measured? | YES |
| Indicated Bypass Flow (l/min) | 13.68 | Bypass Flow Drift (±10.0%) | -2.92% |
| Measured Bypass Flow (l/min) | 13.28 | Flow Adjusted to Measured? | YES |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | Base=0.02 Ref=0.03 | Flow Control = Active | |
| Aux (< 0.6 l/min) | Base=0.02 Ref=0.00 | Report Conditions = Actual | |
| K_o Factor | | | |
| Measured | NA | | |
| K _o Difference (± 2.5%) | NA | | |

Start Time: 10:45 **Finish Time:** 12:15

Sample Inlet Cleaned: no **New Filters Installed:** no
New Filter Loading %: na

Comments: Afre as found audit, Change pump.

Auditor/s: Limin Li

TEOMÒ 1405F Audit

| | | | |
|-----------------------|--------------------------------|---|---------------------|
| <u>Station</u> | | <u>Audit Transfer Standard</u> | |
| Date: | February 25, 2014 | Make/Model: | Streamline FTS |
| Station Name: | Lica St. Lina (CASA # 31) | Serial Number: | Hi 091001,Lo 091099 |
| Location: | St. Lina Station | Cell s/n: | na |
| Operator: | LICA | Thermometer s/ | FLUK 1551A/SN:4295 |
| <u>Sampler</u> | | <u>Set-up and current Sampler readings</u> | |
| Make/Model | Thermo Scientific Series 1405F | F-Main Set Pt (l/min) | 3.00 |
| Unit # | NA | F-Aux Set Pt (l/min) | 13.67 |
| Unit s/n | 1405A207691003 | Filter Load (%) | 19.0% |
| Firmware Ver. | 1.55 | K _o Factor | 15634.0 |
| Parameter | PM 2.5 (with FDMS) | Temp (°C) | -12.1 |
| | | Press (ATM) | 0.932 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as **BOLD** in Brackets

Audit

| | | | |
|------------------------------------|--------------------|----------------------------|-------|
| Status | | | |
| Noise <0.10ug | NA | Warnings | NA |
| Pump Vacuum <0.4atm | NA | Pump Gauge (inHg) | NA |
| Temperature/Pressure | | D °C | |
| Measured Temp (± 2 °C) | -11.30 | | -0.8 |
| Measured Press (± 0.01atm) | 0.930 | DATM | 0.002 |
| Flow Audit | | | |
| Indicated Main Flow (l/min) | 3.00 | Main Flow Drift (±10.0%) | 2.33% |
| Measured Main Flow (l/min) | 2.93 | Flow Adjusted to Measured? | YES |
| Indicated Bypass Flow (l/min) | 16.60 | Bypass Flow Drift (±10.0%) | 5.60% |
| Measured Bypass Flow (l/min) | 15.67 | Flow Adjusted to Measured? | YES |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | Base=0.03 Ref=0.03 | Flow Control = Active | |
| Aux (< 0.6 l/min) | Base=0.00 Ref=0.00 | Report Conditions = Actual | |
| K_o Factor | | | |
| Measured | 15664.9 | | |
| K _o Difference (± 2.5%) | 0.20% | | |

Start Time: 14:05 **Finish Time:** 15:42

Sample Inlet Cleaned: NA **New Filters Installed:** NA

Comments: _____

Auditor/s: Kevin Hope _____

TEOMÒ 1405F Audit

| | | | |
|-----------------------|---------------------------------------|---|----------------------------|
| <u>Station</u> | | <u>Audit Transfer Standard</u> | |
| Date: | <u>February 26, 2014</u> | Make/Model: | <u>Streamline FTS</u> |
| Station Name: | <u>Lica St. Lina (CASA # 31)</u> | Serial Number: | <u>Hi 091001,Lo 091099</u> |
| Location: | <u>St. Lina Station</u> | Cell s/n: | <u>na</u> |
| Operator: | <u>LICA</u> | Thermometer s/ | <u>FLUK 1551A/SN:4295</u> |
| <u>Sampler</u> | | <u>Set-up and current Sampler readings</u> | |
| Make/Model | <u>Thermo Scientific Series 1405F</u> | F-Main Set Pt (l/min) | <u>3.00</u> |
| Unit # | <u>NA</u> | F-Aux Set Pt (l/min) | <u>13.67</u> |
| Unit s/n | <u>1405A207691003</u> | Filter Load (%) | <u>NA</u> |
| Firmware Ver. | <u>1.55</u> | K _o Factor | <u>15634.0</u> |
| Parameter | <u>PM 2.5 (with FDMS)</u> | Temp (°C) | <u>NA</u> |
| | | Press (ATM) | <u>NA</u> |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as **BOLD** in Brackets

Audit

| | | | |
|------------------------------------|---------------------------|-----------------------------------|----------------|
| Status | | | |
| Noise <0.10ug | <u>NA</u> | Warnings | <u>NA</u> |
| Pump Vacuum <0.4atm | <u>NA</u> | Pump Gauge (inHg) | <u>NA</u> |
| Temperature/Pressure | | D °C | |
| Measured Temp (± 2 °C) | <u>NA</u> | DATM | <u>#VALUE!</u> |
| Measured Press (± 0.01atm) | <u>NA</u> | | |
| Flow Audit | | | |
| Indicated Main Flow (l/min) | <u>NA</u> | Main Flow Drift (±10.0%) | <u>#VALUE!</u> |
| Measured Main Flow (l/min) | <u>NA</u> | Flow Adjusted to Measured? | <u>NA</u> |
| Indicated Bypass Flow (l/min) | <u>NA</u> | Bypass Flow Drift (±10.0%) | <u>#VALUE!</u> |
| Measured Bypass Flow (l/min) | <u>NA</u> | Flow Adjusted to Measured? | <u>NA</u> |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | <u>Base=0.01 Ref=0.02</u> | <u>Flow Control = Active</u> | |
| Aux (< 0.6 l/min) | <u>Base=0.00 Ref=0.00</u> | <u>Report Conditions = Actual</u> | |
| K_o Factor | | | |
| Measured | <u>na</u> | | |
| K _o Difference (± 2.5%) | <u>#VALUE!</u> | | |

Start Time: 15:00 Finish Time: 15:15

Sample Inlet Cleaned: NA New Filters Installed: NA

New Filter Loading %: NA

Comments: Routine Leak Check

Auditor/s: Kevin Hope

Lakeland Industry & Community Association

Cold Lake Monitoring Site

Ambient Air Monitoring

Data Report

For

February 2014

Prepared By:



March 31, 2014

Lakeland Industry & Community Association Cold Lake Monitoring Site Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Mike Bisaga
Lakeland Industry & Community Association
Box 8237
5107W – 50 Street
Bonnyville, Alberta
T9N 2J5

Monitoring Location: Cold Lake
Data Period: February 2014

The monthly ambient data report:

- Prepared by Ernestine Tangang
- Reviewed by Lily Lin

The monthly analytical report for passive monitoring:
Authorized by Levi Manchak

Calibration Procedure

The following calibration procedure applies to all calibrations conducted at the Lakeland Industry & Community Association Air Monitoring Station.

Calibration gas concentrations are generated using a dynamic mass flow controlled calibrator. EPA Protocol one gases are diluted with zero air generated on site. The Mass Flow Controllers in the calibrator are referenced using an NIST traceable flow meter once per month. All listed flows are reported as corrected to Standard Temperature and Pressure (STP).

Generated zero gas is introduced to the analyzer first. Three concentrations of calibration gas are then generated in order to introduce points at approximately 50-80%, 25-40% & 10-20% of the analyzer's full-scale range. An auto zero and span are then performed to validate the daily zero and span values recorded to the next multi-point calibration.

All indicated concentrations are taken from the ESC data logger used to collect the data for monthly reporting.

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. The calibration conforms to the procedure outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6*.

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Continuous Ambient Monitoring – February 2014

| LAKELAND INDUSTRY & COMMUNITY ASSOCIATION COLD LAKE SITE | | | | | | MAXIMUM VALUES | | | | | | | OPERATIONAL TIME (PERCENT) |
|---|------------|-------|-------------|-------|--------------------|----------------|--------|------|------------------------|--------------------------------|---------|-----|----------------------------------|
| | | | | | | 1-HOUR | | | | | 24-HOUR | | |
| PARAMETER | OBJECTIVES | | EXCEEDENCES | | MONTHLY AVERAGE | READING | DAY | HOUR | WIND SPEED (KPH) | WIND DIRECTION (DEGREES) | READING | DAY | |
| | 1-HR | 24-HR | 1-HR | 24-HR | | | | | | | | | |
| SO ₂ (PPB) | 172 | 48 | 0 | 0 | 0.42 | 4 | 4 | VAR | VAR | VAR | 1.9 | 4 | 94.9 |
| TRS (PPB) | - | - | - | - | 0.00 | 1 | 18 | 4, 5 | 1.4, 5.2 | 225(SW), 242(WSW) | 0.1 | 18 | 100.0 |
| NO ₂ (PPB) | 159 | - | 0 | - | 7.42 | 44.1 | 18 | 21 | 1.9 | 80(E) | 16.7 | 10 | 100.0 |
| NO (PPB) | - | - | - | - | 1.40 | 39.1 | 18 | 21 | 1.9 | 80(E) | 4.9 | 18 | 100.0 |
| NO _x (PPB) | - | - | - | - | 8.82 | 83.2 | 18 | 21 | 1.9 | 80(E) | 20.1 | 10 | 100.0 |
| O ₃ (PPB) | 82 | - | 0 | - | 27.28 | 44 | 18 | 14 | 10 | 252(WSW) | 36.7 | 1 | 100.0 |
| THC (PPM) | - | - | - | - | 2.08 | 3.3 | 10 | 6, 7 | 0.2, 1 | 94(E), 251(WSW) | 2.8 | 10 | 100.0 |
| PM 2.5 (UG/M ³) | - | 30 | - | 0 | 5.76 | 29 | 17 | 4, 6 | 1.5, 0.9 | 250(WSW), 220(SW) | 15.3 | 17 | 92.0 |
| TEMPERATURE (DEG C) | - | - | - | - | -17.39 | 2.1 | 18 | 14 | 10 | 252(WSW) | -5.8 | 18 | 100.0 |
| RELATIVE HUMIDITY (%) | - | - | - | - | 67.16 | 88 | 19, 20 | VAR | VAR | VAR | 82.0 | 20 | 100.0 |
| VECTOR WS (KPH) | - | - | - | - | 5.27 | 20.5 | 27 | 18 | - | 350(N) | 9.4 | 2 | 100.0 |
| VECTOR WD (DEGREES) | - | - | - | - | 310(NW) | - | - | - | - | - | - | - | 100.0 |

VAR-VARIOUS NA: NOT AVAILABLE

Monthly Non-Continuous Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Passive Ambient Monitoring Network – February 2014

| LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK | | | |
|---|---------|---------------|-----------------|
| NETWORK MAXIMUM | | | NETWORK AVERAGE |
| PARAMETER | STATION | READING (PPB) | READING (PPB) |
| SO ₂ | #14 | 1.5 | 0.8 |
| H ₂ S | #26 | 0.24 | 0.15 |
| NO ₂ | #28 | 8.0 | 2.4 |
| O ₃ | #32 | 39.4 | 32.8 |

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance. Any non-conformances, problems or maintenance performed are detailed at the end of each section.

AQM STATION – LICA – COLD LAKE SOUTH

Sulphur Dioxide (PPB)

- Analyzer make / model – Thermo 43i, S/N: 806528242

The monthly calibration was performed on February 15th. The inlet filter was changed before the monthly calibration. The analyzer did not span on February 19th due to the sample pump failure. The pump was replaced on February 20th. The hourly data was invalidated back to last good daily zero/span check, which was February 18th. A total of 31 hours of data was invalidated. This issue did not affect data quality. Data was corrected using daily zero information.

Total Reduced Sulphur (PPB)

- Analyzer make / model –TEI 450i, S/N: 812728560
- Converter - CD NOVA CDN 101, S/N: 501

No operational issues were observed during the month. The monthly calibration was performed on February 15th. The inlet filter was changed before the monthly calibration was started. Some span results went below -10% of limited range as the expected value was set too high after the calibration was completed. The expected value was adjusted after the monthly calibration was completed. This issue did not affect data quality. Data was corrected using daily zero information.

Ozone (PPB)

- Analyzer make / model –Thermo 49i, S/N: 700419951

No operational issues were observed during the month. The monthly calibration was performed on February 15th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – COLD LAKE SOUTH

Total Hydrocarbon (PPM)

- Analyzer make / model - Thermo 51C-LT, S/N: 51CTL-77021-384

No operational issues were observed during the month. The monthly calibration was performed on February 15th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model - TECO 42C, S/N: 427408716

No operational issues were observed during the month. The monthly calibration was performed on February 15th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Particulate Matter 2.5 (UG/M3)

- Analyzer make / model –TEOM1405F, S/N: 1405A201620804

Two Teom audits were performed this month: one was performed on February 15th and the other was on February 26th. The Teom filter was replaced and a new pump installed on February 15th. After the pump replacement, vacuum pump pressure alarm remained. The pump pressure was checked again on February 18th at hour 8 and 9 as the vacuum pump pressure alarm still appeared. The pump was replaced again on February 26th. However, the Teom unit still had issues with pressure. After further investigation, it was found that the plunger inside the compression fitting on the back of the teom unit was leaking. As the spare fitting was not available, the fitting was fixed by temporary sealing it up with Teflon tape. The vacuum went back to 0.22atm, which was within the limited range 0.40atm. The compression fitting was replaced on March 13th. Data was corrected using Alberta air quality guideline. If the data was between 0 to -3, the data was corrected to 0. If the data was below -3, the data was invalidated. Fifty hours of data were invalidated as the data were below -3 ug/m3.

Relative Humidity (PERCENT)

- System make / model - Rotronic Hygroclip-S3

No operational issues were observed during the month.

General Monthly Summary

AQM STATION – LICA – COLD LAKE SOUTH

Ambient Temperature (DEGC)

- System make / model - Rotronic Hygroclip-S3
- No operational issues were observed during the month.

Vector Wind Speed (KPH) & Vector Wind Direction (DEG)

- System make / model –MetOne, S/N: F1644
- The wind system is reported as vector wind speed and vector wind direction. The last wind system calibration was performed on November 18th, 2012.
- No operational issues were observed during the month.

Trailer Temperature (DEGC)

- System make / model - R&R 61
- No operational issues were observed during the month.

Datalogger

- System make / model - ESC 8832, S/N: 263
 - Software make / version - ESC v 5.51a
- The ESC 8832 is connected to a modem with DSL for continuous connection with the base computer.

Trailer

The glass manifold was cleaned on February 15th.

Passive Network

The samplers installed at site #2 had been removed, so no sample filters were installed.

The samplers installed at site #8 and #11 were not changed this month as the access to the samplers was blocked by snow.

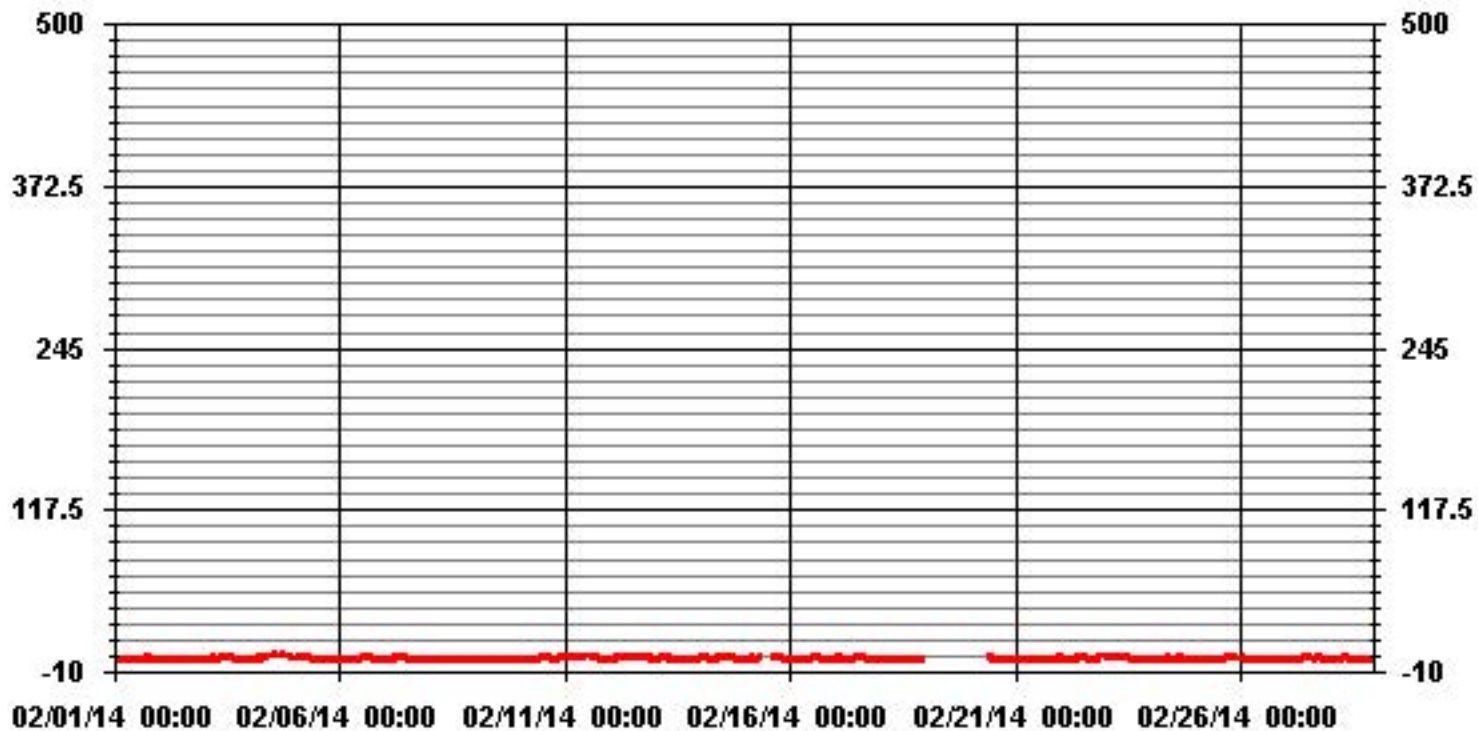
The H2S, NO2 and So2 sample installed at site #36 and the H2S sample installed at site #25 is missing.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

01 Hour Averages



— LICA SO2_ PPB

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | S | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0.8 | 24 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9 | 24 |
| 3 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 3 | 1.2 | 24 | |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 5 | 5 | S | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 2 | 2 | 5 | 2.7 | 24 |
| 5 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 1.0 | 24 | |
| 6 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0.9 | 24 | |
| 7 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 0.9 | 24 | |
| 8 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0.7 | 24 | |
| 9 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | S | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.7 | 24 | |
| 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1.0 | 24 | |
| 11 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | S | 2 | 2 | 3 | 3 | 4 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1.9 | 24 | |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 13 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 14 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1.4 | 24 | |
| 15 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | C | C | C | C | C | C | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 1.0 | 24 | |
| 16 | 0 | 0 | S | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.4 | 24 | |
| 17 | 1 | S | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0.7 | 24 | |
| 18 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | S | 1 | 0.2 | 24 | |
| 19 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 0 | 0 | 0 |
| 20 | X | X | X | X | X | X | X | S | Y | Y | Y | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | S | 0 | 0 | 2 | 0.6 | 14 | |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 1 | 1 | 1 | 0.1 | 24 | |
| 22 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | S | 1 | 3 | 3 | 3 | 3 | 1.3 | 24 | |
| 23 | 3 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | S | 1 | 0 | 1 | 0 | 1 | 3 | 1.5 | 24 | |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0.6 | 24 | |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | S | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0.7 | 24 | |
| 26 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.4 | 24 | |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | S | 1 | 1 | 2 | 3 | 1 | 1 | 0 | 0 | 3 | 0.9 | 24 | | |
| 28 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.4 | 24 | |
| HOURLY MAX | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 4 | 5 | 5 | 3 | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 3 | 3 | | | | |
| HOURLY AVG | 0.8 | 0.8 | 0.7 | 0.9 | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 1.1 | 1.2 | 1.2 | 1.3 | 1.0 | 1.2 | 1.1 | 1.1 | 1.0 | 0.9 | 0.8 | 0.9 | 0.7 | 0.8 | | | | |

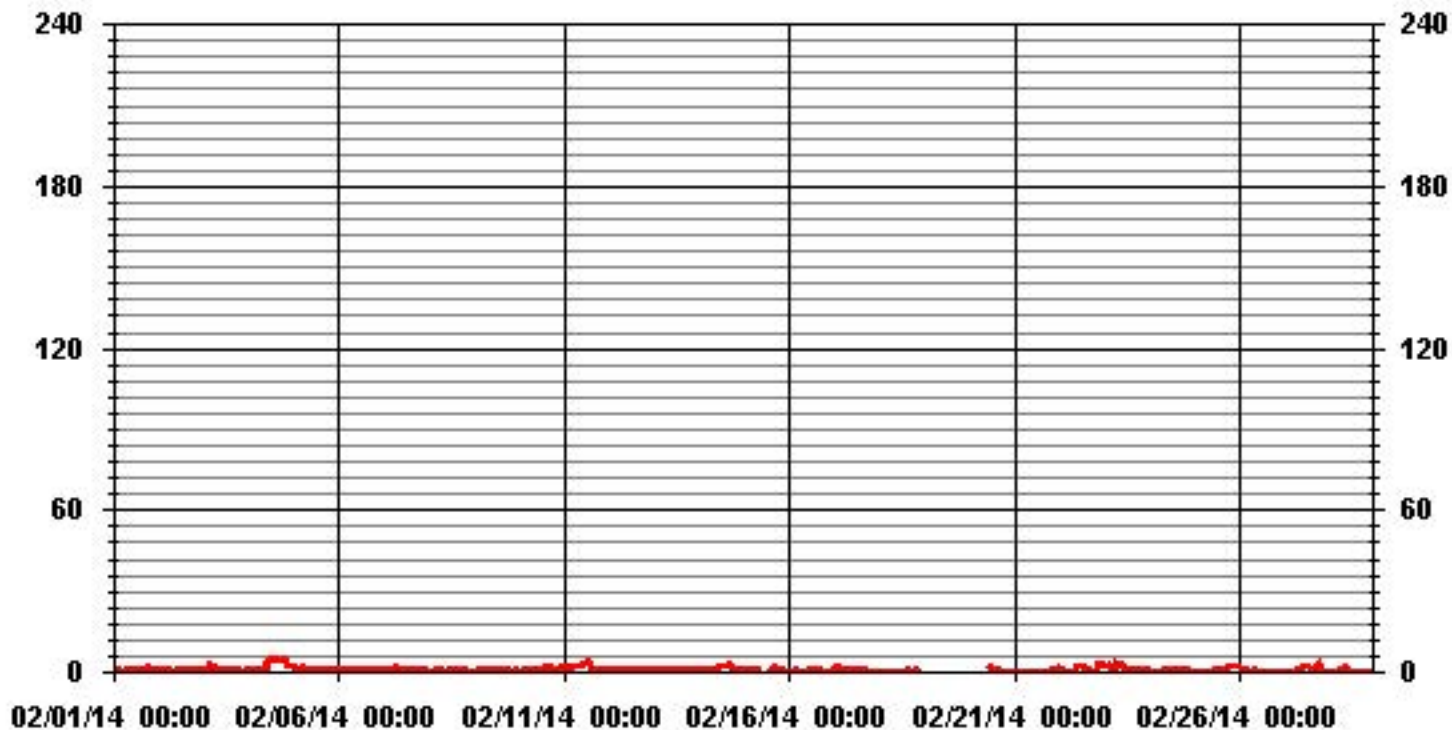
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-------------|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 422 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 5 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 4 |
| | | | | VAR-VARIOUS | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 638 | HRS | |
| MONTHLY CALIBRATION TIME: | 6 | HRS | | | | |
| STANDARD DEVIATION: | 0.86 | | | | | |

01 Hour Averages



LICA
 SO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : SO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|-------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 20 | 7.29 | 5.14 | 6.46 | 2.81 | 6.63 | 5.47 | 5.80 | 1.82 | .49 | 1.49 | 5.63 | 21.39 | 10.28 | 3.98 | 6.63 | 8.62 | 100.00 |
| < 60 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 170 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 7.29 | 5.14 | 6.46 | 2.81 | 6.63 | 5.47 | 5.80 | 1.82 | .49 | 1.49 | 5.63 | 21.39 | 10.28 | 3.98 | 6.63 | 8.62 | |

Calm : .00 %

Total # Operational Hours : 603

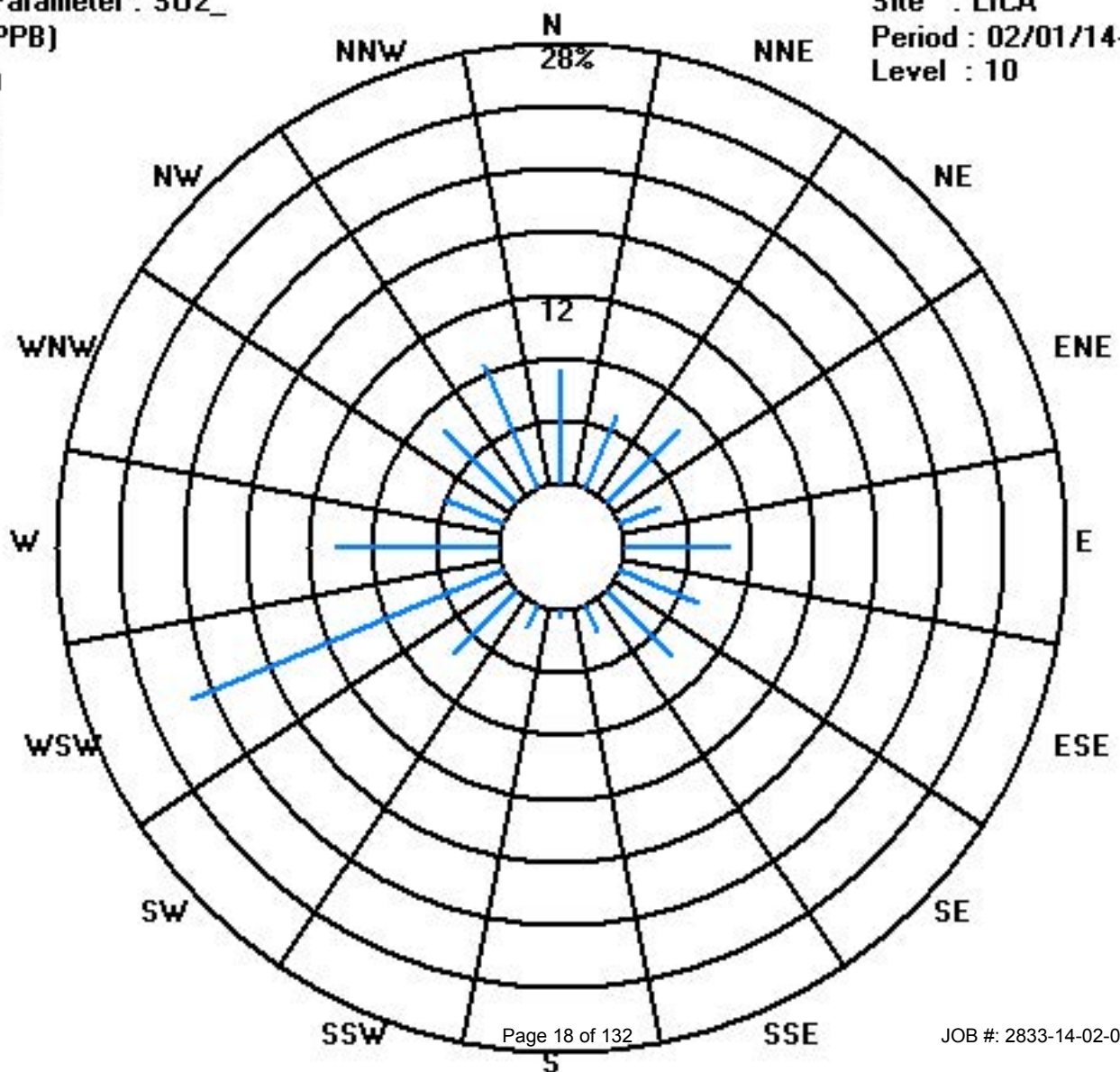
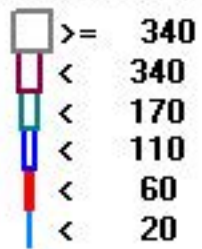
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 20 | 44 | 31 | 39 | 17 | 40 | 33 | 35 | 11 | 3 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | 603 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 31 | 39 | 17 | 40 | 33 | 35 | 11 | 3 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | |

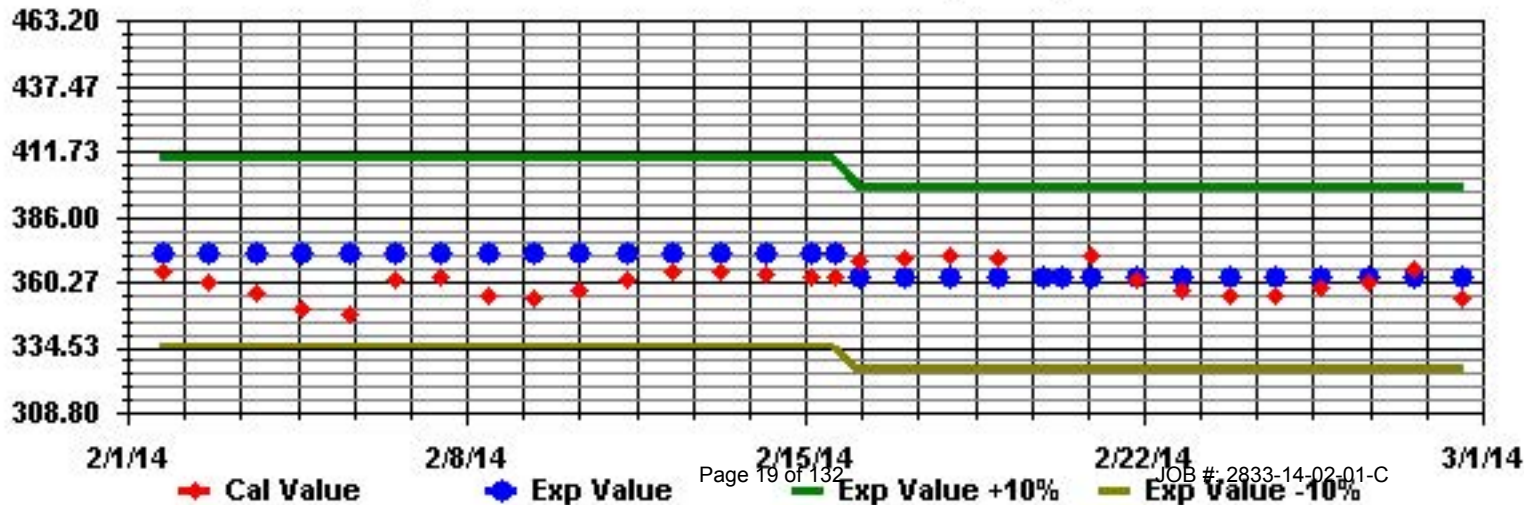
Calm : .00 %

Total # Operational Hours : 603

Class Limits (PPB)

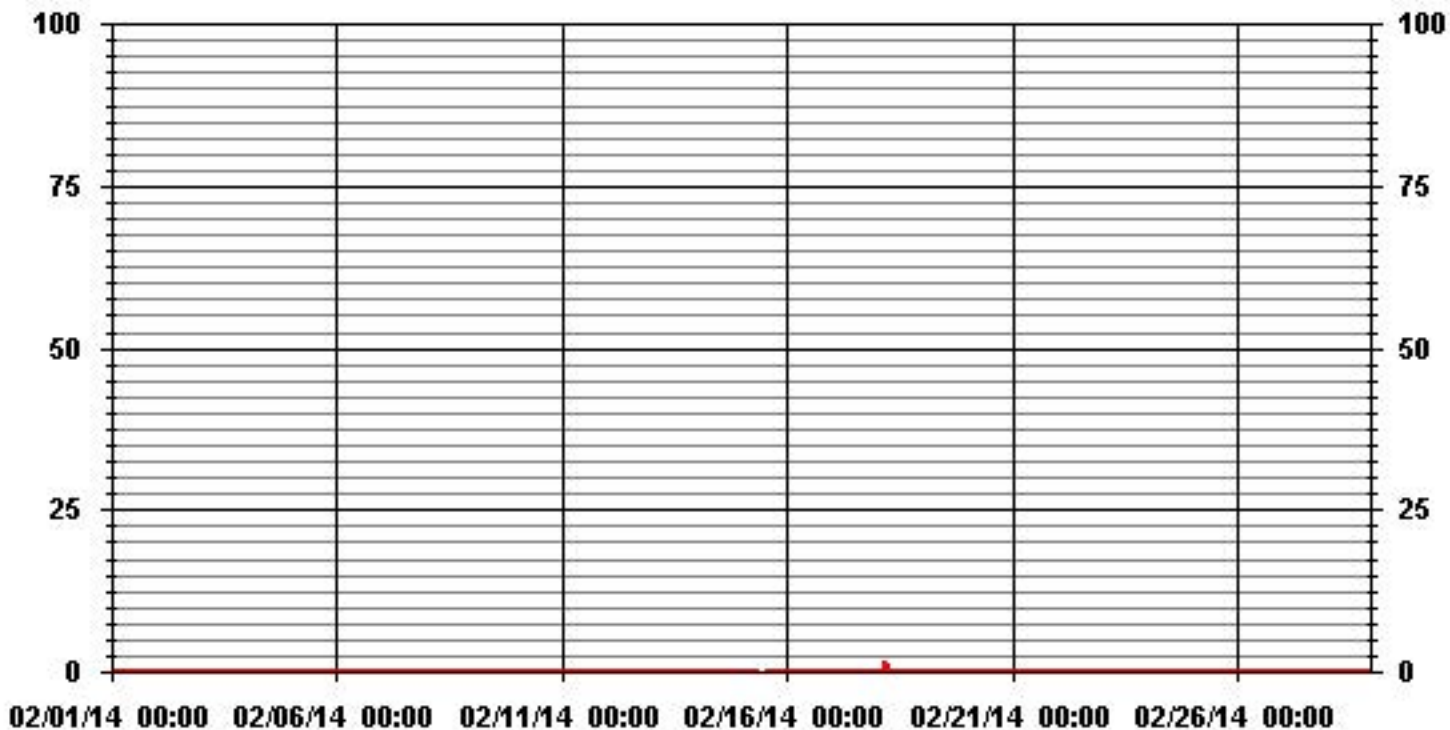


Calibration Graph for Site: LICA Parameter: SO2_ Sequence: SO2 Phase: SPAN



Total Reduced Sulphur

01 Hour Averages



Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 2 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 3 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 4 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 5 | I | I | I | I | I | I | I | I | I | S | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 6 | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 7 | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 8 | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 9 | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 10 | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 11 | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 12 | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 13 | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 14 | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 15 | I | I | I | S | I | I | I | I | I | S | S | S | S | S | S | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 16 | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 17 | I | S | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 18 | S | I | I | I | I | I | I | I | I | I | 0 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | 1.0 | 24 |
| 19 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | 1.0 | 24 |
| 20 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | 1.0 | 24 |
| 21 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | 1.0 | 24 |
| 22 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | 1.0 | 24 |
| 23 | I | I | I | I | I | I | I | I | I | S | S | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | 1.0 | 24 |
| 24 | I | 0 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 25 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 26 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 27 | I | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| 28 | I | I | I | I | I | I | I | I | I | I | I | I | I | S | I | I | I | I | I | I | I | I | I | I | I | I | 1.0 | 24 |
| HOURLY MAX | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| HOURLY AVG | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | |

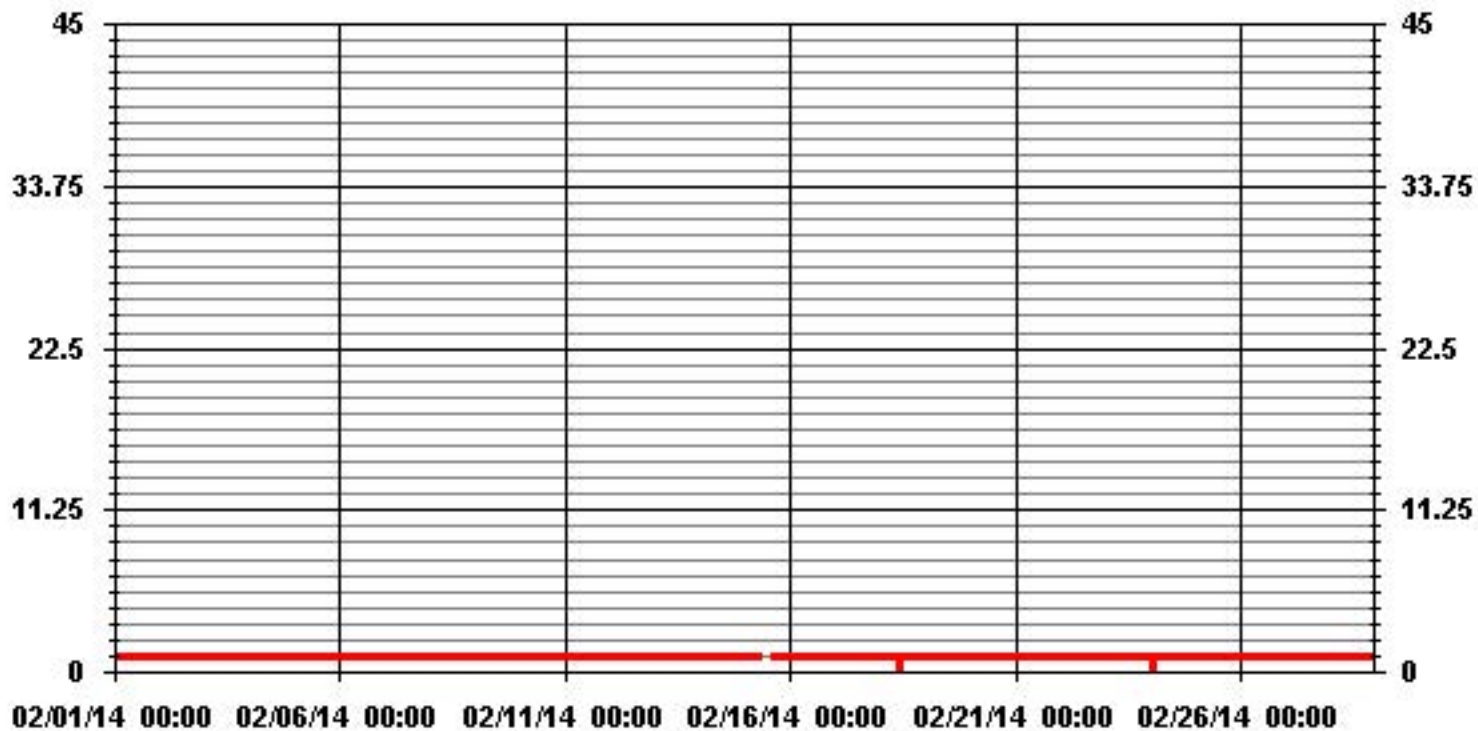
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|-----------------------------------|
| NUMBER OF NON-ZERO READINGS: | 632 |
| MAXIMUM INSTANTANEOUS VALUE: | 1 PPB @ HOUR(S) VAR ON DAY(S) VAR |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 38 HRS |
| MONTHLY CALIBRATION TIME: | 0 HRS |
| OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 0.06 |

01 Hour Averages



LICA
 TRS_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : TRS_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3 | 6.92 | 5.35 | 7.87 | 2.99 | 6.92 | 5.51 | 7.40 | 1.73 | .62 | 1.41 | 5.35 | 20.31 | 9.44 | 3.77 | 6.14 | 8.18 | 100.00 |
| < 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.92 | 5.35 | 7.87 | 2.99 | 6.92 | 5.51 | 7.40 | 1.73 | .62 | 1.41 | 5.35 | 20.31 | 9.44 | 3.77 | 6.14 | 8.18 | |

Calm : .00 %

Total # Operational Hours : 635

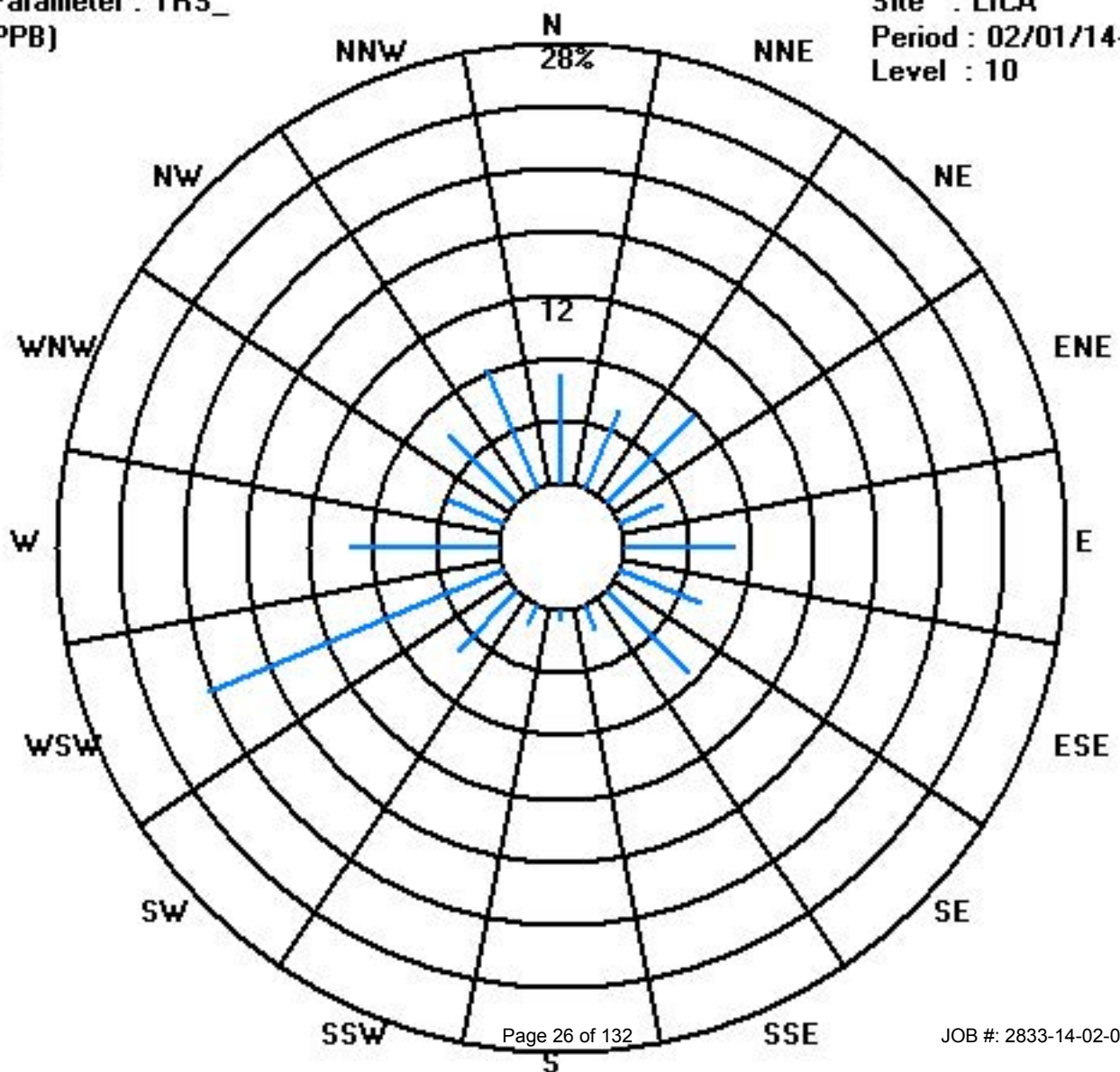
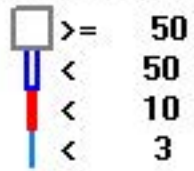
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3 | 44 | 34 | 50 | 19 | 44 | 35 | 47 | 11 | 4 | 9 | 34 | 129 | 60 | 24 | 39 | 52 | 635 |
| < 10 | | | | | | | | | | | | | | | | | |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 34 | 50 | 19 | 44 | 35 | 47 | 11 | 4 | 9 | 34 | 129 | 60 | 24 | 39 | 52 | |

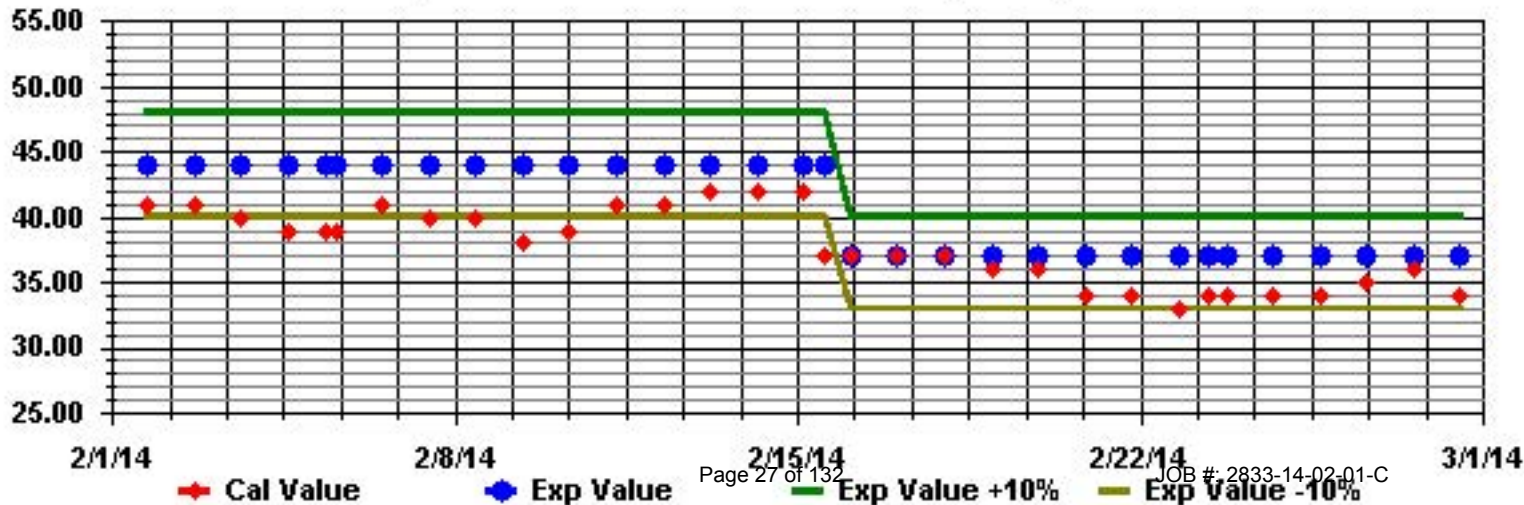
Calm : .00 %

Total # Operational Hours : 635

Class Limits (PPB)



Calibration Graph for Site: LICA Parameter: TRS_ Sequence: TRS Phase: SPAN



Total Hydrocarbons

Lakeland Industry & Community Association - Cold Lake South Site

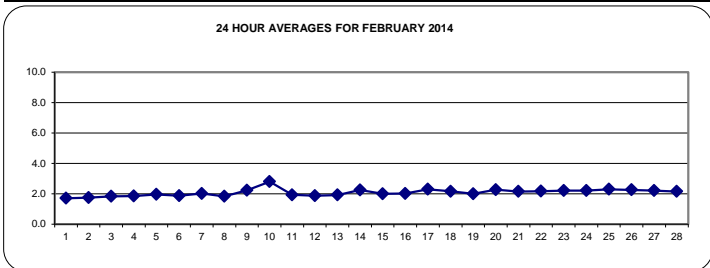
FEBRUARY 2014

TOTAL HYDROCARBONS (THC) hourly averages in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | S | 1.7 | 1.7 | 1.8 | 1.7 | 1.6 | 1.6 | 1.8 | 1.7 | 24 | |
| 2 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | S | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 2.0 | 2.1 | 2.1 | 1.7 | 24 | |
| 3 | 2.3 | 2.3 | 2.2 | 1.8 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | S | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.3 | 1.8 | 24 | |
| 4 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 1.9 | 24 | |
| 5 | 1.9 | 2.0 | 1.9 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.4 | 2.3 | 2.0 | 1.9 | 2.1 | S | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 2.4 | 2.0 | 24 | |
| 6 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 1.9 | 24 | |
| 7 | 2.1 | 2.2 | 2.3 | 2.5 | 2.6 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.0 | S | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.6 | 2.0 | 24 | |
| 8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | S | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 24 | |
| 9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.3 | 2.5 | 2.9 | 2.9 | S | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.2 | 2.3 | 2.4 | 2.4 | 2.6 | 2.9 | 2.2 | 24 | |
| 10 | 2.7 | 2.8 | 3.2 | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 | S | 3.2 | 2.9 | 3.1 | 3.0 | 3.0 | 2.6 | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | 2.4 | 2.5 | 2.6 | 2.2 | 3.3 | 2.8 | 24 | |
| 11 | 2.3 | 2.2 | 2.1 | 1.9 | 1.8 | 1.8 | 1.8 | S | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.3 | 1.9 | 24 | |
| 12 | 2.2 | 2.4 | 2.1 | 1.9 | 1.8 | 1.8 | S | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.4 | 1.9 | 24 | |
| 13 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | S | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 1.9 | 24 | | |
| 14 | 2.1 | 2.3 | 2.4 | 2.4 | S | 2.4 | 2.6 | 2.6 | 2.7 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 2.0 | 1.9 | 1.8 | 2.7 | 2.3 | 24 | |
| 15 | 1.8 | 1.8 | 1.8 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | C | C | C | C | C | C | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.3 | 2.0 | 24 | |
| 16 | 2.1 | 2.0 | S | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.3 | 2.0 | 24 | |
| 17 | 2.3 | S | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.6 | 2.3 | 24 | |
| 18 | S | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.3 | 2.4 | 2.6 | 2.6 | S | 2.6 | 2.2 | 24 | |
| 19 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 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 | S | 2.0 | 2.1 | 24 | |
| 20 | 2.0 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.5 | 2.5 | 2.3 | 2.3 | 2.4 | 2.5 | 2.5 | S | 2.5 | 2.7 | 2.7 | 2.3 | 24 | |
| 21 | 2.7 | 2.4 | 2.4 | 2.3 | 2.3 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.0 | 2.0 | 2.7 | 2.2 | 24 | |
| 22 | 2.0 | 2.1 | 2.1 | 2.2 | 2.5 | 2.6 | 2.5 | 2.4 | 2.4 | 2.3 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | S | 2.0 | 2.0 | 2.0 | 2.1 | 2.6 | 2.2 | 24 | |
| 23 | 2.1 | 2.2 | 2.3 | 2.4 | 2.4 | 2.4 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | S | 2.2 | 2.3 | 2.4 | 2.3 | 2.3 | 2.4 | 2.2 | 2.4 | 24 | |
| 24 | 2.3 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.3 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.4 | 2.2 | 24 | |
| 25 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.6 | 3.0 | 2.7 | 2.4 | 2.3 | 2.2 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | 3.0 | 2.3 | 24 | |
| 26 | 2.4 | 2.5 | 2.6 | 2.6 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | S | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.7 | 2.3 | 24 | |
| 27 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.4 | 2.5 | 2.4 | 2.5 | 2.5 | 2.6 | 2.6 | S | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.6 | 2.2 | 24 | |
| 28 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.3 | 2.2 | 24 | |
| HOURLY MAX | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | |
| HOURLY AVG | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | | | |

STATUS FLAG CODES

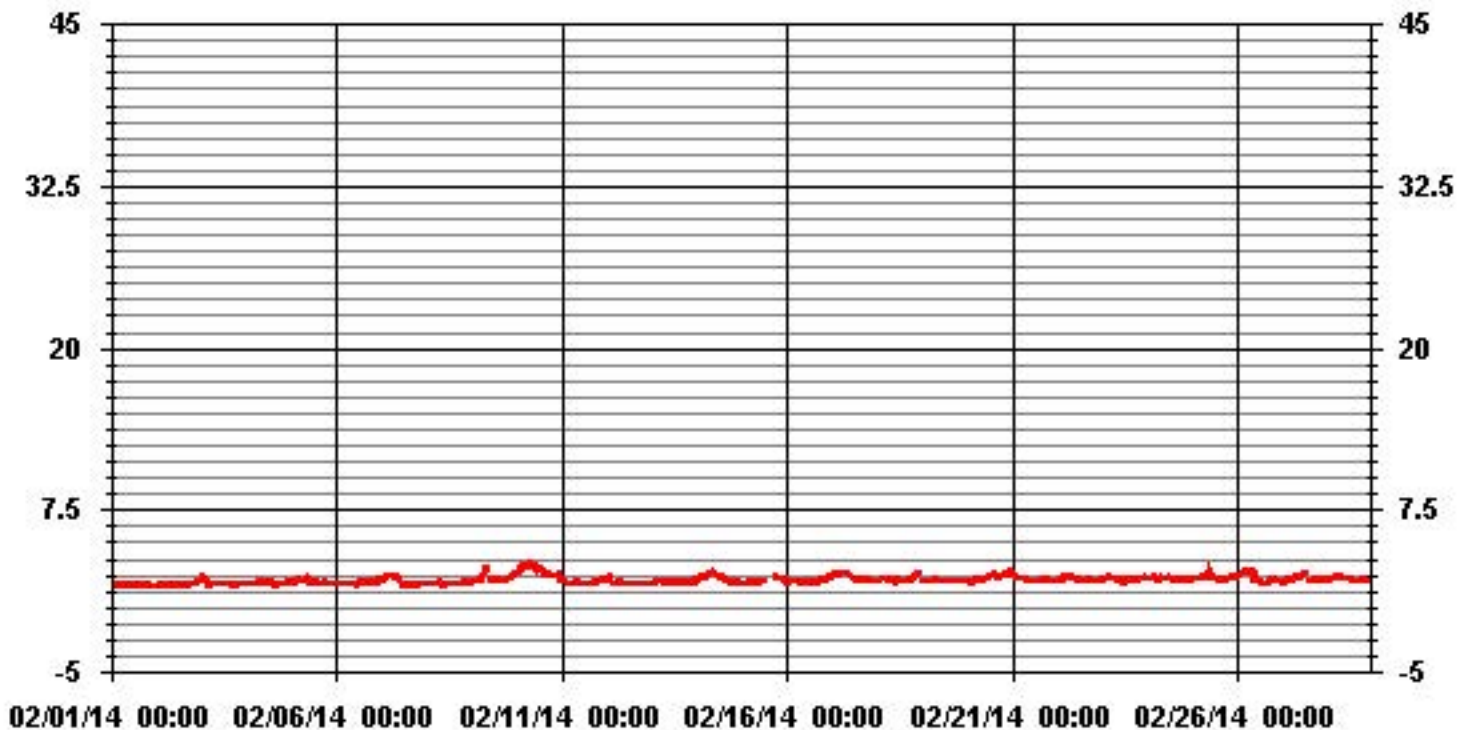
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|-------|-------------|----|
| NUMBER OF NON-ZERO READINGS: | 638 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 3.3 | PPM | @ HOUR(S) | 6, 7 | ON DAY(S) | 10 |
| MAXIMUM 24-HR AVERAGE: | 2.8 | PPM | | | ON DAY(S) | 10 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 5 | HRS | AMD OPERATION UPTIME: | 100.0 | % | |
| STANDARD DEVIATION: | 0.29 | | MONTHLY AVERAGE: | 2.08 | PPM | |

01 Hour Averages



— LICA — THC — PPM

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.7 | 1.7 | 1.7 | 1.8 | 1.9 | 1.8 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 2 | 1.7 | 1.7 | 1.7 | 1.9 | S | 1.7 | 1.8 | 1.8 | 1.8 | 1.7 | 1.7 | 2 | 1.8 | 24 | |
| 2 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | S | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 2.1 | 2.2 | 2.2 | 1.8 | 24 | |
| 3 | 2.4 | 2.4 | 2.4 | 2.2 | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | S | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 2.4 | 1.9 | 24 |
| 4 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.2 | 2 | 2 | 2.2 | 1.9 | 24 |
| 5 | 2 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2 | 2.3 | 2.5 | 2.5 | 2.2 | 2 | 2.2 | S | 1.9 | 1.9 | 1.9 | 2.1 | 2 | 2 | 1.9 | 1.8 | 1.9 | 1.9 | 2.5 | 2.1 | 24 | |
| 6 | 1.9 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 2.1 | 1.8 | S | 2 | 1.9 | 2.2 | 2 | 1.9 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.0 | 24 | |
| 7 | 2.2 | 2.3 | 2.4 | 2.6 | 2.7 | 2.7 | 2.5 | 2.5 | 2.4 | 2.5 | 2.1 | S | 1.7 | 1.7 | 1.8 | 1.8 | 1.7 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.7 | 2.1 | 24 | |
| 8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 2 | 1.9 | 1.9 | 2.1 | 2 | S | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 5.8 | 1.9 | 1.9 | 2 | 2 | 5.8 | 2.0 | 24 | |
| 9 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2.6 | 2.6 | 4.4 | 3.2 | S | 2.3 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2 | 2.1 | 2.6 | 2.7 | 2.4 | 2.6 | 2.6 | 2.8 | 4.4 | 2.4 | 24 | |
| 10 | 2.8 | 3.2 | 3.6 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | S | 3.5 | 3.1 | 3.3 | 3.1 | 3.1 | 2.9 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | 2.7 | 2.8 | 2.5 | 3.6 | 3.0 | 24 | |
| 11 | 2.3 | 2.3 | 2.2 | 2 | 1.9 | 2.2 | 1.9 | S | 2.1 | 2.1 | 2 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2.2 | 2.3 | 2.2 | 2.3 | 2.0 | 24 | |
| 12 | 2.5 | 2.5 | 2.4 | 1.9 | 1.9 | 1.8 | S | 2.1 | 1.9 | 1.9 | 1.9 | 1.8 | 2.1 | 2.3 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.5 | 2.0 | 24 | |
| 13 | 1.8 | 1.9 | 1.9 | 2 | 2.2 | S | 1.9 | 2.1 | 2.3 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 2.2 | 2.3 | 2.0 | 24 | |
| 14 | 2.2 | 2.3 | 2.5 | 2.5 | S | 2.4 | 2.7 | 2.7 | 2.9 | 2.8 | 2.8 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.2 | 2 | 1.9 | 2.9 | 2.4 | 24 | |
| 15 | 1.8 | 1.8 | 1.9 | S | 2 | 2.1 | 2 | 2 | 2 | 2.1 | 2.7 | 2.1 | 2 | C | C | C | C | C | 3.1 | 2.3 | 2.3 | 2.3 | 2.3 | 2.1 | 3.1 | 2.2 | 24 | |
| 16 | 2.1 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 2 | 2 | 2.9 | 2 | 2 | 2.1 | 2.3 | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.3 | 2.9 | 2.1 | 24 | |
| 17 | 2.4 | S | 2.6 | 2.6 | 2.8 | 2.8 | 2.7 | 2.7 | 2.8 | 2.9 | 2.5 | 2.6 | 2.4 | 2.5 | 2.2 | 2.3 | 2.2 | 4.3 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 4.3 | 2.5 | 24 | |
| 18 | S | 2.2 | 2.2 | 2.2 | 2.5 | 2.3 | 2.3 | 2.1 | 2.3 | 2.2 | 2.2 | 2.3 | 2.2 | 2 | 2 | 2.1 | 2.1 | 2.4 | 2.2 | 7.8 | 3 | 2.7 | 3.9 | S | 7.8 | 2.6 | 24 | |
| 19 | 2.4 | 2 | 2 | 2.1 | 2.9 | 2 | 2.1 | 2.1 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | 2.1 | 2 | 2 | 2.1 | 2.1 | 2.6 | 2 | 2.1 | S | 2.1 | 2.9 | 2.1 | 24 | |
| 20 | 2 | 2.1 | 2.1 | 2.1 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.6 | 2.4 | 2.4 | 2.5 | 3 | 2.5 | S | 2.6 | 3.9 | 3.9 | 2.4 | 24 | |
| 21 | 3.7 | 2.5 | 2.5 | 2.4 | 2.3 | 2.4 | 2.6 | 2.5 | 2.3 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.3 | 2.1 | S | 2 | 2 | 2.1 | 3.7 | 2.3 | 24 | |
| 22 | 2.1 | 2.1 | 2.1 | 2.4 | 2.6 | 2.9 | 2.7 | 2.6 | 2.5 | 2.5 | 2.2 | 2.1 | 2.1 | 2.3 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 | S | 2 | 2.1 | 2.1 | 2.1 | 2.9 | 2.3 | 24 | |
| 23 | 2.3 | 2.3 | 2.3 | 2.5 | 2.5 | 2.5 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.4 | 2.2 | S | 2.3 | 2.4 | 2.4 | 2.3 | 2.3 | 2.5 | 2.3 | 24 | |
| 24 | 2.4 | 2.4 | 2.4 | 2.3 | 2.4 | 2.4 | 2.3 | 2.3 | 2.4 | 2.7 | 2.3 | 2.5 | 2.5 | 2.3 | 2.2 | 2.7 | 2.4 | S | 2.6 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.7 | 2.4 | 24 | |
| 25 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.3 | 2.4 | 2.9 | 3.2 | 3 | 2.6 | 2.4 | 2.3 | 2.2 | 2.3 | S | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | 3.2 | 2.4 | 24 | |
| 26 | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 | 3 | 2.8 | 2.8 | 2.8 | 2.7 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2.8 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 3 | 2.4 | 24 | |
| 27 | 2.2 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.6 | 2.6 | 2.5 | 2.6 | 2.6 | 3.1 | 2.6 | S | 2.1 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 3.1 | 2.3 | 24 |
| 28 | 2.2 | 2.2 | 2.2 | 2.2 | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | S | 2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | 2.5 | 2.2 | 24 |
| HOURLY MAX | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 8 | 3 | 3 | 4 | 4 | | | | |
| HOURLY AVG | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 2.2 | 2.1 | 2.5 | 2.1 | 2.1 | 2.2 | 2.2 | | | | |

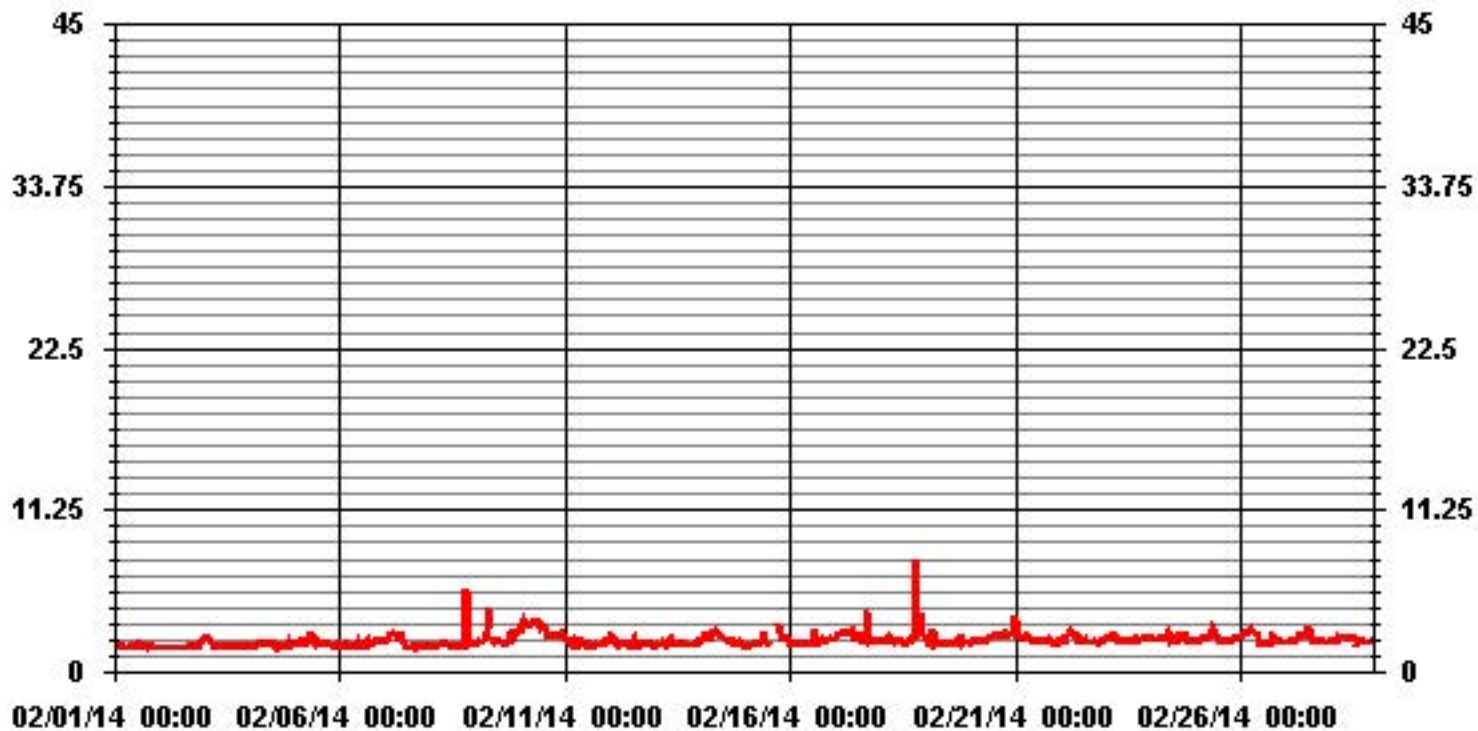
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 638 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 7.8 | PPM | @ HOUR(S) | 19 | ON DAY(S) | 18 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 5 | HRS | | | | |
| STANDARD DEVIATION: | 0.46 | | | | | |

01 Hour Averages



— LICA THCMAX PPM

LICA
 THC / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : THC
 Units : PPM

Wind Parameter : WD
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|---------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3.0 | 6.89 | 5.32 | 7.83 | 2.97 | 6.58 | 5.48 | 7.21 | 1.56 | .62 | 1.41 | 5.32 | 19.59 | 9.40 | 3.76 | 6.11 | 8.15 | 98.27 |
| < 10.0 | .00 | .00 | .00 | .00 | .31 | .00 | .15 | .15 | .00 | .00 | .00 | .62 | .31 | .00 | .15 | .00 | 1.72 |
| < 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.89 | 5.32 | 7.83 | 2.97 | 6.89 | 5.48 | 7.36 | 1.72 | .62 | 1.41 | 5.32 | 20.21 | 9.71 | 3.76 | 6.26 | 8.15 | |

Calm : .00 %

Total # Operational Hours : 638

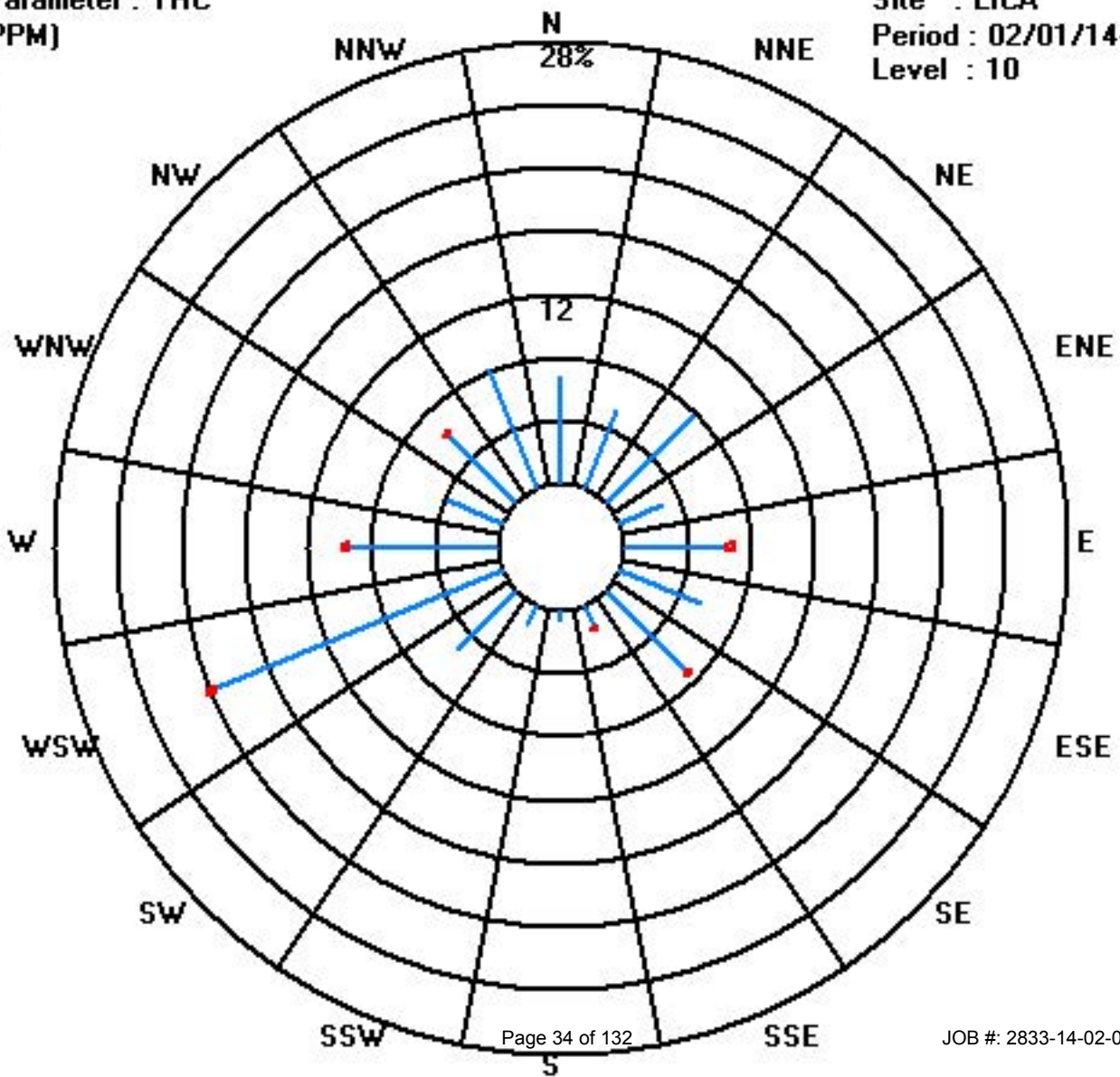
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|---------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3.0 | 44 | 34 | 50 | 19 | 42 | 35 | 46 | 10 | 4 | 9 | 34 | 125 | 60 | 24 | 39 | 52 | 627 |
| < 10.0 | | | | | 2 | | 1 | 1 | | | | 4 | 2 | | 1 | | 11 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 34 | 50 | 19 | 44 | 35 | 47 | 11 | 4 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | |

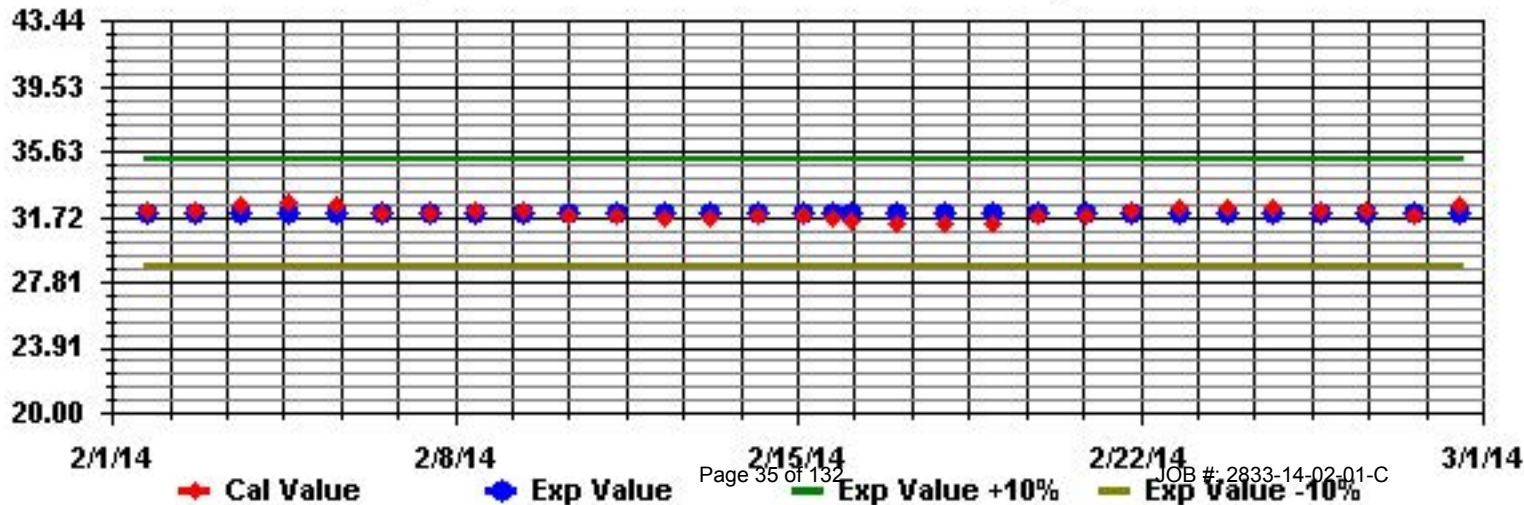
Calm : .00 %

Total # Operational Hours : 638

Class Limits (PPM)



Calibration Graph for Site: LICA Parameter: THC Sequence: THC Phase: SPAN



Particulate Matter 2.5

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

PARTICULATE MATTER 2.5 (LESS THAN 2.5 MICRONS) (PM2.5) hourly averages in ug/m3

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 3 | 2 | 2 | 1 | X | 0 | 2 | 0 | 1 | 0 | X | 3 | X | 9 | X | X | 3 | 10 | 4 | 2 | 7 | 1 | 2 | 1 | 10 | 2.8 | 19 | |
| 2 | 0 | 0 | 0 | 4 | 2 | 3 | 5 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | X | 0 | 0 | X | 2 | 5 | 0 | X | 0 | 7 | 7 | 2.0 | 21 | |
| 3 | 4 | X | 0 | 2 | 2 | 1 | 5 | 0 | X | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 5 | X | 3 | 2 | 5 | 3 | 5 | 1.8 | 21 | |
| 4 | 5 | 0 | 0 | 0 | 5 | X | 0 | 0 | 3 | X | 9 | 3 | 1 | 4 | 9 | 0 | 2 | 0 | 2 | 1 | 6 | X | 5 | 0 | 9 | 2.6 | 21 | |
| 5 | 9 | 4 | 0 | X | 3 | 1 | 9 | 0 | 10 | X | 0 | 5 | 7 | 2 | X | 9 | 3 | 2 | 4 | 1 | 1 | 3 | 1 | X | 10 | 3.7 | 20 | |
| 6 | 6 | 3 | 2 | 0 | 2 | 1 | 8 | 9 | 8 | 3 | 4 | 18 | 2 | 13 | 6 | 9 | 10 | 6 | 9 | 12 | 4 | 9 | 9 | 9 | 18 | 6.8 | 24 | |
| 7 | 8 | 9 | 5 | 6 | 3 | 11 | 8 | 9 | 6 | 13 | 1 | 2 | 0 | X | X | 6 | 0 | 7 | X | 9 | 1 | 0 | X | 12 | 13 | 5.8 | 20 | |
| 8 | X | 3 | 0 | 6 | 0 | 0 | X | 7 | 0 | 6 | 7 | 5 | 5 | 2 | 0 | 0 | X | 6 | X | 11 | 0 | 11 | 2 | 4 | 11 | 3.8 | 20 | |
| 9 | X | 4 | X | 0 | 6 | 1 | 1 | 12 | 14 | 0 | 10 | 9 | 2 | 2 | 6 | 7 | 0 | 7 | 4 | 4 | X | 14 | 6 | 0 | 14 | 5.2 | 21 | |
| 10 | 5 | 3 | 7 | 6 | 3 | 6 | 6 | 11 | 3 | 14 | 8 | 15 | 3 | 7 | 12 | 7 | 10 | 5 | 9 | 11 | 19 | 3 | 9 | 9 | 19 | 8.0 | 24 | |
| 11 | 10 | 6 | 8 | X | 6 | 9 | 9 | 0 | 3 | 5 | 9 | 5 | 6 | 5 | 3 | 1 | 4 | 0 | 6 | 3 | 4 | 1 | 14 | 0 | 14 | 5.1 | 23 | |
| 12 | 10 | 2 | 7 | 2 | 6 | 0 | 9 | 0 | 9 | 0 | 8 | 0 | 8 | X | 10 | 0 | 9 | 0 | 8 | X | 5 | X | 11 | 0 | 11 | 5.0 | 21 | |
| 13 | 8 | 0 | 8 | 0 | 11 | X | 4 | 0 | 20 | 0 | 8 | 0 | 12 | 0 | 11 | 0 | 11 | 0 | 6 | X | 13 | 2 | 9 | 0 | 20 | 5.6 | 22 | |
| 14 | 10 | 0 | 11 | 1 | 5 | 1 | 10 | 4 | 6 | 0 | 9 | 13 | 9 | 4 | 13 | 6 | 12 | 7 | 9 | 4 | 8 | 0 | 1 | 1 | 13 | 6.0 | 24 | |
| 15 | 9 | 2 | 6 | 6 | 12 | 8 | 7 | 10 | 1 | 6 | 7 | 9 | 8 | 10 | 9 | C | C | C | 11 | 7 | 10 | 9 | 6 | 5 | 12 | 7.5 | 24 | |
| 16 | 10 | 7 | 10 | 4 | 8 | 12 | 10 | 8 | 3 | 2 | 9 | 5 | 14 | 5 | 8 | 2 | 12 | 4 | 14 | 7 | 11 | 3 | 13 | 10 | 14 | 8.0 | 24 | |
| 17 | 20 | 16 | 28 | 14 | 29 | 18 | 29 | 19 | 26 | 14 | 19 | 6 | 22 | 0 | 15 | 2 | 15 | 4 | 25 | 12 | 16 | 3 | 15 | 0 | 29 | 15.3 | 24 | |
| 18 | 8 | 0 | 15 | 0 | 10 | 0 | 6 | X | Y | Y | 14 | X | 4 | X | 5 | 3 | 8 | X | 11 | 5 | 13 | 7 | 14 | 6 | 15 | 7.2 | 18 | |
| 19 | 6 | 3 | 6 | 1 | 8 | 3 | 4 | 5 | X | 2 | 1 | 1 | 12 | 1 | 3 | 5 | 8 | 4 | 4 | 9 | 7 | 5 | 11 | 2 | 12 | 4.8 | 23 | |
| 20 | 5 | 7 | 4 | 7 | 8 | 5 | 6 | 9 | 5 | 7 | 4 | 6 | 5 | 2 | 13 | 4 | 11 | 5 | 10 | 11 | 8 | 13 | 6 | 12 | 13 | 7.2 | 24 | |
| 21 | 9 | 10 | 7 | 6 | 3 | 7 | 5 | 9 | 4 | 2 | 0 | 1 | 0 | 3 | 0 | 5 | 2 | 3 | 15 | 7 | 4 | 7 | 7 | 9 | 15 | 5.2 | 24 | |
| 22 | 3 | 9 | 0 | 6 | 1 | 4 | 1 | 0 | 0 | 7 | 0 | 1 | 1 | 12 | 1 | 6 | 0 | 6 | 4 | 9 | 0 | 8 | 6 | 10 | 12 | 4.0 | 24 | |
| 23 | 4 | 8 | 3 | 10 | 2 | 7 | 2 | 5 | 1 | 3 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 3 | 4 | 6 | 6 | 7 | 6 | 10 | 4.0 | 24 | |
| 24 | 4 | 4 | 8 | 6 | 8 | 4 | 6 | 6 | 5 | 5 | 6 | X | 9 | 8 | 14 | 0 | 16 | 9 | 17 | 4 | 4 | 7 | 0 | 0 | 17 | 6.5 | 23 | |
| 25 | 0 | 3 | 0 | 8 | 7 | 0 | 3 | 3 | 10 | 2 | 9 | 0 | 6 | 0 | 10 | X | 12 | 0 | 12 | 1 | 21 | 8 | 26 | 6 | 26 | 6.4 | 23 | |
| 26 | 19 | 10 | 23 | 5 | 22 | X | 13 | 5 | 17 | 1 | 6 | X | 7 | X | 4 | 3 | 10 | C | C | C | 16 | 4 | 11 | X | 23 | 10.4 | 20 | |
| 27 | 8 | X | 5 | X | 12 | X | 8 | 0 | 9 | 0 | 10 | 3 | 14 | 1 | 6 | X | 8 | X | 11 | 0 | 10 | 1 | 2 | X | 14 | 6.0 | 18 | |
| 28 | 3 | 4 | 10 | 0 | 2 | 1 | 6 | 1 | 5 | 2 | 9 | 0 | 0 | 2 | 2 | 0 | 8 | 3 | 10 | 7 | 5 | 6 | 8 | 3 | 10 | 4.0 | 24 | |
| HOURLY MAX | 20 | 16 | 28 | 14 | 29 | 18 | 29 | 19 | 26 | 14 | 19 | 18 | 22 | 13 | 15 | 9 | 16 | 10 | 25 | 12 | 21 | 14 | 26 | 12 | | | | |
| HOURLY AVG | 7.2 | 4.6 | 6.5 | 4.0 | 6.9 | 4.3 | 6.7 | 5.0 | 6.8 | 3.9 | 6.3 | 4.5 | 6.0 | 4.1 | 6.8 | 3.2 | 6.8 | 4.1 | 8.6 | 6.1 | 7.5 | 5.3 | 7.6 | 4.6 | | | | |

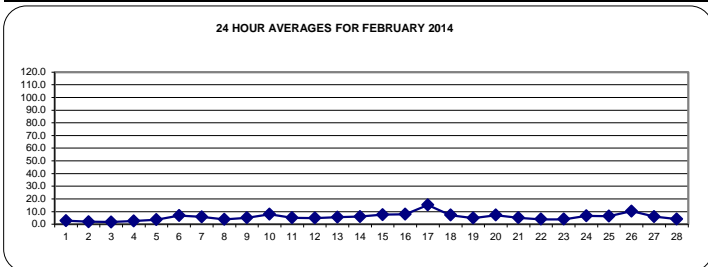
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

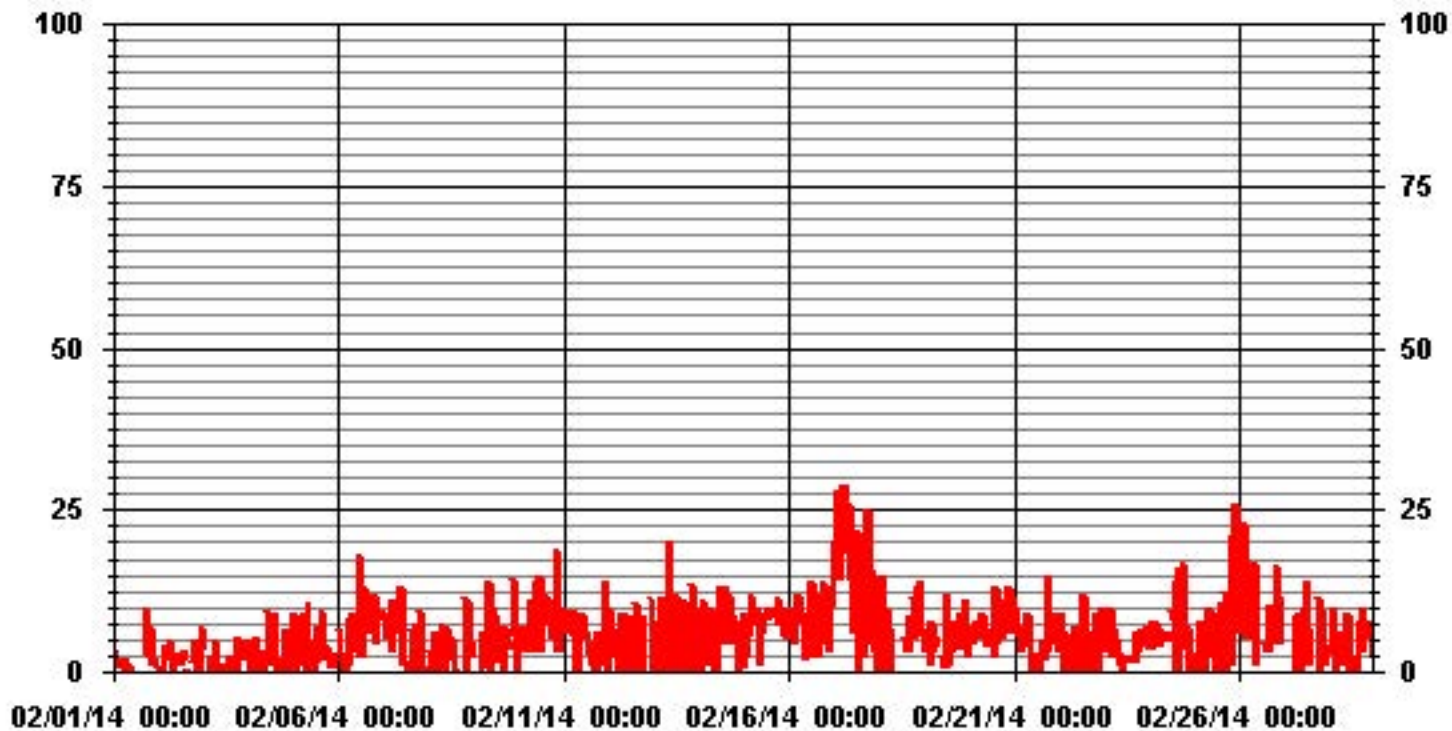
OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 24-HR 30 ug/m3

MONTHLY SUMMARY

| | | | | | |
|------------------------------|------------|-----------------------|------------|-------------|----|
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF NON-ZERO READINGS: | 514 | | | | |
| MAXIMUM 1-HR AVERAGE: | 29 ug/m3 | @ HOUR(S) | 4, 6 | ON DAY(S) | 17 |
| MAXIMUM 24-HR AVERAGE: | 15.3 ug/m3 | | | ON DAY(S) | 17 |
| | | | | VAR-VARIOUS | |
| MONTHLY CALIBRATION TIME: | 6 HRS | OPERATIONAL TIME: | 618 HRS | | |
| | | AMD OPERATION UPTIME: | 92.0 % | | |
| STANDARD DEVIATION: | 5.05 | MONTHLY AVERAGE: | 5.76 ug/m3 | | |



01 Hour Averages



— LICA PM2 UG/M3

LICA
 PM2 / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : PM2
 Units : UG/M3

Wind Parameter : WD
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 30 | 6.69 | 5.22 | 7.84 | 2.61 | 7.51 | 5.55 | 7.02 | 1.96 | .81 | 1.14 | 5.71 | 20.26 | 9.15 | 3.75 | 6.53 | 8.16 | 100.00 |
| < 60 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 80 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 120 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 240 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 240 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.69 | 5.22 | 7.84 | 2.61 | 7.51 | 5.55 | 7.02 | 1.96 | .81 | 1.14 | 5.71 | 20.26 | 9.15 | 3.75 | 6.53 | 8.16 | |

Calm : .00 %

Total # Operational Hours : 612

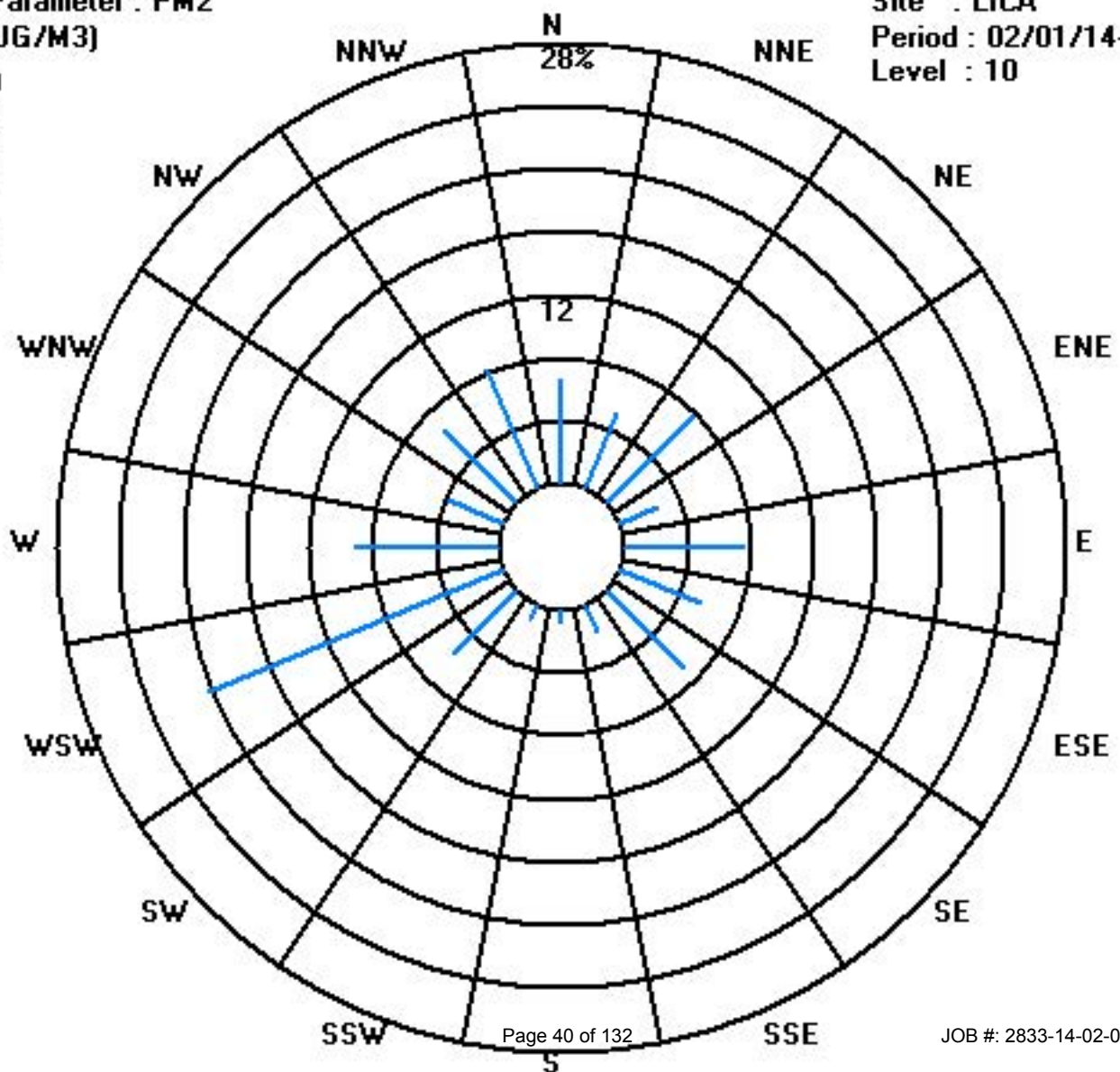
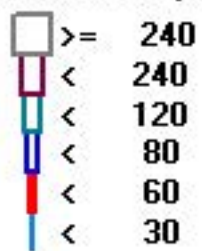
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 30 | 41 | 32 | 48 | 16 | 46 | 34 | 43 | 12 | 5 | 7 | 35 | 124 | 56 | 23 | 40 | 50 | 612 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 80 | | | | | | | | | | | | | | | | | |
| < 120 | | | | | | | | | | | | | | | | | |
| < 240 | | | | | | | | | | | | | | | | | |
| >= 240 | | | | | | | | | | | | | | | | | |
| Totals | 41 | 32 | 48 | 16 | 46 | 34 | 43 | 12 | 5 | 7 | 35 | 124 | 56 | 23 | 40 | 50 | |

Calm : .00 %

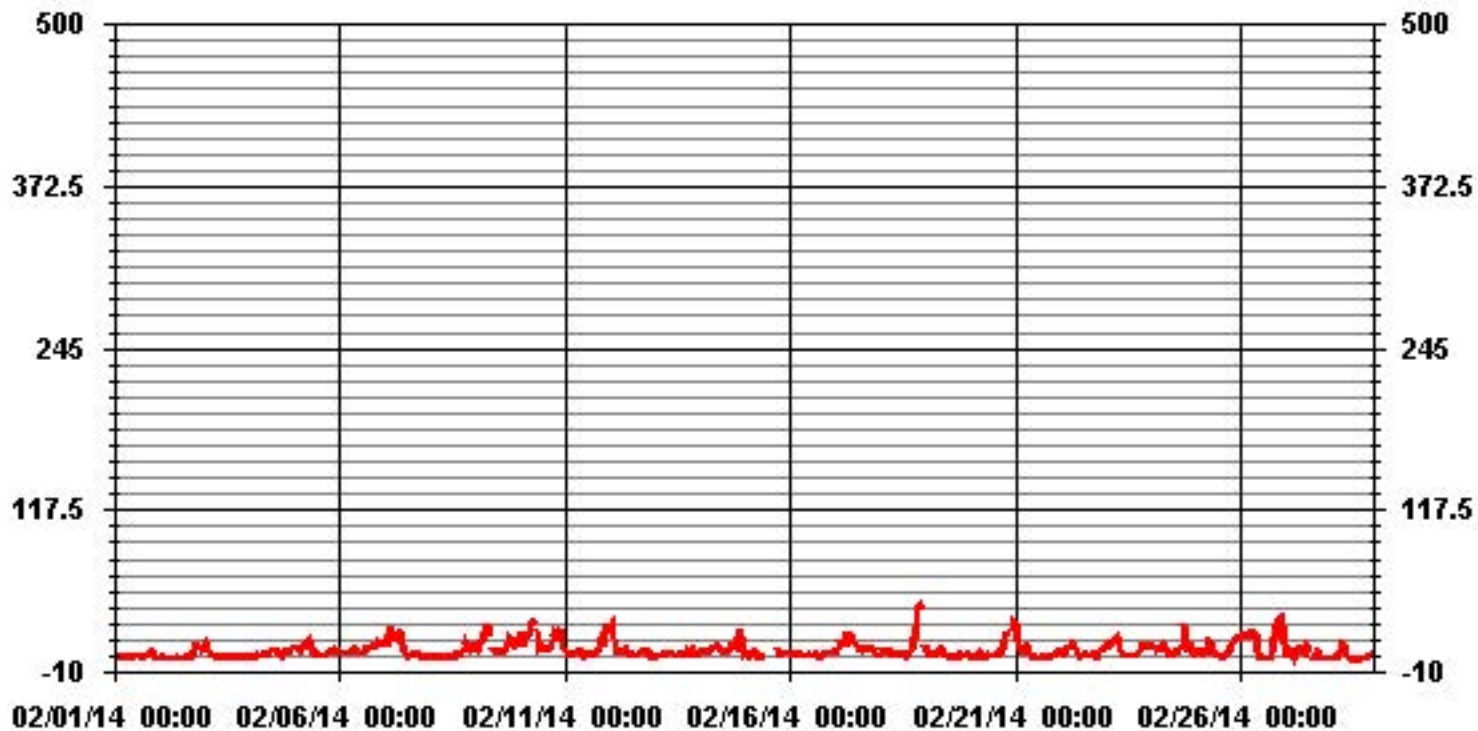
Total # Operational Hours : 612

Class Limits (UG/M3)



Nitrogen Dioxide

01 Hour Averages



— LICA NO2_ PPB

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.9 | 2 | 2.9 | 3.9 | 4.5 | 3.5 | 1.5 | 2.9 | 3.4 | 4 | 2.9 | 11.4 | 9 | 7 | 2 | 2.5 | 3.9 | S | 5.5 | 7.5 | 8.5 | 6 | 3.5 | 1.5 | 11.4 | 4.5 | 24 | |
| 2 | 1 | 2 | 1.5 | 2.5 | 1.5 | 1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1 | 1.5 | 2 | 2.5 | 2.5 | S | 5.1 | 9.5 | 14.1 | 11 | 12 | 9 | 12.6 | 14.1 | 4.3 | 24 | |
| 3 | 14.1 | 10.1 | 9 | 7.1 | 3 | 3.5 | 7.6 | 2.6 | 4 | 4.5 | 3 | 2 | 2.5 | 2 | S | 2.5 | 3 | 3 | 2.6 | 1.5 | 2 | 2.5 | 2 | 14.1 | 4.2 | 24 | | |
| 4 | 3 | 4.5 | 4 | 2.5 | 4.5 | 4 | 16.5 | 5.5 | 4.5 | 4.5 | 6.5 | 7.5 | 8 | 8.5 | S | 6.6 | 6.1 | 5.6 | 7.7 | 7.6 | 6.6 | 7.1 | 10.1 | 12.2 | 16.5 | 6.7 | 24 | |
| 5 | 11.1 | 10.6 | 10.1 | 10.1 | 13.6 | 14.1 | 10.6 | 18.1 | 20.1 | 15.1 | 6.6 | 5.6 | 10.1 | S | 4.5 | 5.5 | 7.5 | 7 | 8 | 8 | 9.5 | 5.5 | 5.5 | 6.5 | 20.1 | 9.7 | 24 | |
| 6 | 6.5 | 5.5 | 5.5 | 5 | 5.5 | 6.5 | 8.5 | 9.5 | 9.5 | 9 | 7.5 | 6.5 | S | 7.5 | 8.5 | 11 | 10.5 | 11.5 | 13.5 | 14 | 19 | 16 | 18.5 | 13.5 | 19 | 9.9 | 24 | |
| 7 | 13.5 | 16 | 27.5 | 29 | 29 | 21.5 | 20.5 | 23.5 | 31.5 | 14.5 | 11.5 | S | 3.5 | 4 | 5 | 6.5 | 8 | 7.5 | 6.5 | 6 | 3.5 | 3.5 | 2.5 | 3.5 | 31.5 | 13.0 | 24 | |
| 8 | 3.5 | 2.5 | 4 | 4 | 4 | 4 | 2.5 | 3 | 2.5 | 3 | S | 1.5 | 2.5 | 3 | 5 | 4.5 | 7.5 | 8.5 | 10.5 | 19.5 | 22 | 12 | 20 | 12 | 22 | 7.0 | 24 | |
| 9 | 12.5 | 10.5 | 15 | 15.5 | 18 | 26 | 28.5 | 29 | 27 | S | 11 | 5.5 | 6 | 5.6 | 11.5 | 8.5 | 10.5 | 16.5 | 24.5 | 22 | 17.5 | 14 | 18.5 | 19.5 | 29 | 16.2 | 24 | |
| 10 | 31 | 30.5 | 15.5 | 23 | 22 | 29 | 31.5 | 33.5 | S | 26.5 | 18 | 15 | 10.6 | 10.5 | 10.5 | 10.5 | 13 | 16.5 | 28 | 23 | 28.5 | 25 | 28.5 | 19 | 33.5 | 21.7 | 24 | |
| 11 | 8 | 8 | 7 | 4.5 | 4.5 | 6.5 | 6 | S | 10 | 5.5 | 3.5 | 4 | 7.5 | 7 | 5 | 5 | 6.5 | 8.5 | 10.5 | 18.5 | 17 | 28.5 | 31 | 27.5 | 31 | 10.4 | 24 | |
| 12 | 31 | 30.5 | 29.5 | 8 | 9 | 7.5 | S | 9 | 11.5 | 8.5 | 5.5 | 4.5 | 4 | 3.5 | 3.5 | 6.5 | 6.5 | 15 | 8.5 | 10.5 | 10 | 7.5 | 3 | 2 | 31 | 10.2 | 24 | |
| 13 | 2 | 2 | 2.5 | 3.5 | 7 | S | 7 | 7.5 | 7 | 6 | 28.5 | 5 | 8.5 | 5.5 | 6.5 | 6.5 | 7.5 | 11 | 10 | 12.5 | 6.5 | 5 | 4.5 | 6.5 | 28.5 | 7.3 | 24 | |
| 14 | 6 | 6.5 | 7 | 7.5 | S | 8 | 14 | 9.5 | 11 | 14.5 | 9.5 | 9 | 10.5 | 7.6 | 8.1 | 9.6 | 12.6 | 15 | 24 | 15.5 | 24 | 26.5 | 30 | 8 | 30 | 12.8 | 24 | |
| 15 | 8 | 7 | 6 | S | 9 | 9.5 | 8 | 2.5 | 3 | C | C | C | C | C | C | C | C | 11 | 6.6 | 6 | 8.5 | 7 | 7 | 7.5 | 11 | 7.1 | 24 | |
| 16 | 6.5 | 5 | S | 5.1 | 5.6 | 5.1 | 4.6 | 6.6 | 4.1 | 4.1 | 4.1 | 5.1 | 9.6 | 14.1 | 9.6 | 5.6 | 4.1 | 6.6 | 6.6 | 7.6 | 6.1 | 6.1 | 5.6 | 8.1 | 14.1 | 6.3 | 24 | |
| 17 | 8.6 | S | 19 | 14 | 14.5 | 40 | 24 | 24.5 | 28 | 25.5 | 17 | 13.5 | 13 | 15 | 9.1 | 11.1 | 9.5 | 32 | 9.5 | 9.5 | 9.5 | 8 | 7 | 5.6 | 40 | 16.0 | 24 | |
| 18 | S | 9.6 | 10.6 | 9.1 | 8.6 | 11.6 | 5.6 | 7.6 | 7.1 | 8.1 | 5.2 | 3.7 | 22.6 | 30.2 | 3.7 | 5.7 | 9.2 | 20.1 | 26.6 | 35.6 | 50.1 | 46.1 | 47.6 | S | 50.1 | 17.5 | 24 | |
| 19 | 36.7 | 6.2 | 8.2 | 5.7 | 7.7 | 5.7 | 8.7 | 10.7 | 17.2 | 61.7 | 10.2 | 4.2 | 3.8 | 2.2 | 3.7 | 6.7 | 4.2 | 5.8 | 6.2 | 8.2 | 8.7 | 8.2 | S | 6 | 61.7 | 10.7 | 24 | |
| 20 | 2 | 2 | 1 | 3 | 7 | 11.5 | 7.5 | 12 | 4 | 10 | 6.5 | 6.5 | 5 | 3.5 | 6 | 5 | 5 | 12 | 24 | 36.5 | 28 | S | 30.8 | 36.3 | 36.5 | 11.5 | 24 | |
| 21 | 35.8 | 18.3 | 18.3 | 9.8 | 10.8 | 11.3 | 19.8 | 14.3 | 18.3 | 6.3 | 2.8 | 2.8 | 1.8 | 12.3 | 3.3 | 2.3 | 3.3 | 3.8 | 3.8 | 3.8 | S | 3.8 | 3.8 | 6.8 | 6.8 | 35.8 | 9.6 | 24 |
| 22 | 7.3 | 6.3 | 5.3 | 9.8 | 11.3 | 13.8 | 15.8 | 15.3 | 12.8 | 10.3 | 3.3 | 2.3 | 2.8 | 4.8 | 3.8 | 3.8 | 4.3 | 5.3 | 7.3 | S | 3.8 | 7.8 | 8.8 | 10.8 | 15.8 | 7.7 | 24 | |
| 23 | 12.3 | 12.3 | 11.3 | 17.8 | 17.8 | 17.8 | 19.3 | 17.8 | 11.3 | 5.8 | 4.3 | 3.8 | 3.3 | 3.8 | 3.3 | 3.3 | 4.8 | 6.8 | S | 10.8 | 11.8 | 13.3 | 12.3 | 11.8 | 19.3 | 10.3 | 24 | |
| 24 | 12.8 | 11.8 | 11.8 | 9.8 | 11.8 | 9.8 | 10.8 | 16.8 | 11.3 | 8.8 | 6.8 | 5.3 | 6.3 | 6.3 | 6.8 | 8.8 | 12.8 | S | 34 | 23 | 6.5 | 17.5 | 18.5 | 8.5 | 34 | 12.0 | 24 | |
| 25 | 10 | 11.5 | 15.5 | 11 | 13 | 7.5 | 12.5 | 22 | 17.5 | 14.5 | 10 | 5.5 | 3 | 3.5 | 3.5 | 3 | S | 6.5 | 7.5 | 10.5 | 15.5 | 16.5 | 17 | 17 | 22 | 11.0 | 24 | |
| 26 | 18.5 | 19.5 | 20.5 | 19 | 24 | 23.5 | 27.5 | 25 | 27.5 | 17 | 2 | 3 | 3.5 | 3.5 | 3.5 | S | 4 | 22 | 29 | 46.5 | 38.5 | 38 | 35 | 33.6 | 46.5 | 21.0 | 24 | |
| 27 | 3.1 | 10.6 | 13 | 12.5 | 4.6 | 9.6 | 8.6 | 16.1 | 13 | 10.5 | 7 | 33 | 9.1 | 8.1 | S | 3.6 | 4.1 | 11.1 | 8.6 | 2.1 | 2.1 | 1.1 | 1.1 | 1.1 | 33 | 8.4 | 24 | |
| 28 | 1.1 | 2.1 | 2.1 | 2.6 | 8.6 | 12.6 | 16.6 | 14.1 | 9.6 | 4.1 | 3.1 | 3.1 | 1.1 | S | 1.1 | 3.1 | 0.6 | 1.1 | 1.6 | 1.6 | 6.1 | 4.6 | 6.5 | 5.6 | 16.6 | 4.9 | 24 | |
| HOURLY MAX | 37 | 31 | 30 | 29 | 29 | 40 | 32 | 34 | 32 | 62 | 29 | 33 | 23 | 30 | 12 | 11 | 13 | 32 | 34 | 47 | 50 | 46 | 48 | 36 | | | | |
| HOURLY AVG | 11.4 | 9.8 | 10.5 | 10.4 | 12.0 | 12.8 | 13.3 | 12.2 | 11.7 | 7.6 | 6.6 | 6.5 | 7.3 | 5.3 | 5.9 | 6.7 | 10.6 | 12.6 | 14.2 | 14.1 | 12.9 | 14.5 | 11.3 | | | | | |

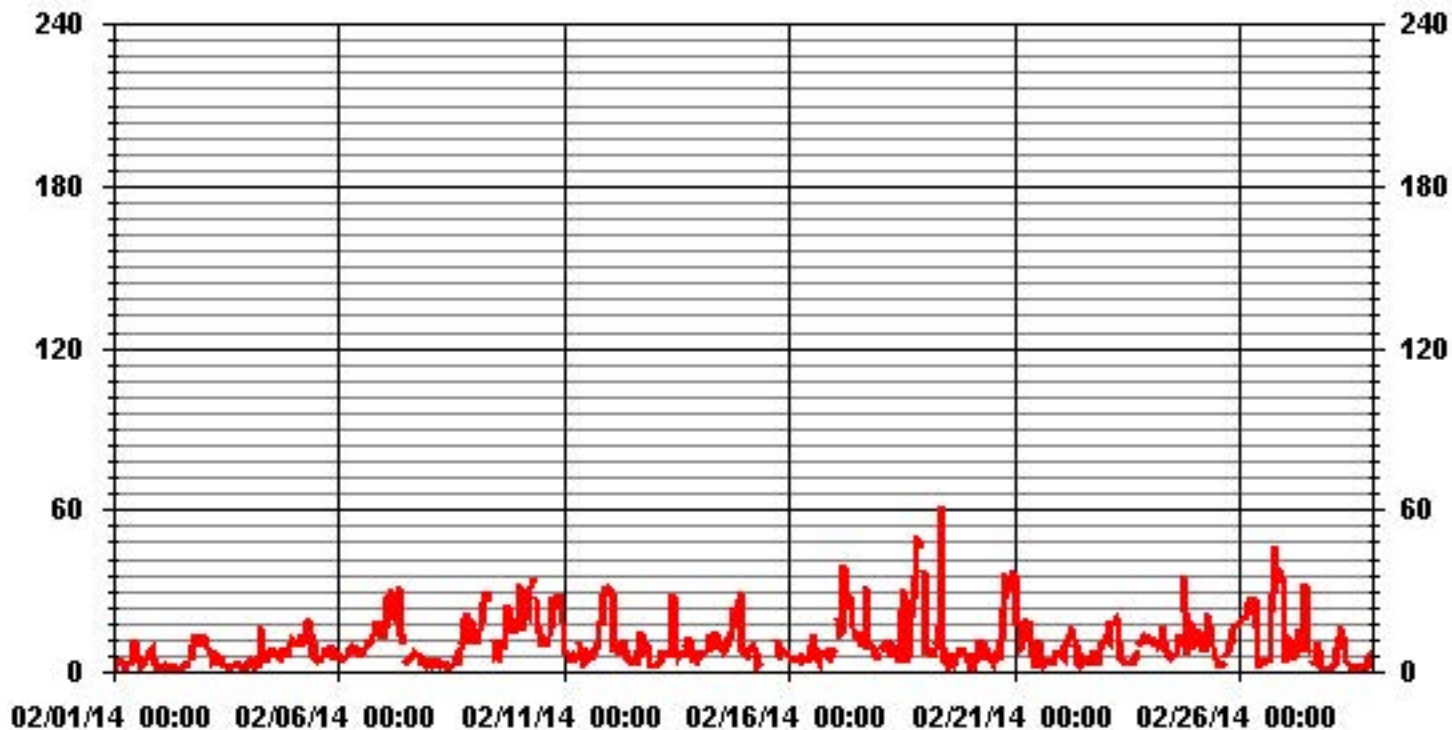
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|-----------------------------------|
| NUMBER OF NON-ZERO READINGS: | 635 |
| MAXIMUM INSTANTANEOUS VALUE: | 61.7 PPB @ HOUR(S) 9 ON DAY(S) 19 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 29 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 8.70 |

01 Hour Averages



— LICA NO2MAX PPB

LICA
 NO2_ / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : NO2_
 Units : PPB

Wind Parameter : WD
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 6.94 | 5.36 | 7.72 | 2.99 | 6.94 | 5.52 | 7.41 | 1.57 | .31 | 1.41 | 5.36 | 20.34 | 9.77 | 3.78 | 6.30 | 8.20 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.94 | 5.36 | 7.72 | 2.99 | 6.94 | 5.52 | 7.41 | 1.57 | .31 | 1.41 | 5.36 | 20.34 | 9.77 | 3.78 | 6.30 | 8.20 | |

Calm : .00 %

Total # Operational Hours : 634

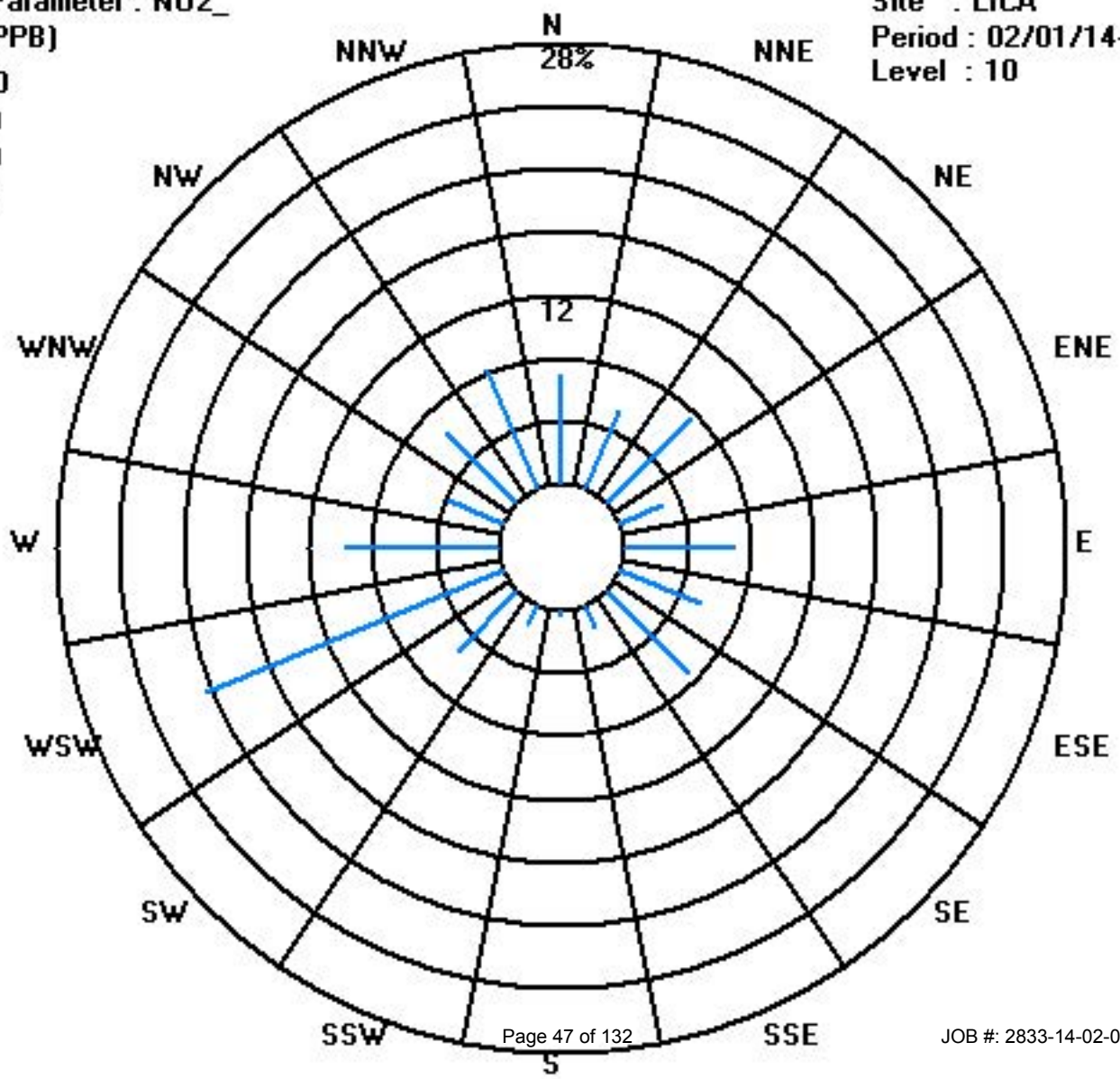
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 44 | 34 | 49 | 19 | 44 | 35 | 47 | 10 | 2 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | 634 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 34 | 49 | 19 | 44 | 35 | 47 | 10 | 2 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | |

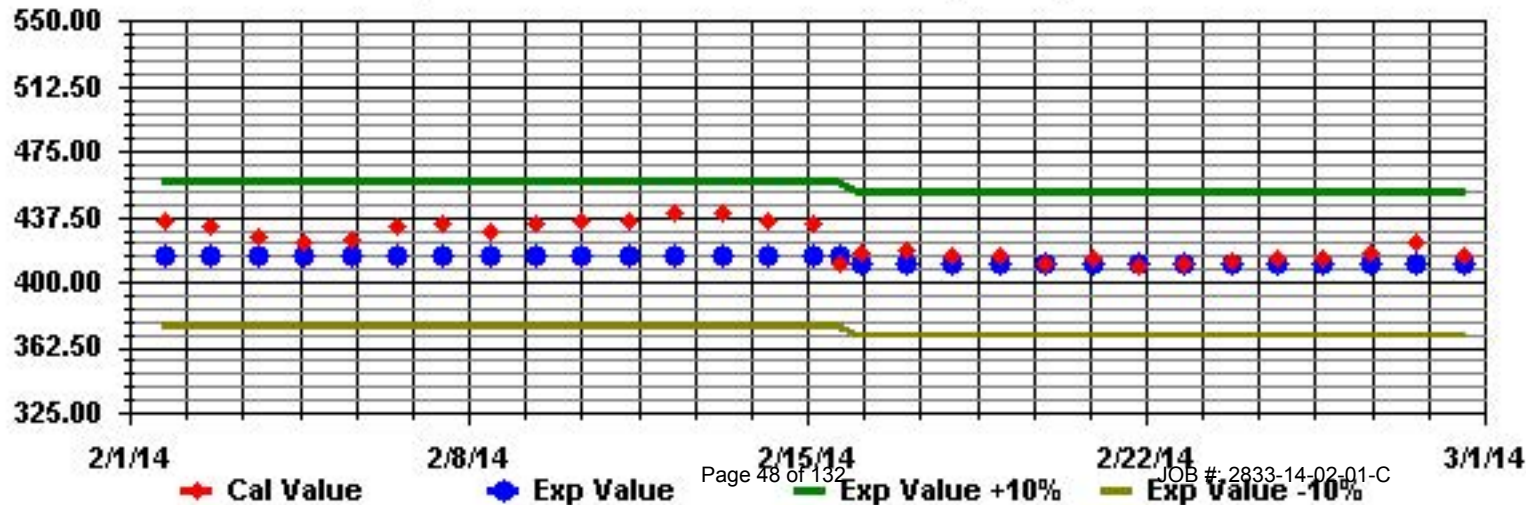
Calm : .00 %

Total # Operational Hours : 634

Class Limits (PPB)

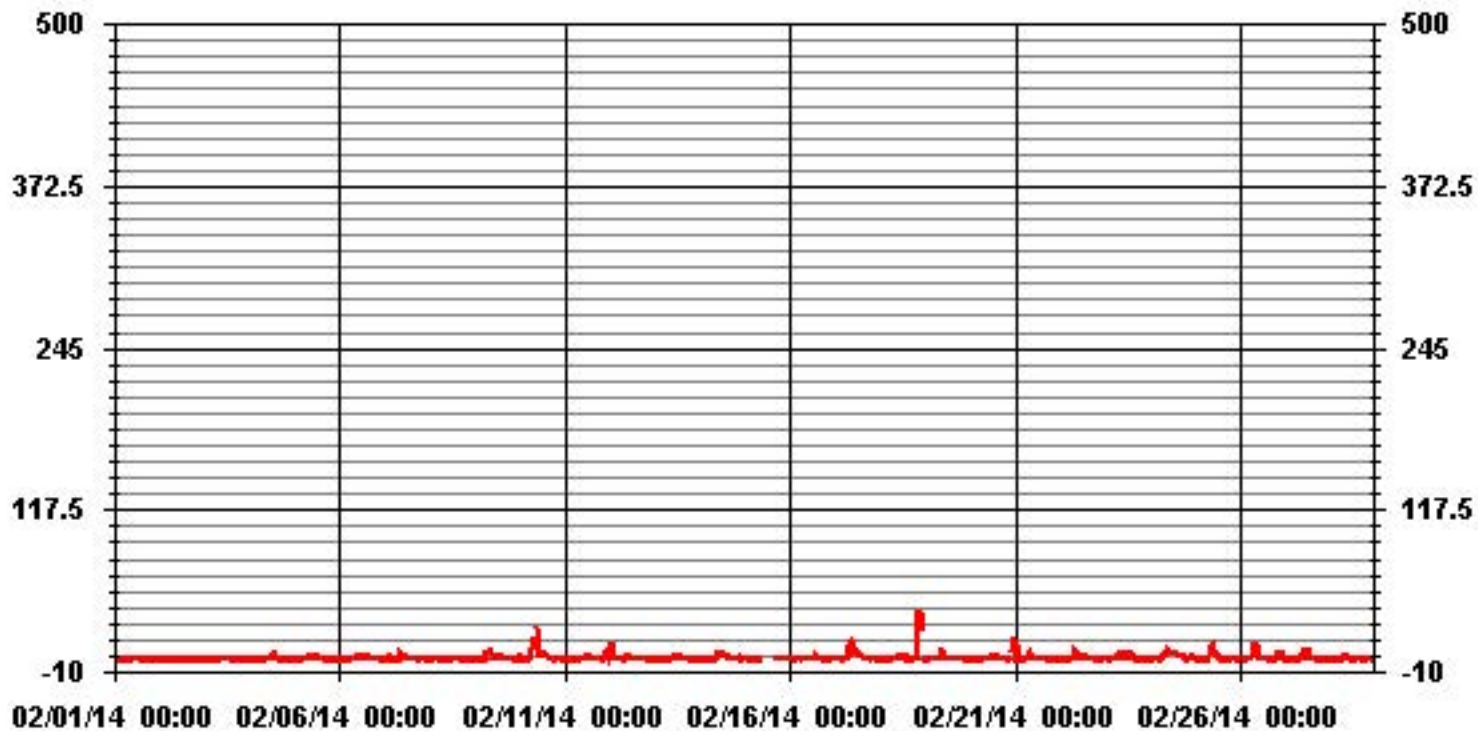


Calibration Graph for Site: LICA Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

01 Hour Averages



— LICA NO_ PPB

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

NITRIC OXIDE MAX instantaneous maximum in ppb

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.5 | 0.5 | 1 | 1.5 | 1.5 | 1 | 0.5 | 1 | 1 | 1.5 | 1 | 4.5 | 5.5 | 3.5 | 1 | 1 | 1 | S | 1 | 1 | 1.5 | 1.5 | 0 | 0 | 5.5 | 1.4 | 24 | |
| 2 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0.5 | 0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | S | 0.5 | 1 | 0.5 | 0.5 | 1.5 | 2.5 | 2 | 2.5 | 0.6 | 24 | |
| 3 | 1.5 | 1 | 2 | 0 | 0.5 | 0.5 | 2 | 0 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.5 | S | 0.5 | 0 | 0.5 | 1 | 0.5 | 0.5 | 0 | 0.5 | 2 | 0.6 | 24 | |
| 4 | 0 | 0 | 0.5 | 0 | 0.5 | 0 | 4 | 0.5 | 0.5 | 1 | 2.5 | 4 | 4 | 4.5 | S | 2.1 | 1 | 0.5 | 2 | 0.5 | 0.5 | 1 | 2.5 | 1.5 | 4.5 | 1.5 | 24 | |
| 5 | 1.5 | 1.5 | 1 | 2.5 | 1.5 | 2 | 2 | 1 | 7 | 5 | 3 | 3 | 5 | S | 2.5 | 3 | 1 | 4 | 1.6 | 1 | 1 | 1.5 | 0.5 | 0.5 | 7 | 2.3 | 24 | |
| 6 | 1.5 | 1 | 1 | 0.5 | 0.5 | 1 | 1.1 | 1 | 1.5 | 3 | 3.6 | 3.1 | S | 7.6 | 2.7 | 4.1 | 2.1 | 1.1 | 2.1 | 1.1 | 2.1 | 2.1 | 5.1 | 0.6 | 7.6 | 2.2 | 24 | |
| 7 | 0 | 0.6 | 9.1 | 6.1 | 4.6 | 1.6 | 4.1 | 1.1 | 12.6 | 3.6 | 3.2 | S | 2 | 1.5 | 3.5 | 3.5 | 2.1 | 1.5 | 1 | 5 | 1.5 | 3.6 | 1 | 2 | 12.6 | 3.3 | 24 | |
| 8 | 2 | 1 | 2.5 | 1.5 | 2 | 2 | 0.5 | 1 | 0.5 | 3.5 | S | 1 | 1.5 | 2 | 2.5 | 2 | 1.5 | 0.5 | 1 | 6 | 3.6 | 0.5 | 2.5 | 1.5 | 6 | 1.9 | 24 | |
| 9 | 2 | 1 | 1 | 1 | 0.5 | 4.5 | 8.5 | 14.5 | 9.5 | S | 4 | 3 | 3 | 5 | 6 | 2.5 | 2.5 | 1.5 | 7.5 | 3 | 0.5 | 0.5 | 1.5 | 14.5 | 3.7 | 24 | | |
| 10 | 5.5 | 7.5 | 11.5 | 0.5 | 0.5 | 9.5 | 16 | 19 | S | 33 | 15 | 7.5 | 7 | 5.5 | 5 | 5.5 | 2 | 1.5 | 2.5 | 0.5 | 2.5 | 1.5 | 2.5 | 1 | 33 | 7.1 | 24 | |
| 11 | 1 | 0.5 | 2.5 | 1 | 1 | 4.5 | 1 | S | 3.5 | 1 | 1.5 | 3 | 4 | 8 | 2.5 | 1.5 | 2 | 3 | 2 | 1.5 | 2 | 7 | 30 | 4 | 30 | 3.8 | 24 | |
| 12 | 16 | 15.5 | 12 | 1 | 1 | 1.5 | S | 2 | 2.5 | 4 | 3 | 3.5 | 2.5 | 2 | 2 | 3 | 4.5 | 2.5 | 10 | 2 | 2.5 | 0.5 | 0 | 16 | 4.2 | 24 | | |
| 13 | 0.5 | 0 | 0.5 | 0 | 5.5 | S | 1 | 1 | 1 | 2 | 25.5 | 3 | 4 | 3.6 | 7.5 | 1.5 | 1.5 | 1.5 | 11 | 2.5 | 1 | 0.5 | 1 | 0 | 25.5 | 3.3 | 24 | |
| 14 | 0 | 0.5 | 0.5 | 1.5 | S | 1.5 | 4.5 | 1 | 2.5 | 15 | 5.5 | 6.5 | 5.6 | 4.6 | 4.6 | 2.6 | 2.6 | 6 | 3 | 25.5 | 3 | 9 | 5.5 | 0.5 | 25.5 | 4.8 | 24 | |
| 15 | 1.5 | 2 | 1 | S | 1 | 1.5 | 0.5 | 0 | 0.5 | C | C | C | C | C | C | C | C | 1.1 | 1.6 | 7.6 | 7.1 | 1.6 | 1.6 | 2.1 | 7.6 | 2.0 | 24 | |
| 16 | 1.1 | 1.1 | S | 1 | 1 | 1.5 | 1 | 2 | 1.5 | 1.5 | 1.5 | 5.5 | 17 | 6 | 1.5 | 2 | 3.5 | 0.5 | 1 | 0.5 | 1 | 1 | 2 | 17 | 2.4 | 24 | | |
| 17 | 1.5 | S | 3.4 | 2.9 | 0.9 | 11.9 | 9.9 | 8.4 | 19.4 | 25.4 | 14.4 | 8.4 | 9 | 9 | 6.9 | 5.5 | 2 | 8.5 | 0.9 | 0.9 | 2 | 2 | 0.9 | 1 | 25.4 | 6.7 | 24 | |
| 18 | S | 1.4 | 1.9 | 2.9 | 0.4 | 5.9 | 1.4 | 2.4 | 3.9 | 5.4 | 2.5 | 2 | 18 | 17.5 | 1.4 | 2 | 2 | 4.4 | 3.5 | 3.5 | 72.4 | 57.4 | 44.9 | S | 72.4 | 11.7 | 24 | |
| 19 | 12.9 | 1.4 | 22.9 | 1.4 | 2.4 | 1.4 | 1.4 | 3.4 | 9.4 | 113.9 | 21.4 | 2.4 | 1.9 | 0.9 | 2.5 | 6.4 | 1.9 | 4.5 | 30.9 | 4.4 | 1.9 | 2.9 | S | 0.9 | 113.9 | 11.0 | 24 | |
| 20 | 0.4 | 0.4 | 0.4 | 0.4 | 1.4 | 3.4 | 1.4 | 8.4 | 5.4 | 2.9 | 4.4 | 4.4 | 4.4 | 1.9 | 6.4 | 3.4 | 1.4 | 2.9 | 7.4 | 17.9 | 2.9 | S | 16 | 24.5 | 24.5 | 5.3 | 24 | |
| 21 | 25 | 1 | 5 | 2.5 | 3 | 1.5 | 3 | 6 | 53 | 3.5 | 1.5 | 7 | 1 | 2 | 5.5 | 3.5 | 1 | 2 | 1.5 | 0.5 | S | 0.6 | 0.6 | 1 | 53 | 5.7 | 24 | |
| 22 | 0.6 | 1 | 0.6 | 2.5 | 2 | 1.5 | 2 | 12.5 | 12 | 10.5 | 3.5 | 2.5 | 3 | 4 | 3.5 | 2 | 1.5 | 1.5 | 2 | S | 0.6 | 1 | 1 | 1.5 | 12.5 | 3.2 | 24 | |
| 23 | 2 | 1.5 | 1 | 2.5 | 2.5 | 2.5 | 5 | 4.5 | 7.5 | 6 | 6.5 | 5.5 | 3.5 | 4.5 | 4 | 3 | 4 | 2 | S | 2.5 | 0.5 | 1 | 1 | 0.5 | 7.5 | 3.2 | 24 | |
| 24 | 1.5 | 1.5 | 1 | 2 | 2.5 | 1.5 | 3.5 | 5.5 | 8 | 10.5 | 8 | 14 | 8.5 | 7.1 | 5.5 | 5.5 | 11.5 | S | 12.9 | 2.4 | 2.9 | 3.4 | 7.4 | 2.9 | 14 | 5.6 | 24 | |
| 25 | 3.4 | 2.4 | 10.4 | 3.4 | 1.4 | 0.4 | 0.4 | 5.9 | 14.5 | 16.4 | 10.4 | 9.9 | 10.9 | 2.9 | 2.4 | 2.4 | S | 1.4 | 0.9 | 1.4 | 1.9 | 0.9 | 1.4 | 1.4 | 16.4 | 4.6 | 24 | |
| 26 | 1.4 | 1.4 | 2.4 | 5.4 | 12.4 | 7 | 6.4 | 9.9 | 20.5 | 12.4 | 2.9 | 2.9 | 3.9 | 3.4 | 6.9 | S | 1.4 | 32.4 | 2.4 | 12.5 | 13 | 11 | 3.5 | 3 | 32.4 | 7.8 | 24 | |
| 27 | 0.5 | 4.5 | 2 | 1 | 0.5 | 1 | 1 | 4.5 | 4.5 | 4.9 | 4.5 | 30.5 | 9 | 5 | S | 1.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 30.5 | 3.5 | 24 | |
| 28 | 0.5 | 0.5 | 0.5 | 2.5 | 3 | 2.5 | 6.5 | 4.5 | 6 | 2.5 | 2.5 | 2 | 1.5 | S | 2 | 2.5 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 2.5 | 1.5 | 2 | 3.5 | 6.5 | 2.2 | 24 |
| HOURLY MAX | 25 | 16 | 23 | 6 | 12 | 12 | 16 | 19 | 53 | 114 | 26 | 31 | 18 | 18 | 8 | 6 | 12 | 32 | 31 | 26 | 72 | 57 | 45 | 25 | | | | |
| HOURLY AVG | 3.1 | 1.9 | 3.6 | 1.8 | 2.0 | 2.7 | 3.3 | 4.5 | 7.7 | 11.1 | 5.9 | 5.2 | 4.8 | 4.9 | 3.7 | 3.0 | 2.1 | 3.6 | 3.6 | 4.4 | 4.9 | 4.4 | 5.0 | 2.2 | | | | |

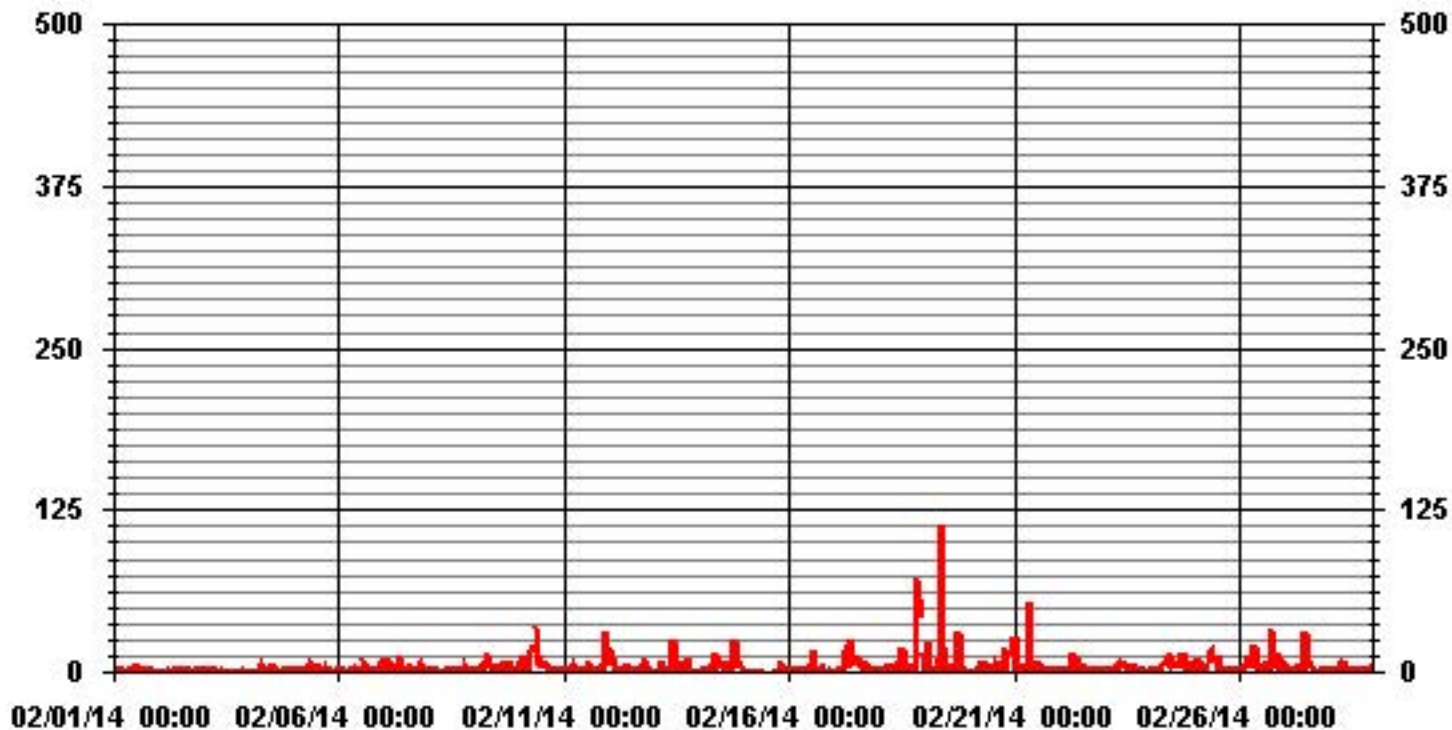
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 612 |
| MAXIMUM INSTANTANEOUS VALUE: | 113.9 PPB @ HOUR(S) 9 ON DAY(S) 19 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 29 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 7.78 |

01 Hour Averages



LICA
 NO_ / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : NO_
 Units : PPB

Wind Parameter : WD
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 6.92 | 5.35 | 7.87 | 2.99 | 6.92 | 5.51 | 7.40 | 1.57 | .31 | 1.41 | 5.35 | 20.31 | 9.76 | 3.77 | 6.29 | 8.18 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.92 | 5.35 | 7.87 | 2.99 | 6.92 | 5.51 | 7.40 | 1.57 | .31 | 1.41 | 5.35 | 20.31 | 9.76 | 3.77 | 6.29 | 8.18 | |

Calm : .00 %

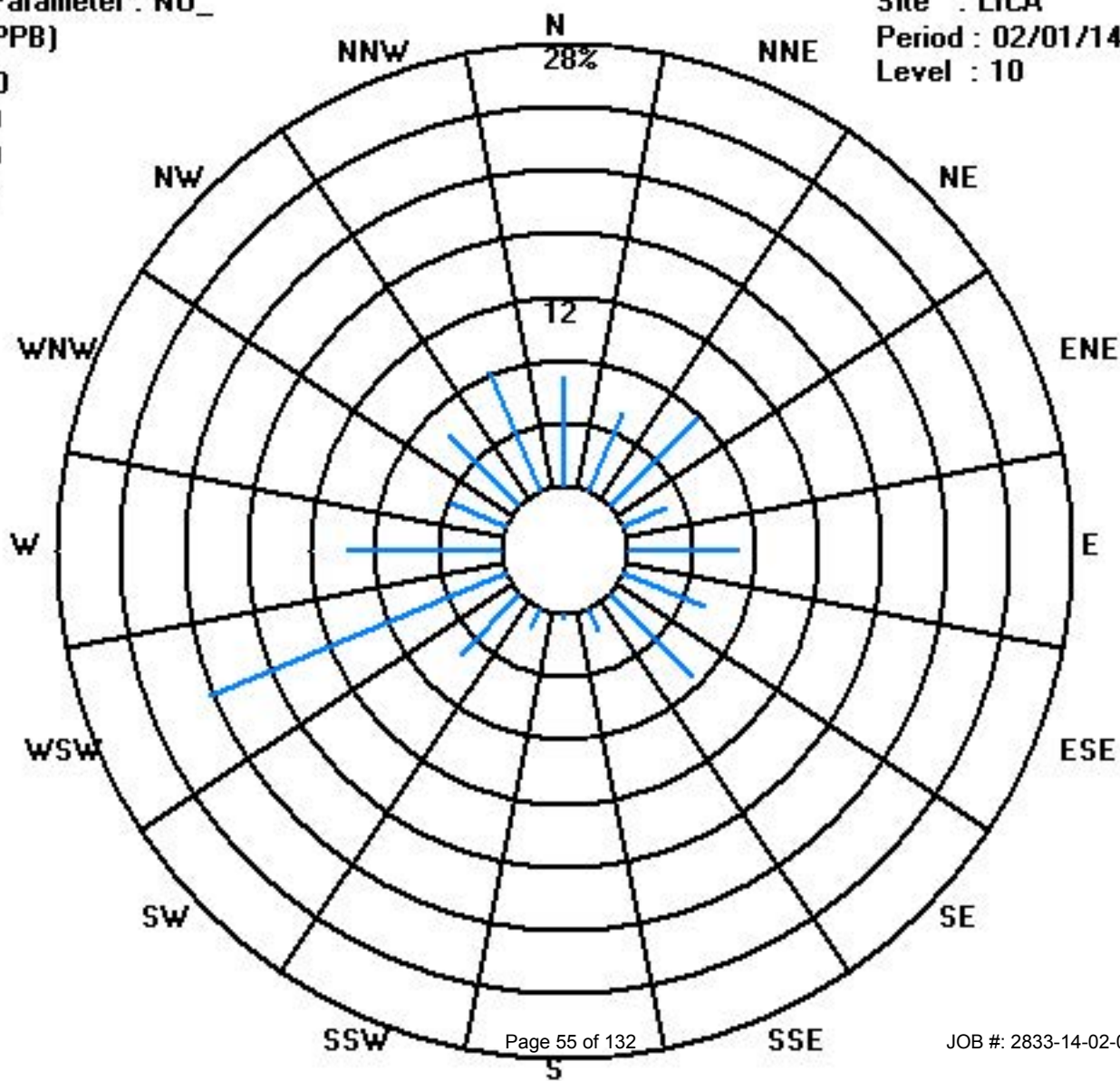
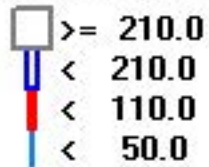
Total # Operational Hours : 635

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 44 | 34 | 50 | 19 | 44 | 35 | 47 | 10 | 2 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | 635 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 34 | 50 | 19 | 44 | 35 | 47 | 10 | 2 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | |

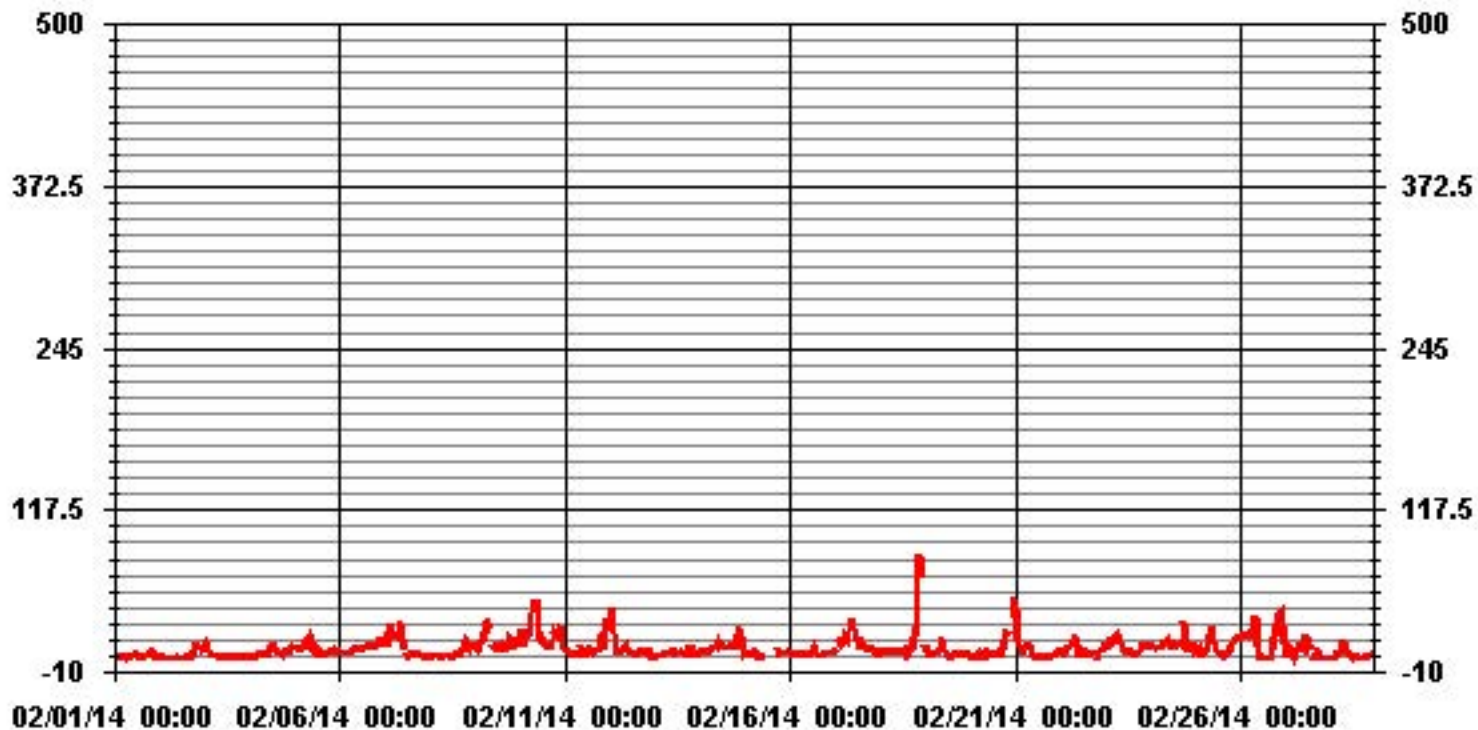
Calm : .00 %

Total # Operational Hours : 635



Oxides of Nitrogen

01 Hour Averages



— LICA NOX_ PPB

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 3 | 2 | 3.5 | 4.5 | 5.5 | 3.5 | 1.5 | 3.5 | 4.5 | 5 | 4 | 15.5 | 13.4 | 10.5 | 3 | 3 | 4.5 | S | 6 | 8 | 9 | 7 | 3.5 | 1.5 | 15.5 | 5.5 | 24 | |
| 2 | 1 | 2 | 1.5 | 2.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2 | 2 | 2 | 1.5 | 1.5 | 2 | 2.5 | 3 | S | 5.1 | 10.6 | 14.6 | 11.1 | 13.6 | 10.6 | 13.6 | 14.6 | 4.7 | 24 | |
| 3 | 15.6 | 10.6 | 10.6 | 7.1 | 3.6 | 3.6 | 9.6 | 2.1 | 4.1 | 4.6 | 3.5 | 2.5 | 2.5 | 3 | 2.5 | S | 2.4 | 2.9 | 2.9 | 3 | 1.9 | 1.9 | 2.4 | 2.4 | 15.6 | 4.6 | 24 | |
| 4 | 3.4 | 4.4 | 3.9 | 2.4 | 4.4 | 3.9 | 19.9 | 5.5 | 4.9 | 5.5 | 8.4 | 11.4 | 11.5 | 11.9 | S | 8.4 | 6.5 | 5.5 | 7.9 | 7.4 | 7 | 7.4 | 10.9 | 13 | 19.9 | 7.6 | 24 | |
| 5 | 11.4 | 11.4 | 10.4 | 11.9 | 13.9 | 14.9 | 11.9 | 18.9 | 21.5 | 18.9 | 8.9 | 7.9 | 14.4 | S | 6.6 | 7.5 | 8 | 11.5 | 9 | 8 | 9.5 | 6.6 | 6 | 7.1 | 21.5 | 11.1 | 24 | |
| 6 | 7.1 | 6 | 6 | 5.5 | 6 | 7.5 | 9.5 | 10 | 10.5 | 11 | 11 | 9.5 | S | 11.1 | 11.6 | 15.1 | 12.6 | 12.7 | 15.6 | 14.6 | 20.6 | 18.6 | 23.1 | 14.1 | 23.1 | 11.7 | 24 | |
| 7 | 13.7 | 16.1 | 35.6 | 35.1 | 34.1 | 22.1 | 21.6 | 24.1 | 44.1 | 17.1 | 14.6 | S | 5.1 | 5.6 | 9 | 9 | 9 | 7 | 10.6 | 4.5 | 7 | 3 | 5 | 44.1 | 15.7 | 24 | | |
| 8 | 5 | 3 | 6.5 | 5 | 6 | 5 | 3 | 3.5 | 3 | 3.5 | S | 3.1 | 4.6 | 4.6 | 7.6 | 5.7 | 8.6 | 9.1 | 10.6 | 26.1 | 24.6 | 12.1 | 22.6 | 14.1 | 26.1 | 8.6 | 24 | |
| 9 | 14.6 | 11.6 | 16.6 | 16.6 | 18.1 | 30.6 | 36.6 | 43.1 | 34.6 | S | 14.6 | 8.1 | 9.1 | 8.7 | 16.6 | 12.6 | 13.1 | 17.1 | 26.1 | 24.1 | 20.7 | 14.1 | 18.6 | 20.6 | 43.1 | 19.4 | 24 | |
| 10 | 36.6 | 37.6 | 25.6 | 23.6 | 22.6 | 38.6 | 48.1 | 51.1 | S | 59.5 | 32.5 | 22 | 17 | 16 | 15.5 | 15.5 | 14.1 | 17.5 | 30 | 23 | 31 | 26 | 30 | 20.1 | 59.5 | 28.4 | 24 | |
| 11 | 8 | 8.5 | 8 | 5.5 | 5 | 10 | 7.1 | S | 13 | 6.5 | 4 | 6.6 | 11.5 | 11 | 7.5 | 6.6 | 7.5 | 9 | 11.5 | 18.5 | 18 | 35.5 | 57 | 31 | 57 | 13.3 | 24 | |
| 12 | 46.5 | 45 | 41.5 | 8.6 | 10 | 8.6 | S | 10.4 | 14.4 | 11.4 | 7.9 | 6.9 | 6 | 5.4 | 5.4 | 8.4 | 8.9 | 19.4 | 10.9 | 15.4 | 11.4 | 8.4 | 3.9 | 2.4 | 46.5 | 13.8 | 24 | |
| 13 | 2.9 | 2.4 | 2.9 | 3.9 | 10.4 | S | 7.1 | 8.5 | 8 | 8 | 32.5 | 8 | 12 | 7.1 | 13.6 | 8 | 9 | 12 | 18.5 | 15 | 7.1 | 5.5 | 5.5 | 6.6 | 32.5 | 9.3 | 24 | |
| 14 | 6 | 6.6 | 7.5 | 8.5 | S | 8.9 | 17.9 | 10.4 | 13.5 | 28.4 | 14.9 | 15.4 | 16 | 12.5 | 12.5 | 12.5 | 14.5 | 19.9 | 26.9 | 16.4 | 24.9 | 33.9 | 34.9 | 7.9 | 34.9 | 16.1 | 24 | |
| 15 | 8.4 | 8.9 | 6.9 | S | 9.5 | 9.5 | 8.5 | 2.5 | 3.5 | C | C | C | C | C | C | C | C | 12 | 7 | 9.5 | 12.5 | 8 | 8 | 9 | 12.5 | 8.2 | 24 | |
| 16 | 7.5 | 5.6 | S | 5.6 | 6.7 | 6.1 | 5.6 | 8.1 | 5.6 | 5.1 | 5.6 | 6.7 | 15.1 | 27.1 | 15.1 | 6.6 | 5.6 | 10.1 | 7.1 | 8.1 | 6.6 | 6.6 | 5.7 | 10.1 | 27.1 | 8.3 | 24 | |
| 17 | 10.1 | S | 21.9 | 14.4 | 14.9 | 50.9 | 33.9 | 32.4 | 46.9 | 50.4 | 29.9 | 19.9 | 19.4 | 22 | 13.9 | 15.5 | 11.5 | 39.9 | 10 | 9.9 | 10.5 | 8.5 | 7.4 | 6.5 | 50.9 | 21.8 | 24 | |
| 18 | S | 10.7 | 11.7 | 12.2 | 9.2 | 17.7 | 6.8 | 8.7 | 10.7 | 10.7 | 7.8 | 5.8 | 32.2 | 41.7 | 4.8 | 7.2 | 11.3 | 24.2 | 30.3 | 37.8 | 120.7 | 98.7 | 92.2 | S | 120.7 | 27.9 | 24 | |
| 19 | 49.2 | 8.2 | 23.7 | 7.2 | 10.2 | 6.8 | 9.7 | 13.7 | 26.2 | 163.2 | 17.2 | 6.8 | 5.8 | 3.3 | 5.3 | 11.3 | 6.3 | 10.3 | 19.2 | 10.7 | 10.2 | 11.2 | S | 6.6 | 163.2 | 19.2 | 24 | |
| 20 | 2.6 | 2.6 | 1.1 | 3.1 | 7.6 | 15.1 | 8.6 | 20.1 | 5.1 | 11.1 | 11.1 | 8.6 | 9.6 | 5.6 | 12.1 | 7.1 | 6.6 | 14.6 | 29.6 | 53.6 | 31.1 | S | 45.2 | 57.7 | 57.7 | 16.1 | 24 | |
| 21 | 59.7 | 19.2 | 19.2 | 11.7 | 12.7 | 11.7 | 22.2 | 19.7 | 71.2 | 8.7 | 4.2 | 8.7 | 2.7 | 13.7 | 7.2 | 4.2 | 3.7 | 5.8 | 4.7 | 3.7 | S | 4.6 | 7.1 | 7.5 | 71.2 | 14.5 | 24 | |
| 22 | 8 | 7.5 | 5.5 | 10 | 12 | 15 | 17 | 28 | 24 | 21 | 7 | 4.5 | 6 | 8 | 7.6 | 6 | 5.5 | 6.5 | 8.5 | S | 4.4 | 7.8 | 8.8 | 11.8 | 28 | 10.5 | 24 | |
| 23 | 13.8 | 12.8 | 11.3 | 19.3 | 18.8 | 19.8 | 23.8 | 19.3 | 16.3 | 11.3 | 9.8 | 9.3 | 6.8 | 7.8 | 7.4 | 5.8 | 7.8 | 7.8 | S | 12.2 | 11.7 | 14.2 | 12.7 | 11.7 | 23.8 | 12.7 | 24 | |
| 24 | 13.7 | 13.2 | 12.2 | 11.2 | 13.2 | 10.2 | 11.7 | 20.7 | 17.2 | 18.7 | 14.7 | 15.7 | 12.2 | 13.2 | 11.7 | 13.2 | 19.7 | S | 46.4 | 24.9 | 9.4 | 20 | 25 | 10.4 | 46.4 | 16.5 | 24 | |
| 25 | 13.5 | 12.4 | 26.4 | 12.9 | 15 | 7.9 | 12.9 | 27.4 | 30.9 | 30.4 | 19.9 | 11.4 | 8.4 | 6 | 6 | 4.4 | S | 7.5 | 8 | 12 | 16.6 | 17 | 17.5 | 18.5 | 30.9 | 14.9 | 24 | |
| 26 | 19.5 | 20.5 | 21.5 | 23.5 | 35 | 27.5 | 33.5 | 32.5 | 48 | 29 | 4.1 | 5.5 | 6.6 | 7 | 8.5 | S | 5.6 | 51.5 | 31.5 | 54.5 | 51.1 | 47.6 | 38 | 36.1 | 54.5 | 27.7 | 24 | |
| 27 | 3.1 | 12.1 | 14.1 | 13.1 | 4.6 | 10.1 | 9.1 | 20.6 | 18.1 | 15.5 | 10.6 | 58.1 | 18.1 | 13.1 | S | 5 | 4.5 | 11.5 | 8.5 | 2.5 | 2 | 1 | 1 | 1 | 58.1 | 11.2 | 24 | |
| 28 | 1.5 | 2 | 2.5 | 4 | 11.5 | 12.5 | 21.5 | 16 | 15 | 6.5 | 5.5 | 4 | 2 | S | 2.5 | 5 | 1 | 1.5 | 2 | 1.5 | 8.5 | 5.5 | 8 | 7 | 21.5 | 6.4 | 24 | |
| HOURLY MAX | 60 | 45 | 42 | 35 | 35 | 51 | 48 | 51 | 71 | 163 | 33 | 58 | 32 | 42 | 17 | 16 | 20 | 52 | 46 | 55 | 121 | 99 | 92 | 58 | | | | |
| HOURLY AVG | 14.3 | 11.2 | 13.3 | 10.7 | 11.9 | 14.1 | 15.6 | 17.1 | 19.1 | 21.7 | 11.8 | 10.9 | 10.4 | 11.1 | 8.6 | 8.3 | 8.3 | 13.6 | 15.0 | 16.5 | 18.4 | 16.6 | 18.8 | 13.1 | | | | |

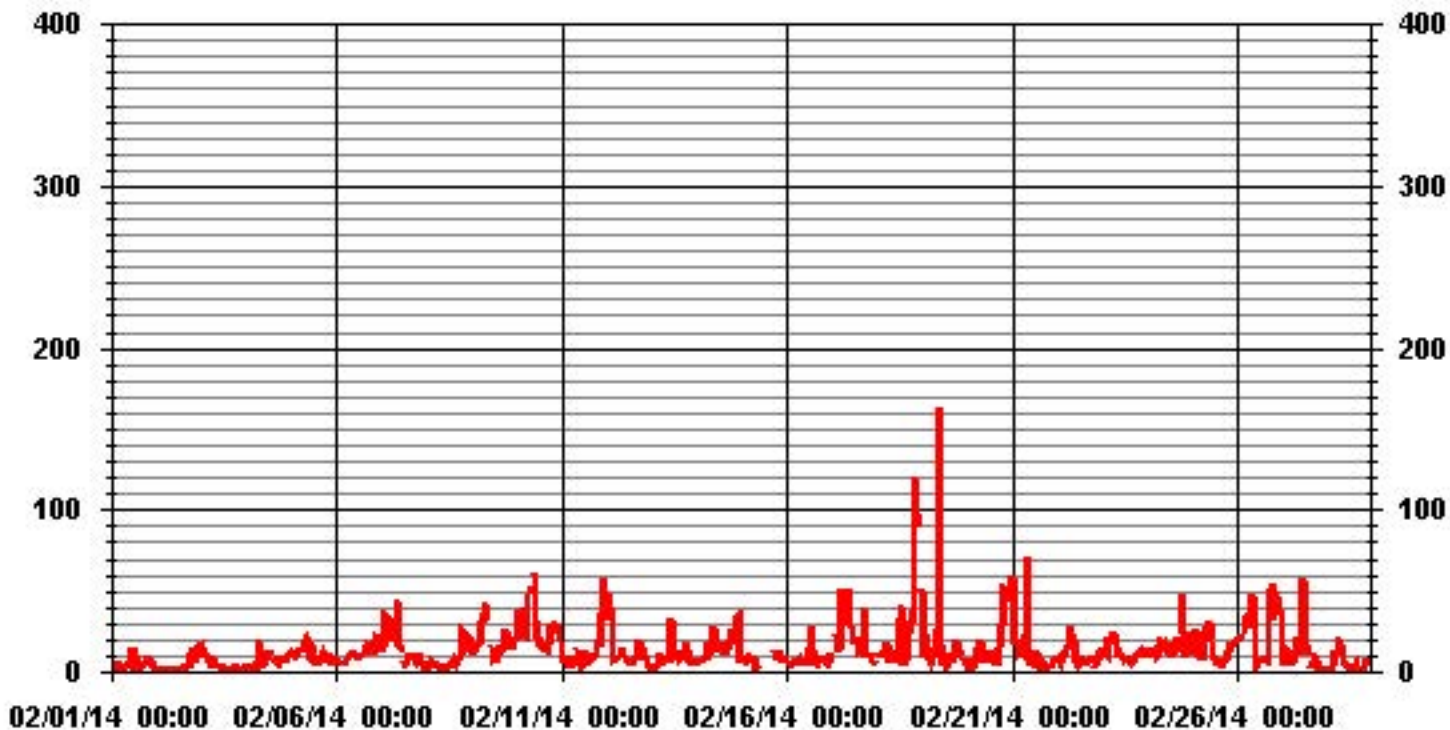
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 635 |
| MAXIMUM INSTANTANEOUS VALUE: | 163.2 PPB @ HOUR(S) 9 ON DAY(S) 19 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 29 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 14.12 |

01 Hour Averages



— LICA NOXMAX PPB

LICA
 NOX_ / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : NOX_
 Units : PPB

Wind Parameter : WD
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 6.92 | 5.35 | 7.87 | 2.83 | 6.61 | 5.51 | 7.40 | 1.57 | .31 | 1.41 | 5.35 | 20.31 | 9.76 | 3.77 | 6.29 | 8.18 | 99.52 |
| < 110.0 | .00 | .00 | .00 | .15 | .31 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .47 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.92 | 5.35 | 7.87 | 2.99 | 6.92 | 5.51 | 7.40 | 1.57 | .31 | 1.41 | 5.35 | 20.31 | 9.76 | 3.77 | 6.29 | 8.18 | |

Calm : .00 %

Total # Operational Hours : 635

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 44 | 34 | 50 | 18 | 42 | 35 | 47 | 10 | 2 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | 632 |
| < 110.0 | | | | 1 | 2 | | | | | | | | | | | | 3 |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 34 | 50 | 19 | 44 | 35 | 47 | 10 | 2 | 9 | 34 | 129 | 62 | 24 | 40 | 52 | |

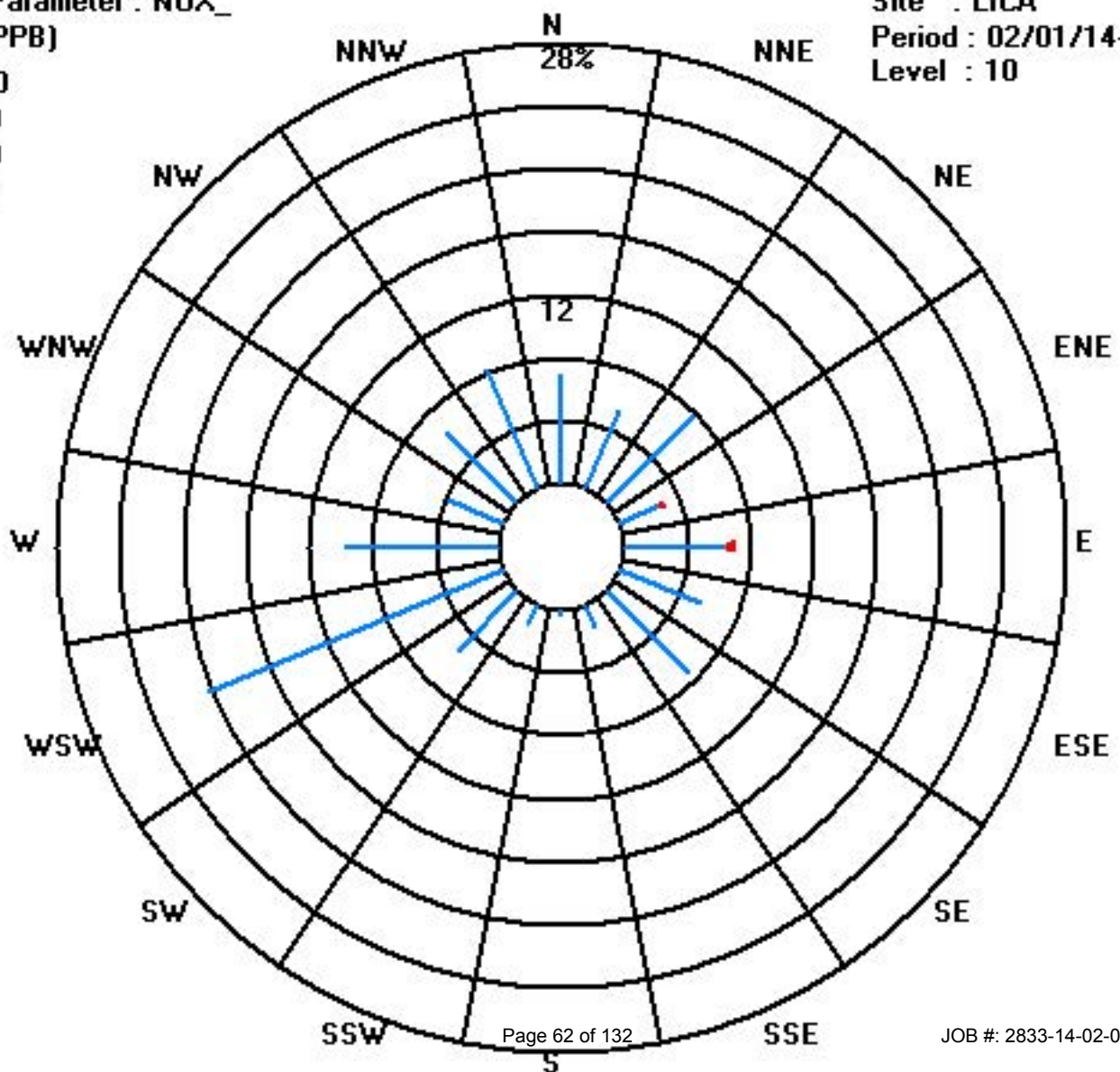
Calm : .00 %

Total # Operational Hours : 635

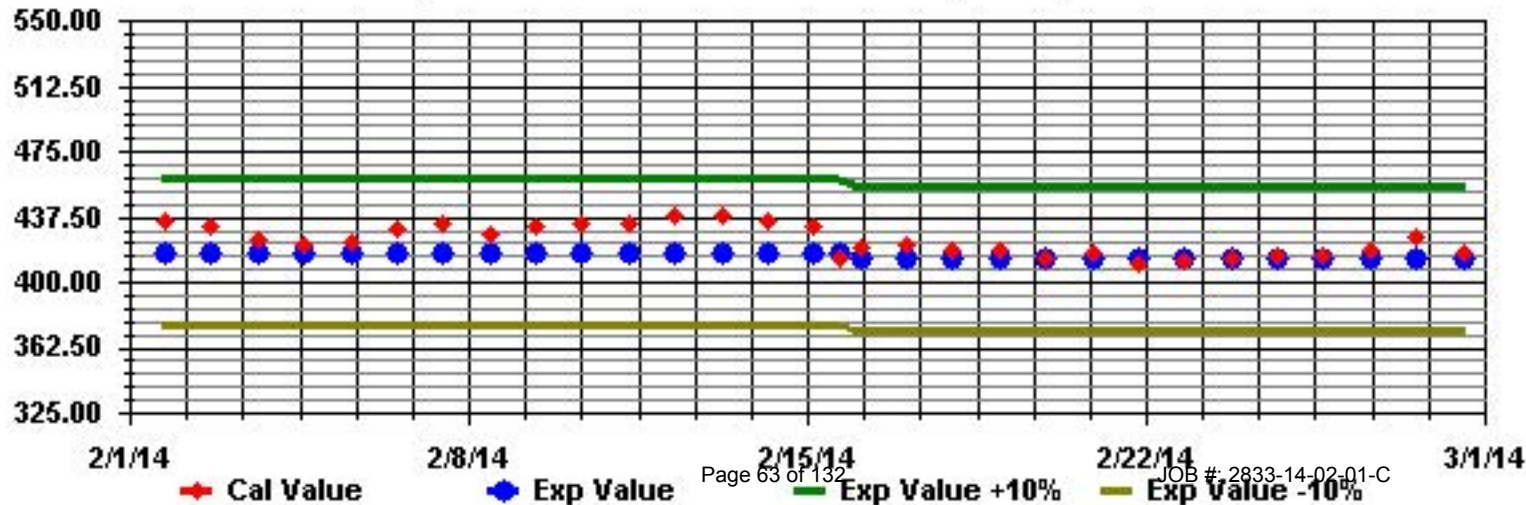
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10

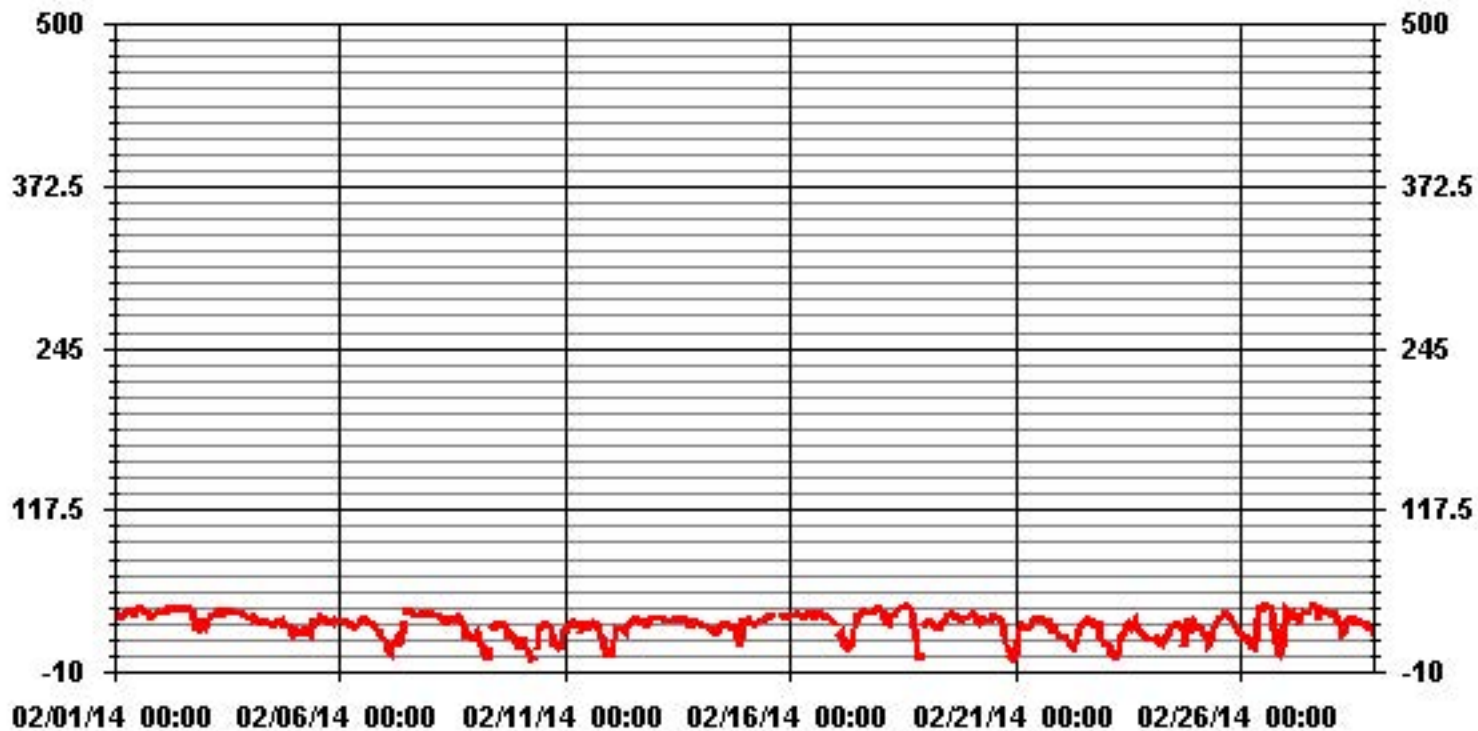


Calibration Graph for Site: LICA Parameter: NOX_ Sequence: NO2 Phase: SPAN



Ozone

01 Hour Averages



Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

OZONE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 37 | 37 | 37 | 37 | 35 | 37 | 38 | 38 | 38 | 38 | 38 | 38 | 39 | 41 | 41 | 41 | 40 | S | 37 | 35 | 35 | 36 | 39 | 39 | 41 | 37.9 | 24 | |
| 2 | 38 | 38 | 39 | 40 | 40 | 40 | 40 | 39 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | S | 40 | 37 | 29 | 28 | 31 | 32 | 30 | 40 | 37.4 | 24 | |
| 3 | 30 | 31 | 32 | 37 | 36 | 36 | 37 | 38 | 38 | 37 | 37 | 38 | 38 | 37 | 38 | S | 37 | 37 | 37 | 38 | 37 | 36 | 35 | 34 | 38 | 36.1 | 24 | |
| 4 | 34 | 32 | 34 | 33 | 32 | 31 | 30 | 29 | 29 | 30 | 29 | 29 | 28 | 28 | S | 30 | 30 | 32 | 27 | 27 | 29 | 28 | 25 | 22 | 34 | 29.5 | 24 | |
| 5 | 24 | 23 | 24 | 24 | 24 | 23 | 27 | 26 | 23 | 29 | 31 | 33 | 32 | S | 34 | 33 | 33 | 32 | 32 | 32 | 31 | 32 | 31 | 31 | 34 | 28.9 | 24 | |
| 6 | 30 | 31 | 31 | 30 | 29 | 29 | 28 | 26 | 27 | 29 | 29 | 30 | S | 32 | 32 | 31 | 30 | 29 | 28 | 26 | 24 | 24 | 22 | 19 | 32 | 28.1 | 24 | |
| 7 | 18 | 16 | 15 | 11 | 14 | 16 | 18 | 17 | 21 | 24 | 33 | S | 38 | 38 | 38 | 38 | 36 | 36 | 37 | 37 | 36 | 38 | 36 | 38 | 38 | 28.2 | 24 | |
| 8 | 37 | 38 | 37 | 36 | 36 | 35 | 34 | 33 | 31 | 31 | S | 32 | 33 | 35 | 35 | 34 | 34 | 33 | 31 | 25 | 27 | 25 | 20 | 21 | 38 | 31.9 | 24 | |
| 9 | 21 | 23 | 21 | 16 | 14 | 10 | 4 | 3 | 11 | S | 28 | 28 | 29 | 30 | 30 | 30 | 30 | 25 | 24 | 28 | 25 | 20 | 19 | 14 | 30 | 21.0 | 24 | |
| 10 | 16 | 19 | 20 | 17 | 12 | 10 | 3 | 2 | S | 15 | 27 | 27 | 29 | 29 | 30 | 31 | 28 | 24 | 18 | 16 | 13 | 17 | 15 | 26 | 31 | 19.3 | 24 | |
| 11 | 25 | 26 | 27 | 29 | 30 | 30 | 29 | S | 27 | 29 | 29 | 28 | 28 | 28 | 29 | 30 | 29 | 28 | 26 | 24 | 21 | 16 | 10 | 8 | 30 | 25.5 | 24 | |
| 12 | 10 | 2 | 25 | 25 | 25 | S | 25 | 25 | 27 | 29 | 31 | 31 | 32 | 32 | 32 | 31 | 30 | 30 | 30 | 29 | 32 | 32 | 32 | 33 | 33 | 27.1 | 24 | |
| 13 | 33 | 33 | 33 | 32 | 32 | S | 32 | 31 | 32 | 32 | 32 | 32 | 33 | 32 | 33 | 32 | 32 | 29 | 29 | 29 | 31 | 31 | 31 | 30 | 33 | 31.6 | 24 | |
| 14 | 29 | 28 | 27 | 27 | S | 26 | 25 | 23 | 23 | 24 | 26 | 27 | 28 | 28 | 29 | 29 | 27 | 28 | 27 | 27 | 25 | 14 | 29 | 31 | 31 | 26.4 | 24 | |
| 15 | 30 | 32 | 32 | S | 30 | 29 | 30 | 31 | 30 | 31 | 32 | 33 | 34 | 34 | C | C | C | C | C | C | 35 | 35 | 35 | 35 | 35 | 35 | 32.3 | 24 |
| 16 | 35 | 36 | S | 37 | 36 | 35 | 35 | 34 | 35 | 35 | 36 | 36 | 37 | 37 | 38 | 37 | 38 | 37 | 34 | 34 | 34 | 33 | 33 | 33 | 38 | 35.4 | 24 | |
| 17 | 31 | S | 24 | 24 | 21 | 19 | 13 | 15 | 14 | 20 | 27 | 32 | 36 | 37 | 38 | 39 | 39 | 39 | 39 | 39 | 37 | 37 | 39 | 40 | 40 | 30.4 | 24 | |
| 18 | S | 37 | 35 | 36 | 35 | 35 | 37 | 37 | 37 | 39 | 40 | 41 | 42 | 44 | 45 | 45 | 42 | 42 | 32 | 32 | 6 | 2 | 5 | S | 45 | 33.9 | 24 | |
| 19 | 34 | 29 | 30 | 31 | 32 | 30 | 28 | 28 | 29 | 32 | 32 | 34 | 35 | 36 | 38 | 38 | 35 | 35 | 33 | 33 | 34 | 35 | S | 35 | 38 | 32.9 | 24 | |
| 20 | 35 | 36 | 36 | 35 | 35 | 31 | 32 | 33 | 33 | 32 | 32 | 34 | 34 | 35 | 34 | 35 | 34 | 33 | 27 | 25 | 14 | S | 7 | 3 | 36 | 29.8 | 24 | |
| 21 | 15 | 17 | 27 | 29 | 28 | 27 | 27 | 26 | 29 | 31 | 32 | 33 | 33 | 33 | 33 | 32 | 29 | 30 | 27 | S | 27 | 26 | 20 | 33 | 28.0 | 24 | | |
| 22 | 19 | 19 | 20 | 19 | 18 | 15 | 14 | 12 | 14 | 22 | 25 | 28 | 30 | 31 | 33 | 33 | 33 | 31 | 29 | S | 32 | 24 | 16 | 14 | 33 | 23.1 | 24 | |
| 23 | 13 | 13 | 12 | 11 | 6 | 6 | 5 | 10 | 16 | 21 | 22 | 32 | 31 | 30 | 26 | 29 | 32 | 27 | S | 22 | 20 | 19 | 18 | 18 | 32 | 19.1 | 24 | |
| 24 | 16 | 16 | 16 | 18 | 15 | 17 | 17 | 14 | 18 | 20 | 24 | 27 | 28 | 28 | 28 | 27 | S | 20 | 32 | 32 | 31 | 30 | 31 | 32 | 32 | 23.2 | 24 | |
| 25 | 30 | 28 | 28 | 28 | 23 | 21 | 21 | 18 | 18 | 23 | 28 | 31 | 32 | 34 | 37 | 39 | S | 39 | 36 | 34 | 32 | 28 | 24 | 23 | 39 | 28.5 | 24 | |
| 26 | 22 | 20 | 19 | 18 | 19 | 17 | 13 | 13 | 20 | 39 | 39 | 41 | 42 | 42 | 43 | S | 42 | 42 | 33 | 23 | 13 | 15 | 12 | 40 | 43 | 27.3 | 24 | |
| 27 | 40 | 40 | 35 | 37 | 38 | 37 | 37 | 35 | 34 | 38 | 39 | 39 | 37 | 37 | S | 42 | 42 | 39 | 40 | 41 | 41 | 40 | 39 | 38 | 42 | 38.5 | 24 | |
| 28 | 37 | 36 | 36 | 35 | 33 | 30 | 23 | 26 | 29 | 31 | 31 | 32 | 32 | S | 30 | 30 | 30 | 30 | 29 | 29 | 28 | 27 | 27 | 27 | 37 | 30.3 | 24 | |
| HOURLY MAX | 40 | 40 | 39 | 40 | 40 | 40 | 40 | 39 | 40 | 40 | 40 | 41 | 42 | 44 | 45 | 45 | 42 | 42 | 40 | 41 | 41 | 40 | 39 | 40 | | | | |
| HOURLY AVG | 27.4 | 27.3 | 27.9 | 27.9 | 27.0 | 25.8 | 25.1 | 24.5 | 26.7 | 29.6 | 31.4 | 32.8 | 33.7 | 34.2 | 34.5 | 34.4 | 33.8 | 33.0 | 30.8 | 29.7 | 27.8 | 27.1 | 25.5 | 27.1 | | | | |

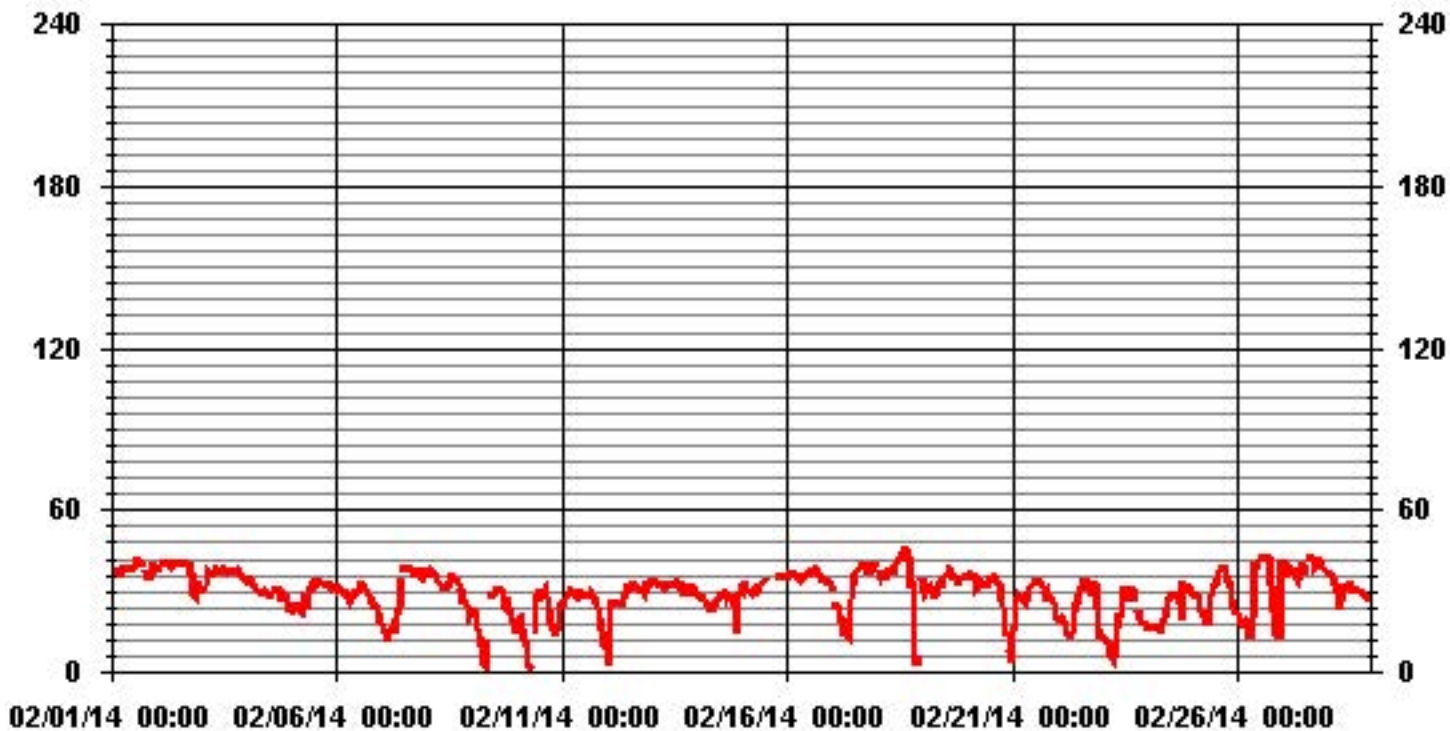
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|--------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 638 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 45 | PPB | @ HOUR(S) | 14, 15 | ON DAY(S) | 18 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 5 | HRS | | | | |
| STANDARD DEVIATION: | 8.22 | | | | | |

01 Hour Averages



— LICA O3MAX PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : O3_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50 | 6.89 | 5.32 | 7.83 | 2.97 | 6.89 | 5.48 | 7.05 | 1.72 | .78 | 1.56 | 5.32 | 20.21 | 9.71 | 3.76 | 6.26 | 8.15 | 100.00 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.89 | 5.32 | 7.83 | 2.97 | 6.89 | 5.48 | 7.05 | 1.72 | .78 | 1.56 | 5.32 | 20.21 | 9.71 | 3.76 | 6.26 | 8.15 | |

Calm : .00 %

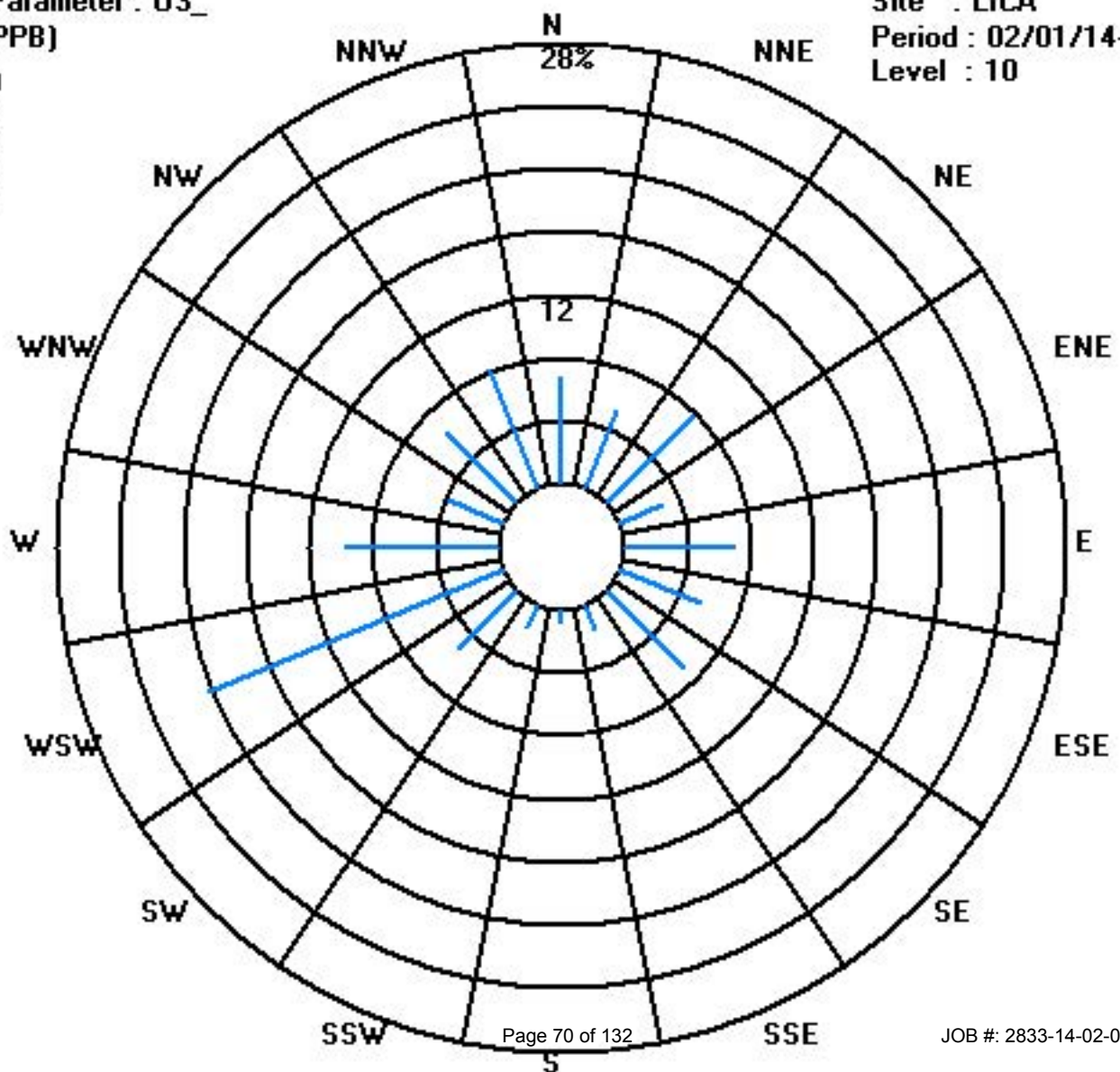
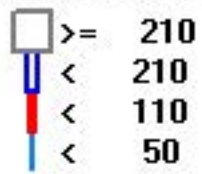
Total # Operational Hours : 638

Distribution By Samples

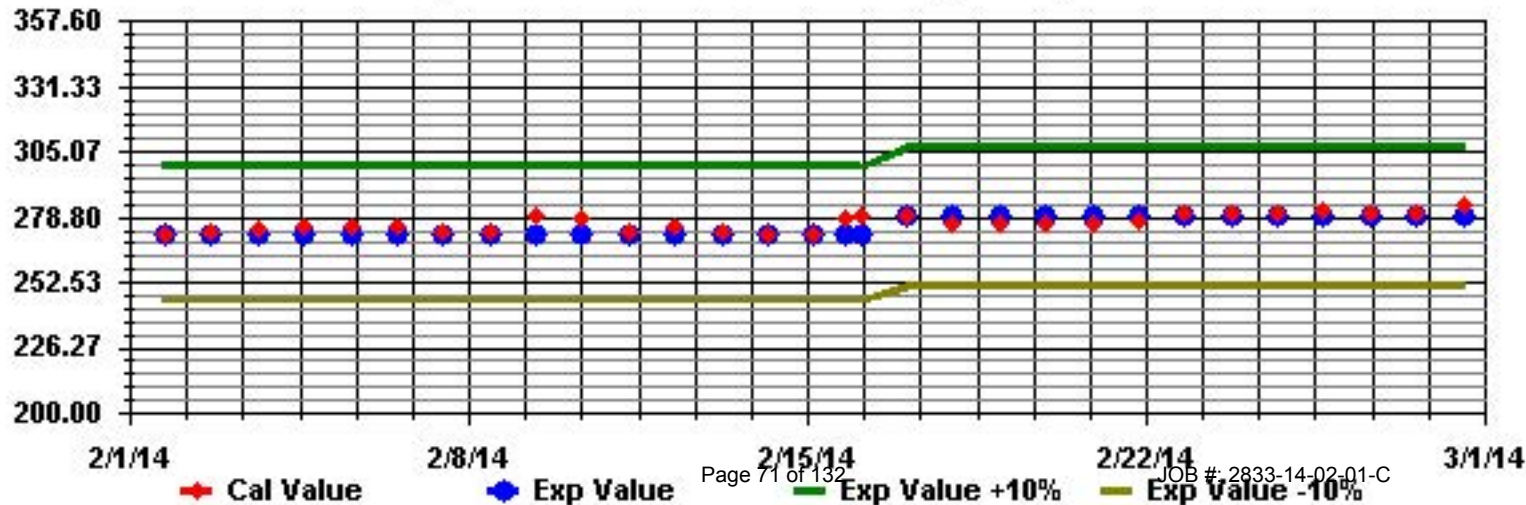
| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50 | 44 | 34 | 50 | 19 | 44 | 35 | 45 | 11 | 5 | 10 | 34 | 129 | 62 | 24 | 40 | 52 | 638 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 44 | 34 | 50 | 19 | 44 | 35 | 45 | 11 | 5 | 10 | 34 | 129 | 62 | 24 | 40 | 52 | |

Calm : .00 %

Total # Operational Hours : 638



Calibration Graph for Site: LICA Parameter: O3_ Sequence: 03 Phase: SPAN



Ambient Temperature

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

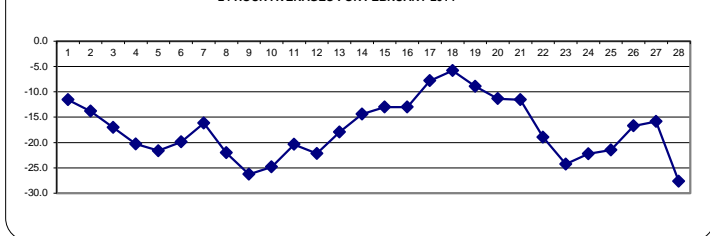
AMBIENT TEMPERATURE (TPX) hourly averages in Degrees Celsius

| 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 MAX. | 24-HOUR AVG. | RDGS |
|------------|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|------|
| DAY | HOURLY MAX | HOURLY AVG | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | -14.3 | -14.4 | -14.4 | -14.7 | -14.9 | -14.6 | -14.5 | -14.3 | -14 | -13.3 | -11.8 | -10.6 | -8.8 | -8.3 | -8.3 | -8.4 | -9.1 | -9.7 | -9.9 | -9.8 | -10 | -9.7 | -9.4 | -10.1 | -8.3 | -11.6 | 24 | |
| 2 | -10.5 | -11 | -12 | -12.1 | -12.9 | -13 | -12.9 | -12.9 | -12.7 | -12.2 | -11.7 | -11.1 | -10.6 | -10.5 | -11.9 | -14 | -15 | -16.3 | -18.6 | -19.2 | -19 | -17.7 | -17 | -16.5 | -10.5 | -13.8 | 24 | |
| 3 | -16.1 | -15.7 | -15.6 | -15.7 | -16.1 | -16.4 | -16.6 | -16.8 | -17 | -16.7 | -16.4 | -16.1 | -15.9 | -15.7 | -15.3 | -15.8 | -16.4 | -17.2 | -18.2 | -19.1 | -19.5 | -20.1 | -20.3 | -20.3 | -15.3 | -17.0 | 24 | |
| 4 | -20.3 | -20.4 | -20.9 | -21.5 | -21.8 | -21.8 | -21.8 | -21.7 | -21.6 | -21 | -20.3 | -19.6 | -18.5 | -18 | -16.6 | -16.5 | -17 | -17.7 | -18.9 | -19.9 | -21.2 | -22.7 | -24 | -23.5 | -16.5 | -20.3 | 24 | |
| 5 | -23.1 | -23.9 | -25.1 | -25 | -24.4 | -23.7 | -23.5 | -23.8 | -24.1 | -23.1 | -21.6 | -19.9 | -19.1 | -17.8 | -16.8 | -16.3 | -17.4 | -19.1 | -20.1 | -20.6 | -21.7 | -22.4 | -23 | -23.5 | -16.3 | -21.6 | 24 | |
| 6 | -23.8 | -24 | -24.2 | -24.4 | -24.4 | -24.4 | -24.2 | -24.1 | -23.6 | -21.8 | -20.1 | -18 | -16.3 | -15 | -14.1 | -13.8 | -13.9 | -15.1 | -16.1 | -16.9 | -17.8 | -18.7 | -20.5 | -21.8 | -13.8 | -19.9 | 24 | |
| 7 | -22.6 | -23.2 | -22.5 | -20 | -18.6 | -17.5 | -16.8 | -16.5 | -15.9 | -15.2 | -13.9 | -12.8 | -12 | -11.8 | -11.9 | -11.9 | -12.4 | -13.4 | -14.3 | -14.6 | -15.7 | -17.1 | -18.3 | -19.3 | -11.8 | -16.2 | 24 | |
| 8 | -19.3 | -19.3 | -20 | -20.4 | -20.9 | -21.6 | -22.7 | -23.7 | -24.3 | -23.8 | -22.6 | -21.2 | -20 | -18.9 | -17.8 | -18.1 | -18.1 | -19.9 | -21.7 | -23.8 | -25.8 | -27.1 | -28 | -29.2 | -17.8 | -22.0 | 24 | |
| 9 | -30.2 | -30.6 | -31.5 | -32.2 | -32.4 | -32.5 | -32.8 | -32.4 | -31.8 | -28.5 | -25 | -23.2 | -20.8 | -19.2 | -18.7 | -18.6 | -18.8 | -20.7 | -22.5 | -22.4 | -24.4 | -25.9 | -27 | -27.5 | -18.6 | -26.2 | 24 | |
| 10 | -28.3 | -28.9 | -29.2 | -30 | -30.5 | -31.2 | -31.4 | -31.6 | -30.9 | -27.8 | -24.6 | -23 | -21.6 | -20.7 | -19.6 | -19.2 | -19.3 | -20.6 | -21.8 | -21.9 | -21.1 | -20.9 | -20.6 | -20.1 | -19.2 | -24.8 | 24 | |
| 11 | -20 | -19.8 | -19.6 | -19.8 | -20.1 | -20.3 | -20.7 | -21.3 | -21.4 | -20.4 | -19.9 | -18.6 | -18 | -16.9 | -17.3 | -17.3 | -17.7 | -18.1 | -19.2 | -21.2 | -23.5 | -24.9 | -26 | -27.1 | -16.9 | -20.4 | 24 | |
| 12 | -27.4 | -27.3 | -25.1 | -24.3 | -24.4 | -24.1 | -23.8 | -23.1 | -23.2 | -23.1 | -22 | -21.2 | -20.8 | -20.5 | -20.2 | -20 | -20 | -20.1 | -20 | -20.1 | -20.7 | -20.6 | -20.2 | -20.2 | -20 | -22.2 | 24 | |
| 13 | -20.7 | -20.4 | -20.5 | -20.3 | -20.1 | -20.2 | -20.3 | -20.5 | -20.3 | -20 | -19.3 | -18.1 | -17 | -16.5 | -16 | -15.8 | -15.6 | -15.7 | -16.1 | -15.7 | -15.6 | -15.2 | -15.1 | -15.2 | -15.1 | -15.2 | -17.9 | 24 |
| 14 | -15.9 | -16.1 | -16.3 | -16.1 | -15.8 | -15.6 | -15.4 | -15.3 | -15.1 | -14.3 | -13.2 | -12.3 | -12.1 | -10.8 | -10 | -10.7 | -11.3 | -12.1 | -13.6 | -14.7 | -16.4 | -18.6 | -17.9 | -16.1 | -10 | -14.4 | 24 | |
| 15 | -15.4 | -15.4 | -15.4 | -15.6 | -15.4 | -15.8 | -15.7 | -15.5 | -15.6 | -14.7 | -13.1 | -10.7 | -9.2 | -7.9 | -7.6 | -7.7 | -8.1 | -9.6 | -11.4 | -13.1 | -13.9 | -14.8 | -15.5 | -15.3 | -7.6 | -13.0 | 24 | |
| 16 | -15.2 | -14.7 | -14.1 | -13.4 | -13.8 | -14.7 | -15.5 | -16 | -16 | -15.3 | -14.4 | -13.3 | -12.4 | -11.6 | -10.8 | -10.4 | -10.6 | -11.2 | -11.6 | -11.9 | -12.2 | -11.7 | -11 | -10.5 | -10.4 | -13.0 | 24 | |
| 17 | -11.6 | -10.7 | -11.3 | -11.6 | -14.2 | -16.3 | -17.9 | -17.8 | -15.9 | -11.6 | -8 | -4.2 | -3.5 | -2.3 | -1.5 | -0.6 | -1 | -2.1 | -2.9 | -3.2 | -3.8 | -4.7 | -5.2 | -5.9 | -0.6 | -7.8 | 24 | |
| 18 | -8.7 | -7.5 | -9.8 | -8.1 | -10.4 | -11.2 | -7 | -6.6 | -6.4 | -4.5 | -3 | -0.9 | 0.8 | 1.8 | 2.1 | 1.6 | 1 | -1.8 | -5.3 | -7.9 | -9.8 | -11.3 | -13 | -13.9 | 2.1 | -5.8 | 24 | |
| 19 | -9.7 | -9.5 | -9.8 | -9.8 | -9.9 | -13.6 | -14.4 | -14.2 | -12.9 | -10.9 | -9.4 | -7.7 | -6.1 | -5.2 | -5.5 | -5.6 | -5.9 | -6.7 | -7.6 | -7.8 | -7.9 | -8.2 | -8.5 | -5.2 | -8.9 | 24 | | |
| 20 | -9 | -9.6 | -10 | -10.2 | -11.3 | -12.3 | -12.8 | -12.7 | -12.8 | -12.6 | -11.6 | -10.9 | -10.3 | -9.5 | -8.3 | -7.2 | -8.1 | -9.9 | -11.8 | -13.8 | -15.1 | -14.9 | -14.3 | -13.6 | -7.2 | -11.4 | 24 | |
| 21 | -13.3 | -13.2 | -13.2 | -12.7 | -12.3 | -12.3 | -11.7 | -11.3 | -10.8 | -10.2 | -10 | -10.1 | -9.7 | -9.4 | -9.3 | -9 | -9.1 | -9.7 | -10.5 | -12.3 | -13.5 | -13.8 | -14.7 | -15.7 | -9 | -11.6 | 24 | |
| 22 | -16.3 | -17.8 | -18.9 | -19.7 | -20.6 | -23.3 | -25.4 | -26.9 | -25.4 | -19.9 | -18 | -17 | -16 | -15 | -14.4 | -14.8 | -15.4 | -15.6 | -16.1 | -16.7 | -17.7 | -19.8 | -21.4 | -22.9 | -14.4 | -19.0 | 24 | |
| 23 | -24.2 | -25.4 | -26.3 | -26.9 | -29.3 | -30.2 | -28.5 | -27.8 | -26.5 | -24.6 | -22.4 | -20.4 | -19.7 | -19 | -19 | -19.2 | -19.7 | -21.4 | -22.9 | -24.3 | -25.1 | -25.6 | -26.3 | -27.5 | -19 | -24.3 | 24 | |
| 24 | -28 | -28.7 | -28.4 | -28.7 | -30.4 | -29.3 | -29.4 | -31.1 | -27.6 | -24.8 | -21.4 | -19 | -17 | -15.8 | -14.6 | -14.2 | -14.2 | -15.8 | -18.2 | -18 | -17.6 | -19.1 | -20.9 | -21.9 | -14.2 | -22.3 | 24 | |
| 25 | -22.9 | -24.7 | -26.7 | -29.4 | -31.3 | -32.4 | -33.2 | -33.3 | -31.7 | -26.1 | -22.4 | -18.7 | -16.2 | -14.4 | -13.5 | -12.7 | -12.4 | -13.7 | -14.7 | -15.6 | -16.4 | -17 | -17.9 | -18.4 | -12.4 | -21.5 | 24 | |
| 26 | -18.4 | -19.3 | -21.4 | -21.9 | -22.7 | -23.8 | -24.3 | -24.3 | -20.2 | -13.8 | -14 | -13.1 | -12.1 | -11 | -10.3 | -9.6 | -9.2 | -10.5 | -14.2 | -16.7 | -18.5 | -18.6 | -17.8 | -15.6 | -9.2 | -16.7 | 24 | |
| 27 | -15.9 | -16.3 | -15.9 | -17.6 | -19.2 | -18.6 | -17.6 | -16.8 | -15.3 | -13.5 | -12.6 | -12 | -11.6 | -11.1 | -8.8 | -9.3 | -11.2 | -13.5 | -16.1 | -18.2 | -20.1 | -22 | -23.4 | -24.2 | -8.8 | -15.9 | 24 | |
| 28 | -24.9 | -25.8 | -26.7 | -27.7 | -28.6 | -29.4 | -30.7 | -30.4 | -28.9 | -27.3 | -26.9 | -26.6 | -26.2 | -25.8 | -25.2 | -24.7 | -25 | -25.6 | -26.8 | -27.7 | -28.7 | -29.5 | -30.8 | -34 | -24.7 | -27.7 | 24 | |
| HOURLY MAX | -8.7 | -7.5 | -9.8 | -8.1 | -9.9 | -11.2 | -7 | -6.6 | -6.4 | -4.5 | -3 | -0.9 | 0.8 | 1.8 | 2.1 | 1.6 | 1 | -1.8 | -2.9 | -3.2 | -3.8 | -4.7 | -5.2 | -5.9 | | | | |
| HOURLY AVG | -18.8 | -19.1 | -19.5 | -19.6 | -20.2 | -20.7 | -20.8 | -20.8 | -20.1 | -18.3 | -16.8 | -15.4 | -14.3 | -13.5 | -12.9 | -12.9 | -13.2 | -14.4 | -15.8 | -16.7 | -17.6 | -18.3 | -18.8 | -19.2 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

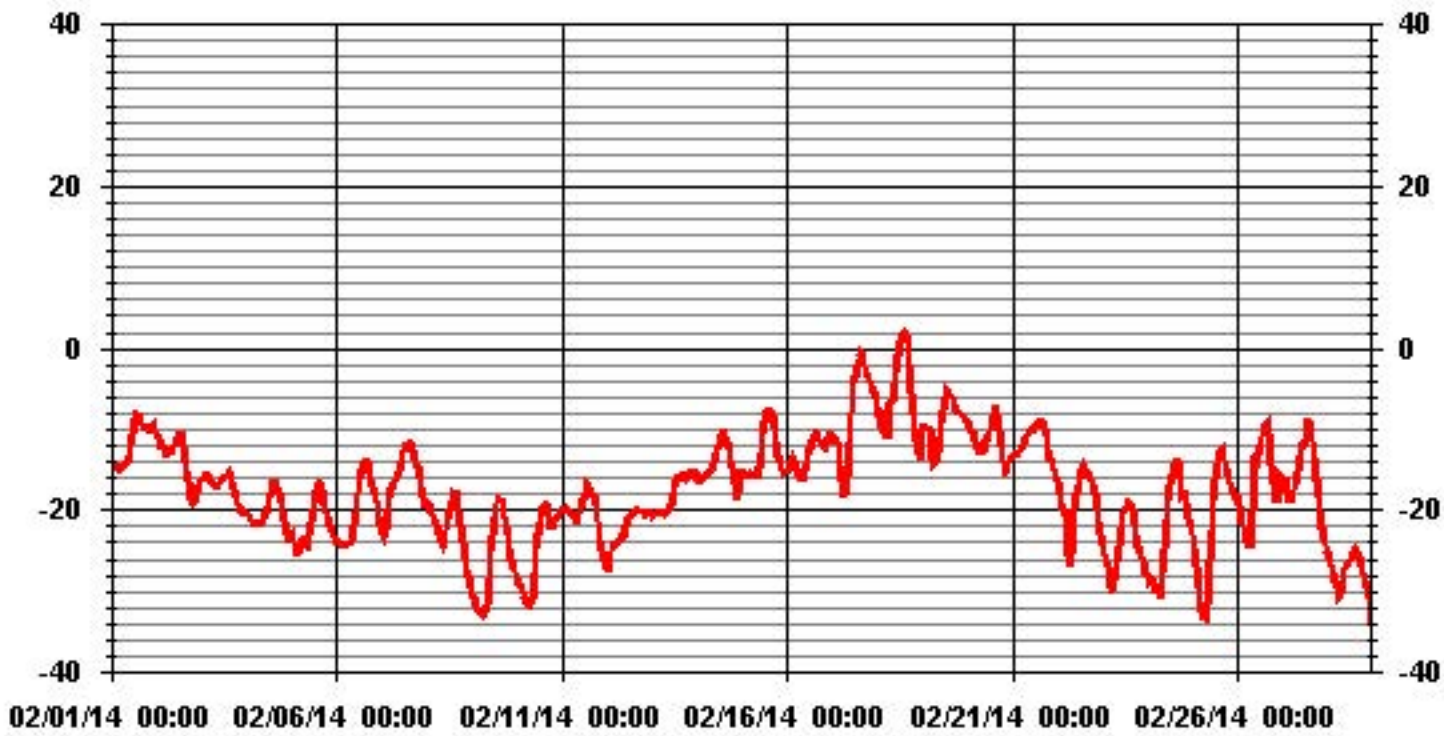
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | |
|------------------------|---------|-----------------------|----|-------------|-----|
| MINIMUM 1-HR AVERAGE: | -34 °C | @ HOUR(S) | 23 | ON DAY(S) | 28 |
| MAXIMUM 1-HR AVERAGE: | 2.1 °C | @ HOUR(S) | 14 | ON DAY(S) | 18 |
| MAXIMUM 24-HR AVERAGE: | -5.8 °C | | | ON DAY(S) | 18 |
| | | | | VAR-VARIOUS | |
| | | OPERATIONAL TIME: | | 672 | HRS |
| | | AMD OPERATION UPTIME: | | 100.0 | % |
| STANDARD DEVIATION: | 6.69 | MONTHLY AVERAGE: | | -17.39 | °C |

01 Hour Averages



— LICA TPX DGC

Relative Humidity

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

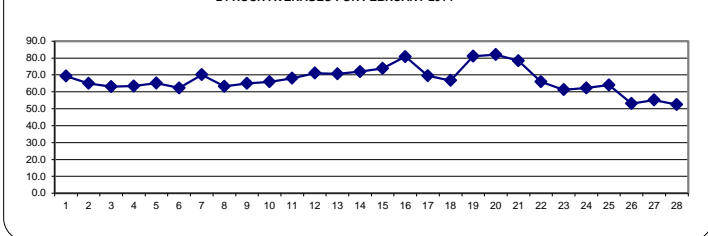
RELATIVE HUMIDITY (RH) hourly averages in %

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|-----------|-----------|------|------|------|------|------|------|-----------|-------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|-------|-----------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 68 | 69 | 71 | 72 | 73 | 73 | 74 | 74 | 75 | 75 | 68 | 65 | 61 | 60 | 61 | 64 | 67 | 69 | 72 | 79 | 80 | 71 | 62 | 80 | 69.3 | 24 | | |
| 2 | 61 | 62 | 63 | 65 | 65 | 68 | 67 | 67 | 68 | 68 | 68 | 65 | 64 | 63 | 64 | 56 | 53 | 57 | 67 | 70 | 71 | 68 | 69 | 70 | 71 | 65.0 | 24 | |
| 3 | 72 | 76 | 78 | 68 | 62 | 66 | 68 | 65 | 62 | 62 | 60 | 57 | 57 | 58 | 54 | 55 | 62 | 68 | 59 | 57 | 57 | 63 | 64 | 64 | 78 | 63.1 | 24 | |
| 4 | 65 | 64 | 65 | 65 | 68 | 67 | 67 | 67 | 67 | 64 | 61 | 60 | 59 | 60 | 58 | 54 | 55 | 58 | 61 | 60 | 64 | 70 | 72 | 71 | 72 | 63.4 | 24 | |
| 5 | 71 | 70 | 71 | 71 | 70 | 73 | 73 | 73 | 72 | 69 | 65 | 60 | 55 | 54 | 52 | 51 | 55 | 59 | 61 | 63 | 67 | 68 | 69 | 70 | 73 | 65.1 | 24 | |
| 6 | 71 | 71 | 72 | 72 | 72 | 73 | 74 | 74 | 72 | 64 | 57 | 52 | 49 | 48 | 47 | 49 | 50 | 54 | 56 | 58 | 60 | 62 | 67 | 71 | 74 | 62.3 | 24 | |
| 7 | 72 | 73 | 74 | 73 | 75 | 74 | 75 | 77 | 76 | 75 | 71 | 64 | 63 | 62 | 61 | 60 | 64 | 67 | 69 | 71 | 73 | 72 | 70 | 71 | 77 | 70.1 | 24 | |
| 8 | 68 | 62 | 67 | 67 | 68 | 69 | 71 | 71 | 71 | 68 | 62 | 57 | 54 | 51 | 47 | 48 | 49 | 54 | 60 | 69 | 71 | 72 | 71 | 70 | 72 | 63.2 | 24 | |
| 9 | 70 | 68 | 68 | 68 | 68 | 68 | 66 | 66 | 67 | 66 | 69 | 64 | 56 | 53 | 52 | 52 | 53 | 63 | 68 | 66 | 71 | 72 | 72 | 72 | 72 | 64.9 | 24 | |
| 10 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 67 | 67 | 67 | 66 | 65 | 60 | 57 | 56 | 55 | 56 | 62 | 67 | 67 | 68 | 68 | 74 | 75 | 75 | 66.0 | 24 | |
| 11 | 75 | 76 | 75 | 75 | 74 | 74 | 72 | 73 | 72 | 68 | 64 | 57 | 56 | 54 | 55 | 56 | 59 | 63 | 68 | 72 | 73 | 75 | 74 | 71 | 76 | 68.0 | 24 | |
| 12 | 73 | 73 | 74 | 71 | 71 | 73 | 74 | 73 | 72 | 71 | 71 | 69 | 68 | 67 | 66 | 70 | 70 | 71 | 71 | 71 | 72 | 72 | 71 | 71 | 74 | 71.0 | 24 | |
| 13 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 68 | 67 | 66 | 64 | 65 | 70 | 74 | 76 | 74 | 74 | 74 | 71 | 72 | 74 | 74 | 75 | 75 | 76 | 70.7 | 24 | |
| 14 | 71 | 69 | 72 | 75 | 76 | 77 | 73 | 73 | 73 | 71 | 68 | 65 | 64 | 60 | 59 | 65 | 68 | 72 | 76 | 78 | 80 | 79 | 80 | 82 | 82 | 71.9 | 24 | |
| 15 | 83 | 83 | 83 | 82 | 82 | 82 | 81 | 80 | 79 | 78 | 74 | 67 | 62 | 58 | 56 | 57 | 60 | 66 | 70 | 73 | 76 | 78 | 80 | 82 | 83 | 73.8 | 24 | |
| 16 | 84 | 84 | 84 | 84 | 83 | 82 | 81 | 79 | 78 | 78 | 80 | 82 | 81 | 78 | 78 | 77 | 77 | 81 | 82 | 82 | 81 | 80 | 81 | 82 | 84 | 80.8 | 24 | |
| 17 | 84 | 82 | 82 | 81 | 83 | 81 | 79 | 79 | 79 | 75 | 67 | 59 | 55 | 53 | 51 | 52 | 56 | 61 | 64 | 65 | 67 | 71 | 71 | 72 | 84 | 69.5 | 24 | |
| 18 | 79 | 76 | 82 | 79 | 83 | 85 | 77 | 75 | 72 | 63 | 56 | 50 | 47 | 46 | 44 | 42 | 41 | 51 | 64 | 70 | 77 | 80 | 81 | 82 | 85 | 66.8 | 24 | |
| 19 | 85 | 88 | 88 | 87 | 86 | 85 | 84 | 84 | 83 | 83 | 80 | 75 | 71 | 70 | 73 | 74 | 77 | 82 | 83 | 83 | 83 | 80 | 79 | 88 | 81.1 | 24 | | |
| 20 | 77 | 75 | 76 | 77 | 81 | 82 | 83 | 84 | 85 | 88 | 87 | 87 | 87 | 87 | 83 | 75 | 76 | 83 | 86 | 83 | 81 | 82 | 80 | 82 | 88 | 82.0 | 24 | |
| 21 | 83 | 83 | 84 | 83 | 84 | 84 | 85 | 85 | 85 | 83 | 80 | 77 | 72 | 71 | 73 | 74 | 75 | 74 | 75 | 74 | 73 | 72 | 74 | 77 | 85 | 78.3 | 24 | |
| 22 | 75 | 74 | 75 | 76 | 75 | 73 | 73 | 72 | 71 | 66 | 60 | 56 | 53 | 51 | 50 | 54 | 60 | 67 | 72 | 70 | 66 | 65 | 63 | 67 | 76 | 66.0 | 24 | |
| 23 | 70 | 72 | 73 | 71 | 69 | 69 | 69 | 69 | 68 | 63 | 55 | 49 | 47 | 45 | 45 | 46 | 47 | 53 | 58 | 62 | 65 | 67 | 69 | 69 | 73 | 61.3 | 24 | |
| 24 | 71 | 72 | 73 | 72 | 69 | 71 | 70 | 70 | 70 | 67 | 58 | 52 | 49 | 47 | 46 | 47 | 47 | 52 | 62 | 63 | 61 | 65 | 70 | 71 | 73 | 62.3 | 24 | |
| 25 | 74 | 76 | 75 | 71 | 69 | 67 | 66 | 68 | 74 | 69 | 62 | 56 | 52 | 52 | 53 | 54 | 57 | 58 | 60 | 62 | 63 | 66 | 67 | 76 | 64.1 | 24 | | |
| 26 | 67 | 68 | 72 | 72 | 73 | 73 | 74 | 72 | 66 | 52 | 48 | 41 | 34 | 31 | 30 | 27 | 24 | 29 | 43 | 53 | 59 | 58 | 58 | 50 | 74 | 53.1 | 24 | |
| 27 | 48 | 52 | 56 | 60 | 60 | 60 | 62 | 60 | 55 | 53 | 53 | 51 | 47 | 53 | 54 | 55 | 55 | 56 | 55 | 54 | 55 | 56 | 56 | 62 | 62 | 55.1 | 24 | |
| 28 | 57 | 59 | 59 | 62 | 66 | 69 | 71 | 69 | 66 | 56 | 51 | 48 | 45 | 41 | 38 | 36 | 38 | 38 | 41 | 42 | 45 | 48 | 52 | 61 | 71 | 52.4 | 24 | |
| HOURLY MAX | 85 | 88 | 88 | 87 | 86 | 85 | 85 | 85 | 85 | 88 | 87 | 87 | 87 | 87 | 83 | 77 | 77 | 83 | 86 | 83 | 83 | 83 | 81 | 82 | | | | |
| HOURLY AVG | 72.0 | 72.0 | 73.3 | 72.8 | 73.0 | 73.4 | 73.1 | 72.7 | 71.9 | 69.1 | 65.5 | 61.5 | 58.7 | 57.1 | 56.1 | 56.3 | 57.8 | 62.1 | 65.6 | 67.2 | 69.0 | 70.0 | 70.7 | 71.1 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

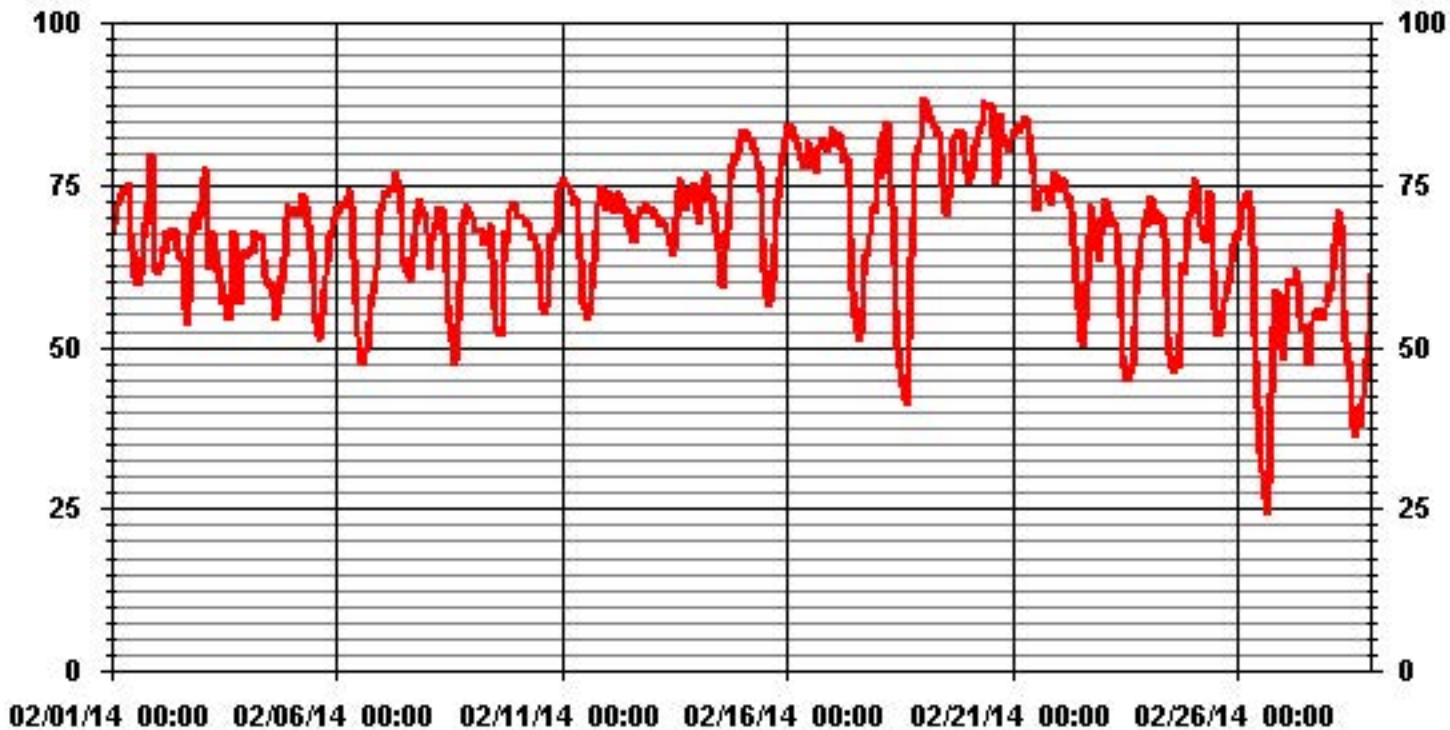
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | |
|------------------------|--------|-----------|-----------------------|-----------|---------|
| MAXIMUM 1-HR AVERAGE: | 88 % | @ HOUR(S) | VAR | ON DAY(S) | 19, 20 |
| MAXIMUM 24-HR AVERAGE: | 82.0 % | | | ON DAY(S) | 20 |
| | | | VAR-VARIOUS | | |
| | | | OPERATIONAL TIME: | | 672 HRS |
| | | | AMD OPERATION UPTIME: | | 100.0 % |
| STANDARD DEVIATION: | 10.88 | | MONTHLY AVERAGE: | | 67.16 % |

01 Hour Averages



Vector Wind Speed

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

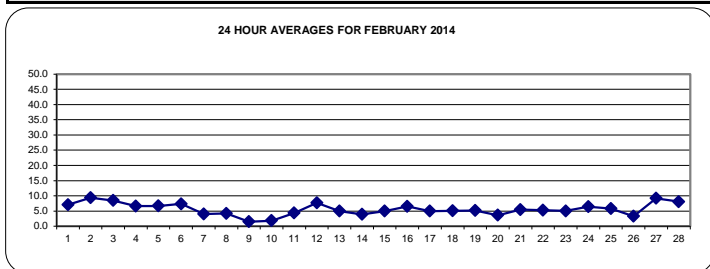
WIND SPEED (WS) hourly averages in km/hr

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|--|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|-------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 6.1 | 7.5 | 5.3 | 4 | 5.2 | 6.4 | 8 | 5.3 | 5.5 | 4.4 | 7 | 6.5 | 8.8 | 9.3 | 10.2 | 9.5 | 7 | 6.8 | 6.1 | 5.6 | 4.5 | 5.7 | 10.8 | 14 | 14.0 | 7.1 | 24 | |
| 2 | | 10.1 | 14.3 | 13.1 | 12.9 | 17.3 | 10.2 | 10.5 | 11.1 | 10 | 8.9 | 9.5 | 10.2 | 12 | 13.7 | 15.5 | 15 | 10.9 | 3.6 | 1.3 | 1.4 | 2.2 | 4 | 3.6 | 4 | 17.3 | 9.4 | 24 | |
| 3 | | 5.4 | 4.5 | 5.1 | 11.4 | 9.1 | 7.6 | 6.2 | 8 | 7.8 | 8.3 | 10.3 | 10.6 | 10.4 | 9.7 | 11.3 | 10.7 | 8.9 | 9.2 | 11.2 | 9.4 | 7.6 | 7.6 | 7 | 6.2 | 11.4 | 8.5 | 24 | |
| 4 | | 6.5 | 9.3 | 9 | 9 | 6.9 | 6.2 | 5.7 | 5.3 | 4.9 | 5.9 | 7 | 8.1 | 7.4 | 6.2 | 7.3 | 8.4 | 7.2 | 9.4 | 7.7 | 6.9 | 4.5 | 3.5 | 2.6 | 4 | 9.4 | 6.6 | 24 | |
| 5 | | 3.8 | 3.6 | 4.1 | 4.5 | 4.7 | 5.7 | 6 | 6.4 | 5.8 | 7.3 | 7.9 | 7.4 | 7.9 | 9.2 | 8.8 | 8.7 | 9.1 | 6.3 | 7.1 | 6.6 | 7.5 | 6.6 | 6.7 | 8.1 | 9.2 | 6.7 | 24 | |
| 6 | | 8.3 | 7.3 | 7.1 | 7.5 | 8.1 | 6.9 | 7.8 | 8.6 | 8.4 | 8.1 | 7.6 | 8.5 | 9.8 | 12 | 12.9 | 9.6 | 8 | 5.9 | 4.8 | 5.2 | 5.3 | 3.5 | 4.1 | 0.8 | 12.9 | 7.3 | 24 | |
| 7 | | 0.1 | 0.5 | 1.2 | 0.5 | 1.4 | 2.6 | 2.3 | 0.8 | 2.6 | 3.5 | 3.7 | 5.1 | 4.4 | 5.7 | 5.2 | 5.1 | 5.2 | 4.3 | 4.2 | 7.5 | 7.9 | 8.4 | 8.8 | 5.1 | 8.8 | 4.0 | 24 | |
| 8 | | 6.3 | 7.5 | 7.2 | 6.5 | 6 | 6.1 | 7.1 | 6 | 6.2 | 6.6 | 5.6 | 5.2 | 4.6 | 3.1 | 3.4 | 3.4 | 2.7 | 2.6 | 1.6 | 0.5 | 0.9 | 0.7 | 0.7 | 0.8 | 7.5 | 4.2 | 24 | |
| 9 | | 0.6 | 1 | 0.9 | 1.1 | 0.7 | 0.4 | 0.9 | 0.9 | 0.4 | 4.3 | 2.1 | 2.2 | 2.7 | 3.6 | 3.8 | 2.5 | 1.6 | 0.8 | 1.6 | 0.7 | 0.8 | 0.3 | 0.4 | 4.3 | 1.5 | 24 | | |
| 10 | | 0.5 | 0.8 | 0.4 | 0.1 | 0.4 | 0.1 | 0.2 | 1 | 0.5 | 1.9 | 3.3 | 3.7 | 4.1 | 4.1 | 3.8 | 3.2 | 3.1 | 1.4 | 0.7 | 1.6 | 1.4 | 1.8 | 2.2 | 3.9 | 4.1 | 1.8 | 24 | |
| 11 | | 3.7 | 3.7 | 4.4 | 5.2 | 5.7 | 5.5 | 4.8 | 3.6 | 3.6 | 5.2 | 4.9 | 2.2 | 5.4 | 5.6 | 6.9 | 6.9 | 6.6 | 6.6 | 4.5 | 3 | 3.3 | 0.8 | 0.9 | 0.8 | 6.9 | 4.3 | 24 | |
| 12 | | 1.4 | 1 | 4.1 | 7.2 | 7.1 | 7.5 | 9.3 | 9.5 | 10.3 | 11.6 | 10.7 | 12 | 11.7 | 10.9 | 9.8 | 8.2 | 7.9 | 7.2 | 6.8 | 5.7 | 3.8 | 5.9 | 6.8 | 7.9 | 12.0 | 7.7 | 24 | |
| 13 | | 5.4 | 7.3 | 7.3 | 5.5 | 8.4 | 7 | 5.7 | 5.8 | 5.3 | 6.2 | 6.9 | 6.4 | 5.4 | 5.4 | 4.5 | 4.6 | 3.3 | 2.1 | 3.2 | 2.5 | 3.8 | 1.5 | 2.2 | 4.7 | 8.4 | 5.0 | 24 | |
| 14 | | 4.3 | 3.4 | 4.3 | 2.2 | 1.1 | 2 | 3.2 | 1.8 | 3.9 | 2.5 | 2.2 | 5.2 | 6 | 4.9 | 4.9 | 5.8 | 7.3 | 7.3 | 5.3 | 6.4 | 2.4 | 0.3 | 3.2 | 5 | 7.3 | 4.0 | 24 | |
| 15 | | 4.4 | 4 | 2.6 | 3.4 | 2.5 | 3.5 | 6.3 | 7.3 | 6.9 | 6.3 | 5.4 | 6.2 | 5.7 | 5.3 | 3.8 | 3.4 | 3.1 | 3.4 | 8.7 | 6.8 | 4.6 | 4.6 | 5.2 | 6.2 | 8.7 | 5.0 | 24 | |
| 16 | | 7.7 | 8.3 | 8.6 | 8.4 | 7.3 | 10.4 | 8.3 | 10.4 | 9.7 | 8.4 | 7.7 | 6.8 | 5.8 | 4.5 | 1.5 | 2.7 | 3.5 | 5.1 | 5.7 | 5.4 | 4.8 | 5.6 | 5.3 | 4.3 | 10.4 | 6.5 | 24 | |
| 17 | | 4.3 | 5.6 | 5.2 | 4.6 | 1.5 | 0.3 | 0.9 | 4.3 | 0.4 | 1.4 | 1.3 | 4 | 6.2 | 5.2 | 6.7 | 7.5 | 7 | 8 | 8.7 | 8.4 | 8.2 | 6.2 | 7.6 | 6.5 | 8.7 | 5.0 | 24 | |
| 18 | | 4.6 | 5.1 | 4 | 4.6 | 1.4 | 5.2 | 6.6 | 6.7 | 6.5 | 6.3 | 7.2 | 8.8 | 9.3 | 11.5 | 10 | 8 | 6.3 | 1.4 | 1 | 0.4 | 1.2 | 1.9 | 1.9 | 2.1 | 11.5 | 5.1 | 24 | |
| 19 | | 6.5 | 8 | 7.5 | 5.7 | 6.6 | 5.1 | 4.4 | 2.3 | 2.6 | 6.1 | 4.7 | 4.2 | 3 | 4.7 | 7.1 | 5.8 | 6.7 | 6.3 | 7 | 4.9 | 4.4 | 3.3 | 3.5 | 3.4 | 8.0 | 5.2 | 24 | |
| 20 | | 5.9 | 6.2 | 6.2 | 4 | 3.1 | 3.5 | 3.5 | 6.9 | 5.3 | 4.8 | 4.9 | 5.7 | 3.8 | 4.3 | 3.7 | 4.2 | 5 | 2.9 | 0.5 | 0.4 | 0.3 | 1 | 0.3 | 0.9 | 6.9 | 3.6 | 24 | |
| 21 | | 0.9 | 1.2 | 2.7 | 0.9 | 1.3 | 1.1 | 3.1 | 3.6 | 3.9 | 6.1 | 6.8 | 8.4 | 8.1 | 7 | 6.6 | 6.8 | 8.4 | 8.7 | 9.4 | 8.7 | 8.7 | 6.9 | 4.7 | 9.4 | 5.5 | 24 | | |
| 22 | | 6 | 6.2 | 5.3 | 4.8 | 3.8 | 2.6 | 2 | 0.5 | 0.7 | 6.1 | 6.8 | 8.3 | 4.7 | 4.4 | 5.7 | 6.4 | 6.1 | 4.4 | 3.6 | 7.1 | 9.9 | 9.1 | 7.7 | 4.9 | 9.9 | 5.3 | 24 | |
| 23 | | 4.3 | 4.7 | 4.9 | 3.7 | 3 | 1.9 | 4.2 | 4.3 | 4.7 | 6.6 | 4.3 | 3 | 4.8 | 5.6 | 6.9 | 8.3 | 7.5 | 6.7 | 5.4 | 4.6 | 5.4 | 6 | 4.7 | 8.3 | 5.0 | 24 | | |
| 24 | | 5.6 | 6.3 | 7 | 6.2 | 4.2 | 5.8 | 4.7 | 4.3 | 6.2 | 9.3 | 8 | 9.9 | 9.7 | 9.7 | 10.3 | 9.7 | 7.3 | 5.1 | 2 | 4.7 | 5.3 | 2.5 | 5.2 | 5 | 10.3 | 6.4 | 24 | |
| 25 | | 2.6 | 1.2 | 1 | 0.6 | 0.9 | 0.5 | 0.3 | 0.6 | 0.6 | 4.9 | 5.8 | 8 | 9.8 | 9.2 | 11.7 | 12.5 | 10.7 | 8 | 8.5 | 8.4 | 8.9 | 9.4 | 8.6 | 6.5 | 12.5 | 5.8 | 24 | |
| 26 | | 5.4 | 4.2 | 1 | 5.6 | 4.9 | 3.3 | 1.4 | 3.2 | 3.1 | 4.2 | 7.6 | 5.9 | 6.1 | 4.4 | 4.4 | 1.7 | 1.6 | 1.9 | 0.9 | 0.7 | 1.2 | 0.3 | 0.8 | 5.7 | 7.6 | 3.3 | 24 | |
| 27 | | 6.4 | 3.1 | 2.6 | 1.9 | 4.8 | 1.2 | 1.3 | 1.3 | 1.4 | 2.1 | 5.3 | 8.2 | 6.7 | 6 | 6.4 | 19.1 | 19.7 | 19.7 | 20.5 | 18.7 | 18 | 18.4 | 13.8 | 13.1 | 20.5 | 9.2 | 24 | |
| 28 | | 13.2 | 9 | 6.7 | 4.5 | 6 | 4.8 | 4.3 | 4.8 | 6.4 | 11.5 | 13.5 | 12.3 | 11.8 | 11.7 | 10.9 | 10.7 | 12.4 | 9.4 | 7.8 | 7.8 | 4.4 | 4.5 | 3 | 2.4 | 13.5 | 8.1 | 24 | |
| HOURLY MAX | | 13.2 | 14.3 | 13.1 | 12.9 | 17.3 | 10.4 | 10.5 | 11.1 | 10.3 | 11.6 | 13.5 | 12.3 | 12.0 | 13.7 | 15.5 | 19.1 | 19.7 | 19.7 | 20.5 | 18.7 | 18.0 | 18.4 | 13.8 | 14.0 | | | | |
| HOURLY AVG | | 5.0 | 5.2 | 5.0 | 4.9 | 4.8 | 4.4 | 4.6 | 4.8 | 4.8 | 5.9 | 6.4 | 6.9 | 7.0 | 7.0 | 7.3 | 7.5 | 6.9 | 5.9 | 5.5 | 5.4 | 5.0 | 4.7 | 4.8 | 4.9 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

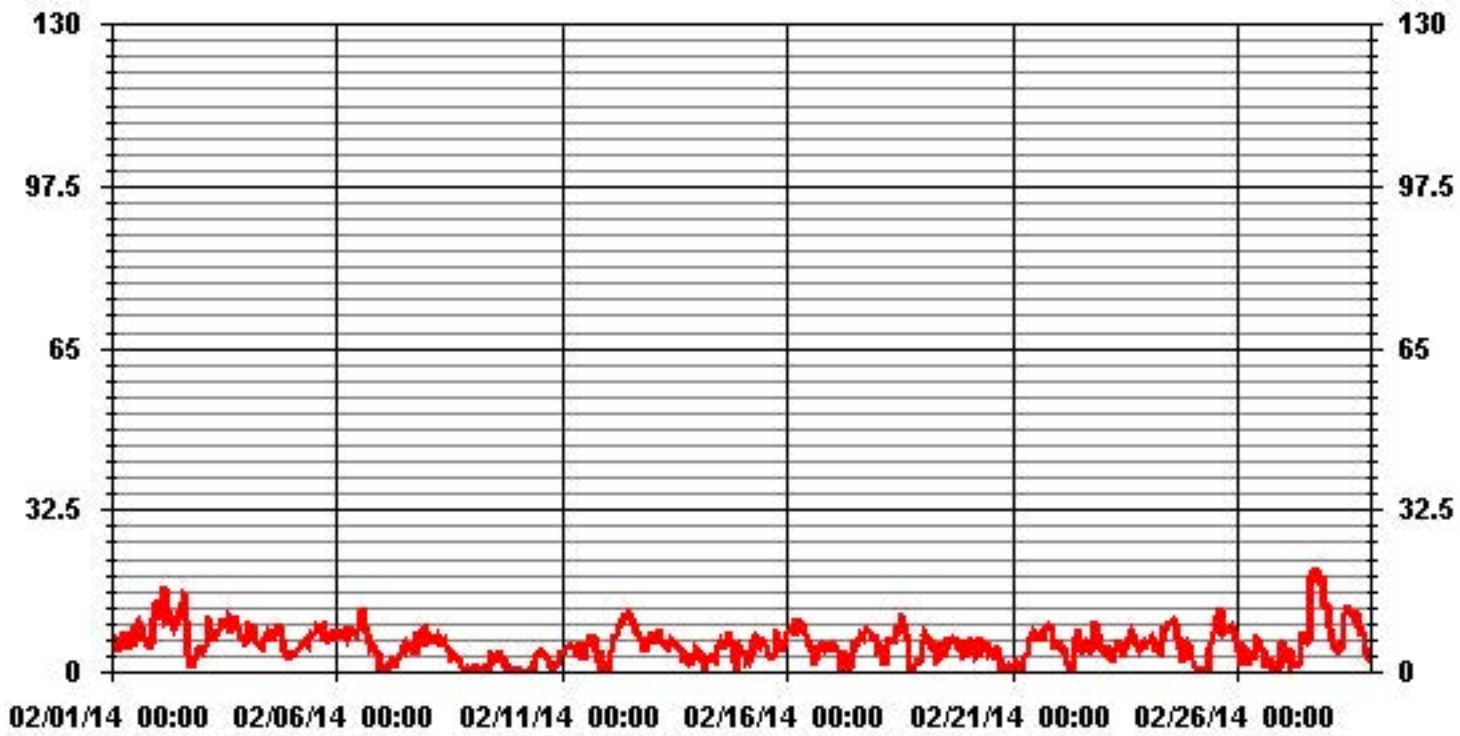
| | |
|-------------------|--------------------------------------|
| LAST CALIBRATION: | November 28, 2012 |
| DECLINATION: | MAGNETIC DECLINATION 15 DEGREE NORTH |



MONTHLY SUMMARY

| | |
|------------------------------|------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 696 |
| MAXIMUM 1-HR AVERAGE: | 20.5 KPH @ HOUR(S) 18 ON DAY(S) 27 |
| MAXIMUM 24-HR AVERAGE: | 9.4 KPH ON DAY(S) 2 |
| | VAR-VARIOUS |
| MONTHLY CALIBRATION TIME: | 0 HRS |
| OPERATIONAL TIME: | 672 HRS |
| AMD OPERATION UPTIME: | 100.0 % |
| STANDARD DEVIATION: | 3.51 |
| MONTHLY AVERAGE: | 5.27 KPH |

01 Hour Averages



— LICA WSP KPH

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

| 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 MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 10.9 | 11.8 | 8.2 | 6.4 | 7.2 | 11.4 | 13.8 | 9 | 10.8 | 8.1 | 12.2 | 9.5 | 14.4 | 14.9 | 15.4 | 14.2 | 10.8 | 9.8 | 9.2 | 8.2 | 7.2 | 10.1 | 18.2 | 23.1 | 23 | 11.5 | 24 |
| 2 | 17.8 | 20.4 | 20.8 | 22.8 | 26.7 | 15.1 | 16.6 | 18.7 | 16.1 | 16.1 | 16.6 | 15.8 | 19.9 | 21.6 | 20.7 | 22.1 | 18.8 | 8.3 | 4.6 | 4.6 | 5 | 6.8 | 6 | 7.2 | 27 | 15.4 | 24 |
| 3 | 8.6 | 7.4 | 10.8 | 20.9 | 16.1 | 11.6 | 12.5 | 11.8 | 12.4 | 13.5 | 16.1 | 17.1 | 18 | 14.8 | 17.9 | 16 | 15.6 | 14.5 | 18.5 | 18.8 | 12.7 | 12.4 | 11.6 | 9.3 | 21 | 14.1 | 24 |
| 4 | 9.5 | 13.8 | 15.4 | 15 | 11 | 10.2 | 9.7 | 7.8 | 7.4 | 9.5 | 11.5 | 11.5 | 12.9 | 11.1 | 13.6 | 13.9 | 13.1 | 16.2 | 12.9 | 11.3 | 9.9 | 6.4 | 5.1 | 7.3 | 16 | 11.1 | 24 |
| 5 | 6.2 | 5.1 | 5.8 | 6.8 | 6.8 | 8.1 | 8.2 | 8.7 | 7.9 | 10.1 | 12.9 | 11.9 | 13.9 | 13.4 | 12.5 | 14.3 | 14 | 9.4 | 10.6 | 10.5 | 11.9 | 10.3 | 11.1 | 11.7 | 14 | 10.1 | 24 |
| 6 | 12.9 | 12.5 | 10.6 | 10.7 | 11.6 | 9.8 | 11.3 | 13.2 | 12.7 | 13.2 | 12.8 | 13.8 | 14.8 | 16.4 | 19.4 | 16.5 | 13.3 | 8.3 | 6.4 | 7.7 | 7.4 | 6.7 | 6.4 | 3.3 | 19 | 11.3 | 24 |
| 7 | 1.9 | 2.6 | 3.7 | 3.6 | 3.9 | 4.8 | 5.1 | 2.9 | 5.1 | 6.8 | 7.4 | 8.6 | 8 | 9.6 | 8.8 | 9.2 | 8.8 | 7.7 | 6.8 | 12.5 | 13.1 | 13.9 | 12.6 | 10 | 14 | 7.4 | 24 |
| 8 | 9.9 | 15.3 | 10.6 | 11 | 9.2 | 11.1 | 9 | 8.2 | 9.1 | 12.5 | 9.4 | 10.5 | 8.6 | 6.9 | 8.9 | 6.6 | 5.8 | 24.4 | 4.3 | 2 | 4.6 | 4.4 | 2.5 | 3.3 | 24 | 8.7 | 24 |
| 9 | 2.8 | 3.3 | 2.7 | 3.1 | 2.9 | 3 | 4.3 | 3.9 | 2.6 | 4.4 | 6.1 | 6.4 | 5.6 | 5.7 | 5.9 | 7.3 | 6.7 | 7 | 3.7 | 4.6 | 2.4 | 2.4 | 1.9 | 1.7 | 7 | 4.2 | 24 |
| 10 | 2.3 | 4.2 | 2.3 | 1.3 | 2.7 | 4.8 | 5 | 2.3 | 2.5 | 4.3 | 6.7 | 7.9 | 7.7 | 7.5 | 7 | 7.6 | 7.8 | 5.6 | 2.7 | 4.7 | 5.4 | 5.9 | 4.3 | 7 | 8 | 5.0 | 24 |
| 11 | 7.1 | 7.1 | 7.8 | 8 | 9 | 8.5 | 7.6 | 6.3 | 6.1 | 9.1 | 7.4 | 5.9 | 11 | 12.2 | 12.3 | 12 | 10.8 | 11.2 | 7.8 | 6 | 5.5 | 4 | 5.1 | 3.8 | 12 | 8.0 | 24 |
| 12 | 4 | 9.7 | 9 | 10 | 10.5 | 11.5 | 14.7 | 16.5 | 15.4 | 17.7 | 15.9 | 18.9 | 16.9 | 15.5 | 14.6 | 12.9 | 11.9 | 10.2 | 12.6 | 10 | 5.9 | 11.3 | 10.3 | 12.4 | 19 | 12.4 | 24 |
| 13 | 8.6 | 10.4 | 12.6 | 9.5 | 12.7 | 10.7 | 10.4 | 11 | 9.2 | 10.3 | 13.6 | 10.1 | 9.5 | 9.9 | 8 | 7.9 | 7.8 | 5 | 5.3 | 6.6 | 9.8 | 5 | 4.7 | 8.8 | 14 | 9.1 | 24 |
| 14 | 9.5 | 7.7 | 10.5 | 5.9 | 4.3 | 5.4 | 7.5 | 5.5 | 8.3 | 5.2 | 6.7 | 9.5 | 10.6 | 9.1 | 10.6 | 11.2 | 11 | 13 | 10.2 | 10.2 | 5.5 | 2.1 | 6.5 | 7.6 | 13 | 8.1 | 24 |
| 15 | 8 | 9.6 | 6.6 | 6.4 | 6.4 | 7.4 | 10.1 | 11.1 | 11.9 | 10.1 | 11.7 | 13.8 | 13.2 | 9.7 | 8.4 | 8 | 6 | 6 | 13.4 | 11 | 8.2 | 7.7 | 8.3 | 9.5 | 14 | 9.3 | 24 |
| 16 | 13.2 | 14.4 | 14.1 | 13.6 | 12.7 | 15.7 | 15.7 | 17.2 | 14.3 | 15 | 11.7 | 11.6 | 10.9 | 10.1 | 4.5 | 6.2 | 6.2 | 8.3 | 8 | 9.8 | 7.8 | 8.7 | 7.9 | 7 | 17 | 11.0 | 24 |
| 17 | 8.8 | 8 | 7 | 7.3 | 5.7 | 3 | 3.6 | 7.1 | 4.7 | 5 | 3.9 | 6.6 | 12.7 | 10.6 | 10 | 11.1 | 11 | 11.7 | 11.8 | 12.3 | 14 | 9.4 | 11.1 | 10.1 | 14 | 8.6 | 24 |
| 18 | 6.8 | 7.7 | 5.6 | 7 | 3.9 | 8.3 | 9.2 | 9.6 | 9.2 | 8.7 | 11.1 | 16.4 | 15 | 18.2 | 15.5 | 13.7 | 10.3 | 7.2 | 4.1 | 1.8 | 3.1 | 4.1 | 4.7 | 4.5 | 18 | 8.6 | 24 |
| 19 | 11.9 | 13.1 | 11.7 | 9.2 | 11.5 | 7 | 9.1 | 5.4 | 6 | 10.3 | 7.4 | 8.4 | 5.6 | 9.6 | 11.2 | 11.3 | 11.9 | 10.1 | 11.3 | 7.8 | 7.7 | 6.6 | 6.5 | 8.7 | 13 | 9.1 | 24 |
| 20 | 8.6 | 9.8 | 8.3 | 6.4 | 4.8 | 6.2 | 7.2 | 11.3 | 7.4 | 8.5 | 7.6 | 13.8 | 11.1 | 7.2 | 8 | 8 | 8.5 | 5.6 | 2.6 | 2.3 | 1.9 | 1.7 | 1.6 | 1.8 | 14 | 6.7 | 24 |
| 21 | 2.6 | 2.7 | 3.8 | 3 | 2.9 | 2.9 | 4.9 | 5.6 | 8 | 9.1 | 11.5 | 13 | 13.2 | 11 | 10.7 | 10.9 | 12.3 | 13.8 | 15 | 13.1 | 12.4 | 15.6 | 12.8 | 9.8 | 16 | 9.2 | 24 |
| 22 | 10.8 | 8.5 | 7.6 | 6.1 | 5.7 | 4.2 | 4.9 | 2.9 | 4.1 | 10.9 | 13.2 | 14.5 | 12.7 | 11.6 | 12.3 | 10.9 | 9.3 | 8 | 5.9 | 16 | 14.1 | 15.6 | 11.8 | 7.9 | 16 | 9.6 | 24 |
| 23 | 5.6 | 6.7 | 7.5 | 5.3 | 5.2 | 4.6 | 6.4 | 6.7 | 9.4 | 11.2 | 10 | 8.4 | 10 | 11.7 | 12.9 | 12.8 | 12.9 | 9.8 | 6.8 | 6.9 | 8.2 | 10.5 | 7.6 | 13 | 8.5 | 24 | |
| 24 | 8.1 | 8.4 | 9 | 8.8 | 6.8 | 8.6 | 7.7 | 6.3 | 9.5 | 14.3 | 12.1 | 16.4 | 17.4 | 15 | 18 | 15.2 | 12.3 | 9.1 | 5 | 7.7 | 7.8 | 5.9 | 8.9 | 8 | 18 | 10.3 | 24 |
| 25 | 6 | 3.1 | 4.8 | 2.9 | 4 | 6.8 | 3.4 | 3.5 | 2.8 | 11.2 | 10.5 | 13.7 | 14.9 | 15.9 | 18.4 | 18.1 | 15.8 | 12.5 | 12.8 | 12.6 | 12.9 | 13.8 | 13 | 11.2 | 18 | 10.2 | 24 |
| 26 | 7.6 | 7.2 | 3.8 | 9.4 | 7.8 | 7.4 | 4.6 | 5.5 | 5.9 | 11.9 | 12.7 | 9.7 | 10.5 | 7.9 | 9.5 | 9.7 | 5.1 | 5.4 | 3.1 | 2.4 | 3.4 | 3.3 | 2.6 | 11.9 | 13 | 7.0 | 24 |
| 27 | 9.7 | 8.9 | 8.2 | 5.5 | 6.9 | 4.9 | 3.5 | 2.8 | 4.3 | 8.2 | 10.5 | 13.4 | 12.4 | 10.5 | 20.5 | 28.4 | 30.2 | 29.9 | 29 | 27.5 | 25.1 | 30.4 | 25.4 | 21.7 | 30 | 15.7 | 24 |
| 28 | 17.7 | 15.3 | 12.8 | 8.4 | 8.2 | 8.6 | 7.7 | 7.1 | 14.2 | 19.7 | 21.6 | 19.1 | 19.2 | 18.2 | 16 | 22.5 | 17.3 | 15.1 | 13.1 | 11.8 | 6.3 | 6.9 | 5.6 | 5.7 | 23 | 13.3 | 24 |
| HOURLY MAX | 18 | 20 | 21 | 23 | 27 | 16 | 17 | 19 | 16 | 20 | 22 | 19 | 20 | 22 | 21 | 28 | 30 | 30 | 29 | 28 | 25 | 30 | 25 | 23 | | | |
| HOURLY AVG | 8.5 | 9.1 | 8.6 | 8.4 | 8.1 | 7.9 | 8.3 | 8.1 | 8.5 | 10.5 | 11.1 | 12.0 | 12.5 | 12.0 | 12.6 | 12.8 | 11.6 | 10.8 | 9.2 | 9.3 | 8.5 | 8.6 | 8.5 | 8.6 | | | |

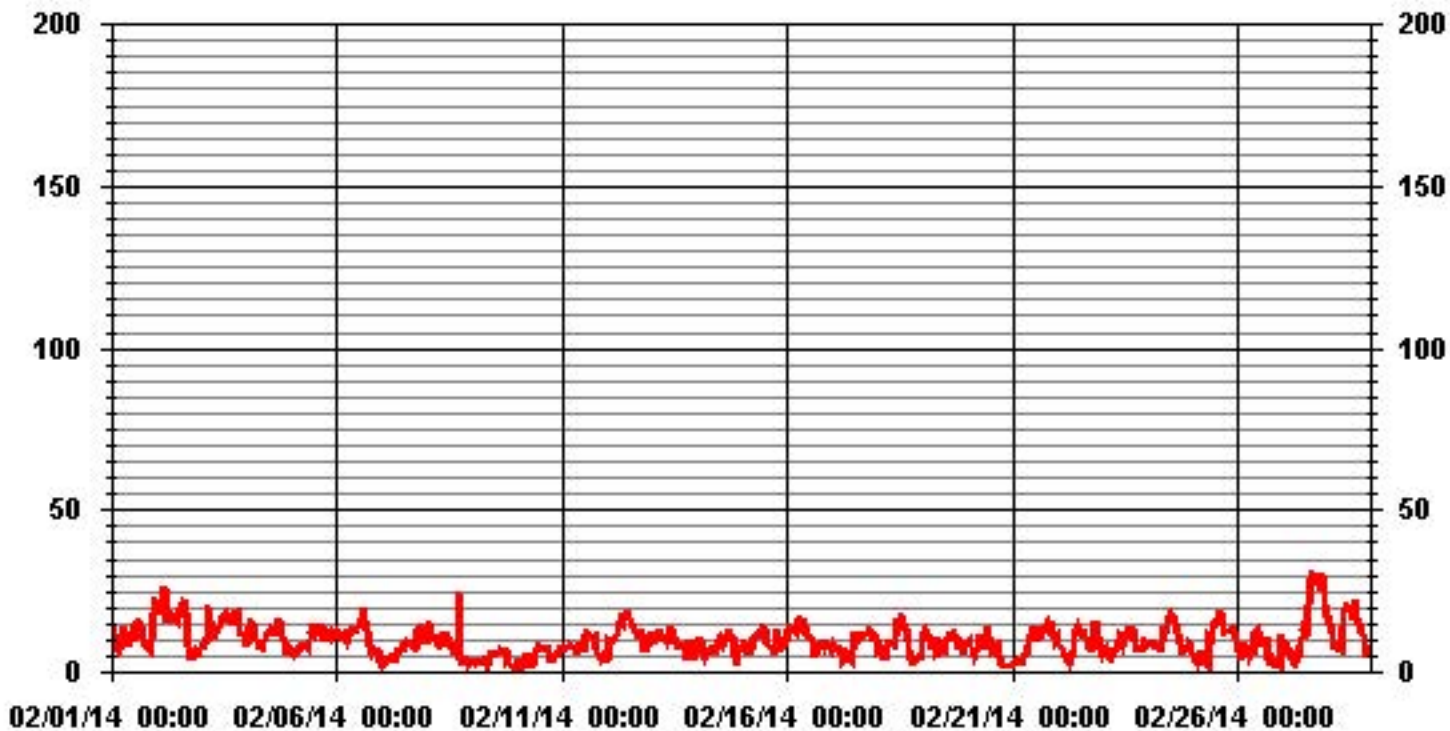
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|----|-----|-----------|----|-------------|-----|
| MAXIMUM INSTANTANEOUS VALUE: | 30 | KPH | @ HOUR(S) | 21 | ON DAY(S) | 27 |
| | | | | | VAR-VARIOUS | |
| OPERATIONAL TIME: | | | | | 672 | HRS |

01 Hour Averages



LICA
WSP / WD Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : WSP
Units : KPH

Wind Parameter : WD
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|------|------|------|------|------|------|------|-----|------|------|-------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | 2.08 | 4.01 | 4.91 | 2.23 | 2.38 | 4.16 | 4.91 | 1.78 | .59 | 1.48 | 2.38 | 9.82 | 6.84 | 1.93 | 2.82 | 2.52 | 54.91 |
| < 12.0 | 3.27 | 1.19 | 2.67 | .59 | 4.46 | 1.04 | 2.38 | .00 | .14 | .00 | 2.67 | 9.82 | 2.23 | 1.63 | 2.52 | 4.91 | 39.58 |
| < 20.0 | 1.33 | .14 | .00 | .00 | .14 | .00 | .00 | .00 | .00 | .00 | .00 | .44 | .00 | .00 | .89 | .74 | 3.72 |
| < 29.0 | .14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .14 |
| < 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 6.84 | 5.35 | 7.58 | 2.82 | 6.99 | 5.20 | 7.29 | 1.78 | .74 | 1.48 | 5.05 | 20.08 | 9.07 | 3.57 | 6.25 | 8.18 | |

Calm : 1.63 %

Total # Operational Hours : 672

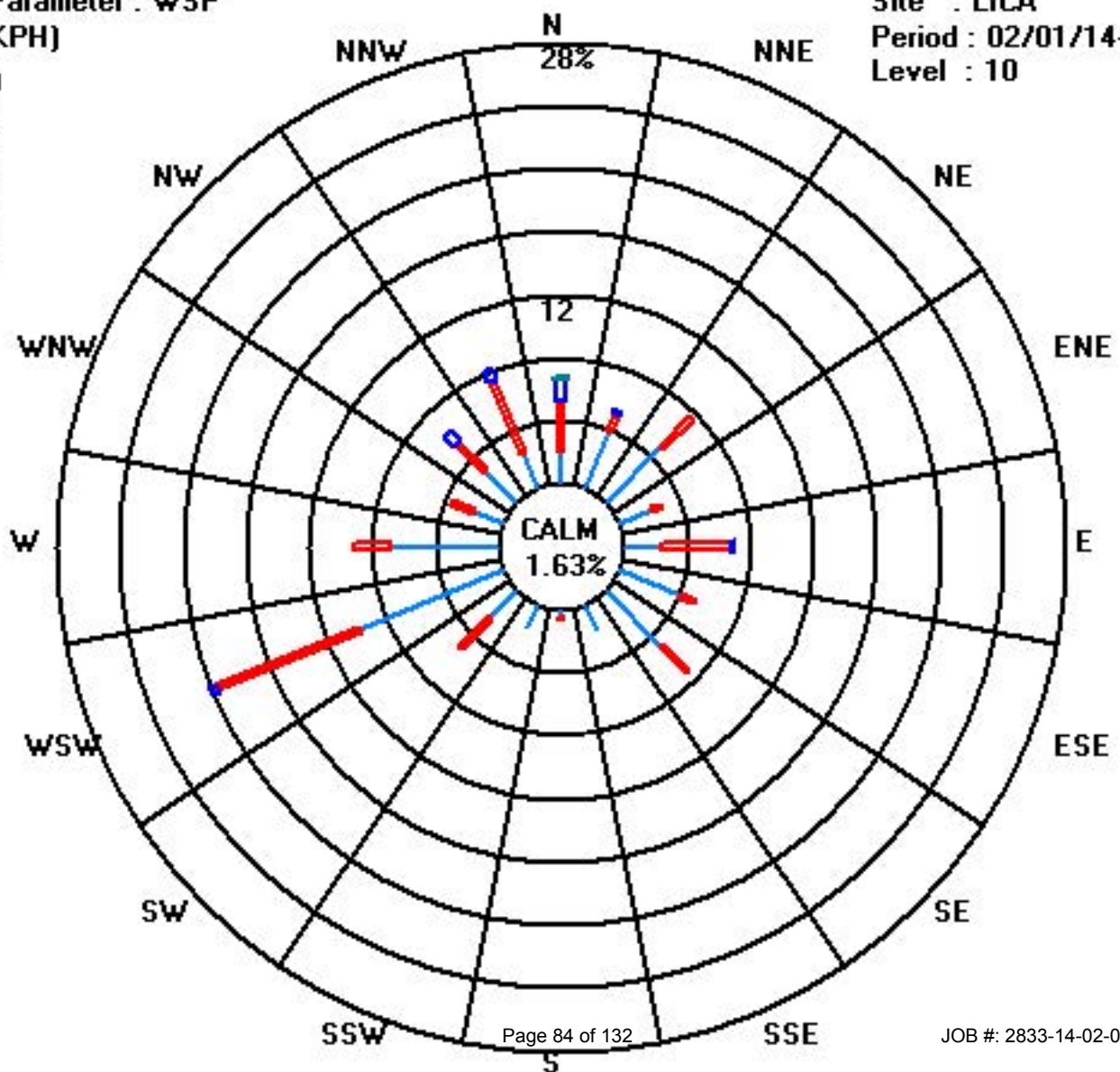
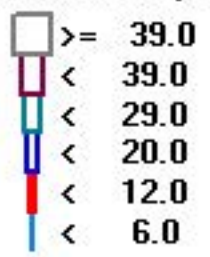
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | 14 | 27 | 33 | 15 | 16 | 28 | 33 | 12 | 4 | 10 | 16 | 66 | 46 | 13 | 19 | 17 | 369 |
| < 12.0 | 22 | 8 | 18 | 4 | 30 | 7 | 16 | | 1 | | 18 | 66 | 15 | 11 | 17 | 33 | 266 |
| < 20.0 | 9 | 1 | | | 1 | | | | | | | 3 | | | 6 | 5 | 25 |
| < 29.0 | 1 | | | | | | | | | | | | | | | | 1 |
| < 39.0 | | | | | | | | | | | | | | | | | |
| >= 39.0 | | | | | | | | | | | | | | | | | |
| Totals | 46 | 36 | 51 | 19 | 47 | 35 | 49 | 12 | 5 | 10 | 34 | 135 | 61 | 24 | 42 | 55 | |

Calm : 1.63 %

Total # Operational Hours : 672

Class Limits (KPH)



Vector Wind Direction

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

WIND DIRECTION (WD) hourly averages in degrees

| 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 | 24-HOUR | | |
|--------------|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----------|-------|----|
| HOURLY START | HOURLY END | 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 | 0:00 | AVG. | QUADRANT | RDGS. | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 294 | 301 | 293 | 281 | 284 | 294 | 297 | 272 | 278 | 261 | 237 | 237 | 257 | 242 | 239 | 239 | 235 | 239 | 255 | 257 | 277 | 289 | 339 | 335 | 339 | 339 | NNW | 24 |
| 2 | | 341 | 319 | 322 | 315 | 317 | 311 | 308 | 309 | 289 | 285 | 293 | 300 | 312 | 322 | 355 | 9 | 352 | 316 | 267 | 246 | 247 | 253 | 255 | 255 | 355 | N | 24 | |
| 3 | | 267 | 279 | 303 | 354 | 355 | 347 | 327 | 331 | 329 | 322 | 324 | 329 | 326 | 316 | 324 | 320 | 332 | 342 | 353 | 11 | 359 | 344 | 341 | 337 | 359 | N | 24 | |
| 4 | | 330 | 337 | 344 | 340 | 337 | 337 | 335 | 333 | 328 | 326 | 319 | 313 | 318 | 309 | 320 | 334 | 322 | 344 | 14 | 1 | 1 | 323 | 279 | 299 | 344 | NNW | 24 | |
| 5 | | 281 | 281 | 245 | 263 | 264 | 270 | 279 | 273 | 264 | 262 | 270 | 266 | 235 | 260 | 263 | 256 | 249 | 244 | 256 | 248 | 240 | 238 | 234 | 237 | 281 | W | 24 | |
| 6 | | 242 | 239 | 243 | 237 | 237 | 238 | 243 | 240 | 237 | 239 | 233 | 242 | 234 | 238 | 240 | 243 | 245 | 245 | 242 | 249 | 247 | 255 | 262 | 240 | 262 | W | 24 | |
| 7 | | 175 | 219 | 65 | 108 | 164 | 257 | 268 | 256 | 251 | 267 | 303 | 23 | 26 | 54 | 61 | 62 | 50 | 40 | 28 | 37 | 37 | 46 | 49 | 50 | 303 | WNW | 24 | |
| 8 | | 46 | 47 | 47 | 45 | 32 | 22 | 9 | 359 | 349 | 2 | 15 | 6 | 55 | 65 | 244 | 63 | 16 | 10 | 9 | 37 | 312 | 210 | 308 | 280 | 359 | N | 24 | |
| 9 | | 196 | 233 | 337 | 306 | 17 | 332 | 262 | 263 | 297 | 250 | 135 | 317 | 330 | 311 | 52 | 100 | 101 | 343 | 142 | 192 | 119 | 134 | 105 | 36 | 343 | NNW | 24 | |
| 10 | | 350 | 160 | 84 | 165 | 146 | 261 | 94 | 251 | 305 | 306 | 284 | 269 | 249 | 244 | 262 | 261 | 335 | 14 | 156 | 258 | 281 | 350 | 27 | 21 | 350 | N | 24 | |
| 11 | | 356 | 19 | 23 | 23 | 19 | 28 | 18 | 8 | 353 | 355 | 347 | 19 | 268 | 245 | 273 | 284 | 272 | 272 | 281 | 254 | 251 | 49 | 114 | 224 | 356 | N | 24 | |
| 12 | | 56 | 43 | 99 | 98 | 104 | 100 | 96 | 96 | 93 | 93 | 91 | 92 | 87 | 87 | 89 | 92 | 96 | 92 | 101 | 110 | 130 | 139 | 146 | 144 | 146 | SE | 24 | |
| 13 | | 146 | 143 | 145 | 137 | 139 | 134 | 130 | 125 | 113 | 106 | 118 | 110 | 111 | 103 | 102 | 109 | 118 | 50 | 27 | 98 | 139 | 150 | 149 | 153 | 153 | SSE | 24 | |
| 14 | | 202 | 203 | 154 | 198 | 167 | 159 | 214 | 230 | 243 | 265 | 28 | 17 | 37 | 55 | 103 | 106 | 98 | 95 | 104 | 90 | 86 | 104 | 106 | 134 | 265 | W | 24 | |
| 15 | | 97 | 104 | 133 | 107 | 109 | 130 | 138 | 140 | 141 | 143 | 165 | 182 | 170 | 194 | 180 | 178 | 156 | 145 | 141 | 135 | 131 | 111 | 109 | 92 | 194 | SSW | 24 | |
| 16 | | 92 | 91 | 98 | 101 | 93 | 95 | 103 | 94 | 91 | 93 | 89 | 93 | 91 | 70 | 103 | 270 | 252 | 245 | 238 | 238 | 235 | 233 | 239 | 245 | 270 | W | 24 | |
| 17 | | 250 | 251 | 255 | 254 | 250 | 255 | 220 | 250 | 9 | 257 | 305 | 257 | 237 | 235 | 232 | 238 | 248 | 250 | 251 | 249 | 251 | 252 | 249 | 252 | 305 | WNW | 24 | |
| 18 | | 254 | 261 | 247 | 252 | 225 | 242 | 243 | 249 | 248 | 249 | 243 | 254 | 264 | 273 | 252 | 242 | 237 | 210 | 258 | 20 | 91 | 80 | 76 | 85 | 273 | W | 24 | |
| 19 | | 118 | 102 | 96 | 89 | 76 | 43 | 37 | 36 | 25 | 59 | 52 | 48 | 51 | 13 | 20 | 44 | 52 | 45 | 49 | 51 | 81 | 92 | 111 | 124 | 124 | ESE | 24 | |
| 20 | | 139 | 142 | 143 | 144 | 129 | 134 | 138 | 141 | 138 | 135 | 139 | 140 | 120 | 125 | 109 | 46 | 19 | 41 | 116 | 264 | 74 | 72 | 217 | 108 | 264 | W | 24 | |
| 21 | | 72 | 28 | 39 | 44 | 37 | 1 | 51 | 60 | 47 | 38 | 40 | 39 | 33 | 57 | 45 | 25 | 10 | 347 | 349 | 344 | 347 | 350 | 1 | 336 | 350 | N | 24 | |
| 22 | | 349 | 343 | 337 | 308 | 308 | 269 | 254 | 181 | 299 | 329 | 356 | 0 | 352 | 338 | 307 | 281 | 276 | 276 | 256 | 338 | 5 | 359 | 353 | 344 | 359 | N | 24 | |
| 23 | | 321 | 314 | 320 | 303 | 271 | 233 | 258 | 269 | 278 | 311 | 271 | 261 | 243 | 244 | 230 | 228 | 230 | 233 | 240 | 237 | 241 | 236 | 237 | 233 | 321 | NW | 24 | |
| 24 | | 239 | 234 | 234 | 242 | 246 | 235 | 243 | 252 | 239 | 233 | 252 | 242 | 252 | 233 | 234 | 235 | 235 | 241 | 58 | 7 | 27 | 53 | 49 | 48 | 252 | WSW | 24 | |
| 25 | | 39 | 84 | 336 | 340 | 264 | 298 | 267 | 227 | 302 | 238 | 237 | 241 | 241 | 247 | 248 | 244 | 246 | 246 | 239 | 249 | 251 | 239 | 233 | 246 | 340 | NNW | 24 | |
| 26 | | 242 | 249 | 249 | 261 | 266 | 261 | 222 | 249 | 269 | 18 | 36 | 66 | 67 | 72 | 139 | 91 | 16 | 269 | 110 | 69 | 74 | 317 | 52 | 138 | 317 | NW | 24 | |
| 27 | | 142 | 126 | 121 | 143 | 143 | 213 | 144 | 147 | 121 | 210 | 253 | 241 | 266 | 284 | 347 | 342 | 347 | 347 | 350 | 348 | 350 | 349 | 351 | 350 | 351 | N | 24 | |
| 28 | | 353 | 346 | 343 | 321 | 311 | 299 | 275 | 281 | 300 | 347 | 351 | 13 | 23 | 35 | 30 | 4 | 349 | 344 | 332 | 335 | 334 | 347 | 316 | 241 | 353 | N | 24 | |

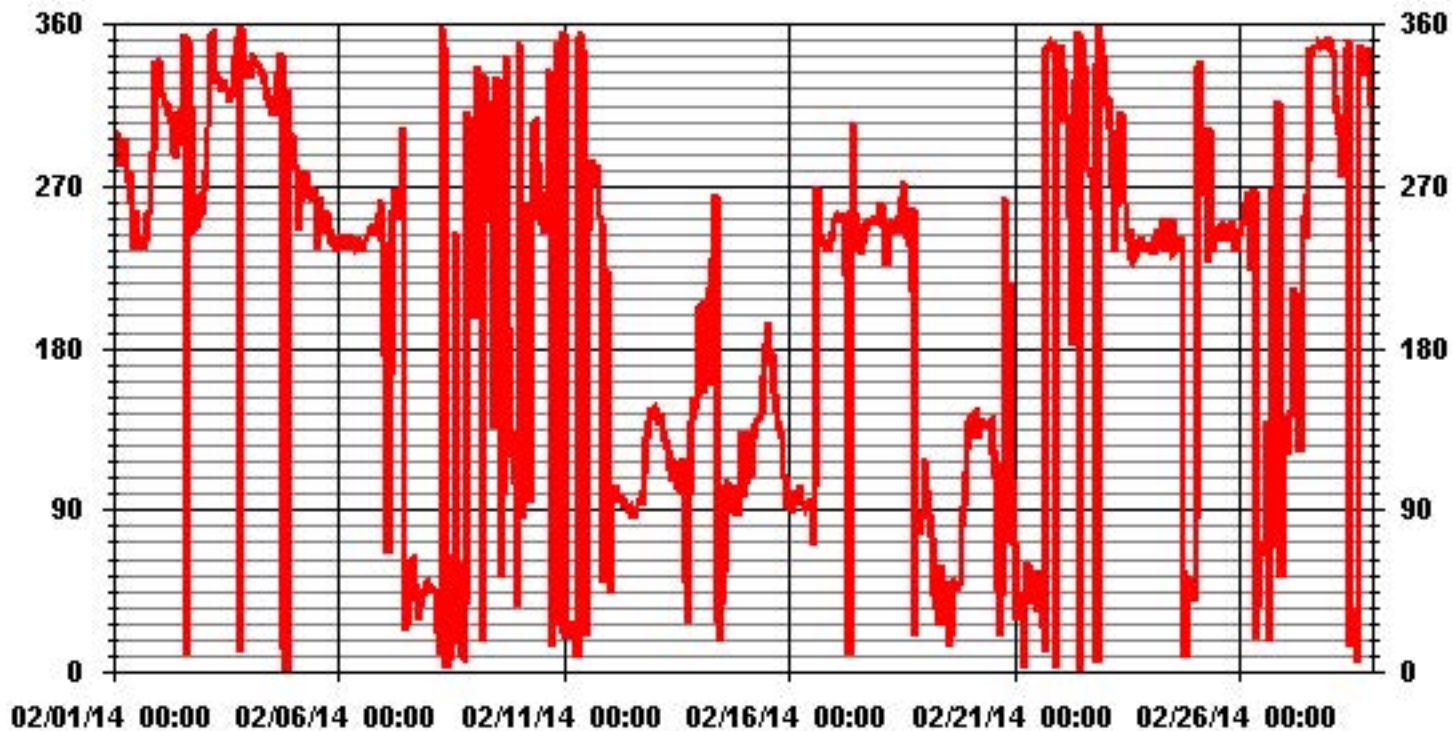
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|--------------------------------------|
| LAST CALIBRATION: | November 28, 2012 |
| DECLINATION : | MAGNETIC DECLINATION 19 DEGREE NORTH |

| | | | |
|---------------------------|--------|-----------------------|---------|
| MONTHLY CALIBRATION TIME: | 0 HRS | OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 110.60 | AMD OPERATION UPTIME: | 100.0 % |
| | | MONTHLY AVERAGE: | 310 DEG |

01 Hour Averages



— LICA WDR DEG

Standard Deviation Wind Direction

Lakeland Industry & Community Association - Cold Lake South Site

FEBRUARY 2014

STANDARD DEVIATION WIND DIRECTION (STDWD) hourly averages in degrees

| 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 | |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| HOUR START | HOUR END | 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 | 0:00 | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 20 | 18 | 18 | 18 | 20 | 20 | 18 | 20 | 21 | 21 | 20 | 21 | 20 | 20 | 19 | 20 | 19 | 18 | 16 | 19 | 17 | 16 | 17 | | |
| 2 | | 16 | 14 | 15 | 15 | 14 | 16 | 19 | 16 | 18 | 21 | 19 | 19 | 16 | 16 | 17 | 16 | 16 | 15 | 28 | 42 | 29 | 19 | 26 | 18 | |
| 3 | | 20 | 23 | 19 | 19 | 18 | 16 | 16 | 15 | 14 | 17 | 17 | 17 | 18 | 19 | 17 | 16 | 14 | 14 | 19 | 18 | 17 | 16 | 18 | 16 | |
| 4 | | 17 | 14 | 16 | 16 | 15 | 14 | 17 | 16 | 18 | 21 | 22 | 20 | 24 | 24 | 23 | 18 | 15 | 16 | 17 | 16 | 21 | 28 | 45 | 36 | |
| 5 | | 39 | 45 | 35 | 40 | 37 | 34 | 32 | 30 | 34 | 30 | 27 | 29 | 26 | 22 | 20 | 21 | 20 | 25 | 23 | 23 | 24 | 26 | 26 | 25 | |
| 6 | | 27 | 26 | 27 | 24 | 24 | 27 | 25 | 23 | 23 | 20 | 20 | 21 | 18 | 20 | 19 | 20 | 20 | 15 | 14 | 11 | 11 | 20 | 35 | 53 | |
| 7 | | 71 | 56 | 47 | 54 | 46 | 27 | 26 | 56 | 35 | 22 | 21 | 24 | 28 | 21 | 20 | 21 | 19 | 18 | 22 | 20 | 20 | 18 | 17 | 19 | |
| 8 | | 20 | 18 | 19 | 20 | 18 | 19 | 12 | 19 | 15 | 18 | 24 | 30 | 33 | 51 | 58 | 34 | 31 | 30 | 41 | 65 | 58 | 60 | 66 | 55 | |
| 9 | | 58 | 54 | 78 | 76 | 69 | 78 | 67 | 61 | 58 | 52 | 25 | 28 | 31 | 30 | 29 | 34 | 34 | 41 | 59 | 39 | 59 | 55 | 67 | 59 | |
| 10 | | 80 | 53 | 63 | 76 | 66 | 64 | 66 | 47 | 70 | 33 | 35 | 36 | 30 | 31 | 33 | 31 | 24 | 37 | 61 | 61 | 44 | 34 | 24 | 20 | |
| 11 | | 24 | 21 | 20 | 20 | 18 | 19 | 20 | 27 | 22 | 18 | 20 | 43 | 39 | 26 | 22 | 22 | 20 | 19 | 23 | 28 | 31 | 69 | 58 | 56 | |
| 12 | | 44 | 57 | 36 | 26 | 27 | 25 | 22 | 20 | 19 | 19 | 19 | 19 | 19 | 21 | 20 | 20 | 21 | 21 | 22 | 24 | 19 | 31 | 22 | 17 | |
| 13 | | 23 | 14 | 17 | 19 | 12 | 17 | 22 | 23 | 25 | 25 | 24 | 23 | 25 | 26 | 26 | 22 | 26 | 31 | 19 | 27 | 35 | 67 | 31 | 25 | |
| 14 | | 35 | 42 | 38 | 52 | 59 | 36 | 31 | 35 | 21 | 35 | 43 | 26 | 18 | 18 | 30 | 22 | 18 | 17 | 19 | 15 | 31 | 57 | 41 | 20 | |
| 15 | | 21 | 25 | 32 | 28 | 30 | 19 | 15 | 15 | 15 | 19 | 27 | 36 | 33 | 39 | 46 | 38 | 31 | 17 | 13 | 16 | 18 | 21 | 19 | 18 | |
| 16 | | 19 | 19 | 19 | 21 | 20 | 16 | 21 | 17 | 18 | 19 | 19 | 18 | 24 | 26 | 48 | 33 | 20 | 20 | 19 | 21 | 18 | 21 | 19 | 18 | |
| 17 | | 20 | 16 | 16 | 14 | 55 | 42 | 55 | 13 | 50 | 40 | 37 | 24 | 18 | 21 | 20 | 19 | 19 | 18 | 18 | 18 | 18 | 17 | 16 | 13 | |
| 18 | | 10 | 13 | 12 | 13 | 51 | 11 | 18 | 16 | 16 | 18 | 20 | 21 | 20 | 20 | 19 | 20 | 18 | 51 | 27 | 62 | 40 | 26 | 33 | 23 | |
| 19 | | 18 | 16 | 17 | 20 | 18 | 18 | 25 | 33 | 23 | 17 | 18 | 23 | 37 | 21 | 18 | 21 | 19 | 20 | 18 | 18 | 21 | 28 | 21 | 21 | |
| 20 | | 12 | 13 | 10 | 15 | 17 | 16 | 19 | 22 | 16 | 15 | 17 | 21 | 30 | 27 | 34 | 26 | 17 | 21 | 35 | 55 | 61 | 21 | 49 | 27 | |
| 21 | | 36 | 32 | 17 | 49 | 28 | 32 | 17 | 15 | 20 | 18 | 20 | 20 | 21 | 21 | 20 | 19 | 17 | 15 | 15 | 14 | 14 | 18 | 17 | 17 | |
| 22 | | 15 | 12 | 15 | 13 | 20 | 36 | 46 | 48 | 65 | 22 | 25 | 23 | 42 | 38 | 36 | 24 | 20 | 21 | 21 | 20 | 20 | 16 | 15 | 16 | |
| 23 | | 17 | 23 | 21 | 34 | 47 | 38 | 43 | 43 | 39 | 26 | 37 | 52 | 29 | 30 | 26 | 22 | 21 | 21 | 27 | 27 | 27 | 29 | 33 | | |
| 24 | | 32 | 29 | 29 | 32 | 37 | 29 | 34 | 40 | 31 | 24 | 25 | 21 | 20 | 20 | 19 | 20 | 20 | 32 | 40 | 16 | 18 | 27 | 28 | 23 | |
| 25 | | 30 | 45 | 43 | 57 | 60 | 61 | 67 | 58 | 53 | 36 | 29 | 23 | 21 | 21 | 20 | 20 | 19 | 18 | 19 | 16 | 15 | 17 | 17 | 17 | |
| 26 | | 19 | 23 | 64 | 21 | 36 | 31 | 45 | 33 | 26 | 34 | 20 | 23 | 20 | 31 | 34 | 62 | 34 | 18 | 43 | 38 | 28 | 50 | 44 | 37 | |
| 27 | | 13 | 33 | 40 | 41 | 14 | 60 | 58 | 46 | 51 | 57 | 25 | 21 | 24 | 20 | 45 | 16 | 16 | 16 | 15 | 18 | 16 | 15 | 17 | 17 | |
| 28 | | 14 | 14 | 17 | 25 | 26 | 39 | 41 | 40 | 31 | 19 | 17 | 20 | 22 | 21 | 22 | 22 | 18 | 15 | 12 | 13 | 16 | 20 | 37 | 43 | |

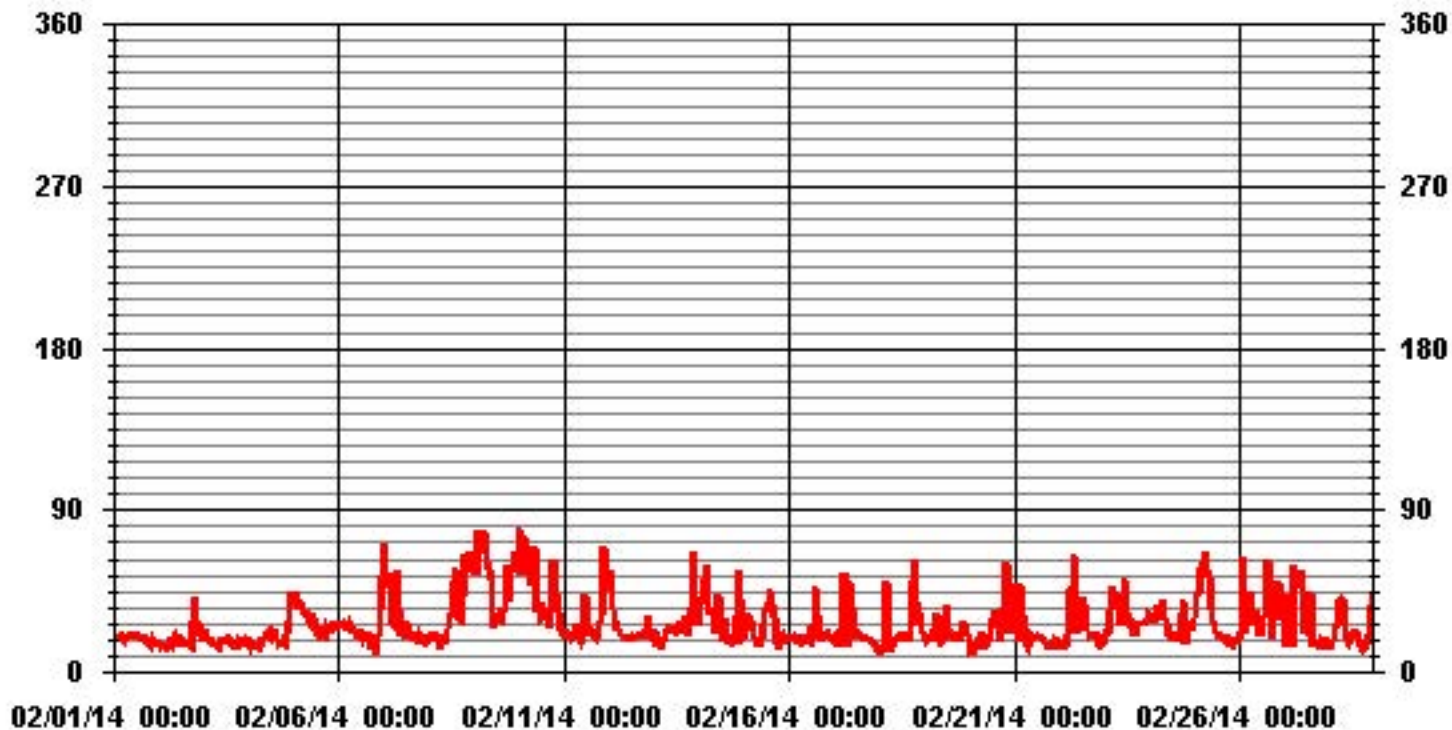
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|-------------------|
| LAST CALIBRATION: | November 28, 2012 |
|-------------------|-------------------|

| | | | |
|-------------------|-------|-------------------|---------|
| CALIBRATION TIME: | 0 HRS | OPERATIONAL TIME: | 672 HRS |
|-------------------|-------|-------------------|---------|

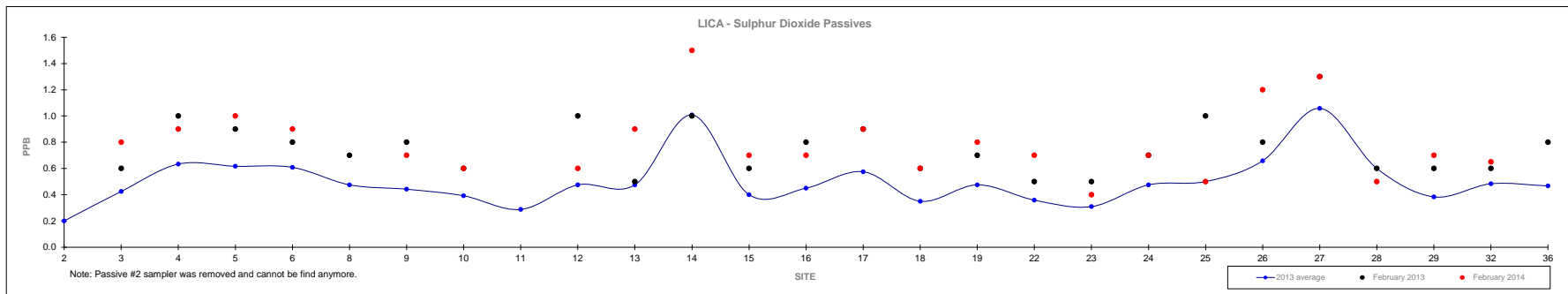
01 Hour Averages



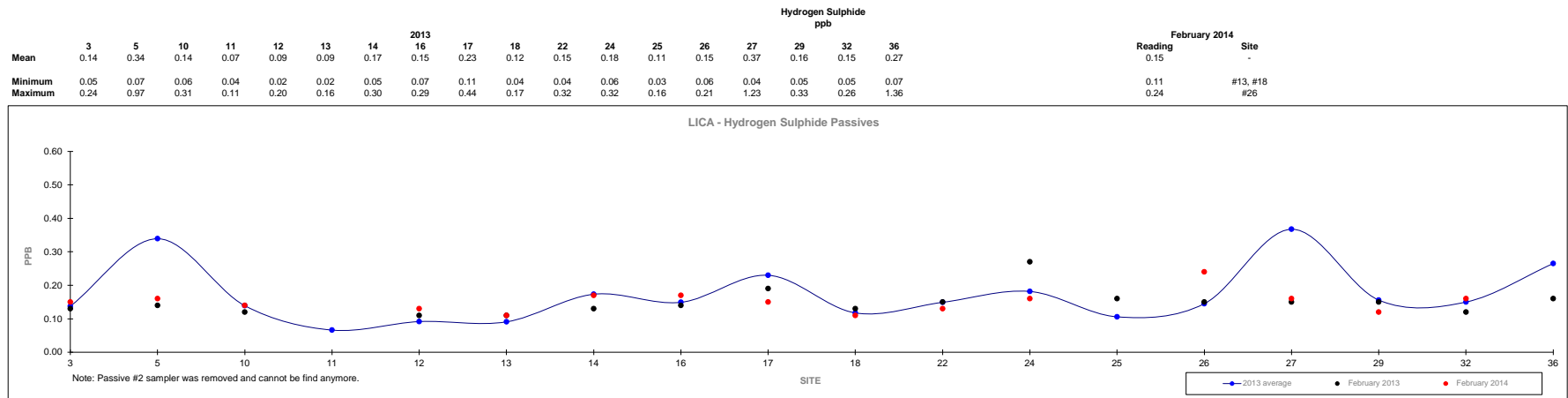
Non-Continuous Monitoring

Passive Summary Results for February 2014 Lakeland Industry & Community Association

| | Sulphur Dioxide ppb | | | | | | | | | | | | | | | | | | | | | | | | | | | | February 2014 | |
|---------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|---------------|--|
| | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 32 | 36 | Reading | Site | |
| Mean | 0.2 | 0.4 | 0.6 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.5 | 1.0 | 0.4 | 0.5 | 0.6 | 0.4 | 0.5 | 0.4 | 0.3 | 0.5 | 0.5 | 0.7 | 1.1 | 0.6 | 0.4 | 0.5 | 0.5 | 0.8 | - | |
| Minimum | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.5 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 | 0.4 | 0.3 | 0.4 | 0.2 | 0.2 | 0.2 | 0.4 | #23 | |
| Maximum | 0.2 | 0.8 | 1.0 | 0.9 | 1.0 | 0.8 | 0.8 | 0.6 | 0.4 | 1.0 | 0.9 | 1.7 | 0.6 | 0.8 | 1.0 | 0.6 | 1.3 | 0.6 | 0.5 | 0.8 | 1.0 | 1.3 | 1.8 | 0.9 | 0.7 | 0.9 | 0.8 | 1.5 | #14 | |

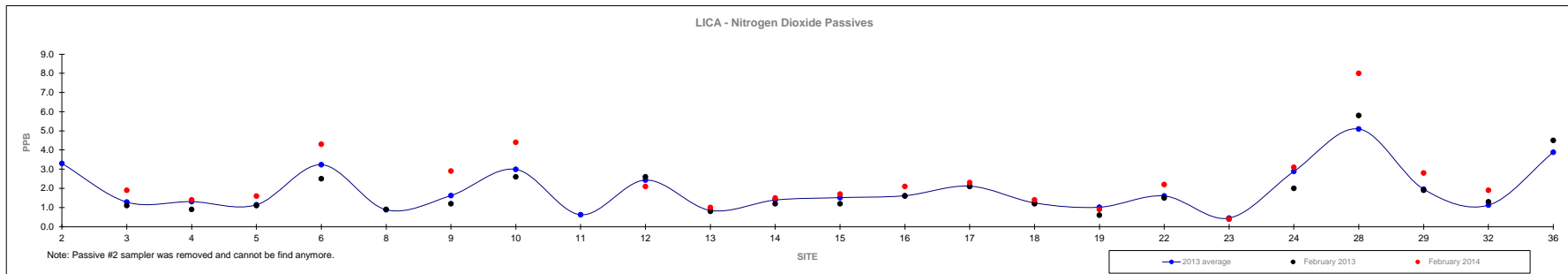


Passive Summary Results for February 2014 Lakeland Industry & Community Association



Passive Summary Results for February 2014 Lakeland Industry & Community Association

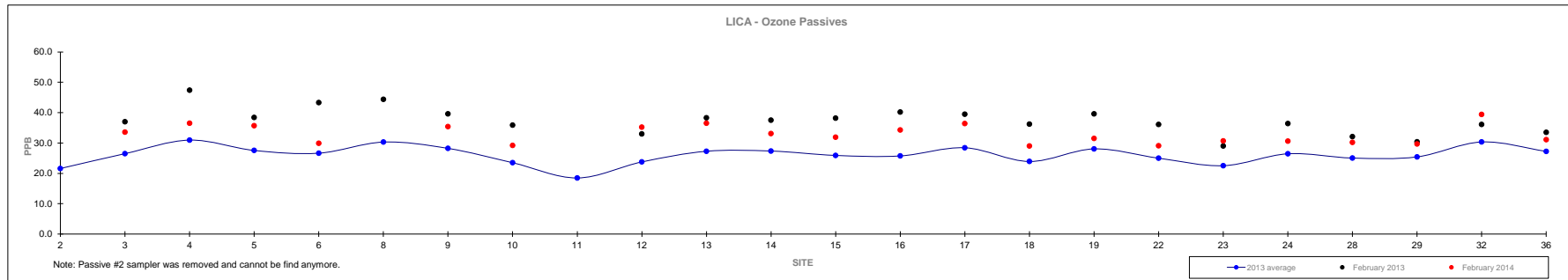
| | Nitrogen Dioxide ppb | | | | | | | | | | | | | | | | | | | | | | | | | | | | February 2014 | |
|---------|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|---------|------|--|--|---------------|--|
| | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 22 | 23 | 24 | 28 | 29 | 32 | 36 | Reading | Site | | | | |
| Mean | 3.3 | 1.3 | 1.3 | 1.1 | 3.2 | 0.9 | 1.6 | 3.0 | 0.6 | 2.4 | 0.9 | 1.4 | 1.5 | 1.6 | 2.1 | 1.2 | 1.0 | 1.6 | 0.5 | 2.9 | 5.1 | 2.0 | 1.1 | 3.9 | 2.4 | - | | | | |
| Minimum | 3.3 | 0.2 | 0.2 | 0.1 | 1.5 | 0.1 | 0.3 | 0.8 | 0.1 | 0.6 | 0.1 | 0.3 | 0.2 | 0.4 | 0.8 | 0.2 | 0.1 | 0.4 | 0.1 | 0.9 | 1.2 | 0.5 | 0.2 | 1.4 | 0.4 | #23 | | | | |
| Maximum | 3.3 | 3.7 | 2.8 | 3.4 | 7.1 | 2.0 | 4.0 | 6.7 | 1.5 | 4.7 | 1.9 | 3.4 | 4.9 | 3.9 | 4.9 | 2.8 | 3.1 | 4.3 | 1.0 | 5.7 | 11.6 | 4.7 | 2.6 | 8.1 | 8.0 | #28 | | | | |



Passive Summary Results for February 2014

Lakeland Industry & Community Association

| | Ozone ppb | | | | | | | | | | | | | | | | | | | | | | | | | | | | February 2014 | |
|---------|--------------|------|------|------|------|------|------|------|------|------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|------|--|--|---------------|--|
| | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | 11 | 12 | 2013 13 | 14 | 15 | 16 | 17 | 18 | 19 | 22 | 23 | 24 | 28 | 29 | 32 | 36 | Reading | Site | | | | |
| Mean | 21.6 | 26.5 | 31.0 | 27.6 | 26.7 | 30.3 | 28.2 | 23.5 | 18.5 | 23.8 | 27.3 | 27.4 | 25.9 | 25.7 | 28.4 | 23.9 | 28.1 | 25.0 | 22.5 | 26.5 | 25.0 | 25.4 | 30.3 | 27.2 | 32.8 | - | | | | |
| Minimum | 21.6 | 15.9 | 16.7 | 16.3 | 13.2 | 18.9 | 17.6 | 12.1 | 11.1 | 14.8 | 18.1 | 16.8 | 14.7 | 14.1 | 14.4 | 12.0 | 17.6 | 13.5 | 12.5 | 15.5 | 14.8 | 15.4 | 20.7 | 15.5 | 29.0 | #18 | | | | |
| Maximum | 21.6 | 37.0 | 48.1 | 47.1 | 43.3 | 45.1 | 43.3 | 36.3 | 31.5 | 34.0 | 38.6 | 37.5 | 39.3 | 40.2 | 44.1 | 36.2 | 41.8 | 36.1 | 35.1 | 38.7 | 36.3 | 38.9 | 40.5 | 39.4 | 39.4 | #32 | | | | |



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|-------------------|
| Calibration Date | February 15, 2014 | Previous Calibration | January 10, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake South | | |
| Start Time (MST) | 11:40 | End Time (MST) | 14:47 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 0.936 atm | Station Temperature | 21 Deg C |
| Cal Gas | 49.7 ppm | Gas Cyl. # | BAL3165 |
| DAS Output Voltage | 0-10 Volts | Cal Gas Expiry date | December 29, 2016 |
| | | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-----------|---------|-------------|
| Analyzer Make / Model: | Thermo 43i | S/N : | 806528242 | Method: | Fluorescent |
| Converter Make / Model: | N/A | S/N : | N/A | | |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | 3485 | | |
| Chart Recorder Make / Model: | N/A | S/N : | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|-----------|------------|-------------------|------------|--|
| Concentration Range | 0-500 ppb | | | | |
| Sample Flow / Box Temp | 449 ccm | 27.1 Deg C | 449 ccm | 26.5 Deg C | |
| HVPS / Lamp Setting | -631 | 729 | -631.6 | 727 | |
| PMT / RxCell Temp | OK Deg C | 45.2 Deg C | OK Deg C | 44.9 Deg C | |
| Converter / IZS Temp | N/A Deg C | 45 Deg C | N/A Deg C | 45.0 Deg C | |
| Offset / Slope | 7.6 | 1.066 | 6.9 | 1.066 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 0 | 0.0000 |
| 4996 | no adj. | | | |
| 4996 | 40.9 | 403 | 404 | 0.9984 |
| 4996 | no adj. | | | |
| 4996 | 20.4 | 203 | 203 | 1.0000 |
| 4996 | 10.3 | 102 | 102 | 1.0000 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9985 |
| New Correction Factor | | | | 0.9984 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|-------------------|-------|
| Auto Zero | 0.0 | Auto Zero | 0.0 |
| Auto Span | 372.0 | Auto Span | 362.0 |
| Sample Lines Connected | | | |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0058 |
| Current Correction Factor Before Span Adjust: | 0.9984 |
| Percent Change: | 0.7% |

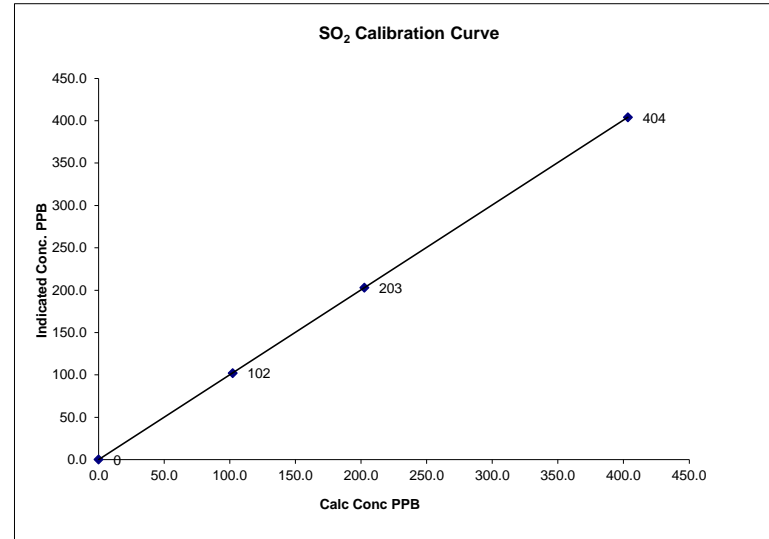
Notes: **Change sample filter**

Calibration Performed by: Limin Li

SO₂ Calibration Curve

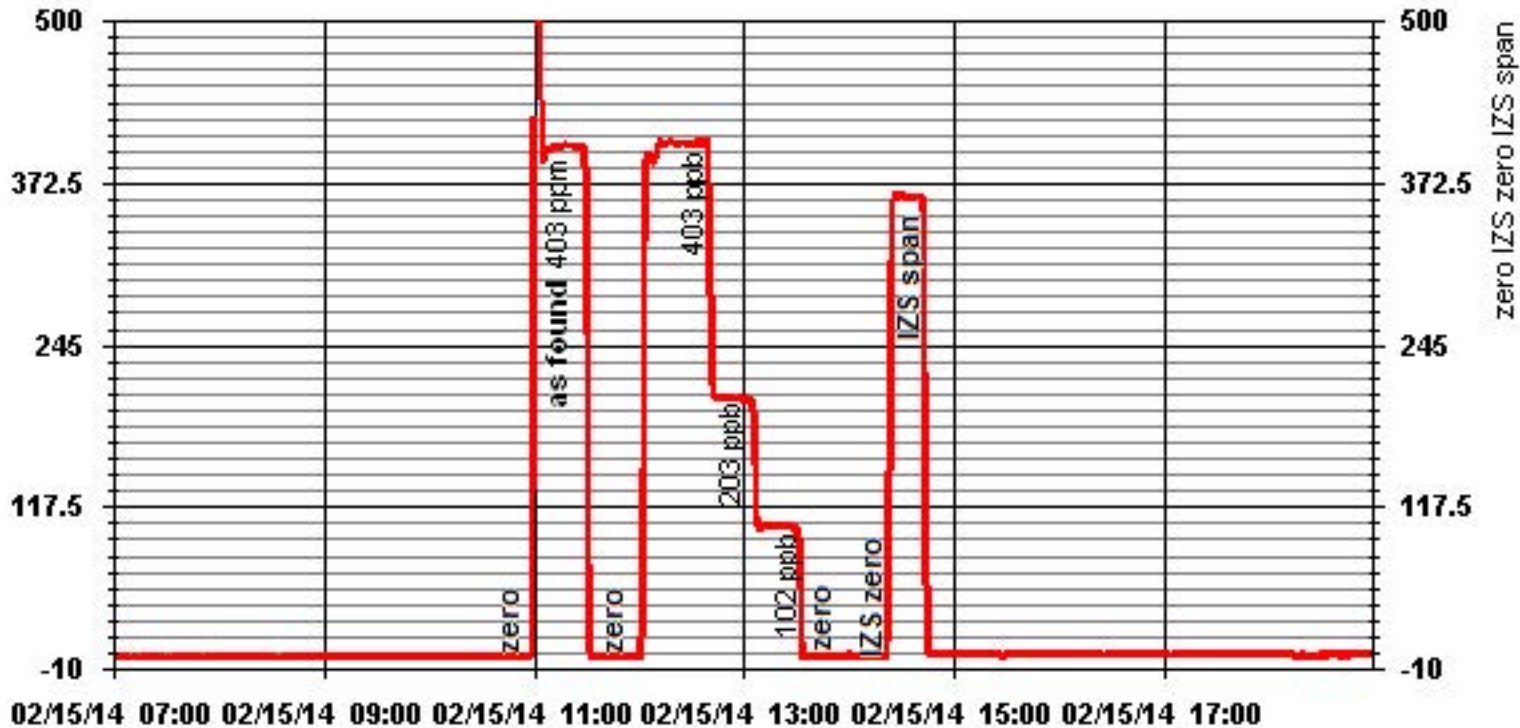
| | |
|------------------|---|
| Calibration Date | February 15, 2014 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | Cold Lake South |
| Start Time (MST) | 11:40 |
| End Time (MST) | 14:47 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 0 | 0.0000 | | 0.999998 |
| 102 | 102 | 1.0000 | | 1.001955 |
| 203 | 203 | 1.0000 | | -0.129316 |
| 403 | 404 | 0.9984 | | |



Notes:

01 Minute Averages



Total Reduced Sulphur

TRS Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|------------------|
| Calibration Date | February 15, 2014 | Previous Calibration | January 10, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake South | | |
| Start Time (MST) | 10:00 | End Time (MST) | 14:10 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 0.936 atm | Station Temperature | 21 Deg C |
| Cal Gas | 10.1 ppm | Gas Cyl. # | BLM5049 |
| | | Cal Gas Expiry date | December 5, 2015 |
| DAS Output Voltage | 0-10 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-------------|-------|-----------|---------|-------------|
| Analyzer Make / Model: | Thermo 450i | S/N : | 812728560 | Method: | Fluorescent |
| Converter Make / Model: | CND 101 | S/N : | 501 | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | 3485 | | |
| Chart Recorder Make / Model: | N/A | S/N: | S/N: | N/A | N/A |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|--------------------|----------------------|--|
| Concentration Range | 0-100 | 0-100 | |
| Sample Flow / Box Temp | 490 ccm 30 Deg C | 490 ccm 29.4 Deg C | |
| HVPS / Lamp Setting | -650.5 745 | -650.1 747 | |
| PMT / RxCell Temp | OK Deg C 45 Deg C | ok Deg C 45.2 Deg C | |
| Converter / IZS Temp | 810 Deg C 45 Deg C | 810 Deg C 45.0 Deg C | |
| Offset / Slope | 14.4 1.038 | 12.4 0.894 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 0 | 0.0000 |
| | No Zero Adj | | | |
| 4956 | 39.6 | 80 | 92 | 0.8702 |
| 4956 | 39.6 | 80 | 80 | 1.0000 |
| 4975 | 19.8 | 40 | 40 | 1.0000 |
| 4985 | 10.9 | 22 | 22 | 1.0000 |
| 4996 | 0.0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 1.0009 |
| New Correction Factor | | | | 1.0000 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|------|-------------------|--|
| Auto Zero | 0.0 | 0.0 | |
| Auto Span | 43.9 | 36.8 | |
| Sample Lines Connected | | | |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 0.8702 |
| Percent Change: | 14.9% |

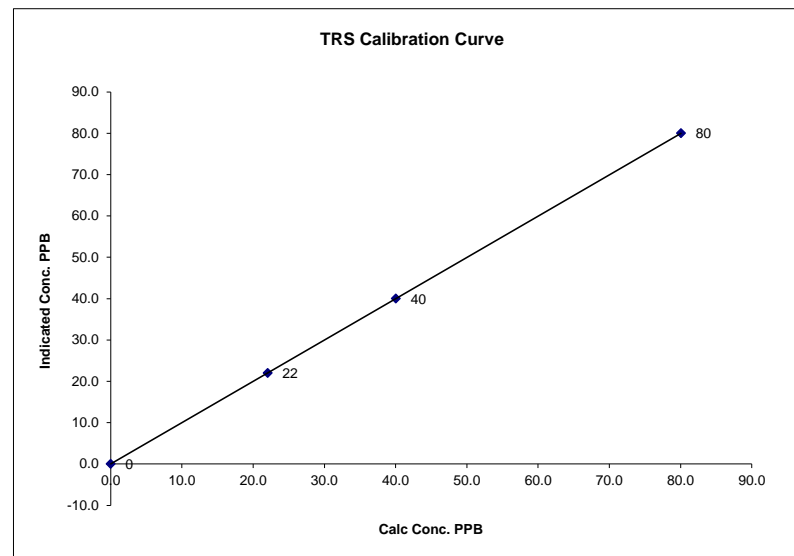
Notes: **Change sample filter**
 Find sample filter holder was installed reversely.

Calibration Performed by: Limin Li

TRS Calibration Curve

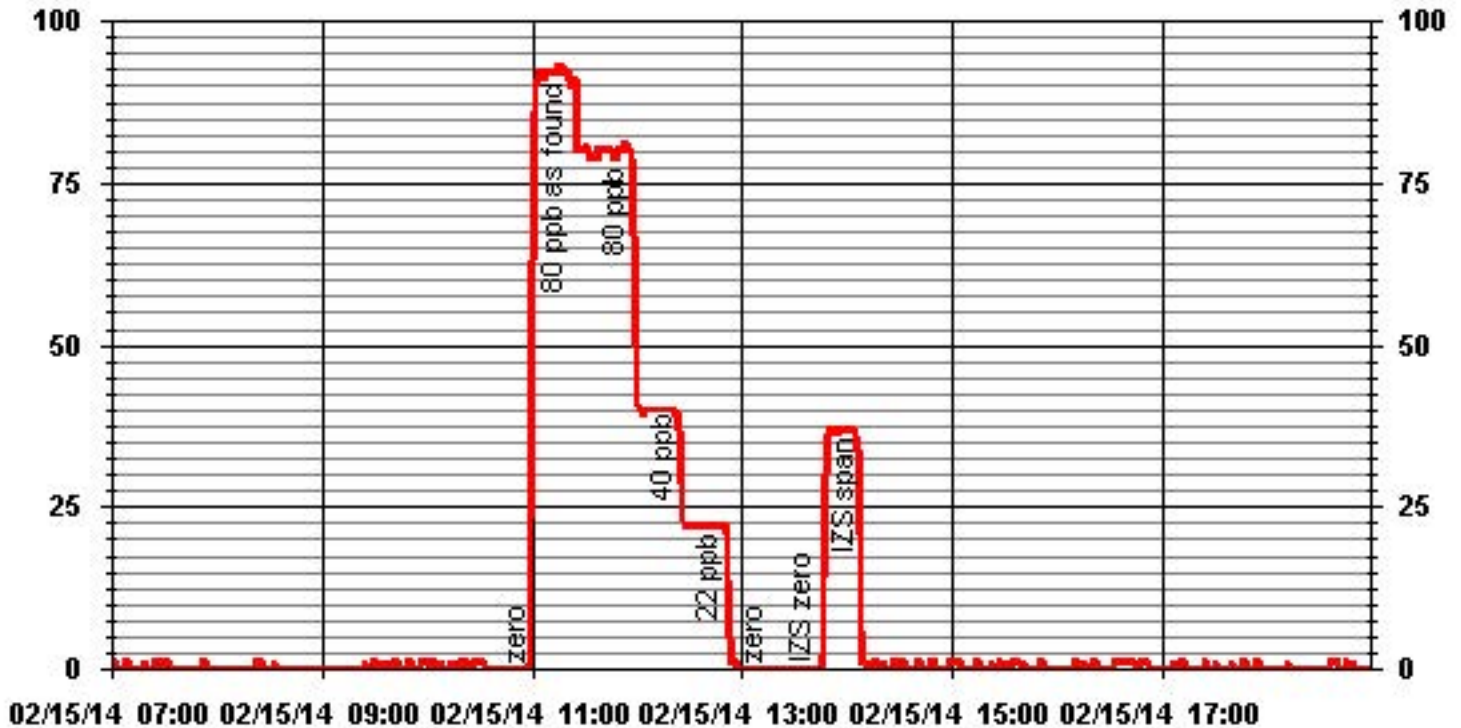
| | |
|------------------|---|
| Calibration Date | February 15, 2014 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | Cold Lake South |
| Start Time (MST) | 10:00 |
| End Time (MST) | 14:10 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | |
|----------------------|------------------------|-------------------|-----------------------------------|-----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 1.000000 |
| 22 | 22 | 1.0000 | Intercept (± 3% F.S.) | 0.999285 |
| 40 | 40 | 1.0000 | | |
| 80 | 80 | 1.0000 | | -0.008651 |



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

| Station Information | | | |
|------------------------|---|----------------------|------------------------------------|
| Calibration Date: | February 15, 2014 | Previous Calibration | January 17, 2014 |
| Company: | Lakeland Industry & Community Association | | |
| Plant / Location: | Cold Lake South | | |
| Start Time (MST) | 13:30 | End Time (MST) | 17:30 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure: | 0.936 atm | Station Temperature: | 21 Deg C |
| Calibrator: | API 700 | S/N: | 831 |
| Cal Gas Concentration: | CH4 609 PPM | C3H8 201 PPM | |
| | TOTAL CH4 1161.8 PPM | Gas Cyl. # LL36542 | Cal Gas Expiry Date: July 11, 2021 |
| DAS make & Model: | ESC 8832 | S/N : | 3485 |
| Chart Recorder: | N/A | S/N: | N/A |
| Output Voltage Range: | 0-10 VDC | Chart Speed: | N/A mm/hr |

Analyzer Information

| | | | | | |
|--------------|---------------|-------|-----------------|--------|------------------|
| Make / Model | Thermo 51C-LT | S/N : | 51CTL-77021-384 | Method | Flame Ionization |
|--------------|---------------|-------|-----------------|--------|------------------|

Analyzer Settings

| | Before Calibration | | After Calibration | |
|---------------------|--------------------|--|-------------------|--|
| Concentration Range | 0-50 ppm | | 0-50 ppm | |
| Sample Pressure | 6.9 psi | | 6.9 psi | |
| Hydrogen Pressure | 10 psi | | 10 psi | |
| Air Pressure | 21 psi | | 21 psi | |

Calibration Data

| Dilution Flow | Source Gas Flow | Calculated Concentration | Indicated Concentration | Correction Factor |
|------------------------|-----------------|--------------------------|-------------------------|-------------------|
| 1999 | 0.0 | 0.0 | -0.2 | 0.0000 |
| 1999 | 0.0 | 0.0 | 0.0 | 0.0000 |
| 1999 | 72.0 | 40.4 | 40.5 | 0.9973 |
| 1999 | 72.0 | 40.4 | 40.4 | 1.0000 |
| 1999 | 36.0 | 20.6 | 20.2 | 1.0174 |
| 1999 | 18.0 | 10.4 | 10.1 | 1.0265 |
| 1999 | 0.0 | 0.0 | 0.0 | 0.0000 |
| New Correction Factor: | | | | 1.0000 |

Percent Change

| | |
|---|--------|
| Previous Calibration Correction Factor: | 1.0330 |
| Current Correction Factor Before Span Adjust: | 0.9973 |
| Percent Change: | 3.6% |

IZS Calibration Data

| | Before Calibration | After Calibration |
|-----------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 32.0 | 31.7 |

Sample Lines Connected

| | | | |
|--------------------|----------|----------|----------|
| Cylinder Pressures | | | |
| Span | 1150 psi | Hydrogen | 1100 psi |
| | | Zero Air | 35 psi |

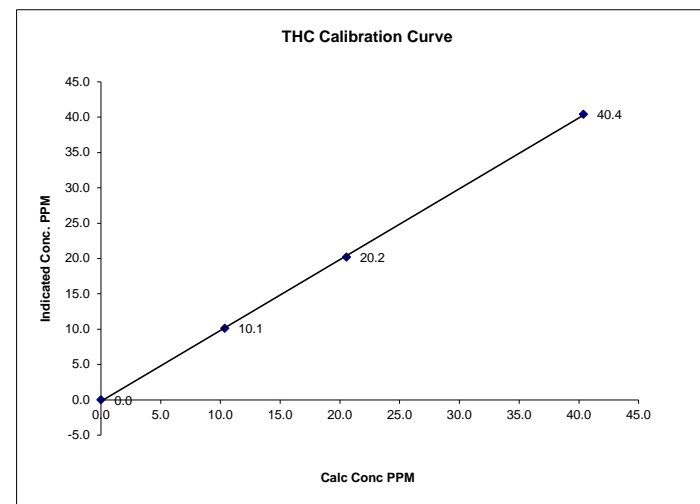
Notes: **Change sample filter**

Calibration Performed by: Limin Li

THC Calibration Curve

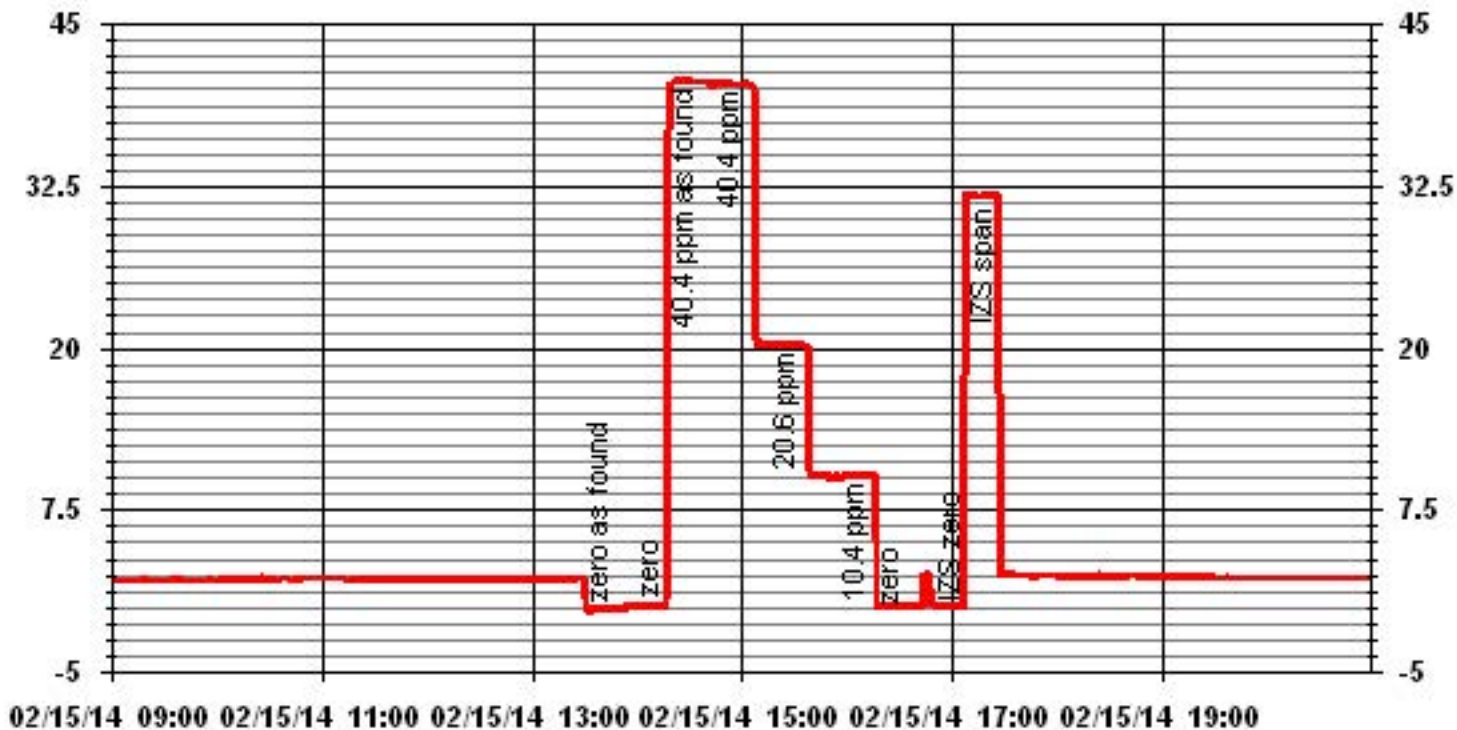
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 15, 2014 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake South | | |
| Start Time (MST) | 13:30 | End Time (MST) | 17:30 |

| Calculated Conc. ppm | Indicated Response ppm | Correction Factor | Correlation Coefficient (≥ 0.995) | Slope (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|-----------------------------------|----------------------|-----------------------|
| 0.0 | 0.0 | 0.0000 | 0.999887 | 1.001440 | -0.17784 |
| 10.4 | 10.1 | 1.0265 | | | |
| 20.6 | 20.2 | 1.0174 | | | |
| 40.4 | 40.4 | 1.0000 | | | |



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM 1405F Audit

| | | | |
|---------------|--------------------------|-----------------------|---|
| | <u>Station</u> | | <u>Audit Transfer Standard</u> |
| Date: | February 15, 2014 | Make/Model: | Streamline FTS |
| Station Name: | LICA 1 | Serial Number: | LO 091099, HI 091001 |
| Location: | Cold Lake South | Cell s/n: | N/A |
| Operator: | LICA | Thermometer s/n: | Station Temp. Sensor |
| | <u>Sampler</u> | | <u>Set-up and current Sampler readings</u> |
| Make/Model | Thermo TEOM Series 1405F | F-Main Set Pt (l/min) | 3.00 |
| Unit # | AMU 1775 | F-Aux Set Pt (l/min) | 13.67 |
| Unit s/n | 1405A201620804 | Filter Load (%) | 19.0% |
| Firmware Ver. | 1.52 | K _o Factor | 14578.0 |
| Parameter | PM 2.5 (with FDMS) | Temp (°C) | -7.7 |
| | | Press (ATM) | 0.934 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as BOLD in Brackets

Audit

| | | | |
|------------------------------------|---------------------------|-----------------------------------|--------|
| Status | | | |
| Noise <0.10ug | 0.006 | Warnings | pump |
| Pump Vacuum <0.40atm | 0.44 | Pump Gauge (inHg) | N/A |
| Temperature/Pressure | | D °C | |
| Measured Temp (± 2 °C) | -7.30 | | -0.8 |
| Measured Press (± 0.01atm) | 0.875 | DATM | -0.059 |
| Flow Audit | | Main Flow Drift (±10.0%) | |
| Indicated Main Flow (l/min) | 3.00 | | -6.99% |
| Measured Main Flow (l/min) | 2.79 | Flow Adjusted to Measured? | Yes |
| Indicated Bypass Flow (l/min) | 13.67 | Bypass Flow Drift (±10.0%) | 6.34% |
| Measured Bypass Flow (l/min) | 12.80 | Flow Adjusted to Measured? | Yes |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | Base:-0.01;Reference:0.14 | Flow Control=Active | |
| Aux (< 0.6 l/min) | Base:0.3;Reference:0.41 | Report Conditions=Actual | |
| K_o Factor | | | |
| Measured | N/A | | |
| K _o Difference (± 2.5%) | N/A | | |

Start Time: 15:00 **Finish Time:** 16:40

Sample Inlet Cleaned: No **New Filters Installed:** NO

New Filter Loading %:

Comments: After audit, change a new pump. Ambient pressure is unstable.

Auditor/s: Limin Li

TEOM 1405F Audit

| | | | |
|---------------|--------------------------|-----------------------|---|
| | <u>Station</u> | | <u>Audit Transfer Standard</u> |
| Date: | February 15, 2014 | Make/Model: | Streamline FTS |
| Station Name: | LICA 1 | Serial Number: | LO 091099, HI 091001 |
| Location: | Cold Lake South | Cell s/n: | N/A |
| Operator: | LICA | Thermometer s/n: | Station Temp. Sensor |
| | <u>Sampler</u> | | <u>Set-up and current Sampler readings</u> |
| Make/Model | Thermo TEOM Series 1405F | F-Main Set Pt (l/min) | 3.00 |
| Unit # | AMU 1775 | F-Aux Set Pt (l/min) | 13.67 |
| Unit s/n | 1405A201620804 | Filter Load (%) | 19.0% |
| Firmware Ver. | 1.52 | K _o Factor | 14578.0 |
| Parameter | PM 2.5 (with FDMS) | Temp (°C) | -8.4 |
| | | Press (ATM) | 0.933 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as BOLD in Brackets

Audit

| | | | |
|------------------------------------|----------------------------|-----------------------------------|-------|
| Status | | | |
| Noise <0.10ug | 0.006 | Warnings | pump |
| Pump Vacuum <0.40atm | 0.47 | Pump Gauge (inHg) | N/A |
| Temperature/Pressure | | D °C | |
| Measured Temp (± 2 °C) | -8.40 | | 0.0 |
| Measured Press (± 0.01atm) | 0.933 | DATM | 0.000 |
| Flow Audit | | Main Flow Drift (±10.0%) | |
| Indicated Main Flow (l/min) | 3.00 | | 0.00% |
| Measured Main Flow (l/min) | 3.00 | Flow Adjusted to Measured? | Yes |
| Indicated Bypass Flow (l/min) | 13.67 | Bypass Flow Drift (±10.0%) | 0.28% |
| Measured Bypass Flow (l/min) | 13.63 | Flow Adjusted to Measured? | Yes |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | Base:-0.01;Reference:-0.01 | Flow Control=Active | |
| Aux (< 0.6 l/min) | Base:0.0;Reference:0.0 | Report Conditions=Actual | |
| K_o Factor | | | |
| Measured | N/A | | |
| K _o Difference (± 2.5%) | N/A | | |

Start Time: 16:45 **Finish Time:** 18:15

Sample Inlet Cleaned: YES **New Filters Installed:** YES
New Filter Loading %: 27.0%

Comments: Calibrate pressure, temperature and flow rate. Install a new pump. Still alarm on vacuum pump pressure.

Auditor/s: Limin Li

Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|-------------------|----------------------|-------------------|
| Calibration Date | February 15, 2014 | Previous Calibration | January 17, 2014 |
| Company | LICA | Plant/Location | Cold Lake South |
| Start Time (MST) | 10:00 | End Time (MST) | 11:30 |
| Reason: | As Found | | |
| Barometric Pressure | 0.936 atm | Station Temperature | 21 Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | December 29, 2016 |
| DAS Output Voltage | 0-10 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|------------------|-------|-----------|---------|------------------|
| Analyzer Make / Model: | Thermo 42C | S/N : | 427408716 | Method: | Chemiluminescent |
| Calibrator Make / Model: | Enviro-nics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | 3485 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | Enviro-nics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0-500 | | | ppb | | | |
| Sample Flow/Conv. Temp | 713 ccm | 317 Deg C | | 713 ccm | 317 Deg C | | |
| Ozone Flow / Vacuum | OK ccm | 180.8 *Hg-A | | OK ccm | 180.8 *Hg-A | | |
| HVPS / A ZERO | -822 Volts | N/A MV | | -822 Volts | N/A MV | | |
| Rx/ Temp / PMT Temp | 49.9 Deg C | -2.5 Deg C | | 49.9 Deg C | -2.5 Deg C | | |
| Box Temp / IZS Temp | 25.2 Deg C | OK Deg C | | 25.2 Deg C | OK Deg C | | |
| Offset | 12.3 NOx | 8.6 NO | | 12.3 NOx | 8.6 NO | | |
| Slope | 1.003 NOx | 1.455 NO | | 1.003 NOx | 1.455 NO | | |
| NO2 COEF / Conv Efficiency | 0.995 NO2 | N/A | | 0.995 NO2 | N/A | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | -6 | -3 | -3 | 0 | 0 |
| 4996 | No Zero Adj | 0 | | | | | | | | |
| 4996 | 40.9 | 0 | 397 | 397 | 0 | 415 | 418 | -3 | 0.9440 | 0.9420 |
| | No Span Adj | | | | | | | | | |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|----|-----|-------------------------|----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| | | | | | | |
|---------------|-----|----|--|-------------------------------|------------|------|
| Linearity OK? | Yes | No | Sum of Least Squares Correction Factors: | NOx= 0.9440 | NO= 0.9420 | NO2= |
| | | | | Average Converter Efficiency= | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|-------------------------|---------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | 417 NOx | 416 NO2 | | 417 NOx | 416 NO2 | | |
| Sample Lines Connected: | | | | YES | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.000 | 1.000 | 1.000 |
| Current Correction Factor Before Span Adjust | 0.944 | 0.942 | |
| Percent Change | 5.9% | 6.2% | |

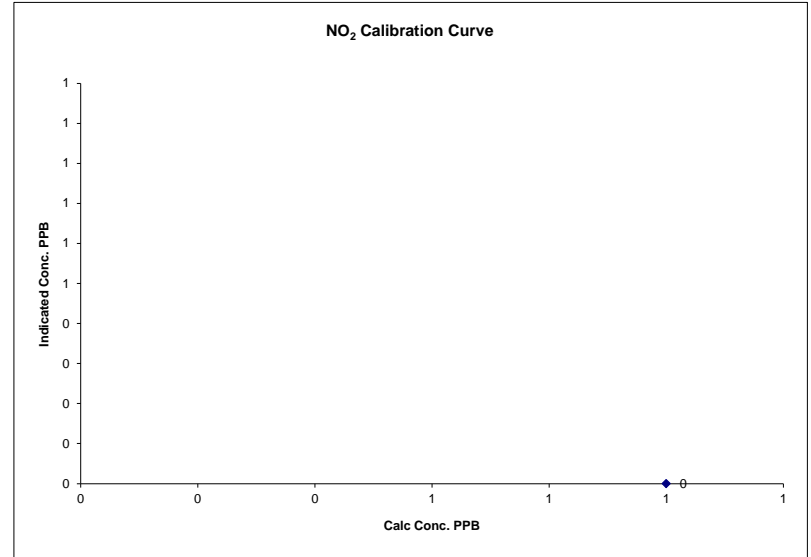
Notes: **Change sample filter.**

Calibration Performed by: Limin Li

NO2 Calibration Curve

| | |
|------------------|-------------------|
| Calibration Date | February 15, 2014 |
| Company | LICA |
| Plant / Location | Cold Lake South |
| Start Time (MST) | 10:00 |
| End Time (MST) | 11:30 |

| | | | |
|----------------------|------------------------|-------------------|-----------------------------------|
| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) |
| -3 | | | Slope (0.85 to 1.15) |
| | | | Intercept (± 3% F.S.) |



Notes:

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|---------------------|----------------------|-------------------|
| Calibration Date | February 15, 2014 | Previous Calibration | January 17, 2014 |
| Company | LICA | Plant/Location | Cold Lake South |
| Start Time (MST) | 11:40 | End Time (MST) | 16:45 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 0.936 atm | Station Temperature | 22 Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | December 29, 2016 |
| DAS Output Voltage | 0-10 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-----------|---------|------------------|
| Analyzer Make / Model: | Thermo 42C | S/N : | 427408716 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | 3485 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0-500 | | | ppb | | | |
| Sample Flow/Conv. Temp | 713 ccm | 317 Deg C | | 713 ccm | 317 Deg C | | |
| Ozone Flow / Vacuum | OK ccm | 180.8 *Hg-A | | OK ccm | 180.4 *Hg-A | | |
| HVPS / A ZERO | -822 Volts | N/A MV | | -822 Volts | N/A MV | | |
| Rx/ Temp / PMT Temp | 49.9 Deg C | -2.5 Deg C | | 49.8 Deg C | -2.5 Deg C | | |
| Box Temp / IZS Temp | 25.2 Deg C | OK Deg C | | 25.4 Deg C | OK Deg C | | |
| Offset | 12.3 NOx | 8.6 NO | | 5.6 NOx | 5.2 NO | | |
| Slope | 1.003 NOx | 1.455 NO | | 1.002 NOx | 1.376 NO | | |
| NO2 COEF / Conv Efficiency | 0.995 NO2 | N/A | | 0.995 NO2 | N/A | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4996 | No Zero Adj | | | | | | | | | |
| 4996 | 40.9 | 0 | 398 | 397 | 0 | 397 | 397 | 0 | 1.0017 | 1.0000 |
| 4996 | No Span Adj | | | | | | | | | |
| 4996 | 20.4 | 0 | 200 | 199 | 0 | 200 | 200 | 0 | 1.0000 | 0.9962 |
| 4996 | 10.3 | 0 | 100 | 100 | 0 | 101 | 101 | 0 | 0.9943 | 0.9923 |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0000 | 0.0000 |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| 4996 | 40.9 | 0 | 398 | 397 | 0 | 398 | 398 | 0 | 0 | 0.00% |
| 4996 | 40.9 | 240 | 398 | 0.0 | 278 | 399 | 120 | 279 | 0.9964 | 100.36% |
| 4996 | No Adj. | | | | | | | | | |
| 4996 | 40.9 | 130 | 398 | 0.0 | 153 | 399 | 245 | 154 | 0.9935 | 100.65% |
| 4996 | 40.9 | 50 | 398 | 0.0 | 58 | 398 | 340 | 58 | 1.0000 | 100.00% |

| | | | | | | | | | |
|-----------|----------------------|----|---------------------|---------------------------------------|--------|-------|--------|-------|--------|
| Linearity | Sum of Least Squares | | NOx= | 1.001 | NO= | 0.999 | NO2= | 0.996 | |
| OK? | Yes | No | Correction Factors: | NOx= | 1.0017 | NO= | 1.0000 | NO2= | 0.9964 |
| | | | | Average Converter Efficiency= 100.34% | | | | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|--------------------|-------------------------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | 417 NOx | 416 NO2 | | 413 NOx | 411 NO2 | | |
| | Sample Lines Connected: | | | YES | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.000 | 1.000 | 1.000 |
| Current Correction Factor Before Span Adjust | 1.002 | 1.000 | 0.996 |
| Percent Change | -0.2% | 0.0% | 0.4% |

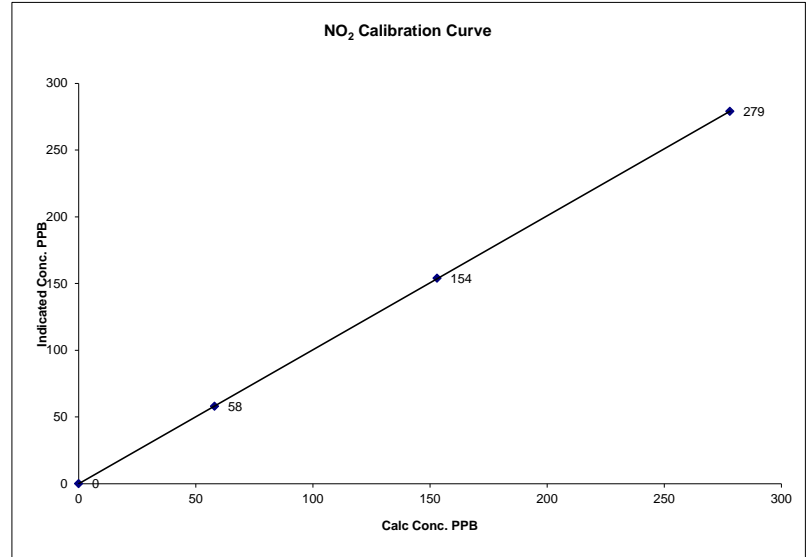
Notes: **Change sample filter.**

Calibration Performed by: Limin Li

NO2 Calibration Curve

| | |
|------------------|-------------------|
| Calibration Date | February 15, 2014 |
| Company | LICA |
| Plant / Location | Cold Lake South |
| Start Time (MST) | 11:40 |
| End Time (MST) | 16:45 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999995 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|----------|
| 0 | 0 | 0.0000 | Intercept | (± 3% F.S.) | -0.01493 |
| 58 | 58 | 1.0000 | | | |
| 153 | 154 | 0.9935 | | | |
| 278 | 279 | 0.9964 | | | |

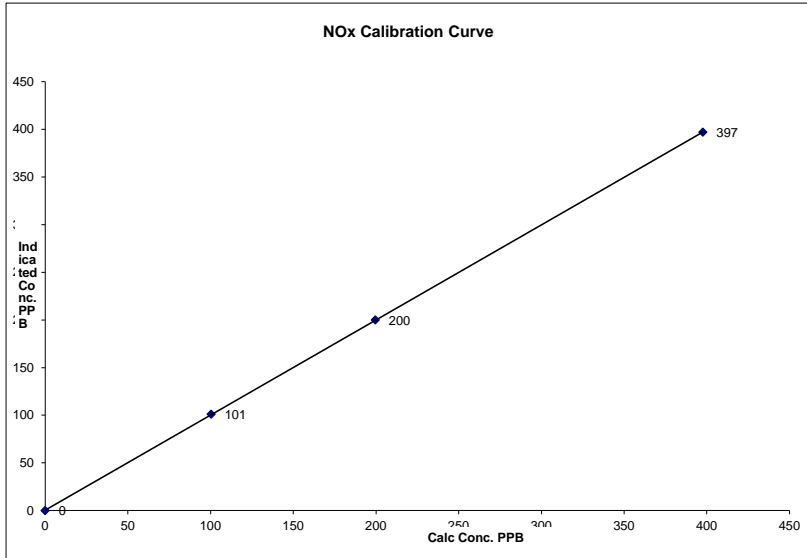


Notes:

NOx Calibration Curve

| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 15, 2014 | |
| Company | LICA | |
| Plant / Location | Cold Lake South | |
| Start Time (MST) | 11:40 | End Time (MST) 16:45 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999994 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 0.997821 |
| 100 | 101 | 0.9943 | Intercept (± 3% F.S.) | 0.43806 |
| 200 | 200 | 1.0000 | | |
| 398 | 397 | 1.0017 | | |

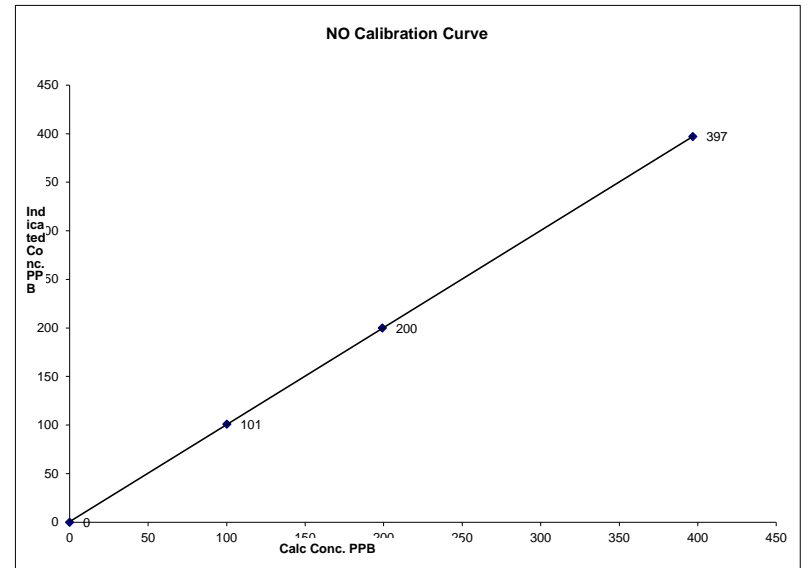


Notes:

NO Calibration Curve

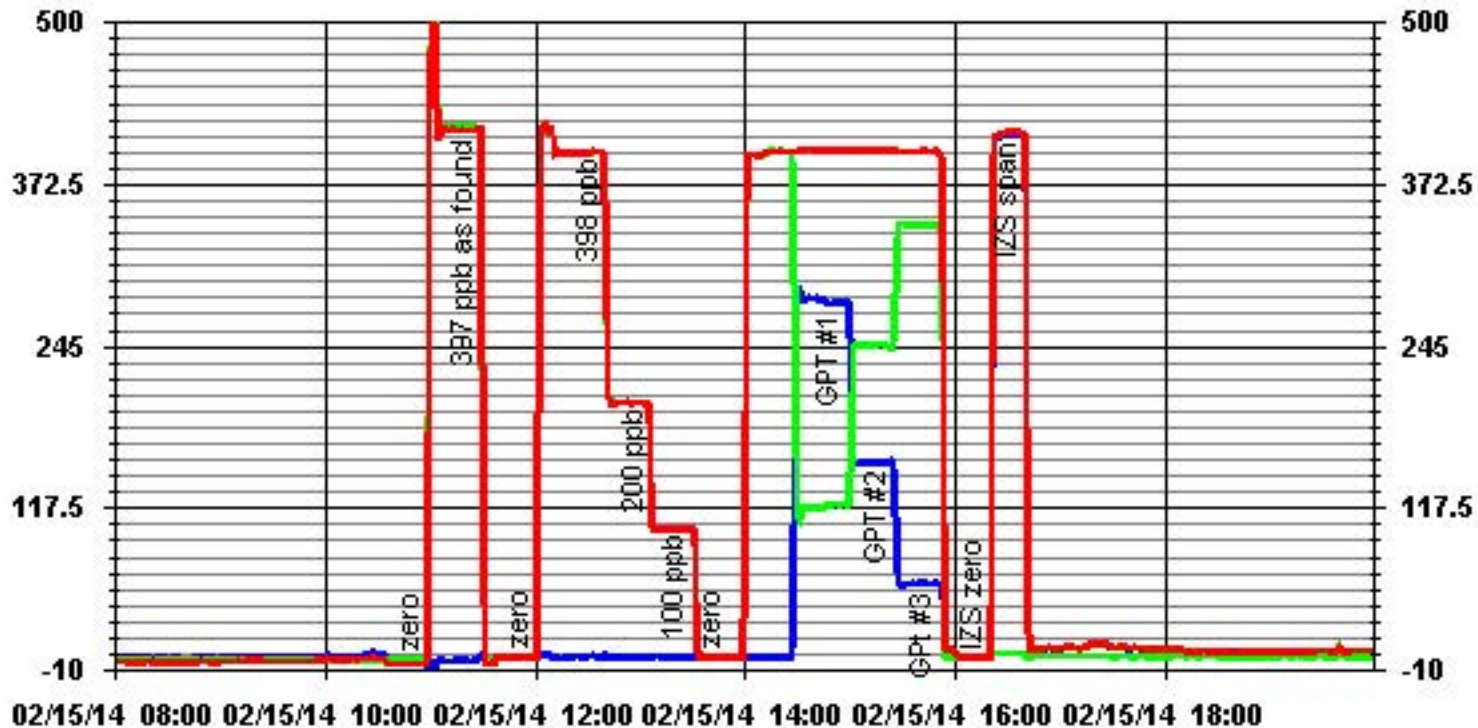
| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 15, 2014 | |
| Company | LICA | |
| Plant / Location | Cold Lake South | |
| Start Time (MST) | 11:40 | End Time (MST) 16:45 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999994 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 0.999861 |
| 100 | 101 | 0.9923 | Intercept (± 3% F.S.) | 0.43806 |
| 199 | 200 | 0.9962 | | |
| 397 | 397 | 1.0000 | | |



Notes:

01 Minute Averages



— LICA

NOX_

PPB

— LICA

Page 114 of 132

NO_

PPB

— LICA

JOB #: 2833-14-02-01-C

NO2_

PPB

Ozone

O₃ Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|------------------|
| Calibration Date | February 15, 2014 | Previous Calibration | January 17, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake South | | |
| Start Time (MST) | 15:55 | End Time (MST) | 19:20 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 0.934 atm | Station Temperature | 21 Deg C |
| DAS Output Voltage | 0-10 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|-----------------|-------|-----------|---------|-------------|
| Analyzer Make / Model: | Thermo 49i | S/N : | 700419951 | Method: | Photometric |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | GPT |
| DAS Make / Model: | ESC 8832 | S/N : | 3485 | | |

Analyzer Settings

| | Before Calibration | | After Calibration | |
|--------------------------------|--------------------|------------|-------------------|------------|
| Concentration Range | 0-500 ppb | | | |
| Cell A Flow / Cell B Flow | 707 LPM | 747 LPM | 709 LPM | 749 LPM |
| O ₃ Set Level | 697 mmHg | | 702 mmHg | |
| Bench Lamp | 26.6 Deg C | | 26.7 Deg C | |
| O ₃ Lamp / Box Temp | 53.4 Deg | 67.3 Deg C | 53.6 Deg C | 67.4 Deg C |
| Offset / Slope | -0.2 | 1.001 | -0.2 | 1.03 |

Calibration Data

| Dilution Flow Rate | Ozone Set Point | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|-----------------|--------------------------|-----------------------|-------------------|
| 5035 | 0 | 0 | 0.1 | N/A |
| | No Zero Adj. | | | |
| 5035 | 240 | 278 | 269 | 1.0335 |
| 5035 | 240 | 278 | 278 | 1.0000 |
| 5035 | 130 | 153 | 152 | 1.0066 |
| 5035 | 50 | 58 | 57 | 1.0175 |
| 5035 | 0 | 0 | 0.3 | N/A |
| Sum of Least Squares | | | | 1.0020 |
| New Correction Factor | | | | 1.0000 |

IZS Calibration Data

| | Before Calibration | After Calibration |
|--|--------------------|-------------------|
| Auto Zero | 0.1 | 0.1 |
| Auto Span | 272 | 272 |
| Sample Lines Connected | | Yes |
| Previous Calibration Correction Factor: | | 1.0000 |
| Current Correctio Factor Before Span Adjust: | | 1.0335 |
| Percent Change: | | -3.2% |

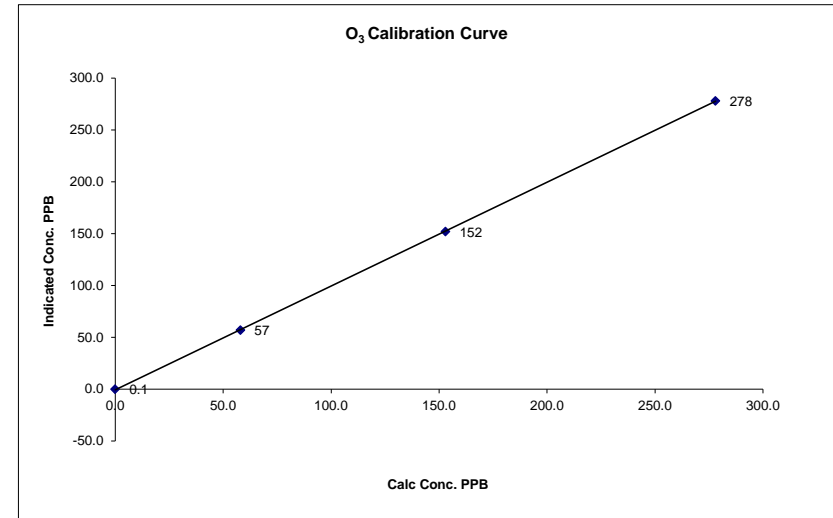
Note: **N/A : Not Applicable**
Sample filter change

Calibration Performed by: Limin Li

O₃ Calibration Curve

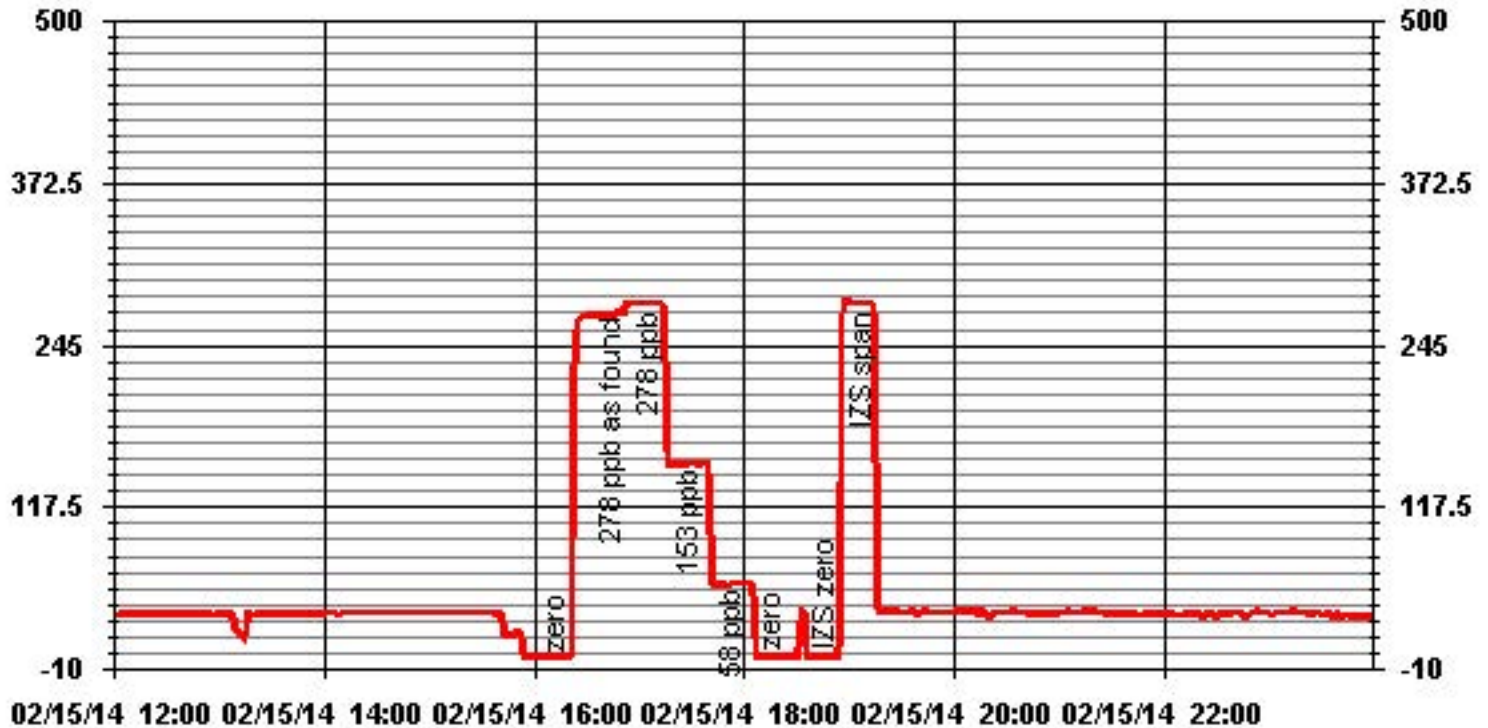
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 15, 2014 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake South | | |
| Start Time (MST) | 15:55 | End Time (MST) | 19:20 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 0 | N/A | | 0.999975 |
| 58 | 57 | 1.0175 | | 1.000481 |
| 153 | 152 | 1.0066 | | -0.533741 |
| 278 | 278 | 1.0000 | | |



Notes:

01 Minute Averages



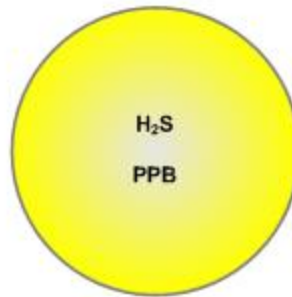
Passive Bubble Maps

Lakeland Industry & Community Association H₂S Passive Bubble Map

FEBRUARY 2014

PASSIVE STATIONS

| | | DUPLICATE |
|------------------------|----------|-----------|
| 3 – Therien | 0.18 PPB | 0.12 PPB |
| 5 – Lake Eliza | 0.12 PPB | 0.19 PPB |
| 10 – La Corey | 0.14 PPB | NA |
| 11 – Wolf Lake | NA | NA |
| 12 – Foster Creek | 0.13 PPB | NA |
| 13 – Primrose | 0.11 PPB | NA |
| 14 – Maskwa | 0.17 PPB | NA |
| 16 – Frog Lake | 0.17 PPB | NA |
| 17 – Clear Range | 0.15 PPB | NA |
| 18 – Fishing Lake | 0.11 PPB | NA |
| 22 – Cold Lake South | 0.13 PPB | NA |
| 24 – Fort George | 0.16 PPB | NA |
| 25 – Burnt Lake | NA | NA |
| 26 – Mahihkan | 0.24 PPB | NA |
| 27 – Mahkeses | 0.16 PPB | NA |
| 29 – Cold Lake South 2 | 0.12 PPB | NA |
| 32 – St. Lina | 0.16 PPB | NA |
| 36 – Elk Point | MISSING | NA |



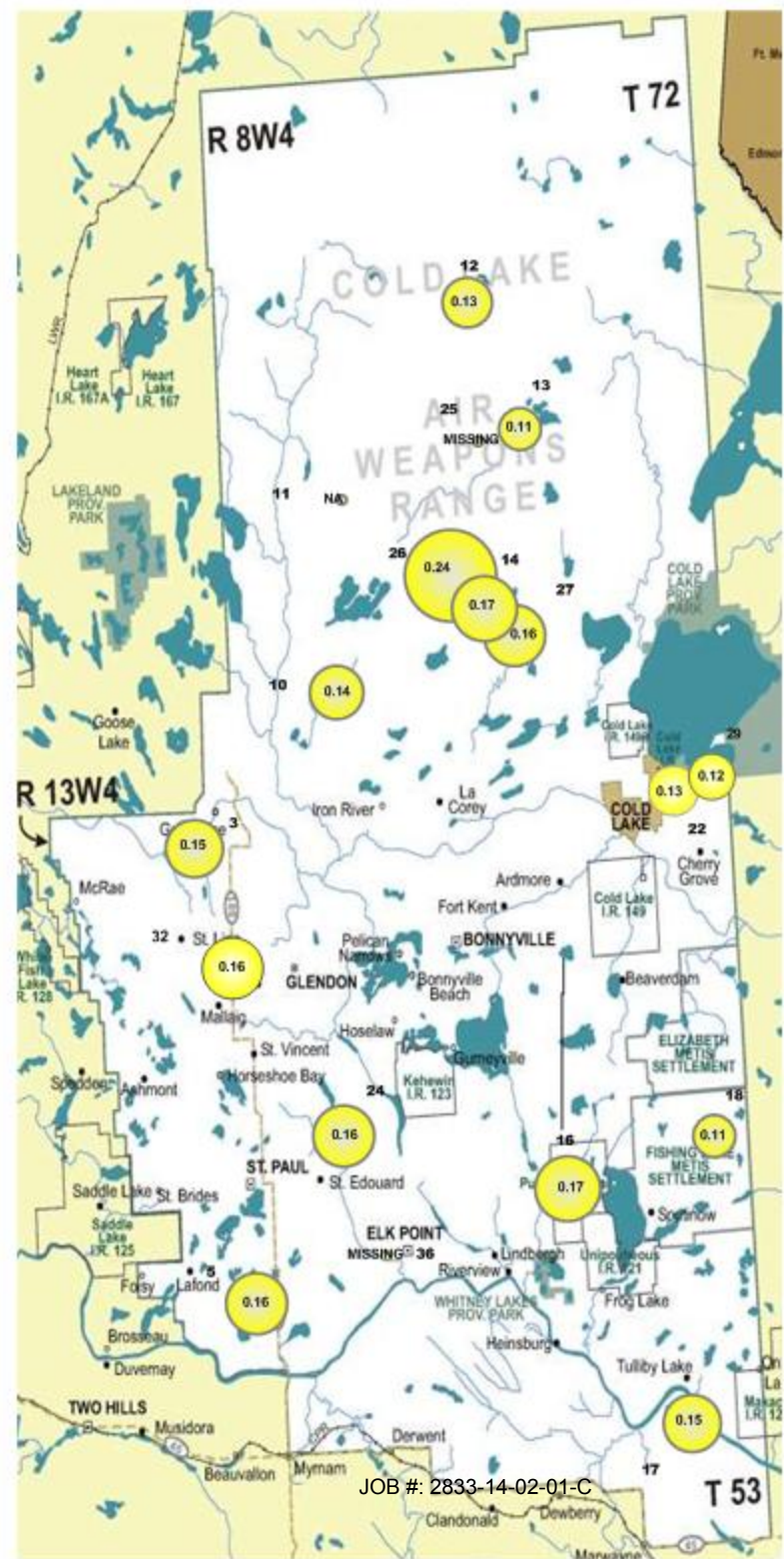
Summary

Minimum : 0.11 PPB – Primrose and Fishing Lake

Maximum: 0.24 PPB – Mahihkan

Average: 0.15 PPB (Includes Duplicates)

Note: Sample #11 and sample #25 could not be changed out as the access to the site was blocked by snow.



Lakeland Industry & Community Association NO₂ Passive Bubble Map

FEBRUARY 2014

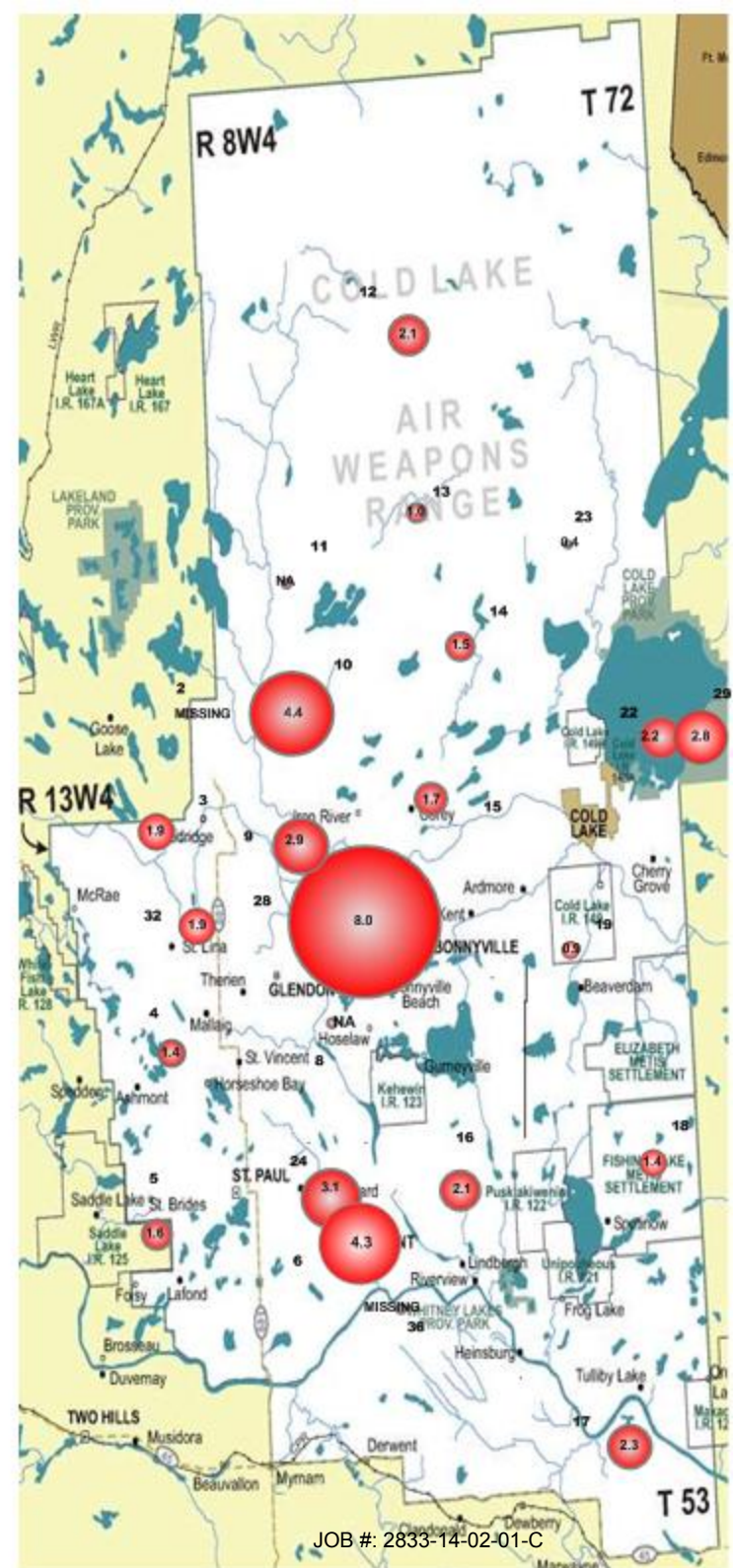
PASSIVE STATIONS

| | | DUPLICATE |
|-------------------------|---------|-----------|
| 2 – Sand River | MISSING | NA |
| 3 – Therien | 1.9 PPB | NA |
| 4 – Flat Lake | 1.4 PPB | NA |
| 5 – Lake Eliza | 1.6 PPB | NA |
| 6 – Telegraph Creek | 4.6 PPB | 4.0 PPB |
| 8 – Muriel-Kehewin | NA | NA |
| 9 – Dupre | 2.9 PPB | NA |
| 10 – La Corey | 4.4 PPB | NA |
| 11 – Wolf Lake | NA | NA |
| 12 – Foster Creek | 2.1 PPB | NA |
| 13 – Primrose | 1.0 PPB | NA |
| 14 – Maskwa | 1.5 PPB | NA |
| 15 – Ardmore | 1.7 PPB | NA |
| 16 – Frog Lake | 2.1 PPB | NA |
| 17 – Clear Range | 2.3 PPB | NA |
| 18 – Fishing Lake | 1.4 PPB | NA |
| 19 – Beaverdam | 0.9 PPB | NA |
| 22 – Cold Lake South | 2.2 PPB | NA |
| 23 – Medley-Martineau | 0.4 PPB | NA |
| 24 – Fort George | 3.1 PPB | NA |
| 28 – Town of Bonnyville | 8.0 PPB | NA |
| 29 – Cold Lake South 2 | 2.8 PPB | NA |
| 32 – St. Lina | 1.9 PPB | NA |
| 36 – Elk Point | MISSING | NA |



Summary

Minimum : 0.4 PPB – Medley-Martineau
 Maximum: 8.0 PPB – Town of Bonnyville
 Average: 2.4 PPB *Includes Duplicates
 Note: Sample #8 and sample #11 could not be changed out as the access to the sampler were blocked by snow.

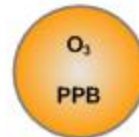


Lakeland Industry & Community Association O₃ Passive Bubble Map

FEBRUARY 2014

PASSIVE STATIONS

| | | DUPLICATE |
|-------------------------|----------|-----------|
| 2 – Sand River | MISSING | NA |
| 3 – Therien | 33.6 PPB | NA |
| 4 – Flat Lake | 36.5 PPB | NA |
| 5 – Lake Eliza | 35.7 PPB | NA |
| 6 – Telegraph Creek | 28.9 PPB | 30.9 PPB |
| 8 – Muriel-Kehewin | NA | NA |
| 9 – Dupre | 35.4 PPB | NA |
| 10 – La Corey | 29.2 PPB | NA |
| 11 – Wolf Lake | NA | NA |
| 12 – Foster Creek | 35.2 PPB | NA |
| 13 – Primrose | 36.5 PPB | NA |
| 14 – Maskwa | 33.1 PPB | NA |
| 15 – Ardmore | 31.9 PPB | NA |
| 16 – Frog Lake | 34.3 PPB | NA |
| 17 – Clear Range | 36.4 PPB | NA |
| 18 – Fishing Lake | 29.0 PPB | NA |
| 19 – Beaverdam | 31.5 PPB | NA |
| 22 – Cold Lake South | 29.1 PPB | NA |
| 23 – Medley-Martineau | 30.7 PPB | NA |
| 24 – Fort George | 30.6 PPB | NA |
| 28 – Town of Bonnyville | 30.2 PPB | NA |
| 29 – Cold Lake South 2 | 29.7 PPB | NA |
| 32 – St. Lina | 39.4 PPB | NA |
| 36 – Elk Point | 31.1 PPB | NA |



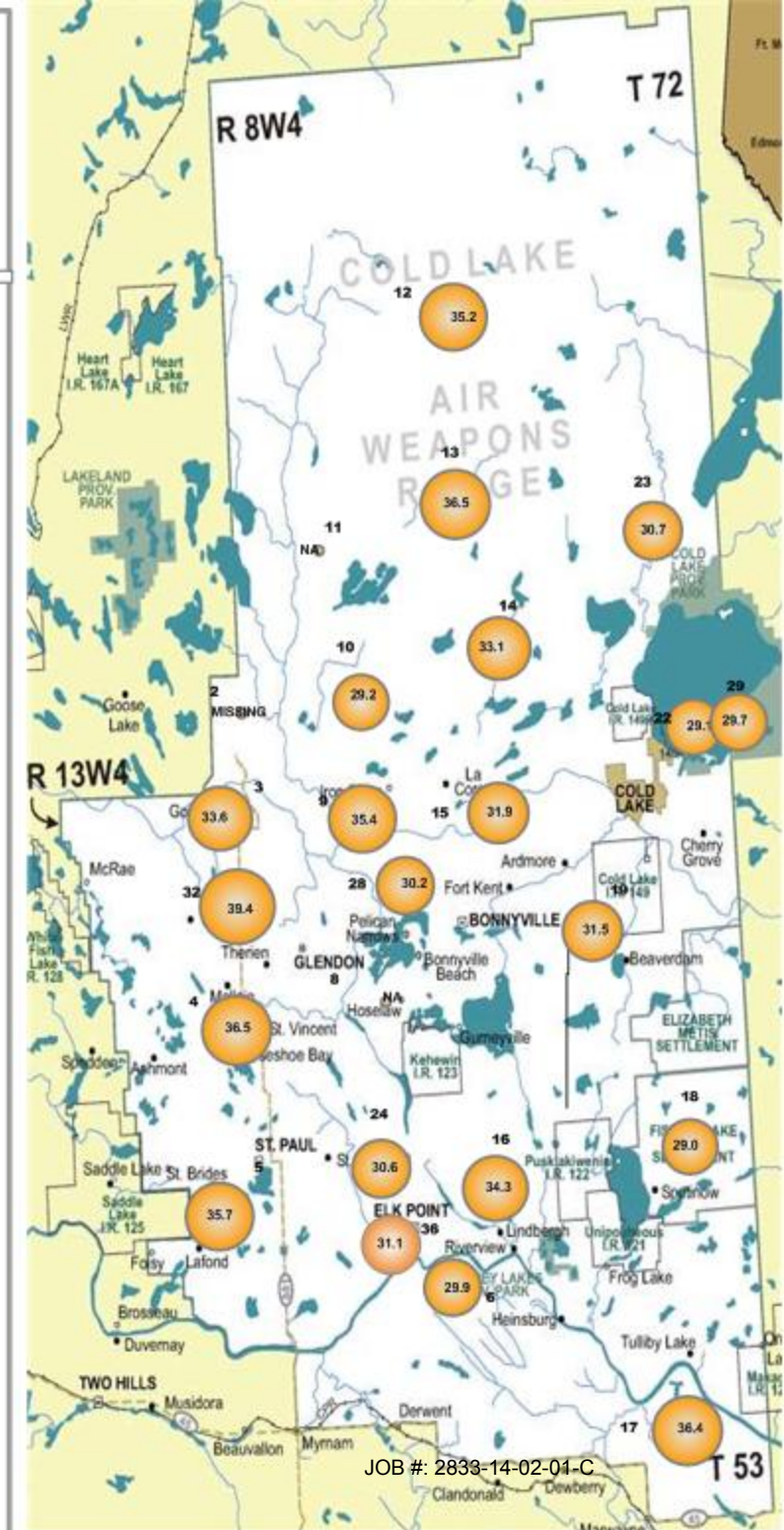
Summary

Minimum : 29.0 PPB – Fishing Lake

Maximum: 39.4 PPB – St. Lina

Average: 32.8 PPB *Includes Duplicates

Note: Sample #8 and sample #11 could not be changed out as the access to the sampler were blocked by snow.



Lakeland Industry & Community Association SO₂ Passive Bubble Map

FEBRUARY 2014

PASSIVE STATIONS

| | | DUPLICATE |
|-------------------------|---------|-----------|
| 2 – Sand River | MISSING | NA |
| 3 – Therien | 0.8 PPB | NA |
| 4 – Flat Lake | 0.9 PPB | NA |
| 5 – Lake Eliza | 1.0 PPB | NA |
| 6 – Telegraph Creek | 0.9 PPB | NA |
| 8 – Muriel-Kehewin | NA | NA |
| 9 – Dupre | 0.7 PPB | NA |
| 10 – La Corey | 0.6 PPB | NA |
| 11 – Wolf Lake | NA | NA |
| 12 – Foster Creek | 0.6 PPB | NA |
| 13 – Primrose | 0.9 PPB | NA |
| 14 – Maskwa | 1.5 PPB | NA |
| 15 – Ardmore | 0.7 PPB | NA |
| 16 – Frog Lake | 0.7 PPB | NA |
| 17 – Clear Range | 0.9 PPB | NA |
| 18 – Fishing Lake | 0.6 PPB | NA |
| 19 – Beaverdam | 0.8 PPB | NA |
| 22 – Cold Lake South | 0.7 PPB | NA |
| 23 – Medley-Martineau | 0.4 PPB | NA |
| 24 – Fort George | 0.7 PPB | NA |
| 25 – Burnt Lake | 0.5 PPB | NA |
| 26 – Mahikan | 1.2 PPB | NA |
| 27 – Mahkeses | 1.3 PPB | NA |
| 28 – Town of Bonnyville | 0.5 PPB | 0.5 PPB |
| 29 – Cold Lake South 2 | 0.7 PPB | 0.7 PPB |
| 32 – St. Lina | 0.6 PPB | 0.7 PPB |
| 36 – Elk Point | MISSING | NA |



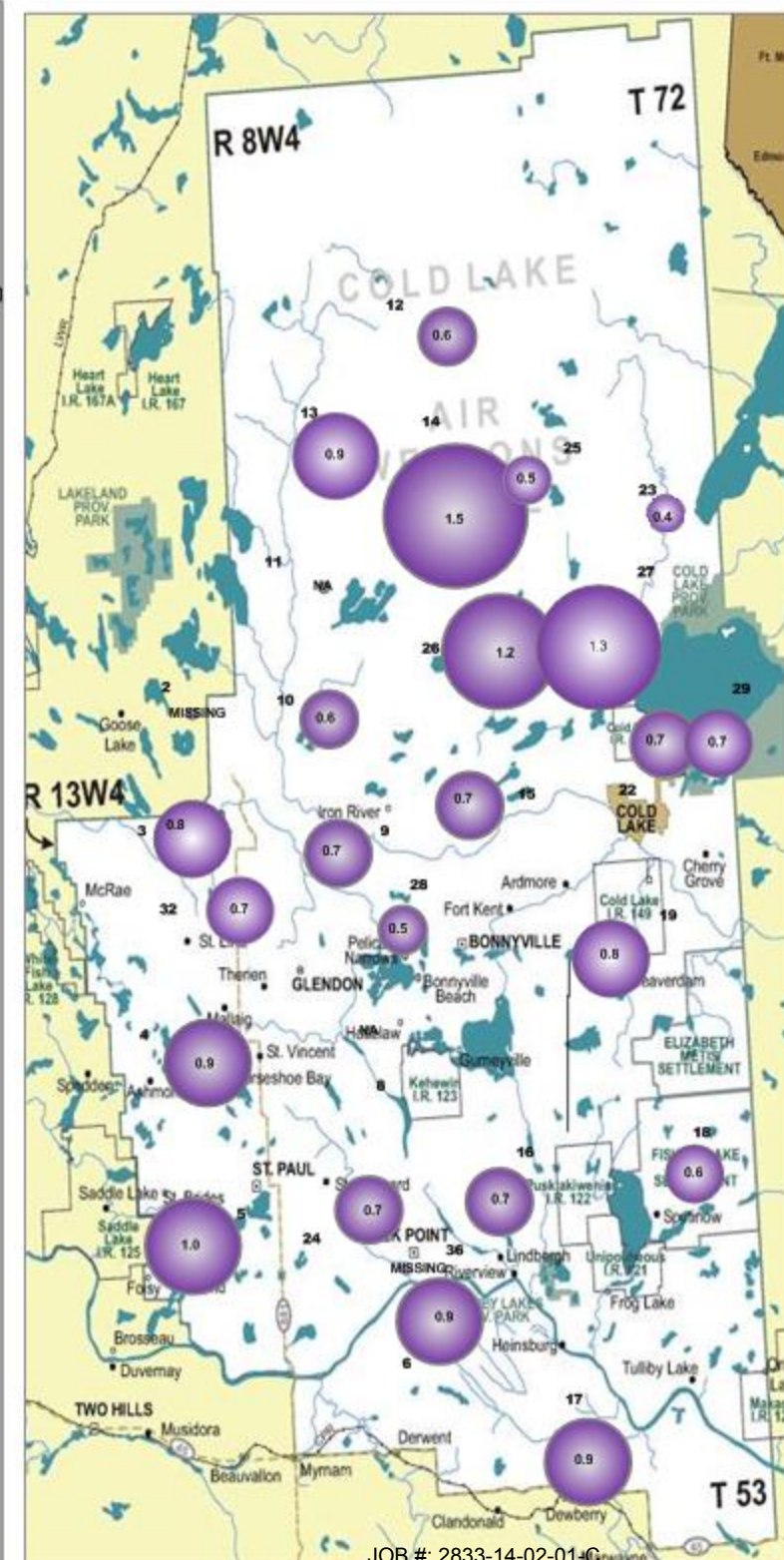
Summary

Minimum : 0.4 PPB – Medley-Martineau

Maximum: 1.5 PPB – Maskwa

Average: 0.8 PPB *Includes Duplicates

Note: Sample #8 and sample #11 could not be changed out as the access to the sampler were blocked by snow.



Passive Field Data

Passive Sampler Data Sheet for LICA February 2014

| ID | SAMPLER | START | | END | | NOTES |
|----|---|------------|-------|------------|-------|---|
| | | DATE | TIME | DATE | TIME | |
| 2 | SO ₂ /NO ₂ /O ₃ | NA | NA | NA | NA | All samplers had been removed. No samples was installed. |
| 3 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/27/2014 | 14:15 | 02/27/2014 | 14:09 | |
| 4 | SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 14:33 | 03/04/2014 | 11:23 | |
| 5 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 13:55 | 03/05/2014 | 10:20 | |
| 6 | SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 11:36 | 03/04/2014 | 14:36 | |
| 8 | SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 15:26 | NA | NA | Road to the sampler was not accessible due to excessive snow. |
| 9 | SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 16:05 | 02/27/2014 | 12:00 | |
| 10 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 09:00 | 03/03/2014 | 09:53 | |
| 11 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 09:45 | NA | NA | Road to the sampler was not accessible due to excessive snow. |
| 12 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 11:20 | 03/03/2014 | 14:58 | |
| 13 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 14:44 | 03/06/2014 | 09:23 | |
| 14 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 15:20 | 03/06/2014 | 10:30 | |
| 15 | SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 14:00 | 02/27/2014 | 11:20 | |
| 16 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 10:12 | 03/05/2014 | 11:23 | |
| 17 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 10:57 | 03/04/2014 | 15:45 | |
| 18 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 09:36 | 03/05/2014 | 13:01 | |
| 19 | SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 08:46 | 03/05/2014 | 12:00 | |
| 22 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 17:51 | 02/27/2014 | 08:35 | |
| 23 | SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 16:38 | 03/06/2014 | 11:43 | |
| 24 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 12:08 | 03/04/2014 | 14:01 | |
| 25 | H ₂ S/SO ₂ | 01/25/2014 | 12:18 | 03/05/2014 | 15:42 | |
| 26 | H ₂ S/SO ₂ | 01/25/2014 | 15:10 | 03/06/2014 | 09:56 | |
| 27 | H ₂ S/SO ₂ | 01/25/2014 | 15:36 | 03/06/2014 | 10:50 | |
| 28 | SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 15:52 | 02/27/2014 | 12:40 | |
| 29 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/25/2014 | 17:38 | 02/27/2014 | 08:35 | |
| 32 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/27/2014 | 15:01 | 02/27/2014 | 13:25 | |
| 34 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 01/26/2014 | 12:26 | 03/04/2014 | 14:00 | |

Passive Sampler Data Sheet for LICA February 2014

| ID | SAMPLER | START | | END | | NOTES |
|---------------|------------------|------------|-------|------------|-------|---|
| | | DATE | TIME | DATE | TIME | |
| Duplicate #28 | SO ₂ | 01/26/2014 | 15:52 | 02/27/2014 | 12:40 | |
| Duplicate #29 | SO ₂ | 01/25/2014 | 17:38 | 02/27/2014 | 08:35 | |
| Duplicate #32 | SO ₂ | 01/27/2014 | 15:01 | 02/27/2014 | 13:25 | |
| Duplicate #3 | H ₂ S | 01/27/2014 | 14:15 | 02/27/2014 | 14:09 | |
| Duplicate #5 | H ₂ S | 01/26/2014 | 13:55 | 03/05/2014 | 10:20 | |
| Duplicate #6 | NO ₂ | 01/26/2014 | 11:36 | 03/04/2014 | 14:36 | |
| Duplicate #8 | NO ₂ | 01/26/2014 | 15:26 | NA | NA | Road to the sampler was not accessible due to excessive snow. |
| Duplicate #6 | O ₃ | 01/26/2014 | 11:36 | 03/04/2014 | 14:36 | |
| Duplicate #8 | O ₃ | 01/26/2014 | 15:26 | NA | NA | Road to the sampler was not accessible due to excessive snow. |
| | | | | | | |
| | | | | | | |

Passive Network Laboratory Analysis

Your Project #: 2014/01/25 - 2014/02/27
 Site Location: LICA

Attention:MICHAEL BISAGA

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 PO BOX 8237
 5107W- 50TH STREET
 BONNYVILLE, AB
 CANADA T9N 2J5

Report Date: 2014/03/21
 Report #: R1537986
 Version: 2R

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B418262

Received: 2014/03/07, 14:15

Sample Matrix: Air
 # Samples Received: 35

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| H2S Passive Analysis (1) | 20 | 2014/03/18 | 2014/03/19 | PTC SOP-00150 | Tang.Passive H2S in |
| NO2 Passive Analysis (1) | 25 | 2014/03/17 | 2014/03/19 | PTC SOP-00148 | Passive NO2 in ATM |
| O3 Passive Analysis (1) | 25 | 2014/03/11 | 2014/03/19 | PTC SOP-00197 | EPA 300 R2.1 |
| SO2 Passive Analysis (1) | 28 | 2014/03/11 | 2014/03/19 | PTC SOP-00149 | Tang Passive SO2 in |
| SO2 Passive Analysis (1) | 1 | 2014/03/13 | 2014/03/19 | PTC SOP-00149 | Tang Passive SO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Customer Service
 Email: LManchak@maxxam.ca
 Phone# (780) 378-8500

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Maxxam Job #: B418262
 Report Date: 2014/03/21

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Client Project #: 2014/01/25 - 2014/02/27
 Site Location: LICA
 Sampler Initials: WA

RESULTS OF CHEMICAL ANALYSES OF AIR

| | | | | | | | | | | |
|----------------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | IY3889 | IY3890 | IY3891 | IY3892 | IY3893 | IY3894 | IY3895 | | |
| Sampling Date | | 2014/01/27 14:15 | 2014/01/26 14:33 | 2014/01/26 13:55 | 2014/01/26 11:36 | 2014/01/26 15:26 | 2014/01/26 16:05 | 2014/01/25 09:00 | | |
| | Units | 3 | 4 | 5 | 6 | 8 | 9 | 10 | RDL | QC Batch |

| | | | | | | | | | | |
|----------------------------------|-----|------|------|------|------|---------|------|------|------|---------|
| Passive Monitoring | | | | | | | | | | |
| Calculated H2S | ppb | 0.18 | | 0.12 | | | | 0.14 | 0.02 | 7419660 |
| Calculated NO2 | ppb | 1.9 | 1.4 | 1.6 | 4.6 | MISSING | 2.9 | 4.4 | 0.1 | 7418126 |
| Calculated O3 | ppb | 33.6 | 36.5 | 35.7 | 28.9 | MISSING | 35.4 | 29.2 | 0.1 | 7410469 |
| Calculated SO2 | ppb | 0.8 | 0.9 | 1.0 | 0.9 | MISSING | 0.7 | 0.6 | 0.1 | 7410489 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

| | | | | | | | | | | |
|----------------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | IY3896 | IY3897 | IY3898 | IY3899 | IY3900 | IY3901 | IY3902 | | |
| Sampling Date | | 2014/01/25 09:45 | 2014/01/25 11:20 | 2014/01/25 14:44 | 2014/01/25 15:20 | 2014/01/25 14:00 | 2014/01/26 10:12 | 2014/01/26 10:57 | | |
| | Units | 11 | 12 | 13 | 14 | 15 | 16 | 17 | RDL | QC Batch |

| | | | | | | | | | | |
|----------------------------------|-----|---------|------|------|------|------|------|------|------|---------|
| Passive Monitoring | | | | | | | | | | |
| Calculated H2S | ppb | MISSING | 0.13 | 0.11 | 0.17 | | 0.17 | 0.15 | 0.02 | 7419660 |
| Calculated NO2 | ppb | MISSING | 2.1 | 1.0 | 1.5 | 1.7 | 2.1 | 2.3 | 0.1 | 7418126 |
| Calculated O3 | ppb | MISSING | 35.2 | 36.5 | 33.1 | 31.9 | 34.3 | 36.4 | 0.1 | 7410469 |
| Calculated SO2 | ppb | MISSING | 0.6 | 0.9 | 1.5 | 0.7 | 0.7 | 0.9 | 0.1 | 7410489 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

| | | | | | | | | | | |
|----------------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | IY3903 | IY3904 | IY3905 | IY3906 | IY3907 | IY3908 | IY3909 | | |
| Sampling Date | | 2014/01/26 09:36 | 2014/01/26 08:46 | 2014/01/25 17:51 | 2014/01/25 16:38 | 2014/01/26 12:08 | 2014/01/25 12:18 | 2014/01/25 15:10 | | |
| | Units | 18 | 19 | 22 | 23 | 24 | 25 | 26 | RDL | QC Batch |

| | | | | | | | | | | |
|----------------------------------|-----|------|------|------|------|------|---------|------|------|---------|
| Passive Monitoring | | | | | | | | | | |
| Calculated H2S | ppb | 0.11 | | 0.13 | | 0.16 | MISSING | 0.24 | 0.02 | 7419660 |
| Calculated NO2 | ppb | 1.4 | 0.9 | 2.2 | 0.4 | 3.1 | | | 0.1 | 7418126 |
| Calculated O3 | ppb | 29.0 | 31.5 | 29.1 | 30.7 | 30.6 | | | 0.1 | 7410469 |
| Calculated SO2 | ppb | 0.6 | 0.8 | 0.7 | 0.4 | 0.7 | 0.5 | 1.2 | 0.1 | 7410489 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

| | | | | | | | | | | |
|----------------------|--------------|---------------------|-----------------|---------------------|-----------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | IY3910 | | IY3911 | | IY3912 | IY3913 | IY3914 | | |
| Sampling Date | | 2014/01/25 15:36 | | 2014/01/26 15:52 | | 2014/01/25 17:38 | 2014/01/27 15:01 | 2014/01/26 12:26 | | |
| | Units | 27 | QC Batch | 28 | QC Batch | 29 | 32 | 36 | RDL | QC Batch |

| | | | | | | | | | | |
|----------------------------------|-----|------|---------|------|---------|------|------|---------|------|---------|
| Passive Monitoring | | | | | | | | | | |
| Calculated H2S | ppb | 0.16 | 7419660 | | 7419660 | 0.12 | 0.16 | MISSING | 0.02 | 7419660 |
| Calculated NO2 | ppb | | 7418126 | 8.0 | 7418126 | 2.8 | 1.9 | MISSING | 0.1 | 7418128 |
| Calculated O3 | ppb | | 7410469 | 30.2 | 7410469 | 29.7 | 39.4 | 31.1 | 0.1 | 7410469 |
| Calculated SO2 | ppb | 1.3 | 7410489 | 0.5 | 7410493 | 0.7 | 0.6 | MISSING | 0.1 | 7410493 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

Maxxam Job #: B418262
 Report Date: 2014/03/21

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Client Project #: 2014/01/25 - 2014/02/27
 Site Location: LICA
 Sampler Initials: WA

RESULTS OF CHEMICAL ANALYSES OF AIR

| | | | | | | | | | | |
|----------------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | IY3917 | IY3918 | IY3919 | IY3920 | IY3921 | IY3922 | IY3923 | | |
| Sampling Date | | 2014/01/26 11:36 | 2014/01/26 15:26 | 2014/01/26 11:36 | 2014/01/26 15:26 | 2014/01/26 15:52 | 2014/01/25 17:38 | 2014/01/27 14:15 | | |
| | Units | 6 DUP | 8 DUP | 6 DUP | 8 DUP | 28 DUP | 29 DUP | 3 DUP | RDL | QC Batch |

| | | | | | | | | | | |
|---------------------------|-----|-----|---------|------|---------|-----|-----|------|------|---------|
| Passive Monitoring | | | | | | | | | | |
| Calculated H2S | ppb | | | | | | | 0.12 | 0.02 | 7419660 |
| Calculated NO2 | ppb | 4.0 | MISSING | | | | | | 0.1 | 7418128 |
| Calculated O3 | ppb | | | 30.9 | MISSING | | | | 0.1 | 7410469 |
| Calculated SO2 | ppb | | | | | 0.5 | 0.7 | | 0.1 | 7410493 |

RDL = Reportable Detection Limit

| | | | | | |
|----------------------|--------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | IY3924 | IZ8854 | | |
| Sampling Date | | 2014/01/26 13:55 | 2014/01/27 12:26 | | |
| | Units | 5 DUP | 32 DUP | RDL | QC Batch |

| | | | | | |
|---------------------------|-----|------|-----|------|---------|
| Passive Monitoring | | | | | |
| Calculated H2S | ppb | 0.19 | | 0.02 | 7419660 |
| Calculated SO2 | ppb | | 0.7 | 0.1 | 7410493 |

RDL = Reportable Detection Limit

Maxxam Job #: B418262
Report Date: 2014/03/21

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2014/01/25 - 2014/02/27
Site Location: LICA
Sampler Initials: WA

GENERAL COMMENTS

Sample IY3890 (#4) for O3 parameter was returned to the lab. with small perforation in filter membrane. - OZ

Travel blanks: IY3919 and IY3920 were not returned to the lab. Default lab blanks used. - OZ/DF/SS

Samples: IY3893 (#8), IY3896 (#11) for all parameters were not returned to the lab. - DF/OZ/SS

Sample: IY3920 (#8 DUP) for O3 parameter was not returned to the lab. - OZ

Sample: IY3914 (#34) for SO2 parameter was not returned to the lab. - DF

Sample IY3893-01 : Site inaccessible due to snow.

Sample IY3896-01 : Site inaccessible due to snow.

Sample IY3918-01 : Site inaccessible due to snow.

Sample IY3920-01 : Site inaccessible due to snow.

Results relate only to the items tested.

Maxxam Job #: B418262
 Report Date: 2014/03/21

 LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Client Project #: 2014/01/25 - 2014/02/27
 Site Location: LICA
 Sampler Initials: WA

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | Units | QC Limits |
|-------------|------|-------------------|----------------|---------------|-------|----------|-------|-----------|
| 7410469 | OZ | Calibration Check | Calculated O3 | 2014/03/11 | | 100 | % | 90 - 110 |
| 7410469 | OZ | Spiked Blank | Calculated O3 | 2014/03/11 | | 100 | % | 90 - 110 |
| 7410469 | OZ | Method Blank | Calculated O3 | 2014/03/11 | <0.1 | | ppb | |
| 7410489 | DF4 | Calibration Check | Calculated SO2 | 2014/03/11 | | 98 | % | 90 - 110 |
| 7410489 | DF4 | Spiked Blank | Calculated SO2 | 2014/03/11 | | 100 | % | 90 - 110 |
| 7410489 | DF4 | Method Blank | Calculated SO2 | 2014/03/11 | <0.1 | | ppb | |
| 7410493 | DF4 | Calibration Check | Calculated SO2 | 2014/03/11 | | 99 | % | 90 - 110 |
| 7410493 | DF4 | Spiked Blank | Calculated SO2 | 2014/03/11 | | 101 | % | 90 - 110 |
| 7410493 | DF4 | Method Blank | Calculated SO2 | 2014/03/11 | <0.1 | | ppb | |
| 7418126 | DF4 | Calibration Check | Calculated NO2 | 2014/03/17 | | 100 | % | 90 - 110 |
| 7418126 | DF4 | Spiked Blank | Calculated NO2 | 2014/03/17 | | 100 | % | 90 - 110 |
| 7418126 | DF4 | Method Blank | Calculated NO2 | 2014/03/17 | <0.1 | | ppb | |
| 7418128 | DF4 | Calibration Check | Calculated NO2 | 2014/03/17 | | 100 | % | 90 - 110 |
| 7418128 | DF4 | Spiked Blank | Calculated NO2 | 2014/03/17 | | 98 | % | 90 - 110 |
| 7418128 | DF4 | Method Blank | Calculated NO2 | 2014/03/17 | <0.1 | | ppb | |
| 7419660 | SS6 | Calibration Check | Calculated H2S | 2014/03/18 | | 102 | % | 90 - 110 |
| 7419660 | SS6 | Spiked Blank | Calculated H2S | 2014/03/18 | | 101 | % | 90 - 110 |

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

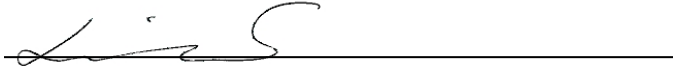
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B418262
Report Date: 2014/03/21

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2014/01/25 - 2014/02/27
Site Location: LICA
Sampler Initials: WA

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Lakeland Industry & Community Association

Portable / Elk Point Airport Monitoring Site

Ambient Air Monitoring Data Report

For

February 2014

Prepared By:



March 31, 2014

Lakeland Industry & Community Association Portable / Elk Point Airport Ambient Air Monitoring

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| ○ Ozone | 55 | | |
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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Mike Bisaga
Lakeland Industry & Community Association
Box 8237
5107W – 50 Street
Bonnyville, Alberta
T9N 2J5

Monitoring Location: Portable / Elk Point Airport
Data Period: February 2014

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Lili Zhou

Calibration Procedure

The following calibration procedure applies to all calibrations conducted at the Lakeland Industry & Community Association Air Monitoring Station.

Calibration gas concentrations are generated using a dynamic mass flow controlled calibrator. EPA Protocol one gases are diluted with zero air generated on site. The Mass Flow Controllers in the calibrator are referenced using an NIST traceable flow meter once per month. All listed flows are reported as corrected to Standard Temperature and Pressure (STP).

Generated zero gas is introduced to the analyzer first. Three concentrations of calibration gas are then generated in order to introduce points at approximately 50-80%, 25-40% & 10-20% of the analyzer's full-scale range. An auto zero and span are then performed to validate the daily zero and span values recorded to the next multi-point calibration.

All indicated concentrations are taken from the ESC data logger used to collect the data for monthly reporting.

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. The calibration conforms to the procedure outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6*.

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

– PORTABLE – ELK POINT AIRPORT –

Continuous Ambient Monitoring – February 2014

| LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PORTABLE / ELK POINT AIRPORT SITE | | | | | | MAXIMUM VALUES | | | | | | | OPERATIONAL TIME (PERCENT) |
|--|------|-------|------|-------|---------|----------------|------|------------------------|--------------------------------|----------------------|---------|-----|----------------------------------|
| | | | | | | OBJECTIVES | | | | MONTHLY AVERAGE | 1-HOUR | | |
| PARAMETER | 1-HR | 24-HR | 1-HR | 24-HR | READING | DAY | HOUR | WIND SPEED (KPH) | WIND DIRECTION (DEGREES) | | READING | DAY | |
| SO ₂ (PPB) | 172 | 48 | 0 | 0 | 0.48 | 4 | VAR | VAR | VAR | VAR | 1.3 | 17 | 97.8 |
| H ₂ S (PPB) | 10 | 3 | 0 | 0 | 0.07 | 1 | VAR | VAR | VAR | VAR | 1.0 | 3 | 97.2 |
| THC (55i) (PPM) | - | - | - | - | 2.78 | 8.5 | 9 | 4 | 3.4 | 120(ESE) | 5.3 | 9 | 99.6 |
| Methane (PPM) | - | - | - | - | 2.77 | 8.3 | 9 | 4 | 3.4 | 120(ESE) | 5.2 | 9 | 99.6 |
| NMHC (PPM) | - | - | - | - | 0.01 | 0.3 | 17 | 5 | 3.1 | 331(NNW) | 0.1 | 17 | 99.6 |
| NO ₂ (PPB) | 159 | - | 0 | - | 10.59 | 38.9 | 26 | 20, 21 | 3.4, 3.8 | 131(SE), 112(ESE) | 22.1 | 9 | 94.5 |
| NO (PPB) | - | - | - | - | 4.29 | 59.3 | 25 | 10 | 1.9 | 78(ENE) | 18.5 | 25 | 94.5 |
| NO _x (PPB) | - | - | - | - | 14.88 | 90.3 | 25 | 6 | 2.2 | 305(WNW) | 37.5 | 9 | 94.5 |
| O ₃ (PPB) | 82 | - | 0 | - | 24.21 | 41 | 27 | 20 | 36 | 335(NNW) | 36.2 | 3 | 100.0 |
| PM 2.5 (UG/M ³) | - | 30 | - | 0 | 9.53 | 152 | 21 | 16 | NA | NA | 23.0 | 23 | 80.8 |
| VECTOR WS (KPH) | - | - | - | - | 10.00 | 36.0 | 27 | 20 | - | 335(NNW) | 17.7 | 2 | 100.0 |
| VECTOR WD (DEGREES) | - | - | - | - | 308(NW) | - | - | - | - | - | - | - | 100.0 |

NA: NOT APPLICABLE VAR-VARIOUS

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance. Any non-conformances, problems or maintenance performed are detailed at the end of each section.

AQM STATION – LICA – PORTABLE

Sulphur Dioxide (PPB)

- Analyzer make / model – API 100E, S/N: 467

The analyzer was working well throughout the month. Following the as found points check on February 3rd, the UV lamp and UV lamp filter were replaced, the sinter filters and O-rings were changed, the HVPS was adjusted and the charcoal was renewed. Due to the daily zero drift, the analyzer was checked on February 19th. The UV lamp and PMT voltage were adjusted following the as found points check on February 19th. A 3-point check was performed after the maintenance. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model –API 101E, S/N: 509 and to API 101E, S/N: 722
- Converter - Internal

The monthly calibration attempted to be performed on February 3rd. However, the analyzer did not respond properly on the as found points check. As issues on the analyzer could not be determined in the field, the analyzer was removed from the station and sent back to Maxxam Calgary shop for repair on February 3rd. A temporary API 101E, S/N 722, replacement was installed following an installation calibration on February 3rd. Another full calibration was performed on February 4th to verify the analyzer functionality, and the result was good. The data was invalidated back to the last good daily zero/span check, which was February 2nd. A total of 15 hours of data was invalidated. A removal calibration was performed on API 101E, S/N 722, on February 19th and the API 101E, S/N 509, LICC-owned analyzer was installed back to the station on February 19th. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – PORTABLE

THC 55i (PPM)

- Analyzer make / model –Thermo 55i, S/N: (12)36656107

The analyzer was working well throughout the month. The monthly calibration was performed on February 3rd. The inlet filter was changed before the calibration was started. The H2 gas cylinder was replaced on February 10th. Data was corrected using daily zero information.

Ozone (PPB)

- Analyzer make / model –Thermo 49i, S/N: 1002240372

The analyzer was working well throughout the month. The monthly calibration was performed on February 3rd. The inlet filter was changed before the calibration was started. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model – API 200E, S/N: 593

The monthly calibration attempted to be performed on February 3rd. However, the analyzer did not respond properly on the as found points check. Performed troubleshooting by cleaning valves and cleaning the reaction cell, cleaning orifices, changing sinter filters and O-rings, adjusting HVPS, and renewing charcoal on February 3rd. The analyzer was allowed time to stabilize overnight. A post-repair calibration was performed on February 4th. The data was invalidated back to the last good daily zero/span check, which was February 2nd. A total of 15 hours of data was invalidated. An as found points check was performed on February 19th to verify the analyzer's functionality, and the result was good. The expected span value was adjusted after the check. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – PORTABLE

Particulate Matter 2.5 (ug/m³)

- Analyzer make / model – TEOM 1405F, S/N: 1405A208301003

Two Teom audits were performed this month: one was done on February 4th and the other was completed on February 25th. The sample inlet was cleaned and the zero reference filter was replaced on February 4th. The cooler was cleaning and the dryer was replaced on February 25th. The channel was let into the maintenance mode for stabilization. The channel was put back to the service on February 27th hour 10. 44 hours of data were not valid due to this maintenance. Data was corrected using Alberta air quality guideline. If the data was between 0 to –3, the data was corrected to 0. If the data was below –3, the data was invalidated. 85 hours of data were invalidated as the data were below –3 ug/m³. The monthly operational time was 80.8%.

Vector Wind Speed (KPH) & Vector Wind Direction (DEG)

- System make / model –RM Young 5103VK, S/N: 43708 replaced to RM Young 5103VK, S/N 56589

The wind system is reported as vector wind speed and vector wind direction. The most recent wind system calibration was done on February 21st, 2014.

No operational issues were observed during the month. The wind system was replaced to the RM Young, S/N 56589, wind system on February 21st as the S/N 43708 was due maintenance. An installation calibration was performed on the wind system on February 21st.

Datalogger

- System make / model - ESC 8832, S/N: AO717
- Software make / version - ESC v 5.51a

The ESC 8832 is connected to a modem with DSL for continuous connection with the base computer.

Trailer

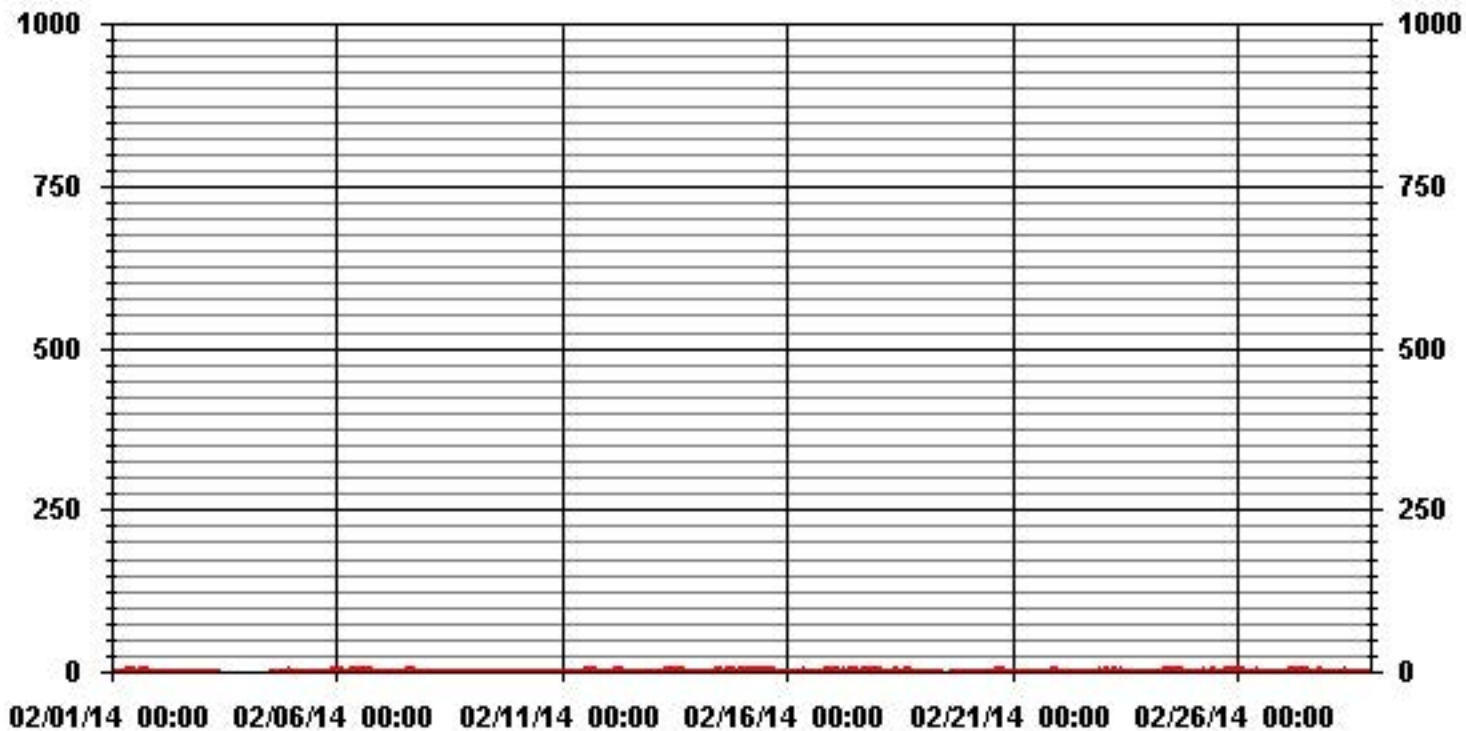
The manifold system was cleaned on February 4th. The pump for the cabinet fan was repaired on February 19th.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

01 Hour Averages



Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | S | 1 | 1 | 1 | 1 | 0 | 4 | 2.1 | 24 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.2 | 24 |
| 3 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | C | C | C | C | C | C | C | C | C | Y | Y | Y | Y | Y | Y | 1 | 0.4 | 19 |
| 4 | Y | Y | Y | Y | Y | Y | Y | Y | Y | C | C | C | C | 2 | 1 | 1 | S | Y | 0 | 0 | 0 | 1 | 3 | 3 | 3 | 3 | 1.2 | 14 |
| 5 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 0.9 | 24 |
| 6 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | S | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 2.2 | 24 |
| 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | S | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.2 | 24 |
| 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 |
| 9 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 |
| 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 0.9 | 24 |
| 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 1.6 | 24 |
| 12 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 1.2 | 24 |
| 13 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.3 | 24 |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 1.8 | 24 |
| 15 | 2 | 2 | 2 | 2 | 2 | S | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1.9 | 24 |
| 16 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 3 | 4 | 4 | 1.5 | 24 |
| 17 | 3 | 3 | 3 | S | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 4 | 2.3 | 24 |
| 18 | 2 | 2 | S | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1.7 | 24 |
| 19 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | C | C | C | C | C | C | C | C | C | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0.8 | 24 | |
| 20 | S | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 5 | 3 | 1 | 1 | S | 5 | 1.4 | 24 | |
| 21 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 4 | 0 | S | 3 | 4 | 1.1 | 24 | |
| 22 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 2 | 0.7 | 24 | |
| 23 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 3 | 1.8 | 24 | |
| 24 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | S | 1 | 1 | 1 | 1 | 4 | 1.8 | 24 | |
| 25 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | S | 2 | 2 | 2 | 2 | 5 | 5 | 1.7 | 24 | |
| 26 | 5 | 4 | 4 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 2 | 1 | 1 | 5 | 1.7 | 24 | |
| 27 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | S | 3 | 5 | 4 | 2 | 2 | 1 | 1 | 5 | 5 | 2.2 | 24 | |
| 28 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | S | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 1.0 | 24 | |
| HOURLY MAX | 5 | 4 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | | | |
| HOURLY AVG | 1.6 | 1.3 | 1.2 | 1.2 | 1.2 | 1.1 | 1.2 | 1.3 | 1.3 | 1.6 | 1.7 | 1.5 | 1.6 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.6 | 1.5 | 1.3 | 1.3 | 1.3 | 1.5 | | | | |

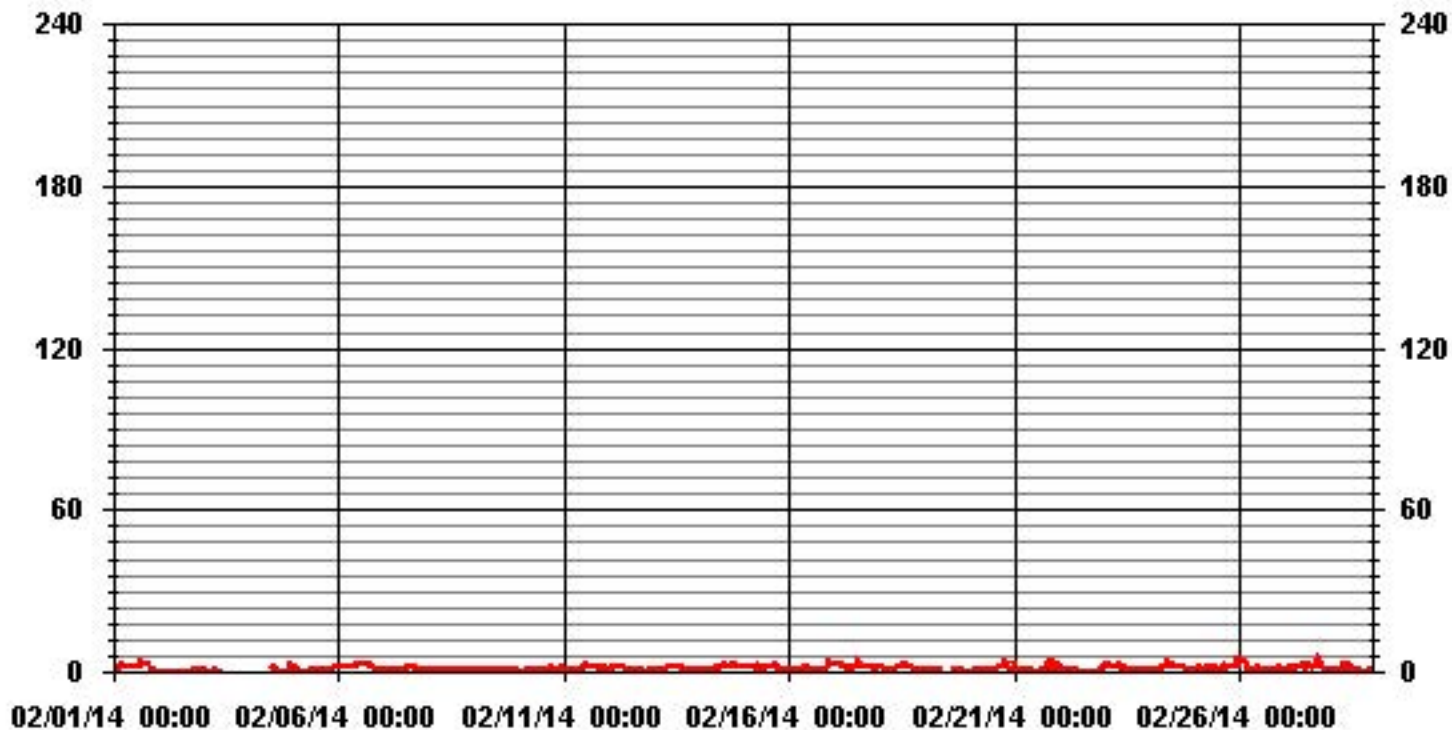
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-------------|-----------|-----|
| NUMBER OF NON-ZERO READINGS: | 534 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 5 | PPB | @ HOUR(S) | VAR | ON DAY(S) | VAR |
| | | | | VAR-VARIOUS | | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 657 | HRS | |
| MONTHLY CALIBRATION TIME: | 21 | HRS | | | | |
| STANDARD DEVIATION: | 0.94 | | | | | |

01 Hour Averages



LICA-ELK
 SO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : SO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 20 | 2.80 | 1.31 | 1.15 | 2.30 | 6.75 | 16.96 | 6.09 | 1.64 | .65 | .65 | .98 | 7.57 | 16.47 | 11.86 | 16.63 | 6.09 | 100.00 |
| < 60 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 170 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.80 | 1.31 | 1.15 | 2.30 | 6.75 | 16.96 | 6.09 | 1.64 | .65 | .65 | .98 | 7.57 | 16.47 | 11.86 | 16.63 | 6.09 | |

Calm : .00 %

Total # Operational Hours : 607

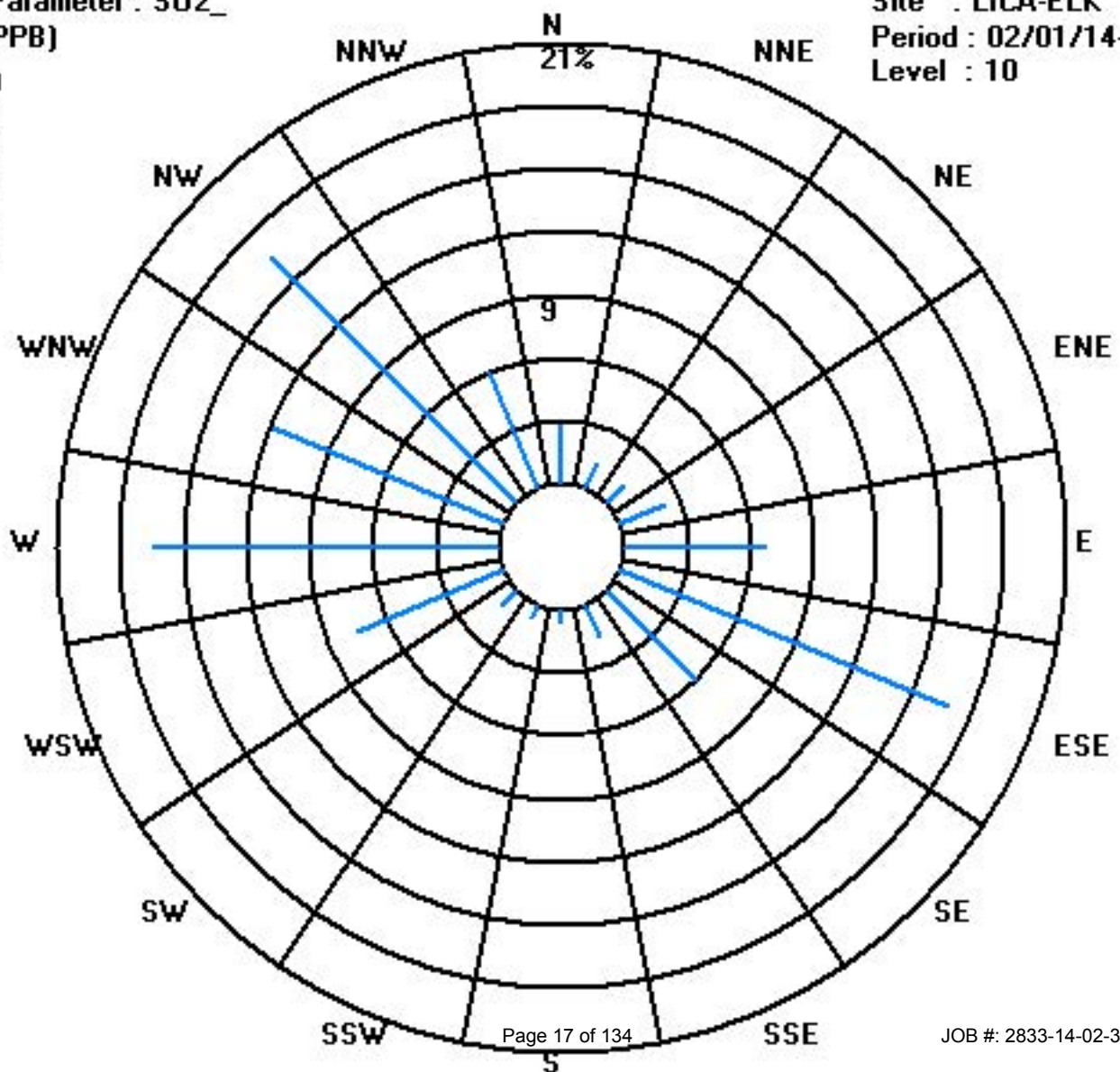
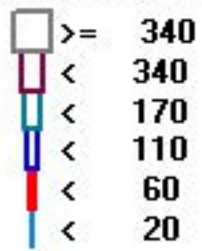
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 20 | 17 | 8 | 7 | 14 | 41 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 72 | 101 | 37 | 607 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 17 | 8 | 7 | 14 | 41 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 72 | 101 | 37 | |

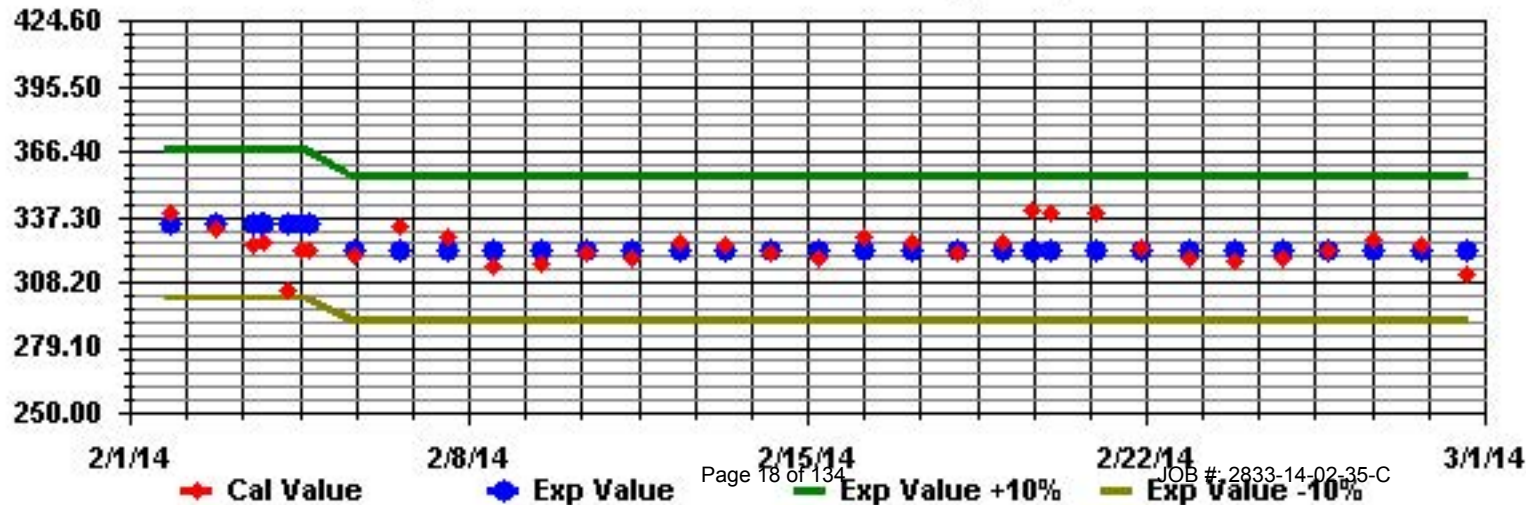
Calm : .00 %

Total # Operational Hours : 607

Class Limits (PPB)

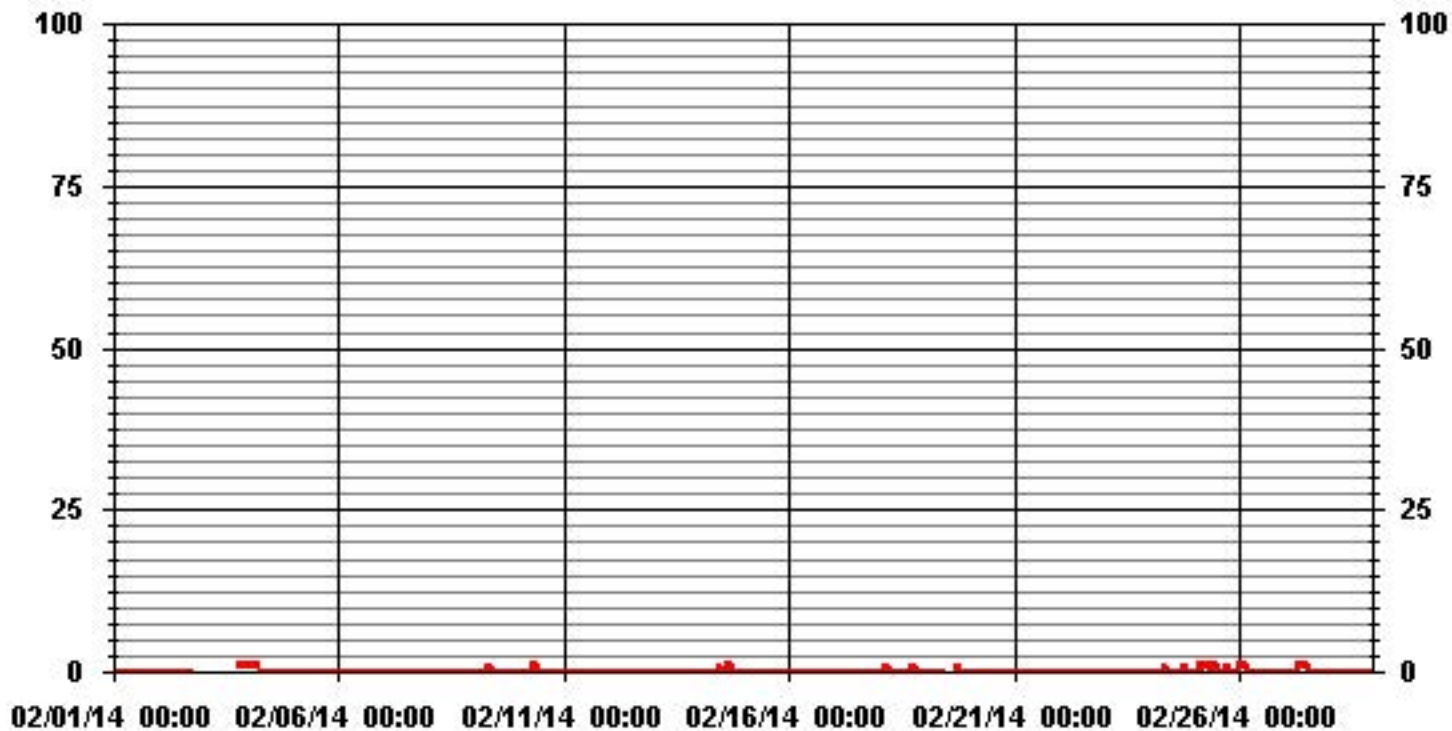


Calibration Graph for Site: LICA35 Parameter: SO2_ Sequence: S02 Phase: SPAN



Hydrogen Sulphide

01 Hour Averages



Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 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 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | X | X | X | X | X | 0 | 0.0 | 19 |
| 3 | X | X | X | X | X | X | X | X | X | X | Y | Y | Y | C | C | C | C | C | C | C | 1 | 1 | 1 | 2 | 2 | 2 | 1.4 | 11 |
| 4 | 2 | 2 | 1 | 2 | 2 | 2 | S | 0 | C | C | C | C | C | 0 | 0 | 0 | S | Y | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.7 | 23 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 | 24 |
| 7 | 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 | 24 |
| 8 | 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 | 24 |
| 9 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0.5 | 24 |
| 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | S | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0.6 | 24 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | S | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.2 | 24 |
| 12 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0.7 | 24 |
| 13 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | S | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0.7 | 24 |
| 14 | 0 | 0 | 0 | 0 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0.7 | 24 |
| 15 | 0 | 0 | 0 | 0 | 0 | S | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0.2 | 24 |
| 16 | 0 | 1 | 1 | 1 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 |
| 17 | 0 | 0 | 6 | S | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0.5 | 24 |
| 18 | 0 | 0 | S | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0.7 | 24 |
| 19 | 1 | S | 1 | 1 | 1 | 1 | 0 | 0 | 0 | C | C | C | C | C | C | C | C | C | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.4 | 24 |
| 20 | S | 0 | 0 | 0 | 0 | 0 | S | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0.0 | 24 |
| 21 | 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 | 24 |
| 22 | 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 | 24 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 1 | 1 | 0.0 | 24 |
| 24 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | S | 1 | 0 | 0 | 0 | 2 | 0.7 | 24 |
| 25 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | S | 0 | 0 | 0 | 1 | 1 | 2 | 1.0 | 24 |
| 26 | 1 | 2 | 3 | 3 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 1 | 0 | 1 | 1 | 0 | 3 | 0.7 | 24 |
| 27 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.6 | 24 |
| 28 | 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 | 24 |
| HOURLY MAX | 2 | 2 | 6 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | | | |
| HOURLY AVG | 0.3 | 0.3 | 0.6 | 0.5 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.3 | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | | | |

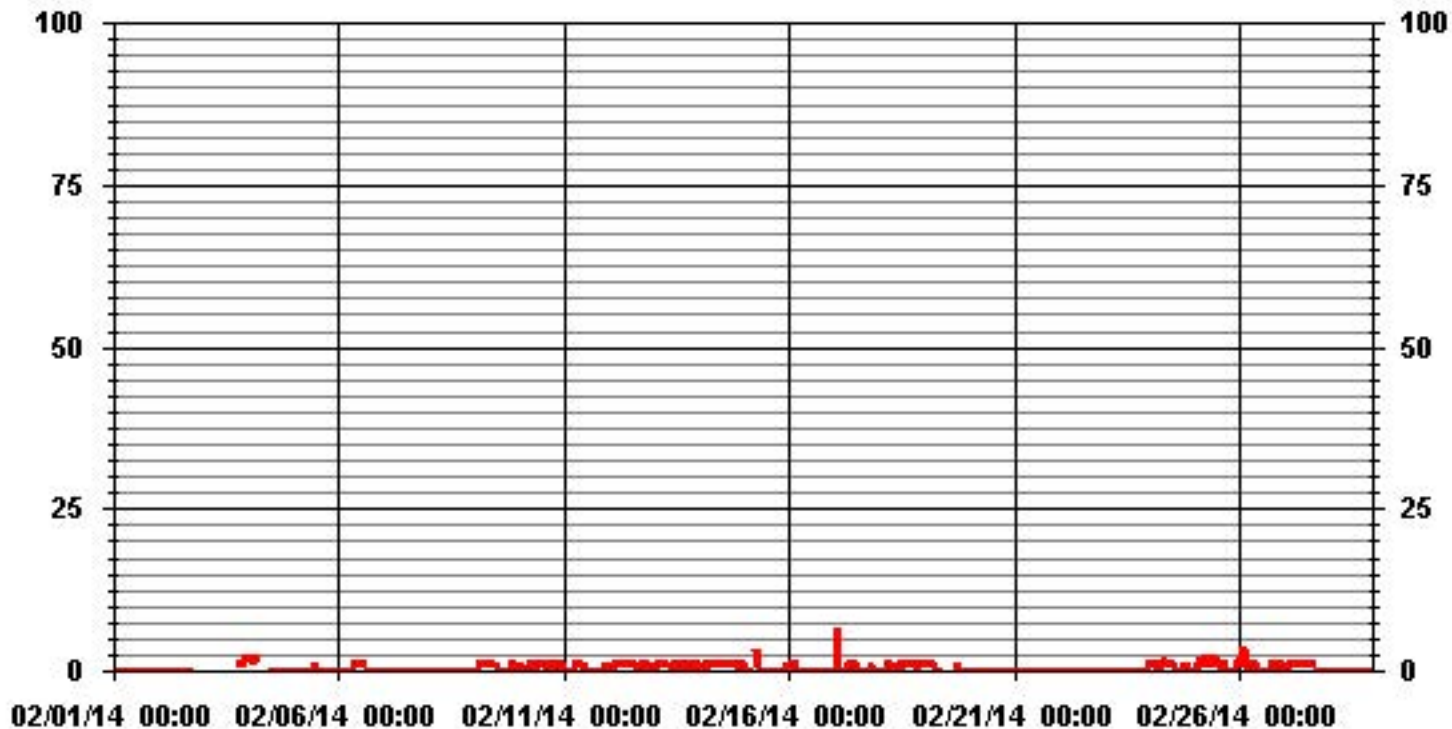
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|--------------------------------|
| NUMBER OF NON-ZERO READINGS: | 189 |
| MAXIMUM INSTANTANEOUS VALUE: | 6 PPB @ HOUR(S) 2 ON DAY(S) 17 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 31 HRS |
| MONTHLY CALIBRATION TIME: | 19 HRS |
| OPERATIONAL TIME: | 653 HRS |
| STANDARD DEVIATION: | 0.60 |

01 Hour Averages



LICA-ELK
H2S_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
Site Name : LICA-ELK
Parameter : H2S_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 3 | 3.15 | 1.16 | 1.16 | 2.32 | 6.79 | 16.91 | 6.13 | 1.65 | .66 | .66 | .99 | 6.96 | 16.25 | 11.60 | 17.08 | 6.46 | 100.00 |
| < 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 3.15 | 1.16 | 1.16 | 2.32 | 6.79 | 16.91 | 6.13 | 1.65 | .66 | .66 | .99 | 6.96 | 16.25 | 11.60 | 17.08 | 6.46 | |

Calm : .00 %

Total # Operational Hours : 603

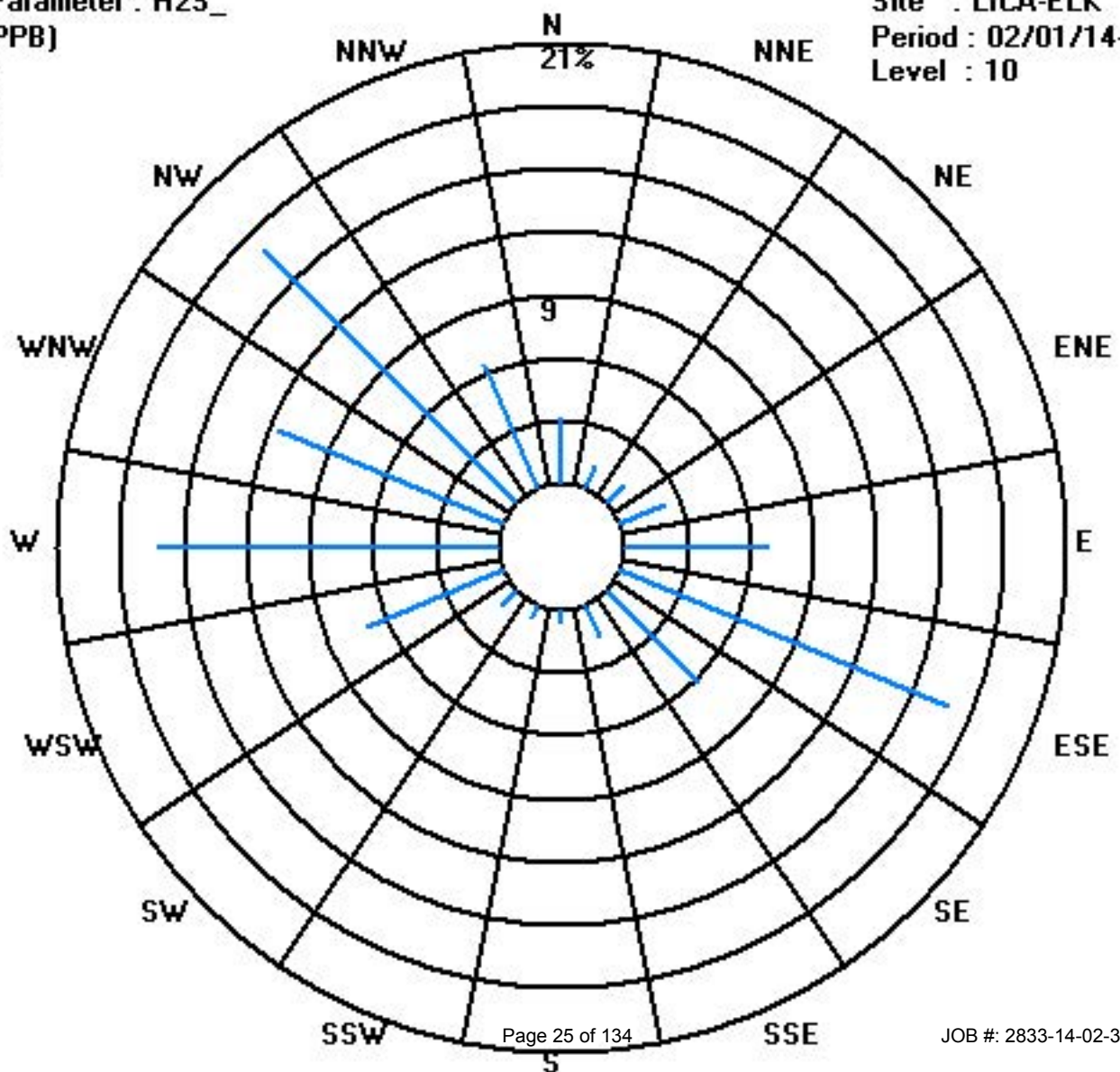
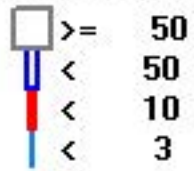
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 3 | 19 | 7 | 7 | 14 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 70 | 103 | 39 | 603 |
| < 10 | | | | | | | | | | | | | | | | | |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 19 | 7 | 7 | 14 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 70 | 103 | 39 | |

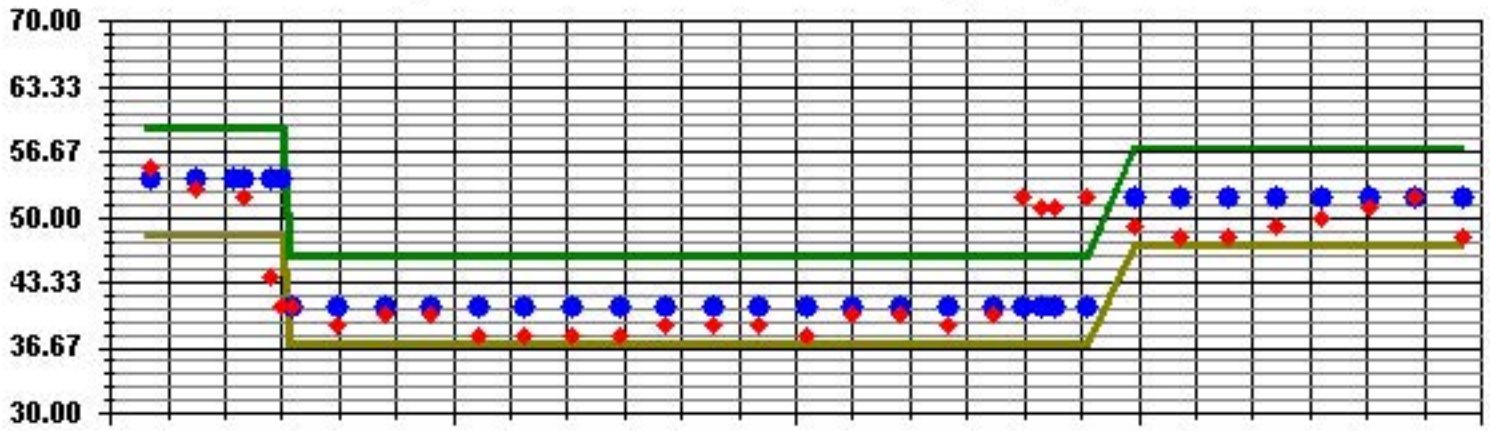
Calm : .00 %

Total # Operational Hours : 603

Class Limits (PPB)



Calibration Graph for Site: LICA35 Parameter: H2S_ Sequence: H2S Phase: SPAN



2/1/14

2/8/14

2/15/14

2/22/14

3/1/14

◆ Cal Value

◆ Exp Value

— Exp Value +10%

— Exp Value -10%

Particulate Matter 2.5

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

PARTICULATE MATTER 2.5 (LESS THAN 2.5 MICRONS) (PM2.5) hourly averages in ug/m3

| 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 | 24-HOUR | | | | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|----|--|--|
| DAY | 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 | MAX. | AVG. | RDGS. | | | |
| 1 | 1 | 3 | 6 | 4 | 5 | 0 | 7 | 4 | 4 | 0 | 3 | 5 | 0 | 3 | 6 | 4 | 4 | 5 | 3 | 0 | 5 | 13 | 6 | 1 | 13 | 3.8 | 24 | | | |
| 2 | 0 | 2 | 4 | 1 | 0 | 0 | 0 | 12 | 0 | 0 | 9 | 10 | 4 | 1 | X | 7 | X | X | 8 | 30 | X | 10 | 6 | 0 | 30 | 5.2 | 20 | | | |
| 3 | 3 | 0 | 12 | 0 | 3 | 4 | 3 | 2 | 8 | X | 1 | 10 | X | X | X | X | 0 | 3 | 8 | 5 | 5 | 3 | 3 | 0 | 12 | 3.8 | 19 | | | |
| 4 | 8 | 2 | 0 | 0 | 4 | 7 | X | 12 | 1 | X | 1 | 0 | 0 | X | 0 | C | C | X | 5 | 0 | 0 | 0 | 5 | X | 12 | 2.6 | 19 | | | |
| 5 | 15 | 19 | 1 | 4 | 5 | X | X | X | 15 | X | X | 8 | 0 | 3 | X | 10 | 8 | 10 | 5 | 0 | 3 | 11 | 0 | 12 | 19 | 7.2 | 18 | | | |
| 6 | 15 | 7 | 25 | 15 | 8 | 15 | 12 | 25 | 19 | 26 | 30 | 26 | 13 | 8 | 2 | 20 | X | 11 | 12 | 21 | 11 | 7 | 10 | 3 | 30 | 14.8 | 23 | | | |
| 7 | X | 1 | 14 | 18 | X | 23 | 5 | 9 | 28 | 4 | 12 | 0 | 10 | X | X | 0 | 8 | 7 | 0 | 3 | 0 | 0 | 2 | 5 | 28 | 7.5 | 20 | | | |
| 8 | 3 | 5 | 1 | 2 | 0 | 1 | 5 | 4 | 10 | 5 | 3 | 6 | 0 | 0 | 3 | 5 | 0 | 3 | X | 5 | 0 | 0 | 4 | 5 | 10 | 3.0 | 23 | | | |
| 9 | 3 | 1 | 3 | 4 | 6 | 9 | 9 | 8 | 1 | 0 | 10 | 16 | 3 | 0 | 6 | 0 | 22 | 7 | X | 27 | X | 5 | 0 | 11 | 27 | 6.9 | 22 | | | |
| 10 | 6 | 7 | 8 | 0 | X | 15 | 1 | 10 | 17 | 6 | 8 | 3 | 9 | X | 18 | X | 14 | 5 | 0 | X | 17 | 6 | X | 10 | 18 | 8.4 | 19 | | | |
| 11 | X | 0 | 5 | 9 | 13 | 11 | 16 | 22 | 20 | 8 | 8 | 4 | 0 | 4 | 9 | 15 | X | X | X | X | X | 30 | X | 0 | 30 | 10.2 | 17 | | | |
| 12 | X | 61 | X | 33 | X | 11 | 3 | X | X | 67 | 52 | 0 | X | 0 | 6 | 2 | 16 | 4 | 14 | 8 | X | 0 | 0 | 6 | 67 | 16.6 | 17 | | | |
| 13 | 3 | 2 | 4 | 4 | 12 | 16 | 16 | 0 | 0 | 11 | 18 | 0 | 5 | 10 | 15 | 7 | 5 | 6 | 14 | 2 | 3 | 3 | 11 | 7 | 18 | 7.3 | 24 | | | |
| 14 | 11 | 15 | 0 | 9 | 23 | 9 | 3 | 2 | 11 | 9 | 3 | 14 | 14 | 18 | 16 | 21 | 19 | 19 | 22 | 17 | 15 | 12 | 15 | 13 | 23 | 12.9 | 24 | | | |
| 15 | 14 | 12 | 9 | 6 | 10 | 11 | 12 | 20 | 20 | 11 | 11 | 8 | 6 | 13 | 17 | 14 | 9 | 11 | 10 | 14 | 9 | 19 | 6 | X | 20 | 11.8 | 23 | | | |
| 16 | 15 | 8 | 7 | 13 | 8 | 10 | 5 | 12 | 12 | 7 | 5 | 5 | 7 | 8 | 7 | 4 | 4 | 13 | 8 | 13 | 6 | 23 | 25 | 25 | 25 | 10.4 | 24 | | | |
| 17 | 24 | 26 | 22 | 19 | 18 | 15 | 14 | 11 | 4 | 13 | 9 | 3 | 4 | 21 | 6 | X | 4 | 6 | 6 | 15 | 10 | 5 | 2 | 2 | 26 | 11.3 | 23 | | | |
| 18 | 3 | 6 | 5 | 1 | 0 | 4 | X | X | X | 8 | 9 | 0 | 4 | 0 | 0 | 15 | 7 | 12 | 2 | 10 | 7 | 4 | 4 | 7 | 15 | 5.1 | 21 | | | |
| 19 | 2 | 6 | 0 | 4 | 8 | 3 | 1 | 4 | 0 | 4 | 15 | 11 | 0 | 24 | 15 | X | 44 | X | 0 | 10 | X | 0 | 12 | X | 44 | 8.2 | 20 | | | |
| 20 | 36 | 10 | X | 31 | 8 | 18 | 11 | 18 | 0 | 26 | X | 0 | 0 | 4 | 11 | 18 | 9 | 8 | 6 | 11 | 20 | X | X | 17 | 36 | 13.1 | 20 | | | |
| 21 | X | 0 | 1 | 10 | 5 | 0 | 7 | 0 | 9 | 3 | 8 | 0 | 21 | 6 | 0 | 25 | 152 | 46 | X | 22 | 0 | X | 0 | X | 152 | 15.8 | 20 | | | |
| 22 | 2 | X | 13 | 16 | 57 | 20 | X | 21 | 1 | 16 | 14 | 14 | X | 2 | 0 | X | X | 7 | 6 | X | X | 16 | 23 | 2 | 57 | 13.5 | 17 | | | |
| 23 | 9 | 10 | 3 | 0 | 12 | 0 | X | 60 | 49 | X | 53 | 46 | X | 2 | X | X | 35 | X | 40 | 10 | 35 | 13 | X | 14 | 60 | 23.0 | 17 | | | |
| 24 | 0 | 9 | 12 | 13 | 25 | X | 10 | X | 35 | X | 30 | X | 13 | 0 | 18 | 9 | 22 | 11 | 0 | 9 | 0 | 0 | 1 | 2 | 35 | 11.0 | 20 | | | |
| 25 | 6 | 3 | 4 | X | 10 | 3 | 6 | 10 | 12 | 4 | C | C | C | C | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 12 | 6.4 | 13 | | |
| 26 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 0 | | | |
| 27 | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | X | 9 | X | 22 | 12 | 12 | 9 | 10 | 8 | 13 | 0 | 3 | 11 | 2 | 22 | 9.3 | 12 | | | |
| 28 | 8 | 0 | 2 | 11 | 6 | 14 | 13 | 11 | 23 | 18 | 7 | 10 | 23 | 0 | 2 | 3 | 3 | 7 | 8 | 11 | 9 | 9 | 14 | 10 | 23 | 9.3 | 24 | | | |
| HOURLY MAX | 36 | 61 | 25 | 33 | 57 | 23 | 16 | 60 | 49 | 67 | 53 | 46 | 23 | 24 | 18 | 25 | 152 | 46 | 40 | 30 | 35 | 30 | 25 | 25 | | | | | | |
| HOURLY AVG | 8.5 | 8.6 | 6.7 | 9.1 | 10.7 | 9.1 | 7.6 | 12.6 | 12.5 | 11.7 | 13.9 | 8.3 | 6.5 | 6.8 | 8.0 | 10.1 | 18.8 | 10.0 | 8.4 | 11.1 | 7.8 | 8.0 | 7.3 | 7.0 | | | | | | |

STATUS FLAG CODES

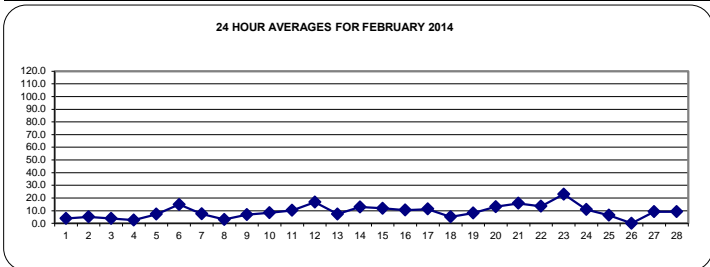
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT:

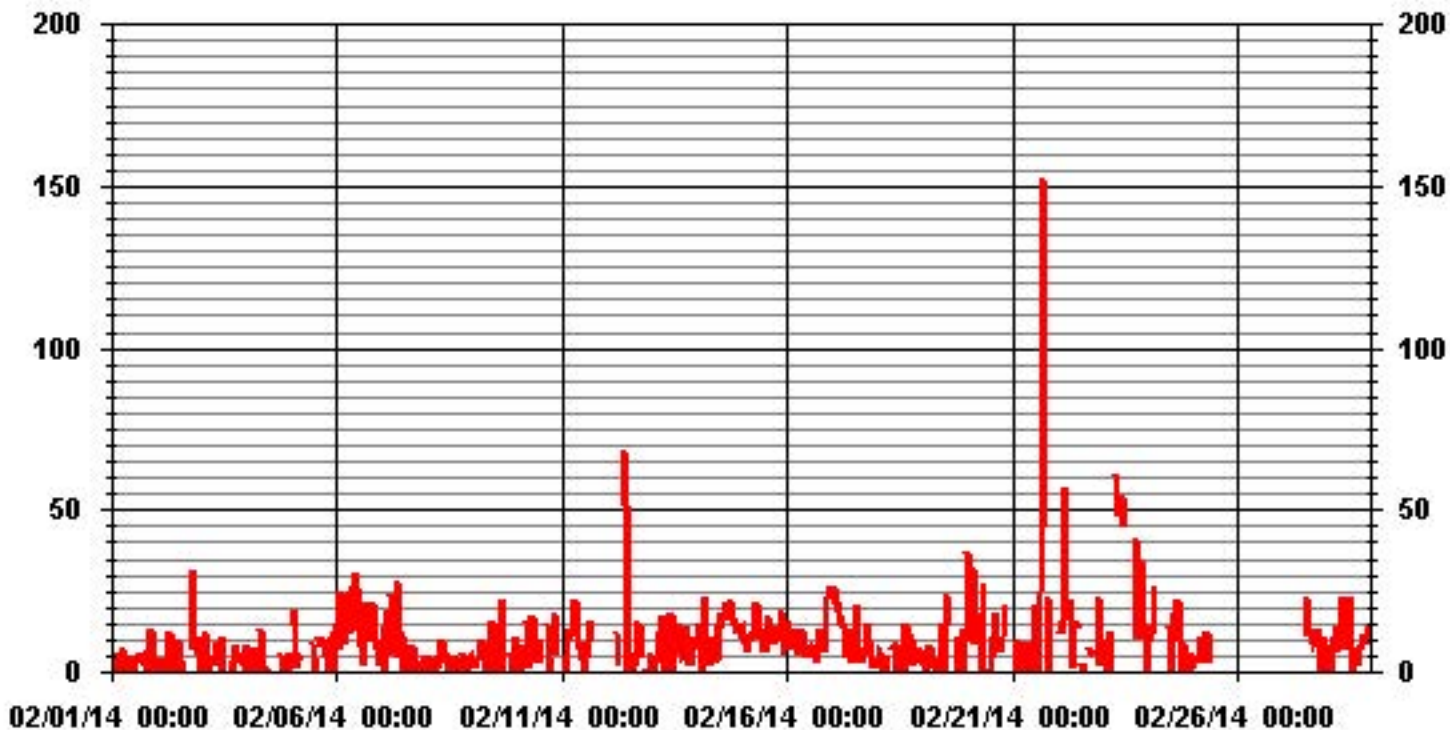
ALBERTA ENVIRONMENT: 24-HR 30 ug/m3

MONTHLY SUMMARY

| | | | | | |
|------------------------------|------------|-----------------------|------------|-------------|----|
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF NON-ZERO READINGS: | 453 | | | | |
| MAXIMUM 1-HR AVERAGE: | 152 ug/m3 | @ HOUR(S) | 16 | ON DAY(S) | 21 |
| MAXIMUM 24-HR AVERAGE: | 23.0 ug/m3 | | | ON DAY(S) | 23 |
| | | | | VAR-VARIOUS | |
| MONTHLY CALIBRATION TIME: | 6 HRS | OPERATIONAL TIME: | 543 HRS | | |
| | | AMD OPERATION UPTIME: | 80.8 % | | |
| STANDARD DEVIATION: | 11.47 | MONTHLY AVERAGE: | 9.53 ug/m3 | | |



01 Hour Averages



— LICA35 PM2 UG/M3

LICA-ELK
 PM2 / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : PM2
 Units : UG/M3

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 30 | 2.80 | 1.31 | 1.87 | 1.87 | 6.36 | 15.73 | 5.99 | 1.49 | .56 | .37 | .00 | 7.11 | 13.67 | 10.48 | 19.10 | 7.30 | 96.06 |
| < 60 | .00 | .18 | .00 | .00 | .00 | .56 | .18 | .00 | .00 | .00 | .18 | .37 | .56 | .56 | .56 | .18 | 3.37 |
| < 80 | .00 | .00 | .00 | .00 | .00 | .37 | .00 | .00 | .00 | .00 | .00 | .00 | .18 | .00 | .00 | .00 | .56 |
| < 120 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 240 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 240 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.80 | 1.49 | 1.87 | 1.87 | 6.36 | 16.66 | 6.17 | 1.49 | .56 | .37 | .18 | 7.49 | 14.41 | 11.04 | 19.66 | 7.49 | |

Calm : .00 %

Total # Operational Hours : 534

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 30 | 15 | 7 | 10 | 10 | 34 | 84 | 32 | 8 | 3 | 2 | | 38 | 73 | 56 | 102 | 39 | 513 |
| < 60 | | 1 | | | | 3 | 1 | | | | 1 | 2 | 3 | 3 | 3 | 1 | 18 |
| < 80 | | | | | | 2 | | | | | | | 1 | | | | 3 |
| < 120 | | | | | | | | | | | | | | | | | |
| < 240 | | | | | | | | | | | | | | | | | |
| >= 240 | | | | | | | | | | | | | | | | | |
| Totals | 15 | 8 | 10 | 10 | 34 | 89 | 33 | 8 | 3 | 2 | 1 | 40 | 77 | 59 | 105 | 40 | |

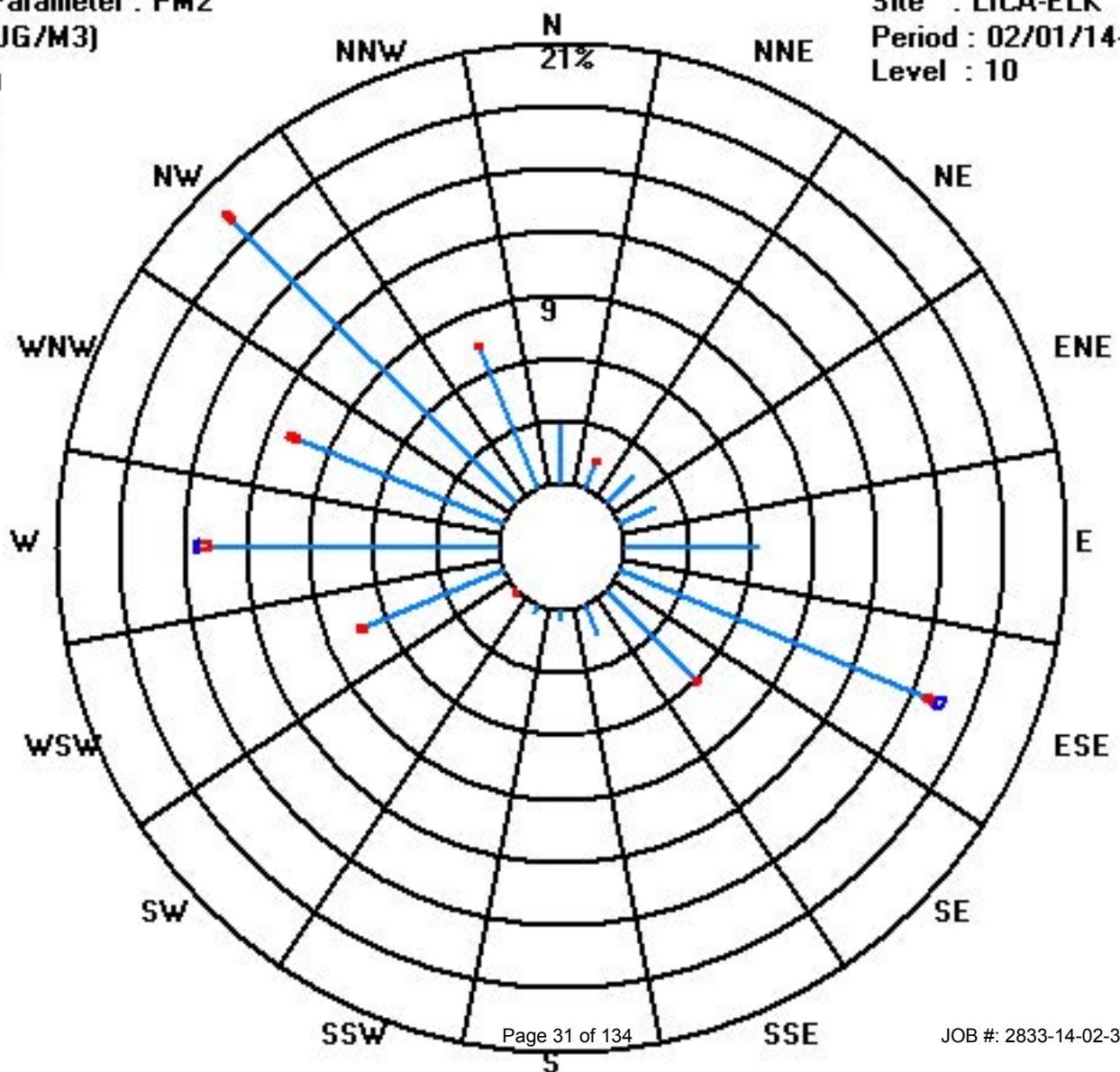
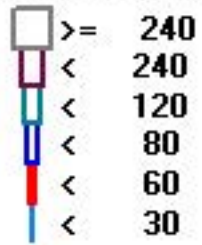
Calm : .00 %

Total # Operational Hours : 534

Class Limits (UG/M3)

Period : 02/01/14-02/28/14

Level : 10



Nitrogen Dioxide

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

NITROGEN DIOXIDE (NO2) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|--|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------------|-------|-------|-------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 0.3 | 0.2 | 0.4 | 0.5 | 5.3 | 1.7 | 0.2 | 0.3 | 0.5 | 4.3 | 3.6 | 0.8 | 1.4 | 1.1 | 2.6 | 3.3 | 4.4 | 6.9 | 7.4 | S | 10 | 10.4 | 7.6 | 3.2 | 10.4 | 3.3 | 24 | |
| 2 | | 0.4 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | 0.2 | 0.7 | 1.5 | S | X | X | X | X | X | X | 1.5 | 0.4 | 19 |
| 3 | | X | X | X | X | X | X | X | X | X | X | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 0 |
| 4 | | Y | Y | Y | Y | Y | Y | Y | Y | Y | C | C | C | C | C | C | C | C | C | C | 1.5 | 1.3 | 1.4 | 2.2 | 3.9 | 4.6 | 4.6 | 2.5 | 16 |
| 5 | | 3.9 | 10.1 | 8.3 | 6.4 | 2.3 | 1.6 | 5.6 | 13.4 | 14.2 | 6.9 | 4.2 | 0.8 | 0.8 | 1 | 1.8 | S | 2.7 | 6.1 | 4.9 | 4.3 | 8.8 | 5.9 | 8.3 | 11.6 | 14.2 | 5.8 | 24 | |
| 6 | | 9.6 | 13.8 | 17 | 16.6 | 16.1 | 16.1 | 14.7 | 15.8 | 14.1 | 9.5 | 7.9 | 6.6 | 5.8 | 6.2 | S | 9.9 | 12.9 | 18.9 | 22.7 | 21.3 | 19.4 | 16 | 14.3 | 20.1 | 22.7 | 14.1 | 24 | |
| 7 | | 23 | 23.7 | 28 | 26.5 | 18.9 | 24.9 | 31.2 | 29 | 22 | 19.6 | 17.6 | 15.3 | 1.4 | S | 1.1 | 1.8 | 1.8 | 1.3 | 2.3 | 2.4 | 1.5 | 1.7 | 0.3 | 0.5 | 31.2 | 12.9 | 24 | |
| 8 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1.6 | 0.6 | 0 | S | 0.6 | 0.6 | 1.5 | 1.7 | 8.7 | 21 | 34.3 | 30.5 | 29 | 30.2 | 31.8 | 34.3 | 8.4 | 24 | |
| 9 | | 30.5 | 30.9 | 32.4 | 31.5 | 31.9 | 30 | 29.2 | 31.1 | 29.3 | 20.2 | 13.7 | S | 8.2 | 5.3 | 4 | 6.2 | 9.7 | 16.6 | 19.1 | 27.8 | 26.7 | 25 | 26.5 | 22.3 | 32.4 | 22.1 | 24 | |
| 10 | | 23.6 | 20.6 | 20.2 | 19.1 | 24.2 | 24.1 | 27.4 | 31.3 | 23.4 | 11.3 | S | 16.1 | 14.7 | 13.2 | 13 | 11.1 | 14.9 | 29.5 | 26.5 | 19 | 14.9 | 10.9 | 10.5 | 9.2 | 31.3 | 18.6 | 24 | |
| 11 | | 9.3 | 8.6 | 7.2 | 8.5 | 12 | 12.4 | 14.8 | 17.8 | 15.4 | S | 7.4 | 3.9 | 6 | 0.9 | 1 | 0.9 | 1.9 | 2.8 | 8.3 | 2.8 | 5.4 | 24.6 | 27.6 | 25.4 | 27.6 | 9.8 | 24 | |
| 12 | | 26.2 | 25.2 | 17.5 | 20.9 | 15.5 | 10.9 | 6.3 | 6.6 | S | 4.2 | 2.2 | 1.3 | 0.7 | 0.9 | 0.3 | 0.5 | 0.5 | 1 | 16 | 13.9 | 12.1 | 5 | 2.7 | 5.2 | 26.2 | 8.5 | 24 | |
| 13 | | 6.5 | 6.6 | 8.8 | 5.4 | 5 | 5.8 | 7.7 | S | 5.9 | 4.6 | 4.7 | 3.9 | 3.3 | 2.8 | 2.9 | 3.9 | 6.4 | 13.7 | 20.6 | 29 | 21.9 | 14.8 | 17.1 | 15.2 | 29 | 9.4 | 24 | |
| 14 | | 14.2 | 14.5 | 12.8 | 14 | 21.9 | 23.9 | S | 27.4 | 23.9 | 15.8 | 11.4 | 13 | 8.1 | 8.4 | 9.9 | 11.6 | 16.8 | 20.9 | 28 | 15.1 | 8.4 | 7.6 | 11.8 | 8.5 | 28 | 15.1 | 24 | |
| 15 | | 10.7 | 14.2 | 12.4 | 12.6 | 12.2 | S | 12.8 | S | 13.4 | 7.1 | 2.8 | 3.1 | 2.8 | 5 | 5.3 | 5.7 | 5.6 | 6.2 | 6.7 | 7.3 | 8.1 | 5.4 | 5.3 | 4.4 | 14.2 | 7.7 | 24 | |
| 16 | | 3.2 | 3.5 | 4.6 | 4.5 | S | 4.4 | 4 | 3.8 | 4.5 | 4.7 | 4.6 | 1.4 | 1.3 | 1.8 | 1.3 | 1.8 | 2.4 | 5.1 | 16.1 | 17.3 | 27 | 11.6 | 18.8 | 22.1 | 27 | 7.4 | 24 | |
| 17 | | 24.1 | 30.5 | 32.6 | S | 32.6 | 31.6 | 33.6 | 33.8 | 16.5 | 21.3 | 23 | 19.2 | 9.4 | 8.7 | 5.9 | 6.7 | 9.4 | 11.2 | 12.8 | 13.3 | 11.2 | 18.6 | 6.5 | 8.7 | 33.8 | 18.3 | 24 | |
| 18 | | 6.7 | 5.2 | S | 6.6 | 6.3 | 9.4 | 8.2 | 12.6 | 20.7 | 9.5 | 4.6 | 4.3 | 3.7 | 4.9 | 7.7 | 6.6 | 6.5 | 23.1 | 20.8 | 14.3 | 29.6 | 32 | 31.5 | 30.3 | 32 | 13.3 | 24 | |
| 19 | | 25.4 | S | 30.9 | 29.1 | 16.2 | 11.2 | 2.8 | 1.9 | 1.9 | 3.1 | C | C | C | C | 2.7 | 2.8 | 3.3 | 8.7 | 20.8 | 13 | 12.3 | 7.7 | 3.5 | 7.9 | 30.9 | 10.8 | 24 | |
| 20 | | S | 8.6 | 19.1 | 17.6 | 20.8 | 26.1 | 13.3 | 16.9 | 12.2 | 11 | 8 | 6 | 4.6 | 5 | 6.3 | 6.3 | 6.9 | 8.8 | 8.9 | 7.8 | 6.7 | 5.5 | 5.4 | S | 26.1 | 10.5 | 24 | |
| 21 | | 4.6 | 3.8 | 4.5 | 5.2 | 5.1 | 5.2 | 6 | 3.9 | 6 | 4.1 | 1.3 | 0.3 | 0.4 | 0.1 | 0 | 3 | 1.1 | 1 | 3.9 | 5.2 | 3.9 | 3.1 | S | 4.8 | 6 | 3.3 | 24 | |
| 22 | | 4.3 | 2.9 | 2.6 | 2.4 | 3.5 | 3.8 | 4.7 | 9 | 14.9 | 4.1 | 1 | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 2.3 | 14.1 | 3.7 | 0.5 | S | 1.4 | 2.3 | 14.9 | 3.4 | 24 | |
| 23 | | 3.1 | 3.8 | 5.1 | 5.8 | 8.4 | 11.4 | 20.7 | 18.4 | 11.4 | 6.1 | 1.6 | 1 | 2 | 1.8 | 3.4 | 2.5 | 4.3 | 14.4 | 19.5 | 22.3 | S | 9.3 | 12.9 | 12.8 | 22.3 | 8.8 | 24 | |
| 24 | | 15.1 | 18.9 | 14.9 | 16 | 20.9 | 14 | 20.2 | 18 | 15.3 | 8.6 | 6.8 | 5.3 | 4.9 | 4.9 | 6.2 | 6.1 | 11.6 | 14.5 | 28.5 | S | 24.8 | 6 | 3 | 3.4 | 28.5 | 12.5 | 24 | |
| 25 | | 4.8 | 21.9 | 26 | 32.8 | 32.7 | 31.8 | 32.5 | 27.4 | 16.4 | 13.8 | 20.1 | 16.3 | 11.4 | 5.7 | 4.6 | 5 | 6.8 | 10.6 | S | 20.4 | 16.7 | 18.1 | 27.2 | 26.8 | 32.8 | 18.7 | 24 | |
| 26 | | 29.5 | 26.1 | 29.1 | 25.5 | 19.1 | 6 | 10.1 | 22.2 | 11.4 | 2.6 | 6.5 | 4.5 | 3.1 | 2.1 | 3 | 4.5 | 6.2 | S | 33.2 | 35.3 | 38.9 | 38.9 | 34.3 | 27.7 | 38.9 | 18.3 | 24 | |
| 27 | | 24.9 | 24.3 | 22.6 | 22.1 | 18.6 | 17.8 | 13.2 | 18.6 | 11.5 | 8.3 | 6.5 | 6.6 | 6 | 3.6 | 2.9 | 1.5 | S | 3.5 | 4.8 | 1.7 | 0.5 | 0.7 | 0.7 | 0.5 | 24.9 | 9.6 | 24 | |
| 28 | | 0.3 | 0.4 | 0.5 | 0.8 | 0.7 | 3.1 | 10.3 | 14.6 | 5 | 0.8 | 0.4 | 0 | 0 | 0.4 | 0.5 | S | 1.6 | 1.4 | 1.1 | 1.6 | 2.3 | 3.1 | 23.1 | 24.2 | 24.2 | 4.2 | 24 | |
| HOURLY MAX | | 31 | 31 | 33 | 33 | 33 | 32 | 34 | 34 | 29 | 21 | 23 | 19 | 15 | 13 | 13 | 12 | 17 | 30 | 33 | 35 | 39 | 39 | 34 | 32 | | | | |
| HOURLY AVG | | 12.2 | 12.7 | 14.3 | 13.2 | 14.0 | 13.1 | 13.2 | 15.6 | 12.4 | 8.1 | 6.7 | 5.4 | 4.2 | 3.5 | 3.5 | 4.3 | 5.6 | 9.5 | 14.8 | 13.9 | 13.7 | 12.5 | 13.4 | 13.3 | | | | |

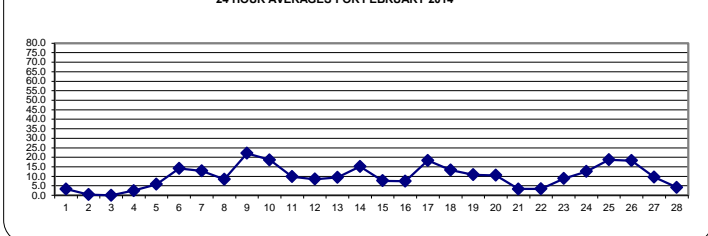
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 159 PPB

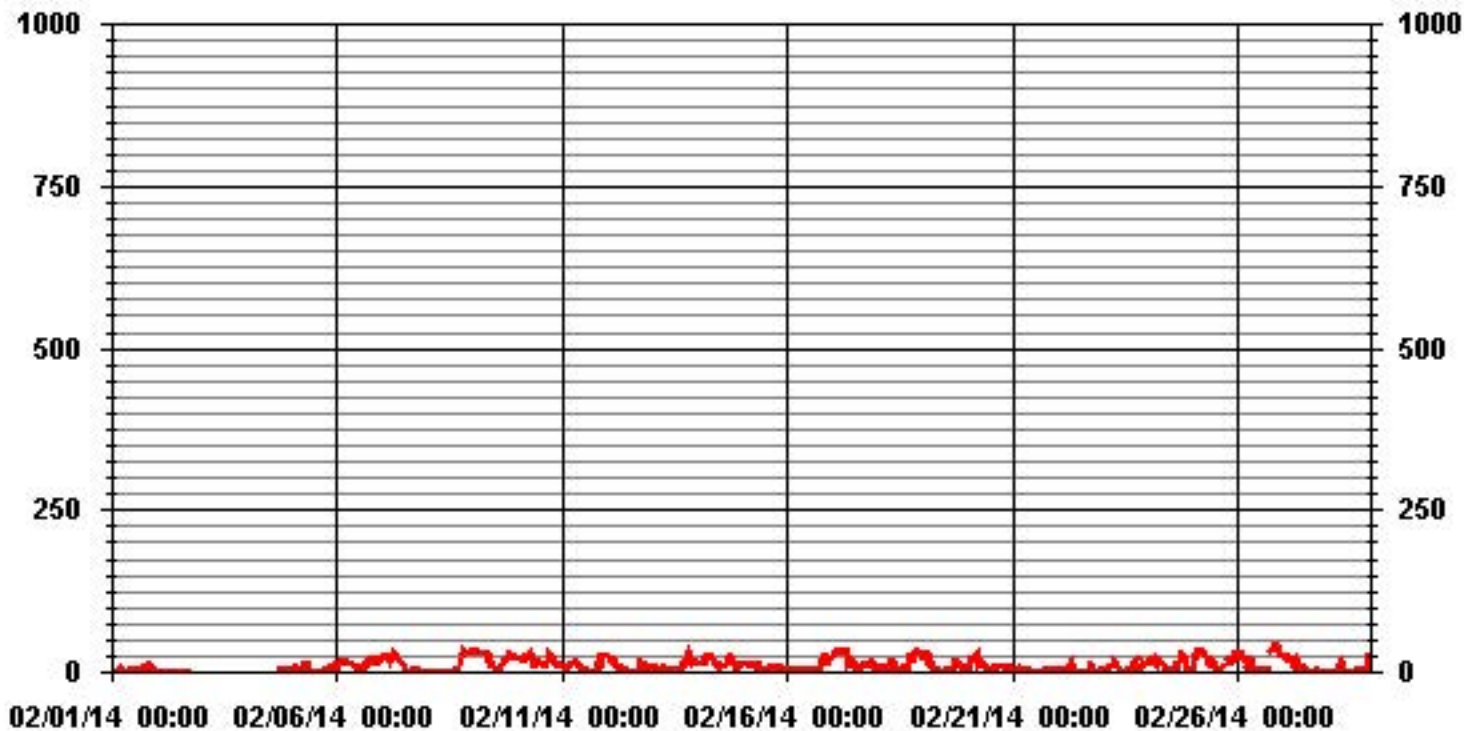
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-----------------------|--------|-----------|----|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 581 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 38.9 | PPB | @ HOUR(S) | 20, 21 | ON DAY(S) | 26 |
| MAXIMUM 24-HR AVERAGE: | 22.1 | PPB | | | ON DAY(S) | 9 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 635 | HRS | |
| MONTHLY CALIBRATION TIME: | 14 | HRS | AMD OPERATION UPTIME: | 94.5 | % | |
| STANDARD DEVIATION: | 9.50 | | MONTHLY AVERAGE: | 10.59 | PPB | |

01 Hour Averages



— LICA35 NO2_ PPB

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

| 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 | 24-HOUR | | |
|------------|------------|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|------|-------|
| DAY | HOURLY MAX | HOURLY AVG | 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 | 0:00 | MAX. | AVG. | RDGS. |
| 1 | 0.8 | 0.7 | 1 | 1.1 | 15.4 | 7.3 | 0.8 | 0.8 | 1.3 | 13.4 | 8.3 | 1.2 | 3.2 | 1.9 | 3.6 | 4.6 | 6.6 | 11.9 | 11.1 | S | 18.7 | 22.1 | 20.3 | 8.9 | 22.1 | 7.2 | 24 | | |
| 2 | 1.2 | 1 | 1.1 | 1 | 0.9 | 0.9 | 1.1 | 1.2 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.6 | 2.6 | S | X | X | X | X | X | X | 2.6 | 1.2 | 19 | |
| 3 | X | X | X | X | X | X | X | X | X | X | X | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 0 | |
| 4 | Y | Y | Y | Y | Y | Y | Y | Y | Y | C | C | C | C | C | C | C | C | C | C | C | 2.2 | 1.6 | 1.8 | 2.9 | 5.1 | 5.3 | 5.3 | 3.2 | 16 |
| 5 | 5.1 | 17.8 | 12.8 | 9.5 | 3.5 | 2.2 | 11.2 | 20.8 | 20.6 | 9.2 | 9.4 | 1.3 | 2 | 2.5 | 3.7 | S | 7.2 | 15.7 | 9.2 | 8.8 | 14.9 | 9 | 13.3 | 18.3 | 20.8 | 9.9 | 24 | | |
| 6 | 11.5 | 17.3 | 18.3 | 19.9 | 19 | 19.2 | 16.4 | 17.5 | 17 | 10.7 | 9.4 | 7.4 | 6.8 | 7 | S | 11.2 | 16.5 | 23.6 | 27 | 24.2 | 24.6 | 24.3 | 25 | 25.3 | 27 | 17.4 | 24 | | |
| 7 | 32.8 | 28.7 | 30.9 | 29.7 | 22.6 | 30.8 | 32.3 | 37.8 | 29 | 24.3 | 19.8 | 18.5 | 12.1 | S | 2 | 2.6 | 3 | 2.4 | 4 | 4.4 | 4.1 | 4.8 | 2.2 | 2.2 | 37.8 | 16.6 | 24 | | |
| 8 | 1.7 | 0.9 | 0.1 | 0.2 | 0 | 0.9 | 0 | 0.6 | 2.6 | 2.8 | 1.7 | 0.8 | S | 1 | 1.4 | 2.2 | 3.1 | 22.5 | 26.8 | 39.3 | 34.3 | 31.6 | 47.7 | 44.5 | 47.7 | 11.6 | 24 | | |
| 9 | 32.9 | 33.7 | 34.8 | 33.2 | 41.7 | 35.6 | 31.4 | 34.1 | 33.9 | 27.3 | 14.9 | S | 11.9 | 8.7 | 6.5 | 11.3 | 19.7 | 42.4 | 34.3 | 54.7 | 42 | 42.6 | 32.8 | 30.3 | 54.7 | 30.0 | 24 | | |
| 10 | 28.8 | 27.1 | 25.9 | 28.6 | 37.6 | 28.8 | 36.5 | 44.2 | 30.1 | 16.3 | S | 18.1 | 17.9 | 14.3 | 13.8 | 13.6 | 23.5 | 37 | 39.5 | 25.1 | 17.1 | 14.1 | 11.9 | 11.1 | 44.2 | 24.4 | 24 | | |
| 11 | 10.4 | 10 | 8.4 | 10.7 | 13.4 | 13.5 | 17.5 | 18.6 | 17.1 | S | 10.7 | 6 | 45.6 | 1.7 | 1.9 | 1.7 | 2.8 | 4.5 | 22.9 | 4.4 | 10.1 | 35.3 | 31.9 | 29.4 | 45.6 | 14.3 | 24 | | |
| 12 | 30.6 | 29.2 | 20.6 | 24.7 | 22.4 | 13 | 7.5 | 7.9 | S | 5.7 | 3.5 | 2.7 | 1.7 | 3.7 | 1 | 1.1 | 1.1 | 10 | 33.3 | 31.8 | 17.3 | 11.5 | 6 | 11.9 | 33.3 | 13.0 | 24 | | |
| 13 | 10.8 | 11.9 | 29.9 | 9.3 | 7.7 | 10 | 10.7 | S | 7.8 | 6.5 | 6.7 | 5.1 | 5.4 | 4 | 5 | 6.3 | 10.2 | 30.2 | 32.1 | 45.1 | 33.1 | 19.2 | 19.7 | 18 | 45.1 | 15.0 | 24 | | |
| 14 | 16.3 | 17.5 | 19.4 | 20.1 | 35 | 33.8 | S | 32.1 | 29.5 | 22.3 | 14.2 | 35.5 | 9.9 | 9.4 | 14 | 15.2 | 30.2 | 28.5 | 44.5 | 38.3 | 14.8 | 14.2 | 25.2 | 13.8 | 44.5 | 23.2 | 24 | | |
| 15 | 14.3 | 18.8 | 16.3 | 18.3 | 15.9 | S | 27 | S | 24.8 | 11.5 | 3.4 | 5.1 | 6.9 | 10.3 | 8.8 | 6.7 | 7.4 | 9.5 | 10 | 11.7 | 8.3 | 6.2 | 6.5 | 27 | 11.5 | 24 | | | |
| 16 | 5.1 | 5.1 | 6.1 | 6.3 | S | 5.9 | 5.1 | 5.5 | 5.6 | 6 | 6.5 | 2.6 | 1.8 | 4.4 | 2 | 2.7 | 5.8 | 13.2 | 29.8 | 21.5 | 33.8 | 20.8 | 24.8 | 32.6 | 33.8 | 11.0 | 24 | | |
| 17 | 26.7 | 33.2 | 33.6 | S | 35.7 | 32.3 | 38 | 38.1 | 21.9 | 34.8 | 29.3 | 27.4 | 14.3 | 14.3 | 9.8 | 9.5 | 32.3 | 13.9 | 16.9 | 24.2 | 25.4 | 30.1 | 9.4 | 13.3 | 38.1 | 24.5 | 24 | | |
| 18 | 11 | 8.8 | S | 10.4 | 10 | 15 | 10.7 | 15.6 | 31.9 | 17.7 | 6.3 | 5.6 | 5.3 | 7.7 | 9.3 | 8.5 | 7.9 | 45.4 | 31.1 | 22.3 | 35.8 | 37.7 | 37.1 | 39.4 | 45.4 | 18.7 | 24 | | |
| 19 | 35.1 | S | 39.6 | 32.6 | 24.8 | 23.1 | 5.3 | 3.4 | 3.1 | C | C | C | C | C | C | 2.8 | 4.1 | 24.7 | 40.4 | 25.2 | 44.5 | 10.4 | 5.9 | 13.6 | 44.5 | 19.9 | 24 | | |
| 20 | S | 14.9 | 28.3 | 25.3 | 25.8 | 33.1 | 20 | 23.8 | 15 | 14.8 | 10.6 | 6.9 | 5.2 | 6.7 | 9.2 | 7.6 | 8.6 | 10.4 | 10.9 | 9.6 | 8.5 | 7.4 | 7 | S | 33.1 | 14.1 | 24 | | |
| 21 | 5.7 | 4.9 | 6.1 | 8.4 | 7.7 | 6 | 7.2 | 6.1 | 7.5 | 5.7 | 3 | 1.3 | 1.3 | 1 | 0.8 | 40.7 | 2.5 | 2.5 | 6 | 6 | 5.9 | 4.6 | S | 5.5 | 40.7 | 6.4 | 24 | | |
| 22 | 5 | 3.8 | 4.7 | 3.3 | 4.3 | 4.3 | 6 | 15.5 | 19.3 | 11.9 | 2.5 | 1 | 0.9 | 0.6 | 0.6 | 0.4 | 0.4 | 12.3 | 20.1 | 17.7 | 1.2 | S | 2.2 | 3.6 | 20.1 | 6.2 | 24 | | |
| 23 | 3.7 | 4.7 | 6 | 7.9 | 13 | 19.8 | 22.6 | 21.1 | 15.3 | 10.1 | 2.6 | 1.6 | 4.1 | 3.5 | 5.7 | 5.1 | 9 | 27.1 | 23.7 | 24.2 | S | 17.5 | 18.4 | 18 | 27.1 | 12.4 | 24 | | |
| 24 | 17.8 | 24 | 21.5 | 20.6 | 22.4 | 17.7 | 22.9 | 22.3 | 19.7 | 11.5 | 9.1 | 7.4 | 5.8 | 5.5 | 7.9 | 8.2 | 22.6 | 24.1 | 35.3 | S | 31 | 19.1 | 3.9 | 4.7 | 35.3 | 16.7 | 24 | | |
| 25 | 11.8 | 28.3 | 35.3 | 36.3 | 37.3 | 37.7 | 38 | 35.9 | 30.6 | 15.9 | 35.8 | 18.7 | 14.6 | 8 | 13.3 | 6.9 | 8.5 | 14.7 | S | 31.4 | 18.7 | 20.7 | 30.7 | 34.7 | 38 | 24.5 | 24 | | |
| 26 | 37.5 | 40.5 | 42.4 | 43.8 | 32.3 | 11.5 | 21.2 | 29.8 | 27.3 | 7.1 | 9.1 | 9.1 | 5.3 | 3.3 | 6.3 | 22.4 | 12.7 | S | 44 | 51.5 | 46.8 | 42.9 | 42.7 | 32.4 | 51.5 | 27.0 | 24 | | |
| 27 | 30.7 | 31.2 | 29.9 | 43.4 | 41.9 | 25.7 | 20.1 | 24.8 | 15.2 | 11.1 | 8.7 | 10.4 | 8.5 | 4.9 | 4.3 | 2.7 | S | 6 | 6.5 | 4.1 | 1.1 | 1.5 | 1.5 | 1.2 | 43.4 | 14.6 | 24 | | |
| 28 | 1 | 1.2 | 1.2 | 1.5 | 1.8 | 6.7 | 17.9 | 19.2 | 10.3 | 1.9 | 1 | 0.7 | 0.7 | 1.2 | 1.4 | S | 2.2 | 1.8 | 1.8 | 2.5 | 3.2 | 6.6 | 30.5 | 27.4 | 30.5 | 6.2 | 24 | | |
| HOURLY MAX | 38 | 41 | 42 | 44 | 42 | 38 | 38 | 44 | 34 | 35 | 36 | 36 | 46 | 14 | 14 | 41 | 32 | 45 | 45 | 55 | 47 | 43 | 48 | 45 | | | | | |
| HOURLY AVG | 15.5 | 16.6 | 19.0 | 17.8 | 19.7 | 17.4 | 17.1 | 19.9 | 17.5 | 12.5 | 9.5 | 8.2 | 7.9 | 5.1 | 5.6 | 8.2 | 10.0 | 17.4 | 22.5 | 22.0 | 20.0 | 18.4 | 18.5 | 18.1 | | | | | |

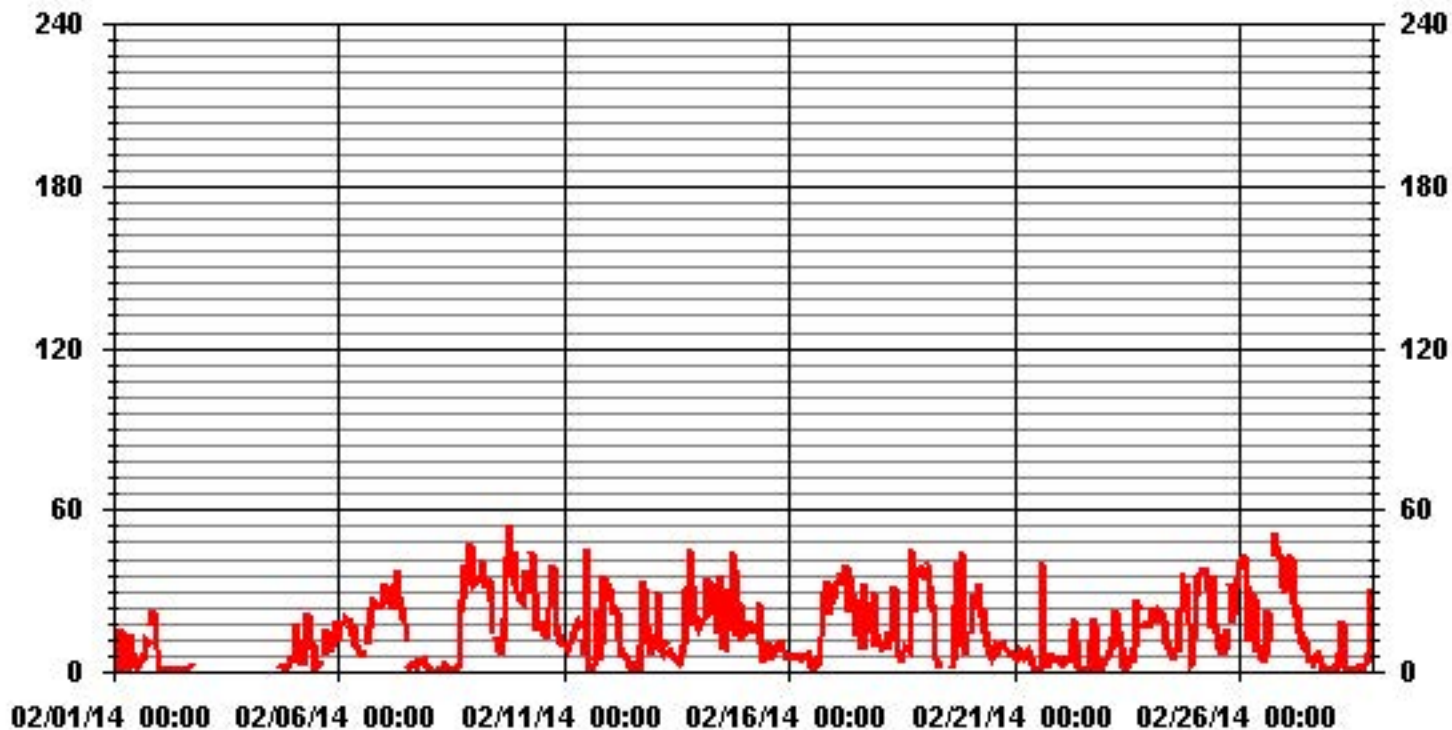
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|-----------------------------------|
| NUMBER OF NON-ZERO READINGS: | 589 |
| MAXIMUM INSTANTANEOUS VALUE: | 54.7 PPB @ HOUR(S) 19 ON DAY(S) 9 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 28 HRS |
| MONTHLY CALIBRATION TIME: | 16 HRS |
| OPERATIONAL TIME: | 635 HRS |
| STANDARD DEVIATION: | 12.53 |

01 Hour Averages



— LICA35 NO2MAX PPB

LICA-ELK
 NO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : NO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|------|------|------|------|-------|------|------|-----|-----|------|------|-------|-------|-------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 2.88 | 1.35 | 1.18 | 2.37 | 6.94 | 17.28 | 6.27 | 1.69 | .67 | .67 | 1.01 | 7.11 | 16.61 | 11.52 | 16.44 | 5.93 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.88 | 1.35 | 1.18 | 2.37 | 6.94 | 17.28 | 6.27 | 1.69 | .67 | .67 | 1.01 | 7.11 | 16.61 | 11.52 | 16.44 | 5.93 | |

Calm : .00 %

Total # Operational Hours : 590

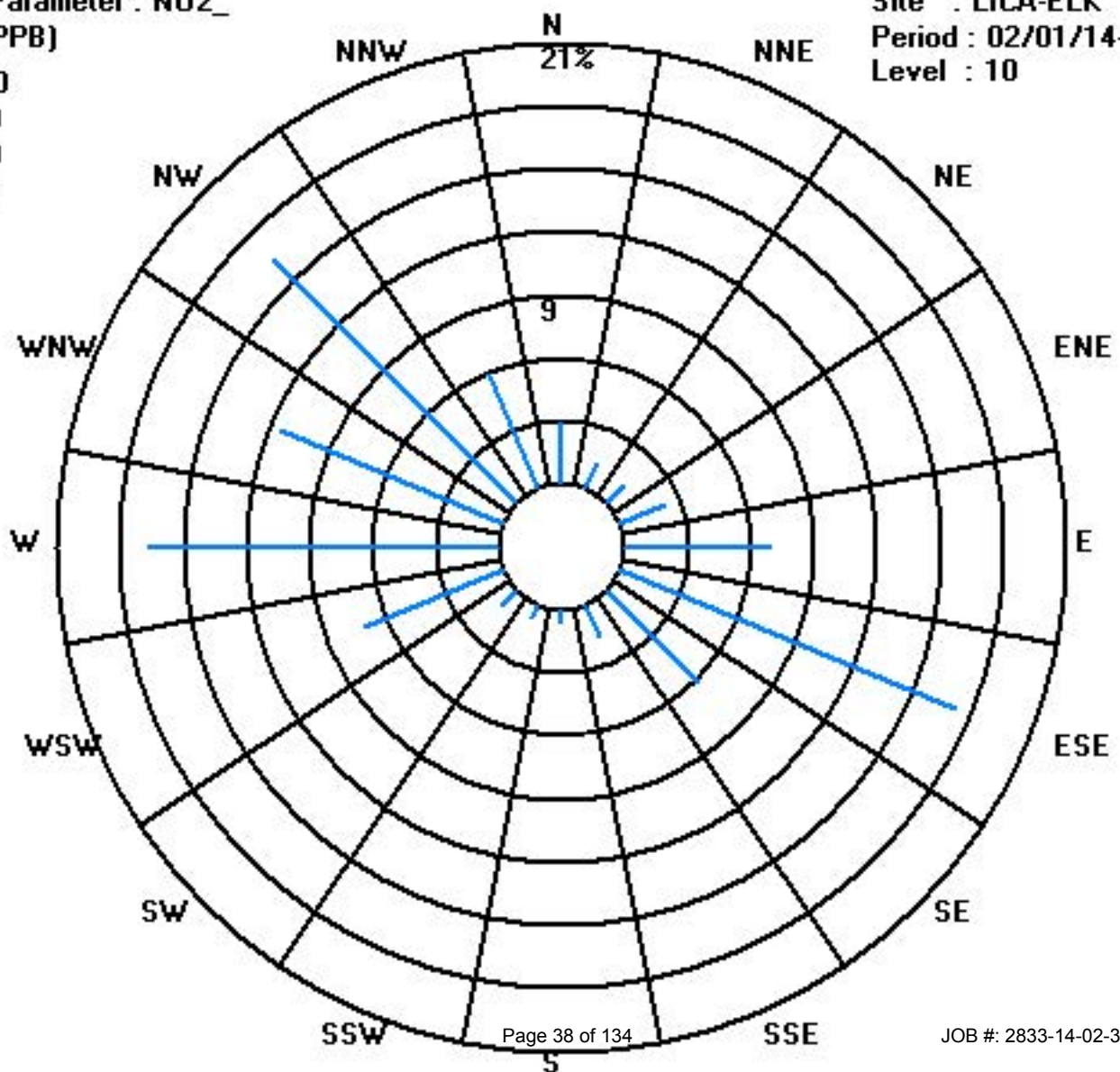
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 17 | 8 | 7 | 14 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 68 | 97 | 35 | 590 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 17 | 8 | 7 | 14 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 68 | 97 | 35 | |

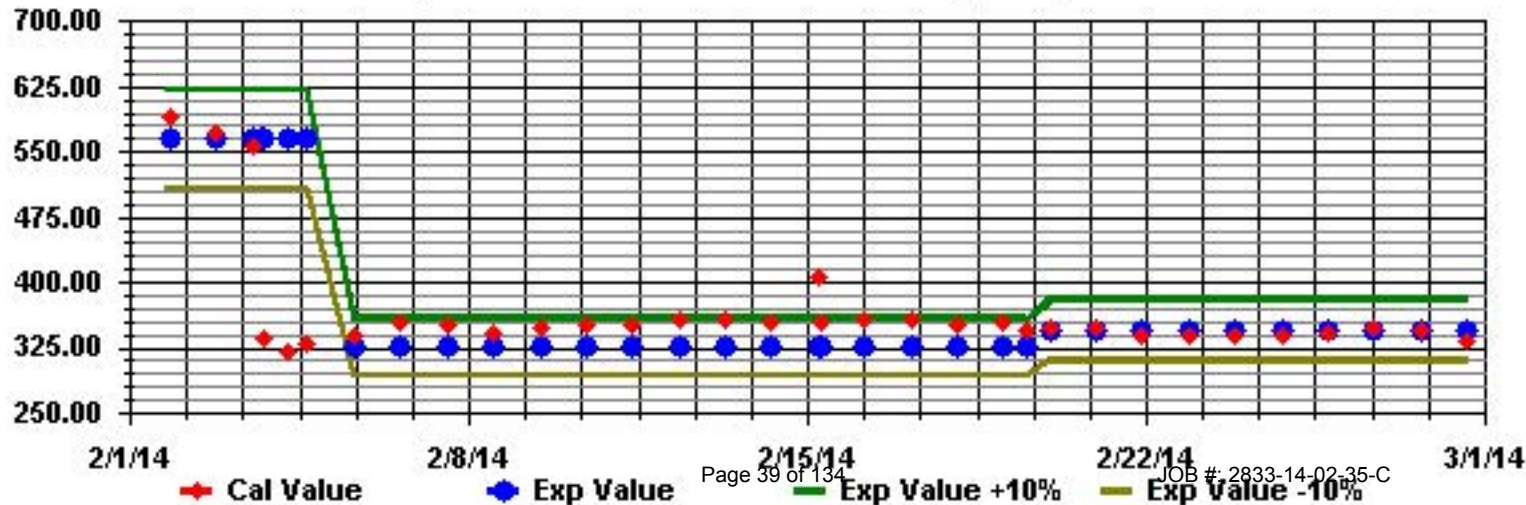
Calm : .00 %

Total # Operational Hours : 590

Class Limits (PPB)

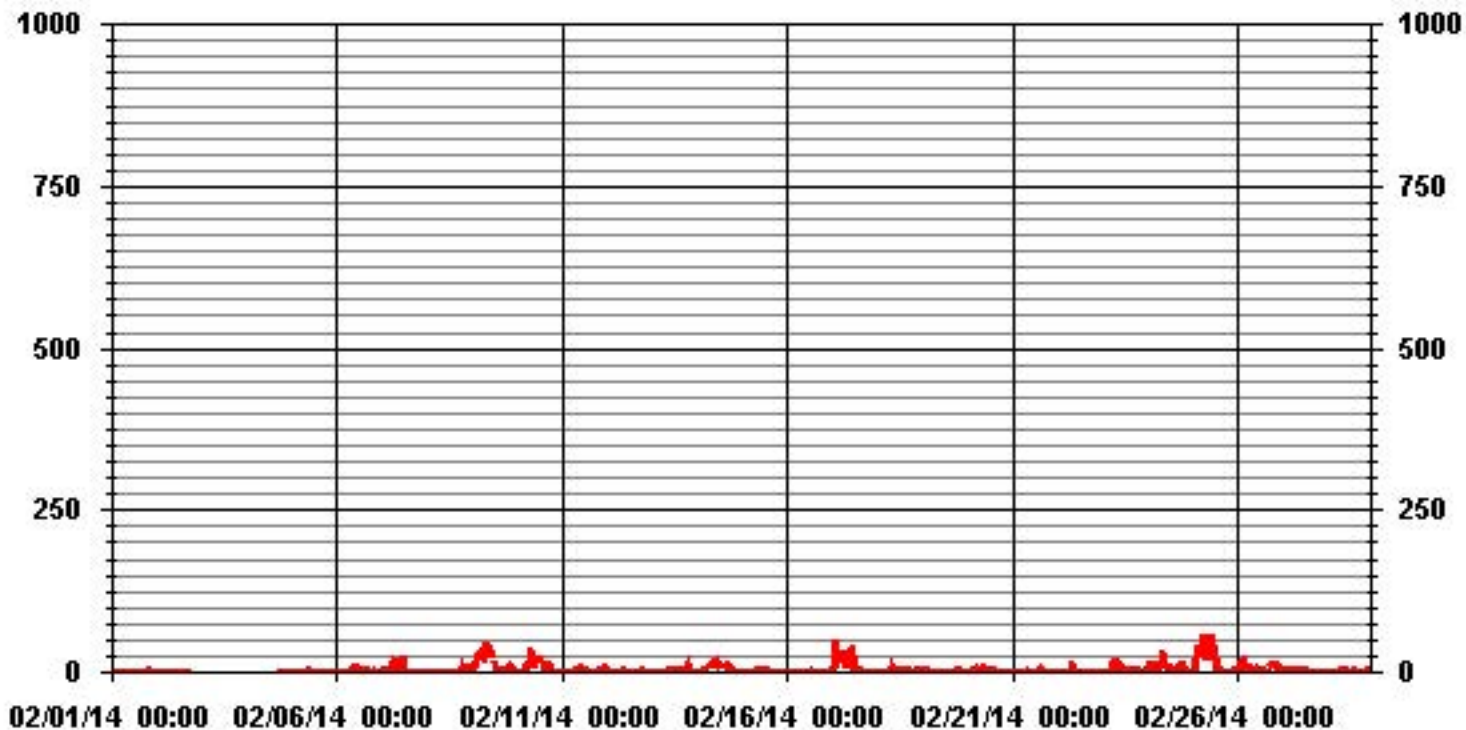


Calibration Graph for Site: LICA35 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

01 Hour Averages



Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

NITRIC OXIDE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | | |
|------------|------|------|-------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|-----|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.5 | 0.4 | 0.4 | 0.3 | 0.9 | 0.5 | 0.4 | 0.4 | 0.3 | 4.3 | 3.3 | 0.7 | 1.5 | 0.7 | 1.3 | 1 | 1 | 1.8 | 2.1 | S | 2.3 | 3.5 | 3 | 0.8 | 4.3 | 1.4 | 24 | | |
| 2 | 0.4 | 0.4 | 0.3 | 0.5 | 0.5 | 0.6 | 0.5 | 0.2 | 0.4 | 0.5 | 0.6 | 0.8 | 0.8 | 0.4 | 0.5 | 0.6 | 0.5 | 1.4 | S | X | X | X | X | X | 1.4 | 0.6 | 19 | | |
| 3 | X | X | X | X | X | X | X | X | X | X | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | 0 | |
| 4 | Y | Y | Y | Y | Y | Y | Y | Y | C | C | C | C | C | C | C | C | C | C | C | C | 0.6 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 16 |
| 5 | 0.5 | 1.4 | 0.6 | 0.7 | 0.7 | 0.5 | 0.8 | 2.1 | 5.4 | 5 | 9.6 | 1.2 | 2.2 | 2 | 3 | S | 2.6 | 1.7 | 2 | 0.6 | 1.6 | 0.6 | 0.8 | 0.8 | 9.6 | 2.0 | 24 | | |
| 6 | 0.8 | 1.3 | 1.3 | 2.5 | 1.1 | 1.7 | 2.4 | 2.4 | 6.1 | 8.2 | 7.8 | 7 | 5.7 | 5.7 | S | 6.8 | 5.3 | 2.3 | 2.6 | 2 | 2.4 | 2.6 | 2.7 | 2.7 | 8.2 | 3.6 | 24 | | |
| 7 | 19.8 | 4.7 | 13.9 | 5.3 | 3.1 | 11.1 | 25.1 | 43.5 | 21 | 36.6 | 26.5 | 31.9 | 16 | S | 1.1 | 0.6 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0 | 43.5 | 11.4 | 24 | | |
| 8 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.6 | 1.6 | 1.6 | 1 | S | 1 | 1 | 1.4 | 0.9 | 7.3 | 8.9 | 21.7 | 11.4 | 8.1 | 34 | 23.8 | 34 | 5.4 | 24 | | |
| 9 | 18.7 | 11.2 | 22.9 | 40.1 | 60.2 | 69.9 | 32.2 | 58.6 | 61.9 | 50.8 | 28.4 | S | 16.9 | 11.3 | 5.2 | 8.7 | 9.4 | 45.9 | 37.4 | 26.9 | 55.9 | 70.7 | 9.1 | 6.7 | 70.7 | 33.0 | 24 | | |
| 10 | 3.4 | 3.4 | 2.3 | 27.8 | 35.7 | 11.5 | 59.1 | 85 | 39 | 16.4 | S | 28.6 | 29.3 | 21.9 | 17.9 | 10.4 | 13.8 | 50.1 | 29.2 | 6.4 | 0.2 | 0.1 | 0 | 0.1 | 85 | 21.4 | 24 | | |
| 11 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.4 | 2 | 10.9 | S | 9.8 | 5.8 | 4.6 | 1.3 | 1.3 | 0.9 | 0.9 | 0.5 | 3.2 | 0.3 | 0.9 | 33.1 | 27.2 | 3.9 | 46 | 6.5 | 24 | | |
| 12 | 32.4 | 10.9 | 1.8 | 5.5 | 1.7 | 2 | 1.7 | 1.9 | S | 2.7 | 1.9 | 1.7 | 1.4 | 3.1 | 0.6 | 0.7 | 0.6 | 2.4 | 27 | 23.2 | 5.3 | 12.8 | 1.4 | 3.6 | 32.4 | 6.4 | 24 | | |
| 13 | 3.3 | 3.7 | 18.8 | 3.1 | 2.3 | 1.9 | 1.7 | S | 3.5 | 4.1 | 7.7 | 4.1 | 5.6 | 3.9 | 4.1 | 6.8 | 6.7 | 22.4 | 14.9 | 52.8 | 8.8 | 1.5 | 3.4 | 3.6 | 52.8 | 8.2 | 24 | | |
| 14 | 3.6 | 1.7 | 3.4 | 3.4 | 47.5 | 35.4 | S | 27 | 28.2 | 26.3 | 16.8 | 54.3 | 13.2 | 11 | 13.8 | 14.7 | 44.3 | 11.8 | 68 | 48.4 | 1.3 | 0.4 | 5.7 | 2.2 | 68 | 21.0 | 24 | | |
| 15 | 2.2 | 2.8 | 2.5 | 1.1 | 3.5 | S | 19.4 | S | 33.1 | 10.7 | 2.4 | 6.1 | 6.1 | 8.4 | 7.4 | 5.7 | 2.8 | 1.7 | 0.9 | 1.2 | 2.2 | 1.4 | 0.2 | 0.2 | 33.1 | 5.5 | 24 | | |
| 16 | 0 | 0 | 0 | 0 | S | 1.4 | 0.9 | 1.4 | 1 | 1.7 | 3 | 1.2 | 1.2 | 2.7 | 1.4 | 1.3 | 1.3 | 1.4 | 5 | 1.7 | 8.1 | 2.9 | 2.6 | 32.6 | 32.6 | 3.2 | 24 | | |
| 17 | 1.9 | 28.5 | 64.1 | S | 52.6 | 28.9 | 34.8 | 53.2 | 17.4 | 64.8 | 58 | 54.5 | 13.2 | 17.7 | 7.4 | 4.5 | 24.8 | 1.2 | 1.7 | 14.8 | 15.8 | 1.8 | 1.6 | 0.7 | 64.8 | 24.5 | 24 | | |
| 18 | 0 | 0 | S | 0.7 | 0.8 | 0.6 | 1 | 2.4 | 24 | 12.1 | 4.5 | 4.7 | 4.4 | 6.1 | 6.4 | 4.9 | 2.1 | 35.2 | 15.6 | 2.2 | 4.7 | 12.8 | 18.3 | 28.8 | 35.2 | 8.4 | 24 | | |
| 19 | 37.5 | S | 42.9 | 5.4 | 0.4 | 3.3 | 0 | 0 | 0 | C | C | C | C | C | C | 0.7 | 0.7 | 7 | 45.2 | 9.4 | 68.1 | 0.5 | 0 | 2.8 | 68.1 | 13.2 | 24 | | |
| 20 | S | 1.8 | 6 | 9.1 | 7.8 | 26.7 | 0.8 | 30.9 | 11.1 | 12.9 | 8.8 | 5.4 | 4.4 | 4.3 | 6.4 | 3.6 | 2.2 | 2 | 2.3 | 1.1 | 1 | 0.4 | 0.4 | S | 30.9 | 6.8 | 24 | | |
| 21 | 0.7 | 0.5 | 0.4 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 2.6 | 2.9 | 1.9 | 1.3 | 1.6 | 1 | 1 | 43.1 | 1.5 | 7.5 | 0.8 | 0.8 | 0.9 | 0.9 | S | 0.7 | 43.1 | 3.2 | 24 | | |
| 22 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 3.4 | 31.8 | 13.2 | 2.7 | 1.1 | 1.1 | 0.6 | 0.5 | 0.4 | 0.4 | 0.9 | 2 | 1.3 | 0.3 | S | 0.5 | 0.4 | 31.8 | 2.7 | 24 | | |
| 23 | 0.4 | 0.4 | 0.4 | 0.5 | 1.6 | 11.3 | 26.8 | 31.5 | 20 | 24.4 | 4.9 | 2.1 | 8.5 | 6.2 | 10.3 | 6.6 | 9.5 | 35.9 | 11.1 | 11.3 | S | 3 | 4 | 3.7 | 35.9 | 10.2 | 24 | | |
| 24 | 4.8 | 38.4 | 15.3 | 13 | 25.1 | 7.6 | 20.1 | 32.5 | 47.2 | 21.7 | 16.9 | 14.4 | 8.1 | 7.3 | 10.2 | 8 | 26.5 | 4.3 | 29.2 | S | 11.9 | 1.5 | 0.2 | 0.1 | 47.2 | 15.8 | 24 | | |
| 25 | 0.4 | 7.4 | 70.8 | 49.2 | 40 | 69.5 | 81.3 | 79.4 | 57.3 | 39.2 | 106.7 | 55.1 | 35.7 | 13.2 | 14.6 | 6.6 | 4.2 | 2.6 | S | 7.6 | 0.9 | 1.8 | 6.9 | 4.7 | 106.7 | 32.8 | 24 | | |
| 26 | 11.2 | 57.7 | 100.1 | 93.2 | 13.4 | 0.8 | 1.6 | 24.6 | 19.7 | 7.3 | 12 | 11.4 | 6.2 | 3.2 | 6 | 20.8 | 4.1 | S | 39.9 | 40.2 | 44.1 | 45.3 | 20.5 | 12.4 | 100.1 | 25.9 | 24 | | |
| 27 | 5.6 | 23 | 2.9 | 59.5 | 28.5 | 7.4 | 3.5 | 9.2 | 6.8 | 8.4 | 7.6 | 10.6 | 8.2 | 3.1 | 2.5 | 2 | S | 0.9 | 0.5 | 0.3 | 0.4 | 0.5 | 0.5 | 0.3 | 59.5 | 8.4 | 24 | | |
| 28 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 2.4 | 7.2 | 5.9 | 2 | 1.9 | 1.3 | 1.5 | 1.8 | 2.9 | S | 1 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 20 | 8.6 | 20 | 2.6 | 24 | |
| HOURLY MAX | 38 | 58 | 100 | 93 | 60 | 70 | 81 | 85 | 62 | 65 | 107 | 55 | 46 | 22 | 18 | 43 | 44 | 50 | 68 | 53 | 68 | 71 | 34 | 33 | | | | | |
| HOURLY AVG | 6.0 | 8.0 | 14.9 | 12.9 | 13.2 | 11.8 | 12.7 | 20.8 | 18.2 | 15.7 | 14.4 | 12.8 | 10.0 | 5.7 | 5.3 | 6.7 | 6.7 | 9.9 | 14.0 | 11.5 | 10.0 | 8.3 | 6.5 | 5.8 | | | | | |

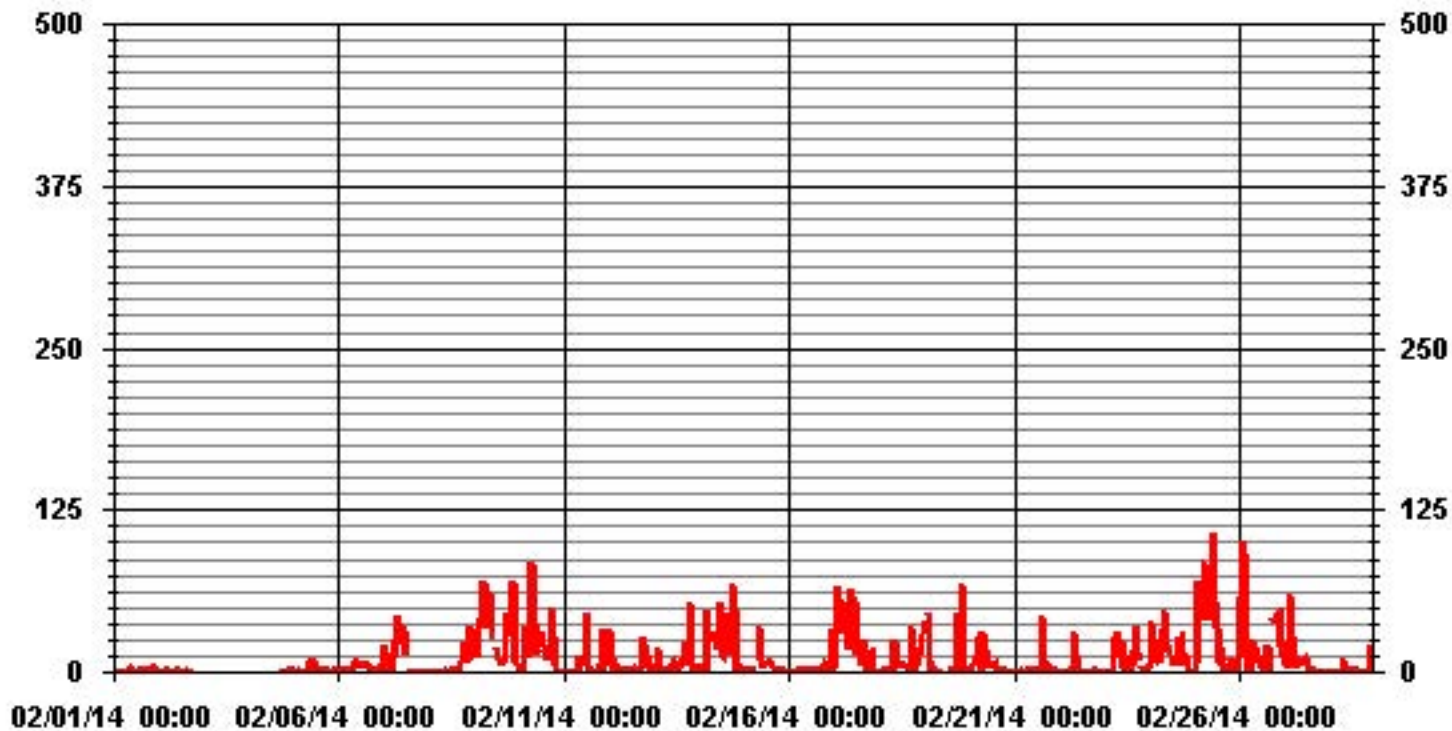
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|-------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 567 |
| MAXIMUM INSTANTANEOUS VALUE: | 106.7 PPB @ HOUR(S) 10 ON DAY(S) 25 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 28 HRS |
| MONTHLY CALIBRATION TIME: | 16 HRS |
| OPERATIONAL TIME: | 635 HRS |
| STANDARD DEVIATION: | 17.18 |

01 Hour Averages



LICA-ELK
 NO_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : NO_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|------|------|------|------|-------|------|------|-----|-----|------|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 2.88 | 1.35 | 1.18 | 2.20 | 6.94 | 17.28 | 6.27 | 1.69 | .67 | .67 | 1.01 | 7.11 | 16.61 | 11.52 | 16.27 | 5.93 | 99.66 |
| < 110.0 | .00 | .00 | .00 | .16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .16 | .00 | .33 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.88 | 1.35 | 1.18 | 2.37 | 6.94 | 17.28 | 6.27 | 1.69 | .67 | .67 | 1.01 | 7.11 | 16.61 | 11.52 | 16.44 | 5.93 | |

Calm : .00 %

Total # Operational Hours : 590

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 17 | 8 | 7 | 13 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 68 | 96 | 35 | 588 |
| < 110.0 | | | | 1 | | | | | | | | | | | 1 | | 2 |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 17 | 8 | 7 | 14 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 68 | 97 | 35 | |

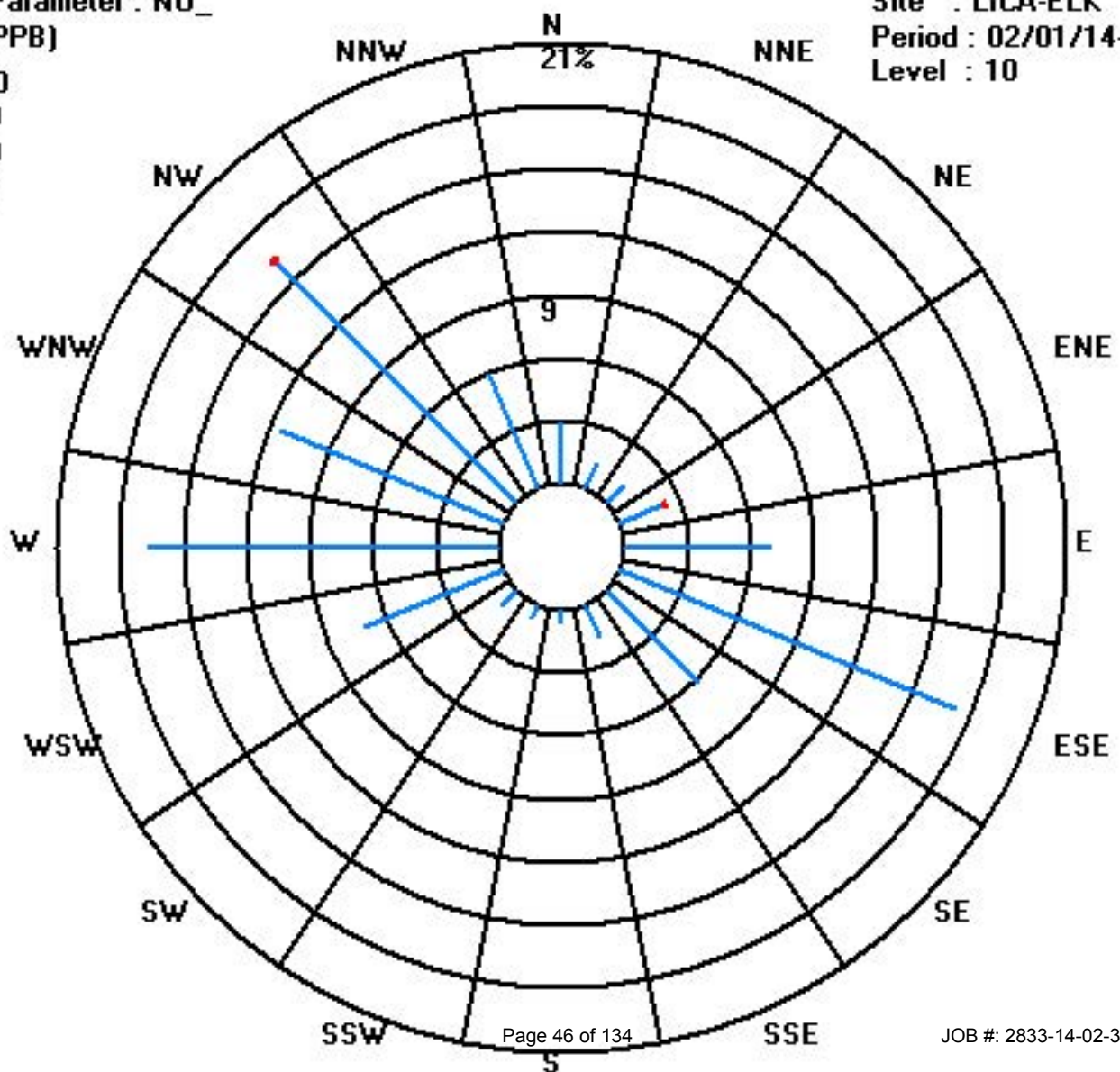
Calm : .00 %

Total # Operational Hours : 590

Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10



Oxides of Nitrogen

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

OXIDES OF NITROGEN (NOx) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY 1 | 0.3 | 0.2 | 0.4 | 0.5 | 5.4 | 1.7 | 0.2 | 0.3 | 0.5 | 5.2 | 4.8 | 1 | 1.7 | 1.1 | 3 | 3.7 | 4.6 | 7.1 | 7.9 | S | 11.2 | 11.7 | 8.4 | 3.3 | 11.7 | 3.7 | 24 |
| 2 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.4 | 0.3 | 0.4 | 0.6 | 0.3 | 0.2 | 0.3 | 0.2 | 0.7 | 1.6 | S | X | X | X | X | X | 1.6 | 0.4 | 19 |
| 3 | X | X | X | X | X | X | X | X | X | X | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | 0 |
| 4 | Y | Y | Y | Y | Y | Y | Y | Y | Y | C | C | C | C | C | C | C | C | C | 1.5 | 1.3 | 1.4 | 2.2 | 4 | 4.7 | 4.7 | 2.5 | 16 |
| 5 | 4 | 10.3 | 8.5 | 6.6 | 2.5 | 1.7 | 5.8 | 14.2 | 17 | 10.4 | 7.9 | 1.5 | 1.6 | 1.7 | 3.1 | S | 3.2 | 6.3 | 5.6 | 4.3 | 9 | 6 | 8.5 | 11.8 | 17 | 6.6 | 24 |
| 6 | 9.7 | 13.9 | 17.4 | 17.1 | 16.5 | 16.8 | 15.7 | 16.9 | 17.7 | 15.8 | 14.7 | 12.7 | 10.6 | 11.1 | S | 15.2 | 16.4 | 19.9 | 23.7 | 22.1 | 20.4 | 17 | 14.9 | 21.3 | 23.7 | 16.4 | 24 |
| 7 | 27.7 | 25.9 | 32.6 | 29.6 | 20.3 | 28.9 | 47 | 41.1 | 32.2 | 38.7 | 38.5 | 37.4 | 4.6 | S | 1.6 | 2 | 1.8 | 1.3 | 2.3 | 2.4 | 1.5 | 1.7 | 0.3 | 0.5 | 47 | 18.3 | 24 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2.5 | 1.6 | 0.3 | S | 1.1 | 1 | 2.2 | 1.9 | 9.2 | 23.7 | 45.5 | 36 | 33.3 | 39.4 | 39.2 | 45.5 | 10.3 | 24 |
| 9 | 40.2 | 38.5 | 46.4 | 57.5 | 64.2 | 58.1 | 53.8 | 65.4 | 73.5 | 56.8 | 39.9 | S | 22.1 | 12.6 | 7.8 | 10.4 | 13.3 | 22.7 | 23.8 | 33.2 | 36.4 | 30.2 | 31 | 24.9 | 73.5 | 37.5 | 24 |
| 10 | 24.4 | 21.1 | 20.5 | 21.2 | 31 | 28.8 | 44.7 | 67.1 | 49 | 24 | S | 37.9 | 36.7 | 30.8 | 25.7 | 18.8 | 20.4 | 46 | 32.9 | 19.4 | 14.9 | 10.9 | 10.5 | 9.2 | 67.1 | 28.1 | 24 |
| 11 | 9.3 | 8.6 | 7.2 | 8.5 | 12 | 12.4 | 14.8 | 18 | 22 | S | 15.4 | 7.7 | 10.5 | 1.7 | 1.8 | 1.3 | 2.3 | 2.8 | 8.7 | 2.8 | 5.4 | 30.8 | 36.3 | 27 | 36.3 | 11.6 | 24 |
| 12 | 29.6 | 28.9 | 18.1 | 22.3 | 15.8 | 11.5 | 6.7 | 7.2 | S | 5.5 | 3.2 | 1.9 | 1.1 | 1.5 | 0.5 | 0.7 | 0.5 | 1 | 19.5 | 15.9 | 13.3 | 5.7 | 2.7 | 5.9 | 29.6 | 9.5 | 24 |
| 13 | 6.9 | 7.2 | 10.7 | 6.3 | 5.6 | 6.4 | 8.1 | S | 7.4 | 6.8 | 8.7 | 6.9 | 7 | 5.6 | 5.6 | 7.1 | 9.6 | 17.8 | 25.4 | 40.8 | 24.1 | 15.5 | 18.5 | 16.1 | 40.8 | 11.9 | 24 |
| 14 | 15.1 | 15 | 13.8 | 14.5 | 26.7 | 29.1 | S | 40.6 | 42.3 | 31.7 | 23 | 29.3 | 17.2 | 17 | 17.9 | 20.2 | 27.9 | 25.8 | 40.1 | 16.5 | 8.5 | 7.6 | 12.2 | 8.5 | 42.3 | 21.8 | 24 |
| 15 | 11.1 | 14.6 | 12.7 | 12.7 | 12.7 | S | 15.1 | S | 19.8 | 12.4 | 4.3 | 5.7 | 4.9 | 9.1 | 8.4 | 8 | 6.7 | 6.6 | 6.7 | 7.3 | 8.4 | 5.4 | 5.3 | 4.4 | 19.8 | 9.2 | 24 |
| 16 | 3.2 | 3.5 | 4.6 | 4.5 | S | 4.6 | 4.2 | 4.1 | 4.8 | 5.7 | 6.3 | 2 | 2 | 2.9 | 2.3 | 2.5 | 3 | 5.4 | 17.2 | 17.8 | 29.6 | 12.3 | 19.8 | 26 | 29.6 | 8.2 | 24 |
| 17 | 24.9 | 37.8 | 75.4 | S | 62.2 | 54.1 | 48.2 | 60.9 | 22.8 | 53.2 | 58.7 | 47.4 | 16.2 | 16.2 | 9.2 | 9.2 | 11.7 | 11.2 | 12.9 | 13.6 | 11.5 | 18.8 | 6.5 | 8.7 | 75.4 | 30.1 | 24 |
| 18 | 6.7 | 5.2 | S | 6.7 | 6.4 | 9.6 | 8.5 | 13.7 | 30.8 | 15 | 7.8 | 7.8 | 6.6 | 8.6 | 13 | 9.7 | 7.8 | 28.7 | 25.4 | 14.8 | 31.8 | 36.8 | 37.5 | 34.4 | 37.5 | 16.2 | 24 |
| 19 | 27.6 | S | 36.6 | 30.6 | 16.2 | 11.3 | 2.8 | 1.9 | 1.9 | 3.1 | C | C | C | C | 2.9 | 2.8 | 3.4 | 9.5 | 25.6 | 14.6 | 16.1 | 7.7 | 3.5 | 8.3 | 36.6 | 11.9 | 24 |
| 20 | S | 9 | 20.8 | 19.5 | 23 | 32.8 | 13.6 | 20.5 | 17.4 | 19.3 | 13.9 | 10.5 | 8 | 8.1 | 9.8 | 8.8 | 8.4 | 9.8 | 9.6 | 8 | 6.8 | 5.5 | 5.4 | S | 32.8 | 13.1 | 24 |
| 21 | 4.8 | 3.8 | 4.5 | 5.2 | 5.1 | 5.2 | 6 | 4 | 7.5 | 6.3 | 2.5 | 1.1 | 1.3 | 0.7 | 0.4 | 8 | 2.1 | 1.6 | 4.3 | 5.5 | 4.4 | 3.5 | S | 4.9 | 8 | 4.0 | 24 |
| 22 | 4.3 | 2.9 | 2.6 | 2.4 | 3.5 | 3.8 | 4.7 | 10 | 30.4 | 7.7 | 1.9 | 1.1 | 1 | 0.3 | 0.3 | 0.2 | 0.3 | 2.3 | 14.6 | 3.7 | 0.5 | S | 1.5 | 2.3 | 30.4 | 4.4 | 24 |
| 23 | 3.1 | 3.8 | 5.1 | 5.8 | 8.7 | 13.2 | 34.3 | 36.8 | 27.1 | 18.4 | 4.3 | 2.5 | 5.4 | 4.5 | 8.4 | 4.9 | 7.3 | 21.2 | 24 | 28.6 | S | 10 | 14.6 | 14.2 | 36.8 | 13.3 | 24 |
| 24 | 17 | 33 | 19.5 | 18.4 | 37.7 | 15.6 | 31 | 29.1 | 47.2 | 23.6 | 19.5 | 14.6 | 11.7 | 10.1 | 12.6 | 11 | 19.7 | 16.7 | 39.8 | S | 29.7 | 6 | 3 | 3.4 | 47.2 | 20.4 | 24 |
| 25 | 4.8 | 24.1 | 47.4 | 67 | 64.5 | 67.8 | 90.3 | 67.1 | 37 | 41.1 | 79.4 | 61.5 | 35.1 | 13.5 | 9.3 | 8.7 | 9.5 | 11.9 | S | 22.5 | 17.1 | 18.6 | 29.8 | 28.4 | 90.3 | 37.2 | 24 |
| 26 | 34.5 | 39.6 | 43.1 | 42.7 | 22 | 6.1 | 10.6 | 29.3 | 18.6 | 4.9 | 14.1 | 10.3 | 7 | 4.2 | 5.7 | 7.4 | 8.3 | S | 45.6 | 44.8 | 48.7 | 55.6 | 39.7 | 30 | 55.6 | 24.9 | 24 |
| 27 | 26.9 | 26.1 | 23.9 | 25 | 21 | 19.9 | 14.4 | 22.8 | 16.2 | 14.5 | 11.8 | 12.8 | 11.4 | 6 | 4.8 | 3 | S | 3.8 | 4.9 | 1.7 | 0.5 | 0.7 | 0.7 | 0.5 | 26.9 | 11.9 | 24 |
| 28 | 0.3 | 0.4 | 0.5 | 0.8 | 0.7 | 3.2 | 10.8 | 17.8 | 7.8 | 2.2 | 1.7 | 1 | 0.9 | 1.7 | 2.1 | S | 2 | 1.4 | 1.1 | 1.6 | 2.3 | 3.1 | 28.5 | 27.2 | 28.5 | 5.2 | 24 |
| HOURLY MAX | 40 | 40 | 75 | 67 | 65 | 68 | 90 | 67 | 74 | 57 | 79 | 62 | 37 | 31 | 26 | 20 | 28 | 46 | 46 | 46 | 49 | 56 | 40 | 39 | | | |
| HOURLY AVG | 13.5 | 14.9 | 18.9 | 17.0 | 19.4 | 17.7 | 19.7 | 24.5 | 22.1 | 17.0 | 16.0 | 13.1 | 9.4 | 7.1 | 6.3 | 6.9 | 7.7 | 11.7 | 17.9 | 16.2 | 15.6 | 14.3 | 15.3 | 14.6 | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

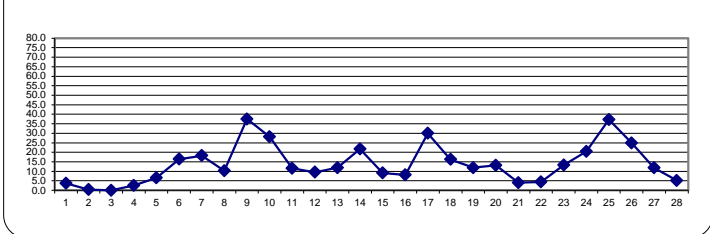
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR NA PPB

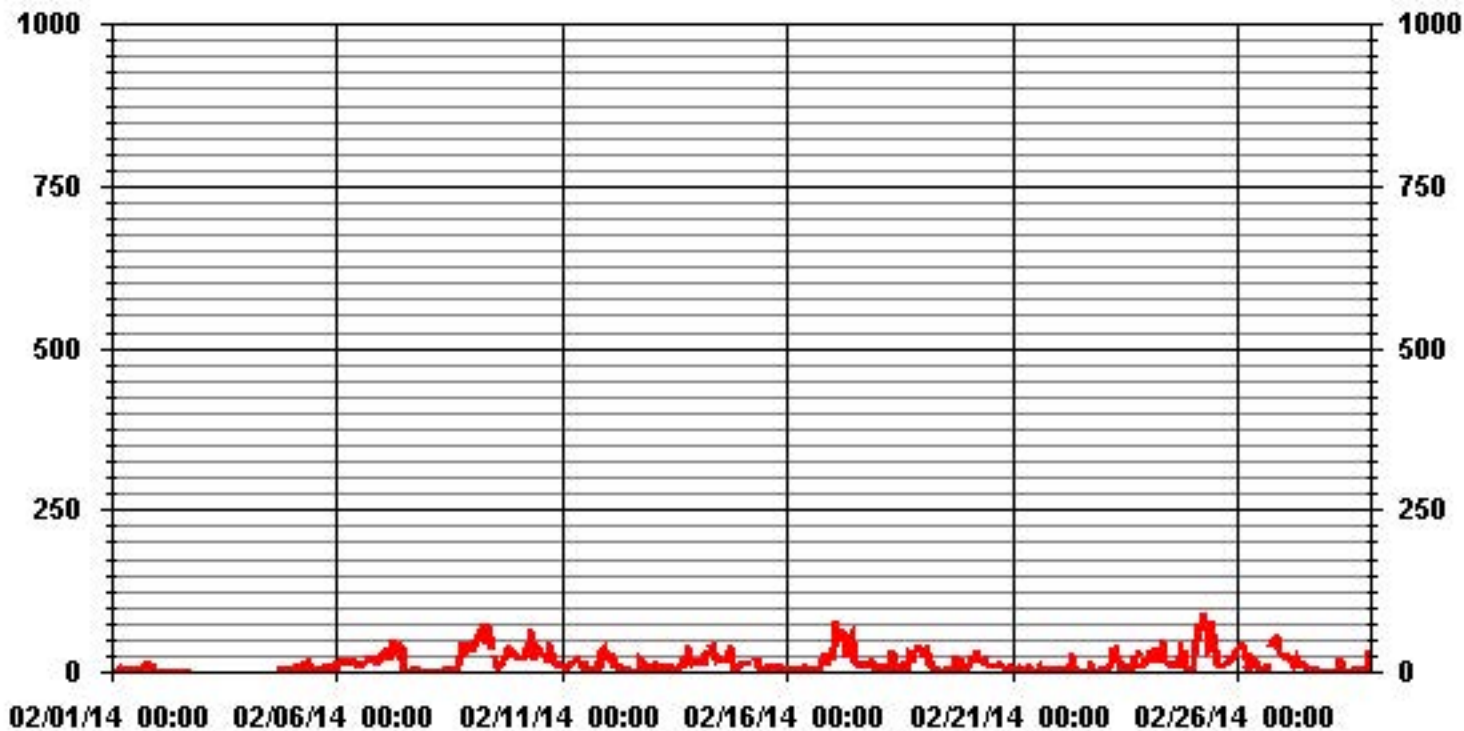
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------|-----|-----------------------|-------|-------------|----|
| NUMBER OF 1-HR EXCEEDENCES: | NA | | | | | |
| NUMBER OF NON-ZERO READINGS: | 585 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 90.3 | PPB | @ HOUR(S) | 6 | ON DAY(S) | 25 |
| MAXIMUM 24-HR AVERAGE: | 37.5 | PPB | | | ON DAY(S) | 9 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 635 | HRS | |
| MONTHLY CALIBRATION TIME: | 14 | HRS | AMD OPERATION UPTIME: | 94.5 | % | |
| STANDARD DEVIATION: | 15.39 | | MONTHLY AVERAGE: | 14.88 | PPB | |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



— LICA35 NOX_ PPB

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 0.7 | 1 | 1.4 | 16 | 7.8 | 0.8 | 1 | 1.3 | 17.8 | 11.4 | 1.7 | 4.6 | 2.6 | 4.8 | 5.6 | 6.7 | 13.6 | 13.3 | S | 21 | 25.5 | 23.1 | 9.3 | 25.5 | 8.3 | 24 | |
| 2 | 1 | 1 | 0.7 | 0.8 | 0.6 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 1.2 | 1.3 | 0.8 | 0.8 | 0.9 | 1.2 | 2.8 | S | X | X | X | X | X | X | 2.8 | 1.0 | 19 |
| 3 | X | X | X | X | X | X | X | X | X | X | X | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | 0 |
| 4 | Y | Y | Y | Y | Y | Y | Y | Y | Y | C | C | C | C | C | C | C | C | C | C | 2.4 | 1.8 | 1.9 | 3.1 | 5.3 | 5.5 | 5.5 | 3.3 | 16 |
| 5 | 5.3 | 19.1 | 13.3 | 10.1 | 3.8 | 2.4 | 11.7 | 22.8 | 24.8 | 13.9 | 19.1 | 2.4 | 3.9 | 4.3 | 7 | S | 9.6 | 16.7 | 10.9 | 8.8 | 16.2 | 8.9 | 13.2 | 18.4 | 24.8 | 11.6 | 24 | |
| 6 | 11.6 | 18.2 | 19.2 | 21.6 | 19.3 | 20.2 | 18.2 | 19.3 | 21.7 | 18 | 17 | 13.9 | 12.1 | 12.5 | S | 17.3 | 19.2 | 24.8 | 29.4 | 25.7 | 26.5 | 26.4 | 27.4 | 27.8 | 29.4 | 20.3 | 24 | |
| 7 | 52.4 | 33.2 | 44 | 34.1 | 25.1 | 41.7 | 56.8 | 76.2 | 45.8 | 60.5 | 45.7 | 50.1 | 28.1 | S | 2.7 | 2.5 | 2.8 | 1.9 | 3.4 | 3.9 | 3.5 | 4.1 | 1.4 | 1.5 | 76.2 | 27.0 | 24 | |
| 8 | 1.1 | 0.2 | 0 | 0 | 0 | 0.1 | 0 | 0 | 2.5 | 3.3 | 2.1 | 1 | S | 1.9 | 1.9 | 3.5 | 3.3 | 30.3 | 36.1 | 59.9 | 45.2 | 39.6 | 81.4 | 68.6 | 81.4 | 16.6 | 24 | |
| 9 | 51.6 | 42.7 | 57.7 | 70.5 | 100.3 | 100.7 | 63.5 | 91.5 | 95.2 | 77.7 | 42.1 | S | 27.5 | 18.3 | 9.7 | 18.7 | 27.6 | 83.3 | 69 | 79.9 | 84.9 | 108.9 | 39.9 | 35.4 | 108.9 | 60.7 | 24 | |
| 10 | 30.4 | 28.8 | 26.7 | 52.4 | 69.9 | 38.6 | 93.2 | 121.4 | 66.6 | 29.9 | S | 45.5 | 47.3 | 36.2 | 31.9 | 21.9 | 37.6 | 84.9 | 67.6 | 31.6 | 17.2 | 14.1 | 11.6 | 10.7 | 121.4 | 44.2 | 24 | |
| 11 | 10.1 | 9.9 | 8.3 | 10.3 | 13.3 | 13.1 | 17.4 | 19.1 | 26.7 | S | 20.2 | 10.6 | 59.3 | 2.6 | 2.6 | 2.2 | 3 | 4.3 | 25.7 | 4.2 | 10.6 | 66 | 58.5 | 32.9 | 66 | 18.7 | 24 | |
| 12 | 62.5 | 40 | 21.9 | 29.9 | 23.9 | 14.8 | 8.4 | 9.5 | S | 7.9 | 5 | 4.1 | 2.8 | 6.5 | 1.2 | 1.5 | 1.2 | 12.5 | 59.3 | 55.5 | 22.2 | 23.5 | 6.9 | 15.1 | 62.5 | 19.0 | 24 | |
| 13 | 13.7 | 15.6 | 48.4 | 12.1 | 9.7 | 11.7 | 12.1 | S | 10.8 | 10 | 14.3 | 9 | 10.9 | 7.6 | 8.7 | 13.3 | 15.7 | 46.8 | 46.7 | 91 | 41.8 | 20.6 | 20.9 | 21.2 | 91 | 22.3 | 24 | |
| 14 | 19.6 | 18.6 | 22.8 | 23.2 | 80.3 | 69.2 | S | 56.8 | 57.4 | 48.1 | 30.9 | 76 | 23 | 20.2 | 27.9 | 29.9 | 72.5 | 37.8 | 110.1 | 87 | 15.7 | 14.2 | 31 | 15.7 | 110.1 | 43.0 | 24 | |
| 15 | 16.4 | 21 | 17.8 | 18.4 | 17.1 | S | 43.6 | S | 57 | 22.5 | 5.8 | 10.7 | 11.6 | 15.3 | 17.8 | 14.7 | 9.8 | 8.9 | 9.8 | 11.3 | 13.6 | 9.9 | 6.1 | 6.6 | 57 | 16.6 | 24 | |
| 16 | 4.9 | 5 | 6.1 | 6.1 | S | 7 | 5.7 | 6.6 | 6.3 | 7.1 | 9.5 | 3.4 | 2.6 | 7 | 3.1 | 3.4 | 6.7 | 14.6 | 34.7 | 23.1 | 41.7 | 23.5 | 26.3 | 63.9 | 63.9 | 13.8 | 24 | |
| 17 | 27.8 | 61.7 | 96.3 | S | 88.1 | 59.7 | 72.9 | 88.2 | 37.8 | 95.5 | 85.9 | 82.4 | 27.3 | 30 | 15.1 | 14 | 57 | 14.1 | 16.8 | 37.8 | 40.7 | 32.2 | 10.8 | 13.9 | 96.3 | 48.1 | 24 | |
| 18 | 10.2 | 8.1 | S | 10.5 | 10.4 | 15.1 | 11.5 | 17.4 | 55.8 | 29.6 | 10.5 | 9.7 | 9.4 | 13.6 | 15.1 | 12.9 | 9.4 | 76.1 | 46.8 | 23.6 | 39.1 | 50.4 | 55.3 | 65 | 76.1 | 26.3 | 24 | |
| 19 | 72.8 | S | 82.5 | 37.8 | 25.1 | 26.1 | 4.9 | 2.4 | 2.7 | C | C | C | C | C | C | 3.4 | 4.4 | 31.7 | 85.8 | 34.9 | 112.5 | 10.5 | 6.2 | 16.2 | 112.5 | 32.9 | 24 | |
| 20 | S | 16.5 | 32.9 | 34.5 | 33.6 | 59.8 | 20.6 | 52.6 | 25.9 | 27.1 | 19.2 | 12.2 | 9.5 | 10.8 | 15.6 | 10.9 | 10.7 | 12 | 13.1 | 10.3 | 9.5 | 7.4 | 6.8 | S | 59.8 | 20.5 | 24 | |
| 21 | 5.9 | 4.9 | 5.8 | 8.4 | 8 | 5.9 | 7.2 | 5.9 | 8.9 | 7.8 | 4.4 | 2.1 | 2.4 | 1.3 | 1 | 64.8 | 2.6 | 9.3 | 6 | 6 | 5.9 | 4.4 | S | 5.8 | 64.8 | 8.0 | 24 | |
| 22 | 5.2 | 4 | 4.8 | 3.2 | 4.2 | 4.2 | 5.9 | 18.5 | 51.3 | 25.6 | 5.1 | 1.5 | 1.7 | 1 | 0.9 | 0.7 | 0.7 | 13.7 | 22.3 | 19 | 1.5 | S | 2.1 | 3.6 | 51.3 | 8.7 | 24 | |
| 23 | 4 | 4.8 | 5.9 | 8.1 | 14.4 | 31.1 | 48.9 | 52.7 | 33.8 | 34.4 | 7.3 | 3.2 | 12.5 | 9.9 | 15.8 | 11.6 | 18.6 | 61.8 | 34.6 | 35.5 | S | 20.1 | 22.2 | 21.4 | 61.8 | 22.3 | 24 | |
| 24 | 22.3 | 61.8 | 36.7 | 33.9 | 46.5 | 25.4 | 42.9 | 50.7 | 66.4 | 33 | 26.3 | 21.4 | 13.3 | 12.7 | 18.2 | 16.2 | 49.3 | 28.4 | 64.6 | S | 41.4 | 20.1 | 3.7 | 4.4 | 66.4 | 32.2 | 24 | |
| 25 | 11.8 | 35.5 | 101.7 | 82.1 | 72.6 | 102.2 | 118.9 | 113.7 | 86.3 | 55.4 | 142 | 73.7 | 50 | 21.1 | 27.3 | 13.6 | 11.8 | 16.1 | S | 37.5 | 18.9 | 22 | 37.3 | 38.2 | 142 | 56.1 | 24 | |
| 26 | 48.3 | 93.8 | 136.2 | 130.9 | 45.5 | 11.7 | 22.1 | 54 | 46.8 | 14.2 | 20.6 | 18.8 | 11 | 6.3 | 12.2 | 43.4 | 16.8 | S | 81.3 | 91.2 | 86.2 | 86.3 | 63 | 44.7 | 136.2 | 51.5 | 24 | |
| 27 | 35 | 53.1 | 31.6 | 98.2 | 66.5 | 31.5 | 22.7 | 32.8 | 20.9 | 18.8 | 16 | 20.7 | 16.3 | 7.3 | 5.8 | 3.9 | S | 6 | 6.6 | 3.9 | 1 | 1.3 | 1.3 | 1 | 98.2 | 21.8 | 24 | |
| 28 | 0.8 | 1 | 1 | 1.6 | 1.6 | 6.8 | 19 | 26.3 | 16.1 | 3.4 | 2.3 | 1.5 | 1.6 | 2.3 | 3.4 | S | 2.8 | 1.9 | 1.5 | 2.4 | 3.2 | 6.3 | 50.7 | 36 | 50.7 | 8.4 | 24 | |
| HOURLY MAX | 73 | 94 | 136 | 131 | 100 | 102 | 119 | 121 | 95 | 96 | 142 | 82 | 59 | 36 | 32 | 65 | 73 | 85 | 110 | 91 | 113 | 109 | 81 | 69 | | | | |
| HOURLY AVG | 21.0 | 24.0 | 32.9 | 29.6 | 31.8 | 28.3 | 29.2 | 39.2 | 34.8 | 27.6 | 23.5 | 19.9 | 16.3 | 10.5 | 10.4 | 13.8 | 16.0 | 26.2 | 35.9 | 32.7 | 28.9 | 26.0 | 24.5 | 23.3 | | | | |

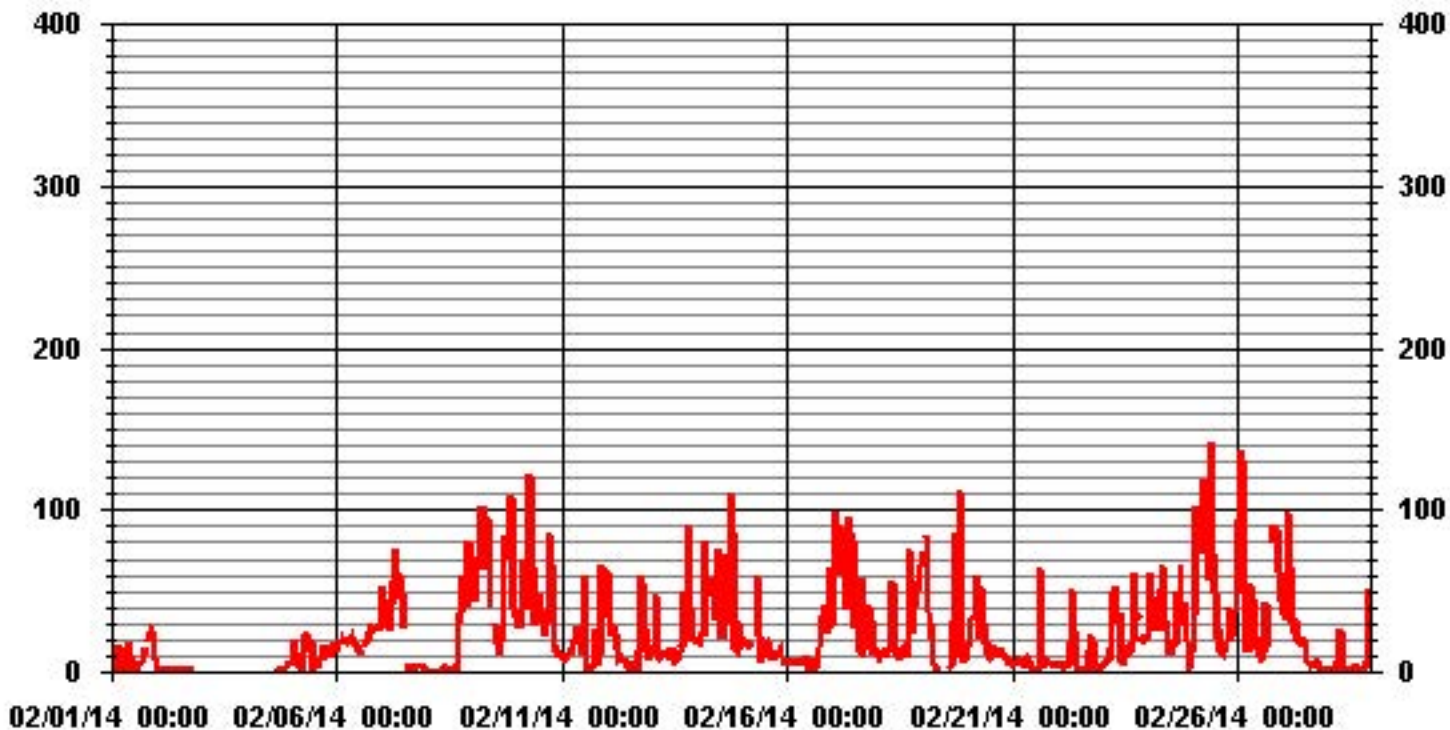
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 586 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 142 | PPB | @ HOUR(S) | 10 | ON DAY(S) | 25 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 28 | HRS | OPERATIONAL TIME: | 635 | HRS | |
| MONTHLY CALIBRATION TIME: | 16 | HRS | | | | |
| STANDARD DEVIATION: | 26.79 | | | | | |

01 Hour Averages



LICA-ELK
NOX_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
Site Name : LICA-ELK
Parameter : NOX_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|------|------|------|------|-------|------|------|-----|-----|------|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 2.88 | 1.18 | 1.18 | 2.03 | 6.61 | 16.27 | 6.27 | 1.69 | .67 | .67 | 1.01 | 6.94 | 16.10 | 11.18 | 15.93 | 5.59 | 96.27 |
| < 110.0 | .00 | .16 | .00 | .33 | .33 | 1.01 | .00 | .00 | .00 | .00 | .00 | .16 | .50 | .33 | .50 | .33 | 3.72 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.88 | 1.35 | 1.18 | 2.37 | 6.94 | 17.28 | 6.27 | 1.69 | .67 | .67 | 1.01 | 7.11 | 16.61 | 11.52 | 16.44 | 5.93 | |

Calm : .00 %

Total # Operational Hours : 590

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 17 | 7 | 7 | 12 | 39 | 96 | 37 | 10 | 4 | 4 | 6 | 41 | 95 | 66 | 94 | 33 | 568 |
| < 110.0 | | 1 | | 2 | 2 | 6 | | | | | | 1 | 3 | 2 | 3 | 2 | 22 |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 17 | 8 | 7 | 14 | 41 | 102 | 37 | 10 | 4 | 4 | 6 | 42 | 98 | 68 | 97 | 35 | |

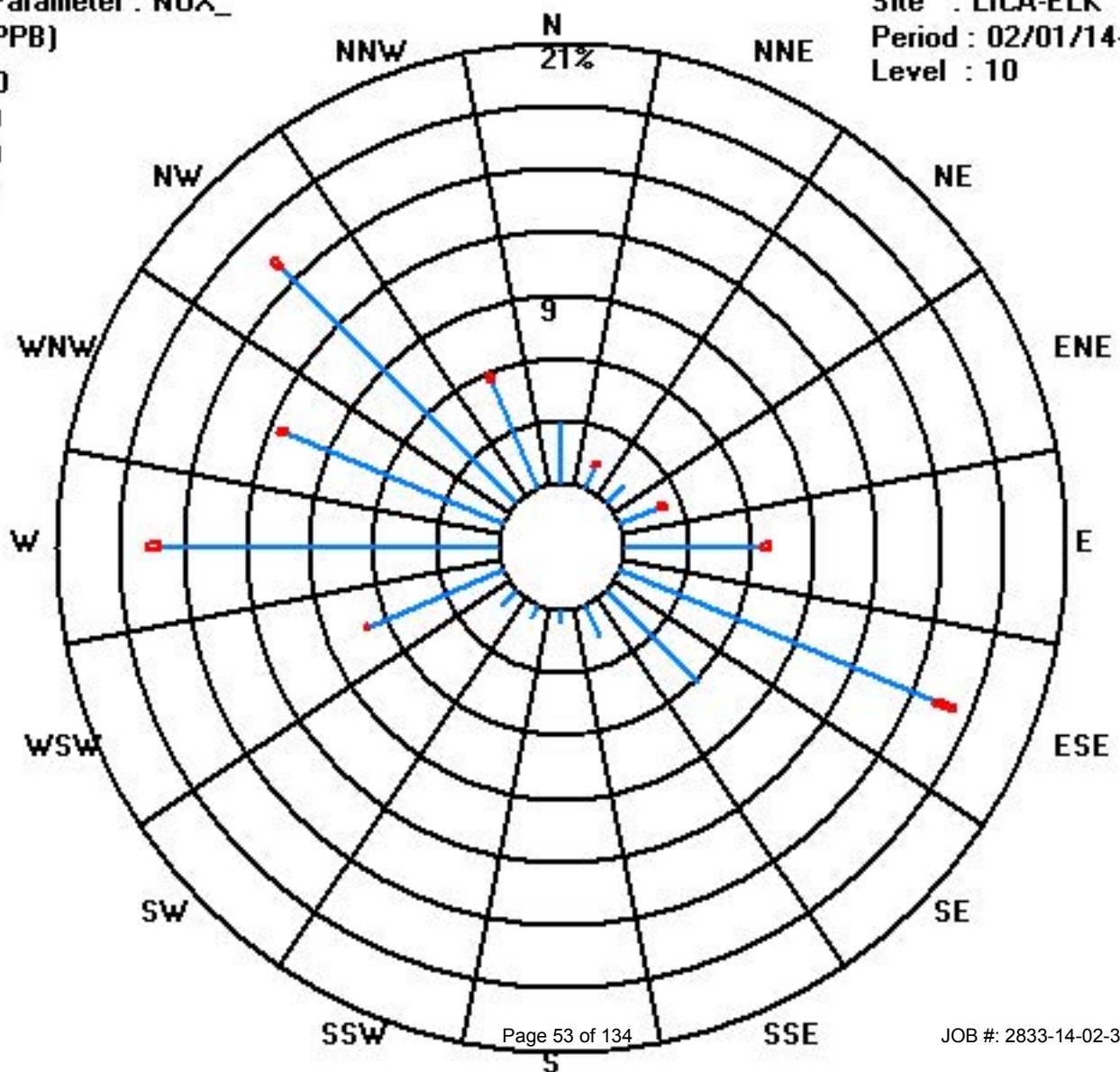
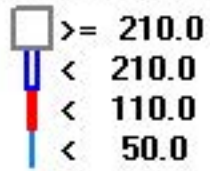
Calm : .00 %

Total # Operational Hours : 590

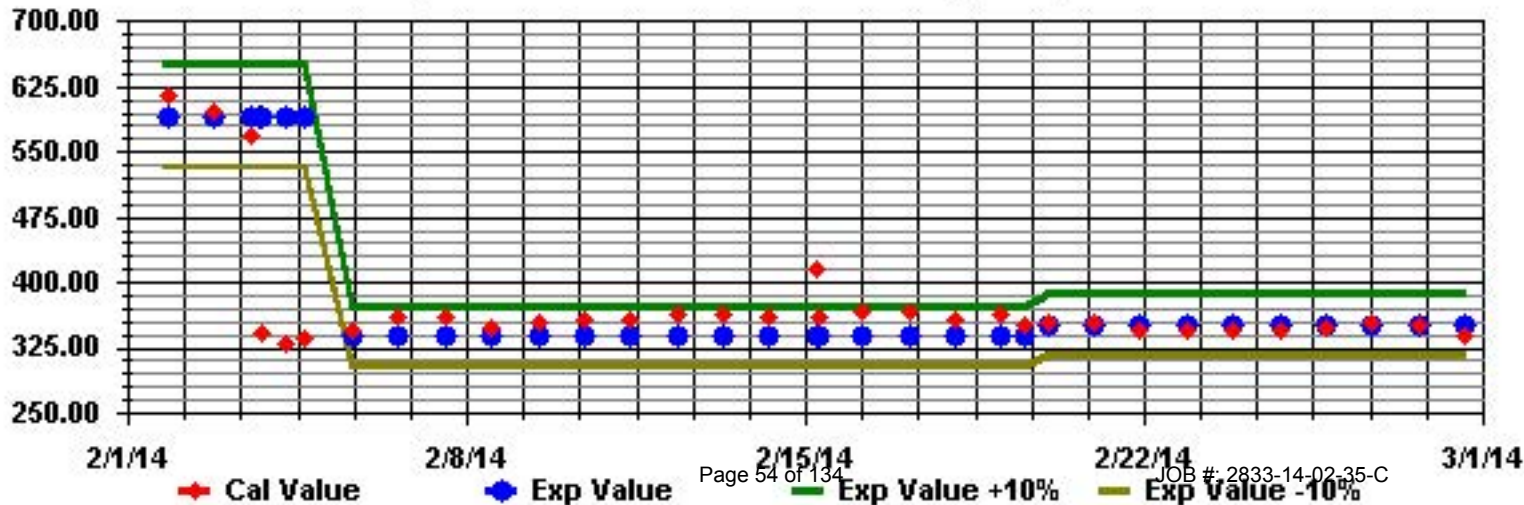
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10

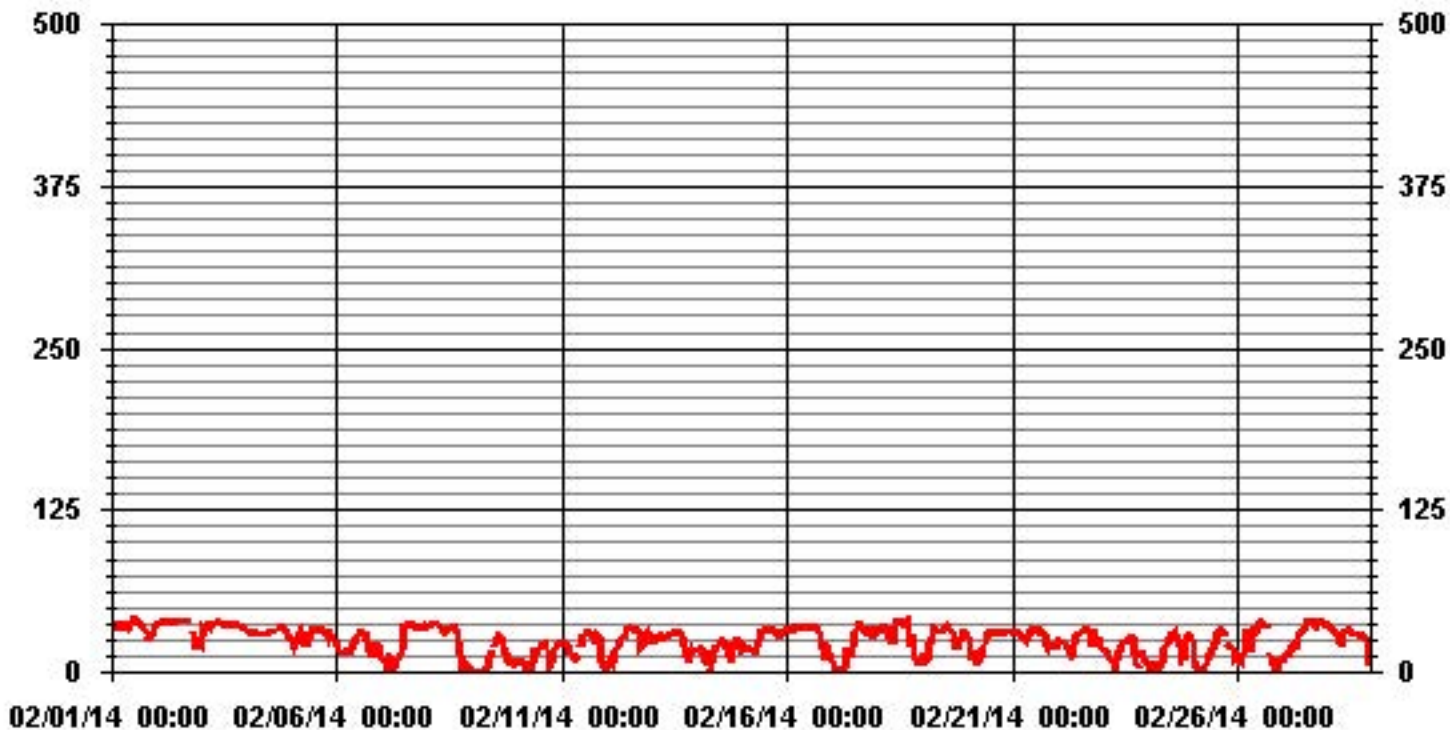


Calibration Graph for Site: LICA35 Parameter: NOX_ Sequence: NO2 Phase: SPAN



Ozone

01 Hour Averages



— LICA35 03_ PPB

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

OZONE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 38 | 38 | 38 | 37 | 37 | 38 | 39 | 39 | 40 | 39 | 40 | 41 | 41 | 41 | 40 | 39 | 39 | 37 | 35 | S | 34 | 34 | 35 | 37 | 41 | 38.1 | 24 | |
| 2 | 38 | 38 | 38 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 40 | 40 | 40 | 39 | 40 | 39 | S | 35 | 27 | 34 | 33 | 32 | 40 | 37.6 | 24 | |
| 3 | 36 | 34 | 38 | 38 | 38 | 36 | 39 | 39 | 39 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | S | 38 | 37 | 36 | 36 | 35 | 34 | 39 | 37.0 | 24 | | |
| 4 | 33 | 32 | 31 | 31 | 31 | 30 | S | 30 | 30 | 29 | 30 | 30 | 32 | 32 | 33 | C | C | C | C | 34 | 34 | 33 | 31 | 27 | 34 | 31.2 | 24 | |
| 5 | 27 | 25 | 26 | 28 | 31 | 32 | 32 | 29 | 27 | 29 | 33 | 34 | 34 | 35 | 34 | S | 35 | 34 | 33 | 32 | 31 | 30 | 29 | 27 | 35 | 30.7 | 24 | |
| 6 | 25 | 22 | 17 | 17 | 17 | 18 | 19 | 18 | 22 | 24 | 27 | 29 | 32 | 32 | S | 30 | 28 | 21 | 20 | 18 | 20 | 25 | 24 | 22 | 32 | 22.9 | 24 | |
| 7 | 18 | 14 | 10 | 13 | 18 | 12 | 7 | 11 | 14 | 15 | 17 | 22 | 39 | S | 39 | 38 | 37 | 36 | 36 | 37 | 36 | 36 | 36 | 36 | 39 | 25.1 | 24 | |
| 8 | 36 | 36 | 37 | 38 | 38 | 37 | 37 | 37 | 35 | 32 | 32 | 32 | S | 37 | 37 | 35 | 32 | 32 | 21 | 12 | 9 | 10 | 17 | 5 | 38 | 29.3 | 24 | |
| 9 | 8 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 15 | 17 | S | 24 | 29 | 30 | 31 | 30 | 24 | 24 | 19 | 16 | 13 | 10 | 13 | 31 | 13.9 | 24 | |
| 10 | 9 | 12 | 11 | 11 | 9 | 7 | 6 | 2 | 14 | 18 | S | 18 | 19 | 21 | 22 | 23 | 22 | 17 | 16 | 18 | 20 | 23 | 23 | 25 | 25 | 15.9 | 24 | |
| 11 | 24 | 23 | 24 | 24 | 19 | 16 | 15 | 11 | 15 | S | 25 | 29 | 31 | 32 | 32 | 33 | 30 | 28 | 29 | 30 | 30 | 20 | 11 | 9 | 33 | 23.5 | 24 | |
| 12 | 9 | 11 | 15 | 13 | 19 | 22 | 23 | 23 | S | 30 | 33 | 34 | 35 | 35 | 35 | 33 | 34 | 34 | 32 | 25 | 27 | 32 | 32 | 31 | 35 | 26.8 | 24 | |
| 13 | 28 | 28 | 29 | 30 | 31 | 30 | 28 | S | 30 | 30 | 31 | 31 | 32 | 32 | 32 | 32 | 31 | 29 | 24 | 16 | 20 | 22 | 19 | 20 | 32 | 27.6 | 24 | |
| 14 | 22 | 20 | 22 | 20 | 14 | 17 | S | 13 | 12 | 21 | 21 | 23 | 26 | 27 | 27 | 26 | 25 | 20 | 16 | 24 | 27 | 28 | 26 | 26 | 28 | 21.9 | 24 | |
| 15 | 25 | 20 | 22 | 22 | 23 | S | 23 | 20 | 25 | 30 | 32 | 33 | 33 | 34 | 34 | 35 | 35 | 33 | 32 | 33 | 33 | 34 | 33 | 33 | 35 | 29.4 | 24 | |
| 16 | 34 | 34 | 33 | 33 | S | 35 | 36 | 36 | 35 | 35 | 34 | 35 | 36 | 35 | 35 | 35 | 34 | 35 | 35 | 24 | 22 | 26 | 22 | 19 | 36 | 32.1 | 24 | |
| 17 | 11 | 7 | 2 | S | 1 | 1 | 2 | 17 | 24 | 16 | 17 | 31 | 32 | 37 | 39 | 40 | 39 | 38 | 35 | 35 | 37 | 35 | 37 | 36 | 40 | 24.7 | 24 | |
| 18 | 35 | 34 | S | 38 | 38 | 33 | 35 | 31 | 29 | 38 | 39 | 40 | 41 | 40 | 39 | 41 | 41 | 38 | 35 | 34 | 20 | 17 | 13 | 17 | 41 | 33.3 | 24 | |
| 19 | 16 | S | 13 | 14 | 31 | 34 | 35 | 35 | 34 | 32 | 32 | 33 | 35 | 36 | 36 | 34 | 34 | 32 | 28 | 34 | 34 | 30 | 34 | 34 | 36 | 30.9 | 24 | |
| 20 | S | 29 | 20 | 19 | 17 | 16 | 22 | 18 | 21 | 26 | 29 | 31 | 32 | 32 | 32 | 32 | 32 | 31 | 31 | 32 | 32 | 33 | 32 | S | 33 | 27.2 | 24 | |
| 21 | 32 | 33 | 32 | 33 | 32 | 30 | 28 | 28 | 26 | 31 | 34 | 34 | 32 | 33 | 35 | 34 | 31 | 30 | 28 | 18 | 24 | 24 | S | 21 | 35 | 29.7 | 24 | |
| 22 | 22 | 24 | 25 | 24 | 22 | 21 | 21 | 19 | 14 | 24 | 29 | 30 | 32 | 34 | 34 | 34 | 35 | 35 | 25 | 32 | 31 | S | 28 | 24 | 35 | 26.9 | 24 | |
| 23 | 22 | 21 | 16 | 16 | 16 | 13 | 4 | 8 | 16 | 18 | 23 | 24 | 25 | 26 | 27 | 30 | 30 | 28 | 17 | 9 | S | 18 | 17 | 16 | 30 | 19.1 | 24 | |
| 24 | 11 | 12 | 14 | 10 | 7 | 11 | 10 | 9 | 13 | 20 | 22 | 24 | 27 | 30 | 31 | 32 | 31 | 26 | 15 | S | 17 | 30 | 30 | 29 | 32 | 20.0 | 24 | |
| 25 | 29 | 18 | 17 | 1 | 1 | 1 | 1 | 13 | 19 | 18 | 16 | 19 | 26 | 31 | 33 | 34 | 35 | 33 | S | 26 | 23 | 22 | 16 | 22 | 35 | 19.7 | 24 | |
| 26 | 19 | 21 | 16 | 23 | 28 | 34 | 32 | 22 | 35 | 36 | 34 | 38 | 38 | 41 | 41 | 41 | 39 | S | 29 | 18 | 10 | 10 | 9 | 18 | 41 | 27.5 | 24 | |
| 27 | 17 | 17 | 22 | 21 | 23 | 24 | 27 | 25 | 29 | 32 | 34 | 34 | 38 | 39 | 40 | 39 | S | 39 | 37 | 42 | 42 | 41 | 40 | 38 | 42 | 32.2 | 24 | |
| 28 | 37 | 35 | 35 | 34 | 34 | 33 | 27 | 28 | 30 | 32 | 32 | 33 | 33 | 31 | 31 | S | 29 | 29 | 29 | 29 | 29 | 28 | 27 | 22 | 13 | 37 | 30.0 | 24 |
| HOURLY MAX | 38 | 38 | 38 | 39 | 39 | 39 | 39 | 39 | 40 | 39 | 40 | 41 | 41 | 41 | 41 | 41 | 41 | 39 | 38 | 42 | 42 | 41 | 40 | 38 | | | | |
| HOURLY AVG | 24.5 | 23.7 | 22.4 | 23.3 | 22.8 | 23.0 | 22.6 | 22.3 | 25.0 | 27.7 | 29.3 | 31.1 | 32.7 | 33.7 | 34.3 | 34.3 | 33.3 | 31.1 | 28.0 | 27.0 | 26.7 | 26.8 | 25.7 | 24.6 | | | | |

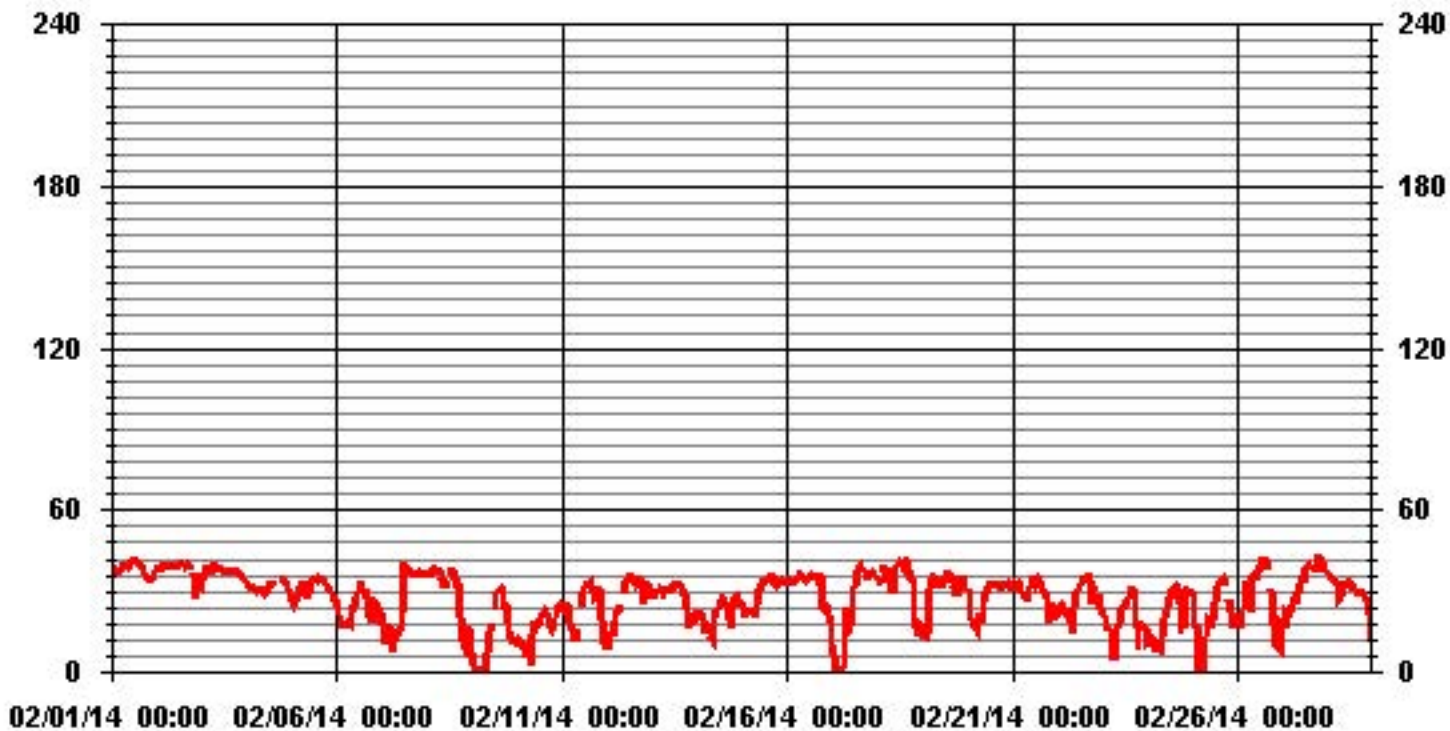
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|--------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 639 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 42 | PPB | @ HOUR(S) | 19, 20 | ON DAY(S) | 27 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | | | | |
| STANDARD DEVIATION: | 9.55 | | | | | |

01 Hour Averages



LICA-ELK
 O3_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : O3_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50 | 2.98 | 1.25 | 1.41 | 2.51 | 6.43 | 16.16 | 5.80 | 1.56 | .62 | .62 | .94 | 7.22 | 15.69 | 11.14 | 19.15 | 6.43 | 100.00 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.98 | 1.25 | 1.41 | 2.51 | 6.43 | 16.16 | 5.80 | 1.56 | .62 | .62 | .94 | 7.22 | 15.69 | 11.14 | 19.15 | 6.43 | |

Calm : .00 %

Total # Operational Hours : 637

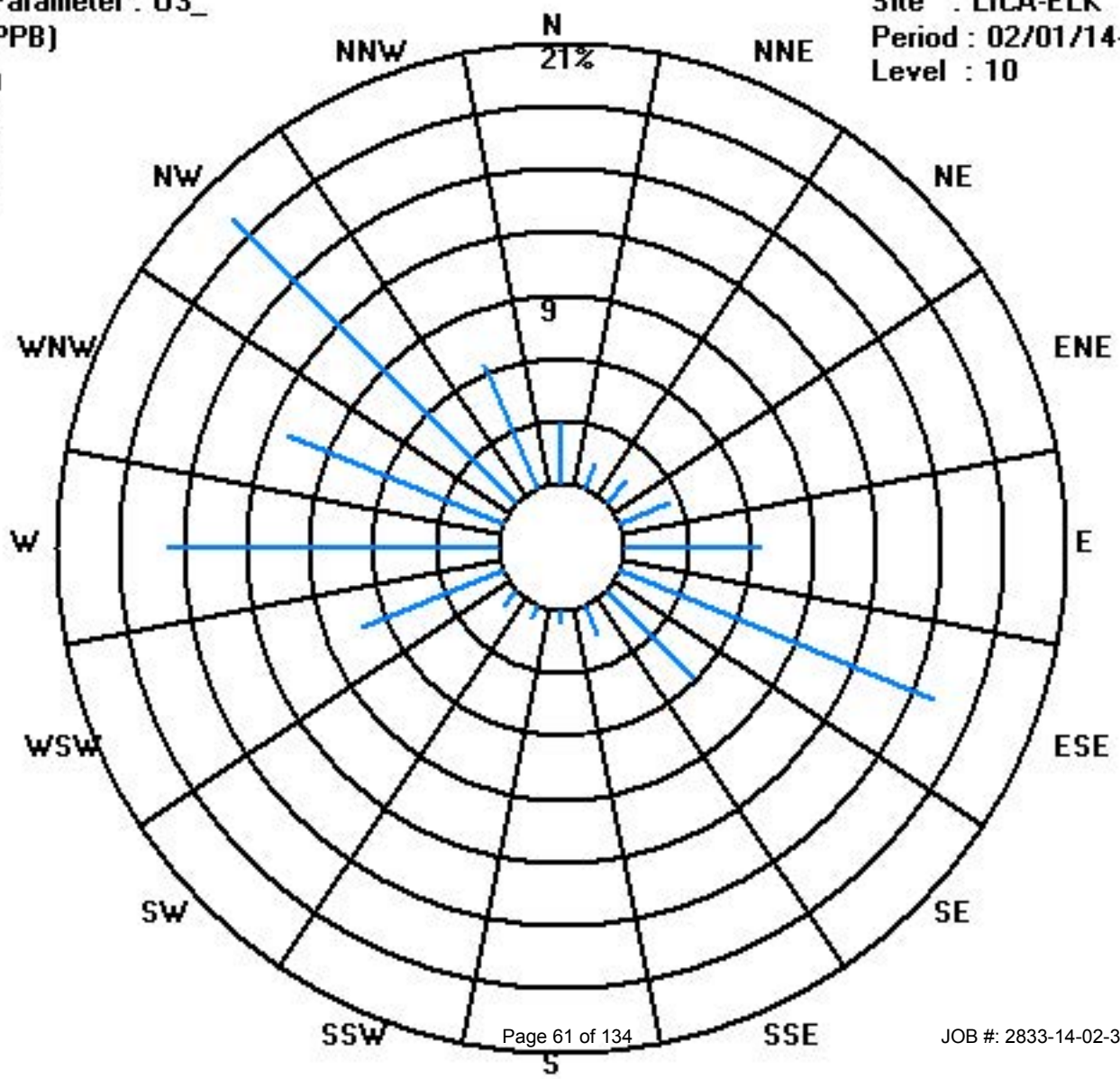
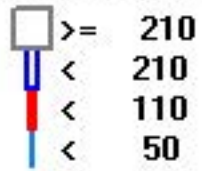
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-----|-----|-----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50 | 19 | 8 | 9 | 16 | 41 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 71 | 122 | 41 | 637 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 19 | 8 | 9 | 16 | 41 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 71 | 122 | 41 | |

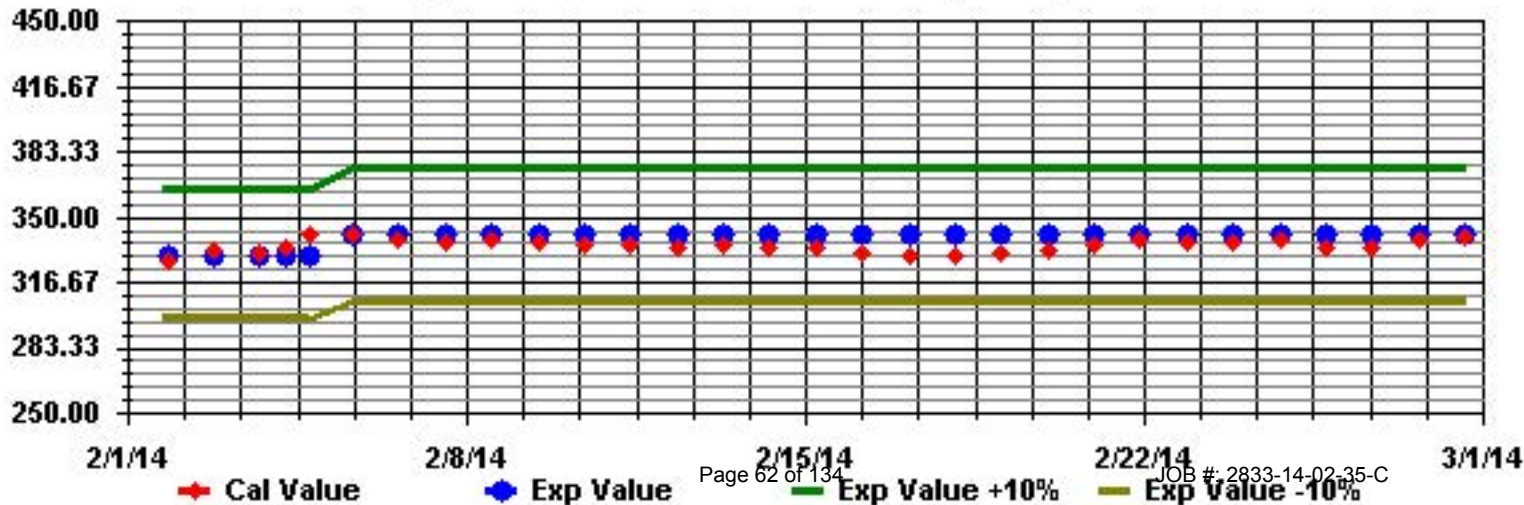
Calm : .00 %

Total # Operational Hours : 637

Class Limits (PPB)



Calibration Graph for Site: LICA35 Parameter: O3_ Sequence: 03 Phase: SPAN



Total Hydrocarbons (55i)

Lakeland Industry & Community Association - Elk Point Site

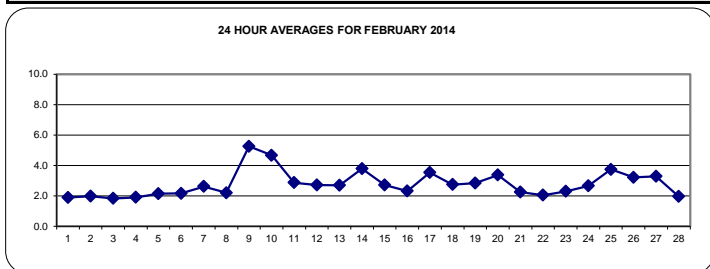
FEBRUARY 2014

TOTAL HYDROCARBONS (THC) hourly averages in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| HOUR START | HOUR END | 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 | 0:00 | | | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 1.8 | 1.8 | 1.8 | 1.9 | 2.0 | 1.9 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | S | 2.1 | 2.2 | 2.1 | 1.9 | 2.2 | 1.9 | 24 | | |
| 2 | | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | S | S | 2.7 | 2.7 | 2.3 | 2.6 | 2.8 | 2.8 | 2.0 | 24 | | |
| 3 | | 2.0 | 2.0 | 2.0 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | C | C | C | C | C | C | C | C | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 2.0 | 1.8 | 24 | | |
| 4 | | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | S | Y | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 23 | | |
| 5 | | 2.0 | 3.3 | 2.9 | 2.6 | 2.2 | 1.9 | 2.0 | 2.3 | 2.3 | 2.2 | 2.0 | 1.9 | 1.9 | 2.0 | S | 2.0 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.2 | 3.3 | 2.1 | 24 | | |
| 6 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | S | 2.0 | 2.0 | 2.2 | 2.5 | 2.6 | 2.6 | 2.3 | 2.3 | 3.0 | 3.0 | 2.2 | 24 | | |
| 7 | | 2.9 | 3.6 | 4.1 | 2.9 | 3.0 | 2.9 | 3.1 | 3.0 | 3.3 | 3.8 | 2.9 | 3.3 | 2.0 | S | 1.9 | 1.9 | 1.9 | 1.8 | 2.1 | 1.9 | 2.0 | 2.0 | 2.0 | 4.1 | 2.6 | 24 | | |
| 8 | | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | S | 1.8 | 1.9 | 1.9 | 2.0 | 2.5 | 2.4 | 2.6 | 2.7 | 3.0 | 3.2 | 4.0 | 4.0 | 2.2 | 24 | |
| 9 | | 4.1 | 4.4 | 4.7 | 6.0 | 8.5 | 8.3 | 6.5 | 6.9 | 7.0 | 6.7 | 5.8 | S | 4.5 | 3.4 | 2.7 | 2.6 | 3.4 | 4.6 | 6.4 | 6.1 | 4.1 | 4.4 | 4.8 | 4.9 | 8.5 | 5.3 | 24 | |
| 10 | | 5.1 | 5.8 | 4.8 | 5.2 | 4.9 | 5.5 | 5.5 | 5.7 | 5.8 | 5.2 | S | 5.3 | 5.1 | 4.5 | Y | S | 3.5 | 3.7 | 5.1 | 3.8 | 3.7 | 3.2 | 3.3 | 3.3 | 5.8 | 4.7 | 23 | |
| 11 | | 2.9 | 2.8 | 2.7 | 2.6 | 2.7 | 2.9 | 3.1 | 3.3 | 4.0 | S | 3.0 | 2.4 | 2.1 | 1.9 | 1.9 | Y | 1.9 | 2.0 | 2.3 | 2.2 | 2.9 | 3.1 | 5.2 | 5.3 | 5.3 | 2.9 | 23 | |
| 12 | | 6.2 | 4.6 | 3.8 | 3.8 | 3.4 | 2.9 | 2.6 | 2.8 | S | 2.3 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.8 | 2.6 | 2.5 | 2.2 | 2.2 | 2.5 | 6.2 | 2.7 | 24 | | |
| 13 | | 2.5 | 2.7 | 3.0 | 2.6 | 2.4 | 2.5 | 2.6 | S | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.5 | 2.6 | 2.8 | 3.9 | 3.9 | 3.3 | 3.5 | 3.1 | 3.9 | 2.7 | 24 | | |
| 14 | | 3.2 | 3.4 | 3.3 | 4.0 | 5.7 | 4.0 | S | 4.5 | 4.6 | 4.4 | 4.4 | 4.2 | 3.3 | 3.8 | 3.1 | 3.7 | 4.6 | 4.3 | 4.0 | 2.7 | 3.0 | 2.7 | 3.1 | 3.1 | 5.7 | 3.8 | 24 | |
| 15 | | 3.4 | 3.6 | 3.1 | 3.0 | 2.9 | S | 3.6 | 3.4 | 3.8 | 3.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.3 | 2.4 | 2.4 | 2.3 | 2.2 | 2.3 | 2.6 | 2.4 | 3.8 | 2.7 | 24 | | |
| 16 | | 2.2 | 2.2 | 2.4 | 2.3 | S | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.4 | 2.8 | 3.1 | 2.3 | 3.0 | 3.6 | 2.3 | 24 | | |
| 17 | | 3.8 | 4.0 | 6.6 | S | 7.5 | 5.9 | 4.6 | 4.6 | 3.0 | 4.8 | 5.3 | 4.3 | 2.7 | 2.5 | 2.0 | 2.1 | 2.1 | 2.0 | 1.9 | 2.1 | 2.1 | 2.8 | 2.3 | 2.2 | 7.5 | 3.5 | 24 | |
| 18 | | 1.9 | 2.0 | S | 2.1 | 2.0 | 2.2 | 2.0 | 2.2 | 2.6 | 2.2 | 1.9 | 1.9 | 1.8 | 1.9 | 2.0 | 1.9 | 1.9 | 4.1 | 3.5 | 2.7 | 4.6 | 5.3 | 5.5 | 4.9 | 5.5 | 2.7 | 24 | |
| 19 | | 5.4 | S | 7.2 | 5.4 | 4.0 | 3.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 2.6 | 2.3 | 2.2 | 3.5 | 2.6 | 2.1 | 2.7 | 7.2 | 2.8 | 24 | |
| 20 | | S | 3.1 | 5.7 | 6.8 | 4.4 | 3.5 | 3.4 | 3.6 | 3.9 | 3.9 | 3.1 | 2.9 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 | 2.7 | 2.5 | 2.5 | 2.6 | 2.5 | S | 6.8 | 3.4 | 24 | |
| 21 | | 2.5 | 2.5 | 2.7 | 2.6 | 2.7 | 2.6 | 3.0 | 2.8 | 2.9 | 2.6 | 2.2 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | S | 1.9 | 3.0 | 2.2 | 24 | | |
| 22 | | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.2 | 2.7 | 3.0 | 2.3 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 2.0 | 2.2 | 2.0 | 1.9 | S | 1.8 | 1.9 | 3.0 | 2.0 | 24 | | |
| 23 | | 1.9 | 1.9 | 1.9 | 2.0 | 2.4 | 2.8 | 2.7 | 2.7 | 2.6 | 2.9 | 2.0 | 1.9 | 1.9 | 2.0 | 2.1 | 2.0 | 2.1 | 2.6 | 2.5 | 2.8 | S | 2.1 | 2.5 | 2.5 | 2.9 | 2.3 | 24 | |
| 24 | | 2.7 | 3.5 | 3.1 | 2.7 | 3.7 | 2.3 | 2.6 | 3.4 | 3.8 | 2.4 | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.4 | 2.3 | 4.3 | S | 3.2 | 2.2 | 2.1 | 2.1 | 4.3 | 2.7 | 24 | |
| 25 | | 2.4 | 3.4 | 5.0 | 5.2 | 5.8 | 5.2 | 6.5 | 5.1 | 2.9 | 3.7 | 6.4 | 6.1 | 4.3 | 2.7 | 2.5 | 2.1 | 2.1 | 2.3 | S | 2.5 | 2.3 | 2.2 | 2.7 | 2.6 | 6.5 | 3.7 | 24 | |
| 26 | | 2.7 | 3.2 | 4.0 | 3.6 | 3.0 | 2.2 | 2.5 | 2.8 | 2.6 | 1.9 | 2.2 | 2.2 | 2.0 | 1.9 | 2.0 | 2.1 | 2.0 | S | 3.1 | 4.8 | 6.2 | 6.4 | 5.6 | 5.1 | 6.4 | 3.2 | 24 | |
| 27 | | 6.2 | 5.8 | 5.1 | 6.8 | 5.1 | 5.0 | 3.7 | 4.1 | 3.6 | 3.5 | 3.1 | 3.0 | 2.7 | 2.0 | 2.0 | 1.9 | S | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 6.8 | 3.3 | 24 | |
| 28 | | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 2.1 | 2.2 | 2.4 | 2.2 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | S | 1.8 | 1.8 | 1.8 | 1.9 | 2.0 | 2.1 | 2.7 | 2.4 | 2.7 | 2.0 | 24 | |
| HOURLY MAX | | 6 | 6 | 7 | 7 | 9 | 8 | 7 | 7 | 7 | 7 | 6 | 6 | 5 | 5 | 3 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 5 | | | | |
| HOURLY AVG | | 2.9 | 3.0 | 3.4 | 3.2 | 3.4 | 3.1 | 3.0 | 3.1 | 3.0 | 2.9 | 2.7 | 2.6 | 2.4 | 2.3 | 2.1 | 2.1 | 2.3 | 2.5 | 2.8 | 2.7 | 2.8 | 2.7 | 2.9 | 2.9 | | | | |

STATUS FLAG CODES

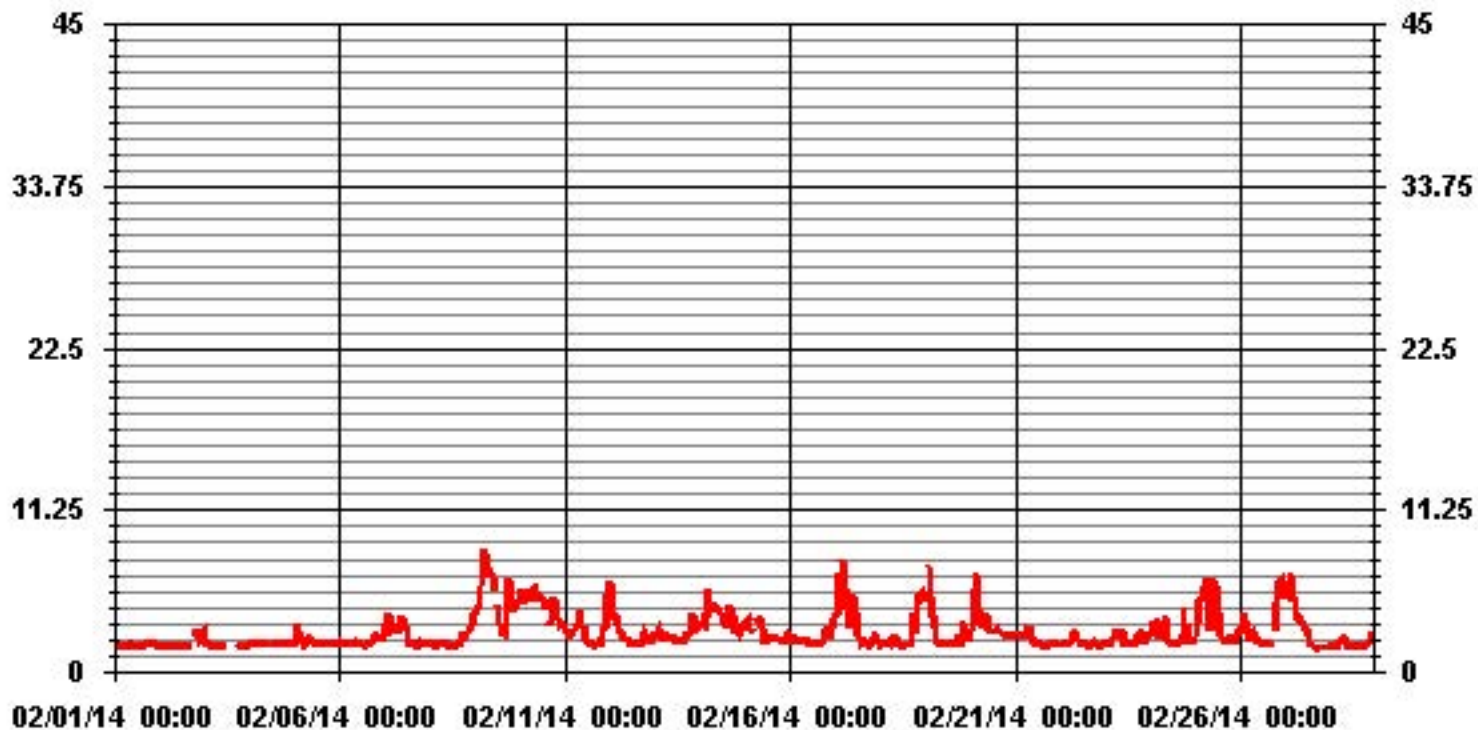
| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-------------|---|
| NUMBER OF NON-ZERO READINGS: | 630 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 8.5 | PPM | @ HOUR(S) | 4 | ON DAY(S) | 9 |
| MAXIMUM 24-HR AVERAGE: | 5.3 | PPM | | | ON DAY(S) | 9 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 669 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | AMD OPERATION UPTIME: | 99.6 | % | |
| STANDARD DEVIATION: | 1.22 | | MONTHLY AVERAGE: | 2.78 | PPM | |

01 Hour Averages



— LICA35 THC55 PPM

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|-------|-------|-------|-------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.86 | 1.86 | 1.96 | 2.05 | 2.31 | 2.28 | 1.93 | 1.94 | 2.13 | 2.4 | 2.22 | 1.89 | 2.07 | 1.94 | 1.91 | 1.88 | 2.17 | 2.04 | 2.08 | S | 3.09 | 2.98 | 2.79 | 2.21 | 3.09 | 2.2 | 24 | |
| 2 | 1.86 | 1.86 | 1.85 | 1.87 | 1.87 | 1.82 | 1.84 | 1.87 | 1.9 | 1.88 | 1.9 | 1.93 | 1.91 | 1.82 | 1.84 | 1.82 | 1.85 | S | S | 3.89 | 3.48 | 2.66 | 3.45 | 3.54 | 3.89 | 2.2 | 24 | |
| 3 | 2.25 | 2.04 | 2.44 | 1.94 | 1.87 | 1.87 | 1.88 | 1.87 | 1.88 | 1.88 | 1.84 | C | C | C | C | C | C | C | C | 2.09 | 1.92 | 1.86 | 1.88 | 1.89 | 2.44 | 2.0 | 24 | |
| 4 | 2.34 | 1.95 | 1.95 | 1.96 | 1.94 | 2.53 | S | 1.93 | 1.94 | 2.2 | 2.1 | 2.13 | 1.99 | 1.94 | 2.07 | 2.12 | S | Y | 1.99 | 1.96 | 1.99 | 1.98 | 2.05 | 2 | 2.53 | 2.1 | 23 | |
| 5 | 2.8 | 4.25 | 3.31 | 3.03 | 2.5 | 2.07 | 2.26 | 2.7 | 2.77 | 2.54 | 2.46 | 2.02 | 2.02 | 2.1 | 2.53 | S | 2.35 | 2.24 | 1.93 | 2.08 | 2.17 | 2.14 | 2.68 | 2.79 | 4.25 | 2.5 | 24 | |
| 6 | 2.08 | 2.2 | 2.24 | 2.09 | 2.18 | 2.12 | 2.08 | 2.12 | 2.69 | 2.23 | 2.15 | 2.15 | 2.03 | 2 | S | 2.09 | 2.24 | 2.31 | 3.49 | 3.22 | 2.83 | 2.74 | 3.26 | 3.84 | 3.84 | 2.5 | 24 | |
| 7 | 4.45 | 6.94 | 5.66 | 3.85 | 3.96 | 3.36 | 3.83 | 4.69 | 4.19 | 4.86 | 3.3 | 3.7 | 3.11 | S | 1.92 | 1.94 | 1.89 | 2.5 | 2.3 | 2.11 | 2.14 | 2.07 | 2.17 | 6.94 | 3.3 | 24 | | |
| 8 | 2.07 | 2.03 | 1.94 | 1.94 | 1.94 | 1.99 | 1.94 | 1.95 | 1.94 | 1.98 | 1.95 | 1.96 | S | 1.9 | 2 | 2.08 | 2.45 | 5.05 | 2.97 | 2.84 | 3 | 3.6 | 4.28 | 5.31 | 5.31 | 2.6 | 24 | |
| 9 | 5.74 | 5.28 | 6.49 | 7.55 | 18.79 | 10.6 | 7.66 | 8.21 | 7.93 | 9.14 | 8.84 | S | 4.8 | 3.98 | 3.04 | 3.52 | 7.97 | 13.34 | 19.11 | 10.25 | 7.69 | 6.2 | 8.48 | 6.55 | 19.11 | 8.3 | 24 | |
| 10 | 7.92 | 9.7 | 5.51 | 7.63 | 5.92 | 7.12 | 5.99 | 6.72 | 7.75 | 6.91 | S | 6.14 | 5.97 | 5.03 | Y | S | 4.57 | 5.25 | 12.44 | 5.59 | 4.77 | 3.46 | 3.51 | 3.48 | 12.44 | 6.3 | 23 | |
| 11 | 3.35 | 2.97 | 2.8 | 2.84 | 2.98 | 3.17 | 3.57 | 3.7 | 5.65 | S | 3.42 | 2.63 | 2.27 | 2.01 | 1.99 | Y | 2.02 | 2.19 | 2.9 | 2.93 | 3.53 | 3.82 | 7.77 | 8.36 | 8.36 | 3.5 | 23 | |
| 12 | 17.51 | 5.83 | 5.56 | 5.87 | 3.95 | 3.08 | 2.81 | 2.89 | S | 2.58 | 2.22 | 2.01 | 2.04 | 2.14 | 2.27 | 2.07 | 2.55 | 3.75 | 4.9 | 4.65 | 3.73 | 3.13 | 3.13 | 3.8 | 17.51 | 4.0 | 24 | |
| 13 | 3.6 | 3.73 | 5.71 | 3.52 | 3.25 | 2.87 | 3.11 | S | 2.4 | 2.57 | 2.44 | 2.98 | 2.27 | 2.24 | 2.72 | 2.8 | 4.16 | 3.53 | 4.14 | 9.37 | 5.24 | 3.93 | 4.47 | 3.66 | 9.37 | 3.7 | 24 | |
| 14 | 4.02 | 7.58 | 5.62 | 13.39 | 26.22 | 5.4 | S | 6.82 | 5.55 | 5.52 | 6.62 | 5.92 | 5.24 | 7.47 | 5.72 | 5.99 | 16.52 | 11.6 | 6.41 | 3.31 | 5.31 | 5.39 | 4.16 | 5.63 | 26.22 | 7.6 | 24 | |
| 15 | 6.7 | 4.84 | 3.97 | 3.47 | 5.12 | S | 9.75 | 5.4 | 10.27 | 6.28 | 2.48 | 3.04 | 3.2 | 3.32 | 3.75 | 4.97 | 2.97 | 2.91 | 4 | 3.88 | 2.41 | 2.84 | 3.16 | 3.4 | 10.27 | 4.4 | 24 | |
| 16 | 3.09 | 2.63 | 3.3 | 2.91 | S | 2.58 | 2.5 | 2.21 | 2.53 | 3.01 | 2.44 | 2.31 | 2.16 | 3.87 | 2.25 | 2.13 | 2.14 | 2.54 | 2.85 | 3.2 | 4.05 | 2.77 | 4.07 | 10.19 | 10.19 | 3.1 | 24 | |
| 17 | 5.91 | 5.65 | 9.65 | S | 22.88 | 8.35 | 6.44 | 6.66 | 4.4 | 6.22 | 8.08 | 7.18 | 3.51 | 3.51 | 2.06 | 2.34 | 2.4 | 2.04 | 2.03 | 2.42 | 3.05 | 3.47 | 3.01 | 2.79 | 22.88 | 5.4 | 24 | |
| 18 | 2 | 2.25 | S | 2.33 | 2.21 | 2.47 | 2.19 | 2.51 | 4.84 | 3.5 | 2.06 | 2 | 1.94 | 2.04 | 2.21 | 2.04 | 2.02 | 20.6 | 13.25 | 4.97 | 5.64 | 8.4 | 8.3 | 9.34 | 20.6 | 4.7 | 24 | |
| 19 | 8.41 | S | 22.51 | 8.11 | 6.39 | 6.77 | 2.49 | 2.19 | 2.13 | 2.12 | 2.15 | 2.1 | 2.11 | 2.02 | 2.41 | 2.28 | 2.13 | 8.6 | 2.66 | 2.66 | 7.52 | 2.99 | 2.74 | 5.37 | 22.51 | 4.7 | 24 | |
| 20 | S | 5.03 | 19.28 | 16.97 | 11.61 | 4.27 | 5.39 | 5.27 | 5.36 | 6.02 | 3.73 | 3.22 | 2.92 | 3.3 | 3.64 | 3.11 | 3.17 | 3.37 | 3.11 | 2.75 | 3.02 | 3.7 | 3.34 | S | 19.28 | 5.5 | 24 | |
| 21 | 2.97 | 2.75 | 3.19 | 3.01 | 5.37 | 3.43 | 3.52 | 3.23 | 3.15 | 2.85 | 2.4 | 2.2 | 2.02 | 2 | 1.94 | 1.9 | 1.94 | 1.91 | 1.92 | 1.92 | 1.95 | 1.99 | S | 2.02 | 5.37 | 2.6 | 24 | |
| 22 | 2.01 | 2.22 | 2.19 | 2.05 | 2.14 | 2.34 | 2.42 | 3.82 | 3.82 | 2.95 | 2.18 | 1.92 | 2.14 | 2.02 | 1.97 | 1.9 | 1.89 | 2.35 | 2.63 | 2.72 | 1.96 | S | 1.94 | 2.03 | 3.82 | 2.3 | 24 | |
| 23 | 2.35 | 2.03 | 2.24 | 2.31 | 3.1 | 3.37 | 3.03 | 3.29 | 2.98 | 4.31 | 2.77 | 2.03 | 2.26 | 2.39 | 2.71 | 2.5 | 2.88 | 3.81 | 2.81 | 3.82 | S | 2.41 | 3.31 | 3.51 | 4.31 | 2.9 | 24 | |
| 24 | 2.94 | 4.79 | 4.87 | 4.08 | 4.74 | 2.99 | 3.03 | 4.36 | 5.31 | 3.16 | 2.47 | 2.38 | 2.21 | 2.12 | 2.51 | 2.37 | 4.54 | 3.5 | 7.75 | S | 4.16 | 2.62 | 2.26 | 2.46 | 7.75 | 3.5 | 24 | |
| 25 | 3.98 | 4.3 | 11.18 | 11.18 | 15.27 | 5.9 | 7.63 | 7.88 | 3.7 | 5.18 | 7.49 | 7.05 | 6.62 | 3.22 | 2.75 | 2.33 | 2.34 | 2.58 | S | 3.28 | 2.87 | 2.49 | 3.08 | 3.32 | 15.27 | 5.5 | 24 | |
| 26 | 3.63 | 5.02 | 7.24 | 7.37 | 4.33 | 2.73 | 3.28 | 3.56 | 4.47 | 2.28 | 2.47 | 2.58 | 2.19 | 2.06 | 2.33 | 2.34 | 2.28 | S | 5.27 | 13.21 | 10.93 | 9.24 | 9.69 | 6.68 | 13.21 | 5.0 | 24 | |
| 27 | 18.34 | 11.96 | 16.98 | 19.88 | 12.45 | 12.44 | 5.08 | 4.96 | 3.96 | 4.57 | 3.6 | 3.65 | 3.24 | 2.2 | 2.05 | 1.96 | S | 1.86 | 1.86 | 1.82 | 1.81 | 1.84 | 1.84 | 1.85 | 19.88 | 6.1 | 24 | |
| 28 | 1.86 | 1.89 | 1.88 | 2.02 | 1.94 | 2.36 | 2.45 | 2.94 | 2.62 | 1.92 | 1.88 | 1.9 | 1.87 | 1.85 | 1.86 | S | 1.89 | 1.87 | 1.91 | 1.95 | 2.18 | 2.72 | 4.11 | 2.64 | 4.11 | 2.2 | 24 | |
| HOURLY MAX | 18 | 12 | 23 | 20 | 26 | 12 | 10 | 8 | 10 | 9 | 9 | 7 | 7 | 7 | 6 | 6 | 17 | 21 | 19 | 13 | 11 | 9 | 10 | 10 | | | | |
| HOURLY AVG | 4.7 | 4.2 | 6.0 | 5.4 | 6.6 | 4.1 | 3.8 | 3.9 | 4.0 | 3.7 | 3.2 | 3.0 | 2.8 | 2.7 | 2.5 | 2.5 | 3.3 | 4.6 | 4.7 | 4.0 | 3.8 | 3.5 | 3.9 | 4.1 | | | | |

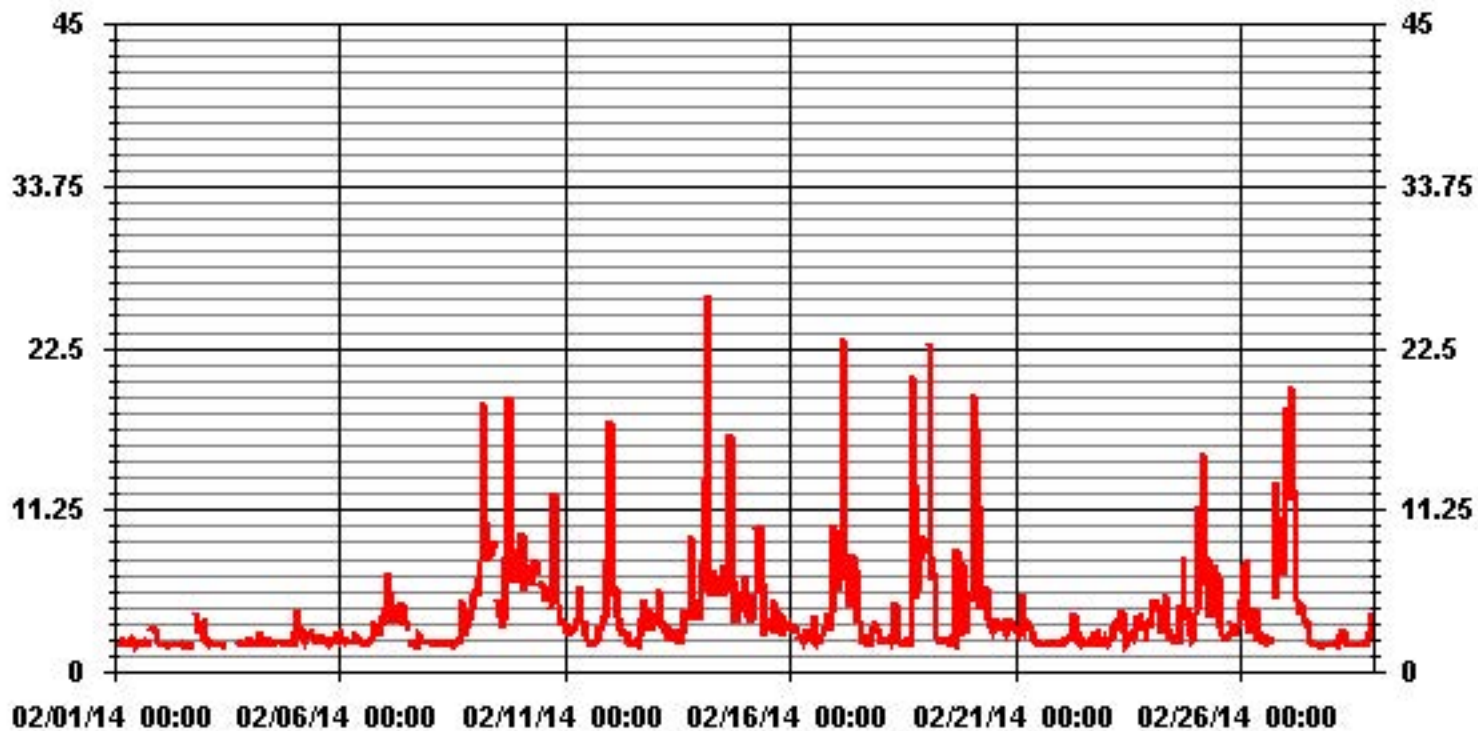
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 630 |
| MAXIMUM INSTANTANEOUS VALUE: | 26.22 PPM @ HOUR(S) 4 ON DAY(S) 14 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 31 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 669 HRS |
| STANDARD DEVIATION: | 3.23 |

01 Hour Averages



— LICA35 THC55MAX PPM

LICA35
 THC55 / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA35
 Parameter : THC55
 Units : PPM

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 3.0 | 2.71 | 1.11 | 1.27 | 1.59 | 1.91 | 7.33 | 2.71 | .95 | .31 | .31 | .63 | 6.53 | 13.07 | 8.29 | 16.42 | 5.90 | 71.13 |
| < 10.0 | .15 | .15 | .15 | .95 | 4.30 | 9.09 | 3.18 | .63 | .31 | .31 | .31 | .79 | 2.87 | 3.18 | 1.75 | .63 | 28.86 |
| < 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.87 | 1.27 | 1.43 | 2.55 | 6.22 | 16.42 | 5.90 | 1.59 | .63 | .63 | .95 | 7.33 | 15.94 | 11.48 | 18.18 | 6.53 | |

Calm : .00 %

Total # Operational Hours : 627

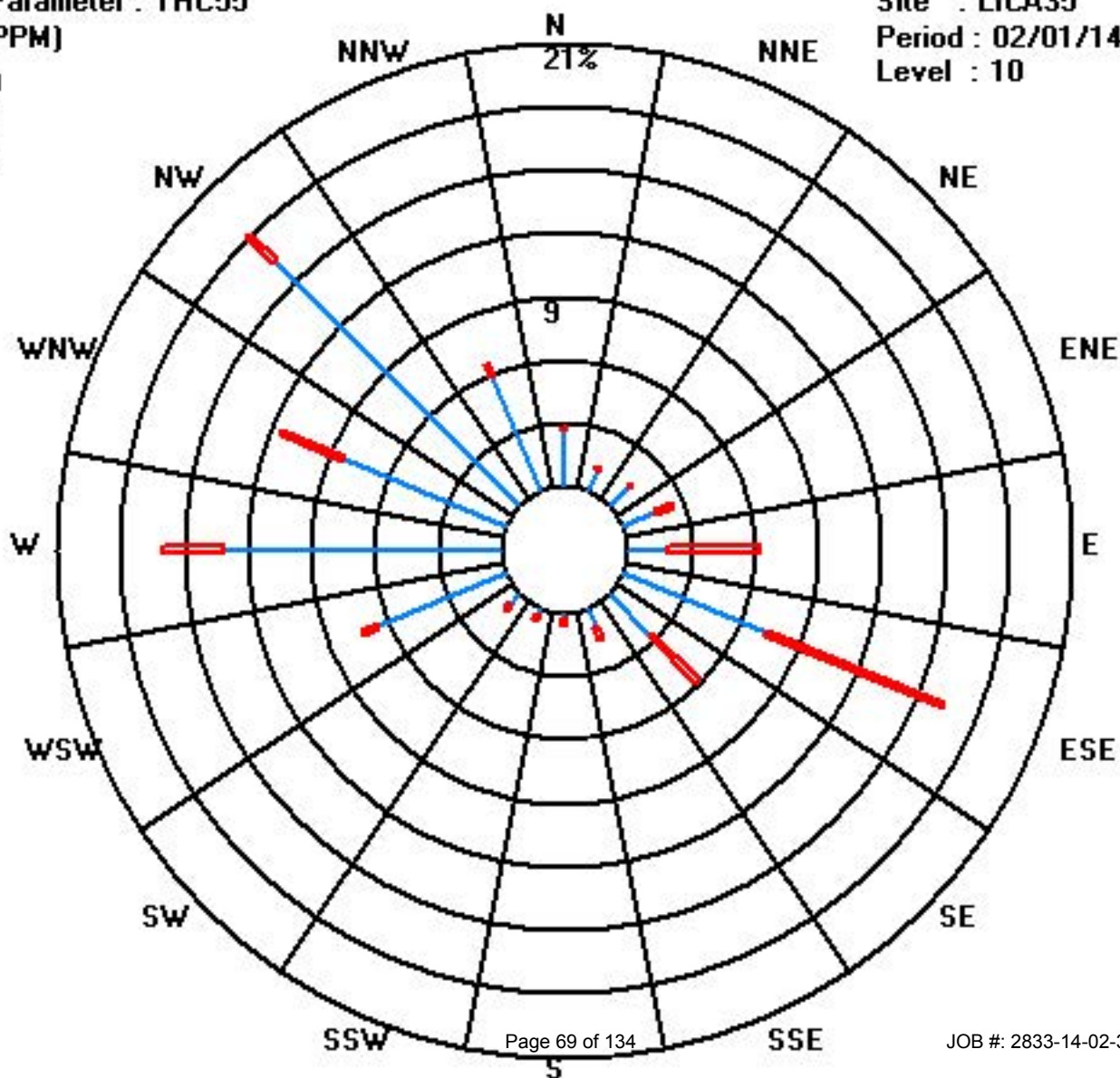
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 3.0 | 17 | 7 | 8 | 10 | 12 | 46 | 17 | 6 | 2 | 2 | 4 | 41 | 82 | 52 | 103 | 37 | 446 |
| < 10.0 | 1 | 1 | 1 | 6 | 27 | 57 | 20 | 4 | 2 | 2 | 2 | 5 | 18 | 20 | 11 | 4 | 181 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 18 | 8 | 9 | 16 | 39 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 72 | 114 | 41 | |

Calm : .00 %

Total # Operational Hours : 627

Class Limits (PPM)



Methane

Lakeland Industry & Community Association - Elk Point Site

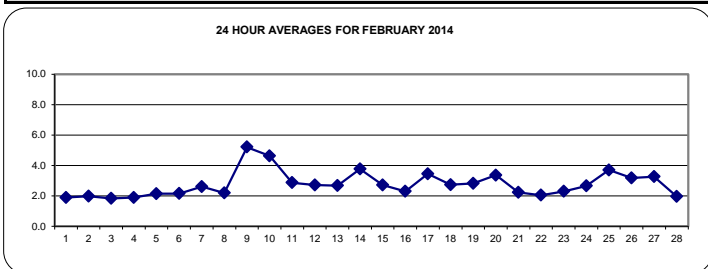
FEBRUARY 2014

METHANE (CH4) hourly averages in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.8 | 1.8 | 1.8 | 1.9 | 2.0 | 1.9 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | S | 2.1 | 2.2 | 2.1 | 1.9 | 2.2 | 1.9 | 24 |
| 2 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | S | S | 2.7 | 2.7 | 2.3 | 2.6 | 2.8 | 2.8 | 2.0 | 24 | |
| 3 | 2.0 | 2.0 | 2.0 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | C | C | C | C | C | C | C | C | C | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.0 | 1.8 | 24 | |
| 4 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | S | Y | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 23 | |
| 5 | 2.0 | 3.3 | 2.9 | 2.6 | 2.2 | 1.9 | 2.0 | 2.3 | 2.3 | 2.2 | 2.0 | 1.9 | 1.9 | 1.9 | 2.0 | S | 2.0 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.2 | 3.3 | 2.1 | 24 | |
| 6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | S | 2.0 | 2.0 | 2.2 | 2.5 | 2.6 | 2.6 | 2.3 | 2.3 | 3.0 | 3.0 | 2.2 | 24 | |
| 7 | 2.9 | 3.5 | 4.0 | 2.9 | 3.0 | 2.9 | 3.1 | 3.0 | 3.3 | 3.7 | 2.9 | 3.3 | 2.0 | S | 1.9 | 1.9 | 1.9 | 1.8 | 2.1 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 4.0 | 2.6 | 24 | |
| 8 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | S | 1.8 | 1.9 | 1.9 | 2.0 | 2.5 | 2.4 | 2.6 | 2.7 | 3.0 | 3.2 | 3.9 | 3.9 | 2.2 | 24 | |
| 9 | 4.1 | 4.3 | 4.7 | 5.9 | 8.3 | 8.2 | 6.4 | 6.8 | 6.9 | 6.7 | 5.8 | S | 4.5 | 3.4 | 2.7 | 2.6 | 3.4 | 4.5 | 6.3 | 6.1 | 4.1 | 4.4 | 4.8 | 4.9 | 8.3 | 5.2 | 24 | |
| 10 | 5.1 | 5.8 | 4.8 | 5.1 | 4.9 | 5.5 | 5.5 | 5.6 | 5.8 | 5.2 | S | 5.2 | 5.1 | 4.4 | Y | S | 3.5 | 3.7 | 5.0 | 3.7 | 3.6 | 3.2 | 3.2 | 3.3 | 5.8 | 4.6 | 23 | |
| 11 | 2.9 | 2.8 | 2.7 | 2.6 | 2.7 | 2.9 | 3.1 | 3.3 | 4.0 | S | 3.0 | 2.4 | 2.1 | 1.9 | 1.9 | Y | 1.9 | 2.0 | 2.3 | 2.2 | 2.9 | 3.1 | 5.1 | 5.3 | 5.3 | 2.9 | 23 | |
| 12 | 6.2 | 4.6 | 3.8 | 3.8 | 3.4 | 2.9 | 2.6 | 2.8 | S | 2.3 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.8 | 2.6 | 2.5 | 2.2 | 2.2 | 2.5 | 6.2 | 2.7 | 24 | |
| 13 | 2.5 | 2.7 | 3.0 | 2.6 | 2.4 | 2.5 | 2.6 | S | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.5 | 2.6 | 2.8 | 3.8 | 3.8 | 3.3 | 3.5 | 3.1 | 3.8 | 2.7 | 24 | |
| 14 | 3.2 | 3.4 | 3.3 | 4.0 | 5.5 | 4.0 | S | 4.4 | 4.5 | 4.4 | 4.4 | 4.2 | 3.2 | 3.8 | 3.1 | 3.7 | 4.6 | 4.3 | 3.9 | 2.7 | 3.0 | 2.7 | 3.1 | 3.1 | 5.5 | 3.8 | 24 | |
| 15 | 3.4 | 3.5 | 3.1 | 3.0 | 2.9 | S | 3.6 | 3.4 | 3.8 | 3.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.3 | 2.3 | 2.4 | 2.3 | 2.2 | 2.3 | 2.6 | 2.4 | 3.8 | 2.7 | 24 | |
| 16 | 2.2 | 2.2 | 2.4 | 2.3 | S | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.4 | 2.8 | 3.1 | 2.2 | 2.9 | 3.4 | 3.4 | 2.3 | 24 | |
| 17 | 3.6 | 3.8 | 6.4 | S | 7.3 | 5.6 | 4.5 | 4.5 | 3.0 | 4.7 | 5.1 | 4.2 | 2.7 | 2.5 | 2.0 | 2.1 | 2.1 | 2.0 | 1.9 | 2.1 | 2.1 | 2.1 | 2.8 | 2.3 | 2.2 | 7.3 | 3.5 | 24 |
| 18 | 1.9 | 2.0 | S | 2.1 | 2.0 | 2.2 | 2.0 | 2.2 | 2.6 | 2.2 | 1.9 | 1.9 | 1.8 | 1.9 | 2.0 | 1.9 | 1.9 | 4.0 | 3.5 | 2.7 | 4.5 | 5.3 | 5.4 | 4.9 | 5.4 | 2.7 | 24 | |
| 19 | 5.3 | S | 7.1 | 5.3 | 4.0 | 3.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 2.6 | 2.3 | 2.2 | 3.5 | 2.6 | 2.1 | 2.7 | 7.1 | 2.8 | 24 | |
| 20 | S | 3.1 | 5.6 | 6.8 | 4.4 | 3.5 | 3.4 | 3.6 | 3.9 | 3.9 | 3.1 | 2.9 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 | 2.7 | 2.5 | 2.5 | 2.6 | 2.5 | S | 6.8 | 3.4 | 24 | |
| 21 | 2.5 | 2.5 | 2.7 | 2.5 | 2.7 | 2.6 | 3.0 | 2.8 | 2.8 | 2.6 | 2.2 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | S | 1.9 | 3.0 | 2.2 | 24 | |
| 22 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.2 | 2.7 | 3.0 | 2.3 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 2.0 | 2.2 | 2.0 | 1.9 | S | 1.8 | 1.9 | 3.0 | 2.0 | 24 | |
| 23 | 1.9 | 1.9 | 1.9 | 2.0 | 2.4 | 2.8 | 2.7 | 2.7 | 2.6 | 2.9 | 2.0 | 1.9 | 1.9 | 2.0 | 2.1 | 2.0 | 2.1 | 2.6 | 2.5 | 2.8 | S | 2.1 | 2.5 | 2.5 | 2.9 | 2.3 | 24 | |
| 24 | 2.7 | 3.5 | 3.1 | 2.7 | 3.7 | 2.3 | 2.6 | 3.4 | 3.8 | 2.4 | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.4 | 2.3 | 4.2 | S | 3.2 | 2.2 | 2.1 | 2.1 | 4.2 | 2.7 | 24 | |
| 25 | 2.4 | 3.4 | 4.9 | 5.1 | 5.7 | 5.1 | 6.4 | 5.0 | 2.9 | 3.7 | 6.2 | 6.0 | 4.3 | 2.7 | 2.5 | 2.1 | 2.1 | 2.3 | S | 2.5 | 2.3 | 2.2 | 2.6 | 2.6 | 6.4 | 3.7 | 24 | |
| 26 | 2.6 | 3.0 | 3.8 | 3.6 | 2.9 | 2.2 | 2.5 | 2.8 | 2.6 | 1.9 | 2.2 | 2.2 | 2.0 | 1.9 | 2.0 | 2.1 | 2.0 | S | 3.1 | 4.7 | 6.2 | 6.3 | 5.5 | 4.9 | 6.3 | 3.2 | 24 | |
| 27 | 6.1 | 5.8 | 5.1 | 6.8 | 5.0 | 5.0 | 3.7 | 4.0 | 3.6 | 3.5 | 3.0 | 2.9 | 2.7 | 2.0 | 2.0 | 1.9 | S | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 6.8 | 3.3 | 24 |
| 28 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 2.1 | 2.2 | 2.4 | 2.2 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | S | 1.8 | 1.8 | 1.8 | 1.9 | 2.0 | 2.1 | 2.7 | 2.4 | 2.7 | 2.0 | 24 | |
| HOURLY MAX | 6 | 6 | 7 | 7 | 8 | 8 | 6 | 7 | 7 | 7 | 6 | 6 | 5 | 4 | 3 | 4 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 5 | | | | |
| HOURLY AVG | 2.9 | 3.0 | 3.4 | 3.2 | 3.4 | 3.1 | 3.0 | 3.1 | 3.0 | 2.9 | 2.7 | 2.6 | 2.4 | 2.2 | 2.1 | 2.1 | 2.3 | 2.5 | 2.7 | 2.6 | 2.8 | 2.7 | 2.8 | 2.9 | | | | |

STATUS FLAG CODES

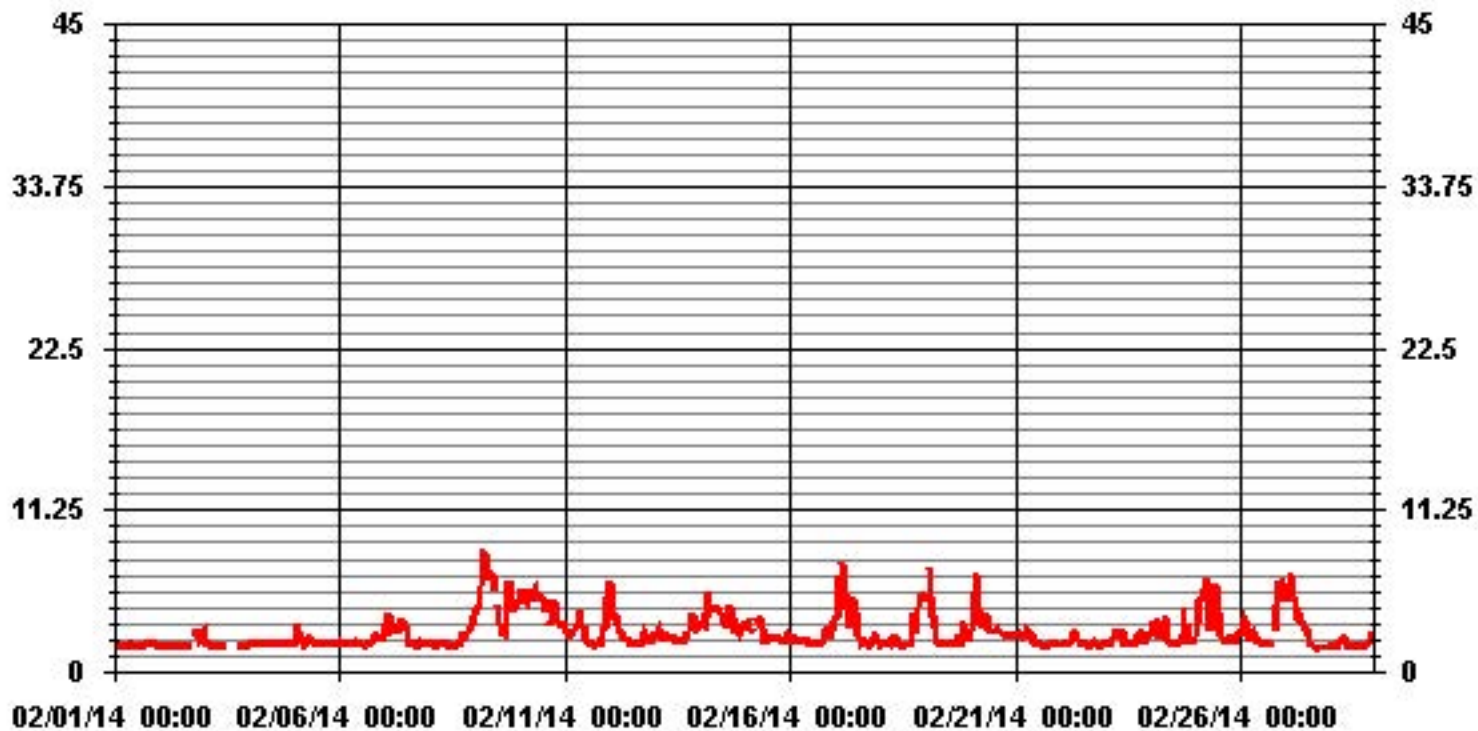
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-------------|---|
| NUMBER OF NON-ZERO READINGS: | 630 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 8.3 | PPM | @ HOUR(S) | 4 | ON DAY(S) | 9 |
| MAXIMUM 24-HR AVERAGE: | 5.2 | PPM | | | ON DAY(S) | 9 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 669 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | AMD OPERATION UPTIME: | 99.6 | % | |
| STANDARD DEVIATION: | 1.20 | | MONTHLY AVERAGE: | 2.77 | PPM | |

01 Hour Averages



— LICA35 METHANE PPM

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

METHANE MAX instantaneous maximum in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|-------|-------|-------|-------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.86 | 1.85 | 1.96 | 2.06 | 2.31 | 2.29 | 1.94 | 1.94 | 2.14 | 2.39 | 2.22 | 1.89 | 2.08 | 1.94 | 1.91 | 1.88 | 2.17 | 2.05 | 2.09 | S | 3.03 | 2.98 | 2.79 | 2.21 | 3.03 | 2.2 | 24 | |
| 2 | 1.85 | 1.85 | 1.85 | 1.86 | 1.87 | 1.83 | 1.84 | 1.88 | 1.9 | 1.87 | 1.9 | 1.93 | 1.91 | 1.83 | 1.84 | 1.82 | 1.84 | S | S | 3.88 | 3.45 | 2.67 | 3.45 | 3.46 | 3.88 | 2.2 | 24 | |
| 3 | 2.26 | 2.05 | 2.44 | 1.94 | 1.87 | 1.86 | 1.88 | 1.87 | 1.89 | 1.89 | 1.84 | C | C | C | C | C | C | C | C | 1.9 | 1.89 | 1.86 | 1.88 | 1.89 | 2.44 | 2.0 | 24 | |
| 4 | 2.35 | 1.95 | 1.95 | 1.96 | 1.94 | 2.53 | S | 1.93 | 1.94 | 2.1 | 2.01 | 1.95 | 1.92 | 1.94 | 2.08 | 2.13 | S | Y | 1.99 | 1.96 | 1.99 | 1.98 | 2.05 | 2 | 2.53 | 2.0 | 23 | |
| 5 | 2.8 | 4.15 | 3.31 | 3.03 | 2.5 | 2.08 | 2.27 | 2.71 | 2.78 | 2.54 | 2.45 | 2.02 | 2.03 | 2.11 | 2.53 | S | 2.36 | 2.24 | 1.93 | 2.08 | 2.17 | 2.14 | 2.69 | 2.8 | 4.15 | 2.5 | 24 | |
| 6 | 2.1 | 2.2 | 2.25 | 2.06 | 2.13 | 2.12 | 2.04 | 2.08 | 2.61 | 2.16 | 2.08 | 2.09 | 2.04 | 2.01 | S | 2.05 | 2.16 | 2.32 | 3.43 | 3.18 | 2.83 | 2.74 | 3.27 | 3.67 | 3.67 | 2.4 | 24 | |
| 7 | 4.38 | 6.55 | 5.43 | 3.85 | 3.78 | 3.28 | 3.78 | 4.49 | 4.14 | 4.83 | 3.27 | 3.69 | 3.11 | S | 1.92 | 1.92 | 1.94 | 1.89 | 2.5 | 2.3 | 2.12 | 2.15 | 2.08 | 2.17 | 6.55 | 3.3 | 24 | |
| 8 | 2.07 | 2.03 | 1.95 | 1.94 | 1.94 | 1.99 | 1.95 | 1.95 | 1.94 | 1.98 | 1.95 | 1.97 | S | 1.9 | 2 | 2.09 | 2.45 | 4.99 | 2.98 | 2.84 | 2.99 | 3.6 | 4.28 | 4.78 | 4.99 | 2.5 | 24 | |
| 9 | 5.53 | 5.08 | 6.25 | 7.28 | 18.63 | 10.49 | 7.63 | 8.16 | 7.82 | 9.04 | 8.72 | S | 4.78 | 3.98 | 3.04 | 3.52 | 7.99 | 13.2 | 18.84 | 10.1 | 7.64 | 6.22 | 8.48 | 6.56 | 18.84 | 8.2 | 24 | |
| 10 | 7.87 | 9.6 | 5.51 | 7.58 | 5.93 | 7.02 | 6.01 | 6.73 | 7.65 | 6.84 | S | 6.04 | 5.77 | 4.86 | Y | S | 4.56 | 5.25 | 12.29 | 5.43 | 4.76 | 3.46 | 3.37 | 3.41 | 12.29 | 6.2 | 23 | |
| 11 | 3.36 | 2.91 | 2.8 | 2.84 | 2.83 | 3.03 | 3.41 | 3.69 | 5.49 | S | 3.32 | 2.64 | 2.28 | 2.02 | 1.99 | Y | 2.03 | 2.19 | 2.89 | 2.93 | 3.52 | 3.69 | 7.79 | 8.3 | 8.3 | 3.5 | 23 | |
| 12 | 17.36 | 5.83 | 5.55 | 5.89 | 3.95 | 3.09 | 2.82 | 2.88 | S | 2.58 | 2.22 | 2.01 | 2.04 | 2.14 | 2.28 | 2.08 | 2.56 | 3.75 | 4.89 | 4.64 | 3.73 | 3.14 | 3.14 | 3.79 | 17.36 | 4.0 | 24 | |
| 13 | 3.57 | 3.72 | 5.71 | 3.51 | 3.25 | 2.87 | 3.12 | S | 2.4 | 2.58 | 2.43 | 2.98 | 2.28 | 2.25 | 2.72 | 2.8 | 4.16 | 3.53 | 4.01 | 9.31 | 5.24 | 3.93 | 4.41 | 3.66 | 9.31 | 3.7 | 24 | |
| 14 | 4.02 | 7.5 | 5.56 | 13.3 | 20.28 | 5.4 | S | 6.38 | 5.34 | 5.36 | 6.55 | 5.84 | 5.24 | 7.35 | 5.64 | 6 | 16.32 | 11.52 | 6.42 | 3.31 | 5.14 | 5.32 | 4.16 | 5.52 | 20.28 | 7.3 | 24 | |
| 15 | 6.65 | 4.64 | 3.97 | 3.47 | 5 | S | 9.56 | 5.16 | 10.16 | 6.31 | 2.48 | 3.02 | 3.2 | 3.33 | 3.75 | 4.97 | 2.97 | 2.91 | 3.89 | 3.76 | 2.32 | 2.84 | 3.16 | 3.41 | 10.16 | 4.4 | 24 | |
| 16 | 3.09 | 2.63 | 3.31 | 2.91 | S | 2.58 | 2.5 | 2.16 | 2.4 | 3.01 | 2.36 | 2.32 | 2.16 | 3.86 | 2.22 | 2.14 | 2.15 | 2.49 | 2.85 | 3.2 | 3.92 | 2.78 | 3.86 | 9.54 | 9.54 | 3.1 | 24 | |
| 17 | 5.77 | 5.53 | 9.29 | S | 20.28 | 7.94 | 6.12 | 6.38 | 4.2 | 6.16 | 7.72 | 6.79 | 3.51 | 3.51 | 2.04 | 2.34 | 2.4 | 2.04 | 2.03 | 2.28 | 3.06 | 3.47 | 2.91 | 2.79 | 20.28 | 5.2 | 24 | |
| 18 | 2 | 2.26 | S | 2.33 | 2.21 | 2.47 | 2.19 | 2.51 | 4.84 | 3.35 | 2.06 | 2.01 | 1.95 | 2.05 | 2.21 | 2.05 | 2.02 | 19.82 | 12.69 | 4.98 | 5.65 | 8.33 | 8.21 | 9.27 | 19.82 | 4.7 | 24 | |
| 19 | 8.29 | S | 20.28 | 8 | 6.18 | 6.72 | 2.48 | 2.19 | 2.14 | 2.13 | 2.16 | 2.11 | 2.12 | 2.02 | 2.41 | 2.28 | 2.14 | 8.46 | 2.67 | 2.67 | 7.4 | 3 | 2.74 | 5.38 | 20.28 | 4.6 | 24 | |
| 20 | S | 5.03 | 19.1 | 16.82 | 11.51 | 4.27 | 5.33 | 5.19 | 5.36 | 5.98 | 3.73 | 3.22 | 2.88 | 3.3 | 3.64 | 3.06 | 3.07 | 3.24 | 3.11 | 2.75 | 3.02 | 3.7 | 3.34 | S | 19.1 | 5.5 | 24 | |
| 21 | 2.89 | 2.7 | 3.08 | 2.87 | 5.27 | 3.34 | 3.39 | 3.05 | 3.03 | 2.8 | 2.4 | 2.16 | 2.03 | 2 | 1.94 | 1.9 | 1.94 | 1.91 | 1.92 | 1.92 | 1.95 | 2 | S | 2.03 | 5.27 | 2.5 | 24 | |
| 22 | 2.02 | 2.22 | 2.19 | 2.06 | 2.15 | 2.35 | 2.41 | 3.81 | 3.81 | 2.96 | 2.18 | 1.92 | 2.14 | 2.03 | 1.97 | 1.9 | 1.89 | 2.35 | 2.64 | 2.72 | 1.97 | S | 1.94 | 2.03 | 3.81 | 2.3 | 24 | |
| 23 | 2.36 | 2.03 | 2.24 | 2.32 | 3.11 | 3.38 | 3.03 | 3.29 | 2.98 | 4.28 | 2.77 | 2.04 | 2.26 | 2.39 | 2.71 | 2.5 | 2.88 | 3.78 | 2.81 | 3.82 | S | 2.41 | 3.32 | 3.51 | 4.28 | 2.9 | 24 | |
| 24 | 2.94 | 4.78 | 4.79 | 4.07 | 4.6 | 2.99 | 3.03 | 4.36 | 5.25 | 3.17 | 2.47 | 2.39 | 2.12 | 2.08 | 2.51 | 2.38 | 4.44 | 3.43 | 7.54 | S | 4.09 | 2.63 | 2.26 | 2.46 | 7.54 | 3.5 | 24 | |
| 25 | 3.98 | 4.24 | 10.76 | 10.76 | 14.71 | 5.75 | 7.53 | 7.74 | 3.66 | 5.1 | 7.27 | 6.95 | 6.54 | 3.23 | 2.76 | 2.33 | 2.35 | 2.58 | S | 3.18 | 2.75 | 2.44 | 2.94 | 3.16 | 14.71 | 5.3 | 24 | |
| 26 | 3.46 | 4.79 | 7.04 | 7.13 | 4.2 | 2.74 | 3.24 | 3.48 | 4.47 | 2.29 | 2.47 | 2.58 | 2.19 | 2.07 | 2.33 | 2.35 | 2.28 | S | 5.04 | 13.13 | 10.82 | 9.15 | 9.62 | 6.46 | 13.13 | 4.9 | 24 | |
| 27 | 18.14 | 11.87 | 16.78 | 19.71 | 12.33 | 12.29 | 5.09 | 4.97 | 3.96 | 4.57 | 3.5 | 3.51 | 3.2 | 2.2 | 2.05 | 1.96 | S | 1.85 | 1.86 | 1.83 | 1.82 | 1.84 | 1.83 | 1.85 | 19.71 | 6.0 | 24 | |
| 28 | 1.85 | 1.89 | 1.88 | 2.03 | 1.94 | 2.37 | 2.45 | 2.94 | 2.6 | 1.93 | 1.88 | 1.9 | 1.86 | 1.85 | 1.85 | S | 1.89 | 1.86 | 1.91 | 1.95 | 2.18 | 2.72 | 4.1 | 2.65 | 4.1 | 2.2 | 24 | |
| HOURLY MAX | 18 | 12 | 20 | 20 | 20 | 12 | 10 | 8 | 10 | 9 | 9 | 7 | 7 | 7 | 6 | 6 | 16 | 20 | 19 | 13 | 11 | 9 | 10 | 10 | | | | |
| HOURLY AVG | 4.6 | 4.1 | 5.8 | 5.3 | 6.2 | 4.0 | 3.7 | 3.8 | 4.0 | 3.7 | 3.2 | 3.0 | 2.8 | 2.7 | 2.5 | 2.5 | 3.3 | 4.6 | 4.6 | 3.9 | 3.8 | 3.5 | 3.9 | 4.0 | | | | |

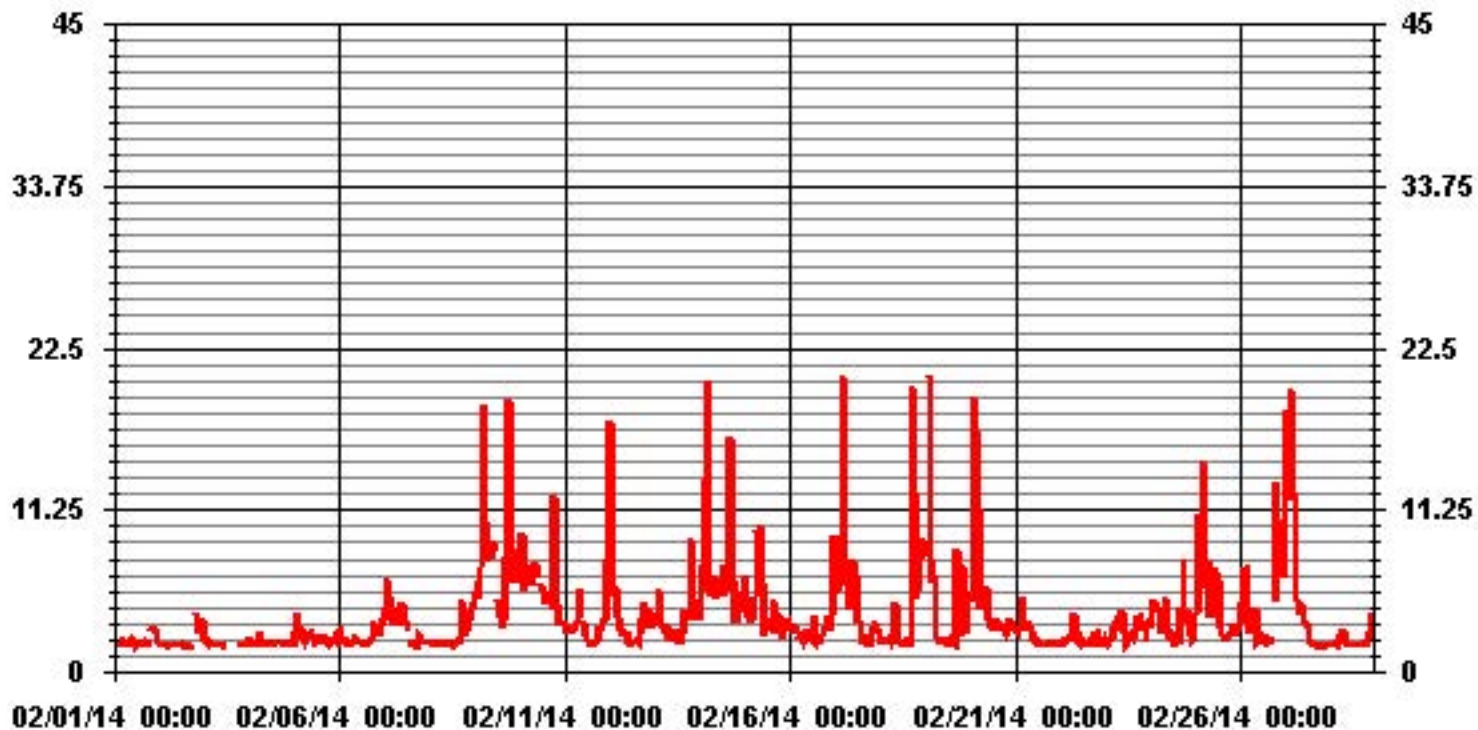
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|---------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 630 |
| MAXIMUM INSTANTANEOUS VALUE: | 20.28 PPM @ HOUR(S) VAR ON DAY(S) VAR |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 31 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 669 HRS |
| STANDARD DEVIATION: | 3.08 |

01 Hour Averages



— LICA35 MATHMAX PPM

LICA35
 METHANE / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA35
 Parameter : METHANE
 Units : PPM

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 3.0 | 2.71 | 1.11 | 1.27 | 1.59 | 1.91 | 7.33 | 2.71 | .95 | .31 | .31 | .63 | 6.53 | 13.39 | 8.45 | 16.42 | 5.90 | 71.61 |
| < 10.0 | .15 | .15 | .15 | .95 | 4.30 | 9.09 | 3.18 | .63 | .31 | .31 | .31 | .79 | 2.55 | 3.03 | 1.75 | .63 | 28.38 |
| < 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.87 | 1.27 | 1.43 | 2.55 | 6.22 | 16.42 | 5.90 | 1.59 | .63 | .63 | .95 | 7.33 | 15.94 | 11.48 | 18.18 | 6.53 | |

Calm : .00 %

Total # Operational Hours : 627

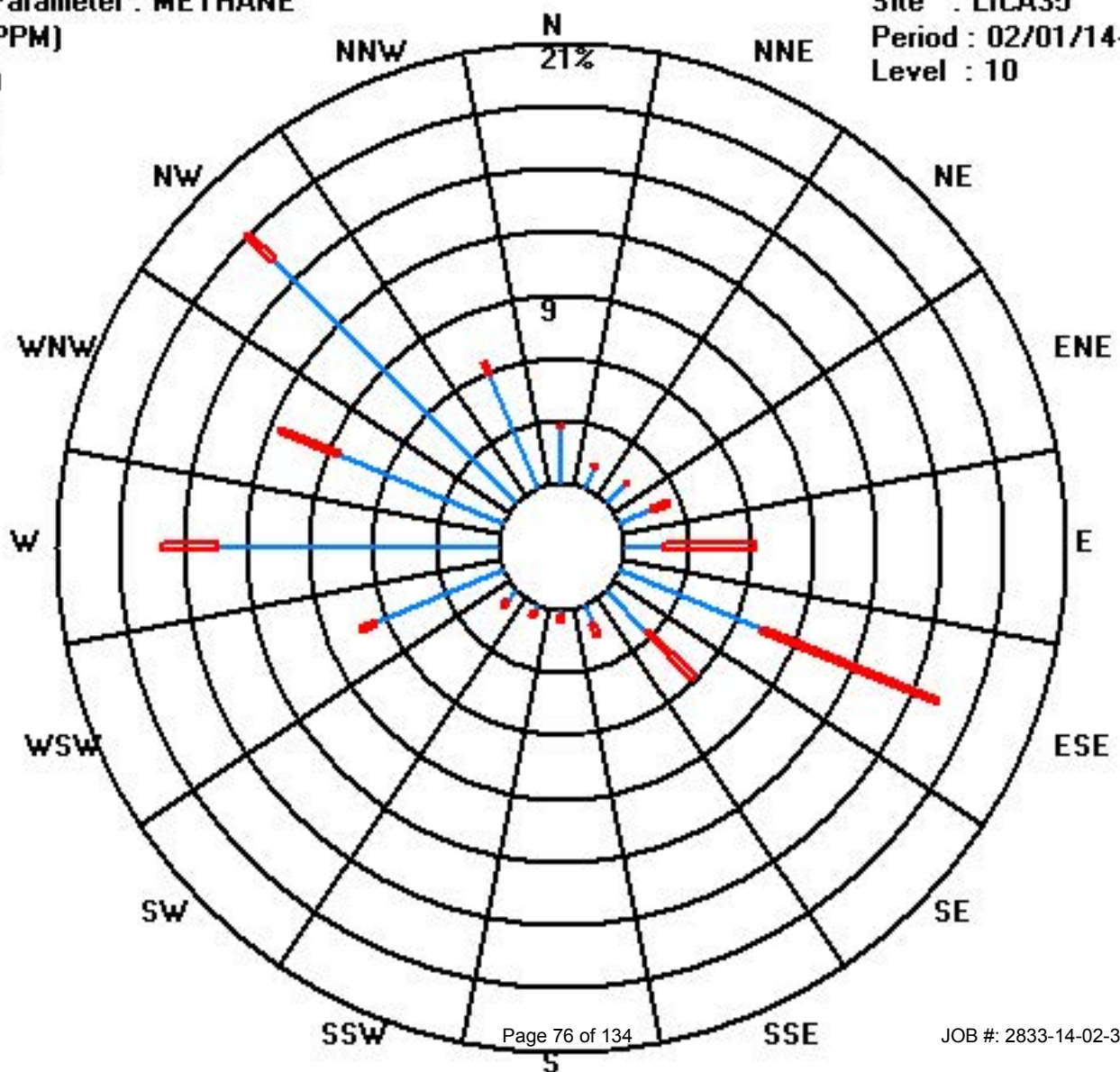
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 3.0 | 17 | 7 | 8 | 10 | 12 | 46 | 17 | 6 | 2 | 2 | 4 | 41 | 84 | 53 | 103 | 37 | 449 |
| < 10.0 | 1 | 1 | 1 | 6 | 27 | 57 | 20 | 4 | 2 | 2 | 2 | 5 | 16 | 19 | 11 | 4 | 178 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 18 | 8 | 9 | 16 | 39 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 72 | 114 | 41 | |

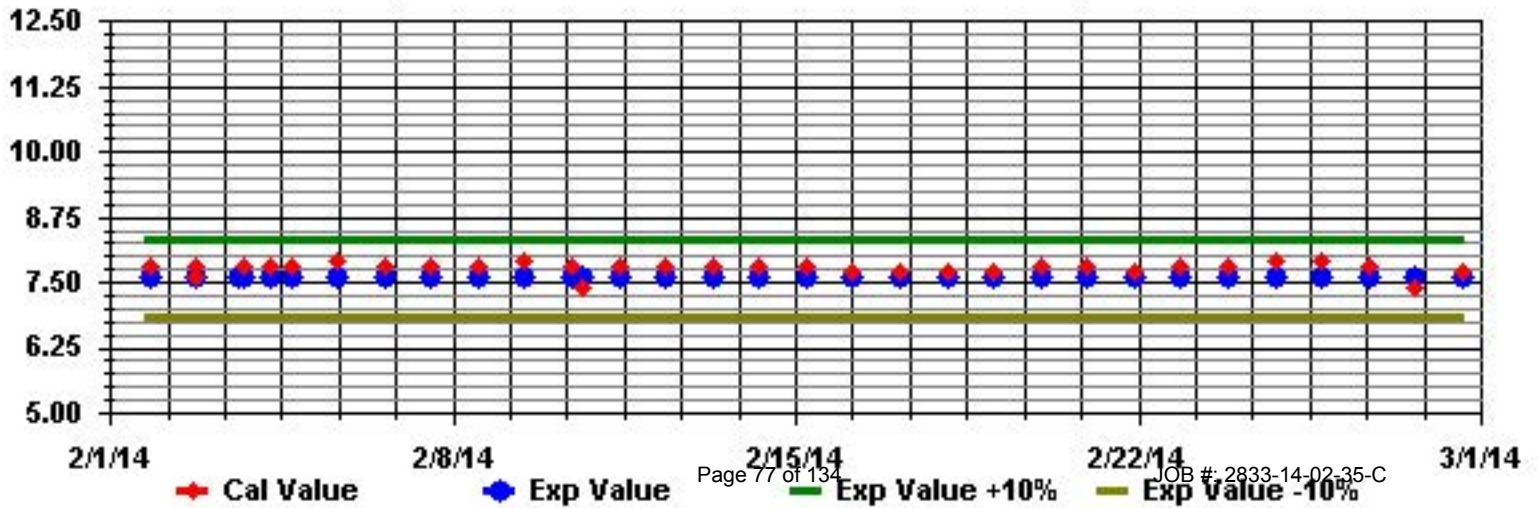
Calm : .00 %

Total # Operational Hours : 627

Class Limits (PPM)



Calibration Graph for Site: LICA35 Parameter: METHANE Sequence: THC55 Phase: SPAN



Non-Methane Hydrocarbons

Lakeland Industry & Community Association - Elk Point Site

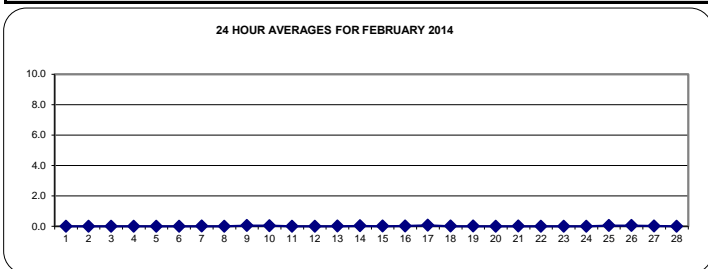
FEBRUARY 2014

NON-METHANE HYDROCARBONS (NMHC) hourly averages in ppm

| MST | HOUR START | 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 | 0:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 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 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | C | C | C | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | S | Y | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 23 |
| 5 | 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 | 24 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 7 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 8 | 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 | 0.1 | 0.1 | 0.0 | 24 |
| 9 | 0 | 0.1 | 0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.0 | 24 |
| 10 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | S | 0.1 | 0 | 0.1 | Y | S | 0 | 0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0.1 | 0.1 | 0.0 | 23 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | Y | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0.1 | 0.1 | 0.0 | 23 |
| 12 | 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 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 14 | 0 | 0 | 0 | 0 | 0.2 | 0 | S | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.0 | 24 |
| 15 | 0 | 0.1 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 16 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 24 |
| 17 | 0.2 | 0.2 | 0.2 | S | 0.2 | 0.3 | 0.1 | 0.1 | 0 | 0.1 | 0.2 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.1 | 24 |
| 18 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.1 | 0 | 0.1 | 0 | 0.1 | 0.1 | 0.0 | 24 |
| 19 | 0.1 | S | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 20 | S | 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 | S | 0.1 | 0.0 | 24 |
| 21 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0.1 | 0.0 | 24 |
| 22 | 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 | 24 |
| 23 | 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 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | S | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 25 | 0 | 0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0.2 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0.1 | 0 | 0.2 | 0.2 | 0.0 | 24 |
| 26 | 0.1 | 0.2 | 0.2 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0.1 | 0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.0 | 24 |
| 27 | 0.1 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.0 | 24 |
| 28 | 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 | 24 |
| HOURLY MAX | | 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 | | |
| HOURLY AVG | | 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 | 0.0 | 0.0 | 0.0 | | |

STATUS FLAG CODES

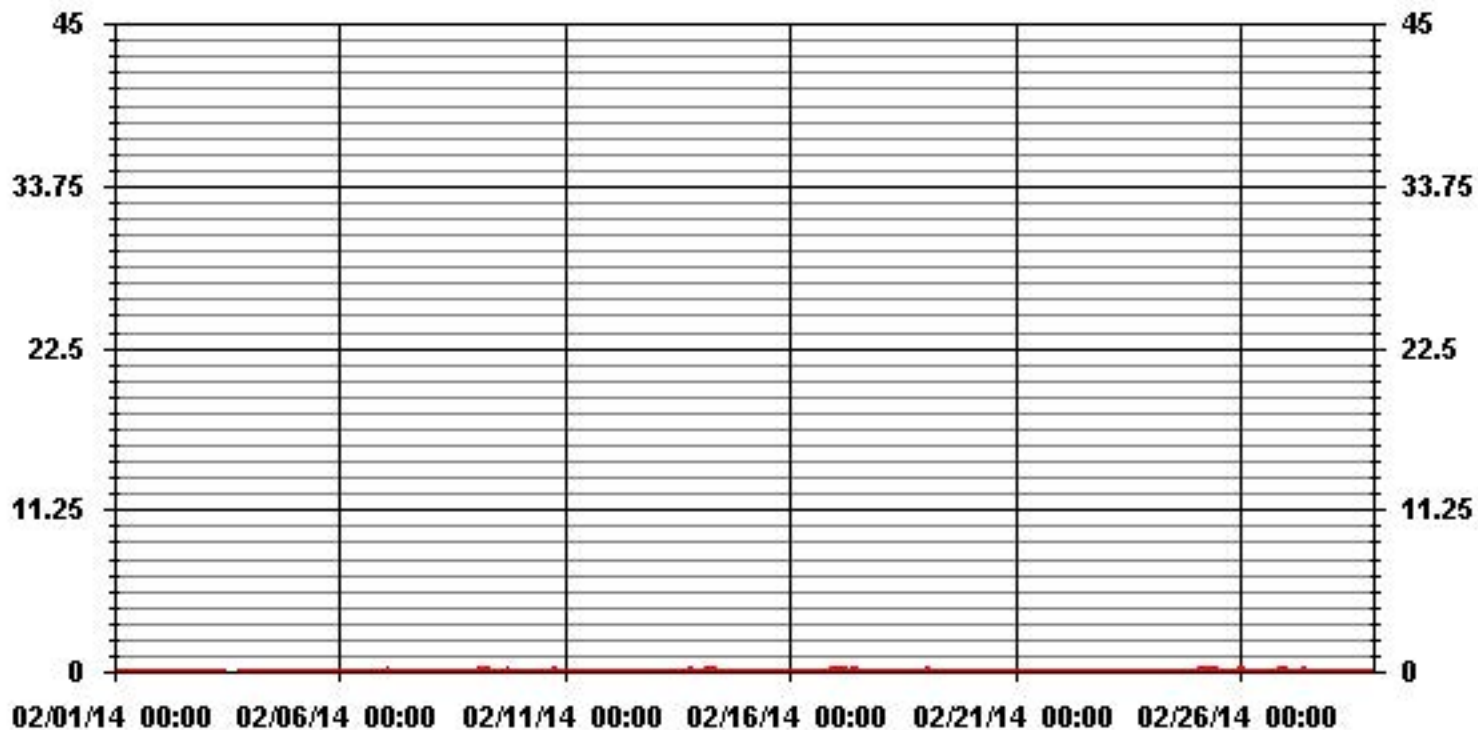
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-------------|----|
| NUMBER OF NON-ZERO READINGS: | 79 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 0.3 | PPM | @ HOUR(S) | 5 | ON DAY(S) | 17 |
| MAXIMUM 24-HR AVERAGE: | 0.1 | PPM | | | ON DAY(S) | 17 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 669 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | AMD OPERATION UPTIME: | 99.6 | % | |
| STANDARD DEVIATION: | 0.04 | | MONTHLY AVERAGE: | 0.01 | PPM | |

01 Hour Averages



Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

NON-METHANE HYDROCARBONS MAX instantaneous maximum in ppm

| 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 | 24:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0.06 | 0.05 | 0 | 0 | 0.06 | 0.0 | 24 | |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | S | 0.06 | 0.03 | 0 | 0.1 | 0.1 | 0.1 | 0.0 | 24 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | C | C | C | C | 0.25 | 0.08 | 0 | 0 | 0 | 0.25 | 0.0 | 24 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0.1 | 0.15 | 0.21 | 0.07 | 0 | 0 | 0 | S | Y | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.21 | 0.0 | 23 |
| 5 | 0 | 0.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.07 | 0.13 | 0.0 | 24 |
| 6 | 0 | 0.11 | 0.06 | 0.09 | 0.1 | 0.07 | 0.06 | 0.08 | 0.1 | 0.1 | 0.1 | 0.09 | 0 | 0 | S | 0.11 | 0.1 | 0.08 | 0.13 | 0.1 | 0.07 | 0.01 | 0.05 | 0.17 | 0.17 | 0.1 | 0.1 | 24 |
| 7 | 0.16 | 0.4 | 0.3 | 0.13 | 0.18 | 0.14 | 0.16 | 0.18 | 0.17 | 0.22 | 0.08 | 0.13 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.1 | 24 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0.08 | 0.01 | 0.1 | 0 | 0.09 | 0.21 | 0.52 | 0.52 | 0.0 | 24 | |
| 9 | 0.33 | 0.21 | 0.26 | 0.28 | 0.29 | 0.26 | 0.23 | 0.23 | 0.23 | 0.19 | 0.19 | S | 0.1 | 0.03 | 0 | 0 | 0.16 | 0.18 | 0.24 | 0.25 | 0.21 | 0.16 | 0.16 | 0.17 | 0.33 | 0.2 | 24 | |
| 10 | 0.17 | 0.17 | 0.18 | 0.2 | 0.2 | 0.22 | 0.21 | 0.23 | 0.22 | S | 0.24 | 0.25 | 0.24 | Y | S | 0.18 | 0.21 | 0.33 | 0.2 | 0.18 | 0.13 | 0.15 | 0.09 | 0.09 | 0.33 | 0.2 | 23 | |
| 11 | 0.16 | 0.13 | 0.07 | 0.08 | 0.17 | 0.16 | 0.19 | 0.18 | 0.23 | S | 0.15 | 0 | 0 | 0 | 0 | Y | 0 | 0 | 0 | 0 | 0 | 0.11 | 0.2 | 0.15 | 0.23 | 0.1 | 23 | |
| 12 | 0.18 | 0.16 | 0.14 | 0.11 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.03 | 0 | 0 | 0.03 | 0.18 | 0.0 | 24 | | |
| 13 | 0.02 | 0.09 | 0.1 | 0 | 0 | 0 | 0.07 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.09 | 0.16 | 0.19 | 0.45 | 0.1 | 0.12 | 0.11 | 0.45 | 0.1 | 24 | |
| 14 | 0 | 0.1 | 0.06 | 0.18 | 0.32 | 0.16 | S | 0.88 | 0.24 | 0.23 | 0.31 | 0.19 | 0.18 | 0.24 | 0.18 | 0.17 | 0.18 | 0.26 | 0.21 | 0.16 | 0.19 | 0.12 | 0.16 | 0.15 | 0.88 | 0.2 | 24 | |
| 15 | 0.11 | 0.22 | 0.1 | 0.09 | 0.12 | S | 0.19 | 0.31 | 0.2 | 0.07 | 0 | 0.12 | 0.08 | 0.13 | 0.13 | 0.13 | 0.16 | 0.13 | 0.14 | 0.17 | 0.13 | 0.07 | 0.09 | 0 | 0.31 | 0.1 | 24 | |
| 16 | 0 | 0.11 | 0 | 0 | S | 0.09 | 0.11 | 0.05 | 0.13 | 0.08 | 0.09 | 0.08 | 0.1 | 0.1 | 0.11 | 0 | 0 | 0.04 | 0.15 | 0.13 | 0.18 | 0.13 | 0.23 | 0.65 | 0.65 | 0.1 | 24 | |
| 17 | 0.25 | 0.27 | 0.37 | S | 0.52 | 0.48 | 0.33 | 0.29 | 0.2 | 0.29 | 0.43 | 0.41 | 0.12 | 0.14 | 0.05 | 0.05 | 0 | 0 | 0 | 0.15 | 0 | 0.21 | 0.17 | 0.07 | 0.52 | 0.2 | 24 | |
| 18 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0.18 | 0.19 | 0 | 0.02 | 0 | 0 | 0.04 | 0 | 0 | 0.76 | 0.57 | 0.17 | 0.21 | 0.23 | 0.23 | 0.19 | 0.76 | 0.1 | 24 | |
| 19 | 0.17 | S | 0.26 | 0.22 | 0.26 | 0.17 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.04 | 0.15 | 0 | 0.19 | 0.15 | 0.1 | 0.05 | 0.09 | 0.26 | 0.1 | 24 | |
| 20 | S | 0.1 | 0.21 | 0.14 | 0.21 | 0.22 | 0.22 | 0.15 | 0.17 | 0.33 | 0.13 | 0.17 | 0.15 | 0.12 | 0.15 | 0.12 | 0.14 | 0.15 | 0.07 | 0.11 | 0.08 | 0.11 | 0.1 | S | 0.33 | 0.2 | 24 | |
| 21 | 0.15 | 0.15 | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.18 | 0.17 | 0.11 | 0 | 0.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0.18 | 0.1 | 24 | |
| 22 | 0 | 0.11 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0.11 | 0.0 | 24 |
| 23 | 0 | 0 | 0 | 0 | 0.12 | 0 | 0.06 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | S | 0 | 0 | 0 | 0.12 | 0.0 | 24 | |
| 24 | 0 | 0.05 | 0.08 | 0 | 0.13 | 0 | 0 | 0.04 | 0.15 | 0 | 0.07 | 0 | 0 | 0.1 | 0 | 0.09 | 0.1 | 0.11 | 0.23 | S | 0.12 | 0 | 0.03 | 0 | 0.23 | 0.1 | 24 | |
| 25 | 0 | 0.06 | 0.43 | 0.43 | 0.55 | 0.25 | 0.31 | 0.38 | 0.18 | 0.14 | 0.34 | 0.28 | 0.24 | 0.1 | 0 | 0 | 0 | 0 | S | 0.12 | 0.13 | 0.11 | 0.22 | 0.17 | 0.55 | 0.2 | 24 | |
| 26 | 0.17 | 0.23 | 0.28 | 0.25 | 0.11 | 0.06 | 0.1 | 0.14 | 0.14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0.26 | 0.32 | 0.24 | 0.21 | 0.29 | 0.27 | 0.32 | 0.1 | 24 | |
| 27 | 0.24 | 0.2 | 0.19 | 0.16 | 0.21 | 0.14 | 0.16 | 0.21 | 0.16 | 0.18 | 0.2 | 0.18 | 0.13 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.24 | 0.1 | 24 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.04 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.04 | 0.05 | 0.0 | 24 |
| HOURLY MAX | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | | | |
| HOURLY AVG | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | | | |

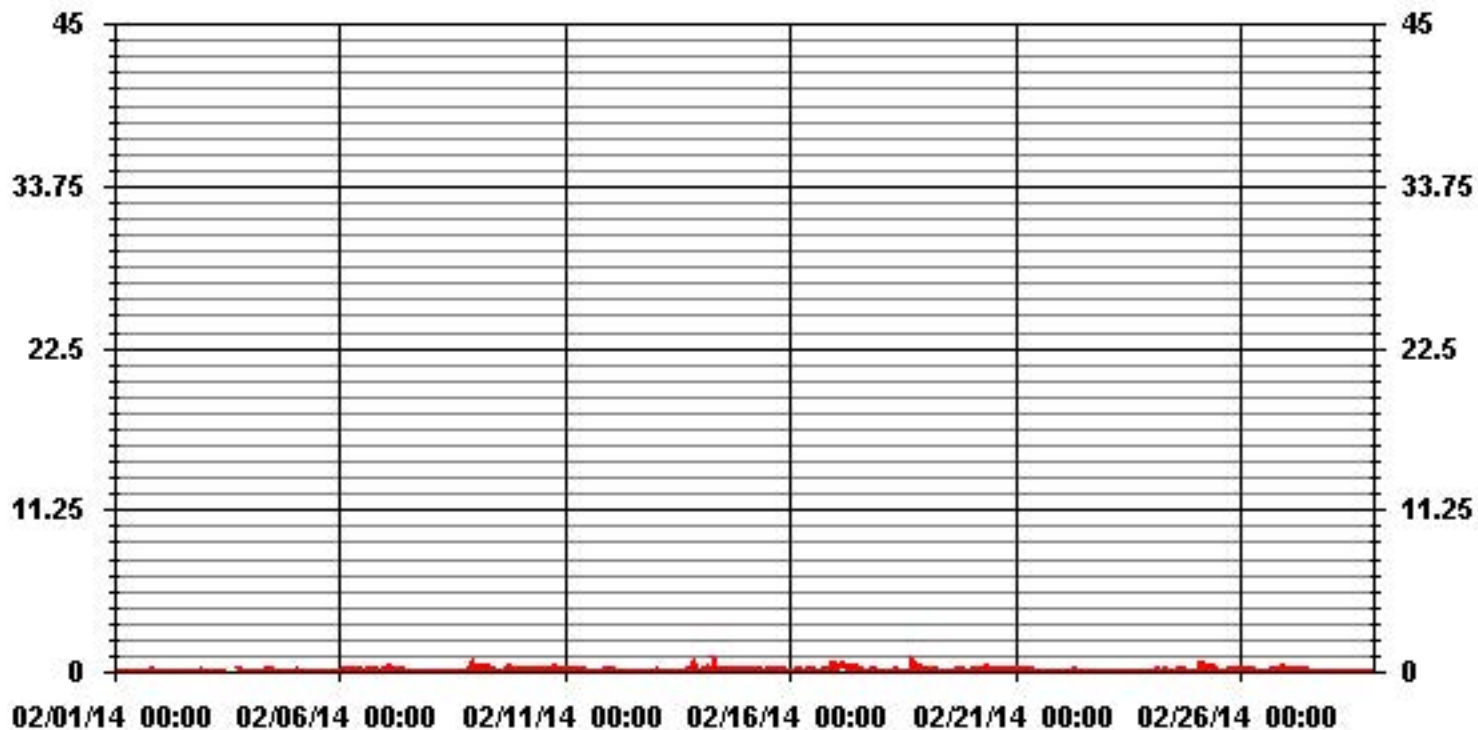
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 331 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 0.88 | PPM | @ HOUR(S) | 7 | ON DAY(S) | 14 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 669 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | | | | |
| STANDARD DEVIATION: | 0.12 | | | | | |

01 Hour Averages



— LICA35 NMHC MAX PPM

LICA35
 NMHC / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA35
 Parameter : NMHC
 Units : PPM

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|------|------|------|------|-------|------|------|-----|-----|-----|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < .2 | 2.87 | 1.27 | 1.43 | 2.55 | 6.22 | 16.42 | 5.90 | 1.59 | .63 | .63 | .95 | 7.33 | 15.94 | 11.48 | 18.18 | 6.37 | 99.84 |
| < .5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .15 | .15 |
| < 1.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 2.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 4.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 4.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.87 | 1.27 | 1.43 | 2.55 | 6.22 | 16.42 | 5.90 | 1.59 | .63 | .63 | .95 | 7.33 | 15.94 | 11.48 | 18.18 | 6.53 | |

Calm : .00 %

Total # Operational Hours : 627

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < .2 | 18 | 8 | 9 | 16 | 39 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 72 | 114 | 40 | 626 |
| < .5 | | | | | | | | | | | | | | | | 1 | 1 |
| < 1.0 | | | | | | | | | | | | | | | | | |
| < 2.0 | | | | | | | | | | | | | | | | | |
| < 4.0 | | | | | | | | | | | | | | | | | |
| >= 4.0 | | | | | | | | | | | | | | | | | |
| Totals | 18 | 8 | 9 | 16 | 39 | 103 | 37 | 10 | 4 | 4 | 6 | 46 | 100 | 72 | 114 | 41 | |

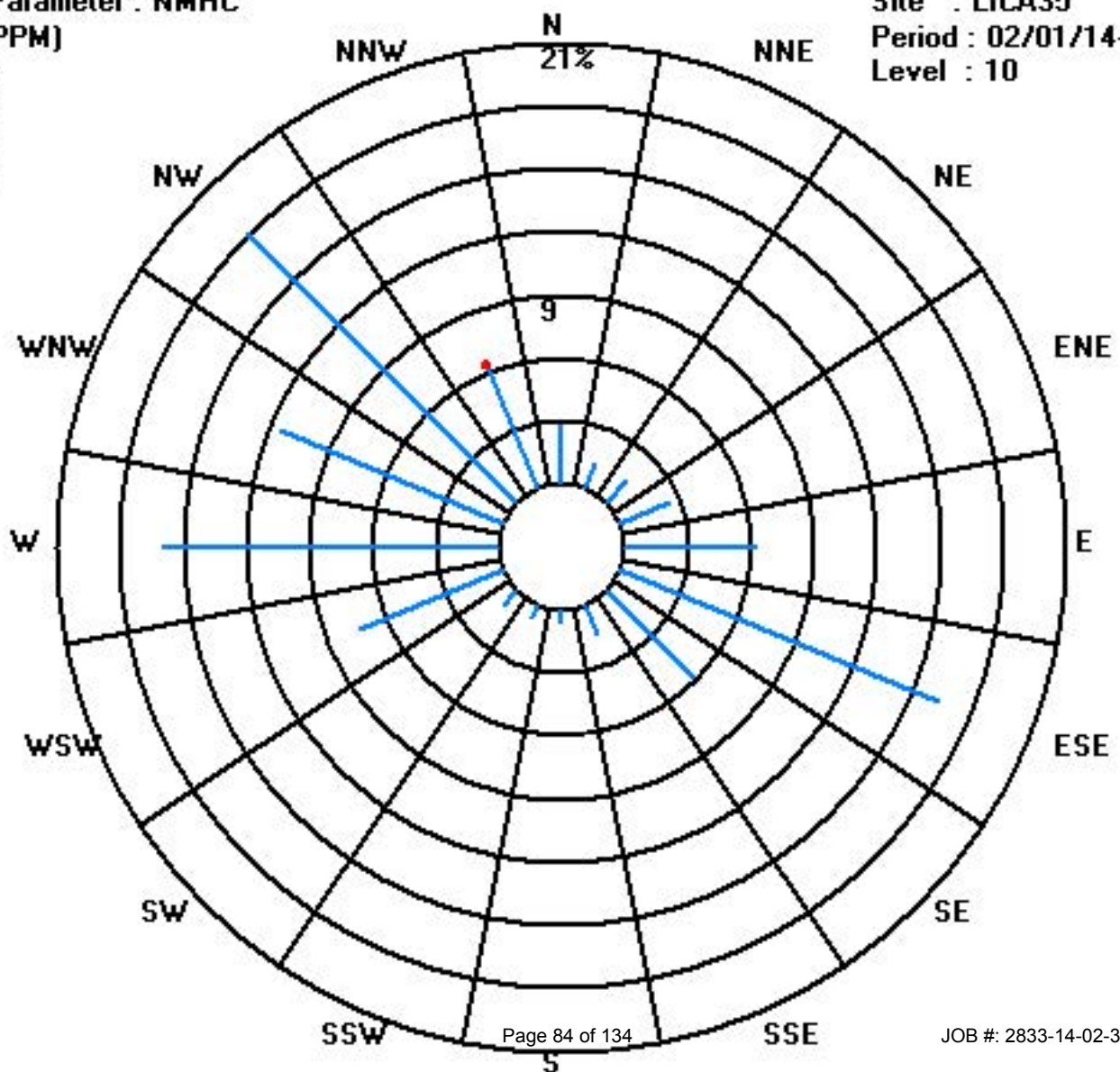
Calm : .00 %

Total # Operational Hours : 627

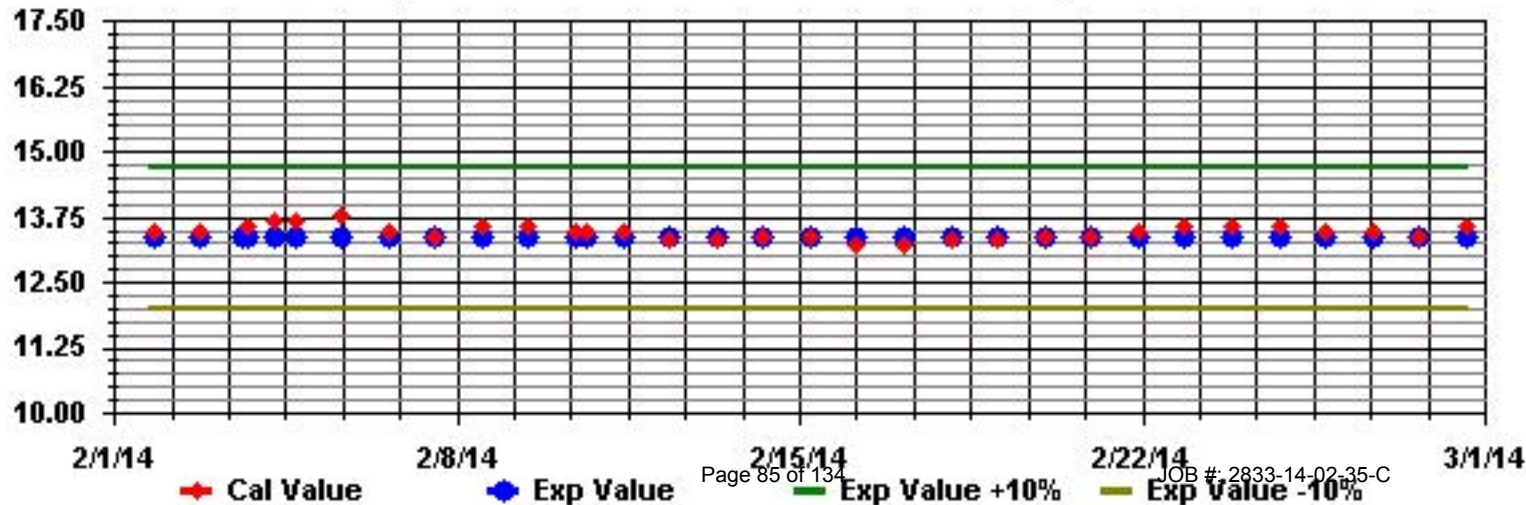
Class Limits (PPM)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA35 Parameter: NMHC Sequence: THC55 Phase: SPAN



Vector Wind Speed

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

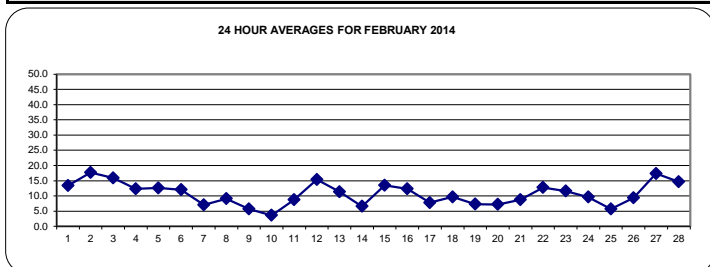
WIND SPEED (WS) hourly averages in km/hr

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 13.9 | 12.4 | 10.9 | 10.8 | 10 | 18.5 | 20.2 | 16 | 11.8 | 13.4 | 15.6 | 16.9 | 15.7 | 14.7 | 13.6 | 10.4 | 9.2 | 8.2 | 11.5 | 10.3 | 14.8 | 16.2 | 12.7 | 13 | 20.2 | 13.4 | 24 | |
| 2 | 19.8 | 17.9 | 21.5 | 21.8 | 20.1 | 18.9 | 18.1 | 22.1 | 23.4 | 21.1 | 24.5 | 25.1 | 25.1 | 22 | 23.4 | 23.6 | 22.5 | 17.4 | 5 | 5.4 | 5.7 | 6 | 5.9 | 8.5 | 25.1 | 17.7 | 24 | |
| 3 | 10.1 | 5.3 | 12.7 | 18.8 | 18.4 | 17.7 | 15.9 | 10.9 | 16.9 | 15.5 | 22 | 20.1 | 20.3 | 20.2 | 20.1 | 20.2 | 19.1 | 13.9 | 15.4 | 14.6 | 16.8 | 12.2 | 12.2 | 13.2 | 22.0 | 15.9 | 24 | |
| 4 | 11.4 | 14.6 | 14 | 11.5 | 10.3 | 8.9 | 10.4 | 10.2 | 10.6 | 8 | 11.4 | 15.1 | 17 | 15.2 | 16.9 | 14.7 | 12.5 | 14 | 16.6 | 15 | 11.1 | 8.9 | 10.2 | 6.5 | 17.0 | 12.3 | 24 | |
| 5 | 7.2 | 9.2 | 9.7 | 8.9 | 13.6 | 16.1 | 10.8 | 10.9 | 9.5 | 12.1 | 14.7 | 16.8 | 15.2 | 18.4 | 17.6 | 19.7 | 19.1 | 15.3 | 12.3 | 10.1 | 9.5 | 8.7 | 8.6 | 8.7 | 19.7 | 12.6 | 24 | |
| 6 | 10.9 | 9.8 | 10.1 | 9.1 | 9.8 | 10.8 | 11.2 | 12.7 | 9.7 | 9.7 | 12.5 | 10.7 | 13.8 | 17.9 | 18.1 | 17.4 | 16.3 | 13.5 | 9.1 | 15.4 | 12.1 | 12.1 | 11.4 | 4.2 | 18.1 | 12.0 | 24 | |
| 7 | 5.4 | 5.7 | 6.1 | 7.4 | 5.7 | 4.9 | 5 | 5.8 | 6.3 | 6.5 | 6.8 | 6.5 | 6.5 | 8.9 | 11.4 | 12.9 | 9.3 | 8.3 | 8.3 | 6.9 | 5.9 | 7.2 | 6.6 | 5.1 | 12.9 | 7.1 | 24 | |
| 8 | 4.1 | 5 | 11.6 | 9.4 | 11.7 | 7.3 | 9.3 | 9.6 | 10.1 | 10.7 | 10.1 | 10 | 10.6 | 11.8 | 13.9 | 15 | 10.6 | 9.7 | 7.9 | 8.5 | 8.7 | 4.4 | 4.4 | 3.1 | 15.0 | 9.1 | 24 | |
| 9 | 2.3 | 2.2 | 1.5 | 0.7 | 3.4 | 5.3 | 2.8 | 3.4 | 2.6 | 4 | 5.1 | 7 | 7.2 | 8.5 | 10.2 | 9.2 | 8.9 | 11.2 | 9.8 | 6.2 | 6.3 | 6.7 | 5.8 | 6.4 | 11.2 | 5.7 | 24 | |
| 10 | 5.6 | 5.2 | 6.9 | 5.2 | 5.4 | 4.7 | 3.3 | 3.6 | 3.8 | 2 | 1.1 | 2.1 | 1.5 | 0.3 | 2.7 | 3.9 | 2.8 | 1.4 | 7.4 | 4.5 | 2.4 | 4.2 | 3.6 | 3.9 | 7.4 | 3.6 | 24 | |
| 11 | 6.5 | 7 | 7.7 | 10.6 | 10.1 | 8.4 | 8.5 | 5.7 | 8.8 | 6.2 | 6.3 | 9.6 | 11.6 | 14.8 | 16 | 18.9 | 13.7 | 11.1 | 7.1 | 7.6 | 5.3 | 2.6 | 2.9 | 2.9 | 18.9 | 8.7 | 24 | |
| 12 | 6.6 | 5.9 | 7 | 8.7 | 12.8 | 19.1 | 25.8 | 28 | 27.5 | 26.1 | 28.1 | 26.9 | 24.1 | 19.2 | 12.9 | 10.5 | 13.9 | 6.9 | 4.8 | 7 | 9.4 | 11.6 | 12.7 | 13.3 | 28.1 | 15.4 | 24 | |
| 13 | 11.7 | 12.6 | 15.1 | 17.1 | 15.7 | 15 | 13 | 14.7 | 15.4 | 14.8 | 16.5 | 16.6 | 14.2 | 13.3 | 10.1 | 10.1 | 9.7 | 6.2 | 4.9 | 3.4 | 2.4 | 3.7 | 6.2 | 9.6 | 17.1 | 11.3 | 24 | |
| 14 | 4.1 | 5.1 | 10.4 | 6 | 6.3 | 4.8 | 1.6 | 3.5 | 2.7 | 2.9 | 1.6 | 5.7 | 8.5 | 9.1 | 10.2 | 10.6 | 10.8 | 6.5 | 6.7 | 11.9 | 10.5 | 6.3 | 3.2 | 9.2 | 11.9 | 6.6 | 24 | |
| 15 | 9.4 | 3.3 | 8.5 | 8.5 | 7.1 | 11.1 | 7.8 | 8.5 | 10.1 | 11.3 | 14.3 | 14.7 | 13.9 | 18 | 18.1 | 17.3 | 19.6 | 18.7 | 14.7 | 17.2 | 16.3 | 19.8 | 15.5 | 19.1 | 19.8 | 13.5 | 24 | |
| 16 | 20.2 | 20.2 | 17.9 | 18.1 | 17.3 | 21 | 21.5 | 22.6 | 19 | 16.3 | 11.9 | 6.5 | 6.2 | 12 | 13 | 9.5 | 6.4 | 10.4 | 5.3 | 3.5 | 5.6 | 6.5 | 3.5 | 2.1 | 22.6 | 12.4 | 24 | |
| 17 | 3 | 3 | 4.1 | 3.1 | 1.7 | 3.1 | 5.9 | 5.9 | 4.8 | 1.8 | 0.8 | 2.5 | 6.6 | 8.2 | 8.3 | 6.1 | 10.1 | 14.8 | 15.4 | 15.3 | 15.1 | 15.8 | 16.9 | 14 | 16.9 | 7.8 | 24 | |
| 18 | 10.2 | 12.1 | 18 | 14.2 | 14.7 | 8 | 10.5 | 4.4 | 1.7 | 8.9 | 16.5 | 13 | 15 | 11.5 | 13.9 | 10.4 | 5.2 | 5.1 | 7.9 | 4.2 | 5.1 | 6.8 | 6.4 | 8.3 | 18.0 | 9.7 | 24 | |
| 19 | 7.9 | 6.1 | 6.9 | 2.7 | 7.5 | 7.4 | 13 | 11.2 | 5.8 | 7.5 | 9.7 | 7.2 | 8.6 | 6 | 5.8 | 3.6 | 4.5 | 5.4 | 10 | 12 | 7 | 5.7 | 7.4 | 6.5 | 13.0 | 7.3 | 24 | |
| 20 | 2.7 | 2.9 | 4.7 | 6 | 6.3 | 3.9 | 6 | 4.6 | 4.9 | 4.1 | 6.8 | 8.8 | 12.2 | 11.4 | 12.4 | 12.2 | 9.7 | 10 | 8.6 | 8.8 | 7.8 | 6.1 | 6.2 | 5.8 | 12.4 | 7.2 | 24 | |
| 21 | 4.8 | 5 | 3.6 | 3.7 | 1.4 | 1.5 | 2.4 | 3 | 4.7 | 5.1 | 5.8 | 9.4 | 10.5 | 10.7 | C | C | C | 12.5 | 18.5 | 16.7 | 17.4 | 16.3 | 14.6 | 16.3 | 18.5 | 8.8 | 24 | |
| 22 | 13.1 | 11.3 | 10.8 | 10.2 | 11.6 | 11.2 | 11.4 | 11.1 | 9.6 | 7.9 | 14.4 | 14.4 | 14.4 | 11.7 | 13.6 | 15.4 | 12 | 9.2 | 10.7 | 14.4 | 15.1 | 16 | 20.5 | 15.9 | 20.5 | 12.7 | 24 | |
| 23 | 12.5 | 14.1 | 10.2 | 11.5 | 8.7 | 9.3 | 8.4 | 11 | 11.4 | 9.1 | 11.1 | 14.3 | 16.4 | 15.9 | 16.6 | 17.6 | 14.7 | 11.5 | 9.6 | 7.9 | 8.2 | 8.8 | 8.6 | 10.3 | 17.6 | 11.6 | 24 | |
| 24 | 10.5 | 7.9 | 5.5 | 5 | 4.9 | 2.8 | 5.6 | 6.7 | 4.3 | 6 | 9.2 | 10.3 | 9.7 | 12.5 | 16.8 | 18.1 | 16.1 | 17.6 | 17.1 | 14.2 | 11.2 | 7.1 | 4.8 | 6.7 | 18.1 | 9.6 | 24 | |
| 25 | 6.8 | 8.4 | 6.3 | 4.7 | 4.4 | 2.4 | 2.2 | 2.9 | 0.6 | 0 | 1.9 | 2.3 | 0.9 | 4.1 | 8.9 | 9.9 | 10 | 9.1 | 7.5 | 5.5 | 7.6 | 7.8 | 4.4 | 18.8 | 18.8 | 5.7 | 24 | |
| 26 | 19.6 | 21.6 | 18.7 | 22.8 | 16 | 14.9 | 10.7 | 10.5 | 10.7 | 3.1 | 5.8 | 8.1 | 9.1 | 8.9 | 5.4 | 5.9 | 5.2 | 4.8 | 5.5 | 1.4 | 3.4 | 3.8 | 3.4 | 5.1 | 22.8 | 9.4 | 24 | |
| 27 | 5.6 | 5.5 | 6.9 | 7.4 | 7.9 | 9.3 | 9.7 | 7.7 | 8.9 | 10 | 5.9 | 9.2 | 14.5 | 25.2 | 22.2 | 27.8 | 26.2 | 34 | 31.1 | 32 | 36 | 25.1 | 24.3 | 23.6 | 36.0 | 17.3 | 24 | |
| 28 | 21.2 | 17.8 | 16.7 | 13.5 | 13 | 8.9 | 10.6 | 12.7 | 14.7 | 18.3 | 19.5 | 21.7 | 24 | 21.2 | 18.9 | 16.4 | 16.7 | 15.5 | 9.3 | 8.9 | 7.3 | 7.6 | 8.2 | 8.6 | 24.0 | 14.6 | 24 | |
| HOURLY MAX | 21.2 | 21.6 | 21.5 | 22.8 | 20.1 | 21.0 | 25.8 | 28.0 | 27.5 | 26.1 | 28.1 | 26.9 | 25.1 | 25.2 | 23.4 | 27.8 | 26.2 | 34.0 | 31.1 | 32.0 | 36.0 | 25.1 | 24.3 | 23.6 | | | | |
| HOURLY AVG | 9.5 | 9.2 | 10.1 | 9.9 | 9.9 | 9.8 | 10.1 | 10.0 | 9.7 | 9.4 | 11.1 | 11.8 | 12.6 | 13.3 | 13.7 | 13.6 | 12.4 | 11.5 | 10.6 | 10.3 | 10.1 | 9.4 | 9.0 | 9.6 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

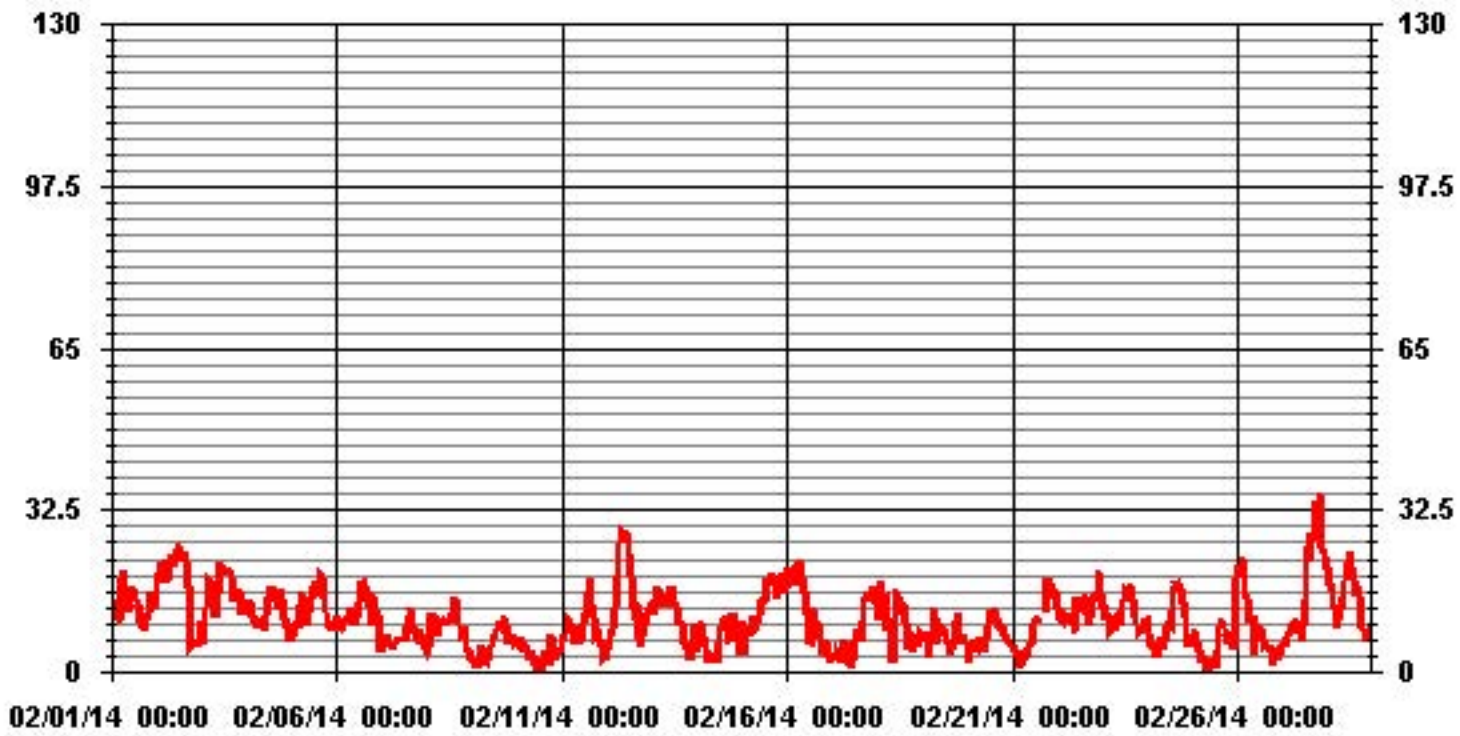
| | |
|-------------------|--------------------------------------|
| LAST CALIBRATION: | February 21, 2014 |
| DECLINATION: | MAGNETIC DECLINATION 19 DEGREES EAST |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|-------|-------------|----|
| NUMBER OF NON-ZERO READINGS: | 692 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 36.0 | KPH | @ HOUR(S) | 20 | ON DAY(S) | 27 |
| MAXIMUM 24-HR AVERAGE: | 17.7 | KPH | | | ON DAY(S) | 2 |
| | | | | | VAR-VARIOUS | |
| MONTHLY CALIBRATION TIME: | 3 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| STANDARD DEVIATION: | 6.29 | | AMD OPERATION UPTIME: | 100.0 | % | |
| | | | MONTHLY AVERAGE: | 10.00 | KPH | |

01 Hour Averages



— LICA35 WSP KPH

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

| 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 | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|----------|----------|----------|-------|-------|-------|-------------|-------|-------|-------|-----------|-------------|-------|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. |
| 1 | 24 | 26.7 | 18.9 | 18.1 | 21.5 | 33.8 | 36 | 31.7 | 28.6 | 20.8 | 26.1 | 27.1 | 27.3 | 25.7 | 28.2 | 23.2 | 19.9 | 14.9 | 20 | 20.7 | 24.1 | 26.6 | 20.1 | 30.7 | 36 | 24.8 | 24 |
| 2 | 32.5 | 32.9 | 34.5 | 38.7 | 37.1 | 36.1 | 34.4 | 38.3 | 40.7 | 33.8 | 40.7 | 39.9 | 39.6 | 36.4 | 40.9 | 41.8 | 45.6 | 38.9 | 15.2 | 10 | 10.2 | 11.9 | 11.9 | 16.1 | 46 | 31.6 | 24 |
| 3 | 19.3 | 12.2 | 23.5 | 30 | 36.9 | 33.6 | 28.8 | 21.8 | 32.9 | 29.7 | 35.9 | 33.4 | 32.7 | 31.2 | 33.2 | 30.4 | 31.5 | 25.9 | 24.2 | 30.1 | 30.2 | 22 | 31.8 | 22.6 | 37 | 28.5 | 24 |
| 4 | 18.5 | 21.8 | 23 | 23.7 | 17.1 | 15.9 | 18.4 | 17.7 | 17.1 | 15.2 | 16.9 | 21.2 | 24.7 | 22.8 | 25.5 | 24.2 | 19.5 | 25.4 | 25.4 | 24.5 | 18.8 | 18.9 | 19.4 | 12.6 | 26 | 20.3 | 24 |
| 5 | 10.8 | 12.6 | 13 | 12.8 | 19.8 | 21.9 | 16.3 | 14.4 | 15.7 | 21.8 | 19.2 | 23.5 | 22.7 | 23.6 | 25.1 | 26.2 | 25.1 | 29.7 | 21.9 | 18.7 | 18 | 16.1 | 20.3 | 17.8 | 30 | 19.5 | 24 |
| 6 | 22.4 | 22.1 | 20.3 | 18.9 | 17.3 | 22.5 | 19.6 | 21.5 | 19.1 | 20.3 | 21.8 | 20.6 | 24 | 30.7 | 31.7 | 31.6 | 29.1 | 21.4 | 16.8 | 26.2 | 16.6 | 17.6 | 17.8 | 8.5 | 32 | 21.6 | 24 |
| 7 | 9.1 | 10.4 | 10.5 | 12.5 | 15.8 | 8.3 | 8.5 | 9 | 9.7 | 9.1 | 9.3 | 8.5 | 15.1 | 16.6 | 19.5 | 20.5 | 18 | 14.1 | 10 | 15.3 | 14.5 | 17.5 | 13.6 | 8.3 | 21 | 12.7 | 24 |
| 8 | 8.2 | 14.7 | 19.2 | 16.2 | 19.5 | 14.1 | 17.4 | 16.1 | 19.4 | 20.9 | 16 | 14.4 | 18 | 17.2 | 22.6 | 23.1 | 14.9 | 12.4 | 11.8 | 11.3 | 12.1 | 9.6 | 7.2 | 6.4 | 23 | 15.1 | 24 |
| 9 | 5.5 | 5.7 | 4.5 | 3.3 | 6.8 | 7.1 | 5.5 | 5.3 | 5.6 | 6 | 6.7 | 9.4 | 10.1 | 12.9 | 14.2 | 13.1 | 13.6 | 14.1 | 13.2 | 10.6 | 8.9 | 8.7 | 9 | 8.9 | 14 | 8.7 | 24 |
| 10 | 7.4 | 8 | 8.4 | 6.6 | 6.7 | 6.2 | 4.6 | 5 | 5.8 | 5.7 | 3.4 | 7.7 | 6.7 | 4.1 | 6.1 | 6 | 7 | 7.3 | 11.5 | 11.5 | 7.1 | 8.2 | 7.2 | 8.9 | 12 | 7.0 | 24 |
| 11 | 13.2 | 10.1 | 12.3 | 16.5 | 14.8 | 12.8 | 14.7 | 8.9 | 12.8 | 9.5 | 8.6 | 21.4 | 19.9 | 24.5 | 25.9 | 27.4 | 20.9 | 18.8 | 10.2 | 10.9 | 9 | 7.1 | 5.9 | 9.1 | 27 | 14.4 | 24 |
| 12 | 9.5 | 8.8 | 10 | 15.3 | 18.9 | 32.3 | 37.3 | 41.8 | 41.8 | 39.7 | 41.7 | 45 | 34.7 | 35.9 | 25.9 | 20.6 | 22.5 | 13.7 | 11.4 | 11 | 18.8 | 23.9 | 22.8 | 22.2 | 45 | 25.2 | 24 |
| 13 | 19.6 | 22 | 21.7 | 23.5 | 22.6 | 20.7 | 18.5 | 22 | 21.2 | 22 | 22 | 22.5 | 22.6 | 19.3 | 16 | 14.5 | 16 | 11 | 8.4 | 7.5 | 9.6 | 7.8 | 10.1 | 18.5 | 24 | 17.5 | 24 |
| 14 | 14 | 11.2 | 14.5 | 10.2 | 10.1 | 7.5 | 6.8 | 8.1 | 6.8 | 7.5 | 6.2 | 10.4 | 13.5 | 14.1 | 13.9 | 14.7 | 14 | 11.7 | 11.9 | 17.8 | 15.6 | 12.1 | 7.6 | 19.9 | 20 | 11.7 | 24 |
| 15 | 22.3 | 11.5 | 13.5 | 15.6 | 16.6 | 15.9 | 12.6 | 14.4 | 14.6 | 23 | 25.3 | 24.8 | 24.6 | 24.4 | 24.6 | 25.6 | 27.6 | 29.3 | 20.1 | 24.3 | 23.4 | 28 | 23.4 | 28.7 | 29 | 21.4 | 24 |
| 16 | 31.5 | 32.1 | 27.3 | 27 | 25 | 33.8 | 34 | 33.2 | 31.1 | 35.1 | 20.3 | 15.4 | 13 | 20.8 | 20.5 | 22.4 | 16.2 | 15.3 | 8.7 | 5.1 | 13 | 16.8 | 11.4 | 8.1 | 35 | 21.5 | 24 |
| 17 | 6.9 | 8.2 | 8.2 | 8 | 6.6 | 7.6 | 12.1 | 11.2 | 8.6 | 7.8 | 3.7 | 9.6 | 12.6 | 15.2 | 15.1 | 14.2 | 24.4 | 21.3 | 23.4 | 22.2 | 21.9 | 20.5 | 25 | 25.9 | 26 | 14.2 | 24 |
| 18 | 17.1 | 24.8 | 33.6 | 28.1 | 24.6 | 18.2 | 20.2 | 12.3 | 8.8 | 23 | 23.7 | 24.8 | 29.8 | 21.2 | 22.9 | 19.1 | 17.2 | 11.7 | 15.6 | 11.6 | 9.1 | 9.8 | 9 | 10.3 | 34 | 18.6 | 24 |
| 19 | 9.4 | 9.4 | 8.9 | 6.9 | 17.9 | 14.5 | 20.2 | 18 | 17 | 12.6 | 15.8 | 14.1 | 15.3 | 12.9 | 12.4 | 8.5 | 10.3 | 10.3 | 13.4 | 17.8 | 11.9 | 10.3 | 14.4 | 12.6 | 20 | 13.1 | 24 |
| 20 | 7.2 | 5.6 | 9 | 8.9 | 10 | 7.8 | 11 | 8.3 | 8.6 | 7.3 | 10.6 | 13.1 | 17.7 | 19.5 | 19.5 | 19.3 | 17.7 | 15.6 | 13.7 | 13.3 | 15.8 | 9.4 | 9.3 | 9.3 | 20 | 12.0 | 24 |
| 21 | 9.3 | 9.1 | 5.8 | 6.6 | 4.2 | 3.9 | 4.3 | 6.2 | 8.6 | 9.4 | 12.9 | 18.6 | 19.2 | 21 | C | C | C | 21.4 | 32.7 | 23.9 | 30.7 | 27 | 23.8 | 26.6 | 33 | 15.5 | 24 |
| 22 | 20.5 | 19.2 | 20.4 | 16.8 | 19.8 | 14.8 | 13.8 | 13.4 | 12.3 | 13.6 | 24 | 24.5 | 23.2 | 19.7 | 23.4 | 23.3 | 20.1 | 14.5 | 16.4 | 21.3 | 24.2 | 31.3 | 36.9 | 27.5 | 37 | 20.6 | 24 |
| 23 | 19 | 20.1 | 16.6 | 15.4 | 16.4 | 12.1 | 14.8 | 15.4 | 14.2 | 11.8 | 16.8 | 19.1 | 22.7 | 20.9 | 21 | 21.5 | 17.3 | 16.5 | 14.4 | 14 | 13.1 | 15.3 | 14.7 | 15 | 23 | 16.6 | 24 |
| 24 | 14.8 | 11.9 | 12.1 | 9 | 9.3 | 8.5 | 9.3 | 9.7 | 9.7 | 16.8 | 17 | 17.9 | 19.8 | 24.2 | 25.2 | 26.6 | 21.9 | 21.2 | 21 | 16.9 | 15.2 | 12.5 | 10 | 10.5 | 27 | 15.5 | 24 |
| 25 | 9.6 | 10.4 | 10.8 | 8.1 | 6.3 | 6 | 4.2 | 5.6 | 3.4 | 0 | 4.5 | 4.8 | 4 | 12.4 | 15.7 | 16 | 20.4 | 16.2 | 13.8 | 14.7 | 13.3 | 16.3 | 7.5 | 24 | 24 | 10.3 | 24 |
| 26 | 27.1 | 25.1 | 23.9 | 27 | 24.8 | 18.3 | 17.2 | 15.2 | 14.9 | 12.9 | 8.2 | 12.1 | 15.2 | 15.6 | 10.4 | 11.9 | 10.3 | 8.5 | 7.9 | 6.2 | 7.7 | 7.9 | 7 | 8.1 | 27 | 14.3 | 24 |
| 27 | 8.8 | 8 | 17.5 | 11.2 | 12.9 | 13.4 | 16.4 | 11.1 | 12.8 | 13.5 | 11.2 | 17.8 | 30 | 40 | 37.7 | 49 | 46.6 | 57.6 | 58.2 | 56.6 | 62.8 | 52.5 | 39.9 | 42.8 | 63 | 30.3 | 24 |
| 28 | 34.8 | 34.6 | 28.8 | 23.1 | 22.5 | 13.6 | 15.9 | 19.7 | 27.4 | 28.2 | 31.8 | 36.7 | 38.7 | 35.5 | 34.3 | 29.9 | 32.1 | 27 | 16.9 | 14 | 11.4 | 10.4 | 12.2 | 12.4 | 39 | 24.7 | 24 |
| HOURLY MAX | 35 | 35 | 35 | 39 | 37 | 36 | 37 | 42 | 42 | 40 | 42 | 45 | 40 | 40 | 41 | 49 | 47 | 58 | 58 | 57 | 63 | 53 | 40 | 43 | | | |
| HOURLY AVG | 16.2 | 16.0 | 16.8 | 16.4 | 17.2 | 16.5 | 16.9 | 16.3 | 16.8 | 17.0 | 17.9 | 19.9 | 21.3 | 22.1 | 22.6 | 22.4 | 21.5 | 19.5 | 17.4 | 17.4 | 17.4 | 17.0 | 16.0 | 16.9 | | | |

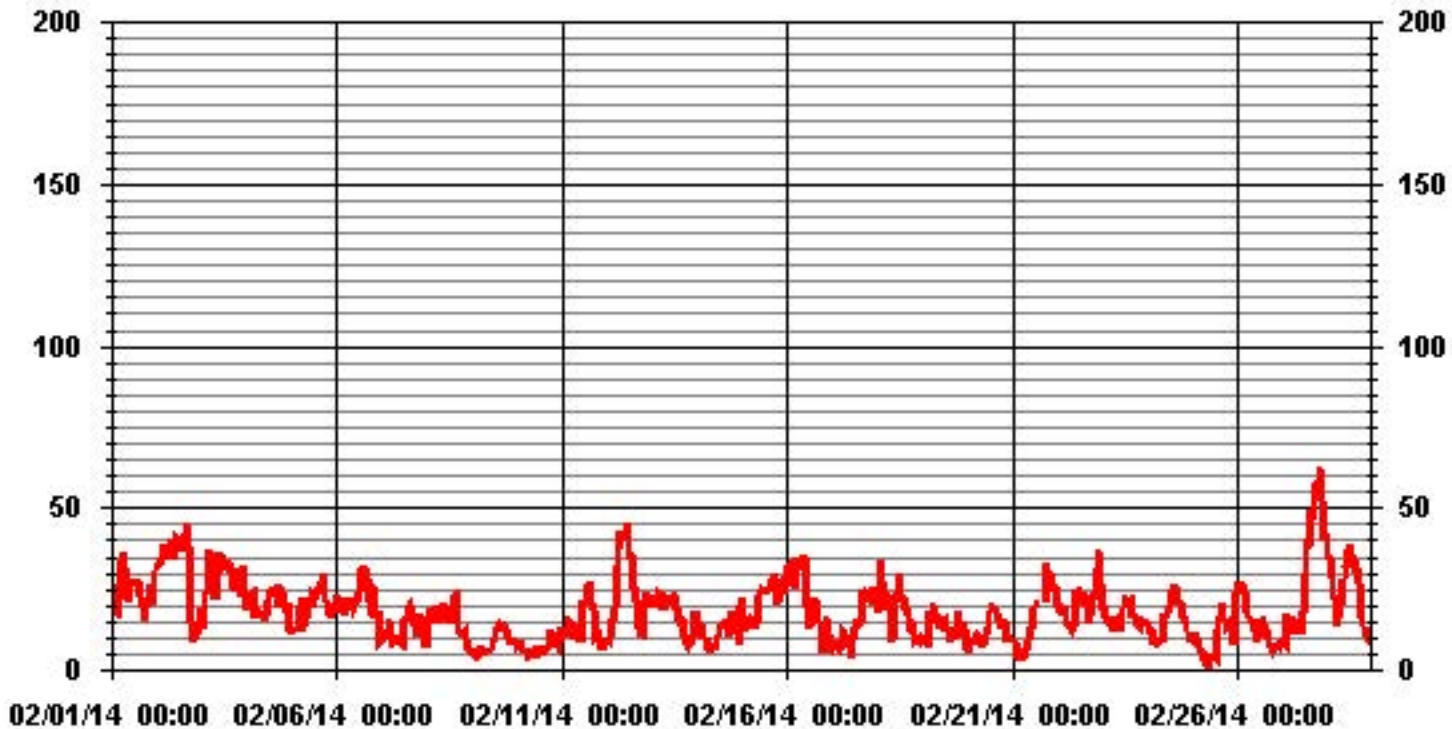
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|----|-----|-----------|----|-------------|-----|
| MAXIMUM INSTANTANEOUS VALUE: | 63 | KPH | @ HOUR(S) | 20 | ON DAY(S) | 27 |
| | | | | | VAR-VARIOUS | |
| OPERATIONAL TIME: | | | | | 672 | HRS |

01 Hour Averages



LICA-ELK
WSP / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 35
Site Name : LICA-ELK
Parameter : WSP
Units : KPH

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|------|------|------|------|-------|------|------|-----|-----|------|------|-------|-------|-------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | .29 | .59 | .89 | 1.19 | 3.28 | 4.18 | 1.19 | .74 | .44 | .14 | .59 | 1.64 | 3.43 | 2.09 | 1.94 | .89 | 23.61 |
| < 12.0 | 1.79 | .74 | .59 | .89 | 2.09 | 6.87 | 3.13 | .29 | .14 | .44 | .44 | 3.58 | 6.87 | 4.93 | 6.72 | 1.19 | 40.80 |
| < 20.0 | .74 | .00 | .00 | .29 | .74 | 3.73 | 1.34 | .44 | .00 | .00 | .00 | 1.79 | 5.08 | 3.88 | 7.47 | 2.39 | 27.95 |
| < 29.0 | .00 | .00 | .00 | .00 | .29 | 1.49 | .00 | .00 | .00 | .00 | .00 | .00 | .14 | .74 | 2.84 | 1.34 | 6.87 |
| < 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .59 | .59 |
| >= 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 2.84 | 1.34 | 1.49 | 2.39 | 6.42 | 16.29 | 5.68 | 1.49 | .59 | .59 | 1.04 | 7.02 | 15.54 | 11.65 | 18.98 | 6.42 | |

Calm : .14 %

Total # Operational Hours : 669

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-----|-----|-----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | 2 | 4 | 6 | 8 | 22 | 28 | 8 | 5 | 3 | 1 | 4 | 11 | 23 | 14 | 13 | 6 | 158 |
| < 12.0 | 12 | 5 | 4 | 6 | 14 | 46 | 21 | 2 | 1 | 3 | 3 | 24 | 46 | 33 | 45 | 8 | 273 |
| < 20.0 | 5 | | | 2 | 5 | 25 | 9 | 3 | | | | 12 | 34 | 26 | 50 | 16 | 187 |
| < 29.0 | | | | | 2 | 10 | | | | | | | 1 | 5 | 19 | 9 | 46 |
| < 39.0 | | | | | | | | | | | | | | | | 4 | 4 |
| >= 39.0 | | | | | | | | | | | | | | | | | |
| Totals | 19 | 9 | 10 | 16 | 43 | 109 | 38 | 10 | 4 | 4 | 7 | 47 | 104 | 78 | 127 | 43 | |

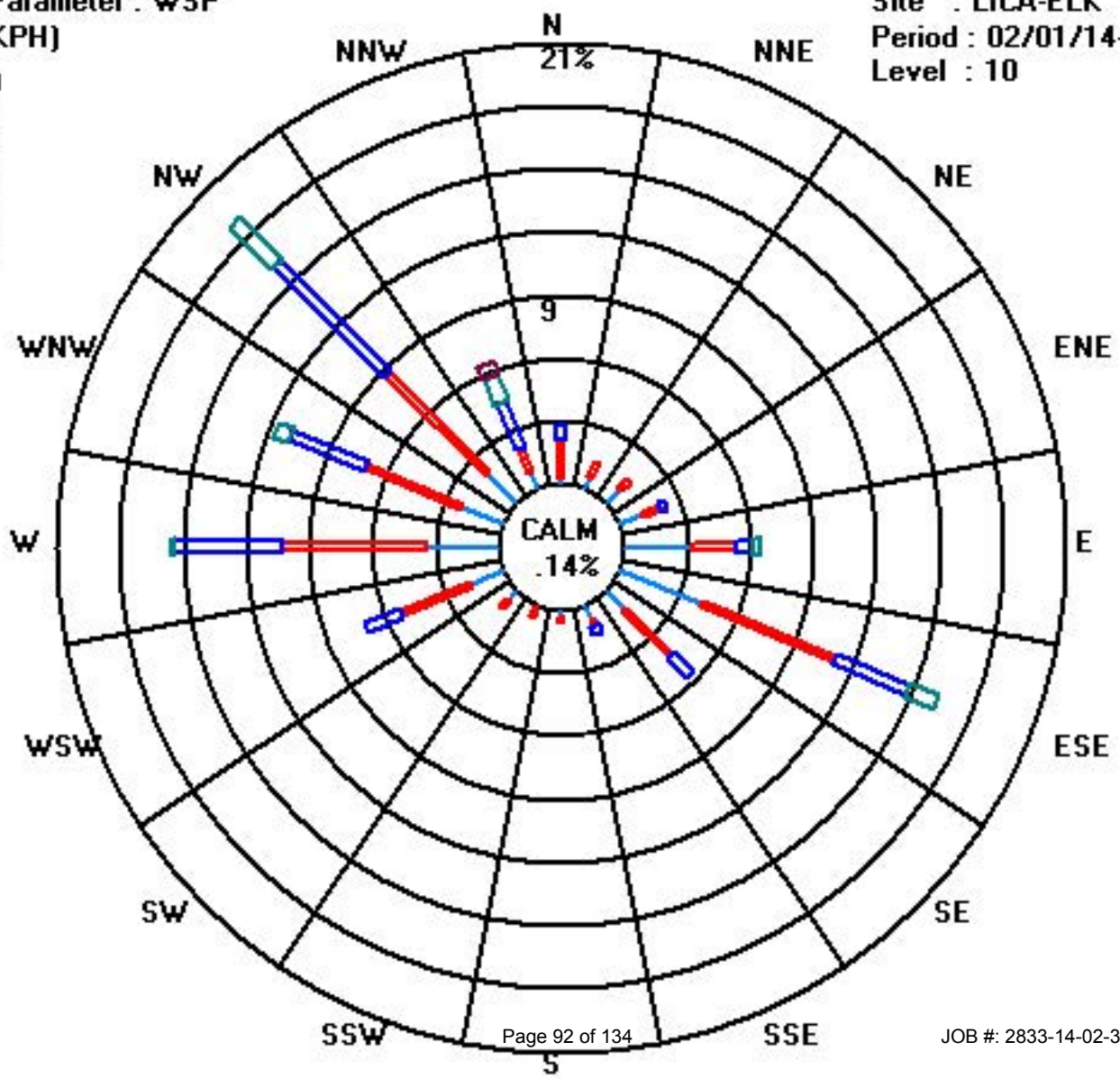
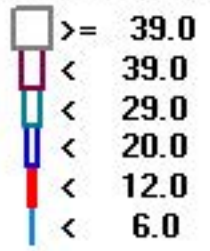
Calm : .14 %

Total # Operational Hours : 669

Class Limits (KPH)

Period : 02/01/14-02/28/14

Level : 10



Vector Wind Direction

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

WIND DIRECTION (WD) hourly averages in degrees

| 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 | 24-HOUR | | |
|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----------|-------|----|
| DAY | AVG. | 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 | 0:00 | AVG. | QUADRANT | RDGS. | |
| 1 | | 321 | 322 | 313 | 304 | 285 | 299 | 303 | 304 | 292 | 287 | 282 | 272 | 273 | 265 | 262 | 259 | 255 | 253 | 247 | 254 | 274 | 296 | 287 | 317 | 322 | | NW | 24 |
| 2 | | 320 | 324 | 321 | 309 | 310 | 319 | 317 | 307 | 301 | 304 | 298 | 298 | 306 | 318 | 315 | 322 | 348 | 354 | 299 | 298 | 273 | 265 | 237 | 247 | 354 | | N | 24 |
| 3 | | 254 | 258 | 296 | 319 | 322 | 342 | 330 | 323 | 318 | 314 | 317 | 316 | 322 | 314 | 314 | 311 | 310 | 309 | 311 | 339 | 344 | 360 | 350 | 342 | 360 | | N | 24 |
| 4 | | 319 | 319 | 324 | 320 | 318 | 317 | 300 | 330 | 317 | 315 | 310 | 312 | 312 | 314 | 298 | 303 | 293 | 309 | 310 | 315 | 324 | 340 | 24 | 353 | 353 | | N | 24 |
| 5 | | 319 | 300 | 304 | 294 | 321 | 316 | 280 | 283 | 267 | 270 | 284 | 304 | 295 | 283 | 278 | 284 | 280 | 268 | 257 | 267 | 261 | 270 | 267 | 276 | 321 | | NW | 24 |
| 6 | | 257 | 257 | 258 | 256 | 258 | 260 | 257 | 270 | 255 | 261 | 271 | 278 | 274 | 272 | 272 | 269 | 274 | 278 | 281 | 275 | 279 | 276 | 285 | 272 | 285 | | WNW | 24 |
| 7 | | 282 | 256 | 258 | 264 | 260 | 281 | 270 | 279 | 293 | 285 | 280 | 292 | 354 | 22 | 1 | 2 | 348 | 337 | 310 | 5 | 29 | 6 | 7 | 330 | 354 | | N | 24 |
| 8 | | 345 | 27 | 50 | 57 | 32 | 8 | 355 | 4 | 358 | 327 | 316 | 307 | 311 | 312 | 305 | 293 | 297 | 286 | 268 | 279 | 276 | 294 | 269 | 271 | 358 | | N | 24 |
| 9 | | 271 | 322 | 238 | 281 | 120 | 108 | 83 | 117 | 108 | 109 | 99 | 98 | 99 | 109 | 112 | 134 | 140 | 136 | 132 | 128 | 123 | 104 | 99 | 104 | 322 | | NW | 24 |
| 10 | | 107 | 108 | 110 | 106 | 108 | 90 | 90 | 99 | 88 | 72 | 108 | 123 | 86 | 71 | 89 | 92 | 100 | 118 | 123 | 87 | 46 | 80 | 65 | 301 | 301 | | WNW | 24 |
| 11 | | 318 | 307 | 321 | 314 | 321 | 326 | 316 | 315 | 299 | 282 | 283 | 290 | 313 | 316 | 311 | 307 | 305 | 298 | 298 | 306 | 299 | 228 | 155 | 95 | 326 | | NW | 24 |
| 12 | | 122 | 108 | 109 | 123 | 117 | 113 | 118 | 115 | 111 | 105 | 103 | 102 | 101 | 99 | 72 | 74 | 87 | 84 | 107 | 119 | 122 | 142 | 148 | 136 | 148 | | SE | 24 |
| 13 | | 141 | 136 | 125 | 126 | 117 | 113 | 108 | 104 | 105 | 102 | 111 | 112 | 111 | 108 | 123 | 125 | 127 | 172 | 180 | 162 | 137 | 112 | 120 | 122 | 180 | | S | 24 |
| 14 | | 127 | 107 | 125 | 108 | 109 | 93 | 47 | 169 | 329 | 112 | 123 | 136 | 126 | 126 | 118 | 130 | 128 | 130 | 118 | 88 | 89 | 103 | 84 | 83 | 329 | | NNW | 24 |
| 15 | | 110 | 148 | 111 | 120 | 146 | 111 | 131 | 117 | 124 | 139 | 153 | 146 | 154 | 128 | 128 | 127 | 122 | 124 | 105 | 111 | 109 | 108 | 97 | 102 | 154 | | SSE | 24 |
| 16 | | 104 | 101 | 93 | 100 | 108 | 111 | 111 | 106 | 107 | 113 | 109 | 36 | 327 | 319 | 304 | 316 | 282 | 284 | 269 | 278 | 276 | 253 | 270 | 242 | 327 | | NW | 24 |
| 17 | | 333 | 310 | 310 | 304 | 20 | 331 | 307 | 307 | 294 | 343 | 254 | 300 | 271 | 269 | 269 | 310 | 253 | 248 | 247 | 245 | 245 | 240 | 241 | 251 | 343 | | NNW | 24 |
| 18 | | 265 | 266 | 270 | 262 | 253 | 274 | 248 | 254 | 144 | 250 | 246 | 257 | 264 | 252 | 244 | 258 | 270 | 211 | 206 | 77 | 118 | 101 | 97 | 104 | 274 | | W | 24 |
| 19 | | 98 | 102 | 120 | 91 | 62 | 84 | 67 | 67 | 47 | 359 | 34 | 53 | 76 | 74 | 312 | 323 | 30 | 70 | 115 | 112 | 125 | 167 | 163 | 148 | 359 | | N | 24 |
| 20 | | 138 | 157 | 116 | 117 | 117 | 112 | 86 | 119 | 113 | 115 | 123 | 105 | 106 | 117 | 108 | 107 | 119 | 119 | 121 | 113 | 113 | 85 | 80 | 81 | 157 | | SSE | 24 |
| 21 | | 75 | 89 | 123 | 125 | 134 | 291 | 299 | 351 | 45 | 43 | 48 | 30 | 24 | 358 | C | C | C | 334 | 315 | 314 | 332 | 316 | 328 | 358 | | N | 24 | |
| 22 | | 331 | 319 | 317 | 320 | 320 | 311 | 309 | 300 | 286 | 294 | 314 | 315 | 296 | 305 | 306 | 314 | 317 | 296 | 270 | 302 | 314 | 325 | 331 | 328 | 331 | | NNW | 24 |
| 23 | | 315 | 312 | 313 | 308 | 305 | 285 | 273 | 274 | 293 | 302 | 306 | 297 | 277 | 277 | 275 | 278 | 281 | 274 | 255 | 268 | 265 | 261 | 269 | 265 | 315 | | NW | 24 |
| 24 | | 256 | 268 | 281 | 267 | 293 | 276 | 261 | 279 | 309 | 276 | 257 | 266 | 260 | 261 | 280 | 290 | 290 | 290 | 281 | 284 | 287 | 308 | 324 | 321 | 324 | | NW | 24 |
| 25 | | 302 | 309 | 282 | 276 | 298 | 280 | 305 | 292 | 298 | 319 | 78 | 61 | 11 | 222 | 210 | 209 | 219 | 218 | 234 | 248 | 274 | 253 | 240 | 299 | 319 | | NW | 24 |
| 26 | | 281 | 278 | 286 | 291 | 295 | 300 | 287 | 276 | 312 | 317 | 276 | 272 | 267 | 267 | 243 | 222 | 254 | 260 | 236 | 92 | 131 | 112 | 83 | 83 | 317 | | NW | 24 |
| 27 | | 113 | 120 | 113 | 108 | 92 | 115 | 132 | 117 | 103 | 115 | 177 | 278 | 284 | 312 | 311 | 314 | 327 | 334 | 335 | 334 | 335 | 335 | 335 | 334 | 335 | | NNW | 24 |
| 28 | | 333 | 333 | 331 | 326 | 326 | 298 | 276 | 278 | 308 | 313 | 317 | 320 | 339 | 341 | 350 | 346 | 339 | 336 | 343 | 337 | 322 | 303 | 275 | 273 | 350 | | N | 24 |

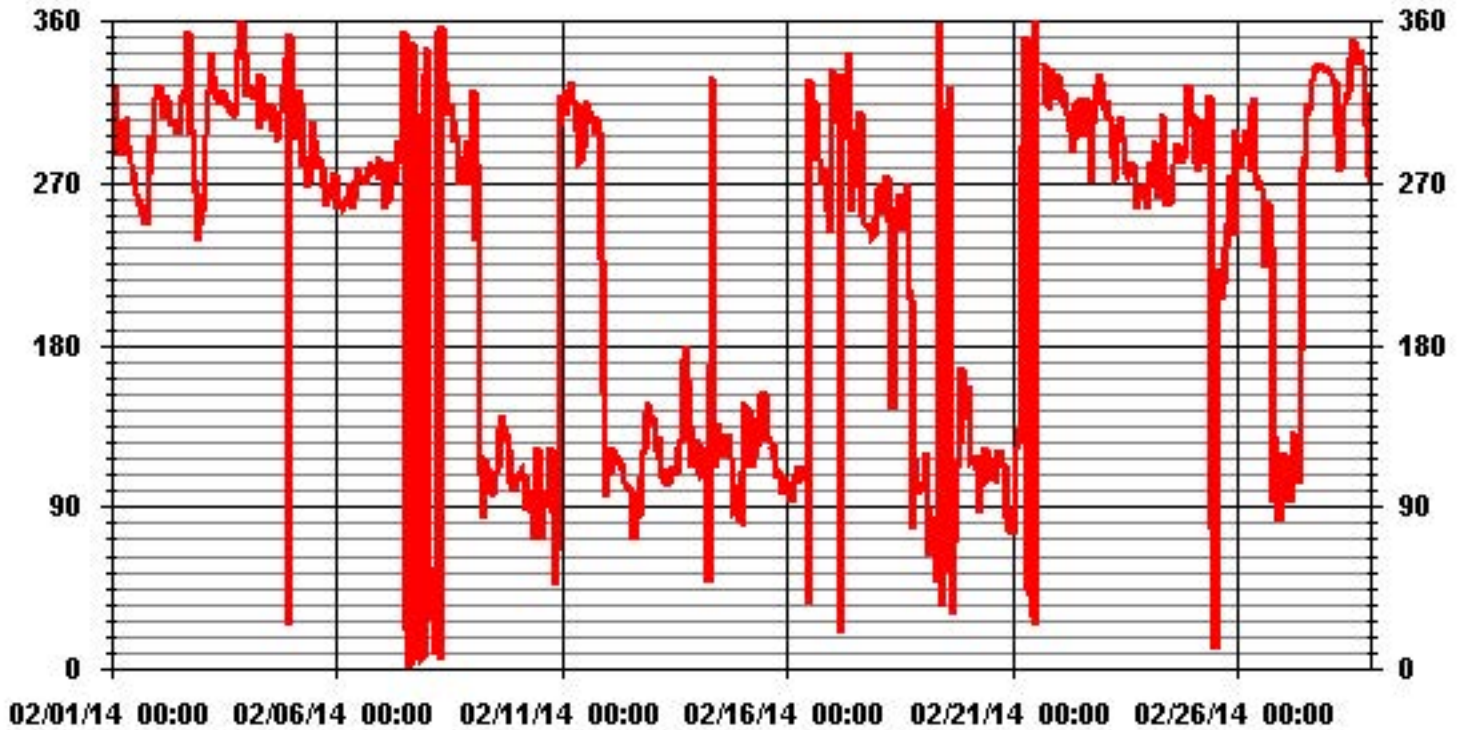
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|---------------------------------------|
| LAST CALIBRATION: | February 21, 2014 |
| DECLINATION : | MAEGNETIC DECLINATION 19 DEGREES EAST |

| | | | |
|---------------------------|--------|-----------------------|---------|
| MONTHLY CALIBRATION TIME: | 3 HRS | OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 104.08 | AMD OPERATION UPTIME: | 100.0 % |
| | | MONTHLY AVERAGE: | 308 DEG |

01 Hour Averages



Standard Deviation Wind Direction

Lakeland Industry & Community Association - Elk Point Site

FEBRUARY 2014

STANDARD DEVIATION WIND DIRECTION (STDWD) hourly averages in degrees

| 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 |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HOUR START | HOUR END | 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 | 0:00 |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 10 | 9 | 8 | 6 | 7 | 7 | 8 | 8 | 7 | 6 | 6 | 10 | 11 | 14 | 13 | 12 | 13 | 10 | 8 | 12 | 7 | 5 | 7 | 11 |
| 2 | | 9 | 9 | 9 | 8 | 8 | 9 | 9 | 7 | 8 | 7 | 7 | 7 | 8 | 9 | 9 | 10 | 13 | 13 | 15 | 7 | 6 | 9 | 8 | 7 |
| 3 | | 10 | 11 | 9 | 9 | 8 | 9 | 8 | 8 | 9 | 7 | 8 | 8 | 9 | 8 | 8 | 8 | 6 | 5 | 7 | 12 | 9 | 12 | 11 | 8 |
| 4 | | 10 | 7 | 7 | 7 | 7 | 6 | 7 | 9 | 7 | 8 | 6 | 6 | 6 | 7 | 6 | 6 | 6 | 5 | 6 | 7 | 9 | 10 | 11 | 19 |
| 5 | | 7 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 11 | 9 | 5 | 5 | 9 | 7 | 6 | 5 | 4 | 9 | 9 | 11 | 9 | 10 | 13 | 10 |
| 6 | | 13 | 13 | 11 | 11 | 8 | 11 | 10 | 9 | 12 | 13 | 10 | 15 | 12 | 10 | 10 | 11 | 10 | 7 | 13 | 6 | 5 | 8 | 7 | 12 |
| 7 | | 13 | 13 | 10 | 13 | 11 | 11 | 6 | 10 | 6 | 7 | 4 | 5 | 17 | 16 | 14 | 13 | 13 | 6 | 4 | 13 | 18 | 15 | 16 | 10 |
| 8 | | 19 | 28 | 10 | 12 | 9 | 14 | 14 | 12 | 14 | 11 | 9 | 7 | 9 | 9 | 7 | 6 | 7 | 5 | 8 | 6 | 8 | 9 | 7 | 14 |
| 9 | | 8 | 10 | 13 | 7 | 33 | 7 | 12 | 16 | 17 | 8 | 6 | 6 | 9 | 7 | 8 | 9 | 4 | 3 | 4 | 6 | 5 | 5 | 7 | 7 |
| 10 | | 3 | 9 | 3 | 4 | 4 | 7 | 5 | 10 | 6 | 25 | 29 | 50 | 35 | 43 | 38 | 11 | 14 | 16 | 10 | 34 | 42 | 19 | 17 | 30 |
| 11 | | 8 | 4 | 6 | 6 | 7 | 7 | 8 | 7 | 4 | 5 | 4 | 7 | 10 | 9 | 10 | 7 | 5 | 4 | 6 | 7 | 6 | 19 | 14 | 32 |
| 12 | | 5 | 8 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 7 | 9 | 12 | 12 | 10 | 11 | 8 | 10 | 8 | 11 | 12 | 8 |
| 13 | | 10 | 10 | 5 | 5 | 7 | 7 | 6 | 7 | 7 | 8 | 7 | 7 | 9 | 8 | 11 | 11 | 12 | 7 | 9 | 13 | 29 | 15 | 9 | 18 |
| 14 | | 42 | 20 | 7 | 18 | 9 | 11 | 23 | 35 | 25 | 37 | 21 | 12 | 9 | 10 | 7 | 6 | 6 | 16 | 7 | 9 | 8 | 12 | 15 | 7 |
| 15 | | 21 | 23 | 5 | 11 | 24 | 7 | 12 | 6 | 6 | 9 | 13 | 16 | 13 | 7 | 6 | 7 | 6 | 7 | 6 | 5 | 5 | 6 | 7 | 6 |
| 16 | | 7 | 7 | 6 | 6 | 7 | 9 | 8 | 6 | 8 | 6 | 14 | 16 | 16 | 9 | 7 | 12 | 12 | 7 | 8 | 9 | 11 | 14 | 20 | 25 |
| 17 | | 24 | 19 | 11 | 38 | 29 | 19 | 14 | 14 | 13 | 45 | 23 | 17 | 11 | 11 | 25 | 16 | 7 | 6 | 5 | 7 | 4 | 4 | 17 | 17 |
| 18 | | 11 | 12 | 11 | 12 | 11 | 14 | 8 | 10 | 25 | 18 | 7 | 12 | 11 | 11 | 8 | 12 | 18 | 13 | 11 | 43 | 15 | 9 | 10 | 6 |
| 19 | | 5 | 7 | 8 | 40 | 15 | 13 | 9 | 9 | 18 | 12 | 10 | 15 | 14 | 19 | 22 | 16 | 20 | 16 | 4 | 5 | 10 | 10 | 13 | 9 |
| 20 | | 25 | 18 | 8 | 6 | 8 | 14 | 13 | 32 | 8 | 8 | 9 | 9 | 9 | 12 | 10 | 10 | 15 | 10 | 11 | 11 | 10 | 10 | 9 | 12 |
| 21 | | 12 | 11 | 12 | 8 | 15 | 9 | 7 | 17 | 10 | 11 | 18 | 17 | 16 | 13 | C | C | C | 9 | 8 | 7 | 7 | 8 | 8 | 8 |
| 22 | | 7 | 7 | 6 | 6 | 7 | 4 | 3 | 3 | 4 | 4 | 9 | 10 | 15 | 10 | 10 | 9 | 7 | 9 | 8 | 4 | 7 | 8 | 6 | 6 |
| 23 | | 6 | 4 | 4 | 5 | 6 | 10 | 6 | 8 | 3 | 5 | 7 | 7 | 5 | 5 | 4 | 3 | 2 | 6 | 7 | 9 | 8 | 8 | 6 | 6 |
| 24 | | 6 | 7 | 12 | 8 | 13 | 18 | 7 | 7 | 14 | 17 | 13 | 12 | 13 | 12 | 6 | 5 | 3 | 2 | 2 | 2 | 7 | 11 | 9 | 9 |
| 25 | | 5 | 4 | 5 | 4 | 11 | 5 | 8 | 7 | 4 | 4 | 20 | 17 | 41 | 32 | 10 | 10 | 10 | 8 | 9 | 16 | 10 | 12 | 13 | 4 |
| 26 | | 3 | 2 | 3 | 3 | 5 | 2 | 5 | 6 | 5 | 16 | 6 | 6 | 9 | 10 | 10 | 12 | 10 | 8 | 4 | 30 | 18 | 17 | 13 | 11 |
| 27 | | 11 | 10 | 13 | 13 | 9 | 7 | 9 | 6 | 7 | 8 | 17 | 11 | 7 | 7 | 8 | 8 | 13 | 9 | 9 | 8 | 9 | 8 | 9 | 8 |
| 28 | | 8 | 8 | 8 | 6 | 6 | 7 | 6 | 6 | 6 | 7 | 9 | 9 | 11 | 12 | 18 | 14 | 12 | 7 | 6 | 6 | 8 | 5 | 6 | 6 |

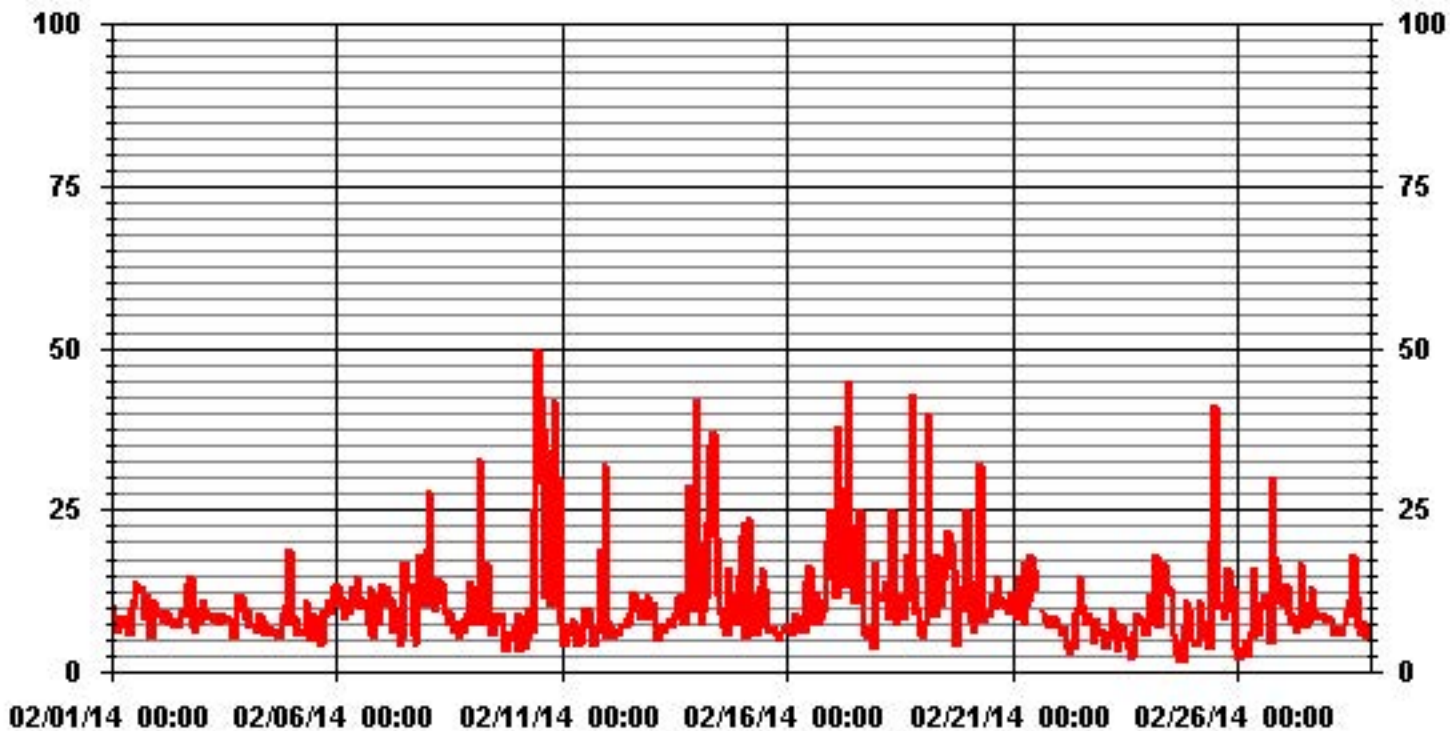
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|-------------------|
| LAST CALIBRATION: | November 24, 2011 |
|-------------------|-------------------|

| | | | |
|-------------------|-------|-------------------|---------|
| CALIBRATION TIME: | 3 HRS | OPERATIONAL TIME: | 672 HRS |
|-------------------|-------|-------------------|---------|

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report
Station Information

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 3, 2014 | Previous Calibration | January 3, 2014 |
| Company | Lakeland Community and Industry Association | | |
| Plant / Location | Portable / Elk Poin Airport | | |
| Start Time (MST) | 9:30 | End Time (MST) | 17:37 |
| Reason: | Routine Calibration | | |
| Barometric Pressure | na | inHg | Station Temperature |
| Cal Gas | 49.7 ppm | Gas Cyl. # | BAL3165 |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 467 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|--------------|------------|-------------------|----------|----------|
| Concentration Range | 0 - 1000 ppb | | | | |
| Sample Flow / Box Temp | 638 ccm | 27.1 Deg C | NA ccm | NA Deg C | NA Deg C |
| HVPS / Lamp Setting | 612 | 1427.8 | NA | NA | NA |
| PMT / RxCell Temp | 8.1 Deg C | 50 Deg C | NA Deg C | NA Deg C | NA Deg C |
| Converter / IZS Temp | NA Deg C | 45 Deg C | NA Deg C | NA Deg C | NA Deg C |
| Offset / Slope | 149.2 | 1.95 | NA | NA | NA |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4982 | 79.8 | 784 | 777 | 1.0084 |
| 4982 | 79.8 | 784 | 780 | 1.0045 |
| 4995 | 39.9 | 394 | 390 | 1.0099 |
| 4996 | 19.9 | 197 | 195 | 1.0112 |
| 4996 | 0 | 0 | 1 | 0.0000 |
| Sum of Least Squares | | | | 1.0059 |
| New Correction Factor | | | | 1.0045 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|------------------------|-------|
| Auto Zero | 0.0 | Auto Zero | 0.0 |
| Auto Span | 334.0 | Auto Span | 334.0 |
| Sample Lines Connected | | Sample Lines Connected | YES |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 1.0084 |
| Percent Change: | -0.8% |

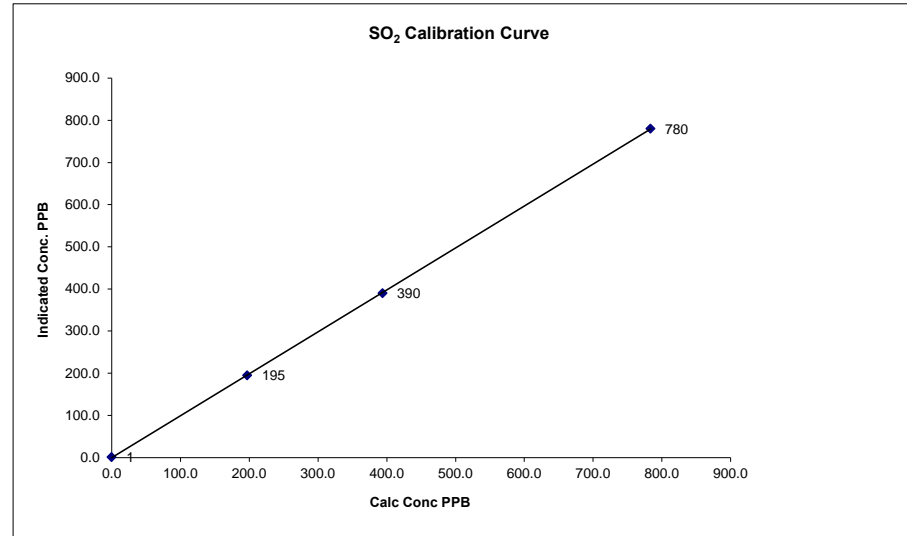
Notes: **After calibration, do annual maintenance.**
Change UV lamp and UV filter. Change sinter filters and o-rings. Adjust HVPS.

Calibration Performed by: Kevin Hope

SO₂ Calibration Curve

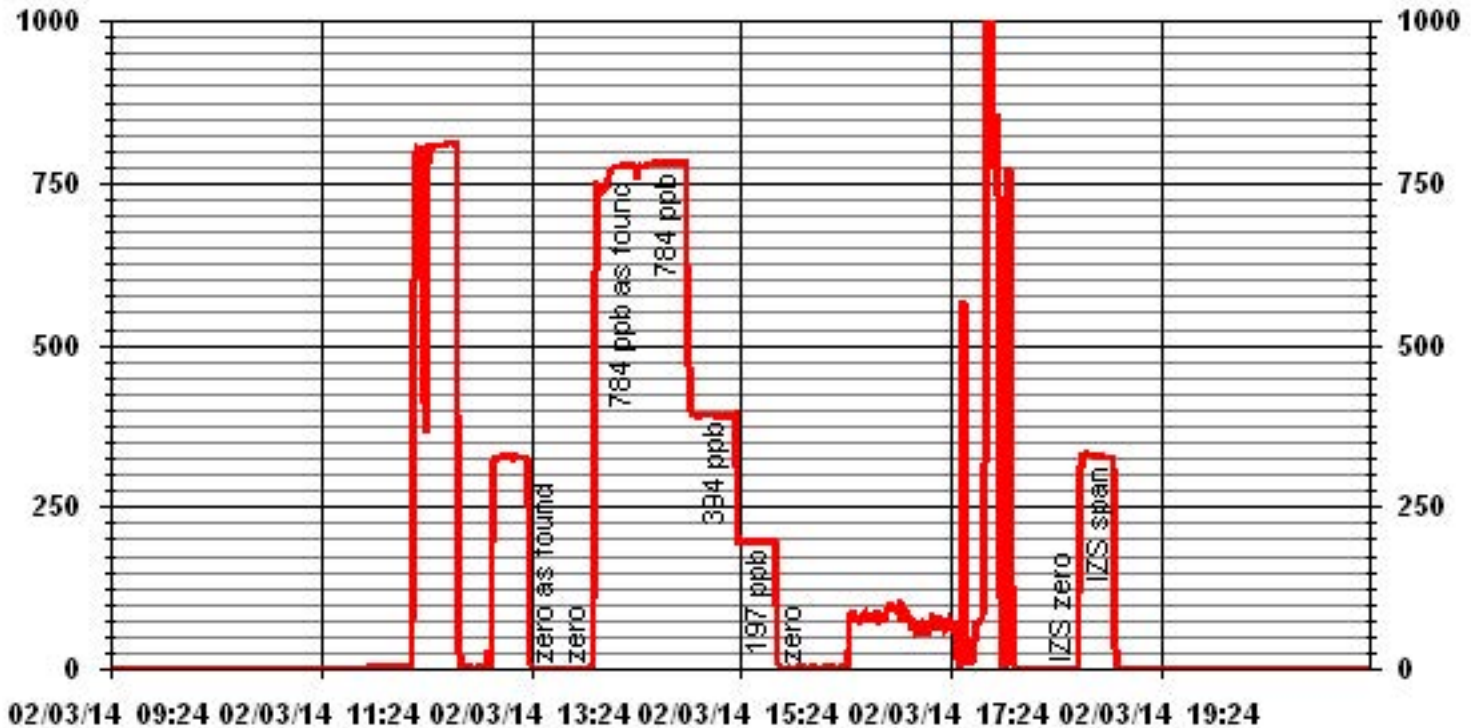
| | |
|------------------|---|
| Calibration Date | February 3, 2014 |
| Company | Lakeland Community and Industry Association |
| Plant / Location | Portable / Elk Poin Airport |
| Start Time (MST) | 9:30 |
| End Time (MST) | 17:37 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 1 | n/a | | 0.999985 |
| 197 | 195 | 1.0112 | | 0.994828 |
| 394 | 390 | 1.0099 | | -0.388516 |
| 784 | 780 | 1.0045 | | |



Notes:

01 Minute Averages



SO2 Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 4, 2014 | Previous Calibration | February 3, 2014 |
| Company | Lakeland Community and Industry Association | | |
| Plant / Location | Portable / Elk Poin Airport | | |
| Start Time (MST) | 9:30 | End Time (MST) | 14:08 |
| Reason: | Post Repair calibration | | |
| Barometric Pressure | na | inHg | Station Temperature |
| Cal Gas | 49.7 | ppm | Gas Cyl. # |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 467 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|----|-------------------|--------|
| Concentration Range | na | 0 - 1000 | ppb |
| Sample Flow / Box Temp | na | 642 | ccm |
| HVPS / Lamp Setting | na | 496 | 4166.9 |
| PMT / RxCell Temp | na | 8.1 | Deg C |
| Converter / IZS Temp | NA | NA | Deg C |
| Offset / Slope | na | 42.5 | 0.973 |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4982 | 79.8 | 784 | 782 | 1.0017 |
| 4982 | 79.8 | 784 | 784 | 0.9997 |
| 4995 | 39.9 | 394 | 395 | 0.9963 |
| 4996 | 19.9 | 197 | 198 | 0.9938 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9987 |
| New Correction Factor | | | | 0.9997 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|-------------------|-------|
| Auto Zero | 0.0 | | 0.0 |
| Auto Span | 334.0 | | 323.1 |
| Sample Lines Connected | | | YES |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0084 |
| Current Correction Factor Before Span Adjust: | 1.0017 |
| Percent Change: | 0.7% |

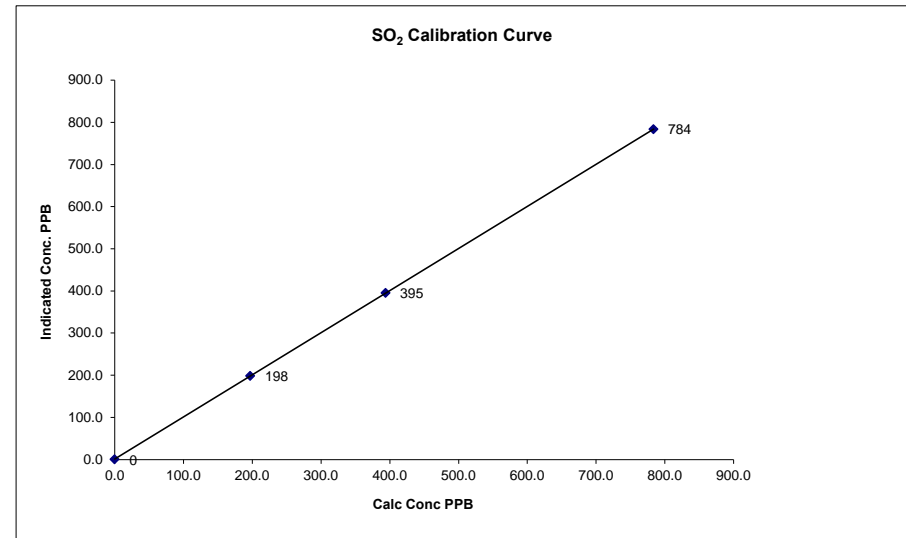
Notes:

Calibration Performed by: Kevin Hope

SO2 Calibration Curve

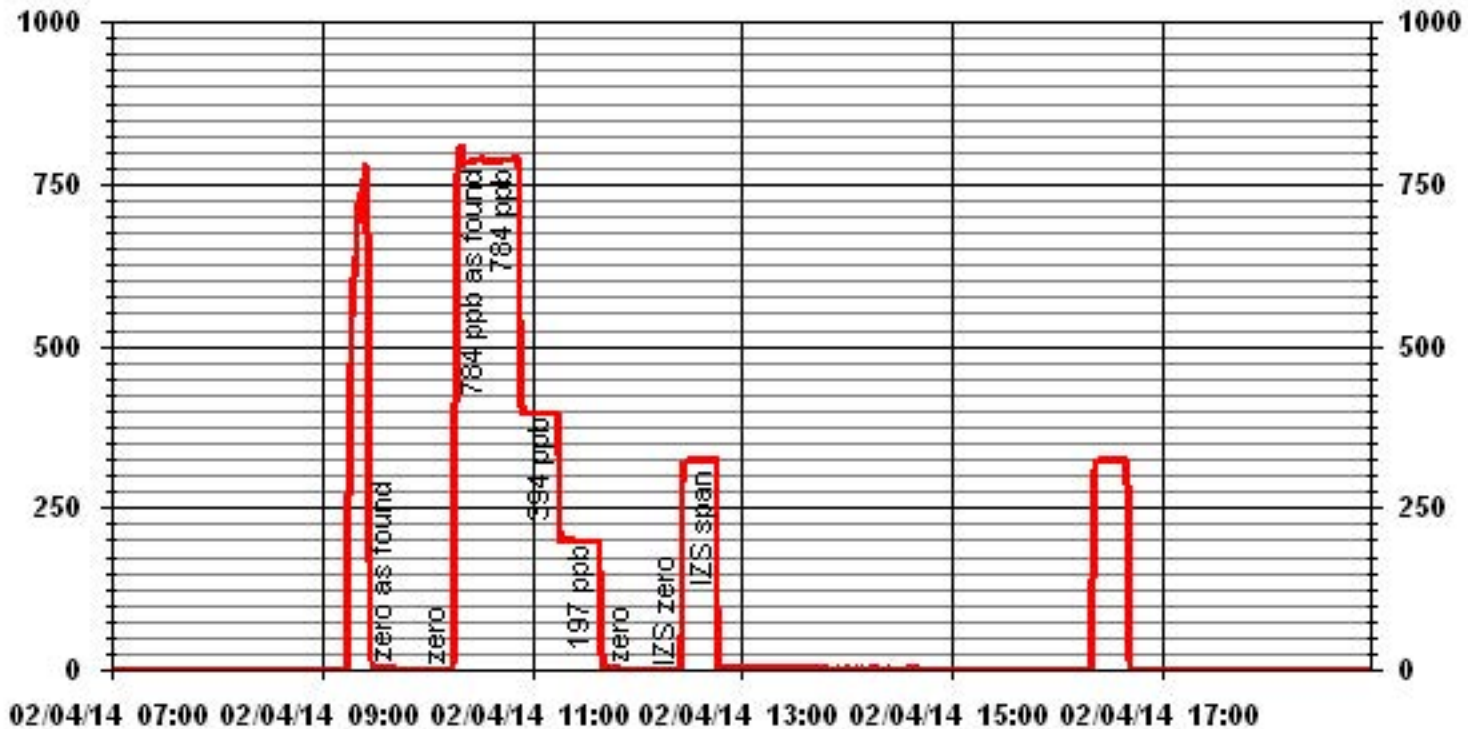
| | |
|------------------|---|
| Calibration Date | February 4, 2014 |
| Company | Lakeland Community and Industry Association |
| Plant / Location | Portable / Elk Poin Airport |
| Start Time (MST) | 9:30 |
| End Time (MST) | 14:08 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 0 | n/a | | 0.999997 |
| 197 | 198 | 0.9938 | | 0.999733 |
| 394 | 395 | 0.9963 | | 0.900929 |
| 784 | 784 | 0.9997 | | |



Notes:

01 Minute Averages



SO2 Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 19, 2014 | Previous Calibration | February 4, 2014 |
| Company | Lakeland Community and Industry Association | | |
| Plant / Location | Portable / Elk Poin Airport | | |
| Start Time (MST) | 13:40 | End Time (MST) | 15:30 |
| Reason: | Post Repair calibration | | |
| Barometric Pressure | na | inHg | Station Temperature |
| Cal Gas | 49.7 | ppm | Gas Cyl. # |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 467 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N: | NA | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|--------------|-------|-------------------|-------|------|
| Concentration Range | 0 - 1000 ppb | | | | |
| Sample Flow / Box Temp | 642 | ccm | 28.4 | Deg C | 642 |
| HVPS / Lamp Setting | 496 | | 4166.9 | | 496 |
| PMT / RxCell Temp | 8.1 | Deg C | 50 | Deg C | 8.1 |
| Converter / IZS Temp | NA | Deg C | 45 | Deg C | NA |
| Offset / Slope | 42.5 | | 0.973 | | 42.5 |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 1 | 0.0000 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| 4995 | 79.8 | 782 | 784 | 0.9972 |
| 4995 | 79.8 | 782 | 782 | 0.9999 |
| 4996 | 39.8 | 393 | 393 | 0.9997 |
| 4996 | 19.8 | 196 | 194 | 1.0103 |
| 4996 | 0 | 0 | 1 | 0.0000 |
| Sum of Least Squares | | | | 1.0004 |
| New Correction Factor | | | | 0.9999 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|-------------------|-------|
| Auto Zero | 0.0 | | 0.0 |
| Auto Span | 323.1 | | 343.1 |
| Sample Lines Connected | | | Yes |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 0.9972 |
| Percent Change: | 0.3% |

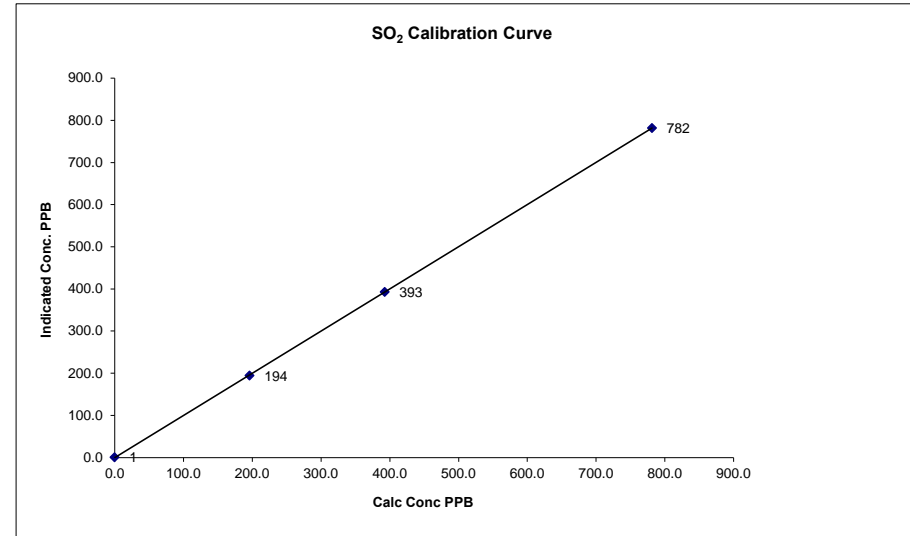
Notes: Completed full post-repair calibration of SO2 after resetting the UV lamp

Calibration Performed by: Kevin Hope

SO2 Calibration Curve

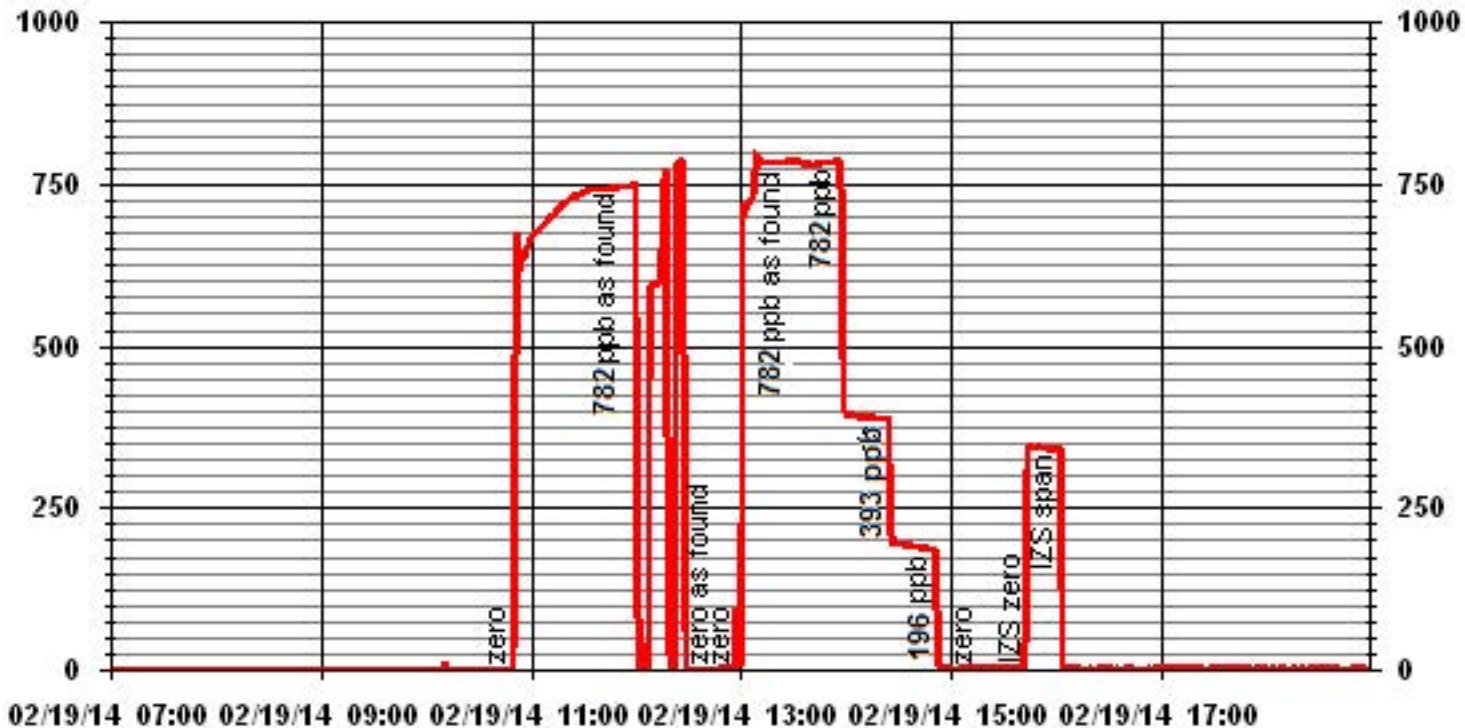
| | |
|------------------|---|
| Calibration Date | February 19, 2014 |
| Company | Lakeland Community and Industry Association |
| Plant / Location | Portable / Elk Poin Airport |
| Start Time (MST) | 13:40 |
| End Time (MST) | 15:30 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 1 | n/a | | 0.999989 |
| 196 | 194 | 1.0103 | | 1.000480 |
| 393 | 393 | 0.9997 | | -0.492505 |
| 782 | 782 | 0.9999 | | |



Notes:

01 Minute Averages



Hydrogen Sulphide

H2S Calibration Report

Station Information

| | | | |
|---------------------|--|----------------------|---------------------|
| Calibration Date | February 3, 2014 | Previous Calibration | January 3, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | Portable/ Elk Point Airport | | |
| Start Time (MST) | 14:40 | End Time (MST) | 18:00 |
| Reason: | Install calibration | | |
| Barometric Pressure | na | inHg | Station Temperature |
| Cal Gas | 10.1 | ppm | Gas Cyl. # |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 722 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | NA | | |
| Calibrator Make / Model: | API 700 | S/N : | 829 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | API 700 | S/N : | 829 | | |

Analyzer Settings

| | | Before Calibration | | After Calibration | |
|------------------------|----|--------------------|----|-------------------|----|
| Concentration Range | | 0 - 100 | | ppb | |
| Sample Flow / Box Temp | na | ccm | na | NA | NA |
| HVPS / Lamp Setting | na | na | na | NA | NA |
| PMT / RxCell Temp | na | Deg C | na | Deg C | NA |
| Converter / IZS Temp | na | Deg C | na | Deg C | NA |
| Offset / Slope | na | na | na | NA | NA |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4995 | 0 | 0 | 1 | 0.0000 |
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4994 | 39.7 | 80 | 81 | 0.9834 |
| 4994 | 39.7 | 80 | 81 | 0.9834 |
| 4994 | 19.5 | 39 | 41 | 0.9581 |
| 4996 | 9.8 | 20 | 21 | 0.9506 |
| 4994 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9770 |
| New Correction Factor | | | | 0.9834 |

IZS Calibration Data

| | | Before Calibration | After Calibration |
|------------------------|--|--------------------|-------------------|
| Auto Zero | | na | NA |
| Auto Span | | nz | NA |
| Sample Lines Connected | | | YES |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 0.9834 |
| Percent Change: | 1.7% |

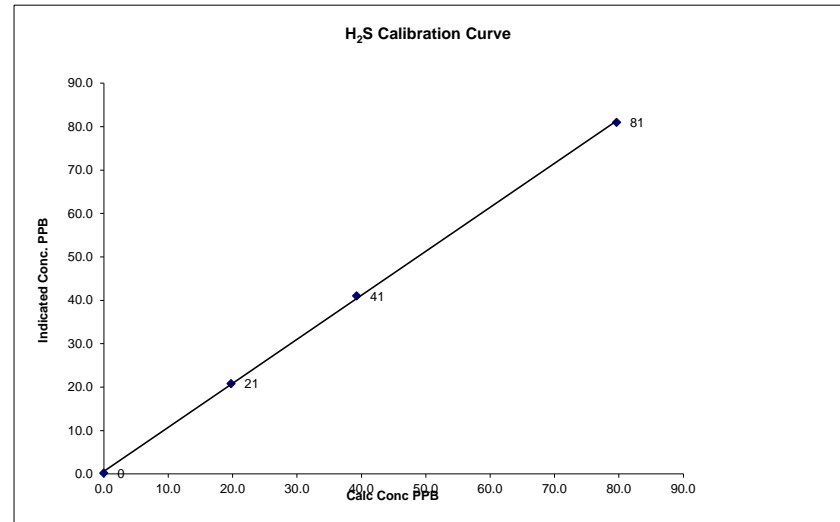
Notes: **Forgot save the file.**

Calibration Performed by: Kevin Hope

H₂S Calibration Curve

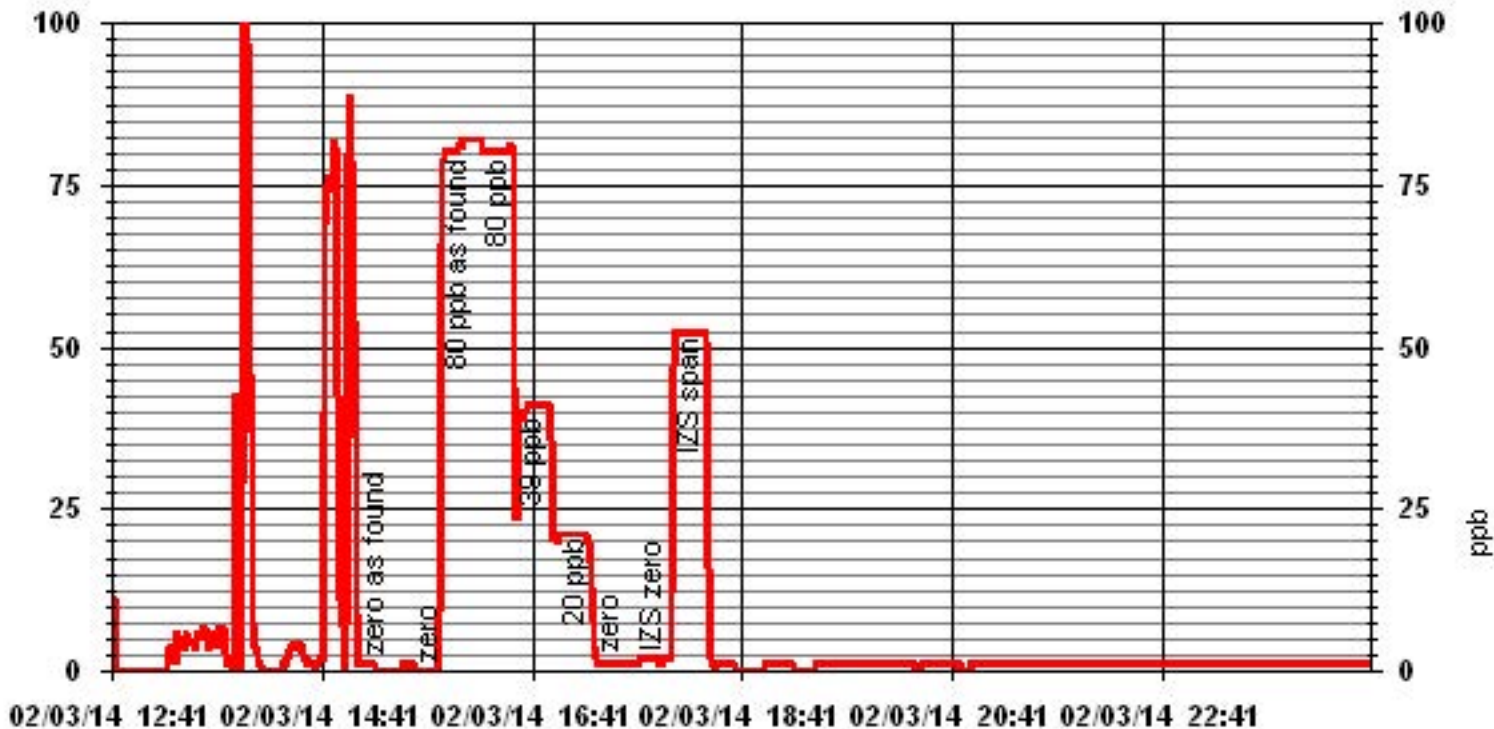
| | |
|------------------|--|
| Calibration Date | February 3, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION |
| Plant / Location | Portable/ Elk Point Airport |
| Start Time (MST) | 14:40 |
| End Time (MST) | 18:00 |

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | (≥ 0.995) |
|------------------|--------------------|-------------------|-------------------------|----------------------|
| ppb | ppb | | Slope | 1.013278 |
| 0 | 0 | | Intercept | (± 3% F.S.) 0.611015 |
| 20 | 21 | 0.9506 | | |
| 39 | 41 | 0.9581 | | |
| 80 | 81 | 0.9834 | | |



Notes:

01 Minute Averages



H2S Calibration Report

Station Information

| | | | |
|---------------------|--|----------------------|---------------------|
| Calibration Date | February 4, 2014 | Previous Calibration | February 3, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | Portable/ Elk Point Airport | | |
| Start Time (MST) | 9:18 | End Time (MST) | 13:01 |
| Reason: | Routine calibration | | |
| Barometric Pressure | na | inHg | Station Temperature |
| Cal Gas | 10.1 | ppm | Gas Cyl. # |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 722 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | NA | | |
| Calibrator Make / Model: | API 700 | S/N : | 829 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N: | NA | | |
| Flow Meter: | API 700 | S/N : | 829 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|----|-------------------|--------|
| Concentration Range | na | 0 - 100 | ppb |
| Sample Flow / Box Temp | na | ccm | 629 |
| HVPS / Lamp Setting | na | Deg C | 29.2 |
| PMT / RxCell Temp | na | Deg C | 595 |
| Converter / IZS Temp | na | Deg C | 3094.5 |
| Offset / Slope | na | Deg C | 8.2 |
| | na | Deg C | 50 |
| | na | Deg C | 45.0 |
| | na | Deg C | 53.4 |
| | na | Deg C | 1.01 |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4995 | 0 | 0 | 1 | 0.0000 |
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4994 | 39.7 | 80 | 79 | 1.0032 |
| 4994 | 39.7 | 80 | 80 | 1.0000 |
| 4994 | 19.5 | 39 | 39 | 0.9971 |
| 4996 | 9.8 | 20 | 20 | 1.0088 |
| 4994 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9966 |
| New Correction Factor | | | | 1.0000 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|----|-------------------|------|
| Auto Zero | na | | 0.0 |
| Auto Span | nz | | 41.5 |
| Sample Lines Connected | | | YES |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 0.9840 |
| Current Correction Factor Before Span Adjust: | 1.0032 |
| Percent Change: | -1.9% |

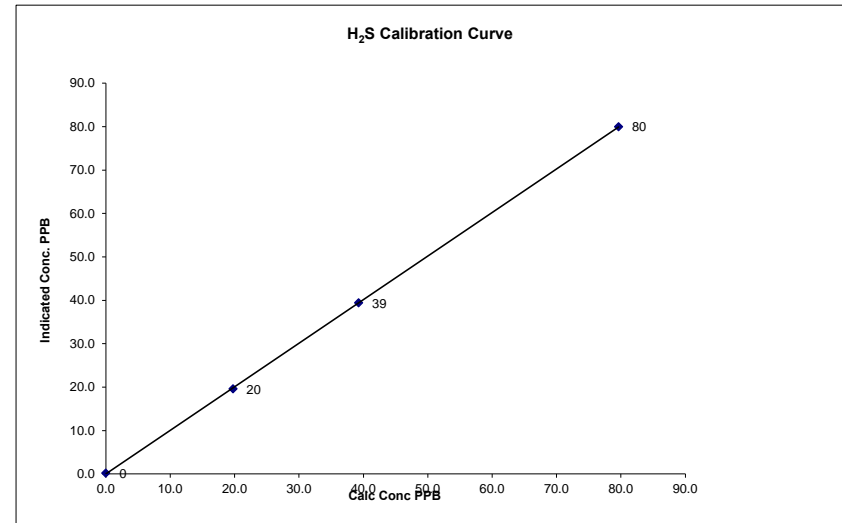
Notes:

Calibration Performed by: Kevin Hope

H₂S Calibration Curve

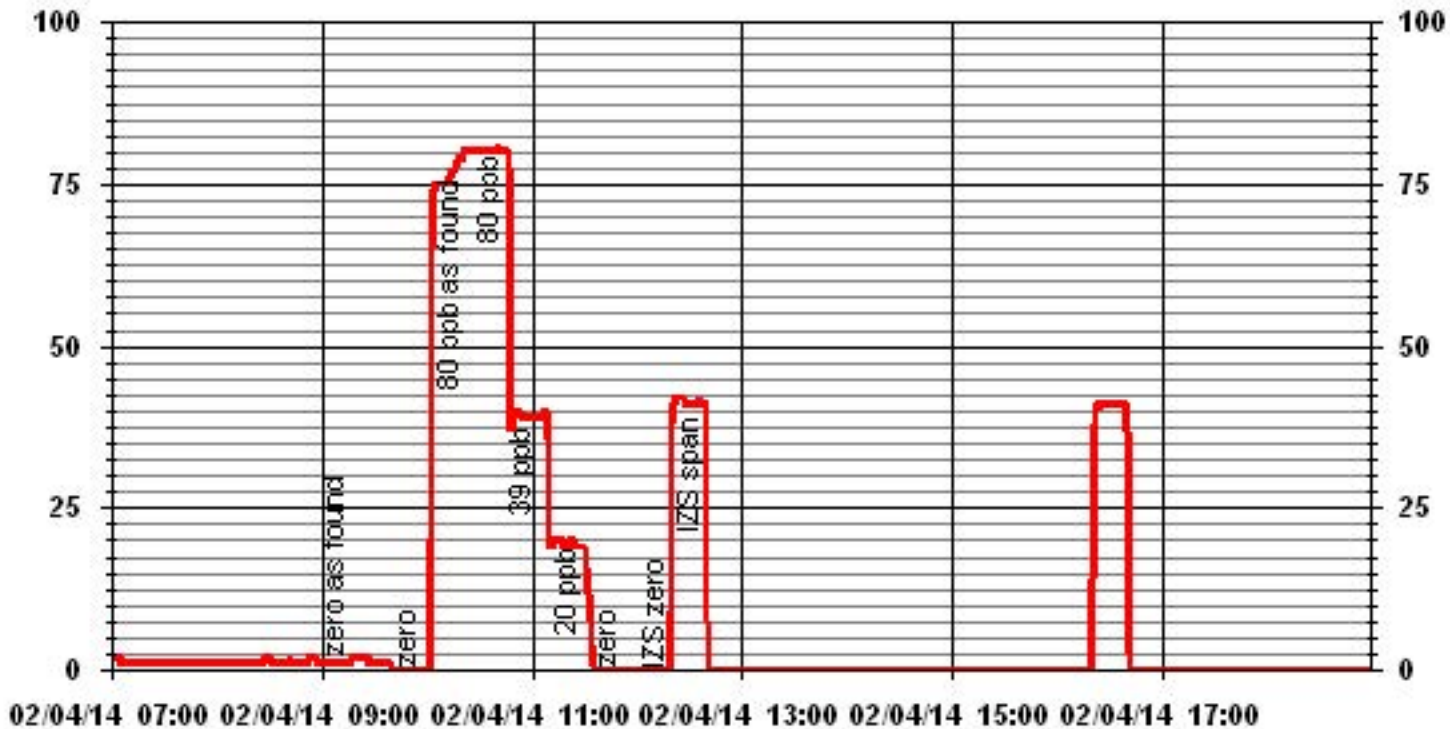
| | |
|------------------|--|
| Calibration Date | February 4, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION |
| Plant / Location | Portable/ Elk Point Airport |
| Start Time (MST) | 9:18 |
| End Time (MST) | 13:01 |

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | (≥ 0.995) |
|------------------|--------------------|-------------------|-------------------------|-----------|
| ppb | ppb | | Slope | 0.999970 |
| 0 | 0 | | Intercept | 1.003344 |
| | | | (± 3% F.S.) | 0.005503 |
| 20 | 20 | 1.0088 | | |
| 39 | 39 | 0.9971 | | |
| 80 | 80 | 0.9957 | | |



Notes:

01 Minute Averages



H2S Calibration Report

Station Information

| | | | |
|---------------------|--|----------------------|---------------------|
| Calibration Date | February 19, 2014 | Previous Calibration | February 4, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | Portable/ Elk Point Airport | | |
| Start Time (MST) | 10:20 | End Time (MST) | 12:30 |
| Reason: | Remove calibration | | |
| Barometric Pressure | na | inHg | Station Temperature |
| Cal Gas | 10.1 | ppm | Gas Cyl. # |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output |
| | | | NA |
| | | | Volts |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 722 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | NA | | |
| Calibrator Make / Model: | API 700 | S/N : | 829 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N: | NA | | |
| Flow Meter: | API 700 | S/N : | 829 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|--------------------|---------------------|--|
| Concentration Range | 0 - 100 | ppb | |
| Sample Flow / Box Temp | 629 ccm 29.2 Deg C | 629 ccm 29.2 Deg C | |
| HVPS / Lamp Setting | 595 3094 | 595 3094 | |
| PMT / RxCell Temp | 8.2 Deg C 50 Deg C | 8.2 Deg C 50 Deg C | |
| Converter / IZS Temp | na Deg C 45 Deg C | NA Deg C 45.0 Deg C | |
| Offset / Slope | 53.4 1.01 | 53.4 1.01 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4995 | 0 | 0 | 0 | 0.0000 |
| 4993 | 39.8 | 80 | 82 | 0.9788 |
| 4994 | 19.8 | 40 | 41 | 0.9681 |
| 4994 | 11.0 | 22 | 21 | 1.0471 |
| 4995 | 0 | 0 | -1 | 0.0000 |
| Sum of Least Squares | | | | 0.9805 |
| New Correction Factor | | | | |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|------|-------------------|-----|
| Auto Zero | 0.0 | | na |
| Auto Span | 41.5 | | na |
| Sample Lines Connected | | | NOT |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 0.9960 |
| Current Correction Factor Before Span Adjust: | 0.9788 |
| Percent Change: | 1.8% |

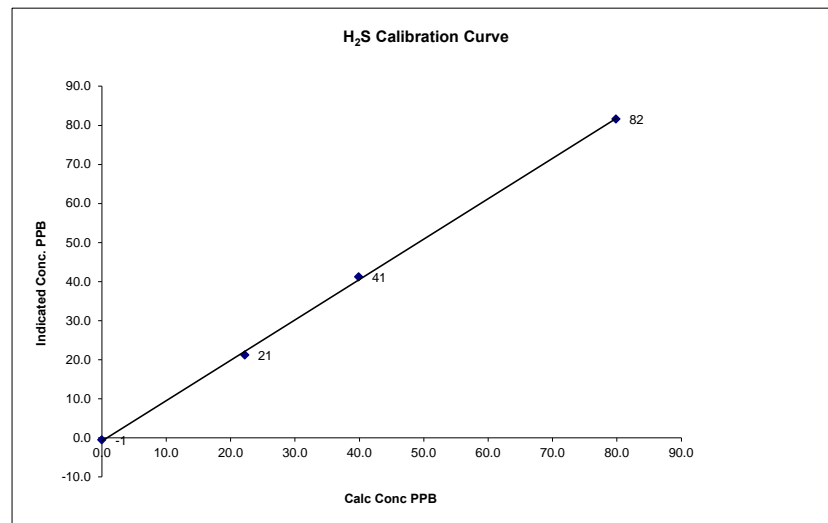
Notes: **After remove calibration, remove this analyzer and install back LICA H2S analyzer.**

Calibration Performed by: Kevin Hope

H₂S Calibration Curve

| | |
|------------------|--|
| Calibration Date | February 19, 2014 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION |
| Plant / Location | Portable/ Elk Point Airport |
| Start Time (MST) | 10:20 |
| End Time (MST) | 12:30 |

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | Slope | Intercept |
|------------------|--------------------|-------------------|-------------------------|----------|-----------|
| ppb | ppb | | (≥ 0.995) | | |
| 0 | -1 | | 0.999562 | 1.033129 | -0.789647 |
| | | | (± 3% F.S.) | | |
| 22 | 21 | 1.0471 | | | |
| 40 | 41 | 0.9681 | | | |
| 80 | 82 | 0.9788 | | | |



Notes:

H2S Calibration Report

Station Information

| | | | | | | |
|---------------------|---|----------------|----------------------|---------|---------------------|-------------------|
| Calibration Date | February 19, 2014 | | Previous Calibration | na | | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | | | | |
| Plant / Location | Portable/ Elk Point Airport | | | | | |
| Start Time (MST) | 12:50 | End Time (MST) | 15:50 | | | |
| Reason: | Install calibration | | | | | |
| Barometric Pressure | na | inHg | Station Temperature | na | Deg C | |
| Cal Gas | 10.1 | ppm | Gas Cyl. # | BLM5409 | Cal Gas Expiry date | December 25, 2015 |
| DAS Output Voltage | 0 - 1 | Volts | Chart Rec. Output | NA | Volts | |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 509 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | NA | | |
| Calibrator Make / Model: | API 700 | S/N : | 829 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | NA | S/N : | NA | | |
| Flow Meter: | API 700 | S/N : | 829 | | |

Analyzer Settings

| Before Calibration | | 0 - 100 | | After Calibration | |
|------------------------|----------|------------|----------|-------------------|--|
| Concentration Range | | 0 - 100 | | ppb | |
| Sample Flow / Box Temp | 511 ccm | 35.8 Deg C | 511 ccm | 35.8 Deg C | |
| HVPS / Lamp Setting | 540 | 1555.3 | 540 | 1555.3 | |
| PMT / RxCell Temp | 8 Deg C | 50 Deg C | 8 Deg C | 50 Deg C | |
| Converter / IZS Temp | na Deg C | 45 Deg C | NA Deg C | 45.0 Deg C | |
| Offset / Slope | 108.3 | 1.161 | 107.8 | 1.01 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4993 | 0 | 0 | 1 | 0.0000 |
| 4995 | 39.0 | 78 | 80 | 0.9757 |
| 4995 | 19.8 | 40 | 40 | 0.9871 |
| 4995 | 10.0 | 20 | 20 | 0.9941 |
| 4995 | 0 | 0 | 0 | 0.0000 |
| Sum of Least Squares | | | | 0.9788 |
| New Correction Factor | | | | |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|----|-------------------|--|
| Auto Zero | na | 0.0 | |
| Auto Span | na | 58.9 | |
| Sample Lines Connected | | Yes | |

Percent Change

| | |
|---|---------|
| Previous Month's Calibration Correction Factor: | na |
| Current Correction Factor Before Span Adjust: | 0.9757 |
| Percent Change: | #VALUE! |

Notes:

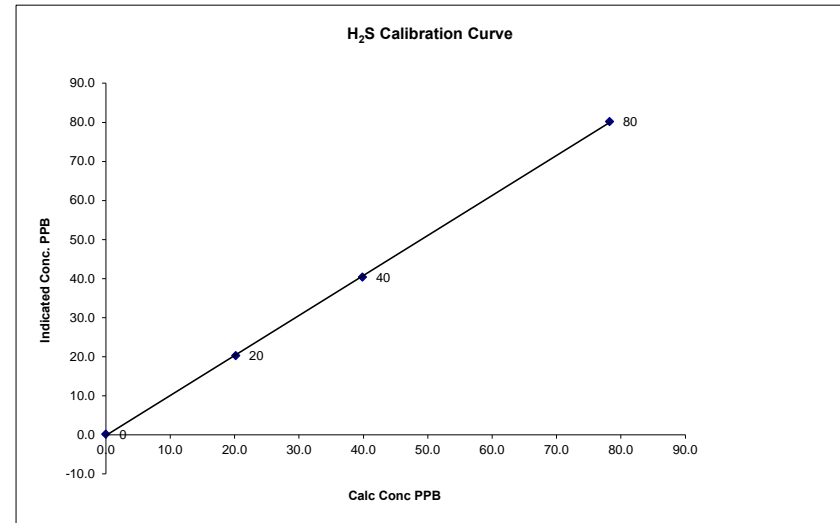
Re-installed and performed post repair calibration

Calibration Performed by: Kevin Hope

H₂S Calibration Curve

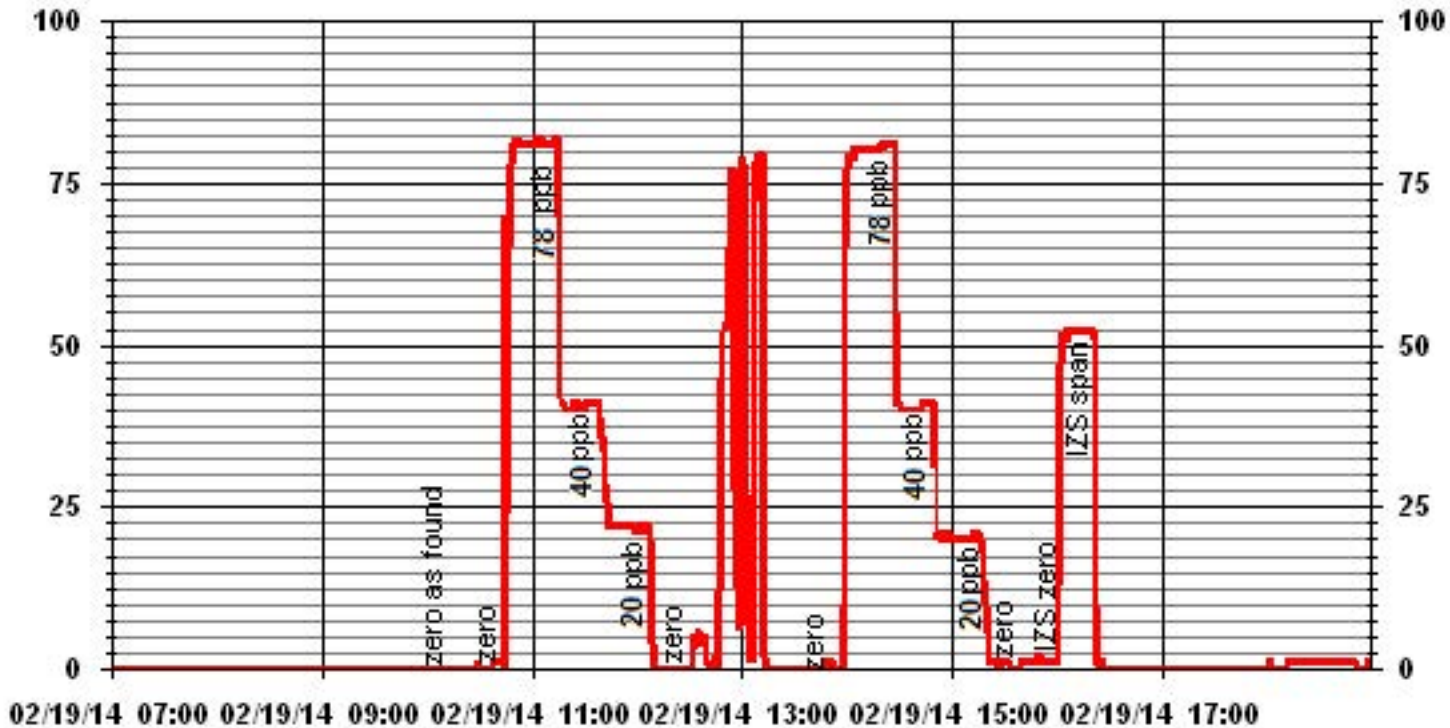
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 19, 2014 | | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | Portable/ Elk Point Airport | | |
| Start Time (MST) | 12:50 | End Time (MST) | 15:50 |

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | Slope | Intercept |
|------------------|--------------------|-------------------|-------------------------|----------|-------------|
| ppb | ppb | | (≥ 0.995) | | |
| 0 | 0 | | 0.999915 | 1.023778 | -0.123576 |
| 20 | 20 | 0.9941 | (0.85 to 1.15) | | (± 3% F.S.) |
| 40 | 40 | 0.9871 | | | |
| 78 | 80 | 0.9757 | | | |



Notes:

01 Minute Averages



Total Hydrocarbons (55i)

Methane - Non Methane Hydrocarbon Calibration Report

| Station Information | | | |
|------------------------|---|----------------------|------------------|
| Calibration Date: | February 3, 2014 | Previous Calibration | January 3, 2014 |
| Company: | Lakeland Industry and Community Association | | |
| Plant / Location: | ELK Point Airport | | |
| Start Time (MST) | 10:36 | End Time (MST) | 14:00 |
| Reason: | Monthly calibration | | |
| Barometric Pressure: | na inHg | Station Temperature: | na Deg C |
| Calibrator: | API700 | S/N: | 831 |
| Cal Gas Concentration: | CH4 609 PPM | C3H8 201 PPM= | 552.75 CH4 |
| | Cyl. # LL36542 | Cal Gas Expiry Date: | November 7, 2021 |
| DAS make & Model: | ESC8832 | S/N : | AO717 |
| Chart Recorder: | N/A | S/N: | N/A |
| Output Voltage Range: | 0-10 | Chart Speed: | N/A cm/hr |

| Analyzer Information | | | |
|----------------------|------------|---------|------------|
| Make / Model | Thermo 55i | S/N : | 1236656107 |
| | | Method: | GC FID |

| Analyzer Settings | | | |
|---------------------------|-------------------|------------|-------------------|
| Concentration Range (PPM) | CH4= 0-20 | NMHC= 0-20 | THC = 0-40 |
| | Befor Calibration | | After Calibration |
| Hydrogen Pressure | 40.3 | psi | 40.3 psi |
| Air Pressure | 32.4 | psi | 32.4 psi |
| Carrier Pressure | 31.1 | psi | 31.1 psi |
| Detector Oven | 175 | Deg C | 175 Deg C |
| Filter Temp | 175 | Deg C | 175 Deg C |
| Column Oven Temp | 75.2 | Deg C | 75.2 Deg C |
| Flame Temp | 377.1 | Deg C | 377.1 Deg C |
| Box Temp | 29.2 | Deg C | 29.2 Deg C |

| Gas Flows (sccm) | | Calculated Concentration | | Actual Concentration | | Correction factors | |
|---------------------|--------------|--------------------------|------|----------------------|------|--------------------|--------|
| Dilution Flow | Cal Gas Flow | CH4 | NMHC | CH4 | NMHC | CH4 | NMHC |
| 3000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| 3000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.0000 | 1.0000 |
| 2997 | 18.00 | 3.64 | 3.30 | 3.61 | 3.28 | 1.0072 | 1.0061 |
| 2997 | 18.00 | 3.64 | 3.30 | 3.63 | 3.30 | 1.0016 | 1.0000 |
| 2998 | 36.00 | 7.23 | 6.56 | 7.23 | 6.50 | 1.0000 | 1.0090 |
| 2997 | 9.00 | 1.82 | 1.65 | 1.82 | 1.64 | 1.0000 | 1.0091 |
| 2998 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0000 | 0.0000 |
| Correction Factors: | | | | | | 1.0016 | 1.0000 |

| Percent Change from Previous Calibration | | | |
|---|--------|--------|--|
| Previous Calibration Correction Factor: | CH4 | NMHC | |
| | 0.9860 | 0.9760 | |
| Current Correction Factor Before Span Adjust: | 0.9863 | 0.9757 | |
| Percent Change: | 0.0% | 0.0% | |

| IZS Calibration Data | | | | | | | |
|------------------------|-----|--------------------|------|------|-----|-------------------|-----------|
| | | Before Calibration | | | | After Calibration | |
| Auto Zero (ppm) | CH4 | 0.00 | NMHC | 0.00 | CH4 | 0.00 | NMHC 0.00 |
| Auto Span (ppm) | CH4 | na | NMHC | na | CH4 | na | NMHC na |
| Sample Lines Connected | | | | YES | | | |

Notes: Cylinder Pressures
 Span na psi
 Hydrogen na psi
 Zero Air na psi
 Nitrogen na psi

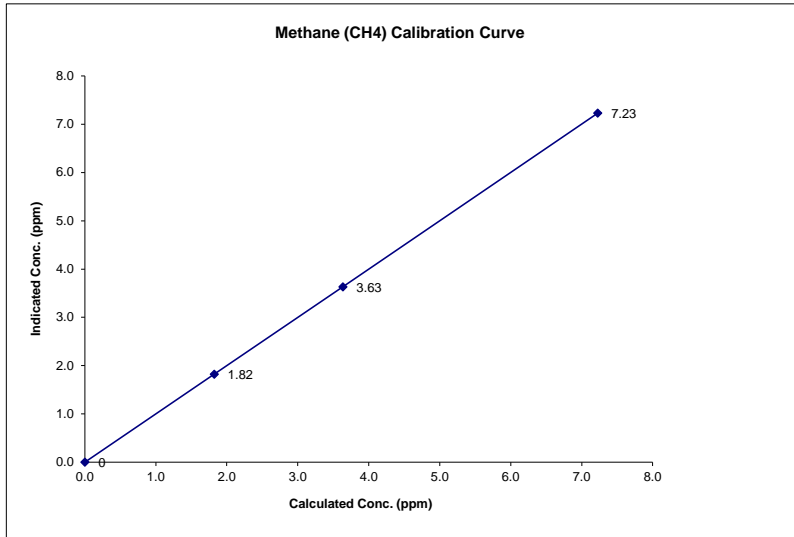
Notes: Change sample filter

Calibration Performed by: Kevin Hope

Methane (CH4) Calibration Curve

| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 3, 2014 | | |
| Company | Lakeland Industry and Community Association | | |
| Plant / Location | ELK Point Airport | | |
| Start Time (MST) | 10:36 | End Time (MST) | 14:00 |

| Calculated Conc. ppm | Indicated Response ppm | Correction Factor | Correlation Coefficient (≥ 0.995) | Slope (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|-----------------------------------|----------------------|-----------------------|
| 0 | 0 | 0.0000 | 0.999999 | 1.000617 | -0.003277 |
| 1.82 | 1.82 | 1.0000 | | | |
| 3.64 | 3.63 | 1.0072 | | | |
| 7.23 | 7.23 | 1.0000 | | | |

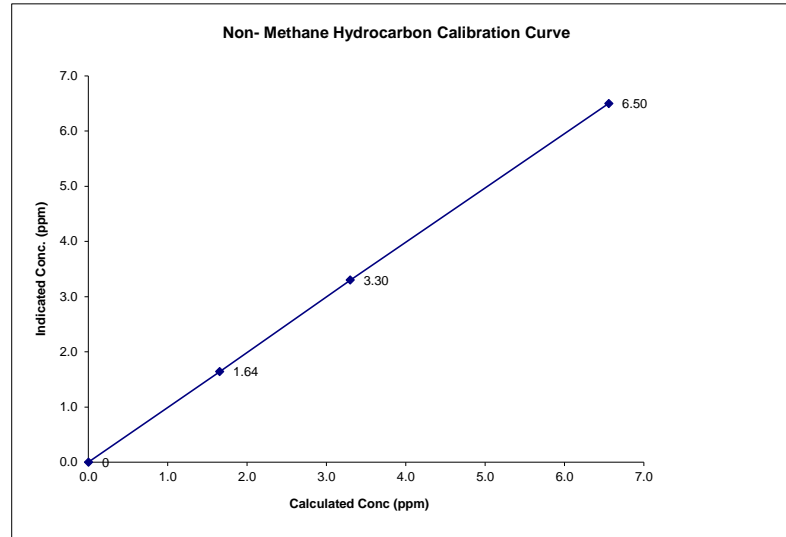


Notes:

Non-Methane Hydrocarbon Calibration Curve

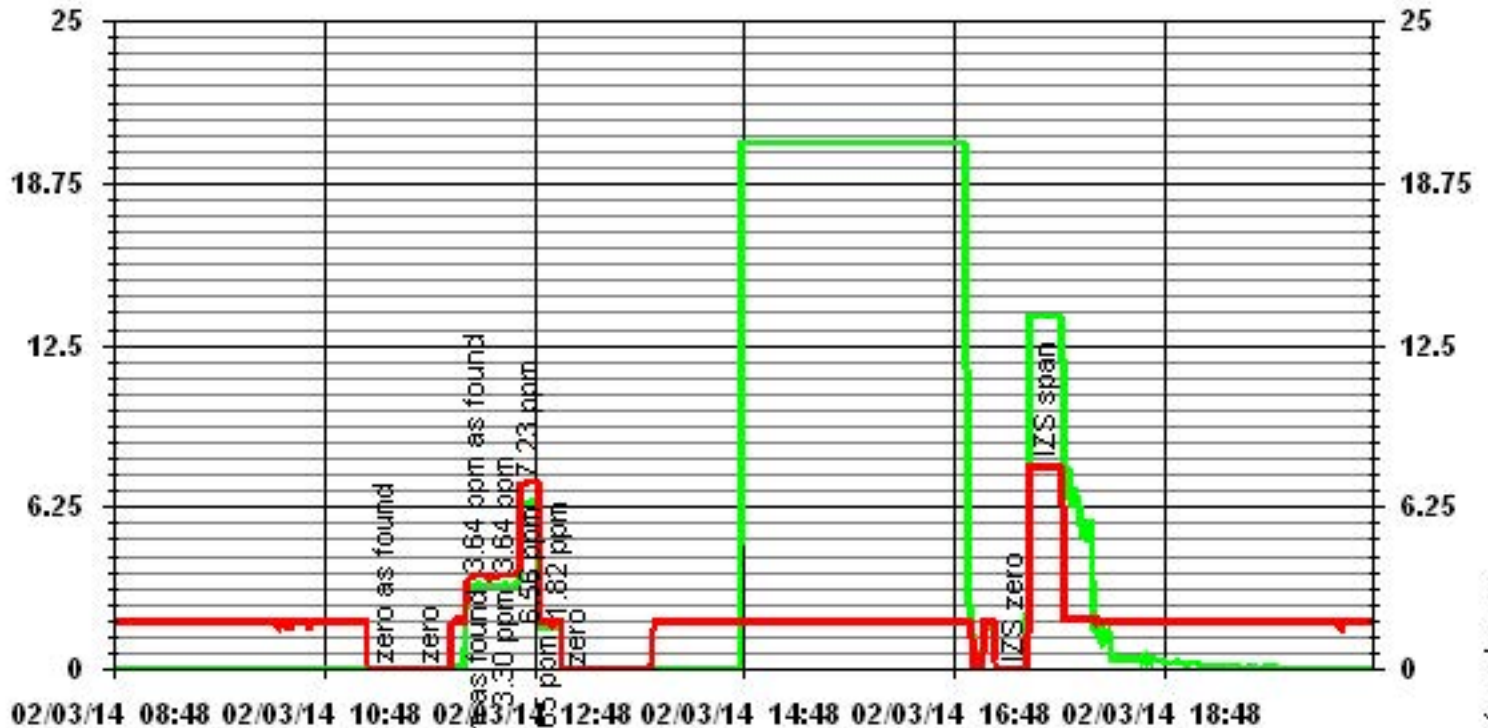
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 3, 2014 | | |
| Company | Lakeland Industry and Community Association | | |
| Plant / Location | ELK Point Airport | | |
| Start Time (MST) | 10:36 | End Time (MST) | 14:00 |

| Calculated Conc. ppm | Indicated Response ppm | Correction Factor | Correlation Coefficient (≥ 0.995) | Slope (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|-----------------------------------|----------------------|-----------------------|
| 0 | 0 | 0.0000 | 0.999972 | 0.991591 | 0.005801 |
| 1.65 | 1.64 | 1.0091 | | | |
| 3.30 | 3.30 | 1.0061 | | | |
| 6.56 | 6.50 | 1.0090 | | | |



Notes:

01 Minute Averages



— LICA35

METHANE PPM

— LICA35

HMHC PPM

Particulate Matter 2.5

TEOM 1405F Audit

| | | | |
|---------------|--------------------------------|-----------------------|--|
| | Station | | Audit Transfer Standard |
| Date: | February 4, 2014 | Make/Model: | Streamline FTS |
| Station Name: | Lica Portable (CASA # 35) | Serial Number: | Hi 091001,Lo 091099 |
| Location: | Devon Wellsite 13-16-62-5 W4M | Cell s/n: | na |
| Operator: | LICA | Thermometer s/n: | Fluke1551A/4295 |
| | Sampler | | Set-up and current Sampler readings |
| Make/Model | Thermo Scientific Series 1405F | F-Main Set Pt (l/min) | 3.00 |
| Unit # | NA | F-Aux Set Pt (l/min) | 13.67 |
| Unit s/n | 1405A207691003 | Filter Load (%) | 27.6% |
| Firmware Ver. | 1.52 | K _o Factor | 13125.0 |
| Parameter | PM 2.5 (with FDMS) | Temp (°C) | -17.8 |
| | | Press (ATM) | 0.954 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as BOLD in Brackets

Audit

| | | | |
|------------------------------------|----------------------|----------------------------|--------|
| Status | | | |
| Noise <0.10µg | 0.005 | Warnings | None |
| Pump Vacuum <0.40atm | 0.32 | Pump Gauge (inHg) | -18 |
| Temperature/Pressure | | D °C | |
| Measured Temp (± 2 °C) | -18.7 | | 0.9 |
| Measured Press (± 0.01atm) | 0.955 | DATM | -0.001 |
| Flow Audit | | | |
| Indicated Main Flow (l/min) | 3.01 | Main Flow Drift (±10.0%) | 1.66% |
| Measured Main Flow (l/min) | 3.06 | Flow Adjusted to Measured? | Yes |
| Indicated Bypass Flow (l/min) | 13.68 | Bypass Flow Drift (±10.0%) | -1.02% |
| Measured Bypass Flow (l/min) | 13.54 | Flow Adjusted to Measured? | Yes |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | Base=-0.03 Ref=-0.04 | Flow Control = Active | |
| Aux (< 0.6 l/min) | Base=0.8 Ref=0.0 | Report Conditions = Actual | |
| K_o Factor | | | |
| Measured | NA | | |
| K _o Difference (± 2.5%) | NA | | |

Start Time: 14:39 **Finish Time:** na

Sample Inlet Cleaned: no **New Filters Installed:** Yes

Comments: Cleaned head and replaced zero reference filter. **New Filter Loading %:** na

Auditor/s: Kevin Hope

TEOM 1405F Audit

| | | | |
|---------------|--------------------------------|-----------------------|--|
| | Station | | Audit Transfer Standard |
| Date: | February 25, 2014 | Make/Model: | Streamline FTS |
| Station Name: | Lica Portable (CASA # 35) | Serial Number: | NA |
| Location: | Devon Wellsite 13-16-62-5 W4M | Cell s/n: | Hi 091001,Lo 091099 |
| Operator: | LICA | Thermometer s/n: | Fluke1551A/4295 |
| | Sampler | | Set-up and current Sampler readings |
| Make/Model | Thermo Scientific Series 1405F | F-Main Set Pt (l/min) | 3.00 |
| Unit # | NA | F-Aux Set Pt (l/min) | 13.67 |
| Unit s/n | 1405A207691003 | Filter Load (%) | 26.0% |
| Firmware Ver. | 1.52 | K _o Factor | 13125.0 |
| Parameter | PM 2.5 (with FDMS) | Temp (°C) | -19.9 |
| | | Press (ATM) | 0.947 |

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10⁻³) or ATM = ("Hg) X (3.34207 X 10⁻²)

Note: Tolerances are noted as BOLD in Brackets

Audit

| | | | |
|------------------------------------|----------------------|----------------------------|--------|
| Status | | | |
| Noise <0.10µg | _____ | Warnings | _____ |
| Pump Vacuum <0.40atm | _____ | Pump Gauge (inHg) | _____ |
| Temperature/Pressure | | | |
| Measured Temp (± 2 °C) | -19.9 | D °C | 0.0 |
| Measured Press (± 0.01atm) | 0.950 | DATM | -0.003 |
| Flow Audit | | | |
| Indicated Main Flow (l/min) | 3.00 | Main Flow Drift (±10.0%) | 4.00% |
| Measured Main Flow (l/min) | 3.12 | Flow Adjusted to Measured? | Yes |
| Indicated Bypass Flow (l/min) | 13.66 | Bypass Flow Drift (±10.0%) | -0.81% |
| Measured Bypass Flow (l/min) | 13.55 | Flow Adjusted to Measured? | Yes |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | Base=-0.05 Ref=-0.05 | Flow Control = Active | |
| Aux (< 0.6 l/min) | Base=0.0 Ref=0.0 | Report Conditions = Actual | |
| K_o Factor | | | |
| Measured | 13273 | | |
| K _o Difference (± 2.5%) | -1.13% | | |

Start Time: 10:37 **Finish Time:** 13:01

Sample Inlet Cleaned: _____ **New Filters Installed:** _____

Comments: _____ **New Filter Loading %:** _____

audit prior and after cooler cleaning and dryer replacement - failed ambient temperature audit, re-adjusted,all ok

Auditor/s: Kevin Hope

Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|------------------|----------------------|-------------------|
| Calibration Date | February 3, 2014 | Previous Calibration | January 3, 2014 |
| Company | LICA | Plant/Location | ELK Point Airport |
| Start Time (MST) | 9:30 | End Time (MST) | na |
| Reason: | As Found | | |
| Barometric Pressure | na inch | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | December 29, 2016 |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 593 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0-1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 494 ccm | 315.7 Deg C | | 494 ccm | 315.7 Deg C | | |
| Ozone Flow / Vacuum | 79 ccm | 4.8 *Hg-A | | 79 ccm | 4.8 *Hg-A | | |
| HVPS / A ZERO | 682 Volts | 8.4 MV | | 682 Volts | 8.4 MV | | |
| Rx/ Temp / PMT Temp | 49.9 Deg C | 6.7 Deg C | | 50.0 Deg C | 6.7 Deg C | | |
| Box Temp / IZS Temp | 25.3 Deg C | 45.4 Deg C | | 25.3 Deg C | 45.4 Deg C | | |
| Offset | 0.9 NOx | 0.8 NO | | 0.9 NOx | 0.8 NO | | |
| Slope | 1.074 NOx | 1.068 NO | | 1.074 NOx | 1.068 NO | | |
| NO2 COEF / Conv Efficiency | NA NO2 | 0.996 | | NA NO2 | 0.996 | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 4995 | 0.0 | 0 | 0 | 0 | 0 | 3 | 2 | na | 0 | 0 |
| 4995 | 0.0 | 0 | 0 | 0 | 0 | 0 | 1 | na | 0 | 0 |
| 4982 | 79.8 | 0 | 772 | 771 | 0 | 957 | 960 | na | 0.8101 | 0.8048 |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|----|-----|-------------------------|----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| | | | | | | |
|---------------|-----|----|--|-------------------------------|------------|------|
| Linearity OK? | Yes | No | Sum of Least Squares Correction Factors: | NOx= 0.8101 | NO= 0.8048 | NO2= |
| | | | | Average Converter Efficiency= | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|-------------------------|---------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | na NOx | 592 NO2 | | na NOx | 592 NO2 | | |
| Sample Lines Connected: | | | | YES | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.002 | 1.004 | 0.999 |
| Current Correction Factor Before Span Adjust | 0.810 | 0.805 | |
| Percent Change | 23.7% | 24.8% | |

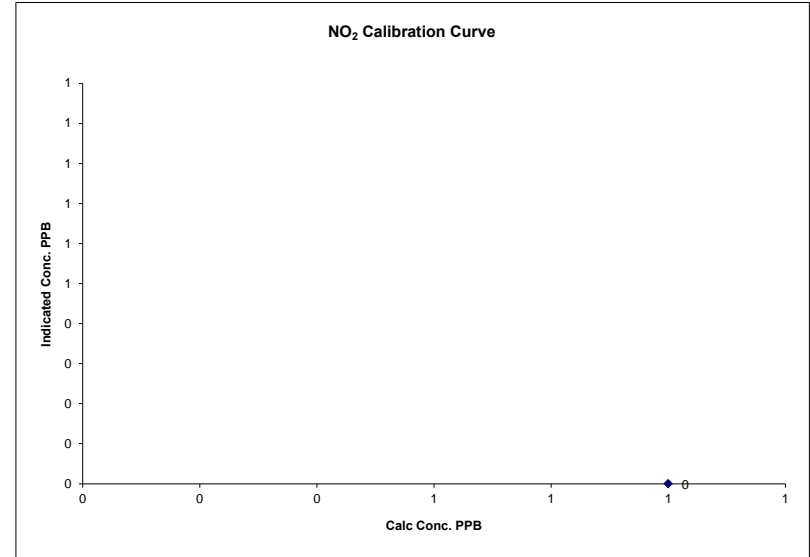
Notes: **NOX analyzer as found is very high around 20%. Redo the daily span check. Same.**
 Do maintenance on the NOX analyzer. Clean all valves. Clean reaction cell. Very dirty.
 Clean manifold and orifices. Very dirty. Change sinter filters and o-rings.
 Change one 1/8" tubing. It is very dirty. Adjust HVPS.

Calibration Performed by: Kevin Hope

NO2 Calibration Curve

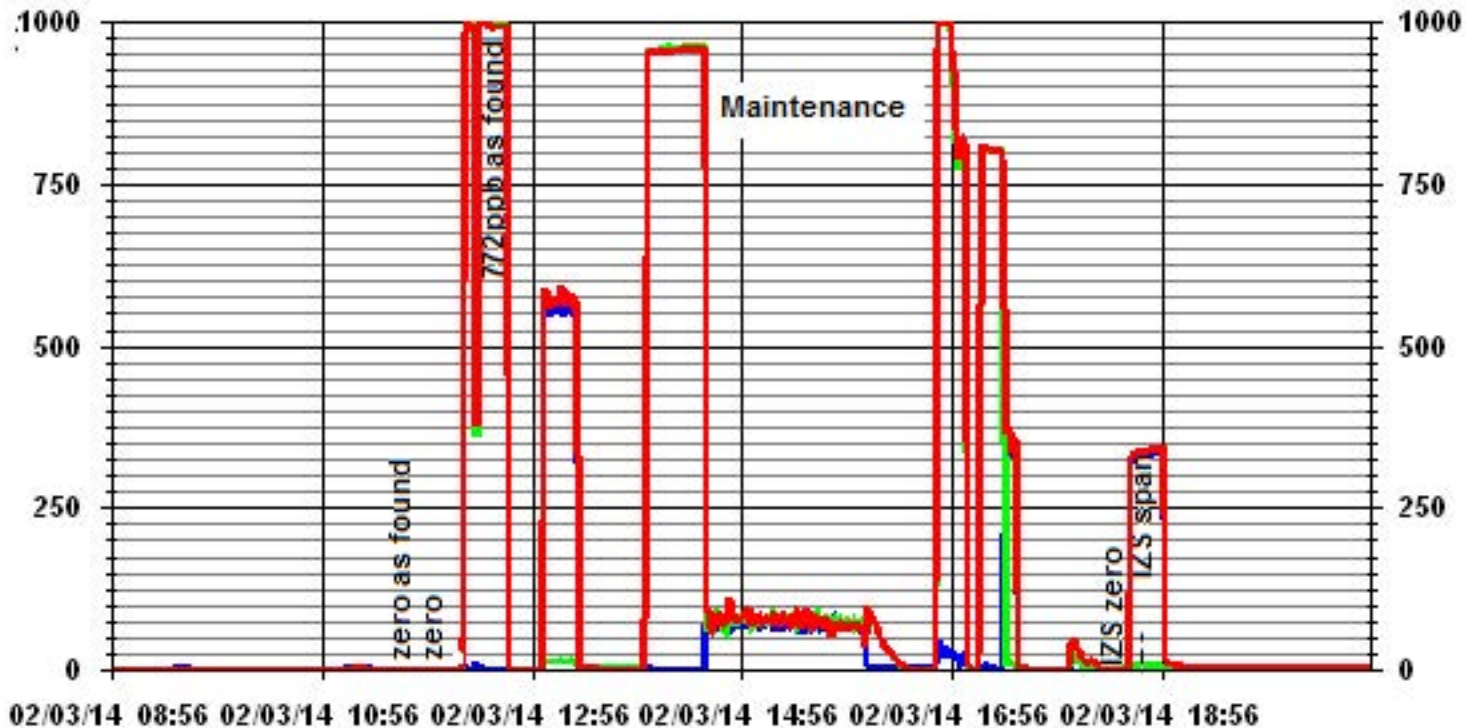
| | |
|------------------|-------------------|
| Calibration Date | February 3, 2014 |
| Company | LICA |
| Plant / Location | ELK Point Airport |
| Start Time (MST) | 9:30 |
| End Time (MST) | na |

| | | | |
|----------------------|------------------------|-------------------|-----------------------------------|
| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) |
| na | | | Slope (0.85 to 1.15) |
| | | | Intercept (± 3% F.S.) |



Notes:

01 Minute Averages



NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|------------------|----------------------|-------------------|
| Calibration Date | February 4, 2014 | Previous Calibration | January 3, 2014 |
| Company | LICA | Plant/Location | ELK Point Airport |
| Start Time (MST) | 9:00 | End Time (MST) | 16:40 |
| Reason: | Post Repair | | |
| Barometric Pressure | na inch | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | December 29, 2016 |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 593 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0-1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 494 ccm | 315.7 Deg C | | 483 ccm | 315.7 Deg C | | |
| Ozone Flow / Vacuum | 79 ccm | 4.8 *Hg-A | | 79 ccm | 5.6 *Hg-A | | |
| HVPS / A ZERO | 682 Volts | 8.4 MV | | 630 Volts | 7.9 MV | | |
| Rx/ Temp / PMT Temp | 49.9 Deg C | 6.7 Deg C | | 50.0 Deg C | 6.7 Deg C | | |
| Box Temp / IZS Temp | 25.3 Deg C | 45.4 Deg C | | 28.4 Deg C | 45.4 Deg C | | |
| Offset | 0.9 NOx | 0.8 NO | | 3.7 NOx | -1.5 NO | | |
| Slope | 1.074 NOx | 1.068 NO | | 1.052 NOx | 1.066 NO | | |
| NO2 COEF / Conv Efficiency | NA NO2 | 0.996 | | NA NO2 | 0.996 | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 4995 | 0.0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 0 | 0 |
| 4995 | 0.0 | 0 | 0 | 0 | 0 | -1 | 1 | 0 | 0 | 0 |
| 4982 | 79.8 | 0 | 772 | 771 | 0 | 771 | 772 | 0 | 1.0064 | 1.0013 |
| 4982 | 79.8 | 0 | 772 | 771 | 0 | 770 | 770 | 0 | 1.0077 | 1.0039 |
| 4995 | 39.9 | 0 | 388 | 388 | 0 | 386 | 388 | 0 | 1.0149 | 1.0000 |
| 4996 | 19.9 | 0 | 194 | 194 | 0 | 192 | 196 | 0 | 1.0308 | 1.0005 |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0000 | 0.0000 |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| 4995 | 79.8 | 0 | 771 | 769 | 0 | 770 | 771 | -1 | 0 | 0.00% |
| 4995 | 79.8 | 500 | 771 | 0.0 | 552 | 770 | 219 | 551 | 1.0035 | 99.84% |
| 4995 | 79.8 | 500 | 771 | 0.0 | 535 | 771 | 235 | 538 | 0.9978 | 100.41% |
| 4995 | 79.8 | 200 | 771 | 0.0 | 217 | 771 | 554 | 219 | 0.9954 | 100.92% |
| 4995 | 79.8 | 100 | 771 | 0.0 | 104 | 769 | 667 | 103 | 1.0217 | 98.85% |

| | | | | | | | | |
|-----------|----------------------|----|---------------------------------------|--------|-----|--------|------|--------|
| Linearity | Sum of Least Squares | | NOx= | 1.004 | NO= | 1.000 | NO2= | 0.996 |
| OK? | Yes | No | Correction Factors: | 1.0077 | NO= | 1.0039 | NO2= | 0.9978 |
| | | | Average Converter Efficiency= 100.06% | | | | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|--------------------|-------------------------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | na NOx | 592 NO2 | | na NOx | na NO2 | | |
| | Sample Lines Connected: | | | YES | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.002 | 1.004 | 0.999 |
| Current Correction Factor Before Span Adjust | 1.006 | 1.001 | 1.003 |
| Percent Change | -0.4% | 0.3% | -0.4% |

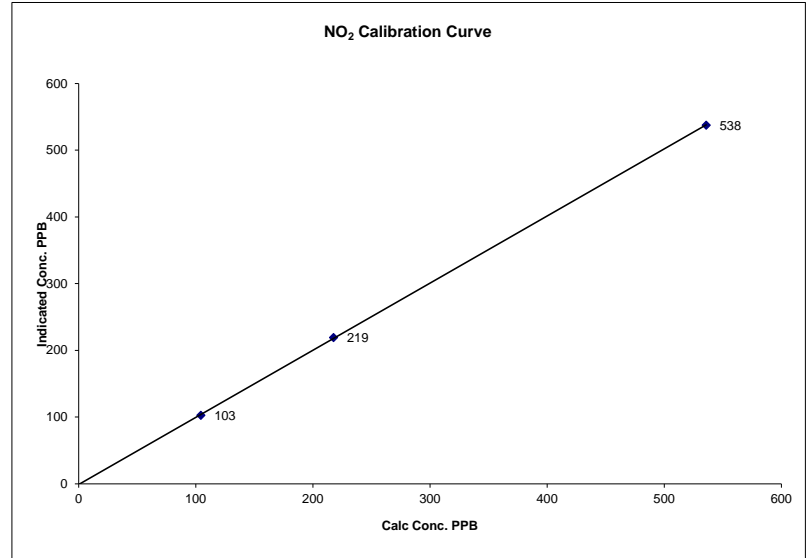
Notes

Calibration Performed by: Kevin Hope

NO2 Calibration Curve

| | |
|------------------|-------------------|
| Calibration Date | February 4, 2014 |
| Company | LICA |
| Plant / Location | ELK Point Airport |
| Start Time (MST) | 9:00 |
| End Time (MST) | 16:40 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999978 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|----------|
| 0 | -1 | 0.0000 | Intercept | (± 3% F.S.) | -0.97352 |
| 104 | 103 | 1.0175 | | | |
| 218 | 219 | 0.9936 | | | |
| 536 | 538 | 0.9970 | | | |

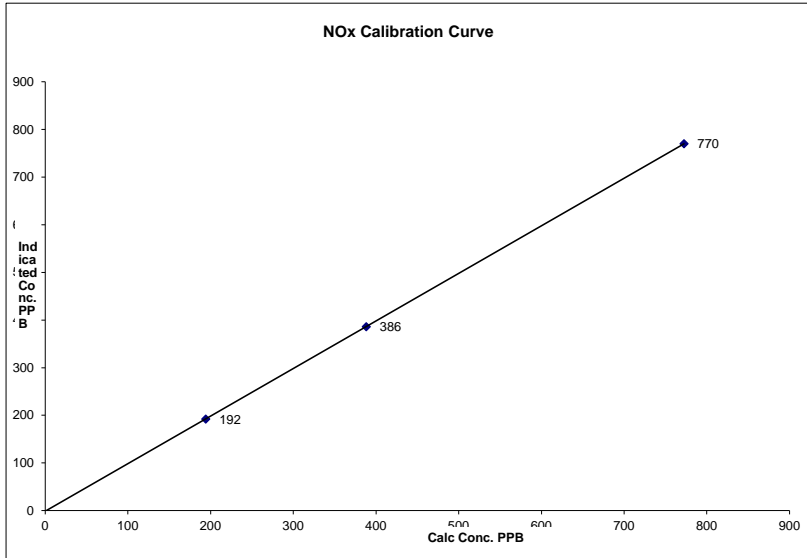


Notes:

NOx Calibration Curve

| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 4, 2014 | |
| Company | LICA | |
| Plant / Location | ELK Point Airport | |
| Start Time (MST) | 9:00 | End Time (MST) 16:40 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999996 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | -1 | 0.0000 | Slope (0.85 to 1.15) | 0.998023 |
| 194 | 192 | 1.0308 | Intercept (± 3% F.S.) | -1.28088 |
| 388 | 386 | 1.0149 | | |
| 772 | 770 | 1.0077 | | |

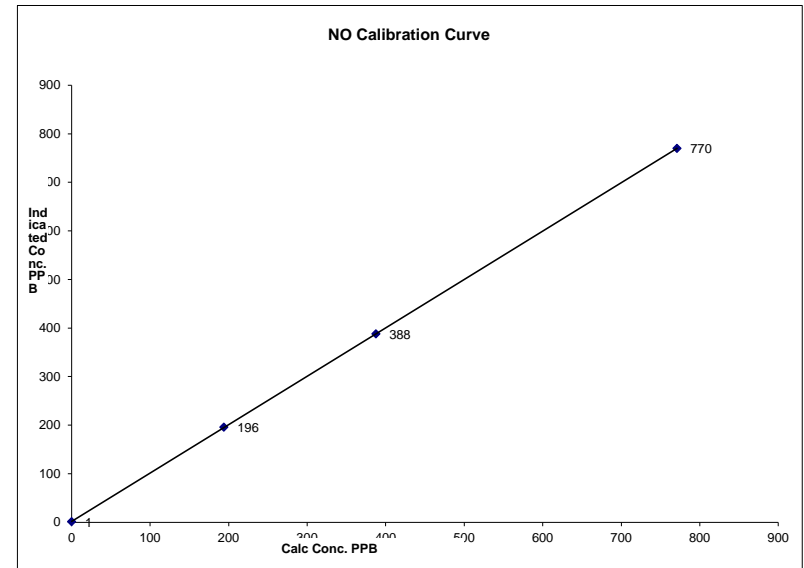


Notes:

NO Calibration Curve

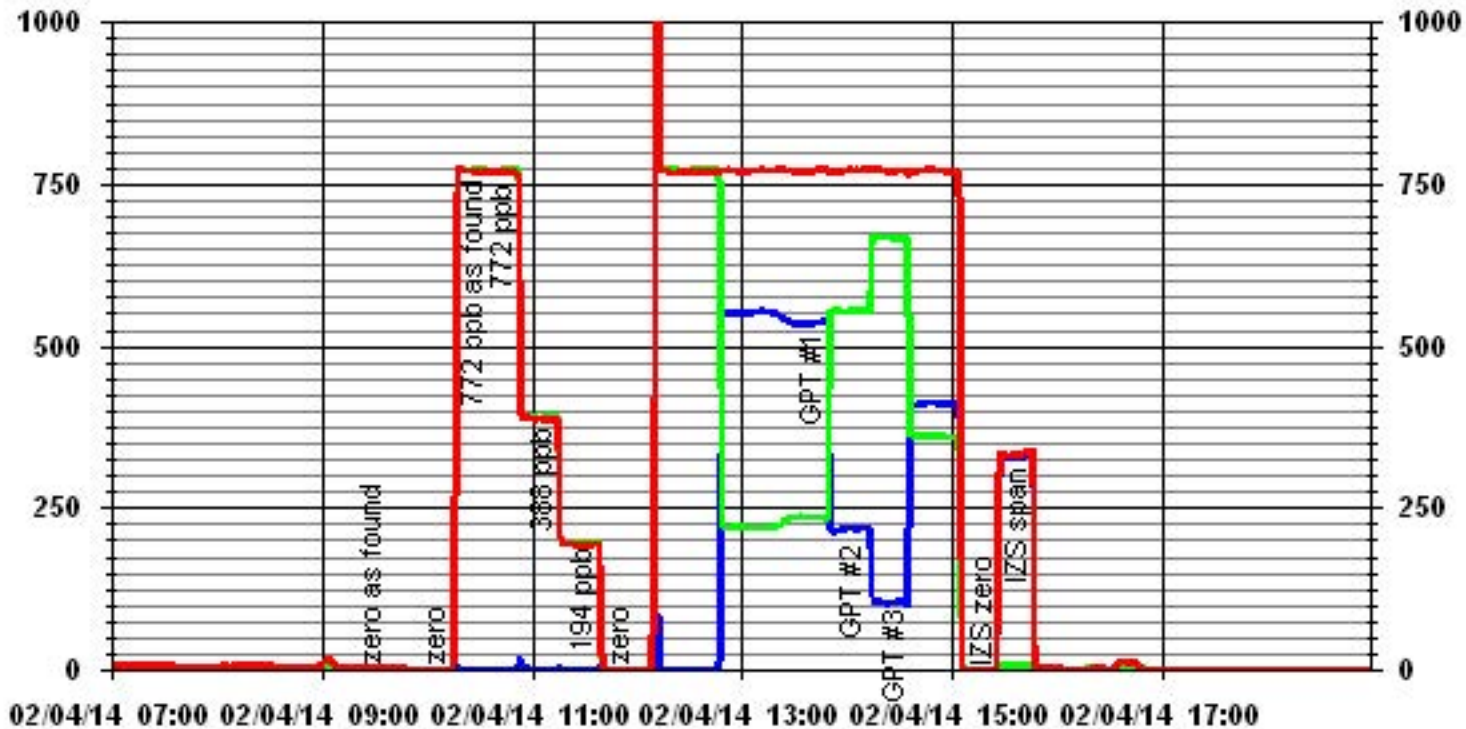
| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 4, 2014 | |
| Company | LICA | |
| Plant / Location | ELK Point Airport | |
| Start Time (MST) | 9:00 | End Time (MST) 16:40 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999997 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 1 | 0.0000 | Slope (0.85 to 1.15) | 0.996720 |
| 194 | 196 | 1.0005 | Intercept (± 3% F.S.) | 1.79967 |
| 388 | 388 | 1.0000 | | |
| 771 | 770 | 1.0039 | | |



Notes:

01 Minute Averages



— LICA35 IIOX_ PPB

— LICA35 IIO_ PPB

— LICA35 IIO2_ PPB

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|-------------------|----------------------|-------------------|
| Calibration Date | February 19, 2014 | Previous Calibration | January 4, 2014 |
| Company | LICA | Plant/Location | ELK Point Airport |
| Start Time (MST) | 10:20 | End Time (MST) | na |
| Reason: | As Found | | |
| Barometric Pressure | na inch | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO | 48.9 ppm |
| Cal Gas Cylinder # | BAL3165 | Cal Gas Expiry date | December 29, 2016 |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 593 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO717 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0-1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 483 ccm | 315.2 Deg C | | 483 ccm | 315.2 Deg C | | |
| Ozone Flow / Vacuum | 79 ccm | 5.6 *Hg-A | | 79 ccm | 5.6 *Hg-A | | |
| HVPS / A ZERO | 630 Volts | 7.9 MV | | 630 Volts | 7.9 MV | | |
| Rx/ Temp / PMT Temp | 49.9 Deg C | 6.7 Deg C | | 50.0 Deg C | 6.7 Deg C | | |
| Box Temp / IZS Temp | 28.4 Deg C | 45.4 Deg C | | 28.4 Deg C | 45.4 Deg C | | |
| Offset | 3.7 NOx | -1.5 NO | | 3.7 NOx | -1.5 NO | | |
| Slope | 1.052 NOx | 1.066 NO | | 1.052 NOx | 1.066 NO | | |
| NO2 COEF / Conv Efficiency | NA NO2 | na | | NA NO2 | na | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | 1 | 0 | na | 0 | 0 |
| 4997 | 79.8 | 0 | 770 | 769 | 0 | 774 | 760 | na | 0.9960 | 1.0115 |
| | | | | | | | | | | |
| | | | | | | | | | | |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|----|-----|-------------------------|----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| | | | | | | |
|---------------|-----|----|--|-------------------------------|------------|------|
| Linearity OK? | Yes | No | Sum of Least Squares Correction Factors: | NOx= 0.9960 | NO= 1.0115 | NO2= |
| | | | | Average Converter Efficiency= | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|-------------------------|---------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | na NOx | 592 NO2 | | na NOx | 592 NO2 | | |
| Sample Lines Connected: | | | | YES | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.005 | 0.997 | 0.999 |
| Current Correction Factor Before Span Adjust | 0.996 | 1.011 | |
| Percent Change | 0.9% | -1.4% | |

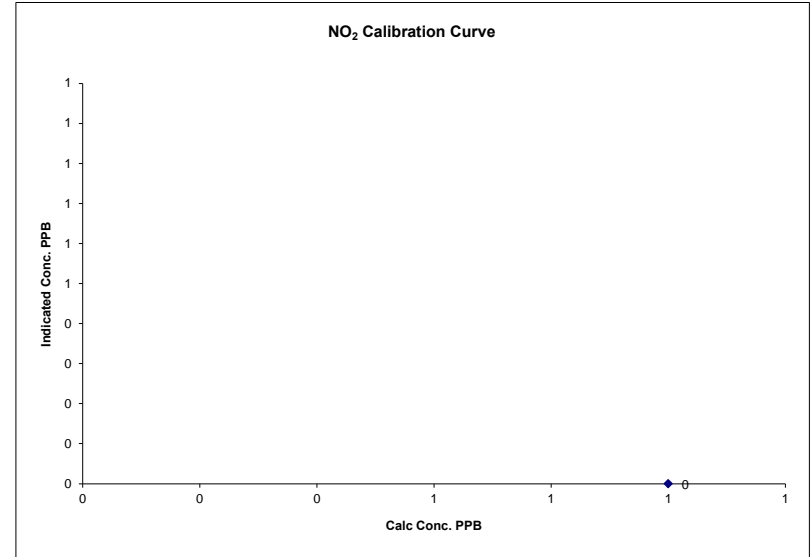
Notes

Calibration Performed by: Kevin Hope

NO2 Calibration Curve

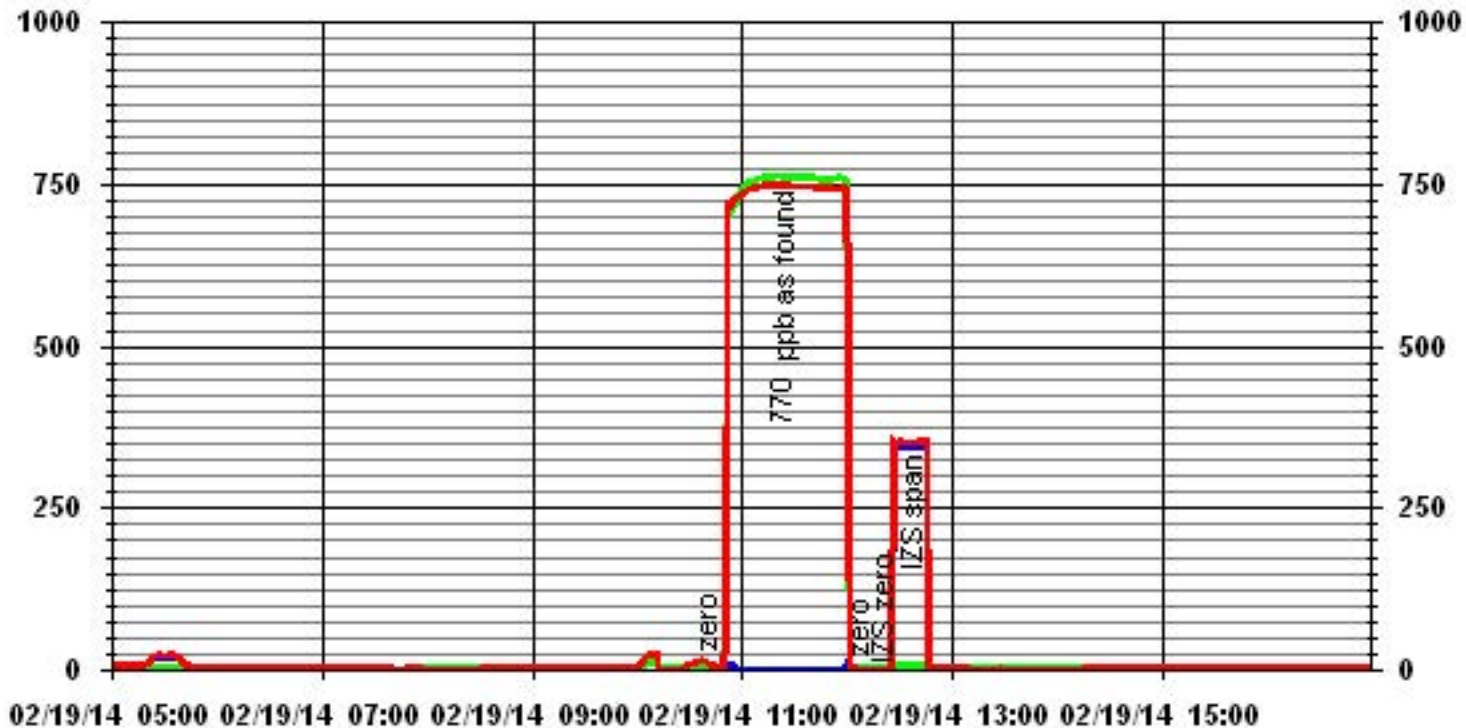
| | |
|------------------|-------------------|
| Calibration Date | February 19, 2014 |
| Company | LICA |
| Plant / Location | ELK Point Airport |
| Start Time (MST) | 10:20 |
| End Time (MST) | na |

| | | | |
|----------------------|------------------------|-------------------|-----------------------------------|
| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) |
| na | | | Slope (0.85 to 1.15) |
| | | | Intercept (± 3% F.S.) |



Notes:

01 Minute Averages



— LICA35 IIOX_ PPB

— LICA35 IIO_ PPB

— LICA35 IIO2_ PPB

Ozone

O₃ Calibration Report
Station Information

| | | | |
|---------------------|---|----------------------|-----------------|
| Calibration Date | February 4, 2014 | Previous Calibration | January 3, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | ELK Point Airpoint | | |
| Start Time (MST) | 13:13 | End Time (MST) | 18:00 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | na inHg | Station Temperature | na Deg C |
| DAS Output Voltage | 0 - 1 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|-----------------|-------|------------|---------|-------------|
| Analyzer Make / Model: | Thermo 49i | S/N : | 1002240372 | Method: | Photometric |
| Calibrator Make / Model: | Enviroincs 6100 | | 4760 | Method: | GPT |
| DAS Make / Model: | ESC 8832 | S/N : | AO 717 | | |

Analyzer Settings

| | Before Calibration | | After Calibration | |
|---------------------------|--------------------|----------|-------------------|----------|
| Concentration Range | 0 - 500 ppb | | | |
| Cell A Flow / Cell B Flow | 767 ccm | 775 ccm | 767 ccm | 775 ccm |
| Pressure | 715 mmHg | | 715 mmHg | |
| Bench Lamp | 54 Deg C | | 54 DegC | |
| O3 Lamp / Box Temp | 68 Deg C | 25 Deg C | 68 Deg C | 25 Deg C |
| Offset / Slope | -0.1 | 1.03 | 0 | 1 |

Calibration Data

| Dilution Flow Rate | Ozone Set Point | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|-----------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 1 | NA |
| 4996 | 0 | 0 | 0 | NA |
| 4996 | 380 | 413 | 406 | 1.0180 |
| 4996 | 380 | 413 | 414.1 | 0.9981 |
| 4996 | 200 | 218 | 219.6 | 0.9913 |
| 4996 | 100 | 104 | 101.2 | 1.0316 |
| 4996 | 0 | 0 | 0 | NA |
| Sum of Least Squares | | | | 0.9982 |
| New Correction Factor | | | | 0.9981 |

| | Before Calibration | After Calibration |
|--|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 331.0 | 340.7 |
| Sample Lines Connected | | YES |
| Previous Calibration Correction Factor: | | 1.0000 |
| Current Correctio Factor Before Span Adjust: | | 0.9981 |
| Percent Change: | | 0.2% |

Note: **NA : Not Applicable**

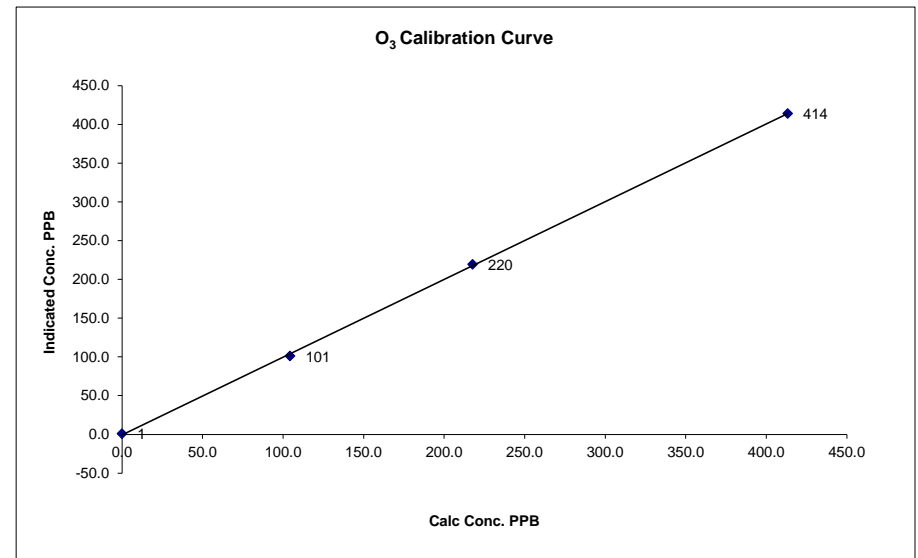
Change sample filter.
The third span point was missing during the calibration. Tech error.

Calibration Performed by: Kevin Hope

O₃ Calibration Curve

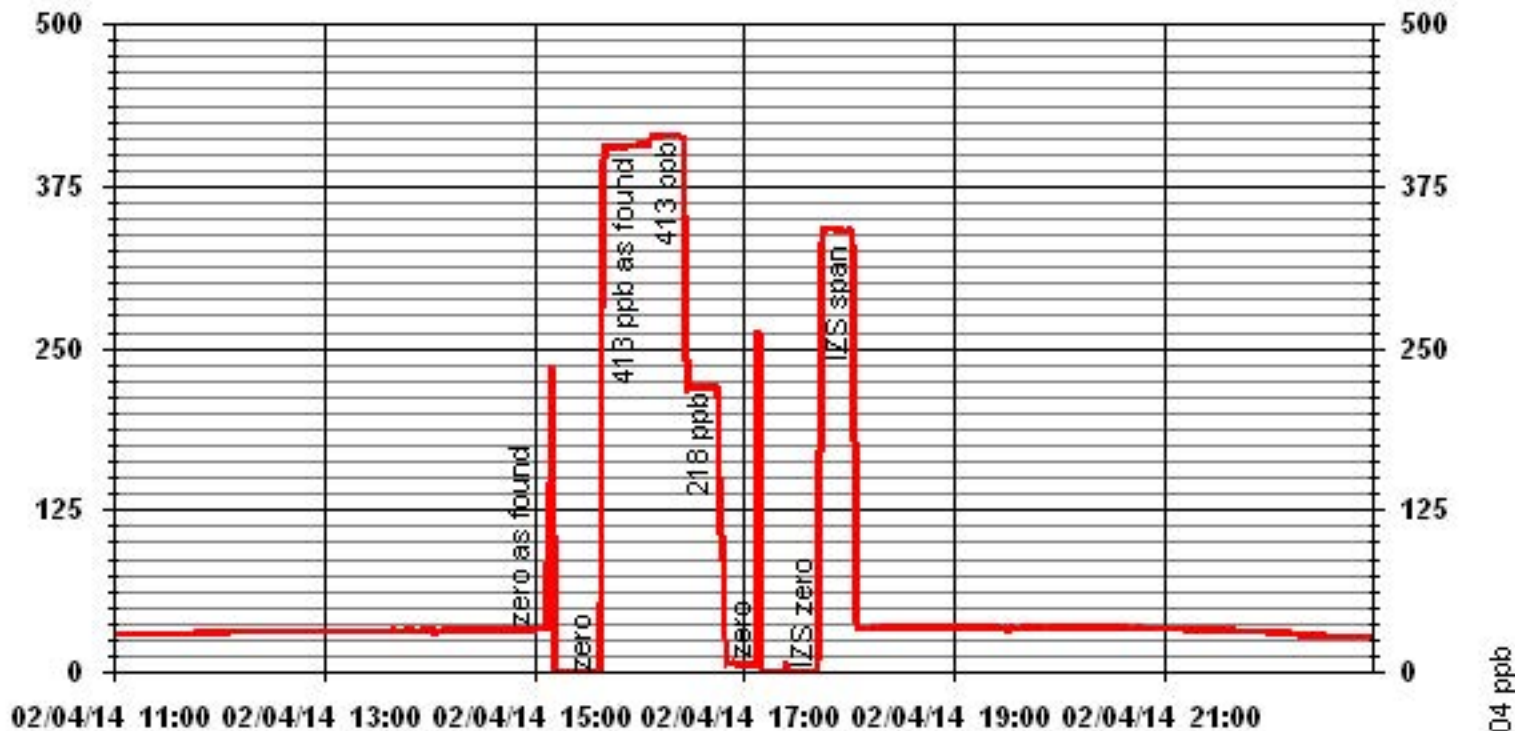
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 4, 2014 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | ELK Point Airpoint | | |
| Start Time (MST) | 13:13 | End Time (MST) | 18:00 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 1 | n/a | | 0.999848 |
| 104 | 101 | 1.0316 | | 1.003389 |
| 218 | 220 | 0.9913 | | |
| 413 | 414 | 0.9981 | | -0.498100 |



Notes:

01 Minute Averages



Wind System

**Meteorological Sensor Audit Report
Station Information**

| | | | |
|------------------------|-----------------------|----------------|-------------------|
| Audit Date | February 21, 2014 | Previous Audit | November 24, 2011 |
| Company | LICA | | |
| Plant / Location | Elk Point | | |
| Start Time (MST) | 15:10 | End Time (MST) | 15:40 |
| Reason: | Scheduled Calibration | | |
| Translator make/model: | Young 18802 | S/N: | 3309 |
| DAS make/model: | ESC 8832 | S/N: | AO717 |

Wind Speed

| | | | |
|-----------------------|-----------------|----------------------|-----------|
| Sensor make/model: | RM Young 5103VK | S/N: | 56589 |
| Calibrator: | RM Young | Variable speed motor | CA 03309 |
| Output voltage range: | 0-1 | Output signal range: | 0-200 KPH |
| Sensor height: | 10m | | |

Wind Speed Audit Data

| RPM | Wind Speed Actual | Indicated WS - CW | Indicated WS-CCW | Correction Factor |
|---------------------------|-------------------|-------------------|------------------|-------------------|
| 0 | 0.0 | 0.02 | 0.03 | - |
| 1000 | 17.6 | 17.79 | 17.75 | 0.99 |
| 2000 | 35.28 | 35.54 | 35.53 | 0.99 |
| 3000 | 52.92 | 53.29 | 53.31 | 0.99 |
| 4000 | 70.56 | 71.08 | 71.08 | 0.99 |
| 5000 | 88.2 | 88.88 | 88.91 | 0.99 |
| 6000 | 105.84 | 106.6 | 106.7 | 0.99 |
| 7000 | 123.48 | 124.4 | 124.5 | 0.99 |
| 8000 | 141.12 | 142.2 | 142.2 | 0.99 |
| 9000 | 158.76 | 160 | 160.1 | 0.99 |
| 10000 | 176.4 | 177.8 | 177.8 | 0.99 |
| Average Correction Factor | | | | 0.99 |

Wind Direction

| | | | |
|-----------------------|----------|----------------------|---------|
| Sensor make/model: | RM Young | S/N: | 56589 |
| Calibrator: | RM Young | Direction wheel | N/A |
| Output voltage range: | 0-1 | Output signal range: | 0 - 360 |
| Sensor height: | 10M | | |

Wind Direction Audit Data

| Wind Direction | Indicated | Correction Factor |
|---------------------------|-----------|-------------------|
| 0 | 355.0 | NA |
| 45 | 43.1 | 1.05 |
| 90 | 89.5 | 1.01 |
| 135 | 135.5 | 1.00 |
| 180 | 181.2 | 0.99 |
| 225 | 226.1 | 1.00 |
| 270 | 270.1 | 1.00 |
| 315 | 312.3 | 1.01 |
| 360 | 354.7 | NA |
| Average Correction Factor | | 1.01 |

Remarks: _____

Audit Performed by: _____ Chris Wesson / Kevin Hope

Lakeland Industry & Community Association

Maskwa Monitoring Site
Ambient Air Monitoring
Data Report
For
February 2014

Prepared By:



March 31, 2014

Lakeland Industry & Community Association Ambient Air Monitoring Maskwa

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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Mike Bisaga
Lakeland Industry & Community Association
Box 8237
5107W – 50 Street
Bonnyville, Alberta
T9N 2J5

Monitoring Location: Maskwa
Data Period: February 2014

The monthly ambient data report:

- Prepared by Ernestine Tangang
- Reviewed by Lily Lin

Calibration Procedure

The following calibration procedure applies to all calibrations conducted at the Lakeland Industry & Community Association Air Monitoring Station.

Calibration gas concentrations are generated using a dynamic mass flow controlled calibrator. EPA Protocol one gases are diluted with zero air generated on site. The Mass Flow Controllers in the calibrator are referenced using an NIST traceable flow meter once per month. All listed flows are reported as corrected to Standard Temperature and Pressure (STP).

Generated zero gas is introduced to the analyzer first. Three concentrations of calibration gas are then generated in order to introduce points at approximately 50-80%, 25-40% & 10-20% of the analyzer's full-scale range. An auto zero and span are then performed to validate the daily zero and span values recorded to the next multi-point calibration.

All indicated concentrations are taken from the ESC data logger used to collect the data for monthly reporting.

The calibrations conducted at the LICA - Maskwa Air Monitoring Stations conform to the following Maxxam Standard Operation Procedures:

- AIR SOP-00211
- AIR SOP-00209
- AIR SOP-00213
- AIR SOP-00214
- AIR SOP-00208

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6*.

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION – MASKWA

Continuous Ambient Monitoring – February 2014

| LICA MASKWA SITE | | | | | | MAXIMUM VALUES | | | | | | | OPERATIONAL TIME (PERCENT) |
|----------------------------------|------------|-------|-------------|-------|--------------------|----------------|-----------|--------|------------------------|--------------------------------|---------|-----|----------------------------------|
| | | | | | | OBJECTIVES | | | | | 1-HOUR | | |
| PARAMETER | OBJECTIVES | | EXCEEDENCES | | MONTHLY AVERAGE | READING | DAY | HOUR | WIND SPEED (KPH) | WIND DIRECTION (DEGREES) | READING | DAY | |
| | 1-HR | 24-HR | 1-HR | 24-HR | | | | | | | | | |
| SO2 (PPB) | 172 | 48 | 0 | 0 | 2.36 | 27 | 26 | 6 | 3.5 | 313(NW) | 5.3 | 26 | 100.0 |
| H2S (PPB) | 10 | 3 | 0 | 0 | 0.15 | 7 | 9 | 9 | 0.1 | 359(N) | 0.8 | 25 | 100.0 |
| THC (PPM) | - | - | - | - | 2.24 | 4.7 | 9 | 9 | 0.1 | 359(N) | 2.9 | 10 | 90.0 |
| NOx (PPB) | - | - | - | - | 5.23 | 50.2 | 25 | 8 | 0.3 | 259(WSW) | 11.6 | 25 | 100.0 |
| NO (PPB) | - | - | - | - | 0.76 | 27.5 | 25 | 8 | 0.3 | 259(WSW) | 3.1 | 25 | 100.0 |
| NO ₂ (PPB) | 159 | - | 0 | - | 4.47 | 33.7 | 26 | 0 | 6.7 | 218(SW) | 8.6 | 25 | 100.0 |
| VECTOR WS (KPH) | - | - | - | - | 4.19 | 15.4 | 27 | 17 | - | 279(W) | 8.4 | 2 | 100.0 |
| VECTOR WD (DEGREES) | - | - | - | - | 332(NNW) | - | - | - | - | - | - | - | 100.0 |
| RELATIVE HUMIDITY (%) | - | - | - | - | 63.29 | 82 | 19, 20 | VAR | VAR | VAR | 78.6 | 20 | 100.0 |
| TEMPERATURE (DEG C) | - | - | - | - | -17.07 | 4 | 18 | 13, 14 | 7, 7 | 286(WNW) 278(W) | -4.1 | 18 | 100.0 |
| BAROMETRIC PRESSURE (MILIBAR) | - | - | - | - | 941 | 967 | 4, 5 | VAR | VAR | VAR | 963.0 | 5 | 100.0 |
| PRECIPITATION (MM) | - | - | - | - | 0.01 | 2 | 17 | 10 | 4 | 201(SSW) | 0.1 | 17 | 100.0 |

NA-NOT AVAILABLE VAR-VARIOUS

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance. Any non-conformances, problems encountered or maintenance performed are detailed at the end of each section.

AQM STATION – LICA – Maskwa

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100E, S/N: 508

No operational issues were observed during the month. The monthly calibration was performed on February 14th. The inlet filter was changed before the calibration was started. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model - API 101E, S/N: 511

No operational issues were observed during the month. The monthly calibration was performed on February 14th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Total Hydrocarbon (PPM)

- Analyzer make / model –TECO 51C-LT, S/N: 436609738

The analyzer spanned low on February 12th. An as found points check was performed on February 14th. The analyzer failed the check. It was found that the sample pump was not working properly. The pump was rebuilt on February 14th. A post-repair calibration was performed following the maintenance. Hourly data was invalidated back to the last good daily calibration, which was February 11th. A total of 64 hours of data from February 11th hour 17 to February 14th hour 8 was invalidated. The span gas was changed on February 14th. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – Maskwa

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E, S/N: 594

No operational issues were observed during the month. The monthly calibration was performed on February 14th. The inlet filter was changed before the calibration was started. Data was corrected using daily zero information.

Vector Wind Speed (KPH) & Vector Wind Direction (DEG)

- System make / model - MetOne 50.5H Sonic, S/N: H10703 replaced to RM Young 5103VK, S/N: 129612

The wind system is reported as vector wind speed and vector wind direction. The last wind system calibration was performed by manufacturer on February 5th, 2014.

No operational issues were observed this month. The Metone wind system was removed from the site and sent back to the manufacturer for a 2-Year calibration/maintenance on February 5th. A temporary RM Young wind system was installed following the MetOne wind system removal. An installation calibration was performed on the RM Young wind system on February 5th.

Relative Humidity (PERCENT)

- System make / model - Met One 083

No operational issues were observed during the month.

Precipitation (MM)

- System make / model - Met One 387

No operational issues were observed during the month.

General Monthly Summary

AQM STATION – LICA – Maskwa

Barometric Pressure (MILLIBAR)

- System make / model - Met One 092

No operation issues were observed during the month.

Ambient Temperature (DEGC)

- System make / model - Met One 060

No operational issues were observed during the month.

Trailer Temperature (DEG C)

- System make / model – R&R 61

No operational issues were observed during the month.

Standard Deviation Wind Direction (DEG)

- System make / model –Met One 50.5H

No operational issues were observed during the month.

General Monthly Summary

AQM STATION – LICA – Maskwa

Datalogger

- System make / model - ESC 8832
- Software make/version - ESC v 5.51a

No operational issues were observed during the month.

Trailer

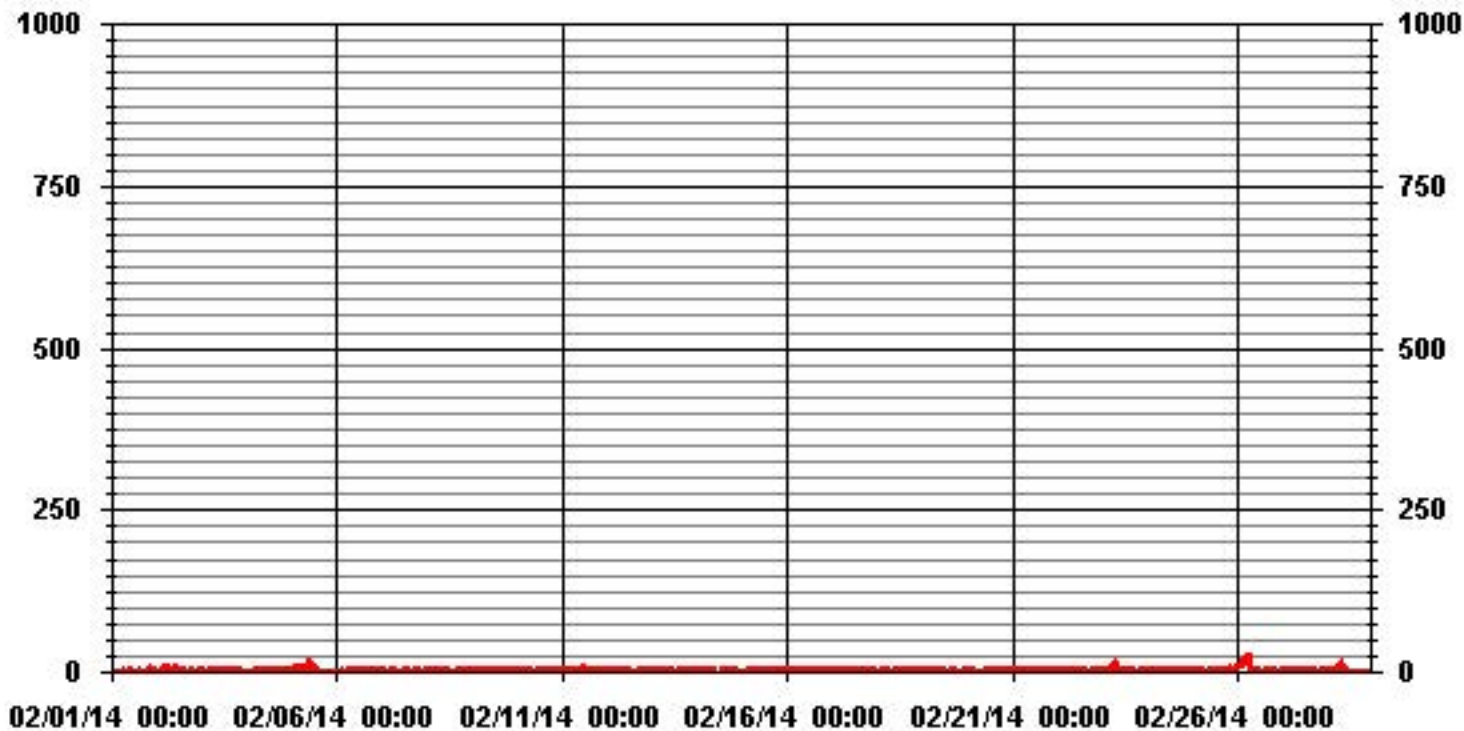
The manifold was cleaned on February 14th.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

01 Hour Averages



Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 6 | 4 | 3 | S | 4 | 11 | 2 | 2 | 5 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 15 | 14 | 3 | 2 | 15 | 4.2 | 24 | |
| 2 | 16 | 17 | S | 16 | 17 | 20 | 17 | 16 | 8 | 9 | 19 | 15 | 12 | 4 | 2 | 2 | 2 | 5 | 11 | 4 | 3 | 2 | 2 | 2 | 20 | 9.6 | 24 | |
| 3 | 2 | S | 5 | 4 | 4 | 3 | 3 | 11 | 11 | 17 | 6 | 7 | 10 | 2 | 34 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 34 | 6.2 | 24 | |
| 4 | S | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 15 | 5 | 4 | 12 | 5 | 6 | 6 | 5 | 4 | 3 | 3 | S | 15 | 4.5 | 24 | |
| 5 | 15 | 7 | 19 | 5 | 17 | 21 | 3 | 12 | 21 | 33 | 25 | 11 | 13 | 6 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 0 | 33 | 9.5 | 24 | |
| 6 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 1.6 | 24 | |
| 7 | 4 | 6 | 2 | 2 | 4 | 4 | 3 | 12 | 12 | 2 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | S | 2 | 2 | 2 | 12 | 3.5 | 24 | |
| 8 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 5 | 2 | 2 | 2 | 2 | 1 | S | 1 | 1 | 1 | 1 | 5 | 1.7 | 24 | |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 1 | 2 | 2 | 2 | 2 | 2 | 1.5 | 24 | |
| 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 6 | 6 | 5 | 5 | 4 | S | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3.1 | 24 | |
| 11 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 6 | 19 | 9 | 8 | 12 | 13 | S | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 19 | 5.2 | 24 | |
| 12 | 2 | 2 | 2 | 7 | 8 | 6 | 6 | 7 | 4 | 4 | 4 | 5 | 4 | 5 | 6 | S | 5 | 6 | 7 | 4 | 2 | 2 | 4 | 3 | 8 | 4.6 | 24 | |
| 13 | 4 | 4 | 4 | 3 | 4 | 4 | 5 | 7 | 8 | 11 | 8 | 5 | 4 | 3 | S | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 11 | 4.1 | 24 | |
| 14 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | C | C | C | C | C | C | 5 | 2 | 4 | 5 | 4 | 5 | 3 | 5 | 1 | 5 | 2.9 | 24 | |
| 15 | 5 | 5 | 1 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 2 | S | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 5 | 8 | 2.6 | 24 | |
| 16 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | S | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 2.7 | 24 | |
| 17 | 3 | 3 | 4 | 5 | 5 | 6 | 5 | 5 | 6 | 5 | S | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 6 | 3.7 | 24 | |
| 18 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1.9 | 24 | |
| 19 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 1 | 1 | 5 | 7 | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 10 | 2.2 | 24 | |
| 20 | 1 | 1 | 1 | 2 | 1 | 2 | S | 3 | 4 | 4 | 4 | 8 | 10 | 12 | 7 | 2 | 3 | 8 | 9 | 9 | 6 | 5 | 4 | 12 | 4.7 | 24 | | |
| 21 | 4 | 4 | 3 | 2 | 2 | 2 | S | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 4 | 2.2 | 24 | |
| 22 | 2 | 2 | 1 | 2 | 1 | S | 2 | 4 | 3 | 3 | 4 | 4 | 5 | 8 | 6 | 9 | 2 | 2 | 3 | 3 | 3 | 5 | 5 | 4 | 9 | 3.6 | 24 | |
| 23 | 5 | 5 | 5 | 5 | S | 5 | 25 | 30 | 19 | 9 | 10 | 10 | 6 | 11 | 6 | 10 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 30 | 7.7 | 24 | |
| 24 | 2 | 2 | 2 | S | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 6 | 6 | 12 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 12 | 3.2 | 24 | |
| 25 | 2 | 2 | S | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 4 | 6 | 6 | 7 | 6 | 8 | 8 | 3.4 | 24 | |
| 26 | 11 | S | 41 | 42 | 37 | 25 | 44 | 3 | 2 | 2 | 2 | 2 | 1 | 3 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 44 | 10.4 | 24 | |
| 27 | S | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 16 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 2 | 2 | 2 | S | 16 | 3.8 | 24 | |
| 28 | 2 | 1 | 1 | 2 | 3 | 9 | 16 | 24 | 9 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 2 | 24 | 3.7 | 24 | |
| HOURLY MAX | 16 | 17 | 41 | 42 | 37 | 25 | 44 | 30 | 21 | 33 | 25 | 19 | 16 | 11 | 34 | 13 | 12 | 6 | 11 | 9 | 15 | 14 | 6 | 8 | | | | |
| HOURLY AVG | 4.0 | 3.3 | 4.5 | 4.8 | 5.0 | 5.4 | 6.0 | 6.1 | 5.3 | 5.2 | 4.8 | 4.9 | 5.7 | 4.4 | 5.1 | 4.2 | 2.8 | 2.5 | 3.1 | 2.7 | 3.1 | 3.0 | 2.9 | 2.6 | | | | |

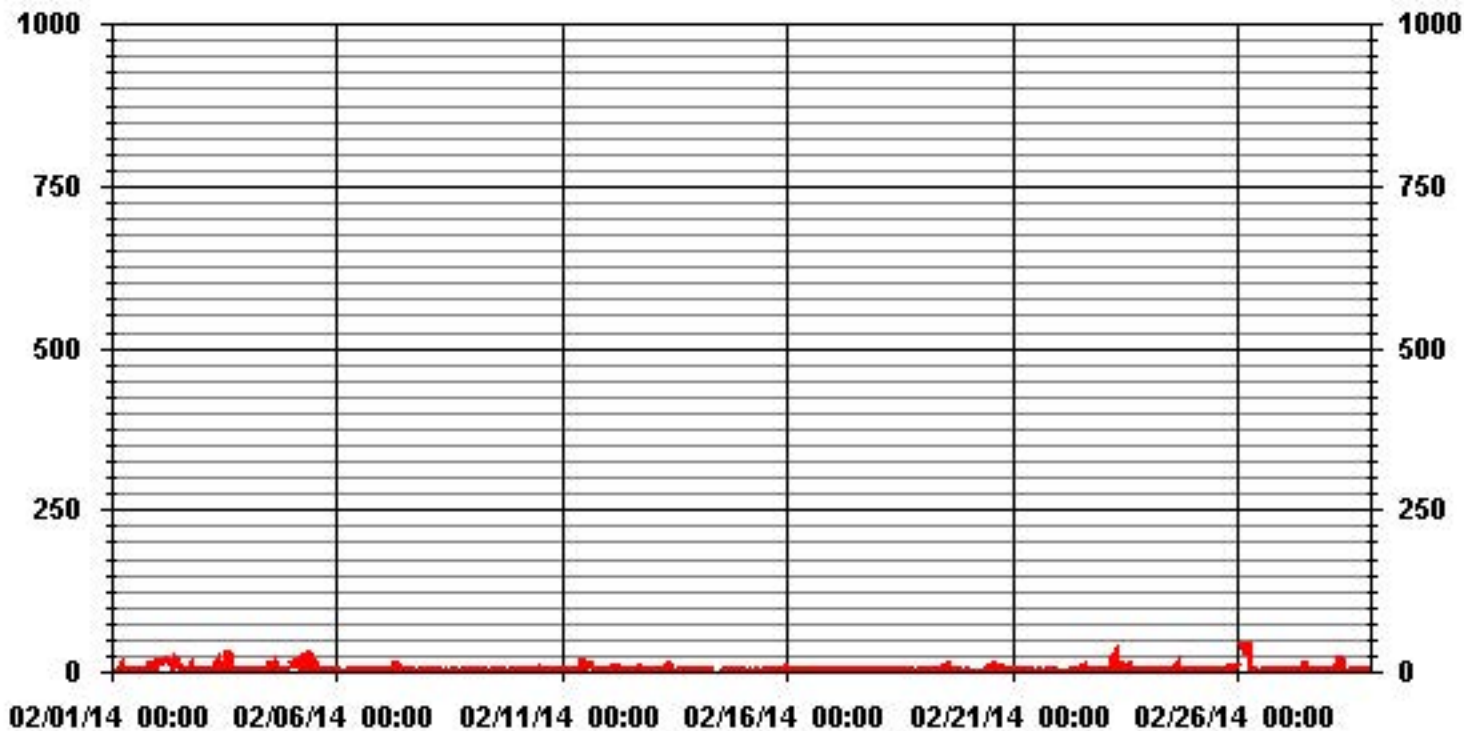
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 636 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 44 | PPB | @ HOUR(S) | 6 | ON DAY(S) | 26 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 6 | HRS | | | | |
| STANDARD DEVIATION: | 5.20 | | | | | |

01 Hour Averages



— LICA30 SO2MAX PPB

LICA30
 SO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : SO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 20 | 16.56 | 5.67 | 3.78 | 5.52 | 4.25 | 3.47 | 3.47 | 6.46 | 5.20 | 7.72 | 8.35 | 4.25 | 6.15 | 5.52 | 6.62 | 6.62 | 99.68 |
| < 60 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .15 | .15 | .00 | .31 |
| < 110 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 170 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 340 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 16.56 | 5.67 | 3.78 | 5.52 | 4.25 | 3.47 | 3.47 | 6.46 | 5.20 | 7.72 | 8.35 | 4.25 | 6.15 | 5.67 | 6.78 | 6.62 | |

Calm : .00 %

Total # Operational Hours : 634

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 20 | 105 | 36 | 24 | 35 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 35 | 42 | 42 | 632 |
| < 60 | | | | | | | | | | | | | | 1 | 1 | | 2 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 105 | 36 | 24 | 35 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 43 | 42 | |

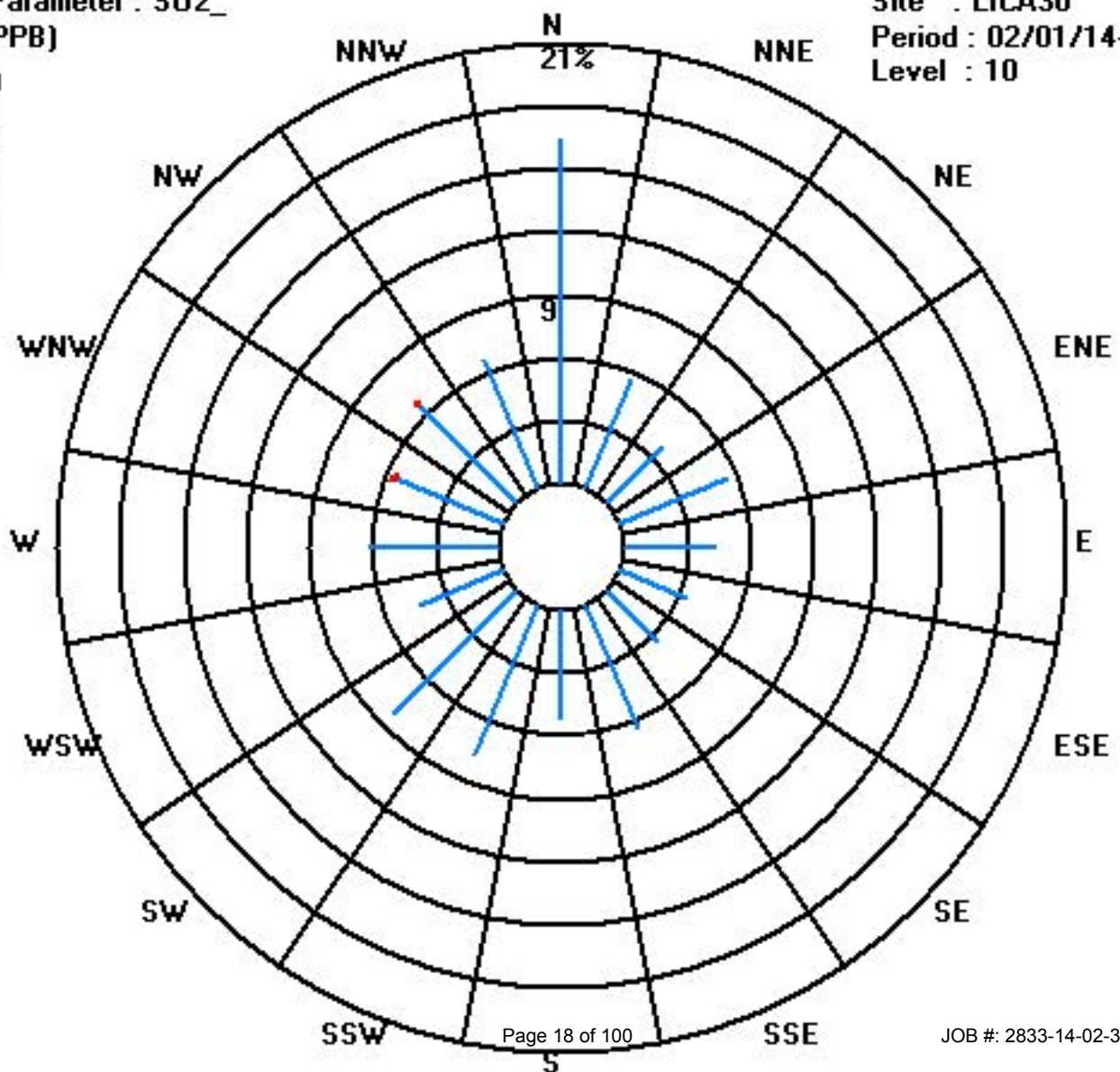
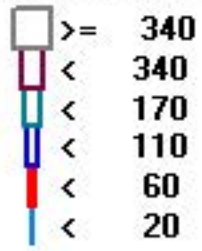
Calm : .00 %

Total # Operational Hours : 634

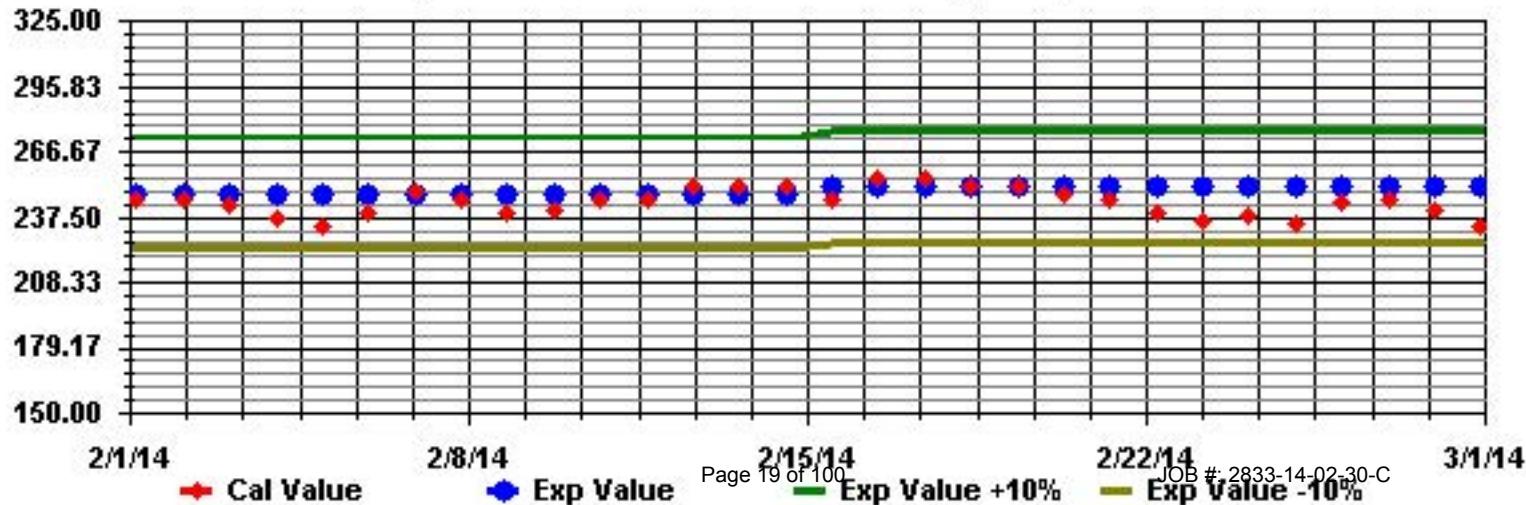
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA30 Parameter: SO2_ Sequence: S02 Phase: SPAN



Hydrogen Sulphide

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

HYDROGEN SULPHIDE (H2S) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.2 | 24 | |
| 2 | 0 | 0 | S | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | |
| 3 | 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 | 24 | |
| 4 | S | 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 | 24 | |
| 5 | 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 | 24 | |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | S | 0 | 0 | 1 | 0.1 | 24 | |
| 7 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 1 | 0.2 | 24 | |
| 8 | 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 | 24 | |
| 9 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 7 | 0.6 | 24 | |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0.1 | 24 | |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 12 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | |
| 13 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | S | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0.4 | 24 | |
| 14 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | | |
| 16 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | S | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0.3 | 24 | |
| 17 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | S | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.3 | 24 | |
| 18 | 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 | 24 | |
| 19 | 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 | 24 | |
| 20 | 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 | 24 | |
| 21 | 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 | |
| 22 | 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 | 24 | |
| 23 | 0 | 0 | 0 | 0 | S | 0 | 0 | 0 | 0 | S | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 24 | 0 | 0 | 0 | S | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0.4 | 24 | |
| 25 | 0 | 0 | S | 1 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0.8 | 24 | |
| 26 | 2 | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 | |
| 27 | S | 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 | 24 | |
| 28 | 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 | 24 | |
| HOURLY MAX | 2 | 1 | 2 | 1 | 1 | NA | 1 | 2 | 2 | 7 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| HOURLY AVG | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | NA | 0.1 | 0.2 | 0.3 | 0.5 | 0.2 | 0.2 | 0.0 | 0.1 | 0.2 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | | | |

STATUS FLAG CODES

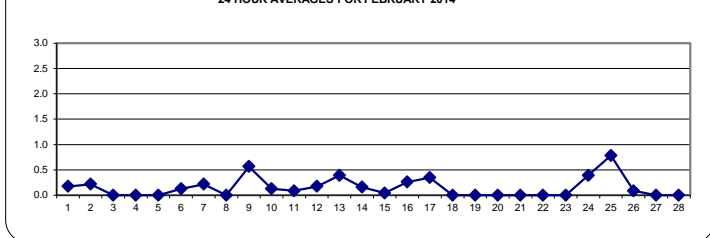
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 1-HR 10 PPB | 24-HR 3 PPB

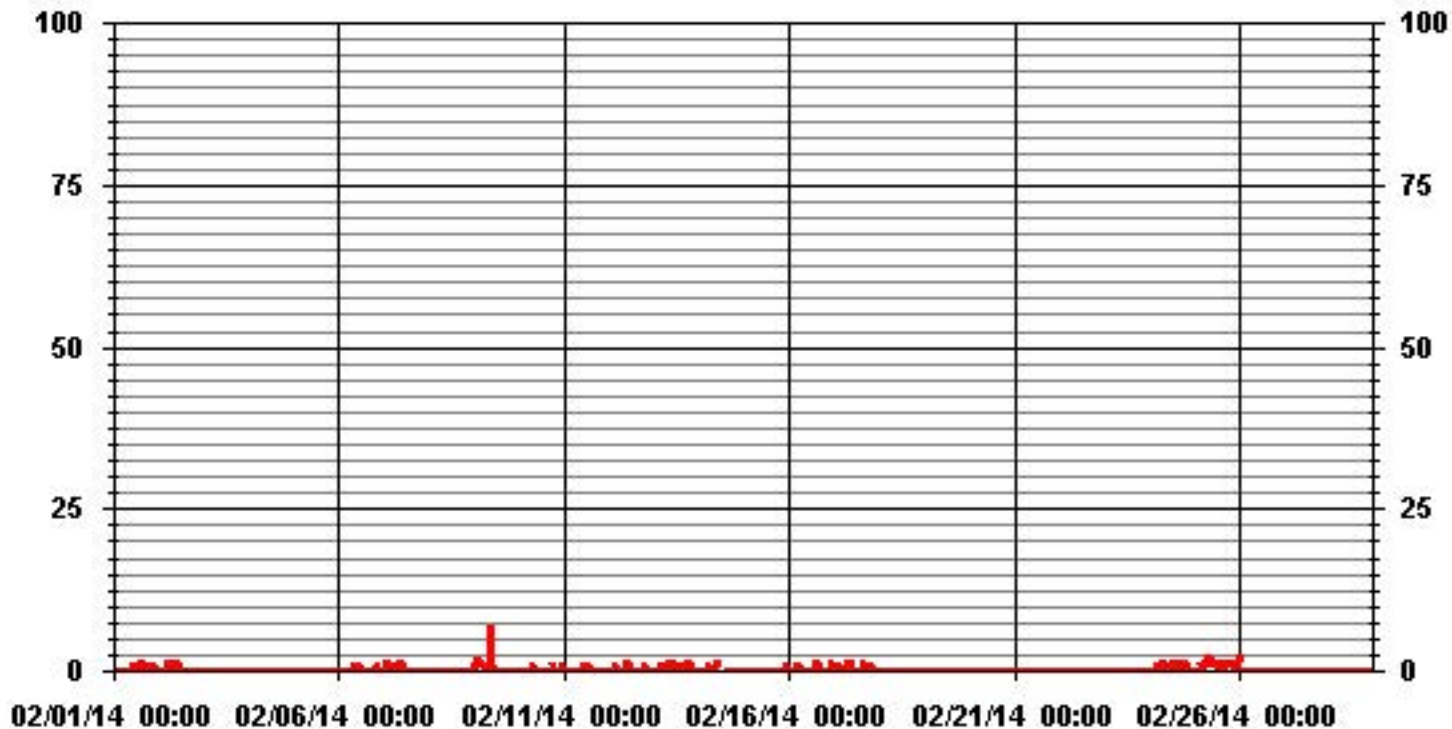
MONTHLY SUMMARY

| | | | | | |
|------------------------------|---------|-----------------------|----------|-------------|----|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | |
| NUMBER OF NON-ZERO READINGS: | 85 | | | | |
| MAXIMUM 1-HR AVERAGE: | 7 PPB | @ HOUR(S) | 9 | ON DAY(S) | 9 |
| MAXIMUM 24-HR AVERAGE: | 0.8 PPB | | | ON DAY(S) | 25 |
| | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 31 HRS | OPERATIONAL TIME: | 672 HRS | | |
| MONTHLY CALIBRATION TIME: | 5 HRS | AMD OPERATION UPTIME: | 100.0 % | | |
| STANDARD DEVIATION: | 0.45 | MONTHLY AVERAGE: | 0.15 PPB | | |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 3 | 1.0 | 24 | |
| 2 | 0 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0.7 | 24 | |
| 3 | 1 | S | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.4 | 24 | |
| 4 | S | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 0.1 | 24 | |
| 5 | 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 | 24 | |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 0 | 1 | 1.0 | 24 | |
| 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 8 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | S | 0 | 1 | 1 | 0 | 1 | 0.5 | 24 | |
| 9 | 1 | 2 | 3 | 2 | 2 | 1 | 1 | 0 | 1 | 23 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | S | 1 | 0 | 0 | 0 | 1 | 23 | 1.9 | 24 | |
| 10 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 1.0 | 24 | |
| 11 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 13 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.0 | 24 | |
| 14 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | C | C | C | C | C | C | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0.7 | 24 | |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | S | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0.3 | 24 | |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | S | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.0 | 24 | |
| 18 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.8 | 24 | |
| 19 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | S | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.7 | 24 | |
| 20 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | S | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0.6 | 24 | |
| 21 | 1 | 1 | 1 | 1 | 0 | 0 | S | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | S | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 23 | 0 | 0 | 0 | 0 | S | 2 | 0 | 0 | 0 | S | S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 | |
| 24 | 0 | 0 | 0 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 0.9 | 24 | |
| 25 | 1 | 1 | S | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 1.2 | 24 | |
| 26 | 2 | S | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 24 | |
| 27 | S | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 0.5 | 24 | |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | S | 1 | 0.0 | 24 | |
| HOURLY MAX | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 23 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | | | | |
| HOURLY AVG | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 1.5 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | | | | |

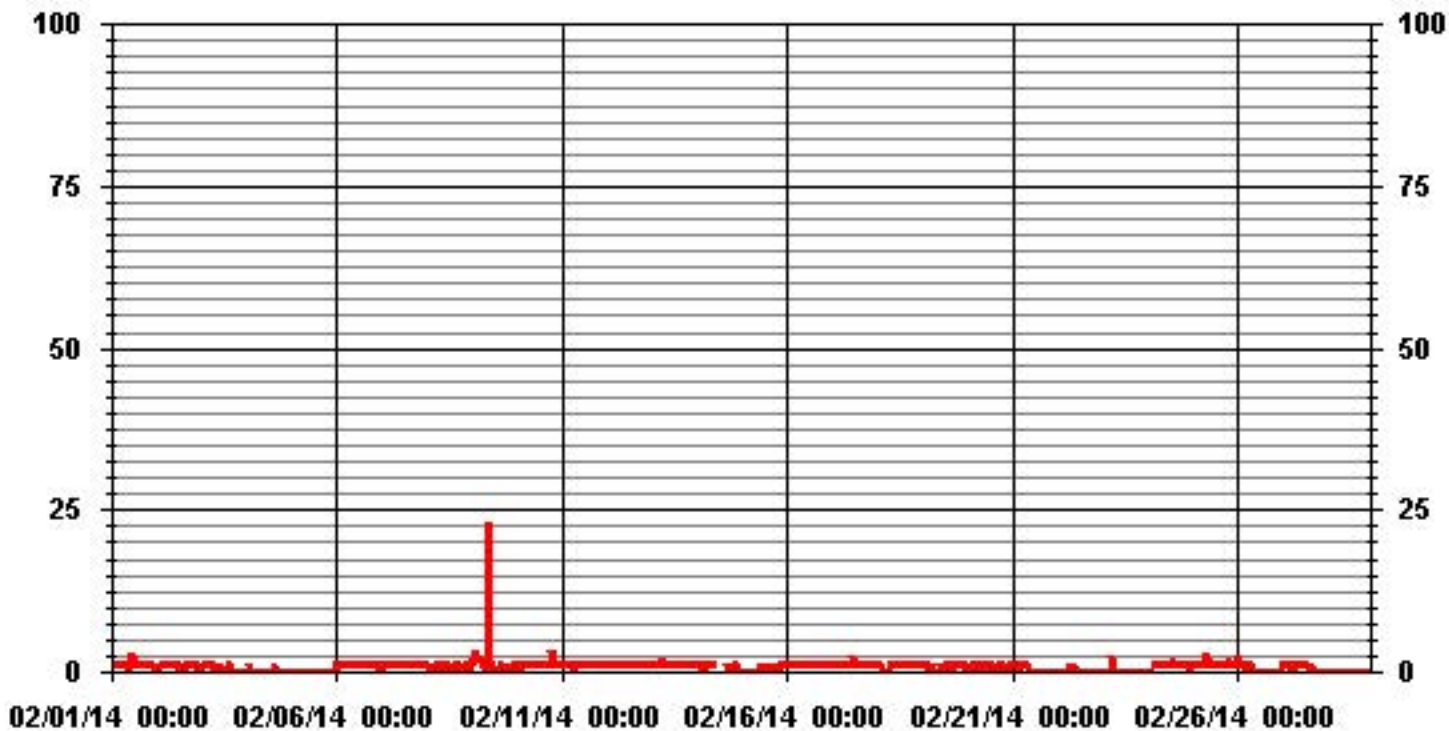
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 394 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 23 | PPB | @ HOUR(S) | 9 | ON DAY(S) | 9 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 6 | HRS | | | | |
| STANDARD DEVIATION: | 1.04 | | | | | |

01 Hour Averages



LICA30
H2S_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : H2S_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3 | 16.48 | 5.70 | 3.96 | 5.22 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.49 | 6.65 | 99.84 |
| < 10 | .15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .15 |
| < 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 16.64 | 5.70 | 3.96 | 5.22 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.49 | 6.65 | |

Calm : .00 %

Total # Operational Hours : 631

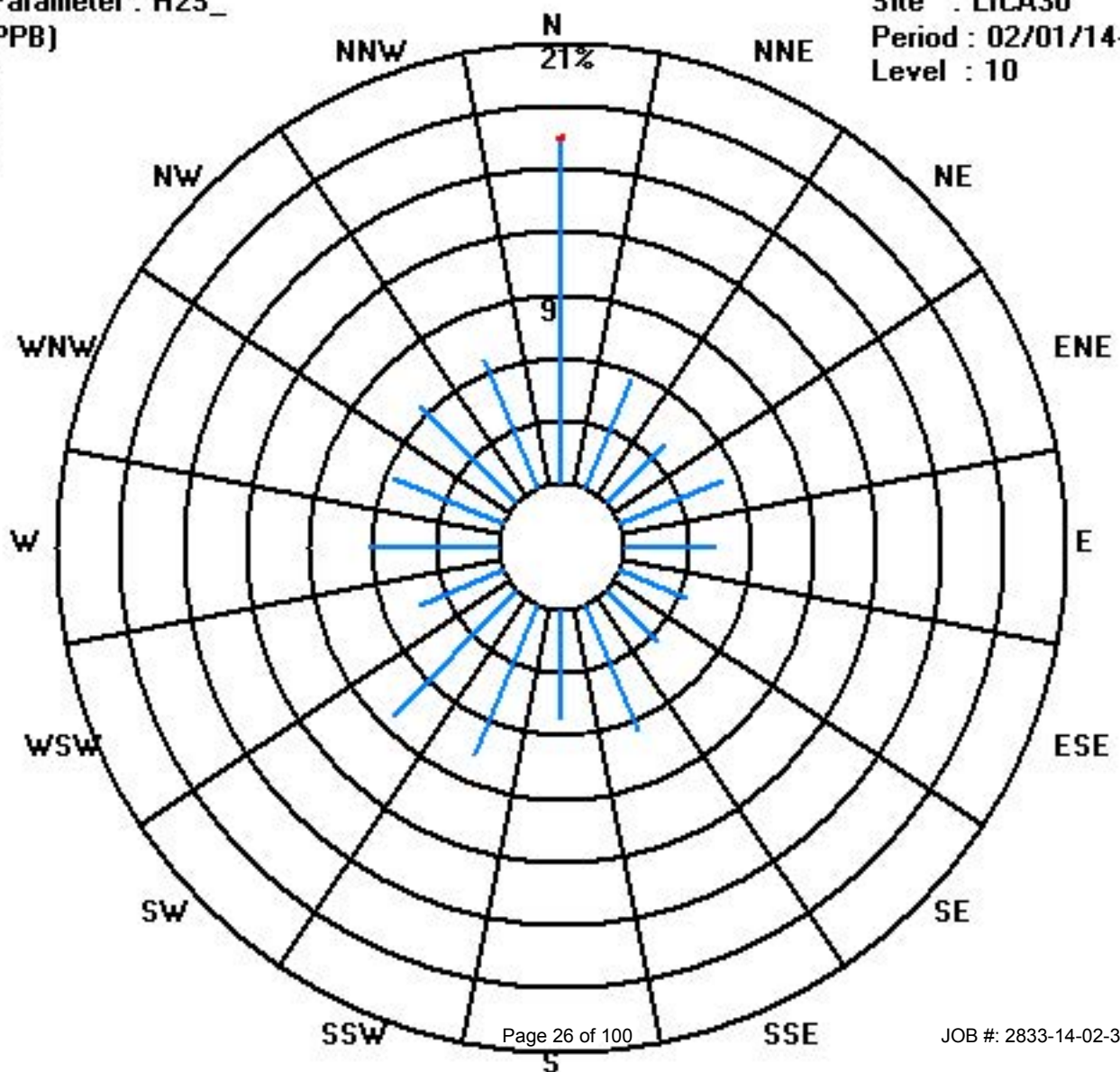
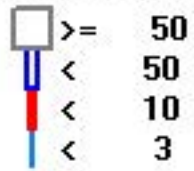
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3 | 104 | 36 | 25 | 33 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 41 | 42 | 630 |
| < 10 | 1 | | | | | | | | | | | | | | | | 1 |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 105 | 36 | 25 | 33 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 41 | 42 | |

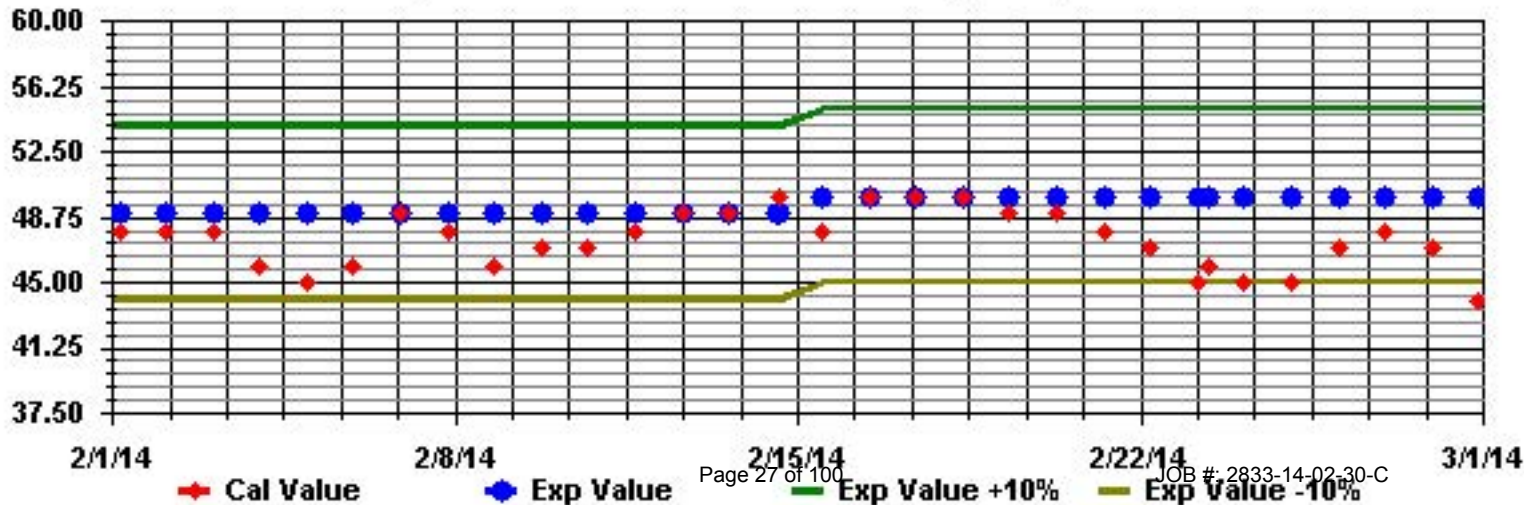
Calm : .00 %

Total # Operational Hours : 631

Class Limits (PPB)



Calibration Graph for Site: LICA30 Parameter: H2S_ Sequence: H2S Phase: SPAN



Total Hydrocarbons

Lakeland Industry & Community Association - Maskwa Site

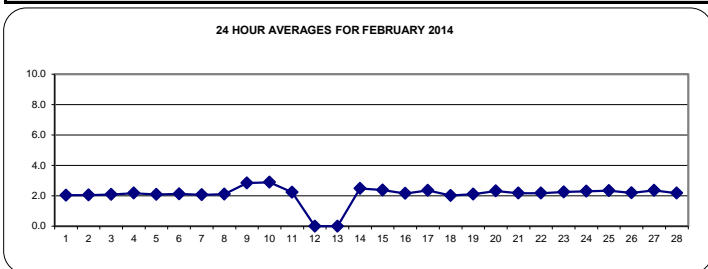
FEBRUARY 2014

TOTAL HYDROCARBONS (THC) hourly averages in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.2 | 2.2 | 2.0 | S | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.2 | 2.0 | 24 | |
| 2 | 2.0 | 2.0 | S | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.4 | 2.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.4 | 2.1 | 24 | |
| 3 | 2.1 | S | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 24 | |
| 4 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | S | 2.3 | 24 | |
| 5 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | S | 2.3 | 2.3 | 2.1 | 24 | |
| 6 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | S | 2.0 | 2.1 | 2.3 | 2.1 | 24 | |
| 7 | 2.3 | 2.4 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | S | 2.0 | 2.0 | 2.4 | 2.1 | 24 | | |
| 8 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 24 | |
| 9 | 2.5 | 3.5 | 4.1 | 3.3 | 3.9 | 3.0 | 2.9 | 2.5 | 2.4 | 4.7 | 2.7 | 2.3 | 2.2 | 2.2 | 2.3 | 2.5 | 2.5 | S | 2.5 | 2.5 | 2.8 | 3.0 | 3.0 | 4.7 | 2.8 | 24 | | |
| 10 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 | 2.9 | 3.0 | 2.9 | 3.1 | 3.1 | 3.3 | 3.1 | 2.9 | 2.6 | 2.6 | 2.8 | 2.7 | S | 2.7 | 2.7 | 2.9 | 2.9 | 2.9 | 2.9 | 3.3 | 2.9 | 24 | |
| 11 | 2.7 | 2.5 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | S | X | X | X | X | X | X | X | X | 2.7 | 2.2 | 17 |
| 12 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | 0 | |
| 13 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | 0 | |
| 14 | X | X | X | X | X | X | X | X | X | C | C | Y | Y | Y | C | C | C | C | 2.7 | 2.7 | 2.6 | 2.3 | 2.4 | 2.2 | 2.7 | 2.5 | 12 | |
| 15 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 | S | 2.5 | 2.5 | 2.5 | 2.5 | 2.6 | 2.5 | 2.5 | 2.4 | 2.3 | 2.3 | 2.4 | 2.6 | 2.4 | 24 | |
| 16 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | S | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 | 2.4 | 2.4 | 2.7 | 2.8 | 2.8 | 2.2 | 2.4 | 24 | |
| 17 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | 2.5 | 2.8 | 2.8 | S | 2.5 | 2.1 | 2.0 | 2.7 | 2.6 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.4 | 2.2 | 2.8 | 2.4 | 24 | |
| 18 | 2.0 | 1.9 | 1.9 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.2 | S | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 | 2.0 | 24 | |
| 19 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 24 | |
| 20 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.3 | 2.3 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.3 | 2.3 | 2.4 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.3 | 24 | |
| 21 | 2.6 | 2.4 | 2.3 | 2.3 | 2.2 | 2.2 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.6 | 2.2 | 24 | |
| 22 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | S | 2.2 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.5 | 2.2 | 24 | |
| 23 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.3 | 2.4 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.3 | 2.2 | 2.2 | 2.4 | 2.3 | 24 | |
| 24 | 2.2 | 2.3 | 2.4 | S | 2.5 | 2.6 | 2.6 | 2.5 | 2.7 | 2.6 | 2.7 | 2.2 | 2.2 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.7 | 2.3 | 24 | |
| 25 | 2.2 | 2.2 | S | 2.2 | 2.4 | 2.6 | 2.6 | 2.7 | 2.6 | 2.3 | 2.2 | 2.3 | 2.4 | 2.4 | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.4 | 2.4 | 2.3 | 2.2 | 2.7 | 2.3 | 24 | | |
| 26 | 2.6 | S | 2.5 | 2.4 | 2.5 | 2.3 | 2.4 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.6 | 2.2 | 24 | |
| 27 | S | 2.3 | 2.3 | 2.2 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 2.8 | 2.8 | 2.7 | 2.5 | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.9 | 2.4 | 24 | |
| 28 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.3 | 2.4 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.2 | 2.4 | 2.2 | 24 | |
| HOURLY MAX | 3 | 4 | 4 | 3 | 4 | NA | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | |
| HOURLY AVG | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | NA | 2.3 | 2.3 | 2.3 | 2.4 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | | | |

STATUS FLAG CODES

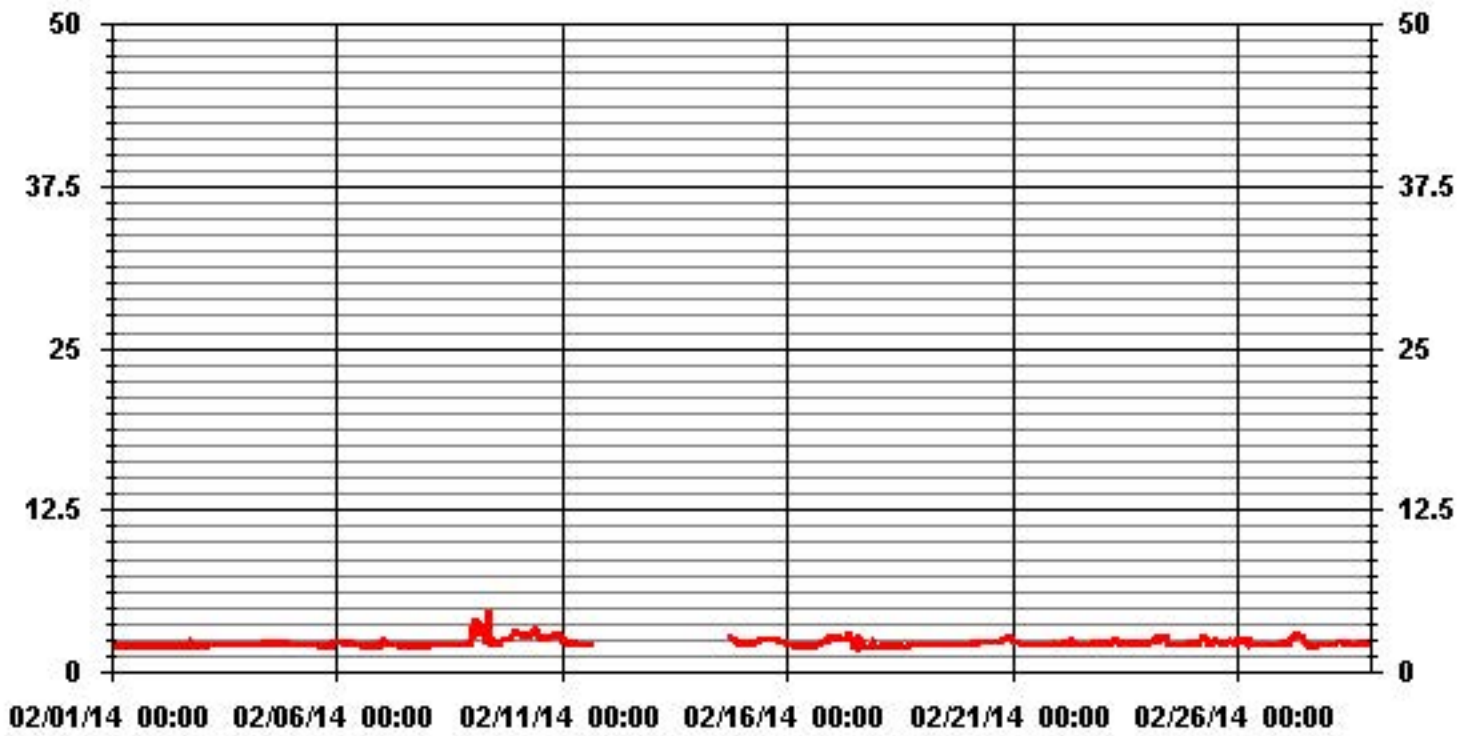
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-------------|----|
| NUMBER OF NON-ZERO READINGS: | 572 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 4.7 | PPM | @ HOUR(S) | 9 | ON DAY(S) | 9 |
| MAXIMUM 24-HR AVERAGE: | 2.9 | PPM | | | ON DAY(S) | 10 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 27 | HRS | OPERATIONAL TIME: | 605 | HRS | |
| MONTHLY CALIBRATION TIME: | 6 | HRS | AMD OPERATION UPTIME: | 90.0 | % | |
| STANDARD DEVIATION: | 0.29 | | MONTHLY AVERAGE: | 2.24 | PPM | |

01 Hour Averages



— LICA30 THC PPM

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.5 | 2.6 | 2.1 | S | 2.3 | 2.3 | 2 | 2 | 2.3 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.3 | 2.4 | 2 | 2 | 2 | 2.6 | 2.1 | 24 | |
| 2 | 2 | 2 | S | 2.2 | 2.1 | 2.2 | 2.1 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.9 | 2.6 | 2.1 | 2.1 | 2 | 2 | 2.9 | 2.2 | 24 | |
| 3 | 2.1 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 24 |
| 4 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.7 | S | 2.7 | 2.2 | 24 |
| 5 | 2.3 | 2.1 | 2.3 | 2.1 | 2.3 | 2.4 | 2.1 | 2.2 | 2.3 | 2.3 | 2.4 | 2.2 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2 | 2.1 | 2 | 2 | 2 | S | 2.3 | 2.4 | 2.2 | 24 | |
| 6 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | 2.3 | 2.1 | 2 | 2 | 2 | 2 | S | 2.1 | 2.1 | 2.1 | 2.4 | 2.2 | 24 |
| 7 | 3 | 2.9 | 2.4 | 2.2 | 2.1 | 2.2 | 2.8 | 2.7 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | S | 2.1 | 2.1 | 2.1 | 2.1 | 3 | 2.2 | 24 | |
| 8 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.3 | 2.4 | 2.4 | 2.4 | 2.1 | 24 | |
| 9 | 3.6 | 5.6 | 5 | 4.3 | 4.2 | 3.9 | 3.4 | 2.6 | 2.6 | 15 | 3 | 2.6 | 2.3 | 2.2 | 2.2 | 2.4 | 2.5 | 2.5 | S | 2.5 | 2.5 | 3 | 3 | 3 | 15 | 3.6 | 24 | |
| 10 | 3.1 | 3.3 | 3 | 2.8 | 2.8 | 3 | 3.1 | 3 | 3.2 | 3.5 | 3.5 | 3.3 | 3 | 2.8 | 2.7 | 2.9 | 2.8 | S | 2.7 | 2.9 | 3 | 3 | 3 | 3 | 2.9 | 3.5 | 3.0 | 24 |
| 11 | 2.8 | 2.7 | 2.4 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.4 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | X | X | X | X | X | X | X | X | X | 2.8 | 2.3 | 16 |
| 12 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | 0 |
| 13 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | 0 |
| 14 | X | X | X | X | X | X | X | X | X | C | C | Y | Y | Y | C | C | C | C | 3.4 | 3.1 | 2.9 | 2.5 | 2.9 | 2.3 | 3.4 | 2.9 | 12 | |
| 15 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | S | 2.6 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | 2.5 | 2.3 | 2.4 | 2.7 | 2.7 | 2.5 | 24 | |
| 16 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | S | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.4 | 2.4 | 2.5 | 2.8 | 2.9 | 2.9 | 2.2 | 24 |
| 17 | 2.8 | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.9 | 2.9 | S | 2.7 | 2.3 | 2.3 | 3.2 | 3.1 | 2 | 1.9 | 1.9 | 2 | 2 | 2.1 | 2.4 | 2.4 | 3.2 | 2.5 | 24 | |
| 18 | 2.1 | 2 | 1.9 | 2.2 | 2.2 | 2.1 | 2 | 2.2 | 2.3 | S | 2.1 | 2.2 | 2.2 | 2.1 | 2 | 2.2 | 2 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.4 | 2.2 | 2.2 | 24 |
| 19 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 2.1 | 2.1 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.3 | 2.1 | 24 |
| 20 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | S | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 | 2.8 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 3.1 | 2.7 | 2.8 | 3.1 | 2.4 | 24 | |
| 21 | 2.7 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | S | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.7 | 2.2 | 24 | |
| 22 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | S | 2.2 | 2.8 | 2.6 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.8 | 2.2 | 24 |
| 23 | 2.2 | 2.3 | 2.3 | 2.2 | S | 2.3 | 2.6 | 2.7 | 2.7 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.2 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.7 | 2.3 | 24 | |
| 24 | 2.2 | 2.4 | 2.5 | S | 2.6 | 2.7 | 2.7 | 2.7 | 2.7 | 2.8 | 2.6 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.8 | 2.4 | 24 | |
| 25 | 2.3 | 2.2 | S | 2.6 | 2.8 | 2.8 | 2.7 | 2.9 | 2.8 | 2.5 | 2.3 | 2.4 | 2.6 | 2.6 | 2.4 | 2.3 | 2.2 | 2.2 | 2.3 | 2.4 | 2.5 | 2.5 | 2.4 | 2.7 | 2.9 | 2.5 | 24 | |
| 26 | 2.8 | S | 2.9 | 2.6 | 2.9 | 2.6 | 2.9 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2.3 | 2.2 | 2.5 | 2.3 | 2.2 | 2.9 | 2.3 | 24 | |
| 27 | S | 2.4 | 2.4 | 2.4 | 2.6 | 2.6 | 2.7 | 2.9 | 3 | 2.8 | 2.8 | 2.7 | 2.7 | 2.2 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | S | 3 | 2.4 | 24 | |
| 28 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.6 | 2.8 | 2.8 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | S | 2.3 | 2.8 | 2.3 | 24 |
| HOURLY MAX | 4 | 6 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 15 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| HOURLY AVG | 2.4 | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.9 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | | | | |

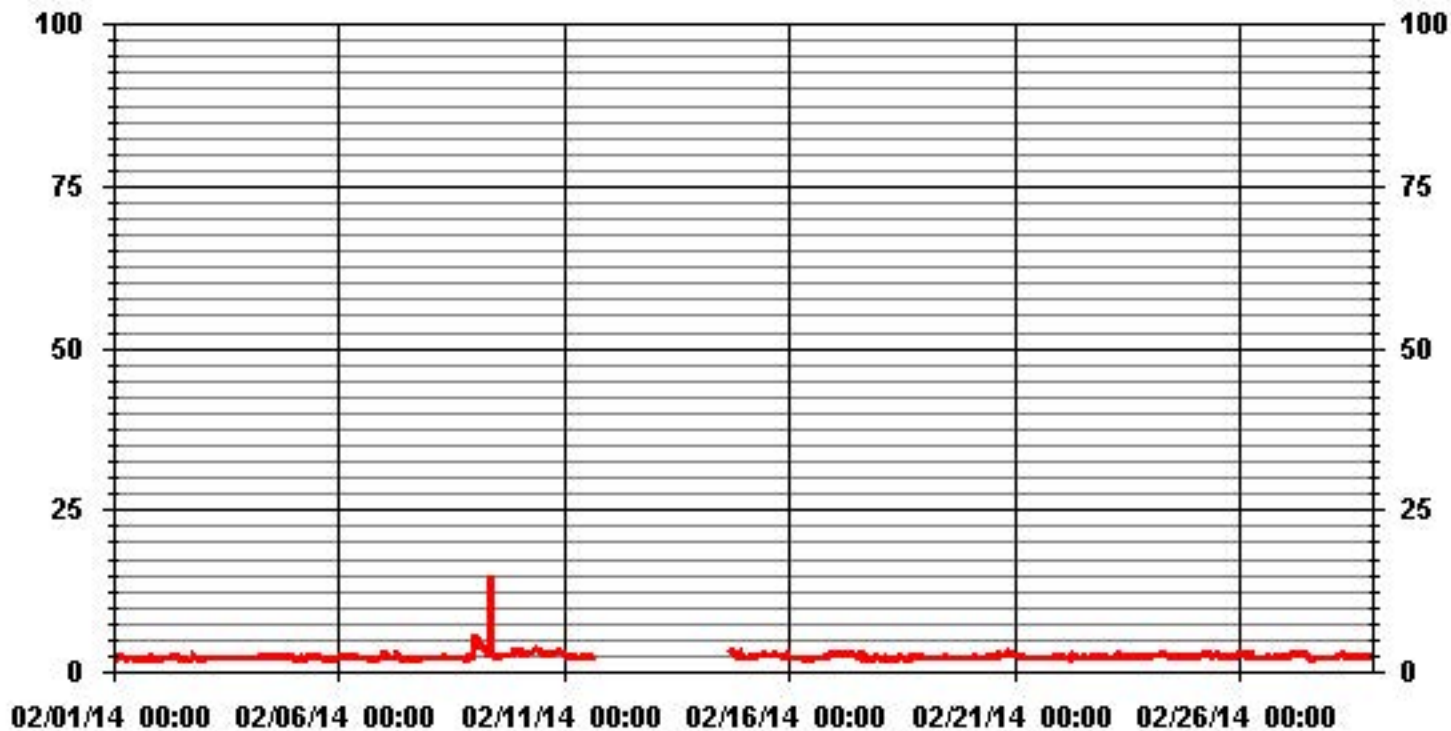
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 572 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 15 | PPM | @ HOUR(S) | 9 | ON DAY(S) | 9 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 26 | HRS | OPERATIONAL TIME: | 604 | HRS | |
| MONTHLY CALIBRATION TIME: | 6 | HRS | | | | |
| STANDARD DEVIATION: | 0.64 | | | | | |

01 Hour Averages



LICA30
 THC / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : THC
 Units : PPM

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|---------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3.0 | 18.16 | 5.99 | 3.70 | 4.93 | 2.64 | 2.11 | 2.82 | 4.23 | 3.70 | 7.58 | 8.99 | 4.58 | 6.70 | 6.34 | 7.58 | 7.23 | 97.35 |
| < 10.0 | .17 | .00 | .00 | .00 | .00 | .00 | .35 | .88 | .70 | .35 | .17 | .00 | .00 | .00 | .00 | .00 | 2.64 |
| < 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 18.34 | 5.99 | 3.70 | 4.93 | 2.64 | 2.11 | 3.17 | 5.11 | 4.40 | 7.93 | 9.17 | 4.58 | 6.70 | 6.34 | 7.58 | 7.23 | |

Calm : .00 %

Total # Operational Hours : 567

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 3.0 | 103 | 34 | 21 | 28 | 15 | 12 | 16 | 24 | 21 | 43 | 51 | 26 | 38 | 36 | 43 | 41 | 552 |
| < 10.0 | 1 | | | | | | 2 | 5 | 4 | 2 | 1 | | | | | | 15 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 104 | 34 | 21 | 28 | 15 | 12 | 18 | 29 | 25 | 45 | 52 | 26 | 38 | 36 | 43 | 41 | |

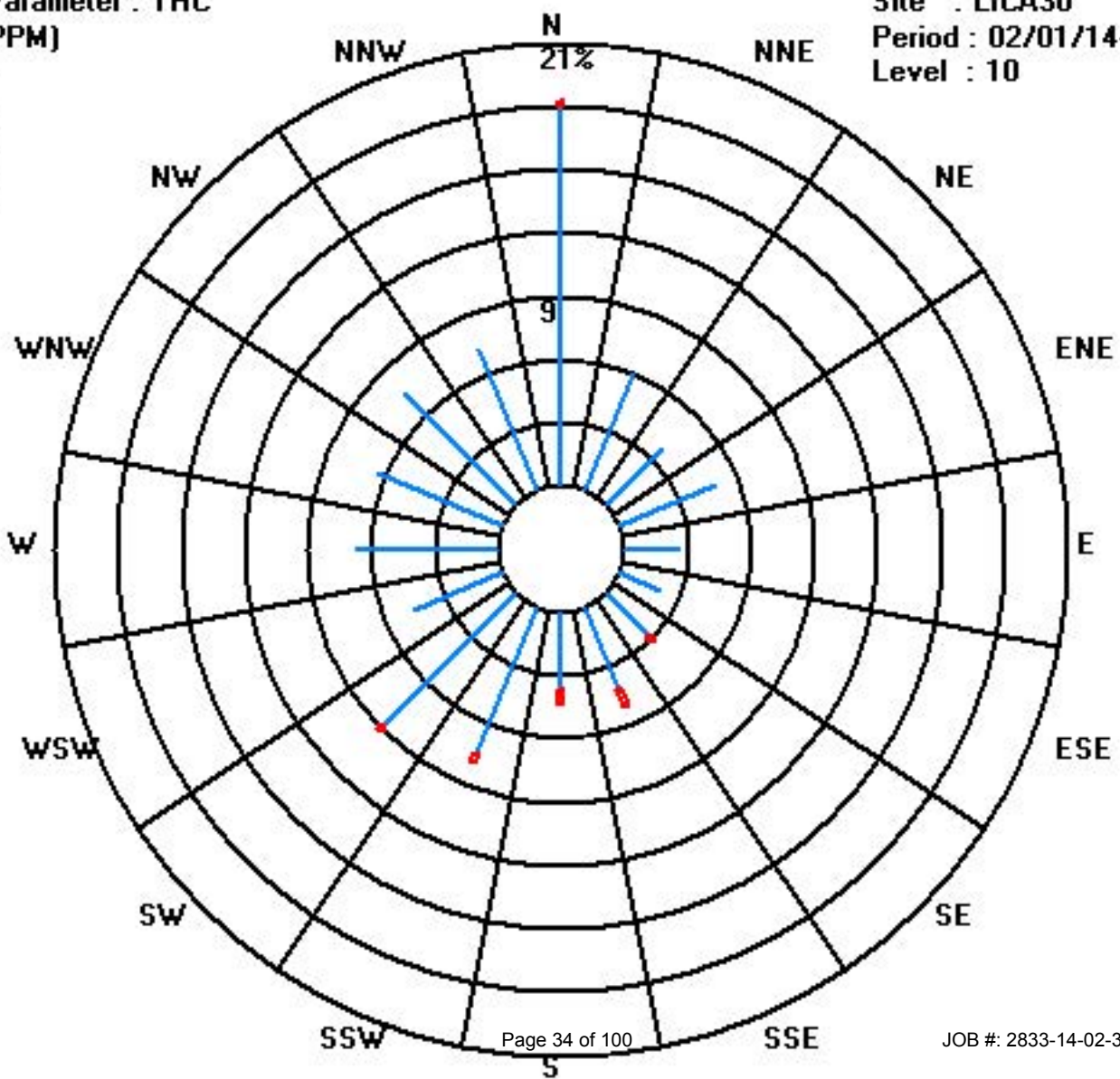
Calm : .00 %

Total # Operational Hours : 567

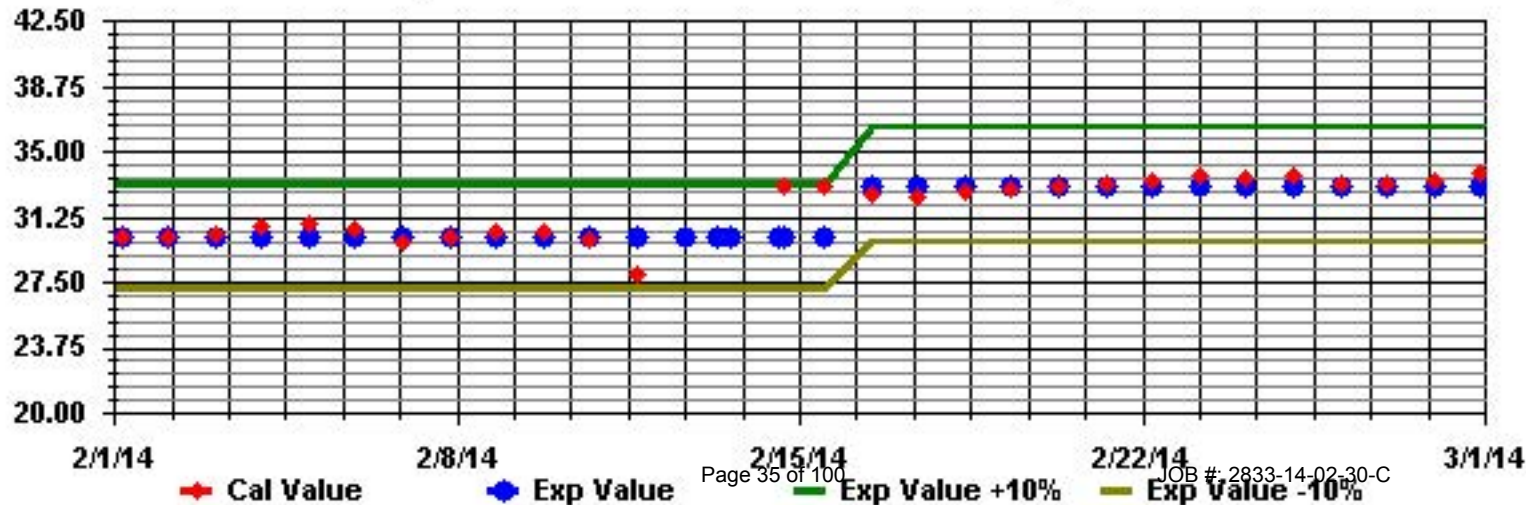
Class Limits (PPM)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA30 Parameter: THC Sequence: THC Phase: SPAN



Nitrogen Dioxide

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

NITROGEN DIOXIDE (NO2) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4.2 | 6.9 | 2.5 | S | 2.9 | 4.5 | 1.6 | 1.6 | 7.5 | 2.4 | 1.9 | 2.1 | 1.2 | 0.6 | 0.7 | 1.3 | 1.2 | 1.5 | 2 | 3.4 | 9.8 | 3.1 | 0.9 | 0.5 | 9.8 | 2.8 | 24 | |
| 2 | 2.5 | 1.6 | S | 6.6 | 8.4 | 8 | 5.2 | 8.6 | 7.5 | 6.3 | 9.2 | 5.6 | 1.8 | 1 | 1.4 | 1.7 | 1.6 | 4.9 | 10.9 | 8.9 | 4.9 | 2.4 | 0.7 | 0.6 | 10.9 | 4.8 | 24 | |
| 3 | 1.4 | S | 1.3 | 2.2 | 2.9 | 1.7 | 0.8 | 2.2 | 2.5 | 3 | 0.6 | 0.8 | 0.5 | 0.3 | 1.7 | 0.8 | 0.9 | 1.4 | 0.7 | 0 | 0.2 | 1.6 | 1.9 | 2.6 | 3 | 1.4 | 24 | |
| 4 | S | 4.3 | 1.9 | 2.4 | 3 | 2.6 | 2.8 | 4.8 | 5 | 4.7 | 5.8 | 4.2 | 3.9 | 3.1 | 2.1 | 2.7 | 2.2 | 4.1 | 4.5 | 4.6 | 4.7 | 3.9 | 3.9 | S | 5.8 | 3.7 | 24 | |
| 5 | 7.5 | 4.5 | 11.3 | 4 | 8.2 | 10 | 7.7 | 10.8 | 9.1 | 12.4 | 8.3 | 4.1 | 4.6 | 3.8 | 3 | 1.5 | 1.9 | 1.3 | 2 | 1.5 | 1 | 0.9 | S | 4.3 | 12.4 | 5.4 | 24 | |
| 6 | 5.2 | 4.8 | 5.9 | 6.5 | 3.3 | 5.1 | 8.1 | 8.4 | 11.2 | 7.5 | 2.7 | 1.7 | 1.9 | 3.3 | 1.5 | 1.2 | 4.6 | 2.7 | 2.2 | 2.7 | 2 | S | 3.1 | 3.1 | 11.2 | 4.3 | 24 | |
| 7 | 7.3 | 14 | 3.8 | 2.8 | 3.9 | 4.2 | 7.1 | 8.5 | 6.9 | 4.5 | 1.7 | 2 | 1.9 | 1.5 | 2 | 2.6 | 2.2 | 1.8 | 1.4 | 1.4 | S | 0.1 | 0.1 | 0.2 | 14 | 3.6 | 24 | |
| 8 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.8 | 2.2 | 3.2 | 2.4 | 0.9 | 0.6 | 0.6 | 1.3 | 2.2 | 2.6 | 3.1 | 2.9 | 5 | S | 4.1 | 4 | 4.5 | 5.1 | 5.1 | 2.0 | 24 | |
| 9 | 7.3 | 9.5 | 12.7 | 13.8 | 12.2 | 9.4 | 5.1 | 4.1 | 8.6 | 8.8 | 10.6 | 5.6 | 2.4 | 2 | 2.2 | 3.5 | 5.1 | 6.7 | S | 13 | 10 | 6.5 | 6.3 | 5.4 | 13.8 | 7.4 | 24 | |
| 10 | 5.4 | 5.3 | 5.1 | 4.9 | 5.3 | 5.2 | 5.6 | 6.6 | 11.3 | 9.8 | 8.5 | 5.8 | 7.1 | 5.3 | 5 | 6.7 | 9.4 | S | 13.6 | 9.4 | 8 | 7.6 | 7.5 | 11.7 | 13.6 | 7.4 | 24 | |
| 11 | 7 | 3.3 | 1.5 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 2.7 | 2.4 | 3.5 | 6.2 | 3.1 | 3.6 | 3.6 | 6.4 | S | 2.6 | 2.6 | 2.9 | 2.8 | 4 | 5 | 3.1 | 7 | 3.3 | 24 | |
| 12 | 2.5 | 1.9 | 2 | 4.2 | 6.2 | 3.4 | 3.4 | 3.4 | 2 | 1.9 | 1.3 | 1.2 | 0.5 | 1.2 | 1 | S | 2.2 | 4.8 | 5.3 | 2.2 | 0.9 | 0.8 | 2.6 | 2.7 | 6.2 | 2.5 | 24 | |
| 13 | 2.3 | 2.5 | 2.3 | 2.2 | 3.1 | 2.4 | 3.6 | 4.4 | 8.3 | 6.8 | 3.3 | 2.6 | 2.2 | 2.2 | S | 1.3 | 0.9 | 0.8 | 1.1 | 2.7 | 2 | 3.3 | 2.1 | 2 | 8.3 | 2.8 | 24 | |
| 14 | 4 | 6.3 | 5.9 | 5.3 | 4.8 | 4.9 | 5.1 | 7.3 | 8.2 | 6.7 | C | C | C | C | C | C | C | 4.3 | 7.7 | 9.4 | 9.7 | 5.3 | 6.7 | 2.5 | 9.7 | 6.1 | 24 | |
| 15 | 2.5 | 4.2 | 1.5 | 2 | 2.2 | 3.3 | 2.6 | 4.4 | 3.9 | 3.8 | 3.3 | 3.6 | S | 2.9 | 3.2 | 4 | 5.1 | 4.9 | 5.2 | 4.3 | 3.5 | 2.4 | 4.8 | 7.4 | 7.4 | 3.7 | 24 | |
| 16 | 1.2 | 0.8 | 0.6 | 0.6 | 0.4 | 0.5 | 0.7 | 0.6 | 0.5 | 0.3 | 0.5 | S | 0.7 | 1 | 2.1 | 3.3 | 2.6 | 2.1 | 6.1 | 4.8 | 5.6 | 7.8 | 10.9 | 12.2 | 12.2 | 2.9 | 24 | |
| 17 | 7.7 | 7.2 | 8.4 | 11.5 | 14.1 | 14.8 | 15.1 | 17.5 | 20 | 18.5 | S | 10.9 | 4.8 | 3.2 | 9 | 9.2 | 1.1 | 1.2 | 0.8 | 0.6 | 0.7 | 3.3 | 7.8 | 4.1 | 20 | 8.3 | 24 | |
| 18 | 1.7 | 1.1 | 1.1 | 1.9 | 2.8 | 2.2 | 3.5 | 9.3 | 9.1 | S | 2.8 | 1.2 | 1 | 1.3 | 0.9 | 1.6 | 2.3 | 2.4 | 3.8 | 5 | 5.4 | 6.5 | 4.4 | 3.5 | 9.3 | 3.3 | 24 | |
| 19 | 4.4 | 3.4 | 2.2 | 1.4 | 1.2 | 1.1 | 1 | 1 | S | 0.5 | 0.3 | 1.4 | 2.1 | 4.7 | 0.4 | 0.7 | 0.4 | 0.2 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 4.7 | 1.3 | 24 | |
| 20 | 0.7 | 0.7 | 1.8 | 2.5 | 2.5 | 2.3 | 3.5 | S | 5.6 | 6.3 | 3.7 | 3.3 | 3.7 | 4.1 | 7.5 | 9.3 | 3.3 | 4.3 | 11.6 | 16.8 | 15.4 | 13.7 | 13.9 | 13.2 | 16.8 | 6.5 | 24 | |
| 21 | 12.6 | 8.8 | 4.2 | 2.3 | 2 | 1.8 | S | 1.2 | 1.4 | 1.2 | 0.6 | 0.4 | 0.7 | 0.4 | 0.5 | 1.5 | 1.8 | 1.7 | 3.5 | 5.5 | 5.5 | 5.3 | 6 | 7.3 | 12.6 | 3.3 | 24 | |
| 22 | 7.3 | 3.4 | 2.9 | 3.4 | 3.7 | S | 4.3 | 11 | 9.5 | 4.1 | 3.3 | 2.8 | 2.3 | 2 | 1.4 | 2.2 | 0.9 | 0.4 | 1.6 | 1.9 | 2.1 | 4.8 | 8.1 | 7.5 | 11 | 4.0 | 24 | |
| 23 | 9.5 | 9.5 | 10 | 10.2 | S | 8.3 | 11.4 | 12.8 | 9 | 4.1 | 3.3 | 2.1 | 2.3 | 4.3 | 3.6 | 4.7 | 2.6 | 3.2 | 5.8 | 6.2 | 6 | 5.7 | 5.6 | 3.6 | 12.8 | 6.3 | 24 | |
| 24 | 3.1 | 3.8 | 5.3 | S | 10.8 | 11.3 | 15.5 | 18.3 | 11.2 | 7.4 | 6.7 | 2.1 | 2.9 | 2.5 | 3.3 | 1.7 | 2.9 | 1.5 | 1.7 | 1.4 | 1.3 | 2 | 2.5 | 2.2 | 18.3 | 5.3 | 24 | |
| 25 | 1.9 | 1.5 | S | 1.7 | 2.3 | 7.2 | 21.7 | 23.6 | 22.7 | 8.1 | 3.7 | 4.6 | 5.1 | 4 | 3.3 | 3.1 | 3.2 | 4.1 | 5.7 | 10.8 | 15.3 | 18.8 | 14.3 | 10.8 | 23.6 | 8.6 | 24 | |
| 26 | 33.7 | S | 17.8 | 19.3 | 22 | 11.4 | 25.2 | 5.9 | 5 | 2.2 | 0.9 | 0.6 | 0.1 | 0.7 | 2.2 | 3.2 | 4.7 | 2.3 | 4.6 | 3.5 | 3.3 | 3.3 | 2.7 | 1.4 | 33.7 | 7.7 | 24 | |
| 27 | S | 4 | 3.4 | 2.5 | 4.3 | 4.9 | 6.5 | 8.2 | 7.7 | 6 | 6.6 | 7.5 | 8.2 | 3.8 | 2.8 | 2.3 | 4.8 | 7.5 | 2.1 | 1.3 | 1.3 | 0.9 | 1 | S | 8.2 | 4.4 | 24 | |
| 28 | 0.8 | 0.4 | 0.3 | 2.1 | 3.8 | 6.9 | 12.3 | 15.9 | 4.9 | 2.7 | 2.3 | 0.5 | 0.3 | 0.2 | 0.1 | 0 | 0.3 | 0.2 | 0.6 | 1.2 | 1.7 | 2.3 | S | 5.6 | 15.9 | 2.8 | 24 | |
| HOURLY MAX | 34 | 14 | 18 | 19 | 22 | 15 | 25 | 24 | 23 | 19 | 11 | 11 | 8 | 5 | 9 | 9 | 9 | 8 | 14 | 17 | 15 | 19 | 14 | 13 | | | | |
| HOURLY AVG | 5.5 | 4.4 | 4.5 | 4.5 | 5.1 | 5.2 | 6.7 | 7.6 | 7.6 | 5.4 | 3.7 | 3.2 | 2.5 | 2.4 | 2.6 | 3.0 | 2.7 | 2.8 | 4.2 | 4.7 | 4.7 | 4.5 | 4.9 | 4.7 | | | | |

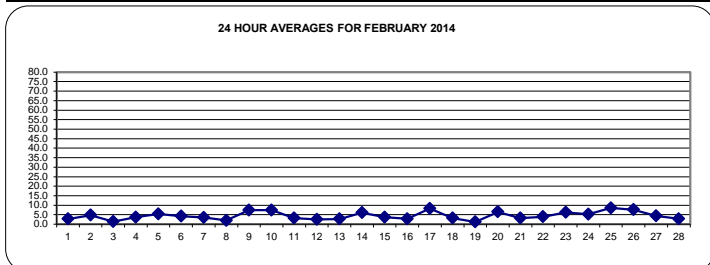
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

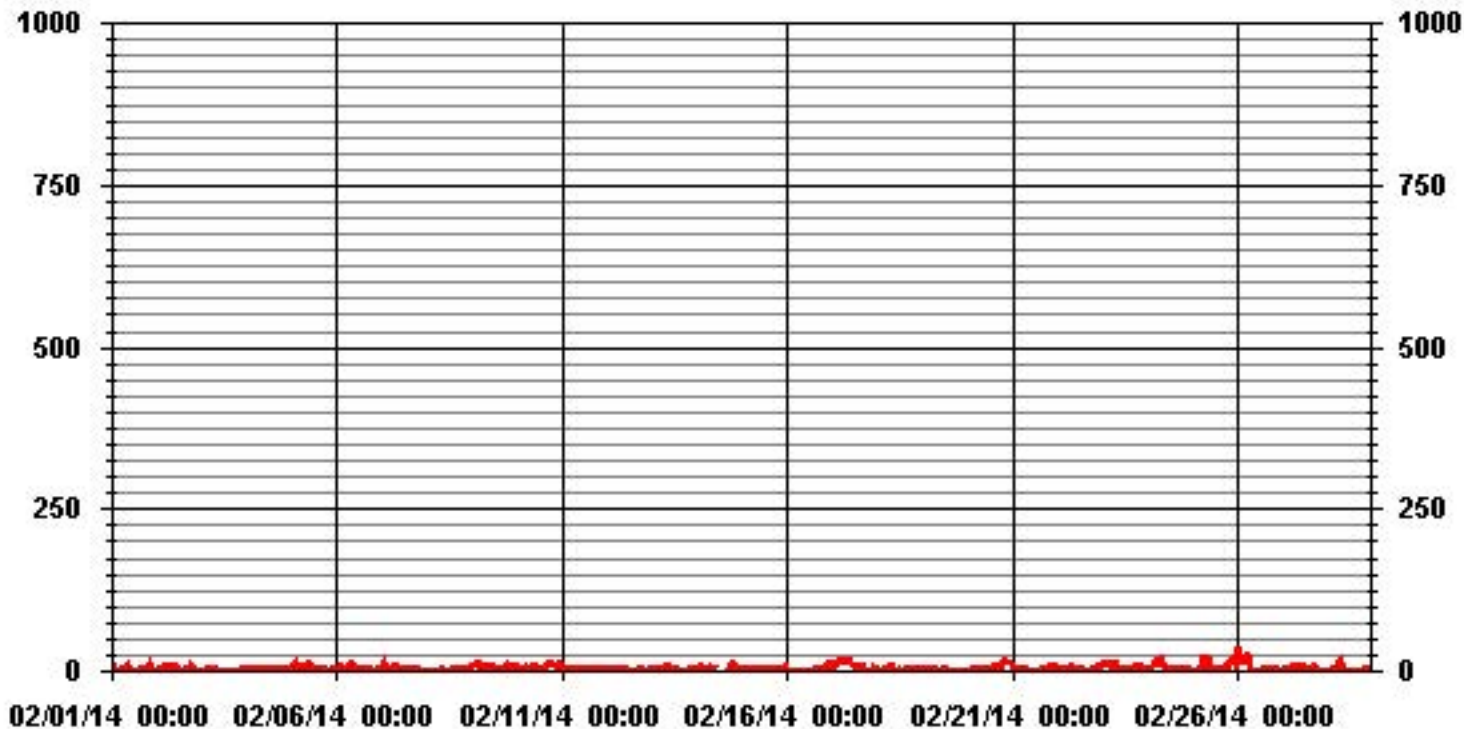
OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 1-HR 159 PPB

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|-------|-------------|----|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 629 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 33.7 | PPB | @ HOUR(S) | 0 | ON DAY(S) | 26 |
| MAXIMUM 24-HR AVERAGE: | 8.6 | PPB | | | ON DAY(S) | 25 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME: | 100.0 | % | |
| STANDARD DEVIATION: | 4.17 | | MONTHLY AVERAGE: | 4.47 | PPB | |



01 Hour Averages



Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | 8.5 | 10.5 | 10 | S | 6.3 | 10.7 | 4.8 | 3.1 | 11.1 | 9.1 | 2.9 | 3.1 | 1.8 | 1.4 | 1.6 | 4.1 | 2.4 | 2.1 | 3.5 | 11.9 | 16.7 | 11.3 | 1.4 | 1 | 16.7 | 6.1 | 24 | |
| 2 | 10.4 | 10.7 | S | 12.5 | 13.9 | 17.7 | 14.3 | 13.4 | 13.5 | 12.4 | 14.5 | 9.8 | 6.6 | 1.9 | 2.2 | 2.6 | 2.4 | 7.6 | 14.7 | 12.6 | 9.2 | 5.2 | 1.9 | 1.7 | 17.7 | 9.2 | 24 | |
| 3 | 2.5 | S | 2.4 | 3.2 | 3.9 | 4 | 2.2 | 9.4 | 7.4 | 10.6 | 2.5 | 3.1 | 3.4 | 1.1 | 8.3 | 3.9 | 3.3 | 2.5 | 2.3 | 0.7 | 1.1 | 2.2 | 2.7 | 3.7 | 10.6 | 3.8 | 24 | |
| 4 | S | 5 | 2.8 | 3.6 | 3.7 | 3.3 | 4.3 | 6.2 | 6.4 | 5.6 | 7.6 | 6 | 8.9 | 4.6 | 3.1 | 13.4 | 3 | 5.5 | 6.8 | 5.6 | 5.8 | 4.6 | 4.7 | S | 13.4 | 5.5 | 24 | |
| 5 | 12.3 | 8.1 | 24.3 | 7.2 | 15.2 | 17.3 | 16.6 | 23.1 | 16.2 | 19.4 | 13.6 | 7 | 9.4 | 6.9 | 12.8 | 3.8 | 15.7 | 3.2 | 3.6 | 3.1 | 2.9 | 2.4 | S | 6.3 | 24.3 | 10.9 | 24 | |
| 6 | 7.3 | 6.5 | 7.7 | 7.8 | 6.5 | 8.2 | 9.1 | 11.6 | 13.1 | 11.4 | 5 | 3.7 | 3.4 | 5.4 | 2.9 | 2.2 | 16.8 | 6 | 3.6 | 4.1 | 3.8 | S | 4.5 | 4.4 | 16.8 | 6.7 | 24 | |
| 7 | 18.6 | 20.2 | 8 | 4.2 | 5.6 | 6.1 | 11 | 19 | 17.5 | 6 | 3.5 | 2.9 | 2.7 | 2.7 | 3.1 | 3.7 | 3.4 | 2.9 | 2.4 | 2.5 | S | 1 | 1 | 1.1 | 20.2 | 6.5 | 24 | |
| 8 | 0.8 | 0.8 | 0.7 | 0.7 | 1.1 | 1.5 | 2.4 | 6.7 | 4.4 | 4.5 | 1.8 | 1.8 | 2.3 | 4.3 | 3.8 | 4.3 | 4.8 | 3.9 | 8.8 | S | 5.3 | 5.4 | 6.1 | 6.9 | 8.8 | 3.6 | 24 | |
| 9 | 9.3 | 11.3 | 15.3 | 17.7 | 15.1 | 14.7 | 6 | 5.3 | 11.2 | 11.1 | 13.3 | 12.5 | 3.7 | 2.9 | 3.2 | 5 | 6.1 | 9 | S | 18.7 | 14.2 | 7.6 | 7.3 | 6.3 | 18.7 | 9.9 | 24 | |
| 10 | 6.4 | 6.7 | 6.2 | 6 | 6.3 | 6.4 | 7.1 | 8.8 | 17.2 | 15.2 | 15.1 | 7.2 | 8.5 | 7.9 | 6.4 | 8.1 | 23.2 | S | 20 | 11.1 | 8.8 | 8.4 | 10.2 | 14 | 23.2 | 10.2 | 24 | |
| 11 | 10.1 | 5.8 | 2.6 | 3.1 | 2.9 | 3.4 | 6 | 3.6 | 4.6 | 3.4 | 6 | 10 | 7 | 5.8 | 7.7 | 11 | S | 4.1 | 3.4 | 3.7 | 4.7 | 7.4 | 8.2 | 4.4 | 11 | 5.6 | 24 | |
| 12 | 3.9 | 3 | 3.3 | 11.1 | 13.5 | 7.6 | 7 | 9.4 | 3 | 3.1 | 2.3 | 2.9 | 1.4 | 3.8 | 4.2 | S | 4.4 | 8.3 | 8.9 | 4.5 | 1.8 | 1.8 | 3.9 | 4.2 | 13.5 | 5.1 | 24 | |
| 13 | 3.8 | 4 | 4.2 | 4.2 | 4.8 | 5.7 | 7 | 10.6 | 10.8 | 9.8 | 7.2 | 5 | 3.3 | 3.4 | S | 1.8 | 1.5 | 1.5 | 2.3 | 4 | 3.4 | 4.7 | 3.5 | 3.4 | 10.8 | 4.8 | 24 | |
| 14 | 6.9 | 7.4 | 6.7 | 6.8 | 5.9 | 6.8 | 7.8 | 8.3 | 11 | C | C | C | C | C | C | C | C | 10.6 | 11.9 | 13.3 | 14.1 | 9.3 | 11.7 | 4.8 | 14.1 | 9.0 | 24 | |
| 15 | 11.3 | 12.1 | 2.7 | 3.3 | 4 | 5.1 | 4.5 | 6.9 | 5.8 | 6.1 | 4.9 | 4.9 | S | 3.1 | 3.4 | 4.3 | 6.8 | 5.4 | 5.9 | 5.5 | 5.4 | 3.4 | 8.7 | 12.3 | 12.3 | 5.9 | 24 | |
| 16 | 3.1 | 1.6 | 1.4 | 1.4 | 1.3 | 1.4 | 1.6 | 2.1 | 1.9 | 1.1 | 1.1 | S | 1.4 | 2.4 | 4.3 | 8.2 | 7.4 | 4.5 | 8.1 | 5.8 | 7.7 | 8.8 | 13.4 | 14.5 | 14.5 | 4.5 | 24 | |
| 17 | 9.7 | 8.6 | 10.5 | 15 | 15.2 | 20.3 | 17 | 33.5 | 21.4 | 21.2 | S | 13.6 | 7.7 | 8.1 | 13.9 | 13.9 | 3.4 | 3.3 | 1.5 | 1.1 | 1.5 | 6.8 | 9.3 | 7.7 | 33.5 | 11.5 | 24 | |
| 18 | 2.6 | 1.8 | 4.2 | 4.9 | 5.1 | 3.7 | 13.1 | 13.7 | 15.2 | S | 4.4 | 1.9 | 1.8 | 2.9 | 1.3 | 2.6 | 5.3 | 4.8 | 4.5 | 6.1 | 6.9 | 8.8 | 7.4 | 4 | 15.2 | 5.5 | 24 | |
| 19 | 5.1 | 4.3 | 2.7 | 1.9 | 1.7 | 1.5 | 1.4 | 1.3 | S | 1 | 0.8 | 2.6 | 4.7 | 8.6 | 1 | 1.4 | 1.2 | 0.8 | 1 | 1 | 1 | 1.7 | 2 | 1.2 | 8.6 | 2.2 | 24 | |
| 20 | 1.2 | 1.4 | 2.6 | 3.2 | 2.9 | 2.7 | 6.5 | S | 6.5 | 6.6 | 5.5 | 3.7 | 6.2 | 8.6 | 11.4 | 12.6 | 3.8 | 8 | 17.1 | 17.6 | 17.1 | 15.8 | 15.1 | 14.6 | 17.6 | 8.3 | 24 | |
| 21 | 15.2 | 11.9 | 7.1 | 3.1 | 2.9 | 2.7 | S | 2.8 | 2.3 | 2 | 1.3 | 1.1 | 1.5 | 1.1 | 1.8 | 2.1 | 2.9 | 3 | 4.8 | 6.5 | 6.7 | 6.5 | 7.8 | 8.1 | 15.2 | 4.6 | 24 | |
| 22 | 8.3 | 4.5 | 3.5 | 4.1 | 12.5 | S | 5.2 | 27.4 | 14 | 5.4 | 3.6 | 3.6 | 3 | 9.7 | 3.4 | 4.7 | 1.6 | 1.3 | 4 | 3.2 | 4.3 | 8 | 8.9 | 8.4 | 27.4 | 6.6 | 24 | |
| 23 | 11.1 | 10.9 | 10.7 | 11.5 | S | 9.6 | 16.8 | 17 | 12.9 | 6.1 | 4.8 | 5.2 | 4.7 | 6.2 | 4.8 | 7.9 | 3.4 | 3.7 | 9.7 | 9.5 | 7.1 | 8.3 | 9 | 5.5 | 17 | 8.5 | 24 | |
| 24 | 4.2 | 6.2 | 7.5 | S | 14.3 | 13.3 | 17.1 | 22.8 | 13.5 | 9.6 | 7.7 | 5.5 | 4.5 | 15.8 | 4.1 | 4.6 | 7.7 | 3.5 | 2.5 | 2.6 | 2.2 | 3.4 | 3.6 | 3.2 | 22.8 | 7.8 | 24 | |
| 25 | 2.9 | 2.6 | S | 2.7 | 3.2 | 18 | 34.1 | 28.4 | 24.7 | 22.3 | 11 | 5.9 | 6.3 | 5.3 | 4.4 | 4.1 | 3.7 | 5.1 | 7.9 | 13.8 | 18.9 | 19.8 | 17.7 | 28.3 | 34.1 | 12.7 | 24 | |
| 26 | 37.2 | S | 29.9 | 32.2 | 28.2 | 21.4 | 34.8 | 6.9 | 5.5 | 4.1 | 1.8 | 0.9 | 0.7 | 2.5 | 22.8 | 4.6 | 5.1 | 4.1 | 10.8 | 7.4 | 4.9 | 4.4 | 4.7 | 2.7 | 37.2 | 12.1 | 24 | |
| 27 | S | 4.8 | 5.4 | 5.5 | 5.5 | 5.7 | 8.5 | 10.5 | 8.9 | 7 | 7.9 | 10.3 | 14.6 | 4.3 | 3.8 | 3.2 | 10.7 | 12 | 4.1 | 2.4 | 2.3 | 1.9 | 1.9 | S | 14.6 | 6.4 | 24 | |
| 28 | 1.7 | 1 | 1.5 | 4.7 | 6.4 | 13 | 21 | 23.3 | 11.3 | 3.8 | 3.3 | 2.2 | 0.9 | 0.9 | 0.9 | 0.9 | 1.1 | 0.9 | 1.5 | 2.1 | 2.7 | 3.1 | S | 7.8 | 23.3 | 5.0 | 24 | |
| HOURLY MAX | 37 | 20 | 30 | 32 | 28 | 21 | 35 | 34 | 25 | 22 | 15 | 14 | 15 | 16 | 23 | 14 | 23 | 12 | 20 | 19 | 19 | 20 | 18 | 28 | | | | |
| HOURLY AVG | 8.2 | 6.6 | 7.1 | 7.0 | 7.7 | 8.6 | 10.6 | 12.4 | 10.8 | 8.4 | 5.9 | 5.2 | 4.6 | 4.9 | 5.4 | 5.3 | 5.8 | 4.7 | 6.5 | 6.7 | 6.7 | 6.4 | 6.8 | 6.9 | | | | |

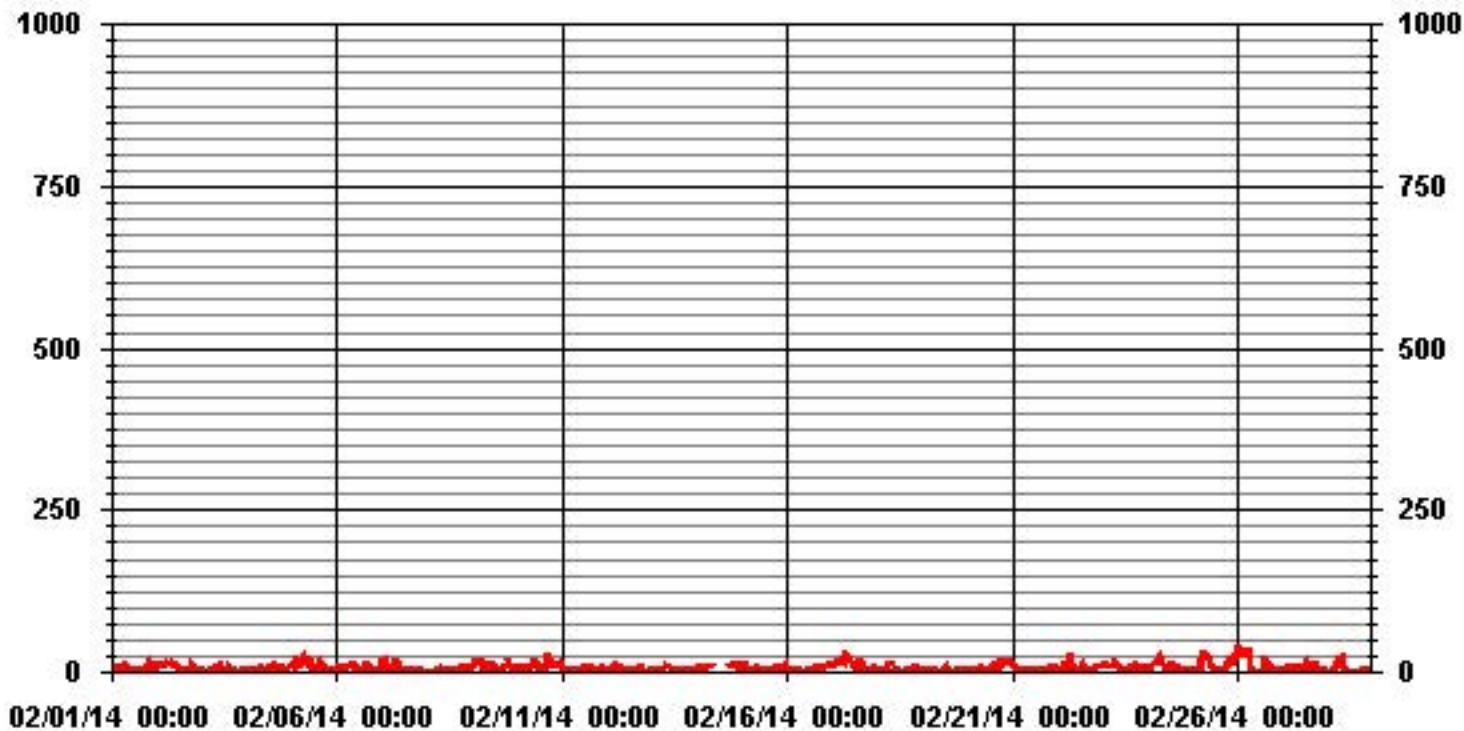
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | |
|------------------------------|-----------------------------------|
| NUMBER OF NON-ZERO READINGS: | 635 |
| MAXIMUM INSTANTANEOUS VALUE: | 37.2 PPB @ HOUR(S) 0 ON DAY(S) 26 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 29 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| STANDARD DEVIATION: | 5.82 |
| OPERATIONAL TIME: | 672 HRS |

01 Hour Averages



— LICA30 NO2MAX PPB

LICA30
 NO2_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 16.64 | 5.70 | 3.80 | 5.07 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.81 | 6.65 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 16.64 | 5.70 | 3.80 | 5.07 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.81 | 6.65 | |

Calm : .00 %

Total # Operational Hours : 631

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 105 | 36 | 24 | 32 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 43 | 42 | 631 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 105 | 36 | 24 | 32 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 43 | 42 | |

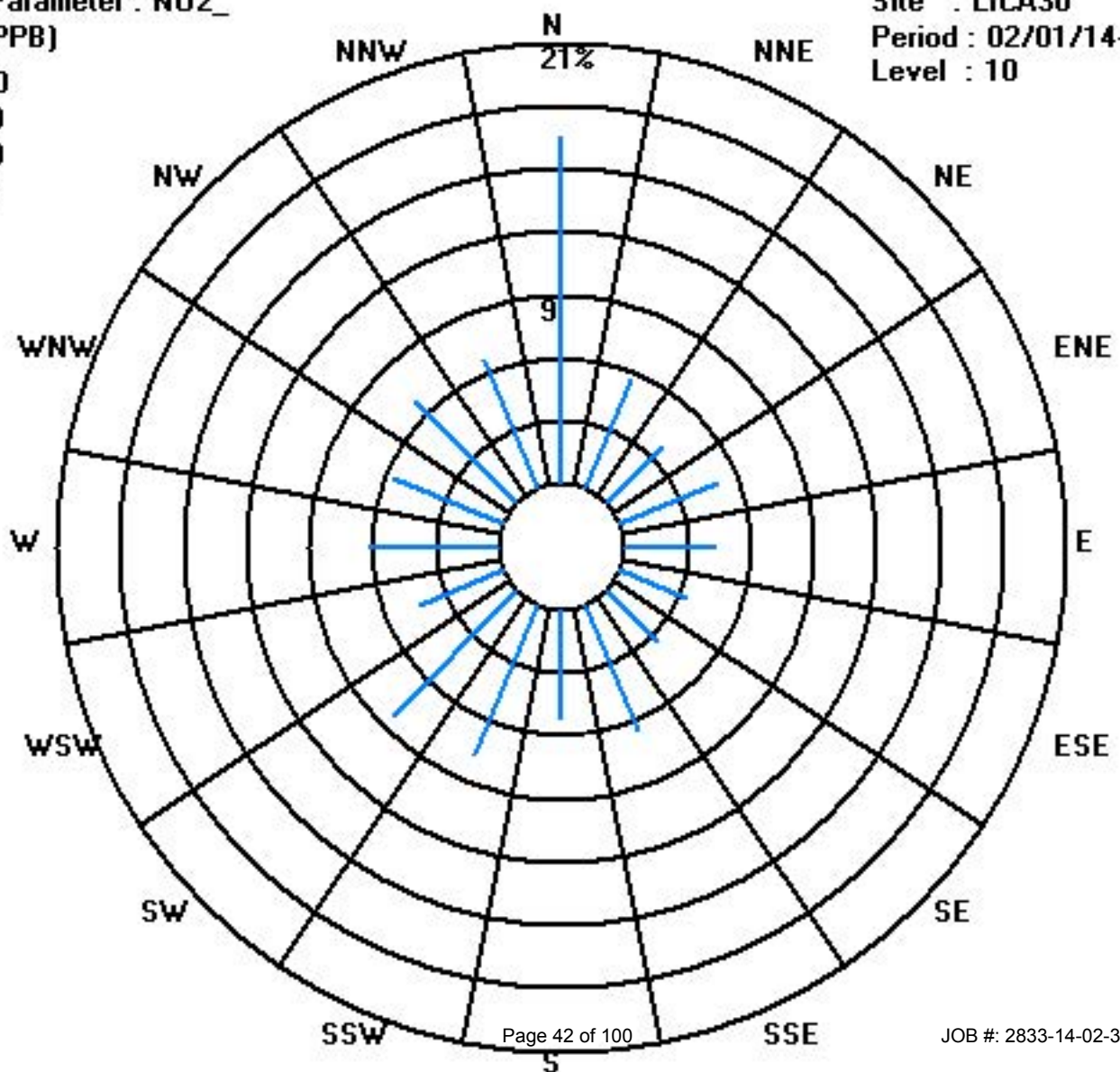
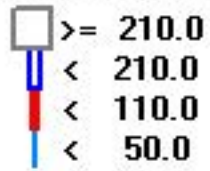
Calm : .00 %

Total # Operational Hours : 631

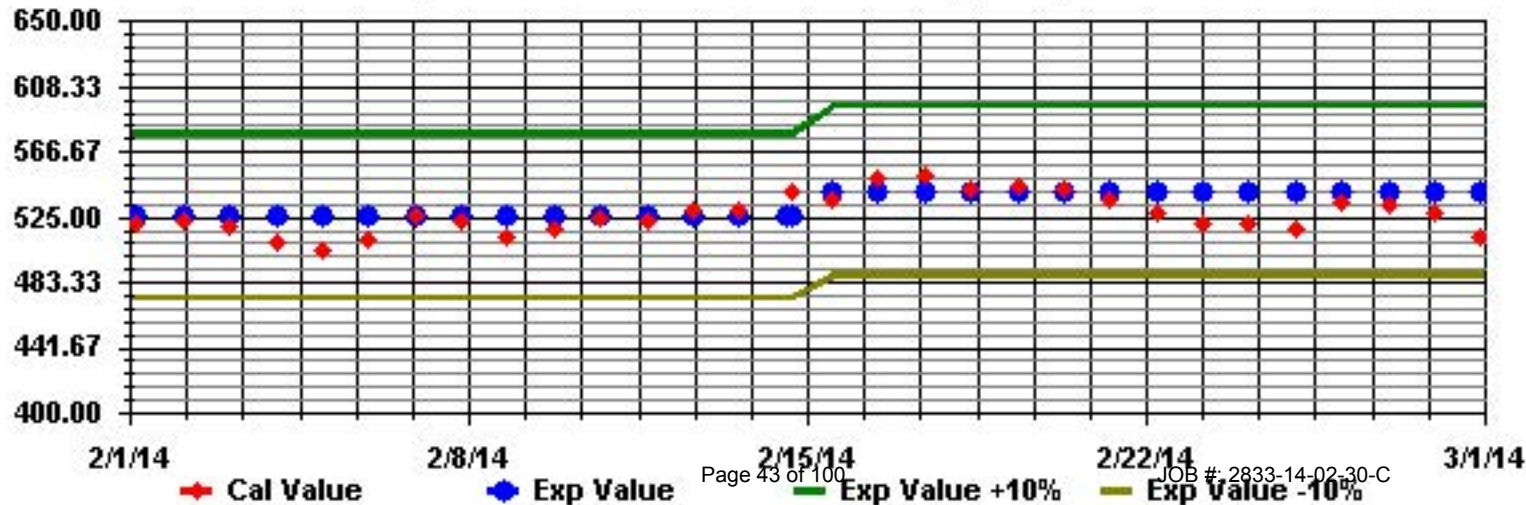
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10

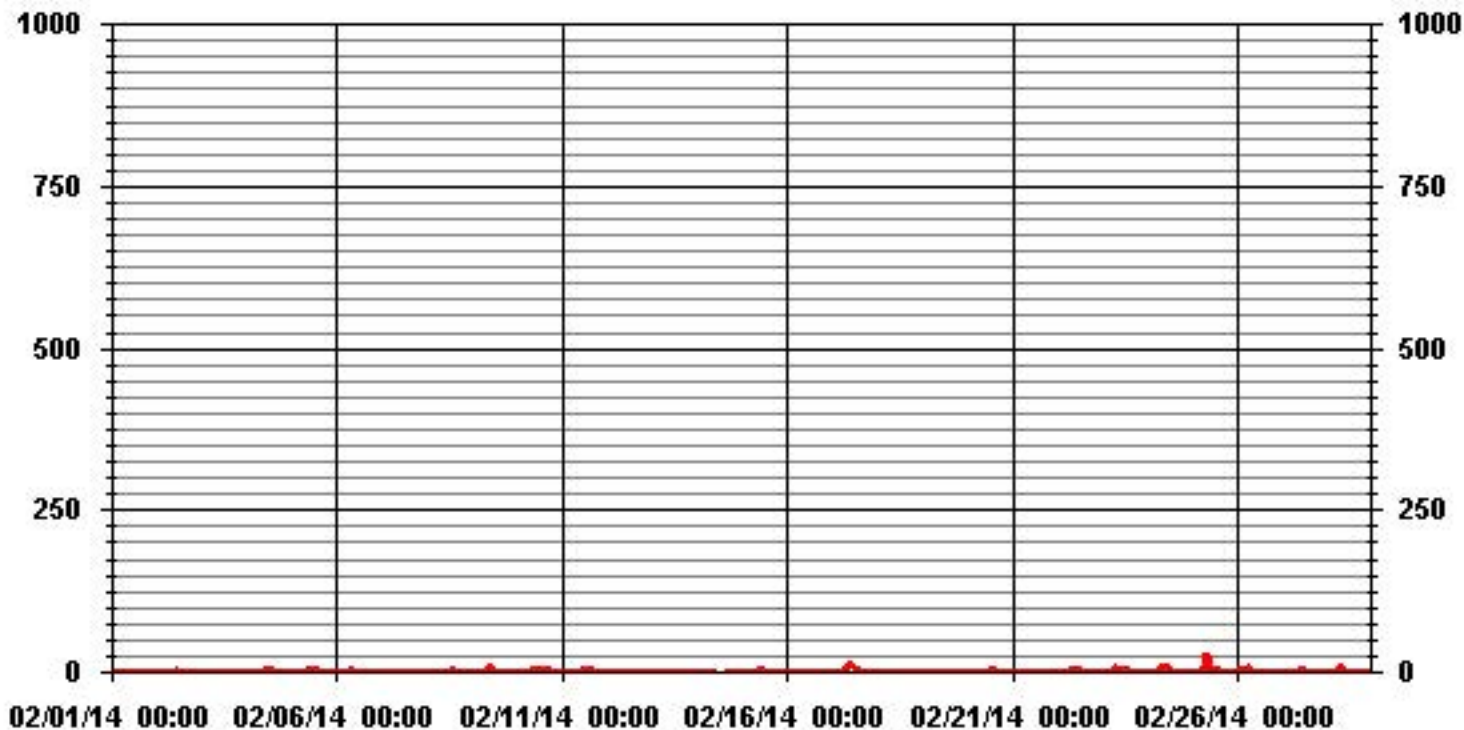


Calibration Graph for Site: LICA30 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

01 Hour Averages



— LICA30 NO_ PPB

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

NITRIC OXIDE MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|------------|---------|----|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | 1.6 | 1.2 | 1 | S | 1.1 | 1.8 | 0.5 | 1 | 1.1 | 1.6 | 1.2 | 1.2 | 1 | 0.8 | 1.1 | 1.2 | 0.8 | 0.6 | 0.7 | 1.5 | 2.5 | 1.7 | 0.5 | 0.6 | 2.5 | 1.1 | 24 | |
| 2 | 2.5 | 3 | S | 4.1 | 3.4 | 4.3 | 3.7 | 2.4 | 2.5 | 3.5 | 5.9 | 3.5 | 2.7 | 0.7 | 0.6 | 0.4 | 0.2 | 0.5 | 0.6 | 0.5 | 0.4 | 0.4 | 0.2 | 0.4 | 5.9 | 2.0 | 24 | |
| 3 | 0.5 | S | 0.4 | 0.4 | 0.4 | 0.6 | 0.6 | 1.2 | 1.3 | 3.2 | 1.1 | 1.9 | 1.9 | 0.7 | 5.1 | 2.9 | 2.6 | 0.8 | 0.7 | 0.6 | 0.8 | 0.6 | 0.6 | 0.5 | 5.1 | 1.3 | 24 | |
| 4 | S | 0.5 | 0.4 | 0.3 | 0.6 | 0.6 | 0.7 | 0.9 | 1.2 | 1.9 | 3.7 | 2.6 | 5.9 | 2.8 | 2 | 21.1 | 1.3 | 0.5 | 0.9 | 0.6 | 0.6 | 0.6 | 0.7 | S | 21.1 | 2.3 | 24 | |
| 5 | 1.4 | 0.5 | 10.8 | 0.4 | 1.7 | 2.7 | 6.4 | 8.8 | 5.6 | 15.8 | 10.3 | 5.4 | 8.4 | 4.6 | 9 | 2.7 | 19.3 | 0.7 | 0.5 | 0.7 | 0.7 | 0.8 | S | 0.4 | 19.3 | 5.1 | 24 | |
| 6 | 0.4 | 0.6 | 0.4 | 0.4 | 0.6 | 0.5 | 1.2 | 1.8 | 4.7 | 5 | 2.8 | 3.1 | 3.2 | 3.8 | 1.1 | 0.4 | 12.7 | 0.5 | 0.1 | 0.2 | 0 | S | 0.4 | 0.3 | 12.7 | 1.9 | 24 | |
| 7 | 0.3 | 0.7 | 0.3 | 0.3 | 0.4 | 0.3 | 1.1 | 1.4 | 1.5 | 0.9 | 0.8 | 1 | 1 | 1 | 1 | 0.6 | 0.7 | 0 | 0.2 | 0.3 | S | 0.3 | 0.3 | 0.6 | 1.5 | 0.7 | 24 | |
| 8 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 | 0.8 | 0.7 | 1.4 | 1.5 | 1.9 | 1.4 | 1.4 | 1.6 | 2.7 | 2.2 | 1.9 | 1.2 | 0.7 | 0.8 | S | 0.5 | 0.4 | 0.3 | 0.4 | 2.7 | 1.1 | 24 | |
| 9 | 0.2 | 0.7 | 0.6 | 0.7 | 0.8 | 0.5 | 0.5 | 0.7 | 3.9 | 5.7 | 11.6 | 10.8 | 2.6 | 1.5 | 1.7 | 1.5 | 0.9 | 0.4 | S | 0.7 | 0.6 | 0.5 | 0.6 | 0.5 | 11.6 | 2.1 | 24 | |
| 10 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.9 | 0.7 | 6.4 | 12.8 | 12.9 | 5.3 | 6.6 | 6.1 | 3.4 | 3.5 | 25.5 | S | 3.3 | 0.1 | 0.2 | 0.4 | 0.3 | 0.4 | 25.5 | 4.0 | 24 | |
| 11 | 0.4 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 1.6 | 0.2 | 1.5 | 1.2 | 4.7 | 12.5 | 5.8 | 4.1 | 6 | 4.4 | S | 0.8 | 0.6 | 0.8 | 0.6 | 0.7 | 0.9 | 0.8 | 12.5 | 2.1 | 24 | |
| 12 | 0.7 | 0.8 | 0.9 | 2.7 | 2.9 | 2 | 2.3 | 2.9 | 0.9 | 1.4 | 1.1 | 1.7 | 1.1 | 1.9 | 2.2 | S | 1.2 | 1.1 | 1.1 | 0.3 | 0.4 | 0.1 | 0.3 | 0.3 | 2.9 | 1.3 | 24 | |
| 13 | 0.2 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.4 | 0.7 | 1.5 | 3.3 | 2.9 | 2.4 | 0.9 | 1.4 | S | 0.6 | 0.3 | 0.3 | 0.2 | 0.4 | 0.3 | 0.5 | 0.2 | 0.2 | 3.3 | 0.8 | 24 | |
| 14 | 0.2 | 0.3 | 0.4 | 0.3 | 0.3 | 0.7 | 0.3 | 0.5 | 2.1 | C | C | C | C | C | C | C | C | C | 0.7 | 0.5 | 1.4 | 1.1 | 1.2 | 1.2 | 1.1 | 2.1 | 0.8 | 24 |
| 15 | 1.2 | 1.3 | 0.9 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 1.1 | 1.8 | 2.5 | 2.6 | S | 2.3 | 1.5 | 0.9 | 0.7 | 0.4 | 0.1 | 0.2 | 0.1 | 0 | 0.1 | 0.5 | 2.6 | 1.0 | 24 | |
| 16 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0 | S | 0.7 | 1.1 | 1.3 | 4.5 | 4.3 | 0.7 | 0.6 | 0.5 | 0.4 | 0.8 | 0.7 | 0.9 | 4.5 | 0.7 | 24 | |
| 17 | 0.8 | 0.9 | 0.9 | 0.8 | 0.9 | 3.3 | 0.6 | 24.8 | 11.3 | 19 | S | 10.6 | 5.7 | 4.7 | 9.4 | 8.5 | 1.5 | 1.2 | 0.7 | 0.7 | 0.6 | 3.4 | 0.9 | 0.7 | 24.8 | 4.9 | 24 | |
| 18 | 0.9 | 0.7 | 1 | 0.6 | 1.1 | 0.6 | 0.7 | 2.8 | 27.1 | S | 2.8 | 1.4 | 1.4 | 3.1 | 1.1 | 1.1 | 2.7 | 1.3 | 0.5 | 0.5 | 0.7 | 0.5 | 0.5 | 0.5 | 27.1 | 2.3 | 24 | |
| 19 | 0.3 | 0.7 | 0.7 | 0.6 | 0.7 | 0.6 | 0.7 | 0.8 | S | 0.5 | 0.5 | 1.4 | 2.2 | 4.5 | 0.9 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 4.5 | 0.9 | 24 | |
| 20 | 0.6 | 0.6 | 0.7 | 0.6 | 0.5 | 0.6 | 0.8 | S | 1.7 | 2.2 | 1.8 | 1.4 | 2.7 | 3.5 | 5.3 | 4 | 0.7 | 0.4 | 0.6 | 0.7 | 0.8 | 1 | 1 | 1.3 | 5.3 | 1.5 | 24 | |
| 21 | 1.2 | 1.2 | 0.8 | 0.7 | 0.8 | 0.9 | S | 0.4 | 0.6 | 0.7 | 0.5 | 0.6 | 0.7 | 0.5 | 0.8 | 1.1 | 0.7 | 0.6 | 0.5 | 0.3 | 0.2 | 0 | 0.5 | 0.5 | 1.2 | 0.6 | 24 | |
| 22 | 0.5 | 0.5 | 0.6 | 0.5 | 7.2 | S | 0.4 | 41.6 | 5.8 | 4.1 | 3.9 | 2.8 | 2.5 | 5 | 1.6 | 1.8 | 0.3 | 0.2 | 0 | 0.1 | 0 | 0.1 | 0.1 | 0.1 | 41.6 | 3.5 | 24 | |
| 23 | 0.4 | 0.5 | 0.5 | 0.7 | S | 1.3 | 9 | 13.3 | 11.1 | 6.5 | 6.4 | 6.6 | 4.6 | 6.7 | 4 | 5.3 | 1.1 | 0.6 | 6.1 | 0.5 | 0.6 | 0.9 | 0.9 | 0.4 | 13.3 | 3.8 | 24 | |
| 24 | 0.4 | 0.5 | 0.8 | S | 0.1 | 0.8 | 2.4 | 14.6 | 9.4 | 10 | 10.2 | 7.3 | 4.4 | 15.8 | 2.6 | 2.2 | 3.7 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 15.8 | 3.7 | 24 | |
| 25 | 0 | 0 | S | 0.5 | 0.5 | 3.5 | 17.5 | 11.1 | 35.9 | 36 | 8.8 | 7.2 | 6.6 | 5.8 | 3.3 | 2.6 | 1.2 | 1.2 | 0.3 | 0.6 | 0.4 | 0.4 | 1.1 | 2 | 36 | 6.4 | 24 | |
| 26 | 5.2 | S | 10.9 | 8.4 | 4.4 | 2.5 | 11.7 | 1 | 2 | 1.5 | 1.2 | 0.6 | 0.6 | 1.3 | 23.3 | 1.7 | 1.8 | 0.2 | 1.3 | 0.3 | 0.5 | 0.3 | 0.3 | 0.2 | 23.3 | 3.5 | 24 | |
| 27 | S | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 | 0.7 | 1.2 | 1.9 | 2.1 | 1.9 | 2.9 | 4.7 | 7.4 | 1.7 | 1.9 | 1.1 | 1.8 | 1.9 | 0.3 | 0.2 | 0.4 | 0.5 | 0.5 | S | 7.4 | 1.5 | 24 |
| 28 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 3 | 7.4 | 12.1 | 4.8 | 3 | 2.9 | 2.2 | 0.9 | 0.7 | 0.6 | 0.6 | 0.8 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | S | 0.5 | 12.1 | 1.9 | 24 | |
| HOURLY MAX | 5 | 3 | 11 | 8 | 7 | 4 | 18 | 42 | 36 | 36 | 13 | 13 | 8 | 16 | 23 | 21 | 26 | 2 | 6 | 2 | 3 | 3 | 1 | 2 | | | | |
| HOURLY AVG | 0.8 | 0.7 | 1.4 | 1.0 | 1.2 | 1.3 | 2.7 | 5.5 | 5.5 | 5.6 | 4.0 | 3.9 | 3.2 | 3.3 | 3.6 | 3.0 | 3.4 | 0.7 | 0.8 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | | | | |

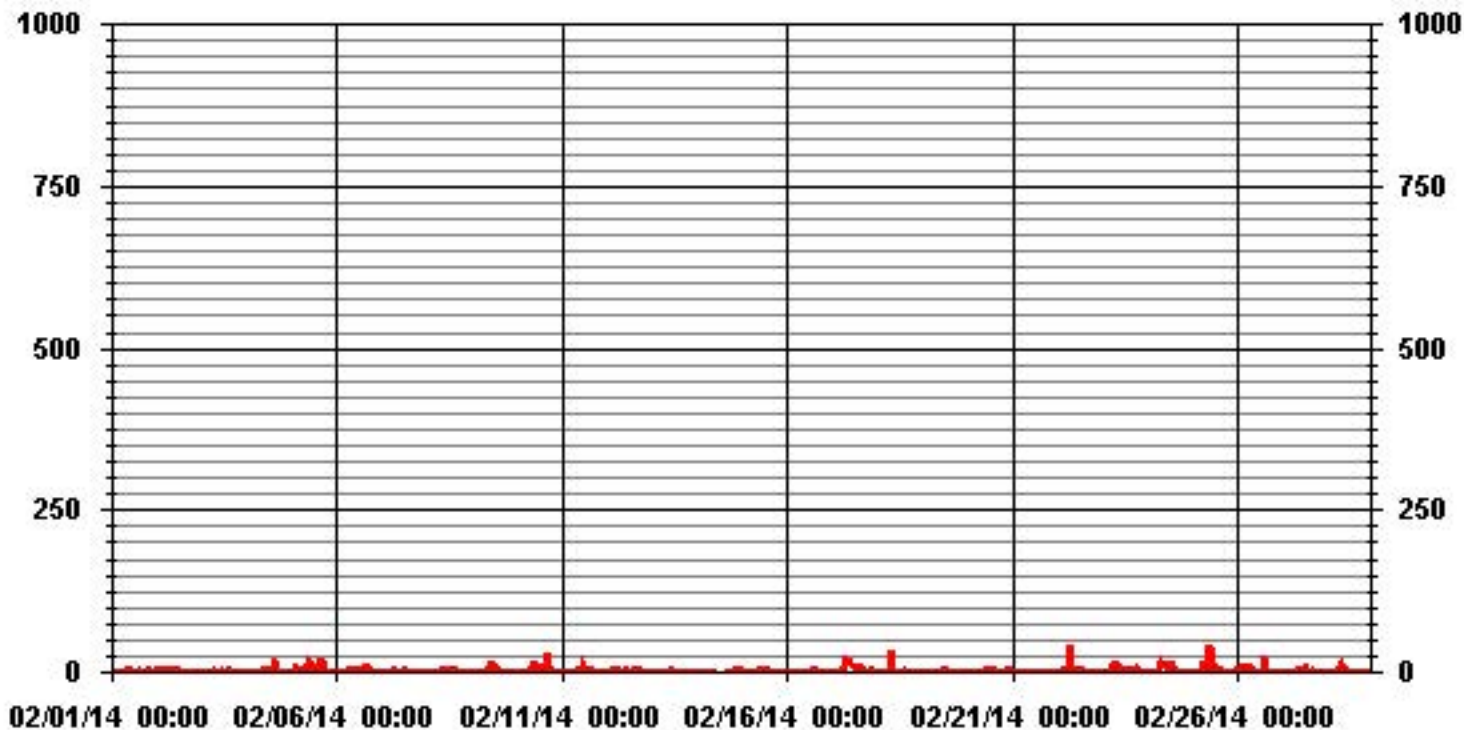
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 612 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 41.6 | PPB | @ HOUR(S) | 6 | ON DAY(S) | 22 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | | | | |
| STANDARD DEVIATION: | 4.24 | | | | | |

01 Hour Averages



LICA30
 NO_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 16.64 | 5.70 | 3.80 | 5.07 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.81 | 6.65 | 100.00 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 16.64 | 5.70 | 3.80 | 5.07 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.81 | 6.65 | |

Calm : .00 %

Total # Operational Hours : 631

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 50.0 | 105 | 36 | 24 | 32 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 43 | 42 | 631 |
| < 110.0 | | | | | | | | | | | | | | | | | |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 105 | 36 | 24 | 32 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 43 | 42 | |

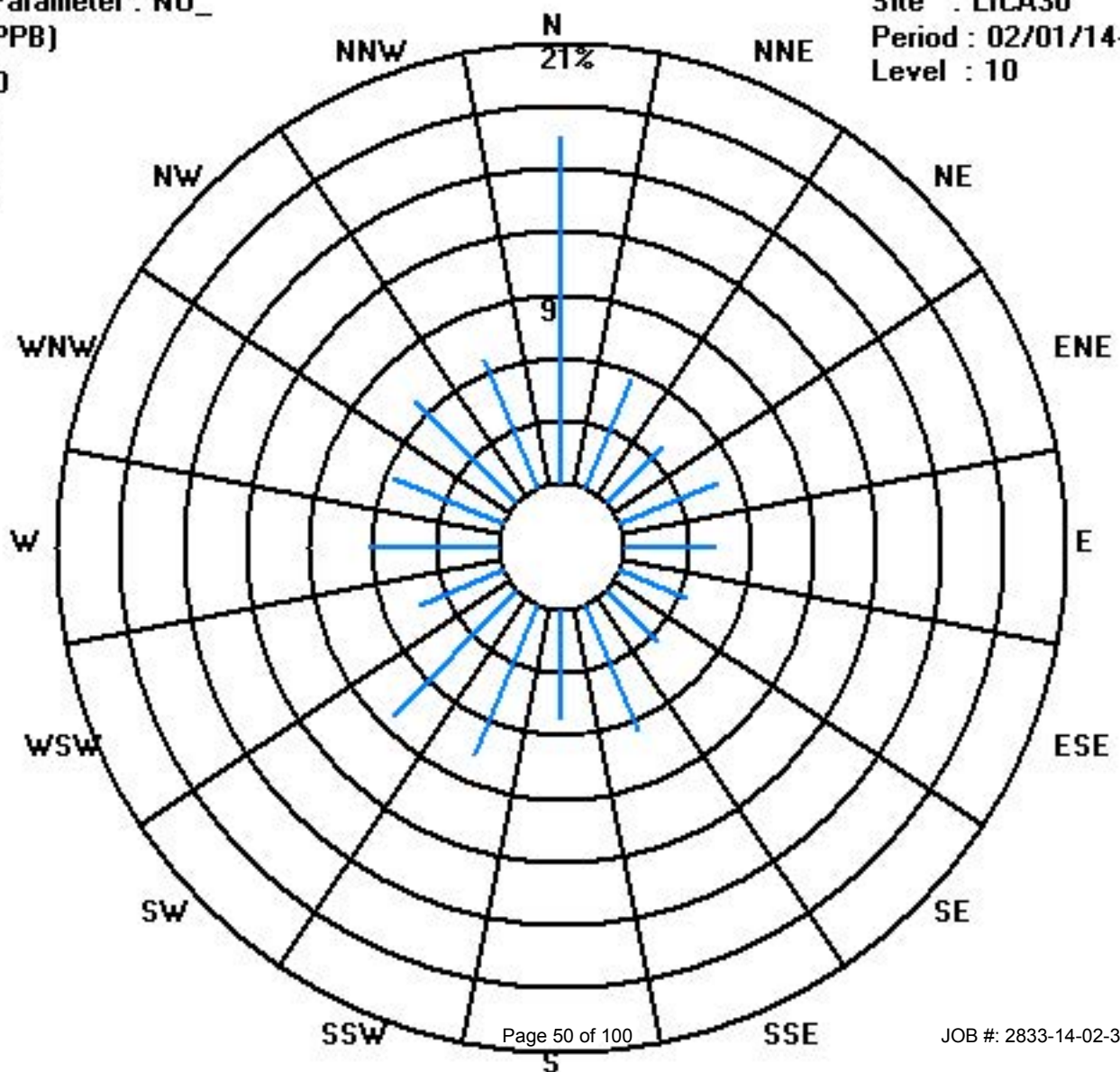
Calm : .00 %

Total # Operational Hours : 631

Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10



Oxides of Nitrogen

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

OXIDES OF NITROGEN (NOx) hourly averages in ppb

| 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 MAX. | 24-HOUR AVG. | RDGS | |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|------|----|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4.6 | 7.3 | 2.9 | S | 3.1 | 4.7 | 1.6 | 1.6 | 7.8 | 2.7 | 2.6 | 2.8 | 1.5 | 0.9 | 1 | 1.7 | 1.4 | 1.5 | 2.2 | 3.4 | 10.8 | 3.4 | 0.9 | 0.5 | 10.8 | 3.1 | 24 | |
| 2 | 2.8 | 1.7 | S | 8 | 10.2 | 9.1 | 6 | 9.1 | 7.9 | 7.6 | 11.9 | 7.4 | 2.5 | 1 | 1.4 | 1.7 | 1.6 | 4.9 | 10.9 | 8.9 | 4.9 | 2.4 | 0.7 | 0.6 | 11.9 | 5.4 | 24 | |
| 3 | 1.4 | S | 1.3 | 2.2 | 2.9 | 1.7 | 0.8 | 2.3 | 2.8 | 3.8 | 0.9 | 1.4 | 0.9 | 0.4 | 2.5 | 1.3 | 1.1 | 1.4 | 0.9 | 0.1 | 0.2 | 1.6 | 1.9 | 2.6 | 3.8 | 1.6 | 24 | |
| 4 | S | 4.3 | 1.9 | 2.4 | 3 | 2.6 | 2.9 | 4.9 | 5.4 | 5.8 | 8 | 6.1 | 6.2 | 4.9 | 3.4 | 4.2 | 2.5 | 4.1 | 4.5 | 4.7 | 4.7 | 3.9 | 4 | S | 8 | 4.3 | 24 | |
| 5 | 7.6 | 4.5 | 12.4 | 4 | 8.4 | 10.5 | 8.4 | 11.9 | 10.9 | 19.3 | 13.9 | 7.1 | 8.1 | 6.2 | 4.5 | 2.3 | 3.2 | 1.5 | 2 | 1.6 | 1.1 | 1.1 | S | 4.3 | 19.3 | 6.7 | 24 | |
| 6 | 5.2 | 4.8 | 5.9 | 6.5 | 3.3 | 5.1 | 8.3 | 8.6 | 12.9 | 10.3 | 4 | 2.7 | 2.7 | 5 | 1.6 | 1.2 | 4.8 | 2.7 | 2.2 | 2.7 | 2 | S | 3.1 | 3.1 | 12.9 | 4.7 | 24 | |
| 7 | 7.3 | 14 | 3.8 | 2.8 | 3.9 | 4.2 | 7.1 | 8.5 | 7.1 | 4.8 | 1.8 | 2.4 | 2.3 | 1.8 | 2.4 | 2.7 | 2.2 | 1.8 | 1.4 | 1.4 | S | 0.1 | 0.1 | 0.2 | 14 | 3.7 | 24 | |
| 8 | 0 | 0 | 0 | 0 | 0 | 0.4 | 1 | 2.5 | 3.9 | 3.4 | 1.6 | 1.3 | 1.4 | 2.4 | 3.7 | 3.7 | 3.5 | 3 | 5.1 | S | 4.1 | 4 | 4.5 | 5.1 | 5.1 | 2.4 | 24 | |
| 9 | 7.3 | 9.5 | 12.8 | 14 | 12.3 | 9.4 | 5.1 | 4.3 | 10.3 | 13.2 | 19 | 9.3 | 3.6 | 2.9 | 3 | 4.2 | 5.4 | 6.7 | S | 13 | 10 | 6.5 | 6.3 | 5.4 | 19 | 8.4 | 24 | |
| 10 | 5.4 | 5.4 | 5.1 | 5 | 5.4 | 5.3 | 5.7 | 6.6 | 14.6 | 16.5 | 13.8 | 9.8 | 12.6 | 8.7 | 7.6 | 9 | 12.9 | S | 13.9 | 9.4 | 8 | 7.6 | 7.5 | 11.7 | 16.5 | 9.0 | 24 | |
| 11 | 7 | 3.3 | 1.5 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 2.7 | 2.8 | 5.6 | 11.9 | 5.1 | 5.5 | 5.3 | 8.3 | S | 2.8 | 2.7 | 3 | 2.9 | 4.1 | 5.3 | 3.3 | 11.9 | 4.0 | 24 | |
| 12 | 2.7 | 2.1 | 2.2 | 4.8 | 7.1 | 3.9 | 4.3 | 4.3 | 2.4 | 2.5 | 1.8 | 1.9 | 1 | 1.9 | 1.6 | S | 2.3 | 4.9 | 5.4 | 2.2 | 0.9 | 0.8 | 2.6 | 2.7 | 7.1 | 2.9 | 24 | |
| 13 | 2.3 | 2.5 | 2.3 | 2.2 | 3.1 | 2.4 | 3.6 | 4.4 | 9 | 8.4 | 4.1 | 3.2 | 2.5 | 2.7 | S | 1.3 | 0.9 | 0.8 | 1.1 | 2.7 | 2 | 3.3 | 2.1 | 2 | 9 | 3.0 | 24 | |
| 14 | 4 | 6.3 | 5.9 | 5.3 | 4.8 | 4.9 | 5.1 | 7.3 | 9.1 | 9 | C | C | C | C | C | C | C | C | 4.4 | 7.7 | 9.8 | 10.2 | 5.8 | 7.3 | 2.9 | 10.2 | 6.5 | 24 |
| 15 | 2.8 | 4.6 | 1.8 | 2.2 | 2.5 | 3.5 | 2.9 | 4.7 | 4.3 | 4.9 | 5 | 5.5 | S | 4.1 | 3.7 | 4 | 5.2 | 4.9 | 5.2 | 4.3 | 3.5 | 2.4 | 4.8 | 7.4 | 7.4 | 4.1 | 24 | |
| 16 | 1.2 | 0.8 | 0.6 | 0.6 | 0.4 | 0.5 | 0.7 | 0.6 | 0.5 | 0.3 | 0.5 | S | 0.8 | 1.2 | 2.5 | 4.3 | 3.4 | 2.1 | 6.1 | 4.8 | 5.6 | 7.8 | 10.9 | 12.4 | 12.4 | 3.0 | 24 | |
| 17 | 7.9 | 7.5 | 8.7 | 11.8 | 14.4 | 15.2 | 15.1 | 19.1 | 26.6 | 33 | S | 19.6 | 8.1 | 4.8 | 14.6 | 13.6 | 1.5 | 1.5 | 0.9 | 0.7 | 0.7 | 3.9 | 8.1 | 4.3 | 33 | 10.5 | 24 | |
| 18 | 2 | 1.1 | 1.3 | 1.9 | 3 | 2.2 | 3.5 | 9.7 | 11.7 | S | 4.1 | 1.8 | 1.3 | 1.9 | 1.2 | 2 | 2.8 | 2.5 | 3.9 | 5 | 5.4 | 6.5 | 4.4 | 3.5 | 11.7 | 3.6 | 24 | |
| 19 | 4.4 | 3.4 | 2.2 | 1.4 | 1.2 | 1.1 | 1 | 1 | S | 0.5 | 0.3 | 1.8 | 2.7 | 6.8 | 0.5 | 0.7 | 0.4 | 0.2 | 0.4 | 0.5 | 0.4 | 0.5 | 0.6 | 0.6 | 6.8 | 1.4 | 24 | |
| 20 | 0.7 | 0.7 | 1.8 | 2.6 | 2.5 | 2.3 | 3.5 | S | 6.3 | 7.7 | 4.5 | 4.1 | 4.7 | 5.5 | 10 | 11.7 | 3.4 | 4.3 | 11.6 | 16.9 | 15.6 | 14 | 14.4 | 13.8 | 16.9 | 7.1 | 24 | |
| 21 | 13.1 | 9.2 | 4.4 | 2.4 | 2.4 | 2 | S | 1.2 | 1.4 | 1.3 | 0.6 | 0.5 | 0.8 | 0.4 | 0.5 | 1.7 | 1.9 | 1.7 | 3.5 | 5.5 | 5.5 | 5.3 | 6 | 7.3 | 13.1 | 3.4 | 24 | |
| 22 | 7.3 | 3.4 | 2.9 | 3.4 | 4 | S | 4.3 | 13.2 | 13.8 | 7.1 | 6 | 4.9 | 3.9 | 3.1 | 1.7 | 2.3 | 0.9 | 0.4 | 1.6 | 1.9 | 2.1 | 4.8 | 8.1 | 7.5 | 13.8 | 4.7 | 24 | |
| 23 | 9.5 | 9.5 | 10 | 10.2 | S | 8.5 | 14.9 | 19 | 15.5 | 8.3 | 7.1 | 4.4 | 4.4 | 8.5 | 6.2 | 7 | 3 | 3.2 | 6.2 | 6.2 | 6 | 5.8 | 5.7 | 3.6 | 19 | 7.9 | 24 | |
| 24 | 3.1 | 3.8 | 5.4 | S | 10.8 | 11.3 | 15.8 | 23.1 | 17.7 | 14.8 | 15.2 | 3.5 | 4.7 | 3.7 | 4.5 | 1.7 | 3 | 1.5 | 1.7 | 1.4 | 1.3 | 2 | 2.5 | 2.2 | 23.1 | 6.7 | 24 | |
| 25 | 1.9 | 1.5 | S | 1.7 | 2.3 | 7.7 | 27.4 | 29.5 | 50.2 | 18.1 | 7.3 | 9.2 | 10.2 | 7.7 | 5.4 | 4.5 | 3.4 | 4.1 | 5.7 | 10.8 | 15.3 | 18.8 | 14.3 | 10.8 | 50.2 | 11.6 | 24 | |
| 26 | 36.2 | S | 20.4 | 21.4 | 24 | 11.6 | 30.4 | 6 | 6 | 2.9 | 1.1 | 0.6 | 0.1 | 0.9 | 3.2 | 4.1 | 5.4 | 2.3 | 4.6 | 3.5 | 3.3 | 3.3 | 2.7 | 1.4 | 36.2 | 8.5 | 24 | |
| 27 | S | 4 | 3.4 | 2.5 | 4.3 | 4.9 | 6.5 | 8.2 | 8.6 | 7.3 | 8.7 | 10.1 | 10.6 | 4.5 | 3.6 | 2.6 | 5.4 | 7.9 | 2.1 | 1.3 | 1.3 | 0.9 | 1 | S | 10.6 | 5.0 | 24 | |
| 28 | 0.8 | 0.4 | 0.3 | 2.1 | 3.9 | 7.5 | 15.4 | 22.1 | 6.9 | 4.6 | 4.3 | 1.3 | 0.4 | 0.3 | 0.1 | 0.1 | 0.4 | 0.3 | 0.6 | 1.2 | 1.7 | 2.3 | S | 5.6 | 22.1 | 3.6 | 24 | |
| HOURLY MAX | 36 | 14 | 20 | 21 | 24 | 15 | 30 | 30 | 50 | 33 | 19 | 20 | 13 | 9 | 15 | 14 | 13 | 8 | 14 | 17 | 16 | 19 | 14 | 14 | | | | |
| HOURLY AVG | 5.7 | 4.4 | 4.7 | 4.7 | 5.4 | 5.3 | 7.5 | 8.7 | 10.2 | 8.2 | 5.9 | 5.2 | 4.0 | 3.6 | 3.7 | 3.9 | 3.2 | 2.9 | 4.2 | 4.7 | 4.8 | 4.6 | 5.0 | 4.8 | | | | |

STATUS FLAG CODES

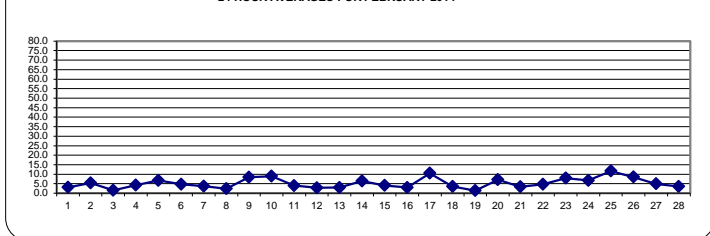
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

OBJECTIVE LIMIT: ALBERTA ENVIRONMENT: 1-HR NA PPB

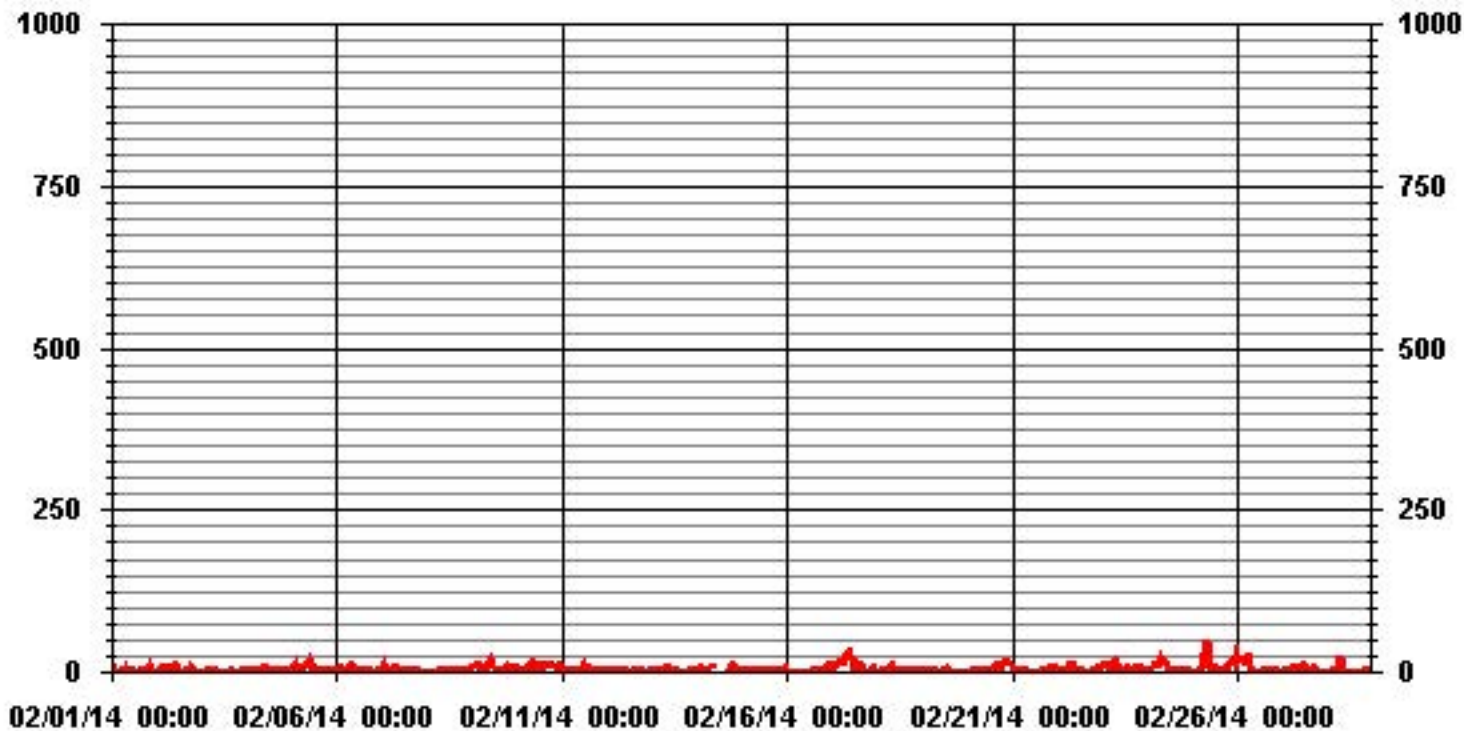
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|-------|-------------|----|
| NUMBER OF 1-HR EXCEEDENCES: | NA | | | | | |
| NUMBER OF NON-ZERO READINGS: | 631 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 50.2 | PPB | @ HOUR(S) | 8 | ON DAY(S) | 25 |
| MAXIMUM 24-HR AVERAGE: | 11.6 | PPB | | | ON DAY(S) | 25 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME: | 100.0 | % | |
| STANDARD DEVIATION: | 5.24 | | MONTHLY AVERAGE: | 5.23 | PPB | |

24 HOUR AVERAGES FOR FEBRUARY 2014



01 Hour Averages



— LICA30 NOX_ PPB

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

| 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| DAY | HOURLY MAX | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| 1 | | 9.6 | 10.9 | 10.5 | S | 6.8 | 12.3 | 4.9 | 3.8 | 12 | 10 | 3.9 | 4 | 2.7 | 1.7 | 2.2 | 5.1 | 2.7 | 2.3 | 4 | 13.6 | 18.9 | 12.8 | 1.6 | 1.1 | 18.9 | 6.8 | 24 | |
| 2 | | 13.1 | 13.7 | S | 16.5 | 16.9 | 21.8 | 17.9 | 15.7 | 15.6 | 15.7 | 20.3 | 12.9 | 8.8 | 2.1 | 2.2 | 2.6 | 2.2 | 7.8 | 14.6 | 12.7 | 9.2 | 5 | 1.5 | 1.3 | 21.8 | 10.9 | 24 | |
| 3 | | 2.3 | S | 2.6 | 3.1 | 3.7 | 3.7 | 2.1 | 10.1 | 8 | 13.4 | 3.2 | 4.6 | 4.9 | 1.3 | 13.1 | 4.7 | 5.1 | 2.2 | 2.2 | 0.6 | 1.1 | 2.2 | 2.7 | 3.5 | 13.4 | 4.4 | 24 | |
| 4 | | S | 5.2 | 2.7 | 3.7 | 3.8 | 3.3 | 4.6 | 6.6 | 6.6 | 7.2 | 11.2 | 8.4 | 14.7 | 6.9 | 4.7 | 33.4 | 4.1 | 5.5 | 7.5 | 5.8 | 5.8 | 4.6 | 5.1 | S | 33.4 | 7.3 | 24 | |
| 5 | | 13.5 | 8.5 | 33.3 | 7.3 | 16.9 | 19.6 | 22.5 | 30.7 | 21.8 | 33.5 | 23.6 | 11.9 | 17.8 | 11 | 21.9 | 5.2 | 30.9 | 2.8 | 2.8 | 2.3 | 2.3 | 1.9 | S | 6.3 | 33.5 | 15.1 | 24 | |
| 6 | | 6.8 | 6.3 | 7.6 | 7.4 | 6.2 | 8.3 | 9.7 | 11.7 | 17 | 15.6 | 7.4 | 6.1 | 6.4 | 8.3 | 3.9 | 1.9 | 29.7 | 6.1 | 3 | 3.8 | 3.4 | S | 4.4 | 4.2 | 29.7 | 8.1 | 24 | |
| 7 | | 18.8 | 20.8 | 8 | 3.7 | 5.3 | 5.9 | 11.7 | 20.3 | 18.6 | 6.3 | 3.6 | 3.6 | 3.3 | 3.3 | 3.4 | 3.6 | 3.1 | 2.5 | 2.1 | 2.2 | S | 0.6 | 0.8 | 0.9 | 20.8 | 6.6 | 24 | |
| 8 | | 0.8 | 0.8 | 0.5 | 0.6 | 0.8 | 1.1 | 2.2 | 7.4 | 5 | 5.3 | 2.4 | 2 | 3.1 | 6.3 | 5.2 | 4.8 | 4.9 | 3.7 | 8.8 | S | 5.2 | 5.2 | 5.9 | 6.7 | 8.8 | 3.9 | 24 | |
| 9 | | 9.1 | 11.6 | 15.4 | 17.9 | 15.5 | 14.7 | 6.1 | 5.2 | 14.8 | 16.4 | 24.3 | 23 | 6.1 | 4.1 | 4.4 | 6.1 | 6.3 | 9.2 | S | 19 | 14.1 | 7.6 | 7.2 | 6.4 | 24.3 | 11.5 | 24 | |
| 10 | | 6.2 | 6.7 | 5.9 | 6 | 6.4 | 6.2 | 7.1 | 8.8 | 22.9 | 27.5 | 27.5 | 11.5 | 14.8 | 13.8 | 9.3 | 11.1 | 42.5 | S | 23.1 | 11.3 | 9.1 | 8.4 | 10.2 | 13.9 | 42.5 | 13.5 | 24 | |
| 11 | | 10.5 | 5.3 | 2.4 | 3 | 2.8 | 3 | 7.5 | 3.4 | 5.9 | 4.2 | 10.2 | 22.4 | 12.5 | 9.5 | 14.1 | 15.3 | S | 4.5 | 3.5 | 3.7 | 5 | 7.5 | 8.6 | 4.3 | 22.4 | 7.4 | 24 | |
| 12 | | 3.8 | 3.2 | 3.4 | 13.4 | 15.8 | 9 | 8.7 | 11.7 | 3.2 | 3.6 | 2.8 | 3.9 | 1.9 | 5.1 | 6.1 | S | 5.5 | 8.6 | 10 | 4.2 | 1.8 | 1.5 | 3.8 | 3.9 | 15.8 | 5.9 | 24 | |
| 13 | | 3.7 | 3.8 | 3.8 | 3.6 | 4.6 | 5.4 | 6.7 | 11.1 | 11.6 | 12.7 | 10.1 | 7.2 | 4.1 | 4 | S | 2.1 | 1.7 | 1.6 | 2.1 | 3.8 | 3.4 | 4.4 | 3.4 | 3.1 | 12.7 | 5.1 | 24 | |
| 14 | | 7.1 | 7.2 | 6.6 | 6.9 | 5.8 | 7.3 | 7.7 | 8.5 | 13.2 | C | C | C | C | C | C | C | C | 10.5 | 11.9 | 13.2 | 14.1 | 9.2 | 11.7 | 4.5 | 14.1 | 9.1 | 24 | |
| 15 | | 11.7 | 12.6 | 2.5 | 2.8 | 3.7 | 4.8 | 4.4 | 6.9 | 6.1 | 6.9 | 6.3 | 6.5 | S | 5.2 | 4.4 | 4.9 | 7.3 | 5.6 | 6.1 | 5.6 | 5.8 | 3.7 | 8.7 | 13.1 | 13.1 | 6.3 | 24 | |
| 16 | | 3 | 1.6 | 1.4 | 1.3 | 1.1 | 1.3 | 1.5 | 1.9 | 1.9 | 0.9 | 1 | S | 1.6 | 3.2 | 5.1 | 12.6 | 11.3 | 4.4 | 8.2 | 6.1 | 7.7 | 8.8 | 13.8 | 14.9 | 14.9 | 5.0 | 24 | |
| 17 | | 9.7 | 8.8 | 10.5 | 15.5 | 15.6 | 20.7 | 17.1 | 57.2 | 31.3 | 39.5 | S | 24.3 | 13.6 | 12.6 | 23.3 | 22.2 | 4.8 | 4 | 1.9 | 1.3 | 1.6 | 10 | 10 | 8.4 | 57.2 | 15.8 | 24 | |
| 18 | | 3.4 | 2.2 | 5 | 5.2 | 5.2 | 4.4 | 13.9 | 14.2 | 39.2 | S | 7.4 | 3 | 3 | 6.4 | 2.2 | 3.8 | 8.2 | 6.3 | 4.9 | 6.7 | 7.7 | 9 | 8.1 | 4.3 | 39.2 | 7.6 | 24 | |
| 19 | | 5.4 | 4.4 | 3.3 | 2.2 | 2.2 | 1.7 | 2 | S | 1.3 | 1.1 | 4 | 6.8 | 13.1 | 1.5 | 1.5 | 1.4 | 1 | 1.1 | 1.1 | 1.1 | 2.1 | 2.1 | 1.3 | 1.3 | 13.1 | 2.8 | 24 | |
| 20 | | 1.4 | 1.4 | 2.9 | 3.5 | 3.1 | 3 | 6.6 | S | 8.3 | 8.8 | 7.5 | 5.4 | 8.8 | 12.3 | 16.6 | 16.2 | 4.5 | 8.1 | 17.8 | 18.3 | 17.5 | 16.2 | 15.8 | 15.2 | 18.3 | 9.5 | 24 | |
| 21 | | 15.7 | 12.6 | 7.8 | 3.4 | 3.2 | 2.8 | S | 3.1 | 2.7 | 2.7 | 1.5 | 1.5 | 1.9 | 1.6 | 2.2 | 2.8 | 3.4 | 3.1 | 4.9 | 6.6 | 6.6 | 6.5 | 7.8 | 8.2 | 15.7 | 4.9 | 24 | |
| 22 | | 8.2 | 4.6 | 3.6 | 4.2 | 18.8 | S | 5.3 | 66.5 | 19.2 | 9.5 | 7.3 | 5.9 | 5.5 | 14.8 | 5 | 6.9 | 2 | 1.3 | 3.9 | 3.2 | 3.9 | 7.9 | 8.9 | 8.4 | 66.5 | 9.8 | 24 | |
| 23 | | 11 | 11 | 11.1 | 11.7 | S | 10.6 | 25.8 | 30 | 23.4 | 12.2 | 10.9 | 11.6 | 9.1 | 12.8 | 8.3 | 13.1 | 4 | 4 | 15.6 | 10.2 | 7.1 | 9 | 9.9 | 5.7 | 30 | 12.1 | 24 | |
| 24 | | 4.4 | 6.2 | 7.8 | S | 14.2 | 13.5 | 18.6 | 37.2 | 20.5 | 18.4 | 17.9 | 12.9 | 9.1 | 30.3 | 7 | 6.9 | 11.6 | 4.5 | 2.4 | 2.4 | 2.1 | 2.9 | 3.5 | 3 | 37.2 | 11.2 | 24 | |
| 25 | | 2.8 | 2.7 | S | 2.6 | 3.5 | 21.4 | 50.7 | 38.1 | 58.2 | 57.8 | 18.9 | 12.6 | 12.8 | 11.2 | 7.7 | 6.6 | 4.4 | 6.4 | 8.1 | 14 | 18.7 | 20 | 18.1 | 30.3 | 58.2 | 18.6 | 24 | |
| 26 | | 42.4 | S | 40.3 | 40.2 | 32.3 | 23.9 | 44.5 | 7.6 | 7.2 | 5.8 | 2.8 | 1.5 | 1 | 3.5 | 41.1 | 6.1 | 6.8 | 4.6 | 12 | 7.6 | 5 | 4.4 | 4.9 | 2.4 | 44.5 | 15.1 | 24 | |
| 27 | | S | 4.9 | 5.5 | 5.7 | 5.5 | 5.7 | 9 | 11 | 10.2 | 8.5 | 10.9 | 15.2 | 22.2 | 5.6 | 5.3 | 4.1 | 12.5 | 13.3 | 4.3 | 2.2 | 2.3 | 1.9 | 1.7 | S | 22.2 | 7.6 | 24 | |
| 28 | | 2 | 1 | 1.4 | 5 | 6.7 | 15.6 | 27.7 | 35.2 | 15.6 | 5.6 | 5.7 | 4 | 1.4 | 1 | 1 | 0.9 | 1.1 | 1 | 1.7 | 1.9 | 2.8 | 3 | S | 8.3 | 35.2 | 6.5 | 24 | |
| HOURLY MAX | | 42 | 21 | 40 | 40 | 32 | 24 | 51 | 67 | 58 | 58 | 28 | 24 | 22 | 30 | 41 | 33 | 43 | 13 | 23 | 19 | 19 | 20 | 18 | 30 | | | | |
| HOURLY AVG | | 8.7 | 6.8 | 7.9 | 7.6 | 8.4 | 9.3 | 12.8 | 17.3 | 15.6 | 13.4 | 9.6 | 8.8 | 7.6 | 7.8 | 8.5 | 7.9 | 8.5 | 5.0 | 7.0 | 6.8 | 6.8 | 6.5 | 6.9 | 7.1 | | | | |

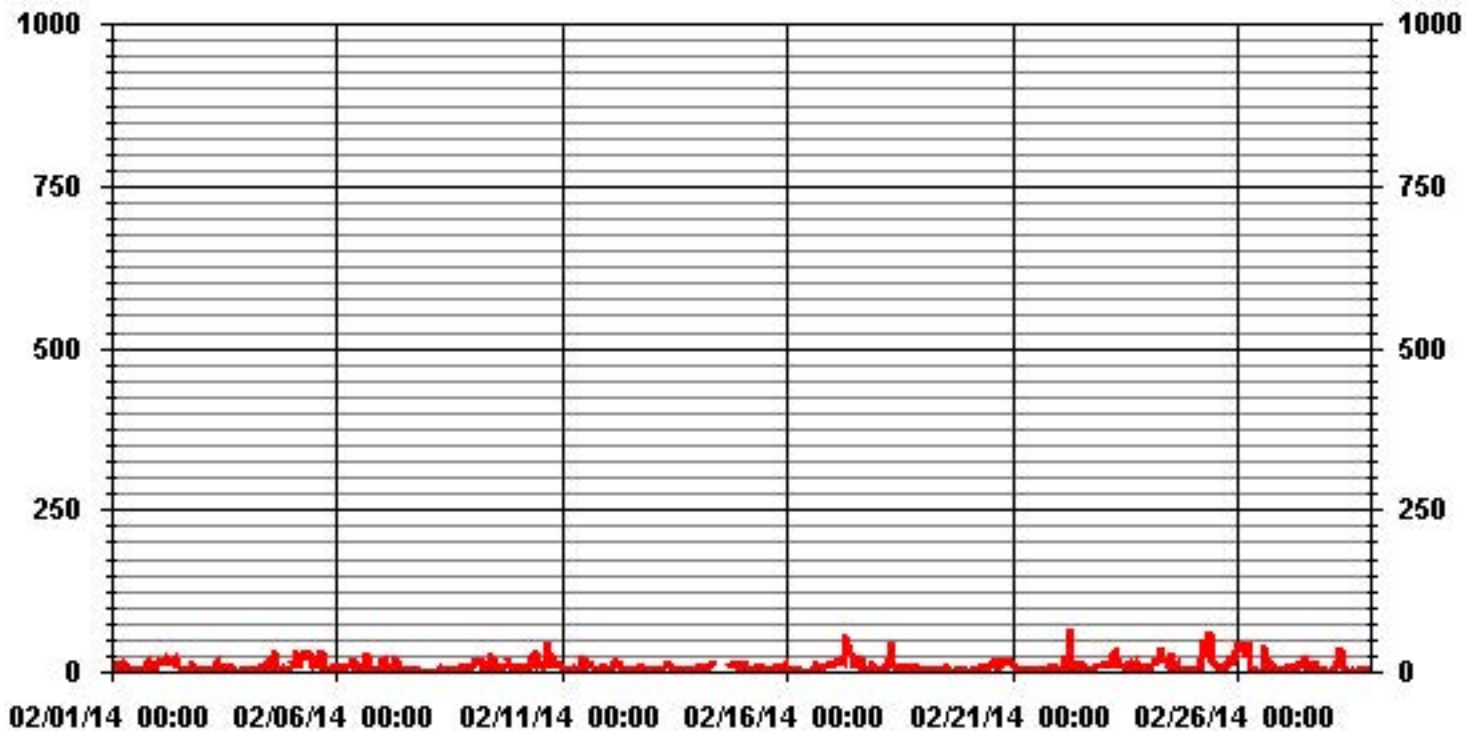
STATUS FLAG CODES

| | |
|---------------------------|-------------------------|
| C - CALIBRATION | Q - QUALITY ASSURANCE |
| Y - MAINTENANCE | R - RECOVERY |
| S - DAILY ZERO/SPAN CHECK | X - MACHINE MALFUNCTION |
| P - POWER FAILURE | O - OPERATOR ERROR |
| G - OUT FOR REPAIR | K - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 635 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 66.5 | PPB | @ HOUR(S) | 7 | ON DAY(S) | 22 |
| | VAR-VARIOUS | | | | | |
| IZS CALIBRATION TIME: | 29 | HRS | OPERATIONAL TIME: | 672 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | | | | |
| STANDARD DEVIATION: | 8.79 | | | | | |

01 Hour Averages



LICA30
NOX_ / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : NOX_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 16.64 | 5.70 | 3.80 | 5.07 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.02 | 5.70 | 6.81 | 6.65 | 99.84 |
| < 110.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .15 | .00 | .00 | .00 | .15 |
| < 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 210.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 16.64 | 5.70 | 3.80 | 5.07 | 4.27 | 3.48 | 3.48 | 6.49 | 5.22 | 7.76 | 8.39 | 4.27 | 6.18 | 5.70 | 6.81 | 6.65 | |

Calm : .00 %

Total # Operational Hours : 631

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | Freq | |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | | NNW |
| < 50.0 | 105 | 36 | 24 | 32 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 38 | 36 | 43 | 42 | 630 |
| < 110.0 | | | | | | | | | | | | | 1 | | | | 1 |
| < 210.0 | | | | | | | | | | | | | | | | | |
| >= 210.0 | | | | | | | | | | | | | | | | | |
| Totals | 105 | 36 | 24 | 32 | 27 | 22 | 22 | 41 | 33 | 49 | 53 | 27 | 39 | 36 | 43 | 42 | |

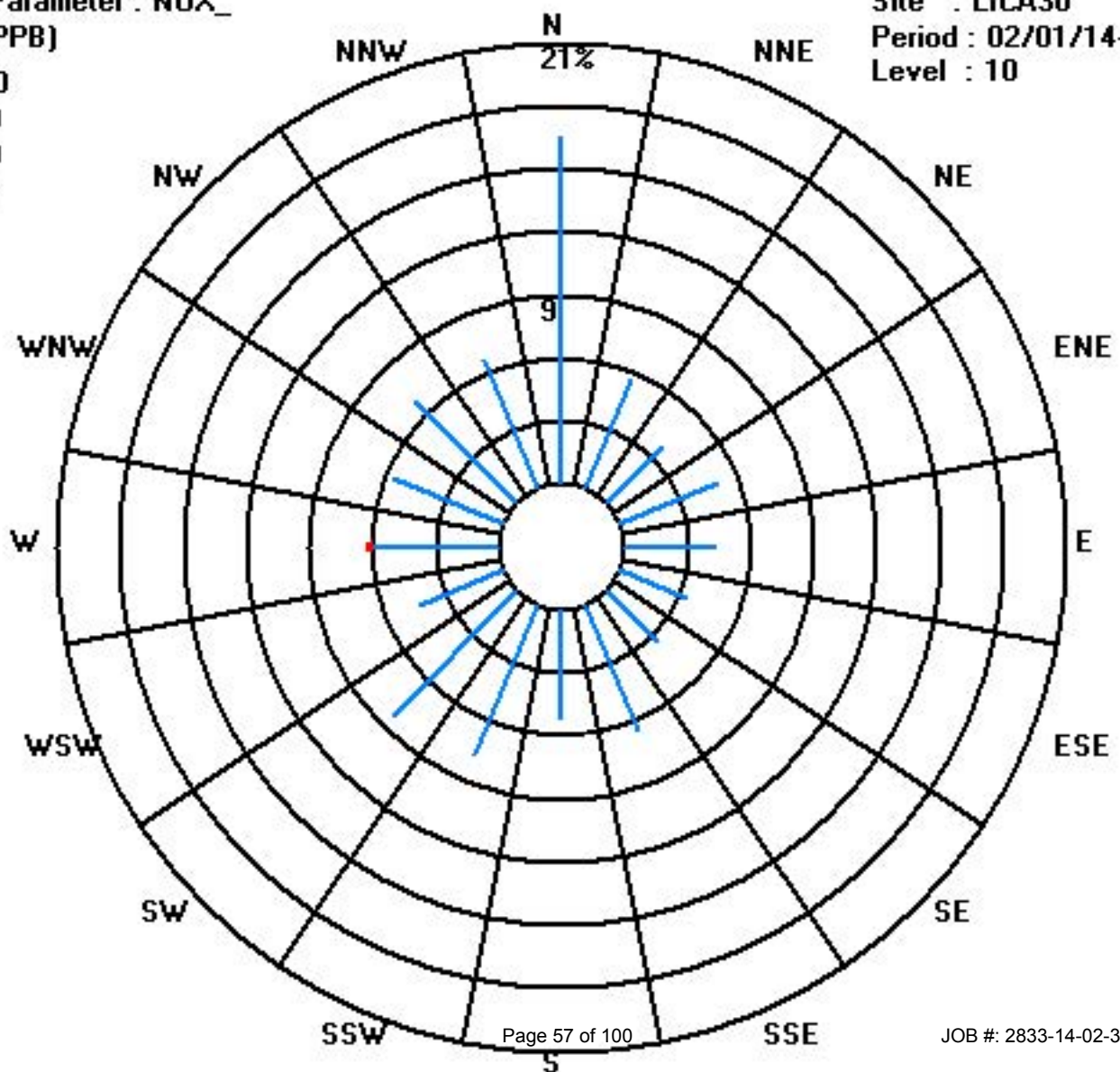
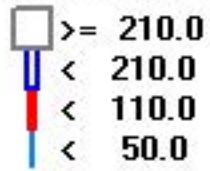
Calm : .00 %

Total # Operational Hours : 631

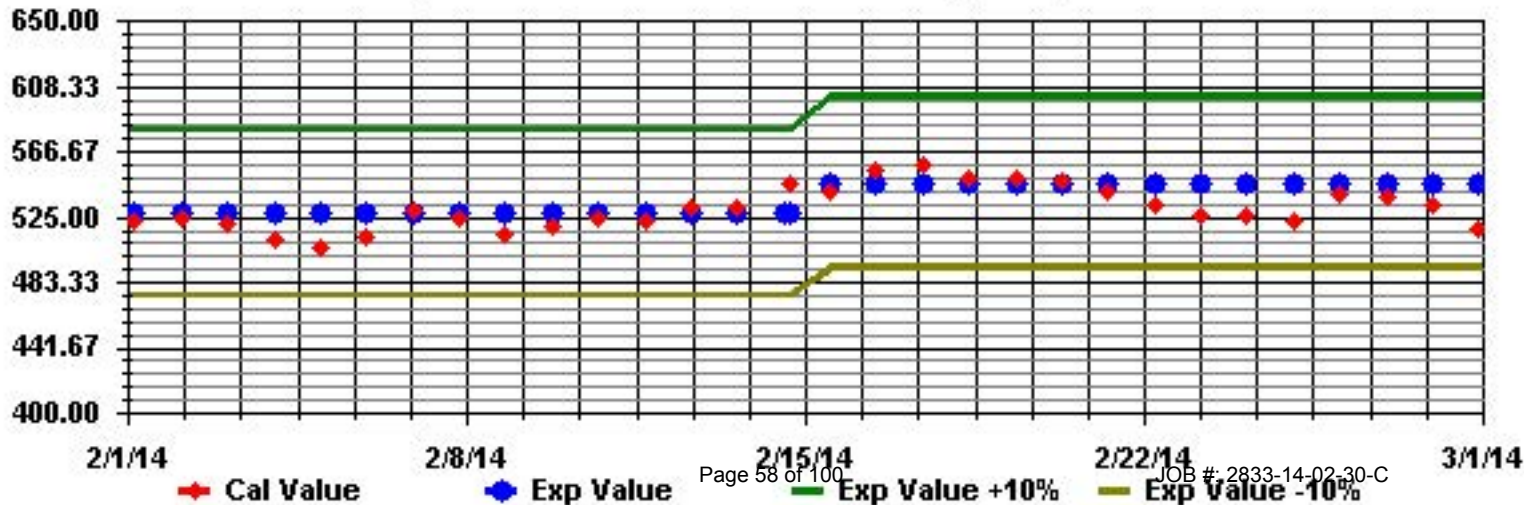
Class Limits (PPB)

Period : 02/01/14-02/28/14

Level : 10



Calibration Graph for Site: LICA30 Parameter: NOX_ Sequence: NO2 Phase: SPAN



Temperature

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

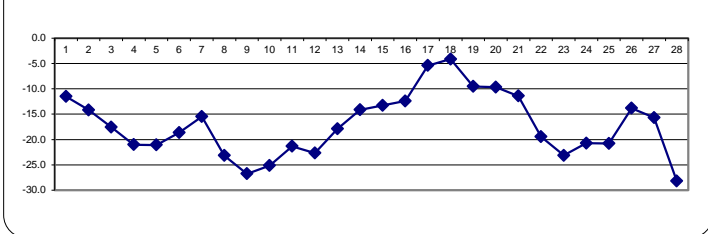
AMBIENT TEMPERATURE (TPX) hourly averages in Degrees Celsius

| 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 MAX. | 24-HOUR AVG. | RDGS. |
|------------|----|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|-------|-------|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|
| DAY | 1 | -15.1 | -15.2 | -15.5 | -15.2 | -15.1 | -15.1 | -14.9 | -14.8 | -14.3 | -13.1 | -10.2 | -8.3 | -7.8 | -7.1 | -7.2 | -8.1 | -8.9 | -9.7 | -9.8 | -9.8 | -9.8 | -10.3 | -11 | -7.1 | -11.5 | 24 | |
| | 2 | -11.3 | -12.5 | -12.6 | -13.1 | -13.5 | -13.3 | -13.5 | -13.4 | -13 | -12.2 | -11.3 | -10.9 | -10.7 | -11.7 | -13.6 | -14.8 | -16.1 | -18.5 | -19 | -18.3 | -17.7 | -16.9 | -16.3 | -15.9 | -10.7 | -14.2 | 24 |
| | 3 | -16 | -15.6 | -15.8 | -16.6 | -16.9 | -17.1 | -17.5 | -17.8 | -17.8 | -17.2 | -16.4 | -15.9 | -15.6 | -15.5 | -15.4 | -16 | -17.1 | -18.3 | -19.3 | -20.1 | -20.9 | -21.1 | -21.1 | -21.1 | -15.4 | -17.6 | 24 |
| | 4 | -21.2 | -21.4 | -22 | -22.4 | -22.6 | -22.6 | -22.5 | -22.3 | -22.1 | -21.3 | -20.1 | -19.1 | -17.3 | -16.7 | -15.9 | -16.4 | -17.9 | -19.6 | -20.8 | -22.4 | -23.6 | -25.4 | -25 | -23.6 | -15.9 | -21.0 | 24 |
| | 5 | -23.1 | -23.6 | -23.6 | -23.4 | -23.3 | -23.9 | -25.2 | -25.9 | -25.6 | -22.7 | -19.5 | -17.3 | -15.3 | -14.5 | -14.1 | -14.7 | -17.4 | -19.6 | -21 | -21.3 | -21.8 | -22.3 | -22.8 | -23.6 | -14.1 | -21.1 | 24 |
| | 6 | -24.5 | -25.2 | -25.4 | -25.4 | -24.9 | -25 | -25.2 | -25.2 | -24.6 | -21.3 | -16.9 | -13 | -12.1 | -11.4 | -9.4 | -9.1 | -11.1 | -13.1 | -14.5 | -15.6 | -17.5 | -18.4 | -18.5 | -19.4 | -9.1 | -18.6 | 24 |
| | 7 | -18.9 | -18 | -17.3 | -16.6 | -16.2 | -16 | -15.7 | -15.9 | -15.6 | -14.4 | -12.5 | -11.8 | -10.8 | -10.9 | -10.9 | -11.9 | -13.3 | -15.3 | -15.8 | -16.6 | -17.5 | -18.9 | -21.2 | -19.9 | -10.8 | -15.5 | 24 |
| | 8 | -19.9 | -20.2 | -20.7 | -21.6 | -23 | -24.2 | -25.4 | -26.7 | -26.5 | -23.7 | -21.3 | -19.7 | -18.4 | -16.6 | -16.9 | -17.4 | -19.5 | -22.3 | -25.4 | -26.6 | -28.1 | -29.4 | -30.5 | -31.4 | -16.6 | -23.1 | 24 |
| | 9 | -32 | -32.7 | -33.2 | -33.5 | -34.3 | -34.4 | -34.2 | -33.8 | -32.8 | -28 | -23.2 | -20 | -18.9 | -17.9 | -18 | -18.2 | -19.9 | -22.5 | -24.2 | -25.9 | -27 | -25.3 | -25.8 | -26.6 | -17.9 | -26.8 | 24 |
| | 10 | -28.7 | -30.6 | -31.4 | -32.1 | -32.5 | -33 | -33.1 | -33.6 | -32.3 | -26.8 | -23.1 | -20.5 | -18.8 | -18.1 | -17.5 | -18.1 | -19.5 | -21.4 | -22.4 | -22.8 | -22.3 | -21.8 | -21.6 | -21.3 | -17.5 | -25.1 | 24 |
| | 11 | -20.8 | -20.7 | -20.6 | -20.7 | -21 | -21.4 | -22.6 | -23.9 | -22.4 | -20.6 | -18.4 | -16.9 | -16.2 | -16.4 | -16.2 | -16.6 | -17.6 | -19.2 | -22.2 | -24.6 | -25.7 | -27.4 | -29.2 | -30.4 | -16.2 | -21.3 | 24 |
| | 12 | -30.8 | -30.7 | -29.7 | -27.3 | -24.6 | -24.3 | -23.7 | -23.5 | -23 | -22.1 | -20.9 | -19.9 | -19.7 | -19.5 | -19.6 | -19.8 | -20.1 | -20.4 | -20.4 | -20.8 | -21 | -20.7 | -20.5 | -20.6 | -19.5 | -22.7 | 24 |
| | 13 | -20.8 | -20.6 | -20.6 | -20.3 | -20.9 | -21.6 | -20.9 | -20.8 | -20.2 | -18.8 | -17.4 | -16.2 | -14.8 | -14.6 | -14.8 | -15.9 | -16.8 | -17.1 | -17 | -16.2 | -16 | -15.9 | -15.7 | -15.5 | -14.6 | -17.9 | 24 |
| | 14 | -15.6 | -16 | -16.2 | -16.2 | -16 | -16 | -15.8 | -15.9 | -15.7 | -13.8 | -10.7 | -9.7 | -8.7 | -8.5 | -7.9 | -9.1 | -10.5 | -12.7 | -15.4 | -16.6 | -17.7 | -17.7 | -17.9 | -18.9 | -7.9 | -14.1 | 24 |
| | 15 | -16.6 | -16.3 | -16.2 | -16.1 | -16 | -15.7 | -15.2 | -15.4 | -15.3 | -13.9 | -12.3 | -10.3 | -8.4 | -7.3 | -7.5 | -8.5 | -9.2 | -10.8 | -12.8 | -13.5 | -14.6 | -15.2 | -15.7 | -16 | -7.3 | -13.3 | 24 |
| | 16 | -16.2 | -15.6 | -14.8 | -14.4 | -13.8 | -13 | -13 | -13.2 | -14 | -13.6 | -12.7 | -11.9 | -11.1 | -10.4 | -9.3 | -9.4 | -10.1 | -10.9 | -11.4 | -11.7 | -11.9 | -11.7 | -11.7 | -11.9 | -9.3 | -12.4 | 24 |
| | 17 | -12.2 | -11.6 | -11.9 | -11.6 | -11.5 | -10.8 | -11.4 | -11.5 | -10.6 | -6.3 | -3.8 | -1.7 | 2.3 | 2.1 | 2 | 1.3 | 1 | -1.3 | -1.9 | -2.2 | -3.3 | -3.8 | -5.2 | -6.1 | 2.3 | -5.4 | 24 |
| | 18 | -6.7 | -6.5 | -6.6 | -6.9 | -8.5 | -7.3 | -5.8 | -7.6 | -7.2 | -3.4 | 0.6 | 2.2 | 3.2 | 4.4 | 4.4 | 4.1 | 1.8 | -2.2 | -4.2 | -4.2 | -7.6 | -10.9 | -12.3 | -12.3 | 4.4 | -4.1 | 24 |
| | 19 | -13.1 | -14.5 | -13.9 | -13.7 | -14.5 | -14.5 | -13.9 | -13 | -11.3 | -8.9 | -7.2 | -5.4 | -4.4 | -3.3 | -4.1 | -4.7 | -6 | -7.4 | -8.6 | -9.1 | -9.4 | -9.4 | -9.4 | -9.2 | -3.3 | -9.5 | 24 |
| | 20 | -9.2 | -9.4 | -9.4 | -9.5 | -9.8 | -9.9 | -10.5 | -10.7 | -10.7 | -9.4 | -8.7 | -8 | -7.5 | -7 | -7.3 | -7.7 | -9.3 | -10 | -10.3 | -11.1 | -11.6 | -11.9 | -11.6 | -11.9 | -7 | -9.7 | 24 |
| | 21 | -11.9 | -11.8 | -11.8 | -11.4 | -11 | -10.9 | -10.8 | -10.8 | -10.7 | -10 | -9.1 | -8.4 | -8.3 | -8.2 | -8.4 | -9 | -10 | -11.3 | -12.9 | -13.9 | -14.4 | -15.5 | -16.6 | -16.9 | -8.2 | -11.4 | 24 |
| | 22 | -18 | -19.1 | -21.3 | -21.8 | -23.6 | -24.7 | -25.3 | -25.5 | -22.8 | -18.3 | -16.3 | -14.8 | -13.8 | -13.4 | -13.7 | -14.7 | -15.4 | -16.2 | -17 | -18.4 | -20.7 | -22.5 | -23.7 | -25.9 | -13.4 | -19.5 | 24 |
| | 23 | -27 | -27.5 | -28.1 | -28.4 | -27.8 | -27.6 | -28.3 | -27.5 | -25.7 | -23.1 | -19.8 | -17.4 | -14.8 | -14.4 | -14.4 | -14.7 | -16.7 | -20 | -22.3 | -24.5 | -25.4 | -25.7 | -26.7 | -27 | -14.4 | -23.1 | 24 |
| | 24 | -27.7 | -28.7 | -28.6 | -29 | -29.2 | -29.2 | -29.3 | -30.2 | -26.8 | -22.7 | -18.8 | -12.8 | -11.1 | -9.5 | -8.9 | -9.8 | -11.2 | -13.5 | -16.1 | -17.1 | -18.4 | -20.2 | -23.4 | -25.3 | -8.9 | -20.7 | 24 |
| | 25 | -26.4 | -27.5 | -29.1 | -30.4 | -31.8 | -32.7 | -32.3 | -32.8 | -28.5 | -20.8 | -17.6 | -14.8 | -13.2 | -12.8 | -11.8 | -11.5 | -12.1 | -14 | -15.6 | -16.7 | -17.6 | -17.9 | -16.8 | -14.2 | -11.5 | -20.8 | 24 |
| | 26 | -14.5 | -15.9 | -16.2 | -17.3 | -17.7 | -18 | -17.7 | -18.1 | -15.9 | -12.8 | -11.5 | -7.9 | -6 | -5.4 | -6 | -7.9 | -9.6 | -12.1 | -15.3 | -17.7 | -18.2 | -17.9 | -16.9 | -14.8 | -5.4 | -13.8 | 24 |
| | 27 | -14.2 | -14.7 | -15.9 | -19.4 | -17.6 | -16.4 | -16.9 | -16.8 | -15.6 | -13.8 | -11.6 | -10.2 | -9 | -8.3 | -7.6 | -10.1 | -12 | -15 | -17.4 | -19.6 | -21.4 | -23.2 | -24.3 | -25 | -7.6 | -15.7 | 24 |
| | 28 | -25.7 | -26.6 | -27.6 | -28.7 | -29 | -29.8 | -30.3 | -30.2 | -28.6 | -27.2 | -25.9 | -25.8 | -24.9 | -24.1 | -24 | -24.3 | -25.1 | -26.6 | -28.1 | -30.5 | -32.2 | -33 | -33.7 | -34.2 | -24 | -28.2 | 24 |
| HOURLY MAX | | -6.7 | -6.5 | -6.6 | -6.9 | -8.5 | -7.3 | -5.8 | -7.6 | -7.2 | -3.4 | 0.6 | 2.2 | 3.2 | 4.4 | 4.4 | 4.1 | 1.8 | -1.3 | -1.9 | -2.2 | -3.3 | -3.8 | -5.2 | -6.1 | | | |
| HOURLY AVG | | -19.2 | -19.6 | -19.9 | -20.1 | -20.2 | -20.3 | -20.4 | -20.6 | -19.6 | -17.2 | -14.9 | -13.1 | -11.9 | -11.3 | -11.2 | -11.9 | -13.2 | -15.0 | -16.5 | -17.4 | -18.3 | -18.9 | -19.4 | -19.6 | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

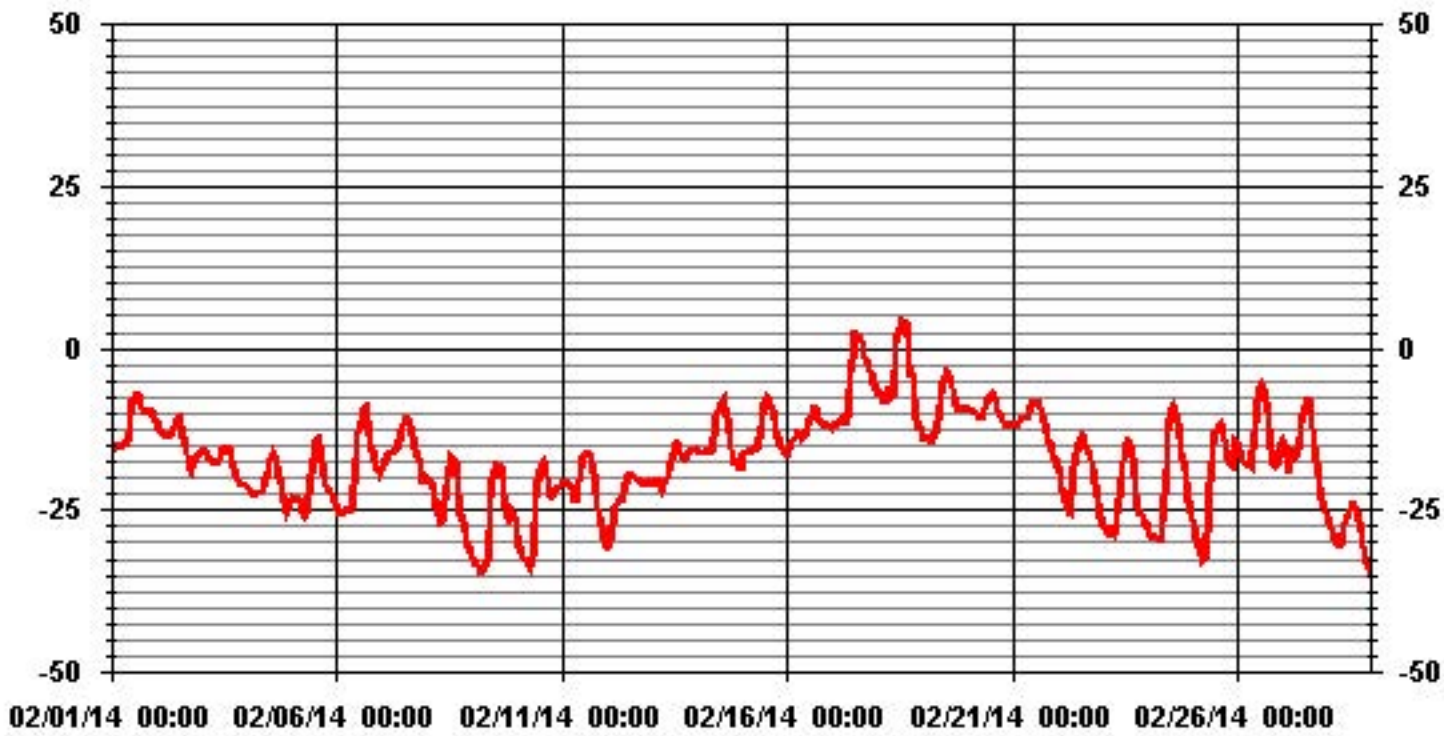
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | |
|------------------------|----------|-----------------------|--------|-------------|-----|
| MINIMUM 1-HR AVERAGE: | -34.4 °C | @ HOUR(S) | 5 | ON DAY(S) | 9 |
| MAXIMUM 1-HR AVERAGE: | 4 °C | @ HOUR(S) | 13, 14 | ON DAY(S) | 18 |
| MAXIMUM 24-HR AVERAGE: | -4.1 °C | | | ON DAY(S) | 18 |
| | | | | VAR-VARIOUS | |
| | | OPERATIONAL TIME: | | 672 | HRS |
| | | AMD OPERATION UPTIME: | | 100.0 | % |
| STANDARD DEVIATION: | 7.37 | MONTHLY AVERAGE: | | -17.07 | °C |

01 Hour Averages



Precipitation

Lakeland Industry & Community Association - Maskwa Site

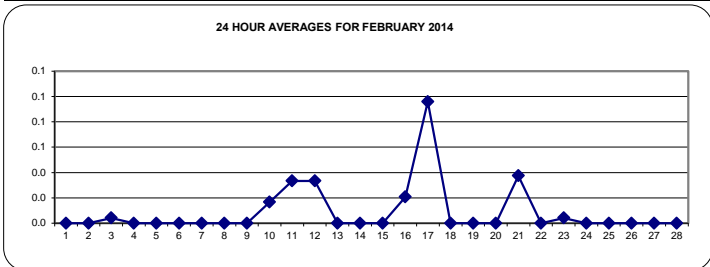
FEBRUARY 2014

PRECIPITATION hourly averages in millimeter

| 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 | 24-HOUR | | |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|----|
| HOUR START | HOUR END | 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 | 0:00 | MAX. | AVG. | RDGS. | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 0.0 | 24 | |
| 2 | | 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 | |
| 3 | | 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 | 0.1 | 0.0 | 24 |
| 4 | | 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 |
| 5 | | 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 |
| 6 | | 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 |
| 7 | | 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 |
| 8 | | 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 |
| 9 | | 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 |
| 10 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.2 | 0.2 | 0.0 | 24 |
| 11 | | 0.1 | 0.1 | 0 | 0.1 | 0 | 0.2 | 0.1 | 0.1 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.0 | 24 |
| 12 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.3 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.0 | 24 |
| 13 | | 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 |
| 14 | | 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 |
| 15 | | 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 |
| 16 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.1 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.0 | 24 |
| 17 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 2 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 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 | 24 |
| 19 | | 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 |
| 20 | | 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 |
| 21 | | 0.1 | 0 | 0.1 | 0.2 | 0.2 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.0 | 24 |
| 22 | | 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 |
| 23 | | 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 | 0.1 | 0.0 | 24 |
| 24 | | 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 |
| 25 | | 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 |
| 26 | | 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 |
| 27 | | 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 |
| 28 | | 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 | | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0 | 0.2 | 2 | 0.3 | 0.3 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.2 | | | | |
| HOURLY AVG | | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | |

STATUS FLAG CODES

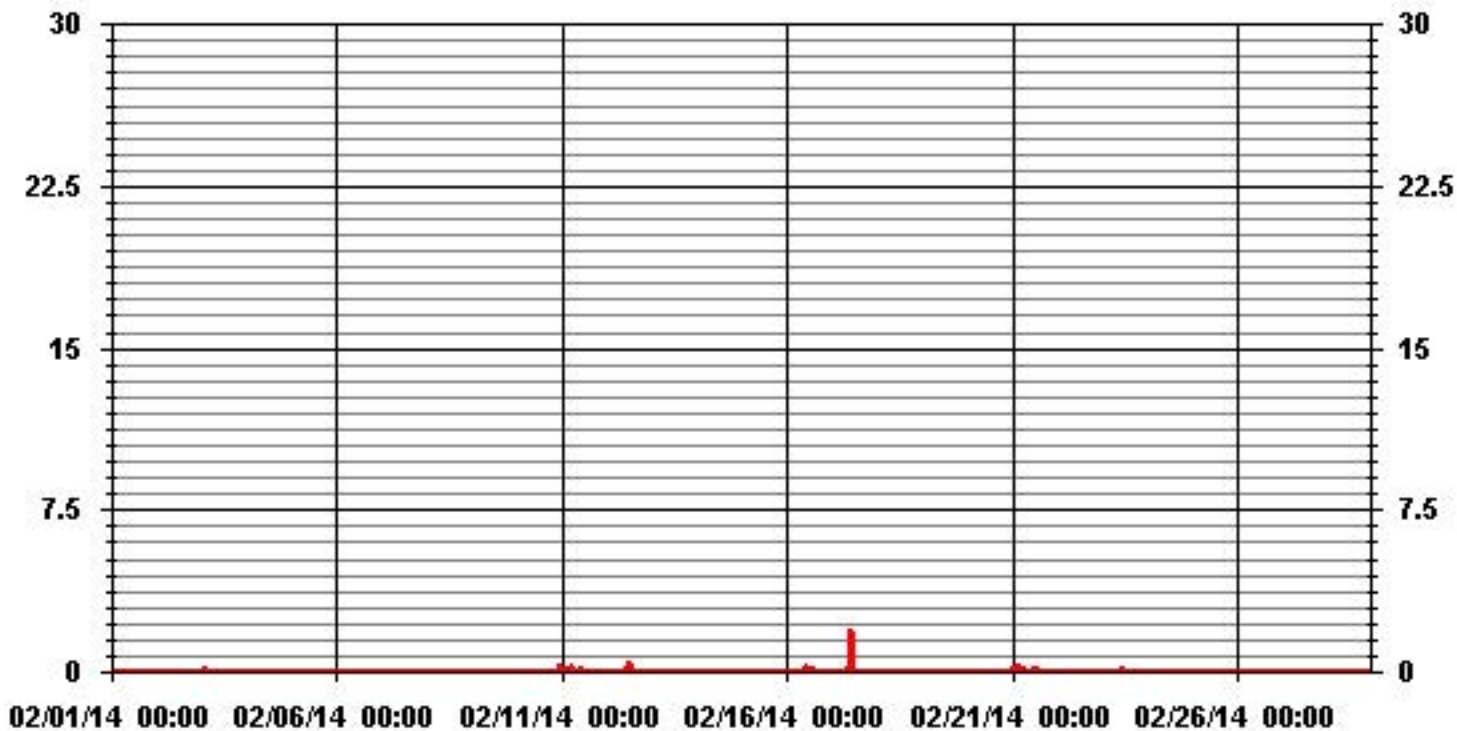
| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------|------|----|-----------|----|------------------|---------|
| MAXIMUM 1-HR AVERAGE: | 2 | MM | @ HOUR(S) | 10 | ON DAY(S) | 17 |
| MAXIMUM 24-HR AVERAGE: | 0.1 | MM | | | ON DAY(S) | 17 |
| MONTHLY TOTAL | 5.9 | MM | | | VAR-VARIOUS | |
| OPERATIONAL TIME: | | | | | 672 | HRS |
| AMD OPERATION UPTIME: | | | | | 100.0 | % |
| STANDARD DEVIATION: | 0.08 | | | | MONTHLY AVERAGE: | 0.01 MM |

01 Hour Averages



Relative Humidity

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

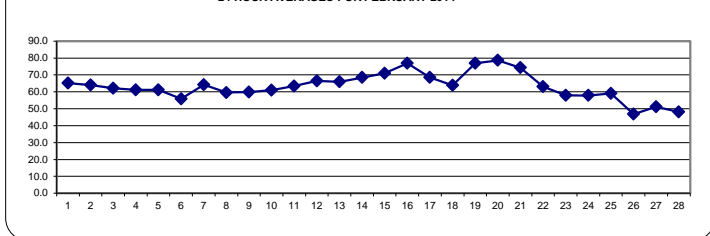
RELATIVE HUMIDITY (RH) hourly averages in %

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|--|
| HOUR START | HOUR END | 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 | 0:00 | | | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 67 | 68 | 69 | 69 | 70 | 71 | 71 | 72 | 73 | 70 | 61 | 57 | 55 | 53 | 53 | 56 | 58 | 61 | 65 | 74 | 75 | 72 | 65 | 60 | 75 | 65.2 | 24 | |
| 2 | | 63 | 62 | 64 | 65 | 67 | 67 | 67 | 68 | 68 | 66 | 64 | 62 | 59 | 61 | 56 | 54 | 54 | 63 | 67 | 67 | 66 | 68 | 69 | 70 | 70 | 64.0 | 24 | |
| 3 | | 72 | 73 | 69 | 66 | 70 | 63 | 63 | 65 | 65 | 63 | 59 | 57 | 55 | 55 | 54 | 51 | 62 | 63 | 59 | 59 | 61 | 62 | 62 | 62 | 73 | 62.1 | 24 | |
| 4 | | 63 | 64 | 64 | 63 | 64 | 64 | 64 | 64 | 63 | 60 | 58 | 56 | 53 | 54 | 48 | 51 | 55 | 59 | 61 | 65 | 68 | 70 | 69 | 68 | 70 | 61.2 | 24 | |
| 5 | | 68 | 68 | 68 | 67 | 68 | 69 | 69 | 68 | 68 | 65 | 58 | 52 | 48 | 45 | 44 | 45 | 52 | 57 | 60 | 62 | 64 | 66 | 67 | 68 | 69 | 61.1 | 24 | |
| 6 | | 69 | 69 | 69 | 68 | 69 | 68 | 68 | 68 | 68 | 67 | 59 | 45 | 40 | 37 | 31 | 30 | 37 | 43 | 47 | 50 | 55 | 59 | 60 | 63 | 69 | 55.8 | 24 | |
| 7 | | 65 | 65 | 65 | 67 | 69 | 70 | 71 | 72 | 71 | 67 | 60 | 58 | 54 | 53 | 55 | 58 | 62 | 64 | 66 | 67 | 68 | 73 | 69 | 73 | 69 | 64.3 | 24 | |
| 8 | | 65 | 61 | 61 | 63 | 65 | 67 | 69 | 69 | 67 | 61 | 55 | 50 | 47 | 43 | 43 | 44 | 50 | 57 | 66 | 68 | 67 | 65 | 64 | 63 | 69 | 59.6 | 24 | |
| 9 | | 63 | 62 | 61 | 61 | 59 | 60 | 60 | 60 | 60 | 62 | 61 | 56 | 51 | 48 | 47 | 48 | 53 | 60 | 65 | 68 | 68 | 68 | 67 | 68 | 68 | 59.8 | 24 | |
| 10 | | 64 | 63 | 63 | 62 | 62 | 61 | 61 | 60 | 61 | 63 | 64 | 58 | 54 | 53 | 52 | 52 | 55 | 61 | 63 | 65 | 64 | 66 | 68 | 69 | 69 | 61.0 | 24 | |
| 11 | | 70 | 70 | 69 | 69 | 69 | 70 | 70 | 70 | 69 | 64 | 58 | 53 | 49 | 50 | 50 | 53 | 55 | 59 | 66 | 71 | 70 | 67 | 66 | 64 | 71 | 63.4 | 24 | |
| 12 | | 64 | 63 | 64 | 67 | 67 | 68 | 68 | 68 | 67 | 65 | 64 | 63 | 63 | 65 | 66 | 67 | 68 | 68 | 69 | 68 | 68 | 68 | 69 | 69 | 69 | 66.5 | 24 | |
| 13 | | 68 | 68 | 68 | 68 | 69 | 70 | 69 | 69 | 68 | 65 | 61 | 58 | 56 | 56 | 58 | 63 | 66 | 68 | 70 | 68 | 68 | 68 | 69 | 70 | 70 | 65.9 | 24 | |
| 14 | | 71 | 70 | 70 | 71 | 71 | 72 | 72 | 72 | 72 | 65 | 57 | 57 | 55 | 58 | 56 | 59 | 65 | 71 | 77 | 78 | 78 | 76 | 75 | 75 | 78 | 68.5 | 24 | |
| 15 | | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 73 | 64 | 58 | 56 | 55 | 58 | 60 | 66 | 73 | 74 | 75 | 76 | 78 | 77 | 78 | 71.0 | 24 | |
| 16 | | 76 | 77 | 77 | 78 | 78 | 79 | 78 | 78 | 77 | 77 | 77 | 76 | 76 | 74 | 73 | 74 | 75 | 77 | 78 | 78 | 78 | 79 | 79 | 79 | 79 | 77.0 | 24 | |
| 17 | | 80 | 79 | 79 | 79 | 79 | 78 | 79 | 77 | 76 | 65 | 60 | 57 | 51 | 52 | 53 | 55 | 57 | 64 | 67 | 67 | 70 | 71 | 74 | 75 | 80 | 68.5 | 24 | |
| 18 | | 75 | 74 | 75 | 76 | 80 | 78 | 74 | 79 | 76 | 63 | 51 | 47 | 45 | 42 | 40 | 40 | 44 | 54 | 60 | 57 | 68 | 76 | 78 | 80 | 80 | 63.8 | 24 | |
| 19 | | 81 | 82 | 81 | 81 | 79 | 79 | 79 | 80 | 80 | 79 | 76 | 68 | 65 | 63 | 65 | 68 | 74 | 79 | 81 | 81 | 80 | 80 | 81 | 82 | 82 | 76.8 | 24 | |
| 20 | | 80 | 78 | 79 | 80 | 80 | 81 | 80 | 80 | 80 | 80 | 79 | 76 | 73 | 71 | 72 | 73 | 78 | 82 | 82 | 82 | 81 | 80 | 80 | 80 | 80 | 78.6 | 24 | |
| 21 | | 80 | 80 | 80 | 80 | 80 | 81 | 80 | 80 | 79 | 75 | 71 | 70 | 69 | 69 | 68 | 68 | 70 | 71 | 73 | 72 | 70 | 72 | 74 | 71 | 81 | 74.3 | 24 | |
| 22 | | 72 | 70 | 73 | 73 | 74 | 72 | 71 | 69 | 69 | 62 | 55 | 50 | 47 | 47 | 49 | 54 | 58 | 59 | 64 | 62 | 63 | 66 | 65 | 70 | 74 | 63.1 | 24 | |
| 23 | | 71 | 70 | 69 | 69 | 67 | 65 | 66 | 65 | 63 | 55 | 47 | 42 | 37 | 37 | 38 | 39 | 43 | 51 | 58 | 64 | 67 | 68 | 69 | 69 | 71 | 57.9 | 24 | |
| 24 | | 70 | 69 | 69 | 67 | 67 | 66 | 66 | 65 | 64 | 60 | 53 | 42 | 39 | 37 | 37 | 39 | 44 | 51 | 57 | 58 | 60 | 64 | 72 | 72 | 72 | 57.8 | 24 | |
| 25 | | 70 | 69 | 67 | 65 | 63 | 63 | 63 | 62 | 63 | 66 | 60 | 51 | 46 | 46 | 46 | 47 | 49 | 54 | 58 | 62 | 64 | 65 | 62 | 56 | 70 | 59.0 | 24 | |
| 26 | | 58 | 61 | 61 | 65 | 67 | 68 | 69 | 69 | 61 | 46 | 35 | 27 | 21 | 18 | 21 | 29 | 34 | 35 | 42 | 48 | 48 | 50 | 52 | 40 | 69 | 46.9 | 24 | |
| 27 | | 38 | 42 | 48 | 59 | 54 | 54 | 57 | 58 | 59 | 55 | 50 | 46 | 44 | 43 | 45 | 51 | 51 | 54 | 53 | 52 | 55 | 53 | 53 | 54 | 59 | 51.2 | 24 | |
| 28 | | 55 | 56 | 58 | 61 | 62 | 63 | 64 | 64 | 59 | 50 | 42 | 37 | 33 | 31 | 29 | 29 | 31 | 34 | 38 | 44 | 49 | 53 | 56 | 57 | 64 | 48.1 | 24 | |
| HOURLY MAX | | 81 | 82 | 81 | 81 | 80 | 81 | 80 | 80 | 80 | 80 | 79 | 76 | 76 | 74 | 73 | 74 | 78 | 82 | 82 | 82 | 81 | 80 | 81 | 82 | | | | |
| HOURLY AVG | | 68.4 | 68.2 | 68.4 | 69.1 | 69.5 | 69.4 | 69.5 | 68.7 | 64.8 | 59.6 | 54.9 | 51.5 | 50.5 | 50.0 | 51.8 | 55.5 | 60.1 | 63.6 | 65.4 | 66.7 | 67.7 | 68.4 | 67.9 | | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

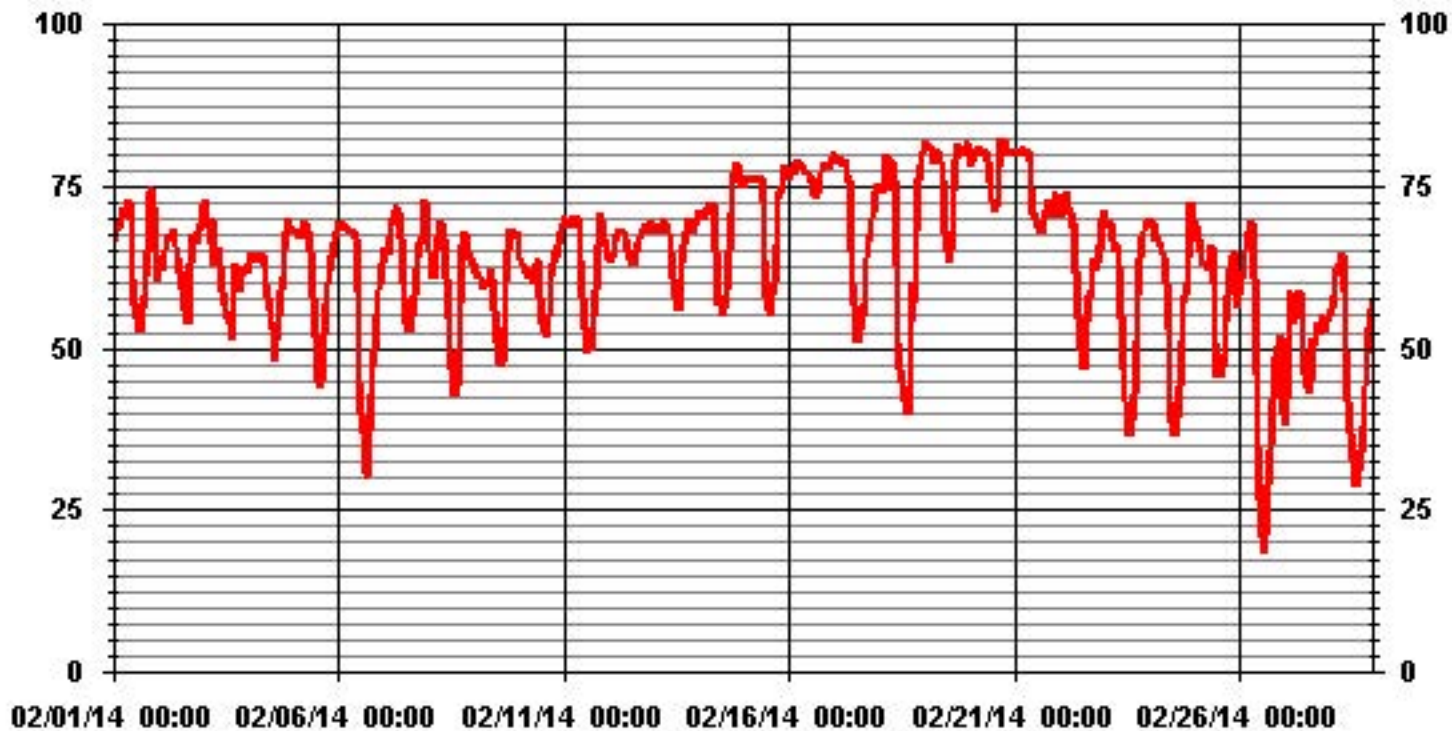
24 HOUR AVERAGES FOR FEBRUARY 2014



MONTHLY SUMMARY

| | | | | | | |
|------------------------|-------|------|-----------|-----------------------|-----------|--------|
| MAXIMUM 1-HR AVERAGE: | 82 | inHg | @ HOUR(S) | VAR | ON DAY(S) | 19, 20 |
| MAXIMUM 24-HR AVERAGE: | 78.6 | inHg | | | ON DAY(S) | 20 |
| | | | | VAR-VARIOUS | | |
| | | | | OPERATIONAL TIME: | 672 | HRS |
| | | | | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 11.45 | | | MONTHLY AVERAGE: | 63.29 | inHg |

01 Hour Averages



Barometric Pressure

Lakeland Industry & Community Association - Maskwa Site

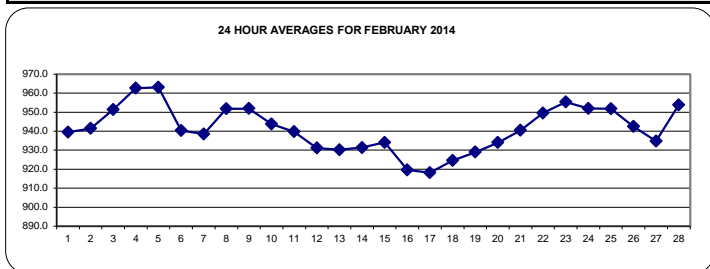
FEBRUARY 2014

BAROMETRIC PRESSURE (BP) hourly averages in inHg

| 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 MAX. | 24-HOUR AVG. | RDGS | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|-------|----|
| DAY 1 | 942 | 941 | 942 | 942 | 942 | 942 | 942 | 941 | 941 | 941 | 940 | 940 | 939 | 939 | 938 | 938 | 938 | 937 | 937 | 937 | 937 | 936 | 938 | 942 | 939.5 | 24 | | | |
| 2 | 939 | 939 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 941 | 943 | 943 | 944 | 944 | 943 | 944 | 944 | 945 | 945 | 945 | 945 | 941.4 | 24 | |
| 3 | 945 | 946 | 946 | 947 | 948 | 948 | 949 | 949 | 950 | 950 | 951 | 951 | 951 | 952 | 952 | 952 | 953 | 954 | 954 | 956 | 956 | 957 | 958 | 958 | 958 | 958 | 951.4 | 24 | |
| 4 | 958 | 959 | 960 | 960 | 960 | 960 | 961 | 961 | 962 | 962 | 963 | 963 | 963 | 962 | 962 | 963 | 963 | 964 | 965 | 965 | 966 | 966 | 967 | 967 | 967 | 967 | 962.6 | 24 | |
| 5 | 967 | 967 | 967 | 967 | 967 | 967 | 967 | 967 | 967 | 966 | 966 | 965 | 964 | 962 | 962 | 961 | 961 | 960 | 960 | 959 | 958 | 957 | 955 | 954 | 967 | 963.0 | 24 | | |
| 6 | 953 | 952 | 951 | 949 | 948 | 947 | 946 | 944 | 943 | 942 | 940 | 939 | 936 | 936 | 935 | 935 | 934 | 934 | 934 | 934 | 934 | 934 | 934 | 934 | 934 | 953 | 940.3 | 24 | |
| 7 | 934 | 934 | 935 | 935 | 935 | 935 | 936 | 936 | 936 | 937 | 937 | 938 | 939 | 939 | 939 | 940 | 941 | 942 | 942 | 943 | 944 | 944 | 944 | 945 | 945 | 945 | 938.5 | 24 | |
| 8 | 946 | 947 | 947 | 948 | 949 | 950 | 950 | 951 | 952 | 952 | 952 | 952 | 953 | 953 | 953 | 953 | 954 | 954 | 954 | 955 | 955 | 955 | 955 | 955 | 955 | 955 | 951.8 | 24 | |
| 9 | 955 | 955 | 954 | 953 | 955 | 954 | 954 | 954 | 954 | 953 | 952 | 952 | 951 | 951 | 950 | 950 | 950 | 950 | 950 | 950 | 950 | 949 | 949 | 949 | 955 | 951.8 | 24 | | |
| 10 | 949 | 949 | 949 | 949 | 949 | 949 | 948 | 948 | 947 | 946 | 945 | 944 | 944 | 943 | 942 | 941 | 940 | 940 | 939 | 939 | 938 | 938 | 937 | 936 | 949 | 943.7 | 24 | | |
| 11 | 937 | 937 | 936 | 935 | 937 | 937 | 938 | 938 | 939 | 940 | 940 | 940 | 940 | 940 | 941 | 941 | 942 | 942 | 943 | 943 | 943 | 943 | 943 | 942 | 943 | 943 | 939.8 | 24 | |
| 12 | 942 | 941 | 940 | 938 | 936 | 934 | 932 | 931 | 929 | 928 | 927 | 927 | 926 | 926 | 927 | 928 | 928 | 929 | 930 | 930 | 930 | 930 | 930 | 928 | 942 | 931.1 | 24 | | |
| 13 | 929 | 930 | 930 | 929 | 929 | 928 | 928 | 928 | 928 | 929 | 929 | 929 | 929 | 929 | 929 | 930 | 930 | 931 | 932 | 933 | 933 | 933 | 934 | 933 | 932 | 934 | 930.2 | 24 | |
| 14 | 933 | 933 | 933 | 933 | 932 | 932 | 932 | 932 | 932 | 932 | 932 | 931 | 931 | 930 | 929 | 929 | 930 | 930 | 930 | 930 | 930 | 931 | 931 | 932 | 933 | 933 | 931.4 | 24 | |
| 15 | 933 | 934 | 934 | 934 | 935 | 936 | 936 | 936 | 936 | 937 | 937 | 937 | 936 | 936 | 936 | 935 | 933 | 933 | 933 | 933 | 932 | 931 | 930 | 929 | 928 | 937 | 934.0 | 24 | |
| 16 | 927 | 925 | 924 | 922 | 921 | 920 | 919 | 918 | 918 | 917 | 917 | 917 | 917 | 917 | 918 | 917 | 918 | 919 | 920 | 920 | 920 | 920 | 920 | 920 | 920 | 927 | 919.6 | 24 | |
| 17 | 920 | 919 | 919 | 919 | 919 | 918 | 917 | 917 | 917 | 917 | 918 | 917 | 918 | 918 | 918 | 917 | 918 | 918 | 918 | 918 | 918 | 918 | 918 | 919 | 920 | 920 | 918.1 | 24 | |
| 18 | 920 | 921 | 921 | 922 | 923 | 923 | 924 | 925 | 924 | 925 | 926 | 927 | 927 | 927 | 927 | 927 | 927 | 926 | 926 | 926 | 925 | 924 | 923 | 923 | 927 | 927 | 924.5 | 24 | |
| 19 | 923 | 924 | 924 | 924 | 924 | 924 | 924 | 924 | 924 | 926 | 927 | 928 | 929 | 930 | 930 | 931 | 932 | 932 | 933 | 933 | 934 | 934 | 935 | 935 | 935 | 935 | 935 | 929.0 | 24 |
| 20 | 935 | 935 | 935 | 935 | 935 | 935 | 934 | 933 | 933 | 933 | 934 | 934 | 934 | 933 | 933 | 933 | 933 | 933 | 934 | 934 | 934 | 934 | 935 | 935 | 935 | 935 | 934.0 | 24 | |
| 21 | 935 | 935 | 935 | 936 | 936 | 937 | 938 | 938 | 939 | 939 | 940 | 941 | 941 | 942 | 942 | 943 | 943 | 944 | 944 | 945 | 945 | 945 | 946 | 946 | 946 | 946 | 940.4 | 24 | |
| 22 | 946 | 946 | 945 | 947 | 948 | 948 | 949 | 949 | 949 | 949 | 949 | 949 | 949 | 949 | 949 | 949 | 950 | 950 | 951 | 952 | 953 | 953 | 954 | 955 | 955 | 949.5 | 24 | | |
| 23 | 955 | 956 | 956 | 957 | 957 | 957 | 957 | 957 | 957 | 957 | 956 | 956 | 956 | 955 | 953 | 954 | 954 | 954 | 954 | 954 | 954 | 954 | 954 | 954 | 957 | 955.3 | 24 | | |
| 24 | 954 | 954 | 953 | 953 | 952 | 952 | 952 | 952 | 951 | 950 | 950 | 950 | 950 | 949 | 949 | 950 | 950 | 951 | 952 | 952 | 953 | 954 | 956 | 957 | 957 | 951.9 | 24 | | |
| 25 | 957 | 958 | 959 | 959 | 959 | 959 | 959 | 959 | 958 | 956 | 954 | 953 | 953 | 952 | 950 | 949 | 947 | 946 | 945 | 944 | 943 | 942 | 941 | 941 | 959 | 951.8 | 24 | | |
| 26 | 941 | 941 | 941 | 941 | 942 | 942 | 943 | 943 | 944 | 943 | 944 | 945 | 945 | 945 | 944 | 943 | 943 | 943 | 942 | 942 | 941 | 941 | 940 | 939 | 945 | 942.4 | 24 | | |
| 27 | 938 | 938 | 937 | 936 | 934 | 933 | 932 | 931 | 930 | 930 | 929 | 929 | 929 | 930 | 932 | 933 | 935 | 937 | 939 | 941 | 943 | 944 | 946 | 946 | 946 | 946 | 934.8 | 24 | |
| 28 | 946 | 948 | 947 | 947 | 949 | 950 | 951 | 952 | 952 | 952 | 953 | 953 | 954 | 954 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 962 | 962 | 962 | 953.8 | 24 | |
| HOURLY MAX | 967 | 967 | 967 | 967 | 967 | 967 | 967 | 967 | 967 | 966 | 966 | 965 | 964 | 962 | 962 | 963 | 963 | 964 | 965 | 965 | 966 | 966 | 967 | 967 | 967 | | | | |
| HOURLY AVG | 941.4 | 941.6 | 941.4 | 941.3 | 941.5 | 941.3 | 941.4 | 941.2 | 941.2 | 941.0 | 941.0 | 941.0 | 940.9 | 940.6 | 940.5 | 940.7 | 940.8 | 941.1 | 941.5 | 941.6 | 941.8 | 941.9 | 942.0 | 942.0 | 942.0 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |



MONTHLY SUMMARY

| | | | | | | |
|------------------------|-------|------|-----------|-----------------------|-------------|------|
| MAXIMUM 1-HR AVERAGE: | 967 | inHg | @ HOUR(S) | VAR | ON DAY(S) | 4, 5 |
| MAXIMUM 24-HR AVERAGE: | 963.0 | inHg | | | ON DAY(S) | 5 |
| | | | | | VAR-VARIOUS | |
| | | | | OPERATIONAL TIME: | 672 | HRS |
| | | | | AMD OPERATION UPTIME: | 100.0 | % |
| STANDARD DEVIATION: | 12.18 | | | MONTHLY AVERAGE: | 941 | inHg |

01 Hour Averages



Vector Wind Speed

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

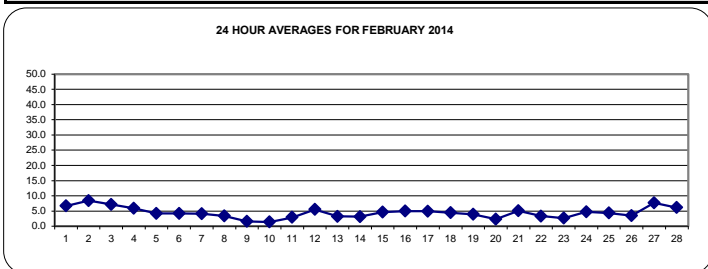
WIND SPEED (WS) hourly averages in km/hr

| 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 MAX. | 24-HOUR AVG. | RDGS. | |
|------------|--|------|------|------|------|------|------|------|------|------|------|-------|-------|----------|----------|----------|----------|----------|-------------|-------|-------|-------|-------|-------|-------|-------------|--------------|-------|--|
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 7.6 | 7.2 | 4.7 | 6.9 | 7.8 | 6.8 | 6.1 | 6.7 | 5.2 | 5.8 | 5.7 | 5.5 | 6 | 6.9 | 6 | 6.9 | 5.3 | 3.7 | 5.9 | 7.6 | 7.6 | 8.1 | 10.2 | 9.4 | 10.2 | 6.7 | 24 | |
| 2 | | 9.3 | 10 | 9.3 | 10.9 | 9.5 | 9.5 | 9.6 | 10.3 | 10.6 | 10.2 | 9.2 | 10.7 | 10.6 | 11.4 | 12.7 | 14 | 5.8 | 2.5 | 3.1 | 2.6 | 4.4 | 5 | 4.8 | 5.8 | 14.0 | 8.4 | 24 | |
| 3 | | 4.1 | 6.5 | 8.9 | 7.3 | 5.4 | 8.1 | 6.8 | 5.6 | 6.2 | 7.3 | 7.3 | 7.3 | 7.7 | 8 | 8.1 | 7.2 | 8 | 10.6 | 7.9 | 7.6 | 7.4 | 5 | 5.4 | 10.6 | 7.1 | 24 | | |
| 4 | | 5.4 | 6.9 | 8 | 7.9 | 6.1 | 7 | 5.1 | 5.4 | 5.8 | 5.8 | 6 | 5.6 | 5.9 | 7.1 | 6.6 | 7.4 | 7.4 | 7.6 | 5.2 | 5.5 | 3.6 | 2.5 | 3.3 | 3.8 | 8.0 | 5.9 | 24 | |
| 5 | | 4.8 | 4 | 5.9 | 4.4 | 4.8 | 4.9 | 2.2 | 3.2 | 4.7 | 6.5 | 6.6 | 6.7 | C | C | C | C | C | 2.9 | 2.3 | 3.6 | 2.1 | 2.9 | 3.1 | 4.5 | 6.7 | 4.2 | 24 | |
| 6 | | 2.8 | 3.5 | 5.2 | 4.2 | 2.9 | 4.5 | 4.5 | 4.8 | 4.5 | 4.3 | 4.2 | 4.5 | 6.8 | 5.5 | 6 | 7.8 | 7.5 | 5.7 | 4.1 | 2.9 | 1.3 | 1.2 | 1.6 | 1.3 | 7.8 | 4.2 | 24 | |
| 7 | | 1.6 | 1.1 | 2.3 | 0.9 | 1.7 | 0.3 | 1.3 | 1.9 | 2.9 | 1.9 | 5.6 | 7 | 6.6 | 3.9 | 8.7 | 9 | 7.8 | 3.7 | 6.9 | 6 | 6.1 | 5.2 | 2.8 | 4 | 9.0 | 4.1 | 24 | |
| 8 | | 5.5 | 6.1 | 5.9 | 5.1 | 3.4 | 1.4 | 1.6 | 1.4 | 1 | 2.8 | 7.1 | 8.8 | 6.7 | 4.3 | 5.5 | 4.5 | 5.6 | 2.4 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 8.8 | 3.3 | 24 | |
| 9 | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 3.1 | 4.2 | 4.9 | 5.1 | 3.8 | 3 | 1 | 0.9 | 1 | 1.4 | 3.6 | 1.8 | 2.8 | 5.1 | 1.6 | 24 | |
| 10 | | 1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.5 | 2.3 | 1.1 | 3.4 | 4.2 | 4 | 4.2 | 2.6 | 1.5 | 0.2 | 0.7 | 0.3 | 3 | 3.1 | 4.2 | 1.4 | 24 | | |
| 11 | | 4.2 | 5.3 | 6.2 | 6.9 | 4.2 | 2.6 | 1 | 0.5 | 1.7 | 1.6 | 2.8 | 4 | 4.5 | 4.8 | 4.5 | 5.4 | 3.9 | 2.9 | 0.4 | 0.1 | 0.2 | 0.6 | 0.4 | 0.8 | 6.9 | 2.9 | 24 | |
| 12 | | 0.3 | 1 | 1.5 | 3.2 | 4.3 | 5 | 6.1 | 5.7 | 7 | 7.2 | 7.7 | 7.7 | 8.9 | 8 | 7.6 | 6.9 | 7 | 5.3 | 5 | 4.3 | 4.7 | 6.2 | 5.6 | 6.8 | 8.9 | 5.5 | 24 | |
| 13 | | 5.6 | 6.8 | 5.3 | 4.1 | 3.7 | 3.7 | 2.4 | 3.5 | 3.3 | 4.1 | 4.8 | 3.8 | 2.5 | 3.3 | 0.6 | 4.6 | 2.6 | 0.7 | 0.5 | 1.9 | 2.2 | 2.2 | 2 | 3.6 | 6.8 | 3.2 | 24 | |
| 14 | | 5.1 | 6.2 | 3.6 | 2.3 | 3.1 | 2.6 | 1 | 0.8 | 2.4 | 1.3 | 0.8 | 4.9 | 5.8 | 7.7 | 5.2 | 4.5 | 4 | 3.6 | 2.4 | 2.2 | 1.2 | 1.8 | 1.4 | 1.5 | 7.7 | 3.1 | 24 | |
| 15 | | 5 | 2.8 | 2.7 | 2.8 | 2.6 | 2.6 | 3.4 | 4.5 | 4.1 | 4.8 | 9 | 8.9 | 8.3 | 7.5 | 6.1 | 5.1 | 4.6 | 3.3 | 2.4 | 2.9 | 4.4 | 4.4 | 4.8 | 4.4 | 9.0 | 4.6 | 24 | |
| 16 | | 4.5 | 5.5 | 5.5 | 5.6 | 5.5 | 5.7 | 4.3 | 5.7 | 5.7 | 5.8 | 6 | 4.9 | 5.8 | 5.2 | 2 | 1.9 | 2.5 | 4 | 4 | 5.1 | 5.4 | 5.7 | 6 | 6.9 | 6.9 | 5.0 | 24 | |
| 17 | | 5 | 6.1 | 6.6 | 4.5 | 4.8 | 4.8 | 4.4 | 6.2 | 4 | 2.9 | 4 | 4.1 | 5 | 4.6 | 7.2 | 6.8 | 7.1 | 4.9 | 4.4 | 4.3 | 3.1 | 5.2 | 5.7 | 2.7 | 7.2 | 4.9 | 24 | |
| 18 | | 3.3 | 4.8 | 3.1 | 2.9 | 2.6 | 3.6 | 3.3 | 4 | 7.1 | 4.5 | 3.9 | 9.3 | 9.2 | 7 | 7 | 5.7 | 5.3 | 2.3 | 4.8 | 5.3 | 0.5 | 0.4 | 3.8 | 3.5 | 9.3 | 4.5 | 24 | |
| 19 | | 3.2 | 2.8 | 3.9 | 4.4 | 4.9 | 4.5 | 3.8 | 4 | 4 | 5.5 | 6 | 4.6 | 2.8 | 2.3 | 4.4 | 3.9 | 6.1 | 5.7 | 5 | 4.4 | 2.6 | 1.2 | 2.7 | 1.5 | 6.1 | 3.9 | 24 | |
| 20 | | 2 | 1.4 | 2.6 | 1.8 | 1.2 | 2.7 | 3.3 | 3.5 | 2.6 | 2.8 | 3.8 | 3.7 | 3.6 | 3 | 3.4 | 2.7 | 4.4 | 3.9 | 1.3 | 0.6 | 0.2 | 0.2 | 0.7 | 0.7 | 4.4 | 2.3 | 24 | |
| 21 | | 1.9 | 2.3 | 2.5 | 1.3 | 2 | 2.3 | 3.5 | 4.9 | 5.5 | 7.4 | 7.9 | 8.1 | 7.9 | 7 | 6.7 | 7.7 | 8 | 7.8 | 6.1 | 5.6 | 5.7 | 2.3 | 2.5 | 4.9 | 8.1 | 5.1 | 24 | |
| 22 | | 4.1 | 4.2 | 1 | 1.8 | 1.7 | 0.9 | 0.6 | 0.9 | 1.9 | 3.4 | 4.3 | 5.5 | 4.9 | 4.4 | 3.6 | 3.8 | 4.1 | 3.2 | 5.2 | 5.4 | 5 | 4.6 | 3.9 | 1.7 | 5.5 | 3.3 | 24 | |
| 23 | | 1.6 | 1.9 | 1.6 | 2.2 | 2.5 | 3 | 2.1 | 3.3 | 3.4 | 3.4 | 3.6 | 2 | 1.5 | 2.2 | 2.5 | 4.3 | 3 | 6.3 | 3.4 | 2.1 | 1.9 | 2.1 | 1.6 | 2.1 | 6.3 | 2.7 | 24 | |
| 24 | | 1.7 | 2.2 | 3.1 | 3.5 | 2.9 | 4.3 | 4 | 2.8 | 5.9 | 5.5 | 6.7 | 7.2 | 7.3 | 5.7 | 6 | 6.8 | 6 | 5.1 | 5.8 | 7.4 | 5.8 | 3.7 | 1.9 | 1.6 | 7.4 | 4.7 | 24 | |
| 25 | | 2.6 | 1 | 1.1 | 0.4 | 0.3 | 0.3 | 0.9 | 0.8 | 0.3 | 5.6 | 5.9 | 6.7 | 9.1 | 9.2 | 8.1 | 8.1 | 7.1 | 6.5 | 6 | 4.8 | 3.3 | 2.8 | 6.2 | 8.1 | 9.2 | 4.4 | 24 | |
| 26 | | 6.7 | 4.6 | 3.8 | 3.1 | 3.3 | 3 | 3.5 | 2.3 | 2.9 | 5.4 | 7.3 | 2.5 | 2.4 | 2.6 | 3.4 | 7 | 6.2 | 3.7 | 1.5 | 1.4 | 1.4 | 0.8 | 0.9 | 3.2 | 7.3 | 3.5 | 24 | |
| 27 | | 5.4 | 1 | 0.7 | 2.3 | 5.7 | 2.4 | 5.2 | 2.7 | 5.3 | 4.7 | 3.5 | 3.3 | 6 | 7 | 13.3 | 14.1 | 14.1 | 15.4 | 13.6 | 14.5 | 11.3 | 13.9 | 10.3 | 9.5 | 15.4 | 7.7 | 24 | |
| 28 | | 8 | 6 | 4.6 | 2.9 | 3.5 | 3.9 | 4 | 5.3 | 5.1 | 7.3 | 9.7 | 13.9 | 11.7 | 9.8 | 11.1 | 12.2 | 10.9 | 6.9 | 4.5 | 2.1 | 1.7 | 0.7 | 0.6 | 1.3 | 13.9 | 6.2 | 24 | |
| HOURLY MAX | | 9.3 | 10.0 | 9.3 | 10.9 | 9.5 | 9.5 | 9.6 | 10.3 | 10.6 | 10.2 | 9.7 | 13.9 | 11.7 | 11.4 | 13.3 | 14.1 | 14.1 | 15.4 | 13.6 | 14.5 | 11.3 | 13.9 | 10.3 | 9.5 | | | | |
| HOURLY AVG | | 4.0 | 4.0 | 3.9 | 3.7 | 3.6 | 3.6 | 3.4 | 3.6 | 4.1 | 4.6 | 5.4 | 5.9 | 6.1 | 5.8 | 6.1 | 6.6 | 5.9 | 4.7 | 4.1 | 4.0 | 3.4 | 3.4 | 3.5 | 3.8 | | | | |

STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

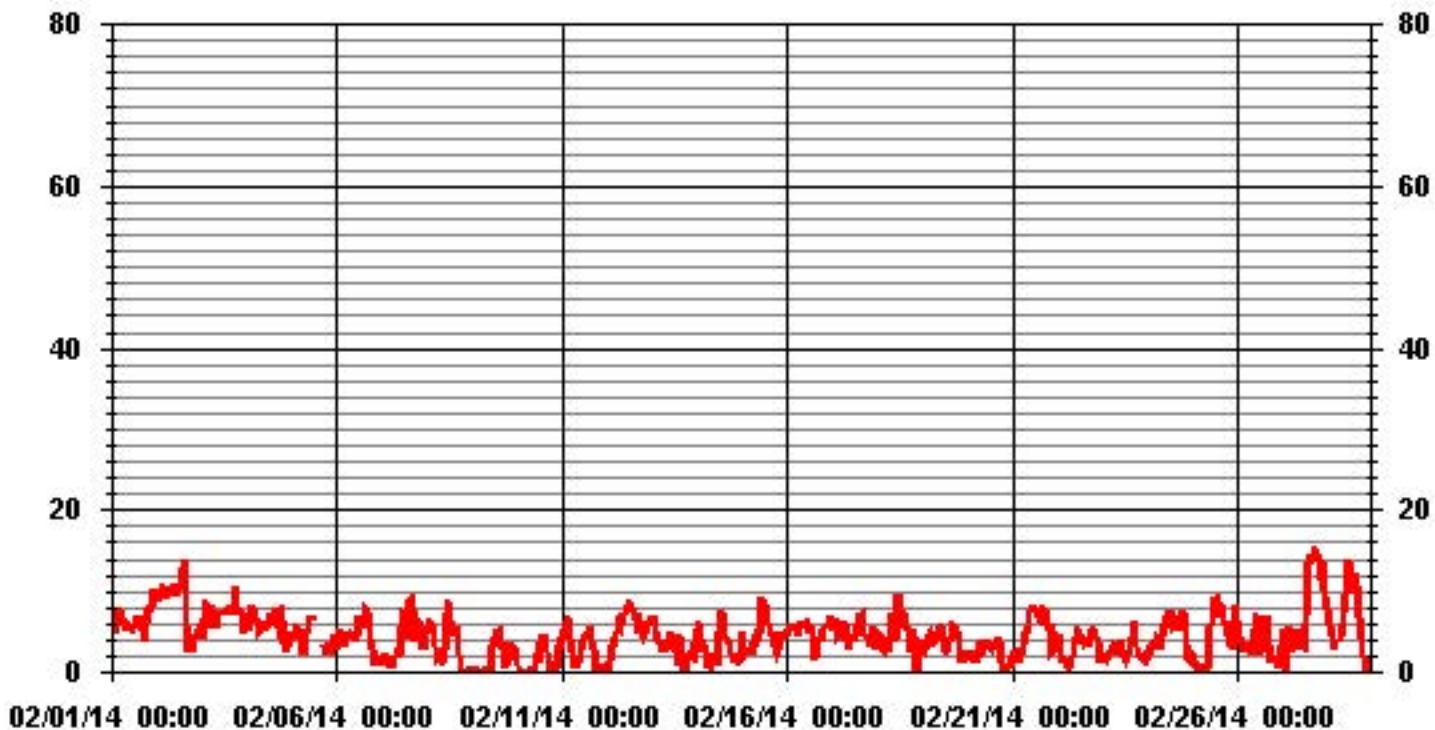
| | |
|-------------------|-------------------------------|
| LAST CALIBRATION: | February 5, 2014 |
| DECLINATION: | 19 DEGREE FROM MAGNETIC NORTH |



MONTHLY SUMMARY

| | |
|------------------------------|------------------------------------|
| NUMBER OF NON-ZERO READINGS: | 691 |
| MAXIMUM 1-HR AVERAGE: | 15.4 KPH @ HOUR(S) 17 ON DAY(S) 27 |
| MAXIMUM 24-HR AVERAGE: | 8.4 KPH ON DAY(S) 2 |
| | VAR-VARIOUS |
| MONTHLY CALIBRATION TIME: | 5 HRS |
| OPERATIONAL TIME: | 672 HRS |
| AMD OPERATION UPTIME: | 100.0 % |
| STANDARD DEVIATION: | 2.86 |
| MONTHLY AVERAGE: | 4.19 KPH |

01 Hour Averages



— LICA30 WSP KPH

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

| 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 | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| DAY | 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 | 0:00 | MAX. | AVG. | RDGS. |
| 1 | 24 | 23.5 | 18.3 | 29.5 | 22.5 | 27.7 | 24 | 25.9 | 21.3 | 21.6 | 19.4 | 18.8 | 24.1 | 25.3 | 22.3 | 23.3 | 20.4 | 18.8 | 22.1 | 24.5 | 22.3 | 30.6 | 32.3 | 34.6 | 35 | 24.0 | 24 |
| 2 | 32.5 | 37.8 | 34.3 | 40.9 | 34.2 | 30.7 | 31.4 | 36.5 | 46.6 | 30.9 | 33.5 | 43.7 | 35.9 | 38.7 | 36 | 43.2 | 27.7 | 39.7 | 38.2 | 30.9 | 17.8 | 22.4 | 18.4 | 31.2 | 47 | 33.9 | 24 |
| 3 | 76.6 | 24.3 | 30.3 | 25.1 | 17.4 | 27.4 | 22.3 | 26.2 | 18.5 | 23.8 | 26.5 | 23.2 | 24.9 | 24.7 | 28 | 26.2 | 25.8 | 32 | 34 | 25.1 | 27.3 | 25.5 | 17.2 | 17 | 77 | 27.1 | 24 |
| 4 | 17.7 | 26.4 | 27.5 | 36.8 | 20.1 | 22 | 18.7 | 41.4 | 17.2 | 21.2 | 17.8 | 19.2 | 20.1 | 23 | 20.8 | 24.1 | 22.9 | 23.7 | 21.4 | 28.2 | 62.6 | 29 | 41.7 | 19.6 | 63 | 26.0 | 24 |
| 5 | 15.7 | 26.4 | 25.5 | 15.9 | 21.6 | 90.1 | 73.1 | 31.9 | 84.2 | 20.9 | 22.7 | 24.8 | C | C | C | C | C | 15.6 | 13.1 | 14.7 | 11.7 | 12 | 12.8 | 14 | 90 | 28.8 | 24 |
| 6 | 9.7 | 9 | 13.6 | 11.8 | 10.9 | 10.9 | 11.8 | 12.8 | 11.1 | 14.1 | 14.6 | 17.3 | 22.9 | 17.8 | 25 | 27.6 | 25.2 | 16.7 | 12.7 | 11 | 6.7 | 5.3 | 5.9 | 8.7 | 28 | 13.9 | 24 |
| 7 | 8.3 | 7.3 | 8 | 4.3 | 6.6 | 3.4 | 7.7 | 10 | 10.5 | 7.4 | 16.7 | 16.9 | 18.1 | 14.5 | 20.2 | 21.7 | 23.1 | 11.9 | 19.8 | 18.2 | 14.5 | 14.4 | 9.2 | 8.5 | 23 | 12.6 | 24 |
| 8 | 16.1 | 14 | 14.9 | 14 | 15.2 | 6.4 | 7.1 | 6 | 6.3 | 8.9 | 16.7 | 22.1 | 20.9 | 18.6 | 18.3 | 15.7 | 15.4 | 9.2 | 2.4 | 1.9 | 0.2 | 2 | 2 | 0.6 | 22 | 10.6 | 24 |
| 9 | 0.8 | 0.2 | 0.2 | 0.2 | 0.2 | 2.5 | 0.2 | 2.1 | 0.2 | 1.5 | 1.4 | 9.8 | 10.4 | 12.8 | 15.2 | 11 | 7.7 | 4.7 | 3.7 | 4.9 | 6.1 | 9.8 | 5.4 | 9.3 | 15 | 5.0 | 24 |
| 10 | 4.3 | 0.9 | 0.2 | 0.2 | 1.4 | 1.9 | 0.2 | 0.2 | 1.8 | 6.5 | 8 | 5.1 | 9 | 12.1 | 10.3 | 9.5 | 7.2 | 3.9 | 3.7 | 4.5 | 3.6 | 3.3 | 8.8 | 8.2 | 12 | 4.8 | 24 |
| 11 | 9.2 | 11.5 | 13.1 | 12.8 | 10.6 | 7.8 | 6.8 | 3.7 | 5.7 | 7.5 | 11.4 | 13.3 | 15.3 | 16 | 16.9 | 19.3 | 15.5 | 13.5 | 4.9 | 1.5 | 4 | 2.8 | 3.5 | 3.9 | 19 | 9.6 | 24 |
| 12 | 2.2 | 3.8 | 6.1 | 17.4 | 16.7 | 16.3 | 18.5 | 19.7 | 24 | 25.2 | 27.7 | 29.7 | 32.7 | 27.4 | 22.7 | 24.2 | 22.1 | 18.7 | 20.7 | 15.9 | 19.8 | 18.4 | 20.2 | 19.5 | 33 | 19.6 | 24 |
| 13 | 17.1 | 17.8 | 15.9 | 11.7 | 12.1 | 12.6 | 13 | 12.2 | 11.5 | 12 | 12 | 11.9 | 10.5 | 10.5 | 8.6 | 10 | 8.4 | 4.8 | 4.4 | 5.9 | 9.9 | 9.4 | 7.8 | 12.1 | 18 | 10.9 | 24 |
| 14 | 14 | 15.9 | 10.8 | 7.7 | 9.9 | 8.4 | 6 | 4.4 | 10.5 | 6.4 | 7.9 | 13.1 | 16.5 | 19.6 | 18.5 | 15.9 | 13.5 | 16.5 | 8.8 | 11.9 | 5.9 | 8.9 | 7.8 | 9.9 | 20 | 11.2 | 24 |
| 15 | 17.2 | 10.6 | 9.6 | 11.9 | 10.8 | 8 | 11.9 | 12.9 | 14.6 | 16.6 | 21.9 | 22.8 | 20.5 | 17.8 | 16 | 13.4 | 13 | 12.6 | 8.8 | 10 | 11.7 | 12.2 | 14.5 | 16 | 23 | 14.0 | 24 |
| 16 | 13.6 | 17.1 | 16.2 | 18.9 | 16.4 | 16.1 | 13.5 | 18.7 | 17.7 | 20.2 | 19 | 16 | 16.2 | 17.2 | 8.7 | 5.2 | 8 | 12.5 | 11 | 13.6 | 15.6 | 16.3 | 14.4 | 16.5 | 20 | 14.9 | 24 |
| 17 | 15.2 | 17.9 | 17.4 | 13 | 11.5 | 9.6 | 11.7 | 17.3 | 10.6 | 10.4 | 13.6 | 11 | 18 | 20.2 | 17.4 | 18.7 | 24.6 | 21.7 | 21 | 18.2 | 10.3 | 13.4 | 13.2 | 10.4 | 25 | 15.3 | 24 |
| 18 | 10.8 | 12.8 | 10.3 | 7.5 | 8.4 | 12.1 | 15.5 | 8.6 | 14.8 | 10.4 | 18 | 27.5 | 28.6 | 20.4 | 23.4 | 19.8 | 20.1 | 10.5 | 13.7 | 10.2 | 5.7 | 4.5 | 9.9 | 10.1 | 29 | 13.9 | 24 |
| 19 | 8.5 | 7 | 11.2 | 9.4 | 12 | 11.8 | 11 | 9.6 | 13.1 | 17.3 | 23.1 | 16.2 | 11.8 | 10.2 | 12.7 | 14 | 16.5 | 15.1 | 14.5 | 12.4 | 10.7 | 4.6 | 10 | 6.5 | 23 | 12.1 | 24 |
| 20 | 6.3 | 5.2 | 8.1 | 5.5 | 5.4 | 8.5 | 9.8 | 10.5 | 7.7 | 8 | 11.5 | 10.5 | 9.7 | 10.4 | 10 | 10.9 | 8.9 | 8.6 | 7.6 | 3.4 | 2.3 | 3.7 | 3.8 | 4.5 | 12 | 7.5 | 24 |
| 21 | 4.6 | 6.3 | 6.5 | 4.1 | 6.7 | 7.8 | 10 | 14.2 | 14.4 | 18.2 | 20.9 | 17.1 | 18.5 | 15.4 | 16.3 | 19 | 19.1 | 22.6 | 17.9 | 19.2 | 17.6 | 10.6 | 11.2 | 17.7 | 23 | 14.0 | 24 |
| 22 | 15.1 | 10.9 | 7 | 5.6 | 5.9 | 4.3 | 3.8 | 4.5 | 8 | 10.9 | 17.3 | 17.7 | 16.7 | 13.9 | 14.6 | 14.2 | 14.4 | 13.2 | 21.5 | 19.6 | 16.5 | 19 | 19.3 | 7.4 | 22 | 12.6 | 24 |
| 23 | 9 | 9.4 | 10.2 | 9.9 | 10.2 | 9.9 | 8.7 | 11.3 | 10.4 | 12.9 | 10.2 | 9.3 | 9.2 | 10 | 11.5 | 14.7 | 10.2 | 10.7 | 9.2 | 5.8 | 6.9 | 6.6 | 7.3 | 6.5 | 15 | 9.6 | 24 |
| 24 | 6.3 | 5.2 | 9.5 | 9 | 8.1 | 9.6 | 10.4 | 10.1 | 14.1 | 13.1 | 14.7 | 22.3 | 22.5 | 21.5 | 18.2 | 24.6 | 20.6 | 17.9 | 22.5 | 16.8 | 16.1 | 11.6 | 5.4 | 6.1 | 25 | 14.0 | 24 |
| 25 | 9.9 | 6.1 | 3.9 | 2.4 | 2.5 | 2 | 3.9 | 3 | 6.6 | 17.5 | 17.4 | 16 | 22.2 | 22.4 | 22.2 | 23.7 | 19 | 15.5 | 14.8 | 13.2 | 13.5 | 9.2 | 17.6 | 22.5 | 24 | 12.8 | 24 |
| 26 | 19.8 | 14.6 | 12.4 | 13.2 | 10.9 | 11.5 | 13.9 | 7.4 | 9.9 | 15 | 19.4 | 12.5 | 12.5 | 10.6 | 17.6 | 18.6 | 12.2 | 11.4 | 5.5 | 10 | 8.2 | 6.1 | 4.9 | 9.4 | 20 | 12.0 | 24 |
| 27 | 19.2 | 7.7 | 7.5 | 9.9 | 15.7 | 11.5 | 16 | 12 | 13.2 | 13.5 | 10 | 11.3 | 23.3 | 24.7 | 41.4 | 37.8 | 44.4 | 41.8 | 43.2 | 44.2 | 36.1 | 48.2 | 36 | 31.8 | 48 | 25.0 | 24 |
| 28 | 27.9 | 23.6 | 21.8 | 13 | 12.8 | 16.4 | 16.4 | 19.5 | 17.8 | 24.4 | 26.1 | 34.2 | 30.7 | 25.8 | 26.3 | 28.5 | 26.2 | 22.8 | 17.4 | 10.9 | 5.7 | 4.3 | 5.9 | 4.9 | 34 | 19.3 | 24 |
| HOURLY MAX | 77 | 38 | 34 | 41 | 34 | 90 | 73 | 41 | 84 | 31 | 34 | 44 | 36 | 39 | 41 | 43 | 44 | 42 | 43 | 44 | 63 | 48 | 42 | 35 | | | |
| HOURLY AVG | 15.4 | 13.3 | 13.2 | 12.9 | 12.0 | 14.5 | 14.2 | 14.0 | 15.8 | 14.9 | 17.1 | 18.3 | 19.3 | 18.6 | 19.2 | 19.8 | 18.2 | 16.7 | 15.7 | 14.5 | 13.9 | 13.0 | 13.1 | 13.1 | | | |

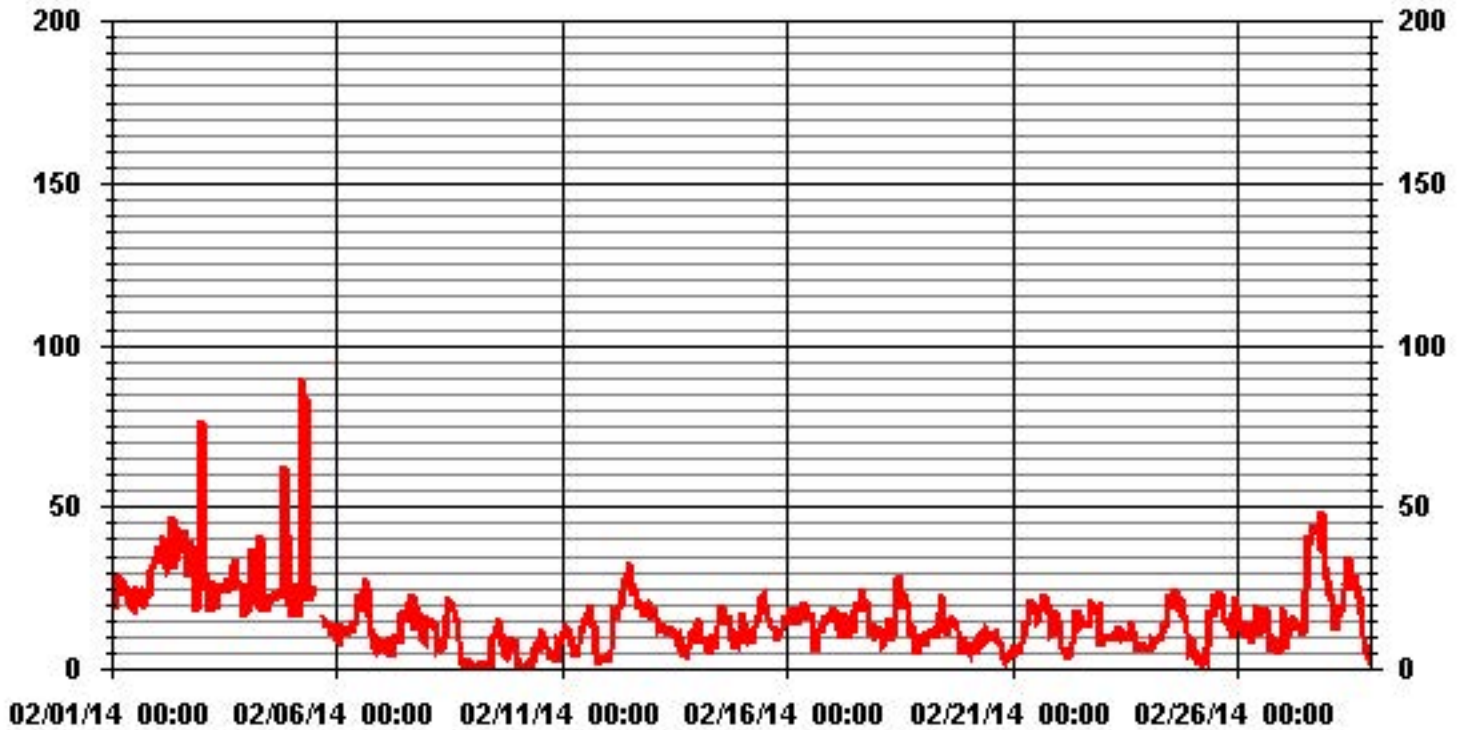
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|----|-----|-----------|---|-------------|-----|
| MAXIMUM INSTANTANEOUS VALUE: | 90 | KPH | @ HOUR(S) | 5 | ON DAY(S) | 5 |
| | | | | | VAR-VARIOUS | |
| OPERATIONAL TIME: | | | | | 672 | HRS |

01 Hour Averages



LICA30
WSP / WDR Joint Frequency Distribution (Percent)

February 2014

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : WSP
Units : KPH

Wind Parameter : WDR
Instrument Height : 10 Meters

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | 7.94 | 3.44 | 4.34 | 5.09 | 2.84 | 3.29 | 3.29 | 5.84 | 4.64 | 5.69 | 7.34 | 3.59 | 3.89 | 3.74 | 4.04 | 4.79 | 73.91 |
| < 12.0 | 6.59 | 1.94 | .14 | .59 | 1.34 | .00 | .00 | .59 | .74 | 1.94 | 1.19 | .44 | 2.09 | 1.94 | 2.84 | 1.94 | 24.43 |
| < 20.0 | 1.64 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.64 |
| < 29.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 16.19 | 5.39 | 4.49 | 5.69 | 4.19 | 3.29 | 3.29 | 6.44 | 5.39 | 7.64 | 8.54 | 4.04 | 5.99 | 5.69 | 6.89 | 6.74 | |

Calm : .00 %

Total # Operational Hours : 667

Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 6.0 | 53 | 23 | 29 | 34 | 19 | 22 | 22 | 39 | 31 | 38 | 49 | 24 | 26 | 25 | 27 | 32 | 493 |
| < 12.0 | 44 | 13 | 1 | 4 | 9 | | | 4 | 5 | 13 | 8 | 3 | 14 | 13 | 19 | 13 | 163 |
| < 20.0 | 11 | | | | | | | | | | | | | | | | 11 |
| < 29.0 | | | | | | | | | | | | | | | | | |
| < 39.0 | | | | | | | | | | | | | | | | | |
| >= 39.0 | | | | | | | | | | | | | | | | | |
| Totals | 108 | 36 | 30 | 38 | 28 | 22 | 22 | 43 | 36 | 51 | 57 | 27 | 40 | 38 | 46 | 45 | |

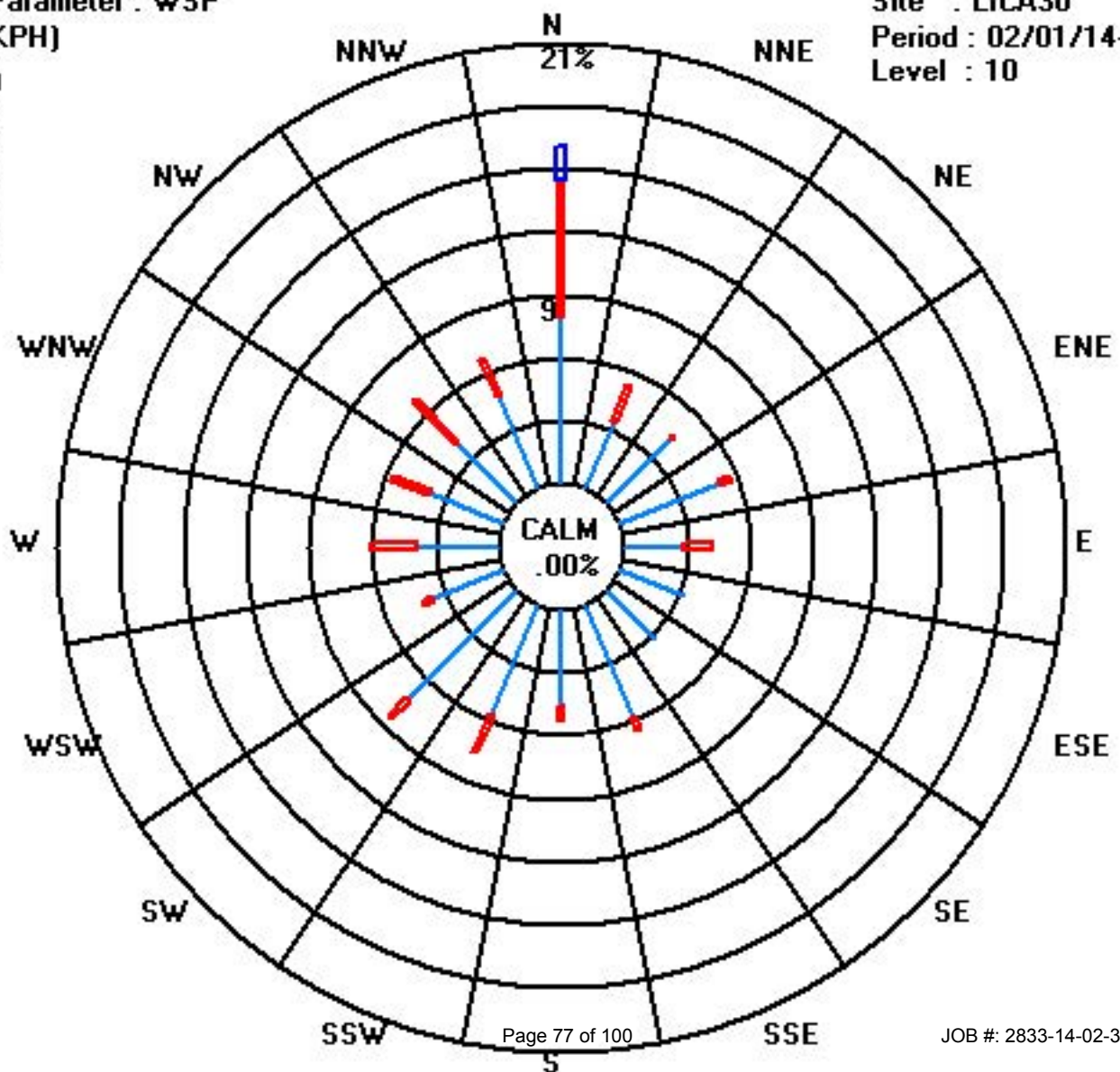
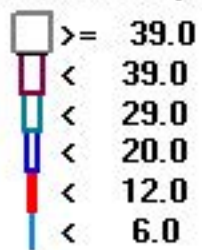
Calm : .00 %

Total # Operational Hours : 667

Class Limits (KPH)

Period : 02/01/14-02/28/14

Level : 10



Vector Wind Direction

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

WIND DIRECTION (WD) hourly averages in degrees

| 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 | 24-HOUR | | |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|----------|-------|
| DAY | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | AVG. | QUADRANT | RDGS. |
| 1 | 290 | 287 | 262 | 283 | 286 | 288 | 275 | 274 | 285 | 241 | 237 | 253 | 257 | 270 | 255 | 249 | 252 | 252 | 271 | 283 | 308 | 338 | 359 | 354 | 359 | 359 | N | 24 | |
| 2 | 322 | 331 | 322 | 309 | 316 | 313 | 319 | 290 | 293 | 297 | 304 | 315 | 324 | 343 | 2 | 6 | 357 | 298 | 297 | 267 | 266 | 271 | 277 | 274 | 357 | 357 | N | 24 | |
| 3 | 268 | 299 | 5 | 6 | 358 | 345 | 349 | 336 | 322 | 324 | 321 | 335 | 334 | 341 | 324 | 327 | 352 | 2 | 6 | 3 | 358 | 358 | 348 | 359 | 359 | 359 | N | 24 | |
| 4 | 344 | 356 | 0 | 357 | 354 | 356 | 355 | 349 | 360 | 344 | 333 | 329 | 335 | 352 | 343 | 343 | 355 | 357 | 10 | 16 | 357 | 351 | 345 | 318 | 360 | 360 | N | 24 | |
| 5 | 320 | 320 | 306 | 322 | 316 | 285 | 308 | 269 | 292 | 309 | 311 | 316 | C | C | C | C | C | 268 | 258 | 269 | 255 | 229 | 229 | 226 | 322 | 322 | NW | 24 | |
| 6 | 227 | 217 | 211 | 216 | 225 | 213 | 218 | 221 | 224 | 224 | 234 | 241 | 228 | 237 | 265 | 277 | 280 | 277 | 274 | 259 | 220 | 223 | 230 | 264 | 280 | 280 | W | 24 | |
| 7 | 278 | 301 | 357 | 359 | 8 | 253 | 306 | 321 | 332 | 346 | 11 | 12 | 5 | 2 | 16 | 13 | 8 | 356 | 6 | 8 | 8 | 12 | 19 | 24 | 359 | 359 | N | 24 | |
| 8 | 13 | 18 | 8 | 8 | 0 | 351 | 356 | 344 | 326 | 358 | 14 | 13 | 3 | 328 | 333 | 341 | 9 | 18 | 51 | 38 | 126 | 183 | 190 | 167 | 358 | 358 | N | 24 | |
| 9 | 166 | 166 | 167 | 167 | 167 | 128 | 69 | 64 | 67 | 359 | 293 | 194 | 202 | 188 | 195 | 165 | 180 | 183 | 153 | 163 | 172 | 182 | 181 | 177 | 359 | 359 | N | 24 | |
| 10 | 185 | 178 | 114 | 136 | 161 | 92 | 149 | 152 | 125 | 209 | 233 | 212 | 217 | 199 | 200 | 197 | 195 | 196 | 148 | 40 | 17 | 69 | 29 | 24 | 233 | 233 | SW | 24 | |
| 11 | 26 | 27 | 26 | 24 | 28 | 22 | 14 | 14 | 7 | 2 | 358 | 328 | 313 | 303 | 301 | 295 | 335 | 344 | 359 | 227 | 263 | 150 | 158 | 104 | 359 | 359 | N | 24 | |
| 12 | 55 | 25 | 55 | 92 | 76 | 72 | 83 | 82 | 77 | 88 | 80 | 85 | 84 | 88 | 84 | 87 | 88 | 94 | 109 | 123 | 125 | 147 | 147 | 148 | 148 | 148 | SE | 24 | |
| 13 | 151 | 154 | 162 | 153 | 137 | 107 | 113 | 111 | 105 | 105 | 121 | 111 | 155 | 172 | 71 | 30 | 36 | 79 | 125 | 145 | 166 | 186 | 170 | 166 | 186 | 186 | S | 24 | |
| 14 | 190 | 192 | 175 | 201 | 184 | 196 | 188 | 189 | 208 | 249 | 34 | 44 | 70 | 42 | 62 | 71 | 58 | 71 | 102 | 83 | 95 | 99 | 84 | 131 | 249 | 249 | WSW | 24 | |
| 15 | 118 | 139 | 139 | 133 | 151 | 122 | 138 | 145 | 150 | 174 | 191 | 182 | 174 | 174 | 165 | 150 | 153 | 169 | 169 | 153 | 136 | 116 | 108 | 91 | 191 | 191 | S | 24 | |
| 16 | 58 | 70 | 72 | 66 | 69 | 70 | 59 | 61 | 68 | 72 | 71 | 70 | 83 | 84 | 141 | 234 | 204 | 210 | 217 | 210 | 214 | 213 | 208 | 211 | 234 | 234 | SW | 24 | |
| 17 | 215 | 212 | 210 | 222 | 213 | 213 | 214 | 209 | 207 | 212 | 201 | 207 | 237 | 256 | 210 | 216 | 271 | 261 | 248 | 260 | 237 | 219 | 216 | 234 | 271 | 271 | W | 24 | |
| 18 | 259 | 270 | 258 | 241 | 232 | 229 | 235 | 207 | 202 | 218 | 256 | 284 | 284 | 286 | 278 | 277 | 273 | 288 | 186 | 194 | 210 | 74 | 65 | 55 | 288 | 288 | WNW | 24 | |
| 19 | 45 | 45 | 47 | 54 | 56 | 60 | 52 | 58 | 48 | 51 | 70 | 82 | 69 | 101 | 48 | 71 | 69 | 73 | 75 | 61 | 53 | 89 | 145 | 123 | 145 | 145 | SE | 24 | |
| 20 | 108 | 137 | 165 | 168 | 151 | 161 | 147 | 177 | 151 | 134 | 148 | 166 | 132 | 128 | 108 | 82 | 29 | 24 | 33 | 230 | 31 | 113 | 109 | 82 | 230 | 230 | SW | 24 | |
| 21 | 53 | 52 | 45 | 50 | 62 | 39 | 48 | 40 | 28 | 29 | 23 | 17 | 7 | 6 | 7 | 11 | 4 | 2 | 0 | 1 | 347 | 350 | 357 | 357 | 357 | 357 | N | 24 | |
| 22 | 0 | 3 | 350 | 2 | 359 | 351 | 312 | 283 | 324 | 347 | 335 | 325 | 327 | 325 | 332 | 343 | 348 | 355 | 345 | 344 | 350 | 358 | 356 | 343 | 359 | 359 | N | 24 | |
| 23 | 323 | 331 | 324 | 312 | 320 | 318 | 299 | 298 | 303 | 317 | 312 | 294 | 289 | 255 | 297 | 303 | 226 | 196 | 217 | 222 | 240 | 243 | 242 | 231 | 331 | 331 | NNW | 24 | |
| 24 | 232 | 217 | 216 | 214 | 221 | 215 | 216 | 213 | 209 | 214 | 222 | 279 | 281 | 278 | 280 | 335 | 324 | 347 | 5 | 10 | 4 | 2 | 8 | 53 | 347 | 347 | NNW | 24 | |
| 25 | 22 | 42 | 190 | 155 | 198 | 202 | 204 | 213 | 259 | 218 | 216 | 210 | 210 | 212 | 217 | 216 | 214 | 215 | 217 | 226 | 232 | 250 | 273 | 281 | 281 | 281 | W | 24 | |
| 26 | 279 | 276 | 303 | 300 | 298 | 302 | 313 | 341 | 343 | 11 | 17 | 352 | 0 | 313 | 187 | 184 | 192 | 169 | 176 | 99 | 81 | 69 | 31 | 149 | 352 | 352 | N | 24 | |
| 27 | 159 | 127 | 104 | 168 | 189 | 169 | 199 | 187 | 193 | 204 | 212 | 241 | 322 | 344 | 359 | 359 | 359 | 358 | 359 | 358 | 359 | 357 | 357 | 359 | 359 | 359 | N | 24 | |
| 28 | 357 | 353 | 353 | 329 | 315 | 300 | 304 | 303 | 326 | 349 | 358 | 11 | 9 | 3 | 6 | 11 | 9 | 6 | 357 | 5 | 10 | 360 | 332 | 221 | 360 | 360 | N | 24 | |

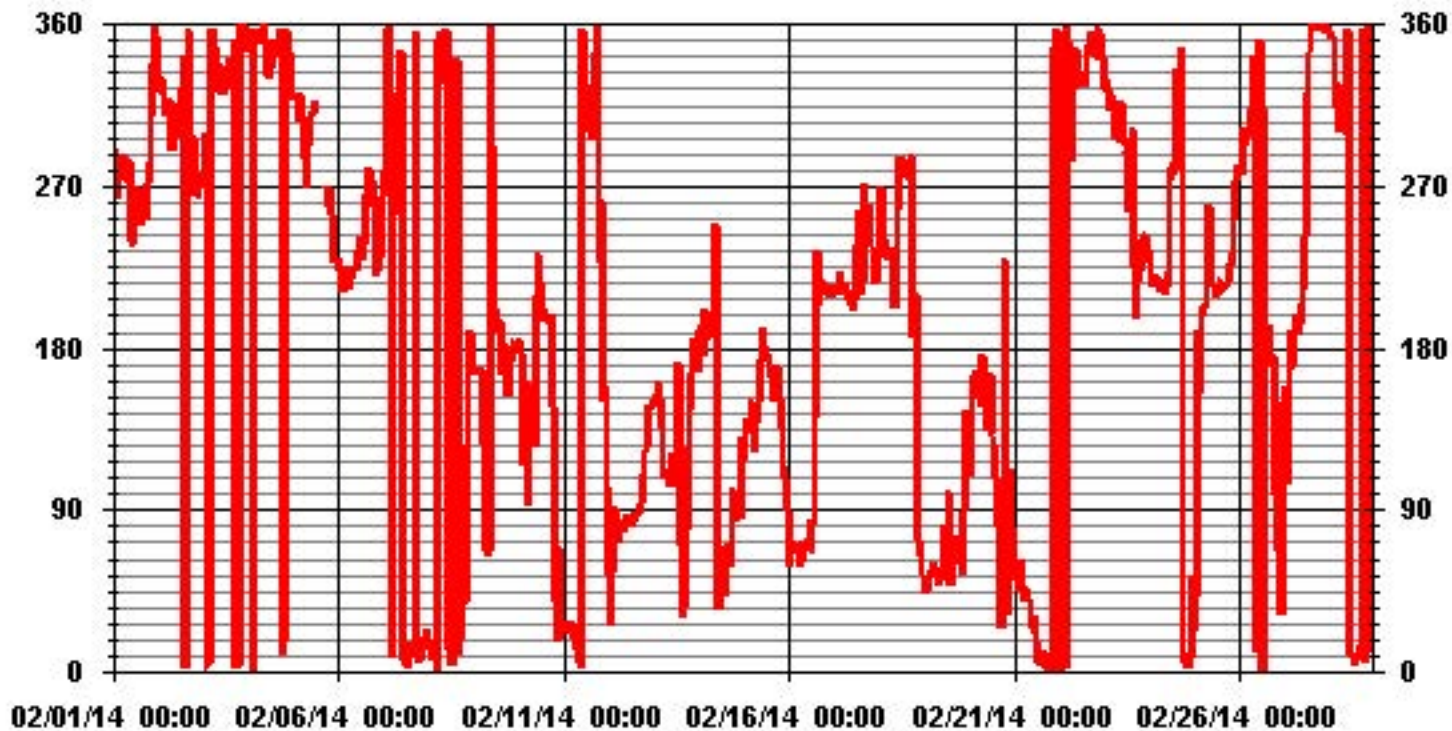
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|-------------------------------|
| LAST CALIBRATION: | February 5, 2014 |
| DECLINATION : | 19 DEGREE FROM MAGNETIC NORTH |

| | | | |
|---------------------------|--------|-----------------------|---------|
| MONTHLY CALIBRATION TIME: | 5 HRS | OPERATIONAL TIME: | 672 HRS |
| STANDARD DEVIATION: | 117.23 | AMD OPERATION UPTIME: | 100.0 % |
| | | MONTHLY AVERAGE: | 332 DEG |

01 Hour Averages



Standard Deviation Wind Direction

Lakeland Industry & Community Association - Maskwa Site

FEBRUARY 2014

STANDARD DEVIATION WIND DIRECTION (STDWD) hourly averages in degrees

| 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 | |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| HOUR START | HOUR END | 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 | 0:00 | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 29 | 27 | 29 | 28 | 26 | 30 | 30 | 31 | 31 | 30 | 32 | 35 | 35 | 38 | 40 | 36 | 37 | 30 | 28 | 26 | 29 | 29 | 27 | 30 | |
| 2 | | 33 | 34 | 36 | 33 | 35 | 33 | 33 | 28 | 26 | 26 | 34 | 36 | 36 | 31 | 24 | 22 | 31 | 42 | 34 | 36 | 28 | 29 | 28 | 26 | |
| 3 | | 33 | 29 | 27 | 21 | 24 | 31 | 34 | 38 | 33 | 34 | 36 | 35 | 35 | 32 | 34 | 39 | 29 | 22 | 21 | 24 | 24 | 26 | 33 | 30 | |
| 4 | | 33 | 24 | 22 | 27 | 29 | 24 | 29 | 28 | 27 | 32 | 35 | 38 | 35 | 33 | 34 | 33 | 28 | 24 | 21 | 15 | 24 | 28 | 34 | 32 | |
| 5 | | 29 | 35 | 32 | 34 | 34 | 33 | 53 | 46 | 41 | 31 | 39 | 37 | C | C | C | C | C | 25 | 25 | 26 | 28 | 21 | 23 | 20 | |
| 6 | | 15 | 12 | 13 | 14 | 19 | 14 | 15 | 15 | 14 | 19 | 26 | 34 | 28 | 33 | 32 | 29 | 27 | 22 | 24 | 20 | 16 | 20 | 17 | 16 | |
| 7 | | 22 | 27 | 26 | 32 | 34 | 31 | 25 | 35 | 28 | 26 | 22 | 21 | 25 | 30 | 19 | 17 | 19 | 18 | 19 | 18 | 19 | 14 | 11 | 11 | |
| 8 | | 16 | 16 | 18 | 18 | 20 | 17 | 21 | 18 | 26 | 24 | 20 | 20 | 30 | 35 | 36 | 30 | 17 | 15 | 12 | 11 | 21 | 23 | 11 | 0 | |
| 9 | | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 7 | 0 | 19 | 45 | 47 | 25 | 23 | 25 | 24 | 17 | 9 | 50 | 9 | 13 | 11 | 11 | 12 | |
| 10 | | 9 | 49 | 1 | 2 | 23 | 14 | 0 | 1 | 37 | 34 | 33 | 32 | 29 | 28 | 25 | 19 | 16 | 12 | 27 | 31 | 21 | 31 | 12 | 12 | |
| 11 | | 12 | 13 | 11 | 11 | 15 | 12 | 13 | 9 | 18 | 24 | 33 | 30 | 34 | 31 | 35 | 30 | 33 | 30 | 26 | 30 | 24 | 13 | 39 | 7 | |
| 12 | | 17 | 16 | 13 | 20 | 23 | 22 | 27 | 25 | 26 | 28 | 28 | 29 | 27 | 29 | 27 | 26 | 24 | 24 | 26 | 27 | 24 | 24 | 23 | 22 | |
| 13 | | 24 | 23 | 27 | 26 | 20 | 19 | 26 | 28 | 25 | 27 | 30 | 36 | 45 | 40 | 53 | 18 | 19 | 13 | 25 | 19 | 34 | 24 | 22 | 23 | |
| 14 | | 22 | 19 | 30 | 23 | 18 | 23 | 26 | 12 | 49 | 32 | 36 | 29 | 32 | 28 | 34 | 31 | 28 | 23 | 18 | 24 | 18 | 23 | 27 | 26 | |
| 15 | | 26 | 35 | 26 | 27 | 31 | 23 | 25 | 25 | 26 | 26 | 21 | 25 | 25 | 28 | 26 | 26 | 22 | 21 | 14 | 19 | 18 | 19 | 19 | 23 | |
| 16 | | 23 | 25 | 27 | 25 | 26 | 23 | 28 | 24 | 29 | 25 | 27 | 27 | 27 | 31 | 43 | 24 | 25 | 18 | 21 | 20 | 21 | 17 | 16 | 18 | |
| 17 | | 18 | 22 | 20 | 22 | 16 | 14 | 14 | 15 | 14 | 17 | 17 | 17 | 17 | 29 | 30 | 20 | 23 | 31 | 28 | 34 | 31 | 23 | 16 | 18 | 23 |
| 18 | | 24 | 20 | 22 | 19 | 22 | 23 | 25 | 13 | 11 | 18 | 35 | 25 | 29 | 29 | 31 | 32 | 30 | 26 | 46 | 10 | 21 | 45 | 17 | 15 | |
| 19 | | 17 | 17 | 17 | 17 | 20 | 22 | 21 | 19 | 21 | 25 | 31 | 39 | 55 | 58 | 27 | 29 | 24 | 26 | 27 | 25 | 30 | 27 | 22 | 19 | |
| 20 | | 18 | 21 | 21 | 16 | 18 | 23 | 22 | 25 | 30 | 31 | 35 | 38 | 41 | 30 | 38 | 17 | 13 | 18 | 12 | 43 | 40 | 24 | 17 | | |
| 21 | | 11 | 15 | 19 | 16 | 17 | 17 | 21 | 21 | 23 | 18 | 20 | 19 | 19 | 20 | 23 | 21 | 17 | 22 | 21 | 22 | 24 | 32 | 25 | 21 | |
| 22 | | 21 | 18 | 13 | 15 | 13 | 14 | 11 | 15 | 22 | 28 | 35 | 34 | 34 | 32 | 38 | 32 | 31 | 23 | 27 | 30 | 24 | 22 | 20 | 19 | |
| 23 | | 27 | 31 | 28 | 32 | 28 | 31 | 24 | 28 | 26 | 28 | 33 | 59 | 61 | 53 | 52 | 35 | 31 | 13 | 12 | 11 | 16 | 18 | 24 | 15 | |
| 24 | | 18 | 10 | 14 | 13 | 13 | 13 | 13 | 13 | 15 | 18 | 18 | 32 | 30 | 34 | 35 | 35 | 33 | 27 | 16 | 16 | 17 | 18 | 15 | 16 | |
| 25 | | 17 | 18 | 8 | 24 | 5 | 2 | 5 | 8 | 16 | 21 | 23 | 22 | 22 | 24 | 26 | 25 | 24 | 21 | 20 | 20 | 24 | 22 | 20 | 23 | |
| 26 | | 20 | 20 | 26 | 26 | 25 | 28 | 30 | 23 | 26 | 26 | 23 | 53 | 56 | 48 | 52 | 24 | 19 | 16 | 26 | 20 | 15 | 17 | 25 | 21 | |
| 27 | | 25 | 48 | 50 | 14 | 15 | 44 | 20 | 20 | 19 | 25 | 31 | 27 | 33 | 32 | 27 | 25 | 25 | 25 | 24 | 25 | 25 | 25 | 26 | 25 | |
| 28 | | 26 | 25 | 27 | 30 | 33 | 31 | 30 | 28 | 33 | 29 | 29 | 21 | 22 | 26 | 26 | 23 | 21 | 20 | 18 | 17 | 15 | 12 | 27 | 13 | |

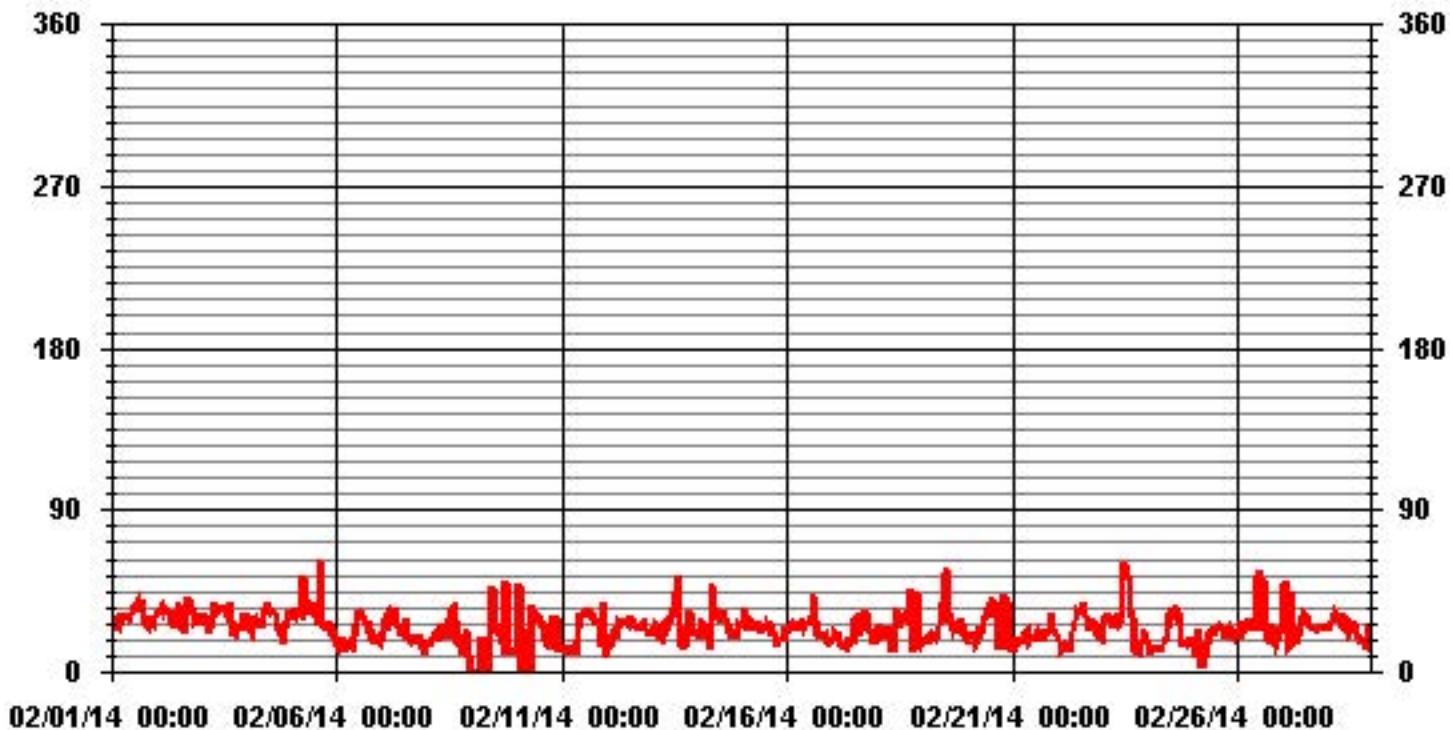
STATUS FLAG CODES

| | | | |
|---|-------------------------|---|-----------------------|
| C | - CALIBRATION | Q | - QUALITY ASSURANCE |
| Y | - MAINTENANCE | R | - RECOVERY |
| S | - DAILY ZERO/SPAN CHECK | X | - MACHINE MALFUNCTION |
| P | - POWER FAILURE | O | - OPERATOR ERROR |
| G | - OUT FOR REPAIR | K | - COLLECTION ERROR |

| | |
|-------------------|------------------|
| LAST CALIBRATION: | February 5, 2014 |
|-------------------|------------------|

| | | | |
|-------------------|-------|-------------------|---------|
| CALIBRATION TIME: | 5 HRS | OPERATIONAL TIME: | 672 HRS |
|-------------------|-------|-------------------|---------|

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 14, 2014 | Previous Calibration | January 23, 2014 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | LICA MASKWA | | |
| Start Time (MST) | 9:55 | End Time (MST) | 14:10 |
| Reason: | Monthly calibration | | |
| Barometric Pressure | na | in HG | Station Temperature |
| Cal Gas | 49.7 ppm | Gas Cyl. # | BAL3165 |
| DAS Output Voltage | 0-1 | Volts | Chart Rec. Output |
| | | | N/A |

Equipment Information

| | | | | | |
|------------------------------|-----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 508 | Method: | Fluorescent |
| Converter Make / Model: | N/A | S/N : | N/A | | |
| Calibrator Make / Model: | EnviroNics 6100 | S/N : | 4760 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO791 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | EnviroNics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|------------|------------|-------------------|------------|--|
| Concentration Range | 0-1000 ppb | | | | |
| Sample Flow / Box Temp | 579 ccm | 29.9 Deg C | 573 ccm | 31.6 Deg C | |
| HVPS / Lamp Setting | 491 | 2822.9 | 491 | 2776 | |
| PMT / RxCell Temp | 7.7 Deg C | 50 Deg C | 7.7 Deg C | 50 Deg C | |
| Converter / IZS Temp | N/A Deg C | 45 Deg C | N/A Deg C | 45.0 Deg C | |
| Offset / Slope | 77.6 | 1.239 | 79.1 | 1.228 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4996 | 0 | 0 | 1 | 0.0000 |
| 4996 | 0 | 0 | 0 | 0.0000 |
| 4996 | 79.8 | 781 | 787 | 0.9927 |
| 4996 | 79.8 | 781 | 781 | 1.0000 |
| 4996 | 39.9 | 393 | 392 | 1.0038 |
| 4996 | 19.9 | 198 | 196 | 1.0080 |
| 4996 | 0 | 0 | 1 | 0.0000 |
| Sum of Least Squares | | | | 1.0014 |
| New Correction Factor | | | | 1.0000 |

IZS Calibration Data

| Before Calibration | | After Calibration | |
|------------------------|-------|------------------------|-------|
| Auto Zero | 0.0 | Auto Zero | 0.0 |
| Auto Span | 248.0 | Auto Span | 251.0 |
| Sample Lines Connected | | Sample Lines Connected | Yes |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 0.9968 |
| Current Correction Factor Before Span Adjust: | 0.9927 |
| Percent Change: | 0.4% |

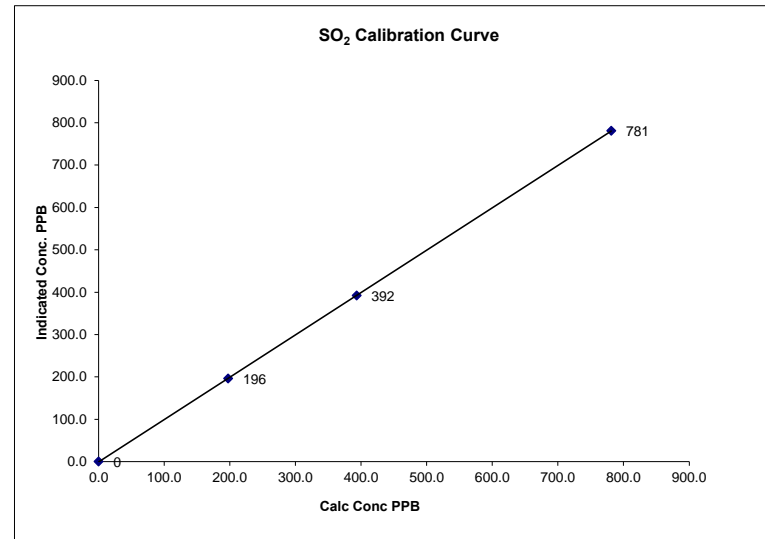
Notes: **Change sample filter.**

Calibration Performed by: Limin Li

SO₂ Calibration Curve

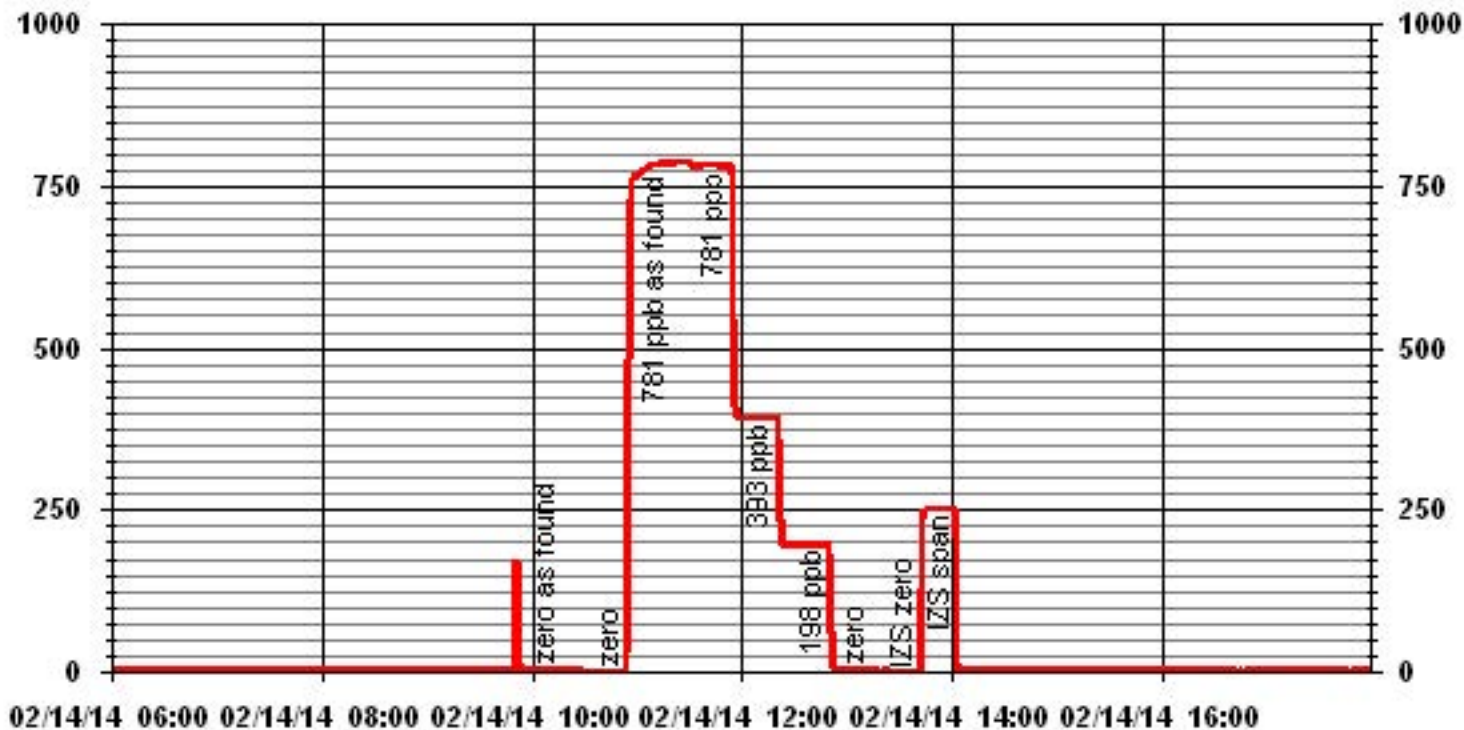
| | |
|------------------|---|
| Calibration Date | February 14, 2014 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | LICA MASKWA |
| Start Time (MST) | 9:55 |
| End Time (MST) | 14:10 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | Slope (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|-----------------------------------|----------------------|-----------------------|
| 0 | 0 | 0.0000 | 0.999993 | 0.999902 | -0.748417 |
| 198 | 196 | 1.0080 | | | |
| 393 | 392 | 1.0038 | | | |
| 781 | 781 | 1.0000 | | | |



Notes:

01 Minute Averages



Hydrogen Sulphide

H2S Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|---------------------|
| Calibration Date | February 14, 2014 | Previous Calibration | January 23, 2014 |
| Company | Lakeland Industry and Community Association | | |
| Plant / Location | LICA MASKWA | | |
| Start Time (MST) | 11:00 | End Time (MST) | 15:20 |
| Reason: | Monthly calibration | | |
| Barometric Pressure | na | in HG | Station Temperature |
| Cal Gas | 10.1 ppm | Gas Cyl. # | BLM5049 |
| DAS Output Voltage | 0-1 | Volts | Chart Rec. Output |
| | | | N/A |

Equipment Information

| | | | | | |
|------------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 511 | Method: | Fluorescent |
| Converter Make / Model: | NA | S/N : | NA | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO701 | | |
| Chart Recorder Make / Model: | NA | S/N: | S/N: | NA | |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| | | Before Calibration | | After Calibration | |
|------------------------|-----------|--------------------|-------|-------------------|------------|
| Concentration Range | | 0-100 | | ppb | |
| Sample Flow / Box Temp | 645 ccm | 33.6 | Deg C | 644 | 34.4 Deg C |
| HVPS / Lamp Setting | 584 | 3429.5 | | 584 | 3398.6 |
| PMT / RxCell Temp | 7.9 Deg C | 50 | Deg C | 7.9 | 50 Deg C |
| Converter / IZS Temp | 315 Deg C | 45 | Deg C | 315 | 45.0 Deg C |
| Offset / Slope | 30.8 | 1.163 | | 31.6 | 1.156 |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 5000 | 0 | 0 | 0 | NA |
| 5000 | 0 | 0 | 0 | NA |
| 4957 | 39.6 | 80 | 81 | 0.9907 |
| 4957 | 39.6 | 80 | 80 | 1.0000 |
| 4980 | 19.8 | 40 | 40 | 0.9950 |
| 4985 | 10.9 | 22 | 22 | 1.0062 |
| 5000 | 0 | 0 | 0 | NA |
| Sum of Least Squares | | | | 0.9998 |
| New Correction Factor | | | | 1.0000 |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 49.4 | 49.6 |
| Sample Lines Connected | | Yes |

Percent Change

| | |
|---|--------|
| Previous Month's Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 0.9907 |
| Percent Change: | 0.9% |

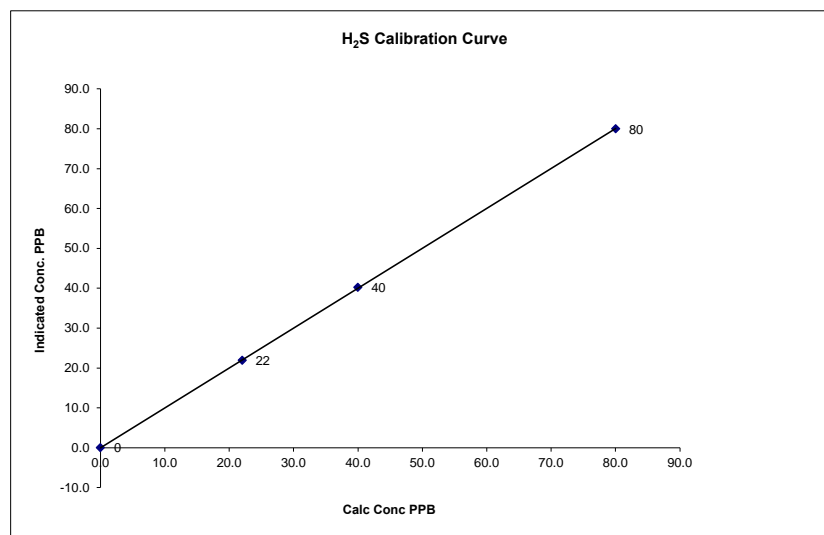
| | |
|--------|----------------------------|
| Notes: | NA : Not Applicable |
| | Change sample filter. |
| | |
| | |

Calibration Performed by: Limin Li

H₂S Calibration Curve

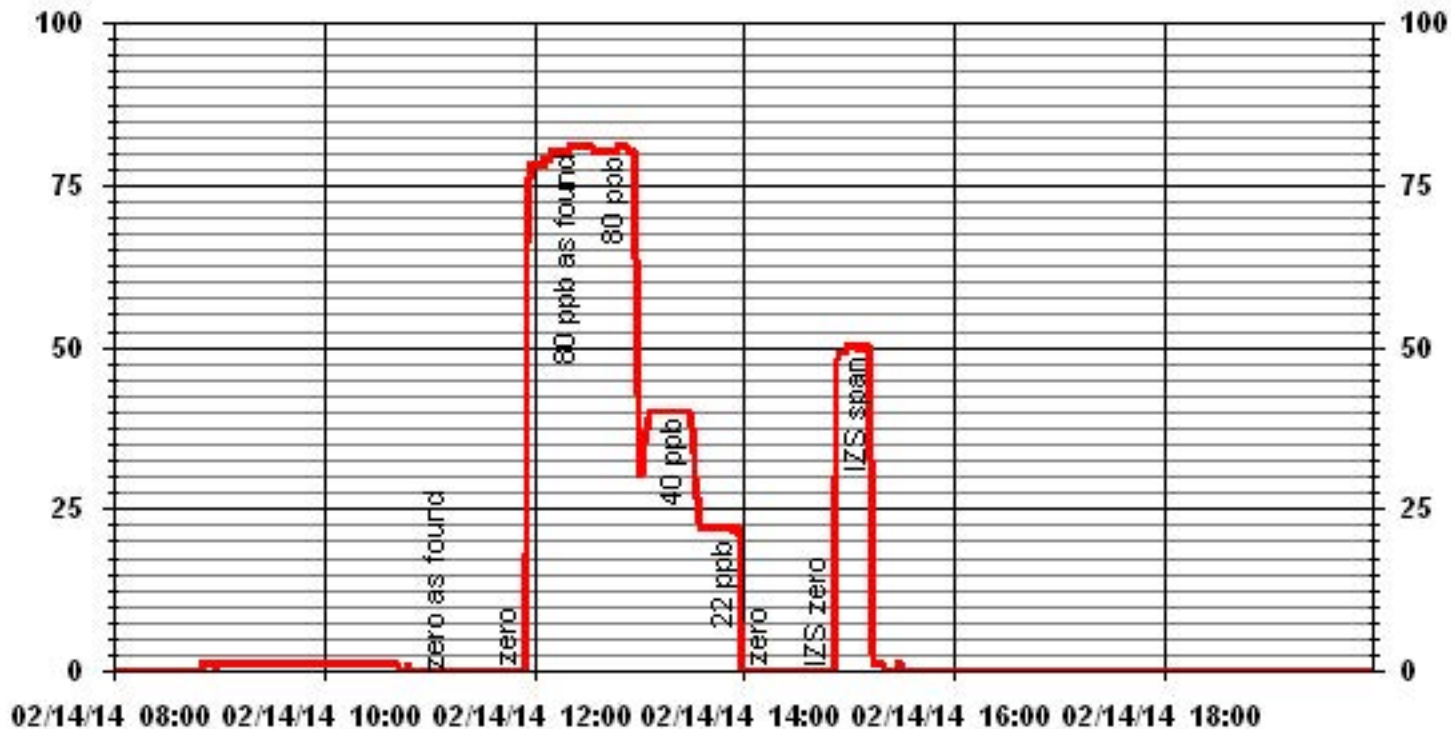
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 14, 2014 | | |
| Company | Lakeland Industry and Community Association | | |
| Plant / Location | LICA MASKWA | | |
| Start Time (MST) | 11:00 | End Time (MST) | 15:20 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) | 0.999982 |
|----------------------|------------------------|-------------------|-------------------------------|----------------|-----------|
| 0 | 0 | NA | Intercept | (0.85 to 1.15) | 1.000195 |
| 22 | 22 | 1.0062 | | (± 3% F.S.) | -0.001968 |
| 40 | 40 | 0.9950 | | | |
| 80 | 80 | 1.0006 | | | |



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

| Station Information | | | |
|------------------------|---|----------------------|---------------------------------------|
| Calibration Date: | February 14, 2014 | Previous Calibration | January 23, 2014 |
| Company: | Lakeland Industry & Community Association | | |
| Plant / Location: | LICA MASKWA | | |
| Start Time (MST) | 14:25 | End Time (MST) | 17:20 |
| Reason: | Post Repair | | |
| Barometric Pressure: | na atm | Station Temperature: | na Deg C |
| Calibrator: | API700 | S/N: | 831 |
| Cal Gas Concentration: | CH4 609 PPM | C3H8 201 PPM | |
| | TOTAL CH4 1161.8 PPM | Gas Cyl. # LL36542 | Cal Gas Expiry Date: November 7, 2021 |
| DAS make & Model: | ESC 8832 | S/N : | AO791 |
| Chart Recorder: | N/A | S/N: | N/A |
| Output Voltage Range: | 0-10 VDC | Chart Speed: | N/A mm/hr |

Analyzer Information

| | | | | | |
|--------------|---------------|-------|-----------|--------|------------------|
| Make / Model | Thermo 51C-LT | S/N : | 436609738 | Method | Flame Ionization |
|--------------|---------------|-------|-----------|--------|------------------|

| | Before Calibration | | After Calibration | |
|---------------------|--------------------|-----|-------------------|-----|
| Concentration Range | 0-50 | ppm | 0-50 | ppm |
| Sample Pressure | 7.5 | psi | 7.5 | psi |
| Hydrogen Pressure | 8 | psi | 8 | psi |
| Air Pressure | 21 | psi | 21 | psi |

Calibration Data

| Dilution Flow | Source Gas Flow | Calculated Concentration | Indicated Concentration | Correction Factor |
|------------------------|-----------------|--------------------------|-------------------------|-------------------|
| 1999 | 0.0 | 0.0 | 0.0 | 0.0000 |
| 1999 | 0.0 | 0.0 | 0.0 | 0.0000 |
| 1999 | 65.0 | 36.6 | 36.6 | 1.0000 |
| 1999 | 65.0 | 36.6 | 36.6 | 1.0000 |
| 1999 | 33.0 | 18.9 | 18.6 | 1.0122 |
| 1999 | 15.0 | 8.7 | 8.5 | 1.0168 |
| 1999 | 0.0 | 0.0 | 0.0 | 0.0000 |
| New Correction Factor: | | | | 1.0000 |

Percent Change

| | |
|---|--------|
| Previous Calibration Correction Factor: | 1.0000 |
| Current Correction Factor Before Span Adjust: | 1.0000 |
| Percent Change: | 0.0% |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 30.1 | 30.1 |
| Sample Lines Connected | no | |

Cylinder Pressures

| | | | | | |
|------|----------|----------|---------|----------|--------|
| Span | 2100 psi | Hydrogen | 900 psi | Zero Air | 33 psi |
|------|----------|----------|---------|----------|--------|

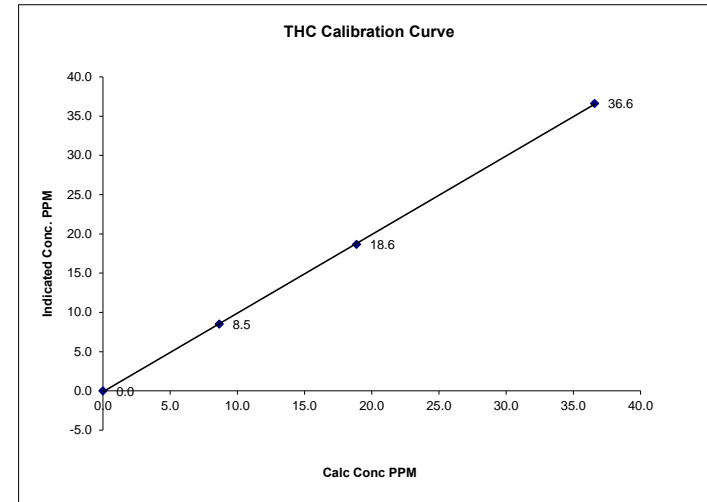
Notes: **Change span gas.**

Calibration Performed by: Limin Li

THC Calibration Curve

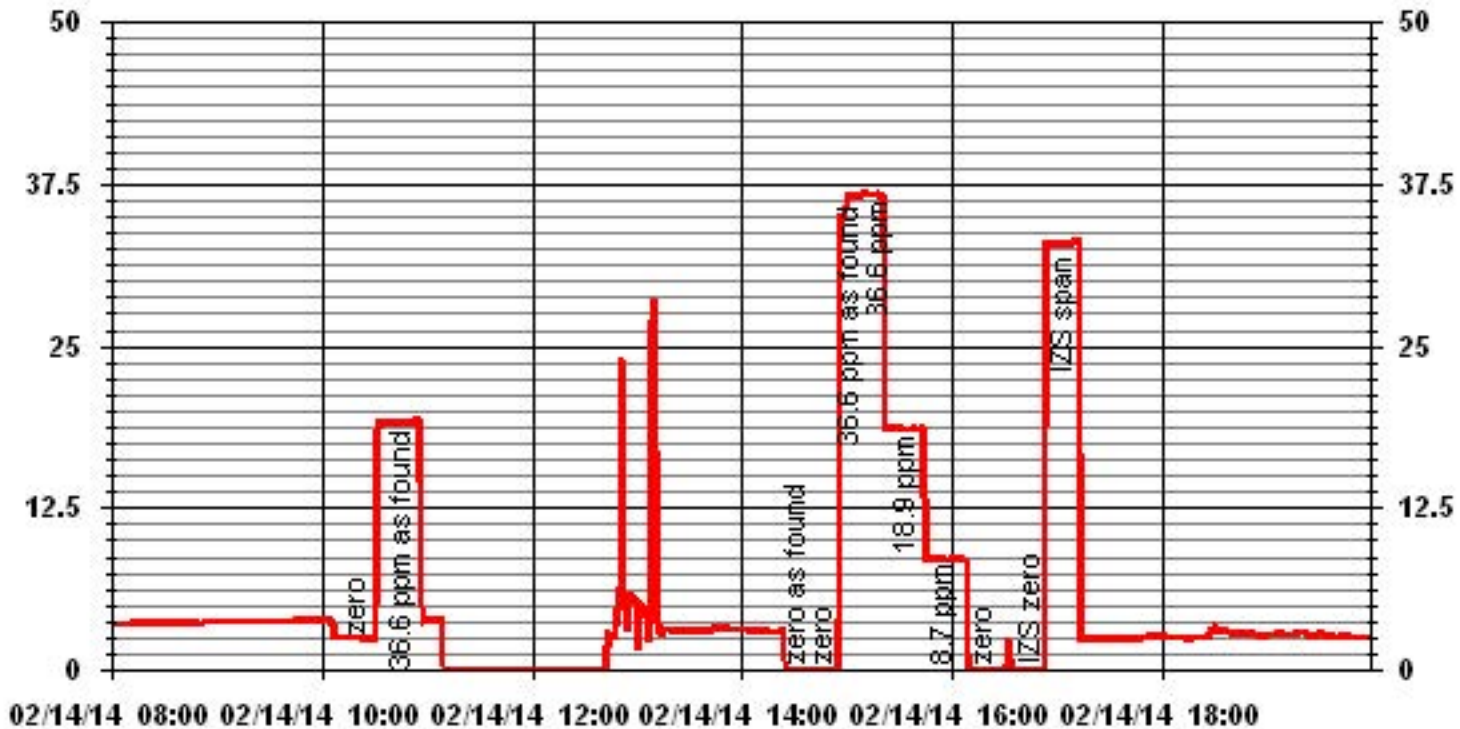
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | February 14, 2014 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | LICA MASKWA | | |
| Start Time (MST) | 14:25 | End Time (MST) | 17:20 |

| Calculated Conc. ppm | Indicated Response ppm | Correction Factor | Correlation Coefficient (≥ 0.995) | Slope (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|-----------------------------------|----------------------|-----------------------|
| 0.0 | 0.0 | 0.0000 | 0.999946 | 1.000932 | -0.10386 |
| 8.7 | 8.5 | 1.0168 | | | |
| 18.9 | 18.6 | 1.0122 | | | |
| 36.6 | 36.6 | 1.0000 | | | |



Notes:

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|---------------------|----------------------|---------------------------------------|
| Calibration Date | February 14, 2014 | Previous Calibration | January 23, 2014 |
| Company | LICA | Plant/Location | LICA Maskwa |
| Start Time (MST) | 9:55 | End Time (MST) | 16:30 |
| Reason: | Monthly calibration | | |
| Barometric Pressure | na in Hg | Station Temperature | na Deg C |
| Cal Gas Concentration | NOx 49.0 ppm | NO 48.9 ppm | Cal Gas Expiry date December 29, 2016 |
| Cal Gas Cylinder # | BAL3165 | | |
| DAS Output Voltage | 0-1 Volts | Chart Rec. Output | N/A Volts |

Equipment Information

| | | | | | |
|------------------------------|----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | TAPI 200E | S/N : | 594 | Method: | Chemiluminescent |
| Calibrator Make / Model: | Envionics 6100 | S/N: | 4760 | | |
| DAS Make / Model: | ESC 8832 | S/N : | A0791 | | |
| Chart Recorder Make / Model: | N/A | S/N: | N/A | | |
| Flow Meter: | Envionics 6100 | S/N : | 4760 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|----------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0-1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 448 ccm | 316.9 Deg C | | 451 ccm | 315.3 Deg C | | |
| Ozone Flow / Vacuum | 79 ccm | 5.0 *Hg-A | | 78 ccm | 4.9 *Hg-A | | |
| HVPS / A ZERO | 750 Volts | 15.1 MV | | 750 Volts | 15.7 MV | | |
| Rx/ Temp / PMT Temp | 50.2 Deg C | 6.6 Deg C | | 49.9 Deg C | 6.7 Deg C | | |
| Box Temp / IZS Temp | 30.6 Deg C | 42.1 Deg C | | 33.8 Deg C | 42.0 Deg C | | |
| Offset | 15.7 NOx | 7.5 NO | | 0.8 NOx | 0.5 NO | | |
| Slope | 1.044 NOx | 1.040 NO | | 1.052 NOx | 1.050 NO | | |
| NO2 COEF / Conv Efficiency | na NO2 | na | | na NO2 | na | | |

Dilution Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | NOx | NO |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 756 | 758 | -2 | 1.0175 | 1.0141 |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 770 | 768 | 2 | 1.0000 | 1.0009 |
| 4996 | 39.9 | 0 | 388 | 387 | 0 | 387 | 386 | 1 | 0.9999 | 1.0030 |
| 4996 | 19.9 | 0 | 195 | 194 | 0 | 194 | 194 | 0 | 0.9989 | 1.0000 |
| 4996 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0000 | 0.0000 |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | | Indicated Concentration | | | NO2 Correction Factor | NO2 Conv Efficiency |
|------------------------|------------------|--------------|--------------------------|-----|-----|-------------------------|-----|-----|-----------------------|---------------------|
| | | | NOx | NO | NO2 | NOx | NO | NO2 | | |
| 4996 | 79.8 | 0 | 770 | 769 | 0 | 771 | 770 | 1 | 0 | 0.00% |
| 4996 | 79.8 | 500 | 770 | 0.0 | 526 | 776 | 245 | 531 | 0.9893 | 100.90% |
| 4996 | 79.8 | 500 | 770 | 0.0 | 526 | 776 | 245 | 531 | 0.9893 | 100.90% |
| 4996 | 79.8 | 230 | 770 | 0.0 | 246 | 775 | 525 | 250 | 0.9813 | 101.51% |
| 4996 | 79.8 | 100 | 770 | 0.0 | 106 | 772 | 665 | 107 | 0.9843 | 100.67% |

| | | | | | |
|-----------|----------------------|----|---------------------------------------|------------|-------------|
| Linearity | Sum of Least Squares | | NOx= 1.001 | NO= 1.001 | NO2= 0.990 |
| OK? | Yes | No | Correction Factors: NOx= 1.0000 | NO= 1.0009 | NO2= 0.9893 |
| | | | Average Converter Efficiency= 101.02% | | |

IZS Calibration Data

| Before Calibration | | | | After Calibration | | | |
|--------------------|------------------------|---------|--|-------------------|---------|--|--|
| Auto Zero | 0.0 NOx | 0.0 NO2 | | 0.0 NOx | 0.0 NO2 | | |
| Auto Span | 528 NOx | 526 NO2 | | 547 NOx | 542 NO2 | | |
| | Sample Lines Connected | | | Yes | | | |

Percent Change

| | NOx | NO | NO2 |
|--|-------|-------|-------|
| Previous Month's Calibration Correction Factor | 1.019 | 1.015 | 0.991 |
| Current Correction Factor Before Span Adjust | 1.018 | 1.014 | 0.989 |
| Percent Change | 0.1% | 0.1% | 0.2% |

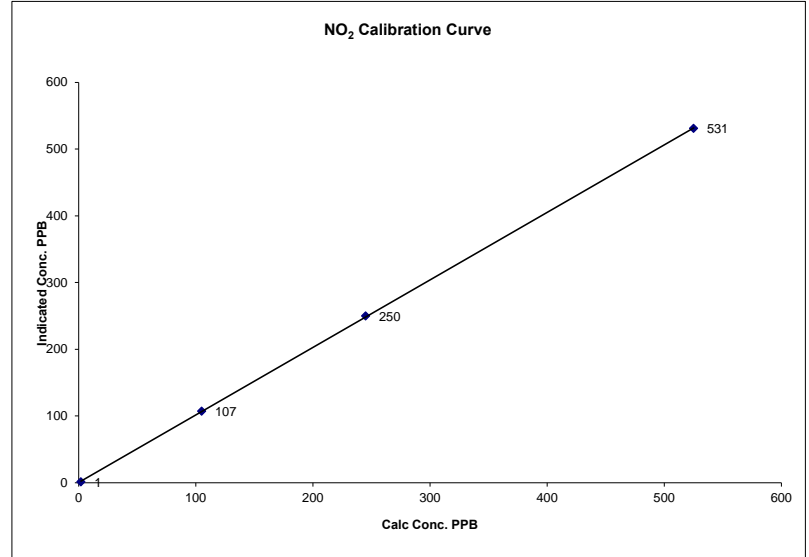
Notes: **Change sample filter**

Calibration Performed by: Limin Li

NO2 Calibration Curve

| | |
|------------------|-------------------|
| Calibration Date | February 14, 2014 |
| Company | LICA |
| Plant / Location | LICA Maskwa |
| Start Time (MST) | 9:55 |
| End Time (MST) | 16:30 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999971 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|----------|
| 2 | 1 | 0.0000 | Intercept | (± 3% F.S.) | 0.39563 |
| 105 | 107 | 0.9813 | | | |
| 245 | 250 | 0.9800 | | | |
| 525 | 531 | 0.9887 | | | |

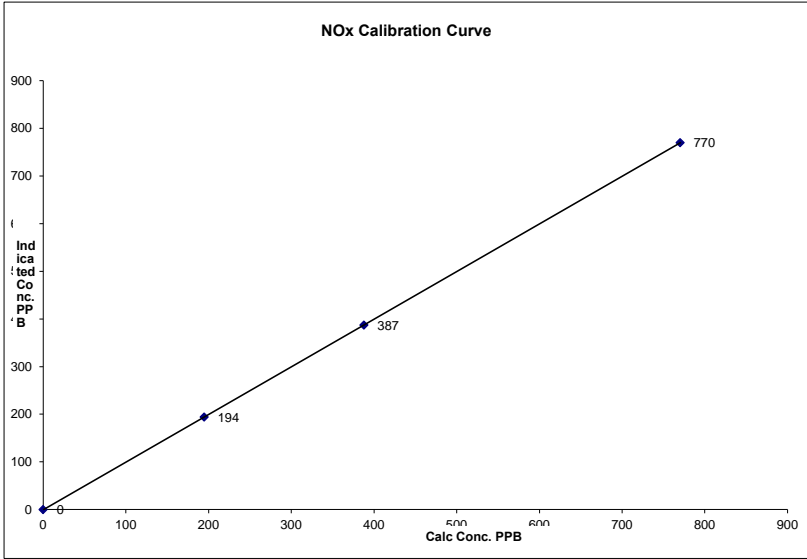


Notes:

NOx Calibration Curve

| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 14, 2014 | |
| Company | LICA | |
| Plant / Location | LICA Maskwa | |
| Start Time (MST) | 9:55 | End Time (MST) 16:30 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999998 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 0.999851 |
| 195 | 194 | 0.9989 | Intercept (± 3% F.S.) | -0.44951 |
| 388 | 387 | 0.9999 | | |
| 770 | 770 | 1.0000 | | |

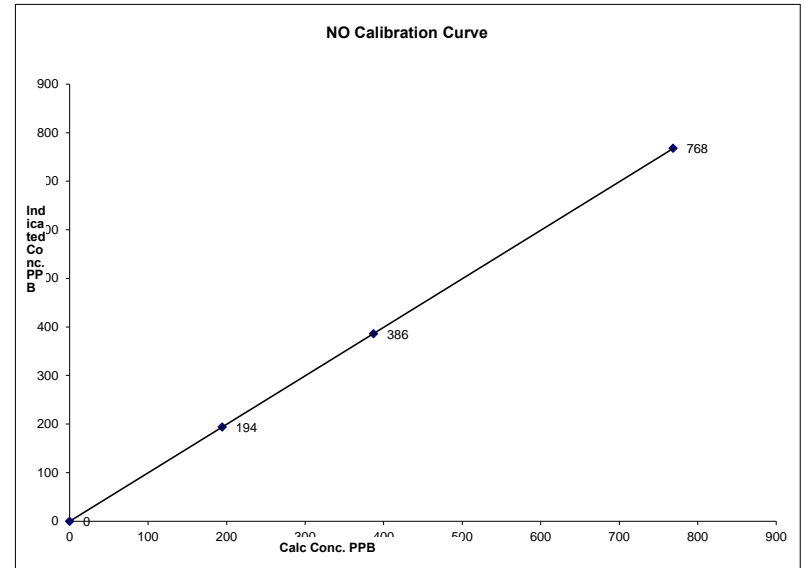


Notes:

NO Calibration Curve

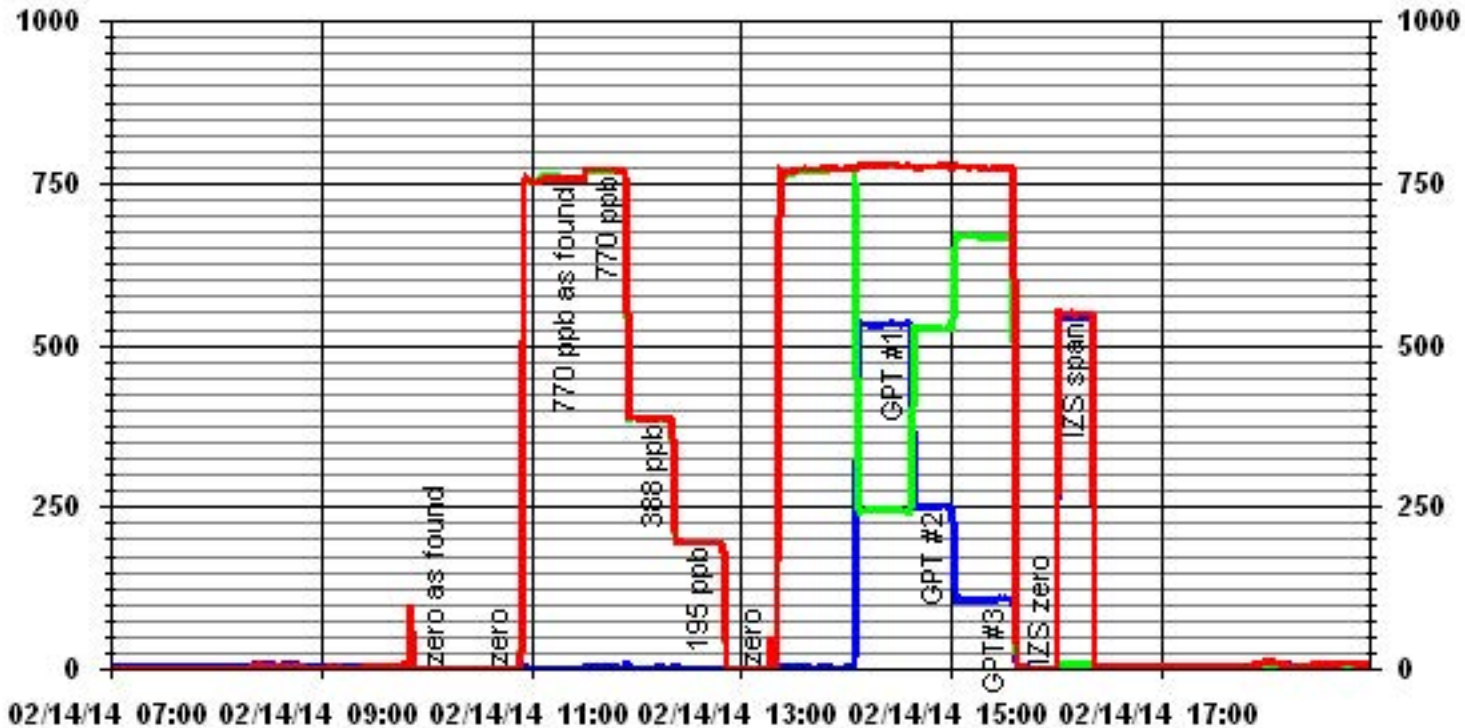
| | | |
|------------------|-------------------|----------------------|
| Calibration Date | February 14, 2014 | |
| Company | LICA | |
| Plant / Location | LICA Maskwa | |
| Start Time (MST) | 9:55 | End Time (MST) 16:30 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999999 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | 0.0000 | Slope (0.85 to 1.15) | 0.999070 |
| 194 | 194 | 1.0000 | Intercept (± 3% F.S.) | -0.24590 |
| 387 | 386 | 1.0030 | | |
| 769 | 768 | 1.0009 | | |



Notes:

01 Minute Averages



Wind System

Meteorological Sensor Audit Report

Station Information

| | | | |
|------------------------|--|----------------|--------|
| Audit Date | February 5, 2014 | Previous Audit | N/A |
| Company | Lakeland Industry and Community Association | | |
| Plant / Location | LICA MASKWA | | |
| Start Time (MST) | 14:50 | End Time (MST) | 16:15 |
| Reason: | Installation Calibration | | |
| Translator make/model: | Young 18802 | S/N: | 3309 |
| DAS make/model: | ESC 8832 | S/N: | A4566K |

Wind Speed

| | | | |
|-----------------------|-----------------|----------------------|-----------|
| Sensor make/model: | RM Young 5103VK | S/N: | 129612 |
| Calibrator: | RM Young | Variable speed motor | CA 03309 |
| Output voltage range: | 0-1 | Output signal range: | 0-200 KPH |
| Sensor height: | 10M | | |

Wind Speed Audit Data

| RPM | Wind Speed Actual | Indicated WS - CW | Indicated WS-CCW | Correction Factor |
|---------------------------|-------------------|-------------------|------------------|-------------------|
| 0 | 0.0 | 0.21 | 0.21 | - |
| 1000 | 17.6 | 17.7 | 17.69 | 0.99 |
| 2000 | 35.28 | 35.3 | 35.34 | 1.00 |
| 3000 | 52.92 | 52.98 | 52.98 | 1.00 |
| 4000 | 70.56 | 70.64 | 70.64 | 1.00 |
| 5000 | 88.2 | 88.31 | 88.33 | 1.00 |
| 6000 | 105.84 | 106 | 106 | 1.00 |
| 7000 | 123.48 | 123.7 | 123.7 | 1.00 |
| 8000 | 141.12 | 141.5 | 141.5 | 1.00 |
| 9000 | 158.76 | 159.3 | 159.2 | 1.00 |
| 10000 | 176.4 | 177.1 | 177.1 | 1.00 |
| Average Correction Factor | | | | 1.00 |

Wind Direction

| | | | |
|-----------------------|----------|----------------------|---------|
| Sensor make/model: | RM Young | S/N: | 129612 |
| Calibrator: | RM Young | Direction wheel | N/A |
| Output voltage range: | 0-1 | Output signal range: | 0 - 360 |
| Sensor height: | 10M | | |

Wind Direction Audit Data

| Wind Direction | Indicated | Correction Factor |
|---------------------------|-----------|-------------------|
| 0 | 0.4 | NA |
| 45 | 44.0 | 1.02 |
| 90 | 89.9 | 1.00 |
| 135 | 135.4 | 1.00 |
| 180 | 181.7 | 0.99 |
| 225 | 226.5 | 0.99 |
| 270 | 270.9 | 1.00 |
| 315 | 315.2 | 1.00 |
| 360 | 354.8 | NA |
| Average Correction Factor | | 1.00 |

Remarks: _____

Audit Performed by: _____ Limin Li